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Original article

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Please cite this article as: Kachroo P, Morrow JD, Kho AT, *et al.* Co-methylation analysis in lung tissue identifies pathways for fetal origins of COPD. *Eur Respir J* 2020; in press (<https://doi.org/10.1183/13993003.02347-2019>).

This manuscript has recently been accepted for publication in the *European Respiratory Journal*. It is published here in its accepted form prior to copyediting and typesetting by our production team. After these production processes are complete and the authors have approved the resulting proofs, the article will move to the latest issue of the ERJ online.

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## **Co-methylation analysis in lung tissue identifies pathways for fetal origins of COPD**

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**Keywords:** DNA methylation, in utero, nicotine, fetal lung, COPD, lung function, aging, network, WGCNA

### **Author contributions**

DLD, STW, KGT, CAV and EKS conceived, designed and acquired the funding for the study. PK wrote the manuscript and performed the analyses. JDM and ATK provided the statistical supervision and contributed to the analyses. All coauthors contributed to writing and reviewing and approved the final version of the manuscript.

### **Funding**

US National Institutes of Health grants: P01 HL132825, K25 HL136846, P01 HL105339, P01 HL114501, R21 HL107927, R01 HL097144

### **Declaration of interests**

STW has received royalties from UpToDate. EKS received grant and travel support from GlaxoSmithKline. DLD, PK, JDM, ATK, CAV and KGT report no conflict of interest.

## **Abstract**

Chronic Obstructive Pulmonary Disease (COPD) likely has developmental origins, however the underlying molecular mechanisms are not fully identified. Investigation of lung tissue-specific epigenetic modifications such as DNA methylation using network approaches might facilitate insights linking in-utero smoke (IUS) exposure and risk for COPD in adulthood.

We performed genome-wide methylation profiling for adult lung DNA from 160 surgical samples and 78 fetal lung DNA samples isolated from discarded tissue from 8-18 weeks of gestation. Co-methylation networks were constructed to identify preserved modules that shared methylation patterns in fetal and adult lung tissues and associations with fetal IUS exposure, gestational age and COPD.

Weighted correlation networks highlighted preserved and co-methylated modules for both fetal and adult lung data associated with fetal IUS-exposure, COPD and lower adult lung function. These modules were significantly enriched for genes involved in embryonic organ development and specific inflammation-related pathways including Hippo, PI3K/AKT, Wnt, MAP-Kinase and TGF-beta signaling. Gestational age-associated modules were remarkably preserved for COPD and lung function and were also annotated to genes enriched for the Wnt and PI3K/AKT pathways.

Epigenetic network perturbations in fetal lung tissue exposed to IUS and of early lung development recapitulated in adult lung tissue from former smokers with COPD. Overlapping fetal and adult lung tissue network modules highlighted putative disease pathways supportive of exposure-related and age-associated developmental origins of COPD.

## **Introduction**

COPD remains a major cause of mortality worldwide [1–3] and is caused by genetic and epigenetic risk factors [4, 5] that communicate through biological networks. Early life factors associated with reduced maximally attained lung function [6] and accelerated lung function decline [5] might predispose to adult lung diseases such as COPD [7–9]. Investigating these factors has become a greater focus [10], as these insights may impact diagnostic, therapeutic and preventative interventions. Maternal smoking during pregnancy is prevalent, at 14-26% in the US population [11–13] and 10-35% worldwide [12, 14]. This poses severe risks to the developing fetus and fetal lung [15] including intrauterine growth abnormalities [16, 17], preterm birth [18], low birth weight [19] and altered immune responses [20, 21]. DNA methylation has been suggested as a potential mediator between maternal smoking and low birth weight [22]. A longitudinal study [23] identified persistently perturbed methylation marks associated with maternal smoking during pregnancy. While detrimental effects of parental smoke exposure on early-life development [24] and its associations with bronchopulmonary dysplasia [25] are widely recognized, links to asthma [26] and adult chronic diseases including COPD have been emerging more recently [27–32]. There is also evidence that maternal smoking is a risk factor for severe, early-onset COPD [33]. A recent epigenome-wide meta-analysis [34] identified more than 6,000 significant differentially methylated (DM) CpG sites (CpGs) in cord blood associated with maternal smoking and lung developmental processes [34]. A recent meta-analysis of 1,688 children in five cohorts identified differentially methylated regions in cord blood DNA, associated with lower lung function in newborns and asthma and COPD in later life [35].

Identifying early COPD and associated mechanisms is crucial for an improved understanding of lung disease pathophysiology and defining therapies [36]. DNA methylation represents a molecular mark that is critical for pre- and post-natal lung development but perturbable by in-utero exposures [37]. Such perturbations may set the fetal lung on a trajectory of altered development and risk for adult lung diseases including COPD. Experimental data suggests that



DNA methylation changes are dynamic and tissue-specific during early development [38]. However, there are limited studies in lung tissue investigating epigenetic links to the developmental origins of COPD. Network approaches can be used to cluster complex biological processes most relevant for age-related respiratory diseases [39, 40]. In this study, we hypothesize that epigenetic signatures of IUS exposure and age in fetal lung tissue are associated with COPD and lung function in adult lung tissue and would highlight functionally relevant co-methylation modules supportive of the developmental origins of adult lung disease.

## Methods

### Study Samples

The fetal lung DNA samples were isolated from discarded tissue from 8-18 weeks of gestation at pseudoglandular and early canalicular stages of human lung development as previously described [41]. Approval was obtained from the Partners Human Research Committee Institutional Review Board in Boston, MA.

Genome-wide methylation assays were performed using 750 ng of bisulfite-treated DNA per sample using the Infinium HumanMethylation450 BeadChip array (Illumina, San Diego, CA) [42] and further data processing was performed using Minfi [43]. Details on sample dropout and filtering of CpGs are described in Supplementary Table 1. Details on ancestry composition estimates [53] and adjustment for confounding using BACON [54] are included in the supplement. Since the fetal lung tissue samples are de-identified, data were only available for gestational age, fetal sex, and cotinine levels. Sex was determined using unique Y chromosome microarray probes as previously described [44] and verified using X chromosome methylation. IUS exposure was inferred by measuring placental cotinine concentrations. Exposure was treated as both a continuous and dichotomous predictor variable, with levels of cotinine  $\leq 7.5$  ng/g considered as unexposed (control group) and levels of cotinine  $> 7.5$  ng/g as exposed; this level has been reported to have a high sensitivity and specificity for smoke exposure during pregnancy [41]. Further details are available elsewhere [45]. We used our previously published [46] adult lung tissue methylation results (from the Lung Tissue COPD study (LT-COPD), n=160, 114 cases and 46 healthy smoker controls) to replicate the fetal lung dataset findings.

### Network approach: Weighted Gene Correlation Network Analysis (WGCNA)

An overview of the analytical pipeline is represented in **Figure 1**. For fetal lung data, methylation was the dependent variable (outcome) and IUS-exposure was the predictor. Quality control, preprocessing (Supplementary Table 1) and differential methylation analyses for fetal lung data

were performed prior to performing network analyses to make it suitable for comparison to the adult lung tissue site-specific CpG analysis [46] and have been detailed in Supplementary Methods. We further performed an independent network co-methylation analysis in both tissues. The filtered and post-processed 349,355 CpGs from the fetal lung data were evaluated for overlap with the quality controlled CpGs from the LT-COPD study. The overlapping set of 349,325 CpGs from both the fetal lung (reference) and the adult LT-COPD (test) datasets were retained for identifying co-methylated modules (clusters of correlated CpGs) and their associations with phenotypic traits using Weighted Correlation Network Analysis (WGCNA) [47]. Modules are named based on associated numbers and colors as output from WGCNA. Phenotype variables including age, forced expiratory volume in the 1<sup>st</sup> second (FEV<sub>1</sub>), forced vital capacity (FVC), FEV<sub>1</sub>/FVC ratio, quantitative markers of emphysema (LAA950, perc15), time since quitting smoking (months) and pack-years (quantitative measure for smoking intensity) were analyzed as continuous except sex, IUS exposure status (1/0 with 1=exposed) and COPD status (1/0 with 1=COPD cases) for investigating module-trait associations. Module Membership (MM) quantifies the contribution of each CpG in the module and allows screening for disease-related hub CpGs/genes. We also evaluated module preservation between fetal and adult lung datasets defined by  $Z_{\text{summary}}$  as a measure of connectivity of CpGs within co-methylated modules. As a sensitivity analysis, we used LT-COPD dataset as the starting reference and repeated the above analyses to assess whether the LT-COPD associated modules for COPD, lung function and age recapitulate in fetal lung tissue. Our workflow for the network analysis using WGCNA is shown in **Figure 1**. Detailed methods and used parameters for reproducibility of the network analysis are described in the supplementary methods.

### **Enrichment and Pathway analysis**

The R packages missMethyl [48, 49] and gprofileR [50] were used to perform enrichment analysis for the differentially methylated CpGs and the annotated genes respectively.

EnrichmentMap [51] in Cytoscape 3.6.1 was used to create a network representation of the biological processes enriched in the modules of interest (FDR<0.05), using the gProfiler output including transcription factors, gene ontology terms, Reactome and KEGG pathways.

### **Integration with prior gene expression and GWAS associations**

In line with our hypothesis to identify fetal origins of COPD, we investigated all CpGs with a Module Membership of 0.70 or greater and with gene annotations for correlations with the previously published COPD differential expression in the LT-COPD dataset [46] and with 82 published COPD genome-wide associations (GWAS) [52].

## **Results**

### **1. Support for the fetal origins of COPD using network methods**

Our study included 78 fetal lung (42 IUS-exposed and 36 unexposed) samples and 349,355 CpGs that passed the quality control (QC) measures (Supplementary Table 1); of those, 349,325 CpGs overlapped with the LT-COPD dataset. We first evaluated the 535 significant differentially methylated CpG-COPD associations (FDR < 5% and difference in mean methylation > 1%) published from our LT-COPD study [46] and investigated their methylation patterns in the fetal lung EWAS findings (Suppl. Fig. 1-4, Supplementary Tables 2-4). Overlapping CpGs highlighted robust overlap for genes (Permutation based p-value =  $9.9 \times 10^{-4}$ , Suppl. Fig. 5) including *CHRM1*. *CHRM1* had the highest methylation difference in the LT-COPD dataset (cg06289725: FDR:  $1.81 \times 10^{-6}$ ; 10% hyper-methylated in COPD cases) and nominal significance and same direction of effect in the fetal lung data with a relative hypermethylation of 1.9% in smoke-exposed compared to unexposed fetal lung samples (Suppl. Fig. 6, detailed in Supplementary results).

## 2. IUS Exposure-COPD associations and preserved modules

We performed an independent network analysis using WGCNA for the overlapping set of 349,325 CpGs from the fetal lung methylation data and identified 319,366 CpGs assigned to 103 co-methylation modules (Suppl. Fig. 7A). A brief framework for selecting preserved module-trait associations between fetal and adult lung datasets, focusing on lung tissue modules with high network preservation is highlighted in **Table 1**.

We identified seven modules: ME90:darkolivegreen, ME49:darkseagreen, ME97:indianred3, ME46:mediumpurple3, ME100:skyblue, ME34:purple and ME6:plum1 associated with (nominal  $P \leq 0.05$ , **Figure 2A**, Suppl. Tab. 5) either measure of IUS-exposure (binary or continuous). ME46:mediumpurple3, ME100:skyblue and ME34:purple were associated with both measures of exposure (**Figure 2A**). Projecting the fetal lung module structure as reference on to the adult lung tissue methylation data (Suppl. Fig. 7B), we observed that these IUS exposure modules identified in fetal lung associate with either COPD or with FEV<sub>1</sub> and FEV<sub>1</sub>/FVC ratio in adult lung tissue subjects (**Figure 2B**). The ME100:skyblue module had a relatively suggestive association for COPD, but they all remained significant for FEV<sub>1</sub> at FDR <0.05 (**Figure 2B**, Suppl. Tab. 6). Based on  $Z_{\text{summary}}$ , three of the seven exposure modules: ME34:purple, ME90:darkolivegreen, ME100:skyblue were highly preserved and ME46:mediumpurple3 was moderately preserved between both fetal lung and COPD datasets that we refer to as exposure-COPD modules (**Table 1**, Suppl. Fig. 8, Suppl. Tab. 7). Consistent with the associations, eigengene values of the ME90:darkolivegreen module were relatively increased and positively correlated with higher cotinine values in IUS-exposed compared to unexposed fetal lung samples (Suppl. Fig. 9A-B). Largest positive eigengene values of the ME90:darkolivegreen module were driven by lower FEV<sub>1</sub> values in COPD adults compared to controls with pack-years pointing towards more recent smoking cessation (Suppl. Fig. 9C-E). For ME34:purple and ME100:skyblue modules, eigengene values were significantly correlated with IUS-exposed subjects in fetal lung dataset and lower FEV<sub>1</sub> in LT-COPD dataset (Suppl. Fig. 10-11). Based on the Module Membership (MM) criteria,

*FOXB1* (MM=0.881), *TSSK6* (MM=0.804), and *SLC26A8* (MM=0.871) were the top genes in the ME34:purple, ME90:darkolivegreen and ME100:skyblue modules respectively (Suppl. Tab. 8).

### **3. Fetal age-COPD modules suggestive of developmental perturbations**

Eighteen modules were associated with fetal age but not cotinine exposure (Suppl. Fig. 7A, FDR<0.05, Suppl. Tab. 5). Fifteen of those were associated with COPD in adult lung tissue (Suppl. Fig. 7B, Suppl. Tab. 6). Most of the fetal age associated modules were also associated with lung function phenotypes (FEV<sub>1</sub> and FEV<sub>1</sub>/FVC ratio; Suppl. Tab. 6). Based on  $Z_{\text{summary}}$ , the highly preserved age-associated modules (**Figure 2A-B**) included: ME13:orange, ME79:salmon, ME30:black, ME4:yellow and ME18:saddlebrown with ME46:mediumpurple3 as moderately preserved (**Table 1**, Suppl. Fig. 8, Suppl. Tab. 7). The highest preserved ME13:orange module also had a suggestive association with quantitative CT measures of emphysema (LAA950, P=0.075, **Figure 2B**). Based on the MM criteria, *PRDM8* (MM=0.91), *ZNF704* (MM=0.92), *PCOLCE* (MM=0.92), *RNF213* (MM=0.96) and *HNF1A* (MM=0.79) are the top genes annotated to CpGs in the ME79:salmon, ME13:orange, ME30:black, ME4:yellow and ME18:saddlebrown modules respectively (Suppl. Tab. 9).

### **4. Module connecting exposure and fetal development to COPD**

The ME46:mediumpurple3 module showed moderate preservation (Suppl. Tab. 7), and its association with cotinine exposure and age in fetal lung (nominal P<0.05, Suppl. Tab. 5), and COPD and all lung function phenotypes in the LT-COPD dataset (**Figure 2**, Table 1) made it an interesting module to study further. The associations with fetal age and COPD, FEV<sub>1</sub> and FEV<sub>1</sub>/FVC ratio in LT-COPD dataset remained significant at FDR<0.05 (Suppl. Tab. 6).

Consistent with those associations, the ME46:mediumpurple3 module was strongly associated with IUS-exposure and the methylation levels of this module were overall 1.4% higher among IUS-exposed compared to unexposed fetal lung samples (**Figure 3A**). Moreover, smoke exposed

samples having high cotinine levels were positively correlated with the ME46:mediumpurple3 module eigengene ( $R=0.30$ ,  $P=8.4 \times 10^{-3}$ , **Figure 3B**). Notably, the methylation levels were also overall 1.1% higher in COPD cases (**Figure 3C**) and this positive eigengene association was correlated with lower FEV<sub>1</sub> values ( $R=-0.32$ ,  $P=1.0 \times 10^{-4}$ , **Figure 3D**); but not associated with cigarette smoke exposure/pack-years ( $R=0.09$ ,  $P=0.22$ , **Figure 3E**). Based on the MM criteria, *HARS2* (MM=0.79) and *GUK1* (MM=0.79) were the top genes in the ME46:mediumpurple3 module (Suppl. Tab. 8). Seven significant hyper-methylated CpGs were annotated to the TSS of multi-site gene *STK19* within the module (Suppl. Fig. 12).

### **5. Enrichment and Pathway analysis**

Among the preserved and IUS-exposure-COPD or lung function associated modules, the ME34:purple module was enriched in several developmental processes and pathways including Hippo, Wnt, MAPK (mitogen-activated protein kinase) and TGF- $\beta$  (transforming growth factor beta) signaling as well as several transcription factors (Suppl. Tab. 10). The ME90:darkolivegreen module (Suppl. Fig. 13) was primarily associated with positive regulation of telomerase RNA localization to Cajal body (Suppl. Tab. 11). The ME100:skyblue module (Suppl. Fig. 14, Suppl. Tab. 11) was enriched for cell-cell communication and *ERBB4* signaling with members of the Hippo pathway and cadherin gene family. Fetal age-COPD associated modules (ME79:salmon, ME13:orange, ME30:black, ME4:yellow and ME18:saddlebrown) were mostly large and demonstrated significant enrichment (Suppl. Tab. 12-16, Suppl. Fig. 15) related to development, proliferation, differentiation and morphogenesis. Significantly enriched pathways included regulation of the PI3K/AKT (phosphatidylinositol 3-kinase/Protein Kinase B) network, ERBB and Wnt signaling, signaling by receptor tyrosine kinases and MAPK. Interestingly, most inter-connected and enriched terms in the ME13:orange module included Wnt signaling and the PI3K/AKT signaling network (Suppl. Tab. 15, **Figure 4**). The ME46:mediumpurple3 module (Suppl. Tab. 11, Suppl. Fig. 16) was enriched for viral pathways

(FDR adjusted  $P = 6.58 \times 10^{-7}$ ), ribonucleoprotein biogenesis (FDR adjusted  $P = 4.09 \times 10^{-5}$ ), DNA repair (FDR adjusted  $P = 8.44 \times 10^{-4}$ ) and the PI3K/AKT signaling (FDR adjusted  $P = 1.81 \times 10^{-3}$ ).

### **6. Adult lung network projection onto fetal lung methylation**

To assess the robustness of our findings, we repeated our analyses using the overlapping set of 349,325 CpGs from the adult LT-COPD dataset projecting the adult lung methylation network structure as the starting reference on the fetal lung methylation data (test) and identified 55 co-methylation modules (Suppl. Fig. 17-18, Suppl. Tab. 17). Most modules were associated with fetal age, lung function and COPD but none significantly associated with both IUS-exposure and COPD. Enriched pathways for those modules included EGFR tyrosine kinase inhibitor resistance, ERBB signaling down-regulation and PI3K/AKT. This analysis further supports that adult lung network perturbations might recapitulate and have origins in fetal development associated epigenetic perturbations, especially with enrichment in the PI3K/AKT signaling pathway.

### **7. Integration with prior gene expression and GWAS associations**

We identified 14,236 CpGs at an MM sub-threshold of 0.70 or greater annotated to 7,364 unique genes across all modules (Suppl. Tab. 18). Of those, 100 CpGs from the ME34:purple, ME79:salmon, ME30:black, ME13:orange and ME4:yellow modules mapped to 62 unique differentially expressed genes ( $FDR < 0.05$ ) in the LT-COPD dataset. The highest MM was associated with the CpG site: cg07495027 mapped to *EDNRB* gene in the ME4:yellow module (Suppl. Tab. 18). The strongest correlation between CpG methylation and gene expression was observed for *EEF1B2* ( $cor = -0.42$ ,  $P = 9.9 \times 10^{-8}$ ) and *ABL1* ( $cor = 0.34$ ,  $P = 2.4 \times 10^{-5}$ ) genes. Interestingly, 38 unique high MM genes had an overlap with the 82 previously identified COPD-GWAS associations (Suppl. Tab. 18). Several genes were also shared between modules with maximum presence for *ASAP2*, *IER3* and *THRA* across modules.



## Discussion

Network analyses may reveal deeper insights into the developmental origins of disease. Addressing the fetal origins hypothesis, we utilized a network driven approach to focus on smaller gene clusters in relevant functional pathways that may influence risk for adult COPD. The network analysis suggested that the early origins of COPD may be related to both the developmental and exposure related perturbations in gene networks, not single genes working in isolation.

Pathway analysis of IUS-exposure, fetal age and COPD-associated module genes (ME46:mediumpurple3) as well as the most highly preserved module genes (ME13:orange) included annotation to the PI3K pathway. The PI3K/AKT pathway not only plays crucial role in human disease [55] but also represents a therapeutic target for aging [56], lung dysfunction, asthma pathogenesis [57] and treatment of COPD [58]. Most of the mentioned Hippo pathway components interact, including *Mst1/2*, *Sav1*, *Lats1/2*, *Mob1* or *Yap*. Their homozygous deletion causes embryonic lethality [59, 60]. The Hippo signaling pathway regulates lung development/alveolarization [61, 62] and closely interacts with TGF- $\beta$  [63], Wnt, Notch and Hedgehog signaling pathways. Furthermore, the Hippo pathway is implicated in progression of lung diseases including asthma and COPD [64, 65], and may therefore be a crucial link for fetal origins of COPD. The Wnt pathway is annotated to almost all of the highlighted modules. Wnt/ $\beta$ -catenin is known for its critical role in embryonic and fetal lung development [66]. IUS-exposure has been reported to be associated with down-regulation of genes in Wnt signaling and impaired lung growth in the developing fetus [67]. We have previously identified Wnt signaling genes associated with lower lung function in asthmatics [68]. The Wnt-beta catenin pathway has also been implicated in COPD [69–71] and is regulated by *FAM13A*, a COPD susceptibility gene [72]. These findings further support that the disruption of the Wnt pathway in early life may be a prominent contributor to fetal origins of COPD. The role for Wnt in lung aging has been

proposed [73] suggesting this pathway together with the PI3K/AKT pathway may link fetal exposure and adult lung disease through perturbations in aging pathways. Highlighted modules revealed pathways to consider for further investigation for fetal origins of COPD. Genes with the highest module membership may represent functional COPD susceptibility hubs perturbed in early life. *FOXBI*, the gene with highest MM in the ME34:purple module is a transcription factor that has been implicated in embryonic development and was associated with childhood asthma symptoms in a genome-wide association study in Latin American children [74]. The ME34:purple module included multiple enriched pathways (Hippo, PI3K, MAPK, Wnt, TFG- $\beta$ ). ME90:darkolivegreen module enriched in positive regulation of telomerase activity catalyzed by telomerase reverse transcriptase (hTERT) enzyme has often been linked to chromosome maintenance [75][76]. Its negative association with pack-years and sex may point to sex-specific activation of repair mechanisms after smoking cessation. The ME100:skyblue module was enriched for several members of the cadherin family implicated in lung diseases such as asthma [77] and COPD [78]. *ERBB4* signaling highlighted through the ME100:skyblue module included the *YAPI* gene, a component of the Hippo pathway [60]. *ERBB4* deletion is associated with delayed fetal development [79]. *ERBB4* demonstrated increased gene expression in smokers to smokers with COPD and inverse association with FEV<sub>1</sub>, suggesting links to COPD severity [80]. Integration with previously reported gene expression and GWAS associations highlighted candidate genes such as *EDNRB* and *IER3*. Increased *EDNRB* expression has been associated with emphysema, FEV<sub>1</sub>/FVC [81] and COPD severity [82]. The *IER3* knockout in mouse models was associated with immune dysfunction and interference with several pathways including PI3K/AKT [83].

The biologically plausible and statistically significant pathways we identified using correlation networks is a contrast to the limited findings of the single CpG site analysis. Our findings of many differentially methylated CpGs with small magnitude of effect is consistent though with previously published large epigenome-wide studies associated with maternal smoking [84].

Notably, the gamma-aminobutyric acid (GABA) and adenosine receptor signaling pathways were identified from overlapping fetal and adult lung EWAS results. Nicotine exposure has been reported previously to increase GABA signaling in airway epithelium [85], while adenosine receptors are known for their anti-inflammatory properties and therapeutic potential for the treatment of asthma and COPD [86].

A key strength of the study includes interrogating epigenetic profiles in the fetal lung tissue ascertained during airway branching morphogenesis. These samples are particularly relevant to test the developmental origins of COPD hypothesis. Abnormalities in bronchial airways during this stage can lead to decreased airflow and slowed growth of airways, limiting maximally attained lung function. Analytical strengths of our study include methylation profiles in both fetal and adult lung tissue using the same platform and leveraging a network-based approach for both relevant tissues. Due to complex underlying mechanisms, it remains a challenge to identify significant single site associations while retaining statistical power, often with effect sizes of small magnitude which is consistent with previously published large epigenome-wide studies [84]. Previous studies have identified and compared differentially methylated CpGs associated with COPD in whole blood and lung tissue. In light of the considerable heterogeneity across studies and varying statistical analyses [87], our systematic evaluation of previously validated COPD EWAS associations found in blood [46, 88–90] did not identify any consistent overlap with our high module membership CpGs.

We have therefore provided extensive details about the network modules to facilitate future research and collaboration in this less explored area. We acknowledge that our study has several limitations including the sample sizes of the datasets and the use of lung homogenates. Moreover, prospective studies with expanded coverage of methylation sites such as from the Illumina EPIC array and bisulfite sequencing may support validation and improve our understanding of the identified associations significantly. Further, dichotomizing continuous variables such as cotinine facilitates interpretation and is consistent with IUS exposure as measured in many studies.

However this may lead to loss of information especially with small datasets. Therefore, to be consistent with the literature but also to more precisely model exposure, we reported module-trait associations using both dichotomous and continuous measures of cotinine. In addition, we have limited phenotype data associated with the fetal lung samples. To address this, we directly measured cotinine and given the timing of sample collection presumed elevated cotinine is related to maternal smoking and not nicotine replacement therapy or e-cigarette use. Efforts linking fetal tissue findings with cord blood will increase the opportunity to fully leverage cord blood datasets and understand fetal origins of adult lung disease. Future research to understand the developmental contributions to COPD should focus on single cell analyses to further understand fetal programming in the lung relevant to adult tissue.

## **Conclusion**

In summary, our co-methylation network evaluation resulted in the identification of gene modules linking fetal lung tissue IUS-exposure and fetal age to adult lung function and COPD. Additional studies and functional validation will support causal links between fetal methylation alterations in pathways including Hippo, Wnt and PI3K/AKT and risk for and development of COPD. As we move towards precision medicine, understanding the impact of early life molecular trajectories will provide unprecedented insight into complex adult lung diseases and reveal ways to leverage the plasticity of the epigenome towards primordial prevention, lung health and resilience despite early life programming.

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**Table 1.** Preserved module associations with IUS-exposure, COPD/lung function and age with annotated pathways. The table highlights module: A. associations with exposure in fetal lung and COPD/lung function in LT-COPD dataset B. associations with age in both datasets and COPD/lung function in LT-COPD dataset. A preservation score as defined by the default WGCNA criteria<sup>44</sup> was used to assess the density and connectivity patterns between CpGs in a module.  $2 < Z_{summary} < 10$  implies weak to moderate preservation and  $Z_{summary} > 10$  implies strong and high preservation. Additionally, modules with preservation score as:  $6 < Z_{summary} < 10$  were considered moderately preserved. Only high or moderately preserved modules were included in this table and the scores are rounded without decimal places. Genes in the highlighted pathways for each module are detailed in Suppl. Tab. 19.

Footnotes:

‡ Modules associated with both exposure and age in fetal lung and COPD/lung function and age in adult lung tissue dataset

\* Modules associated with age in both fetal lung and adult lung tissue datasets

X denotes no association with the variable

Abbreviations: Chronic Obstructive Pulmonary Disease (COPD), Forced Expiratory Volume in 1 second ( $FEV_1$ ), Forced Vital Capacity (FVC); Mitogen-activated protein kinase (MAP-Kinase), Transforming growth factor beta ( $TGF-\beta$ ), phosphatidylinositol 3-kinase/Protein Kinase B (PI3K/AKT), Epidermal growth factor receptor (EGFR), BMP (bone morphogenetic protein), GABA (gamma aminobutyric acid),  $IFN-\gamma$  (interferon-gamma-mediated), TLR (toll-like receptor), small nuclear ribonucleoproteins (snRNPs), small Cajal body-specific RNPs (scaRNPs), small nucleolar RNPs (snoRNPs)

**A. Preserved and exposure-COPD/lung function associated modules**

Modules	CpGs	Fetal Lung associations		LT-COPD associations	Preservation (score)	Pathways (number of annotated genes)	Genes with highest MM
		Binary	Continuous				
ME34:Purple,	5,024	Yes	Yes	FEV <sub>1</sub>	High (18)	Hippo (44), Wnt (89), MAP-Kinase (13), protein serine/threonine kinase (69) and TGF-beta (41) pathways	<i>FOXB1</i>
ME90:Darkolivegreen	543	X	Yes	Sex, FEV <sub>1</sub> , FVC	High (15)	snRNP, scaRNP, snoRNP and telomerase biogenesis (4)	<i>TSSK6</i>
ME100:Skyblue	712	Yes	Yes	FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC	High (10)	ERBB4 (5) and cell-cell signaling (10)	<i>SLC26A8</i>

**B. Preserved and age\*-COPD/lung function associated modules**

ME13:Orange	878	X	X	COPD, FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC, monthsquit	High (36)	Wnt signaling (23), PI3K/AKT (19) and MAP-Kinase (17) network	<i>ZNF704</i>
ME79:Salmon	3,348	X	X	COPD, FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC, monthsquit	High (35)	Protein serine/threonine kinase (44), Wnt (53), phosphatidylinositol 3-kinase (16), ERBB (21), TGF-beta (23) and BMP (24) signaling pathways	<i>PRDM8</i>
ME30:Black	10,135	X	X	COPD, FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC	High (18)	Protein serine/threonine kinase signaling (83), Wnt signaling (133), BMP (45), phosphatidylinositol 3-kinase (38) and GABA (9) signaling pathways	<i>PCOLCE</i>
ME4:Yellow	29,032	X	X	COPD, FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC, monthsquit	High (16)	ERBB (94), PI3K/AKT (66), Wnt (191), EGFR (74), Protein serine/threonine kinase (150), TGF-beta (91) and IFN- $\gamma$ (50) signaling pathways	<i>RNF213</i>
ME18:Saddlebrown	682	X	X	COPD, FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC	High (13)	Trans-synaptic and synaptic signaling	<i>HNF1A</i>

**C. Exposure and Age-COPD/lung function associated and preserved modules**

ME46:Mediumpurple3 <sup>†*</sup>	284	Yes	Yes	COPD, FEV <sub>1</sub> , FVC, FEV <sub>1</sub> /FVC	Moderate (7)	RNP biogenesis (11), PI3K/AKT (8), MHC-mediation (8), signaling by WNT (5), ER-phagosome (4), MAP-Kinase (6) signaling pathways	<i>HARS2</i> , <i>GUK1</i>
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## **Co-methylation analysis in lung tissue identifies pathways for fetal origins of COPD**

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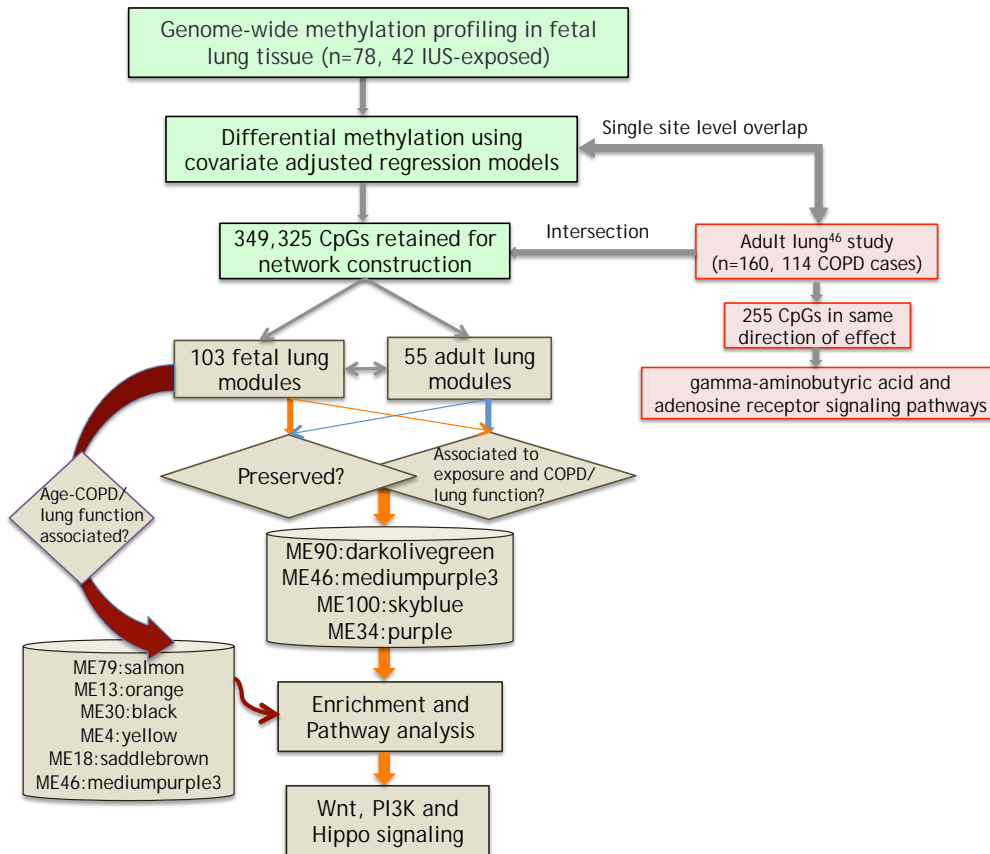
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## Figure legends with figures

**Figure 1.** Overview of the study flowchart and analytical pipeline for preprocessing and module network creation using WGCNA. ME90:darkolivegreen, ME46:mediumpurple3, ME100:skyblue, ME34:purple, ME79:salmon, ME13:orange, ME30:black, ME4:yellow and ME18:saddlebrown correspond to the resulting modules from WGCNA output (ME: module eigengene).

The colors in boxes represent different stages of analytical pipeline. Green, gray and pink colors correspond to the steps for data pre-processing, downstream post-processing and overlap of fetal and adult lung tissue single site CpG analysis respectively. Orange and light-blue arrows point to the modules and associated findings resulting from fetal lung and adult lung as reference networks respectively.

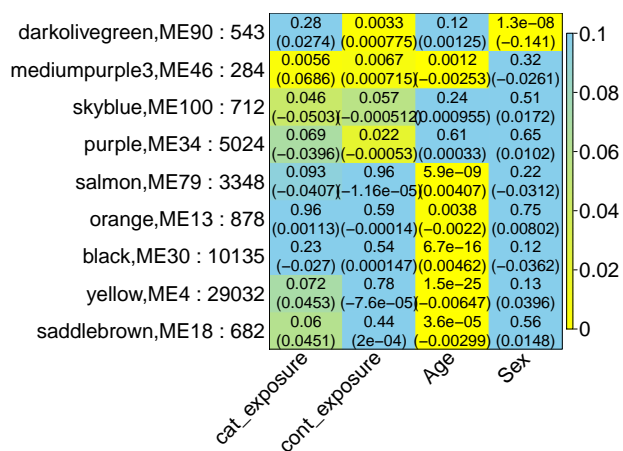


**Figure 2.** Module-trait association heat-maps for the selected nine exposure and age modules associated with COPD and lung function phenotypes highlighting fetal origins for COPD at network level. **A.** Association of modules in the fetal lung network with the traits of interest in the fetal lung data. **B.** Association of LT-COPD dataset traits of interest projected on to fetal lung module network as reference. The Y-axis shows the modules labels (number:color), followed by the number of CpGs in that respective module. The panels highlight modules associated with IUS-exposure, gestational age, COPD and lung function phenotypes. The blue and yellow colors in the boxes represent the scale for significance (nominal P<0.05) with blue being not significant and yellow being highly significant. The mean beta effect estimate per module corresponding to the trait is shown below in parentheses.

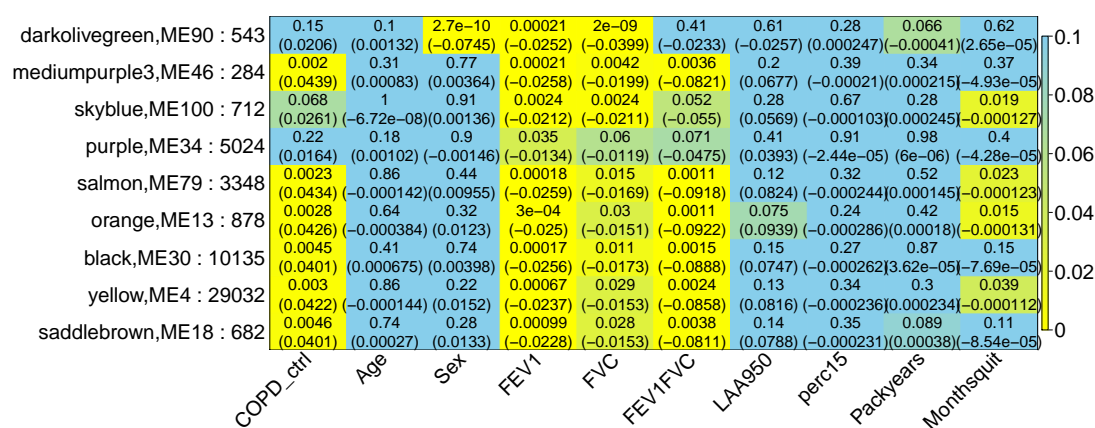
Abbreviations: cat\_exposure: IUS-exposure (exposed versus unexposed), cont\_exposure: IUS-exposure (continuous cotinine variable). COPD\_ctrl: COPD (cases versus controls), FEV<sub>1</sub>: forced expiratory volume in 1 sec, FVC: forced vital capacity, FEV<sub>1</sub>/FVC ratio, LAA950: quantitative emphysema, perc15 and monthsquit: months since quitting smoking

Missing Data: FEV<sub>1</sub> and FVC were missing for 13 subjects, LAA950 and perc15 were missing for 55 subjects and monthsquit was missing for one subject. Subjects with missing data were removed prior to running models for these predictors.

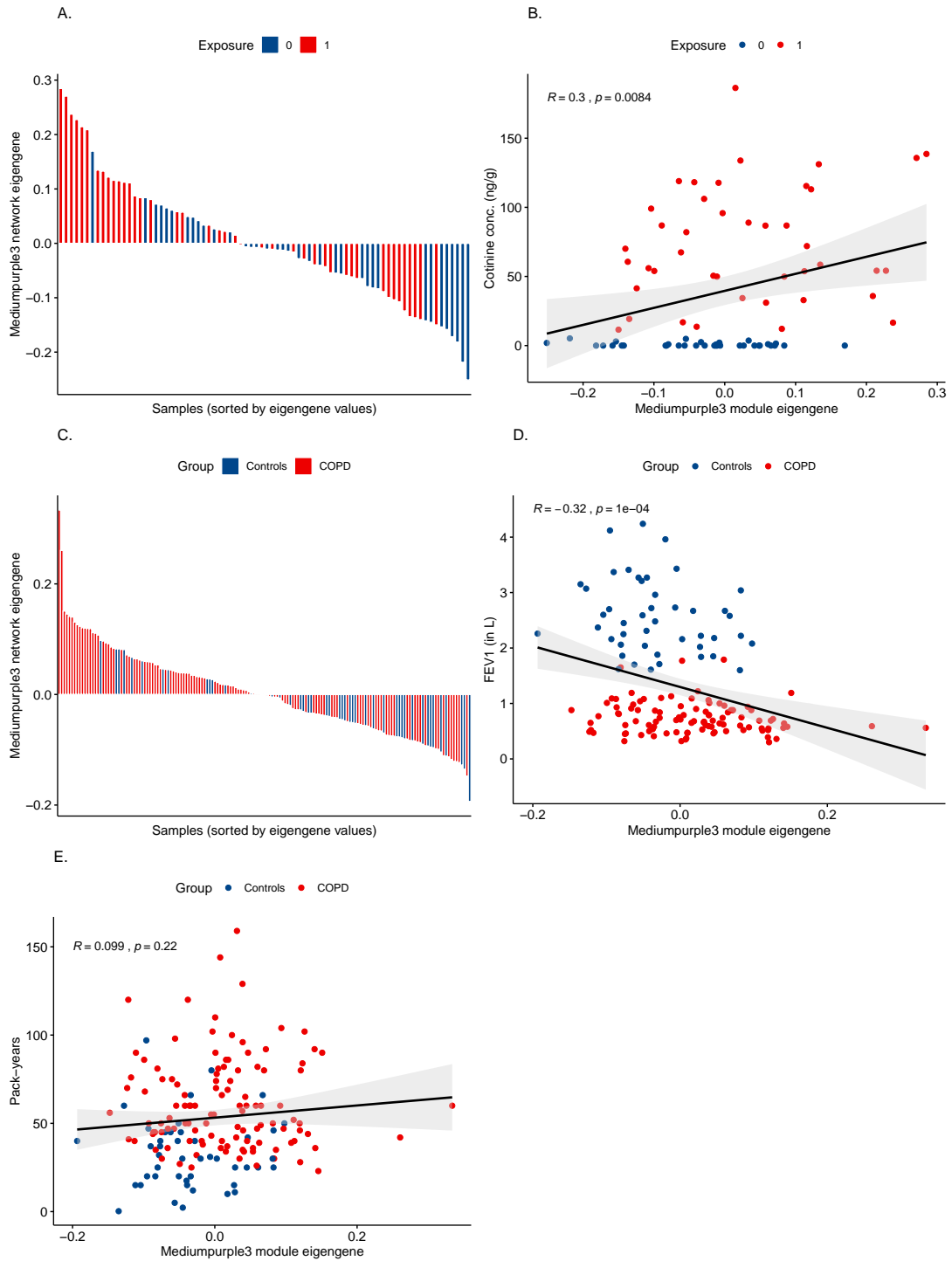
A.



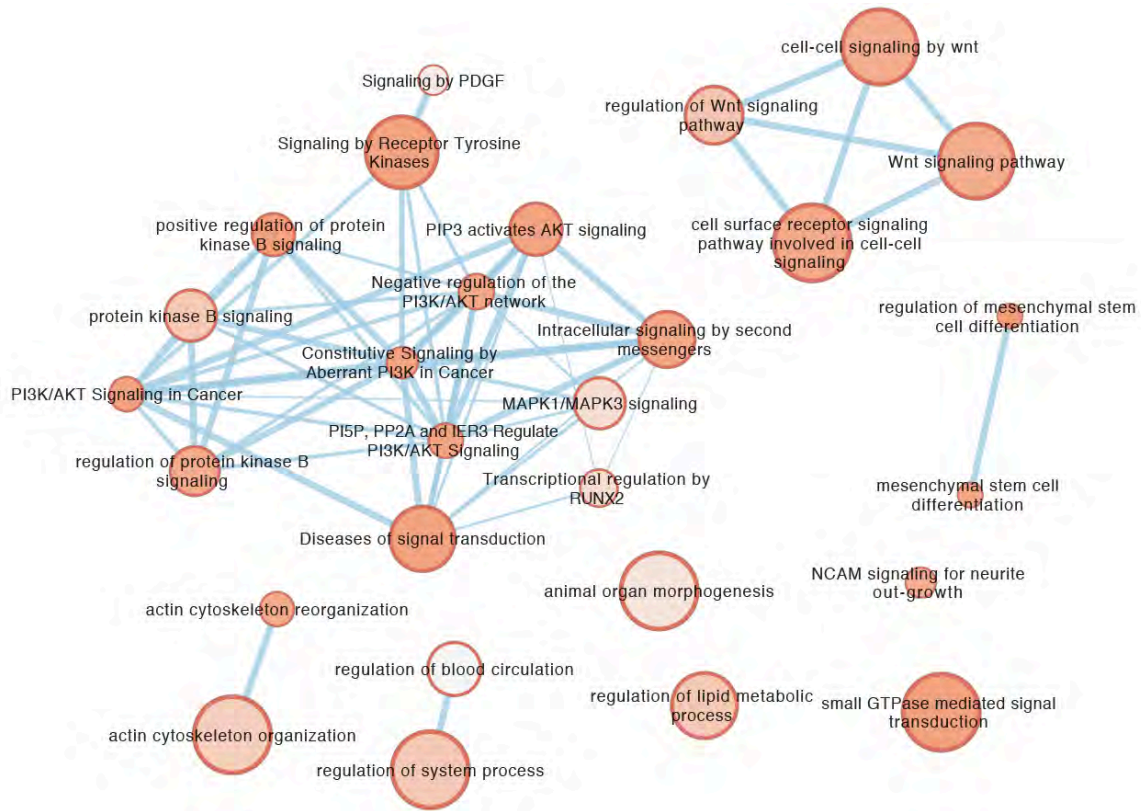
B.



**Figure 3.** Correlation plots between the ME46:mediumpurple3 methylation eigengene and traits of interest. A. Eigengene values of the ME46:mediumpurple3 module were robustly increased and B. associated with higher cotinine values in IUS-exposed fetal lung samples compared to unexposed samples. For exposure, 0 corresponds to unexposed samples whereas 1 corresponds to IUS-exposed samples C. Eigengene values of the ME46:mediumpurple3 module were robustly increased and D. significantly correlated with lower FEV<sub>1</sub> values in COPD adults compared to smoker controls E. but not associated with cigarette smoke intensity (pack-years).



**Figure 4.** Reactome analysis reveals PI3K/AKT and Wnt signaling pathway networks for the ME13:orange module (FDR<0.05). Node size corresponds to the significant number of genes in the enriched term (Suppl. Tab. 15, supplement). Node color corresponds to the significance of the term. Edge thickness corresponds to the number of genes that overlap between two connected terms/gene-sets.





# Appendix

## Co-methylation in lung tissue identifies pathways for fetal origins of COPD

Priyadarshini Kachroo, PhD, Jarrett D. Morrow, PhD, Alvin T. Kho, PhD, Carrie Vyhldal, MD, Edwin K. Silverman, MD, Scott T. Weiss, MD, Kelan G. Tantisira, MD, DeMeo DL, MD

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34	Suppl. Fig. 12. Sushi violin plot showing the 14 significant and hyper-methylated CpGs in smoke-exposed vs. unexposed fetal lung samples for <i>STK19</i> gene .....	23
35	Suppl. Fig. 13. Gene enrichment and pathway analysis for ME90:darkolivegreen module ...	23
36	Suppl. Fig. 14. Gene enrichment and pathway analysis for ME100:skyblue module .....	24
37	Suppl. Fig. 15. Gene enrichment and pathway analysis for ME18:saddlebrown module .....	24
38	Suppl. Fig. 16. Gene enrichment and pathway analysis for ME46:mediumpurple3 module...	25
39	Suppl. Fig. 17. COPD disease recapitulates fetal development .....	26

48      Suppl. Fig. 18. Preservation between LT-COPD (reference) and fetal lung data (test) ..... 27  
49      *References*..... 28  
50  
51

52 **Methods**

53

54 Adult Lung tissue samples were collected from individuals undergoing thoracic or lung volume  
55 reduction surgery. All subjects were former smokers categorized as COPD cases or controls  
56 based on pre-surgical spirometry. Institutional Review Board approval was obtained at three  
57 medical centers: Brigham and Women's Hospital (Boston, MA), St. Elizabeth's Hospital (Boston,  
58 MA), and Temple University Hospital (Philadelphia, PA); all subjects provided written informed  
59 consent.

60

61 *Quality control and preprocessing of fetal lung samples*

62 Percent methylation is reported as the Illumina  $\beta$ -value for each CpG site, which is the ratio  
63 between methylated signal intensity and total probe signal intensity and corresponds to a  
64 continuous value between 0 and 1. Data import, Normal-exponential using out-of-band probes [2]  
65 (noob) normalization for background correction and preprocessing was performed using the  
66 Bioconductor package Minfi [3]. Percent methylation values were further subjected to within-  
67 array normalization for type2 probe bias correction using the Beta Mixture Quantile  
68 normalization (BMIQ - watermelon version 1.25.1) method [4]. As part of the quality control  
69 (QC), we removed probes with low detection pvalues (cut off 0.05), X and Y chromosome  
70 probes, non-CpG probes (CH probes), probes containing SNPs at the CpG interrogation or at the  
71 single nucleotide extension and polymorphic or cross-reactive probes [5]. Probes for CpG sites  
72 likely to be influenced by and within zero to one base of a known SNP were also excluded  
73 (dbSNP 141 GRCh37.p13). Duplicate checking using SNP concordance based on the 65 rs probes  
74 identified one duplicate sample that was removed. A comparison between predicted and  
75 phenotype sex based on probes mapped to only X and Y chromosomes using MDS  
76 (multidimensional scaling) plot identified 12 likely sex mismatches that were excluded from  
77 further analysis. Clustering was performed using constrained analysis of principal coordinates

78 (CAP) using R package vegan [6]. Details of the summary statistics for the QC process are  
79 mentioned in Suppl. Tab. 1.

80 Ancestry composition for fetal lung dataset was estimated from genetic data using TRACE  
81 program (fast and Robust Ancestry Coordinate Estimation) as implemented in the LASER  
82 package [7]. Of the 78 fetal lung samples, 75 samples existed in the genetic data, therefore this  
83 analysis further led to removal of 3 samples. We adjusted using the first three principal  
84 components (PCs) which explained most variability in the data (12.4%) and then accounted for  
85 bias due to unknown confounders using R package BACON [8]. Additionally, as a sensitivity  
86 analysis, we adjusted our module-trait associations (modules identified using WGCNA) using the  
87 first three PCs for the 75 fetal lung samples.

88

#### 89 *Statistical differential methylation analyses*

90 For fetal lung data, methylation was the dependent variable (outcome) and IUS-exposure was the  
91 predictor. Compared to our previously published epigenome-wide association study (EWAS) [9],  
92 herein we optimized and updated the methods for sample quality control and computational  
93 pipelines for the fetal lung data to make it suitable for comparison to the adult lung tissue site-  
94 specific CpG analysis [1] and for an independent network co-methylation analysis in both tissues.  
95 Site based differential methylation analysis for fetal lung samples was performed using linear  
96 regression models as a part of Bioconductor package limma (version 3.37.7) [10] adjusting for  
97 age, sex, sample plate, and sentrix position. Differentially methylated (DM) sites were  
98 categorized as relatively hyper- or hypo-methylated if they showed higher or lower percent  
99 methylation in smoke-exposed compared to unexposed fetal lung samples respectively and were  
100 considered nominally significant at a p-value cut off of 0.05. CpG sites (CpGs) were mapped to  
101 genes using Human Genome build: GRCh37/hg19 annotation. Genes were classified as multi-site  
102 if multiple associated CpGs mapped to that gene.

103 We additionally performed a permutation test to evaluate whether the observed overlap with the  
104 significant findings of the LT-COPD study [1] (n=535 CpGs) in the same direction of effect  
105 (hyper- or hypo-methylated in both the fetal lung dataset and the LT-COPD study) was larger  
106 than expected by chance. Five hundred thirty five CpGs were randomly selected from the fetal  
107 lung association data and investigated for overlap with the 535 CpGs identified in the LT-COPD  
108 study. This process was repeated 1000 times to estimate the mean number of overlapping CpGs,  
109 providing the empirical p-value estimated as the number of permutations with an overlap larger or  
110 equal than the observed overlap, divided by the total number of permutations.

111

112 *Network approach: Weighted Gene Co-expression Analysis (WGCNA)*

113 We used a blockSize of 40,000 to cluster CpGs. Signed networks were built with a soft  
114 thresholding power of 5. Separate co-methylation networks/modules corresponding to clusters of  
115 CpGs were constructed for both fetal and adult lung methylation by means of hierarchical  
116 clustering. Highly correlated module CpGs are represented and summarized by their first  
117 principal component referred to as the module eigengene [11]. Module Membership (MM),  
118 ranging from 0 to 1, quantifies how contributory a CpG is to a given module [12]. This allows  
119 screening for disease-related intramodular hub CpGs and the associated genes [12]. Multivariate  
120 regression models were subsequently employed using limma for both the fetal and the adult lung  
121 datasets to evaluate module eigengene-phenotype associations (to identify relationships between  
122 modules and clinical variables). Module preservation was evaluated using the R package  
123 WGCNA (version 1.63) [13]. After investigating module-trait associations in fetal lung, using  
124 adult lung methylation data, we projected the module structure of the reference fetal lung network  
125 on to the LT-COPD methylation matrix to evaluate the same set of module CpGs and co-  
126 methylation relationships and their associations to the phenotypes in both datasets. In this  
127 analysis, phenotype variables were analyzed as continuous except sex, IUS exposure status (1/0  
128 with 1=exposed) and COPD status (1/0 with 1=COPD cases). In the fetal lung dataset, we

129 additionally evaluated module associations with cotinine as a continuous phenotype. All module-  
130 trait associations in the main text have been reported at nominal  $P < 0.05$  while the FDR-adjusted  
131 P-values have been included in the Supplementary Tables 5 and 6.

132 We also evaluated the Zsummary [14] as a measure of module preservation after permutation of  
133 module assignment using the original fetal lung WGCNA network. We followed the default  
134 WGCNA criteria [14] for the output:  $Z_{\text{summary}} < 2$  implies no preservation,  $2 < Z_{\text{summary}} < 10$   
135 implies weak to moderate preservation and  $Z_{\text{summary}} > 10$  implies strong and high preservation.  
136 Module preservation is used to assess whether the density and connectivity patterns of modules  
137 defined in the fetal lung data as the reference set were also preserved in the original com-  
138 methylation of the LT-COPD test set.

139 In addition, as a sensitivity analysis, we used COPD as the starting reference, performed the same  
140 analyses to assess whether the LT-COPD associated modules for COPD, lung function and age  
141 recapitulate in fetal lung tissue.

142

## 143 **Results**

### 144 *Global and Differential methylation in fetal lung*

145 DNA methylation data was analyzed for fetal lung tissue for 42 IUS-exposed (53.84%) and 36  
146 unexposed samples (46.15%). Preprocessing and filtering resulted in 349,355 quality controlled  
147 CpG sites that were used for further analysis. Of those, 349,325 CpGs overlapped with the LT-  
148 COPD set retained for network analysis. The overall mean methylation difference between  
149 smoke-exposed vs. unexposed samples based on all 349,355 CpGs was 0.00039 (95% CI: -0.001,  
150 0.002;  $p=0.68$ ), however the variance between both groups was statistically different (95% CI:  
151 0.986, 0.999,  $p=0.03$ ). Constrained analysis of principal coordinates showed that exposure was  
152 significantly associated with methylation outcome (nominal  $p=0.03$ ). The samples showed a clear  
153 clustering by exposure after constraining covariates (Suppl. Fig. 1A-B). There were relatively  
154 more hyper- ( $n=6,969$ ) than hypo-methylated ( $n=3,180$ ) CpGs (Suppl. Fig. 2A). Between  
155 unexposed and IUS-exposed fetal lung samples, 10,149 CpGs (2.90%) annotated to 5,176 unique  
156 genes were nominally statistically significant at  $P<0.05$  (Suppl. Tab. 2) and were distributed  
157 evenly across all autosomal chromosomes (Suppl. Fig. 2B). None of the CpGs remained  
158 significant after correction for multiple testing (Suppl. Fig. 2B). Out of those, 6,315 CpGs had  
159 CGI annotations, which were significantly enriched in North shelves (2%,  $P=8.4\times 10^{-3}$ ), North  
160 shores (2.67%,  $9.6\times 10^{-27}$ ) and South shores (2.47%,  $P=8.3\times 10^{-10}$ ) against the CpGs on the 450K-  
161 array platform (Suppl. Fig. 4). Filtering the data using a methylation difference ( $\beta$ -diff) cut off of  
162 at least 1% between exposed and unexposed samples resulted in 6,520 CpGs and a cut off of 5%  
163 resulted in 230 CpGs (part of Suppl. Tab. 2). While investigating multi-CpG site genes, *PTPRN2*  
164 ( $n=20$ ) and *GSTT1* ( $n=6$ ) were annotated with maximum CpGs at a cut-off of 1% and 5%  
165 difference in methylation respectively. One of our previously validated genes [9] *DPP10* was also  
166 a part of 5% beta difference list annotated to five CpGs. Twenty-four of the 10,149 CpGs  
167 annotated to 10 genes (*JAK2*, *GSTT1*, *ZNF714*, *LOC391322*, *TRIM10*, *KNDC1*, *UNC93B1*,

168 *GSTM1*, *SMYD3*, *MYT1L*) showed an absolute methylation difference ranging from around 10-  
169 15%. Among these, some genes were annotated to more than one CpG site such as *GSTT1* (n=6,  
170 all hyper-methylated), *TRIM10* (n=5, hyper-methylated; n=1 hypo-methylated) and *ZNF714*  
171 (n=2, all hypo-methylated) (Suppl. Tab. 2).

172

### 173 ***Ancestry composition estimation in fetal lung data***

174 Our fetal lung study samples overlap with reference samples from each of the five 1000 Genomes  
175 super-populations (African, Ad-Mixed American, East Asian, European, and South Asian; Suppl.  
176 Fig. 3A). Adjusting with PCs and applying BACON did not significantly change our EWAS  
177 associations (Suppl. Fig. 3B; results remained nominal. Considering this update did not alter our  
178 findings, we kept the original analysis unchanged. After adding PCs to the models for identifying  
179 the module-trait associations, the original findings in Figure 2 were attenuated to some extent,  
180 however stayed robust and did not alter the overall conclusion.

181

### 182 ***Differentially methylated CpGs from adult lung study assessed in fetal lung***

183 The top five annotated CpGs based on significance in the LT-COPD dataset and having the same  
184 direction of effect in the fetal lung dataset (hypo- or hyper-methylated in both datasets) included  
185 *GLT1D1*: cg25823837, *C10orf11*: cg08754149, *PITPNM1*: cg01748627 and *CHRM1*:  
186 cg06289725. Based on the significance threshold in both datasets ( $P < 0.05$  in fetal lung and FDR  
187 in LT-COPD dataset, Suppl. Tab. 3), we identified 12 CpGs annotated to 10 genes of which seven  
188 had the same direction of effect (*GRM1*: cg06121352, *PPMIN*: cg05260085, *SPOP*:  
189 cg22160463, *ANO8*: cg03665970, *CHRM1*: cg06289725; cg07980854, cg22209918;  
190 Hypergeometric P-value for the observed overlap of seven CpGs= $1.8 \times 10^{-7}$ ).

191 Overall, 255 of the 535 LT-COPD CpGs showed a consistent direction of effect (irrespective of  
192 P-value threshold in the fetal lung dataset) in the fetal smoke exposure EWAS that were subjected



193 to enrichment analysis; of which 213 showed relative hyper-methylation in smoke-exposed fetal  
194 lung and COPD cases. (Suppl. Tab. 3, Permutation based p-value =  $9.9 \times 10^{-4}$ , Suppl. Fig. 4).  
195 The top pathway GO terms (GO: 0007214, GO:0001973) for these 255 CpGs were enriched in  
196 gamma-aminobutyric acid signaling (*GNAI2*, *GABRA* family genes: *GABRA5*, *GABBR2*), and  
197 adenosine receptor signaling (*P2RY1*) pathways (Suppl. Tab. 4).  
198 Among the top hits, *CHRM1* had the highest methylation difference in LT-COPD dataset  
199 (cg06289725: FDR:  $1.81 \times 10^{-6}$ ; 10% hyper-methylated in COPD cases) and nominal significance  
200 and same direction of effect in the fetal lung data with a relative hypermethylation of 1.9% in  
201 smoke-exposed compared to unexposed fetal lung samples (Suppl. Tab. 3). Fifteen CpGs were  
202 annotated to *CHRM1* in fetal lung data (Suppl. Fig. 6), of which two CpGs: cg00987015  
203 (chromosome 11:62,688,751,  $p=9.0 \times 10^{-3}$ ), cg06289725 (chromosome 11:62,689,081,  $p=0.029$ )  
204 located in 5'UTR and transcription start site (TSS) respectively (Suppl. Tab. 2, Suppl. Fig. 6A),  
205 were nominally associated. The latter was also promoter flanking and strongly enriched in  
206 regulatory region of DNase hypersensitivity sites (DHS) (Suppl. Fig. 6B).

207

### 208 ***Enrichment and Pathway analysis for IUS Exposure-COPD modules***

209 Gene enrichment and pathway analysis was performed individually for each of the preserved and  
210 IUS-exposure-COPD or lung function associated modules (ME90:darkolivegreen,  
211 ME46:mediumpurple3, ME34:purple and ME100:skyblue). Among those, ME34:purple was the  
212 largest and enriched in several developmental and cellular processes (FDR < 0.05; Suppl. Tab.  
213 10) such as embryonic organ development and morphogenesis, response to oxygen levels, cell  
214 cycle, apoptosis, signal transduction, cellular senescence and pathways including Hippo, Wnt,  
215 MAP-Kinase (mitogen-activated protein kinase) and TGF- $\beta$  (transforming growth factor beta)  
216 signaling (Suppl. Tab. 10). Some of the developmental, smoke-related or lung function associated  
217 genes that are part of the ME34:purple module (Suppl. Tab. 10) include: *IGFBP2-BP3* (enriched  
218 terms: cell signaling, WNT pathway, apoptosis), *HHIP* (enriched terms: skeletal system

219 morphogenesis), *PITX2* (enriched terms: head/brain development), *PIK3CD* (enriched terms:  
220 neuron morphogenesis), *SHH* (enriched terms: nervous system/brain/embryonic development),  
221 and *CELSR3* (enriched terms: tissue morphogenesis). The top biological processes in the  
222 ME34:purple module included RNA polymerase II regulatory region DNA binding (FDR  
223 adjusted  $P = 9.51 \times 10^{-12}$ ), head development (FDR adjusted  $P = 1.57 \times 10^{-7}$ ) and central nervous  
224 system development (FDR adjusted  $P = 5.86 \times 10^{-6}$ ) that were annotated to several transcription  
225 factors such as *PAX6*, *RUNX3*, *TBX5*, *TBX20* and genes such as *GATA5*, *ESR1*, *EGR1*, *VDR*,  
226 *CTCF*, *CRISPLD2*, *SHH*, *ERBB4*; and several of the WNT family genes such as *WNT2*, *WNT3*,  
227 and *WNT5A*. The ME90:darkolivegreen module (Suppl. Fig. 13) was primarily associated with  
228 positive regulation of telomerase RNA localization to Cajal body (Suppl. Tab. 11, FDR adjusted  
229  $P=0.03$ ) and was enriched in four genes: *CCT4*, *NAF1*, *NHP2* and *CCT3*. The ME100:skyblue  
230 module (Suppl. Fig. 14) was enriched for only Reactome pathways (Suppl. Tab. 11) including  
231 cell-cell communication (10 genes, FDR adjusted  $P = 9.45 \times 10^{-3}$ ), cell junction organization (8  
232 genes, FDR adjusted  $P = 0.01$ ), *ERBB4* signaling (5 genes, FDR adjusted  $P = 0.04$ ). The cadherin  
233 gene family (*CDH1*, *CDH4*, *CDH12*, *CDH13*, *CDH15*) was highly enriched in cell-cell  
234 communication and cell-junction interactions associated with the ME100:skyblue module.

235

### 236 ***Enrichment and Pathway analysis for fetal age-COPD modules***

237 Fetal age-COPD associated modules (ME79:salmon, ME13:orange, ME30:black, ME4:yellow  
238 and ME18:saddlebrown) demonstrated significant enrichment. Most of the biological processes  
239 enriched in the ME79:salmon module (FDR  $<0.05$ ) included terms related to development,  
240 proliferation, differentiation and morphogenesis. The top biological process in the ME79:salmon  
241 module was enriched for organ morphogenesis (FDR adjusted  $P = 1.12 \times 10^{-20}$ ), followed by  
242 skeletal system (FDR adjusted  $P = 1.29 \times 10^{-17}$ ) and embryo development (FDR adjusted  $P =$   
243  $1.85 \times 10^{-14}$ ) and included genes such as *IGF1*, *WNT16*, *PROM1*, *PAX6*, and *TFAP2B*, all  
244 important components of transmembrane receptor protein serine/threonine kinase signaling

245 pathway, and the Wnt signaling pathway (Suppl. Tab. 12). Developmental biological processes  
246 and pathways also dominated the larger ME30:black and ME4:yellow modules. The top  
247 biological process in the ME30:black module was enriched for organ morphogenesis (FDR  
248 adjusted  $P = 6.45 \times 10^{-28}$ ) followed by embryo development (FDR adjusted  $P = 1.08 \times 10^{-18}$ ) and the  
249 top genes included *WNT16* (also a part of the Wnt signaling pathway – GO:0016055, FDR  
250 adjusted  $P = 2.54 \times 10^{-12}$ , Suppl. Tab. 13). The top enriched biological process in ME4:yellow  
251 module was for cytoskeleton organization (FDR adjusted  $P = 1.43 \times 10^{-12}$ ) and included pathways  
252 such as ERBB signaling (FDR adjusted  $P = 3.45 \times 10^{-7}$ ), Wnt signaling (FDR adjusted  $P =$   
253  $2.67 \times 10^{-5}$ ), signaling by receptor tyrosine kinases (FDR adjusted  $P = 7.36 \times 10^{-6}$ ) and MAPK  
254 signaling (FDR adjusted  $P = 2.56 \times 10^{-3}$ ) [Suppl. Tab. 14]. Of the six CpGs annotated to *CHRM1*,  
255 with two of them significant (cg06289725: MM=0.86, P=0.029; cg00987015: MM=0.63,  
256  $P=9.0 \times 10^{-3}$ , Suppl. Tab. 9) were also present in the ME4:yellow module, enriched for muscle  
257 system process and synaptic transmission (Suppl. Tab. 14). The ME13:orange module was  
258 enriched for 16 biological processes including the top terms stem cell differentiation (FDR  
259 adjusted  $P = 9.26 \times 10^{-3}$ ) enriched in transcriptional repressor *REST* and positive regulation of  
260 protein kinase B signaling (FDR adjusted  $P = 9.26 \times 10^{-3}$ ). Interestingly, most Reactome pathway  
261 terms included negative regulation of the PI3K/AKT (phosphatidylinositol 3-kinase/Protein  
262 Kinase B) network (FDR adjusted  $P = 1.41 \times 10^{-2}$ ) and Wnt signaling pathway (FDR adjusted  $P =$   
263  $1.60 \times 10^{-2}$ ) was also a part of the ME13:orange module (Suppl. Tab. 15, **Figure 4**). The  
264 ME18:saddlebrown module was mainly enriched for peptidyl-tyrosine autophosphorylation (FDR  
265 adjusted  $P = 8.46 \times 10^{-3}$ ), L1CAM interactions (FDR adjusted  $P = 1.19 \times 10^{-2}$ ) and synaptic  
266 transmission/signaling (FDR adjusted  $P = 1.82 \times 10^{-2}$ ) and included *CHRM1* (Suppl. Tab. 16,  
267 Suppl. Fig. 15).

268

269 ***Adult lung network projection onto fetal lung methylation***

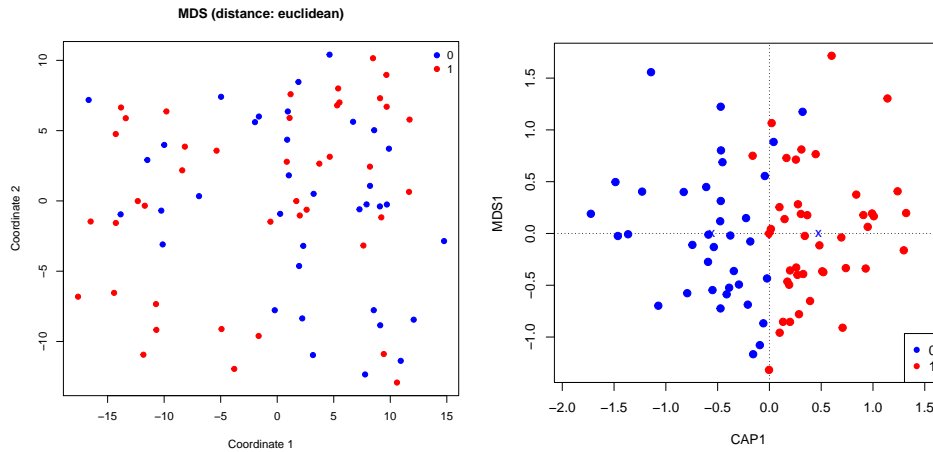
270 To assess the robustness of our findings, we repeated our analyses projecting the adult lung  
271 methylation network structure on the fetal lung methylation. We identified 55 co-methylation  
272 modules with sizes ranging from 35 to 36,455 CpGs. A total of 287,671 CpGs were assigned to a  
273 module (Suppl. Fig. 17A). We used the adult lung methylation module structure as the reference  
274 network for the fetal lung methylation data (Suppl. Fig. 17A-B). Twenty-one modules were  
275 associated with COPD (Suppl. Fig. 17A). Although, none of the module eigengenes reached  
276 statistical significance for association with IUS-exposure, 25 modules showed striking significant  
277 associations with fetal age (Suppl. Fig. 17B). Eleven modules associated with COPD were  
278 associated with fetal age/development: ME24:midnightblue (n=5,564), ME52:salmon4 (n=39),  
279 ME3:brown (n=30,098), ME14:cyan (n=6,432), ME33:darkolivegreen (n=510), ME12:plum1  
280 (n=260), ME38:tan (n=7,281), ME32:violet (n=605), ME39:orangered4 (n=211), ME21:purple  
281 (n=10,256) and ME43:orange (n=1,538) (Suppl. Fig. 17A). Three of those: ME52:salmon4  
282 (Zsummary=12.79), ME14:cyan (Zsummary=11.82), and ME32:violet (Zsummary=13.51), were  
283 also highly preserved (Suppl. Fig. 18, Suppl. Tab. 17); the remaining eleven showed weak-to-  
284 moderate preservation (Suppl. Tab. 17). The preserved modules were enriched in developmental  
285 processes such as anatomical structure morphogenesis and nervous system development.  
286 Enriched pathways included EGFR tyrosine kinase inhibitor resistance, ERBB signaling down-  
287 regulation and PI3K/AKT. This analysis further supports that adult lung network perturbations  
288 might have origins in fetal development associated epigenetic perturbations, especially with  
289 enrichment in the PI3K/AKT signaling pathway.

290

291 **Supplementary Figures**

292

293 **Suppl. Fig. 1.** Multidimensional scaling plot (MDS) plot showing global clustering of CpGs in  
294 smoke-exposed vs. unexposed samples in fetal lung data (blue: unexposed, red: exposed) a)  
295 before covariate adjustment b) Constrained analysis of principal coordinates adjusted for age, sex  
296 and sample plate and sentrix position as technical covariates highlights group clusters.  
297

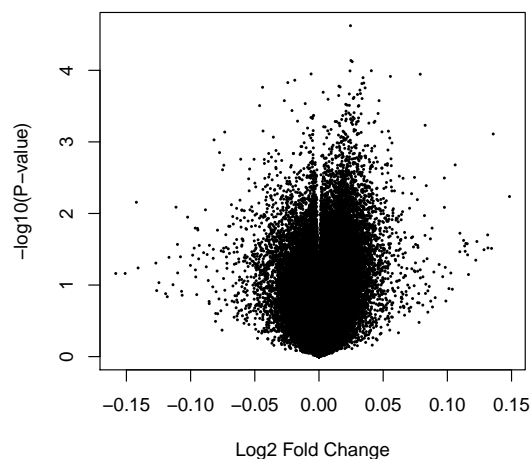


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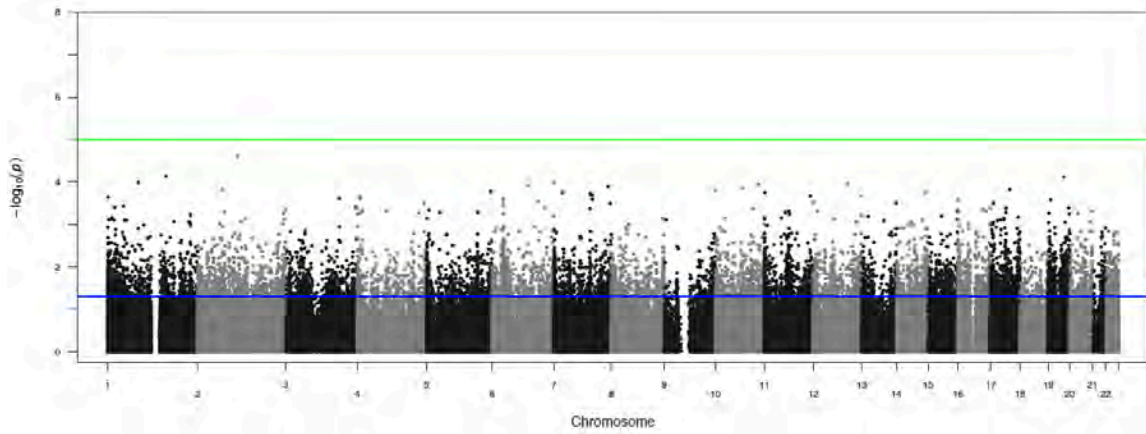
301 **Suppl. Fig. 2.** Effect size and coverage of CpGs in fetal lung data **A.** Volcano Plot showing the  
302 effect size (beta difference) on the x-axis and the significance on the y-axis. Hyper-methylated  
303 CpGs are on the positive scale and hypo-methylated CpGs are on the negative scale of the x-axis  
304 **B.** Manhattan plot shows the distribution of CpGs across all chromosomes at FDR < 0.05 (green  
305 line) and nominally significant CpGs (P<0.05, n=10,149, blue line).  
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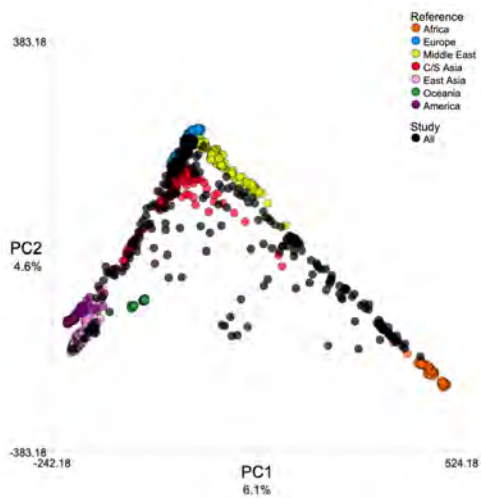
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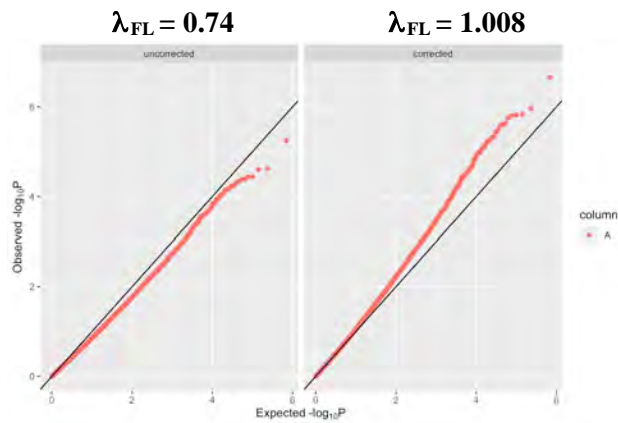
Suppl. Fig. 3. A. Ancestry composition and principal components estimated for the fetal lung genetic data and B. BACON applied to the EWAS associations for controlling bias after inclusion of the first 3 principal components. The fetal lung samples (highlighted as black) overlap with reference samples from each of the five 1000 Genomes super-populations (African, Ad-Mixed American, East Asian, European, and South Asian).

**A.**



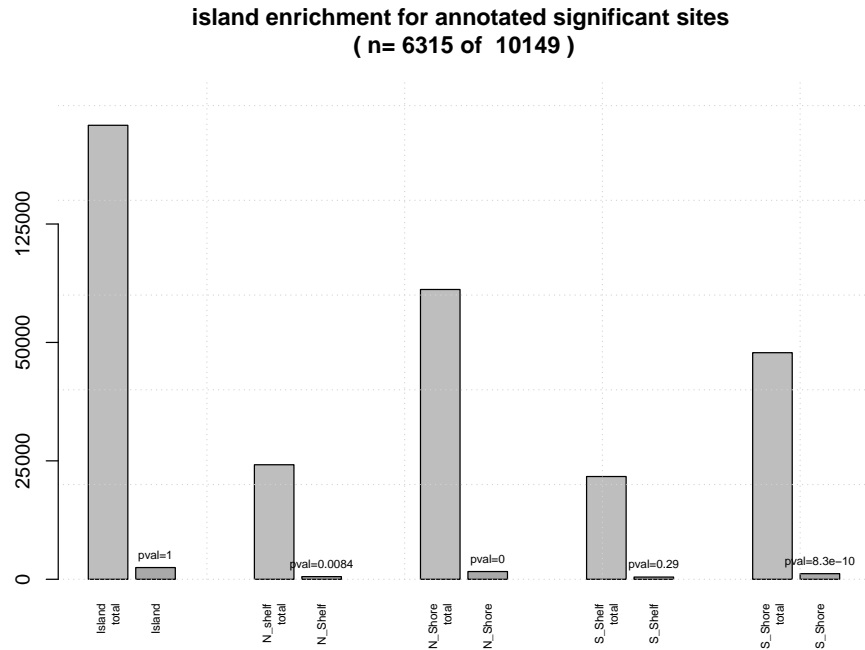
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**B.**



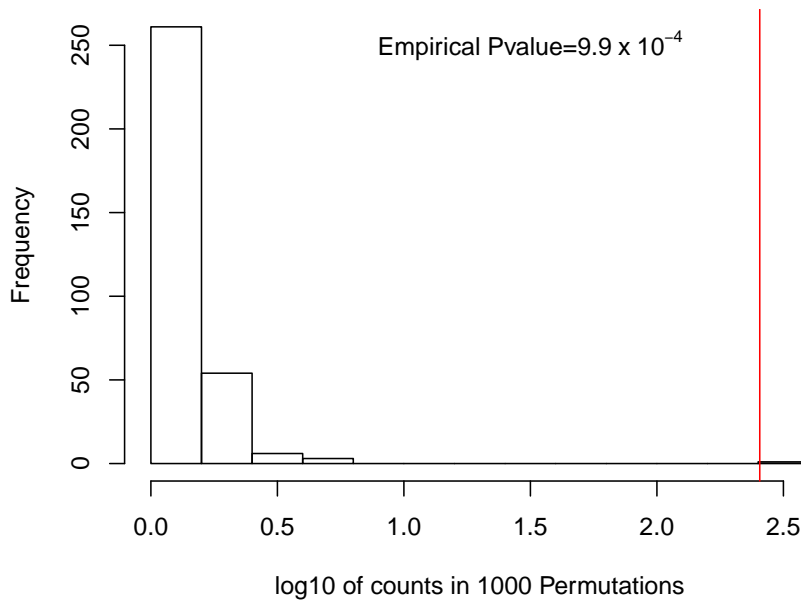
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324 **Suppl. Fig. 4.** Enrichment of nominally significant CpGs ( $p < 0.05$ ) in CpGs shelves and shores  
 325 for fetal lung data. 6,315 of 10,149 nominally significant CpGs had CGI annotations, which were  
 326 significantly enriched in North shelves (2%,  $P = 8.4 \times 10^{-3}$ ), North shores (2.67%,  $P = 9.6 \times 10^{-27}$ ) and  
 327 South shores (2.47%,  $P = 8.3 \times 10^{-10}$ ) against the CpGs on the 450K-array platform. P-value for  
 328 north shores has been rounded in the plot.  
 329



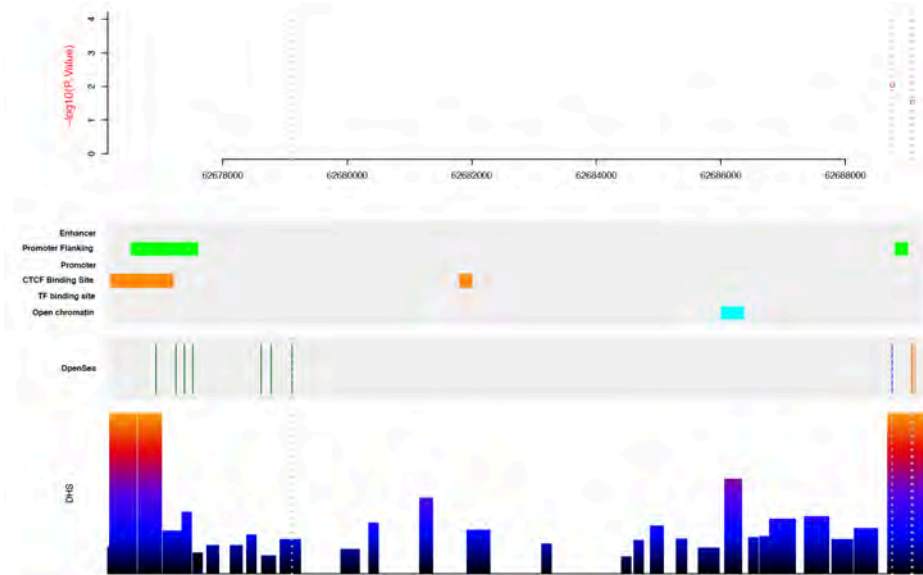
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 332 **Suppl. Fig. 5.** Permutation test for the 255 CpGs identified in fetal lung dataset in same direction  
 333 of effect with the 535 robust CpGs from the LT-COPD study [1]. Five hundred thirty five CpGs  
 334 were randomly selected from the fetal lung data and investigated for numbers in same direction.  
 335 This process was repeated 1000 times to estimate the mean number of overlapping CpGs and the  
 336 empirical p-value as the number of permutations with an overlap larger or equal than the  
 337 observed overlap. The observed overlap was significantly larger than expected by chance in all  
 338 1000 permutations represented by the histogram and the red line (Permutation based p-value =  
 339  $9.9 \times 10^{-4}$ )  
 340

### Permutation test Fetal–adult lung



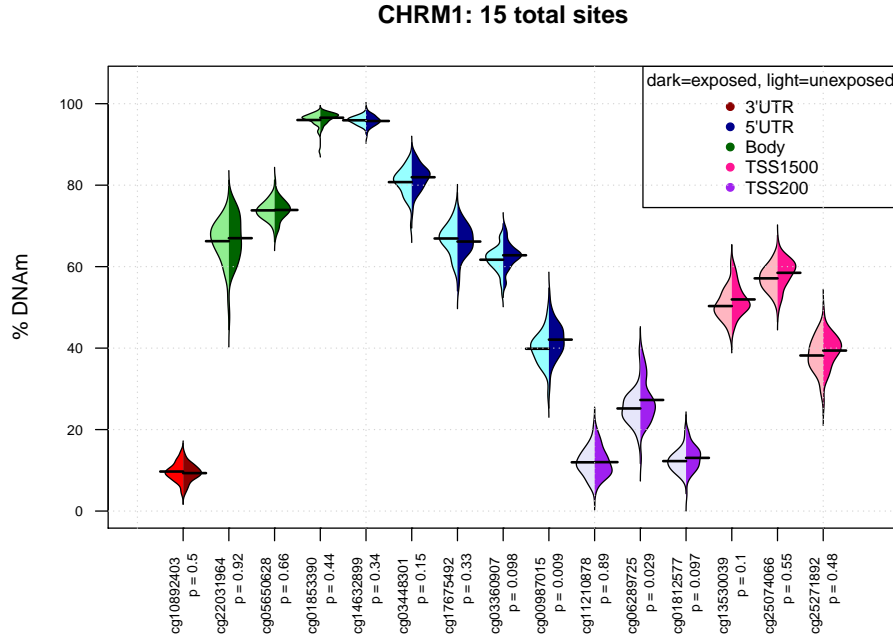
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**Suppl. Fig. 6.** Differentially methylated CpGs in *CHRM1*. **A.** Regional plot for *CHRM1* highlighting the two statistically significant and promoter flanking CpGs: cg00987015 (chromosome 11:62,688,751,  $p=9.0 \times 10^{-3}$ ), cg06289725 (chromosome 11:62,689,081,  $p=0.029$ ) strongly enriched in DNase hypersensitivity sites (DHS). **B.** Sushi violin plot showing the 15 CpGs annotated to *CHRM1* gene. Only two of them were statistically significant (also shown in a.) and hyper-methylated in smoke-exposed (dark colored) versus unexposed (light colored) fetal lung samples, located in 5'UTR and transcription start site (TSS) respectively. However, there was a trend of global hypo-methylation around that region.



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357

358 **Suppl. Fig. 7.** Module-trait association heatmaps highlighting fetal origins for COPD at network  
 359 for all 103 modules **a)** Association of modules in the fetal lung network with the traits of interest  
 360 **b)** Association of COPD traits of interest projected on to fetal lung module network as reference.  
 361 The Y-axis shows the modules represented by their colors, followed by module eigengene label  
 362 and the number of CpGs in that respective module. The panels highlight modules associated with  
 363 IUS-exposure, gestational age, COPD and lung function phenotypes. The blue and yellow colors  
 364 in the boxes represent the scale for significance (nominal  $P < 0.05$ ) with blue being not significant  
 365 and yellow being highly significant. The mean beta effect estimate per module corresponding to  
 366 the trait is shown below in parentheses (Suppl. Tab. 5 and 7).

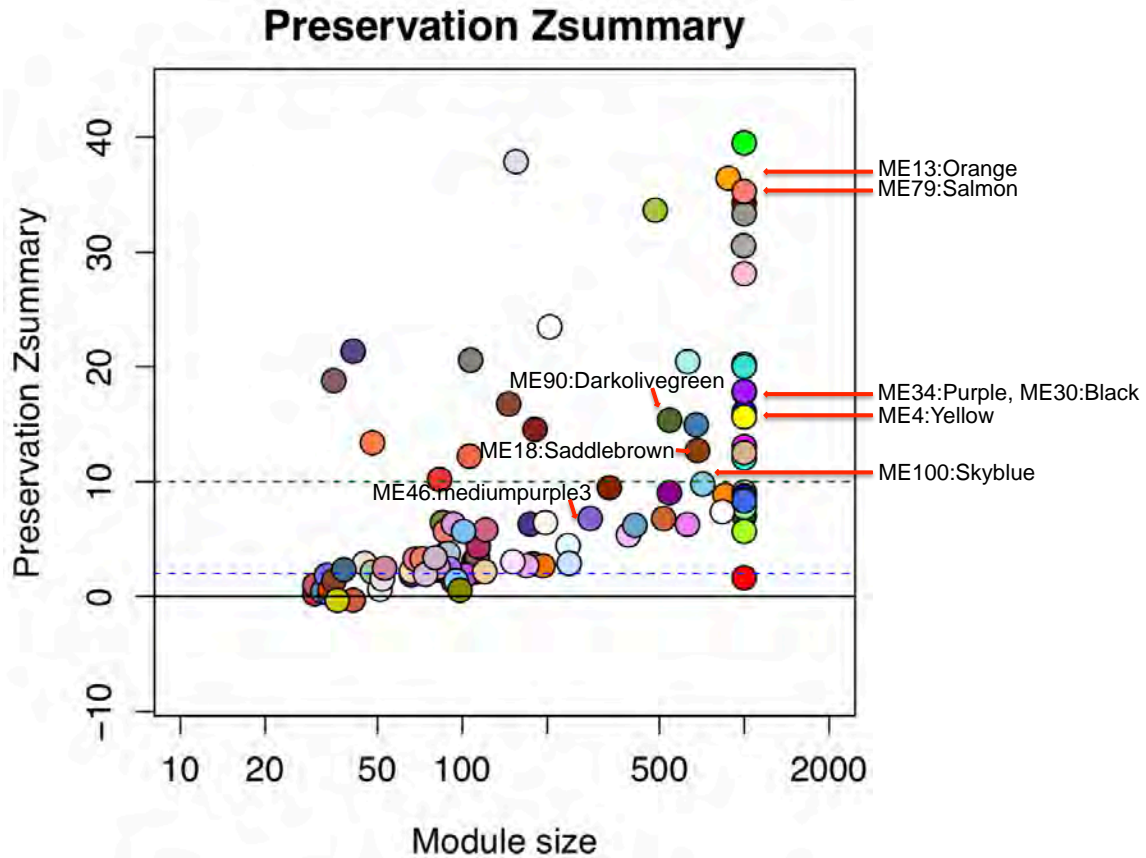
367 cat\_exposure: IUS-exposure (exposed versus unexposed), cont\_exposure: IUS-exposure  
 368 (continuous cotinine variable). COPD\_ctrl: COPD (cases versus controls), FEV<sub>1</sub>: forced  
 369 expiratory volume in 1 sec, FVC: forced vital capacity, FEV<sub>1</sub>/FVC ratio, LAA950: measure for  
 370 emphysema, perc15 and monthsquit: months since quitting

371 Missing Data: FEV<sub>1</sub> and FVC were missing for 13 subjects, LAA950 and perc15 were missing  
 372 for 55 subjects and monthsquit was missing for one subject. Subjects with missing data were  
 373 removed prior to running models for these predictors.

374

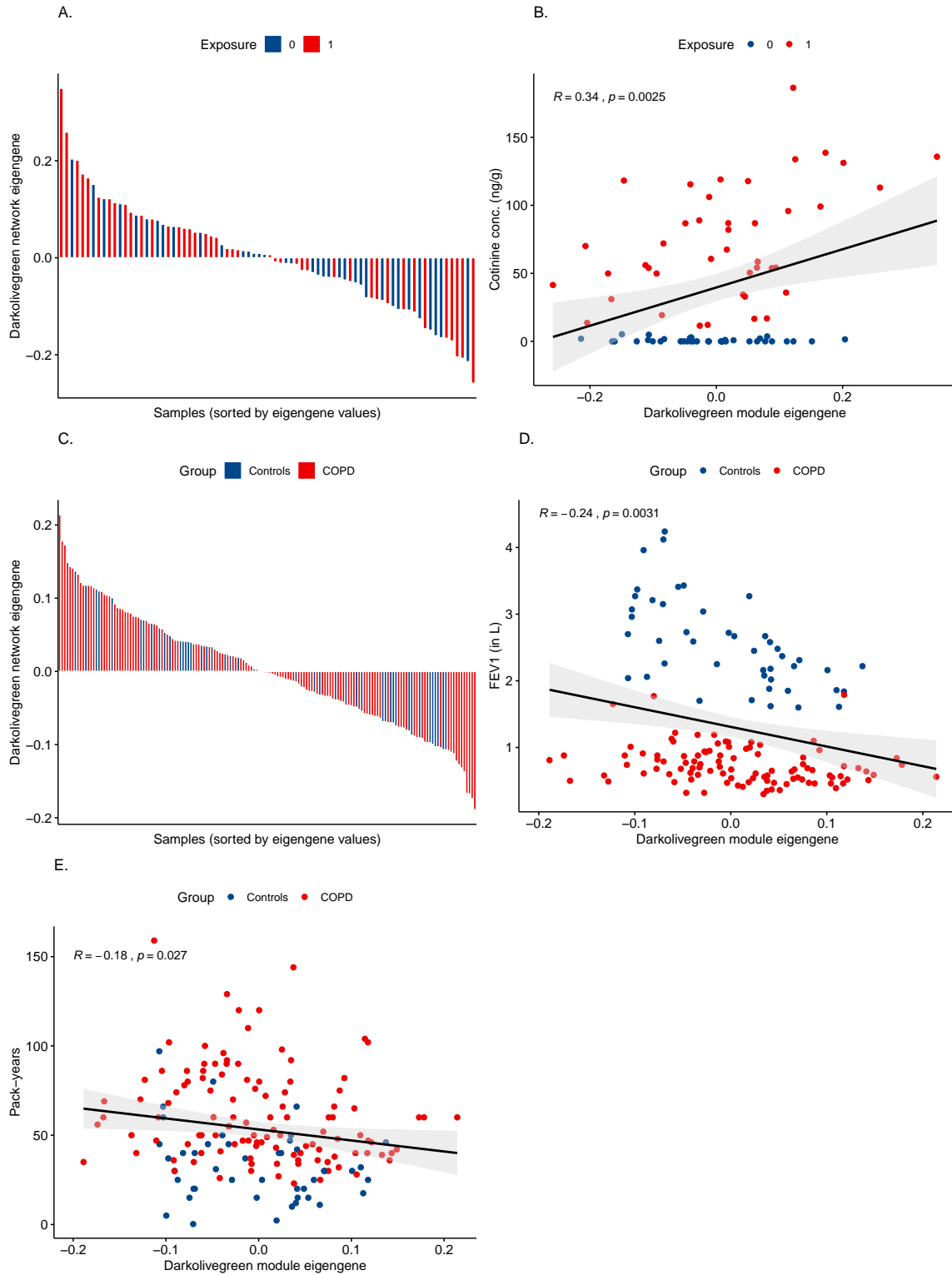
antiquewhite2.ME33: 45	0.0000 0.0000 0.0000 0.0000	antiquewhite2.ME33: 45	0.0000 0.0000 0.0000 0.0000
darkolivegreen.ME90: 543	0.0000 0.0000 0.0000 0.0000	darkolivegreen.ME90: 543	0.0000 0.0000 0.0000 0.0000
green.ME5: 21274	0.0000 0.0000 0.0000 0.0000	green.ME5: 21274	0.0000 0.0000 0.0000 0.0000
plum.ME67: 93	0.0000 0.0000 0.0000 0.0000	plum.ME67: 93	0.0000 0.0000 0.0000 0.0000
maroon.ME55: 114	0.0000 0.0000 0.0000 0.0000	maroon.ME55: 114	0.0000 0.0000 0.0000 0.0000
magenta.ME84: 66	0.0000 0.0000 0.0000 0.0000	magenta.ME84: 66	0.0000 0.0000 0.0000 0.0000
salmon4.ME52: 146	0.0000 0.0000 0.0000 0.0000	salmon4.ME52: 146	0.0000 0.0000 0.0000 0.0000
brown4.ME40: 181	0.0000 0.0000 0.0000 0.0000	brown4.ME40: 181	0.0000 0.0000 0.0000 0.0000
mediumpurple3.ME46: 284	0.0000 0.0000 0.0000 0.0000	mediumpurple3.ME46: 284	0.0000 0.0000 0.0000 0.0000
coral3.ME91: 41	0.0000 0.0000 0.0000 0.0000	coral3.ME91: 41	0.0000 0.0000 0.0000 0.0000
lightslateblue.ME96: 33	0.0000 0.0000 0.0000 0.0000	lightslateblue.ME96: 33	0.0000 0.0000 0.0000 0.0000
pink4.ME99: 35	0.0000 0.0000 0.0000 0.0000	pink4.ME99: 35	0.0000 0.0000 0.0000 0.0000
plum3.ME78: 82	0.0000 0.0000 0.0000 0.0000	plum3.ME78: 82	0.0000 0.0000 0.0000 0.0000
indianred4.ME72: 87	0.0000 0.0000 0.0000 0.0000	indianred4.ME72: 87	0.0000 0.0000 0.0000 0.0000
skyblue4.ME93: 38	0.0000 0.0000 0.0000 0.0000	skyblue4.ME93: 38	0.0000 0.0000 0.0000 0.0000
thistle1.ME51: 151	0.0000 0.0000 0.0000 0.0000	thistle1.ME51: 151	0.0000 0.0000 0.0000 0.0000
lightyellow.ME81: 1221	0.0000 0.0000 0.0000 0.0000	lightyellow.ME81: 1221	0.0000 0.0000 0.0000 0.0000
salmon.ME79: 3348	0.0000 0.0000 0.0000 0.0000	salmon.ME79: 3348	0.0000 0.0000 0.0000 0.0000
orange.ME13: 878	0.0000 0.0000 0.0000 0.0000	orange.ME13: 878	0.0000 0.0000 0.0000 0.0000
steelblue.ME19: 675	0.0000 0.0000 0.0000 0.0000	steelblue.ME19: 675	0.0000 0.0000 0.0000 0.0000
orange4.ME25: 332	0.0000 0.0000 0.0000 0.0000	orange4.ME25: 332	0.0000 0.0000 0.0000 0.0000
black.ME30: 10135	0.0000 0.0000 0.0000 0.0000	black.ME30: 10135	0.0000 0.0000 0.0000 0.0000
brown.ME39: 31854	0.0000 0.0000 0.0000 0.0000	brown.ME39: 31854	0.0000 0.0000 0.0000 0.0000
floralwhite.ME3: 197	0.0000 0.0000 0.0000 0.0000	floralwhite.ME3: 197	0.0000 0.0000 0.0000 0.0000
paleturquoise.ME7: 630	0.0000 0.0000 0.0000 0.0000	paleturquoise.ME7: 630	0.0000 0.0000 0.0000 0.0000
coral2.ME31: 106	0.0000 0.0000 0.0000 0.0000	coral2.ME31: 106	0.0000 0.0000 0.0000 0.0000
lightblue4.ME44: 32	0.0000 0.0000 0.0000 0.0000	lightblue4.ME44: 32	0.0000 0.0000 0.0000 0.0000
brown2.ME62: 83	0.0000 0.0000 0.0000 0.0000	brown2.ME62: 83	0.0000 0.0000 0.0000 0.0000
skyblue.ME100: 712	0.0000 0.0000 0.0000 0.0000	skyblue.ME100: 712	0.0000 0.0000 0.0000 0.0000
thistle2.ME28: 80	0.0000 0.0000 0.0000 0.0000	thistle2.ME28: 80	0.0000 0.0000 0.0000 0.0000
coral1.ME75: 110	0.0000 0.0000 0.0000 0.0000	coral1.ME75: 110	0.0000 0.0000 0.0000 0.0000
honeydew1.ME60: 111	0.0000 0.0000 0.0000 0.0000	honeydew1.ME60: 111	0.0000 0.0000 0.0000 0.0000
thistle.ME65: 74	0.0000 0.0000 0.0000 0.0000	thistle.ME65: 74	0.0000 0.0000 0.0000 0.0000
salmon2.ME41: 72	0.0000 0.0000 0.0000 0.0000	salmon2.ME41: 72	0.0000 0.0000 0.0000 0.0000
darkgrey.ME89: 995	0.0000 0.0000 0.0000 0.0000	darkgrey.ME89: 995	0.0000 0.0000 0.0000 0.0000
darkred.ME58: 1106	0.0000 0.0000 0.0000 0.0000	darkred.ME58: 1106	0.0000 0.0000 0.0000 0.0000
bisque4.ME66: 178	0.0000 0.0000 0.0000 0.0000	bisque4.ME66: 178	0.0000 0.0000 0.0000 0.0000
darkseagreen3.ME80: 48	0.0000 0.0000 0.0000 0.0000	darkseagreen3.ME80: 48	0.0000 0.0000 0.0000 0.0000
lavenderblush2.ME47: 52	0.0000 0.0000 0.0000 0.0000	lavenderblush2.ME47: 52	0.0000 0.0000 0.0000 0.0000
plum2.ME88: 169	0.0000 0.0000 0.0000 0.0000	plum2.ME88: 169	0.0000 0.0000 0.0000 0.0000
lightpink3.ME86: 53	0.0000 0.0000 0.0000 0.0000	lightpink3.ME86: 53	0.0000 0.0000 0.0000 0.0000
darkseagreen4.ME49: 111	0.0000 0.0000 0.0000 0.0000	darkseagreen4.ME49: 111	0.0000 0.0000 0.0000 0.0000
blue2.ME85: 83	0.0000 0.0000 0.0000 0.0000	blue2.ME85: 83	0.0000 0.0000 0.0000 0.0000
mediumpurple2.ME76: 90	0.0000 0.0000 0.0000 0.0000	mediumpurple2.ME76: 90	0.0000 0.0000 0.0000 0.0000
lightcyan1.ME70: 237	0.0000 0.0000 0.0000 0.0000	lightcyan1.ME70: 237	0.0000 0.0000 0.0000 0.0000
lightsteelblue.ME48: 89	0.0000 0.0000 0.0000 0.0000	lightsteelblue.ME48: 89	0.0000 0.0000 0.0000 0.0000
sienna4.ME69: 35	0.0000 0.0000 0.0000 0.0000	sienna4.ME69: 35	0.0000 0.0000 0.0000 0.0000
darkslateblue.ME42: 174	0.0000 0.0000 0.0000 0.0000	darkslateblue.ME42: 174	0.0000 0.0000 0.0000 0.0000
darkviolet.ME95: 82	0.0000 0.0000 0.0000 0.0000	darkviolet.ME95: 82	0.0000 0.0000 0.0000 0.0000
palevioletred2.ME95: 68	0.0000 0.0000 0.0000 0.0000	palevioletred2.ME95: 68	0.0000 0.0000 0.0000 0.0000
lightcoral.ME77: 87	0.0000 0.0000 0.0000 0.0000	lightcoral.ME77: 87	0.0000 0.0000 0.0000 0.0000
antiquewhite4.ME82: 107	0.0000 0.0000 0.0000 0.0000	antiquewhite4.ME82: 107	0.0000 0.0000 0.0000 0.0000
mediumpurple4.ME21: 41	0.0000 0.0000 0.0000 0.0000	mediumpurple4.ME21: 41	0.0000 0.0000 0.0000 0.0000
lightpink4.ME24: 113	0.0000 0.0000 0.0000 0.0000	lightpink4.ME24: 113	0.0000 0.0000 0.0000 0.0000
skyblue3.ME71: 409	0.0000 0.0000 0.0000 0.0000	skyblue3.ME71: 409	0.0000 0.0000 0.0000 0.0000
sienna3.ME56: 517	0.0000 0.0000 0.0000 0.0000	sienna3.ME56: 517	0.0000 0.0000 0.0000 0.0000
violet.ME37: 628	0.0000 0.0000 0.0000 0.0000	violet.ME37: 628	0.0000 0.0000 0.0000 0.0000
cyan.ME32: 3243	0.0000 0.0000 0.0000 0.0000	cyan.ME32: 3243	0.0000 0.0000 0.0000 0.0000
darkmagenta.ME61: 542	0.0000 0.0000 0.0000 0.0000	darkmagenta.ME61: 542	0.0000 0.0000 0.0000 0.0000
navajowhite1.ME22: 66	0.0000 0.0000 0.0000 0.0000	navajowhite1.ME22: 66	0.0000 0.0000 0.0000 0.0000
royalblue.ME0: 1147	0.0000 0.0000 0.0000 0.0000	royalblue.ME0: 1147	0.0000 0.0000 0.0000 0.0000
grey60.ME17: 1832	0.0000 0.0000 0.0000 0.0000	grey60.ME17: 1832	0.0000 0.0000 0.0000 0.0000
yellowgreen.ME36: 483	0.0000 0.0000 0.0000 0.0000	yellowgreen.ME36: 483	0.0000 0.0000 0.0000 0.0000
darkturquoise.ME35: 1008	0.0000 0.0000 0.0000 0.0000	darkturquoise.ME35: 1008	0.0000 0.0000 0.0000 0.0000
purple.ME34: 5024	0.0000 0.0000 0.0000 0.0000	purple.ME34: 5024	0.0000 0.0000 0.0000 0.0000
turquoise.ME83: 95604	0.0000 0.0000 0.0000 0.0000	turquoise.ME83: 95604	0.0000 0.0000 0.0000 0.0000
skyblue1.ME14: 95	0.0000 0.0000 0.0000 0.0000	skyblue1.ME14: 95	0.0000 0.0000 0.0000 0.0000
yellow4.ME20: 98	0.0000 0.0000 0.0000 0.0000	yellow4.ME20: 98	0.0000 0.0000 0.0000 0.0000
coral.ME23: 48	0.0000 0.0000 0.0000 0.0000	coral.ME23: 48	0.0000 0.0000 0.0000 0.0000
lightsteelblue1.ME1: 239	0.0000 0.0000 0.0000 0.0000	lightsteelblue1.ME1: 239	0.0000 0.0000 0.0000 0.0000
mediumorchid.ME10: 103	0.0000 0.0000 0.0000 0.0000	mediumorchid.ME10: 103	0.0000 0.0000 0.0000 0.0000
darkorange2.ME63: 193	0.0000 0.0000 0.0000 0.0000	darkorange2.ME63: 193	0.0000 0.0000 0.0000 0.0000
lavenderblush3.ME45: 112	0.0000 0.0000 0.0000 0.0000	lavenderblush3.ME45: 112	0.0000 0.0000 0.0000 0.0000
ivory.ME57: 204	0.0000 0.0000 0.0000 0.0000	ivory.ME57: 204	0.0000 0.0000 0.0000 0.0000
orange4.ME25: 332	0.0000 0.0000 0.0000 0.0000	orange4.ME25: 332	0.0000 0.0000 0.0000 0.0000
indianred4.ME72: 87	0.0000 0.0000 0.0000 0.0000	indianred4.ME72: 87	0.0000 0.0000 0.0000 0.0000
darkolivegreen4.ME101: 85	0.0000 0.0000 0.0000 0.0000	darkolivegreen4.ME101: 85	0.0000 0.0000 0.0000 0.0000
yellow3.ME74: 36	0.0000 0.0000 0.0000 0.0000	yellow3.ME74: 36	0.0000 0.0000 0.0000 0.0000
darkorange.ME94: 855	0.0000 0.0000 0.0000 0.0000	darkorange.ME94: 855	0.0000 0.0000 0.0000 0.0000
red.ME26: 17129	0.0000 0.0000 0.0000 0.0000	red.ME26: 17129	0.0000 0.0000 0.0000 0.0000
yellow.ME4: 29032	0.0000 0.0000 0.0000 0.0000	yellow.ME4: 29032	0.0000 0.0000 0.0000 0.0000
plum1.ME6: 388	0.0000 0.0000 0.0000 0.0000	plum1.ME6: 388	0.0000 0.0000 0.0000 0.0000
darkgreen.ME38: 1013	0.0000 0.0000 0.0000 0.0000	darkgreen.ME38: 1013	0.0000 0.0000 0.0000 0.0000
white.ME22: 836	0.0000 0.0000 0.0000 0.0000	white.ME22: 836	0.0000 0.0000 0.0000 0.0000
blue.ME27: 5150	0.0000 0.0000 0.0000 0.0000	blue.ME27: 5150	0.0000 0.0000 0.0000 0.0000
midnightblue.ME2: 2504	0.0000 0.0000 0.0000 0.0000	midnightblue.ME2: 2504	0.0000 0.0000 0.0000 0.0000
magenta.ME15: 5446	0.0000 0.0000 0.0000 0.0000	magenta.ME15: 5446	0.0000 0.0000 0.0000 0.0000
tan.ME9: 4284	0.0000 0.0000 0.0000 0.0000	tan.ME9: 4284	0.0000 0.0000 0.0000 0.0000
palevioletred3.ME12: 121	0.0000 0.0000 0.0000 0.0000	palevioletred3.ME12: 121	0.0000 0.0000 0.0000 0.0000
lightgreen.ME53: 1522	0.0000 0.0000 0.0000 0.0000	lightgreen.ME53: 1522	0.0000 0.0000 0.0000 0.0000
saddlebrown.ME18: 682	0.0000 0.0000 0.0000 0.0000	saddlebrown.ME18: 682	0.0000 0.0000 0.0000 0.0000
skyblue2.ME29: 101	0.0000 0.0000 0.0000 0.0000	skyblue2.ME29: 101	0.0000 0.0000 0.0000 0.0000
honeydew.ME64: 51	0.0000 0.0000 0.0000 0.0000	honeydew.ME64: 51	0.0000 0.0000 0.0000 0.0000
lightcyan.ME6: 2188	0.0000 0.0000 0.0000 0.0000	lightcyan.ME6: 2188	0.0000 0.0000 0.0000 0.0000
firebrick4.ME87: 86	0.0000 0.0000 0.0000 0.0000	firebrick4.ME87: 86	0.0000 0.0000 0.0000 0.0000
greenyellow.ME11: 4839	0.0000 0.0000 0.0000 0.0000	greenyellow.ME11: 4839	0.0000 0.0000 0.0000 0.0000
pink.ME73: 6746	0.0000 0.0000 0.0000 0.0000	pink.ME73: 6746	0.0000 0.0000 0.0000 0.0000
navajowhite2.ME8: 120	0.0000 0.0000 0.0000 0.0000	navajowhite2.ME8: 120	0.0000 0.0000 0.0000 0.0000
thistle2.ME51: 154	0.0000 0.0000 0.0000 0.0000	thistle2.ME51: 154	0.0000 0.0000 0.0000 0.0000
firebrick3.ME54: 30	0.0000 0.0000 0.0000 0.0000	firebrick3.ME54: 30	0.0000 0.0000 0.0000 0.0000
mediumpurple1.ME98: 34	0.0000 0.0000 0.0000 0.0000	mediumpurple1.ME98: 34	0.0000 0.0000 0.0000 0.0000
grey.ME102: 29959	0.0000 0.0000 0.0000 0.0000	grey.ME102: 29959	0.0000 0.0000 0.0000 0.0000

376 **Suppl. Fig. 8.** Preservation between fetal lung (reference) and adult lung data (test). The figure  
 377 displays module size on x-axis (cut-off set to n=2000) and preservation Zsummary on the y-axis  
 378 (permutation based measure of preservation) to convey the range of preservation Z-summary  
 379 statistics for the highly preserved modules compared to other modules. The preservation plot  
 380 shows that several modules are either highly or moderately preserved between both fetal lung and  
 381 adult lung data, however nine modules were exclusively associated with IUS-exposure, age and  
 382 COPD/lung function as highlighted in the figure and in the paper.  
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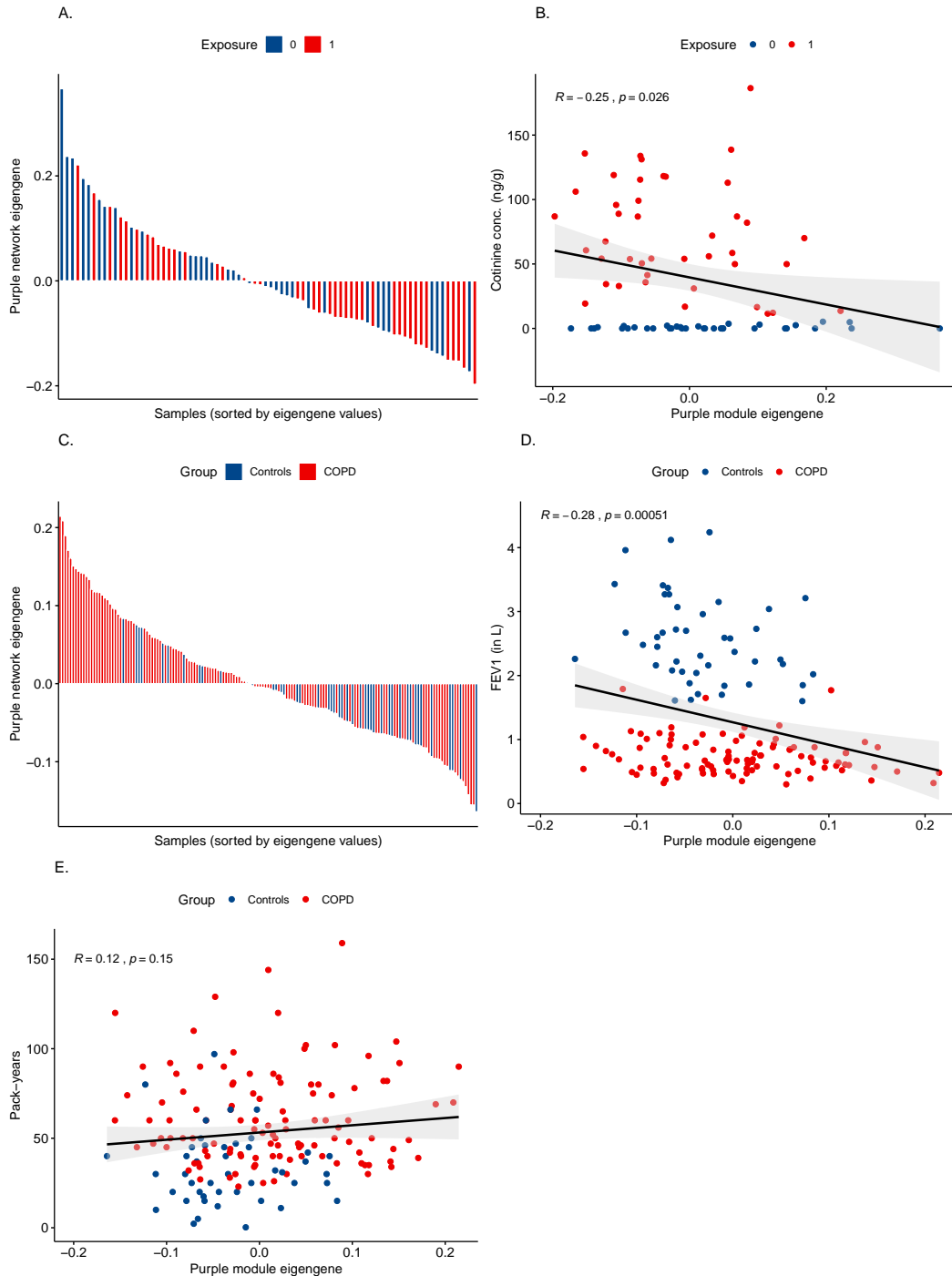
**Suppl. Fig. 9.** Correlation between the ME90:darkolivegreen methylation eigengene and traits of  
 interest A. Eigengene values of the ME90:darkolivegreen module were relatively increased and  
 B. positively correlated with cotinine values in IUS-exposed fetal lung samples compared to  
 unexposed samples. For exposure, 0 corresponds to unexposed samples whereas 1 corresponds to  
 IUS-exposed samples C. In LT-COPD dataset, highest positive eigengene values of the  
 ME90:darkolivegreen module were relatively associated with COPD cases and D. significantly  
 correlated with lower FEV<sub>1</sub> values and E. pack-years compared to healthy smoker controls. The  
 x-axis in plots A and C represent the sample sorted by their eigengene values.



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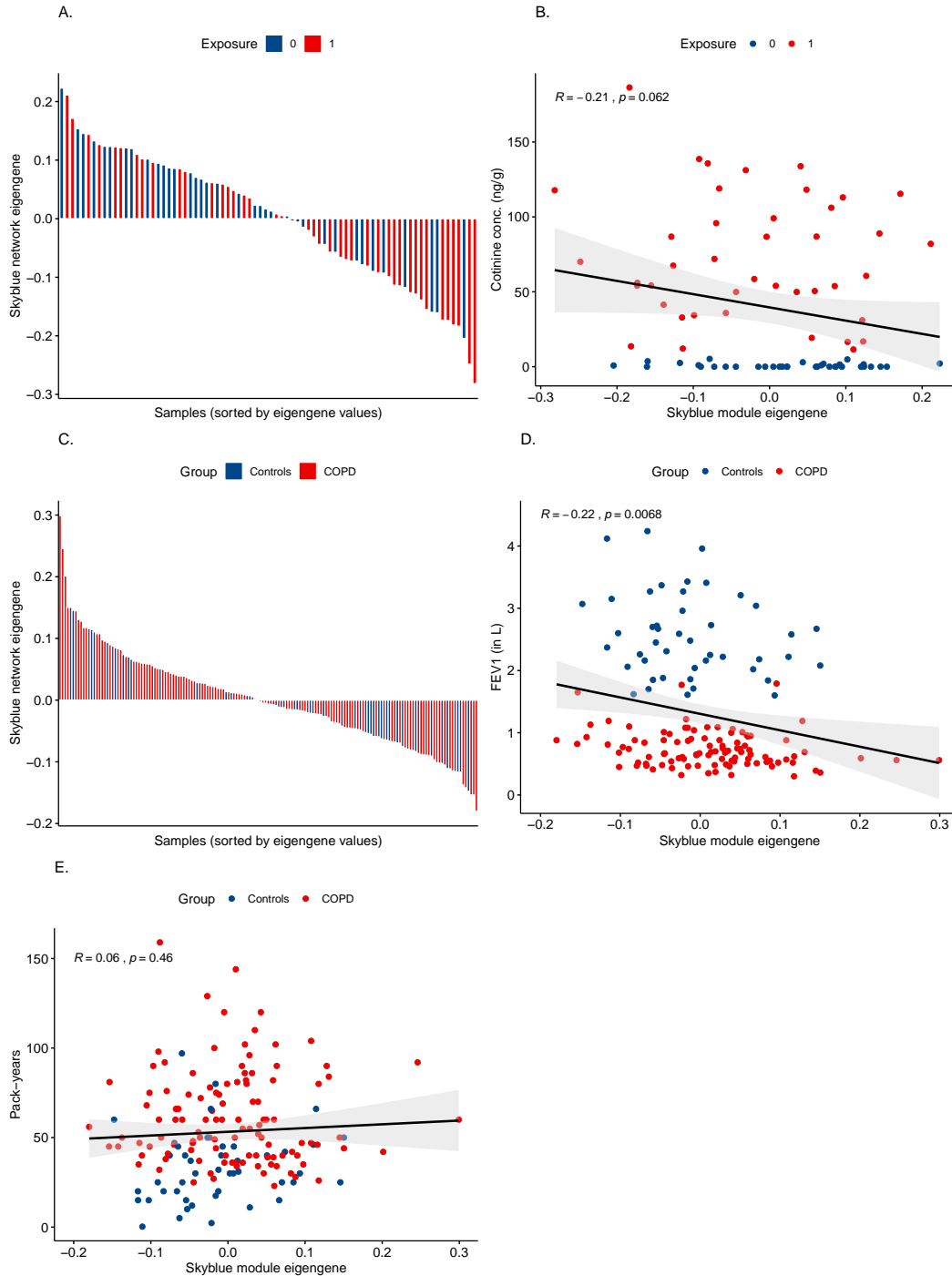
**Suppl. Fig. 10.** Correlation plots between the ME34:purple methylation eigengene and traits of interest. A. Lowest eigengene values of the ME34:purple module were seen for exposed samples

402 B. and associated with higher cotinine levels in exposed samples. For exposure, 0 corresponds to  
 403 unexposed samples whereas 1 corresponds to IUS-exposed samples C. In LT-COPD dataset,  
 404 highest positive eigengene values of the ME34:purple module were associated with COPD cases  
 405 and D. significantly correlated with lower FEV<sub>1</sub> values in COPD adults compared to controls and  
 406 E. No association was observed between ME34:purple module eigengene and pack-years. The x-  
 407 axis in plots A and C represent the sample sorted by their eigengene values.  
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409 **Suppl. Fig. 11.** Correlation plots between the ME100:skyblue methylation eigengene and traits of  
 410 interest. A. Eigengene values of the ME100:skyblue module were lower and B. correlated with  
 411

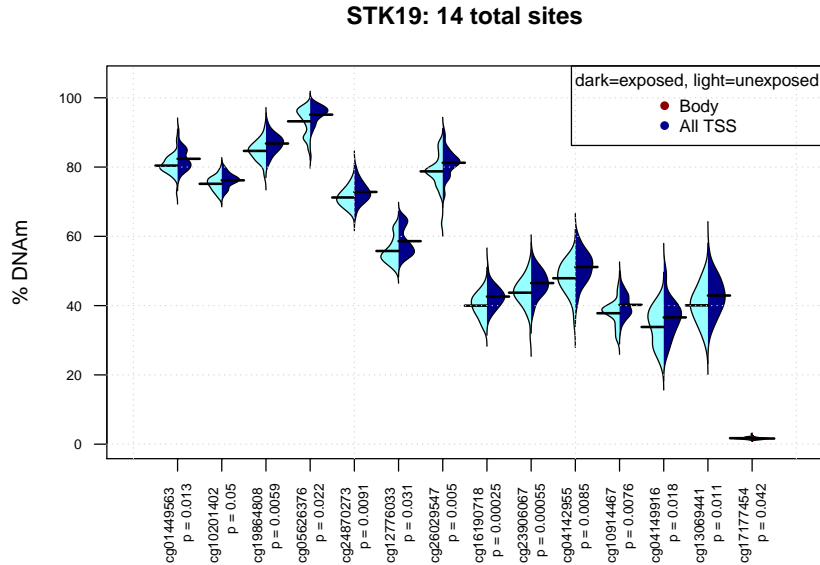
412 higher cotinine levels in IUS-exposed fetal lung samples compared to unexposed samples. For  
 413 exposure, 0 corresponds to unexposed samples whereas 1 corresponds to IUS-exposed samples C.  
 414 In LT-COPD dataset, highest positive eigengene associations of the ME100:skyblue module were  
 415 observed in COPD cases D. that were significantly correlated with lower FEV<sub>1</sub> values E. No  
 416 association was observed between ME100:skyblue module eigengene and pack-years. The x-axis  
 417 in plots A and C represent the sample sorted by their eigengene values.  
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 420 **Suppl. Fig. 12.** Violin plot showing the 14 significant and hyper-methylated CpGs in smoke-  
 421 exposed (dark colored) vs. unexposed (light colored) fetal lung samples (data pulled from Suppl.

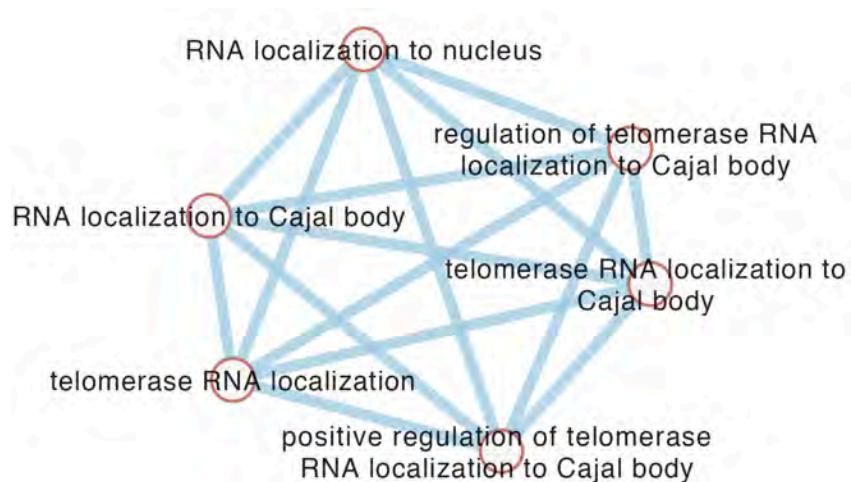


422 Tab.2); 13 of those located around transcription start site (TSS) of *STK19* gene. Seven of those 14  
 423 CpGs (Suppl. Tab. 8) were also present within the mediumpurple3, ME46:mediumpurple3  
 424 module.  
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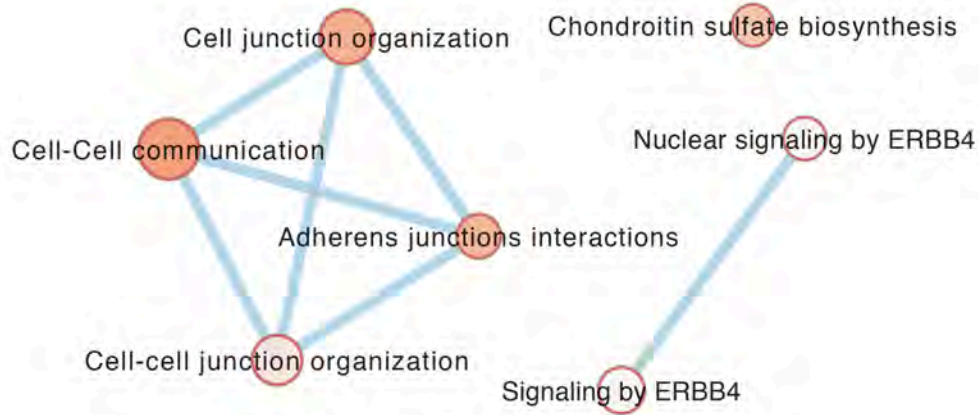
**Suppl. Fig. 13.** Gene enrichment and pathway analysis for ME90:darkolivegreen module primarily associated with regulation of telomerase RNA localization to cajal body (Suppl. Tab. 11). Cajal bodies are usually found in proliferative cells like embryonic/tumor cells, or metabolically active cells like neurons. Node size corresponds to the number of genes in the enriched term. Node color corresponds to the significance of the term. Edge size corresponds to the number of genes that overlap between two connected terms/gene-sets.



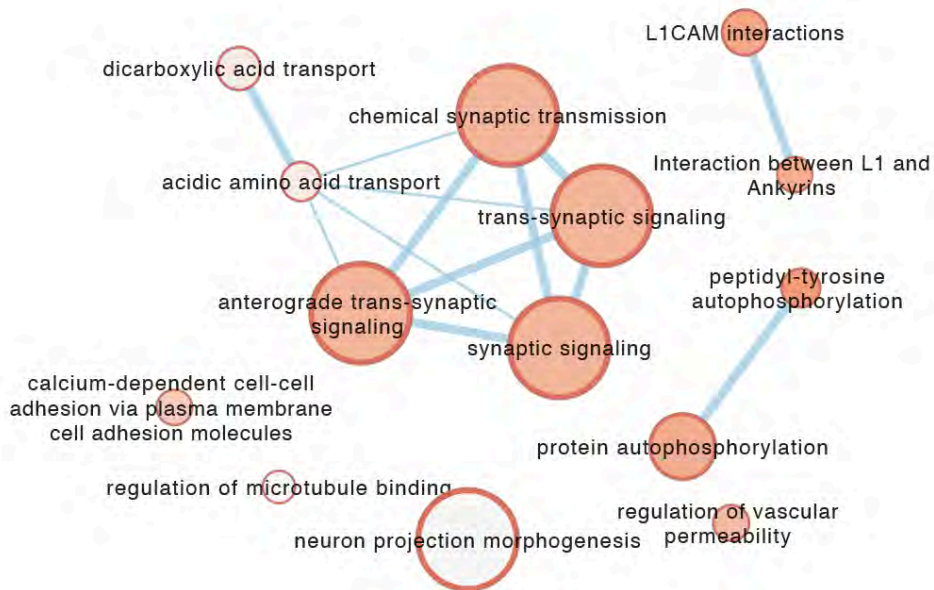
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**Suppl. Fig. 14.** Gene enrichment and pathway analysis for ME100:skyblue module, enriched for all reactome pathways (Suppl. Tab. 11) including cell-cell communication (10 genes, FDR

442 adjusted  $P = 9.45 \times 10^{-3}$ ), cell junction organization (8 genes, FDR adjusted  $P = 0.01$ ), *ERBB4*  
 443 signaling (5 genes, FDR adjusted  $P = 0.04$ ). Node size corresponds to the number of genes in the  
 444 enriched term. Node color corresponds to the significance of the term. Edge size corresponds to  
 445 the number of genes that overlap between two connected terms/gene-sets.  
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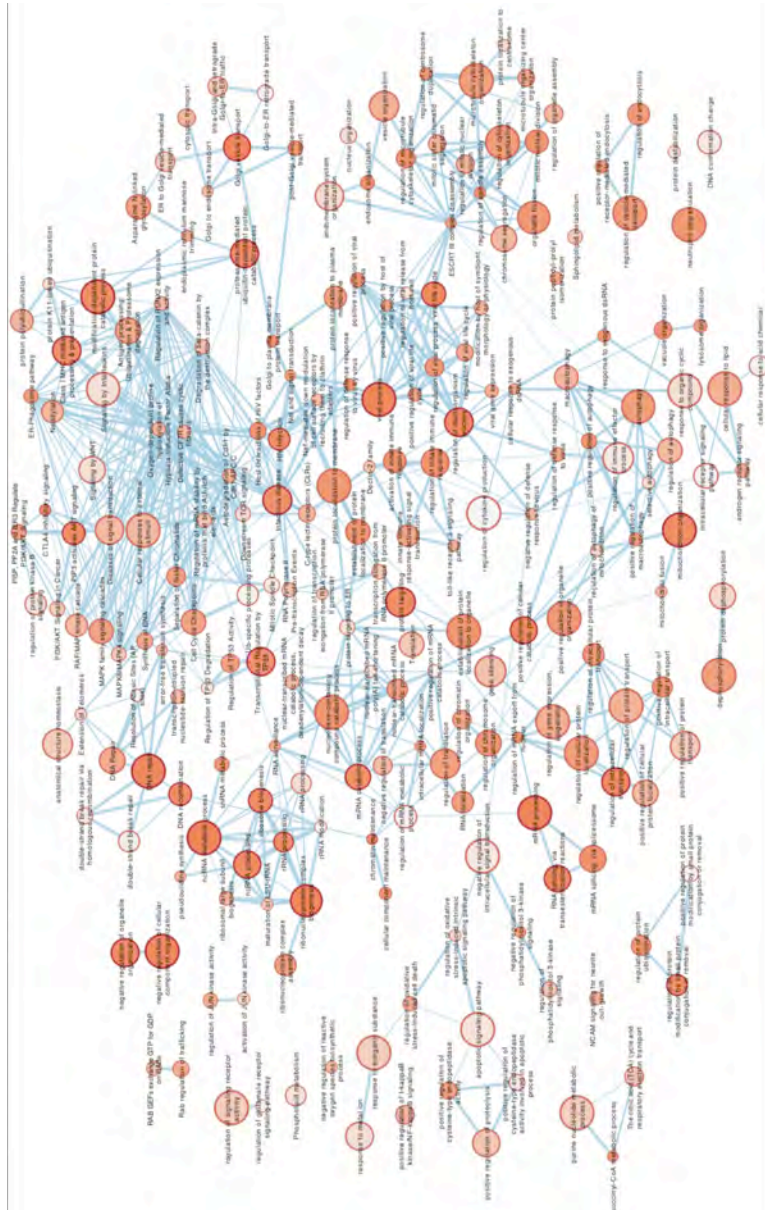
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 450 **Suppl. Fig. 15.** Gene enrichment and pathway analysis for ME18:saddlebrown module (Suppl.  
 451 Tab. 16) Node size corresponds to the number of genes in the enriched term. Node color  
 452 corresponds to the significance of the term. Edge size corresponds to the number of genes that  
 453 overlap between two connected terms/gene-sets.  
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 459 **Suppl. Fig. 16.** Gene enrichment and pathway analysis for ME46:mediumpurple3 module. The  
 460 module is enriched for viral biological processes (FDR adjusted  $P = 6.58 \times 10^{-7}$ ), ribonucleoprotein  
 461 biogenesis (FDR adjusted  $P = 4.09 \times 10^{-5}$ ), DNA repair (FDR adjusted  $P = 8.44 \times 10^{-4}$ ) and top



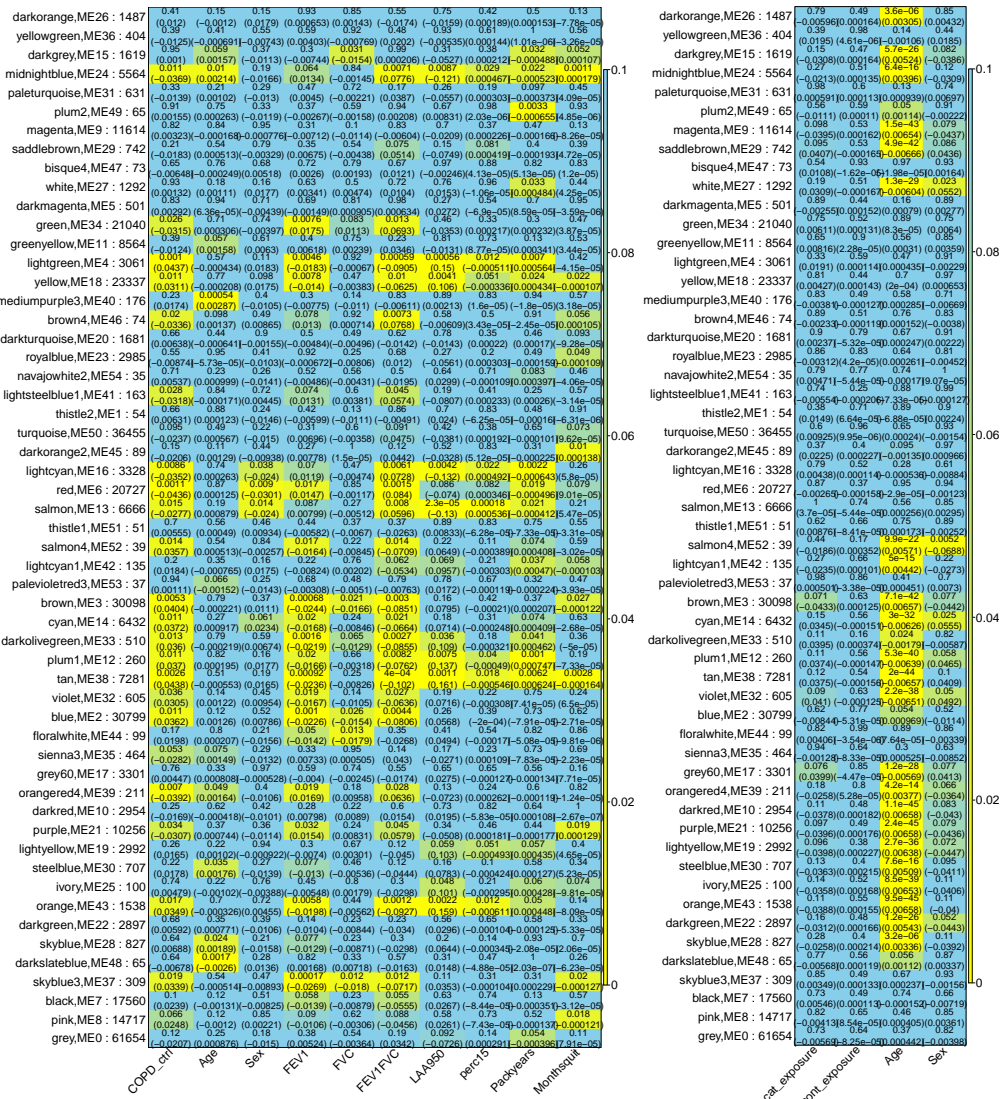
462 pathway included PIP3 activated PI3K/AKT signaling (FDR adjusted  $P = 1.81 \times 10^{-3}$ ). Due to the  
 463 complexity of network, for this analysis, we considered only one parent node and reduced the  
 464 connections to the terms not having an exact overlap of genes defined by the edge weight equal to  
 465 1. The analysis displayed sub networks including pathways for apoptotic signaling, response to  
 466 oxidative stress, autophagy, signaling cascades connecting PI3K/AKT network, MAPK signaling  
 467 and signaling by WNT and neutrophil mediated immune response (Suppl. Tab. 10). Node size  
 468 corresponds to the number of genes in the enriched term. Node color corresponds to the  
 469 significance of the term. Edge size corresponds to the number of genes that overlap between two  
 470 connected terms/gene-sets.  
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 474 **Suppl. Fig. 17.** Module-trait heatmaps highlight COPD disease recapitulates fetal development **a)**  
 475 Association of modules in the COPD network with the traits of interest **b)** Association of traits of  
 476 interest in fetal lung dataset projected on to COPD module network as reference. The Y-axis  
 477 shows the modules represented by their colors, followed by module eigengene label and the

478 number of CpGs in that respective module. The panels highlight modules associated with IUS-  
 479 exposure, gestational age, COPD and lung function phenotypes. The blue and yellow colors in the  
 480 boxes represent the scale for significance (nominal P<0.05) with blue being not significant and  
 481 yellow being highly significant. The mean beta effect estimate per module corresponding to the  
 482 trait is shown below in parentheses. Most modules were associated with fetal age, lung function  
 483 and COPD but none associated with both IUS-exposure and COPD.

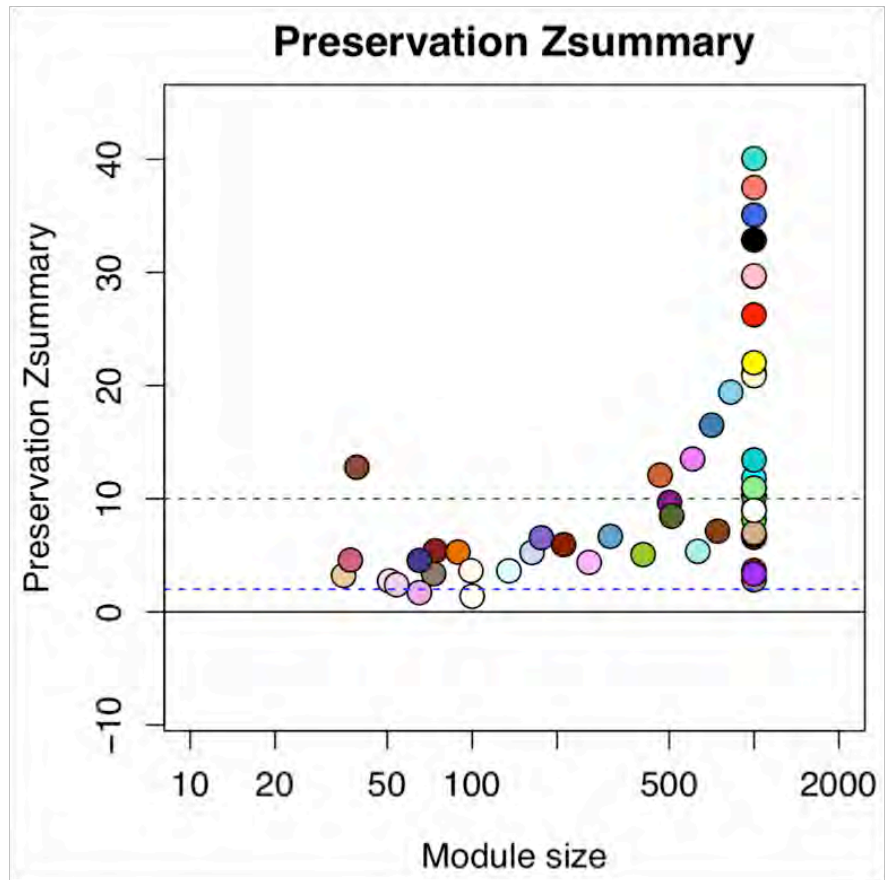
485 cat\_exposure: IUS-exposure (exposed vs. unexposed), cont\_exposure: IUS-exposure (continuous  
 486 cotinine). COPD\_ctrl: COPD (cases vs. controls), FEV<sub>1</sub>: forced expiratory volume in 1 sec, FVC:  
 487 forced vital capacity, FEV<sub>1</sub>/FVC ratio, LAA950: measure for emphysema, perc15 and  
 488 monthsquit: months since quitting  
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Suppl. Fig. 18. Preservation between LT-COPD (reference) and fetal lung data (test). The figure displays module size on x-axis (cut-off set to n=2000) and preservation Zsummary on the y-axis (permutation based measure of preservation) to convey the range of preservation Z-summary

496 statistics for the highly preserved modules compared to other modules. The preservation plot  
497 shows that several of the modules are either highly or moderately preserved between both adult  
498 lung and fetal lung data.



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## Supplementary Tables

Suppl. Tab. 1. Filtering at probe and subject/sample level showing details of the summary statistics for QC and preprocessing.

Suppl. Tab. 2. Differentially methylated CpGs between smoke exposed and unexposed fetal lung samples (sorted  $p < 0.05$ )

Suppl. Tab. 3. Robust 535 differentially methylated CpGs (sorted by p-values) from COPD study<sup>1</sup> assessed in Fetal Lung data

Suppl. Tab. 4. Enrichment analysis of 255 CpGs in the same direction of effect between fetal lung and adult lung dataset (sorted by p-values) using missMethyl R package. Searching for the term pathway, the two pathways that come on the top have been highlighted

Suppl. Tab. 5. Cumulative Beta estimates/Methylation difference and corresponding P-values for fetal lung traits displayed in the fetal lung module-fetal lung trait association heatmaps for each module based on CpGs in each module. Their FDR-corrected P-values are also

Suppl. Tab. 6. Cumulative Beta estimates/Methylation difference and corresponding P-values associated with COPD traits displayed in the fetal lung module-adult lung (LT-COPD dataset) trait association plots for each module based on CpGs in each module. Their FDR-corrected

Suppl. Tab. 7. Preservation between fetal lung (reference) and COPD (test) datasets. Zsummary.pres (sorted in increasing order) is the

Suppl. Tab. 8. CpGs in the ME34:purple (n=5,024; 3,458 unique genes), ME90:darkolivegreen (n=543; 272 unique genes), ME100:skyblue (n=712; 329 unique genes) and ME46:mediumpurple3 (n=284; 221 unique genes) module sorted by module membership (MM) of the

Suppl. Tab. 9. CpGs in the ME79:salmon (n=3,348; 1,488 unique genes), ME13:orange (n=878; 553 unique genes), ME30:black (n=10,135; 4,270 unique genes), ME4:yellow (n=29,032; 9,859 unique genes) and ME18:saddlebrown (n=682; 460 unique genes) module sorted by

Suppl. Tab. 10. Significantly enriched Gene Ontology (GO) terms with  $FDR < 0.05$  identified by gene enrichment analysis for exposure-COPD ME34:purple module using gProfilerR. Highlighted cells are the enriched terms that point towards biological processes or pathways

Suppl. Tab. 11. Gene enrichment analysis for exposure-COPD modules: ME90:darkolivegreen, ME100:skyblue and ME46:mediumpurple3

Suppl. Tab. 12. Gene enrichment analysis for fetal age-COPD ME79:salmon module using gProfilerR (sorted  $FDR < 0.05$ )

Suppl. Tab. 13. Gene enrichment analysis for fetal age-COPD ME30:black module using gProfilerR (sorted  $FDR < 0.05$ )

Suppl. Tab. 14. Gene enrichment analysis for fetal age-COPD ME4:yellow module using gProfilerR (sorted  $FDR < 0.05$ )

Suppl. Tab. 15. Gene enrichment analysis for fetal age-COPD ME13:orange module using gProfilerR (sorted  $FDR < 0.05$ )

Suppl. Tab. 16. Gene enrichment analysis for fetal age-COPD ME18:saddlebrown module using gProfilerR (sorted  $FDR < 0.05$ )

Suppl. Tab. 17. Preservation between COPD (reference) and fetal lung (test) datasets. Zsummary.pres (sorted in increasing order) is the

Suppl. Tab. 18. Integration of high module membership genes ( $MM \geq 0.70$ ) with LT-COPD differential expression and previously published COPD-GWAS associations. The gene-CpG site pair with the highest module membership among the overlapping associations for GWAS and  
Suppl. Tab. 19. Listed annotated genes stratified by each module and the highlighted pathways in Table 1. The columns show each module name with the number of annotated genes in brackets. The genes have been extracted from Suppl. Tab. 10 to 16.

<sup>1</sup>Morrow JD, Cho MH, Hersh CP, Pinto-Plata V, Celli B, Marchetti N, et al. DNA methylation profiling in human lung tissue identifies genes

**Suppl. Tab. 1. Filtering at probe and subject/sample level showing details of the summary statistics for QC and preprocessing.**

<b>Subjects</b>		<b>Probes</b>	
Number of samples	94	Number of 450K probes	485,512
Duplicate samples	-1	mean detection p-value > 0.05 and in more than 25% of the probes	-257
More than 25% of probes with detection p-value > 0.05	0	probes mapped to X or Y chromosome	-11,418
Sex mismatched samples	-12	'rs' probes at CpG interrogation or single nucleotide extension	-17,334
		'ch' probes	-2994
Genotype mismatched samples	NA	Cross-reactive probes	-26,569
Deviated beta values/outliers in hierarchical clustering	3	CpG sites within 1 base of known SNP	-77,585
Subjects included in analysis	78	Probes included in analysis	349,355

**Suppl. Tab. 2. Differentially methylated CpGs between smoke exposed and unexposed fetal lung samples (sorted p<0.05)**

CpG site	CHR	pos	Relation_to _Island	UCSC_RefGe ne_Name	UCSC_RefG ene_Group	Beta.diff	AveBeta	P.Value
cg17837492	2	110,092,156	OpenSea	SH3RF3	Body	0.025	0.774	2.38E-05
cg25214346	1	161,207,966	OpenSea	NR1I3	1stExon	0.025	0.679	7.30E-05
cg18553657	19	42,834,366	S_Shelf	MEGF8	Body	0.026	0.607	7.57E-05
cg17587492	1	84,857,501	OpenSea	UOX	Body	0.041	0.868	0.0001
cg10312186	6	170,403,583	S_Shore			0.024	0.907	0.0001
cg05229236	12	94,136,480	OpenSea	CRADD	Body	-0.006	0.039	0.0001
cg01047476	10	118,380,396	OpenSea	PNLIPRP2	TSS200	0.079	0.375	0.0001
cg00426709	6	100,067,930	S_Shore			0.056	0.794	0.0001
cg19837815	7	150,026,909	OpenSea	C7orf29	TSS200	0.034	0.471	0.0001
cg04709120	10	74,451,858	Island	CCDC109A	TSS200	-0.019	0.189	0.0001
cg17686885	17	52,977,769	N_Shore	TOM1L1	TSS1500	-0.024	0.070	0.0001
cg08174244	2	68,548,060	S_Shore	CNRIP1	TSS1500	0.035	0.820	0.0002
cg25065716	10	1,422,865	OpenSea	ADARB2	Body	0.033	0.347	0.0002
cg24705158	5	177,876,830	OpenSea	COL23A1	Body	0.016	0.944	0.0002
cg17692753	14	99,642,476	Island	BCL11B	Body	0.016	0.932	0.0002
cg11892240	7	24,331,369	OpenSea	NPY	3'UTR	-0.044	0.409	0.0002
cg15349139	11	1,293,211	Island			0.036	0.517	0.0002
cg08053846	7	100,769,605	OpenSea	SERPINE1	TSS1500	0.032	0.427	0.0002
cg09382850	7	105,753,147	Island	SYPL1	TSS1500	0.003	0.023	0.0002
cg00314003	11	126,873,943	S_Shore			0.032	0.303	0.0002
cg02316156	12	132,661,639	N_Shore			0.024	0.617	0.0002
cg26135441	4	6,196,378	OpenSea	JAKMIP1	5'UTR	0.030	0.696	0.0002
cg19165249	1	1,558,097	N_Shore	MIB2	Body	0.015	0.851	0.0002
cg17448336	3	147,141,588	N_Shore			0.027	0.127	0.0002
cg19277389	4	7,802,545	S_Shore	AFAP1	Body	0.027	0.815	0.0002
cg16190718	6	31,939,106	N_Shore	STK19	TSS1500	0.034	0.414	0.0002



cg13999514	7	106,302,548	S_Shore	FLJ36031	TSS1500	0.007	0.978	0.0003
cg03730385	19	6,825,139	S_Shelf	VAV1	Body	0.047	0.754	0.0003
cg04177091	16	1,030,166	Island			-0.027	0.298	0.0003
cg06437464	6	127,441,704	Island	RSPO3	Body	-0.011	0.070	0.0003
cg20109361	12	670,712	OpenSea	B4GALNT3	3'UTR	0.021	0.846	0.0003
cg00956423	6	30,029,760	S_Shore	ZNRD1	Body	0.022	0.090	0.0003
cg24269657	13	113,759,771	N_Shore	F7	TSS1500	0.024	0.374	0.0003
cg07711099	17	7,621,575	S_Shore	DNAH2	TSS1500	0.031	0.280	0.0003
cg21757281	4	183,795,822	OpenSea			-0.046	0.739	0.0003
cg24073950	7	154,685,629	S_Shore	DPP6	3'UTR	0.031	0.785	0.0003
cg03753284	1	43,855,912	Island	C1orf84	Body	-0.021	0.037	0.0004
cg00052772	6	33,245,804	S_Shore	B3GALT4	1stExon	0.021	0.573	0.0004
cg00094913	3	194,120,949	S_Shore	GP5	TSS1500	0.027	0.529	0.0004
cg07147364	1	19,970,256	Island	NBL1	TSS1500	0.023	0.137	0.0004
cg06121352	6	146,348,486	N_Shelf	GRM1	TSS1500	0.046	0.628	0.0004
cg00762678	16	89,003,235	N_Shelf	CBFA2T3	5'UTR	0.033	0.554	0.0004
cg01510051	19	56,879,262	N_Shore	ZNF542	TSS1500	0.021	0.490	0.0004
cg22998028	17	42,247,910	OpenSea	ASB16	TSS200	0.024	0.294	0.0004
cg27567864	10	102,470,340	Island			-0.004	0.037	0.0004
cg21406967	7	100,464,553	S_Shore	TRIP6	TSS1500	0.019	0.291	0.0004
cg27264484	16	67,450,370	Island	ZDHHC1	TSS200	-0.005	0.025	0.0004
cg11036279	2	242,785,270	N_Shore			0.026	0.480	0.0005
cg16349148	5	6,374,845	N_Shelf	MED10	Body	-0.006	0.977	0.0005
cg10438589	4	14,531,493	OpenSea			0.031	0.415	0.0005
cg09123188	15	100,913,934	Island			-0.005	0.024	0.0005
cg06964816	4	79,472,643	N_Shore	ANXA3	TSS200	0.027	0.535	0.0005
cg09635036	16	77,890,949	OpenSea	VAT1L	Body	0.025	0.808	0.0005
cg08083599	20	61,934,526	N_Shelf	COL20A1	Body	0.021	0.311	0.0005
cg04565008	11	67,418,140	OpenSea	ACY3	TSS200	0.025	0.492	0.0005
cg04570910	12	12,122,983	OpenSea			0.018	0.485	0.0005

cg08166214	16	1,027,357	N_Shelf			0.026	0.516	0.0005
cg19194237	2	73,485,189	OpenSea	FBXO41	3'UTR	0.021	0.696	0.0005
cg24993015	5	37,371,179	Island	NUP155	TSS1500	-0.017	0.077	0.0005
cg08782420	5	141,508,150	OpenSea	NDFIP1	Body	0.031	0.735	0.0005
cg25639866	11	58,262,000	OpenSea			0.044	0.718	0.0005
cg06189869	17	42,080,647	N_Shore	NAGS	TSS1500	0.013	0.951	0.0005
cg12748491	4	169,801,641	S_Shelf	PALLD	Body	0.014	0.940	0.0005
cg24414019	4	8,640,896	S_Shelf			0.029	0.553	0.0005
cg27634020	2	236,890,542	OpenSea	AGAP1	Body	0.043	0.510	0.0005
cg24754956	19	1,729,851	S_Shelf			0.025	0.673	0.0005
cg10018632	20	23,067,033	OpenSea	CD93	TSS200	0.015	0.318	0.0005
cg23906067	6	31,939,112	N_Shore	STK19	TSS1500	0.039	0.452	0.0005
cg09382601	4	619,659	Island	PDE6B	1stExon	0.016	0.838	0.0006
cg13617753	19	58,096,512	S_Shore	ZIK1	Body	0.029	0.636	0.0006
cg19779886	11	69,866,327	OpenSea			0.026	0.768	0.0006
cg03784956	1	228,785,238	N_Shore	DUSP5P	Body	0.083	0.794	0.0006
cg03506452	12	133,458,949	OpenSea	CHFR	Body	0.016	0.939	0.0006
cg21419286	6	170,048,424	OpenSea	WDR27	Body	0.004	0.984	0.0006
cg11011759	15	56,758,270	S_Shore	MNS1	TSS1500	0.005	0.983	0.0006
cg26984343	13	37,006,133	Island	CCNA1	1stExon	-0.009	0.053	0.0006
cg12876537	10	134,103,607	OpenSea	STK32C	Body	0.009	0.967	0.0007
cg02238550	17	75,739,000	OpenSea			0.027	0.601	0.0007
cg23589174	1	11,559,982	N_Shore	PTCHD2	5'UTR	0.029	0.495	0.0007
cg02304427	11	46,402,548	N_Shore	MDK	TSS200	-0.004	0.036	0.0007
cg25683358	10	24,833,063	OpenSea	KIAA1217	Body	0.007	0.978	0.0007
cg02156870	17	36,717,733	Island	SRCIN1	Body	-0.044	0.381	0.0007
cg22472608	5	1,891,194	S_Shelf			0.054	0.930	0.0007
cg01866330	8	142,235,430	N_Shore	SLC45A4	Body	0.027	0.884	0.0007
cg19383853	2	132,245,881	N_Shelf	FAM128A	Body	0.019	0.891	0.0007
cg02059047	12	57,634,677	N_Shore	NDUFA4L2	TSS1500	0.049	0.194	0.0007

cg23361828	2	239,463,246	OpenSea			-0.073	0.588	0.0007
cg10589281	11	924,500	N_Shore	AP2A2	TSS1500	0.019	0.739	0.0007
cg22803477	1	12,777,722	OpenSea	AADACL3	5'UTR	0.033	0.822	0.0007
cg27659566	15	100,891,948	S_Shore	FLJ42289	TSS1500	-0.012	0.934	0.0008
cg01792117	17	27,088,227	OpenSea	C17orf63	Body	0.030	0.509	0.0008
cg16928257	17	37,330,925	N_Shore	CACNB1	3'UTR	0.031	0.586	0.0008
cg06346362	1	3,400,412	OpenSea			0.021	0.856	0.0008
cg02379724	16	1,368,007	N_Shore	UBE2I	Body	0.008	0.966	0.0008
cg02405213	9	5,042,618	N_Shore	JAK2	Body	0.136	0.750	0.0008
cg14664242	1	17,575,426	OpenSea	PADI3	TSS200	0.021	0.421	0.0008
cg09361491	1	47,070,176	Island	MKNK1	TSS1500	-0.005	0.025	0.0008
cg14407667	1	51,985,209	Island	EPS15	TSS1500	-0.005	0.032	0.0008
cg15959205	14	91,281,552	N_Shore	TTC7B	Body	0.030	0.499	0.0008
cg26619894	17	19,249,164	S_Shore	MIR1180	TSS1500	0.015	0.835	0.0008
cg06125576	13	80,913,340	Island	SPRY2	5'UTR	-0.007	0.046	0.0008
cg17484874	2	120,011,944	OpenSea	STEAP3	Body	0.017	0.815	0.0008
cg13492133	1	183,516,266	OpenSea	SMG7	Body	0.022	0.814	0.0008
cg18218772	14	59,296,690	OpenSea			-0.036	0.416	0.0009
cg12761965	1	227,051,345	OpenSea			0.017	0.332	0.0009
cg27146036	20	57,578,329	N_Shelf	CTSZ	Body	0.019	0.884	0.0009
cg07145921	12	120,027,629	N_Shelf			0.006	0.974	0.0009
cg17085299	19	46,388,932	Island	IRF2BP1	1stExon	-0.006	0.026	0.0009
cg05363438	1	224,301,382	N_Shore	FBXO28	TSS1500	0.055	0.695	0.0009
cg15468668	17	7,082,699	OpenSea	ASGR1	5'UTR	0.020	0.458	0.0009
cg18073514	19	1,065,728	N_Shore	HMHA1	TSS1500	0.021	0.451	0.0009
cg07505478	16	29,193,318	N_Shelf			-0.082	0.719	0.0009
cg27077773	16	88,512,653	Island			0.021	0.720	0.0009
cg02901644	2	234,369,787	Island	DGKD	Body	0.024	0.812	0.0009
cg17935536	2	60,755,743	OpenSea	BCL11A	Body	0.019	0.553	0.0010
cg16786703	10	135,090,255	Island	ADAM8	Body	-0.005	0.029	0.0010

cg25298039	17	5,402,539	N_Shore			0.017	0.664	0.0010
cg06553736	8	48,044,856	OpenSea			0.023	0.806	0.0010
cg08020274	16	88,573,396	Island	ZFPM1	Body	0.018	0.892	0.0010
cg25134081	14	64,931,936	Island	AKAP5	TSS1500	-0.012	0.051	0.0010
cg24455969	1	229,064,268	OpenSea			0.025	0.518	0.0010
cg09843173	1	100,316,334	S_Shore	AGL	TSS200	0.014	0.045	0.0010
cg16685608	14	52,211,579	OpenSea			0.057	0.749	0.0010
cg00478851	11	7,534,329	N_Shore	PPFIBP2	TSS1500	0.015	0.154	0.0010
cg05033333	16	3,222,180	S_Shore			0.004	0.027	0.0011
cg24856537	6	32,169,929	OpenSea	NOTCH4	Body	0.019	0.526	0.0011
cg04926732	4	619,314	N_Shore	PDE6B	TSS200	0.029	0.517	0.0011
cg25389374	2	68,550,434	S_Shelf			0.011	0.954	0.0011
cg23770887	6	117,995,812	N_Shore	NUS1	TSS1500	0.038	0.741	0.0011
cg20906621	3	148,416,308	S_Shore	AGTR1	5'UTR	0.036	0.349	0.0011
cg03242666	17	15,168,570	S_Shelf	PMP22	1stExon	0.043	0.630	0.0011
cg08262378	1	991,533	S_Shore			0.016	0.786	0.0012
cg14545590	8	40,388,592	OpenSea	ZMAT4	3'UTR	0.023	0.634	0.0012
cg19823452	19	17,326,726	S_Shore	USE1	Body	0.028	0.616	0.0012
cg07411798	6	33,168,516	Island	SLC39A7	TSS200	-0.013	0.077	0.0012
cg08363001	10	10,945,277	OpenSea			-0.014	0.943	0.0012
cg14949271	6	13,365,510	Island	GFOD1	Body	0.010	0.947	0.0012
cg16985667	17	39,306,289	OpenSea	KRTAP4-5	TSS1500	0.014	0.945	0.0012
cg17549853	21	46,932,386	Island	COL18A1	3'UTR	0.028	0.879	0.0012
cg04633683	16	29,837,056	OpenSea	MVP	5'UTR	0.026	0.520	0.0012
cg12212453	14	38,058,639	S_Shore			-0.010	0.045	0.0012
cg27037943	1	84,972,490	Island	SPATA1	5'UTR	-0.004	0.026	0.0012
cg22455529	17	73,495,353	N_Shelf	KIAA0195	Body	0.016	0.896	0.0012
cg11146971	14	27,068,354	S_Shore	NOVA1	TSS1500	0.029	0.082	0.0012
cg18069484	11	67,764,105	N_Shore	UNC93B1	Body	0.041	0.861	0.0012
cg26076119	14	104,666,047	OpenSea			0.020	0.888	0.0012

cg20617344	13	113,537,534	S_Shore	ATP11A	3'UTR	0.008	0.966	0.0013
cg06846458	14	100,774,287	S_Shore	SLC25A29	TSS1500	0.023	0.794	0.0013
cg09073989	8	42,036,450	OpenSea	PLAT	Body	0.010	0.951	0.0013
cg26843783	6	27,482,641	N_Shore			0.054	0.480	0.0013
cg05951817	17	28,562,142	N_Shore	SLC6A4	5'UTR	0.034	0.276	0.0013
cg02839875	1	22,456,037	Island	WNT4	Body	0.016	0.860	0.0013
cg16678925	17	3,100,972	OpenSea	OR1A2	1stExon	-0.033	0.830	0.0013
cg09877215	7	748,801	N_Shore	PRKAR1B	Body	0.025	0.893	0.0013
cg10726816	6	27,635,802	OpenSea			0.041	0.151	0.0013
cg17463161	19	58,298,117	Island			0.010	0.952	0.0014
cg06159486	10	18,429,691	Island	CACNB2	TSS200	-0.007	0.025	0.0014
cg08154887	6	168,081,999	S_Shelf			-0.007	0.976	0.0014
cg18257810	3	54,121,929	Island			-0.008	0.047	0.0014
cg18331165	19	3,961,765	S_Shore	MIR637	TSS1500	0.018	0.914	0.0014
cg09662852	16	11,707,685	OpenSea			-0.077	0.234	0.0014
cg11899005	22	24,059,991	S_Shore	LOC91316	TSS1500	0.024	0.832	0.0014
cg22991320	20	56,725,871	Island	C20orf85	TSS200	-0.014	0.082	0.0014
cg03860013	20	31,756,013	OpenSea	C20orf70	1stExon	0.032	0.888	0.0014
cg02624067	10	25,507,202	OpenSea	GPR158	Body	0.028	0.657	0.0014
cg08102508	3	13,115,168	Island	IQSEC1	TSS1500	-0.020	0.037	0.0015
cg26041446	7	101,442,120	OpenSea			0.009	0.966	0.0015
cg07369399	16	50,772,296	N_Shelf			0.018	0.817	0.0015
cg17634797	6	75,945,095	OpenSea			-0.039	0.601	0.0015
cg22626169	6	6,890,951	OpenSea			-0.020	0.091	0.0015
cg23858706	20	62,122,039	Island	EEF1A2	Body	0.018	0.463	0.0015
cg07095347	6	133,253,256	OpenSea			0.027	0.430	0.0015
cg12835012	4	183,795,785	OpenSea			-0.031	0.580	0.0015
cg15998686	17	80,557,458	Island	FOXK2	Body	0.018	0.875	0.0015
cg01962969	21	37,442,104	N_Shore	CBR1	TSS200	-0.015	0.035	0.0015
cg06318753	13	100,633,154	Island	ZIC2	TSS1500	-0.005	0.029	0.0015

cg13144432	15	100,513,968	OpenSea	ADAMTS17	3'UTR	0.008	0.958	0.0015
cg00617975	22	46,644,463	N_Shore	C22orf40	5'UTR	0.016	0.857	0.0015
cg20840416	7	6,647,235	Island	C7orf26	Body	0.003	0.991	0.0015
cg10122267	1	41,444,691	N_Shore	CTPS	TSS1500	0.031	0.402	0.0015
cg15888693	17	4,074,172	OpenSea	ANKFY1	Body	0.013	0.951	0.0016
cg09241928	11	1,047,559	OpenSea			0.019	0.748	0.0016
cg21555796	11	75,141,793	Island	KLHL35	TSS200	0.002	0.023	0.0016
cg02992596	4	155,702,220	N_Shore	RBM46	TSS1500	0.036	0.758	0.0016
cg06174606	11	89,959,870	S_Shelf			0.003	0.988	0.0016
cg19354017	2	101,220,624	OpenSea			0.036	0.679	0.0016
cg27107094	22	37,768,915	N_Shore	ELFN2	3'UTR	0.015	0.897	0.0016
cg25530735	5	6,572,733	OpenSea			0.033	0.826	0.0016
cg07682179	12	132,400,550	OpenSea	ULK1	Body	0.022	0.838	0.0016
cg00997604	8	43,146,894	OpenSea	POTEA	TSS1500	0.031	0.447	0.0016
cg22388812	19	18,979,364	Island	GDF1	3'UTR	0.024	0.512	0.0016
cg06258596	17	42,254,662	S_Shore	ASB16	Body	0.019	0.925	0.0016
cg13699245	9	137,485,382	S_Shore			0.022	0.631	0.0016
cg08389151	19	58,862,087	Island	NCRNA00181	TSS1500	-0.037	0.130	0.0016
cg08344524	15	56,091,621	OpenSea			0.013	0.124	0.0016
cg04080041	5	140,811,253	Island	PCDHGA4	Body	0.030	0.186	0.0017
cg10692614	3	52,827,704	OpenSea	ITIH3	TSS1500	0.018	0.915	0.0017
cg01240599	11	67,418,045	OpenSea	ACY3	5'UTR	0.044	0.480	0.0017
cg27332878	15	80,765,904	OpenSea	ARNT2	Body	0.036	0.673	0.0017
cg04174658	11	55,321,480	OpenSea	OR4C15	TSS1500	0.013	0.957	0.0017
cg04131638	17	76,988,208	N_Shore	CANT1	3'UTR	0.006	0.974	0.0017
cg22628281	12	114,839,007	N_Shore	TBX5	Body	-0.005	0.029	0.0017
cg05017298	5	56,244,748	N_Shore	MIER3	Body	0.004	0.981	0.0017
cg20242070	6	44,510,570	OpenSea			0.033	0.517	0.0017
cg09722826	16	50,780,248	S_Shelf	CYLD	5'UTR	0.005	0.979	0.0017
cg15464148	12	6,745,057	OpenSea	LPAR5	5'UTR	0.028	0.498	0.0017

cg06111140	7	158,575,756	OpenSea	ESYT2	Body	0.027	0.513	0.0017
cg04572258	2	224,402,829	OpenSea			0.056	0.330	0.0017
cg15634474	8	74,211,842	S_Shelf	RDH10	Body	0.010	0.968	0.0017
cg16629749	13	112,631,042	S_Shore			0.021	0.861	0.0017
cg07673578	10	133,913,430	OpenSea			0.026	0.747	0.0017
cg24965791	13	96,085,241	N_Shore	CLDN10	TSS1500	0.024	0.794	0.0017
cg10938586	10	97,849,795	Island			-0.061	0.070	0.0017
cg14781605	1	21,864,896	OpenSea	ALPL	5'UTR	0.031	0.317	0.0017
cg24723140	2	115,420,215	Island	DPP10	Body	-0.051	0.367	0.0018
cg03861379	5	54,128,677	OpenSea			-0.043	0.866	0.0018
cg03496689	8	144,359,316	N_Shore			0.039	0.469	0.0018
cg17736671	1	148,601,198	N_Shore			0.011	0.848	0.0018
cg26567496	17	27,618,844	N_Shore	NUFIP2	Body	0.021	0.078	0.0018
cg25000600	17	7,621,545	S_Shore	DNAH2	TSS1500	0.022	0.212	0.0018
cg00695416	21	37,442,476	Island	CBR1	1stExon	-0.029	0.047	0.0018
cg08048577	13	103,250,866	S_Shore	TPP2	Body	0.031	0.202	0.0018
cg14225168	9	139,403,827	N_Shore	NOTCH1	Body	0.021	0.706	0.0018
cg00127167	5	5,140,029	Island	ADAMTS16	TSS1500	-0.005	0.018	0.0018
cg13790268	14	100,125,548	N_Shore	HHIPL1	Body	-0.034	0.400	0.0019
cg07596529	7	73,064,510	S_Shore			0.023	0.507	0.0019
cg15538427	11	62,457,014	S_Shore	LRRN4CL	5'UTR	0.018	0.432	0.0019
cg06521852	22	38,141,419	N_Shore	TRIOBP	TSS1500	-0.039	0.248	0.0019
cg10572858	15	72,742,016	OpenSea			0.008	0.972	0.0019
cg23093116	1	117,489,843	S_Shelf	PTGFRN	Body	0.045	0.790	0.0019
cg27022933	11	67,418,106	OpenSea	ACY3	5'UTR	0.039	0.317	0.0019
cg13044223	1	45,240,849	N_Shore	SNORD55	TSS1500	-0.006	0.037	0.0019
cg00122310	16	57,769,432	N_Shore	KATNB1	TSS1500	-0.005	0.030	0.0019
cg00674004	10	101,280,750	N_Shore			0.024	0.320	0.0019
cg25309343	19	51,226,207	N_Shore	CLEC11A	TSS1500	0.027	0.426	0.0019
cg17223846	19	3,480,363	N_Shore	C19orf77	Body	0.043	0.220	0.0019

cg25038702	2	95,742,732	Island			-0.003	0.026	0.0019
cg18287642	11	45,715,109	OpenSea			-0.007	0.972	0.0019
cg06400334	16	71,436,020	OpenSea			0.028	0.562	0.0020
cg02964163	15	22,873,274	OpenSea	TUBGCP5	3'UTR	0.006	0.983	0.0020
cg10319893	13	37,248,953	S_Shore	C13orf36	5'UTR	0.010	0.032	0.0020
cg03002735	8	94,998,325	OpenSea			0.024	0.748	0.0020
cg23954057	6	163,834,176	OpenSea	QKI	TSS1500	-0.005	0.022	0.0020
cg27307781	21	37,442,289	Island	CBR1	1stExon	-0.043	0.027	0.0020
cg17972361	10	130,010,134	S_Shore			0.053	0.768	0.0020
cg05335876	1	173,018,989	OpenSea	TNFSF18	Body	0.017	0.951	0.0020
cg14909464	13	29,107,295	S_Shore			-0.005	0.043	0.0020
cg23678594	1	1,712,021	N_Shore			0.027	0.448	0.0020
cg26403151	10	132,001,268	OpenSea			0.029	0.916	0.0021
cg11039583	2	63,841,200	OpenSea			0.030	0.698	0.0021
cg24850535	19	47,947,837	N_Shelf	SLC8A2	Body	0.022	0.115	0.0021
cg13781853	17	6,616,867	Island	SLC13A5	TSS200	-0.003	0.025	0.0021
cg07751803	19	47,258,810	Island	FKRP	Body	0.052	0.561	0.0021
cg13400821	2	149,495,671	OpenSea	EPC2	Body	0.005	0.978	0.0021
cg01733928	14	88,625,398	OpenSea			0.106	0.782	0.0021
cg05153729	7	75,614,406	OpenSea	POR	Body	0.018	0.868	0.0021
cg10836173	21	35,445,342	Island	MRPS6	TSS1500	-0.008	0.026	0.0021
cg18736063	20	21,378,560	S_Shore	NKX2-4	TSS1500	0.004	0.021	0.0021
cg07587250	1	110,730,304	OpenSea	SLC6A17	Body	0.041	0.648	0.0021
cg03310167	8	1,649,143	N_Shore	DLGAP2	Body	-0.074	0.600	0.0021
cg12845895	18	77,676,008	Island	PQLC1	Body	0.014	0.969	0.0021
cg02874145	7	73,246,406	S_Shore	CLDN4	3'UTR	0.053	0.304	0.0021
cg05785989	10	3,306,812	OpenSea			0.016	0.603	0.0021
cg14506032	9	137,426,206	OpenSea			0.019	0.442	0.0021
cg15995935	2	111,871,839	N_Shelf	ACOXL	Body	-0.022	0.816	0.0021
cg09291824	11	1,421,113	OpenSea	BRSK2	Body	0.035	0.412	0.0021



cg16142218	8	23,101,221	N_Shelf	CHMP7	1stExon	0.022	0.513	0.0021
cg01978746	4	871,223	N_Shore	GAK	Body	0.018	0.819	0.0021
cg06849167	11	61,449,886	S_Shore	DAGLA	5'UTR	0.056	0.779	0.0021
cg12614244	11	968,956	OpenSea	AP2A2	Body	0.024	0.743	0.0022
cg06408571	6	33,376,675	N_Shore	KIFC1	Body	0.006	0.974	0.0022
cg20094066	2	43,299,482	S_Shelf			0.017	0.524	0.0022
cg25681122	3	194,832,600	OpenSea	C3orf21	Body	0.007	0.975	0.0022
cg17043230	12	3,427,729	OpenSea			0.033	0.830	0.0022
cg18447740	19	54,604,187	N_Shore	OSCAR	TSS200	0.030	0.408	0.0022
cg18928362	14	68,283,524	OpenSea	ZFYVE26	TSS1500	0.004	0.026	0.0022
cg09063262	11	85,358,506	N_Shore	TMEM126A	TSS1500	0.033	0.215	0.0022
cg07150145	1	47,656,137	OpenSea	PDZK1IP1	TSS1500	0.022	0.457	0.0022
cg23409374	19	49,934,742	Island	SLC17A7	Body	0.040	0.700	0.0022
cg06658391	2	113,875,233	OpenSea	IL1RN	TSS1500	0.042	0.790	0.0022
cg09787311	17	80,329,175	Island			0.022	0.503	0.0022
cg06258780	5	7,851,407	Island	C5orf49	TSS200	-0.005	0.039	0.0022
cg00762468	16	103,568	Island	POLR3K	1stExon	-0.022	0.127	0.0023
cg07906299	7	1,643,787	Island			0.030	0.760	0.0023
cg00651016	16	552,754	OpenSea	RAB11FIP3	Body	-0.009	0.967	0.0023
cg00586094	6	31,775,791	S_Shore	LSM2	TSS1500	-0.034	0.318	0.0023
cg00576250	20	45,087,765	OpenSea			0.008	0.031	0.0023
cg03819243	3	38,072,611	S_Shore	PLCD1	TSS1500	0.019	0.656	0.0023
cg00483304	2	64,976,962	N_Shore			0.049	0.311	0.0023
cg26621513	12	4,689,446	OpenSea			0.014	0.470	0.0023
cg07974627	19	58,171,878	N_Shelf			0.049	0.602	0.0023
cg16240162	3	147,106,890	N_Shore	ZIC4	Body	-0.007	0.040	0.0023
cg02887530	10	1,609,383	OpenSea	ADARB2	Body	0.021	0.523	0.0023
cg11529738	17	41,278,425	Island	BRCA1	TSS1500	0.044	0.703	0.0024
cg22751264	10	5,693,432	OpenSea	ASB13	Body	0.040	0.886	0.0024
cg09378105	7	100,895,380	Island			-0.012	0.074	0.0024

cg16665614	15	61,302,584	OpenSea	RORA	Body	0.005	0.979	0.0024
cg03771981	7	141,501,499	OpenSea			0.040	0.922	0.0024
cg08520383	4	12,539,867	OpenSea			-0.033	0.932	0.0024
cg12148919	6	128,841,705	Island	PTPRK	1stExon	-0.008	0.037	0.0024
cg06672652	1	203,830,934	S_Shore	SNRPE	Body	-0.054	0.027	0.0024
cg15148078	19	3,480,561	N_Shore	C19orf77	TSS200	0.030	0.373	0.0024
cg06867478	7	156,783,274	OpenSea			0.031	0.468	0.0024
cg19882268	6	33,245,779	S_Shore	B3GALT4	1stExon	0.022	0.341	0.0024
cg14847818	3	114,328,840	OpenSea	ZBTB20	5'UTR	0.035	0.604	0.0024
cg04131610	3	46,411,447	OpenSea	CCR5	TSS200	0.010	0.941	0.0024
cg12955789	5	179,588,551	Island	RASGEF1C	5'UTR	-0.075	0.596	0.0025
cg05583608	16	51,147,536	Island			-0.002	0.015	0.0025
cg19501909	22	38,001,083	N_Shelf			0.022	0.534	0.0025
cg24890054	2	18,059,752	Island	KCNS3	TSS200	0.008	0.023	0.0025
cg08299265	12	54,354,414	N_Shore			0.023	0.308	0.0025
cg21618521	6	33,245,770	S_Shore	B3GALT4	1stExon	0.018	0.579	0.0025
cg27494087	17	74,070,431	Island	GALR2	TSS1500	0.007	0.025	0.0025
cg10378898	14	55,738,124	Island	FBXO34	5'UTR	-0.014	0.139	0.0025
cg23643542	4	150,983,649	OpenSea			0.006	0.968	0.0025
cg15645463	11	418,251	S_Shore	SIGIRR	TSS1500	0.016	0.811	0.0025
cg20757073	6	29,598,333	N_Shore	GABBR1	Body	0.021	0.586	0.0025
cg23191956	14	29,235,123	Island	FOXG1	TSS1500	-0.004	0.033	0.0026
cg07613153	14	104,436,947	OpenSea	TDRD9	Body	0.023	0.902	0.0026
cg20294640	3	150,332,279	S_Shelf	SELT	Body	0.010	0.978	0.0026
cg09255034	14	105,931,090	Island	MTA1	Body	0.019	0.727	0.0026
cg16681436	6	32,135,241	S_Shore	EGFL8	Body	0.023	0.595	0.0026
cg25021695	1	228,504,761	Island	OBSCN	Body	0.017	0.868	0.0026
cg03050663	2	241,507,374	N_Shore	RNPEPL1	TSS1500	0.013	0.056	0.0026
cg00925778	10	105,113,085	S_Shelf			0.030	0.668	0.0026
cg08762472	5	1,891,789	OpenSea			0.027	0.664	0.0026

cg00222125	13	53,226,144	N_Shore	SUGT1	TSS1500	-0.006	0.043	0.0026
cg21451553	19	46,476,046	OpenSea	NOVA2	Body	0.007	0.041	0.0026
cg09030113	1	162,531,726	Island	UAP1	5'UTR	-0.006	0.030	0.0026
cg11243251	6	36,209,708	OpenSea	PNPLA1	TSS1500	0.040	0.700	0.0026
cg09169455	5	16,843,340	OpenSea	MYO10	Body	0.025	0.477	0.0026
cg02390515	1	10,239,190	OpenSea	UBE4B	Body	0.032	0.571	0.0026
cg12694058	1	3,354,467	S_Shelf	PRDM16	3'UTR	0.005	0.978	0.0026
cg14243817	9	138,876,879	S_Shelf			-0.019	0.193	0.0027
cg00698413	2	225,266,656	OpenSea	FAM124B	5'UTR	0.026	0.262	0.0027
cg03495773	10	71,166,178	N_Shelf	TACR2	Body	0.034	0.395	0.0027
cg24649713	1	2,125,979	N_Shore	C1orf86	Body	-0.005	0.030	0.0027
cg19823504	19	4,556,982	N_Shore	SEMA6B	Body	0.033	0.881	0.0027
cg05260085	19	46,003,095	S_Shore	FLJ40125	Body	0.032	0.281	0.0027
cg17916916	17	66,286,298	N_Shore	ARSG	5'UTR	-0.015	0.089	0.0027
cg03883275	10	49,608,385	OpenSea	MAPK8	TSS1500	-0.030	0.230	0.0027
cg10003961	6	168,293,749	OpenSea	MLLT4	Body	0.021	0.297	0.0027
cg12857074	1	200,975,162	OpenSea	KIF21B	Body	0.017	0.703	0.0027
cg06239131	1	2,483,786	OpenSea	LOC115110	Body	0.019	0.797	0.0027
cg03940103	19	41,698,823	Island	CYP2S1	TSS1500	0.015	0.116	0.0027
cg07757094	16	86,260,847	OpenSea			0.024	0.773	0.0027
cg11534593	11	120,044,594	OpenSea			0.023	0.428	0.0027
cg24744258	17	40,939,380	S_Shore	WNK4	Body	0.054	0.724	0.0027
cg14596713	3	47,419,568	N_Shelf			0.004	0.981	0.0027
cg02723913	15	22,992,214	OpenSea	CYFIP1	Body	0.011	0.975	0.0027
cg06909254	2	86,092,937	OpenSea	ST3GAL5	Body	0.022	0.500	0.0027
cg18878891	9	131,267,057	Island	GLE1	1stExon	-0.003	0.023	0.0027
cg07405534	16	139,739	OpenSea	C16orf35	Body	0.014	0.935	0.0028
cg08290013	17	27,334,164	S_Shore	SEZ6	TSS1500	0.025	0.424	0.0028
cg00682053	16	49,319,847	S_Shelf			0.005	0.965	0.0028
cg14585415	10	102,778,683	Island	PDZD7	Body	0.016	0.461	0.0028

cg17018839	17	77,122,986	OpenSea	HRNBP3	5'UTR	0.023	0.598	0.0028
cg18427856	6	30,652,647	N_Shore	KIAA1949	Body	0.028	0.668	0.0028
cg01090482	5	139,365,336	OpenSea	NRG2	Body	0.024	0.493	0.0028
cg14043316	22	50,743,420	N_Shore	PLXNB2	5'UTR	0.023	0.619	0.0028
cg09553448	9	134,000,424	N_Shore	NUP214	TSS1500	0.049	0.166	0.0028
cg01970336	1	51,986,254	S_Shore	EPS15	TSS1500	0.024	0.641	0.0028
cg05529899	21	45,206,768	Island			0.009	0.965	0.0028
cg13416310	2	189,156,378	N_Shore	GULP1	TSS1500	-0.004	0.036	0.0028
cg03244411	6	99,295,790	Island			-0.017	0.100	0.0028
cg25592413	5	172,753,646	N_Shore	STC2	Body	0.031	0.281	0.0028
cg03245155	16	27,761,254	OpenSea	KIAA0556	Body	0.009	0.959	0.0028
cg06147863	11	47,400,113	S_Shore	SPI1	5'UTR	0.020	0.396	0.0028
cg25120797	15	96,906,437	S_Shore			-0.039	0.566	0.0028
cg12073440	14	50,526,483	OpenSea			0.012	0.797	0.0028
cg04607131	1	19,990,783	N_Shore	HTR6	TSS1500	0.033	0.671	0.0029
cg22605822	20	31,367,822	OpenSea	DNMT3B	5'UTR	0.017	0.529	0.0029
cg08480398	19	3,586,300	N_Shore	GIPC3	Body	0.006	0.029	0.0029
cg07256493	12	132,897,371	S_Shore	GALNT9	Body	0.024	0.698	0.0029
cg03400623	1	1,297,240	OpenSea			0.032	0.487	0.0029
cg13982454	15	56,034,020	N_Shore	PRTG	Body	-0.006	0.041	0.0029
cg25494789	10	94,353,331	S_Shore	KIF11	Body	0.002	0.013	0.0029
cg26849931	5	141,014,062	N_Shelf	HDAC3	Body	0.019	0.611	0.0029
cg13636096	10	2,815,015	Island			0.010	0.952	0.0029
cg07187585	17	10,600,923	Island	C17orf48	TSS200	-0.012	0.045	0.0029
cg17743012	15	29,393,777	N_Shore	APBA2	Body	0.013	0.852	0.0029
cg25806655	19	4,543,498	Island	SEMA6B	3'UTR	0.033	0.892	0.0029
cg23661271	6	33,239,212	N_Shore	VPS52	Body	-0.002	0.011	0.0029
cg03390717	22	39,966,585	OpenSea	CACNA1I	TSS200	0.019	0.835	0.0029
cg02021288	16	11,435,867	N_Shelf			0.021	0.799	0.0029
cg15994519	14	71,585,510	OpenSea			-0.006	0.976	0.0029

cg17267493	17	7,460,485	OpenSea	TNFSF12	Body	-0.033	0.796	0.0029
cg04059568	7	157,486,012	Island	PTPRN2	Body	-0.005	0.027	0.0029
cg13644239	5	891,886	N_Shore	TRIP13	TSS1500	0.021	0.530	0.0029
cg25303436	1	84,941,094	N_Shelf			0.007	0.973	0.0030
cg27478579	2	55,497,012	S_Shore	MTIF2	TSS1500	0.022	0.775	0.0030
cg04144611	1	229,477,268	N_Shore	C1orf96	Body	-0.003	0.025	0.0030
cg11152829	10	36,477,091	OpenSea			0.025	0.374	0.0030
cg01072639	20	5,891,781	N_Shore	CHGB	TSS200	-0.009	0.043	0.0030
cg10162464	7	148,892,662	Island	ZNF282	5'UTR	-0.007	0.044	0.0030
cg16454902	16	27,414,272	OpenSea	IL21R	TSS200	0.025	0.489	0.0030
cg19320730	11	27,061,756	OpenSea	BBOX1	TSS1500	0.033	0.789	0.0030
cg02283446	11	66,050,123	Island	CNIH2	Body	-0.004	0.025	0.0030
cg26870438	10	6,186,015	N_Shore	PFKFB3	TSS1500	0.013	0.947	0.0030
cg20403644	17	707,141	N_Shore	NXN	Body	0.063	0.703	0.0030
cg04955914	2	220,040,571	N_Shore	C2orf24	Body	0.020	0.726	0.0030
cg01228136	14	21,508,371	OpenSea			-0.002	0.016	0.0030
cg19215110	6	30,850,913	N_Shore	DDR1	TSS1500	0.018	0.487	0.0030
cg24758792	5	14,904,832	OpenSea			0.028	0.876	0.0031
cg15834814	19	9,609,704	S_Shore	ZNF560	TSS1500	0.035	0.388	0.0031
cg00397764	10	115,939,717	S_Shore	TDRD1	5'UTR	0.020	0.421	0.0031
cg22514682	19	35,837,636	OpenSea	CD22	3'UTR	0.025	0.713	0.0031
cg10918580	5	72,922,281	Island	RGNEF	5'UTR	0.003	0.021	0.0031
cg05631486	5	664,414	N_Shore	TPPP	3'UTR	0.009	0.950	0.0031
cg12303610	22	50,636,559	Island	TRABD	Body	0.018	0.743	0.0031
cg06490839	18	24,240,815	S_Shelf			0.012	0.945	0.0031
cg26108329	1	26,797,585	N_Shore	DHDDS	3'UTR	0.020	0.491	0.0031
cg26568372	1	91,190,173	N_Shore			0.015	0.053	0.0031
cg23844497	19	56,135,921	Island	ZNF784	1stExon	-0.006	0.024	0.0031
cg09403933	11	74,978,559	OpenSea	ARRB1	Body	0.017	0.855	0.0031
cg05721093	11	94,510,438	OpenSea	AMOTL1	Body	-0.039	0.452	0.0031

cg10358954	5	72,144,821	Island	TNPO1	Body	-0.008	0.047	0.0031
cg06569993	17	662,994	OpenSea	GLOD4	3'UTR	0.074	0.971	0.0031
cg04836020	2	74,165,521	OpenSea	DGUOK	Body	0.004	0.979	0.0031
cg01382688	2	131,672,054	N_Shore			-0.009	0.948	0.0031
cg16990174	3	72,496,875	S_Shore	RYBP	TSS1500	-0.016	0.079	0.0031
cg15059367	2	198,618	S_Shore			-0.023	0.902	0.0032
cg07683820	7	116,963,888	Island	WNT2	TSS1500	-0.003	0.025	0.0032
cg07935902	4	10,024,364	S_Shelf	SLC2A9	TSS1500	0.019	0.754	0.0032
cg05355301	17	39,143,239	OpenSea	KRT40	5'UTR	-0.026	0.632	0.0032
cg23720331	10	123,873,670	S_Shore	TACC2	Body	-0.018	0.088	0.0032
cg26427472	6	26,914,441	OpenSea	GUSBL1	Body	0.098	0.816	0.0032
cg00022558	11	69,590,287	Island	FGF4	TSS200	-0.007	0.034	0.0032
cg26110064	1	68,154,614	S_Shelf			0.065	0.555	0.0032
cg13903848	2	167,041,027	OpenSea			-0.042	0.774	0.0032
cg00013451	8	23,711,589	OpenSea	STC1	Body	-0.003	0.021	0.0032
cg13681935	20	32,848,452	OpenSea	ASIP	Body	0.026	0.663	0.0033
cg07395611	8	38,750,721	OpenSea			0.003	0.987	0.0033
cg07738031	20	61,871,027	Island	BIRC7	3'UTR	0.019	0.637	0.0033
cg06513977	6	33,288,998	Island	DAXX	Body	0.023	0.748	0.0033
cg22659676	5	139,525,919	Island			-0.015	0.061	0.0033
cg16097858	2	46,765,700	N_Shelf			0.021	0.357	0.0033
cg07840446	4	169,690,674	OpenSea	PALLD	Body	-0.055	0.602	0.0033
cg01177907	16	3,184,694	Island	ZNF213	TSS1500	-0.003	0.020	0.0033
cg20259552	12	107,384,681	S_Shelf			0.004	0.984	0.0033
cg15971157	13	24,464,376	S_Shore	PCOTH	5'UTR	0.035	0.393	0.0033
cg20901993	15	71,142,971	N_Shelf	LARP6	Body	0.003	0.983	0.0033
cg14501985	9	35,603,437	N_Shore			0.026	0.849	0.0033
cg15406343	17	8,311,700	OpenSea			0.020	0.726	0.0033
cg14355192	9	36,258,114	N_Shore	GNE	5'UTR	-0.005	0.032	0.0033
cg06626232	1	44,596,915	OpenSea	KLF17	3'UTR	0.015	0.922	0.0033

cg14152778	2	87,003,351	OpenSea	RMND5A	3'UTR	0.009	0.971	0.0034
cg27518898	21	34,638,397	N_Shore	IL10RB	TSS1500	-0.013	0.076	0.0034
cg22672067	15	74,495,637	OpenSea	STRA6	5'UTR	-0.036	0.421	0.0034
cg24701309	8	142,236,917	N_Shore	SLC45A4	Body	0.026	0.740	0.0034
cg04067066	2	219,756,890	N_Shore	WNT10A	Body	0.026	0.314	0.0034
cg19103838	6	29,562,688	OpenSea			0.010	0.961	0.0034
cg00962740	1	243,507,532	OpenSea	SDCCAG8	Body	0.028	0.469	0.0034
cg13151517	17	7,296,456	N_Shore	PLSCR3	Body	0.014	0.563	0.0034
cg15534272	11	66,631,012	N_Shore	PC	Body	0.019	0.907	0.0034
cg25008147	8	40,755,864	S_Shore	ZMAT4	TSS1500	0.029	0.573	0.0034
cg07852557	17	79,422,586	N_Shelf	BAHCC1	Body	0.018	0.730	0.0034
cg15641872	6	151,687,416	OpenSea	ZBTB2	Body	0.009	0.949	0.0035
cg20883730	11	7,052,540	OpenSea	NLRP14	5'UTR	0.038	0.823	0.0035
cg26840437	5	1,851,071	N_Shore			0.056	0.372	0.0035
cg06005098	16	79,472,521	OpenSea			0.029	0.613	0.0035
cg00501711	20	43,538,180	N_Shore	PABPC1L	TSS1500	0.035	0.613	0.0035
cg02844985	20	35,374,156	Island	NDRG3	5'UTR	0.005	0.036	0.0035
cg11269254	2	121,371,842	OpenSea			0.020	0.344	0.0035
cg15768203	2	170,440,722	N_Shore	PPIG	TSS200	0.020	0.086	0.0035
cg01020263	16	50,732,073	OpenSea	NOD2	Body	0.029	0.547	0.0035
cg19083914	8	143,597,497	OpenSea	BAI1	Body	0.006	0.968	0.0035
cg24341220	2	85,581,729	Island	RETSAT	5'UTR	-0.004	0.036	0.0035
cg23985214	17	76,356,261	Island	SOCS3	TSS200	0.012	0.045	0.0035
cg23954880	7	2,122,342	OpenSea	MAD1L1	Body	-0.025	0.773	0.0035
cg21696393	16	1,030,401	Island	SOX8	TSS1500	-0.017	0.223	0.0036
cg02413938	2	239,008,929	N_Shore	ESPNL	TSS200	0.037	0.821	0.0036
cg03349057	3	52,854,843	OpenSea	ITIH4	Body	-0.023	0.721	0.0036
cg03545515	16	77,756,423	Island	NUDT7	5'UTR	0.003	0.020	0.0036
cg05793077	9	124,030,744	OpenSea	GSN	5'UTR	-0.002	0.015	0.0036
cg08062023	3	111,393,015	N_Shore	PLCXD2	TSS1500	0.025	0.406	0.0036

cg17114475	6	31,129,466	S_Shelf	TCF19	Body	0.017	0.864	0.0036
cg08264572	7	57,078,300	S_Shore			0.012	0.947	0.0036
cg21034405	14	97,832,998	OpenSea			0.028	0.492	0.0036
cg09133032	11	640,094	Island	DRD4	Body	-0.023	0.057	0.0036
cg00962271	14	70,230,594	N_Shelf			0.010	0.963	0.0036
cg24996758	6	26,160,318	S_Shelf	HIST1H2BD	3'UTR	0.040	0.434	0.0036
cg16988970	17	42,248,062	OpenSea	ASB16	TSS200	0.018	0.249	0.0037
cg07760204	4	147,576,547	Island			-0.005	0.036	0.0037
cg12828331	3	42,543,469	Island	VIPR1	TSS1500	-0.005	0.025	0.0037
cg03009524	14	56,645,829	OpenSea	PELI2	Body	0.008	0.977	0.0037
cg11785538	7	107,221,074	Island	BCAP29	TSS200	0.053	0.348	0.0037
cg05152713	9	38,425,359	S_Shore	IGFBPL1	TSS1500	0.015	0.875	0.0037
cg15660353	2	133,378,888	OpenSea	GPR39	Body	0.027	0.653	0.0037
cg05749138	17	77,536,956	OpenSea			0.019	0.843	0.0037
cg14769962	2	9,514,994	Island	ASAP2	Body	0.016	0.925	0.0037
cg12649051	12	57,452,111	OpenSea	TMEM194A	3'UTR	-0.003	0.987	0.0037
cg07812459	19	57,920,371	N_Shelf			0.020	0.944	0.0037
cg00002597	16	31,437,783	N_Shore	ITGAD	3'UTR	0.009	0.955	0.0037
cg23870769	6	74,079,685	Island	OOEP	TSS200	0.007	0.978	0.0037
cg14675404	19	3,292,224	N_Shore	BRUNOL5	Body	0.041	0.842	0.0038
cg20093457	14	100,198,227	S_Shore			0.014	0.877	0.0038
cg03783126	2	105,119,953	OpenSea	LOC150568	Body	0.025	0.720	0.0038
cg14536372	7	25,992,501	S_Shore			-0.050	0.529	0.0038
cg11312462	17	10,213,042	OpenSea	MYH13	Body	0.016	0.821	0.0038
cg24331786	17	76,895,244	N_Shore	TIMP2	Body	0.016	0.851	0.0038
cg24092295	17	47,650,025	N_Shelf			0.018	0.506	0.0038
cg24329710	19	36,507,075	S_Shore	CLIP3	Body	-0.008	0.965	0.0038
cg15281225	6	32,032,889	OpenSea	TNXB	Body	0.013	0.932	0.0038
cg16097330	5	171,615,472	Island	STK10	TSS200	-0.005	0.032	0.0038
cg06888121	7	27,169,068	N_Shore	HOXA4	Body	-0.025	0.251	0.0038



cg00815177	1	24,791,193	OpenSea	NIPAL3	Body	0.019	0.529	0.0038
cg19179687	2	38,769,204	OpenSea			0.009	0.958	0.0038
cg01907005	19	4,517,804	OpenSea	PLIN4	TSS200	0.020	0.811	0.0038
cg19633353	4	3,530,501	N_Shelf	LRPAP1	Body	0.010	0.901	0.0038
cg19783404	11	67,751,269	OpenSea			0.022	0.514	0.0038
cg16540768	1	95,582,647	N_Shore	TMEM56	TSS1500	0.005	0.036	0.0038
cg24808271	19	57,922,164	N_Shore	ZNF17	TSS1500	0.018	0.562	0.0039
cg16541075	2	242,832,796	N_Shore			0.021	0.521	0.0039
cg02837128	8	30,241,167	N_Shore	RBPMS	TSS1500	-0.024	0.193	0.0039
cg13707943	9	130,706,683	N_Shore	FAM102A	Body	0.017	0.763	0.0039
cg23548438	4	81,257,828	S_Shore	C4orf22	Body	0.033	0.303	0.0039
cg26706521	6	31,325,085	Island	HLA-B	TSS200	0.003	0.018	0.0039
cg26107642	5	35,890,578	OpenSea			0.020	0.688	0.0039
cg03368818	3	44,020,821	OpenSea			-0.022	0.886	0.0039
cg12769519	17	76,249,217	N_Shore			0.017	0.656	0.0039
cg07333021	6	30,612,330	N_Shelf	C6orf134	3'UTR	0.015	0.933	0.0039
cg02857557	10	121,578,561	S_Shore	INPP5F	Body	0.033	0.536	0.0039
cg01048346	12	31,824,671	OpenSea	AMN1	3'UTR	0.005	0.978	0.0039
cg21221883	1	75,246,543	OpenSea			0.030	0.607	0.0039
cg00253971	19	4,038,851	Island			0.016	0.700	0.0040
cg22066894	11	126,581,972	OpenSea	KIRREL3	Body	0.036	0.609	0.0040
cg25599924	4	8,396,056	OpenSea	ACOX3	Body	0.034	0.520	0.0040
cg14802772	10	97,849,569	Island			-0.040	0.069	0.0040
cg26554547	7	1,370,486	Island			0.020	0.893	0.0040
cg11779113	20	62,199,156	N_Shore	PRIC285	Body	0.019	0.866	0.0040
cg14402224	7	50,570,049	OpenSea	DDC	Body	0.023	0.537	0.0040
cg05148130	6	44,214,880	Island	HSP90AB1	1stExon	-0.002	0.014	0.0040
cg04181401	2	220,067,795	N_Shelf			0.008	0.969	0.0040
cg22735601	4	13,334,645	OpenSea	HSP90AB2P	TSS1500	0.012	0.952	0.0040
cg05327596	6	33,129,856	S_Shore			0.026	0.561	0.0040

cg26281107	4	187,927,166	OpenSea			0.025	0.481	0.0041
cg27223250	6	170,492,070	Island			0.021	0.604	0.0041
cg10499378	5	178,618,678	OpenSea	ADAMTS2	Body	0.019	0.654	0.0041
cg13596910	17	42,254,336	Island	C17orf65	Body	0.036	0.914	0.0041
cg15193249	14	100,125,683	Island	HHIPL1	Body	-0.032	0.229	0.0041
cg00754896	17	76,227,255	N_Shore	LOC283999	TSS200	0.017	0.668	0.0041
cg25635251	11	2,234,043	OpenSea			0.084	0.659	0.0041
cg15001615	19	35,819,775	OpenSea	CD22	TSS1500	0.022	0.882	0.0041
cg12156838	5	118,787,579	N_Shore	HSD17B4	TSS1500	-0.018	0.925	0.0041
cg18329349	7	116,164,847	Island	CAV1	5'UTR	-0.004	0.028	0.0041
cg13054234	1	76,085,151	S_Shelf			0.036	0.606	0.0041
cg07577731	19	51,328,577	N_Shore	KLK15	3'UTR	0.031	0.731	0.0041
cg00690929	1	9,118,237	OpenSea	SLC2A5	Body	0.022	0.291	0.0041
cg26301777	13	41,884,544	N_Shore	NAA16	TSS1500	0.011	0.958	0.0041
cg17440077	20	18,122,816	S_Shelf	PET117	Body	0.006	0.952	0.0041
cg11737413	14	104,801,102	S_Shore			0.025	0.809	0.0041
cg15533453	10	2,542,242	N_Shore			0.006	0.964	0.0041
cg17403830	11	66,051,638	S_Shore	CNIH2	3'UTR	0.013	0.908	0.0041
cg11648740	17	78,411,819	OpenSea	FLJ35220	3'UTR	0.022	0.671	0.0041
cg19170991	10	71,088,038	OpenSea	HK1	Body	0.038	0.349	0.0041
cg01680844	16	776,501	N_Shore	CCDC78	TSS200	0.018	0.211	0.0042
cg20988565	8	106,334,333	S_Shelf	ZFPM2	Body	-0.030	0.848	0.0042
cg18176712	4	671,489	N_Shelf	MYL5	TSS1500	0.017	0.625	0.0042
cg26764555	3	141,205,540	Island	RASA2	TSS1500	-0.003	0.019	0.0042
cg20547455	14	70,041,214	Island			-0.006	0.040	0.0042
cg13746891	9	95,953,441	OpenSea	WNK2	Body	-0.020	0.876	0.0042
cg00292971	7	143,060,536	S_Shore	FAM131B	TSS1500	0.039	0.427	0.0042
cg25006430	3	4,341,108	N_Shelf			-0.042	0.747	0.0042
cg16101804	2	71,194,638	S_Shelf			0.012	0.950	0.0042
cg24427660	11	818,892	N_Shore	PNPLA2	TSS200	0.022	0.531	0.0042

cg05801080	3	100,119,813	Island	LNP1	TSS1500	-0.006	0.052	0.0042
cg24612696	1	3,089,891	OpenSea	PRDM16	Body	0.021	0.809	0.0042
cg10402995	1	248,903,325	OpenSea	LOC646627	TSS200	0.019	0.916	0.0042
cg27193519	16	4,714,443	OpenSea	MGRN1	Body	0.008	0.966	0.0042
cg22480875	12	77,417,567	OpenSea	E2F7	3'UTR	-0.049	0.757	0.0043
cg20037384	1	24,069,696	Island	TCEB3	TSS200	-0.003	0.023	0.0043
cg21042248	19	59,092,612	N_Shore	MGC2752	Body	0.031	0.117	0.0043
cg14883993	19	3,374,732	OpenSea	NFIC	Body	0.056	0.781	0.0043
cg13201297	1	151,777,774	OpenSea	LINGO4	1stExon	0.016	0.412	0.0043
cg03141709	17	48,637,722	Island	CACNA1G	TSS1500	-0.005	0.042	0.0043
cg00581320	3	62,425,299	OpenSea	CADPS	Body	0.023	0.373	0.0043
cg20757404	19	378,427	S_Shelf			0.036	0.483	0.0043
cg08971595	5	141,259,256	S_Shore	PCDH1	TSS1500	-0.010	0.049	0.0043
cg00300808	2	177,353,798	N_Shore			-0.007	0.966	0.0043
cg26284540	7	97,588,511	OpenSea			0.052	0.687	0.0043
cg04062907	12	110,841,545	Island	ANAPC7	TSS200	0.002	0.013	0.0043
cg14679558	13	21,652,153	OpenSea			0.016	0.926	0.0043
cg21034531	17	80,197,757	S_Shore			0.012	0.956	0.0043
cg11807006	17	7,239,821	OpenSea	ACAP1	TSS200	0.026	0.627	0.0043
cg25838818	2	108,905,173	OpenSea	SULT1C2	5'UTR	0.014	0.057	0.0043
cg12730702	1	249,120,260	N_Shore	SH3BP5L	TSS200	0.002	0.014	0.0043
cg12619728	6	32,134,854	Island	EGFL8	Body	0.021	0.438	0.0043
cg04661810	4	154,231,075	OpenSea	TRIM2	Body	0.007	0.957	0.0044
cg21387281	20	61,435,439	N_Shore	OGFR	TSS1500	0.021	0.521	0.0044
cg20256260	20	43,936,981	S_Shore	MATN4	TSS200	0.037	0.230	0.0044
cg05380130	3	185,661,662	OpenSea			0.026	0.549	0.0044
cg01909487	1	59,249,911	Island	JUN	TSS200	-0.005	0.036	0.0044
cg01465102	4	40,942,131	OpenSea	APBB2	Body	0.025	0.495	0.0044
cg08212545	16	31,584,046	S_Shelf			0.039	0.640	0.0044
cg18861547	1	22,196,887	OpenSea	HSPG2	Body	0.036	0.769	0.0044

cg15254736	3	10,436,496	OpenSea	ATP2B2	Body	0.026	0.599	0.0044
cg20656294	17	76,962,736	OpenSea			0.027	0.733	0.0044
cg20165520	13	113,637,829	S_Shore	MCF2L	Body	0.045	0.542	0.0044
cg13140106	22	26,825,553	Island	ASPHD2	5'UTR	-0.005	0.035	0.0044
cg24534743	1	27,884,345	OpenSea	AHDC1	5'UTR	0.014	0.537	0.0044
cg17366563	8	144,379,157	Island	ZNF696	3'UTR	0.013	0.949	0.0044
cg06528231	1	221,915,654	Island	DUSP10	TSS200	0.005	0.036	0.0044
cg03063015	6	96,634,353	OpenSea	FUT9	5'UTR	-0.030	0.641	0.0044
cg25020933	11	368,900	OpenSea	B4GALNT4	TSS1500	-0.009	0.032	0.0044
cg12570716	10	3,822,379	N_Shore	KLF6	Body	0.022	0.620	0.0044
cg27250807	6	4,079,649	S_Shore	C6orf201	1stExon	0.024	0.544	0.0045
cg00398268	18	47,017,166	N_Shore	RPL17	Body	-0.006	0.976	0.0045
cg21559469	19	19,431,446	Island	KIAA0892	TSS200	0.002	0.012	0.0045
cg00378423	17	36,876,238	OpenSea	MLLT6	Body	0.051	0.693	0.0045
cg26322816	3	27,760,732	N_Shore	EOMES	Body	0.027	0.694	0.0045
cg10530085	2	38,004,845	OpenSea			-0.038	0.854	0.0045
cg26785370	17	53,923,413	S_Shore			0.027	0.343	0.0045
cg18308339	5	2,186,371	OpenSea			0.026	0.773	0.0045
cg24468105	8	37,757,028	Island	RAB11FIP1	TSS200	0.003	0.024	0.0045
cg03293765	3	59,391,280	OpenSea			0.026	0.708	0.0045
cg25363559	8	143,086,065	OpenSea			0.029	0.752	0.0045
cg21823426	6	1,001,966	OpenSea	LOC285768	Body	0.045	0.540	0.0045
cg13308137	11	47,528,955	OpenSea	CUGBP1	5'UTR	0.025	0.721	0.0045
cg26464439	7	100,173,533	S_Shore	LRCH4	Body	0.018	0.744	0.0045
cg00996246	3	32,543,787	N_Shore	CMTM6	Body	-0.003	0.023	0.0045
cg09762054	17	31,147,683	N_Shore	MYO1D	Body	0.005	0.980	0.0045
cg08688773	10	23,461,301	Island			0.013	0.048	0.0045
cg23758309	12	97,273,300	OpenSea			0.016	0.856	0.0045
cg12687125	15	29,406,767	N_Shore	APBA2	Body	0.026	0.888	0.0046
cg02775617	10	32,217,281	N_Shore	ARHGAP12	5'UTR	0.014	0.061	0.0046

cg13839964	2	68,870,352	Island			0.004	0.035	0.0046
cg25859012	2	219,524,278	Island	BCS1L	TSS200	-0.004	0.034	0.0046
cg13060236	1	57,490,967	OpenSea	DAB1	Body	0.029	0.573	0.0046
cg06061033	16	85,722,814	Island	GIN52	TSS1500	-0.016	0.035	0.0046
cg01485548	19	18,284,321	N_Shore	IFI30	TSS1500	0.034	0.263	0.0046
cg16652303	11	126,872,777	N_Shore			-0.044	0.209	0.0046
cg00453374	7	27,701,825	N_Shore	HIBADH	Body	0.002	0.014	0.0046
cg12303685	1	156,218,094	S_Shelf	PAQR6	TSS1500	0.021	0.536	0.0046
cg22163812	12	132,914,075	S_Shelf			0.016	0.816	0.0046
cg21650962	6	50,794,057	S_Shelf	TFAP2B	Body	-0.005	0.027	0.0046
cg16719517	21	37,442,385	Island	CBR1	1stExon	-0.034	0.032	0.0046
cg21749275	4	110,460,898	OpenSea	SEC24B	3'UTR	0.004	0.985	0.0047
cg22579351	12	34,538,806	OpenSea			0.041	0.710	0.0047
cg24603041	6	150,351,274	OpenSea			0.020	0.638	0.0047
cg26162564	20	48,629,342	S_Shelf			-0.024	0.395	0.0047
cg12038641	20	61,162,000	OpenSea	C20orf166	Body	0.022	0.713	0.0047
cg16265486	12	16,506,246	OpenSea	MGST1	5'UTR	0.018	0.921	0.0047
cg10514770	5	108,786,265	OpenSea			0.020	0.685	0.0047
cg27229251	7	2,680,532	OpenSea	TTYH3	Body	0.015	0.908	0.0047
cg16218516	17	80,862,764	N_Shore	TBCD	Body	0.019	0.838	0.0047
cg00418163	12	83,476,631	OpenSea	TMTC2	Body	-0.020	0.199	0.0047
cg08369079	6	106,551,623	OpenSea	PRDM1	Body	0.033	0.546	0.0047
cg13931707	1	28,654,482	N_Shore	MED18	TSS1500	0.028	0.913	0.0047
cg01503938	7	974,871	N_Shore	ADAP1	Body	0.026	0.508	0.0047
cg23645210	1	2,188,767	OpenSea	SKI	Body	0.021	0.577	0.0047
cg13611006	17	45,983,023	OpenSea	SP2	Body	0.020	0.492	0.0047
cg03660158	16	57,769,342	N_Shore	KATNB1	TSS1500	-0.009	0.037	0.0047
cg20796294	1	220,219,430	Island	EPRS	Body	-0.004	0.035	0.0047
cg13262424	6	30,449,068	OpenSea			0.009	0.045	0.0047
cg03762817	14	71,107,039	N_Shore	TTC9	TSS1500	0.029	0.380	0.0047

cg24254937	1	23,858,301	S_Shore	E2F2	TSS1500	0.027	0.541	0.0047
cg14209618	22	19,554,409	Island	LOC150185	TSS200	0.021	0.902	0.0047
cg01627597	2	26,927,436	OpenSea	KCNK3	Body	0.013	0.465	0.0047
cg12929678	18	67,624,393	OpenSea	CD226	TSS200	0.023	0.708	0.0047
cg14285365	1	36,643,743	N_Shore	MAP7D1	Body	-0.035	0.803	0.0047
cg23000942	5	58,147,306	OpenSea	RAB3C	3'UTR	0.021	0.829	0.0047
cg03469683	7	157,084,627	OpenSea			0.019	0.791	0.0047
cg02866106	7	136,553,110	N_Shore	CHRM2	TSS1500	0.030	0.242	0.0048
cg01881378	16	88,560,088	Island	ZFPM1	Body	0.012	0.941	0.0048
cg19283298	13	98,090,226	S_Shelf	RAP2A	Body	0.041	0.553	0.0048
cg23293230	10	134,907,737	OpenSea	GPR123	Body	0.022	0.851	0.0048
cg23214249	10	11,978,707	OpenSea	UPF2	Body	0.019	0.374	0.0048
cg17961077	8	297,436	OpenSea			0.037	0.632	0.0048
cg03392571	21	46,367,939	N_Shore	C21orf70	Body	0.019	0.840	0.0048
cg06320380	2	218,770,208	OpenSea	TNS1	5'UTR	0.020	0.686	0.0048
cg05323709	19	45,753,380	N_Shore	MARK4	TSS1500	0.034	0.850	0.0048
cg08228439	12	113,903,973	Island	LHX5	Body	-0.007	0.030	0.0048
cg19940077	1	200,842,282	Island	GPR25	1stExon	-0.054	0.134	0.0048
cg27473355	16	28,915,234	S_Shelf	ATP2A1	3'UTR	0.015	0.797	0.0048
cg12008501	2	208,678,058	OpenSea			0.023	0.610	0.0048
cg20816699	4	12,540,012	OpenSea			-0.027	0.927	0.0048
cg09862303	5	168,508,055	OpenSea	SLIT3	Body	0.059	0.728	0.0048
cg05572417	13	113,637,815	S_Shore	MCF2L	Body	0.057	0.497	0.0048
cg17107840	1	27,688,462	S_Shore	MAP3K6	Body	0.015	0.866	0.0049
cg00883123	4	154,373,513	OpenSea			0.019	0.502	0.0049
cg03620886	19	10,420,353	Island	ZGLP1	TSS200	0.008	0.968	0.0049
cg20158944	2	242,895,305	OpenSea			0.027	0.570	0.0049
cg13614181	13	42,031,103	Island	C13orf15	TSS1500	0.012	0.053	0.0049
cg12894325	11	67,418,113	OpenSea	ACY3	5'UTR	0.034	0.245	0.0049
cg10767223	5	1,295,799	Island	TERT	TSS1500	-0.022	0.166	0.0049

cg12688942	1	19,680,353	OpenSea	CAPZB	Body	0.016	0.607	0.0049
cg15687653	1	6,271,667	S_Shelf	RNF207	Body	0.016	0.492	0.0049
cg22288798	8	1,324,411	N_Shelf			0.036	0.569	0.0049
cg15711016	8	61,193,066	N_Shore	CA8	Body	0.033	0.114	0.0049
cg25144135	1	1,144,012	N_Shore			0.021	0.705	0.0049
cg08885449	3	11,888,484	Island	C3orf31	TSS200	0.002	0.015	0.0050
cg08664665	1	32,573,653	N_Shore	KPNA6	1stExon	0.002	0.018	0.0050
cg23344780	19	48,829,487	N_Shelf	EMP3	5'UTR	0.026	0.442	0.0050
cg24144574	7	653,445	OpenSea	PRKAR1B	Body	0.020	0.866	0.0050
cg23802307	13	112,575,212	N_Shore			0.015	0.609	0.0050
cg22244214	12	8,396,581	Island	LOC653113	TSS1500	0.002	0.022	0.0050
cg10425885	11	2,458,734	OpenSea			0.019	0.823	0.0050
cg26533107	16	86,614,804	S_Shore	FOXL1	1stExon	-0.025	0.898	0.0050
cg05074946	2	74,234,594	OpenSea			0.018	0.753	0.0050
cg26029547	6	31,939,085	N_Shore	STK19	TSS1500	0.033	0.801	0.0050
cg10768690	6	24,645,875	N_Shore	KIAA0319	1stExon	0.010	0.043	0.0050
cg09662431	10	73,975,914	Island	ASCC1	TSS1500	-0.004	0.031	0.0050
cg04749306	19	17,433,773	OpenSea	DDA1	3'UTR	0.025	0.618	0.0050
cg06555661	12	132,259,779	N_Shelf	SFRS8	Body	0.024	0.792	0.0050
cg21857679	22	25,817,538	Island			-0.018	0.049	0.0050
cg21194785	22	29,105,478	OpenSea	CHEK2	Body	-0.010	0.944	0.0050
cg09780895	19	47,852,470	Island	DHX34	TSS200	-0.004	0.031	0.0050
cg24931346	1	22,979,546	OpenSea	C1QB	TSS200	0.015	0.748	0.0050
cg27039593	5	1,552,182	N_Shore			0.028	0.528	0.0050
cg04056774	16	46,672,846	OpenSea			0.023	0.690	0.0051
cg10970776	11	61,100,608	Island	DDB1	1stExon	-0.040	0.024	0.0051
cg00040575	22	18,506,180	N_Shore	MICAL3	5'UTR	0.013	0.290	0.0051
cg04305228	22	18,272,333	N_Shelf	MICAL3	3'UTR	0.014	0.859	0.0051
cg27165033	10	134,650,068	OpenSea			0.024	0.635	0.0051
cg23343680	15	51,397,292	OpenSea	TNFAIP8L3	1stExon	-0.017	0.828	0.0051

cg26037821	12	56,109,198	N_Shore	BLOC1S1	TSS1500	0.034	0.722	0.0051
cg03088328	22	50,874,154	N_Shore	SAPS2	Body	0.020	0.696	0.0051
cg05533329	7	143,039,088	N_Shelf	CLCN1	Body	0.018	0.836	0.0051
cg24073089	6	88,879,038	S_Shore			-0.015	0.937	0.0051
cg21833158	18	61,171,694	OpenSea	SERPINB5	3'UTR	0.007	0.967	0.0051
cg02449103	6	31,627,711	N_Shore	C6orf47	1stExon	0.027	0.381	0.0051
cg07718713	5	645,207	N_Shore	CEP72	Body	0.006	0.974	0.0051
cg04145264	11	65,190,825	Island	NEAT1	Body	0.027	0.375	0.0051
cg08106961	1	37,355,452	OpenSea	GRIK3	Body	0.016	0.499	0.0051
cg25232043	5	154,919,818	OpenSea			0.026	0.399	0.0051
cg01941309	14	106,015,974	S_Shelf			0.018	0.782	0.0052
cg05304366	15	40,226,905	S_Shore	EIF2AK4	Body	0.065	0.430	0.0052
cg20917083	12	15,114,233	OpenSea	ARHGDIB	5'UTR	0.022	0.567	0.0052
cg21116056	1	240,874,857	OpenSea			0.023	0.816	0.0052
cg07561338	8	30,337,400	OpenSea	RBPMS	Body	-0.011	0.945	0.0052
cg08897044	19	12,950,850	N_Shore	MAST1	Body	0.022	0.575	0.0052
cg05935827	2	233,765,872	Island	NGEF	Body	0.030	0.529	0.0052
cg15217623	11	67,221,264	OpenSea	GPR152	TSS1500	0.007	0.977	0.0052
cg23985374	5	140,240,941	N_Shore	PCDHA6	Body	0.042	0.435	0.0052
cg09289359	7	55,069,383	N_Shelf			0.010	0.962	0.0052
cg10175859	1	233,817,629	OpenSea			0.006	0.968	0.0052
cg14086908	18	77,395,326	Island			0.011	0.965	0.0052
cg20247380	19	56,652,071	N_Shore	ZNF444	TSS1500	-0.007	0.042	0.0052
cg04156383	1	144,995,889	OpenSea	PDE4DIP	Body	0.027	0.696	0.0053
cg22907415	11	62,783,386	OpenSea	SLC22A8	TSS200	0.015	0.375	0.0053
cg15711240	10	32,856,510	OpenSea	CCDC7	Body	0.006	0.974	0.0053
cg26608663	16	4,007,772	OpenSea			0.021	0.536	0.0053
cg09084391	5	346,247	S_Shore	AHRR	Body	0.072	0.457	0.0053
cg06448424	17	39,852,911	OpenSea			0.025	0.515	0.0053
cg19230025	19	35,488,496	N_Shelf			0.018	0.578	0.0053



cg00080252	8	117,948,764	N_Shore			0.017	0.930	0.0053
cg25655084	20	4,666,494	N_Shore	PRNP	TSS1500	-0.032	0.931	0.0053
cg00466898	10	13,089,772	OpenSea			0.042	0.708	0.0053
cg05183369	6	30,078,648	OpenSea	TRIM31	Body	0.005	0.981	0.0053
cg02899219	14	51,448,944	OpenSea	TRIM9	Body	-0.014	0.909	0.0053
cg08421934	6	33,942,413	N_Shore			0.021	0.242	0.0053
cg22548353	19	36,195,268	Island			0.025	0.357	0.0054
cg20261167	4	88,896,942	OpenSea	SPP1	1stExon	0.019	0.160	0.0054
cg17466131	4	186,578,190	OpenSea	SORBS2	Body	0.016	0.651	0.0054
cg25371182	17	3,539,597	Island	CTNS	TSS200	-0.004	0.034	0.0054
cg24246472	22	48,606,007	S_Shore			0.029	0.679	0.0054
cg05336997	11	1,226,873	N_Shore			0.017	0.467	0.0054
cg10498083	6	30,428,323	N_Shelf			0.039	0.209	0.0054
cg22800722	1	35,370,497	OpenSea	DLGAP3	1stExon	0.017	0.815	0.0054
cg27168410	19	41,629,018	N_Shore	CYP2F1	Body	-0.004	0.980	0.0054
cg07286123	20	23,067,126	OpenSea	CD93	TSS200	0.018	0.223	0.0054
cg22451887	20	60,969,143	Island	CABLES2	Body	0.016	0.877	0.0054
cg02258002	3	119,123,583	S_Shelf	CDGAP	Body	0.005	0.972	0.0054
cg20416031	10	52,834,189	Island	PRKG1	Body	-0.004	0.038	0.0054
cg14301562	10	76,936,085	OpenSea	SAMD8	3'UTR	-0.021	0.563	0.0054
cg27639644	5	104,433,849	OpenSea	RAB9P1	TSS1500	0.003	0.983	0.0054
cg01416317	19	45,737,208	N_Shore	EXOC3L2	5'UTR	0.028	0.841	0.0054
cg00415971	10	86,004,761	OpenSea	RGR	TSS200	0.018	0.512	0.0054
cg04293175	11	14,282,775	S_Shore	SPON1	Body	0.040	0.795	0.0054
cg24715988	1	244,237,941	OpenSea			0.024	0.318	0.0054
cg17827148	1	2,820,665	OpenSea			0.019	0.692	0.0055
cg04031030	8	21,848,445	OpenSea	XPO7	Body	0.007	0.965	0.0055
cg02633690	1	235,667,903	Island	B3GALNT2	TSS200	0.002	0.031	0.0055
cg01976623	14	94,255,901	S_Shore	PRIMA1	TSS1500	0.017	0.266	0.0055
cg09807315	4	1,353,919	OpenSea	KIAA1530	Body	0.011	0.885	0.0055

cg24605046	6	33,245,895	S_Shore	B3GALT4	1stExon	0.018	0.521	0.0055
cg16221841	14	77,279,127	Island	ANGEL1	1stExon	0.003	0.020	0.0055
cg14758218	11	65,193,528	S_Shelf	NEAT1	Body	0.032	0.655	0.0055
cg13515674	4	174,255,654	Island	HMGB2	TSS1500	-0.003	0.016	0.0055
cg14846617	14	96,042,434	OpenSea			0.029	0.256	0.0055
cg04235416	14	101,530,343	N_Shore	MIR412	TSS1500	0.010	0.941	0.0055
cg00945409	10	80,737,665	S_Shelf	LOC283050	Body	-0.034	0.841	0.0055
cg17964939	4	173,918,934	OpenSea	GALNTL6	Body	0.004	0.975	0.0055
cg02164462	16	57,769,538	N_Shore	KATNB1	TSS200	-0.013	0.051	0.0055
cg17339617	5	146,608,294	OpenSea			0.045	0.704	0.0055
cg00810971	2	65,085,764	N_Shore			0.021	0.518	0.0056
cg14480095	6	25,732,956	Island			0.036	0.432	0.0056
cg00426486	16	86,605,100	S_Shelf			-0.022	0.898	0.0056
cg04519626	7	3,208,493	OpenSea			0.020	0.719	0.0056
cg18255663	11	68,971,452	OpenSea			0.016	0.562	0.0056
cg22026192	12	124,944,377	S_Shelf	NCOR2	Body	-0.005	0.978	0.0056
cg09451412	11	63,775,894	S_Shore	MACROD1	Body	-0.003	0.968	0.0056
cg27625456	17	25,958,267	OpenSea	LGALS9	Body	0.030	0.272	0.0056
cg22304662	3	42,694,783	N_Shore	ZBTB47	TSS1500	0.018	0.748	0.0056
cg05872234	4	48,390,346	OpenSea	SLAIN2	Body	0.005	0.972	0.0056
cg08072507	7	133,897,858	OpenSea	LRGUK	Body	-0.028	0.735	0.0056
cg14386867	9	140,086,051	S_Shelf			0.020	0.864	0.0056
cg07108083	16	873,777	N_Shore			-0.008	0.931	0.0056
cg13332925	2	178,257,559	Island	LOC10013069	TSS200	0.002	0.022	0.0057
cg19768329	1	120,190,378	Island	ZNF697	1stExon	-0.003	0.025	0.0057
cg21876832	1	1,874,742	Island			0.020	0.808	0.0057
cg03540432	12	34,361,589	OpenSea			0.023	0.899	0.0057
cg12753529	10	51,525,504	OpenSea			-0.038	0.658	0.0057
cg02300114	12	130,604,047	OpenSea			0.016	0.728	0.0057
cg04252592	16	4,387,370	OpenSea	GLIS2	Body	0.017	0.698	0.0057

cg26886381	13	96,296,979	Island	DZIP1	TSS200	0.003	0.022	0.0057
cg01428408	9	139,293,044	N_Shore	SNAPC4	TSS200	0.006	0.977	0.0057
cg25820960	3	141,176,036	OpenSea			0.013	0.911	0.0057
cg04132186	3	184,322,709	S_Shore			-0.015	0.246	0.0057
cg04259168	19	4,517,600	OpenSea	PLIN4	1stExon	0.016	0.747	0.0057
cg19572947	1	182,808,556	Island	DHX9	1stExon	-0.005	0.036	0.0057
cg01327602	19	55,952,038	Island	SHISA7	Body	0.041	0.329	0.0057
cg04391972	4	182,569,038	OpenSea			-0.037	0.345	0.0057
cg12990410	5	140,501,117	N_Shore	PCDHB4	TSS1500	0.037	0.521	0.0057
cg03553897	17	72,969,503	S_Shore	C17orf28	TSS1500	0.021	0.657	0.0057
cg22642777	5	146,256,943	N_Shore	PPP2R2B	Body	0.016	0.073	0.0057
cg06928993	19	49,313,421	N_Shore	BCAT2	Body	0.029	0.796	0.0057
cg06108323	3	18,386,731	OpenSea			0.030	0.331	0.0057
cg02852557	15	25,907,264	OpenSea			0.022	0.515	0.0057
cg15549931	6	30,710,788	Island	FLOT1	TSS1500	-0.005	0.033	0.0057
cg13623664	10	50,190,845	OpenSea	WDFY4	3'UTR	0.014	0.927	0.0057
cg23910341	5	123,121,409	OpenSea			0.036	0.417	0.0057
cg15701622	12	49,962,302	S_Shore	MCRS1	TSS1500	0.002	0.017	0.0057
cg03241287	5	118,324,324	Island	DTWD2	TSS200	0.006	0.038	0.0058
cg14933200	11	129,161,192	OpenSea			0.017	0.865	0.0058
cg05517527	2	28,114,462	S_Shore	BRE	5'UTR	0.022	0.904	0.0058
cg09587503	5	134,094,082	N_Shore	DDX46	TSS1500	-0.004	0.034	0.0058
cg00710466	2	3,290,128	N_Shore	TSSC1	Body	0.015	0.605	0.0058
cg20220639	6	30,295,328	S_Shore	HCG18	TSS1500	0.018	0.153	0.0058
cg27631005	1	173,887,284	OpenSea	SERPINC1	TSS1500	-0.021	0.840	0.0058
cg06634179	2	26,542,043	OpenSea	GPR113	TSS200	0.018	0.657	0.0058
cg25685934	2	97,361,034	OpenSea	FER1L5	Body	0.014	0.808	0.0058
cg07972309	2	152,153,974	OpenSea			0.005	0.977	0.0058
cg08537890	12	31,272,865	OpenSea			0.148	0.463	0.0058
cg06677013	6	84,570,388	S_Shore	CYB5R4	Body	0.039	0.366	0.0058

cg24321706	3	30,647,540	N_Shore	TGFBR2	TSS1500	-0.029	0.279	0.0058
cg05753930	11	2,678,450	OpenSea	KCNQ1	Body	0.011	0.971	0.0058
cg13529437	6	43,607,635	S_Shelf	MAD2L1BP	Body	0.012	0.941	0.0058
cg04106092	16	47,760,096	OpenSea			-0.026	0.616	0.0058
cg23060618	21	44,721,077	Island			0.026	0.607	0.0058
cg03271150	19	46,387,760	Island	IRF2BP1	1stExon	0.033	0.766	0.0058
cg01877450	7	97,915,802	OpenSea	BRI3	Body	0.018	0.453	0.0059
cg04939200	7	25,992,352	S_Shore			-0.041	0.364	0.0059
cg04205655	16	67,965,756	N_Shelf	CTRL	5'UTR	0.013	0.846	0.0059
cg05872643	12	32,112,763	Island	C12orf35	5'UTR	-0.003	0.036	0.0059
cg01415562	22	27,152,635	N_Shore			-0.008	0.052	0.0059
cg25800356	12	132,606,003	S_Shelf	EP400NL	Body	0.005	0.974	0.0059
cg21457110	6	170,482,324	OpenSea			0.023	0.797	0.0059
cg08527448	5	150,070,582	OpenSea	RBM22	3'UTR	0.025	0.605	0.0059
cg03259273	1	155,238,752	N_Shore	CLK2	Body	0.016	0.908	0.0059
cg07744993	5	89,705,938	Island	CETN3	TSS1500	-0.002	0.018	0.0059
cg08310088	16	28,081,556	OpenSea			0.024	0.413	0.0059
cg19864808	6	31,938,773	N_Shore	STK19	TSS200	0.016	0.858	0.0059
cg16260126	10	4,892,269	OpenSea			0.027	0.634	0.0060
cg08270023	12	132,619,174	N_Shore			0.021	0.720	0.0060
cg03709925	17	79,096,151	Island	AATK	Body	-0.029	0.475	0.0060
cg02897824	1	201,159,685	OpenSea	IGFN1	TSS1500	0.016	0.610	0.0060
cg02102456	2	100,824,336	OpenSea			-0.025	0.408	0.0060
cg22275857	22	38,198,963	N_Shore			-0.005	0.041	0.0060
cg05936441	20	37,356,844	Island	SLC32A1	Body	-0.008	0.052	0.0060
cg16010628	12	49,692,283	S_Shore	PRPH	3'UTR	0.018	0.245	0.0060
cg27258394	8	4,773,213	OpenSea	CSMD1	Body	0.008	0.967	0.0060
cg01391662	10	30,026,015	Island	SVIL	TSS1500	0.006	0.035	0.0060
cg02671213	13	46,785,528	OpenSea			0.024	0.072	0.0060
cg25827666	1	156,785,558	S_Shore	SH2D2A	Body	0.014	0.625	0.0060

cg16973406	22	43,265,991	Island			0.017	0.784	0.0060
cg16967099	18	30,351,472	Island	KLHL14	5'UTR	-0.004	0.031	0.0060
cg08979126	1	43,250,303	N_Shore			0.021	0.859	0.0060
cg09529138	7	130,419,792	S_Shore	KLF14	TSS1500	-0.021	0.083	0.0060
cg09813762	1	54,684,023	OpenSea	MRPL37	3'UTR	0.018	0.876	0.0061
cg17240135	2	112,898,493	S_Shore	FBLN7	Body	0.041	0.534	0.0061
cg17217017	7	158,828,449	OpenSea	VIPR2	Body	0.012	0.489	0.0061
cg09678971	2	223,160,486	Island	PAX3	Body	0.002	0.021	0.0061
cg12807588	1	53,688,861	S_Shelf			0.024	0.610	0.0061
cg27096172	7	158,350,433	S_Shore	PTPRN2	Body	0.016	0.856	0.0061
cg15880113	14	101,592,480	OpenSea			0.012	0.890	0.0061
cg20454179	10	135,263,290	S_Shelf			0.007	0.973	0.0061
cg10802927	8	144,135,445	OpenSea	C8orf31	3'UTR	-0.024	0.859	0.0061
cg09655887	7	133,083,962	OpenSea	EXOC4	Body	-0.024	0.889	0.0061
cg03321349	2	125,239,714	OpenSea	CNTNAP5	Body	-0.037	0.780	0.0061
cg06878960	16	27,481,824	OpenSea	GTF3C1	Body	-0.012	0.948	0.0061
cg18745782	19	13,985,408	S_Shore	MIR181D	TSS1500	0.026	0.725	0.0061
cg09580922	17	76,371,406	N_Shelf			0.013	0.562	0.0061
cg13568107	2	220,412,529	Island	TMEM198	Body	0.017	0.885	0.0061
cg18681028	4	6,755,077	OpenSea			0.016	0.653	0.0061
cg20921659	2	29,698,784	OpenSea	ALK	Body	0.017	0.488	0.0061
cg23099913	17	46,607,103	N_Shore	HOXB1	Body	0.021	0.866	0.0061
cg19332572	11	65,321,591	Island	LTBP3	Body	0.035	0.617	0.0061
cg21230435	7	128,416,023	OpenSea	OPN1SW	TSS200	-0.005	0.970	0.0061
cg05709568	12	121,790,321	S_Shore	ANAPC5	TSS200	0.002	0.018	0.0061
cg10944097	13	25,691,517	OpenSea			0.017	0.866	0.0062
cg13521205	9	130,291,154	S_Shore	FAM129B	Body	0.014	0.532	0.0062
cg03032607	3	45,882,686	N_Shore	LZTFL1	Body	0.028	0.446	0.0062
cg02342092	2	44,314,396	Island			-0.005	0.040	0.0062
cg06405146	19	21,666,788	Island			0.050	0.375	0.0062

cg24392955	12	54,454,325	Island	FLJ12825	Body	-0.012	0.555	0.0062
cg02738617	2	58,023,996	OpenSea			0.026	0.181	0.0062
cg08103568	4	100,737,138	OpenSea	DAPP1	TSS1500	0.020	0.781	0.0062
cg20717768	19	46,379,763	N_Shore			-0.013	0.186	0.0062
cg16272868	5	134,094,170	Island	DDX46	TSS1500	-0.004	0.038	0.0062
cg26992010	15	89,951,870	N_Shore			-0.009	0.048	0.0062
cg10233913	1	17,446,162	S_Shore	PADI2	TSS1500	-0.011	0.063	0.0062
cg22398359	1	53,558,066	N_Shore	SLC1A7	Body	0.012	0.935	0.0062
cg24947985	17	16,557,942	S_Shore	ZNF624	TSS1500	0.024	0.922	0.0062
cg01054652	11	72,246,863	OpenSea			-0.022	0.872	0.0062
cg06932451	19	36,869,880	Island			-0.005	0.021	0.0062
cg06899329	19	19,627,922	S_Shore	NDUFA13	Body	0.012	0.955	0.0062
cg03323793	7	151,548,111	OpenSea	PRKAG2	Body	0.022	0.585	0.0062
cg23695880	17	40,333,758	S_Shore	KCNH4	TSS1500	0.023	0.753	0.0063
cg25959131	3	50,855,436	OpenSea	DOCK3	Body	0.035	0.541	0.0063
cg21658333	8	33,342,717	Island	MAK16	5'UTR	-0.008	0.039	0.0063
cg26412441	11	64,825,998	OpenSea	NAALADL1	1stExon	0.017	0.876	0.0063
cg16149930	5	491,321	Island	SLC9A3	Body	0.022	0.821	0.0063
cg15797314	17	65,437,724	OpenSea	PITPNC1	Body	0.026	0.611	0.0063
cg03519931	1	22,466,137	N_Shelf	WNT4	Body	-0.027	0.823	0.0063
cg03630683	3	4,534,997	Island	ITPR1	TSS200	-0.002	0.014	0.0063
cg12461677	19	58,862,089	Island	NCRNA00181	TSS1500	-0.030	0.147	0.0063
cg22517995	19	37,096,588	Island	ZNF382	5'UTR	-0.013	0.053	0.0063
cg19290938	11	1,988,758	N_Shelf			0.017	0.596	0.0063
cg06789500	7	2,109,450	S_Shelf	MAD1L1	Body	0.022	0.486	0.0063
cg16530760	2	120,121,136	N_Shelf	C2orf76	5'UTR	-0.023	0.848	0.0063
cg14179944	14	35,867,515	OpenSea			0.018	0.474	0.0063
cg13059373	6	33,288,944	Island	DAXX	Body	0.018	0.846	0.0063
cg15744128	2	27,850,964	OpenSea	CCDC121	Body	0.026	0.220	0.0063
cg10761979	3	125,899,144	Island	ALDH1L1	5'UTR	-0.006	0.041	0.0063

cg02637512	5	137,476,322	OpenSea	BRD8	Body	0.023	0.391	0.0063
cg10482224	1	214,557,383	Island	PTPN14	Body	0.006	0.958	0.0063
cg17201947	3	42,700,007	N_Shore	ZBTB47	Body	0.015	0.577	0.0063
cg19093890	2	240,868,184	N_Shore			0.021	0.924	0.0064
cg02743950	19	47,260,132	Island	FKRP	Body	0.045	0.501	0.0064
cg12565788	2	241,644,240	S_Shelf			0.029	0.632	0.0064
cg14886572	17	40,934,398	N_Shore	WNK4	Body	0.048	0.230	0.0064
cg19071342	2	85,789,035	S_Shore	GGCX	TSS1500	0.004	0.030	0.0064
cg26965275	18	57,365,116	S_Shore	CCBE1	TSS1500	-0.002	0.013	0.0064
cg04188238	4	187,477,310	S_Shore	MTNR1A	TSS1500	0.014	0.928	0.0064
cg16876859	10	134,621,538	N_Shore			0.018	0.605	0.0064
cg18479565	19	15,901,167	OpenSea			0.023	0.603	0.0064
cg16405012	12	5,542,395	Island	NTF3	Body	-0.011	0.071	0.0064
cg03547797	11	22,689,644	S_Shore	GAS2	TSS200	-0.025	0.535	0.0064
cg10071929	9	130,955,135	N_Shore	CIZ1	TSS1500	0.077	0.260	0.0064
cg18343292	11	60,146,078	OpenSea	MS4A7	5'UTR	0.026	0.718	0.0064
cg22149359	5	112,630,990	S_Shore	MCC	TSS1500	-0.005	0.048	0.0064
cg13004635	5	498,425	Island	SLC9A3	Body	0.023	0.635	0.0064
cg27013360	6	41,040,518	Island	NFYA	TSS200	-0.025	0.180	0.0064
cg14196211	17	79,670,206	Island	MRPL12	TSS200	-0.003	0.018	0.0064
cg07593177	11	6,501,850	N_Shore	ARFIP2	5'UTR	0.041	0.616	0.0064
cg03591104	6	33,878,085	OpenSea			0.017	0.911	0.0064
cg25054196	6	160,426,171	N_Shore	IGF2R	Body	0.017	0.850	0.0064
cg23737263	2	43,328,424	S_Shore			0.027	0.373	0.0064
cg02841895	17	74,942,714	N_Shelf	MGAT5B	Body	0.021	0.618	0.0065
cg09842237	16	51,189,844	Island			-0.004	0.027	0.0065
cg15650745	4	24,274,965	OpenSea			0.032	0.736	0.0065
cg13702846	3	42,888,883	OpenSea	CCBP2	5'UTR	-0.014	0.332	0.0065
cg04574034	17	46,799,745	N_Shore	PRAC	1stExon	-0.036	0.156	0.0065
cg11100481	5	149,867,577	S_Shore			0.016	0.722	0.0065

cg01455766	16	3,211,341	S_Shore			0.018	0.552	0.0065
cg03362549	8	96,694,077	OpenSea			0.008	0.969	0.0065
cg04598683	11	129,871,924	Island	NCRNA00167	TSS1500	-0.006	0.037	0.0065
cg24487554	8	144,163,853	N_Shelf			0.019	0.759	0.0065
cg26999775	14	105,347,803	N_Shelf	KIAA0284	Body	0.022	0.671	0.0065
cg09680007	1	153,521,909	OpenSea	S100A3	TSS200	0.019	0.609	0.0065
cg02567769	5	179,588,673	Island	RASGEF1C	5'UTR	-0.041	0.546	0.0065
cg27097438	5	126,409,153	Island	FLJ44606	5'UTR	-0.062	0.197	0.0065
cg02764416	6	31,852,426	OpenSea	EHMT2	Body	-0.003	0.979	0.0065
cg26621408	7	100,275,863	S_Shore	GNB2	Body	0.016	0.796	0.0065
cg07464201	14	75,422,611	S_Shore	PGF	TSS1500	-0.008	0.061	0.0065
cg08548172	10	13,629,984	S_Shore	PRPF18	Body	0.035	0.327	0.0065
cg02744937	6	160,426,265	Island	IGF2R	Body	0.023	0.927	0.0066
cg12444840	14	94,547,301	Island	DDX24	5'UTR	-0.012	0.022	0.0066
cg14128641	19	19,371,927	Island	HAPLN4	Body	0.026	0.253	0.0066
cg02967198	16	84,797,528	OpenSea	USP10	Body	0.004	0.973	0.0066
cg20299663	10	7,451,376	Island	SFMBT2	5'UTR	-0.005	0.033	0.0066
cg26792295	3	16,540,091	OpenSea	RFTN1	5'UTR	0.009	0.957	0.0066
cg06315439	17	47,448,633	OpenSea			0.018	0.453	0.0066
cg25743286	6	30,510,238	OpenSea	GNL1	3'UTR	0.018	0.151	0.0066
cg06359132	10	99,160,096	N_Shore	RRP12	Body	0.025	0.475	0.0066
cg15256387	7	14,031,941	S_Shore	ETV1	TSS1500	0.046	0.455	0.0066
cg03873322	6	142,409,202	N_Shore	NMBR	Body	0.038	0.171	0.0066
cg19579058	2	233,389,143	Island			-0.016	0.083	0.0066
cg10706266	8	66,546,233	Island	ARMC1	1stExon	0.001	0.013	0.0066
cg08042273	1	32,224,983	N_Shore	BAI2	5'UTR	0.014	0.410	0.0066
cg09739109	7	6,666,368	S_Shelf			0.008	0.963	0.0066
cg09668564	3	43,732,144	Island	ABHD5	TSS1500	0.003	0.020	0.0066
cg23584554	14	77,224,704	N_Shelf			0.052	0.704	0.0066
cg10683576	10	134,488,959	OpenSea	INPP5A	Body	0.012	0.907	0.0067



cg15625693	4	187,187,177	OpenSea	F11	5'UTR	0.032	0.454	0.0067
cg16037062	1	204,038,662	N_Shelf			0.021	0.521	0.0067
cg24727480	12	109,901,083	OpenSea	KCTD10	Body	0.007	0.022	0.0067
cg18317533	8	4,750,513	OpenSea	CSMD1	Body	0.033	0.665	0.0067
cg14179389	1	92,947,961	Island	GFI1	Body	-0.006	0.026	0.0067
cg27181253	1	113,051,846	Island	WNT2B	Body	0.042	0.385	0.0067
cg07523958	19	47,181,684	Island	PRKD2	Body	0.018	0.513	0.0067
cg25131551	1	110,607,342	N_Shelf	ALX3	Body	0.015	0.769	0.0067
cg20732198	10	35,894,310	N_Shelf	GJD4	TSS200	0.022	0.311	0.0067
cg27257679	12	117,349,264	S_Shore	FBXW8	Body	-0.004	0.013	0.0067
cg03030994	11	2,562,310	OpenSea	KCNQ1	Body	0.018	0.891	0.0067
cg00854242	18	74,961,724	Island	GALR1	TSS1500	-0.003	0.026	0.0067
cg05817118	18	77,389,157	S_Shelf			0.033	0.667	0.0067
cg18117403	1	229,114,792	OpenSea			0.026	0.660	0.0067
cg20850275	6	32,917,641	OpenSea	HLA-DMA	Body	-0.013	0.900	0.0067
cg04141813	16	216,450	Island	HBM	Body	0.006	0.033	0.0067
cg03346733	19	13,987,364	N_Shore	NANOS3	TSS1500	0.026	0.704	0.0068
cg19142133	17	73,827,687	OpenSea	UNC13D	Body	0.016	0.728	0.0068
cg06616077	20	4,130,531	S_Shore	SMOX	5'UTR	0.002	0.013	0.0068
cg25123046	6	31,747,893	OpenSea	VAR5	Body	0.012	0.870	0.0068
cg21473183	2	85,925,749	OpenSea	GNLY	3'UTR	0.024	0.617	0.0068
cg09226288	22	51,225,561	S_Shelf	RPL23AP82	Body	0.027	0.596	0.0068
cg04936274	10	134,672,412	Island			-0.024	0.541	0.0068
cg26343532	8	144,207,101	OpenSea			0.038	0.505	0.0068
cg01936347	16	679,189	S_Shore	RAB40C	3'UTR	0.020	0.765	0.0068
cg05592114	12	7,244,104	OpenSea	C1R	Body	0.027	0.805	0.0068
cg12547218	2	240,153,820	S_Shore	HDAC4	Body	0.027	0.519	0.0068
cg01810267	5	118,603,742	N_Shore	TNFAIP8	TSS1500	0.022	0.065	0.0068
cg13713315	17	6,795,846	N_Shore	ALOX12P2	Body	0.014	0.935	0.0068
cg21580428	5	140,792,814	N_Shore	PCDHGA4	Body	0.019	0.100	0.0068

cg00216758	11	560,589	Island	RASSF7	TSS1500	-0.005	0.043	0.0068
cg00806319	9	96,068,666	N_Shore	WNK2	Body	0.020	0.737	0.0068
cg08337773	15	72,100,575	N_Shelf			0.020	0.754	0.0068
cg14104280	10	82,363,213	OpenSea	SH2D4B	Body	0.008	0.981	0.0068
cg22748179	7	117,821,879	N_Shelf			0.030	0.936	0.0068
cg14706852	2	127,976,351	N_Shore			-0.006	0.036	0.0068
cg16287740	7	128,595,046	OpenSea	TNPO3	3'UTR	0.021	0.628	0.0068
cg03084308	16	20,361,044	S_Shore	UMOD	Body	0.006	0.954	0.0068
cg12123733	14	102,025,815	N_Shore			0.019	0.440	0.0069
cg16266698	3	42,244,474	S_Shore	TRAK1	Body	0.008	0.961	0.0069
cg25629041	2	88,817,360	OpenSea			0.019	0.405	0.0069
cg19867410	14	66,480,492	OpenSea			-0.021	0.615	0.0069
cg04244855	7	611,233	Island	PRKAR1B	Body	0.020	0.690	0.0069
cg12658052	1	1,078,295	OpenSea			0.019	0.643	0.0069
cg07220032	13	24,742,701	OpenSea	SPATA13	5'UTR	0.010	0.973	0.0069
cg20381115	15	45,671,148	S_Shore	LOC145663	Body	0.022	0.289	0.0069
cg24797431	8	42,553,592	OpenSea	CHRN3	Body	0.039	0.526	0.0069
cg15586563	19	43,916,594	N_Shelf	TEX101	Body	0.014	0.936	0.0069
cg13491144	1	2,954,108	OpenSea			0.021	0.553	0.0069
cg15813460	4	3,250,921	Island	C4orf44	5'UTR	0.027	0.489	0.0069
cg19516825	19	48,686,777	S_Shore			0.015	0.921	0.0069
cg06699484	5	132,166,328	Island			0.008	0.034	0.0069
cg02599463	1	156,611,574	N_Shore	BCAN	TSS200	-0.003	0.023	0.0070
cg14297023	22	36,906,998	S_Shelf	EIF3D	3'UTR	0.014	0.847	0.0070
cg07884352	7	143,152	OpenSea			0.020	0.816	0.0070
cg15254860	3	167,813,494	Island	GOLIM4	TSS200	0.017	0.070	0.0070
cg24693760	1	167,509,918	OpenSea			-0.142	0.359	0.0070
cg03523485	12	132,852,593	N_Shore	GALNT9	Body	0.016	0.857	0.0070
cg21382923	1	21,055,163	N_Shelf	SH2D5	5'UTR	0.018	0.483	0.0070
cg18517540	18	32,446,543	OpenSea	DTNA	3'UTR	0.015	0.912	0.0070

cg18473733	19	16,437,362	Island	KLF2	Body	-0.018	0.367	0.0070
cg00256932	22	51,041,732	N_Shore	MAPK8IP2	1stExon	0.028	0.682	0.0070
cg08832596	11	76,757,006	N_Shore			0.021	0.524	0.0070
cg01830294	7	116,963,492	Island	WNT2	TSS200	-0.006	0.044	0.0070
cg14125292	16	34,407,918	Island			0.020	0.889	0.0070
cg03696327	1	101,005,121	Island	GPR88	Body	-0.012	0.041	0.0070
cg24878059	19	40,732,896	S_Shore	CNTD2	TSS1500	0.016	0.456	0.0070
cg15896939	1	156,030,809	OpenSea	RAB25	TSS200	0.020	0.458	0.0070
cg08858540	5	346,238	S_Shore	AHRR	Body	0.051	0.523	0.0070
cg17787108	7	73,246,044	Island	CLDN4	1stExon	0.040	0.671	0.0071
cg18459040	14	75,478,802	OpenSea			0.017	0.802	0.0071
cg09959242	13	85,004,775	OpenSea			-0.018	0.074	0.0071
cg12046837	1	204,839,875	OpenSea	NFASC	5'UTR	0.017	0.559	0.0071
cg14403241	8	71,317,737	S_Shore			-0.025	0.735	0.0071
cg24599065	2	202,093,848	OpenSea	CASP10	3'UTR	0.022	0.623	0.0071
cg03841977	21	37,442,777	Island	CBR1	Body	-0.010	0.029	0.0071
cg11698099	16	67,695,462	Island	PAR6A	Body	-0.005	0.039	0.0071
cg11684302	12	4,489,155	OpenSea	FGF23	TSS1500	0.035	0.552	0.0071
cg06724937	15	51,056,548	N_Shore	SPPL2A	Body	0.036	0.281	0.0071
cg27604145	5	140,186,489	N_Shore	PCDHA2	Body	0.032	0.207	0.0071
cg06112871	7	39,383,753	OpenSea	POU6F2	Body	-0.010	0.957	0.0071
cg21109136	4	103,748,470	Island	UBE2D3	5'UTR	0.002	0.017	0.0071
cg10406153	14	72,400,075	S_Shore	RGS6	5'UTR	-0.002	0.017	0.0071
cg24665761	8	55,047,683	N_Shore	MRPL15	TSS200	0.003	0.022	0.0071
cg23995769	11	57,148,918	OpenSea	PRG3	TSS1500	0.027	0.869	0.0071
cg07415373	22	27,153,015	Island			-0.034	0.311	0.0071
cg12391576	6	33,037,662	OpenSea	HLA-DPA1	Body	-0.047	0.953	0.0072
cg02599006	2	28,032,311	OpenSea	RBKS	Body	-0.006	0.974	0.0072
cg11267879	19	41,619,952	OpenSea	CYP2F1	TSS1500	-0.015	0.928	0.0072
cg03384318	10	114,877,689	OpenSea	TCF7L2	Body	-0.029	0.926	0.0072

cg05969018	21	47,056,933	N_Shore			0.015	0.580	0.0072
cg27172378	1	12,293,395	S_Shelf	VPS13D	5'UTR	0.031	0.973	0.0072
cg22005656	5	159,691,948	OpenSea	CCNJL	Body	0.004	0.977	0.0072
cg26495953	20	43,937,289	S_Shore	MATN4	TSS1500	0.032	0.578	0.0072
cg26011809	12	107,351,005	S_Shore	C12orf23	5'UTR	0.005	0.027	0.0072
cg18980733	5	137,577,858	Island			-0.006	0.040	0.0072
cg26441372	19	41,120,906	S_Shore	LTBP4	Body	-0.022	0.116	0.0072
cg26992186	7	44,224,132	OpenSea	GCK	Body	0.026	0.738	0.0072
cg21531389	22	27,006,498	OpenSea	CRYBB1	Body	0.025	0.725	0.0072
cg19838043	14	104,196,038	S_Shore	ZFYVE21	Body	0.017	0.599	0.0072
cg11447040	20	37,667,339	OpenSea	DHX35	3'UTR	0.013	0.902	0.0072
cg21219529	9	104,296,226	Island	RNF20	5'UTR	-0.003	0.026	0.0072
cg12123879	19	55,417,361	OpenSea	NCR1	TSS200	0.048	0.360	0.0072
cg00606464	10	98,345,666	N_Shore	TM9SF3	Body	0.002	0.015	0.0072
cg22719878	7	151,454,032	OpenSea	PRKAG2	Body	0.027	0.830	0.0072
cg04030444	6	170,581,971	S_Shore			-0.004	0.970	0.0072
cg15331036	11	124,745,795	N_Shore	ROBO3	Body	0.016	0.065	0.0072
cg08613794	16	16,974,291	OpenSea			0.042	0.453	0.0072
cg08708079	20	3,762,422	N_Shelf	SPEF1	TSS1500	0.030	0.684	0.0072
cg03329714	19	7,525,578	N_Shelf	ARHGEF18	Body	0.008	0.960	0.0073
cg20687482	8	142,526,160	N_Shelf			0.022	0.829	0.0073
cg00928795	16	75,261,098	N_Shelf			0.021	0.693	0.0073
cg14408738	20	62,268,763	N_Shelf			0.020	0.535	0.0073
cg18557684	14	22,362,441	OpenSea			-0.003	0.019	0.0073
cg06162423	3	118,754,376	S_Shore	IGSF11	TSS1500	0.011	0.046	0.0073
cg04166385	19	40,002,801	N_Shelf			0.030	0.435	0.0073
cg22852824	12	19,365,799	OpenSea	PLEKHA5	5'UTR	0.005	0.974	0.0073
cg13883576	12	13,152,467	N_Shore	HEBP1	Body	0.031	0.427	0.0073
cg21188037	7	45,018,658	OpenSea	MYO1G	5'UTR	0.013	0.930	0.0073
cg00647165	19	15,550,850	Island	WIZ	Body	0.021	0.780	0.0073

cg02932691	19	15,947,388	Island			0.003	0.029	0.0073
cg15252243	4	90,031,538	N_Shore			0.029	0.346	0.0073
cg18801311	12	6,417,620	N_Shore			0.021	0.547	0.0073
cg18337479	10	134,980,303	Island	KNDC1	Body	0.005	0.976	0.0073
cg06002975	2	86,422,967	S_Shore	IMMT	TSS200	0.002	0.013	0.0073
cg13808145	11	115,024,483	N_Shore			0.023	0.868	0.0073
cg05687563	16	2,837,658	S_Shore	PRSS33	TSS1500	0.018	0.278	0.0073
cg24436207	22	25,170,858	OpenSea	PIWIL3	TSS200	0.027	0.836	0.0073
cg08730743	1	2,189,027	OpenSea	SKI	Body	0.020	0.541	0.0073
cg19198993	12	131,708,300	OpenSea			0.024	0.814	0.0073
cg02307597	19	17,402,942	N_Shore	ABHD8	3'UTR	0.013	0.925	0.0074
cg10635443	8	23,557,486	N_Shelf			0.026	0.338	0.0074
cg13433612	11	115,774,292	OpenSea			0.003	0.985	0.0074
cg10253465	19	45,996,844	N_Shore	RTN2	Body	0.036	0.444	0.0074
cg13929106	12	29,904,317	OpenSea	TMTC1	Body	0.017	0.871	0.0074
cg25793051	7	149,439,005	OpenSea			0.027	0.726	0.0074
cg25390413	1	2,390,701	S_Shelf			0.031	0.590	0.0074
cg16699074	19	42,192,347	OpenSea	CEACAM7	TSS1500	0.025	0.674	0.0074
cg17422824	10	75,599,694	S_Shore	CAMK2G	Body	-0.010	0.950	0.0074
cg19494913	17	54,675,231	Island			-0.005	0.028	0.0074
cg01450896	16	1,041,686	S_Shore			0.016	0.471	0.0074
cg15808472	18	13,763,868	OpenSea	RNMT	3'UTR	0.020	0.562	0.0074
cg25750004	17	77,962,682	N_Shelf	TBC1D16	Body	0.018	0.454	0.0074
cg21567504	15	28,344,477	Island	OCA2	TSS200	0.006	0.042	0.0074
cg23862011	7	34,801,131	OpenSea	AAA1	Body	-0.025	0.499	0.0074
cg21574244	15	42,568,411	S_Shelf	GANC	Body	0.020	0.850	0.0074
cg20704774	19	15,335,041	S_Shore			0.014	0.396	0.0074
cg02226934	4	187,473,490	N_Shelf	MTNR1A	Body	0.007	0.973	0.0074
cg23101118	12	58,158,888	Island	CYP27B1	Body	-0.014	0.068	0.0074
cg14203042	9	96,330,917	S_Shore			0.020	0.780	0.0074

cg11579059	4	156,300,245	S_Shelf			0.019	0.799	0.0075
cg14661148	5	71,852,862	OpenSea			0.002	0.032	0.0075
cg19247032	21	43,786,727	OpenSea	TFF1	TSS200	0.024	0.441	0.0075
cg13053396	12	7,168,545	OpenSea	C1S	5'UTR	0.019	0.480	0.0075
cg02994025	1	20,902,240	OpenSea			0.037	0.693	0.0075
cg10759936	1	147,011,226	OpenSea			-0.017	0.775	0.0075
cg00549450	10	105,953,722	OpenSea	C10orf79	Body	0.029	0.545	0.0075
cg21082427	16	2,918,679	Island			-0.005	0.035	0.0075
cg14623910	12	131,974,252	N_Shelf			-0.041	0.701	0.0075
cg02516189	9	139,268,092	S_Shelf	CARD9	1stExon	0.018	0.404	0.0075
cg18130622	3	134,124,275	N_Shore			0.016	0.820	0.0075
cg26120279	14	105,911,631	N_Shore	MTA1	Body	0.015	0.751	0.0075
cg04453352	12	122,519,951	S_Shelf	MLXIP	Body	-0.016	0.117	0.0075
cg11751688	1	246,958,957	OpenSea			0.019	0.486	0.0075
cg02357751	22	19,710,880	Island	GP1BB	TSS200	-0.036	0.616	0.0075
cg26526379	7	26,416,184	Island			-0.020	0.065	0.0075
cg17699330	6	43,210,911	N_Shore	TTBK1	TSS1500	0.019	0.341	0.0075
cg01814149	5	139,133,715	N_Shore			0.006	0.963	0.0075
cg00977004	2	238,172,739	OpenSea			-0.018	0.896	0.0075
cg12519783	12	131,580,615	OpenSea	GPR133	Body	-0.068	0.686	0.0075
cg15628498	15	53,082,902	Island	ONECUT1	TSS1500	0.004	0.024	0.0076
cg05432305	3	33,840,003	Island	PDCD6IP	TSS200	-0.003	0.025	0.0076
cg23806084	6	32,821,605	Island	PSMB9	TSS1500	0.002	0.020	0.0076
cg26712159	3	48,697,504	N_Shore	CELSR3	1stExon	0.011	0.939	0.0076
cg23987789	1	7,842,406	N_Shore			0.013	0.937	0.0076
cg04367197	11	13,300,320	Island	ARNTL	5'UTR	-0.007	0.035	0.0076
cg23533139	20	13,977,067	Island	MACROD2	Body	-0.003	0.020	0.0076
cg01645676	7	1,053,726	S_Shore	C7orf50	Body	0.010	0.967	0.0076
cg16303353	12	2,393,684	OpenSea	CACNA1C	Body	0.023	0.525	0.0076
cg24249791	7	142,012,611	OpenSea			0.020	0.518	0.0076

cg08666707	6	41,456,441	OpenSea			-0.016	0.284	0.0076
cg10914467	6	31,939,224	N_Shore	STK19	TSS1500	0.027	0.391	0.0076
cg21155767	14	95,374,525	OpenSea			0.024	0.644	0.0077
cg06386983	2	242,785,184	N_Shore			0.021	0.507	0.0077
cg13785207	22	39,928,927	Island	RPS19BP1	TSS200	-0.004	0.026	0.0077
cg27226538	16	89,207,553	OpenSea	ACSF3	Body	0.013	0.925	0.0077
cg12428727	11	2,234,665	OpenSea			0.022	0.444	0.0077
cg08611677	2	99,797,711	S_Shore	MITD1	TSS1500	-0.004	0.036	0.0077
cg10920378	4	155,702,172	N_Shore	RBM46	TSS1500	0.021	0.655	0.0077
cg00439318	16	89,601,909	N_Shore	SPG7	Body	0.007	0.969	0.0077
cg05940966	5	6,337,408	OpenSea	FLJ33360	TSS200	0.020	0.652	0.0077
cg11309214	2	136,707,979	OpenSea	DARS	Body	-0.015	0.917	0.0077
cg06482783	5	115,289,176	OpenSea			-0.007	0.972	0.0077
cg20044118	13	55,419,681	OpenSea			0.019	0.362	0.0077
cg10625851	7	100,084,567	N_Shore	C7orf51	Body	0.016	0.845	0.0077
cg14602335	6	30,882,031	Island	VAR52	TSS200	0.007	0.035	0.0077
cg11163433	10	70,232,471	S_Shore	DNA2	TSS1500	-0.039	0.756	0.0077
cg22579224	15	81,243,145	OpenSea	KIAA1199	3'UTR	0.010	0.911	0.0077
cg19407943	2	130,031,761	OpenSea			0.016	0.890	0.0077
cg00313872	3	36,987,493	S_Shore	TRANK1	TSS1500	0.015	0.899	0.0077
cg06528773	11	62,382,998	S_Shelf	B3GAT3	3'UTR	0.017	0.767	0.0077
cg06768213	1	227,963,296	OpenSea	SNAP47	Body	0.026	0.884	0.0077
cg00153101	1	2,431,753	N_Shore	PLCH2	Body	0.017	0.755	0.0078
cg06157777	9	134,248,884	Island			-0.005	0.029	0.0078
cg18832619	19	55,417,436	OpenSea	NCR1	TSS200	0.026	0.733	0.0078
cg09980771	17	54,230,787	OpenSea	ANKFN1	TSS200	0.020	0.583	0.0078
cg00773965	1	7,831,173	N_Shore	VAMP3	TSS200	-0.003	0.015	0.0078
cg08834018	22	18,924,883	S_Shore	PRODH	TSS1500	0.018	0.729	0.0078
cg20497668	10	134,624,132	Island			0.020	0.714	0.0078
cg23743186	22	39,152,048	Island	UNC84B	TSS200	-0.004	0.019	0.0078

cg11773933	5	139,737,513	OpenSea			-0.004	0.036	0.0078
cg00689316	20	37,300,418	N_Shelf			0.025	0.179	0.0078
cg14221550	8	120,220,050	N_Shore	MAL2	TSS1500	0.033	0.224	0.0078
cg24705426	3	11,550,659	OpenSea	ATG7	Body	-0.005	0.037	0.0078
cg23542134	2	42,795,680	N_Shore	MTA3	1stExon	0.029	0.201	0.0078
cg08150843	19	5,237,295	Island	PTPRS	Body	0.012	0.912	0.0078
cg18851332	17	54,230,793	OpenSea	ANKFN1	TSS200	0.017	0.389	0.0078
cg04214573	10	114,135,847	OpenSea	ACSL5	TSS200	0.007	0.042	0.0078
cg27657532	19	2,923,847	N_Shelf			0.033	0.603	0.0078
cg18240400	10	46,168,597	Island	ANUBL1	TSS1500	-0.006	0.047	0.0078
cg15082648	11	886,648	N_Shelf	CHID1	Body	0.012	0.831	0.0079
cg24752875	2	242,612,949	N_Shelf	ATG4B	3'UTR	0.007	0.970	0.0079
cg07224469	4	716,282	Island	PCGF3	5'UTR	-0.013	0.928	0.0079
cg03660331	7	56,564,743	OpenSea	DKFZp434L192	Body	0.035	0.745	0.0079
cg13919341	6	30,029,929	S_Shore	ZNRD1	Body	0.019	0.580	0.0079
cg09214300	11	1,248,692	S_Shore	MUC5B	Body	0.016	0.841	0.0079
cg01772149	1	3,038,216	Island	PRDM16	Body	-0.024	0.469	0.0079
cg02955361	1	32,479,956	Island	KHDRBS1	1stExon	-0.004	0.020	0.0079
cg24437775	6	113,860,384	OpenSea			0.029	0.483	0.0079
cg02589054	6	42,896,743	N_Shore	CNPY3	TSS200	0.004	0.024	0.0079
cg10466548	16	10,965,217	OpenSea			0.020	0.612	0.0079
cg14120359	9	2,018,164	S_Shore	SMARCA2	5'UTR	-0.003	0.023	0.0079
cg09414633	19	1,449,922	N_Shore	APC2	TSS1500	-0.004	0.028	0.0079
cg14762896	20	61,691,785	N_Shelf			0.015	0.465	0.0079
cg05793094	6	30,123,034	OpenSea	TRIM10	Body	0.043	0.525	0.0079
cg06391926	16	1,832,733	Island	NUBP2	TSS200	-0.007	0.026	0.0079
cg22160463	17	47,755,834	S_Shore	SPOP	TSS1500	0.029	0.280	0.0079
cg21805969	7	1,177,903	Island	C7orf50	TSS200	0.006	0.021	0.0079
cg14319409	5	151,304,409	Island	GLRA1	TSS200	0.002	0.014	0.0079
cg10536151	11	17,758,285	Island	KCNC1	Body	0.025	0.555	0.0079



cg03839625	20	43,538,443	N_Shore	PABPC1L	TSS1500	0.003	0.022	0.0080
cg17014186	7	100,208,533	N_Shore	MOSPD3	TSS1500	0.019	0.721	0.0080
cg10765336	19	359,491	N_Shore			0.015	0.831	0.0080
cg09493583	19	47,510,077	S_Shelf			0.020	0.849	0.0080
cg23695120	22	20,748,445	Island	ZNF74	TSS200	0.004	0.018	0.0080
cg11655243	5	140,778,396	N_Shore	PCDHGA4	Body	0.042	0.129	0.0080
cg07485181	2	131,851,172	Island	FAM168B	TSS200	-0.004	0.026	0.0080
cg27423177	12	8,219,358	OpenSea	C3AR1	TSS1500	0.018	0.925	0.0080
cg04406898	4	2,263,822	Island	MXD4	TSS200	-0.002	0.016	0.0080
cg04679530	19	57,657,196	OpenSea	ZIM3	TSS1500	0.033	0.792	0.0080
cg16392144	6	30,180,863	N_Shore	TRIM26	5'UTR	0.002	0.013	0.0080
cg27581091	10	134,884,455	Island			0.017	0.840	0.0080
cg23990529	6	29,232,221	OpenSea			0.007	0.971	0.0080
cg23863000	4	1,577,945	N_Shelf			0.029	0.457	0.0080
cg21266975	18	2,846,181	N_Shore	EMILIN2	TSS1500	0.030	0.457	0.0080
cg12955583	10	134,974,048	Island	KNDC1	1stExon	0.005	0.016	0.0080
cg12860500	6	31,465,958	Island	MICB	5'UTR	0.002	0.013	0.0081
cg05695699	1	33,235,324	N_Shore	KIAA1522	Body	0.016	0.860	0.0081
cg09323395	10	134,980,671	Island	KNDC1	Body	0.027	0.660	0.0081
cg12326526	3	183,209,927	Island	KLHL6	Body	-0.052	0.866	0.0081
cg04195855	15	101,548,413	N_Shore	LRRK1	Body	0.042	0.172	0.0081
cg12601933	1	12,248,895	N_Shelf	TNFRSF1B	Body	0.017	0.783	0.0081
cg14252148	9	136,933,880	OpenSea	BRD3	TSS1500	-0.005	0.029	0.0081
cg07507271	4	1,242,751	Island	C4orf42	TSS1500	0.009	0.055	0.0081
cg06020868	2	74,706,960	N_Shelf	CCDC142	Body	0.005	0.979	0.0081
cg21214467	19	55,894,758	N_Shore			0.016	0.271	0.0081
cg20406374	5	179,248,352	Island	SQSTM1	5'UTR	-0.003	0.019	0.0081
cg10382814	1	160,312,182	N_Shore	COPA	Body	0.027	0.197	0.0081
cg00610844	5	6,583,797	Island	LOC255167	Body	-0.023	0.176	0.0081
cg27546391	12	31,742,648	N_Shore	DENND5B	Body	-0.002	0.022	0.0081

cg18973735	15	43,822,758	OpenSea	MAP1A	3'UTR	0.023	0.644	0.0082
cg00637361	16	20,493,661	OpenSea	ACSM2A	Body	0.029	0.612	0.0082
cg24668570	10	134,973,778	Island	KNDC1	TSS200	-0.111	0.107	0.0082
cg06199346	11	14,280,333	N_Shore	SPON1	Body	-0.028	0.485	0.0082
cg17676824	5	159,664,715	OpenSea	FABP6	Body	0.018	0.717	0.0082
cg27269572	10	133,677,277	OpenSea			-0.036	0.819	0.0082
cg16751781	15	78,858,589	S_Shore	CHRNA5	Body	-0.016	0.064	0.0082
cg08377819	6	28,956,268	Island			0.008	0.041	0.0082
cg10784866	3	10,378,024	OpenSea	ATP2B2	Body	0.016	0.551	0.0082
cg09735390	5	164,658,718	OpenSea			-0.004	0.980	0.0082
cg25710357	7	72,936,650	Island	BAZ1B	TSS200	-0.005	0.031	0.0082
cg06064098	13	114,310,718	OpenSea	ATP4B	Body	0.016	0.823	0.0082
cg27349276	5	161,128,905	OpenSea	GABRA6	3'UTR	0.008	0.968	0.0082
cg09656942	17	18,761,022	N_Shore	PRPSAP2	TSS1500	0.035	0.133	0.0082
cg14043527	11	64,642,516	N_Shelf	EHD1	Body	0.019	0.606	0.0082
cg08801017	13	19,918,525	N_Shore	LOC10010193	Body	0.098	0.528	0.0082
cg21941223	19	2,926,894	Island			0.052	0.859	0.0082
cg12592387	12	131,701,888	OpenSea			0.039	0.591	0.0082
cg10492511	4	108,853,489	S_Shore	CYP2U1	Body	0.040	0.274	0.0082
cg14240993	12	132,929,352	N_Shore			0.014	0.876	0.0082
cg13477101	7	1,067,302	Island	C7orf50	Body	-0.018	0.064	0.0082
cg05435065	7	75,544,030	Island	POR	TSS1500	-0.014	0.033	0.0083
cg01779882	8	144,408,866	OpenSea	TOP1MT	Body	0.012	0.914	0.0083
cg22043888	1	229,162,085	OpenSea			-0.024	0.724	0.0083
cg23658362	1	179,553,788	N_Shore			-0.008	0.960	0.0083
cg00705613	12	132,661,528	N_Shore			0.017	0.829	0.0083
cg13548833	9	131,469,470	S_Shelf	PKN3	Body	0.021	0.696	0.0083
cg26892308	11	1,510,724	OpenSea	HCCA2	Body	0.018	0.679	0.0083
cg11879480	11	92,930,739	N_Shore	SLC36A4	Body	-0.005	0.031	0.0083
cg22916338	5	141,160,077	OpenSea			0.030	0.319	0.0083

cg01405004	3	68,980,539	N_Shore	FAM19A4	5'UTR	-0.004	0.026	0.0083
cg13264314	8	125,743,689	S_Shelf			-0.004	0.976	0.0083
cg09199486	17	48,259,448	OpenSea			0.016	0.537	0.0083
cg02406092	19	39,876,337	OpenSea	PAF1	3'UTR	0.030	0.470	0.0083
cg16320249	17	46,719,761	Island			-0.006	0.033	0.0083
cg12305588	6	32,135,715	S_Shore	EGFL8	Body	0.031	0.438	0.0083
cg14350120	11	13,700,098	OpenSea	FAR1	5'UTR	0.017	0.929	0.0083
cg09686635	1	210,001,418	Island	C1orf107	1stExon	0.002	0.020	0.0083
cg07442040	5	169,289,365	OpenSea	DOCK2	Body	0.009	0.974	0.0083
cg20246990	13	25,088,352	S_Shore	PARP4	TSS1500	0.005	0.980	0.0083
cg05654103	2	24,586,381	S_Shelf			0.016	0.913	0.0083
cg15219163	11	70,842,128	OpenSea	SHANK2	Body	-0.006	0.979	0.0083
cg08099331	16	11,037,187	N_Shore	CLEC16A	TSS1500	0.004	0.979	0.0083
cg08657939	11	69,295,007	OpenSea			0.016	0.629	0.0083
cg26982447	5	79,867,237	S_Shore	ANKRD34B	TSS1500	-0.015	0.908	0.0083
cg06123252	1	1,901,073	S_Shelf	KIAA1751	Body	0.017	0.748	0.0083
cg20051118	14	20,528,812	OpenSea	OR4L1	1stExon	0.035	0.841	0.0083
cg00562070	12	131,484,689	OpenSea	GPR133	Body	0.017	0.588	0.0083
cg03567760	20	23,341,721	N_Shore			-0.014	0.939	0.0083
cg10927510	20	62,259,125	Island	GMEB2	TSS1500	0.031	0.110	0.0084
cg00282731	17	74,018,510	Island	EVPL	Body	0.015	0.817	0.0084
cg16049597	10	76,844,489	OpenSea			-0.025	0.345	0.0084
cg21039874	21	27,945,708	S_Shore	CYYR1	TSS200	-0.002	0.021	0.0084
cg14020762	7	100,465,657	S_Shore	TRIP6	Body	0.008	0.036	0.0084
cg03231735	16	9,184,099	N_Shore	C16orf72	TSS1500	-0.004	0.028	0.0084
cg26332926	10	52,835,078	S_Shore	PRKG1	Body	0.027	0.470	0.0084
cg00856336	6	169,399,760	OpenSea			0.003	0.988	0.0084
cg00673286	15	83,349,613	Island	AP3B2	Body	-0.007	0.031	0.0084
cg06690548	4	139,162,808	OpenSea	SLC7A11	Body	0.022	0.789	0.0084
cg01234984	7	101,849,473	OpenSea	CUX1	Body	-0.013	0.904	0.0084

cg01577731	22	30,162,991	Island	UCRC	TSS1500	0.003	0.025	0.0085
cg10048986	12	49,631,720	S_Shelf			0.071	0.894	0.0085
cg04965879	6	56,915,755	S_Shelf	KIAA1586	Body	0.008	0.964	0.0085
cg00460807	3	45,731,126	Island	SACM1L	Body	-0.014	0.052	0.0085
cg19559621	11	66,035,671	N_Shore	RAB1B	TSS1500	0.002	0.021	0.0085
cg23690488	2	114,299,609	Island			-0.064	0.061	0.0085
cg18700428	16	3,243,304	Island			0.025	0.502	0.0085
cg23347911	11	67,194,909	N_Shore	RPS6KB2	TSS1500	0.004	0.978	0.0085
cg09600437	2	61,109,155	S_Shore	REL	Body	0.002	0.015	0.0085
cg03848857	4	52,861,702	OpenSea	LRRRC66	Body	0.013	0.928	0.0085
cg00678236	13	46,785,423	OpenSea			0.014	0.047	0.0085
cg05729372	10	53,526,990	OpenSea	PRKG1	Body	0.008	0.938	0.0085
cg20559158	8	2,020,707	OpenSea	MYOM2	Body	0.009	0.947	0.0085
cg24386906	6	116,692,844	Island	DSE	5'UTR	-0.004	0.022	0.0085
cg08482215	7	5,111,529	N_Shore	LOC389458	TSS1500	0.044	0.378	0.0085
cg21028981	3	192,465,728	OpenSea			0.038	0.611	0.0085
cg12366895	13	112,613,543	S_Shelf			0.041	0.613	0.0085
cg15052665	6	141,804,349	OpenSea			0.031	0.513	0.0085
cg23245711	3	48,413,678	OpenSea	FBXW12	TSS200	0.017	0.767	0.0085
cg00400987	16	28,915,821	S_Shelf	ATP2A1	3'UTR	0.028	0.529	0.0085
cg04142955	6	31,939,181	N_Shore	STK19	TSS1500	0.035	0.496	0.0085
cg16351569	17	43,448,493	N_Shore			-0.040	0.578	0.0085
cg14282304	9	98,793,317	S_Shelf			0.017	0.687	0.0086
cg24120153	10	122,610,486	N_Shore	WDR11	TSS200	0.047	0.552	0.0086
cg15169266	7	41,376,887	OpenSea			-0.032	0.723	0.0086
cg16343272	12	56,694,667	S_Shore	CS	TSS1500	0.029	0.258	0.0086
cg24256745	1	3,196,029	Island	PRDM16	Body	0.015	0.698	0.0086
cg19231602	22	35,019,831	OpenSea			0.022	0.777	0.0086
cg21051964	12	58,022,620	S_Shore	B4GALNT1	Body	0.058	0.471	0.0086
cg16661269	2	223,103,743	OpenSea	PAX3	Body	-0.018	0.247	0.0086

cg07496962	6	34,554,635	OpenSea			-0.006	0.975	0.0086
cg09915444	15	62,359,275	N_Shore	C2CD4A	1stExon	0.006	0.040	0.0086
cg02915939	6	30,711,022	Island	IER3	3'UTR	-0.004	0.033	0.0086
cg19097150	7	2,500,200	S_Shore			0.019	0.836	0.0086
cg22492099	15	43,414,974	OpenSea			0.030	0.378	0.0086
cg14830466	1	70,876,729	Island	CTH	TSS1500	-0.005	0.046	0.0086
cg13067509	17	6,538,498	OpenSea	KIAA0753	5'UTR	0.010	0.968	0.0086
cg07089276	3	100,207,343	N_Shelf			0.044	0.901	0.0086
cg06148175	11	67,418,148	OpenSea	ACY3	TSS200	0.025	0.578	0.0086
cg01858712	16	12,156,525	OpenSea	SNX29	Body	0.046	0.508	0.0086
cg07070348	12	130,555,007	OpenSea			0.031	0.451	0.0086
cg11998619	19	48,364,243	S_Shore			0.027	0.540	0.0087
cg18200828	14	22,236,018	OpenSea			0.026	0.866	0.0087
cg27499259	13	28,400,924	OpenSea			0.003	0.029	0.0087
cg04617428	10	104,223,518	S_Shelf	TMEM180	5'UTR	0.015	0.283	0.0087
cg11343337	1	2,361,882	S_Shore			0.020	0.892	0.0087
cg06529761	16	3,702,486	OpenSea	DNASE1	TSS1500	0.018	0.678	0.0087
cg27109125	15	51,740,698	OpenSea	DMXL2	3'UTR	0.004	0.984	0.0087
cg07391088	8	33,330,912	S_Shore	FUT10	TSS1500	0.003	0.024	0.0087
cg19679397	11	70,048,852	N_Shore	FADD	TSS1500	0.038	0.788	0.0087
cg01964525	2	55,136,103	OpenSea	EML6	Body	0.026	0.611	0.0087
cg16270399	18	74,257,894	OpenSea	LOC284276	Body	-0.028	0.722	0.0087
cg07657776	12	109,914,065	N_Shore	UBE3B	TSS1500	0.019	0.829	0.0087
cg07088351	8	124,454,257	OpenSea	WDYHV1	3'UTR	0.003	0.985	0.0087
cg08498942	6	42,110,188	Island	C6orf132	5'UTR	-0.008	0.065	0.0087
cg27262821	19	49,184,628	S_Shore	SEC1	Body	0.020	0.697	0.0088
cg12067522	15	52,405,000	S_Shore	BCL2L10	TSS200	-0.021	0.152	0.0088
cg11626756	5	6,491,472	OpenSea	UBE2QL1	3'UTR	0.023	0.688	0.0088
cg13805400	12	100,967,294	Island	GAS2L3	TSS200	-0.006	0.047	0.0088
cg02139827	21	34,404,457	N_Shore			0.024	0.605	0.0088

cg21754400	12	81,471,649	Island	ACSS3	TSS200	-0.013	0.035	0.0088
cg18143792	1	26,250,290	S_Shore			0.019	0.334	0.0088
cg13773818	9	130,185,820	N_Shore	ZNF79	TSS1500	0.048	0.121	0.0088
cg10436333	20	61,883,856	N_Shore	NKAIN4	Body	0.037	0.475	0.0088
cg12537619	11	3,187,923	S_Shore	OSBPL5	TSS1500	0.017	0.491	0.0088
cg20746134	10	71,142,347	OpenSea	HK1	Body	-0.004	0.972	0.0088
cg26705764	6	43,248,039	N_Shelf	TTBK1	Body	0.032	0.735	0.0088
cg09410512	2	224,564,400	OpenSea			0.039	0.573	0.0088
cg04892651	1	111,006,966	OpenSea			0.036	0.745	0.0088
cg09493857	2	55,459,644	OpenSea	RPS27A	5'UTR	0.002	0.015	0.0088
cg09190920	6	168,063,116	Island			0.024	0.958	0.0088
cg04504956	19	55,963,317	Island			-0.004	0.037	0.0088
cg08899531	1	25,754,572	N_Shore			-0.007	0.968	0.0088
cg00931843	6	155,442,993	OpenSea	TIAM2	5'UTR	0.026	0.368	0.0088
cg07720789	1	172,413,530	S_Shore	C1orf105	Body	0.018	0.803	0.0089
cg01290009	10	134,980,513	Island	KNDC1	Body	0.032	0.685	0.0089
cg20768122	6	90,997,723	OpenSea	BACH2	5'UTR	-0.021	0.856	0.0089
cg19478698	3	195,530,151	OpenSea	MUC4	Body	0.025	0.656	0.0089
cg19375044	19	45,394,343	Island	TOMM40	TSS200	-0.005	0.033	0.0089
cg13824515	9	140,047,122	N_Shelf	GRIN1	Body	0.010	0.955	0.0089
cg10075506	2	1,817,351	OpenSea	MYT1L	Body	-0.088	0.738	0.0089
cg10981009	14	62,279,702	Island			-0.004	0.023	0.0089
cg27516404	7	155,640,019	OpenSea			0.019	0.650	0.0089
cg07015749	1	6,085,995	N_Shore	KCNAB2	TSS1500	-0.054	0.449	0.0089
cg04608317	7	117,824,414	Island	NAA38	Body	-0.002	0.022	0.0089
cg00995457	14	100,057,570	OpenSea	CCDC85C	Body	0.017	0.815	0.0089
cg18019132	11	65,191,707	S_Shore	NEAT1	Body	0.029	0.495	0.0089
cg13216961	10	71,888,695	N_Shelf	AIFM2	5'UTR	-0.006	0.970	0.0089
cg01947769	1	2,362,403	S_Shelf			0.023	0.598	0.0089
cg20801778	7	130,125,200	N_Shore	MEST	TSS1500	0.009	0.929	0.0089

cg14250740	3	175,244,596	OpenSea	NAALADL2	Body	0.034	0.447	0.0089
cg02960500	11	131,469,924	OpenSea	NTM	Body	-0.060	0.532	0.0090
cg01929377	13	37,634,127	S_Shore	FAM48A	TSS1500	-0.025	0.129	0.0090
cg05834639	16	87,885,208	OpenSea	SLC7A5	Body	0.015	0.477	0.0090
cg26478107	6	26,595,280	N_Shore			0.021	0.085	0.0090
cg17080335	12	131,030,206	OpenSea			0.032	0.865	0.0090
cg14700821	5	64,777,802	OpenSea	ADAMTS6	TSS200	0.001	0.014	0.0090
cg12949633	4	188,534,509	N_Shore			-0.018	0.911	0.0090
cg00656478	9	132,480,963	N_Shore	PRRX2	Body	0.009	0.966	0.0090
cg00987015	11	62,688,751	N_Shelf	CHRM1	5'UTR	0.025	0.411	0.0090
cg12188903	17	33,211,323	OpenSea			0.014	0.865	0.0090
cg05017226	19	515,151	N_Shelf	C19orf20	Body	0.004	0.985	0.0090
cg03007034	22	46,068,330	Island	ATXN10	Body	-0.009	0.044	0.0090
cg03581271	4	169,806,766	OpenSea	PALLD	Body	0.030	0.624	0.0090
cg14675357	17	39,143,371	OpenSea	KRT40	5'UTR	-0.060	0.592	0.0090
cg27573308	13	110,008,403	OpenSea			0.005	0.968	0.0090
cg18583931	15	71,378,283	OpenSea			0.021	0.460	0.0090
cg15049101	10	123,353,889	N_Shelf	FGFR2	TSS200	0.022	0.513	0.0090
cg20705812	8	1,449,401	OpenSea	DLGAP2	TSS200	0.021	0.683	0.0090
cg03703171	2	113,875,226	OpenSea	IL1RN	TSS1500	0.030	0.886	0.0090
cg14508904	11	9,482,435	Island	ZNF143	TSS200	-0.010	0.041	0.0090
cg16214034	10	70,255,978	OpenSea	SLC25A16	Body	0.022	0.185	0.0090
cg27467358	12	132,901,800	S_Shore	GALNT9	Body	0.026	0.464	0.0091
cg00780971	1	149,193,965	OpenSea			0.057	0.128	0.0091
cg06387245	16	348,076	Island	AXIN1	Body	0.013	0.892	0.0091
cg25896734	7	105,221,826	N_Shore	EFCAB10	Body	-0.007	0.042	0.0091
cg04851675	15	91,498,080	Island	RCCD1	TSS200	-0.007	0.035	0.0091
cg24870273	6	31,938,891	N_Shore	STK19	TSS200	0.017	0.721	0.0091
cg24617612	8	49,043,544	Island			-0.028	0.814	0.0091
cg21019043	2	237,080,535	N_Shore			-0.002	0.024	0.0091

cg04697148	7	24,325,079	Island	NPY	Body	-0.019	0.065	0.0091
cg08442088	7	44,085,357	S_Shore	DBNL	Body	0.017	0.897	0.0091
cg22164577	2	170,685,661	S_Shore	UBR3	Body	-0.008	0.963	0.0091
cg08342619	19	56,914,764	N_Shore	ZNF583	TSS1500	0.050	0.388	0.0091
cg12917258	10	99,258,018	Island	UBTD1	TSS1500	-0.003	0.027	0.0091
cg03727433	11	92,648,898	Island			-0.005	0.979	0.0091
cg21873672	5	2,668,716	OpenSea			0.015	0.939	0.0091
cg27368379	6	33,283,328	S_Shore	ZBTB22	Body	0.025	0.660	0.0091
cg01867395	11	31,839,628	Island	PAX6	TSS200	-0.005	0.021	0.0091
cg21517683	5	138,717,343	S_Shelf	SLC23A1	Body	0.019	0.694	0.0091
cg23743449	4	141,294,585	N_Shore	SCOC	Body	-0.003	0.023	0.0091
cg14546128	10	134,491,509	OpenSea	INPP5A	Body	-0.030	0.825	0.0091
cg23888450	16	2,030,009	Island	NOXO1	Body	0.025	0.360	0.0091
cg05329352	10	112,838,983	Island	ADRA2A	1stExon	-0.020	0.265	0.0091
cg20684197	5	142,066,938	OpenSea	FGF1	5'UTR	0.024	0.883	0.0091
cg13289431	6	142,472,456	S_Shelf	VTA1	Body	0.004	0.984	0.0092
cg09924669	16	1,593,214	S_Shore	IFT140	Body	0.015	0.743	0.0092
cg25974586	20	32,031,867	Island	SNTA1	TSS200	-0.005	0.049	0.0092
cg25598308	11	120,440,821	OpenSea			0.015	0.459	0.0092
cg12131894	1	2,257,894	N_Shore	MORN1	Body	-0.058	0.662	0.0092
cg14883106	14	105,803,388	OpenSea	PACS2	Body	0.006	0.975	0.0092
cg18011148	20	237,002	OpenSea	DEFB132	TSS1500	0.004	0.977	0.0092
cg21101335	19	5,808,269	S_Shelf			0.018	0.833	0.0092
cg04898443	2	242,254,495	Island		2-Sep TSS1500	-0.004	0.027	0.0092
cg06777194	16	1,030,444	Island	SOX8	TSS1500	-0.020	0.131	0.0092
cg19568845	11	66,194,068	OpenSea	NPAS4	3'UTR	0.027	0.679	0.0092
cg09588492	16	25,266,553	N_Shelf	ZKSCAN2	Body	0.012	0.931	0.0092
cg06440958	10	11,864,468	N_Shore	C10orf47	TSS1500	-0.006	0.967	0.0092
cg15588737	11	197,507	OpenSea	ODF3	Body	0.023	0.715	0.0092
cg07272042	16	85,860,163	N_Shelf			0.022	0.783	0.0092



cg24663798	18	76,639,743	Island			0.028	0.857	0.0092
cg27448426	7	104,413,036	OpenSea	LHFPL3	Body	0.048	0.479	0.0092
cg09076584	17	26,941,253	OpenSea	FLJ25006	TSS200	0.014	0.704	0.0093
cg19407682	11	78,669,177	N_Shelf	ODZ4	Body	-0.009	0.963	0.0093
cg07168526	7	116,797,907	OpenSea	ST7	Body	-0.019	0.435	0.0093
cg15811719	21	39,047,824	Island	KCNJ6	Body	-0.004	0.027	0.0093
cg27546736	17	77,750,983	N_Shore	CBX2	TSS1500	-0.003	0.027	0.0093
cg211115723	2	235,409,153	S_Shelf			0.024	0.491	0.0093
cg13912753	11	65,561,705	OpenSea	OVOL1	Body	0.011	0.947	0.0093
cg18729728	14	25,327,497	OpenSea	STXBP6	Body	-0.035	0.817	0.0093
cg191115366	6	97,349,087	S_Shelf			-0.021	0.949	0.0093
cg15144153	2	74,663,598	Island	RTKN	Body	-0.052	0.440	0.0093
cg02055264	6	27,210,913	OpenSea			0.042	0.656	0.0093
cg07130639	16	89,145,892	N_Shore			-0.004	0.970	0.0093
cg16594311	5	818,145	OpenSea	ZDHHC11	Body	-0.005	0.981	0.0094
cg02011404	12	57,400,532	S_Shore	ZBTB39	TSS1500	0.010	0.049	0.0094
cg18068537	15	74,660,088	S_Shore	CYP11A1	TSS200	0.017	0.610	0.0094
cg13844552	2	154,288,057	OpenSea			-0.022	0.806	0.0094
cg21617859	15	74,079,688	OpenSea			0.015	0.692	0.0094
cg11530408	5	180,028,658	OpenSea	FLT4	3'UTR	0.014	0.914	0.0094
cg12861809	5	126,237,930	OpenSea		3-Mar Body	0.005	0.978	0.0094
cg22455660	9	128,509,791	Island	PBX3	1stExon	-0.004	0.030	0.0094
cg10571168	7	156,583,547	OpenSea	LMBR1	Body	0.006	0.966	0.0094
cg24140343	13	23,904,116	OpenSea	SACS	3'UTR	0.003	0.983	0.0094
cg09936799	5	140,241,497	N_Shore	PCDHA6	Body	0.043	0.390	0.0094
cg26666735	7	29,026,999	OpenSea			0.011	0.931	0.0094
cg20868898	14	38,678,545	Island	SSTR1	5'UTR	-0.009	0.068	0.0094
cg26707052	11	13,250,995	OpenSea			0.041	0.604	0.0094
cg02673256	11	3,663,842	S_Shore	ART5	TSS1500	-0.003	0.020	0.0094
cg05966431	1	7,023,864	S_Shore	CAMTA1	Body	0.026	0.337	0.0094

cg10303721	16	89,674,435	OpenSea			0.021	0.626	0.0094
cg21782813	7	2,030,301	S_Shore	MAD1L1	Body	0.044	0.606	0.0094
cg23324537	8	110,656,096	N_Shore	GOLSYN	Body	0.033	0.293	0.0094
cg02734259	12	9,559,402	OpenSea			0.065	0.790	0.0094
cg16024886	14	102,693,874	N_Shore			0.024	0.739	0.0095
cg14993293	5	89,705,579	Island	CETN3	5'UTR	-0.001	0.015	0.0095
cg10239816	10	101,190,596	Island	GOT1	TSS200	-0.005	0.026	0.0095
cg13870982	1	1,024,212	Island	C1orf159	Body	0.017	0.757	0.0095
cg15356780	14	90,422,831	S_Shore	TDP1	5'UTR	0.003	0.021	0.0095
cg03541887	1	248,903,323	OpenSea	LOC646627	TSS200	0.021	0.928	0.0095
cg01112020	2	239,008,986	N_Shore	ESPNL	1stExon	0.034	0.505	0.0095
cg04041568	12	132,979,486	N_Shelf			0.017	0.400	0.0095
cg02441090	5	41,871,058	S_Shore	OXCT1	TSS1500	0.015	0.369	0.0095
cg06064855	3	155,588,712	Island	GMPS	Body	-0.008	0.054	0.0095
cg24260847	8	37,595,307	S_Shore	ERLIN2	5'UTR	0.018	0.388	0.0095
cg16074812	8	11,201,250	N_Shelf	TDH	Body	0.007	0.966	0.0095
cg25083922	8	142,384,880	OpenSea			0.018	0.566	0.0095
cg15868183	11	134,235,016	S_Shelf	GLB1L2	Body	0.017	0.714	0.0095
cg00578511	5	758,260	S_Shelf			0.023	0.509	0.0095
cg17803089	6	35,419,793	N_Shore	FANCE	TSS1500	0.004	0.023	0.0095
cg17354052	16	23,568,699	Island	UBFD1	TSS200	-0.005	0.037	0.0096
cg02645778	2	3,685,207	S_Shore	COLEC11	Body	0.004	0.977	0.0096
cg22985146	3	37,219,077	S_Shore	LRRFIP2	TSS1500	0.030	0.320	0.0096
cg11940219	16	30,935,557	Island	FBXL19	TSS1500	0.017	0.076	0.0096
cg21482472	13	81,229,358	Island			-0.041	0.517	0.0096
cg02037905	11	62,067,909	OpenSea	SCGB1D4	TSS1500	-0.023	0.766	0.0096
cg25813711	11	28,581,244	OpenSea			0.022	0.240	0.0096
cg26891211	16	17,931,006	OpenSea			0.039	0.422	0.0096
cg10560079	2	191,398,806	N_Shore	TMEM194B	Body	-0.011	0.062	0.0096
cg08668909	2	183,903,412	Island	NCKAP1	TSS200	-0.006	0.039	0.0096

cg15644413	1	36,185,939	S_Shore	C1orf216	TSS1500	0.009	0.949	0.0096
cg09475510	6	89,790,414	Island	PNRC1	TSS200	-0.005	0.042	0.0096
cg17207736	8	142,237,307	Island	SLC45A4	Body	0.023	0.346	0.0096
cg26255634	14	50,474,938	OpenSea	C14orf182	TSS1500	0.008	0.963	0.0097
cg14996810	12	121,416,501	Island	HNF1A	TSS200	0.018	0.668	0.0097
cg14783517	1	120,180,010	OpenSea	ZNF697	5'UTR	0.042	0.721	0.0097
cg00163549	6	33,246,185	S_Shore	B3GALT4	1stExon	0.014	0.469	0.0097
cg14091230	9	138,152,765	S_Shore			0.019	0.571	0.0097
cg20895669	13	113,622,539	N_Shore	MCF2L	TSS1500	-0.021	0.812	0.0097
cg26563248	16	33,965,435	Island	MIR1826	TSS200	0.020	0.512	0.0097
cg16280132	6	31,540,459	OpenSea	LTA	5'UTR	0.012	0.957	0.0097
cg26365813	17	1,843,109	S_Shore	RTN4RL1	Body	0.024	0.664	0.0097
cg27135286	2	85,751,921	OpenSea			0.015	0.236	0.0097
cg11300838	19	19,049,950	N_Shore	HOMER3	Body	0.014	0.847	0.0097
cg18220816	14	102,411,665	N_Shelf			0.018	0.073	0.0097
cg16373000	7	1,086,220	S_Shore	C7orf50	Body	0.003	0.986	0.0097
cg08238677	11	125,753,051	OpenSea	HYLS1	TSS1500	0.003	0.969	0.0097
cg06088782	11	70,563,839	Island	SHANK2	Body	0.018	0.664	0.0097
cg16420308	14	80,327,885	N_Shore	NRXN3	Body	0.007	0.973	0.0097
cg08146841	6	124,603,667	OpenSea	NKAIN2	Body	-0.025	0.716	0.0097
cg27156952	17	7,762,963	S_Shore	CYB5D1	3'UTR	0.004	0.973	0.0097
cg17039262	21	37,433,149	Island	SETD4	5'UTR	-0.004	0.026	0.0098
cg22793130	8	144,163,464	N_Shelf			0.022	0.556	0.0098
cg22288315	3	143,501,281	OpenSea	SLC9A9	Body	0.005	0.975	0.0098
cg21108519	1	3,425,603	Island	MEGF6	Body	0.018	0.742	0.0098
cg17848848	1	77,956,526	OpenSea	AK5	Body	0.004	0.980	0.0098
cg16855440	19	45,842,723	N_Shore	KLC3	TSS1500	0.010	0.955	0.0098
cg05093325	11	14,994,887	N_Shore	CALCA	TSS1500	-0.004	0.036	0.0098
cg26105045	17	80,129,122	OpenSea	CCDC57	Body	0.006	0.967	0.0098
cg15659132	6	26,577,336	OpenSea			0.034	0.058	0.0098

cg22335826	6	7,242,625	OpenSea	RREB1	Body	0.015	0.344	0.0098
cg06591973	18	30,353,283	S_Shore	KLHL14	TSS1500	-0.020	0.278	0.0098
cg23067959	20	32,250,111	N_Shore	NECAB3	Body	0.012	0.847	0.0098
cg04730665	2	236,403,704	Island	AGAP1	Body	-0.018	0.080	0.0098
cg00220294	16	54,322,494	Island			-0.020	0.284	0.0098
cg15554284	19	21,203,359	OpenSea	ZNF430	TSS200	-0.014	0.106	0.0098
cg24123116	6	168,704,154	N_Shelf			-0.018	0.884	0.0098
cg02443658	16	28,986,829	S_Shore	SPNS1	Body	0.021	0.478	0.0098
cg16789995	12	13,152,456	N_Shore	HEBP1	Body	0.032	0.367	0.0099
cg12238291	20	46,415,744	S_Shore	SULF2	TSS1500	0.020	0.434	0.0099
cg05789714	11	74,178,462	Island	KCNE3	5'UTR	-0.008	0.060	0.0099
cg25426208	6	27,198,646	OpenSea			0.058	0.511	0.0099
cg01210589	14	89,895,742	OpenSea	FOXN3	5'UTR	0.024	0.284	0.0099
cg06027620	17	36,909,606	S_Shore	PSMB3	Body	0.018	0.116	0.0099
cg26384993	14	73,279,458	OpenSea	DPF3	Body	0.024	0.533	0.0099
cg24516901	2	225,266,801	OpenSea	FAM124B	TSS200	0.027	0.333	0.0099
cg07687354	16	1,217,857	N_Shore	CACNA1H	Body	0.016	0.489	0.0099
cg04851169	5	175,200,554	Island			0.022	0.122	0.0099
cg27631057	1	236,651,140	OpenSea			0.005	0.951	0.0099
cg16518686	2	33,824,170	N_Shore	FAM98A	Body	0.001	0.020	0.0099
cg13804478	1	155,158,319	OpenSea	MUC1	3'UTR	0.021	0.306	0.0099
cg05498379	10	28,821,244	Island	WAC	TSS1500	-0.012	0.252	0.0099
cg00230450	12	14,976,228	OpenSea	C12orf60	Body	0.003	0.983	0.0099
cg04625536	6	42,533,006	S_Shore	UBR2	Body	0.002	0.014	0.0099
cg13429423	22	44,568,775	OpenSea	PARVG	TSS200	0.016	0.877	0.0099
cg06010326	4	83,445,884	OpenSea	TMEM150C	5'UTR	0.031	0.586	0.0099
cg23046682	6	44,265,696	Island	TCTE1	TSS1500	0.002	0.020	0.0099
cg15950273	14	103,367,306	OpenSea	TRAF3	Body	0.017	0.486	0.0100
cg06223172	16	49,247,728	OpenSea			0.024	0.316	0.0100
cg19040509	17	72,199,640	N_Shore	RPL38	TSS200	-0.004	0.032	0.0100

cg09496762	20	42,286,524	Island			-0.003	0.022	0.0100
cg01076217	6	137,364,811	N_Shore	IL20RA	Body	-0.029	0.765	0.0100
cg17892588	8	144,162,379	OpenSea			-0.003	0.029	0.0100
cg14624784	9	92,270,937	OpenSea	LOC100129061	Body	0.016	0.633	0.0100
cg13378886	1	26,232,871	Island	STMN1	TSS1500	0.003	0.024	0.0100
cg02259698	2	10,953,349	Island	PDIA6	TSS1500	-0.018	0.102	0.0100
cg18862562	1	160,160,312	OpenSea	CASQ1	1stExon	0.020	0.661	0.0100
cg24623694	19	40,919,760	OpenSea	PRX	TSS1500	0.014	0.278	0.0100
cg20356482	9	97,356,092	OpenSea	FBP2	TSS200	0.020	0.417	0.0100
cg15066967	2	237,487,774	OpenSea	CXCR7	5'UTR	-0.013	0.874	0.0100
cg14314458	4	963,830	Island	DGKQ	Body	-0.003	0.980	0.0100
cg09532575	6	119,224,709	OpenSea	ASF1A	Body	-0.022	0.914	0.0100
cg21488876	19	5,250,376	N_Shore	PTPRS	Body	0.020	0.872	0.0100
cg02448796	1	6,101,339	OpenSea	KCNAB2	Body	0.019	0.647	0.0100
cg27203641	17	40,275,359	Island	HSPB9	1stExon	0.024	0.889	0.0100
cg10411087	17	26,799,318	OpenSea	SLC13A2	TSS1500	0.050	0.645	0.0100
cg07046142	8	72,628,609	OpenSea			0.033	0.460	0.0101
cg08709827	7	69,923,958	OpenSea	AUTS2	Body	0.018	0.614	0.0101
cg22205544	11	282,321	S_Shore	NLRP6	Body	0.019	0.476	0.0101
cg15003158	5	68,628,431	Island			0.039	0.263	0.0101
cg04737993	17	43,246,622	N_Shore	HEXIM2	Body	0.014	0.870	0.0101
cg15282632	12	49,213,195	S_Shore	CACNB3	Body	0.014	0.296	0.0101
cg08477594	11	86,383,466	Island	ME3	TSS200	-0.006	0.025	0.0101
cg04687486	8	33,330,940	S_Shore	FUT10	TSS1500	0.014	0.190	0.0101
cg27127643	14	21,078,142	S_Shore			0.002	0.015	0.0101
cg17982497	15	96,906,859	S_Shore			-0.049	0.395	0.0101
cg22237425	17	738,822	N_Shore	NXN	Body	0.048	0.320	0.0101
cg13701730	9	99,179,288	N_Shore	ZNF367	Body	0.002	0.017	0.0101
cg24755189	11	62,475,373	N_Shore	BSCL2	5'UTR	0.007	0.964	0.0101
cg06372475	10	73,534,286	S_Shore	C10orf54	TSS1500	0.022	0.556	0.0101

cg16901361	8	107,526,473	OpenSea	OXR1	Body	0.020	0.936	0.0101
cg17308417	6	33,422,190	Island	ZBTB9	TSS200	-0.003	0.022	0.0101
cg01189346	3	44,663,980	N_Shelf			-0.008	0.953	0.0102
cg04797323	12	93,966,978	Island	SOCS2	Body	-0.011	0.046	0.0102
cg25718696	4	151,503,588	N_Shore	LRBA	Body	-0.032	0.350	0.0102
cg09568216	5	32,779,925	OpenSea	NPR3	Body	-0.011	0.954	0.0102
cg03554962	16	86,404,423	OpenSea			0.023	0.639	0.0102
cg16330965	15	66,790,390	S_Shore	SNAPC5	TSS1500	0.016	0.540	0.0102
cg07773582	16	4,845,285	OpenSea	LOC440335	TSS200	-0.020	0.660	0.0102
cg00814898	6	474,297	OpenSea			0.034	0.471	0.0102
cg18818949	14	79,558,823	OpenSea	NRXN3	Body	0.034	0.371	0.0102
cg11122451	8	2,609,661	OpenSea			0.012	0.931	0.0102
cg26392439	4	87,927,884	N_Shore	AFF1	Body	0.002	0.014	0.0102
cg16520312	17	43,971,471	Island	MAPT	TSS1500	-0.011	0.067	0.0102
cg06144675	7	83,825,108	OpenSea	SEMA3A	TSS1500	-0.030	0.683	0.0102
cg27209571	2	230,563,222	OpenSea	DNER	Body	-0.020	0.770	0.0102
cg03394159	8	29,197,844	S_Shelf	DUSP4	Body	-0.010	0.076	0.0102
cg01987776	7	138,516,319	OpenSea	KIAA1549	3'UTR	0.007	0.959	0.0102
cg12308110	7	87,906,614	OpenSea	STEAP4	3'UTR	0.011	0.959	0.0102
cg08234507	11	64,990,959	N_Shelf	SLC22A20	Body	0.012	0.919	0.0102
cg24343913	1	107,937,181	OpenSea	NTNG1	Body	0.009	0.955	0.0103
cg10095654	6	31,847,633	OpenSea	EHMT2	3'UTR	0.015	0.527	0.0103
cg10267872	2	240,698,235	OpenSea			0.008	0.948	0.0103
cg19588016	2	9,511,523	N_Shelf	ASAP2	Body	0.030	0.624	0.0103
cg16431610	7	77,428,819	Island	PHTF2	5'UTR	-0.007	0.023	0.0103
cg20450336	7	90,149,438	OpenSea			0.034	0.564	0.0103
cg15367453	2	63,287,288	S_Shore			-0.002	0.021	0.0103
cg01283917	6	33,386,256	Island	CUTA	TSS200	-0.004	0.041	0.0103
cg20403528	2	236,900,667	OpenSea	AGAP1	Body	0.010	0.947	0.0103
cg23281280	6	28,129,359	OpenSea	ZNF389	TSS200	-0.043	0.149	0.0103

cg13512394	12	49,943,606	S_Shore	KCNH3	Body	0.018	0.639	0.0103
cg01641509	2	136,844,587	OpenSea			0.015	0.852	0.0103
cg25717406	7	97,588,678	OpenSea			0.064	0.479	0.0103
cg20317148	17	39,590,677	OpenSea			0.030	0.522	0.0103
cg10508185	2	175,796,500	OpenSea	CHN1	Body	0.013	0.824	0.0104
cg06734816	6	116,422,381	Island	NT5DC1	Body	0.003	0.030	0.0104
cg15491134	2	40,545,033	OpenSea	SLC8A1	Body	-0.037	0.370	0.0104
cg07040604	14	56,374,714	OpenSea			0.006	0.977	0.0104
cg10167266	11	20,186,078	S_Shore			0.017	0.075	0.0104
cg00332248	21	46,170,290	S_Shore			0.019	0.818	0.0104
cg00704909	11	14,521,319	OpenSea	COPB1	5'UTR	-0.004	0.044	0.0104
cg09803164	7	89,878,091	S_Shelf	C7orf63	Body	0.004	0.982	0.0104
cg24990317	12	124,908,617	N_Shelf	NCOR2	Body	0.018	0.704	0.0104
cg25866895	11	67,350,326	N_Shore	GSTP1	TSS1500	0.016	0.638	0.0104
cg04790313	3	40,519,626	S_Shore	ZNF619	Body	0.004	0.979	0.0104
cg14249120	8	67,579,493	Island	VCPIP1	TSS200	-0.005	0.053	0.0104
cg25512587	9	136,344,026	Island	SLC2A6	Body	-0.005	0.034	0.0104
cg00158683	3	48,632,625	Island	COL7A1	TSS200	-0.026	0.051	0.0104
cg14938561	18	43,649,078	N_Shelf	PSTPIP2	Body	0.030	0.422	0.0104
cg03261428	12	123,351,782	Island	VPS37B	Body	0.033	0.811	0.0104
cg14192130	6	167,535,764	OpenSea	CCR6	TSS1500	0.016	0.635	0.0104
cg06827247	3	157,261,086	Island	C3orf55	TSS200	-0.001	0.014	0.0104
cg17738861	5	32,233,621	OpenSea	MTMR12	Body	0.032	0.571	0.0104
cg11225357	17	79,339,278	OpenSea			0.029	0.277	0.0104
cg25429312	19	4,475,183	S_Shelf	HDGF2	Body	0.013	0.937	0.0104
cg05389236	6	36,635,087	OpenSea			0.016	0.519	0.0104
cg10237088	20	30,794,611	N_Shore	POFUT1	TSS1500	0.021	0.165	0.0105
cg06361531	16	68,057,779	S_Shore	DUS2L	5'UTR	0.007	0.025	0.0105
cg13535478	19	15,490,918	Island	AKAP8	TSS1500	-0.003	0.014	0.0105
cg06895675	10	88,137,553	S_Shore			0.027	0.670	0.0105

cg17462533	7	44,141,302	OpenSea			0.013	0.905	0.0105
cg21724798	20	11,667,650	Island			-0.008	0.047	0.0105
cg04016113	2	73,291,377	OpenSea	SFXN5	Body	0.018	0.801	0.0105
cg11996428	9	135,466,211	Island			-0.012	0.073	0.0105
cg23962746	1	209,105,888	OpenSea			-0.042	0.744	0.0105
cg01519950	6	26,660,189	S_Shore	ZNF322A	TSS1500	0.001	0.014	0.0105
cg02184413	6	133,035,235	OpenSea	VNN1	TSS200	0.023	0.893	0.0105
cg08862203	16	87,350,553	N_Shore			-0.006	0.046	0.0105
cg09074817	6	87,866,051	Island	ZNF292	Body	-0.004	0.048	0.0105
cg05131488	7	14,031,822	S_Shore	ETV1	TSS1500	0.035	0.294	0.0105
cg15023858	3	69,812,434	OpenSea	MITF	TSS1500	0.006	0.949	0.0105
cg03419051	17	29,814,382	N_Shore	RAB11FIP4	Body	0.022	0.634	0.0105
cg23693200	20	4,701,448	OpenSea	PRND	TSS1500	0.004	0.031	0.0105
cg02330121	6	118,228,514	Island	SLC35F1	TSS200	-0.011	0.039	0.0105
cg03684977	17	37,893,803	OpenSea	GRB7	TSS1500	0.018	0.462	0.0105
cg00002224	8	144,120,399	OpenSea	C8orf31	TSS1500	0.030	0.147	0.0105
cg03196440	20	62,583,946	N_Shelf	UCKL1AS	TSS1500	0.014	0.774	0.0105
cg14138475	10	133,775,839	OpenSea			0.028	0.853	0.0105
cg12738164	1	183,238,914	OpenSea	NMNAT2	Body	0.034	0.967	0.0105
cg24617008	8	141,468,762	S_Shore	TRAPPC9	TSS1500	0.023	0.432	0.0105
cg10690829	5	505,071	N_Shore	SLC9A3	Body	0.024	0.633	0.0105
cg02783314	6	1,788,530	OpenSea	GMDS	Body	0.003	0.988	0.0105
cg21122375	7	37,956,869	S_Shore	SFRP4	TSS1500	-0.004	0.027	0.0106
cg03798217	2	26,567,396	N_Shore	GPR113	Body	0.019	0.859	0.0106
cg04398190	7	73,275,810	OpenSea	WBSCR28	Body	-0.050	0.775	0.0106
cg00578638	17	38,334,161	Island	RAPGEFL1	TSS200	-0.004	0.023	0.0106
cg05265306	17	57,784,459	N_Shore	PTRH2	5'UTR	0.001	0.011	0.0106
cg00825734	1	1,217,511	OpenSea	SCNN1D	5'UTR	0.018	0.713	0.0106
cg02235641	8	67,687,675	Island	SGK3	5'UTR	-0.002	0.031	0.0106
cg10593292	3	195,539,133	OpenSea	MUC4	5'UTR	0.024	0.831	0.0106



cg02352945	3	38,496,316	Island	LOC100128641	TSS200	-0.002	0.017	0.0106
cg14450339	9	140,375,757	S_Shore	PNPLA7	Body	0.018	0.777	0.0106
cg17318138	20	657,287	S_Shore	SCRT2	TSS1500	-0.006	0.065	0.0106
cg18665036	13	37,493,479	N_Shore	SMAD9	5'UTR	0.002	0.022	0.0106
cg14983466	6	30,012,620	OpenSea	NCRNA00171	Body	0.032	0.519	0.0106
cg19755314	7	143,220	OpenSea			0.018	0.862	0.0106
cg21268658	1	43,998,294	S_Shore	PTPRF	5'UTR	0.014	0.338	0.0106
cg08815286	3	12,838,136	Island	CAND2	TSS200	0.002	0.019	0.0106
cg14022794	9	141,017,457	S_Shelf	CACNA1B	3'UTR	0.021	0.554	0.0106
cg09226262	19	46,319,145	Island	SYMPK	Body	-0.024	0.144	0.0106
cg16147794	6	111,405,660	N_Shelf			0.004	0.982	0.0106
cg22413603	12	7,072,765	OpenSea	MIR141	TSS1500	0.016	0.505	0.0106
cg07959094	19	15,347,074	N_Shore			0.018	0.879	0.0106
cg24078905	19	49,655,323	Island	HRC	Body	0.015	0.360	0.0106
cg02945266	22	22,337,468	S_Shore	TOP3B	TSS1500	0.037	0.788	0.0107
cg08875357	17	1,839,554	N_Shore	RTN4RL1	3'UTR	0.011	0.935	0.0107
cg26389888	2	178,973,147	N_Shelf	PDE11A	TSS200	0.024	0.730	0.0107
cg03734896	14	105,286,870	S_Shelf	MGC23270	TSS1500	0.053	0.537	0.0107
cg15458296	1	118,471,734	N_Shore	WDR3	TSS1500	0.002	0.013	0.0107
cg11849281	7	35,494,507	Island			0.006	0.031	0.0107
cg09182138	1	156,612,436	Island	BCAN	5'UTR	-0.008	0.042	0.0107
cg13819787	2	175,199,464	Island	SP9	TSS1500	0.006	0.040	0.0107
cg04880751	1	241,695,164	OpenSea	KMO	TSS1500	0.038	0.591	0.0107
cg22132484	2	91,668,766	N_Shore			0.015	0.373	0.0107
cg00504595	13	24,144,985	OpenSea	TNFRSF19	1stExon	-0.009	0.105	0.0107
cg03276149	6	11,651,032	OpenSea			0.025	0.633	0.0107
cg16794061	6	32,407,430	OpenSea	HLA-DRA	TSS1500	0.082	0.282	0.0107
cg24214903	19	5,093,659	Island	KDM4B	Body	0.023	0.843	0.0107
cg15982735	14	92,299,189	N_Shelf	TC2N	5'UTR	0.004	0.980	0.0107
cg21967789	8	1,809,425	OpenSea	ARHGEF10	Body	0.026	0.763	0.0107

cg04105716	17	79,094,934	Island	AATK	Body	0.014	0.856	0.0107
cg26369484	17	46,522,464	OpenSea			0.033	0.732	0.0107
cg20815063	11	94,227,320	Island	ANKRD49	5'UTR	-0.002	0.019	0.0107
cg22389270	8	101,162,769	OpenSea	POLR2K	TSS200	-0.014	0.219	0.0107
cg10855945	6	165,751,905	S_Shelf	PDE10A	Body	-0.003	0.982	0.0107
cg26794902	5	7,869,010	Island	MTRR	TSS1500	-0.003	0.022	0.0107
cg06906464	7	134,288,099	OpenSea			0.033	0.496	0.0107
cg09816507	6	48,036,584	S_Shore	C6orf138	TSS200	-0.005	0.029	0.0107
cg15393022	1	54,775,837	OpenSea	SSBP3	Body	0.015	0.435	0.0108
cg09826550	4	47,839,283	Island	CORIN	Body	-0.003	0.017	0.0108
cg14224313	20	31,367,783	OpenSea	DNMT3B	5'UTR	0.015	0.523	0.0108
cg25160075	15	22,963,782	OpenSea	CYFIP1	Body	0.004	0.986	0.0108
cg08710204	11	3,216,966	OpenSea			0.012	0.806	0.0108
cg00417742	7	112,580,528	S_Shore	C7orf60	TSS1500	-0.017	0.076	0.0108
cg19164296	6	35,838,516	OpenSea	SRPK1	Body	0.006	0.966	0.0108
cg01471837	6	170,392,908	S_Shelf			-0.011	0.952	0.0108
cg23926006	7	100,480,496	N_Shelf	SRRT	Body	0.012	0.862	0.0108
cg23721586	1	92,197,531	OpenSea	TGFBR3	Body	0.054	0.502	0.0108
cg02530860	8	144,371,537	Island			0.057	0.587	0.0108
cg08899471	1	1,058,439	OpenSea			0.014	0.886	0.0108
cg14914532	12	1,947,412	OpenSea	CACNA2D4	Body	0.017	0.613	0.0108
cg00465137	2	944,510	N_Shore			0.015	0.907	0.0108
cg16970926	12	29,381,810	OpenSea	FAR2	5'UTR	0.024	0.710	0.0108
cg13670531	10	116,066,521	OpenSea	AFAP1L2	Body	0.036	0.727	0.0108
cg16923485	12	21,476,904	OpenSea	SLCO1A2	Body	0.041	0.460	0.0108
cg13477510	22	19,700,797	N_Shore		5-Sep TSS1500	0.008	0.957	0.0108
cg24312850	18	11,881,089	Island	GNAL	Body	0.009	0.970	0.0108
cg19770723	1	2,174,895	OpenSea	SKI	Body	0.018	0.606	0.0108
cg19978209	8	99,077,038	Island	C8orf47	Body	-0.004	0.031	0.0108
cg07419586	1	1,852,604	S_Shore			0.016	0.814	0.0108

cg20315739	15	42,303,032	OpenSea	PLA2G4E	TSS1500	-0.020	0.885	0.0108
cg19938535	6	25,341,389	OpenSea	LRRRC16A	Body	-0.045	0.366	0.0109
cg27126442	4	106,473,806	OpenSea	FLJ20184	5'UTR	0.027	0.334	0.0109
cg09904177	6	26,538,194	N_Shore	HMG4	TSS1500	0.002	0.015	0.0109
cg08876508	17	34,068,044	Island	RASL10B	Body	0.027	0.640	0.0109
cg24473594	19	46,714,834	OpenSea	DKFZp434J022	Body	0.020	0.410	0.0109
cg15761233	2	200,819,070	N_Shore	C2orf60	Body	0.032	0.828	0.0109
cg02097120	1	154,492,952	OpenSea	TDRD10	Body	0.016	0.547	0.0109
cg07631919	14	94,493,296	Island	OTUB2	Body	-0.004	0.026	0.0109
cg10005947	14	100,403,211	OpenSea	EML1	Body	0.006	0.977	0.0109
cg13292636	8	21,771,258	S_Shore	DOK2	TSS200	0.014	0.533	0.0109
cg12302428	19	52,408,520	OpenSea	ZNF649	TSS1500	0.022	0.496	0.0109
cg13221107	12	52,846,088	OpenSea	KRT6B	TSS200	0.014	0.947	0.0109
cg11388673	8	144,371,779	Island			0.062	0.796	0.0109
cg25177113	1	955,463	Island	AGRN	TSS200	-0.006	0.042	0.0109
cg13114028	22	43,814,205	N_Shelf	MPPED1	5'UTR	0.010	0.944	0.0109
cg24583481	11	110,701,388	OpenSea			0.014	0.908	0.0109
cg17433772	4	151,501,739	S_Shore	MAB21L2	TSS1500	-0.045	0.490	0.0109
cg25344401	7	4,755,415	N_Shelf	FOXK1	Body	0.034	0.738	0.0109
cg25349370	5	142,035,339	OpenSea	FGF1	5'UTR	0.002	0.020	0.0109
cg13069441	6	31,939,322	N_Shore	STK19	TSS1500	0.039	0.416	0.0110
cg13105522	17	80,790,085	N_Shore	TBCD	Body	0.011	0.948	0.0110
cg08999081	20	33,150,536	S_Shelf	PIGU	Body	0.021	0.717	0.0110
cg02301039	2	99,951,742	N_Shore	TXNDC9	5'UTR	0.029	0.363	0.0110
cg15261730	7	55,280,797	OpenSea			0.021	0.672	0.0110
cg24338491	12	91,775,501	OpenSea			-0.009	0.041	0.0110
cg05986866	3	11,313,571	N_Shore	ATG7	TSS1500	0.019	0.856	0.0110
cg23915011	5	1,702,577	Island			0.019	0.470	0.0110
cg04344190	16	78,218,445	OpenSea	WVOX	Body	-0.042	0.277	0.0110
cg13337307	17	40,337,618	S_Shore	HCRT	TSS200	0.018	0.527	0.0110

cg00924265	8	28,258,117	N_Shore			0.021	0.530	0.0110
cg00125406	4	41,937,906	S_Shore	TMEM33	Body	0.002	0.016	0.0110
cg24947212	10	127,999,713	OpenSea	ADAM12	Body	0.010	0.942	0.0110
cg20849549	10	89,623,138	Island	PTEN	TSS200	-0.004	0.043	0.0110
cg20098910	17	26,643,841	N_Shore			0.011	0.908	0.0110
cg13924432	2	220,223,283	Island			0.020	0.119	0.0110
cg20180825	2	134,877,411	Island			0.003	0.024	0.0110
cg04337854	6	105,585,762	S_Shore	BVES	TSS1500	0.021	0.833	0.0110
cg19651219	2	115,419,729	Island	DPP10	Body	-0.067	0.124	0.0110
cg18396403	22	38,615,368	OpenSea	TMEM184B	3'UTR	0.015	0.579	0.0110
cg09797913	11	64,360,782	OpenSea	SLC22A12	Body	0.007	0.943	0.0110
cg09094952	17	42,854,741	N_Shore	ADAM11	Body	0.008	0.961	0.0111
cg05132262	7	1,428,859	OpenSea			0.026	0.582	0.0111
cg10509254	4	174,452,133	Island	NBLA00301	Body	-0.004	0.035	0.0111
cg05700348	5	176,948,150	S_Shelf	FAM193B	Body	0.014	0.715	0.0111
cg25916135	2	59,071,761	OpenSea			-0.027	0.753	0.0111
cg01932308	1	3,337,800	OpenSea	PRDM16	Body	-0.024	0.807	0.0111
cg05532093	18	77,186,817	S_Shore	NFATC1	Body	0.020	0.566	0.0111
cg04257969	12	74,932,579	S_Shore	LOC552889	1stExon	0.002	0.022	0.0111
cg13095372	2	46,925,129	N_Shore	SOCS5	TSS1500	0.008	0.938	0.0111
cg09717261	20	35,579,347	Island	SAMHD1	Body	0.006	0.037	0.0111
cg12313593	19	15,619,224	Island	CYP4F22	TSS200	0.003	0.025	0.0111
cg06456538	6	87,967,386	OpenSea	ZNF292	Body	0.006	0.971	0.0111
cg18965391	1	53,905,819	S_Shore	FLJ40434	TSS200	0.020	0.744	0.0111
cg15806158	15	41,059,932	S_Shelf			0.016	0.709	0.0111
cg10930676	3	172,859,699	OpenSea	SPATA16	TSS1500	0.006	0.973	0.0111
cg10827488	11	113,953,838	Island	ZBTB16	Body	0.015	0.521	0.0111
cg10766030	13	31,408,838	OpenSea			-0.034	0.759	0.0111
cg22120395	4	130,699,705	OpenSea			0.007	0.966	0.0111
cg17315383	19	35,818,807	OpenSea	CD22	TSS1500	0.027	0.708	0.0111

cg16014699	19	33,352,871	S_Shore	SLC7A9	Body	0.003	0.984	0.0111
cg15990632	1	157,983,193	OpenSea	KIRREL	Body	0.017	0.664	0.0111
cg13842800	13	101,015,868	OpenSea	PCCA	Body	0.028	0.178	0.0111
cg16985966	17	79,177,523	S_Shore	AZI1	Body	0.016	0.745	0.0111
cg25290222	12	101,780,146	OpenSea	UTP20	3'UTR	0.016	0.951	0.0111
cg21548032	12	104,850,767	Island	CHST11	TSS200	0.004	0.017	0.0111
cg08121164	15	29,404,922	N_Shore	APBA2	Body	0.016	0.785	0.0112
cg27144395	12	109,747,306	Island	FOXN4	TSS1500	0.002	0.017	0.0112
cg07490447	14	76,869,993	OpenSea	ESRRB	5'UTR	-0.021	0.805	0.0112
cg15644970	1	3,322,363	S_Shore	PRDM16	Body	0.015	0.923	0.0112
cg11531557	8	28,919,234	OpenSea			0.017	0.730	0.0112
cg00253564	1	6,552,403	S_Shore	PLEKHG5	Body	0.012	0.754	0.0112
cg20235345	13	99,235,398	OpenSea			0.017	0.713	0.0112
cg27472937	2	3,683,119	Island	COLEC11	Body	0.021	0.773	0.0112
cg17964532	6	36,647,894	Island	CDKN1A	5'UTR	0.005	0.042	0.0112
cg01172682	3	65,342,216	Island	MAGI1	Body	-0.017	0.432	0.0112
cg12000297	8	144,824,651	S_Shore			0.020	0.767	0.0112
cg25034205	2	219,924,695	N_Shore	IHH	Body	0.021	0.122	0.0112
cg14172596	1	43,996,436	N_Shore	PTPRF	TSS200	-0.006	0.044	0.0112
cg18009508	6	86,001,358	OpenSea			0.020	0.893	0.0112
cg07538777	19	5,717,584	N_Shelf	LONP1	Body	0.004	0.980	0.0112
cg15248013	3	16,433,940	OpenSea	RFTN1	Body	-0.035	0.493	0.0112
cg13440947	10	117,997,713	OpenSea	GFRA1	Body	-0.013	0.560	0.0112
cg05174855	16	1,592,091	Island	IFT140	Body	0.019	0.899	0.0112
cg03656899	6	62,996,132	Island	KHDRBS2	TSS200	-0.007	0.068	0.0113
cg20098710	19	19,640,075	Island	YJEFN3	Body	0.024	0.519	0.0113
cg06201514	2	1,817,409	OpenSea	MYT1L	Body	-0.102	0.755	0.0113
cg02887997	1	14,220,177	S_Shore			0.024	0.494	0.0113
cg16259494	14	23,614,419	OpenSea	SLC7A8	5'UTR	0.006	0.968	0.0113
cg21696055	1	17,997,574	OpenSea	ARHGEF10L	Body	0.011	0.849	0.0113

cg14420757	11	133,777,952	OpenSea			0.014	0.871	0.0113
cg11406780	15	81,711,108	OpenSea			0.031	0.630	0.0113
cg16336066	14	95,789,941	S_Shelf			-0.012	0.954	0.0113
cg23464041	6	33,663,938	OpenSea	ITPR3	3'UTR	0.020	0.716	0.0113
cg17956563	11	1,332,238	S_Shore	TOLLIP	TSS1500	0.023	0.797	0.0113
cg15435718	19	36,132,263	N_Shore	ETV2	TSS1500	0.010	0.947	0.0113
cg15412772	17	38,175,389	OpenSea	MED24	3'UTR	0.025	0.417	0.0113
cg11312108	22	39,966,653	OpenSea	CACNA1I	TSS200	0.018	0.658	0.0113
cg16904430	13	96,224,250	OpenSea	CLDN10	Body	0.009	0.963	0.0113
cg17426905	7	50,612,053	OpenSea	DDC	5'UTR	0.019	0.840	0.0113
cg15115522	11	125,115,327	OpenSea	PKNOX2	5'UTR	0.033	0.732	0.0113
cg24492202	4	2,802,612	OpenSea	SH3BP2	5'UTR	-0.043	0.165	0.0113
cg16000059	5	111,496,955	Island	NCRNA00219	Body	0.002	0.015	0.0113
cg09662920	1	78,511,433	N_Shore	GIPC2	TSS200	-0.019	0.167	0.0114
cg20284999	11	59,952,153	OpenSea	MS4A6A	TSS1500	0.019	0.890	0.0114
cg23089673	5	53,245,594	OpenSea	ARL15	Body	0.012	0.952	0.0114
cg14015502	10	104,535,020	OpenSea	C10orf26	TSS1500	0.026	0.410	0.0114
cg23906060	15	79,574,773	N_Shore	ANKRD34C	TSS1500	0.020	0.210	0.0114
cg10904854	3	185,742,220	OpenSea			0.027	0.413	0.0114
cg15434292	18	77,567,564	Island			0.018	0.706	0.0114
cg04128945	8	144,264,834	N_Shelf			0.015	0.457	0.0114
cg02442572	7	1,303,351	OpenSea			0.011	0.948	0.0114
cg06618935	21	46,677,482	N_Shore			0.019	0.594	0.0114
cg06720713	13	114,059,522	S_Shelf			-0.023	0.829	0.0114
cg05445221	16	88,512,529	Island			0.017	0.744	0.0114
cg07404106	13	114,047,697	N_Shore			0.005	0.961	0.0114
cg22809491	6	166,263,628	N_Shelf			-0.007	0.033	0.0114
cg18425586	7	37,086,890	OpenSea	ELMO1	Body	0.006	0.966	0.0114
cg26525463	6	109,871,787	OpenSea	AKD1	Body	0.009	0.954	0.0114
cg21092342	3	115,105,435	OpenSea			0.017	0.902	0.0114

cg24691332	10	34,483,325	OpenSea	PARD3	Body	-0.013	0.344	0.0114
cg17030628	1	207,039,008	OpenSea	IL20	TSS200	0.033	0.673	0.0114
cg22332266	11	89,956,777	S_Shore	CHORDC1	TSS1500	-0.058	0.164	0.0115
cg27657131	20	61,847,587	Island	YTHDF1	TSS200	-0.013	0.128	0.0115
cg17561452	16	84,224,707	N_Shore	ADAD2	TSS200	0.019	0.824	0.0115
cg07386952	14	105,781,946	Island	PACS2	Body	0.003	0.021	0.0115
cg17985533	11	2,019,116	N_Shore	H19	TSS200	0.025	0.654	0.0115
cg19755459	12	19,284,928	S_Shore	PLEKHA5	Body	-0.028	0.564	0.0115
cg14619064	17	56,355,331	Island	MPO	Body	0.006	0.974	0.0115
cg19766578	2	201,677,983	S_Shore	BZW1	Body	-0.015	0.065	0.0115
cg17397592	2	237,416,338	Island	IQCA1	TSS1500	-0.010	0.023	0.0115
cg02003272	13	50,702,719	N_Shore			-0.027	0.517	0.0115
cg01357771	8	124,254,411	S_Shore	C8orf76	TSS1500	0.004	0.980	0.0115
cg05786041	6	143,248,411	Island	HIVEP2	5'UTR	-0.004	0.034	0.0115
cg24900425	17	41,278,444	Island	BRCA1	TSS1500	0.052	0.778	0.0115
cg06094111	12	56,709,459	Island	CNPY2	5'UTR	-0.003	0.025	0.0115
cg04797098	6	33,180,132	N_Shore	RING1	Body	0.016	0.836	0.0115
cg16110711	5	112,042,851	N_Shore	APC	TSS1500	0.022	0.512	0.0115
cg23533824	19	59,011,427	S_Shore	SLC27A5	Body	0.035	0.622	0.0115
cg02935298	22	43,036,734	OpenSea	CYB5R3	5'UTR	0.015	0.828	0.0115
cg03790427	8	10,530,123	OpenSea	C8orf74	TSS200	0.019	0.631	0.0115
cg25504607	13	30,728,534	OpenSea			0.030	0.324	0.0116
cg08244181	7	130,021,807	S_Shore	CPA1	Body	-0.014	0.901	0.0116
cg24828167	4	5,899,040	S_Shelf			-0.017	0.893	0.0116
cg26248430	2	61,391,174	OpenSea	C2orf74	Body	0.014	0.883	0.0116
cg12910641	20	61,343,222	S_Shelf	NTSR1	Body	0.016	0.499	0.0116
cg22972380	3	122,399,601	N_Shore	PARP14	TSS200	-0.006	0.058	0.0116
cg07402456	17	7,760,044	N_Shore	LSMD1	3'UTR	-0.004	0.051	0.0116
cg23914904	12	115,079,494	OpenSea			0.024	0.466	0.0116
cg07202981	10	97,850,155	S_Shore			-0.015	0.029	0.0116

cg11484936	3	168,060,761	OpenSea	C3orf50	Body	-0.023	0.376	0.0116
cg07019187	1	111,729,823	OpenSea	DENND2D	3'UTR	-0.005	0.976	0.0116
cg01324516	22	38,212,951	N_Shore			0.013	0.910	0.0116
cg14999031	7	127,792,057	OpenSea			0.008	0.965	0.0116
cg08243619	1	11,561,662	Island	PTCHD2	Body	-0.046	0.303	0.0116
cg02500264	3	57,233,111	OpenSea	HESX1	Body	0.025	0.922	0.0116
cg02986791	19	1,062,178	N_Shore	ABCA7	Body	0.060	0.737	0.0116
cg02231590	2	231,737,958	OpenSea	ITM2C	Body	0.012	0.923	0.0116
cg19123882	11	63,438,084	N_Shore	ATL3	Body	0.051	0.257	0.0116
cg26970113	5	133,710,892	S_Shelf	UBE2B	Body	0.040	0.966	0.0116
cg25627098	17	7,328,734	OpenSea	C17orf74	TSS200	0.015	0.787	0.0116
cg04956471	2	234,328,457	OpenSea	DGKD	Body	0.018	0.620	0.0116
cg16702313	14	74,251,926	N_Shore	C14orf43	5'UTR	0.014	0.515	0.0116
cg16928044	1	145,589,929	S_Shore	NUDT17	TSS1500	0.016	0.393	0.0116
cg21587861	12	32,260,103	Island	BICD1	TSS200	-0.006	0.043	0.0116
cg00663986	17	80,866,232	S_Shelf	TBCD	Body	0.024	0.627	0.0117
cg09519218	10	126,390,317	OpenSea	FAM53B	Body	0.022	0.545	0.0117
cg02865832	17	77,083,140	OpenSea	ENGASE	3'UTR	0.016	0.791	0.0117
cg25477334	13	47,206,058	OpenSea	LRCH1	Body	0.009	0.968	0.0117
cg26687173	19	33,623,091	Island	WDR88	1stExon	-0.027	0.302	0.0117
cg05966235	16	28,915,196	S_Shelf	ATP2A1	3'UTR	0.018	0.885	0.0117
cg15742515	8	1,402,185	N_Shelf			0.015	0.442	0.0117
cg02839351	19	4,475,009	S_Shore	HDGF2	Body	0.018	0.724	0.0117
cg04692870	22	42,525,206	Island	CYP2D6	Body	0.045	0.491	0.0117
cg09636214	14	73,712,491	Island	PAPLN	Body	-0.064	0.136	0.0117
cg00309133	15	69,452,320	N_Shore	MIR548H4	Body	0.015	0.239	0.0117
cg04124378	7	17,964,548	OpenSea	SNX13	Body	0.021	0.810	0.0117
cg07237979	11	1,874,017	OpenSea	LSP1	TSS200	0.011	0.866	0.0117
cg01333225	19	16,222,203	Island	RAB8A	TSS1500	-0.003	0.025	0.0117
cg19068479	11	2,395,948	N_Shelf			-0.039	0.909	0.0117



cg20772037	6	34,067,242	OpenSea	GRM4	Body	0.020	0.633	0.0117
cg02772910	22	31,499,618	N_Shore	SMTN	Body	0.014	0.809	0.0117
cg11294551	7	133,874,162	OpenSea	LRGUK	Body	0.019	0.913	0.0117
cg23537419	7	128,533,587	S_Shelf	KCP	Body	0.011	0.874	0.0117
cg07454742	17	42,254,645	S_Shore	ASB16	Body	0.052	0.679	0.0117
cg02903983	14	22,968,031	OpenSea			-0.026	0.780	0.0118
cg04684152	2	72,012,863	Island			0.021	0.658	0.0118
cg08479516	7	158,905,536	Island	VIPR2	Body	0.036	0.552	0.0118
cg18222122	11	69,632,117	Island	FGF3	Body	-0.004	0.039	0.0118
cg05823915	18	77,730,650	OpenSea	HSBP1L1	3'UTR	0.021	0.878	0.0118
cg13496568	14	103,374,508	S_Shore			0.023	0.792	0.0118
cg13333185	15	56,035,459	Island	PRTG	TSS1500	-0.005	0.026	0.0118
cg14816825	11	12,128,203	N_Shelf			-0.018	0.699	0.0118
cg26915625	1	145,419,115	S_Shelf			0.014	0.851	0.0118
cg21276456	6	135,467,680	OpenSea			0.012	0.930	0.0118
cg25120325	10	118,380,370	OpenSea	PNLIPRP2	TSS200	0.061	0.246	0.0118
cg00594561	17	48,073,423	N_Shore	DLX3	TSS1500	0.023	0.631	0.0118
cg17342588	7	27,737,875	OpenSea			0.018	0.860	0.0118
cg14831746	12	49,961,631	Island	MCRS1	5'UTR	0.002	0.015	0.0118
cg01604994	2	236,867,836	Island	AGAP1	Body	-0.026	0.842	0.0118
cg19676502	14	50,438,151	OpenSea			0.025	0.586	0.0118
cg26267430	15	96,894,509	N_Shore			-0.040	0.846	0.0119
cg09305815	2	5,376,320	OpenSea			0.038	0.628	0.0119
cg20160729	7	5,785,550	OpenSea	RNF216	Body	0.005	0.972	0.0119
cg26841068	1	203,456,691	N_Shore	PRELP	3'UTR	-0.011	0.111	0.0119
cg17542751	22	44,568,725	OpenSea	PARVG	TSS200	0.016	0.649	0.0119
cg23765701	4	84,031,513	S_Shore	PLAC8	5'UTR	0.002	0.015	0.0119
cg09530594	19	10,855,405	OpenSea	DNM2	Body	0.014	0.361	0.0119
cg08950537	10	95,361,933	S_Shore	RBP4	TSS1500	-0.027	0.155	0.0119
cg23466059	18	56,422,682	OpenSea			0.016	0.554	0.0119

cg04131799	2	97,193,006	Island			0.014	0.244	0.0119
cg25432300	5	90,508,265	OpenSea			0.019	0.584	0.0119
cg10312841	16	85,212,827	OpenSea			0.019	0.647	0.0119
cg18813601	10	3,330,571	OpenSea			0.004	0.980	0.0119
cg13817545	13	112,212,266	Island			-0.012	0.168	0.0119
cg25798647	6	41,303,391	OpenSea	NCR2	TSS200	0.014	0.858	0.0120
cg20253268	1	53,990,199	OpenSea	GLIS1	Body	0.018	0.867	0.0120
cg03431067	16	367,990	OpenSea	AXIN1	Body	-0.003	0.976	0.0120
cg14758012	17	74,387,178	OpenSea	UBE2O	Body	-0.005	0.976	0.0120
cg27003520	1	165,086,976	Island			0.003	0.025	0.0120
cg07026904	11	114,832,606	S_Shore			0.022	0.627	0.0120
cg04854098	4	99,487,497	OpenSea	TSPAN5	Body	0.020	0.489	0.0120
cg17509349	19	58,258,092	Island	ZNF776	TSS200	-0.002	0.024	0.0120
cg04813787	6	167,814,397	OpenSea			-0.014	0.912	0.0120
cg13391488	9	117,068,532	OpenSea	COL27A1	Body	0.017	0.849	0.0120
cg06863310	16	79,034,883	OpenSea	WVOX	Body	-0.007	0.965	0.0120
cg02837935	16	1,027,604	N_Shelf			0.023	0.532	0.0120
cg18264789	1	115,258,650	OpenSea	NRAS	Body	0.055	0.586	0.0120
cg01651886	12	32,898,358	OpenSea	DNM1L	3'UTR	0.007	0.969	0.0120
cg22536380	18	23,710,750	N_Shelf			0.037	0.940	0.0120
cg23733727	4	185,532,464	OpenSea			-0.015	0.926	0.0120
cg06645120	16	89,888,817	OpenSea			0.022	0.770	0.0120
cg02382666	7	134,463,454	OpenSea	CALD1	TSS1500	-0.014	0.888	0.0120
cg06174078	11	1,325,718	OpenSea	TOLLIP	Body	0.044	0.588	0.0120
cg27426044	1	204,839,864	OpenSea	NFASC	5'UTR	0.020	0.691	0.0120
cg14646039	5	152,729,842	OpenSea			0.036	0.564	0.0120
cg21573047	13	41,238,501	Island	FOXO1	Body	-0.003	0.020	0.0120
cg14195974	9	131,037,358	N_Shore	C9orf119	TSS1500	0.026	0.129	0.0121
cg15976283	2	238,042,351	OpenSea			0.006	0.979	0.0121
cg16266669	1	1,144,558	N_Shore			0.019	0.626	0.0121

cg14562086	17	48,279,265	S_Shore	COL1A1	TSS1500	0.027	0.505	0.0121
cg18443253	14	38,678,420	Island	SSTR1	5'UTR	-0.003	0.026	0.0121
cg05973398	21	36,420,164	OpenSea	RUNX1	Body	0.020	0.607	0.0121
cg03103919	10	18,629,674	OpenSea	CACNB2	Body	0.036	0.267	0.0121
cg19260430	3	195,735,283	OpenSea			0.021	0.776	0.0121
cg07617120	7	157,550,081	N_Shore	PTPRN2	Body	0.013	0.864	0.0121
cg24662231	17	41,002,433	OpenSea	AOC2	3'UTR	0.017	0.588	0.0121
cg07322296	22	50,661,779	S_Shelf	TUBGCP6	Body	0.016	0.919	0.0121
cg21217577	3	129,694,683	Island	TRH	Body	-0.010	0.040	0.0121
cg00019511	14	101,201,288	N_Shore	DLK1	3'UTR	0.024	0.661	0.0121
cg17443473	1	3,703,550	N_Shore	LRRC47	Body	0.016	0.838	0.0122
cg08783845	4	76,796,984	OpenSea	PPEF2	Body	0.015	0.917	0.0122
cg21030424	11	111,845,646	N_Shelf	DIXDC1	Body	0.018	0.844	0.0122
cg11819305	1	117,910,798	S_Shore	MAN1A2	5'UTR	0.009	0.036	0.0122
cg13506559	9	139,026,313	S_Shore			0.019	0.482	0.0122
cg08258978	5	6,667,276	OpenSea	SRD5A1	Body	0.010	0.936	0.0122
cg05539509	22	30,663,034	OpenSea	OSM	TSS200	0.016	0.728	0.0122
cg19708984	12	1,973,340	N_Shore	CACNA2D4	Body	0.036	0.788	0.0122
cg03905819	12	54,385,275	N_Shelf	MIR196A2	TSS1500	0.007	0.038	0.0122
cg04544475	17	56,435,455	OpenSea	RNF43	Body	0.004	0.975	0.0122
cg04763156	16	87,650,452	S_Shore	JPH3	Body	0.018	0.680	0.0122
cg04139895	15	27,331,340	OpenSea	GABRG3	Body	-0.022	0.771	0.0122
cg20780796	6	170,190,063	N_Shore	C6orf122	Body	-0.002	0.018	0.0122
cg04985582	21	15,645,988	OpenSea	ABCC13	TSS200	0.057	0.528	0.0122
cg04848823	16	9,536,122	OpenSea			-0.008	0.965	0.0122
cg03623568	16	6,915,990	OpenSea	A2BP1	5'UTR	0.017	0.948	0.0122
cg06189653	5	176,873,332	N_Shore	PRR7	TSS1500	0.003	0.020	0.0122
cg14927218	7	128,771,658	S_Shelf			0.018	0.462	0.0122
cg12459904	5	140,762,315	N_Shore	PCDHGA4	Body	0.026	0.170	0.0123
cg23112188	14	24,563,095	N_Shore	PCK2	TSS1500	0.064	0.200	0.0123

cg00811334	2	79,739,254	N_Shore	CTNNA2	TSS1500	0.029	0.303	0.0123
cg11577151	17	1,933,238	Island	DPH1	TSS200	-0.029	0.079	0.0123
cg11704601	10	1,390,610	OpenSea	ADARB2	Body	0.015	0.481	0.0123
cg08619378	7	45,616,358	S_Shore	ADCY1	Body	0.019	0.629	0.0123
cg19453059	20	29,955,259	OpenSea	DEFB118	TSS1500	0.019	0.844	0.0123
cg08709576	5	33,935,027	N_Shore	RXFP3	TSS1500	0.003	0.030	0.0123
cg16010261	10	88,449,342	OpenSea	LDB3	Body	0.006	0.967	0.0123
cg12811084	22	49,694,333	N_Shelf			0.013	0.722	0.0123
cg26979107	17	44,061,355	S_Shore	MAPT	Body	0.019	0.790	0.0123
cg24247231	15	67,904,302	OpenSea	MAP2K5	Body	-0.018	0.085	0.0123
cg14715778	17	73,840,989	OpenSea	UNC13D	TSS200	0.016	0.394	0.0123
cg27382790	20	19,193,057	Island	SLC24A3	TSS1500	-0.008	0.045	0.0123
cg13484505	6	108,393,407	N_Shelf	OSTM1	Body	0.025	0.740	0.0123
cg23207361	6	31,588,429	Island	BAT2	TSS200	0.002	0.021	0.0123
cg16988989	15	25,925,801	OpenSea	ATP10A	Body	0.016	0.766	0.0123
cg09900371	15	41,228,628	Island	DLL4	Body	0.013	0.919	0.0123
cg26653990	5	72,510,846	N_Shore			0.030	0.190	0.0123
cg03656483	22	41,490,340	S_Shore	EP300	Body	0.001	0.013	0.0123
cg11377277	3	183,952,517	S_Shelf	VWA5B2	Body	0.016	0.867	0.0124
cg14516350	6	30,166,781	OpenSea	TRIM26	Body	0.013	0.857	0.0124
cg12841020	14	75,422,604	S_Shore	PGF	TSS1500	-0.012	0.147	0.0124
cg25970471	5	1,059,192	N_Shore	SLC12A7	Body	0.014	0.814	0.0124
cg24335155	7	149,193,227	N_Shore	ZNF746	Body	0.016	0.339	0.0124
cg17271960	1	1,550,779	Island	MIB2	TSS1500	0.004	0.040	0.0124
cg17955325	17	7,388,182	Island	ZBTB4	TSS1500	-0.002	0.019	0.0124
cg03151810	8	144,371,745	Island			0.060	0.785	0.0124
cg00536792	6	53,530,503	OpenSea	KLHL31	1stExon	-0.024	0.184	0.0124
cg22105158	19	3,480,672	N_Shore	C19orf77	TSS200	0.020	0.348	0.0124
cg00406319	10	126,851,303	Island			-0.041	0.709	0.0124
cg14066757	19	44,285,568	OpenSea	KCNN4	TSS200	0.016	0.609	0.0124

cg07257441	17	33,814,596	Island	SLFN12L	Body	-0.010	0.055	0.0124
cg04180723	16	459,965	N_Shore	DECR2	Body	0.009	0.962	0.0124
cg00492341	1	2,526,950	N_Shore	MMEL1	Body	0.017	0.753	0.0124
cg14024653	20	23,618,512	Island	CST3	1stExon	-0.016	0.020	0.0124
cg08865350	19	408,639	Island	C2CD4C	5'UTR	-0.003	0.026	0.0124
cg23279317	6	2,266,427	OpenSea			0.008	0.964	0.0125
cg24053664	11	134,200,722	N_Shore	GLB1L2	TSS1500	0.023	0.461	0.0125
cg02922902	12	124,751,591	OpenSea			-0.052	0.668	0.0125
cg17105912	1	43,352,822	Island			0.053	0.571	0.0125
cg13918631	3	185,435,472	OpenSea	IGF2BP2	Body	0.017	0.678	0.0125
cg13509456	7	2,167,503	OpenSea	MAD1L1	Body	0.011	0.750	0.0125
cg24971405	4	775,219	Island			-0.004	0.032	0.0125
cg20613889	2	49,381,495	OpenSea	FSHR	1stExon	0.029	0.343	0.0125
cg10166090	14	68,162,924	OpenSea	RDH11	TSS1500	0.005	0.977	0.0125
cg09371059	16	17,842,081	OpenSea			0.026	0.545	0.0125
cg20397614	4	100,572,993	N_Shore			0.010	0.948	0.0125
cg10472759	6	122,793,075	Island	PKIB	1stExon	0.012	0.019	0.0125
cg14002714	14	56,095,810	OpenSea	KTN1	Body	0.012	0.948	0.0125
cg25113360	11	120,530,355	OpenSea	GRIK4	TSS1500	0.023	0.554	0.0125
cg20656751	4	2,061,512	Island	NAT8L	1stExon	-0.061	0.401	0.0125
cg26960370	10	73,576,410	OpenSea	PSAP	3'UTR	0.015	0.643	0.0125
cg04729594	2	33,172,444	Island	LTBP1	1stExon	-0.007	0.034	0.0125
cg20280925	18	77,588,682	S_Shore			0.012	0.746	0.0125
cg12753606	6	135,504,989	S_Shore	MYB	Body	-0.016	0.086	0.0125
cg22538355	15	60,331,745	OpenSea			-0.021	0.616	0.0125
cg01406381	19	47,288,263	N_Shelf	SLC1A5	TSS200	-0.013	0.198	0.0125
cg14144229	14	69,136,587	OpenSea			0.017	0.679	0.0125
cg20307074	8	144,069,888	OpenSea	LOC10013366	Body	0.019	0.753	0.0125
cg01399379	12	108,298,374	S_Shore			0.007	0.966	0.0125
cg10202755	1	243,266,520	S_Shore	LOC731275	TSS1500	0.003	0.981	0.0125

cg22040403	1	23,858,016	Island	E2F2	TSS1500	0.003	0.026	0.0125
cg15281283	21	42,733,894	OpenSea	MX2	TSS200	0.023	0.429	0.0126
cg06686156	16	20,420,222	OpenSea	ACSM5	TSS1500	0.024	0.654	0.0126
cg09648243	2	133,363,326	OpenSea	GPR39	Body	0.022	0.635	0.0126
cg16898334	1	181,767,774	Island	CACNA1E	Body	-0.006	0.973	0.0126
cg03431903	20	62,665,188	S_Shelf	NCRNA00176	TSS1500	0.009	0.947	0.0126
cg12506597	6	31,699,709	S_Shore	CLIC1	Body	0.025	0.771	0.0126
cg16100690	12	7,260,877	OpenSea	LOC283314	TSS200	-0.003	0.037	0.0126
cg25603742	1	205,014,730	OpenSea	CNTN2	5'UTR	0.017	0.833	0.0126
cg11295357	10	124,248,943	OpenSea	HTRA1	Body	0.008	0.963	0.0126
cg10243322	19	5,131,279	N_Shelf	KDM4B	Body	0.023	0.442	0.0126
cg20580088	14	62,161,583	N_Shore	HIF1A	TSS1500	0.013	0.129	0.0126
cg00509610	3	12,528,629	S_Shelf	TSEN2	5'UTR	-0.009	0.943	0.0126
cg21049965	12	52,381,083	OpenSea	ACVR1B	Body	0.003	0.985	0.0126
cg27471192	11	59,015,338	OpenSea			0.034	0.539	0.0126
cg01727419	10	105,616,523	S_Shore	SH3PXD2A	TSS1500	0.029	0.672	0.0126
cg05301124	6	168,517,769	OpenSea			-0.022	0.772	0.0127
cg10788321	8	38,758,757	Island	PLEKHA2	1stExon	-0.004	0.033	0.0127
cg15215830	11	125,999,805	OpenSea			-0.023	0.529	0.0127
cg13957124	15	72,178,118	OpenSea	MYO9A	Body	0.003	0.987	0.0127
cg14966878	1	11,560,374	N_Shore	PTCHD2	5'UTR	0.026	0.594	0.0127
cg24547863	10	134,161,674	N_Shelf	LRRC27	Body	0.005	0.972	0.0127
cg01566323	16	31,147,199	OpenSea	PRSS8	TSS200	0.047	0.488	0.0127
cg10333023	11	128,774,411	OpenSea	KCNJ5	5'UTR	0.034	0.387	0.0127
cg14017193	4	3,250,726	Island	C4orf44	TSS200	0.017	0.473	0.0127
cg05146852	11	26,523,296	OpenSea	ANO3	Body	0.025	0.896	0.0127
cg04014686	3	116,164,943	OpenSea	LSAMP	TSS1500	0.025	0.582	0.0127
cg22117062	4	2,794,231	N_Shore	SH3BP2	TSS1500	-0.029	0.846	0.0127
cg02947125	14	104,376,026	OpenSea			0.019	0.594	0.0127
cg17981769	11	64,864,227	S_Shore	C11orf2	Body	0.003	0.027	0.0127

cg04285378	6	33,168,180	Island	SLC39A7	TSS1500	-0.007	0.072	0.0127
cg19869443	1	84,766,821	S_Shore	SAMD13	TSS1500	0.018	0.336	0.0127
cg09249084	1	68,659,894	OpenSea	GPR177	Body	0.007	0.971	0.0127
cg20186588	3	193,545,238	OpenSea			-0.019	0.437	0.0127
cg18864880	2	132,179,576	N_Shelf			0.010	0.934	0.0127
cg19048403	19	7,942,488	S_Shelf			0.016	0.845	0.0127
cg08856118	10	27,389,908	S_Shore	ANKRD26	TSS1500	0.032	0.441	0.0127
cg00069003	5	140,164,106	N_Shore			0.037	0.800	0.0127
cg13433250	2	63,275,954	Island	LOC10013221	TSS1500	-0.008	0.071	0.0127
cg10309230	13	100,242,514	OpenSea			0.019	0.552	0.0128
cg02909372	10	104,193,735	S_Shore	CUEDC2	TSS1500	0.036	0.575	0.0128
cg24060538	6	14,024,568	OpenSea			0.022	0.905	0.0128
cg08458678	11	70,565,177	S_Shore	SHANK2	Body	0.013	0.905	0.0128
cg13406893	12	131,568,647	N_Shelf	GPR133	Body	-0.055	0.877	0.0128
cg07748883	18	34,914,606	N_Shelf	BRUNOL4	Body	0.019	0.466	0.0128
cg05043733	22	43,605,465	N_Shore	SCUBE1	Body	0.013	0.867	0.0128
cg17220960	12	132,284,512	Island			0.017	0.729	0.0128
cg09740179	10	132,913,233	OpenSea	TCERG1L	Body	0.013	0.800	0.0128
cg16134607	12	56,512,091	Island	ZC3H10	5'UTR	-0.014	0.077	0.0128
cg21304453	20	3,218,794	Island	SLC4A11	TSS1500	-0.002	0.019	0.0128
cg21084508	2	219,905,564	N_Shore	CCDC108	5'UTR	0.016	0.429	0.0128
cg24314879	1	2,435,236	Island	PLCH2	Body	0.021	0.523	0.0128
cg11981932	1	149,170,352	OpenSea			0.054	0.137	0.0128
cg06739523	1	147,039,036	OpenSea	BCL9	5'UTR	0.010	0.947	0.0128
cg05256612	17	47,841,787	S_Shore	FAM117A	TSS1500	0.003	0.025	0.0128
cg09501959	2	193,058,203	N_Shore	TMEFF2	Body	-0.017	0.099	0.0128
cg04084157	7	100,809,049	Island	VGF	TSS200	-0.006	0.051	0.0128
cg03557770	5	132,678,788	OpenSea	FSTL4	Body	0.017	0.828	0.0128
cg03599224	6	31,541,349	OpenSea	LTA	Body	0.016	0.817	0.0128
cg01134139	6	168,435,636	N_Shore	KIF25	Body	0.047	0.731	0.0129

cg16079358	14	23,340,577	N_Shore	LRP10	TSS1500	-0.011	0.070	0.0129
cg27019126	18	56,940,693	Island	RAX	TSS200	-0.004	0.026	0.0129
cg02078558	2	179,058,157	N_Shore	OSBPL6	TSS1500	0.028	0.491	0.0129
cg23243030	1	19,147,221	OpenSea			0.016	0.549	0.0129
cg12580156	10	112,588,051	OpenSea	RBM20	Body	0.019	0.564	0.0129
cg01536400	9	124,923,283	S_Shore	NDUFA8	TSS1500	-0.011	0.905	0.0129
cg07217954	7	1,067,459	Island	C7orf50	Body	-0.014	0.024	0.0129
cg05572003	5	176,865,623	S_Shelf	GRK6	Body	0.016	0.869	0.0129
cg22219136	17	15,164,284	Island	PMP22	5'UTR	0.003	0.020	0.0129
cg12710800	10	74,008,773	OpenSea			0.019	0.207	0.0129
cg11240062	8	144,361,073	Island			0.053	0.445	0.0129
cg22692169	15	101,142,557	Island	LINS1	TSS200	-0.003	0.024	0.0129
cg25884442	12	6,178,606	OpenSea	VWF	Body	0.021	0.706	0.0129
cg21820677	4	46,392,528	Island	GABRA2	TSS1500	0.003	0.030	0.0129
cg07702696	12	133,335,488	Island	ANKLE2	Body	0.015	0.911	0.0129
cg09068198	2	65,357,064	Island	RAB1A	1stExon	-0.006	0.060	0.0129
cg19290091	4	27,321,334	OpenSea			-0.031	0.339	0.0129
cg21763603	19	15,873,988	S_Shelf			0.006	0.971	0.0129
cg27482690	7	5,411,097	S_Shore	TNRC18	Body	0.006	0.964	0.0129
cg06852350	15	75,119,324	OpenSea	CPLX3	Body	0.023	0.364	0.0129
cg13200838	1	91,194,708	S_Shore			-0.002	0.015	0.0130
cg05716270	16	1,138,344	N_Shore	C1QTNF8	3'UTR	0.050	0.564	0.0130
cg07013325	17	2,310,856	OpenSea	LOC284009	Body	0.016	0.828	0.0130
cg26074349	12	50,426,727	Island			0.011	0.061	0.0130
cg05163923	11	71,159,392	Island	DHCR7	1stExon	-0.003	0.027	0.0130
cg18371750	5	175,112,799	OpenSea	HRH2	3'UTR	0.006	0.952	0.0130
cg13587449	10	72,240,883	S_Shelf	KIAA1274	5'UTR	0.015	0.722	0.0130
cg00890649	6	42,987,318	N_Shore	KLHDC3	Body	0.011	0.949	0.0130
cg09744452	12	130,965,963	OpenSea	RIMBP2	5'UTR	0.020	0.212	0.0130
cg15501281	20	19,193,060	Island	SLC24A3	TSS1500	-0.002	0.015	0.0130



cg11761622	6	25,726,956	S_Shore	HIST1H2AA	TSS200	-0.013	0.965	0.0130
cg09518245	1	26,234,015	S_Shore	STMN1	TSS1500	0.005	0.970	0.0130
cg04300065	14	102,022,513	N_Shelf	DIO3OS	TSS1500	0.033	0.874	0.0130
cg11138929	3	113,251,189	N_Shore	SIDT1	TSS200	0.002	0.014	0.0130
cg27269962	7	127,540,997	OpenSea	SND1	Body	0.024	0.542	0.0130
cg01948210	14	81,686,781	Island	GTF2A1	5'UTR	0.015	0.076	0.0130
cg15026001	15	51,395,351	OpenSea	TNFAIP8L3	Body	-0.005	0.976	0.0130
cg10680235	15	85,430,038	OpenSea	SLC28A1	5'UTR	0.017	0.838	0.0130
cg16112766	10	80,925,057	OpenSea	ZMIZ1	5'UTR	0.028	0.580	0.0130
cg02577394	13	111,123,159	OpenSea	COL4A2	Body	-0.014	0.927	0.0130
cg09657185	6	34,003,954	Island	GRM4	Body	0.014	0.796	0.0131
cg02215787	7	5,107,766	N_Shelf	RBAK	3'UTR	0.006	0.982	0.0131
cg13067221	14	23,449,582	N_Shore	JUB	Body	-0.006	0.043	0.0131
cg17114692	21	47,054,398	Island			0.062	0.858	0.0131
cg06726490	2	97,166,001	N_Shore	NEURL3	Body	0.024	0.403	0.0131
cg10517290	17	76,377,967	S_Shelf	PGS1	Body	0.028	0.816	0.0131
cg06946850	16	29,877,776	S_Shelf	LOC440356	Body	0.033	0.700	0.0131
cg24220212	18	20,531,465	OpenSea	RBBP8	Body	0.007	0.969	0.0131
cg01901788	20	33,145,848	N_Shore	MAP1LC3A	TSS1500	0.036	0.672	0.0131
cg02911270	8	141,629,513	OpenSea	EIF2C2	Body	0.021	0.717	0.0131
cg23193657	2	103,233,395	N_Shore			0.025	0.844	0.0131
cg17525411	12	7,341,580	N_Shore	PEX5	TSS1500	0.018	0.355	0.0131
cg15679432	3	149,768,539	Island			-0.016	0.960	0.0131
cg13959344	6	32,901,642	OpenSea			-0.017	0.147	0.0131
cg20436912	22	30,902,642	S_Shore	SEC14L4	TSS1500	0.017	0.651	0.0131
cg17318529	1	228,196,198	Island	WNT3A	Body	-0.029	0.081	0.0131
cg24598020	5	148,929,627	N_Shore	CSNK1A1	Body	-0.004	0.031	0.0131
cg00402222	5	178,622,572	OpenSea	ADAMTS2	Body	0.017	0.801	0.0131
cg04508870	1	8,298,617	OpenSea			0.021	0.463	0.0132
cg04085542	5	93,414,338	OpenSea	FAM172A	Body	0.006	0.972	0.0132

cg07908508	19	35,417,702	Island	ZNF30	TSS200	-0.002	0.022	0.0132
cg24446391	3	25,704,931	N_Shore	TOP2B	Body	0.003	0.030	0.0132
cg26053547	18	77,549,871	Island			0.018	0.805	0.0132
cg12912758	6	1,594,591	OpenSea			0.027	0.663	0.0132
cg20994660	2	162,272,299	N_Shore	TBR1	TSS1500	-0.004	0.025	0.0132
cg14437562	15	67,543,553	N_Shelf	AAGAB	Body	0.003	0.985	0.0132
cg02808595	2	151,343,582	S_Shore	RND3	Body	-0.002	0.019	0.0132
cg01519350	3	137,906,342	Island	ARMC8	1stExon	0.002	0.017	0.0132
cg25554455	10	133,331,065	OpenSea			0.025	0.696	0.0132
cg10308673	11	268,976	OpenSea			0.032	0.421	0.0132
cg19757478	4	3,424,470	OpenSea	RGS12	Body	0.017	0.611	0.0132
cg09254322	10	101,280,807	N_Shore			0.017	0.263	0.0132
cg18611828	10	3,284,127	OpenSea			0.016	0.823	0.0132
cg03050096	14	101,530,580	N_Shore	MIR412	TSS1500	0.014	0.804	0.0132
cg03424655	19	38,573,003	Island	SIPA1L3	Body	0.007	0.958	0.0133
cg18780288	10	111,659,903	OpenSea	XPNPEP1	Body	0.017	0.295	0.0133
cg25920214	6	47,442,665	N_Shelf			0.008	0.969	0.0133
cg18525972	12	52,749,958	OpenSea			0.025	0.893	0.0133
cg19091245	10	133,508,648	S_Shore			0.024	0.835	0.0133
cg02762115	11	640,446	Island	DRD4	Body	-0.034	0.318	0.0133
cg18320379	11	75,947,361	Island			0.003	0.018	0.0133
cg01332882	20	47,874,155	OpenSea	ZNFX1	Body	0.008	0.943	0.0133
cg06208665	7	56,552,034	S_Shore			0.030	0.623	0.0133
cg06134410	7	1,705,349	Island			0.002	0.016	0.0133
cg10761843	2	172,411,765	OpenSea	CYBRD1	3'UTR	-0.015	0.931	0.0133
cg23074732	22	19,644,239	Island			0.017	0.856	0.0133
cg19076479	6	130,342,336	Island	L3MBTL3	5'UTR	-0.005	0.031	0.0133
cg07385388	17	110,138	N_Shelf	RPH3AL	Body	0.015	0.751	0.0133
cg26783481	5	93,125,895	OpenSea	FAM172A	Body	0.043	0.966	0.0133
cg22016859	22	50,750,549	OpenSea	FAM116B	3'UTR	0.018	0.526	0.0133

cg03790325	10	46,089,985	Island		8-Mar 1stExon	0.002	0.023	0.0134
cg00113675	6	29,855,347	Island	HLA-H	TSS200	0.050	0.128	0.0134
cg14435997	2	1,808,183	OpenSea	MYT1L	Body	0.023	0.823	0.0134
cg18262197	5	1,553,051	Island			0.027	0.311	0.0134
cg20659378	11	71,639,748	OpenSea	RNF121	TSS200	0.002	0.015	0.0134
cg10535132	5	137,224,284	N_Shore	PKD2L2	TSS1500	0.024	0.907	0.0134
cg08834401	2	71,017,846	Island	FIGLA	TSS200	0.021	0.105	0.0134
cg22874065	1	212,540,224	OpenSea	TMEM206	Body	0.004	0.978	0.0134
cg20049273	8	125,293,010	OpenSea			0.018	0.674	0.0134
cg01518279	1	156,401,601	N_Shelf			0.002	0.018	0.0134
cg18640030	8	67,090,752	S_Shore	CRH	TSS200	0.035	0.523	0.0134
cg09565670	19	39,368,408	OpenSea	RINL	5'UTR	0.022	0.478	0.0134
cg15159060	11	30,251,197	OpenSea	FSHB	TSS1500	0.016	0.647	0.0134
cg25750259	20	43,104,962	S_Shore	TTPAL	5'UTR	0.008	0.048	0.0134
cg17554875	5	179,520,998	S_Shelf			0.020	0.724	0.0134
cg17112089	7	117,513,348	Island	CTTNBP2	Body	0.002	0.019	0.0134
cg05900810	12	113,574,066	S_Shore	RASAL1	TSS200	-0.002	0.019	0.0134
cg23430388	3	63,429,828	OpenSea	SYNPR	Body	0.020	0.248	0.0135
cg22169791	15	69,292,820	OpenSea	MIR548H4	Body	0.021	0.558	0.0135
cg14094987	19	50,083,865	Island	PRRG2	TSS1500	0.004	0.042	0.0135
cg14240223	9	139,429,185	S_Shore	NOTCH1	Body	0.018	0.663	0.0135
cg01449563	6	31,938,372	N_Shore	STK19	TSS1500	0.017	0.815	0.0135
cg07845390	1	196,577,709	Island	KCNT2	TSS1500	-0.002	0.018	0.0135
cg09250367	14	101,492,132	OpenSea	MIR758	TSS1500	0.018	0.821	0.0135
cg22941637	1	155,248,588	S_Shore	HCN3	Body	0.015	0.400	0.0135
cg25512188	6	167,093,321	OpenSea	RPS6KA2	Body	-0.023	0.878	0.0135
cg10153082	10	3,190,401	OpenSea	PITRM1	Body	0.018	0.834	0.0135
cg13982366	9	138,018,566	OpenSea			0.021	0.875	0.0135
cg22171142	16	3,627,546	OpenSea	NLRC3	TSS200	0.022	0.671	0.0135
cg02529547	17	48,259,089	OpenSea			0.015	0.384	0.0135

cg17115250	6	28,557,291	S_Shelf			0.007	0.032	0.0135
cg26311295	18	43,547,356	Island	KIAA1632	TSS200	-0.003	0.026	0.0136
cg16286755	18	75,886,610	Island			-0.012	0.549	0.0136
cg24510613	11	2,020,036	S_Shore	H19	TSS1500	0.013	0.572	0.0136
cg18156003	21	42,836,963	OpenSea	TMPRSS2	3'UTR	-0.009	0.940	0.0136
cg14225481	14	64,855,023	Island	MTHFD1	1stExon	-0.004	0.043	0.0136
cg19735074	1	100,503,364	N_Shore	HIAT1	TSS1500	0.004	0.035	0.0136
cg01499197	13	28,544,814	Island	CDX2	TSS1500	-0.005	0.036	0.0136
cg08260299	1	154,960,713	OpenSea	FLAD1	Body	0.014	0.793	0.0136
cg04391064	7	43,797,839	Island	BLVRA	TSS1500	-0.023	0.154	0.0136
cg14660676	8	126,012,434	S_Shore	SQLE	Body	-0.045	0.061	0.0136
cg16517702	1	201,617,853	Island	NAV1	1stExon	-0.005	0.020	0.0136
cg06739333	13	41,245,484	S_Shelf			0.006	0.965	0.0136
cg14388108	2	9,624,315	OpenSea	IAH1	Body	0.011	0.923	0.0136
cg16198734	2	202,004,649	OpenSea	CFLAR	Body	0.012	0.449	0.0136
cg09541740	2	95,831,116	N_Shore	ZNF2	TSS200	0.002	0.017	0.0136
cg05679836	12	57,472,765	S_Shore	TMEM194A	TSS200	-0.003	0.031	0.0136
cg10725861	19	7,983,606	Island			0.030	0.561	0.0137
cg11585679	6	3,299,689	OpenSea	SLC22A23	Body	0.004	0.981	0.0137
cg25641533	6	31,734,580	OpenSea	C6orf27	Body	0.036	0.322	0.0137
cg22242207	2	135,477,425	S_Shore	TMEM163	TSS1500	0.029	0.712	0.0137
cg19873021	19	6,738,068	N_Shore	GPR108	TSS1500	0.003	0.027	0.0137
cg04927360	1	159,752,179	S_Shore	DUSP23	3'UTR	0.010	0.919	0.0137
cg06325996	3	10,288,127	N_Shore			0.030	0.958	0.0137
cg18328612	19	4,676,623	Island	DPP9	Body	0.017	0.835	0.0137
cg19725553	7	43,797,898	Island	BLVRA	TSS1500	-0.020	0.185	0.0137
cg00495362	3	130,368,113	OpenSea	COL6A6	Body	0.003	0.986	0.0137
cg13350481	3	38,537,876	Island	EXOG	1stExon	0.002	0.019	0.0137
cg05960502	15	25,903,875	OpenSea			0.009	0.952	0.0137
cg18033333	4	85,604,328	OpenSea	WDFY3	TSS1500	0.031	0.744	0.0137

cg23416593	5	3,890,909	OpenSea			0.019	0.914	0.0137
cg25112590	17	3,870,415	S_Shelf			0.015	0.776	0.0137
cg05028089	10	79,793,366	N_Shore	RPS24	TSS200	0.002	0.014	0.0137
cg17024482	17	54,230,730	OpenSea	ANKFN1	TSS200	0.018	0.394	0.0137
cg19985421	11	77,791,376	S_Shore	NDUFC2	TSS200	0.025	0.777	0.0137
cg01169981	15	85,680,344	OpenSea	PDE8A	Body	0.008	0.951	0.0137
cg12986639	7	141,673,903	OpenSea	TAS2R38	TSS1500	-0.010	0.920	0.0137
cg02945359	6	29,694,676	S_Shelf	LOC285830	Body	0.015	0.925	0.0137
cg10432987	17	136,544	N_Shore	RPH3AL	Body	0.024	0.693	0.0138
cg00940007	15	41,216,731	N_Shore			0.014	0.801	0.0138
cg03329603	6	31,698,657	S_Shore	CLIC1	Body	0.017	0.677	0.0138
cg26946905	16	89,441,595	S_Shelf	ANKRD11	5'UTR	0.033	0.622	0.0138
cg02178032	8	11,213,424	OpenSea	TDH	Body	0.032	0.729	0.0138
cg24592513	4	89,099,589	OpenSea			0.015	0.421	0.0138
cg01582807	7	99,070,515	Island	ZNF789	5'UTR	-0.005	0.028	0.0138
cg12253437	6	32,813,448	S_Shore	TAP1	Body	0.023	0.816	0.0138
cg09619309	8	81,084,440	S_Shore	TPD52	TSS1500	0.009	0.935	0.0138
cg15460348	4	88,896,909	OpenSea	SPP1	1stExon	0.019	0.120	0.0138
cg16347317	6	133,562,336	Island	EYA4	TSS200	-0.003	0.030	0.0138
cg09433558	3	171,412,917	OpenSea	PLD1	Body	0.004	0.977	0.0138
cg24530660	2	204,192,481	N_Shore	ABI2	TSS1500	-0.012	0.075	0.0138
cg22598247	7	157,614,399	S_Shelf	PTPRN2	Body	-0.017	0.845	0.0138
cg09859034	7	131,233,342	OpenSea	PODXL	Body	0.017	0.704	0.0138
cg05873604	8	1,402,251	N_Shelf			0.018	0.466	0.0138
cg22150661	8	104,032,860	N_Shore	ATP6V1C1	TSS1500	0.047	0.413	0.0138
cg13649124	10	32,063,451	OpenSea			0.016	0.422	0.0138
cg14445389	2	100,426,973	OpenSea	AFF3	Body	0.016	0.768	0.0138
cg05861255	12	123,921,688	S_Shore	RILPL2	TSS1500	0.025	0.295	0.0138
cg12908952	1	167,190,631	Island	POU2F1	5'UTR	-0.003	0.021	0.0138
cg19434936	9	35,658,452	Island	CCDC107	1stExon	-0.003	0.025	0.0139

cg05111155	14	105,509,376	N_Shelf			0.019	0.773	0.0139
cg08860296	6	168,217,825	OpenSea			-0.010	0.940	0.0139
cg03979754	8	110,703,460	Island	GOLSYN	5'UTR	-0.032	0.302	0.0139
cg25734421	1	210,501,368	N_Shore	HHAT	TSS1500	-0.018	0.779	0.0139
cg11774399	19	7,934,559	Island			0.033	0.128	0.0139
cg08812802	12	49,686,619	N_Shelf			0.022	0.365	0.0139
cg13082120	6	33,257,050	S_Shore	WDR46	1stExon	0.002	0.017	0.0139
cg12871967	12	3,688,664	OpenSea	PRMT8	Body	0.016	0.661	0.0139
cg13219107	4	151,937,234	Island	LRBA	TSS1500	-0.004	0.039	0.0139
cg01368075	3	128,523,902	OpenSea	RAB7A	Body	-0.006	0.977	0.0139
cg26232553	8	101,471,097	OpenSea			0.038	0.732	0.0139
cg17353733	9	124,313,186	Island			-0.005	0.037	0.0139
cg17653972	19	55,815,941	Island	BRSK1	Body	0.036	0.698	0.0139
cg10836101	19	30,020,886	Island	VSTM2B	Body	-0.002	0.014	0.0139
cg08626932	20	62,259,823	S_Shore	GMEB2	TSS1500	0.039	0.331	0.0139
cg03850256	2	176,974,592	S_Shore			0.022	0.139	0.0139
cg03145062	17	50,188,449	OpenSea	CA10	Body	0.006	0.975	0.0139
cg21715536	19	1,395,519	Island	NDUFS7	3'UTR	0.020	0.665	0.0139
cg17631451	3	48,507,354	OpenSea	TREX1	5'UTR	0.026	0.350	0.0139
cg12215478	6	35,887,710	N_Shore	SRPK1	Body	-0.012	0.071	0.0139
cg15570395	4	185,129,048	OpenSea	ENPP6	Body	-0.037	0.831	0.0139
cg11566244	11	67,351,786	Island	GSTP1	Body	0.003	0.021	0.0140
cg07558259	6	529,098	OpenSea	EXOC2	Body	-0.017	0.892	0.0140
cg08928958	5	149,178,783	OpenSea	PPARGC1B	Body	-0.016	0.213	0.0140
cg13927501	6	30,079,090	OpenSea	TRIM31	Body	0.018	0.630	0.0140
cg27132080	5	168,729,267	S_Shore	SLIT3	TSS1500	0.019	0.593	0.0140
cg07627445	4	1,029,632	Island			0.017	0.592	0.0140
cg06086198	12	29,021,552	OpenSea			0.024	0.429	0.0140
cg00760646	17	4,643,865	S_Shore	ZMYND15	Body	0.030	0.591	0.0140
cg09011608	12	110,152,133	Island	C12orf34	TSS200	-0.009	0.027	0.0140

cg18252855	6	11,191,235	OpenSea	NEDD9	Body	0.022	0.552	0.0140
cg04611801	17	56,402,029	Island	BZRAP1	Body	-0.008	0.027	0.0140
cg07258998	19	33,167,980	Island	RGS9BP	3'UTR	-0.007	0.034	0.0140
cg03543639	4	947,374	N_Shore	TMEM175	Body	0.007	0.941	0.0140
cg17199018	8	28,206,278	OpenSea	ZNF395	Body	0.025	0.760	0.0140
cg00579749	8	83,290,409	OpenSea			0.010	0.967	0.0140
cg15997020	8	140,990,656	OpenSea	TRAPPC9	Body	0.003	0.974	0.0140
cg10804687	6	29,859,520	S_Shelf			-0.067	0.951	0.0141
cg05970721	16	22,926,625	Island	HS3ST2	Body	-0.013	0.928	0.0141
cg22342100	8	124,666,123	OpenSea	KLHL38	TSS1500	0.021	0.151	0.0141
cg05538432	12	7,167,751	OpenSea	C1S	TSS1500	0.034	0.779	0.0141
cg20411935	1	228,653,095	S_Shore			0.039	0.181	0.0141
cg06769989	5	115,929,014	OpenSea			0.003	0.984	0.0141
cg18194292	3	100,211,426	Island	TMEM45A	TSS200	-0.004	0.038	0.0141
cg09326135	10	131,691,124	N_Shelf	EBF3	Body	0.034	0.563	0.0141
cg26188621	10	76,983,413	OpenSea	VDAC2	Body	0.027	0.689	0.0141
cg04202892	2	111,875,749	Island	ACOXL	3'UTR	0.032	0.203	0.0141
cg01561368	14	91,977,240	Island	SMEK1	TSS1500	0.001	0.015	0.0141
cg00592795	19	9,969,064	S_Shelf	OLFM2	Body	0.017	0.781	0.0141
cg12423902	6	30,159,309	OpenSea	TRIM26	Body	-0.038	0.817	0.0141
cg04618903	17	77,914,869	Island	TBC1D16	Body	0.014	0.842	0.0141
cg19627538	17	1,090,557	OpenSea	ABR	1stExon	-0.009	0.063	0.0141
cg12526471	11	113,929,188	N_Shore	ZBTB16	TSS1500	-0.023	0.348	0.0141
cg20359793	12	52,887,054	OpenSea	KRT6A	1stExon	0.013	0.859	0.0141
cg06489606	17	80,251,697	S_Shore			-0.017	0.249	0.0141
cg18133300	11	62,376,474	N_Shelf	EML3	Body	0.010	0.946	0.0141
cg05652547	1	1,131,983	N_Shore	TTL10	Body	0.017	0.757	0.0141
cg16598405	6	31,621,210	S_Shore	BAT3	TSS1500	0.019	0.130	0.0141
cg17885791	6	149,771,845	Island	ZC3H12D	Body	0.020	0.375	0.0141
cg15269385	4	1,632,273	OpenSea			0.006	0.972	0.0141

cg04300873	17	42,254,647	S_Shore	ASB16	Body	0.047	0.687	0.0142
cg06277472	19	30,936,625	Island	ZNF536	Body	-0.009	0.925	0.0142
cg10065739	16	4,258,150	OpenSea	SRL	Body	0.024	0.904	0.0142
cg20410409	1	158,724,057	OpenSea	OR6K6	TSS1500	-0.021	0.892	0.0142
cg23977108	16	14,724,300	S_Shore	PARN	TSS200	0.002	0.022	0.0142
cg17602444	7	644,819	N_Shore	PRKAR1B	Body	-0.028	0.827	0.0142
cg26929163	16	34,598,029	OpenSea	LOC283914	Body	0.024	0.684	0.0142
cg11639825	2	397,707	OpenSea			-0.033	0.750	0.0142
cg01258718	7	56,008,108	OpenSea	ZNF713	3'UTR	0.032	0.931	0.0142
cg00553619	17	292,816	Island	FAM101B	3'UTR	-0.011	0.934	0.0142
cg14852409	10	65,626,240	OpenSea			-0.003	0.023	0.0142
cg16781715	3	9,200,404	OpenSea	SRGAP3	Body	0.003	0.985	0.0142
cg14811872	2	236,577,984	N_Shore	AGAP1	Body	0.007	0.061	0.0142
cg14472366	13	20,875,915	Island			0.019	0.094	0.0142
cg22319611	22	19,840,851	N_Shore	GNB1L	5'UTR	0.017	0.626	0.0142
cg03080639	15	42,302,379	OpenSea	PLA2G4E	1stExon	0.036	0.747	0.0142
cg20860806	15	49,267,825	N_Shore			0.039	0.515	0.0142
cg10308682	20	5,931,622	Island	MCM8	5'UTR	0.002	0.014	0.0142
cg00074771	15	44,120,341	S_Shore	WDR76	Body	0.029	0.604	0.0142
cg04542938	6	16,762,468	Island	ATXN1	TSS1500	0.003	0.021	0.0142
cg04994975	1	1,795,945	OpenSea	GNB1	5'UTR	0.005	0.977	0.0142
cg20244327	10	3,283,946	OpenSea			0.022	0.720	0.0142
cg18865419	19	5,064,019	N_Shore	KDM4B	Body	0.013	0.869	0.0142
cg03162916	17	77,003,152	N_Shelf	CANT1	5'UTR	0.024	0.527	0.0143
cg17311469	12	58,022,410	S_Shore	B4GALNT1	Body	0.031	0.281	0.0143
cg13293295	2	69,513,119	OpenSea			0.023	0.443	0.0143
cg11901362	2	3,507,404	S_Shelf	ADI1	Body	-0.010	0.939	0.0143
cg07218344	13	50,571,702	S_Shore	TRIM13	5'UTR	-0.005	0.040	0.0143
cg05147578	22	18,559,240	N_Shore	PEX26	TSS1500	-0.016	0.913	0.0143
cg09164040	2	86,024,524	OpenSea			0.011	0.908	0.0143



cg04800682	3	58,223,165	Island	ABHD6	TSS200	0.003	0.030	0.0143
cg00325113	20	44,097,716	N_Shore	WFDC2	TSS1500	0.020	0.449	0.0143
cg03094620	16	22,924,626	N_Shore	HS3ST2	Body	-0.026	0.712	0.0143
cg06174599	5	76,925,446	Island	OTP	3'UTR	0.004	0.026	0.0143
cg13923040	19	59,085,345	N_Shore	MZF1	TSS1500	0.014	0.134	0.0143
cg26826183	19	10,231,701	S_Shore	EIF3G	TSS1500	0.021	0.552	0.0143
cg00508950	12	132,916,034	OpenSea			-0.029	0.776	0.0143
cg06504925	11	126,872,760	N_Shore			-0.036	0.509	0.0143
cg10262770	6	32,135,370	S_Shore	EGFL8	Body	0.019	0.746	0.0143
cg20457180	1	32,700,869	OpenSea	MTMR9L	Body	0.010	0.940	0.0143
cg17937420	6	114,179,238	N_Shore	MARCKS	Body	-0.006	0.041	0.0143
cg14659082	19	2,741,249	S_Shore	SLC39A3	TSS1500	0.042	0.779	0.0143
cg05798627	11	67,291,531	S_Shelf	CABP2	TSS1500	0.017	0.676	0.0143
cg22628608	8	67,352,379	S_Shore	ADHFE1	Body	0.023	0.902	0.0143
cg08780218	5	172,194,729	N_Shelf			-0.014	0.853	0.0144
cg01512084	21	45,754,232	Island	C21orf2	Body	0.011	0.938	0.0144
cg25090472	6	25,726,953	S_Shore	HIST1H2AA	TSS200	-0.014	0.957	0.0144
cg01665408	11	78,663,687	OpenSea	ODZ4	Body	-0.018	0.875	0.0144
cg07997596	1	3,685,319	N_Shelf	CCDC27	Body	0.018	0.646	0.0144
cg04564481	10	94,820,954	Island	CYP26C1	TSS200	-0.018	0.404	0.0144
cg11191302	1	215,950,212	OpenSea	USH2A	Body	0.006	0.973	0.0144
cg25224094	15	60,296,273	Island	FOXB1	TSS200	0.002	0.018	0.0144
cg26724497	2	217,556,803	Island	IGFBP5	Body	-0.004	0.028	0.0144
cg04985661	6	12,717,192	OpenSea	PHACTR1	TSS1500	-0.039	0.507	0.0144
cg18284070	14	57,736,207	S_Shore	MUDENG	Body	0.002	0.014	0.0144
cg25081128	4	99,449,246	OpenSea	TSPAN5	Body	0.017	0.912	0.0144
cg07345016	5	176,117,443	OpenSea			0.022	0.772	0.0144
cg07337120	2	796,476	OpenSea			0.020	0.749	0.0144
cg22218588	6	155,548,093	OpenSea	TIAM2	Body	0.005	0.972	0.0144
cg11218842	10	5,406,907	OpenSea	UCN3	TSS200	0.019	0.428	0.0144

cg23121993	5	1,883,954	Island	IRX4	TSS1500	-0.012	0.041	0.0145
cg01502373	22	25,158,976	N_Shore	TOP1P2	TSS1500	0.014	0.896	0.0145
cg16443014	3	63,630,365	OpenSea			0.042	0.607	0.0145
cg17378342	5	149,546,331	Island	CDX1	TSS200	0.014	0.755	0.0145
cg13996426	3	49,756,904	Island	AMIGO3	5'UTR	-0.006	0.039	0.0145
cg05514418	11	15,093,744	N_Shore	CALCB	TSS1500	0.017	0.891	0.0145
cg18971819	11	616,112	N_Shore	IRF7	TSS1500	-0.004	0.023	0.0145
cg07283630	15	48,667,436	OpenSea			0.007	0.971	0.0145
cg08134592	11	1,007,447	N_Shore	AP2A2	Body	0.002	0.975	0.0145
cg25370567	13	113,565,136	OpenSea			-0.021	0.372	0.0145
cg16330369	8	71,357,702	OpenSea			-0.006	0.045	0.0145
cg04423431	17	1,578,460	OpenSea	PRPF8	Body	0.003	0.985	0.0145
cg02077977	1	231,376,624	N_Shore	GNPAT	TSS1500	0.001	0.011	0.0145
cg10367743	4	15,003,669	Island			-0.008	0.030	0.0146
cg04133572	1	161,195,810	OpenSea	TOMM40L	TSS200	-0.005	0.054	0.0146
cg19571686	14	32,328,771	OpenSea	NUBPL	3'UTR	0.005	0.976	0.0146
cg24213433	2	37,061,797	OpenSea			0.017	0.699	0.0146
cg02307586	11	70,048,921	N_Shore	FADD	TSS1500	0.026	0.290	0.0146
cg10283674	12	124,850,836	OpenSea	NCOR2	Body	0.030	0.816	0.0146
cg18064256	19	45,905,621	N_Shelf	PPP1R13L	5'UTR	-0.018	0.271	0.0146
cg03542197	7	83,146,545	OpenSea	SEMA3E	Body	0.024	0.462	0.0146
cg24479328	12	79,716,682	OpenSea	SYT1	Body	0.006	0.970	0.0146
cg02016419	17	15,245,237	S_Shore	TEKT3	TSS1500	0.024	0.293	0.0146
cg25937598	10	105,240,427	OpenSea	CALHM3	TSS1500	0.015	0.619	0.0146
cg09669356	19	37,157,565	N_Shore	ZNF461	5'UTR	-0.003	0.022	0.0146
cg00516481	21	44,073,202	Island	PDE9A	TSS1500	-0.006	0.052	0.0146
cg20091297	2	37,572,423	S_Shore	QPCT	Body	0.037	0.102	0.0146
cg00922281	16	87,715,775	S_Shore	JPH3	Body	0.018	0.263	0.0146
cg10574376	16	78,079,753	Island			-0.014	0.048	0.0146
cg27579097	16	734,844	Island	JMJD8	TSS1500	0.023	0.817	0.0146

cg00753994	8	86,556,164	Island			0.010	0.972	0.0146
cg10122302	1	6,051,558	N_Shore	NPHP4	5'UTR	-0.004	0.020	0.0146
cg21894124	12	132,904,689	N_Shore	GALNT9	Body	0.024	0.283	0.0146
cg17034959	12	132,321,329	N_Shelf	MMP17	Body	0.015	0.706	0.0146
cg10545927	1	33,117,362	Island	RBBP4	5'UTR	-0.005	0.032	0.0147
cg13882921	18	32,826,525	OpenSea	ZNF397	Body	-0.007	0.961	0.0147
cg03885055	1	16,723,232	OpenSea	C1orf144	3'UTR	0.025	0.600	0.0147
cg12720971	19	695,642	OpenSea	PRSSL1	TSS200	0.027	0.799	0.0147
cg27212978	4	38,869,221	N_Shore	FAM114A1	TSS1500	0.003	0.040	0.0147
cg14293129	6	31,696,333	Island	DDAH2	Body	0.026	0.547	0.0147
cg09603795	10	75,256,221	S_Shore	PPP3CB	TSS1500	0.027	0.549	0.0147
cg12072262	10	129,379,353	OpenSea			0.020	0.892	0.0147
cg27610579	6	57,036,894	N_Shore	BAG2	TSS1500	-0.002	0.016	0.0147
cg06761873	12	7,865,652	OpenSea	DPPA3	Body	0.013	0.940	0.0147
cg17470627	1	223,908,491	OpenSea	CAPN2	Body	0.020	0.853	0.0147
cg23538773	14	89,493,162	Island			0.028	0.525	0.0147
cg19958750	2	85,660,790	N_Shelf	SH2D6	TSS1500	0.018	0.282	0.0147
cg13133883	10	86,004,660	OpenSea	RGR	TSS200	0.017	0.345	0.0147
cg11875926	13	114,760,892	N_Shelf	RASA3	Body	0.017	0.476	0.0147
cg10433043	6	152,432,725	OpenSea			0.028	0.509	0.0147
cg10322007	12	38,449,206	OpenSea			0.006	0.941	0.0147
cg25554943	5	38,924,673	OpenSea	OSMR	Body	-0.018	0.854	0.0147
cg26044223	1	173,638,470	N_Shore	ANKRD45	5'UTR	0.022	0.616	0.0147
cg16580935	6	33,246,149	S_Shore	B3GALT4	1stExon	0.017	0.742	0.0147
cg04377908	22	48,977,382	Island	FAM19A5	Body	0.026	0.500	0.0147
cg22517740	1	228,870,629	N_Shore	RHOU	TSS1500	0.019	0.141	0.0148
cg24902987	3	138,170,766	Island	ESYT3	Body	0.002	0.982	0.0148
cg12424898	11	1,325,852	OpenSea	TOLLIP	Body	0.035	0.249	0.0148
cg27481141	11	68,816,453	Island	TPCN2	5'UTR	0.005	0.029	0.0148
cg03548415	11	111,991,342	OpenSea			0.011	0.945	0.0148

cg00454577	6	87,646,972	N_Shore	HTR1E	TSS200	-0.006	0.063	0.0148
cg04306507	14	55,594,613	N_Shore	LGALS3	TSS1500	0.044	0.352	0.0148
cg10441661	17	21,356,653	S_Shore			0.018	0.622	0.0148
cg10415103	17	1,952,815	N_Shore			0.004	0.024	0.0148
cg06097977	7	150,924,442	Island	ABCF2	TSS200	-0.003	0.033	0.0148
cg00234370	1	36,021,674	N_Shore	KIAA0319L	5'UTR	0.024	0.585	0.0148
cg23371877	7	152,067,904	S_Shelf	MLL3	Body	0.032	0.591	0.0148
cg19496978	1	120,174,149	OpenSea	ZNF697	5'UTR	-0.049	0.115	0.0148
cg10055593	7	42,265,817	N_Shore	GLI3	5'UTR	-0.025	0.574	0.0148
cg04358516	7	158,951,193	N_Shelf			-0.013	0.904	0.0148
cg00200755	15	88,945,783	OpenSea			0.023	0.362	0.0148
cg24410234	10	98,759,629	OpenSea	SLIT1	3'UTR	0.014	0.841	0.0148
cg14511070	17	76,107,014	OpenSea			0.018	0.794	0.0148
cg13334949	20	44,471,068	S_Shore	SNX21	3'UTR	-0.021	0.710	0.0148
cg22974151	14	24,528,108	OpenSea	LRRRC16B	Body	-0.015	0.878	0.0149
cg21649092	6	168,797,508	OpenSea			-0.005	0.981	0.0149
cg22249752	12	133,186,738	Island			0.040	0.712	0.0149
cg23652123	19	49,303,202	S_Shore	BCAT2	Body	0.016	0.842	0.0149
cg24812582	11	47,463,363	OpenSea	RAPSN	Body	0.021	0.745	0.0149
cg09461648	11	67,262,714	Island	PITPNM1	Body	0.018	0.876	0.0149
cg26351614	7	148,264,868	OpenSea			0.025	0.412	0.0149
cg06877848	17	49,242,714	N_Shore	NME2	TSS200	0.029	0.630	0.0149
cg20298978	13	113,160,167	OpenSea	TUBGCP3	Body	-0.002	0.980	0.0149
cg15702800	12	14,956,003	Island	C12orf60	TSS1500	-0.002	0.017	0.0149
cg04382627	10	134,351,046	Island	INPP5A	TSS1500	-0.005	0.048	0.0149
cg19082960	1	213,831,368	OpenSea			0.016	0.677	0.0149
cg14313315	12	114,852,856	S_Shore			0.018	0.516	0.0149
cg17692971	19	19,780,767	S_Shore	ZNF101	Body	0.022	0.407	0.0149
cg13905053	9	139,235,493	N_Shore	GPSM1	Body	0.019	0.655	0.0149
cg11333568	12	130,577,733	OpenSea			0.010	0.921	0.0149

cg21485122	2	71,203,331	N_Shelf			0.013	0.947	0.0149
cg22995488	6	38,998,315	OpenSea	DNAH8	3'UTR	0.009	0.962	0.0149
cg23411103	3	172,169,176	S_Shore			0.032	0.328	0.0149
cg21205139	4	156,681,475	S_Shore	GUCY1B3	Body	0.030	0.493	0.0149
cg16811695	10	115,999,009	Island	VWA2	TSS200	-0.002	0.020	0.0149
cg10718914	3	38,049,067	OpenSea	PLCD1	3'UTR	0.020	0.687	0.0150
cg09320277	14	75,859,596	OpenSea			-0.012	0.946	0.0150
cg02578162	16	3,927,429	N_Shelf	CREBBP	Body	0.018	0.722	0.0150
cg10282319	8	144,873,034	Island			0.017	0.818	0.0150
cg26955196	15	23,085,768	Island	NIPA1	Body	-0.039	0.036	0.0150
cg13958426	1	169,396,637	Island	C1orf114	1stExon	-0.002	0.018	0.0150
cg05119810	12	133,419,166	S_Shore	CHFR	Body	0.022	0.518	0.0150
cg06555093	21	43,221,380	N_Shore	PRDM15	3'UTR	0.017	0.663	0.0150
cg16618417	19	7,535,526	S_Shelf	ARHGEF18	3'UTR	0.003	0.975	0.0150
cg24694743	1	32,088,013	S_Shelf	HCRTR1	Body	0.012	0.773	0.0150
cg03457338	15	78,040,120	OpenSea			0.024	0.305	0.0150
cg23448348	3	139,257,907	Island	RBP1	Body	0.005	0.034	0.0150
cg06945845	16	84,681,510	N_Shore	KLHL36	TSS1500	0.019	0.629	0.0150
cg23657252	4	79,697,583	Island	BMP2K	5'UTR	-0.003	0.017	0.0150
cg20788561	18	77,586,855	Island			0.008	0.951	0.0150
cg09597530	12	48,551,185	Island	ASB8	5'UTR	-0.002	0.029	0.0150
cg02023367	10	134,928,640	S_Shore	GPR123	Body	0.021	0.868	0.0150
cg04833210	12	114,309,620	OpenSea	RBM19	Body	0.036	0.944	0.0151
cg06112206	16	31,476,037	Island	ARMC5	Body	0.018	0.845	0.0151
cg20112699	4	108,832,238	OpenSea	SGMS2	3'UTR	-0.032	0.654	0.0151
cg16579101	12	6,677,158	Island	NOP2	5'UTR	-0.004	0.030	0.0151
cg16833551	20	57,427,237	N_Shore	GNAS	TSS1500	0.041	0.693	0.0151
cg26180469	11	64,081,563	N_Shelf	ESRRA	Body	0.010	0.952	0.0151
cg22486000	1	42,919,398	N_Shelf	ZMYND12	5'UTR	0.015	0.864	0.0151
cg22670147	2	115,419,740	Island	DPP10	Body	-0.070	0.122	0.0151

cg15965277	4	106,629,606	Island	INTS12	5'UTR	-0.002	0.017	0.0151
cg20272280	2	95,825,303	Island	ZNF514	TSS200	0.002	0.018	0.0151
cg16896313	15	58,552,619	OpenSea			-0.069	0.438	0.0151
cg03518138	1	39,873,697	N_Shore	KIAA0754	TSS1500	0.019	0.404	0.0151
cg26693701	17	1,821,808	OpenSea			0.010	0.945	0.0151
cg09762115	2	86,095,308	OpenSea	ST3GAL5	TSS1500	-0.008	0.954	0.0151
cg00589002	1	3,606,082	N_Shore	TP73	TSS1500	0.024	0.563	0.0151
cg09477407	12	104,697,545	Island	TXNRD1	5'UTR	0.005	0.021	0.0151
cg13432339	4	58,211,039	OpenSea			0.032	0.568	0.0151
cg09804616	6	30,644,832	S_Shelf	KIAA1949	3'UTR	0.018	0.722	0.0152
cg22939345	12	126,925,912	OpenSea	LOC10012855	TSS1500	0.041	0.508	0.0152
cg15676060	5	82,372,786	N_Shore	XRCC4	TSS1500	-0.003	0.024	0.0152
cg23354510	5	169,757,430	OpenSea	LOC257358	TSS1500	0.015	0.836	0.0152
cg01993680	6	10,837,744	N_Shore			-0.003	0.031	0.0152
cg18844145	5	3,320,980	N_Shelf			0.006	0.971	0.0152
cg22525701	15	45,401,952	N_Shore	DUOX2	Body	0.017	0.757	0.0152
cg12968701	12	57,881,178	N_Shore	MARS	TSS1500	0.013	0.915	0.0152
cg06285486	11	65,729,635	OpenSea	SART1	Body	-0.007	0.069	0.0152
cg10606176	4	129,482,097	OpenSea			-0.035	0.187	0.0152
cg07120972	7	145,150,123	OpenSea			0.031	0.875	0.0152
cg01622385	2	115,419,846	Island	DPP10	Body	-0.053	0.255	0.0152
cg23327859	12	49,111,433	S_Shore	CCNT1	TSS1500	0.025	0.267	0.0152
cg27287456	16	73,369,306	OpenSea			0.043	0.638	0.0152
cg22004227	2	241,538,136	S_Shelf	CAPN10	3'UTR	0.015	0.853	0.0152
cg22756555	2	162,017,219	Island	TANK	5'UTR	-0.007	0.021	0.0152
cg20168024	6	29,456,611	OpenSea	MAS1L	TSS1500	0.004	0.975	0.0152
cg17182512	3	27,754,137	N_Shore			-0.008	0.082	0.0152
cg24723476	10	556,017	OpenSea	DIP2C	Body	0.011	0.904	0.0152
cg19698472	5	53,966,914	OpenSea			0.020	0.745	0.0152
cg15297650	2	135,477,056	S_Shore	TMEM163	TSS1500	0.018	0.372	0.0152

cg18492943	7	44,203,304	OpenSea	GCK	Body	-0.020	0.552	0.0152
cg02455383	22	27,014,116	OpenSea	CRYBB1	TSS200	0.016	0.681	0.0153
cg12626698	10	135,381,851	Island	SYCE1	5'UTR	0.025	0.962	0.0153
cg02921887	3	20,226,994	N_Shore	SGOL1	5'UTR	-0.003	0.033	0.0153
cg14272049	12	92,453,691	OpenSea			-0.046	0.884	0.0153
cg22614518	7	77,492,522	OpenSea	PHTF2	Body	-0.006	0.974	0.0153
cg16051361	12	72,149,658	S_Shore	RAB21	Body	0.026	0.110	0.0153
cg06054027	8	70,282,386	OpenSea			-0.039	0.611	0.0153
cg11893127	12	131,057,342	OpenSea			0.030	0.405	0.0153
cg24156181	17	14,989,749	OpenSea			0.030	0.706	0.0153
cg11486694	10	53,367,157	OpenSea	PRKG1	Body	0.026	0.719	0.0153
cg20562102	12	128,563,954	OpenSea			-0.011	0.879	0.0153
cg04866029	1	2,707,161	S_Shore			0.019	0.914	0.0153
cg22330467	20	42,143,015	N_Shore	L3MBTL	TSS200	0.032	0.644	0.0153
cg09205751	11	278,394	N_Shore	NLRP6	TSS200	0.021	0.625	0.0153
cg00400532	15	53,093,509	N_Shelf			0.031	0.139	0.0154
cg09113070	2	86,114,036	N_Shore	ST3GAL5	Body	0.021	0.306	0.0154
cg21714610	18	55,288,641	Island	NARS	Body	-0.004	0.023	0.0154
cg12649232	2	239,145,904	N_Shore			0.019	0.803	0.0154
cg27479396	19	56,215,568	Island			0.039	0.785	0.0154
cg03870261	19	2,428,514	Island	LMNB2	3'UTR	0.033	0.348	0.0154
cg14871601	7	64,030,039	Island			-0.009	0.038	0.0154
cg27598956	8	9,758,788	N_Shore	LOC157627	Body	0.016	0.668	0.0154
cg02065750	22	39,639,859	Island	PDGFB	Body	-0.005	0.037	0.0154
cg04937184	14	54,423,845	S_Shore	BMP4	TSS1500	-0.009	0.053	0.0154
cg06167664	2	27,072,564	Island	DPYSL5	5'UTR	-0.006	0.019	0.0154
cg27573606	1	838,379	N_Shore			0.003	0.971	0.0154
cg06271956	11	28,132,195	Island	METT5D1	5'UTR	0.001	0.011	0.0154
cg08670465	5	169,725,100	OpenSea	LCP2	TSS1500	0.016	0.509	0.0154
cg16790390	8	142,424,099	N_Shore			-0.018	0.871	0.0155

cg06515562	21	31,869,491	OpenSea	KRTAP19-4	TSS200	0.021	0.628	0.0155
cg23890044	16	640,595	Island	RAB40C	Body	-0.004	0.027	0.0155
cg13110334	22	19,003,848	OpenSea	DGCR9	TSS1500	0.024	0.708	0.0155
cg14061255	9	71,923,415	OpenSea			0.010	0.940	0.0155
cg00003287	1	201,346,149	OpenSea	TNNT2	5'UTR	0.011	0.084	0.0155
cg20731029	19	40,721,241	N_Shore	MAP3K10	3'UTR	0.005	0.970	0.0155
cg12277666	1	179,560,870	Island	TDRD5	TSS200	-0.007	0.031	0.0155
cg00908042	22	43,059,020	S_Shore			-0.024	0.543	0.0155
cg05317207	19	58,867,669	Island	ZNF497	Body	-0.061	0.304	0.0155
cg26498537	19	14,040,375	N_Shelf	CC2D1A	Body	0.010	0.941	0.0155
cg02001571	14	50,319,805	S_Shore	SDCCAG1	TSS1500	0.002	0.015	0.0155
cg25030644	1	227,505,910	Island	CDC42BPA	TSS200	0.023	0.076	0.0155
cg03775500	4	139,330,289	OpenSea			0.006	0.978	0.0155
cg03158942	8	49,043,527	Island			-0.022	0.908	0.0155
cg08517072	5	141,258,709	Island	PCDH1	TSS1500	0.002	0.027	0.0156
cg05543520	3	66,500,703	OpenSea	LRIG1	Body	0.024	0.681	0.0156
cg27205904	12	104,697,514	Island	TXNRD1	5'UTR	0.011	0.038	0.0156
cg23606623	17	79,373,017	Island	BAHCC1	TSS1500	-0.015	0.086	0.0156
cg15549767	17	59,760,098	OpenSea	BRIP1	3'UTR	0.004	0.976	0.0156
cg01104208	14	103,566,172	N_Shelf	C14orf73	TSS1500	0.017	0.514	0.0156
cg04765195	6	36,209,753	OpenSea	PNPLA1	TSS1500	0.020	0.537	0.0156
cg01449168	7	36,339,405	OpenSea	EEPD1	3'UTR	0.019	0.482	0.0156
cg17461600	1	57,983,368	OpenSea	DAB1	5'UTR	0.022	0.417	0.0156
cg01529466	11	65,983,765	OpenSea	PACS1	Body	-0.009	0.942	0.0156
cg19668397	10	127,451,340	OpenSea	C10orf137	Body	0.017	0.489	0.0156
cg10393875	7	73,244,836	N_Shore	CLDN4	TSS1500	0.020	0.456	0.0156
cg18173859	1	202,091,160	OpenSea	GPR37L1	TSS1500	0.023	0.546	0.0156
cg21426218	20	42,350,667	OpenSea			0.020	0.310	0.0156
cg07230792	6	43,457,174	OpenSea	TJAP1	5'UTR	0.016	0.868	0.0156
cg04665423	10	135,051,305	Island	VENTX	TSS200	-0.003	0.023	0.0156



cg05907649	15	56,519,080	OpenSea	RFX7	Body	0.055	0.422	0.0156
cg16751778	15	45,952,725	OpenSea	SQRDL	Body	0.018	0.671	0.0157
cg17903590	1	28,623,081	OpenSea			-0.022	0.311	0.0157
cg22809653	1	165,597,262	N_Shelf			-0.022	0.866	0.0157
cg07634706	16	57,438,524	OpenSea	CCL17	TSS200	0.010	0.905	0.0157
cg06351596	10	17,216,609	OpenSea	TRDMT1	Body	0.006	0.971	0.0157
cg06258648	8	100,708,621	OpenSea	VPS13B	Body	0.012	0.938	0.0157
cg13704086	2	45,177,125	Island			0.013	0.078	0.0157
cg02683509	6	156,950,855	N_Shore			0.012	0.939	0.0157
cg04103645	13	51,898,948	OpenSea			0.017	0.655	0.0157
cg15966603	4	2,339,890	N_Shore	ZFYVE28	Body	0.016	0.851	0.0157
cg16862821	6	32,938,469	N_Shore	BRD2	TSS1500	0.011	0.147	0.0157
cg24297727	6	30,538,686	N_Shore	ABCF1	TSS1500	0.006	0.046	0.0157
cg11552183	7	111,846,705	Island	ZNF277	1stExon	-0.001	0.021	0.0157
cg10975000	13	28,371,375	N_Shore			-0.002	0.017	0.0157
cg17724412	6	28,829,283	N_Shelf			0.035	0.854	0.0157
cg04653627	6	33,153,499	OpenSea	COL11A2	Body	0.020	0.875	0.0157
cg24045276	1	183,552,095	OpenSea	NCF2	Body	0.029	0.877	0.0157
cg17356112	7	132,334,710	OpenSea	PLXNA4	TSS1500	0.018	0.746	0.0157
cg27049318	5	68,514,098	Island	MRPS36	Body	-0.012	0.074	0.0157
cg14831990	22	21,400,167	Island	LOC400891	TSS200	0.003	0.023	0.0157
cg07491702	15	43,030,817	S_Shore	CDAN1	TSS1500	-0.006	0.971	0.0157
cg21063899	13	78,109,801	OpenSea	SCEL	TSS200	-0.038	0.681	0.0158
cg16895973	11	1,301,132	N_Shore	TOLLIP	Body	0.012	0.705	0.0158
cg00832650	7	128,495,201	S_Shore	FLNC	Body	0.017	0.764	0.0158
cg09668951	12	131,030,185	OpenSea			0.025	0.923	0.0158
cg26742770	17	18,026,502	S_Shore	MYO15A	Body	0.018	0.618	0.0158
cg24804179	12	49,689,685	Island	PRPH	Body	0.026	0.180	0.0158
cg18068832	17	72,889,350	Island	FADS6	Body	0.020	0.114	0.0158
cg08291435	14	80,893,220	OpenSea			0.003	0.982	0.0158

cg18153957	1	87,613,403	N_Shelf	LOC339524	Body	0.003	0.983	0.0158
cg16430951	6	30,313,070	Island	RPP21	Body	-0.003	0.024	0.0158
cg18372208	17	41,278,263	Island	BRCA1	TSS1500	0.052	0.550	0.0158
cg08133919	15	52,822,439	S_Shore	MYO5A	TSS1500	0.026	0.461	0.0158
cg12420948	6	33,358,593	N_Shore	KIFC1	TSS1500	0.016	0.889	0.0158
cg25429672	11	73,692,155	N_Shore	UCP2	5'UTR	0.018	0.538	0.0158
cg02611085	7	128,550,410	Island	KCP	Body	-0.004	0.036	0.0158
cg05211057	6	70,992,454	Island	COL9A1	Body	-0.003	0.015	0.0158
cg26571487	8	6,478,551	OpenSea	MCPH1	Body	0.033	0.835	0.0158
cg00358023	7	157,217,482	S_Shore			0.014	0.539	0.0158
cg12598198	11	111,784,386	OpenSea	HSPB2	Body	0.008	0.956	0.0158
cg06444781	12	121,416,510	Island	HNF1A	TSS200	0.019	0.674	0.0158
cg09115620	3	126,398,077	Island			-0.015	0.065	0.0158
cg24960149	7	156,786,278	OpenSea			0.016	0.469	0.0158
cg06672560	20	54,580,175	Island	CBLN4	TSS200	-0.011	0.047	0.0158
cg24768902	17	37,308,113	Island	PLXDC1	TSS1500	0.024	0.146	0.0158
cg19051117	19	21,767,566	N_Shore			0.035	0.652	0.0158
cg03369344	13	50,705,024	Island			-0.002	0.019	0.0159
cg15141204	2	242,665,852	S_Shore	ING5	3'UTR	0.020	0.660	0.0159
cg19559213	17	18,162,372	N_Shore	FLII	TSS1500	-0.004	0.041	0.0159
cg25243766	11	123,322,182	OpenSea			0.017	0.495	0.0159
cg19977691	22	50,480,018	N_Shelf	TTLL8	Body	0.015	0.846	0.0159
cg04885315	15	57,731,648	OpenSea	CGNL1	Body	-0.007	0.956	0.0159
cg21218883	2	46,378,287	OpenSea	PRKCE	Body	0.020	0.783	0.0159
cg03103158	8	28,748,202	Island	INTS9	TSS1500	-0.002	0.021	0.0159
cg18607849	17	78,803,435	OpenSea	RPTOR	Body	-0.006	0.949	0.0159
cg17256108	10	134,553,540	N_Shore	INPP5A	Body	-0.005	0.973	0.0159
cg02711476	1	153,930,915	Island	CRTC2	1stExon	-0.017	0.038	0.0159
cg22645421	5	6,749,246	OpenSea	POLS	Body	0.003	0.982	0.0159
cg05362191	11	82,968,957	OpenSea			0.044	0.942	0.0159

cg22974804	12	105,478,392	Island	ALDH1L2	TSS200	0.002	0.027	0.0159
cg27268835	16	51,475,605	OpenSea			0.036	0.480	0.0159
cg07202214	11	76,381,081	N_Shore	LRRC32	5'UTR	-0.012	0.105	0.0159
cg21742001	6	158,966,350	OpenSea	TMEM181	Body	0.025	0.548	0.0159
cg14525247	9	131,154,899	Island	MIR219-2	Body	-0.020	0.298	0.0159
cg05918292	14	47,834,520	OpenSea	MDGA2	Body	0.029	0.531	0.0159
cg01930746	2	10,950,511	N_Shore	PDIA6	Body	0.020	0.252	0.0159
cg01505556	6	30,174,125	OpenSea	TRIM26	5'UTR	0.020	0.772	0.0159
cg14233847	17	70,850,382	OpenSea	SLC39A11	Body	-0.021	0.703	0.0159
cg18971434	6	28,829,398	N_Shelf			0.040	0.790	0.0159
cg15009810	1	27,870,746	N_Shelf	AHDC1	3'UTR	0.005	0.966	0.0159
cg07828833	10	74,069,493	OpenSea			0.025	0.481	0.0159
cg211078330	2	134,104,516	OpenSea	NCKAP5	Body	0.024	0.458	0.0159
cg02096434	16	53,088,772	Island	CHD9	TSS200	-0.002	0.014	0.0159
cg14654637	9	130,185,454	N_Shore	ZNF79	TSS1500	0.037	0.269	0.0160
cg23211736	1	59,012,820	S_Shore	OMA1	TSS1500	0.022	0.489	0.0160
cg08549216	16	31,142,523	OpenSea	MYST1	3'UTR	0.016	0.553	0.0160
cg25092989	8	10,932,494	S_Shelf	XKR6	Body	0.015	0.747	0.0160
cg00760439	20	43,940,872	Island	RBPJL	Body	0.043	0.536	0.0160
cg17138369	1	153,606,383	Island	C1orf77	TSS200	-0.004	0.032	0.0160
cg20559537	5	177,539,937	N_Shore	N4BP3	TSS1500	-0.034	0.498	0.0160
cg14992217	1	6,363,562	OpenSea	ACOT7	Body	0.012	0.941	0.0160
cg13356427	1	6,520,354	N_Shore	ESPN	3'UTR	0.005	0.032	0.0160
cg19942495	17	32,484,027	Island	ACCN1	TSS1500	-0.009	0.049	0.0160
cg24978058	11	86,152,227	OpenSea	ME3	3'UTR	0.018	0.940	0.0160
cg00264799	12	102,848,839	OpenSea	IGF1	Body	0.039	0.489	0.0160
cg09054876	6	4,136,564	S_Shore	PECI	TSS1500	-0.003	0.030	0.0160
cg14621103	7	1,178,041	Island	C7orf50	TSS200	-0.005	0.020	0.0160
cg01157280	2	238,499,464	OpenSea	RAB17	1stExon	0.021	0.623	0.0160
cg25279613	7	24,956,523	OpenSea	OSBPL3	5'UTR	0.031	0.333	0.0160

cg12490835	10	22,623,821	Island			-0.011	0.156	0.0160
cg21484985	14	70,690,525	OpenSea			-0.096	0.728	0.0160
cg07172091	19	45,458,812	Island	CLPTM1	Body	-0.005	0.035	0.0160
cg15892280	21	40,180,000	S_Shore	ETS2	5'UTR	0.027	0.276	0.0160
cg09300795	16	4,042,428	OpenSea	ADCY9	Body	0.088	0.754	0.0160
cg27022558	11	64,141,041	S_Shelf			0.016	0.908	0.0160
cg12700449	17	34,121,837	N_Shore	MMP28	Body	0.024	0.172	0.0160
cg09814151	13	45,151,437	Island	TSC22D1	TSS1500	0.010	0.103	0.0160
cg17345569	6	42,928,274	Island	GNMT	TSS1500	-0.007	0.030	0.0160
cg25194470	15	66,316,425	OpenSea	MEGF11	Body	0.018	0.568	0.0160
cg05842548	2	127,821,711	S_Shelf	BIN1	Body	0.017	0.655	0.0160
cg17070064	13	112,554,681	OpenSea			0.028	0.737	0.0160
cg23782413	21	43,490,288	OpenSea	UMODL1	TSS1500	0.019	0.891	0.0160
cg14999189	17	2,908,369	OpenSea	RAP1GAP2	Body	0.015	0.511	0.0161
cg01554656	6	27,810,329	S_Shelf			0.002	0.988	0.0161
cg20867674	6	163,768,411	OpenSea			0.020	0.781	0.0161
cg05734973	3	15,139,826	N_Shore	ZFYVE20	5'UTR	0.020	0.460	0.0161
cg04418355	6	32,729,174	N_Shore	HLA-DQB2	Body	0.048	0.641	0.0161
cg25067162	17	41,277,974	N_Shore	BRCA1	TSS1500	0.053	0.321	0.0161
cg10471976	17	42,386,190	Island	RUNDC3A	1stExon	-0.006	0.060	0.0161
cg05697873	10	10,337,312	OpenSea			0.025	0.807	0.0161
cg14859743	8	6,664,174	Island			0.013	0.864	0.0161
cg00323501	22	37,464,839	N_Shore	TMPRSS6	Body	-0.005	0.041	0.0161
cg21465231	4	186,697,797	OpenSea	SORBS2	5'UTR	-0.020	0.818	0.0161
cg20387706	2	102,097,314	OpenSea			0.010	0.931	0.0161
cg18597421	21	27,540,728	N_Shore	APP	Body	0.013	0.574	0.0161
cg10084383	12	118,404,706	N_Shore	KSR2	Body	0.013	0.411	0.0161
cg20396559	3	65,699,637	OpenSea	MAGI1	Body	0.026	0.715	0.0161
cg13905252	9	95,376,380	OpenSea	IPPK	3'UTR	0.018	0.695	0.0161
cg14542968	14	105,106,564	Island			-0.004	0.027	0.0162

cg05694290	12	123,334,513	OpenSea	HIP1R	Body	0.014	0.765	0.0162
cg25288068	6	28,793,681	OpenSea			-0.011	0.091	0.0162
cg00131899	4	110,481,302	Island	CCDC109B	TSS200	-0.003	0.026	0.0162
cg10297426	13	53,314,813	S_Shore	LECT1	TSS1500	-0.034	0.862	0.0162
cg00827164	19	46,498,631	OpenSea	CCDC61	Body	-0.006	0.042	0.0162
cg26146732	14	70,690,454	OpenSea			-0.095	0.672	0.0162
cg25698975	3	139,440,415	OpenSea			-0.018	0.482	0.0162
cg16134399	10	31,390,916	OpenSea			-0.010	0.907	0.0162
cg06837981	4	119,093,021	OpenSea	NDST3	Body	-0.012	0.889	0.0162
cg00973118	16	374,570	N_Shore	AXIN1	Body	0.022	0.560	0.0162
cg02021529	5	112,721,426	OpenSea	MCC	Body	0.007	0.965	0.0162
cg14747072	12	57,645,108	OpenSea	STAC3	TSS200	0.027	0.788	0.0162
cg19526568	13	100,643,087	Island			-0.015	0.147	0.0162
cg24214470	17	1,665,119	OpenSea	SERPINF1	TSS200	0.016	0.808	0.0162
cg04108788	14	104,611,699	OpenSea	KIF26A	Body	0.016	0.699	0.0162
cg06588802	2	8,422,236	OpenSea			0.030	0.454	0.0162
cg22821358	1	198,828,005	OpenSea	MIR181B1	Body	0.003	0.986	0.0162
cg15512832	10	134,505,227	Island	INPP5A	Body	0.044	0.977	0.0162
cg19979108	5	171,870,875	OpenSea	SH3PXD2B	Body	-0.029	0.864	0.0163
cg13203811	12	58,136,245	S_Shelf	AGAP2	TSS1500	0.027	0.676	0.0163
cg10292584	10	1,772,472	OpenSea	ADARB2	Body	-0.057	0.662	0.0163
cg06380352	16	88,057,687	N_Shelf	BANP	Body	-0.017	0.875	0.0163
cg07922619	1	2,997,742	N_Shore	PRDM16	Body	0.023	0.596	0.0163
cg20143982	12	7,341,252	N_Shore	PEX5	TSS1500	0.015	0.107	0.0163
cg11816081	17	47,539,827	OpenSea			0.013	0.824	0.0163
cg27047772	11	58,826,073	N_Shelf			0.002	0.014	0.0163
cg19969606	12	113,901,665	Island	LHX5	Body	-0.005	0.024	0.0163
cg02230254	11	65,586,170	S_Shore			0.042	0.615	0.0163
cg00236729	10	62,409,865	OpenSea			0.038	0.563	0.0163
cg02750743	12	117,477,837	S_Shore	TESC	Body	0.009	0.952	0.0163

cg00182421	3	170,586,396	N_Shore	RPL22L1	Body	-0.003	0.982	0.0163
cg15391464	17	27,047,549	S_Shore	RPL23A	Body	0.002	0.024	0.0163
cg02374837	16	8,891,602	Island	PMM2	TSS200	-0.004	0.035	0.0163
cg09481404	15	53,087,316	Island			0.003	0.017	0.0163
cg06266189	2	233,790,293	N_Shore	NGEF	Body	0.029	0.254	0.0163
cg25013910	2	1,478,219	N_Shelf	TPO	Body	0.007	0.970	0.0163
cg03916673	6	126,307,478	N_Shore	TRMT11	TSS200	-0.002	0.018	0.0163
cg01180523	6	33,153,311	OpenSea	COL11A2	Body	0.038	0.535	0.0163
cg11953311	6	31,870,840	S_Shore	ZBTB12	TSS1500	0.017	0.422	0.0164
cg21390682	13	113,743,751	N_Shore	MCF2L	Body	-0.019	0.760	0.0164
cg11053546	10	12,110,665	N_Shore	DHTKD1	TSS1500	-0.003	0.023	0.0164
cg111143399	1	157,133,444	OpenSea			0.004	0.038	0.0164
cg25400864	17	60,005,610	S_Shore	INTS2	TSS1500	0.037	0.230	0.0164
cg26663716	16	67,517,246	S_Shore	AGRP	Body	0.008	0.940	0.0164
cg13609065	17	6,613,894	N_Shelf	SLC13A5	Body	0.031	0.878	0.0164
cg14086822	1	2,724,609	OpenSea			0.015	0.487	0.0164
cg04850779	10	134,630,788	OpenSea			0.026	0.595	0.0164
cg17343671	3	141,208,908	S_Shelf	RASA2	Body	0.015	0.914	0.0164
cg24678117	1	996,294	S_Shore			0.022	0.832	0.0164
cg21563078	7	79,081,455	N_Shore	MAGI2	Body	0.001	0.015	0.0164
cg07028929	13	60,197,945	OpenSea			0.018	0.649	0.0164
cg08614242	10	103,044,950	S_Shore			0.017	0.579	0.0164
cg15103584	18	56,943,576	S_Shelf			0.012	0.069	0.0164
cg18226169	19	12,998,764	S_Shore	KLF1	TSS1500	0.019	0.617	0.0164
cg14116025	9	138,066,924	N_Shore			0.013	0.789	0.0164
cg25132536	17	19,152,434	OpenSea	EPN2	5'UTR	0.021	0.578	0.0165
cg13506510	9	115,142,785	S_Shore	HSDL2	Body	-0.002	0.022	0.0165
cg01153385	12	115,874,926	OpenSea			0.024	0.622	0.0165
cg26679158	6	110,676,056	N_Shelf	C6orf186	Body	0.007	0.976	0.0165
cg07626409	16	25,250,191	OpenSea	ZKSCAN2	3'UTR	0.004	0.976	0.0165

cg21717017	15	74,189,922	OpenSea			-0.006	0.037	0.0165
cg22880420	2	33,824,856	Island	FAM98A	TSS1500	0.002	0.012	0.0165
cg23100375	12	123,450,766	N_Shore	ABCB9	5'UTR	-0.003	0.018	0.0165
cg00277342	11	72,976,090	S_Shore	P2RY6	5'UTR	0.004	0.965	0.0165
cg26169783	13	34,371,837	OpenSea			0.020	0.786	0.0165
cg02848106	3	170,101,493	OpenSea	SKIL	Body	0.012	0.952	0.0165
cg24523685	21	36,062,813	OpenSea	CLIC6	Body	0.010	0.950	0.0165
cg20209290	6	10,831,074	OpenSea	MAK	1stExon	0.008	0.962	0.0165
cg26006767	6	28,892,774	S_Shore	TRIM27	TSS1500	0.022	0.976	0.0165
cg09206691	14	77,279,317	Island	ANGEL1	TSS200	-0.001	0.019	0.0165
cg13761818	10	116,473,420	OpenSea			0.014	0.937	0.0165
cg25196975	11	124,738,119	N_Shore	ROBO3	Body	0.019	0.351	0.0165
cg26590603	6	43,478,530	Island	C6orf154	TSS200	0.017	0.823	0.0165
cg18327994	9	132,372,705	Island			-0.005	0.048	0.0165
cg05219131	10	25,241,885	Island	PRTFDC1	TSS1500	0.006	0.028	0.0165
cg02297936	19	13,208,599	Island	NFIX	3'UTR	-0.024	0.347	0.0165
cg17309003	14	77,335,130	OpenSea	C14orf166B	Body	0.020	0.775	0.0165
cg15059639	2	171,220,061	OpenSea	MYO3B	Body	0.037	0.595	0.0166
cg25317746	6	32,192,024	OpenSea	NOTCH4	TSS200	0.015	0.414	0.0166
cg18579748	6	32,297,861	OpenSea	C6orf10	Body	0.032	0.822	0.0166
cg08460732	2	10,256,302	N_Shelf			0.047	0.813	0.0166
cg02909790	6	26,271,587	Island	HIST1H3G	1stExon	-0.010	0.072	0.0166
cg21785067	1	54,587,182	N_Shore			-0.010	0.084	0.0166
cg25189085	12	57,644,658	OpenSea	STAC3	5'UTR	0.024	0.897	0.0166
cg01344060	21	46,293,807	Island	PTTG1IP	TSS200	-0.005	0.031	0.0166
cg00970979	3	53,229,491	N_Shore			0.016	0.677	0.0166
cg24059741	1	59,249,828	Island	JUN	TSS200	-0.005	0.042	0.0166
cg12744061	1	115,444,733	OpenSea	SYCP1	Body	0.029	0.575	0.0166
cg19324997	2	240,169,161	OpenSea	HDAC4	Body	-0.005	0.976	0.0166
cg13353999	18	30,352,782	S_Shore	KLHL14	5'UTR	-0.013	0.211	0.0166

cg14325778	10	43,375,484	OpenSea			0.019	0.514	0.0166
cg13762359	4	17,710,804	Island	FAM184B	Body	0.006	0.945	0.0166
cg14367995	9	110,253,800	S_Shore			0.057	0.080	0.0166
cg17314700	2	19,548,291	Island			-0.022	0.236	0.0166
cg15703314	6	513,297	OpenSea	EXOC2	Body	-0.006	0.971	0.0167
cg07752409	5	179,588,838	S_Shore	RASGEF1C	5'UTR	-0.056	0.620	0.0167
cg05798717	6	50,683,682	S_Shore	TFAP2D	Body	-0.003	0.029	0.0167
cg26977737	21	22,175,522	OpenSea	C21orf131	TSS200	0.019	0.774	0.0167
cg07121795	1	16,768,162	S_Shore	NECAP2	Body	0.024	0.390	0.0167
cg20786221	7	65,215,780	Island	CCT6P1	TSS1500	-0.005	0.038	0.0167
cg06271561	15	85,359,854	N_Shore	ALPK3	TSS200	0.020	0.745	0.0167
cg04903116	22	21,798,159	N_Shelf	HIC2	Body	0.013	0.545	0.0167
cg20247326	20	60,373,402	Island	CDH4	Body	0.017	0.629	0.0167
cg14482068	15	49,447,245	N_Shore	GALK2	TSS1500	-0.002	0.014	0.0167
cg14304236	9	103,118,101	S_Shelf			0.010	0.949	0.0167
cg13485320	11	2,920,128	N_Shelf	SLC22A18AS	Body	0.013	0.443	0.0167
cg11842415	1	75,599,667	N_Shore	LHX8	Body	0.003	0.025	0.0167
cg20669012	3	11,102,341	OpenSea			0.016	0.639	0.0167
cg12855310	10	134,215,035	N_Shelf	PWWP2B	Body	0.016	0.814	0.0168
cg18405140	19	1,207,644	S_Shore	STK11	Body	-0.009	0.049	0.0168
cg02694994	7	157,612,661	S_Shore	PTPRN2	Body	0.014	0.802	0.0168
cg19326876	15	26,107,658	Island	ATP10A	Body	-0.011	0.057	0.0168
cg27299776	1	174,132,239	S_Shelf	RABGAP1L	5'UTR	0.004	0.977	0.0168
cg26189067	2	32,852,828	N_Shore	TTC27	TSS1500	-0.007	0.045	0.0168
cg08645998	6	26,572,139	OpenSea			0.021	0.046	0.0168
cg07329397	10	99,497,259	Island	ZFYVE27	5'UTR	0.003	0.027	0.0168
cg16739396	1	63,249,836	OpenSea	ATG4C	1stExon	-0.003	0.033	0.0168
cg00178511	3	48,632,778	Island	COL7A1	TSS200	-0.004	0.045	0.0168
cg02258703	7	100,845,606	Island	MOGAT3	TSS1500	-0.010	0.052	0.0168
cg22531685	7	158,264,663	OpenSea	PTPRN2	Body	0.011	0.912	0.0168



cg02056986	14	105,104,908	N_Shore			0.020	0.192	0.0168
cg27658698	5	175,955,578	OpenSea	RNF44	3'UTR	0.013	0.636	0.0168
cg15415945	6	31,627,678	N_Shore	C6orf47	1stExon	0.027	0.438	0.0168
cg18671377	4	39,480,514	N_Shore	LOC401127	TSS1500	0.005	0.977	0.0168
cg26233253	22	31,032,613	S_Shore	SLC35E4	1stExon	0.022	0.512	0.0168
cg01856384	6	41,376,904	Island			0.012	0.410	0.0168
cg08847856	2	106,184,698	OpenSea			-0.037	0.205	0.0168
cg10414747	11	110,299,159	N_Shore	FDX1	TSS1500	0.004	0.978	0.0168
cg10197870	1	63,787,170	Island			-0.002	0.013	0.0169
cg10838469	11	2,211,741	OpenSea			0.022	0.491	0.0169
cg24577137	1	186,344,558	Island	C1orf27	TSS1500	-0.004	0.044	0.0169
cg06179657	17	124,012	S_Shore	RPH3AL	Body	0.028	0.742	0.0169
cg24347611	8	92,611,305	OpenSea			0.021	0.414	0.0169
cg23277659	1	47,066,498	N_Shelf	MKNK1	Body	0.003	0.981	0.0169
cg11644515	21	35,827,824	N_Shelf	KCNE1	5'UTR	0.027	0.615	0.0169
cg21574565	3	53,855,125	N_Shelf	CHDH	Body	0.018	0.429	0.0169
cg05053594	16	3,110,019	S_Shore	MMP25	3'UTR	0.019	0.619	0.0169
cg23734503	4	68,829,101	OpenSea	TMPRSS11A	1stExon	-0.014	0.924	0.0169
cg10959786	13	74,708,124	Island	KLF12	TSS200	0.003	0.019	0.0169
cg02261408	17	61,559,061	S_Shelf	ACE	Body	0.014	0.819	0.0169
cg11812625	11	6,291,339	Island	CCKBR	Body	0.034	0.840	0.0169
cg12820264	4	24,587,152	S_Shore	DHX15	TSS1500	0.042	0.936	0.0169
cg05990499	5	65,254,211	OpenSea	ERBB2IP	5'UTR	-0.036	0.721	0.0169
cg01070903	17	77,801,039	OpenSea			0.017	0.578	0.0170
cg15389749	13	50,702,675	N_Shore			-0.035	0.533	0.0170
cg11951158	7	157,289,496	N_Shelf			0.008	0.961	0.0170
cg18536327	3	52,327,549	OpenSea	GLYCTK	Body	0.012	0.788	0.0170
cg26900034	2	88,355,166	Island	KRCC1	1stExon	0.005	0.059	0.0170
cg18259189	11	70,020,941	N_Shelf	ANO1	Body	0.004	0.979	0.0170
cg24946860	7	64,315,122	OpenSea	LOC168474	TSS1500	0.005	0.973	0.0170

cg18256498	5	173,125,575	OpenSea			-0.009	0.948	0.0170
cg26940847	16	1,313,493	S_Shelf			0.020	0.775	0.0170
cg03589123	7	72,727,071	Island	TRIM50	Body	0.011	0.948	0.0170
cg21352943	12	49,076,084	Island	C12orf41	TSS200	0.002	0.015	0.0170
cg15518345	16	58,426,864	Island	GINS3	Body	0.004	0.028	0.0170
cg13838713	6	4,663,795	OpenSea			-0.008	0.956	0.0170
cg18680626	4	6,052,527	OpenSea	JAKMIP1	Body	0.016	0.483	0.0170
cg24502330	1	20,914,028	OpenSea	CDA	TSS1500	0.026	0.613	0.0170
cg27331738	8	27,735,443	N_Shore	SCARA5	Body	0.015	0.841	0.0170
cg23652859	19	59,092,692	Island	MGC2752	Body	0.022	0.073	0.0170
cg15825516	15	88,995,261	OpenSea			0.017	0.859	0.0170
cg23761616	4	159,131,339	N_Shore	TMEM144	TSS200	0.011	0.088	0.0170
cg16607898	4	7,770,069	OpenSea	AFAP1	Body	0.017	0.832	0.0170
cg01647204	14	100,883,459	OpenSea	WDR25	Body	0.016	0.621	0.0170
cg06531573	16	857,576	Island	PRR25	Body	-0.094	0.309	0.0170
cg15633073	19	30,942,096	Island	ZNF536	Body	0.026	0.479	0.0170
cg08417561	12	8,170,797	N_Shore			0.004	0.979	0.0170
cg24850121	3	9,177,754	Island	SRGAP3	Body	-0.015	0.204	0.0170
cg08785274	1	161,068,252	Island	KLHDC9	5'UTR	-0.003	0.028	0.0170
cg16077125	6	166,959,444	OpenSea	RPS6KA2	Body	0.015	0.713	0.0171
cg03327443	12	131,191,052	S_Shelf			0.016	0.629	0.0171
cg15148683	19	36,736,872	Island			0.010	0.041	0.0171
cg15740357	19	57,791,795	Island	ZNF460	TSS200	0.002	0.019	0.0171
cg25763788	6	78,172,950	Island	HTR1B	1stExon	0.007	0.050	0.0171
cg10011091	8	104,424,477	N_Shelf	SLC25A32	Body	-0.019	0.892	0.0171
cg11498188	6	139,456,038	Island	HECA	TSS1500	0.003	0.024	0.0171
cg15944966	6	108,985,200	S_Shore	FOXO3	Body	0.014	0.793	0.0171
cg02916809	4	1,003,208	Island			-0.004	0.045	0.0171
cg11477414	17	81,052,622	Island			0.003	0.985	0.0171
cg16114007	7	39,500,223	OpenSea	POU6F2	Body	0.013	0.871	0.0171

cg05954825	6	29,341,892	OpenSea	OR12D3	1stExon	0.009	0.969	0.0171
cg20912770	11	2,292,428	Island	ASCL2	TSS1500	0.011	0.037	0.0171
cg00267694	8	34,280,422	OpenSea			0.019	0.634	0.0171
cg23530064	21	30,713,266	OpenSea	BACH1	Body	-0.022	0.826	0.0171
cg14834903	14	73,712,902	Island	PAPLN	Body	-0.079	0.193	0.0171
cg13540312	17	80,560,085	S_Shore	FOXK2	3'UTR	0.010	0.940	0.0171
cg00352349	2	179,316,347	Island	PRKRA	TSS1500	0.003	0.031	0.0171
cg01749347	7	100,230,985	Island	TFR2	Body	0.005	0.026	0.0171
cg00755588	9	139,737,793	N_Shore	C9orf172	TSS1500	0.015	0.423	0.0171
cg20467114	12	3,365,744	OpenSea	TSPAN9	Body	0.007	0.949	0.0171
cg19319490	7	65,447,113	Island	GUSB	1stExon	-0.007	0.048	0.0171
cg26226702	14	105,821,767	Island	PACS2	Body	0.017	0.691	0.0171
cg07940714	19	40,024,949	S_Shore	EID2B	TSS1500	0.039	0.579	0.0171
cg15701254	10	106,075,068	Island	ITPRIP	Body	0.002	0.981	0.0171
cg26306869	1	153,522,973	OpenSea	S100A3	TSS1500	0.013	0.499	0.0171
cg23021076	3	64,201,741	OpenSea	PRICKLE2	5'UTR	0.008	0.954	0.0172
cg10147462	8	107,024,639	OpenSea			0.044	0.690	0.0172
cg09730719	6	33,246,390	S_Shore	B3GALT4	1stExon	0.014	0.561	0.0172
cg21196724	5	178,950,855	OpenSea			-0.030	0.745	0.0172
cg04531781	4	130,446,750	OpenSea			0.030	0.687	0.0172
cg22661893	11	89,224,559	Island	NOX4	1stExon	-0.043	0.044	0.0172
cg05833851	13	100,548,910	Island	CLYBL	3'UTR	-0.026	0.917	0.0172
cg21144006	12	74,931,510	Island	LOC552889	TSS200	-0.002	0.018	0.0172
cg01945816	4	113,627,637	S_Shore			-0.006	0.057	0.0172
cg13197216	8	23,567,658	Island			-0.004	0.040	0.0172
cg15135241	17	38,523,732	S_Shelf			0.015	0.612	0.0172
cg02124957	3	11,722,354	OpenSea	VGLL4	Body	0.023	0.671	0.0172
cg25423416	22	46,934,860	Island			0.021	0.123	0.0172
cg15923947	1	2,461,929	Island	HES5	TSS1500	-0.006	0.041	0.0172
cg20251481	19	16,244,720	OpenSea	HSH2D	TSS200	0.003	0.980	0.0172

cg10314172	2	64,681,735	Island	HSPC159	Body	0.001	0.016	0.0172
cg00516966	17	19,651,653	S_Shelf	ALDH3A1	5'UTR	0.017	0.327	0.0172
cg18464726	12	6,305,192	N_Shelf			-0.011	0.212	0.0172
cg20254361	1	24,438,778	OpenSea	MYOM3	TSS200	0.015	0.430	0.0172
cg02426464	17	1,481,305	S_Shelf	SLC43A2	Body	0.012	0.526	0.0172
cg20628733	1	3,524,459	N_Shelf	MEGF6	Body	0.019	0.906	0.0172
cg14513218	19	36,248,980	Island	HSPB6	TSS1500	-0.005	0.030	0.0173
cg04869854	11	67,186,575	N_Shore	ATPGD1	Body	0.024	0.607	0.0173
cg22734427	11	69,684,941	S_Shore			0.013	0.921	0.0173
cg01033865	11	115,630,896	Island			-0.007	0.047	0.0173
cg22294181	15	85,431,307	OpenSea	SLC28A1	Body	0.013	0.505	0.0173
cg00863306	19	13,991,470	S_Shore	NANOS3	3'UTR	0.022	0.267	0.0173
cg18580117	15	42,787,236	S_Shelf	SNAP23	TSS1500	0.017	0.408	0.0173
cg14450506	7	44,614,519	S_Shore	DDX56	TSS1500	0.011	0.934	0.0173
cg01066157	6	152,451,023	OpenSea	SYNE1	Body	0.017	0.373	0.0173
cg07202353	15	42,210,119	N_Shore	EHD4	Body	0.017	0.784	0.0173
cg10489672	1	117,296,494	OpenSea	CD2	TSS1500	0.004	0.983	0.0173
cg07081245	11	120,433,996	N_Shore			0.014	0.483	0.0173
cg21117330	5	140,772,286	N_Shore	PCDHGA4	Body	0.030	0.219	0.0173
cg10810847	19	47,950,499	N_Shore	SLC8A2	Body	-0.005	0.035	0.0173
cg26785234	6	32,135,803	S_Shore	EGFL8	3'UTR	0.033	0.338	0.0174
cg24388061	8	141,249,678	OpenSea	TRAPPC9	Body	0.015	0.729	0.0174
cg22021934	17	1,358,234	N_Shore	CRK	Body	0.021	0.560	0.0174
cg22009500	2	127,729,962	S_Shore			-0.015	0.074	0.0174
cg21814550	14	53,170,147	N_Shelf			0.032	0.606	0.0174
cg13996750	9	139,419,958	N_Shore	NOTCH1	Body	0.022	0.677	0.0174
cg20188676	12	70,029,702	OpenSea			0.019	0.873	0.0174
cg04104695	5	139,058,749	N_Shore	CXXC5	5'UTR	0.017	0.714	0.0174
cg16696317	14	96,180,406	Island	TCL1A	5'UTR	-0.024	0.421	0.0174
cg05545808	16	81,712,102	Island	CMIP	Body	0.014	0.878	0.0174

cg24679615	12	8,599,952	OpenSea			-0.007	0.986	0.0174
cg10718056	6	28,884,599	OpenSea	TRIM27	Body	0.004	0.977	0.0174
cg14494620	15	96,904,912	Island			-0.035	0.413	0.0174
cg26089160	10	104,170,217	Island	PSD	Body	-0.007	0.031	0.0174
cg19814423	20	43,992,375	Island	SYS1	Body	-0.003	0.032	0.0174
cg12046793	1	11,797,908	S_Shore	AGTRAP	Body	0.017	0.498	0.0174
cg12750151	11	55,586,264	OpenSea	OR5D18	TSS1500	0.024	0.561	0.0174
cg13735863	20	61,298,096	OpenSea	LOC100127888	TSS200	0.018	0.413	0.0174
cg02794358	2	54,816,818	OpenSea	SPTBN1	Body	-0.029	0.468	0.0174
cg13708298	6	24,900,051	OpenSea	FAM65B	5'UTR	0.047	0.472	0.0174
cg02137984	6	31,545,898	N_Shelf	TNF	3'UTR	0.011	0.923	0.0175
cg14863186	5	2,103,163	OpenSea			0.019	0.611	0.0175
cg02014334	11	366,307	OpenSea			0.026	0.522	0.0175
cg02016987	15	28,447,547	OpenSea	HERC2	Body	-0.011	0.926	0.0175
cg10775488	2	241,816,188	OpenSea	AGXT	Body	0.010	0.942	0.0175
cg17477162	1	91,176,464	Island			-0.010	0.019	0.0175
cg00514486	3	49,837,348	N_Shelf	CDH29	TSS200	0.016	0.599	0.0175
cg23936860	15	81,489,075	OpenSea	IL16	TSS200	0.043	0.954	0.0175
cg16503057	3	49,711,251	Island	APEH	TSS200	-0.005	0.033	0.0175
cg15202910	4	189,080,784	N_Shore			-0.032	0.644	0.0175
cg10491546	10	126,752,908	OpenSea	CTBP2	5'UTR	-0.014	0.925	0.0175
cg06867377	12	113,917,395	Island			-0.002	0.016	0.0175
cg19415202	11	133,706,356	S_Shelf			0.023	0.870	0.0175
cg27637048	2	10,271,367	OpenSea	RRM2	3'UTR	-0.005	0.972	0.0175
cg14130696	14	19,413,192	OpenSea			0.014	0.842	0.0175
cg17463655	7	97,846,790	OpenSea	TECPR1	Body	0.013	0.830	0.0175
cg27523417	1	3,018,024	OpenSea	PRDM16	Body	0.025	0.475	0.0175
cg13576483	11	67,290,850	S_Shelf	CABP2	1stExon	0.017	0.532	0.0175
cg06263341	17	75,525,151	Island			-0.009	0.066	0.0175
cg18191494	12	13,157,611	S_Shelf	HTR7P	Body	0.006	0.975	0.0175

cg13284470	2	69,001,115	OpenSea	ARHGAP25	TSS1500	0.015	0.829	0.0176
cg26796563	16	68,344,861	Island	PRMT7	TSS200	-0.011	0.055	0.0176
cg16449262	16	49,307,459	N_Shore			0.015	0.411	0.0176
cg14996805	17	56,430,170	S_Shore	SUPT4H1	TSS1500	0.002	0.017	0.0176
cg07980854	20	57,586,338	S_Shelf			0.018	0.493	0.0176
cg13455444	9	131,833,703	OpenSea	FAM73B	3'UTR	0.018	0.614	0.0176
cg26134619	4	17,325,429	OpenSea			-0.005	0.027	0.0176
cg25839724	1	203,552,475	OpenSea			0.023	0.595	0.0176
cg23138682	14	103,801,128	Island	EIF5	TSS200	0.009	0.078	0.0176
cg04571509	15	51,199,642	N_Shore	AP4E1	TSS1500	0.021	0.569	0.0176
cg18505959	6	31,670,195	N_Shore	BAT5	Body	0.017	0.105	0.0176
cg21165051	9	140,372,956	N_Shelf	PNPLA7	Body	0.014	0.901	0.0176
cg01738522	4	8,690,035	Island			0.003	0.030	0.0176
cg05781698	15	99,249,249	N_Shore	IGF1R	Body	-0.006	0.963	0.0176
cg16176654	10	14,646,003	Island	FAM107B	Body	0.005	0.037	0.0176
cg04200938	22	45,665,536	S_Shore			-0.015	0.093	0.0176
cg03776060	9	133,972,575	Island	AIF1L	Body	-0.013	0.107	0.0176
cg16935849	13	114,767,949	S_Shore	RASA3	Body	0.016	0.859	0.0177
cg24921031	11	111,321,780	OpenSea			0.004	0.979	0.0177
cg26039305	11	43,579,878	OpenSea	MIR670	TSS1500	0.011	0.045	0.0177
cg13465826	17	16,118,138	N_Shore	NCOR1	5'UTR	-0.002	0.024	0.0177
cg09607915	2	48,124,557	OpenSea	FBXO11	5'UTR	-0.013	0.930	0.0177
cg12807275	12	63,543,292	N_Shore	AVPR1A	Body	-0.011	0.941	0.0177
cg05719134	8	107,282,719	Island	OXR1	5'UTR	-0.004	0.027	0.0177
cg13458609	9	130,608,923	OpenSea	ENG	Body	-0.024	0.186	0.0177
cg03015610	16	58,163,699	S_Shore	C16orf80	TSS1500	-0.003	0.025	0.0177
cg15361590	5	140,864,701	Island	PCDHGA4	Body	-0.011	0.075	0.0177
cg06365412	17	7,580,709	OpenSea	TP53	5'UTR	0.015	0.850	0.0177
cg17596279	1	1,024,608	Island	C1orf159	Body	0.013	0.851	0.0177
cg14259755	9	132,696,001	OpenSea	FNBP1	Body	-0.027	0.510	0.0177

cg01290904	4	5,708,474	N_Shore	EVC2	5'UTR	0.014	0.909	0.0177
cg08360738	19	35,597,447	OpenSea	LOC100128671	TSS1500	0.011	0.946	0.0177
cg25564433	5	140,754,451	N_Shore	PCDHGA4	Body	0.051	0.635	0.0177
cg03853620	7	95,222,092	N_Shelf	PDK4	Body	0.004	0.978	0.0177
cg11070881	14	91,740,068	S_Shore	CCDC88C	Body	0.012	0.919	0.0177
cg14188401	3	134,097,684	S_Shelf			0.019	0.728	0.0177
cg05582979	4	10,686,610	OpenSea	CLNK	TSS1500	0.020	0.839	0.0177
cg13467162	11	65,600,888	N_Shore	SNX32	TSS1500	-0.004	0.037	0.0177
cg04408576	16	1,524,927	Island	CLCN7	1stExon	-0.008	0.030	0.0177
cg00987890	1	214,837,903	OpenSea	CENPF	3'UTR	0.003	0.984	0.0177
cg10053622	17	7,643,808	Island	DNAH2	Body	0.030	0.755	0.0178
cg04232935	5	52,860,031	S_Shelf	NDUFS4	Body	-0.018	0.842	0.0178
cg16197088	11	823,500	N_Shore	PNPLA2	Body	0.005	0.976	0.0178
cg20677814	7	16,656,054	OpenSea	ANKMY2	Body	0.004	0.978	0.0178
cg06349762	16	888,938	OpenSea			0.004	0.971	0.0178
cg13991698	1	180,134,498	OpenSea	QSOX1	Body	0.014	0.781	0.0178
cg08867707	8	1,923,115	S_Shore	KBTBD11	5'UTR	0.027	0.383	0.0178
cg21776674	1	6,160,143	OpenSea	KCNAB2	3'UTR	0.011	0.830	0.0178
cg10353925	10	76,857,530	OpenSea	DUSP13	Body	0.008	0.951	0.0178
cg03591690	3	166,884,766	OpenSea			0.022	0.458	0.0178
cg15593269	1	33,875,964	OpenSea			0.016	0.404	0.0178
cg13571700	15	36,332,776	OpenSea			0.003	0.986	0.0178
cg04842790	3	13,203,290	OpenSea			0.014	0.618	0.0178
cg23711166	1	31,504,704	OpenSea	PUM1	Body	0.010	0.912	0.0178
cg15149491	19	39,662,958	N_Shore	PAK4	Body	0.015	0.750	0.0178
cg23181133	19	42,300,812	OpenSea	CEACAM3	Body	0.023	0.667	0.0178
cg11758127	1	2,002,884	N_Shelf	PRKCZ	Body	0.017	0.886	0.0178
cg15062377	1	200,004,205	N_Shore	NR5A2	Body	0.006	0.037	0.0178
cg02699635	11	45,929,519	OpenSea	C11orf94	TSS1500	0.014	0.845	0.0178
cg03870976	4	530,048	Island	PIGG	Body	0.011	0.930	0.0178

cg14072120	22	37,640,402	OpenSea	RAC2	TSS200	-0.018	0.177	0.0179
cg00816152	3	120,222,812	OpenSea			0.027	0.766	0.0179
cg18401406	13	37,247,537	N_Shore	C13orf36	TSS1500	0.018	0.587	0.0179
cg27234490	3	58,174,435	OpenSea			0.013	0.840	0.0179
cg10842095	12	56,843,596	S_Shore	TIMELESS	TSS1500	0.027	0.376	0.0179
cg25055946	12	58,328,060	N_Shore			0.005	0.975	0.0179
cg26586384	17	12,526,632	OpenSea			0.053	0.687	0.0179
cg10309609	8	144,408,081	OpenSea	TOP1MT	Body	0.012	0.914	0.0179
cg18402261	17	48,021,977	OpenSea			0.014	0.273	0.0179
cg05210239	12	132,855,224	Island	GALNT9	Body	0.022	0.567	0.0179
cg06341397	16	82,640,290	OpenSea			0.016	0.848	0.0179
cg20752847	12	124,248,044	S_Shore	DNAH10	Body	0.019	0.385	0.0179
cg11646887	17	45,918,805	S_Shore	SCRN2	TSS200	-0.004	0.042	0.0179
cg20043679	2	84,517,321	N_Shore	LOC388965	TSS1500	-0.006	0.963	0.0179
cg10043090	11	1,536,810	Island	HCCA2	Body	0.024	0.243	0.0179
cg23052055	1	3,606,042	N_Shore	TP73	TSS1500	0.033	0.347	0.0179
cg18279577	6	37,400,861	Island	FTSJD2	TSS200	0.003	0.022	0.0179
cg02987928	1	16,553,456	Island			-0.001	0.017	0.0179
cg26482939	19	3,136,710	OpenSea	GNA15	Body	0.017	0.931	0.0179
cg03644587	6	32,071,499	OpenSea	TNXB	5'UTR	0.026	0.625	0.0179
cg21149811	2	1,151,809	OpenSea	SNTG2	Body	0.014	0.778	0.0179
cg20956634	12	44,200,518	S_Shore	TWF1	TSS1500	-0.005	0.033	0.0179
cg03401506	16	2,732,168	N_Shore	KCTD5	TSS1500	0.003	0.019	0.0179
cg01616440	15	84,319,908	N_Shelf			-0.013	0.866	0.0180
cg27267377	8	142,336,170	OpenSea			0.011	0.435	0.0180
cg24939819	1	27,217,358	S_Shore	GPN2	TSS1500	0.017	0.642	0.0180
cg20761395	17	511,517	OpenSea	VPS53	Body	-0.036	0.827	0.0180
cg04900366	7	151,301,837	S_Shore	PRKAG2	Body	0.011	0.877	0.0180
cg27084736	15	25,787,997	OpenSea			0.017	0.744	0.0180
cg04149916	6	31,939,319	N_Shore	STK19	TSS1500	0.038	0.353	0.0180



cg07093748	1	17,996,881	OpenSea	ARHGEF10L	Body	0.016	0.684	0.0180
cg13818875	5	37,249,567	Island	C5orf42	TSS200	0.006	0.027	0.0180
cg25234117	3	155,423,168	OpenSea	PLCH1	TSS1500	0.013	0.449	0.0180
cg10750989	6	31,371,330	Island	MICA	TSS200	-0.003	0.025	0.0180
cg22219379	3	140,541,355	OpenSea			0.029	0.255	0.0180
cg09183388	5	176,237,304	Island	UNC5A	TSS1500	0.002	0.025	0.0180
cg13790576	9	139,640,661	Island	LCN6	Body	0.017	0.688	0.0180
cg24980413	5	346,987	S_Shelf	AHRR	Body	0.018	0.716	0.0180
cg01578585	16	19,721,878	OpenSea	C16orf88	Body	-0.016	0.893	0.0180
cg08191490	6	112,546,178	OpenSea	LAMA4	Body	0.008	0.965	0.0180
cg07784757	17	21,101,571	OpenSea	TMEM11	Body	-0.003	0.980	0.0180
cg06922496	16	87,723,693	Island	JPH3	Body	-0.008	0.962	0.0180
cg17459298	12	43,946,341	S_Shore	ADAMTS20	TSS1500	-0.016	0.063	0.0180
cg06708331	22	49,761,906	N_Shelf			0.020	0.691	0.0180
cg12965198	14	23,476,098	Island	C14orf93	5'UTR	-0.008	0.038	0.0180
cg04022912	16	24,864,984	OpenSea	SLC5A11	5'UTR	0.020	0.799	0.0180
cg04476846	5	78,791,415	OpenSea	HOMER1	Body	0.019	0.087	0.0180
cg16595484	3	122,512,170	N_Shore	HSPBAP1	Body	0.004	0.031	0.0180
cg09288218	12	130,554,977	OpenSea			0.028	0.558	0.0180
cg02505674	17	34,093,892	S_Shore	MMP28	Body	-0.003	0.965	0.0180
cg03751944	19	1,081,936	Island	HMHA1	Body	0.024	0.418	0.0181
cg20259557	8	145,643,626	S_Shore	SLC39A4	TSS1500	0.015	0.864	0.0181
cg27350402	6	27,550,691	OpenSea			0.029	0.190	0.0181
cg16033723	3	31,402,883	OpenSea			0.018	0.212	0.0181
cg23092823	1	53,528,612	Island	PODN	Body	-0.003	0.020	0.0181
cg26858238	6	33,289,208	N_Shore	DAXX	Body	0.020	0.770	0.0181
cg11534240	1	183,442,651	S_Shore	SMG7	5'UTR	0.013	0.511	0.0181
cg14528994	9	74,980,737	Island	ZFAND5	TSS1500	0.003	0.026	0.0181
cg03983336	2	108,602,542	N_Shore	SLC5A7	TSS1500	0.026	0.375	0.0181
cg25035376	12	57,943,261	N_Shore	KIF5A	TSS1500	0.017	0.314	0.0181

cg06296613	5	122,759,733	S_Shore	CEP120	TSS1500	-0.030	0.026	0.0181
cg27431396	20	32,250,213	N_Shore	C20orf144	1stExon	0.014	0.870	0.0181
cg11861406	13	21,749,154	N_Shore	SKA3	Body	-0.035	0.918	0.0181
cg20355401	17	43,111,526	Island	DCAKD	Body	-0.006	0.953	0.0181
cg05018638	5	33,984,768	OpenSea	SLC45A2	5'UTR	0.023	0.528	0.0181
cg05082817	9	133,535,896	Island			-0.003	0.025	0.0182
cg12833407	9	130,469,175	OpenSea	C9orf117	TSS200	0.011	0.319	0.0182
cg15273822	11	66,193,931	OpenSea	NPAS4	3'UTR	0.022	0.430	0.0182
cg06296331	2	134,024,459	Island	NCKAP5	Body	-0.004	0.026	0.0182
cg06506128	11	95,565,688	OpenSea	CEP57	3'UTR	-0.013	0.937	0.0182
cg12879713	11	64,878,720	N_Shore	C11orf2	Body	0.014	0.858	0.0182
cg15143788	5	92,909,434	S_Shore	FLJ42709	Body	-0.037	0.464	0.0182
cg18939081	1	31,884,902	N_Shore	SERINC2	TSS1500	0.012	0.894	0.0182
cg06981504	1	1,234,844	OpenSea	ACAP3	Body	0.021	0.893	0.0182
cg03134573	8	144,457,905	S_Shore	RHPN1	Body	0.015	0.711	0.0182
cg25600951	2	62,419,885	N_Shelf			-0.024	0.710	0.0182
cg03926815	3	13,114,681	Island	IQSEC1	TSS200	-0.013	0.038	0.0182
cg00024471	3	188,692,547	OpenSea			0.028	0.499	0.0182
cg00075920	5	177,026,190	N_Shore	B4GALT7	TSS1500	0.022	0.370	0.0182
cg10672681	3	111,697,537	N_Shore	ABHD10	TSS1500	-0.006	0.035	0.0182
cg04194066	10	45,567,160	OpenSea			0.010	0.944	0.0182
cg15938050	17	68,984,117	OpenSea			0.025	0.278	0.0183
cg04379055	17	77,173,076	OpenSea	HRNBP3	5'UTR	-0.018	0.477	0.0183
cg04984556	1	11,359,053	OpenSea			0.013	0.774	0.0183
cg23788917	6	8,435,910	Island	SLC35B3	TSS200	0.021	0.025	0.0183
cg12624197	1	20,698,023	OpenSea			0.022	0.139	0.0183
cg21228957	17	48,171,816	N_Shore	PDK2	TSS1500	0.009	0.033	0.0183
cg03655330	3	50,337,494	S_Shore	HYAL1	3'UTR	0.015	0.467	0.0183
cg20699701	1	3,089,762	OpenSea	PRDM16	Body	0.018	0.373	0.0183
cg04656051	2	219,252,614	Island	SLC11A1	Body	-0.008	0.054	0.0183

cg16936944	6	31,695,970	Island	DDAH2	Body	0.016	0.583	0.0183
cg10526478	16	85,936,211	S_Shelf	IRF8	5'UTR	0.024	0.489	0.0183
cg13941027	1	12,335,550	OpenSea	VPS13D	Body	-0.020	0.772	0.0183
cg14251777	7	150,147,655	OpenSea	GIMAP8	TSS1500	0.014	0.488	0.0183
cg27596766	2	234,380,798	OpenSea			0.003	0.981	0.0183
cg13303952	20	32,250,126	N_Shore	C20orf144	1stExon	0.013	0.915	0.0183
cg23263641	19	44,128,109	S_Shelf	CADM4	Body	0.042	0.676	0.0183
cg12098873	19	6,751,468	N_Shore	TRIP10	3'UTR	0.014	0.884	0.0183
cg26264032	17	46,045,115	N_Shelf			0.019	0.652	0.0184
cg01497747	11	130,079,200	Island	ST14	Body	0.020	0.799	0.0184
cg07529122	21	47,054,539	S_Shore			0.067	0.813	0.0184
cg02916312	6	72,596,135	Island	RIMS1	TSS1500	-0.002	0.018	0.0184
cg04099138	11	130,297,436	Island	ADAMTS8	Body	0.007	0.063	0.0184
cg16805215	3	137,505,160	OpenSea			0.021	0.562	0.0184
cg27355006	16	30,913,234	N_Shore	CTF1	Body	0.015	0.620	0.0184
cg27286957	6	33,740,409	S_Shore	LEMD2	Body	0.018	0.794	0.0184
cg19102293	7	2,908,816	OpenSea			0.035	0.977	0.0184
cg11755372	3	183,993,080	N_Shore	ECE2	Body	0.018	0.401	0.0184
cg07800544	5	35,129,387	OpenSea	PRLR	5'UTR	-0.016	0.909	0.0184
cg24669449	1	110,175,592	OpenSea			0.018	0.698	0.0184
cg19590991	10	11,653,476	Island	USP6NL	1stExon	-0.006	0.030	0.0185
cg03114845	12	66,270,387	OpenSea	HMGA2	Body	0.003	0.984	0.0185
cg04064094	6	30,524,222	Island	PRR3	TSS1500	-0.009	0.062	0.0185
cg03653573	5	131,762,326	OpenSea	C5orf56	Body	0.013	0.838	0.0185
cg05915622	17	77,920,020	N_Shelf	TBC1D16	Body	0.004	0.981	0.0185
cg18890417	8	22,861,942	N_Shelf	RHOBTB2	Body	0.013	0.781	0.0185
cg04526965	5	68,666,075	S_Shore	TAF9	TSS1500	0.003	0.018	0.0185
cg07638689	19	8,204,480	S_Shelf	FBN3	Body	0.023	0.449	0.0185
cg00512454	6	36,709,214	OpenSea	CPNE5	3'UTR	0.016	0.777	0.0185
cg19853703	22	36,044,792	OpenSea	APOL6	5'UTR	0.016	0.306	0.0185

cg09472467	15	27,114,644	S_Shore	GABRA5	Body	0.026	0.556	0.0185
cg07556854	11	94,691,050	OpenSea			0.007	0.968	0.0185
cg26055446	6	33,245,990	S_Shore	B3GALT4	1stExon	0.015	0.394	0.0185
cg05339942	17	77,436,163	OpenSea	HRNBP3	5'UTR	0.024	0.595	0.0185
cg07247610	1	9,097,422	N_Shore	SLC2A5	3'UTR	0.018	0.557	0.0185
cg17103269	20	39,972,305	S_Shelf	LPIN3	5'UTR	0.014	0.550	0.0185
cg23735745	1	230,248,121	OpenSea	GALNT2	Body	0.026	0.309	0.0185
cg15286044	10	99,789,971	Island	CRTAC1	Body	-0.005	0.055	0.0185
cg07095945	15	85,415,281	OpenSea	ALPK3	3'UTR	0.007	0.960	0.0186
cg09481537	12	131,701,863	OpenSea			0.028	0.508	0.0186
cg10024063	11	119,020,486	Island	ABCG4	5'UTR	-0.004	0.034	0.0186
cg02143487	17	79,316,286	Island			-0.002	0.021	0.0186
cg15580052	12	618,772	OpenSea	B4GALNT3	Body	-0.036	0.105	0.0186
cg19843353	5	180,651,585	S_Shore	TRIM41	1stExon	0.030	0.823	0.0186
cg02656169	12	121,792,898	S_Shelf	ANAPC5	TSS1500	0.006	0.963	0.0186
cg18121190	10	134,529,876	S_Shore	INPP5A	Body	0.023	0.644	0.0186
cg26916936	11	121,970,613	OpenSea	LOC399959	Body	-0.012	0.062	0.0186
cg02610813	7	99,067,317	N_Shelf			0.038	0.597	0.0186
cg10331528	12	122,266,596	S_Shore	SETD1B	Body	0.012	0.884	0.0186
cg19281238	20	3,870,569	Island	PANK2	Body	0.002	0.022	0.0186
cg14156446	9	127,284,971	OpenSea	NR6A1	3'UTR	0.020	0.644	0.0186
cg05380846	1	19,953,389	OpenSea	C1orf151	3'UTR	-0.020	0.908	0.0186
cg00409917	6	29,894,679	Island	HCG4P6	TSS1500	0.060	0.036	0.0186
cg23891996	19	9,517,858	Island			-0.003	0.026	0.0186
cg22986077	11	77,533,213	S_Shore	C11orf67	5'UTR	0.031	0.795	0.0186
cg18432292	1	1,003,755	Island			0.021	0.333	0.0187
cg02876258	4	81,185,723	N_Shore			0.008	0.054	0.0187
cg03190929	17	38,075,855	OpenSea	GSDMB	TSS1500	0.036	0.964	0.0187
cg04102784	5	81,152,212	OpenSea			-0.028	0.855	0.0187
cg23548885	2	47,150	S_Shore	FAM110C	TSS1500	-0.003	0.022	0.0187

cg17325911	2	216,976,926	S_Shelf	XRCC5	Body	0.017	0.883	0.0187
cg08116408	6	30,112,776	OpenSea	TRIM40	Body	0.022	0.343	0.0187
cg01863013	8	94,746,561	OpenSea	RBM12B	Body	-0.003	0.985	0.0187
cg20228731	7	130,646,051	OpenSea	FLJ43663	Body	-0.018	0.885	0.0187
cg03362882	11	56,945,579	N_Shelf			-0.031	0.545	0.0187
cg19674937	13	74,271,095	OpenSea	KLF12	Body	-0.004	0.976	0.0187
cg20029311	14	74,100,086	N_Shore			0.019	0.305	0.0187
cg03339077	11	47,165,057	OpenSea	C11orf49	Body	0.038	0.324	0.0187
cg26745757	11	1,715,454	Island	HCCA2	Body	0.008	0.051	0.0187
cg22798400	3	71,205,277	OpenSea	FOXP1	Body	0.013	0.474	0.0187
cg16497413	12	109,992,779	OpenSea	MMAB	3'UTR	0.018	0.562	0.0187
cg06828936	2	115,920,825	S_Shore	DPP10	Body	-0.005	0.045	0.0187
cg15728779	1	99,729,504	N_Shore	LPPR4	TSS1500	0.014	0.318	0.0187
cg22088368	22	37,404,888	OpenSea	C22orf33	TSS1500	0.015	0.759	0.0187
cg06547034	10	87,403,729	OpenSea	GRID1	Body	0.004	0.981	0.0187
cg11784305	20	1,757,812	Island			0.002	0.016	0.0187
cg10238587	1	26,719,057	OpenSea			0.021	0.848	0.0187
cg09160955	15	89,154,092	OpenSea	MIR7-2	TSS1500	0.025	0.429	0.0188
cg01893629	12	34,494,825	Island			0.017	0.939	0.0188
cg20271330	1	204,338,515	OpenSea	LOC127841	Body	0.011	0.705	0.0188
cg13208159	1	68,516,518	N_Shore	DIRAS3	TSS200	0.017	0.509	0.0188
cg12609322	1	29,490,924	OpenSea	SFRS4	Body	0.013	0.917	0.0188
cg07449543	11	89,956,708	S_Shore	CHORDC1	TSS200	-0.010	0.033	0.0188
cg03936870	2	47,561,578	OpenSea			0.020	0.643	0.0188
cg12906963	3	3,807,867	OpenSea			-0.021	0.617	0.0188
cg07974473	14	29,235,092	Island	FOXG1	TSS1500	-0.004	0.037	0.0188
cg10800953	3	184,104,380	Island	CHRD	Body	0.017	0.671	0.0188
cg24581378	2	98,351,824	Island	ZAP70	Body	-0.010	0.929	0.0188
cg25654072	17	61,904,446	N_Shore	PSMC5	TSS1500	-0.004	0.047	0.0188
cg10164300	11	123,986,034	OpenSea	VWA5A	TSS200	-0.002	0.016	0.0188

cg14966117	5	137,371,950	S_Shelf			-0.003	0.029	0.0188
cg02357741	19	55,813,339	N_Shore	BRSK1	Body	-0.004	0.045	0.0188
cg06749854	11	2,020,030	S_Shore	H19	TSS1500	0.014	0.662	0.0188
cg10651537	2	177,134,737	S_Shore	MTX2	Body	0.001	0.010	0.0188
cg27629986	2	219,585,157	OpenSea	TTLL4	5'UTR	0.023	0.766	0.0188
cg05120900	13	103,244,544	OpenSea			-0.002	0.016	0.0188
cg07610468	7	1,949,632	N_Shore	MAD1L1	Body	0.019	0.627	0.0188
cg19664013	6	28,757,366	S_Shelf			0.030	0.261	0.0188
cg12156512	19	47,258,676	N_Shore	FKRP	5'UTR	0.039	0.658	0.0188
cg03490115	2	74,681,972	Island	INO80B	TSS1500	0.002	0.019	0.0188
cg04132236	2	61,824,961	OpenSea			0.023	0.507	0.0188
cg23052213	14	45,605,121	Island	FKBP3	TSS1500	0.003	0.025	0.0189
cg194440734	3	48,264,753	OpenSea	CAMP	TSS200	0.019	0.719	0.0189
cg20574650	15	55,697,065	N_Shelf	CCPG1	5'UTR	-0.012	0.937	0.0189
cg12146909	7	156,951,457	OpenSea	UBE3C	Body	-0.030	0.737	0.0189
cg25235638	5	34,019,644	OpenSea	C1QTNF3	3'UTR	0.007	0.977	0.0189
cg24974729	11	67,764,320	N_Shore	UNC93B1	Body	0.110	0.401	0.0189
cg27613216	2	69,077,545	OpenSea			-0.015	0.935	0.0189
cg05055150	19	35,783,292	N_Shelf	MAG	5'UTR	0.018	0.854	0.0189
cg15868287	20	42,791,545	S_Shelf	JPH2	Body	0.014	0.823	0.0189
cg15404040	5	60,706,045	OpenSea	ZSWIM6	Body	-0.006	0.968	0.0189
cg03222044	1	159,925,272	OpenSea	SLAMF9	TSS1500	0.020	0.708	0.0189
cg20100381	16	66,864,408	Island	NAE1	5'UTR	0.004	0.032	0.0189
cg07820842	4	152,682,180	Island	PET112L	TSS200	0.003	0.022	0.0189
cg13651833	9	71,788,748	Island	TJP2	TSS1500	-0.003	0.032	0.0189
cg05429319	11	131,559,158	N_Shore	NTM	Body	0.017	0.587	0.0189
cg16150979	6	155,622,631	OpenSea	TFB1M	Body	0.031	0.851	0.0189
cg03487407	14	105,904,741	OpenSea	MTA1	Body	0.012	0.873	0.0190
cg02368206	5	137,911,636	Island	HSPA9	TSS1500	-0.003	0.020	0.0190
cg07889938	4	87,855,377	N_Shore	AFF1	TSS1500	0.022	0.380	0.0190

cg05508296	5	1,016,460	OpenSea	NKD2	Body	0.030	0.638	0.0190
cg10112711	12	75,713,118	OpenSea	CAPS2	Body	0.024	0.864	0.0190
cg19092343	1	47,284,627	OpenSea	CYP4B1	3'UTR	0.008	0.955	0.0190
cg15040499	17	35,861,263	OpenSea	DUSP14	5'UTR	-0.015	0.919	0.0190
cg14091419	15	28,356,810	Island	HERC2	3'UTR	0.020	0.579	0.0190
cg04119984	5	171,190,154	OpenSea			0.026	0.737	0.0190
cg10936564	5	96,272,218	S_Shore	LNPEP	Body	-0.003	0.020	0.0190
cg05075517	8	50,875,600	OpenSea	SNTG1	5'UTR	0.028	0.678	0.0190
cg23509272	17	40,346,296	OpenSea	GHDC	TSS200	0.023	0.421	0.0190
cg18029321	5	140,230,326	Island	PCDHA6	Body	0.057	0.381	0.0190
cg07157506	18	12,883,603	Island	PTPN2	Body	0.002	0.018	0.0190
cg06009783	2	64,588,440	OpenSea			0.015	0.861	0.0190
cg02729011	16	699,500	Island	WDR90	Body	-0.007	0.043	0.0190
cg18036653	17	39,484,787	OpenSea			0.014	0.893	0.0190
cg12352960	10	43,428,578	Island			-0.012	0.044	0.0191
cg00039176	5	140,753,076	N_Shore	PCDHGA4	Body	0.033	0.311	0.0191
cg10883284	6	27,059,715	OpenSea			0.002	0.013	0.0191
cg13434688	9	140,270,145	S_Shore	EXD3	Body	0.004	0.978	0.0191
cg26598540	8	10,753,147	OpenSea			0.023	0.602	0.0191
cg15542066	11	3,876,513	Island	STIM1	TSS1500	0.003	0.022	0.0191
cg13552742	14	77,229,061	S_Shore	VASH1	1stExon	0.027	0.259	0.0191
cg08264638	2	55,747,775	S_Shore	CCDC104	Body	0.021	0.187	0.0191
cg05746795	8	48,100,410	Island			-0.006	0.024	0.0191
cg07637213	10	50,820,604	N_Shore	CHAT	TSS1500	-0.017	0.089	0.0191
cg21878934	2	187,464,581	OpenSea	ITGAV	TSS1500	-0.027	0.578	0.0191
cg16006963	6	32,135,384	S_Shore	EGFL8	Body	0.021	0.563	0.0191
cg18657389	17	74,023,630	OpenSea	EVPL	TSS200	0.018	0.702	0.0191
cg07888040	15	51,669,526	OpenSea	GLDN	Body	0.002	0.988	0.0191
cg18311708	7	149,322,908	S_Shore	ZNF767	TSS1500	-0.041	0.369	0.0191
cg11585280	1	25,292,059	OpenSea	RUNX3	TSS1500	0.013	0.867	0.0191

cg09020199	6	30,297,320	S_Shelf	TRIM39	Body	0.009	0.940	0.0191
cg24932433	2	175,411,591	OpenSea			0.017	0.687	0.0191
cg06374472	6	132,891,457	OpenSea	TAAR6	TSS200	0.021	0.586	0.0191
cg10887810	1	119,442,124	OpenSea	TBX15	Body	-0.033	0.558	0.0191
cg20154865	11	111,957,432	Island	SDHD	TSS200	0.002	0.019	0.0191
cg21399198	7	102,715,131	Island	ARMC10	TSS200	-0.003	0.032	0.0191
cg26263675	17	72,743,191	N_Shore	RAB37	3'UTR	-0.022	0.130	0.0191
cg04012535	1	37,176,647	OpenSea			0.017	0.371	0.0191
cg10841540	14	59,907,007	OpenSea			0.035	0.942	0.0191
cg00248828	17	34,087,579	N_Shelf	C17orf50	TSS1500	0.017	0.833	0.0192
cg01616474	11	22,850,970	Island	SVIP	Body	0.003	0.030	0.0192
cg02086467	14	57,276,527	Island	OTX2	5'UTR	-0.003	0.024	0.0192
cg15388490	7	150,501,997	S_Shelf	TMEM176A	3'UTR	0.012	0.810	0.0192
cg09803167	17	80,710,621	Island	TBCD	Body	-0.005	0.053	0.0192
cg02002586	6	31,733,894	OpenSea	C6orf27	Body	0.035	0.503	0.0192
cg03817107	5	169,532,775	N_Shore	FOXI1	TSS200	0.019	0.312	0.0192
cg25349900	10	102,290,114	S_Shore	NDUFB8	TSS1500	0.019	0.749	0.0192
cg09321566	1	3,731,815	Island	KIAA0562	3'UTR	0.010	0.942	0.0192
cg25623535	19	41,196,524	Island	NUMBL	5'UTR	-0.008	0.021	0.0192
cg05876824	6	134,438,569	OpenSea			0.018	0.513	0.0192
cg13327911	6	55,965,977	OpenSea	COL21A1	Body	0.034	0.835	0.0192
cg09501305	19	18,572,599	Island	ELL	Body	0.008	0.955	0.0192
cg21330960	22	23,415,915	S_Shelf	RTDR1	Body	0.022	0.607	0.0192
cg02096793	4	683,148	S_Shore	MFSD7	TSS200	-0.012	0.219	0.0192
cg03203274	6	43,478,457	Island	C6orf154	TSS200	0.017	0.285	0.0192
cg21378920	3	101,392,186	N_Shelf	ZBTB11	Body	0.010	0.956	0.0193
cg13685779	9	109,132,896	OpenSea			0.007	0.977	0.0193
cg08277746	6	33,284,497	N_Shore	ZBTB22	Body	0.015	0.773	0.0193
cg20161508	17	55,162,150	N_Shore	AKAP1	TSS1500	-0.002	0.029	0.0193
cg11563399	10	97,850,047	Island			-0.024	0.037	0.0193



cg01574390	16	21,623,651	OpenSea	METTL9	Body	0.020	0.554	0.0193
cg13663978	11	57,319,326	OpenSea	UBE2L6	3'UTR	0.006	0.971	0.0193
cg01538392	20	33,291,225	N_Shore	TP53INP2	TSS1500	0.018	0.374	0.0193
cg24228329	18	24,765,473	Island	CHST9	TSS200	-0.004	0.045	0.0193
cg17391620	6	31,734,471	OpenSea	C6orf27	Body	0.048	0.284	0.0193
cg14239351	22	43,821,115	Island	MPPED1	Body	0.017	0.661	0.0193
cg06332269	19	1,978,692	Island	CSNK1G2	Body	0.011	0.887	0.0193
cg10778943	12	71,204,936	OpenSea	PTPRR	Body	0.007	0.961	0.0193
cg05924031	16	1,227,335	Island	CACNA1H	Body	0.017	0.616	0.0193
cg03658707	20	32,848,426	OpenSea	ASIP	Body	0.014	0.819	0.0193
cg03255749	17	739,405	S_Shore	NXN	Body	0.048	0.920	0.0193
cg20821314	2	10,950,732	N_Shore	PDIA6	Body	0.031	0.325	0.0193
cg17420675	6	132,766,912	OpenSea			0.006	0.964	0.0193
cg24722198	13	113,567,732	OpenSea			0.021	0.502	0.0193
cg00418071	1	86,073,001	OpenSea			-0.017	0.601	0.0193
cg04995521	1	8,468,871	OpenSea	RERE	5'UTR	0.028	0.322	0.0193
cg25938042	16	87,637,283	Island	JPH3	Body	0.004	0.026	0.0193
cg03115547	19	32,836,416	Island	ZNF507	TSS200	-0.005	0.030	0.0193
cg11069748	10	118,569,479	OpenSea			0.020	0.489	0.0193
cg07682547	5	153,863,417	S_Shore			-0.002	0.022	0.0193
cg16109817	1	16,162,209	Island	FLJ37453	Body	0.003	0.023	0.0194
cg25607643	15	40,730,161	S_Shore			0.019	0.183	0.0194
cg03258011	17	54,857,409	N_Shore			0.003	0.023	0.0194
cg27211204	15	99,791,508	Island	LRRC28	TSS200	-0.016	0.039	0.0194
cg04692960	6	41,076,590	OpenSea	LOC221442	Body	-0.005	0.967	0.0194
cg11226808	1	3,581,320	OpenSea	TP73	5'UTR	0.018	0.805	0.0194
cg00456216	1	27,427,064	OpenSea	SLC9A1	Body	0.011	0.487	0.0194
cg14603886	17	62,206,650	N_Shore	ERN1	Body	0.023	0.445	0.0194
cg12936747	10	95,361,386	Island	RBP4	TSS1500	-0.004	0.042	0.0194
cg05094137	16	53,125,208	OpenSea	CHD9	5'UTR	0.027	0.383	0.0194

cg05613083	16	87,751,605	N_Shelf	KLHDC4	Body	-0.025	0.880	0.0194
cg24692595	3	134,404,668	OpenSea			0.012	0.943	0.0194
cg01550148	5	134,735,544	S_Shore	H2AFY	TSS1500	-0.015	0.192	0.0194
cg21215337	17	46,176,117	N_Shelf	CBX1	5'UTR	0.002	0.986	0.0194
cg10570544	12	54,775,189	S_Shelf	ZNF385A	Body	-0.005	0.965	0.0194
cg16751754	21	42,801,063	S_Shelf	MX1	5'UTR	0.012	0.869	0.0194
cg23559689	11	105,481,292	Island	GRIA4	5'UTR	0.002	0.018	0.0194
cg00738345	17	55,940,530	S_Shore	CUEDC1	3'UTR	0.024	0.381	0.0194
cg27541317	1	149,871,625	Island	BOLA1	Body	-0.007	0.036	0.0194
cg24411723	18	12,702,765	Island	PSMG2	TSS1500	-0.002	0.016	0.0194
cg01199721	12	120,632,764	Island	GCN1L1	TSS1500	-0.006	0.054	0.0194
cg15192909	19	36,051,798	S_Shelf	ATP4A	Body	0.023	0.580	0.0194
cg02029843	6	11,278,005	OpenSea	NEDD9	Body	-0.037	0.511	0.0195
cg06397427	18	72,127,472	S_Shelf			-0.021	0.761	0.0195
cg27370923	19	1,725,970	Island			-0.003	0.033	0.0195
cg08813936	6	33,420,121	N_Shore	SYNGAP1	3'UTR	0.018	0.790	0.0195
cg26706614	5	45,700,402	S_Shelf			-0.014	0.922	0.0195
cg08817204	10	83,665,199	OpenSea	NRG3	Body	0.005	0.970	0.0195
cg01586851	4	1,556,595	N_Shore			0.016	0.866	0.0195
cg05424199	16	30,759,608	Island	PHKG2	TSS200	0.002	0.016	0.0195
cg15203522	6	80,816,147	Island	BCKDHB	TSS200	-0.003	0.016	0.0195
cg03208501	2	111,435,828	Island	BUB1	TSS200	-0.006	0.048	0.0195
cg00169725	5	176,543,901	Island			-0.008	0.044	0.0195
cg21026426	7	156,754,584	OpenSea	NOM1	Body	0.012	0.906	0.0195
cg16070743	4	178,364,207	S_Shore	AGA	TSS1500	-0.038	0.229	0.0195
cg01684175	13	41,185,353	OpenSea	FOXO1	Body	-0.014	0.739	0.0195
cg22511808	3	158,410,264	OpenSea	GFM1	3'UTR	0.005	0.972	0.0195
cg10133462	4	1,305,113	Island	MAEA	Body	0.014	0.890	0.0196
cg16468417	3	35,835,606	OpenSea	ARPP-21	3'UTR	-0.023	0.406	0.0196
cg03930857	10	98,062,747	OpenSea	DNTT	TSS1500	0.009	0.903	0.0196

cg09630417	7	123,459,295	OpenSea	HYALP1	Body	0.031	0.714	0.0196
cg25229114	11	110,167,701	Island	RDX	TSS1500	-0.005	0.045	0.0196
cg05796261	3	47,421,564	N_Shore	PTPN23	TSS1500	0.024	0.463	0.0196
cg13976683	1	120,311,542	OpenSea	HMGCS2	1stExon	0.014	0.634	0.0196
cg08876665	9	114,361,338	N_Shore	PTGR1	5'UTR	-0.003	0.024	0.0196
cg22759096	6	30,594,296	OpenSea	C6orf134	TSS1500	0.014	0.381	0.0196
cg13860548	1	15,853,252	Island	DNAJC16	TSS200	0.002	0.024	0.0196
cg12283482	4	57,254,754	S_Shore	AASDH	TSS1500	0.036	0.341	0.0196
cg09866712	14	24,673,830	OpenSea	TSSK4	TSS1500	0.011	0.927	0.0196
cg22873562	3	133,969,914	Island	RYK	TSS1500	-0.004	0.034	0.0196
cg18075117	4	66,107,559	OpenSea			0.011	0.939	0.0196
cg24804517	20	61,560,953	Island	DIDO1	5'UTR	0.020	0.157	0.0196
cg25601446	17	62,033,298	OpenSea	SCN4A	Body	0.014	0.809	0.0196
cg20984735	3	149,768,641	Island			-0.016	0.957	0.0196
cg16365690	11	6,643,809	OpenSea	DCHS1	Body	0.015	0.668	0.0196
cg26869512	4	8,389,770	S_Shore	ACOX3	Body	0.005	0.972	0.0197
cg18794597	5	177,302,752	Island	LOC728554	Body	-0.003	0.021	0.0197
cg00036976	16	85,343,281	OpenSea			0.021	0.613	0.0197
cg02101307	10	86,004,424	OpenSea	RGR	TSS1500	0.021	0.621	0.0197
cg27302645	15	42,089,208	OpenSea	MAPKBP1	Body	0.026	0.798	0.0197
cg06449934	7	1,130,697	N_Shore	GPFR	5'UTR	0.021	0.654	0.0197
cg07340922	11	114,548,759	OpenSea	FAM55B	TSS1500	0.002	0.983	0.0197
cg14409958	8	120,651,652	OpenSea	ENPP2	TSS1500	0.012	0.042	0.0197
cg26956494	5	64,313,909	OpenSea	SDCCAG10	Body	0.003	0.984	0.0197
cg09545478	10	15,254,794	Island	FAM171A1	3'UTR	0.014	0.896	0.0197
cg01656837	2	169,106,963	S_Shelf			0.004	0.981	0.0197
cg14393502	20	36,156,617	Island	BLCAP	TSS1500	-0.002	0.020	0.0197
cg23319285	10	101,287,752	Island			0.003	0.032	0.0197
cg14507346	12	49,076,207	Island	C12orf41	TSS200	-0.003	0.022	0.0197
cg03210257	15	68,118,127	Island	LBXCOR1	Body	0.004	0.023	0.0197

cg17491846	19	19,431,584	Island	KIAA0892	TSS200	0.004	0.023	0.0198
cg14326644	2	29,430,352	OpenSea	ALK	Body	-0.018	0.552	0.0198
cg25077752	19	2,899,864	N_Shore	ZNF57	TSS1500	0.031	0.876	0.0198
cg11893139	12	125,598,269	N_Shore	AACS	Body	0.011	0.892	0.0198
cg19091791	5	179,267,771	OpenSea	C5orf45	Body	-0.007	0.967	0.0198
cg26578408	13	112,555,823	OpenSea			0.019	0.783	0.0198
cg12769566	4	47,487,497	OpenSea	ATP10D	1stExon	-0.003	0.022	0.0198
cg00380266	8	122,647,895	N_Shelf	HAS2	5'UTR	0.003	0.984	0.0198
cg14761454	11	108,092,087	N_Shore	ATM	TSS1500	0.031	0.238	0.0198
cg08832782	1	2,771,967	N_Shore			0.017	0.837	0.0198
cg27365627	15	78,614,908	OpenSea			-0.018	0.530	0.0198
cg08524190	3	128,825,270	OpenSea	RAB43	Body	0.013	0.891	0.0198
cg09314155	7	45,196,501	N_Shore	RAMP3	TSS1500	0.014	0.666	0.0198
cg15567297	15	90,029,474	N_Shore	RHCG	Body	0.026	0.622	0.0198
cg00401761	2	128,381,877	Island	MYO7B	Body	0.014	0.791	0.0198
cg26940518	16	1,593,766	S_Shore	IFT140	Body	-0.011	0.136	0.0198
cg14223671	16	857,981	Island	PRR25	Body	-0.073	0.277	0.0198
cg20609911	13	28,010,467	OpenSea	MTIF3	Body	0.006	0.971	0.0198
cg14620908	6	32,078,614	OpenSea	TNXB	TSS1500	0.026	0.728	0.0198
cg00747065	2	26,467,663	Island	HADHA	TSS200	-0.008	0.069	0.0198
cg25770176	10	91,405,685	S_Shore	PANK1	TSS1500	-0.013	0.101	0.0199
cg11360755	5	496,069	S_Shore	SLC9A3	Body	0.030	0.633	0.0199
cg09284627	8	47,120,476	OpenSea			0.030	0.839	0.0199
cg14639919	9	34,979,468	OpenSea	KIAA1045	3'UTR	0.014	0.838	0.0199
cg24876527	6	139,095,462	S_Shore	CCDC28A	Body	0.041	0.226	0.0199
cg00257712	4	2,251,938	OpenSea	MXD4	3'UTR	0.014	0.832	0.0199
cg06626135	8	52,449,156	OpenSea	PXDNL	Body	-0.007	0.952	0.0199
cg03238691	15	74,597,579	OpenSea	CCDC33	Body	0.009	0.954	0.0199
cg19276371	2	74,590,743	OpenSea	DCTN1	Body	0.006	0.947	0.0199
cg04438074	10	63,422,539	Island	C10orf107	TSS200	-0.014	0.123	0.0199

cg14035368	9	139,258,938	Island	CARD9	Body	-0.051	0.263	0.0199
cg22862634	11	62,369,728	Island	EML3	3'UTR	-0.005	0.038	0.0199
cg06994324	1	65,682,156	OpenSea	AK3L1	Body	0.027	0.757	0.0199
cg10044184	6	112,271,264	OpenSea			-0.028	0.626	0.0199
cg27055313	14	106,025,958	Island			0.131	0.410	0.0199
cg18536644	11	2,423,045	S_Shore	TSSC4	TSS1500	0.018	0.481	0.0199
cg08416638	11	60,523,346	OpenSea	MS4A15	TSS1500	-0.004	0.978	0.0199
cg19860515	2	119,248,072	OpenSea			0.022	0.644	0.0199
cg08859912	13	108,870,823	Island	ABHD13	5'UTR	0.005	0.020	0.0199
cg01104334	1	92,682,514	N_Shore	C1orf146	TSS1500	0.004	0.977	0.0199
cg01904393	12	51,815,083	N_Shelf			-0.012	0.172	0.0199
cg03107179	6	167,065,376	OpenSea	RPS6KA2	Body	0.033	0.876	0.0199
cg11384188	6	166,797,300	Island	BRP44L	TSS1500	0.002	0.015	0.0200
cg09796786	12	65,712,740	OpenSea	MSRB3	Body	0.006	0.975	0.0200
cg23905308	2	239,196,947	Island	PER2	5'UTR	-0.001	0.016	0.0200
cg23999170	1	115,628,111	N_Shelf	TSPAN2	Body	-0.018	0.691	0.0200
cg09572697	6	168,450,084	S_Shore			0.014	0.866	0.0200
cg04770165	8	117,768,203	S_Shore	EIF3H	TSS200	-0.002	0.026	0.0200
cg06677048	9	138,684,093	Island	KCNT1	3'UTR	0.017	0.822	0.0200
cg00875849	10	118,569,527	OpenSea			0.017	0.553	0.0200
cg11908852	1	38,397,237	Island	INPP5B	Body	-0.004	0.027	0.0200
cg19707834	6	25,459,934	OpenSea	LRRC16A	Body	-0.022	0.912	0.0200
cg16000360	1	228,328,880	S_Shore	GUK1	Body	0.022	0.277	0.0200
cg18562121	2	27,076,093	S_Shelf	DPYSL5	5'UTR	0.027	0.432	0.0200
cg13580265	11	6,291,625	N_Shore	CCKBR	Body	0.035	0.809	0.0200
cg13640091	13	98,946,798	OpenSea	FARP1	Body	-0.006	0.967	0.0200
cg03445663	2	242,170,236	OpenSea	HDLBP	Body	-0.002	0.973	0.0200
cg27425314	1	26,797,619	N_Shore	DHDDS	3'UTR	0.029	0.239	0.0200
cg00425708	12	66,217,779	Island	HMGA2	TSS1500	0.002	0.018	0.0200
cg04044983	16	67,280,079	Island	FHOD1	Body	-0.003	0.025	0.0200

cg20268208	7	618,210	S_Shore	PRKAR1B	Body	0.005	0.973	0.0201
cg10838091	1	22,889,780	Island	EPHA8	TSS1500	0.004	0.028	0.0201
cg06772157	7	100,728,711	N_Shelf	TRIM56	TSS200	-0.004	0.041	0.0201
cg10309354	6	170,361,474	OpenSea			0.040	0.638	0.0201
cg13292470	13	112,718,952	N_Shore			-0.012	0.059	0.0201
cg08822494	15	88,279,757	OpenSea			-0.030	0.875	0.0201
cg18922062	5	180,485,130	N_Shore	BTNL9	Body	0.018	0.522	0.0201
cg20082272	11	117,232,433	OpenSea	CEP164	Body	0.006	0.958	0.0201
cg04947084	2	232,439,636	OpenSea			0.014	0.795	0.0201
cg04788722	8	144,371,144	N_Shore			0.027	0.897	0.0201
cg17778883	6	140,177,204	OpenSea			-0.020	0.116	0.0201
cg13996003	10	112,034,540	OpenSea	MXI1	Body	0.043	0.906	0.0201
cg16449464	2	172,864,337	N_Shore	MAP1D	TSS1500	0.024	0.279	0.0201
cg23608212	6	122,385,128	OpenSea			0.005	0.975	0.0201
cg03354414	19	55,546,118	S_Shore	GP6	Body	0.050	0.752	0.0201
cg19584341	11	506,908	Island	RNH1	TSS200	-0.002	0.015	0.0201
cg08513626	16	67,047,148	N_Shore			0.026	0.464	0.0201
cg00831970	1	161,647,536	OpenSea	FCGR2B	3'UTR	0.010	0.926	0.0201
cg16340136	14	104,800,445	Island			0.020	0.531	0.0201
cg06031011	6	35,152,001	S_Shore			0.010	0.863	0.0201
cg26172016	18	56,529,149	N_Shore	ZNF532	TSS1500	0.022	0.255	0.0202
cg13504411	10	1,596,029	S_Shore	ADARB2	Body	-0.014	0.917	0.0202
cg08644993	1	153,508,755	Island	S100A6	TSS200	-0.008	0.037	0.0202
cg01514075	1	7,832,357	S_Shore	VAMP3	Body	0.029	0.573	0.0202
cg16101080	6	32,126,315	S_Shelf	PPT2	Body	-0.018	0.777	0.0202
cg09153812	15	69,112,656	Island	ANP32A	Body	0.022	0.119	0.0202
cg00317585	4	188,156,703	OpenSea			-0.005	0.964	0.0202
cg15967501	19	49,143,404	S_Shelf	SEC1	Body	0.025	0.486	0.0202
cg18383660	1	32,082,219	N_Shore	HCRTR1	TSS1500	0.014	0.451	0.0202
cg13453304	18	77,493,499	Island	CTDP1	Body	0.034	0.712	0.0202

cg15084433	7	127,584,444	OpenSea	SND1	Body	0.044	0.370	0.0202
cg24130697	4	103,682,331	Island	MANBA	TSS200	-0.004	0.029	0.0202
cg06555468	7	2,094,790	OpenSea	MAD1L1	Body	0.019	0.715	0.0202
cg24631518	10	73,104,270	OpenSea	SLC29A3	Body	0.016	0.814	0.0202
cg05298628	12	123,379,569	N_Shore	VPS37B	Body	0.017	0.442	0.0202
cg20658635	15	26,877,820	S_Shelf	GABRB3	Body	0.027	0.375	0.0202
cg02326858	1	151,253,959	Island	ZNF687	TSS1500	-0.003	0.034	0.0202
cg22999025	17	19,977,025	OpenSea			0.016	0.345	0.0202
cg20710266	15	96,877,855	S_Shore	NR2F2	Body	0.011	0.068	0.0202
cg01164789	12	77,424,274	OpenSea	E2F7	Body	-0.007	0.949	0.0202
cg17804348	1	3,649,473	Island	TP73	Body	0.038	0.079	0.0202
cg07752120	5	70,746,259	OpenSea			0.083	0.612	0.0203
cg27605358	2	226,265,475	OpenSea	KIAA1486	TSS200	-0.010	0.956	0.0203
cg22708112	15	57,883,392	N_Shore	GCOM1	TSS1500	-0.017	0.905	0.0203
cg27174822	16	2,902,830	Island	PRSS22	3'UTR	0.023	0.366	0.0203
cg15784615	12	6,493,767	S_Shore	LTBR	Body	0.015	0.369	0.0203
cg01269702	2	3,105,016	OpenSea			0.021	0.904	0.0203
cg20248972	6	31,515,526	OpenSea	NFKBIL1	5'UTR	-0.009	0.049	0.0203
cg04508687	6	167,275,843	Island	RPS6KA2	TSS200	-0.002	0.018	0.0203
cg27342781	16	84,566,279	OpenSea			0.017	0.471	0.0203
cg12010638	10	133,754,622	S_Shelf	PPP2R2D	5'UTR	0.003	0.978	0.0203
cg00806634	5	11,383,489	N_Shore	CTNND2	Body	-0.009	0.950	0.0203
cg19770944	2	61,292,607	N_Shore	KIAA1841	TSS1500	0.011	0.070	0.0203
cg27446442	1	36,546,898	N_Shelf			-0.012	0.920	0.0203
cg01966277	7	82,435,009	OpenSea	PCLO	Body	-0.027	0.636	0.0203
cg16377880	19	15,751,167	OpenSea	CYP4F3	TSS1500	0.021	0.595	0.0203
cg00409552	8	42,275,220	OpenSea	SLC20A2	3'UTR	-0.002	0.978	0.0203
cg22894301	3	147,077,665	Island			-0.025	0.340	0.0203
cg05736824	10	134,566,316	N_Shore	INPP5A	Body	0.005	0.975	0.0203
cg22182610	17	7,233,150	Island	NEURL4	TSS1500	-0.001	0.011	0.0203

cg26948931	15	61,793,733	OpenSea			-0.025	0.763	0.0204
cg27089226	3	195,907,142	OpenSea			0.016	0.529	0.0204
cg23262488	2	112,468,472	OpenSea			0.032	0.653	0.0204
cg10570941	6	26,273,029	N_Shore	HIST1H3G	TSS1500	-0.004	0.028	0.0204
cg16004427	1	16,083,101	N_Shelf			0.013	0.438	0.0204
cg05194300	2	97,177,071	S_Shelf			0.016	0.600	0.0204
cg18013419	17	80,995,372	N_Shore	B3GNTL1	Body	0.015	0.849	0.0204
cg18220632	21	44,108,498	S_Shore	PDE9A	Body	0.012	0.880	0.0204
cg01839603	7	2,801,424	N_Shore	GNA12	Body	0.008	0.959	0.0204
cg17563271	17	77,632,749	OpenSea			0.016	0.473	0.0204
cg26954327	7	70,216,208	OpenSea	AUTS2	Body	-0.027	0.687	0.0204
cg07097005	4	57,410,847	Island			-0.032	0.029	0.0204
cg10712091	6	108,141,883	OpenSea	SCML4	5'UTR	0.031	0.129	0.0204
cg26827458	5	175,917,944	OpenSea	FAF2	Body	0.006	0.965	0.0204
cg17744604	1	206,946,166	OpenSea	IL10	TSS1500	0.015	0.863	0.0204
cg13597013	17	78,922,527	S_Shore	RPTOR	Body	0.032	0.732	0.0204
cg24512794	2	203,640,233	S_Shore	ICA1L	3'UTR	0.006	0.966	0.0205
cg07115280	16	57,276,347	N_Shelf			0.039	0.809	0.0205
cg23682940	15	101,419,483	Island	ALDH1A3	TSS1500	-0.010	0.045	0.0205
cg06722193	16	55,359,355	S_Shore	IRX6	Body	-0.013	0.073	0.0205
cg03015358	10	119,088,971	OpenSea	PDZD8	Body	0.004	0.980	0.0205
cg05135213	14	93,215,081	OpenSea	LGMN	TSS200	-0.004	0.035	0.0205
cg01917080	12	1,772,504	Island			-0.016	0.243	0.0205
cg15528490	1	231,472,680	N_Shore	C1orf124	TSS1500	0.003	0.024	0.0205
cg22728782	16	88,937,386	Island			0.017	0.586	0.0205
cg15671705	15	101,419,479	Island	ALDH1A3	TSS1500	-0.003	0.018	0.0205
cg19308397	8	2,549,296	OpenSea			0.030	0.658	0.0205
cg13137458	11	77,160,347	OpenSea	PAK1	5'UTR	0.022	0.214	0.0205
cg27584713	6	12,717,016	OpenSea	PHACTR1	TSS1500	-0.027	0.318	0.0205
cg02381064	13	30,088,771	Island	SLC7A1	Body	0.014	0.837	0.0205



cg02920604	15	59,484,170	OpenSea	MYO1E	Body	0.025	0.653	0.0205
cg23579185	18	77,545,223	Island			0.037	0.526	0.0205
cg09203312	13	20,805,196	N_Shore	GJB6	5'UTR	-0.014	0.231	0.0205
cg18451372	19	1,618,611	N_Shore	TCF3	Body	0.014	0.920	0.0205
cg09054528	16	88,821,542	Island	FAM38A	Body	0.017	0.844	0.0205
cg23738443	1	2,269,871	S_Shelf	MORN1	Body	0.033	0.728	0.0205
cg19343707	9	117,692,954	OpenSea	TNFSF8	TSS200	0.019	0.490	0.0206
cg07534892	12	123,930,117	OpenSea			0.029	0.616	0.0206
cg06666376	19	3,480,596	N_Shore	C19orf77	TSS200	0.028	0.650	0.0206
cg22903402	2	128,366,514	OpenSea	MYO7B	Body	0.017	0.680	0.0206
cg02711652	17	63,555,717	N_Shore	AXIN2	5'UTR	0.006	0.051	0.0206
cg12159314	14	92,787,905	N_Shore	SLC24A4	TSS1500	0.019	0.334	0.0206
cg04610235	17	56,592,440	S_Shore	MTMR4	Body	0.014	0.550	0.0206
cg13614383	9	91,762,376	OpenSea	SHC3	Body	0.017	0.777	0.0206
cg17648101	19	17,438,324	Island	ANO8	Body	0.020	0.538	0.0206
cg15446373	17	39,638,473	OpenSea	KRT35	TSS1500	0.018	0.804	0.0206
cg19006507	19	58,144,459	Island	ZNF211	TSS200	0.004	0.029	0.0206
cg09292876	20	39,312,434	Island			-0.015	0.211	0.0207
cg23950597	19	37,808,831	Island			-0.006	0.038	0.0207
cg20040765	8	67,358,546	OpenSea	ADHFE1	Body	0.013	0.151	0.0207
cg08138375	12	56,694,186	Island	CS	TSS200	-0.002	0.018	0.0207
cg04943741	8	145,651,369	N_Shore	VPS28	Body	0.006	0.975	0.0207
cg13858061	6	169,539,391	N_Shore			0.020	0.755	0.0207
cg12136514	8	134,084,545	OpenSea	TG	Body	0.013	0.430	0.0207
cg01600222	6	33,943,520	N_Shore			-0.009	0.066	0.0207
cg04272820	17	38,228,538	OpenSea	THRA	5'UTR	0.020	0.411	0.0207
cg11462252	5	168,139,607	OpenSea	SLIT3	Body	0.016	0.613	0.0207
cg18994063	5	156,389,699	OpenSea	TIMD4	Body	0.018	0.552	0.0207
cg12660383	4	124,171,623	OpenSea	SPATA5	Body	-0.019	0.935	0.0207
cg01487981	6	133,120,407	S_Shore	C6orf192	TSS1500	0.017	0.100	0.0207

cg16988810	6	31,762,650	N_Shore	VAR5	Body	-0.004	0.030	0.0207
cg04937422	16	23,464,139	Island	COG7	Body	-0.002	0.022	0.0207
cg10803309	11	33,317,039	OpenSea	HIPK3	Body	0.016	0.924	0.0207
cg00538212	7	158,751,591	N_Shore			0.055	0.488	0.0207
cg16704158	3	57,207,651	S_Shelf			0.018	0.535	0.0207
cg13464496	1	28,100,114	S_Shore	STX12	Body	-0.004	0.032	0.0207
cg04665565	11	71,230,734	S_Shore			0.019	0.632	0.0207
cg06440646	4	146,403,418	Island	SMAD1	TSS1500	-0.008	0.059	0.0207
cg05900127	6	134,274,110	Island	TBPL1	TSS200	-0.003	0.034	0.0207
cg23143603	11	82,783,581	OpenSea	RAB30	TSS1500	-0.003	0.030	0.0207
cg04721087	15	40,674,900	N_Shore	C15orf23	TSS200	0.004	0.026	0.0207
cg03389720	16	8,780,048	OpenSea	ABAT	5'UTR	0.018	0.327	0.0207
cg02344497	3	27,472,828	OpenSea	SLC4A7	Body	0.031	0.366	0.0208
cg17170190	1	44,445,979	S_Shore	B4GALT2	5'UTR	0.013	0.355	0.0208
cg19324633	2	42,068,516	Island			-0.004	0.028	0.0208
cg17645074	6	474,500	OpenSea			0.026	0.727	0.0208
cg16595745	2	206,865,141	OpenSea	INO80D	3'UTR	0.005	0.973	0.0208
cg00982271	1	21,672,759	S_Shore	ECE1	TSS1500	-0.003	0.024	0.0208
cg04761746	4	141,177,756	S_Shelf	SCOC	TSS1500	0.028	0.767	0.0208
cg26251865	19	44,220,214	N_Shelf	IRGC	1stExon	0.016	0.218	0.0208
cg09371344	4	1,828,603	Island	LETM1	Body	0.014	0.777	0.0208
cg19002941	8	641,497	S_Shelf	ERICH1	Body	-0.029	0.493	0.0208
cg03393607	2	100,723,417	S_Shelf	AFF3	TSS1500	-0.022	0.626	0.0208
cg02611240	12	72,149,634	S_Shore	RAB21	Body	0.016	0.075	0.0208
cg25717917	3	9,989,555	Island	PRRT3	Body	0.031	0.631	0.0208
cg21059392	14	101,922,750	N_Shore			-0.031	0.325	0.0208
cg02489202	3	45,505,334	OpenSea	LARS2	Body	-0.017	0.721	0.0208
cg00330953	6	31,733,810	OpenSea	C6orf27	Body	0.031	0.450	0.0208
cg17377463	19	48,908,557	Island	GRIN2D	Body	0.013	0.855	0.0208
cg23614791	12	81,471,754	Island	ACSS3	TSS200	-0.003	0.018	0.0208

cg11264098	6	32,041,031	OpenSea	TNXB	Body	0.017	0.401	0.0208
cg23251858	7	5,510,010	OpenSea			0.019	0.759	0.0208
cg09374949	19	18,548,964	Island	ISYNA1	5'UTR	-0.007	0.020	0.0209
cg09954348	16	68,540,251	N_Shelf			0.015	0.848	0.0209
cg18279126	7	2,041,391	N_Shelf	MAD1L1	Body	0.015	0.747	0.0209
cg21315173	2	164,557,850	OpenSea	FIGN	Body	0.004	0.980	0.0209
cg16289618	6	29,705,939	OpenSea	LOC285830	Body	-0.022	0.318	0.0209
cg18321762	8	90,132,979	OpenSea			0.019	0.924	0.0209
cg10820715	1	214,470,024	OpenSea	SMYD2	Body	-0.008	0.952	0.0209
cg03330516	20	62,178,744	Island	SRMS	1stExon	0.022	0.645	0.0209
cg20473155	2	10,688,228	OpenSea			0.007	0.951	0.0209
cg13093389	14	21,557,638	N_Shore	FLJ10357	3'UTR	0.020	0.698	0.0209
cg04685865	19	17,712,768	N_Shelf	UNC13A	3'UTR	0.023	0.314	0.0209
cg11475332	2	20,425,343	Island	SDC1	TSS1500	-0.003	0.023	0.0209
cg04611670	1	3,509,766	N_Shore	MEGF6	Body	0.015	0.742	0.0209
cg17184491	1	41,483,645	Island	SLFNL1	Body	-0.010	0.829	0.0209
cg00078085	3	8,810,592	Island	OXTR	5'UTR	0.031	0.167	0.0209
cg05358544	6	91,205,136	OpenSea			0.021	0.834	0.0209
cg06482188	17	77,644,545	OpenSea			0.020	0.396	0.0209
cg17607973	7	100,027,408	Island	MEPCE	TSS200	-0.028	0.075	0.0209
cg06460587	6	31,650,930	Island			-0.016	0.226	0.0209
cg18018530	2	31,558,544	OpenSea	XDH	3'UTR	0.005	0.966	0.0209
cg14567085	9	133,411,807	N_Shore			0.020	0.348	0.0209
cg22877452	1	61,517,876	N_Shore			-0.031	0.615	0.0209
cg00440980	17	74,639,894	OpenSea	ST6GALNAC1	TSS200	0.017	0.684	0.0210
cg10092374	17	79,988,647	Island	RAC3	TSS1500	-0.007	0.049	0.0210
cg25879745	20	3,687,824	OpenSea	SIGLEC1	TSS200	0.011	0.896	0.0210
cg14840351	2	29,537,776	OpenSea	ALK	Body	0.024	0.350	0.0210
cg07273376	11	23,919,652	OpenSea			-0.033	0.674	0.0210
cg18975948	21	44,106,233	Island	PDE9A	Body	0.009	0.939	0.0210

cg11445226	5	180,652,514	S_Shore	TRIM41	Body	0.016	0.974	0.0210
cg23310696	10	34,855,435	OpenSea	PARD3	Body	0.007	0.958	0.0210
cg13411823	13	29,394,897	Island			-0.004	0.029	0.0210
cg01716499	6	32,011,570	OpenSea	TNXB	Body	0.015	0.752	0.0210
cg13948330	11	70,559,064	OpenSea	SHANK2	Body	0.012	0.917	0.0210
cg12163407	12	7,847,919	OpenSea	GDF3	Body	-0.018	0.067	0.0210
cg15605853	6	47,755,961	OpenSea	OPN5	5'UTR	-0.002	0.015	0.0210
cg25748868	6	41,131,213	OpenSea	TREM2	TSS1500	0.013	0.756	0.0210
cg08232572	10	134,596,989	N_Shore			-0.039	0.647	0.0210
cg27053299	13	100,548,780	Island	CLYBL	3'UTR	-0.040	0.492	0.0210
cg02710553	12	132,394,315	Island	ULK1	Body	0.010	0.944	0.0210
cg01464707	19	58,153,662	OpenSea	ZNF211	3'UTR	0.006	0.976	0.0210
cg07024905	13	21,364,364	OpenSea	XPO4	Body	-0.039	0.734	0.0210
cg08795786	8	144,120,335	OpenSea	C8orf31	TSS1500	0.043	0.185	0.0210
cg14846292	12	49,726,500	N_Shore	C1QL4	3'UTR	0.036	0.308	0.0210
cg13573358	5	3,853,734	N_Shore			-0.020	0.523	0.0210
cg01407861	11	12,307,496	OpenSea	MICALCL	TSS1500	0.017	0.735	0.0210
cg05774141	7	156,031,603	OpenSea			0.014	0.932	0.0211
cg16664915	8	10,907,788	OpenSea	XKR6	Body	0.022	0.574	0.0211
cg19198913	2	129,495,073	Island			0.029	0.689	0.0211
cg24895173	17	33,825,374	OpenSea	SLFN12L	Body	-0.012	0.086	0.0211
cg26038190	18	74,963,807	Island	GALR1	Body	-0.007	0.042	0.0211
cg26832915	4	1,577,932	N_Shelf			0.031	0.721	0.0211
cg13099117	6	30,538,539	N_Shore	ABCF1	TSS1500	0.006	0.058	0.0211
cg03778909	17	80,833,393	S_Shelf	TBCD	Body	0.014	0.621	0.0211
cg10236857	17	79,825,681	N_Shore	ARHGDI1	3'UTR	0.013	0.630	0.0211
cg20122586	4	53,522,821	N_Shelf	USP46	Body	0.014	0.715	0.0211
cg22703520	7	3,762,272	OpenSea	SDK1	Body	-0.036	0.373	0.0211
cg11070420	11	133,804,743	S_Shelf	IGSF9B	Body	0.019	0.197	0.0211
cg23604961	13	108,870,525	Island	LIG4	1stExon	-0.001	0.015	0.0211

cg02955354	7	1,135,879	Island	C7orf50	Body	0.022	0.521	0.0211
cg06960881	17	15,168,483	S_Shore	PMP22	1stExon	0.028	0.686	0.0211
cg04812556	11	9,112,715	Island	SCUBE2	Body	-0.012	0.033	0.0211
cg27598632	8	7,686,204	OpenSea	DEFB106B	Body	-0.027	0.381	0.0211
cg07757959	15	79,165,367	Island	MORF4L1	1stExon	-0.008	0.051	0.0211
cg04787750	22	47,023,209	Island	GRAMD4	Body	0.014	0.689	0.0211
cg07087232	6	168,918,216	N_Shore	SMOC2	Body	0.012	0.887	0.0211
cg24375470	2	68,066,948	OpenSea			-0.017	0.319	0.0212
cg08931456	3	195,077,618	OpenSea	ACAP2	Body	0.014	0.901	0.0212
cg01409736	3	73,042,777	N_Shelf			-0.017	0.883	0.0212
cg10310236	22	29,702,814	Island	GAS2L1	TSS200	-0.001	0.016	0.0212
cg05174710	21	36,164,748	Island	RUNX1	Body	-0.017	0.960	0.0212
cg11079992	11	1,216,305	Island			0.012	0.930	0.0212
cg07867367	10	134,943,246	N_Shore	GPR123	3'UTR	0.041	0.658	0.0212
cg05604874	17	80,200,785	Island			0.025	0.321	0.0212
cg13689066	1	12,167,071	OpenSea	TNFRSF8	Body	0.023	0.689	0.0212
cg02053678	6	166,579,057	N_Shore	T	Body	0.019	0.100	0.0212
cg09996971	3	42,577,799	Island	VIPR1	3'UTR	0.019	0.812	0.0212
cg04254609	10	16,479,192	Island	PTER	5'UTR	-0.035	0.120	0.0212
cg26429520	11	1,283,875	OpenSea			0.073	0.129	0.0212
cg12520982	11	2,548,920	OpenSea	KCNQ1	Body	0.014	0.891	0.0212
cg07411238	12	58,022,029	Island	B4GALNT1	Body	0.037	0.379	0.0212
cg02747950	15	63,526,883	OpenSea	RAB8B	Body	0.027	0.663	0.0212
cg21310336	6	28,973,446	OpenSea	ZNF311	TSS1500	0.016	0.059	0.0212
cg00682050	21	47,343,716	Island	PCBP3	Body	0.005	0.976	0.0213
cg12422351	1	95,201,226	OpenSea			0.015	0.483	0.0213
cg23305408	1	32,169,701	Island	COL16A1	1stExon	-0.005	0.028	0.0213
cg14714629	7	99,495,452	OpenSea	TRIM4	Body	0.008	0.947	0.0213
cg14527333	2	220,381,808	S_Shelf	ACCN4	Body	0.016	0.495	0.0213
cg02912379	1	145,054,067	OpenSea	PDE4DIP	Body	0.018	0.572	0.0213

cg09451738	2	242,852,978	OpenSea			0.045	0.586	0.0213
cg20596240	15	59,281,093	S_Shore	RNF111	5'UTR	-0.002	0.022	0.0213
cg10461878	3	158,904,717	OpenSea	IQCJ	Body	-0.027	0.654	0.0213
cg22955140	13	44,604,007	OpenSea	LOC121838	Body	0.004	0.981	0.0213
cg04103326	6	34,489,623	OpenSea	PACSIN1	5'UTR	0.012	0.916	0.0213
cg16916688	6	34,101,441	OpenSea	GRM4	1stExon	-0.030	0.769	0.0213
cg07841905	6	27,521,450	OpenSea			0.029	0.148	0.0213
cg05865670	22	21,355,860	N_Shore	THAP7	Body	-0.006	0.029	0.0213
cg22945413	1	65,399,413	OpenSea	JAK1	5'UTR	0.019	0.792	0.0213
cg10169241	19	1,467,032	Island	APC2	Body	-0.040	0.067	0.0213
cg13021409	6	31,830,400	Island	NEU1	1stExon	-0.008	0.072	0.0213
cg01126699	14	104,625,468	Island	KIF26A	Body	0.029	0.560	0.0214
cg18013306	15	68,521,911	Island	CLN6	1stExon	0.002	0.017	0.0214
cg25523822	2	235,678,111	OpenSea			0.009	0.939	0.0214
cg12205554	10	1,567,897	OpenSea	ADARB2	Body	0.007	0.958	0.0214
cg09142858	16	85,146,088	OpenSea	FAM92B	5'UTR	0.013	0.400	0.0214
cg19426050	7	120,982,933	OpenSea			-0.011	0.956	0.0214
cg02324732	2	219,270,525	N_Shore	CTDSP1	3'UTR	0.003	0.023	0.0214
cg19149524	16	609,956	Island	C16orf11	TSS1500	-0.005	0.047	0.0214
cg23893346	6	32,169,878	OpenSea	NOTCH4	Body	0.016	0.453	0.0214
cg05096209	6	28,829,433	N_Shelf			0.012	0.947	0.0214
cg17324872	8	124,644,256	OpenSea			0.006	0.971	0.0214
cg16985708	7	73,247,674	S_Shore			0.028	0.439	0.0214
cg27213925	2	44,560,286	OpenSea	PREPL	Body	0.013	0.944	0.0214
cg12131826	15	77,904,385	N_Shelf			0.018	0.300	0.0214
cg04905443	8	105,519,089	OpenSea	LRP12	Body	0.008	0.971	0.0214
cg08017858	11	74,022,642	Island	P4HA3	1stExon	0.061	0.033	0.0214
cg09368485	6	29,974,022	N_Shore	HLA-J	Body	0.019	0.195	0.0214
cg23437420	11	278,450	N_Shore	NLRP6	TSS200	0.019	0.712	0.0214
cg15671083	10	5,406,959	OpenSea	UCN3	TSS200	0.033	0.361	0.0214

cg20344893	20	60,697,038	Island	LSM14B	TSS1500	0.003	0.029	0.0214
cg06887170	14	94,596,104	OpenSea	IFI27L2	TSS200	0.001	0.014	0.0214
cg21549632	6	29,856,287	Island	HLA-H	Body	0.054	0.055	0.0214
cg26550194	17	74,639,928	OpenSea	ST6GALNAC1	TSS200	0.017	0.504	0.0214
cg02939508	14	21,152,672	Island	RNASE4	1stExon	-0.001	0.017	0.0214
cg13777609	9	34,664,009	N_Shore	CCL27	TSS1500	0.018	0.528	0.0214
cg08000731	11	316,247	Island			-0.034	0.294	0.0214
cg21068392	14	97,264,013	Island	VRK1	5'UTR	-0.004	0.025	0.0214
cg14314369	21	37,842,700	OpenSea	CLDN14	5'UTR	0.021	0.746	0.0214
cg24929264	17	34,325,375	OpenSea	CCL15	Body	0.014	0.622	0.0214
cg23697157	7	137,609,343	OpenSea	CREB3L2	Body	0.004	0.976	0.0214
cg26374101	9	140,500,813	Island	ARRDC1	Body	-0.008	0.056	0.0214
cg14094027	12	120,669,080	OpenSea	PXN	5'UTR	-0.024	0.589	0.0215
cg13888471	7	101,207,836	OpenSea			0.013	0.798	0.0215
cg18310639	1	223,904,225	S_Shelf	CAPN2	Body	0.018	0.674	0.0215
cg07534554	11	111,250,338	OpenSea	POU2AF1	TSS200	0.025	0.277	0.0215
cg17596577	2	100,675,124	OpenSea	AFF3	Body	-0.012	0.936	0.0215
cg19208749	7	158,379,188	N_Shore	PTPRN2	Body	0.021	0.261	0.0215
cg00180930	6	31,746,832	OpenSea	VAR5	Body	0.009	0.936	0.0215
cg09661632	17	59,525,666	N_Shelf			-0.020	0.870	0.0215
cg14839085	8	22,091,132	S_Shore	PHYHIP	TSS1500	0.009	0.941	0.0215
cg21011702	13	21,951,294	Island	ZDHHC20	Body	0.025	0.917	0.0215
cg20462096	19	29,896,282	OpenSea			-0.009	0.052	0.0215
cg26391702	5	140,769,440	Island	PCDHGB4	1stExon	0.015	0.502	0.0215
cg04569202	7	157,444,423	S_Shore	PTPRN2	Body	0.028	0.722	0.0215
cg00958217	1	6,681,584	N_Shelf	PHF13	Body	0.012	0.880	0.0215
cg19519393	3	119,811,892	N_Shore	GSK3B	Body	-0.003	0.024	0.0215
cg11071591	13	48,611,662	Island	NUDT15	TSS200	-0.030	0.012	0.0215
cg13565670	12	133,077,311	S_Shelf	FBRSL1	Body	0.011	0.327	0.0215
cg00026374	6	35,464,536	Island	TEAD3	5'UTR	0.002	0.022	0.0215

cg14291878	15	101,738,616	OpenSea	CHSY1	Body	0.024	0.841	0.0215
cg19447923	17	77,141,126	OpenSea	HRNBP3	5'UTR	0.018	0.854	0.0215
cg21191088	9	140,115,301	Island	RNF208	1stExon	0.018	0.626	0.0215
cg10858103	2	5,866,470	OpenSea			0.035	0.218	0.0216
cg25098478	1	27,464,538	OpenSea	SLC9A1	Body	0.015	0.475	0.0216
cg24823679	19	5,093,491	Island	KDM4B	Body	0.022	0.547	0.0216
cg18056600	17	4,642,047	Island	ZMYND15	TSS1500	-0.011	0.052	0.0216
cg17886399	3	62,362,660	Island			-0.026	0.491	0.0216
cg00038675	1	152,853,543	OpenSea	SMCP	5'UTR	0.031	0.594	0.0216
cg03988660	3	57,316,479	OpenSea	ASB14	Body	-0.013	0.936	0.0216
cg12840248	6	32,908,718	OpenSea	HLA-DMB	1stExon	0.025	0.481	0.0216
cg05626376	6	31,938,847	N_Shore	STK19	TSS200	0.017	0.942	0.0216
cg23623270	17	42,402,962	Island	SLC25A39	TSS1500	0.002	0.024	0.0216
cg15826542	19	539,241	Island	CDC34	Body	0.014	0.861	0.0216
cg13408214	17	40,823,572	Island	PLEKHH3	Body	-0.023	0.659	0.0216
cg26843498	19	2,361,574	S_Shore			0.017	0.148	0.0216
cg11742202	6	74,364,667	S_Shore	SLC17A5	TSS1500	0.022	0.653	0.0217
cg16806210	11	118,398,318	N_Shelf	TTC36	1stExon	0.011	0.758	0.0217
cg19191258	10	3,197,650	OpenSea	PITRM1	Body	0.011	0.893	0.0217
cg12583087	13	103,054,118	S_Shore	FGF14	5'UTR	0.038	0.294	0.0217
cg06822120	4	2,060,934	Island	NAT8L	TSS1500	0.001	0.015	0.0217
cg18710462	6	108,486,123	Island	NR2E1	TSS1500	-0.002	0.022	0.0217
cg14605117	7	2,766,214	OpenSea			0.011	0.854	0.0217
cg02434314	17	26,577,760	Island			0.017	0.830	0.0217
cg03496713	7	149,570,987	Island	ATP6V0E2	5'UTR	-0.008	0.047	0.0217
cg24070823	2	87,305,913	S_Shore			0.010	0.924	0.0217
cg26602477	1	1,476,845	S_Shore	C1orf70	TSS1500	0.007	0.948	0.0217
cg02310273	3	44,682,165	OpenSea	ZNF197	Body	0.003	0.983	0.0217
cg06683510	15	47,618,795	OpenSea			0.014	0.259	0.0217
cg27297025	19	47,259,588	Island	FKRP	Body	0.037	0.579	0.0217



cg18327061	8	62,200,380	OpenSea	CLVS1	TSS200	-0.005	0.030	0.0217
cg17838026	19	50,832,861	N_Shore	KCNC3	TSS1500	0.004	0.029	0.0217
cg03405593	19	6,212,001	Island	MLLT1	3'UTR	0.016	0.607	0.0218
cg23906454	6	108,785,671	OpenSea	LACE1	Body	0.039	0.657	0.0218
cg16736259	8	143,227,768	OpenSea			0.019	0.706	0.0218
cg08370080	19	21,687,792	N_Shore	ZNF429	TSS1500	0.026	0.563	0.0218
cg15179113	7	156,433,342	Island	C7orf13	Body	0.002	0.023	0.0218
cg25288140	17	41,278,341	Island	BRCA1	TSS1500	0.067	0.692	0.0218
cg14222245	19	58,861,502	Island	A1BG	Body	-0.017	0.085	0.0218
cg22911687	5	102,211,822	OpenSea	PAM	Body	-0.022	0.440	0.0218
cg18574274	14	103,692,015	OpenSea			0.021	0.299	0.0218
cg05738196	6	26,577,821	OpenSea			0.034	0.049	0.0218
cg13800005	7	39,629,290	OpenSea			-0.022	0.809	0.0218
cg20303360	7	65,225,435	N_Shelf	CCT6P1	Body	0.004	0.970	0.0218
cg16059979	6	32,050,927	S_Shelf	TNXB	Body	0.016	0.737	0.0218
cg01512113	1	1,680,232	S_Shore			0.018	0.805	0.0218
cg04421974	8	134,224,814	OpenSea	WISP1	Body	0.020	0.670	0.0218
cg01974292	9	96,009,796	N_Shore	WNK2	Body	0.012	0.896	0.0219
cg13695956	17	17,912,592	S_Shelf	LRRC48	Body	0.072	0.977	0.0219
cg09589688	3	57,541,949	Island	PDE12	TSS200	-0.003	0.020	0.0219
cg02810375	13	113,698,416	N_Shelf	MCF2L	Body	0.013	0.827	0.0219
cg27170816	11	12,352,225	OpenSea	MICALCL	Body	0.009	0.945	0.0219
cg25792961	3	49,158,358	Island	USP19	TSS200	-0.003	0.024	0.0219
cg07202281	17	40,169,995	N_Shore	DNAJC7	TSS1500	0.002	0.020	0.0219
cg16917654	3	39,219,249	N_Shelf			-0.003	0.024	0.0219
cg00475973	6	37,448,776	OpenSea	FTSJD2	3'UTR	0.019	0.845	0.0219
cg15707869	8	88,884,985	N_Shore	DCAF4L2	3'UTR	-0.015	0.887	0.0219
cg19150852	3	43,732,102	Island	ABHD5	TSS1500	0.002	0.021	0.0219
cg18256769	17	35,012,103	N_Shelf			0.027	0.811	0.0219
cg25605313	19	17,434,267	N_Shelf	ANO8	3'UTR	0.047	0.690	0.0219

cg23466118	20	49,507,816	OpenSea	ADNP	3'UTR	0.008	0.942	0.0219
cg26966384	9	36,190,885	Island	CLTA	TSS200	-0.006	0.057	0.0219
cg13747137	15	100,664,844	OpenSea	ADAMTS17	Body	-0.002	0.989	0.0220
cg06517794	1	78,180,274	OpenSea	USP33	Body	0.004	0.979	0.0220
cg19310303	19	40,854,424	Island	C19orf47	TSS200	-0.004	0.029	0.0220
cg20978380	12	125,001,165	N_Shore	NCOR2	5'UTR	0.023	0.829	0.0220
cg26640927	4	120,726,319	OpenSea			0.029	0.781	0.0220
cg03494017	5	1,724,892	N_Shore			0.024	0.542	0.0220
cg12926357	2	27,505,396	OpenSea	TRIM54	TSS1500	0.018	0.530	0.0220
cg12126706	1	156,889,128	N_Shore	C1orf92	TSS1500	0.002	0.989	0.0220
cg16516973	2	115,336,559	OpenSea	DPP10	Body	0.003	0.983	0.0220
cg08610076	13	114,890,016	OpenSea	RASA3	Body	0.014	0.828	0.0220
cg25198661	11	78,884,803	OpenSea	ODZ4	5'UTR	0.022	0.459	0.0220
cg24126880	17	19,624,390	N_Shelf			0.012	0.788	0.0220
cg04435975	17	46,683,047	N_Shelf	LOC404266	Body	0.034	0.481	0.0220
cg07470634	12	120,666,924	OpenSea	PXN	5'UTR	0.015	0.129	0.0220
cg09078497	1	103,317,515	OpenSea			0.005	0.971	0.0220
cg06104007	15	49,448,015	S_Shore	GALK2	5'UTR	0.003	0.022	0.0220
cg04942516	2	106,055,458	OpenSea	FHL2	TSS1500	0.026	0.583	0.0220
cg07851278	18	21,033,426	Island	RIOK3	1stExon	0.003	0.026	0.0220
cg21055944	22	44,208,168	Island	EFCAB6	TSS200	-0.012	0.126	0.0220
cg26392980	8	144,550,312	N_Shelf	ZC3H3	Body	0.012	0.875	0.0220
cg00890485	14	70,653,919	N_Shore	SLC8A3	5'UTR	-0.005	0.046	0.0220
cg12384639	17	618,140	Island	VPS53	TSS200	-0.003	0.021	0.0220
cg15047055	17	74,395,633	OpenSea	UBE2O	Body	0.017	0.943	0.0220
cg16418289	11	61,314,680	OpenSea	SYT7	Body	0.008	0.956	0.0220
cg03862987	4	76,596,784	N_Shore	G3BP2	5'UTR	0.025	0.522	0.0221
cg17815567	1	37,503,350	S_Shelf			0.019	0.118	0.0221
cg26886427	19	11,039,540	Island	C19orf52	1stExon	-0.003	0.016	0.0221
cg01166604	17	79,248,051	OpenSea	SLC38A10	Body	0.013	0.842	0.0221

cg01819142	8	139,064,307	OpenSea			0.006	0.967	0.0221
cg03854487	16	50,644,374	OpenSea	NKD1	Body	0.017	0.547	0.0221
cg11926393	8	71,519,704	Island	TRAM1	Body	-0.004	0.040	0.0221
cg03854262	9	95,896,872	Island	NINJ1	TSS1500	-0.004	0.032	0.0221
cg20999932	14	73,712,574	Island	PAPLN	Body	-0.034	0.240	0.0221
cg21878746	19	54,876,728	OpenSea	LAIR1	TSS200	-0.031	0.408	0.0221
cg05343739	1	154,731,938	N_Shore	KCNN3	Body	0.015	0.629	0.0221
cg18841894	21	33,031,735	Island	SOD1	TSS200	-0.003	0.019	0.0221
cg01159793	2	241,069,144	N_Shore	MYEOV2	Body	0.012	0.825	0.0221
cg11828741	11	10,715,767	OpenSea	MRVI1	TSS1500	-0.008	0.950	0.0221
cg23562479	11	4,469,894	OpenSea	OR52K2	TSS1500	-0.022	0.325	0.0221
cg19944217	3	48,727,026	S_Shelf	IP6K2	Body	0.008	0.916	0.0221
cg19681842	14	93,672,832	N_Shore	UBR7	TSS1500	0.033	0.631	0.0221
cg04363228	6	32,155,141	OpenSea	PBX2	Body	0.020	0.738	0.0221
cg02418175	10	134,549,875	Island	INPP5A	Body	0.011	0.916	0.0221
cg10333471	1	6,550,926	Island	PLEKHG5	5'UTR	-0.002	0.016	0.0222
cg04095995	6	170,449,587	N_Shore			0.020	0.408	0.0222
cg14180030	9	123,475,675	N_Shore	MEGF9	Body	0.009	0.103	0.0222
cg10725390	2	66,743,000	OpenSea	MEIS1	Body	0.028	0.239	0.0222
cg01771019	13	28,493,057	N_Shore	PDX1	TSS1500	-0.004	0.033	0.0222
cg02994607	6	52,533,481	N_Shelf	LOC730101	Body	0.015	0.908	0.0222
cg00796963	6	84,936,558	N_Shore	KIAA1009	5'UTR	0.024	0.220	0.0222
cg00409104	17	8,762,014	OpenSea	PIK3R6	5'UTR	0.015	0.562	0.0222
cg17034082	5	153,418,793	S_Shore	MFAP3	5'UTR	0.001	0.010	0.0222
cg07458065	15	38,544,609	Island	SPRED1	TSS1500	-0.009	0.040	0.0222
cg12874602	11	65,329,145	S_Shelf			0.013	0.896	0.0222
cg05596517	10	131,320,214	OpenSea	MGMT	Body	-0.005	0.967	0.0222
cg21543859	6	45,391,645	Island	RUNX2	Body	-0.011	0.085	0.0222
cg16947138	11	100,610,569	OpenSea	FLJ32810	Body	-0.011	0.048	0.0223
cg27016993	6	144,382,594	N_Shelf	PLAGL1	5'UTR	0.017	0.586	0.0223

cg14009440	1	45,138,784	N_Shore	TMEM53	Body	0.024	0.704	0.0223
cg08823894	12	108,167,969	N_Shore	ASCL4	TSS200	0.036	0.841	0.0223
cg15456476	16	85,146,180	OpenSea	FAM92B	TSS200	0.008	0.290	0.0223
cg11568697	18	72,916,393	Island	ZADH2	Body	-0.006	0.041	0.0223
cg12551746	3	132,136,984	S_Shore	DNAJC13	5'UTR	0.002	0.023	0.0223
cg19907355	7	70,543,320	OpenSea			-0.008	0.938	0.0223
cg09037726	4	76,995,173	OpenSea	ART3	TSS1500	0.013	0.947	0.0223
cg05266816	6	30,122,947	OpenSea	TRIM10	Body	0.030	0.778	0.0223
cg23862792	14	59,656,716	S_Shore	DAAM1	5'UTR	0.001	0.013	0.0223
cg06024540	6	32,135,396	S_Shore	EGFL8	Body	0.023	0.435	0.0223
cg26706163	19	59,073,369	N_Shore	MZF1	3'UTR	0.025	0.399	0.0223
cg03453549	7	1,152,687	N_Shelf	C7orf50	Body	0.014	0.864	0.0223
cg01965508	1	207,120,628	OpenSea	PIGR	TSS1500	0.017	0.853	0.0223
cg07932328	8	145,621,768	Island	CPSF1	Body	0.004	0.980	0.0223
cg16202338	3	164,050,953	OpenSea			0.026	0.086	0.0223
cg00876449	19	19,844,278	S_Shore	ZNF14	TSS1500	0.020	0.088	0.0223
cg22103601	7	4,287,215	OpenSea	SDK1	Body	0.038	0.513	0.0223
cg17696434	19	36,506,928	S_Shore	CLIP3	3'UTR	0.011	0.931	0.0223
cg10805721	6	83,075,187	Island	TPBG	Body	-0.005	0.031	0.0223
cg10654584	17	77,114,640	OpenSea	HRNBP3	5'UTR	-0.021	0.418	0.0223
cg19405799	2	161,755,116	OpenSea			0.032	0.705	0.0223
cg06821079	17	39,143,567	OpenSea	KRT40	TSS200	-0.024	0.757	0.0223
cg01548742	16	3,311,857	N_Shelf			0.033	0.624	0.0223
cg05994997	16	34,213,700	OpenSea			0.011	0.946	0.0223
cg14823007	1	7,831,605	Island	VAMP3	Body	-0.007	0.016	0.0224
cg17465115	8	145,730,818	Island	GPT	Body	0.026	0.783	0.0224
cg08299880	5	26,673,548	S_Shelf			0.005	0.972	0.0224
cg23058719	4	1,779,625	OpenSea			0.019	0.625	0.0224
cg02596486	22	25,115,120	OpenSea	PIWIL3	3'UTR	0.028	0.693	0.0224
cg08253704	6	30,653,242	N_Shore	KIAA1949	Body	0.013	0.427	0.0224

cg10194791	16	57,836,395	Island	KIFC3	1stExon	-0.030	0.029	0.0224
cg11347165	1	17,631,644	OpenSea			0.029	0.268	0.0224
cg21680449	20	34,206,330	N_Shore	SPAG4	Body	0.018	0.257	0.0224
cg00499139	3	150,826,472	OpenSea	MED12L	Body	0.007	0.966	0.0224
cg04540383	3	50,378,611	S_Shore	RASSF1	TSS1500	-0.003	0.024	0.0224
cg18675146	3	40,429,823	S_Shore	ENTPD3	Body	0.016	0.670	0.0224
cg13806162	1	865,013	S_Shelf	SAMD11	Body	0.009	0.953	0.0224
cg07496207	5	172,280,684	OpenSea	ERGIC1	Body	-0.012	0.890	0.0224
cg13454099	12	49,076,203	Island	C12orf41	TSS200	0.005	0.035	0.0224
cg19698084	10	91,461,284	Island	KIF20B	TSS200	0.008	0.055	0.0224
cg19555708	6	32,159,604	N_Shelf	GPSM3	Body	0.019	0.730	0.0224
cg18770816	3	45,883,693	Island	LZTFL1	TSS200	-0.030	0.015	0.0224
cg12106976	6	152,002,859	OpenSea			0.024	0.528	0.0224
cg13282691	13	112,555,987	OpenSea			0.015	0.780	0.0225
cg01145232	6	150,245,071	N_Shore	RAET1G	TSS1500	0.028	0.884	0.0225
cg16620233	3	53,781,107	OpenSea	CACNA1D	Body	0.019	0.555	0.0225
cg01244934	1	1,003,417	Island			0.024	0.620	0.0225
cg01140102	5	176,766,085	S_Shore	LMAN2	Body	0.011	0.923	0.0225
cg15341575	10	93,883,989	OpenSea	CPEB3	Body	-0.018	0.247	0.0225
cg04511966	5	180,618,506	Island			-0.003	0.038	0.0225
cg13483196	9	15,156,120	OpenSea			0.024	0.368	0.0225
cg15779643	17	9,806,785	N_Shore	RCVRN	Body	-0.030	0.829	0.0225
cg02645970	4	55,100,232	Island	PDGFRA	5'UTR	-0.004	0.029	0.0225
cg12398261	7	158,217,002	N_Shore	PTPRN2	Body	0.004	0.968	0.0225
cg15558448	2	50,422,390	OpenSea	NRXN1	Body	-0.043	0.651	0.0225
cg08826066	8	80,780,259	OpenSea			0.021	0.835	0.0225
cg02108796	11	1,535,903	N_Shore	HCCA2	Body	0.018	0.483	0.0225
cg20071624	7	5,258,357	OpenSea	WIPI2	Body	0.005	0.953	0.0225
cg03029255	8	144,120,681	OpenSea	C8orf31	1stExon	0.036	0.223	0.0225
cg11052668	6	28,626,564	OpenSea			-0.003	0.022	0.0225

cg24030173	19	48,922,140	S_Shelf	GRIN2D	Body	0.018	0.826	0.0226
cg12289251	10	18,689,471	OpenSea	CACNB2	Body	-0.004	0.035	0.0226
cg21658153	19	16,178,570	Island	TPM4	Body	0.008	0.937	0.0226
cg08112354	14	105,452,552	Island	C14orf79	TSS200	-0.008	0.033	0.0226
cg10805956	1	156,697,624	N_Shore	ISG20L2	1stExon	0.018	0.106	0.0226
cg07343707	2	240,110,301	N_Shore	HDAC4	Body	0.012	0.904	0.0226
cg08519643	4	84,030,854	Island	PLAC8	5'UTR	0.002	0.016	0.0226
cg02577849	5	64,777,678	OpenSea	ADAMTS6	1stExon	-0.002	0.015	0.0226
cg16795066	16	66,437,078	Island	CDH5	3'UTR	0.011	0.921	0.0226
cg17466567	3	185,826,590	Island	ETV5	5'UTR	0.087	0.119	0.0226
cg01827248	16	50,584,552	S_Shore	NKD1	Body	0.016	0.512	0.0226
cg11970679	7	21,682,152	OpenSea	DNAH11	Body	0.039	0.531	0.0226
cg00242998	20	32,807,971	S_Shelf			0.040	0.638	0.0226
cg16512640	19	42,948,183	OpenSea	CXCL17	TSS1500	0.016	0.334	0.0226
cg17567838	6	33,167,488	N_Shore	SLC39A7	TSS1500	0.016	0.373	0.0226
cg10039504	12	3,242,272	OpenSea	TSPAN9	5'UTR	0.046	0.226	0.0226
cg22263512	15	41,709,154	Island	RTF1	TSS200	-0.004	0.024	0.0226
cg10331100	16	88,966,509	Island	CBFA2T3	Body	0.020	0.902	0.0226
cg02304092	5	126,409,227	Island	FLJ44606	TSS200	-0.060	0.275	0.0226
cg07671291	17	67,523,109	OpenSea	MAP2K6	Body	-0.007	0.952	0.0227
cg25334860	17	1,094,299	OpenSea			0.015	0.721	0.0227
cg18981338	14	24,422,419	N_Shore	DHRS4	TSS1500	0.016	0.548	0.0227
cg13927088	1	152,691,125	OpenSea	C1orf68	TSS1500	-0.017	0.896	0.0227
cg26051060	21	43,916,302	Island	RSPH1	1stExon	0.002	0.016	0.0227
cg09695652	3	139,108,473	Island	COPB2	1stExon	-0.004	0.021	0.0227
cg04281268	14	102,606,293	Island	WDR20	1stExon	-0.002	0.014	0.0227
cg08333616	5	156,369,336	OpenSea	TIMD4	Body	0.016	0.492	0.0227
cg09143713	20	9,141,615	OpenSea	PLCB4	5'UTR	0.023	0.424	0.0227
cg14653284	2	11,679,879	OpenSea	GREB1	5'UTR	0.022	0.627	0.0227
cg17283455	15	60,304,340	OpenSea			0.026	0.332	0.0227

cg04388123	16	14,643,630	OpenSea	PARN	Body	0.045	0.422	0.0228
cg16044595	1	236,304,396	N_Shore	GPR137B	TSS1500	-0.004	0.034	0.0228
cg21439800	20	61,756,016	S_Shore			-0.016	0.956	0.0228
cg06605558	5	307,899	N_Shore	AHRR	Body	-0.018	0.867	0.0228
cg01473983	16	85,233,147	OpenSea			-0.020	0.486	0.0228
cg19077161	5	89,825,313	Island	LYSMD3	1stExon	-0.003	0.028	0.0228
cg09868354	10	62,576,479	OpenSea			-0.004	0.021	0.0228
cg25045868	22	36,052,486	OpenSea	APOL6	Body	-0.025	0.854	0.0228
cg13077324	1	43,124,003	Island	PPIH	TSS200	0.009	0.049	0.0228
cg02077068	16	19,872,240	OpenSea	GPRC5B	Body	0.020	0.388	0.0228
cg05501276	7	23,571,514	Island	TRA2A	5'UTR	-0.005	0.035	0.0228
cg22865824	19	18,902,709	S_Shore	COMP	TSS1500	0.018	0.654	0.0228
cg07844572	17	61,904,053	N_Shore	PSMC5	TSS1500	-0.005	0.030	0.0228
cg22804839	6	150,689,918	OpenSea	IYD	TSS200	0.019	0.678	0.0228
cg24675770	2	33,622,300	OpenSea	LTBP1	Body	-0.036	0.901	0.0228
cg25587159	3	197,836,971	N_Shelf			-0.003	0.982	0.0228
cg25002788	4	1,166,873	S_Shore	LOC10013087	Body	-0.022	0.505	0.0228
cg03708254	19	51,295,078	Island	ACPT	Body	0.015	0.323	0.0228
cg11305940	13	46,202,047	OpenSea			0.019	0.851	0.0228
cg17825277	15	59,949,336	N_Shore	GTF2A2	5'UTR	0.002	0.021	0.0228
cg09301800	8	70,067,203	OpenSea			0.004	0.979	0.0228
cg16340755	5	150,823,129	N_Shelf			0.002	0.985	0.0228
cg04892060	14	75,643,373	Island	TMED10	TSS200	-0.001	0.012	0.0228
cg01719895	7	2,443,748	Island	CHST12	5'UTR	-0.005	0.029	0.0229
cg24519533	2	135,226,787	OpenSea	TMEM163	Body	0.006	0.966	0.0229
cg21577121	1	231,175,976	Island	FAM89A	5'UTR	-0.004	0.051	0.0229
cg21636577	17	7,121,881	N_Shore	ACADVL	TSS1500	0.013	0.646	0.0229
cg25531341	6	144,982,324	OpenSea	UTRN	Body	0.036	0.589	0.0229
cg15174905	19	19,281,255	Island	LOC729991-M	Body	-0.015	0.082	0.0229
cg15380473	2	11,864,427	OpenSea			0.018	0.787	0.0229

cg07005640	10	7,564,470	OpenSea			0.026	0.826	0.0229
cg27446233	12	48,516,484	OpenSea	PFKM	5'UTR	-0.020	0.877	0.0229
cg22332037	1	153,951,279	S_Shore	JTB	TSS1500	0.017	0.906	0.0229
cg06654691	17	40,825,980	N_Shore	PLEKHH3	Body	-0.013	0.117	0.0229
cg03326335	4	7,668,844	S_Shelf	SORCS2	Body	-0.006	0.967	0.0229
cg12872357	6	146,863,647	N_Shore	RAB32	TSS1500	0.003	0.983	0.0229
cg03334307	16	58,234,168	S_Shelf			0.024	0.845	0.0229
cg03541791	6	28,829,396	N_Shelf			0.043	0.849	0.0229
cg25040466	20	61,636,172	Island			-0.002	0.019	0.0229
cg14257369	19	639,566	Island	FGF22	TSS1500	-0.041	0.032	0.0229
cg03991534	2	218,182,275	OpenSea	DIRC3	Body	0.007	0.957	0.0229
cg24390965	12	57,637,169	Island			-0.002	0.023	0.0229
cg12676500	8	145,643,083	S_Shore	SLC39A4	TSS1500	0.015	0.685	0.0229
cg17395184	15	42,750,462	OpenSea	ZFP106	TSS1500	0.017	0.494	0.0229
cg14944166	7	136,686,832	OpenSea	CHRM2	5'UTR	-0.009	0.955	0.0229
cg24996979	14	74,223,355	N_Shelf	C14orf43	5'UTR	0.016	0.558	0.0229
cg09809504	16	1,227,402	Island	CACNA1H	Body	0.028	0.743	0.0229
cg02993606	19	38,803,369	N_Shelf	YIF1B	Body	-0.015	0.933	0.0229
cg04741284	20	56,324,226	Island			0.032	0.213	0.0229
cg11846580	16	88,590,409	Island	ZFPM1	Body	0.034	0.441	0.0230
cg12377256	12	56,359,450	N_Shore	CDK2	TSS1500	0.029	0.551	0.0230
cg21479731	4	2,464,579	Island			-0.005	0.033	0.0230
cg00292435	9	91,925,643	Island	CKS2	TSS1500	-0.004	0.029	0.0230
cg25249713	4	177,045,356	OpenSea	WDR17	Body	-0.006	0.966	0.0230
cg26428523	5	137,229,019	S_Shelf	PKD2L2	Body	0.003	0.983	0.0230
cg22866681	6	2,685,401	Island	MYLK4	Body	0.004	0.979	0.0230
cg06769377	1	228,350,860	N_Shelf			0.023	0.418	0.0230
cg14666354	17	73,996,423	OpenSea	CDK3	TSS1500	0.017	0.834	0.0230
cg11845274	11	9,037,902	OpenSea			0.002	0.988	0.0230
cg22510098	4	1,229,471	Island	CTBP1	Body	0.013	0.878	0.0230



cg08893269	16	580,966	S_Shelf	SOLH	5'UTR	0.015	0.708	0.0230
cg08101977	16	1,231,407	S_Shore	CACNA1H	Body	-0.019	0.229	0.0230
cg03851878	15	23,887,710	OpenSea			0.037	0.281	0.0230
cg07739851	17	72,231,448	OpenSea	TTYH2	Body	0.015	0.298	0.0230
cg03946532	16	79,344,736	OpenSea			0.033	0.796	0.0230
cg14313310	1	184,006,816	S_Shore	GLT25D2	5'UTR	-0.010	0.073	0.0230
cg27339395	8	125,954,919	OpenSea	LOC157381	Body	0.007	0.951	0.0230
cg16636204	17	79,701,561	OpenSea			0.014	0.804	0.0230
cg07578073	10	11,232,505	OpenSea	CUGBP2	Body	0.006	0.968	0.0230
cg03805566	3	183,245,952	OpenSea	KLHL6	Body	-0.004	0.979	0.0230
cg27309564	7	27,223,097	N_Shore	HOXA11	Body	0.064	0.081	0.0230
cg08043020	11	8,038,083	N_Shelf			-0.012	0.244	0.0230
cg12278697	7	75,572,817	OpenSea	POR	5'UTR	0.002	0.985	0.0230
cg01575836	11	15,959,856	Island			0.021	0.536	0.0230
cg11594010	10	134,428,728	OpenSea	INPP5A	Body	0.011	0.843	0.0231
cg16280363	12	57,882,891	S_Shore	MARS	Body	0.016	0.828	0.0231
cg18008653	11	33,185,376	S_Shelf			-0.019	0.939	0.0231
cg26649688	6	29,858,360	S_Shore	HLA-H	Body	-0.059	0.928	0.0231
cg01304499	19	2,305,246	N_Shelf	LINGO3	5'UTR	0.017	0.695	0.0231
cg14462645	6	52,226,698	N_Shore	PAQR8	TSS1500	-0.004	0.032	0.0231
cg08018572	16	1,014,592	N_Shore	LMF1	Body	0.019	0.721	0.0231
cg24249248	7	150,434,541	OpenSea	GIMAP5	1stExon	0.022	0.399	0.0231
cg25882887	8	22,844,374	OpenSea	RHOBTB2	TSS1500	0.014	0.839	0.0231
cg09999977	7	44,280,051	S_Shore	CAMK2B	Body	0.015	0.665	0.0231
cg09781747	6	32,297,633	OpenSea	C6orf10	Body	0.004	0.980	0.0231
cg12441919	1	44,483,099	OpenSea	SLC6A9	Body	0.018	0.774	0.0231
cg04845319	12	132,855,381	Island	GALNT9	Body	0.018	0.437	0.0231
cg03095527	19	1,230,768	N_Shore	C19orf26	3'UTR	0.014	0.812	0.0231
cg22026457	15	74,045,705	Island			0.012	0.072	0.0231
cg23317787	4	2,396,234	OpenSea	ZFYVE28	Body	0.015	0.806	0.0231

cg10830145	5	87,440,121	S_Shelf			0.012	0.047	0.0231
cg03899827	7	158,905,377	Island	VIPR2	Body	0.039	0.577	0.0231
cg18423635	6	29,869,936	OpenSea	HCG2P7	Body	-0.064	0.961	0.0231
cg08135503	19	34,177,741	S_Shore	CHST8	5'UTR	0.018	0.879	0.0231
cg07315736	5	176,930,471	N_Shore	DOK3	Body	0.016	0.902	0.0231
cg07483936	11	47,291,423	Island	MADD	TSS1500	-0.004	0.051	0.0231
cg12375722	5	140,729,719	N_Shore	PCDHGA2	Body	0.034	0.194	0.0231
cg03225476	12	132,680,972	N_Shore	GALNT9	3'UTR	0.020	0.737	0.0231
cg14220277	21	38,338,958	S_Shore	HLCS	5'UTR	-0.004	0.030	0.0231
cg00057603	20	1,716,270	N_Shore			0.016	0.812	0.0232
cg16910846	12	3,575,270	OpenSea			0.015	0.887	0.0232
cg14945867	14	54,908,007	Island	CNIH	1stExon	-0.003	0.021	0.0232
cg12998850	6	29,894,946	Island			0.040	0.053	0.0232
cg12762715	9	33,025,796	Island	DNAJA1	5'UTR	0.002	0.028	0.0232
cg08405587	6	33,043,138	OpenSea	HLA-DPB1	TSS1500	0.017	0.623	0.0232
cg05994244	15	96,904,960	Island			-0.027	0.380	0.0232
cg23267759	18	19,751,335	Island	GATA6	Body	0.002	0.023	0.0232
cg15056105	18	13,611,489	OpenSea	C18orf1	TSS200	0.013	0.075	0.0232
cg27522060	15	65,360,366	Island	RASL12	5'UTR	0.002	0.029	0.0232
cg18306246	22	20,067,407	Island	DGCR8	TSS1500	-0.004	0.028	0.0232
cg25447214	5	37,212,448	S_Shelf	C5orf42	Body	-0.003	0.987	0.0232
cg22172610	5	79,141,661	OpenSea			0.020	0.764	0.0232
cg14960293	3	155,571,198	N_Shore	SLC33A1	1stExon	-0.002	0.019	0.0232
cg11740861	8	143,405,933	N_Shore	TSNARE1	Body	0.015	0.850	0.0232
cg01605783	21	45,232,587	OpenSea	LOC284837	TSS200	0.015	0.593	0.0232
cg00573948	7	101,330,867	N_Shore			0.003	0.977	0.0232
cg23090046	14	104,094,619	Island	KLC1	TSS1500	0.020	0.620	0.0232
cg11787126	6	31,615,430	OpenSea	BAT3	Body	0.006	0.944	0.0232
cg23985941	14	105,266,545	Island	ZBTB42	TSS1500	-0.004	0.024	0.0232
cg12479660	3	50,304,234	OpenSea	SEMA3B	TSS1500	0.016	0.741	0.0232

cg23784132	6	30,132,471	OpenSea	TRIM15	Body	0.017	0.701	0.0232
cg07163845	14	106,071,651	OpenSea			0.023	0.911	0.0232
cg08221830	5	27,472,520	OpenSea			-0.030	0.769	0.0233
cg12080909	17	27,917,982	N_Shore	GIT1	TSS1500	-0.003	0.030	0.0233
cg07160694	14	69,619,856	Island	DCAF5	5'UTR	-0.005	0.014	0.0233
cg15595918	6	32,047,410	S_Shore	TNXB	Body	0.012	0.501	0.0233
cg04864640	14	58,711,071	N_Shore	PSMA3	TSS1500	-0.002	0.018	0.0233
cg11788856	17	97,734	N_Shore	RPH3AL	Body	0.025	0.544	0.0233
cg21393885	17	79,313,913	N_Shore			-0.015	0.321	0.0233
cg24450239	8	101,348,501	OpenSea			0.024	0.549	0.0233
cg24330204	5	137,224,967	N_Shore	PKD2L2	TSS200	0.011	0.081	0.0233
cg20418725	2	202,122,474	OpenSea	CASP8	5'UTR	0.020	0.607	0.0233
cg27652869	5	172,216,846	OpenSea			0.016	0.551	0.0233
cg16628183	11	126,456,052	OpenSea	KIRREL3	Body	0.005	0.021	0.0233
cg17721355	8	143,516,572	OpenSea			0.035	0.657	0.0233
cg23487586	16	85,315,923	N_Shore			0.012	0.907	0.0233
cg18284089	4	153,601,384	OpenSea	TMEM154	TSS200	0.003	0.025	0.0233
cg01264111	19	18,314,345	Island	RAB3A	5'UTR	0.002	0.014	0.0233
cg26327877	14	99,977,166	OpenSea	CCNK	3'UTR	0.017	0.277	0.0233
cg07144689	15	25,436,496	OpenSea	SNORD115-9	TSS200	0.013	0.747	0.0233
cg01709425	19	11,404,513	Island			0.002	0.014	0.0233
cg15836983	19	48,185,455	Island	GLTSCR1	Body	0.018	0.852	0.0233
cg13643287	1	46,997,243	N_Shore			0.015	0.772	0.0233
cg24583624	5	140,514,824	N_Shore	PCDHB5	1stExon	0.021	0.102	0.0233
cg14313373	9	136,538,372	OpenSea	SARDH	Body	0.022	0.771	0.0233
cg05417332	16	30,104,025	S_Shore	YPEL3	3'UTR	-0.015	0.307	0.0234
cg26515676	12	7,341,666	N_Shore	PEX5	TSS1500	0.005	0.041	0.0234
cg14572892	19	10,424,068	N_Shelf	FDX1L	Body	-0.038	0.977	0.0234
cg01569082	11	61,370,871	OpenSea			0.019	0.637	0.0234
cg25242756	11	120,207,979	S_Shore	ARHGEF12	1stExon	-0.047	0.051	0.0234

cg07448742	6	30,657,984	S_Shelf	NRM	Body	0.021	0.561	0.0234
cg18192083	1	6,086,254	Island	KCNAB2	TSS200	-0.036	0.103	0.0234
cg23295683	14	81,998,796	N_Shore	SEL1L	Body	0.006	0.963	0.0234
cg07180649	1	22,470,290	S_Shore	WNT4	TSS1500	-0.004	0.034	0.0234
cg15711744	12	48,866,138	OpenSea	ANP32D	TSS1500	0.024	0.813	0.0234
cg18578096	11	117,668,140	Island	DSCAML1	TSS200	-0.014	0.128	0.0234
cg15265853	17	29,401,371	OpenSea			0.008	0.923	0.0234
cg18956956	14	31,028,000	N_Shore	G2E3	TSS1500	0.002	0.015	0.0234
cg08812266	12	132,653,105	Island			0.019	0.836	0.0234
cg02000426	8	1,759,815	OpenSea			0.026	0.451	0.0234
cg14552376	2	56,412,597	S_Shore	CCDC85A	Body	-0.002	0.020	0.0234
cg22309632	8	144,207,180	OpenSea			0.041	0.501	0.0234
cg10183885	17	80,187,886	Island	SLC16A3	5'UTR	0.013	0.853	0.0234
cg17629148	17	47,113,596	S_Shore	IGF2BP1	Body	0.033	0.300	0.0234
cg15351951	18	2,907,472	S_Shore	EMILIN2	Body	0.019	0.352	0.0235
cg11022340	14	24,630,512	OpenSea	IRF9	1stExon	-0.003	0.025	0.0235
cg06329225	6	44,244,469	Island	TMEM151B	3'UTR	0.025	0.549	0.0235
cg19008099	6	31,696,317	Island	DDAH2	Body	0.017	0.484	0.0235
cg15910502	3	20,085,136	S_Shelf	KAT2B	Body	0.029	0.391	0.0235
cg14330119	7	73,668,867	Island	RFC2	TSS200	-0.007	0.123	0.0235
cg21146957	12	80,838,996	OpenSea	PTPRQ	Body	0.033	0.351	0.0235
cg27623562	11	2,968,676	S_Shelf	NAP1L4	3'UTR	0.020	0.781	0.0235
cg24679246	2	25,018,843	S_Shelf	CENPO	Body	0.007	0.947	0.0235
cg11209892	7	128,695,548	N_Shore	LOC286016	Body	0.010	0.051	0.0235
cg00535538	8	2,078,050	Island	MYOM2	Body	0.006	0.966	0.0235
cg16381059	17	835,927	OpenSea	NXN	Body	0.021	0.826	0.0235
cg20954219	2	29,745,303	OpenSea	ALK	Body	0.024	0.572	0.0235
cg10158997	6	31,734,106	OpenSea	C6orf27	Body	0.063	0.349	0.0235
cg07825681	1	95,975,755	OpenSea			-0.029	0.781	0.0235
cg08174779	4	183,423,375	OpenSea	ODZ3	Body	-0.020	0.726	0.0235

cg09650731	16	46,823,623	N_Shore			0.019	0.699	0.0235
cg07212818	11	638,076	Island	DRD4	Body	-0.040	0.260	0.0235
cg23627353	8	102,669,360	OpenSea	GRHL2	Body	-0.004	0.975	0.0235
cg00035608	19	37,288,450	Island			-0.005	0.034	0.0235
cg05057083	14	73,742,013	OpenSea	NUMB	3'UTR	0.009	0.956	0.0235
cg01088579	2	85,660,497	OpenSea	SH2D6	TSS1500	0.025	0.594	0.0235
cg10315420	12	51,213,748	OpenSea	ATF1	3'UTR	0.004	0.974	0.0235
cg24790419	19	18,385,930	OpenSea	KIAA1683	TSS1500	0.039	0.477	0.0235
cg19132477	3	8,484,313	OpenSea			0.006	0.964	0.0235
cg11945292	4	24,981,801	OpenSea	CCDC149	TSS200	0.016	0.386	0.0235
cg20774166	6	31,627,617	N_Shore	C6orf47	1stExon	0.016	0.299	0.0236
cg04927066	5	136,833,216	N_Shore	SPOCK1	Body	0.022	0.645	0.0236
cg20030218	22	36,428,179	S_Shelf			0.003	0.985	0.0236
cg10506098	15	30,113,651	N_Shore	TJP1	Body	-0.003	0.028	0.0236
cg00634652	13	112,166,963	OpenSea			-0.029	0.813	0.0236
cg10106639	2	66,926,669	OpenSea			-0.034	0.554	0.0236
cg02286533	17	41,278,179	Island	BRCA1	TSS1500	0.040	0.438	0.0236
cg01499522	7	73,037,099	N_Shore	MLXIPL	Body	0.028	0.463	0.0236
cg23285573	7	95,064,174	Island	PON2	Body	-0.004	0.040	0.0236
cg26386044	2	136,740,676	N_Shelf	DARS	Body	0.005	0.975	0.0236
cg14792680	19	48,246,851	Island			-0.006	0.048	0.0236
cg18046394	7	29,924,165	Island	WIPF3	Body	-0.018	0.223	0.0236
cg07835293	1	163,044,231	OpenSea	RGS4	3'UTR	0.002	0.975	0.0236
cg03315662	16	30,759,178	N_Shore	PHKG2	TSS1500	0.027	0.234	0.0236
cg00822030	1	6,086,018	N_Shore	KCNAB2	TSS1500	-0.033	0.531	0.0236
cg14651650	3	193,323,793	OpenSea	OPA1	Body	-0.016	0.909	0.0236
cg26094897	12	120,031,734	Island	TMEM233	1stExon	-0.004	0.031	0.0236
cg20338386	13	112,275,793	Island			0.015	0.536	0.0236
cg09940355	15	62,929,234	OpenSea			-0.027	0.440	0.0236
cg27516774	15	44,955,616	Island	SPG11	1stExon	-0.007	0.067	0.0236

cg01811315	17	4,890,515	Island	CAMTA2	5'UTR	-0.005	0.037	0.0236
cg12969734	22	50,962,224	N_Shore	SCO2	Body	0.015	0.925	0.0236
cg00478710	3	133,392,965	N_Shore			0.018	0.527	0.0236
cg01013732	20	44,992,585	N_Shore	SLC35C2	5'UTR	-0.004	0.050	0.0236
cg16060740	1	1,023,891	N_Shore	C1orf159	Body	0.018	0.711	0.0236
cg09496915	6	37,751,619	OpenSea			-0.003	0.025	0.0236
cg08368055	16	72,129,315	S_Shore	DHX38	5'UTR	0.018	0.794	0.0236
cg12589936	15	34,389,967	N_Shelf	C15orf24	Body	0.006	0.975	0.0237
cg18186672	2	71,679,841	N_Shore	DYSF	TSS1500	0.027	0.387	0.0237
cg25553916	5	177,558,755	S_Shore	RMND5B	5'UTR	0.017	0.466	0.0237
cg26329274	5	156,607,853	OpenSea	ITK	TSS200	-0.018	0.800	0.0237
cg19597529	3	122,399,230	N_Shore	PARP14	TSS1500	0.023	0.134	0.0237
cg08853359	16	331,454	N_Shore	ARHGDIG	Body	0.030	0.816	0.0237
cg24737761	6	106,245,659	OpenSea			0.004	0.972	0.0237
cg00821977	1	43,837,522	S_Shelf			0.003	0.983	0.0237
cg12685753	17	6,735,539	OpenSea	TEKT1	TSS1500	0.023	0.214	0.0237
cg11627823	7	129,424,539	N_Shore			0.016	0.095	0.0237
cg18229071	19	2,695,245	OpenSea	GNG7	5'UTR	0.016	0.507	0.0237
cg12930176	2	232,044,866	OpenSea			0.032	0.628	0.0237
cg21825397	20	61,335,539	OpenSea			0.017	0.596	0.0237
cg20585916	4	186,081,460	OpenSea	KIAA1430	3'UTR	0.005	0.977	0.0237
cg09107315	1	78,511,488	N_Shore	GIPC2	TSS200	-0.011	0.092	0.0237
cg12766451	7	1,254,289	S_Shelf			0.017	0.717	0.0237
cg20915763	15	85,198,577	S_Shore	NMB	Body	0.017	0.808	0.0237
cg14502713	9	140,425,395	OpenSea	PNPLA7	Body	0.015	0.749	0.0237
cg18714712	19	49,866,917	Island	DKKL1	TSS200	0.003	0.014	0.0238
cg04078980	1	228,291,486	S_Shore	C1orf35	TSS1500	0.021	0.198	0.0238
cg20188214	4	890,209	N_Shelf	GAK	Body	0.011	0.726	0.0238
cg17876332	17	945,994	OpenSea	ABR	Body	0.015	0.685	0.0238
cg03316864	19	17,906,309	Island	B3GNT3	5'UTR	-0.009	0.063	0.0238

cg06551661	2	10,691,849	OpenSea			0.017	0.761	0.0238
cg13078894	4	168,865,149	OpenSea			0.032	0.577	0.0238
cg16795307	13	33,780,362	OpenSea	STARD13	TSS200	0.023	0.289	0.0238
cg00972950	4	1,684,791	N_Shore	FAM53A	5'UTR	0.022	0.649	0.0238
cg03878722	16	76,666,860	N_Shore			-0.029	0.937	0.0238
cg07873154	6	30,122,544	OpenSea	TRIM10	Body	0.113	0.519	0.0238
cg16276850	17	38,498,914	Island	RARA	5'UTR	-0.006	0.044	0.0238
cg15363314	11	1,283,970	OpenSea			0.064	0.081	0.0238
cg10470891	5	125,338,217	OpenSea			-0.039	0.091	0.0238
cg10437240	12	132,195,603	Island	SFRS8	TSS200	-0.002	0.020	0.0238
cg22209918	6	33,128,903	N_Shore			0.024	0.550	0.0238
cg06012483	16	86,388,853	OpenSea			0.049	0.619	0.0238
cg17161883	8	25,317,027	Island	KCTD9	TSS1500	0.003	0.025	0.0238
cg19449377	17	39,041,199	OpenSea	KRT20	1stExon	0.014	0.864	0.0238
cg01674405	9	138,871,595	N_Shore			0.013	0.709	0.0238
cg10868873	13	112,906,664	OpenSea			0.013	0.785	0.0238
cg13682735	3	129,407,530	OpenSea	TMCC1	TSS200	0.013	0.159	0.0238
cg17647091	12	54,474,036	N_Shore	FLJ12825	Body	-0.040	0.459	0.0238
cg07706442	1	84,971,874	Island	SPATA1	TSS200	-0.041	0.027	0.0238
cg24525364	1	35,730,504	N_Shelf			0.020	0.300	0.0238
cg27636594	7	38,767,436	OpenSea	VPS41	Body	0.003	0.982	0.0238
cg13829089	17	7,460,690	N_Shelf	TNFSF13	TSS1500	-0.036	0.343	0.0238
cg17756860	4	110,510,374	OpenSea	CCDC109B	Body	-0.013	0.924	0.0239
cg09843855	10	134,439,660	OpenSea	INPP5A	Body	0.015	0.810	0.0239
cg17497490	2	944,690	N_Shore			0.024	0.852	0.0239
cg04263702	7	5,528,266	S_Shore	FBXL18	Body	0.016	0.490	0.0239
cg26187942	6	83,837,754	OpenSea	DOPEY1	Body	0.006	0.967	0.0239
cg17786894	2	65,131,556	OpenSea			0.020	0.746	0.0239
cg09882118	3	48,508,272	OpenSea	TREX1	Body	0.021	0.531	0.0239
cg26290716	14	91,862,813	OpenSea	CCDC88C	Body	0.017	0.712	0.0239

cg04237804	1	16,940,110	Island	NBPF1	TSS200	-0.003	0.026	0.0239
cg27560671	16	67,419,044	OpenSea	LRRRC36	3'UTR	0.031	0.977	0.0239
cg23651614	4	39,639,327	N_Shore	C4orf34	5'UTR	0.002	0.015	0.0239
cg26550851	1	3,701,203	N_Shelf	LRRRC47	Body	0.004	0.967	0.0239
cg13457515	17	45,934,681	OpenSea	SP6	TSS1500	-0.020	0.638	0.0239
cg10183405	14	102,505,620	OpenSea	DYNC1H1	Body	0.005	0.965	0.0239
cg10496915	6	89,855,751	Island	PM20D2	TSS200	-0.004	0.030	0.0239
cg04100684	16	13,002,642	OpenSea	SHISA9	Body	0.023	0.703	0.0239
cg08284593	13	114,057,070	S_Shore			-0.029	0.743	0.0239
cg27167613	19	42,569,967	OpenSea	GRIK5	TSS200	0.012	0.913	0.0239
cg02691506	3	8,685,827	OpenSea	C3orf32	5'UTR	-0.025	0.652	0.0239
cg11056406	8	144,903,651	OpenSea	PUF60	Body	-0.010	0.946	0.0239
cg06520134	20	45,146,311	S_Shelf			-0.027	0.760	0.0239
cg02895126	6	159,420,005	N_Shore	RSPH3	Body	0.022	0.811	0.0239
cg18715511	12	1,058,965	Island	RAD52	TSS200	-0.014	0.040	0.0239
cg24270191	3	33,840,469	Island	PDCD6IP	Body	-0.002	0.023	0.0240
cg10282330	4	41,722,038	OpenSea			0.020	0.573	0.0240
cg12439315	1	94,044,755	OpenSea	BCAR3	Body	0.016	0.892	0.0240
cg11466908	9	94,123,704	N_Shore	AUH	Body	-0.003	0.024	0.0240
cg10407489	4	1,043,616	Island			0.015	0.758	0.0240
cg23553238	12	122,121,012	N_Shelf			-0.032	0.937	0.0240
cg19929403	3	50,220,205	OpenSea	SEMA3F	Body	0.009	0.947	0.0240
cg24255201	7	154,684,926	S_Shore	DPP6	3'UTR	0.013	0.962	0.0240
cg05998339	8	11,141,835	N_Shore	MTMR9	TSS200	-0.003	0.027	0.0240
cg18500968	21	43,816,263	OpenSea	TMPRSS3	TSS200	-0.016	0.914	0.0240
cg17779658	8	29,606,753	OpenSea	C8orf75	TSS1500	-0.023	0.885	0.0240
cg12425673	12	862,975	Island	WNK1	1stExon	-0.004	0.031	0.0240
cg12460873	7	141,501,577	OpenSea			0.045	0.876	0.0240
cg18913254	10	75,173,229	N_Shore	ANXA7	5'UTR	-0.002	0.024	0.0240
cg05166473	16	88,103,629	S_Shore	BANP	Body	-0.007	0.954	0.0240



cg10186605	17	29,667,326	OpenSea	NF1	Body	0.028	0.682	0.0241
cg26232945	2	208,798,601	S_Shelf	PLEKHM3	Body	0.020	0.480	0.0241
cg05332077	18	77,724,453	Island	HSBP1L1	TSS200	-0.003	0.028	0.0241
cg13242525	11	71,497,575	Island	FAM86C	TSS1500	-0.002	0.029	0.0241
cg17102269	8	3,830,691	OpenSea	CSMD1	Body	0.034	0.276	0.0241
cg00562598	17	8,311,594	OpenSea			0.018	0.746	0.0241
cg15380358	20	61,937,737	Island	COL20A1	Body	0.011	0.916	0.0241
cg10211252	10	48,355,286	S_Shore	ZNF488	5'UTR	-0.004	0.039	0.0241
cg01196158	1	93,912,688	N_Shore	FNBP1L	TSS1500	0.030	0.380	0.0241
cg23244234	6	90,864,341	OpenSea	BACH2	5'UTR	-0.021	0.743	0.0241
cg08159594	7	102,790,168	S_Shore	NAPEPLD	TSS1500	-0.018	0.195	0.0241
cg13766589	9	139,331,009	N_Shore	INPP5E	Body	0.009	0.748	0.0241
cg00478127	3	57,112,588	Island	ARHGEF3	5'UTR	0.002	0.025	0.0241
cg12798492	10	3,627,893	OpenSea			-0.014	0.854	0.0241
cg24678732	3	40,889,142	OpenSea			0.012	0.437	0.0241
cg17755610	2	231,688,740	N_Shelf			0.013	0.477	0.0241
cg01075271	14	38,080,314	Island			0.017	0.070	0.0241
cg00240719	12	132,169,130	N_Shore			-0.019	0.845	0.0241
cg09457131	5	14,108,369	OpenSea			0.017	0.637	0.0241
cg07280593	19	55,085,260	OpenSea	LILRA2	5'UTR	0.030	0.737	0.0241
cg19305696	8	144,336,415	N_Shore	ZFP41	3'UTR	-0.004	0.970	0.0241
cg06094142	1	20,478,978	OpenSea			-0.001	0.019	0.0241
cg06451157	6	29,868,295	OpenSea	HCG2P7	Body	-0.059	0.929	0.0241
cg17162578	20	61,609,595	N_Shelf			0.012	0.497	0.0241
cg24063470	16	86,600,389	Island	FOXC2	TSS1500	-0.024	0.031	0.0241
cg23838231	2	38,306,612	S_Shelf			0.028	0.654	0.0241
cg27385757	6	30,656,024	S_Shore	KIAA1949	TSS1500	0.011	0.360	0.0241
cg15741764	6	33,419,571	N_Shelf	SYNGAP1	Body	0.008	0.964	0.0241
cg12669271	8	118,987,299	OpenSea	EXT1	Body	0.038	0.535	0.0241
cg02896941	4	23,890,659	OpenSea	PPARGC1A	Body	-0.002	0.015	0.0241

cg08142848	1	44,171,807	N_Shore	ST3GAL3	TSS1500	0.014	0.666	0.0242
cg24237576	16	2,285,775	N_Shore	DNASE1L2	TSS1500	0.011	0.912	0.0242
cg01025842	16	67,195,069	N_Shore	TRADD	TSS1500	-0.003	0.027	0.0242
cg21522892	4	100,555,199	OpenSea			0.003	0.985	0.0242
cg13192688	4	1,742,950	OpenSea	TACC3	Body	0.008	0.928	0.0242
cg23882545	2	202,122,653	OpenSea	CASP8	5'UTR	0.035	0.465	0.0242
cg20432211	4	77,342,104	Island			-0.050	0.134	0.0242
cg12658374	17	37,323,563	S_Shore	ARL5C	TSS1500	0.018	0.675	0.0242
cg26389330	5	151,057,860	OpenSea	SPARC	5'UTR	0.017	0.526	0.0242
cg05992786	12	54,446,308	N_Shore	HOXC4	5'UTR	-0.023	0.169	0.0242
cg27263632	17	79,496,290	Island	FSCN2	1stExon	0.029	0.772	0.0242
cg21346154	2	70,699,808	OpenSea	TGFA	Body	0.016	0.738	0.0242
cg10237911	5	72,861,638	S_Shore	UTP15	5'UTR	0.002	0.013	0.0242
cg05870739	5	140,800,586	N_Shore	PCDHGA4	Body	0.007	0.045	0.0242
cg01494033	10	134,819,201	N_Shelf			0.020	0.778	0.0242
cg09152853	5	149,373,331	OpenSea	TIGD6	3'UTR	0.004	0.972	0.0242
cg25144149	10	133,317,423	N_Shore			0.018	0.733	0.0242
cg04167054	3	130,613,906	S_Shore	ATP2C1	Body	0.002	0.016	0.0242
cg24027679	1	9,086,621	OpenSea	SLC2A7	TSS1500	0.014	0.816	0.0242
cg07119829	2	223,168,487	N_Shore	CCDC140	5'UTR	0.003	0.024	0.0243
cg12007683	19	20,187,745	OpenSea	ZNF90	TSS1500	0.005	0.976	0.0243
cg15328072	2	52,785,721	OpenSea			0.033	0.781	0.0243
cg13272552	14	55,875,634	N_Shelf	KIAA0831	Body	0.015	0.862	0.0243
cg08188993	8	65,489,554	N_Shore	LOC401463	Body	0.003	0.021	0.0243
cg18760055	1	10,788,219	OpenSea	CASZ1	5'UTR	0.019	0.637	0.0243
cg10526659	2	182,322,058	Island	ITGA4	5'UTR	-0.012	0.126	0.0243
cg08602385	19	47,728,584	N_Shore	BBC3	Body	0.010	0.932	0.0243
cg17036624	3	8,811,601	S_Shore	OXTR	TSS1500	0.032	0.679	0.0243
cg05032788	7	150,756,459	Island	SLC4A2	TSS200	-0.002	0.016	0.0243
cg25084760	13	100,886,412	OpenSea	PCCA	Body	0.016	0.907	0.0243

cg03971227	6	31,914,952	OpenSea	CFB	Body	0.022	0.820	0.0243
cg08264885	8	22,103,537	S_Shore	POLR3D	Body	0.024	0.331	0.0243
cg18633990	7	152,559,216	OpenSea			0.016	0.737	0.0243
cg17924072	19	1,075,067	Island	HMHA1	Body	0.020	0.662	0.0244
cg08639762	1	201,437,298	N_Shore	PHLDA3	3'UTR	0.024	0.474	0.0244
cg06515734	16	87,749,852	OpenSea	KLHDC4	Body	0.015	0.733	0.0244
cg21151122	2	241,568,880	N_Shore	GPR35	1stExon	0.023	0.676	0.0244
cg03650946	7	27,154,562	N_Shore	HOXA3	5'UTR	-0.005	0.028	0.0244
cg14335159	9	137,426,436	OpenSea			0.017	0.513	0.0244
cg02043697	12	132,269,737	OpenSea	SFRS8	Body	0.030	0.739	0.0244
cg16201957	4	140,992,311	OpenSea	MAML3	Body	0.018	0.620	0.0244
cg06105694	17	36,585,340	Island			-0.010	0.040	0.0244
cg11778714	10	79,605,162	OpenSea	DLG5	Body	0.020	0.804	0.0244
cg04058281	5	980,580	OpenSea			0.016	0.748	0.0244
cg14102033	9	138,370,703	N_Shore	KIAA0649	TSS1500	-0.004	0.029	0.0244
cg01723934	17	46,680,461	OpenSea	LOC404266	Body	0.014	0.086	0.0244
cg12036303	6	30,652,907	N_Shore	KIAA1949	Body	0.017	0.784	0.0244
cg11387301	19	15,252,043	Island			0.018	0.872	0.0244
cg21290162	8	9,741,960	OpenSea			0.035	0.512	0.0244
cg11494841	17	80,402,750	Island	C17orf62	Body	0.005	0.979	0.0244
cg09234859	7	23,145,933	Island	KLHL7	Body	0.002	0.020	0.0244
cg24539402	8	54,510,816	S_Shelf			-0.011	0.923	0.0244
cg09365259	22	18,594,196	Island	TUBA8	Body	0.021	0.470	0.0244
cg26215887	10	101,380,313	Island	SLC25A28	TSS200	-0.002	0.028	0.0244
cg05684145	22	29,708,028	N_Shore	GAS2L1	3'UTR	0.019	0.667	0.0244
cg21905209	8	48,921,554	S_Shore	UBE2V2	Body	0.002	0.017	0.0244
cg04211179	1	16,301,562	N_Shore	ZBTB17	5'UTR	0.015	0.286	0.0245
cg02450164	16	66,493,033	OpenSea	BEAN	5'UTR	0.015	0.599	0.0245
cg24424889	22	39,494,175	OpenSea	APOBEC3H	5'UTR	0.020	0.584	0.0245
cg16710042	2	165,760,725	OpenSea	SLC38A11	Body	0.022	0.716	0.0245

cg12286516	17	77,764,329	Island			-0.009	0.077	0.0245
cg16556078	6	32,028,926	OpenSea	TNXB	Body	0.016	0.615	0.0245
cg01881182	16	8,806,531	OpenSea	ABAT	5'UTR	0.021	0.125	0.0245
cg07450030	14	105,442,341	N_Shore	AHNAK2	Body	-0.018	0.347	0.0245
cg09580608	17	63,052,483	Island	GNA13	1stExon	-0.008	0.033	0.0245
cg15918160	5	126,186,280	OpenSea			-0.007	0.977	0.0245
cg20419307	12	82,152,364	Island	PPFIA2	5'UTR	-0.002	0.021	0.0245
cg16797020	3	57,530,118	OpenSea	DNAH12	TSS200	-0.005	0.037	0.0245
cg26501450	19	4,038,221	Island			0.005	0.985	0.0245
cg25977313	2	134,844,510	OpenSea			0.028	0.359	0.0245
cg16779498	13	53,442,030	OpenSea			-0.023	0.693	0.0245
cg07680533	1	151,345,248	OpenSea	SELENBP1	TSS200	-0.009	0.058	0.0245
cg12131324	17	78,876,794	N_Shelf	RPTOR	Body	0.013	0.649	0.0245
cg23594928	6	168,446,562	N_Shelf			0.021	0.648	0.0245
cg15388804	14	36,993,079	N_Shore			-0.021	0.209	0.0245
cg09044743	1	2,458,238	Island	PANK4	TSS1500	-0.004	0.032	0.0245
cg23476877	5	176,543,964	Island			-0.033	0.080	0.0245
cg11617964	6	32,118,399	Island	PRRT1	Body	0.021	0.320	0.0246
cg21057046	1	19,970,204	N_Shore	NBL1	TSS1500	0.015	0.203	0.0246
cg26418691	13	25,875,505	Island	NUPL1	TSS200	-0.005	0.022	0.0246
cg01050736	6	32,710,583	OpenSea	HLA-DQA2	Body	0.023	0.885	0.0246
cg21700166	14	91,720,227	Island	GPR68	TSS200	-0.005	0.047	0.0246
cg05131034	16	88,773,950	S_Shore	CTU2	Body	0.017	0.505	0.0246
cg08595782	16	88,096,995	OpenSea	BANP	Body	0.025	0.530	0.0246
cg21549434	5	177,708,304	OpenSea	COL23A1	Body	-0.016	0.853	0.0246
cg15752292	19	39,970,821	N_Shore	TIMM50	TSS1500	0.027	0.320	0.0246
cg26548251	7	147,591,462	OpenSea	MIR548F3	TSS1500	0.024	0.469	0.0246
cg14226747	4	657,927	Island	PDE6B	Body	-0.007	0.044	0.0246
cg13420845	1	155,220,231	Island	FAM189B	Body	0.036	0.180	0.0246
cg10491242	19	50,366,052	Island	PNKP	Body	0.020	0.816	0.0246

cg02091605	19	1,776,102	Island			-0.004	0.028	0.0246
cg14345497	17	46,655,603	Island	HOXB4	1stExon	-0.003	0.034	0.0246
cg13187820	13	98,960,562	OpenSea	FARP1	Body	0.025	0.869	0.0246
cg20737909	11	1,507,020	OpenSea	HCCA2	Body	0.012	0.899	0.0246
cg20064778	22	24,384,315	Island	GSTT1	TSS200	0.123	0.144	0.0246
cg15252768	10	133,273,850	OpenSea			0.015	0.836	0.0246
cg19357195	18	77,339,228	Island			0.005	0.972	0.0246
cg08002791	12	131,541,853	OpenSea	GPR133	Body	0.004	0.977	0.0246
cg07152379	15	44,159,857	OpenSea	WDR76	3'UTR	0.005	0.978	0.0247
cg08515264	3	125,878,062	OpenSea	ALDH1L1	Body	0.011	0.789	0.0247
cg15873123	12	7,864,058	OpenSea	DPPA3	TSS200	0.026	0.886	0.0247
cg12119858	12	7,023,195	N_Shore	LRRC23	3'UTR	0.015	0.394	0.0247
cg01105427	4	8,593,507	N_Shore	CPZ	TSS1500	0.017	0.586	0.0247
cg18401262	18	12,672,632	OpenSea	CEP76	3'UTR	0.005	0.978	0.0247
cg01534871	1	19,926,850	S_Shelf	C1orf151	Body	0.017	0.838	0.0247
cg04762312	6	157,800,071	N_Shore			0.027	0.561	0.0247
cg02947450	10	22,766,861	Island			-0.022	0.277	0.0247
cg16205861	12	54,146,572	S_Shore			0.021	0.643	0.0247
cg02265288	14	97,876,102	OpenSea			0.006	0.969	0.0247
cg22402873	12	34,444,336	OpenSea			0.012	0.858	0.0247
cg17738756	6	30,615,347	Island	C6orf136	Body	0.002	0.019	0.0247
cg21363377	7	127,651,533	OpenSea	SND1	Body	0.021	0.242	0.0248
cg08944026	5	10,626,811	OpenSea	ANKRD33B	Body	0.011	0.393	0.0248
cg23059701	19	2,428,889	N_Shore	LMNB2	3'UTR	0.041	0.594	0.0248
cg08265387	14	36,288,987	OpenSea			0.007	0.948	0.0248
cg10708271	3	112,692,897	OpenSea	CD200R1	Body	0.017	0.942	0.0248
cg11571761	5	95,298,041	S_Shore	ELL2	TSS1500	-0.003	0.026	0.0248
cg06204730	17	48,785,992	S_Shore	ANKRD40	TSS1500	0.017	0.159	0.0248
cg04902286	13	36,871,878	Island	C13orf38	1stExon	-0.019	0.041	0.0248
cg14004527	13	73,356,346	Island	DIS3	TSS200	-0.002	0.019	0.0248

cg19165946	7	138,719,443	N_Shore	ZC3HAV1L	Body	0.014	0.797	0.0248
cg20168849	3	188,995,030	OpenSea	TPRG1	Body	0.019	0.397	0.0248
cg10514113	17	80,765,517	Island	TBCD	Body	-0.013	0.781	0.0248
cg16489809	10	97,450,247	N_Shelf	TCTN3	Body	-0.005	0.968	0.0248
cg03016571	17	48,844,124	OpenSea	C17orf73	Body	0.032	0.958	0.0248
cg26306994	12	6,493,521	Island	LTBR	1stExon	0.026	0.460	0.0248
cg15414698	8	1,783,267	S_Shelf	ARHGEF10	5'UTR	0.023	0.865	0.0248
cg01109279	8	1,920,950	N_Shore	KBTBD11	TSS1500	0.026	0.456	0.0249
cg03499675	6	31,744,339	OpenSea	C6orf27	Body	0.017	0.605	0.0249
cg04635069	7	156,636,277	OpenSea	LMBR1	Body	0.013	0.914	0.0249
cg25715256	10	72,203,980	S_Shelf			0.033	0.980	0.0249
cg17156767	19	30,364,462	Island			-0.011	0.100	0.0249
cg03965665	7	56,549,234	N_Shelf			0.025	0.876	0.0249
cg09439093	6	4,135,575	Island	PECI	Body	-0.003	0.026	0.0249
cg16264642	5	11,384,581	N_Shore	CTNND2	Body	-0.014	0.169	0.0249
cg16451306	5	71,475,356	OpenSea	MAP1B	Body	0.022	0.436	0.0249
cg00451651	8	100,252,466	OpenSea	VPS13B	Body	0.004	0.981	0.0249
cg03364727	20	33,413,588	Island	NCOA6	TSS200	0.003	0.022	0.0249
cg14191955	17	8,311,635	OpenSea			0.015	0.859	0.0249
cg00766368	8	141,108,113	Island	TRAPPC9	Body	0.017	0.618	0.0249
cg14304761	9	93,564,149	Island	SYK	TSS200	0.001	0.021	0.0249
cg22461472	19	48,188,952	S_Shelf	GLTSCR1	Body	0.020	0.710	0.0249
cg10562114	10	120,790,501	OpenSea	NANOS1	3'UTR	-0.008	0.038	0.0249
cg11084443	15	66,963,753	OpenSea			0.016	0.495	0.0249
cg21642649	21	34,144,118	Island	C21orf66	1stExon	-0.006	0.023	0.0249
cg25189681	8	1,244,039	N_Shore			0.021	0.837	0.0249
cg14712575	1	3,248,373	OpenSea	PRDM16	Body	0.019	0.766	0.0249
cg04447445	4	24,268,256	OpenSea			0.008	0.963	0.0249
cg21052025	11	69,001,490	OpenSea			0.022	0.829	0.0249
cg24699699	1	93,258,316	OpenSea	EVI5	TSS1500	0.025	0.582	0.0249

cg00567696	6	46,097,521	N_Shore	ENPP4	TSS200	0.004	0.030	0.0249
cg03451204	16	75,282,783	N_Shore	BCAR1	Body	0.014	0.799	0.0250
cg01763690	2	95,666,377	S_Shelf			0.014	0.738	0.0250
cg17113124	7	105,925,972	Island	NAMPT	TSS1500	0.002	0.018	0.0250
cg27062573	22	39,549,099	Island	CBX7	TSS1500	-0.003	0.028	0.0250
cg21181989	7	100,031,215	N_Shelf	MEPCE	3'UTR	0.016	0.770	0.0250
cg04410024	8	75,896,798	Island	CRISPLD1	TSS200	0.013	0.124	0.0250
cg24766486	12	1,005,734	OpenSea	WNK1	Body	0.002	0.987	0.0250
cg08522143	19	19,844,224	S_Shore	ZNF14	TSS1500	0.024	0.117	0.0250
cg04476341	5	669,733	S_Shore	TPPP	Body	0.022	0.819	0.0250
cg24801123	7	45,615,503	Island	ADCY1	Body	0.010	0.066	0.0250
cg24791575	3	149,902,148	OpenSea			-0.002	0.018	0.0250
cg01974549	2	190,151,266	OpenSea			-0.035	0.713	0.0250
cg09139128	6	34,492,115	N_Shelf	PACSIN1	5'UTR	0.018	0.745	0.0250
cg13197308	6	32,135,083	Island	EGFL8	Body	0.028	0.839	0.0250
cg11343211	17	15,686,309	Island			-0.045	0.090	0.0250
cg26168643	13	88,328,009	N_Shore	SLITRK5	Body	-0.031	0.818	0.0250
cg26614154	1	156,893,605	Island	C1orf92	Body	-0.003	0.026	0.0250
cg21156057	9	133,709,397	N_Shore	ABL1	TSS1500	0.035	0.399	0.0250
cg15226715	17	73,257,618	Island	GGA3	Body	0.014	0.033	0.0250
cg23674943	6	169,981,953	OpenSea	WDR27	Body	-0.015	0.982	0.0251
cg00431050	10	103,985,730	N_Shore	ELOVL3	TSS1500	0.013	0.357	0.0251
cg19613432	2	119,606,151	Island	EN1	TSS1500	-0.003	0.024	0.0251
cg10362172	3	138,679,578	Island			-0.017	0.154	0.0251
cg13408957	18	47,904,393	S_Shelf	SKA1	Body	0.003	0.983	0.0251
cg10336792	10	134,115,227	OpenSea	STK32C	Body	0.013	0.582	0.0251
cg07088414	7	16,570,042	S_Shelf			-0.019	0.783	0.0251
cg17224892	17	1,094,496	OpenSea			0.015	0.562	0.0251
cg12344490	18	44,677,139	S_Shore	HDHD2	TSS1500	0.001	0.012	0.0251
cg27033655	14	105,667,508	OpenSea			0.015	0.702	0.0251

cg06498272	19	1,192,499	N_Shore			0.021	0.299	0.0251
cg03467405	22	44,577,097	OpenSea	PARVG	5'UTR	0.018	0.837	0.0251
cg23513569	12	132,895,543	N_Shore	GALNT9	Body	0.015	0.778	0.0251
cg16901840	15	78,913,481	Island	CHRNA3	5'UTR	-0.005	0.051	0.0251
cg08331960	16	2,076,597	N_Shore	SLC9A3R2	TSS1500	0.011	0.422	0.0251
cg10976961	1	145,474,899	S_Shore	ANKRD34A	3'UTR	-0.017	0.411	0.0251
cg08168580	1	27,729,992	OpenSea			0.018	0.415	0.0251
cg09311383	19	17,303,645	Island	MYO9B	Body	0.009	0.954	0.0252
cg05940971	14	93,651,131	Island	MOAP1	5'UTR	-0.039	0.028	0.0252
cg10148591	19	7,197,021	N_Shore	INSR	Body	-0.014	0.109	0.0252
cg13717394	9	96,054,313	N_Shore	WNK2	Body	-0.008	0.956	0.0252
cg12562500	19	6,361,639	Island	CLPP	1stExon	-0.009	0.044	0.0252
cg06187947	2	189,157,042	Island	GULP1	TSS1500	-0.004	0.047	0.0252
cg05370752	21	40,756,954	N_Shore	WRB	Body	0.009	0.949	0.0252
cg27236154	10	71,393,014	S_Shelf	C10orf35	3'UTR	0.011	0.965	0.0252
cg12624829	10	106,113,175	OpenSea	CCDC147	TSS1500	0.009	0.035	0.0252
cg15482122	14	29,247,396	Island	C14orf23	Body	-0.005	0.044	0.0252
cg03094728	7	91,687,463	OpenSea	AKAP9	Body	0.006	0.963	0.0252
cg00632853	9	132,403,257	N_Shore	ASB6	Body	0.021	0.649	0.0252
cg19039367	6	30,012,436	OpenSea	NCRNA00171	Body	0.026	0.679	0.0252
cg17830754	19	5,679,875	N_Shore	HSD11B1L	TSS1500	0.014	0.170	0.0252
cg26297198	5	40,908,395	OpenSea	C7	TSS1500	0.002	0.986	0.0252
cg18286850	3	133,464,713	N_Shore	TF	TSS1500	0.020	0.203	0.0252
cg12636421	7	79,998,795	OpenSea			0.019	0.522	0.0252
cg03665212	2	119,130,614	OpenSea			0.017	0.300	0.0252
cg07314523	17	76,183,438	Island	AFMID	1stExon	-0.005	0.043	0.0252
cg13472584	1	14,056,972	OpenSea	PRDM2	Body	0.017	0.820	0.0252
cg15963714	11	2,017,819	Island	H19	Body	0.010	0.661	0.0252
cg09894655	2	132,430,151	N_Shore			0.033	0.263	0.0252
cg16659026	19	54,617,827	N_Shore	PRPF31	TSS1500	0.029	0.519	0.0252



cg00830252	12	16,039,824	S_Shelf	STRAP	Body	0.020	0.677	0.0252
cg25810066	20	23,331,171	Island	NXT1	TSS1500	0.002	0.020	0.0252
cg25884379	22	39,152,460	Island	UNC84B	TSS1500	-0.004	0.038	0.0252
cg21165029	1	1,297,202	OpenSea			0.025	0.477	0.0252
cg21029761	2	16,689,821	Island			0.018	0.098	0.0252
cg07354506	5	139,048,148	Island	CXXC5	5'UTR	-0.005	0.039	0.0252
cg08601673	16	2,083,393	N_Shelf	SLC9A3R2	Body	0.014	0.485	0.0252
cg27223158	1	5,411,760	OpenSea			-0.021	0.654	0.0252
cg16032108	11	2,286,079	OpenSea			0.025	0.505	0.0253
cg25096749	12	52,457,762	OpenSea			0.014	0.625	0.0253
cg13105327	4	104,346,019	OpenSea			0.022	0.600	0.0253
cg11145633	14	91,976,900	Island	SMEK1	TSS1500	-0.002	0.025	0.0253
cg07026636	14	103,691,799	OpenSea			0.014	0.296	0.0253
cg18459154	20	61,178,883	Island			0.037	0.560	0.0253
cg11706780	15	42,289,766	OpenSea	PLA2G4E	Body	0.014	0.652	0.0253
cg24226590	11	3,186,977	S_Shore	OSBPL5	TSS1500	-0.019	0.442	0.0253
cg03204787	4	115,577,103	OpenSea	MIR577	TSS1500	0.018	0.871	0.0253
cg10776057	1	178,307,554	OpenSea	RASAL2	Body	0.010	0.955	0.0253
cg19040026	4	103,789,592	N_Shore	UBE2D3	Body	0.027	0.086	0.0253
cg25753631	6	25,732,923	Island			0.038	0.553	0.0253
cg21190595	11	3,071,167	OpenSea	CARS	Body	0.016	0.502	0.0254
cg09580336	1	116,915,122	N_Shore	ATP1A1	TSS1500	0.008	0.051	0.0254
cg23387597	10	106,093,778	N_Shelf	ITPRIP	TSS200	-0.019	0.886	0.0254
cg16663891	3	66,575,472	OpenSea			0.023	0.815	0.0254
cg02648064	16	79,614,389	OpenSea			-0.020	0.816	0.0254
cg25087341	3	111,487,811	OpenSea	PHLDB2	5'UTR	-0.015	0.446	0.0254
cg02438164	16	4,651,732	OpenSea			0.014	0.337	0.0254
cg15903213	10	43,522,190	OpenSea			-0.004	0.044	0.0254
cg23991039	6	89,855,455	N_Shore	PM20D2	TSS1500	0.006	0.033	0.0255
cg19252671	12	12,871,110	Island	CDKN1B	1stExon	-0.006	0.034	0.0255

cg22143289	19	30,019,898	Island	VSTM2B	Body	-0.009	0.052	0.0255
cg07617246	15	65,715,951	S_Shore	IGDCC4	TSS1500	0.017	0.455	0.0255
cg14258329	1	168,438,030	OpenSea			0.002	0.988	0.0255
cg13860266	9	136,787,087	OpenSea	VAV2	Body	0.014	0.809	0.0255
cg13518339	15	43,663,616	Island	ZSCAN29	TSS1500	0.003	0.020	0.0255
cg10391895	11	64,781,672	Island	ARL2	1stExon	-0.007	0.062	0.0255
cg10479181	16	1,026,877	N_Shelf			0.024	0.750	0.0255
cg18059397	13	112,706,782	N_Shore			0.026	0.344	0.0255
cg27370104	6	42,417,938	N_Shore	TRERF1	5'UTR	-0.012	0.212	0.0255
cg05208582	6	11,216,594	OpenSea	NEDD9	Body	-0.020	0.879	0.0255
cg02412684	10	123,354,194	N_Shelf	FGFR2	5'UTR	0.018	0.630	0.0255
cg00419123	16	89,959,984	OpenSea	TCF25	Body	0.008	0.945	0.0255
cg00328051	14	102,026,812	Island	DIO3	TSS1500	-0.003	0.023	0.0255
cg25250661	2	1,489,909	N_Shelf	TPO	Body	0.004	0.977	0.0255
cg16390049	6	32,165,089	S_Shore	NOTCH4	Body	0.028	0.458	0.0256
cg06915826	12	56,329,903	S_Shore	DGKA	5'UTR	0.025	0.489	0.0256
cg24592576	12	114,887,657	S_Shore			0.016	0.650	0.0256
cg11783497	2	113,875,292	OpenSea	IL1RN	TSS200	0.028	0.800	0.0256
cg04270048	20	33,296,729	Island	TP53INP2	Body	-0.010	0.065	0.0256
cg10527525	7	70,061,508	S_Shore	AUTS2	Body	-0.013	0.182	0.0256
cg25364859	12	50,222,202	Island	LOC10028684	TSS200	0.006	0.079	0.0256
cg22957135	14	33,409,651	OpenSea	NPAS3	Body	0.003	0.020	0.0256
cg00892353	8	124,247,948	OpenSea	C8orf76	Body	0.010	0.926	0.0256
cg26149550	19	51,334,496	OpenSea	KLK15	Body	0.019	0.672	0.0256
cg08312330	8	6,783,670	OpenSea	DEFA6	TSS200	0.022	0.809	0.0256
cg17376299	17	74,931,583	S_Shelf	MGAT5B	Body	-0.017	0.888	0.0256
cg02633600	16	1,074,159	N_Shelf			0.013	0.836	0.0256
cg22162638	15	33,406,111	OpenSea			0.016	0.679	0.0256
cg11587191	1	3,382,237	OpenSea	ARHGEF16	Body	0.032	0.767	0.0256
cg00190738	5	112,042,650	N_Shore	APC	TSS1500	0.005	0.970	0.0256

cg05922437	15	70,874,926	N_Shelf			0.012	0.491	0.0256
cg14911520	15	100,542,628	OpenSea	ADAMTS17	Body	0.019	0.510	0.0256
cg25156118	19	39,799,137	Island	LRFN1	Body	0.013	0.284	0.0256
cg08522176	11	124,735,398	Island	ROBO3	5'UTR	-0.003	0.024	0.0256
cg26650973	2	128,350,306	Island	MYO7B	Body	0.014	0.810	0.0256
cg05368942	1	110,881,960	Island	RBM15	5'UTR	-0.003	0.027	0.0257
cg07152837	2	218,438,884	OpenSea	DIRC3	Body	0.003	0.985	0.0257
cg23671997	15	65,677,753	OpenSea	IGDCC4	Body	-0.016	0.402	0.0257
cg00961325	7	41,547,329	OpenSea			-0.017	0.825	0.0257
cg10511902	14	91,842,949	OpenSea	CCDC88C	Body	0.025	0.688	0.0257
cg13495167	12	114,395,501	OpenSea	RBM19	Body	0.007	0.946	0.0257
cg04271365	8	1,271,567	OpenSea			0.018	0.824	0.0257
cg16273133	2	230,933,543	Island	SLC16A14	1stExon	0.001	0.014	0.0257
cg08558873	11	7,041,491	Island	ZNF214	5'UTR	-0.003	0.021	0.0257
cg25274052	15	72,565,016	Island	PARP6	TSS1500	-0.003	0.016	0.0257
cg13377341	6	41,715,281	OpenSea	PGC	TSS200	0.026	0.782	0.0257
cg04360519	3	127,996,580	OpenSea	EEFSEC	Body	0.030	0.924	0.0257
cg00229508	15	76,019,993	OpenSea	ODF3L1	3'UTR	0.012	0.787	0.0257
cg11932113	7	132,194,886	OpenSea	PLXNA4	5'UTR	0.013	0.743	0.0257
cg11429658	21	15,646,635	OpenSea	ABCC13	Body	0.023	0.671	0.0257
cg20320823	1	247,697,502	S_Shelf	OR2C3	TSS1500	0.031	0.743	0.0257
cg04626675	19	40,895,647	Island	HIPK4	1stExon	0.018	0.872	0.0257
cg03761477	6	41,472,416	N_Shore			-0.015	0.238	0.0257
cg21516305	17	5,788,714	OpenSea			0.014	0.742	0.0257
cg07387450	1	93,646,168	Island	TMED5	1stExon	-0.003	0.019	0.0257
cg01588464	1	182,360,063	Island	GLUL	5'UTR	0.015	0.077	0.0257
cg21224025	3	13,864,471	S_Shelf	WNT7A	Body	0.012	0.806	0.0257
cg04019522	2	127,852,450	OpenSea	BIN1	Body	0.016	0.101	0.0257
cg00113712	1	2,386,451	N_Shore			0.011	0.924	0.0257
cg07605836	11	66,055,236	N_Shore	YIF1A	Body	0.015	0.648	0.0257

cg23053525	17	76,439,249	OpenSea	DNAH17	Body	0.015	0.632	0.0257
cg16842717	11	1,252,271	Island	MUC5B	Body	0.017	0.770	0.0258
cg22651271	8	141,477,422	S_Shelf			-0.006	0.026	0.0258
cg21718653	7	106,810,195	Island	HBP1	5'UTR	0.003	0.026	0.0258
cg26651303	7	158,533,204	OpenSea	ESYT2	Body	-0.029	0.716	0.0258
cg16628918	8	145,580,818	N_Shore	FBXL6	Body	0.015	0.544	0.0258
cg05078019	4	619,392	N_Shore	PDE6B	1stExon	0.019	0.534	0.0258
cg09243900	1	156,030,844	OpenSea	RAB25	TSS200	0.014	0.396	0.0258
cg00725994	2	3,641,709	N_Shore	COLEC11	TSS1500	-0.021	0.692	0.0258
cg25114855	2	113,465,072	OpenSea			0.005	0.972	0.0258
cg19230443	19	49,950,584	S_Shelf	PIH1D1	Body	0.016	0.849	0.0258
cg08319103	17	77,086,388	OpenSea	HRNBP3	3'UTR	0.026	0.801	0.0258
cg23110407	7	31,745,454	OpenSea	C7orf16	Body	0.029	0.975	0.0258
cg05435224	18	57,919,358	OpenSea			0.003	0.985	0.0258
cg04421611	4	128,702,014	N_Shore	HSPA4L	TSS1500	0.017	0.827	0.0258
cg25035939	1	245,674,287	OpenSea	KIF26B	Body	-0.019	0.786	0.0258
cg00676717	10	79,762,182	OpenSea	POLR3A	Body	-0.002	0.989	0.0258
cg15698851	8	29,940,391	Island	TMEM66	1stExon	0.030	0.051	0.0258
cg21184441	14	103,558,080	Island			0.009	0.060	0.0258
cg18030006	5	72,672,345	N_Shelf			0.007	0.949	0.0258
cg06064254	18	9,959,400	OpenSea	VAPA	3'UTR	0.024	0.803	0.0258
cg06749715	14	37,132,291	Island	PAX9	Body	-0.007	0.026	0.0258
cg19970908	11	45,710,875	OpenSea			0.016	0.432	0.0259
cg05253110	7	141,130,687	OpenSea			0.010	0.072	0.0259
cg03918288	8	145,101,324	N_Shore	SPATC1	Body	0.013	0.540	0.0259
cg13698291	3	73,432,740	Island	PDZRN3	Body	0.023	0.775	0.0259
cg25087154	3	190,231,338	Island	IL1RAP	TSS1500	-0.004	0.039	0.0259
cg19727491	7	4,265,548	OpenSea	SDK1	Body	0.012	0.912	0.0259
cg03566001	8	129,008,054	OpenSea	PVT1	Body	0.004	0.972	0.0259
cg09801924	11	65,425,948	OpenSea	RELA	Body	0.013	0.808	0.0259

cg20317180	19	56,111,252	N_Shore	FIZ1	TSS1500	-0.002	0.014	0.0259
cg02910574	16	89,725,401	S_Shore	C16orf55	Body	0.022	0.757	0.0259
cg14457782	17	40,937,362	Island	WNK4	Body	0.033	0.064	0.0259
cg13647706	19	1,567,517	Island	MEX3D	1stExon	-0.008	0.022	0.0259
cg17520550	5	9,544,693	Island	SEMA5A	5'UTR	-0.004	0.038	0.0259
cg18100586	8	67,783,733	OpenSea	C8orf45	TSS200	0.005	0.977	0.0259
cg05578865	17	80,554,007	N_Shore	FOXK2	Body	-0.031	0.802	0.0259
cg07608094	6	32,134,964	Island	EGFL8	Body	0.022	0.813	0.0259
cg10851071	4	148,604,791	N_Shore	PRMT10	Body	0.002	0.016	0.0259
cg01218148	9	34,523,776	S_Shore	ENHO	TSS1500	0.016	0.574	0.0259
cg12917079	7	599,291	Island	PRKAR1B	Body	0.008	0.939	0.0259
cg03209130	11	107,621,307	OpenSea			0.016	0.840	0.0259
cg00288957	15	65,203,541	N_Shore	ANKDD1A	TSS1500	0.017	0.414	0.0259
cg27081103	16	3,241,159	N_Shore			0.004	0.021	0.0259
cg05656374	21	42,733,825	OpenSea	MX2	TSS200	0.021	0.568	0.0259
cg13881619	9	130,323,725	OpenSea	FAM129B	Body	-0.004	0.978	0.0260
cg24505395	11	62,358,505	N_Shore	TUT1	Body	0.017	0.089	0.0260
cg09057412	6	158,903,203	OpenSea	TULP4	Body	0.014	0.843	0.0260
cg02995206	22	41,777,891	Island	TEF	Body	0.003	0.018	0.0260
cg25819219	3	73,112,133	OpenSea	FLJ10213	3'UTR	0.003	0.982	0.0260
cg14197831	9	34,593,659	S_Shore			0.016	0.666	0.0260
cg04678950	7	130,131,403	Island	MEST	TSS1500	0.013	0.569	0.0260
cg23330668	2	218,016,461	OpenSea			-0.018	0.481	0.0260
cg08738280	1	168,197,198	S_Shore	SFT2D2	Body	0.019	0.416	0.0260
cg25382900	1	12,148,326	OpenSea	TNFRSF8	Body	0.009	0.911	0.0260
cg17166262	6	27,521,041	OpenSea			0.041	0.193	0.0260
cg00601162	22	29,655,504	OpenSea	EMID1	3'UTR	0.014	0.833	0.0260
cg02726803	12	133,196,273	Island	P2RX2	Body	0.019	0.196	0.0260
cg08198377	14	51,707,975	S_Shore	TMX1	Body	0.027	0.132	0.0260
cg08095637	3	169,530,527	S_Shore	LRRRC34	TSS1500	-0.003	0.027	0.0260

cg07835814	20	32,077,669	Island	CBFA2T2	TSS1500	0.016	0.053	0.0260
cg111100802	5	180,688,063	Island	TRIM52	5'UTR	-0.002	0.022	0.0260
cg03029175	11	2,966,049	Island	NAP1L4	3'UTR	-0.009	0.940	0.0260
cg17528580	10	69,962,886	OpenSea	MYPN	Body	0.025	0.266	0.0260
cg111176256	17	79,053,905	S_Shore	BAIAP2	Body	0.014	0.321	0.0260
cg26521561	2	198,283,608	OpenSea	SF3B1	3'UTR	0.004	0.980	0.0260
cg04238185	3	89,164,223	S_Shore	EPHA3	Body	-0.021	0.243	0.0260
cg23994043	2	200,326,725	Island	SATB2	TSS1500	-0.006	0.035	0.0261
cg03935096	16	9,048,985	S_Shore	USP7	Body	0.016	0.856	0.0261
cg01038479	17	35,767,307	Island	TADA2A	TSS200	0.002	0.014	0.0261
cg25711575	2	178,937,477	N_Shore	PDE11A	5'UTR	-0.003	0.026	0.0261
cg03900492	7	157,345,659	N_Shore	PTPRN2	Body	-0.015	0.476	0.0261
cg02852398	1	1,068,089	OpenSea			0.023	0.479	0.0261
cg16442953	15	53,841,455	OpenSea	WDR72	Body	0.029	0.767	0.0261
cg10275695	19	47,975,487	OpenSea	SLC8A2	TSS200	0.002	0.017	0.0261
cg22386073	8	35,483,012	OpenSea	UNC5D	Body	0.019	0.420	0.0261
cg14306330	20	42,143,045	N_Shore	L3MBTL	TSS200	0.033	0.554	0.0261
cg05715861	17	62,340,798	Island	TEX2	TSS200	-0.003	0.030	0.0261
cg16337574	12	56,109,265	N_Shore	BLOC1S1	TSS1500	0.021	0.812	0.0261
cg00044354	1	67,389,884	N_Shore	MIER1	TSS1500	0.038	0.369	0.0261
cg15127702	7	101,079,617	OpenSea	EMID2	Body	0.033	0.520	0.0261
cg12845215	6	130,182,510	OpenSea	C6orf191	TSS200	0.019	0.617	0.0261
cg18704865	6	33,288,851	Island	DAXX	Body	0.015	0.897	0.0261
cg23518791	22	18,111,806	S_Shore	ATP6V1E1	TSS1500	0.002	0.019	0.0261
cg07087859	20	62,102,803	Island	KCNQ2	Body	-0.007	0.051	0.0261
cg19679327	11	112,279,096	OpenSea			0.021	0.508	0.0262
cg01238669	7	21,797,276	OpenSea	DNAH11	Body	0.021	0.430	0.0262
cg00193200	3	120,626,653	N_Shore	STXBP5L	TSS1500	-0.004	0.033	0.0262
cg14812492	13	42,622,014	Island	DGKH	TSS1500	0.001	0.014	0.0262
cg24392646	7	1,451,332	Island			0.013	0.816	0.0262

cg26683636	8	93,037,234	OpenSea	RUNX1T1	Body	0.002	0.986	0.0262
cg07414961	17	70,587,753	N_Shore			-0.003	0.027	0.0262
cg11157172	1	3,210,417	OpenSea	PRDM16	Body	-0.023	0.862	0.0262
cg21898844	14	89,628,169	N_Shore	FOXN3	3'UTR	-0.003	0.984	0.0262
cg07992840	16	55,052,984	Island			0.015	0.581	0.0262
cg00174718	6	47,136,110	OpenSea			0.012	0.417	0.0262
cg13444538	7	158,905,317	Island	VIPR2	Body	0.062	0.617	0.0262
cg00909806	1	212,688,762	S_Shore			-0.047	0.141	0.0262
cg14162033	5	151,150,910	Island	G3BP1	TSS1500	0.003	0.029	0.0262
cg24847621	6	30,122,565	OpenSea	TRIM10	Body	0.114	0.516	0.0262
cg18331133	5	93,382,458	OpenSea	FAM172A	Body	-0.008	0.949	0.0262
cg00750225	6	1,664,673	OpenSea	GMDS	Body	0.025	0.696	0.0262
cg24997231	1	209,527,535	OpenSea			0.025	0.348	0.0263
cg11398081	7	25,268,518	OpenSea	NPVF	TSS1500	0.006	0.962	0.0263
cg10898182	5	5,979,803	OpenSea			-0.018	0.873	0.0263
cg18184769	1	12,039,714	N_Shore	MFN2	TSS1500	0.016	0.478	0.0263
cg22756386	5	176,225,714	OpenSea			0.017	0.740	0.0263
cg18154422	10	31,609,200	Island	ZEB1	TSS1500	-0.010	0.075	0.0263
cg27494615	2	9,614,744	Island	IAH1	1stExon	-0.008	0.029	0.0263
cg06583259	11	118,758,992	OpenSea	CXCR5	Body	0.017	0.549	0.0263
cg02680566	2	19,559,792	N_Shore	OSR1	TSS1500	-0.011	0.954	0.0263
cg19235095	3	44,596,665	Island	ZNF167	TSS200	0.004	0.040	0.0263
cg03152800	16	3,167,090	N_Shelf	MGC3771	TSS1500	0.034	0.971	0.0263
cg23914842	1	9,327,170	S_Shelf	H6PD	3'UTR	-0.023	0.199	0.0263
cg23478293	14	57,279,275	S_Shore	OTX2OS1	TSS1500	0.004	0.028	0.0263
cg13751113	11	118,085,214	OpenSea	AMICA1	Body	0.017	0.707	0.0263
cg07964958	6	83,899,780	N_Shelf	PGM3	Body	0.002	0.990	0.0263
cg21039932	7	157,315,088	N_Shelf			0.003	0.970	0.0263
cg13044277	15	76,304,546	OpenSea	NRG4	5'UTR	-0.007	0.048	0.0263
cg05440289	1	152,881,119	OpenSea	IVL	5'UTR	0.012	0.828	0.0263

cg01767525	18	76,262,288	Island			-0.003	0.988	0.0263
cg02644510	7	121,946,608	S_Shore			-0.002	0.021	0.0263
cg16867086	13	98,826,197	N_Shelf	FARP1	5'UTR	-0.046	0.382	0.0263
cg23756173	17	26,577,713	Island			0.016	0.810	0.0263
cg20971488	1	228,786,295	S_Shore	DUSP5P	Body	0.034	0.523	0.0264
cg13861527	2	28,486,655	OpenSea	BRE	Body	0.017	0.674	0.0264
cg14321941	8	583,068	OpenSea			0.018	0.926	0.0264
cg08322580	14	70,690,538	OpenSea			-0.066	0.641	0.0264
cg08343834	17	15,168,658	S_Shelf	PMP22	TSS200	0.017	0.304	0.0264
cg06767681	17	77,606,648	N_Shelf			0.037	0.524	0.0264
cg05239811	6	31,734,147	OpenSea	C6orf27	Body	0.054	0.130	0.0264
cg16140954	1	3,816,609	Island	C1orf174	Body	0.002	0.024	0.0264
cg19271190	6	31,554,946	OpenSea	LST1	Body	0.017	0.731	0.0264
cg25123521	5	150,040,884	OpenSea	MYOZ3	1stExon	0.009	0.437	0.0264
cg04862097	4	2,795,456	Island	SH3BP2	5'UTR	-0.008	0.069	0.0264
cg20917491	3	195,578,259	OpenSea			0.056	0.306	0.0264
cg12827283	6	32,135,728	S_Shore	EGFL8	Body	0.037	0.525	0.0264
cg01441698	1	20,250,186	OpenSea	PLA2G2E	TSS200	0.014	0.478	0.0264
cg07240086	22	50,606,448	N_Shore			0.016	0.723	0.0264
cg10759972	8	1,971,471	N_Shore			0.016	0.851	0.0264
cg04712949	7	93,205,018	S_Shore	CALCR	TSS1500	0.006	0.036	0.0264
cg16320626	12	121,877,851	N_Shelf	KDM2B	Body	-0.004	0.972	0.0264
cg15973075	5	12,355,075	OpenSea			-0.019	0.706	0.0265
cg01409709	2	238,322,334	OpenSea	COL6A3	5'UTR	-0.021	0.482	0.0265
cg17571919	6	28,829,328	N_Shelf			0.038	0.903	0.0265
cg24985035	17	36,147,478	OpenSea			0.028	0.513	0.0265
cg10546252	22	24,384,294	Island	GSTT1	TSS200	0.115	0.129	0.0265
cg22377963	16	30,905,861	S_Shore	BCL7C	TSS1500	-0.011	0.138	0.0265
cg16217751	3	4,882,778	OpenSea	ITPR1	Body	0.007	0.961	0.0265
cg05505450	2	58,273,643	Island	VRK2	TSS200	0.001	0.013	0.0265



cg16857113	3	1,133,865	OpenSea	CNTN6	TSS1500	0.021	0.653	0.0265
cg27573291	19	1,266,391	Island			-0.006	0.088	0.0265
cg07918390	6	32,164,143	Island	GPSM3	TSS1500	-0.002	0.027	0.0265
cg10093738	6	25,726,947	S_Shore	HIST1H2AA	TSS200	-0.016	0.939	0.0265
cg07805967	10	53,459,337	Island	CSTF2T	1stExon	-0.010	0.195	0.0265
cg08144172	1	41,849,203	Island			-0.007	0.055	0.0265
cg08953666	6	32,862,521	Island			0.001	0.015	0.0265
cg26524517	12	132,896,859	S_Shore	GALNT9	Body	0.024	0.890	0.0265
cg03513964	1	75,139,746	OpenSea	C1orf173	TSS1500	-0.046	0.296	0.0265
cg24629016	4	8,648,739	S_Shelf			0.011	0.922	0.0265
cg12085155	22	37,769,679	Island	ELFN2	Body	0.018	0.832	0.0265
cg24795614	2	44,973,115	OpenSea	C2orf34	Body	-0.022	0.498	0.0265
cg10113157	1	207,666,347	N_Shelf			0.005	0.971	0.0265
cg14630001	3	66,633,408	OpenSea			0.018	0.813	0.0265
cg04497354	6	30,109,208	OpenSea	TRIM40	Body	0.016	0.855	0.0265
cg07166800	2	55,509,719	Island	PRDXDD1P	Body	-0.004	0.028	0.0265
cg11023075	5	60,633,617	S_Shelf	ZSWIM6	Body	0.003	0.983	0.0266
cg15789106	11	563,990	N_Shelf	RASSF7	3'UTR	0.013	0.446	0.0266
cg04101342	7	1,909,417	N_Shore	MAD1L1	Body	0.012	0.908	0.0266
cg20776947	12	133,197,827	S_Shore	P2RX2	Body	0.017	0.717	0.0266
cg23929317	1	201,123,992	S_Shore	TMEM9	TSS1500	0.027	0.144	0.0266
cg26725397	16	25,937,266	OpenSea	HS3ST4	Body	0.017	0.794	0.0266
cg05226125	1	87,594,107	N_Shelf	LOC339524	TSS1500	-0.004	0.976	0.0266
cg14399122	9	137,660,670	Island	COL5A1	Body	0.018	0.651	0.0266
cg00911370	20	1,472,098	OpenSea	SIRPB2	1stExon	0.014	0.569	0.0266
cg11786750	3	32,612,556	Island	DYNC1L1	TSS1500	-0.005	0.034	0.0266
cg18123327	14	55,734,984	N_Shelf			-0.019	0.687	0.0266
cg26671966	1	19,984,016	OpenSea	NBL1	3'UTR	0.019	0.821	0.0266
cg16132555	11	189,654	OpenSea			0.008	0.982	0.0266
cg08695558	22	46,507,614	OpenSea	MIRLET7A3	TSS1500	0.015	0.807	0.0266

cg09910271	16	88,995,416	S_Shore	CBFA2T3	5'UTR	-0.026	0.226	0.0266
cg01321034	16	88,760,307	N_Shelf			0.015	0.715	0.0266
cg06092084	1	1,858,106	N_Shore			0.020	0.725	0.0266
cg18113107	1	226,288,408	OpenSea			-0.009	0.031	0.0267
cg05369428	1	11,433,296	OpenSea			0.021	0.606	0.0267
cg01149259	3	47,021,396	Island	NBEAL2	1stExon	0.007	0.017	0.0267
cg25770267	1	7,596,685	OpenSea	CAMTA1	Body	0.020	0.680	0.0267
cg05007180	16	8,846,239	OpenSea	ABAT	Body	0.006	0.966	0.0267
cg12419678	10	75,533,025	S_Shore	FUT11	Body	-0.004	0.033	0.0267
cg16587961	6	31,733,688	OpenSea	C6orf27	Body	0.021	0.799	0.0267
cg06311920	16	84,600,051	OpenSea	COTL1	3'UTR	0.015	0.487	0.0267
cg16311536	10	105,344,174	Island	NEURL	Body	0.023	0.220	0.0267
cg02162069	19	57,352,134	Island	ZIM2	TSS200	0.013	0.539	0.0267
cg08648281	19	31,159,736	OpenSea			0.014	0.848	0.0267
cg08513881	15	66,084,117	Island	DENND4A	5'UTR	0.003	0.029	0.0267
cg26015539	6	10,841,571	S_Shelf			0.034	0.634	0.0267
cg06070324	15	75,322,058	OpenSea	PPCDC	Body	0.019	0.647	0.0267
cg13411813	13	97,649,981	S_Shelf			0.031	0.692	0.0267
cg02008818	3	170,625,519	N_Shore	EIF5A2	Body	0.020	0.448	0.0267
cg12220788	2	76,186,264	OpenSea			0.019	0.526	0.0267
cg11808633	12	6,730,599	S_Shore	LPAR5	5'UTR	0.014	0.780	0.0267
cg03718683	4	3,576,336	OpenSea			0.014	0.874	0.0267
cg21661815	6	168,140,576	OpenSea			-0.006	0.951	0.0267
cg00855466	17	19,652,056	S_Shelf	ALDH3A1	TSS1500	0.017	0.327	0.0267
cg17936572	3	35,706,114	OpenSea	ARPP-21	5'UTR	0.024	0.420	0.0268
cg13401196	7	157,502,419	N_Shore	PTPRN2	Body	0.014	0.663	0.0268
cg25215835	3	51,931,585	OpenSea	IQCF1	Body	0.006	0.971	0.0268
cg13234732	3	180,547,932	S_Shore			0.007	0.941	0.0268
cg03692700	14	105,041,541	Island			0.023	0.589	0.0268
cg02779230	1	28,879,417	Island	TRNAU1AP	TSS200	-0.004	0.030	0.0268

cg19638308	12	132,896,568	Island	GALNT9	Body	0.018	0.878	0.0268
cg05182503	14	24,721,651	OpenSea	TGM1	Body	0.014	0.676	0.0268
cg10829134	15	80,352,620	OpenSea	ZFAND6	5'UTR	0.002	0.015	0.0268
cg04693046	7	1,132,853	Island	C7orf50	Body	0.017	0.735	0.0268
cg12664795	1	156,270,918	OpenSea	VHLL	TSS1500	0.022	0.643	0.0268
cg04784499	17	79,950,289	N_Shore	ASPSCR1	Body	-0.015	0.428	0.0268
cg25063864	18	77,489,374	S_Shore	CTDP1	Body	0.003	0.967	0.0268
cg07928642	15	77,400,550	OpenSea	SGK269	3'UTR	0.017	0.346	0.0268
cg03991126	6	154,726,758	OpenSea	CNKSR3	3'UTR	-0.005	0.967	0.0268
cg25554316	8	2,127,476	N_Shelf			0.017	0.767	0.0268
cg00986910	3	55,450,569	OpenSea			0.022	0.717	0.0268
cg10848373	21	39,047,855	Island	KCNJ6	Body	-0.039	0.140	0.0268
cg00395501	1	93,296,860	N_Shore	RPL5	TSS1500	-0.014	0.921	0.0268
cg23602453	1	246,958,862	OpenSea			0.014	0.603	0.0268
cg02631092	10	104,102,349	OpenSea	GBF1	Body	-0.030	0.623	0.0268
cg26811065	6	32,825,360	S_Shelf	PSMB9	Body	0.032	0.737	0.0269
cg14639562	9	95,218,675	OpenSea	CENPP	Body	0.005	0.977	0.0269
cg25340675	3	121,468,720	S_Shore	GOLGB1	TSS200	-0.004	0.021	0.0269
cg01144053	2	7,571,361	Island			-0.008	0.055	0.0269
cg14522790	10	123,891,791	OpenSea	TACC2	Body	0.026	0.933	0.0269
cg21042673	4	8,374,561	N_Shore	ACOX3	Body	-0.021	0.755	0.0269
cg07212543	13	113,613,737	OpenSea			0.032	0.233	0.0269
cg01844539	5	77,140,808	Island			-0.004	0.041	0.0269
cg19706320	14	100,204,528	S_Shore			0.021	0.445	0.0269
cg09955413	10	133,995,286	N_Shelf	JAKMIP3	3'UTR	0.028	0.534	0.0269
cg00793088	12	71,315,008	OpenSea	PTPRR	TSS1500	0.024	0.459	0.0269
cg17881203	19	990,398	Island	WDR18	Body	0.016	0.905	0.0269
cg15043057	1	41,444,788	N_Shore	CTPS	TSS1500	0.014	0.188	0.0269
cg15900998	1	3,379,492	OpenSea	ARHGEF16	5'UTR	0.013	0.704	0.0269
cg16794682	11	69,460,951	N_Shore	CCND1	Body	0.015	0.832	0.0269

cg20397753	12	132,972,256	N_Shore			0.016	0.658	0.0269
cg05634149	21	34,395,317	Island			-0.002	0.022	0.0269
cg19907607	14	74,727,464	S_Shelf	VSX2	Body	0.015	0.840	0.0269
cg23392782	16	88,772,647	Island	RNF166	1stExon	-0.004	0.036	0.0269
cg01753815	7	157,225,818	OpenSea			0.039	0.082	0.0269
cg05654329	5	177,581,506	S_Shore	NHP2	TSS1500	0.016	0.890	0.0270
cg11352146	11	65,192,550	S_Shore	NEAT1	Body	0.013	0.352	0.0270
cg09805252	12	133,187,452	S_Shore			0.029	0.177	0.0270
cg24109415	12	67,462,522	N_Shore			-0.009	0.068	0.0270
cg02743256	7	2,109,353	S_Shore	MAD1L1	Body	0.023	0.635	0.0270
cg00145904	1	10,697,703	N_Shore	CASZ1	3'UTR	0.014	0.759	0.0270
cg14124066	9	125,015,960	OpenSea	RBM18	Body	0.017	0.773	0.0270
cg26908876	11	2,722,076	Island	KCNQ1OT1	TSS1500	-0.015	0.515	0.0270
cg10228162	9	133,589,493	S_Shore	ABL1	5'UTR	0.031	0.245	0.0270
cg11790699	1	32,192,936	OpenSea	BAI2	3'UTR	0.012	0.841	0.0270
cg06234863	17	55,739,985	OpenSea	MSI2	Body	0.019	0.818	0.0270
cg21753682	12	132,693,557	N_Shelf	GALNT9	Body	0.005	0.969	0.0270
cg13212172	8	141,540,865	OpenSea			-0.013	0.931	0.0270
cg23759053	7	34,173,999	OpenSea	BMPER	Body	-0.004	0.031	0.0270
cg13963891	15	28,343,577	N_Shore	OCA2	5'UTR	0.021	0.640	0.0270
cg05202804	19	11,484,815	N_Shore	C19orf39	TSS1500	0.026	0.519	0.0270
cg05783854	5	140,346,403	Island	PCDHAC2	1stExon	-0.005	0.023	0.0270
cg02788102	11	115,374,969	Island	CADM1	Body	-0.004	0.022	0.0270
cg12947138	5	71,475,303	OpenSea	MAP1B	Body	0.016	0.332	0.0270
cg09268313	19	3,613,573	Island	C19orf29	Body	0.026	0.684	0.0270
cg18006769	7	2,698,048	Island	TTYH3	Body	0.013	0.811	0.0270
cg15195495	19	681,420	Island	FSTL3	Body	0.029	0.802	0.0270
cg09698981	13	32,889,470	N_Shore	BRCA2	TSS200	-0.008	0.075	0.0270
cg08734740	5	50,679,149	Island	ISL1	5'UTR	-0.014	0.059	0.0270
cg12445208	19	56,916,205	S_Shore	ZNF583	5'UTR	0.019	0.423	0.0270

cg01989275	17	80,367,027	Island	C17orf101	Body	0.014	0.902	0.0270
cg21928095	19	36,100,748	N_Shelf			0.026	0.861	0.0271
cg17901463	1	110,230,473	Island	GSTM1	1stExon	-0.110	0.197	0.0271
cg15757195	2	8,422,332	OpenSea			0.035	0.731	0.0271
cg20832803	13	114,861,780	Island	RASA3	Body	0.015	0.910	0.0271
cg23694490	7	47,445,681	OpenSea	TNS3	Body	0.075	0.416	0.0271
cg23271660	10	70,881,017	N_Shelf			0.003	0.984	0.0271
cg25683397	10	101,190,421	N_Shore	GOT1	5'UTR	-0.004	0.030	0.0271
cg00268644	20	6,105,569	S_Shore	FERMT1	TSS1500	0.046	0.850	0.0271
cg13929627	9	79,635,445	Island	FOXB2	1stExon	-0.003	0.023	0.0271
cg08063228	16	89,055,915	OpenSea			0.014	0.406	0.0271
cg02564313	16	8,767,706	N_Shore	ABAT	TSS1500	0.017	0.640	0.0271
cg25428740	2	96,981,671	OpenSea			0.015	0.524	0.0271
cg13126655	19	5,997,434	Island	RFX2	Body	-0.028	0.698	0.0271
cg16542473	5	123,424,832	OpenSea			-0.018	0.939	0.0271
cg04416414	19	14,260,587	N_Shore	LPHN1	3'UTR	0.022	0.555	0.0271
cg14519917	1	111,747,302	Island			-0.015	0.152	0.0271
cg20865618	7	187,333	S_Shore			-0.035	0.957	0.0271
cg11682083	5	172,782,844	OpenSea			0.017	0.422	0.0271
cg09973852	16	30,456,960	Island	SEPHS2	1stExon	0.014	0.026	0.0271
cg03784628	11	64,059,937	Island	KCNK4	5'UTR	-0.015	0.056	0.0271
cg22097505	15	83,423,879	OpenSea	SCARNA15	TSS1500	-0.003	0.988	0.0271
cg08279693	1	152,657,950	OpenSea	LCE2B	TSS1500	0.018	0.929	0.0271
cg20623949	4	3,265,280	OpenSea	C4orf44	Body	0.014	0.666	0.0271
cg23970338	12	58,176,483	OpenSea	TSFM	TSS200	0.005	0.038	0.0271
cg13566181	9	7,797,446	N_Shore	C9orf123	3'UTR	0.003	0.980	0.0271
cg00788170	1	227,921,688	N_Shore	SNAP47	TSS1500	0.011	0.570	0.0271
cg15551881	9	123,688,715	N_Shelf	TRAF1	5'UTR	0.005	0.969	0.0271
cg27624313	7	73,867,921	Island	GTF2IRD1	TSS200	0.003	0.037	0.0271
cg20511807	14	95,982,758	Island			0.019	0.087	0.0272

cg15931205	6	29,894,820	Island	HCG4P6	TSS1500	0.055	0.050	0.0272
cg15847272	6	31,913,250	OpenSea	C2	3'UTR	0.015	0.588	0.0272
cg24304789	2	43,451,423	N_Shore	ZFP36L2	3'UTR	-0.004	0.024	0.0272
cg21785536	3	69,063,328	S_Shore	C3orf64	TSS1500	0.019	0.139	0.0272
cg08041603	11	78,093,881	OpenSea	GAB2	Body	0.010	0.945	0.0272
cg12729838	8	27,469,186	N_Shelf	CLU	1stExon	0.017	0.516	0.0272
cg21944455	17	42,994,269	OpenSea	GFAP	TSS1500	0.013	0.942	0.0272
cg25648211	17	76,312,455	S_Shore			-0.003	0.977	0.0272
cg07827337	19	39,575,027	Island	PAPL	1stExon	0.008	0.061	0.0272
cg15076023	2	175,260,335	OpenSea	CIR1	1stExon	0.001	0.010	0.0272
cg01982788	12	56,556,339	OpenSea	SMARCC2	3'UTR	0.015	0.621	0.0272
cg26885619	17	39,471,907	OpenSea	KRTAP17-1	1stExon	0.015	0.909	0.0272
cg02565308	9	135,645,631	Island	C9orf98	Body	-0.001	0.015	0.0272
cg05104099	16	3,714,340	OpenSea	TRAP1	Body	0.004	0.980	0.0272
cg05779364	1	220,132,137	OpenSea			-0.003	0.986	0.0272
cg06583549	19	46,387,962	Island	IRF2BP1	1stExon	0.033	0.703	0.0272
cg13036656	4	660,910	S_Shelf	PDE6B	Body	0.014	0.792	0.0272
cg12124955	10	3,146,486	N_Shore	PFKP	Body	0.031	0.978	0.0272
cg24461964	2	149,633,112	Island	KIF5C	5'UTR	0.004	0.029	0.0272
cg25150440	7	136,553,088	N_Shore	CHRM2	TSS1500	0.028	0.614	0.0272
cg18805734	12	31,453,901	OpenSea	FAM60A	5'UTR	0.012	0.660	0.0272
cg03562788	16	31,487,153	Island	TGFB1I1	Body	0.017	0.894	0.0272
cg20335213	1	94,704,048	S_Shore	ARHGAP29	TSS1500	0.020	0.651	0.0273
cg26672098	2	42,326,070	N_Shelf			0.013	0.413	0.0273
cg07103895	14	105,457,963	OpenSea	C14orf79	Body	-0.006	0.949	0.0273
cg26182859	1	153,762,201	OpenSea			0.017	0.674	0.0273
cg03955409	16	3,184,277	Island	ZNF213	TSS1500	0.005	0.032	0.0273
cg10735361	4	7,044,595	Island	CCDC96	1stExon	-0.008	0.041	0.0273
cg14354398	13	113,539,759	N_Shore	ATP11A	3'UTR	0.012	0.845	0.0273
cg05560333	1	233,432,602	S_Shore	PCNXL2	TSS1500	-0.016	0.743	0.0273

cg04344476	19	45,664,763	OpenSea	NKPD1	TSS1500	0.013	0.551	0.0273
cg03383268	2	218,770,237	OpenSea	TNS1	5'UTR	0.017	0.344	0.0273
cg22125814	12	83,041,928	OpenSea			0.005	0.975	0.0273
cg13085980	12	94,544,425	S_Shore	PLXNC1	Body	0.003	0.023	0.0273
cg10078898	14	21,491,045	N_Shore	NDRG2	Body	0.011	0.785	0.0273
cg01228342	3	71,779,135	OpenSea	EIF4E3	5'UTR	0.002	0.013	0.0273
cg21449569	19	2,276,322	Island	C19orf35	Body	0.033	0.796	0.0273
cg13518625	8	29,522,838	OpenSea			0.016	0.499	0.0273
cg26605406	19	52,074,318	Island	ZNF175	TSS1500	0.002	0.017	0.0273
cg13891702	11	31,824,973	N_Shore	PAX6	Body	-0.007	0.059	0.0273
cg00997054	3	32,904,291	OpenSea	TRIM71	Body	0.025	0.511	0.0273
cg14449180	6	29,894,619	Island	HCG4P6	TSS1500	0.055	0.039	0.0273
cg27151480	18	77,473,568	N_Shore	CTDP1	Body	0.005	0.969	0.0273
cg12017635	12	72,343,656	OpenSea	TPH2	Body	0.022	0.157	0.0273
cg12064373	11	1,457,153	OpenSea	BRSK2	Body	-0.009	0.053	0.0273
cg20432384	1	9,438,252	OpenSea			0.017	0.726	0.0273
cg03349251	6	10,832,472	OpenSea	MAK	TSS1500	0.004	0.972	0.0273
cg22007260	2	159,846,727	OpenSea	TANC1	5'UTR	0.016	0.856	0.0274
cg14418297	9	83,000,016	OpenSea			-0.027	0.877	0.0274
cg00009214	12	16,064,569	S_Shore	DERA	Body	-0.005	0.044	0.0274
cg26904702	1	153,746,899	N_Shore	SLC27A3	TSS1500	0.013	0.711	0.0274
cg19889666	11	128,812,825	OpenSea	TP53AIP1	TSS200	0.013	0.915	0.0274
cg13806461	11	840,407	N_Shore	POLR2L	Body	0.014	0.851	0.0274
cg21910363	3	71,034,420	OpenSea	FOXP1	Body	0.003	0.981	0.0274
cg14958969	2	1,942,814	S_Shore	MYT1L	Body	0.025	0.632	0.0274
cg19797741	5	92,910,052	S_Shore	FLJ42709	Body	-0.024	0.318	0.0274
cg04742985	19	14,519,989	S_Shelf	DDX39	Body	0.016	0.774	0.0274
cg04612566	8	144,120,706	OpenSea	C8orf31	1stExon	0.049	0.248	0.0274
cg10368935	10	18,240,316	OpenSea	SLC39A12	TSS1500	0.005	0.972	0.0274
cg03665970	19	17,446,104	S_Shore	ANO8	TSS1500	0.032	0.525	0.0274

cg03008241	8	144,992,234	Island	PLEC1	Body	0.009	0.934	0.0274
cg10999992	22	38,200,221	N_Shore	H1F0	TSS1500	-0.022	0.394	0.0274
cg21647182	2	1,657,483	OpenSea	PXDN	Body	0.026	0.754	0.0274
cg03526160	20	43,586,170	N_Shelf	TOMM34	Body	0.007	0.945	0.0274
cg03943674	18	77,643,329	Island	KCNG2	Body	0.030	0.786	0.0274
cg21201294	7	47,611,926	OpenSea			0.015	0.640	0.0275
cg10938336	10	78,676,267	OpenSea	KCNMA1	Body	0.003	0.985	0.0275
cg04122467	1	150,521,777	Island	ADAMTSL4	TSS200	-0.038	0.216	0.0275
cg06026129	19	822,355	Island	LPPR3	TSS1500	-0.005	0.039	0.0275
cg04230403	10	90,750,176	N_Shore	FAS	TSS200	0.005	0.032	0.0275
cg14851345	6	64,423,797	OpenSea	PHF3	3'UTR	0.005	0.967	0.0275
cg19734830	22	49,139,600	N_Shore	FAM19A5	Body	0.019	0.777	0.0275
cg14094983	7	8,482,099	Island	NXPH1	Body	-0.006	0.059	0.0275
cg01300623	3	31,846,016	OpenSea	OSBPL10	Body	-0.042	0.392	0.0275
cg16657538	18	32,847,566	Island	ZNF397OS	5'UTR	0.005	0.024	0.0275
cg11240043	1	20,250,501	OpenSea	PLA2G2E	TSS1500	0.017	0.581	0.0275
cg02053171	7	74,489,585	Island	WBSCR16	5'UTR	0.003	0.018	0.0275
cg21187068	8	144,659,627	N_Shore	NAPRT1	Body	0.050	0.587	0.0275
cg27455540	2	18,866,125	OpenSea			-0.017	0.391	0.0275
cg13441730	9	10,613,328	Island	PTPRD	TSS1500	0.001	0.015	0.0275
cg05881455	2	230,785,105	N_Shore	TRIP12	5'UTR	0.003	0.027	0.0276
cg11425449	5	7,868,703	N_Shore	MTRR	TSS1500	-0.001	0.018	0.0276
cg26801445	8	23,389,788	S_Shelf	SLC25A37	Body	-0.016	0.817	0.0276
cg04703617	16	3,158,841	S_Shore			0.024	0.721	0.0276
cg07047589	15	40,642,998	OpenSea	PHGR1	TSS1500	0.011	0.511	0.0276
cg18473652	6	75,914,122	N_Shore	COL12A1	5'UTR	-0.001	0.015	0.0276
cg13613983	5	139,493,546	N_Shore	PURA	TSS200	-0.009	0.055	0.0276
cg05465755	9	91,926,196	Island	CKS2	5'UTR	-0.004	0.027	0.0276
cg12861503	13	52,734,071	S_Shore	NEK3	TSS1500	0.017	0.422	0.0276
cg21509978	7	169,560	OpenSea			0.033	0.680	0.0276



cg12900314	1	21,755,315	Island			0.033	0.511	0.0276
cg25116900	10	74,452,662	S_Shore	CCDC109A	Body	0.002	0.017	0.0276
cg22719658	1	151,743,711	OpenSea	OAZ3	3'UTR	0.017	0.601	0.0276
cg00562312	5	178,752,999	OpenSea	ADAMTS2	Body	0.014	0.890	0.0276
cg25205489	13	24,125,993	OpenSea			-0.021	0.388	0.0276
cg26006870	8	11,559,039	N_Shore			-0.060	0.277	0.0276
cg26190885	19	45,409,005	N_Shelf	APOE	TSS200	-0.007	0.064	0.0276
cg26534477	17	42,147,600	N_Shore	G6PC3	TSS1500	0.013	0.355	0.0276
cg00014837	12	6,757,257	S_Shore	ACRBP	TSS1500	-0.003	0.981	0.0276
cg21756326	5	173,415,636	N_Shore	C5orf47	TSS1500	0.014	0.814	0.0276
cg01622018	17	34,122,943	S_Shore	MMP28	TSS1500	0.028	0.409	0.0276
cg22711917	15	100,273,730	Island	LYSMD4	TSS200	-0.004	0.034	0.0277
cg19918208	6	28,828,364	N_Shelf			0.017	0.924	0.0277
cg25765027	8	46,940,943	OpenSea			0.025	0.748	0.0277
cg17311725	2	242,089,888	Island	PPP1R7	TSS200	-0.009	0.022	0.0277
cg16816623	3	49,914,864	OpenSea			-0.015	0.924	0.0277
cg04983128	1	10,654,462	OpenSea	PEX14	Body	0.015	0.907	0.0277
cg14825688	5	132,208,181	OpenSea	LEAP2	TSS1500	0.028	0.684	0.0277
cg08599475	6	137,362,747	N_Shelf	IL20RA	Body	0.008	0.955	0.0277
cg26363579	8	1,107,269	S_Shore			0.012	0.765	0.0277
cg22329488	8	67,579,616	S_Shore	VCPIP1	TSS200	0.002	0.020	0.0277
cg15577822	1	246,747,488	OpenSea	CNST	5'UTR	0.002	0.987	0.0277
cg16805994	7	14,028,845	N_Shore	ETV1	5'UTR	-0.003	0.016	0.0277
cg17107540	10	72,197,470	N_Shelf	NODAL	Body	-0.026	0.190	0.0277
cg02978150	11	125,702,592	OpenSea	PATE4	TSS1500	0.004	0.975	0.0277
cg15484244	14	51,298,370	Island	NIN	TSS1500	-0.003	0.028	0.0277
cg16353568	21	33,641,027	OpenSea	C21orf45	3'UTR	0.007	0.954	0.0277
cg25524350	7	94,284,893	Island	SGCE	Body	-0.002	0.020	0.0277
cg04988423	11	44,331,577	Island	ALX4	1stExon	0.003	0.021	0.0277
cg07203951	1	90,021,510	OpenSea	LRRC8B	5'UTR	0.003	0.972	0.0278

cg08613144	2	133,428,836	Island	LYPD1	1stExon	0.008	0.042	0.0278
cg18051346	17	43,238,278	Island	HEXIM2	1stExon	-0.006	0.036	0.0278
cg27649194	12	1,974,168	Island	CACNA2D4	Body	-0.028	0.313	0.0278
cg18203965	10	5,570,694	S_Shelf			-0.010	0.911	0.0278
cg10474018	6	29,860,016	S_Shelf			-0.049	0.781	0.0278
cg24052809	17	80,771,717	N_Shore	TBCD	Body	0.012	0.935	0.0278
cg20481110	17	80,285,244	OpenSea	SECTM1	5'UTR	0.022	0.846	0.0278
cg05546044	22	22,222,597	S_Shore	MAPK1	TSS1500	0.019	0.493	0.0278
cg15413702	11	34,124,180	N_Shelf			0.003	0.978	0.0278
cg26501139	18	77,733,105	OpenSea	TXNL4A	3'UTR	0.005	0.966	0.0278
cg27051224	16	2,113,170	Island	TSC2	Body	0.005	0.953	0.0278
cg09307564	14	36,983,737	Island	SFTA3	TSS1500	-0.004	0.040	0.0278
cg01414215	5	102,091,665	Island			0.001	0.015	0.0278
cg26731187	8	74,703,692	OpenSea	UBE2W	3'UTR	0.004	0.985	0.0278
cg22124479	18	77,155,094	Island	NFATC1	TSS1500	-0.002	0.035	0.0278
cg11803589	12	6,197,837	OpenSea	VWF	Body	0.014	0.696	0.0278
cg11601027	5	153,852,690	N_Shore			-0.004	0.038	0.0278
cg23827867	20	306,044	Island	SOX12	TSS200	-0.006	0.025	0.0278
cg17593169	1	46,153,921	S_Shore	TMEM69	5'UTR	0.007	0.033	0.0278
cg08651631	17	1,619,708	Island	WDR81	TSS200	-0.085	0.049	0.0279
cg13794839	14	103,162,565	OpenSea	RCOR1	Body	0.005	0.970	0.0279
cg21421501	11	61,734,205	N_Shore	FTH1	Body	-0.002	0.019	0.0279
cg05191313	5	118,747,345	OpenSea			0.016	0.183	0.0279
cg20175760	8	125,486,985	Island	RNF139	TSS200	-0.004	0.039	0.0279
cg05347872	7	157,654,532	OpenSea	PTPRN2	Body	-0.017	0.852	0.0279
cg13051700	7	79,050,007	OpenSea	MAGI2	Body	0.047	0.674	0.0279
cg05887092	17	76,393,375	N_Shelf	PGS1	Body	0.027	0.811	0.0279
cg04407431	1	840,618	Island			0.001	0.010	0.0279
cg01418388	8	15,452,400	OpenSea	TUSC3	Body	-0.004	0.981	0.0279
cg22740492	11	31,820,658	Island	PAX6	Body	-0.004	0.024	0.0279

cg13567919	12	57,646,434	OpenSea	STAC3	TSS1500	0.006	0.960	0.0279
cg00067814	7	134,896,357	Island	WDR91	TSS200	0.010	0.201	0.0279
cg19589396	8	103,937,374	OpenSea			0.015	0.580	0.0279
cg09246253	7	5,643,021	Island	FSCN1	Body	0.017	0.830	0.0279
cg10597661	8	8,256,332	OpenSea			0.015	0.738	0.0279
cg12594803	3	196,908,930	OpenSea	DLG1	Body	-0.015	0.408	0.0279
cg15473411	20	61,438,182	S_Shore	OGFR	Body	0.012	0.891	0.0279
cg24875593	21	45,153,009	S_Shelf	PDXK	Body	0.030	0.854	0.0279
cg25846290	7	144,100,799	OpenSea	NOBOX	TSS200	0.012	0.917	0.0279
cg14807837	15	57,668,552	Island	CGNL1	TSS200	0.002	0.017	0.0280
cg06896770	1	63,153,194	N_Shore	DOCK7	Body	-0.093	0.096	0.0280
cg20008734	11	321,324	S_Shelf	IFITM3	TSS1500	0.077	0.313	0.0280
cg16446738	15	51,176,931	OpenSea			-0.006	0.969	0.0280
cg19772114	6	28,829,321	N_Shelf			0.039	0.891	0.0280
cg05181221	16	11,351,158	S_Shore	SOCS1	TSS1500	0.001	0.016	0.0280
cg23996241	17	33,914,362	OpenSea	AP2B1	1stExon	0.017	0.143	0.0280
cg05242523	19	51,588,750	OpenSea	KLK14	TSS1500	0.014	0.865	0.0280
cg11203397	13	46,870,454	OpenSea			0.017	0.314	0.0280
cg19980929	12	42,632,907	S_Shore	YAF2	TSS1500	0.040	0.229	0.0280
cg20638127	6	31,023,286	OpenSea	HCG22	Body	-0.025	0.868	0.0280
cg20088964	12	66,217,432	N_Shore	HMGA2	TSS1500	-0.003	0.037	0.0280
cg14610066	9	71,936,691	N_Shelf			-0.016	0.804	0.0280
cg03870746	7	1,068,244	Island	C7orf50	Body	-0.010	0.027	0.0280
cg03328360	16	87,551,805	OpenSea			0.015	0.803	0.0280
cg06790197	16	73,265,937	OpenSea			0.019	0.487	0.0280
cg16505764	5	140,763,254	N_Shore	PCDHGA4	Body	0.033	0.456	0.0281
cg22843424	8	17,400,998	OpenSea	SLC7A2	Body	0.008	0.935	0.0281
cg15907060	10	65,647,212	OpenSea			-0.024	0.354	0.0281
cg23129673	8	22,266,227	OpenSea	SLC39A14	Body	0.004	0.980	0.0281
cg23009441	11	1,155,707	Island			0.016	0.723	0.0281

cg19251280	8	98,657,731	S_Shore	MTDH	Body	-0.007	0.059	0.0281
cg07894846	19	1,981,143	S_Shore	CSNK1G2	3'UTR	0.007	0.949	0.0281
cg19038540	1	101,701,364	N_Shore	S1PR1	TSS1500	-0.002	0.017	0.0281
cg25974901	1	20,396,750	OpenSea	PLA2G5	1stExon	0.030	0.503	0.0281
cg11461030	1	46,932,239	Island			-0.003	0.024	0.0281
cg22746182	8	41,749,867	N_Shelf	ANK1	Body	0.015	0.397	0.0281
cg04981574	5	176,449,406	N_Shore	ZNF346	TSS1500	0.020	0.184	0.0281
cg23715603	1	55,278,975	OpenSea	C1orf177	Body	0.016	0.767	0.0281
cg17162682	2	135,960,123	OpenSea	ZRANB3	Body	-0.008	0.958	0.0281
cg04916485	9	126,128,143	N_Shore	CRB2	Body	0.014	0.877	0.0281
cg22937788	21	33,670,195	N_Shelf	MRAP	5'UTR	-0.004	0.974	0.0281
cg27002185	11	2,907,067	N_Shore	CDKN1C	TSS200	0.001	0.023	0.0281
cg06415153	12	123,519,476	OpenSea	PITPNM2	5'UTR	-0.015	0.592	0.0281
cg09798333	16	2,524,725	Island	TBC1D24	TSS1500	-0.003	0.022	0.0281
cg00632575	7	5,539,927	N_Shore	FBXL18	Body	0.007	0.945	0.0281
cg04292159	5	138,630,396	S_Shore	MATR3	5'UTR	-0.004	0.032	0.0282
cg02505177	10	103,574,626	N_Shelf	MGEA5	Body	0.012	0.447	0.0282
cg15206834	5	102,898,733	OpenSea	NUDT12	TSS1500	-0.046	0.080	0.0282
cg17059263	4	154,266,522	S_Shore	MND1	Body	-0.002	0.021	0.0282
cg24703125	19	33,166,148	Island	ANKRD27	TSS200	0.005	0.018	0.0282
cg07891179	7	29,923,883	Island	WIPF3	Body	-0.011	0.060	0.0282
cg14264768	9	139,975,283	S_Shore	UAP1L1	Body	0.015	0.906	0.0282
cg24822053	19	18,979,397	Island	GDF1	3'UTR	0.042	0.412	0.0282
cg12719960	15	80,545,873	S_Shore			-0.011	0.912	0.0282
cg09140693	7	54,794,760	OpenSea			0.006	0.957	0.0282
cg24143873	20	61,668,419	S_Shore	NCRNA00029	TSS200	0.026	0.913	0.0282
cg01924372	16	28,309,935	OpenSea	SBK1	5'UTR	0.014	0.412	0.0282
cg17944981	13	94,461,196	OpenSea	GPC6	Body	-0.003	0.985	0.0282
cg25358039	12	81,471,757	Island	ACSS3	TSS200	-0.004	0.018	0.0282
cg10519925	10	6,856,992	OpenSea			0.003	0.984	0.0282

cg21478123	6	1,836,850	OpenSea	GMDS	Body	0.020	0.928	0.0282
cg17442683	1	8,664,311	OpenSea	RERE	Body	0.024	0.803	0.0282
cg27261002	3	185,656,255	S_Shore	TRA2B	TSS1500	0.016	0.760	0.0282
cg07971584	1	245,727,127	OpenSea	KIF26B	Body	-0.008	0.951	0.0283
cg16174859	13	113,763,037	Island	F7	Body	0.028	0.885	0.0283
cg02265619	16	84,963,674	OpenSea			0.016	0.647	0.0283
cg09752223	19	15,281,200	Island	NOTCH3	Body	0.012	0.908	0.0283
cg10339295	14	101,942,203	OpenSea			0.025	0.465	0.0283
cg05264587	17	56,833,060	Island	PPM1E	TSS200	-0.003	0.020	0.0283
cg27310031	3	130,732,843	OpenSea	ATP2C1	Body	0.003	0.982	0.0283
cg05939560	12	131,003,775	OpenSea	RIMBP2	TSS1500	0.021	0.583	0.0283
cg06005911	10	22,622,123	N_Shore			-0.033	0.740	0.0283
cg25104671	1	89,149,378	N_Shore	PKN2	TSS1500	0.002	0.020	0.0283
cg07901253	1	15,402,504	OpenSea	KIAA1026	Body	0.012	0.415	0.0283
cg25095994	2	231,191,727	OpenSea	SP140L	TSS200	0.018	0.489	0.0283
cg17351974	5	40,835,760	Island	RPL37	TSS1500	-0.006	0.033	0.0283
cg08340524	19	33,891,439	N_Shore	PEPD	Body	-0.005	0.964	0.0283
cg04801402	6	46,138,912	OpenSea	ENPP5	TSS200	0.003	0.026	0.0283
cg13865347	9	137,667,199	OpenSea	COL5A1	Body	0.018	0.374	0.0283
cg10520887	4	96,470,094	Island	UNC5C	5'UTR	-0.003	0.023	0.0283
cg16680873	7	1,798,869	OpenSea			0.017	0.748	0.0284
cg25577680	12	133,707,579	Island	ZNF10	5'UTR	-0.003	0.031	0.0284
cg07507129	1	2,371,847	Island			-0.024	0.946	0.0284
cg01992464	16	89,913,768	N_Shelf	SPIRE2	Body	0.028	0.560	0.0284
cg12704854	6	30,042,919	Island	RNF39	Body	-0.013	0.161	0.0284
cg10605511	17	79,268,614	Island	SLC38A10	Body	-0.004	0.038	0.0284
cg26853371	4	1,791,567	N_Shelf			0.028	0.885	0.0284
cg09849405	16	66,612,955	Island	CMTM1	3'UTR	-0.004	0.031	0.0284
cg27393285	19	57,277,288	S_Shore			0.043	0.440	0.0284
cg00782355	16	85,881,502	S_Shelf			0.012	0.556	0.0284

cg02032642	14	86,034,651	OpenSea	FLRT2	5'UTR	0.004	0.970	0.0284
cg14115004	17	37,793,212	N_Shore	STARD3	TSS200	0.002	0.020	0.0284
cg12092201	2	43,451,775	Island	ZFP36L2	Body	-0.012	0.030	0.0284
cg21640432	19	35,939,561	OpenSea	FFAR2	TSS1500	0.012	0.897	0.0284
cg03034668	16	1,723,424	OpenSea	CRAMP1L	Body	-0.016	0.951	0.0284
cg09978546	15	25,981,255	Island	ATP10A	Body	0.006	0.975	0.0284
cg26359510	1	8,075,137	OpenSea	ERRFI1	Body	0.019	0.118	0.0284
cg00068909	4	103,938,965	N_Shore	NHEDC1	5'UTR	0.006	0.965	0.0284
cg00514895	4	8,594,413	Island	CPZ	TSS200	-0.001	0.017	0.0284
cg00016718	6	49,405,490	OpenSea	MUT	Body	0.005	0.973	0.0284
cg25507121	17	62,051,767	OpenSea	SCN4A	TSS1500	0.016	0.721	0.0284
cg27049827	4	189,376,729	OpenSea			0.113	0.618	0.0284
cg07469594	15	64,456,062	S_Shore	PPIB	TSS1500	0.021	0.273	0.0285
cg13535212	2	88,752,553	Island	FOXI3	TSS1500	0.006	0.039	0.0285
cg05890252	14	105,974,580	OpenSea			0.017	0.671	0.0285
cg11649654	5	60,240,952	Island	NDUFAF2	TSS200	0.001	0.012	0.0285
cg07111415	3	195,938,436	S_Shelf	ZDHHC19	TSS200	0.025	0.304	0.0285
cg14333565	19	5,824,065	N_Shore	NRTN	5'UTR	0.013	0.771	0.0285
cg08105174	11	100,502,854	OpenSea			0.002	0.988	0.0285
cg27530620	1	169,337,860	OpenSea	NME7	TSS1500	0.001	0.011	0.0285
cg05326140	4	146,267,704	OpenSea			0.013	0.845	0.0285
cg17900188	15	36,871,800	Island	C15orf41	TSS200	-0.008	0.043	0.0285
cg12787571	17	19,649,051	S_Shore	ALDH3A1	5'UTR	-0.012	0.928	0.0285
cg05908960	12	123,472,150	S_Shore	PITPNM2	Body	0.014	0.822	0.0285
cg23398095	10	35,463,346	OpenSea	CREM	5'UTR	0.005	0.966	0.0285
cg12236845	12	76,105,953	OpenSea			0.024	0.968	0.0285
cg07927953	10	134,559,696	N_Shelf	INPP5A	Body	-0.003	0.984	0.0285
cg14565120	17	77,710,848	S_Shore	ENPP7	Body	0.010	0.940	0.0285
cg24673801	5	126,297,454	OpenSea		3-Mar 5'UTR	0.008	0.942	0.0285
cg13949816	20	40,251,776	S_Shelf			0.003	0.983	0.0285

cg06442162	8	92,406,857	OpenSea	SLC26A7	Body	0.008	0.948	0.0286
cg26967596	8	1,981,678	OpenSea			0.021	0.736	0.0286
cg20379947	19	19,231,898	Island	TMEM161A	Body	0.020	0.666	0.0286
cg14851608	1	22,777,266	N_Shore	ZBTB40	TSS1500	0.017	0.607	0.0286
cg16170346	19	2,424,006	Island	TMPRSS9	Body	0.025	0.740	0.0286
cg11525643	15	35,046,765	Island	GJD2	TSS200	-0.005	0.039	0.0286
cg14487854	17	714,866	S_Shore	NXN	Body	0.020	0.858	0.0286
cg01102379	11	78,129,867	S_Shore	GAB2	TSS1500	0.020	0.114	0.0286
cg14653593	17	76,676,303	OpenSea	CYTH1	Body	0.014	0.467	0.0286
cg20162696	8	102,167,694	OpenSea			0.010	0.142	0.0286
cg15230273	5	107,006,413	Island	EFNA5	1stExon	0.003	0.027	0.0286
cg15025248	2	191,278,648	OpenSea	MFSD6	5'UTR	0.014	0.857	0.0286
cg01641778	6	32,935,592	N_Shore	BRD2	TSS1500	0.003	0.020	0.0286
cg08496998	7	5,822,206	S_Shore	RNF216	TSS1500	0.004	0.973	0.0286
cg05008898	5	177,953,742	S_Shore	COL23A1	Body	0.018	0.735	0.0286
cg01620757	17	4,635,229	Island	MED11	Body	0.002	0.019	0.0286
cg06138422	12	133,338,013	Island	ANKLE2	Body	-0.005	0.039	0.0286
cg16063115	14	31,676,811	Island	HECTD1	TSS200	-0.013	0.042	0.0286
cg16041412	19	2,460,037	N_Shelf			0.003	0.983	0.0286
cg10316270	4	155,702,266	N_Shore	RBM46	TSS200	0.004	0.974	0.0286
cg05213661	5	1,227,968	S_Shore	SLC6A18	Body	-0.006	0.032	0.0286
cg02694972	6	43,249,501	N_Shelf	TTBK1	Body	0.014	0.914	0.0287
cg07636145	16	56,228,188	S_Shore	DKFZP434H16	Body	0.027	0.300	0.0287
cg09341020	17	2,319,855	OpenSea	LOC284009	TSS1500	0.015	0.536	0.0287
cg08521989	4	146,402,940	Island	SMAD1	TSS1500	-0.006	0.024	0.0287
cg22854078	1	203,242,492	N_Shore			-0.005	0.050	0.0287
cg07891457	11	67,442,075	OpenSea	ALDH3B2	1stExon	0.019	0.873	0.0287
cg22748799	19	58,570,790	Island	ZNF135	Body	-0.006	0.023	0.0287
cg02968844	1	884,964	N_Shore	NOC2L	Body	0.012	0.890	0.0287
cg20578893	6	29,870,060	OpenSea	HCG2P7	Body	-0.060	0.959	0.0287

cg14700531	8	733,412	N_Shelf			0.025	0.575	0.0287
cg14322298	6	10,585,683	OpenSea	GCNT2	Body	0.014	0.367	0.0287
cg04560213	16	13,149,464	OpenSea	SHISA9	Body	0.016	0.767	0.0287
cg20454400	17	46,720,386	S_Shore			0.014	0.089	0.0287
cg07596054	6	30,301,437	OpenSea	TRIM39	Body	0.003	0.985	0.0287
cg27068650	6	170,531,710	S_Shore			0.009	0.944	0.0287
cg16179182	5	140,090,404	OpenSea	VTRNA1-1	TSS1500	0.040	0.130	0.0287
cg05677630	22	22,020,012	N_Shore	PPIL2	TSS1500	0.015	0.620	0.0287
cg16007508	17	14,027,721	OpenSea	COX10	Body	0.006	0.968	0.0288
cg07972322	7	134,832,939	OpenSea	TMEM140	1stExon	0.018	0.471	0.0288
cg23393214	19	12,230,754	S_Shelf			0.010	0.962	0.0288
cg20525763	10	49,571,897	OpenSea			0.020	0.138	0.0288
cg13530711	8	136,478,162	OpenSea	KHDRBS3	Body	0.002	0.017	0.0288
cg15489541	11	57,508,451	N_Shore	C11orf31	TSS1500	0.020	0.271	0.0288
cg01366470	12	125,016,675	OpenSea	NCOR2	5'UTR	-0.014	0.867	0.0288
cg00740089	7	29,842,121	N_Shelf			0.016	0.392	0.0288
cg07138305	17	72,341,064	OpenSea	KIF19	Body	0.014	0.578	0.0288
cg19910763	1	215,773,070	OpenSea	KCTD3	Body	-0.016	0.368	0.0288
cg01057635	1	46,914,672	S_Shore			0.019	0.575	0.0288
cg03990903	7	44,789,118	Island	ZMIZ2	5'UTR	-0.005	0.049	0.0288
cg26853549	17	60,781,627	Island		10-Mar Body	0.002	0.020	0.0288
cg05984244	16	31,488,238	Island	TGFB1I1	Body	-0.017	0.564	0.0288
cg22305455	19	682,812	S_Shore	FSTL3	3'UTR	0.011	0.915	0.0288
cg01985177	16	21,289,767	Island	CRYM	TSS200	-0.001	0.022	0.0288
cg08967338	5	140,535,215	N_Shore	PCDHB17	TSS1500	0.041	0.405	0.0288
cg06914817	19	1,630,970	Island	TCF3	Body	0.012	0.903	0.0288
cg13677022	9	34,625,963	S_Shore	ARID3C	Body	0.018	0.513	0.0288
cg23090606	19	43,970,034	S_Shore	LYPD3	TSS1500	0.017	0.383	0.0288
cg11636228	19	12,476,804	S_Shore	ZNF442	TSS1500	0.002	0.018	0.0288
cg17611686	20	22,547,532	N_Shore	C20orf56	Body	0.021	0.310	0.0288



cg16807911	12	58,145,918	Island	CDK4	5'UTR	0.026	0.177	0.0288
cg04930596	12	124,864,528	OpenSea	NCOR2	Body	0.015	0.312	0.0288
cg05535760	7	792,225	Island	HEATR2	Body	0.006	0.980	0.0288
cg00128601	8	19,615,412	S_Shore			-0.003	0.027	0.0288
cg15316508	3	64,008,330	N_Shore	PSMD6	Body	0.028	0.307	0.0288
cg26016267	11	1,325,784	OpenSea	TOLLIP	Body	0.045	0.458	0.0288
cg03122722	21	46,813,145	Island			0.018	0.899	0.0288
cg07944707	10	135,062,155	OpenSea	MIR202	TSS1500	0.014	0.637	0.0288
cg18795569	19	3,480,508	N_Shore	C19orf77	5'UTR	0.021	0.256	0.0288
cg26464701	4	154,092,267	OpenSea	TRIM2	5'UTR	0.014	0.929	0.0289
cg24064055	8	145,104,176	Island			-0.005	0.028	0.0289
cg27523547	1	114,499,783	OpenSea	HIPK1	Body	0.002	0.990	0.0289
cg13369939	19	57,352,176	Island	ZIM2	TSS200	0.012	0.635	0.0289
cg04809316	14	104,705,443	OpenSea			-0.003	0.986	0.0289
cg25736002	4	57,773,436	N_Shore	REST	TSS1500	-0.008	0.031	0.0289
cg26881207	18	5,233,979	N_Shelf			-0.037	0.682	0.0289
cg08429337	7	22,749,617	OpenSea			-0.005	0.974	0.0289
cg22519545	5	50,263,682	N_Shore			0.002	0.015	0.0289
cg11193767	4	83,930,905	N_Shore	LIN54	5'UTR	0.016	0.498	0.0289
cg20795913	17	40,718,830	Island	MLX	TSS1500	0.020	0.338	0.0289
cg00332048	7	18,535,072	OpenSea	HDAC9	TSS1500	0.015	0.517	0.0289
cg13564020	14	79,939,536	OpenSea	NRXN3	Body	0.023	0.672	0.0289
cg25067849	18	48,346,660	OpenSea	MRO	TSS1500	0.003	0.029	0.0289
cg06289725	11	62,689,081	N_Shore	CHRM1	TSS200	0.019	0.263	0.0289
cg27617159	6	97,325,863	OpenSea			-0.030	0.818	0.0289
cg08709360	1	1,003,376	Island			0.027	0.722	0.0289
cg21870038	17	33,390,736	OpenSea	RFFL	1stExon	0.020	0.305	0.0289
cg05334656	4	4,866,047	N_Shore			-0.041	0.581	0.0289
cg07313441	2	131,520,377	OpenSea	FAM123C	Body	0.014	0.779	0.0289
cg19389075	21	40,840,086	OpenSea	SH3BGR	Body	-0.008	0.954	0.0289

cg12611832	13	113,702,279	Island	MCF2L	Body	0.032	0.682	0.0289
cg17151604	10	75,197,928	OpenSea	PPP3CB	3'UTR	0.008	0.950	0.0289
cg14667406	2	136,577,303	OpenSea	LCT	Body	0.018	0.870	0.0289
cg00248439	10	121,146,185	OpenSea	GRK5	Body	0.005	0.961	0.0290
cg04642170	22	26,848,288	OpenSea	HPS4	3'UTR	0.017	0.562	0.0290
cg05089464	6	793,452	OpenSea			-0.038	0.515	0.0290
cg19545056	15	62,535,879	OpenSea			0.029	0.863	0.0290
cg19972272	4	1,558,889	S_Shore			0.023	0.688	0.0290
cg13046257	3	26,700,158	OpenSea	LRRC3B	5'UTR	0.015	0.921	0.0290
cg06166863	14	39,644,186	N_Shore	PNN	TSS200	-0.002	0.014	0.0290
cg27377632	19	677,895	N_Shore	FSTL3	Body	0.014	0.708	0.0290
cg02848401	11	47,617,346	S_Shore	C1QTNF4	TSS1500	0.016	0.826	0.0290
cg25503695	4	798,983	Island	CPLX1	Body	0.015	0.943	0.0290
cg13803503	1	7,402,983	OpenSea	CAMTA1	Body	0.012	0.827	0.0290
cg04245873	15	63,796,130	Island	USP3	TSS1500	0.001	0.016	0.0290
cg06531517	1	167,488,503	OpenSea	CD247	TSS1500	0.006	0.968	0.0290
cg21238404	2	240,639,654	OpenSea			0.008	0.945	0.0290
cg23401912	17	16,256,974	Island	CENPV	TSS200	0.001	0.024	0.0290
cg26033870	6	36,022,622	OpenSea	MAPK14	Body	-0.027	0.790	0.0290
cg26627392	16	88,239,242	S_Shore			0.016	0.763	0.0290
cg10793669	11	125,847,237	OpenSea	CDON	Body	-0.018	0.862	0.0290
cg16503489	17	78,079,086	N_Shore	GAA	Body	-0.014	0.864	0.0290
cg18090197	7	99,769,602	S_Shore	GPC2	Body	-0.023	0.460	0.0290
cg01154336	14	101,539,195	OpenSea			0.028	0.457	0.0291
cg20469502	14	100,910,129	OpenSea	WDR25	Body	0.010	0.925	0.0291
cg01497613	17	48,041,301	Island			0.002	0.018	0.0291
cg01930478	1	3,373,794	S_Shelf	ARHGEF16	5'UTR	0.015	0.714	0.0291
cg15776647	3	170,159,062	OpenSea			0.014	0.868	0.0291
cg16613012	15	42,566,318	Island	TMEM87A	TSS1500	0.007	0.030	0.0291
cg03753454	16	70,787,597	OpenSea	VAC14	Body	0.019	0.733	0.0291

cg07023494	7	158,965,466	S_Shore			0.004	0.976	0.0291
cg15282281	10	88,024,557	S_Shore	MIR346	TSS200	0.022	0.278	0.0291
cg12434986	4	999,555	N_Shelf			0.015	0.795	0.0291
cg10462961	11	130,493,253	OpenSea			-0.031	0.817	0.0291
cg01427909	3	62,362,324	N_Shore			-0.005	0.974	0.0291
cg06915470	19	4,555,999	Island	SEMA6B	Body	0.015	0.954	0.0292
cg03490148	7	1,025,118	N_Shore	CYP2W1	Body	0.013	0.500	0.0292
cg08728702	1	156,814,561	N_Shore	NTRK1	Body	-0.013	0.255	0.0292
cg24523948	8	72,916,620	N_Shore			0.017	0.188	0.0292
cg05061711	12	10,902,929	OpenSea			-0.001	0.012	0.0292
cg22330935	19	45,586,368	S_Shelf	GEMIN7	5'UTR	0.003	0.979	0.0292
cg01682285	14	81,422,160	S_Shore	TSHR	1stExon	0.017	0.087	0.0292
cg05789711	16	23,724,428	Island	ERN2	1stExon	-0.004	0.043	0.0292
cg27006721	10	49,760,566	OpenSea	ARHGAP22	Body	0.016	0.734	0.0292
cg03311252	11	67,209,355	OpenSea	CORO1B	Body	0.015	0.693	0.0292
cg14412833	9	128,021,077	N_Shelf			0.026	0.817	0.0292
cg20599086	4	5,574,315	S_Shelf	EVC2	Body	-0.002	0.987	0.0292
cg08039751	1	2,424,656	OpenSea	PLCH2	Body	0.012	0.524	0.0292
cg03708188	5	114,514,097	N_Shore	TRIM36	Body	0.004	0.979	0.0292
cg06806862	3	184,934,396	OpenSea	EHHADH	Body	0.019	0.569	0.0292
cg13519061	9	99,145,195	N_Shore	SLC35D2	Body	0.003	0.980	0.0292
cg23369364	2	238,406,478	OpenSea	MLPH	Body	0.025	0.641	0.0292
cg08448711	10	92,794,806	OpenSea			0.015	0.070	0.0292
cg08248231	17	76,559,736	OpenSea	DNAH17	Body	-0.004	0.980	0.0292
cg26687830	6	32,135,326	S_Shore	EGFL8	Body	0.020	0.749	0.0292
cg01930417	11	122,855,023	Island			0.003	0.050	0.0292
cg16894974	15	55,700,780	Island	CCPG1	TSS1500	0.008	0.056	0.0292
cg05163093	17	66,289,980	S_Shore	ARSG	5'UTR	0.004	0.980	0.0292
cg24014661	6	44,265,669	Island	TCTE1	TSS1500	0.001	0.014	0.0293
cg15125053	8	144,213,175	OpenSea			0.017	0.744	0.0293

cg20467168	1	76,081,408	Island			0.002	0.025	0.0293
cg14718396	15	50,274,021	OpenSea	ATP8B4	Body	0.006	0.968	0.0293
cg18797590	4	15,480,643	OpenSea	CC2D2A	Body	0.027	0.273	0.0293
cg18085660	4	1,202,898	N_Shore	LOC10013087	TSS200	0.016	0.700	0.0293
cg19399885	2	110,373,776	S_Shore	ANKRD57	3'UTR	-0.023	0.863	0.0293
cg13464995	6	168,454,079	OpenSea			-0.009	0.947	0.0293
cg16409970	7	891,044	S_Shelf	UNC84A	Body	-0.003	0.984	0.0293
cg19524533	11	33,848,160	N_Shelf			-0.025	0.586	0.0293
cg04716996	14	65,380,577	N_Shore	CHURC1	TSS1500	0.030	0.450	0.0293
cg00681321	4	104,022,149	OpenSea	BDH2	TSS1500	0.025	0.297	0.0293
cg07524505	11	44,785,843	OpenSea	TSPAN18	TSS200	-0.006	0.952	0.0293
cg27110166	10	114,866,318	OpenSea	TCF7L2	Body	0.003	0.985	0.0293
cg02758964	12	131,403,050	OpenSea			0.015	0.880	0.0293
cg17624791	13	24,912,380	N_Shelf			0.004	0.977	0.0293
cg00019118	12	132,851,518	N_Shelf	GALNT9	Body	0.019	0.721	0.0293
cg20359994	6	27,599,141	Island			0.002	0.025	0.0293
cg09695260	21	39,288,661	Island	KCNJ6	1stExon	0.001	0.013	0.0293
cg01123946	16	89,163,343	N_Shelf	ACSF3	Body	0.045	0.837	0.0294
cg11835020	3	125,924,910	OpenSea			0.015	0.779	0.0294
cg09810169	6	161,694,730	OpenSea	AGPAT4	5'UTR	-0.003	0.037	0.0294
cg00762069	3	129,986,285	S_Shelf	COL6A4P2	Body	0.074	0.927	0.0294
cg04987857	12	69,863,677	N_Shore	FRS2	TSS1500	-0.032	0.584	0.0294
cg12238593	6	26,440,340	OpenSea	BTN3A3	TSS1500	0.029	0.538	0.0294
cg07593415	19	2,426,333	Island	TIMM13	3'UTR	0.006	0.963	0.0294
cg01062116	1	3,352,435	S_Shore	PRDM16	3'UTR	-0.024	0.708	0.0294
cg14821083	16	30,457,280	S_Shore	SEPHS2	TSS200	0.001	0.014	0.0294
cg05175318	14	79,747,774	S_Shore	NRXN3	Body	-0.011	0.135	0.0294
cg03197505	19	17,597,999	Island	SLC27A1	Body	0.006	0.967	0.0294
cg23127434	2	183,880,090	OpenSea	NCKAP1	Body	0.005	0.977	0.0294
cg02187822	16	89,003,166	N_Shelf	CBFA2T3	5'UTR	0.010	0.323	0.0294

cg19410732	3	194,305,082	S_Shore			0.012	0.058	0.0294
cg18321976	12	53,893,000	N_Shore	MAP3K12	5'UTR	-0.003	0.037	0.0294
cg06708731	9	136,501,420	OpenSea	DBH	TSS200	0.014	0.783	0.0294
cg25257748	8	144,446,737	N_Shelf			0.016	0.489	0.0294
cg14542802	6	15,663,170	Island	DTNBP1	1stExon	0.025	0.020	0.0294
cg12448003	11	27,742,365	N_Shore	BDNF	Body	0.002	0.011	0.0294
cg13226328	14	97,271,313	OpenSea	VRK1	5'UTR	-0.012	0.438	0.0294
cg02192117	7	5,458,719	Island	TNRC18	Body	-0.017	0.411	0.0294
cg13486491	13	36,944,640	OpenSea	SPG20	TSS1500	-0.004	0.978	0.0294
cg03415649	9	99,178,663	N_Shore	ZNF367	Body	0.006	0.956	0.0294
cg07685326	15	25,380,111	OpenSea	PAR1	TSS1500	0.021	0.818	0.0295
cg07451659	13	114,290,741	N_Shore	TFDP1	Body	-0.027	0.708	0.0295
cg02613510	11	27,723,789	S_Shore	BDNF	Body	-0.016	0.192	0.0295
cg01560934	7	1,912,916	N_Shore	MAD1L1	Body	0.007	0.926	0.0295
cg05738715	12	118,018,768	OpenSea	KSR2	Body	0.018	0.088	0.0295
cg03051439	6	143,771,611	Island	ADAT2	Body	0.002	0.013	0.0295
cg26153483	2	24,838,522	OpenSea	NCOA1	5'UTR	-0.018	0.794	0.0295
cg15961455	1	23,590,501	OpenSea			0.017	0.596	0.0295
cg04121624	10	62,760,791	N_Shore	RHOBTB1	Body	-0.009	0.069	0.0295
cg17023419	16	2,581,414	N_Shore	CEMP1	1stExon	0.016	0.687	0.0295
cg05202042	21	15,646,187	OpenSea	ABCC13	Body	0.022	0.166	0.0295
cg09492832	17	32,966,466	S_Shore			-0.014	0.813	0.0295
cg10253640	11	7,535,983	S_Shore	PPFIBP2	5'UTR	0.026	0.300	0.0295
cg19998073	14	89,078,443	OpenSea	ZC3H14	3'UTR	0.016	0.543	0.0295
cg12182343	17	75,955,921	Island			-0.002	0.020	0.0295
cg19989581	15	27,924,256	OpenSea			-0.015	0.535	0.0295
cg05100916	7	112,090,586	Island	IFRD1	1stExon	-0.005	0.048	0.0295
cg01769457	1	15,930,094	Island			0.006	0.016	0.0295
cg10210806	1	6,514,605	Island	ESPN	Body	0.036	0.063	0.0295
cg09643054	12	8,211,214	OpenSea	C3AR1	3'UTR	0.023	0.394	0.0295

cg26453670	20	55,966,053	N_Shore	RBM38	TSS1500	-0.007	0.075	0.0295
cg20423536	2	169,920,546	OpenSea	DHRS9	TSS1500	0.004	0.979	0.0295
cg15706943	4	77,646,153	OpenSea	SHROOM3	Body	-0.010	0.948	0.0295
cg26681975	6	36,238,123	OpenSea	PNPLA1	5'UTR	0.013	0.275	0.0296
cg25131452	1	22,351,735	N_Shore	HSPC157	Body	0.002	0.018	0.0296
cg00201457	3	140,405,436	S_Shelf	TRIM42	Body	-0.014	0.593	0.0296
cg16229875	14	23,589,066	OpenSea	CEBPE	TSS1500	0.009	0.946	0.0296
cg03208245	16	70,717,902	N_Shore	MTSS1L	Body	0.013	0.562	0.0296
cg10573476	11	62,474,118	Island	BSCL2	Body	-0.009	0.060	0.0296
cg21122075	5	180,512,070	OpenSea			0.026	0.320	0.0296
cg04572898	15	89,164,981	S_Shore	AEN	5'UTR	0.001	0.015	0.0296
cg20324491	7	149,128,397	N_Shore			0.012	0.873	0.0296
cg06583921	3	193,495,351	OpenSea			-0.027	0.389	0.0296
cg17467898	7	2,289,054	OpenSea	NUDT1	Body	0.011	0.891	0.0296
cg01770755	15	41,914,122	Island			-0.005	0.026	0.0296
cg13452588	7	130,910,546	OpenSea	MKLN1	Body	0.013	0.453	0.0296
cg09330834	11	3,188,016	S_Shore	OSBPL5	TSS1500	0.017	0.744	0.0296
cg12660800	1	85,742,534	Island	BCL10	5'UTR	0.002	0.019	0.0296
cg26203336	11	303,166	N_Shore			0.010	0.904	0.0296
cg20415848	1	6,138,804	OpenSea	KCNAB2	Body	0.013	0.669	0.0297
cg09025324	6	116,691,685	N_Shore	DSE	TSS1500	0.004	0.029	0.0297
cg23447569	11	62,315,320	S_Shore	AHNAK	TSS1500	-0.019	0.541	0.0297
cg23138728	11	118,928,492	S_Shore	HYOU1	TSS1500	0.001	0.013	0.0297
cg00397989	1	151,251,191	N_Shelf			0.002	0.990	0.0297
cg20335672	13	102,572,300	S_Shelf	FGF14	Body	-0.003	0.036	0.0297
cg05390144	11	34,533,464	OpenSea	ELF5	5'UTR	0.013	0.848	0.0297
cg25592513	5	140,729,614	N_Shore	PCDHGA2	Body	0.004	0.028	0.0297
cg21197678	9	86,153,558	Island	FRMD3	TSS1500	-0.009	0.050	0.0297
cg01106114	5	169,532,702	N_Shore	FOXI1	TSS1500	0.016	0.562	0.0297
cg26039424	1	46,154,040	S_Shore	TMEM69	5'UTR	0.010	0.019	0.0297

cg07855449	4	184,180,595	OpenSea	WWC2	Body	0.004	0.974	0.0297
cg10616974	17	74,511,719	OpenSea			0.033	0.478	0.0297
cg20454115	4	79,103,290	S_Shore	FRAS1	Body	0.005	0.973	0.0297
cg26658125	13	112,885,464	OpenSea			0.010	0.879	0.0297
cg19317600	4	8,395,941	OpenSea	ACOX3	Body	0.034	0.620	0.0297
cg20356136	4	7,802,238	Island	AFAP1	Body	0.055	0.781	0.0297
cg04316925	16	87,471,211	OpenSea	ZCCHC14	Body	0.011	0.897	0.0297
cg13056269	2	136,633,607	Island	MCM6	Body	-0.002	0.015	0.0297
cg05107953	2	65,283,308	Island	CEP68	TSS200	-0.002	0.024	0.0297
cg12634840	5	177,581,713	S_Shore	NHP2	TSS1500	0.016	0.617	0.0297
cg20973720	15	79,383,167	Island	RASGRF1	5'UTR	-0.002	0.016	0.0297
cg16373144	17	173,954	S_Shelf	RPH3AL	Body	0.015	0.797	0.0297
cg04215213	2	159,602,169	OpenSea			-0.003	0.026	0.0297
cg27474957	11	1,567,578	N_Shore	HCCA2	Body	0.016	0.104	0.0297
cg26219095	1	51,443,292	N_Shore			-0.003	0.035	0.0297
cg22203867	5	171,621,698	OpenSea	EFCAB9	Body	-0.016	0.910	0.0297
cg19954227	7	158,113,303	S_Shelf	PTPRN2	Body	0.007	0.948	0.0297
cg12145783	7	100,286,908	S_Shore	GIGYF1	TSS200	0.013	0.693	0.0298
cg05858920	18	60,985,959	N_Shore	BCL2	5'UTR	0.001	0.010	0.0298
cg19065177	5	140,105,648	OpenSea	VTRNA1-3	TSS200	0.006	0.033	0.0298
cg22222644	19	51,883,242	OpenSea	LIM2	3'UTR	0.015	0.608	0.0298
cg19598293	7	117,854,765	S_Shore			0.010	0.046	0.0298
cg03749207	16	857,863	Island	PRR25	Body	-0.072	0.269	0.0298
cg01678799	15	43,481,741	S_Shelf	CCNDBP1	Body	-0.020	0.873	0.0298
cg17025741	4	114,468,820	OpenSea	CAMK2D	Body	0.015	0.167	0.0298
cg22253078	2	212,196,399	OpenSea			0.015	0.789	0.0298
cg07941301	6	42,928,277	Island	GNMT	TSS1500	-0.002	0.014	0.0298
cg22090271	3	112,992,570	OpenSea	BOC	Body	0.004	0.977	0.0298
cg15208284	3	107,242,730	Island	BBX	5'UTR	-0.005	0.055	0.0298
cg06416831	5	138,474,152	OpenSea	SIL1	5'UTR	-0.016	0.910	0.0298

cg03975922	5	140,080,575	OpenSea	ZMAT2	Body	0.022	0.246	0.0298
cg07066803	3	49,213,712	OpenSea	KLHDC8B	3'UTR	0.010	0.915	0.0298
cg11286907	3	192,635,966	Island	C3orf59	TSS200	-0.003	0.025	0.0298
cg23693738	7	1,426,361	S_Shelf			0.016	0.368	0.0298
cg04836214	20	48,097,523	N_Shore	KCNB1	Body	0.014	0.758	0.0298
cg27562023	17	201,675	N_Shelf	RPH3AL	5'UTR	0.011	0.935	0.0298
cg05471296	7	27,196,302	Island	HOXA7	TSS200	-0.004	0.021	0.0298
cg09653605	16	57,769,555	N_Shore	KATNB1	TSS200	-0.012	0.031	0.0298
cg26194092	1	15,819,330	OpenSea	CASP9	3'UTR	0.020	0.678	0.0298
cg19988449	15	83,952,808	Island	BNC1	Body	-0.003	0.028	0.0298
cg12858864	15	78,623,765	OpenSea			0.022	0.652	0.0298
cg08701937	10	81,965,488	Island	ANXA11	TSS200	-0.006	0.051	0.0298
cg23262351	6	79,576,851	N_Shore	IRAK1BP1	TSS1500	-0.025	0.138	0.0298
cg08094206	6	30,122,523	OpenSea	TRIM10	Body	0.077	0.517	0.0299
cg26221342	5	1,272,400	S_Shore	TERT	Body	0.006	0.955	0.0299
cg24801587	7	155,244,101	Island			-0.002	0.019	0.0299
cg25848990	3	11,607,161	N_Shelf	VGLL4	Body	0.006	0.958	0.0299
cg23507802	3	13,914,731	OpenSea	WNT7A	Body	-0.015	0.529	0.0299
cg16966496	12	115,172,598	N_Shore			0.024	0.607	0.0299
cg04816171	7	42,896,398	OpenSea			-0.045	0.322	0.0299
cg14955103	6	31,864,106	N_Shore	EHMT2	Body	0.012	0.507	0.0299
cg14897920	19	11,564,442	N_Shore	ELAVL3	3'UTR	0.012	0.509	0.0299
cg11055449	10	91,136,405	OpenSea	IFIT1L	TSS1500	0.004	0.974	0.0299
cg21507095	22	19,754,448	Island	TBX1	Body	-0.021	0.157	0.0299
cg21571339	14	86,001,111	S_Shore	FLRT2	5'UTR	-0.001	0.012	0.0299
cg26254792	1	60,280,088	N_Shore	HOOK1	TSS1500	-0.013	0.066	0.0299
cg00277263	5	180,644,901	N_Shore			0.003	0.023	0.0299
cg00228017	18	53,447,841	Island			-0.012	0.070	0.0299
cg00874877	6	32,272,050	OpenSea	C6orf10	Body	-0.013	0.918	0.0299
cg02014281	5	122,758,260	N_Shore	CEP120	Body	0.002	0.015	0.0299



cg10052704	14	23,707,305	OpenSea			0.003	0.021	0.0299
cg15656261	13	101,113,806	OpenSea	PCCA	Body	0.027	0.941	0.0299
cg01113538	6	53,658,866	N_Shore	LRR1	TSS1500	-0.006	0.061	0.0299
cg10312476	1	29,780,268	OpenSea			0.015	0.072	0.0300
cg07395907	3	39,219,367	N_Shelf			0.001	0.013	0.0300
cg05068730	6	167,065,429	OpenSea	RPS6KA2	Body	0.048	0.698	0.0300
cg16199747	6	147,235,033	OpenSea			0.021	0.389	0.0300
cg09601518	19	4,304,933	Island	FSD1	Body	0.002	0.019	0.0300
cg26014580	7	2,113,781	N_Shelf	MAD1L1	Body	0.016	0.833	0.0300
cg00708642	14	103,800,518	Island	EIF5	TSS1500	-0.004	0.022	0.0300
cg19363546	11	120,110,701	Island	POU2F3	TSS1500	-0.003	0.030	0.0300
cg23338668	8	74,240,259	OpenSea			-0.020	0.625	0.0300
cg22986569	5	2,659,008	OpenSea			-0.064	0.284	0.0300
cg14122616	19	58,983,390	Island	ZNF324	Body	0.011	0.931	0.0300
cg01195910	10	43,701,941	S_Shelf	RASGEF1A	5'UTR	0.014	0.684	0.0300
cg26870570	3	183,951,128	S_Shelf	VWA5B2	Body	0.015	0.752	0.0300
cg22413420	6	33,360,204	S_Shore	KIFC1	Body	-0.001	0.014	0.0300
cg23447996	9	93,564,603	S_Shore	SYK	Body	0.027	0.302	0.0300
cg21985691	11	17,849,903	OpenSea	SERGEF	Body	0.020	0.448	0.0300
cg00801571	6	112,033,832	OpenSea	FYN	Body	0.017	0.457	0.0300
cg06302806	20	43,939,970	N_Shore	RBPJL	Body	0.018	0.890	0.0300
cg18969029	2	242,169,895	OpenSea	HDLBP	Body	0.013	0.902	0.0300
cg03328673	13	22,687,730	OpenSea			0.010	0.956	0.0300
cg20699323	8	133,071,588	OpenSea	OC90	1stExon	0.016	0.642	0.0300
cg13390480	6	33,138,503	OpenSea	COL11A2	Body	0.015	0.758	0.0300
cg08038402	8	1,496,052	N_Shore	DLGAP2	5'UTR	0.017	0.822	0.0300
cg13058457	15	38,422,160	OpenSea			0.027	0.523	0.0300
cg02004594	6	28,972,434	OpenSea	ZNF311	5'UTR	0.011	0.929	0.0300
cg13901501	1	165,414,514	OpenSea	RXRG	TSS200	-0.002	0.015	0.0300
cg01002508	1	245,926,956	OpenSea	SMYD3	Body	-0.006	0.962	0.0300

cg14435671	9	140,318,854	S_Shore	EXD3	TSS1500	0.015	0.895	0.0300
cg07984358	10	24,704,829	OpenSea	KIAA1217	Body	0.009	0.124	0.0301
cg10930290	2	219,840,349	OpenSea	LOC151300	TSS1500	0.027	0.700	0.0301
cg07073662	16	2,129,289	Island	TSC2	Body	0.009	0.922	0.0301
cg00556816	20	36,659,706	N_Shelf	KIAA0406	5'UTR	0.006	0.955	0.0301
cg06929152	1	4,837,112	OpenSea	AJAP1	3'UTR	-0.013	0.890	0.0301
cg07683663	4	147,096,828	N_Shore	LSM6	TSS200	-0.006	0.075	0.0301
cg08231349	6	29,894,644	Island	HCG4P6	TSS1500	0.045	0.058	0.0301
cg18731680	22	19,953,712	OpenSea	COMT	Body	0.019	0.492	0.0301
cg04309214	16	3,009,347	N_Shelf			0.017	0.538	0.0301
cg06049111	6	42,145,539	N_Shore	GUCA1A	Body	0.014	0.410	0.0301
cg05062178	3	124,605,247	Island	ITGB5	Body	-0.004	0.032	0.0301
cg09517751	1	234,741,797	N_Shelf	IRF2BP2	3'UTR	0.012	0.045	0.0301
cg04386206	3	170,303,640	Island	SLC7A14	5'UTR	-0.003	0.022	0.0301
cg14574905	2	122,176,293	OpenSea	CLASP1	Body	-0.008	0.952	0.0301
cg22176709	3	193,859,889	S_Shore			-0.016	0.258	0.0301
cg20016631	4	38,871,320	S_Shore	FAM114A1	5'UTR	0.021	0.642	0.0301
cg15567360	11	71,322,699	S_Shelf			-0.037	0.528	0.0301
cg15859515	14	53,176,816	S_Shelf	PSMC6	Body	0.005	0.972	0.0301
cg26349332	9	37,592,199	Island	TOMM5	Body	-0.004	0.044	0.0301
cg23362089	6	31,638,864	OpenSea	LY6G5B	Body	0.012	0.861	0.0301
cg12536747	7	1,949,824	N_Shore	MAD1L1	Body	0.011	0.830	0.0301
cg15843825	7	155,627,253	S_Shelf			0.010	0.519	0.0301
cg14830791	6	1,407,935	OpenSea			0.017	0.360	0.0301
cg23402144	17	9,099,485	OpenSea	NTN1	Body	0.015	0.549	0.0302
cg16392084	10	52,180,934	S_Shelf	SGMS1	5'UTR	0.006	0.964	0.0302
cg26032489	1	40,974,934	S_Shore	DEM1	5'UTR	0.006	0.040	0.0302
cg01561259	17	78,560,781	OpenSea	RPTOR	Body	0.031	0.627	0.0302
cg16872795	11	111,957,488	Island	SDHD	TSS200	-0.003	0.022	0.0302
cg09345868	6	130,537,970	OpenSea	SAMD3	5'UTR	0.024	0.884	0.0302

cg16306898	1	1,475,675	N_Shore	C1orf70	1stExon	-0.003	0.012	0.0302
cg00163006	17	4,417,124	OpenSea	SPNS2	Body	0.013	0.812	0.0302
cg21828233	1	113,164,672	S_Shelf	CAPZA1	Body	-0.018	0.741	0.0302
cg11873113	11	86,529,655	OpenSea			-0.004	0.031	0.0302
cg26170930	17	45,020,358	OpenSea			0.016	0.624	0.0302
cg13937986	9	132,019,367	N_Shore			0.013	0.754	0.0302
cg04002944	8	143,558,609	Island	BAI1	Body	0.017	0.772	0.0302
cg25565479	11	93,861,779	Island	PANX1	TSS1500	-0.008	0.060	0.0302
cg26831416	19	39,142,011	S_Shelf	ACTN4	Body	0.027	0.508	0.0302
cg13370852	1	9,653,338	S_Shelf	TMEM201	Body	0.016	0.676	0.0302
cg11299207	6	31,865,794	N_Shore	EHMT2	TSS1500	-0.011	0.088	0.0302
cg06216926	14	92,572,917	Island	ATXN3	5'UTR	-0.003	0.028	0.0302
cg24572137	3	129,327,679	S_Shelf			-0.022	0.368	0.0302
cg11616380	3	128,720,338	Island	CCDC48	TSS200	-0.006	0.028	0.0302
cg20624830	10	22,725,885	Island			-0.002	0.018	0.0302
cg25276412	4	176,987,453	S_Shore	WDR17	5'UTR	0.007	0.037	0.0302
cg03839794	14	34,269,541	Island	NPAS3	Body	-0.049	0.158	0.0302
cg17392866	15	32,267,708	OpenSea			0.037	0.167	0.0302
cg27121781	8	145,981,224	Island	ZNF251	TSS1500	0.002	0.016	0.0302
cg21463709	2	2,124,815	OpenSea	MYT1L	5'UTR	-0.014	0.113	0.0302
cg12345501	2	180,936,706	OpenSea			0.027	0.516	0.0302
cg05996538	6	32,191,210	OpenSea	NOTCH4	Body	0.018	0.274	0.0302
cg26575914	1	228,397,977	N_Shore	OBSCN	5'UTR	0.014	0.507	0.0302
cg23913077	10	111,018,447	OpenSea			-0.015	0.894	0.0302
cg09117206	4	109,684,077	Island	AGXT2L1	1stExon	-0.002	0.021	0.0303
cg08820041	12	40,916,109	OpenSea			-0.028	0.976	0.0303
cg23029236	5	77,894,196	OpenSea	LHFPL2	5'UTR	0.008	0.961	0.0303
cg04743883	19	32,252,559	OpenSea			0.013	0.475	0.0303
cg15768886	2	220,432,124	N_Shore	OBSL1	Body	0.012	0.842	0.0303
cg05517964	11	65,790,280	S_Shore	CATSPER1	Body	0.025	0.301	0.0303

cg09798366	7	52,985,263	OpenSea			0.023	0.862	0.0303
cg01963224	14	71,791,671	S_Shelf			-0.013	0.864	0.0303
cg14489073	6	52,746,664	OpenSea			0.019	0.836	0.0303
cg00358213	2	225,907,631	S_Shore	DOCK10	TSS1500	0.017	0.085	0.0303
cg04956701	11	131,903,650	OpenSea	NTM	Body	-0.014	0.939	0.0303
cg15511928	1	201,895,256	OpenSea	LMOD1	Body	0.020	0.718	0.0303
cg25084851	5	504,614	N_Shore	SLC9A3	Body	0.020	0.691	0.0303
cg10669386	7	123,295,821	OpenSea	LMOD2	TSS200	0.017	0.722	0.0303
cg15266672	6	109,074,929	OpenSea			0.014	0.839	0.0303
cg09814167	10	36,758,668	OpenSea			0.002	0.984	0.0303
cg21521989	7	158,269,194	OpenSea	PTPRN2	Body	0.015	0.496	0.0303
cg10557253	12	94,543,947	Island	PLXNC1	Body	-0.004	0.047	0.0303
cg18537001	1	38,230,834	Island	EPHA10	TSS200	-0.003	0.038	0.0303
cg21023126	22	32,870,150	N_Shore	FBXO7	TSS1500	0.033	0.494	0.0303
cg24238852	22	24,384,340	Island	GSTT1	TSS200	0.132	0.163	0.0303
cg13707224	9	1,043,825	N_Shore			0.031	0.560	0.0303
cg13089906	2	236,656,906	OpenSea	AGAP1	Body	0.005	0.981	0.0303
cg10876621	10	92,565,207	OpenSea	HTR7	Body	0.026	0.637	0.0304
cg02828779	1	2,936,585	N_Shelf	ACTRT2	TSS1500	0.013	0.854	0.0304
cg02772379	1	18,149,599	N_Shelf	ACTL8	Body	0.009	0.953	0.0304
cg06319919	16	86,774,597	OpenSea			0.017	0.815	0.0304
cg01312546	8	144,552,786	Island	ZC3H3	Body	0.015	0.623	0.0304
cg00831726	3	142,700,876	OpenSea			-0.027	0.210	0.0304
cg14212360	4	89,302,999	S_Shelf	HERC6	Body	-0.029	0.930	0.0304
cg02733994	8	141,600,191	OpenSea	EIF2C2	Body	0.016	0.742	0.0304
cg11847235	5	169,949,351	OpenSea	KCNIP1	Body	0.019	0.506	0.0304
cg10782811	20	44,520,176	Island	CTSA	5'UTR	-0.003	0.022	0.0304
cg05026393	8	125,672,795	OpenSea	MTSS1	Body	-0.010	0.094	0.0304
cg23997185	5	140,474,401	N_Shore	PCDHB2	1stExon	0.020	0.305	0.0304
cg11775731	2	203,879,480	Island	NBEAL1	TSS200	-0.001	0.015	0.0304

cg17742559	17	27,068,495	N_Shelf	NEK8	Body	0.015	0.697	0.0304
cg23405172	19	49,165,394	S_Shore	SEC1	Body	0.018	0.854	0.0304
cg22470465	19	19,278,512	N_Shelf	LOC729991-M	Body	-0.028	0.656	0.0305
cg00498360	17	64,504,304	OpenSea	PRKCA	Body	-0.016	0.831	0.0305
cg09820519	1	151,693,199	N_Shore	C1orf230	TSS1500	0.007	0.081	0.0305
cg26379012	17	77,964,070	N_Shore	TBC1D16	Body	-0.034	0.684	0.0305
cg13360866	1	1,135,492	N_Shore			0.014	0.496	0.0305
cg22981555	4	80,138,126	OpenSea			0.007	0.953	0.0305
cg22470426	16	279,634	N_Shore	LUC7L	TSS200	0.001	0.013	0.0305
cg18428180	6	24,646,492	Island	KIAA0319	TSS1500	-0.097	0.170	0.0305
cg16273597	6	14,117,480	N_Shore	CD83	TSS1500	-0.003	0.028	0.0305
cg03396447	15	52,058,531	OpenSea	TMOD2	5'UTR	0.003	0.976	0.0305
cg26614229	1	231,156,204	OpenSea	MIR1182	TSS1500	0.013	0.459	0.0305
cg22051199	15	22,881,539	OpenSea			0.004	0.973	0.0305
cg26795738	7	4,948,613	OpenSea	MMD2	Body	0.005	0.975	0.0305
cg08088566	11	430,123	N_Shore	ANO9	Body	0.022	0.752	0.0305
cg13278496	3	147,125,287	N_Shore	ZIC4	TSS1500	-0.003	0.025	0.0305
cg00286513	22	49,017,361	N_Shore	FAM19A5	Body	0.004	0.969	0.0305
cg11637721	11	65,486,928	N_Shore	KAT5	3'UTR	0.018	0.519	0.0305
cg13192180	17	65,717,569	S_Shelf	NOL11	Body	0.011	0.941	0.0305
cg06549479	17	36,885,900	N_Shore	CISD3	TSS1500	0.017	0.398	0.0305
cg03684807	22	46,457,384	Island			-0.029	0.519	0.0305
cg14277677	12	123,336,568	OpenSea	HIP1R	Body	0.012	0.704	0.0305
cg12904737	7	155,276,516	OpenSea			-0.016	0.450	0.0305
cg19882315	8	11,351,846	OpenSea	BLK	5'UTR	0.015	0.901	0.0305
cg08144406	7	51,381,086	N_Shelf	COBL	Body	0.026	0.672	0.0305
cg06536806	5	54,081,633	OpenSea			-0.041	0.176	0.0305
cg01389428	16	11,594,557	OpenSea			0.016	0.528	0.0306
cg11014070	17	26,368,760	Island	NLK	TSS1500	0.002	0.021	0.0306
cg01860054	4	1,308,300	N_Shore	MAEA	Body	0.005	0.979	0.0306

cg17306661	7	6,888,415	OpenSea			0.007	0.953	0.0306
cg23999224	19	39,836,003	S_Shelf	SAMD4B	5'UTR	0.010	0.928	0.0306
cg01174240	14	24,785,310	Island	LTB4R	Body	0.016	0.570	0.0306
cg21708468	21	43,161,947	Island	RIPK4	Body	-0.013	0.899	0.0306
cg00544413	3	195,621,788	N_Shore	TNK2	Body	-0.002	0.023	0.0306
cg04291888	19	41,698,977	Island	CYP2S1	TSS200	-0.003	0.022	0.0306
cg11952914	1	8,800,647	OpenSea	RERE	5'UTR	0.004	0.976	0.0306
cg17506328	11	46,868,210	S_Shore	CKAP5	TSS1500	-0.003	0.036	0.0306
cg27044933	15	22,922,243	OpenSea	CYFIP1	5'UTR	0.002	0.986	0.0306
cg13841099	9	98,995,607	OpenSea			0.028	0.622	0.0306
cg19307500	19	1,083,193	Island	HMHA1	Body	0.012	0.954	0.0306
cg06228507	20	61,637,360	Island	BHLHE23	3'UTR	-0.006	0.046	0.0306
cg07274716	5	134,363,973	Island	PITX1	3'UTR	-0.074	0.212	0.0306
cg12424694	21	46,351,920	Island			-0.006	0.053	0.0306
cg25583601	5	33,440,636	Island	TARS	TSS1500	0.002	0.019	0.0306
cg23667555	12	25,403,962	OpenSea	KRAS	TSS200	-0.004	0.013	0.0306
cg12339531	13	113,650,822	S_Shore	MCF2L	Body	0.009	0.364	0.0306
cg02565132	2	109,559,473	S_Shore	EDAR	5'UTR	0.020	0.696	0.0306
cg07937082	10	134,013,516	N_Shelf	DPYSL4	Body	0.012	0.891	0.0306
cg13401071	1	49,061,762	OpenSea	AGBL4	Body	0.012	0.878	0.0306
cg00199753	12	113,519,288	S_Shelf	DTX1	Body	-0.014	0.691	0.0306
cg14044426	6	32,160,798	N_Shelf	GPSM3	5'UTR	0.041	0.629	0.0306
cg20664313	12	133,071,297	N_Shelf	FBRSL1	Body	0.011	0.605	0.0306
cg19977428	19	35,819,985	OpenSea	CD22	TSS200	0.017	0.562	0.0306
cg16726435	2	219,128,715	OpenSea			-0.005	0.972	0.0307
cg26883264	1	151,483,574	Island	CGN	TSS1500	-0.004	0.036	0.0307
cg26437009	16	73,266,442	OpenSea			0.019	0.657	0.0307
cg15589153	4	152,246,020	N_Shore			-0.003	0.040	0.0307
cg06918928	12	111,404,204	OpenSea			0.023	0.547	0.0307
cg08423562	1	38,466,544	OpenSea	FHL3	5'UTR	0.017	0.399	0.0307

cg00102591	13	24,463,676	Island	PCOTH	5'UTR	0.001	0.010	0.0307
cg18106582	5	53,816,023	S_Shore	SNX18	1stExon	0.022	0.388	0.0307
cg16601590	13	34,782,424	OpenSea			-0.027	0.575	0.0307
cg27223758	11	64,491,106	Island	NRXN2	TSS1500	0.002	0.023	0.0307
cg11461808	7	1,126,579	Island	GPER	1stExon	-0.015	0.106	0.0307
cg22223430	1	227,015,971	OpenSea			-0.002	0.023	0.0307
cg03075050	16	46,462,790	Island			0.020	0.562	0.0307
cg18959621	13	23,310,464	OpenSea			0.041	0.691	0.0307
cg27099455	5	132,201,840	N_Shore	GDF9	TSS1500	-0.012	0.048	0.0307
cg03036592	10	101,287,839	Island			0.003	0.026	0.0307
cg03259333	5	178,592,153	N_Shore	ADAMTS2	Body	-0.016	0.780	0.0307
cg17653955	2	236,676,029	S_Shelf	AGAP1	Body	-0.003	0.984	0.0307
cg02681480	8	81,490,484	Island			-0.001	0.020	0.0307
cg09225373	6	52,217,264	OpenSea			0.013	0.474	0.0307
cg03995122	6	29,894,642	Island	HCG4P6	TSS1500	0.055	0.032	0.0307
cg02776658	19	35,800,589	N_Shore	MAG	Body	-0.030	0.164	0.0307
cg15821095	3	51,428,079	N_Shore	RBM15B	TSS1500	0.012	0.861	0.0307
cg07724309	6	6,009,556	S_Shore			-0.003	0.033	0.0307
cg08211853	2	3,658,933	OpenSea	COLEC11	Body	0.038	0.494	0.0307
cg11981868	6	32,185,954	OpenSea	NOTCH4	Body	-0.028	0.828	0.0307
cg07998216	8	70,584,832	OpenSea	SLCO5A1	3'UTR	0.015	0.848	0.0308
cg27385773	3	50,201,416	OpenSea	SEMA3F	Body	0.020	0.535	0.0308
cg12569007	10	93,387,144	OpenSea			0.015	0.803	0.0308
cg05330708	16	1,077,597	Island			0.016	0.771	0.0308
cg24998981	18	77,441,810	S_Shore	CTDP1	Body	0.012	0.924	0.0308
cg11478607	22	24,384,400	Island	GSTT1	TSS200	0.134	0.158	0.0308
cg21621236	2	237,342,090	OpenSea	IQCA1	Body	-0.019	0.780	0.0308
cg10694781	7	132,260,289	N_Shore	PLXNA4	5'UTR	-0.004	0.033	0.0308
cg00640376	6	33,173,927	N_Shore	HSD17B8	Body	0.015	0.877	0.0308
cg09817114	3	196,295,296	N_Shore	WDR53	5'UTR	-0.003	0.024	0.0308

cg01064131	13	114,312,577	OpenSea	ATP4B	TSS200	0.015	0.773	0.0308
cg26346574	5	119,951,527	OpenSea	PRR16	Body	0.009	0.954	0.0308
cg15104126	12	6,150,167	OpenSea	VWF	Body	0.018	0.566	0.0308
cg03756088	1	230,203,084	Island	GALNT2	1stExon	-0.002	0.015	0.0308
cg01367322	6	33,283,796	N_Shore	ZBTB22	Body	0.021	0.731	0.0308
cg12776033	6	31,939,059	N_Shore	STK19	TSS1500	0.019	0.573	0.0308
cg06825142	11	637,170	Island	DRD4	TSS200	-0.004	0.019	0.0308
cg01297627	19	55,874,586	S_Shore	FAM71E2	5'UTR	0.015	0.223	0.0308
cg09976142	9	130,955,436	Island	CIZ1	5'UTR	0.050	0.155	0.0308
cg17803993	3	71,276,214	OpenSea	FOXP1	5'UTR	0.019	0.491	0.0308
cg08738722	11	1,257,042	N_Shore	MUC5B	Body	0.014	0.491	0.0308
cg12727374	3	183,542,914	Island	MAP6D1	Body	-0.004	0.019	0.0308
cg17331920	17	4,081,325	OpenSea	ANKFY1	Body	0.002	0.988	0.0308
cg02248763	11	1,580,098	S_Shore	DUSP8	Body	0.025	0.750	0.0309
cg12404281	1	165,414,806	OpenSea	RXRG	TSS1500	-0.020	0.491	0.0309
cg21959594	19	1,813,058	S_Shore	ATP8B3	TSS1500	-0.013	0.054	0.0309
cg00666903	12	2,861,589	N_Shore			0.018	0.509	0.0309
cg06892907	8	103,818,062	N_Shore			0.012	0.741	0.0309
cg07010486	1	204,301,350	OpenSea	PLEKHA6	5'UTR	0.011	0.631	0.0309
cg03592824	7	75,666,768	OpenSea	STYXL1	5'UTR	0.024	0.755	0.0309
cg20265043	7	23,510,089	S_Shore	IGF2BP3	TSS200	-0.002	0.021	0.0309
cg02915720	7	99,558,185	OpenSea			0.034	0.886	0.0309
cg09811861	1	23,886,010	Island	ID3	1stExon	-0.003	0.023	0.0309
cg03616164	20	3,748,536	Island	C20orf27	TSS200	-0.007	0.077	0.0309
cg01609836	22	50,158,207	Island			0.011	0.935	0.0309
cg05591758	2	74,685,531	Island	WBP1	TSS200	-0.005	0.048	0.0309
cg08026818	16	77,823,221	S_Shore	VAT1L	Body	0.002	0.015	0.0309
cg16055406	6	108,438,667	Island			-0.011	0.081	0.0309
cg26992245	8	29,848,579	OpenSea			-0.015	0.851	0.0310
cg04830629	12	71,558,336	OpenSea			0.045	0.303	0.0310



cg27274989	19	6,135,279	OpenSea	ACSBG2	TSS1500	0.019	0.537	0.0310
cg12475507	1	3,567,852	Island	TP73	TSS1500	-0.020	0.094	0.0310
cg03431741	6	41,528,502	Island	FOXP4	5'UTR	-0.016	0.458	0.0310
cg14025883	9	5,436,224	N_Shore	C9orf46	5'UTR	-0.008	0.923	0.0310
cg26170568	8	1,681,408	OpenSea			0.016	0.754	0.0310
cg13971603	9	135,061,908	OpenSea	NTNG2	Body	0.015	0.683	0.0310
cg25866089	15	62,532,699	OpenSea			0.015	0.919	0.0310
cg27350073	3	105,960,717	OpenSea			-0.016	0.640	0.0310
cg06186330	17	46,522,513	OpenSea			0.030	0.879	0.0310
cg04049253	11	113,958,706	OpenSea	ZBTB16	Body	0.006	0.943	0.0310
cg26380819	6	30,431,659	Island			0.020	0.063	0.0310
cg10241484	16	62,070,219	Island	CDH8	TSS200	-0.003	0.035	0.0310
cg01520072	3	197,812,210	S_Shelf			0.051	0.713	0.0310
cg09730423	3	186,258,448	OpenSea	CRYGS	Body	-0.004	0.033	0.0310
cg02564536	10	123,687,158	Island	ATE1	Body	-0.005	0.031	0.0310
cg10599384	5	140,709,986	N_Shore	PCDHGA1	TSS1500	0.009	0.043	0.0310
cg08453205	5	179,588,440	Island	RASGEF1C	5'UTR	-0.041	0.632	0.0310
cg01613691	19	1,105,380	Island	GPX4	Body	-0.012	0.154	0.0310
cg20935317	1	10,739,184	OpenSea	CASZ1	Body	0.013	0.764	0.0310
cg24100214	5	140,998,344	Island	DIAPH1	Body	-0.031	0.025	0.0310
cg04214430	13	50,702,707	N_Shore			-0.025	0.572	0.0311
cg16635777	6	150,187,977	S_Shelf			0.014	0.608	0.0311
cg14314796	17	7,370,509	S_Shore	ZBTB4	5'UTR	0.006	0.958	0.0311
cg14926715	11	70,318,919	OpenSea	SHANK2	3'UTR	0.013	0.746	0.0311
cg23900070	14	68,853,595	OpenSea	RAD51L1	Body	-0.018	0.869	0.0311
cg07948034	13	100,635,905	N_Shore	ZIC2	Body	-0.003	0.030	0.0311
cg05067156	16	88,591,451	S_Shore	ZFPM1	Body	0.013	0.706	0.0311
cg23793104	4	85,401,758	N_Shore			0.027	0.414	0.0311
cg08726071	20	25,388,287	Island	GINS1	TSS200	0.001	0.018	0.0311
cg11095027	11	1,297,066	N_Shore	TOLLIP	3'UTR	0.014	0.629	0.0311

cg00545886	20	36,146,069	N_Shelf	BLCAP	3'UTR	0.014	0.541	0.0311
cg09699233	20	30,579,155	N_Shelf	XKR7	Body	-0.018	0.559	0.0311
cg17862257	18	44,676,656	Island	HDHD2	5'UTR	-0.002	0.018	0.0311
cg06846719	12	31,475,291	N_Shore	FAM60A	5'UTR	-0.007	0.962	0.0311
cg09138780	7	157,294,502	Island			0.018	0.755	0.0311
cg17953577	17	11,501,503	N_Shore	DNAH9	TSS1500	-0.002	0.016	0.0311
cg19369262	7	4,176,567	OpenSea	SDK1	Body	0.011	0.889	0.0311
cg21103170	14	101,521,464	OpenSea	MIR453	TSS1500	-0.004	0.975	0.0311
cg19727801	5	140,619,446	N_Shore	PCDHB19P	TSS1500	0.024	0.157	0.0311
cg07525782	5	33,324,641	OpenSea			-0.017	0.497	0.0311
cg04897931	17	152,089	N_Shore	RPH3AL	Body	0.030	0.652	0.0311
cg21523601	5	3,269,793	OpenSea			0.023	0.569	0.0311
cg15985533	1	75,231,817	OpenSea	TYW3	3'UTR	0.032	0.689	0.0311
cg21768835	7	97,857,938	OpenSea	TECPR1	Body	0.017	0.858	0.0311
cg24605404	12	54,450,822	N_Shelf	FLJ12825	TSS1500	-0.023	0.800	0.0311
cg23256297	5	123,987,523	Island	ZNF608	Body	-0.071	0.049	0.0312
cg12341047	4	81,188,471	S_Shore	FGF5	Body	0.006	0.047	0.0312
cg05194810	2	172,950,397	N_Shore	DLX1	5'UTR	0.004	0.029	0.0312
cg04230117	1	212,956,176	OpenSea	NSL1	Body	0.003	0.977	0.0312
cg06999083	15	32,267,621	OpenSea			0.015	0.045	0.0312
cg14280382	12	96,094,182	OpenSea	NTN4	Body	0.030	0.622	0.0312
cg13501907	2	176,997,504	S_Shore			-0.025	0.317	0.0312
cg04544699	17	36,833,760	S_Shelf			0.013	0.921	0.0312
cg12033075	1	9,788,767	N_Shore	PIK3CD	3'UTR	0.003	0.973	0.0312
cg20468325	4	186,933,893	OpenSea			-0.004	0.965	0.0312
cg19105690	16	68,278,969	Island	PLA2G15	TSS1500	-0.004	0.031	0.0312
cg20598634	21	35,468,700	OpenSea	MRPS6	Body	-0.006	0.969	0.0312
cg02641770	8	1,500,789	N_Shore	DLGAP2	Body	0.012	0.911	0.0312
cg13316719	2	54,483,433	Island	TSPYL6	TSS200	0.004	0.979	0.0312
cg24828663	4	85,421,050	N_Shore			-0.004	0.038	0.0312

cg15729964	7	157,236,891	S_Shore			0.009	0.949	0.0312
cg13432253	1	246,959,150	OpenSea			0.017	0.806	0.0312
cg06326092	16	30,034,487	S_Shore	C16orf92	TSS200	0.015	0.675	0.0312
cg20752695	11	2,240,999	OpenSea			0.011	0.728	0.0312
cg08930952	3	184,628,999	OpenSea	VPS8	Body	0.006	0.967	0.0312
cg05717204	3	46,924,768	Island	PTH1R	5'UTR	0.002	0.015	0.0312
cg15369743	2	42,721,425	Island	KCNG3	TSS200	-0.003	0.021	0.0312
cg00107579	5	159,398,670	N_Shore	ADRA1B	Body	-0.015	0.722	0.0312
cg14188774	7	42,896,343	OpenSea			-0.044	0.317	0.0312
cg20073050	4	106,395,643	S_Shore	PPA2	TSS1500	0.023	0.308	0.0313
cg24495350	15	72,651,198	OpenSea	HEXA	Body	0.010	0.837	0.0313
cg12716367	8	17,625,476	OpenSea	MTUS1	5'UTR	0.019	0.420	0.0313
cg27016579	5	168,778,028	OpenSea			0.036	0.335	0.0313
cg17283039	22	29,787,625	S_Shelf			0.012	0.638	0.0313
cg05507249	2	52,798,801	Island			-0.020	0.899	0.0313
cg16731264	6	76,059,726	OpenSea	FILIP1	Body	-0.017	0.182	0.0313
cg03894796	8	144,361,315	Island			0.040	0.439	0.0313
cg26720235	16	85,879,079	Island			0.017	0.462	0.0313
cg03533123	14	55,368,924	Island	GCH1	Body	-0.003	0.022	0.0313
cg17851604	2	202,753,217	OpenSea	CDK15	Body	-0.014	0.070	0.0313
cg08064573	19	3,700,773	S_Shore	PIP5K1C	TSS1500	-0.002	0.019	0.0313
cg11028291	14	105,824,103	S_Shelf	PACS2	Body	0.014	0.912	0.0313
cg06013833	11	123,111,851	OpenSea			-0.019	0.590	0.0313
cg23785280	12	27,971,832	OpenSea			0.016	0.933	0.0313
cg03617467	10	93,558,189	Island	TNKS2	1stExon	-0.002	0.021	0.0313
cg07283659	1	208,136,667	Island			-0.003	0.027	0.0313
cg23003720	13	36,872,148	S_Shore	C13orf38	TSS200	-0.012	0.023	0.0313
cg12563839	14	91,580,507	OpenSea	C14orf159	1stExon	0.002	0.019	0.0313
cg15350780	18	9,105,577	S_Shelf	NDUFV2	Body	0.027	0.745	0.0313
cg23247274	13	21,750,649	Island	MRP63	1stExon	0.063	0.083	0.0313

cg01912298	17	4,872,499	S_Shore	CAMTA2	Body	0.043	0.412	0.0313
cg12170048	4	492,375	N_Shore	ZNF721	5'UTR	0.037	0.328	0.0313
cg11909310	7	89,975,786	Island	GTPBP10	TSS1500	-0.002	0.019	0.0313
cg01420001	1	234,365,540	N_Shore	SLC35F3	Body	-0.029	0.674	0.0313
cg24249289	6	68,598,642	OpenSea			0.020	0.864	0.0314
cg17021376	13	111,294,573	N_Shore	CARS2	Body	0.009	0.819	0.0314
cg03824868	16	50,744,353	OpenSea	NOD2	Body	-0.004	0.980	0.0314
cg11746996	13	69,459,533	OpenSea			0.019	0.622	0.0314
cg02679336	10	127,586,912	S_Shore	FANK1	Body	0.015	0.746	0.0314
cg23163513	11	1,481,925	Island	BRSK2	Body	0.023	0.499	0.0314
cg14264119	10	11,783,794	N_Shore	ECHDC3	TSS1500	0.026	0.724	0.0314
cg07648639	16	77,232,522	S_Shelf	SYCE1L	TSS1500	0.005	0.965	0.0314
cg25042465	8	50,825,702	S_Shelf	SNTG1	5'UTR	0.007	0.953	0.0314
cg04653364	16	89,058,690	OpenSea			0.016	0.839	0.0314
cg21150288	7	612,458	N_Shore	PRKAR1B	Body	0.017	0.552	0.0314
cg03160895	1	52,519,746	N_Shore	TXNDC12	Body	0.004	0.977	0.0314
cg05552183	6	42,928,497	Island	GNMT	TSS200	-0.002	0.020	0.0314
cg26467949	2	73,441,162	N_Shore	SMYD5	TSS1500	0.016	0.558	0.0314
cg15585294	11	22,687,641	N_Shore	GAS2	TSS1500	-0.006	0.038	0.0314
cg12824952	11	74,042,596	OpenSea	PGM2L1	3'UTR	-0.006	0.963	0.0314
cg20151879	7	156,405,263	N_Shelf			0.015	0.841	0.0314
cg09862941	1	25,232,337	N_Shelf	RUNX3	Body	0.014	0.547	0.0314
cg25593954	17	47,753,964	N_Shore	SPOP	5'UTR	0.012	0.397	0.0314
cg23922804	12	52,436,085	OpenSea			0.014	0.691	0.0314
cg17906007	22	35,944,645	N_Shelf	RASD2	Body	0.015	0.397	0.0314
cg17671280	4	186,990,202	OpenSea	TLR3	TSS200	0.018	0.263	0.0314
cg04521981	16	55,850,985	OpenSea	CES1	Body	-0.021	0.791	0.0314
cg21702497	16	22,309,096	Island	POLR3E	5'UTR	-0.010	0.055	0.0315
cg00462107	5	72,677,230	Island			0.034	0.197	0.0315
cg03609102	11	1,244,533	N_Shelf	MUC5B	Body	0.019	0.550	0.0315

cg05636843	6	33,138,669	OpenSea	COL11A2	Body	0.014	0.852	0.0315
cg19178081	17	7,558,889	S_Shelf	ATP1B2	Body	0.016	0.802	0.0315
cg07700524	16	62,988,282	OpenSea			-0.032	0.512	0.0315
cg00951972	3	186,490,777	Island			-0.017	0.063	0.0315
cg00543976	1	112,058,750	S_Shore	ADORA3	Body	-0.007	0.057	0.0315
cg20366258	2	113,404,078	Island	SLC20A1	5'UTR	0.011	0.065	0.0315
cg25623524	19	58,862,063	Island	NCRNA00181	TSS1500	-0.014	0.038	0.0315
cg18074165	3	48,315,011	OpenSea			-0.026	0.476	0.0315
cg13345353	2	242,715,022	S_Shelf	GAL3ST2	TSS1500	0.019	0.690	0.0315
cg17789138	19	49,936,880	Island	SLC17A7	Body	0.003	0.029	0.0315
cg08058434	16	85,832,378	N_Shore	COX4NB	Body	0.002	0.026	0.0315
cg24504999	15	36,871,565	Island	C15orf41	TSS1500	-0.002	0.016	0.0315
cg25479320	6	30,127,152	OpenSea	TRIM10	Body	-0.014	0.912	0.0315
cg00560722	10	101,989,177	Island	CHUK	Body	-0.016	0.131	0.0315
cg25316172	5	156,695,161	S_Shore	CYFIP2	5'UTR	0.016	0.884	0.0315
cg21614303	5	134,366,377	N_Shore	PITX1	Body	-0.049	0.352	0.0315
cg17021218	10	88,731,069	Island	AGAP11	5'UTR	-0.003	0.029	0.0315
cg10422777	9	79,631,227	Island			-0.007	0.040	0.0315
cg23912239	13	45,885,564	N_Shore			0.002	0.019	0.0315
cg20346503	2	128,994,402	S_Shelf			0.020	0.540	0.0315
cg01709265	17	48,350,468	Island	TMEM92	TSS1500	0.006	0.047	0.0316
cg24686380	17	62,971,592	Island	FLJ32065	Body	0.002	0.024	0.0316
cg10017653	1	155,176,341	N_Shelf	THBS3	Body	0.018	0.783	0.0316
cg13536107	4	153,437,193	OpenSea	FBXW7	5'UTR	0.016	0.459	0.0316
cg09826973	1	110,656,508	OpenSea	UBL4B	3'UTR	0.015	0.566	0.0316
cg26284300	6	90,025,968	OpenSea	GABRR2	TSS1500	0.004	0.975	0.0316
cg13071812	11	2,466,788	Island	KCNQ1	Body	-0.010	0.129	0.0316
cg06577205	5	15,500,714	Island	FBXL7	5'UTR	-0.008	0.027	0.0316
cg25377985	4	147,867,360	S_Shore	TTC29	TSS1500	0.002	0.020	0.0316
cg23755860	10	24,658,484	OpenSea	KIAA1217	Body	0.019	0.769	0.0316

cg01750611	17	27,072,015	S_Shore	TRAF4	Body	-0.002	0.024	0.0316
cg03378599	5	140,106,029	OpenSea			0.044	0.395	0.0316
cg24034959	6	29,524,905	S_Shelf	UBD	Body	0.025	0.476	0.0316
cg16615508	5	601,073	N_Shore			0.012	0.836	0.0316
cg25689167	2	8,500,033	OpenSea			0.015	0.859	0.0316
cg12527284	5	75,013,342	Island	C5orf37	TSS200	0.001	0.014	0.0316
cg06784198	1	2,777,213	Island			0.009	0.931	0.0317
cg16032518	5	140,871,464	Island	PCDHGA4	Body	-0.014	0.471	0.0317
cg00960260	8	6,693,367	S_Shore	XKR5	TSS1500	0.024	0.039	0.0317
cg15837830	8	49,547,108	OpenSea			0.015	0.803	0.0317
cg11097842	17	5,323,188	Island	RPAIN	Body	0.003	0.033	0.0317
cg18874294	7	50,108,936	OpenSea	ZPBP	Body	0.029	0.097	0.0317
cg12254701	10	134,804,362	Island			0.020	0.781	0.0317
cg01410453	2	74,753,358	N_Shelf	DQX1	1stExon	0.009	0.939	0.0317
cg10600536	11	47,608,204	N_Shelf	FAM180B	TSS200	0.017	0.575	0.0317
cg02407415	16	857,454	Island	PRR25	Body	-0.082	0.292	0.0317
cg05334655	14	23,890,294	S_Shore	MYH7	Body	0.015	0.616	0.0317
cg18158015	11	62,997,983	OpenSea	SLC22A25	TSS1500	0.013	0.931	0.0317
cg01152624	11	106,239,635	OpenSea			0.022	0.329	0.0317
cg25436684	6	31,461,972	Island			0.007	0.033	0.0317
cg21855211	2	242,805,838	Island			0.033	0.472	0.0317
cg08981648	2	233,750,457	OpenSea	NGEF	Body	0.015	0.794	0.0317
cg26471674	12	115,132,905	N_Shelf			0.010	0.359	0.0317
cg13178361	1	162,532,502	S_Shore	UAP1	5'UTR	0.017	0.276	0.0317
cg16761041	9	96,215,837	S_Shore	FAM120AOS	1stExon	-0.010	0.061	0.0317
cg00696685	8	144,947,335	S_Shore	EPPK1	1stExon	0.013	0.815	0.0317
cg14286660	7	1,050,071	S_Shore	C7orf50	Body	0.017	0.556	0.0317
cg26035201	7	1,607,146	N_Shelf	PSMG3	3'UTR	0.024	0.681	0.0317
cg05963085	3	112,359,648	OpenSea	CCDC80	5'UTR	-0.005	0.038	0.0317
cg15994839	1	1,228,289	N_Shore	ACAP3	3'UTR	0.014	0.901	0.0317

cg05400618	7	2,128,721	OpenSea	MAD1L1	Body	-0.015	0.932	0.0317
cg22675745	2	218,577,902	OpenSea	DIRC3	Body	-0.008	0.923	0.0317
cg07163745	12	132,883,414	N_Shore	GALNT9	Body	0.025	0.686	0.0317
cg07015511	17	76,497,868	N_Shore	DNAH17	Body	0.039	0.738	0.0317
cg26097391	2	54,893,211	OpenSea	SPTBN1	Body	0.024	0.786	0.0317
cg00216138	15	37,171,175	N_Shore	LOC145845	Body	0.018	0.144	0.0317
cg16300637	14	97,059,005	Island			-0.004	0.016	0.0317
cg21649277	19	18,117,794	N_Shore	ARRDC2	Body	0.051	0.054	0.0318
cg06919353	7	6,695,092	Island			-0.009	0.910	0.0318
cg17338834	2	242,126,909	OpenSea	ANO7	TSS1500	0.014	0.915	0.0318
cg07030287	2	242,174,797	OpenSea	HDLBP	Body	0.008	0.511	0.0318
cg14064774	4	48,540,281	OpenSea	FRYL	Body	0.008	0.965	0.0318
cg25481833	6	1,036,080	OpenSea	LOC285768	Body	0.023	0.610	0.0318
cg21248774	1	35,658,951	S_Shore	SFPQ	TSS1500	-0.003	0.025	0.0318
cg19460214	13	106,770,161	OpenSea			0.003	0.983	0.0318
cg21244191	8	145,554,489	N_Shore	SCRT1	3'UTR	0.015	0.697	0.0318
cg20228385	12	56,030,407	OpenSea	OR10P1	TSS1500	0.021	0.764	0.0318
cg24180066	19	56,632,673	Island	ZNF787	TSS200	-0.005	0.042	0.0318
cg25780024	5	14,348,251	OpenSea	TRIO	Body	-0.026	0.636	0.0318
cg09009506	2	28,216,851	OpenSea	BRE	Body	-0.009	0.958	0.0318
cg19773855	5	172,754,417	Island	STC2	Body	-0.006	0.050	0.0318
cg17443007	1	101,659,419	OpenSea			0.012	0.884	0.0318
cg05585742	4	812,684	S_Shore	CPLX1	Body	0.029	0.819	0.0318
cg11727338	10	641,626	OpenSea	DIP2C	Body	0.008	0.944	0.0318
cg04335449	3	127,842,704	Island	RUVBL1	TSS200	-0.003	0.025	0.0318
cg13845161	11	12,901,718	OpenSea	TEAD1	Body	0.002	0.986	0.0318
cg05364884	16	17,107,768	OpenSea			0.026	0.646	0.0318
cg02324249	8	24,473,569	OpenSea			0.003	0.983	0.0318
cg12863169	2	119,769,323	Island			0.002	0.014	0.0319
cg17750640	2	99,260,683	OpenSea	MGAT4A	Body	0.022	0.490	0.0319

cg02705824	4	153,435,322	OpenSea	FBXW7	5'UTR	0.003	0.980	0.0319
cg07466576	15	62,678,657	N_Shelf			0.008	0.947	0.0319
cg01416295	1	156,710,278	N_Shore	MRPL24	5'UTR	0.021	0.206	0.0319
cg26943731	17	86,890	S_Shore	RPH3AL	Body	0.041	0.688	0.0319
cg01468656	1	19,991,678	Island	HTR6	TSS200	0.005	0.033	0.0319
cg15488794	20	30,262,899	OpenSea	BCL2L1	Body	0.014	0.517	0.0319
cg26962924	12	42,632,618	Island	YAF2	TSS1500	-0.033	0.049	0.0319
cg01991861	4	115,576,003	OpenSea	UGT8	Body	0.037	0.612	0.0319
cg00078299	8	124,284,379	N_Shore	ZHX1	5'UTR	0.023	0.403	0.0319
cg01081083	22	25,202,766	S_Shore	SGSM1	Body	0.027	0.469	0.0319
cg10512089	11	57,408,751	OpenSea	MIR130A	Body	0.012	0.267	0.0319
cg16023545	2	237,076,726	Island	GBX2	TSS200	-0.004	0.020	0.0319
cg25026700	4	159,690,965	S_Shore	FNIP2	Body	0.003	0.034	0.0319
cg23673980	7	5,641,966	N_Shore	FSCN1	Body	0.007	0.960	0.0319
cg00661732	3	61,860,646	OpenSea	PTPRG	Body	-0.018	0.305	0.0319
cg24310133	7	140,098,579	S_Shore	SLC37A3	TSS1500	0.051	0.646	0.0319
cg05645634	10	118,562,797	OpenSea			0.009	0.919	0.0320
cg01061877	19	47,988,356	S_Shore	KPTN	TSS1500	0.004	0.972	0.0320
cg27442580	6	97,797,349	OpenSea	MIR548H3	Body	0.005	0.971	0.0320
cg24483655	1	53,686,142	Island	C1orf123	Body	-0.010	0.077	0.0320
cg02059867	17	38,334,623	Island	RAPGEFL1	1stExon	-0.015	0.332	0.0320
cg14995062	11	102,826,570	OpenSea	MMP13	TSS200	-0.004	0.975	0.0320
cg26090991	6	168,745,912	OpenSea			0.006	0.966	0.0320
cg18192610	2	44,741,623	OpenSea	C2orf34	Body	0.025	0.957	0.0320
cg09336922	11	790,795	N_Shore	CEND1	TSS1500	0.021	0.231	0.0320
cg16784006	2	21,874,939	OpenSea			0.004	0.978	0.0320
cg23489236	5	1,536,491	OpenSea			0.002	0.987	0.0320
cg21002970	11	62,369,079	Island	MTA2	1stExon	-0.005	0.027	0.0320
cg11220950	16	2,042,693	Island	SYNGR3	Body	0.014	0.172	0.0320
cg04306992	1	4,712,355	N_Shore			0.023	0.630	0.0320



cg26221243	8	128,747,973	Island	MYC	TSS1500	0.003	0.023	0.0320
cg24876897	1	20,988,603	S_Shore	DDOST	TSS1500	0.020	0.584	0.0320
cg16899892	1	53,528,971	Island	PODN	Body	-0.010	0.333	0.0320
cg00562265	19	54,899,778	OpenSea			0.032	0.144	0.0320
cg02512867	5	60,464,888	OpenSea			-0.015	0.861	0.0320
cg18663033	2	241,034,966	OpenSea			0.043	0.132	0.0320
cg00657095	6	35,310,123	N_Shore	PPARD	TSS1500	-0.005	0.048	0.0320
cg22439922	1	156,597,158	S_Shore			0.023	0.633	0.0320
cg21830221	1	42,334,284	OpenSea	HIVEP3	5'UTR	-0.033	0.891	0.0320
cg16299159	13	113,653,020	N_Shelf	MCF2L	Body	0.011	0.647	0.0320
cg13789548	4	122,872,838	Island	TRPC3	1stExon	0.007	0.042	0.0321
cg05824936	17	1,134,909	S_Shore			0.020	0.540	0.0321
cg09787123	1	8,385,927	Island	SLC45A1	Body	-0.004	0.978	0.0321
cg17555825	5	76,924,190	Island			-0.014	0.123	0.0321
cg25832123	7	158,818,053	S_Shore	LOC154822	Body	-0.020	0.566	0.0321
cg21871608	14	93,409,468	OpenSea	ITPK1	Body	-0.005	0.979	0.0321
cg17439158	4	77,535,498	OpenSea	SHROOM3	Body	-0.004	0.948	0.0321
cg16339264	14	71,067,802	OpenSea	MED6	TSS1500	0.001	0.014	0.0321
cg17962384	10	103,601,188	N_Shore	KCNIP2	Body	0.001	0.019	0.0321
cg13401235	6	13,175,441	OpenSea	PHACTR1	Body	-0.017	0.611	0.0321
cg26668632	6	137,540,814	S_Shore	IFNGR1	TSS1500	-0.005	0.050	0.0321
cg24689895	17	27,346,926	Island			0.003	0.031	0.0321
cg01320433	6	169,630,013	N_Shore	THBS2	Body	0.030	0.493	0.0321
cg16739530	4	13,333,708	OpenSea	HSP90AB2P	TSS1500	0.017	0.386	0.0321
cg24504432	8	145,808,810	S_Shelf	KIAA1688	Body	0.016	0.694	0.0321
cg05164666	2	71,127,220	Island	VAX2	TSS1500	-0.004	0.042	0.0321
cg01957799	22	24,384,135	Island	GSTT1	1stExon	0.129	0.163	0.0321
cg24307587	1	182,112,683	OpenSea			-0.017	0.715	0.0321
cg15204608	19	58,293,569	N_Shelf			0.003	0.983	0.0321
cg27221193	20	62,466,924	S_Shelf			0.028	0.632	0.0321

cg12078933	19	12,781,150	S_Shore	C19orf56	TSS1500	0.025	0.238	0.0321
cg21823149	2	207,309,003	S_Shore	ADAM23	Body	0.003	0.025	0.0322
cg11826324	8	104,278,949	OpenSea			0.022	0.757	0.0322
cg12238015	13	28,496,812	N_Shore	PDX1	Body	0.002	0.020	0.0322
cg00460322	13	112,980,649	OpenSea			0.016	0.347	0.0322
cg06566678	16	67,305,560	OpenSea	SLC9A5	3'UTR	0.016	0.807	0.0322
cg21921016	8	42,330,638	OpenSea	SLC20A2	5'UTR	0.017	0.739	0.0322
cg24493115	1	110,655,091	OpenSea	UBL4B	5'UTR	-0.014	0.879	0.0322
cg13941254	1	158,737,599	OpenSea	OR6N1	TSS1500	-0.006	0.961	0.0322
cg11108115	6	32,135,186	Island	EGFL8	Body	0.037	0.776	0.0322
cg17560283	11	57,111,564	OpenSea	P2RX3	Body	0.040	0.494	0.0322
cg23972793	17	76,027,695	OpenSea	TNRC6C	5'UTR	-0.016	0.819	0.0322
cg07052796	10	5,708,731	Island	ASB13	TSS200	-0.005	0.049	0.0322
cg04059773	19	53,561,563	Island			0.003	0.020	0.0322
cg15488963	2	106,262,226	OpenSea			-0.017	0.498	0.0322
cg07675682	17	78,195,515	S_Shore	SLC26A11	Body	0.018	0.518	0.0322
cg23196756	10	72,165,580	S_Shore	EIF4EBP2	Body	0.022	0.394	0.0322
cg08484518	6	31,105,526	OpenSea	PSORS1C1	Body	-0.008	0.059	0.0322
cg26920808	12	72,237,548	S_Shelf	TBC1D15	Body	-0.010	0.907	0.0322
cg03692991	22	38,434,974	Island			0.013	0.503	0.0322
cg26646203	4	170,925,670	OpenSea	MFAP3L	Body	0.023	0.671	0.0322
cg03157040	19	1,861,890	Island	KLF16	Body	0.002	0.021	0.0323
cg09548179	16	2,570,492	Island	AMDHD2	1stExon	0.003	0.027	0.0323
cg05061754	7	4,254,313	OpenSea	SDK1	Body	-0.020	0.756	0.0323
cg00075620	2	137,180,506	N_Shore			-0.012	0.903	0.0323
cg06396649	19	46,148,786	S_Shelf			0.004	0.029	0.0323
cg13027595	6	33,283,184	Island	ZBTB22	Body	0.016	0.493	0.0323
cg12030031	6	6,614,798	OpenSea	LOC285780	Body	-0.017	0.493	0.0323
cg19138446	3	116,018,418	OpenSea	LSAMP	Body	0.006	0.965	0.0323
cg09318921	4	17,490,309	OpenSea	QDPR	Body	-0.011	0.942	0.0323

cg06323479	6	167,507,729	Island			0.012	0.583	0.0323
cg09686390	10	73,735,333	OpenSea	CHST3	5'UTR	0.015	0.733	0.0323
cg00987136	9	127,115,791	OpenSea	PSMB7	3'UTR	-0.006	0.971	0.0323
cg26599274	7	66,205,733	Island	RABGEF1	1stExon	-0.008	0.041	0.0323
cg06353486	1	3,427,479	Island	MEGF6	Body	-0.011	0.982	0.0323
cg25386151	1	212,778,862	N_Shore	ATF3	5'UTR	0.002	0.019	0.0323
cg07218880	13	115,046,279	N_Shore	UPF3A	TSS1500	0.016	0.161	0.0323
cg25367332	11	125,135,875	OpenSea	PKNOX2	5'UTR	0.004	0.980	0.0323
cg24168914	8	17,354,322	Island	SLC7A2	TSS1500	0.001	0.013	0.0323
cg15929276	6	35,687,457	OpenSea	FKBP5	5'UTR	0.022	0.247	0.0323
cg03925157	20	17,549,955	Island	DSTN	TSS1500	-0.006	0.114	0.0324
cg12098949	17	75,367,442	N_Shore		9-Sep 5'UTR	0.014	0.508	0.0324
cg22424213	22	25,350,512	S_Shore			-0.017	0.709	0.0324
cg03519879	14	74,227,499	S_Shore	C14orf43	5'UTR	0.012	0.440	0.0324
cg13708759	9	138,585,730	OpenSea	SOHLH1	3'UTR	0.013	0.724	0.0324
cg06328674	10	1,284,161	Island	ADARB2	Body	0.009	0.948	0.0324
cg24701780	7	157,351,620	N_Shore	PTPRN2	Body	0.015	0.558	0.0324
cg06562014	17	146,773	OpenSea	RPH3AL	Body	0.026	0.807	0.0324
cg19727817	5	140,588,381	N_Shore	PCDHB12	5'UTR	0.019	0.392	0.0324
cg25387812	1	44,554,657	OpenSea			0.012	0.472	0.0324
cg23646044	17	42,941,002	OpenSea	EFTUD2	Body	-0.022	0.670	0.0324
cg18105749	15	79,711,400	OpenSea			0.021	0.226	0.0324
cg08511757	16	89,342,065	N_Shelf	ANKRD11	Body	0.015	0.870	0.0324
cg11682724	6	474,629	OpenSea			0.022	0.734	0.0324
cg10143146	6	33,161,377	S_Shore	COL11A2	TSS1500	0.008	0.040	0.0324
cg27187541	7	91,012,818	OpenSea			0.015	0.446	0.0324
cg03826463	3	186,211,670	OpenSea			0.025	0.478	0.0325
cg07856163	5	175,222,420	N_Shore	CPLX2	TSS1500	0.009	0.949	0.0325
cg20073272	14	59,650,772	N_Shelf			0.018	0.833	0.0325
cg26614816	12	104,697,532	Island	TXNRD1	5'UTR	0.004	0.036	0.0325

cg23993660	1	20,959,826	N_Shore	PINK1	TSS200	-0.003	0.033	0.0325
cg19728055	3	38,206,610	Island	OXR1	TSS1500	0.001	0.014	0.0325
cg02777191	19	4,555,838	N_Shore	SEMA6B	Body	0.013	0.930	0.0325
cg14533753	5	497,572	N_Shore	SLC9A3	Body	0.017	0.464	0.0325
cg08770122	3	190,040,181	Island	CLDN1	5'UTR	-0.004	0.028	0.0325
cg12951488	11	115,516,632	OpenSea			0.015	0.184	0.0325
cg22098556	9	138,798,463	Island	CAMSAP1	Body	0.002	0.023	0.0325
cg13713830	9	79,631,737	Island			-0.007	0.042	0.0325
cg18650732	19	5,904,804	Island	VMAC	TSS200	0.001	0.015	0.0325
cg08604505	8	128,932,775	OpenSea	PVT1	Body	-0.028	0.792	0.0325
cg10524192	9	34,637,478	Island	SIGMAR1	Body	-0.003	0.015	0.0325
cg21113478	3	36,782,467	OpenSea	DCLK3	TSS1500	-0.012	0.917	0.0325
cg16475712	4	847,310	S_Shelf	GAK	Body	0.009	0.935	0.0325
cg25665429	6	35,749,808	OpenSea	C6orf127	Body	-0.028	0.867	0.0325
cg02055889	12	1,059,459	S_Shore	RAD52	TSS1500	-0.003	0.025	0.0325
cg02828785	12	12,846,546	N_Shelf	GPR19	5'UTR	0.026	0.406	0.0325
cg14635659	7	155,790,771	OpenSea			0.014	0.876	0.0325
cg21481929	2	37,899,561	Island	CDC42EP3	TSS1500	-0.004	0.017	0.0325
cg09464487	12	100,593,423	Island	ACTR6	TSS1500	0.001	0.012	0.0325
cg26533311	6	27,206,911	OpenSea			0.051	0.394	0.0326
cg17872658	17	78,856,861	N_Shore	RPTOR	Body	0.011	0.807	0.0326
cg12800600	8	55,016,751	S_Shelf			0.010	0.921	0.0326
cg08094571	19	16,682,354	N_Shore	SLC35E1	Body	0.012	0.479	0.0326
cg23094674	1	204,329,186	OpenSea	PLEKHA6	TSS200	-0.008	0.080	0.0326
cg09122657	1	9,294,913	Island	H6PD	5'UTR	0.002	0.023	0.0326
cg04123507	12	52,695,270	N_Shore	KRT86	TSS1500	0.018	0.376	0.0326
cg13316472	11	1,482,428	Island	BRSK2	3'UTR	0.016	0.621	0.0326
cg16584290	5	462,447	N_Shelf	EXOC3	Body	0.017	0.847	0.0326
cg04738151	12	70,004,638	OpenSea	LRR10	5'UTR	0.008	0.928	0.0326
cg08120796	8	90,770,219	Island	RIPK2	5'UTR	-0.002	0.015	0.0326

cg06382167	2	178,973,065	OpenSea	PDE11A	5'UTR	0.012	0.915	0.0326
cg26174628	8	80,864,316	OpenSea	MRPS28	Body	0.003	0.982	0.0326
cg17428519	19	45,659,496	S_Shelf	NKPD1	Body	0.013	0.644	0.0326
cg03980715	7	1,130,187	N_Shore	GPFR	5'UTR	0.007	0.949	0.0326
cg24127310	10	102,502,104	Island			-0.045	0.146	0.0326
cg14797899	7	69,882,555	OpenSea	AUTS2	Body	0.017	0.532	0.0326
cg02615157	19	9,946,560	S_Shore	PIN1	Body	0.004	0.025	0.0326
cg04356980	10	106,113,597	OpenSea	CCDC147	1stExon	0.001	0.015	0.0326
cg10860308	10	124,714,384	S_Shore	C10orf88	TSS1500	0.026	0.536	0.0326
cg06903451	1	1,323,192	S_Shore	CCNL2	Body	-0.009	0.923	0.0327
cg00771642	19	48,988,436	Island			0.019	0.661	0.0327
cg02458483	1	33,206,805	N_Shore	KIAA1522	TSS1500	0.015	0.697	0.0327
cg26163284	19	42,787,174	S_Shore			0.013	0.654	0.0327
cg11786833	1	41,884,697	OpenSea			0.012	0.439	0.0327
cg03136625	6	31,802,846	S_Shore	C6orf48	5'UTR	-0.002	0.017	0.0327
cg13350783	17	39,661,354	OpenSea	KRT13	1stExon	-0.007	0.946	0.0327
cg26754350	8	28,560,723	S_Shore	EXTL3	5'UTR	0.010	0.444	0.0327
cg10667102	19	1,265,458	N_Shore			-0.029	0.891	0.0327
cg02872623	3	185,304,179	Island	SENP2	1stExon	-0.011	0.086	0.0327
cg18371284	16	75,182,568	Island	ZFP1	5'UTR	0.003	0.028	0.0327
cg04405538	19	58,874,322	Island	ZNF497	TSS1500	0.003	0.020	0.0327
cg25785495	3	134,910,848	OpenSea	EPHB1	Body	-0.016	0.771	0.0327
cg13573745	9	97,405,553	S_Shelf			0.017	0.689	0.0327
cg08164006	9	139,086,145	Island			-0.012	0.082	0.0327
cg16636721	21	47,920,571	S_Shore	DIP2A	Body	0.020	0.628	0.0327
cg10146423	15	97,345,395	OpenSea			0.009	0.941	0.0327
cg07611177	5	110,074,217	N_Shore	SLC25A46	TSS1500	0.002	0.016	0.0327
cg01546563	8	11,567,189	Island	GATA4	Body	-0.039	0.328	0.0327
cg22937354	11	55,606,216	OpenSea	OR5D16	TSS200	0.062	0.543	0.0327
cg18106434	15	22,833,248	N_Shore	TUBGCP5	TSS200	0.026	0.060	0.0328

cg18591727	10	8,277,320	OpenSea			0.021	0.783	0.0328
cg11701022	11	2,162,478	Island	IGF2AS	Body	-0.018	0.156	0.0328
cg20314490	7	98,248,879	S_Shore	NPTX2	Body	0.003	0.016	0.0328
cg08142096	11	111,125,837	OpenSea	C11orf53	TSS1500	0.025	0.495	0.0328
cg11596090	1	5,779,163	OpenSea			0.021	0.731	0.0328
cg08938727	3	134,074,767	OpenSea	AMOTL2	3'UTR	0.012	0.912	0.0328
cg15230030	4	3,365,414	Island	RGS12	Body	-0.003	0.972	0.0328
cg03136668	1	1,525,488	OpenSea			0.018	0.817	0.0328
cg12889817	17	1,124,131	OpenSea			0.018	0.824	0.0328
cg01408476	16	58,330,382	OpenSea	KLKBL4	TSS1500	0.017	0.658	0.0328
cg05615477	10	121,217,732	OpenSea			0.019	0.699	0.0328
cg22208435	7	29,846,584	Island			-0.008	0.048	0.0329
cg02546208	12	1,100,009	Island	ERC1	TSS1500	-0.002	0.022	0.0329
cg03084350	3	38,065,265	N_Shore	PLCD1	Body	0.017	0.610	0.0329
cg00460704	2	179,314,738	N_Shore	PRKRA	Body	0.017	0.139	0.0329
cg09460229	22	30,141,053	OpenSea	ZMAT5	Body	0.021	0.666	0.0329
cg19393755	17	71,258,101	OpenSea	CPSF4L	TSS200	0.015	0.728	0.0329
cg18594482	1	27,480,543	N_Shore	SLC9A1	1stExon	0.007	0.938	0.0329
cg04282723	11	975,233	Island	AP2A2	Body	0.016	0.822	0.0329
cg04600077	5	1,852,839	S_Shore			0.019	0.704	0.0329
cg25145195	6	32,340,955	OpenSea	C6orf10	TSS1500	0.002	0.987	0.0329
cg01937267	1	42,387,288	S_Shelf			0.003	0.981	0.0329
cg22075924	1	78,005,352	OpenSea	AK5	Body	0.013	0.550	0.0329
cg15559674	6	149,803,426	OpenSea	ZC3H12D	5'UTR	0.018	0.485	0.0329
cg10122230	16	88,043,323	N_Shore	BANP	Body	0.005	0.970	0.0329
cg13050058	6	41,437,908	N_Shore			0.004	0.030	0.0329
cg27648020	8	124,408,845	Island	ATAD2	TSS200	-0.007	0.042	0.0329
cg26406563	1	55,117,536	OpenSea	C1orf175	Body	0.016	0.379	0.0329
cg12151820	14	68,162,520	OpenSea	RDH11	TSS200	-0.002	0.018	0.0329
cg25130381	1	27,440,721	OpenSea	SLC9A1	Body	0.012	0.628	0.0329

cg03494648	11	2,322,642	OpenSea	C11orf21	Body	-0.017	0.925	0.0329
cg23508264	11	62,415,024	S_Shore	GANAB	TSS1500	0.004	0.981	0.0329
cg12918130	7	123,504,669	OpenSea	HYAL4	5'UTR	0.047	0.422	0.0329
cg09982942	2	112,898,400	S_Shore	FBLN7	Body	0.060	0.362	0.0329
cg13221924	17	6,495,080	OpenSea	KIAA0753	Body	0.026	0.674	0.0329
cg19992207	2	111,874,495	N_Shore	ACOXL	Body	0.016	0.462	0.0329
cg16662267	21	37,442,759	Island	CBR1	Body	-0.003	0.022	0.0329
cg05482864	3	32,799,602	OpenSea	CNOT10	Body	0.024	0.868	0.0329
cg02332491	12	47,180,824	OpenSea	SLC38A4	Body	0.026	0.633	0.0330
cg10767193	2	10,666,662	Island			0.015	0.601	0.0330
cg16405454	11	113,258,223	N_Shore	ANKK1	TSS1500	0.014	0.517	0.0330
cg17580844	6	91,657,077	OpenSea			0.002	0.984	0.0330
cg13210558	9	138,369,918	N_Shore			0.009	0.948	0.0330
cg18535410	13	113,793,268	OpenSea	F10	Body	0.037	0.626	0.0330
cg02966404	7	47,631,325	OpenSea			-0.005	0.039	0.0330
cg26162700	12	128,753,795	S_Shore	TMEM132C	Body	-0.006	0.061	0.0330
cg23058239	12	54,868,395	OpenSea	GTSF1	TSS1500	-0.018	0.109	0.0330
cg06784122	16	85,688,175	S_Shelf	KIAA0182	Body	0.009	0.934	0.0330
cg27454412	7	1,067,447	Island	C7orf50	Body	-0.021	0.027	0.0330
cg03840647	14	36,974,968	Island	SFTA3	Body	-0.004	0.034	0.0330
cg08356738	3	64,128,942	OpenSea	PRICKLE2	Body	0.002	0.987	0.0330
cg02001779	2	231,281,264	OpenSea	SP100	Body	0.018	0.088	0.0330
cg07835270	16	56,676,694	N_Shore	MT1DP	TSS1500	0.019	0.460	0.0330
cg16309460	3	9,403,346	N_Shore	THUMPD3	TSS1500	0.008	0.961	0.0330
cg12477452	3	11,237,939	OpenSea	HRH1	5'UTR	0.024	0.447	0.0330
cg00835612	16	72,698,400	N_Shore			0.001	0.015	0.0330
cg07245476	16	60,448,068	OpenSea			0.027	0.717	0.0330
cg16560436	5	78,191,385	OpenSea	ARSB	Body	-0.007	0.940	0.0331
cg04579263	14	91,525,979	N_Shore	RPS6KA5	Body	0.006	0.041	0.0331
cg23690804	14	32,672,544	Island			0.002	0.023	0.0331

cg01186919	11	111,742,365	S_Shore	ALG9	TSS1500	-0.001	0.018	0.0331
cg18486590	14	65,009,505	S_Shore	HSPA2	3'UTR	0.017	0.167	0.0331
cg24358603	21	40,984,553	OpenSea	C21orf88	Body	-0.003	0.022	0.0331
cg05468064	22	46,423,449	Island			-0.003	0.018	0.0331
cg01771479	8	144,198,810	OpenSea			0.024	0.616	0.0331
cg04697056	4	187,565,389	OpenSea	FAT1	Body	-0.021	0.393	0.0331
cg11536851	7	4,832,359	Island			-0.045	0.391	0.0331
cg11416533	1	3,773,643	Island	KIAA0562	1stExon	0.004	0.040	0.0331
cg13787167	1	149,170,064	OpenSea			0.040	0.206	0.0331
cg10591797	2	218,990,598	OpenSea	CXCR2	TSS200	0.016	0.778	0.0331
cg06837737	1	249,120,805	S_Shore	SH3BP5L	TSS1500	0.002	0.022	0.0331
cg00455331	2	241,640,296	N_Shore			-0.016	0.713	0.0331
cg11236550	1	167,090,757	Island	DUSP27	Body	-0.015	0.088	0.0331
cg09143318	17	32,255,976	OpenSea	ACCN1	Body	0.023	0.634	0.0331
cg15087376	3	149,113,539	OpenSea			0.035	0.404	0.0331
cg11346669	1	6,342,159	S_Shore	ACOT7	Body	0.005	0.970	0.0331
cg20681274	20	60,775,878	Island	GTPBP5	Body	0.009	0.920	0.0331
cg14374829	21	33,244,742	N_Shore	HUNK	TSS1500	0.003	0.021	0.0331
cg18921061	2	190,305,608	N_Shore	WDR75	TSS1500	0.002	0.014	0.0331
cg04177132	2	113,956,531	Island	PSD4	Body	-0.007	0.029	0.0331
cg02021544	16	46,782,542	OpenSea	MYLK3	TSS1500	0.014	0.563	0.0331
cg18799241	19	45,412,599	Island	APOE	3'UTR	0.009	0.942	0.0331
cg08119412	4	10,084,747	OpenSea	WDR1	Body	0.007	0.942	0.0331
cg06624310	2	239,628,974	OpenSea			-0.018	0.114	0.0331
cg13618979	19	16,186,840	Island	TPM4	Body	-0.008	0.068	0.0331
cg04535945	5	137,781,554	OpenSea	REEP2	3'UTR	0.012	0.836	0.0331
cg01406456	2	62,520,912	OpenSea			0.017	0.318	0.0331
cg27143688	14	38,058,243	S_Shore			-0.012	0.066	0.0331
cg16100355	13	113,648,607	Island	MCF2L	Body	-0.003	0.979	0.0331
cg11922086	20	60,783,424	S_Shore			0.021	0.503	0.0332



cg11192975	8	16,859,451	Island	FGF20	1stExon	-0.003	0.037	0.0332
cg02919794	17	80,203,112	Island	CSNK1D	Body	0.011	0.916	0.0332
cg08129848	16	30,456,761	Island	SEPHS2	1stExon	0.011	0.020	0.0332
cg19363669	7	752,624	S_Shore	PRKAR1B	TSS200	0.022	0.683	0.0332
cg13436432	9	139,145,967	S_Shore			0.014	0.878	0.0332
cg00817396	13	21,347,357	N_Shore	N6AMT2	5'UTR	0.003	0.030	0.0332
cg13980410	5	146,870,693	OpenSea			0.017	0.452	0.0332
cg14926149	2	148,602,819	Island	ACVR2A	Body	-0.003	0.032	0.0332
cg26288249	9	112,810,954	Island	AKAP2	TSS200	0.002	0.018	0.0332
cg25767154	8	145,594,413	N_Shelf			0.018	0.777	0.0332
cg08917795	16	56,716,597	S_Shore	MT1X	Body	-0.002	0.020	0.0332
cg02801789	7	127,989,338	N_Shore			0.020	0.442	0.0332
cg19274368	11	70,331,491	N_Shore	SHANK2	Body	0.014	0.788	0.0332
cg08374732	10	97,889,046	N_Shore	ZNF518A	TSS1500	0.003	0.983	0.0332
cg04916523	17	8,868,688	Island	PIK3R5	5'UTR	0.026	0.199	0.0332
cg20198611	6	33,163,689	S_Shelf	RXR8	Body	0.011	0.601	0.0332
cg12068346	11	8,305,041	OpenSea			-0.003	0.028	0.0333
cg18140645	5	64,778,147	OpenSea	ADAMTS6	TSS1500	-0.002	0.020	0.0333
cg07029226	1	2,104,223	OpenSea	PRKCZ	Body	-0.005	0.949	0.0333
cg08773462	16	17,107,610	OpenSea			0.026	0.670	0.0333
cg15975598	7	137,665,118	OpenSea	CREB3L2	Body	0.009	0.907	0.0333
cg13535779	9	125,027,590	S_Shore	RBM18	TSS1500	-0.002	0.027	0.0333
cg19632760	8	71,581,729	S_Shore	XKR9	5'UTR	0.024	0.387	0.0333
cg20674212	8	12,623,766	OpenSea	LOC340357	Body	0.013	0.912	0.0333
cg06899912	17	38,861,095	OpenSea	KRT24	TSS1500	-0.026	0.982	0.0333
cg04905834	16	1,216,285	N_Shore	CACNA1H	Body	0.011	0.905	0.0333
cg00172672	20	34,895,136	Island			-0.004	0.032	0.0333
cg22326328	7	151,142,178	N_Shelf			0.014	0.387	0.0333
cg05622261	3	171,757,169	N_Shore	FNDC3B	TSS1500	-0.005	0.031	0.0333
cg23827488	6	24,908,452	N_Shelf	FAM65B	5'UTR	0.014	0.308	0.0333

cg18620542	17	77,389,727	OpenSea	HRNBP3	5'UTR	-0.076	0.759	0.0333
cg21462732	6	136,871,881	Island	MAP7	TSS200	-0.003	0.029	0.0333
cg02708705	17	74,264,300	S_Shelf	FAM100B	Body	0.014	0.675	0.0333
cg15213650	19	4,984,614	N_Shore	KDM4B	5'UTR	0.013	0.765	0.0333
cg00119117	20	20,349,621	Island	INSM1	1stExon	-0.011	0.053	0.0333
cg01388598	10	79,166,065	OpenSea	KCNMA1	Body	0.005	0.968	0.0333
cg23537887	3	54,157,647	S_Shore	CACNA2D3	Body	0.012	0.101	0.0333
cg24414363	22	42,336,273	OpenSea	CENPM	TSS200	0.015	0.794	0.0333
cg12616125	4	41,216,508	Island	APBB2	1stExon	-0.008	0.039	0.0333
cg07136715	1	229,797,157	OpenSea			0.010	0.105	0.0333
cg22905511	5	126,409,198	Island	FLJ44606	TSS200	-0.050	0.236	0.0333
cg09487733	6	110,501,281	N_Shore	WASF1	TSS200	0.002	0.028	0.0333
cg06435363	8	17,206,671	OpenSea	MTMR7	Body	0.026	0.704	0.0333
cg03803619	3	40,566,673	Island	ZNF621	5'UTR	-0.005	0.037	0.0334
cg06489289	16	66,126,575	OpenSea			-0.014	0.771	0.0334
cg24922263	8	86,093,932	S_Shelf	E2F5	Body	0.008	0.963	0.0334
cg26771969	19	15,358,258	OpenSea	BRD4	3'UTR	0.012	0.643	0.0334
cg00085256	2	218,251,446	OpenSea	DIRC3	Body	-0.003	0.982	0.0334
cg15351214	14	71,277,192	S_Shore	MAP3K9	TSS1500	0.017	0.222	0.0334
cg19958696	11	107,992,251	Island	ACAT1	TSS200	-0.004	0.015	0.0334
cg22671939	10	1,000,300	OpenSea			0.014	0.814	0.0334
cg02153497	12	112,591,144	OpenSea	TRAFD1	3'UTR	0.012	0.881	0.0334
cg11463612	2	173,292,636	Island	ITGA6	1stExon	-0.006	0.031	0.0334
cg17001448	8	144,152,376	N_Shore			0.044	0.266	0.0334
cg19910220	1	204,006,995	OpenSea	C1orf157	Body	0.006	0.970	0.0334
cg02927042	1	21,476,669	OpenSea	EIF4G3	5'UTR	0.035	0.639	0.0334
cg02976588	1	150,135,546	OpenSea			-0.002	0.020	0.0334
cg07701683	1	164,904,941	OpenSea			0.004	0.977	0.0334
cg00981350	16	88,718,818	S_Shore	MVD	3'UTR	0.016	0.789	0.0334
cg07189782	10	120,935,712	N_Shelf	PRDX3	Body	0.003	0.983	0.0334

cg03169472	6	33,246,008	S_Shore	B3GALT4	1stExon	0.012	0.597	0.0334
cg02259324	15	78,111,196	Island			-0.002	0.028	0.0334
cg05323251	19	10,449,942	S_Shelf	ICAM3	Body	0.011	0.854	0.0334
cg20564558	11	7,052,637	OpenSea	NLRP14	5'UTR	0.010	0.952	0.0334
cg18063659	18	12,374,558	N_Shore	AFG3L2	Body	0.011	0.925	0.0334
cg09786062	4	152,097,288	OpenSea	SH3D19	5'UTR	0.006	0.969	0.0334
cg14819820	17	56,246,435	OpenSea	OR4D2	TSS1500	0.027	0.882	0.0334
cg23075961	10	99,387,778	OpenSea	MORN4	5'UTR	0.025	0.850	0.0334
cg18256236	2	54,013,944	Island	LOC10030265	Body	0.001	0.014	0.0334
cg27337902	2	175,581,955	N_Shelf			-0.012	0.912	0.0334
cg24707617	3	183,209,810	Island	KLHL6	Body	-0.043	0.804	0.0334
cg00914963	17	77,966,262	Island	TBC1D16	Body	-0.012	0.183	0.0334
cg09616608	16	949,331	N_Shore	LMF1	Body	0.021	0.663	0.0335
cg18810691	7	151,130,479	S_Shore	CRYGN	Body	0.016	0.749	0.0335
cg18994250	4	6,107,021	N_Shore	JAKMIP1	Body	0.026	0.513	0.0335
cg18773844	11	69,463,247	S_Shore	CCND1	Body	0.017	0.683	0.0335
cg06624291	20	21,494,689	Island	NKX2-2	TSS200	-0.007	0.097	0.0335
cg19784382	19	15,570,664	S_Shore	RASAL3	Body	-0.015	0.748	0.0335
cg14947218	17	41,278,197	Island	BRCA1	TSS1500	0.040	0.485	0.0335
cg03022050	7	101,559,403	Island	CUX1	Body	0.014	0.870	0.0335
cg03296248	13	110,918,516	Island	COL4A1	Body	0.027	0.626	0.0335
cg04245374	1	168,150,977	S_Shelf	TIPRL	Body	0.004	0.977	0.0335
cg01134643	10	5,406,948	OpenSea	UCN3	TSS200	0.024	0.626	0.0335
cg12244325	21	45,883,864	Island			0.014	0.573	0.0335
cg27406802	6	29,995,967	OpenSea	NCRNA00171	Body	0.026	0.915	0.0335
cg13626639	7	155,917,038	S_Shore			0.013	0.809	0.0335
cg12256803	10	76,859,248	OpenSea	DUSP13	Body	0.013	0.722	0.0335
cg14242528	9	33,166,541	N_Shore	B4GALT1	Body	0.002	0.023	0.0335
cg13362404	6	4,279,354	N_Shelf			0.007	0.962	0.0335
cg22066599	11	49,917,865	S_Shelf			0.028	0.626	0.0335

cg11911286	2	109,177,239	OpenSea			0.024	0.640	0.0335
cg19081759	2	9,771,089	Island	YWHAQ	5'UTR	-0.006	0.044	0.0335
cg03450734	17	45,899,862	OpenSea	OSBPL7	TSS1500	0.017	0.569	0.0335
cg23634459	10	73,078,858	Island	SLC29A3	TSS200	0.004	0.032	0.0335
cg07801181	16	894,919	Island			0.012	0.899	0.0336
cg08147050	11	93,394,607	N_Shore	KIAA1731	TSS1500	-0.003	0.035	0.0336
cg08189171	12	6,420,023	Island	PLEKHG6	5'UTR	0.001	0.017	0.0336
cg07533488	12	117,287,121	OpenSea	RNFT2	Body	0.019	0.554	0.0336
cg01587662	19	29,583,604	N_Shore			0.034	0.724	0.0336
cg06864079	14	23,352,029	N_Shelf	REM2	TSS1500	0.015	0.352	0.0336
cg04006397	6	31,827,926	N_Shelf	NEU1	Body	0.011	0.718	0.0336
cg21813187	6	31,674,553	S_Shelf	LY6G6F	TSS200	0.015	0.804	0.0336
cg02399652	3	169,684,620	Island	LOC10012816	TSS200	-0.003	0.042	0.0336
cg15736338	12	62,586,425	S_Shore	FAM19A2	5'UTR	0.002	0.017	0.0336
cg09851650	1	20,465,286	OpenSea	PLA2G2F	TSS1500	0.013	0.855	0.0336
cg20780013	7	4,302,246	N_Shore	SDK1	Body	0.011	0.853	0.0336
cg11933019	11	99,291,687	OpenSea	CNTN5	5'UTR	0.022	0.834	0.0336
cg21754727	3	47,883,023	OpenSea	DHX30	Body	0.014	0.890	0.0336
cg19255608	1	153,581,655	OpenSea	S100A16	5'UTR	0.013	0.465	0.0336
cg07428430	8	1,830,352	N_Shore	ARHGEF10	Body	-0.004	0.979	0.0336
cg20003138	12	101,673,791	Island	UTP20	TSS200	-0.004	0.048	0.0336
cg13884568	9	79,630,305	N_Shore			0.003	0.025	0.0336
cg21908557	5	140,762,305	N_Shore	PCDHGA4	Body	0.011	0.058	0.0336
cg22096787	11	121,327,251	S_Shelf	SORL1	Body	-0.032	0.972	0.0336
cg25147447	13	112,212,213	Island			-0.015	0.516	0.0336
cg16799188	13	20,692,766	Island			-0.008	0.066	0.0336
cg01108316	11	32,605,196	Island	EIF3M	TSS200	-0.005	0.033	0.0336
cg15173443	6	33,138,421	OpenSea	COL11A2	Body	0.027	0.906	0.0336
cg00351119	6	143,836,747	S_Shelf			0.042	0.619	0.0336
cg26651782	19	51,505,779	N_Shore	KLK9	3'UTR	0.053	0.499	0.0336

cg20353884	17	663,064	OpenSea	GLOD4	3'UTR	0.011	0.887	0.0336
cg06375217	17	7,738,487	Island			-0.002	0.023	0.0336
cg14346362	20	5,918,840	OpenSea	TRMT6	3'UTR	0.004	0.975	0.0337
cg02470587	12	48,302,191	S_Shelf			0.024	0.616	0.0337
cg22821554	7	99,383,155	OpenSea	CYP3A4	TSS1500	0.015	0.822	0.0337
cg09890213	12	52,409,033	Island	GRASP	3'UTR	-0.011	0.293	0.0337
cg01632311	7	2,281,785	Island	NUDT1	TSS200	0.001	0.017	0.0337
cg18524114	2	505,661	S_Shore			0.020	0.666	0.0337
cg14888296	3	48,413,707	OpenSea	FBXW12	TSS200	0.016	0.699	0.0337
cg00442282	17	38,471,064	N_Shore	RARA	5'UTR	0.013	0.434	0.0337
cg21540775	12	99,038,699	Island	APAF1	TSS1500	0.014	0.056	0.0337
cg22853797	8	19,172,126	S_Shore	SH2D4A	5'UTR	-0.005	0.035	0.0337
cg14155058	9	134,113,929	OpenSea			0.012	0.473	0.0337
cg04154653	1	1,133,248	S_Shore	TTL10	3'UTR	-0.038	0.950	0.0337
cg20858173	5	145,214,769	Island	PRELID2	5'UTR	-0.009	0.135	0.0337
cg14474728	17	102,461	S_Shelf	RPH3AL	Body	0.003	0.982	0.0337
cg00369241	11	299,588	Island	IFITM5	TSS200	0.039	0.830	0.0337
cg23708717	18	47,793,175	N_Shore	CCDC11	TSS1500	0.035	0.288	0.0337
cg04876072	3	48,594,239	Island	PFKFB4	TSS200	-0.013	0.176	0.0337
cg08920249	1	209,405,771	S_Shore			-0.003	0.968	0.0337
cg11919525	19	52,552,461	S_Shore	ZNF432	TSS1500	0.002	0.017	0.0337
cg22732770	2	129,494,095	N_Shore			0.015	0.524	0.0337
cg01566127	11	63,828,762	OpenSea	MACROD1	Body	-0.001	0.016	0.0337
cg26087598	5	176,739,400	Island	MXD3	TSS200	-0.003	0.025	0.0338
cg12100006	11	35,964,190	N_Shore	LDLRAD3	TSS1500	-0.007	0.964	0.0338
cg19602728	4	1,496,334	S_Shore			-0.029	0.717	0.0338
cg02076284	3	8,696,378	OpenSea			-0.003	0.982	0.0338
cg14884445	3	185,306,797	S_Shelf	SENP2	Body	-0.006	0.956	0.0338
cg17363305	21	46,221,839	Island	UBE2G2	TSS200	0.003	0.022	0.0338
cg26275431	5	140,773,122	N_Shore	PCDHGA4	Body	0.026	0.190	0.0338

cg20469764	14	57,952,160	OpenSea	C14orf105	Body	-0.012	0.944	0.0338
cg06888387	4	1,711,002	N_Shelf	SLBP	Body	0.049	0.391	0.0338
cg09130402	18	54,306,120	S_Shore	TXNL1	TSS1500	-0.003	0.024	0.0338
cg05488981	11	487,701	N_Shore	PTDSS2	Body	0.014	0.785	0.0338
cg14047844	5	92,916,151	Island	FLJ42709	Body	-0.002	0.012	0.0338
cg20586124	18	19,998,018	OpenSea	CTAGE1	TSS200	-0.016	0.928	0.0338
cg20905796	11	122,376,861	OpenSea			0.114	0.328	0.0338
cg19616309	17	21,178,854	Island			0.002	0.017	0.0338
cg18260218	17	47,266,493	N_Shelf			0.003	0.978	0.0338
cg07847944	10	91,174,159	N_Shore	IFIT5	TSS200	0.002	0.017	0.0338
cg21420531	2	27,435,915	S_Shore	SLC5A6	TSS1500	-0.003	0.024	0.0338
cg08567142	10	71,087,924	OpenSea	HK1	Body	0.022	0.265	0.0338
cg11153275	11	1,043,951	OpenSea			0.010	0.923	0.0338
cg27181013	12	6,960,042	N_Shore	USP5	TSS1500	-0.019	0.377	0.0338
cg01377696	20	32,581,542	Island	RALY	TSS200	-0.005	0.028	0.0338
cg11836473	17	206,480	Island			0.004	0.982	0.0338
cg07588875	2	65,571,948	OpenSea	SPRED2	Body	-0.012	0.890	0.0338
cg12160664	1	114,521,853	OpenSea	OLFML3	TSS200	-0.010	0.080	0.0338
cg08660999	19	1,592,898	Island	MBD3	TSS1500	0.014	0.198	0.0338
cg13172906	8	143,694,295	N_Shore	ARC	1stExon	0.021	0.646	0.0338
cg04887124	1	16,557,469	S_Shelf			0.010	0.922	0.0338
cg02898083	14	102,396,537	S_Shore			0.011	0.920	0.0339
cg21176326	7	148,788,010	Island	ZNF786	TSS200	0.002	0.027	0.0339
cg17261712	5	176,049,061	S_Shore	SNCB	Body	0.014	0.680	0.0339
cg24152264	1	232,820,610	OpenSea			0.015	0.735	0.0339
cg08227583	11	2,118,566	OpenSea			-0.014	0.184	0.0339
cg18022883	4	54,972,054	N_Shelf			0.022	0.769	0.0339
cg17611475	12	58,137,179	OpenSea	AGAP2	TSS1500	0.008	0.935	0.0339
cg24713989	7	50,774,060	OpenSea	GRB10	5'UTR	-0.036	0.778	0.0339
cg17944885	19	12,225,735	N_Shelf			0.006	0.964	0.0339

cg10396281	7	37,243,747	OpenSea	ELMO1	Body	-0.003	0.974	0.0339
cg03399574	13	19,759,420	OpenSea			0.005	0.973	0.0339
cg21561712	11	118,895,504	OpenSea	SLC37A4	3'UTR	0.010	0.405	0.0339
cg00827581	19	10,434,088	Island	RAVER1	Body	0.005	0.966	0.0339
cg27212729	2	171,570,838	Island	LOC440925	Body	0.002	0.021	0.0339
cg13721134	8	86,350,390	N_Shore	CA3	TSS1500	0.003	0.020	0.0339
cg21451906	1	161,192,549	OpenSea	APOA2	Body	0.012	0.665	0.0339
cg08237309	16	2,146,423	N_Shelf	PKD1	Body	0.004	0.980	0.0339
cg13355032	12	71,524,030	OpenSea	TSPAN8	Body	0.011	0.941	0.0339
cg11070818	17	400,410	OpenSea			0.010	0.560	0.0339
cg05203776	11	2,162,582	S_Shore	IGF2AS	Body	-0.020	0.263	0.0339
cg07118078	1	23,345,725	N_Shore	KDM1A	TSS1500	0.001	0.009	0.0339
cg24948588	8	145,006,921	N_Shore	PLEC1	Body	0.008	0.953	0.0339
cg01429408	1	156,860,314	N_Shelf			0.017	0.776	0.0339
cg13652653	4	41,937,034	N_Shore	TMEM33	TSS200	-0.008	0.057	0.0339
cg02667103	12	83,125,178	OpenSea	TMTC2	Body	0.033	0.601	0.0339
cg13925692	3	350,789	Island	CHL1	5'UTR	0.037	0.261	0.0340
cg05473871	19	1,513,513	Island	ADAMTSL5	TSS1500	0.020	0.129	0.0340
cg17212902	1	109,972,460	S_Shelf			0.005	0.973	0.0340
cg03016906	6	99,275,391	N_Shore			-0.003	0.027	0.0340
cg12501949	2	179,750,458	OpenSea	CCDC141	TSS1500	0.005	0.974	0.0340
cg20558423	6	168,765,896	Island			0.007	0.960	0.0340
cg12010413	2	138,851,802	OpenSea			0.020	0.452	0.0340
cg13227162	14	101,351,197	S_Shore	RTL1	TSS200	0.004	0.974	0.0340
cg01971363	7	150,768,318	OpenSea	SLC4A2	Body	-0.008	0.931	0.0340
cg13897914	15	41,695,294	S_Shore	NDUFAF1	TSS1500	0.031	0.673	0.0340
cg03848065	1	168,212,210	OpenSea			0.023	0.684	0.0340
cg05172887	2	147,815,931	OpenSea			0.016	0.702	0.0340
cg03134051	8	119,059,372	OpenSea	EXT1	Body	0.035	0.643	0.0340
cg14694058	3	53,928,807	S_Shelf			0.033	0.813	0.0340

cg21661837	6	10,409,510	N_Shore	TFAP2A	Body	0.021	0.051	0.0340
cg01607187	1	167,060,565	OpenSea	GPA33	TSS1500	0.013	0.953	0.0340
cg01306183	11	63,057,478	OpenSea	SLC22A10	5'UTR	-0.022	0.692	0.0340
cg04068601	20	2,844,713	OpenSea	VPS16	Body	0.014	0.854	0.0340
cg02858826	14	75,389,222	N_Shore	RPS6KL1	TSS200	0.017	0.622	0.0340
cg09820150	5	87,985,219	N_Shore			0.002	0.023	0.0341
cg27040030	16	325,184	Island	RGS11	Body	-0.008	0.081	0.0341
cg05165689	2	69,534,554	Island			-0.005	0.031	0.0341
cg12109170	8	143,259,104	OpenSea			0.036	0.699	0.0341
cg08541772	1	209,958,162	Island	C1orf74	TSS1500	-0.002	0.020	0.0341
cg23864993	4	8,621,266	OpenSea	CPZ	Body	0.015	0.809	0.0341
cg07061269	11	68,679,261	OpenSea	IGHMBP2	Body	0.004	0.980	0.0341
cg19756042	10	70,102,167	OpenSea	HNRNPH3	3'UTR	0.003	0.976	0.0341
cg15526246	8	9,760,427	N_Shore	LOC157627	Body	0.016	0.134	0.0341
cg08461949	19	52,104,632	Island			-0.018	0.051	0.0341
cg02275213	6	114,295,445	S_Shelf			0.020	0.833	0.0341
cg17012665	8	1,974,195	S_Shore			-0.012	0.075	0.0341
cg25734279	3	184,055,123	N_Shore	FAM131A	5'UTR	0.019	0.656	0.0341
cg21336116	17	39,093,658	OpenSea	KRT23	1stExon	-0.038	0.408	0.0341
cg09263647	14	34,692,110	OpenSea			0.021	0.481	0.0342
cg21779231	8	67,351,597	Island	ADHFE1	Body	-0.003	0.044	0.0342
cg00347918	1	6,162,744	OpenSea	CHD5	3'UTR	-0.034	0.726	0.0342
cg05140806	7	155,597,344	Island	SHH	Body	0.026	0.035	0.0342
cg06248741	2	99,953,491	Island	TXNDC9	TSS1500	0.003	0.024	0.0342
cg20706049	2	110,026,630	OpenSea	SH3RF3	Body	0.028	0.510	0.0342
cg23591463	12	114,851,495	N_Shore			-0.074	0.191	0.0342
cg08585380	6	86,388,840	Island	SNORD50B	TSS1500	-0.002	0.019	0.0342
cg00988350	1	24,126,048	N_Shore	GALE	5'UTR	0.010	0.368	0.0342
cg00217171	16	1,590,847	N_Shore	IFT140	Body	0.011	0.904	0.0342
cg08082908	7	1,067,951	Island	C7orf50	Body	-0.034	0.024	0.0342



cg10939004	3	194,072,233	OpenSea	CPN2	TSS200	0.017	0.580	0.0342
cg20433531	10	13,141,779	Island	OPTN	TSS1500	0.003	0.024	0.0342
cg06103613	11	94,467,343	OpenSea			-0.025	0.867	0.0342
cg12557418	8	110,552,613	Island	EBAG9	1stExon	-0.002	0.019	0.0342
cg23290960	17	39,702,512	N_Shelf			-0.008	0.941	0.0342
cg00308914	5	17,436,715	OpenSea			0.015	0.779	0.0342
cg21499909	1	20,960,545	Island	PINK1	Body	0.002	0.020	0.0342
cg08354527	1	229,252,042	OpenSea			0.110	0.286	0.0343
cg21502154	11	94,963,152	N_Shore	SESN3	Body	-0.008	0.045	0.0343
cg15262728	2	231,733,948	S_Shelf	ITM2C	Body	-0.018	0.583	0.0343
cg15605648	2	75,867,807	OpenSea			-0.002	0.018	0.0343
cg01654312	1	205,781,871	Island	SLC41A1	5'UTR	-0.004	0.046	0.0343
cg25198716	1	46,153,712	S_Shore	GPBP1L1	TSS1500	0.011	0.025	0.0343
cg09503596	11	94,883,722	Island			0.005	0.022	0.0343
cg09127448	10	126,704,108	OpenSea	CTBP2	Body	0.017	0.789	0.0343
cg17809471	22	37,882,605	OpenSea	MFNG	TSS200	0.003	0.032	0.0343
cg15779716	3	45,188,208	S_Shore	CDCP1	TSS1500	0.018	0.463	0.0343
cg03617867	6	155,053,338	N_Shore	RBM16	TSS1500	0.014	0.751	0.0343
cg05254590	8	55,382,640	Island			-0.001	0.013	0.0343
cg09933836	8	29,595,133	OpenSea	C8orf75	Body	0.030	0.373	0.0343
cg03722487	1	2,415,199	Island	PLCH2	Body	-0.017	0.909	0.0343
cg11401784	1	16,092,264	OpenSea	FBLIM1	Body	0.015	0.691	0.0343
cg20219100	11	63,776,397	S_Shore	MACROD1	Body	0.014	0.882	0.0343
cg02939918	6	138,726,163	Island	HEBP2	Body	-0.005	0.039	0.0343
cg05135670	6	109,038,135	OpenSea			-0.052	0.787	0.0343
cg16393955	14	73,956,373	N_Shore	C14orf169	TSS1500	0.013	0.941	0.0343
cg14741228	12	31,476,479	N_Shore	FAM60A	5'UTR	-0.019	0.310	0.0343
cg10200255	19	20,162,670	N_Shore			0.001	0.011	0.0343
cg01786314	1	92,950,123	Island	GFI1	5'UTR	-0.008	0.066	0.0343
cg09323092	16	921,072	S_Shore	LMF1	Body	0.007	0.960	0.0343

cg25821245	3	46,608,056	S_Shore	LRRC2	5'UTR	0.003	0.029	0.0343
cg25564800	3	122,234,134	S_Shore	KPNA1	TSS1500	0.028	0.523	0.0343
cg18870820	19	34,271,958	S_Shelf			0.014	0.284	0.0343
cg05706652	4	24,799,557	N_Shore	SOD3	5'UTR	-0.007	0.949	0.0343
cg03407567	12	56,545,570	N_Shore	MYL6B	TSS1500	0.013	0.315	0.0344
cg00385761	1	228,131,966	N_Shelf	WNT9A	Body	0.021	0.808	0.0344
cg22023819	5	153,782,522	N_Shelf	GALNT10	Body	0.010	0.833	0.0344
cg11326255	19	3,786,583	Island	MATK	Body	0.032	0.120	0.0344
cg06142621	11	124,805,981	OpenSea	HEPACAM	5'UTR	0.020	0.739	0.0344
cg05715532	2	219,923,682	Island	IHH	Body	0.012	0.075	0.0344
cg01369220	5	140,248,564	N_Shore	PCDHA7	Body	0.040	0.437	0.0344
cg04857257	8	90,913,896	N_Shore	OSGIN2	TSS200	0.020	0.605	0.0344
cg04676766	4	153,699,460	N_Shore	TIGD4	5'UTR	0.013	0.587	0.0344
cg03570332	19	54,959,757	N_Shore	LENG8	TSS1500	0.001	0.014	0.0344
cg05559648	12	92,963,952	OpenSea			-0.013	0.067	0.0344
cg25584466	6	29,981,501	OpenSea	NCRNA00171	Body	-0.026	0.887	0.0344
cg21910821	19	52,407,881	OpenSea	ZNF649	5'UTR	-0.002	0.025	0.0344
cg23655848	3	193,802,194	OpenSea			0.014	0.648	0.0344
cg07145930	5	151,151,000	Island	G3BP1	TSS1500	-0.003	0.040	0.0344
cg10323697	14	38,064,493	Island	FOXA1	TSS200	0.003	0.027	0.0344
cg03954918	16	12,278,468	OpenSea	SNX29	Body	0.011	0.933	0.0344
cg23771929	9	132,934,195	N_Shore	FREQ	TSS1500	-0.010	0.076	0.0345
cg21315176	4	3,518,057	N_Shore	LRPAP1	Body	0.018	0.842	0.0345
cg07391089	17	26,133,152	OpenSea			0.013	0.120	0.0345
cg09098025	8	23,100,643	N_Shelf	CHMP7	TSS1500	0.020	0.849	0.0345
cg20710730	17	46,705,577	S_Shore			0.016	0.140	0.0345
cg01793088	1	150,669,977	OpenSea	GOLPH3L	TSS1500	0.003	0.024	0.0345
cg26413691	1	7,119,074	N_Shelf	CAMTA1	Body	0.011	0.859	0.0345
cg14140379	4	6,695,380	OpenSea	S100P	TSS200	0.017	0.747	0.0345
cg27145388	18	74,628,650	N_Shelf	ZNF236	Body	0.007	0.957	0.0345

cg26810214	12	48,201,852	OpenSea	HDAC7	Body	0.011	0.331	0.0345
cg05509967	3	42,266,079	OpenSea	TRAK1	3'UTR	0.002	0.988	0.0345
cg13375248	17	48,911,181	OpenSea	WFIKKN2	TSS1500	0.007	0.960	0.0345
cg05513583	10	3,829,456	S_Shore			-0.002	0.989	0.0345
cg20908789	8	11,551,964	S_Shore			-0.064	0.541	0.0345
cg17177816	10	96,304,193	N_Shore	HELLS	TSS1500	0.005	0.968	0.0345
cg13563193	19	33,072,644	Island	PDCD5	Body	-0.030	0.044	0.0345
cg08943292	4	40,337,370	OpenSea	CHRNA9	TSS200	0.020	0.704	0.0345
cg04489548	1	110,616,863	S_Shelf			0.022	0.470	0.0345
cg18250736	3	116,799,871	OpenSea			0.023	0.731	0.0345
cg25141957	3	123,753,249	S_Shore			0.001	0.013	0.0345
cg14742445	22	30,195,299	OpenSea	ASCC2	Body	0.015	0.673	0.0345
cg18147233	1	970,294	S_Shore	AGRN	Body	-0.015	0.433	0.0345
cg26543816	4	38,180,741	OpenSea			-0.005	0.968	0.0345
cg26365742	7	87,503,866	N_Shore	SLC25A40	5'UTR	0.038	0.394	0.0345
cg15958035	6	128,374,552	OpenSea	PTPRK	Body	0.015	0.806	0.0345
cg19032492	17	7,812,665	OpenSea	CHD3	Body	-0.013	0.943	0.0346
cg04642741	11	20,620,830	N_Shore	SLC6A5	TSS200	0.027	0.265	0.0346
cg10497871	14	92,041,114	S_Shore	C14orf184	5'UTR	0.018	0.086	0.0346
cg06080194	20	56,239,590	Island	PMEPA1	5'UTR	0.016	0.562	0.0346
cg14221264	13	53,029,148	N_Shore	CKAP2	TSS1500	-0.001	0.013	0.0346
cg09408366	1	84,462,335	N_Shore	TTLL7	5'UTR	0.029	0.246	0.0346
cg08108315	14	24,546,305	OpenSea	CPNE6	Body	0.013	0.808	0.0346
cg01873391	8	98,657,960	S_Shore	MTDH	Body	-0.003	0.035	0.0346
cg16340268	1	226,925,172	Island	ITPKB	5'UTR	-0.005	0.038	0.0346
cg19775672	4	7,104,195	OpenSea	FLJ36777	Body	0.016	0.302	0.0346
cg20696451	10	14,881,628	S_Shore	HSPA14	Body	0.015	0.679	0.0346
cg26120617	12	6,603,256	Island	NCAPD2	TSS200	0.002	0.018	0.0346
cg07816190	2	189,748,382	OpenSea			0.006	0.972	0.0346
cg04118462	3	149,530,148	N_Shore	RNF13	TSS1500	0.013	0.543	0.0346

cg13305186	11	57,508,416	N_Shore	TMX2	3'UTR	0.025	0.511	0.0346
cg03929901	8	96,281,600	Island	C8orf37	TSS200	-0.004	0.051	0.0346
cg14568338	15	99,191,797	Island	IGF1R	TSS1500	0.003	0.028	0.0346
cg26730619	19	57,743,416	S_Shore	AURKC	Body	0.027	0.744	0.0346
cg09811464	9	135,465,645	Island			-0.005	0.043	0.0346
cg01274233	5	178,704,915	OpenSea	ADAMTS2	Body	-0.009	0.441	0.0346
cg01792686	3	128,118,254	OpenSea	EEFSEC	Body	-0.011	0.960	0.0346
cg06087185	6	29,521,499	Island			0.006	0.019	0.0346
cg09868597	5	112,849,442	Island	YTHDC2	1stExon	-0.005	0.049	0.0346
cg16499607	11	68,883,356	OpenSea			-0.013	0.667	0.0346
cg11293312	19	49,252,020	N_Shore	FUT1	3'UTR	0.017	0.730	0.0346
cg05038396	2	86,363,010	OpenSea	PTCD3	Body	0.002	0.988	0.0346
cg18783160	5	78,100,628	OpenSea	ARSB	Body	-0.005	0.972	0.0346
cg02342791	15	31,508,943	S_Shore			0.015	0.289	0.0346
cg26794221	5	131,646,362	OpenSea	SLC22A4	Body	0.016	0.678	0.0346
cg13796687	2	159,638,711	OpenSea			0.009	0.970	0.0346
cg22146612	6	17,715,219	OpenSea			0.013	0.880	0.0346
cg21001050	7	8,791,686	OpenSea	NXPH1	3'UTR	0.007	0.949	0.0347
cg18607468	4	89,619,030	OpenSea	NAP1L5	TSS200	-0.015	0.653	0.0347
cg10079318	10	104,154,150	Island	NFKB2	TSS1500	-0.005	0.042	0.0347
cg15067865	10	15,412,983	Island	FAM171A1	1stExon	0.002	0.018	0.0347
cg12689752	1	156,495,553	OpenSea	IQGAP3	3'UTR	0.007	0.962	0.0347
cg05329480	6	30,520,941	N_Shelf	GNL1	Body	-0.006	0.972	0.0347
cg00550955	22	22,012,657	S_Shore			0.018	0.148	0.0347
cg08764761	15	25,492,314	OpenSea	SNORD115-42	TSS200	0.016	0.829	0.0347
cg25556008	19	2,525,384	Island	GNG7	5'UTR	0.020	0.582	0.0347
cg04115307	14	101,539,612	OpenSea			0.021	0.453	0.0347
cg00028318	6	29,570,739	OpenSea	GABBR1	3'UTR	0.012	0.735	0.0347
cg03821121	11	12,148,288	OpenSea	MICAL2	5'UTR	0.013	0.841	0.0347
cg07571928	16	22,020,630	S_Shore	C16orf52	Body	0.004	0.037	0.0347

cg26218692	12	122,497,826	OpenSea	BCL7A	3'UTR	-0.020	0.729	0.0347
cg27314452	8	134,420,155	OpenSea			0.012	0.867	0.0347
cg12940269	6	160,257,728	OpenSea			0.021	0.742	0.0347
cg02896465	19	11,485,452	Island	C19orf39	1stExon	-0.004	0.039	0.0347
cg03319323	16	475,643	Island	RAB11FIP3	TSS200	0.001	0.017	0.0347
cg09597645	12	34,471,143	OpenSea			0.024	0.686	0.0347
cg06469455	5	127,138,134	OpenSea			-0.024	0.756	0.0347
cg13409077	9	35,618,528	S_Shore	CD72	TSS200	0.022	0.687	0.0347
cg05434312	21	39,287,834	N_Shore	KCNJ6	5'UTR	0.020	0.327	0.0347
cg06390606	6	3,751,076	Island	C6orf145	Body	-0.003	0.014	0.0347
cg24057701	13	112,278,928	S_Shelf			0.022	0.487	0.0347
cg09994035	2	241,826,199	N_Shore	C2orf54	3'UTR	0.018	0.667	0.0347
cg26856475	5	140,740,503	N_Shore	PCDHGA4	Body	0.030	0.384	0.0347
cg03495497	7	156,238,599	OpenSea			0.003	0.985	0.0347
cg15407057	4	8,581,734	N_Shore	GPR78	TSS1500	0.029	0.414	0.0348
cg07083101	11	22,067,714	OpenSea			0.027	0.576	0.0348
cg23074762	15	101,781,259	OpenSea	CHSY1	Body	0.027	0.854	0.0348
cg02604211	11	27,453,034	OpenSea	LGR4	Body	0.015	0.535	0.0348
cg05295297	14	85,999,731	Island	FLRT2	5'UTR	0.004	0.025	0.0348
cg13241645	3	52,235,959	S_Shelf	ALAS1	Body	0.022	0.515	0.0348
cg14623093	3	39,149,090	Island	GORASP1	5'UTR	-0.017	0.071	0.0348
cg06588457	19	10,791,697	OpenSea	ILF3	Body	0.007	0.953	0.0348
cg00228390	6	168,197,667	Island	C6orf123	TSS200	-0.029	0.119	0.0348
cg06566627	2	27,958,897	S_Shore			0.012	0.901	0.0348
cg02513379	16	27,414,281	OpenSea	IL21R	TSS200	0.017	0.529	0.0348
cg14074305	2	106,260,513	OpenSea			0.026	0.511	0.0348
cg10996111	6	30,510,459	OpenSea	GNL1	3'UTR	0.011	0.480	0.0348
cg06326278	13	114,827,493	OpenSea	RASA3	Body	0.002	0.977	0.0348
cg11454095	2	1,817,951	OpenSea	MYT1L	Body	-0.040	0.855	0.0348
cg12468056	8	41,909,961	Island	MYST3	TSS1500	0.002	0.019	0.0348

cg06972578	9	140,916,078	N_Shore	CACNA1B	Body	0.015	0.714	0.0348
cg16370398	12	54,448,913	S_Shore	HOXC4	Body	-0.008	0.060	0.0348
cg09922103	17	80,668,678	N_Shelf			0.017	0.594	0.0348
cg23151453	8	141,312,892	OpenSea	TRAPPC9	Body	-0.033	0.471	0.0348
cg26948176	13	114,066,988	Island			0.015	0.972	0.0348
cg06740209	2	210,065,542	OpenSea			0.016	0.661	0.0348
cg24903668	5	142,941,044	OpenSea			0.016	0.914	0.0348
cg03742273	1	2,772,664	Island			0.020	0.525	0.0348
cg14253635	9	132,436,438	N_Shore	PRRX2	Body	0.015	0.871	0.0348
cg05898545	10	709,564	N_Shelf	DIP2C	Body	0.014	0.906	0.0348
cg09229668	10	73,565,440	N_Shore	CDH23	Body	0.016	0.529	0.0349
cg09126569	8	93,618,390	OpenSea			0.023	0.538	0.0349
cg19529472	8	143,534,954	N_Shore			0.015	0.133	0.0349
cg02100819	19	29,284,511	Island			-0.010	0.034	0.0349
cg11762968	13	95,354,190	Island			-0.019	0.124	0.0349
cg20818457	4	154,179,401	OpenSea	TRIM2	Body	-0.025	0.406	0.0349
cg19806221	8	37,824,765	S_Shore	ADRB3	TSS1500	0.026	0.376	0.0349
cg09256862	2	3,683,283	Island	COLEC11	Body	0.017	0.885	0.0349
cg15864601	17	259,839	Island	C17orf97	TSS1500	-0.066	0.182	0.0349
cg19684190	10	54,759,379	OpenSea			0.008	0.953	0.0349
cg22145445	20	17,944,526	OpenSea	SNORD17	TSS1500	-0.009	0.953	0.0349
cg21914362	4	1,975,518	OpenSea	WHSC1	Body	0.017	0.646	0.0349
cg19789753	2	242,805,962	Island			0.027	0.421	0.0349
cg05309179	11	111,176,107	OpenSea	C11orf93	5'UTR	-0.014	0.496	0.0349
cg14206898	9	71,627,667	N_Shore	PRKACG	3'UTR	0.022	0.167	0.0349
cg05474943	4	6,732,464	S_Shelf			0.019	0.509	0.0349
cg23342045	19	55,036,748	N_Shore			0.021	0.765	0.0349
cg22242963	19	48,837,349	Island	TMEM143	Body	-0.002	0.016	0.0350
cg16811988	3	42,103,138	OpenSea			0.030	0.270	0.0350
cg23156962	7	130,131,367	Island	MEST	TSS1500	0.009	0.456	0.0350

cg01448944	6	35,442,288	OpenSea	TEAD3	3'UTR	0.013	0.682	0.0350
cg08261702	7	150,103,112	N_Shore	LOC728743	Body	-0.008	0.061	0.0350
cg24365837	1	10,509,935	OpenSea	APITD1	Body	0.016	0.872	0.0350
cg00233943	17	59,553,911	OpenSea	TBX4	Body	0.012	0.772	0.0350
cg04398861	4	670,694	S_Shore	MYL5	TSS1500	0.014	0.796	0.0350
cg26393791	2	16,180,066	OpenSea			0.010	0.930	0.0350
cg16592950	10	102,820,042	N_Shore	KAZALD1	TSS1500	0.001	0.013	0.0350
cg04671914	13	45,153,489	S_Shore			0.017	0.551	0.0350
cg20321329	2	136,743,046	Island	DARS	1stExon	-0.002	0.021	0.0350
cg09267291	19	48,112,407	Island	GLTSCR1	5'UTR	-0.003	0.026	0.0350
cg03253625	12	102,456,487	S_Shore	CCDC53	TSS1500	-0.003	0.982	0.0350
cg27319123	11	30,038,286	N_Shore	KCNA4	1stExon	0.053	0.031	0.0350
cg22500328	6	134,428,142	OpenSea			0.028	0.764	0.0350
cg00648203	9	138,967,195	Island	NACC2	5'UTR	0.015	0.549	0.0350
cg09608064	3	141,027,315	N_Shelf			0.020	0.782	0.0351
cg12743638	22	20,192,485	OpenSea	LOC150197	TSS1500	-0.037	0.314	0.0351
cg15563309	19	1,357,758	N_Shelf	MUM1	Body	-0.016	0.940	0.0351
cg09910611	4	110,731,205	OpenSea			0.003	0.978	0.0351
cg04258934	14	68,062,864	N_Shelf	PIGH	Body	0.005	0.978	0.0351
cg06323521	1	27,710,217	S_Shore	CD164L2	TSS1500	0.014	0.671	0.0351
cg14063809	18	2,655,012	Island	SMCHD1	TSS1500	0.002	0.019	0.0351
cg19972788	17	5,405,118	S_Shore	NLRP1	3'UTR	0.011	0.846	0.0351
cg11082959	7	150,778,332	Island	FASTK	TSS1500	-0.005	0.027	0.0351
cg26824949	1	160,232,436	Island	DCAF8	TSS200	0.003	0.029	0.0351
cg18183892	2	119,513,106	OpenSea			0.017	0.613	0.0351
cg14501638	8	143,609,540	Island	BAI1	Body	0.016	0.840	0.0351
cg07782285	19	13,085,442	OpenSea	DAND5	3'UTR	0.014	0.497	0.0351
cg05821816	13	100,741,197	Island	PCCA	TSS200	-0.008	0.044	0.0351
cg16587849	16	50,258,166	OpenSea	PAPD5	Body	0.039	0.934	0.0351
cg08224238	16	87,958,145	OpenSea	CA5A	Body	0.014	0.848	0.0351

cg27488674	17	34,134,865	N_Shore			0.023	0.711	0.0351
cg14214425	12	130,623,165	Island			0.003	0.976	0.0351
cg22881141	22	46,730,765	N_Shore	TRMU	TSS1500	0.025	0.800	0.0351
cg18052967	6	163,951,256	OpenSea	QKI	Body	0.015	0.923	0.0351
cg21385413	6	88,824,517	OpenSea			-0.009	0.937	0.0351
cg22595458	13	100,800,996	OpenSea	PCCA	Body	0.003	0.979	0.0351
cg18923051	1	156,053,080	S_Shore	MEX3A	TSS1500	-0.005	0.043	0.0351
cg11308338	4	185,459,395	OpenSea			-0.003	0.025	0.0352
cg23220343	10	116,045,930	Island	VWA2	Body	0.018	0.695	0.0352
cg01895612	11	2,020,286	S_Shore	H19	TSS1500	0.011	0.557	0.0352
cg21519804	5	178,978,460	S_Shore	RUFY1	Body	-0.004	0.042	0.0352
cg26719638	8	132,056,802	S_Shelf			0.004	0.974	0.0352
cg23013139	7	56,858,795	S_Shelf			0.025	0.693	0.0352
cg00074365	2	64,088,479	OpenSea	UGP2	Body	-0.021	0.499	0.0352
cg12513505	18	13,868,447	N_Shore			0.004	0.031	0.0352
cg05016508	11	63,871,570	OpenSea	FLRT1	1stExon	0.009	0.958	0.0352
cg22946679	6	30,569,917	OpenSea	PPP1R10	Body	0.011	0.879	0.0352
cg14851485	14	100,126,685	Island	HHIPL1	Body	-0.016	0.203	0.0352
cg18328334	2	218,808,652	OpenSea	TNS1	1stExon	0.014	0.244	0.0352
cg15471197	12	57,592,381	OpenSea	LRP1	Body	0.008	0.948	0.0352
cg13425938	9	139,562,397	S_Shore	EGFL7	5'UTR	0.013	0.551	0.0352
cg05047367	12	121,019,523	S_Shore	POP5	TSS1500	0.002	0.018	0.0352
cg24315586	19	14,188,113	S_Shore			0.023	0.613	0.0352
cg15295166	21	36,040,771	N_Shore	CLIC6	TSS1500	0.012	0.911	0.0352
cg27162196	16	75,183,231	S_Shore	ZFP1	5'UTR	0.004	0.039	0.0352
cg07705739	16	86,463,255	OpenSea			0.018	0.709	0.0352
cg11419235	1	22,174,085	OpenSea	HSPG2	Body	0.013	0.770	0.0352
cg22313519	19	18,385,724	OpenSea	KIAA1683	TSS1500	0.034	0.464	0.0353
cg25301767	12	49,731,393	S_Shore	C1QL4	TSS1500	0.017	0.235	0.0353
cg13504055	2	102,234,418	OpenSea			-0.019	0.439	0.0353



cg24051487	20	11,671,599	S_Shelf			-0.005	0.978	0.0353
cg23906264	8	42,705,540	OpenSea	RNF170	3'UTR	0.016	0.934	0.0353
cg00993308	5	3,325,561	N_Shore			0.015	0.362	0.0353
cg03326608	5	145,316,080	N_Shore	SH3RF2	TSS200	-0.003	0.025	0.0353
cg04517749	6	29,570,507	OpenSea	GABBR1	3'UTR	0.013	0.642	0.0353
cg07753337	19	50,060,306	S_Shore	NOSIP	Body	0.011	0.516	0.0353
cg19310162	18	74,836,070	S_Shelf	MBP	5'UTR	0.014	0.829	0.0353
cg13803266	9	139,937,835	N_Shore	NPDC1	Body	0.014	0.653	0.0353
cg14166485	9	126,779,370	Island	LHX2	Body	-0.003	0.031	0.0353
cg13529726	8	144,416,767	Island	TOP1MT	Body	-0.001	0.017	0.0353
cg24940155	13	93,896,820	OpenSea	GPC6	Body	0.021	0.650	0.0353
cg08516035	1	249,142,795	Island	ZNF672	Body	0.014	0.852	0.0353
cg19055803	19	12,947,164	N_Shore	RTBDN	TSS1500	-0.002	0.020	0.0353
cg24126361	8	23,398,346	OpenSea	SLC25A37	Body	-0.090	0.535	0.0353
cg03904427	2	14,541,534	OpenSea			-0.024	0.971	0.0353
cg06221946	1	32,802,312	S_Shore	MARCKSL1	TSS1500	-0.016	0.351	0.0353
cg24764861	16	1,495,122	Island	CCDC154	TSS1500	0.016	0.826	0.0353
cg01783386	3	53,164,389	Island	RFT1	1stExon	-0.003	0.025	0.0353
cg19178091	17	704,245	OpenSea	NXN	Body	0.027	0.618	0.0354
cg00099869	10	52,751,764	Island	PRKG1	Body	-0.003	0.040	0.0354
cg23732781	6	29,595,016	N_Shore	GABBR1	Body	0.018	0.200	0.0354
cg17279409	18	76,305,782	N_Shelf			0.004	0.977	0.0354
cg00193521	17	68,133,597	OpenSea			0.033	0.330	0.0354
cg25382032	3	184,035,178	S_Shore	EIF4G1	Body	0.014	0.772	0.0354
cg21850735	15	73,919,896	OpenSea	NPTN	Body	0.007	0.966	0.0354
cg18850728	18	48,346,838	OpenSea	MRO	TSS1500	0.020	0.695	0.0354
cg23069177	15	28,216,241	OpenSea	OCA2	Body	0.011	0.922	0.0354
cg14080982	15	71,736,038	OpenSea	THSD4	Body	-0.036	0.834	0.0354
cg06045746	8	103,247,356	N_Shelf	RRM2B	Body	0.006	0.972	0.0354
cg22393213	2	237,478,526	S_Shore	CXCR7	1stExon	0.003	0.025	0.0354

cg03565081	14	23,478,970	N_Shore	C14orf93	5'UTR	0.017	0.706	0.0354
cg16332813	5	180,230,115	Island	MGAT1	5'UTR	-0.009	0.057	0.0354
cg10355708	8	145,618,298	Island	ADCK5	3'UTR	0.005	0.969	0.0354
cg22748481	6	51,772,933	OpenSea	PKHD1	Body	-0.005	0.969	0.0354
cg22259932	22	30,162,890	Island	UCRC	TSS1500	0.008	0.075	0.0354
cg24680852	19	1,653,131	OpenSea	TCF3	TSS1500	0.001	0.016	0.0354
cg16944070	10	11,783,848	N_Shore	ECHDC3	TSS1500	0.023	0.541	0.0354
cg02512559	16	75,414,554	OpenSea	CFDP1	Body	0.003	0.978	0.0354
cg15444472	18	54,792,610	S_Shelf			-0.004	0.969	0.0354
cg08693738	13	79,170,627	Island			-0.005	0.054	0.0354
cg12712481	7	75,934,414	S_Shore			0.031	0.607	0.0354
cg25308508	5	3,592,638	Island			-0.026	0.295	0.0354
cg13545297	12	54,404,315	S_Shore	HOXC8	Body	0.067	0.216	0.0354
cg07485769	14	71,323,515	OpenSea			0.003	0.983	0.0354
cg14080063	6	34,525,026	OpenSea	SPDEF	TSS1500	-0.010	0.950	0.0355
cg24874180	4	107,956,405	N_Shore	DKK2	Body	0.004	0.030	0.0355
cg14606286	2	55,459,201	OpenSea	RPS27A	5'UTR	-0.002	0.019	0.0355
cg11494213	7	75,115,627	Island	POM121C	TSS200	0.003	0.020	0.0355
cg00041467	2	122,494,276	Island	MKI67IP	Body	0.003	0.027	0.0355
cg00187614	1	42,500,967	Island			0.009	0.094	0.0355
cg01932663	3	99,808,606	OpenSea	C3orf26	Body	-0.017	0.851	0.0355
cg04965050	22	43,739,790	Island	SCUBE1	TSS1500	-0.005	0.030	0.0355
cg17295834	13	29,132,547	OpenSea			0.011	0.077	0.0355
cg09307788	10	119,311,459	Island			-0.021	0.173	0.0355
cg25060525	4	3,235,295	OpenSea	HTT	Body	-0.007	0.962	0.0355
cg11646240	2	232,253,064	OpenSea			0.016	0.562	0.0355
cg26571320	16	3,240,141	S_Shore			0.024	0.283	0.0355
cg19246065	2	11,245,457	OpenSea			0.016	0.570	0.0355
cg12421536	1	51,426,414	S_Shore	FAF1	TSS1500	0.007	0.045	0.0355
cg01062395	6	29,855,636	Island	HLA-H	Body	0.051	0.039	0.0355

cg04071270	5	140,457,553	OpenSea			0.024	0.396	0.0355
cg01741878	17	79,269,038	Island	SLC38A10	5'UTR	-0.009	0.042	0.0355
cg23525708	14	70,152,683	OpenSea	KIAA0247	Body	0.019	0.422	0.0355
cg12573766	11	75,110,826	Island	SNORD15A	TSS1500	0.002	0.017	0.0355
cg26180255	22	46,856,996	N_Shelf	CELSR1	Body	0.024	0.387	0.0355
cg01343097	1	248,284,971	OpenSea	OR2M1P	TSS1500	-0.009	0.959	0.0355
cg07928709	7	6,057,387	OpenSea	AIMP2	Body	0.009	0.958	0.0355
cg21407117	1	228,548,708	S_Shore	OBSCN	3'UTR	0.011	0.544	0.0355
cg14878320	19	32,836,510	Island	ZNF507	TSS200	0.001	0.016	0.0355
cg04103450	3	136,751,342	Island			-0.002	0.024	0.0355
cg21664522	18	6,913,353	OpenSea	ARHGAP28	3'UTR	0.004	0.976	0.0355
cg25677027	18	65,181,755	N_Shore	DSEL	Body	-0.026	0.761	0.0355
cg18355533	19	3,961,679	S_Shore	MIR637	TSS200	0.014	0.744	0.0355
cg16962191	21	39,753,051	OpenSea	ERG	3'UTR	0.034	0.436	0.0356
cg13882835	2	172,017,928	S_Shore	TLK1	5'UTR	-0.003	0.024	0.0356
cg02133234	8	144,922,496	N_Shore	NRBP2	5'UTR	0.020	0.355	0.0356
cg00643333	22	45,705,037	N_Shore	FAM118A	TSS1500	-0.026	0.637	0.0356
cg03000846	17	79,990,263	Island	RAC3	Body	-0.016	0.262	0.0356
cg12615205	1	3,495,611	OpenSea	MEGF6	Body	0.014	0.878	0.0356
cg00514413	19	1,238,130	Island	C19orf26	TSS200	0.032	0.025	0.0356
cg05693489	6	32,813,441	S_Shore	TAP1	Body	0.018	0.690	0.0356
cg23803709	10	54,203,646	OpenSea			0.029	0.551	0.0356
cg20485733	17	2,798,136	OpenSea	RAP1GAP2	Body	0.019	0.651	0.0356
cg02931410	1	28,853,697	N_Shelf	SNHG3-RCC1	Body	0.015	0.883	0.0356
cg16517367	17	68,087,590	OpenSea	KCNJ16	5'UTR	-0.029	0.891	0.0356
cg10574783	3	187,868,559	N_Shelf			0.019	0.649	0.0356
cg16937769	12	54,409,485	S_Shore	HOXC4	TSS1500	0.011	0.048	0.0356
cg27430293	16	89,069,935	N_Shore			0.025	0.475	0.0356
cg05590265	6	133,889,379	OpenSea			-0.019	0.745	0.0356
cg01560423	17	79,650,913	Island	HGS	TSS200	-0.004	0.033	0.0356

cg13625631	15	70,340,707	OpenSea	TLE3	3'UTR	0.028	0.807	0.0356
cg01555705	16	57,418,351	S_Shelf	CX3CL1	3'UTR	0.014	0.653	0.0356
cg12417775	1	212,463,238	S_Shelf	PPP2R5A	Body	-0.025	0.309	0.0356
cg11985745	18	54,314,844	N_Shelf			0.003	0.977	0.0356
cg18593317	17	14,198,368	N_Shelf			-0.026	0.292	0.0356
cg02707799	8	41,814,854	OpenSea	MYST3	Body	0.003	0.980	0.0356
cg06549407	4	17,845,439	OpenSea	NCAPG	3'UTR	0.003	0.983	0.0356
cg08017634	8	144,659,831	Island	NAPRT1	Body	0.055	0.421	0.0356
cg08640923	2	220,117,945	Island	TUBA4B	TSS200	-0.003	0.029	0.0357
cg08943375	1	156,452,258	OpenSea	MEF2D	Body	0.011	0.748	0.0357
cg07733031	5	65,018,600	S_Shore	SGTB	TSS1500	-0.002	0.018	0.0357
cg13453203	2	159,396,150	OpenSea	PKP4	Body	0.024	0.358	0.0357
cg07998677	3	184,302,124	Island			-0.011	0.301	0.0357
cg08044714	3	127,875,355	S_Shelf	EEFSEC	Body	0.002	0.989	0.0357
cg08680414	19	2,150,944	N_Shore	AP3D1	Body	-0.003	0.029	0.0357
cg00158122	10	101,290,029	Island			0.043	0.210	0.0357
cg24343361	22	48,884,089	N_Shore	FAM19A5	TSS1500	-0.025	0.159	0.0357
cg15585555	1	206,732,715	S_Shore	RASSF5	Body	0.020	0.652	0.0357
cg25149551	1	156,897,062	N_Shore	C1orf92	Body	-0.003	0.046	0.0357
cg06640840	17	74,353,954	S_Shelf			0.011	0.912	0.0357
cg10961240	6	64,345,449	N_Shore			0.002	0.019	0.0357
cg15160263	5	76,923,943	Island			-0.005	0.037	0.0357
cg27181169	16	57,220,014	Island	RSPRY1	TSS1500	-0.020	0.062	0.0357
cg23409130	6	45,389,740	Island	RUNX2	Body	-0.003	0.032	0.0357
cg22186831	5	176,544,048	Island			-0.006	0.032	0.0357
cg03365548	3	50,176,163	OpenSea			-0.005	0.054	0.0357
cg24031228	19	39,515,185	OpenSea	FBXO27	3'UTR	0.003	0.983	0.0357
cg08382235	22	19,754,251	Island	TBX1	Body	-0.039	0.259	0.0357
cg06495131	6	6,003,746	Island	NRN1	Body	-0.004	0.039	0.0357
cg02975953	16	88,553,483	N_Shore	ZFPM1	Body	0.009	0.816	0.0357

cg00319223	8	2,012,508	OpenSea	MYOM2	Body	0.032	0.299	0.0357
cg22517836	8	94,752,523	N_Shore	C8orf39	Body	-0.006	0.034	0.0357
cg01829342	14	52,218,954	OpenSea			0.012	0.893	0.0358
cg14724925	10	134,675,438	S_Shelf			0.016	0.565	0.0358
cg17759318	8	117,765,547	N_Shelf	EIF3H	Body	0.003	0.983	0.0358
cg09146892	6	6,971,335	OpenSea			0.002	0.973	0.0358
cg03237431	17	65,039,695	N_Shore	CACNG1	TSS1500	0.015	0.935	0.0358
cg16695758	17	40,936,767	N_Shore	WNK4	Body	0.038	0.093	0.0358
cg21998983	2	154,727,925	Island	GALNT13	TSS1500	0.003	0.018	0.0358
cg09823543	6	43,146,056	N_Shelf	SRF	Body	0.012	0.804	0.0358
cg14385738	1	114,414,340	OpenSea	PTPN22	5'UTR	0.015	0.605	0.0358
cg23908630	10	134,698,483	N_Shore			-0.012	0.840	0.0358
cg06410970	10	81,921,424	OpenSea	ANXA11	Body	0.018	0.804	0.0358
cg00982521	6	41,374,806	Island			0.013	0.379	0.0358
cg04117480	1	120,439,522	S_Shore	ADAM30	TSS1500	0.006	0.964	0.0358
cg20938778	15	70,325,347	N_Shore			0.012	0.847	0.0358
cg06450459	16	88,030,156	N_Shore	BANP	Body	0.006	0.960	0.0358
cg07017135	1	12,122,133	N_Shore	TNFRSF8	TSS1500	-0.018	0.883	0.0359
cg17775765	13	95,354,021	N_Shore			-0.038	0.243	0.0359
cg18211249	17	1,810,459	N_Shore			0.020	0.724	0.0359
cg03406106	16	81,254,169	OpenSea	PKD1L2	TSS200	0.028	0.530	0.0359
cg12106945	10	71,561,823	Island	COL13A1	5'UTR	0.002	0.021	0.0359
cg15751198	11	476,540	S_Shelf	PTDSS2	Body	-0.005	0.957	0.0359
cg04093349	15	66,998,947	S_Shelf	SMAD6	Body	0.026	0.445	0.0359
cg17728065	15	61,220,843	OpenSea	RORA	Body	-0.017	0.910	0.0359
cg17627829	6	30,292,258	N_Shore	HCG18	Body	0.005	0.951	0.0359
cg15987431	1	231,155,746	OpenSea	MIR1182	TSS200	-0.011	0.874	0.0359
cg26279525	19	18,109,484	S_Shore	KCNN1	3'UTR	-0.020	0.503	0.0359
cg27663799	12	49,504,641	Island	LMBR1L	5'UTR	-0.003	0.027	0.0359
cg15892664	17	53,315,578	N_Shore			0.003	0.028	0.0359

cg22106721	8	991,305	N_Shore			-0.006	0.951	0.0359
cg02447779	16	31,505,062	OpenSea	C16orf58	Body	0.012	0.845	0.0359
cg10299838	11	8,793,878	OpenSea	ST5	5'UTR	-0.003	0.983	0.0359
cg11520509	17	60,704,698	Island	MRC2	TSS200	0.015	0.096	0.0359
cg17325476	1	2,201,246	OpenSea	SKI	Body	0.004	0.974	0.0359
cg06675348	16	11,276,415	S_Shelf			0.010	0.749	0.0359
cg21954346	16	68,271,489	Island	ESRP2	TSS1500	-0.003	0.026	0.0359
cg19358594	1	10,532,567	Island	DFFA	5'UTR	0.013	0.223	0.0360
cg22324487	2	113,816,832	OpenSea	IL1F5	5'UTR	0.023	0.809	0.0360
cg16361890	5	179,220,545	N_Shelf	LTC4S	TSS1500	0.026	0.505	0.0360
cg00545196	9	137,299,685	N_Shore	RXRA	Body	0.011	0.887	0.0360
cg20035459	16	3,068,707	N_Shore	CLDN6	TSS1500	0.032	0.587	0.0360
cg04350121	14	39,308,079	OpenSea			0.015	0.858	0.0360
cg05764121	6	5,082,456	N_Shelf			-0.004	0.979	0.0360
cg00771346	3	69,230,212	OpenSea	FRMD4B	Body	-0.009	0.915	0.0360
cg05760424	2	242,988,095	N_Shore			0.007	0.964	0.0360
cg26360484	1	31,885,806	Island	SERINC2	TSS200	-0.004	0.031	0.0360
cg02771744	7	7,995,879	OpenSea			-0.017	0.087	0.0360
cg14229404	9	107,894,426	OpenSea			0.016	0.855	0.0360
cg03059247	8	11,287,657	OpenSea	C8orf12	Body	0.015	0.624	0.0360
cg13766642	14	21,192,743	S_Shore			0.002	0.989	0.0360
cg19025187	3	195,808,255	N_Shore	TFRC	5'UTR	-0.001	0.012	0.0360
cg22437316	5	177,664,663	OpenSea	COL23A1	3'UTR	0.012	0.386	0.0360
cg04880968	6	28,501,879	OpenSea	GPX5	Body	0.015	0.879	0.0361
cg11659652	10	129,797,840	OpenSea	PTPRE	5'UTR	0.018	0.765	0.0361
cg17802464	22	30,868,156	OpenSea	SEC14L3	TSS200	0.020	0.435	0.0361
cg19642421	12	131,438,737	OpenSea	GPR133	5'UTR	-0.004	0.025	0.0361
cg14321601	9	107,509,755	N_Shore	NIPSNAP3A	TSS1500	-0.002	0.020	0.0361
cg26160153	2	27,373,014	Island	TCF23	Body	0.009	0.919	0.0361
cg23339092	14	61,996,697	OpenSea	PRKCH	Body	0.003	0.983	0.0361

cg00387964	4	7,651,935	S_Shelf	SORCS2	Body	-0.019	0.737	0.0361
cg09636313	16	89,070,025	N_Shore			0.027	0.781	0.0361
cg20880499	6	32,815,091	S_Shelf	TAP1	Body	0.010	0.846	0.0361
cg08411049	18	61,144,250	OpenSea	SERPINB5	1stExon	0.028	0.796	0.0361
cg25498731	2	138,045,743	OpenSea	THSD7B	Body	-0.024	0.717	0.0361
cg01020978	3	169,292,783	OpenSea	MECOM	Body	0.005	0.974	0.0361
cg24654266	2	115,420,053	Island	DPP10	Body	-0.070	0.293	0.0361
cg16212754	14	56,777,251	OpenSea			-0.011	0.966	0.0361
cg04953238	2	153,196,858	S_Shelf	FMNL2	Body	0.039	0.494	0.0361
cg09344644	4	2,757,922	Island	TNIP2	1stExon	-0.003	0.016	0.0361
cg05655089	19	2,360,538	Island			0.020	0.499	0.0361
cg18172823	1	87,169,979	Island	SH3GLB1	TSS1500	0.003	0.024	0.0361
cg06615152	19	2,250,561	Island	AMH	Body	0.024	0.286	0.0361
cg01249550	3	194,353,869	Island	TMEM44	1stExon	-0.008	0.035	0.0361
cg10403784	2	238,864,535	Island			-0.030	0.181	0.0361
cg09563120	10	102,819,893	N_Shore	KAZALD1	TSS1500	-0.001	0.014	0.0361
cg07773510	8	65,293,126	S_Shelf			0.011	0.066	0.0361
cg22894818	6	72,593,662	N_Shelf			0.006	0.956	0.0361
cg24520381	17	37,784,694	S_Shore	PPP1R1B	TSS200	0.021	0.421	0.0361
cg15912040	3	113,871,809	Island	DRD3	Body	-0.003	0.039	0.0361
cg15045292	17	5,403,149	Island	LOC728392	3'UTR	-0.015	0.121	0.0362
cg25575937	3	48,414,383	OpenSea	FBXW12	Body	0.015	0.668	0.0362
cg08640046	2	237,088,661	S_Shore			0.026	0.189	0.0362
cg24543939	5	53,952,507	OpenSea			0.019	0.495	0.0362
cg17801864	20	45,179,345	OpenSea	C20orf123	TSS200	0.014	0.749	0.0362
cg13571293	19	39,739,555	S_Shore			0.022	0.608	0.0362
cg12149606	14	75,614,186	OpenSea	TMED10	Body	0.022	0.726	0.0362
cg01701504	12	132,682,608	Island	GALNT9	Body	0.020	0.744	0.0362
cg12528349	7	28,070,030	OpenSea	JAZF1	Body	0.038	0.976	0.0362
cg14759549	2	102,447,269	OpenSea	MAP4K4	Body	0.029	0.975	0.0362

cg13204687	12	108,905,993	N_Shelf			-0.004	0.045	0.0362
cg17253741	2	239,799,511	OpenSea	TWIST2	3'UTR	0.022	0.877	0.0362
cg04882398	17	77,104,727	OpenSea	HRNBP3	Body	0.011	0.925	0.0362
cg18140268	1	147,781,827	N_Shore			0.026	0.126	0.0362
cg22664798	10	134,750,215	OpenSea	C10orf93	Body	0.018	0.751	0.0362
cg07552322	11	43,580,581	OpenSea	MIR670	TSS1500	0.017	0.224	0.0362
cg21120786	7	26,904,188	Island	SKAP2	5'UTR	-0.003	0.043	0.0362
cg02309273	1	38,412,744	OpenSea	INPP5B	TSS200	0.002	0.018	0.0362
cg12235788	3	123,476,518	OpenSea	MYLK	Body	0.017	0.558	0.0362
cg16153549	2	3,496,821	OpenSea			0.030	0.624	0.0362
cg04116766	7	1,283,255	N_Shore			0.005	0.037	0.0362
cg00586515	20	17,948,756	Island	C20orf72	TSS1500	0.003	0.029	0.0363
cg00503646	7	112,428,215	N_Shore	TMEM168	5'UTR	0.004	0.977	0.0363
cg25510609	15	86,233,236	OpenSea	AKAP13	Body	-0.004	0.041	0.0363
cg25119743	10	11,059,290	N_Shore	CUGBP2	Body	-0.022	0.573	0.0363
cg17898124	1	112,528,161	N_Shelf	KCND3	5'UTR	0.017	0.735	0.0363
cg22706186	3	68,053,371	N_Shelf	FAM19A1	TSS200	0.015	0.107	0.0363
cg08855938	1	214,398,483	OpenSea			-0.013	0.044	0.0363
cg05556020	1	204,135,243	OpenSea	REN	Body	0.015	0.790	0.0363
cg07572435	8	143,868,013	OpenSea	LY6D	TSS200	0.013	0.875	0.0363
cg09940377	13	28,534,873	Island			-0.002	0.025	0.0363
cg14541209	12	113,530,566	N_Shore	DTX1	Body	0.003	0.028	0.0363
cg24178621	5	1,430,526	OpenSea	SLC6A3	Body	0.008	0.962	0.0363
cg11099236	15	26,917,256	S_Shore	GABRB3	Body	0.005	0.970	0.0363
cg12760368	2	242,926,552	N_Shore			0.027	0.378	0.0363
cg19704348	1	197,880,726	Island	LHX9	TSS1500	0.002	0.018	0.0363
cg03476791	7	99,067,162	N_Shelf			0.025	0.419	0.0363
cg17523027	22	37,447,622	N_Shore	KCTD17	TSS200	-0.004	0.028	0.0363
cg27363489	10	12,107,307	N_Shelf			0.002	0.984	0.0363
cg21243717	5	178,854,586	OpenSea			-0.016	0.535	0.0363



cg18552939	15	23,932,620	S_Shore	NDN	TSS200	0.033	0.271	0.0363
cg24309040	12	111,664,600	OpenSea	CUX2	Body	-0.029	0.918	0.0364
cg04960603	2	119,604,313	Island	EN1	1stExon	-0.004	0.052	0.0364
cg02556360	7	5,460,496	Island	TNRC18	Body	-0.004	0.019	0.0364
cg25135322	11	67,350,153	N_Shore	GSTP1	TSS1500	0.022	0.295	0.0364
cg04246957	7	157,696,589	S_Shore	PTPRN2	Body	0.014	0.247	0.0364
cg10256708	19	18,262,564	N_Shore	PIK3R2	TSS1500	0.020	0.812	0.0364
cg05967404	22	37,824,343	S_Shore	ELFN2	TSS1500	0.032	0.389	0.0364
cg08280392	2	228,028,601	N_Shore	COL4A3	TSS1500	0.002	0.022	0.0364
cg05609059	1	226,298,585	Island			-0.004	0.035	0.0364
cg23762915	13	107,354,993	OpenSea			0.038	0.506	0.0364
cg03733760	11	69,517,841	Island	FGF19	Body	-0.005	0.031	0.0364
cg26134777	11	65,411,895	N_Shore	SIPA1	Body	0.013	0.485	0.0364
cg00462240	1	3,342,013	Island	PRDM16	Body	0.009	0.926	0.0364
cg02597894	6	31,760,796	N_Shelf	VAR5	Body	0.013	0.913	0.0364
cg10682332	3	12,581,765	OpenSea			0.007	0.953	0.0364
cg02446225	19	10,662,782	OpenSea	ATG4D	Body	0.010	0.932	0.0364
cg15515843	17	22,191,802	Island			0.014	0.787	0.0364
cg13195955	6	31,829,926	N_Shore	NEU1	Body	0.021	0.516	0.0364
cg10472711	7	797,592	S_Shore	HEATR2	Body	0.017	0.660	0.0364
cg05670093	11	1,304,306	S_Shore	TOLLIP	Body	0.009	0.937	0.0364
cg00616243	13	95,202,420	S_Shore			0.002	0.022	0.0364
cg03454541	7	5,111,488	N_Shore	LOC389458	TSS1500	0.034	0.445	0.0364
cg13065582	19	7,460,057	Island	ARHGEF18	5'UTR	-0.004	0.023	0.0364
cg27643190	11	79,140,447	OpenSea	ODZ4	5'UTR	-0.009	0.900	0.0364
cg24808162	1	44,067,587	N_Shelf	PTPRF	Body	0.012	0.862	0.0365
cg20621224	19	6,199,093	N_Shore			0.016	0.086	0.0365
cg20842396	17	75,614,984	OpenSea			0.011	0.867	0.0365
cg19949028	11	57,421,550	N_Shelf			0.011	0.930	0.0365
cg12690246	12	50,356,869	S_Shore	AQP5	Body	0.012	0.482	0.0365

cg06822360	8	2,242,304	Island			0.010	0.905	0.0365
cg14300637	19	56,742,355	S_Shelf			0.005	0.965	0.0365
cg09776395	17	1,127,057	OpenSea			0.027	0.827	0.0365
cg26962533	6	52,009,126	OpenSea	MIR206	TSS200	0.009	0.936	0.0365
cg03839418	15	69,597,656	OpenSea	PAQR5	5'UTR	0.012	0.916	0.0365
cg12911952	11	2,924,523	S_Shore	SLC22A18AS	5'UTR	0.011	0.887	0.0365
cg06342110	8	6,565,950	Island	AGPAT5	1stExon	-0.004	0.035	0.0365
cg04953503	2	238,420,656	OpenSea	MLPH	Body	-0.005	0.969	0.0365
cg06684503	17	36,873,584	OpenSea	MLLT6	Body	0.023	0.775	0.0365
cg17272331	6	101,328,506	N_Shore	ASCC3	5'UTR	0.007	0.054	0.0365
cg24197470	14	80,328,091	Island	NRXN3	Body	-0.004	0.973	0.0365
cg14793287	12	48,578,573	Island	C12orf68	3'UTR	0.007	0.060	0.0365
cg05372828	1	6,111,632	Island	KCNAB2	Body	0.015	0.837	0.0365
cg07032473	8	95,274,411	Island	GEM	5'UTR	-0.002	0.025	0.0365
cg06514994	11	101,711,789	OpenSea			-0.024	0.410	0.0365
cg23573665	14	55,907,122	N_Shore	TBPL2	1stExon	0.028	0.440	0.0365
cg23704085	6	33,156,779	N_Shelf	COL11A2	Body	-0.048	0.767	0.0365
cg15621027	1	167,905,385	Island	DCAF6	TSS1500	-0.004	0.057	0.0366
cg18767964	1	38,529,973	OpenSea			0.017	0.386	0.0366
cg14776910	1	92,355,253	S_Shelf			0.024	0.527	0.0366
cg15697036	4	1,808,923	S_Shore	FGFR3	Body	-0.011	0.639	0.0366
cg09860781	8	21,882,397	Island	NPM2	1stExon	-0.005	0.029	0.0366
cg18800918	3	38,664,174	OpenSea	SCN5A	Body	0.013	0.908	0.0366
cg27639348	16	14,204,906	OpenSea	MKL2	5'UTR	-0.014	0.367	0.0366
cg09134668	5	177,991,670	OpenSea	COL23A1	Body	0.017	0.294	0.0366
cg12323274	18	34,834,605	Island	BRUNOL4	Body	0.005	0.049	0.0366
cg09218524	15	57,598,511	N_Shore	LOC283663	Body	-0.002	0.028	0.0366
cg11498228	8	1,895,431	S_Shore	ARHGEF10	Body	0.027	0.553	0.0366
cg02156776	6	71,013,139	OpenSea	COL9A1	TSS1500	0.017	0.534	0.0367
cg21245618	9	136,847,709	S_Shelf	VAV2	Body	-0.009	0.944	0.0367

cg12129796	8	79,753,073	OpenSea			-0.036	0.682	0.0367
cg19384379	3	12,800,816	OpenSea	TMEM40	TSS200	0.016	0.410	0.0367
cg26206990	15	63,569,719	Island	APH1B	TSS200	0.007	0.059	0.0367
cg06752695	6	24,583,723	OpenSea	KIAA0319	Body	0.004	0.027	0.0367
cg11564377	7	155,584,274	S_Shelf			0.021	0.629	0.0367
cg01971071	1	44,435,673	Island	DPH2	5'UTR	-0.004	0.027	0.0367
cg25998860	5	126,853,954	S_Shore	PRRC1	5'UTR	-0.002	0.019	0.0367
cg01447344	1	159,989,137	OpenSea			0.020	0.629	0.0367
cg26568669	6	71,276,461	N_Shore	C6orf57	TSS200	0.002	0.011	0.0367
cg11552829	5	169,532,721	N_Shore	FOX11	TSS200	0.030	0.667	0.0367
cg15916350	5	179,468,715	OpenSea	RNF130	Body	0.010	0.829	0.0367
cg13257690	14	101,908,752	N_Shore			0.014	0.743	0.0367
cg14126777	18	12,659,100	S_Shore	SPIRE1	TSS1500	0.005	0.968	0.0367
cg00741986	4	2,748,332	OpenSea	TNIP2	Body	0.015	0.801	0.0367
cg11417259	3	10,806,370	OpenSea	LOC285370	TSS1500	0.025	0.381	0.0367
cg12056353	17	72,453,936	S_Shelf			-0.004	0.046	0.0367
cg19224203	19	12,917,242	Island	RNASEH2A	TSS200	-0.007	0.081	0.0367
cg19687711	4	170,191,963	Island	SH3RF1	5'UTR	0.001	0.021	0.0367
cg01367627	7	98,477,438	S_Shore	TRRAP	5'UTR	0.011	0.390	0.0367
cg08325212	8	11,627,019	N_Shore	NEIL2	TSS200	0.003	0.021	0.0367
cg25380207	10	49,365,197	OpenSea	FRMPD2	3'UTR	0.023	0.706	0.0367
cg05338527	12	41,797,234	OpenSea	PDZRN4	Body	0.003	0.982	0.0368
cg26794638	11	116,969,404	Island	SIK3	TSS1500	0.012	0.096	0.0368
cg00979634	1	16,011,290	Island	PLEKHM2	Body	-0.003	0.029	0.0368
cg13080172	14	99,641,778	Island	BCL11B	Body	0.009	0.946	0.0368
cg01368777	11	2,162,483	Island	IGF2AS	Body	-0.014	0.119	0.0368
cg09000832	13	50,703,589	N_Shore			-0.015	0.193	0.0368
cg05588903	16	84,866,150	OpenSea	CRISPLD2	5'UTR	-0.023	0.222	0.0368
cg15238467	12	57,522,045	Island	LRP1	TSS1500	-0.006	0.040	0.0368
cg00303210	7	138,745,709	OpenSea	ZC3HAV1	Body	0.022	0.657	0.0368

cg18943599	17	71,160,892	N_Shore	SSTR2	TSS1500	-0.002	0.015	0.0368
cg03177593	3	171,890,144	OpenSea	FNDC3B	Body	0.002	0.987	0.0368
cg24318263	17	18,163,735	Island	SMCR7	TSS200	-0.007	0.062	0.0368
cg21406075	15	96,906,354	S_Shore			-0.028	0.387	0.0368
cg07243784	5	167,718,536	Island	WWC1	TSS1500	-0.002	0.021	0.0368
cg25624359	1	3,437,724	S_Shore	MEGF6	Body	0.011	0.482	0.0368
cg05174942	5	140,098,392	OpenSea	VTRNA1-2	TSS200	0.039	0.969	0.0368
cg09435025	3	183,967,397	Island	ALG3	TSS1500	0.001	0.029	0.0368
cg10555583	20	1,784,276	Island			0.004	0.024	0.0368
cg03397234	16	29,874,937	S_Shore	LOC440356	TSS200	0.065	0.045	0.0368
cg08162294	1	201,123,766	S_Shore	TMEM9	TSS200	0.002	0.014	0.0368
cg02173030	10	134,041,506	Island	STK32C	Body	-0.007	0.912	0.0368
cg23678210	6	36,391,852	S_Shore	PXT1	Body	0.043	0.444	0.0368
cg08140891	1	154,955,627	OpenSea	FLAD1	TSS200	-0.011	0.259	0.0368
cg14566819	9	100,689,349	OpenSea	HEMGN	3'UTR	0.027	0.325	0.0369
cg19797042	13	114,826,808	OpenSea	RASA3	Body	0.012	0.864	0.0369
cg21200337	19	7,931,874	N_Shore			0.016	0.719	0.0369
cg24917359	17	77,044,255	Island	C1QTNF1	3'UTR	0.012	0.866	0.0369
cg04724434	20	10,415,868	S_Shore	C20orf94	TSS200	0.002	0.019	0.0369
cg14530006	17	75,472,168	OpenSea		9-Sep Body	0.017	0.623	0.0369
cg03781266	7	43,153,023	Island	HECW1	5'UTR	-0.003	0.029	0.0369
cg18493348	14	71,275,300	N_Shore	MAP3K9	Body	0.001	0.018	0.0369
cg06952862	2	220,025,600	S_Shore	NHEJ1	TSS200	0.001	0.019	0.0369
cg27372452	15	101,715,819	OpenSea			-0.024	0.602	0.0369
cg11970480	6	159,061,319	N_Shelf	DYNLT1	Body	-0.004	0.980	0.0369
cg26828119	19	36,360,834	Island	APLP1	Body	0.003	0.035	0.0369
cg19458697	2	9,340,871	OpenSea			0.012	0.673	0.0369
cg01405685	5	32,691,919	OpenSea			-0.012	0.930	0.0369
cg06366374	6	6,543,659	N_Shelf	LOC285780	Body	0.013	0.580	0.0369
cg22835435	19	51,111,185	Island			0.031	0.437	0.0369

cg23587532	11	790,669	N_Shore	CEND1	TSS1500	0.033	0.441	0.0369
cg22389853	20	37,551,500	N_Shelf	PPP1R16B	3'UTR	0.005	0.970	0.0369
cg00245854	5	150,138,895	S_Shore	DCTN4	TSS1500	0.018	0.549	0.0369
cg03509961	7	44,366,620	S_Shore	CAMK2B	TSS1500	0.013	0.770	0.0369
cg12955769	3	66,050,646	OpenSea			0.002	0.986	0.0369
cg21952052	1	37,231,474	OpenSea			0.021	0.366	0.0369
cg21105827	1	23,763,782	Island	ASAP3	Body	0.015	0.767	0.0369
cg15191781	10	11,825,679	OpenSea			-0.019	0.584	0.0369
cg16697620	1	32,092,196	OpenSea	HCRTR1	Body	0.016	0.591	0.0369
cg00387551	1	3,011,304	OpenSea	PRDM16	Body	0.014	0.816	0.0369
cg01055830	5	150,079,965	N_Shore	RBM22	Body	0.002	0.024	0.0369
cg05534865	16	1,444,162	S_Shelf			0.011	0.900	0.0369
cg19004465	17	77,925,136	S_Shore	TBC1D16	Body	-0.018	0.564	0.0370
cg00249584	11	8,833,047	OpenSea	ST5	TSS1500	0.016	0.566	0.0370
cg03934150	1	244,212,074	Island			-0.008	0.058	0.0370
cg07870003	12	107,381,075	Island	MTERFD3	TSS200	-0.006	0.050	0.0370
cg07637516	10	111,974,273	S_Shelf	MXI1	Body	-0.013	0.106	0.0370
cg18170080	11	124,631,981	N_Shore	ESAM	1stExon	-0.003	0.038	0.0370
cg16548780	16	67,218,910	Island	KIAA0895L	TSS1500	0.013	0.104	0.0370
cg20817824	4	4,389,918	Island	D4S234E	Body	0.011	0.062	0.0370
cg00804392	4	40,198,595	OpenSea	RHOH	5'UTR	0.013	0.423	0.0370
cg26652022	2	15,777,016	OpenSea			0.018	0.521	0.0370
cg10481202	12	49,581,272	N_Shore	TUBA1A	Body	0.032	0.307	0.0370
cg09918563	13	113,748,721	N_Shore	MCF2L	Body	0.018	0.957	0.0370
cg27411298	7	123,198,173	S_Shore	NDUFA5	TSS1500	-0.003	0.030	0.0370
cg10617171	19	35,521,856	Island	SCN1B	Body	-0.008	0.043	0.0370
cg00437864	16	87,992,508	S_Shore	BANP	5'UTR	0.015	0.779	0.0370
cg25978327	1	8,065,039	OpenSea			-0.017	0.282	0.0370
cg04534813	9	101,983,688	N_Shore	ALG2	Body	-0.002	0.022	0.0370
cg03158581	5	153,858,816	Island	HAND1	TSS1500	-0.006	0.058	0.0371

cg22674798	1	3,096,360	OpenSea	PRDM16	Body	0.022	0.618	0.0371
cg00617691	10	743,931	S_Shore			0.011	0.841	0.0371
cg11520459	22	37,308,182	OpenSea	CSF2RB	TSS1500	0.020	0.554	0.0371
cg10502710	6	33,391,325	N_Shelf	SYNGAP1	Body	0.012	0.891	0.0371
cg06500074	6	14,844,874	OpenSea			-0.031	0.862	0.0371
cg19504001	12	57,589,740	OpenSea	LRP1	Body	0.014	0.881	0.0371
cg01150799	4	108,955,838	OpenSea	HADH	3'UTR	-0.012	0.587	0.0371
cg02893550	16	89,119,418	Island			0.022	0.734	0.0371
cg12498654	6	139,456,103	Island	HECA	TSS200	-0.008	0.078	0.0371
cg09366982	14	64,658,673	OpenSea	SYNE2	Body	0.006	0.962	0.0371
cg26149275	2	176,950,007	Island	EVX2	TSS1500	0.002	0.029	0.0371
cg15465878	1	45,183,988	OpenSea	C1orf228	Body	0.013	0.872	0.0371
cg19391029	13	88,323,992	Island	SLITRK5	TSS1500	-0.003	0.031	0.0371
cg15844609	19	38,806,846	S_Shore	YIF1B	TSS1500	0.002	0.018	0.0371
cg07124972	18	8,608,333	N_Shore	RAB12	TSS1500	0.021	0.534	0.0371
cg09045655	12	54,392,988	N_Shore	HOXC9	TSS1500	0.023	0.193	0.0371
cg05865746	17	2,699,553	OpenSea	RAP1GAP2	TSS200	0.021	0.634	0.0372
cg22406543	6	18,155,584	Island	KDM1B	TSS200	-0.003	0.036	0.0372
cg14846965	18	13,611,481	OpenSea	C18orf1	TSS200	0.020	0.205	0.0372
cg19859335	2	70,142,152	Island	MXD1	TSS200	0.001	0.016	0.0372
cg00322212	22	28,072,555	N_Shore			-0.017	0.852	0.0372
cg18222176	19	56,126,034	Island			0.005	0.968	0.0372
cg08228249	22	22,062,300	S_Shelf	YPEL1	Body	-0.016	0.311	0.0372
cg11291081	3	37,033,894	N_Shore	MLH1	TSS1500	0.003	0.022	0.0372
cg24284436	19	47,524,222	Island	NPAS1	1stExon	0.007	0.047	0.0372
cg20141578	12	12,225,262	OpenSea	BCL2L14	5'UTR	0.021	0.522	0.0372
cg12584785	15	32,325,334	S_Shelf	CHRNA7	Body	0.014	0.341	0.0372
cg07017994	7	142,552,914	Island	EPHB6	1stExon	-0.004	0.020	0.0372
cg01101364	1	114,544,915	OpenSea			0.014	0.859	0.0372
cg11965365	14	104,388,185	S_Shore	C14orf2	TSS1500	0.026	0.255	0.0372

cg21578987	21	40,029,669	N_Shelf	ERG	5'UTR	-0.050	0.414	0.0372
cg04532613	10	22,764,566	N_Shore			-0.009	0.073	0.0372
cg25762395	1	3,816,842	Island	LOC10013361	TSS200	0.017	0.028	0.0372
cg13128117	12	54,978,742	N_Shelf	PPP1R1A	Body	0.012	0.671	0.0372
cg19175364	17	7,249,511	N_Shelf	ACAP1	Body	-0.014	0.618	0.0372
cg19397321	18	43,404,741	OpenSea	SIGLEC15	TSS1500	-0.004	0.972	0.0372
cg01966732	7	130,580,290	OpenSea			0.023	0.619	0.0372
cg15692239	17	26,903,955	OpenSea	ALDOC	TSS200	-0.003	0.025	0.0372
cg10971790	19	50,316,458	Island	FUZ	5'UTR	-0.003	0.024	0.0372
cg01377475	17	45,505,249	S_Shelf	C17orf57	Body	0.009	0.949	0.0372
cg15688253	1	1,096,717	N_Shore			0.010	0.904	0.0372
cg14162806	22	39,641,406	S_Shore	PDGFB	TSS1500	0.012	0.476	0.0372
cg14126020	20	61,149,009	N_Shore	C20orf166	5'UTR	-0.002	0.029	0.0372
cg06668065	5	92,909,069	S_Shore	FLJ42709	Body	-0.051	0.316	0.0373
cg20165655	11	65,339,703	N_Shore	FAM89B	TSS200	-0.003	0.023	0.0373
cg17763467	6	110,645,272	OpenSea	C6orf186	Body	-0.011	0.918	0.0373
cg13363525	12	53,614,487	Island	RARG	Body	0.002	0.015	0.0373
cg16794471	2	153,271,840	OpenSea	FMNL2	Body	-0.021	0.597	0.0373
cg04077210	4	166,129,605	S_Shore	KLHL2	Body	-0.002	0.022	0.0373
cg15939523	4	189,333,296	OpenSea			0.033	0.925	0.0373
cg26924679	10	88,414,235	OpenSea	OPN4	TSS200	0.002	0.984	0.0373
cg08162780	19	18,497,064	Island	GDF15	1stExon	-0.017	0.116	0.0373
cg15577126	2	218,932,178	OpenSea			0.015	0.401	0.0373
cg17143843	1	209,523,730	OpenSea			-0.026	0.621	0.0373
cg23217025	2	128,173,482	Island			-0.015	0.218	0.0373
cg14989968	13	113,636,861	S_Shore	MCF2L	Body	0.012	0.893	0.0373
cg18832233	18	21,181,042	OpenSea	ANKRD29	3'UTR	0.003	0.981	0.0373
cg14005531	9	139,141,692	N_Shore			0.021	0.654	0.0373
cg13205617	2	2,177,531	OpenSea	MYT1L	5'UTR	0.031	0.392	0.0373
cg23203997	15	73,231,661	OpenSea			-0.028	0.942	0.0373

cg14843842	6	41,888,877	Island	MED20	TSS200	-0.003	0.023	0.0373
cg06645987	1	53,928,411	S_Shelf	DMRTB1	Body	0.014	0.637	0.0373
cg27294164	1	36,585,141	OpenSea			0.019	0.391	0.0373
cg22911184	4	57,485,847	OpenSea			0.024	0.694	0.0374
cg26724241	17	80,309,394	OpenSea			0.015	0.442	0.0374
cg23241878	19	42,082,350	OpenSea	CEACAM21	TSS200	0.023	0.516	0.0374
cg17711870	8	87,354,470	N_Shore	WWP1	TSS1500	0.021	0.208	0.0374
cg15332159	6	158,454,775	OpenSea	SYNJ2	Body	-0.006	0.958	0.0374
cg00047469	9	116,172,568	Island	POLE3	Body	-0.004	0.050	0.0374
cg22454371	15	55,131,855	OpenSea			0.031	0.603	0.0374
cg15292101	7	128,431,142	Island	CCDC136	TSS1500	-0.006	0.020	0.0374
cg02982238	7	52,706,811	OpenSea			0.017	0.683	0.0374
cg20932516	2	230,488,358	OpenSea	DNER	Body	-0.004	0.973	0.0374
cg07575193	8	30,402,570	OpenSea	RBPMS	Body	-0.024	0.724	0.0374
cg03345017	2	30,249,883	OpenSea			-0.013	0.910	0.0374
cg23694520	6	30,029,482	S_Shore	ZNRD1	Body	-0.003	0.034	0.0374
cg18631798	4	8,396,163	OpenSea	ACOX3	Body	0.026	0.480	0.0374
cg00572843	17	1,955,100	Island	MIR212	TSS1500	0.020	0.260	0.0374
cg26038749	4	7,289,858	OpenSea	SORCS2	Body	-0.017	0.664	0.0374
cg14229668	2	163,200,576	Island	GCA	TSS200	0.005	0.025	0.0374
cg10325694	3	53,922,675	N_Shelf	SELK	Body	-0.005	0.972	0.0374
cg19370858	4	85,500,716	N_Shelf			0.016	0.584	0.0374
cg16387532	5	124,747,822	OpenSea			-0.018	0.207	0.0374
cg10784837	7	6,413,880	N_Shore	RAC1	TSS1500	-0.004	0.032	0.0374
cg00010932	2	170,680,664	N_Shore	METTL5	Body	0.028	0.325	0.0375
cg07099606	12	133,051,136	Island			-0.087	0.854	0.0375
cg06070970	8	144,359,074	Island	GLI4	3'UTR	0.040	0.498	0.0375
cg04242559	16	1,435,541	Island			0.010	0.879	0.0375
cg02875879	4	113,569,394	OpenSea	MIR302A	Body	0.011	0.314	0.0375
cg00123090	1	234,667,087	OpenSea			0.015	0.446	0.0375



cg14236443	17	943,270	OpenSea	ABR	Body	0.015	0.742	0.0375
cg13582226	8	141,577,337	OpenSea	EIF2C2	Body	0.013	0.760	0.0375
cg22852235	8	25,311,511	N_Shelf	KCTD9	Body	0.003	0.981	0.0375
cg16842767	2	88,316,858	Island			-0.004	0.030	0.0375
cg04391391	19	13,904,774	N_Shore	ZSWIM4	TSS1500	0.015	0.587	0.0375
cg14004232	6	26,401,691	OpenSea	BTN3A1	TSS1500	0.016	0.759	0.0375
cg12133828	11	98,437,985	OpenSea			0.010	0.917	0.0375
cg20566439	7	26,955,529	OpenSea			0.005	0.973	0.0375
cg06004017	22	28,191,222	N_Shore	MN1	Body	-0.015	0.518	0.0375
cg19886484	8	144,341,432	S_Shelf	ZFP41	3'UTR	-0.004	0.979	0.0375
cg20288927	1	25,243,348	OpenSea	RUNX3	Body	0.012	0.603	0.0375
cg13940239	7	12,810,263	OpenSea			0.026	0.183	0.0375
cg27295434	1	95,009,677	S_Shore			-0.022	0.689	0.0375
cg03984758	4	57,944,634	OpenSea	IGFBP7	Body	0.026	0.535	0.0375
cg07057235	16	89,033,895	N_Shore	CBFA2T3	Body	0.013	0.801	0.0375
cg16893868	19	55,084,269	OpenSea	LILRA2	TSS1500	0.050	0.663	0.0375
cg05378861	20	61,803,065	N_Shelf			0.018	0.844	0.0375
cg20287512	17	18,915,218	N_Shelf	SLC5A10	Body	-0.025	0.753	0.0375
cg27027763	16	86,120,849	OpenSea			-0.012	0.495	0.0375
cg08763577	19	42,784,493	Island			0.003	0.020	0.0375
cg08992872	8	91,095,058	OpenSea	CALB1	1stExon	-0.002	0.025	0.0375
cg06532574	5	95,295,740	N_Shore	ELL2	Body	0.049	0.349	0.0376
cg09218130	12	132,413,611	Island	PUS1	TSS200	-0.004	0.038	0.0376
cg26053697	13	111,039,873	S_Shore	COL4A2	Body	-0.017	0.470	0.0376
cg26766885	7	96,220,185	OpenSea			0.015	0.098	0.0376
cg04393391	8	130,952,742	S_Shore	FAM49B	TSS1500	0.007	0.044	0.0376
cg10920957	16	87,635,473	N_Shore	JPH3	TSS1500	-0.002	0.018	0.0376
cg26341268	11	116,968,963	Island	SIK3	1stExon	-0.005	0.033	0.0376
cg24280819	10	71,338,046	Island			0.003	0.026	0.0376
cg19931975	3	172,351,357	OpenSea	NCEH1	Body	-0.002	0.985	0.0376

cg21681377	1	6,760,975	N_Shore	DNAJC11	Body	0.016	0.253	0.0376
cg17936236	1	167,520,305	N_Shelf	CREG1	Body	0.014	0.570	0.0376
cg10929210	2	84,743,279	N_Shore	DNAH6	TSS1500	0.018	0.397	0.0376
cg12913097	5	72,511,623	N_Shore			-0.005	0.044	0.0376
cg22668002	7	5,429,036	Island	TNRC18	Body	-0.004	0.975	0.0376
cg26170660	6	28,493,601	OpenSea	GPX5	TSS200	0.021	0.465	0.0376
cg15321401	6	166,884,430	OpenSea	RPS6KA2	Body	0.019	0.852	0.0376
cg09023869	10	49,699,321	OpenSea	ARHGAP22	Body	0.020	0.431	0.0377
cg04340928	16	55,067,613	OpenSea			-0.033	0.630	0.0377
cg17179314	15	78,933,820	Island	CHRNA4	TSS1500	-0.045	0.043	0.0377
cg21204395	2	223,958,262	OpenSea			-0.018	0.601	0.0377
cg04591469	5	17,810,299	OpenSea			0.041	0.568	0.0377
cg16757605	16	70,697,712	Island	MTSS1L	Body	-0.003	0.985	0.0377
cg15650209	5	1,866,463	OpenSea			0.039	0.660	0.0377
cg09958483	11	64,527,240	OpenSea	PYGM	1stExon	0.013	0.542	0.0377
cg26871735	12	68,620,370	OpenSea	IL26	TSS1500	0.006	0.957	0.0377
cg26785499	1	2,820,433	OpenSea			0.021	0.600	0.0377
cg00500540	16	56,394,104	N_Shelf			0.021	0.652	0.0377
cg23891700	10	98,941,175	N_Shelf	SLIT1	Body	0.036	0.928	0.0377
cg09035736	22	38,599,166	S_Shore	MAFF	5'UTR	-0.003	0.027	0.0377
cg19712652	2	239,865,213	OpenSea			0.017	0.591	0.0377
cg07539802	4	89,619,236	OpenSea	HERC3	Body	0.018	0.633	0.0377
cg21202740	7	128,029,940	OpenSea			0.015	0.718	0.0377
cg23901896	1	201,976,446	OpenSea			0.026	0.807	0.0377
cg19371526	11	2,161,341	Island	INS-IGF2	Body	-0.003	0.028	0.0377
cg11815473	7	135,771,715	OpenSea			0.012	0.951	0.0377
cg03450842	10	80,834,947	OpenSea	ZMIZ1	5'UTR	0.011	0.477	0.0377
cg26172862	14	60,558,473	Island	C14orf135	TSS200	-0.001	0.014	0.0377
cg01025954	8	144,263,025	OpenSea			0.020	0.586	0.0377
cg13445175	17	25,680,787	Island			-0.006	0.054	0.0377

cg16791539	11	3,013,509	Island	NAP1L4	1stExon	0.004	0.043	0.0377
cg12161971	11	77,907,332	Island	USP35	Body	-0.040	0.405	0.0377
cg25159149	6	30,956,440	OpenSea	MUC21	3'UTR	0.020	0.527	0.0377
cg06362282	6	33,245,893	S_Shore	B3GALT4	1stExon	0.013	0.681	0.0377
cg01681847	11	43,605,269	S_Shelf			0.029	0.241	0.0377
cg26680549	20	34,824,322	Island	C20orf4	TSS200	0.002	0.022	0.0377
cg22185378	7	73,039,812	S_Shore	MLXIPL	TSS1500	0.010	0.936	0.0377
cg10769891	3	37,034,730	Island	EPM2AIP1	5'UTR	0.001	0.010	0.0377
cg03791159	7	155,018,144	OpenSea			0.010	0.930	0.0377
cg12587382	1	26,147,817	S_Shore	FAM54B	5'UTR	0.012	0.308	0.0378
cg13133827	8	142,189,806	OpenSea	DENND3	Body	0.026	0.667	0.0378
cg21575465	4	128,650,393	N_Shore	SLC25A31	TSS1500	0.004	0.974	0.0378
cg06679209	19	1,073,679	N_Shore	HMHA1	Body	0.013	0.767	0.0378
cg15582311	1	35,659,182	S_Shore	SFPQ	TSS1500	0.014	0.035	0.0378
cg25784872	3	136,350,473	OpenSea	STAG1	5'UTR	0.021	0.815	0.0378
cg16338178	5	158,894,440	OpenSea	LOC285627	TSS1500	0.006	0.970	0.0378
cg07560447	1	226,150,385	OpenSea			0.004	0.029	0.0378
cg09289335	20	42,144,161	S_Shore	L3MBTL	Body	-0.006	0.966	0.0378
cg14110685	6	17,306,147	OpenSea			0.021	0.572	0.0378
cg18309817	18	12,254,153	Island	CIDEA	TSS1500	-0.013	0.065	0.0378
cg15840419	6	147,828,010	Island			-0.003	0.029	0.0378
cg00133147	6	33,256,760	Island	PFDN6	TSS1500	-0.002	0.022	0.0378
cg25647784	17	40,934,907	N_Shore	WNK4	Body	0.034	0.347	0.0378
cg06460888	13	113,699,440	N_Shelf	MCF2L	Body	0.016	0.852	0.0378
cg09178514	11	17,298,260	Island	NUCB2	TSS200	0.002	0.018	0.0378
cg24903767	6	15,475,371	OpenSea	JARID2	Body	0.004	0.980	0.0378
cg19764539	21	44,394,723	Island	PKNOX1	5'UTR	-0.012	0.041	0.0378
cg13185005	11	268,950	OpenSea			0.035	0.617	0.0378
cg09289148	16	1,480,869	Island			0.034	0.455	0.0378
cg04824771	22	24,372,921	Island	LOC391322	TSS200	0.116	0.155	0.0378

cg13761419	9	116,914,074	N_Shelf			0.011	0.475	0.0378
cg10631684	12	113,795,897	N_Shore	PLBD2	TSS1500	0.007	0.960	0.0378
cg13486805	19	39,738,664	Island			-0.011	0.038	0.0379
cg02150077	16	87,098,542	OpenSea			-0.025	0.225	0.0379
cg09501762	16	28,331,449	Island	SBK1	Body	0.008	0.951	0.0379
cg03223076	3	48,698,558	Island	CELSR3	1stExon	0.032	0.525	0.0379
cg20118840	11	119,928,838	OpenSea			0.018	0.566	0.0379
cg05500574	19	58,962,884	Island	ZNF324B	TSS200	0.002	0.010	0.0379
cg03254354	16	47,618,685	OpenSea	PHKB	Body	-0.005	0.978	0.0379
cg19867991	19	13,051,573	S_Shore	CALR	Body	0.013	0.655	0.0379
cg26267259	7	157,407,820	S_Shore	PTPRN2	Body	0.020	0.422	0.0379
cg01665846	22	40,742,083	N_Shore	ADSL	TSS1500	-0.003	0.020	0.0379
cg06578800	17	21,368,039	S_Shore			0.013	0.461	0.0379
cg03299121	2	68,384,913	Island	PNO1	TSS200	-0.006	0.056	0.0379
cg21054248	15	75,664,343	S_Shelf	SIN3A	Body	0.002	0.987	0.0379
cg17128024	8	2,196,833	OpenSea			0.014	0.820	0.0379
cg06153102	17	58,674,085	N_Shelf			0.013	0.941	0.0379
cg25599012	19	39,827,384	OpenSea	GMFG	TSS1500	0.005	0.965	0.0379
cg04988568	19	1,093,247	Island	POLR2E	Body	0.013	0.915	0.0379
cg25483854	10	117,997,779	OpenSea	GFRA1	Body	-0.013	0.569	0.0379
cg03148084	18	72,201,665	OpenSea	CNDP1	TSS200	-0.007	0.955	0.0379
cg25254739	19	3,290,345	N_Shelf	BRUNOL5	Body	0.027	0.274	0.0379
cg27427581	10	8,075,716	N_Shore			-0.017	0.220	0.0379
cg24873957	2	9,563,127	Island	ITGB1BP1	5'UTR	-0.007	0.043	0.0379
cg22903905	8	104,012,296	OpenSea			0.022	0.556	0.0379
cg24475272	4	140,432,613	OpenSea	SETD7	3'UTR	-0.009	0.931	0.0379
cg13657446	21	47,394,080	Island			-0.004	0.025	0.0379
cg13093249	1	59,281,922	Island			-0.002	0.020	0.0379
cg13519035	12	34,261,006	Island			-0.019	0.059	0.0379
cg14511168	13	112,200,764	Island			0.015	0.891	0.0379

cg03832688	5	124,228,107	OpenSea			-0.004	0.970	0.0380
cg06382770	12	95,624,796	OpenSea	VEZT	Body	-0.033	0.623	0.0380
cg11751613	2	242,357,722	OpenSea	FARP2	Body	0.013	0.592	0.0380
cg25279644	4	128,544,542	Island			-0.003	0.025	0.0380
cg14679587	12	56,882,324	Island	GLS2	TSS200	0.002	0.020	0.0380
cg26834244	10	115,391,891	OpenSea	NRAP	Body	-0.022	0.747	0.0380
cg02881419	6	52,396,472	OpenSea	TRAM2	Body	0.010	0.879	0.0380
cg26138500	7	158,278,954	S_Shore	PTPRN2	Body	-0.020	0.869	0.0380
cg09268672	19	36,347,441	Island	KIRREL2	TSS1500	-0.003	0.026	0.0380
cg24412006	12	109,728,152	N_Shore	FOXN4	Body	0.004	0.969	0.0380
cg03896940	8	143,609,114	N_Shore	BAI1	Body	0.015	0.762	0.0380
cg01687878	12	123,616,817	OpenSea			0.013	0.554	0.0380
cg20936321	1	8,408,752	OpenSea			0.011	0.826	0.0380
cg23027425	11	381,866	S_Shore	B4GALNT4	3'UTR	0.015	0.619	0.0380
cg08647685	1	43,469,434	N_Shelf			0.005	0.973	0.0380
cg16222802	3	50,295,474	N_Shore	GNAI2	3'UTR	0.015	0.790	0.0380
cg13833328	6	24,357,098	N_Shore	DCDC2	Body	0.022	0.136	0.0380
cg17608570	10	130,228,545	OpenSea			0.017	0.418	0.0380
cg10887562	6	28,806,670	N_Shore			0.001	0.013	0.0380
cg26435575	5	83,946,460	OpenSea			0.015	0.243	0.0380
cg04407063	11	67,051,977	N_Shore	ADRBK1	Body	0.015	0.713	0.0380
cg11462459	8	21,155,258	OpenSea			0.009	0.925	0.0380
cg22984769	5	140,464,488	OpenSea			0.023	0.153	0.0380
cg06112560	16	23,691,827	S_Shore	PLK1	Body	0.015	0.598	0.0380
cg26577123	6	139,564,109	OpenSea	TXLNB	Body	0.017	0.918	0.0380
cg07009904	17	21,023,142	OpenSea			-0.002	0.019	0.0380
cg14927663	17	76,565,480	OpenSea	DNAH17	Body	-0.015	0.947	0.0380
cg19889855	3	122,334,330	OpenSea	PARP15	TSS200	0.020	0.333	0.0380
cg21217070	7	1,249,180	N_Shore			-0.010	0.894	0.0381
cg22304418	2	74,985,085	S_Shelf			0.003	0.984	0.0381

cg26731473	15	34,394,138	Island	PGBD4	TSS200	0.002	0.020	0.0381
cg15576082	2	242,754,333	Island	NEU4	Body	0.004	0.985	0.0381
cg01956154	14	94,423,399	OpenSea	ASB2	5'UTR	0.011	0.415	0.0381
cg00364457	6	38,608,738	S_Shore	BTBD9	TSS1500	0.014	0.419	0.0381
cg00979272	14	61,100,882	N_Shelf			0.014	0.936	0.0381
cg03955121	1	43,353,650	N_Shore			-0.010	0.926	0.0381
cg14328676	19	49,077,983	OpenSea	SULT2B1	Body	0.041	0.552	0.0381
cg02969038	20	61,713,598	OpenSea			0.016	0.798	0.0381
cg18668821	2	75,425,832	N_Shore	TACR1	1stExon	0.022	0.833	0.0381
cg05238767	16	50,581,723	Island	NKD1	TSS1500	0.001	0.017	0.0381
cg17216080	12	132,854,189	Island	GALNT9	Body	0.025	0.442	0.0381
cg01128511	4	40,440,442	Island	RBM47	Body	0.009	0.946	0.0381
cg00119755	5	135,103,020	OpenSea			0.011	0.964	0.0381
cg26585899	16	71,914,820	N_Shelf	ATXN1L	Body	0.005	0.964	0.0381
cg05199084	10	53,493,554	OpenSea	PRKG1	Body	0.004	0.981	0.0381
cg02941376	17	1,613,939	Island	TLCD2	TSS1500	-0.005	0.058	0.0381
cg10173932	12	130,950,761	N_Shelf	RIMBP2	Body	-0.026	0.484	0.0381
cg05652445	16	3,345,075	N_Shore			0.023	0.448	0.0381
cg13373318	15	65,686,654	N_Shore	IGDCC4	Body	-0.004	0.942	0.0381
cg00442308	11	1,488,761	N_Shelf			-0.015	0.605	0.0381
cg04882847	1	145,516,204	Island	GNRHR2	TSS200	-0.003	0.033	0.0382
cg20602300	15	40,846,077	OpenSea	C15orf57	3'UTR	0.015	0.544	0.0382
cg01757160	12	96,588,951	Island	ELK3	5'UTR	-0.004	0.023	0.0382
cg02335863	17	45,258,206	OpenSea	CDC27	Body	0.008	0.965	0.0382
cg00719237	17	47,583,662	Island	NGFR	Body	0.018	0.606	0.0382
cg09982224	11	67,775,972	OpenSea	ALDH3B1	TSS200	0.020	0.601	0.0382
cg22584138	17	28,562,220	N_Shore	SLC6A4	5'UTR	0.019	0.327	0.0382
cg06115679	1	39,721,316	OpenSea	MACF1	Body	-0.022	0.727	0.0382
cg10812634	5	126,409,211	Island	FLJ44606	TSS200	-0.041	0.220	0.0382
cg10994819	6	99,399,304	S_Shelf			0.020	0.874	0.0382

cg12907983	2	152,954,650	Island	CACNB4	Body	-0.001	0.017	0.0382
cg07015465	5	167,912,659	N_Shore	RARS	TSS1500	0.010	0.953	0.0382
cg02295078	17	16,472,670	Island	ZNF287	TSS200	-0.003	0.035	0.0382
cg16019558	6	110,104,633	OpenSea	FIG4	Body	0.015	0.429	0.0382
cg14379854	2	173,600,362	Island	LOC91149	Body	-0.005	0.024	0.0382
cg04197904	22	46,318,272	N_Shore	WNT7B	3'UTR	0.020	0.824	0.0382
cg27097542	16	11,706,435	OpenSea			0.016	0.581	0.0382
cg14388055	10	30,346,661	N_Shore	KIAA1462	5'UTR	-0.030	0.721	0.0382
cg02028332	19	19,335,919	Island	NCAN	Body	-0.007	0.062	0.0382
cg13834112	15	90,361,639	S_Shelf			0.024	0.550	0.0382
cg17411994	1	37,914,852	OpenSea			0.018	0.587	0.0382
cg17547708	22	51,021,506	Island	LOC10014460	Body	-0.007	0.035	0.0382
cg03700001	12	133,073,220	N_Shore	FBRSL1	Body	0.019	0.890	0.0382
cg10820936	2	216,871,234	OpenSea	MREG	Body	0.017	0.501	0.0382
cg11469587	17	74,639,849	OpenSea	ST6GALNAC1	5'UTR	0.019	0.492	0.0382
cg13178910	17	59,274,624	OpenSea	BCAS3	Body	-0.029	0.553	0.0382
cg03607813	12	105,948,248	OpenSea			-0.098	0.367	0.0382
cg27053157	7	149,257,723	OpenSea	ZNF767	Body	0.031	0.954	0.0382
cg01512089	17	41,705,043	OpenSea			0.009	0.340	0.0382
cg18431910	11	78,614,239	Island	ODZ4	Body	-0.022	0.816	0.0382
cg02529095	10	102,777,131	N_Shore	PDZD7	3'UTR	0.014	0.738	0.0382
cg18738804	8	86,842,690	S_Shelf			0.023	0.422	0.0382
cg14398957	15	91,536,180	N_Shore	PRC1	Body	0.013	0.953	0.0383
cg18986048	10	69,913,749	OpenSea	MYPN	Body	0.023	0.058	0.0383
cg09359750	3	58,708,188	OpenSea			-0.023	0.605	0.0383
cg14948230	2	11,300,785	OpenSea	PQLC3	Body	0.015	0.634	0.0383
cg16543923	3	197,353,980	N_Shore	LOC220729	Body	0.002	0.015	0.0383
cg27474382	6	32,807,551	S_Shore	TAP2	TSS1500	-0.015	0.917	0.0383
cg07243405	7	915,203	N_Shore	C7orf20	TSS1500	0.004	0.983	0.0383
cg10233953	7	56,131,519	N_Shore	CCT6A	3'UTR	0.025	0.783	0.0383

cg05905030	10	130,540,874	OpenSea			-0.052	0.861	0.0383
cg06511276	1	27,155,069	S_Shore	ZDHHC18	Body	0.013	0.864	0.0383
cg17468563	1	12,654,900	N_Shore	DHRS3	Body	0.010	0.477	0.0383
cg27281765	8	82,358,608	OpenSea	PMP2	Body	0.003	0.983	0.0383
cg13273128	2	45,241,620	S_Shore			0.004	0.027	0.0383
cg04280647	1	26,488,129	Island	GRRP1	Body	0.008	0.044	0.0383
cg03725130	19	16,435,500	Island	KLF2	TSS200	0.004	0.017	0.0383
cg05858042	11	569,232	Island	MIR210	TSS1500	0.058	0.096	0.0383
cg18737136	2	224,866,441	OpenSea	SERPINE2	Body	-0.002	0.990	0.0383
cg12802356	18	12,948,023	Island	SEH1L	5'UTR	-0.002	0.025	0.0383
cg00686595	10	32,345,476	Island	KIF5B	TSS200	0.004	0.027	0.0384
cg24818562	6	31,627,714	N_Shore	C6orf47	1stExon	0.015	0.398	0.0384
cg25881038	2	209,271,164	N_Shore	PTH2R	TSS1500	0.019	0.452	0.0384
cg27656459	12	116,796,562	OpenSea			0.038	0.577	0.0384
cg05446923	7	134,387,568	OpenSea			-0.016	0.746	0.0384
cg10009757	17	77,207,289	OpenSea	HRNBP3	5'UTR	0.010	0.873	0.0384
cg09323898	1	163,584,856	OpenSea			0.005	0.970	0.0384
cg07107130	11	76,745,431	OpenSea	B3GNT6	TSS200	0.015	0.228	0.0384
cg16922644	10	45,146,765	OpenSea			0.004	0.980	0.0384
cg03439703	11	14,664,991	N_Shore	PDE3B	TSS1500	-0.010	0.156	0.0384
cg18583276	7	1,921,523	OpenSea	MAD1L1	Body	0.018	0.909	0.0384
cg25388861	4	139,644,828	OpenSea			0.019	0.724	0.0384
cg12845249	16	67,876,451	Island	CENPT	5'UTR	-0.005	0.048	0.0384
cg16517172	11	47,400,156	S_Shore	SPI1	TSS200	0.015	0.314	0.0384
cg10052908	6	74,063,522	Island	DPPA5	Body	-0.031	0.919	0.0384
cg02798848	7	155,289,972	OpenSea			0.015	0.564	0.0384
cg08156120	14	74,111,075	N_Shore	DNAL1	TSS1500	-0.015	0.089	0.0384
cg07554831	9	98,546,838	Island			0.014	0.856	0.0384
cg15452135	10	105,233,106	Island	CALHM3	Body	-0.023	0.649	0.0384
cg17134700	6	29,854,631	N_Shore	HLA-H	TSS1500	-0.058	0.785	0.0384



cg25636481	6	33,241,410	S_Shore	RPS18	Body	0.017	0.840	0.0384
cg21298593	1	94,147,461	Island	BCAR3	TSS200	-0.002	0.022	0.0384
cg26817127	2	27,886,565	Island	SLC4A1AP	5'UTR	-0.003	0.028	0.0384
cg25599211	11	74,023,050	S_Shore	P4HA3	TSS1500	0.025	0.494	0.0384
cg15308050	6	84,422,333	S_Shelf			0.004	0.981	0.0384
cg13215762	7	157,338,481	OpenSea	PTPRN2	Body	-0.003	0.981	0.0384
cg01078174	1	7,830,468	N_Shore	VAMP3	TSS1500	-0.026	0.974	0.0384
cg17094065	12	53,443,584	S_Shore	TENC1	TSS1500	-0.003	0.038	0.0385
cg00536924	7	93,551,004	OpenSea	GNG11	TSS200	-0.008	0.063	0.0385
cg14480149	11	2,422,612	S_Shore	TSSC4	TSS1500	-0.035	0.040	0.0385
cg27055782	11	2,397,486	N_Shore	CD81	TSS1500	0.015	0.752	0.0385
cg03515897	14	95,980,971	N_Shore			0.013	0.462	0.0385
cg16597079	6	42,385,637	OpenSea	TRERF1	5'UTR	0.013	0.767	0.0385
cg18273421	6	31,734,554	OpenSea	C6orf27	Body	0.035	0.493	0.0385
cg15112923	1	173,155,033	OpenSea	TNFSF4	3'UTR	0.029	0.809	0.0385
cg26114300	6	30,007,709	OpenSea	NCRNA00171	Body	-0.005	0.972	0.0385
cg27420135	11	425,289	OpenSea	ANO9	Body	0.021	0.460	0.0385
cg20960443	7	30,634,175	Island	GARS	TSS200	0.007	0.058	0.0385
cg22240533	12	25,348,648	S_Shore	CASC1	TSS1500	-0.002	0.021	0.0385
cg20292791	1	58,089,357	OpenSea	DAB1	5'UTR	-0.016	0.216	0.0385
cg13240206	1	160,800,192	OpenSea	CD244	3'UTR	0.021	0.338	0.0385
cg22607793	1	205,000,910	OpenSea			0.014	0.701	0.0385
cg04034290	8	119,586,905	OpenSea	SAMD12	Body	0.030	0.544	0.0386
cg13370819	5	176,930,735	N_Shore	DOK3	Body	0.014	0.788	0.0386
cg12431891	3	114,958,699	OpenSea			0.029	0.599	0.0386
cg27390061	8	142,200,020	OpenSea	DENND3	Body	0.015	0.749	0.0386
cg08740524	12	54,520,017	Island	LOC400043	Body	-0.002	0.018	0.0386
cg03817939	2	75,788,231	Island	FAM176A	TSS200	0.002	0.021	0.0386
cg23249369	20	57,426,759	Island	GNAS	TSS1500	-0.028	0.587	0.0386
cg12763457	11	1,293,766	Island			0.023	0.781	0.0386

cg26195577	20	24,973,756	S_Shore	C20orf3	TSS1500	0.016	0.028	0.0386
cg24061125	14	97,165,167	OpenSea			-0.023	0.404	0.0386
cg02047300	5	140,208,201	N_Shore	PCDHA6	1stExon	0.023	0.229	0.0386
cg17809365	15	22,833,172	N_Shore	TUBGCP5	TSS1500	0.039	0.275	0.0386
cg06098291	16	22,787,289	OpenSea			0.013	0.917	0.0386
cg14845020	20	55,833,416	OpenSea	BMP7	Body	0.020	0.720	0.0386
cg04541078	11	118,442,899	N_Shore	ARCN1	TSS1500	0.002	0.019	0.0386
cg14081226	10	5,563,419	N_Shelf			0.005	0.972	0.0386
cg16527552	19	42,816,045	N_Shore	TMEM145	TSS1500	0.017	0.448	0.0386
cg02473562	20	44,875,586	S_Shore	CDH22	Body	0.019	0.342	0.0386
cg12967319	14	101,291,997	N_Shore	MEG3	TSS1500	0.011	0.518	0.0386
cg25683185	12	6,756,088	Island	ACRBP	Body	0.026	0.690	0.0386
cg22516651	19	35,521,622	Island	SCN1B	5'UTR	0.001	0.013	0.0386
cg18508525	7	80,230,062	OpenSea	CD36	TSS1500	-0.014	0.894	0.0386
cg03211527	5	1,121,021	OpenSea			0.016	0.855	0.0386
cg10124413	18	73,167,919	Island			-0.004	0.043	0.0386
cg19553961	5	10,401,195	OpenSea		6-Mar Body	-0.028	0.515	0.0387
cg20786730	11	45,744,923	OpenSea			0.023	0.414	0.0387
cg02506353	5	10,702,346	OpenSea	DAP	Body	-0.011	0.958	0.0387
cg22771960	19	3,961,667	S_Shore	MIR637	TSS200	0.017	0.531	0.0387
cg26003222	17	75,347,770	OpenSea		9-Sep 5'UTR	0.023	0.404	0.0387
cg27208052	16	58,058,642	N_Shore	MMP15	TSS1500	-0.004	0.030	0.0387
cg10631515	10	52,167,630	OpenSea	SGMS1	5'UTR	0.003	0.985	0.0387
cg16659899	1	94,725,224	OpenSea			0.016	0.802	0.0387
cg22472488	12	124,388,250	OpenSea	DNAH10	Body	0.020	0.669	0.0387
cg01337143	3	122,645,389	OpenSea	SEMA5B	Body	0.013	0.839	0.0387
cg16683060	13	99,974,673	OpenSea	UBAC2	Body	-0.031	0.604	0.0387
cg08163918	12	57,628,654	N_Shore	SHMT2	3'UTR	0.011	0.713	0.0387
cg25030049	1	56,169,508	OpenSea			-0.020	0.643	0.0387
cg14120636	9	33,751,249	S_Shore	PRSS3	Body	0.020	0.297	0.0387

cg06777813	15	101,085,111	Island	LASS3	TSS200	0.050	0.662	0.0387
cg11078738	2	69,240,453	Island	ANTXR1	5'UTR	-0.002	0.016	0.0387
cg14270193	17	7,079,342	S_Shore	ASGR1	Body	0.014	0.717	0.0387
cg19861138	2	154,335,384	Island	RPRM	TSS200	0.004	0.026	0.0387
cg18470852	19	18,682,598	Island	UBA52	TSS200	-0.004	0.019	0.0387
cg11626496	13	25,320,388	Island			-0.010	0.070	0.0387
cg22643751	7	855,365	Island	UNC84A	TSS1500	-0.051	0.036	0.0387
cg11690886	5	1,258,955	S_Shore	TERT	Body	0.013	0.833	0.0387
cg01216078	2	15,428,083	OpenSea	NBAS	Body	-0.028	0.982	0.0387
cg08413419	17	80,288,011	N_Shelf	SECTM1	5'UTR	0.014	0.726	0.0388
cg17419514	7	18,130,344	S_Shelf			0.009	0.966	0.0388
cg20635920	21	48,052,757	N_Shelf			0.022	0.740	0.0388
cg11870561	7	33,773,562	OpenSea			-0.019	0.391	0.0388
cg24533913	22	30,116,489	Island	CABP7	1stExon	-0.008	0.025	0.0388
cg03752138	17	76,357,232	S_Shore	SOCS3	TSS1500	-0.012	0.217	0.0388
cg05664296	19	52,249,599	OpenSea	FPR1	Body	0.005	0.966	0.0388
cg01290565	12	111,475,238	Island	CUX2	Body	0.023	0.671	0.0388
cg06435374	8	26,474,480	OpenSea	DPYSL2	Body	0.010	0.941	0.0388
cg04213900	14	104,687,257	Island			0.016	0.584	0.0388
cg14141238	9	136,569,664	S_Shore	SARDH	Body	0.015	0.860	0.0388
cg17426084	11	2,293,552	S_Shore	ASCL2	TSS1500	0.016	0.693	0.0388
cg09315468	8	38,089,562	Island	DDHD2	5'UTR	-0.001	0.016	0.0388
cg08803023	10	72,203,124	S_Shore			0.014	0.780	0.0388
cg18878351	1	10,709,343	S_Shore	CASZ1	Body	0.027	0.812	0.0388
cg25599161	2	241,543,460	OpenSea	CAPN10	Body	0.010	0.870	0.0388
cg00424690	6	43,478,455	Island	C6orf154	TSS200	0.016	0.333	0.0388
cg13072186	3	176,904,010	OpenSea	TBL1XR1	5'UTR	0.017	0.635	0.0388
cg14122102	9	27,333,402	OpenSea	MOBKL2B	Body	-0.001	0.016	0.0388
cg22732644	1	154,745,124	S_Shore	KCNN3	Body	0.036	0.490	0.0388
cg25703213	12	130,909,656	S_Shore	RIMBP2	Body	-0.010	0.824	0.0388

cg23461488	2	41,925,803	S_Shore			0.013	0.518	0.0388
cg10130180	15	41,523,183	Island	CHP	TSS1500	-0.003	0.043	0.0388
cg14783891	1	27,730,060	OpenSea			0.014	0.421	0.0388
cg05572020	16	3,989,254	Island			0.001	0.015	0.0388
cg07029781	17	3,558,202	OpenSea	CTNS	Body	0.003	0.979	0.0388
cg26056831	10	21,814,538	N_Shore	C10orf140	1stExon	0.004	0.025	0.0388
cg02693745	20	3,450,491	N_Shore	ATRN	TSS1500	0.004	0.976	0.0388
cg07973309	11	69,357,823	OpenSea			0.017	0.832	0.0388
cg09685682	16	89,778,914	S_Shore	C16orf7	Body	-0.003	0.040	0.0388
cg05438837	13	20,980,132	OpenSea	CRYL1	Body	-0.013	0.354	0.0389
cg08929903	5	118,965,347	OpenSea	FAM170A	1stExon	-0.007	0.966	0.0389
cg16890796	19	49,937,087	Island	SLC17A7	Body	0.016	0.096	0.0389
cg00549896	2	44,396,957	S_Shore	PPM1B	5'UTR	0.002	0.016	0.0389
cg10082398	6	155,595,675	OpenSea	CLDN20	5'UTR	0.034	0.704	0.0389
cg26079810	6	164,461,131	OpenSea			0.045	0.827	0.0389
cg18669388	5	168,729,015	S_Shore	SLIT3	TSS1500	0.027	0.379	0.0389
cg25079568	18	52,989,604	OpenSea	TCF4	Body	0.002	0.023	0.0389
cg09410243	11	3,861,512	N_Shore	RHOG	5'UTR	0.004	0.027	0.0389
cg09854709	1	156,903,097	OpenSea			0.030	0.391	0.0389
cg13982318	9	72,131,655	Island	APBA1	Body	-0.036	0.871	0.0389
cg06024930	12	121,890,328	Island	KDM2B	Body	-0.013	0.871	0.0389
cg14370653	9	137,828,210	OpenSea			-0.006	0.964	0.0389
cg15121240	3	119,182,653	OpenSea	TMEM39A	TSS200	-0.002	0.023	0.0389
cg10653000	12	132,900,938	Island	GALNT9	Body	-0.023	0.907	0.0389
cg13989999	20	30,309,717	N_Shore	BCL2L1	Body	0.017	0.588	0.0389
cg23696248	19	45,260,501	Island	BCL3	Body	-0.016	0.487	0.0389
cg01336390	6	29,895,059	Island			0.057	0.095	0.0389
cg14873958	12	131,439,301	OpenSea	GPR133	Body	-0.025	0.471	0.0389
cg27238071	6	71,998,145	Island	OGFRL1	TSS1500	-0.002	0.019	0.0389
cg09307530	5	2,739,257	Island			-0.007	0.073	0.0389

cg11287647	7	12,725,352	N_Shore	ARL4A	TSS1500	-0.030	0.663	0.0389
cg07433178	5	149,999,249	OpenSea	SYNPO	Body	-0.010	0.293	0.0389
cg05180887	2	1,817,263	OpenSea	MYT1L	Body	-0.046	0.675	0.0389
cg03770907	19	56,443,824	OpenSea	NLRP13	TSS200	0.031	0.718	0.0389
cg23852348	11	104,030,857	N_Shelf	PDGFD	Body	0.007	0.958	0.0390
cg21525413	14	103,371,930	N_Shore	TRAF3	Body	-0.008	0.955	0.0390
cg04919681	1	234,042,342	S_Shore	SLC35F3	Body	0.020	0.821	0.0390
cg03512172	5	1,551,883	N_Shore			0.015	0.458	0.0390
cg07570159	2	128,145,896	Island			-0.002	0.022	0.0390
cg00309965	5	138,842,336	OpenSea	ECSCR	TSS200	0.029	0.514	0.0390
cg19445322	3	13,246,196	Island			-0.025	0.537	0.0390
cg25649781	3	71,743,626	OpenSea	EIF4E3	Body	-0.010	0.058	0.0390
cg06330055	11	129,564,162	OpenSea			-0.011	0.900	0.0390
cg06457408	17	79,827,882	N_Shore	ARHGDI4	5'UTR	0.011	0.508	0.0390
cg02904365	1	6,761,379	Island	DNAJC11	Body	-0.003	0.022	0.0390
cg26514099	6	33,397,710	S_Shore	SYNGAP1	Body	0.011	0.480	0.0390
cg07015190	6	167,276,275	Island	RPS6KA2	TSS1500	-0.001	0.020	0.0390
cg16902509	10	15,761,312	N_Shore	ITGA8	Body	-0.005	0.031	0.0390
cg25518365	11	45,928,898	OpenSea	C11orf94	TSS200	0.015	0.835	0.0390
cg03418154	15	63,569,557	Island	APH1B	TSS200	0.002	0.022	0.0390
cg00407329	6	100,893,665	N_Shore	SIM1	Body	-0.034	0.311	0.0390
cg15112006	12	93,568,577	OpenSea			-0.010	0.830	0.0390
cg05103803	7	150,883,361	OpenSea	ASB10	Body	0.011	0.831	0.0390
cg14628914	6	24,659,344	OpenSea	TTRAP	Body	0.017	0.827	0.0390
cg05552543	16	75,322,715	OpenSea			0.012	0.859	0.0391
cg00574907	2	110,371,141	Island		10-Sep Body	-0.002	0.027	0.0391
cg19077071	8	38,244,615	Island	LETM2	5'UTR	0.001	0.019	0.0391
cg26884027	1	29,586,418	Island	PTPRU	Body	-0.013	0.031	0.0391
cg19470832	12	55,419,490	OpenSea	NEUROD4	5'UTR	0.024	0.627	0.0391
cg26759552	7	139,877,471	Island	LOC100134221	Body	-0.010	0.043	0.0391

cg26284544	19	7,983,877	Island	SNAPC2	TSS1500	0.032	0.424	0.0391
cg04309911	6	30,418,647	N_Shore			0.011	0.062	0.0391
cg02548199	16	11,264,705	N_Shelf	CLEC16A	Body	0.010	0.885	0.0391
cg16454588	5	140,474,184	N_Shore	PCDHB2	TSS200	0.020	0.095	0.0391
cg04685187	3	184,530,443	S_Shore	VPS8	5'UTR	0.001	0.014	0.0391
cg11005826	11	2,165,961	S_Shore	IGF2AS	Body	-0.018	0.201	0.0391
cg09086087	16	68,000,763	N_Shore	SLC12A4	1stExon	0.017	0.462	0.0391
cg22003366	5	119,800,143	Island	PRR16	1stExon	0.003	0.026	0.0391
cg10726214	19	44,221,454	N_Shore	IRGC	5'UTR	0.013	0.762	0.0391
cg11404544	1	50,571,816	OpenSea	ELAVL4	Body	0.017	0.771	0.0391
cg26222247	15	90,357,521	Island	ANPEP	5'UTR	0.021	0.164	0.0391
cg22516696	8	122,251,921	OpenSea			0.004	0.980	0.0391
cg09932747	6	31,829,914	N_Shore	NEU1	Body	0.035	0.654	0.0391
cg12914966	6	28,830,789	N_Shore			0.062	0.647	0.0391
cg04733424	11	68,158,060	Island	LRP5	Body	0.002	0.987	0.0391
cg16823610	4	40,856,529	N_Shelf	APBB2	Body	-0.003	0.980	0.0391
cg25485126	19	13,873,471	Island	CCDC130	Body	0.005	0.962	0.0391
cg01481569	12	29,673,649	OpenSea	TMTC1	Body	-0.006	0.967	0.0392
cg03454775	8	2,012,595	OpenSea	MYOM2	Body	0.035	0.346	0.0392
cg04521004	3	157,821,262	Island	SHOX2	Body	-0.007	0.035	0.0392
cg07613792	16	87,087,037	OpenSea			0.026	0.451	0.0392
cg08362283	16	89,119,663	Island			0.019	0.821	0.0392
cg16312872	6	158,923,181	OpenSea	TULP4	Body	0.007	0.951	0.0392
cg11185188	10	100,175,236	OpenSea	PYROXD2	TSS1500	0.014	0.677	0.0392
cg16027847	6	169,880,381	OpenSea	WDR27	Body	0.006	0.962	0.0392
cg18906353	6	30,640,154	N_Shore	DHX16	Body	0.020	0.096	0.0392
cg20104774	6	33,422,900	S_Shore	ZBTB9	Body	0.027	0.388	0.0392
cg16848873	17	46,682,308	N_Shelf	LOC404266	Body	0.028	0.511	0.0392
cg04107082	2	61,245,442	OpenSea	PEX13	Body	0.013	0.238	0.0392
cg15816119	12	132,855,268	Island	GALNT9	Body	0.012	0.645	0.0392

cg24861580	1	212,208,740	N_Shore	INTS7	1stExon	0.002	0.018	0.0392
cg27304369	20	57,427,483	N_Shore	GNAS	TSS1500	0.034	0.465	0.0392
cg23837289	19	1,817,091	N_Shore	MIR1909	TSS1500	0.031	0.902	0.0392
cg27056555	1	6,293,422	N_Shelf	ICMT	Body	-0.004	0.975	0.0392
cg05253283	3	195,717,344	Island	SDHAP1	TSS200	0.007	0.050	0.0392
cg12683533	4	185,139,259	OpenSea	ENPP6	TSS200	-0.015	0.831	0.0392
cg02693607	7	27,150,598	S_Shore	HOXA3	5'UTR	-0.002	0.021	0.0392
cg07120254	6	47,199,817	OpenSea	TNFRSF21	3'UTR	0.012	0.936	0.0392
cg18309752	2	203,103,763	S_Shore	SUMO1	TSS1500	0.005	0.036	0.0392
cg07109801	3	49,057,661	N_Shore	MIR425	Body	0.021	0.552	0.0392
cg18576588	14	105,941,177	Island	CRIP2	5'UTR	-0.003	0.015	0.0392
cg24319508	6	394,966	S_Shore	IRF4	Body	-0.026	0.400	0.0393
cg21529591	3	14,596,904	N_Shore			0.047	0.451	0.0393
cg25786388	13	100,578,831	OpenSea			0.025	0.583	0.0393
cg02906074	14	73,102,873	OpenSea			0.004	0.967	0.0393
cg02294146	10	80,829,916	Island	ZMIZ1	5'UTR	0.004	0.034	0.0393
cg25885038	17	56,607,967	N_Shore		4-Sep Body	0.017	0.882	0.0393
cg06881239	17	10,741,502	OpenSea	PIRT	TSS200	0.015	0.514	0.0393
cg11630404	4	113,442,346	N_Shore			-0.001	0.018	0.0393
cg14923640	2	139,537,826	Island	NXPH2	TSS200	-0.001	0.020	0.0393
cg01458646	6	32,171,330	OpenSea	NOTCH4	Body	0.019	0.445	0.0393
cg14276467	18	658,303	Island	TYMS	Body	-0.004	0.037	0.0393
cg22305187	8	811,351	OpenSea			0.012	0.927	0.0393
cg08166961	1	234,513,298	S_Shelf	C1orf31	Body	0.007	0.947	0.0393
cg22589728	3	71,439,885	OpenSea	FOXP1	5'UTR	0.015	0.284	0.0393
cg08251202	7	156,837,855	OpenSea			0.021	0.491	0.0393
cg01232748	4	54,928,819	N_Shore	CHIC2	Body	0.015	0.536	0.0393
cg16245698	18	43,355,989	S_Shore			0.029	0.310	0.0393
cg07064673	11	1,491,308	Island	HCCA2	3'UTR	0.013	0.813	0.0393
cg09907170	2	111,877,177	Island	BCL2L11	TSS1500	-0.021	0.207	0.0393

cg01359236	8	11,763,828	S_Shelf			0.012	0.558	0.0393
cg21593513	12	109,915,530	Island	UBE3B	5'UTR	0.004	0.039	0.0393
cg11003814	8	4,854,917	S_Shelf			0.028	0.251	0.0393
cg02470625	7	39,453,784	Island	POU6F2	Body	-0.002	0.032	0.0393
cg00808170	5	140,807,787	Island	PCDHGA4	Body	0.014	0.282	0.0393
cg06689388	16	2,810,375	N_Shore	SRRM2	Body	0.006	0.965	0.0393
cg07303091	12	42,863,385	OpenSea	PRICKLE1	Body	0.015	0.849	0.0393
cg05463027	6	17,988,748	S_Shore	KIF13A	TSS1500	0.018	0.305	0.0394
cg05924068	2	240,046,735	Island	HDAC4	Body	0.004	0.969	0.0394
cg05338976	7	114,561,850	N_Shore	MDFIC	TSS1500	-0.016	0.818	0.0394
cg12302830	20	33,297,742	Island	TP53INP2	Body	0.005	0.063	0.0394
cg27171605	1	43,675,865	OpenSea	WDR65	Body	0.009	0.943	0.0394
cg21212881	9	14,344,359	N_Shore			-0.015	0.193	0.0394
cg09605432	6	130,687,139	Island			0.004	0.029	0.0394
cg04170282	7	2,025,606	N_Shore	MAD1L1	Body	0.015	0.794	0.0394
cg19915087	2	203,453,744	OpenSea			0.013	0.421	0.0394
cg04303976	16	22,309,637	S_Shore	POLR3E	5'UTR	-0.001	0.015	0.0394
cg09868374	15	82,217,218	OpenSea			0.029	0.639	0.0394
cg00671224	12	10,770,150	S_Shelf			0.005	0.975	0.0394
cg01806713	5	109,041,166	OpenSea	MAN2A1	Body	-0.006	0.960	0.0394
cg03768513	22	24,552,594	Island	CABIN1	Body	-0.007	0.057	0.0394
cg18073115	21	46,813,298	S_Shore			0.024	0.632	0.0394
cg03234123	4	56,915,900	Island			-0.002	0.024	0.0394
cg15241236	8	69,355,417	OpenSea	C8orf34	Body	0.014	0.697	0.0394
cg06070749	18	11,688,988	N_Shore	GNAL	TSS200	0.002	0.022	0.0394
cg06042588	2	242,890,300	OpenSea			0.003	0.975	0.0394
cg09750385	4	156,588,012	N_Shore	GUCY1A3	1stExon	0.003	0.025	0.0395
cg10335230	11	134,628,434	N_Shelf			-0.011	0.760	0.0395
cg01400480	11	12,252,002	OpenSea	MICAL2	Body	0.011	0.708	0.0395
cg22884516	22	45,809,543	Island	SMC1B	TSS200	-0.018	0.038	0.0395



cg17103217	6	33,245,721	S_Shore	B3GALT4	1stExon	0.014	0.527	0.0395
cg04635364	4	138,889,982	OpenSea			0.008	0.956	0.0395
cg06599274	16	86,589,076	Island	MTHFSD	TSS1500	-0.004	0.032	0.0395
cg17206850	11	62,693,456	Island			-0.002	0.021	0.0395
cg01293250	6	33,239,762	Island	VPS52	TSS200	-0.002	0.023	0.0395
cg27583102	19	51,456,055	OpenSea	KLK5	5'UTR	0.024	0.673	0.0395
cg11186593	4	4,162,693	OpenSea			-0.014	0.942	0.0395
cg24105782	1	1,957,385	Island	GABRD	Body	0.013	0.404	0.0395
cg23484358	3	196,695,320	Island	PIGZ	5'UTR	0.025	0.150	0.0395
cg20594345	6	28,973,520	OpenSea	ZNF311	TSS1500	0.020	0.077	0.0395
cg22880122	6	31,027,005	OpenSea	HCG22	Body	0.026	0.831	0.0395
cg10048490	16	85,698,801	OpenSea	KIAA0182	Body	-0.009	0.905	0.0395
cg00968241	3	156,543,833	N_Shore	LEKR1	TSS1500	-0.011	0.062	0.0395
cg25071349	18	24,237,793	S_Shore			0.002	0.021	0.0395
cg17497271	15	40,212,781	Island	GPR176	5'UTR	-0.006	0.035	0.0395
cg13113525	15	74,427,234	Island	ISLR2	Body	0.009	0.063	0.0395
cg12151351	18	77,493,454	Island	CTDP1	Body	0.020	0.949	0.0395
cg11439186	3	186,648,857	Island	ST6GAL1	5'UTR	-0.004	0.039	0.0395
cg09464061	19	59,090,052	N_Shelf	MGC2752	Body	0.014	0.668	0.0395
cg03004985	3	46,735,695	Island	ALS2CL	TSS1500	0.023	0.603	0.0395
cg12115190	3	10,437,269	OpenSea	ATP2B2	Body	-0.009	0.933	0.0395
cg11120913	3	62,304,470	N_Shore	C3orf14	TSS1500	-0.002	0.016	0.0396
cg06564837	19	56,151,356	N_Shore	ZNF580	TSS1500	0.022	0.552	0.0396
cg10035555	17	4,979,072	N_Shelf			0.013	0.840	0.0396
cg13564061	10	105,421,480	S_Shore	SH3PXD2A	Body	-0.019	0.326	0.0396
cg15965383	1	221,335,745	OpenSea			-0.016	0.823	0.0396
cg03753642	8	75,261,222	N_Shore	GDAP1	TSS1500	-0.016	0.888	0.0396
cg20109541	3	87,040,082	Island	VGLL3	5'UTR	-0.006	0.051	0.0396
cg06654537	13	100,641,317	N_Shore			-0.006	0.049	0.0396
cg03276000	7	154,087,975	OpenSea	DPP6	Body	0.013	0.906	0.0396

cg24579373	1	54,586,980	N_Shore			-0.017	0.609	0.0396
cg22322277	6	75,459,158	OpenSea			-0.033	0.821	0.0396
cg01533106	8	144,764,603	N_Shore			0.038	0.775	0.0396
cg11974068	7	158,669,942	Island	WDR60	Body	0.003	0.968	0.0396
cg05977230	11	68,115,417	Island	LRP5	Body	-0.002	0.981	0.0396
cg02996583	8	142,237,188	Island	SLC45A4	Body	0.026	0.367	0.0396
cg04812644	8	136,302,000	OpenSea	LOC286094	Body	0.017	0.804	0.0396
cg27278729	11	61,666,595	OpenSea	RAB3IL1	Body	0.014	0.748	0.0396
cg04210779	1	218,472,324	OpenSea	RRP15	Body	0.006	0.961	0.0396
cg16482474	7	151,107,637	Island	WDR86	TSS1500	0.002	0.025	0.0396
cg21336594	4	79,057,742	OpenSea	FRAS1	Body	-0.017	0.847	0.0396
cg24183484	19	38,878,553	Island	GGN	5'UTR	0.014	0.104	0.0396
cg19379482	11	70,282,052	OpenSea	CTTN	3'UTR	0.010	0.874	0.0396
cg19367388	9	33,816,707	N_Shore	UBE2R2	TSS1500	-0.002	0.017	0.0397
cg11320749	10	130,009,573	Island			0.036	0.626	0.0397
cg11312509	19	10,121,251	S_Shore	COL5A3	TSS200	-0.003	0.046	0.0397
cg27531571	17	77,905,160	S_Shore			0.011	0.071	0.0397
cg11234447	5	17,400,323	OpenSea			-0.038	0.779	0.0397
cg04507925	2	210,824,770	OpenSea	UNC80	Body	0.022	0.297	0.0397
cg25097398	12	127,650,901	OpenSea			-0.048	0.585	0.0397
cg07362058	19	18,043,481	Island	CCDC124	TSS1500	0.002	0.020	0.0397
cg03386971	22	46,328,304	S_Shore	WNT7B	Body	-0.022	0.896	0.0397
cg02978168	18	76,695,123	S_Shore			0.045	0.527	0.0397
cg06740142	17	47,583,281	N_Shore	NGFR	Body	0.034	0.657	0.0397
cg03980824	1	84,465,404	S_Shore	TTL7	TSS1500	0.004	0.037	0.0397
cg12233232	11	43,379,844	N_Shore	TTC17	TSS1500	0.028	0.552	0.0397
cg08355863	6	33,587,496	N_Shore			0.019	0.600	0.0397
cg27438218	10	119,314,933	S_Shore			0.022	0.801	0.0397
cg17694705	4	69,218,719	S_Shelf			0.008	0.940	0.0397
cg03106958	17	79,372,973	Island	BAHCC1	TSS1500	-0.007	0.060	0.0397

cg04548699	14	61,785,776	N_Shelf			-0.004	0.973	0.0397
cg18872016	17	72,192,970	OpenSea			-0.024	0.219	0.0397
cg16196602	11	65,819,332	N_Shore	SF3B2	TSS1500	-0.006	0.067	0.0397
cg17865265	12	56,236,845	OpenSea	MMP19	TSS200	0.019	0.453	0.0397
cg01244346	2	74,272,962	OpenSea	TET3	TSS1500	0.016	0.711	0.0398
cg01973771	19	2,740,143	Island	SLC39A3	TSS200	-0.007	0.080	0.0398
cg26570165	1	119,541,833	N_Shore			-0.019	0.169	0.0398
cg01939980	4	1,354,348	OpenSea	KIAA1530	Body	0.011	0.913	0.0398
cg01645113	3	159,482,413	Island	SCHIP1	Body	0.004	0.023	0.0398
cg00367463	1	45,249,899	Island	BEST4	Body	-0.009	0.032	0.0398
cg05715649	1	202,680,562	S_Shore	SYT2	TSS1500	0.021	0.534	0.0398
cg19570955	14	68,279,380	OpenSea	ZFYVE26	Body	0.004	0.975	0.0398
cg04192862	10	28,966,472	Island	BAMBI	1stExon	-0.015	0.071	0.0398
cg00549018	19	48,968,137	S_Shelf	KCNJ14	3'UTR	0.016	0.836	0.0398
cg01389386	16	70,471,055	N_Shore	ST3GAL2	5'UTR	-0.012	0.225	0.0398
cg01522437	11	18,748,167	OpenSea	IGSF22	TSS1500	0.019	0.694	0.0398
cg12811648	12	133,419,216	S_Shore	CHFR	Body	0.022	0.647	0.0398
cg02222604	17	16,342,013	N_Shore	NCRNA00188	TSS1500	0.001	0.012	0.0398
cg17475110	7	1,709,263	Island			-0.013	0.107	0.0398
cg11943190	6	41,790,313	OpenSea	USP49	5'UTR	0.013	0.922	0.0398
cg18446520	12	106,981,513	S_Shore	RFX4	Body	-0.004	0.048	0.0398
cg04913803	14	77,510,549	OpenSea			0.017	0.443	0.0398
cg01535080	6	166,077,669	Island			-0.006	0.051	0.0398
cg26663293	13	100,002,990	OpenSea	UBAC2	Body	-0.005	0.965	0.0398
cg04597449	5	94,955,575	N_Shore	GPR150	TSS1500	0.007	0.056	0.0398
cg21610904	19	9,785,511	Island	ZNF562	5'UTR	-0.043	0.058	0.0399
cg08903333	21	45,209,501	Island	RRP1	1stExon	0.005	0.025	0.0399
cg04505750	1	12,774,815	OpenSea	AADACL3	TSS1500	0.013	0.707	0.0399
cg08509383	6	31,696,298	Island	DDAH2	Body	0.019	0.408	0.0399
cg15157945	3	47,023,603	S_Shelf	NBEAL2	Body	0.012	0.287	0.0399

cg12230795	19	57,875,014	Island	ZNF547	1stExon	-0.004	0.032	0.0399
cg03926598	6	26,617,378	S_Shelf			0.009	0.955	0.0399
cg16931664	11	11,169,707	OpenSea			0.033	0.368	0.0399
cg15444831	10	33,371,435	OpenSea			-0.017	0.951	0.0399
cg16293369	1	173,966,344	OpenSea			0.008	0.947	0.0399
cg08708553	7	150,818,877	N_Shore	AGAP3	Body	0.011	0.630	0.0399
cg12389461	20	4,795,836	OpenSea	RASSF2	5'UTR	0.021	0.790	0.0399
cg14894367	11	1,002,008	OpenSea	AP2A2	Body	0.013	0.830	0.0399
cg18011672	2	190,522,601	N_Shelf			-0.017	0.790	0.0399
cg23561752	13	115,092,495	OpenSea	ZNF828	3'UTR	0.004	0.965	0.0399
cg12689055	1	53,541,670	N_Shelf	PODN	Body	-0.011	0.259	0.0399
cg14743206	12	117,590,918	N_Shelf	FBXO21	Body	-0.012	0.886	0.0399
cg07205374	2	180,129,612	Island	SESTD1	TSS1500	-0.004	0.021	0.0399
cg11006453	8	141,599,185	OpenSea	EIF2C2	Body	0.020	0.573	0.0399
cg22181664	1	86,934,325	OpenSea	CLCA1	TSS200	0.018	0.401	0.0399
cg11545720	19	4,558,377	Island	SEMA6B	1stExon	0.020	0.146	0.0399
cg26599989	11	1,297,087	N_Shore	TOLLIP	3'UTR	0.013	0.561	0.0400
cg15423862	3	155,838,109	OpenSea	KCNAB1	TSS1500	0.002	0.987	0.0400
cg27130993	5	148,545,635	OpenSea	ABLIM3	Body	0.027	0.563	0.0400
cg18383603	1	43,200,626	N_Shelf	CLDN19	3'UTR	0.010	0.921	0.0400
cg16653784	1	67,594,820	OpenSea	C1orf141	TSS1500	0.018	0.790	0.0400
cg08264859	19	46,174,565	Island	GIPR	Body	0.025	0.438	0.0400
cg09448088	13	113,635,690	Island	MCF2L	Body	0.015	0.858	0.0400
cg24096680	17	73,937,673	S_Shore	ACOX1	3'UTR	0.024	0.775	0.0400
cg24064884	6	33,868,381	OpenSea			0.024	0.624	0.0400
cg07755173	10	35,930,525	Island	FZD8	TSS200	-0.001	0.014	0.0400
cg19293162	19	2,513,302	Island	GNG7	3'UTR	0.022	0.471	0.0400
cg09787381	7	134,643,566	OpenSea	CALD1	Body	0.003	0.984	0.0400
cg03312792	20	43,849,759	OpenSea	SEMG2	TSS1500	0.012	0.953	0.0400
cg07398791	5	118,676,053	OpenSea	TNFAIP8	Body	0.010	0.925	0.0400

cg07431944	16	1,574,985	Island	IFT140	Body	0.012	0.920	0.0400
cg23932798	5	137,142,029	OpenSea	NPY6R	TSS1500	-0.006	0.958	0.0400
cg17418055	20	30,061,002	N_Shore	DEFB124	TSS200	0.015	0.343	0.0400
cg10730712	5	178,017,827	S_Shore	COL23A1	TSS1500	0.002	0.020	0.0400
cg27501451	6	32,936,896	S_Shore	BRD2	5'UTR	0.003	0.036	0.0400
cg11192416	1	231,296,968	Island			-0.003	0.025	0.0400
cg05537380	19	460,617	Island	SHC2	1stExon	0.006	0.054	0.0401
cg01981048	5	178,774,760	S_Shore			0.019	0.594	0.0401
cg24049621	18	56,528,679	N_Shore	ZNF532	TSS1500	0.041	0.579	0.0401
cg26699292	16	78,079,801	Island			-0.013	0.036	0.0401
cg01652681	6	32,937,649	N_Shore	BRD2	TSS1500	-0.003	0.036	0.0401
cg17616099	20	5,451,815	OpenSea	LOC643406	TSS200	0.017	0.812	0.0401
cg17849530	10	14,816,693	OpenSea	FAM107B	1stExon	0.006	0.957	0.0401
cg09455118	11	131,243,839	OpenSea	NTM	Body	0.037	0.955	0.0401
cg19009664	11	82,783,540	OpenSea	RAB30	TSS1500	0.002	0.017	0.0401
cg01544157	6	30,075,605	OpenSea	TRIM31	Body	-0.011	0.911	0.0401
cg05508048	13	52,027,321	Island	INTS6	TSS200	-0.002	0.013	0.0401
cg06939852	16	51,068,651	OpenSea			0.018	0.411	0.0401
cg19102740	6	33,860,642	OpenSea			0.014	0.881	0.0401
cg21893960	13	114,778,666	Island	RASA3	Body	0.005	0.964	0.0401
cg20007844	8	126,374,251	OpenSea	NSMCE2	Body	0.015	0.704	0.0401
cg11774850	2	11,881,338	OpenSea			0.017	0.706	0.0401
cg18192222	10	106,113,225	OpenSea	CCDC147	TSS1500	0.017	0.033	0.0401
cg13425294	8	125,934,433	OpenSea			0.039	0.680	0.0401
cg04115740	17	6,690,948	OpenSea	FBXO39	3'UTR	-0.032	0.684	0.0402
cg22808351	1	156,783,633	Island	SH2D2A	Body	0.009	0.089	0.0402
cg16811558	7	50,634,252	OpenSea	DDC	TSS1500	-0.014	0.869	0.0402
cg05122453	9	130,532,879	N_Shore	SH2D3C	Body	0.016	0.499	0.0402
cg04550941	4	177,241,289	Island	SPCS3	1stExon	-0.004	0.022	0.0402
cg14390656	9	11,618,691	S_Shore			-0.026	0.927	0.0402

cg18941151	1	114,431,234	OpenSea	BCL2L15	TSS1500	0.003	0.981	0.0402
cg02675502	2	219,264,639	Island	CTDSP1	1stExon	-0.001	0.021	0.0402
cg17884843	3	147,141,132	N_Shore			-0.004	0.049	0.0402
cg04224092	14	77,247,777	OpenSea	VASH1	3'UTR	0.010	0.528	0.0402
cg16803141	7	149,470,343	Island	ZNF467	TSS200	-0.002	0.017	0.0402
cg22144125	7	100,209,665	Island	MOSPD3	TSS200	-0.003	0.029	0.0402
cg12604331	1	156,906,485	OpenSea	ARHGEF11	Body	0.015	0.681	0.0402
cg02957997	3	181,918,981	OpenSea			0.004	0.975	0.0402
cg10116490	1	11,561,711	Island	PTCHD2	Body	-0.030	0.310	0.0402
cg25352397	8	24,800,883	S_Shore			0.029	0.523	0.0402
cg13905406	1	94,344,135	N_Shore	DNTTIP2	Body	-0.002	0.025	0.0402
cg23056060	15	81,124,821	OpenSea	KIAA1199	5'UTR	-0.008	0.948	0.0402
cg12577455	11	125,303,250	OpenSea	PKNOX2	3'UTR	0.009	0.820	0.0402
cg13386884	11	449,359	N_Shore	PTDSS2	TSS1500	-0.006	0.973	0.0402
cg01001533	10	44,184,868	N_Shore			0.022	0.500	0.0402
cg17182503	8	22,462,457	Island	KIAA1967	TSS200	-0.003	0.027	0.0403
cg11031989	15	66,912,788	N_Shore			-0.022	0.827	0.0403
cg02286990	1	32,666,098	N_Shore	CCDC28B	TSS200	0.001	0.012	0.0403
cg11869049	3	48,278,910	N_Shelf			0.030	0.613	0.0403
cg01647632	15	89,438,905	S_Shore	HAPLN3	TSS200	-0.003	0.029	0.0403
cg27395391	6	16,375,082	OpenSea	ATXN1	5'UTR	-0.027	0.804	0.0403
cg13185046	6	32,165,321	S_Shore	NOTCH4	Body	0.020	0.380	0.0403
cg11346837	3	147,077,671	Island			-0.018	0.165	0.0403
cg20497713	17	8,477,182	OpenSea	MYH10	Body	0.004	0.980	0.0403
cg07624918	3	136,533,970	N_Shelf			-0.021	0.688	0.0403
cg07332234	16	63,650,994	OpenSea			0.022	0.497	0.0403
cg15431703	8	32,505,269	OpenSea	NRG1	Body	0.021	0.761	0.0403
cg11391428	2	217,147,701	OpenSea		4-Mar Body	0.011	0.890	0.0403
cg12258607	6	12,717,138	OpenSea	PHACTR1	TSS1500	-0.046	0.689	0.0403
cg13487859	6	112,409,181	S_Shore	TUBE1	TSS1500	0.008	0.048	0.0403

cg13325066	7	2,499,932	Island			0.013	0.737	0.0403
cg20844901	4	54,717,951	OpenSea			-0.018	0.903	0.0403
cg01252659	19	7,198,410	Island	INSR	Body	-0.009	0.056	0.0403
cg25535435	6	41,194,812	OpenSea	TREML4	TSS1500	0.021	0.529	0.0403
cg12435725	3	58,293,450	S_Shore	RPP14	5'UTR	0.024	0.570	0.0403
cg02205020	17	78,374,034	OpenSea	LOC10029436	Body	-0.003	0.984	0.0403
cg24478129	1	246,592,123	OpenSea	SMYD3	Body	-0.108	0.872	0.0403
cg07318231	5	171,433,963	Island	FBXW11	TSS200	-0.003	0.029	0.0403
cg06727703	17	79,305,710	OpenSea	TMEM105	TSS1500	0.011	0.492	0.0403
cg02321192	2	241,508,108	N_Shore	RNPEPL1	5'UTR	0.005	0.062	0.0403
cg03743605	1	179,050,691	N_Shore	TOR3A	TSS1500	0.013	0.195	0.0403
cg02848097	4	103,655,154	OpenSea	MANBA	Body	-0.007	0.964	0.0404
cg01618304	11	93,474,888	Island	C11orf54	1stExon	-0.002	0.018	0.0404
cg17717750	20	62,494,328	N_Shore	C20orf135	3'UTR	0.005	0.971	0.0404
cg02351223	22	43,253,208	Island	ARFGAP3	1stExon	0.004	0.017	0.0404
cg04491443	16	20,415,966	OpenSea	PDILT	5'UTR	0.010	0.808	0.0404
cg15278109	10	29,214,117	Island			0.033	0.535	0.0404
cg02262221	4	91,047,852	N_Shore	FAM190A	TSS1500	-0.023	0.742	0.0404
cg19814116	1	6,086,448	Island	KCNAB2	1stExon	-0.035	0.325	0.0404
cg01508548	22	38,241,384	S_Shore	ANKRD54	TSS1500	0.032	0.661	0.0404
cg11984989	7	158,649,758	Island	WDR60	Body	-0.050	0.108	0.0404
cg03404502	13	99,911,826	OpenSea	GPR18	TSS1500	0.002	0.985	0.0404
cg07638857	12	99,137,308	N_Shelf	ANKS1B	Body	-0.056	0.524	0.0404
cg20778199	6	148,020,881	OpenSea			-0.025	0.422	0.0404
cg19374089	22	41,970,954	OpenSea	CSDC2	3'UTR	0.014	0.661	0.0404
cg05270922	1	101,775,452	OpenSea			-0.004	0.029	0.0404
cg25835179	11	67,418,291	OpenSea	ACY3	TSS200	0.020	0.552	0.0404
cg04592144	5	172,899,456	OpenSea			0.020	0.274	0.0404
cg24563703	4	154,016,076	OpenSea			-0.003	0.980	0.0404
cg17557540	6	31,166,174	S_Shore	HCG27	Body	0.015	0.327	0.0404

cg24873872	6	36,391,494	S_Shore	PXT1	Body	0.008	0.040	0.0404
cg09304381	17	38,249,352	Island	THRA	Body	0.010	0.846	0.0404
cg02652760	6	27,278,678	N_Shore	POM121L2	1stExon	0.016	0.636	0.0404
cg15405084	4	187,864,009	OpenSea			0.017	0.638	0.0404
cg21261487	18	74,825,893	S_Shore	MBP	5'UTR	0.012	0.851	0.0405
cg00706441	19	12,958,340	Island	MAST1	Body	0.022	0.413	0.0405
cg09138965	1	111,822,347	OpenSea	LOC149620	TSS1500	0.003	0.979	0.0405
cg11592576	3	42,915,467	OpenSea	CYP8B1	3'UTR	0.016	0.494	0.0405
cg06260815	13	37,005,115	N_Shore	CCNA1	TSS1500	-0.006	0.067	0.0405
cg14276584	9	99,318,213	OpenSea	CDC14B	Body	-0.033	0.492	0.0405
cg12133425	1	247,494,926	Island	ZNF496	1stExon	0.005	0.031	0.0405
cg25605912	17	8,152,333	N_Shore	PFAS	TSS1500	0.002	0.015	0.0405
cg14161438	18	72,920,197	Island	ZADH2	Body	0.002	0.016	0.0405
cg12062534	6	57,912,662	OpenSea			0.011	0.845	0.0405
cg09256448	16	638,327	N_Shore			0.013	0.459	0.0405
cg21544415	12	26,288,686	OpenSea			0.021	0.458	0.0405
cg16322478	6	142,698,737	OpenSea	GPR126	Body	-0.019	0.852	0.0405
cg20882773	2	236,962,206	OpenSea	AGAP1	Body	0.011	0.514	0.0405
cg25164226	22	47,158,357	Island	TBC1D22A	TSS200	-0.004	0.054	0.0405
cg01048272	17	80,169,878	N_Shore	CCDC57	5'UTR	0.040	0.403	0.0405
cg12385425	2	62,733,576	S_Shore	TMEM17	5'UTR	-0.001	0.018	0.0405
cg11785176	2	25,264,766	Island	EFR3B	TSS1500	-0.003	0.026	0.0405
cg27462969	1	67,896,192	Island	SERBP1	TSS200	-0.003	0.030	0.0405
cg25730440	19	4,688,549	N_Shore	DPP9	Body	0.007	0.946	0.0405
cg18384893	17	13,018,517	OpenSea			-0.023	0.746	0.0405
cg15367150	2	239,046,275	N_Shore	KLHL30	TSS1500	-0.005	0.968	0.0405
cg15647005	12	3,579,236	OpenSea			0.004	0.975	0.0405
cg13905899	1	231,275,535	OpenSea			0.032	0.578	0.0405
cg04996523	1	60,392,461	Island	CYP2J2	TSS200	-0.002	0.022	0.0405
cg12711814	1	8,939,529	S_Shore	ENO1	TSS1500	-0.006	0.062	0.0405



cg20716915	4	8,126,658	OpenSea	ABLIM2	Body	0.002	0.990	0.0405
cg26404568	3	12,882,848	Island	RPL32	5'UTR	-0.006	0.061	0.0405
cg22792941	17	39,143,416	OpenSea	KRT40	TSS200	-0.072	0.747	0.0405
cg14168713	10	60,579,479	OpenSea	BICC1	Body	0.006	0.960	0.0405
cg03523538	16	29,820,460	S_Shore	MAZ	Body	0.012	0.484	0.0406
cg06128161	12	133,000,497	S_Shore			0.013	0.468	0.0406
cg06019273	6	157,289,645	OpenSea	ARID1B	Body	-0.007	0.963	0.0406
cg08937613	4	881,914	S_Shelf	GAK	Body	0.012	0.905	0.0406
cg07205670	16	87,442,901	S_Shore	ZCCHC14	3'UTR	0.027	0.846	0.0406
cg21994818	8	96,805,352	OpenSea			0.025	0.508	0.0406
cg24447625	3	147,077,774	S_Shore			-0.018	0.324	0.0406
cg10553515	7	5,013,490	N_Shore	RNF216L	TSS200	0.003	0.025	0.0406
cg01185605	15	89,172,582	OpenSea	AEN	Body	0.007	0.940	0.0406
cg17311528	12	125,092,428	OpenSea			-0.006	0.945	0.0406
cg10333214	16	1,382,952	Island			-0.009	0.057	0.0406
cg25839744	20	49,253,648	OpenSea	FAM65C	TSS1500	0.011	0.545	0.0406
cg19597449	19	8,117,924	S_Shelf	CCL25	TSS200	0.015	0.853	0.0406
cg21407196	1	46,751,975	OpenSea	LRRC41	Body	0.016	0.682	0.0406
cg12306833	3	50,227,389	N_Shelf			0.010	0.893	0.0406
cg10256468	3	148,710,633	S_Shore	GYG1	Body	0.017	0.442	0.0406
cg01757798	14	57,857,253	Island	NAA30	TSS200	-0.003	0.029	0.0406
cg07376846	1	203,765,385	S_Shore	ZC3H11A	5'UTR	0.002	0.026	0.0406
cg11645532	19	48,110,940	N_Shore	GLTSCR1	TSS1500	0.021	0.485	0.0406
cg10434624	1	7,722,876	N_Shore	CAMTA1	Body	0.009	0.639	0.0406
cg00133136	20	62,808,983	N_Shore	MYT1	5'UTR	0.022	0.683	0.0406
cg24161652	6	50,813,859	S_Shore	TFAP2B	3'UTR	-0.004	0.027	0.0406
cg02332537	3	46,540,019	OpenSea	RTP3	Body	0.017	0.704	0.0406
cg21250356	7	156,813,602	Island			-0.003	0.033	0.0406
cg07967498	14	89,059,881	OpenSea	ZC3H14	TSS1500	0.003	0.978	0.0406
cg21742790	3	138,581,702	OpenSea			0.013	0.518	0.0406

cg20471736	18	61,264,604	OpenSea	SERPINB13	3'UTR	0.006	0.964	0.0406
cg09134497	1	155,973,286	OpenSea			0.015	0.439	0.0406
cg08669010	11	63,676,370	Island	MARK2	Body	0.016	0.645	0.0406
cg11244672	19	19,639,970	Island	YJEFN3	Body	0.025	0.554	0.0406
cg03738936	16	76,670,197	S_Shore			-0.036	0.966	0.0407
cg02985293	19	2,064,854	Island			0.013	0.562	0.0407
cg25500001	10	31,117,548	OpenSea			0.018	0.358	0.0407
cg13725516	5	140,731,308	Island	PCDHGB1	1stExon	0.026	0.350	0.0407
cg05881221	2	121,200,849	S_Shore			-0.014	0.145	0.0407
cg00664792	6	168,957,184	Island	SMOC2	Body	0.015	0.655	0.0407
cg10157558	10	62,671,228	OpenSea	RHOBTB1	Body	0.005	0.973	0.0407
cg10266455	2	174,411,207	OpenSea			0.004	0.972	0.0407
cg14747339	6	132,834,427	S_Shore	STX7	TSS200	0.001	0.011	0.0407
cg02811473	20	37,462,474	N_Shelf	PPP1R16B	5'UTR	0.017	0.818	0.0407
cg23266743	12	130,388,198	Island	TMEM132D	1stExon	-0.008	0.055	0.0407
cg07907517	6	31,145,541	N_Shelf	PSORS1C3	Body	0.012	0.901	0.0407
cg00967552	4	48,486,316	Island	SLC10A4	Body	-0.012	0.105	0.0407
cg10026356	1	1,053,900	S_Shore			0.010	0.879	0.0407
cg01402068	16	930,028	S_Shore	LMF1	Body	0.014	0.859	0.0407
cg07961027	1	16,847,768	Island			-0.021	0.117	0.0407
cg17217443	17	36,511,291	S_Shelf	SOCS7	Body	0.015	0.835	0.0407
cg18104149	3	56,498,318	N_Shelf	ERC2	5'UTR	-0.010	0.922	0.0407
cg05316864	4	140,527,631	OpenSea			0.015	0.697	0.0407
cg00986133	10	78,647,640	OpenSea	KCNMA1	Body	0.005	0.973	0.0407
cg06902555	11	30,601,987	N_Shelf	MPPED2	1stExon	-0.037	0.936	0.0407
cg10000318	20	20,345,330	Island			-0.011	0.068	0.0408
cg10805667	11	71,814,220	Island	LRTOMT	Body	0.002	0.025	0.0408
cg25296236	17	55,163,181	Island	AKAP1	5'UTR	0.010	0.018	0.0408
cg21584691	1	94,801,143	OpenSea			-0.012	0.805	0.0408
cg11786666	7	105,173,132	S_Shore	RINT1	Body	0.003	0.023	0.0408

cg10053879	16	571,091	OpenSea	RAB11FIP3	3'UTR	0.014	0.856	0.0408
cg23094903	8	47,016,653	OpenSea			0.018	0.779	0.0408
cg15489693	4	10,498,037	OpenSea	CLNK	Body	0.010	0.306	0.0408
cg24352878	1	8,772,712	OpenSea	RERE	5'UTR	-0.005	0.039	0.0408
cg04548563	17	76,356,910	Island	SOCS3	TSS1500	-0.005	0.044	0.0408
cg10606822	17	4,613,428	Island	ARRB2	TSS1500	-0.002	0.029	0.0408
cg12672540	11	2,423,328	S_Shore	TSSC4	TSS200	-0.014	0.823	0.0408
cg22966673	6	30,011,664	OpenSea	NCRNA00171	Body	0.022	0.775	0.0408
cg25130277	1	167,904,675	N_Shore	DCAF6	TSS1500	0.008	0.088	0.0408
cg09271279	14	89,588,740	OpenSea			0.021	0.273	0.0408
cg24185576	11	30,607,360	Island	MPPED2	5'UTR	-0.004	0.027	0.0408
cg08626876	5	140,501,540	N_Shore	PCDHB4	TSS200	0.028	0.700	0.0408
cg02978140	1	23,880,736	N_Shore			-0.022	0.202	0.0408
cg01780781	5	43,070,634	S_Shelf			0.003	0.979	0.0408
cg15714321	21	38,739,180	OpenSea	DYRK1A	TSS1500	0.005	0.069	0.0408
cg17427986	1	154,402,922	OpenSea	IL6R	Body	-0.021	0.864	0.0409
cg23632432	1	9,380,566	OpenSea	SPSB1	5'UTR	0.013	0.620	0.0409
cg01067809	6	31,939,546	N_Shore	DOM3Z	5'UTR	0.019	0.196	0.0409
cg13033990	3	28,617,304	Island			-0.007	0.027	0.0409
cg12580752	3	44,038,869	Island			-0.004	0.026	0.0409
cg01080375	14	71,109,264	Island	TTC9	Body	-0.001	0.019	0.0409
cg17159890	10	105,233,093	Island	CALHM3	Body	-0.023	0.420	0.0409
cg05421550	19	4,446,485	Island	UBXN6	Body	0.012	0.598	0.0409
cg17399352	17	74,379,779	Island	SPHK1	TSS1500	-0.003	0.031	0.0409
cg24684248	2	3,307,465	OpenSea	TSSC1	Body	-0.001	0.016	0.0409
cg22937762	14	45,722,711	Island	C14orf106	TSS200	-0.001	0.022	0.0409
cg07620025	4	3,692,142	OpenSea			0.015	0.705	0.0409
cg04093079	22	21,321,585	S_Shore	AIFM3	5'UTR	0.013	0.645	0.0409
cg15982535	2	78,182,350	OpenSea	SNAR-H	TSS200	0.005	0.960	0.0409
cg26251398	17	52,985,966	OpenSea	TOM1L1	Body	0.013	0.791	0.0409

cg24746315	11	125,660,444	OpenSea	PATE3	Body	0.007	0.954	0.0409
cg19500415	1	231,300,383	S_Shore	TRIM67	Body	-0.011	0.939	0.0409
cg00855396	16	87,705,655	S_Shelf	JPH3	Body	0.006	0.970	0.0409
cg21157107	9	110,399,894	Island			-0.007	0.059	0.0409
cg26909564	19	56,089,012	N_Shore	ZNF579	3'UTR	0.007	0.960	0.0409
cg01022611	3	127,636,435	S_Shore			-0.024	0.793	0.0410
cg14034170	2	201,754,488	OpenSea	NIF3L1	5'UTR	-0.002	0.021	0.0410
cg16974832	2	238,188,707	OpenSea			0.021	0.416	0.0410
cg24336989	6	10,385,903	S_Shore			-0.002	0.022	0.0410
cg14082422	9	111,697,324	S_Shore	C9orf6	Body	0.021	0.242	0.0410
cg13307384	12	50,017,787	S_Shore	PRPF40B	5'UTR	0.011	0.292	0.0410
cg21000919	15	76,347,846	N_Shelf			0.010	0.934	0.0410
cg24584890	17	79,869,441	Island	PCYT2	TSS200	-0.002	0.026	0.0410
cg05409419	14	30,953,702	OpenSea			0.004	0.980	0.0410
cg20984502	18	12,420,082	N_Shore	SLMO1	Body	0.004	0.035	0.0410
cg04231677	1	184,808,004	OpenSea	FAM129A	Body	0.022	0.418	0.0410
cg22449698	2	85,896,539	OpenSea	SFTPB	TSS1500	0.006	0.953	0.0410
cg03876423	13	51,786,758	OpenSea			-0.021	0.792	0.0410
cg09395969	16	67,918,001	N_Shore	EDC4	Body	0.012	0.893	0.0410
cg04839259	10	123,873,277	Island	TACC2	Body	-0.005	0.016	0.0410
cg05880490	6	132,890,978	OpenSea	TAAR6	TSS1500	0.041	0.698	0.0410
cg09380000	7	2,650,132	OpenSea	IQCE	3'UTR	-0.020	0.938	0.0410
cg10795614	17	80,278,592	N_Shore			0.015	0.844	0.0410
cg01852007	16	691,500	N_Shore	FAM195A	TSS1500	0.013	0.115	0.0410
cg22562383	5	1,123,154	OpenSea			0.006	0.967	0.0410
cg24737505	11	70,564,116	S_Shore	SHANK2	Body	0.025	0.550	0.0410
cg20601319	15	23,037,637	S_Shelf			0.009	0.958	0.0410
cg24252805	1	1,266,548	N_Shore	TAS1R3	TSS200	0.017	0.759	0.0410
cg03208893	6	170,746,098	OpenSea			0.004	0.975	0.0410
cg10583997	2	32,583,696	S_Shore	BIRC6	Body	0.016	0.522	0.0411

cg01483656	19	21,264,896	N_Shore	ZNF714	TSS200	-0.117	0.212	0.0411
cg04511411	2	16,408,214	OpenSea			0.017	0.543	0.0411
cg12191964	2	43,823,338	Island	THADA	TSS1500	-0.001	0.017	0.0411
cg24035210	18	45,535,017	Island			0.003	0.023	0.0411
cg00056676	5	101,631,668	N_Shore	SLCO4C1	1stExon	-0.007	0.049	0.0411
cg25875908	15	93,442,302	OpenSea	CHD2	TSS1500	-0.005	0.967	0.0411
cg02731917	1	3,394,760	Island	ARHGEF16	Body	0.013	0.783	0.0411
cg12526298	17	17,875,168	Island	TOM1L2	Body	0.023	0.409	0.0411
cg13607555	6	31,430,946	OpenSea	HCP5	TSS200	-0.004	0.035	0.0411
cg18335535	10	1,083,192	OpenSea	C10orf110	Body	0.016	0.860	0.0411
cg06913501	5	180,101,143	Island			-0.002	0.024	0.0411
cg10750934	19	45,652,975	N_Shelf			0.012	0.659	0.0411
cg06196926	12	108,151,615	N_Shelf	PRDM4	Body	0.002	0.987	0.0411
cg24140132	14	106,672,092	S_Shore			0.036	0.556	0.0411
cg06172720	3	122,479,034	OpenSea	HSPBAP1	Body	-0.002	0.988	0.0411
cg01879591	2	242,954,430	S_Shore			0.005	0.969	0.0411
cg03478199	6	146,348,913	N_Shore	GRM1	5'UTR	-0.008	0.051	0.0411
cg05177629	20	43,834,580	OpenSea	SEMG1	TSS1500	-0.020	0.773	0.0411
cg05422022	6	168,533,689	S_Shelf			-0.038	0.345	0.0411
cg23175907	8	96,034,539	N_Shelf			0.008	0.956	0.0411
cg09185754	10	1,095,081	Island	IDI1	TSS200	0.002	0.022	0.0411
cg04923875	1	175,533,566	OpenSea	TNR	5'UTR	0.019	0.390	0.0411
cg14357669	16	70,285,955	Island	EXOSC6	TSS200	-0.002	0.018	0.0411
cg18792727	18	74,806,480	S_Shelf	MBP	Body	0.014	0.773	0.0411
cg25446577	13	50,510,551	Island	C13orf1	Body	-0.003	0.024	0.0411
cg23844085	18	74,063,855	S_Shore			0.024	0.646	0.0411
cg18217048	8	9,742,024	OpenSea			0.024	0.634	0.0411
cg25348532	17	65,375,174	S_Shore	PITPNC1	Body	0.002	0.017	0.0411
cg14039237	9	130,833,354	S_Shelf	SLC25A25	Body	0.017	0.513	0.0412
cg19806327	19	53,293,012	S_Shelf			0.011	0.917	0.0412

cg26111283	6	31,696,259	Island	DDAH2	Body	0.019	0.477	0.0412
cg27541540	12	112,856,692	Island	PTPN11	1stExon	-0.004	0.026	0.0412
cg14521931	5	10,832,172	OpenSea			0.034	0.908	0.0412
cg25329939	13	98,085,947	Island	RAP2A	TSS1500	0.002	0.021	0.0412
cg22203237	7	68,983,823	OpenSea			0.020	0.403	0.0412
cg02275930	1	2,372,054	Island			-0.036	0.828	0.0412
cg09896622	13	102,568,555	Island	FGF14	Body	-0.009	0.054	0.0412
cg19986200	17	7,660,449	OpenSea	DNAH2	Body	0.012	0.925	0.0412
cg17278528	2	177,005,719	S_Shore			-0.004	0.047	0.0412
cg01217745	12	12,419,209	N_Shore	LRP6	Body	0.048	0.060	0.0412
cg03971254	8	23,143,430	N_Shelf			0.026	0.530	0.0412
cg03733207	20	36,932,553	OpenSea	BPI	1stExon	-0.024	0.512	0.0412
cg21421984	7	98,520,513	OpenSea	TRRAP	Body	0.012	0.443	0.0412
cg00783363	7	5,644,160	N_Shore	FSCN1	Body	0.013	0.938	0.0412
cg12851717	13	100,517,009	OpenSea	CLYBL	Body	-0.034	0.750	0.0412
cg10489353	1	153,895,885	Island	GATAD2B	TSS1500	0.001	0.016	0.0412
cg15922174	9	126,135,998	Island	CRB2	Body	-0.058	0.079	0.0412
cg04269641	17	42,422,442	OpenSea	GRN	TSS200	0.003	0.034	0.0412
cg23837265	10	88,730,407	N_Shore	C10orf116	3'UTR	-0.019	0.269	0.0412
cg27645345	6	31,829,840	N_Shore	NEU1	Body	0.018	0.391	0.0412
cg03046445	12	26,277,826	N_Shore	BHLHE41	1stExon	-0.002	0.019	0.0413
cg18499750	17	61,511,735	Island	CYB561	3'UTR	0.012	0.905	0.0413
cg23261184	5	159,866,303	OpenSea			-0.002	0.023	0.0413
cg27105446	14	23,504,664	OpenSea	PSMB5	TSS1500	0.020	0.647	0.0413
cg12419862	22	24,373,484	Island	LOC391322	Body	0.066	0.103	0.0413
cg17765387	12	117,354,824	OpenSea	FBXW8	Body	0.018	0.646	0.0413
cg08700651	1	24,513,482	N_Shore	IL28RA	Body	0.007	0.072	0.0413
cg15355111	11	45,433,358	OpenSea			-0.005	0.055	0.0413
cg12615637	11	57,523,403	S_Shelf			0.004	0.972	0.0413
cg20110801	19	56,014,812	Island	SSC5D	Body	0.033	0.714	0.0413

cg10763483	13	31,479,935	N_Shore	C13orf33	TSS1500	0.013	0.482	0.0413
cg03079712	7	138,720,890	Island	ZC3HAV1L	TSS200	-0.004	0.035	0.0413
cg13535489	19	54,761,827	OpenSea	LILRB5	TSS1500	-0.015	0.592	0.0413
cg17617491	19	2,607,726	Island	GNG7	5'UTR	0.025	0.439	0.0413
cg15233126	3	40,566,533	Island	ZNF621	5'UTR	-0.003	0.035	0.0413
cg17135423	1	20,142,562	OpenSea	RNF186	TSS1500	0.014	0.628	0.0413
cg07571282	16	81,295,095	OpenSea	BCMO1	Body	-0.009	0.950	0.0414
cg26911562	5	139,927,164	Island	EIF4EBP3	TSS200	0.002	0.013	0.0414
cg03714531	6	30,923,590	Island			-0.003	0.026	0.0414
cg20526432	12	123,925,357	S_Shelf			0.015	0.773	0.0414
cg12457773	6	24,126,497	Island	NRSN1	5'UTR	-0.006	0.056	0.0414
cg14153679	10	134,703,355	OpenSea			0.015	0.607	0.0414
cg06991565	6	31,733,799	OpenSea	C6orf27	Body	0.031	0.499	0.0414
cg13781510	14	45,603,804	Island	FKBP3	TSS200	-0.002	0.016	0.0414
cg01082907	6	168,709,067	N_Shore	DACT2	Body	0.015	0.753	0.0414
cg01567239	5	43,017,982	Island			0.006	0.043	0.0414
cg23503796	19	8,385,921	N_Shore	NDUFA7	Body	-0.003	0.025	0.0414
cg14472888	2	151,477,988	OpenSea			0.020	0.653	0.0414
cg09558189	19	44,037,809	Island	ZNF575	5'UTR	-0.001	0.013	0.0414
cg07680589	4	146,101,723	Island	OTUD4	TSS1500	-0.012	0.072	0.0414
cg06066676	15	26,109,543	S_Shore	ATP10A	TSS1500	0.013	0.770	0.0414
cg09590068	12	54,400,494	Island			0.030	0.204	0.0414
cg23741982	12	68,726,228	Island	MDM1	TSS200	0.003	0.028	0.0414
cg21408360	1	203,493,477	OpenSea			0.014	0.605	0.0414
cg13062618	11	78,413,614	OpenSea	ODZ4	Body	-0.007	0.947	0.0415
cg05643453	1	160,159,453	OpenSea	CASQ1	TSS1500	0.017	0.476	0.0415
cg14667769	10	134,769,136	OpenSea			-0.015	0.765	0.0415
cg04088650	13	76,123,534	Island	UCHL3	TSS1500	-0.003	0.041	0.0415
cg14877461	14	94,953,890	OpenSea	SERPINA12	Body	0.016	0.847	0.0415
cg07849811	3	19,740,602	OpenSea			-0.033	0.678	0.0415

cg12040846	7	87,258,443	Island	RUNDC3B	Body	-0.005	0.053	0.0415
cg22471255	22	42,315,642	Island			-0.002	0.016	0.0415
cg03126834	7	98,632,678	N_Shore	SMURF1	Body	0.011	0.835	0.0415
cg17792419	10	61,901,505	OpenSea	ANK3	Body	0.004	0.978	0.0415
cg04706667	19	47,129,637	S_Shelf	PTGIR	TSS1500	0.015	0.812	0.0415
cg01351327	13	46,279,536	OpenSea	SPERT	Body	0.015	0.496	0.0415
cg19675955	1	113,269,584	S_Shelf	FAM19A3	3'UTR	0.026	0.750	0.0415
cg15471702	14	21,979,464	Island	METTL3	TSS200	0.001	0.015	0.0415
cg08210507	7	2,109,244	S_Shore	MAD1L1	Body	0.016	0.480	0.0415
cg01520105	6	111,887,243	OpenSea	TRAF3IP2	Body	0.013	0.771	0.0415
cg17874109	16	85,879,145	Island			0.024	0.662	0.0415
cg04131010	7	2,287,330	OpenSea	NUDT1	Body	0.011	0.937	0.0415
cg00255882	2	128,569,347	S_Shore	WDR33	TSS1500	0.034	0.342	0.0415
cg24758173	10	104,263,948	Island	SUFU	1stExon	0.009	0.031	0.0415
cg07439859	16	88,507,062	S_Shelf	ZNF469	3'UTR	0.018	0.596	0.0415
cg02385110	7	130,421,878	S_Shelf			0.024	0.667	0.0415
cg21576300	4	124,107,741	OpenSea	SPATA5	Body	0.006	0.975	0.0415
cg16627786	22	19,711,051	Island	GP1BB	TSS200	-0.034	0.468	0.0416
cg00557354	13	111,767,899	OpenSea	ARHGGEF7	1stExon	-0.005	0.023	0.0416
cg16011762	1	45,117,290	N_Shelf	RNF220	3'UTR	0.025	0.693	0.0416
cg02343604	1	23,884,703	N_Shore	ID3	3'UTR	-0.011	0.071	0.0416
cg05431947	11	12,621,248	OpenSea			-0.020	0.332	0.0416
cg25070253	2	42,596,220	OpenSea			0.015	0.738	0.0416
cg01371631	20	57,267,176	N_Shore	NPEPL1	TSS1500	0.011	0.907	0.0416
cg07110103	7	1,189,271	OpenSea			-0.012	0.901	0.0416
cg11789530	4	8,429,930	Island	ACOX3	5'UTR	0.002	0.024	0.0416
cg22940492	5	176,761,689	N_Shelf	LMAN2	Body	0.028	0.920	0.0416
cg05404233	16	11,490,439	OpenSea			-0.012	0.179	0.0416
cg17119521	6	105,404,769	S_Shelf	LIN28B	TSS200	-0.003	0.026	0.0416
cg17177454	6	31,940,406	Island	STK19	Body	-0.002	0.017	0.0416



cg06362065	18	3,594,098	OpenSea	DLGAP1	Body	-0.001	0.014	0.0416
cg19138865	17	17,291,334	S_Shelf			0.013	0.472	0.0416
cg18848276	12	56,727,678	Island	PAN2	1stExon	-0.001	0.014	0.0416
cg04737350	12	80,170,325	OpenSea	PPP1R12A	Body	0.006	0.961	0.0416
cg01366419	7	70,597,091	Island	WBSCR17	TSS1500	-0.005	0.031	0.0416
cg04548204	12	9,162,872	OpenSea	KLRG1	3'UTR	-0.008	0.951	0.0417
cg19233843	17	80,012,353	Island	GPS1	Body	-0.004	0.962	0.0417
cg22143064	2	162,948,592	OpenSea			0.015	0.702	0.0417
cg03263117	17	45,798,767	OpenSea			0.009	0.029	0.0417
cg14235350	6	157,802,496	Island	ZDHHC14	TSS200	0.012	0.070	0.0417
cg10661163	7	116,592,959	N_Shore	ST7OT4	TSS1500	-0.009	0.123	0.0417
cg12438547	13	100,642,971	Island			-0.017	0.064	0.0417
cg13319042	5	151,067,848	OpenSea	SPARC	TSS1500	0.014	0.647	0.0417
cg04080005	17	1,057,444	OpenSea	ABR	Body	0.018	0.712	0.0417
cg00156395	10	11,516,002	OpenSea	USP6NL	Body	-0.023	0.504	0.0417
cg03047626	11	65,119,893	N_Shelf	DPF2	3'UTR	0.012	0.768	0.0417
cg14438609	14	30,396,153	N_Shore	PRKD1	Body	-0.004	0.053	0.0417
cg24446071	19	19,281,270	Island	LOC729991-M	Body	-0.005	0.032	0.0417
cg21692936	11	62,623,994	S_Shore	SLC3A2	Body	0.002	0.016	0.0417
cg15010062	2	170,978,873	OpenSea			-0.008	0.941	0.0417
cg05193435	20	2,538,721	N_Shore	TMC2	Body	0.015	0.742	0.0418
cg18052713	17	55,622,595	OpenSea	MSI2	Body	-0.015	0.223	0.0418
cg14419424	10	65,388,604	N_Shore			0.002	0.026	0.0418
cg12980201	11	124,742,958	N_Shelf	ROBO3	Body	0.018	0.512	0.0418
cg06100166	3	49,377,028	N_Shore	USP4	Body	0.014	0.205	0.0418
cg17279079	17	79,095,818	Island	AATK	Body	-0.025	0.412	0.0418
cg15935791	1	178,062,438	N_Shore	LOC10030240	Body	0.002	0.020	0.0418
cg06268632	1	228,113,207	Island	WNT9A	Body	0.010	0.880	0.0418
cg16732787	1	228,785,992	Island	DUSP5P	Body	0.052	0.318	0.0418
cg17981552	4	8,643,813	N_Shelf			0.014	0.552	0.0418

cg05223591	2	176,046,632	S_Shore	ATP5G3	TSS1500	-0.015	0.210	0.0418
cg04991728	6	29,720,954	Island			0.002	0.015	0.0418
cg02138218	1	175,035,502	OpenSea	TNN	TSS1500	-0.008	0.935	0.0418
cg08668878	11	67,924,970	OpenSea	SUV420H1	3'UTR	0.004	0.976	0.0418
cg23566374	13	114,063,803	N_Shelf			0.003	0.980	0.0418
cg22960833	19	4,988,763	S_Shelf	KDM4B	5'UTR	0.020	0.623	0.0418
cg19275757	2	239,070,904	N_Shore			0.005	0.968	0.0418
cg20129717	8	146,128,212	S_Shore	ZNF250	TSS1500	0.017	0.074	0.0418
cg10491452	16	88,866,627	N_Shelf			0.019	0.838	0.0418
cg08951903	10	44,070,173	Island	ZNF239	TSS200	0.004	0.043	0.0418
cg04011995	1	41,326,317	N_Shore			0.004	0.977	0.0418
cg17357865	5	158,690,500	Island	UBLCP1	5'UTR	0.002	0.024	0.0418
cg26004761	13	112,320,825	Island			0.015	0.749	0.0418
cg24189745	22	45,661,707	N_Shelf			0.035	0.842	0.0419
cg19020694	12	110,906,055	Island	GPN3	1stExon	0.001	0.014	0.0419
cg11900742	8	114,058,427	OpenSea	CSMD3	Body	0.022	0.882	0.0419
cg10451940	16	1,480,992	Island			0.017	0.608	0.0419
cg09690483	2	202,992,863	OpenSea			0.023	0.184	0.0419
cg02061253	3	42,577,680	Island	VIPR1	Body	0.015	0.961	0.0419
cg26578621	11	110,583,377	Island	ARHGAP20	5'UTR	-0.005	0.018	0.0419
cg07609206	2	1,270,354	S_Shelf	SNTG2	Body	0.018	0.681	0.0419
cg21318213	15	96,875,591	Island	NR2F2	TSS1500	-0.004	0.020	0.0419
cg22403906	11	93,899,496	OpenSea	PANX1	Body	0.007	0.973	0.0419
cg11001665	13	107,078,397	OpenSea			-0.018	0.867	0.0419
cg03993263	1	18,434,114	Island	IGSF21	TSS200	-0.004	0.050	0.0419
cg12105679	12	132,698,786	S_Shore	GALNT9	Body	0.018	0.891	0.0419
cg12261095	19	7,764,345	OpenSea	FCER2	Body	0.018	0.298	0.0419
cg17534564	12	124,600,518	OpenSea			-0.009	0.931	0.0419
cg14804593	4	189,139,691	OpenSea			-0.057	0.634	0.0419
cg23790554	8	1,387,493	S_Shelf			0.022	0.732	0.0419

cg00837832	7	31,007,724	OpenSea	GHRHR	Body	0.002	0.989	0.0419
cg11941929	18	12,429,120	N_Shelf	SLMO1	Body	0.015	0.797	0.0419
cg27649089	8	22,436,424	Island	PDLIM2	TSS1500	0.009	0.111	0.0419
cg09424308	4	7,046,094	S_Shore	CCDC96	TSS1500	0.012	0.324	0.0419
cg01259871	22	41,939,256	N_Shore	POLR3H	Body	0.010	0.947	0.0419
cg17270887	12	27,311,431	OpenSea			0.036	0.323	0.0419
cg21359950	12	94,083,470	OpenSea	CRADD	Body	0.025	0.791	0.0419
cg20289531	6	89,774,872	OpenSea			-0.002	0.974	0.0419
cg12382456	7	559,669	Island	PDGFA	TSS200	0.001	0.015	0.0420
cg03170056	2	193,060,326	Island	TMEFF2	TSS1500	-0.004	0.026	0.0420
cg07886701	8	82,375,121	OpenSea	FABP9	TSS1500	0.018	0.548	0.0420
cg00729654	20	31,123,895	N_Shore			0.014	0.901	0.0420
cg09445967	11	60,634,850	OpenSea	ZP1	TSS200	0.010	0.385	0.0420
cg01111520	20	32,030,119	N_Shore	SNTA1	Body	0.012	0.832	0.0420
cg03378645	16	81,659,528	OpenSea	CMIP	Body	0.017	0.485	0.0420
cg16359142	11	278,092	N_Shore	NLRP6	TSS1500	0.022	0.517	0.0420
cg16480938	18	5,895,225	Island			-0.006	0.041	0.0420
cg26791464	1	40,769,744	Island	COL9A2	Body	0.012	0.446	0.0420
cg14265502	19	19,319,214	N_Shelf			0.016	0.307	0.0420
cg23227462	2	240,868,631	S_Shore			0.020	0.618	0.0420
cg14969332	1	99,728,826	N_Shore	LPPR4	TSS1500	0.012	0.886	0.0420
cg07069406	12	124,458,574	Island	ZNF664	5'UTR	-0.003	0.023	0.0420
cg08365738	3	112,324,301	OpenSea	CCDC80	Body	0.016	0.513	0.0420
cg25768108	8	117,667,123	OpenSea	EIF3H	Body	-0.015	0.884	0.0420
cg18848287	7	5,111,641	Island	LOC389458	TSS200	0.041	0.262	0.0420
cg00314660	2	37,312,231	S_Shore	CCDC75	5'UTR	0.019	0.285	0.0420
cg00699235	12	49,962,218	Island	MCRS1	TSS1500	-0.002	0.035	0.0420
cg00863353	20	9,049,694	Island			-0.004	0.038	0.0420
cg07105440	3	50,648,946	Island	CISH	Body	-0.002	0.023	0.0420
cg20826610	1	26,235,868	S_Shelf			0.011	0.617	0.0420

cg05376362	6	74,826,447	OpenSea			-0.007	0.963	0.0420
cg22964598	11	47,429,649	N_Shore	SLC39A13	TSS1500	0.002	0.028	0.0420
cg05253480	3	9,944,537	OpenSea	IL17RE	1stExon	0.010	0.352	0.0420
cg21736411	21	40,759,659	N_Shore	WRB	Body	-0.034	0.101	0.0420
cg00416710	16	29,196,027	N_Shore			-0.025	0.794	0.0421
cg12620035	7	73,247,613	S_Shore			0.032	0.743	0.0421
cg10514633	2	74,150,123	N_Shelf			0.032	0.355	0.0421
cg14314056	19	7,098,587	N_Shore			0.036	0.410	0.0421
cg20000812	6	99,276,697	S_Shore			-0.003	0.031	0.0421
cg07650406	20	42,236,275	OpenSea	IFT52	Body	0.006	0.956	0.0421
cg10146462	2	75,937,660	Island	C2orf3	Body	0.008	0.082	0.0421
cg21616824	19	2,457,129	S_Shore	LMNB2	TSS200	-0.003	0.041	0.0421
cg00926400	2	198,651,498	Island	BOLL	TSS1500	0.023	0.057	0.0421
cg19861048	1	1,216,347	OpenSea	SCNN1D	TSS1500	0.011	0.872	0.0421
cg27080259	16	3,087,875	S_Shore			0.012	0.591	0.0421
cg09715793	3	189,750,618	OpenSea	LEPREL1	5'UTR	0.016	0.915	0.0421
cg05422457	16	73,266,282	OpenSea			0.017	0.833	0.0421
cg26921566	19	1,497,483	S_Shore	REEP6	3'UTR	0.020	0.725	0.0421
cg27219961	8	1,692,107	OpenSea			0.012	0.872	0.0421
cg12845051	5	1,226,977	Island	SLC6A18	Body	0.015	0.810	0.0421
cg23062876	1	100,715,467	OpenSea	DBT	TSS200	-0.001	0.017	0.0421
cg01130406	4	113,739,249	OpenSea	ANK2	5'UTR	0.004	0.036	0.0421
cg14984434	10	74,115,288	S_Shore	DNAJB12	TSS1500	0.022	0.824	0.0421
cg16001689	6	135,042,205	OpenSea			-0.022	0.672	0.0421
cg03238522	2	11,968,342	OpenSea			0.014	0.837	0.0421
cg06288788	16	65,158,052	S_Shore			0.019	0.206	0.0422
cg05953751	17	80,054,291	Island	FASN	Body	0.015	0.566	0.0422
cg14637002	8	99,953,022	Island			-0.004	0.031	0.0422
cg09498704	19	4,607,219	Island			-0.004	0.030	0.0422
cg15942562	12	6,959,471	N_Shore	CDCA3	Body	0.015	0.713	0.0422

cg18241635	7	1,521,373	S_Shore	INTS1	Body	-0.011	0.911	0.0422
cg04986504	11	12,031,266	S_Shore	DKK3	TSS1500	-0.011	0.119	0.0422
cg24931856	1	19,104,579	OpenSea			0.014	0.829	0.0422
cg09506963	8	68,862,516	N_Shelf			0.003	0.981	0.0422
cg16289957	5	14,011,872	Island			-0.003	0.019	0.0422
cg00265277	9	140,731,552	S_Shore	MIR602	TSS1500	0.018	0.423	0.0422
cg22384395	15	101,429,537	OpenSea	ALDH1A3	Body	0.014	0.412	0.0422
cg20821466	7	5,666,097	OpenSea	RNF216	Body	0.021	0.984	0.0423
cg02542748	10	131,034,863	OpenSea			-0.036	0.730	0.0423
cg03482866	13	111,040,579	S_Shelf	COL4A2	Body	-0.026	0.284	0.0423
cg16573346	17	44,020,278	OpenSea	MAPT	5'UTR	0.031	0.592	0.0423
cg20506659	6	33,132,943	S_Shelf	COL11A2	Body	0.023	0.399	0.0423
cg04977343	6	56,777,045	OpenSea	DST	Body	0.006	0.950	0.0423
cg21693437	11	31,851,924	S_Shelf			0.023	0.548	0.0423
cg07476236	13	21,680,693	S_Shelf			0.033	0.532	0.0423
cg21696617	11	130,343,798	S_Shore			0.010	0.916	0.0423
cg11654662	17	18,264,018	N_Shelf	SHMT1	5'UTR	0.006	0.965	0.0423
cg00871129	20	44,176,425	OpenSea	SPINLW1	TSS1500	0.014	0.783	0.0423
cg26117431	1	100,643,544	OpenSea	LRRC39	5'UTR	0.002	0.986	0.0423
cg13912824	7	157,346,224	N_Shore	PTPRN2	Body	0.016	0.817	0.0423
cg19895786	1	26,373,006	Island	SLC30A2	TSS1500	0.009	0.060	0.0423
cg12232778	20	56,324,064	Island			0.035	0.193	0.0423
cg03146154	1	46,216,737	S_Shore	IPP	TSS1500	0.002	0.016	0.0423
cg25066972	14	82,002,568	S_Shelf			0.005	0.962	0.0423
cg20290983	6	43,655,470	Island	MRPS18A	1stExon	-0.082	0.198	0.0423
cg08747591	11	789,928	Island	CEND1	5'UTR	0.002	0.018	0.0423
cg14941457	2	219,824,293	Island	CDK5R2	TSS200	-0.003	0.021	0.0423
cg23576999	13	19,756,022	OpenSea	TUBA3C	TSS200	0.010	0.895	0.0423
cg01062539	16	23,765,258	N_Shore	CHP2	TSS1500	0.019	0.861	0.0423
cg19955118	10	65,225,999	S_Shore	LOC84989	Body	-0.002	0.014	0.0423

cg15595044	3	128,336,857	Island			-0.003	0.025	0.0423
cg02196651	4	54,457,842	OpenSea	LNK1	TSS200	0.019	0.404	0.0423
cg27163431	13	114,096,159	Island	ADPRHL1	Body	-0.004	0.978	0.0423
cg23724117	2	136,742,428	N_Shore	DARS	Body	-0.001	0.016	0.0423
cg16980360	17	29,298,148	Island	RNF135	1stExon	-0.004	0.037	0.0423
cg10310944	12	3,578,755	OpenSea			0.016	0.897	0.0423
cg00876272	14	103,265,614	OpenSea	TRAF3	5'UTR	-0.004	0.973	0.0423
cg21093368	17	8,055,834	Island	PER1	TSS200	-0.003	0.036	0.0423
cg24488311	11	68,621,650	N_Shore			0.017	0.568	0.0423
cg14316339	22	38,520,900	S_Shelf	PLA2G6	Body	0.012	0.813	0.0424
cg00499539	2	113,960,266	S_Shelf	PSD4	3'UTR	0.014	0.544	0.0424
cg23698287	1	32,758,300	S_Shore	HDAC1	Body	-0.002	0.028	0.0424
cg00180559	1	233,496,768	N_Shore	KIAA1804	Body	0.036	0.455	0.0424
cg00776208	17	79,388,538	Island	BAHCC1	Body	-0.001	0.979	0.0424
cg02884588	19	539,155	Island	CDC34	Body	0.004	0.981	0.0424
cg06187528	1	200,330,607	OpenSea			0.010	0.915	0.0424
cg16204238	14	92,588,818	Island	NDUFB1	TSS1500	-0.006	0.054	0.0424
cg03602500	19	55,047,721	OpenSea	KIR3DX1	Body	0.018	0.896	0.0424
cg05145573	5	1,479,911	N_Shelf	LPCAT1	Body	-0.010	0.097	0.0424
cg04576568	2	220,377,822	Island	ACCN4	TSS1500	0.003	0.021	0.0424
cg17503786	8	74,902,577	OpenSea	LY96	TSS1500	0.013	0.899	0.0424
cg06253956	12	6,862,946	Island	MLF2	TSS1500	-0.001	0.023	0.0424
cg16045459	17	4,872,488	S_Shore	CAMTA2	Body	0.028	0.400	0.0424
cg07171237	12	133,434,193	S_Shelf	CHFR	Body	-0.002	0.982	0.0424
cg21822834	14	105,236,589	N_Shelf	AKT1	3'UTR	0.013	0.603	0.0424
cg26797676	6	30,700,534	OpenSea	FLOT1	Body	0.009	0.941	0.0424
cg07731191	12	54,329,010	N_Shelf			0.012	0.060	0.0424
cg01967073	7	48,147,130	OpenSea	UPP1	Body	-0.007	0.949	0.0424
cg10614025	15	83,348,985	Island	AP3B2	Body	-0.008	0.072	0.0424
cg12264551	12	56,862,370	OpenSea	SPRYD4	1stExon	0.001	0.015	0.0424

cg09184853	12	117,318,548	N_Shore	HRK	3'UTR	0.002	0.024	0.0424
cg06622553	7	26,331,702	Island	SNX10	1stExon	0.001	0.019	0.0425
cg04958703	17	4,844,722	S_Shore	SLC25A11	TSS1500	0.020	0.390	0.0425
cg25464815	8	145,533,175	OpenSea	HSF1	Body	0.007	0.949	0.0425
cg10737891	4	85,504,029	Island	CDS1	TSS200	-0.004	0.020	0.0425
cg02774334	1	156,123,500	OpenSea	SEMA4A	5'UTR	0.014	0.649	0.0425
cg11397369	2	231,920,762	N_Shore	PSMD1	TSS1500	0.021	0.856	0.0425
cg16621691	5	119,800,687	N_Shore	PRR16	5'UTR	-0.002	0.031	0.0425
cg16852792	2	50,598,121	OpenSea	NRXN1	Body	0.006	0.971	0.0425
cg25093045	4	5,990,638	OpenSea	C4orf50	TSS1500	0.015	0.511	0.0425
cg27346707	5	126,626,348	Island	MEGF10	TSS200	-0.003	0.030	0.0425
cg17038444	1	236,961,903	S_Shelf	MTR	Body	-0.006	0.965	0.0425
cg02995061	6	30,076,742	OpenSea	TRIM31	Body	0.023	0.622	0.0425
cg12476129	13	112,237,440	N_Shore			-0.013	0.466	0.0425
cg10322504	20	3,229,239	Island			-0.017	0.037	0.0425
cg27546241	19	7,701,753	Island	STXBP2	TSS1500	-0.019	0.205	0.0425
cg22027151	12	41,860,791	OpenSea	PDZRN4	Body	-0.014	0.740	0.0425
cg06605454	5	2,914,593	OpenSea			0.032	0.784	0.0425
cg02672737	15	72,476,759	Island	GRAMD2	Body	-0.004	0.037	0.0425
cg25864523	6	28,557,388	S_Shelf			0.006	0.030	0.0425
cg10784843	12	122,064,392	Island	ORAI1	TSS200	-0.003	0.020	0.0425
cg04458567	2	113,286,681	OpenSea	TTL	3'UTR	0.019	0.859	0.0425
cg25513535	21	15,589,441	S_Shore	RBM11	Body	0.029	0.428	0.0425
cg10188300	19	52,772,305	N_Shore	ZNF766	TSS1500	-0.008	0.955	0.0425
cg05599320	1	9,883,032	Island	CLSTN1	Body	0.002	0.024	0.0425
cg24543166	8	104,033,278	Island	ATP6V1C1	1stExon	-0.002	0.026	0.0425
cg10797856	6	169,971,659	OpenSea	WDR27	Body	-0.006	0.942	0.0425
cg04239548	1	92,117,004	OpenSea			0.016	0.817	0.0426
cg26500804	8	1,885,244	OpenSea	ARHGEF10	Body	0.012	0.783	0.0426
cg18159393	11	134,094,510	Island	NCAPD3	TSS200	0.008	0.089	0.0426

cg23820772	1	181,998,981	Island			-0.013	0.178	0.0426
cg13959110	15	48,466,199	N_Shelf	MYEF2	Body	0.006	0.940	0.0426
cg22029189	7	127,260,554	OpenSea			0.003	0.030	0.0426
cg02628016	3	183,382,726	OpenSea	KLHL24	Body	0.005	0.968	0.0426
cg25102375	1	23,946,294	Island			0.004	0.030	0.0426
cg16425858	15	64,791,681	OpenSea	ZNF609	1stExon	0.007	0.949	0.0426
cg01335685	10	22,726,610	Island			-0.006	0.033	0.0426
cg21347412	19	4,339,217	OpenSea	STAP2	TSS1500	0.003	0.983	0.0426
cg23444610	14	105,663,478	S_Shore			0.019	0.340	0.0426
cg08720517	5	138,729,919	Island	LOC389333	1stExon	-0.003	0.020	0.0426
cg26190476	1	113,261,723	Island	FAM19A3	TSS1500	0.014	0.566	0.0426
cg24603464	2	238,395,852	Island	MLPH	TSS200	-0.013	0.029	0.0426
cg24674193	1	12,598,005	N_Shelf			0.017	0.726	0.0426
cg03219694	19	9,416,667	N_Shelf	ZNF699	TSS1500	0.003	0.976	0.0426
cg06071147	2	86,332,688	Island	POLR1A	Body	-0.001	0.012	0.0426
cg09455823	2	201,606,912	OpenSea			0.016	0.586	0.0426
cg19082496	1	33,899,352	S_Shelf			-0.021	0.434	0.0426
cg07373798	4	131,032,074	OpenSea			0.022	0.652	0.0426
cg06242449	8	144,965,577	N_Shore			0.014	0.541	0.0426
cg24514954	1	24,104,624	Island	C1orf128	TSS1500	-0.001	0.024	0.0426
cg04117301	10	24,783,841	OpenSea	KIAA1217	Body	0.011	0.893	0.0426
cg07837852	1	198,907,517	OpenSea			-0.028	0.724	0.0427
cg15509575	4	2,286,509	OpenSea	ZFYVE28	Body	0.014	0.784	0.0427
cg02194223	7	27,285,433	Island	EVX1	Body	-0.012	0.074	0.0427
cg11961495	10	80,873,797	OpenSea	ZMIZ1	5'UTR	-0.018	0.521	0.0427
cg14113739	9	137,658,595	N_Shore	COL5A1	Body	0.025	0.583	0.0427
cg09071093	12	57,865,987	N_Shelf	GLI1	3'UTR	0.015	0.389	0.0427
cg13900737	9	33,755,121	S_Shelf	PRSS3	Body	-0.016	0.970	0.0427
cg05602566	2	235,459,291	OpenSea			-0.004	0.038	0.0427
cg06117072	6	50,791,385	Island	TFAP2B	Body	-0.021	0.041	0.0427



cg02735652	1	32,226,179	Island	BAI2	5'UTR	0.003	0.032	0.0427
cg25408329	8	141,457,736	OpenSea	TRAPPC9	Body	0.016	0.794	0.0427
cg16474561	2	96,934,747	S_Shelf	CIAO1	Body	0.009	0.933	0.0427
cg02978827	13	48,877,687	Island	RB1	TSS200	-0.002	0.025	0.0427
cg18737081	10	80,999,807	N_Shelf	ZMIZ1	Body	-0.026	0.296	0.0427
cg14680921	10	134,332,442	OpenSea			0.017	0.423	0.0427
cg04466898	11	65,407,734	N_Shore	SIPA1	5'UTR	0.012	0.781	0.0427
cg20609493	15	60,420,227	OpenSea			0.002	0.022	0.0427
cg07265015	5	176,938,522	OpenSea	DOK3	TSS1500	0.010	0.872	0.0427
cg10894102	1	25,072,583	Island	CLIC4	Body	-0.033	0.020	0.0427
cg07864467	10	134,246,595	OpenSea			0.028	0.840	0.0427
cg12259903	3	13,249,848	S_Shelf			0.015	0.707	0.0428
cg27045756	6	28,971,967	OpenSea	ZNF311	5'UTR	0.040	0.863	0.0428
cg24144853	3	194,258,370	OpenSea			0.015	0.511	0.0428
cg20789483	5	5,057,500	OpenSea	LOC340094	Body	0.014	0.761	0.0428
cg02480685	8	96,163,530	OpenSea	PLEKHF2	5'UTR	-0.014	0.926	0.0428
cg13247668	7	2,272,740	Island	MAD1L1	TSS200	-0.004	0.016	0.0428
cg25963540	19	8,468,943	Island	RAB11B	3'UTR	0.014	0.604	0.0428
cg10589825	2	105,362,890	OpenSea			0.019	0.665	0.0428
cg11283429	13	28,549,574	N_Shore			-0.004	0.042	0.0428
cg05374025	19	55,549,746	OpenSea	GP6	TSS200	0.025	0.839	0.0428
cg22981519	10	74,927,424	N_Shore	ECD	5'UTR	-0.002	0.017	0.0428
cg11923054	4	4,250,051	Island	TMEM128	TSS200	0.001	0.011	0.0428
cg05876340	3	48,677,328	N_Shore	CELSR3	Body	0.014	0.869	0.0428
cg07837520	16	19,871,730	OpenSea	GPRC5B	3'UTR	0.015	0.914	0.0428
cg17374651	3	195,857,635	OpenSea			0.009	0.955	0.0428
cg15385386	5	133,968,421	Island	SAR1B	5'UTR	0.005	0.063	0.0428
cg20849692	1	155,232,292	Island	SCAMP3	TSS200	-0.002	0.025	0.0428
cg22671072	17	18,918,466	Island	SLC5A10	Body	0.018	0.838	0.0428
cg02612270	16	1,015,103	S_Shore	LMF1	Body	0.016	0.692	0.0428

cg26983304	14	106,044,101	S_Shelf			0.012	0.954	0.0428
cg19779123	11	57,061,898	OpenSea			0.015	0.782	0.0428
cg25603587	19	12,076,549	S_Shore	ZNF763	Body	0.009	0.098	0.0428
cg20718434	7	1,748,597	OpenSea	ELFN1	TSS200	0.014	0.809	0.0428
cg10348523	17	80,907,369	OpenSea	B3GNTL1	Body	-0.005	0.943	0.0429
cg13371870	1	245,286,587	OpenSea	EFCAB2	3'UTR	-0.004	0.953	0.0429
cg16537228	6	32,291,671	OpenSea	C6orf10	Body	-0.036	0.685	0.0429
cg27007356	12	132,547,302	OpenSea	EP400	Body	0.014	0.778	0.0429
cg01906741	5	79,648,261	OpenSea	LOC441089	TSS1500	0.012	0.910	0.0429
cg18115541	3	10,544,657	N_Shelf	ATP2B2	5'UTR	0.011	0.533	0.0429
cg08957018	22	42,487,540	S_Shore	NDUFA6	TSS1500	0.001	0.011	0.0429
cg05256656	16	67,290,583	OpenSea	SLC9A5	Body	0.011	0.828	0.0429
cg20676572	22	45,313,877	S_Shore	PHF21B	Body	0.006	0.946	0.0429
cg03433313	16	819,064	OpenSea	MIR662	TSS1500	0.084	0.743	0.0429
cg05089427	6	41,010,728	OpenSea	TSPO2	Body	-0.028	0.954	0.0429
cg11393025	17	38,573,776	Island	TOP2A	Body	0.001	0.011	0.0429
cg02459090	16	34,741,966	S_Shore			0.033	0.627	0.0429
cg11630605	6	45,517,025	OpenSea	RUNX2	3'UTR	-0.018	0.650	0.0429
cg13595439	22	17,564,750	Island	IL17RA	TSS1500	-0.007	0.980	0.0429
cg10402121	10	126,487,101	N_Shelf			0.012	0.449	0.0429
cg20040626	14	34,266,747	N_Shelf	NPAS3	Body	0.006	0.967	0.0429
cg25854298	10	73,936,754	OpenSea	ASCC1	Body	0.020	0.617	0.0429
cg13828236	7	80,970	N_Shore			0.015	0.653	0.0429
cg09436767	3	184,035,154	S_Shore	EIF4G1	Body	0.013	0.464	0.0429
cg04225554	10	135,082,008	N_Shore	ADAM8	Body	0.011	0.656	0.0429
cg04971036	17	76,887,876	OpenSea	TIMP2	Body	-0.005	0.950	0.0429
cg24119869	19	55,043,790	OpenSea	KIR3DX1	TSS200	0.013	0.913	0.0429
cg13633679	9	139,572,049	OpenSea	AGPAT2	Body	0.013	0.774	0.0430
cg07184142	7	157,573,039	OpenSea	PTPRN2	Body	0.021	0.908	0.0430
cg13745489	3	45,695,038	OpenSea	LIMD1	Body	0.023	0.641	0.0430

cg20976787	6	43,064,460	OpenSea	PTK7	Body	0.017	0.401	0.0430
cg00437969	11	120,009,135	S_Shore	TRIM29	TSS1500	0.042	0.866	0.0430
cg22812178	14	68,283,326	OpenSea	ZFYVE26	TSS200	-0.043	0.058	0.0430
cg13165212	22	42,675,999	N_Shelf			0.014	0.788	0.0430
cg17484993	2	164,965,724	OpenSea			0.005	0.976	0.0430
cg03991326	8	74,205,489	N_Shore	RPL7	Body	-0.005	0.037	0.0430
cg20172885	7	86,850,419	S_Shore	C7orf23	TSS1500	0.001	0.017	0.0430
cg24975342	5	55,193,659	OpenSea	IL31RA	Body	0.020	0.665	0.0430
cg00004608	6	134,272,463	N_Shore			0.014	0.577	0.0430
cg03729889	22	26,137,997	OpenSea	MYO18B	TSS200	0.016	0.651	0.0430
cg04430204	2	219,537,816	S_Shore	STK36	Body	0.003	0.980	0.0430
cg02736746	1	208,263,446	OpenSea	PLXNA2	Body	0.022	0.726	0.0430
cg26767389	13	30,594,417	OpenSea			0.017	0.651	0.0430
cg05440249	10	105,209,522	N_Shelf	CALHM2	Body	0.007	0.948	0.0431
cg03056513	10	133,317,583	N_Shore			0.010	0.886	0.0431
cg08293536	10	126,715,832	Island	CTBP2	Body	-0.006	0.955	0.0431
cg26074326	11	130,542,682	OpenSea			0.013	0.735	0.0431
cg08572782	19	2,119,203	N_Shore	AP3D1	Body	0.009	0.930	0.0431
cg05741161	6	35,699,499	Island	LOC285847	Body	-0.002	0.033	0.0431
cg26374823	8	15,398,053	Island	TUSC3	1stExon	-0.009	0.056	0.0431
cg18474152	13	41,344,913	N_Shore	MRPS31	Body	0.005	0.048	0.0431
cg14022550	2	158,184,192	OpenSea	ERMN	TSS200	-0.009	0.024	0.0431
cg12488919	19	19,515,518	N_Shore	GATAD2A	5'UTR	0.017	0.513	0.0431
cg08097359	19	50,064,054	S_Shelf	NOSIP	5'UTR	0.014	0.855	0.0431
cg09168997	1	160,085,132	OpenSea	ATP1A2	TSS1500	0.012	0.502	0.0431
cg05673968	12	125,725,490	OpenSea			-0.030	0.152	0.0431
cg26257265	3	82,035,330	OpenSea			0.004	0.957	0.0431
cg04171526	16	74,555,139	OpenSea	GLG1	Body	0.025	0.698	0.0431
cg17035708	6	30,876,137	S_Shore	GTF2H4	1stExon	0.002	0.018	0.0431
cg01421902	19	53,697,534	S_Shore	ZNF665	TSS1500	-0.094	0.887	0.0431

cg02686357	19	46,294,847	N_Shore	DMWD	Body	0.005	0.969	0.0431
cg17759086	1	15,911,435	Island	AGMAT	1stExon	0.005	0.024	0.0431
cg07177789	16	87,670,487	OpenSea	JPH3	Body	0.011	0.550	0.0431
cg09477453	7	1,276,617	Island			0.003	0.035	0.0431
cg20594804	2	45,392,895	N_Shelf			-0.003	0.980	0.0431
cg11291745	15	52,587,354	Island	MYO5C	Body	0.010	0.074	0.0431
cg04539895	11	1,219,644	N_Shore			0.015	0.487	0.0431
cg02647103	12	11,184,149	OpenSea	TAS2R31	TSS200	-0.003	0.982	0.0432
cg24991452	6	35,996,059	Island	MAPK14	Body	0.001	0.011	0.0432
cg02076378	19	7,677,739	Island	KIAA1543	Body	0.008	0.926	0.0432
cg07140158	6	26,204,796	Island	HIST1H4E	TSS200	-0.004	0.040	0.0432
cg22830663	2	131,975,750	OpenSea	POTEE	TSS200	0.005	0.971	0.0432
cg18864926	14	99,989,889	OpenSea	CCDC85C	Body	-0.025	0.528	0.0432
cg06276810	6	153,224,221	OpenSea			-0.023	0.716	0.0432
cg14426084	14	75,594,058	S_Shore	NEK9	TSS1500	0.002	0.023	0.0432
cg01784614	5	40,841,298	OpenSea	CARD6	TSS200	0.019	0.394	0.0432
cg13210728	8	104,427,320	Island	SLC25A32	1stExon	0.003	0.044	0.0432
cg02730299	5	95,047,004	OpenSea			-0.063	0.667	0.0432
cg19775071	5	59,893,187	OpenSea	DEPDC1B	3'UTR	0.003	0.984	0.0432
cg11252118	10	131,769,845	Island			-0.004	0.055	0.0432
cg14291919	11	93,583,693	Island	C11orf90	TSS200	-0.054	0.080	0.0432
cg10833014	14	102,605,952	Island	WDR20	TSS1500	-0.003	0.030	0.0432
cg00334976	20	61,003,303	OpenSea	C20orf151	TSS1500	0.013	0.663	0.0432
cg05868142	7	128,503,425	S_Shore	ATP6V1F	Body	0.002	0.018	0.0432
cg18946533	15	78,384,840	OpenSea	SH2D7	TSS200	0.013	0.556	0.0432
cg23644066	1	44,942,473	OpenSea	RNF220	Body	0.012	0.821	0.0432
cg19012681	3	14,643,719	Island			-0.003	0.034	0.0433
cg08512882	17	42,402,347	Island	SLC25A39	TSS200	0.001	0.018	0.0433
cg13653391	10	134,896,691	Island			0.017	0.187	0.0433
cg11803871	3	123,039,831	OpenSea	ADCY5	Body	-0.013	0.841	0.0433

cg08959039	13	111,062,266	OpenSea	COL4A2	Body	-0.014	0.743	0.0433
cg02816235	19	56,215,942	S_Shore			0.031	0.843	0.0433
cg03597976	22	46,263,478	Island			-0.009	0.035	0.0433
cg11320271	3	49,235,465	N_Shore	CCDC36	TSS1500	0.028	0.780	0.0433
cg05953100	16	49,309,238	Island			-0.003	0.035	0.0433
cg06720232	7	3,849,602	OpenSea	SDK1	Body	-0.008	0.940	0.0433
cg16248795	3	182,698,009	Island	DCUN1D1	Body	0.002	0.023	0.0433
cg20573931	8	79,710,803	OpenSea	IL7	Body	0.025	0.682	0.0433
cg23464360	8	144,513,980	S_Shore	MAFA	TSS1500	0.014	0.354	0.0433
cg18608725	14	63,568,602	OpenSea	KCNH5	TSS200	0.003	0.973	0.0433
cg23997168	7	1,984,831	OpenSea	MAD1L1	Body	0.014	0.799	0.0433
cg19807286	5	174,680,743	OpenSea			-0.011	0.923	0.0433
cg11996592	8	144,577,094	OpenSea	ZC3H3	Body	0.012	0.480	0.0433
cg18226525	14	99,849,390	OpenSea			0.008	0.933	0.0433
cg01477908	22	24,402,725	OpenSea	GSTTP2	TSS1500	-0.010	0.893	0.0433
cg04898810	6	78,176,473	S_Shelf			0.001	0.012	0.0433
cg05152465	1	92,001,033	Island			-0.017	0.940	0.0433
cg18127823	7	966,081	Island	ADAP1	Body	0.013	0.685	0.0433
cg09013480	12	133,009,754	Island			0.019	0.394	0.0433
cg01173941	7	144,262,949	OpenSea	TPK1	Body	0.012	0.297	0.0433
cg00920938	8	22,036,412	S_Shore	BMP1	Body	-0.011	0.219	0.0433
cg14917846	19	4,391,454	OpenSea	SH3GL1	Body	0.015	0.260	0.0433
cg24346815	19	1,121,362	N_Shore	SBNO2	Body	0.010	0.937	0.0433
cg18951718	12	6,745,343	OpenSea	LPAR5	TSS200	0.015	0.495	0.0434
cg26503644	17	25,673,513	N_Shelf			-0.017	0.892	0.0434
cg06950730	11	117,069,479	OpenSea	TAGLN	TSS1500	0.014	0.805	0.0434
cg19010490	15	37,388,127	S_Shore	MEIS2	Body	-0.020	0.658	0.0434
cg12586150	6	2,840,792	N_Shore	SERPINB1	Body	0.018	0.674	0.0434
cg03093995	9	114,393,414	Island	DNAJC25-GNG	TSS1500	-0.003	0.031	0.0434
cg07970734	20	61,557,028	Island	DIDO1	5'UTR	-0.003	0.023	0.0434

cg23807646	6	35,992,685	N_Shelf	SLC26A8	TSS1500	0.012	0.424	0.0434
cg12198913	11	44,972,718	S_Shore	TP53I11	TSS200	-0.008	0.108	0.0434
cg03315459	2	45,541,279	S_Shelf			0.005	0.974	0.0434
cg14828370	1	77,322,109	OpenSea			0.020	0.609	0.0434
cg16896344	17	77,758,763	Island	CBX2	Body	0.007	0.962	0.0434
cg00921097	1	202,090,980	OpenSea	GPR37L1	TSS1500	0.012	0.556	0.0434
cg21728825	2	128,568,322	Island	WDR33	5'UTR	-0.002	0.023	0.0434
cg19628343	19	17,873,806	N_Shelf	FCHO1	Body	0.029	0.717	0.0434
cg06950844	10	135,159,002	OpenSea			0.010	0.937	0.0434
cg17682828	19	35,632,767	N_Shore	FXD1	Body	-0.015	0.373	0.0434
cg01515074	12	57,585,135	OpenSea	LRP1	Body	0.014	0.911	0.0434
cg21024405	21	34,915,177	Island	GART	1stExon	0.003	0.032	0.0434
cg03109101	10	119,305,095	Island	EMX2	Body	-0.007	0.055	0.0434
cg03411507	11	101,454,317	Island	TRPC6	5'UTR	0.022	0.068	0.0434
cg21429409	4	83,956,251	OpenSea	COPS4	1stExon	0.001	0.012	0.0434
cg27585533	10	102,676,881	S_Shelf	FAM178A	Body	-0.012	0.920	0.0434
cg05322500	16	30,824,294	N_Shore			0.020	0.607	0.0434
cg12902062	20	39,316,218	Island	MAFB	3'UTR	-0.005	0.035	0.0434
cg26262442	12	10,183,220	OpenSea	CLEC9A	TSS200	0.002	0.975	0.0434
cg11183632	20	21,503,152	Island			-0.002	0.015	0.0434
cg03000358	1	52,456,381	Island	RAB3B	TSS200	-0.004	0.047	0.0435
cg26588398	16	22,214,346	N_Shelf			-0.007	0.960	0.0435
cg21224977	9	135,037,343	Island	NTNG2	1stExon	-0.009	0.119	0.0435
cg23577033	10	75,636,861	S_Shelf			-0.012	0.894	0.0435
cg15597540	3	50,387,202	N_Shore	TUSC4	Body	0.005	0.964	0.0435
cg10713002	8	144,905,047	OpenSea	PUF60	Body	0.014	0.660	0.0435
cg13688786	17	27,485,257	OpenSea	MYO18A	Body	0.018	0.796	0.0435
cg08553572	19	947,765	Island	ARID3A	Body	0.012	0.942	0.0435
cg26912636	20	56,286,391	S_Shore	PMEPA1	5'UTR	-0.013	0.687	0.0435
cg05131334	15	77,924,569	Island	LINGO1	Body	-0.011	0.076	0.0435

cg06640718	6	91,417,950	OpenSea			-0.035	0.674	0.0435
cg04237918	22	38,435,259	S_Shore			0.014	0.702	0.0435
cg00562641	5	68,789,255	Island	OCLN	5'UTR	-0.003	0.038	0.0435
cg23926148	11	304,037	N_Shore			0.021	0.872	0.0435
cg18481587	14	105,707,308	OpenSea	BRF1	Body	0.005	0.966	0.0435
cg11113753	2	44,065,383	OpenSea	ABCG5	Body	0.013	0.771	0.0435
cg24623271	13	100,635,002	Island	ZIC2	1stExon	-0.003	0.036	0.0435
cg17765885	7	128,002,356	S_Shore	PRRT4	TSS1500	0.003	0.031	0.0435
cg19001021	10	21,805,402	Island	C10orf140	Body	0.001	0.014	0.0435
cg02672332	10	134,723,970	S_Shore			0.015	0.892	0.0435
cg26203861	1	201,858,661	OpenSea	SHISA4	Body	0.011	0.283	0.0435
cg00942293	16	67,224,629	OpenSea	E2F4	TSS1500	0.011	0.467	0.0435
cg02671204	16	84,076,834	OpenSea	SLC38A8	TSS1500	0.021	0.564	0.0435
cg03827720	12	18,843,724	OpenSea	PLCZ1	Body	0.010	0.931	0.0436
cg15460330	8	38,853,964	Island	TM2D2	1stExon	-0.004	0.047	0.0436
cg04420590	6	27,653,584	N_Shore			0.012	0.940	0.0436
cg19688830	5	14,712,952	OpenSea	ANKH	Body	0.009	0.894	0.0436
cg10675011	19	10,654,208	N_Shore	ATG4D	TSS1500	0.003	0.024	0.0436
cg00661753	20	2,853,149	Island	PTPRA	5'UTR	-0.004	0.034	0.0436
cg05953373	16	89,023,633	OpenSea	CBFA2T3	Body	0.017	0.809	0.0436
cg18726518	12	132,924,516	S_Shelf			-0.009	0.954	0.0436
cg23674791	14	106,852,785	N_Shelf			0.021	0.858	0.0436
cg01495379	16	76,669,151	Island			-0.030	0.919	0.0436
cg13989528	11	64,888,932	N_Shore	FAU	Body	0.015	0.136	0.0436
cg16707215	15	22,833,213	N_Shore	TUBGCP5	TSS200	0.041	0.166	0.0436
cg21577356	7	150,021,488	S_Shore	ACTR3C	TSS1500	0.017	0.429	0.0436
cg21558912	11	125,933,590	S_Shore	CDON	TSS1500	0.002	0.020	0.0436
cg13617198	8	77,594,256	Island	ZFHX4	5'UTR	0.001	0.010	0.0436
cg08095770	19	7,619,558	Island	PNPLA6	Body	0.010	0.942	0.0436
cg10095534	15	48,931,946	OpenSea	FBN1	Body	0.005	0.978	0.0436

cg14644523	12	54,426,673	N_Shore	HOXC4	5'UTR	-0.006	0.040	0.0436
cg12505085	10	75,913,585	S_Shelf	ADK	Body	-0.049	0.594	0.0436
cg00359661	6	7,725,787	N_Shore	BMP6	TSS1500	0.022	0.314	0.0436
cg21774736	1	42,846,470	Island	RIMKLA	5'UTR	0.008	0.108	0.0436
cg16696645	4	142,054,753	S_Shore	RNF150	TSS200	0.004	0.030	0.0436
cg19610126	20	61,876,295	N_Shore	NKAIN4	Body	0.011	0.876	0.0436
cg23185751	7	30,720,163	N_Shore	CRHR2	Body	0.014	0.774	0.0436
cg01574381	7	102,715,204	Island	ARMC10	TSS200	-0.003	0.030	0.0437
cg25007447	12	93,521,330	OpenSea			0.031	0.798	0.0437
cg22507989	22	21,356,069	Island	FLJ39582	TSS200	-0.003	0.016	0.0437
cg03515372	3	79,551,514	OpenSea	ROBO1	Body	0.021	0.962	0.0437
cg14521508	17	80,056,159	Island	FASN	TSS200	-0.015	0.054	0.0437
cg03896661	2	197,036,775	S_Shore	STK17B	TSS1500	0.004	0.032	0.0437
cg16530177	6	6,320,324	OpenSea	F13A1	5'UTR	0.018	0.118	0.0437
cg08691422	17	7,588,787	N_Shore	TP53	5'UTR	0.032	0.476	0.0437
cg01353524	17	43,237,975	N_Shore	HEXIM2	TSS1500	-0.002	0.025	0.0437
cg01211763	11	131,790,806	OpenSea	NTM	Body	-0.020	0.886	0.0437
cg01423643	1	160,992,358	S_Shore	F11R	TSS1500	0.003	0.985	0.0437
cg23243400	7	20,818,844	S_Shore			-0.026	0.131	0.0437
cg08415973	6	40,346,114	OpenSea	TDRG1	TSS200	0.015	0.576	0.0437
cg03673298	6	31,623,180	S_Shelf	APOM	TSS1500	0.008	0.950	0.0437
cg07350262	15	86,098,611	OpenSea	AKAP13	Body	0.008	0.951	0.0437
cg18483902	10	124,029,647	OpenSea	BTBD16	TSS1500	0.011	0.917	0.0437
cg23659250	22	50,174,065	N_Shelf	BRD1	Body	0.014	0.616	0.0437
cg24582168	20	52,789,646	Island	CYP24A1	Body	-0.006	0.052	0.0437
cg23996800	11	76,507,176	N_Shelf	TSKU	Body	0.011	0.848	0.0437
cg02177950	16	3,554,755	S_Shelf	CLUAP1	Body	0.005	0.978	0.0437
cg25557858	8	28,558,598	Island	EXTL3	TSS1500	-0.002	0.027	0.0437
cg02374912	2	44,589,161	Island	PREPL	TSS200	0.002	0.017	0.0437
cg03804732	12	14,136,365	S_Shore			0.029	0.972	0.0437



cg19669199	19	7,584,241	N_Shore	ZNF358	Body	0.006	0.976	0.0437
cg02811702	13	24,901,961	N_Shore			0.035	0.855	0.0437
cg13918042	10	98,596,430	S_Shelf	LCOR	5'UTR	-0.017	0.829	0.0437
cg09825327	1	211,503,219	S_Shelf	TRAF5	5'UTR	0.015	0.725	0.0437
cg24394819	17	78,725,049	OpenSea	RPTOR	Body	-0.047	0.340	0.0437
cg19927741	22	18,640,441	OpenSea	USP18	Body	-0.021	0.261	0.0437
cg01184522	1	247,495,818	Island	ZNF496	TSS1500	-0.001	0.013	0.0437
cg07608565	19	55,595,022	Island	EPS8L1	Body	0.041	0.190	0.0437
cg19238380	1	156,093,948	OpenSea	LMNA	Body	0.021	0.677	0.0437
cg18844480	5	141,340,647	OpenSea			0.002	0.023	0.0437
cg24936630	11	108,535,499	N_Shore	DDX10	TSS1500	0.001	0.011	0.0437
cg22118147	5	172,144,013	OpenSea			-0.007	0.060	0.0437
cg20793623	3	41,236,272	N_Shelf			0.002	0.987	0.0437
cg23850637	12	132,937,910	N_Shore			-0.010	0.958	0.0437
cg15642534	1	7,741,065	Island	CAMTA1	Body	0.002	0.032	0.0437
cg26828601	7	67,319,320	OpenSea			0.019	0.690	0.0437
cg16818056	12	29,814,017	OpenSea	TMTC1	Body	-0.005	0.970	0.0438
cg00770317	10	13,424,911	OpenSea			0.018	0.410	0.0438
cg11829033	10	74,927,882	Island	FAM149B1	1stExon	-0.001	0.017	0.0438
cg03754361	16	12,414,821	OpenSea	SNX29	Body	0.004	0.972	0.0438
cg05256179	6	31,658,176	OpenSea	BAT5	Body	0.020	0.720	0.0438
cg21256649	17	66,507,610	N_Shore	PRKAR1A	TSS1500	-0.003	0.025	0.0438
cg04790887	15	58,515,544	OpenSea			-0.006	0.967	0.0438
cg21667998	11	55,593,465	OpenSea	OR5L2	TSS1500	0.030	0.379	0.0438
cg00294025	12	7,276,360	OpenSea	RBP5	3'UTR	0.012	0.884	0.0438
cg03828329	17	70,384,485	OpenSea			-0.012	0.917	0.0438
cg25643595	7	155,174,726	Island			0.003	0.024	0.0438
cg07138512	1	21,996,317	Island	RAP1GAP	TSS1500	-0.006	0.046	0.0438
cg12917938	12	133,419,256	S_Shore	CHFR	Body	0.012	0.593	0.0438
cg02257708	7	98,989,843	N_Shore	ARPC1B	Body	0.014	0.720	0.0438

cg01446270	16	7,570,558	S_Shelf	A2BP1	Body	0.003	0.979	0.0438
cg09342325	2	220,371,699	OpenSea	GMPPA	3'UTR	0.016	0.840	0.0438
cg04191954	22	37,099,064	N_Shore	CACNG2	TSS200	0.006	0.038	0.0438
cg13326420	3	150,173,062	OpenSea	TSC22D2	Body	0.008	0.967	0.0438
cg12559474	5	24,622,791	OpenSea	CDH10	5'UTR	0.020	0.779	0.0438
cg04773864	5	140,744,763	N_Shore	PCDHGA4	Body	0.038	0.530	0.0438
cg22920501	2	26,401,640	N_Shore	FAM59B	Body	0.059	0.185	0.0438
cg20065005	1	16,712,408	OpenSea	C1orf144	Body	0.015	0.631	0.0438
cg07067744	11	1,421,172	OpenSea	BRSK2	Body	0.022	0.336	0.0439
cg19321263	6	30,160,045	OpenSea	TRIM26	Body	0.008	0.968	0.0439
cg18444544	8	22,852,741	OpenSea	RHOBTB2	Body	0.012	0.721	0.0439
cg10749808	14	61,746,626	N_Shore	TMEM30B	1stExon	0.015	0.412	0.0439
cg20309703	11	118,481,025	Island	PHLDB1	5'UTR	-0.014	0.160	0.0439
cg04366909	5	139,504,632	OpenSea	C5orf53	TSS1500	0.024	0.845	0.0439
cg18367751	2	219,849,782	Island	FEV	1stExon	0.002	0.022	0.0439
cg00576027	17	11,500,910	N_Shore	DNAH9	TSS1500	-0.006	0.968	0.0439
cg01612110	9	138,967,027	Island	NACC2	5'UTR	0.015	0.794	0.0439
cg22129276	2	169,926,103	OpenSea	DHRS9	5'UTR	0.013	0.717	0.0439
cg22992167	2	85,766,401	Island	MAT2A	5'UTR	0.003	0.028	0.0439
cg00081439	10	743,761	S_Shore			0.017	0.648	0.0439
cg15638306	17	47,583,654	Island	NGFR	Body	0.032	0.715	0.0439
cg04161526	6	31,696,519	Island	DDAH2	Body	0.023	0.238	0.0439
cg09529093	8	108,511,621	OpenSea	ANGPT1	TSS1500	-0.010	0.930	0.0439
cg19063563	6	8,079,840	OpenSea	EEF1E1	Body	0.002	0.986	0.0439
cg22228754	7	73,534,658	OpenSea	LIMK1	Body	-0.033	0.958	0.0439
cg22975816	8	118,923,048	OpenSea	EXT1	Body	-0.003	0.981	0.0439
cg26201811	22	51,111,714	N_Shore	SHANK3	TSS1500	-0.002	0.026	0.0439
cg08821193	19	13,068,151	Island	GADD45GIP1	TSS200	0.003	0.034	0.0439
cg26516941	11	118,972,455	S_Shore	DPAGT1	5'UTR	-0.004	0.044	0.0439
cg12012932	15	30,484,033	Island			-0.002	0.017	0.0439

cg10759591	17	77,148,972	OpenSea	HRNBP3	5'UTR	0.021	0.469	0.0439
cg01397968	3	111,831,279	OpenSea	C3orf52	Body	-0.015	0.796	0.0439
cg01780171	2	236,100,688	OpenSea			0.036	0.941	0.0440
cg24345902	3	160,414,617	OpenSea			0.004	0.971	0.0440
cg25902666	19	1,947,722	Island	CSNK1G2	5'UTR	0.007	0.948	0.0440
cg22259778	3	128,881,044	S_Shore	ISY1	TSS1500	0.005	0.033	0.0440
cg20348703	2	74,619,566	S_Shore	LOC10018958	Body	0.043	0.383	0.0440
cg03994651	19	49,004,677	Island	LMTK3	Body	0.017	0.343	0.0440
cg18071202	12	1,609,470	OpenSea	LOC10029268	TSS200	0.025	0.801	0.0440
cg06305891	3	195,897,904	OpenSea			0.003	0.984	0.0440
cg13419814	20	2,645,054	S_Shore	IDH3B	TSS1500	-0.003	0.025	0.0440
cg13883681	16	58,768,565	S_Shore	GOT2	TSS1500	0.013	0.437	0.0440
cg23995459	1	53,191,787	N_Shore	ZYG11B	TSS1500	0.026	0.517	0.0440
cg16023337	17	39,662,206	OpenSea	KRT13	TSS1500	0.014	0.706	0.0440
cg14394451	9	72,514,243	OpenSea	C9orf135	Body	0.022	0.546	0.0440
cg20352728	22	25,758,737	S_Shelf	LRP5L	TSS1500	0.014	0.506	0.0440
cg09813986	5	32,445,429	S_Shore	ZFR	TSS1500	-0.016	0.523	0.0440
cg16349616	6	159,195,472	OpenSea	EZR	Body	0.014	0.566	0.0440
cg06611727	15	48,009,656	Island	SEMA6D	TSS1500	0.001	0.012	0.0440
cg27641709	2	11,272,899	OpenSea	C2orf50	TSS1500	-0.002	0.020	0.0440
cg13406860	9	132,881,336	OpenSea	GPR107	Body	0.007	0.921	0.0440
cg26077283	5	37,815,776	OpenSea	GDNF	Body	0.013	0.879	0.0440
cg26574247	17	77,712,786	N_Shelf	ENPP7	3'UTR	0.014	0.839	0.0440
cg13705216	11	17,599,691	OpenSea			0.011	0.589	0.0440
cg12993927	12	12,878,755	Island	APOLD1	TSS200	0.001	0.020	0.0441
cg09484559	17	12,692,246	N_Shore	RICH2	TSS1500	0.017	0.362	0.0441
cg14178846	11	134,228,227	N_Shelf	GLB1L2	Body	0.012	0.818	0.0441
cg06969933	16	88,099,740	N_Shore	BANP	Body	-0.012	0.754	0.0441
cg00019654	14	82,148,289	OpenSea			0.025	0.453	0.0441
cg19052829	17	80,809,619	OpenSea	TBCD	Body	0.009	0.911	0.0441

cg01777678	1	3,147,329	N_Shore	PRDM16	Body	0.017	0.840	0.0441
cg26413900	17	43,985,654	OpenSea	MAPT	5'UTR	-0.026	0.530	0.0441
cg07143328	5	177,366,442	N_Shore			-0.029	0.049	0.0441
cg13540639	6	52,110,447	OpenSea	IL17F	TSS1500	-0.014	0.865	0.0441
cg07042832	3	170,136,539	Island	CLDN11	TSS200	0.032	0.301	0.0441
cg22428027	1	12,128,827	OpenSea	TNFRSF8	Body	0.019	0.497	0.0441
cg26982968	11	2,029,362	S_Shelf			0.010	0.912	0.0441
cg27178045	7	23,753,823	OpenSea	STK31	Body	0.021	0.525	0.0441
cg19301273	8	82,361,115	OpenSea	PMP2	TSS1500	-0.009	0.965	0.0441
cg12177220	3	38,080,925	Island	DLEC1	1stExon	-0.001	0.015	0.0441
cg05339856	1	20,465,170	OpenSea	PLA2G2F	TSS1500	-0.004	0.963	0.0441
cg22730967	1	203,097,454	Island	ADORA1	5'UTR	-0.011	0.066	0.0441
cg04139641	9	89,763,570	Island	C9orf170	5'UTR	-0.016	0.062	0.0441
cg07205883	10	116,187,407	OpenSea			0.028	0.909	0.0441
cg12142062	18	77,635,987	N_Shelf	KCNG2	Body	0.012	0.822	0.0441
cg13331526	12	5,021,585	S_Shore	KCNA1	Body	0.010	0.920	0.0441
cg06939115	16	47,007,824	Island	DNAJA2	TSS200	-0.010	0.031	0.0441
cg09165170	1	10,601,579	OpenSea	PEX14	Body	0.011	0.737	0.0442
cg06226156	2	74,726,478	Island	LBX2	Body	-0.004	0.024	0.0442
cg26291848	8	141,608,316	OpenSea	EIF2C2	Body	-0.013	0.426	0.0442
cg04776489	22	22,597,965	OpenSea	VPREB1	TSS1500	0.021	0.476	0.0442
cg11023900	3	138,657,666	Island			-0.003	0.020	0.0442
cg23130010	6	29,855,462	Island	HLA-H	Body	0.039	0.050	0.0442
cg00367424	11	1,673,835	Island	HCCA2	Body	0.012	0.869	0.0442
cg26321153	7	157,396,644	OpenSea	PTPRN2	Body	0.011	0.853	0.0442
cg25422226	7	13,057,352	OpenSea			-0.027	0.488	0.0442
cg09897064	20	56,188,065	OpenSea	ZBP1	Body	-0.005	0.971	0.0442
cg26025333	11	64,889,670	Island	FAU	TSS200	0.003	0.019	0.0442
cg04017036	16	73,104,388	S_Shelf			-0.013	0.272	0.0442
cg26970983	6	30,115,028	OpenSea	TRIM40	Body	0.022	0.837	0.0442

cg06686857	8	94,751,454	N_Shore	C8orf39	TSS1500	0.033	0.580	0.0442
cg20216309	3	16,024,540	OpenSea			0.028	0.623	0.0442
cg01980222	6	41,130,917	OpenSea	TREM2	1stExon	0.015	0.529	0.0442
cg01436424	1	7,669,070	OpenSea	CAMTA1	Body	-0.011	0.264	0.0442
cg04446647	13	24,878,887	N_Shelf	SPATA13	3'UTR	-0.013	0.731	0.0442
cg03285468	18	61,143,933	OpenSea	SERPINB5	TSS1500	0.014	0.896	0.0442
cg13250209	14	100,048,149	OpenSea	CCDC85C	Body	0.016	0.765	0.0442
cg00431894	4	189,871,012	OpenSea			0.048	0.706	0.0442
cg02233282	16	87,312,869	OpenSea			0.015	0.519	0.0442
cg12402108	6	32,827,202	OpenSea	PSMB9	Body	0.003	0.985	0.0442
cg21893220	9	106,856,376	Island	SMC2	TSS200	-0.003	0.028	0.0442
cg26967305	22	29,563,734	OpenSea	KREMEN1	3'UTR	0.014	0.639	0.0442
cg01620309	17	42,856,469	N_Shore	ADAM11	Body	-0.012	0.156	0.0442
cg08736634	12	27,676,982	OpenSea	PPFIBP1	TSS200	-0.003	0.023	0.0442
cg24340081	8	63,614,431	OpenSea	NKAIN3	Body	0.020	0.149	0.0442
cg27405706	21	43,786,824	OpenSea	TFF1	TSS200	0.015	0.638	0.0443
cg15676040	1	155,290,446	N_Shore	RUSC1	TSS200	0.021	0.147	0.0443
cg01306597	1	224,302,471	Island	FBXO28	Body	0.002	0.019	0.0443
cg04945153	6	31,914,068	OpenSea	CFB	Body	0.017	0.728	0.0443
cg16991569	1	63,142,359	OpenSea	DOCK7	Body	0.002	0.988	0.0443
cg25391673	1	153,962,013	N_Shore	RPS27	TSS1500	0.005	0.968	0.0443
cg17662872	4	6,270,680	N_Shore	WFS1	TSS1500	0.015	0.704	0.0443
cg23907860	20	57,583,709	S_Shore	CTSZ	TSS1500	-0.006	0.950	0.0443
cg23416081	6	35,693,573	N_Shelf	FKBP5	5'UTR	0.019	0.515	0.0443
cg27485687	12	52,416,858	N_Shore			-0.008	0.052	0.0443
cg08552519	3	52,001,426	OpenSea	PCBP4	5'UTR	0.004	0.026	0.0443
cg11220663	2	70,994,863	Island	ADD2	5'UTR	-0.036	0.177	0.0443
cg18884555	22	38,610,234	N_Shore	MAFF	Body	0.018	0.534	0.0443
cg15065591	17	41,278,380	Island	BRCA1	TSS1500	0.035	0.859	0.0443
cg12610917	19	46,387,992	Island	IRF2BP1	1stExon	0.024	0.519	0.0443

cg00893987	6	42,847,415	OpenSea	RPL7L1	TSS1500	0.028	0.038	0.0443
cg20712631	5	172,074,065	OpenSea	NEURL1B	Body	0.016	0.328	0.0443
cg20899266	3	9,471,176	OpenSea	SETD5	Body	0.006	0.965	0.0443
cg02354563	5	522,363	N_Shore	SLC9A3	Body	0.014	0.118	0.0443
cg12776171	17	72,442,928	Island	GPRC5C	Body	0.017	0.537	0.0443
cg16667631	5	72,597,316	N_Shore			0.030	0.138	0.0443
cg02026013	4	164,415,621	Island	C4orf43	TSS200	-0.002	0.017	0.0443
cg22658311	4	177,640,279	OpenSea	VEGFC	Body	-0.016	0.305	0.0443
cg26160217	17	7,486,928	Island	MPDU1	TSS200	-0.002	0.016	0.0444
cg18187581	7	121,955,310	N_Shore			-0.003	0.034	0.0444
cg25606172	4	7,373,343	OpenSea	SORCS2	Body	0.019	0.731	0.0444
cg27185976	8	1,472,161	OpenSea	DLGAP2	5'UTR	0.011	0.837	0.0444
cg16308270	1	205,344,150	OpenSea			0.019	0.333	0.0444
cg16936581	20	30,556,501	Island	XKR7	1stExon	0.002	0.022	0.0444
cg04242728	16	2,536,153	OpenSea	TBC1D24	5'UTR	0.013	0.713	0.0444
cg09121047	1	87,617,328	Island	LOC339524	Body	-0.024	0.207	0.0444
cg16190667	10	27,547,561	N_Shore			0.007	0.049	0.0444
cg24290948	3	12,800,802	OpenSea	TMEM40	1stExon	0.021	0.685	0.0444
cg21349645	12	9,436,242	Island	LOC642846	TSS200	-0.003	0.036	0.0444
cg20274965	18	59,989,045	N_Shelf			0.023	0.707	0.0444
cg06895913	5	58,957,910	OpenSea	PDE4D	Body	-0.028	0.610	0.0444
cg04038241	1	10,092,629	Island	UBE4B	TSS1500	-0.004	0.043	0.0444
cg10455676	2	55,496,384	Island	MTIF2	TSS200	-0.002	0.027	0.0444
cg05875982	17	74,537,284	S_Shelf	PRCD	Body	-0.014	0.138	0.0444
cg23110019	17	77,181,644	S_Shore	HRNBP3	5'UTR	0.012	0.755	0.0444
cg07370828	1	43,444,918	OpenSea			0.004	0.963	0.0444
cg19489512	19	1,016,150	S_Shore	C19orf6	Body	-0.031	0.369	0.0444
cg26888422	17	48,921,921	S_Shelf			0.009	0.737	0.0444
cg11549848	13	24,464,707	S_Shore	PCOTH	5'UTR	0.028	0.682	0.0445
cg09050372	2	239,495,053	OpenSea			0.019	0.819	0.0445

cg14209344	4	87,886,892	OpenSea	AFF1	Body	0.005	0.966	0.0445
cg14849065	6	32,117,725	N_Shore	PRRT1	Body	0.019	0.766	0.0445
cg21814801	6	168,389,961	N_Shore			-0.010	0.898	0.0445
cg10619144	18	43,677,957	Island	ATP5A1	Body	-0.003	0.046	0.0445
cg10001845	13	20,751,945	Island			0.022	0.909	0.0445
cg08871608	19	40,729,274	Island	CNTD2	Body	0.048	0.139	0.0445
cg01481690	21	38,641,087	S_Shore	DSCR3	TSS1500	0.028	0.430	0.0445
cg12526834	11	120,081,089	N_Shore	OAF	TSS1500	-0.003	0.024	0.0445
cg03537747	2	27,886,640	Island	SLC4A1AP	1stExon	-0.002	0.027	0.0445
cg11303670	7	128,784,442	N_Shore	TSPAN33	TSS1500	-0.006	0.047	0.0445
cg05306173	10	118,885,636	Island			0.022	0.564	0.0445
cg01391346	6	99,873,300	S_Shore	SFRS18	TSS200	0.001	0.012	0.0445
cg23309046	13	49,822,903	S_Shore	CDADC1	Body	0.015	0.105	0.0445
cg15204861	11	111,783,352	OpenSea	CRYAB	TSS1500	-0.013	0.089	0.0445
cg13369337	10	13,629,909	S_Shore	PRPF18	Body	0.025	0.563	0.0445
cg24931138	5	1,258,916	S_Shore	TERT	Body	0.010	0.927	0.0446
cg13056744	6	29,894,940	Island			0.041	0.048	0.0446
cg04608146	22	20,792,323	Island	SCARF2	TSS200	-0.004	0.024	0.0446
cg22373112	17	40,307,717	S_Shore	RAB5C	TSS1500	-0.017	0.188	0.0446
cg16689942	13	29,394,960	S_Shore			-0.011	0.083	0.0446
cg02133849	4	795,538	N_Shelf	CPLX1	Body	-0.007	0.952	0.0446
cg01575519	16	89,151,852	OpenSea			0.007	0.948	0.0446
cg19107973	5	61,876,634	OpenSea	IPO11	Body	0.008	0.948	0.0446
cg16321524	20	33,422,627	OpenSea	HMGB3L1	TSS1500	0.018	0.830	0.0446
cg22888848	2	222,320,536	OpenSea	EPHA4	Body	-0.007	0.961	0.0446
cg02819347	10	120,354,844	Island	PRLHR	5'UTR	0.010	0.046	0.0446
cg04985251	3	119,188,494	S_Shore	KTELC1	Body	-0.005	0.043	0.0446
cg24989962	14	52,734,286	Island	PTGDR	TSS200	-0.005	0.025	0.0446
cg11595635	5	2,634,163	OpenSea			0.020	0.881	0.0446
cg09754828	10	105,363,329	S_Shore	SH3PXD2A	Body	0.006	0.939	0.0446

cg21208686	9	137,711,757	S_Shore	COL5A1	Body	0.012	0.500	0.0446
cg24396875	2	190,706,964	OpenSea	PMS1	Body	0.016	0.768	0.0446
cg02998591	4	187,619,937	OpenSea	FAT1	Body	-0.009	0.915	0.0446
cg19025524	12	109,796,872	OpenSea			0.007	0.952	0.0446
cg25027584	7	1,748,302	OpenSea	ELFN1	TSS1500	0.009	0.925	0.0446
cg04021733	6	3,713,339	OpenSea			0.029	0.458	0.0446
cg22995692	5	141,263,164	Island			0.003	0.027	0.0446
cg26347851	20	61,754,869	Island			0.014	0.835	0.0446
cg21319053	5	37,840,725	Island	GDNF	TSS1500	-0.003	0.030	0.0446
cg10659886	19	58,629,719	Island	ZSCAN18	Body	-0.008	0.036	0.0447
cg06746829	1	17,424,524	OpenSea	PADI2	Body	-0.023	0.624	0.0447
cg00894440	12	125,348,579	Island	SCARB1	TSS200	-0.004	0.042	0.0447
cg13647155	5	176,046,497	Island			-0.003	0.019	0.0447
cg03072621	16	6,069,929	Island	A2BP1	5'UTR	-0.003	0.032	0.0447
cg01550445	11	72,929,983	S_Shore	P2RY2	5'UTR	0.016	0.356	0.0447
cg13990848	9	93,883,110	S_Shelf			0.005	0.976	0.0447
cg03047098	16	71,843,015	Island	AP1G1	TSS200	0.001	0.016	0.0447
cg17303540	5	140,808,068	S_Shore	PCDHGA4	Body	0.032	0.383	0.0447
cg13834460	10	81,142,200	N_Shelf	ZCCHC24	3'UTR	0.008	0.925	0.0447
cg06869796	7	135,412,196	OpenSea	SLC13A4	1stExon	0.010	0.766	0.0447
cg12228919	15	44,955,936	Island	SPG11	TSS200	0.029	0.098	0.0447
cg19629292	3	62,358,980	Island	FEZF2	5'UTR	-0.001	0.015	0.0447
cg18967533	19	51,472,725	OpenSea	KLK6	TSS1500	0.015	0.697	0.0447
cg16243756	8	15,397,637	Island	TUSC3	TSS200	0.004	0.039	0.0447
cg27592868	17	36,760,898	N_Shore	SRCIN1	Body	0.015	0.094	0.0447
cg11765003	2	220,024,730	N_Shore	NHEJ1	5'UTR	0.019	0.228	0.0447
cg00999267	12	114,282,881	OpenSea	RBM19	Body	0.014	0.426	0.0447
cg07473822	4	2,277,836	Island	ZFYVE28	Body	0.004	0.971	0.0447
cg23652734	1	202,853,701	N_Shelf	RABIF	Body	-0.003	0.984	0.0447
cg04591843	17	13,496,947	OpenSea	HS3ST3A1	Body	-0.015	0.925	0.0447



cg11960711	19	3,933,114	N_Shore	ITGB1BP3	5'UTR	0.028	0.024	0.0447
cg01425680	5	174,177,366	N_Shore			0.021	0.539	0.0447
cg14334794	3	48,263,883	OpenSea	CAMP	TSS1500	0.016	0.827	0.0447
cg00658704	15	35,999,901	OpenSea			-0.035	0.674	0.0447
cg19073576	13	113,808,243	S_Shore			-0.031	0.033	0.0448
cg07005654	4	108,918,439	OpenSea	HADH	Body	-0.012	0.673	0.0448
cg23665184	6	12,325,613	OpenSea			0.008	0.947	0.0448
cg26232417	20	43,028,501	OpenSea	HNF4A	TSS1500	0.009	0.919	0.0448
cg09704054	20	44,453,161	Island	TNNC2	Body	0.017	0.266	0.0448
cg25409809	15	22,920,168	OpenSea	CYFIP1	5'UTR	0.012	0.308	0.0448
cg24517609	3	156,272,814	Island	SSR3	1stExon	-0.003	0.030	0.0448
cg27608022	16	88,673,997	OpenSea	ZC3H18	Body	-0.032	0.831	0.0448
cg25266880	17	73,585,690	Island	MYO15B	Body	-0.006	0.038	0.0448
cg21621204	4	70,916,719	OpenSea	HTN1	5'UTR	0.004	0.978	0.0448
cg00242098	1	152,730,718	N_Shelf	KPRP	5'UTR	0.018	0.601	0.0448
cg16479401	4	83,956,051	OpenSea	COPS4	TSS200	-0.001	0.012	0.0448
cg01609099	5	141,389,201	N_Shelf	GNPDA1	Body	0.007	0.950	0.0448
cg16631417	17	41,993,127	OpenSea	C17orf88	TSS1500	0.020	0.795	0.0448
cg24361086	7	123,388,661	Island	WASL	Body	-0.003	0.028	0.0448
cg09402652	19	3,961,645	S_Shore	MIR637	TSS200	0.012	0.773	0.0448
cg09440866	12	114,014,510	OpenSea			0.025	0.179	0.0448
cg14020824	4	106,473,040	OpenSea	FLJ20184	TSS1500	0.028	0.501	0.0448
cg25571189	2	133,427,612	Island	LYPD1	1stExon	-0.003	0.019	0.0449
cg13843417	11	1,298,849	N_Shore	TOLLIP	Body	0.012	0.706	0.0449
cg24794052	10	123,127,861	OpenSea			0.014	0.137	0.0449
cg07974891	2	9,565,042	S_Shore	ITGB1BP1	TSS1500	0.023	0.623	0.0449
cg08786003	1	157,670,710	OpenSea	FCRL3	TSS200	-0.005	0.973	0.0449
cg06898830	1	86,861,147	N_Shore	ODF2L	5'UTR	0.013	0.281	0.0449
cg11858029	1	11,324,407	S_Shore			-0.021	0.672	0.0449
cg23114311	14	96,180,826	Island	TCL1A	TSS1500	0.021	0.541	0.0449

cg17432022	19	39,226,740	Island	CAPN12	Body	0.005	0.030	0.0449
cg11201854	5	127,148,879	OpenSea			0.004	0.979	0.0449
cg26883712	6	28,973,466	OpenSea	ZNF311	TSS1500	0.017	0.068	0.0449
cg11495966	4	76,932,279	OpenSea	ART3	TSS200	0.009	0.923	0.0449
cg27422857	2	105,853,526	Island			0.043	0.691	0.0449
cg25040934	11	10,534,506	OpenSea	RNF141	3'UTR	0.004	0.976	0.0449
cg01596495	11	57,317,706	OpenSea	SMTNL1	3'UTR	0.003	0.981	0.0449
cg14989243	6	76,203,530	OpenSea	FILIP1	TSS200	-0.002	0.021	0.0449
cg03477332	5	16,178,784	N_Shore		11-Mar Body	0.027	0.508	0.0449
cg02458929	5	129,240,801	Island	CHSY3	1stExon	-0.014	0.029	0.0449
cg07610327	2	86,423,112	S_Shore	IMMT	TSS1500	0.003	0.020	0.0449
cg02539855	8	144,241,434	Island	LY6H	1stExon	-0.003	0.038	0.0449
cg17819732	1	203,147,367	OpenSea			-0.020	0.288	0.0449
cg03353804	7	821,314	N_Shore	HEATR2	Body	0.015	0.877	0.0449
cg24461171	1	197,745,025	S_Shore	DENND1B	TSS1500	0.013	0.574	0.0449
cg26810690	1	3,622,130	N_Shore	TP73	Body	0.020	0.611	0.0449
cg07502661	2	43,398,339	S_Shore			0.009	0.954	0.0450
cg12485652	10	54,215,089	OpenSea			0.011	0.377	0.0450
cg02525926	6	28,880,227	OpenSea	TRIM27	Body	-0.002	0.986	0.0450
cg01238044	22	24,384,105	N_Shore	GSTT1	Body	0.122	0.194	0.0450
cg27046604	15	41,135,869	Island	SPINT1	TSS1500	-0.008	0.097	0.0450
cg12921647	7	1,336,696	N_Shore			-0.016	0.288	0.0450
cg00993400	1	249,153,679	S_Shore	ZNF692	TSS1500	-0.010	0.065	0.0450
cg15654127	7	124,569,883	Island	POT1	Body	0.002	0.014	0.0450
cg05918679	19	49,122,382	Island	RPL18	Body	0.001	0.015	0.0450
cg10067304	20	62,042,490	N_Shore	KCNQ2	Body	0.015	0.735	0.0450
cg17038416	1	155,179,135	S_Shore	MTX1	Body	0.001	0.015	0.0450
cg10994314	7	141,251,231	Island	AGK	1stExon	-0.004	0.030	0.0450
cg24750752	19	35,819,889	OpenSea	CD22	TSS200	0.018	0.785	0.0450
cg23389776	19	51,892,428	OpenSea	LIM2	TSS1500	0.011	0.661	0.0450

cg22115808	16	4,743,814	Island	NUDT16L1	1stExon	-0.005	0.016	0.0450
cg22955555	5	1,068,913	Island	SLC12A7	Body	0.015	0.732	0.0450
cg00520441	12	103,486,047	OpenSea			0.019	0.224	0.0450
cg05606878	5	126,432,189	OpenSea			0.016	0.497	0.0450
cg08121317	15	101,327,691	OpenSea			0.032	0.733	0.0450
cg22291365	15	74,891,439	OpenSea			0.033	0.560	0.0450
cg20985587	17	27,943,450	Island	CORO6	Body	0.020	0.264	0.0450
cg25561382	19	18,795,207	S_Shore	CRTC1	Body	0.010	0.512	0.0451
cg02366856	15	37,239,205	OpenSea	MEIS2	Body	-0.023	0.604	0.0451
cg22861369	5	131,608,620	S_Shore	PDLIM4	3'UTR	0.003	0.031	0.0451
cg04677344	5	76,326,870	Island	AGGF1	Body	-0.006	0.047	0.0451
cg25429150	2	71,189,586	N_Shelf	ATP6V1B1	Body	0.014	0.890	0.0451
cg17863551	19	43,856,594	OpenSea	CD177	TSS1500	0.017	0.905	0.0451
cg18003970	11	12,410,134	OpenSea	PARVA	Body	-0.025	0.768	0.0451
cg15023513	15	87,667,171	OpenSea			0.019	0.904	0.0451
cg04508804	3	45,077,765	S_Shore			-0.002	0.018	0.0451
cg25273507	2	198,364,931	Island	HSPE1	1stExon	-0.009	0.059	0.0451
cg11222665	1	1,343,355	S_Shore	MRPL20	TSS1500	0.004	0.039	0.0451
cg00673344	3	156,807,691	S_Shore			0.019	0.476	0.0451
cg16238795	2	54,952,081	Island	EML6	TSS200	-0.002	0.014	0.0451
cg02044320	1	53,702,253	N_Shore	MAGOH	Body	0.012	0.757	0.0451
cg12029794	19	39,806,042	S_Shore	LRFN1	TSS200	0.009	0.876	0.0451
cg21684676	7	4,762,070	N_Shelf	FOXK1	Body	-0.011	0.827	0.0451
cg20241335	13	25,876,335	S_Shore	NUPL1	Body	0.002	0.026	0.0451
cg15149098	19	49,055,027	OpenSea	SULT2B1	TSS1500	0.014	0.893	0.0451
cg25563799	10	102,089,882	OpenSea	PKD2L1	5'UTR	0.016	0.616	0.0451
cg00602295	16	81,328,089	OpenSea			0.021	0.548	0.0451
cg23816537	11	60,634,869	OpenSea	ZP1	TSS200	0.013	0.732	0.0451
cg06904403	15	45,421,578	Island	DUOX1	TSS1500	-0.007	0.036	0.0452
cg23861803	6	31,830,030	N_Shore	NEU1	Body	0.004	0.026	0.0452

cg16885982	11	1,422,563	OpenSea	BRSK2	Body	0.016	0.818	0.0452
cg26458217	6	92,636,558	OpenSea			0.003	0.982	0.0452
cg19708554	1	166,136,816	S_Shore	FAM78B	TSS1500	0.020	0.325	0.0452
cg23045371	14	105,155,760	Island	INF2	TSS200	-0.022	0.155	0.0452
cg27117585	10	1,443,320	S_Shelf	ADARB2	Body	0.017	0.733	0.0452
cg14904908	8	41,167,660	S_Shore	SFRP1	TSS1500	0.020	0.217	0.0452
cg24517738	1	41,129,755	N_Shore	RIMS3	5'UTR	0.013	0.716	0.0452
cg15305352	6	41,375,881	N_Shore			0.016	0.875	0.0452
cg04376092	2	239,228,826	N_Shore	TRAF3IP1	TSS1500	0.002	0.019	0.0452
cg02604225	3	52,088,139	N_Shore	DUSP7	Body	0.004	0.976	0.0452
cg07010222	11	134,394,189	OpenSea			-0.033	0.967	0.0452
cg10714639	19	1,075,104	S_Shore	HMHA1	Body	0.021	0.792	0.0452
cg04554928	6	30,140,231	Island	TRIM15	3'UTR	-0.005	0.045	0.0452
cg13916516	9	140,268,774	Island	EXD3	Body	0.047	0.814	0.0452
cg25822783	12	133,050,826	Island			-0.016	0.973	0.0452
cg21984711	18	60,791,714	OpenSea	BCL2	3'UTR	-0.004	0.984	0.0452
cg26220972	6	52,600,483	OpenSea			-0.007	0.943	0.0452
cg00988260	2	583,271	Island			0.006	0.960	0.0452
cg08205865	1	167,883,379	OpenSea	ADCY10	1stExon	0.018	0.702	0.0453
cg15264991	12	7,066,563	OpenSea	PTPN6	Body	-0.010	0.768	0.0453
cg26749475	10	89,580,388	S_Shelf	CFLP1	Body	0.002	0.988	0.0453
cg02959678	19	1,047,604	Island	ABCA7	Body	0.016	0.921	0.0453
cg22303442	8	27,734,962	N_Shelf	SCARA5	Body	0.003	0.979	0.0453
cg02726847	10	3,110,273	Island	PFKP	Body	0.002	0.016	0.0453
cg03089651	1	161,039,695	OpenSea	ARHGAP30	1stExon	0.012	0.785	0.0453
cg11393614	10	88,282,152	S_Shore	WAPAL	TSS1500	0.002	0.015	0.0453
cg14839935	2	10,975,543	OpenSea			-0.015	0.113	0.0453
cg04293948	15	96,158,220	OpenSea			0.018	0.697	0.0453
cg24018760	12	4,381,720	Island	CCND2	TSS1500	0.001	0.014	0.0453
cg12675714	4	159,592,618	Island	C4orf46	Body	0.003	0.032	0.0453

cg18124917	17	1,956,691	Island			0.015	0.342	0.0453
cg22859714	11	64,678,510	OpenSea	ATG2A	Body	0.010	0.856	0.0453
cg09160123	1	41,981,735	N_Shore	HIVEP3	Body	-0.004	0.043	0.0453
cg05917165	2	240,844,772	N_Shore			0.009	0.909	0.0453
cg04671739	7	150,884,979	OpenSea	ASB10	TSS1500	0.009	0.447	0.0453
cg24777399	2	109,855,574	OpenSea	SH3RF3	Body	0.011	0.705	0.0454
cg20717205	3	44,690,179	Island	ZNF35	TSS200	0.002	0.023	0.0454
cg19540080	14	20,811,677	OpenSea	PARP2	TSS200	0.001	0.018	0.0454
cg09650989	16	1,843,697	S_Shore	IGFALS	Body	0.018	0.311	0.0454
cg05590616	11	59,522,917	Island	STX3	1stExon	-0.005	0.040	0.0454
cg00880984	6	82,958,011	S_Shore	IBTK	TSS1500	0.027	0.240	0.0454
cg24685239	3	105,159,482	OpenSea	ALCAM	Body	0.018	0.510	0.0454
cg13448625	10	105,845,238	OpenSea	COL17A1	5'UTR	-0.007	0.969	0.0454
cg26700949	6	32,820,553	N_Shore	PSMB9	TSS1500	0.021	0.146	0.0454
cg23715407	14	95,374,412	OpenSea			0.026	0.648	0.0454
cg21308197	19	59,084,138	N_Shore	MZF1	5'UTR	0.004	0.032	0.0454
cg23523648	1	65,614,897	Island	AK3L1	Body	0.001	0.015	0.0454
cg13610138	12	59,281,920	OpenSea	LRIG3	Body	0.030	0.708	0.0454
cg22322679	6	33,244,178	N_Shore	B3GALT4	TSS1500	0.013	0.602	0.0454
cg03702477	5	152,374,989	OpenSea			0.025	0.807	0.0454
cg16319578	14	65,007,512	Island	HSPA2	1stExon	-0.006	0.041	0.0454
cg14535884	9	117,349,621	N_Shore	ATP6V1G1	TSS1500	0.037	0.408	0.0454
cg11982564	2	240,748,286	OpenSea			0.009	0.936	0.0454
cg22727965	7	25,898,770	Island			-0.019	0.273	0.0454
cg23647610	7	1,357,813	OpenSea			0.011	0.724	0.0454
cg18035229	8	70,984,270	Island	PRDM14	TSS1500	-0.004	0.035	0.0454
cg11793562	13	52,027,124	Island	INTS6	5'UTR	0.003	0.032	0.0454
cg24660635	15	28,437,148	OpenSea	HERC2	Body	-0.027	0.343	0.0454
cg23522862	17	79,829,415	Island	ARHGDI1	TSS200	-0.005	0.021	0.0454
cg14168316	9	127,642,782	OpenSea	GOLGA1	3'UTR	0.014	0.870	0.0454

cg23652987	3	58,508,149	OpenSea	ACOX2	Body	0.011	0.383	0.0454
cg01471111	12	372,246	OpenSea	SLC6A13	TSS1500	-0.031	0.333	0.0454
cg18279134	1	16,394,568	OpenSea	FAM131C	Body	0.015	0.442	0.0454
cg12448285	1	245,534,821	OpenSea	KIF26B	Body	0.019	0.797	0.0454
cg22230395	5	153,418,202	Island	FAM114A2	5'UTR	0.002	0.023	0.0454
cg09639964	17	909,300	N_Shore	ABR	3'UTR	0.020	0.850	0.0454
cg16040995	10	135,273,684	Island	LOC619207	Body	0.033	0.816	0.0454
cg00060304	11	31,837,237	Island	PAX6	5'UTR	-0.002	0.018	0.0454
cg14124261	9	116,262,291	OpenSea	RGS3	TSS1500	0.016	0.777	0.0454
cg16586807	7	2,948,081	S_Shore	CARD11	Body	0.003	0.980	0.0454
cg02077472	1	63,539,873	OpenSea			-0.003	0.039	0.0454
cg16784468	10	134,230,041	OpenSea	PWWP2B	3'UTR	0.006	0.960	0.0455
cg08143038	4	8,578,207	N_Shelf			0.010	0.940	0.0455
cg07656648	11	64,085,864	Island	PRDX5	Body	0.004	0.034	0.0455
cg21931317	2	43,411,533	OpenSea			-0.004	0.956	0.0455
cg12630461	15	91,500,009	Island	RCCD1	Body	0.001	0.014	0.0455
cg17681079	7	27,556,963	OpenSea			0.005	0.959	0.0455
cg10617994	19	18,716,527	Island	CRLF1	Body	0.003	0.022	0.0455
cg20743435	4	156,743,043	OpenSea			0.006	0.965	0.0455
cg06858185	8	141,468,933	S_Shore	TRAPPC9	TSS1500	0.014	0.906	0.0455
cg25133762	17	3,562,645	OpenSea	CTNS	Body	0.011	0.914	0.0455
cg20571462	20	17,546,270	N_Shelf			0.012	0.912	0.0455
cg08747368	12	49,961,505	N_Shore	MCRS1	5'UTR	0.002	0.018	0.0455
cg27109129	4	74,864,165	Island	CXCL5	Body	-0.003	0.028	0.0455
cg23915701	1	235,053,896	OpenSea			0.011	0.577	0.0455
cg24389606	14	104,602,875	Island			-0.002	0.029	0.0455
cg03403507	14	32,798,387	OpenSea	AKAP6	TSS200	0.019	0.814	0.0455
cg06679334	17	35,241,844	OpenSea			0.007	0.046	0.0455
cg16494192	10	50,818,652	Island	SLC18A3	5'UTR	-0.009	0.031	0.0455
cg13780542	9	2,047,160	N_Shore	SMARCA2	Body	-0.029	0.656	0.0455

cg01126162	10	5,734,985	OpenSea	C10orf18	5'UTR	-0.008	0.203	0.0455
cg03803861	5	41,511,150	S_Shore	PLCXD3	TSS1500	0.012	0.120	0.0455
cg03565323	17	16,472,866	S_Shore	ZNF287	TSS1500	0.021	0.305	0.0455
cg17886038	15	100,273,718	Island	LYSMD4	TSS200	0.002	0.022	0.0455
cg13224937	1	40,387,667	OpenSea			0.007	0.940	0.0456
cg13695075	14	38,080,048	N_Shore			0.020	0.520	0.0456
cg00986610	16	86,554,580	OpenSea			0.022	0.569	0.0456
cg16351246	13	20,751,345	Island			0.040	0.358	0.0456
cg13884995	9	126,126,377	N_Shore	CRB2	Body	0.015	0.643	0.0456
cg17270520	11	68,518,951	Island	MTL5	1stExon	0.002	0.025	0.0456
cg07660693	11	8,050,834	N_Shelf			-0.005	0.968	0.0456
cg04920385	10	81,171,149	OpenSea	ZCCHC24	Body	0.016	0.502	0.0456
cg20514322	2	134,023,662	N_Shore	NCKAP5	Body	-0.010	0.099	0.0456
cg05404586	16	57,769,092	Island	KATNB1	TSS1500	-0.002	0.017	0.0456
cg01580340	7	16,891,079	Island			-0.030	0.854	0.0456
cg24915717	7	97,881,573	Island	TECPR1	TSS200	-0.006	0.031	0.0456
cg21425099	3	2,141,750	Island	CNTN4	TSS1500	-0.004	0.047	0.0456
cg07271394	16	54,973,762	S_Shore			-0.017	0.238	0.0456
cg12004276	11	33,913,586	OpenSea	LMO2	1stExon	0.020	0.579	0.0456
cg06368093	19	58,513,526	Island	ZNF606	5'UTR	-0.004	0.032	0.0456
cg12126371	7	155,624,308	S_Shore			0.015	0.703	0.0456
cg07917478	1	179,786,966	OpenSea			0.017	0.462	0.0456
cg17066594	11	67,764,654	N_Shore	UNC93B1	Body	0.049	0.130	0.0456
cg14501839	7	116,137,036	N_Shelf			0.014	0.959	0.0456
cg09449905	19	49,930,572	N_Shore			0.017	0.674	0.0456
cg03161803	6	27,649,120	S_Shore			0.016	0.074	0.0456
cg17125699	17	5,972,281	N_Shore			0.006	0.046	0.0456
cg11457119	2	172,959,114	N_Shore			-0.002	0.024	0.0456
cg08998967	7	95,951,569	Island	SLC25A13	TSS200	-0.004	0.042	0.0456
cg01162494	21	44,589,011	N_Shore	CRYAA	TSS200	0.013	0.835	0.0456

cg15908308	4	43,459,582	OpenSea			-0.034	0.941	0.0456
cg19897172	7	135,347,071	Island	PL-5283	TSS200	-0.006	0.057	0.0456
cg14476334	1	1,100,557	Island			0.012	0.335	0.0456
cg04410715	19	39,283,334	Island			-0.015	0.123	0.0456
cg02003624	2	128,849,209	Island	UGGT1	Body	0.001	0.013	0.0456
cg00612107	16	85,645,923	Island	KIAA0182	TSS1500	-0.003	0.028	0.0456
cg25732282	1	204,463,537	Island			-0.004	0.026	0.0456
cg01594233	4	175,135,937	S_Shore			-0.002	0.017	0.0456
cg07611790	19	49,240,823	N_Shore	RASIP1	Body	0.037	0.402	0.0456
cg01797371	3	195,578,240	OpenSea			0.060	0.386	0.0456
cg12644668	1	2,434,215	N_Shore	PLCH2	Body	0.010	0.838	0.0457
cg05324696	6	33,162,785	S_Shore	RXRB	Body	0.009	0.920	0.0457
cg03328485	16	62,267,020	OpenSea			0.004	0.976	0.0457
cg04594233	12	132,917,312	OpenSea			0.019	0.833	0.0457
cg21847267	7	143,043,090	S_Shore	CLCN1	Body	0.022	0.655	0.0457
cg26817416	6	22,567,578	N_Shelf			0.018	0.313	0.0457
cg04251669	5	1,252,302	N_Shore			0.032	0.720	0.0457
cg01465596	1	42,381,916	N_Shore	HIVEP3	5'UTR	-0.023	0.744	0.0457
cg03605773	1	9,488,706	N_Shore			0.017	0.340	0.0457
cg13778222	11	131,847,139	OpenSea	NTM	Body	0.047	0.966	0.0457
cg26232102	1	155,024,228	Island	ADAM15	Body	-0.004	0.028	0.0457
cg09509576	17	73,402,025	S_Shore	GRB2	TSS1500	0.004	0.031	0.0457
cg26992213	6	159,290,838	Island			-0.002	0.022	0.0457
cg23554497	12	103,359,836	S_Shore			-0.011	0.074	0.0457
cg05394663	1	228,248,785	S_Shore	WNT3A	3'UTR	0.011	0.058	0.0457
cg00269140	7	86,389,542	OpenSea	GRM3	5'UTR	0.032	0.322	0.0457
cg22244418	16	56,484,117	N_Shore	OGFOD1	TSS1500	0.021	0.640	0.0457
cg06790917	16	85,007,646	OpenSea			-0.038	0.908	0.0457
cg04118242	8	28,259,409	Island			0.002	0.018	0.0457
cg26986558	5	81,574,325	S_Shore	RPS23	TSS200	0.002	0.022	0.0457



cg16078886	18	29,673,278	Island	RNF138	Body	0.001	0.016	0.0457
cg02307681	16	1,589,378	S_Shore	IFT140	Body	0.009	0.929	0.0457
cg22472148	2	220,435,908	Island	INHA	TSS1500	-0.008	0.061	0.0457
cg09828563	19	925,370	Island	ARID3A	TSS1500	0.002	0.017	0.0457
cg22269795	1	15,735,965	N_Shore	EFHD2	TSS1500	0.001	0.015	0.0457
cg08330132	16	29,232,139	Island			0.048	0.240	0.0457
cg26452244	6	10,695,099	Island	C6orf52	TSS1500	0.001	0.011	0.0458
cg01715901	2	158,297,684	OpenSea	CYTIP	Body	0.024	0.588	0.0458
cg23286629	11	72,505,126	Island	STARD10	TSS1500	-0.004	0.052	0.0458
cg07599644	11	33,693,866	OpenSea	C11orf41	3'UTR	-0.010	0.943	0.0458
cg15239263	16	31,086,047	Island	ZNF668	TSS1500	-0.003	0.045	0.0458
cg22472267	5	31,851,871	N_Shelf	PDZD2	Body	-0.025	0.791	0.0458
cg24703951	4	141,565,267	OpenSea	TBC1D9	Body	0.009	0.899	0.0458
cg20042338	19	17,444,421	Island	ANO8	Body	0.017	0.849	0.0458
cg12610119	1	114,472,148	Island	HIPK1	5'UTR	-0.007	0.045	0.0458
cg15337196	3	44,727,578	S_Shore			0.011	0.961	0.0458
cg24119798	11	45,376,874	N_Shore			-0.008	0.081	0.0458
cg02128979	17	74,682,217	OpenSea	MXRA7	Body	0.015	0.913	0.0458
cg18624777	1	2,264,606	N_Shore	MORN1	Body	0.007	0.953	0.0458
cg23978064	2	242,051,650	OpenSea	PASK	Body	0.005	0.972	0.0458
cg11324010	4	182,568,983	OpenSea			-0.025	0.461	0.0458
cg25962218	7	133,826,103	OpenSea	LRGUK	Body	0.014	0.176	0.0458
cg22044342	17	3,819,339	OpenSea	P2RX1	Body	-0.012	0.438	0.0458
cg07573965	22	35,656,596	S_Shelf	HMGXB4	5'UTR	0.002	0.984	0.0458
cg05087577	1	43,532,611	N_Shore			0.014	0.849	0.0458
cg14393566	13	111,774,127	OpenSea	ARHGEF7	Body	-0.016	0.867	0.0458
cg09760422	2	128,146,352	S_Shore			-0.021	0.537	0.0458
cg08594651	11	47,415,397	N_Shore			0.009	0.920	0.0458
cg05494790	7	121,036,669	Island	FAM3C	TSS1500	0.002	0.019	0.0458
cg22557240	18	77,307,537	N_Shore			0.024	0.472	0.0458

cg18782774	5	34,483,876	OpenSea			0.023	0.553	0.0458
cg03434509	8	82,543,424	Island			-0.012	0.071	0.0458
cg12371933	7	155,247,711	Island			-0.003	0.038	0.0458
cg03085312	17	38,465,281	OpenSea	RARA	TSS200	0.004	0.031	0.0459
cg07280182	22	49,810,275	N_Shore			-0.010	0.936	0.0459
cg17426969	13	28,803,434	OpenSea	PAN3	Body	0.005	0.974	0.0459
cg26323077	11	95,831,121	OpenSea	MAML2	Body	-0.017	0.866	0.0459
cg01713348	16	1,480,790	N_Shore	C16orf91	TSS1500	0.017	0.486	0.0459
cg00491428	7	151,553,868	OpenSea	PRKAG2	Body	-0.011	0.926	0.0459
cg20138486	13	24,884,072	S_Shore	C1QTNF9	5'UTR	0.007	0.958	0.0459
cg07981364	11	47,448,113	Island	PSMC3	TSS200	0.001	0.014	0.0459
cg00460436	16	4,401,729	S_Shore	Magmas	TSS1500	-0.010	0.109	0.0459
cg22135561	5	1,865,501	OpenSea			0.009	0.927	0.0459
cg04471045	8	143,609,379	Island	BAI1	Body	0.011	0.895	0.0459
cg21089065	18	77,255,783	Island	NFATC1	Body	0.002	0.975	0.0459
cg09828310	1	2,452,844	Island	PANK4	Body	0.003	0.986	0.0459
cg20820759	2	121,501,069	S_Shore			0.007	0.952	0.0459
cg19030994	5	273,394	S_Shore	PDCD6	Body	0.009	0.892	0.0459
cg03365354	11	119,187,391	Island	MCAM	Body	-0.002	0.021	0.0459
cg05850971	6	32,135,027	Island	EGFL8	Body	0.035	0.788	0.0459
cg25416363	1	110,881,820	Island	RBM15	TSS200	0.001	0.013	0.0459
cg12534328	20	30,449,214	Island	DUSP15	Body	-0.007	0.044	0.0459
cg03190944	16	88,388,231	OpenSea			0.010	0.944	0.0459
cg11653336	12	133,465,188	S_Shore	CHFR	TSS1500	0.033	0.703	0.0459
cg01173186	6	24,126,221	N_Shore	NRSN1	TSS200	-0.012	0.081	0.0459
cg19586709	12	133,054,309	S_Shore			0.024	0.815	0.0460
cg03066050	9	110,249,749	Island	KLF4	Body	-0.014	0.126	0.0460
cg01452115	8	145,849,607	N_Shore			0.010	0.944	0.0460
cg22273360	19	30,215,355	Island			-0.008	0.055	0.0460
cg14613361	1	109,751,302	OpenSea			0.017	0.523	0.0460

cg11788425	17	77,394,380	OpenSea	HRNBP3	5'UTR	0.014	0.791	0.0460
cg04772025	11	68,637,568	OpenSea			-0.058	0.260	0.0460
cg07048828	10	112,832,758	N_Shelf			0.003	0.981	0.0460
cg17352540	13	28,365,723	Island	GSX1	TSS1500	0.006	0.036	0.0460
cg27641628	7	134,833,031	OpenSea	TMEM140	5'UTR	0.015	0.662	0.0460
cg02976617	5	102,898,463	OpenSea	NUDT12	5'UTR	-0.052	0.095	0.0460
cg19656633	5	180,074,582	N_Shore	FLT4	Body	0.012	0.664	0.0460
cg09113141	10	23,729,247	Island	OTUD1	1stExon	-0.002	0.022	0.0460
cg13634864	7	994,696	S_Shore	ADAP1	TSS1500	0.020	0.785	0.0460
cg11778749	14	102,772,430	S_Shore	RAGE	TSS1500	0.013	0.918	0.0460
cg00049894	7	156,761,024	Island	NOM1	Body	0.008	0.936	0.0460
cg21808981	7	92,220,582	S_Shore	FAM133B	TSS1500	-0.016	0.913	0.0460
cg25209609	6	31,865,911	N_Shore	EHMT2	TSS1500	-0.003	0.026	0.0460
cg13414916	10	17,272,616	Island	VIM	Body	0.001	0.015	0.0460
cg26282150	1	110,091,625	S_Shore	GNAI3	Body	-0.002	0.022	0.0460
cg03374561	17	19,247,888	Island	MIR1180	TSS200	-0.014	0.738	0.0460
cg11756734	12	9,028,945	OpenSea	A2ML1	3'UTR	0.016	0.580	0.0460
cg13751489	11	126,152,840	Island	TIRAP	TSS200	-0.006	0.046	0.0460
cg12578536	5	43,003,251	S_Shelf			0.031	0.568	0.0460
cg08103144	5	150,028,986	Island	SYNPO	Body	0.015	0.739	0.0460
cg14534336	10	65,028,980	OpenSea	JMJD1C	Body	0.001	0.014	0.0461
cg00467244	8	142,428,240	Island			0.003	0.036	0.0461
cg06688733	5	42,813,842	OpenSea			0.018	0.743	0.0461
cg13958199	9	127,018,815	N_Shore	NEK6	TSS1500	0.013	0.508	0.0461
cg02007493	14	105,647,510	Island	NUDT14	1stExon	0.003	0.026	0.0461
cg06583696	2	26,101,536	Island	ASXL2	TSS1500	-0.003	0.024	0.0461
cg05617307	10	121,413,182	S_Shore	BAG3	Body	0.016	0.912	0.0461
cg16071359	2	169,312,933	Island	LASS6	5'UTR	-0.005	0.080	0.0461
cg02330719	17	25,309,145	Island			0.011	0.886	0.0461
cg21480043	19	41,699,282	Island	CYP2S1	1stExon	-0.005	0.045	0.0461

cg27244120	16	70,610,434	OpenSea	SF3B3	3'UTR	0.012	0.289	0.0461
cg05192145	16	30,832,346	Island			0.022	0.881	0.0461
cg10439725	16	67,431,954	N_Shore	ZDHHC1	Body	0.015	0.641	0.0461
cg22907892	14	97,673,726	OpenSea			0.021	0.775	0.0461
cg06308537	17	4,850,290	N_Shore	PFN1	Body	0.014	0.130	0.0461
cg19094243	2	193,058,628	N_Shore	TMEFF2	Body	-0.015	0.077	0.0461
cg00449189	22	22,011,008	N_Shore			0.016	0.408	0.0461
cg07275979	8	124,084,365	N_Shore	WDR67	TSS1500	0.037	0.651	0.0461
cg02286380	17	4,621,205	OpenSea	ARRB2	Body	0.006	0.974	0.0461
cg19641570	13	98,825,009	N_Shelf	FARP1	5'UTR	-0.002	0.016	0.0461
cg03124318	12	109,491,989	S_Shore	USP30	Body	-0.007	0.954	0.0461
cg04373657	19	2,800,910	S_Shore	THOP1	Body	0.009	0.864	0.0461
cg12971338	17	27,070,618	Island	TRAF4	TSS1500	-0.003	0.028	0.0462
cg10529401	1	53,587,046	OpenSea	SLC1A7	Body	0.012	0.628	0.0462
cg13223754	6	30,457,142	N_Shore	HLA-E	TSS200	0.001	0.011	0.0462
cg03691020	6	144,416,889	S_Shore	SF3B5	TSS200	0.001	0.011	0.0462
cg11603759	11	71,951,714	N_Shore	PHOX2A	Body	-0.003	0.044	0.0462
cg09246878	4	160,304,826	OpenSea			0.013	0.659	0.0462
cg01517832	11	1,329,962	N_Shore	TOLLIP	Body	0.017	0.630	0.0462
cg19756253	3	128,118,221	OpenSea	EEFSEC	Body	-0.014	0.879	0.0462
cg06226630	4	48,493,420	Island	ZAR1	Body	0.017	0.201	0.0462
cg11719457	2	73,053,592	S_Shore	EXOC6B	TSS1500	0.006	0.969	0.0462
cg13134399	15	98,716,937	OpenSea			-0.020	0.311	0.0462
cg24691483	10	104,059,082	OpenSea	GBF1	Body	0.009	0.940	0.0462
cg17903275	1	20,616,496	OpenSea	VWA5B1	TSS1500	-0.006	0.964	0.0462
cg24686957	6	5,214,950	OpenSea	LYRM4	Body	-0.014	0.457	0.0462
cg24847829	5	136,834,464	Island	SPOCK1	5'UTR	-0.002	0.018	0.0462
cg15373782	17	135,338	N_Shore	RPH3AL	Body	0.004	0.976	0.0462
cg01258201	6	36,808,494	Island	CPNE5	TSS1500	-0.004	0.040	0.0462
cg02161115	1	76,262,373	N_Shore	MSH4	TSS1500	0.029	0.776	0.0462

cg17091733	15	41,778,394	Island			0.021	0.892	0.0462
cg20335293	2	156,586,057	OpenSea			0.016	0.390	0.0462
cg01242698	13	112,908,629	OpenSea			0.017	0.476	0.0462
cg04120645	15	91,260,188	N_Shore	BLM	TSS1500	0.002	0.028	0.0462
cg10750658	20	61,697,330	Island			0.015	0.795	0.0462
cg21011229	11	9,635,945	Island			0.002	0.017	0.0463
cg04150588	3	107,602,013	OpenSea	LOC285205	TSS200	-0.006	0.949	0.0463
cg16550500	14	51,556,555	N_Shelf	TRIM9	Body	-0.004	0.975	0.0463
cg12626957	3	187,770,324	OpenSea			0.012	0.292	0.0463
cg24487489	6	33,384,337	N_Shore	CUTA	3'UTR	-0.020	0.586	0.0463
cg11431585	19	14,138,834	N_Shelf	RLN3	TSS200	0.018	0.442	0.0463
cg18100662	11	1,218,804	N_Shelf			0.014	0.699	0.0463
cg05876864	5	176,831,638	Island	F12	Body	-0.004	0.033	0.0463
cg05055490	7	26,284,602	OpenSea			0.015	0.752	0.0463
cg26917746	6	158,518,021	OpenSea	SYNJ2	3'UTR	0.002	0.988	0.0463
cg10241697	13	99,912,133	OpenSea	GPR18	TSS1500	-0.009	0.912	0.0463
cg11511819	13	19,755,670	OpenSea	TUBA3C	Body	0.007	0.966	0.0463
cg21215325	15	35,178,803	OpenSea	AQR	Body	0.028	0.599	0.0463
cg11027707	3	49,967,669	S_Shore	MON1A	TSS1500	0.022	0.610	0.0463
cg05318454	19	46,117,805	N_Shore	EML2	Body	0.012	0.873	0.0463
cg12968987	5	55,502,758	OpenSea	ANKRD55	Body	0.002	0.983	0.0463
cg12219753	18	34,408,901	Island	C18orf10	5'UTR	0.002	0.013	0.0463
cg26181622	13	45,011,042	N_Shore	TSC22D1	TSS200	-0.002	0.023	0.0463
cg07664000	17	28,659,293	OpenSea	TMIGD1	5'UTR	-0.029	0.552	0.0463
cg12756150	2	241,140,248	OpenSea			-0.015	0.349	0.0463
cg09798202	16	85,353,755	OpenSea			-0.022	0.773	0.0463
cg14069601	5	171,621,251	OpenSea	EFCAB9	1stExon	0.009	0.936	0.0463
cg03607415	5	89,881,642	OpenSea	GPR98	Body	0.006	0.960	0.0463
cg24644201	11	46,299,066	N_Shore	CREB3L1	TSS200	-0.003	0.032	0.0463
cg01109065	3	55,508,379	Island	WNT5A	Body	0.009	0.408	0.0463

cg25709679	15	99,206,764	OpenSea	IGF1R	Body	0.007	0.953	0.0463
cg05892425	14	104,800,568	Island			0.017	0.736	0.0463
cg26188685	15	50,540,269	OpenSea	HDC	Body	0.013	0.896	0.0464
cg24834921	1	5,779,237	OpenSea			0.014	0.481	0.0464
cg00412294	12	97,300,582	N_Shore	NEDD1	TSS1500	0.026	0.554	0.0464
cg05039004	1	29,586,299	Island	PTPRU	Body	-0.002	0.015	0.0464
cg06025938	6	106,959,592	N_Shore	AIM1	TSS200	-0.002	0.018	0.0464
cg24997896	10	25,464,196	Island	LOC10012881	Body	0.004	0.029	0.0464
cg21366834	3	32,992,158	OpenSea	CCR4	TSS1500	-0.009	0.931	0.0464
cg06837783	17	79,210,852	N_Shore	C17orf56	Body	0.010	0.802	0.0464
cg00413089	7	158,750,985	Island			0.082	0.407	0.0464
cg03557445	3	8,615,444	OpenSea	LOH3CR2A	Body	0.030	0.342	0.0464
cg17278453	7	45,962,576	S_Shore			-0.012	0.155	0.0464
cg19639845	1	179,847,094	Island	TOR1AIP2	TSS200	-0.003	0.029	0.0464
cg16381917	12	113,797,720	S_Shore	PLBD2	Body	0.016	0.763	0.0464
cg21433239	3	172,578,576	OpenSea			-0.013	0.864	0.0464
cg15453943	5	104,434,827	OpenSea	RAB9P1	TSS1500	0.004	0.980	0.0464
cg26205981	8	24,856,821	N_Shore			0.020	0.217	0.0464
cg18587973	13	49,822,535	Island	CDADC1	Body	0.002	0.016	0.0464
cg22131237	1	166,809,306	Island	POGK	5'UTR	-0.002	0.027	0.0464
cg03560053	19	9,946,083	Island	PIN1	Body	-0.007	0.020	0.0464
cg19434087	7	157,696,664	S_Shore	PTPRN2	Body	0.015	0.700	0.0464
cg10595952	5	2,097,052	OpenSea			0.017	0.695	0.0464
cg08141615	12	110,172,214	OpenSea	MGC14436	Body	-0.007	0.042	0.0464
cg22330533	22	50,173,996	N_Shelf	BRD1	Body	0.011	0.834	0.0464
cg15405397	2	24,232,161	N_Shore	MFSD2B	TSS1500	-0.005	0.967	0.0464
cg26515389	16	89,115,544	S_Shore			0.011	0.902	0.0464
cg09953287	10	130,009,413	Island			0.020	0.220	0.0465
cg08221350	10	134,983,838	S_Shelf	KNDC1	Body	0.030	0.900	0.0465
cg11407345	21	47,745,057	Island	C21orf58	TSS1500	0.002	0.018	0.0465

cg26872482	6	32,051,108	N_Shelf	TNXB	Body	0.015	0.782	0.0465
cg09735579	13	22,247,070	N_Shore	FGF9	Body	0.005	0.033	0.0465
cg12181211	4	183,112,631	OpenSea			-0.020	0.970	0.0465
cg00375608	7	1,607,787	N_Shore	PSMG3	Body	0.016	0.479	0.0465
cg23273869	1	25,296,894	OpenSea			-0.032	0.545	0.0465
cg14182041	10	9,919,856	OpenSea			-0.028	0.960	0.0465
cg08479319	15	66,648,941	Island	TIPIN	5'UTR	0.047	0.147	0.0465
cg12625139	6	160,426,951	Island	IGF2R	Body	0.022	0.776	0.0465
cg26681017	16	89,723,193	Island	CHMP1A	Body	0.024	0.486	0.0465
cg07870757	10	35,415,603	N_Shore	CREM	TSS200	0.005	0.034	0.0465
cg13819687	9	35,404,785	OpenSea	UNC13B	3'UTR	-0.010	0.856	0.0465
cg03429348	2	233,750,589	OpenSea	NGEF	Body	0.012	0.949	0.0465
cg05561180	11	17,824,006	OpenSea	SERGEF	Body	-0.018	0.871	0.0465
cg16822365	3	184,104,518	Island	CHRD	Body	0.016	0.865	0.0465
cg08827144	7	158,293,593	OpenSea	PTPRN2	Body	0.018	0.405	0.0465
cg20480334	11	78,799,391	OpenSea	ODZ4	5'UTR	-0.023	0.830	0.0465
cg02867250	6	31,107,835	OpenSea	PSORS1C1	3'UTR	0.014	0.773	0.0465
cg20694425	4	55,235,418	OpenSea			0.006	0.952	0.0465
cg21117780	19	37,407,889	S_Shore	ZNF829	TSS1500	-0.002	0.022	0.0465
cg26105725	6	27,511,112	OpenSea			0.019	0.409	0.0465
cg06969777	11	68,200,493	N_Shore	LRP5	Body	0.014	0.817	0.0466
cg21555085	2	1,901,211	OpenSea	MYT1L	Body	-0.005	0.978	0.0466
cg01876288	7	158,800,934	S_Shore	LOC154822	TSS200	0.018	0.608	0.0466
cg24636995	3	141,783,929	OpenSea			0.019	0.878	0.0466
cg03740167	10	23,463,746	Island			-0.005	0.034	0.0466
cg06916574	12	51,101,014	OpenSea	DIP2B	Body	-0.003	0.981	0.0466
cg18285492	16	11,001,871	Island	CIITA	Body	0.012	0.877	0.0466
cg11925907	8	3,974,934	OpenSea	CSMD1	Body	-0.028	0.792	0.0466
cg08898868	1	21,923,109	OpenSea	RAP1GAP	3'UTR	0.006	0.957	0.0466
cg05597001	6	146,920,014	N_Shore	C6orf103	TSS200	0.002	0.028	0.0466

cg11654148	22	21,984,483	Island	YDJC	TSS200	0.001	0.012	0.0466
cg04842962	6	43,655,489	Island	MRPS18A	1stExon	-0.059	0.154	0.0466
cg17133668	1	162,792,177	Island			0.012	0.062	0.0466
cg04156729	2	240,646,190	N_Shelf			0.015	0.716	0.0466
cg25889998	17	1,214,951	OpenSea			0.031	0.760	0.0466
cg04933208	1	29,586,414	Island	PTPRU	Body	-0.007	0.023	0.0466
cg16030113	17	58,222,754	S_Shelf			0.015	0.301	0.0466
cg14957943	3	48,632,783	Island	COL7A1	TSS200	-0.015	0.055	0.0466
cg22802793	3	171,754,011	N_Shelf			-0.031	0.695	0.0466
cg14011734	3	10,290,674	N_Shore	TATDN2	5'UTR	0.001	0.012	0.0467
cg08359464	3	128,370,361	S_Shore	RPN1	TSS1500	0.012	0.942	0.0467
cg09888229	1	8,487,494	S_Shelf	RERE	Body	0.006	0.967	0.0467
cg09112081	16	29,796,620	Island			-0.014	0.081	0.0467
cg24698537	1	19,229,364	Island	ALDH4A1	TSS200	-0.003	0.023	0.0467
cg15747531	20	54,971,657	S_Shelf	CSTF1	Body	0.005	0.979	0.0467
cg16365265	16	27,561,417	Island	GTF3C1	TSS200	-0.003	0.018	0.0467
cg16630303	11	118,019,633	N_Shelf	SCN4B	Body	0.013	0.803	0.0467
cg06927813	10	29,839,837	OpenSea	SVIL	Body	-0.006	0.952	0.0467
cg06048354	5	140,501,812	N_Shore	PCDHB4	1stExon	0.037	0.214	0.0467
cg03043417	1	111,415,781	OpenSea	CD53	1stExon	0.018	0.664	0.0467
cg03008269	11	13,485,254	Island	BTBD10	TSS1500	0.002	0.024	0.0467
cg12297642	15	63,413,538	N_Shore	LACTB	TSS1500	0.020	0.569	0.0467
cg17051704	15	29,424,197	OpenSea	FAM189A1	Body	0.034	0.140	0.0467
cg05835982	3	129,693,791	Island	TRH	5'UTR	-0.008	0.059	0.0467
cg01450842	2	48,796,213	OpenSea	STON1-GTF2A	5'UTR	-0.003	0.981	0.0467
cg12158272	5	119,800,972	Island	PRR16	5'UTR	0.003	0.031	0.0467
cg09697880	9	130,370,977	Island			0.002	0.020	0.0467
cg04843087	8	10,755,969	OpenSea	XKR6	Body	-0.005	0.963	0.0467
cg02503633	10	134,014,536	N_Shore	DPYSL4	Body	0.011	0.870	0.0467
cg06484274	3	142,164,840	N_Shore	XRN1	Body	-0.013	0.886	0.0467



cg14328415	9	139,847,314	Island	LCN12	Body	0.030	0.812	0.0467
cg10077410	15	79,096,751	S_Shelf	ADAMTS7	Body	0.012	0.610	0.0467
cg06376016	2	179,059,452	Island	OSBPL6	5'UTR	-0.003	0.035	0.0467
cg06795741	20	49,202,297	OpenSea	MIR645	TSS200	-0.009	0.936	0.0468
cg13051017	4	101,850,039	OpenSea			0.005	0.967	0.0468
cg09770579	16	17,407,429	OpenSea	XYLT1	Body	-0.013	0.315	0.0468
cg08558397	7	752,149	Island	PRKAR1B	5'UTR	-0.010	0.027	0.0468
cg14168545	13	41,235,199	N_Shelf	FOXO1	Body	0.002	0.988	0.0468
cg25902939	19	18,544,350	Island	SSBP4	Body	-0.012	0.064	0.0468
cg05974733	8	1,402,316	N_Shelf			0.015	0.599	0.0468
cg21971285	11	31,841,818	Island			-0.013	0.130	0.0468
cg06008926	5	170,740,673	N_Shore			-0.001	0.023	0.0468
cg16379042	17	77,979,389	OpenSea	TBC1D16	Body	0.006	0.951	0.0468
cg01803654	2	236,772,061	N_Shore	AGAP1	Body	0.003	0.981	0.0468
cg10447977	3	64,598,405	OpenSea	ADAMTS9	Body	-0.012	0.240	0.0468
cg21733130	4	146,402,992	Island	SMAD1	TSS1500	-0.003	0.021	0.0468
cg13773148	9	136,923,109	S_Shelf	BRD3	5'UTR	0.031	0.669	0.0468
cg25067940	19	7,698,583	N_Shelf	PCP2	TSS200	0.015	0.749	0.0468
cg01223545	10	133,142,841	Island			0.015	0.839	0.0468
cg04926881	7	29,024,378	OpenSea			0.022	0.296	0.0468
cg12700695	22	26,833,717	S_Shelf	ASPHD2	Body	0.003	0.978	0.0468
cg25618559	2	241,644,166	S_Shelf			0.019	0.706	0.0469
cg22018784	9	98,079,448	Island	FANCC	5'UTR	-0.003	0.034	0.0469
cg26381313	10	102,279,455	Island	SEC31B	5'UTR	-0.005	0.042	0.0469
cg01627785	3	196,753,395	N_Shore	MF12	Body	0.012	0.832	0.0469
cg02331262	16	87,988,631	N_Shelf	BANP	5'UTR	0.011	0.902	0.0469
cg12634245	6	10,495,364	OpenSea			0.011	0.804	0.0469
cg12637448	4	1,496,981	S_Shelf			0.020	0.413	0.0469
cg27634115	2	42,423,477	OpenSea	EML4	Body	-0.051	0.751	0.0469
cg02774129	1	58,712,062	N_Shelf	DAB1	5'UTR	0.011	0.431	0.0469

cg12258864	10	104,004,885	N_Shore	GBF1	TSS1500	0.001	0.011	0.0469
cg06470951	2	240,366,416	OpenSea			0.019	0.749	0.0469
cg13650974	11	134,228,370	N_Shelf	GLB1L2	Body	0.015	0.703	0.0469
cg02254255	7	63,494,639	N_Shelf			0.005	0.970	0.0469
cg04145025	11	519,271	Island			0.025	0.688	0.0469
cg04683240	1	221,052,886	Island	HLX	1stExon	0.002	0.017	0.0469
cg14186349	15	96,964,022	S_Shelf			-0.021	0.413	0.0469
cg20777390	12	123,587,316	OpenSea	PITPNM2	5'UTR	0.018	0.556	0.0469
cg07374465	1	111,996,064	S_Shelf	ATP5F1	Body	-0.006	0.972	0.0469
cg26831220	16	70,680,406	OpenSea	IL34	TSS200	0.022	0.717	0.0469
cg05663064	21	47,404,216	Island	COL6A1	Body	0.015	0.944	0.0469
cg21044433	2	101,872,163	S_Shelf	C2orf29	Body	0.010	0.894	0.0469
cg17782706	4	184,580,436	Island	C4orf41	TSS200	0.002	0.027	0.0469
cg00379630	6	159,736,614	N_Shore			0.019	0.848	0.0469
cg01934790	16	756,400	Island	FBXL16	TSS1500	-0.010	0.055	0.0469
cg01362581	15	59,463,601	OpenSea	MIR2116	TSS200	0.005	0.968	0.0469
cg08386450	20	43,104,574	Island	TTPAL	5'UTR	0.004	0.030	0.0470
cg10361494	14	77,593,161	S_Shore			0.014	0.707	0.0470
cg02252795	16	85,877,243	N_Shore			0.010	0.736	0.0470
cg16704889	6	31,696,729	Island	DDAH2	Body	0.018	0.255	0.0470
cg10315366	10	134,911,047	N_Shore	GPR123	Body	0.013	0.834	0.0470
cg19060120	17	78,915,878	Island	RPTOR	Body	0.015	0.584	0.0470
cg25759366	6	30,526,264	S_Shore	PRR3	Body	0.002	0.986	0.0470
cg01907106	22	29,875,592	N_Shore	NEFH	TSS1500	0.029	0.219	0.0470
cg08633290	19	44,405,433	N_Shore			0.052	0.522	0.0470
cg11974768	10	88,978,778	N_Shelf			0.012	0.652	0.0470
cg15702349	11	132,950,104	N_Shore	OPCML	Body	0.012	0.858	0.0470
cg14149774	9	139,618,608	S_Shore	FAM69B	3'UTR	0.009	0.905	0.0470
cg01514703	14	55,494,452	S_Shore	SOCS4	5'UTR	-0.002	0.020	0.0470
cg02499249	3	25,469,720	OpenSea	RARB	TSS200	-0.001	0.018	0.0470

cg10066186	14	23,083,160	OpenSea			-0.015	0.164	0.0470
cg22974467	11	77,168,514	OpenSea	PAK1	5'UTR	0.017	0.487	0.0470
cg13866253	11	77,093,001	OpenSea	PAK1	Body	0.021	0.676	0.0470
cg02954711	11	1,596,005	Island	HCCA2	Body	0.001	0.020	0.0470
cg02538772	7	127,699,264	OpenSea	SND1	Body	-0.010	0.913	0.0470
cg22169206	19	56,136,215	S_Shore	ZNF784	TSS1500	-0.005	0.030	0.0470
cg21530419	3	186,490,728	Island			-0.021	0.075	0.0470
cg10517230	17	48,661,425	OpenSea	CACNA1G	Body	0.020	0.699	0.0470
cg13993643	19	34,013,247	S_Shore	PEPD	TSS1500	0.019	0.752	0.0470
cg20905746	15	79,165,638	Island	MORF4L1	Body	-0.005	0.046	0.0470
cg24284973	11	131,780,357	Island	NTM	TSS1500	-0.007	0.030	0.0470
cg06711307	19	10,362,455	N_Shore	MRPL4	TSS200	0.001	0.016	0.0470
cg03890538	17	78,938,344	Island	RPTOR	3'UTR	0.018	0.497	0.0470
cg18746357	11	65,429,465	N_Shore	RELA	Body	0.017	0.585	0.0470
cg07401067	5	1,725,411	Island			0.028	0.488	0.0470
cg09701582	2	177,017,797	S_Shore	HOXD4	3'UTR	0.039	0.381	0.0471
cg23001413	5	179,859,344	OpenSea			0.008	0.953	0.0471
cg09579760	1	163,132,916	OpenSea	RGS5	Body	-0.044	0.662	0.0471
cg22361321	9	131,549,326	Island	TBC1D13	TSS200	-0.004	0.036	0.0471
cg13434757	6	160,541,976	OpenSea	SLC22A1	TSS1500	0.004	0.974	0.0471
cg16598680	3	126,277,940	OpenSea	C3orf22	TSS200	0.013	0.676	0.0471
cg10208485	3	350,602	N_Shore	CHL1	5'UTR	0.029	0.153	0.0471
cg00035847	1	29,557,016	N_Shore	MECR	Body	0.021	0.195	0.0471
cg07233908	12	51,442,043	Island	LETMD1	TSS200	-0.002	0.023	0.0471
cg09295799	6	5,994,235	N_Shore			0.034	0.264	0.0471
cg10729419	6	28,872,100	OpenSea	TRIM27	Body	-0.004	0.957	0.0471
cg10013343	13	29,106,503	N_Shore			-0.001	0.020	0.0471
cg04665180	9	132,934,972	N_Shore	FREQ	1stExon	-0.008	0.045	0.0471
cg05339076	22	47,513,051	N_Shore	TBC1D22A	Body	0.012	0.911	0.0471
cg07167185	1	24,120,017	S_Shelf	LYPLA2	Body	0.015	0.647	0.0471

cg23394673	1	1,149,211	Island	TNFRSF4	Body	0.014	0.648	0.0471
cg02488653	11	1,568,987	S_Shore	HCCA2	Body	0.010	0.083	0.0471
cg14441891	9	86,923,878	OpenSea	SLC28A3	Body	0.001	0.991	0.0471
cg14428590	15	40,076,065	S_Shore	FSIP1	TSS1500	0.014	0.525	0.0471
cg11269159	8	9,788,745	N_Shelf			0.017	0.451	0.0471
cg01051545	1	61,508,955	Island			-0.006	0.049	0.0471
cg26639820	12	53,242,815	OpenSea	KRT78	TSS200	0.010	0.500	0.0471
cg21935981	22	45,608,465	OpenSea	C22orf9	Body	-0.011	0.063	0.0471
cg25416014	3	183,146,809	S_Shore	MCF2L2	TSS1500	0.002	0.020	0.0472
cg16873414	22	44,568,699	OpenSea	PARVG	TSS200	0.013	0.838	0.0472
cg04297067	16	86,550,450	Island			-0.024	0.342	0.0472
cg21739584	3	187,452,863	N_Shelf	BCL6	5'UTR	0.025	0.766	0.0472
cg22217158	5	72,595,188	Island			0.006	0.057	0.0472
cg03717588	11	56,948,018	Island	LRR55	TSS1500	0.008	0.056	0.0472
cg11493139	10	32,217,547	Island	ARHGAP12	5'UTR	0.004	0.034	0.0472
cg20072792	17	73,636,592	OpenSea	RECQL5	Body	0.006	0.947	0.0472
cg15268456	8	144,260,671	OpenSea			-0.023	0.801	0.0472
cg00550529	12	103,979,670	OpenSea	STAB2	TSS1500	-0.004	0.974	0.0472
cg20705390	1	1,266,178	N_Shore	TAS1R3	TSS1500	0.017	0.766	0.0472
cg19368966	1	10,458,856	Island	PGD	TSS1500	-0.005	0.020	0.0472
cg01785514	1	212,988,523	OpenSea	TATDN3	3'UTR	-0.032	0.518	0.0472
cg05057057	7	44,613,977	S_Shore	DDX56	1stExon	-0.003	0.026	0.0472
cg11033697	4	177,305,431	OpenSea			0.005	0.977	0.0472
cg19435724	12	54,387,917	Island			-0.004	0.041	0.0472
cg13075709	12	53,773,242	N_Shore	SP1	TSS1500	0.002	0.021	0.0472
cg24650913	17	80,970,434	S_Shore	B3GNTL1	Body	-0.018	0.533	0.0472
cg13011999	14	90,167,241	N_Shore			-0.032	0.758	0.0472
cg27114094	18	3,262,035	Island	MYL12B	TSS200	-0.002	0.025	0.0472
cg12279688	4	189,333,449	OpenSea			0.037	0.730	0.0472
cg22019177	11	111,809,582	S_Shore	DIXDC1	Body	0.013	0.614	0.0472

cg03892356	12	54,420,837	N_Shelf	HOXC4	5'UTR	0.054	0.245	0.0472
cg25042430	10	23,982,579	Island	KIAA1217	TSS1500	0.004	0.045	0.0472
cg08423857	16	84,840,454	OpenSea			-0.022	0.761	0.0472
cg19023847	10	99,344,164	OpenSea	DHDPSL	1stExon	0.017	0.626	0.0472
cg11021082	4	95,130,006	S_Shore	SMARCAD1	Body	0.016	0.806	0.0472
cg13885748	9	112,232,127	OpenSea	PTPN3	5'UTR	-0.003	0.030	0.0472
cg03272408	17	46,103,607	S_Shore	COPZ2	3'UTR	0.012	0.354	0.0472
cg06672226	16	85,611,689	OpenSea			0.012	0.340	0.0472
cg13705774	1	152,670,764	OpenSea	LCE2A	TSS200	0.032	0.808	0.0472
cg20851465	6	27,862,440	S_Shore	HIST1H2AM	TSS1500	0.001	0.017	0.0472
cg05375100	16	565,623	Island	RAB11FIP3	Body	0.007	0.966	0.0472
cg02276793	3	169,685,131	S_Shore	LOC10012816	TSS1500	0.001	0.011	0.0472
cg05505745	15	74,422,330	Island	ISLR2	5'UTR	0.002	0.022	0.0473
cg24830494	5	140,474,986	N_Shore	PCDHB2	1stExon	0.025	0.234	0.0473
cg02892153	18	3,593,461	OpenSea	FLJ35776	TSS1500	0.014	0.100	0.0473
cg10597997	5	171,479,920	N_Shelf	STK10	Body	0.009	0.910	0.0473
cg01803059	4	146,402,404	N_Shore	SMAD1	TSS1500	-0.004	0.029	0.0473
cg16611220	6	52,926,964	S_Shore	ICK	TSS1500	-0.005	0.046	0.0473
cg21579107	12	49,783,192	Island	SPATS2	5'UTR	-0.017	0.918	0.0473
cg26153790	5	139,781,390	Island	ANKHD1	TSS200	0.001	0.015	0.0473
cg15656462	10	135,059,835	OpenSea			0.020	0.579	0.0473
cg08143133	22	32,598,570	OpenSea	RFPL2	5'UTR	0.032	0.287	0.0473
cg02867763	5	140,734,721	Island	PCDHGA4	TSS200	0.021	0.094	0.0473
cg05908442	15	77,800,637	OpenSea			0.009	0.589	0.0473
cg06697057	12	131,057,092	OpenSea			0.013	0.842	0.0473
cg17805624	10	134,692,989	Island			0.032	0.399	0.0473
cg16733558	14	29,256,427	S_Shore	C14orf23	Body	0.006	0.972	0.0473
cg11613383	2	61,412,361	OpenSea	AHSA2	Body	0.008	0.896	0.0473
cg16305333	1	12,123,936	Island	TNFRSF8	Body	-0.011	0.080	0.0473
cg22031650	11	111,957,494	Island	SDHD	TSS200	-0.002	0.022	0.0473

cg03161037	17	46,808,309	N_Shelf			0.017	0.292	0.0473
cg04321126	6	39,393,690	OpenSea	KIF6	Body	0.016	0.422	0.0473
cg10382835	6	42,185,730	OpenSea	MRPS10	TSS200	0.004	0.028	0.0473
cg01703419	12	108,297,587	Island			0.004	0.019	0.0473
cg11886002	5	180,487,371	S_Shore	BTNL9	3'UTR	0.019	0.684	0.0473
cg04378518	20	60,585,259	N_Shelf	TAF4	Body	-0.004	0.976	0.0473
cg08800893	22	36,727,569	OpenSea	MYH9	Body	0.013	0.676	0.0473
cg11757130	10	112,434,043	S_Shore	RBM20	Body	0.006	0.959	0.0474
cg03578331	2	161,350,329	Island	RBMS1	TSS200	0.001	0.016	0.0474
cg14011554	9	128,657,810	OpenSea	PBX3	Body	0.003	0.985	0.0474
cg05831188	7	3,549,961	OpenSea	SDK1	Body	0.014	0.363	0.0474
cg22598563	5	131,563,921	Island	P4HA2	TSS1500	-0.006	0.050	0.0474
cg04613057	19	17,302,087	N_Shore	MYO9B	Body	0.005	0.970	0.0474
cg21644077	3	139,012,477	OpenSea			0.014	0.923	0.0474
cg06143663	16	11,242,115	OpenSea	CLEC16A	Body	0.003	0.981	0.0474
cg20215622	2	213,401,056	N_Shore	ERBB4	Body	-0.002	0.021	0.0474
cg22678073	1	8,087,421	S_Shore	ERRFI1	TSS1500	0.014	0.339	0.0474
cg07034145	3	112,814,660	OpenSea			0.003	0.978	0.0474
cg19765281	19	15,485,159	S_Shore	AKAP8	Body	0.012	0.764	0.0474
cg00585213	2	236,760,254	OpenSea	AGAP1	Body	0.023	0.805	0.0474
cg07105272	3	186,490,785	Island			-0.018	0.197	0.0474
cg11177552	3	25,347,174	OpenSea			-0.017	0.934	0.0474
cg23751536	21	43,251,517	N_Shelf	PRDM15	Body	-0.026	0.915	0.0474
cg06791426	12	133,135,361	Island	FBRSL1	Body	0.015	0.642	0.0474
cg10370574	19	1,840,461	OpenSea	REXO1	Body	-0.010	0.916	0.0474
cg02441015	19	5,244,038	Island	PTPRS	Body	0.006	0.956	0.0474
cg25026456	1	28,298,962	OpenSea			0.014	0.923	0.0474
cg08403419	1	155,911,238	OpenSea	RXFP4	TSS1500	0.013	0.505	0.0474
cg22009464	18	32,173,084	OpenSea	DTNA	TSS200	-0.003	0.024	0.0474
cg13133961	6	36,355,488	Island	ETV7	TSS200	0.003	0.020	0.0475

cg16497018	10	102,133,035	Island	C10orf75	TSS1500	-0.004	0.037	0.0475
cg22545168	19	54,866,514	OpenSea	LAIR1	3'UTR	0.021	0.578	0.0475
cg14359486	9	21,396,119	Island			-0.009	0.048	0.0475
cg08902940	1	166,272,528	OpenSea			-0.019	0.474	0.0475
cg17191006	12	45,042,313	OpenSea	NELL2	Body	0.020	0.882	0.0475
cg18343862	11	10,590,003	OpenSea	LYVE1	1stExon	-0.013	0.856	0.0475
cg15176839	6	14,035,622	OpenSea			-0.016	0.898	0.0475
cg24445405	17	5,391,238	S_Shore	MIS12	5'UTR	0.004	0.976	0.0475
cg18707723	10	95,143,710	OpenSea	MYOF	Body	0.016	0.926	0.0475
cg09944398	14	99,460,208	OpenSea			0.013	0.863	0.0475
cg08360721	5	169,930,870	N_Shore	KCNIP1	TSS200	-0.004	0.042	0.0475
cg19527748	10	43,632,601	N_Shore	CSGALNACT2	TSS1500	0.002	0.984	0.0475
cg19547404	12	65,276,409	OpenSea			0.009	0.909	0.0475
cg13554549	22	47,191,940	S_Shelf	TBC1D22A	Body	0.011	0.796	0.0475
cg14202215	10	130,013,154	S_Shelf			0.014	0.836	0.0475
cg03222971	2	217,559,020	N_Shore	IGFBP5	Body	-0.009	0.107	0.0475
cg12539917	22	48,896,415	Island	FAM19A5	Body	0.010	0.506	0.0475
cg06279535	21	45,135,999	N_Shelf			0.015	0.884	0.0475
cg16804603	6	21,856,613	OpenSea	FLJ22536	Body	-0.037	0.524	0.0475
cg26704043	6	5,282,702	OpenSea	FARS2	5'UTR	0.017	0.616	0.0475
cg03188580	6	28,829,378	N_Shelf			0.035	0.881	0.0475
cg09363587	1	202,183,264	Island	LGR6	Body	0.007	0.069	0.0475
cg08181258	14	67,710,831	S_Shelf	MPP5	5'UTR	-0.009	0.931	0.0475
cg19299739	19	49,865,342	Island	TEAD2	5'UTR	-0.005	0.052	0.0475
cg06501744	5	178,899,789	OpenSea			0.012	0.809	0.0476
cg20700952	19	57,630,217	N_Shore	USP29	TSS1500	0.023	0.576	0.0476
cg10219425	10	7,744,631	OpenSea	ITIH2	TSS1500	-0.012	0.933	0.0476
cg12713243	12	132,889,212	S_Shelf	GALNT9	Body	0.013	0.774	0.0476
cg16883935	8	12,869,602	OpenSea	C8orf79	TSS200	0.012	0.901	0.0476
cg20478934	19	10,120,794	Island	COL5A3	Body	0.030	0.464	0.0476

cg08873628	1	175,162,347	Island	KIAA0040	TSS200	-0.002	0.022	0.0476
cg12743621	1	20,988,763	S_Shore	DDOST	TSS1500	0.017	0.634	0.0476
cg15778346	7	75,947,261	N_Shore			0.001	0.018	0.0476
cg21753200	6	28,864,643	S_Shore			0.001	0.013	0.0476
cg15308295	4	89,378,052	N_Shore	HERC5	TSS1500	-0.008	0.111	0.0476
cg09331127	22	41,487,734	Island	EP300	TSS1500	-0.001	0.019	0.0476
cg19343464	11	105,481,509	S_Shore	GRIA4	5'UTR	-0.001	0.019	0.0476
cg21746884	4	165,928,617	OpenSea			0.006	0.963	0.0476
cg07180883	6	32,722,504	OpenSea			0.012	0.936	0.0476
cg10115203	1	7,121,245	N_Shore	CAMTA1	Body	-0.027	0.871	0.0476
cg16157895	14	93,412,666	OpenSea	ITPK1	Body	0.009	0.925	0.0476
cg26889840	1	46,153,785	S_Shore	GPBP1L1	TSS1500	0.023	0.026	0.0476
cg00585621	4	100,868,748	N_Shore	DNAJB14	TSS1500	0.016	0.743	0.0476
cg26874229	2	105,853,672	Island			0.041	0.539	0.0476
cg26385745	3	125,803,341	S_Shore	SLC41A3	TSS1500	-0.002	0.020	0.0476
cg07094909	10	111,043,786	OpenSea			0.004	0.974	0.0476
cg17266963	15	82,959,442	OpenSea	LOC80154	Body	-0.062	0.562	0.0476
cg00547068	5	169,404,742	OpenSea	FAM196B	5'UTR	-0.010	0.946	0.0476
cg01475538	11	14,381,234	S_Shore	RRAS2	TSS1500	0.010	0.403	0.0476
cg10426076	11	57,158,282	OpenSea	PRG2	TSS200	0.021	0.744	0.0476
cg05382123	1	34,632,585	S_Shore	C1orf94	TSS200	-0.004	0.032	0.0476
cg00651103	1	41,826,829	Island			-0.003	0.033	0.0476
cg14108527	9	125,562,385	OpenSea	OR1K1	TSS200	-0.007	0.954	0.0476
cg07368796	10	43,800,133	N_Shore			-0.013	0.148	0.0476
cg10004574	22	21,400,178	Island	LOC400891	TSS200	0.003	0.030	0.0476
cg16400486	14	90,085,813	S_Shore	FOXN3	TSS1500	-0.003	0.042	0.0476
cg07168328	1	46,871,232	OpenSea	FAAH	Body	0.014	0.793	0.0477
cg26571760	4	148,538,954	S_Shore	TMEM184C	1stExon	0.021	0.126	0.0477
cg05950509	10	73,078,578	N_Shore	SLC29A3	TSS1500	-0.013	0.891	0.0477
cg19443023	17	78,923,344	S_Shore	RPTOR	Body	0.011	0.945	0.0477



cg24813206	6	112,279,998	OpenSea			-0.012	0.939	0.0477
cg17436460	10	17,028,480	OpenSea	CUBN	Body	0.024	0.542	0.0477
cg20851317	18	47,792,341	N_Shore	CCDC11	Body	0.023	0.469	0.0477
cg00460795	2	119,998,072	OpenSea	STEAP3	Body	0.013	0.646	0.0477
cg08442052	5	13,745,921	OpenSea	DNAH5	Body	0.018	0.445	0.0477
cg12729307	17	27,893,731	Island	ABHD15	1stExon	-0.009	0.079	0.0477
cg04065143	3	2,945,214	OpenSea	CNTN4	Body	0.019	0.633	0.0477
cg20607221	2	241,078,542	S_Shelf	OTOS	3'UTR	0.015	0.707	0.0477
cg06180152	6	30,043,492	Island	RNF39	1stExon	-0.011	0.066	0.0477
cg18086520	4	186,741,362	OpenSea	SORBS2	5'UTR	-0.020	0.707	0.0477
cg05508084	19	56,988,398	Island	ZNF667	5'UTR	-0.001	0.016	0.0477
cg00578637	2	88,366,847	OpenSea	SMYD1	TSS1500	-0.005	0.958	0.0477
cg15610792	9	131,592,173	Island	C9orf114	TSS200	-0.004	0.031	0.0477
cg26801241	16	47,495,768	S_Shore	PHKB	Body	-0.002	0.026	0.0477
cg03441713	21	43,491,362	OpenSea	UMODL1	TSS200	0.011	0.757	0.0477
cg18193764	5	134,879,961	S_Shore			-0.002	0.018	0.0478
cg17541736	7	46,815,209	OpenSea			-0.003	0.980	0.0478
cg10501177	8	17,435,088	S_Shore	PDGFRL	Body	0.002	0.020	0.0478
cg08017156	16	21,611,107	Island	METTL9	1stExon	0.002	0.018	0.0478
cg00577030	20	62,496,404	Island	TPD52L2	TSS200	-0.007	0.097	0.0478
cg18983607	8	103,113,436	OpenSea	NCALD	5'UTR	0.002	0.988	0.0478
cg07769176	16	88,878,414	Island	APRT	TSS200	0.008	0.043	0.0478
cg15757615	2	196,521,451	N_Shore	SLC39A10	TSS1500	0.002	0.023	0.0478
cg15685922	1	156,045,208	N_Shore	MEX3A	3'UTR	-0.015	0.300	0.0478
cg08155109	4	173,731,209	OpenSea	GALNTL6	Body	-0.038	0.517	0.0478
cg25062357	20	2,821,267	Island	VPS16	TSS200	-0.007	0.032	0.0478
cg26360402	14	105,973,994	OpenSea			0.015	0.573	0.0478
cg07643355	3	66,139,795	OpenSea	SLC25A26	5'UTR	0.020	0.229	0.0478
cg23736297	17	78,915,881	Island	RPTOR	Body	0.021	0.516	0.0478
cg16391347	14	101,123,599	S_Shelf	C14orf70	TSS200	0.011	0.863	0.0478

cg10709062	17	76,222,194	OpenSea	EPR1	TSS1500	0.015	0.684	0.0478
cg10922163	9	34,611,951	Island	C9orf23	1stExon	-0.003	0.031	0.0478
cg04213489	14	90,995,212	S_Shelf			0.002	0.982	0.0479
cg08216899	19	38,818,130	OpenSea	KCNK6	3'UTR	0.010	0.712	0.0479
cg06526960	1	151,336,795	OpenSea	SELENBP1	3'UTR	0.005	0.967	0.0479
cg13904481	5	132,118,820	OpenSea			0.014	0.846	0.0479
cg03521348	8	40,319,233	OpenSea			0.015	0.960	0.0479
cg00541479	1	162,468,226	S_Shore	UHMK1	Body	0.003	0.034	0.0479
cg11931949	2	112,814,041	S_Shore	TMEM87B	Body	-0.003	0.029	0.0479
cg20039571	19	30,307,469	S_Shelf	CCNE1	Body	0.003	0.983	0.0479
cg26306893	20	37,074,908	N_Shore	SNHG11	TSS1500	0.020	0.535	0.0479
cg07932334	13	114,793,396	OpenSea	RASA3	Body	0.015	0.688	0.0479
cg20337093	10	89,621,678	N_Shore	KILLIN	1stExon	-0.004	0.050	0.0479
cg00263592	12	29,302,279	Island			-0.010	0.058	0.0479
cg11192191	11	69,291,998	OpenSea			0.012	0.847	0.0479
cg09357097	17	46,688,490	Island	HOXB7	TSS200	-0.004	0.049	0.0479
cg20008101	14	55,595,227	N_Shore	LGALS3	TSS1500	-0.021	0.932	0.0479
cg07116314	1	244,998,544	Island	FAM36A	TSS200	0.001	0.018	0.0479
cg03908526	17	77,955,167	N_Shore	TBC1D16	Body	0.011	0.765	0.0479
cg02050283	2	242,998,406	OpenSea			0.013	0.457	0.0479
cg05296777	10	73,829,074	OpenSea	SPOCK2	Body	0.017	0.880	0.0479
cg08712118	6	123,142,447	OpenSea			-0.026	0.633	0.0479
cg02505681	19	39,615,285	N_Shore	PAK4	TSS1500	0.012	0.899	0.0479
cg08687995	15	52,201,614	OpenSea	TMOD3	3'UTR	0.003	0.979	0.0479
cg22167267	17	80,132,832	OpenSea	CCDC57	Body	0.012	0.295	0.0479
cg01868559	12	16,034,962	Island	STRAP	TSS1500	0.001	0.012	0.0479
cg01985090	22	20,104,996	Island	RANBP1	TSS200	0.006	0.025	0.0479
cg20531550	7	128,550,902	Island	KCP	TSS200	0.006	0.052	0.0479
cg19408882	17	34,101,272	S_Shelf	MMP28	Body	0.014	0.183	0.0479
cg06463424	8	55,471,698	OpenSea			0.041	0.730	0.0480

cg05846365	17	62,971,706	Island	FLJ32065	TSS200	0.001	0.025	0.0480
cg22337438	19	54,327,437	OpenSea	NLRP12	5'UTR	0.010	0.936	0.0480
cg07843512	7	20,992,918	OpenSea			-0.028	0.551	0.0480
cg14853933	15	25,228,929	OpenSea	PAR-SN	Body	0.027	0.749	0.0480
cg23684711	1	948,879	Island	ISG15	1stExon	0.017	0.059	0.0480
cg07377178	6	3,025,064	OpenSea			0.026	0.842	0.0480
cg16573957	8	21,970,273	S_Shelf			0.014	0.686	0.0480
cg00296652	1	47,136,757	S_Shelf	C1orf223	TSS1500	0.011	0.905	0.0480
cg24855943	6	26,235,224	OpenSea	HIST1H1D	TSS200	0.001	0.015	0.0480
cg27026371	11	123,886,141	OpenSea	OR10G4	TSS200	0.010	0.927	0.0480
cg09784932	22	20,229,526	Island	RTN4R	Body	-0.010	0.919	0.0480
cg15054990	20	36,039,916	OpenSea			-0.006	0.959	0.0480
cg18115724	2	88,390,376	OpenSea	SMYD1	Body	0.010	0.933	0.0480
cg11612040	2	66,912,619	OpenSea			0.005	0.968	0.0480
cg11965671	5	159,739,797	Island	CCNJL	TSS1500	-0.002	0.017	0.0480
cg02582057	7	155,258,253	N_Shore			-0.003	0.042	0.0480
cg14573411	9	126,135,992	Island	CRB2	Body	-0.039	0.062	0.0480
cg12624747	22	44,575,802	OpenSea	PARVG	TSS1500	0.012	0.338	0.0480
cg15435996	22	23,908,337	Island			-0.004	0.042	0.0480
cg20378070	6	30,641,179	S_Shore	DHX16	TSS1500	0.026	0.740	0.0480
cg26223987	6	157,802,912	Island	ZDHHC14	1stExon	-0.003	0.022	0.0480
cg07165288	3	114,261,297	OpenSea	ZBTB20	5'UTR	0.012	0.387	0.0480
cg15048099	10	134,751,800	N_Shelf	C10orf93	Body	0.019	0.647	0.0480
cg10743291	6	155,593,746	OpenSea	CLDN20	5'UTR	0.026	0.474	0.0481
cg20876170	17	74,736,402	S_Shelf	MFSD11	Body	0.020	0.685	0.0481
cg18053030	6	47,097,679	OpenSea			-0.025	0.607	0.0481
cg19664328	5	178,854,502	OpenSea			-0.032	0.501	0.0481
cg18827787	18	61,817,320	OpenSea	C18orf20	TSS1500	-0.015	0.870	0.0481
cg23243718	10	60,144,880	Island	TFAM	TSS1500	0.001	0.015	0.0481
cg09864076	1	102,462,877	OpenSea	OLFM3	TSS200	0.021	0.476	0.0481

cg04422019	7	50,611,949	OpenSea	DDC	5'UTR	-0.006	0.957	0.0481
cg01879988	8	22,038,142	S_Shelf	BMP1	Body	0.015	0.897	0.0481
cg08279075	16	54,318,772	Island	IRX3	Body	0.002	0.021	0.0481
cg15675740	11	45,874,617	OpenSea	CRY2	Body	-0.013	0.366	0.0481
cg18340983	11	72,941,691	N_Shelf	P2RY2	5'UTR	0.010	0.874	0.0481
cg26684776	6	90,085,550	OpenSea	RRAGD	Body	0.012	0.690	0.0481
cg08482926	16	85,283,655	OpenSea			0.017	0.727	0.0481
cg20362689	8	112,482,677	OpenSea			-0.008	0.948	0.0481
cg04607671	16	85,383,193	OpenSea			0.028	0.460	0.0481
cg26843008	20	35,724,227	Island	RBL1	1stExon	-0.003	0.029	0.0481
cg16255334	13	100,652,448	S_Shelf			-0.013	0.927	0.0481
cg02853154	13	74,831,888	OpenSea			-0.024	0.628	0.0481
cg09159258	15	91,568,171	S_Shelf			0.014	0.841	0.0481
cg26511108	10	22,608,951	S_Shelf	COMMD3	3'UTR	-0.035	0.488	0.0481
cg16723738	1	3,371,586	Island	ARHGGEF16	5'UTR	-0.004	0.029	0.0481
cg08579858	22	29,709,964	Island	RASL10A	Body	0.017	0.094	0.0482
cg06222885	4	182,889,207	OpenSea			-0.005	0.971	0.0482
cg17317266	19	11,495,261	S_Shore	EPOR	TSS1500	0.019	0.622	0.0482
cg04023982	4	165,928,792	OpenSea			0.012	0.875	0.0482
cg08528934	5	178,593,785	N_Shore	ADAMTS2	Body	0.027	0.579	0.0482
cg27501783	3	32,942,762	OpenSea			0.005	0.970	0.0482
cg09257456	11	60,260,937	OpenSea	MS4A12	5'UTR	-0.023	0.888	0.0482
cg13383058	11	66,084,660	S_Shore	CD248	TSS200	-0.003	0.026	0.0482
cg19119577	12	34,480,369	OpenSea			0.026	0.739	0.0482
cg22438247	21	43,786,663	OpenSea	TFF1	TSS200	0.015	0.510	0.0482
cg05353099	11	67,203,544	Island	PTPRCAP	Body	0.013	0.617	0.0482
cg20001666	1	20,990,821	S_Shelf	KIF17	3'UTR	0.016	0.888	0.0482
cg16531136	4	2,263,836	Island	MXD4	TSS200	-0.005	0.027	0.0482
cg23399933	4	102,112,217	OpenSea	PPP3CA	Body	0.004	0.977	0.0482
cg22749859	20	61,193,998	N_Shelf			0.014	0.824	0.0482

cg14136168	9	139,129,886	S_Shore	QSOX2	Body	-0.016	0.506	0.0482
cg01049782	7	30,717,954	N_Shelf	CRHR2	Body	-0.016	0.832	0.0482
cg23181573	17	3,863,976	N_Shelf	ATP2A3	Body	0.020	0.809	0.0482
cg15892650	5	150,524,635	OpenSea	ANXA6	Body	0.012	0.852	0.0482
cg08795515	17	80,648,875	N_Shore	RAB40B	Body	0.013	0.662	0.0482
cg14214257	9	102,058,671	N_Shore			0.018	0.346	0.0482
cg13443800	9	130,369,375	N_Shore			0.009	0.932	0.0483
cg17443753	1	5,180,057	OpenSea			-0.018	0.780	0.0483
cg20667575	11	113,258,210	N_Shore	ANKK1	TSS1500	0.016	0.411	0.0483
cg05516489	12	54,359,761	Island	HOTAIR	Body	-0.002	0.033	0.0483
cg05723825	2	95,537,475	Island	TEKT4	1stExon	0.021	0.423	0.0483
cg06646682	1	1,273,442	S_Shore	DVL1	Body	0.020	0.687	0.0483
cg19751997	1	179,795,188	OpenSea			0.014	0.643	0.0483
cg22727572	2	63,272,334	Island	LOC100132211	Body	-0.047	0.687	0.0483
cg24059694	17	39,078,959	OpenSea	KRT23	3'UTR	-0.003	0.981	0.0483
cg16039660	4	184,686,701	OpenSea			0.014	0.713	0.0483
cg07985359	19	7,894,666	OpenSea	EVI5L	TSS1500	-0.004	0.037	0.0483
cg24530432	4	174,428,060	Island			-0.015	0.037	0.0483
cg14400631	11	14,666,512	Island	PDE3B	1stExon	-0.005	0.029	0.0483
cg17750075	6	31,854,813	N_Shelf	EHMT2	Body	0.010	0.853	0.0483
cg03542778	15	45,400,492	N_Shelf	DUOX2	Body	0.012	0.710	0.0483
cg23148838	5	10,376,991	OpenSea		6-Mar Body	0.012	0.777	0.0483
cg07484354	5	157,078,822	Island	SOX30	1stExon	-0.006	0.031	0.0483
cg00551847	2	170,681,586	Island	METTL5	TSS1500	0.002	0.018	0.0483
cg06289802	17	72,748,189	S_Shelf	SLC9A3R1	Body	0.003	0.982	0.0483
cg14087351	7	73,037,990	Island	MLXIPL	Body	-0.004	0.052	0.0483
cg08307816	14	100,626,192	Island	DEGS2	TSS200	0.004	0.030	0.0483
cg09734080	2	239,334,318	N_Shore	ASB1	TSS1500	0.015	0.697	0.0483
cg07192821	15	45,003,560	Island	B2M	TSS200	-0.002	0.022	0.0483
cg03389126	12	6,945,978	OpenSea	LEPREL2	Body	0.008	0.931	0.0483

cg14634760	8	143,561,039	S_Shelf	BAI1	Body	0.020	0.561	0.0483
cg22853526	1	113,216,965	N_Shore	MOV10	TSS200	0.002	0.023	0.0483
cg27047671	14	69,006,140	OpenSea	RAD51L1	Body	0.019	0.800	0.0483
cg25450333	3	141,943,895	N_Shore	GK5	Body	-0.003	0.022	0.0483
cg03058664	8	144,120,635	OpenSea	C8orf31	TSS200	0.038	0.219	0.0483
cg27430682	10	65,225,552	Island	JMJD1C	5'UTR	-0.017	0.040	0.0483
cg00067538	2	231,859,946	S_Shelf	SPATA3	TSS1500	0.010	0.843	0.0483
cg20941453	1	111,148,858	N_Shore	KCNA2	TSS1500	-0.005	0.061	0.0483
cg00704633	4	170,948,762	Island	MFAP3L	TSS1500	0.004	0.040	0.0483
cg12213003	6	10,747,896	Island	TMEM14B	TSS200	0.001	0.016	0.0484
cg23165545	3	49,449,548	Island	TCTA	TSS200	0.002	0.013	0.0484
cg17826393	8	67,525,576	Island	MYBL1	TSS200	-0.005	0.019	0.0484
cg15408360	14	102,432,104	S_Shore	DYNC1H1	Body	0.021	0.501	0.0484
cg10938486	16	20,420,716	OpenSea	ACSM5	TSS200	0.016	0.341	0.0484
cg21298978	8	143,961,391	OpenSea	CYP11B1	TSS200	0.022	0.329	0.0484
cg18766754	10	38,299,406	N_Shore	ZNF33A	TSS200	-0.003	0.029	0.0484
cg12119218	10	70,287,206	Island	SLC25A16	5'UTR	0.002	0.020	0.0484
cg24389347	3	126,277,693	OpenSea	C3orf22	1stExon	0.017	0.604	0.0484
cg08349931	12	131,498,999	OpenSea	GPR133	Body	0.014	0.765	0.0484
cg16485897	8	128,555,993	OpenSea			0.010	0.937	0.0484
cg09450657	4	8,642,776	N_Shelf			0.009	0.917	0.0484
cg18048544	8	38,033,938	Island	LSM1	1stExon	-0.012	0.125	0.0484
cg05812582	7	3,920,082	OpenSea	SDK1	Body	0.030	0.686	0.0484
cg25630910	12	123,753,186	N_Shore	CDK2AP1	Body	0.020	0.540	0.0484
cg15235373	7	77,428,232	Island	PHTF2	1stExon	0.001	0.016	0.0484
cg03265564	1	9,748,971	N_Shore	PIK3CD	5'UTR	0.012	0.327	0.0484
cg21656751	7	43,153,201	Island	HECW1	5'UTR	-0.012	0.143	0.0484
cg17071868	6	33,047,056	N_Shore	HLA-DPB1	Body	0.012	0.805	0.0484
cg19964454	11	69,458,595	Island	CCND1	Body	0.010	0.310	0.0484
cg04890576	17	73,032,613	S_Shore			0.024	0.424	0.0484

cg09025274	3	105,228,864	OpenSea	ALCAM	Body	0.003	0.975	0.0484
cg08007665	11	2,593,857	N_Shore	KCNQ1	Body	0.004	0.964	0.0484
cg02697519	1	10,769,910	OpenSea	CASZ1	5'UTR	0.016	0.572	0.0485
cg01439670	11	76,381,165	N_Shore	LRR32	5'UTR	-0.013	0.177	0.0485
cg05470179	4	1,578,163	N_Shore			0.017	0.522	0.0485
cg13978601	9	131,905,041	OpenSea	PPP2R4	Body	0.013	0.827	0.0485
cg21964481	9	140,125,696	N_Shelf	SLC34A3	5'UTR	0.014	0.672	0.0485
cg11394611	1	229,421,456	OpenSea	RAB4A	Body	0.022	0.748	0.0485
cg21648069	12	1,157,718	OpenSea	ERC1	Body	0.023	0.805	0.0485
cg20202760	8	53,499,558	OpenSea			0.003	0.979	0.0485
cg05623392	13	36,166,512	OpenSea	MIR548F5	Body	-0.005	0.972	0.0485
cg00013006	11	4,389,856	OpenSea	OR52B4	TSS1500	-0.008	0.940	0.0485
cg25114693	2	105,695,949	OpenSea	MRPS9	Body	-0.017	0.924	0.0485
cg19531842	3	32,639,020	OpenSea			0.004	0.965	0.0485
cg00306112	2	219,773,416	N_Shore			0.024	0.525	0.0485
cg27096477	6	168,476,553	Island	FRMD1	TSS200	-0.017	0.929	0.0485
cg14174912	10	3,824,516	S_Shore	KLF6	Body	0.020	0.389	0.0485
cg15893493	8	124,194,847	OpenSea	FAM83A	1stExon	0.019	0.343	0.0485
cg15526406	1	150,208,630	S_Shore	ANP32E	TSS200	0.002	0.019	0.0485
cg21959619	8	145,581,006	N_Shore	FBXL6	Body	0.013	0.592	0.0485
cg26288715	6	135,506,834	S_Shelf	MYB	Body	0.019	0.660	0.0485
cg05387146	6	84,140,928	Island	ME1	TSS200	-0.011	0.026	0.0485
cg06401027	12	8,234,690	Island	NECAP1	TSS200	0.004	0.021	0.0485
cg13379822	12	54,816,219	S_Shelf			0.012	0.623	0.0485
cg08486887	3	107,146,722	N_Shelf			0.008	0.972	0.0485
cg15102365	2	39,004,656	OpenSea	GEMIN6	TSS1500	0.007	0.965	0.0485
cg07352691	19	2,276,371	Island	C19orf35	Body	0.023	0.649	0.0485
cg07654202	8	28,924,133	OpenSea			0.012	0.635	0.0485
cg12339202	2	12,342,503	OpenSea			0.037	0.831	0.0485
cg01029685	5	140,226,474	N_Shore	PCDHA6	Body	0.033	0.231	0.0485

cg08168075	19	49,184,151	Island	SEC1	Body	-0.003	0.970	0.0486
cg12882572	17	35,851,204	S_Shore	DUSP14	5'UTR	0.020	0.542	0.0486
cg07110405	11	70,917,533	OpenSea	SHANK2	5'UTR	-0.014	0.062	0.0486
cg11290720	6	41,168,185	OpenSea	TREML2	Body	0.015	0.850	0.0486
cg24221373	6	33,283,314	S_Shore	ZBTB22	Body	0.020	0.744	0.0486
cg05735075	12	55,415,194	OpenSea	NEUROD4	5'UTR	0.004	0.972	0.0486
cg05946827	14	36,989,287	Island	NKX2-1	1stExon	-0.003	0.033	0.0486
cg23383189	5	176,560,116	Island	NSD1	1stExon	-0.009	0.096	0.0486
cg09339462	7	25,935,223	OpenSea			-0.013	0.025	0.0486
cg19379721	19	19,737,143	N_Shore	LPAR2	Body	0.015	0.672	0.0486
cg02150207	13	113,419,720	N_Shore	ATP11A	Body	0.015	0.670	0.0486
cg14031679	9	139,466,195	OpenSea			0.014	0.704	0.0486
cg14291549	6	135,818,752	Island	AHI1	5'UTR	0.035	0.022	0.0486
cg07489869	13	20,806,730	Island	GJB6	TSS200	-0.007	0.048	0.0486
cg06106653	10	84,719,878	OpenSea	NRG3	Body	-0.019	0.579	0.0486
cg17198994	3	192,129,276	S_Shore	FGF12	Body	0.027	0.573	0.0486
cg06418531	5	177,019,065	Island	TMED9	TSS200	0.001	0.017	0.0486
cg16658734	16	68,401,882	N_Shelf	SMPD3	Body	0.012	0.736	0.0486
cg21413797	3	134,165,843	OpenSea			0.013	0.567	0.0486
cg26874367	2	129,381,792	OpenSea			0.025	0.639	0.0487
cg15283212	18	21,014,021	N_Shelf	C18orf45	Body	0.006	0.968	0.0487
cg16903517	2	241,512,563	Island	RNPEPL1	Body	0.011	0.885	0.0487
cg01380884	15	74,923,934	OpenSea	EDC3	3'UTR	0.010	0.844	0.0487
cg04764624	17	29,718,129	N_Shore	RAB11FIP4	TSS1500	-0.010	0.151	0.0487
cg00111665	2	237,120,186	Island	ASB18	Body	0.011	0.868	0.0487
cg09238312	6	168,386,738	N_Shelf			-0.003	0.982	0.0487
cg03733979	20	61,718,618	N_Shore			0.011	0.289	0.0487
cg15425061	2	121,036,351	OpenSea	RALB	Body	-0.011	0.963	0.0487
cg23939844	12	1,930,326	OpenSea	LRTM2	5'UTR	0.018	0.688	0.0487
cg25094081	6	31,829,205	N_Shore	NEU1	Body	0.007	0.957	0.0487



cg15071133	19	19,431,572	Island	KIAA0892	TSS200	0.004	0.027	0.0487
cg06741803	1	46,807,522	S_Shore	NSUN4	Body	0.014	0.794	0.0487
cg03120829	6	34,204,555	Island	HMGA1	TSS200	0.002	0.018	0.0487
cg20552468	17	79,259,699	S_Shore	SLC38A10	Body	0.018	0.451	0.0487
cg12452298	15	67,134,587	N_Shore			-0.005	0.038	0.0487
cg14707092	19	16,772,763	S_Shore	TMEM38A	Body	0.003	0.031	0.0487
cg06015119	6	56,911,219	Island	KIAA1586	TSS200	-0.003	0.040	0.0487
cg08403064	11	44,068,709	OpenSea	ACCSL	TSS1500	-0.017	0.732	0.0487
cg23225147	11	2,907,754	S_Shore	CDKN1C	TSS1500	-0.008	0.098	0.0487
cg15414833	7	87,257,767	Island	RUNDC3B	1stExon	0.001	0.016	0.0487
cg08544746	1	3,713,043	Island	LRRC47	1stExon	-0.002	0.016	0.0487
cg04317765	14	72,219,158	OpenSea			-0.018	0.846	0.0487
cg16410816	22	32,554,848	OpenSea	C22orf42	Body	0.006	0.959	0.0488
cg23276047	10	114,711,288	N_Shore	TCF7L2	Body	-0.004	0.028	0.0488
cg11635101	7	2,050,016	OpenSea	MAD1L1	Body	0.015	0.751	0.0488
cg01617990	16	1,245,967	S_Shore	CACNA1H	Body	0.018	0.717	0.0488
cg09461094	6	2,751,133	OpenSea	MYLK4	1stExon	-0.018	0.798	0.0488
cg26506790	16	85,873,323	OpenSea			0.013	0.782	0.0488
cg15993345	17	40,189,318	N_Shelf			0.013	0.476	0.0488
cg05548478	16	85,173,611	S_Shelf			0.012	0.766	0.0488
cg04201527	2	238,087,041	OpenSea			-0.016	0.852	0.0488
cg18724912	7	75,357,247	OpenSea	HIP1	Body	0.004	0.979	0.0488
cg19178585	12	109,971,145	OpenSea	UBE3B	Body	0.012	0.821	0.0488
cg13362320	15	101,327,580	OpenSea			0.026	0.723	0.0488
cg01333327	4	79,693,986	N_Shelf			0.003	0.984	0.0488
cg08014499	11	2,162,545	S_Shore	IGF2AS	Body	-0.026	0.241	0.0488
cg15028578	1	1,874,898	Island			0.010	0.849	0.0488
cg10101074	13	46,961,818	S_Shore	C13orf18	TSS200	-0.002	0.017	0.0489
cg00901675	13	30,728,236	OpenSea			0.019	0.433	0.0489
cg26312920	7	31,380,390	S_Shelf	NEUROD6	5'UTR	-0.016	0.629	0.0489

cg14792959	19	34,263,159	Island	CHST8	Body	0.015	0.898	0.0489
cg16658609	5	37,206,515	N_Shelf	C5orf42	Body	-0.003	0.984	0.0489
cg03834055	10	134,548,558	N_Shore	INPP5A	Body	0.013	0.886	0.0489
cg08724992	22	38,597,691	N_Shore	MAFF	TSS1500	0.002	0.019	0.0489
cg02645710	12	85,430,085	OpenSea	TSPAN19	TSS200	-0.008	0.047	0.0489
cg01864361	19	54,188,647	OpenSea	MIR519C	TSS1500	0.017	0.693	0.0489
cg26281051	20	207,803	OpenSea	DEFB129	TSS200	-0.010	0.944	0.0489
cg16576575	22	49,798,591	Island			0.020	0.633	0.0489
cg20050194	10	116,046,732	S_Shore	VWA2	Body	0.008	0.954	0.0489
cg24606807	21	43,782,500	OpenSea	TFF1	3'UTR	-0.017	0.770	0.0489
cg07458466	12	18,845,557	OpenSea	PLCZ1	Body	0.002	0.984	0.0489
cg05698294	2	3,063,249	N_Shore			0.016	0.935	0.0489
cg26138821	11	89,956,704	S_Shore	CHORDC1	TSS200	-0.056	0.103	0.0489
cg06960356	11	2,596,416	Island	KCNQ1	Body	0.011	0.665	0.0490
cg07012999	22	46,692,446	Island	CN5H6.4	Body	0.003	0.029	0.0490
cg11829416	21	44,589,030	N_Shore	CRYAA	TSS200	0.011	0.332	0.0490
cg22026616	1	45,275,340	N_Shelf	BTBD19	Body	0.020	0.530	0.0490
cg02321133	11	47,471,789	OpenSea	RAPSN	TSS1500	0.005	0.967	0.0490
cg13357341	1	150,849,964	S_Shore	ARNT	TSS1500	0.018	0.670	0.0490
cg03554196	6	29,404,667	OpenSea			-0.029	0.735	0.0490
cg04784842	4	1,807,504	Island	FGFR3	Body	-0.003	0.970	0.0490
cg06326926	12	108,523,472	Island	WSCD2	TSS200	-0.005	0.050	0.0490
cg14114033	7	105,752,648	Island	SYPL1	Body	-0.002	0.028	0.0490
cg25115537	8	123,801,352	OpenSea	ZHX2	5'UTR	0.020	0.219	0.0490
cg00173785	15	64,126,425	Island	HERC1	TSS1500	0.011	0.057	0.0490
cg13388253	19	51,505,507	N_Shore	KLK8	TSS1500	0.046	0.708	0.0490
cg08979862	10	44,880,128	Island	CXCL12	Body	-0.005	0.033	0.0490
cg06419268	1	206,879,950	OpenSea	MAPKAPK2	Body	-0.013	0.442	0.0490
cg06923616	18	66,381,343	N_Shore	CCDC102B	TSS1500	0.016	0.527	0.0490
cg19196735	17	26,216,836	N_Shelf	C17orf108	5'UTR	0.003	0.979	0.0490

cg06284169	3	196,466,477	N_Shore	PAK2	TSS1500	-0.002	0.021	0.0490
cg03505346	6	33,396,225	Island	SYNGAP1	Body	0.009	0.064	0.0490
cg02297831	4	17,616,191	Island	MED28	TSS200	0.002	0.025	0.0490
cg13583272	17	739,376	Island	NXN	Body	0.075	0.870	0.0490
cg17174400	8	97,712,676	OpenSea	PGCP	5'UTR	0.009	0.919	0.0490
cg22617550	15	89,974,231	Island			-0.003	0.047	0.0490
cg24891520	19	10,024,833	Island	OLFM2	Body	-0.002	0.021	0.0491
cg26232899	19	46,913,677	N_Shore	CCDC8	3'UTR	0.013	0.729	0.0491
cg03303475	6	31,130,398	S_Shelf	TCF19	Body	0.013	0.674	0.0491
cg08480739	11	67,765,021	Island	UNC93B1	Body	0.007	0.962	0.0491
cg26461477	4	69,924,245	OpenSea			0.022	0.739	0.0491
cg06418464	19	1,652,379	OpenSea	TCF3	TSS200	0.027	0.289	0.0491
cg03727756	1	51,425,478	Island	FAF1	1stExon	-0.005	0.030	0.0491
cg10124442	11	4,209,120	Island			0.001	0.015	0.0491
cg16420340	12	31,083,391	S_Shelf	TSPAN11	5'UTR	0.012	0.615	0.0491
cg27456885	21	31,972,913	OpenSea	KRTAP22-1	TSS1500	0.008	0.945	0.0491
cg17290332	10	14,880,008	Island	CDNF	TSS200	-0.010	0.047	0.0491
cg19605788	19	40,729,386	Island	CNTD2	Body	0.053	0.339	0.0491
cg03121834	7	99,970,448	OpenSea	PILRA	TSS1500	0.011	0.543	0.0491
cg01193769	18	55,107,097	Island	ONECUT2	Body	-0.007	0.075	0.0491
cg24540269	6	32,844,675	N_Shelf	PPP1R2P1	Body	0.013	0.928	0.0491
cg25953672	4	56,458,449	OpenSea	PDCL2	TSS200	-0.010	0.914	0.0491
cg01678313	3	13,083,892	OpenSea	IQSEC1	Body	0.011	0.459	0.0491
cg18121163	10	42,406,286	OpenSea			0.019	0.919	0.0491
cg16555556	5	497,520	N_Shore	SLC9A3	Body	0.015	0.418	0.0491
cg16953067	3	9,005,230	Island	RAD18	TSS200	-0.025	0.019	0.0491
cg14258623	6	1,384,591	Island			-0.030	0.230	0.0491
cg01878252	15	56,031,778	N_Shelf	PRTG	Body	-0.004	0.980	0.0491
cg27607805	11	64,826,135	OpenSea	NAALADL1	TSS200	0.013	0.555	0.0491
cg22463080	1	151,763,140	Island	TDRKH	TSS200	-0.003	0.023	0.0491

cg17916960	15	79,447,300	OpenSea			-0.003	0.025	0.0492
cg03328615	19	999,688	N_Shore	GRIN3B	TSS1500	0.037	0.948	0.0492
cg19486271	11	47,235,900	N_Shore	DDB2	TSS1500	0.047	0.331	0.0492
cg02372201	19	41,725,152	OpenSea	AXL	5'UTR	-0.004	0.036	0.0492
cg26003455	13	20,781,125	OpenSea			0.013	0.700	0.0492
cg21639236	22	46,664,151	S_Shore	TTC38	Body	-0.011	0.101	0.0492
cg15141217	3	11,057,200	N_Shore	SLC6A1	5'UTR	0.015	0.780	0.0492
cg10172783	17	42,082,036	Island	NAGS	1stExon	-0.007	0.048	0.0492
cg25240483	2	242,660,065	N_Shelf	ING5	Body	0.004	0.976	0.0492
cg27310311	2	8,813,841	N_Shelf			-0.009	0.927	0.0492
cg04743650	1	101,185,070	OpenSea	VCAM1	TSS1500	0.023	0.325	0.0492
cg10341792	8	119,392,871	OpenSea	SAMD12	Body	-0.007	0.928	0.0492
cg01428953	1	155,177,237	N_Shore	THBS3	Body	0.017	0.301	0.0492
cg25957058	2	207,040,811	OpenSea	GPR1	3'UTR	0.006	0.967	0.0492
cg01632597	7	115,840,881	OpenSea			-0.007	0.963	0.0492
cg23606385	7	100,136,742	Island	AGFG2	TSS200	-0.005	0.047	0.0492
cg04162566	1	198,125,635	N_Shore	NEK7	TSS1500	0.001	0.012	0.0492
cg20597477	15	40,211,272	N_Shore	GPR176	Body	0.030	0.278	0.0492
cg18159184	5	153,548,101	OpenSea			0.021	0.548	0.0492
cg10823785	2	28,787,446	N_Shelf	PLB1	Body	0.012	0.741	0.0492
cg12527110	4	163,907,607	OpenSea			-0.021	0.426	0.0492
cg17216243	2	170,627,694	S_Shelf			0.005	0.962	0.0493
cg03696628	4	77,227,489	Island	STBD1	TSS200	0.002	0.019	0.0493
cg22011370	5	112,770,203	OpenSea	TSSK1B	1stExon	-0.002	0.982	0.0493
cg17866051	17	2,243,687	S_Shelf	SGSM2	Body	-0.005	0.966	0.0493
cg20523861	13	70,682,324	S_Shore	KLHL1	1stExon	-0.022	0.151	0.0493
cg23240013	19	47,142,774	Island			-0.002	0.026	0.0493
cg08281123	3	19,791,304	OpenSea			-0.005	0.962	0.0493
cg21548464	13	50,707,937	Island			-0.021	0.919	0.0493
cg18235662	6	164,975,487	OpenSea			-0.017	0.900	0.0493

cg04276417	10	33,227,909	OpenSea	ITGB1	5'UTR	0.015	0.277	0.0493
cg18655081	18	9,335,347	Island	TWSG1	5'UTR	-0.002	0.021	0.0493
cg06772654	5	38,048,847	OpenSea			-0.025	0.652	0.0493
cg00650722	22	19,135,600	N_Shore			0.036	0.769	0.0493
cg18570997	7	129,710,291	Island	KLHDC10	TSS200	0.001	0.012	0.0493
cg09352518	19	21,265,421	Island	ZNF714	5'UTR	-0.127	0.288	0.0493
cg17334840	2	169,763,832	OpenSea	G6PC2	Body	0.003	0.981	0.0493
cg05036100	7	116,821,592	OpenSea	ST7OT3	TSS1500	-0.006	0.960	0.0493
cg25496417	8	144,295,084	OpenSea	GPIHBP1	5'UTR	0.011	0.669	0.0493
cg07405121	16	2,083,168	N_Shelf	SLC9A3R2	Body	0.015	0.745	0.0493
cg16777493	16	84,483,628	OpenSea	ATP2C2	Body	0.015	0.805	0.0493
cg16252584	12	133,335,658	Island	ANKLE2	Body	0.028	0.883	0.0494
cg14065109	21	47,715,006	N_Shelf	C21orf57	Body	0.013	0.673	0.0494
cg19918623	7	132,661,002	OpenSea	CHCHD3	Body	-0.009	0.796	0.0494
cg15229765	7	158,739,774	OpenSea			0.007	0.948	0.0494
cg07594977	10	12,209,668	OpenSea	SEC61A2	Body	0.003	0.980	0.0494
cg02580987	5	176,615,786	OpenSea	NSD1	Body	0.006	0.959	0.0494
cg08531025	12	99,041,644	S_Shelf	APAF1	5'UTR	0.006	0.973	0.0494
cg01352688	4	6,072,234	OpenSea	JAKMIP1	Body	0.013	0.841	0.0494
cg06669405	11	2,926,361	N_Shelf	SLC22A18	Body	0.013	0.834	0.0494
cg20996124	1	1,144,203	N_Shore			0.012	0.556	0.0494
cg13011429	3	57,679,038	S_Shore	FAM116A	TSS1500	0.022	0.162	0.0494
cg06422693	4	48,833,587	S_Shore	OCIAD1	Body	-0.002	0.021	0.0494
cg06776709	7	139,021,255	N_Shelf			0.022	0.661	0.0494
cg10822008	15	90,437,384	Island	AP3S2	5'UTR	-0.003	0.035	0.0494
cg18588266	14	56,229,661	N_Shelf			0.017	0.613	0.0494
cg09535963	6	31,686,784	OpenSea	LY6G6C	3'UTR	0.011	0.524	0.0494
cg06837426	5	54,281,271	OpenSea	ESM1	1stExon	0.020	0.294	0.0494
cg01058360	7	151,442,371	OpenSea	PRKAG2	Body	0.020	0.611	0.0494
cg27403612	6	155,231,129	OpenSea			0.014	0.325	0.0494

cg08374799	12	53,601,050	OpenSea	ITGB7	TSS200	0.013	0.179	0.0494
cg04349266	6	30,519,905	N_Shelf	GNL1	Body	0.004	0.974	0.0494
cg00256281	22	41,985,642	Island	PMM1	Body	0.003	0.026	0.0494
cg06405792	19	36,483,062	N_Shore			0.004	0.978	0.0494
cg26179134	2	25,897,613	S_Shore	DTNB	TSS1500	0.005	0.961	0.0494
cg07336350	16	54,322,127	Island			-0.021	0.359	0.0494
cg15027190	1	90,124,886	OpenSea	LRRC8C	5'UTR	0.004	0.972	0.0494
cg18135206	14	102,964,638	OpenSea	TECPR2	3'UTR	-0.012	0.956	0.0494
cg18620306	7	3,920,006	OpenSea	SDK1	Body	0.037	0.697	0.0494
cg05536286	15	92,972,514	OpenSea	ST8SIA2	Body	-0.037	0.842	0.0494
cg09141931	17	78,668,209	OpenSea	RPTOR	Body	0.018	0.803	0.0495
cg04740679	13	114,016,140	N_Shore	GRTP1	Body	-0.005	0.975	0.0495
cg15671181	18	24,443,849	S_Shore	AQP4	TSS1500	0.019	0.283	0.0495
cg11638347	21	38,352,880	Island	HLCS	5'UTR	0.013	0.316	0.0495
cg01802180	11	111,380,199	N_Shelf	BTG4	5'UTR	0.049	0.930	0.0495
cg03326563	8	11,195,810	OpenSea	TDH	TSS1500	0.008	0.933	0.0495
cg25851152	10	104,195,371	S_Shelf	MIR146B	TSS1500	0.004	0.045	0.0495
cg26263239	6	170,564,839	N_Shore	LOC154449	Body	0.012	0.664	0.0495
cg19800497	6	36,733,121	OpenSea	CPNE5	Body	0.017	0.913	0.0495
cg04673937	15	69,366,984	S_Shore	MIR548H4	Body	0.001	0.014	0.0495
cg14443182	9	34,994,200	OpenSea	DNAJB5	Body	0.012	0.674	0.0495
cg05135156	1	184,355,420	Island	C1orf21	TSS1500	0.003	0.028	0.0495
cg10993085	6	32,073,416	OpenSea	TNXB	5'UTR	0.015	0.628	0.0495
cg21260733	3	197,826,510	N_Shelf			0.042	0.674	0.0495
cg02352401	3	128,219,629	S_Shelf			0.010	0.932	0.0495
cg18305444	2	23,914,666	S_Shore	KLHL29	Body	0.009	0.908	0.0495
cg10165167	5	168,728,586	S_Shore	SLIT3	TSS1500	0.007	0.063	0.0496
cg25089357	10	131,649,255	OpenSea	EBF3	Body	-0.016	0.894	0.0496
cg19695334	6	33,393,897	Island	SYNGAP1	Body	-0.002	0.022	0.0496
cg14773228	2	121,627,212	S_Shelf	GLI2	Body	0.040	0.490	0.0496

cg00011203	1	9,259,066	S_Shore			-0.008	0.042	0.0496
cg23059689	13	111,288,257	N_Shelf	CARKD	Body	0.006	0.950	0.0496
cg21638625	19	4,303,817	N_Shore	FSD1	TSS1500	0.019	0.671	0.0496
cg23666300	8	22,049,929	OpenSea	BMP1	Body	0.010	0.800	0.0496
cg24849736	1	201,084,428	Island			0.024	0.533	0.0496
cg17414107	20	57,427,830	Island	GNAS	TSS1500	0.037	0.510	0.0496
cg20784314	20	43,513,992	N_Shore	YWHAB	TSS1500	0.002	0.019	0.0496
cg26898266	1	200,590,123	Island	KIF14	TSS1500	0.001	0.019	0.0496
cg04656042	19	39,755,901	Island			-0.015	0.038	0.0496
cg02186027	4	189,580,798	S_Shore			-0.008	0.952	0.0496
cg25553477	12	2,920,853	N_Shore	ITFG2	TSS1500	0.003	0.983	0.0496
cg20120438	19	4,305,239	S_Shore	FSD1	Body	-0.018	0.207	0.0496
cg02104138	5	163,187,595	OpenSea			0.018	0.386	0.0496
cg25077778	14	51,562,591	S_Shore	TRIM9	TSS200	-0.001	0.012	0.0496
cg13969579	9	130,213,801	Island	LRSAM1	TSS1500	-0.002	0.022	0.0496
cg09070316	1	64,944,768	OpenSea	CACHD1	Body	0.016	0.494	0.0496
cg24318412	8	37,962,972	Island	ASH2L	TSS1500	-0.002	0.018	0.0496
cg04000940	11	47,351,460	OpenSea	MADD	3'UTR	0.014	0.425	0.0497
cg10961099	8	2,046,910	Island	MYOM2	Body	-0.009	0.935	0.0497
cg23287435	4	57,937,220	OpenSea	IGFBP7	Body	0.015	0.853	0.0497
cg26231272	14	104,770,879	OpenSea			0.019	0.532	0.0497
cg18993701	15	65,715,356	Island	IGDCC4	5'UTR	0.001	0.022	0.0497
cg20841748	17	40,838,078	N_Shore	CNTNAP1	Body	0.019	0.303	0.0497
cg01746088	2	38,978,194	Island	SFRS7	Body	-0.004	0.043	0.0497
cg19809942	11	59,324,029	OpenSea			-0.002	0.026	0.0497
cg18400281	10	24,633,303	OpenSea	KIAA1217	Body	-0.021	0.659	0.0497
cg12727940	3	145,969,718	S_Shore	PLSCR4	TSS1500	0.026	0.764	0.0497
cg10201402	6	31,938,527	N_Shore	STK19	TSS1500	0.010	0.757	0.0497
cg20030545	6	111,574,732	OpenSea			0.004	0.977	0.0497
cg23746148	6	135,271,801	OpenSea	ALDH8A1	TSS1500	-0.017	0.499	0.0497

cg01717800	1	173,903,854	OpenSea	RC3H1	3'UTR	0.004	0.971	0.0497
cg05723179	7	137,671,793	OpenSea	CREB3L2	Body	0.018	0.562	0.0497
cg12392519	17	47,308,867	S_Shore	PHOSPHO1	TSS1500	0.016	0.499	0.0497
cg18170784	3	71,114,262	N_Shore	FOXP1	Body	-0.007	0.113	0.0497
cg14681977	8	94,931,371	S_Shore	PDP1	5'UTR	0.005	0.966	0.0497
cg17347063	22	36,043,021	OpenSea	APOL6	TSS1500	-0.072	0.471	0.0497
cg00624799	15	90,605,618	OpenSea	ZNF710	5'UTR	-0.011	0.452	0.0497
cg05135107	19	55,219,600	OpenSea	LILRP2	Body	-0.014	0.754	0.0497
cg08891110	15	96,952,425	N_Shore			0.005	0.037	0.0497
cg13360609	17	80,882,970	N_Shelf	TBCD	Body	0.002	0.978	0.0497
cg19322788	12	125,831,167	OpenSea	TMEM132B	Body	0.021	0.282	0.0497
cg06622199	17	75,422,925	OpenSea		9-Sep Body	0.011	0.875	0.0498
cg02951883	7	2,050,386	N_Shelf	MAD1L1	Body	-0.004	0.978	0.0498
cg24480695	11	18,727,628	Island	IGSF22	Body	-0.043	0.055	0.0498
cg22825819	15	72,410,553	Island	MYO9A	TSS200	0.007	0.031	0.0498
cg04024572	11	65,657,704	N_Shore	CCDC85B	TSS200	-0.008	0.170	0.0498
cg14339216	19	47,853,009	S_Shore	DHX34	5'UTR	-0.002	0.016	0.0498
cg19531713	17	41,277,059	N_Shore	BRCA1	5'UTR	-0.003	0.022	0.0498
cg14747322	5	173,315,714	Island	CPEB4	5'UTR	0.007	0.034	0.0498
cg22662482	11	61,560,799	S_Shore	FEN1	5'UTR	0.002	0.017	0.0498
cg07530599	17	74,275,137	OpenSea	QRICH2	Body	0.016	0.758	0.0498
cg08210322	2	231,903,056	Island	C2orf72	Body	-0.003	0.033	0.0498
cg05509753	16	31,482,618	N_Shore	TGFB111	TSS1500	0.013	0.511	0.0498
cg17384865	12	334,129	OpenSea	SLC6A13	Body	0.006	0.945	0.0498
cg21113900	5	126,409,308	Island	FLJ44606	TSS200	-0.030	0.381	0.0498
cg08952407	5	42,756,860	OpenSea	CCDC152	TSS200	0.043	0.639	0.0498
cg21692620	17	40,835,849	Island	CNTNAP1	Body	-0.016	0.110	0.0498
cg01687680	16	49,312,238	Island	CBLN1	3'UTR	-0.004	0.026	0.0498
cg26275799	6	150,255,758	N_Shelf			0.020	0.849	0.0498
cg01043616	12	50,475,035	Island	ACCN2	Body	0.018	0.233	0.0498



cg19493446	2	239,420,158	OpenSea			-0.021	0.885	0.0498
cg07416733	11	66,834,385	OpenSea	RHOD	Body	0.014	0.725	0.0498
cg26503038	19	2,699,659	N_Shelf	GNG7	5'UTR	0.021	0.350	0.0498
cg13424923	2	65,258,738	OpenSea			0.012	0.585	0.0498
cg06984903	16	73,100,426	Island			-0.024	0.183	0.0498
cg04786391	11	123,295,670	OpenSea			0.027	0.556	0.0498
cg08865524	2	147,759,520	OpenSea			-0.024	0.726	0.0499
cg02326949	8	126,581,837	OpenSea			0.024	0.562	0.0499
cg23926253	19	19,303,735	S_Shore	LOC729991-M	TSS1500	0.001	0.015	0.0499
cg22139271	8	11,725,596	Island	CTSB	1stExon	0.002	0.021	0.0499
cg18241877	12	120,706,015	S_Shelf			0.015	0.334	0.0499
cg03922997	12	56,418,030	OpenSea	IKZF4	Body	0.004	0.970	0.0499
cg11061177	10	119,134,785	Island	PDZD8	1stExon	0.024	0.238	0.0499
cg23609982	1	154,377,403	N_Shore	IL6R	TSS1500	0.017	0.480	0.0499
cg08242859	7	128,032,651	OpenSea	IMPDH1	3'UTR	-0.023	0.582	0.0499
cg25783515	2	129,280,616	OpenSea			-0.013	0.912	0.0499
cg04542080	6	127,436,400	N_Shelf			0.020	0.772	0.0499
cg10914899	13	25,290,781	N_Shore			0.018	0.149	0.0499
cg15111469	5	121,415,023	S_Shore	LOX	TSS1500	0.050	0.816	0.0499
cg14646641	10	126,158,871	OpenSea	LHPP	Body	-0.054	0.710	0.0499
cg04160201	16	88,547,743	OpenSea	ZFPM1	Body	0.011	0.873	0.0499
cg11237573	1	32,574,586	S_Shore	KPNA6	Body	0.018	0.289	0.0499
cg10579718	1	1,052,886	S_Shore	C1orf159	TSS1500	0.014	0.838	0.0499
cg12678667	2	223,536,123	Island	MOGAT1	TSS1500	-0.003	0.033	0.0499
cg18459189	15	35,261,784	Island	AQR	1stExon	0.008	0.020	0.0499
cg15910208	19	51,522,588	Island	KLK10	5'UTR	-0.003	0.024	0.0499
cg23693548	1	202,804,464	OpenSea			0.011	0.814	0.0500
cg01988285	3	50,306,107	OpenSea	SEMA3B	5'UTR	0.020	0.465	0.0500
cg13420075	15	74,471,974	OpenSea	STRA6	3'UTR	0.019	0.486	0.0500
cg23109559	1	236,902,408	OpenSea	ACTN2	Body	0.003	0.981	0.0500

cg22379213	12	49,688,844	N_Shore	PRPH	TSS200	0.009	0.085	0.0500
cg03359525	19	8,620,632	Island	MYO1F	Body	0.018	0.828	0.0500
cg21845794	7	4,802,351	N_Shore	FOXK1	3'UTR	0.014	0.841	0.0500
cg26650480	20	4,796,176	OpenSea	RASSF2	5'UTR	0.010	0.830	0.0500
cg25199254	1	77,230,837	OpenSea			0.020	0.444	0.0500
cg21591278	8	1,596,244	S_Shelf	DLGAP2	Body	0.016	0.586	0.0500
cg10471216	12	57,591,104	OpenSea	LRP1	Body	0.007	0.938	0.0500
cg25086828	20	62,744,796	OpenSea			0.010	0.832	0.0500
cg02622852	11	57,016,682	OpenSea			-0.003	0.028	0.0500
cg26477613	9	127,210,826	N_Shore			0.012	0.806	0.0500
cg01275685	7	34,179,230	OpenSea	BMPER	Body	0.012	0.932	0.0500
cg04338890	16	57,019,755	N_Shelf			0.012	0.484	0.0500
cg13995169	10	72,142,516	Island	LRRC20	TSS1500	-0.003	0.032	0.0500

**Suppl. Tab. 3. Robust 535 Differentially methylated CpGs (sorted by p-values) from COPD study<sup>1</sup> assessed in Fetal Lung data**

			Results from COPD study					Results from fetal lung data					
CpG.site	Chromosome	Position	Gene.symbol	Beta.diff_COPD	Average.beta_COPD	p.value_COPD	Adjusted.p.value_COPD	Relation_to_Island	RefGene_Group	Beta.diff_fetallung	Average.Beta_fetallung	P.Value_fetallung	Direction
cg25823837	12	129,338,783	GLT1D1	0.058	0.102	1.71E-07	0.017	S_Shore	Body	0.001	0.022	0.552	++
cg08754149	10	78,204,159	C10orf11	-0.075	0.686	7.38E-07	0.028	OpenSea	Body	-0.005	0.911	0.754	--
cg01748627	11	67,272,202	PITPNM1	-0.050	0.146	7.42E-07	0.028	Island	5'UTR	0.000	0.030	0.891	--
cg00897703	2	135,434,956	TMEM163	-0.063	0.572	1.16E-06	0.028	OpenSea	Body	0.011	0.514	0.242	+-
cg09444818	4	102,097,226	PPP3CA	0.083	0.752	1.16E-06	0.028	OpenSea	Body	-0.011	0.795	0.316	+-
cg02691035	16	89,163,800	ACSF3	-0.066	0.736	1.54E-06	0.028	N_Shelf	Body	0.019	0.923	0.142	+-
cg04136369	17	36,070,600	HNF1B	0.069	0.548	1.77E-06	0.028	OpenSea	Body	-0.005	0.406	0.583	+-
cg06784691	1	2,245,988	NA	0.066	0.187	1.78E-06	0.028	Island		0.000	0.070	0.987	++
cg06289725	11	62,689,081	CHRM1	0.101	0.607	1.81E-06	0.028	N_Shore	TSS200	0.019	0.263	0.029	++
cg18628732	6	30,095,295	NA	0.053	0.318	2.02E-06	0.028	Island		0.000	0.028	0.995	+-
cg01649773	11	27,015,991	FIBIN	0.056	0.204	2.42E-06	0.030	OpenSea	5'UTR	0.017	0.124	0.355	++
cg01430588	17	56,769,767	TEX14	-0.060	0.558	2.64E-06	0.030	N_Shore	TSS1500	-0.004	0.506	0.785	--
cg11787160	12	113,515,332	DTX1	0.101	0.565	3.13E-06	0.030	Island	Body	0.003	0.127	0.826	++
cg01595951	5	54,834,655	NA	-0.101	0.478	3.19E-06	0.030	S_Shelf		0.002	0.639	0.808	+-
cg26952936	16	23,724,854	ERN2	0.052	0.537	3.43E-06	0.030	S_Shore	TSS200	-0.004	0.447	0.667	+-
cg14981253	7	5,112,642	LOC389458	0.081	0.569	3.44E-06	0.030	S_Shore	Body	0.003	0.369	0.867	++
cg16639540	12	716,805	NINJ2	0.077	0.304	3.46E-06	0.030	N_Shore	Body	0.000	0.267	0.990	++
cg14757543	22	28,010,428	NA	0.052	0.299	3.93E-06	0.030	Island		0.016	0.086	0.350	++
cg21816330	17	27,044,629	RAB34	0.064	0.148	3.93E-06	0.030	Island	Body	-0.001	0.056	0.762	+-
cg24777028	5	141,348,256	RNF14	0.066	0.168	4.69E-06	0.030	N_Shore	TSS1500	0.021	0.231	0.077	++
cg06777352	16	19,124,984	ITPRIPL2	0.059	0.176	4.72E-06	0.030	N_Shore	TSS1500	-0.008	0.103	0.303	+-
cg19843457	12	132,288,611	NA	0.060	0.138	4.82E-06	0.030	S_Shelf		0.015	0.238	0.179	++
cg13917578	5	143,547,850	YIPF5	-0.050	0.798	5.17E-06	0.030	N_Shelf	Body	0.006	0.778	0.465	+-
cg21334513	6	30,095,248	NA	0.085	0.314	5.23E-06	0.030	Island		0.001	0.022	0.250	++
cg27282900	6	30,095,258	NA	0.058	0.169	5.43E-06	0.030	Island		-0.015	0.038	0.372	+-
cg23744638	11	10,323,902	NA	0.083	0.436	5.86E-06	0.030	N_Shore		0.002	0.287	0.863	++
cg16659470	8	94,744,382	RBM12B	0.053	0.702	5.95E-06	0.030	OpenSea	3'UTR	-0.006	0.575	0.607	+-
cg18892212	16	31,499,991	SLC5A2	0.065	0.395	6.43E-06	0.030	Island	Body	0.001	0.058	0.925	++
cg13804575	9	109,626,999	ZNF462	0.097	0.279	6.70E-06	0.030	S_Shelf	5'UTR	-0.001	0.085	0.881	+-
cg05260085	19	46,003,095	PPM1N	0.058	0.530	6.82E-06	0.030	S_Shore	Body	0.032	0.281	0.003	++
cg27428708	16	54,851,977	NA	0.083	0.576	7.30E-06	0.030	OpenSea		-0.006	0.245	0.621	+-
cg08250081	4	10,125,330	NA	0.075	0.381	7.33E-06	0.030	OpenSea		-0.004	0.118	0.614	+-
cg02098413	6	105,308,735	HACE1	-0.053	0.800	7.46E-06	0.030	S_Shore	TSS1500	0.002	0.885	0.744	+-
cg25291978	6	144,386,422	PLAGL1	-0.052	0.821	8.18E-06	0.031	S_Shore	TSS1500	-0.003	0.397	0.687	--
cg00566516	7	128,784,097	TSPAN33	0.054	0.545	8.69E-06	0.032	N_Shore	TSS1500	0.011	0.455	0.431	++
cg26337070	2	85,999,873	ATOH8	0.099	0.338	9.11E-06	0.032	OpenSea	Body	0.004	0.060	0.589	++
cg04383058	11	67,273,507	PITPNM1	-0.054	0.271	9.56E-06	0.032	N_Shore	TSS1500	0.004	0.602	0.578	+-

cg18064171	12	47,219,956	SLC38A4	0.053	0.552	9.87E-06	0.033	OpenSea	TSS200	-0.005	0.265	0.462	+-
cg20702913	2	10,183,115	KLF11	0.055	0.146	9.95E-06	0.033	Island	TSS1500	0.000	0.037	0.870	+-
cg17055704	6	33,282,879	ZBTB22	0.063	0.386	1.00E-05	0.033	Island	Body	0.018	0.183	0.135	++
cg17264240	4	186,456,976	PDLIM3	0.079	0.166	1.01E-05	0.033	S_Shore	TSS1500	0.003	0.026	0.095	++
cg18633154	14	77,296,234	LRRRC74A	-0.057	0.648	1.04E-05	0.033	OpenSea	Body	0.006	0.575	0.432	+-
cg17118478	2	191,543,902	NAB1	-0.055	0.920	1.18E-05	0.033	OpenSea	Body	-0.003	0.950	0.518	--
cg03517083	16	75,569,527	CHST5	0.071	0.514	1.18E-05	0.033	OpenSea	TSS1500	0.011	0.340	0.520	++
cg23475018	3	124,277,638	KALRN	-0.060	0.701	1.24E-05	0.034	OpenSea	Body	-0.007	0.499	0.450	--
cg24980653	4	1,399,235	NA	0.054	0.094	1.25E-05	0.034	Island		-0.001	0.026	0.806	+-
cg15406387	4	111,397,332	ENPEP	0.063	0.204	1.32E-05	0.034	S_Shore	1stExon	-0.001	0.026	0.677	+-
cg19645639	1	113,500,384	SLC16A1	-0.071	0.376	1.34E-05	0.034	S_Shore	TSS1500	0.010	0.206	0.173	+-
cg12940993	14	21,271,148	RNASE1	0.056	0.287	1.37E-05	0.034	OpenSea	TSS200	0.009	0.411	0.139	++
cg22429121	1	27,901,805	AHDC1	0.073	0.388	1.40E-05	0.034	Island	5'UTR	-0.004	0.101	0.524	+-
cg02979520	3	48,471,575	PLXNB1	0.053	0.366	1.42E-05	0.034	S_Shore	TSS1500	-0.003	0.081	0.601	+-
cg22738642	12	43,137,977	NA	-0.085	0.703	1.52E-05	0.034	OpenSea		-0.003	0.940	0.471	--
cg18872749	17	42,421,993	GRN	0.057	0.538	1.49E-05	0.034	OpenSea	TSS1500	0.016	0.442	0.247	++
cg13461273	3	40,547,232	ZNF620	0.059	0.379	1.51E-05	0.034	N_Shore	TSS1500	0.001	0.323	0.937	++
cg13474083	9	136,362,373	NA	0.056	0.834	1.51E-05	0.034	OpenSea		-0.006	0.604	0.501	+-
cg01919208	3	49,170,496	LAMB2	0.064	0.218	1.56E-05	0.034	OpenSea	1stExon	0.001	0.015	0.108	++
cg16550264	12	115,813,214	NA	-0.083	0.280	1.57E-05	0.034	OpenSea		-0.010	0.732	0.467	--
cg23506143	5	55,761,274	NA	0.107	0.465	1.67E-05	0.034	OpenSea		-0.004	0.447	0.709	+-
cg00852921	20	62,120,544	EEF1A2	0.070	0.417	1.69E-05	0.034	Island	Body	-0.012	0.351	0.565	+-
cg21491107	16	85,649,026	GSE1	0.068	0.437	1.69E-05	0.034	Island	5'UTR	-0.001	0.418	0.888	+-
cg24837370	2	5,833,774	SOX11	0.082	0.199	1.86E-05	0.035	Island	1stExon	0.000	0.029	0.724	+-
cg01480384	12	54,020,711	ATF7	-0.066	0.307	1.87E-05	0.035	S_Shore	TSS1500	0.014	0.446	0.071	+-
cg02276944	2	157,291,826	GPD2	0.054	0.381	1.90E-05	0.035	N_Shore	TSS1500	0.009	0.480	0.243	++
cg08248579	6	17,988,937	KIF13A	0.070	0.218	2.08E-05	0.035	S_Shore	TSS1500	-0.002	0.544	0.905	+-
cg01015662	1	40,598,394	NA	0.077	0.715	2.22E-05	0.036	N_Shore		0.014	0.280	0.549	++
cg04204452	17	1,479,213	SLC43A2	0.053	0.499	2.23E-05	0.036	Island	Body	0.002	0.818	0.725	++
cg13035046	3	13,115,843	IQSEC1	0.054	0.546	2.24E-05	0.036	S_Shore	TSS1500	-0.005	0.357	0.608	+-
cg04543516	20	21,589,093	NA	0.062	0.750	2.25E-05	0.036	OpenSea		0.003	0.841	0.718	++
cg25879142	7	4,671,391	NA	0.057	0.126	2.32E-05	0.036	OpenSea		-0.001	0.019	0.250	+-
cg17322044	12	125,140,105	NA	0.095	0.344	2.35E-05	0.036	OpenSea		-0.001	0.023	0.535	+-
cg04622802	11	27,015,872	FIBIN	0.059	0.251	2.37E-05	0.036	OpenSea	5'UTR	0.017	0.229	0.520	++
cg07584855	1	221,055,545	HLX	0.063	0.672	2.64E-05	0.036	Island	Body	-0.002	0.289	0.885	+-
cg00174992	2	169,659,121	NOSTRIN	0.063	0.442	2.71E-05	0.036	OpenSea	5'UTR	-0.003	0.453	0.723	+-
cg23079252	6	30,095,199	NA	0.076	0.377	2.79E-05	0.036	Island		-0.002	0.056	0.479	+-
cg07980854	20	57,586,338	NA	0.055	0.440	2.79E-05	0.036	S_Shelf		0.018	0.493	0.018	++
cg25972578	10	92,548,822	HTR7	-0.078	0.702	2.97E-05	0.036	OpenSea	Body	0.005	0.916	0.403	+-
cg25109396	14	91,317,056	NA	0.084	0.655	2.85E-05	0.036	OpenSea		-0.010	0.531	0.390	+-
cg17161520	11	67,174,843	TBC1D10C	-0.063	0.626	2.87E-05	0.036	N_Shelf	Body	0.001	0.520	0.887	+-

cg04173396	8	61,821,400 NA	0.066	0.530	2.90E-05	0.036 N_Shore		-0.003	0.405	0.739 +-
cg00557630	19	51,017,123 ASPDH	0.050	0.613	2.95E-05	0.036 N_Shelf	5'UTR	0.019	0.577	0.085 ++
cg21789008	8	118,764,818 NA	-0.051	0.342	2.96E-05	0.036 OpenSea		0.001	0.098	0.833 +-
cg06202737	2	128,166,279 NA	0.062	0.174	3.04E-05	0.036 S_Shore		-0.003	0.122	0.703 +-
cg14485097	7	4,671,479 NA	0.060	0.226	3.04E-05	0.036 OpenSea		0.001	0.039	0.454 ++
cg12092579	1	178,380,975 RASAL2	-0.062	0.894	3.05E-05	0.036 OpenSea	Body	-0.004	0.961	0.217 --
cg01872024	11	94,502,804 AMOTL1	0.065	0.223	3.13E-05	0.036 S_Shore	Body	0.001	0.023	0.513 ++
cg12812233	4	40,752,838 NSUN7	0.076	0.345	3.17E-05	0.036 Island	Body	0.000	0.018	0.572 ++
cg26413942	5	124,081,751 ZNF608	0.070	0.308	3.18E-05	0.036 OpenSea	TSS1500	-0.002	0.031	0.672 +-
cg16399833	14	104,345,945 NA	0.057	0.553	3.22E-05	0.036 OpenSea		0.005	0.608	0.548 ++
cg04002235	11	128,560,443 NA	0.078	0.462	3.23E-05	0.036 Island		-0.002	0.034	0.431 +-
cg11161961	3	152,554,430 P2RY1	0.061	0.819	3.23E-05	0.036 S_Shore	1stExon	0.018	0.757	0.199 ++
cg14016177	9	131,965,610 NA	0.061	0.370	3.25E-05	0.036 Island		0.000	0.059	0.918 ++
cg13098139	6	33,422,938 ZBTB9	0.088	0.383	3.26E-05	0.036 S_Shore	Body	0.003	0.114	0.714 ++
cg00958927	1	175,162,553 KIAA0040	0.061	0.318	3.31E-05	0.036 S_Shore	TSS1500	-0.007	0.093	0.366 +-
cg26081900	5	180,429,512 BTNL3	0.054	0.896	3.41E-05	0.037 OpenSea	Body	-0.054	0.878	0.209 +-
cg18273840	5	45,695,643 HCN1	0.058	0.144	3.36E-05	0.036 Island	Body	0.003	0.019	0.252 ++
cg18081863	19	50,015,527 FCGRT	0.070	0.284	3.56E-05	0.037 N_Shore	TSS200	-0.007	0.281	0.339 +-
cg11700959	12	7,066,664 PTPN6	-0.053	0.564	3.56E-05	0.037 OpenSea	Body	0.009	0.607	0.241 +-
cg19645616	19	10,444,917 RAVR1	0.092	0.494	3.60E-05	0.037 Island	TSS1500	0.000	0.078	0.984 +-
cg06287775	7	4,784,174 FOXK1	0.107	0.484	3.62E-05	0.037 N_Shore	Body	0.024	0.189	0.402 ++
cg08196561	16	87,525,539 ZCCHC14	0.068	0.246	3.65E-05	0.037 OpenSea	TSS200	0.008	0.077	0.280 ++
cg23336702	8	134,585,815 NA	-0.055	0.816	3.67E-05	0.037 S_Shore		-0.002	0.724	0.764 --
cg23786205	10	77,057,425 NA	-0.065	0.850	3.68E-05	0.037 S_Shelf		-0.013	0.791	0.082 --
cg26675654	7	1,269,693 NA	0.056	0.197	3.70E-05	0.037 Island		-0.001	0.034	0.603 +-
cg16407699	10	74,020,428 NA	-0.052	0.406	3.75E-05	0.037 N_Shore		0.003	0.127	0.690 +-
cg18252102	13	98,796,790 FARP1	0.090	0.528	3.83E-05	0.037 S_Shore	5'UTR	-0.005	0.061	0.301 +-
cg23333072	17	37,856,228 ERBB2	0.052	0.127	3.84E-05	0.037 N_Shore	5'UTR	0.004	0.035	0.201 ++
cg17009297	5	158,526,642 EBF1	-0.074	0.330	3.95E-05	0.037 N_Shore	1stExon	-0.004	0.041	0.204 --
cg03280622	8	145,023,013 PLEC	0.057	0.139	3.96E-05	0.037 N_Shore	Body	0.002	0.449	0.883 ++
cg26290219	6	33,128,906 NA	0.063	0.364	3.97E-05	0.037 N_Shore		0.017	0.379	0.060 ++
cg23716690	1	10,314,029 KIF1B	0.098	0.360	3.98E-05	0.037 OpenSea	Body	-0.004	0.292	0.601 +-
cg12656497	21	43,099,292 LINC00111	0.063	0.252	4.11E-05	0.038 OpenSea	TSS200	0.004	0.130	0.717 ++
cg11262216	17	41,723,227 MEOX1	0.064	0.584	4.18E-05	0.038 Island	Body	0.000	0.655	0.994 ++
cg12656653	10	13,771,427 FRMD4A	0.054	0.842	4.21E-05	0.038 OpenSea	Body	0.010	0.702	0.393 ++
cg14972155	5	54,281,198 ESM1	0.086	0.431	4.24E-05	0.038 OpenSea	1stExon	0.030	0.296	0.146 ++
cg09907936	19	58,570,466 ZNF135	0.052	0.100	4.32E-05	0.038 Island	TSS200	0.000	0.016	0.800 +-
cg13503148	3	171,561,060 TMEM212	0.086	0.671	4.38E-05	0.038 OpenSea	TSS200	-0.004	0.822	0.677 +-
cg18538340	3	132,756,780 TMEM108	0.057	0.332	4.40E-05	0.038 N_Shore	TSS1500	-0.001	0.239	0.953 +-
cg05924254	4	1,107,720 RNF212	0.068	0.645	4.57E-05	0.039 Island	TSS200	-0.007	0.562	0.648 +-
cg18104919	5	7,851,396 C5orf49	0.056	0.249	4.59E-05	0.039 Island	TSS200	0.000	0.066	0.918 ++

cg18906360	14	60,633,047	DHRS7	-0.060	0.644	4.61E-05	0.039	S_Shore	TSS1500	0.002	0.622	0.829	+-
cg22820108	12	125,003,218	NCOR2	0.053	0.261	4.67E-05	0.039	Island	5'UTR	-0.003	0.087	0.662	+-
cg15371881	5	142,065,819	FGF1	0.062	0.569	4.72E-05	0.039	OpenSea	5'UTR	0.004	0.373	0.514	++
cg07110405	11	70,917,533	SHANK2	0.131	0.437	4.86E-05	0.039	OpenSea	5'UTR	-0.014	0.062	0.049	+-
cg13466988	1	12,538,541	VPS13D	0.075	0.258	4.86E-05	0.039	OpenSea	Body	-0.001	0.050	0.734	+-
cg02657865	6	32,077,744	TNXB	0.074	0.549	4.91E-05	0.039	OpenSea	TSS1500	0.001	0.505	0.875	++
cg22160463	17	47,755,834	SPOP	0.056	0.279	4.94E-05	0.039	S_Shore	TSS1500	0.029	0.280	0.008	++
cg17485681	10	73,565,625	CDH23	0.063	0.568	4.95E-05	0.039	Island	Body	-0.009	0.183	0.690	+-
cg08469215	1	156,261,351	TMEM79	0.067	0.416	4.97E-05	0.039	Island	Body	0.008	0.059	0.456	++
cg25390787	6	49,681,299	CRISP2	0.088	0.343	5.05E-05	0.039	OpenSea	TSS200	-0.020	0.188	0.259	+-
cg04812509	10	90,342,738	RNLS	-0.053	0.111	5.06E-05	0.039	Island	Body	-0.005	0.080	0.725	--
cg05994850	6	30,095,341	NA	0.053	0.511	5.10E-05	0.039	Island		-0.001	0.054	0.891	+-
cg00460983	10	91,133,941	NA	0.088	0.322	5.13E-05	0.039	OpenSea		0.009	0.249	0.338	++
cg06536868	2	27,530,884	UCN	0.071	0.414	5.24E-05	0.039	Island	5'UTR	0.000	0.105	0.958	+-
cg14847009	1	175,162,515	KIAA0040	0.055	0.264	5.26E-05	0.039	S_Shore	TSS1500	-0.003	0.053	0.423	+-
cg07226201	22	27,834,629	NA	0.071	0.332	5.33E-05	0.039	Island		-0.003	0.041	0.347	+-
cg09978105	14	103,227,646	NA	0.052	0.555	5.34E-05	0.039	OpenSea		-0.008	0.330	0.583	+-
cg05745631	6	30,095,178	NA	0.079	0.508	5.37E-05	0.039	Island		-0.002	0.024	0.496	+-
cg26758396	20	6,104,274	FERMT1	0.064	0.474	5.39E-05	0.039	S_Shore	TSS200	0.008	0.219	0.353	++
cg13148544	20	30,196,119	NA	0.080	0.585	5.43E-05	0.039	Island		-0.008	0.147	0.280	+-
cg20167366	6	30,094,980	NA	0.055	0.413	5.43E-05	0.039	N_Shore		0.001	0.033	0.776	++
cg10533331	15	38,857,695	RASGRP1	0.064	0.667	5.49E-05	0.039	S_Shore	TSS1500	-0.003	0.265	0.819	+-
cg02571819	12	124,017,613	RILPL1	0.078	0.258	5.56E-05	0.039	Island	Body	-0.002	0.049	0.595	+-
cg23436584	12	98,833,359	NA	0.054	0.307	5.68E-05	0.039	OpenSea		-0.007	0.093	0.385	+-
cg22571135	7	55,377,050	NA	-0.069	0.811	5.71E-05	0.039	OpenSea		0.006	0.949	0.092	+-
cg13725590	2	96,809,174	DUSP2	-0.061	0.812	5.84E-05	0.039	N_Shore	3'UTR	0.009	0.792	0.187	+-
cg02009395	16	20,702,744	ACSM1	-0.062	0.746	5.86E-05	0.039	OpenSea	TSS200	-0.014	0.756	0.215	--
cg14557202	12	54,764,371	ZNF385A	0.075	0.543	5.94E-05	0.039	Island	Body	-0.003	0.029	0.522	+-
cg13080282	12	24,717,178	NA	0.063	0.190	6.05E-05	0.039	S_Shore		-0.001	0.036	0.582	+-
cg19954000	5	142,065,671	FGF1	0.062	0.602	6.09E-05	0.039	OpenSea	5'UTR	0.001	0.451	0.881	++
cg05667311	10	98,797,490	SLIT1	0.051	0.198	6.11E-05	0.039	OpenSea	Body	0.004	0.268	0.703	++
cg09334514	1	236,686,671	LGALS8	0.074	0.363	6.13E-05	0.039	N_Shore	TSS200	0.027	0.316	0.068	++
cg00859858	1	37,944,257	ZC3H12A	-0.084	0.723	6.17E-05	0.039	S_Shelf	Body	0.001	0.974	0.643	+-
cg18322510	1	236,686,618	LGALS8	0.092	0.440	6.34E-05	0.039	N_Shore	TSS200	0.005	0.328	0.788	++
cg15379633	22	23,487,586	RAB36	0.069	0.321	6.34E-05	0.039	Island	1stExon	-0.001	0.044	0.768	+-
cg24642169	1	212,731,669	NA	0.055	0.295	6.45E-05	0.039	Island		-0.002	0.063	0.527	+-
cg19028499	7	3,096,493	NA	0.063	0.598	6.46E-05	0.039	OpenSea		0.002	0.362	0.911	++
cg14896463	7	116,592,956	ST7-OT4	0.052	0.188	6.70E-05	0.040	N_Shore	TSS1500	-0.001	0.049	0.652	+-
cg20483374	11	119,211,646	C1QTNF5	0.068	0.268	6.74E-05	0.040	Island	5'UTR	-0.003	0.027	0.096	+-
cg21357291	18	55,471,021	NA	0.051	0.220	6.78E-05	0.040	Island		0.000	0.029	0.859	+-
cg05059480	15	40,633,202	C15orf52	0.063	0.304	6.80E-05	0.040	OpenSea	TSS200	-0.002	0.090	0.758	+-

cg12186816	8	88,160,820	CNBD1	-0.057	0.489	6.82E-05	0.040	OpenSea	Body	0.000	0.343	0.942	--
cg01123783	7	147,591,551	MIR548F3	0.082	0.687	6.87E-05	0.040	OpenSea	TSS1500	0.011	0.396	0.444	++
cg00363845	19	17,446,137	ANO8	0.071	0.481	6.88E-05	0.040	S_Shore	TSS1500	0.018	0.563	0.152	++
cg20451680	5	54,281,336	ESM1	0.062	0.430	6.99E-05	0.040	OpenSea	1stExon	0.023	0.415	0.192	++
cg20592017	15	40,364,740	NA	0.072	0.599	7.05E-05	0.040	OpenSea		-0.003	0.672	0.803	--
cg19235339	10	90,342,899	RNLS	-0.053	0.071	7.28E-05	0.040	Island	1stExon	-0.003	0.073	0.818	--
cg22169990	7	150,786,051	AGAP3	0.091	0.438	7.29E-05	0.040	S_Shore	Body	-0.001	0.222	0.914	++
cg03906075	7	22,894,898	SNORD93	-0.056	0.884	7.36E-05	0.040	S_Shore	TSS1500	-0.004	0.762	0.781	--
cg03171770	10	43,393,728	NA	0.054	0.137	7.41E-05	0.040	Island		-0.002	0.023	0.415	--
cg02133624	3	195,590,041	NA	0.064	0.347	7.58E-05	0.040	OpenSea		-0.002	0.423	0.703	--
cg17675492	11	62,679,111	CHRM1	-0.068	0.591	7.65E-05	0.040	OpenSea	5'UTR	-0.009	0.665	0.333	--
cg14972814	11	95,582,409	MTMR2	0.081	0.635	8.26E-05	0.041	OpenSea	Body	0.001	0.542	0.938	++
cg08034070	17	40,805,868	NA	0.055	0.202	7.73E-05	0.040	Island		0.001	0.023	0.523	++
cg10531073	22	38,485,757	BAIAP2L2	0.056	0.627	7.74E-05	0.040	S_Shore	Body	-0.001	0.232	0.901	--
cg09293816	19	50,015,532	FCGRT	0.065	0.302	7.74E-05	0.040	N_Shore	TSS200	0.004	0.384	0.659	++
cg09117448	16	31,439,393	COX6A2	0.078	0.482	7.80E-05	0.040	Island	Body	-0.012	0.315	0.589	--
cg04124626	5	41,509,934	PLCXD3	0.056	0.152	7.94E-05	0.041	Island	Body	0.006	0.136	0.693	++
cg21156263	9	19,926,448	NA	0.090	0.348	8.13E-05	0.041	OpenSea		-0.007	0.071	0.293	--
cg12110437	8	144,098,888	LY6E	-0.091	0.525	8.36E-05	0.041	N_Shore	TSS1500	0.013	0.765	0.254	--
cg00262344	18	23,713,741	PSMA8	0.065	0.714	8.23E-05	0.041	Island	TSS200	0.014	0.594	0.250	++
cg10407598	17	73,629,365	RECQL5	0.084	0.571	8.30E-05	0.041	S_Shore	Body	0.003	0.524	0.862	++
cg09659400	20	43,744,673	WFDC5	-0.066	0.842	8.39E-05	0.041	OpenSea	TSS1500	0.002	0.879	0.822	--
cg26372517	1	36,039,159	TFAP2E	0.063	0.256	8.45E-05	0.041	Island	5'UTR	-0.002	0.023	0.406	--
cg23730027	3	57,995,180	FLNB	0.057	0.580	8.51E-05	0.041	Island	Body	0.002	0.635	0.874	++
cg21158528	1	211,501,629	TRAF5	-0.066	0.850	8.53E-05	0.041	S_Shore	5'UTR	0.004	0.937	0.330	--
cg17881353	17	44,928,210	WNT9B	0.050	0.583	8.54E-05	0.041	N_Shore	TSS1500	0.011	0.383	0.223	++
cg08446539	12	25,541,565	NA	-0.056	0.825	8.55E-05	0.041	S_Shelf		0.014	0.771	0.068	--
cg06010588	8	35,092,876	UNC5D	0.073	0.176	8.68E-05	0.041	Island	TSS200	-0.003	0.033	0.688	--
cg09591519	6	33,241,770	RPS18	-0.066	0.704	8.76E-05	0.041	S_Shore	Body	-0.012	0.722	0.269	--
cg23462514	4	1,107,585	RNF212	0.074	0.220	8.78E-05	0.041	Island	TSS200	0.001	0.075	0.885	++
cg12972064	3	171,887,393	FNDC3B	0.084	0.396	8.79E-05	0.041	OpenSea	Body	0.005	0.752	0.555	++
cg23543481	14	23,623,684	SLC7A8	0.052	0.434	8.79E-05	0.041	OpenSea	Body	0.005	0.236	0.352	++
cg00498305	10	119,000,236	SLC18A2	0.052	0.210	8.91E-05	0.041	N_Shore	TSS1500	-0.001	0.038	0.781	--
cg09462576	1	228,297,873	MRPL55	0.058	0.469	8.94E-05	0.041	S_Shore	TSS1500	0.008	0.671	0.638	++
cg20885179	3	38,035,831	VILL	-0.053	0.239	8.96E-05	0.041	Island	Body	0.004	0.055	0.599	--
cg24306340	1	64,937,451	CACHD1	0.063	0.216	8.99E-05	0.041	S_Shore	Body	0.002	0.046	0.577	++
cg14377922	2	23,840,537	KLHL29	0.069	0.482	9.23E-05	0.042	OpenSea	Body	-0.007	0.124	0.492	--
cg26738987	11	94,135,029	GPR83	0.053	0.266	9.28E-05	0.042	S_Shore	TSS1500	0.002	0.162	0.861	++
cg00123104	1	9,884,732	CLSTN1	0.071	0.292	9.29E-05	0.042	S_Shore	TSS200	0.001	0.038	0.818	++
cg19459332	15	98,196,247	NA	0.076	0.255	9.35E-05	0.042	Island		0.001	0.029	0.555	++
cg00207352	3	48,470,181	PLXNB1	0.052	0.246	9.39E-05	0.042	N_Shore	5'UTR	-0.002	0.019	0.097	--

cg11775521	11	74,178,795	KCNE3	0.064	0.186	9.42E-05	0.042	Island	TSS200	-0.004	0.133	0.703	+-
cg22700848	12	124,990,942	NCOR2	0.056	0.308	9.46E-05	0.042	OpenSea	5'UTR	-0.004	0.031	0.566	+-
cg18331412	5	135,364,986	TGFB1	0.074	0.334	9.51E-05	0.042	Island	Body	-0.005	0.055	0.196	+-
cg19710451	17	46,654,202	HOXB4	0.054	0.339	9.53E-05	0.042	Island	Body	-0.004	0.054	0.412	+-
cg15089806	1	43,418,199	SLC2A1	-0.053	0.778	9.54E-05	0.042	OpenSea	Body	-0.003	0.713	0.712	--
cg13700506	20	29,892,486	DEFB116	0.058	0.528	9.55E-05	0.042	OpenSea	Body	0.020	0.499	0.073	++
cg06578434	19	1,155,225	SBNO2	0.066	0.348	9.67E-05	0.042	Island	5'UTR	0.014	0.202	0.308	++
cg07058998	18	52,625,365	CCDC68	0.095	0.454	9.71E-05	0.042	N_Shore	TSS200	-0.008	0.093	0.329	+-
cg21402921	15	27,112,305	GABRA5	0.052	0.089	9.72E-05	0.042	Island	1stExon	0.000	0.020	0.906	++
cg03676485	7	2,563,816	LFNG	0.060	0.327	9.76E-05	0.042	Island	Body	0.009	0.239	0.300	++
cg12573871	18	72,509,555	ZNF407	-0.074	0.624	9.77E-05	0.042	OpenSea	Body	0.015	0.500	0.083	+-
cg10321146	19	6,822,469	VAV1	0.074	0.782	9.83E-05	0.042	Island	Body	0.021	0.507	0.127	++
cg24134292	8	142,315,841	NA	0.061	0.629	9.83E-05	0.042	N_Shelf		-0.004	0.156	0.623	+-
cg20217702	3	134,094,099	AMOTL2	0.053	0.361	9.87E-05	0.042	S_Shore	TSS1500	-0.008	0.176	0.458	+-
cg06886374	16	1,844,152	IGFALS	0.055	0.827	9.91E-05	0.042	S_Shore	TSS1500	0.013	0.720	0.465	++
cg17061862	11	9,590,431	NA	0.059	0.418	9.92E-05	0.042	N_Shelf		0.001	0.402	0.858	++
cg01420564	2	179,076,804	OSBPL6	-0.053	0.808	9.94E-05	0.042	OpenSea	5'UTR	-0.001	0.388	0.914	--
cg17845761	1	175,162,550	KIAA0040	0.064	0.286	9.99E-05	0.042	S_Shore	TSS1500	-0.006	0.095	0.445	+-
cg07920414	1	41,094,365	RIMS3	-0.074	0.838	0.0001	0.042	OpenSea	Body	0.001	0.981	0.477	+-
cg17471102	19	5,851,255	FUT3	0.058	0.272	0.000101	0.042	OpenSea	5'UTR	0.003	0.204	0.666	++
cg23837265	10	88,730,407	ADIRF	0.072	0.267	0.000101	0.042	N_Shore	3'UTR	-0.019	0.269	0.041	+-
cg27566805	1	216,596,808	USH2A	0.058	0.586	0.000101	0.042	OpenSea	TSS200	0.010	0.508	0.223	++
cg04942251	11	63,687,247	NA	0.067	0.493	0.000101	0.042	S_Shore		-0.005	0.114	0.493	+-
cg04203702	4	11,369,349	MIR572	0.057	0.648	0.000102	0.042	N_Shore	TSS1500	0.003	0.641	0.783	++
cg08350509	19	3,028,220	TLE2	0.066	0.639	0.000103	0.042	N_Shore	Body	0.013	0.244	0.343	++
cg06448705	5	135,701,094	TRPC7	0.064	0.264	0.0001	0.042	OpenSea	5'UTR	-0.001	0.025	0.325	+-
cg12049875	20	19,955,868	RIN2	0.059	0.384	0.0001	0.042	Island	Body	-0.006	0.402	0.562	+-
cg25694915	2	169,658,981	NOSTRIN	0.070	0.419	0.0001	0.042	OpenSea	5'UTR	-0.008	0.151	0.276	+-
cg00936935	10	52,271,899	SGMS1	-0.055	0.792	0.0001	0.042	OpenSea	5'UTR	-0.002	0.940	0.756	--
cg13330559	17	11,144,043	SHISA6	0.053	0.093	0.0001	0.042	Island	TSS1500	0.000	0.019	0.949	+-
cg05901543	16	89,251,975	CDH15	0.052	0.650	0.0001	0.042	OpenSea	Body	0.008	0.521	0.496	++
cg03306221	22	44,258,602	SULT4A1	0.076	0.234	0.0001	0.042	Island	TSS1500	0.000	0.026	0.887	+-
cg22976832	10	112,295,835	NA	-0.059	0.331	0.0001	0.042	OpenSea		0.002	0.415	0.757	+-
cg04673465	4	85,570,164	CDS1	0.089	0.367	0.0001	0.042	OpenSea	3'UTR	-0.004	0.202	0.796	+-
cg22698744	21	36,263,808	RUNX1	0.066	0.402	0.0001	0.042	S_Shore	Body	0.001	0.027	0.766	++
cg26251585	7	11,456,440	THSD7A	-0.069	0.649	0.0001	0.042	OpenSea	Body	0.000	0.548	0.967	--
cg25017403	15	31,516,404	NA	0.058	0.503	0.0001	0.042	OpenSea		-0.002	0.532	0.858	+-
cg06748147	22	38,714,287	CSNK1E	0.052	0.290	0.0001	0.042	S_Shore	TSS200	0.004	0.475	0.650	++
cg21205031	2	32,502,699	YIPF4	0.072	0.370	0.0001	0.042	N_Shore	TSS1500	0.012	0.325	0.483	++
cg04395689	8	20,054,372	ATP6V1B2	0.067	0.176	0.0001	0.042	N_Shore	TSS1500	0.001	0.022	0.186	++
cg27291385	2	219,266,135	CTDSP1	0.061	0.176	0.0001	0.042	S_Shore	Body	0.005	0.121	0.536	++



cg11669285	17	40,558,061	PTRF	0.070	0.538	0.0001	0.042	Island	Body	0.018	0.423	0.275	++
cg22134923	11	62,314,874	AHNAK	0.057	0.276	0.0001	0.042	Island	TSS1500	-0.001	0.058	0.823	+-
cg04990420	22	24,824,362	ADORA2A	-0.054	0.757	0.0001	0.042	S_Shelf	5'UTR	0.009	0.665	0.175	+-
cg09321403	6	13,555,624	NA	0.055	0.590	0.0001	0.042	OpenSea		0.009	0.506	0.141	++
cg09643312	2	160,655,081	CD302	0.083	0.289	0.0001	0.042	S_Shore	TSS1500	0.021	0.250	0.139	++
cg06336535	19	17,877,528	FCHO1	0.062	0.269	0.0001	0.042	Island	Body	-0.004	0.050	0.531	+-
cg09321363	2	84,743,263	DNAH6	0.058	0.250	0.0001	0.042	N_Shore	TSS1500	0.011	0.248	0.278	++
cg08289567	4	129,307,231	NA	0.069	0.437	0.0001	0.043	OpenSea		-0.004	0.336	0.498	+-
cg20555772	6	137,630,455	NA	0.052	0.159	0.0001	0.043	OpenSea		0.000	0.072	0.986	++
cg07774964	15	65,133,105	PLEKHO2	0.072	0.269	0.0001	0.043	N_Shore	TSS1500	0.002	0.051	0.659	++
cg08731696	1	59,280,489	NA	0.072	0.613	0.0001	0.043	Island		0.000	0.190	0.969	+-
cg06028605	16	24,865,363	SLC5A11	0.066	0.191	0.0001	0.043	OpenSea	5'UTR	-0.008	0.119	0.397	+-
cg18450254	3	64,200,005	PRICKLE2	0.063	0.218	0.0001	0.043	OpenSea	5'UTR	-0.003	0.393	0.604	+-
cg24453580	12	49,691,064	PRPH	-0.072	0.116	0.0001	0.043	Island	Body	0.000	0.018	0.862	--
cg14837974	14	21,110,908	OR6S1	0.056	0.593	0.0001	0.043	OpenSea	TSS1500	0.011	0.296	0.469	++
cg10407585	10	115,999,916	VWA2	0.060	0.682	0.0001	0.043	S_Shore	5'UTR	-0.003	0.472	0.753	+-
cg16465280	7	3,096,414	NA	0.081	0.706	0.0001	0.043	OpenSea		0.010	0.290	0.616	++
cg18875629	22	27,834,439	NA	0.069	0.326	0.0001	0.043	Island		0.005	0.070	0.610	++
cg19414630	8	48,648,874	NA	0.086	0.285	0.0001	0.043	N_Shore		0.017	0.230	0.314	++
cg00735611	17	37,895,886	GRB7	0.055	0.420	0.0001	0.043	OpenSea	5'UTR	0.011	0.180	0.097	++
cg04536704	6	32,122,966	PPT2	0.050	0.601	0.0001	0.043	S_Shore	Body	0.006	0.568	0.507	++
cg11210878	11	62,689,065	CHRM1	0.077	0.423	0.0001	0.043	N_Shore	TSS200	0.001	0.120	0.892	++
cg05323879	17	46,642,104	HOXB3	0.053	0.251	0.0001	0.043	Island	5'UTR	-0.008	0.075	0.189	+-
cg24368848	19	58,545,160	ZSCAN1	0.050	0.108	0.0001	0.043	Island	TSS1500	0.001	0.024	0.184	++
cg06638451	3	58,563,269	FAM107A	0.066	0.338	0.0001	0.043	OpenSea	1stExon	0.008	0.114	0.415	++
cg01594290	1	42,611,386	NA	-0.053	0.294	0.0001	0.043	N_Shore		0.014	0.279	0.362	+-
cg19484305	11	123,940,566	NA	0.051	0.429	0.0001	0.043	OpenSea		-0.005	0.303	0.734	+-
cg15908709	17	46,676,215	LOC404266	0.056	0.369	0.0001	0.043	S_Shore	Body	-0.005	0.155	0.690	+-
cg21003380	1	156,261,207	TMEM79	0.050	0.317	0.0001	0.043	Island	Body	0.005	0.063	0.483	++
cg23288103	2	242,499,464	BOK	0.061	0.405	0.0001	0.043	S_Shore	Body	0.000	0.320	0.971	+-
cg20173011	8	101,507,705	NA	-0.068	0.624	0.0001	0.043	OpenSea		0.007	0.825	0.300	+-
cg17674042	6	34,482,479	PACSIN1	0.101	0.459	0.0001	0.043	OpenSea	5'UTR	0.015	0.100	0.282	++
cg14602393	12	133,343,405	NA	0.071	0.385	0.0001	0.044	S_Shelf		0.005	0.352	0.765	++
cg21918313	2	73,496,203	FBXO41	0.055	0.463	0.0001	0.044	Island	Body	0.009	0.070	0.398	++
cg11379081	1	209,405,050	NA	0.082	0.305	0.0001	0.044	Island		-0.034	0.114	0.273	+-
cg02214783	1	3,688,257	LOC388588	0.067	0.661	0.0001	0.044	N_Shore	TSS1500	0.006	0.423	0.557	++
cg11775828	2	169,100,915	STK39	-0.056	0.631	0.0001	0.044	N_Shelf	Body	0.003	0.426	0.751	+-
cg02749463	17	46,646,359	HOXB3	0.065	0.304	0.0001	0.044	OpenSea	5'UTR	-0.002	0.046	0.400	+-
cg20065463	2	220,283,156	DES	0.055	0.182	0.0001	0.044	N_Shore	1stExon	-0.002	0.019	0.176	+-
cg20593826	1	59,280,370	NA	0.070	0.461	0.0001	0.044	Island		-0.002	0.061	0.701	+-
cg14655843	9	114,688,737	UGCG	-0.057	0.702	0.0001	0.044	OpenSea	Body	-0.001	0.911	0.862	--

cg16988986	1	109,941,118	SORT1	0.061	0.488	0.0001	0.044	S_Shore	TSS1500	-0.002	0.373	0.798	+-
cg14288848	6	33,282,873	ZBTB22	0.054	0.341	0.0001	0.044	Island	Body	0.010	0.184	0.378	++
cg17968037	7	100,024,898	ZCWPW1	0.084	0.545	0.0001	0.044	N_Shore	5'UTR	0.029	0.496	0.103	++
cg08940075	1	95,388,680	CNN3	0.065	0.637	0.0001	0.044	N_Shelf	Body	0.000	0.862	0.939	++
cg14243778	12	41,086,879	CNTN1	0.050	0.272	0.0001	0.044	Island	5'UTR	-0.002	0.037	0.549	+-
cg09608949	11	117,748,189	FXYP6	0.099	0.493	0.0001	0.044	S_Shore	TSS1500	0.000	0.190	0.997	+-
cg04204246	6	112,537,238	LAMA4	0.057	0.798	0.0001	0.044	OpenSea	Body	-0.003	0.331	0.827	+-
cg02927346	17	34,059,260	RASL10B	0.054	0.239	0.0001	0.044	S_Shore	5'UTR	-0.001	0.025	0.532	+-
cg17882867	15	71,704,440	THSD4	0.076	0.342	0.0001	0.044	OpenSea	Body	-0.002	0.087	0.783	+-
cg01963623	22	18,632,433	USP18	0.052	0.260	0.0001	0.044	N_Shore	TSS1500	-0.009	0.335	0.524	+-
cg02486855	15	67,356,942	SMAD3	0.078	0.723	0.0001	0.044	N_Shore	TSS1500	0.011	0.119	0.215	++
cg06783429	7	127,673,038	SND1	0.051	0.585	0.0001	0.044	S_Shore	Body	-0.008	0.045	0.431	+-
cg09118258	1	165,204,796	LMX1A	0.053	0.117	0.0002	0.044	Island	Body	0.007	0.026	0.480	++
cg02371935	16	87,521,363	ZCCHC14	0.053	0.372	0.0001	0.044	OpenSea	Body	0.003	0.462	0.662	++
cg06760830	1	47,079,672	MOB3C	0.056	0.154	0.0002	0.044	S_Shore	Body	0.001	0.047	0.808	++
cg04810063	16	88,703,634	IL17C	-0.065	0.675	0.0002	0.044	N_Shelf	TSS1500	0.006	0.479	0.642	+-
cg25052847	2	161,767,428	NA	0.082	0.655	0.0002	0.044	OpenSea		0.002	0.369	0.860	++
cg27250236	6	48,036,617	PTCHD4	0.056	0.164	0.0002	0.044	S_Shore	TSS200	0.000	0.027	0.841	+-
cg09060789	11	1,884,988	LSP1	0.059	0.177	0.0002	0.044	OpenSea	Body	0.000	0.071	0.987	+-
cg22891191	10	129,706,234	PTPRE	0.050	0.371	0.0002	0.044	Island	5'UTR	-0.003	0.465	0.734	+-
cg27576485	17	40,558,063	PTRF	0.091	0.312	0.0002	0.044	Island	Body	0.010	0.274	0.692	++
cg02423817	11	67,203,661	PTPRCAP	-0.055	0.693	0.0002	0.044	Island	Body	0.002	0.963	0.413	+-
cg05955436	20	17,660,838	RRBP1	0.063	0.236	0.0002	0.044	N_Shore	5'UTR	0.002	0.407	0.844	++
cg15812322	11	45,868,398	CRY2	-0.054	0.592	0.0002	0.044	N_Shore	TSS1500	0.009	0.579	0.390	+-
cg22209918	6	33,128,903	NA	0.065	0.529	0.0002	0.044	N_Shore		0.024	0.550	0.024	++
cg08573435	7	1,398,116	NA	0.068	0.507	0.0002	0.044	OpenSea		-0.008	0.420	0.492	+-
cg17164954	6	157,345,266	ARID1B	0.084	0.293	0.0002	0.044	S_Shelf	Body	0.013	0.156	0.179	++
cg11370814	2	242,927,418	NA	-0.056	0.600	0.0002	0.044	N_Shore		0.006	0.883	0.384	+-
cg10854819	15	31,515,852	NA	0.083	0.312	0.0002	0.044	OpenSea		0.001	0.295	0.955	++
cg15541170	2	238,224,257	NA	0.066	0.457	0.0002	0.044	OpenSea		-0.005	0.063	0.465	+-
cg26999345	22	37,584,441	C1QTNF6	0.052	0.244	0.0002	0.044	OpenSea	TSS200	-0.001	0.042	0.461	+-
cg00056433	1	161,391,807	NA	-0.080	0.466	0.0002	0.044	OpenSea		0.004	0.229	0.753	+-
cg06208288	1	58,858,074	NA	-0.067	0.829	0.0002	0.044	OpenSea		-0.002	0.918	0.818	--
cg26695909	8	81,639,869	ZNF704	0.075	0.267	0.0002	0.044	OpenSea	Body	0.000	0.022	0.955	++
cg19269473	17	55,939,590	NA	0.066	0.317	0.0002	0.044	Island		0.003	0.031	0.120	++
cg09255910	1	221,055,790	HLX	0.053	0.481	0.0002	0.045	Island	Body	-0.012	0.189	0.366	+-
cg02235659	3	45,066,580	CLEC3B	0.067	0.322	0.0002	0.045	OpenSea	TSS1500	0.018	0.591	0.070	++
cg21450829	3	182,970,719	MCF2L2	0.059	0.686	0.0002	0.045	N_Shore	Body	0.002	0.476	0.843	++
cg23238315	7	156,259,194	NA	0.085	0.393	0.0002	0.045	OpenSea		0.008	0.063	0.187	++
cg19590598	2	127,782,813	NA	0.052	0.317	0.0002	0.045	Island		-0.001	0.028	0.475	+-
cg07327299	17	37,896,063	GRB7	0.051	0.319	0.0002	0.045	OpenSea	5'UTR	0.003	0.049	0.348	++

cg27506609	1	36,549,197	TEKT2	-0.080	0.822	0.0002	0.045	N_Shore	TSS1500	-0.002	0.978	0.305	--
cg12689679	15	31,516,316	NA	0.053	0.433	0.0002	0.045	OpenSea		0.008	0.416	0.470	++
cg07346187	6	149,775,621	ZC3H12D	0.050	0.140	0.0002	0.045	N_Shelf	Body	0.007	0.058	0.553	++
cg25674883	12	107,347,673	NA	0.064	0.729	0.0002	0.045	N_Shore		0.003	0.868	0.817	++
cg09238049	16	1,205,018	CACNA1H	0.086	0.490	0.0002	0.045	S_Shore	Body	-0.031	0.441	0.095	+-
cg26459819	11	111,169,457	COLCA2	0.059	0.238	0.0002	0.045	Island	TSS1500	0.004	0.061	0.375	++
cg03035162	14	22,993,190	NA	-0.055	0.844	0.0002	0.045	OpenSea		-0.007	0.915	0.610	--
cg19569526	5	155,754,265	SGCD	0.056	0.517	0.0002	0.045	OpenSea	5'UTR	0.012	0.297	0.292	++
cg03077331	17	80,693,076	FN3K	0.061	0.145	0.0002	0.045	Island	TSS1500	0.003	0.045	0.337	++
cg16038331	15	68,503,187	CLN6	0.052	0.186	0.0002	0.045	OpenSea	Body	0.004	0.073	0.391	++
cg07166084	1	242,217,440	NA	-0.053	0.729	0.0002	0.045	N_Shelf		-0.005	0.787	0.602	--
cg20884605	12	112,205,368	ALDH2	0.063	0.175	0.0002	0.045	S_Shore	Body	0.000	0.015	0.746	++
cg04075738	12	130,571,303	NA	0.053	0.391	0.0002	0.045	OpenSea		0.000	0.342	0.993	++
cg24174557	17	57,903,544	VMP1	-0.076	0.501	0.0002	0.045	OpenSea	Body	-0.001	0.753	0.947	--
cg21535253	19	12,758,416	MAN2B1	0.072	0.432	0.0002	0.045	Island	Body	0.003	0.086	0.812	++
cg10536276	2	113,956,344	PSD4	0.058	0.388	0.0002	0.045	Island	Body	-0.009	0.060	0.149	+-
cg16396978	1	25,936,677	NA	0.054	0.558	0.0002	0.045	OpenSea		-0.001	0.172	0.947	+-
cg19021383	11	45,922,184	MAPK8IP1	0.052	0.272	0.0002	0.045	N_Shore	Body	0.000	0.028	0.746	+-
cg05516285	19	29,704,446	UQCRFS1	0.064	0.301	0.0002	0.045	S_Shore	TSS1500	0.010	0.389	0.577	++
cg09878888	11	57,529,614	CTNND1	0.064	0.180	0.0002	0.045	OpenSea	5'UTR	0.000	0.011	0.685	+-
cg01185080	15	90,543,813	ZNF710	0.056	0.377	0.0002	0.045	Island	TSS1500	-0.001	0.069	0.797	+-
cg20673840	5	54,281,362	ESM1	0.055	0.429	0.0002	0.045	OpenSea	1stExon	0.016	0.427	0.254	++
cg24713204	19	57,019,373	ZNF471	0.059	0.294	0.0002	0.045	Island	5'UTR	-0.002	0.027	0.251	+-
cg21179088	7	54,612,333	VSTM2A	0.054	0.206	0.0002	0.045	Island	Body	0.000	0.019	0.948	+-
cg08122232	17	74,100,132	EXOC7	-0.081	0.469	0.0002	0.045	S_Shore	TSS1500	-0.002	0.459	0.890	--
cg26995224	12	121,974,146	KDM2B	0.051	0.271	0.0002	0.045	N_Shore	Body	-0.003	0.038	0.294	+-
cg11931596	8	79,674,645	IL7	0.074	0.238	0.0002	0.046	OpenSea	Body	-0.001	0.025	0.602	+-
cg20039443	20	50,108,912	NFATC2	0.071	0.348	0.000197	0.046	Island	Body	-0.003	0.085	0.796	+-
cg13852784	9	101,265,948	GABBR2	-0.056	0.810	0.000199	0.046	OpenSea	Body	-0.002	0.879	0.837	--
cg01176433	15	69,754,714	NA	0.063	0.311	0.000199	0.046	OpenSea		-0.010	0.471	0.311	+-
cg07967717	1	24,229,682	CNR2	0.052	0.222	0.000199	0.046	S_Shore	5'UTR	-0.003	0.056	0.189	+-
cg03352427	1	154,127,523	NUP210L	0.058	0.695	0.0002	0.046	OpenSea	1stExon	0.013	0.504	0.147	++
cg07355189	10	45,923,374	ALOX5	0.098	0.511	0.0002	0.046	Island	Body	0.000	0.031	0.961	++
cg07773434	11	64,015,289	PPP1R14B	0.071	0.327	0.0002	0.046	Island	TSS1500	-0.002	0.024	0.340	+-
cg26411522	1	8,403,712	SLC45A1	0.070	0.768	0.000201	0.046	Island	Body	-0.003	0.526	0.707	+-
cg03738025	6	105,388,694	NA	0.064	0.241	0.000201	0.046	Island		0.000	0.022	0.912	+-
cg07877257	12	125,411,922	NA	0.100	0.265	0.000202	0.046	N_Shore		-0.007	0.380	0.696	+-
cg12161228	11	89,224,506	NOX4	0.056	0.136	0.000202	0.046	Island	1stExon	-0.017	0.022	0.114	+-
cg01965380	1	90,321,064	LRRC8D	-0.072	0.608	0.000204	0.046	OpenSea	5'UTR	-0.001	0.866	0.936	--
cg05068206	6	30,095,195	NA	0.055	0.338	0.000205	0.046	Island		0.000	0.017	0.834	+-
cg04015962	1	10,949,192	NA	0.075	0.475	0.0002	0.046	OpenSea		-0.001	0.040	0.772	+-

cg07310671	16	85,253,980	NA	0.068	0.387	0.0002	0.046	OpenSea		0.001	0.084	0.930	++
cg24576535	3	113,417,997	NA	0.054	0.224	0.0002	0.046	S_Shelf		0.002	0.042	0.758	++
cg18517540	18	32,446,543	DTNA	-0.055	0.760	0.0002	0.046	OpenSea	3'UTR	0.015	0.912	0.007	-+
cg14362630	9	133,308,669	NA	-0.063	0.126	0.0002	0.046	Island		0.001	0.019	0.365	-+
cg20618695	12	13,251,495	GSG1	0.060	0.133	0.0002	0.046	N_Shelf	Body	-0.002	0.042	0.558	-+
cg05506600	15	72,447,967	NA	0.062	0.234	0.0002	0.046	OpenSea		0.000	0.025	0.804	-+
cg00044505	8	48,649,086	NA	0.066	0.150	0.0002	0.046	N_Shore		0.004	0.047	0.533	++
cg01199952	13	25,591,486	NA	0.057	0.500	0.0002	0.046	N_Shore		0.002	0.642	0.913	++
cg16889557	12	50,426,531	NA	0.057	0.436	0.0002	0.046	N_Shore		0.002	0.121	0.822	++
cg02263932	20	50,109,099	NFATC2	0.051	0.251	0.0002	0.046	Island	Body	-0.005	0.060	0.271	-+
cg18771570	2	154,143,768	NA	0.087	0.258	0.0002	0.046	OpenSea		0.000	0.224	0.993	++
cg24874003	19	2,602,614	GNG7	0.075	0.622	0.0002	0.046	OpenSea	5'UTR	0.003	0.048	0.609	++
cg08506869	8	48,572,447	SPIDR	0.086	0.270	0.0002	0.046	OpenSea	Body	0.000	0.022	0.978	-+
cg06893362	20	47,897,124	ZFAS1	-0.062	0.788	0.0002	0.046	S_Shore	Body	0.003	0.795	0.747	-+
cg18871253	7	114,055,137	FOXP2	0.102	0.531	0.0002	0.046	OpenSea	1stExon	-0.009	0.076	0.129	-+
cg05282518	14	20,344,920	OR4K2	0.056	0.472	0.0002	0.046	OpenSea	1stExon	0.014	0.454	0.291	++
cg25339073	11	30,605,797	MPPED2	0.052	0.250	0.0002	0.046	Island	5'UTR	-0.003	0.041	0.181	-+
cg03818715	6	7,591,348	SNRNP48	0.098	0.465	0.0002	0.046	S_Shore	Body	0.006	0.254	0.746	++
cg26449680	22	38,714,272	CSNK1E	0.051	0.250	0.0002	0.046	S_Shore	TSS200	-0.003	0.274	0.710	-+
cg04299274	17	25,798,741	KSR1	-0.056	0.653	0.0002	0.046	OpenSea	TSS1500	0.010	0.789	0.101	-+
cg11355658	6	132,453,670	NA	0.066	0.699	0.0002	0.046	OpenSea		-0.002	0.656	0.826	-+
cg00108282	7	845,047	NA	0.055	0.670	0.0002	0.046	OpenSea		0.011	0.654	0.363	++
cg04011474	2	28,904,455	NA	-0.053	0.729	0.0002	0.046	OpenSea		0.005	0.873	0.481	-+
cg05917111	16	75,568,999	CHST5	0.053	0.574	0.0002	0.046	OpenSea	5'UTR	0.012	0.431	0.247	++
cg10040355	12	12,990,366	NA	0.054	0.732	0.0002	0.047	OpenSea		0.025	0.608	0.397	++
cg22438763	1	47,900,256	FOX D2	0.066	0.227	0.0002	0.047	Island	TSS1500	0.000	0.015	0.998	-+
cg01987202	15	40,633,194	C15orf52	0.053	0.185	0.0002	0.047	OpenSea	TSS200	-0.001	0.043	0.601	-+
cg27288226	19	57,618,436	NA	0.055	0.255	0.0002	0.047	Island		0.003	0.067	0.587	++
cg14114546	5	77,823,064	LHFPL2	0.074	0.235	0.0002	0.047	OpenSea	5'UTR	0.004	0.119	0.470	++
cg00074348	11	57,006,273	APLNR	-0.053	0.758	0.0002	0.047	OpenSea	TSS1500	0.002	0.831	0.693	-+
cg05618807	19	14,376,820	NA	0.059	0.433	0.0002	0.047	Island		-0.005	0.052	0.316	-+
cg18063495	5	50,262,796	NA	-0.059	0.228	0.0002	0.047	N_Shelf		0.000	0.026	0.756	--
cg24863255	3	171,561,069	TMEM212	0.075	0.713	0.0002	0.047	OpenSea	TSS200	-0.007	0.891	0.323	-+
cg13554018	9	91,091,556	SPIN1	-0.053	0.735	0.0002	0.047	OpenSea	3'UTR	0.006	0.746	0.505	-+
cg20247911	2	2,124,618	MYT1L	0.056	0.432	0.0002	0.047	OpenSea	5'UTR	0.018	0.276	0.135	++
cg23630423	17	1,903,022	RTN4RL1	0.073	0.266	0.0002	0.047	S_Shore	Body	0.000	0.105	0.964	++
cg26687119	1	156,828,442	NTRK1	0.051	0.437	0.0002	0.047	N_Shore	Body	0.008	0.271	0.230	++
cg05963085	3	112,359,648	CCDC80	0.051	0.264	0.0002	0.047	OpenSea	5'UTR	-0.005	0.038	0.032	-+
cg01508380	14	23,305,585	MMP14	0.070	0.215	0.0002	0.047	N_Shore	TSS1500	-0.0001	0.018	0.880	-+
cg03148927	3	45,558,093	LARS2	0.055	0.684	0.0002	0.047	OpenSea	Body	0.000	0.601	0.938	++
cg21055528	6	31,549,631	LTB	-0.059	0.446	0.0002	0.047	S_Shore	Body	0.002	0.457	0.900	-+

cg10612096	2	231,865,097	SPATA3	0.080	0.403	0.0002	0.047	OpenSea	Body	0.002	0.295	0.940	++
cg23261343	6	45,413,792	RUNX2	0.066	0.155	0.0002	0.047	OpenSea	Body	0.005	0.093	0.607	++
cg10599444	14	23,305,941	MMP14	0.057	0.256	0.0002	0.047	Island	5'UTR	0.002	0.022	0.109	++
cg24087669	5	5,419,515	NA	0.062	0.667	0.0002	0.047	N_Shelf		-0.003	0.395	0.826	+-
cg09978533	22	46,465,160	NA	0.067	0.174	0.0002	0.047	N_Shore		0.005	0.500	0.645	++
cg23204968	7	27,183,816	HOXA5	0.097	0.457	0.0002	0.047	Island	TSS1500	0.003	0.048	0.466	++
cg11564601	22	30,592,435	NA	0.107	0.296	0.0002	0.047	OpenSea		0.003	0.043	0.329	++
cg03562367	21	17,106,209	USP25	-0.058	0.806	0.0002	0.047	S_Shelf	Body	0.005	0.896	0.311	+-
cg03233624	17	55,740,464	MSI2	0.097	0.519	0.0002	0.047	OpenSea	Body	-0.006	0.046	0.178	+-
cg13891539	12	30,322,730	NA	0.060	0.783	0.0002	0.048	N_Shore		0.004	0.536	0.796	++
cg09143713	20	9,141,615	PLCB4	-0.060	0.535	0.0002	0.048	OpenSea	5'UTR	0.023	0.424	0.023	+-
cg08136809	19	41,882,642	TMEM91	0.056	0.221	0.0002	0.048	Island	1stExon	-0.005	0.020	0.089	+-
cg14091103	3	187,870,929	LPP	0.068	0.359	0.0003	0.048	N_Shore	TSS1500	0.001	0.074	0.882	++
cg02637101	15	99,548,944	LOC145814	0.052	0.570	0.0003	0.048	OpenSea	5'UTR	-0.001	0.373	0.946	+-
cg24779941	14	103,524,901	CDC42BPB	0.057	0.182	0.0003	0.048	S_Shore	TSS1500	0.000	0.035	0.762	+-
cg15418423	3	23,225,524	NA	0.053	0.765	0.0003	0.048	OpenSea		-0.014	0.353	0.263	+-
cg23668184	2	5,836,713	SOX11	0.052	0.137	0.0003	0.048	Island	3'UTR	0.000	0.015	0.725	+-
cg05437692	4	149,362,435	NR3C2	0.056	0.233	0.0003	0.048	N_Shore	5'UTR	-0.003	0.109	0.742	+-
cg22609511	7	28,891,164	NA	-0.057	0.776	0.0003	0.048	N_Shelf		0.001	0.715	0.973	+-
cg03743205	16	88,600,835	ZFPM1	0.051	0.114	0.0003	0.048	Island	Body	0.001	0.024	0.821	++
cg20124223	11	111,847,692	DIXDC1	0.058	0.443	0.0003	0.048	N_Shore	TSS1500	0.000	0.035	0.918	+-
cg22318514	6	31,650,850	NA	0.058	0.219	0.0003	0.048	Island		-0.002	0.050	0.628	+-
cg12103951	10	88,162,314	NA	0.063	0.387	0.0003	0.048	S_Shore		0.001	0.039	0.647	++
cg21201401	20	62,367,884	LIME1	-0.091	0.721	0.0003	0.048	N_Shore	TSS200	0.000	0.974	0.902	+-
cg25256924	11	67,205,739	CORO1B	-0.064	0.748	0.0003	0.048	S_Shelf	3'UTR	0.001	0.886	0.843	+-
cg11511175	12	58,119,979	AGAP2	0.059	0.529	0.0003	0.048	Island	3'UTR	-0.001	0.037	0.810	+-
cg11200797	1	1,016,470	NA	0.060	0.612	0.0003	0.048	N_Shore		0.027	0.330	0.302	++
cg00965168	1	227,974,541	NA	0.056	0.645	0.0003	0.048	Island		0.010	0.561	0.495	++
cg08131184	19	33,764,378	NA	0.062	0.558	0.0003	0.048	Island		0.007	0.216	0.419	++
cg10946510	14	91,818,564	CCDC88C	0.057	0.470	0.0003	0.048	OpenSea	Body	-0.003	0.412	0.674	+-
cg26404511	1	24,229,575	CNR2	0.057	0.177	0.0003	0.048	S_Shore	5'UTR	0.000	0.019	0.934	+-
cg16478536	6	408,730	IRF4	0.070	0.240	0.0003	0.048	OpenSea	3'UTR	-0.001	0.278	0.924	+-
cg02814805	3	122,514,629	DIRC2	0.065	0.167	0.0003	0.049	S_Shore	Body	0.000	0.026	0.959	+-
cg13859639	11	2,846,716	KCNQ1	0.057	0.227	0.0003	0.049	OpenSea	Body	-0.003	0.240	0.715	+-
cg15676988	11	58,281,496	NA	0.074	0.336	0.0003	0.049	OpenSea		0.002	0.156	0.740	++
cg21058391	4	160,027,487	NA	0.061	0.674	0.0003	0.049	S_Shelf		0.001	0.747	0.979	++
cg01065977	19	18,549,689	ISYNA1	0.053	0.604	0.0003	0.049	S_Shore	TSS1500	-0.009	0.260	0.435	+-
cg14750367	8	105,257,227	RIMS2	-0.053	0.240	0.0003	0.049	OpenSea	Body	-0.009	0.278	0.483	--
cg19576099	6	106,531,491	NA	-0.050	0.835	0.0003	0.049	N_Shelf		0.003	0.685	0.626	+-
cg22437405	1	38,000,170	NA	0.067	0.180	0.0003	0.049	OpenSea		0.008	0.452	0.471	++
cg24484138	20	31,070,190	NOL4L	0.072	0.336	0.0003	0.049	Island	5'UTR	-0.001	0.054	0.814	+-

cg13267718	11	128,737,429	KCNJ1	0.050	0.871	0.0003	0.049	OpenSea	TSS200	-0.012	0.808	0.218	+-
cg06893296	6	30,095,136	NA	0.065	0.557	0.0003	0.049	N_Shore		0.002	0.028	0.290	++
cg02954987	3	49,170,599	LAMB2	0.076	0.295	0.0003	0.049	OpenSea	TSS200	0.000	0.012	0.954	++
cg24082526	19	49,993,125	RPL13AP5	-0.056	0.693	0.0003	0.049	S_Shore	Body	0.000	0.703	0.999	+-
cg23702848	14	104,172,109	XRCC3	0.053	0.520	0.0003	0.049	OpenSea	Body	-0.002	0.674	0.807	+-
cg22958090	12	52,627,438	KRT7	0.081	0.280	0.0003	0.049	Island	Body	0.004	0.039	0.367	++
cg25213720	5	176,734,343	MXD3	-0.051	0.568	0.0003	0.049	N_Shore	3'UTR	0.007	0.592	0.319	+-
cg02378440	12	128,246,538	NA	-0.084	0.430	0.0003	0.049	S_Shore		-0.003	0.592	0.854	--
cg10798745	1	145,715,636	CD160	-0.052	0.765	0.0003	0.049	S_Shore	TSS200	0.006	0.798	0.401	+-
cg24453664	11	33,758,413	CD59	0.069	0.205	0.0003	0.049	S_Shore	TSS1500	-0.001	0.047	0.823	+-
cg19954602	6	76,203,532	FILIP1	0.069	0.403	0.0003	0.049	OpenSea	TSS200	-0.002	0.039	0.625	+-
cg26717763	6	28,832,567	NA	0.086	0.605	0.0003	0.049	S_Shore		0.017	0.178	0.284	++
cg01860774	14	64,969,374	ZBTB25	-0.056	0.792	0.0003	0.049	N_Shore	5'UTR	0.003	0.845	0.627	+-
cg15123573	5	176,827,082	NA	0.052	0.397	0.0003	0.049	Island		-0.002	0.057	0.672	+-
cg06121352	6	146,348,486	GRM1	0.051	0.693	0.0003	0.049	N_Shelf	TSS1500	0.046	0.628	0.000	++
cg00840403	16	71,560,205	CHST4	-0.062	0.275	0.0003	0.049	OpenSea	1stExon	0.004	0.052	0.142	+-
cg16301617	17	76,128,906	TMC8	-0.054	0.562	0.0003	0.049	S_Shore	Body	0.013	0.684	0.076	+-
cg24601030	11	111,847,747	DIXDC1	0.066	0.487	0.0003	0.049	N_Shore	TSS1500	-0.009	0.087	0.169	+-
cg04605980	12	117,471,700	NA	0.116	0.488	0.0003	0.049	OpenSea		0.008	0.117	0.512	++
cg20518446	11	62,315,034	AHNAK	0.088	0.260	0.0003	0.049	Island	TSS1500	-0.003	0.053	0.178	+-
cg04580344	6	127,797,022	SOGA3	0.076	0.646	0.0003	0.049	Island	Body	0.004	0.466	0.780	++
cg01911077	11	64,531,743	NA	-0.050	0.586	0.0003	0.049	N_Shore		0.001	0.480	0.824	+-
cg21187669	17	17,929,033	ATPAF2	-0.056	0.875	0.0003	0.049	OpenSea	Body	0.000	0.974	0.986	+-
cg14023999	15	90,543,224	NA	0.061	0.205	0.0003	0.049	N_Shore		0.000	0.029	0.895	++
cg08217545	19	3,388,013	NFIC	0.056	0.410	0.0003	0.049	Island	Body	-0.010	0.390	0.381	+-
cg03329019	1	221,051,117	NA	0.055	0.589	0.000295	0.049	N_Shore		-0.013	0.552	0.270	+-
cg25298189	19	935,259	ARID3A	0.064	0.353	0.000296	0.049	S_Shelf	Body	0.004	0.267	0.736	++
cg02381279	19	16,394,366	NA	0.084	0.250	0.000296	0.049	N_Shore		-0.001	0.025	0.446	+-
cg22507772	6	6,759,831	NA	0.060	0.552	0.000298	0.049	OpenSea		-0.002	0.102	0.711	+-
cg25037165	11	12,824,283	TEAD1	0.069	0.548	0.000298	0.049	OpenSea	Body	0.007	0.170	0.637	++
cg09716921	3	66,519,998	LRIG1	-0.052	0.921	0.000299	0.049	OpenSea	Body	-0.001	0.979	0.503	--
cg27294813	2	109,791,599	SH3RF3	-0.052	0.841	0.0003	0.049	OpenSea	Body	-0.004	0.910	0.407	--
cg15050529	19	12,274,662	ZNF136	0.051	0.246	0.0003	0.049	S_Shore	Body	0.007	0.098	0.374	++
cg07676709	17	46,673,442	LOC404266	0.053	0.434	0.0003	0.049	N_Shore	Body	-0.002	0.075	0.872	+-
cg23846712	19	3,607,608	TBXA2R	0.061	0.288	0.000301	0.049	S_Shore	TSS1500	0.004	0.139	0.592	++
cg23032129	1	109,941,072	SORT1	0.051	0.316	0.000302	0.049	S_Shore	TSS1500	-0.003	0.165	0.680	+-
cg12127196	1	50,489,240	AGBL4	0.065	0.273	0.0003	0.049	N_Shore	Body	-0.008	0.060	0.148	+-
cg24351262	20	50,108,579	NFATC2	0.059	0.756	0.0003	0.049	N_Shore	Body	0.023	0.462	0.114	++
cg26226650	3	50,276,265	GNAI2	0.051	0.225	0.0003	0.049	S_Shore	Body	0.012	0.571	0.127	++
cg01462537	10	2,992,189	NA	-0.071	0.773	0.0003	0.049	OpenSea		-0.005	0.880	0.576	--
cg05338187	1	236,686,598	LGALS8	0.067	0.384	0.0003	0.049	N_Shore	TSS200	0.026	0.345	0.061	++

cg26878870	5	124,080,713	ZNF608	0.079	0.442	0.0003	0.049	OpenSea	1stExon	-0.002	0.066	0.890	+-
cg04678141	10	29,923,920	SVIL	0.079	0.658	0.0003	0.049	OpenSea	TSS200	-0.003	0.578	0.742	+-
cg09248380	4	111,397,190	ENPEP	0.064	0.300	0.0003	0.049	N_Shore	TSS200	-0.003	0.034	0.260	+-
cg24935217	11	34,517,699	ELF5	0.060	0.704	0.0003	0.049	OpenSea	Body	-0.008	0.210	0.478	+-
cg03665970	19	17,446,104	ANO8	0.068	0.481	0.0003	0.049	S_Shore	TSS1500	0.032	0.525	0.027	++
cg04202511	16	68,117,991	NFATC3	0.056	0.377	0.0003	0.049	N_Shore	TSS1500	-0.010	0.345	0.281	+-
cg06928246	1	227,974,645	NA	0.054	0.641	0.0003	0.049	Island		0.010	0.537	0.458	++
cg16715129	11	10,477,821	AMPD3	-0.051	0.322	0.0003	0.049	OpenSea	1stExon	-0.006	0.237	0.445	--
cg06178383	16	23,213,204	SCNN1G	-0.056	0.626	0.0003	0.049	OpenSea	Body	-0.011	0.298	0.169	--
cg04907595	1	25,258,264	RUNX3	0.052	0.304	0.0003	0.049	OpenSea	TSS1500	0.001	0.039	0.853	++
cg23606396	6	29,717,917	LOC285830	-0.065	0.809	0.0003	0.049	S_Shore	TSS1500	-0.010	0.447	0.596	--
cg02484127	3	128,723,005	EFCC1	0.054	0.729	0.0003	0.049	Island	Body	-0.003	0.443	0.866	+-
cg25759064	13	111,805,337	ARHGFE7	0.074	0.285	0.0003	0.049	N_Shore	TSS1500	-0.002	0.050	0.606	+-
cg16391242	7	3,234,697	NA	0.082	0.559	0.0003	0.049	OpenSea		-0.029	0.334	0.239	+-
cg01599709	5	139,725,677	HBEGF	0.052	0.184	0.0003	0.049	Island	Body	0.000	0.024	0.894	++
cg19759064	7	56,160,687	PHKG1	0.051	0.306	0.0003	0.050	OpenSea	1stExon	-0.004	0.168	0.697	+-
cg10198479	16	85,268,435	NA	0.061	0.278	0.0003	0.050	N_Shore		-0.001	0.027	0.449	+-
cg08667128	17	29,886,885	MIR193A	0.062	0.229	0.0003	0.050	Island	TSS200	-0.001	0.022	0.334	+-
cg05903444	5	2,751,041	IRX2	0.052	0.264	0.0003	0.050	Island	Body	-0.001	0.034	0.795	+-
cg03051116	10	30,720,703	NA	0.060	0.525	0.0003	0.050	N_Shore		0.004	0.435	0.803	++
cg14324502	9	88,898,587	ISCA1	0.064	0.598	0.0003	0.050	S_Shore	TSS1500	-0.003	0.771	0.806	+-
cg04213390	2	85,743,934	NA	0.058	0.593	0.0003	0.050	OpenSea		0.009	0.584	0.352	++
cg04335714	22	25,799,070	NA	0.076	0.262	0.0003	0.050	N_Shore		-0.002	0.080	0.825	+-
cg06502279	16	474,467	RAB11FIP3	0.071	0.418	0.0003	0.050	N_Shore	TSS1500	0.021	0.461	0.106	++
cg14289511	16	24,682,446	NA	0.060	0.227	0.0003	0.050	OpenSea		-0.002	0.028	0.529	+-
cg14991769	7	150,497,157	TMEM176B	0.060	0.282	0.0003	0.050	Island	TSS1500	-0.004	0.036	0.311	+-
cg22900681	2	25,301,413	EFR3B	0.058	0.423	0.0003	0.050	OpenSea	Body	-0.006	0.397	0.424	+-
cg00791854	1	154,392,070	IL6R	0.052	0.194	0.0003	0.050	OpenSea	Body	0.011	0.270	0.201	++
cg19814934	5	42,950,152	NA	-0.092	0.328	0.0003	0.050	N_Shore		-0.004	0.040	0.065	--
cg05638439	16	711,235	WDR90	0.074	0.427	0.0003	0.050	Island	Body	-0.005	0.568	0.710	+-
cg03962794	6	167,054,318	RPS6KA2	0.078	0.496	0.0003	0.050	OpenSea	Body	0.011	0.494	0.527	++
cg21903286	12	42,876,128	PRICKLE1	0.071	0.408	0.0003	0.050	N_Shore	5'UTR	-0.001	0.037	0.605	+-
cg26842310	2	16,177,920	NA	-0.060	0.794	0.0003	0.050	OpenSea		0.000	0.453	0.978	+-
cg08101036	7	27,153,655	HOXA3	0.082	0.565	0.0003	0.050	N_Shore	5'UTR	-0.003	0.027	0.476	+-
cg15133351	2	176,948,732	EVX2	0.051	0.180	0.0003	0.050	N_Shore	TSS200	0.001	0.026	0.648	++
cg13094752	14	23,305,548	MMP14	0.057	0.283	0.0003	0.050	N_Shore	TSS1500	-0.003	0.031	0.077	+-
cg23029655	12	53,591,756	ITGB7	0.067	0.276	0.0003	0.050	Island	Body	0.000	0.029	0.851	++
cg06023661	6	32,164,801	NOTCH4	0.056	0.213	0.0003	0.050	S_Shore	Body	0.002	0.041	0.548	++
cg25227866	17	71,489,530	SDK2	0.061	0.735	0.0003	0.050	OpenSea	Body	0.003	0.541	0.745	++
cg14221766	9	36,818,572	NA	0.050	0.209	0.0003	0.050	OpenSea		0.000	0.023	0.973	+-
cg09692695	2	74,668,286	RTKN	0.050	0.519	0.0003	0.050	Island	Body	-0.002	0.304	0.769	+-

cg08942800	6	49,681,310	CRISP2	0.074	0.518	0.0003	0.050	OpenSea	TSS200	-0.017	0.323	0.335 +-
cg07987148	20	45,318,890	TP53RK	0.074	0.311	0.0003	0.050	S_Shore	TSS1500	0.014	0.194	0.179 ++
cg08815340	6	5,026,435	NA	0.061	0.177	0.0003	0.050	OpenSea		-0.001	0.020	0.422 +-
cg09290120	2	157,291,759	GPD2	0.092	0.456	0.0003	0.050	N_Shore	TSS1500	-0.001	0.446	0.932 +-
cg09825309	12	124,990,897	NCOR2	0.055	0.154	0.0004	0.050	OpenSea	5'UTR	0.001	0.035	0.529 ++
cg27545630	16	2,013,058	SNORA64	-0.058	0.889	0.0004	0.050	N_Shore	Body	0.002	0.912	0.690 +-



Suppl. Tab. 4. Enrichment analysis of 255 CpGs in the same direction of effect between fetal lung and adult lung dataset (sorted by p-values) using gometh function in missMethyl R package. Searching for the term pathway, the two pathways that come on the top have been highlighted in pink

GO_ID	Term	Ont	N	DE	P.DE	hgnc_symbol	ensembl_transcript_id
GO:0005576	extracellular region	CC	3992	56	0.00013	AGER	ENST00000551827
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GO:0005576	extracellular region	CC	3992	56	0.00013	GDF15	ENST00000595973
GO:0005576	extracellular region	CC	3992	56	0.00013	GNRH1	ENST00000421054
GO:0005576	extracellular region	CC	3992	56	0.00013	NELL2	ENST00000429094
GO:0005576	extracellular region	CC	3992	56	0.00013	CES4A	ENST00000540947
GO:0005576	extracellular region	CC	3992	56	0.00013	WNT10B	ENST00000301061
GO:0005576	extracellular region	CC	3992	56	0.00013	PRSS37	ENST00000350549
GO:0005576	extracellular region	CC	3992	56	0.00013	IL6R	ENST00000344086
GO:0005576	extracellular region	CC	3992	56	0.00013	LYZL4	ENST00000441172
GO:0005576	extracellular region	CC	3992	56	0.00013	BPIFC	ENST00000397452
GO:0005576	extracellular region	CC	3992	56	0.00013	PDDC1	ENST00000397472
GO:0005576	extracellular region	CC	3992	56	0.00013	COL11A2	ENST00000439039
GO:0005576	extracellular region	CC	3992	56	0.00013	NRG3	ENST00000372142
GO:0005576	extracellular region	CC	3992	56	0.00013	NOTCH2NL	ENST00000362074
GO:0005576	extracellular region	CC	3992	56	0.00013	F12	ENST00000253496
GO:0005576	extracellular region	CC	3992	56	0.00013	TNR	ENST00000263525
GO:0005576	extracellular region	CC	3992	56	0.00013	HIST2H3C	ENST00000369158
GO:0005576	extracellular region	CC	3992	56	0.00013	TF	ENST00000494430
GO:0005576	extracellular region	CC	3992	56	0.00013	GFOD1	ENST00000379287
GO:0005576	extracellular region	CC	3992	56	0.00013	SNCA	ENST00000394989
GO:0005576	extracellular region	CC	3992	56	0.00013	CLCF1	ENST00000528474
GO:0005576	extracellular region	CC	3992	56	0.00013	EDN3	ENST00000395654
GO:0005576	extracellular region	CC	3992	56	0.00013	FCRLA	ENST00000294796
GO:0005576	extracellular region	CC	3992	56	0.00013	COLEC11	ENST00000404205
GO:0005576	extracellular region	CC	3992	56	0.00013	IL3	ENST00000296870
GO:0005576	extracellular region	CC	3992	56	0.00013	SFTPC	ENST00000518615
GO:0005576	extracellular region	CC	3992	56	0.00013	CSPG4	ENST00000308508
GO:0005576	extracellular region	CC	3992	56	0.00013	IL20	ENST00000367096
GO:0005576	extracellular region	CC	3992	56	0.00013	CD2	ENST00000369478
GO:0005576	extracellular region	CC	3992	56	0.00013	FCAR	ENST00000574058
GO:0005576	extracellular region	CC	3992	56	0.00013	TMEM25	ENST00000599473
GO:0005576	extracellular region	CC	3992	56	0.00013	SERPINA5	ENST00000553780
GO:0005576	extracellular region	CC	3992	56	0.00013	GABBR1	ENST00000446436
GO:0005576	extracellular region	CC	3992	56	0.00013	RSPRY1	ENST00000394420
GO:0005576	extracellular region	CC	3992	56	0.00013	ITIH5	ENST00000298441
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GO:0005576	extracellular region	CC	3992	56	0.00013	SNED1	ENST00000401884
GO:0005576	extracellular region	CC	3992	56	0.00013	ADAM9	ENST00000468065
GO:0005576	extracellular region	CC	3992	56	0.00013	WNT4	ENST00000415567
GO:0005576	extracellular region	CC	3992	56	0.00013	CRLF2	ENST00000381567
GO:0005576	extracellular region	CC	3992	56	0.00013	TNFRSF1A	ENST00000162749
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GO:0005576	extracellular region	CC	3992	56	0.00013	SIGLEC10	ENST00000442846
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GO:0005576	extracellular region	CC	3992	56	0.00013	LY6G5C	ENST00000551004
GO:0005576	extracellular region	CC	3992	56	0.00013	C17orf67	ENST00000397861
GO:0005576	extracellular region	CC	3992	56	0.00013	ST3GAL3	ENST00000353126
GO:0005576	extracellular region	CC	3992	56	0.00013	POMC	ENST00000405623
GO:0005576	extracellular region	CC	3992	56	0.00013	VWA5B1	ENST00000289825
GO:0005576	extracellular region	CC	3992	56	0.00013	NPPC	ENST00000409852
GO:0005576	extracellular region	CC	3992	56	0.00013	LGI1	ENST00000371418
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GO:0005576	extracellular region	CC	3992	56	0.00013	SPAG11B	ENST00000458665
GO:0005576	extracellular region	CC	3992	56	0.00013	LOX	ENST00000231004
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GO:0005576	extracellular region	CC	3992	56	0.00013	FETUB	ENST00000450521
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GO:0005576	extracellular region	CC	3992	56	0.00013	LY6K	ENST00000292430
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GO:0005576	extracellular region	CC	3992	56	0.00013	C1QL2	ENST00000272520
GO:0005576	extracellular region	CC	3992	56	0.00013	NDPIP1	ENST00000253814
GO:0005576	extracellular region	CC	3992	56	0.00013	CXCL16	ENST00000574412
GO:0005576	extracellular region	CC	3992	56	0.00013	IL15	ENST00000477265
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GO:0043378	positive regulation of CD BP	BP	4	2	0.00172	NCKAP1L	ENST00000545638
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GO:0030054	cell junction	CC	1203	25	0.00535	CGN	ENST00000271636
GO:0030054	cell junction	CC	1203	25	0.00535	RSC1A1	ENST00000345034
GO:0030054	cell junction	CC	1203	25	0.00535	SYNDIG1	ENST00000376862
GO:0030054	cell junction	CC	1203	25	0.00535	OPHN1	ENST00000355520
GO:0030054	cell junction	CC	1203	25	0.00535	GRM2	ENST00000395052
GO:0030054	cell junction	CC	1203	25	0.00535	LRRC4	ENST00000249363
GO:0030054	cell junction	CC	1203	25	0.00535	PSD	ENST00000406432
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GO:0001973	adenosine receptor signa	BP	13	2	0.00539	ADCY5	ENST00000462833
GO:0001973	adenosine receptor signa	BP	13	2	0.00539	P2RY1	ENST00000305097
GO:0001973	adenosine receptor signa	BP	13	2	0.00539	P2RY12	ENST00000302632
GO:0001973	adenosine receptor signa	BP	13	2	0.00539	ADORA3	ENST00000369716
GO:0001973	adenosine receptor signa	BP	13	2	0.00539	ADORA2A	ENST00000337539
GO:0007422	peripheral nervous syste	BP	74	5	0.00541	EGR2	ENST00000439032
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GO:0007422	peripheral nervous syste	BP	74	5	0.00541	ALDH3A2	ENST00000579855
GO:0007422	peripheral nervous syste	BP	74	5	0.00541	ERBB2	ENST00000540042
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GO:0044459	plasma membrane part	CC	2585	41	0.00542	CA4	ENST00000300900
GO:0051542	elastin biosynthetic proc	BP	1	1	0.00557	ATP7A	ENST00000343533
GO:0048701	embryonic cranial skelet	BP	44	4	0.00574	IRX5	ENST00000320990
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GO:0033735 aspartate dehydrogenasi	MF	1	1	0.00600 ASPDH	ENST00000376916
GO:0030387 fructosamine-3-kinase ac	MF	1	1	0.00600 FN3K	ENST00000300784
GO:0001958 endochondral ossificatio	BP	25	3	0.00600 INPPL1	ENST00000538751
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GO:0045761	regulation of adenylate c BP	31	3	0.00705	GNG7	ENST00000382159
GO:0031982	vesicle CC	3601	48	0.00726	DYNC111	ENST00000447467
GO:0031982	vesicle CC	3601	48	0.00726	ANXA7	ENST00000394847
GO:0031982	vesicle CC	3601	48	0.00726	DYNC112	ENST00000409453
GO:0031982	vesicle CC	3601	48	0.00726	STMN2	ENST00000220876
GO:0031982	vesicle CC	3601	48	0.00726	NOD2	ENST00000300589
GO:0031982	vesicle CC	3601	48	0.00726	VPS26A	ENST00000373382
GO:0031982	vesicle CC	3601	48	0.00726	PLA2G4F	ENST00000382396
GO:0031982	vesicle CC	3601	48	0.00726	PAFAH1B1	ENST00000397195
GO:0031982	vesicle CC	3601	48	0.00726	RIPK2	ENST00000540020
GO:0031982	vesicle CC	3601	48	0.00726	ALS2	ENST00000264276
GO:0031982	vesicle CC	3601	48	0.00726	CAV3	ENST00000343849
GO:0031982	vesicle CC	3601	48	0.00726	DCTN2	ENST00000434715
GO:0031982	vesicle CC	3601	48	0.00726	ARHGEF2	ENST00000368316
GO:0031982	vesicle CC	3601	48	0.00726	RAB38	ENST00000243662
GO:0031982	vesicle CC	3601	48	0.00726	IFNGR1	ENST00000367739
GO:0031982	vesicle CC	3601	48	0.00726	SRI	ENST00000265729
GO:0031982	vesicle CC	3601	48	0.00726	KIF5B	ENST00000302418
GO:0031982	vesicle CC	3601	48	0.00726	PIK3C2A	ENST00000265970
GO:0031982	vesicle CC	3601	48	0.00726	LAMP1	ENST00000332556
GO:0060384	innervation BP	27	3	0.00771	ISL1	ENST00000230658
GO:0060384	innervation BP	27	3	0.00771	RET	ENST00000355710
GO:0060384	innervation BP	27	3	0.00771	POU4F1	ENST00000377208
GO:0005925	focal adhesion CC	389	11	0.00800	AJUBA	ENST00000361265
GO:0005925	focal adhesion CC	389	11	0.00800	FES	ENST00000394300
GO:0005925	focal adhesion CC	389	11	0.00800	ARHGAP26	ENST00000274498
GO:0005925	focal adhesion CC	389	11	0.00800	PDLM2	ENST00000409141
GO:0005925	focal adhesion CC	389	11	0.00800	ARHGAP4	ENST00000597128
GO:0005925	focal adhesion CC	389	11	0.00800	FHL2	ENST00000344213
GO:0005925	focal adhesion CC	389	11	0.00800	SIKE1	ENST00000369528
GO:0005925	focal adhesion CC	389	11	0.00800	LIMK1	ENST00000538333
GO:0005925	focal adhesion CC	389	11	0.00800	MAPK3	ENST00000395202
GO:0005925	focal adhesion CC	389	11	0.00800	PLEC	ENST00000565080
GO:0005925	focal adhesion CC	389	11	0.00800	PTK2B	ENST00000521164
GO:0005925	focal adhesion CC	389	11	0.00800	ZNF185	ENST00000449285
GO:0005925	focal adhesion CC	389	11	0.00800	ARPC2	ENST00000420104
GO:0005925	focal adhesion CC	389	11	0.00800	FERMT2	ENST00000553373
GO:0005925	focal adhesion CC	389	11	0.00800	MDC1	ENST00000546487
GO:0005925	focal adhesion CC	389	11	0.00800	SORBS1	ENST00000371227
GO:0005925	focal adhesion CC	389	11	0.00800	PGM5	ENST00000396396
GO:0005925	focal adhesion CC	389	11	0.00800	LIMA1	ENST00000547825
GO:0005925	focal adhesion CC	389	11	0.00800	PAK1	ENST00000356341
GO:0005925	focal adhesion CC	389	11	0.00800	LIMD1	ENST00000273317
GO:0005925	focal adhesion CC	389	11	0.00800	HCK	ENST00000538448
GO:0005925	focal adhesion CC	389	11	0.00800	TRIP6	ENST00000200457
GO:0005925	focal adhesion CC	389	11	0.00800	MYH4	ENST00000255381
GO:0005925	focal adhesion CC	389	11	0.00800	LIMS1	ENST00000393310

GO:0005925	focal adhesion	CC	389	11	0.00800	AIF1L	ENST00000372300
GO:0005925	focal adhesion	CC	389	11	0.00800	PRUNE	ENST00000368934
GO:0005925	focal adhesion	CC	389	11	0.00800	TNS3	ENST00000398879
GO:0005925	focal adhesion	CC	389	11	0.00800	TNS1	ENST00000446688
GO:0005925	focal adhesion	CC	389	11	0.00800	KIF22	ENST00000400751
GO:0005925	focal adhesion	CC	389	11	0.00800	PARVA	ENST00000550549
GO:0005925	focal adhesion	CC	389	11	0.00800	ARHGEF7	ENST00000375723
GO:0005925	focal adhesion	CC	389	11	0.00800	MYH2	ENST00000245503
GO:0005925	focal adhesion	CC	389	11	0.00800	EPHX2	ENST00000517536
GO:0005925	focal adhesion	CC	389	11	0.00800	DLC1	ENST00000276297
GO:0005925	focal adhesion	CC	389	11	0.00800	SORBS3	ENST00000518912
GO:0005925	focal adhesion	CC	389	11	0.00800	ARHGAP24	ENST00000512201
GO:0005925	focal adhesion	CC	389	11	0.00800	PIP5K1C	ENST00000335312
GO:0005925	focal adhesion	CC	389	11	0.00800	EPB41L5	ENST00000443902
GO:0005925	focal adhesion	CC	389	11	0.00800	EPHA2	ENST00000358432
GO:0005925	focal adhesion	CC	389	11	0.00800	LIMS2	ENST00000409455
GO:0005925	focal adhesion	CC	389	11	0.00800	BCAR1	ENST00000393422
GO:0005925	focal adhesion	CC	389	11	0.00800	BRCA1	ENST00000461221
GO:0005925	focal adhesion	CC	389	11	0.00800	PALLD	ENST00000512127
GO:0005925	focal adhesion	CC	389	11	0.00800	EVL	ENST00000392920
GO:0005925	focal adhesion	CC	389	11	0.00800	SH3KBP1	ENST00000397821
GO:0005925	focal adhesion	CC	389	11	0.00800	MAPK1	ENST00000215832
GO:0005925	focal adhesion	CC	389	11	0.00800	C2CD4B	ENST00000380392
GO:0005925	focal adhesion	CC	389	11	0.00800	CASS4	ENST00000434344
GO:0005925	focal adhesion	CC	389	11	0.00800	RFWD2	ENST00000367666
GO:0005925	focal adhesion	CC	389	11	0.00800	DIXDC1	ENST00000586968
GO:0005925	focal adhesion	CC	389	11	0.00800	NEDD9	ENST00000379433
GO:0005925	focal adhesion	CC	389	11	0.00800	CIDEC	ENST00000423850
GO:0005925	focal adhesion	CC	389	11	0.00800	LUC7L3	ENST00000505658
GO:0005925	focal adhesion	CC	389	11	0.00800	STARDB8	ENST00000374599
GO:0005925	focal adhesion	CC	389	11	0.00800	ASAP3	ENST00000437606
GO:0005925	focal adhesion	CC	389	11	0.00800	GRB7	ENST00000394204
GO:0005925	focal adhesion	CC	389	11	0.00800	GIT1	ENST00000581348
GO:0005925	focal adhesion	CC	389	11	0.00800	VASP	ENST00000586014
GO:0005925	focal adhesion	CC	389	11	0.00800	ZNF384	ENST00000355772
GO:0005925	focal adhesion	CC	389	11	0.00800	PDPK1	ENST00000342085
GO:0005925	focal adhesion	CC	389	11	0.00800	TENC1	ENST00000314250
GO:0005925	focal adhesion	CC	389	11	0.00800	MYH8	ENST00000403437
GO:0005925	focal adhesion	CC	389	11	0.00800	RDX	ENST00000530749
GO:0005925	focal adhesion	CC	389	11	0.00800	TLN2	ENST00000561311
GO:0005925	focal adhesion	CC	389	11	0.00800	PARVB	ENST00000406477
GO:0005925	focal adhesion	CC	389	11	0.00800	PEAK1	ENST00000312493
GO:0005925	focal adhesion	CC	389	11	0.00800	FLII	ENST00000327031
GO:0005925	focal adhesion	CC	389	11	0.00800	LMLN	ENST00000332636
GO:0005925	focal adhesion	CC	389	11	0.00800	ITGA2B	ENST00000262407
GO:0005925	focal adhesion	CC	389	11	0.00800	LPXN	ENST00000395074
GO:0005925	focal adhesion	CC	389	11	0.00800	AFAP1	ENST00000420658
GO:0005925	focal adhesion	CC	389	11	0.00800	HIC2	ENST00000443632
GO:0005925	focal adhesion	CC	389	11	0.00800	IRF2	ENST00000393593
GO:0005925	focal adhesion	CC	389	11	0.00800	PARVG	ENST00000415224
GO:0005925	focal adhesion	CC	389	11	0.00800	ARHGAP31	ENST00000264245
GO:0005925	focal adhesion	CC	389	11	0.00800	TPPP	ENST00000360578
GO:0005925	focal adhesion	CC	389	11	0.00800	LIG4	ENST00000356922
GO:0005925	focal adhesion	CC	389	11	0.00800	AATF	ENST00000225402
GO:0005925	focal adhesion	CC	389	11	0.00800	ZYX	ENST00000392910
GO:0005925	focal adhesion	CC	389	11	0.00800	BSPRY	ENST00000374183
GO:0005925	focal adhesion	CC	389	11	0.00800	TNS4	ENST00000254051
GO:0005925	focal adhesion	CC	389	11	0.00800	MYH6	ENST00000405093
GO:0005925	focal adhesion	CC	389	11	0.00800	MYH7	ENST00000355349
GO:0005925	focal adhesion	CC	389	11	0.00800	NHS	ENST00000398097
GO:0005925	focal adhesion	CC	389	11	0.00800	GAK	ENST00000314167
GO:0005925	focal adhesion	CC	389	11	0.00800	MISP	ENST00000215582
GO:0005925	focal adhesion	CC	389	11	0.00800	LPP	ENST00000448637
GO:0005925	focal adhesion	CC	389	11	0.00800	PNMA1	ENST00000316836
GO:0005925	focal adhesion	CC	389	11	0.00800	RHOU	ENST00000366691
GO:0005925	focal adhesion	CC	389	11	0.00800	MAP2K1	ENST00000307102
GO:0005925	focal adhesion	CC	389	11	0.00800	ZFYVE21	ENST00000311141
GO:0005925	focal adhesion	CC	389	11	0.00800	LASP1	ENST00000419929
GO:0005925	focal adhesion	CC	389	11	0.00800	APBB1P	ENST00000376236
GO:0005925	focal adhesion	CC	389	11	0.00800	ITGB3	ENST00000559488
GO:0005925	focal adhesion	CC	389	11	0.00800	MYH1	ENST00000226207
GO:0060009	Sertoli cell development	BP	12	2	0.00808	HSD17B4	ENST00000504811
GO:0060009	Sertoli cell development	BP	12	2	0.00808	MAP7	ENST00000438100
GO:0060009	Sertoli cell development	BP	12	2	0.00808	NTRK1	ENST00000392302
GO:0060009	Sertoli cell development	BP	12	2	0.00808	DMRT1	ENST00000382276
GO:0060009	Sertoli cell development	BP	12	2	0.00808	SOX3	ENST00000370536
GO:0060009	Sertoli cell development	BP	12	2	0.00808	SOX9	ENST00000245479
GO:0005924	cell-substrate adhesion	CC	391	11	0.00814	NEXN	ENST00000334785
GO:0005355	glucose transmembrane	MF	17	2	0.00818	SLC5A1	ENST00000266088
GO:0030496	midbody	CC	166	6	0.00827		ENST00000391971
GO:0030496	midbody	CC	166	6	0.00827	CLIC4	ENST00000488683
GO:0030496	midbody	CC	166	6	0.00827	KIF23	ENST00000559279
GO:0030496	midbody	CC	166	6	0.00827	MAK	ENST00000354489
GO:0030496	midbody	CC	166	6	0.00827	KATNB1	ENST00000598173
GO:0030496	midbody	CC	166	6	0.00827	RACGAP1	ENST00000312377



GO:0030496	midbody	CC	166	6	0.00827	GNB2L1	ENST00000512805
GO:0030496	midbody	CC	166	6	0.00827	MYH10	ENST00000360416
GO:0030496	midbody	CC	166	6	0.00827	SSH1	ENST00000551165
GO:0030496	midbody	CC	166	6	0.00827	RAB11FIP3	ENST00000450428
GO:0030496	midbody	CC	166	6	0.00827	ECT2	ENST00000441497
GO:0030496	midbody	CC	166	6	0.00827	AURKC	ENST00000598785
GO:0030496	midbody	CC	166	6	0.00827	RAP2A	ENST00000245304
GO:0030496	midbody	CC	166	6	0.00827	SPG20	ENST00000451493
GO:0030496	midbody	CC	166	6	0.00827	CTNND1	ENST00000526938
GO:0030496	midbody	CC	166	6	0.00827		1-Sep ENST00000571393
GO:0030496	midbody	CC	166	6	0.00827	CCDC124	ENST00000597436
GO:0030496	midbody	CC	166	6	0.00827	BIRC5	ENST00000590925
GO:0030496	midbody	CC	166	6	0.00827	PDXP	ENST00000215904
GO:0030496	midbody	CC	166	6	0.00827	PPP1CC	ENST00000335007
GO:0030496	midbody	CC	166	6	0.00827	RAB11FIP4	ENST00000325874
GO:0030496	midbody	CC	166	6	0.00827	KIF13A	ENST00000378814
GO:0030496	midbody	CC	166	6	0.00827	USP8	ENST00000433963
GO:0030496	midbody	CC	166	6	0.00827	PITPNM1	ENST00000534749
GO:0030496	midbody	CC	166	6	0.00827	CYLD	ENST00000569418
GO:0030496	midbody	CC	166	6	0.00827	VPS4A	ENST00000254950
GO:0030496	midbody	CC	166	6	0.00827	RASGEF1B	ENST00000335927
GO:0030496	midbody	CC	166	6	0.00827	CDK1	ENST00000316629
GO:0030496	midbody	CC	166	6	0.00827	AURKB	ENST00000581511
GO:0030496	midbody	CC	166	6	0.00827	KIAA1377	ENST00000263468
GO:0030496	midbody	CC	166	6	0.00827	LZTS2	ENST00000370220
GO:0030496	midbody	CC	166	6	0.00827	ANXA11	ENST00000360615
GO:0030496	midbody	CC	166	6	0.00827	CHMP4C	ENST00000297265
GO:0030496	midbody	CC	166	6	0.00827	MAPRE3	ENST00000405074
GO:0030496	midbody	CC	166	6	0.00827	PKN2	ENST00000544045
GO:0030496	midbody	CC	166	6	0.00827	KATNA1	ENST00000367411
GO:0030496	midbody	CC	166	6	0.00827	BIRC6	ENST00000421745
GO:0030496	midbody	CC	166	6	0.00827	INCENP	ENST00000394818
GO:0030496	midbody	CC	166	6	0.00827	ALKBH4	ENST00000292566
GO:0030496	midbody	CC	166	6	0.00827	DCTN3	ENST00000378916
GO:0030496	midbody	CC	166	6	0.00827	PIK3C3	ENST00000262039
GO:0030496	midbody	CC	166	6	0.00827	PSRC1	ENST00000409138
GO:0030496	midbody	CC	166	6	0.00827	CDC48	ENST00000327331
GO:0030496	midbody	CC	166	6	0.00827		6-Sep ENST00000343984
GO:0030496	midbody	CC	166	6	0.00827	TRIOBP	ENST00000407319
GO:0030496	midbody	CC	166	6	0.00827	TTC19	ENST00000486880
GO:0030496	midbody	CC	166	6	0.00827	DDX11	ENST00000350437
GO:0030496	midbody	CC	166	6	0.00827	AURKA	ENST00000347343
GO:0030496	midbody	CC	166	6	0.00827	HSPA5	ENST00000324460
GO:0030496	midbody	CC	166	6	0.00827	TXNDC9	ENST00000409705
GO:0030496	midbody	CC	166	6	0.00827	RALA	ENST00000005257
GO:0030496	midbody	CC	166	6	0.00827	KEAP1	ENST00000171111
GO:0030496	midbody	CC	166	6	0.00827	ASPM	ENST00000367409
GO:0030496	midbody	CC	166	6	0.00827	MAP10	ENST00000418460
GO:0030496	midbody	CC	166	6	0.00827	CHMP4A	ENST00000609024
GO:0030496	midbody	CC	166	6	0.00827	PKP4	ENST00000389757
GO:0030496	midbody	CC	166	6	0.00827	PLK1	ENST00000300093
GO:0030496	midbody	CC	166	6	0.00827	RNF8	ENST00000394443
GO:0030496	midbody	CC	166	6	0.00827	TTC28	ENST00000397906
GO:0030496	midbody	CC	166	6	0.00827	PKN1	ENST00000242783
GO:0030496	midbody	CC	166	6	0.00827	MITD1	ENST00000289359
GO:0030496	midbody	CC	166	6	0.00827	CEP44	ENST00000396791
GO:0030496	midbody	CC	166	6	0.00827	PIN1	ENST00000247970
GO:0030496	midbody	CC	166	6	0.00827	CEP55	ENST00000371485
GO:0030496	midbody	CC	166	6	0.00827	GNAI3	ENST00000369851
GO:0030496	midbody	CC	166	6	0.00827	KIF4A	ENST00000374403
GO:0030496	midbody	CC	166	6	0.00827	GDI1	ENST00000447750
GO:0030496	midbody	CC	166	6	0.00827	NEK2	ENST00000540251
GO:0030496	midbody	CC	166	6	0.00827	TEX14	ENST00000240361
GO:0030496	midbody	CC	166	6	0.00827	ARL8A	ENST00000272217
GO:0030496	midbody	CC	166	6	0.00827	TOPORS	ENST00000360538
GO:0030496	midbody	CC	166	6	0.00827	CHMP4B	ENST00000217402
GO:0030496	midbody	CC	166	6	0.00827	ZNF330	ENST00000262990
GO:0030496	midbody	CC	166	6	0.00827	ARL2BP	ENST00000219204
GO:0030496	midbody	CC	166	6	0.00827	KIF3B	ENST00000375712
GO:0030496	midbody	CC	166	6	0.00827	KLHL9	ENST00000359039
GO:0030496	midbody	CC	166	6	0.00827	RALB	ENST00000272519
GO:0030496	midbody	CC	166	6	0.00827	FLCN	ENST00000285071
GO:0030496	midbody	CC	166	6	0.00827	ERH	ENST00000557016
GO:0030496	midbody	CC	166	6	0.00827	ARL3	ENST00000260746
GO:0030496	midbody	CC	166	6	0.00827	ANKRD54	ENST00000215941
GO:0030496	midbody	CC	166	6	0.00827	CTDP1	ENST00000075430
GO:0030496	midbody	CC	166	6	0.00827	GNAI1	ENST00000457358
GO:0030496	midbody	CC	166	6	0.00827		7-Sep ENST00000399034
GO:0030496	midbody	CC	166	6	0.00827	ARL8B	ENST00000256496
GO:0030496	midbody	CC	166	6	0.00827	ZFYVE26	ENST00000347230
GO:0030496	midbody	CC	166	6	0.00827	MPLKIP	ENST00000306984
GO:0030496	midbody	CC	166	6	0.00827	SCCPDH	ENST00000366510
GO:0030496	midbody	CC	166	6	0.00827	VPS37B	ENST00000267202
GO:0030496	midbody	CC	166	6	0.00827	CENPF	ENST00000366955
GO:0030055	cell-substrate junction	CC	394	11	0.00840	DMD	ENST00000361471

GO:0046164	alcohol catabolic process BP	CC	48	3	0.00851	ADH4	ENST00000423445
GO:0005886	plasma membrane	CC	4793	63	0.00861	EPN1	ENST00000085079
GO:0005886	plasma membrane	CC	4793	63	0.00861	PSCA	ENST00000301258
GO:0005886	plasma membrane	CC	4793	63	0.00861	ABR	ENST00000570525
GO:0005886	plasma membrane	CC	4793	63	0.00861	FRMPD1	ENST00000539465
GO:0005886	plasma membrane	CC	4793	63	0.00861	ITGA11	ENST00000315757
GO:0005886	plasma membrane	CC	4793	63	0.00861	PHKA1	ENST00000541944
GO:0005886	plasma membrane	CC	4793	63	0.00861	RAB19	ENST00000275874
GO:0005886	plasma membrane	CC	4793	63	0.00861	KCNB2	ENST00000523207
GO:0005886	plasma membrane	CC	4793	63	0.00861	KIR2DL4	ENST00000605092
GO:0005886	plasma membrane	CC	4793	63	0.00861	RGS13	ENST00000391995
GO:0005886	plasma membrane	CC	4793	63	0.00861	KCNC3	ENST00000477616
GO:0005886	plasma membrane	CC	4793	63	0.00861	RASSF1	ENST00000482447
GO:0005886	plasma membrane	CC	4793	63	0.00861	MTMR1	ENST00000544228
GO:0005886	plasma membrane	CC	4793	63	0.00861	ANK1	ENST00000348036
GO:0005886	plasma membrane	CC	4793	63	0.00861	ATP1B2	ENST00000250111
GO:0005886	plasma membrane	CC	4793	63	0.00861	PTPRJ	ENST00000440289
GO:0005886	plasma membrane	CC	4793	63	0.00861	CSNK2B	ENST00000424502
GO:0005886	plasma membrane	CC	4793	63	0.00861	KCNIP1	ENST00000411494
GO:0005886	plasma membrane	CC	4793	63	0.00861	BMPR1B	ENST00000440890
GO:0005886	plasma membrane	CC	4793	63	0.00861	FHL1	ENST00000543669
GO:0005886	plasma membrane	CC	4793	63	0.00861	INPP5K	ENST00000320345
GO:0005886	plasma membrane	CC	4793	63	0.00861	MAF1	ENST00000534585
GO:0005886	plasma membrane	CC	4793	63	0.00861	CLIC1	ENST00000438708
GO:0005886	plasma membrane	CC	4793	63	0.00861	SYTL4	ENST00000276141
GO:0005886	plasma membrane	CC	4793	63	0.00861	PDZK1	ENST00000443667
GO:0005886	plasma membrane	CC	4793	63	0.00861	BFPSP1	ENST00000377873
GO:0005886	plasma membrane	CC	4793	63	0.00861	EFR3A	ENST00000334503
GO:0005886	plasma membrane	CC	4793	63	0.00861	SPHK1	ENST00000323374
GO:0005886	plasma membrane	CC	4793	63	0.00861	B4GALNT1	ENST00000552350
GO:0005886	plasma membrane	CC	4793	63	0.00861	NTRK3	ENST00000360948
GO:0005886	plasma membrane	CC	4793	63	0.00861	HMOX2	ENST00000219700
GO:0005886	plasma membrane	CC	4793	63	0.00861	MAPK10	ENST00000502302
GO:0005886	plasma membrane	CC	4793	63	0.00861	FGR	ENST00000374003
GO:0005886	plasma membrane	CC	4793	63	0.00861	DPP3	ENST00000453114
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GO:0005886	plasma membrane	CC	4793	63	0.00861	KRAS	ENST00000311936
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GO:0005886	plasma membrane	CC	4793	63	0.00861	SMPD3	ENST00000219334
GO:0005886	plasma membrane	CC	4793	63	0.00861	PI4KB	ENST00000368875
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GO:0005886	plasma membrane	CC	4793	63	0.00861	SRGAP2	ENST00000295713
GO:0005886	plasma membrane	CC	4793	63	0.00861	DNAL4	ENST00000216068
GO:0045321	leukocyte activation	BP	1117	19	0.00862	ZNF3	ENST00000424697
GO:0045321	leukocyte activation	BP	1117	19	0.00862	TOLLIP	ENST00000317204
GO:0045682	regulation of epidermis c	BP	81	4	0.00883	TFAP2C	ENST00000544508
GO:0042908	xenobiotic transport	BP	12	2	0.00923	NR12	ENST00000337940
GO:0031224	intrinsic component of r	CC	4845	59	0.00933	CCDC109B	ENST00000394665
GO:0031224	intrinsic component of r	CC	4845	59	0.00933	TGM1	ENST00000206765
GO:0002064	epithelial cell developme	BP	191	7	0.01003	ONECUT1	ENST00000305901
GO:0002064	epithelial cell developme	BP	191	7	0.01003	ONECUT2	ENST00000491143
GO:0002064	epithelial cell developme	BP	191	7	0.01003	E2F4	ENST00000379378
GO:0009312	oligosaccharide biosynth	BP	19	2	0.01027	COG2	ENST00000366668
GO:0009312	oligosaccharide biosynth	BP	19	2	0.01027	METTL7A	ENST00000548553
GO:0009312	oligosaccharide biosynth	BP	19	2	0.01027	COQ3	ENST00000254759
GO:0009611	response to wounding	BP	619	14	0.01047	SRSF5	ENST00000553521
GO:0009611	response to wounding	BP	619	14	0.01047	POU5F1	ENST00000434616
GO:0009611	response to wounding	BP	619	14	0.01047	FGFR1OP2	ENST00000229395
GO:0009611	response to wounding	BP	619	14	0.01047	PAX6	ENST00000379115
GO:0009611	response to wounding	BP	619	14	0.01047	CYP1A1	ENST00000562201
GO:0009611	response to wounding	BP	619	14	0.01047	NMNAT3	ENST00000406164
GO:0009611	response to wounding	BP	619	14	0.01047	ETS1	ENST00000392668
GO:0009611	response to wounding	BP	619	14	0.01047	GPX1	ENST00000419783
GO:0009611	response to wounding	BP	619	14	0.01047	HHEX	ENST00000492654
GO:0009611	response to wounding	BP	619	14	0.01047	SOX2	ENST00000431565
GO:0009611	response to wounding	BP	619	14	0.01047	HOXB13	ENST00000290295
GO:0009611	response to wounding	BP	619	14	0.01047	FABP5	ENST00000396359
GO:0009611	response to wounding	BP	619	14	0.01047	BAX	ENST00000293288
GO:0009611	response to wounding	BP	619	14	0.01047	PDX1	ENST00000381033
GO:0046934	phosphatidylinositol-4,5- MF		67	4	0.01101	PIK3R6	ENST00000311434
GO:0009311	oligosaccharide metaboli	BP	49	3	0.01122	ST8SIA6	ENST00000377602
GO:0009311	oligosaccharide metaboli	BP	49	3	0.01122	NAGA	ENST00000402937
GO:0009311	oligosaccharide metaboli	BP	49	3	0.01122	ST8SIA4	ENST00000231461
GO:0009311	oligosaccharide metaboli	BP	49	3	0.01122	ST8SIA3	ENST00000324000
GO:0009311	oligosaccharide metaboli	BP	49	3	0.01122	ST8SIA2	ENST00000268164

GO:0005171	hepatocyte growth facto MF	2	1	0.01150	GLMN	ENST00000495106	
GO:0005912	adherens junction	CC	514	13	0.01239	AH11	ENST00000327035
GO:0005912	adherens junction	CC	514	13	0.01239	CTNNA2	ENST00000361291
GO:0005912	adherens junction	CC	514	13	0.01239	WTIP	ENST00000270288
GO:0005912	adherens junction	CC	514	13	0.01239	MYO1E	ENST00000288235
GO:0005912	adherens junction	CC	514	13	0.01239	MPP7	ENST00000375732
GO:0005912	adherens junction	CC	514	13	0.01239	NPHP1	ENST00000445609
GO:0005912	adherens junction	CC	514	13	0.01239	WNK3	ENST00000375159
GO:0005912	adherens junction	CC	514	13	0.01239	TBCD	ENST00000355528
GO:0005912	adherens junction	CC	514	13	0.01239	FAM129B	ENST00000373314
GO:0005912	adherens junction	CC	514	13	0.01239	SHROOM3	ENST00000296043
GO:0005912	adherens junction	CC	514	13	0.01239	CTNND2	ENST00000304623
GO:0005912	adherens junction	CC	514	13	0.01239	SYNM	ENST00000336292
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	RBPJ	ENST00000507574	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	GABPA	ENST00000400075	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	TP53	ENST00000269305	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	MSX1	ENST00000382723	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	LMO2	ENST00000411482	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	LEF1	ENST00000438313	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	MYOG	ENST00000241651	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	CSRNP2	ENST00000228515	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	CSRNP3	ENST00000314499	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	TBX5	ENST00000310346	
GO:0001228	DNA-binding transcriptio MF	430	12	0.01248	CSRNP1	ENST00000273153	
GO:0002070	epithelial cell maturation BP	15	2	0.01260	FEM1B	ENST00000306917	
GO:0002070	epithelial cell maturation BP	15	2	0.01260	XBP1	ENST00000216037	
GO:0002070	epithelial cell maturation BP	15	2	0.01260	PGR	ENST00000534013	
GO:0002070	epithelial cell maturation BP	15	2	0.01260	TFCP2L1	ENST00000263707	
GO:0050868	negative regulation of T ( BP	101	4	0.01347	SOC56	ENST00000582322	
GO:0050868	negative regulation of T ( BP	101	4	0.01347	DUSP3	ENST00000226004	
GO:0050868	negative regulation of T ( BP	101	4	0.01347	JAK3	ENST00000458235	
GO:0050868	negative regulation of T ( BP	101	4	0.01347	PEL1	ENST00000358912	
GO:0050868	negative regulation of T ( BP	101	4	0.01347	TNFAIP8L2	ENST00000368910	
GO:0036065	fucosylation	BP	20	2	0.01387	FUT2	ENST00000425340
GO:0036065	fucosylation	BP	20	2	0.01387	FUT1	ENST00000310160
GO:0036065	fucosylation	BP	20	2	0.01387	POFUT2	ENST00000349485
GO:0016638	oxidoreductase activity, i MF	18	2	0.01418	PNPO	ENST00000544840	
GO:0016638	oxidoreductase activity, i MF	18	2	0.01418	HAO1	ENST00000378789	
GO:0016638	oxidoreductase activity, i MF	18	2	0.01418	HAO2	ENST00000325945	
GO:0004823	leucine-tRNA ligase activ MF	2	1	0.01418	LARS2	ENST00000414984	
GO:0004823	leucine-tRNA ligase activ MF	2	1	0.01418	LARS	ENST00000394434	
GO:0060429	epithelium development BP	1160	21	0.01449	SNAI2	ENST00000020945	
GO:0060429	epithelium development BP	1160	21	0.01449	LHX1	ENST00000254457	
GO:0060429	epithelium development BP	1160	21	0.01449	KRT12	ENST00000251643	
GO:0060429	epithelium development BP	1160	21	0.01449	HNF1B	ENST00000225893	
GO:0060429	epithelium development BP	1160	21	0.01449	FOXJ1	ENST00000322957	
GO:0045580	regulation of T cell differ BP	132	5	0.01513	PRELID1	ENST00000303204	
GO:0045580	regulation of T cell differ BP	132	5	0.01513	RAG1	ENST00000299440	
GO:0006311	meiotic gene conversion BP	2	1	0.01514	RNF212	ENST00000433731	
GO:0006311	meiotic gene conversion BP	2	1	0.01514	PRDM9	ENST00000296682	
GO:0006311	meiotic gene conversion BP	2	1	0.01514	TEX11	ENST00000344304	
GO:0006311	meiotic gene conversion BP	2	1	0.01514	MSH2	ENST00000543555	
GO:0048856	anatomical structure dev BP	5428	73	0.01522	OTX2	ENST00000339475	
GO:0048856	anatomical structure dev BP	5428	73	0.01522	EYA1	ENST00000340726	
GO:0048856	anatomical structure dev BP	5428	73	0.01522	GLI3	ENST00000395925	
GO:0048856	anatomical structure dev BP	5428	73	0.01522	GLI2	ENST00000452319	
GO:0043374	CD8-positive, alpha-beta BP	14	2	0.01552	IRF1	ENST00000245414	
GO:0043374	CD8-positive, alpha-beta BP	14	2	0.01552	PAX1	ENST00000444366	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	PITX3	ENST00000370002	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	NR4A2	ENST00000409572	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	LMX1A	ENST00000294816	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	HIF1A	ENST00000394997	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	PHOX2A	ENST00000298231	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	DMRTA2	ENST00000404795	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	LMX1B	ENST00000355497	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	FOXA2	ENST00000419308	
GO:0071542	dopaminergic neuron dif BP	34	3	0.01574	PHOX2B	ENST00000226382	
GO:0006742	NADP catabolic process BP	3	1	0.01606	NUDT12	ENST00000230792	
GO:0045098	type III intermediate filar CC	3	1	0.01689	UPP2	ENST00000605860	
GO:0045098	type III intermediate filar CC	3	1	0.01689	PRPH	ENST00000257860	
GO:0007213	G protein-coupled acetyl BP	18	2	0.01751	PLCB1	ENST00000378641	
GO:0052591	sn-glycerol-3-phosphate: MF	1	1	0.01783	GPD2	ENST00000409674	
GO:0060008	Sertoli cell differentiator BP	16	2	0.01796	GATA4	ENST00000526974	
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GO:0006196	AMP catabolic process BP	2	1	0.02122	AMPD3	ENST00000396553
GO:0051546	keratinocyte migration BP	19	2	0.02172	PPARD	ENST00000418635
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GO:0031256	leading edge membrane CC	162	6	0.02181	ARHGAP44	ENST00000379672
GO:0004368	glycerol-3-phosphate del MF	2	1	0.02190	GPD1	ENST00000548814
GO:0008544	epidermis development BP	423	8	0.02192	EVPL	ENST00000301607
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GO:0004051	arachidonate 5-lipoxyger	MF	1	1	0.02314	ALOX5	ENST00000374391
GO:2000147	positive regulation of cel	BP	504	11	0.02346	PHPT1	ENST00000371661
GO:2000147	positive regulation of cel	BP	504	11	0.02346	TRIM32	ENST00000450136
GO:0023019	signal transduction invol	BP	20	2	0.02370	PARP1	ENST00000366794
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GO:0023019	signal transduction invol	BP	20	2	0.02370	T	ENST00000366871
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GO:0008201	heparin binding	MF	160	5	0.02519	RPL29	ENST00000495383
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GO:2000134	negative regulation of G1	BP	111	4	0.02593	PRMT2	ENST00000397638
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GO:0050878	regulation of body fluid l	BP	458	10	0.02601	PDSS2	ENST00000607324
GO:0046661	male sex differentiation	BP	146	5	0.02624	FKBP4	ENST00000001008



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GO:0009653 anatomical structure mo	BP	2470	40	0.02745 GCM1	ENST00000259803
GO:0009653 anatomical structure mo	BP	2470	40	0.02745 MAB21L1	ENST00000379919
GO:0009653 anatomical structure mo	BP	2470	40	0.02745 TBX19	ENST00000367821
GO:0009653 anatomical structure mo	BP	2470	40	0.02745 KRT35	ENST00000393989
GO:0009653 anatomical structure mo	BP	2470	40	0.02745 NEDD8	ENST00000250495
GO:0042060 wound healing	BP	512	11	0.02759 TPM1	ENST00000334895
GO:0042060 wound healing	BP	512	11	0.02759 MAP3K1	ENST00000399503
GO:0042060 wound healing	BP	512	11	0.02759 ARHGEF19	ENST00000270747
GO:0042060 wound healing	BP	512	11	0.02759 ELK3	ENST00000547249
GO:0071105 response to interleukin-1	BP	1	1	0.02813 CITED1	ENST00000246139
GO:0046168 glycerol-3-phosphate cat	BP	3	1	0.02822 PYCR1	ENST00000582198
GO:0016049 cell growth	BP	458	11	0.02858 PAK4	ENST00000593690
GO:0016049 cell growth	BP	458	11	0.02858 CCNG1	ENST00000512163
GO:0016049 cell growth	BP	458	11	0.02858 LAMTOR2	ENST00000368302
GO:0016049 cell growth	BP	458	11	0.02858 RRAGC	ENST00000373001
GO:0016049 cell growth	BP	458	11	0.02858 XRN2	ENST00000377191
GO:0016049 cell growth	BP	458	11	0.02858 RPTOR	ENST00000306801
GO:0016049 cell growth	BP	458	11	0.02858 NDRG4	ENST00000394282
GO:0016049 cell growth	BP	458	11	0.02858 PAK7	ENST00000378429
GO:0016049 cell growth	BP	458	11	0.02858 DDX5	ENST00000225792
GO:0016049 cell growth	BP	458	11	0.02858 WHSC1L1	ENST00000433384
GO:0016049 cell growth	BP	458	11	0.02858 LEPRE1	ENST00000397054
GO:0016049 cell growth	BP	458	11	0.02858 NOP58	ENST00000264279
GO:0016049 cell growth	BP	458	11	0.02858 NUPR1	ENST00000395641
GO:0016049 cell growth	BP	458	11	0.02858 SOCS5	ENST00000306503
GO:0016049 cell growth	BP	458	11	0.02858 MTOR	ENST00000361445
GO:0016049 cell growth	BP	458	11	0.02858 MTPN	ENST00000393085
GO:1901888 regulation of cell junctio	BP	83	4	0.02877 RAPGEF1	ENST00000372190
GO:0045403 negative regulation of in	BP	1	1	0.02882 ZFPM1	ENST00000319555
GO:0042605 peptide antigen binding	MF	23	2	0.02901 MAML1	ENST00000292599
GO:0072365 regulation of cellular ket	BP	1	1	0.02925 NCOR2	ENST00000356219

GO:0016324	apical plasma membrane	CC	294	7	0.02966	TJP3	ENST00000587686
GO:0016324	apical plasma membrane	CC	294	7	0.02966	CACNB3	ENST00000536187
GO:0016324	apical plasma membrane	CC	294	7	0.02966	PLET1	ENST00000338832
GO:0016324	apical plasma membrane	CC	294	7	0.02966	OTOA	ENST00000388958
GO:0016324	apical plasma membrane	CC	294	7	0.02966	MYO7A	ENST00000458637
GO:0016324	apical plasma membrane	CC	294	7	0.02966	RAB27A	ENST00000396307
GO:0016324	apical plasma membrane	CC	294	7	0.02966	ATP6V1B1	ENST00000433895
GO:0016324	apical plasma membrane	CC	294	7	0.02966	CYP4A11	ENST00000310638
GO:0016324	apical plasma membrane	CC	294	7	0.02966	PDE4D	ENST00000309641
GO:0016324	apical plasma membrane	CC	294	7	0.02966	AMOTL2	ENST00000510560
GO:0016324	apical plasma membrane	CC	294	7	0.02966	HSP90A1	ENST00000371554
GO:0016324	apical plasma membrane	CC	294	7	0.02966	SHROOM4	ENST00000376020
GO:0016324	apical plasma membrane	CC	294	7	0.02966	MPDZ	ENST00000319217
GO:0016324	apical plasma membrane	CC	294	7	0.02966	MYO7B	ENST00000409816
GO:0016324	apical plasma membrane	CC	294	7	0.02966	RAB27B	ENST00000262094
GO:0016324	apical plasma membrane	CC	294	7	0.02966	PFKM	ENST00000395233
GO:0016324	apical plasma membrane	CC	294	7	0.02966	RAB17	ENST00000392001
GO:0016324	apical plasma membrane	CC	294	7	0.02966	PRKAA1	ENST00000397128
GO:0016324	apical plasma membrane	CC	294	7	0.02966	MYO1A	ENST00000492945
GO:0016324	apical plasma membrane	CC	294	7	0.02966	ATP6V1E1	ENST00000253431
GO:0016324	apical plasma membrane	CC	294	7	0.02966	ACY3	ENST00000529256
GO:0016324	apical plasma membrane	CC	294	7	0.02966	CYBA	ENST00000261623
GO:0016324	apical plasma membrane	CC	294	7	0.02966	AKR1A1	ENST00000372070
GO:0016324	apical plasma membrane	CC	294	7	0.02966	STK39	ENST00000355999
GO:0016324	apical plasma membrane	CC	294	7	0.02966	ATP6V0D1	ENST00000290949
GO:0016324	apical plasma membrane	CC	294	7	0.02966	NOD1	ENST00000222823
GO:0016324	apical plasma membrane	CC	294	7	0.02966	CIB1	ENST00000328649
GO:0016324	apical plasma membrane	CC	294	7	0.02966	S100G	ENST00000380200
GO:0016324	apical plasma membrane	CC	294	7	0.02966	LMO7	ENST00000465261
GO:0016324	apical plasma membrane	CC	294	7	0.02966	ATP6V0D2	ENST00000285393
GO:0016324	apical plasma membrane	CC	294	7	0.02966	MREG	ENST00000263268
GO:0016324	apical plasma membrane	CC	294	7	0.02966	CYP4F2	ENST00000221700
GO:0051895	negative regulation of fo	BP	16	2	0.03005	ARHGAP6	ENST00000380736
GO:0051272	positive regulation of cel	BP	518	11	0.03005	STMN1	ENST00000399728
GO:0051272	positive regulation of cel	BP	518	11	0.03005	BCL6	ENST00000406870
GO:0051272	positive regulation of cel	BP	518	11	0.03005	RPS19	ENST00000593863
GO:0051272	positive regulation of cel	BP	518	11	0.03005	STAT5B	ENST00000293328
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNHD1	ENST00000254579
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH2	ENST00000572933
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	TEKT2	ENST00000207457
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH3	ENST00000415178
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH11	ENST00000328843
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH1	ENST00000490713
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH17	ENST00000389840
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH7	ENST00000409063
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	SPA17	ENST00000227135
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	CCDC135	ENST00000360716
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	CABYR	ENST00000486759
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	ROPN1L	ENST00000503804
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH8	ENST00000327475
GO:0001539	cilium or flagellum-depe	BP	33	2	0.03031	DNAH5	ENST00000265104
GO:0060285	cilium-dependent cell m	BP	33	2	0.03031	CCDC39	ENST00000442201
GO:0060285	cilium-dependent cell m	BP	33	2	0.03031	DNAAF2	ENST00000406043
GO:0060285	cilium-dependent cell m	BP	33	2	0.03031	RFX3	ENST00000382004
GO:0060285	cilium-dependent cell m	BP	33	2	0.03031	DRC1	ENST00000288710
GO:0006116	NADH oxidation	BP	4	1	0.03147	PCK2	ENST00000216780
GO:0006116	NADH oxidation	BP	4	1	0.03147	ALDOB	ENST00000374855
GO:0034329	cell junction assembly	BP	229	7	0.03220	ARHGEP6	ENST00000250617
GO:0034329	cell junction assembly	BP	229	7	0.03220	RSU1	ENST00000345264
GO:0034329	cell junction assembly	BP	229	7	0.03220	TESK1	ENST00000336395
GO:2000645	negative regulation of re	BP	4	1	0.03265	MTMR2	ENST00000352297
GO:0009888	tissue development	BP	1851	29	0.03267	FOXO4	ENST00000341558
GO:0009888	tissue development	BP	1851	29	0.03267	GAA	ENST00000570803
GO:0009888	tissue development	BP	1851	29	0.03267	FOXM1	ENST00000361953
GO:0009888	tissue development	BP	1851	29	0.03267	FOXP1	ENST00000446823
GO:0009888	tissue development	BP	1851	29	0.03267	FOXJ2	ENST00000162391
GO:0009888	tissue development	BP	1851	29	0.03267	PTF1A	ENST00000376504
GO:0009888	tissue development	BP	1851	29	0.03267	FOXJ3	ENST00000361346
GO:0009888	tissue development	BP	1851	29	0.03267	MBD3	ENST00000590550
GO:0009888	tissue development	BP	1851	29	0.03267	FOXO3	ENST00000406360
GO:0009888	tissue development	BP	1851	29	0.03267	FOXA3	ENST00000302177
GO:0009888	tissue development	BP	1851	29	0.03267	FOXK2	ENST00000335255
GO:0009888	tissue development	BP	1851	29	0.03267	NR5A1	ENST00000455734
GO:0009888	tissue development	BP	1851	29	0.03267	FOXQ1	ENST00000296839
GO:0009888	tissue development	BP	1851	29	0.03267	SALL4	ENST00000217086
GO:0009888	tissue development	BP	1851	29	0.03267	FOXO1	ENST00000379561
GO:0048476	Holliday junction resolu	CC	5	1	0.03270	SLX4	ENST00000294008
GO:0043235	receptor complex	CC	373	9	0.03286	RIPK1	ENST00000380409
GO:0043235	receptor complex	CC	373	9	0.03286	TRADD	ENST00000345057
GO:0060125	negative regulation of gr	BP	2	1	0.03293	PTPN11	ENST00000392597
GO:0005112	Notch binding	MF	22	2	0.03316	SNW1	ENST00000261531
GO:0005112	Notch binding	MF	22	2	0.03316	AAK1	ENST00000406297
GO:0005112	Notch binding	MF	22	2	0.03316	CHAC1	ENST00000487220
GO:0005112	Notch binding	MF	22	2	0.03316	HIF1AN	ENST00000299163
GO:0019838	growth factor binding	MF	135	5	0.03341	OSMR	ENST00000274276

GO:0008593	regulation of Notch signa BP	96	4	0.03392	POGLUT1	ENST00000295588
GO:0008593	regulation of Notch signa BP	96	4	0.03392	ASCL1	ENST00000266744
GO:0071354	cellular response to inter BP	33	2	0.03444	PID1	ENST00000354069
GO:0031685	adenosine receptor bindi MF	5	1	0.03563	USP4	ENST00000351842
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	PIKFYVE	ENST00000264380
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	INPP5E	ENST00000371712
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	PLCD4	ENST00000432688
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	FIG4	ENST00000368941
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	PIP5K1L	ENST00000388747
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	PIP5K1B	ENST00000265382
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	PIP4K2C	ENST00000551772
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	IP6K3	ENST00000293756
GO:0046488	phosphatidylinositol met BP	223	6	0.03572	SYNJ1	ENST00000433931
GO:0042134	rRNA primary transcript I MF	3	1	0.03747	PTRF	ENST00000357037
GO:0006678	glucosylceramide metabi BP	7	1	0.03856	ALDH5A1	ENST00000357578
GO:0001652	granular component CC	5	1	0.03872	SURF6	ENST00000561828
GO:0001652	granular component CC	5	1	0.03872	CDKN2AIP	ENST00000504169
GO:0001652	granular component CC	5	1	0.03872	FBL	ENST00000595545
GO:0003876	AMP deaminase activity MF	3	1	0.03910	AMPD2	ENST00000369840
GO:0003876	AMP deaminase activity MF	3	1	0.03910	AMPD1	ENST00000353928
GO:0032264	IMP salvage BP	3	1	0.03910	HPRT1	ENST00000298556
GO:0004930	G protein-coupled recepti MF	651	8	0.03995	LANCL1	ENST00000441020
GO:0051251	positive regulation of lyn BP	250	6	0.03999	SASH3	ENST00000356892
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	IMPA1	ENST00000522997
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	IP6K2	ENST00000446860
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	INPP1	ENST00000541441
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	IMPA2	ENST00000383376
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	BPNT1	ENST00000498791
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	FBP1	ENST00000375326
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	FBP2	ENST00000375337
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	SMG1	ENST00000446231
GO:0046854	phosphatidylinositol pho BP	110	4	0.04054	IP6K1	ENST00000321599
GO:0060765	regulation of androgen r BP	26	2	0.04065	HDAC6	ENST00000597966
GO:0060765	regulation of androgen r BP	26	2	0.04065	PARK7	ENST00000493678
GO:0060765	regulation of androgen r BP	26	2	0.04065	RNF6	ENST00000346166
GO:0060765	regulation of androgen r BP	26	2	0.04065	EP300	ENST00000263253
GO:0060765	regulation of androgen r BP	26	2	0.04065	RNF14	ENST00000347642
GO:0060765	regulation of androgen r BP	26	2	0.04065	TRIM68	ENST00000300747
GO:0071733	transcriptional activation BP	3	1	0.04092	GATA1	ENST00000376670
GO:002142	stereocilia ankle link cor CC	4	1	0.04167	DFNB31	ENST00000374057
GO:0000976	transcription regulatory i MF	748	16	0.04180	MKL1	ENST00000355630
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4L3	ENST00000557656
GO:0000976	transcription regulatory i MF	748	16	0.04180	KDM3A	ENST00000427678
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4L5	ENST00000554668
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4L6	ENST00000605381
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4L7	ENST00000554906
GO:0000976	transcription regulatory i MF	748	16	0.04180	VAX2	ENST00000606689
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4L2	ENST00000563736
GO:0000976	transcription regulatory i MF	748	16	0.04180	BARX2	ENST00000526127
GO:0000976	transcription regulatory i MF	748	16	0.04180	VAX1	ENST00000277905
GO:0000976	transcription regulatory i MF	748	16	0.04180	NKX6-3	ENST00000524115
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4	ENST00000554285
GO:0000976	transcription regulatory i MF	748	16	0.04180	DLX3	ENST00000512495
GO:0000976	transcription regulatory i MF	748	16	0.04180	ZNF148	ENST00000465763
GO:0000976	transcription regulatory i MF	748	16	0.04180	SHOX	ENST00000381578
GO:0000976	transcription regulatory i MF	748	16	0.04180	SHOX2	ENST00000490689
GO:0000976	transcription regulatory i MF	748	16	0.04180	NFKB1	ENST00000394820
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUX4L4	ENST00000604656
GO:0000976	transcription regulatory i MF	748	16	0.04180	PRDM5	ENST00000428209
GO:0000976	transcription regulatory i MF	748	16	0.04180	PROP1	ENST00000308304
GO:0000976	transcription regulatory i MF	748	16	0.04180	TBX18	ENST00000369663
GO:0000976	transcription regulatory i MF	748	16	0.04180	SOX12	ENST00000342665
GO:0000976	transcription regulatory i MF	748	16	0.04180	NKX6-1	ENST00000295886
GO:0000976	transcription regulatory i MF	748	16	0.04180	DBX2	ENST00000332700
GO:0000976	transcription regulatory i MF	748	16	0.04180	DUXA	ENST00000554048
GO:0000976	transcription regulatory i MF	748	16	0.04180	NKX6-2	ENST00000368592
GO:0000976	transcription regulatory i MF	748	16	0.04180	OTP	ENST00000306422
GO:0030335	positive regulation of cel BP	486	10	0.04228	ELP5	ENST00000354429
GO:0030335	positive regulation of cel BP	486	10	0.04228	ELP6	ENST00000449409
GO:0030335	positive regulation of cel BP	486	10	0.04228	ELP3	ENST00000380353
GO:0030335	positive regulation of cel BP	486	10	0.04228	ARHGAP5	ENST00000556611
GO:0030335	positive regulation of cel BP	486	10	0.04228	MYO1F	ENST00000338257
GO:0030335	positive regulation of cel BP	486	10	0.04228	ZNF703	ENST00000331569
GO:0030335	positive regulation of cel BP	486	10	0.04228	FAM110C	ENST00000327669
GO:0030335	positive regulation of cel BP	486	10	0.04228	ZNF268	ENST00000537565
GO:0030335	positive regulation of cel BP	486	10	0.04228	IKBKAP	ENST00000537196
GO:0030335	positive regulation of cel BP	486	10	0.04228	FGFR1OP	ENST00000366847
GO:0030335	positive regulation of cel BP	486	10	0.04228	SNAI1	ENST00000244050
GO:0030335	positive regulation of cel BP	486	10	0.04228	CBLL1	ENST00000440859
GO:0030335	positive regulation of cel BP	486	10	0.04228	VIL1	ENST00000248444
GO:0030335	positive regulation of cel BP	486	10	0.04228	FOXF1	ENST00000262426
GO:0030335	positive regulation of cel BP	486	10	0.04228	MIEN1	ENST00000394231
GO:0030335	positive regulation of cel BP	486	10	0.04228	ALOX12	ENST00000251535
GO:0009128	purine nucleoside monoq BP	6	1	0.04229	NTSC1A	ENST00000235628
GO:0072180	mesonephric duct morpf BP	3	1	0.04248	OSR1	ENST00000272223

GO:0043603 cellular amide metabolic BP	1032	15	0.04317 CYP2C9	ENST00000260682
GO:0005143 interleukin-12 receptor t MF	6	1	0.04333 IL12RB1	ENST00000593993
GO:0005143 interleukin-12 receptor t MF	6	1	0.04333 IL23R	ENST00000347310
GO:0051177 meiotic sister chromatid BP	7	1	0.04366 HORMAD1	ENST00000361824
GO:0051177 meiotic sister chromatid BP	7	1	0.04366 HORMAD2	ENST00000336726
GO:1901991 negative regulation of mi BP	186	5	0.04382 RGCC	ENST00000379359
GO:0047760 butyrate-CoA ligase activ MF	7	1	0.04412 ACSM2B	ENST00000329697
GO:0047760 butyrate-CoA ligase activ MF	7	1	0.04412 ACSM2A	ENST00000219054
GO:0047760 butyrate-CoA ligase activ MF	7	1	0.04412 ACSM5	ENST00000331849
GO:0047760 butyrate-CoA ligase activ MF	7	1	0.04412 AACS	ENST00000536118
GO:0047760 butyrate-CoA ligase activ MF	7	1	0.04412 C10orf129	ENST00000341686
GO:0047760 butyrate-CoA ligase activ MF	7	1	0.04412 ACSM3	ENST00000289416
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP37	ENST00000552283
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GNPDA1	ENST00000503229
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GLB1L3	ENST00000389887
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PYGB	ENST00000428458
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 ATHL1	ENST00000409655
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 MPI	ENST00000352410
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GLB1	ENST00000415454
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP93	ENST00000564887
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 HKDC1	ENST00000395086
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP43	ENST00000340413
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PKLR	ENST00000342741
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 HEXB	ENST00000261416
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 H6PD	ENST00000377403
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 DPM3	ENST00000368399
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 TKT	ENST00000462138
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GK	ENST00000481024
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 AAAS	ENST00000209873
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GK5	ENST00000480757
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PKFB3	ENST00000379775
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 OVGPI	ENST00000369732
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 IDH3G	ENST00000600403
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 IDH2	ENST00000330062
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 IDS	ENST00000595787
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 RPE	ENST00000359429
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 HEXA	ENST00000457859
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 UGP2	ENST00000337130
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 ME1	ENST00000369705
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 POM121	ENST00000257622
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 FGGY	ENST00000371218
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 G6PD	ENST00000393564
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PRPS1	ENST00000543248
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 ANKLE1	ENST00000594072
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GO:0005975 carbohydrate metabolic BP	542	10	0.04468 KHK	ENST00000260598
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 XYLB	ENST00000542835
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GNPDA2	ENST00000507534
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP107	ENST00000229179
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GLO1	ENST00000373365
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 MDH1B	ENST00000449792
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GCKR	ENST00000424318
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NPL	ENST00000367552
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PYGM	ENST00000377432
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PGM2	ENST00000537241
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GALM	ENST00000410063
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 ALDH1B1	ENST00000377698
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PGLS	ENST00000600923
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 ALG13	ENST00000371979
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PRKACG	ENST00000377276
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 SEH1L	ENST00000262124
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PC	ENST00000393955
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP188	ENST00000372577
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PHKG2	ENST00000424889
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GALK1	ENST00000225614
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 RPEL1	ENST00000444178
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NANP	ENST00000304788
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 BPGM	ENST00000418040
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GUSB	ENST00000446111
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PGAM2	ENST00000297283
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GFPT1	ENST00000357308
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP98	ENST00000355260
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 LDHC	ENST00000541669
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GYG2	ENST00000398806
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PCK1	ENST00000319441
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 SHPK	ENST00000225519
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 CS	ENST00000351328
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 NUP62	ENST00000597029
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PPP2R5D	ENST00000461010
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 MAN2B1	ENST00000221363
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 AGL	ENST00000361915
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PGD	ENST00000270776
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 TALDO1	ENST00000319006
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 GALNS	ENST00000268695
GO:0005975 carbohydrate metabolic BP	542	10	0.04468 PARG	ENST00000606131

GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PHKG1	ENST00000297373
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP214	ENST00000451030
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	A3GALT2	ENST00000330379
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	ST8SIA5	ENST00000315087
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GYG1	ENST00000296048
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	AKR7A2	ENST00000235835
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	CTBS	ENST00000370630
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP155	ENST00000381843
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GALC	ENST00000557316
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	HK1	ENST00000436817
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PAPSS1	ENST00000265174
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	CNOT7	ENST00000523917
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	UEVLD	ENST00000535484
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	AMDHD2	ENST00000413459
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GOT1	ENST00000370508
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP133	ENST00000261396
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GSY1	ENST00000323798
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	SGSH	ENST00000326317
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PGAM1	ENST00000334828
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	LDHA	ENST00000430553
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PFKFB1	ENST00000375006
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP205	ENST00000285968
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	CSGALNACT2	ENST00000374466
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GFPT2	ENST00000253778
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	IDNK	ENST00000376419
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	LDHAL6A	ENST00000396213
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GCK	ENST00000336642
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	YDIC	ENST00000292778
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	RAE1	ENST00000395841
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PGK1	ENST00000373316
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GANC	ENST00000318010
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PFKP	ENST00000381075
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	HK3	ENST00000292432
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	LDHAL6B	ENST00000307144
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP88	ENST00000573584
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PFKFB2	ENST00000367080
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	ALDOC	ENST00000395321
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GALE	ENST00000374497
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PGM1	ENST00000540265
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GALK2	ENST00000327171
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GBE1	ENST00000489715
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	MAN2C1	ENST00000565683
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	HEXDC	ENST00000337014
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP50	ENST00000396096
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GANAB	ENST00000346178
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	ARSB	ENST00000396151
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	IDH3A	ENST00000299518
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GALT	ENST00000450095
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GNS	ENST00000258145
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP54	ENST00000342467
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PAPSS2	ENST00000361175
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	ALDH2	ENST00000261733
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	HK2	ENST00000409174
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GAPDHS	ENST00000222286
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PGM2L1	ENST00000298198
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NAGLU	ENST00000225927
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	RANBP2	ENST00000283195
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	TPR	ENST00000367478
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUPL1	ENST00000463407
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GSY2	ENST00000261195
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	ENO3	ENST00000519584
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	RPIA	ENST00000283646
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PFKL	ENST00000349048
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PGP	ENST00000333503
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP160	ENST00000526870
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUPL2	ENST00000258712
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	HSPA9	ENST00000297185
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP210	ENST00000254508
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	DHDH	ENST00000221403
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	PFKFB4	ENST00000232375
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP85	ENST00000245544
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	NUP153	ENST00000262077
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	GK2	ENST00000358842
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	FUCA1	ENST00000374479
GO:0005975	carbohydrate metabolic	BP	542	10	0.04468	B3GNT1	ENST00000311181
GO:0003195	tricuspid valve formation	BP	2	1	0.04478	HEY2	ENST00000368364
GO:0010724	regulation of definitive e	BP	3	1	0.04486	SENP1	ENST00000551330
GO:0010724	regulation of definitive e	BP	3	1	0.04486	RBFOX2	ENST00000414461
GO:0002076	osteoblast development	BP	19	2	0.04514	HDAC4	ENST00000345617
GO:0002076	osteoblast development	BP	19	2	0.04514	HDAC5	ENST00000336057
GO:0002076	osteoblast development	BP	19	2	0.04514	JUND	ENST00000252818
GO:0002076	osteoblast development	BP	19	2	0.04514	HEY1	ENST00000337919
GO:0016051	carbohydrate biosynthet	BP	198	5	0.04520	NANS	ENST00000210444
GO:0006069	ethanol oxidation	BP	11	1	0.04540	ADH1A	ENST00000209668
GO:0006069	ethanol oxidation	BP	11	1	0.04540	ADH1B	ENST00000305046

GO:0006069	ethanol oxidation	BP	11	1	0.04540	ACSS1	ENST00000432802
GO:0006069	ethanol oxidation	BP	11	1	0.04540	ALDH1A1	ENST00000297785
GO:0006069	ethanol oxidation	BP	11	1	0.04540	ADH5	ENST00000296412
GO:0006069	ethanol oxidation	BP	11	1	0.04540	ACSS2	ENST00000253382
GO:0006069	ethanol oxidation	BP	11	1	0.04540	ADH6	ENST00000237653
GO:0008121	ubiquinol-cytochrome-c	MF	8	1	0.04553	UQCRC1	ENST00000203407
GO:0008121	ubiquinol-cytochrome-c	MF	8	1	0.04553	UQCRH	ENST00000311672
GO:0008121	ubiquinol-cytochrome-c	MF	8	1	0.04553	UQCRQ	ENST00000378670
GO:0008121	ubiquinol-cytochrome-c	MF	8	1	0.04553	UQCR10	ENST00000401406
GO:0005253	anion channel activity	MF	80	3	0.04615	CCT8L2	ENST00000359963
GO:0043367	CD4-positive, alpha-beta	BP	71	3	0.04626	RSAD2	ENST00000382040
GO:0043367	CD4-positive, alpha-beta	BP	71	3	0.04626	NKX2-3	ENST00000344586
GO:0070404	NADH binding	MF	3	1	0.04664	QDPR	ENST00000281243
GO:0048678	response to axon injury	BP	67	3	0.04674	MATN2	ENST00000254898
GO:0048678	response to axon injury	BP	67	3	0.04674	TXN2	ENST00000403313
GO:0048678	response to axon injury	BP	67	3	0.04674	MAX	ENST00000555419
GO:0048678	response to axon injury	BP	67	3	0.04674	TXNRD1	ENST00000503506
GO:0048678	response to axon injury	BP	67	3	0.04674	UCK2	ENST00000367879
GO:0006068	ethanol catabolic proces	BP	10	1	0.04683	ALDH3B2	ENST00000530069
GO:0032332	positive regulation of chr	BP	21	2	0.04769	POR	ENST00000606339
GO:0032332	positive regulation of chr	BP	21	2	0.04769	RELA	ENST00000534558
GO:0032332	positive regulation of chr	BP	21	2	0.04769	SOX5	ENST00000541536
GO:0032332	positive regulation of chr	BP	21	2	0.04769	HOXD11	ENST00000249504
GO:0032332	positive regulation of chr	BP	21	2	0.04769	PKDCC	ENST00000294964
GO:0001012	RNA polymerase II regul	MF	703	15	0.04857	ATXN3	ENST00000556898
GO:0001012	RNA polymerase II regul	MF	703	15	0.04857	NCOA1	ENST00000406961
GO:0030182	neuron differentiation	BP	1253	24	0.04906	ALDH1A2	ENST00000561070
GO:0030182	neuron differentiation	BP	1253	24	0.04906	ADNP2	ENST00000559951
GO:0030182	neuron differentiation	BP	1253	24	0.04906	PPP2R2B	ENST00000394411
GO:0030182	neuron differentiation	BP	1253	24	0.04906	SMARCA1	ENST00000371121
GO:0030182	neuron differentiation	BP	1253	24	0.04906	NRBP2	ENST00000568732
GO:0030182	neuron differentiation	BP	1253	24	0.04906	NAPA	ENST00000597118
GO:0030182	neuron differentiation	BP	1253	24	0.04906	TBR1	ENST00000389554
GO:0030182	neuron differentiation	BP	1253	24	0.04906	HIPK1	ENST00000514621
GO:0030182	neuron differentiation	BP	1253	24	0.04906	HES5	ENST00000378453
GO:0030182	neuron differentiation	BP	1253	24	0.04906	LHX2	ENST00000373615
GO:0030182	neuron differentiation	BP	1253	24	0.04906	DAPK3	ENST00000596311
GO:0030182	neuron differentiation	BP	1253	24	0.04906	MECP2	ENST00000453960
GO:0030182	neuron differentiation	BP	1253	24	0.04906	MYEF2	ENST00000561151
GO:0030182	neuron differentiation	BP	1253	24	0.04906	NNAT	ENST00000346199
GO:0030182	neuron differentiation	BP	1253	24	0.04906	AIFM1	ENST00000346424
GO:0030182	neuron differentiation	BP	1253	24	0.04906	DPYSL5	ENST00000288699
GO:0030182	neuron differentiation	BP	1253	24	0.04906	GAS7	ENST00000432992
GO:0030182	neuron differentiation	BP	1253	24	0.04906	BAG1	ENST00000472232
GO:0030182	neuron differentiation	BP	1253	24	0.04906	HDAC2	ENST00000519065
GO:0030182	neuron differentiation	BP	1253	24	0.04906	HIPK2	ENST00000428878
GO:0030182	neuron differentiation	BP	1253	24	0.04906	CEBPB	ENST00000303004
GO:0030182	neuron differentiation	BP	1253	24	0.04906	BRSK2	ENST00000531197
GO:0030182	neuron differentiation	BP	1253	24	0.04906	BHLHE22	ENST00000321870
GO:0030182	neuron differentiation	BP	1253	24	0.04906	COPS2	ENST00000388901
GO:0030182	neuron differentiation	BP	1253	24	0.04906	BARHL2	ENST00000370445
GO:0030182	neuron differentiation	BP	1253	24	0.04906	PIGT	ENST00000279036
GO:0030182	neuron differentiation	BP	1253	24	0.04906	BTG2	ENST00000290551
GO:0030182	neuron differentiation	BP	1253	24	0.04906	POU4F2	ENST00000281321
GO:0030182	neuron differentiation	BP	1253	24	0.04906	CHAT	ENST00000337653
GO:0030182	neuron differentiation	BP	1253	24	0.04906	TLX3	ENST00000296921
GO:0030182	neuron differentiation	BP	1253	24	0.04906	HOXD1	ENST00000331462
GO:0030182	neuron differentiation	BP	1253	24	0.04906	ATOH1	ENST00000306011
GO:0030182	neuron differentiation	BP	1253	24	0.04906	HELT	ENST00000338875
GO:0030182	neuron differentiation	BP	1253	24	0.04906	TLX1	ENST00000467928
GO:0030182	neuron differentiation	BP	1253	24	0.04906	NEUROG1	ENST00000314744
GO:0030182	neuron differentiation	BP	1253	24	0.04906	GATA2	ENST00000341105
GO:0030182	neuron differentiation	BP	1253	24	0.04906	DDIT4	ENST00000307365
GO:0030182	neuron differentiation	BP	1253	24	0.04906	NEUROG2	ENST00000313341
GO:0048496	maintenance of animal o	BP	5	1	0.04908	NPHP3	ENST00000383282
GO:0048496	maintenance of animal o	BP	5	1	0.04908	IQCB1	ENST00000393650
GO:0005834	heterotrimeric G-protein	CC	29	2	0.04940	GNG5P2	ENST00000372054
GO:0005834	heterotrimeric G-protein	CC	29	2	0.04940	DNAJC25-GNG11	ENST00000374294
GO:0042640	anagen	BP	5	1	0.04993	MYO5A	ENST00000356338
GO:0042640	anagen	BP	5	1	0.04993	PTGS2	ENST00000367468

**Suppl. Tab. 5. Cumulative Beta estimates/Methylation difference and corresponding P-values for fetal lung traits displayed in the fetal lung module-fetal lung trait association plots for each module based on CpGs in each module. Their FDR-corrected P-values are also reported.**

Modules	ME#	Methylation difference				P-values				FDR-corrected P-values			
		cat_exposure	cont_exposure	Age	Sex	cat_exposure	cont_exposure	Age	Sex	FDR_cat_exp	FDR_cont_exp	FDR_Age	FDR_Sex
antiquewhite2	ME33	-0.0236	0.0004	0.0036	-0.0735	0.315	0.118	1.28E-07	0.002	0.552	0.712	2.20E-06	0.117
darkolivegreen	ME90	0.0274	0.0008	0.0012	-0.1405	0.275	0.003	0.119	1.26E-08	0.552	0.113	0.510	1.30E-06
green	ME5	0.0049	0.0001	0.0000	-0.0083	0.795	0.544	0.986	0.672	0.843	0.778	0.986	0.778
plum	ME67	-0.0159	0.0000	0.0010	0.0252	0.522	1.000	0.190	0.330	0.630	1.000	0.605	0.761
maroon	ME55	0.0198	0.0003	0.0002	-0.0456	0.428	0.304	0.796	0.079	0.552	0.720	0.947	0.761
magenta4	ME84	0.0233	0.0005	-0.0004	-0.0338	0.343	0.050	0.596	0.186	0.552	0.645	0.840	0.761
salmon4	ME52	0.0098	0.0005	0.0010	-0.0560	0.700	0.087	0.231	0.033	0.775	0.683	0.625	0.761
brown4	ME40	0.0347	0.0003	-0.0004	0.0200	0.161	0.297	0.608	0.438	0.552	0.720	0.844	0.761
mediumpurple3	ME46	0.0686	0.0007	-0.0025	-0.0261	0.006	0.007	0.001	0.318	0.552	0.172	0.008	0.761
coral3	ME91	0.0312	0.0003	0.0008	-0.0206	0.218	0.274	0.303	0.436	0.552	0.720	0.669	0.761
lightslateblue	ME96	-0.0305	-0.0003	0.0008	0.0193	0.229	0.300	0.338	0.466	0.552	0.720	0.707	0.761
pink4	ME99	-0.0394	-0.0003	0.0014	-0.0319	0.118	0.284	0.093	0.225	0.552	0.720	0.435	0.761
plum3	ME78	0.0107	0.0001	0.0004	0.0280	0.674	0.578	0.644	0.288	0.762	0.805	0.861	0.761
indianred4	ME72	0.0202	0.0001	0.0007	0.0116	0.423	0.631	0.355	0.660	0.552	0.845	0.707	0.773
skyblue4	ME93	-0.0296	-0.0002	-0.0001	0.0139	0.239	0.426	0.946	0.595	0.552	0.729	0.986	0.761
thistle1	ME51	-0.0334	-0.0003	0.0000	0.0162	0.184	0.240	0.982	0.537	0.552	0.720	0.986	0.761
lightyellow	ME81	-0.0118	0.0002	0.0011	-0.0263	0.635	0.463	0.175	0.311	0.734	0.729	0.582	0.761
salmon	ME79	-0.0407	0.0000	0.0041	-0.0312	0.093	0.964	5.93E-09	0.217	0.552	0.983	1.22E-07	0.761
orange	ME13	0.0011	-0.0001	-0.0022	0.0080	0.963	0.592	0.004	0.754	0.973	0.813	0.024	0.812
steelblue	ME19	-0.0283	-0.0002	0.0002	0.0099	0.254	0.383	0.778	0.703	0.552	0.720	0.947	0.793
orangered4	ME25	-0.0190	-0.0002	0.0030	0.0093	0.427	0.523	2.79E-05	0.708	0.552	0.778	0.0003	0.793
black	ME30	-0.0270	0.0001	0.0046	-0.0362	0.228	0.538	6.74E-16	0.119	0.552	0.778	2.31E-14	0.761
brown	ME39	-0.0347	0.0002	0.0066	-0.0413	0.161	0.390	2.13E-30	0.109	0.552	0.720	2.20E-28	0.761
floralwhite	ME3	0.0165	0.0002	0.0007	-0.0406	0.473	0.467	0.328	0.089	0.594	0.729	0.703	0.761
paleturquoise	ME7	0.0214	0.0001	-0.0009	-0.0298	0.338	0.765	0.175	0.199	0.552	0.910	0.582	0.761
coral2	ME31	-0.0278	-0.0001	0.0008	-0.0438	0.262	0.831	0.295	0.089	0.552	0.910	0.669	0.761
lightblue4	ME44	-0.0328	-0.0001	0.0035	-0.0292	0.178	0.774	1.66E-06	0.250	0.552	0.910	2.45E-05	0.761
brown2	ME62	-0.0405	-0.0004	-0.0002	-0.0057	0.081	0.125	0.804	0.814	0.552	0.713	0.947	0.864
skyblue	ME100	-0.0503	-0.0005	0.0010	0.0172	0.046	0.057	0.240	0.515	0.552	0.645	0.625	0.761
thistle3	ME28	-0.0279	-0.0002	0.0001	0.0202	0.258	0.351	0.898	0.432	0.552	0.720	0.986	0.761
coral1	ME75	0.0243	-0.0001	-0.0012	0.0141	0.329	0.826	0.134	0.587	0.552	0.910	0.527	0.761
honeydew1	ME60	-0.0307	-0.0003	0.0009	0.0187	0.205	0.290	0.238	0.459	0.552	0.720	0.625	0.761
thistle	ME65	0.0227	0.0001	0.0000	0.0195	0.349	0.790	0.963	0.440	0.552	0.910	0.986	0.761
salmon2	ME41	-0.0336	-0.0003	-0.0007	0.0151	0.180	0.243	0.399	0.564	0.552	0.720	0.733	0.761
darkgrey	ME89	-0.0380	-0.0003	0.0002	-0.0459	0.122	0.188	0.809	0.073	0.552	0.720	0.947	0.761
darkred	ME58	-0.0313	-0.0003	0.0006	-0.0407	0.195	0.216	0.440	0.105	0.552	0.720	0.747	0.761
bisque4	ME66	0.0208	0.0001	0.0001	0.0171	0.391	0.843	0.928	0.499	0.552	0.911	0.986	0.761
darkseagreen3	ME80	0.0250	0.0004	-0.0003	0.0224	0.299	0.093	0.681	0.371	0.552	0.683	0.877	0.761
lavenderblush2	ME47	0.0239	0.0001	-0.0013	0.0166	0.329	0.730	0.085	0.516	0.552	0.905	0.418	0.761
plum2	ME88	-0.0257	-0.0002	-0.0001	0.0166	0.293	0.352	0.939	0.515	0.552	0.720	0.986	0.761
lightpink3	ME86	0.0197	0.0000	-0.0001	-0.0449	0.425	0.983	0.917	0.080	0.552	0.992	0.986	0.761
darkseagreen4	ME49	0.0195	0.0008	0.0009	-0.0408	0.420	0.003	0.261	0.103	0.552	0.113	0.639	0.761
blue2	ME85	0.0211	-0.0001	-0.0006	0.0080	0.392	0.732	0.443	0.757	0.552	0.905	0.747	0.812
mediumpurple2	ME76	-0.0269	-0.0003	0.0009	0.0253	0.269	0.323	0.260	0.320	0.552	0.720	0.639	0.761
lightcyan1	ME70	0.0173	0.0002	0.0011	-0.0402	0.483	0.368	0.162	0.115	0.599	0.720	0.576	0.761

lightsteelblue	ME48	-0.0231	-0.0002	-0.0006	0.0171	0.331	0.369	0.396	0.490	0.552	0.720	0.733	0.761
sienna4	ME69	0.0228	0.0002	0.0006	-0.0307	0.354	0.348	0.446	0.231	0.552	0.720	0.747	0.761
darkslateblue	ME42	-0.0247	-0.0003	-0.0001	0.0126	0.313	0.285	0.853	0.623	0.552	0.720	0.986	0.761
darkviolet	ME59	0.0216	0.0000	0.0001	0.0197	0.364	0.948	0.932	0.426	0.552	0.983	0.986	0.761
palevioletred2	ME95	0.0175	0.0001	-0.0003	0.0211	0.466	0.777	0.667	0.399	0.592	0.910	0.870	0.761
lightcoral	ME77	-0.0247	-0.0002	0.0005	-0.0354	0.319	0.386	0.544	0.169	0.552	0.720	0.800	0.761
antiquewhite4	ME82	-0.0209	-0.0001	-0.0012	-0.0183	0.399	0.738	0.133	0.478	0.552	0.905	0.527	0.761
mediumpurple4	ME21	-0.0037	0.0000	-0.0004	-0.0109	0.859	0.828	0.535	0.612	0.885	0.910	0.800	0.761
lightpink4	ME24	0.0241	0.0004	0.0000	0.0180	0.300	0.115	0.951	0.458	0.552	0.712	0.986	0.761
skyblue3	ME71	-0.0228	-0.0002	0.0014	0.0125	0.352	0.392	0.079	0.623	0.552	0.720	0.418	0.761
sienna3	ME56	0.0071	-0.0003	0.0008	-0.0324	0.770	0.187	0.269	0.198	0.827	0.720	0.642	0.761
violet	ME37	-0.0282	-0.0003	-0.0005	0.0112	0.245	0.269	0.497	0.659	0.552	0.720	0.787	0.773
cyan	ME32	-0.0182	-0.0002	0.0008	0.0138	0.426	0.485	0.274	0.562	0.552	0.734	0.642	0.761
darkmagenta	ME61	0.0198	0.0003	-0.0002	-0.0333	0.406	0.171	0.799	0.178	0.552	0.720	0.947	0.761
navajowhite1	ME92	-0.0246	-0.0002	0.0008	-0.0277	0.306	0.370	0.305	0.267	0.552	0.720	0.669	0.761
royalblue	ME0	-0.0298	-0.0003	-0.0010	0.0186	0.195	0.165	0.143	0.437	0.552	0.720	0.527	0.761
grey60	ME17	0.0003	0.0001	0.0004	-0.0080	0.989	0.649	0.465	0.708	0.989	0.857	0.760	0.793
yellowgreen	ME36	-0.0078	-0.0002	-0.0004	0.0082	0.727	0.373	0.578	0.724	0.797	0.720	0.832	0.802
darkturquoise	ME35	0.0174	-0.0002	0.0000	-0.0276	0.427	0.475	0.978	0.224	0.552	0.730	0.986	0.761
purple	ME34	-0.0396	-0.0005	0.0003	0.0102	0.069	0.022	0.615	0.655	0.552	0.453	0.844	0.773
turquoise	ME83	0.0050	0.0000	0.0002	-0.0014	0.802	0.904	0.690	0.946	0.843	0.950	0.877	0.955
skyblue1	ME14	-0.0285	-0.0002	0.0007	-0.0371	0.240	0.407	0.370	0.142	0.552	0.729	0.707	0.761
yellow4	ME20	-0.0253	-0.0002	0.0002	0.0205	0.305	0.454	0.796	0.424	0.552	0.729	0.947	0.761
coral	ME23	-0.0326	-0.0001	0.0000	-0.0045	0.188	0.826	0.951	0.862	0.552	0.910	0.986	0.897
lightsteelblue1	ME1	-0.0275	-0.0003	0.0005	0.0157	0.248	0.323	0.543	0.526	0.552	0.720	0.800	0.761
mediumorchid	ME10	0.0223	0.0003	0.0004	0.0130	0.374	0.190	0.582	0.619	0.552	0.720	0.832	0.761
darkorange2	ME63	-0.0303	-0.0003	-0.0004	0.0189	0.228	0.248	0.629	0.472	0.552	0.720	0.853	0.761
lavenderblush3	ME45	-0.0199	-0.0001	-0.0007	-0.0406	0.421	0.678	0.371	0.114	0.552	0.884	0.707	0.761
ivory	ME57	-0.0121	0.0000	0.0006	0.0133	0.621	0.853	0.450	0.602	0.727	0.911	0.747	0.761
orangered3	ME43	0.0237	0.0002	0.0010	0.0218	0.337	0.413	0.206	0.397	0.552	0.729	0.625	0.761
orangered1	ME68	-0.0210	-0.0001	-0.0004	-0.0197	0.408	0.705	0.658	0.457	0.552	0.903	0.868	0.761
indianred3	ME97	-0.0254	-0.0009	-0.0010	0.0374	0.309	0.001	0.194	0.150	0.552	0.081	0.605	0.761
darkolivegreen4	ME101	0.0426	0.0005	-0.0007	0.0168	0.091	0.068	0.362	0.525	0.552	0.645	0.707	0.761
yellow3	ME74	0.0304	0.0003	0.0000	-0.0176	0.229	0.290	0.963	0.505	0.552	0.720	0.986	0.761
darkorange	ME94	0.0260	0.0002	-0.0009	-0.0185	0.280	0.358	0.216	0.461	0.552	0.720	0.625	0.761
red	ME26	0.0235	-0.0001	-0.0040	0.0377	0.290	0.710	8.72E-12	0.102	0.552	0.903	2.25E-10	0.761
yellow	ME4	0.0453	-0.0001	-0.0065	0.0396	0.072	0.778	1.45E-25	0.132	0.552	0.910	7.49E-24	0.761
plum1	ME6	0.0226	0.0005	0.0006	-0.0381	0.368	0.051	0.425	0.145	0.552	0.645	0.747	0.761
darkgreen	ME38	0.0336	0.0002	-0.0018	0.0192	0.152	0.462	0.015	0.433	0.552	0.729	0.089	0.761
white	ME22	0.0281	0.0005	0.0025	-0.0121	0.241	0.069	0.0007	0.628	0.552	0.645	0.005	0.761
blue	ME27	0.0021	0.0001	0.0001	0.0005	0.918	0.562	0.892	0.980	0.937	0.792	0.986	0.980
midnightblue	ME2	0.0087	0.0001	0.0004	0.0145	0.689	0.539	0.487	0.521	0.771	0.778	0.784	0.761
magenta	ME15	0.0071	0.0004	0.0032	-0.0317	0.771	0.088	1.48E-05	0.210	0.827	0.683	0.000	0.761
tan	ME9	0.0258	0.0004	0.0010	-0.0215	0.308	0.107	0.218	0.417	0.552	0.712	0.625	0.761
palevioletred3	ME12	0.0363	0.0002	-0.0019	-0.0128	0.148	0.440	0.017	0.626	0.552	0.729	0.095	0.761
lightgreen	ME53	0.0428	0.0003	-0.0026	0.0140	0.082	0.305	0.001	0.587	0.552	0.720	0.005	0.761
saddlebrown	ME18	0.0451	0.0002	-0.0030	0.0148	0.060	0.436	3.65E-05	0.557	0.552	0.729	0.0003	0.761
skyblue2	ME29	0.0331	0.0004	-0.0014	-0.0147	0.184	0.142	0.082	0.572	0.552	0.720	0.418	0.761
honeydew	ME64	0.0381	0.0003	-0.0005	-0.0089	0.132	0.267	0.543	0.737	0.552	0.720	0.800	0.808



lightcyan	ME16	0.0466	0.0001	-0.0033	0.0210	0.060	0.626	9.44E-06	0.419	0.552	0.845	0.000	0.761
firebrick4	ME87	-0.0161	-0.0003	0.0007	0.0349	0.526	0.215	0.363	0.186	0.630	0.720	0.707	0.761
greenyellow	ME11	-0.0112	0.0001	0.0031	0.0026	0.642	0.818	1.24E-05	0.918	0.734	0.910	0.000	0.940
pink	ME73	0.0039	0.0000	0.0003	0.0019	0.837	0.963	0.513	0.922	0.871	0.983	0.800	0.940
navajowhite2	ME8	0.0208	0.0000	0.0013	0.0159	0.409	0.858	0.100	0.545	0.552	0.911	0.446	0.761
thistle2	ME50	0.0214	0.0002	0.0008	0.0048	0.354	0.383	0.243	0.842	0.552	0.720	0.625	0.885
firebrick3	ME54	-0.0171	-0.0002	-0.0006	-0.0169	0.501	0.461	0.429	0.524	0.614	0.729	0.747	0.761
mediumpurple1	ME98	-0.0352	-0.0003	0.0002	0.0157	0.164	0.236	0.774	0.552	0.552	0.720	0.947	0.761
grey	ME102	0.0130	0.0005	0.0010	-0.0629	0.570	0.043	0.139	0.007	0.674	0.645	0.527	0.245



Suppl. Tab. 7. Preservation between fetal lung (reference) and COPD (test) datasets. Zsummary\_pres (sorted in increasing order) is the permuted score for preservation.

	ME#	Zsummary_p	Zdensity	Zconnectivity_p
green	ME5	39.51	36.02	43.00
thistle2	ME60	37.87	67.51	8.23
orange	ME13	36.44	63.40	9.48
salmon	ME79	35.28	60.69	9.87
darkred	ME58	34.24	64.17	4.31
yellowgreen	ME36	33.65	50.75	16.56
grey60	ME17	33.32	29.13	37.50
darkgrey	ME89	30.56	58.02	3.09
pink	ME73	28.12	31.82	28.42
ivory	ME57	23.48	32.04	14.92
mediumpurple4	ME21	21.36	35.26	7.46
antiquewhite4	ME82	20.59	29.74	1.43
paleturquoise	ME7	20.46	17.14	23.78
lightyellow	ME81	20.24	31.04	9.43
turquoise	ME83	20.03	16.42	23.64
pink4	ME99	18.80	32.04	5.55
purple	ME34	17.87	18.32	17.42
black	ME30	17.78	30.57	4.98
salmon4	ME52	16.77	23.70	9.84
blue	ME27	16.06	13.00	19.12
yellow	ME4	15.63	26.92	4.34
darkolivegreen	ME90	15.17	13.88	16.85
steelblue	ME19	14.96	30.20	-0.28
brown4	ME40	14.56	14.24	14.89
coral	ME23	13.89	19.62	7.17
magenta	ME15	13.06	6.09	20.02
saddlebrown	ME18	12.71	18.52	6.91
tan	ME9	12.52	9.78	15.26
coral2	ME31	12.23	13.22	11.24
cyan	ME32	12.06	11.05	13.08
brown2	ME62	10.19	13.34	7.05
skyblue	ME100	9.80	12.21	6.39
orangered4	ME25	9.49	16.79	2.18
lightcyan	ME16	9.09	13.17	5.02
darkmagenta	ME61	9.04	10.37	7.72
brown	ME39	8.85	13.12	4.58
darkorange	ME94	8.83	9.00	8.65
midnightblue	ME2	8.78	7.86	9.70
royalblue	ME0	8.33	12.53	4.14
darkturquoise	ME35	8.14	11.41	4.86
lightgreen	ME53	7.78	8.78	6.78
grey	ME102	7.43	1.74	13.11
white	ME22	7.39	9.50	5.28
darkgreen	ME38	7.01	13.46	0.57
mediumpurple3	ME46	6.80	10.32	3.27
sienna3	ME56	6.79	11.95	2.22
darkolivegreen4	ME101	6.46	11.14	1.77
floralwhite	ME3	6.44	8.92	3.97
plum	ME67	6.32	6.62	6.03
darkslateblue	ME42	6.31	7.07	5.55
violet	ME37	6.28	11.41	1.15
skyblue1	ME71	6.20	9.50	2.90
palevioletred3	ME12	5.82	7.74	3.90
skyblue2	ME29	5.67	7.79	3.56
greenyellow	ME11	5.67	3.52	7.83
lightcoral	ME77	5.67	4.77	6.56
plum1	ME6	5.36	9.13	1.60
lightcyan1	ME70	4.43	7.14	1.72
maroon	ME55	4.34	5.14	3.54
lightsteelblue	ME48	3.76	4.98	2.53
firebrick4	ME87	3.59	3.97	3.20
lightpink4	ME24	3.43	7.63	-0.76
thistle1	ME28	3.38	1.67	5.09
salmon2	ME41	3.29	5.42	1.16
palevioletred2	ME95	3.27	4.35	2.18
coral1	ME75	3.11	3.35	2.87
honeydew1	ME60	3.04	2.95	3.13
thistle1	ME51	3.03	2.30	3.76
antiquewhite2	ME33	2.89	3.18	2.61
lightsteelblue1	ME1	2.89	5.43	0.35
bisque4	ME66	2.83	5.32	0.34
lavenderblush3	ME45	2.72	4.28	1.16
plum2	ME88	2.69	4.50	0.89
darkorange2	ME63	2.68	4.70	0.66
plum3	ME78	2.54	4.89	0.19
lightpink3	ME86	2.47	4.26	0.67
mediumpurple2	ME76	2.43	2.97	1.89
darkviolet	ME59	2.39	4.65	0.12
skyblue4	ME93	2.33	6.00	-1.33
blue2	ME85	2.33	4.55	0.11
indianred4	ME72	2.23	2.42	2.05
navajowhite1	ME92	2.22	3.40	1.05
navajowhite2	ME8	2.17	2.73	1.61
darkseagreen3	ME80	2.13	2.17	2.10
darkseagreen4	ME49	2.11	4.17	0.06
thistle	ME65	1.93	3.87	-0.02
magenta4	ME84	1.89	3.95	0.23
mediomorbid	ME10	1.87	2.34	1.40
lightslateblue	ME96	1.84	3.68	0.01
red	ME26	1.64	0.69	2.58
lavenderblush2	ME47	1.54	2.86	0.22
skyblue1	ME14	1.38	1.88	0.89
sienna4	ME69	1.36	2.77	-0.05
orangere3	ME43	1.33	2.31	0.35
indianred3	ME97	1.00	1.04	0.96
honeydew	ME64	0.63	2.35	-1.10
orangere1	ME68	0.59	-0.06	1.23
yellow4	ME20	0.55	2.19	-1.09
lightblue4	ME44	0.44	1.13	-0.26
firebrick3	ME54	0.23	-0.35	0.80
mediumpurple1	ME58	0.19	0.95	-0.57
coral3	ME91	-0.31	-0.58	-0.03
yellow3	ME74	-0.32	-0.64	-0.01

Suppl. Tab. 8. CpGs in the ME34:purple (row: 2; n=5,024; 3,458 unique genes), ME90:darkolivegreen (row: 5,031; n=543; 272 unique genes), ME100:skyblue (row: 5,577; n=712; 329 unique genes) and ME46:mediumpurple3 (row: 6,290; n=284; 221 unique genes) module sorted by each module's module membership (MM) of annotated genes

CpGs in the purple module:								FL EWAS			
cgs_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	RelationCpG_Island	Gene	MM	Beta.diff	AveBeta	P.Value	
cg03406394	purple		15	60,296,138	TSS1500	Island	FOXB1	0.881	-0.001	0.045	0.800
cg14189758	purple		20	36,156,486	TSS200	Island	BLCAP	0.879	-0.001	0.032	0.843
cg23213688	purple		1	231,473,791	5'UTR	Island	C1orf124	0.874	-0.004	0.038	0.221
cg04253876	purple		2	30,453,758	TSS1500	Island	LBH	0.863	-0.001	0.043	0.754
cg22437161	purple		7	155,605,081	TSS200	Island	SHH	0.861	0.000	0.028	0.889
cg07262328	purple		11	35,160,709	5'UTR	Island	CD44	0.858	-0.002	0.053	0.690
cg00580022	purple		22	17,639,482	TSS1500	Island	CECR4	0.853	-0.003	0.163	0.613
cg09964204	purple		3	66,024,343	5'UTR	Island	MAG11	0.852	0.000	0.067	0.972
cg02184643	purple		11	10,879,647	TSS200	Island	ZBED5	0.850	-0.001	0.044	0.643
cg07562100	purple		15	68,569,975	TSS200	Island	FEM1B	0.848	-0.002	0.031	0.327
cg21656600	purple		12	111,181,027	TSS1500	Island	PPP1CC	0.846	-0.001	0.033	0.642
cg12174498	purple		8	80,942,140	Body	Island	MRPS28	0.845	-0.002	0.041	0.542
cg21767703	purple		1	236,444,768	Body	Island	ERO1LB	0.843	-0.003	0.069	0.654
cg15692279	purple		1	149,821,905	TSS1500	Island	HIST2H2AA4	0.843	-0.001	0.028	0.640
cg14784847	purple		3	128,209,252	5'UTR	Island	GATA2	0.841	-0.002	0.051	0.414
cg13390975	purple		5	34,915,890	1stExon	Island	BRIX1	0.838	-0.010	0.078	0.451
cg23709121	purple		14	59,951,523	TSS1500	Island	C14orf149	0.838	-0.004	0.045	0.251
cg06901392	purple		13	31,736,105	5'UTR	Island	HSPH1	0.837	-0.003	0.046	0.285
cg09999441	purple		19	38,826,477	5'UTR	Island	CATSPERG	0.837	0.000	0.014	0.524
cg05447186	purple		20	3,869,454	TSS1500	Island	PANK2	0.836	-0.002	0.043	0.400
cg17718302	purple		6	27,858,637	TSS200	S_Shore	HIST1H3J	0.836	0.000	0.018	1.000
cg11477977	purple		8	29,952,662	TSS1500	Island	LEPROTL1	0.833	-0.001	0.021	0.567
cg20414838	purple		1	53,704,138	5'UTR	Island	MAGOH	0.833	-0.001	0.047	0.782
cg06752163	purple		3	170,588,210	TSS200	Island	RPL22L1	0.832	-0.001	0.022	0.711
cg11359984	purple		3	123,603,539	TSS1500	Island	MYLK	0.832	-0.002	0.043	0.556
cg16819777	purple		10	103,329,853		Island		0.832	-0.001	0.047	0.691
cg16247323	purple		3	15,643,125	1stExon	Island	HACL1	0.832	-0.001	0.016	0.342
cg08167214	purple		16	81,040,017	TSS200	N_Shore	CENPN	0.832	-0.001	0.040	0.754
cg21255438	purple		8	70,983,760	TSS200	Island	PRDM14	0.831	-0.011	0.084	0.076
cg03162359	purple		12	45,610,751	Body	Island	ANO6	0.831	-0.004	0.039	0.267
cg12349683	purple		15	68,133,070		Island		0.830	0.000	0.024	0.846
cg02994645	purple		8	30,891,371	1stExon		WRN	0.829	-0.005	0.091	0.462
cg12549512	purple		8	145,137,100	TSS1500	N_Shore	GPAA1	0.829	-0.003	0.054	0.581
cg05572456	purple		2	172,961,504		Island		0.828	-0.001	0.034	0.488
cg26473844	purple		5	37,834,909	5'UTR	Island	GDNF	0.828	0.001	0.084	0.898
cg17245337	purple		1	25,558,596	Body	Island	SYF2	0.828	-0.004	0.056	0.423
cg05223847	purple		10	124,913,846	5'UTR	Island	BUB3	0.827	-0.001	0.035	0.777
cg14471560	purple		2	99,225,332	TSS1500	S_Shore	C2orf64	0.826	-0.002	0.032	0.179
cg19587377	purple		19	50,432,935	TSS200	Island	NUP62	0.825	-0.004	0.024	0.060
cg27028168	purple		8	60,031,926	TSS200	Island	TOX	0.825	-0.001	0.035	0.736
cg02006803	purple		2	128,990,870		Island		0.825	-0.009	0.077	0.281
cg17417191	purple		1	218,458,683	1stExon	Island	RRP15	0.825	-0.001	0.035	0.395
cg17682541	purple		5	177,632,507	Body	Island	HNRNPAB	0.824	-0.001	0.023	0.558
cg21552653	purple		19	57,079,146	1stExon	Island	ZNF470	0.823	-0.006	0.099	0.534
cg02025827	purple		16	30,996,564	5'UTR		HSD3B7	0.823	-0.002	0.025	0.293
cg23000464	purple		19	633,785	TSS1500	S_Shore	POLRMT	0.823	-0.005	0.044	0.217
cg02126788	purple		1	116,381,660	5'UTR	Island	NHLH2	0.823	-0.005	0.040	0.237
cg23314805	purple		17	19,282,105	5'UTR	Island	MAPK7	0.823	-0.001	0.031	0.834
cg17239651	purple		11	64,889,930	TSS1500	Island	FAU	0.822	-0.001	0.048	0.775
cg18686155	purple		14	54,421,381	TSS200	Island	BMP4	0.821	-0.001	0.037	0.800
cg23062115	purple		5	143,550,050	1stExon	Island	YIPF5	0.821	0.000	0.041	0.941
cg03743008	purple		1	218,338,449		Island		0.820	-0.003	0.034	0.181
cg16666935	purple		13	31,736,119	TSS200	Island	HSPH1	0.820	-0.005	0.068	0.270
cg05905988	purple		13	108,520,481	TSS1500	Island	FAM155A	0.819	-0.001	0.022	0.554
cg24513224	purple		17	10,102,439	TSS1500	Island	GAS7	0.819	-0.004	0.058	0.539
cg02773889	purple		13	42,615,649		Island		0.819	0.001	0.037	0.771
cg07853246	purple		4	143,768,134	TSS1500	Island	INPP4B	0.819	0.000	0.019	0.921
cg10652646	purple		15	37,393,811	TSS1500	Island	MEIS2	0.819	-0.002	0.018	0.156
cg19469297	purple		7	45,151,440	TSS200	Island	TBRG4	0.817	-0.002	0.043	0.279
cg10037053	purple		6	30,181,425	TSS1500	Island	TRIM26	0.817	0.000	0.040	0.999
cg03792767	purple		4	55,097,989	5'UTR	Island	PDGFRA	0.817	0.001	0.024	0.753
cg19819145	purple		3	35,681,147		Island		0.816	0.000	0.043	0.894

cg05228735	purple	16	30,621,825	TSS200	Island	ZNF689	0.816	0.000	0.028	0.838
cg04508286	purple	7	35,840,410	TSS1500	Island	SEPT7	0.816	0.000	0.019	0.706
cg01747792	purple	20	61,806,628		Island		0.815	-0.003	0.063	0.698
cg26483432	purple	1	149,815,043	TSS1500	Island	HIST2H2AA3	0.815	-0.006	0.076	0.405
cg18018828	purple	7	79,081,791	Body	Island	MAGI2	0.815	0.000	0.042	0.961
cg06187947	purple	2	189,157,042	TSS1500	Island	GULP1	0.814	-0.004	0.047	0.025
cg13968953	purple	3	97,483,466	TSS200	Island	ARL6	0.813	-0.004	0.048	0.179
cg06638463	purple	19	10,530,633	TSS1500	Island	PDE4A	0.812	-0.006	0.052	0.336
cg05900347	purple	2	105,461,392		Island		0.812	-0.004	0.058	0.463
cg06535308	purple	11	17,497,693	Body	Island	ABCC8	0.812	-0.004	0.039	0.205
cg12582607	purple	14	65,007,035	TSS200	Island	HSPA2	0.811	0.000	0.044	0.908
cg00431236	purple	2	264,988	1stExon	Island	ACP1	0.810	-0.005	0.046	0.266
cg07645194	purple	3	194,407,045	5'UTR	Island	FAM43A	0.810	0.000	0.038	0.995
cg24341498	purple	9	137,217,390	TSS1500	Island	RXRA	0.809	-0.002	0.046	0.775
cg18387156	purple	8	31,496,644	TSS1500	Island	NRG1	0.808	-0.001	0.049	0.670
cg02083259	purple	16	57,220,135	TSS200	Island	RSPRY1	0.808	-0.002	0.026	0.538
cg18526861	purple	17	73,257,861	1stExon	Island	MRPS7	0.808	-0.001	0.038	0.801
cg04265971	purple	4	2,470,698	TSS200	Island	RNF4	0.807	-0.001	0.028	0.846
cg24756528	purple	16	4,466,888	TSS1500	Island	CORO7	0.807	-0.003	0.049	0.570
cg12052812	purple	1	230,778,592	Body	Island	COG2	0.806	-0.001	0.046	0.716
cg09223439	purple	15	65,282,374	TSS200	Island	SPG21	0.806	-0.002	0.040	0.304
cg21646199	purple	1	116,381,654	5'UTR	Island	NHLH2	0.806	-0.007	0.040	0.186
cg00178429	purple	8	103,668,860	TSS1500	Island	KLF10	0.806	-0.004	0.050	0.275
cg16160182	purple	1	2,574,031		Island		0.805	-0.001	0.088	0.930
cg09403249	purple	12	45,444,203	Body	Island	DBX2	0.805	-0.001	0.035	0.554
cg11450810	purple	3	50,649,383	TSS200	Island	CISH	0.804	-0.002	0.042	0.250
cg11072887	purple	6	37,322,624	Body	Island	RNF8	0.803	-0.002	0.023	0.440
cg15248577	purple	10	7,450,456	5'UTR	Island	SFMBT2	0.803	-0.004	0.051	0.472
cg24020398	purple	11	69,455,715	TSS200	Island	CCND1	0.803	-0.004	0.041	0.210
cg25763393	purple	19	52,956,832	1stExon	Island	ZNF578	0.803	-0.001	0.014	0.206
cg19611809	purple	15	53,080,209	Body	N_Shore	ONECUT1	0.802	0.000	0.025	0.886
cg04273556	purple	9	35,096,672	TSS200	Island	PIGO	0.802	0.002	0.035	0.586
cg03100196	purple	7	143,077,761	TSS1500	Island	ZYX	0.802	-0.002	0.043	0.645
cg00415582	purple	6	43,027,202	TSS1500	Island	KLC4	0.801	0.000	0.023	0.815
cg14209549	purple	10	3,215,073	TSS200	Island	PITRM1	0.801	-0.006	0.048	0.207
cg00652727	purple	1	235,812,198	5'UTR	Island	GNG4	0.801	-0.002	0.056	0.535
cg19711045	purple	3	183,416,068	5'UTR	Island	YEATS2	0.801	-0.001	0.046	0.724
cg04738496	purple	16	2,021,690	TSS1500	N_Shore	TBL3	0.800	-0.003	0.033	0.105
cg23091741	purple	1	226,111,643	Body	Island	PYCR2	0.800	-0.002	0.047	0.597
cg22037798	purple	1	231,473,786	5'UTR	Island	C1orf124	0.800	-0.006	0.040	0.279
cg27467005	purple	19	17,622,279	TSS200	N_Shore	PGLS	0.800	-0.005	0.051	0.440
cg08714753	purple	11	35,639,590	TSS200	N_Shore	FJX1	0.800	-0.004	0.043	0.156
cg08855623	purple	3	185,217,019	TSS200	Island	TMEM41A	0.800	0.000	0.030	0.913
cg24647403	purple	3	97,483,221	TSS1500	Island	ARL6	0.800	0.000	0.033	0.975
cg14473974	purple	9	139,439,826	Body	Island	NOTCH1	0.800	-0.005	0.108	0.598
cg21597684	purple	2	197,457,400	TSS200	Island	HECW2	0.800	-0.002	0.038	0.599
cg11877270	purple	2	65,658,583	Body	Island	SPRED2	0.800	-0.003	0.049	0.661
cg12963611	purple	3	156,009,008	Body	Island	KCNAB1	0.800	-0.001	0.033	0.404
cg26567249	purple	8	97,247,842	5'UTR		UQCRB	0.799	-0.001	0.015	0.408
cg01092811	purple	3	131,100,455	TSS1500	Island	NUDT16	0.798	-0.003	0.041	0.326
cg08951907	purple	17	18,218,556	TSS1500	Island	TOP3A	0.798	-0.004	0.051	0.200
cg06746074	purple	3	87,276,268	TSS200	Island	CHMP2B	0.798	-0.004	0.050	0.144
cg26236440	purple	2	113,341,947	TSS200	Island	CHCHD5	0.797	-0.001	0.049	0.851
cg05315443	purple	12	66,218,639	1stExon	Island	HMGGA2	0.797	-0.001	0.032	0.682
cg08830225	purple	13	34,116,653		Island		0.797	-0.001	0.020	0.598
cg02228635	purple	1	93,298,093	Body	Island	RPL5	0.797	-0.001	0.031	0.822
cg11868900	purple	8	49,648,035	TSS200	S_Shore	EFCAB1	0.796	0.000	0.043	0.999
cg11150308	purple	17	74,068,434	1stExon	Island	SRP68	0.796	-0.004	0.056	0.195
cg04232541	purple	6	144,384,895	5'UTR	Island	PLAGL1	0.796	-0.002	0.022	0.496
cg03956646	purple	8	143,750,859	5'UTR	Island	JRK	0.796	0.000	0.014	0.663
cg06689961	purple	12	12,870,959	1stExon	Island	CDKN1B	0.795	0.000	0.013	0.875
cg04576025	purple	5	1,386,550		Island		0.795	0.001	0.053	0.888
cg02470625	purple	7	39,453,784	Body	Island	POU6F2	0.795	-0.002	0.032	0.039
cg10970409	purple	3	42,543,566	TSS1500	Island	VIPR1	0.795	-0.004	0.070	0.483
cg17350349	purple	13	39,612,618	1stExon	Island	NHLRC3	0.795	0.000	0.013	0.934
cg05591758	purple	2	74,685,531	TSS200	Island	WBP1	0.795	-0.005	0.048	0.031
cg26116045	purple	3	43,663,699	TSS200	Island	ANO10	0.794	-0.002	0.031	0.527

cg01638025	purple	8	25,041,768	TSS1500	N_Shore	DOCK5	0.794	-0.004	0.090	0.489
cg18036763	purple	22	45,404,910	Body	Island	PHF21B	0.794	-0.008	0.095	0.580
cg23428445	purple	7	124,405,467	1stExon	Island	GPR37	0.794	0.000	0.027	0.983
cg26376168	purple	6	30,712,439	TSS200	Island	IER3	0.793	-0.003	0.033	0.524
cg27110132	purple	16	3,661,765	TSS200	Island	BTBD12	0.793	0.000	0.026	0.837
cg02461956	purple	11	134,093,940	1stExon	Island	NCAPD3	0.793	-0.004	0.080	0.595
cg12517452	purple	5	52,084,045	TSS200	Island	ITGA1	0.793	-0.004	0.041	0.390
cg07103493	purple	5	128,301,232	5'UTR	Island	SLC27A6	0.793	0.001	0.029	0.636
cg01458961	purple	4	102,269,425	TSS1500	Island	PPP3CA	0.792	-0.007	0.107	0.611
cg16423682	purple	18	57,363,715	Body	Island	CCBE1	0.792	0.001	0.028	0.655
cg17227014	purple	4	6,642,450	1stExon	Island	MRFAP1	0.792	-0.001	0.033	0.798
cg25006079	purple	7	100,823,790	TSS1500	S_Shore	C7orf52	0.791	0.002	0.062	0.712
cg18243159	purple	17	73,775,296	5'UTR	Island	H3F3B	0.791	0.001	0.020	0.502
cg20288129	purple	3	122,745,632	5'UTR	Island	SEMA5B	0.790	-0.003	0.056	0.738
cg03875450	purple	9	98,269,581	Body	Island	PTCH1	0.790	0.001	0.028	0.564
cg07025343	purple	14	77,606,922	5'UTR	Island	ZDHC22	0.790	-0.001	0.036	0.864
cg22167839	purple	7	35,840,133	TSS1500	Island	7-Sep	0.789	-0.001	0.032	0.793
cg04080595	purple	1	2,985,649	TSS200	Island	PRDM16	0.789	0.000	0.057	0.974
cg08315959	purple	5	98,106,052	5'UTR	Island	RGMB	0.789	0.000	0.037	0.908
cg22717227	purple	10	50,887,568	TSS200	Island	C10orf53	0.788	-0.002	0.029	0.537
cg02888906	purple	11	107,798,972	TSS1500	Island	RAB39	0.788	0.000	0.017	0.975
cg08959992	purple	12	53,846,247	5'UTR	Island	PCBP2	0.788	-0.001	0.044	0.762
cg27369286	purple	16	31,469,821	TSS1500	N_Shore	ARMC5	0.788	0.000	0.017	0.895
cg08115430	purple	7	25,902,329		Island		0.787	0.000	0.026	0.988
cg12464820	purple	22	50,690,166	TSS1500	Island	HDAC10	0.786	0.004	0.157	0.476
cg12596040	purple	1	18,973,183	Body	Island	PAX7	0.786	0.001	0.032	0.690
cg04145065	purple	4	40,057,559	TSS1500	Island	N4BP2	0.786	-0.004	0.027	0.171
cg24996263	purple	1	31,297,444				0.786	0.001	0.053	0.871
cg02583525	purple	2	26,624,612	TSS200	Island	C2orf39	0.786	0.000	0.025	0.754
cg09941381	purple	10	64,027,924	Body	N_Shore	RTKN2	0.785	0.000	0.018	0.821
cg20817150	purple	21	34,776,492	Body	Island	IFNGR2	0.785	-0.004	0.029	0.123
cg09571352	purple	17	34,819,845		Island		0.785	-0.001	0.041	0.776
cg27148665	purple	15	40,697,782	1stExon	Island	IVD	0.785	-0.001	0.012	0.528
cg23434654	purple	5	121,648,409	5'UTR	Island	SNCAIP	0.785	-0.001	0.018	0.283
cg18238491	purple	18	47,901,440	5'UTR	Island	SKA1	0.785	-0.001	0.018	0.195
cg04864149	purple	1	95,006,838	Body	Island	F3	0.784	-0.002	0.042	0.357
cg24106894	purple	15	48,623,432	TSS1500	Island	DUT	0.784	-0.003	0.042	0.565
cg07741775	purple	13	77,900,505	Body	Island	MYCBP2	0.784	0.002	0.030	0.218
cg15889173	purple	1	8,483,390	5'UTR	Island	RERE	0.784	-0.001	0.029	0.535
cg05525867	purple	15	75,661,090	TSS200	S_Shore	MAN2C1	0.783	0.000	0.015	0.820
cg09084877	purple	6	30,181,302	TSS200	Island	TRIM26	0.783	-0.001	0.047	0.813
cg18573544	purple	6	38,608,108	TSS200	Island	BTBD9	0.783	0.000	0.025	0.917
cg08655589	purple	3	14,444,175	5'UTR	Island	SLC6A6	0.783	-0.012	0.098	0.265
cg19463885	purple	2	242,626,846	TSS1500	S_Shore	DTYMK	0.783	-0.001	0.042	0.607
cg21889472	purple	5	42,992,555		Island		0.782	-0.001	0.034	0.596
cg09372755	purple	1	43,919,584	5'UTR	Island	HYI	0.782	-0.004	0.127	0.616
cg11750900	purple	5	174,872,035	TSS1500	Island	DRD1	0.782	-0.001	0.047	0.510
cg08794928	purple	6	144,537,264		Island		0.782	-0.003	0.046	0.463
cg22593533	purple	21	34,397,654	TSS1500	Island	OLIG2	0.782	-0.002	0.038	0.383
cg09947615	purple	4	42,659,549	TSS1500	Island	ATP8A1	0.782	0.001	0.020	0.685
cg06498720	purple	2	73,147,481	Body	Island	EMX1	0.782	-0.001	0.017	0.411
cg05732749	purple	22	42,467,120	TSS1500	Island	NAGA	0.781	-0.001	0.027	0.499
cg06800444	purple	8	38,854,217	TSS200	Island	TM2D2	0.781	-0.002	0.050	0.558
cg09507635	purple	16	756,812	TSS1500	S_Shore	FBXL16	0.781	-0.004	0.035	0.131
cg03392679	purple	3	71,773,917	Body	Island	EIF4E3	0.781	0.002	0.035	0.650
cg04464219	purple	8	98,657,199	Body	Island	MTDH	0.781	0.001	0.057	0.874
cg04219700	purple	1	228,594,657	TSS200	Island	TRIM11	0.781	-0.010	0.065	0.173
cg12700464	purple	11	78,128,424	Body	Island	GAB2	0.781	-0.004	0.043	0.245
cg02985708	purple	6	32,940,921	Body	Island	BRD2	0.781	-0.002	0.021	0.359
cg06753949	purple	19	15,334,309		Island		0.780	-0.006	0.052	0.317
cg01822624	purple	5	32,710,882	TSS1500	Island	NPR3	0.780	-0.001	0.020	0.498
cg04295991	purple	13	21,348,012	5'UTR	Island	N6AMT2	0.780	-0.008	0.094	0.374
cg26557693	purple	7	27,265,159		Island		0.780	-0.005	0.045	0.065
cg02063919	purple	20	50,418,044	Body	Island	SALL4	0.780	-0.008	0.049	0.179
cg01061025	purple	1	212,209,225	TSS1500	Island	INTS7	0.780	-0.001	0.034	0.565
cg16653538	purple	12	100,967,609	5'UTR	Island	GAS2L3	0.780	-0.003	0.035	0.330
cg25026754	purple	15	65,426,128	1stExon	Island	PDCD7	0.780	-0.001	0.038	0.740

cg23368607	purple	19	11,750,621	Island		0.779	-0.001	0.015	0.380
cg13959523	purple	19	34,175,481 5'UTR	Island	CHST8	0.779	0.000	0.027	0.935
cg10369780	purple	11	62,607,119 5'UTR	Island	WDR74	0.779	-0.001	0.033	0.420
cg22796509	purple	3	147,110,295 Body	Island	ZIC4	0.778	-0.004	0.056	0.297
cg26938153	purple	7	137,686,926 TSS200	Island	CREB3L2	0.778	0.000	0.022	0.871
cg00955096	purple	6	125,475,363 Body	Island	TPD52L1	0.778	0.001	0.021	0.699
cg00659495	purple	12	54,520,336 Body	Island	LOC400043	0.777	-0.001	0.028	0.542
cg08809260	purple	2	177,054,140 1stExon	Island	HOXD1	0.777	-0.014	0.088	0.287
cg03351618	purple	2	170,551,124 1stExon	Island	KLHL23	0.777	-0.003	0.044	0.198
cg06899530	purple	1	166,916,866 Body	Island	ILDR2	0.777	-0.001	0.015	0.289
cg15437053	purple	19	34,311,123	Island		0.777	-0.004	0.059	0.487
cg11823214	purple	1	163,291,487 TSS1500	Island	NUF2	0.777	0.000	0.023	0.847
cg05557255	purple	11	2,422,385 TSS1500	Island	TSSC4	0.777	-0.002	0.032	0.547
cg04956913	purple	6	30,712,436 TSS200	Island	IER3	0.776	-0.003	0.051	0.745
cg24669932	purple	1	8,877,431 5'UTR	N_Shore	RERE	0.776	-0.003	0.031	0.232
cg17055717	purple	20	32,700,280 TSS200	Island	EIF2S2	0.776	0.001	0.029	0.513
cg26187219	purple	5	52,095,812 Body	Island	ITGA1	0.776	0.001	0.012	0.383
cg11195494	purple	3	46,923,433 5'UTR	Island	PTH1R	0.776	-0.006	0.081	0.241
cg26315277	purple	11	31,839,549 TSS200	Island	PAX6	0.775	-0.004	0.053	0.281
cg20338600	purple	5	98,110,229 Body	Island	RGMB	0.775	0.001	0.042	0.822
cg26374823	purple	8	15,398,053 1stExon	Island	TUSC3	0.775	-0.009	0.056	0.043
cg05051152	purple	8	124,408,913 TSS1500	Island	ATAD2	0.775	0.000	0.031	0.901
cg12199540	purple	4	111,553,736 Body	Island	PITX2	0.775	-0.007	0.066	0.093
cg09211938	purple	19	36,870,265	Island		0.775	0.000	0.030	0.875
cg03330867	purple	16	1,543,988 5'UTR	Island	TELO2	0.775	-0.002	0.065	0.735
cg03314080	purple	2	178,129,903 TSS1500	S_Shore	NFE2L2	0.774	-0.002	0.041	0.432
cg18068664	purple	4	177,713,244 Body	Island	VEGFC	0.774	0.002	0.041	0.535
cg06650419	purple	1	177,133,946 5'UTR	S_Shore	ASTN1	0.774	-0.001	0.041	0.640
cg10982433	purple	10	16,563,821 5'UTR	Island	C1QL3	0.774	-0.002	0.062	0.432
cg03324837	purple	17	61,044,407	Island		0.774	0.000	0.027	0.981
cg14838017	purple	1	160,232,450 TSS200	Island	DCAF8	0.774	-0.002	0.021	0.352
cg10234952	purple	20	55,926,623 5'UTR	S_Shore	RAE1	0.774	-0.001	0.030	0.444
cg20196543	purple	3	45,730,624 TSS200	Island	SACM1L	0.774	-0.001	0.022	0.487
cg06555478	purple	3	66,023,638 Body	Island	MAGI1	0.774	-0.001	0.028	0.670
cg05978546	purple	5	131,132,739 1stExon	Island	FNIP1	0.774	-0.004	0.053	0.354
cg24121211	purple	4	128,887,195 TSS200	S_Shore	MFSB8	0.774	0.002	0.016	0.169
cg01196404	purple	5	53,606,491 TSS200	Island	ARL15	0.774	-0.001	0.024	0.616
cg25946758	purple	10	60,936,025 TSS1500	Island	PHYHIP1L	0.773	-0.004	0.057	0.437
cg10239816	purple	10	101,190,596 TSS200	Island	GOT1	0.773	-0.005	0.026	0.009
cg07777703	purple	17	40,811,829 Body	S_Shore	TUBG2	0.773	-0.001	0.042	0.533
cg23006223	purple	4	57,843,834 TSS200	Island	C4orf14	0.773	0.000	0.015	0.761
cg26974158	purple	5	118,788,130 TSS200	Island	HSD17B4	0.773	0.000	0.021	0.947
cg23361901	purple	6	4,019,100	Island		0.773	0.000	0.024	0.943
cg13842237	purple	21	47,064,079	Island		0.773	-0.002	0.042	0.411
cg11422045	purple	11	43,701,985 TSS200	N_Shore	HSD17B12	0.773	-0.001	0.035	0.681
cg00080118	purple	6	31,126,173 TSS1500	Island	CCHCR1	0.773	-0.002	0.032	0.732
cg23118730	purple	14	74,706,074 TSS200	N_Shore	VSX2	0.772	-0.001	0.043	0.594
cg26162836	purple	1	160,232,429 TSS200	Island	DCAF8	0.772	-0.001	0.031	0.712
cg13047843	purple	7	101,386,679	Island		0.772	-0.002	0.021	0.296
cg20268522	purple	11	112,832,152 1stExon	N_Shore	NCAM1	0.772	-0.002	0.033	0.221
cg18451983	purple	6	139,695,471 TSS200	Island	CITED2	0.771	-0.004	0.030	0.160
cg14884793	purple	13	109,148,553	Island		0.771	-0.002	0.028	0.452
cg11392995	purple	6	30,640,372 Body	N_Shore	DHX16	0.771	-0.001	0.044	0.553
cg24848535	purple	16	87,417,581 Body	Island	FBXO31	0.771	-0.005	0.086	0.190
cg01755369	purple	19	10,764,728 TSS1500	Island	ILF3	0.771	0.000	0.017	0.987
cg13634736	purple	11	3,181,575 5'UTR	Island	OSBPL5	0.771	0.000	0.056	0.947
cg13104704	purple	22	24,192,004	S_Shore		0.771	-0.004	0.031	0.156
cg03295098	purple	1	46,152,002 5'UTR	Island	GPBP1L1	0.771	-0.002	0.031	0.232
cg18521914	purple	10	50,887,566 TSS200	Island	C10orf53	0.770	0.000	0.033	0.975
cg11712217	purple	17	80,455,631	Island		0.770	-0.006	0.051	0.090
cg19938277	purple	8	17,942,446 1stExon	Island	ASAH1	0.770	-0.001	0.048	0.766
cg12482557	purple	8	6,693,103 1stExon	Island	XKR5	0.770	-0.008	0.077	0.536
cg00582820	purple	3	125,314,599 TSS1500	Island	OSBPL11	0.769	0.000	0.030	0.978
cg08610361	purple	12	77,459,885 TSS1500	Island	E2F7	0.769	-0.001	0.038	0.711
cg01840575	purple	2	38,977,957 Body	Island	SFRS7	0.769	-0.009	0.111	0.515
cg06067302	purple	22	40,766,481 TSS200	Island	SGSM3	0.769	-0.002	0.020	0.446
cg20791839	purple	3	53,926,047 TSS200	Island	SELK	0.769	0.001	0.046	0.908

cg21080336	purple	6	10,426,657	S_Shore		0.769	-0.001	0.028	0.597
cg27084994	purple	5	175,875,161 TSS200	Island	FAF2	0.769	-0.002	0.040	0.416
cg14036868	purple	2	38,604,442 TSS200	Island	ATL2	0.769	-0.004	0.055	0.637
cg24622726	purple	9	91,926,624 Body	Island	CKS2	0.769	0.001	0.021	0.461
cg03951132	purple	20	5,931,305 5'UTR	Island	MCM8	0.769	-0.004	0.040	0.421
cg13463731	purple	15	40,698,367 Body	Island	IVD	0.768	0.001	0.030	0.307
cg17424056	purple	11	46,615,413	Island		0.768	-0.001	0.027	0.708
cg00657871	purple	1	85,156,634 TSS1500	S_Shore	SSX2IP	0.768	-0.001	0.024	0.806
cg04122974	purple	22	39,916,495 TSS200	Island	ATF4	0.768	0.000	0.018	0.941
cg07222113	purple	8	104,427,719 1stExon	Island	DCAF13	0.768	-0.001	0.019	0.332
cg18042229	purple	2	219,922,729 Body	Island	IHH	0.767	-0.004	0.053	0.256
cg06660523	purple	4	30,722,152 1stExon	Island	PCDH7	0.767	0.003	0.040	0.456
cg03671660	purple	21	40,554,907 Body	Island	PSMG1	0.767	-0.003	0.028	0.480
cg19859486	purple	3	45,730,655 TSS200	Island	SACM1L	0.767	-0.005	0.027	0.328
cg24356797	purple	19	18,682,387 TSS1500	Island	UBA52	0.767	0.000	0.039	0.978
cg19312935	purple	22	42,017,417 TSS1500	Island	PPPDE2	0.766	0.000	0.019	0.750
cg18888520	purple	19	58,609,806 Body	Island	ZSCAN18	0.766	-0.003	0.038	0.225
cg27631427	purple	18	47,088,306 TSS200	Island	LIPG	0.766	0.001	0.031	0.654
cg00292047	purple	11	33,279,899 5'UTR	Island	HIPK3	0.766	-0.008	0.066	0.178
cg21433329	purple	20	49,574,938 1stExon	Island	DPM1	0.766	0.001	0.019	0.602
cg15088679	purple	1	182,573,748 TSS1500	Island	RGS16	0.766	-0.004	0.052	0.138
cg13808508	purple	9	94,187,090 TSS1500	Island	NFIL3	0.766	-0.001	0.022	0.714
cg06829134	purple	5	148,651,771 Body	Island	AFAP111	0.766	0.001	0.030	0.658
cg25309017	purple	5	128,796,266 Body	Island	ADAMTS19	0.766	0.000	0.039	0.800
cg06858294	purple	17	7,983,203 Body	Island	ALOX12B	0.766	-0.003	0.053	0.387
cg01618834	purple	6	31,633,788 1stExon	Island	CSNK2B	0.765	-0.002	0.042	0.393
cg07639650	purple	1	113,051,090 Body	Island	WNT2B	0.765	-0.001	0.031	0.389
cg27210766	purple	2	111,435,943 TSS1500	N_Shore	BUB1	0.765	0.000	0.015	0.706
cg14361085	purple	14	24,712,073 TSS200	S_Shore	TINF2	0.765	0.000	0.022	0.771
cg00902195	purple	12	33,592,500 1stExon	Island	SYT10	0.765	-0.002	0.042	0.372
cg02495519	purple	16	20,911,570 TSS200	Island	DCUN1D3	0.765	-0.001	0.056	0.885
cg07093942	purple	16	68,278,871 TSS1500	Island	PLA2G15	0.765	-0.005	0.064	0.350
cg17591343	purple	1	93,646,016 1stExon	Island	TMED5	0.765	-0.002	0.031	0.400
cg23959009	purple	4	83,352,458 Body	Island	ENOPH1	0.765	-0.002	0.044	0.490
cg14187685	purple	3	196,669,272 Body	Island	NCBP2	0.764	-0.007	0.061	0.249
cg03074175	purple	12	49,351,458 TSS1500	S_Shore	ARF3	0.764	-0.002	0.037	0.290
cg03786924	purple	6	73,331,680 1stExon	Island	KCNQ5	0.764	-0.001	0.026	0.502
cg20731804	purple	6	42,858,765 TSS1500	Island	C6orf226	0.764	-0.001	0.019	0.657
cg02148421	purple	22	37,595,162	Island		0.764	-0.005	0.042	0.128
cg04575467	purple	8	41,997,444	Island		0.764	-0.001	0.022	0.470
cg27259271	purple	1	243,646,395 Body	Island	SDCCAG8	0.764	0.000	0.022	0.990
cg16232504	purple	1	99,127,707 Body	Island	SNX7	0.764	-0.013	0.066	0.177
cg25563616	purple	16	8,962,190 1stExon	Island	CARHSP1	0.764	-0.004	0.036	0.196
cg01245787	purple	4	71,859,630 1stExon	Island	DCK	0.764	-0.009	0.071	0.358
cg14276619	purple	12	117,319,577 TSS1500	N_Shore	HRK	0.764	-0.001	0.059	0.720
cg17277529	purple	11	69,633,959 1stExon	Island	FGF3	0.764	-0.001	0.020	0.484
cg08733960	purple	6	52,529,248 Body	Island	LOC730101	0.764	-0.001	0.053	0.680
cg00321931	purple	4	174,255,552 TSS1500	Island	HMG2	0.763	-0.001	0.039	0.593
cg13683040	purple	9	37,035,766 TSS1500	Island	PAX5	0.763	0.001	0.031	0.563
cg18695917	purple	4	163,085,342 TSS200		FSTL5	0.763	0.000	0.020	0.724
cg03789420	purple	1	159,141,717 Body	Island	CADM3	0.763	0.000	0.036	0.981
cg13217206	purple	1	149,815,040 TSS1500	Island	HIST2H2AA3	0.763	-0.002	0.027	0.410
cg04034539	purple	11	62,439,802 TSS1500	Island	C11orf48	0.763	-0.002	0.051	0.552
cg04757074	purple	12	67,663,012 TSS200	N_Shore	CAND1	0.763	-0.001	0.021	0.448
cg25902627	purple	11	88,071,152 TSS1500	S_Shore	CTSC	0.763	-0.001	0.024	0.590
cg18345226	purple	10	131,909,183	Island		0.763	0.000	0.047	0.955
cg05337222	purple	19	12,751,094	Island		0.763	-0.007	0.073	0.209
cg23553385	purple	2	163,175,143 TSS200		IFIH1	0.763	0.001	0.041	0.463
cg18877506	purple	1	13,910,555 TSS1500	Island	PDPN	0.763	0.000	0.015	0.841
cg15380657	purple	11	69,633,001 Body	Island	FGF3	0.762	-0.002	0.043	0.311
cg08643953	purple	3	132,379,052 5'UTR	N_Shore	UBA5	0.762	-0.003	0.044	0.218
cg10392378	purple	6	90,348,606 TSS1500	S_Shore	LYRM2	0.762	-0.001	0.020	0.528
cg08027110	purple	12	57,082,200 TSS200	Island	PTGES3	0.762	-0.001	0.015	0.465
cg08522107	purple	5	178,487,123 TSS1500	N_Shore	ZNF354C	0.762	0.000	0.010	0.844
cg25230151	purple	11	35,441,107 TSS200	Island	SLC1A2	0.762	0.000	0.017	0.649
cg23542284	purple	19	19,314,328 TSS200	Island	NR2C2AP	0.762	-0.003	0.034	0.287
cg12594716	purple	6	108,479,070	Island		0.762	-0.001	0.020	0.343



cg19011063	purple	5	170,171,465	Island		0.762	-0.002	0.018	0.327
cg03780073	purple	15	48,624,255 TSS200	Island	DUT	0.762	0.000	0.021	0.825
cg01010781	purple	7	44,622,047 TSS1500	Island	TMED4	0.762	-0.002	0.027	0.522
cg08732611	purple	1	40,723,530 TSS1500	Island	ZMPSTE24	0.762	0.000	0.014	0.593
cg04887335	purple	3	196,044,632 Body	Island	TCTEX1D2	0.761	-0.011	0.085	0.303
cg19929624	purple	18	11,851,551 Body	Island	GNAL	0.761	-0.001	0.027	0.446
cg13694772	purple	3	9,773,336 TSS200	Island	BRPF1	0.761	-0.004	0.039	0.229
cg06880557	purple	13	103,425,546 5'UTR	Island	C13orf27	0.761	0.000	0.022	0.897
cg12643366	purple	6	31,783,377 1stExon	Island	HSPA1A	0.761	-0.004	0.047	0.464
cg20829347	purple	13	112,720,927 TSS1500	Island	SOX1	0.761	-0.007	0.055	0.105
cg14634247	purple	11	107,728,952 Body	Island	SLC35F2	0.761	-0.008	0.069	0.231
cg06652315	purple	3	69,591,012	Island		0.761	-0.002	0.050	0.215
cg19789848	purple	17	30,454,741			0.761	-0.001	0.014	0.267
cg10586510	purple	7	128,829,365 Body	Island	SMO	0.761	-0.002	0.066	0.542
cg03218988	purple	11	62,341,521 TSS200	Island	EEF1G	0.761	-0.001	0.026	0.683
cg04337096	purple	5	146,257,347 Body	Island	PPP2R2B	0.760	0.001	0.041	0.719
cg03482029	purple	4	6,642,442 TSS200	Island	MRFAP1	0.760	0.001	0.031	0.612
cg02688760	purple	1	182,573,731 TSS200	Island	RGS16	0.760	-0.001	0.037	0.586
cg23271606	purple	7	92,464,891 5'UTR	Island	CDK6	0.760	-0.006	0.047	0.082
cg15838288	purple	1	228,225,687 Body	Island	WNT3A	0.760	-0.004	0.034	0.343
cg21618713	purple	4	153,701,330 1stExon	Island	ARFIP1	0.760	0.000	0.042	0.970
cg12460105	purple	5	68,665,773 5'UTR	Island	RAD17	0.759	-0.002	0.027	0.297
cg21522303	purple	17	74,581,331 Body	Island	ST6GALNAC2	0.759	-0.004	0.033	0.152
cg19767650	purple	1	183,605,181 TSS200	Island	ARPCS	0.759	0.000	0.028	0.881
cg22586653	purple	12	115,136,098	Island		0.758	0.000	0.027	0.855
cg17488985	purple	6	86,159,426 1stExon	Island	NT5E	0.758	-0.001	0.024	0.645
cg01533965	purple	7	1,281,585	Island		0.758	0.000	0.020	0.997
cg06080688	purple	4	143,767,424 1stExon	Island	INPP4B	0.758	0.001	0.033	0.806
cg10620501	purple	8	37,620,046 TSS200	Island	PROSC	0.758	-0.004	0.083	0.688
cg08293367	purple	22	22,089,752 5'UTR	Island	YPEL1	0.758	0.002	0.022	0.319
cg02759005	purple	3	53,925,912 1stExon	Island	SELK	0.758	-0.005	0.053	0.521
cg25097436	purple	14	60,336,972 Body	Island	RTN1	0.758	-0.004	0.031	0.198
cg10969205	purple	3	45,730,616 TSS200	Island	SACM1L	0.758	-0.001	0.024	0.573
cg22111723	purple	13	21,872,664	Island		0.758	-0.001	0.036	0.728
cg14951864	purple	10	102,499,629	Island		0.757	-0.008	0.058	0.197
cg16861047	purple	1	116,518,978 TSS200	Island	SLC22A15	0.757	-0.004	0.039	0.155
cg06543087	purple	1	108,508,548 TSS1500	S_Shore	VAV3	0.757	0.000	0.015	0.856
cg22364262	purple	4	142,558,129 5'UTR	Island	IL15	0.757	0.000	0.041	0.817
cg24909975	purple	6	160,147,912 TSS1500	Island	WTAP	0.757	-0.002	0.063	0.770
cg10313675	purple	1	209,957,739 5'UTR	Island	C1orf74	0.757	-0.001	0.033	0.335
cg09358454	purple	2	157,198,726	Island		0.757	-0.001	0.029	0.742
cg00736523	purple	9	32,783,202 TSS1500	Island	TMEM215	0.757	-0.008	0.079	0.274
cg26057953	purple	4	159,593,173 1stExon	Island	C4orf46	0.757	-0.001	0.015	0.311
cg00303293	purple	11	95,976,375 Body		MAML2	0.756	0.001	0.031	0.616
cg18094907	purple	9	126,778,017 Body	Island	LHX2	0.756	-0.010	0.082	0.080
cg03101422	purple	2	136,876,737 TSS1500	Island	CXCR4	0.756	-0.001	0.017	0.281
cg19853927	purple	3	153,839,743 5'UTR	Island	SGEF	0.756	-0.005	0.031	0.382
cg00910297	purple	9	35,732,756 1stExon	Island	CREB3	0.756	-0.002	0.056	0.475
cg00166327	purple	13	73,356,072 TSS200	Island	PIBF1	0.756	-0.001	0.022	0.459
cg01532694	purple	8	8,243,576	Island		0.756	-0.005	0.032	0.325
cg07897690	purple	2	200,328,645	Island		0.756	-0.001	0.034	0.866
cg02967959	purple	6	33,168,311 TSS1500	Island	SLC39A7	0.755	-0.002	0.042	0.305
cg23866755	purple	17	40,119,337 Body	N_Shore	CNP	0.755	-0.001	0.015	0.477
cg02202141	purple	3	35,681,158	Island		0.755	-0.003	0.039	0.204
cg11510825	purple	16	65,154,657 5'UTR	Island	CDH11	0.755	-0.002	0.052	0.487
cg17537252	purple	3	56,836,203 Body	Island	ARHGEF3	0.755	-0.002	0.046	0.438
cg18649228	purple	12	88,536,138 1stExon	Island	TMTC3	0.755	0.000	0.018	0.655
cg00556719	purple	9	108,457,484 Body	Island	TMEM38B	0.755	-0.002	0.047	0.303
cg18588934	purple	9	132,083,215 TSS200	Island	C9orf106	0.755	0.000	0.010	0.805
cg27095910	purple	17	33,905,781 TSS200	S_Shore	PEX12	0.754	-0.002	0.036	0.252
cg24497186	purple	8	48,100,170	Island		0.754	-0.001	0.026	0.517
cg04207413	purple	10	126,431,523 5'UTR	Island	FAM53B	0.754	-0.001	0.043	0.341
cg03226000	purple	16	55,690,378 TSS200	Island	SLC6A2	0.754	-0.002	0.030	0.499
cg02093647	purple	2	148,602,395 TSS200	Island	ACVR2A	0.754	0.000	0.040	0.827
cg09675653	purple	1	247,242,103 TSS200	Island	ZNF670	0.754	0.000	0.027	0.913
cg01691768	purple	8	80,525,126 Body	Island	STMN2	0.754	0.000	0.058	0.947
cg05306040	purple	4	78,979,207 1stExon	Island	FRAS1	0.754	-0.001	0.024	0.652

cg08357601	purple	4	71,554,472	1stExon	Island	UTP3	0.754	0.000	0.012	0.767
cg07425985	purple	17	4,167,409	TSS200	S_Shore	ANKFY1	0.754	0.000	0.017	0.869
cg19638845	purple	2	207,024,250	TSS200	Island	EEF1B2	0.754	0.001	0.037	0.801
cg22702784	purple	2	26,100,814	Body	Island	ASXL2	0.754	-0.004	0.026	0.378
cg12759353	purple	7	151,573,694	1stExon	Island	PRKAG2	0.754	-0.003	0.042	0.254
cg24432048	purple	1	3,827,651	Body	S_Shelf	LOC10013361	0.753	-0.001	0.022	0.398
cg12391087	purple	1	244,012,456		N_Shore		0.753	-0.002	0.033	0.343
cg04966789	purple	14	35,591,779	TSS1500	Island	PPP2R3C	0.753	-0.001	0.025	0.697
cg21497607	purple	2	74,425,593	TSS200	Island	MTHFD2	0.753	0.000	0.029	0.855
cg15676226	purple	10	126,849,624	TSS200	Island	CTBP2	0.753	0.000	0.023	0.839
cg00636124	purple	16	27,215,281	5'UTR	Island	JMJD5	0.753	0.000	0.057	0.972
cg09742170	purple	7	25,021,208	TSS1500	Island	OSBPL3	0.753	0.002	0.056	0.496
cg12407459	purple	11	125,035,564	5'UTR	Island	PKNOX2	0.753	-0.005	0.043	0.108
cg14369405	purple	18	32,556,760	TSS200	Island	MAPRE2	0.753	-0.007	0.064	0.274
cg00215350	purple	17	6,555,120	5'UTR	Island	C17orf100	0.753	-0.002	0.045	0.356
cg18685883	purple	3	51,705,045	TSS200	N_Shore	TEX264	0.753	-0.002	0.037	0.581
cg00965391	purple	11	92,930,777	Body	Island	SLC36A4	0.752	0.000	0.016	0.981
cg24869195	purple	3	197,282,220	5'UTR	Island	BDH1	0.752	-0.001	0.016	0.314
cg01606576	purple	14	50,065,185	TSS1500	Island	PPIL5	0.752	-0.002	0.022	0.447
cg07647822	purple	3	24,537,349	TSS1500	Island	THRB	0.752	-0.002	0.032	0.526
cg18332849	purple	19	45,682,064	1stExon	Island	BLOC153	0.752	0.000	0.014	0.578
cg13779907	purple	1	38,230,073	Body	Island	EPHA10	0.752	-0.005	0.054	0.284
cg22564317	purple	10	89,622,470	TSS1500	Island	PTEN	0.752	-0.003	0.032	0.121
cg00106250	purple	2	232,329,963	TSS1500	Island	NCL	0.751	-0.002	0.038	0.447
cg09387687	purple	3	110,791,400	Body	Island	PVRL3	0.751	-0.002	0.025	0.368
cg02694091	purple	17	7,184,589	TSS1500	Island	SLC2A4	0.751	0.001	0.026	0.618
cg13549897	purple	1	70,820,344	TSS200	Island	HHLA3	0.751	0.001	0.015	0.688
cg14036495	purple	12	52,431,508		Island		0.751	-0.004	0.049	0.277
cg01540571	purple	1	15,911,089	Body	Island	AGMAT	0.751	0.000	0.031	0.943
cg12685846	purple	15	30,114,814	TSS200	Island	TJP1	0.751	0.000	0.013	0.776
cg25352856	purple	1	180,472,145	TSS200	Island	ACBD6	0.751	-0.002	0.018	0.340
cg15503663	purple	19	10,713,540	Body	Island	SLC44A2	0.751	0.000	0.014	0.730
cg17000044	purple	17	39,891,032	TSS200	Island	HAP1	0.751	-0.006	0.061	0.208
cg11639692	purple	3	42,543,933	TSS200	Island	VIPR1	0.750	-0.001	0.034	0.674
cg07031532	purple	15	64,995,684	TSS1500	Island	OAZ2	0.750	-0.002	0.039	0.554
cg21549639	purple	19	45,394,156	TSS1500	Island	TOMM40	0.750	-0.011	0.053	0.168
cg26736450	purple	2	63,278,211	5'UTR	Island	OTX1	0.750	0.000	0.012	0.677
cg18229647	purple	19	44,123,486	5'UTR	Island	ZNF428	0.750	-0.001	0.054	0.673
cg06671450	purple	9	36,985,987	Body	Island	PAX5	0.750	-0.001	0.049	0.766
cg23374762	purple	18	54,305,440	Body	Island	TXNL1	0.750	0.000	0.028	0.856
cg05091519	purple	11	31,839,552	TSS200	Island	PAX6	0.750	0.000	0.016	0.907
cg26421572	purple	7	104,653,332	TSS1500	Island	MLL5	0.750	-0.002	0.030	0.460
cg14804635	purple	15	75,747,750	5'UTR	Island	SIN3A	0.750	-0.007	0.051	0.282
cg11175310	purple	10	16,859,107	5'UTR	Island	RSU1	0.749	-0.001	0.014	0.365
cg04239375	purple	9	107,526,778	Body	Island	NIPSNAP3B	0.749	-0.003	0.040	0.212
cg05845928	purple	17	6,458,752	Body	N_Shore	PITPNM3	0.749	0.000	0.038	0.901
cg04620101	purple	15	101,835,123	Body	Island	SNRPA1	0.749	-0.004	0.061	0.556
cg14941291	purple	2	176,952,930		Island		0.749	-0.008	0.098	0.554
cg10922163	purple	9	34,611,951	1stExon	Island	C9orf23	0.749	-0.003	0.031	0.048
cg09771049	purple	17	66,031,798	TSS200	Island	KPNA2	0.749	-0.007	0.066	0.428
cg03116148	purple	7	99,070,787	5'UTR	Island	ZNF789	0.748	-0.003	0.036	0.260
cg22311942	purple	17	73,201,390	TSS1500	Island	NUP85	0.748	-0.001	0.021	0.359
cg26842315	purple	11	66,036,614	Body	Island	RAB1B	0.748	-0.002	0.040	0.513
cg20966551	purple	19	12,949,060	TSS200	N_Shore	MAST1	0.748	0.001	0.033	0.753
cg05479196	purple	11	64,513,056	TSS1500	Island	RASGRP2	0.748	-0.001	0.025	0.546
cg00994924	purple	20	25,388,641	Body	Island	GINS1	0.748	0.000	0.009	0.713
cg09193981	purple	12	6,644,606	Body	Island	GAPDH	0.747	-0.001	0.032	0.580
cg02653800	purple	10	60,095,305	Body	Island	UBE2D1	0.747	-0.001	0.031	0.849
cg05965414	purple	2	217,236,799	TSS200	Island	4-Mar	0.747	0.001	0.036	0.795
cg18247126	purple	11	121,163,951	5'UTR	Island	SC5DL	0.747	-0.002	0.053	0.372
cg12492504	purple	7	26,416,890		Island		0.747	-0.002	0.053	0.433
cg04690289	purple	3	45,017,999	TSS1500	Island	ZDHHC3	0.747	-0.002	0.026	0.655
cg02311432	purple	11	115,530,304		Island		0.747	-0.001	0.022	0.458
cg10064886	purple	14	58,764,945	TSS200	Island	FLJ31306	0.747	0.000	0.014	0.775
cg00176709	purple	6	85,483,334		Island		0.747	-0.001	0.033	0.604
cg27656614	purple	16	81,479,309	Body	Island	CMIP	0.747	-0.002	0.026	0.443
cg14246617	purple	3	69,788,840	1stExon	Island	MITF	0.747	-0.003	0.026	0.375

cg06250734	purple	16	46,723,432	TSS200	Island	ORC6L	0.747	-0.003	0.041	0.254
cg03183872	purple	20	3,140,552	TSS200	Island	FASTKD5	0.747	-0.016	0.098	0.223
cg15243474	purple	11	134,282,918	TSS1500	Island	B3GAT1	0.747	-0.005	0.062	0.296
cg12896751	purple	2	97,536,137	TSS1500	Island	SEMA4C	0.746	-0.002	0.029	0.194
cg25858682	purple	3	48,481,793	Body	Island	CCDC72	0.746	0.000	0.027	0.937
cg08554462	purple	18	60,986,911	TSS1500	Island	BCL2	0.746	-0.001	0.021	0.649
cg20549080	purple	10	103,892,662	TSS200	Island	PPRC1	0.746	-0.001	0.015	0.396
cg03101849	purple	4	16,084,682	5'UTR	Island	PROM1	0.746	0.000	0.024	0.898
cg08013270	purple	2	73,145,744	Body	Island	EMX1	0.746	-0.002	0.044	0.344
cg22322834	purple	12	50,135,138	TSS200	Island	TMBIM6	0.746	0.003	0.037	0.560
cg03698980	purple	4	153,457,736		Island		0.746	0.001	0.022	0.625
cg05637795	purple	15	72,978,746	TSS1500	Island	HIGD2B	0.746	0.000	0.020	0.946
cg11310299	purple	12	14,923,421		Island		0.746	0.000	0.010	0.967
cg24802241	purple	5	137,673,902	5'UTR	Island	FAM53C	0.745	0.000	0.013	0.907
cg15123573	purple	5	176,827,082		Island		0.745	-0.002	0.057	0.672
cg18663325	purple	6	4,021,670	1stExon	Island	PRPF4B	0.745	0.002	0.030	0.274
cg04022019	purple	8	104,427,717	1stExon	Island	DCAF13	0.745	-0.001	0.017	0.728
cg16196984	purple	11	119,455,341		Island		0.745	-0.001	0.020	0.554
cg18420643	purple	8	10,590,503		Island		0.745	-0.003	0.044	0.231
cg18881776	purple	1	28,052,146	TSS1500	Island	FAM76A	0.745	-0.004	0.049	0.477
cg00335712	purple	4	94,749,865	TSS1500	Island	ATO1H1	0.744	0.000	0.016	0.492
cg15147060	purple	3	88,108,213	TSS200	Island	CGGBP1	0.744	0.000	0.033	0.864
cg23556447	purple	6	90,529,595	TSS200	Island	MDN1	0.744	-0.006	0.037	0.181
cg12416259	purple	10	60,028,969	1stExon	Island	CISD1	0.744	-0.005	0.042	0.372
cg16993440	purple	5	80,597,283	Body	N_Shore	RNU5E	0.744	0.000	0.015	0.990
cg22307009	purple	19	48,018,781	TSS1500	Island	NAPA	0.743	-0.001	0.020	0.593
cg11688219	purple	1	6,684,919	TSS1500	N_Shore	THAP3	0.743	0.000	0.013	0.728
cg05655837	purple	6	166,582,188	TSS200	Island	T	0.743	-0.001	0.027	0.546
cg13937841	purple	10	28,821,190	TSS1500	Island	WAC	0.743	-0.002	0.027	0.199
cg21589280	purple	1	85,930,151	Body	Island	DDAH1	0.743	-0.001	0.043	0.873
cg16203711	purple	3	169,491,183	1stExon	Island	MYNN	0.742	-0.002	0.025	0.599
cg04628413	purple	16	28,962,222	TSS200	Island	NFATC2IP	0.742	-0.005	0.038	0.336
cg01711272	purple	12	56,122,120	Body	Island	CD63	0.742	-0.003	0.067	0.627
cg12289509	purple	6	112,408,513	Body	Island	TUBE1	0.742	0.003	0.124	0.424
cg13874466	purple	3	55,521,431	TSS200	Island	WNT5A	0.742	0.001	0.015	0.197
cg07254032	purple	5	45,695,839	1stExon	Island	HCN1	0.742	-0.003	0.076	0.388
cg13425677	purple	5	56,112,090	Body	Island	MAP3K1	0.742	-0.006	0.076	0.486
cg08522257	purple	3	152,879,782	TSS1500	Island	RAP2B	0.742	0.000	0.032	0.869
cg18164599	purple	4	175,443,867	TSS200	S_Shore	HPGD	0.742	-0.001	0.024	0.369
cg03373442	purple	13	31,736,396	TSS1500	Island	HSPH1	0.742	-0.001	0.019	0.283
cg10239388	purple	7	70,596,308	TSS1500	Island	VBSCR17	0.741	-0.002	0.057	0.516
cg00873850	purple	4	55,099,837	5'UTR	Island	PDGFRA	0.741	-0.002	0.033	0.377
cg21740146	purple	1	247,171,252	1stExon	Island	ZNF695	0.741	-0.002	0.031	0.704
cg09888721	purple	21	40,178,652	5'UTR	Island	ETS2	0.741	-0.002	0.038	0.317
cg22604636	purple	4	94,750,704	1stExon	Island	ATO1H1	0.741	-0.005	0.076	0.512
cg07236424	purple	22	39,715,474	TSS1500	Island	SNORD43	0.741	-0.003	0.037	0.230
cg22865582	purple	19	19,843,456	Body	N_Shore	ZNF14	0.741	-0.002	0.014	0.102
cg13934093	purple	19	4,458,039	TSS1500	Island	UBXN6	0.741	0.000	0.026	0.830
cg27150186	purple	21	26,979,856	TSS200	Island	MRPL39	0.741	-0.001	0.020	0.498
cg09218130	purple	12	132,413,611	TSS200	Island	PUS1	0.741	-0.004	0.038	0.038
cg07970734	purple	20	61,557,028	5'UTR	Island	DIDO1	0.741	-0.003	0.023	0.043
cg11920122	purple	18	11,751,556	TSS200	Island	GNAL	0.741	-0.002	0.043	0.583
cg05213609	purple	16	51,185,407	TSS1500	Island	SALL1	0.741	-0.001	0.041	0.761
cg24503272	purple	6	160,210,831	TSS1500	Island	MRPL18	0.740	-0.003	0.046	0.739
cg11014794	purple	10	93,999,688	Body	Island	CPEB3	0.740	-0.005	0.093	0.577
cg02127607	purple	17	61,920,694	TSS1500	S_Shore	SMARCD2	0.740	-0.001	0.024	0.730
cg22018784	purple	9	98,079,448	5'UTR	Island	FANCC	0.740	-0.003	0.034	0.047
cg06942064	purple	1	208,417,143	5'UTR	Island	PLXNA2	0.740	-0.003	0.048	0.516
cg25587211	purple	3	43,663,662	TSS200	Island	ANO10	0.740	-0.003	0.029	0.615
cg18633432	purple	3	135,915,556	TSS1500	Island	MSL2	0.740	-0.003	0.027	0.415
cg12378831	purple	13	46,626,792	5'UTR	Island	ZC3H13	0.740	0.000	0.016	0.704
cg16238918	purple	18	78,004,303	Body	Island	PARF6G	0.740	-0.012	0.102	0.490
cg14654194	purple	1	38,156,235	TSS200	Island	C1orf109	0.740	0.001	0.015	0.466
cg15937174	purple	5	153,857,822	1stExon	Island	HAND1	0.740	-0.001	0.014	0.305
cg04853843	purple	16	55,358,461	TSS200	Island	IRX6	0.740	0.000	0.063	0.954
cg04381122	purple	14	59,655,332	TSS200	Island	DAAM1	0.739	0.000	0.033	0.842
cg05227078	purple	2	72,372,426	Body	Island	CYP26B1	0.739	-0.001	0.048	0.618

cg04847817	purple	22	28,315,981	TSS1500	S_Shore	PITPNB	0.739	-0.001	0.017	0.597
cg14860397	purple	11	75,917,982	TSS1500	N_Shore	WNT11	0.739	0.001	0.028	0.456
cg08252387	purple	5	87,970,950	Body	Island	LOC645323	0.739	-0.002	0.036	0.385
cg08962087	purple	13	29,107,120		Island		0.739	0.000	0.028	0.984
cg27480377	purple	3	197,518,634	Body	Island	LRCH3	0.739	-0.002	0.059	0.554
cg23570261	purple	2	128,284,252	TSS200	Island	IWS1	0.739	0.000	0.010	0.928
cg13752043	purple	9	131,644,109	TSS1500	Island	LRRC8A	0.739	-0.001	0.019	0.626
cg00125159	purple	1	228,290,140	Body	Island	C1orf35	0.738	-0.006	0.062	0.568
cg06540096	purple	19	12,992,349	TSS200	Island	DNASE2	0.738	-0.001	0.038	0.507
cg09805943	purple	6	69,345,293	TSS1500	Island	BAI3	0.738	-0.001	0.047	0.512
cg16626387	purple	9	98,268,788	5'UTR	Island	PTCH1	0.738	0.000	0.019	0.849
cg20387258	purple	15	96,960,392		Island		0.738	-0.002	0.034	0.339
cg01106338	purple	18	44,790,514		Island		0.738	-0.004	0.038	0.335
cg04888085	purple	15	39,872,772	TSS1500	Island	THBS1	0.738	0.000	0.018	0.555
cg21091227	purple	18	4,454,304		Island		0.738	-0.001	0.032	0.606
cg05057014	purple	6	30,034,882	TSS200	N_Shelf	PPP1R11	0.738	-0.002	0.089	0.454
cg03801946	purple	16	4,303,664		Island		0.738	0.001	0.029	0.660
cg25390476	purple	20	32,398,948	TSS200	N_Shore	CHMP4B	0.738	0.000	0.021	0.564
cg11862642	purple	11	79,148,370	5'UTR	Island	ODZ4	0.738	-0.001	0.018	0.563
cg26910488	purple	17	66,243,590	TSS1500	Island	AMZ2	0.737	-0.006	0.056	0.273
cg15311711	purple	16	23,194,674	5'UTR	Island	SCNN1G	0.737	-0.001	0.047	0.625
cg19568834	purple	20	34,252,926	TSS200	Island	CPNE1	0.737	-0.002	0.030	0.659
cg19720917	purple	19	36,606,221	TSS200	Island	POLR2I	0.737	-0.001	0.021	0.612
cg02343318	purple	19	37,329,498	TSS1500	Island	ZNF790	0.737	0.000	0.022	0.892
cg04488215	purple	1	174,968,829	TSS200	Island	CACYBP	0.737	0.000	0.020	0.919
cg09163958	purple	1	213,123,886	1stExon	Island	VASH2	0.737	-0.001	0.029	0.754
cg26872706	purple	19	12,551,931	TSS200	S_Shore	ZNF443	0.737	-0.009	0.082	0.071
cg12018042	purple	14	57,735,703	5'UTR	Island	MUDENG	0.737	0.001	0.036	0.632
cg02097190	purple	1	113,392,116		N_Shore		0.737	0.000	0.040	0.893
cg00031759	purple	13	32,889,534	TSS200	Island	BRCA2	0.736	-0.001	0.036	0.612
cg05731183	purple	15	68,132,796		Island		0.736	0.000	0.016	0.849
cg20402064	purple	2	73,441,244	TSS200	N_Shore	SMYD5	0.736	0.000	0.042	0.825
cg25033990	purple	17	32,484,014	TSS200	Island	ACCN1	0.736	0.000	0.030	0.976
cg15883451	purple	12	49,075,826	5'UTR	Island	C12orf41	0.736	-0.001	0.024	0.483
cg03511749	purple	4	155,412,536	5'UTR	Island	DCHS2	0.736	-0.002	0.043	0.297
cg11123972	purple	11	68,228,042	TSS200	Island	SAPS3	0.736	-0.003	0.032	0.563
cg20176875	purple	6	166,797,125	TSS1500	Island	BRP44L	0.736	-0.001	0.032	0.666
cg15379185	purple	7	27,282,987	1stExon	Island	EVX1	0.736	-0.001	0.025	0.671
cg24864511	purple	1	6,480,516	TSS1500	Island	HES2	0.736	-0.001	0.017	0.171
cg07910986	purple	7	45,961,311	TSS1500	Island	IGFBP3	0.736	-0.002	0.026	0.426
cg06215569	purple	1	110,611,465	Body	Island	ALX3	0.736	-0.002	0.016	0.155
cg06339248	purple	11	57,435,803	5'UTR	Island	ZDHHC5	0.736	-0.003	0.068	0.687
cg03237606	purple	10	63,212,265	Body	N_Shore	TMEM26	0.736	-0.001	0.032	0.599
cg08300346	purple	11	113,932,106	5'UTR	Island	ZBTB16	0.736	0.000	0.035	0.911
cg08452546	purple	5	118,323,860	Body	Island	DTWD2	0.735	-0.001	0.020	0.662
cg26188571	purple	5	179,050,811	TSS200	Island	HNRNP11	0.735	-0.004	0.034	0.314
cg03816687	purple	20	21,683,745		Island		0.735	0.000	0.022	0.863
cg18912981	purple	7	7,222,021	TSS1500	Island	C1GALT1	0.735	0.002	0.025	0.331
cg14735242	purple	2	64,371,651	TSS200	Island	PELI1	0.735	0.000	0.025	0.839
cg27566858	purple	1	208,084,099	Body	Island	CD34	0.735	-0.003	0.041	0.141
cg03616195	purple	17	29,233,260	5'UTR	Island	C17orf42	0.735	-0.001	0.028	0.574
cg27545205	purple	1	63,783,070		Island		0.735	0.000	0.013	0.520
cg23749760	purple	7	149,471,044	TSS1500	Island	ZNF467	0.735	-0.004	0.039	0.189
cg02586610	purple	3	122,745,092	5'UTR	N_Shore	SEMA5B	0.735	0.001	0.022	0.750
cg03859684	purple	13	111,568,271	TSS1500	Island	ANKRD10	0.735	0.001	0.008	0.253
cg14364094	purple	11	62,439,317	1stExon	Island	C11orf83	0.735	-0.004	0.058	0.185
cg22301261	purple	13	50,655,392	TSS1500	Island	DLU1	0.735	0.000	0.037	0.820
cg06083525	purple	1	27,216,957	TSS200	Island	GPN2	0.735	0.001	0.018	0.478
cg06090351	purple	1	244,615,600	TSS200	Island	ADSS	0.734	0.000	0.023	0.794
cg21516341	purple	12	45,270,818	Body	Island	NELL2	0.734	-0.001	0.017	0.246
cg13654902	purple	19	38,853,053	Body	Island	CATSPERG	0.734	-0.006	0.069	0.624
cg12557867	purple	10	1,779,033	Body	Island	ADARB2	0.734	-0.001	0.028	0.653
cg22916109	purple	15	78,730,334	TSS200	Island	IREB2	0.734	0.000	0.023	0.907
cg24419363	purple	11	6,411,486	TSS200	Island	SMPD1	0.734	0.000	0.015	0.847
cg00343022	purple	3	38,178,135	Body	Island	ACAA1	0.734	0.001	0.032	0.786
cg14283194	purple	7	91,763,737	5'UTR	Island	CYP51A1	0.734	-0.001	0.038	0.806
cg04015486	purple	20	44,044,769	5'UTR	Island	PIGT	0.734	-0.002	0.023	0.133

cg09041862	purple	3	98,620,877	TSS1500	Island	DCBLD2	0.734	-0.003	0.025	0.063
cg08658318	purple	21	46,351,329		Island		0.733	-0.002	0.025	0.272
cg02305853	purple	20	1,165,435	TSS1500	Island	C20orf46	0.733	-0.010	0.063	0.059
cg04121495	purple	4	25,162,214	TSS200	Island	SEPSECS	0.733	0.000	0.023	0.846
cg00656411	purple	7	140,773,422		Island		0.733	0.000	0.072	0.968
cg01644850	purple	19	58,193,231	TSS200	N_Shore	ZNF551	0.733	-0.001	0.015	0.309
cg05622307	purple	10	102,490,373		Island		0.733	-0.001	0.015	0.727
cg02249930	purple	10	70,166,207	Body	Island	RUFY2	0.733	0.000	0.020	0.987
cg01781805	purple	5	154,238,342	1stExon	Island	CNOT8	0.733	-0.001	0.016	0.386
cg07503931	purple	1	43,123,978	TSS200	Island	PPIH	0.733	0.000	0.041	0.866
cg23639922	purple	10	103,892,660	TSS200	Island	PPRC1	0.733	-0.001	0.017	0.555
cg25609649	purple	2	19,547,730		Island		0.733	-0.002	0.036	0.339
cg13331136	purple	19	44,100,349	TSS200	Island	ZNF576	0.733	0.002	0.093	0.718
cg03433655	purple	4	108,745,771	5'UTR	N_Shore	SGMS2	0.733	0.000	0.025	0.893
cg18251360	purple	22	20,067,313	TSS1500	N_Shore	DGCR8	0.733	0.000	0.014	0.844
cg04969688	purple	15	30,114,816	TSS200	Island	TJP1	0.732	0.000	0.040	0.785
cg00856157	purple	4	115,519,920	5'UTR	Island	UGT8	0.732	0.004	0.036	0.163
cg21010407	purple	1	46,955,679		Island		0.732	-0.002	0.084	0.764
cg23154526	purple	15	60,297,323	Body	Island	FOXB1	0.732	0.001	0.048	0.894
cg26791905	purple	1	120,254,664	1stExon	N_Shore	PHGDH	0.732	-0.001	0.026	0.771
cg15799959	purple	10	38,146,444	5'UTR	N_Shore	ZNF248	0.732	-0.002	0.025	0.207
cg26258631	purple	2	190,648,605	TSS1500	Island	PMS1	0.732	-0.001	0.031	0.534
cg27275781	purple	7	5,463,911	TSS1500	Island	TNRC18	0.731	0.000	0.023	0.829
cg19517718	purple	2	1,747,082	Body	Island	PXDN	0.731	0.001	0.021	0.704
cg13948074	purple	1	178,511,686	TSS1500	Island	C1orf220	0.731	-0.001	0.035	0.634
cg20994084	purple	17	79,269,488	TSS1500	S_Shore	SLC38A10	0.731	0.000	0.011	0.835
cg13454407	purple	8	110,986,982	TSS200	Island	KCNV1	0.731	-0.001	0.013	0.452
cg26408925	purple	5	115,177,420	1stExon	Island	ATG12	0.731	0.000	0.021	0.804
cg03272292	purple	12	48,577,362	TSS200	Island	C12orf68	0.731	0.001	0.044	0.844
cg08130144	purple	4	41,883,493		Island		0.731	-0.002	0.026	0.294
cg08536977	purple	17	73,780,663	TSS200	N_Shore	UNK	0.731	0.000	0.013	0.863
cg18451256	purple	2	128,284,158	TSS200	Island	IWS1	0.731	0.000	0.038	0.921
cg03099482	purple	7	113,725,376		Island		0.731	-0.001	0.024	0.490
cg08521800	purple	5	63,462,187	5'UTR	S_Shore	RNF180	0.730	0.001	0.029	0.730
cg05114187	purple	7	8,008,166	TSS1500	Island	GLCC1	0.730	-0.001	0.122	0.698
cg24334809	purple	2	178,483,498	1stExon	Island	TTC30A	0.730	0.000	0.024	0.968
cg06017917	purple	7	121,784,369	TSS200	Island	AASS	0.730	0.000	0.035	0.937
cg05300158	purple	4	140,477,727	TSS200	Island	SETD7	0.730	-0.004	0.075	0.731
cg23588217	purple	1	119,530,048	5'UTR	Island	TBX15	0.730	0.002	0.031	0.506
cg16632994	purple	5	158,690,246	5'UTR	Island	UBLCP1	0.730	0.001	0.016	0.650
cg15617768	purple	10	101,492,447	TSS200	S_Shore	COX15	0.730	0.000	0.015	0.801
cg18714585	purple	12	123,868,665	TSS200	Island	SETD8	0.730	-0.008	0.084	0.269
cg25667712	purple	13	32,605,332	TSS200	Island	FRY	0.730	-0.003	0.031	0.087
cg15264806	purple	18	59,000,800		Island		0.730	0.000	0.016	0.466
cg12996305	purple	17	2,295,923	Body	Island	MNT	0.730	-0.015	0.111	0.074
cg04494710	purple	17	55,927,543	TSS200	Island	MRPS23	0.730	-0.001	0.034	0.429
cg27482856	purple	7	99,214,447	TSS200	Island	ZNF498	0.730	-0.002	0.043	0.520
cg19135230	purple	8	103,136,319	5'UTR	Island	NCALD	0.730	-0.001	0.036	0.502
cg11324999	purple	2	36,582,398	TSS1500	Island	CRIM1	0.729	0.001	0.037	0.625
cg12325285	purple	6	30,712,499	TSS200	S_Shore	IER3	0.729	-0.001	0.024	0.550
cg22784023	purple	7	105,650,152	Body	Island	FLJ23834	0.729	-0.001	0.032	0.383
cg00381570	purple	5	5,422,619	TSS200	Island	KIAA0947	0.729	0.001	0.019	0.548
cg08400563	purple	2	201,729,555	TSS1500	Island	CLK1	0.729	-0.005	0.054	0.173
cg14119796	purple	6	31,707,579	TSS200	Island	MSH5	0.729	-0.001	0.024	0.502
cg11371394	purple	2	105,946,583	TSS1500	Island	TGFBRAP1	0.729	-0.001	0.069	0.821
cg07379167	purple	10	131,769,074		Island		0.728	-0.001	0.048	0.692
cg15883761	purple	11	65,627,811	TSS200	Island	MUS81	0.728	0.000	0.021	0.897
cg10504480	purple	3	170,588,157	TSS200	Island	RPL22L1	0.728	-0.001	0.027	0.587
cg12039286	purple	8	143,533,193		Island		0.728	-0.003	0.048	0.484
cg25968367	purple	2	56,151,179	TSS1500	Island	EFEMP1	0.728	0.000	0.026	0.784
cg06529756	purple	5	75,380,303	5'UTR	Island	SV2C	0.728	-0.002	0.032	0.396
cg16978871	purple	7	139,026,114	5'UTR	Island	C7orf55	0.728	-0.001	0.047	0.812
cg05474467	purple	6	38,608,039	TSS200	Island	BTBD9	0.728	-0.001	0.020	0.566
cg05257600	purple	5	87,564,880	TSS1500	Island	TMEM161B	0.728	-0.001	0.036	0.461
cg21041181	purple	2	42,721,947	TSS1500	Island	KCNG3	0.728	-0.006	0.080	0.143
cg23747904	purple	2	120,301,847	TSS200	Island	PCDP1	0.727	0.000	0.019	0.918
cg23431730	purple	12	53,887,070	5'UTR	Island	MAP3K12	0.727	-0.003	0.039	0.213

cg10854474	purple	3	15,901,989	TSS1500	Island	ANKRD28	0.727	0.001	0.015	0.561
cg26422134	purple	7	43,909,318	TSS200	Island	MRPS24	0.727	-0.001	0.030	0.574
cg09783209	purple	19	45,873,853	TSS200	Island	ERCC2	0.727	-0.001	0.015	0.309
cg11279425	purple	11	19,734,864	TSS200	Island	NAV2	0.727	-0.002	0.045	0.662
cg04084597	purple	11	75,479,652	TSS200	Island	DGAT2	0.727	-0.005	0.106	0.615
cg05503349	purple	12	104,531,175	5'UTR	Island	NFYB	0.727	-0.002	0.018	0.103
cg13316430	purple	4	94,751,126	1stExon	S_Shore	ATOH1	0.727	0.000	0.026	0.947
cg23528168	purple	5	89,770,579	5'UTR	Island	MBLAC2	0.727	-0.003	0.056	0.681
cg02397124	purple	6	33,168,279	TSS1500	Island	SLC39A7	0.727	0.000	0.020	0.879
cg26674752	purple	10	43,634,212	5'UTR	Island	CSGALNACT2	0.727	-0.002	0.022	0.426
cg07616871	purple	2	218,843,504		Island		0.727	-0.002	0.042	0.270
cg06580745	purple	17	4,692,790	Body	Island	GLTPD2	0.727	-0.005	0.061	0.383
cg02086493	purple	17	46,675,333	Body	Island	LOC404266	0.727	-0.007	0.086	0.059
cg26763365	purple	14	65,171,673	5'UTR	Island	PLEKHG3	0.726	0.005	0.044	0.121
cg06601742	purple	2	183,903,477	TSS1500	Island	NCKAP1	0.726	0.000	0.023	0.833
cg12158272	purple	5	119,800,972	5'UTR	Island	PRR16	0.726	0.003	0.031	0.047
cg25997110	purple	19	31,842,115		Island		0.726	-0.001	0.037	0.732
cg11716640	purple	1	113,933,411	TSS200	Island	MAGI3	0.726	0.004	0.068	0.498
cg12188830	purple	3	57,741,926	TSS1500	Island	SLMAP	0.726	-0.001	0.019	0.568
cg08113034	purple	14	59,655,386	TSS200	Island	DAAM1	0.726	-0.001	0.026	0.646
cg27445106	purple	1	38,019,966	TSS200	S_Shore	SNIP1	0.726	-0.001	0.018	0.338
cg02410754	purple	1	32,410,520		Island		0.726	-0.011	0.047	0.129
cg23054379	purple	1	176,176,226	5'UTR	Island	RFWD2	0.726	-0.001	0.040	0.770
cg20427059	purple	2	131,851,445	TSS1500	S_Shore	FAM168B	0.726	0.000	0.015	0.779
cg07163173	purple	2	67,624,373	TSS200	Island	ETAA1	0.726	0.000	0.045	0.956
cg01066274	purple	16	75,019,182	TSS200	Island	WDR59	0.725	0.000	0.020	0.819
cg09817677	purple	16	57,570,819	TSS1500	Island	CCDC102A	0.725	0.000	0.016	0.634
cg14787290	purple	1	118,472,449	TSS200	Island	GDAP2	0.725	-0.002	0.028	0.551
cg13717023	purple	5	53,606,639	TSS1500	Island	ARL15	0.725	-0.003	0.025	0.531
cg11795674	purple	10	99,392,930	5'UTR	Island	MORN4	0.725	-0.002	0.025	0.232
cg02234820	purple	1	85,358,327	5'UTR	N_Shore	LPAR3	0.725	-0.002	0.034	0.361
cg13992236	purple	6	86,352,429	TSS1500	Island	SYNCRIP	0.725	-0.002	0.032	0.386
cg13242801	purple	5	175,970,798		Island		0.725	-0.002	0.031	0.286
cg09513380	purple	13	100,622,253	Body	Island	ZIC5	0.725	-0.003	0.043	0.096
cg01349853	purple	3	36,986,697	TSS200	Island	TRANK1	0.725	-0.003	0.026	0.404
cg02979923	purple	20	17,207,337	TSS1500	N_Shore	PCSK2	0.725	-0.001	0.067	0.929
cg12393503	purple	3	172,468,831		Island		0.724	-0.003	0.033	0.079
cg08583435	purple	6	166,797,128	TSS1500	Island	BRP44L	0.724	-0.001	0.043	0.749
cg07981822	purple	2	26,568,781	TSS200	Island	SELI	0.724	0.000	0.015	0.762
cg22211971	purple	17	73,257,917	TSS1500	Island	GGA3	0.724	-0.002	0.032	0.493
cg23616383	purple	17	7,487,132	Body	Island	MPDU1	0.724	0.000	0.014	0.529
cg08483876	purple	8	145,910,754		Island		0.724	-0.010	0.077	0.197
cg27013550	purple	19	58,090,450	TSS1500	Island	ZNF416	0.724	0.000	0.019	0.648
cg16327647	purple	1	214,776,436	TSS200	Island	CENPF	0.724	-0.001	0.042	0.659
cg10878998	purple	18	71,959,092	1stExon	Island	CYB5A	0.724	-0.001	0.052	0.807
cg08475379	purple	20	37,302,989		Island		0.724	-0.004	0.109	0.383
cg02689293	purple	7	92,464,971	5'UTR	Island	CDK6	0.724	0.002	0.061	0.454
cg07546106	purple	6	32,806,236	5'UTR	N_Shore	TAP2	0.723	0.000	0.016	0.986
cg10695831	purple	1	98,519,324		Island		0.723	-0.001	0.038	0.672
cg26490839	purple	19	49,999,468	TSS200	Island	RPS11	0.723	-0.003	0.047	0.416
cg02522757	purple	12	48,298,992	TSS200	Island	VDR	0.723	-0.003	0.024	0.098
cg06060673	purple	22	39,268,830	TSS1500	Island	CBX6	0.723	-0.002	0.023	0.284
cg06281762	purple	5	159,827,216	TSS200	S_Shore	C5orf54	0.723	0.000	0.013	0.904
cg05233622	purple	11	75,379,501	TSS200	Island	MAP6	0.723	-0.002	0.041	0.202
cg03332970	purple	11	124,632,552	TSS1500	Island	ESAM	0.723	-0.001	0.029	0.682
cg22704775	purple	11	61,560,126	TSS200	Island	MIR611	0.723	0.000	0.035	0.952
cg19721801	purple	19	12,807,424	5'UTR	Island	FBXW9	0.723	0.000	0.017	0.802
cg05792368	purple	2	45,182,217		Island		0.723	-0.002	0.039	0.674
cg21120664	purple	21	44,299,807	TSS200	Island	WDR4	0.723	-0.003	0.034	0.123
cg11405279	purple	15	90,744,400	TSS200	Island	SEMA4B	0.723	-0.001	0.015	0.076
cg02318347	purple	13	31,735,110	Body	Island	HSPH1	0.723	-0.002	0.015	0.118
cg02177391	purple	15	68,870,634	TSS1500	Island	CORO2B	0.722	-0.001	0.014	0.567
cg26978668	purple	10	7,453,452	TSS200	Island	SFMBT2	0.722	0.003	0.051	0.416
cg10241347	purple	10	124,639,260	Body	Island	LOC399815	0.722	-0.019	0.091	0.199
cg02954262	purple	18	3,451,750	5'UTR	Island	TGIF1	0.722	0.000	0.013	0.784
cg07801662	purple	17	7,745,785	5'UTR	Island	KDM6B	0.722	-0.003	0.034	0.254
cg26972272	purple	14	57,283,582	Body	N_Shore	OTX2OS1	0.722	-0.002	0.035	0.349

cg18078305	purple	2	65,215,753	1stExon	Island	SLC1A4	0.722	-0.007	0.027	0.158
cg06443863	purple	8	146,277,480	TSS1500	Island	C8orf33	0.722	-0.002	0.021	0.150
cg17932425	purple	19	17,622,159	TSS1500	N_Shore	PGLS	0.722	0.000	0.025	0.927
cg24429831	purple	19	36,120,171	1stExon	Island	RBM42	0.722	0.000	0.017	0.795
cg06160898	purple	3	45,187,312	Body	Island	CDCP1	0.722	-0.001	0.031	0.773
cg04517323	purple	8	98,788,873	Body	Island	LAPTM4B	0.722	-0.004	0.040	0.527
cg09691861	purple	4	77,870,047	TSS1500	Island	11-Sep	0.722	-0.002	0.035	0.633
cg10101463	purple	1	202,780,506		Island		0.722	0.000	0.019	0.967
cg02625641	purple	15	59,041,175	Body	Island	ADAM10	0.721	-0.001	0.095	0.885
cg15983357	purple	2	220,110,487	Body	Island	STK16	0.721	-0.002	0.031	0.292
cg24251484	purple	10	119,133,804	Body	Island	PDZD8	0.721	-0.004	0.037	0.116
cg10479053	purple	17	38,136,919	TSS200	Island	PSMD3	0.721	0.000	0.027	0.834
cg08990198	purple	1	202,318,195	1stExon	Island	PPP1R12B	0.721	-0.001	0.034	0.429
cg11041264	purple	20	33,872,554	5'UTR	Island	EIF6	0.721	-0.003	0.035	0.186
cg11368578	purple	7	150,754,936	1stExon	Island	CDK5	0.721	-0.002	0.047	0.313
cg27367554	purple	20	5,930,982	TSS1500	Island	MCM8	0.721	0.000	0.019	0.984
cg11726911	purple	1	6,241,120	TSS1500	Island	CHD5	0.721	0.002	0.027	0.235
cg04807004	purple	15	83,240,693	TSS200		CPEB1	0.721	0.000	0.019	0.858
cg22704520	purple	2	200,820,451	Body	Island	C2orf60	0.721	-0.012	0.099	0.416
cg04435546	purple	11	16,629,217		S_Shore		0.721	-0.002	0.045	0.265
cg04133652	purple	17	36,860,971	TSS1500	Island	MLLT6	0.721	-0.001	0.020	0.709
cg05165580	purple	16	75,657,337	TSS200	Island	ADAT1	0.721	-0.001	0.018	0.634
cg10545927	purple	1	33,117,362	5'UTR	Island	RBBP4	0.721	-0.005	0.032	0.015
cg22880714	purple	6	43,138,798	TSS200	Island	SRF	0.721	-0.001	0.014	0.338
cg20167126	purple	11	19,735,798	Body	S_Shore	NAV2	0.721	-0.007	0.071	0.445
cg07500433	purple	5	63,986,130	TSS200	N_Shore	FAM159B	0.721	0.001	0.029	0.441
cg20353692	purple	15	45,879,564	1stExon	Island	PLDN	0.721	-0.001	0.019	0.610
cg03502076	purple	10	35,626,520	Body	Island	CCNY	0.720	-0.002	0.021	0.249
cg16464704	purple	1	26,249,489		Island		0.720	-0.005	0.055	0.206
cg18081750	purple	12	89,746,418	TSS200	Island	DUSP6	0.720	0.000	0.012	0.816
cg22845901	purple	3	110,791,439	Body	S_Shore	PVRL3	0.720	-0.001	0.014	0.307
cg07003055	purple	20	3,776,921	1stExon	Island	CDC25B	0.720	-0.005	0.038	0.358
cg22247188	purple	10	71,813,603	5'UTR	Island	H2AFY2	0.720	0.002	0.055	0.608
cg14650559	purple	14	77,843,620	TSS200	Island	C14orf174	0.720	0.000	0.015	0.703
cg07303308	purple	7	128,695,042	TSS1500	Island	LOC286016	0.720	-0.001	0.016	0.286
cg10250534	purple	4	24,586,033	1stExon	Island	DHX15	0.720	-0.003	0.045	0.128
cg04981885	purple	1	160,991,156	TSS200	Island	F11R	0.720	-0.001	0.016	0.581
cg22020752	purple	12	22,697,546	TSS200	Island	KIAA0528	0.720	-0.008	0.055	0.150
cg18838581	purple	19	2,269,401	TSS200	Island	OAZ1	0.720	0.000	0.018	0.974
cg02486259	purple	9	37,037,760		Island		0.720	0.002	0.041	0.615
cg01114951	purple	1	117,664,707	TSS1500	Island	TRIM45	0.720	0.000	0.024	0.999
cg01632497	purple	11	8,986,187	TSS200	Island	TMEM9B	0.720	0.001	0.043	0.712
cg08346494	purple	11	70,049,962	Body	S_Shore	FADD	0.720	0.000	0.029	0.936
cg02512878	purple	4	79,698,168	Body	S_Shore	BMP2K	0.720	-0.002	0.033	0.413
cg24023606	purple	14	90,421,208	TSS1500	N_Shore	TDP1	0.720	0.000	0.021	0.925
cg18060193	purple	11	57,425,261	1stExon	Island	CLP1	0.720	0.000	0.020	0.798
cg15051960	purple	3	55,521,376	TSS200	Island	WNT5A	0.720	-0.001	0.034	0.690
cg10130401	purple	17	46,970,032	TSS200	Island	ATP5G1	0.720	0.000	0.012	0.806
cg24603490	purple	12	47,473,995	TSS1500	Island	AMIGO2	0.719	-0.002	0.027	0.250
cg22783308	purple	14	75,894,315	TSS200	Island	JDP2	0.719	-0.001	0.026	0.536
cg21450730	purple	1	53,704,239	TSS200	Island	MAGOH	0.719	0.000	0.023	0.769
cg08108993	purple	17	38,136,923	TSS200	Island	PSMD3	0.719	0.001	0.039	0.756
cg25089332	purple	3	14,220,171	Body	Island	XPC	0.719	0.000	0.017	0.802
cg04119805	purple	7	99,102,391	5'UTR	Island	ZKSCAN5	0.719	0.000	0.033	0.851
cg14511768	purple	1	26,362,707	3'UTR	Island	EXTL1	0.719	-0.004	0.056	0.192
cg03591798	purple	2	73,404,524		Island		0.719	0.000	0.030	0.954
cg09882587	purple	5	96,143,769	5'UTR	Island	ERAP1	0.719	-0.002	0.040	0.377
cg15268622	purple	1	167,189,846	TSS1500	Island	POU2F1	0.719	-0.001	0.016	0.629
cg15062310	purple	7	100,450,120	TSS1500	Island	SLC12A9	0.719	-0.004	0.031	0.578
cg24691578	purple	11	45,869,488	Body	S_Shore	CRY2	0.719	-0.002	0.024	0.198
cg18511989	purple	8	145,634,287	Body	N_Shore	CPSF1	0.719	0.000	0.008	0.646
cg04771550	purple	17	8,079,827	TSS200	Island	TMEM107	0.719	0.000	0.017	0.785
cg08876665	purple	9	114,361,338	5'UTR	N_Shore	PTGR1	0.719	-0.003	0.024	0.020
cg16967880	purple	7	27,213,971	TSS200	Island	HOXA10	0.718	-0.001	0.038	0.678
cg18975376	purple	10	28,967,265	Body	Island	BAMBI	0.718	-0.004	0.038	0.123
cg08827358	purple	16	66,461,802	5'UTR	Island	BEAN	0.718	-0.002	0.025	0.182
cg09644986	purple	12	6,644,356	Body	Island	GAPDH	0.718	-0.001	0.014	0.732

cg21085160	purple	9	88,896,742	Body	Island	ISCA1	0.718	0.000	0.037	0.839
cg04275707	purple	20	20,033,092	Body	Island	CRNKL1	0.718	-0.003	0.024	0.398
cg04019016	purple	2	121,101,047		Island		0.718	-0.003	0.036	0.068
cg07095569	purple	9	34,049,059	TSS200	Island	UBAP2	0.718	0.000	0.021	0.984
cg12300498	purple	18	43,913,565	TSS1500	Island	RNF165	0.718	-0.001	0.020	0.309
cg23170850	purple	11	134,145,889	TSS1500	Island	GLB1L3	0.718	-0.003	0.024	0.353
cg14316440	purple	9	127,020,740	5'UTR	Island	NEK6	0.717	-0.005	0.052	0.119
cg02657830	purple	1	27,152,905	TSS1500	N_Shore	ZDHC18	0.717	0.000	0.023	0.919
cg00745389	purple	7	32,467,435		Island		0.717	0.000	0.043	0.867
cg02850812	purple	13	46,961,666	TSS200	Island	C13orf18	0.717	-0.001	0.015	0.366
cg10163945	purple	5	115,421,152	Body	Island	COMMD10	0.717	0.000	0.011	0.717
cg15123670	purple	10	70,091,660	TSS200	Island	HNRNP3	0.717	-0.001	0.024	0.474
cg02746869	purple	10	17,271,929	Body	Island	VIM	0.717	0.000	0.059	0.947
cg07732888	purple	16	72,699,054		Island		0.717	0.000	0.015	0.488
cg13990746	purple	1	173,639,044	TSS200	Island	ANKRD45	0.717	0.000	0.031	0.825
cg04801003	purple	2	69,240,754	1stExon	Island	ANTXR1	0.717	0.000	0.028	0.912
cg04305134	purple	10	75,173,374	5'UTR	N_Shore	ANXA7	0.717	0.000	0.015	0.788
cg12747860	purple	6	3,229,027	TSS1500	Island	TUBB2B	0.717	-0.002	0.045	0.513
cg01416487	purple	12	96,252,677	TSS200	Island	SNRPF	0.717	-0.002	0.040	0.310
cg09306675	purple	20	45,523,996	5'UTR	Island	EYA2	0.717	-0.005	0.037	0.087
cg04011206	purple	18	74,204,120		Island		0.717	0.001	0.030	0.669
cg02226697	purple	8	126,010,266	TSS1500	N_Shore	SQLE	0.717	-0.001	0.026	0.450
cg11877384	purple	4	140,477,613	TSS200	Island	SETD7	0.717	-0.003	0.054	0.604
cg01640456	purple	4	141,075,565	TSS1500	Island	MAML3	0.716	0.001	0.031	0.676
cg23199053	purple	4	174,256,114	TSS1500	Island	HMGB2	0.716	-0.002	0.047	0.376
cg06784845	purple	3	133,614,993	TSS1500	Island	RAB6B	0.716	-0.003	0.035	0.342
cg03149313	purple	1	226,595,334	Body	Island	PARP1	0.716	-0.006	0.040	0.153
cg06769082	purple	7	99,156,634	5'UTR	Island	ZNF655	0.716	0.000	0.024	0.830
cg13360562	purple	15	39,872,883	TSS1500	Island	THBS1	0.716	-0.004	0.034	0.373
cg22861758	purple	5	65,018,493	TSS1500	Island	SGTB	0.716	0.000	0.014	0.814
cg26384031	purple	19	58,144,340	TSS200	Island	ZNF211	0.716	-0.001	0.031	0.323
cg27239157	purple	3	183,145,817	5'UTR	Island	MCF2L2	0.716	-0.002	0.025	0.351
cg04372675	purple	8	107,283,146	5'UTR	Island	OXR1	0.716	0.001	0.034	0.795
cg03279443	purple	10	76,971,052	Body	S_Shore	VDAC2	0.716	0.000	0.013	0.813
cg17385737	purple	12	96,589,144	5'UTR	Island	ELK3	0.716	-0.002	0.031	0.445
cg14278893	purple	1	145,610,795	5'UTR	Island	POLR3C	0.716	-0.005	0.061	0.477
cg22162404	purple	19	8,273,842	TSS1500	Island	LASS4	0.716	-0.006	0.045	0.238
cg16582779	purple	14	29,237,202	1stExon	Island	FOXG1	0.716	-0.009	0.075	0.272
cg19377384	purple	3	140,951,430	5'UTR	Island	ACPL2	0.716	-0.001	0.037	0.781
cg13138155	purple	1	92,950,575	5'UTR	Island	GF11	0.716	0.000	0.010	0.857
cg10335659	purple	2	99,757,356	TSS1500	Island	C2orf15	0.716	0.000	0.023	0.932
cg05969148	purple	19	51,307,846	1stExon	Island	C19orf48	0.715	-0.005	0.070	0.377
cg14037413	purple	11	9,482,594	1stExon	Island	ZNF143	0.715	-0.005	0.047	0.296
cg03493509	purple	3	88,108,233	TSS200	Island	CGGBP1	0.715	-0.001	0.017	0.485
cg04223366	purple	3	66,024,364	5'UTR	Island	MAG11	0.715	-0.002	0.038	0.702
cg08969094	purple	14	23,772,226	TSS200	S_Shore	PPP1R3E	0.715	-0.001	0.055	0.670
cg09807452	purple	4	140,099,025		Island		0.715	0.000	0.032	0.777
cg13273799	purple	8	29,206,352	TSS200	Island	DUSP4	0.715	-0.002	0.024	0.436
cg11704396	purple	3	48,723,701	TSS1500	Island	NCKIPSD	0.714	-0.002	0.026	0.621
cg06601766	purple	17	61,851,465	TSS200	Island	DDX42	0.714	0.000	0.014	0.592
cg04347293	purple	6	32,862,350		Island		0.714	0.001	0.029	0.656
cg00043819	purple	4	185,942,529		Island		0.714	-0.001	0.014	0.171
cg11821927	purple	15	45,694,435	TSS200	Island	SPATA5L1	0.714	0.000	0.030	0.975
cg16499284	purple	6	28,186,477	Body	Island	LOC222699	0.714	0.000	0.016	0.971
cg11877577	purple	6	133,135,687	TSS200	Island	RPS12	0.714	0.001	0.023	0.483
cg02869649	purple	22	45,403,700	Body	Island	PHF21B	0.714	-0.001	0.020	0.380
cg09942448	purple	2	26,205,639	TSS200	Island	KIF3C	0.714	0.000	0.041	0.886
cg10106091	purple	12	117,176,294	TSS1500	Island	C12orf49	0.714	0.000	0.021	0.833
cg26260386	purple	4	140,477,698	TSS200	Island	SETD7	0.714	-0.003	0.053	0.634
cg26279152	purple	13	20,356,101	Body	N_Shore	PSPC1	0.714	-0.001	0.016	0.728
cg25523538	purple	10	28,031,957	Body	Island	MXK	0.714	-0.002	0.016	0.128
cg21117139	purple	14	73,393,231	1stExon	Island	DCAF4	0.713	-0.003	0.036	0.111
cg11935853	purple	2	63,278,026	1stExon	Island	OTX1	0.713	0.000	0.015	0.974
cg11826708	purple	3	115,502,895		Island		0.713	-0.001	0.025	0.546
cg09968620	purple	2	176,987,383	TSS200	Island	HOXD9	0.713	-0.001	0.031	0.683
cg15254632	purple	17	4,843,418	5'UTR	Island	SLC25A11	0.713	-0.004	0.037	0.085
cg20747000	purple	18	500,323	Body	Island	COLEC12	0.713	0.001	0.038	0.828



cg16797300	purple	15	89,942,816	Island		0.713	-0.004	0.031	0.056
cg05719877	purple	11	114,271,629 TSS1500	Island	C11orf71	0.713	-0.001	0.016	0.621
cg02378189	purple	11	75,946,962	Island		0.713	-0.001	0.019	0.408
cg22637872	purple	16	67,875,820 TSS1500	Island	THAP11	0.713	-0.001	0.030	0.707
cg19964811	purple	7	25,896,490	N_Shore		0.713	-0.002	0.037	0.331
cg08343754	purple	5	73,980,834 TSS200	N_Shore	HEXB	0.713	-0.004	0.053	0.381
cg06439005	purple	5	172,754,848 Body	Island	STC2	0.712	0.000	0.039	0.904
cg07274776	purple	2	203,241,322 5'UTR	Island	BMP2	0.712	-0.007	0.045	0.257
cg10317628	purple	1	117,113,342 Body	Island	CD58	0.712	-0.002	0.034	0.196
cg03214212	purple	7	16,793,334 TSS200	Island	TSPAN13	0.712	-0.005	0.054	0.160
cg21098557	purple	5	43,191,993 TSS1500	Island	MGC42105	0.712	0.001	0.019	0.430
cg11257342	purple	6	112,408,828 TSS200	Island	TUBE1	0.712	0.001	0.022	0.572
cg00129269	purple	7	127,228,222 TSS1500	Island	ARF5	0.712	0.000	0.022	0.926
cg12527175	purple	10	26,504,950 TSS1500	Island	GAD2	0.712	-0.001	0.029	0.692
cg03115547	purple	19	32,836,416 TSS200	Island	ZNF507	0.712	-0.005	0.030	0.019
cg10822418	purple	8	61,430,157 Body	Island	RAB2A	0.712	-0.001	0.041	0.808
cg02994863	purple	1	64,059,297 1stExon	Island	PGM1	0.712	-0.013	0.117	0.406
cg26960647	purple	6	138,188,928 5'UTR	Island	TNFAIP3	0.712	0.001	0.023	0.494
cg27597069	purple	6	37,321,822 5'UTR	Island	RNF8	0.711	-0.008	0.054	0.316
cg18281743	purple	5	172,755,856 5'UTR	Island	STC2	0.711	0.002	0.015	0.062
cg04121261	purple	18	12,038,580	Island		0.711	-0.007	0.084	0.264
cg11220663	purple	2	70,994,863 5'UTR	Island	ADD2	0.711	-0.036	0.177	0.044
cg08997253	purple	9	104,500,729 5'UTR	Island	GRIN3A	0.711	-0.001	0.023	0.642
cg11186461	purple	3	132,136,356 TSS200	Island	DNAJC13	0.711	-0.002	0.028	0.251
cg14243778	purple	12	41,086,879 5'UTR	Island	CNTN1	0.711	-0.002	0.037	0.549
cg00999623	purple	1	108,743,186 TSS1500	Island	SLC25A24	0.711	-0.002	0.099	0.857
cg21799605	purple	6	42,713,881 1stExon	Island	TBCC	0.711	0.000	0.017	0.989
cg19835606	purple	7	150,778,201 TSS1500	Island	FASTK	0.711	0.000	0.047	0.884
cg04301800	purple	14	50,101,980 TSS200	Island	C14orf104	0.711	0.001	0.039	0.881
cg05229355	purple	8	132,052,702 5'UTR	Island	ADCY8	0.711	0.000	0.043	0.917
cg08800530	purple	5	175,788,722 5'UTR	Island	KIAA1191	0.711	-0.007	0.044	0.257
cg18299578	purple	14	29,235,928 TSS1500	N_Shore	FOXG1	0.711	-0.001	0.042	0.716
cg20890156	purple	8	53,627,208 TSS200	Island	RB1CC1	0.711	-0.003	0.029	0.210
cg10923475	purple	3	194,406,558 TSS200	Island	FAM43A	0.711	0.000	0.012	0.915
cg07483245	purple	15	23,034,598 TSS200	Island	NIPA2	0.711	-0.006	0.049	0.221
cg00288933	purple	12	94,495,992	Island		0.711	0.002	0.029	0.226
cg11162385	purple	20	25,604,740 TSS200	Island	NANP	0.710	-0.006	0.079	0.564
cg14369264	purple	10	14,996,383 TSS1500	Island	DCLRE1C	0.710	0.000	0.018	0.984
cg03359731	purple	4	48,833,388 5'UTR	Island	OCIAD1	0.710	-0.001	0.014	0.239
cg17473382	purple	17	59,489,098 TSS200	Island	C17orf82	0.710	-0.003	0.038	0.496
cg00858599	purple	20	3,220,929	Island		0.710	0.000	0.045	0.947
cg21951301	purple	12	5,542,527 Body	Island	NTF3	0.710	-0.004	0.036	0.075
cg18611281	purple	2	27,805,844 TSS200	Island	ZNF512	0.710	-0.001	0.027	0.557
cg05344295	purple	19	54,411,509	Island		0.710	0.000	0.023	0.853
cg09923107	purple	20	30,193,892 Body	Island	ID1	0.710	0.000	0.011	0.806
cg06914949	purple	1	116,916,812 5'UTR	Island	ATP1A1	0.710	-0.003	0.039	0.232
cg14081599	purple	19	33,071,884 TSS1500	Island	PDCD5	0.710	-0.001	0.049	0.763
cg17456100	purple	1	22,140,859 Body	N_Shore	LDLRAD2	0.710	0.000	0.015	0.593
cg10025462	purple	17	27,046,956 TSS1500	Island	SNORD42B	0.710	-0.001	0.020	0.547
cg11038280	purple	7	92,466,132 TSS200	Island	CDK6	0.710	0.000	0.052	0.980
cg16026299	purple	1	84,764,375 Body	Island	SAMD13	0.709	-0.001	0.030	0.577
cg24899068	purple	19	49,999,470 TSS200	Island	RPS11	0.709	-0.002	0.040	0.565
cg09272869	purple	15	68,569,991 TSS200	Island	FEM1B	0.709	0.001	0.048	0.521
cg16040838	purple	1	12,040,142 TSS200	Island	MFN2	0.709	0.001	0.019	0.535
cg27190946	purple	15	32,639,011	Island		0.709	-0.002	0.070	0.844
cg03693911	purple	5	146,258,034 5'UTR	Island	PPP2R2B	0.709	-0.002	0.031	0.348
cg10317098	purple	8	9,008,406 TSS200	Island	PPP1R3B	0.709	-0.005	0.034	0.244
cg10997627	purple	7	97,363,080 Body	S_Shore	TAC1	0.709	0.000	0.028	0.860
cg10787120	purple	14	96,857,745 TSS1500	Island	AK7	0.709	-0.001	0.057	0.890
cg04551011	purple	8	17,435,008 Body	S_Shore	PDGFRL	0.709	0.001	0.019	0.555
cg12012932	purple	15	30,484,033	Island		0.709	-0.002	0.017	0.044
cg07538946	purple	5	131,705,188 TSS1500	Island	SLC22A5	0.709	0.000	0.020	0.671
cg19435409	purple	6	27,833,121 1stExon	Island	HIST1H2AL	0.708	-0.001	0.014	0.600
cg11841349	purple	3	9,791,615 TSS200	Island	OGG1	0.708	-0.005	0.035	0.126
cg13874739	purple	11	129,244,236	Island		0.708	-0.001	0.018	0.601
cg12879423	purple	12	50,136,042 5'UTR	Island	TMBIM6	0.708	0.000	0.034	0.964
cg11684611	purple	18	658,445 Body	Island	TYMS	0.708	-0.001	0.027	0.648

cg21359254	purple	2	128,144,817	N_Shore		0.708	-0.001	0.014	0.490	
cg11515196	purple	15	44,829,065 TSS200	Island	EIF3J	0.707	-0.001	0.029	0.792	
cg21291347	purple	14	90,422,592 5'UTR	Island	TDP1	0.707	-0.001	0.033	0.719	
cg05157516	purple	5	175,085,577 5'UTR	Island	HRH2	0.707	-0.007	0.082	0.199	
cg23145622	purple	1	206,859,650 Body	Island	MAPKAPK2	0.707	-0.002	0.025	0.189	
cg02370605	purple	18	63,417,776 5'UTR	Island	CDH7	0.707	0.000	0.024	0.956	
cg16527334	purple	7	92,464,881 5'UTR	Island	CDK6	0.707	0.000	0.025	0.945	
cg19388373	purple	2	11,606,477 TSS200	S_Shore	E2F6	0.707	0.000	0.014	0.933	
cg24942186	purple	3	55,521,373 TSS200	Island	WNT5A	0.707	-0.005	0.051	0.338	
cg04578193	purple	1	150,947,589 TSS200	Island	LASS2	0.707	0.000	0.016	0.830	
cg09364089	purple	1	92,948,788 Body	Island	GFI1	0.707	0.000	0.045	0.872	
cg20595046	purple	2	29,093,178 TSS200	Island	TRMT61B	0.707	0.000	0.015	0.572	
cg23611233	purple	1	249,133,059 5'UTR	Island	ZNF672	0.707	-0.002	0.025	0.524	
cg26549029	purple	12	133,286,883 TSS1500	Island	PGAM5	0.707	0.002	0.021	0.483	
cg08819884	purple	3	3,168,225 TSS1500	N_Shore	TRNT1	0.707	-0.001	0.018	0.390	
cg09127400	purple	6	30,712,331 TSS200	Island	IER3	0.707	0.000	0.028	0.987	
cg26373663	purple	2	165,698,219 TSS1500	Island	COBLL1	0.707	0.000	0.025	0.672	
cg14400631	purple	11	14,666,512 1stExon	Island	PDE3B	0.707	-0.005	0.029	0.048	
cg16065574	purple	12	50,505,836 TSS200	Island	C12orf62	0.707	0.000	0.017	0.574	
cg09818962	purple	17	39,822,215	Island		0.707	-0.002	0.024	0.479	
cg09699605	purple	12	57,023,789 Body	Island	BAZZA	0.707	-0.001	0.017	0.691	
cg03621988	purple	3	113,251,716 5'UTR	Island	SIDT1	0.707	-0.001	0.021	0.443	
cg05761277	purple	17	76,356,738 TSS1500	Island	SOCS3	0.706	-0.003	0.036	0.504	
cg24376776	purple	10	101,297,245	Island		0.706	0.000	0.018	0.862	
cg24849565	purple	18	56,807,424 Body	Island	SEC11C	0.706	-0.001	0.026	0.624	
cg09464263	purple	2	139,259,042 TSS1500	Island	SPOPL	0.706	-0.001	0.035	0.781	
cg23208397	purple	3	158,519,925 1stExon	Island	MFSD1	0.706	0.000	0.035	0.819	
cg12240002	purple	15	100,890,168 Body	N_Shore	FLJ42289	0.706	0.002	0.034	0.393	
cg24705286	purple	16	27,215,306 1stExon	Island	JMJD5	0.706	0.000	0.058	0.969	
cg06839953	purple	1	27,648,457 TSS200	Island	TMEM222	0.706	0.000	0.022	0.842	
cg18653708	purple	3	136,538,990 5'UTR	Island	TMEM22	0.706	-0.002	0.048	0.701	
cg21028326	purple	22	50,683,188 1stExon	Island	TUBGCP6	0.706	-0.002	0.049	0.818	
cg03762404	purple	1	155,179,254 Body	S_Shore	MTX1	0.706	0.002	0.030	0.158	
cg19273746	purple	6	71,666,063 1stExon	Island	B3GAT2	0.705	-0.005	0.142	0.592	
cg25310182	purple	2	173,940,203 TSS1500	N_Shore	ZAK	0.705	0.001	0.027	0.662	
cg26967875	purple	11	66,024,839 TSS1500	N_Shore	KLC2	0.705	-0.002	0.025	0.187	
cg19601991	purple	5	10,353,435 TSS1500	Island		6-Mar	0.705	0.001	0.013	0.417
cg08965527	purple	16	84,178,213 5'UTR	Island	HSDL1	0.705	0.000	0.020	0.948	
cg25525207	purple	4	57,843,836 TSS200	Island	C4orf14	0.705	-0.001	0.029	0.719	
cg05396178	purple	6	27,833,129 1stExon	Island	HIST1H2AL	0.705	0.000	0.012	0.735	
cg25428423	purple	7	27,780,234 5'UTR	Island	TAX1BP1	0.705	0.001	0.024	0.536	
cg08730330	purple	17	61,904,790 TSS200	Island	PSMC5	0.705	-0.008	0.055	0.093	
cg04661991	purple	4	6,989,230 Body	Island	TBC1D14	0.705	-0.001	0.027	0.444	
cg21666675	purple	3	14,165,843 TSS1500	Island	TMEM43	0.705	0.000	0.035	0.902	
cg00664418	purple	1	6,673,075 TSS1500	Island	PHF13	0.705	-0.001	0.061	0.843	
cg06564818	purple	18	33,162,094	Island		0.705	-0.001	0.021	0.684	
cg12905688	purple	3	50,126,276 TSS200	Island	RBM5	0.705	0.001	0.023	0.514	
cg26570218	purple	2	25,195,142 TSS1500	Island	DNAJC27	0.705	0.001	0.022	0.673	
cg11496438	purple	7	25,164,549 5'UTR	Island	CYCS	0.705	-0.001	0.045	0.667	
cg07504780	purple	6	32,821,684 TSS1500	Island	PSMB9	0.704	0.000	0.031	0.782	
cg25533547	purple	2	73,053,217 TSS200	Island	EXOC6B	0.704	0.001	0.025	0.806	
cg24140832	purple	11	236,743 TSS200	Island	PSMD13	0.704	-0.003	0.026	0.260	
cg03295933	purple	19	1,479,358 TSS200	Island	C19orf25	0.704	-0.001	0.057	0.812	
cg02630790	purple	17	46,570,247	Island		0.704	0.001	0.030	0.685	
cg26446827	purple	20	18,268,978 TSS200	Island	ZNF133	0.704	-0.002	0.026	0.340	
cg26647617	purple	2	73,519,343 Body	Island	EGR4	0.704	0.000	0.045	0.959	
cg11716272	purple	2	5,837,348 3'UTR	Island	SOX11	0.704	-0.001	0.046	0.653	
cg05961935	purple	2	145,274,125 Body	Island	ZEB2	0.704	-0.001	0.025	0.536	
cg23501240	purple	12	57,634,469 5'UTR	Island	NDUFA4L2	0.704	0.000	0.016	0.682	
cg09479906	purple	10	124,713,766 5'UTR	Island	C10orf88	0.704	-0.005	0.054	0.248	
cg00344900	purple	3	126,006,749	Island		0.704	-0.001	0.017	0.352	
cg06888550	purple	17	43,238,612 5'UTR	Island	HEXIM2	0.704	0.000	0.020	0.969	
cg24759070	purple	12	82,752,479 1stExon	Island	C12orf26	0.704	-0.002	0.018	0.180	
cg07584077	purple	2	240,965,270 TSS1500	Island	NDUFA10	0.704	-0.001	0.032	0.641	
cg18062281	purple	19	19,030,222 TSS1500	Island	DDX49	0.703	0.000	0.017	0.712	
cg19687358	purple	8	29,207,241 Body	Island	DUSP4	0.703	-0.002	0.036	0.414	
cg02839220	purple	16	4,400,790 Body	N_Shore	Magmas	0.703	-0.004	0.042	0.362	

cg08721831	purple	12	123,011,533	1stExon	Island	RSRC2	0.703	0.000	0.016	0.536
cg14645526	purple	11	91,959,086		Island		0.703	-0.003	0.040	0.622
cg15360774	purple	4	48,782,043	5'UTR	Island	FRYL	0.703	-0.002	0.039	0.481
cg11799172	purple	10	31,607,441	TSS1500	Island	ZEB1	0.703	0.001	0.019	0.581
cg19350682	purple	7	100,425,236	TSS200	Island	EPHB4	0.703	0.000	0.016	0.552
cg15738138	purple	17	40,976,420	TSS200	Island	BECN1	0.703	0.000	0.030	0.916
cg01907051	purple	6	159,591,121	Body	Island	FNDC1	0.703	-0.001	0.042	0.547
cg00502972	purple	17	6,543,355	TSS1500	Island	TXNDC17	0.703	-0.006	0.062	0.326
cg14732136	purple	17	66,031,828	TSS200	Island	KPNA2	0.703	-0.003	0.031	0.441
cg24810594	purple	8	23,104,082	5'UTR	Island	CHMP7	0.703	-0.002	0.022	0.215
cg00740813	purple	11	35,547,140	5'UTR	Island	PAMR1	0.703	-0.001	0.041	0.422
cg27021131	purple	16	53,737,924	TSS200	Island	RPGRIP1L	0.703	-0.001	0.019	0.679
cg16317961	purple	18	32,621,748	Body	S_Shore	MAPRE2	0.703	-0.001	0.027	0.365
cg05533552	purple	11	34,074,141	Body	Island	CAPRIN1	0.703	0.001	0.092	0.883
cg05325390	purple	16	23,464,715	TSS1500	S_Shore	COG7	0.703	0.002	0.047	0.743
cg06726374	purple	6	128,841,053	Body	Island	PTPRK	0.703	-0.001	0.036	0.500
cg21914984	purple	2	37,899,464	TSS200	Island	CDC42EP3	0.702	-0.002	0.022	0.345
cg05865436	purple	19	52,772,664	TSS200	N_Shore	ZNF766	0.702	0.000	0.012	0.620
cg13437164	purple	1	22,890,048	5'UTR	Island	EPHA8	0.702	0.000	0.022	0.947
cg15100599	purple	1	223,538,174	TSS1500	Island	SUSD4	0.702	-0.002	0.083	0.878
cg27654482	purple	14	59,655,078	TSS1500	Island	DAAM1	0.702	0.001	0.016	0.316
cg04292359	purple	1	231,175,275	Body	Island	FAM89A	0.702	0.001	0.014	0.582
cg05826237	purple	19	1,095,571	TSS200	Island	POLR2E	0.702	0.000	0.021	0.976
cg08121514	purple	7	113,726,103		Island		0.702	0.000	0.042	0.920
cg22563043	purple	16	84,853,713	1stExon	Island	CRISPLD2	0.702	-0.002	0.046	0.596
cg02676375	purple	5	170,736,180	TSS200	Island	TLX3	0.702	-0.003	0.098	0.406
cg22956598	purple	17	13,973,019	Body	Island	COX10	0.702	0.000	0.034	0.851
cg15538070	purple	5	174,162,713		Island		0.702	-0.002	0.036	0.309
cg12972233	purple	9	91,605,893	1stExon	Island	C9orf47	0.702	0.001	0.058	0.827
cg26976187	purple	5	176,944,204	TSS1500	Island	DDX41	0.702	0.003	0.036	0.444
cg12282391	purple	12	2,162,491	5'UTR	N_Shore	CACNA1C	0.702	0.000	0.040	0.861
cg20557801	purple	15	68,121,177	Body	Island	LBXCOR1	0.702	0.001	0.038	0.822
cg23400208	purple	10	60,936,031	TSS1500	Island	PHYHIP1	0.701	-0.002	0.061	0.793
cg21092834	purple	11	107,462,721	Body	S_Shore	LOC643923	0.701	0.001	0.025	0.688
cg20011833	purple	6	90,348,585	TSS1500	S_Shore	LYRM2	0.701	0.000	0.030	0.859
cg02970384	purple	1	229,567,560	Body	Island	ACTA1	0.701	-0.006	0.042	0.143
cg00196414	purple	2	176,947,764	Body	Island	EVX2	0.701	-0.001	0.022	0.818
cg04071446	purple	10	115,933,849	1stExon	Island	C10orf118	0.701	-0.002	0.034	0.095
cg00368059	purple	10	106,034,747	Body	Island	GSTO2	0.701	-0.001	0.156	0.856
cg08857478	purple	17	74,722,826	1stExon	Island	JMJD6	0.701	-0.001	0.113	0.882
cg01013732	purple	20	44,992,585	5'UTR	N_Shore	SLC35C2	0.701	-0.004	0.050	0.024
cg17959324	purple	19	42,747,065	TSS1500	Island	GSK3A	0.700	0.001	0.014	0.452
cg22469841	purple	3	120,169,368	Body	Island	FSTL1	0.700	-0.001	0.012	0.715
cg11852671	purple	15	96,960,214		Island		0.700	-0.001	0.016	0.447
cg05100916	purple	7	112,090,586	1stExon	Island	IFRD1	0.700	-0.005	0.048	0.029
cg23961842	purple	6	85,483,800		Island		0.700	-0.005	0.036	0.256
cg22111038	purple	5	57,879,168	Body	Island	RAB3C	0.700	-0.001	0.035	0.442
cg26687120	purple	2	9,954,121		Island		0.700	0.000	0.015	0.551
cg17052976	purple	3	184,033,217	5'UTR	Island	EIF4G1	0.700	0.000	0.052	0.966
cg12955252	purple	20	32,891,324	5'UTR	Island	AHCY	0.700	0.000	0.029	0.938
cg25764824	purple	22	42,085,083	TSS200	S_Shore	NHP2L1	0.700	-0.002	0.026	0.342
cg17572663	purple	8	27,950,635	1stExon	Island	ELP3	0.700	-0.001	0.021	0.636
cg09576882	purple	5	6,714,987	5'UTR	S_Shore	POLS	0.700	0.000	0.016	0.904
cg00203463	purple	9	140,150,331	Body	Island	COBRA1	0.700	-0.001	0.054	0.897
cg09351636	purple	6	112,408,961	TSS1500	S_Shore	TUBE1	0.700	0.000	0.014	0.598
cg04304333	purple	17	59,474,038		Island		0.700	-0.005	0.068	0.536
cg08049553	purple	17	73,257,843	1stExon	Island	MRPS7	0.700	-0.006	0.061	0.298
cg11906777	purple	4	73,935,531	TSS200	Island	COX18	0.699	-0.002	0.036	0.508
cg07135446	purple	8	12,990,386	Body	Island	DLC1	0.699	-0.005	0.039	0.288
cg09852199	purple	1	203,764,897	1stExon	Island	ZC3H11A	0.699	0.001	0.023	0.440
cg21554501	purple	17	38,474,539	1stExon	Island	RARA	0.699	-0.001	0.016	0.502
cg27189973	purple	16	88,850,755	Body	Island	FAM38A	0.699	-0.005	0.041	0.269
cg00911981	purple	3	142,297,824	TSS200	Island	ATR	0.699	-0.003	0.047	0.617
cg08424876	purple	3	196,669,195	Body	Island	NCBP2	0.699	-0.003	0.032	0.404
cg18350792	purple	12	112,563,442	5'UTR	Island	TRAFD1	0.699	-0.002	0.041	0.551
cg08363794	purple	2	176,986,460	TSS1500	Island	HOXD9	0.699	0.000	0.042	0.893
cg27196102	purple	16	23,464,713	TSS1500	S_Shore	COG7	0.699	0.000	0.028	0.986

cg05502939	purple	18	46,066,500	5'UTR	Island	KIAA0427	0.699	0.000	0.021	0.998
cg21008684	purple	2	157,198,370		Island		0.699	0.000	0.022	0.930
cg03449387	purple	3	183,736,084	TSS1500	Island	ABCC5	0.699	0.000	0.013	0.619
cg16370446	purple	4	15,683,284	TSS200	Island	LOC285550	0.699	-0.009	0.046	0.134
cg04974899	purple	20	25,177,027	5'UTR	Island	ENTPD6	0.699	-0.003	0.032	0.208
cg20303399	purple	8	26,722,965	TSS200	Island	ADRA1A	0.699	-0.002	0.038	0.532
cg26750487	purple	1	207,818,449	TSS200	Island	CR1L	0.699	-0.001	0.024	0.788
cg04729730	purple	11	69,258,477		Island		0.699	-0.003	0.053	0.410
cg13230172	purple	11	120,195,828	TSS200	Island	TMEM136	0.699	0.000	0.012	0.438
cg20952358	purple	5	95,297,817	TSS200	S_Shore	ELL2	0.699	0.000	0.019	0.926
cg13830203	purple	3	27,762,916	1stExon	Island	EOMES	0.699	-0.001	0.046	0.729
cg26812503	purple	16	75,681,495	5'UTR	Island	KARS	0.699	0.002	0.032	0.753
cg04181546	purple	9	79,631,748		Island		0.699	-0.004	0.039	0.090
cg22132309	purple	11	2,923,490	5'UTR	Island	SLC22A18AS	0.698	0.003	0.054	0.500
cg09172817	purple	18	9,915,098	Body	Island	VAPA	0.698	-0.004	0.043	0.467
cg17212073	purple	17	7,818,956	Body	Island	LOC284023	0.698	-0.002	0.031	0.445
cg02720618	purple	6	152,129,791	Body	S_Shore	ESR1	0.698	0.000	0.012	0.685
cg04511966	purple	5	180,618,506		Island		0.698	-0.003	0.038	0.022
cg24894764	purple	5	139,029,542	5'UTR	Island	CXXC5	0.698	-0.001	0.022	0.544
cg27100316	purple	1	151,735,804	Body	Island	OAZ3	0.698	0.001	0.021	0.525
cg17498523	purple	14	81,687,766	TSS1500	Island	GTF2A1	0.698	-0.001	0.028	0.774
cg00929855	purple	6	31,783,364	1stExon	Island	HSPA1A	0.698	-0.003	0.023	0.483
cg05014952	purple	14	35,873,130	Body	Island	NFKBIA	0.698	-0.003	0.054	0.605
cg05164022	purple	11	112,160,734		N_Shore		0.698	-0.003	0.049	0.300
cg27548631	purple	3	58,291,896	TSS200	Island	RPP14	0.698	0.000	0.020	0.630
cg05128992	purple	18	3,450,160	5'UTR	Island	TGIF1	0.698	-0.001	0.024	0.357
cg16659246	purple	4	18,023,725	TSS1500	Island	LCORL	0.698	0.000	0.019	0.871
cg22931725	purple	1	240,255,627	1stExon	Island	FMN2	0.697	-0.005	0.043	0.133
cg00367327	purple	22	44,419,885	Body	Island	PARVB	0.697	-0.001	0.061	0.882
cg17003783	purple	8	33,330,584	1stExon	Island	FUT10	0.697	-0.003	0.051	0.601
cg14959729	purple	6	166,580,693	Body	Island	T	0.697	0.002	0.039	0.516
cg26856330	purple	19	19,314,312	TSS200	Island	NR2C2AP	0.697	0.000	0.015	0.891
cg01176150	purple	16	31,519,952	TSS1500	S_Shore	C16orf58	0.697	-0.001	0.021	0.772
cg08908148	purple	7	39,606,013	1stExon	Island	C7orf36	0.697	-0.007	0.058	0.199
cg24247472	purple	17	46,908,838	5'UTR	Island	CALCOCO2	0.697	-0.002	0.037	0.575
cg12032009	purple	15	62,352,934	TSS1500	Island	VPS13C	0.697	-0.001	0.038	0.756
cg08174718	purple	3	55,521,861	TSS1500	Island	WNT5A	0.697	0.001	0.019	0.706
cg18749273	purple	15	68,569,993	TSS200	Island	FEM1B	0.697	0.001	0.055	0.787
cg03653801	purple	1	9,747,772	5'UTR	N_Shore	PIK3CD	0.697	0.000	0.031	0.921
cg06274917	purple	16	30,597,112	TSS200	S_Shore	ZNF785	0.697	0.000	0.016	0.758
cg21742931	purple	11	69,455,840	TSS200	Island	CCND1	0.696	-0.001	0.014	0.431
cg03602730	purple	3	120,626,911	TSS200	Island	STXBPL	0.696	0.000	0.019	0.696
cg01245284	purple	12	76,426,035	TSS1500	Island	PHLDA1	0.696	-0.001	0.022	0.491
cg21542094	purple	10	6,243,955	TSS1500	Island	PFKFB3	0.696	-0.003	0.044	0.234
cg18304766	purple	12	66,220,165	Body	Island	RPSAP52	0.696	0.002	0.040	0.471
cg15801573	purple	8	128,750,924	Body	Island	MYC	0.696	-0.002	0.046	0.494
cg21761811	purple	7	112,031,374		N_Shore		0.696	0.001	0.026	0.718
cg18481087	purple	3	160,474,064	5'UTR	Island	PPM1L	0.696	0.002	0.089	0.698
cg18827954	purple	4	5,053,585	1stExon	Island	STK32B	0.696	-0.006	0.068	0.386
cg22544673	purple	21	48,088,150		S_Shore		0.696	-0.001	0.027	0.549
cg02815053	purple	2	3,381,671	TSS200	Island	TSSC1	0.696	-0.006	0.074	0.232
cg07471962	purple	14	55,368,706	Body	Island	GCH1	0.696	-0.002	0.023	0.339
cg06619059	purple	19	1,408,842	Body	Island	DAZAP1	0.696	-0.005	0.026	0.108
cg08793689	purple	5	76,114,684	TSS200	Island	F2RL1	0.696	-0.002	0.045	0.321
cg27416372	purple	3	147,110,229	Body	Island	ZIC4	0.696	-0.005	0.039	0.372
cg20408693	purple	12	46,767,289	TSS1500	S_Shore	SLC38A2	0.696	-0.001	0.022	0.276
cg26439238	purple	13	45,563,672	TSS200	Island	NUFIP1	0.696	-0.001	0.018	0.545
cg06624291	purple	20	21,494,689	TSS200	Island	NKX2-2	0.695	-0.007	0.097	0.033
cg11640378	purple	7	27,282,233	1stExon	Island	EVX1	0.695	0.000	0.021	0.869
cg24615528	purple	3	182,880,694	TSS200	Island	LAMP3	0.695	-0.002	0.023	0.238
cg18116217	purple	10	3,215,066	TSS200	Island	PITRM1	0.695	-0.007	0.074	0.544
cg05219900	purple	9	35,732,569	TSS200	Island	TLN1	0.695	0.000	0.011	0.736
cg14809191	purple	6	1,311,825	TSS1500	Island	FOXQ1	0.695	-0.002	0.041	0.343
cg16465128	purple	16	30,389,462	3'UTR	Island	1-Sep	0.695	-0.003	0.042	0.452
cg06016431	purple	17	47,785,573	TSS1500		SLC35B1	0.695	0.000	0.018	0.769
cg11144641	purple	5	134,871,566	5'UTR	Island	NEUROG1	0.695	-0.001	0.029	0.720
cg21941105	purple	19	10,491,405	TSS200	Island	TYK2	0.695	-0.005	0.036	0.273

cg25452632	purple	12	56,754,141	TSS1500	Island	STAT2	0.695	0.000	0.017	0.748
cg16648632	purple	6	6,003,584	Body	Island	NRN1	0.695	-0.005	0.072	0.457
cg06527865	purple	1	234,746,497	TSS1500	Island	IRF2BP2	0.695	-0.003	0.025	0.272
cg09834162	purple	7	108,209,967	TSS200	Island	THAP5	0.695	0.001	0.015	0.612
cg23989912	purple	11	77,899,573	TSS1500	Island	USP35	0.695	-0.001	0.033	0.563
cg01718711	purple	8	8,860,266	TSS200	Island	ERI1	0.695	0.000	0.013	0.519
cg11773816	purple	4	13,549,673	TSS1500	Island	LOC285548	0.695	0.001	0.022	0.589
cg06329143	purple	18	48,556,512	TSS200	Island	SMAD4	0.695	0.020	0.164	0.114
cg21308020	purple	4	99,182,242	TSS1500	Island	RAP1GDS1	0.694	0.004	0.061	0.603
cg10141938	purple	7	26,240,087	Body	Island	HNRNPA2B1	0.694	0.000	0.023	0.825
cg21941374	purple	3	120,461,451	TSS200		GTF2E1	0.694	-0.001	0.027	0.376
cg00973947	purple	3	143,692,255	5'UTR	Island	C3orf58	0.694	-0.001	0.153	0.880
cg19406117	purple	4	77,228,196	Body	Island	STBD1	0.694	-0.002	0.044	0.604
cg19764555	purple	11	62,315,119	TSS1500	S_Shore	AHNAK	0.694	-0.001	0.031	0.651
cg05287314	purple	20	822,198	5'UTR	Island	FAM110A	0.694	-0.006	0.051	0.113
cg11232610	purple	5	140,027,381	TSS200	Island	NDUFA2	0.694	-0.001	0.015	0.441
cg01657744	purple	10	88,471,748	Body	Island	LDB3	0.694	-0.001	0.021	0.547
cg00671093	purple	11	95,522,599	TSS1500	Island	CEP57	0.694	-0.001	0.021	0.646
cg06569176	purple	6	143,857,744		Island		0.694	-0.001	0.043	0.663
cg27064981	purple	15	91,478,553	1stExon	Island	UNC45A	0.694	-0.001	0.025	0.438
cg27597956	purple	11	31,839,463	5'UTR	Island	PAX6	0.694	-0.001	0.042	0.673
cg11382055	purple	1	233,749,410	TSS1500	Island	KCNK1	0.694	0.001	0.027	0.704
cg16228804	purple	1	89,150,099	5'UTR	Island	PKN2	0.694	0.001	0.022	0.500
cg21465180	purple	2	54,682,970	TSS1500	Island	SPTBN1	0.694	-0.002	0.025	0.209
cg16604136	purple	1	163,291,493	TSS1500	Island	NUF2	0.693	0.000	0.015	0.704
cg22031336	purple	4	89,079,809	1stExon	Island	ABCG2	0.693	0.000	0.013	0.593
cg04533881	purple	14	50,583,218	1stExon	Island	C14orf138	0.693	-0.008	0.045	0.253
cg13902357	purple	6	31,324,280	Body	Island	HLA-B	0.693	0.007	0.086	0.558
cg24506574	purple	3	167,812,830	Body	Island	GOLIM4	0.693	-0.006	0.074	0.151
cg11761821	purple	2	97,175,259	TSS1500	S_Shore	NEURL3	0.693	-0.001	0.026	0.562
cg07796062	purple	20	60,758,377	5'UTR	Island	GTPBP5	0.693	-0.001	0.017	0.376
cg05325193	purple	20	22,558,233	Body	Island	C20orf56	0.693	0.000	0.016	0.936
cg17046044	purple	1	169,455,132	5'UTR	Island	SLC19A2	0.693	-0.001	0.020	0.527
cg13321967	purple	4	53,617,679		S_Shore		0.693	-0.001	0.019	0.369
cg26977011	purple	19	12,917,768	Body	S_Shore	RNASEH2A	0.693	-0.001	0.033	0.543
cg05270688	purple	1	64,059,777	Body	Island	PGM1	0.692	-0.001	0.027	0.337
cg18630855	purple	2	37,459,194	TSS1500	Island	CEBPZ	0.692	-0.002	0.032	0.211
cg15142485	purple	2	240,323,713	TSS1500	Island	HDAC4	0.692	0.000	0.049	0.924
cg08097417	purple	7	130,419,133	TSS1500	Island	KLF14	0.692	-0.002	0.047	0.233
cg22468803	purple	18	9,136,381	TSS1500	Island	ANKRD12	0.692	-0.001	0.030	0.537
cg02675414	purple	12	54,089,240		Island		0.692	0.000	0.038	0.963
cg01259360	purple	11	66,034,992	3'UTR	Island	KLC2	0.692	-0.003	0.043	0.365
cg25296860	purple	13	20,702,426		Island		0.692	-0.001	0.036	0.816
cg01083434	purple	7	40,174,191	TSS1500	Island	C7orf10	0.692	0.000	0.054	0.964
cg24218995	purple	18	67,873,134	TSS200	Island	RTTN	0.692	0.001	0.024	0.625
cg12448724	purple	6	80,340,883	TSS200	Island	SH3BGRL2	0.692	0.000	0.022	0.816
cg02508567	purple	2	85,361,184	Body	Island	TCF7L1	0.692	-0.004	0.072	0.642
cg00570362	purple	4	48,344,328	Body	Island	SLAIN2	0.692	-0.002	0.059	0.538
cg21662263	purple	15	22,893,997	5'UTR	Island	CYFIP1	0.692	0.002	0.033	0.434
cg14131755	purple	10	50,606,043		Island		0.692	-0.002	0.067	0.647
cg01559663	purple	8	53,852,274	TSS200	Island	NPBWR1	0.692	-0.008	0.042	0.266
cg26677448	purple	10	102,505,345	TSS200	Island	PAX2	0.691	-0.004	0.043	0.374
cg06776953	purple	1	149,859,104	1stExon	Island	HIST2H2AB	0.691	0.001	0.012	0.116
cg24546083	purple	1	154,155,925	TSS1500	Island	TPM3	0.691	-0.001	0.015	0.415
cg02412050	purple	6	35,995,429	TSS200	Island	MAPK14	0.691	-0.001	0.025	0.400
cg11073558	purple	8	97,171,901	Body	Island	GDF6	0.691	-0.004	0.041	0.404
cg26629188	purple	21	47,878,281	TSS1500	Island	DIP2A	0.691	0.001	0.033	0.663
cg08978953	purple	1	120,190,520	TSS200	Island	ZNF697	0.691	-0.001	0.033	0.651
cg07385577	purple	21	47,394,015		Island		0.691	0.000	0.023	0.875
cg19282742	purple	16	31,469,983	TSS1500	Island	ARMC5	0.691	0.000	0.021	0.857
cg24277128	purple	6	31,633,779	1stExon	Island	CSNK2B	0.691	-0.002	0.055	0.430
cg21510892	purple	7	155,604,819	5'UTR	Island	SHH	0.691	0.002	0.104	0.713
cg15355387	purple	3	85,007,817	TSS1500	N_Shore	CADM2	0.691	0.000	0.024	0.954
cg07118041	purple	17	79,213,681	Body	Island	C17orf89	0.691	-0.005	0.045	0.057
cg11011602	purple	9	136,215,029	TSS1500	Island	SNORD24	0.691	-0.002	0.021	0.227
cg10009297	purple	17	34,890,195	5'UTR	N_Shore	MYO19	0.691	0.000	0.026	0.872
cg02167732	purple	14	81,687,645	TSS1500	Island	GTF2A1	0.691	0.000	0.014	0.528

cg09315814	purple	1	227,915,919	TSS1500	N_Shore	LOC10013005	0.690	0.000	0.027	0.992
cg02996684	purple	17	73,257,924	TSS1500	Island	GGA3	0.690	-0.005	0.038	0.099
cg19792268	purple	12	29,936,125	5'UTR	Island	TMTC1	0.690	0.000	0.030	0.769
cg06549216	purple	4	154,710,224	5'UTR	Island	SFRP2	0.690	-0.001	0.030	0.744
cg05285441	purple	1	7,765,855	Body	Island	CAMTA1	0.690	-0.003	0.058	0.372
cg20346165	purple	20	39,318,984	TSS1500	Island	MAFB	0.690	-0.001	0.043	0.748
cg19675288	purple	6	166,582,206	TSS200	Island	T	0.690	0.000	0.022	0.852
cg11244037	purple	5	60,139,516	5'UTR	Island	ELOVL7	0.690	0.001	0.026	0.613
cg09818930	purple	16	31,106,315	TSS200	Island	VKORC1	0.690	0.003	0.038	0.182
cg06085544	purple	2	234,763,390	TSS200	Island	HJURP	0.690	-0.004	0.036	0.083
cg11278857	purple	10	101,492,618	TSS200	S_Shore	COX15	0.690	-0.001	0.016	0.561
cg14527148	purple	15	80,216,341	Body	Island	C15orf37	0.690	-0.003	0.041	0.356
cg02933881	purple	19	58,193,323	TSS200	Island	ZNF551	0.690	-0.001	0.019	0.495
cg08042975	purple	2	213,402,433	Body	Island	ERBB4	0.690	-0.003	0.036	0.552
cg17547537	purple	17	39,845,544	Body	Island	EIF1	0.690	-0.001	0.031	0.807
cg27505880	purple	10	101,491,799	1stExon	Island	COX15	0.689	0.000	0.019	0.803
cg19233923	purple	11	63,753,598	5'UTR	Island	OTUB1	0.689	-0.001	0.025	0.721
cg24983561	purple	5	54,603,725	TSS1500	Island	DHX29	0.689	0.000	0.014	0.586
cg02014003	purple	14	27,067,707	TSS1500	S_Shore	NOVA1	0.689	-0.001	0.033	0.348
cg00992297	purple	5	141,061,943	TSS200		ARAP3	0.689	0.000	0.013	0.917
cg25264554	purple	3	142,166,789	5'UTR	Island	XRN1	0.689	-0.003	0.025	0.104
cg09965258	purple	9	14,313,762	5'UTR	Island	NFIB	0.689	0.001	0.034	0.583
cg11739541	purple	12	49,582,842	5'UTR	Island	TUBA1A	0.689	0.000	0.013	0.630
cg21438706	purple	1	100,816,970	TSS1500	N_Shore	CDC14A	0.689	-0.002	0.033	0.373
cg22005150	purple	19	14,682,977	TSS200	Island	NDUFB7	0.689	-0.001	0.021	0.592
cg10221240	purple	4	1,004,669	TSS1500	Island	FGFRL1	0.689	0.002	0.018	0.204
cg17926678	purple	14	69,865,058	TSS1500	Island	SLC39A9	0.689	0.002	0.016	0.089
cg16783819	purple	6	122,720,842	5'UTR	Island	HSF2	0.689	-0.003	0.031	0.390
cg22124117	purple	15	43,028,932	Body	Island	CDAN1	0.689	0.000	0.040	0.935
cg16697775	purple	6	43,543,259	TSS1500	Island	POLH	0.689	-0.002	0.054	0.689
cg16971831	purple	5	56,110,935	1stExon	Island	MAP3K1	0.689	-0.002	0.025	0.470
cg23934081	purple	20	32,951,001	TSS200	Island	ITCH	0.688	0.000	0.016	0.705
cg11826116	purple	22	39,916,314	TSS1500	Island	ATF4	0.688	0.001	0.035	0.861
cg22777326	purple	4	13,546,316	TSS1500	Island	NKX3-2	0.688	-0.003	0.058	0.492
cg26110883	purple	14	105,953,088	TSS200	Island	CRIP1	0.688	-0.001	0.017	0.112
cg02149708	purple	6	166,582,159	TSS200	Island	T	0.688	0.000	0.031	0.899
cg14130322	purple	4	185,655,352	TSS200	Island	MLF1IP	0.688	-0.002	0.021	0.306
cg11329235	purple	1	24,969,260	TSS1500	Island	SRRM1	0.688	-0.001	0.024	0.570
cg18493069	purple	6	108,582,623	TSS200	Island	SNX3	0.688	-0.002	0.020	0.448
cg19850545	purple	22	41,347,463	1stExon	Island	RBX1	0.688	-0.002	0.045	0.600
cg08954856	purple	22	43,506,306	TSS1500	N_Shore	BIK	0.688	-0.001	0.016	0.468
cg04404789	purple	16	46,722,505	TSS1500	N_Shore	ORC6L	0.688	0.000	0.011	0.748
cg09092356	purple	10	60,028,877	TSS200	Island	CISD1	0.688	-0.002	0.032	0.336
cg26623550	purple	1	112,281,629	Body	Island	C1orf183	0.688	0.000	0.015	0.752
cg12473838	purple	7	141,438,026	TSS200	Island	SSBP1	0.688	-0.001	0.019	0.332
cg08390021	purple	18	51,884,793	TSS1500	Island	C18orf54	0.688	-0.003	0.030	0.133
cg23031815	purple	19	14,606,622	5'UTR	N_Shore	GIPC1	0.687	0.000	0.017	0.654
cg06286308	purple	12	93,836,329	TSS1500	S_Shore	UBE2N	0.687	0.000	0.014	0.789
cg27049318	purple	5	68,514,098	Body	Island	MRPS36	0.687	-0.012	0.074	0.016
cg11775731	purple	2	203,879,480	TSS200	Island	NBEAL1	0.687	-0.001	0.015	0.030
cg26829088	purple	19	3,626,949	TSS200	Island	C19orf29	0.687	0.004	0.052	0.491
cg18296227	purple	10	99,205,774	TSS200	Island	ZDHHC16	0.687	0.000	0.013	0.802
cg15461335	purple	13	88,324,432	TSS1500	Island	SLITRK5	0.687	-0.002	0.039	0.426
cg25046074	purple	2	56,150,549	TSS200	Island	EFEMP1	0.687	0.000	0.021	0.922
cg13619528	purple	22	24,667,492	5'UTR	S_Shore	CYTSA	0.687	-0.001	0.025	0.578
cg17755923	purple	1	16,481,715	Body	Island	EPHA2	0.687	-0.001	0.018	0.531
cg00319168	purple	2	176,958,174	1stExon	Island	HOXD13	0.687	-0.001	0.040	0.499
cg00234384	purple	5	54,179,570		Island		0.687	-0.007	0.057	0.104
cg17579825	purple	11	79,148,889	5'UTR	Island	ODZ4	0.687	-0.002	0.035	0.401
cg22396980	purple	8	146,228,348	TSS200	Island	ZNF252	0.687	-0.001	0.028	0.744
cg16751764	purple	10	82,168,743	5'UTR	Island	C10orf58	0.687	-0.010	0.071	0.231
cg25696485	purple	21	38,445,943	TSS1500	Island	PIGP	0.686	0.006	0.046	0.471
cg27086636	purple	5	112,312,957	Body	Island	DCP2	0.686	-0.002	0.040	0.234
cg16322406	purple	7	20,371,076	5'UTR	Island	ITGB8	0.686	-0.001	0.022	0.802
cg08464824	purple	19	56,904,977	TSS200	Island	ZNF582	0.686	-0.006	0.050	0.076
cg20227213	purple	3	37,284,559	TSS200	Island	GOLGA4	0.686	-0.001	0.044	0.644
cg22685123	purple	19	35,168,238	TSS1500	Island	ZNF302	0.686	-0.002	0.026	0.306

cg10998744	purple	22	30,685,926	TSS1500	S_Shore	GATSL3	0.686	0.001	0.022	0.715
cg03669663	purple	13	27,844,659	1stExon	Island	RASL11A	0.686	-0.004	0.050	0.248
cg05380982	purple	21	39,288,378	1stExon	Island	KCNJ6	0.686	-0.001	0.040	0.548
cg03625010	purple	12	24,715,484	TSS200	Island	SOX5	0.686	0.000	0.016	0.709
cg25699121	purple	15	91,537,812	TSS200	Island	PRC1	0.686	0.000	0.017	0.961
cg05871607	purple	1	28,241,317	TSS200	Island	RPA2	0.686	-0.003	0.057	0.652
cg09155219	purple	14	48,144,280	TSS1500	Island	MDGA2	0.686	0.000	0.046	0.842
cg04165128	purple	19	52,693,149	TSS200	Island	PPP2R1A	0.686	-0.001	0.021	0.662
cg08914797	purple	11	126,870,648	1stExon	S_Shore	KIRREL3	0.686	0.000	0.020	0.694
cg08946615	purple	6	86,388,512	TSS1500	Island	SNORD50B	0.685	0.000	0.020	0.716
cg13776499	purple	2	12,858,298	1stExon	Island	TRIB2	0.685	0.002	0.060	0.811
cg09879099	purple	18	55,102,210	TSS1500	N_Shore	ONECUT2	0.685	-0.001	0.023	0.303
cg18628371	purple	14	24,641,189	TSS200	Island	REC8	0.685	0.000	0.040	0.808
cg09678836	purple	13	113,623,844	Body	S_Shore	MCF2L	0.685	0.001	0.019	0.279
cg05092885	purple	4	106,629,795	5'UTR	Island	INTS12	0.685	0.000	0.018	0.842
cg14049470	purple	10	20,105,452	1stExon	Island	PLXDC2	0.685	0.000	0.024	0.771
cg08572734	purple	12	133,485,298		Island		0.685	-0.001	0.023	0.505
cg17074454	purple	6	160,389,792	TSS1500	N_Shore	IGF2R	0.685	0.000	0.026	0.669
cg27516940	purple	1	231,376,852	TSS200	Island	GNPAT	0.685	-0.001	0.019	0.427
cg03826601	purple	12	9,102,508	TSS1500	Island	M6PR	0.685	-0.001	0.019	0.482
cg04908789	purple	18	59,001,676		Island		0.684	0.000	0.019	0.839
cg03744724	purple	19	49,496,744	TSS200	Island	GYS1	0.684	0.000	0.018	0.591
cg07462790	purple	4	2,795,105	5'UTR	N_Shore	SH3BP2	0.684	-0.002	0.027	0.361
cg08973927	purple	16	67,514,652	Body	Island	ATP6V0D1	0.684	0.001	0.017	0.364
cg10650915	purple	6	32,098,218	TSS200	S_Shore	FKBPL	0.684	0.000	0.026	0.910
cg22104153	purple	5	70,883,106	TSS200	Island	MCCC2	0.684	-0.001	0.040	0.496
cg23337382	purple	4	22,517,965	TSS1500	Island	GPR125	0.684	-0.001	0.036	0.633
cg26147335	purple	20	62,496,437	TSS200	Island	TPD52L2	0.684	-0.003	0.030	0.123
cg08111446	purple	20	61,886,079	TSS200	Island	NKAIN4	0.684	0.000	0.018	0.560
cg20431080	purple	7	149,158,239	TSS200	S_Shore	ZNF777	0.684	-0.003	0.033	0.280
cg01650904	purple	20	37,354,889	Body	Island	SLC32A1	0.684	-0.002	0.032	0.244
cg03887008	purple	16	1,360,923	5'UTR	S_Shore	UBE2I	0.684	0.001	0.017	0.543
cg19980593	purple	11	128,760,909	TSS1500	Island	KCNJ5	0.684	-0.004	0.079	0.208
cg15112523	purple	9	132,806,002	TSS1500	Island	FNBP1	0.684	0.001	0.031	0.709
cg17310611	purple	1	113,615,709	TSS200	Island	LRIG2	0.684	0.000	0.045	0.986
cg26544277	purple	2	220,083,865	TSS200	Island	ABC86	0.684	0.001	0.022	0.653
cg02286335	purple	10	58,121,068	TSS200	Island	ZWINT	0.683	-0.003	0.038	0.602
cg25046878	purple	20	20,345,035		Island		0.683	0.002	0.036	0.390
cg14311608	purple	3	42,814,892	TSS200	Island	CCDC13	0.683	0.000	0.015	0.550
cg17076890	purple	10	23,481,421	TSS200	Island	PTF1A	0.683	-0.006	0.082	0.363
cg24271863	purple	5	174,178,647		Island		0.683	-0.002	0.041	0.336
cg08268585	purple	5	34,839,194	TSS200	Island	TTC23L	0.683	-0.001	0.028	0.638
cg13497074	purple	22	29,138,061	5'UTR	Island	HSCB	0.683	-0.002	0.030	0.374
cg27463953	purple	20	3,451,306	TSS1500	Island	ATRN	0.683	-0.006	0.034	0.198
cg11662891	purple	1	94,375,064	TSS200	Island	GCLM	0.683	0.002	0.028	0.718
cg18435449	purple	19	58,095,445	TSS200	Island	ZIK1	0.683	-0.001	0.026	0.628
cg22762076	purple	19	7,069,572	5'UTR	Island	ZNF557	0.683	0.000	0.030	0.928
cg18154422	purple	10	31,609,200	TSS1500	Island	ZEB1	0.683	-0.010	0.075	0.026
cg00989323	purple	10	49,864,621		S_Shore		0.683	-0.003	0.035	0.400
cg03535066	purple	14	62,228,987	TSS200	Island	SNAPC1	0.683	-0.002	0.032	0.366
cg07206840	purple	1	110,949,893	Body	Island	HBXIP	0.683	0.000	0.018	0.783
cg02075054	purple	10	7,829,911	1stExon	Island	KIN	0.683	-0.002	0.016	0.149
cg06518779	purple	13	103,452,556	5'UTR	Island	BIVM	0.683	-0.001	0.021	0.569
cg04250847	purple	12	82,152,425	5'UTR	Island	PPFIA2	0.683	0.000	0.017	0.837
cg10739344	purple	15	44,119,276	5'UTR	Island	WDR76	0.683	0.001	0.026	0.579
cg25609284	purple	20	36,156,393	TSS200	Island	BLCAP	0.683	0.000	0.018	0.587
cg26627511	purple	2	46,525,649	Body	Island	EPAS1	0.683	-0.001	0.028	0.831
cg00687095	purple	1	176,176,785	TSS1500	Island	RFWD2	0.683	-0.001	0.013	0.139
cg07590961	purple	7	154,002,312	TSS200	S_Shore	DPP6	0.683	0.000	0.028	0.813
cg25734420	purple	3	127,317,128	TSS200	Island	MCM2	0.683	0.002	0.025	0.344
cg18467110	purple	3	140,661,601	Body	Island	SLC25A36	0.683	-0.002	0.030	0.518
cg17020562	purple	18	59,560,495	TSS200	Island	RNF152	0.683	0.000	0.022	0.987
cg15749322	purple	11	82,905,199	TSS200	Island	ANKRD42	0.682	0.000	0.012	0.772
cg13843603	purple	17	30,771,994	Body	Island	PSMD11	0.682	-0.002	0.036	0.508
cg19909712	purple	11	17,374,669	Body	N_Shore	DKFZp686O24	0.682	0.000	0.022	0.981
cg25372103	purple	6	170,599,661	1stExon	Island	DLL1	0.682	0.003	0.033	0.475
cg15427567	purple	14	21,458,055	1stExon	N_Shore	METT11D1	0.682	-0.001	0.017	0.433

cg02466847	purple	12	105,380,444	Body	Island	C12orf45	0.682	-0.002	0.032	0.216
cg19211800	purple	6	114,179,013	1stExon	N_Shore	MARCKS	0.682	0.000	0.024	0.842
cg14258555	purple	19	50,180,725	Body	Island	PRMT1	0.682	0.001	0.022	0.604
cg24214260	purple	19	58,193,221	TSS200	N_Shore	ZNF551	0.682	-0.001	0.027	0.482
cg01458420	purple	20	48,532,416	TSS1500	S_Shore	SPATA2	0.682	-0.003	0.032	0.366
cg11491770	purple	20	60,961,646	TSS1500	Island	RPS21	0.681	-0.001	0.021	0.475
cg14139870	purple	4	141,075,097	5'UTR	Island	MAML3	0.681	0.001	0.017	0.664
cg06046434	purple	11	57,425,242	1stExon	Island	CLP1	0.681	0.001	0.016	0.506
cg01154537	purple	10	95,462,167	5'UTR	Island	C10orf4	0.681	-0.003	0.036	0.419
cg09695652	purple	3	139,108,473	1stExon	Island	COPB2	0.681	-0.004	0.021	0.023
cg08127941	purple	6	30,293,955	TSS1500	N_Shore	TRIM39	0.681	-0.001	0.029	0.418
cg01483063	purple	10	112,836,471	TSS1500	Island	ADRA2A	0.681	-0.004	0.031	0.109
cg12375025	purple	18	67,873,125	TSS200	Island	RTTN	0.681	-0.005	0.026	0.278
cg04371440	purple	12	112,819,495		Island		0.681	-0.001	0.021	0.642
cg06230462	purple	11	77,790,851	5'UTR	Island	NDUFC2	0.681	0.001	0.031	0.852
cg18296308	purple	11	2,422,154	TSS1500	Island	TSSC4	0.681	-0.002	0.039	0.339
cg04855748	purple	11	64,067,763	TSS200	Island	C11orf20	0.681	-0.003	0.022	0.226
cg07195622	purple	16	2,803,408	5'UTR	Island	SRRM2	0.681	-0.002	0.023	0.255
cg02394110	purple	1	25,573,993	TSS200	Island	C1orf63	0.681	0.000	0.040	0.935
cg01025599	purple	16	4,303,589		Island		0.681	0.001	0.026	0.847
cg25355987	purple	15	74,753,620	TSS200	Island	UBL7	0.681	0.000	0.013	0.948
cg25861458	purple	8	42,948,482	TSS200	N_Shore	SGK196	0.680	0.000	0.017	0.853
cg02627531	purple	19	52,873,085	TSS200	Island	ZNF880	0.680	-0.001	0.016	0.428
cg00716752	purple	6	31,588,308	TSS200	Island	BAT2	0.680	-0.002	0.035	0.235
cg21752471	purple	5	133,861,794	TSS200	Island	PHF15	0.680	-0.008	0.080	0.271
cg10726394	purple	6	157,098,467	TSS1500		ARID1B	0.680	-0.002	0.016	0.093
cg09456216	purple	2	175,870,288	TSS200	Island	CHN1	0.680	-0.001	0.028	0.471
cg07207220	purple	4	155,664,941	TSS1500	Island	LRAT	0.680	-0.001	0.042	0.794
cg19764048	purple	4	5,053,152	TSS1500	N_Shore	STK32B	0.680	0.005	0.043	0.453
cg18162528	purple	11	133,826,660	1stExon	Island	IGSF9B	0.680	-0.007	0.097	0.420
cg04982748	purple	12	66,696,283	TSS200		HELB	0.680	-0.001	0.028	0.590
cg17221980	purple	6	117,996,486	TSS200	Island	NUS1	0.680	-0.004	0.033	0.516
cg13872356	purple	11	62,341,519	TSS200	Island	EEF1G	0.680	-0.001	0.013	0.514
cg10297721	purple	11	63,742,039	TSS200	Island	COX8A	0.679	0.000	0.019	0.994
cg10824063	purple	11	20,690,934	TSS200	Island	NELL1	0.679	-0.007	0.053	0.233
cg17895236	purple	17	8,924,740	TSS200	Island	NTN1	0.679	-0.003	0.044	0.256
cg18281991	purple	13	113,345,187	Body	Island	ATP11A	0.679	-0.001	0.034	0.678
cg23445360	purple	8	71,316,028	TSS200	Island	NCOA2	0.679	0.001	0.026	0.457
cg05390402	purple	1	111,889,406	Body	Island	C1orf88	0.679	0.000	0.016	0.535
cg04556220	purple	1	32,706,433	Body	Island	MTMR9L	0.679	0.000	0.016	0.732
cg14466680	purple	6	33,267,268	TSS200	Island	RGL2	0.679	-0.001	0.013	0.075
cg08471800	purple	1	110,626,868		Island		0.679	-0.002	0.044	0.620
cg12041467	purple	19	45,873,960	TSS200	Island	ERCC2	0.679	-0.001	0.018	0.588
cg18913527	purple	4	122,745,296	TSS1500	S_Shore	CCNA2	0.679	-0.001	0.020	0.552
cg07925282	purple	7	116,164,950	5'UTR	Island	CAV1	0.679	0.000	0.021	0.758
cg07516956	purple	5	134,915,085	TSS200	S_Shore	CXCL14	0.679	-0.008	0.115	0.246
cg04875007	purple	16	2,014,871	TSS200	Island	SNHG9	0.679	-0.005	0.042	0.374
cg07399369	purple	3	142,838,082	TSS1500	Island	CHST2	0.679	0.002	0.023	0.409
cg03520983	purple	3	61,547,287	1stExon	Island	PTPRG	0.679	-0.003	0.037	0.228
cg01152936	purple	22	19,157,086		Island		0.678	-0.001	0.041	0.610
cg15806518	purple	9	127,177,817	TSS200	Island	PSMB7	0.678	0.000	0.010	0.579
cg22062597	purple	12	1,905,547	Body	Island	CACNA2D4	0.678	-0.002	0.021	0.172
cg06576570	purple	6	143,772,080	5'UTR	Island	PEX3	0.678	0.000	0.023	0.947
cg10814338	purple	17	41,132,463	1stExon	Island	AARSD1	0.678	-0.001	0.017	0.561
cg03959891	purple	7	99,933,717	TSS200	Island	PILRB	0.678	-0.001	0.049	0.919
cg14909795	purple	11	64,851,572	5'UTR	Island	CDCA5	0.678	0.001	0.024	0.418
cg19029220	purple	2	64,067,822	TSS1500	N_Shore	UGP2	0.678	0.001	0.025	0.536
cg18988685	purple	2	233,368,473		Island		0.678	-0.005	0.044	0.058
cg26387966	purple	8	144,503,421		Island		0.678	-0.003	0.080	0.754
cg14663022	purple	18	23,670,713	TSS200	Island	SS18	0.678	-0.001	0.022	0.325
cg04406873	purple	7	65,509,572		Island		0.678	-0.001	0.027	0.756
cg02582608	purple	3	105,085,991	5'UTR	Island	ALCAM	0.678	-0.001	0.012	0.494
cg12976581	purple	6	29,975,032	Body	Island	HLA-J	0.678	-0.004	0.046	0.620
cg26354587	purple	5	149,340,125	TSS200	Island	SLC26A2	0.678	0.001	0.015	0.707
cg04063216	purple	2	14,772,482	TSS1500	Island	FAM84A	0.678	0.000	0.049	0.967
cg23419635	purple	4	180,980,684		S_Shore		0.678	-0.001	0.019	0.473
cg08225642	purple	2	133,173,643	TSS1500	Island	GPR39	0.678	0.000	0.018	0.705



cg04455180	purple	1	227,506,639	TSS1500	Island	CDC42BPA	0.677	-0.001	0.038	0.745
cg14229247	purple	9	100,745,139	TSS1500	Island	ANP32B	0.677	-0.003	0.021	0.256
cg10170443	purple	5	72,794,209	TSS200	Island	BTf3	0.677	0.002	0.031	0.352
cg21341150	purple	3	171,178,963	TSS1500	Island	TNIK	0.677	0.000	0.009	0.539
cg26147823	purple	19	662,331	Body	Island	RNF126	0.677	0.001	0.019	0.439
cg25841159	purple	17	74,137,454	TSS200	Island	FOXJ1	0.677	-0.001	0.023	0.389
cg02921269	purple	14	75,894,323	TSS200	Island	JDP2	0.677	-0.004	0.034	0.440
cg03223185	purple	6	15,246,159	TSS1500	Island	JARID2	0.677	0.000	0.027	0.843
cg13892295	purple	10	28,288,140	TSS200	S_Shore	ARMC4	0.677	-0.003	0.056	0.308
cg26349332	purple	9	37,592,199	Body	Island	TOMM5	0.677	-0.004	0.044	0.030
cg04616691	purple	10	89,621,789	TSS1500	Island	PTEN	0.677	0.000	0.013	0.605
cg05016051	purple	16	30,996,447	TSS200		HSD3B7	0.677	-0.001	0.026	0.369
cg24095088	purple	6	160,210,874	TSS1500	Island	MRPL18	0.677	0.001	0.034	0.808
cg24966575	purple	12	107,713,740	1stExon	Island	BTBD11	0.677	-0.001	0.015	0.327
cg26780404	purple	6	75,915,840	TSS1500	Island	COL12A1	0.677	-0.001	0.016	0.361
cg05441541	purple	16	1,543,911	5'UTR	Island	TELO2	0.677	0.000	0.026	0.937
cg13883202	purple	3	47,422,330	TSS200	Island	PTPN23	0.676	-0.002	0.040	0.526
cg01281285	purple	18	57,364,872	TSS1500	Island	CCBE1	0.676	0.000	0.030	0.853
cg21352959	purple	17	62,340,143	5'UTR	Island	TEX2	0.676	-0.002	0.033	0.724
cg03420998	purple	10	88,124,936	Body	Island	GRID1	0.676	-0.001	0.019	0.205
cg03695699	purple	6	111,580,364	TSS200	Island	KIAA1919	0.676	-0.001	0.024	0.476
cg19340909	purple	1	1,821,422	5'UTR	Island	GNB1	0.676	-0.003	0.037	0.378
cg17019204	purple	6	86,303,781	TSS200	Island	SNX14	0.676	0.000	0.017	0.791
cg07478100	purple	17	5,389,857	TSS1500	Island	MIS12	0.676	0.000	0.032	0.963
cg24019371	purple	1	4,716,554	Body	Island	AJAP1	0.676	-0.001	0.022	0.718
cg04529582	purple	20	30,697,510	1stExon		TM9SF4	0.676	-0.001	0.025	0.431
cg22581361	purple	6	137,819,108		Island		0.676	-0.002	0.041	0.240
cg19696333	purple	10	124,768,261	5'UTR	Island	IKZF5	0.676	0.000	0.019	0.871
cg11786005	purple	6	170,863,399	TSS1500	Island	PSMB1	0.676	-0.001	0.018	0.589
cg23998987	purple	16	2,021,791	TSS1500	Island	TBL3	0.676	0.000	0.013	0.651
cg08133912	purple	19	47,747,483		Island		0.676	0.004	0.030	0.512
cg13187967	purple	11	13,485,012	TSS200	Island	BTBD10	0.676	0.000	0.017	0.756
cg04092076	purple	12	31,742,979	Body	Island	DENND5B	0.676	-0.001	0.022	0.614
cg21220927	purple	14	77,787,328	TSS200	Island	POMT2	0.676	-0.004	0.027	0.115
cg09909775	purple	12	45,610,071	1stExon	Island	ANO6	0.676	-0.001	0.017	0.361
cg14735689	purple	11	76,495,289	5'UTR	Island	TSKU	0.676	0.000	0.025	0.906
cg01488362	purple	19	48,825,151		Island		0.675	-0.001	0.032	0.653
cg02447185	purple	17	71,228,623	TSS200	Island	C17orf80	0.675	0.000	0.015	0.782
cg22183232	purple	11	9,406,733	Body	S_Shore	IPO7	0.675	-0.001	0.030	0.708
cg25649680	purple	3	85,007,992	TSS200	N_Shore	CADM2	0.675	-0.002	0.024	0.178
cg08900106	purple	2	173,099,800		Island		0.675	-0.002	0.026	0.250
cg13423151	purple	9	107,526,487	1stExon	Island	NIPSNAP3B	0.675	0.000	0.020	0.811
cg16290904	purple	8	77,912,348	1stExon	Island	PXMP3	0.675	-0.001	0.017	0.506
cg20074042	purple	10	33,625,992		Island		0.675	0.002	0.022	0.226
cg19846193	purple	1	92,352,084	TSS1500	Island	TGfBR3	0.675	0.000	0.011	0.845
cg17560967	purple	2	73,053,226	TSS200	Island	EXOC6B	0.675	0.000	0.023	0.830
cg12243333	purple	2	27,652,320	5'UTR	S_Shore	NRBP1	0.675	0.000	0.031	0.970
cg07594474	purple	1	91,966,533	TSS200	Island	CDC7	0.675	0.000	0.016	0.928
cg04962159	purple	5	92,916,474	Body	Island	FLJ42709	0.675	0.000	0.011	0.743
cg10258966	purple	20	61,810,795		Island		0.675	-0.003	0.051	0.347
cg26474288	purple	3	98,451,287	TSS1500	Island	ST3GAL6	0.675	-0.003	0.051	0.325
cg17452713	purple	1	23,695,008	TSS1500	Island	C1orf213	0.675	0.005	0.029	0.207
cg00678239	purple	11	65,190,227	TSS200	Island	NEAT1	0.675	-0.005	0.052	0.099
cg22951727	purple	7	127,292,125	TSS200	Island	SND1	0.675	0.003	0.034	0.412
cg03509106	purple	4	121,992,261	5'UTR	Island	C4orf31	0.675	-0.002	0.031	0.372
cg22441683	purple	12	45,609,714	TSS200	Island	ANO6	0.675	-0.003	0.042	0.088
cg22927696	purple	12	45,269,992	Body	Island	NELL2	0.675	0.000	0.023	0.903
cg01321158	purple	16	31,128,800	TSS200	Island	MYST1	0.675	-0.003	0.044	0.216
cg00183107	purple	4	143,767,118	5'UTR	Island	INPP4B	0.675	-0.003	0.035	0.090
cg00924796	purple	5	75,379,515	5'UTR	Island	SV2C	0.675	0.000	0.035	0.892
cg17475381	purple	8	81,152,973				0.675	0.000	0.017	0.543
cg24294159	purple	1	150,947,566	TSS200	Island	LASS2	0.674	-0.002	0.041	0.638
cg02036077	purple	22	35,653,364	TSS200	Island	HMGXB4	0.674	0.000	0.018	0.982
cg12980900	purple	19	19,143,823	5'UTR	N_Shore	SFRS14	0.674	0.001	0.027	0.684
cg05578570	purple	16	88,522,584	Body	S_Shore	ZFPM1	0.674	-0.001	0.069	0.641
cg15067376	purple	9	139,257,843	Body	Island	DNLZ	0.674	-0.004	0.064	0.123
cg14839404	purple	20	55,841,869	TSS200	S_Shore	BMP7	0.674	-0.013	0.055	0.082

cg08477599	purple	6	30,654,827	5'UTR	Island	KIAA1949	0.674	0.002	0.033	0.572
cg23530288	purple	11	236,658	TSS200	Island	PSMD13	0.674	0.001	0.012	0.320
cg21585733	purple	11	107,799,660	Body	Island	RAB39	0.674	-0.001	0.023	0.464
cg21899921	purple	7	73,669,227	TSS1500	S_Shore	RFC2	0.674	0.001	0.020	0.529
cg15660466	purple	17	49,230,788	TSS200	Island	NME1	0.674	0.000	0.025	0.999
cg16341592	purple	3	112,931,182	TSS200	Island	BOC	0.674	-0.006	0.049	0.368
cg23069036	purple	14	39,901,919	TSS1500	Island	FBXO33	0.674	-0.001	0.019	0.226
cg05096964	purple	11	1,715,292	Body	N_Shore	HCCA2	0.674	0.004	0.055	0.277
cg14507132	purple	15	57,210,852	5'UTR	Island	TCF12	0.674	-0.006	0.037	0.164
cg23340525	purple	11	94,227,081	TSS200	Island	MRE11A	0.674	0.000	0.024	0.690
cg04084157	purple	7	100,809,049	TSS200	Island	VGf	0.674	-0.006	0.051	0.013
cg07038887	purple	17	28,618,554	Body	Island	BLMH	0.674	0.000	0.009	0.693
cg16221634	purple	6	73,332,885	Body	Island	KCNQ5	0.674	-0.001	0.009	0.188
cg25033138	purple	1	9,970,789	TSS1500	Island	CTNNBIP1	0.674	-0.001	0.012	0.329
cg23542858	purple	8	125,486,752	TSS1500	Island	RNF139	0.674	0.000	0.020	0.998
cg18877200	purple	6	29,720,927		Island		0.674	0.000	0.026	0.977
cg11323198	purple	16	62,069,806	5'UTR	Island	CDH8	0.674	-0.002	0.023	0.207
cg06212498	purple	3	49,045,151	Body	Island	WDR6	0.674	0.002	0.065	0.544
cg19771465	purple	2	237,145,587	Body	N_Shore	ASB18	0.674	0.000	0.023	0.817
cg16012719	purple	10	102,985,022		Island		0.674	-0.002	0.030	0.268
cg12227907	purple	6	100,055,865	Body	Island	PRDM13	0.674	-0.005	0.052	0.186
cg16035520	purple	11	98,891,820	TSS200	Island	CNTN5	0.673	-0.002	0.021	0.074
cg04233747	purple	5	145,214,971	TSS200	Island	PRELID2	0.673	0.002	0.075	0.820
cg12599700	purple	16	54,962,423		Island		0.673	-0.004	0.050	0.084
cg21484680	purple	2	27,593,328	TSS200	Island	EIF2B4	0.673	-0.003	0.018	0.163
cg11775492	purple	12	51,158,663	5'UTR	Island	ATF1	0.673	-0.001	0.037	0.815
cg27091763	purple	16	67,281,519	TSS200	Island	FHOD1	0.673	-0.001	0.019	0.306
cg22540912	purple	13	103,498,393	1stExon	Island	ERCC5	0.673	-0.004	0.045	0.053
cg05964529	purple	12	110,906,245	Body	Island	GPN3	0.673	0.001	0.019	0.582
cg20670292	purple	2	131,099,506	TSS1500	Island	IMP4	0.673	-0.005	0.082	0.331
cg20569194	purple	17	45,266,785	TSS200	Island	CDC27	0.673	-0.001	0.016	0.379
cg20283668	purple	1	87,797,390	5'UTR	Island	LMO4	0.673	-0.001	0.017	0.403
cg08208917	purple	15	42,565,872	TSS1500	N_Shore	GANC	0.673	-0.001	0.014	0.434
cg03537747	purple	2	27,886,640	1stExon	Island	SLC4A1AP	0.673	-0.002	0.027	0.045
cg08614481	purple	6	78,173,250	TSS200	Island	HTR1B	0.673	-0.002	0.029	0.247
cg11682528	purple	16	751,317	5'UTR	Island	FBXL16	0.673	-0.008	0.060	0.226
cg01534423	purple	17	18,965,556		Island		0.673	-0.004	0.085	0.808
cg13923094	purple	6	7,541,519	TSS1500	Island	DSP	0.673	-0.002	0.023	0.286
cg26834010	purple	7	75,677,171	1stExon	Island	STYXL1	0.673	0.000	0.020	0.752
cg25423402	purple	1	185,286,075	5'UTR	Island	IVNS1ABP	0.673	-0.002	0.015	0.300
cg19446838	purple	22	31,481,145	Body	Island	SMTN	0.672	-0.002	0.033	0.538
cg06500355	purple	6	111,804,104	1stExon	Island	REV3L	0.672	-0.001	0.046	0.866
cg26607748	purple	9	35,690,226	TSS200	Island	TPM2	0.672	0.000	0.039	0.999
cg04941721	purple	4	75,230,901	1stExon		EREG	0.672	0.000	0.024	0.732
cg24161594	purple	6	71,378,177	Body	Island	SMAP1	0.672	-0.003	0.029	0.113
cg11181171	purple	16	55,090,946		Island		0.672	-0.006	0.063	0.082
cg16268429	purple	5	36,242,136	TSS1500	Island	C5orf33	0.672	-0.004	0.053	0.237
cg06200013	purple	17	7,554,513	1stExon	Island	ATP1B2	0.672	-0.001	0.011	0.459
cg10583683	purple	15	23,034,700	TSS1500	Island	NIPA2	0.672	0.001	0.040	0.938
cg18307957	purple	1	9,649,516	Body	Island	TMEM201	0.672	0.000	0.028	0.882
cg00461978	purple	15	75,661,184	TSS1500	S_Shore	MAN2C1	0.672	0.001	0.015	0.240
cg01320614	purple	2	86,115,591	Body	Island	ST3GAL5	0.672	-0.001	0.017	0.654
cg12741488	purple	16	2,933,841	5'UTR	S_Shore	FLYWCH2	0.672	-0.001	0.039	0.594
cg05287690	purple	4	153,456,344	TSS200	Island	FBXW7	0.672	0.000	0.040	0.918
cg26900616	purple	4	159,593,389	5'UTR	Island	ETFDH	0.672	-0.003	0.034	0.334
cg00874055	purple	1	236,306,673	Body	Island	GPR137B	0.672	0.001	0.047	0.612
cg12156885	purple	17	35,295,224	1stExon	Island	LHX1	0.672	-0.004	0.091	0.663
cg01374729	purple	6	159,420,963	1stExon	Island	RSPH3	0.671	-0.003	0.122	0.686
cg11054924	purple	2	26,257,454	5'UTR	Island	RAB10	0.671	0.002	0.021	0.320
cg03758181	purple	10	102,989,325	TSS200	Island	FLJ41350	0.671	-0.001	0.024	0.764
cg17575960	purple	6	84,743,947	5'UTR	Island	MRAP2	0.671	-0.002	0.033	0.357
cg18622256	purple	8	143,750,897	5'UTR	Island	JRK	0.671	0.000	0.029	0.769
cg24692716	purple	6	133,119,484	Body	Island	C6orf192	0.671	0.000	0.021	0.906
cg18644191	purple	1	99,730,224	1stExon	Island	LPPR4	0.671	-0.002	0.039	0.446
cg06036416	purple	16	2,098,364	5'UTR	Island	TSC2	0.671	-0.002	0.043	0.365
cg00196372	purple	9	96,708,288		Island		0.671	-0.001	0.013	0.423
cg03170056	purple	2	193,060,326	TSS1500	Island	TMEFF2	0.671	-0.004	0.026	0.042

cg23451291	purple	7	25,891,427	N_Shore		0.671	0.000	0.020	0.713
cg08202374	purple	19	47,164,782 TSS1500	Island	DACT3	0.671	0.002	0.039	0.659
cg13023681	purple	2	10,444,156 5'UTR	Island	HPCAL1	0.671	-0.001	0.027	0.722
cg04364194	purple	1	202,114,085 TSS1500	Island	ARL8A	0.671	-0.007	0.054	0.312
cg22164238	purple	1	110,162,488 1stExon	Island	AMPD2	0.671	0.003	0.025	0.126
cg04167903	purple	7	27,135,746 TSS200	Island	HOXA1	0.671	-0.002	0.021	0.174
cg16655206	purple	19	47,104,221 TSS1500	Island	CALM3	0.671	0.000	0.017	0.818
cg06023646	purple	3	39,093,550 1stExon	Island	WDR48	0.671	0.000	0.014	0.672
cg14941466	purple	18	66,382,226 TSS1500	Island	CCDC102B	0.671	-0.004	0.051	0.309
cg10185519	purple	16	30,621,987 TSS1500	S_Shore	ZNF689	0.671	0.001	0.018	0.631
cg09894929	purple	7	8,473,578 TSS200	Island	NXP1	0.670	-0.005	0.035	0.074
cg22629493	purple	21	34,961,221 TSS1500	Island	DONSON	0.670	0.000	0.012	0.905
cg01606998	purple	22	50,608,598 TSS1500	Island	PANX2	0.670	-0.001	0.045	0.771
cg20688709	purple	1	236,227,534 Body	N_Shore	NID1	0.670	-0.003	0.037	0.525
cg18951977	purple	14	54,421,397 TSS200	Island	BMP4	0.670	-0.002	0.026	0.274
cg11899891	purple	2	153,191,524 TSS1500	Island	FMNL2	0.670	0.000	0.017	0.706
cg23792258	purple	6	17,988,404 TSS1500	Island	KIF13A	0.670	-0.001	0.019	0.629
cg04569096	purple	16	11,837,091 TSS1500	Island	TXNDC11	0.670	0.001	0.023	0.562
cg03276167	purple	6	86,388,360 Body	Island	SNHG5	0.670	0.000	0.025	0.891
cg15115510	purple	20	33,872,603 TSS200	Island	EIF6	0.670	-0.002	0.020	0.270
cg24023970	purple	6	159,066,036 TSS1500	S_Shore	DYNLT1	0.670	0.000	0.025	0.868
cg21108767	purple	7	99,933,721 TSS200	Island	PILRB	0.670	-0.011	0.052	0.184
cg17559711	purple	14	23,451,724 1stExon	Island	JUB	0.670	-0.003	0.030	0.252
cg02850821	purple	12	25,403,680 5'UTR	Island	KRAS	0.670	-0.003	0.048	0.328
cg15746891	purple	19	37,406,932 1stExon	Island	ZNF829	0.670	-0.002	0.026	0.287
cg22571530	purple	1	204,797,929 5'UTR	Island	NFASC	0.670	-0.001	0.037	0.783
cg13188011	purple	20	39,319,326 TSS1500	Island	MAFB	0.670	-0.002	0.032	0.396
cg04497885	purple	19	42,747,008 TSS1500	Island	GSK3A	0.670	-0.001	0.018	0.591
cg25467493	purple	2	55,845,064 TSS1500	Island	SMEK2	0.669	0.000	0.014	0.987
cg12646754	purple	1	2,574,751	Island		0.669	-0.011	0.098	0.412
cg20321756	purple	11	111,848,400 1stExon	Island	DIXDC1	0.669	-0.010	0.086	0.100
cg04459343	purple	7	44,530,377 1stExon	Island	NUDCD3	0.669	-0.002	0.023	0.381
cg17168838	purple	19	54,663,528 TSS200	Island	LENG1	0.669	-0.003	0.026	0.495
cg11092441	purple	16	3,551,334 Body	S_Shore	CLUAP1	0.669	0.000	0.018	0.692
cg26526709	purple	7	35,077,807 TSS200	Island	DPY19L1	0.669	0.000	0.013	0.788
cg24044479	purple	1	116,518,910 TSS1500	Island	SLC22A15	0.669	-0.001	0.022	0.636
cg22370633	purple	10	70,092,255 5'UTR	Island	PBLD	0.669	0.001	0.026	0.650
cg02649248	purple	10	134,914,613 Body	S_Shore	GPR123	0.669	0.000	0.032	0.957
cg02600494	purple	17	73,257,794 1stExon	Island	MRPS7	0.669	-0.004	0.043	0.400
cg15091323	purple	2	60,780,474 1stExon	N_Shore	BCL11A	0.669	-0.001	0.021	0.410
cg26541854	purple	8	30,242,877 Body	Island	RBPM5	0.669	0.001	0.022	0.492
cg04592976	purple	16	89,984,572 5'UTR	N_Shore	MC1R	0.669	-0.001	0.034	0.645
cg18913076	purple	2	99,771,244 TSS200	Island	TSGA10	0.669	0.001	0.021	0.763
cg13467399	purple	9	133,588,111 TSS1500	Island	ABL1	0.669	-0.001	0.025	0.609
cg05134945	purple	3	188,665,466	Island		0.669	-0.003	0.019	0.093
cg26561342	purple	1	45,241,260 TSS1500	Island	SNORD55	0.668	0.000	0.027	0.887
cg10342447	purple	17	26,645,325 TSS1500	Island	TMEM97	0.668	0.001	0.030	0.662
cg10837429	purple	5	177,411,733	Island		0.668	-0.002	0.038	0.248
cg13249876	purple	10	32,217,968 TSS200	Island	ARHGAP12	0.668	0.001	0.048	0.823
cg05572179	purple	11	67,139,907 Body	Island	LOC10013098	0.668	0.000	0.013	0.992
cg22219254	purple	13	32,605,406 TSS200	Island	FRY	0.668	0.000	0.016	0.948
cg27610961	purple	12	67,663,042 TSS200	Island	CAND1	0.668	0.000	0.025	0.754
cg02781394	purple	13	30,880,900 5'UTR	Island	KATNAL1	0.668	0.001	0.029	0.366
cg23128147	purple	4	53,526,226 TSS1500	Island	USP46	0.668	-0.002	0.031	0.200
cg08209042	purple	3	196,295,218 5'UTR	N_Shore	WDR53	0.668	0.000	0.026	0.909
cg05852623	purple	17	42,219,219 TSS200	Island	C17orf53	0.668	-0.001	0.016	0.363
cg26398791	purple	1	38,455,867 TSS200	S_Shore	SF3A3	0.668	0.000	0.019	0.838
cg14744160	purple	11	28,129,753 TSS200	N_Shelf	METT5D1	0.668	-0.005	0.134	0.101
cg25017988	purple	14	31,889,169	Island		0.668	0.000	0.013	0.644
cg01773831	purple	3	156,392,830 5'UTR	Island	TIPARP	0.668	-0.001	0.019	0.459
cg00314018	purple	20	3,776,260 TSS200	Island	CDC25B	0.667	-0.001	0.066	0.796
cg11843700	purple	19	1,490,497 TSS1500	Island	REEP6	0.667	0.000	0.024	0.926
cg06675190	purple	15	89,346,205 TSS1500	Island	ACAN	0.667	0.002	0.023	0.479
cg04726800	purple	3	128,598,191 TSS200	Island	ACAD9	0.667	-0.001	0.017	0.387
cg22968175	purple	19	42,721,878 TSS200	Island	DEDD2	0.667	-0.004	0.043	0.180
cg24814784	purple	6	31,830,947 TSS1500	Island	NEU1	0.667	0.001	0.022	0.568
cg11549975	purple	6	111,580,469 TSS200	Island	KIAA1919	0.667	-0.001	0.042	0.838

cg20122548	purple	15	45,694,411	TSS200	Island	SPATA5L1	0.667	0.000	0.017	0.923
cg24185576	purple	11	30,607,360	5'UTR	Island	MPPED2	0.667	-0.004	0.027	0.041
cg13758899	purple	17	4,981,403	TSS1500	Island	ZFP3	0.667	-0.001	0.029	0.850
cg19766164	purple	6	29,716,939	TSS200	Island	LOC285830	0.667	0.005	0.089	0.160
cg04920574	purple	6	84,569,242	TSS200	N_Shore	CYB5R4	0.667	0.001	0.021	0.274
cg24863791	purple	19	58,144,608	1stExon	Island	ZNF211	0.667	-0.001	0.015	0.311
cg10444281	purple	14	75,895,468	5'UTR	Island	JDP2	0.667	-0.001	0.048	0.481
cg17059658	purple	18	905,101	5'UTR	Island	ADCYAP1	0.667	-0.001	0.035	0.666
cg13563793	purple	20	25,677,582	TSS200	Island	ZNF337	0.667	0.000	0.016	0.984
cg01400058	purple	9	15,553,069	TSS200	Island	C9orf93	0.667	0.001	0.036	0.728
cg22826818	purple	3	184,243,319		Island		0.667	-0.007	0.065	0.243
cg06589597	purple	5	179,234,594	5'UTR	Island	SQSTM1	0.666	-0.003	0.039	0.417
cg25706390	purple	19	41,769,968	TSS200	N_Shore	HNRNPUL1	0.666	0.001	0.022	0.753
cg08098457	purple	2	63,815,963	TSS200	Island	MDH1	0.666	-0.001	0.022	0.688
cg09182533	purple	11	63,775,071	Body	N_Shore	MACROD1	0.666	0.000	0.016	0.730
cg12439463	purple	17	79,848,761	TSS1500	Island	ANAPC11	0.666	-0.002	0.036	0.497
cg21881434	purple	17	6,915,838	5'UTR	Island	RNASEK	0.666	0.000	0.023	0.828
cg21482837	purple	2	85,581,528	TSS1500	N_Shore	ELMOD3	0.666	-0.001	0.025	0.711
cg12784049	purple	10	103,893,589	Body	Island	PPRC1	0.666	-0.002	0.057	0.518
cg16199879	purple	14	58,667,190	Body	Island	ACTR10	0.666	0.000	0.023	0.839
cg20954975	purple	12	49,739,477		Island		0.665	-0.001	0.024	0.683
cg18089324	purple	6	88,299,654	TSS200	Island	ORC3L	0.665	-0.001	0.020	0.323
cg08616681	purple	16	718,778	Body	Island	RHOT2	0.665	0.001	0.039	0.846
cg01644481	purple	6	106,809,170		Island		0.665	-0.001	0.031	0.373
cg21343919	purple	20	46,413,743	5'UTR	Island	SULF2	0.665	-0.001	0.039	0.751
cg22523852	purple	15	27,112,049	5'UTR	Island	GABRA5	0.665	-0.001	0.016	0.625
cg07281688	purple	12	57,082,442	TSS1500	Island	PTGES3	0.665	-0.002	0.018	0.087
cg10104986	purple	12	57,610,876	Body	Island	NXPH4	0.665	0.000	0.020	0.754
cg21440829	purple	7	100,808,893	TSS200	Island	VGf	0.665	0.000	0.023	0.900
cg08324846	purple	5	179,050,826	TSS200	Island	HNRNPH1	0.665	-0.002	0.021	0.389
cg12968077	purple	2	231,921,504	TSS200	Island	PSMD1	0.665	0.001	0.043	0.874
cg06005571	purple	3	52,188,725	TSS200	Island	WDR51A	0.665	-0.001	0.014	0.388
cg16720880	purple	9	33,265,144	Body	S_Shore	SUGT1P1	0.665	-0.001	0.014	0.560
cg00056074	purple	2	131,485,150		Island		0.665	0.001	0.031	0.699
cg14532412	purple	17	2,952,372		Island		0.665	-0.001	0.028	0.770
cg00576402	purple	7	77,167,212	TSS200	Island	PTPN12	0.665	0.000	0.013	0.488
cg21797405	purple	5	139,944,339	TSS200	Island	APBB3	0.665	-0.001	0.027	0.737
cg11815425	purple	15	53,080,459	Body	Island	ONECUT1	0.665	-0.003	0.034	0.272
cg00166750	purple	8	102,138,594		Island		0.665	-0.001	0.048	0.842
cg00806454	purple	10	44,185,289		Island		0.665	0.002	0.046	0.517
cg06394887	purple	7	72,937,120	TSS1500	S_Shore	BAZ1B	0.665	-0.001	0.037	0.748
cg20879576	purple	11	125,034,747	5'UTR	N_Shore	PKNOX2	0.665	0.000	0.024	0.951
cg04134217	purple	7	94,537,875	TSS1500	S_Shore	PPP1R9A	0.664	0.000	0.015	0.855
cg07500976	purple	19	13,261,292	5'UTR	Island	IER2	0.664	-0.002	0.021	0.255
cg26745551	purple	6	97,285,260	1stExon	Island	GPR63	0.664	-0.001	0.036	0.817
cg13436085	purple	3	183,904,316	Body	Island	ABCF3	0.664	-0.001	0.026	0.683
cg02901985	purple	1	236,958,430	TSS200	Island	MTR	0.664	-0.001	0.023	0.755
cg20663200	purple	10	116,163,392	Body	Island	AFAP1L2	0.664	0.000	0.038	0.919
cg10213928	purple	1	205,291,028	TSS200	Island	NUAK2	0.664	0.001	0.036	0.758
cg25700848	purple	6	7,911,417	TSS1500	Island	TXNDC5	0.664	0.000	0.020	0.880
cg14325837	purple	10	49,731,563	Body	Island	ARHGAP22	0.664	-0.002	0.038	0.408
cg00247557	purple	18	5,197,071	1stExon	Island	LOC642597	0.664	-0.001	0.037	0.561
cg02628360	purple	17	79,315,269		Island		0.664	-0.006	0.095	0.318
cg08455380	purple	3	49,044,317	Body	Island	P4HTM	0.664	-0.004	0.050	0.449
cg05095123	purple	13	29,393,749		N_Shore		0.663	0.000	0.014	0.583
cg11171004	purple	1	202,779,957		Island		0.663	0.001	0.027	0.379
cg04010712	purple	3	42,003,234	5'UTR	Island	ULK4	0.663	-0.003	0.020	0.168
cg22076081	purple	20	18,269,053	TSS200	Island	ZNF133	0.663	-0.002	0.020	0.321
cg26670485	purple	1	244,615,549	TSS200	Island	ADSS	0.663	-0.001	0.029	0.695
cg15835817	purple	3	32,433,905	Body	Island	CMTM7	0.663	-0.003	0.058	0.281
cg06844545	purple	6	163,836,348	1stExon		QKI	0.663	-0.005	0.205	0.446
cg19915738	purple	19	44,952,730	TSS200	Island	ZNF229	0.663	-0.001	0.016	0.441
cg12503190	purple	17	74,733,672	TSS1500	Island	MIR636	0.663	0.000	0.019	0.993
cg17548054	purple	5	169,010,525	TSS200	N_Shore	CCDC99	0.663	0.000	0.009	0.714
cg22813950	purple	12	130,645,566	TSS1500	Island	FZD10	0.663	0.003	0.032	0.394
cg13765368	purple	17	21,280,740	5'UTR	Island	KCNJ12	0.663	-0.002	0.019	0.161
cg15540144	purple	2	99,553,141	TSS1500	Island	C2orf55	0.663	-0.001	0.085	0.693

cg10060574	purple	6	30,712,338	TSS200	Island	IER3	0.663	-0.011	0.051	0.063
cg05551979	purple	5	43,040,548	TSS200	Island	C5orf39	0.663	-0.002	0.031	0.154
cg07856758	purple	19	37,861,652	TSS1500	N_Shore	ZNF527	0.663	0.000	0.014	0.656
cg21503377	purple	1	228,871,665	1stExon	Island	RHO	0.663	-0.002	0.073	0.735
cg12259256	purple	17	42,092,431	TSS200	Island	TMEM101	0.663	-0.001	0.019	0.587
cg09853387	purple	7	139,877,374	Body	Island	LOC10013422	0.662	-0.001	0.074	0.880
cg18240814	purple	5	107,718,300	TSS1500	Island	FBXL17	0.662	-0.001	0.028	0.715
cg25707669	purple	3	194,990,988	Body	Island	C3orf21	0.662	-0.001	0.019	0.372
cg03054141	purple	12	8,234,711	TSS200	Island	NECAP1	0.662	0.001	0.023	0.362
cg04949346	purple	2	169,746,998	TSS200	Island	SPC25	0.662	0.001	0.024	0.654
cg15345741	purple	14	103,674,333		Island		0.662	-0.001	0.051	0.656
cg14291066	purple	18	5,238,200	TSS200	Island	C18orf18	0.662	0.002	0.045	0.708
cg02987163	purple	17	35,849,291	TSS1500	Island	DUSP14	0.661	-0.001	0.044	0.597
cg06656994	purple	1	179,713,176	5'UTR	Island	FAM163A	0.661	0.003	0.198	0.835
cg21981379	purple	6	160,147,859	TSS1500	Island	WTAP	0.661	-0.001	0.013	0.284
cg24545461	purple	8	61,193,313	Body	Island	CA8	0.661	0.000	0.022	0.768
cg22611633	purple	1	52,344,317	5'UTR	Island	NRD1	0.661	-0.001	0.039	0.492
cg14778311	purple	13	93,880,842	Body	Island	GPC6	0.661	-0.002	0.013	0.050
cg12075791	purple	2	242,088,942	TSS200	Island	PASK	0.661	0.000	0.016	0.614
cg24903225	purple	12	108,956,097	TSS1500	N_Shore	SART3	0.661	0.000	0.022	0.939
cg15059513	purple	1	110,882,527	1stExon	Island	RBM15	0.661	-0.003	0.046	0.328
cg25688483	purple	7	16,793,336	TSS200	Island	TSPAN13	0.661	0.000	0.056	0.979
cg06020459	purple	5	64,858,893	5'UTR	Island	CENPK	0.661	-0.002	0.017	0.252
cg11980791	purple	9	131,084,797	5'UTR	Island	COQ4	0.661	-0.005	0.023	0.269
cg20428342	purple	10	102,820,768	TSS1500	Island	KAZALD1	0.661	0.000	0.015	0.701
cg25475289	purple	2	70,780,384	Body	Island	TGFA	0.661	-0.001	0.015	0.559
cg15895565	purple	14	61,190,161	1stExon	Island	SIX4	0.661	-0.001	0.022	0.482
cg04607100	purple	1	15,850,698	1stExon	Island	CASP9	0.661	0.000	0.016	0.637
cg00586515	purple	20	17,948,756	TSS1500	Island	C20orf72	0.661	0.003	0.029	0.036
cg07773272	purple	18	43,608,105	Body	N_Shore	PSTPIP2	0.661	-0.001	0.056	0.605
cg10845251	purple	19	19,314,334	TSS200	Island	NR2C2AP	0.661	-0.001	0.034	0.723
cg08778586	purple	1	31,769,778	TSS200	Island	SNRNP40	0.661	0.000	0.011	0.783
cg22143289	purple	19	30,019,898	Body	Island	VSTM2B	0.661	-0.009	0.052	0.025
cg25235159	purple	11	47,600,280	5'UTR	Island	KBTBD4	0.660	0.000	0.013	0.965
cg04306229	purple	2	120,771,150	5'UTR	Island	EPB41L5	0.660	0.001	0.023	0.671
cg14242042	purple	12	24,715,250	5'UTR	Island	SOX5	0.660	-0.001	0.030	0.838
cg02424238	purple	17	33,905,661	TSS200	Island	PEX12	0.660	-0.001	0.021	0.484
cg26752655	purple	20	23,331,282	TSS200	Island	NXT1	0.660	-0.001	0.023	0.502
cg18610261	purple	2	37,899,776	TSS1500	Island	CDC42EP3	0.660	-0.004	0.046	0.182
cg20329966	purple	1	185,126,242	TSS200	Island	C1orf25	0.660	0.000	0.016	0.919
cg27013630	purple	17	5,322,660	TSS1500	Island	RPAIN	0.660	0.000	0.020	0.891
cg03859893	purple	10	60,145,150	TSS200	Island	TFAM	0.660	0.000	0.027	0.845
cg01356910	purple	16	4,323,571	TSS1500	Island	TFAP4	0.660	-0.001	0.050	0.868
cg22674717	purple	16	51,185,394	TSS1500	Island	SALL1	0.660	-0.001	0.026	0.563
cg08997021	purple	13	53,029,627	1stExon	Island	CKAP2	0.660	0.003	0.063	0.577
cg27593384	purple	18	25,755,608	Body	Island	CDH2	0.660	0.000	0.013	0.569
cg00745248	purple	2	20,101,788	TSS200	Island	TTC32	0.660	0.001	0.030	0.376
cg16066272	purple	14	52,535,949	TSS200	Island	NID2	0.660	0.000	0.052	0.909
cg03201604	purple	4	76,861,293	Body	Island	NAAA	0.660	0.000	0.018	0.705
cg02569333	purple	8	67,625,280	5'UTR	Island	SGK3	0.660	0.000	0.018	0.816
cg02357877	purple	7	56,032,049	TSS1500	Island	GBAS	0.660	-0.005	0.039	0.176
cg14365100	purple	1	113,932,889	TSS1500	Island	MAGI3	0.660	-0.004	0.057	0.061
cg10806140	purple	7	37,956,554	TSS200	Island	SFRP4	0.660	0.000	0.020	0.670
cg18923740	purple	1	19,971,790	Body	Island	NBL1	0.659	-0.003	0.089	0.449
cg22041033	purple	17	79,884,562	TSS1500	N_Shore	LOC92659	0.659	-0.001	0.033	0.728
cg00280761	purple	22	19,132,003	Body	Island	DGCR14	0.659	-0.001	0.016	0.253
cg03320827	purple	6	10,887,367	1stExon	Island	SYCP2L	0.659	-0.003	0.035	0.140
cg26880806	purple	2	98,262,454	TSS200	Island	COX5B	0.659	0.000	0.016	0.817
cg12246527	purple	15	67,834,730	TSS1500	N_Shore	MAP2K5	0.659	0.000	0.013	0.641
cg04163540	purple	7	30,174,240	TSS1500	Island	C7orf41	0.659	-0.006	0.059	0.060
cg01911237	purple	8	134,582,305	5'UTR	Island	ST3GAL1	0.659	-0.001	0.014	0.373
cg00791468	purple	1	111,148,984	TSS1500	Island	KCNA2	0.659	-0.001	0.039	0.736
cg26975609	purple	7	150,777,587	Body	N_Shore	FASTK	0.659	-0.007	0.055	0.144
cg02770814	purple	5	137,368,293	5'UTR	Island	FAM13B	0.659	0.000	0.017	0.872
cg23549225	purple	2	38,303,797	TSS1500	Island	CYP1B1	0.658	-0.002	0.032	0.268
cg25976786	purple	12	53,662,079	TSS200	Island	ESPL1	0.658	-0.002	0.026	0.559
cg07126163	purple	5	139,487,040		Island		0.658	-0.001	0.042	0.514

cg01377696	purple	20	32,581,542	TSS200	Island	RALY	0.658	-0.005	0.028	0.034
cg09063111	purple	22	31,503,870	TSS1500	Island	SELM	0.658	0.000	0.015	0.822
cg27652795	purple	2	219,265,373	Body	Island	CTDSP1	0.658	-0.003	0.052	0.254
cg07009823	purple	6	39,692,744	Body	Island	KIF6	0.658	0.000	0.024	0.982
cg15676241	purple	5	52,285,231	1stExon	Island	ITGA2	0.658	-0.003	0.031	0.151
cg16555761	purple	1	38,455,748	1stExon	Island	SF3A3	0.658	0.000	0.014	0.815
cg12784997	purple	4	80,994,271	5'UTR	Island	ANTXR2	0.658	-0.002	0.030	0.462
cg09214983	purple	16	639,689	TSS1500	Island	RAB40C	0.658	-0.005	0.072	0.243
cg16014000	purple	5	140,305,713	Body	Island	PCDHA7	0.658	-0.001	0.044	0.607
cg08876869	purple	10	121,356,838	TSS1500	Island	TIAL1	0.658	0.000	0.023	0.857
cg22691796	purple	8	48,872,876	TSS1500	Island	MCM4	0.658	0.000	0.024	0.939
cg07071978	purple	10	13,933,652	Body	Island	FRMD4A	0.657	-0.001	0.022	0.580
cg09514055	purple	1	43,919,573	5'UTR	Island	HYI	0.657	-0.002	0.023	0.551
cg01709288	purple	16	81,111,226	TSS1500	Island	C16orf46	0.657	-0.001	0.016	0.435
cg25532925	purple	17	47,647,473		Island		0.657	0.000	0.019	0.517
cg18921183	purple	12	6,602,631	TSS1500	N_Shore	NCAPD2	0.657	-0.001	0.017	0.412
cg11761572	purple	19	39,390,455	TSS200	Island	SIRT2	0.657	-0.003	0.031	0.477
cg01239717	purple	6	107,077,302	5'UTR		RTN4IP1	0.657	0.005	0.154	0.480
cg08133824	purple	7	99,698,538	Body	Island	MCM7	0.657	-0.006	0.061	0.511
cg07220085	purple	15	52,971,596	TSS1500	Island	KIAA1370	0.657	0.000	0.034	0.925
cg08179898	purple	7	108,210,251	TSS1500	Island	THAP5	0.657	0.000	0.015	0.900
cg04278597	purple	1	63,154,320	TSS1500	Island	DOCK7	0.657	0.000	0.037	0.983
cg23060735	purple	22	51,066,924	TSS1500	Island	ARSA	0.657	0.001	0.029	0.859
cg02783318	purple	19	44,008,806	1stExon	Island	PHLDB3	0.657	0.000	0.020	0.829
cg25355501	purple	6	31,239,910	TSS200	Island	HLA-C	0.657	-0.001	0.035	0.671
cg11609568	purple	3	49,142,226	TSS200	Island	QARS	0.657	-0.001	0.017	0.426
cg22836153	purple	5	121,412,702	Body	Island	LOX	0.657	0.003	0.030	0.249
cg01084239	purple	11	8,102,510	TSS1500	Island	TUB	0.657	0.000	0.016	0.963
cg15543443	purple	6	33,386,036	1stExon	Island	CUTA	0.657	0.000	0.024	0.847
cg01754028	purple	2	159,825,833	5'UTR	Island	TANC1	0.657	-0.004	0.044	0.078
cg21114485	purple	4	186,346,747	Body	N_Shore	UFSP2	0.657	0.000	0.014	0.533
cg02318784	purple	15	27,213,174		Island		0.656	0.001	0.036	0.573
cg05998339	purple	8	11,141,835	TSS200	N_Shore	MTMR9	0.656	-0.003	0.027	0.024
cg10523693	purple	7	7,680,086	5'UTR	Island	RPA3	0.656	0.001	0.025	0.688
cg17171485	purple	6	138,725,799	Body	Island	HEBP2	0.656	0.000	0.019	0.713
cg04533248	purple	17	58,755,185	5'UTR	Island	BCAS3	0.656	0.000	0.023	0.883
cg18966047	purple	5	180,480,456	Body	Island	BTNL9	0.656	0.001	0.021	0.590
cg02398663	purple	18	45,663,510		Island		0.656	-0.002	0.018	0.336
cg10975586	purple	6	20,401,942	TSS200	N_Shore	E2F3	0.656	0.000	0.016	0.779
cg02307130	purple	19	40,030,840	TSS200	Island	EID2	0.656	0.000	0.016	0.917
cg22048948	purple	2	99,225,318	TSS1500	Island	C2orf64	0.656	-0.001	0.013	0.614
cg24214867	purple	12	568,931	TSS1500	Island	B4GALNT3	0.656	-0.002	0.026	0.288
cg04708340	purple	19	5,622,366	TSS1500	Island	SAFB	0.656	-0.001	0.035	0.705
cg03580568	purple	4	148,402,748	Body	Island	EDNRA	0.656	-0.002	0.037	0.304
cg08883955	purple	16	11,945,066	Body	Island	RSL1D1	0.656	-0.001	0.044	0.822
cg13869401	purple	5	54,179,537		Island		0.656	0.000	0.012	0.816
cg10205287	purple	4	100,815,590	1stExon		MAPKSP1	0.656	-0.002	0.036	0.402
cg02693688	purple	1	3,818,083	Body	Island	LOC10013361	0.656	-0.008	0.098	0.145
cg03584288	purple	19	37,407,041	1stExon	Island	ZNF829	0.656	0.004	0.038	0.650
cg01322165	purple	2	12,857,398	1stExon	Island	TRIB3	0.656	0.001	0.027	0.679
cg12878812	purple	12	119,419,696	1stExon	Island	SRRM4	0.656	0.004	0.038	0.077
cg19929029	purple	8	77,912,673	TSS200	Island	PXMP3	0.655	0.000	0.021	0.786
cg25607321	purple	11	19,734,989	5'UTR	Island	NAV2	0.655	0.002	0.033	0.554
cg11189052	purple	15	85,197,271	Body	Island	WDR73	0.655	0.000	0.018	0.997
cg21308111	purple	8	23,082,634	1stExon	Island	TNFRSF10A	0.655	-0.003	0.029	0.238
cg04892170	purple	10	128,076,910	1stExon	Island	ADAM12	0.655	-0.001	0.044	0.787
cg25707994	purple	7	157,129,685	TSS200	Island	DNAJB6	0.655	-0.007	0.115	0.549
cg04417028	purple	11	110,583,882	TSS1500	Island	ARHGAP20	0.655	0.000	0.012	0.684
cg20236877	purple	13	30,881,938	TSS1500	Island	KATNAL1	0.655	-0.002	0.036	0.290
cg14320593	purple	18	47,088,343	TSS200	Island	LIPG	0.655	-0.001	0.018	0.523
cg04528371	purple	5	76,011,127	TSS1500	Island	F2R	0.655	0.000	0.040	0.871
cg18124201	purple	20	46,414,952	1stExon	Island	SULF2	0.655	0.002	0.020	0.412
cg13567813	purple	19	50,879,636	TSS200	Island	NR1H2	0.655	0.001	0.029	0.603
cg19644351	purple	5	149,340,142	TSS200	Island	SLC26A2	0.655	-0.001	0.026	0.514
cg21292152	purple	19	37,406,949	1stExon	Island	ZNF829	0.655	-0.003	0.018	0.305
cg19225068	purple	10	22,614,933	5'UTR	Island	BMI1	0.655	-0.001	0.014	0.372
cg14928532	purple	9	133,454,630	Body	Island	LOC10027221	0.655	-0.003	0.023	0.176

cg01622960	purple	17	74,553,622	TSS1500	Island	SNORD1C	0.654	-0.001	0.018	0.431
cg04873961	purple	2	70,418,194	TSS200	Island	C2orf42	0.654	0.000	0.012	0.902
cg08751499	purple	6	12,290,573	1stExon		EDN1	0.654	0.000	0.013	0.483
cg24591563	purple	3	40,498,842	1stExon	Island	RPL14	0.654	-0.006	0.026	0.124
cg27530316	purple	19	49,497,072	TSS200	S_Shore	RUVBL2	0.654	0.000	0.013	0.687
cg24971181	purple	8	25,316,395	TSS200	Island	CDCA2	0.654	0.000	0.024	0.985
cg07368317	purple	5	108,745,429	5'UTR	Island	PJA2	0.654	-0.001	0.019	0.647
cg24300475	purple	12	3,601,514	Body	Island	PRMT8	0.654	-0.002	0.058	0.601
cg01678062	purple	3	122,283,327	1stExon	Island	PARP9	0.654	-0.001	0.018	0.404
cg12760261	purple	5	122,758,659	Body	Island	CEP120	0.654	0.000	0.018	0.838
cg24475210	purple	4	6,642,433	TSS200	Island	MRFAP1	0.654	-0.001	0.016	0.715
cg19954613	purple	22	22,020,219	TSS200	Island	PPIL2	0.654	-0.011	0.069	0.182
cg02952686	purple	15	99,791,546	TSS200	Island	LRRC28	0.653	-0.001	0.016	0.367
cg04360557	purple	1	33,282,743	TSS1500	Island	S100PBP	0.653	-0.002	0.023	0.067
cg03333330	purple	7	93,520,346	TSS1500	S_Shore	TFPI2	0.653	-0.004	0.044	0.095
cg15605445	purple	10	88,470,986	Body	Island	LDB3	0.653	0.001	0.036	0.802
cg06464369	purple	5	1,005,292		Island		0.653	-0.008	0.068	0.276
cg26735793	purple	10	127,511,350	TSS1500	Island	BCCIP	0.653	0.000	0.030	0.976
cg04965811	purple	10	101,492,459	TSS200	S_Shore	COX15	0.653	0.000	0.036	0.937
cg19768329	purple	1	120,190,378	1stExon	Island	ZNF697	0.653	-0.003	0.025	0.006
cg26789400	purple	15	43,663,318	TSS1500	Island	ZSCAN29	0.653	0.002	0.024	0.445
cg02498268	purple	8	21,998,832	Body	Island	REEP4	0.653	0.001	0.016	0.480
cg10505415	purple	1	161,993,970	TSS1500	Island	OLFML2B	0.653	0.000	0.018	0.898
cg01200087	purple	17	47,865,949	TSS200	N_Shore	MYST2	0.653	0.000	0.016	0.612
cg20940459	purple	1	173,793,922	TSS1500	Island	CENPL	0.653	-0.001	0.038	0.808
cg14797322	purple	12	58,165,899	TSS1500	Island	FAM119B	0.653	-0.009	0.031	0.132
cg26375182	purple	22	40,766,469	TSS200	Island	SGSM3	0.653	-0.003	0.034	0.149
cg11265528	purple	22	24,951,447	TSS200	Island	SNRPD3	0.653	-0.001	0.017	0.323
cg05733905	purple	17	7,388,068	TSS1500	Island	ZBTB4	0.653	0.000	0.017	0.991
cg10940651	purple	2	43,823,357	TSS1500	Island	THADA	0.653	0.000	0.017	0.541
cg23793040	purple	2	74,229,995		Island		0.653	-0.003	0.058	0.367
cg06024111	purple	6	43,597,558	Body	Island	MAD2L1BP	0.653	-0.001	0.016	0.582
cg21349939	purple	18	5,296,708	TSS1500	Island	ZFP161	0.653	0.000	0.015	0.720
cg10828337	purple	14	29,236,476	1stExon	N_Shore	FOXG1	0.653	-0.006	0.047	0.291
cg24465118	purple	20	47,895,107	Body	Island	C20orf199	0.653	-0.001	0.021	0.678
cg15967188	purple	4	2,470,700	TSS200	Island	RNF4	0.653	0.000	0.024	0.953
cg10761979	purple	3	125,899,144	5'UTR	Island	ALDH1L1	0.653	-0.006	0.041	0.006
cg14792904	purple	6	88,299,623	Body	Island	RARS2	0.652	-0.003	0.064	0.244
cg01098812	purple	14	77,591,726		Island		0.652	-0.004	0.062	0.355
cg15131647	purple	1	153,650,884	TSS1500	Island	NPR1	0.652	-0.001	0.027	0.759
cg13016524	purple	11	16,628,944		Island		0.652	-0.003	0.071	0.240
cg06012509	purple	6	43,027,269	TSS1500	Island	KLC4	0.652	0.002	0.037	0.770
cg01730274	purple	2	122,407,247	TSS200	Island	CLASP1	0.652	0.000	0.015	0.634
cg16427488	purple	8	86,132,835	TSS200	Island	C8orf59	0.652	0.000	0.021	0.971
cg17868994	purple	9	107,526,283	TSS200	Island	NIPSNAP3B	0.652	0.000	0.031	0.970
cg02484047	purple	19	12,777,341	TSS1500	Island	MORG1	0.652	-0.001	0.039	0.572
cg00173405	purple	1	1,335,424	TSS1500	Island	CCNL2	0.652	0.000	0.015	0.597
cg24478630	purple	2	74,692,696	TSS200	S_Shore	MOGS	0.652	-0.002	0.021	0.467
cg16811230	purple	3	39,149,235	TSS200	Island	GORASP1	0.652	-0.009	0.044	0.186
cg04671334	purple	19	35,224,921	TSS1500	Island	ZNF181	0.652	0.000	0.015	0.722
cg26779346	purple	3	128,598,186	TSS200	Island	ACAD9	0.652	0.000	0.027	0.788
cg20488757	purple	11	16,760,048	TSS200	Island	C11orf58	0.652	0.001	0.020	0.651
cg09143185	purple	1	19,923,472	1stExon	Island	C1orf151	0.652	-0.007	0.130	0.144
cg01348733	purple	17	33,700,757	TSS200	Island	SLFN11	0.652	0.000	0.016	0.840
cg21517436	purple	11	8,710,564	3'UTR	Island	RPL27A	0.652	-0.001	0.019	0.461
cg02909042	purple	14	55,518,132	TSS1500	Island	MAPK11P1L	0.652	0.001	0.021	0.600
cg08013557	purple	3	147,115,043	Body	N_Shore	ZIC4	0.652	0.000	0.019	0.846
cg01252659	purple	19	7,198,410	Body	Island	INSR	0.652	-0.009	0.056	0.040
cg13377589	purple	6	32,163,322	Body	Island	NOTCH4	0.652	-0.001	0.024	0.666
cg23749163	purple	14	77,563,968	TSS1500	Island	KIAA1737	0.652	-0.001	0.027	0.346
cg21851142	purple	6	132,129,008	TSS200	Island	ENPP1	0.652	-0.003	0.028	0.582
cg04775889	purple	12	72,665,880	Body	Island	LOC283392	0.652	-0.001	0.024	0.635
cg25271375	purple	15	42,565,784	TSS1500	Island	GANC	0.652	0.000	0.013	0.986
cg25390506	purple	7	135,347,085	TSS200	Island	PL-5283	0.651	-0.001	0.013	0.144
cg21411757	purple	12	93,771,484	TSS1500	Island	NUDT4	0.651	-0.003	0.031	0.090
cg02323694	purple	12	80,329,193	1stExon	Island	PPP1R12A	0.651	-0.002	0.032	0.131
cg05468351	purple	5	21,459,598	Body	Island	LOC728411	0.651	0.001	0.033	0.578

cg11213348	purple	3	38,206,830	TSS200	Island	OXSRI	0.651	0.000	0.011	0.716
cg164446408	purple	2	169,313,621	Body	Island	LASS6	0.651	0.000	0.026	0.881
cg05445051	purple	6	107,349,292	TSS200	Island	C6orf203	0.651	0.000	0.016	0.749
cg08247347	purple	1	26,496,823	Body	Island	ZNF593	0.651	0.000	0.017	0.741
cg04402021	purple	19	1,094,921	Body	Island	POLR2E	0.651	-0.005	0.033	0.156
cg20707008	purple	6	160,210,612	TSS1500	Island	MRPL18	0.651	-0.002	0.037	0.492
cg24428760	purple	20	32,582,025	5'UTR	Island	RALY	0.651	-0.001	0.040	0.726
cg22479299	purple	20	24,449,704	TSS200	N_Shore	TMEM90B	0.651	-0.001	0.049	0.936
cg12813922	purple	2	135,809,940	Body		RAB3GAP1	0.650	0.000	0.010	0.642
cg06815614	purple	5	79,703,546	TSS1500	Island	ZFYVE16	0.650	0.000	0.051	0.926
cg10400269	purple	17	16,945,385	TSS1500	Island	MPRIIP	0.650	-0.001	0.024	0.646
cg00988247	purple	3	169,378,758	Body	N_Shore	MECOM	0.650	0.000	0.073	0.916
cg24568647	purple	10	43,903,337	5'UTR	Island	HNRNPF	0.650	-0.002	0.020	0.210
cg16778903	purple	15	72,612,567	TSS200	Island	BRUNOL6	0.650	0.001	0.031	0.584
cg12891498	purple	12	117,319,246	TSS200	Island	HRK	0.650	-0.002	0.038	0.475
cg16787025	purple	15	51,200,723	TSS1500	Island	AP4E1	0.650	0.000	0.023	0.996
cg01382474	purple	3	141,206,694	Body	Island	RASA2	0.650	-0.001	0.020	0.146
cg24906202	purple	15	73,345,212	Body	Island	NEO1	0.650	-0.009	0.104	0.222
cg12938135	purple	13	20,356,591	Body	Island	PSPC1	0.650	-0.003	0.023	0.363
cg15838327	purple	8	145,669,260	Body	Island	NFKBIL2	0.650	0.000	0.018	0.681
cg04150055	purple	9	133,536,855		Island		0.650	0.000	0.014	0.691
cg09281539	purple	20	20,693,126	5'UTR	Island	RALGAPA2	0.650	0.004	0.100	0.676
cg16136098	purple	1	107,683,532	5'UTR	Island	NTNG1	0.650	0.000	0.013	0.831
cg04798930	purple	2	37,193,060	Body	N_Shore	STRN	0.649	0.000	0.020	0.929
cg15613465	purple	2	85,830,203	TSS1500	Island	TMEM150A	0.649	-0.002	0.026	0.337
cg14538055	purple	11	66,035,834	TSS1500	Island	RAB1B	0.649	0.001	0.014	0.173
cg01782320	purple	10	27,443,404	TSS200	Island	YME1L1	0.649	0.000	0.015	0.862
cg04496899	purple	1	70,820,341	TSS200	Island	HHLA3	0.649	-0.001	0.038	0.618
cg01796166	purple	14	95,239,586		Island		0.649	0.000	0.033	0.951
cg21239311	purple	6	108,486,007	TSS1500	Island	NR2E1	0.649	0.000	0.023	0.908
cg16984553	purple	6	3,456,062	Body	Island	SLC22A23	0.649	0.000	0.019	0.959
cg27332111	purple	1	32,688,176	TSS1500	S_Shore	C1orf91	0.649	-0.001	0.016	0.464
cg00904138	purple	8	146,017,090	Body	Island	RPL8	0.649	-0.002	0.020	0.223
cg19357918	purple	11	63,953,256	TSS1500	Island	STIP1	0.649	-0.003	0.026	0.162
cg03574999	purple	17	71,228,555	TSS200	Island	FAM104A	0.649	-0.001	0.024	0.623
cg09155575	purple	17	38,084,037	TSS200	Island	ORMDL3	0.649	-0.001	0.018	0.383
cg08876932	purple	11	71,955,547	TSS1500	Island	PHOX2A	0.649	-0.002	0.014	0.065
cg08532834	purple	7	54,609,836	TSS200	Island	VSTM2A	0.649	0.000	0.133	0.943
cg23792314	purple	12	25,056,243	Body	Island	BCAT1	0.649	-0.001	0.025	0.630
cg17436327	purple	6	170,863,443	TSS1500	Island	PSMB1	0.649	0.000	0.014	0.781
cg18805835	purple	5	138,775,054	Body		DNAJC18	0.649	-0.003	0.046	0.313
cg03883228	purple	11	68,778,570	5'UTR	Island	MRGPRF	0.649	-0.005	0.060	0.094
cg14896306	purple	19	51,611,929	TSS1500	Island	CTU1	0.648	-0.003	0.044	0.362
cg24167422	purple	1	9,243,600		Island		0.648	0.000	0.048	0.920
cg26526596	purple	6	170,190,117	Body	Island	C6orf122	0.648	0.000	0.021	0.782
cg11576217	purple	1	204,381,098	TSS200	Island	PPP1R15B	0.648	-0.002	0.027	0.540
cg11744351	purple	13	30,424,153	1stExon	Island	UBL3	0.648	-0.006	0.038	0.162
cg04347633	purple	17	35,850,482	5'UTR	Island	DUSP14	0.648	-0.001	0.024	0.555
cg06770554	purple	1	151,020,549	1stExon	Island	C1orf56	0.648	0.000	0.034	0.986
cg15270851	purple	13	111,358,291	1stExon	Island	CARS2	0.648	-0.005	0.080	0.232
cg14957718	purple	3	50,243,260	5'UTR	Island	SLC38A3	0.648	0.005	0.043	0.496
cg09551172	purple	1	100,315,427	TSS1500	Island	AGL	0.648	-0.001	0.064	0.694
cg05725804	purple	5	114,516,219	1stExon	Island	TRIM36	0.648	-0.001	0.026	0.513
cg07878486	purple	19	58,951,885	TSS1500	Island	ZNF132	0.648	-0.001	0.013	0.445
cg23121301	purple	14	96,001,268	TSS200	Island	GLRX5	0.648	0.001	0.020	0.545
cg23715700	purple	19	16,188,274	Body	Island	TPM4	0.648	-0.001	0.026	0.535
cg01014179	purple	2	230,787,137	TSS200	Island	FBXO36	0.648	0.002	0.021	0.269
cg02633838	purple	2	95,787,034	Body	N_Shore	MRPS5	0.648	0.000	0.014	0.807
cg08924374	purple	9	133,557,400	3'UTR	Island	PRDM12	0.648	0.002	0.026	0.270
cg14103113	purple	19	54,663,522	TSS200	Island	LENG1	0.648	0.001	0.030	0.283
cg00155504	purple	1	11,160,113	TSS200	Island	EXOSC10	0.647	-0.002	0.035	0.534
cg12442015	purple	1	2,323,763	TSS1500	Island	MORN1	0.647	0.000	0.020	0.809
cg19967433	purple	17	7,080,988	Body	S_Shelf	ASGR1	0.647	-0.001	0.021	0.319
cg07581484	purple	11	236,519	TSS200	Island	SIRT3	0.647	-0.003	0.028	0.082
cg25493545	purple	19	10,812,419	Body	Island	QTRT1	0.647	0.001	0.021	0.514
cg08893585	purple	11	129,245,309	TSS1500	Island	BARX2	0.647	-0.002	0.023	0.425
cg26165608	purple	6	5,261,829	TSS1500	Island	LYRM4	0.647	-0.003	0.024	0.182



cg13885623	purple	1	11,919,095	TSS200	N_Shore	NPPB	0.647	-0.005	0.054	0.239
cg08230118	purple	6	30,181,847	TSS1500	Island	TRIM26	0.647	0.001	0.023	0.761
cg00197313	purple	8	24,813,120	1stExon	Island	NEFL	0.647	-0.008	0.086	0.257
cg00326813	purple	8	124,253,775	TSS200	S_Shore	C8orf76	0.647	0.000	0.018	0.829
cg10959773	purple	22	24,951,920	TSS1500	Island	C22orf13	0.647	-0.004	0.035	0.057
cg08165221	purple	2	5,833,017	1stExon	Island	SOX11	0.647	-0.003	0.034	0.372
cg24340029	purple	9	136,039,283	5'UTR	Island	GBGT1	0.647	-0.004	0.064	0.245
cg08168306	purple	1	36,863,212	5'UTR	Island	LSM10	0.646	0.000	0.016	0.967
cg00128188	purple	10	1,095,446	TSS1500	Island	IDI1	0.646	0.000	0.069	0.975
cg07701443	purple	11	15,671,597		N_Shore		0.646	0.002	0.089	0.567
cg11724135	purple	20	25,129,507	TSS1500	Island	LOC284798	0.646	-0.004	0.052	0.725
cg17082598	purple	2	131,555,097		Island		0.646	0.001	0.022	0.548
cg09674175	purple	10	11,865,199	TSS200	Island	C10orf47	0.646	-0.002	0.032	0.264
cg09928842	purple	8	135,845,050		Island		0.646	0.001	0.019	0.559
cg21652505	purple	19	40,023,540	TSS200	Island	EID2B	0.646	0.000	0.020	0.837
cg17127339	purple	11	124,709,223		Island		0.645	-0.005	0.059	0.437
cg03532274	purple	11	110,583,649	TSS200	Island	ARHGAP20	0.645	0.002	0.032	0.214
cg24451858	purple	11	75,379,620	TSS200	Island	MAP6	0.645	-0.002	0.049	0.577
cg05414383	purple	8	41,909,837	TSS1500	Island	MYST3	0.645	-0.003	0.037	0.587
cg00831233	purple	2	223,183,268		Island		0.645	-0.001	0.054	0.688
cg26800371	purple	13	27,131,569	TSS1500	Island	WASF3	0.645	0.000	0.019	0.886
cg12553490	purple	9	101,018,580	TSS1500	Island	TBC1D2	0.645	-0.001	0.021	0.282
cg07862608	purple	16	30,412,049		Island		0.645	0.001	0.017	0.417
cg25767985	purple	11	43,965,591		Island		0.645	0.003	0.028	0.321
cg24720441	purple	19	4,535,405	TSS200	S_Shore	PLIN5	0.645	-0.002	0.022	0.325
cg07529966	purple	11	14,995,266	TSS1500	Island	CALCA	0.645	0.000	0.018	0.863
cg27579984	purple	12	49,454,806		S_Shore		0.645	-0.001	0.022	0.419
cg22902535	purple	2	208,031,734	TSS1500	S_Shore	KLF7	0.645	0.000	0.025	0.896
cg02067722	purple	6	137,144,131	Body	Island	PEX7	0.645	0.000	0.024	0.954
cg17691309	purple	9	35,690,459	TSS1500	Island	TPM2	0.645	-0.001	0.020	0.750
cg01457080	purple	14	77,278,578	Body	Island	ANGEL1	0.644	-0.002	0.021	0.339
cg13236315	purple	12	53,645,720	1stExon	Island	MFSD5	0.644	0.000	0.014	0.820
cg20815026	purple	17	29,421,851	TSS200	Island	NF1	0.644	0.000	0.013	0.394
cg16736300	purple	19	8,579,199	TSS200	Island	ZNF414	0.644	0.001	0.025	0.804
cg14655855	purple	9	13,278,626		Island		0.644	-0.001	0.036	0.908
cg23757489	purple	7	154,862,139	TSS1500	N_Shore	HTR5A	0.644	0.000	0.031	0.951
cg13124370	purple	4	22,517,059	Body	Island	GPR125	0.644	0.002	0.027	0.424
cg05964952	purple	12	51,633,050	Body	Island	DAZAP2	0.644	-0.001	0.015	0.403
cg02976543	purple	2	239,197,607	TSS1500	Island	PER2	0.644	-0.005	0.062	0.350
cg02342053	purple	9	37,592,791	TSS200	S_Shore	TOMM5	0.644	-0.005	0.039	0.352
cg10932242	purple	14	100,659,592		Island		0.644	-0.002	0.038	0.667
cg09754269	purple	2	33,700,871	5'UTR		RASGRP3	0.644	-0.003	0.024	0.058
cg04845449	purple	22	18,560,810	1stExon	Island	PEX26	0.644	-0.003	0.030	0.166
cg04547425	purple	17	73,043,127	TSS200	Island	ATP5H	0.644	-0.004	0.024	0.119
cg12586596	purple	12	53,645,731	1stExon	Island	MFSD5	0.644	0.000	0.013	0.865
cg03258346	purple	1	67,896,128	TSS200	Island	SERBP1	0.644	0.000	0.017	0.711
cg11188633	purple	11	105,948,590	1stExon	Island	AASDHPPPT	0.644	0.001	0.037	0.800
cg26492514	purple	5	168,728,236	TSS200	Island	SLIT3	0.644	-0.003	0.037	0.297
cg18810347	purple	7	50,344,242	TSS200	Island	IKZF1	0.644	-0.001	0.044	0.702
cg02562122	purple	7	150,755,221	TSS200	Island	CDK5	0.644	0.000	0.016	0.934
cg17206978	purple	2	27,008,819	TSS200	Island	CENPA	0.644	0.000	0.030	0.774
cg06949739	purple	19	10,764,747	TSS200	Island	ILF3	0.644	-0.002	0.019	0.342
cg00394153	purple	11	96,122,958	5'UTR	Island	CCDC82	0.643	0.000	0.014	0.549
cg21777696	purple	11	57,283,154	1stExon	Island	SLC43A1	0.643	-0.005	0.046	0.413
cg04566660	purple	4	139,936,804	TSS200	Island	CCRN4L	0.643	0.000	0.018	0.899
cg00721086	purple	15	32,322,288	TSS1500	Island	CHRNA7	0.643	0.000	0.027	0.814
cg23521964	purple	10	127,408,065	TSS200	Island	C10orf137	0.643	0.003	0.019	0.062
cg25267072	purple	19	23,299,889		Island		0.643	-0.001	0.023	0.661
cg21153758	purple	5	52,083,992	TSS200	Island	ITGA1	0.643	0.000	0.019	0.919
cg14435444	purple	2	217,236,882	TSS200	Island	4-Mar	0.643	0.001	0.053	0.751
cg15784124	purple	4	111,543,114	Body	Island	PITX2	0.642	0.000	0.016	0.840
cg20719038	purple	15	75,249,380	1stExon	Island	RPP25	0.642	0.000	0.034	0.985
cg26776069	purple	1	40,974,239	TSS200	Island	DEM1	0.642	0.000	0.032	0.962
cg04294412	purple	4	7,045,720	TSS1500	Island	CCDC96	0.642	-0.002	0.041	0.775
cg02389292	purple	17	6,918,526	Body	Island	C17orf49	0.642	-0.001	0.029	0.433
cg00216659	purple	2	196,521,989	5'UTR	Island	SLC39A10	0.642	0.000	0.030	0.829
cg24875416	purple	1	110,577,936	Body	Island	FAM40A	0.642	-0.002	0.023	0.170

cg03959347	purple	10	60,273,059	1stExon	Island	BICC1	0.642	0.000	0.061	0.998
cg11799819	purple	9	100,264,607	5'UTR	Island	TMOD1	0.642	0.001	0.047	0.727
cg00574907	purple	2	110,371,141	Body	Island	10-Sep	0.642	-0.002	0.027	0.039
cg19756430	purple	1	2,144,002		N_Shore		0.642	-0.006	0.058	0.227
cg22197033	purple	17	8,649,004	TSS1500	Island	CCDC42	0.642	-0.004	0.040	0.293
cg13933692	purple	5	149,865,429		Island		0.642	-0.001	0.023	0.318
cg05570707	purple	2	24,270,316	TSS200	N_Shelf	C2orf44	0.642	0.000	0.045	0.964
cg19299739	purple	19	49,865,342	5'UTR	Island	TEAD2	0.642	-0.005	0.052	0.048
cg02775028	purple	4	184,580,387	TSS200	Island	C4orf41	0.642	-0.008	0.080	0.408
cg00629983	purple	7	55,323,105		Island		0.642	0.000	0.020	0.717
cg14276435	purple	8	22,462,062	TSS200	N_Shore	KIAA1967	0.642	0.000	0.022	0.845
cg03840647	purple	14	36,974,968	Body	Island	SFTA3	0.641	-0.004	0.034	0.033
cg02248497	purple	20	43,991,695	TSS200	Island	SYS1	0.641	-0.002	0.022	0.146
cg18452324	purple	22	37,882,397	1stExon		MFNG	0.641	-0.006	0.042	0.149
cg27108047	purple	17	73,257,286	Body	Island	GGA3	0.641	0.000	0.053	0.898
cg08303612	purple	6	160,770,090	Body	Island	SLC22A3	0.641	0.001	0.021	0.577
cg01288067	purple	9	36,572,645	TSS1500	N_Shore	MELK	0.641	-0.001	0.019	0.500
cg08369436	purple	20	16,710,542	TSS200	Island	SNRPB2	0.641	0.000	0.018	0.816
cg00022308	purple	2	27,851,831	1stExon		CCDC121	0.641	-0.001	0.038	0.870
cg08876479	purple	10	38,146,530	TSS200	Island	ZNF248	0.641	-0.001	0.052	0.715
cg04284463	purple	2	154,335,766	TSS1500	S_Shore	RPRM	0.641	-0.001	0.038	0.693
cg14919823	purple	3	14,166,510	1stExon	Island	TMEM43	0.641	-0.006	0.046	0.468
cg17885402	purple	10	101,492,224	1stExon	Island	COX15	0.641	-0.001	0.051	0.594
cg25583128	purple	18	61,616,453	TSS200		HMSD	0.641	-0.001	0.021	0.658
cg05881135	purple	15	99,644,973	TSS1500	N_Shore	SYNM	0.641	-0.004	0.046	0.294
cg18299363	purple	10	103,816,089	TSS200	Island	C10orf76	0.641	0.000	0.016	0.913
cg17400229	purple	21	44,527,180	5'UTR	Island	U2AF1	0.641	0.002	0.021	0.210
cg23515325	purple	19	1,194,462		Island		0.640	-0.003	0.039	0.527
cg14004477	purple	1	27,719,043	TSS200	Island	GPR3	0.640	0.001	0.017	0.425
cg04389736	purple	14	105,144,253		Island		0.640	-0.002	0.021	0.101
cg20312581	purple	10	96,305,480	TSS200	Island	HELLS	0.640	0.002	0.021	0.255
cg15107884	purple	3	38,180,343	1stExon	Island	MYD88	0.640	-0.001	0.107	0.847
cg11203377	purple	11	46,402,051	TSS1500	N_Shore	MDK	0.640	-0.002	0.037	0.436
cg12995410	purple	6	151,712,734	TSS200	Island	ZBTB2	0.640	-0.001	0.060	0.927
cg06602847	purple	9	122,131,497	5'UTR	Island	DBC1	0.640	0.000	0.043	0.879
cg05982271	purple	4	76,555,948	TSS1500	Island	CDKL2	0.640	-0.011	0.100	0.476
cg06164976	purple	18	46,987,165	TSS200	Island	DYM	0.640	0.000	0.036	0.895
cg07732143	purple	6	36,807,193	1stExon	Island	CPNE5	0.640	-0.004	0.022	0.130
cg02283836	purple	14	52,118,711	5'UTR	Island	FRMD6	0.640	-0.002	0.035	0.599
cg21281234	purple	1	212,781,775	TSS1500	Island	ATF3	0.640	0.002	0.025	0.371
cg24970539	purple	11	64,126,392	TSS1500	N_Shore	RPS6KA4	0.640	-0.002	0.033	0.325
cg11868029	purple	11	88,071,041	TSS200	Island	CTSC	0.640	0.001	0.025	0.561
cg05650764	purple	11	68,227,812	TSS1500	N_Shore	SAPS3	0.640	0.000	0.038	0.924
cg17360140	purple	4	128,886,135	TSS1500	Island	C4orf29	0.640	-0.006	0.034	0.371
cg10168850	purple	5	16,465,928	TSS200	Island	ZNF622	0.640	0.003	0.026	0.144
cg25025968	purple	11	4,116,056	5'UTR	Island	RRM1	0.640	-0.002	0.033	0.632
cg13782090	purple	2	220,417,853	Body	Island	OBSL1	0.640	-0.020	0.083	0.109
cg25794819	purple	19	55,629,097	TSS200	Island	PPP1R12C	0.640	-0.011	0.068	0.185
cg01671059	purple	8	73,921,086	TSS200	Island	TERF1	0.640	-0.001	0.021	0.517
cg10999932	purple	4	157,997,750	5'UTR	S_Shore	GLRB	0.640	0.001	0.025	0.574
cg16367085	purple	21	36,260,731	5'UTR	Island	RUNX1	0.639	0.000	0.031	0.967
cg00173504	purple	1	119,530,144	5'UTR	Island	TBX15	0.639	-0.003	0.051	0.268
cg09434803	purple	4	26,863,372	Body	S_Shore	STIM2	0.639	-0.001	0.028	0.553
cg23704023	purple	12	122,461,358	Body		BCL7A	0.639	-0.003	0.030	0.133
cg10954363	purple	3	112,930,438	TSS1500	Island	BOC	0.639	-0.001	0.015	0.582
cg03874199	purple	2	176,964,456	TSS200	Island	HOXD12	0.639	-0.001	0.024	0.585
cg05351302	purple	7	87,563,908	Body	Island	ADAM22	0.639	-0.002	0.024	0.403
cg18455360	purple	5	176,778,914	TSS200	Island	LMAN2	0.639	-0.001	0.019	0.433
cg06154646	purple	14	58,764,698	Body	Island	FLJ31306	0.639	-0.003	0.053	0.235
cg04310649	purple	10	35,416,472	5'UTR	Island	CREM	0.639	-0.001	0.047	0.857
cg16494397	purple	6	32,821,639	TSS1500	Island	PSMB9	0.639	0.000	0.012	0.600
cg06168050	purple	17	30,677,336	1stExon	Island	ZNF207	0.639	-0.001	0.050	0.904
cg10343742	purple	3	137,483,506	TSS200	Island	SOX14	0.639	-0.006	0.065	0.180
cg21884421	purple	15	65,648,103	Body	Island	IGDCC3	0.639	-0.003	0.020	0.162
cg15934066	purple	4	139,936,743	TSS200	Island	CCRN4L	0.639	-0.002	0.031	0.288
cg19742789	purple	5	159,739,256	5'UTR	Island	CCNJL	0.639	-0.001	0.024	0.666
cg20652607	purple	6	108,485,837	TSS1500	Island	NR2E1	0.639	-0.001	0.019	0.654

cg04851675	purple	15	91,498,080	TSS200	Island	RCCD1	0.639	-0.007	0.035	0.009
cg04923388	purple	5	41,904,550	1stExon	Island	C5orf51	0.639	0.002	0.018	0.200
cg02582973	purple	4	139,937,423	Body	Island	CCRN4L	0.639	-0.004	0.063	0.408
cg24953179	purple	7	37,960,251	1stExon	N_Shore	EPDR1	0.639	0.001	0.025	0.819
cg03092918	purple	10	126,107,592	TSS200	Island	OAT	0.639	-0.002	0.055	0.729
cg21138752	purple	6	28,303,932	1stExon		ZNF323	0.639	-0.001	0.019	0.294
cg08278741	purple	19	36,736,477		Island		0.639	-0.001	0.028	0.743
cg13481638	purple	11	91,957,660		Island		0.638	-0.001	0.023	0.469
cg12692187	purple	10	94,353,140	1stExon	Island	KIF11	0.638	-0.001	0.022	0.376
cg22293500	purple	3	186,544,871		N_Shore		0.638	-0.001	0.026	0.659
cg10693773	purple	1	21,503,638	TSS1500	Island	EIF4G3	0.638	0.000	0.018	0.885
cg06935264	purple	10	45,869,233	TSS1500	Island	ALOX5	0.638	-0.002	0.040	0.474
cg22328771	purple	22	50,709,822	TSS1500	Island	MAPK11	0.638	-0.004	0.044	0.239
cg07697635	purple	5	77,656,183	TSS200	Island	SCAMP1	0.638	0.000	0.022	0.813
cg01601746	purple	19	58,038,689	TSS200	Island	ZNF549	0.638	-0.002	0.020	0.093
cg14235783	purple	11	65,420,518		Island		0.638	-0.002	0.032	0.387
cg18194393	purple	1	16,767,185	5'UTR	Island	NECAP2	0.638	-0.001	0.018	0.367
cg04269065	purple	8	30,890,980	1stExon		WRN	0.638	0.001	0.013	0.435
cg14042131	purple	11	48,003,169	Body	Island	PTPRJ	0.638	-0.006	0.065	0.492
cg19509778	purple	10	129,537,308	3'UTR	Island	FOXI2	0.638	0.001	0.033	0.755
cg10535353	purple	2	200,323,432	5'UTR	Island	SATB2	0.638	0.002	0.066	0.854
cg08795962	purple	11	93,862,716	Body	Island	PANX1	0.638	0.001	0.023	0.725
cg08739576	purple	7	44,144,360	1stExon		AEBP1	0.638	-0.004	0.033	0.263
cg17325073	purple	8	30,585,433	5'UTR	Island	GSR	0.638	0.000	0.014	0.593
cg26451873	purple	13	26,829,095	Body	Island	CDK8	0.638	0.000	0.015	0.819
cg02799712	purple	20	48,532,227	TSS200	Island	SPATA2	0.638	-0.001	0.018	0.503
cg14272068	purple	6	32,821,742	5'UTR	Island	TAP1	0.638	-0.002	0.038	0.283
cg10974632	purple	14	51,562,381	1stExon	Island	TRIM9	0.637	-0.002	0.041	0.524
cg13100764	purple	11	61,583,588	TSS1500	Island	MIR1908	0.637	0.000	0.020	0.873
cg06959142	purple	1	91,182,731	1stExon	Island	BARHL2	0.637	0.000	0.032	1.000
cg13995101	purple	5	88,179,867	5'UTR	Island	MEF2C	0.637	-0.001	0.018	0.437
cg00208153	purple	13	58,206,058	5'UTR	N_Shore	PCDH17	0.637	0.000	0.018	0.745
cg00605408	purple	2	24,307,515	1stExon	Island	TP53I3	0.637	0.003	0.024	0.243
cg20166438	purple	1	110,091,162	TSS200	Island	GNAI3	0.637	0.000	0.020	0.896
cg13629563	purple	1	25,256,949	Body	Island	RUNX3	0.637	-0.003	0.031	0.231
cg09561280	purple	22	39,925,252	3'UTR	N_Shelf	RPS19BP1	0.637	-0.005	0.076	0.470
cg01858923	purple	14	65,569,399	TSS200	Island	MAX	0.637	0.000	0.023	0.980
cg19461392	purple	12	26,349,002	5'UTR	Island	SSPN	0.637	-0.003	0.032	0.409
cg02577108	purple	17	59,478,194	Body	Island	TBX2	0.637	0.000	0.019	0.891
cg26521784	purple	1	161,129,188	TSS200	Island	USP21	0.637	0.000	0.022	0.886
cg02089672	purple	11	117,103,880	TSS1500	Island	PCSK7	0.637	0.001	0.020	0.382
cg24608684	purple	6	130,686,865		Island		0.636	-0.008	0.095	0.439
cg10943359	purple	4	165,304,531	TSS200	Island	1-Mar	0.636	-0.003	0.030	0.204
cg05447833	purple	8	97,173,722	TSS1500	Island	GDF6	0.636	0.001	0.014	0.393
cg26035915	purple	1	193,028,107	TSS1500	N_Shore	TROVE2	0.636	0.000	0.024	0.804
cg05776084	purple	3	133,293,427	1stExon	S_Shore	CDV3	0.636	0.000	0.019	0.841
cg18971819	purple	11	616,112	TSS1500	N_Shore	IRF7	0.636	-0.004	0.023	0.014
cg03700218	purple	16	1,832,709	TSS200	Island	SPSB3	0.636	-0.002	0.028	0.470
cg21803245	purple	14	105,331,124	TSS1500	Island	KIAA0284	0.636	-0.003	0.034	0.542
cg17072465	purple	17	8,924,309	TSS1500	Island	NTN1	0.636	-0.001	0.043	0.585
cg13129888	purple	1	28,415,099	1stExon	Island	EYA3	0.636	-0.001	0.021	0.642
cg16732643	purple	8	37,619,930	TSS200	Island	PROSC	0.636	0.000	0.054	0.896
cg00367659	purple	17	33,288,544	TSS200	Island	CCT6B	0.636	0.000	0.048	0.943
cg20557202	purple	19	17,982,930	5'UTR	Island	SLC5A5	0.636	-0.002	0.030	0.328
cg03758774	purple	6	32,936,478	1stExon	Island	BRD2	0.635	0.003	0.042	0.693
cg19430967	purple	3	132,757,741	5'UTR	Island	TMEM108	0.635	0.001	0.019	0.760
cg02187889	purple	1	34,629,366	Body	Island	CSMD2	0.635	-0.003	0.031	0.187
cg23790767	purple	15	44,069,451	5'UTR	Island	ELL3	0.635	-0.001	0.013	0.372
cg21605986	purple	5	175,788,725	5'UTR	Island	KIAA1191	0.635	-0.007	0.036	0.176
cg17440044	purple	7	100,167,198		Island		0.635	-0.007	0.076	0.259
cg09238470	purple	16	30,007,069	5'UTR	Island	HIRIP3	0.635	-0.001	0.014	0.227
cg27257358	purple	8	117,887,081	1stExon	Island	RAD21	0.635	0.000	0.019	0.903
cg00418282	purple	5	2,740,132		Island		0.635	-0.001	0.032	0.781
cg25512587	purple	9	136,344,026	Body	Island	SLC2A6	0.635	-0.005	0.034	0.010
cg07198881	purple	1	166,134,513	Body	Island	FAM78B	0.635	-0.004	0.058	0.292
cg08659293	purple	1	40,506,702	5'UTR	Island	CAP1	0.635	0.000	0.019	0.806
cg23398335	purple	15	34,630,011	TSS200	Island	SLC12A6	0.635	0.000	0.013	0.750

cg13814496	purple	9	129,567,797	5'UTR	Island	ZBTB43	0.635	-0.001	0.021	0.595
cg23693683	purple	3	46,924,113	5'UTR	Island	PTH1R	0.635	-0.004	0.060	0.467
cg03245632	purple	18	12,254,148	TSS1500	Island	CIDEA	0.635	-0.005	0.040	0.180
cg09378441	purple	7	36,429,182	TSS1500	N_Shore	ANLN	0.635	0.000	0.023	0.994
cg22023604	purple	17	40,729,574	Body	Island	PSMC3IP	0.635	0.000	0.019	0.912
cg10882606	purple	6	117,996,470	TSS200	Island	NUS1	0.635	-0.002	0.028	0.226
cg01569204	purple	1	218,337,839		Island		0.634	0.000	0.018	0.916
cg06873684	purple	19	4,472,059	TSS200	N_Shore	HDGF2	0.634	-0.001	0.020	0.777
cg04686994	purple	5	61,700,164	TSS1500	S_Shore	DIMT1L	0.634	0.000	0.018	0.644
cg00784718	purple	1	221,916,686	TSS1500	Island	DUSP10	0.634	-0.010	0.070	0.066
cg01995660	purple	13	41,238,844	Body	Island	FOXO1	0.634	-0.001	0.018	0.706
cg21135533	purple	8	70,982,935	5'UTR	Island	PRDM14	0.634	0.002	0.024	0.309
cg13956692	purple	9	137,029,201		Island		0.634	-0.004	0.030	0.114
cg02168723	purple	13	100,258,760	TSS200	Island	CLYBL	0.634	-0.001	0.018	0.398
cg11214243	purple	11	65,405,388	TSS200	N_Shelf	SIPA1	0.634	-0.002	0.030	0.184
cg27394038	purple	6	36,562,217	5'UTR	Island	SFRS3	0.634	-0.002	0.026	0.074
cg06872176	purple	1	68,697,386	Body	Island	GPR177	0.634	-0.001	0.021	0.644
cg13773705	purple	15	88,799,820	TSS200	Island	NTRK3	0.634	0.001	0.017	0.319
cg07520161	purple	12	88,535,980	TSS200	Island	TMTC3	0.634	0.000	0.021	0.786
cg07062933	purple	8	134,309,859	TSS1500	Island	NDRG1	0.634	0.001	0.050	0.746
cg14119616	purple	11	17,099,403	TSS200	Island	RPS13	0.633	0.000	0.016	0.939
cg02891801	purple	12	6,472,782	Body	Island	SCNN1A	0.633	-0.003	0.047	0.265
cg09293387	purple	8	6,565,827	TSS200	Island	AGPAT5	0.633	-0.007	0.035	0.357
cg01395111	purple	5	122,371,727	Body	Island	PPIC	0.633	-0.002	0.069	0.544
cg06027057	purple	14	90,849,959		Island		0.633	0.002	0.041	0.713
cg25527915	purple	10	99,078,702	TSS1500	N_Shore	FRAT1	0.633	-0.001	0.019	0.697
cg12130907	purple	1	24,127,669	TSS1500	S_Shore	GALE	0.633	-0.002	0.025	0.324
cg20337753	purple	22	36,424,119	Body	N_Shore	RBM9	0.633	-0.002	0.023	0.102
cg13710842	purple	5	72,251,735	TSS200	Island	FCHO2	0.633	0.000	0.033	0.904
cg11468835	purple	11	63,998,438	Body	S_Shore	DNAJC4	0.633	0.000	0.037	0.991
cg13022174	purple	18	23,671,059	TSS1500	Island	SS18	0.633	0.000	0.047	0.987
cg25298725	purple	6	30,228,047	Body	Island	HLA-L	0.633	0.005	0.060	0.509
cg10583931	purple	5	75,379,800	5'UTR	Island	SV2C	0.632	0.000	0.019	0.943
cg01487433	purple	19	19,648,987	TSS200	Island	CILP2	0.632	-0.003	0.059	0.458
cg11009245	purple	3	125,899,150	5'UTR	Island	ALDH1L1	0.632	-0.003	0.038	0.165
cg15318396	purple	21	38,593,284		Island		0.632	0.000	0.029	0.923
cg22108864	purple	8	26,307,427		Island		0.632	-0.002	0.043	0.484
cg19054833	purple	19	1,383,453	TSS1500	Island	NDUFS7	0.632	-0.002	0.025	0.113
cg13390998	purple	8	145,670,370	TSS1500	Island	NFKBIL2	0.632	0.001	0.020	0.786
cg18714412	purple	4	101,111,147	5'UTR	Island	DDIT4L	0.632	-0.001	0.018	0.722
cg21709803	purple	11	61,594,965	TSS1500	N_Shore	FADS2	0.632	0.001	0.024	0.783
cg14612428	purple	18	11,751,566	5'UTR	Island	GNAL	0.632	-0.007	0.053	0.235
cg24698537	purple	1	19,229,364	TSS200	Island	ALDH4A1	0.632	-0.003	0.023	0.047
cg13065938	purple	1	186,344,998	TSS1500	S_Shore	TPR	0.632	0.000	0.025	0.949
cg20069738	purple	19	59,031,425	TSS1500	Island	ZBTB45	0.632	0.001	0.020	0.736
cg07904285	purple	6	7,910,088	1stExon	Island	TXNDC5	0.632	-0.001	0.022	0.503
cg12564650	purple	5	179,050,814	TSS200	Island	HNRNP1	0.632	-0.001	0.020	0.734
cg07923305	purple	1	46,598,507	5'UTR	Island	PIK3R3	0.632	-0.001	0.019	0.517
cg24326501	purple	1	6,845,219	TSS200	Island	CAMTA1	0.632	0.000	0.021	0.934
cg27535648	purple	22	47,158,521	TSS200	Island	TBC1D22A	0.632	-0.001	0.031	0.885
cg24501027	purple	1	92,764,777	Body	Island	RPAP2	0.632	0.000	0.013	0.368
cg17897236	purple	15	23,034,682	TSS1500	Island	NIPA2	0.632	-0.004	0.022	0.055
cg04670666	purple	10	124,896,129	Body	Island	HMX3	0.632	0.002	0.040	0.536
cg09016242	purple	16	51,185,110	TSS1500	Island	SALL1	0.632	-0.004	0.033	0.204
cg09651315	purple	2	112,641,899	TSS200	Island	ANAPC1	0.631	0.000	0.014	0.696
cg14159901	purple	14	104,387,583	5'UTR	Island	C14orf2	0.631	-0.001	0.016	0.541
cg01435515	purple	1	151,255,742	5'UTR	Island	ZNF687	0.631	-0.002	0.079	0.493
cg00122840	purple	5	36,151,998	1stExon	Island	LMBRD2	0.631	-0.001	0.020	0.476
cg21924449	purple	15	33,011,441	5'UTR	Island	GREM1	0.631	-0.002	0.033	0.295
cg14340610	purple	19	37,568,961	TSS1500	Island	ZNF420	0.631	-0.001	0.025	0.442
cg11439834	purple	12	57,082,444	TSS1500	Island	PTGES3	0.631	0.000	0.027	0.800
cg00171909	purple	10	52,385,044	TSS1500	Island	SGMS1	0.631	-0.002	0.026	0.158
cg15315015	purple	3	49,131,774	TSS1500	Island	QRICH1	0.631	-0.001	0.035	0.533
cg11814875	purple	19	2,611,237	5'UTR	Island	GNG7	0.631	0.000	0.020	0.941
cg15947959	purple	5	172,261,155	TSS200	Island	ERGIC1	0.631	-0.002	0.025	0.379
cg21378047	purple	3	129,034,659	1stExon	Island	H1FX	0.631	-0.005	0.059	0.206
cg22196610	purple	5	43,042,233	TSS200	Island	LOC153684	0.631	0.002	0.064	0.629

cg22972972	purple	6	150,285,139	TSS200	Island	ULBP1	0.631	0.001	0.026	0.852
cg06092312	purple	16	68,345,214	5'UTR	Island	PRMT7	0.631	0.002	0.042	0.506
cg01952724	purple	19	51,611,733	TSS200	Island	CTU1	0.630	-0.001	0.053	0.751
cg00546774	purple	2	112,811,810	TSS1500	Island	TMEM87B	0.630	-0.001	0.045	0.562
cg19303637	purple	13	24,153,954	5'UTR	Island	TNFRSF19	0.630	-0.002	0.056	0.705
cg13537196	purple	9	15,553,060	TSS200	Island	C9orf93	0.630	-0.002	0.030	0.558
cg24220383	purple	17	73,511,862	TSS1500	Island	CASKIN2	0.630	-0.002	0.034	0.531
cg18281016	purple	19	58,790,371	1stExon	Island	ZNF8	0.630	-0.004	0.059	0.471
cg20639890	purple	15	25,683,349	5'UTR	Island	UBE3A	0.630	-0.001	0.022	0.426
cg11628574	purple	19	52,839,405	TSS200	N_Shore	ZNF610	0.630	0.002	0.023	0.284
cg18715511	purple	12	1,058,965	TSS200	Island	RAD52	0.630	-0.014	0.040	0.024
cg26170245	purple	15	91,475,703	1stExon	Island	HDHC3	0.630	0.001	0.015	0.433
cg01788996	purple	2	109,403,045	TSS200	Island	CCDC138	0.630	-0.001	0.055	0.863
cg19956166	purple	2	85,980,874	TSS200	Island	ATOX8	0.630	0.000	0.033	1.000
cg06432462	purple	9	80,646,879	TSS1500	Island	GNAQ	0.630	-0.005	0.066	0.343
cg00029397	purple	12	57,940,957	5'UTR	Island	DCTN2	0.630	-0.001	0.049	0.823
cg00234624	purple	9	103,114,721	5'UTR	Island	TEX10	0.630	-0.002	0.028	0.465
cg19969606	purple	12	113,901,665	Body	Island	LHX5	0.630	-0.005	0.024	0.016
cg21194448	purple	13	88,323,940	TSS1500	Island	SLITRK5	0.630	0.000	0.021	0.884
cg10393416	purple	4	128,802,077	1stExon	Island	PLK4	0.630	-0.006	0.074	0.419
cg06729642	purple	17	43,324,793	TSS1500	Island	LOC10013395	0.630	-0.002	0.026	0.164
cg23136139	purple	10	43,697,918	Body	Island	RASGEF1A	0.630	0.000	0.101	0.999
cg07263825	purple	10	89,622,884	TSS1500	Island	PTEN	0.630	0.001	0.020	0.429
cg19627869	purple	12	56,391,069	5'UTR	Island	SUOX	0.630	0.000	0.014	0.693
cg05088549	purple	3	183,978,344	Body	Island	ECE2	0.630	0.003	0.041	0.291
cg10590857	purple	5	7,397,021	Body	Island	ADCY2	0.630	-0.001	0.018	0.468
cg04799838	purple	5	63,256,926	1stExon	Island	HTR1A	0.629	-0.010	0.153	0.319
cg26042725	purple	20	3,827,226	TSS1500	Island	MAVS	0.629	-0.001	0.182	0.897
cg12778775	purple	22	44,893,667	5'UTR	Island	LDOC1L	0.629	-0.005	0.110	0.514
cg03532510	purple	1	224,544,720	Body	Island	CNIH4	0.629	0.000	0.015	0.653
cg20023231	purple	16	22,825,282	TSS1500	Island	HS3ST2	0.629	0.000	0.033	0.900
cg14382750	purple	9	100,264,941	5'UTR	Island	TMOD1	0.629	0.001	0.034	0.490
cg05907933	purple	5	77,268,888		S_Shore		0.629	0.000	0.012	0.529
cg08527566	purple	12	95,611,432	TSS200	Island	FGD6	0.629	-0.002	0.023	0.391
cg00369716	purple	10	103,892,708	TSS200	Island	PPRC1	0.629	-0.001	0.021	0.651
cg01742905	purple	11	88,071,023	TSS200	Island	CTSC	0.629	-0.001	0.017	0.672
cg25816013	purple	10	124,913,724	TSS200	Island	BUB3	0.629	-0.001	0.014	0.573
cg10921983	purple	12	124,155,712	5'UTR	Island	TCTN2	0.629	-0.007	0.064	0.254
cg05038977	purple	17	7,476,167	1stExon	Island	EIF4A1	0.629	-0.001	0.025	0.599
cg06761719	purple	6	27,280,190	TSS200	Island	POM121L2	0.629	0.000	0.022	0.898
cg07601932	purple	22	42,486,924	TSS200	Island	NDUFA6	0.629	0.002	0.029	0.427
cg00959725	purple	1	33,282,965	TSS1500	Island	S100BPB	0.629	0.002	0.022	0.129
cg23542436	purple	14	99,947,690	TSS1500	Island	SETD3	0.629	-0.003	0.046	0.133
cg01049274	purple	8	146,228,340	TSS200	Island	ZNF252	0.629	-0.001	0.016	0.615
cg25365783	purple	7	108,166,722	TSS200	Island	PNPLA8	0.629	-0.007	0.051	0.368
cg09554789	purple	19	7,598,922	TSS1500	Island	PNPLA6	0.629	-0.001	0.020	0.533
cg06432479	purple	1	47,690,981	Body	Island	TAL1	0.629	-0.001	0.017	0.276
cg02776251	purple	12	62,654,319	Body	Island	USP15	0.629	-0.005	0.050	0.553
cg00826610	purple	9	37,800,654	TSS200	Island	DCAF10	0.629	-0.004	0.105	0.556
cg13915676	purple	9	139,305,538	TSS1500	Island	SDCCAG3	0.629	0.000	0.030	0.907
cg22051865	purple	11	73,019,002	TSS1500	Island	ARHGEF17	0.629	0.001	0.020	0.314
cg06118578	purple	18	67,872,897	1stExon	Island	RTTN	0.628	0.000	0.017	0.740
cg01729089	purple	16	3,174,639		Island		0.628	0.002	0.043	0.554
cg27141345	purple	16	29,816,675	TSS1500	Island	MAZ	0.628	-0.001	0.019	0.461
cg01433420	purple	19	3,572,873	TSS200	Island	HMG20B	0.628	-0.001	0.024	0.540
cg24208426	purple	11	3,819,031	TSS200	Island	PGAP2	0.628	-0.002	0.023	0.686
cg27308346	purple	19	56,015,301	Body	Island	SSC5D	0.628	-0.001	0.021	0.418
cg06160973	purple	12	57,522,813	1stExon	S_Shore	LRP1	0.628	-0.001	0.034	0.684
cg06000883	purple	21	39,288,720	TSS200	Island	KCNJ6	0.628	-0.001	0.024	0.476
cg04729371	purple	11	111,637,213	TSS200	Island	PPP2R1B	0.628	0.000	0.021	0.916
cg05182249	purple	14	90,527,985	TSS200	Island	KCNK13	0.628	-0.004	0.066	0.373
cg08764805	purple	12	95,867,684	TSS200	Island	METAP2	0.628	0.001	0.029	0.670
cg20635393	purple	4	141,074,400	1stExon	Island	MAML3	0.628	0.000	0.015	0.919
cg25955837	purple	6	46,620,788	5'UTR	Island	SLC25A27	0.628	0.001	0.047	0.734
cg12902062	purple	20	39,316,218	3'UTR	Island	MAFB	0.628	-0.005	0.035	0.043
cg10029186	purple	4	174,430,771		Island		0.628	-0.005	0.078	0.230
cg18342832	purple	7	99,933,797	5'UTR	Island	PILRB	0.628	-0.005	0.036	0.403

cg13529288	purple	7	100,209,880	TSS200	Island	MOSPD3	0.628	0.000	0.020	0.842
cg05175466	purple	13	52,586,483	TSS200	Island	ALG11	0.628	0.000	0.018	0.652
cg14968603	purple	10	102,046,143	Body	Island	BLOC1S2	0.628	-0.003	0.045	0.367
cg10059942	purple	10	124,908,488	Body	Island	HMX2	0.628	-0.001	0.018	0.224
cg27217878	purple	11	76,155,921	TSS200	Island	C11orf30	0.627	-0.001	0.021	0.596
cg27574168	purple	18	54,318,782	1stExon	Island	WDR7	0.627	-0.002	0.034	0.569
cg11355601	purple	22	39,096,475	TSS200	Island	JOSD1	0.627	-0.002	0.024	0.433
cg18436128	purple	14	65,439,236	TSS1500	Island	RAB15	0.627	0.001	0.023	0.683
cg24732796	purple	11	133,907,497	Body	S_Shore	LOC10012825	0.627	0.000	0.013	0.999
cg08014272	purple	17	7,739,726		Island		0.627	-0.006	0.044	0.199
cg12992240	purple	11	64,216,638		Island		0.627	-0.005	0.064	0.128
cg09222023	purple	3	138,669,322	Body	Island	C3orf72	0.627	-0.002	0.035	0.317
cg01539949	purple	17	78,010,264	TSS200	Island	CCDC40	0.627	-0.001	0.015	0.648
cg09491948	purple	11	62,446,595	TSS200	Island	UBXN1	0.627	0.001	0.016	0.450
cg00101895	purple	6	108,279,135	1stExon	Island	SEC63	0.626	-0.007	0.048	0.280
cg18199720	purple	1	115,054,041	TSS1500	Island	TRIM33	0.626	-0.004	0.060	0.511
cg16044674	purple	6	42,981,944	TSS1500	Island	MEA1	0.626	-0.009	0.050	0.059
cg06604625	purple	17	64,187,838	5'UTR	Island	CCDC46	0.626	-0.001	0.039	0.843
cg11189384	purple	1	180,204,379	Body	Island	LHX4	0.626	-0.002	0.037	0.702
cg02741158	purple	16	65,155,639	5'UTR	Island	CDH11	0.626	-0.001	0.014	0.550
cg16696730	purple	21	43,916,444	TSS200	Island	RSPH1	0.626	-0.006	0.026	0.086
cg26948626	purple	11	125,462,551	TSS200	Island	STT3A	0.625	0.001	0.017	0.583
cg11529663	purple	17	74,582,309	TSS200	Island	ST6GALNAC2	0.625	-0.002	0.023	0.248
cg01089095	purple	10	75,541,668	TSS200	Island	CHCHD1	0.625	-0.002	0.020	0.534
cg07315521	purple	16	71,929,403	TSS200	Island	KIAA0174	0.625	0.000	0.054	0.969
cg07377675	purple	1	62,901,875	TSS200	Island	USP1	0.625	0.000	0.022	0.941
cg16162927	purple	6	136,610,857	5'UTR	Island	BCLAF1	0.625	-0.002	0.024	0.508
cg01678634	purple	15	78,731,169	Body	S_Shore	IREB2	0.625	0.000	0.015	0.837
cg13230348	purple	1	212,781,781	TSS1500	Island	ATF3	0.625	-0.002	0.051	0.589
cg15151387	purple	12	49,453,638		Island		0.625	-0.001	0.019	0.555
cg10552847	purple	5	74,632,966	TSS200	Island	HMGCR	0.625	-0.004	0.030	0.346
cg08866753	purple	1	40,042,061	5'UTR	Island	PABPC4	0.625	0.003	0.031	0.218
cg11673391	purple	1	10,459,052	TSS200	Island	PGD	0.625	-0.001	0.043	0.755
cg12657664	purple	1	24,969,003	TSS1500	N_Shore	SRRM1	0.625	-0.001	0.034	0.727
cg05880577	purple	1	212,783,085	5'UTR	Island	ATF3	0.625	0.001	0.074	0.832
cg21931103	purple	2	99,771,423	5'UTR	Island	LIPT1	0.625	0.000	0.020	0.858
cg03116917	purple	19	40,324,480	5'UTR	Island	DYRK1B	0.625	0.001	0.025	0.622
cg23284639	purple	10	43,903,345	5'UTR	Island	HNRNPF	0.625	0.001	0.018	0.438
cg03593419	purple	4	46,995,474	5'UTR	Island	GABRA4	0.625	-0.001	0.034	0.664
cg08321366	purple	14	23,305,835	5'UTR	N_Shore	MMP14	0.625	-0.002	0.023	0.225
cg01811416	purple	1	227,127,838	TSS200	Island	CABC1	0.625	0.000	0.081	0.996
cg27598621	purple	11	125,034,439	TSS200	Island	PKNOX2	0.625	0.000	0.024	0.856
cg04315264	purple	6	35,436,252	Body	Island	RPL10A	0.625	-0.005	0.073	0.401
cg09367648	purple	3	49,027,117	TSS1500	Island	P4HTM	0.625	0.002	0.058	0.480
cg27333693	purple	10	23,002,092	Body	N_Shore	PIP4K2A	0.624	-0.001	0.023	0.409
cg12531328	purple	13	31,192,104	1stExon	Island	USPL1	0.624	0.000	0.036	0.808
cg13637733	purple	15	70,390,233	1stExon	Island	TLE3	0.624	-0.003	0.024	0.133
cg16426537	purple	11	18,813,556	TSS200	Island	PTPN5	0.624	0.000	0.023	0.980
cg18797229	purple	6	33,267,523	3'UTR	Island	TAPBP	0.624	-0.001	0.041	0.642
cg17741106	purple	2	18,742,122	TSS200	S_Shore	RDH14	0.624	0.002	0.024	0.072
cg16128701	purple	8	82,193,449	Body	Island	FABP5	0.624	-0.001	0.024	0.210
cg25218905	purple	12	92,538,613	Body	N_Shore	BTG1	0.624	-0.001	0.024	0.254
cg01809579	purple	9	86,595,452	1stExon	Island	HNRNPK	0.624	-0.001	0.015	0.450
cg23654545	purple	6	30,525,120	5'UTR	Island	PRR3	0.624	0.000	0.022	0.829
cg16136939	purple	10	13,344,341		Island		0.624	-0.001	0.031	0.697
cg10865368	purple	19	36,134,154	Body	Island	ETV2	0.624	-0.002	0.023	0.313
cg25187227	purple	4	40,058,080	TSS1500	Island	N4BP2	0.624	-0.003	0.026	0.446
cg00181968	purple	1	179,712,204	TSS200	Island	FAM163A	0.624	-0.002	0.024	0.200
cg14080155	purple	2	45,179,727		Island		0.623	0.001	0.019	0.505
cg05964721	purple	11	71,814,458	Body	Island	LRTOMT	0.623	-0.001	0.013	0.404
cg08529882	purple	10	124,902,456		Island		0.623	-0.001	0.045	0.718
cg12091642	purple	14	61,104,566		Island		0.623	-0.004	0.050	0.623
cg11483789	purple	3	122,745,560	5'UTR	Island	SEMA5B	0.623	-0.001	0.029	0.683
cg08038409	purple	20	825,155	TSS200	N_Shore	FAM110A	0.623	-0.001	0.027	0.283
cg02252000	purple	7	130,792,943	TSS1500	N_Shore	FLJ43663	0.623	-0.001	0.025	0.503
cg13886354	purple	9	17,906,113		N_Shore		0.623	-0.001	0.025	0.383
cg19527801	purple	6	32,164,124	TSS1500	Island	GPSM3	0.623	-0.002	0.032	0.495

cg01087710	purple	16	67,144,175	Body	Island	C16orf70	0.623	-0.002	0.020	0.165
cg18818563	purple	19	9,546,128	1stExon	Island	ZNF266	0.623	-0.001	0.027	0.539
cg08899126	purple	7	66,147,017		Island		0.623	0.002	0.024	0.446
cg20585645	purple	10	62,704,289	TSS1500	Island	RHOBTB1	0.623	0.000	0.020	0.933
cg01679328	purple	11	115,631,338		S_Shore		0.623	-0.004	0.038	0.092
cg14566698	purple	9	128,024,194	1stExon	Island	GAPVD1	0.623	0.000	0.020	0.746
cg22724132	purple	16	81,478,990	1stExon	Island	CMIP	0.623	-0.005	0.047	0.306
cg01956158	purple	8	132,916,947	Body	Island	EFR3A	0.623	0.002	0.030	0.362
cg09134840	purple	1	235,530,680	TSS200		TBCE	0.622	-0.001	0.017	0.357
cg09238957	purple	16	46,723,420	TSS200	Island	ORC6L	0.622	-0.007	0.036	0.422
cg04582473	purple	10	89,622,060	TSS1500	Island	PTEN	0.622	-0.001	0.016	0.282
cg27580050	purple	19	36,249,201	Body	Island	C19orf55	0.622	-0.001	0.018	0.653
cg03405173	purple	19	11,877,721	TSS200	Island	ZNF441	0.622	-0.002	0.027	0.083
cg02816816	purple	4	17,783,356	TSS1500	Island	FAM184B	0.622	-0.003	0.042	0.473
cg19617672	purple	7	120,969,174	5'UTR	N_Shore	WNT16	0.622	-0.001	0.026	0.689
cg01939336	purple	5	113,697,487	TSS1500	Island	KCNN2	0.622	-0.001	0.021	0.651
cg11471582	purple	11	64,085,103	TSS1500	Island	PRDX5	0.622	0.000	0.018	0.770
cg03712816	purple	18	76,741,157	Body	Island	SALL3	0.621	0.000	0.048	0.931
cg25453430	purple	21	37,433,068	5'UTR	Island	SETD4	0.621	0.000	0.019	0.816
cg21508541	purple	2	64,881,291	TSS1500	Island	SERTAD2	0.621	-0.001	0.025	0.547
cg25938646	purple	13	84,456,681	TSS200	S_Shelf	SLITRK1	0.621	-0.002	0.027	0.217
cg04116218	purple	16	19,566,747	TSS1500	Island	C16orf62	0.621	-0.002	0.046	0.356
cg10785051	purple	5	133,449,927	TSS1500	Island	TCF7	0.621	-0.001	0.028	0.714
cg06536503	purple	6	42,750,688		Island		0.621	-0.001	0.017	0.601
cg20976575	purple	8	94,753,123	1stExon	Island	RBM12B	0.621	0.000	0.018	0.673
cg18410444	purple	5	89,825,535	TSS200	Island	LYSMD3	0.621	0.001	0.026	0.572
cg24149295	purple	17	34,058,557	TSS200	Island	RASL10B	0.621	-0.001	0.022	0.322
cg22147660	purple	18	5,895,006		Island		0.621	-0.001	0.052	0.711
cg10467432	purple	6	69,345,357	TSS1500	Island	BAI3	0.621	-0.002	0.020	0.289
cg09395034	purple	5	137,801,102	TSS200	Island	EGR1	0.621	-0.002	0.045	0.388
cg02705837	purple	17	7,554,666	1stExon	Island	ATP1B2	0.620	0.000	0.017	0.599
cg10433128	purple	16	70,720,314	TSS1500	Island	MTSS1L	0.620	-0.008	0.044	0.092
cg04320354	purple	7	77,428,826	5'UTR	Island	PHTF2	0.620	0.000	0.025	0.979
cg25882709	purple	1	224,517,832	1stExon	Island	NVL	0.620	-0.004	0.032	0.075
cg11235871	purple	3	49,142,143	1stExon	Island	QARS	0.620	-0.001	0.026	0.549
cg02943604	purple	10	122,217,348	Body	Island	PPAPDC1A	0.620	-0.001	0.084	0.940
cg03132532	purple	4	101,111,771	TSS200	S_Shore	DDIT4L	0.620	0.001	0.015	0.164
cg02840816	purple	17	15,602,880	TSS200	Island	ZNF286A	0.620	0.001	0.013	0.476
cg16327326	purple	16	1,662,895	TSS1500	Island	IFT140	0.620	0.004	0.058	0.476
cg14312586	purple	17	8,079,878	TSS200	Island	TMEM107	0.620	0.000	0.015	0.573
cg07828741	purple	2	189,156,874	TSS1500	Island	GULP1	0.620	0.000	0.019	0.800
cg04986870	purple	19	18,061,256	TSS1500	Island	KCNN1	0.620	-0.001	0.013	0.261
cg00688421	purple	4	99,181,920	TSS1500	Island	RAP1GDS1	0.620	-0.002	0.030	0.187
cg14945578	purple	20	3,776,324	TSS200	Island	CDC25B	0.620	-0.001	0.025	0.592
cg22149837	purple	17	41,150,293	TSS200	Island	RPL27	0.620	0.000	0.009	0.965
cg14610189	purple	17	77,770,879	1stExon	Island	CBX8	0.620	-0.011	0.051	0.096
cg03141482	purple	13	108,520,039	TSS1500	Island	FAM155A	0.620	-0.003	0.020	0.106
cg24410064	purple	7	7,222,050	TSS200	Island	C1GALT1	0.620	0.001	0.026	0.857
cg18788872	purple	11	32,605,728	Body	Island	EIF3M	0.620	0.001	0.020	0.440
cg03326470	purple	12	56,709,735	5'UTR	Island	CNPY2	0.620	-0.004	0.035	0.117
cg00650422	purple	14	61,189,972	1stExon	Island	SIX4	0.619	-0.002	0.028	0.167
cg09578018	purple	15	60,883,649	Body	Island	RORA	0.619	-0.002	0.046	0.525
cg15433422	purple	3	196,670,053	Body	Island	LOC152217	0.619	0.000	0.024	0.998
cg05917508	purple	13	28,542,434	Body	Island	CDX2	0.619	-0.005	0.059	0.099
cg14489159	purple	17	29,421,766	TSS200	Island	NF1	0.619	0.000	0.024	0.751
cg09930496	purple	10	71,812,956	5'UTR	Island	H2AFY2	0.619	-0.003	0.029	0.070
cg21263196	purple	19	45,311,997	TSS1500	N_Shore	BCAM	0.619	0.001	0.030	0.747
cg07485181	purple	2	131,851,172	TSS200	Island	FAM168B	0.619	-0.004	0.026	0.008
cg24094675	purple	7	1,015,382	TSS200	S_Shore	COX19	0.619	-0.005	0.055	0.367
cg16525300	purple	5	135,170,726	Body	Island	LOC153328	0.619	0.000	0.012	0.622
cg14997704	purple	8	30,241,538	TSS1500	Island	RBPM5	0.619	0.001	0.028	0.654
cg15043975	purple	3	50,375,252	TSS1500	Island	RASSF1	0.619	-0.001	0.046	0.825
cg02242080	purple	9	128,469,270	5'UTR	Island	MAPKAP1	0.619	-0.003	0.075	0.421
cg23903470	purple	6	30,876,145	1stExon	S_Shore	GTF2H4	0.619	-0.002	0.048	0.566
cg22354782	purple	1	115,881,132	TSS1500	Island	NGF	0.619	-0.001	0.016	0.423
cg22418360	purple	2	238,876,345	5'UTR	S_Shore	UBE2F	0.619	-0.001	0.026	0.295
cg21483842	purple	13	49,821,938	TSS200	Island	CDADC1	0.619	0.000	0.017	0.720

cg19496491	purple	11	12,695,499	TSS1500	Island	TEAD1	0.619	-0.002	0.020	0.417
cg12361356	purple	1	200,708,503	TSS200	Island	CAMSAP1L1	0.619	-0.003	0.025	0.179
cg03469202	purple	8	71,520,450	1stExon	Island	TRAM1	0.619	-0.003	0.106	0.697
cg14778644	purple	8	25,317,051	TSS1500	S_Shore	KCTD9	0.619	0.000	0.016	0.786
cg15266508	purple	20	61,447,742	TSS1500	Island	COL9A3	0.619	-0.003	0.025	0.243
cg08172065	purple	8	70,981,796	Body	N_Shore	PRDM14	0.618	-0.002	0.039	0.359
cg12214908	purple	19	47,910,549	Body	Island	MEIS3	0.618	0.003	0.042	0.374
cg06897686	purple	2	85,982,197	Body	Island	ATOH8	0.618	-0.002	0.016	0.104
cg07187585	purple	17	10,600,923	TSS200	Island	C17orf48	0.618	-0.012	0.045	0.003
cg15627380	purple	17	80,656,703	TSS200	Island	RAB40B	0.618	-0.003	0.063	0.658
cg01162436	purple	10	15,902,292	1stExon	Island	FAM188A	0.618	-0.005	0.025	0.252
cg24079455	purple	10	127,408,106	1stExon	Island	C10orf137	0.618	0.000	0.025	0.988
cg08703613	purple	15	31,684,444		Island		0.618	0.000	0.013	0.730
cg14881179	purple	20	10,654,814	TSS200	Island	JAG1	0.618	0.000	0.018	0.592
cg20759222	purple	12	111,834,955		Island		0.618	-0.001	0.016	0.090
cg22733648	purple	1	6,302,273		Island		0.618	-0.005	0.053	0.153
cg10233133	purple	1	227,505,598	1stExon	Island	CDC42BPA	0.618	-0.001	0.023	0.508
cg06464441	purple	4	130,014,500	5'UTR	Island	SCLT1	0.618	-0.001	0.024	0.386
cg21374864	purple	9	132,586,569	TSS200	Island	TOR1A	0.618	0.000	0.018	0.789
cg27101125	purple	19	17,392,770	1stExon	Island	ANKLE1	0.618	-0.001	0.019	0.392
cg17838734	purple	6	83,073,924	TSS200	Island	TPBG	0.618	-0.001	0.023	0.729
cg14451382	purple	5	1,876,397		Island		0.618	-0.001	0.022	0.549
cg23397955	purple	15	89,148,733		Island		0.617	-0.002	0.067	0.627
cg22530293	purple	1	2,458,418	TSS1500	S_Shore	PANK4	0.617	-0.003	0.040	0.206
cg22658985	purple	9	34,126,662	1stExon	Island	DCAF12	0.617	0.000	0.036	0.814
cg23215729	purple	6	84,562,928	TSS200	Island	RIPPLY2	0.617	-0.003	0.037	0.155
cg17965019	purple	6	27,858,545	1stExon	Island	HIST1H3J	0.617	0.001	0.018	0.557
cg23831155	purple	17	39,968,362	TSS1500	Island	FKBP10	0.617	0.000	0.020	0.881
cg03516836	purple	12	57,881,693	TSS200	N_Shore	MARS	0.617	-0.001	0.023	0.657
cg01158822	purple	6	10,415,201	Body	Island	TFAP2A	0.617	0.002	0.018	0.183
cg13979182	purple	4	2,845,120	TSS1500	Island	ADD1	0.617	0.000	0.047	0.885
cg08209099	purple	21	33,942,032		Island		0.617	-0.002	0.030	0.097
cg16205854	purple	20	57,875,318	TSS200	Island	EDN3	0.617	0.000	0.056	0.941
cg03451296	purple	14	105,940,391	TSS1500	Island	CRIP2	0.617	0.000	0.013	0.666
cg06664023	purple	6	43,395,409		Island		0.617	0.000	0.023	0.837
cg11476211	purple	2	45,879,284	1stExon	Island	PRKCE	0.617	0.001	0.018	0.573
cg17852997	purple	13	21,100,460	TSS1500	S_Shore	CRYL1	0.617	0.000	0.014	0.822
cg06939115	purple	16	47,007,824	TSS200	Island	DNAJA2	0.617	-0.010	0.031	0.044
cg22001533	purple	2	50,574,516	Body	Island	NRXN1	0.617	-0.001	0.026	0.603
cg02151609	purple	17	1,957,529	TSS1500	Island	HIC1	0.617	0.001	0.018	0.491
cg07209631	purple	4	89,205,728	5'UTR	Island	PPM1K	0.617	-0.002	0.025	0.336
cg07233135	purple	10	33,623,121	Body	Island	NRP1	0.616	-0.001	0.019	0.614
cg00379302	purple	2	219,134,963	TSS200	Island	PNKD	0.616	-0.002	0.019	0.081
cg02048505	purple	7	48,075,568	5'UTR	Island	C7orf57	0.616	0.003	0.023	0.074
cg03005685	purple	14	94,640,029	TSS1500	N_Shore	PPP4R4	0.616	0.000	0.021	0.715
cg25084477	purple	14	57,856,838	TSS1500	N_Shore	NAA30	0.616	0.000	0.023	0.961
cg10122326	purple	6	28,072,925		Island		0.616	0.001	0.021	0.613
cg26758863	purple	19	57,752,111	1stExon	Island	ZNF805	0.616	0.001	0.025	0.815
cg00961166	purple	12	50,236,992	TSS200	S_Shore	BCDIN3D	0.616	-0.001	0.036	0.795
cg00288562	purple	7	23,571,645	5'UTR	Island	TRA2A	0.616	-0.002	0.019	0.374
cg05090972	purple	16	69,788,427	Body	N_Shore	NOB1	0.616	0.000	0.017	0.758
cg08269389	purple	1	181,074,009		Island		0.616	-0.002	0.026	0.486
cg20054027	purple	11	66,610,720	TSS200	Island	RCE1	0.616	-0.003	0.028	0.108
cg12065524	purple	17	29,718,231	TSS1500	Island	RAB11FIP4	0.616	0.008	0.075	0.325
cg07886696	purple	6	109,762,382	Body	Island	SMPD2	0.616	0.000	0.022	0.969
cg13841901	purple	1	45,805,975	TSS200	Island	MUTYH	0.616	0.002	0.032	0.638
cg04701106	purple	11	118,955,609	5'UTR	Island	HMBS	0.616	-0.001	0.016	0.401
cg15682608	purple	3	50,337,172	TSS1500	S_Shore	NAT6	0.616	0.001	0.024	0.589
cg18039855	purple	11	57,434,952	TSS1500	N_Shore	ZDHHC5	0.615	0.000	0.024	0.937
cg25836159	purple	5	76,326,301	1stExon	Island	AGGF1	0.615	0.000	0.042	0.944
cg20332930	purple	11	82,997,207	5'UTR	Island	CCDC90B	0.615	-0.007	0.037	0.149
cg24866538	purple	6	30,640,489	1stExon	Island	DHX16	0.615	-0.001	0.021	0.296
cg15581492	purple	11	67,085,287	TSS200	Island	LOC10013098	0.615	0.000	0.019	0.593
cg07503392	purple	1	59,762,523	TSS200	Island	FGGY	0.615	-0.001	0.029	0.699
cg21930487	purple	1	161,172,049	5'UTR	Island	NDUF52	0.615	0.000	0.016	0.881
cg20009215	purple	6	2,765,204	TSS1500	Island	WRNIP1	0.615	-0.001	0.017	0.365
cg25784395	purple	22	40,742,943	Body	Island	ADSL	0.615	0.000	0.026	0.772



cg04992326	purple	16	67,969,823	Body	Island	PSMB10	0.615	-0.001	0.018	0.601
cg00109274	purple	13	42,623,032	1stExon	Island	DGKH	0.615	0.001	0.045	0.874
cg09977865	purple	6	33,385,582	Body	N_Shore	CUTA	0.614	0.000	0.013	0.916
cg06272611	purple	13	29,068,567	Body	Island	FLT1	0.614	-0.006	0.067	0.322
cg00444884	purple	22	48,886,784	Body	Island	FAM19A5	0.614	-0.001	0.040	0.630
cg15364169	purple	6	29,975,080	Body	Island	HLA-J	0.614	-0.003	0.034	0.166
cg08561325	purple	11	8,932,965	5'UTR	Island	C11orf17	0.614	-0.001	0.071	0.917
cg07149454	purple	10	43,277,850	TSS200	Island	BMS1	0.614	-0.001	0.017	0.081
cg03826535	purple	12	113,659,136	TSS200	Island	TPCN1	0.614	0.000	0.022	0.801
cg10633363	purple	17	46,703,854	TSS200	Island	HOXB9	0.614	-0.001	0.013	0.301
cg24975769	purple	11	6,502,990	Body	S_Shore	FXC1	0.614	-0.001	0.010	0.213
cg02899788	purple	1	47,133,675	Body	Island	ATPAF1	0.614	-0.003	0.129	0.538
cg10537421	purple	20	21,083,685		Island		0.614	-0.002	0.052	0.345
cg06733736	purple	16	3,661,771	TSS200	Island	BTBD12	0.614	-0.002	0.022	0.186
cg19951663	purple	5	134,871,634	5'UTR	Island	NEUROG1	0.614	0.007	0.085	0.400
cg01374047	purple	16	3,074,170	5'UTR	Island	HCF1R1	0.613	0.000	0.013	0.982
cg04605151	purple	2	54,683,048	TSS1500	Island	SPTBN1	0.613	0.001	0.029	0.689
cg09807148	purple	17	34,122,069	Body	Island	MMP28	0.613	-0.001	0.019	0.519
cg01764082	purple	9	98,784,014	Body	Island	NCRNA00092	0.613	-0.002	0.026	0.231
cg03628748	purple	9	87,285,133	5'UTR	Island	NTRK2	0.613	0.000	0.048	0.907
cg09789050	purple	5	61,699,876	TSS200	Island	DIMT1L	0.613	-0.003	0.027	0.072
cg24001514	purple	7	141,250,912	TSS200	N_Shore	AGK	0.613	0.001	0.016	0.502
cg07962672	purple	10	80,827,185	Body	Island	LOC283050	0.613	-0.001	0.038	0.676
cg17490921	purple	11	116,658,887	TSS200	Island	ZNF259	0.613	-0.001	0.030	0.891
cg16222848	purple	13	42,846,088	TSS200	Island	AKAP11	0.613	-0.001	0.028	0.732
cg12023693	purple	2	102,091,115	5'UTR	Island	RFX8	0.613	-0.003	0.046	0.241
cg04304770	purple	17	59,477,266	5'UTR	Island	TBX2	0.613	0.000	0.018	0.993
cg07478392	purple	4	186,050,047		Island		0.613	-0.003	0.039	0.158
cg19727166	purple	6	117,804,670	Body	Island	DCBLD1	0.613	0.000	0.021	0.809
cg22664368	purple	17	4,634,740	5'UTR	Island	MED11	0.613	0.001	0.020	0.722
cg14460968	purple	18	57,026,758	TSS1500	Island	LMAN1	0.613	-0.001	0.028	0.603
cg08637583	purple	15	44,828,465	TSS1500	N_Shore	EIF3J	0.613	0.000	0.024	0.839
cg15894431	purple	11	101,981,130	TSS200	Island	YAP1	0.613	0.000	0.020	0.763
cg04617570	purple	17	70,588,444		Island		0.612	0.001	0.014	0.256
cg10706100	purple	6	166,401,536	Body	Island	LOC441177	0.612	0.001	0.019	0.455
cg26069252	purple	5	137,800,343	TSS1500	Island	EGR1	0.612	-0.002	0.045	0.410
cg22338127	purple	1	209,979,572	TSS200	Island	IRF6	0.612	0.002	0.025	0.278
cg01936270	purple	2	38,303,680	TSS1500	Island	CYP1B1	0.612	-0.002	0.022	0.351
cg02860797	purple	3	9,791,144	TSS1500	Island	OGG1	0.612	-0.002	0.041	0.514
cg13802192	purple	22	46,692,554	Body	Island	CN5H6.4	0.612	0.001	0.028	0.714
cg01130127	purple	19	51,228,821	3'UTR	Island	CLEC11A	0.612	-0.001	0.027	0.689
cg05649229	purple	6	31,620,952	TSS1500	Island	BAT3	0.612	0.000	0.014	0.726
cg18830721	purple	4	83,821,700	TSS200	Island	THAP9	0.612	-0.001	0.015	0.589
cg14870229	purple	19	6,590,801	Body	Island	CD70	0.612	-0.003	0.059	0.500
cg11131549	purple	1	211,500,852	5'UTR	S_Shore	TRAF5	0.612	-0.001	0.030	0.718
cg20952324	purple	3	9,773,343	TSS200	Island	BRPF1	0.612	-0.001	0.027	0.504
cg05144147	purple	10	6,018,955	Body	Island	IL15RA	0.611	-0.002	0.037	0.693
cg22693458	purple	7	100,449,979	TSS1500	Island	SLC12A9	0.611	-0.001	0.020	0.506
cg00660400	purple	5	133,562,159	TSS1500	Island	PPP2CA	0.611	-0.001	0.014	0.314
cg14042128	purple	19	59,066,234	1stExon	Island	CHMP2A	0.611	-0.001	0.019	0.403
cg15345154	purple	10	16,563,586	5'UTR	Island	C1QL3	0.611	-0.005	0.055	0.310
cg27277632	purple	14	57,735,728	5'UTR	S_Shore	MUDENG	0.611	-0.001	0.021	0.695
cg05171480	purple	13	32,420,488	TSS1500	N_Shore	EEF1DP3	0.611	0.000	0.010	0.993
cg02855924	purple	3	50,402,563	Body	Island	CACNA2D2	0.611	-0.002	0.048	0.536
cg25136353	purple	10	44,185,896		Island		0.611	-0.003	0.047	0.527
cg12940557	purple	2	198,299,971	TSS1500	Island	SF3B1	0.611	0.000	0.017	0.901
cg11854579	purple	3	87,276,483	1stExon	Island	CHMP2B	0.611	-0.003	0.036	0.203
cg20819397	purple	9	123,964,132	1stExon	Island	RAB14	0.611	-0.003	0.055	0.666
cg16524928	purple	20	21,494,679	TSS200	Island	NKX2-2	0.611	-0.005	0.043	0.159
cg07924874	purple	19	58,609,793	Body	Island	ZSCAN18	0.611	-0.001	0.022	0.650
cg14507346	purple	12	49,076,207	TSS200	Island	C12orf41	0.611	-0.003	0.022	0.020
cg00310215	purple	16	51,185,346	TSS1500	Island	SALL1	0.611	0.003	0.030	0.490
cg10502884	purple	10	125,852,315		Island		0.611	-0.002	0.050	0.673
cg19327614	purple	9	3,181,772		Island		0.610	0.002	0.064	0.627
cg15984718	purple	4	96,470,349	TSS200	Island	UNC5C	0.610	0.000	0.025	0.943
cg25033767	purple	6	43,044,876	Body	Island	PTK7	0.610	0.003	0.058	0.369
cg00831929	purple	1	11,919,018	TSS200	N_Shore	NPPB	0.610	-0.001	0.037	0.832

cg09605861	purple	17	77,716,008	3'UTR	Island	ENPP7	0.610	0.000	0.023	0.659
cg16848984	purple	13	50,511,021	TSS1500	Island	C13orf1	0.610	-0.001	0.020	0.658
cg19125715	purple	8	67,525,489	TSS200	Island	MYBL1	0.610	-0.004	0.057	0.274
cg25022687	purple	10	118,032,987	1stExon	Island	GFRA1	0.610	0.000	0.025	0.845
cg07174389	purple	1	212,732,084		Island		0.610	-0.002	0.023	0.234
cg03704700	purple	16	75,529,019	TSS200	Island	CHST6	0.610	-0.001	0.034	0.643
cg19657320	purple	6	117,996,479	TSS200	Island	NUS1	0.610	-0.001	0.019	0.318
cg24309428	purple	11	89,224,381	1stExon	N_Shore	NOX4	0.610	-0.002	0.023	0.269
cg23948080	purple	14	77,227,645	TSS1500	Island	VASH1	0.610	0.000	0.024	0.950
cg03960072	purple	6	24,357,985	1stExon	Island	KAAG1	0.610	-0.001	0.055	0.758
cg12638737	purple	1	204,120,607	Body	Island	ETNK2	0.610	0.009	0.122	0.340
cg00644814	purple	1	6,480,929	TSS1500	Island	HES2	0.610	-0.002	0.074	0.739
cg14568286	purple	6	116,600,638	TSS1500	Island	DSE	0.610	0.003	0.056	0.326
cg02159381	purple	11	122,852,523	TSS200	Island	BSX	0.610	-0.003	0.045	0.063
cg26014017	purple	1	38,019,849	1stExon	S_Shore	SNIP1	0.610	0.001	0.017	0.349
cg11938491	purple	12	46,384,459	TSS200	Island	SFRS2IP	0.610	0.000	0.017	0.801
cg19102035	purple	6	28,864,611		S_Shore		0.610	-0.001	0.017	0.251
cg13113052	purple	18	51,796,328	Body	Island	POLI	0.610	-0.001	0.015	0.453
cg27313857	purple	15	42,565,760	TSS1500	Island	GANC	0.609	-0.001	0.015	0.256
cg24815289	purple	5	176,778,888	TSS200	Island	LMAN2	0.609	0.001	0.017	0.725
cg01710467	purple	6	45,389,313	TSS1500	N_Shore	RUNX2	0.609	0.001	0.020	0.448
cg08626625	purple	6	33,129,765		S_Shore		0.609	0.000	0.054	0.870
cg12500884	purple	19	56,165,125	TSS1500	Island	U2AF2	0.609	0.000	0.020	0.878
cg08525207	purple	2	3,622,752	TSS200	Island	RPS7	0.609	0.000	0.027	0.925
cg21476593	purple	16	2,265,427	TSS1500	Island	PGP	0.609	0.000	0.017	0.732
cg16939364	purple	8	56,015,750	1stExon	Island	XKR4	0.609	-0.004	0.061	0.576
cg04087237	purple	2	152,955,765	TSS1500	Island	CACNB4	0.609	-0.001	0.015	0.479
cg08859190	purple	12	106,980,319	Body	Island	RFX4	0.609	-0.002	0.037	0.294
cg22464182	purple	2	148,602,625	1stExon	Island	ACVR2A	0.608	-0.001	0.020	0.270
cg13612958	purple	19	18,303,626	TSS1500	Island	MPV17L2	0.608	0.000	0.016	0.686
cg08651378	purple	19	1,479,370	TSS200	Island	C19orf25	0.608	-0.003	0.020	0.362
cg24423897	purple	19	4,723,980	TSS200	Island	DPP9	0.608	0.000	0.019	0.853
cg13008315	purple	19	42,785,474		Island		0.608	-0.004	0.025	0.055
cg25184910	purple	8	42,911,370	TSS200	Island	FNTA	0.608	0.000	0.014	0.827
cg05473447	purple	8	96,281,195	Body	Island	C8orf37	0.608	-0.006	0.053	0.051
cg25521086	purple	2	113,341,977	TSS200	Island	CHCHD5	0.608	0.000	0.024	0.825
cg13342441	purple	19	41,857,250	Body	Island	TGFB1	0.608	-0.002	0.020	0.108
cg11332388	purple	1	42,922,083	TSS200	Island	PPCS	0.608	0.001	0.029	0.496
cg12376770	purple	5	133,512,872	TSS200	Island	SKP1	0.608	-0.001	0.017	0.153
cg23413697	purple	7	5,602,639		Island		0.608	0.000	0.022	0.969
cg15846744	purple	7	94,284,898	Body	Island	SGCE	0.608	0.001	0.028	0.318
cg26053083	purple	11	14,995,770		Island		0.607	0.001	0.018	0.644
cg08115387	purple	20	709,194		Island		0.607	-0.001	0.023	0.788
cg24176563	purple	6	133,562,776	5'UTR	Island	EYA4	0.607	-0.001	0.028	0.678
cg15496864	purple	10	119,312,767		Island		0.607	-0.002	0.028	0.111
cg24170511	purple	14	23,341,280	5'UTR	Island	LRP10	0.607	-0.002	0.019	0.402
cg09227150	purple	10	102,475,578		Island		0.607	0.001	0.045	0.727
cg26238800	purple	20	45,142,206	TSS200	Island	ZNF334	0.607	-0.003	0.108	0.518
cg14550422	purple	18	46,066,011	5'UTR	Island	KIAA0427	0.607	-0.002	0.027	0.065
cg20137237	purple	7	89,749,020	Body	Island	DPY19L2P4	0.607	-0.008	0.043	0.170
cg02020077	purple	1	94,147,070	5'UTR	Island	BCAR3	0.607	-0.002	0.033	0.490
cg07639697	purple	19	11,850,005	TSS1500	S_Shore	ZNF823	0.607	0.001	0.019	0.513
cg05209463	purple	4	2,935,884	TSS1500	Island	C4orf10	0.607	-0.001	0.027	0.581
cg09989644	purple	1	156,358,119		Island		0.607	-0.003	0.077	0.717
cg06885189	purple	5	145,236,203				0.607	0.000	0.029	0.996
cg25755261	purple	14	35,591,781	TSS1500	Island	PPP2R3C	0.607	0.000	0.023	0.820
cg21610516	purple	6	151,186,758	1stExon	Island	MTHFD1L	0.607	0.000	0.052	0.931
cg26495109	purple	16	56,225,952	TSS1500	Island	LOC283856	0.607	-0.004	0.038	0.415
cg12716838	purple	3	160,823,255	TSS200	Island	B3GALNT1	0.607	0.001	0.029	0.648
cg25262396	purple	11	122,526,311	TSS200	Island	UBASH3B	0.607	-0.001	0.030	0.784
cg09221037	purple	5	1,523,205	Body	Island	LPCAT1	0.607	0.001	0.032	0.843
cg00808740	purple	12	46,661,305	5'UTR	Island	SLC38A1	0.606	0.001	0.023	0.638
cg14694896	purple	8	104,427,370	1stExon	Island	SLC25A32	0.606	-0.001	0.025	0.854
cg04939673	purple	4	184,019,125	Body	Island	C4orf38	0.606	-0.002	0.065	0.469
cg00725356	purple	3	126,074,784	5'UTR	Island	KLF15	0.606	0.000	0.016	0.902
cg05388492	purple	1	217,309,160	5'UTR	Island	ESRRG	0.606	-0.001	0.033	0.704
cg08398554	purple	9	71,736,409	5'UTR	Island	TJP2	0.606	-0.002	0.041	0.407

cg16052494	purple	14	75,761,213	Island		0.606	-0.001	0.036	0.548
cg15986413	purple	2	233,352,776 TSS1500	Island	ECEL1	0.606	-0.006	0.069	0.363
cg05684891	purple	9	124,461,171 Body	Island	DAB21P	0.606	0.000	0.018	0.734
cg07537692	purple	16	65,157,428	Island		0.606	-0.003	0.048	0.278
cg03167413	purple	7	113,723,093	N_Shore		0.606	0.000	0.013	0.917
cg11808885	purple	21	46,438,743	Island		0.606	-0.001	0.031	0.638
cg26527638	purple	17	79,197,398 TSS1500	Island	AZI1	0.606	0.001	0.014	0.249
cg07987587	purple	22	42,486,991 TSS200	Island	NDUFA6	0.606	-0.004	0.030	0.538
cg08261858	purple	1	246,887,303 TSS200	Island	SCCPDH	0.606	-0.001	0.021	0.574
cg01753208	purple	5	172,666,071	Island		0.606	-0.001	0.015	0.348
cg02012445	purple	14	57,856,758 TSS1500	N_Shore	NAA30	0.606	-0.004	0.050	0.132
cg00452398	purple	6	99,281,293 TSS1500	Island	POU3F2	0.606	-0.001	0.025	0.428
cg04099813	purple	11	2,422,520 TSS1500	S_Shore	TSSC4	0.606	-0.002	0.035	0.667
cg04406436	purple	1	38,942,313	Island		0.606	0.000	0.016	0.731
cg08417338	purple	15	43,663,582 TSS1500	Island	ZSCAN29	0.605	-0.002	0.064	0.501
cg17217603	purple	1	150,552,017 1stExon	Island	MCL1	0.605	-0.001	0.028	0.716
cg04832177	purple	10	77,155,143	Island		0.605	-0.007	0.065	0.124
cg04164190	purple	17	14,205,456 Body	Island	HS3ST3B1	0.605	0.000	0.014	0.863
cg13519464	purple	19	9,938,554 TSS200	Island	UBL5	0.605	0.004	0.025	0.261
cg04960951	purple	19	55,851,040 TSS200	Island	SUV420H2	0.605	-0.001	0.019	0.297
cg21641552	purple	12	88,535,903 TSS200	Island	TMTC3	0.605	-0.001	0.028	0.598
cg04441267	purple	13	26,796,573 TSS1500	Island	RNF6	0.605	-0.004	0.060	0.288
cg22662788	purple	19	7,599,724 TSS1500	Island	PNPLA6	0.605	0.001	0.025	0.517
cg25014411	purple	12	133,758,161 1stExon	Island	ZNF268	0.605	0.000	0.017	0.711
cg08125972	purple	19	36,705,377 5'UTR	N_Shore	ZNF565	0.605	0.002	0.035	0.741
cg16974379	purple	10	38,146,505 TSS200	Island	ZNF248	0.605	-0.001	0.022	0.567
cg01146232	purple	16	51,185,147 TSS1500	Island	SALL1	0.605	-0.001	0.021	0.473
cg06117184	purple	2	113,522,207 1stExon	Island	CKAP2L	0.605	-0.011	0.051	0.224
cg04107037	purple	4	94,750,205 1stExon	Island	ATOH1	0.605	0.002	0.026	0.454
cg27492860	purple	19	1,885,663 TSS200	S_Shore	FAM108A1	0.605	0.001	0.033	0.669
cg24568646	purple	21	30,446,238 TSS1500	Island	CCT8	0.605	-0.001	0.020	0.497
cg12448198	purple	20	13,201,193 TSS1500	Island	ISM1	0.605	-0.006	0.074	0.244
cg02456708	purple	17	27,895,477 TSS1500	Island	ABHD15	0.605	-0.001	0.019	0.335
cg03512355	purple	12	121,837,704 TSS200	Island	RNF34	0.605	-0.001	0.023	0.503
cg08629647	purple	22	46,692,562 TSS200	Island	GTSE1	0.605	-0.001	0.023	0.455
cg02734326	purple	4	10,020,555 Body	Island	SLC2A9	0.605	-0.001	0.021	0.555
cg27005246	purple	16	31,044,731 TSS200	Island	STX4	0.604	-0.001	0.018	0.435
cg26423539	purple	22	41,864,790 TSS200	Island	PHF5A	0.604	-0.001	0.026	0.471
cg10222574	purple	10	119,805,826 TSS1500	Island	CASC2	0.604	0.001	0.023	0.619
cg08245930	purple	10	115,439,632 5'UTR	Island	CASP7	0.604	-0.001	0.026	0.649
cg16231452	purple	12	106,696,384 TSS200	Island	TCP11L2	0.604	-0.001	0.015	0.180
cg22351869	purple	6	160,210,606 TSS1500	Island	MRPL18	0.604	-0.003	0.052	0.396
cg08715791	purple	11	66,189,297 Body	Island	NPAS4	0.604	0.000	0.030	0.947
cg10186215	purple	19	39,390,470 TSS200	Island	SIRT2	0.604	-0.003	0.036	0.239
cg14157244	purple	2	170,655,474 5'UTR	Island	SSB	0.604	-0.001	0.032	0.509
cg25515502	purple	5	86,563,959 TSS200	N_Shore	RASA1	0.604	-0.002	0.034	0.178
cg13509849	purple	14	90,527,972 TSS200	Island	KCNK13	0.604	-0.002	0.063	0.733
cg00596508	purple	12	41,086,800 5'UTR	Island	CNTN1	0.604	0.000	0.015	0.755
cg14955692	purple	13	39,612,273 TSS200	N_Shore	NHLRC3	0.603	0.000	0.036	0.833
cg03214297	purple	22	38,453,296 1stExon	Island	PICK1	0.603	0.000	0.016	0.820
cg00041901	purple	6	109,703,809 TSS200	Island	CD164	0.603	0.000	0.014	0.780
cg10059378	purple	16	4,817,345 TSS200	Island	ZNF500	0.603	-0.005	0.032	0.068
cg25942450	purple	5	170,736,251 TSS200	Island	TLX3	0.603	-0.001	0.032	0.673
cg18424064	purple	10	31,321,547 TSS1500	Island	ZNF438	0.603	0.001	0.022	0.644
cg16541385	purple	20	52,825,030 Body	Island	PFDN4	0.603	0.002	0.040	0.365
cg23243994	purple	7	139,045,033 1stExon	Island	LUC7L2	0.603	-0.003	0.056	0.551
cg09026224	purple	5	172,484,103 5'UTR	Island	C5orf41	0.603	0.002	0.020	0.291
cg13663190	purple	2	73,461,428 Body	Island	CCT7	0.603	-0.003	0.030	0.444
cg02216784	purple	14	104,605,671 Body	Island	KIF26A	0.603	0.002	0.022	0.196
cg15309418	purple	22	30,162,986 TSS1500	Island	UCRC	0.603	0.000	0.014	0.823
cg27250139	purple	8	9,912,632 Body	Island	MSRA	0.603	-0.001	0.018	0.329
cg21959594	purple	19	1,813,058 TSS1500	S_Shore	ATP8B3	0.603	-0.013	0.054	0.031
cg01585293	purple	6	3,457,843 TSS1500	Island	SLC22A23	0.603	0.000	0.057	0.989
cg14998651	purple	2	73,430,289 Body	Island	NOTO	0.603	-0.003	0.024	0.179
cg19034708	purple	8	17,780,168 TSS200	Island	PCM1	0.603	-0.001	0.022	0.833
cg02928029	purple	8	95,835,313 TSS1500	Island	INTS8	0.602	0.001	0.011	0.374
cg14329685	purple	9	72,288,179 TSS1500	S_Shore	APBA1	0.602	0.000	0.027	0.977

cg05891181	purple	6	31,165,581	Body	Island	HCG27	0.602	-0.001	0.024	0.474
cg23130131	purple	4	111,544,299	Body	Island	PITX2	0.602	-0.001	0.015	0.340
cg23797073	purple	6	15,663,448	TSS200	S_Shore	DTNBP1	0.602	0.000	0.016	0.995
cg22411400	purple	20	33,735,232	TSS200	Island	EDEM2	0.602	0.000	0.013	0.939
cg05467106	purple	16	30,621,996	TSS1500	S_Shore	ZNF689	0.602	0.000	0.026	0.884
cg21160472	purple	1	212,782,112	1stExon	Island	ATF3	0.602	-0.007	0.107	0.637
cg14599233	purple	9	131,842,938	TSS1500	Island	DOLPP1	0.602	0.000	0.018	0.710
cg05462360	purple	17	18,218,585	TSS1500	Island	TOP3A	0.602	-0.002	0.025	0.530
cg14882054	purple	12	79,257,711	TSS200	Island	SYT1	0.602	0.001	0.017	0.152
cg18326365	purple	14	69,727,753	Body	Island	GALNTL1	0.602	-0.006	0.091	0.318
cg11270233	purple	8	146,277,426	TSS1500	Island	C8orf33	0.602	0.001	0.032	0.759
cg11741421	purple	1	39,456,791	TSS200	Island	AKIRIN1	0.602	-0.001	0.038	0.676
cg16784092	purple	12	53,400,507	Body	Island	EIF4B	0.602	0.000	0.027	0.967
cg18125865	purple	1	104,068,118	TSS1500	N_Shore	RNPC3	0.602	0.000	0.015	0.423
cg21028463	purple	17	74,733,682	TSS1500	Island	MIR636	0.602	-0.003	0.062	0.709
cg23929674	purple	14	94,255,493	TSS1500	Island	PRIMA1	0.602	-0.003	0.023	0.223
cg11636287	purple	17	76,836,065	5'UTR	Island	USP36	0.601	-0.001	0.038	0.723
cg13766044	purple	17	39,968,772	TSS200	S_Shore	FKBP10	0.601	0.000	0.016	0.788
cg03841667	purple	22	41,986,013	TSS200	Island	PMM1	0.601	-0.003	0.025	0.405
cg21860429	purple	6	105,389,544	Body	Island		0.601	0.001	0.042	0.533
cg18247177	purple	17	7,745,472	5'UTR	Island	KDM6B	0.601	0.000	0.034	0.933
cg16279909	purple	7	92,158,055	TSS200	Island	C7orf64	0.601	0.000	0.012	0.597
cg15829006	purple	9	137,967,652	Body	Island	OLFM1	0.601	-0.002	0.057	0.664
cg10197305	purple	4	125,112	Body	S_Shore	ZNF718	0.601	-0.001	0.022	0.735
cg01100678	purple	19	5,791,279	TSS200	Island	DUS3L	0.601	0.001	0.032	0.644
cg08081845	purple	14	37,053,163	TSS1500	Island	NKX2-8	0.601	0.001	0.129	0.830
cg19738812	purple	7	99,102,438	5'UTR	Island	ZKSCAN5	0.601	-0.004	0.021	0.241
cg27113059	purple	18	47,088,248	TSS200	Island	LIPG	0.601	0.000	0.016	0.723
cg22786826	purple	16	2,564,780	Body	Island	ATP6VOC	0.600	0.000	0.030	0.931
cg21619228	purple	19	38,085,153	5'UTR	Island	ZNF540	0.600	0.000	0.019	0.823
cg04215870	purple	10	61,469,151	5'UTR	Island	SLC16A9	0.600	-0.003	0.028	0.089
cg03017104	purple	17	8,089,904	Body	Island		0.600	-0.001	0.027	0.217
cg26488837	purple	10	43,633,467	TSS1500	Island	CSGALNACT2	0.600	0.000	0.019	0.675
cg15549931	purple	6	30,710,788	TSS1500	Island	FLOT1	0.600	-0.005	0.033	0.006
cg14555127	purple	7	35,841,578	Body	Island	7-Sep	0.600	-0.003	0.047	0.400
cg20587336	purple	8	66,546,482	TSS200	S_Shore	ARMC1	0.600	0.000	0.012	0.526
cg07190229	purple	8	142,377,361	1stExon	Island	GPR20	0.600	-0.002	0.038	0.383
cg26744387	purple	17	16,394,848	Body	Island	C17orf76	0.600	-0.001	0.031	0.722
cg26387619	purple	3	134,032,421	Body	Island		0.600	0.003	0.056	0.283
cg21818333	purple	3	130,745,442	TSS1500	Island	NEK11	0.600	0.000	0.015	0.820
cg14814876	purple	3	5,019,877	TSS1500	Island	BHLHE40	0.600	0.001	0.021	0.583
cg16766249	purple	14	79,745,154	Body	Island	NRXN3	0.600	-0.001	0.042	0.764
cg02105423	purple	11	108,093,095	TSS1500	N_Shore	ATM	0.600	0.000	0.035	0.813
cg16371032	purple	8	95,654,541	Body	Island	ESRP1	0.600	-0.002	0.023	0.344
cg13228105	purple	1	208,417,305	5'UTR	Island	PLXNA2	0.599	-0.004	0.025	0.083
cg11518421	purple	5	137,667,529	TSS200	Island	CDC25C	0.599	0.000	0.026	0.949
cg22890950	purple	10	122,216,135	TSS1500	N_Shore	PPAPDC1A	0.599	-0.001	0.038	0.726
cg12851570	purple	17	28,087,898	Body	N_Shore	SSH2	0.599	0.000	0.029	0.799
cg03327733	purple	2	73,114,863	1stExon	Island	SPR	0.599	-0.001	0.028	0.594
cg15435996	purple	22	23,908,337	Body	Island		0.599	-0.004	0.042	0.048
cg18324123	purple	1	65,614,514	Body	Island	AK3L1	0.599	-0.001	0.016	0.345
cg23141825	purple	1	226,111,974	TSS200	Island	PYCR2	0.599	-0.005	0.028	0.057
cg26864061	purple	3	45,730,815	1stExon	Island	SACM1L	0.599	0.001	0.032	0.684
cg20754305	purple	20	62,715,856	5'UTR	N_Shore	OPRL1	0.599	0.000	0.034	0.909
cg02289339	purple	10	75,936,278	TSS200	Island	ADK	0.599	0.000	0.020	0.854
cg23340478	purple	9	135,457,254	TSS1500	Island	BARHL1	0.599	-0.001	0.021	0.398
cg03319752	purple	20	17,209,431	Body	Island	PCSK2	0.599	-0.001	0.027	0.455
cg16138150	purple	5	37,839,684	1stExon	Island	GDNF	0.598	-0.003	0.039	0.390
cg10780164	purple	10	135,149,009	5'UTR	Island	CALY	0.598	0.001	0.023	0.841
cg00909976	purple	17	47,785,292	TSS200	Island	SLC35B1	0.598	0.000	0.017	0.763
cg02598978	purple	16	20,817,844	1stExon	Island	LOC81691	0.598	-0.001	0.043	0.591
cg25637829	purple	10	77,155,545	Body	Island		0.598	-0.003	0.048	0.348
cg00848167	purple	15	89,921,898	Body	Island	LOC254559	0.598	-0.004	0.197	0.517
cg12820946	purple	3	52,029,954	1stExon	Island	RPL29	0.598	0.000	0.013	0.583
cg04768479	purple	6	30,095,292	Body	Island		0.598	-0.005	0.110	0.387
cg17598997	purple	1	45,672,616	TSS1500	S_Shore	ZSWIM5	0.598	0.000	0.013	0.965
cg14424579	purple	2	27,274,309	TSS200	Island	AGBL5	0.598	0.000	0.013	0.715

cg09113141	purple	10	23,729,247	1stExon	Island	OTUD1	0.598	-0.002	0.022	0.046
cg18802885	purple	22	26,908,376	1stExon	Island	TFIP11	0.598	0.000	0.014	0.778
cg20908993	purple	14	67,826,378	TSS1500	Island	EIF2S1	0.598	-0.001	0.022	0.228
cg12953599	purple	18	47,018,779	TSS1500	Island	SNORD58A	0.598	0.000	0.022	0.783
cg05786661	purple	4	55,525,106	Body	Island	KIT	0.598	-0.008	0.078	0.335
cg06499637	purple	10	105,881,701	TSS1500	Island	C10orf78	0.598	-0.003	0.027	0.218
cg06786773	purple	1	228,566,997		Island		0.598	-0.005	0.071	0.264
cg05391946	purple	14	100,659,381		Island		0.598	0.000	0.018	0.617
cg12429444	purple	1	20,988,133	TSS200	Island	DDOST	0.598	-0.002	0.033	0.688
cg23239078	purple	11	2,907,332	TSS1500	Island	CDKN1C	0.598	0.000	0.014	0.740
cg24183338	purple	17	77,397,190	5'UTR		HRNBP3	0.598	-0.002	0.019	0.135
cg26536189	purple	1	13,840,494		Island		0.597	-0.002	0.021	0.421
cg12693595	purple	12	57,504,318	5'UTR		STAT6	0.597	0.000	0.017	0.973
cg19105690	purple	16	68,278,969	TSS1500	Island	PLA2G15	0.597	-0.004	0.031	0.031
cg19049616	purple	17	58,042,270	TSS200	Island	RNFT1	0.597	-0.001	0.016	0.472
cg00143700	purple	13	49,107,116	5'UTR	Island	RCBTB2	0.597	-0.002	0.022	0.174
cg10502508	purple	14	76,449,243	TSS1500	Island	TGFB3	0.597	-0.001	0.023	0.622
cg11267829	purple	15	60,289,417		Island		0.597	0.000	0.013	0.647
cg09377899	purple	12	31,226,606	TSS200	Island	DDX11	0.597	0.001	0.020	0.158
cg22983083	purple	19	8,656,852	Body	Island	ADAMTS10	0.597	-0.001	0.026	0.338
cg21942770	purple	13	28,501,860		Island		0.597	0.000	0.108	0.938
cg04139300	purple	20	40,247,070	1stExon	Island	CHD6	0.597	-0.002	0.022	0.492
cg21876869	purple	11	119,352,425				0.597	0.007	0.112	0.395
cg03923774	purple	17	57,970,442	5'UTR	Island	RPS6KB1	0.597	-0.002	0.018	0.191
cg26890010	purple	1	70,876,953	TSS200	Island	CTH	0.597	0.000	0.019	0.884
cg10458187	purple	9	102,861,323	5'UTR	Island	ERP44	0.596	-0.001	0.022	0.554
cg07623702	purple	17	15,902,660	Body	Island	ZSWIM7	0.596	0.000	0.015	0.669
cg03054576	purple	11	118,016,366	TSS200	Island	SCN4B	0.596	0.000	0.031	0.950
cg19590707	purple	17	80,189,645	5'UTR	Island	SLC16A3	0.596	-0.004	0.035	0.235
cg16120422	purple	12	113,590,924	Body	Island	CCDC42B	0.596	-0.001	0.060	0.877
cg09106624	purple	12	54,332,501	TSS200	N_Shore	HOXC13	0.596	0.000	0.018	0.981
cg24465674	purple	4	185,939,526	TSS1500	Island	HELT	0.596	-0.001	0.018	0.636
cg27211204	purple	15	99,791,508	TSS200	Island	LRRC28	0.596	-0.016	0.039	0.019
cg10585208	purple	19	7,854,021	Body	Island	CLEC4GP1	0.596	-0.002	0.031	0.238
cg10778111	purple	10	91,461,127	TSS1500	Island	KIF20B	0.596	-0.001	0.017	0.122
cg03966406	purple	12	26,985,412	Body	N_Shore	ITPR2	0.596	0.000	0.013	0.969
cg14230542	purple	1	110,577,941	Body	Island	FAM40A	0.596	0.000	0.014	0.793
cg03667091	purple	3	179,280,746	5'UTR	Island	ACTL6A	0.596	0.001	0.020	0.702
cg21803680	purple	2	216,946,845	5'UTR	S_Shore	TMEM169	0.596	0.001	0.015	0.249
cg04580029	purple	16	3,013,885	TSS1500	Island	KREMEN2	0.596	0.000	0.033	0.958
cg06341957	purple	6	166,267,865		Island		0.596	-0.006	0.087	0.398
cg24366657	purple	11	2,160,932	Body	Island	INS-IGF2	0.596	0.001	0.022	0.567
cg14102676	purple	20	39,316,634	1stExon	Island	MAFB	0.595	0.001	0.028	0.669
cg26521562	purple	19	41,732,468	Body	Island	AXL	0.595	-0.001	0.026	0.675
cg14680989	purple	3	42,055,928		Island		0.595	0.000	0.010	0.539
cg25947283	purple	19	8,274,853	5'UTR	Island	LASS4	0.595	-0.011	0.103	0.123
cg09665320	purple	3	27,762,636	Body	Island	EOMES	0.595	-0.001	0.053	0.780
cg19949929	purple	17	2,304,007	1stExon	Island	MNT	0.595	-0.004	0.042	0.309
cg00399483	purple	18	49,868,378	Body	Island	DCC	0.595	-0.002	0.035	0.248
cg11850773	purple	18	904,963	5'UTR	Island	ADCYAP1	0.595	0.000	0.031	0.990
cg23162310	purple	5	172,199,255	TSS1500	Island	DUSP1	0.595	0.000	0.020	0.866
cg12158737	purple	3	127,794,706		Island		0.595	-0.001	0.025	0.590
cg01920578	purple	12	45,270,573	Body	Island	NELL2	0.595	-0.002	0.074	0.545
cg19856334	purple	2	172,290,437	TSS1500	Island	DCAF17	0.595	-0.001	0.033	0.583
cg07413941	purple	2	149,894,969	TSS200	N_Shore	LYPD6B	0.595	0.000	0.016	0.964
cg05465342	purple	6	32,121,841	5'UTR	Island	PPT2	0.595	-0.001	0.017	0.253
cg27312652	purple	21	38,073,517	Body	Island	SIM2	0.595	0.002	0.104	0.747
cg03408893	purple	10	15,130,909	TSS200	Island	ACBD7	0.594	-0.001	0.018	0.328
cg16436509	purple	12	120,875,898	TSS200	Island	COX6A1	0.594	-0.003	0.022	0.346
cg20448053	purple	17	8,192,352	3'UTR	Island	SLC25A35	0.594	0.000	0.014	0.871
cg01462904	purple	3	47,018,296	TSS200	Island	CCDC12	0.594	0.000	0.022	0.841
cg02971882	purple	4	71,554,083	TSS200	Island	UTP3	0.594	0.000	0.017	0.752
cg19466372	purple	9	136,856,435	Body	Island	VAV2	0.594	0.000	0.026	0.927
cg13703576	purple	11	69,632,335	Body	Island	FGF3	0.594	0.000	0.018	0.817
cg24594295	purple	1	151,966,792	TSS200	Island	S100A10	0.594	-0.001	0.015	0.167
cg24024056	purple	10	102,415,556		Island		0.594	-0.003	0.026	0.139
cg21319053	purple	5	37,840,725	TSS1500	Island	GDNF	0.594	-0.003	0.030	0.045

cg19019321	purple	2	159,826,400	5'UTR	Island	TANC1	0.594	-0.002	0.023	0.219
cg07837102	purple	6	32,940,879	Body	Island	BRD2	0.594	-0.002	0.048	0.668
cg07302848	purple	2	174,219,502	TSS200	N_Shore	CDCA7	0.594	0.000	0.027	0.880
cg22191617	purple	2	99,758,136	TSS200	Island	C2orf15	0.594	-0.001	0.045	0.678
cg05835802	purple	12	110,906,488	TSS1500	Island	GPN3	0.594	0.000	0.022	0.850
cg16635550	purple	6	31,940,467	Body	Island	STK19	0.594	0.000	0.036	0.919
cg23687960	purple	8	63,951,868	TSS1500	Island	GGH	0.594	0.001	0.016	0.371
cg15146966	purple	22	29,196,915	TSS1500	Island	XBP1	0.594	0.000	0.010	0.496
cg20170831	purple	1	107,682,818	1stExon	N_Shore	NTNG1	0.593	-0.001	0.030	0.498
cg01035038	purple	14	88,459,686	1stExon	Island	GALC	0.593	0.000	0.028	0.787
cg07374247	purple	6	27,860,935	1stExon	N_Shore	HIST1H2AM	0.593	0.000	0.011	0.764
cg11718235	purple	19	56,915,184	TSS200	N_Shore	ZNF583	0.593	-0.002	0.036	0.716
cg06277657	purple	7	137,532,374	TSS1500	Island	DGKI	0.593	-0.002	0.032	0.423
cg09323228	purple	1	45,965,727	TSS200	Island	CCDC163P	0.593	-0.001	0.023	0.328
cg10396609	purple	4	89,378,025	TSS1500	N_Shore	HERC5	0.593	0.000	0.023	0.935
cg20296188	purple	17	77,397,067	5'UTR		HRNBP3	0.593	0.001	0.028	0.580
cg18127887	purple	17	36,981,547	5'UTR	Island	CCDC49	0.593	0.000	0.015	0.702
cg03953500	purple	11	86,383,478	TSS200	Island	ME3	0.593	0.000	0.022	0.855
cg01719895	purple	7	2,443,748	5'UTR	Island	CHST12	0.593	-0.005	0.029	0.023
cg03632145	purple	6	24,403,130	TSS200	Island	MRS2	0.593	0.001	0.045	0.749
cg19245941	purple	10	110,671,988		Island		0.593	0.000	0.030	0.937
cg08524221	purple	17	74,732,291	Body	N_Shore	SFRS2	0.593	0.001	0.013	0.402
cg23435746	purple	18	9,334,049	TSS1500	Island	TWSG1	0.593	-0.001	0.013	0.331
cg26396617	purple	9	133,815,188	TSS1500	Island	FIBCD1	0.593	-0.007	0.039	0.143
cg02657836	purple	5	155,109,126		S_Shore		0.593	-0.003	0.027	0.115
cg11471666	purple	12	53,400,335	Body	Island	EIF4B	0.593	0.000	0.013	0.580
cg08568987	purple	19	56,165,234	TSS200	Island	U2AF2	0.593	0.000	0.024	0.944
cg13548220	purple	3	188,665,413		Island		0.593	0.000	0.024	0.807
cg22208448	purple	2	187,454,590	TSS200	Island	ITGAV	0.593	-0.001	0.021	0.327
cg03584891	purple	4	156,680,256	1stExon	Island	GUCY1B3	0.593	-0.007	0.053	0.472
cg20074795	purple	22	38,864,244	1stExon	Island	KDEL3	0.593	-0.003	0.025	0.308
cg19726715	purple	19	36,001,437	TSS200		DMKN	0.593	-0.001	0.022	0.136
cg01011614	purple	20	44,600,351	5'UTR	Island	ZNF335	0.593	-0.001	0.029	0.653
cg16525575	purple	4	154,074,387	1stExon	Island	TRIM2	0.593	0.001	0.031	0.598
cg02570171	purple	17	39,822,195		N_Shore		0.592	-0.002	0.024	0.360
cg19516485	purple	4	44,680,377	TSS200	Island	GUF1	0.592	-0.001	0.019	0.179
cg04822808	purple	15	100,882,162	5'UTR	Island	ADAMTS17	0.592	0.002	0.051	0.497
cg02429459	purple	19	12,175,639	5'UTR	Island	ZNF844	0.592	-0.001	0.049	0.882
cg23077509	purple	3	142,166,793	5'UTR	Island	XRN1	0.592	-0.005	0.034	0.050
cg18416022	purple	19	58,089,961	Body	Island	ZNF416	0.592	0.002	0.030	0.345
cg26879581	purple	17	46,720,029		Island		0.592	-0.003	0.036	0.460
cg01824511	purple	14	38,064,456	5'UTR	Island	FOXA1	0.592	-0.006	0.089	0.314
cg04553410	purple	7	150,864,885	TSS200	Island	GBX1	0.592	-0.008	0.053	0.358
cg16983422	purple	8	101,322,179	1stExon	Island	RNF19A	0.592	-0.004	0.034	0.242
cg05244136	purple	10	75,541,665	TSS200	Island	CHCHD1	0.592	-0.001	0.042	0.828
cg06091881	purple	21	48,087,589		Island		0.592	-0.001	0.050	0.786
cg24275769	purple	18	22,006,446	TSS200	Island	IMPACT	0.592	0.002	0.029	0.328
cg09645888	purple	11	86,383,585	TSS200	Island	ME3	0.592	0.001	0.018	0.480
cg10392054	purple	14	78,432,599		Island		0.592	-0.001	0.068	0.758
cg07023926	purple	6	150,038,956	5'UTR	Island	LATS1	0.592	-0.001	0.027	0.517
cg22608540	purple	12	117,176,050	TSS1500	Island	C12orf49	0.592	-0.001	0.034	0.651
cg13667676	purple	12	58,239,952	Body	Island	CTDSP2	0.592	-0.002	0.018	0.230
cg12619880	purple	1	44,172,798	TSS1500	Island	ST3GAL3	0.592	-0.003	0.028	0.370
cg14817848	purple	12	12,715,558	TSS1500	S_Shore	DUSP16	0.592	-0.001	0.029	0.624
cg01746873	purple	13	113,344,027	TSS1500	Island	ATP11A	0.591	-0.004	0.042	0.117
cg03039172	purple	19	46,273,153	3'UTR	Island	DMPK	0.591	-0.003	0.025	0.140
cg03651680	purple	2	46,926,842	5'UTR	Island	SOC5	0.591	-0.002	0.039	0.332
cg04853151	purple	1	54,519,244	TSS200	Island	C1orf83	0.591	0.001	0.044	0.841
cg24315188	purple	7	77,428,849	5'UTR	Island	PHTF2	0.591	0.000	0.024	0.881
cg22518208	purple	14	85,997,469	5'UTR	Island	FLRT2	0.591	0.001	0.021	0.504
cg27538003	purple	6	29,945,149	Body	Island	HCG9	0.591	0.001	0.021	0.601
cg01339558	purple	1	168,148,621	Body	Island	TIPRL	0.591	-0.001	0.015	0.441
cg03506979	purple	2	187,558,881	5'UTR	Island	FAM171B	0.591	0.001	0.020	0.479
cg08888916	purple	11	118,016,368	TSS200	Island	SCN4B	0.591	0.000	0.027	0.906
cg20460852	purple	8	23,082,822	TSS200	Island	TNFRSF10A	0.591	-0.001	0.070	0.920
cg09706029	purple	6	33,266,089	Body	N_Shore	RLG2	0.591	0.001	0.028	0.657
cg20037470	purple	17	30,185,765	Body	Island	C17orf79	0.591	-0.003	0.051	0.339

cg14580567	purple	4	145,567,271	1stExon	Island	HHIP	0.591	-0.002	0.038	0.278
cg27370923	purple	19	1,725,970		Island		0.591	-0.003	0.033	0.019
cg07509420	purple	16	740,472	TSS200	Island	WDR24	0.591	0.000	0.022	0.977
cg02717437	purple	18	14,132,207	Body	Island	ZNF519	0.591	-0.001	0.019	0.675
cg02610222	purple	4	147,560,282	1stExon	Island	POU4F2	0.590	-0.001	0.022	0.592
cg07458698	purple	2	67,624,494	1stExon	Island	ETAA1	0.590	-0.004	0.038	0.340
cg00368055	purple	4	11,429,689	5'UTR	N_Shore	HS3ST1	0.590	0.001	0.029	0.582
cg13505705	purple	12	98,987,474	5'UTR	Island	SLC25A3	0.590	0.001	0.015	0.247
cg14670435	purple	2	180,726,464	TSS1500	Island	MIR1258	0.590	-0.001	0.020	0.667
cg15309223	purple	1	54,519,091	1stExon	Island	TMEM59	0.590	0.000	0.018	0.854
cg22332388	purple	8	64,081,173	1stExon	Island	YTHDF3	0.590	-0.007	0.065	0.125
cg27610941	purple	17	72,984,467	Body	Island	CDR2L	0.590	-0.001	0.030	0.709
cg17696166	purple	17	36,981,606	TSS200	Island	CCDC49	0.590	0.000	0.026	0.903
cg04680304	purple	11	4,116,184	5'UTR	Island	RRM1	0.590	0.006	0.047	0.290
cg18816206	purple	12	6,961,163	TSS200	Island	USP5	0.590	0.000	0.030	0.761
cg18882576	purple	2	191,184,621	TSS200	Island	HIBCH	0.590	0.000	0.016	0.709
cg10797387	purple	14	105,154,557	TSS1500	N_Shore	INF2	0.590	-0.006	0.091	0.299
cg17562763	purple	11	67,398,026	TSS1500	Island	NUDT8	0.590	-0.001	0.067	0.834
cg19870512	purple	12	4,919,081	5'UTR	Island	KCNA6	0.590	-0.001	0.027	0.784
cg08872494	purple	1	114,447,794	TSS1500	Island	DCLRE1B	0.589	0.000	0.014	0.693
cg07378058	purple	5	612,255	TSS200	Island	CEP72	0.589	-0.001	0.014	0.428
cg11430659	purple	2	201,374,471	1stExon	Island	KCTD18	0.589	-0.001	0.039	0.797
cg06973760	purple	18	77,154,869	TSS1500	Island	NFATC1	0.589	-0.001	0.019	0.623
cg03347828	purple	17	7,739,579		Island		0.589	0.000	0.023	0.823
cg04222358	purple	3	2,140,256		Island		0.589	-0.008	0.061	0.487
cg14213824	purple	9	33,265,091	Body	Island	SUGT1P1	0.589	-0.001	0.021	0.631
cg14775207	purple	2	73,429,539	1stExon	Island	NOTO	0.589	-0.002	0.060	0.744
cg10247268	purple	10	3,109,799	1stExon	Island	PFKP	0.589	0.000	0.015	0.975
cg13966883	purple	4	185,940,549	Body	Island	HELT	0.589	0.001	0.015	0.270
cg21250577	purple	15	76,603,657	Body	Island	ETFA	0.589	-0.001	0.017	0.354
cg12216749	purple	12	110,338,002	TSS200	Island	TCHP	0.588	0.000	0.034	0.930
cg16937126	purple	8	38,088,972	TSS200	Island	DDHD2	0.588	-0.001	0.022	0.583
cg15038664	purple	19	53,662,261	1stExon	Island	ZNF347	0.588	0.000	0.024	0.692
cg12353549	purple	17	30,771,552	1stExon	Island	PSMD11	0.588	0.001	0.026	0.340
cg00806490	purple	16	82,660,873	Body	Island	CDH13	0.588	-0.003	0.032	0.120
cg15428304	purple	15	63,481,580	TSS200	Island	RAB8B	0.588	0.000	0.017	0.862
cg03947459	purple	4	1,685,442	5'UTR	Island	FAM53A	0.588	0.000	0.022	0.781
cg02961978	purple	20	54,967,334	TSS200	Island	CSTF1	0.588	-0.002	0.031	0.114
cg24913541	purple	11	118,972,317	1stExon	Island	DPAGT1	0.588	0.002	0.019	0.307
cg26896160	purple	1	6,454,004	TSS200	Island	ACOT7	0.588	-0.004	0.037	0.185
cg07225547	purple	2	211,035,530	5'UTR	Island	C2orf67	0.588	-0.003	0.060	0.279
cg08325845	purple	6	29,974,886	Body	Island	HLA-J	0.587	-0.001	0.028	0.511
cg11728900	purple	10	13,203,459	TSS200	Island	MCM10	0.587	-0.001	0.029	0.811
cg02019922	purple	20	36,888,966	5'UTR	Island	KIAA1755	0.587	-0.001	0.054	0.786
cg03639675	purple	16	46,723,204	TSS1500	Island	ORC6L	0.587	0.000	0.022	0.861
cg20859708	purple	9	88,556,622	5'UTR	Island	NAA35	0.587	0.001	0.051	0.844
cg13146426	purple	11	122,932,858	TSS200	Island	HSPA8	0.587	0.000	0.021	0.731
cg10266188	purple	1	32,645,867	5'UTR	S_Shore	TXLNA	0.587	0.001	0.016	0.578
cg13496041	purple	3	14,494,726	Body		SLC6A6	0.587	-0.007	0.294	0.456
cg07981845	purple	10	104,154,074	TSS1500	Island	NFKB2	0.587	-0.001	0.020	0.653
cg09079909	purple	7	127,808,092		Island		0.587	0.003	0.036	0.184
cg17364076	purple	19	46,272,468	5'UTR	Island	SIX5	0.587	0.000	0.016	0.780
cg10432093	purple	6	29,945,155	Body	Island	HCG9	0.587	-0.001	0.046	0.856
cg15778350	purple	1	163,291,775	1stExon	Island	NUF2	0.586	0.000	0.040	0.934
cg18767058	purple	5	139,128,131		S_Shore		0.586	-0.002	0.041	0.270
cg19921130	purple	15	81,294,134	1stExon	Island	MESDC1	0.586	-0.004	0.057	0.394
cg04040975	purple	11	123,065,445	Body	Island	ASAM	0.586	-0.002	0.030	0.474
cg02957340	purple	14	100,070,899	TSS200	Island	CCDC85C	0.586	-0.001	0.024	0.686
cg19752449	purple	12	109,915,316	TSS200	Island	UBE3B	0.586	-0.003	0.027	0.170
cg23237634	purple	1	154,976,031	5'UTR	Island	ZBTB7B	0.586	0.000	0.016	0.511
cg05484393	purple	3	170,587,694	Body	N_Shore	RPL22L1	0.586	-0.006	0.064	0.051
cg08252934	purple	1	29,557,446	5'UTR	Island	MECR	0.585	-0.003	0.030	0.340
cg08652487	purple	1	229,569,795	5'UTR	Island	ACTA1	0.585	-0.003	0.039	0.377
cg08158331	purple	2	85,645,548		Island		0.585	-0.002	0.042	0.353
cg26072457	purple	5	68,665,540	TSS200	Island	RAD17	0.585	0.000	0.034	0.999
cg00449899	purple	8	53,626,436	5'UTR	Island	RB1CC1	0.585	-0.011	0.090	0.313
cg03365985	purple	4	42,399,484	TSS1500	Island	SHISA3	0.585	-0.001	0.023	0.521

cg18678812	purple	5	180,288,554	TSS1500	Island	ZFP62	0.585	0.000	0.014	0.650
cg01515765	purple	14	23,476,426	5'UTR	Island	C14orf93	0.585	-0.001	0.021	0.334
cg10098010	purple	6	138,483,709	Body	Island	KIAA1244	0.585	-0.001	0.023	0.494
cg14871932	purple	7	44,185,323	Body	Island	GCK	0.585	0.000	0.018	0.737
cg18587973	purple	13	49,822,535	Body	Island	CDADC1	0.585	0.002	0.016	0.046
cg07791427	purple	12	54,402,704	TSS200	Island	HOXC8	0.585	0.000	0.018	0.760
cg27284840	purple	7	128,864,678	TSS200	Island	AHCYL2	0.585	-0.001	0.013	0.101
cg25189564	purple	7	158,938,051	TSS1500	Island	VIPR2	0.585	-0.003	0.026	0.135
cg04665732	purple	12	12,510,007	TSS200	Island	LOH12CR1	0.585	-0.002	0.025	0.155
cg26504229	purple	21	45,149,038	Body	Island	PDXK	0.584	-0.007	0.067	0.204
cg27378029	purple	6	36,411,138	TSS1500	Island	PXT1	0.584	-0.002	0.038	0.435
cg19549068	purple	8	27,472,319	1stExon	Island	CLU	0.584	0.000	0.018	0.680
cg20139425	purple	17	43,212,881	TSS200	S_Shelf	ACBD4	0.584	-0.001	0.025	0.462
cg15347342	purple	6	108,490,485	Body	Island	NR2E1	0.584	-0.003	0.081	0.507
cg09843573	purple	11	133,797,846	Body	N_Shelf	IGSF9B	0.584	0.004	0.077	0.513
cg00530448	purple	11	20,691,823	Body	Island	NELL1	0.584	0.001	0.039	0.426
cg20482698	purple	1	236,849,994	1stExon	Island	ACTN2	0.584	-0.004	0.024	0.268
cg02273422	purple	7	130,353,956	Body	Island	TSGA13	0.584	-0.001	0.029	0.680
cg13177873	purple	20	17,661,522	5'UTR	Island	RBBP1	0.584	-0.002	0.058	0.624
cg17084361	purple	4	85,503,668	TSS1500	Island	CDS1	0.584	0.002	0.023	0.098
cg08515713	purple	11	64,037,528	3'UTR	Island	BAD	0.584	-0.001	0.035	0.911
cg00980051	purple	2	230,579,980	TSS1500	Island	DNER	0.584	0.001	0.043	0.822
cg00117913	purple	8	100,025,388	TSS200	Island	VPS13B	0.584	0.001	0.024	0.734
cg11668199	purple	5	115,177,498	1stExon	Island	ATG12	0.584	-0.001	0.027	0.364
cg09151521	purple	3	137,834,591	TSS200	Island	DZIP1L	0.583	0.000	0.013	0.835
cg24097153	purple	12	122,231,765	TSS200	Island	RHOF	0.583	-0.006	0.042	0.200
cg24533678	purple	1	32,254,198		Island		0.583	0.000	0.024	0.856
cg11888151	purple	22	21,272,339	1stExon	Island	CRKL	0.583	-0.001	0.015	0.215
cg18815006	purple	10	71,906,516	TSS200	Island	TYSND1	0.583	-0.001	0.015	0.530
cg05514257	purple	4	140,097,398		Island		0.583	0.000	0.018	0.960
cg26268016	purple	7	112,580,305	TSS1500	S_Shore	C7orf60	0.583	0.001	0.021	0.246
cg01665633	purple	15	29,562,142	TSS200	Island	NDNL2	0.583	0.000	0.017	0.511
cg01044076	purple	6	5,261,366	TSS200	Island	LYRM4	0.583	-0.002	0.036	0.658
cg17212943	purple	3	134,093,413	TSS200	Island	AMOTL2	0.583	-0.002	0.023	0.111
cg13799898	purple	9	136,858,673	TSS1500	Island	VAV2	0.583	-0.004	0.043	0.602
cg16795450	purple	8	33,424,407	5'UTR	Island	RNF122	0.583	0.001	0.028	0.665
cg17909311	purple	19	53,607,009	TSS1500	S_Shore	ZNF160	0.583	-0.002	0.051	0.450
cg15504677	purple	19	49,521,513	TSS1500	Island	LHB	0.583	-0.001	0.022	0.683
cg12496657	purple	2	105,488,809		Island		0.583	-0.003	0.044	0.116
cg12490887	purple	9	127,267,658	5'UTR	Island	NR5A1	0.583	-0.009	0.068	0.072
cg10668980	purple	10	72,238,001	TSS1500	Island	KIAA1274	0.582	0.001	0.028	0.700
cg11781847	purple	8	67,837,483	Body	Island	SNHG6	0.582	0.001	0.018	0.567
cg14843842	purple	6	41,888,877	TSS200	Island	MED20	0.582	-0.003	0.023	0.037
cg17236617	purple	1	6,454,202	TSS1500	S_Shore	ACOT7	0.582	0.000	0.017	0.981
cg16448126	purple	12	123,921,461	TSS200	Island	RILPL2	0.582	-0.001	0.017	0.679
cg10112003	purple	3	179,280,652	TSS200	Island	ACTL6A	0.582	-0.001	0.026	0.641
cg17414380	purple	19	19,431,394	TSS1500	Island	KIAA0892	0.582	-0.001	0.023	0.348
cg18826572	purple	8	144,510,343		N_Shore		0.582	0.000	0.025	0.924
cg12277278	purple	20	61,636,767		Island		0.582	-0.002	0.123	0.819
cg22125569	purple	7	28,893,656		Island		0.582	0.001	0.016	0.338
cg14210872	purple	1	155,294,935	Body	Island	RUSC1	0.582	-0.008	0.031	0.381
cg01880437	purple	4	26,321,873	Body	Island	RBPJ	0.582	-0.001	0.025	0.607
cg02241814	purple	5	6,712,816		Island		0.582	-0.001	0.027	0.494
cg20078939	purple	11	33,060,711	TSS1500	Island	TCP11L1	0.582	-0.002	0.029	0.282
cg02788102	purple	11	115,374,969	Body	Island	CADM1	0.581	-0.004	0.022	0.027
cg18306943	purple	3	40,428,807	5'UTR	Island	ENTPD3	0.581	0.001	0.047	0.727
cg11844827	purple	7	26,240,340	1stExon	Island	HNRNPA2B1	0.581	0.000	0.018	0.770
cg04561389	purple	13	103,052,468	Body	Island	FGF14	0.581	-0.001	0.020	0.410
cg15130433	purple	6	159,240,081	5'UTR	Island	EZR	0.581	-0.005	0.034	0.192
cg21824902	purple	1	27,560,832	TSS200	Island	WDTC1	0.581	-0.002	0.024	0.293
cg24770703	purple	3	43,732,211	TSS200	Island	ABHD5	0.581	0.000	0.012	0.753
cg04854107	purple	15	38,544,003	TSS1500	Island	SPRED1	0.581	0.000	0.021	0.799
cg11639397	purple	19	46,010,716	1stExon	Island	VASP	0.581	0.000	0.011	0.546
cg09169335	purple	15	73,659,861	1stExon	Island	HCN4	0.581	-0.003	0.049	0.584
cg01082862	purple	13	20,437,106	5'UTR	Island	ZMYM5	0.581	-0.001	0.025	0.803
cg25896975	purple	2	27,593,451	1stExon	Island	SNX17	0.580	0.001	0.037	0.731
cg02320003	purple	5	60,139,293	5'UTR	N_Shore	ELOVL7	0.580	-0.002	0.028	0.788



cg00993674	purple	21	45,661,322	TSS1500	Island	ICOSLG	0.580	-0.005	0.041	0.087
cg07012926	purple	5	151,304,488	TSS200	Island	GLRA1	0.580	0.000	0.017	0.672
cg17985418	purple	17	66,031,785	TSS200	Island	KPNA2	0.580	-0.001	0.030	0.632
cg09724492	purple	7	94,537,870	TSS1500	S_Shore	PPP1R9A	0.580	0.000	0.015	0.738
cg13392141	purple	1	77,748,391	Body	S_Shore	AK5	0.580	-0.001	0.030	0.346
cg03129910	purple	4	57,333,643	TSS200	Island	SRP72	0.580	0.000	0.012	0.811
cg05998426	purple	11	66,103,925	1stExon	S_Shore	RIN1	0.580	-0.001	0.017	0.149
cg21350283	purple	14	69,445,743	1stExon	Island	ACTN1	0.580	-0.001	0.034	0.862
cg08505355	purple	16	791,390	TSS1500	S_Shore	NARFL	0.580	0.000	0.023	0.851
cg27287840	purple	7	8,008,357	TSS200	Island	GLCCI1	0.579	0.000	0.026	0.918
cg15453836	purple	15	77,711,506		N_Shore		0.579	0.000	0.024	0.730
cg02570531	purple	18	46,479,155		Island		0.579	-0.002	0.036	0.502
cg07427138	purple	18	46,987,193	TSS200	Island	DYM	0.579	-0.001	0.022	0.476
cg13042092	purple	7	23,637,017	5'UTR	Island	CCDC126	0.579	0.000	0.020	0.686
cg13378656	purple	7	142,494,492		N_Shore		0.579	0.008	0.076	0.071
cg23314506	purple	13	46,626,917	TSS200	Island	ZC3H13	0.579	-0.001	0.021	0.577
cg18106800	purple	5	94,890,715	TSS200	Island	ARSK	0.579	-0.001	0.021	0.674
cg21286626	purple	6	33,290,780	1stExon	Island	DAXX	0.579	-0.010	0.084	0.220
cg23273023	purple	1	173,684,386	5'UTR	Island	KLHL20	0.579	0.000	0.015	0.720
cg21800309	purple	6	99,797,222	1stExon	Island	C6orf168	0.579	-0.006	0.076	0.228
cg08342023	purple	20	34,252,918	TSS200	Island	CPNE1	0.579	-0.001	0.023	0.393
cg17629793	purple	19	42,580,205	TSS200	Island	ZNF574	0.579	-0.004	0.043	0.287
cg06790275	purple	15	68,346,669	1stExon	Island	PIAS1	0.579	-0.004	0.062	0.330
cg22450146	purple	17	74,733,660	TSS1500	Island	MIR636	0.579	-0.001	0.022	0.829
cg18781817	purple	6	33,217,368		Island		0.579	-0.001	0.014	0.705
cg17847723	purple	12	114,075,981				0.579	0.000	0.019	0.556
cg05598205	purple	16	46,723,426	TSS200	Island	ORC6L	0.578	-0.005	0.023	0.189
cg16014168	purple	12	109,729,677	Body	Island	FOXN4	0.578	-0.001	0.026	0.604
cg05204798	purple	11	30,607,888	1stExon	Island	MPPED2	0.578	-0.001	0.028	0.632
cg00006032	purple	14	66,974,439	1stExon	Island	GPHN	0.578	-0.002	0.038	0.626
cg11989011	purple	11	124,933,549	Body	Island	SLC37A2	0.578	-0.002	0.035	0.518
cg05298677	purple	6	36,355,542	TSS200	Island	ETV7	0.578	-0.005	0.019	0.093
cg20878095	purple	19	49,298,744	Body	Island	BCAT2	0.578	0.000	0.023	0.872
cg05013036	purple	6	3,163,081		Island		0.578	-0.003	0.021	0.129
cg06750585	purple	7	150,930,150	5'UTR	Island	CHPF2	0.578	-0.002	0.022	0.180
cg10298052	purple	10	57,391,055		Island		0.578	-0.004	0.075	0.235
cg13993673	purple	1	3,447,740	Body	Island	MEGF6	0.578	0.000	0.023	0.641
cg26720767	purple	16	3,450,549	TSS1500	N_Shore	ZNF174	0.578	0.000	0.018	0.631
cg25308231	purple	11	120,894,785	TSS200	Island	TBCEL	0.578	-0.001	0.031	0.831
cg04949219	purple	11	64,863,633	TSS200	N_Shore	C11orf2	0.578	0.000	0.018	0.969
cg13597247	purple	9	123,963,311	5'UTR	N_Shore	RAB14	0.578	-0.003	0.044	0.418
cg02515233	purple	9	72,658,837	1stExon	Island	MAMDC2	0.577	-0.002	0.037	0.279
cg27190537	purple	7	56,131,961	1stExon	Island	SUMF2	0.577	0.000	0.015	0.555
cg04068910	purple	10	101,989,347	TSS200	Island	CHUK	0.577	-0.001	0.017	0.463
cg01962086	purple	3	195,637,027	TSS1500	S_Shore	TNK2	0.577	0.002	0.047	0.459
cg20796357	purple	17	43,213,013	5'UTR	S_Shelf	ACBD4	0.577	0.000	0.017	0.790
cg00690400	purple	1	174,992,704	TSS200	Island	MRPS14	0.577	0.000	0.019	0.909
cg07190698	purple	4	331,458	TSS200	Island	ZNF141	0.577	-0.001	0.023	0.242
cg15355859	purple	11	79,149,352	5'UTR	Island	ODZ4	0.577	0.001	0.023	0.569
cg22331017	purple	18	45,936,214		Island		0.577	-0.001	0.058	0.848
cg20823940	purple	1	95,007,489	TSS200	Island	F3	0.577	-0.002	0.031	0.272
cg27317026	purple	1	46,050,239	Body	Island	NASP	0.577	-0.001	0.020	0.672
cg20774475	purple	4	108,641,752	TSS1500	Island	PAPSS1	0.577	0.000	0.015	0.549
cg03506502	purple	4	174,443,567		Island		0.576	0.002	0.017	0.534
cg06343212	purple	7	84,815,881		Island		0.576	-0.003	0.037	0.079
cg13810234	purple	9	139,622,243	Body	Island	SNHG7	0.576	-0.001	0.048	0.892
cg02750935	purple	5	145,214,981	TSS200	Island	PRELID2	0.576	-0.002	0.026	0.631
cg13981545	purple	12	88,974,137	5'UTR	Island	KITLG	0.576	-0.004	0.041	0.232
cg01923955	purple	16	67,144,265	Body	Island	C16orf70	0.576	-0.001	0.018	0.641
cg09984339	purple	15	26,108,674	TSS1500	Island	ATP10A	0.576	-0.002	0.028	0.371
cg10742605	purple	3	18,485,411		Island		0.576	-0.003	0.042	0.743
cg08137236	purple	13	80,917,220		S_Shore		0.576	-0.001	0.020	0.438
cg23369371	purple	2	220,118,598	5'UTR	Island	TUBA4A	0.576	0.000	0.024	0.650
cg20855565	purple	1	248,020,350	TSS200	Island	TRIM58	0.576	0.000	0.020	0.814
cg25044817	purple	2	24,233,259	Body	Island	MFSD2B	0.575	-0.002	0.059	0.722
cg04836154	purple	11	62,439,314	1stExon	Island	C11orf83	0.575	-0.002	0.027	0.726
cg13416901	purple	9	136,019,673	Body	N_Shore	RALGDS	0.575	0.003	0.061	0.614

cg23576473	purple	17	47,785,586	TSS1500		SLC35B1	0.575	0.001	0.010	0.324
cg03307893	purple	15	26,108,683	TSS1500	Island	ATP10A	0.575	-0.002	0.034	0.522
cg08869831	purple	1	92,764,770	Body	Island	RPAP2	0.575	-0.001	0.023	0.321
cg04349810	purple	16	31,470,072	TSS1500	Island	ARMCS	0.575	0.000	0.015	0.718
cg14580982	purple	2	10,861,364	TSS1500	Island	ATP6V1C2	0.575	0.000	0.026	0.905
cg06552799	purple	2	71,559,058	5'UTR	Island	ZNF638	0.575	0.000	0.025	0.913
cg17117277	purple	19	3,822,126	Body	Island	ZFR2	0.575	-0.001	0.034	0.799
cg02594498	purple	15	22,893,147	5'UTR	Island	CYFIP1	0.575	0.001	0.037	0.861
cg10399165	purple	2	171,571,007	Body	Island	LOC440925	0.575	-0.003	0.044	0.253
cg17328806	purple	17	53,046,342	TSS1500	Island	COX11	0.575	-0.001	0.027	0.456
cg26681912	purple	1	169,455,321	TSS200	Island	SLC19A2	0.575	-0.004	0.022	0.501
cg15994999	purple	5	154,317,917	TSS200	Island	GEMIN5	0.575	0.000	0.032	0.758
cg10533351	purple	20	19,997,722	TSS1500	Island	NAA20	0.575	0.001	0.028	0.646
cg06724588	purple	16	51,185,459	TSS1500	Island	SALL1	0.575	0.002	0.022	0.326
cg03876184	purple	2	27,886,755	TSS1500	Island	SUPT7L	0.574	0.000	0.016	0.955
cg02328113	purple	7	150,755,601	TSS1500	N_Shore	CDK5	0.574	-0.002	0.018	0.115
cg22822383	purple	19	58,987,261	TSS1500	Island	ZNF446	0.574	-0.002	0.026	0.681
cg18238734	purple	12	26,986,119	1stExon	Island	ITPR2	0.574	-0.003	0.035	0.374
cg07525624	purple	4	77,069,462	1stExon	Island	NUP54	0.574	-0.001	0.028	0.556
cg11468000	purple	6	139,694,674	Body	N_Shore	CITED2	0.574	0.000	0.017	0.907
cg27231075	purple	4	44,728,550	1stExon	Island	GNPDA2	0.574	-0.007	0.097	0.389
cg25626704	purple	1	229,762,120	5'UTR	Island	URB2	0.574	-0.001	0.023	0.494
cg22984439	purple	3	47,823,638	TSS1500	Island	SMARCC1	0.574	0.001	0.031	0.793
cg06910048	purple	11	111,945,509	5'UTR	S_Shore	C11orf57	0.574	0.000	0.019	0.773
cg21914262	purple	13	28,024,888	TSS1500	Island	MTIF3	0.574	-0.001	0.023	0.364
cg23604584	purple	13	50,367,114	TSS200	Island	KPNA3	0.574	0.006	0.047	0.460
cg22374057	purple	18	11,148,682	5'UTR	Island	FAM38B	0.573	-0.007	0.069	0.600
cg26656135	purple	6	133,562,774	5'UTR	Island	EYA4	0.573	-0.001	0.024	0.694
cg03057409	purple	10	102,729,640		Island		0.573	-0.003	0.050	0.286
cg08111167	purple	4	82,135,987		Island		0.573	0.004	0.051	0.370
cg19365884	purple	6	32,163,814	TSS1500	Island	GPSM3	0.573	0.000	0.014	0.625
cg00734724	purple	15	41,408,630	TSS1500	Island	INO80	0.573	0.000	0.022	0.990
cg08929548	purple	4	113,436,625	Body	Island	NEUROG2	0.573	-0.002	0.017	0.513
cg08553999	purple	16	79,633,724	1stExon	Island	MAF	0.573	0.000	0.022	0.988
cg25604326	purple	5	141,061,747	1stExon		ARAP3	0.573	-0.002	0.023	0.329
cg18180181	purple	3	39,148,378	TSS1500	Island	TTC21A	0.573	0.000	0.028	0.876
cg22041635	purple	1	155,247,476	1stExon	Island	HCN3	0.573	-0.001	0.022	0.441
cg15924985	purple	15	41,913,566		Island		0.573	-0.001	0.019	0.318
cg02099313	purple	1	231,114,956	TSS1500	S_Shore	TTC13	0.573	0.000	0.028	0.931
cg00460807	purple	3	45,731,126	Body	Island	SACM1L	0.573	-0.014	0.052	0.008
cg10527457	purple	3	172,468,452		Island		0.573	0.002	0.022	0.124
cg15358743	purple	18	56,807,035	TSS200	Island	SEC11C	0.573	0.000	0.022	0.873
cg18656583	purple	19	44,124,056	TSS200	Island	ZNF428	0.573	-0.002	0.028	0.257
cg24663255	purple	8	146,228,920	TSS1500	Island	ZNF252	0.572	0.001	0.038	0.514
cg02102829	purple	10	126,849,762	TSS200	Island	CTBP2	0.572	-0.001	0.021	0.328
cg26260369	purple	14	68,141,723	TSS200	Island	VTI1B	0.572	-0.003	0.096	0.883
cg24089723	purple	1	27,019,087		N_Shelf		0.572	0.000	0.016	0.801
cg19240052	purple	22	42,475,693	TSS200	Island	C22orf32	0.572	-0.002	0.033	0.538
cg06850312	purple	14	54,976,505	TSS200	Island	CGRRF1	0.572	0.000	0.017	0.966
cg01186217	purple	16	68,279,224	TSS200	Island	PLA2G15	0.572	0.000	0.021	0.883
cg10050877	purple	8	130,952,333	TSS1500	Island	FAM49B	0.572	0.000	0.019	0.991
cg19517509	purple	12	120,933,726	TSS200	Island	DYNLL1	0.572	0.000	0.026	0.855
cg14694232	purple	6	30,181,448	TSS1500	Island	TRIM26	0.572	0.001	0.017	0.435
cg03236816	purple	19	36,618,904		Island		0.572	0.000	0.014	0.747
cg13274713	purple	17	59,477,286	5'UTR	Island	TBX2	0.572	0.001	0.034	0.655
cg07144085	purple	17	45,000,321	TSS200	Island	GOSR2	0.572	0.000	0.027	0.708
cg14466961	purple	4	493,368	5'UTR	Island	ZNF721	0.572	0.000	0.025	0.943
cg19748093	purple	1	113,392,388		Island		0.572	0.000	0.027	0.946
cg04891921	purple	3	134,514,173	TSS200	Island	EPHB1	0.572	-0.002	0.037	0.305
cg24126592	purple	11	46,389,363	Body	Island	DGKZ	0.572	0.000	0.052	0.993
cg04602207	purple	12	104,324,023	TSS200	Island	LOC253724	0.572	-0.003	0.032	0.419
cg13433446	purple	9	128,170,534		Island		0.572	-0.005	0.047	0.546
cg23471617	purple	5	36,242,411	TSS1500	Island	C5orf33	0.571	0.000	0.020	0.908
cg23196831	purple	8	121,137,537	5'UTR	Island	COL14A1	0.571	0.001	0.026	0.634
cg18473033	purple	17	47,653,564	1stExon	Island	NXPH3	0.571	0.002	0.023	0.562
cg20295040	purple	1	192,778,396	Body	S_Shore	RGS2	0.571	0.000	0.015	0.709
cg07952391	purple	2	88,470,173	5'UTR	Island	THNSL2	0.571	-0.001	0.018	0.617

cg26209005	purple	7	132,262,526	TSS1500	Island	PLXNA4	0.571	0.002	0.063	0.574
cg17054285	purple	20	30,556,266	1stExon	Island	XKR7	0.571	-0.004	0.046	0.433
cg14743055	purple	21	43,430,222	5'UTR	Island	ZNF295	0.571	-0.003	0.034	0.099
cg01907644	purple	5	150,138,530	1stExon	Island	DCTN4	0.571	0.000	0.033	0.827
cg09199031	purple	1	44,440,915	5'UTR	Island	ATP6V0B	0.571	0.002	0.043	0.734
cg24337683	purple	3	87,276,396	TSS200	Island	CHMP2B	0.571	-0.004	0.026	0.316
cg04337412	purple	20	44,992,802	5'UTR	Island	SLC35C2	0.571	-0.001	0.030	0.438
cg04043571	purple	9	127,265,989	5'UTR	Island	NR5A1	0.571	-0.005	0.059	0.113
cg14428767	purple	6	149,867,359	TSS200	Island	PPIL4	0.571	-0.004	0.039	0.378
cg16579347	purple	3	155,572,233	TSS200	N_Shore	SLC33A1	0.571	-0.001	0.016	0.591
cg04270736	purple	2	32,390,924	TSS200	Island	SLC30A6	0.571	-0.001	0.018	0.631
cg25486143	purple	3	50,378,527	TSS200	Island	RASSF1	0.571	0.000	0.019	0.841
cg24114890	purple	14	23,834,349	1stExon	N_Shore	EFS	0.571	-0.002	0.036	0.382
cg10111292	purple	12	106,975,112		N_Shore		0.571	-0.006	0.027	0.070
cg10450899	purple	17	685,900	1stExon	Island	RNMTL1	0.571	0.000	0.022	0.856
cg06536333	purple	6	41,339,977		Island		0.570	0.000	0.046	0.882
cg09283154	purple	6	118,229,641	Body	Island	SLC35F1	0.570	0.000	0.050	0.851
cg06539622	purple	19	9,945,676	TSS1500	Island	PIN1	0.570	-0.001	0.019	0.419
cg07211377	purple	9	34,377,402	TSS1500	Island	KIAA1161	0.570	-0.002	0.059	0.494
cg07447902	purple	17	38,443,980	TSS200	Island	CDC6	0.570	-0.001	0.015	0.466
cg15996043	purple	14	70,346,221	5'UTR	Island	SMOC1	0.570	0.000	0.020	0.784
cg25060468	purple	17	7,155,389	TSS200	Island	C17orf81	0.570	-0.001	0.023	0.695
cg15673110	purple	2	32,581,747	TSS1500	Island	BIRC6	0.570	-0.001	0.021	0.501
cg15584813	purple	12	47,219,626	5'UTR	Island	SLC38A4	0.570	-0.003	0.070	0.428
cg02980971	purple	16	83,841,413	TSS200	Island	HSBP1	0.570	0.001	0.027	0.318
cg19582316	purple	14	102,031,503		Island		0.570	0.002	0.049	0.602
cg14849431	purple	6	30,457,724	Body	Island	HLA-E	0.570	-0.002	0.017	0.144
cg01300546	purple	3	3,841,853	5'UTR	Island	LRRN1	0.569	-0.001	0.044	0.488
cg00998813	purple	3	49,894,005	TSS200	Island	TRAIP	0.569	0.000	0.122	0.926
cg24236870	purple	15	42,264,445	Body	Island	EHD4	0.569	0.000	0.023	0.879
cg21900616	purple	22	20,286,845		Island		0.569	-0.001	0.036	0.761
cg05721281	purple	3	197,477,555	Body	Island	FYTTD1	0.569	-0.005	0.040	0.159
cg17895880	purple	3	100,211,156	TSS1500	N_Shore	TMEM45A	0.569	0.000	0.019	0.953
cg10765909	purple	12	53,715,428	TSS200	Island	AAAS	0.569	-0.006	0.172	0.611
cg06577251	purple	6	83,073,863	TSS200	Island	TPBG	0.569	-0.001	0.019	0.143
cg05639842	purple	21	43,639,440	TSS1500	Island	ABCG1	0.569	-0.012	0.057	0.080
cg26635845	purple	20	61,426,715	TSS1500	Island	C20orf20	0.569	-0.005	0.095	0.422
cg13455597	purple	9	2,844,149	TSS200	Island	KIAA0020	0.569	0.002	0.022	0.636
cg22373392	purple	17	45,973,408	TSS200	N_Shore	SP2	0.568	0.000	0.012	0.669
cg09811861	purple	1	23,886,010	1stExon	Island	ID3	0.568	-0.003	0.023	0.031
cg08000065	purple	8	35,092,823	TSS200	Island	UNC5D	0.568	-0.001	0.023	0.582
cg20173334	purple	8	42,698,483	TSS200	Island	THAP1	0.568	-0.004	0.030	0.141
cg07677997	purple	10	97,889,705	5'UTR	Island	ZNF518A	0.568	-0.002	0.051	0.353
cg13987781	purple	17	79,520,323	TSS1500	S_Shore	C17orf70	0.568	-0.001	0.019	0.481
cg09397900	purple	16	2,070,528	Body	Island	NPW	0.568	0.000	0.015	0.955
cg25943372	purple	18	34,974,300	Body	Island	BRUNOL4	0.568	-0.004	0.027	0.250
cg00346009	purple	12	118,541,298	Body	Island	VSIG10	0.568	0.001	0.035	0.781
cg22901098	purple	14	77,564,464	TSS200	Island	KIAA1737	0.568	0.000	0.027	0.990
cg05964622	purple	7	1,609,908	TSS1500	Island	PSMG3	0.568	-0.002	0.024	0.352
cg24322144	purple	4	4,249,983	TSS200	Island	TMEM128	0.568	-0.001	0.019	0.688
cg00305374	purple	1	95,007,543	TSS200	Island	F3	0.568	0.000	0.018	0.461
cg20632863	purple	12	99,038,768	TSS1500	Island	APAF1	0.568	-0.002	0.018	0.227
cg04669815	purple	10	101,296,619		Island		0.567	-0.001	0.016	0.126
cg04657467	purple	16	30,662,270	5'UTR	Island	PRR14	0.567	-0.001	0.018	0.417
cg14490972	purple	6	43,484,812	1stExon	Island	POLR1C	0.567	-0.006	0.038	0.089
cg21961527	purple	12	113,905,475	Body	Island	LHX5	0.567	0.000	0.016	0.975
cg15696906	purple	13	38,444,134	TSS200	Island	TRPC4	0.567	-0.001	0.019	0.619
cg05414479	purple	2	217,497,892	TSS1500	Island	IGFBP2	0.567	0.001	0.012	0.182
cg19217022	purple	17	78,977,572		N_Shore		0.567	-0.001	0.036	0.831
cg24336531	purple	3	69,134,303	1stExon	Island	ARL6IP5	0.567	-0.001	0.024	0.628
cg03364076	purple	17	16,342,586	Body	Island	NCRNA00188	0.567	-0.001	0.024	0.438
cg11692371	purple	19	42,891,346	Body	Island	CNFN	0.567	0.000	0.019	0.737
cg00284438	purple	11	74,460,557	Body	Island	RNF169	0.566	-0.002	0.025	0.325
cg06826431	purple	17	46,125,498	TSS200	Island	NFE2L1	0.566	-0.003	0.033	0.081
cg25397663	purple	4	124,622	Body	Island	ZNF718	0.566	-0.006	0.064	0.234
cg26460378	purple	19	36,545,594	TSS200	Island	WDR62	0.566	0.001	0.020	0.659
cg26411702	purple	8	21,881,998	TSS1500	N_Shore	NPM2	0.566	0.000	0.014	0.931

cg04183933	purple	2	198,363,868	5'UTR	Island	HSPD1	0.566	-0.001	0.012	0.361
cg14114804	purple	14	77,606,990	5'UTR	Island	ZDHHC22	0.566	0.002	0.034	0.312
cg05572763	purple	11	20,631,898	Body		SLC6A5	0.566	-0.002	0.043	0.385
cg22675801	purple	7	28,998,346	TSS1500	Island	TRIL	0.566	-0.001	0.029	0.778
cg15412736	purple	10	89,622,073	TSS1500	Island	PTEN	0.566	0.000	0.014	0.895
cg21929446	purple	3	183,735,910	TSS200	Island	ABCC5	0.566	0.000	0.022	0.759
cg06852255	purple	6	32,821,611	TSS1500	Island	PSMB9	0.566	0.000	0.017	0.887
cg27319898	purple	7	88,389,003	1stExon	Island	ZNF804B	0.566	-0.003	0.036	0.243
cg19287139	purple	10	75,634,631	TSS1500	Island	CAMK2G	0.565	-0.004	0.072	0.514
cg14806374	purple	11	47,789,155	TSS200	S_Shore	FNBP4	0.565	0.000	0.019	0.878
cg12897942	purple	3	170,626,357	1stExon	Island	EIF5A2	0.565	0.000	0.021	0.849
cg21617516	purple	1	223,936,838	Body	Island	CAPN2	0.565	-0.007	0.087	0.186
cg13906049	purple	7	4,837,925				0.565	-0.004	0.145	0.240
cg06391926	purple	16	1,832,733	TSS200	Island	NUBP2	0.565	-0.007	0.026	0.008
cg26957370	purple	1	161,087,723	Body	Island	PFDN2	0.565	0.000	0.023	0.911
cg26361313	purple	10	112,631,322	TSS1500	N_Shore	LOC282997	0.565	-0.001	0.020	0.507
cg21141234	purple	6	100,067,169		Island		0.565	0.001	0.036	0.774
cg25147139	purple	12	49,740,718	TSS1500	Island	DNAJC22	0.565	0.000	0.024	0.838
cg10284592	purple	11	57,434,942	TSS1500	N_Shore	ZDHHC5	0.565	-0.002	0.017	0.163
cg02741854	purple	5	52,285,176	1stExon	Island	ITGA2	0.565	0.000	0.037	0.976
cg03631596	purple	13	73,301,985	TSS200	Island	C13orf37	0.565	0.003	0.024	0.472
cg09019432	purple	17	62,503,014	TSS200	Island	CCDC45	0.565	0.000	0.013	0.756
cg04802271	purple	22	39,930,989		Island		0.565	-0.005	0.033	0.302
cg06770993	purple	3	49,158,462	TSS1500	Island	USP19	0.564	-0.001	0.034	0.588
cg16114773	purple	1	20,209,461	Body	Island	OTUD3	0.564	-0.002	0.032	0.620
cg08298587	purple	6	20,401,796	TSS1500	N_Shore	E2F3	0.564	0.000	0.020	0.962
cg02212000	purple	8	63,951,669	TSS200	Island	GGH	0.564	0.001	0.035	0.494
cg16497424	purple	10	135,191,798	TSS1500	Island	PAOX	0.564	-0.002	0.032	0.650
cg03818977	purple	16	30,032,553		N_Shore		0.564	-0.001	0.020	0.712
cg03733760	purple	11	69,517,841	Body	Island	FGF19	0.564	-0.005	0.031	0.036
cg08830758	purple	12	15,374,175	5'UTR	Island	RERG	0.564	-0.002	0.053	0.592
cg01465641	purple	21	35,015,683	5'UTR	Island	ITSN1	0.564	-0.001	0.013	0.195
cg19581424	purple	2	42,396,302	TSS200	Island	EML4	0.564	-0.004	0.043	0.056
cg22410057	purple	15	90,456,248	TSS200	Island	C15orf38	0.564	0.000	0.019	0.752
cg25580306	purple	22	42,017,000	TSS1500	Island	XRCC6	0.564	0.000	0.016	0.508
cg11056045	purple	7	44,835,684	TSS1500	N_Shore	PPIA	0.564	0.000	0.023	0.768
cg18995088	purple	5	134,914,734	5'UTR	Island	CXCL14	0.564	-0.002	0.024	0.588
cg09762778	purple	17	37,783,879	Body	Island	PPP1R1B	0.564	-0.004	0.051	0.196
cg09852920	purple	17	48,277,216	Body	Island	COL1A1	0.564	0.000	0.023	0.990
cg21500799	purple	8	144,242,362	TSS1500	S_Shore	LY6H	0.563	0.001	0.038	0.754
cg15023278	purple	10	120,840,463	TSS200	Island	EIF3A	0.563	0.000	0.021	0.922
cg12774432	purple	7	141,438,008	TSS200	Island	SSBP1	0.563	0.001	0.020	0.437
cg01608030	purple	19	1,605,680	TSS200	Island	UQCR	0.563	-0.009	0.067	0.349
cg04289131	purple	1	185,286,722	TSS1500	Island	IVNS1ABP	0.563	-0.001	0.022	0.674
cg01572333	purple	10	64,574,661	Body	Island	EGR2	0.563	-0.006	0.063	0.117
cg15638055	purple	8	110,986,974	TSS200	Island	KCNV1	0.563	-0.003	0.054	0.418
cg04203084	purple	3	49,131,538	TSS200	Island	QRICH1	0.563	0.000	0.022	0.816
cg08153160	purple	7	23,508,734	Body	Island	IGF2BP3	0.563	0.001	0.025	0.770
cg11393614	purple	10	88,282,152	TSS1500	S_Shore	WAPAL	0.563	0.002	0.015	0.045
cg20967975	purple	1	78,354,382	5'UTR	Island	NEXN	0.563	-0.002	0.019	0.573
cg08344341	purple	5	36,151,993	1stExon	Island	LMBRD2	0.562	-0.003	0.029	0.441
cg01960456	purple	3	186,649,428	5'UTR	S_Shore	ST6GAL1	0.562	0.001	0.018	0.387
cg18270280	purple	1	100,504,403	Body	Island	HIAT1	0.562	0.000	0.025	0.826
cg00993799	purple	7	104,653,126	Body	Island	LOC10021654	0.562	0.005	0.028	0.407
cg18153213	purple	1	179,051,012	TSS200	N_Shore	TOR3A	0.562	-0.002	0.037	0.237
cg05049628	purple	11	72,525,270	TSS200	Island	ATG16L2	0.562	0.000	0.031	0.969
cg14273116	purple	4	107,897	Body	Island	ZNF718	0.562	0.001	0.090	0.863
cg00888802	purple	14	73,359,310	Body	Island	DPF3	0.562	0.000	0.010	0.993
cg10894441	purple	11	111,169,905	5'UTR	Island	C11orf92	0.562	-0.003	0.058	0.665
cg17185823	purple	8	11,324,806	TSS1500	S_Shore	FAM167A	0.562	0.000	0.020	0.940
cg01618829	purple	4	176,922,896	5'UTR	N_Shore	GPM6A	0.562	0.000	0.019	0.723
cg01784859	purple	1	160,001,849	TSS200	Island	PIGM	0.562	0.002	0.031	0.197
cg03699307	purple	16	75,600,014	TSS1500	Island	GABARAPL2	0.562	0.001	0.018	0.734
cg17391928	purple	5	128,301,230	5'UTR	Island	SLC27A6	0.562	0.000	0.019	0.879
cg10139614	purple	16	88,878,480	TSS200	Island	APRT	0.562	-0.004	0.030	0.345
cg18347642	purple	4	21,950,766	TSS1500	Island	KCNIP4	0.562	0.000	0.020	0.939
cg16317734	purple	11	94,822,598	TSS1500	Island	ENDOD1	0.562	-0.001	0.087	0.830

cg17034941	purple	6	123,110,289	5'UTR	Island	SMPDL3A	0.562	0.000	0.021	0.770
cg10460130	purple	2	242,625,978	Body	Island	DTYMK	0.561	0.009	0.099	0.451
cg22241504	purple	17	3,539,680	TSS200	Island	CTNS	0.561	0.000	0.031	0.985
cg24643211	purple	18	11,851,603	Body	Island	GNAL	0.561	0.000	0.019	0.924
cg11792664	purple	19	1,605,706	TSS1500	S_Shore	UQCR	0.561	-0.002	0.035	0.633
cg09932345	purple	1	1,710,561	TSS1500	Island	NADK	0.561	-0.002	0.032	0.571
cg06484397	purple	9	36,137,132	Body	Island	GLIPR2	0.561	0.000	0.021	0.996
cg22153116	purple	9	15,306,736	Body	Island	TTC39B	0.561	0.000	0.028	0.795
cg26171523	purple	19	13,858,605	TSS200	Island	CCDC130	0.561	-0.001	0.019	0.562
cg10210789	purple	2	239,149,084	TSS1500	Island	HES6	0.560	-0.002	0.035	0.461
cg05045001	purple	17	40,729,964	TSS1500	Island	PSMC3IP	0.560	0.000	0.015	0.889
cg08392126	purple	6	46,459,694		S_Shore		0.560	-0.005	0.078	0.201
cg17543885	purple	6	151,562,429	Body	Island	AKAP12	0.560	-0.002	0.043	0.371
cg26373942	purple	12	108,523,463	TSS200	Island	WSCD2	0.560	-0.001	0.044	0.817
cg12467096	purple	11	71,936,303	Body	Island	INPPL1	0.560	-0.004	0.032	0.107
cg02631199	purple	16	50,502,411		S_Shore		0.560	-0.002	0.030	0.141
cg21306329	purple	17	73,083,876	TSS200	Island	SLC16A5	0.560	0.000	0.020	0.866
cg10614025	purple	15	83,348,985	Body	Island	AP3B2	0.560	-0.008	0.072	0.042
cg21076271	purple	14	32,546,633	1stExon	Island	ARHGAP5	0.559	-0.001	0.045	0.900
cg02341815	purple	5	33,936,752	1stExon	Island	RXFP3	0.559	-0.002	0.055	0.458
cg05771398	purple	17	66,031,830	TSS200	Island	KPNA2	0.559	-0.004	0.034	0.189
cg24213437	purple	19	11,529,741	Body	Island	RGL3	0.559	-0.001	0.026	0.579
cg01532600	purple	16	285,188	5'UTR	Island	ITFG3	0.559	0.000	0.022	0.736
cg04886642	purple	17	72,920,359	TSS200	Island	OTOP2	0.559	0.001	0.031	0.795
cg26887302	purple	17	27,181,995	TSS200	Island	ERAL1	0.559	-0.001	0.020	0.767
cg02649597	purple	2	45,171,621	Body	Island	SIX3	0.559	0.001	0.040	0.746
cg15411402	purple	8	11,142,072	1stExon	Island	MTMR9	0.559	-0.001	0.026	0.728
cg15001747	purple	17	35,292,587		Island		0.559	-0.002	0.023	0.217
cg13132204	purple	4	141,445,677	5'UTR	Island	ELMOD2	0.559	0.001	0.022	0.547
cg04749129	purple	2	27,008,876	TSS200	Island	CENPA	0.559	-0.001	0.016	0.123
cg05523065	purple	4	83,483,483	TSS1500	S_Shore	TMEM150C	0.558	0.000	0.027	0.870
cg12395479	purple	22	24,115,466	Body	Island	MMP11	0.558	-0.002	0.101	0.576
cg09353354	purple	19	7,460,276	5'UTR	Island	ARHGEF18	0.558	0.000	0.037	0.914
cg25841634	purple	1	220,102,043	TSS200	Island	SLC30A10	0.558	-0.005	0.032	0.153
cg26408609	purple	7	87,563,569	TSS200	Island	ADAM22	0.558	-0.001	0.031	0.656
cg07637213	purple	10	50,820,604	TSS1500	N_Shore	CHAT	0.558	-0.017	0.089	0.019
cg14379854	purple	2	173,600,362	Body	Island	LOC91149	0.558	-0.005	0.024	0.038
cg18701481	purple	5	150,632,526	TSS200		GM2A	0.558	0.000	0.021	0.657
cg13778778	purple	20	35,808,076	TSS200	S_Shore	C20orf132	0.558	0.000	0.035	0.955
cg05924647	purple	15	41,166,166	1stExon	Island	RHOV	0.558	-0.004	0.105	0.562
cg16703882	purple	3	157,823,479	1stExon	Island	SHOX2	0.558	-0.001	0.029	0.789
cg01423820	purple	14	77,228,690	1stExon	Island	VASH1	0.558	-0.005	0.044	0.391
cg14052996	purple	9	131,580,527	TSS1500	N_Shore	ENDOG	0.558	0.002	0.019	0.103
cg26050838	purple	7	142,985,210	TSS200	Island	CASP2	0.558	0.004	0.030	0.400
cg05596135	purple	16	72,128,010	TSS1500	S_Shore	TXNL4B	0.558	-0.001	0.035	0.910
cg05266687	purple	19	50,879,559	TSS200	N_Shore	NR1H2	0.558	-0.001	0.031	0.438
cg19543987	purple	2	73,460,508	TSS1500	Island	CCT7	0.557	-0.002	0.030	0.603
cg14628267	purple	17	58,469,902	TSS1500	Island	USP32	0.557	0.000	0.037	0.882
cg15129777	purple	11	8,008,818	TSS200	N_Shore	EIF3F	0.557	0.000	0.014	0.751
cg16074309	purple	8	11,760,061		Island		0.557	-0.001	0.017	0.372
cg17607973	purple	7	100,027,408	TSS200	Island	MEPCE	0.557	-0.028	0.075	0.021
cg22115077	purple	11	6,502,818	Body	Island	FXC1	0.557	0.000	0.020	0.808
cg17887936	purple	1	154,540,354	1stExon	Island	CHRN2	0.557	0.001	0.069	0.762
cg02792792	purple	5	115,152,420	TSS200	Island	CDO1	0.557	-0.001	0.021	0.468
cg09783874	purple	22	20,791,553	Body	Island	SCARF2	0.557	-0.002	0.028	0.445
cg07413609	purple	7	42,276,816	TSS200	Island	GLI3	0.557	0.000	0.017	0.825
cg19628694	purple	4	146,019,332	5'UTR	Island	ABCE1	0.557	-0.001	0.016	0.364
cg17537177	purple	12	130,646,129	TSS1500	Island	FZD10	0.557	-0.002	0.032	0.081
cg14395787	purple	2	20,063,461				0.557	-0.001	0.050	0.682
cg02550110	purple	10	70,661,008	TSS200	Island	DDX50	0.557	0.000	0.023	0.729
cg09326404	purple	1	46,956,839		Island		0.557	0.000	0.028	0.938
cg11948381	purple	11	47,574,185	5'UTR	Island	CUGBP1	0.557	-0.001	0.021	0.521
cg22853607	purple	4	4,387,881	TSS200	Island	D4S234E	0.556	0.001	0.029	0.626
cg27555479	purple	16	80,574,649	TSS1500	N_Shore	DYNLRB2	0.556	-0.001	0.014	0.364
cg08591893	purple	17	73,178,244	Body	Island	SUMO2	0.556	0.000	0.013	0.985
cg06651286	purple	3	197,477,426	Body	Island	FYTTD1	0.556	-0.001	0.017	0.507
cg15409468	purple	5	31,532,111	5'UTR	Island	RNASEN	0.556	0.000	0.015	0.961

cg25776635	purple	12	122,231,757	TSS200	Island	RHOF	0.556	-0.004	0.071	0.365
cg18207950	purple	14	45,722,438	5'UTR	Island	C14orf106	0.556	0.000	0.031	0.787
cg27034902	purple	3	182,971,430	Body	Island	MCF2L2	0.556	-0.001	0.034	0.541
cg11087358	purple	12	57,940,980	TSS200	Island	DCTN2	0.556	-0.001	0.043	0.469
cg27025752	purple	8	11,059,303	TSS1500	S_Shore	XKR6	0.556	0.000	0.016	0.970
cg19951743	purple	3	125,803,257	TSS200	Island	SLC41A3	0.556	0.000	0.024	0.705
cg27386912	purple	3	52,479,108	TSS200		SEMA3G	0.556	0.007	0.047	0.147
cg14104257	purple	5	150,827,447	5'UTR	Island	SLC36A1	0.555	0.001	0.027	0.541
cg09915099	purple	8	41,435,301	TSS1500	N_Shore	AGPAT6	0.555	0.000	0.016	0.795
cg25617725	purple	10	118,033,290	TSS1500	Island	GFRA1	0.555	-0.003	0.031	0.074
cg12033943	purple	19	37,341,734	5'UTR	Island	ZNF345	0.555	0.000	0.022	0.926
cg07184541	purple	7	99,036,328	TSS1500	Island	CPSF4	0.555	0.000	0.026	0.857
cg21104946	purple	22	46,373,530	TSS1500	Island	WNT7B	0.555	0.001	0.071	0.787
cg00954230	purple	12	10,306,288				0.555	-0.005	0.050	0.404
cg26298281	purple	4	75,719,320	Body	Island	BTC	0.555	-0.002	0.063	0.640
cg10216353	purple	12	48,577,891	1stExon	Island	C12orf68	0.555	0.000	0.021	0.972
cg07727872	purple	19	33,463,030	TSS200	Island	C19orf40	0.555	0.000	0.019	0.621
cg19066141	purple	12	48,395,868	Body	Island	COL2A1	0.555	0.000	0.013	0.526
cg15884202	purple	7	158,649,092	TSS200	Island	WDR60	0.555	-0.005	0.033	0.201
cg27638672	purple	15	55,611,086	TSS200	Island	PIGB	0.554	0.001	0.021	0.302
cg03034407	purple	16	57,496,971	Body	Island	POLR2C	0.554	-0.002	0.018	0.089
cg24607948	purple	9	100,459,097	Body	Island	XPA	0.554	0.000	0.030	0.818
cg12441052	purple	11	66,313,700	TSS200	Island	ZDHHC24	0.554	0.001	0.033	0.831
cg10241701	purple	1	117,113,180	Body	Island	CD58	0.554	-0.001	0.017	0.655
cg08883066	purple	1	114,696,822	TSS1500	N_Shore	SYT6	0.554	-0.001	0.018	0.382
cg04603176	purple	11	118,306,465	TSS1500	Island	MLL	0.554	0.002	0.017	0.366
cg23843053	purple	4	110,736,631	TSS200	N_Shore	GAR1	0.554	-0.001	0.025	0.381
cg02202193	purple	6	6,546,851	Body	Island	LOC285780	0.554	-0.001	0.037	0.769
cg11594927	purple	6	29,720,600		Island		0.554	-0.004	0.062	0.494
cg07740989	purple	6	74,230,681	5'UTR	Island	EEF1A1	0.553	0.001	0.023	0.736
cg08429850	purple	19	2,236,503	TSS200	Island	PLEKHJ1	0.553	-0.004	0.037	0.101
cg23266743	purple	12	130,388,198	1stExon	Island	TMEM132D	0.553	-0.008	0.055	0.041
cg00362959	purple	5	142,150,831	Body	Island	ARHGAP26	0.553	-0.001	0.031	0.791
cg09610133	purple	19	42,772,831		Island		0.553	0.001	0.017	0.530
cg21898799	purple	19	49,122,504	TSS200	Island	RPL18	0.553	0.000	0.014	0.495
cg24060040	purple	19	5,802,267		Island		0.553	-0.003	0.047	0.195
cg07704495	purple	21	43,916,519	TSS200	Island	RSPH1	0.553	-0.002	0.032	0.834
cg17182503	purple	8	22,462,457	TSS200	Island	KIAA1967	0.553	-0.003	0.027	0.040
cg14420645	purple	22	24,114,857	TSS200	N_Shore	MMP11	0.553	-0.001	0.034	0.584
cg25613251	purple	1	59,249,811	TSS200	Island	JUN	0.553	0.000	0.015	0.715
cg14671364	purple	1	107,599,128	TSS200	N_Shore	PRMT6	0.553	-0.001	0.036	0.373
cg04921814	purple	1	145,575,587	TSS1500	Island	PIAS3	0.553	0.000	0.011	0.784
cg08611163	purple	1	6,266,360	5'UTR	Island	RNF207	0.553	0.001	0.046	0.856
cg10819617	purple	11	77,900,023	TSS1500	S_Shore	KCTD21	0.553	0.000	0.023	0.865
cg01421963	purple	19	11,877,743	TSS200	Island	ZNF441	0.553	0.000	0.017	0.777
cg17377164	purple	2	191,184,565	TSS200	Island	HIBCH	0.553	0.000	0.014	0.580
cg23589617	purple	11	43,600,728		Island		0.553	0.000	0.021	0.813
cg04210100	purple	2	9,614,471	TSS200	Island	IAH1	0.553	-0.001	0.097	0.912
cg17847329	purple	12	121,837,518	TSS1500	Island	RNF34	0.552	-0.003	0.028	0.249
cg01436372	purple	1	236,305,024	TSS1500	Island	GPR137B	0.552	0.001	0.023	0.467
cg02678084	purple	16	4,588,491	5'UTR	Island	C16orf5	0.552	0.000	0.018	0.928
cg18234089	purple	10	70,939,902	TSS200	Island	SUPV3L1	0.552	-0.001	0.015	0.213
cg02836531	purple	1	78,225,436	5'UTR	Island	USP33	0.552	-0.002	0.022	0.289
cg17577122	purple	22	19,511,967	1stExon	Island	CLDN5	0.552	-0.001	0.024	0.673
cg25937832	purple	3	23,958,525	5'UTR	Island	NKIRAS1	0.552	-0.002	0.038	0.615
cg07151400	purple	15	72,523,932	TSS1500	Island	PKM2	0.552	0.000	0.026	0.960
cg07402729	purple	11	61,062,902	TSS200	Island	VWCE	0.552	-0.002	0.024	0.468
cg06745507	purple	15	44,085,196	Body	Island	SERF2	0.552	0.000	0.028	0.952
cg04453241	purple	17	76,374,567	TSS200	Island	PGS1	0.552	-0.002	0.020	0.133
cg07164875	purple	16	89,788,709	TSS1500	Island	C16orf7	0.552	-0.009	0.064	0.056
cg17375249	purple	6	108,436,115		Island		0.551	-0.002	0.043	0.551
cg25235380	purple	17	4,167,449	TSS200	S_Shore	ANKFY1	0.551	0.000	0.010	0.798
cg03096732	purple	17	6,946,527	Body	Island	SLC16A11	0.551	-0.002	0.032	0.298
cg11908852	purple	1	38,397,237	Body	Island	INPP5B	0.551	-0.004	0.027	0.020
cg11019462	purple	21	43,299,789	TSS200		PRDM15	0.551	-0.001	0.019	0.515
cg02673256	purple	11	3,663,842	TSS1500	S_Shore	ART5	0.551	-0.003	0.020	0.009
cg06784108	purple	13	107,187,232	1stExon	Island	EFNB2	0.551	-0.002	0.018	0.239

cg25591036	purple	9	139,694,867	Body	Island	KIAA1984	0.551	0.000	0.012	0.795
cg23905374	purple	1	29,450,643	TSS1500	Island	TMEM200B	0.551	-0.001	0.019	0.543
cg05303236	purple	10	102,791,138	TSS1500	N_Shore	PDZD7	0.551	-0.001	0.033	0.599
cg16558358	purple	17	80,416,024	TSS1500	Island	NARF	0.551	-0.002	0.029	0.380
cg14006663	purple	10	3,215,076	TSS200	Island	PITRM1	0.551	-0.002	0.021	0.359
cg01529637	purple	20	50,721,911	Body	Island	ZFP64	0.551	0.000	0.015	0.978
cg00939735	purple	4	185,941,265	Body	Island	HELT	0.550	0.000	0.020	0.468
cg11694752	purple	11	75,379,624	TSS200	Island	MAP6	0.550	-0.003	0.029	0.384
cg22281195	purple	17	26,989,129	TSS200	Island	SUPT6H	0.550	0.001	0.026	0.422
cg07290190	purple	4	121,992,756	5'UTR	Island	C4orf31	0.550	0.000	0.020	0.937
cg04555312	purple	12	54,389,114		Island		0.550	-0.001	0.025	0.665
cg13239077	purple	3	184,081,208	1stExon	Island	POLR2H	0.550	0.000	0.016	0.993
cg07248951	purple	1	36,397,042	1stExon	Island	EIF2C3	0.550	0.002	0.048	0.646
cg14452720	purple	6	33,217,381		Island		0.550	0.002	0.035	0.334
cg08324636	purple	16	67,595,869	TSS1500	Island	CTCF	0.550	0.000	0.026	0.983
cg09102017	purple	13	32,889,994	5'UTR	S_Shore	BRCA2	0.550	0.000	0.023	0.838
cg22032035	purple	9	6,414,096	Body	Island	UHRF2	0.550	0.000	0.016	0.876
cg22819502	purple	14	90,527,387	TSS1500	Island	KCNK13	0.550	0.001	0.023	0.732
cg00998168	purple	1	1,590,443	Body	Island	CDK11B	0.550	0.000	0.016	0.581
cg16978367	purple	8	37,593,814	TSS1500	N_Shore	ERLIN2	0.550	-0.003	0.034	0.183
cg13436156	purple	9	125,693,884	TSS200	Island	ZBTB26	0.550	-0.002	0.019	0.087
cg10359030	purple	19	17,326,115	TSS200	Island	USE1	0.550	0.001	0.023	0.445
cg22977942	purple	15	85,197,694	TSS200	Island	WDR73	0.550	-0.001	0.020	0.631
cg10168687	purple	19	45,970,965	TSS1500	Island	FOSB	0.550	0.001	0.044	0.770
cg10971750	purple	14	97,264,166	5'UTR	Island	VRK1	0.550	-0.002	0.030	0.219
cg07187280	purple	1	179,851,994	1stExon	Island	TOR1AIP1	0.550	-0.002	0.026	0.296
cg19741500	purple	1	27,930,843	TSS1500	Island	AHDC1	0.549	0.000	0.015	0.791
cg08417687	purple	6	108,582,627	TSS200	Island	SNX3	0.549	0.000	0.014	0.787
cg05298871	purple	19	44,100,428	TSS200	Island	ZNF576	0.549	-0.001	0.029	0.604
cg01124027	purple	4	4,543,907	TSS200	Island	STX18	0.549	-0.002	0.017	0.160
cg07032309	purple	8	103,668,104	TSS200	Island	KLF10	0.549	-0.002	0.088	0.802
cg24141738	purple	1	43,282,895	1stExon	Island	ERMAP	0.549	0.001	0.032	0.784
cg24601037	purple	8	21,999,541	TSS200	Island	REEP4	0.549	0.000	0.018	0.613
cg24937696	purple	2	174,219,534	TSS200	Island	CDCA7	0.549	-0.001	0.026	0.701
cg02239125	purple	14	99,946,403	5'UTR	Island	SETD3	0.549	-0.001	0.033	0.607
cg20850195	purple	17	62,223,337	TSS1500	Island	SNORA76	0.548	0.000	0.015	0.913
cg07879447	purple	20	55,926,584	TSS200	Island	RAE1	0.548	-0.001	0.032	0.692
cg25134231	purple	2	122,288,051	Body	Island	CLASP1	0.548	0.000	0.011	0.750
cg16026760	purple	19	4,791,699	TSS200	Island	FEM1A	0.548	-0.001	0.036	0.759
cg20095233	purple	10	118,033,902	TSS1500	Island	GFRA1	0.548	0.000	0.031	0.874
cg26092988	purple	6	30,034,794	TSS200	Island	PPP1R11	0.548	0.001	0.027	0.568
cg08898253	purple	22	45,680,700	TSS200	Island	UPK3A	0.548	-0.001	0.026	0.482
cg17662034	purple	8	74,207,518	1stExon	Island	RDH10	0.548	-0.008	0.125	0.643
cg18952654	purple	15	41,408,642	TSS1500	Island	INO80	0.548	0.000	0.033	0.905
cg01448258	purple	10	124,895,045	TSS1500	Island	HMX3	0.548	-0.002	0.019	0.120
cg18146873	purple	5	142,782,827	1stExon	Island	NR3C1	0.548	-0.002	0.018	0.111
cg06302118	purple	12	51,785,656	TSS1500	Island	GALNT6	0.548	-0.002	0.050	0.560
cg00955497	purple	15	89,148,699		Island		0.548	0.002	0.031	0.576
cg15813570	purple	14	64,854,563	TSS200	Island	MTHFD1	0.548	-0.003	0.036	0.306
cg25188239	purple	20	48,532,311	TSS1500	Island	SPATA2	0.548	0.001	0.049	0.735
cg01902998	purple	14	65,346,633		Island		0.547	-0.001	0.040	0.737
cg22596454	purple	6	30,685,146	1stExon	Island	MDC1	0.547	0.000	0.032	0.794
cg02161471	purple	19	1,857,442	Body	Island	KLF16	0.547	0.000	0.046	0.961
cg15395329	purple	11	112,832,117	1stExon	N_Shore	NCAM1	0.547	-0.003	0.103	0.357
cg21910355	purple	8	55,366,152		N_Shore		0.547	-0.001	0.017	0.329
cg17663101	purple	3	49,131,524	TSS200	Island	QRICH1	0.547	-0.007	0.040	0.123
cg04060830	purple	9	132,816,023	5'UTR	Island	GPR107	0.547	-0.002	0.027	0.280
cg11661269	purple	1	39,339,371	TSS1500	S_Shore	MYCBP	0.547	0.001	0.019	0.633
cg07425170	purple	11	47,789,078	TSS200	S_Shore	FNBP4	0.547	-0.004	0.032	0.073
cg08379726	purple	22	44,351,092	TSS200	Island	SAMM50	0.547	-0.001	0.021	0.421
cg05215767	purple	12	6,388,159		Island		0.547	-0.004	0.042	0.240
cg23665065	purple	14	102,781,012		S_Shore		0.547	0.002	0.029	0.096
cg04354317	purple	1	165,667,545	Body	Island	ALDH9A1	0.547	0.000	0.017	0.720
cg16400017	purple	14	37,125,155		N_Shore		0.547	0.000	0.024	0.988
cg05954989	purple	10	135,191,962	TSS1500	Island	PAOX	0.547	-0.001	0.032	0.851
cg14063914	purple	6	158,588,963	TSS1500	Island	GTF2H5	0.547	-0.008	0.114	0.051
cg22527793	purple	8	55,367,466		Island		0.547	0.000	0.027	0.869

cg18658096	purple	17	41,116,483	Body	Island	AARSD1	0.547	0.000	0.014	0.799
cg13232021	purple	1	32,574,089	Body	Island	KPNA6	0.547	0.001	0.026	0.645
cg11369148	purple	20	25,176,157	TSS200	Island	ENTPD6	0.547	-0.002	0.029	0.287
cg19591056	purple	1	240,254,988	TSS200	Island	FMN2	0.546	0.000	0.013	0.542
cg24869336	purple	3	44,726,929		Island		0.546	-0.003	0.036	0.209
cg04258771	purple	9	77,567,031	Body	Island	C9orf40	0.546	0.000	0.014	0.839
cg27294268	purple	14	36,983,518	TSS1500	Island	SFTA3	0.546	0.000	0.020	0.883
cg02547394	purple	13	112,721,789	TSS200	Island	SOX1	0.546	-0.013	0.084	0.297
cg15553522	purple	11	60,692,329	Body	Island	TMEM132A	0.546	0.001	0.026	0.669
cg02859837	purple	1	78,957,515	5'UTR	Island	PTGFR	0.546	-0.002	0.022	0.340
cg20341985	purple	7	127,806,678		Island		0.545	0.000	0.032	0.905
cg11142826	purple	17	44,896,223	TSS200	Island	WNT3	0.545	0.001	0.022	0.585
cg04936382	purple	20	36,662,003	1stExon	Island	RPRD1B	0.545	-0.016	0.057	0.106
cg01035015	purple	6	31,325,063	TSS200	Island	HLA-B	0.545	0.000	0.018	0.864
cg09195321	purple	6	33,385,690	Body	Island	CUTA	0.545	0.000	0.013	0.528
cg20946277	purple	16	77,247,012		Island		0.545	-0.007	0.081	0.267
cg02527112	purple	2	176,971,353	TSS1500	N_Shore	HOXD11	0.545	-0.002	0.017	0.152
cg16359547	purple	16	86,589,005	TSS200	Island	MTHF5D	0.545	-0.003	0.025	0.089
cg05219684	purple	19	9,938,335	TSS1500	Island	UBL5	0.545	-0.002	0.034	0.164
cg25681618	purple	2	71,454,280	TSS200	Island	PAIP2B	0.545	0.001	0.012	0.369
cg04038241	purple	1	10,092,629	TSS1500	Island	UBE4B	0.545	-0.004	0.043	0.044
cg26286956	purple	20	1,247,037	1stExon	Island	SNPH	0.545	-0.003	0.028	0.278
cg02770946	purple	19	10,401,731	Body	Island	ICAM5	0.545	-0.003	0.029	0.101
cg07156296	purple	4	108,911,347	Body	Island	HADH	0.545	-0.006	0.052	0.284
cg08764167	purple	10	103,113,933	5'UTR	Island	BTRC	0.544	0.000	0.071	0.944
cg12791192	purple	17	48,619,753	3'UTR	Island	EPN3	0.544	-0.001	0.017	0.374
cg07939768	purple	17	27,621,433	TSS1500	Island	NUFIP2	0.544	-0.006	0.069	0.402
cg03507199	purple	6	107,811,876	1stExon	Island	SOBP	0.544	0.000	0.018	0.931
cg20691577	purple	11	577,203	5'UTR	S_Shore	PHRF1	0.544	0.000	0.018	0.831
cg08723131	purple	20	55,043,694	1stExon	Island	C20orf43	0.544	0.000	0.019	0.812
cg12719235	purple	19	1,095,626	TSS1500	Island	POLR2E	0.544	-0.002	0.034	0.171
cg22757824	purple	13	110,960,186	TSS1500	Island	COL4A1	0.544	-0.002	0.028	0.156
cg06548842	purple	11	58,673,615		S_Shore		0.544	0.001	0.026	0.734
cg07837262	purple	8	22,225,395	5'UTR	S_Shore	SLC39A14	0.544	0.000	0.013	0.978
cg03946896	purple	1	44,871,606	5'UTR	Island	RNF220	0.544	0.000	0.019	0.970
cg11159591	purple	1	208,417,937	TSS1500	Island	PLXNA2	0.544	0.000	0.027	0.995
cg08306513	purple	11	120,040,083		Island		0.543	0.000	0.028	0.923
cg27315170	purple	6	31,830,937	TSS1500	Island	NEU1	0.543	0.000	0.017	0.893
cg00098718	purple	15	81,072,600	5'UTR	Island	KIAA1199	0.543	-0.001	0.020	0.747
cg19344263	purple	19	58,919,951	TSS200	Island	ZNF584	0.543	-0.007	0.046	0.175
cg20524216	purple	3	47,555,100	5'UTR	Island	C3orf75	0.543	-0.001	0.023	0.701
cg06651878	purple	2	66,660,793		Island		0.543	0.000	0.015	0.655
cg23266533	purple	7	100,860,849	1stExon	Island	PLOD3	0.543	-0.002	0.029	0.250
cg24819738	purple	19	19,314,415	TSS200	Island	NR2C2AP	0.543	0.000	0.034	0.833
cg25016127	purple	11	537,432	TSS200	Island	LRRC56	0.543	0.002	0.020	0.316
cg08613513	purple	1	52,870,060	1stExon	Island	ORC1L	0.543	0.000	0.017	0.940
cg04720785	purple	1	51,434,666	5'UTR	Island	CDKN2C	0.542	-0.001	0.014	0.327
cg09690659	purple	20	33,680,871	TSS1500	Island	TRPC4AP	0.542	0.001	0.023	0.542
cg21174644	purple	6	32,939,507	5'UTR	Island	BRD2	0.542	0.000	0.026	0.877
cg15802848	purple	6	33,359,461	5'UTR	Island	KIFC1	0.542	-0.010	0.043	0.249
cg10227077	purple	19	2,495,139		Island		0.542	-0.008	0.079	0.293
cg14637649	purple	17	81,057,526		Island		0.542	-0.001	0.062	0.811
cg16055334	purple	7	1,014,699	Body	Island	COX19	0.542	-0.002	0.036	0.427
cg20692059	purple	14	23,563,979	TSS1500	Island	C14orf119	0.542	-0.001	0.025	0.609
cg00512280	purple	19	2,282,161	5'UTR	S_Shelf	C19orf35	0.542	0.001	0.023	0.408
cg16152424	purple	4	78,978,848	5'UTR	Island	FRAS1	0.542	0.000	0.035	0.911
cg09225922	purple	20	42,286,289		Island		0.542	0.002	0.030	0.219
cg20598063	purple	1	186,344,152	TSS1500	Island	C1orf27	0.542	-0.005	0.068	0.091
cg15641348	purple	22	41,985,832	1stExon	Island	PMM1	0.542	-0.001	0.019	0.589
cg13716825	purple	15	62,352,174	Body	N_Shore	VPS13C	0.542	0.001	0.022	0.519
cg10512748	purple	1	28,844,557	Body	N_Shore	SNHG3-RCC1	0.542	-0.002	0.016	0.143
cg05364122	purple	1	156,783,791	Body	Island	SH2D2A	0.541	-0.001	0.026	0.557
cg08146323	purple	19	57,183,118	Body	Island	ZNF835	0.541	0.000	0.030	0.793
cg05578055	purple	8	16,859,045	Body	Island	FGF20	0.541	0.001	0.016	0.287
cg04143539	purple	6	30,614,650	TSS200	N_Shore	C6orf136	0.541	-0.003	0.048	0.154
cg26597500	purple	13	73,356,092	TSS200	Island	PIBF1	0.541	-0.002	0.042	0.654
cg10049880	purple	9	130,213,948	TSS1500	Island	LRSAM1	0.541	0.000	0.016	0.781



cg16277510	purple	14	54,421,395	TSS200	Island	BMP4	0.541	-0.002	0.034	0.270
cg26475688	purple	13	20,702,970		Island		0.541	0.002	0.057	0.642
cg02181963	purple	13	111,358,803	TSS1500	Island	CARS2	0.541	-0.003	0.058	0.538
cg18039474	purple	17	43,210,057	5'UTR	Island	ACBD4	0.541	0.000	0.025	0.895
cg04063194	purple	19	45,596,745		Island		0.541	0.000	0.035	0.971
cg08206959	purple	4	46,391,524	TSS200	N_Shore	GABRA2	0.541	0.001	0.020	0.570
cg09856410	purple	20	34,287,384	5'UTR	Island	ROMO1	0.541	0.000	0.020	0.978
cg04123995	purple	17	71,308,339	TSS200	Island	CDC42EP4	0.541	-0.002	0.028	0.635
cg03753241	purple	12	109,915,367	TSS1500	Island	KCTD10	0.541	0.002	0.024	0.437
cg01745873	purple	17	28,706,715	1stExon	Island	CPD	0.541	-0.003	0.037	0.152
cg08918431	purple	5	139,781,174	TSS1500	Island	ANKHD1	0.541	0.001	0.016	0.415
cg10886020	purple	11	122,932,798	1stExon	Island	HSPA8	0.541	0.000	0.010	0.740
cg08382497	purple	2	232,469,534		S_Shore		0.541	-0.006	0.039	0.069
cg07123227	purple	8	30,891,112	1stExon		WRN	0.541	-0.011	0.066	0.090
cg07321171	purple	2	74,692,645	TSS200	Island	MOGS	0.540	-0.001	0.023	0.474
cg15756227	purple	4	185,937,405		Island		0.540	-0.003	0.044	0.290
cg16497018	purple	10	102,133,035	TSS1500	Island	C10orf75	0.540	-0.004	0.037	0.047
cg02992639	purple	1	155,098,827		Island		0.540	-0.004	0.045	0.272
cg16381028	purple	1	145,589,138	Body	Island	NUDT17	0.540	0.000	0.021	0.853
cg12150946	purple	12	120,755,411		Island		0.540	-0.001	0.017	0.496
cg00741609	purple	10	102,893,925	Body	Island	TLX1	0.540	0.002	0.079	0.765
cg06362348	purple	1	20,126,660	TSS1500	Island	TMCO4	0.540	0.000	0.016	0.682
cg26522244	purple	16	71,323,122	5'UTR	Island	FTSJD1	0.540	-0.001	0.038	0.838
cg16691477	purple	11	64,889,790	TSS200	Island	FAU	0.540	-0.003	0.091	0.511
cg17386466	purple	2	87,035,620	TSS200	N_Shore	CD8A	0.540	-0.002	0.035	0.557
cg20405017	purple	17	50,235,393	1stExon	Island	CA10	0.540	0.004	0.075	0.500
cg21619351	purple	19	50,145,079	TSS1500	Island	SCAF1	0.540	0.001	0.014	0.326
cg09765586	purple	1	155,294,051	Body	Island	RUSC1	0.539	-0.004	0.097	0.412
cg06309968	purple	3	138,327,387	TSS200	N_Shore	FAIM	0.539	0.002	0.026	0.356
cg13912060	purple	14	68,141,881	TSS1500	Island	VTI1B	0.539	-0.004	0.034	0.321
cg00820718	purple	2	119,914,744	Body	Island	C1QL2	0.539	0.000	0.026	0.969
cg19082920	purple	1	202,830,751	TSS200	Island	LOC148709	0.539	0.000	0.013	0.748
cg17859081	purple	1	173,446,963	Body	Island	PRDX6	0.539	0.001	0.024	0.554
cg10945667	purple	13	91,999,862	TSS1500	Island	MIR17HG	0.539	-0.002	0.036	0.265
cg16372054	purple	12	1,739,832	5'UTR	Island	WNT5B	0.538	-0.005	0.067	0.252
cg01547051	purple	7	150,777,654	Body	Island	FASTK	0.538	0.000	0.041	0.901
cg16338201	purple	18	9,914,940	Body	Island	VAPA	0.538	0.000	0.018	0.904
cg00847043	purple	14	65,381,157	5'UTR	Island	CHURC1	0.538	0.000	0.015	0.833
cg10122932	purple	7	99,698,990	1stExon	Island	MCM7	0.538	-0.001	0.046	0.835
cg01417226	purple	21	45,662,343		Island		0.538	-0.002	0.034	0.648
cg05196366	purple	16	3,239,155		Island		0.538	0.005	0.049	0.377
cg23829577	purple	6	160,183,769	Body	Island	ACAT2	0.538	0.000	0.019	0.818
cg02072366	purple	12	54,345,056		N_Shore		0.537	0.001	0.023	0.315
cg24331354	purple	3	14,444,067	TSS200	Island	SLC6A6	0.537	-0.001	0.029	0.643
cg10896623	purple	1	19,923,370	TSS200	Island	C1orf151	0.537	-0.001	0.018	0.511
cg08811588	purple	7	100,473,311	Body	Island	SRRT	0.537	0.000	0.024	0.844
cg05728135	purple	6	125,420,775		Island		0.537	-0.001	0.020	0.438
cg12802900	purple	4	96,470,993	TSS1500	Island	UNC5C	0.537	0.001	0.022	0.499
cg17639046	purple	17	14,204,027	TSS1500	N_Shore	HS3ST3B1	0.537	-0.002	0.027	0.114
cg07286413	purple	7	45,039,607	TSS200	Island	CCM2	0.537	0.000	0.017	0.659
cg01967055	purple	11	63,258,803	TSS200	Island	HRASLS5	0.537	-0.001	0.014	0.127
cg10364041	purple	6	75,915,785	TSS200	Island	COL12A1	0.537	-0.002	0.033	0.618
cg18676803	purple	3	169,490,697	TSS200	N_Shore	MYNN	0.537	0.000	0.016	0.716
cg00455402	purple	19	21,769,736		Island		0.537	-0.001	0.066	0.830
cg26860337	purple	1	155,178,555	1stExon	Island	MTX1	0.537	-0.004	0.035	0.103
cg22797944	purple	14	102,771,635	TSS200	Island	RAGE	0.537	0.000	0.028	0.846
cg21227848	purple	8	11,559,796		Island		0.537	-0.007	0.080	0.264
cg12262564	purple	1	156,542,103	Body	Island	IQGAP3	0.537	-0.001	0.024	0.385
cg06496078	purple	12	107,350,075	5'UTR	Island	C12orf23	0.537	-0.001	0.023	0.494
cg21066537	purple	9	139,965,076	TSS200	Island	C9orf140	0.537	-0.001	0.021	0.543
cg11170179	purple	19	51,522,767	5'UTR	Island	KLK10	0.537	-0.006	0.071	0.169
cg00966098	purple	16	30,596,551	Body	Island	ZNF785	0.536	-0.001	0.017	0.184
cg22594055	purple	5	131,832,675		Island		0.536	-0.001	0.027	0.475
cg02943433	purple	10	43,249,924		Island		0.536	-0.003	0.040	0.336
cg00187414	purple	4	37,892,193	TSS1500	Island	TBC1D1	0.536	0.002	0.069	0.613
cg10912077	purple	1	87,794,075	TSS200	Island	LMO4	0.536	0.001	0.029	0.566
cg12791243	purple	4	79,698,201	Body	S_Shore	BMP2K	0.536	-0.001	0.022	0.579

cg25246158	purple	19	1,940,184	TSS1500	N_Shore	CSNK1G2	0.536	0.000	0.018	0.688
cg04338042	purple	8	22,926,785	TSS200	Island	TNFRSF10B	0.536	-0.001	0.023	0.291
cg09774198	purple	13	33,160,713	1stExon	Island	PDS5B	0.536	-0.004	0.045	0.391
cg13426307	purple	9	116,860,437	5'UTR	N_Shore	KIF12	0.536	0.000	0.025	0.984
cg10852684	purple	10	43,903,588	5'UTR	Island	HNRNPF	0.536	0.001	0.020	0.604
cg13049881	purple	15	56,535,674	TSS200	Island	RFX7	0.536	0.001	0.022	0.610
cg04495336	purple	8	2,419,119		Island		0.536	-0.009	0.058	0.289
cg08232320	purple	1	149,982,844	TSS200	Island	OTUD7B	0.536	-0.001	0.020	0.719
cg17451945	purple	6	32,936,363	TSS200	Island	BRD2	0.536	0.001	0.102	0.783
cg19541837	purple	11	71,823,834	TSS200	Island	C11orf51	0.536	0.000	0.020	0.964
cg23086161	purple	1	211,307,217	1stExon	Island	KCNH1	0.535	0.000	0.016	0.913
cg27478582	purple	17	56,595,518	TSS1500	Island	MTMR4	0.535	-0.001	0.023	0.576
cg06207852	purple	22	41,033,162	TSS1500	Island	MKL1	0.535	0.000	0.017	0.988
cg10660865	purple	9	128,024,595	5'UTR	Island	GAPVD1	0.535	-0.001	0.016	0.375
cg22326353	purple	17	73,268,051	TSS1500	Island	MIF4GD	0.535	0.001	0.027	0.370
cg18789337	purple	6	114,180,353	Body	Island	MARCKS	0.535	0.000	0.039	0.864
cg20489909	purple	2	242,711,046		Island		0.535	0.003	0.128	0.718
cg04772326	purple	10	103,599,757	Body	N_Shelf	KCNIP2	0.535	0.000	0.019	0.680
cg10810183	purple	1	161,993,987	TSS1500	Island	OLFML2B	0.535	-0.001	0.017	0.585
cg03532554	purple	20	37,376,938	TSS200	Island	ACTR5	0.535	0.000	0.020	0.760
cg22068473	purple	10	74,033,403	TSS1500	Island	DDIT1	0.535	-0.001	0.028	0.472
cg02661886	purple	12	118,573,745	TSS200	Island	PEBP1	0.535	-0.002	0.033	0.557
cg01866606	purple	2	176,950,843		Island		0.535	-0.002	0.018	0.142
cg15981620	purple	19	10,491,431	TSS200	Island	TYK2	0.535	-0.001	0.021	0.557
cg23752198	purple	20	30,311,963	TSS1500	S_Shore	BCL2L1	0.535	0.000	0.027	0.809
cg05432794	purple	17	7,608,136	TSS1500	N_Shore	EFNB3	0.535	-0.001	0.025	0.819
cg00397283	purple	19	10,444,479	3'UTR	Island	ICAM3	0.535	0.000	0.019	0.998
cg14671453	purple	16	31,044,716	TSS200	Island	STX4	0.534	0.001	0.010	0.260
cg19915466	purple	1	2,126,372	Body	Island	C1orf86	0.534	-0.002	0.032	0.301
cg26832062	purple	1	54,303,852	Body	Island	TMEM48	0.534	0.000	0.015	0.646
cg27193795	purple	17	79,518,817	Body	Island	C17orf70	0.534	0.000	0.037	0.909
cg15007325	purple	10	101,380,334	TSS200	Island	SLC25A28	0.534	0.000	0.017	0.712
cg05754148	purple	16	3,507,555	TSS1500	Island	NAT15	0.534	-0.002	0.030	0.426
cg26873439	purple	20	49,126,821	TSS200	Island	PTPN1	0.534	-0.004	0.021	0.223
cg18500714	purple	14	100,706,288	Body	Island	YY1	0.534	-0.006	0.143	0.603
cg08005992	purple	11	31,832,959	TSS200	Island	PAX6	0.534	-0.002	0.033	0.251
cg17514420	purple	11	94,226,991	5'UTR	Island	MRE11A	0.534	0.001	0.017	0.230
cg05789350	purple	11	35,684,201	TSS200	N_Shore	TRIM44	0.534	0.001	0.018	0.257
cg03555233	purple	8	123,794,300	5'UTR	Island	ZHX2	0.533	0.000	0.017	0.759
cg03486485	purple	11	14,927,004		Island		0.533	0.002	0.045	0.696
cg04276794	purple	14	54,863,424	TSS1500	Island	CDKN3	0.533	-0.002	0.028	0.154
cg09616959	purple	6	105,627,412	5'UTR	Island	POPDC3	0.533	0.000	0.017	0.837
cg01438737	purple	20	42,086,396	TSS200	Island	SFRS6	0.533	-0.002	0.027	0.715
cg22546696	purple	15	41,952,645	1stExon	Island	MGA	0.533	0.003	0.032	0.532
cg13555728	purple	17	77,071,390	Body		ENGASE	0.533	-0.001	0.019	0.577
cg24151267	purple	17	48,556,017	TSS200	Island	RSAD1	0.533	-0.002	0.075	0.810
cg16499634	purple	11	130,318,763	TSS200	Island	ADAMTS15	0.533	-0.003	0.029	0.143
cg18016826	purple	5	176,560,001	TSS200	Island	NSD1	0.533	-0.007	0.044	0.107
cg06530012	purple	18	43,651,754	Body	N_Shore	PSTPIP2	0.533	-0.002	0.024	0.194
cg01854842	purple	20	49,547,693	TSS200	N_Shore	ADNP	0.532	0.006	0.048	0.144
cg01850449	purple	2	133,428,510	TSS200	Island	LYPD1	0.532	0.000	0.030	0.941
cg01311285	purple	4	177,116,639	1stExon	Island	SPATA4	0.532	-0.001	0.038	0.558
cg14712531	purple	6	108,485,043		N_Shore		0.532	0.000	0.013	0.950
cg00066468	purple	15	40,861,791	1stExon	Island	RPUSD2	0.532	0.001	0.020	0.180
cg13817732	purple	10	102,046,368	1stExon	Island	BLOC1S2	0.531	0.000	0.020	0.478
cg05131766	purple	16	47,495,110	TSS200	Island	PHKB	0.531	-0.001	0.031	0.837
cg23749739	purple	3	183,979,443	Body	Island	ECE2	0.531	-0.001	0.034	0.754
cg14429847	purple	1	239,550,578		Island		0.531	0.001	0.037	0.489
cg05938018	purple	13	103,249,092	TSS200	Island	TPP2	0.531	0.000	0.019	0.760
cg01123926	purple	3	58,626,656	Body		FAM3D	0.531	0.000	0.015	0.530
cg04766371	purple	10	43,857,641		Island		0.531	-0.001	0.020	0.620
cg03737815	purple	12	6,976,487	TSS200	Island	TPI1	0.531	0.000	0.019	0.821
cg16629179	purple	17	48,278,852	1stExon	Island	COL1A1	0.531	-0.002	0.046	0.539
cg10577467	purple	4	39,183,765	TSS1500	N_Shore	WDR19	0.531	0.000	0.019	0.758
cg09111258	purple	17	46,114,933	Body	Island	COP22	0.531	-0.002	0.053	0.690
cg17759082	purple	3	122,920,507	TSS1500	N_Shore	SEC22A	0.531	0.000	0.012	0.672
cg08316825	purple	5	151,304,547	TSS200	Island	GLRA1	0.531	-0.006	0.072	0.215

cg21904595	purple	2	61,991,516	Island		0.530	0.000	0.018	0.635
cg07453618	purple	1	3,541,082 TSS1500	Island	TPRG1L	0.530	0.000	0.013	0.964
cg01435493	purple	14	73,602,980 TSS200	Island	PCEN1	0.530	-0.002	0.058	0.596
cg01195281	purple	20	5,100,780 TSS200	Island	PCNA	0.530	0.000	0.014	0.960
cg25294185	purple	11	65,487,814 Body	Island	RNASEH2C	0.530	-0.002	0.158	0.865
cg09915299	purple	4	38,666,663 TSS1500	S_Shore	FLJ13197	0.530	0.001	0.021	0.363
cg05662323	purple	12	58,166,227 TSS1500	N_Shore	METTL1	0.530	0.000	0.027	0.850
cg12908399	purple	1	229,570,288 TSS1500	Island	ACTA1	0.530	-0.001	0.025	0.633
cg18630857	purple	3	48,936,456 TSS200	Island	SLC25A20	0.530	0.000	0.032	0.780
cg22063269	purple	7	74,489,892 TSS200	Island	WBSCR16	0.530	-0.006	0.055	0.218
cg10035607	purple	16	30,366,449 5'UTR	Island	CD2BP2	0.530	0.000	0.022	0.859
cg21140216	purple	6	32,862,330	Island		0.530	-0.001	0.026	0.509
cg21738971	purple	2	106,810,986 TSS200	Island	UXS1	0.529	-0.001	0.024	0.262
cg16178526	purple	20	42,940,042 TSS200	Island	FITM2	0.529	0.000	0.018	0.815
cg07012999	purple	22	46,692,446 Body	Island	CN5H6.4	0.529	0.003	0.029	0.049
cg00263592	purple	12	29,302,279	Island		0.529	-0.010	0.058	0.048
cg06386408	purple	7	150,924,450 TSS200	Island	ABCF2	0.529	-0.001	0.023	0.290
cg14150915	purple	11	66,056,828 TSS200	Island	YIF1A	0.529	0.002	0.027	0.513
cg01977213	purple	10	31,321,219 TSS1500	Island	ZNF438	0.529	0.000	0.018	0.732
cg05354171	purple	7	194,000 Body	N_Shore	FAM20C	0.529	0.000	0.023	0.931
cg01172640	purple	15	53,096,035	Island		0.529	-0.001	0.018	0.526
cg21502786	purple	17	56,234,476 Body	Island	MSX2P1	0.529	-0.001	0.021	0.147
cg04495287	purple	17	35,165,609	Island		0.529	-0.006	0.109	0.486
cg24736989	purple	14	60,973,904	Island		0.528	0.000	0.019	0.930
cg11469098	purple	8	49,647,809 5'UTR	Island	EFCAB1	0.528	0.005	0.026	0.219
cg08647641	purple	7	91,763,896 5'UTR	Island	CYP51A1	0.528	-0.007	0.081	0.059
cg01555791	purple	17	1,012,288 Body	Island	ABR	0.528	-0.009	0.063	0.115
cg12333095	purple	12	110,437,035 TSS200	N_Shore	ANKRD13A	0.528	0.001	0.013	0.302
cg27052428	purple	19	59,031,341 TSS1500	Island	ZBTB45	0.528	0.002	0.035	0.666
cg00655779	purple	2	73,461,068 TSS1500	Island	CCT7	0.528	-0.001	0.020	0.528
cg02401926	purple	11	118,800,517	S_Shelf		0.528	-0.001	0.020	0.127
cg22522926	purple	2	131,851,181 TSS200	Island	FAM168B	0.528	-0.005	0.053	0.085
cg13801946	purple	17	61,699,522 TSS1500	Island	MAP3K3	0.528	-0.004	0.022	0.128
cg25990494	purple	15	72,766,486 TSS200	Island	ARIH1	0.528	0.002	0.017	0.344
cg12494124	purple	19	12,721,746 TSS200	Island	ZNF490	0.528	-0.001	0.022	0.688
cg07033624	purple	13	112,716,623	N_Shore		0.527	0.000	0.030	0.817
cg00692946	purple	12	70,133,292 5'UTR	Island	RAB3IP	0.527	-0.002	0.042	0.695
cg10738239	purple	13	95,363,371 1stExon	Island	SOX21	0.527	-0.002	0.030	0.180
cg02277965	purple	12	39,298,824 Body	N_Shore	CPNE8	0.527	0.000	0.049	0.897
cg15688551	purple	19	34,175,132 5'UTR	N_Shore	CHST8	0.527	-0.003	0.032	0.118
cg01236849	purple	11	16,760,157 1stExon	Island	C11orf58	0.527	-0.001	0.028	0.576
cg04804616	purple	16	30,622,014 TSS1500	S_Shore	ZNF689	0.527	0.001	0.016	0.514
cg15642758	purple	15	83,876,612 TSS1500	Island	HDGFRP3	0.527	-0.003	0.060	0.805
cg14577430	purple	3	16,926,350 TSS200	Island	PLCL2	0.527	-0.005	0.049	0.164
cg23791505	purple	17	32,906,991 TSS1500	Island	TMEM132E	0.527	0.000	0.046	0.902
cg12019576	purple	4	154,388,535 Body	Island	KIAA0922	0.527	0.000	0.021	0.975
cg03761979	purple	4	57,843,892 TSS200	Island	C4orf14	0.527	-0.001	0.013	0.567
cg03133917	purple	7	155,436,674 TSS1500	Island	RBM33	0.527	0.000	0.023	0.712
cg14060441	purple	2	64,371,806 TSS1500	Island	PELI1	0.527	0.001	0.023	0.519
cg19709878	purple	17	47,440,040 TSS1500	S_Shore	ZNF652	0.526	-0.002	0.019	0.078
cg01058931	purple	16	25,269,641 TSS1500	Island	ZKSCAN2	0.526	-0.004	0.060	0.635
cg02513924	purple	11	124,823,857 TSS200	Island	CCDC15	0.526	-0.001	0.018	0.226
cg09500200	purple	8	9,763,033	Island		0.526	0.000	0.019	0.692
cg27573591	purple	7	127,672,152 Body	Island	SND1	0.526	-0.004	0.028	0.076
cg23304339	purple	19	37,862,045 TSS200	Island	ZNF527	0.526	0.003	0.024	0.233
cg01593886	purple	17	48,278,778 1stExon	Island	COL1A1	0.526	0.000	0.025	0.684
cg07032473	purple	8	95,274,411 5'UTR	Island	GEM	0.526	-0.002	0.025	0.037
cg01351869	purple	15	80,215,929 Body	Island	C15orf37	0.526	0.001	0.027	0.868
cg23694959	purple	6	26,597,126 TSS200	Island	ABT1	0.526	-0.002	0.044	0.206
cg09046974	purple	2	201,676,437 TSS1500	Island	BZW1	0.526	0.000	0.019	0.844
cg04333575	purple	11	6,340,890 Body	Island	PRKCDBP	0.525	-0.002	0.069	0.675
cg23918296	purple	14	103,397,019 3'UTR	Island	AMN	0.525	0.002	0.028	0.290
cg17048483	purple	11	114,271,079 TSS1500	Island	RBM7	0.525	-0.001	0.023	0.523
cg01236506	purple	5	99,871,233 5'UTR	Island	FAM174A	0.525	0.001	0.042	0.810
cg07125947	purple	14	91,526,463 Body	Island	RPS6KA5	0.525	-0.002	0.027	0.192
cg11142489	purple	4	74,810,142	S_Shore		0.525	-0.001	0.043	0.786
cg24590524	purple	11	118,023,353 1stExon	Island	SCN4B	0.525	0.000	0.025	0.861

cg07786776	purple	17	40,250,289	Island		0.525	0.000	0.032	0.803
cg03843852	purple	15	55,611,099 TSS200	Island	PIGB	0.525	-0.002	0.025	0.151
cg12426234	purple	21	22,370,347 TSS1500	Island	NCAM2	0.525	-0.001	0.019	0.616
cg14021524	purple	6	139,695,356 TSS200	Island	CITED2	0.525	0.000	0.021	0.777
cg04169403	purple	22	45,098,800 Body	Island	PRR5	0.525	0.001	0.018	0.777
cg04028591	purple	19	15,529,955 TSS200	S_Shore	AKAP8L	0.525	0.000	0.016	0.881
cg13808560	purple	18	32,556,804 TSS200	Island	MAPRE2	0.524	-0.001	0.031	0.807
cg12980692	purple	19	51,142,613 5'UTR	Island	SYT3	0.524	0.000	0.032	0.839
cg27433454	purple	12	27,175,449 TSS200	Island	MED21	0.524	-0.002	0.035	0.493
cg21471574	purple	17	72,200,159 Body	Island	RPL38	0.524	0.002	0.025	0.229
cg01078276	purple	10	75,670,677 TSS200	N_Shore	PLAU	0.524	-0.001	0.023	0.493
cg23069677	purple	1	36,863,646 TSS200	S_Shore	LSM10	0.524	0.001	0.022	0.764
cg04121731	purple	16	31,886,923 Body	S_Shore	ZNF267	0.524	-0.002	0.876	0.850
cg18324242	purple	19	33,462,789 1stExon	Island	CCDC123	0.524	0.002	0.017	0.182
cg00237631	purple	7	25,896,850	Island		0.524	-0.002	0.029	0.337
cg01339255	purple	4	141,445,245 TSS200	Island	ELMOD2	0.524	-0.001	0.015	0.388
cg01106711	purple	7	77,325,611 TSS200	Island	RSBN1L	0.523	-0.001	0.022	0.568
cg23900774	purple	14	90,527,978 TSS200	Island	KCNK13	0.523	-0.001	0.017	0.378
cg12520111	purple	7	44,835,727 TSS1500	Island	PPIA	0.523	0.000	0.012	0.955
cg04488845	purple	11	19,262,618 TSS200	Island	E2F8	0.523	-0.001	0.040	0.689
cg13303475	purple	12	104,234,557 Body	Island	NT5DC3	0.523	-0.001	0.019	0.473
cg04347624	purple	3	101,498,377 5'UTR	Island	FAM55C	0.523	0.001	0.033	0.771
cg15684917	purple	19	52,531,800 TSS200	S_Shore	ZNF614	0.523	-0.001	0.014	0.186
cg26433102	purple	6	391,441 TSS1500	Island	IRF4	0.523	0.000	0.037	0.957
cg04562976	purple	1	172,501,996 TSS1500	Island	C1orf9	0.523	-0.001	0.022	0.586
cg04069518	purple	11	8,704,481 Body	Island	RPL27A	0.523	0.000	0.017	0.910
cg03366925	purple	7	42,277,410 TSS1500	Island	GLI3	0.523	-0.001	0.014	0.461
cg15465219	purple	19	31,210,456	N_Shore		0.523	0.000	0.028	0.722
cg18735615	purple	5	177,557,918 TSS200	Island	RMND5B	0.523	0.002	0.030	0.155
cg04368716	purple	14	104,028,314 5'UTR	Island	BAG5	0.522	0.000	0.020	0.906
cg02019051	purple	15	49,913,146 TSS200	Island	DTWD1	0.522	0.000	0.027	0.967
cg18442587	purple	14	77,228,753 1stExon	S_Shore	VASH1	0.522	-0.007	0.054	0.133
cg16773899	purple	5	83,680,326 5'UTR	Island	EDIL3	0.522	-0.001	0.020	0.530
cg09509238	purple	6	143,381,736 TSS1500	Island	AIG1	0.522	0.000	0.024	0.885
cg07824564	purple	1	179,050,911 TSS200	N_Shore	TOR3A	0.522	0.000	0.014	0.853
cg04530460	purple	6	42,858,550 5'UTR	Island	C6orf226	0.522	-0.009	0.084	0.108
cg15869718	purple	14	100,751,572	N_Shore		0.522	-0.001	0.029	0.741
cg00407245	purple	19	55,598,874 Body	Island	EPS8L1	0.522	-0.001	0.028	0.836
cg10069277	purple	10	32,636,407 TSS1500	Island	EPC1	0.522	-0.001	0.022	0.396
cg14592933	purple	7	26,416,122	Island		0.522	-0.001	0.021	0.697
cg11539424	purple	4	141,348,862 TSS200	Island	CLGN	0.522	0.000	0.017	0.736
cg12304296	purple	4	775,616	Island		0.522	0.000	0.017	0.828
cg25318296	purple	13	100,547,785 3'UTR	Island	CLYBL	0.522	-0.005	0.026	0.129
cg16577123	purple	5	140,027,231 1stExon	Island	NDUFA2	0.521	-0.001	0.024	0.634
cg13383235	purple	7	7,680,321 5'UTR	Island	RPA3	0.521	0.000	0.027	0.842
cg21789136	purple	22	37,213,466 5'UTR	Island	PVALB	0.521	0.003	0.073	0.518
cg25297255	purple	21	38,353,273 5'UTR	Island	HLCS	0.521	0.001	0.025	0.795
cg20567721	purple	16	81,040,639 5'UTR	Island	CENPN	0.521	-0.003	0.022	0.312
cg10608842	purple	3	14,166,507 1stExon	Island	TMEM43	0.521	-0.004	0.034	0.255
cg23280064	purple	16	67,907,310 Body	Island	EDC4	0.521	0.000	0.024	0.907
cg02537229	purple	7	100,080,771 TSS1500	Island	C7orf51	0.521	-0.001	0.022	0.495
cg11056915	purple	8	110,346,211 1stExon	Island	NUDCD1	0.521	0.001	0.026	0.457
cg05522774	purple	21	34,443,443 1stExon	Island	OLIG1	0.521	0.000	0.022	0.950
cg04834374	purple	5	180,616,158	Island		0.521	-0.001	0.021	0.433
cg17012160	purple	1	240,255,691 1stExon	Island	FMN2	0.521	-0.006	0.030	0.098
cg06932451	purple	19	36,869,880	Island		0.521	-0.005	0.021	0.006
cg10559432	purple	20	50,179,543 TSS1500	Island	NFATC2	0.521	0.000	0.027	0.775
cg21446345	purple	15	70,390,985 TSS1500	Island	TLE3	0.521	-0.002	0.037	0.208
cg15996644	purple	12	54,370,352	S_Shore		0.520	-0.003	0.037	0.255
cg14006005	purple	11	85,780,378 TSS1500	Island	PICALM	0.520	-0.001	0.026	0.644
cg12236156	purple	13	33,002,247 1stExon	S_Shore	N4BP2L1	0.520	-0.002	0.023	0.384
cg04099264	purple	1	44,435,507 TSS200	Island	DPH2	0.520	-0.001	0.021	0.563
cg02566518	purple	10	75,531,971 TSS200	Island	FUT11	0.520	0.000	0.017	0.943
cg14745622	purple	20	61,447,686 TSS1500	Island	COL9A3	0.520	-0.003	0.035	0.310
cg14791413	purple	12	129,338,870 Body	S_Shore	GLT1D1	0.520	-0.004	0.059	0.225
cg15397076	purple	11	22,215,088 Body	Island	ANOS	0.520	-0.002	0.041	0.268
cg21525020	purple	19	54,024,023 TSS200	Island	ZNF331	0.520	0.001	0.019	0.563

cg13461313	purple	19	18,451,650	Body	Island	PGPEP1	0.520	-0.002	0.029	0.193
cg12745387	purple	3	158,519,857	1stExon	Island	MFSD1	0.519	0.001	0.029	0.627
cg05637351	purple	18	63,417,669	5'UTR	N_Shore	CDH7	0.519	-0.001	0.018	0.586
cg03301989	purple	7	35,076,481	Body	Island	DPY19L1	0.519	0.001	0.016	0.449
cg03363653	purple	17	16,394,677	Body	N_Shore	C17orf76	0.519	0.001	0.060	0.734
cg00900054	purple	1	46,016,580	1stExon	Island	AKR1A1	0.519	-0.001	0.025	0.551
cg24131747	purple	14	68,141,730	TSS200	Island	VTI1B	0.519	-0.011	0.037	0.139
cg18296036	purple	7	150,653,115	Body	N_Shore	KCNH2	0.519	-0.002	0.036	0.201
cg20698769	purple	7	117,513,002	Body	Island	CTTNBP2	0.519	-0.002	0.025	0.241
cg21201285	purple	19	1,847,690	Body	Island	REXO1	0.519	0.000	0.026	0.788
cg09858208	purple	3	50,283,852	TSS1500		GNAI2	0.519	0.001	0.044	0.719
cg02919422	purple	8	55,370,544	5'UTR	Island	SOX17	0.519	0.000	0.058	0.930
cg19484886	purple	12	62,997,435	TSS1500	Island	C12orf61	0.519	0.002	0.045	0.657
cg07327396	purple	4	128,886,243	TSS1500	Island	C4orf29	0.518	0.001	0.029	0.638
cg03646474	purple	1	174,992,368	Body	Island	MRPS14	0.518	0.000	0.023	0.789
cg06473181	purple	2	176,963,583	TSS1500	N_Shore	HOXD12	0.518	-0.002	0.027	0.123
cg10625092	purple	22	18,121,415	TSS200	Island	BCL2L13	0.518	-0.001	0.023	0.576
cg15638207	purple	6	5,261,560	TSS1500	Island	LYRM4	0.518	0.002	0.119	0.859
cg18538332	purple	22	24,372,958	TSS200	Island	LOC391322	0.518	-0.007	0.057	0.502
cg16384588	purple	5	44,388,949	TSS200		FGF10	0.518	0.000	0.024	0.714
cg05110178	purple	17	36,103,953	Body	Island	HNF1B	0.518	-0.004	0.039	0.222
cg08140343	purple	19	37,569,236	TSS200	Island	ZNF420	0.518	0.000	0.018	0.747
cg21877930	purple	5	36,242,335	TSS1500	Island	C5orf33	0.518	-0.002	0.027	0.426
cg16747999	purple	8	95,653,174	TSS200	N_Shore	ESRP1	0.518	0.000	0.025	0.855
cg21689812	purple	1	156,571,355	TSS200		GPATCH4	0.518	-0.001	0.015	0.135
cg08108155	purple	22	29,999,444	TSS200	Island	NF2	0.518	-0.010	0.051	0.075
cg21197435	purple	1	23,671,362	TSS1500	Island	HNRNPR	0.518	0.000	0.015	0.916
cg03405983	purple	8	143,858,548	5'UTR	Island	LYNX1	0.517	-0.008	0.106	0.132
cg05990549	purple	4	175,750,562	TSS200	Island	GLRA3	0.517	0.002	0.028	0.226
cg14878320	purple	19	32,836,510	TSS200	Island	ZNF507	0.517	0.001	0.016	0.036
cg07061692	purple	19	59,010,811	Body	Island	SLC27A5	0.517	-0.002	0.022	0.248
cg18586095	purple	17	74,100,054	TSS1500	Island	EXOC7	0.517	0.000	0.021	0.960
cg10027085	purple	1	213,188,722	Body	Island	ANGEL2	0.517	0.001	0.041	0.877
cg05297461	purple	19	4,402,971	Body	Island	CHAF1A	0.517	-0.003	0.032	0.169
cg01621054	purple	9	133,538,278		Island		0.517	-0.006	0.085	0.328
cg22578916	purple	6	31,830,651	5'UTR	Island	NEU1	0.517	0.001	0.027	0.631
cg21599499	purple	2	128,785,991	TSS1500	Island	SAP130	0.517	0.001	0.029	0.526
cg06818484	purple	8	145,051,287	TSS1500	Island	PLEC1	0.517	-0.002	0.027	0.347
cg19942237	purple	7	29,603,211	TSS1500	Island	PRR15	0.517	0.000	0.021	0.831
cg07639489	purple	4	174,459,743	Body	Island	NBLA00301	0.516	-0.002	0.045	0.393
cg10625578	purple	3	49,893,964	5'UTR	Island	TRAIP	0.516	0.000	0.018	0.674
cg05603623	purple	19	8,008,081	Body	Island	TIMM44	0.516	0.000	0.011	0.883
cg11806594	purple	6	158,981,802	Body	Island	TMEM181	0.516	0.000	0.022	0.877
cg26733685	purple	20	37,590,969	TSS200	Island	DHX35	0.516	0.000	0.017	0.570
cg07787248	purple	1	36,851,643	TSS200	Island	STK40	0.516	-0.001	0.026	0.673
cg02448276	purple	1	11,845,238				0.515	-0.001	0.019	0.460
cg17513219	purple	8	6,565,964	1stExon	Island	AGPAT5	0.515	-0.002	0.018	0.150
cg04774334	purple	7	99,647,362	TSS200		ZSCAN21	0.515	0.001	0.085	0.839
cg00590869	purple	8	37,962,609	TSS1500	Island	ASH2L	0.515	0.000	0.023	0.811
cg04510788	purple	1	37,498,900	Body	Island	GRIK3	0.515	0.000	0.019	0.764
cg17313420	purple	22	21,921,879	TSS200	N_Shore	UBE2L3	0.515	0.001	0.014	0.181
cg25994883	purple	1	235,490,339	5'UTR	Island	ARID4B	0.515	0.000	0.033	0.887
cg25154432	purple	5	79,703,725	TSS200	Island	ZFYVE16	0.515	0.001	0.017	0.369
cg01636413	purple	13	25,321,336		Island		0.515	-0.002	0.067	0.671
cg15623550	purple	5	177,026,865	TSS1500	Island	B4GALT7	0.515	0.000	0.038	0.970
cg23926649	purple	3	9,745,850	Body	Island	CPNE9	0.515	-0.002	0.036	0.457
cg25273507	purple	2	198,364,931	1stExon	Island	HSPE1	0.515	-0.009	0.059	0.045
cg25996084	purple	17	12,569,117	TSS200	Island	MYOCD	0.515	-0.001	0.021	0.384
cg05874476	purple	15	43,802,882	TSS200	Island	TP53BP1	0.514	-0.001	0.022	0.533
cg21845957	purple	14	103,988,428	Body	Island	CKB	0.514	-0.010	0.112	0.429
cg01872216	purple	14	54,430,382		Island		0.514	-0.001	0.017	0.061
cg26685557	purple	20	16,553,772	Body	N_Shore	KIF16B	0.514	-0.001	0.031	0.579
cg10785295	purple	10	120,840,502	TSS200	S_Shore	EIF3A	0.514	0.002	0.024	0.135
cg15970156	purple	22	22,863,219	1stExon	Island	ZNF280B	0.514	-0.001	0.059	0.849
cg05865670	purple	22	21,355,860	Body	N_Shore	THAP7	0.514	-0.006	0.029	0.021
cg00901765	purple	4	168,155,510	5'UTR	Island	SPOCK3	0.514	0.000	0.016	0.882
cg10553515	purple	7	5,013,490	TSS200	N_Shore	RNF216L	0.514	0.003	0.025	0.041

cg16145113	purple	1	119,549,847	Island		0.514	-0.006	0.089	0.324
cg10387901	purple	3	15,106,641 1stExon	Island	MRPS25	0.514	-0.001	0.044	0.800
cg01440407	purple	8	97,274,019 TSS1500	Island	MTERFD1	0.514	0.000	0.012	0.922
cg04722620	purple	19	54,982,598 5'UTR	Island	CDC42EP5	0.513	-0.007	0.038	0.084
cg17345569	purple	6	42,928,274 TSS1500	Island	GNMT	0.513	-0.007	0.030	0.016
cg04311606	purple	19	12,273,886 TSS200	Island	ZNF136	0.513	-0.002	0.023	0.091
cg17720267	purple	12	6,580,010 TSS200	Island	VAMP1	0.513	-0.001	0.064	0.862
cg10922622	purple	9	108,210,153 TSS200	Island	FSD1L	0.513	-0.003	0.031	0.466
cg09973187	purple	14	60,715,614 TSS1500	Island	PPM1A	0.513	0.001	0.075	0.870
cg14099990	purple	13	35,517,154 Body		NBEA	0.513	0.000	0.022	0.900
cg13961127	purple	6	34,759,622 TSS200	Island	UHRF1BP1	0.513	0.001	0.014	0.513
cg06146910	purple	13	41,706,728 1stExon	Island	KBTBD6	0.513	0.002	0.015	0.109
cg20544651	purple	15	51,973,534 TSS200	Island	SCG3	0.513	-0.005	0.119	0.248
cg02891664	purple	4	1,004,678 TSS1500	Island	FGFRL1	0.513	-0.003	0.050	0.568
cg11099291	purple	17	1,620,044 TSS1500	Island	C17orf91	0.513	0.001	0.015	0.298
cg22434989	purple	1	112,533,134 TSS1500	Island	KCND3	0.512	0.001	0.066	0.838
cg14731657	purple	19	5,805,771	Island		0.512	-0.002	0.035	0.464
cg06994657	purple	5	77,656,066 TSS1500	Island	SCAMP1	0.512	-0.002	0.025	0.271
cg09182986	purple	1	40,505,999 TSS1500	Island	CAP1	0.512	-0.001	0.018	0.273
cg27357361	purple	2	85,133,262 Body	S_Shore	TMSB10	0.512	-0.001	0.021	0.282
cg23773983	purple	6	16,761,891 TSS200	Island	ATXN1	0.512	0.000	0.020	0.762
cg20913372	purple	9	140,190,455	Island		0.512	-0.002	0.056	0.808
cg27196808	purple	12	49,372,281 1stExon	Island	WNT1	0.512	0.000	0.022	0.967
cg03200341	purple	6	90,348,309 TSS200	Island	LYRM2	0.512	0.002	0.017	0.283
cg03209127	purple	1	235,668,099 TSS1500	Island	B3GALNT2	0.511	-0.002	0.028	0.504
cg27002699	purple	19	11,689,538 TSS1500	Island	ACP5	0.511	-0.006	0.118	0.430
cg19770541	purple	4	48,491,968 TSS1500	N_Shore	ZAR1	0.511	0.004	0.078	0.311
cg17958423	purple	11	6,947,583 TSS200	Island	ZNF215	0.511	0.000	0.026	0.880
cg26686439	purple	2	157,292,955 5'UTR	S_Shore	GPD2	0.511	0.001	0.022	0.747
cg13397057	purple	16	62,070,246 TSS1500	Island	CDH8	0.511	0.001	0.057	0.775
cg20632873	purple	1	155,948,126 Body	Island	ARHGEF2	0.511	0.005	0.027	0.187
cg18348500	purple	5	60,240,926 TSS200	Island	NDUFAF2	0.511	0.000	0.017	0.868
cg04585928	purple	5	60,458,409 TSS200	Island	C5orf43	0.511	0.000	0.020	0.921
cg03553587	purple	3	28,616,941	Island		0.510	0.000	0.076	0.875
cg19306421	purple	8	144,691,899 TSS200	Island	PYCRL	0.510	0.000	0.015	0.968
cg23955684	purple	3	16,555,288 TSS200	Island	RFTN1	0.510	-0.002	0.040	0.486
cg03134886	purple	13	20,207,718 TSS200	Island	MPHOSPH8	0.510	-0.001	0.023	0.452
cg10453977	purple	2	73,053,331 TSS200	S_Shore	EXOC6B	0.510	0.000	0.036	0.854
cg23609985	purple	1	119,870,339	Island		0.510	0.000	0.025	0.785
cg15238008	purple	12	9,600,875 TSS200	Island	DDX12	0.510	-0.005	0.031	0.171
cg18515171	purple	17	58,156,344 TSS200	Island	HEATR6	0.510	-0.001	0.031	0.544
cg20943338	purple	1	78,354,406 5'UTR	Island	NEXN	0.510	-0.011	0.059	0.280
cg21657955	purple	7	19,812,578 TSS200	Island	TMEM196	0.509	0.000	0.037	0.849
cg13366445	purple	7	99,036,841 Body	Island	CPSF4	0.509	0.000	0.022	0.910
cg22873420	purple	7	98,923,366 TSS200	Island	ARPC1A	0.509	0.000	0.020	0.761
cg27372920	purple	5	52,778,745 Body	S_Shore	FST	0.509	0.000	0.019	0.539
cg07193553	purple	14	102,026,315 TSS1500	Island	DIO3	0.509	0.000	0.022	0.806
cg11849086	purple	17	62,776,530 Body	Island	LOC146880	0.509	-0.001	0.027	0.322
cg19584585	purple	19	16,683,393 TSS1500	Island	SLC35E1	0.509	-0.002	0.027	0.257
cg01346830	purple	22	18,893,669 TSS200	Island	DGCR6	0.509	-0.002	0.034	0.692
cg17548709	purple	18	57,026,768 TSS1500	Island	LMAN1	0.509	0.000	0.031	0.854
cg13097719	purple	14	105,957,424 TSS200	Island	C14orf80	0.508	0.004	0.043	0.209
cg04141379	purple	1	48,938,046 TSS1500	S_Shore	SPATA6	0.508	0.000	0.017	0.953
cg08162803	purple	11	67,806,347 TSS200	Island	TCIRG1	0.508	-0.002	0.043	0.408
cg00016498	purple	17	40,307,048 TSS200	Island	RAB5C	0.508	0.000	0.013	0.818
cg05369920	purple	2	44,223,589 TSS1500	Island	LRPPRC	0.508	0.000	0.064	0.997
cg27106233	purple	10	74,033,853 5'UTR	Island	DDIT4	0.508	0.000	0.011	0.641
cg21634365	purple	18	74,961,463 TSS1500	N_Shore	GALR1	0.508	-0.001	0.026	0.338
cg02167877	purple	8	146,012,912 TSS200	Island	ZNF34	0.508	0.001	0.017	0.368
cg25223771	purple	8	145,105,503	Island		0.507	-0.010	0.047	0.113
cg16017358	purple	2	172,779,282 Body	Island	HAT1	0.507	-0.001	0.017	0.401
cg19117777	purple	5	109,024,969 TSS200	Island	MAN2A1	0.507	-0.002	0.053	0.653
cg08598296	purple	10	62,704,199 Body	Island	RHOBTB1	0.507	-0.003	0.050	0.209
cg22174191	purple	6	111,136,363 5'UTR	Island	CDK19	0.507	0.000	0.025	0.814
cg09307530	purple	5	2,739,257	Island		0.507	-0.007	0.073	0.039
cg03943826	purple	15	72,612,556 TSS200	Island	BRUNOL6	0.507	0.000	0.040	0.883
cg21511991	purple	20	43,514,310 TSS200	N_Shore	YWHAB	0.507	-0.002	0.024	0.161

cg05191792	purple	6	2,765,113	TSS1500	N_Shore	WRNIP1	0.507	0.000	0.016	0.891
cg19930135	purple	2	220,362,242	TSS1500	Island	GMPPA	0.507	-0.001	0.027	0.578
cg03715751	purple	11	44,749,119		Island		0.507	-0.001	0.038	0.778
cg21964551	purple	1	201,368,791	TSS200	Island	LAD1	0.506	0.001	0.025	0.534
cg24001556	purple	20	5,591,874	TSS1500	Island	RP5-1022P6.2	0.506	-0.002	0.033	0.455
cg13422008	purple	3	111,697,794	TSS200	Island	ABHD10	0.506	0.000	0.035	0.979
cg09273910	purple	12	122,242,921	Body	Island	SETD1B	0.506	-0.001	0.020	0.391
cg13452718	purple	1	23,670,887	TSS200	Island	HNRNPR	0.505	-0.002	0.026	0.349
cg10698355	purple	5	119,801,193	5'UTR	Island	PRR16	0.505	0.000	0.021	0.752
cg14452947	purple	5	87,970,640	Body	Island	LOC645323	0.505	0.003	0.055	0.628
cg15608397	purple	2	223,163,573	1stExon	Island	PAX3	0.505	-0.005	0.036	0.213
cg09066338	purple	2	24,232,891	TSS200	Island	MFSD2B	0.505	0.000	0.020	0.981
cg00196827	purple	18	55,108,068	Body	Island	ONECUT2	0.505	0.000	0.022	0.925
cg16904306	purple	9	78,506,294	Body	Island	PCSK5	0.505	-0.001	0.011	0.522
cg05113000	purple	11	65,343,833	1stExon	Island	EHBP1L1	0.504	-0.006	0.161	0.151
cg06719391	purple	11	2,554,330	Body	Island	KCNQ1	0.504	-0.011	0.062	0.289
cg13369686	purple	7	157,589,455	Body	S_Shelf	PTPRN2	0.504	0.006	0.777	0.642
cg26599209	purple	5	156,692,972	TSS200	Island	CYFIP2	0.504	-0.005	0.035	0.361
cg15970621	purple	16	30,760,244	Body	Island	PHKG2	0.504	-0.001	0.043	0.729
cg18917399	purple	1	41,327,272	1stExon	Island	CITED4	0.504	0.000	0.019	0.813
cg20124587	purple	2	176,971,355	TSS1500	N_Shore	HOXD11	0.504	0.000	0.025	0.850
cg01969748	purple	1	109,420,034	5'UTR	Island	GPSP2	0.504	-0.001	0.033	0.581
cg11494773	purple	7	48,128,242	TSS200	Island	UPP1	0.503	0.000	0.029	0.978
cg13745402	purple	9	12,776,218	Body	S_Shore	C9orf150	0.503	0.003	0.038	0.144
cg25109908	purple	6	31,588,831	5'UTR	Island	BAT2	0.503	-0.001	0.018	0.338
cg26522057	purple	16	67,184,562	5'UTR	Island	B3GNT9	0.503	-0.002	0.038	0.402
cg20601730	purple	10	7,830,119	1stExon	Island	ATP5C1	0.503	0.000	0.019	0.866
cg04469880	purple	19	36,736,565		Island		0.503	0.001	0.034	0.759
cg27584600	purple	10	88,160,433		Island		0.503	-0.002	0.019	0.398
cg11650479	purple	10	62,704,408	TSS1500	S_Shore	RHOBTB1	0.502	0.000	0.026	0.744
cg11577646	purple	19	48,281,758	TSS200	Island	SEPW1	0.502	0.001	0.017	0.428
cg22280705	purple	2	166,650,769	5'UTR	Island	GALNT3	0.502	-0.003	0.037	0.105
cg08809979	purple	16	69,373,666	TSS200	Island	COG8	0.502	-0.004	0.039	0.181
cg15408073	purple	5	33,936,322	TSS200	Island	RXFP3	0.502	-0.001	0.025	0.681
cg12344152	purple	6	150,312,368		Island		0.502	-0.005	0.104	0.214
cg14455465	purple	2	43,454,138	TSS1500	Island	LOC10012972	0.502	0.001	0.018	0.463
cg24146518	purple	1	183,155,097	TSS200		LAMC2	0.501	0.000	0.030	0.831
cg15585409	purple	19	12,750,806		N_Shore		0.501	0.001	0.077	0.904
cg09957386	purple	7	134,144,062	TSS200	Island	AKR1B1	0.501	-0.001	0.026	0.455
cg19927257	purple	1	155,294,942	Body	Island	RUSC1	0.501	0.001	0.018	0.870
cg21264372	purple	1	205,561,090	Body	Island	MFSD4	0.501	0.000	0.020	0.743
cg21526572	purple	10	133,850,592		Island		0.501	0.004	0.160	0.643
cg26633994	purple	19	57,791,739	TSS200	Island	ZNF460	0.501	0.000	0.023	0.853
cg23576507	purple	14	21,571,844	5'UTR	Island	ZNF219	0.501	0.001	0.026	0.490
cg07537147	purple	12	110,271,031	5'UTR	Island	TRPV4	0.500	0.004	0.098	0.447
cg15437612	purple	22	39,928,986	TSS200	Island	RPS19BP1	0.500	-0.001	0.022	0.201
cg25581352	purple	5	76,383,166	Body	Island	LOC728723	0.500	0.000	0.020	0.778
cg23970785	purple	16	11,036,526	TSS1500	Island	DEX1	0.500	0.004	0.095	0.397
cg22008026	purple	4	155,413,392	TSS1500	Island	DCHS2	0.500	-0.002	0.030	0.145
cg23300289	purple	9	132,146,083		Island		0.500	-0.001	0.028	0.400
cg18465694	purple	22	36,806,185		Island		0.500	0.001	0.015	0.316
cg11228473	purple	5	6,378,845	TSS1500	Island	MED10	0.499	0.000	0.019	0.739
cg07354253	purple	5	131,629,923	TSS1500	Island	SLC22A4	0.499	-0.004	0.088	0.334
cg07236874	purple	1	204,463,446		Island		0.499	0.002	0.045	0.536
cg00803088	purple	10	43,600,706	Body	Island	RET	0.499	-0.008	0.045	0.518
cg26396475	purple	15	41,186,434	TSS200	Island	VPS18	0.499	-0.001	0.036	0.643
cg05419425	purple	15	79,723,997	TSS1500	N_Shore	KIAA1024	0.499	-0.001	0.021	0.442
cg07842594	purple	10	43,278,214	5'UTR	Island	BMS1	0.499	0.003	0.018	0.075
cg00625131	purple	18	23,671,305	TSS1500	S_Shore	SS18	0.499	0.000	0.018	0.578
cg04794420	purple	12	56,474,392	Body	Island	ERBB3	0.499	-0.001	0.016	0.606
cg12591770	purple	15	100,913,571		Island		0.499	-0.002	0.031	0.241
cg25520939	purple	4	44,728,034	5'UTR	Island	GNPDA2	0.498	-0.001	0.012	0.131
cg13846507	purple	9	130,679,184	5'UTR	Island	ST6GALNAC4	0.498	-0.002	0.068	0.754
cg25851671	purple	21	37,502,825		Island		0.498	0.002	0.024	0.141
cg00715047	purple	17	73,522,054	5'UTR	Island	LLGL2	0.498	0.003	0.031	0.582
cg12913957	purple	6	33,589,131	TSS200	Island	ITPR3	0.498	0.000	0.050	0.941
cg14843216	purple	17	56,064,736	Body	N_Shore	VEZF1	0.498	-0.002	0.022	0.062

cg16137976	purple	6	99,395,586	5'UTR	Island	FBXL4	0.498	0.000	0.022	0.785
cg03972466	purple	16	9,184,155	TSS1500	Island	C16orf72	0.498	-0.001	0.056	0.860
cg10282371	purple	8	38,854,376	TSS200	Island	ADAM9	0.497	0.002	0.020	0.431
cg12066624	purple	4	25,032,060	Body	Island	LG12	0.497	0.001	0.040	0.848
cg07599881	purple	1	5,907,508				0.497	0.000	0.026	0.901
cg26688472	purple	2	203,638,928	3'UTR	Island	ICA1L	0.497	0.007	0.287	0.374
cg11310629	purple	13	45,991,975	5'UTR	Island	SLC25A30	0.497	-0.003	0.026	0.140
cg21989094	purple	19	39,421,295	TSS1500	Island	MRPS12	0.497	-0.002	0.020	0.088
cg11571001	purple	6	30,881,808	3'UTR	Island	GTF2H4	0.497	-0.004	0.046	0.281
cg11978048	purple	8	63,951,797	TSS200	Island	GGH	0.497	0.000	0.016	0.357
cg09374949	purple	19	18,548,964	5'UTR	Island	ISYNA1	0.497	-0.007	0.020	0.021
cg06728335	purple	16	2,318,300	TSS200	Island	RNPS1	0.497	0.002	0.027	0.153
cg20784263	purple	13	48,877,561	TSS1500	Island	RB1	0.497	0.000	0.023	0.946
cg03228054	purple	9	19,049,082	TSS1500	Island	RRAGA	0.497	-0.003	0.030	0.164
cg00089464	purple	6	29,717,223	TSS1500	S_Shore	LOC285830	0.497	0.001	0.025	0.575
cg25486979	purple	13	50,510,739	TSS200	Island	C13orf1	0.497	-0.002	0.031	0.232
cg00258809	purple	3	72,704,324		Island		0.496	-0.002	0.035	0.381
cg24602243	purple	5	14,144,425	Body	Island	TRIO	0.496	-0.008	0.052	0.084
cg04050119	purple	17	79,819,298	TSS1500	Island	P4HB	0.496	-0.008	0.067	0.063
cg08923060	purple	12	120,884,702	TSS1500	Island	TRIAP1	0.496	0.000	0.015	0.872
cg04939294	purple	16	67,753,445	TSS200	Island	GFOD2	0.496	0.002	0.027	0.174
cg02672678	purple	3	196,669,134	Body	Island	NCBP2	0.496	-0.002	0.029	0.304
cg26743569	purple	2	25,194,997	TSS200	Island	DNAJC27	0.496	0.000	0.021	0.872
cg23986385	purple	1	247,494,428	5'UTR	Island	ZNF496	0.496	0.001	0.032	0.605
cg19594822	purple	8	80,681,066	TSS1500	S_Shore	HEY1	0.496	0.000	0.028	0.779
cg01501048	purple	1	155,247,548	1stExon	Island	HCN3	0.496	0.002	0.019	0.470
cg25107268	purple	6	89,673,349	TSS200	Island	RNGTT	0.495	-0.001	0.033	0.390
cg20328396	purple	11	129,148,924		Island		0.495	0.000	0.014	0.668
cg02898122	purple	1	95,699,846	1stExon	Island	RWDD3	0.495	0.005	0.044	0.331
cg23689712	purple	1	165,205,314	Body	Island	LMX1A	0.495	-0.004	0.039	0.299
cg26799802	purple	11	2,951,353	TSS1500	Island	PHLDA2	0.495	0.000	0.050	0.916
cg01410472	purple	8	75,896,975	1stExon	Island	CRISPLD1	0.494	-0.002	0.025	0.182
cg22835852	purple	10	118,976,109		Island		0.494	-0.001	0.033	0.595
cg00639289	purple	2	213,403,734	TSS1500	Island	ERBB4	0.494	-0.001	0.017	0.294
cg24040346	purple	6	106,533,925	TSS1500	N_Shore	PRDM1	0.493	0.000	0.028	0.954
cg09249112	purple	6	27,280,122	TSS200	Island	POM121L2	0.493	-0.002	0.087	0.687
cg06561329	purple	22	17,602,610	TSS1500	Island	CECR6	0.493	-0.002	0.029	0.420
cg00181834	purple	10	23,463,015		Island		0.493	0.004	0.077	0.484
cg13755535	purple	5	176,778,859	5'UTR	Island	LMAN2	0.493	-0.004	0.046	0.201
cg06140118	purple	16	68,056,778	1stExon	Island	DDX28	0.493	-0.003	0.018	0.346
cg08668551	purple	11	126,873,181		Island		0.493	0.000	0.019	0.775
cg00506168	purple	21	45,148,460	Body	Island	PDXK	0.492	-0.002	0.039	0.395
cg19739906	purple	2	138,722,326	Body		HNMT	0.492	0.009	0.189	0.171
cg17131070	purple	1	243,418,713	TSS1500	Island	SDCCAG8	0.492	-0.005	0.030	0.307
cg00920043	purple	1	11,333,412	1stExon	Island	UBIAD1	0.492	0.001	0.022	0.361
cg09864457	purple	19	42,502,731	3'UTR	Island	GRIK5	0.492	-0.006	0.114	0.428
cg07033903	purple	1	205,290,667	1stExon	Island	NUAK2	0.492	-0.003	0.035	0.226
cg24369856	purple	6	83,777,385	1stExon	Island	DOPEY1	0.492	-0.001	0.020	0.611
cg24397983	purple	3	14,166,235	1stExon	Island	CHCHD4	0.492	0.001	0.031	0.774
cg24654547	purple	16	68,057,165	TSS200	Island	DUS2L	0.492	-0.011	0.101	0.495
cg03208482	purple	3	167,813,154	5'UTR	Island	GOLIM4	0.492	-0.003	0.028	0.150
cg16805150	purple	7	6,570,684	Body	Island	GRID2IP	0.492	-0.003	0.031	0.262
cg10298815	purple	1	101,004,474	5'UTR	Island	GPR88	0.492	-0.002	0.035	0.496
cg03053875	purple	3	194,208,259		Island		0.492	0.000	0.021	0.928
cg23556191	purple	17	39,823,547		S_Shore		0.492	-0.001	0.019	0.422
cg01546397	purple	16	451,643	TSS1500	Island	DECR2	0.492	-0.001	0.018	0.660
cg27252164	purple	11	2,292,373	TSS200	Island	ASCL2	0.492	-0.006	0.094	0.452
cg00036328	purple	12	123,465,816	Body	Island	ARL6IP4	0.491	-0.001	0.029	0.752
cg06424097	purple	11	122,848,244		Island		0.491	-0.001	0.018	0.205
cg00499819	purple	20	62,496,386	TSS1500	Island	TPD52L2	0.491	-0.002	0.016	0.162
cg18309565	purple	3	196,669,965	Body	Island	LOC152217	0.491	0.001	0.031	0.580
cg10698964	purple	15	50,647,173	TSS200	Island	FLJ10038	0.491	-0.003	0.041	0.573
cg04307561	purple	8	72,460,119		Island		0.491	-0.004	0.052	0.228
cg24079997	purple	4	52,709,183	TSS200	Island	DCUN1D4	0.491	0.002	0.024	0.494
cg05973498	purple	8	71,314,455	5'UTR	Island	NCOA2	0.490	0.001	0.024	0.706
cg12075659	purple	20	19,738,521		Island		0.490	-0.001	0.025	0.379
cg25112366	purple	5	176,170,138		N_Shore		0.490	0.001	0.087	0.763



cg27632677	purple	2	114,385,169	TSS1500	S_Shore	RPL23AP7	0.490	-0.003	0.017	0.078
cg26258108	purple	2	232,329,189	1stExon	Island	NCL	0.490	0.000	0.084	0.993
cg27114640	purple	1	18,437,320	Body	Island	IGSF21	0.490	-0.005	0.057	0.304
cg00519346	purple	19	44,100,703	1stExon	Island	ZNF576	0.490	0.000	0.018	0.796
cg13671601	purple	22	31,218,741	Body	Island	OSBP2	0.490	-0.002	0.082	0.700
cg15452426	purple	1	10,532,230	Body	Island	DFFA	0.490	-0.001	0.013	0.520
cg03611060	purple	1	59,281,067		Island		0.489	0.000	0.032	0.837
cg02834765	purple	1	155,214,859	TSS1500		GBA	0.489	0.000	0.026	0.853
cg14900984	purple	8	11,205,247	Body	Island	TDH	0.489	-0.001	0.023	0.521
cg05824432	purple	16	2,301,222	Body	Island	DCI	0.489	-0.002	0.024	0.157
cg26649251	purple	19	44,598,564	1stExon	Island	ZNF224	0.489	-0.009	0.029	0.312
cg15358701	purple	1	161,410,459		Island		0.489	-0.006	0.097	0.424
cg00939558	purple	1	154,301,037	Body	Island	ATP8B2	0.489	0.000	0.017	0.447
cg07249227	purple	21	43,430,503	TSS200	Island	ZNF295	0.489	0.001	0.035	0.837
cg12751432	purple	8	56,015,066	1stExon	Island	XKR4	0.488	0.001	0.018	0.350
cg16001977	purple	22	32,340,332	TSS200	Island	YWHAH	0.488	0.003	0.079	0.517
cg15278043	purple	7	130,353,539	3'UTR	Island	TSGA13	0.488	-0.003	0.043	0.226
cg17193921	purple	22	50,683,583	TSS200	Island	TUBGCP6	0.488	-0.007	0.085	0.447
cg09378111	purple	2	211,036,309	TSS1500	Island	C2orf67	0.488	0.001	0.025	0.393
cg24078566	purple	2	203,241,941	5'UTR	Island	BMPR2	0.488	-0.001	0.015	0.399
cg27331524	purple	7	116,963,193	Body	Island	WNT2	0.488	-0.003	0.042	0.582
cg13150467	purple	4	145,567,373	1stExon	Island	HHIP	0.488	-0.001	0.019	0.529
cg26067250	purple	2	172,950,449	1stExon	N_Shore	DLX1	0.488	0.001	0.022	0.414
cg10341991	purple	3	48,229,869	TSS200	Island	CDC25A	0.488	-0.007	0.053	0.382
cg02367949	purple	11	94,964,516	TSS1500	Island	SESN3	0.488	-0.001	0.025	0.545
cg21477717	purple	19	17,982,682	TSS200	Island	SLC5A5	0.488	-0.001	0.038	0.659
cg05951860	purple	7	117,513,101	Body	Island	CTTNBP2	0.487	-0.001	0.022	0.648
cg24298421	purple	1	10,856,943	TSS1500	Island	CASZ1	0.487	-0.002	0.064	0.618
cg00891891	purple	15	45,315,362	5'UTR	Island	SORD	0.487	-0.001	0.021	0.352
cg09318248	purple	9	136,891,078	Body	Island	NCRNA00094	0.487	0.002	0.024	0.169
cg04457423	purple	9	130,683,987	3'UTR	Island	PIP5K1L	0.487	-0.002	0.037	0.497
cg20070790	purple	17	79,650,633	TSS1500	Island	HGS	0.487	0.000	0.029	0.909
cg15574312	purple	17	74,533,845	TSS200	Island	CYGB	0.487	-0.001	0.037	0.619
cg26779945	purple	6	134,273,199	TSS1500	N_Shore	TBPL1	0.487	-0.001	0.023	0.443
cg11863417	purple	19	13,002,535	Body	Island	GCDH	0.487	-0.001	0.022	0.610
cg10731700	purple	19	1,760,259	Body	N_Shelf	ONECUT3	0.487	0.001	0.028	0.523
cg16986298	purple	1	27,324,471	3'UTR	S_Shelf	TRNP1	0.487	0.004	0.057	0.344
cg08541772	purple	1	209,958,162	TSS1500	Island	C1orf74	0.487	-0.002	0.020	0.034
cg17534899	purple	3	13,009,509	Body	S_Shore	IQSEC1	0.487	0.002	0.016	0.186
cg04866628	purple	4	187,026,225		Island		0.487	-0.005	0.070	0.422
cg09612786	purple	7	150,715,214	Body	N_Shore	ATG9B	0.487	-0.005	0.050	0.145
cg10892158	purple	8	24,857,894		Island		0.487	0.000	0.022	0.763
cg15823982	purple	18	61,638,155	5'UTR	S_Shore	SERPINB8	0.487	-0.002	0.049	0.234
cg15465223	purple	10	44,185,590		Island		0.486	0.004	0.077	0.188
cg03059528	purple	6	127,587,721	TSS1500	N_Shore	RNF146	0.486	-0.002	0.024	0.199
cg04066396	purple	2	159,314,911	5'UTR	S_Shore	PKP4	0.486	-0.004	0.111	0.284
cg17695382	purple	2	61,697,821	1stExon		USP34	0.486	-0.009	0.087	0.204
cg12071328	purple	11	20,690,930	TSS200	Island	NELL1	0.486	-0.007	0.049	0.348
cg16654911	purple	4	128,544,255		Island		0.486	0.001	0.025	0.545
cg23081925	purple	19	38,397,704	TSS1500	Island	WDR87	0.486	0.000	0.018	0.848
cg00477061	purple	18	77,794,585	1stExon	Island	C18orf22	0.486	0.003	0.029	0.434
cg21068911	purple	11	107,462,430	5'UTR	Island	ELMOD1	0.486	0.000	0.016	0.829
cg07402800	purple	8	145,582,003	1stExon	Island	FBXL6	0.486	0.004	0.364	0.423
cg02325540	purple	10	94,834,557	Body	Island	CYP26A1	0.486	-0.004	0.050	0.340
cg05037725	purple	5	31,639,946		Island		0.486	-0.001	0.018	0.610
cg00823995	purple	19	46,389,577	TSS1500	Island	IRF2BP1	0.485	-0.004	0.037	0.097
cg01109462	purple	13	53,191,643	1stExon	Island	HNRNPA1L2	0.485	0.001	0.025	0.483
cg05679795	purple	12	54,020,063	5'UTR	Island	ATF7	0.485	0.000	0.015	0.769
cg04275194	purple	2	219,433,691	TSS1500	Island	USP37	0.485	0.002	0.062	0.715
cg20529126	purple	8	28,559,781	5'UTR	Island	EXTL3	0.485	-0.003	0.034	0.331
cg04892060	purple	14	75,643,373	TSS200	Island	TMED10	0.485	-0.001	0.012	0.023
cg04468551	purple	12	59,990,894		S_Shore		0.485	-0.003	0.075	0.533
cg08286799	purple	16	89,989,483	TSS1500	Island	TUBB3	0.485	0.000	0.053	0.914
cg25103172	purple	2	95,825,271	TSS200	Island	ZNF514	0.484	-0.002	0.027	0.495
cg14202850	purple	17	43,974,869	5'UTR	Island	MAPT	0.484	0.003	0.030	0.148
cg26142965	purple	6	29,521,803		Island		0.484	-0.009	0.088	0.369
cg27264345	purple	5	137,775,041	Body		REEP2	0.483	0.001	0.021	0.270

cg04658027	purple	6	31,702,774	Body		CLIC1	0.483	-0.001	0.043	0.658
cg07610776	purple	16	1,832,675	TSS200	Island	SPSB3	0.483	-0.002	0.023	0.335
cg09386682	purple	3	10,207,069	Body	S_Shore	IRAK2	0.483	0.000	0.026	0.966
cg15563057	purple	5	139,493,612	TSS200	Island	PURA	0.483	-0.001	0.025	0.725
cg26356412	purple	12	132,315,626	Body	Island	MMP17	0.483	0.002	0.026	0.343
cg03630797	purple	16	88,753,119	Body	Island	MGC23284	0.483	0.002	0.033	0.464
cg11730925	purple	1	118,148,412	TSS200	Island	FAM46C	0.482	0.000	0.017	0.693
cg09410084	purple	1	155,533,016	TSS1500	Island	ASH1L	0.482	-0.002	0.045	0.419
cg14140830	purple	3	47,020,973	TSS200	Island	NBEAL2	0.482	0.000	0.027	0.963
cg09339194	purple	20	61,051,585	TSS1500	Island	GATA5	0.482	0.000	0.024	0.545
cg04705435	purple	11	17,411,270	TSS1500	Island	KCNJ11	0.482	0.001	0.026	0.605
cg17097992	purple	2	10,443,818	TSS200	Island	HPCAL1	0.482	0.000	0.018	0.637
cg23909657	purple	11	125,036,088	5'UTR	Island	PKNOX2	0.482	-0.002	0.070	0.710
cg23235460	purple	3	187,871,625	TSS200	Island	LPP	0.482	-0.003	0.047	0.434
cg19767959	purple	16	71,460,337		Island		0.481	0.000	0.033	0.991
cg15522241	purple	22	30,793,123	1stExon	Island	SEC14L2	0.481	0.003	0.027	0.178
cg05329982	purple	11	62,359,210	TSS200	Island	TUT1	0.481	-0.003	0.028	0.153
cg12416929	purple	6	108,882,205	5'UTR	Island	FOXO3	0.481	0.001	0.413	0.857
cg04311599	purple	11	10,953,109		S_Shore		0.481	-0.003	0.089	0.414
cg19280121	purple	17	21,117,780	Body	Island	TMEM11	0.481	0.000	0.031	0.933
cg16217610	purple	4	108,746,323	5'UTR	Island	SGMS2	0.481	-0.003	0.069	0.473
cg05015913	purple	8	38,645,613	Body	Island	TACC1	0.481	0.001	0.028	0.729
cg08098619	purple	11	3,818,841	TSS200	Island	PGAP2	0.480	-0.009	0.035	0.186
cg07150538	purple	10	111,970,028	Body	Island	MXI1	0.480	0.000	0.012	0.794
cg01934883	purple	10	81,665,075		Island		0.480	0.002	0.019	0.148
cg23683254	purple	14	99,584,667		Island		0.480	0.000	0.021	0.779
cg16876315	purple	4	170,947,005	5'UTR	Island	MFAP3L	0.480	-0.003	0.034	0.503
cg20268628	purple	6	20,212,269	Body	Island	MBOAT1	0.480	0.001	0.018	0.449
cg03396354	purple	19	46,519,603	Body	Island	CCDC61	0.480	-0.004	0.089	0.424
cg18672959	purple	17	7,348,829	Body	Island	CHRN1	0.480	0.000	0.023	0.769
cg02564102	purple	3	47,823,614	TSS1500	Island	SMARCC1	0.480	-0.001	0.037	0.803
cg23724873	purple	2	74,406,045	TSS200	Island	MOBK1B	0.480	0.001	0.020	0.559
cg25500285	purple	8	37,888,493	Body	Island	EIF4EBP1	0.480	-0.001	0.025	0.235
cg03087334	purple	18	33,077,969	TSS200	Island	INO80C	0.480	0.000	0.017	0.923
cg20248866	purple	17	79,869,748	TSS1500	Island	PCYT2	0.479	0.000	0.101	0.964
cg17996619	purple	10	134,600,701	TSS1500	Island	NKX6-2	0.479	0.001	0.036	0.887
cg10061247	purple	3	50,396,736	5'UTR	Island	TMEM115	0.479	0.000	0.034	0.914
cg03623771	purple	17	79,650,928	TSS200	Island	HGS	0.479	-0.004	0.048	0.267
cg10400937	purple	19	37,329,330	TSS200	Island	ZNF790	0.479	0.002	0.024	0.105
cg11355319	purple	5	89,825,117	5'UTR	Island	LYSMD3	0.479	-0.002	0.017	0.099
cg06457317	purple	11	20,185,267		Island		0.479	0.001	0.020	0.436
cg01616446	purple	6	43,196,715	Body	N_Shore	C6orf108	0.478	0.000	0.018	0.830
cg06609369	purple	12	100,967,923	5'UTR	S_Shore	GAS2L3	0.478	-0.001	0.020	0.731
cg12186440	purple	3	47,422,637	1stExon	Island	PTPN23	0.478	0.000	0.029	0.968
cg26918442	purple	15	43,622,840	TSS200	Island	ADAL	0.478	0.000	0.015	0.579
cg24788636	purple	1	40,562,667	Body	Island	PPT1	0.478	-0.001	0.025	0.627
cg07061566	purple	12	88,974,433	TSS200	Island	KITLG	0.478	0.000	0.027	0.960
cg03811519	purple	9	134,001,305	Body	Island	NUP214	0.478	0.001	0.015	0.501
cg01461718	purple	3	49,711,095	TSS1500	Island	APEH	0.478	-0.009	0.114	0.369
cg20270320	purple	8	101,225,902	Body	S_Shore	SPAG1	0.478	-0.002	0.084	0.590
cg07736389	purple	1	23,751,134	1stExon	Island	TCEA3	0.477	-0.005	0.067	0.158
cg00133909	purple	15	73,977,201	5'UTR	Island	CD276	0.477	-0.001	0.026	0.410
cg12026749	purple	8	24,773,060	5'UTR	S_Shore	NEFM	0.477	-0.005	0.054	0.132
cg10190444	purple	17	58,213,109		Island		0.477	0.000	0.015	0.926
cg20427879	purple	19	46,142,784	TSS1500	N_Shelf	MIR330	0.477	-0.001	0.019	0.689
cg20927724	purple	15	90,209,326	Body	S_Shore	PLIN1	0.477	0.004	0.309	0.376
cg11519238	purple	1	183,605,567	5'UTR	S_Shore	RGL1	0.477	-0.002	0.024	0.207
cg17872999	purple	7	104,653,783	TSS1500	Island	MLL5	0.477	0.000	0.021	0.928
cg21856256	purple	2	121,200,690		Island		0.476	0.001	0.118	0.941
cg23758016	purple	17	73,521,635	TSS200	Island	LLGL2	0.476	-0.006	0.070	0.332
cg12464561	purple	4	1,401,729		Island		0.476	-0.001	0.080	0.833
cg20018561	purple	13	52,586,135	TSS1500	Island	ALG11	0.476	0.002	0.038	0.768
cg03094519	purple	17	37,761,662	3'UTR	N_Shore	NEUROD2	0.475	-0.003	0.040	0.211
cg02089380	purple	2	158,732,891	TSS1500		ACVR1	0.475	0.002	0.050	0.648
cg15517965	purple	17	42,263,946	TSS1500	Island	TMUB2	0.475	0.001	0.016	0.205
cg03462055	purple	6	3,227,556	Body	Island	TUBB2B	0.475	0.000	0.011	0.969
cg08427928	purple	7	32,997,111	1stExon	Island	FKBP9	0.475	0.003	0.037	0.362

cg15535092	purple	19	7,985,071	TSS1500	Island	SNAPC2	0.475	-0.002	0.027	0.343
cg14823080	purple	6	5,261,471	TSS1500	Island	LYRM4	0.475	0.000	0.019	0.881
cg17266562	purple	10	26,727,598	5'UTR	Island	APBB1IP	0.475	-0.002	0.040	0.293
cg08976451	purple	10	92,631,876	Body		RPP30	0.474	-0.002	0.023	0.245
cg02942644	purple	3	119,217,190	TSS200	N_Shore	C3orf1	0.474	0.003	0.022	0.108
cg25448382	purple	5	33,441,070	5'UTR	Island	TARS	0.474	-0.001	0.019	0.338
cg04568797	purple	10	43,724,742	5'UTR	Island	RASGEF1A	0.474	-0.002	0.016	0.060
cg13196826	purple	10	98,945,664	5'UTR	Island	SLIT1	0.474	-0.001	0.026	0.866
cg11411904	purple	1	153,935,719	5'UTR	N_Shore	SLC39A1	0.474	0.000	0.022	0.609
cg00654461	purple	12	111,180,088	Body	Island	PPP1CC	0.474	0.000	0.018	0.838
cg08092276	purple	15	100,890,355	Body	Island	FLJ42289	0.474	0.001	0.027	0.744
cg25927164	purple	17	17,685,407	5'UTR	Island	RAI1	0.473	-0.002	0.021	0.322
cg10802379	purple	5	150,400,395	Body	Island	GPX3	0.473	0.001	0.020	0.716
cg14176449	purple	3	155,572,176	TSS200	N_Shore	SLC33A1	0.473	0.000	0.017	0.831
cg13442256	purple	4	6,910,955	TSS1500	Island	TBC1D14	0.473	0.000	0.012	0.684
cg01345406	purple	16	71,879,717	TSS200	N_Shore	ATXN1L	0.473	0.001	0.026	0.678
cg13079047	purple	1	116,915,511	TSS1500	Island	ATP1A1	0.473	0.001	0.027	0.509
cg02609692	purple	9	129,389,125	Body	Island	LMX1B	0.473	-0.001	0.055	0.850
cg19545116	purple	5	131,132,943	TSS200	Island	FNIP1	0.473	-0.003	0.037	0.444
cg07668052	purple	17	7,745,072	5'UTR	Island	KDM6B	0.473	-0.001	0.027	0.404
cg12933507	purple	11	76,757,173		Island		0.473	-0.001	0.036	0.737
cg02225716	purple	8	120,220,856	Body	Island	MAL2	0.473	0.000	0.014	0.964
cg02360337	purple	11	65,627,185	TSS1500	Island	MUS81	0.472	-0.001	0.025	0.624
cg03144848	purple	8	142,377,368	TSS200		GPR20	0.472	-0.003	0.033	0.055
cg25931896	purple	7	1,705,009		Island		0.472	0.001	0.131	0.890
cg25172604	purple	17	41,446,521		Island		0.472	0.000	0.013	0.948
cg17491846	purple	19	19,431,584	TSS200	Island	KIAA0892	0.472	0.004	0.023	0.020
cg11549615	purple	8	68,864,247	TSS1500	N_Shore	PREX2	0.472	-0.001	0.022	0.279
cg03841560	purple	21	47,649,172	Body	Island	MCM3APAS	0.471	-0.001	0.035	0.710
cg18643445	purple	5	160,974,086	5'UTR	N_Shore	GABRB2	0.471	0.000	0.025	0.601
cg25384906	purple	20	13,201,349	TSS1500	Island	ISM1	0.471	0.000	0.029	0.938
cg19318393	purple	1	223,936,508	Body	Island	CAPN2	0.471	-0.003	0.043	0.634
cg03711622	purple	7	26,240,903	TSS1500	Island	CBX3	0.471	0.000	0.018	0.602
cg08692423	purple	21	45,148,864	Body	Island	PDXK	0.471	-0.003	0.023	0.069
cg24902113	purple	13	33,160,718	1stExon	Island	PDS5B	0.471	-0.003	0.052	0.442
cg23380399	purple	16	4,234,458		Island		0.470	0.002	0.026	0.350
cg03979905	purple	6	166,755,986	5'UTR	Island	SFT2D1	0.470	0.000	0.043	0.945
cg00295887	purple	8	146,228,807	TSS1500	Island	ZNF252	0.470	-0.002	0.020	0.253
cg14079893	purple	12	108,908,917	TSS200	Island	FICD	0.470	0.002	0.037	0.601
cg22813744	purple	11	77,899,778	TSS200	Island	KCTD21	0.470	-0.006	0.024	0.101
cg08289063	purple	6	74,019,562	Body	Island	C6orf147	0.470	0.001	0.045	0.608
cg06322891	purple	1	23,504,425		Island		0.470	0.000	0.055	0.953
cg04436714	purple	1	90,309,218	5'UTR	Island	LRRC8D	0.470	-0.002	0.021	0.532
cg14174215	purple	2	170,590,298	5'UTR	Island	KLHL23	0.470	0.000	0.021	0.737
cg15194943	purple	18	905,127	5'UTR	Island	ADCYAP1	0.469	-0.004	0.023	0.164
cg03185820	purple	7	149,158,252	TSS200	S_Shore	ZNF777	0.469	0.000	0.034	0.904
cg10505813	purple	15	50,647,051	5'UTR	Island	GABPB1	0.469	0.001	0.020	0.107
cg04915463	purple	1	162,039,957	5'UTR	Island	NOS1AP	0.469	-0.004	0.039	0.067
cg08707112	purple	10	8,095,764	TSS1500	Island	FLJ45983	0.469	0.000	0.033	0.929
cg23948843	purple	2	164,204,752		Island		0.469	-0.004	0.110	0.335
cg10234375	purple	17	8,060,043		Island		0.468	-0.002	0.020	0.127
cg26917215	purple	17	73,780,911	Body	Island	UNK	0.468	-0.001	0.022	0.451
cg07062412	purple	20	25,388,353	1stExon	Island	GINS1	0.468	-0.002	0.034	0.624
cg23514016	purple	5	78,407,564	TSS200		BHMT	0.468	0.000	0.021	0.901
cg00201670	purple	21	46,221,900	TSS200	Island	UBE2G2	0.468	0.001	0.048	0.810
cg08127348	purple	19	17,448,311	TSS200	Island	GTPBP3	0.468	0.000	0.012	0.556
cg02531797	purple	6	31,588,317	TSS200	Island	BAT2	0.468	-0.005	0.057	0.072
cg16043724	purple	22	38,054,584	TSS200	Island	PDXP	0.468	-0.002	0.043	0.289
cg09799633	purple	5	172,199,460	TSS1500	Island	DUSP1	0.468	0.000	0.014	0.630
cg13622267	purple	4	68,411,338	TSS200	Island	CENPC1	0.468	0.001	0.022	0.320
cg16339100	purple	12	132,991,708		S_Shore		0.468	-0.001	0.020	0.584
cg09252196	purple	1	113,933,337	TSS200	Island	MAGI3	0.467	-0.001	0.037	0.697
cg22395192	purple	1	27,339,435	TSS200	Island	FAM46B	0.467	0.001	0.012	0.116
cg08872722	purple	1	201,252,360	TSS1500	N_Shore	PKP1	0.467	0.000	0.020	0.675
cg11733478	purple	11	88,071,037	TSS200	Island	CTSC	0.467	0.001	0.027	0.346
cg20000049	purple	12	123,464,758	TSS200	N_Shore	ARL6IP4	0.467	0.000	0.030	0.873
cg02119348	purple	16	6,069,731	5'UTR	Island	A2BP1	0.466	-0.009	0.063	0.084

cg13562542	purple	3	71,803,339	1stExon	Island	GPR27	0.466	0.000	0.020	0.405
cg18309817	purple	18	12,254,153	TSS1500	Island	CIDEA	0.466	-0.013	0.065	0.038
cg22665099	purple	10	97,055,150		Island		0.466	-0.001	0.023	0.700
cg13233788	purple	1	150,533,690		N_Shore		0.466	0.000	0.021	0.729
cg07712598	purple	2	242,165,230				0.466	0.004	0.934	0.078
cg05144702	purple	2	27,274,981	5'UTR	S_Shore	AGBL5	0.466	-0.001	0.013	0.297
cg06334496	purple	8	74,888,924	Body	Island	TMEM70	0.466	0.001	0.023	0.531
cg22687239	purple	4	331,435	TSS200	Island	ZNF141	0.466	0.001	0.022	0.455
cg01938650	purple	4	30,723,290	1stExon	Island	PCDH7	0.465	-0.003	0.030	0.449
cg09338136	purple	5	344,057	Body	Island	AHRR	0.465	-0.010	0.119	0.206
cg24466241	purple	1	53,308,908	Body	Island	ZYG11A	0.464	0.016	0.056	0.091
cg00558174	purple	5	14,872,551	TSS1500	Island	ANKH	0.464	0.002	0.036	0.481
cg26609906	purple	17	4,981,416	TSS1500	Island	ZFP3	0.464	-0.001	0.026	0.325
cg24102761	purple	10	115,439,306	5'UTR	Island	CASP7	0.464	-0.001	0.020	0.139
cg17731992	purple	6	31,324,997	TSS200	Island	HLA-B	0.464	-0.003	0.037	0.414
cg20315257	purple	2	85,665,172		S_Shore		0.464	0.000	0.016	0.793
cg06509239	purple	2	19,558,569	TSS200	S_Shore	OSR1	0.464	-0.002	0.024	0.063
cg18534345	purple	10	120,355,342	TSS200	Island	PRLHR	0.464	-0.006	0.043	0.091
cg16411251	purple	14	59,932,250	TSS200	Island	GPR135	0.463	-0.002	0.022	0.078
cg24497897	purple	11	65,658,826	1stExon	Island	CCDC85B	0.463	-0.008	0.069	0.285
cg04750593	purple	4	99,917,002	1stExon	Island	METAP1	0.463	-0.001	0.016	0.347
cg23204407	purple	6	170,102,889	1stExon	Island	C6orf120	0.463	0.000	0.020	0.742
cg07760910	purple	4	176,986,922	TSS200	Island	WDR17	0.463	-0.001	0.020	0.708
cg17525674	purple	3	13,036,145	Body	Island	IQSEC1	0.463	-0.004	0.071	0.430
cg10543574	purple	8	9,763,159		Island		0.463	0.001	0.023	0.680
cg18022279	purple	1	231,473,268	TSS1500	Island	C1orf124	0.462	0.000	0.016	0.794
cg18770186	purple	8	141,521,259	TSS200	Island	CHRAC1	0.462	-0.006	0.072	0.328
cg03251249	purple	10	69,645,012	5'UTR	Island	SIRT1	0.462	-0.001	0.019	0.362
cg11816577	purple	17	1,303,886	TSS1500	Island	YWHAE	0.461	0.003	0.042	0.526
cg12491765	purple	14	65,439,362	TSS1500	Island	RAB15	0.461	-0.001	0.027	0.632
cg25770572	purple	3	155,572,302	TSS200	N_Shore	SLC33A1	0.461	-0.001	0.017	0.611
cg11237751	purple	19	37,959,855	TSS200	Island	ZNF570	0.461	0.001	0.024	0.266
cg04547260	purple	13	32,605,259	TSS200	N_Shore	FRY	0.461	-0.001	0.017	0.536
cg27588119	purple	17	58,042,227	TSS200	Island	RNFT1	0.461	0.002	0.017	0.332
cg09266901	purple	12	124,118,336	TSS200	Island	EIF2B1	0.461	-0.001	0.055	0.807
cg12395205	purple	18	12,254,469	Body	Island	CIDEA	0.461	-0.001	0.020	0.771
cg04597894	purple	4	180,980,155		Island		0.460	0.000	0.075	0.937
cg10723146	purple	14	65,346,721		Island		0.460	0.002	0.044	0.721
cg19906131	purple	11	93,862,516	1stExon	Island	PANX1	0.460	0.007	0.047	0.220
cg06928703	purple	22	41,417,317		N_Shore		0.460	0.001	0.143	0.885
cg18484166	purple	7	94,284,750	Body	N_Shore	SGCE	0.460	0.000	0.021	0.899
cg12486840	purple	10	112,064,858	TSS200	Island	SMNDC1	0.460	0.001	0.026	0.285
cg13064004	purple	8	38,854,350	TSS200	Island	ADAM9	0.460	0.003	0.034	0.665
cg22716488	purple	6	35,995,431	TSS200	Island	MAPK14	0.459	0.000	0.023	0.883
cg02550691	purple	17	7,255,736	5'UTR	Island	KCTD11	0.459	-0.001	0.022	0.643
cg05149839	purple	16	81,039,913	TSS200	N_Shore	CENPN	0.459	0.000	0.026	0.834
cg09821991	purple	3	10,291,017	Body	Island	TATDN2	0.459	0.002	0.025	0.189
cg18875747	purple	19	45,909,306	5'UTR	Island	PPP1R13L	0.459	-0.002	0.057	0.337
cg12061357	purple	21	46,131,601	TSS200	S_Shore	C21orf29	0.459	0.000	0.019	0.646
cg27175128	purple	11	66,824,169	TSS200	Island	RHOD	0.459	0.000	0.026	0.831
cg07235638	purple	8	41,625,417	Body	S_Shore	ANK1	0.458	0.001	0.015	0.525
cg20286844	purple	1	204,485,360	TSS200	N_Shore	MDM4	0.458	0.000	0.013	0.977
cg06913869	purple	19	6,110,875	TSS1500	Island	RFX2	0.458	-0.001	0.030	0.638
cg26690075	purple	7	120,968,919	TSS200	N_Shore	WNT16	0.458	-0.004	0.149	0.674
cg03368362	purple	16	56,716,011	TSS1500	Island	MT1X	0.458	-0.001	0.025	0.571
cg09964705	purple	19	19,030,333	TSS200	Island	DDX49	0.458	-0.001	0.027	0.622
cg06208989	purple	1	15,479,792	TSS1500	Island	TMEM51	0.457	-0.001	0.020	0.372
cg21374048	purple	17	56,013,560				0.457	-0.001	0.179	0.795
cg23872935	purple	5	130,599,536	TSS200	Island	CDC42SE2	0.457	0.000	0.084	0.980
cg07334977	purple	3	182,880,768	TSS200	S_Shore	LAMP3	0.457	-0.002	0.077	0.652
cg02063360	purple	14	105,452,560	TSS200	Island	C14orf79	0.457	-0.005	0.038	0.129
cg24808711	purple	19	2,050,866	5'UTR	Island	MKNK2	0.456	0.001	0.020	0.531
cg12258161	purple	7	79,083,054	TSS200	Island	MAGI2	0.456	-0.002	0.032	0.348
cg25795535	purple	2	68,384,749	TSS200	Island	WDR92	0.456	-0.002	0.026	0.203
cg01468514	purple	5	10,563,358	TSS1500	Island	ANKRD33B	0.455	0.000	0.014	0.939
cg12406027	purple	19	39,616,818	5'UTR	Island	PAK4	0.455	-0.001	0.022	0.664
cg08876434	purple	11	13,030,637	TSS200	Island	RASSF10	0.455	-0.001	0.031	0.693

cg07950158	purple	19	45,874,032	TSS200	Island	ERCC2	0.455	0.000	0.022	0.848
cg13134514	purple	1	202,780,014		Island		0.455	0.000	0.043	0.958
cg16835618	purple	12	57,632,706	5'UTR	Island	NDUFA4L2	0.455	0.000	0.023	0.913
cg02006203	purple	7	48,128,151	TSS1500	Island	UPP1	0.455	0.003	0.033	0.347
cg27016262	purple	17	1,012,835	Body	Island	ABR	0.455	-0.007	0.127	0.527
cg01804696	purple	16	72,127,815	1stExon	S_Shore	DHX38	0.455	-0.002	0.026	0.080
cg21694941	purple	8	57,358,590	5'UTR	Island	PENK	0.455	-0.001	0.050	0.866
cg17687799	purple	7	44,084,523	Body	Island	DBNL	0.454	-0.004	0.041	0.133
cg01100175	purple	2	149,645,880	Body	S_Shore	KIF5C	0.454	-0.002	0.024	0.439
cg11308937	purple	3	39,149,072	5'UTR	Island	GORASP1	0.454	-0.001	0.017	0.195
cg05596265	purple	3	2,141,382	TSS1500	Island	CNTN4	0.454	-0.001	0.020	0.667
cg10394788	purple	9	124,360,547	Body	Island	DAB2IP	0.454	0.000	0.022	0.889
cg09351859	purple	5	49,962,613	TSS200	Island	PARP8	0.454	-0.008	0.063	0.074
cg14473327	purple	9	976,634	TSS1500	Island	DMRT3	0.454	0.001	0.022	0.237
cg15473017	purple	1	166,853,615		Island		0.454	0.000	0.035	0.972
cg00270789	purple	16	46,919,075	Body	S_Shore	GPT2	0.453	-0.002	0.035	0.668
cg02831473	purple	6	30,688,676	Body	Island	TUBB	0.453	0.000	0.019	0.983
cg17492326	purple	8	124,780,746	TSS200	Island	FAM91A1	0.453	-0.011	0.057	0.071
cg25140066	purple	2	30,670,679	5'UTR	Island	LCLAT1	0.453	-0.001	0.017	0.555
cg05915293	purple	16	2,041,512	Body	N_Shore	SYNGR3	0.453	0.001	0.030	0.693
cg27191312	purple	19	12,750,958		Island		0.453	-0.013	0.059	0.192
cg19198568	purple	7	28,997,866	5'UTR	Island	TRIL	0.452	-0.005	0.090	0.526
cg19235966	purple	1	16,173,721	TSS1500	N_Shore	SPEN	0.452	-0.001	0.027	0.743
cg10876207	purple	14	69,726,197	TSS1500	N_Shore	GALNTL1	0.452	0.000	0.015	0.697
cg20966828	purple	9	74,384,075	TSS1500	Island	TMEM2	0.452	0.000	0.018	0.791
cg16235860	purple	1	62,902,122	1stExon	Island	USP1	0.452	0.000	0.023	0.812
cg14842478	purple	15	85,198,043	TSS1500	S_Shore	WDR73	0.452	0.000	0.022	0.829
cg18379455	purple	17	41,446,167		Island		0.452	-0.003	0.032	0.145
cg02409351	purple	12	85,674,022	TSS200	Island	ALX1	0.452	0.000	0.022	0.858
cg09555367	purple	10	119,304,719	Body	Island	EMX2	0.451	-0.001	0.033	0.489
cg12629480	purple	17	8,092,555	1stExon	Island	C17orf59	0.451	-0.003	0.160	0.737
cg14489155	purple	11	67,229,020		N_Shelf		0.451	0.014	0.838	0.419
cg09781944	purple	4	20,254,519	TSS1500	Island	SLIT2	0.451	0.001	0.072	0.918
cg03086376	purple	16	1,876,114	Body	Island	HAGH	0.451	-0.001	0.025	0.745
cg26865127	purple	12	51,785,378	TSS200	Island	GALNT6	0.451	0.001	0.058	0.683
cg01469421	purple	19	57,999,034	TSS200	Island	ZNF419	0.451	-0.009	0.152	0.283
cg13477849	purple	6	97,345,728	5'UTR	Island	NDUFAF4	0.451	0.000	0.017	0.940
cg19787727	purple	14	57,264,070		N_Shore		0.451	-0.002	0.111	0.785
cg23674358	purple	10	22,726,885		S_Shore		0.451	-0.001	0.015	0.343
cg23358710	purple	17	60,704,660	TSS200	Island	MRC2	0.450	0.001	0.026	0.772
cg03597976	purple	22	46,263,478		Island		0.450	-0.009	0.035	0.043
cg09886243	purple	3	137,906,843	5'UTR	Island	ARMC8	0.450	0.001	0.021	0.275
cg01503312	purple	13	20,533,551	5'UTR	Island	ZMYM2	0.450	0.000	0.024	0.903
cg23685965	purple	18	71,958,448	Body	Island	CYB5A	0.450	-0.004	0.031	0.075
cg16258463	purple	1	93,811,274	TSS1500	Island	DR1	0.450	-0.001	0.027	0.348
cg26814712	purple	15	49,255,118	1stExon	Island	SHC4	0.449	0.000	0.039	0.931
cg12080254	purple	10	81,204,569	Body	Island	ZCCHC24	0.449	-0.001	0.037	0.476
cg14780416	purple	7	27,209,338	TSS200	Island	MIR196B	0.449	0.001	0.045	0.885
cg20113619	purple	17	59,489,332	1stExon	Island	C17orf82	0.449	0.001	0.033	0.570
cg16431610	purple	7	77,428,819	5'UTR	Island	PHTF2	0.449	-0.007	0.023	0.010
cg19786287	purple	7	150,974,273	TSS200	Island	SMARCD3	0.449	0.000	0.021	0.988
cg17328964	purple	8	145,687,451	Body	Island	CYHR1	0.449	-0.001	0.018	0.391
cg18614025	purple	7	8,008,335	TSS200	Island	GLCC1	0.448	-0.001	0.018	0.659
cg27129286	purple	16	2,318,236	TSS200	Island	RNPS1	0.448	-0.004	0.042	0.172
cg16449051	purple	2	86,790,087	5'UTR	Island	VPS24	0.448	-0.001	0.022	0.424
cg00028636	purple	12	6,876,321	Body	Island	PTMS	0.448	0.001	0.019	0.507
cg13129662	purple	17	48,227,708	1stExon	Island	PPP1R9B	0.448	0.004	0.063	0.623
cg13969672	purple	6	34,725,293	5'UTR	Island	SNRPC	0.448	-0.004	0.053	0.155
cg11141711	purple	14	99,947,712	TSS1500	Island	SETD3	0.448	0.000	0.017	0.522
cg17419888	purple	2	23,840,555	Body		KLHL29	0.447	-0.003	0.122	0.786
cg09018444	purple	1	11,539,599	5'UTR	Island	PTCHD2	0.447	-0.005	0.046	0.426
cg06594919	purple	10	102,827,590		Island		0.447	0.001	0.019	0.610
cg11804335	purple	1	209,759,344	5'UTR		CAMK1G	0.447	0.001	0.015	0.299
cg27209578	purple	2	175,193,470		Island		0.447	0.000	0.018	0.923
cg01622437	purple	12	115,136,246		Island		0.446	-0.002	0.044	0.522
cg26444995	purple	2	198,670,187	Body	S_Shore	PLCL1	0.446	-0.002	0.051	0.441
cg12473573	purple	8	77,912,590	TSS200	Island	PXMP3	0.446	-0.002	0.030	0.254

cg09999563	purple	4	57,253,666	TSS200	Island	AASDH	0.446	0.002	0.232	0.721
cg24507239	purple	11	65,292,939	Body	Island	SCYL1	0.446	-0.001	0.021	0.577
cg18909525	purple	9	132,403,873	Body	Island	ASB6	0.446	-0.001	0.062	0.794
cg05374867	purple	4	1,283,472	TSS200	Island	MAEA	0.445	0.000	0.018	0.811
cg04109349	purple	1	245,317,172	TSS1500	Island	KIF26B	0.445	-0.002	0.022	0.279
cg04609307	purple	1	8,378,356		Island		0.445	-0.002	0.038	0.592
cg19248242	purple	19	3,094,902	Body	Island	GNA11	0.445	-0.004	0.045	0.139
cg00326259	purple	5	31,855,477	Body	S_Shore	PDZD2	0.445	0.000	0.023	0.976
cg14462067	purple	6	3,158,207	TSS1500	Island	TUBB2A	0.445	-0.001	0.020	0.343
cg23113350	purple	1	92,352,404	TSS1500	S_Shore	TGFB3	0.445	-0.001	0.032	0.781
cg23317683	purple	7	99,698,554	Body	Island	MCM7	0.445	-0.002	0.026	0.534
cg06656027	purple	12	50,016,493	TSS1500	N_Shore	PRPF40B	0.445	-0.001	0.023	0.660
cg20187720	purple	8	126,444,251	Body	Island	TRIB1	0.445	-0.001	0.016	0.161
cg01414185	purple	2	177,017,449	Body	Island	HOXD4	0.445	-0.001	0.023	0.665
cg12229912	purple	17	45,266,302	Body	Island	CDC27	0.444	0.000	0.028	0.843
cg02164492	purple	11	46,414,469		Island		0.444	0.000	0.016	0.762
cg24008929	purple	6	32,939,974	5'UTR	Island	BRD2	0.444	0.000	0.031	0.782
cg23304085	purple	5	133,703,889	TSS1500	S_Shore	CDKL3	0.443	0.003	0.943	0.496
cg03699469	purple	8	144,242,029	5'UTR	Island	LY6H	0.443	0.000	0.017	0.897
cg19633962	purple	1	26,362,018	3'UTR	Island	EXTL1	0.443	-0.001	0.058	0.744
cg18045831	purple	1	19,577,885	TSS200	Island	MRT04	0.443	-0.001	0.012	0.276
cg25683325	purple	1	158,151,058	Body	Island	CD1D	0.443	-0.001	0.025	0.545
cg13848598	purple	10	115,804,578	1stExon	Island	ADR1	0.443	0.007	0.063	0.361
cg07972488	purple	22	43,506,347	TSS1500	N_Shore	BIK	0.443	0.001	0.016	0.311
cg20136959	purple	13	49,821,950	TSS200	Island	CDADC1	0.443	0.001	0.023	0.649
cg25498327	purple	5	68,389,852	TSS200	Island	SLC30A5	0.442	0.002	0.039	0.577
cg10568225	purple	11	112,151,305				0.442	-0.001	0.016	0.458
cg15266497	purple	6	32,936,347	TSS200	Island	BRD2	0.442	0.000	0.037	0.966
cg02357725	purple	15	75,932,598	5'UTR	Island	IMP3	0.442	0.000	0.017	0.914
cg25426776	purple	17	48,226,898	1stExon	Island	PPP1R9B	0.442	0.000	0.021	0.789
cg21850852	purple	17	73,746,186	Body	N_Shelf	ITGB4	0.441	-0.003	0.026	0.130
cg23503796	purple	19	8,385,921	Body	N_Shore	NDUFA7	0.441	-0.003	0.025	0.041
cg01301935	purple	16	69,599,904	1stExon	Island	NFAT5	0.441	0.000	0.028	0.853
cg18108022	purple	8	103,666,233	Body	Island	KLF10	0.441	-0.004	0.030	0.350
cg07973146	purple	20	18,488,185	TSS200	Island	SEC23B	0.441	-0.001	0.043	0.671
cg17906269	purple	1	149,871,404	5'UTR	Island	BOLA1	0.441	0.000	0.057	0.930
cg02425709	purple	6	133,135,492	TSS1500	Island	RPS12	0.441	-0.002	0.032	0.269
cg21638161	purple	8	144,512,759	TSS200	Island	MAFA	0.441	-0.001	0.015	0.353
cg21198603	purple	14	105,957,410	TSS200	Island	C14orf80	0.440	-0.002	0.023	0.407
cg26160543	purple	1	27,019,643		N_Shelf		0.440	0.000	0.022	0.858
cg16697268	purple	16	1,484,406	3'UTR	S_Shore	CCDC154	0.440	-0.007	0.325	0.188
cg26475085	purple	5	38,845,600	TSS1500	Island	OSMR	0.440	0.000	0.017	0.985
cg14601560	purple	2	238,970,191	Body	S_Shore	SCLY	0.440	-0.001	0.041	0.780
cg24093411	purple	5	133,449,651	TSS1500	Island	TCF7	0.440	0.000	0.029	0.795
cg12219045	purple	22	44,894,262	TSS1500	S_Shore	LDOC1L	0.439	-0.003	0.032	0.452
cg05516012	purple	11	73,019,501	TSS200	Island	ARHGEF17	0.439	-0.001	0.066	0.857
cg26289012	purple	17	3,540,036	5'UTR	Island	CTNS	0.439	-0.001	0.041	0.859
cg27010645	purple	5	80,597,288	Body	N_Shore	RNU5E	0.439	0.001	0.040	0.723
cg26272614	purple	11	117,198,576	1stExon	Island	CEP164	0.439	0.000	0.013	0.876
cg13601435	purple	9	120,507,431		Island		0.439	-0.001	0.020	0.789
cg26681875	purple	18	57,567,697	Body	Island	PMAIP1	0.439	-0.002	0.025	0.299
cg15695648	purple	17	53,828,850	Body	S_Shore	PCTP	0.439	0.003	0.072	0.692
cg08235057	purple	22	21,057,110	Body	Island	TMEM191A	0.439	-0.002	0.019	0.095
cg18425254	purple	13	113,549,044		Island		0.439	0.001	0.060	0.927
cg01182555	purple	14	62,162,064	TSS200	Island	HIF1A	0.438	0.001	0.021	0.674
cg01445809	purple	20	48,099,468	TSS1500	Island	KCNB1	0.438	0.000	0.017	0.500
cg02803914	purple	10	26,727,925	5'UTR	Island	APBB1IP	0.438	-0.005	0.048	0.289
cg20954987	purple	12	48,578,223	1stExon	Island	C12orf68	0.437	-0.006	0.070	0.319
cg04389422	purple	12	24,715,564	TSS200	Island	SOX5	0.437	-0.001	0.021	0.495
cg11178810	purple	3	150,479,760	Body	Island	SIAH2	0.437	0.000	0.025	1.000
cg11344668	purple	7	75,677,322	TSS200	Island	STYXL1	0.437	-0.005	0.045	0.310
cg05022341	purple	5	176,074,015	TSS1500	N_Shore	TSPAN17	0.437	-0.005	0.045	0.237
cg00078221	purple	5	139,927,754	Body	S_Shore	EIF4EBP3	0.437	-0.001	0.062	0.841
cg03884587	purple	1	177,150,934	5'UTR	Island	FAM5B	0.437	-0.001	0.021	0.683
cg07476130	purple	9	74,525,250	TSS1500	Island	C9orf85	0.437	0.000	0.017	0.941
cg04263118	purple	20	17,512,177	Body	Island	BFSP1	0.436	0.001	0.023	0.640
cg06039355	purple	10	118,032,033	5'UTR	Island	GFRA1	0.436	-0.001	0.029	0.741

cg05815411	purple	17	61,819,127	5'UTR	Island	STRADA	0.436	-0.003	0.038	0.134
cg13849371	purple	9	135,546,639	TSS1500	S_Shore	DDX31	0.436	0.001	0.032	0.741
cg01862418	purple	14	105,953,145	TSS200	Island	CRIP1	0.436	-0.002	0.027	0.190
cg08827674	purple	17	73,522,539	5'UTR	Island	LLGL2	0.436	-0.001	0.064	0.743
cg18697006	purple	19	57,922,823	Body	Island	ZNF17	0.436	-0.001	0.025	0.443
cg08858210	purple	8	98,290,361	TSS200	Island	TSPYL5	0.436	0.000	0.024	0.848
cg24189717	purple	2	27,593,355	TSS200	Island	EIF2B4	0.436	-0.001	0.023	0.537
cg00979931	purple	11	72,533,664	Body	Island	ATG16L2	0.436	-0.001	0.073	0.898
cg24171938	purple	17	7,308,032	TSS1500	Island	C17orf61	0.436	-0.001	0.031	0.474
cg10534923	purple	11	64,879,398	1stExon	Island	TM7SF2	0.435	0.001	0.025	0.632
cg24537038	purple	9	99,213,506	Body	Island	HABP4	0.435	0.001	0.021	0.583
cg13849253	purple	9	35,676,166	Body	Island	CA9	0.435	-0.004	0.056	0.248
cg01015652	purple	14	64,761,003	1stExon	Island	ESR2	0.435	-0.003	0.026	0.132
cg07631383	purple	7	131,012,765	Body	Island	MKLN1	0.435	-0.002	0.027	0.217
cg24415082	purple	16	74,700,811	TSS200	Island	RFWD3	0.434	0.000	0.021	0.669
cg02804564	purple	10	112,679,224	TSS200	Island	NCRNA00081	0.434	0.000	0.016	0.931
cg25811820	purple	20	30,795,836	TSS1500	Island	PLAGL2	0.434	-0.001	0.025	0.647
cg01296360	purple	8	145,925,767		Island		0.434	0.001	0.077	0.762
cg13186597	purple	10	33,624,123	TSS1500	Island	NRP1	0.434	0.000	0.032	0.924
cg17059575	purple	17	33,307,583	5'UTR	Island	LIG3	0.434	0.000	0.018	0.922
cg10798766	purple	7	2,442,793	TSS1500	Island	CHST12	0.433	0.004	0.127	0.571
cg03498304	purple	16	67,876,141	5'UTR	Island	CENPT	0.433	0.001	0.031	0.600
cg24139421	purple	11	2,923,578	5'UTR	Island	SLC22A18AS	0.433	0.001	0.019	0.585
cg27236825	purple	15	80,216,052	Body	Island	C15orf37	0.433	-0.002	0.022	0.472
cg02103294	purple	8	59,465,971	5'UTR	Island	SDCBP	0.433	0.000	0.033	0.902
cg12918961	purple	18	24,128,557	5'UTR	Island	KCTD1	0.433	-0.001	0.024	0.512
cg22920501	purple	2	26,401,640	Body	N_Shore	FAM59B	0.432	0.059	0.185	0.044
cg13721404	purple	18	31,739,202	Body	Island	NOL4	0.431	0.000	0.020	0.636
cg12569118	purple	11	74,394,623		Island		0.431	-0.004	0.040	0.493
cg12559031	purple	17	48,046,365	TSS200	Island	DLX4	0.431	-0.002	0.036	0.336
cg00850167	purple	5	137,800,779	TSS1500	Island	EGR1	0.431	0.002	0.025	0.526
cg02630129	purple	21	16,438,166	TSS1500	S_Shore	NRIP1	0.431	0.001	0.018	0.250
cg12856612	purple	22	42,228,819	TSS1500	Island	SREBF2	0.431	0.001	0.022	0.521
cg15257096	purple	17	80,010,266	1stExon	Island	GPS1	0.431	-0.002	0.023	0.080
cg24799620	purple	4	55,100,025	5'UTR	Island	PDGFRA	0.431	-0.001	0.020	0.889
cg01302669	purple	3	49,824,110	TSS200	Island	IP6K1	0.431	0.001	0.014	0.418
cg18807071	purple	2	207,139,408	TSS200	Island	ZDBF2	0.431	0.000	0.022	0.781
cg14843772	purple	1	93,811,463	TSS200	Island	DR1	0.431	0.003	0.054	0.260
cg09763362	purple	6	138,188,575	TSS200	Island	TNFAIP3	0.431	0.001	0.051	0.573
cg10633491	purple	19	4,066,815	1stExon	Island	ZBTB7A	0.431	-0.004	0.045	0.240
cg14759043	purple	12	3,862,597	TSS1500	Island	EFCAB4B	0.430	0.002	0.187	0.782
cg05090725	purple	11	107,799,287	5'UTR	Island	RAB39	0.430	0.001	0.027	0.658
cg22093095	purple	3	50,310,572	Body	Island	SEMA3B	0.430	-0.003	0.030	0.322
cg17926289	purple	18	21,166,680	TSS200	Island	NPC1	0.430	-0.001	0.019	0.290
cg15422005	purple	5	87,991,197				0.430	-0.002	0.060	0.698
cg13789711	purple	9	139,743,225	TSS200	Island	PHPT1	0.430	0.000	0.020	0.794
cg18565702	purple	13	113,241,891	Body	Island	TUBGCP3	0.430	0.006	0.027	0.210
cg19838697	purple	10	75,007,044	TSS200	Island	DNAJC9	0.430	0.000	0.032	0.953
cg01314194	purple	1	150,947,587	TSS200	Island	LASS2	0.429	-0.001	0.030	0.453
cg26681354	purple	14	55,369,212	1stExon	Island	GCH1	0.429	-0.003	0.043	0.267
cg18675381	purple	19	40,950,523	TSS1500	Island	SERTAD3	0.429	0.002	0.029	0.336
cg01455880	purple	9	117,268,044	TSS1500	Island	DFNB31	0.429	0.001	0.025	0.531
cg21657824	purple	11	120,381,927		Island		0.429	0.001	0.019	0.182
cg00518386	purple	16	10,276,984	TSS1500	Island	GRIN2A	0.429	-0.002	0.024	0.492
cg09822018	purple	16	79,635,284	TSS1500	Island	MAF	0.429	0.000	0.027	0.983
cg03280620	purple	17	34,890,860	5'UTR	Island	MYO19	0.429	-0.003	0.038	0.363
cg04309227	purple	1	26,561,027	5'UTR	Island	CCDC21	0.428	0.001	0.021	0.679
cg14184882	purple	9	125,026,958	Body	Island	RBM18	0.428	-0.002	0.021	0.394
cg10533282	purple	15	99,602,454		Island		0.428	-0.007	0.072	0.067
cg17821079	purple	1	244,614,869	Body	Island	ADSS	0.428	-0.003	0.051	0.563
cg08809418	purple	12	56,881,865	1stExon	Island	GLS2	0.428	-0.003	0.030	0.194
cg03062760	purple	16	88,803,931	Body	Island	FAM38A	0.428	0.000	0.042	0.999
cg25043477	purple	11	77,531,843	TSS1500	Island	C11orf67	0.428	0.000	0.030	0.906
cg00067365	purple	5	43,121,575	TSS200	Island	ZNF131	0.428	0.000	0.018	0.864
cg02241330	purple	19	15,122,142	1stExon	Island	CCDC105	0.427	-0.008	0.061	0.130
cg01931502	purple	1	161,284,176	5'UTR	Island	SDHC	0.427	-0.003	0.179	0.480
cg23400985	purple	17	18,162,130	TSS200	Island	FLII	0.427	0.000	0.057	0.991

cg04210544	purple	13	111,806,530	Body	Island	ARHGEF7	0.427	-0.004	0.051	0.260
cg13423282	purple	19	19,174,731	TSS200	Island	SLC25A42	0.427	-0.015	0.077	0.234
cg24063039	purple	17	77,812,017	Body	Island	CBX4	0.427	0.000	0.018	0.956
cg04405332	purple	1	167,789,609	Body	Island	ADCY10	0.426	0.002	0.036	0.544
cg02375499	purple	12	6,961,433	1stExon	Island	USP5	0.426	0.000	0.019	0.481
cg02197392	purple	19	13,049,544	1stExon	Island	CALR	0.426	0.002	0.030	0.610
cg07831432	purple	5	179,125,659	TSS1500	Island	CANX	0.426	-0.002	0.041	0.832
cg14066439	purple	9	134,158,261		Island		0.426	-0.001	0.018	0.062
cg11287851	purple	11	119,187,772	1stExon	Island	MCAM	0.425	-0.001	0.040	0.878
cg05875110	purple	15	89,147,446		N_Shore		0.425	-0.003	0.039	0.373
cg24617723	purple	2	187,714,003	TSS200	Island	ZSWIM2	0.425	0.001	0.033	0.742
cg14984257	purple	2	8,822,600	1stExon	Island	ID2	0.425	0.010	0.371	0.244
cg04713453	purple	5	17,217,093	Body	N_Shore	LOC285696	0.425	0.000	0.022	0.816
cg06967784	purple	10	129,809,827	5'UTR		PTPRE	0.424	-0.001	0.016	0.124
cg20574695	purple	12	19,282,718	1stExon	Island	PLEKHA5	0.424	-0.001	0.025	0.582
cg10214421	purple	7	155,174,508		Island		0.424	-0.003	0.024	0.167
cg15873301	purple	3	12,045,459	TSS1500	N_Shore	SYN2	0.424	-0.004	0.025	0.234
cg09775930	purple	13	28,501,413		N_Shore		0.424	0.000	0.019	0.834
cg04935041	purple	17	3,796,782	TSS1500	Island	CAMKK1	0.424	-0.001	0.016	0.640
cg08064553	purple	16	90,038,854	5'UTR	Island	CENPBD1	0.424	0.000	0.022	0.904
cg19123107	purple	9	136,324,577	TSS1500	N_Shore	C9orf7	0.423	-0.001	0.028	0.695
cg10337079	purple	11	2,158,697	Body	N_Shore	INS-IGF2	0.422	-0.002	0.041	0.479
cg02094388	purple	10	27,443,318	1stExon	Island	YME1L1	0.421	0.001	0.022	0.163
cg27567401	purple	6	75,915,782	TSS200	Island	COL12A1	0.421	-0.003	0.036	0.111
cg24325883	purple	1	46,713,301	TSS200		RAD54L	0.421	-0.001	0.035	0.480
cg26406994	purple	4	99,182,798	Body	Island	RAP1GDS1	0.421	0.002	0.018	0.227
cg02115904	purple	11	82,997,380	TSS200	Island	CCDC90B	0.421	0.009	0.074	0.117
cg22265644	purple	20	21,494,716	TSS200	Island	NKX2-2	0.421	-0.005	0.073	0.304
cg06622379	purple	4	66,536,309	TSS1500	Island	EPHA5	0.420	0.000	0.026	0.775
cg05057720	purple	14	38,724,675	1stExon	Island	CLEC14A	0.420	-0.001	0.021	0.539
cg10214171	purple	16	27,215,034	TSS1500	Island	JMJD5	0.420	-0.001	0.022	0.284
cg12053532	purple	2	153,031,841	Body	N_Shore	STAM2	0.420	0.001	0.024	0.378
cg27088449	purple	22	21,272,634	Body	S_Shore	CRKL	0.420	-0.001	0.045	0.638
cg25311271	purple	7	55,087,519	Body	Island	EGFR	0.420	-0.001	0.030	0.580
cg21607453	purple	9	98,783,545	Body	Island	NCRNA00092	0.419	0.000	0.018	0.756
cg08135234	purple	18	60,191,519	1stExon	Island	ZCCHC2	0.419	-0.002	0.049	0.704
cg02440668	purple	17	77,721,989		Island		0.419	0.000	0.019	0.868
cg26215009	purple	5	34,008,104	1stExon	Island	AMACR	0.419	0.000	0.015	0.795
cg04583149	purple	19	1,207,124	1stExon	Island	STK11	0.418	0.000	0.021	0.865
cg16485682	purple	18	19,749,540	5'UTR	Island	GATA6	0.418	-0.007	0.038	0.432
cg18795599	purple	2	132,251,253	TSS1500	S_Shore	FAM128A	0.418	0.000	0.023	0.987
cg05953549	purple	16	56,966,104	1stExon	Island	HERPUD1	0.418	0.000	0.016	0.621
cg15377013	purple	3	50,329,977	1stExon	Island	IFRD2	0.417	0.001	0.034	0.655
cg25945961	purple	4	140,477,705	TSS200	Island	SETD7	0.417	0.001	0.021	0.608
cg21139845	purple	12	7,053,993	Body	S_Shore	C12orf57	0.417	0.000	0.016	0.704
cg19601674	purple	19	461,832	TSS1500	Island	SHC2	0.417	0.000	0.018	0.679
cg22435081	purple	17	41,323,035	5'UTR	Island	NBR1	0.417	0.000	0.017	0.871
cg14243623	purple	9	90,341,158	1stExon	Island	CTSL1	0.417	0.000	0.030	0.934
cg18645906	purple	4	15,704,599	1stExon	N_Shore	BST1	0.417	-0.014	0.151	0.257
cg17810588	purple	13	102,570,482	Body	S_Shore	FGF17	0.417	0.002	0.069	0.769
cg02789309	purple	3	52,091,282	TSS1500	Island	DUSP7	0.416	0.001	0.026	0.359
cg26351229	purple	8	132,053,780	TSS1500	Island	ADCY8	0.416	0.002	0.042	0.637
cg17824173	purple	12	74,931,535	TSS200	Island	LOC552889	0.416	-0.002	0.025	0.069
cg22128035	purple	2	47,168,977	1stExon	Island	MCFD2	0.415	-0.003	0.033	0.113
cg13903179	purple	13	21,900,392		N_Shore		0.415	0.002	0.140	0.786
cg05867645	purple	5	176,778,779	5'UTR	Island	LMAN2	0.415	0.000	0.039	0.971
cg07392088	purple	10	1,034,168	TSS200	Island	GTPBP4	0.415	0.001	0.030	0.662
cg09726982	purple	2	220,379,016	5'UTR	S_Shore	ACCN4	0.415	0.001	0.020	0.264
cg02837793	purple	17	12,693,219	Body	Island	RICH2	0.415	-0.006	0.052	0.184
cg12426141	purple	15	57,210,872	5'UTR	Island	TCF12	0.414	-0.001	0.016	0.627
cg04038179	purple	7	127,806,902		Island		0.414	-0.001	0.038	0.738
cg07353572	purple	1	91,966,518	TSS200	Island	CDC7	0.414	-0.002	0.014	0.087
cg05716316	purple	15	78,799,689	TSS1500	Island	AGPHD1	0.414	0.000	0.024	0.870
cg00296182	purple	10	8,090,162		N_Shore		0.413	-0.006	0.051	0.326
cg01943654	purple	5	36,151,711	1stExon	Island	LMBRD2	0.413	0.004	0.068	0.338
cg26306411	purple	22	29,196,699	TSS200	Island	XBP1	0.413	-0.003	0.024	0.115
cg10587913	purple	12	54,392,867	TSS1500	N_Shore	HOXC9	0.413	0.002	0.089	0.801



cg20080590	purple	4	24,831,413	Body		CCDC149	0.413	-0.001	0.893	0.873
cg10541361	purple	1	235,667,946	TSS200	Island	B3GALNT2	0.413	0.001	0.036	0.779
cg01290580	purple	14	103,851,502	TSS200	Island	MARK3	0.412	-0.003	0.026	0.599
cg03854262	purple	9	95,896,872	TSS1500	Island	NINJ1	0.412	-0.004	0.032	0.022
cg07462540	purple	7	8,473,279	TSS1500	Island	NXPH1	0.412	-0.001	0.040	0.544
cg02421985	purple	5	180,527,547		Island		0.412	0.000	0.027	0.871
cg11520985	purple	6	7,313,314	1stExon	Island	SSR1	0.412	-0.004	0.030	0.422
cg05882878	purple	2	37,458,821	TSS200	Island	CEBPZ	0.412	-0.001	0.028	0.799
cg18628732	purple	6	30,095,295		Island		0.411	0.000	0.028	0.995
cg27129297	purple	1	155,293,118	Body	Island	RUSC1	0.411	-0.002	0.040	0.241
cg10728469	purple	7	115,850,755	5'UTR	Island	TES	0.411	-0.002	0.028	0.242
cg03360992	purple	22	38,093,207	5'UTR		TRIOBP	0.411	0.001	0.034	0.702
cg00662489	purple	1	25,942,827	TSS1500	Island	MAN1C1	0.411	0.002	0.027	0.259
cg04254454	purple	6	26,123,398	TSS1500	N_Shore	HIST1H2AC	0.410	-0.003	0.046	0.564
cg06756557	purple	10	90,639,746	TSS1500	N_Shore	STAMBPL1	0.410	0.000	0.017	0.930
cg26660754	purple	5	112,043,194	TSS200	Island	APC	0.410	0.002	0.073	0.474
cg07817400	purple	6	33,172,817	Body	Island	HSD17B8	0.410	-0.001	0.018	0.372
cg24061141	purple	7	35,293,869	TSS200	Island	TBX20	0.410	-0.001	0.019	0.658
cg21859019	purple	1	24,882,153	TSS1500		C1orf130	0.409	0.001	0.029	0.569
cg11429292	purple	12	6,888,035				0.409	-0.004	0.045	0.209
cg07234102	purple	4	96,470,237	TSS200	Island	UNC5C	0.409	0.000	0.021	1.000
cg11508413	purple	13	28,365,853	TSS1500	N_Shore	GSX1	0.409	-0.001	0.071	0.840
cg02215538	purple	5	139,782,041	Body	Island	ANKHD1	0.409	-0.001	0.026	0.576
cg25036284	purple	2	26,402,008	Body	Island	FAM59B	0.408	0.015	0.037	0.206
cg23291732	purple	17	40,169,247	TSS200	Island	DNAJC7	0.408	0.000	0.014	0.836
cg01111358	purple	18	55,102,627	TSS1500	Island	ONECUT2	0.408	-0.001	0.021	0.417
cg11820497	purple	19	10,654,946	1stExon	Island	ATG4D	0.408	-0.002	0.024	0.103
cg06544643	purple	4	140,036,662	Body	Island	ELF2	0.408	-0.007	0.567	0.425
cg24602499	purple	8	27,765,868	Body		SCARA5	0.407	-0.013	0.160	0.265
cg03582761	purple	1	78,225,434	5'UTR	Island	USP33	0.407	0.001	0.041	0.760
cg18907029	purple	17	76,165,253	Body	Island	SYNGR2	0.407	-0.003	0.054	0.278
cg25953504	purple	17	79,981,121	TSS1500	Island	STRA13	0.406	0.004	0.117	0.385
cg25724123	purple	12	112,450,556	TSS1500	N_Shore	ERP29	0.406	-0.001	0.034	0.431
cg11028409	purple	10	104,192,462	TSS200	Island	CUEDC2	0.405	0.001	0.017	0.492
cg09972259	purple	13	112,711,854		Island		0.405	-0.001	0.032	0.683
cg19078334	purple	9	113,019,254	TSS1500	Island	TXN	0.405	0.001	0.017	0.226
cg06151243	purple	17	5,000,872		Island		0.405	-0.001	0.015	0.541
cg00606102	purple	16	86,542,659	TSS1500	Island	FOXF1	0.405	0.000	0.014	0.913
cg06901759	purple	20	47,001,709		Island		0.405	0.010	0.307	0.108
cg13551814	purple	20	45,280,276	TSS200	S_Shore	SLC13A3	0.405	-0.007	0.106	0.117
cg07388806	purple	6	7,108,895	5'UTR	Island	RREB1	0.405	-0.002	0.020	0.177
cg07376313	purple	4	15,006,499	Body	Island	CPEB2	0.404	-0.005	0.061	0.362
cg13487189	purple	9	6,413,852	Body	Island	UHRF2	0.404	0.000	0.021	0.952
cg05732956	purple	15	98,447,696				0.404	-0.002	0.043	0.269
cg25829226	purple	15	65,134,451	Body	S_Shore	PLEKHO2	0.404	-0.001	0.033	0.423
cg01493617	purple	17	79,650,915	TSS200	Island	HGS	0.403	-0.004	0.025	0.070
cg14241323	purple	18	13,824,002		Island		0.403	-0.002	0.026	0.139
cg08509237	purple	6	32,122,065	5'UTR	Island	PPT2	0.403	0.000	0.024	0.752
cg07671174	purple	3	58,224,051	5'UTR	Island	ABHD6	0.401	0.000	0.025	0.838
cg24797840	purple	10	8,095,173	Body	Island	FLJ45983	0.401	-0.001	0.031	0.502
cg09791883	purple	6	30,069,659		N_Shore		0.401	-0.001	0.022	0.545
cg00336320	purple	6	36,253,099	5'UTR		PNPLA1	0.400	-0.001	0.024	0.375
cg24827660	purple	20	58,179,538	TSS200	N_Shore	PHACTR3	0.400	-0.001	0.026	0.671
cg08952343	purple	8	19,615,134		Island		0.400	0.000	0.017	0.915
cg08177359	purple	15	81,071,843	5'UTR	Island	KIAA1199	0.400	0.005	0.042	0.231
cg10307172	purple	11	123,302,099		Island		0.399	-0.001	0.019	0.372
cg01930441	purple	16	21,289,268	Body	N_Shore	CRYM	0.399	-0.009	0.182	0.291
cg03252536	purple	17	35,306,063	TSS200	Island	AATF	0.399	0.001	0.018	0.752
cg05389560	purple	12	21,654,664	TSS200	Island	RECQL	0.399	0.005	0.086	0.546
cg24786176	purple	4	113,153,431	Body	Island	AP1AR	0.399	0.001	0.020	0.547
cg22186831	purple	5	176,544,048		Island		0.399	-0.006	0.032	0.036
cg05844713	purple	7	148,844,315	5'UTR	Island	ZNF398	0.399	-0.001	0.037	0.759
cg02308245	purple	16	85,833,143	1stExon	Island	COX4NB	0.399	0.007	0.079	0.291
cg02667467	purple	17	72,920,176	TSS200	Island	OTOP2	0.399	-0.001	0.121	0.871
cg19678270	purple	3	180,630,780	Body	Island	FXR1	0.398	0.002	0.020	0.055
cg06785746	purple	17	44,896,166	TSS200	Island	WNT3	0.398	0.001	0.024	0.784
cg21482403	purple	19	12,889,342		Island		0.397	-0.001	0.034	0.611

cg26925343	purple	16	28,857,904	TSS200	Island	TUFM	0.397	0.000	0.039	0.995
cg25732282	purple	1	204,463,537		Island		0.397	-0.004	0.026	0.046
cg24701257	purple	7	73,097,740	TSS200	Island	WBSCR22	0.397	0.002	0.031	0.737
cg13962513	purple	1	36,863,565	TSS200	Island	LSM10	0.397	0.003	0.024	0.104
cg06128509	purple	10	91,461,539	5'UTR	Island	KIF20B	0.397	-0.002	0.019	0.133
cg21998383	purple	1	162,039,240	TSS1500	N_Shore	NOS1AP	0.396	0.000	0.021	0.987
cg16818725	purple	12	132,962,614		N_Shelf		0.396	-0.007	0.363	0.682
cg04556601	purple	17	18,761,454	TSS200	Island	PRPSAP2	0.396	0.000	0.019	0.890
cg10421002	purple	15	33,603,610	Body	Island	RYR3	0.396	-0.001	0.033	0.743
cg12100751	purple	1	109,203,672	1stExon	Island	C1orf59	0.396	-0.002	0.050	0.807
cg09260158	purple	1	42,921,899	TSS1500	Island	PPCS	0.396	0.000	0.009	0.658
cg16340159	purple	2	240,322,705	TSS200	Island	HDAC4	0.396	0.003	0.033	0.358
cg12269116	purple	1	45,205,193	TSS1500	N_Shore	KIF2C	0.396	-0.002	0.020	0.327
cg19695335	purple	20	25,604,759	TSS200	Island	NANP	0.396	0.002	0.037	0.757
cg04595323	purple	17	78,400,892	Body		FLJ35220	0.396	-0.005	0.043	0.064
cg04759648	purple	14	38,052,740		Island		0.395	-0.003	0.030	0.062
cg03232484	purple	7	93,633,800	TSS200	Island	BET1	0.395	0.000	0.025	0.889
cg08964912	purple	20	60,982,779	TSS1500	Island	CABLES2	0.395	0.000	0.023	0.841
cg14265813	purple	6	35,435,985	TSS200	Island	RPL10A	0.394	-0.001	0.015	0.581
cg10594237	purple	3	183,165,594		Island		0.394	0.000	0.020	0.773
cg05404236	purple	13	110,437,093	1stExon	Island	IRS2	0.394	0.000	0.018	0.947
cg01886556	purple	4	17,783,205	TSS200	Island	FAM184B	0.394	-0.001	0.043	0.835
cg15638547	purple	2	71,357,459	1stExon	Island	MPHOSPH10	0.394	0.000	0.018	0.611
cg10815229	purple	4	185,940,007	TSS200	Island	HELT	0.393	-0.003	0.022	0.073
cg24053642	purple	1	222,791,799	Body	Island	MIA3	0.393	0.001	0.021	0.840
cg06917772	purple	11	126,286,370		N_Shore		0.392	0.006	0.373	0.360
cg18089397	purple	4	2,264,747	TSS1500	S_Shore	MXD4	0.392	-0.002	0.033	0.483
cg15564865	purple	6	4,021,423	TSS200	N_Shore	PRPF4B	0.392	0.001	0.032	0.394
cg04208734	purple	7	73,270,063		Island		0.391	0.001	0.084	0.870
cg19286604	purple	11	125,365,138	5'UTR	Island	FEZ1	0.391	-0.002	0.027	0.065
cg15687659	purple	3	128,445,120	1stExon	Island	RAB7A	0.391	0.001	0.019	0.429
cg24756756	purple	7	16,793,323	TSS200	Island	TSPAN13	0.391	-0.007	0.053	0.142
cg18313340	purple	13	112,760,898		Island		0.391	0.000	0.031	0.761
cg16512069	purple	2	33,824,427	TSS200	Island	FAM98A	0.390	0.000	0.020	0.533
cg19152508	purple	10	28,034,044	5'UTR	Island	MKX	0.390	0.000	0.037	0.882
cg25805189	purple	2	37,458,826	TSS200	Island	CEBPZ	0.390	-0.001	0.024	0.304
cg26623286	purple	17	6,555,130	5'UTR	Island	C17orf100	0.390	0.002	0.023	0.171
cg08096946	purple	3	122,514,224	1stExon	Island	DIRC2	0.390	0.001	0.050	0.811
cg19205023	purple	10	134,001,455	Body	Island	DPYSL4	0.390	-0.007	0.056	0.098
cg07286341	purple	5	176,923,805	5'UTR	Island	PDLIM7	0.389	-0.001	0.013	0.359
cg16711792	purple	21	32,930,054	5'UTR	Island	TIAM1	0.389	0.001	0.038	0.584
cg27498675	purple	19	41,945,691	Body	Island	ATP5SL	0.389	-0.002	0.015	0.071
cg12270368	purple	8	143,690,743		N_Shelf		0.389	-0.007	0.077	0.199
cg09947609	purple	8	104,310,770	TSS1500	N_Shore	FZD6	0.389	0.003	0.032	0.341
cg26742440	purple	11	73,472,391	TSS200	Island	RAB6A	0.388	0.001	0.021	0.489
cg14582220	purple	15	68,522,224	TSS200	Island	CLN6	0.388	-0.002	0.035	0.471
cg10005894	purple	3	186,649,165	5'UTR	S_Shore	ST6GAL1	0.388	0.000	0.013	0.997
cg11234328	purple	10	135,043,586	TSS200	Island	UTF1	0.388	-0.008	0.068	0.106
cg14473344	purple	3	142,840,240	Body	Island	CHST2	0.387	-0.005	0.073	0.537
cg20695433	purple	19	30,019,102	Body	Island	VSTM2B	0.387	-0.007	0.054	0.100
cg07479092	purple	5	57,756,539	TSS1500	Island	PLK2	0.387	0.002	0.024	0.355
cg24133276	purple	5	65,222,326	TSS200	Island	ERBB2IP	0.387	-0.002	0.033	0.303
cg01897500	purple	17	75,883,996		Island		0.386	0.002	0.026	0.213
cg21149708	purple	8	21,549,935	3'UTR		GFRA2	0.386	-0.001	0.301	0.911
cg18801245	purple	12	50,794,975	Body	S_Shore	LARP4	0.386	-0.001	0.026	0.419
cg10567810	purple	18	11,149,068	TSS1500	Island	FAM38B	0.386	-0.008	0.049	0.096
cg03826976	purple	11	7,695,433	TSS1500	Island	CYB5R2	0.386	-0.008	0.050	0.181
cg04926803	purple	4	57,302,098	TSS200	Island	PAICS	0.385	0.000	0.024	0.499
cg10663781	purple	12	109,531,279	1stExon	Island	ALKBH2	0.385	0.000	0.031	0.815
cg09545123	purple	19	46,142,357	TSS200	N_Shelf	MIR330	0.385	-0.001	0.022	0.411
cg27039626	purple	7	100,860,819	1stExon	Island	PLOD3	0.385	0.001	0.029	0.522
cg03915167	purple	11	105,947,676	5'UTR	N_Shore	KBTBD3	0.385	0.001	0.061	0.803
cg05318427	purple	2	85,199,320	Body	Island	KCMF1	0.385	-0.001	0.037	0.778
cg26898605	purple	15	93,277,307				0.385	0.004	0.306	0.707
cg23628684	purple	21	30,446,052	TSS200	Island	CCT8	0.385	0.000	0.018	0.844
cg18782991	purple	5	140,479,979	TSS1500	N_Shore	PCDHB3	0.384	-0.001	0.027	0.457
cg04928875	purple	2	128,568,924	TSS200	Island	WDR33	0.384	0.001	0.033	0.388

cg26526379	purple	7	26,416,184	Island		0.384	-0.020	0.065	0.008
cg18530512	purple	19	14,186,152	S_Shore		0.384	-0.003	0.030	0.167
cg00956010	purple	17	2,239,526 Body	N_Shore	TSR1	0.384	0.002	0.033	0.210
cg25554036	purple	4	6,271,136 TSS1500	N_Shore	WFS1	0.384	0.002	0.117	0.803
cg05309964	purple	1	156,182,615 TSS200	Island	PMF1	0.384	0.000	0.025	0.694
cg04017555	purple	11	61,062,704 5'UTR	Island	VWCE	0.383	-0.001	0.035	0.671
cg22256027	purple	4	4,863,016 Body	N_Shore	MSX1	0.383	-0.001	0.027	0.443
cg24839718	purple	19	37,568,953 TSS1500	Island	ZNF420	0.383	-0.001	0.100	0.829
cg14337339	purple	3	53,529,481 Body	Island	CACNA1D	0.382	-0.001	0.015	0.444
cg06562306	purple	2	209,271,986 Body	Island	PTH2R	0.382	-0.001	0.035	0.810
cg03156389	purple	20	23,330,637 TSS1500	Island	NXT1	0.382	0.000	0.009	0.501
cg22569340	purple	19	46,000,819 TSS1500	N_Shore	RTN2	0.382	0.000	0.031	0.907
cg17297305	purple	1	185,287,148 TSS1500	S_Shore	IVNS1ABP	0.382	0.009	0.244	0.226
cg06630958	purple	7	128,577,819 TSS200	Island	IRF5	0.381	0.005	0.208	0.522
cg01663603	purple	20	48,099,343 TSS200	Island	KCNB1	0.381	0.000	0.021	0.779
cg10501976	purple	6	10,883,834	S_Shore		0.381	0.014	0.231	0.491
cg16863872	purple	21	45,526,972 TSS1500	Island	PWP2	0.381	0.000	0.018	0.494
cg19545348	purple	1	211,434,133 Body	Island	RCOR3	0.380	-0.001	0.021	0.456
cg00366917	purple	18	74,845,154 TSS1500	Island	MBP	0.380	-0.005	0.084	0.360
cg22591065	purple	12	56,618,214 1stExon	Island	OBFC2B	0.380	0.001	0.021	0.611
cg00666849	purple	2	85,839,032 1stExon	Island	C2orf68	0.380	-0.002	0.040	0.604
cg16301890	purple	10	119,301,464 TSS1500	Island	EMX2	0.380	0.000	0.042	0.836
cg09641215	purple	22	31,064,577 TSS1500	S_Shore	DUSP18	0.380	-0.004	0.064	0.226
cg03323462	purple	17	35,300,677	Island		0.379	0.003	0.054	0.475
cg10122302	purple	1	6,051,558 5'UTR	N_Shore	NPHP4	0.379	-0.004	0.020	0.015
cg06577604	purple	3	184,279,443 TSS200	Island	EPHB3	0.379	-0.006	0.045	0.152
cg03713996	purple	12	132,195,583 TSS200	Island	SFRS8	0.379	-0.008	0.037	0.081
cg12361925	purple	2	220,043,530 Body	S_Shore	FAM134A	0.378	-0.001	0.016	0.270
cg15432938	purple	10	99,078,812 TSS1500	Island	FRAT1	0.378	-0.001	0.025	0.639
cg04733826	purple	7	158,769,935	S_Shelf		0.378	0.001	0.019	0.505
cg22448889	purple	17	7,554,681 1stExon	Island	ATP1B2	0.378	0.000	0.035	0.847
cg02006610	purple	8	30,889,718 1stExon		PURG	0.378	0.001	0.942	0.580
cg06883496	purple	13	28,503,235	Island		0.378	-0.003	0.047	0.371
cg24127656	purple	17	27,224,861 TSS200	Island	FLOT2	0.378	0.000	0.026	0.801
cg02432532	purple	2	37,898,366 5'UTR	Island	CDC42EP3	0.377	0.000	0.020	0.915
cg26464006	purple	10	1,034,338 TSS200	Island	GTPBP4	0.376	-0.003	0.055	0.367
cg23634395	purple	4	21,306,048 Body		KCNIP4	0.376	-0.007	0.160	0.297
cg14654613	purple	19	23,185,804	Island		0.376	0.017	0.167	0.427
cg17047021	purple	7	99,063,273 Body	N_Shore	ATP5J2	0.375	0.001	0.030	0.672
cg22713359	purple	15	35,262,054 TSS200	Island	AQR	0.375	-0.001	0.022	0.492
cg23599559	purple	17	48,637,438 TSS1500	Island	CACNA1G	0.375	0.000	0.015	0.811
cg15622551	purple	19	11,039,538 1stExon	Island	C19orf52	0.374	0.000	0.026	0.761
cg16068727	purple	19	10,491,392 TSS200	Island	TYK2	0.374	-0.003	0.024	0.151
cg19386303	purple	19	47,104,863 Body	Island	CALM3	0.373	-0.001	0.048	0.844
cg00664406	purple	3	51,740,875 TSS1500	Island	GRM2	0.373	-0.003	0.044	0.292
cg12776699	purple	12	123,874,466 Body	Island	SETD8	0.372	0.002	0.024	0.277
cg07661177	purple	2	127,864,026 Body	Island	BIN1	0.372	0.000	0.027	0.971
cg16179125	purple	20	57,582,121 1stExon	Island	CTSZ	0.372	-0.001	0.029	0.226
cg03244411	purple	6	99,295,790	Island		0.372	-0.017	0.100	0.003
cg12099727	purple	7	73,097,886 TSS200	Island	WBSCR22	0.372	0.000	0.015	0.855
cg20620272	purple	3	167,968,129 Body	Island	C3orf50	0.372	-0.004	0.048	0.133
cg25632105	purple	7	136,553,728 1stExon	N_Shore	CHRM2	0.372	-0.001	0.025	0.611
cg19666287	purple	13	45,945,197 Body		LOC10019093	0.372	-0.001	0.027	0.319
cg22216491	purple	4	110,624,749 TSS200	Island	CASP6	0.372	-0.002	0.022	0.113
cg06245997	purple	11	3,829,615 Body	N_Shore	PGAP2	0.372	0.000	0.022	0.909
cg03726015	purple	11	9,468,497 3'UTR		IPO7	0.372	0.000	0.883	0.979
cg00516222	purple	17	27,949,795 TSS1500	Island	CORO6	0.371	0.001	0.039	0.820
cg15725440	purple	6	100,053,161 TSS1500	N_Shore	PRDM13	0.371	-0.009	0.204	0.357
cg14064148	purple	19	10,527,576	Island		0.371	0.000	0.171	0.973
cg26733301	purple	20	61,585,924 Body	S_Shore	SLC17A9	0.371	-0.008	0.115	0.240
cg16287791	purple	8	61,592,088 5'UTR	Island	CHD7	0.371	0.000	0.048	0.967
cg09155145	purple	5	1,875,188	Island		0.371	0.000	0.022	0.998
cg19980771	purple	6	110,798,022 TSS200	Island	SLC22A16	0.371	-0.019	0.085	0.076
cg01283343	purple	19	42,211,160 TSS1500		CEACAM5	0.370	0.006	0.261	0.538
cg21838880	purple	19	37,157,633 1stExon	Island	ZNF461	0.370	0.000	0.012	0.905
cg09577804	purple	10	3,235,532			0.370	-0.001	0.039	0.665
cg17139210	purple	1	115,213,243 TSS1500	S_Shore	DENND2C	0.370	0.001	0.031	0.415

cg27366862	purple	13	44,453,845	1stExon	Island	C13orf31	0.370	-0.001	0.018	0.390
cg23633679	purple	1	173,793,655	TSS1500	Island	CENPL	0.369	0.000	0.022	0.971
cg07515367	purple	17	45,401,150	TSS200	Island	C17orf57	0.369	0.004	0.059	0.467
cg15533434	purple	14	39,583,459	TSS200	Island	SIP1	0.369	-0.001	0.033	0.502
cg22634891	purple	4	96,470,250	TSS200	Island	UNC5C	0.369	-0.001	0.023	0.300
cg23511118	purple	3	67,840,535				0.369	-0.003	0.110	0.659
cg25806701	purple	4	155,663,990	TSS1500	Island	LRAT	0.368	-0.005	0.044	0.251
cg16317923	purple	5	169,816,472	Body		KCNIP1	0.368	0.001	0.310	0.819
cg05432017	purple	15	42,119,684	TSS1500	N_Shore	JMJD7	0.368	0.002	0.038	0.341
cg25449441	purple	7	157,644,471	Body	N_Shelf	PTPRN2	0.367	0.003	0.093	0.819
cg02564733	purple	11	130,319,074	1stExon	Island	ADAMTS15	0.367	0.000	0.022	0.974
cg25211403	purple	21	46,975,897		Island		0.366	0.001	0.019	0.776
cg16111791	purple	2	152,955,109	Body	Island	CACNB4	0.366	-0.001	0.024	0.358
cg11065506	purple	2	224,903,393	5'UTR	Island	SERPINE2	0.366	0.000	0.015	0.667
cg15423199	purple	8	97,274,566	TSS1500	Island	MTERFD1	0.366	0.001	0.038	0.595
cg03231960	purple	19	49,139,050	Body	Island	DBP	0.365	-0.002	0.047	0.783
cg10205334	purple	10	89,622,497	TSS1500	Island	PTEN	0.365	-0.002	0.026	0.082
cg15024566	purple	2	55,496,144	1stExon	Island	MTIF2	0.365	0.000	0.022	0.982
cg19178853	purple	4	174,450,408	TSS1500	Island	NBLA00301	0.364	0.000	0.027	0.934
cg27289478	purple	4	2,470,262	TSS1500	Island	RNF4	0.364	-0.001	0.052	0.903
cg09684381	purple	6	31,697,988	1stExon	Island	DDAH2	0.364	0.001	0.023	0.501
cg10008284	purple	2	85,186,334				0.364	0.000	0.826	0.996
cg08159291	purple	1	4,715,615	Body	Island	AJAP1	0.363	-0.004	0.041	0.220
cg05925327	purple	15	68,127,851		Island		0.363	0.000	0.039	0.929
cg04386206	purple	3	170,303,640	5'UTR	Island	SLC7A14	0.363	-0.003	0.022	0.030
cg11717054	purple	11	279,423	Body	Island	NLRP6	0.363	-0.001	0.023	0.725
cg25831712	purple	2	39,351,779		S_Shore		0.362	-0.002	0.109	0.425
cg19977494	purple	7	128,431,264	TSS1500	Island	CCDC136	0.361	-0.001	0.020	0.396
cg19122206	purple	22	48,972,927	Body	Island	FAM19A5	0.361	0.008	0.387	0.255
cg08856347	purple	2	289,390	TSS1500	Island	FAM150B	0.361	-0.001	0.023	0.400
cg00172672	purple	20	34,895,136		Island		0.361	-0.004	0.032	0.033
cg15127791	purple	11	128,729,883	5'UTR		KCNJ1	0.361	0.001	0.038	0.831
cg23660248	purple	19	46,932,069		Island		0.361	0.000	0.018	0.964
cg02934834	purple	6	116,575,324	TSS200	Island	TSPYL4	0.361	0.000	0.015	0.925
cg12757684	purple	6	144,329,485	1stExon	Island	PLAGL1	0.361	-0.001	0.499	0.862
cg15758175	purple	17	73,522,598	5'UTR	S_Shore	LLGL2	0.360	0.000	0.036	0.904
cg02836487	purple	3	128,206,457	5'UTR	Island	GATA2	0.360	-0.001	0.034	0.710
cg08124804	purple	16	46,723,545	TSS200	Island	ORC6L	0.360	-0.003	0.049	0.349
cg06522681	purple	19	15,121,596	5'UTR	Island	CCDC105	0.360	-0.001	0.021	0.458
cg24071582	purple	4	113,430,656		N_Shore		0.359	-0.001	0.063	0.792
cg18996910	purple	17	77,020,220	TSS200	Island	C1QTNF1	0.359	-0.001	0.015	0.560
cg11251349	purple	1	33,721,607	TSS1500	Island	ZNF362	0.358	0.002	0.040	0.209
cg13804058	purple	1	115,880,935	TSS200	Island	NGF	0.358	-0.001	0.024	0.289
cg13472341	purple	11	85,522,005	5'UTR	Island	SYTL2	0.358	0.000	0.027	0.974
cg26271891	purple	2	180,726,249	TSS200	Island	ZNF385B	0.357	-0.001	0.020	0.600
cg02980033	purple	17	40,985,258	TSS200	Island	PSME3	0.357	0.002	0.047	0.587
cg10499176	purple	1	54,965,096		Island		0.357	0.001	0.023	0.626
cg16935295	purple	8	97,506,251	5'UTR	Island	SDC2	0.356	-0.003	0.030	0.403
cg27003520	purple	1	165,086,976		Island		0.356	0.003	0.025	0.012
cg03768106	purple	11	111,957,237	Body	N_Shore	TIMM8B	0.356	0.000	0.010	0.776
cg20234976	purple	6	100,895,907	Body	Island	SIM1	0.355	0.004	0.050	0.090
cg08900101	purple	12	114,833,043	Body	N_Shore	TBX5	0.355	0.002	0.241	0.888
cg18181607	purple	5	155,109,364		S_Shore		0.355	-0.002	0.033	0.300
cg03514545	purple	1	114,696,698	TSS1500	N_Shore	SYT6	0.354	0.000	0.036	0.968
cg00034019	purple	6	42,018,228	TSS200	Island	TAF8	0.354	0.000	0.018	0.559
cg27170947	purple	2	26,402,098	Body	Island	FAM59B	0.353	0.027	0.079	0.118
cg13332925	purple	2	178,257,559	TSS200	Island	LOC10013069	0.353	0.002	0.022	0.006
cg08433673	purple	8	21,966,491	Body	Island	NUDT18	0.353	-0.002	0.027	0.444
cg00522018	purple	9	139,091,378	Body	Island	LHX3	0.352	-0.008	0.037	0.106
cg15817481	purple	19	36,001,509	TSS200		DMKN	0.351	-0.004	0.085	0.335
cg20377114	purple	22	44,287,930	TSS200	Island	PNPLA5	0.351	-0.002	0.025	0.267
cg06014792	purple	17	7,382,760	5'UTR	S_Shore	ZBTB4	0.351	-0.002	0.032	0.334
cg02010963	purple	16	4,663,820	Body	N_Shore	FAM100A	0.351	-0.006	0.114	0.280
cg03408556	purple	1	247,274,709	1stExon	Island	C1orf229	0.351	0.000	0.041	0.922
cg17177454	purple	6	31,940,406	Body	Island	STK19	0.350	-0.002	0.017	0.042
cg12788878	purple	3	124,860,616	Body	Island	SLC12A8	0.350	-0.002	0.032	0.475
cg10290527	purple	8	98,657,037	1stExon	Island	MTDH	0.350	-0.001	0.018	0.354

cg09768983	purple	4	183,935,060				0.350	-0.048	0.668	0.189
cg07250080	purple	6	32,822,278	Body	Island	PSMB9	0.350	-0.001	0.047	0.642
cg03147210	purple	1	151,882,284	TSS200	Island	THEM4	0.349	-0.001	0.017	0.308
cg10150615	purple	22	24,372,951	TSS200	Island	LOC391322	0.349	-0.005	0.051	0.486
cg26118713	purple	7	148,580,496	5'UTR	Island	EZH2	0.349	0.000	0.026	0.733
cg22387839	purple	7	44,613,445	1stExon	Island	DDX56	0.348	0.000	0.030	0.820
cg03876413	purple	7	32,338,240		Island		0.347	0.003	0.025	0.192
cg05983698	purple	19	59,011,010	Body	Island	SLC27A5	0.347	0.000	0.014	0.910
cg18273501	purple	10	105,212,056	5'UTR	Island	CALHM2	0.347	-0.001	0.028	0.674
cg11253136	purple	11	70,116,457	TSS1500	Island	PPFIA1	0.347	-0.001	0.033	0.662
cg21943416	purple	4	143,766,916	5'UTR	N_Shore	INPP4B	0.347	0.003	0.028	0.277
cg19592742	purple	10	1,034,166	TSS200	Island	GTPBP4	0.347	0.007	0.136	0.270
cg01824964	purple	6	114,175,997		N_Shelf		0.347	0.000	0.017	0.869
cg04785461	purple	10	14,996,236	TSS200	Island	DCLRE1C	0.347	-0.001	0.017	0.156
cg18697049	purple	6	111,136,368	5'UTR	Island	CDK19	0.347	-0.002	0.019	0.080
cg04424981	purple	16	81,110,810	5'UTR	Island	C16orf46	0.346	-0.003	0.028	0.174
cg23933381	purple	21	39,047,670	Body	Island	KCNJ6	0.345	-0.001	0.024	0.205
cg12737152	purple	11	129,565,909				0.345	0.001	0.045	0.923
cg05829782	purple	14	74,707,911	Body	Island	VSX2	0.345	-0.001	0.019	0.485
cg26936429	purple	6	85,473,171	Body	Island	TBX18	0.344	0.004	0.040	0.105
cg03823722	purple	10	3,214,957	1stExon	Island	PITRM1	0.344	-0.002	0.046	0.579
cg00046041	purple	16	21,531,503	Body	Island	SLC7A5P2	0.344	-0.005	0.084	0.390
cg19209624	purple	6	170,461,991				0.344	0.000	0.800	0.984
cg14047339	purple	6	45,345,544	Body	Island	RUNX2	0.343	-0.012	0.284	0.285
cg04824390	purple	6	13,710,980	Body	Island	RANBP9	0.343	0.000	0.016	0.657
cg04452770	purple	12	53,267,981		Island		0.343	0.000	0.017	0.790
cg24786174	purple	18	74,118,243	Body	S_Shelf	ZNF516	0.343	-0.025	0.572	0.408
cg14028140	purple	22	39,953,985		Island		0.343	0.001	0.018	0.295
cg13656173	purple	9	139,002,093				0.342	-0.006	0.094	0.323
cg03468945	purple	10	126,107,610	TSS200	Island	OAT	0.342	-0.001	0.021	0.179
cg14119392	purple	14	95,623,926	TSS200	Island	FLJ45244	0.342	0.000	0.022	0.916
cg06322403	purple	11	70,963,994		Island		0.342	0.001	0.022	0.276
cg14200465	purple	11	2,441,045	Body	N_Shore	TRPM5	0.341	-0.002	0.025	0.272
cg01079658	purple	7	99,155,872	TSS200	Island	ZNF655	0.341	-0.001	0.023	0.581
cg04944784	purple	2	26,401,820	Body	Island	FAM59B	0.341	0.035	0.095	0.212
cg03383382	purple	6	108,487,506	5'UTR	Island	NR2E1	0.341	-0.001	0.021	0.542
cg04856096	purple	8	68,255,097	Body	N_Shore	ARFGEF1	0.340	-0.002	0.026	0.223
cg20936475	purple	3	51,422,676	TSS200	Island	MANF	0.340	0.001	0.039	0.322
cg03755177	purple	7	44,349,389	Body	Island	CAMK2B	0.340	0.001	0.038	0.573
cg03437656	purple	3	156,877,447	Body	Island	CCNL1	0.340	-0.001	0.017	0.774
cg18349056	purple	3	20,082,285	Body	Island	KAT2B	0.339	-0.002	0.025	0.352
cg24917382	purple	11	2,160,953	Body	Island	INS-IGF2	0.339	0.002	0.030	0.422
cg18375421	purple	5	157,098,338	TSS1500	Island	C5orf52	0.338	0.008	0.114	0.106
cg07786668	purple	16	73,092,391	5'UTR	Island	ZFH3	0.338	-0.004	0.051	0.494
cg09748770	purple	7	21,467,405	TSS1500	Island	SP4	0.338	0.000	0.035	0.931
cg13486528	purple	2	241,771,368		N_Shore		0.338	-0.006	0.049	0.176
cg09279988	purple	3	196,255,907		Island		0.338	-0.002	0.065	0.727
cg18827332	purple	12	103,344,506		Island		0.337	-0.004	0.060	0.373
cg24001445	purple	7	44,163,677	TSS1500	Island	POLD2	0.337	0.001	0.030	0.704
cg17671005	purple	5	113,391,774		Island		0.337	0.000	0.023	0.710
cg14897838	purple	17	79,339,158				0.336	-0.001	0.029	0.797
cg01049205	purple	10	85,997,177	Body	Island	LRIT1	0.336	0.000	0.062	0.955
cg19843036	purple	4	159,131,516	5'UTR	Island	TMEM144	0.335	-0.002	0.079	0.506
cg12230010	purple	10	72,163,718	TSS200	Island	EIF4EBP2	0.335	0.000	0.022	0.860
cg26947831	purple	16	86,018,811				0.334	0.007	0.456	0.431
cg04178852	purple	19	12,475,678	5'UTR	N_Shore	ZNF442	0.334	0.000	0.027	0.856
cg03908391	purple	20	57,427,170	TSS1500	N_Shore	GNAS	0.334	0.018	0.571	0.386
cg17633234	purple	15	93,617,065	1stExon	Island	RGMA	0.334	-0.013	0.299	0.092
cg11588857	purple	8	86,089,481	TSS200	Island	E2F5	0.333	0.000	0.020	0.512
cg01940743	purple	17	80,416,045	TSS1500	Island	NARF	0.332	0.003	0.033	0.233
cg26797372	purple	17	78,955,115		Island		0.332	0.002	0.027	0.339
cg03520225	purple	20	34,742,782	1stExon		EPB41L1	0.332	-0.001	0.034	0.563
cg17059853	purple	11	64,490,494	5'UTR	Island	NRXN2	0.331	-0.001	0.026	0.269
cg13409645	purple	19	55,866,261	TSS200	Island	COX6B2	0.331	-0.001	0.038	0.732
cg06102612	purple	6	94,127,427	Body	Island	EPHA7	0.331	0.004	0.071	0.312
cg19560052	purple	20	60,813,453	TSS200	Island	OSBPL2	0.330	-0.010	0.071	0.052
cg02707176	purple	5	140,798,758	Body	Island	PCDHGA4	0.330	-0.004	0.119	0.696

cg27376924	purple	9	124,889,202	Island		0.330	0.009	0.064	0.112
cg20071427	purple	19	54,058,085 5'UTR	Island	ZNF331	0.329	0.004	0.597	0.617
cg22591103	purple	3	159,944,037 1stExon	Island	LOC401097	0.329	-0.003	0.043	0.540
cg17158083	purple	10	99,392,763 5'UTR	N_Shore	MORN4	0.329	0.000	0.031	0.810
cg22751435	purple	6	33,385,679 Body	Island	CUTA	0.329	0.000	0.016	0.777
cg23908998	purple	10	22,292,698 TSS200	Island	DNAJC1	0.328	-0.002	0.055	0.715
cg26151531	purple	22	19,842,652 TSS200	Island	GNB1L	0.328	-0.011	0.033	0.125
cg10041390	purple	10	89,623,018 TSS200	Island	PTEN	0.328	-0.004	0.035	0.617
cg14862791	purple	5	34,839,623 5'UTR	Island	TTC23L	0.327	-0.001	0.023	0.491
cg10671907	purple	6	109,703,593 1stExon	Island	CD164	0.326	0.004	0.045	0.392
cg20264106	purple	2	102,003,229 Body	N_Shore	CREG2	0.325	-0.003	0.022	0.208
cg12452298	purple	15	67,134,587	N_Shore		0.324	-0.005	0.038	0.049
cg15099250	purple	6	150,311,980	Island		0.324	0.000	0.058	0.950
cg01437482	purple	14	100,772,378 Body	Island	SLC25A29	0.324	0.001	0.026	0.527
cg07070019	purple	3	32,611,876 Body	Island	DYNC1LI1	0.324	-0.001	0.019	0.673
cg19062489	purple	19	15,662,114 Body	Island	CYP4F22	0.324	0.008	0.097	0.241
cg11199046	purple	12	115,136,308	Island		0.324	0.001	0.039	0.827
cg11294835	purple	3	48,701,061 TSS1500	Island	CELSR3	0.323	-0.001	0.031	0.412
cg08330117	purple	8	90,770,456 1stExon	Island	RIPK2	0.323	0.000	0.018	0.969
cg03595406	purple	18	71,815,769 1stExon	S_Shore	C18orf55	0.322	0.001	0.023	0.604
cg24395307	purple	7	39,990,042 5'UTR	Island	CDK13	0.322	0.000	0.056	0.987
cg06416883	purple	4	186,131,285 1stExon	Island	SNX25	0.322	0.002	0.046	0.556
cg07862083	purple	17	21,187,823 TSS200	Island	MAP2K3	0.322	-0.005	0.053	0.152
cg05603985	purple	1	2,161,049 1stExon	Island	SKI	0.321	-0.008	0.082	0.282
cg02577203	purple	11	47,869,805 1stExon	Island	NUP160	0.321	0.001	0.024	0.714
cg26914237	purple	11	131,557,869 Body	N_Shelf	NTM	0.321	-0.001	0.176	0.922
cg08655686	purple	1	38,100,087 5'UTR	Island	RSPO1	0.321	-0.003	0.034	0.068
cg25574761	purple	12	122,688,279 1stExon	Island	B3GNT4	0.320	-0.002	0.135	0.839
cg24807547	purple	6	37,504,484	S_Shore		0.320	-0.002	0.054	0.476
cg22396147	purple	7	28,450,253 5'UTR	S_Shore	CREB5	0.319	-0.002	0.060	0.531
cg15370862	purple	12	31,270,326			0.319	-0.003	0.566	0.729
cg27199820	purple	3	6,903,019 1stExon	Island	GRM7	0.319	0.000	0.025	0.589
cg25410842	purple	1	150,521,647 TSS1500	Island	ADAMTSL4	0.319	-0.002	0.132	0.638
cg08692295	purple	19	45,574,210 3'UTR	N_Shore	SFRS16	0.319	0.008	0.902	0.065
cg07224438	purple	2	97,426,485 TSS200	Island	CNNM4	0.318	0.000	0.019	0.773
cg03594515	purple	3	129,346,178	Island		0.318	0.000	0.117	0.955
cg12154538	purple	12	124,873,673 Body	Island	NCOR2	0.317	-0.002	0.045	0.717
cg10715425	purple	1	6,052,497 1stExon	Island	NPHP4	0.316	0.000	0.016	0.787
cg23064556	purple	2	95,742,689	Island		0.316	-0.001	0.019	0.575
cg02473288	purple	15	59,664,346 Body	Island	MYO1E	0.314	0.000	0.029	0.937
cg24626554	purple	7	5,111,635 TSS200	Island	LOC389458	0.314	0.017	0.203	0.335
cg17961892	purple	6	30,069,296	N_Shore		0.314	0.002	0.021	0.529
cg22868409	purple	1	211,556,190 Body	Island	C1orf97	0.313	-0.004	0.096	0.556
cg18751306	purple	15	81,294,292 1stExon	Island	MESDC1	0.312	-0.013	0.084	0.306
cg19935397	purple	16	3,332,644 TSS1500	Island	ZNF263	0.312	-0.001	0.023	0.366
cg16483490	purple	2	111,879,711 5'UTR	Island	BCL2L11	0.312	-0.006	0.103	0.244
cg00915609	purple	2	97,174,045 TSS200	Island	NEURL3	0.312	0.000	0.018	0.738
cg10511881	purple	17	36,955,501 Body	Island	PIP4K2B	0.312	0.000	0.017	0.913
cg17777009	purple	2	239,112,609 TSS1500	S_Shore	ILKAP	0.311	0.000	0.020	0.975
cg09119433	purple	6	30,069,319	N_Shore		0.311	0.002	0.026	0.610
cg17036792	purple	6	10,694,889 Body	Island	C6orf52	0.311	0.000	0.021	0.647
cg23998119	purple	14	77,600,217 Body		ZDHHC22	0.310	-0.003	0.048	0.468
cg07833467	purple	22	50,986,511 5'UTR	Island	KLHDC7B	0.310	0.015	0.185	0.209
cg01097872	purple	11	65,560,763 Body		OVOL1	0.309	-0.005	0.470	0.777
cg22235417	purple	11	7,041,599 TSS200	Island	ZNF214	0.308	0.001	0.033	0.773
cg25815021	purple	2	109,745,210 TSS1500	Island	SH3RF3	0.307	0.004	0.089	0.468
cg01010870	purple	1	21,059,268 TSS200	Island	SH2D5	0.306	0.011	0.070	0.452
cg18935491	purple	20	57,425,979 TSS200	N_Shore	GNASAS	0.306	-0.002	0.582	0.750
cg18864497	purple	6	7,313,384 1stExon	Island	SSR1	0.304	-0.001	0.101	0.772
cg06664357	purple	19	39,993,390 Body	Island	DLL3	0.303	-0.005	0.121	0.702
cg13738652	purple	18	67,955,537 TSS1500	N_Shore	SOC56	0.302	0.012	0.229	0.301
cg11703189	purple	2	242,041,063 Body	N_Shore	MTERFD2	0.301	0.003	0.073	0.522
cg07686248	purple	19	8,455,013 TSS200	Island	RAB11B	0.301	-0.002	0.025	0.220
cg09010323	purple	11	75,379,568 TSS200	Island	MAP6	0.301	-0.005	0.065	0.194
cg09699369	purple	19	16,771,803 TSS1500	Island	C19orf42	0.300	-0.001	0.018	0.350
cg08710739	purple	12	111,470,672 TSS1500	N_Shore	CUX2	0.300	-0.010	0.453	0.327
cg06899836	purple	6	109,704,021 TSS1500	Island	CD164	0.299	0.001	0.040	0.430

cg24697075	purple	1	11,918,807	1stExon	N_Shore	NPPB	0.296	0.008	0.208	0.346
cg27300397	purple	5	132,073,308	TSS200	Island	KIF3A	0.292	-0.001	0.076	0.737
cg26137121	purple	8	145,578,601	TSS200	S_Shore	C8ORFK29	0.291	0.011	0.712	0.317
cg05350224	purple	19	3,053,510	3'UTR		AES	0.289	0.005	0.542	0.484

**CpGs in the darkolivegreen module:**

cg_s_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_CpG_Is	Gene	MM	Beta.diff	AveBeta	P.Value
cg03854071	darkolivegre	19	19,626,428	1stExon	Island	TSSK6	0.804	0.012	0.860	0.319
cg23069923	darkolivegre	19	19,626,251	1stExon	Island	TSSK6	0.763	-0.004	0.872	0.813
cg18517222	darkolivegre	11	113,660,756		Island		0.749	0.019	0.686	0.281
cg08124399	darkolivegre	6	74,104,868	1stExon	Island	DDX43	0.743	0.013	0.623	0.503
cg09044186	darkolivegre	11	116,661,388	Body	Island	APOA5	0.739	0.021	0.820	0.179
cg08331981	darkolivegre	19	19,626,599	TSS1500	Island	NDUFA13	0.739	0.005	0.539	0.689
cg17188169	darkolivegre	6	74,104,388	1stExon	N_Shore	DDX43	0.735	0.017	0.686	0.348
cg01017926	darkolivegre	16	30,581,228	3'UTR	Island	ZNF688	0.732	0.008	0.803	0.451
cg26276233	darkolivegre	17	41,278,135	TSS1500	Island	BRCA1	0.728	0.049	0.547	0.058
cg16865291	darkolivegre	2	213,696,794		Island		0.722	-0.003	0.618	0.892
cg02827075	darkolivegre	19	46,094,683	Body	Island	GPR4	0.720	0.025	0.735	0.107
cg07292251	darkolivegre	5	176,829,198	3'UTR	N_Shore	F12	0.716	0.001	0.654	0.909
cg18372208	darkolivegre	17	41,278,263	TSS1500	Island	BRCA1	0.716	0.052	0.550	0.016
cg05017628	darkolivegre	19	48,698,632		Island		0.716	0.044	0.590	0.092
cg13853761	darkolivegre	11	64,863,232	TSS1500	N_Shore	C11orf2	0.714	0.019	0.476	0.110
cg08122831	darkolivegre	2	213,697,579		Island		0.708	-0.020	0.702	0.208
cg13897914	darkolivegre	15	41,695,294	TSS1500	S_Shore	NDUFAF1	0.706	0.031	0.673	0.034
cg20747455	darkolivegre	20	43,933,383	Body	Island	MATN4	0.705	0.000	0.731	0.988
cg16006004	darkolivegre	17	41,278,241	TSS1500	Island	BRCA1	0.702	0.048	0.563	0.060
cg25454270	darkolivegre	11	116,661,678	Body	S_Shore	APOA5	0.699	0.014	0.630	0.197
cg22133161	darkolivegre	19	49,891,603	5'UTR	Island	CCDC155	0.697	0.027	0.621	0.249
cg14947218	darkolivegre	17	41,278,197	TSS1500	Island	BRCA1	0.696	0.040	0.485	0.033
cg25354127	darkolivegre	3	142,681,595	1stExon	Island	PAQR9	0.696	0.004	0.840	0.646
cg03669949	darkolivegre	6	74,104,426	1stExon	Island	DDX43	0.695	0.010	0.851	0.576
cg22424444	darkolivegre	11	1,331,736	Body	S_Shore	LOC255512	0.695	0.011	0.847	0.369
cg14188428	darkolivegre	19	19,625,761	1stExon	Island	TSSK6	0.695	0.012	0.753	0.379
cg06797068	darkolivegre	6	74,104,600	1stExon	Island	DDX43	0.691	0.011	0.632	0.675
cg03371609	darkolivegre	8	52,322,171	Body	Island	PXDNL	0.689	-0.010	0.803	0.511
cg14687474	darkolivegre	17	41,278,281	TSS1500	Island	BRCA1	0.688	0.034	0.750	0.060
cg13130352	darkolivegre	6	29,796,494	Body	Island	HLA-G	0.685	-0.006	0.510	0.622
cg03776506	darkolivegre	16	30,581,384	Body	Island	ZNF688	0.685	-0.002	0.907	0.834
cg13626866	darkolivegre	11	64,863,151	TSS1500	N_Shore	C11orf2	0.682	0.012	0.818	0.422
cg22265452	darkolivegre	2	213,697,031		Island		0.682	-0.027	0.773	0.103
cg02286533	darkolivegre	17	41,278,179	TSS1500	Island	BRCA1	0.681	0.040	0.438	0.024
cg12045875	darkolivegre	6	74,104,594	1stExon	Island	DDX43	0.679	0.010	0.727	0.674
cg07173823	darkolivegre	1	45,190,519	Body	Island	C1orf228	0.679	-0.005	0.802	0.739
cg11529738	darkolivegre	17	41,278,425	TSS1500	Island	BRCA1	0.674	0.044	0.703	0.002
cg26464626	darkolivegre	19	35,323,752		Island		0.673	-0.003	0.716	0.873
cg02272814	darkolivegre	6	46,655,782	1stExon	Island	TDRD6	0.673	0.006	0.910	0.629
cg13953735	darkolivegre	19	48,229,268	Body	Island	EHD2	0.672	-0.003	0.751	0.868
cg11874331	darkolivegre	17	7,486,562	TSS1500	Island	MPDU1	0.672	-0.005	0.679	0.770
cg02710119	darkolivegre	21	45,078,694	TSS1500	Island	RRP1B	0.671	0.013	0.900	0.382
cg03984347	darkolivegre	1	45,190,262	Body	Island	C1orf228	0.669	-0.008	0.603	0.446
cg27583383	darkolivegre	20	3,185,850	TSS1500	S_Shore	DDRKG1	0.668	0.015	0.665	0.187
cg01430588	darkolivegre	17	56,769,767	TSS1500	N_Shore	TEX14	0.666	-0.004	0.506	0.785
cg06001716	darkolivegre	17	41,278,141	TSS1500	Island	BRCA1	0.663	0.054	0.523	0.054
cg24985772	darkolivegre	11	58,830,610		Island		0.662	0.026	0.444	0.143
cg02960125	darkolivegre	1	182,025,752	Body	Island	ZNF648	0.661	0.008	0.805	0.461
cg23626733	darkolivegre	1	2,345,398	TSS1500	N_Shore	PEX10	0.661	0.000	0.369	0.984
cg18183406	darkolivegre	17	40,556,833	Body	Island	PTRF	0.661	0.007	0.739	0.661
cg17222685	darkolivegre	1	212,820,194				0.660	-0.023	0.717	0.305
cg21563912	darkolivegre	10	45,693,865		Island		0.660	0.003	0.924	0.644
cg11840984	darkolivegre	3	138,762,690	1stExon	Island	PRR23C	0.660	-0.006	0.888	0.650
cg04986934	darkolivegre	17	39,019,908	Body	Island	KRT12	0.659	0.005	0.690	0.717
cg27329091	darkolivegre	2	213,698,049		Island		0.659	-0.017	0.665	0.444
cg12424468	darkolivegre	11	64,863,373	TSS1500	N_Shore	C11orf2	0.656	0.013	0.543	0.363
cg25339112	darkolivegre	17	56,769,760	TSS1500	N_Shore	TEX14	0.656	-0.002	0.715	0.836
cg25472530	darkolivegre	5	23,507,617	TSS200		PRDM9	0.655	0.009	0.543	0.666
cg00186462	darkolivegre	3	100,401,284	Body		GPR128	0.654	-0.010	0.733	0.579
cg15065591	darkolivegre	17	41,278,380	TSS1500	Island	BRCA1	0.652	0.035	0.859	0.044

cg06051146	darkolivegre	11	57,424,284	TSS1500	N_Shore	CLP1	0.652	0.027	0.334	0.067
cg22533762	darkolivegre	2	213,697,049		Island		0.652	-0.003	0.960	0.689
cg03771939	darkolivegre	10	96,161,916	TSS1500	N_Shore	TBC1D12	0.651	0.015	0.573	0.210
cg09786098	darkolivegre	16	3,016,378	Body	N_Shore	KREMEN2	0.650	0.010	0.618	0.587
cg04884090	darkolivegre	3	49,894,441	TSS1500	S_Shore	TRAIP	0.649	0.012	0.406	0.276
cg01477015	darkolivegre	16	28,948,319	Body	Island	CD19	0.649	0.004	0.951	0.586
cg18527919	darkolivegre	2	24,398,170	5'UTR	Island	C2orf84	0.648	0.021	0.719	0.280
cg19760250	darkolivegre	17	36,997,627	1stExon	Island	C17orf98	0.648	0.019	0.704	0.395
cg03950599	darkolivegre	19	48,698,419		Island		0.648	0.034	0.722	0.139
cg19091902	darkolivegre	17	21,415,527		Island		0.647	0.005	0.584	0.610
cg21098323	darkolivegre	19	54,605,642	TSS1500	N_Shore	OSCAR	0.646	0.010	0.542	0.550
cg12243267	darkolivegre	19	57,630,536	TSS1500	Island	USP29	0.645	-0.008	0.625	0.498
cg15683940	darkolivegre	19	12,886,982	TSS1500	S_Shore	HOOK2	0.645	0.001	0.924	0.944
cg06322988	darkolivegre	3	138,725,189	TSS200	Island	PRR23A	0.645	0.008	0.835	0.643
cg10627301	darkolivegre	22	42,095,960	Body	Island	MEI1	0.645	0.000	0.828	0.966
cg02837432	darkolivegre	12	72,232,889	TSS1500	N_Shore	TBC1D15	0.642	-0.003	0.960	0.570
cg04362002	darkolivegre	5	23,506,738	TSS1500		PRDM9	0.642	0.003	0.670	0.833
cg14448104	darkolivegre	20	43,933,556	Body	N_Shore	MATN4	0.641	-0.006	0.686	0.721
cg24833819	darkolivegre	5	42,924,552		Island		0.641	0.002	0.592	0.893
cg10766585	darkolivegre	4	24,801,110	5'UTR	Island	SOD3	0.639	-0.005	0.532	0.689
cg23998405	darkolivegre	10	131,265,067	TSS1500	Island	MGMT	0.639	0.003	0.064	0.746
cg27645294	darkolivegre	17	21,795,257				0.638	-0.001	0.821	0.949
cg11884611	darkolivegre	19	12,915,070		Island		0.638	0.012	0.744	0.260
cg07092985	darkolivegre	8	55,533,887	Body	Island	RP1	0.638	0.025	0.712	0.066
cg23409374	darkolivegre	19	49,934,742	Body	Island	SLC17A7	0.636	0.040	0.700	0.002
cg10860308	darkolivegre	10	124,714,384	TSS1500	S_Shore	C10orf88	0.636	0.026	0.536	0.033
cg04686545	darkolivegre	12	107,348,824	TSS1500	N_Shore	C12orf23	0.636	0.009	0.564	0.628
cg24550343	darkolivegre	5	180,647,647		N_Shore		0.636	0.020	0.682	0.303
cg01644611	darkolivegre	20	3,052,253	TSS200	Island	OXT	0.636	-0.001	0.828	0.932
cg11707067	darkolivegre	19	59,073,430	3'UTR	Island	MZF1	0.635	0.020	0.647	0.100
cg06178887	darkolivegre	19	42,599,631	Body	Island	POU2F2	0.635	0.008	0.573	0.321
cg11924019	darkolivegre	15	75,019,283	TSS1500	Island	CYP1A1	0.635	0.004	0.378	0.738
cg02444433	darkolivegre	5	23,507,469	TSS1500		PRDM9	0.634	0.005	0.728	0.760
cg18305433	darkolivegre	6	28,972,963	5'UTR		ZNF311	0.633	0.003	0.610	0.812
cg24900425	darkolivegre	17	41,278,444	TSS1500	Island	BRCA1	0.633	0.052	0.778	0.012
cg06940110	darkolivegre	2	118,616,430		N_Shore		0.633	0.006	0.531	0.783
cg18676053	darkolivegre	9	124,133,094	TSS1500	Island	STOM	0.632	0.007	0.742	0.596
cg24996930	darkolivegre	14	77,229,233	1stExon	S_Shore	VASH1	0.632	0.010	0.589	0.165
cg24872425	darkolivegre	3	138,725,335	TSS1500	Island	PRR23A	0.632	-0.003	0.751	0.810
cg05225012	darkolivegre	2	96,055,346		S_Shore		0.631	-0.012	0.875	0.341
cg17036744	darkolivegre	3	56,717,720	TSS1500	S_Shore	C3orf63	0.631	0.009	0.942	0.142
cg02736395	darkolivegre	1	227,748,424		Island		0.631	0.001	0.331	0.935
cg23973272	darkolivegre	8	52,322,169	Body	Island	PXDNL	0.630	-0.024	0.724	0.414
cg08520200	darkolivegre	19	48,076,173		Island		0.629	-0.019	0.764	0.494
cg03721281	darkolivegre	17	40,557,138	Body	Island	PTRF	0.629	0.029	0.777	0.082
cg02022136	darkolivegre	10	131,265,059	TSS1500	Island	MGMT	0.629	-0.003	0.126	0.793
cg02152233	darkolivegre	1	29,189,789	Body	Island	OPRD1	0.628	0.005	0.747	0.750
cg22237670	darkolivegre	1	182,922,582	TSS200	Island	C1orf14	0.628	-0.001	0.781	0.945
cg04897644	darkolivegre	1	155,264,372	Body	Island	PKLR	0.628	0.003	0.539	0.822
cg04697562	darkolivegre	7	99,775,862	5'UTR	S_Shore	STAG3	0.627	-0.007	0.851	0.571
cg06159057	darkolivegre	19	1,484,118	Body	Island	PCSK4	0.626	0.001	0.826	0.958
cg26476156	darkolivegre	10	46,090,807	TSS1500	S_Shore	8-Mar	0.625	0.013	0.479	0.301
cg04137702	darkolivegre	10	50,886,878	TSS1500	N_Shore	C10orf53	0.625	0.027	0.702	0.056
cg08772232	darkolivegre	5	176,828,872	TSS1500	N_Shore	PFN3	0.625	0.020	0.579	0.162
cg13762612	darkolivegre	9	6,703,605		N_Shore		0.625	-0.002	0.400	0.909
cg13767162	darkolivegre	19	37,959,104	TSS1500	N_Shore	ZNF570	0.625	0.001	0.729	0.970
cg07011961	darkolivegre	5	23,507,594	TSS200		PRDM9	0.624	0.003	0.718	0.901
cg09103073	darkolivegre	17	39,019,724	Body	Island	KRT12	0.624	0.007	0.871	0.553
cg22497095	darkolivegre	6	28,601,375		N_Shore		0.624	-0.013	0.760	0.438
cg20629587	darkolivegre	15	31,689,706		Island		0.624	0.004	0.094	0.520
cg24716275	darkolivegre	19	57,702,385	TSS1500	N_Shore	ZNF264	0.622	0.011	0.707	0.515
cg11231143	darkolivegre	17	26,554,245	Body	Island	PYY2	0.621	0.010	0.545	0.286
cg01897036	darkolivegre	2	120,282,327	TSS1500	S_Shore	SCTR	0.620	-0.007	0.698	0.419
cg07747220	darkolivegre	20	3,052,115	TSS200	Island	OXT	0.620	0.002	0.740	0.885
cg03354717	darkolivegre	16	48,277,879	TSS1500	N_Shore	LONP2	0.620	0.002	0.502	0.900
cg22762992	darkolivegre	2	118,616,377		N_Shore		0.620	0.015	0.677	0.531
cg22054885	darkolivegre	5	23,507,450	TSS1500		PRDM9	0.619	0.001	0.712	0.976



cg05358404	darkolivegre	20	62,288,950	TSS1500	Island	RTEL1	0.619	0.012	0.516	0.232
cg10732385	darkolivegre	11	116,661,100	Body	Island	APOA5	0.618	0.011	0.868	0.293
cg03100752	darkolivegre	19	12,847,402	TSS1500	N_Shore	ASNA1	0.616	0.011	0.427	0.463
cg22914897	darkolivegre	19	59,073,414	3'UTR	Island	MZF1	0.616	0.021	0.741	0.070
cg07598331	darkolivegre	1	53,926,227	Body	Island	DMRTB1	0.615	0.013	0.863	0.111
cg15825510	darkolivegre	7	97,882,260	TSS1500	S_Shore	TECPR1	0.615	0.015	0.534	0.140
cg19781472	darkolivegre	12	56,883,202	TSS1500	S_Shore	GLS2	0.615	0.017	0.700	0.258
cg26679785	darkolivegre	1	182,922,263	1stExon	Island	C1orf14	0.614	0.008	0.371	0.426
cg09973514	darkolivegre	11	58,830,424		Island		0.614	0.028	0.302	0.249
cg02288564	darkolivegre	19	49,934,404	Body	Island	SLC17A7	0.614	0.018	0.899	0.053
cg26223536	darkolivegre	1	212,820,166				0.613	-0.012	0.766	0.635
cg03288922	darkolivegre	2	118,616,237		N_Shore		0.613	-0.002	0.730	0.933
cg20548231	darkolivegre	22	31,318,373	Body	Island	C22orf27	0.613	0.005	0.494	0.743
cg19013391	darkolivegre	3	123,166,774	1stExon	Island	ADCY5	0.613	0.006	0.522	0.454
cg25707805	darkolivegre	1	113,285,387		N_Shore		0.613	0.007	0.475	0.670
cg04889069	darkolivegre	8	57,030,408		Island		0.612	-0.010	0.417	0.512
cg07452777	darkolivegre	3	138,725,214	TSS200	Island	PRR23A	0.612	-0.003	0.937	0.730
cg10650018	darkolivegre	10	92,616,759	Body	N_Shore	HTR7	0.611	0.015	0.341	0.187
cg01508548	darkolivegre	22	38,241,384	TSS1500	S_Shore	ANKRD54	0.611	0.032	0.661	0.040
cg08533808	darkolivegre	16	66,835,680	TSS200	Island	CCDC79	0.611	0.001	0.803	0.964
cg01667892	darkolivegre	5	23,507,656	TSS200		PRDM9	0.610	0.016	0.628	0.530
cg02050426	darkolivegre	18	59,221,458	Body	Island	CDH20	0.610	-0.004	0.805	0.807
cg27057652	darkolivegre	8	52,322,137	Body	Island	PXDNL	0.608	-0.013	0.865	0.406
cg02236998	darkolivegre	15	72,582,206	Body	Island	BRUNOL6	0.607	0.016	0.785	0.105
cg19160878	darkolivegre	2	197,665,024	TSS1500	S_Shore	GTF3C3	0.606	-0.002	0.864	0.871
cg10993470	darkolivegre	8	55,533,939	Body	Island	RP1	0.605	0.014	0.881	0.223
cg22549041	darkolivegre	15	75,019,251	TSS1500	Island	CYP1A1	0.604	0.008	0.268	0.593
cg04029027	darkolivegre	7	130,125,811	TSS1500	N_Shore	MEST	0.604	0.002	0.633	0.828
cg13874777	darkolivegre	3	50,314,344	3'UTR	Island	SEMA3B	0.604	-0.003	0.826	0.777
cg03772909	darkolivegre	3	138,725,311	TSS1500	Island	PRR23A	0.603	0.000	0.612	0.977
cg07017437	darkolivegre	6	28,601,271		N_Shore		0.603	0.010	0.836	0.473
cg10589310	darkolivegre	5	23,507,030	TSS1500		PRDM9	0.602	-0.005	0.619	0.767
cg02230254	darkolivegre	11	65,586,170		S_Shore		0.601	0.042	0.615	0.016
cg22376262	darkolivegre	7	148,959,887	Body	Island	ZNF783	0.600	-0.003	0.708	0.783
cg03775416	darkolivegre	19	19,368,775	Body	Island	HAPLN4	0.600	0.013	0.739	0.375
cg04228358	darkolivegre	4	165,953,207	5'UTR		TRIM60	0.600	0.012	0.757	0.391
cg12778228	darkolivegre	17	16,341,601	TSS1500	N_Shore	NCRNA00188	0.599	-0.016	0.536	0.382
cg22535729	darkolivegre	8	55,533,955	Body	Island	RP1	0.598	0.013	0.803	0.295
cg12835524	darkolivegre	6	35,109,485	TSS1500	Island	TCP11	0.597	-0.009	0.769	0.374
cg13221899	darkolivegre	13	103,426,862	TSS1500	Island	C13orf27	0.597	0.002	0.955	0.579
cg10130718	darkolivegre	1	53,925,368	1stExon	Island	DMRTB1	0.596	-0.009	0.908	0.508
cg22590775	darkolivegre	19	49,891,494	TSS200	Island	CCDC155	0.596	0.020	0.474	0.416
cg14102966	darkolivegre	6	28,972,975	5'UTR		ZNF311	0.596	0.021	0.845	0.155
cg05860115	darkolivegre	19	42,928,597	Body	Island	LIPE	0.595	0.004	0.781	0.753
cg03759229	darkolivegre	6	28,601,417		N_Shore		0.595	-0.005	0.511	0.752
cg23110482	darkolivegre	6	29,796,614	Body	S_Shore	HLA-G	0.595	0.007	0.699	0.655
cg18407136	darkolivegre	15	83,681,092	TSS1500	S_Shore	C15orf40	0.594	0.005	0.801	0.717
cg10272954	darkolivegre	3	138,725,425	TSS1500	Island	PRR23A	0.594	0.007	0.361	0.475
cg00588262	darkolivegre	19	42,348,588	TSS200	N_Shore	LYPD4	0.593	-0.006	0.860	0.604
cg08739828	darkolivegre	18	33,768,144	Body	Island	MOCOS	0.593	0.010	0.365	0.431
cg08431567	darkolivegre	19	57,175,043	Body	N_Shore	ZNF835	0.592	-0.002	0.796	0.913
cg00005083	darkolivegre	6	46,655,543	TSS200	Island	TDRD6	0.591	0.008	0.896	0.505
cg05719140	darkolivegre	1	63,782,426		Island		0.591	0.001	0.384	0.921
cg20092736	darkolivegre	11	67,982,703		S_Shore		0.591	0.014	0.755	0.122
cg10239449	darkolivegre	19	41,630,511	Body	Island	CYP2F1	0.590	-0.004	0.884	0.762
cg27483455	darkolivegre	12	50,475,360	Body	Island	ACCN2	0.589	0.013	0.693	0.297
cg25384043	darkolivegre	15	81,295,608	1stExon	Island	MESDC1	0.589	0.001	0.801	0.856
cg02931604	darkolivegre	6	74,064,298	TSS1500	Island	DPPA5	0.589	-0.008	0.565	0.634
cg00620024	darkolivegre	9	127,952,891	TSS1500	S_Shore	PPP6C	0.589	0.003	0.920	0.778
cg03145301	darkolivegre	2	232,527,776		Island		0.589	-0.001	0.969	0.871
cg02806645	darkolivegre	3	138,725,153	TSS200	Island	PRR23A	0.589	0.004	0.650	0.847
cg02793415	darkolivegre	12	5,021,087	Body	Island	KCNA1	0.589	0.004	0.773	0.846
cg17352109	darkolivegre	19	57,631,327	TSS200	S_Shore	USP29	0.588	0.000	0.962	0.934
cg12867448	darkolivegre	9	131,217,480	TSS1500	N_Shore	ODF2	0.588	0.004	0.878	0.608
cg14382976	darkolivegre	7	117,067,624	TSS200	Island	ASZ1	0.587	-0.013	0.673	0.466
cg04995311	darkolivegre	19	57,630,446	TSS1500	Island	USP29	0.586	0.013	0.696	0.394
cg19817652	darkolivegre	17	36,997,420	Body	N_Shore	C17orf98	0.585	0.009	0.476	0.748

cg00626466	darkolivegre	12	65,153,982	TSS1500	S_Shore	GNS	0.585	0.030	0.659	0.080
cg17930201	darkolivegre	1	155,828,174	TSS1500	N_Shore	SYT11	0.585	0.007	0.706	0.586
cg20299935	darkolivegre	17	21,795,943				0.584	0.012	0.776	0.385
cg02055264	darkolivegre	6	27,210,913				0.584	0.042	0.656	0.009
cg25119986	darkolivegre	3	62,304,264	TSS1500	N_Shore	C3orf14	0.584	0.033	0.709	0.091
cg12801082	darkolivegre	15	44,117,307	TSS1500	N_Shore	MFAP1	0.584	0.012	0.748	0.372
cg25352397	darkolivegre	8	24,800,883		S_Shore		0.583	0.029	0.523	0.040
cg26523099	darkolivegre	1	109,655,203	Body	N_Shore	C1orf194	0.582	0.008	0.565	0.524
cg22329831	darkolivegre	6	46,655,820	1stExon	Island	TDRD6	0.582	0.009	0.895	0.454
cg19642433	darkolivegre	12	64,783,703	Body	N_Shore	C12orf56	0.582	0.010	0.735	0.310
cg07484849	darkolivegre	19	12,886,986	TSS1500	S_Shore	HOOK2	0.582	0.010	0.858	0.328
cg00513208	darkolivegre	10	12,085,641	TSS1500	S_Shore	UPF2	0.581	0.014	0.703	0.313
cg15138339	darkolivegre	17	40,715,222	1stExon	Island	COASY	0.579	-0.007	0.940	0.479
cg11206167	darkolivegre	5	42,924,367		Island		0.579	-0.001	0.622	0.945
cg12103742	darkolivegre	11	64,739,852		S_Shore		0.579	0.005	0.575	0.677
cg01243892	darkolivegre	1	29,189,934	3'UTR	Island	OPRD1	0.578	0.012	0.881	0.163
cg05655707	darkolivegre	11	18,477,254	TSS200	N_Shore	LDHAL6A	0.577	0.019	0.873	0.223
cg02303805	darkolivegre	7	148,582,347	TSS1500	S_Shore	EZH2	0.577	-0.001	0.108	0.954
cg19511338	darkolivegre	10	43,247,938		N_Shore		0.577	-0.046	0.525	0.138
cg16731266	darkolivegre	6	28,601,269		N_Shore		0.576	0.001	0.911	0.935
cg02319990	darkolivegre	15	75,641,529	Body	S_Shore	NEIL1	0.576	0.026	0.658	0.130
cg12763978	darkolivegre	6	28,601,519		N_Shore		0.576	-0.007	0.853	0.688
cg16547341	darkolivegre	19	57,630,691	TSS1500	S_Shore	USP29	0.575	-0.006	0.459	0.553
cg06077305	darkolivegre	16	2,903,246	Body	Island	PRSS22	0.574	0.013	0.880	0.239
cg15862358	darkolivegre	12	65,516,002	TSS1500	S_Shore	WIF1	0.573	0.017	0.783	0.157
cg24396400	darkolivegre	17	42,154,271	3'UTR		HDAC5	0.573	0.015	0.612	0.068
cg25067162	darkolivegre	17	41,277,974	TSS1500	N_Shore	BRCA1	0.572	0.053	0.321	0.016
cg01181499	darkolivegre	2	74,739,419		N_Shore		0.572	0.012	0.755	0.192
cg03397031	darkolivegre	1	29,189,308	Body	Island	OPRD1	0.571	0.005	0.888	0.691
cg23542590	darkolivegre	3	56,717,769	TSS1500	S_Shore	C3orf63	0.571	0.005	0.829	0.635
cg26077005	darkolivegre	6	27,236,793				0.571	0.014	0.593	0.417
cg23968383	darkolivegre	8	125,984,927	TSS1500		ZNF572	0.571	0.010	0.819	0.468
cg14215970	darkolivegre	9	124,132,919	TSS1500	Island	STOM	0.571	-0.001	0.530	0.918
cg02581146	darkolivegre	19	9,846,701		S_Shore		0.571	0.003	0.965	0.556
cg23470520	darkolivegre	19	1,242,283	Body	Island	ATP5D	0.571	0.009	0.462	0.355
cg26706163	darkolivegre	19	59,073,369	3'UTR	N_Shore	MZF1	0.571	0.025	0.399	0.022
cg12181372	darkolivegre	20	58,508,123	TSS1500	Island	SYCP2	0.570	-0.003	0.662	0.857
cg20758219	darkolivegre	3	138,738,597	1stExon	N_Shore	PRR23B	0.569	0.015	0.798	0.279
cg00520612	darkolivegre	3	101,406,543	TSS1500	S_Shore	RPL24	0.569	0.015	0.813	0.246
cg14588448	darkolivegre	9	34,372,089	Body	Island	KIAA1161	0.569	0.015	0.712	0.283
cg19263433	darkolivegre	2	118,618,151		Island		0.568	0.009	0.641	0.596
cg22512222	darkolivegre	19	4,523,795	Body	Island	PLIN5	0.567	0.000	0.881	0.970
cg14372753	darkolivegre	22	18,064,176	Body	Island	SLC25A18	0.567	0.005	0.793	0.803
cg18947553	darkolivegre	1	227,747,468		Island		0.566	0.024	0.226	0.336
cg00278366	darkolivegre	12	110,940,287	Body	S_Shore	RAD9B	0.566	0.003	0.513	0.797
cg06710890	darkolivegre	13	21,477,865	TSS1500	S_Shore	XPO4	0.566	0.013	0.951	0.104
cg27535677	darkolivegre	6	28,601,365		N_Shore		0.566	-0.013	0.801	0.513
cg04648334	darkolivegre	6	27,236,866				0.565	0.006	0.566	0.655
cg08426066	darkolivegre	6	46,655,514	TSS200	Island	TDRD6	0.565	0.007	0.736	0.602
cg01310365	darkolivegre	2	99,438,540	Body	Island	C2orf55	0.565	-0.006	0.893	0.610
cg19309009	darkolivegre	19	45,753,569	TSS1500	N_Shore	MARK4	0.565	0.014	0.768	0.288
cg00269553	darkolivegre	8	52,321,814	Body	Island	PXDNL	0.565	-0.018	0.746	0.398
cg21148531	darkolivegre	6	106,774,172	TSS1500	S_Shore	ATG5	0.565	-0.014	0.821	0.380
cg12244205	darkolivegre	6	28,972,937	5'UTR		ZNF311	0.564	0.018	0.521	0.302
cg12675583	darkolivegre	12	2,017,510	Body	Island	CACNA2D4	0.563	-0.001	0.323	0.940
cg08730239	darkolivegre	12	47,226,453		S_Shore		0.563	0.014	0.457	0.321
cg10632765	darkolivegre	19	6,534,916	Body	Island	TNFSF9	0.563	0.018	0.749	0.271
cg04377324	darkolivegre	6	46,655,795	1stExon	Island	TDRD6	0.563	0.002	0.904	0.859
cg08192165	darkolivegre	6	87,832,220		Island		0.563	-0.001	0.713	0.921
cg01550017	darkolivegre	5	42,924,215		Island		0.563	0.010	0.691	0.576
cg15922705	darkolivegre	6	70,991,156	Body	N_Shore	COL9A1	0.563	0.012	0.891	0.503
cg04752716	darkolivegre	19	58,728,865		S_Shore		0.563	0.013	0.758	0.311
cg25288140	darkolivegre	17	41,278,341	TSS1500	Island	BRCA1	0.562	0.067	0.692	0.022
cg23401210	darkolivegre	19	57,630,628	TSS1500	Island	USP29	0.562	-0.007	0.852	0.532
cg01079738	darkolivegre	1	182,922,427	1stExon	Island	C1orf14	0.562	0.001	0.648	0.971
cg07063463	darkolivegre	20	43,932,925	Body	Island	MATN4	0.561	-0.015	0.426	0.223
cg14554415	darkolivegre	15	69,222,988	Body	Island	MIRS48H4	0.560	0.000	0.528	0.994

cg22932482	darkolivegre	8	144,790,992	TSS1500	Island	LOC10013027	0.559	0.004	0.808	0.786
cg22194188	darkolivegre	17	62,341,149	TSS1500	S_Shore	TEX2	0.559	0.009	0.447	0.648
cg05003908	darkolivegre	8	144,789,164	Body	Island	LOC10013027	0.558	0.009	0.765	0.564
cg25619440	darkolivegre	2	118,616,155		N_Shore		0.558	0.007	0.850	0.673
cg12262698	darkolivegre	22	45,704,988	TSS1500	N_Shore	FAM118A	0.558	-0.007	0.645	0.476
cg10600889	darkolivegre	17	37,123,767	TSS200		FBXO47	0.557	0.021	0.373	0.291
cg09817162	darkolivegre	6	27,185,676				0.556	0.050	0.710	0.160
cg06678577	darkolivegre	6	27,236,622				0.556	0.008	0.861	0.569
cg22033061	darkolivegre	19	17,531,746	Body	S_Shore	FAM125A	0.556	0.001	0.766	0.928
cg03408035	darkolivegre	3	138,724,332	1stExon	Island	PRR23A	0.556	0.003	0.838	0.824
cg00046336	darkolivegre	2	118,617,230		Island		0.556	0.008	0.820	0.565
cg01835576	darkolivegre	16	66,835,530	TSS200	Island	CCDC79	0.555	-0.004	0.886	0.759
cg24414344	darkolivegre	17	39,019,556	Body	Island	KRT12	0.555	-0.004	0.413	0.718
cg10693865	darkolivegre	19	55,574,951	TSS1500	S_Shore	RDH13	0.555	0.029	0.777	0.075
cg09583957	darkolivegre	20	57,428,315	5'UTR	Island	GNAS	0.555	0.013	0.810	0.192
cg09395805	darkolivegre	6	27,186,076				0.555	0.034	0.581	0.319
cg27362010	darkolivegre	16	279,746	TSS1500	N_Shore	LUC7L	0.554	0.031	0.667	0.066
cg20369299	darkolivegre	2	213,698,158		S_Shore		0.554	-0.028	0.748	0.222
cg24652615	darkolivegre	6	44,243,304	Body	Island	TMEM151B	0.553	0.011	0.481	0.696
cg09071762	darkolivegre	6	74,064,149	TSS200	Island	DPPA5	0.553	-0.022	0.702	0.263
cg02930239	darkolivegre	3	138,763,670	1stExon	Island	PRR23C	0.553	0.002	0.590	0.915
cg20276962	darkolivegre	1	243,651,346	Body	Island	SDCCAG8	0.553	0.023	0.626	0.229
cg04560832	darkolivegre	1	150,267,044	Body	S_Shore	MRPS21	0.553	0.015	0.633	0.344
cg18798934	darkolivegre	6	28,972,654	5'UTR		ZNF311	0.552	-0.004	0.808	0.660
cg05180451	darkolivegre	6	27,185,764				0.552	0.036	0.659	0.173
cg26865747	darkolivegre	6	28,601,377		N_Shore		0.551	-0.011	0.824	0.609
cg10750464	darkolivegre	19	11,534,062	Body	S_Shore	CCDC151	0.551	0.026	0.396	0.339
cg19098932	darkolivegre	1	2,345,152	TSS1500	N_Shore	PEX10	0.551	0.008	0.480	0.679
cg18083595	darkolivegre	19	57,630,661	TSS1500	S_Shore	USP29	0.551	0.002	0.793	0.871
cg22079902	darkolivegre	5	23,507,644	TSS200		PRDM9	0.550	0.011	0.767	0.614
cg24324837	darkolivegre	19	49,891,574	1stExon	Island	CCDC155	0.550	0.016	0.736	0.531
cg05527459	darkolivegre	1	92,012,148		N_Shore		0.550	0.012	0.860	0.274
cg23263641	darkolivegre	19	44,128,109	Body	S_Shelf	CADM4	0.549	0.042	0.676	0.018
cg21086870	darkolivegre	15	41,836,937	TSS1500	S_Shore	RPAP1	0.549	0.008	0.870	0.535
cg26268842	darkolivegre	2	219,575,248	TSS1500	N_Shore	TTLL4	0.548	0.017	0.532	0.230
cg06588556	darkolivegre	11	18,477,299	TSS200	Island	LDHAL6A	0.547	0.023	0.468	0.365
cg26740318	darkolivegre	11	18,477,153	TSS1500	N_Shore	LDHAL6A	0.547	0.017	0.537	0.350
cg05053440	darkolivegre	1	227,748,442		Island		0.546	0.007	0.103	0.633
cg24213669	darkolivegre	2	118,616,576		Island		0.546	0.015	0.564	0.605
cg09188212	darkolivegre	8	37,605,936	TSS1500		LOC728024	0.546	0.010	0.855	0.450
cg08082436	darkolivegre	16	24,550,148	TSS1500	N_Shore	RBBP6	0.546	0.025	0.573	0.087
cg23414861	darkolivegre	6	74,064,064	TSS200	Island	DPPA5	0.545	-0.013	0.668	0.519
cg17628468	darkolivegre	17	42,093,050	TSS1500	S_Shore	TMEM101	0.545	0.008	0.859	0.554
cg13777783	darkolivegre	17	79,615,861		S_Shore		0.545	-0.009	0.630	0.616
cg05532239	darkolivegre	1	156,309,258	TSS1500	S_Shore	CCT3	0.545	0.009	0.814	0.337
cg07107628	darkolivegre	6	27,210,934				0.544	0.033	0.840	0.055
cg09320346	darkolivegre	16	3,151,172				0.543	0.010	0.899	0.322
cg18852692	darkolivegre	11	58,830,191		Island		0.543	0.018	0.327	0.371
cg12544557	darkolivegre	17	39,019,545	Body	Island	KRT12	0.543	-0.017	0.396	0.079
cg13565129	darkolivegre	6	28,601,419		N_Shore		0.543	-0.021	0.603	0.440
cg18023724	darkolivegre	4	164,088,493	TSS1500	S_Shore	NAF1	0.542	-0.013	0.810	0.248
cg20851828	darkolivegre	6	28,601,440		N_Shore		0.542	-0.009	0.771	0.626
cg19925373	darkolivegre	4	2,059,244		N_Shore		0.542	0.005	0.704	0.522
cg13570656	darkolivegre	15	75,019,196	TSS1500	Island	CYP1A1	0.542	-0.003	0.227	0.865
cg06888460	darkolivegre	11	18,477,303	TSS200	Island	LDHAL6A	0.541	0.028	0.554	0.180
cg07775813	darkolivegre	15	69,223,368	Body	Island	MIR548H4	0.540	0.009	0.826	0.552
cg10279314	darkolivegre	6	27,185,896				0.540	0.031	0.571	0.256
cg24302688	darkolivegre	1	45,240,400	TSS1500	N_Shore	SNORD55	0.540	0.007	0.906	0.425
cg22438280	darkolivegre	7	107,205,157	TSS200	S_Shore	COG5	0.539	0.017	0.574	0.182
cg24744258	darkolivegre	17	40,939,380	Body	S_Shore	WNK4	0.539	0.054	0.724	0.003
cg26822551	darkolivegre	1	179,544,476	Body	N_Shore	NPHS2	0.539	0.013	0.721	0.294
cg01403320	darkolivegre	2	88,355,784	TSS1500	S_Shore	KRCC1	0.538	0.004	0.688	0.640
cg12808359	darkolivegre	17	40,937,270	Body	Island	WNK4	0.538	0.020	0.125	0.182
cg02327189	darkolivegre	7	57,830,004				0.538	0.009	0.481	0.716
cg01926813	darkolivegre	3	138,725,204	TSS200	Island	PRR23A	0.537	0.012	0.539	0.485
cg03149770	darkolivegre	19	12,865,711	Body	Island	BEST2	0.537	0.003	0.861	0.737
cg07917528	darkolivegre	7	55,412,268		Island		0.537	-0.003	0.946	0.716

cg00755561	darkolivegre	1	182,025,618	Body	Island	ZNF648	0.536	0.015	0.908	0.132
cg00312125	darkolivegre	4	84,030,111	5'UTR	N_Shore	PLAC8	0.536	0.005	0.798	0.756
cg05221720	darkolivegre	6	70,991,229	Body	N_Shore	COL9A1	0.536	0.007	0.892	0.648
cg14654363	darkolivegre	6	28,601,443		N_Shore		0.535	0.009	0.798	0.655
cg19149020	darkolivegre	10	15,001,078	TSS1500	N_Shore	MEIG1	0.535	0.012	0.764	0.436
cg24836607	darkolivegre	7	117,067,752	TSS200	S_Shore	ASZ1	0.533	0.002	0.731	0.901
cg18888461	darkolivegre	11	18,477,379	1stExon	Island	LDHAL6A	0.533	0.025	0.222	0.195
cg00741731	darkolivegre	19	42,348,676	TSS200	Island	LYPD4	0.533	-0.002	0.856	0.863
cg04608651	darkolivegre	17	40,557,508	Body	Island	PTRF	0.533	0.007	0.857	0.587
cg02868222	darkolivegre	3	155,572,952	TSS1500	S_Shore	SLC33A1	0.532	0.021	0.248	0.281
cg23799440	darkolivegre	1	247,096,088	TSS1500	S_Shore	AHCTF1	0.531	0.014	0.405	0.285
cg01801826	darkolivegre	8	1,766,281		S_Shore		0.530	-0.013	0.557	0.370
cg11706111	darkolivegre	16	71,523,144	5'UTR		ZNF19	0.530	-0.005	0.635	0.585
cg26724545	darkolivegre	5	169,659,950	1stExon	Island	C5orf58	0.530	-0.008	0.923	0.486
cg09301254	darkolivegre	19	42,348,327	1stExon	N_Shore	LYPD4	0.530	0.004	0.706	0.719
cg09564448	darkolivegre	2	101,617,804	TSS1500	N_Shore	RPL31	0.529	0.004	0.953	0.506
cg17883742	darkolivegre	19	57,702,371	TSS1500	N_Shore	ZNF264	0.529	-0.012	0.923	0.104
cg00015319	darkolivegre	12	54,500,832	Body	Island	FLJ12825	0.529	0.010	0.280	0.308
cg14325153	darkolivegre	3	138,763,899	TSS200	Island	PRR23C	0.529	-0.022	0.391	0.461
cg16783571	darkolivegre	6	74,064,594	TSS1500	S_Shore	DPPA5	0.529	-0.019	0.794	0.337
cg01832712	darkolivegre	3	4,910,674		S_Shore		0.528	0.010	0.633	0.217
cg26312542	darkolivegre	11	112,038,104	5'UTR		TEX12	0.526	-0.008	0.803	0.544
cg11630226	darkolivegre	8	143,781,816	1stExon	Island	LY6K	0.526	0.016	0.197	0.427
cg16008476	darkolivegre	19	57,306,640	Body	N_Shore	ZIM2	0.526	-0.016	0.782	0.169
cg03314840	darkolivegre	1	155,264,662	Body	Island	PKLR	0.524	0.011	0.485	0.278
cg01262208	darkolivegre	8	144,790,375	TSS200	Island	LOC10013027	0.523	-0.013	0.381	0.269
cg16023943	darkolivegre	10	27,541,331	TSS200	Island	LOC387646	0.523	-0.009	0.526	0.394
cg09149784	darkolivegre	1	26,123,858				0.522	0.002	0.622	0.847
cg12403142	darkolivegre	1	92,012,408		Island		0.522	0.004	0.772	0.881
cg12405983	darkolivegre	19	58,630,240	TSS1500	Island	ZSCAN18	0.522	0.009	0.694	0.678
cg24176311	darkolivegre	7	128,696,150	Body	Island	LOC286016	0.522	0.022	0.771	0.200
cg20929609	darkolivegre	1	40,626,736	TSS1500	N_Shore	RLF	0.521	-0.005	0.439	0.616
cg22163406	darkolivegre	20	35,917,429	TSS1500	N_Shore	MANBAL	0.520	0.006	0.920	0.389
cg22809920	darkolivegre	20	43,935,551	1stExon	Island	RBPJL	0.519	0.011	0.618	0.443
cg13514718	darkolivegre	7	23,749,722	TSS200		STK31	0.518	0.006	0.630	0.536
cg00381622	darkolivegre	16	56,677,855	Body	S_Shore	MT1DP	0.518	0.008	0.360	0.261
cg15345388	darkolivegre	2	62,116,697	TSS1500	S_Shore	CCT4	0.518	0.015	0.822	0.129
cg02596089	darkolivegre	19	47,759,400	TSS1500	N_Shore	CCDC9	0.518	-0.009	0.278	0.625
cg10140536	darkolivegre	19	57,630,596	TSS1500	Island	USP29	0.517	0.000	0.793	0.974
cg26198807	darkolivegre	11	46,957,758	TSS1500	N_Shore	C11orf49	0.517	0.013	0.622	0.213
cg01145232	darkolivegre	6	150,245,071	TSS1500	N_Shore	RAET1G	0.517	0.028	0.884	0.022
cg01565777	darkolivegre	3	138,763,424	1stExon	Island	PRR23C	0.517	-0.009	0.407	0.522
cg18438300	darkolivegre	7	72,847,175	TSS1500	N_Shore	FZD9	0.516	0.015	0.622	0.119
cg25806655	darkolivegre	19	4,543,498	3'UTR	Island	SEMA6B	0.516	0.033	0.892	0.003
cg20699586	darkolivegre	1	227,748,719		Island		0.515	0.020	0.144	0.525
cg04637704	darkolivegre	7	128,696,180	Body	Island	LOC286016	0.514	0.017	0.824	0.258
cg14870223	darkolivegre	3	39,093,076	TSS1500	N_Shore	WDR48	0.514	0.006	0.394	0.649
cg21320567	darkolivegre	8	67,975,880	TSS1500	N_Shore	CSPP1	0.511	0.014	0.834	0.277
cg13630250	darkolivegre	14	70,827,336	TSS1500	S_Shore	COX16	0.511	0.016	0.766	0.267
cg15486454	darkolivegre	3	133,191,270	Body		BFSP2	0.511	0.010	0.456	0.441
cg06377543	darkolivegre	18	23,713,657	TSS200	N_Shore	PSMA8	0.511	0.002	0.826	0.835
cg22424532	darkolivegre	7	117,067,727	TSS200	S_Shore	ASZ1	0.510	0.001	0.873	0.913
cg07532089	darkolivegre	2	71,018,354	TSS1500	S_Shore	FIGLA	0.510	0.026	0.652	0.273
cg07288557	darkolivegre	12	47,226,301		S_Shore		0.510	-0.003	0.336	0.787
cg13010785	darkolivegre	2	74,647,579	TSS1500	N_Shore	WDR54	0.509	0.007	0.784	0.447
cg25987408	darkolivegre	5	154,318,104	TSS1500	S_Shore	GEMIN5	0.508	0.004	0.769	0.646
cg04953292	darkolivegre	16	66,835,552	TSS200	Island	CCDC79	0.508	-0.001	0.972	0.770
cg17475271	darkolivegre	6	32,729,741	Body	Island	HLA-DQB2	0.508	0.006	0.559	0.641
cg15429854	darkolivegre	19	17,597,669	Body	Island	SLC27A1	0.508	0.007	0.957	0.085
cg00659077	darkolivegre	18	77,723,271	TSS1500	N_Shore	HSBP1L1	0.507	0.005	0.533	0.660
cg20017132	darkolivegre	10	105,233,022	Body	Island	CALHM3	0.506	-0.024	0.654	0.079
cg19527995	darkolivegre	11	45,825,356	TSS1500	N_Shore	SLC35C1	0.506	0.014	0.583	0.163
cg23755154	darkolivegre	22	50,705,407	Body	Island	MAPK11	0.505	-0.004	0.814	0.626
cg04821009	darkolivegre	5	94,982,163	TSS1500	N_Shore	RFESD	0.505	-0.010	0.734	0.335
cg18256205	darkolivegre	5	180,648,409		N_Shore		0.504	0.036	0.540	0.055
cg06642626	darkolivegre	14	75,180,534	Body	S_Shore	FCF1	0.504	0.038	0.370	0.082
cg10508778	darkolivegre	12	110,840,579	Body	N_Shore	ANAPC7	0.503	0.013	0.296	0.368

cg27567761	darkolivegre	10	64,573,184	Body	Island	EGR2	0.503	0.006	0.859	0.645
cg22660171	darkolivegre	8	30,770,617		S_Shore		0.503	-0.012	0.557	0.369
cg01721149	darkolivegre	1	156,394,727	5'UTR	S_Shelf	C1orf61	0.503	-0.012	0.765	0.672
cg00107241	darkolivegre	1	29,461,070		Island		0.502	-0.005	0.715	0.704
cg07275979	darkolivegre	8	124,084,365	TSS1500	N_Shore	WDR67	0.502	0.037	0.651	0.046
cg15448220	darkolivegre	1	150,897,856	TSS1500	N_Shore	SETDB1	0.501	0.008	0.786	0.771
cg08717632	darkolivegre	16	3,151,202				0.501	0.010	0.776	0.358
cg19663246	darkolivegre	7	32,339,095		S_Shore		0.499	-0.001	0.581	0.923
cg00007466	darkolivegre	19	7,585,086	Body	Island	ZNF358	0.499	0.011	0.936	0.137
cg05323709	darkolivegre	19	45,753,380	TSS1500	N_Shore	MARK4	0.499	0.034	0.850	0.005
cg23040358	darkolivegre	19	37,326,833	5'UTR	N_Shelf	ZNF790	0.499	0.005	0.975	0.160
cg01000954	darkolivegre	5	140,821,244	Body	Island	PCDHGA4	0.498	0.001	0.930	0.902
cg19367436	darkolivegre	6	75,953,935	TSS1500		COX7A2	0.498	0.013	0.063	0.171
cg11205981	darkolivegre	8	144,790,410	TSS200	Island	LOC10013027	0.497	0.013	0.749	0.447
cg14592065	darkolivegre	17	38,209,993	5'UTR	N_Shore	MED24	0.497	-0.007	0.458	0.488
cg26760212	darkolivegre	20	62,601,743	TSS1500	S_Shore	ZNF512B	0.496	0.006	0.177	0.525
cg18085407	darkolivegre	1	244,080,114		N_Shore		0.496	0.004	0.579	0.756
cg06697425	darkolivegre	17	72,915,897	Body	Island	USH1G	0.494	-0.006	0.478	0.544
cg09240436	darkolivegre	19	57,630,594	TSS1500	Island	USP29	0.494	0.006	0.882	0.598
cg18172051	darkolivegre	1	29,189,940	3'UTR	Island	OPRD1	0.493	0.004	0.938	0.601
cg19937979	darkolivegre	14	70,039,915		Island		0.493	-0.016	0.501	0.271
cg26530341	darkolivegre	8	23,083,353	TSS1500	S_Shore	TNFRSF10A	0.493	0.005	0.885	0.683
cg10321146	darkolivegre	19	6,822,469	Body	Island	VAV1	0.492	0.021	0.507	0.127
cg21235823	darkolivegre	14	93,260,203	TSS1500	N_Shore	GOLGA5	0.491	0.009	0.149	0.519
cg00486143	darkolivegre	7	127,774,154		N_Shore		0.491	-0.003	0.355	0.707
cg15414745	darkolivegre	6	74,064,047	TSS200	Island	DPPA5	0.491	-0.036	0.560	0.074
cg07697433	darkolivegre	5	180,647,736		N_Shore		0.490	0.019	0.846	0.222
cg13980266	darkolivegre	9	97,022,269	5'UTR	S_Shore	ZNF169	0.489	-0.003	0.947	0.727
cg14365564	darkolivegre	9	124,133,079	TSS1500	Island	STOM	0.489	-0.002	0.768	0.854
cg17469265	darkolivegre	4	39,183,353	TSS1500	N_Shore	WDR19	0.489	0.027	0.632	0.111
cg08111158	darkolivegre	1	227,746,191		Island		0.488	0.003	0.288	0.885
cg02052758	darkolivegre	7	55,430,948		N_Shelf		0.487	-0.001	0.892	0.924
cg21634331	darkolivegre	19	12,985,203	Body	Island	MAST1	0.487	0.016	0.820	0.421
cg13639937	darkolivegre	1	92,012,655		Island		0.486	0.000	0.871	0.985
cg06776709	darkolivegre	7	139,021,255		N_Shelf		0.486	0.022	0.661	0.049
cg24530147	darkolivegre	3	138,763,894	TSS200	Island	PRR23C	0.485	-0.006	0.620	0.837
cg16337574	darkolivegre	12	56,109,265	TSS1500	N_Shore	BLOC1S1	0.485	0.021	0.812	0.026
cg08377888	darkolivegre	19	12,948,848	TSS1500	N_Shore	MAST1	0.485	0.008	0.384	0.501
cg27353308	darkolivegre	10	133,796,559	TSS1500	Island	BNIP3	0.484	0.002	0.967	0.698
cg15607387	darkolivegre	2	231,714,575		S_Shore		0.484	-0.006	0.887	0.615
cg26484464	darkolivegre	6	30,537,886	TSS1500	N_Shore	ABCF1	0.484	0.019	0.619	0.052
cg01386059	darkolivegre	2	3,382,574	TSS1500	N_Shore	TTC15	0.484	0.003	0.943	0.680
cg12156512	darkolivegre	19	47,258,676	5'UTR	N_Shore	FKRP	0.484	0.039	0.658	0.019
cg03611632	darkolivegre	5	148,932,063	TSS1500	S_Shore	CSNK1A1	0.484	0.016	0.631	0.246
cg26314966	darkolivegre	17	79,466,160		Island		0.482	-0.002	0.642	0.889
cg11374355	darkolivegre	19	39,925,660	Body	N_Shore	RPS16	0.482	0.024	0.637	0.124
cg21052656	darkolivegre	11	67,250,046	TSS1500	N_Shore	AIP	0.481	0.014	0.796	0.212
cg12684052	darkolivegre	17	19,883,602		Island		0.480	-0.008	0.561	0.521
cg07896832	darkolivegre	8	67,975,874	TSS1500	N_Shore	CSPP1	0.480	0.028	0.861	0.065
cg03947203	darkolivegre	11	118,987,153	3'UTR		C2CD2L	0.480	0.007	0.743	0.465
cg04419012	darkolivegre	16	66,835,618	TSS200	Island	CCDC79	0.478	-0.002	0.757	0.922
cg23518439	darkolivegre	19	639,289	TSS1500	Island	FGF22	0.478	0.025	0.517	0.127
cg19452011	darkolivegre	5	5,139,508	TSS1500	Island	ADAMTS16	0.477	-0.007	0.592	0.597
cg25423077	darkolivegre	18	59,221,601	Body	Island	CDH20	0.476	-0.024	0.726	0.149
cg13357249	darkolivegre	1	151,170,306	TSS1500	N_Shore	PIP5K1A	0.476	0.017	0.654	0.205
cg23175533	darkolivegre	12	13,196,876	TSS1500	N_Shore	KIAA1467	0.474	0.007	0.597	0.617
cg07080946	darkolivegre	16	280,046	TSS1500	N_Shore	LUC7L	0.474	0.011	0.929	0.092
cg24360137	darkolivegre	6	90,598,826		S_Shore		0.472	0.001	0.861	0.881
cg07890457	darkolivegre	19	42,348,822	TSS1500	Island	LYPD4	0.472	0.005	0.920	0.587
cg04966682	darkolivegre	15	27,772,702	Body		GABRG3	0.472	0.003	0.800	0.842
cg13617603	darkolivegre	6	32,843,055	TSS1500		PPP1R2P1	0.471	0.023	0.432	0.350
cg16837441	darkolivegre	20	43,935,222	5'UTR	Island	MATN4	0.471	0.000	0.085	0.985
cg13960894	darkolivegre	15	83,415,633		N_Shelf		0.468	0.010	0.944	0.166
cg09165554	darkolivegre	16	33,935,224		N_Shore		0.467	0.008	0.883	0.495
cg06301726	darkolivegre	16	86,589,283	TSS1500	Island	MTHFSD	0.467	0.017	0.413	0.298
cg21548749	darkolivegre	6	32,096,524	TSS1500	N_Shore	ATF6B	0.467	0.024	0.627	0.050
cg17347810	darkolivegre	19	42,349,010	TSS1500	S_Shore	LYPD4	0.467	0.007	0.894	0.215

cg02896835	darkolivegre	1	92,012,615	Island		0.466	0.008	0.683	0.764
cg22674497	darkolivegre	17	72,916,000 Body	Island	USH1G	0.466	0.005	0.680	0.749
cg22610676	darkolivegre	1	156,393,461 5'UTR	S_Shore	C1orf61	0.465	0.007	0.378	0.606
cg18971671	darkolivegre	19	49,401,721 5'UTR	N_Shore	TULP2	0.465	0.002	0.941	0.689
cg09622557	darkolivegre	8	67,417,790 Body	Island	C8orf46	0.464	-0.003	0.951	0.544
cg05852177	darkolivegre	6	28,954,110	N_Shore		0.462	0.013	0.821	0.308
cg04709035	darkolivegre	2	468,737	S_Shore		0.460	0.002	0.188	0.862
cg12088773	darkolivegre	19	44,128,330 Body		CADM4	0.460	0.006	0.935	0.433
cg20841748	darkolivegre	17	40,838,078 Body	N_Shore	CNTNAP1	0.459	0.019	0.303	0.050
cg20011248	darkolivegre	1	227,747,268	Island		0.459	0.007	0.488	0.707
cg10713431	darkolivegre	20	43,933,204 Body	Island	MATN4	0.459	-0.002	0.355	0.837
cg04585822	darkolivegre	17	72,916,509 Body	Island	USH1G	0.457	-0.009	0.815	0.662
cg09792000	darkolivegre	12	47,225,979	S_Shore		0.457	0.020	0.249	0.321
cg10705060	darkolivegre	3	133,191,407 Body		BFSP2	0.456	0.011	0.859	0.552
cg17007161	darkolivegre	2	122,660,121			0.455	0.006	0.683	0.664
cg12369078	darkolivegre	13	111,766,257 TSS1500		ARHGEF7	0.455	-0.001	0.369	0.888
cg08394377	darkolivegre	1	41,132,022 TSS1500	S_Shore	RIMS3	0.455	0.017	0.676	0.052
cg06508738	darkolivegre	3	138,763,852 TSS200	Island	PRR23C	0.453	0.007	0.551	0.716
cg10536151	darkolivegre	11	17,758,285 Body	Island	KCNC1	0.452	0.025	0.555	0.008
cg00213123	darkolivegre	15	75,019,070 TSS1500	Island	CYP1A1	0.452	-0.005	0.133	0.487
cg09118552	darkolivegre	7	117,067,745 TSS200	S_Shore	AS21	0.452	-0.003	0.848	0.785
cg14789818	darkolivegre	1	227,748,712	Island		0.452	0.025	0.114	0.368
cg14936778	darkolivegre	7	56,174,888 TSS1500	S_Shore	CHCHD2	0.451	0.014	0.791	0.464
cg09754549	darkolivegre	8	144,790,656 TSS1500	Island	LOC10013027	0.448	0.018	0.557	0.284
cg01776298	darkolivegre	16	23,767,194 Body	S_Shore	CHP2	0.448	-0.012	0.835	0.291
cg17977780	darkolivegre	3	70,048,871			0.444	0.004	0.953	0.451
cg22502625	darkolivegre	14	103,568,366 Body	Island	C14orf73	0.444	0.002	0.625	0.804
cg23196630	darkolivegre	8	144,362,100	S_Shore		0.443	0.000	0.861	1.000
cg26543908	darkolivegre	16	28,987,205 Body	S_Shore	SPNS1	0.439	0.018	0.669	0.273
cg18856731	darkolivegre	12	58,011,764	N_Shore		0.439	0.015	0.633	0.228
cg11931223	darkolivegre	6	46,655,500 TSS200	Island	TDRD6	0.438	-0.002	0.879	0.843
cg20805920	darkolivegre	1	10,533,753 TSS1500	N_Shore	DFFA	0.437	0.019	0.677	0.067
cg05881436	darkolivegre	14	62,331,619	Island		0.435	0.000	0.875	0.963
cg02390813	darkolivegre	16	75,563,489 Body	Island	CHST5	0.434	0.002	0.748	0.934
cg00966255	darkolivegre	16	10,479,562	N_Shore		0.434	0.002	0.833	0.848
cg22399458	darkolivegre	11	112,038,039 TSS200		TEX12	0.432	-0.003	0.793	0.843
cg04808027	darkolivegre	11	66,102,146 Body	Island	RIN1	0.432	0.006	0.860	0.625
cg18192325	darkolivegre	2	105,854,051	S_Shore		0.429	0.027	0.582	0.178
cg22361859	darkolivegre	17	37,123,638 1stExon		FBXO47	0.428	-0.005	0.104	0.720
cg21429107	darkolivegre	8	144,790,317 TSS200	Island	LOC10013027	0.428	0.015	0.439	0.374
cg09610772	darkolivegre	11	86,142,407	Island		0.428	0.005	0.662	0.806
cg16420801	darkolivegre	14	23,816,088 Body	Island	SLC22A17	0.424	0.008	0.566	0.504
cg27659768	darkolivegre	16	71,523,436 TSS200		ZNF19	0.422	0.005	0.855	0.529
cg22975712	darkolivegre	22	38,218,945 TSS1500	N_Shore	GALR3	0.420	0.010	0.537	0.199
cg03855994	darkolivegre	3	50,230,988 Body	Island	GNAT1	0.420	0.005	0.542	0.689
cg12409083	darkolivegre	6	32,055,072 Body	Island	TNXB	0.419	-0.012	0.728	0.438
cg04164924	darkolivegre	1	243,651,528 Body	Island	SDCCAG8	0.413	0.014	0.764	0.461
cg02529095	darkolivegre	10	102,777,131 3'UTR	N_Shore	PDZD7	0.413	0.014	0.738	0.038
cg03788567	darkolivegre	12	112,847,769 TSS1500	S_Shore	RPL6	0.411	0.001	0.894	0.924
cg03489492	darkolivegre	19	7,699,751 TSS1500	N_Shore	PCP2	0.411	0.006	0.479	0.582
cg22490454	darkolivegre	2	468,934	S_Shore		0.409	-0.017	0.168	0.219
cg03630832	darkolivegre	16	62,443,059			0.409	0.004	0.682	0.699
cg04406574	darkolivegre	8	41,910,366 TSS1500	S_Shore	MYST3	0.409	0.015	0.854	0.103
cg07997877	darkolivegre	17	1,810,853	N_Shore		0.406	0.004	0.802	0.615
cg16645983	darkolivegre	19	49,223,007 TSS200	N_Shore	MAMSTR	0.401	-0.005	0.784	0.656
cg27175024	darkolivegre	10	43,393,209	N_Shore		0.401	0.014	0.350	0.252
cg02208848	darkolivegre	11	65,779,847 Body	S_Shore	CST6	0.400	-0.002	0.854	0.808
cg25224760	darkolivegre	8	144,790,772 TSS1500	Island	LOC10013027	0.399	0.004	0.958	0.403
cg26740942	darkolivegre	17	37,123,711 TSS200		FBXO47	0.397	0.003	0.071	0.749
cg02778609	darkolivegre	16	23,568,302 TSS1500	N_Shore	UBFD1	0.393	0.015	0.640	0.330
cg08687163	darkolivegre	3	49,940,853 1stExon	N_Shore	MST1R	0.390	0.006	0.674	0.425
cg16530595	darkolivegre	8	144,788,492	Island		0.389	0.021	0.826	0.449
cg14323608	darkolivegre	19	13,873,961 TSS1500	N_Shore	MRI1	0.387	0.009	0.837	0.193
cg19141132	darkolivegre	2	219,080,920 TSS1500	N_Shore	ARPC2	0.385	0.019	0.892	0.110
cg13383926	darkolivegre	5	180,647,406	S_Shore		0.383	0.008	0.911	0.528
cg26568402	darkolivegre	19	40,996,346 Body	S_Shore	SPTBN4	0.380	0.007	0.951	0.167
cg07719610	darkolivegre	16	31,435,264 Body	N_Shelf	ITGA8	0.377	0.009	0.791	0.250

cg04914013	darkolivegre	1	7,763,567	Body	N_Shore	CAMTA1	0.375	0.008	0.354	0.230
cg07917609	darkolivegre	5	33,938,225	1stExon	Island	RXFP3	0.364	0.005	0.250	0.826
cg18710908	darkolivegre	8	144,787,999		Island		0.361	0.027	0.853	0.190
cg13456654	darkolivegre	19	524,336		Island		0.351	0.005	0.834	0.725
cg18177243	darkolivegre	14	23,815,887	Body	Island	SLC22A17	0.350	0.019	0.632	0.317
cg21084508	darkolivegre	2	219,905,564	5'UTR	N_Shore	CCDC108	0.349	0.016	0.429	0.013
cg05574272	darkolivegre	5	33,938,213	1stExon	Island	RXFP3	0.341	-0.004	0.241	0.885
cg24063962	darkolivegre	8	144,790,395	TSS200	Island	LOC10013027	0.334	-0.015	0.515	0.304
cg23674791	darkolivegre	14	106,852,785		N_Shelf		0.304	0.021	0.858	0.044
cg09781168	darkolivegre	12	34,471,040				0.281	0.024	0.795	0.113
cg14026325	darkolivegre	8	144,787,867		Island		0.274	0.006	0.889	0.839
cg16124434	darkolivegre	15	68,725,002	TSS1500	S_Shore	ITGA11	0.269	0.007	0.681	0.329
cg18284427	darkolivegre	1	9,713,284	Body	S_Shore	C1orf200	0.266	0.015	0.601	0.140
cg24087312	darkolivegre	5	177,579,957	Body	N_Shore	NHP2	0.238	0.005	0.918	0.397

**CpGs in the skyblue module:**

cg5_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_CpG_Is	Gene	MM	Beta.diff	AveBeta	P.Value
cg11132661	skyblue		12	130,590,671		OpenSea	0.885	-0.013	0.691	0.462
cg06442684	skyblue		5	172,982,992		OpenSea	0.880	-0.015	0.601	0.242
cg22563907	skyblue		6	35,919,050	Body	OpenSea	0.871	-0.013	0.531	0.391
cg00550493	skyblue		6	64,928,665	Body	OpenSea	0.869	-0.014	0.559	0.393
cg27128410	skyblue		22	32,783,890	3'UTR	OpenSea	0.856	-0.021	0.784	0.299
cg05536286	skyblue		15	92,972,514	Body	OpenSea	0.849	-0.037	0.842	0.049
cg04949963	skyblue		16	87,741,412		N_Shore	0.840	-0.031	0.853	0.053
cg17137426	skyblue		15	33,080,435	Body	OpenSea	0.837	-0.018	0.404	0.298
cg13963528	skyblue		1	22,612,141		N_Shore	0.835	-0.020	0.713	0.262
cg07389839	skyblue		17	74,846,372		OpenSea	0.834	-0.004	0.621	0.768
cg10288578	skyblue		2	16,816,994	5'UTR	OpenSea	0.831	-0.014	0.852	0.407
cg04782252	skyblue		1	22,612,297		Island	0.826	-0.010	0.650	0.506
cg21422209	skyblue		8	143,645,857		S_Shore	0.826	-0.013	0.857	0.214
cg12258607	skyblue		6	12,717,138	TSS1500	OpenSea	0.825	-0.046	0.689	0.040
cg22011366	skyblue		2	128,189,311		S_Shelf	0.817	-0.021	0.717	0.200
cg14482093	skyblue		8	22,461,488	TSS1500	N_Shore	0.813	0.001	0.833	0.968
cg16644344	skyblue		1	2,100,169	Body	OpenSea	0.810	-0.010	0.533	0.296
cg25817430	skyblue		12	102,928,914		OpenSea	0.809	-0.010	0.678	0.635
cg04879750	skyblue		12	130,590,529		OpenSea	0.809	-0.012	0.570	0.336
cg09741917	skyblue		2	98,702,260	TSS1500	N_Shore	0.803	-0.008	0.495	0.465
cg17282592	skyblue		10	6,797,081		OpenSea	0.802	-0.030	0.757	0.221
cg25604352	skyblue		8	6,492,556	Body	OpenSea	0.802	-0.026	0.852	0.061
cg06363865	skyblue		1	42,929,769		S_Shore	0.800	-0.030	0.389	0.078
cg14672496	skyblue		18	21,087,552	Body	S_Shelf	0.799	-0.048	0.623	0.051
cg21451930	skyblue		1	183,196,726	Body	OpenSea	0.797	-0.041	0.715	0.059
cg10173932	skyblue		12	130,950,761	Body	N_Shelf	0.796	-0.026	0.484	0.038
cg12992745	skyblue		8	627,358	Body	S_Shore	0.795	0.000	0.705	0.992
cg26946769	skyblue		18	48,189,538	5'UTR	N_Shore	0.791	-0.005	0.649	0.691
cg10313337	skyblue		16	68,823,690	Body	OpenSea	0.790	-0.011	0.746	0.455
cg18739932	skyblue		8	1,112,153		N_Shore	0.788	-0.016	0.570	0.410
cg16400756	skyblue		1	6,105,939	Body	OpenSea	0.787	-0.018	0.602	0.130
cg17529745	skyblue		10	131,708,358	Body	OpenSea	0.785	0.004	0.786	0.805
cg23282964	skyblue		6	7,417,780	3'UTR	OpenSea	0.782	-0.034	0.521	0.190
cg17349151	skyblue		14	58,448,871		OpenSea	0.781	-0.005	0.587	0.699
cg10979117	skyblue		10	134,772,055		N_Shelf	0.779	0.002	0.772	0.819
cg05138150	skyblue		12	130,914,344	Body	OpenSea	0.778	-0.007	0.630	0.396
cg23678364	skyblue		4	5,028,695		OpenSea	0.778	-0.014	0.827	0.194
cg02301319	skyblue		2	239,930,865		Island	0.776	-0.018	0.683	0.098
cg21494075	skyblue		11	129,817,717	TSS1500	OpenSea	0.772	-0.017	0.558	0.203
cg24713989	skyblue		7	50,774,060	5'UTR	OpenSea	0.770	-0.036	0.778	0.034
cg08100149	skyblue		15	31,198,303	Body	S_Shore	0.766	-0.005	0.776	0.770
cg01211627	skyblue		3	55,733,455	Body	OpenSea	0.766	-0.027	0.697	0.318
cg05797615	skyblue		1	220,925,515	Body	S_Shelf	0.765	-0.016	0.640	0.175
cg25342005	skyblue		1	33,648,656	TSS1500	S_Shore	0.764	-0.006	0.491	0.619
cg07837852	skyblue		1	198,907,517		OpenSea	0.760	-0.028	0.724	0.043
cg06615699	skyblue		13	78,832,424		OpenSea	0.759	-0.004	0.550	0.807
cg27244980	skyblue		8	35,095,963	Body	S_Shore	0.759	-0.020	0.534	0.294
cg00639143	skyblue		8	1,879,639	Body	OpenSea	0.759	0.006	0.732	0.788
cg16469927	skyblue		5	777,465		OpenSea	0.757	-0.032	0.707	0.234
cg07095737	skyblue		16	14,458,471		OpenSea	0.757	-0.024	0.546	0.193

cg19824833	skyblue	8	1,041,264	OpenSea		0.756	0.001	0.538	0.937
cg12284235	skyblue	10	1,248,818 Body	N_Shelf	ADARB2	0.756	-0.003	0.920	0.798
cg21532088	skyblue	17	80,662,567	OpenSea		0.754	-0.006	0.725	0.653
cg19532402	skyblue	13	25,801,935	OpenSea		0.754	-0.007	0.521	0.478
cg11808514	skyblue	20	42,356,308 TSS1500	OpenSea	GTSF1L	0.754	-0.012	0.816	0.439
cg21778644	skyblue	2	105,924,383 Body	OpenSea	TGFBRAP1	0.752	-0.011	0.706	0.427
cg23985797	skyblue	2	1,482,915 Body	S_Shore	TPO	0.752	0.001	0.776	0.947
cg13573358	skyblue	5	3,853,734	N_Shore		0.752	-0.020	0.523	0.021
cg21063899	skyblue	13	78,109,801 TSS200	OpenSea	SCEL	0.751	-0.038	0.681	0.016
cg22488797	skyblue	5	134,363,324	Island		0.749	-0.049	0.142	0.055
cg20552220	skyblue	8	102,876,411 5'UTR	OpenSea	NCALD	0.749	-0.007	0.402	0.364
cg12818107	skyblue	8	142,852,265	OpenSea		0.748	-0.007	0.457	0.456
cg01311170	skyblue	17	39,169,407	OpenSea		0.746	-0.006	0.511	0.525
cg12646067	skyblue	22	50,481,514 Body	N_Shore	TLL8	0.745	-0.049	0.724	0.087
cg20741105	skyblue	7	43,686,889 Body	OpenSea	C7orf44	0.745	-0.014	0.446	0.231
cg04307702	skyblue	2	3,714,315 5'UTR	OpenSea	ALLC	0.745	-0.005	0.722	0.625
cg00416208	skyblue	12	130,914,291 Body	OpenSea	RIMBP2	0.744	-0.015	0.864	0.172
cg17835463	skyblue	8	1,112,134	N_Shore		0.744	-0.011	0.538	0.406
cg14931071	skyblue	6	12,717,776 TSS200	OpenSea	PHACTR1	0.744	-0.028	0.171	0.275
cg24427175	skyblue	13	103,532,339 TSS200	OpenSea	LOC121952	0.744	-0.018	0.700	0.438
cg19179102	skyblue	10	131,479,437 Body	OpenSea	MGMT	0.744	-0.020	0.830	0.102
cg07274716	skyblue	5	134,363,973 3'UTR	Island	PITX1	0.743	-0.074	0.212	0.031
cg09887906	skyblue	13	103,532,304 TSS200	OpenSea	LOC121952	0.743	-0.017	0.591	0.498
cg22014491	skyblue	4	160,777,888	OpenSea		0.742	-0.001	0.467	0.931
cg26411747	skyblue	12	130,262,964 Body	OpenSea	TMEM132D	0.739	-0.009	0.848	0.425
cg21568141	skyblue	6	169,235,962	OpenSea		0.738	-0.001	0.796	0.884
cg08822494	skyblue	15	88,279,757	OpenSea		0.736	-0.030	0.875	0.020
cg02542748	skyblue	10	131,034,863	OpenSea		0.735	-0.036	0.730	0.042
cg04501720	skyblue	5	3,853,671	N_Shore		0.735	-0.017	0.653	0.216
cg16756589	skyblue	7	28,682,948 Body	OpenSea	CREB5	0.734	-0.005	0.644	0.764
cg08206318	skyblue	5	134,363,637 3'UTR	Island	PITX1	0.734	-0.048	0.270	0.136
cg17255703	skyblue	3	158,787,141 1stExon	OpenSea	IQCJ	0.734	-0.010	0.798	0.467
cg12804647	skyblue	1	48,470,601	OpenSea		0.734	0.007	0.820	0.608
cg18159802	skyblue	11	123,309,227	OpenSea		0.733	-0.006	0.458	0.473
cg00934017	skyblue	1	115,842,640 5'UTR	OpenSea	NGF	0.733	0.010	0.386	0.447
cg09075137	skyblue	13	78,218,779 3'UTR	OpenSea	SCEL	0.732	-0.024	0.430	0.151
cg14051111	skyblue	7	157,345,090 Body	N_Shore	PTPRN2	0.732	-0.009	0.836	0.446
cg18676586	skyblue	16	12,058,834 TSS200	OpenSea	TNFRSF17	0.730	-0.012	0.587	0.575
cg05796331	skyblue	10	133,768,294 Body	OpenSea	PPP2R2D	0.730	-0.010	0.810	0.470
cg13032902	skyblue	12	131,863,570	OpenSea		0.729	-0.004	0.528	0.773
cg02449202	skyblue	6	46,761,071 TSS200	OpenSea	MEP1A	0.729	-0.005	0.424	0.702
cg10998227	skyblue	12	101,108,809	N_Shore		0.729	-0.004	0.421	0.745
cg12673103	skyblue	5	134,364,717 Body	Island	PITX1	0.728	-0.037	0.239	0.194
cg10654584	skyblue	17	77,114,640 5'UTR	OpenSea	HRNBP3	0.728	-0.021	0.418	0.022
cg03095087	skyblue	6	33,274,335 Body	OpenSea	TAPBP	0.728	-0.005	0.486	0.526
cg14365785	skyblue	13	30,054,440 Body	Island	MTUS2	0.727	-0.003	0.540	0.796
cg09532095	skyblue	2	39,963,854 Body	OpenSea	THUMP2D	0.727	0.001	0.325	0.976
cg16790844	skyblue	2	3,063,898	S_Shore		0.727	-0.002	0.689	0.916
cg04223420	skyblue	5	134,363,877 3'UTR	Island	PITX1	0.727	-0.072	0.239	0.058
cg20163796	skyblue	1	202,287,239 Body	OpenSea	LGR6	0.727	0.002	0.779	0.869
cg26306435	skyblue	10	125,805,783 1stExon	S_Shore	CHST15	0.726	-0.019	0.777	0.213
cg02922902	skyblue	12	124,751,591	OpenSea		0.725	-0.052	0.668	0.012
cg27608022	skyblue	16	88,673,997 Body	OpenSea	ZC3H18	0.724	-0.032	0.831	0.045
cg05329135	skyblue	13	103,532,420 TSS200	OpenSea	LOC121952	0.723	-0.011	0.569	0.647
cg04574152	skyblue	12	5,965,794 Body	OpenSea	ANO2	0.721	-0.009	0.613	0.610
cg06836725	skyblue	2	217,515,425 Body	OpenSea	IGFBP2	0.721	0.003	0.547	0.681
cg10976311	skyblue	5	152,591,026	OpenSea		0.721	-0.007	0.395	0.689
cg27584713	skyblue	6	12,717,016 TSS1500	OpenSea	PHACTR1	0.720	-0.027	0.318	0.021
cg26509691	skyblue	5	134,363,516 3'UTR	Island	PITX1	0.720	-0.040	0.140	0.069
cg22107164	skyblue	11	117,957,509 Body	OpenSea	TMPRSS4	0.720	-0.010	0.758	0.287
cg03421104	skyblue	1	5,793,847	S_Shore		0.719	-0.001	0.485	0.960
cg06871999	skyblue	7	104,460,407 Body	OpenSea	LHFPL3	0.719	-0.007	0.595	0.625
cg23862011	skyblue	7	34,801,131 Body	OpenSea	AAA1	0.718	-0.025	0.499	0.007
cg18450319	skyblue	7	152,592,835	S_Shore		0.718	0.002	0.495	0.848
cg03448362	skyblue	1	172,864,347	OpenSea		0.717	-0.014	0.634	0.407
cg07680965	skyblue	8	41,563,429 Body	S_Shelf	ANK1	0.716	-0.011	0.673	0.531
cg03917952	skyblue	1	115,770,664	OpenSea		0.714	0.001	0.736	0.955



cg19066589	skyblue	3	88,197,529	TSS1500	N_Shore	C3orf38	0.714	-0.014	0.576	0.326
cg02037307	skyblue	5	134,363,562	3'UTR	Island	PITX1	0.714	-0.079	0.318	0.064
cg21026095	skyblue	15	31,198,021	Body	S_Shore	MTMR15	0.714	0.000	0.549	0.986
cg21221598	skyblue	12	130,914,318	Body	OpenSea	RIMBP2	0.713	-0.003	0.812	0.823
cg13715631	skyblue	5	134,366,914	Body	Island	PITX1	0.712	-0.041	0.171	0.108
cg11825436	skyblue	1	157,961,169		N_Shelf		0.711	-0.006	0.904	0.307
cg02370734	skyblue	8	66,702,198	TSS1500	OpenSea	PDE7A	0.710	-0.011	0.690	0.316
cg26667716	skyblue	12	131,862,959		OpenSea		0.710	-0.006	0.602	0.650
cg01116956	skyblue	2	4,048,824		N_Shore		0.710	-0.021	0.697	0.058
cg21878934	skyblue	2	187,464,581	TSS1500	OpenSea	ITGAV	0.710	-0.027	0.578	0.019
cg04985661	skyblue	6	12,717,192	TSS1500	OpenSea	PHACTR1	0.709	-0.039	0.507	0.014
cg23737768	skyblue	17	38,860,097	TSS200	OpenSea	KRT24	0.709	0.004	0.541	0.831
cg01984843	skyblue	16	83,945,978	Body	OpenSea	MLYCD	0.707	-0.010	0.906	0.273
cg22827250	skyblue	5	134,363,823	3'UTR	Island	PITX1	0.707	-0.062	0.351	0.085
cg02882785	skyblue	4	184,242,105	TSS200	OpenSea	CLDN22	0.707	-0.014	0.224	0.374
cg12871534	skyblue	12	3,565,741		OpenSea		0.704	-0.008	0.895	0.351
cg03386869	skyblue	13	102,104,848	TSS200	N_Shore	ITGBL1	0.704	-0.001	0.434	0.946
cg23438868	skyblue	15	93,855,015		OpenSea		0.704	0.001	0.571	0.934
cg13242754	skyblue	14	57,066,100	Body	OpenSea	C14orf101	0.703	-0.014	0.670	0.375
cg21247923	skyblue	13	103,532,435	TSS200	OpenSea	LOC121952	0.703	-0.019	0.831	0.403
cg27563968	skyblue	12	13,037,811		OpenSea		0.702	-0.004	0.822	0.682
cg15594444	skyblue	1	59,893,192	Body	OpenSea	FGGY	0.701	0.001	0.810	0.953
cg27639782	skyblue	6	169,241,606		N_Shore		0.701	-0.007	0.831	0.785
cg07162826	skyblue	13	29,158,337		OpenSea		0.700	0.007	0.755	0.471
cg02068923	skyblue	14	61,547,469		OpenSea		0.699	0.007	0.564	0.587
cg11173579	skyblue	21	33,247,885	Body	S_Shore	HUNK	0.699	-0.007	0.624	0.707
cg13287621	skyblue	5	3,853,654		N_Shore		0.699	-0.022	0.571	0.067
cg27374758	skyblue	3	121,675,259		OpenSea		0.698	-0.014	0.532	0.367
cg00396667	skyblue	5	134,364,387	3'UTR	Island	PITX1	0.698	-0.074	0.228	0.081
cg03919942	skyblue	3	123,352,864	Body	OpenSea	MYLK	0.698	-0.003	0.783	0.695
cg15148513	skyblue	8	142,185,389	Body	S_Shore	DENND3	0.698	-0.003	0.672	0.741
cg00340024	skyblue	1	92,907,439		OpenSea		0.697	-0.019	0.490	0.113
cg20241059	skyblue	10	133,768,242	Body	OpenSea	PPP2R2D	0.697	-0.012	0.873	0.446
cg20298425	skyblue	8	95,892,357	Body	OpenSea	INTS8	0.696	-0.031	0.371	0.212
cg20724032	skyblue	3	41,460,736	Body	OpenSea	ULK4	0.695	-0.009	0.916	0.277
cg13990743	skyblue	1	212,108,591		OpenSea		0.695	-0.018	0.256	0.366
cg27520905	skyblue	7	153,999,655	Body	N_Shelf	DPP6	0.695	-0.014	0.333	0.399
cg25985721	skyblue	8	143,645,672		Island		0.694	0.001	0.589	0.923
cg01937601	skyblue	16	89,130,931		S_Shelf		0.692	0.001	0.719	0.834
cg13720710	skyblue	10	1,452,970	Body	OpenSea	ADARB2	0.691	-0.011	0.915	0.215
cg22364906	skyblue	15	91,368,510		OpenSea		0.691	-0.008	0.878	0.494
cg01618923	skyblue	13	49,883,335	3'UTR	OpenSea	CAB39L	0.691	-0.007	0.662	0.468
cg07884867	skyblue	12	52,108,375	Body	OpenSea	SCN8A	0.690	-0.021	0.774	0.150
cg20732160	skyblue	3	48,590,040	Body	N_Shelf	PFKFB4	0.690	-0.004	0.473	0.589
cg21614303	skyblue	5	134,366,377	Body	N_Shore	PITX1	0.689	-0.049	0.352	0.032
cg27218993	skyblue	6	73,263,351		OpenSea		0.688	0.001	0.432	0.902
cg03347590	skyblue	5	134,366,162	Body	N_Shore	PITX1	0.686	-0.042	0.127	0.072
cg01917721	skyblue	8	126,195,405	Body	OpenSea	NSMCE2	0.686	-0.017	0.675	0.396
cg26734335	skyblue	16	87,166,401		OpenSea		0.685	0.007	0.488	0.535
cg03102073	skyblue	8	333,662		OpenSea		0.685	0.000	0.708	0.996
cg00624477	skyblue	7	1,406,560		N_Shore		0.685	-0.005	0.491	0.615
cg02495310	skyblue	5	134,366,831	Body	N_Shore	PITX1	0.684	-0.032	0.119	0.128
cg01302853	skyblue	7	2,236,170	Body	OpenSea	MAD1L1	0.684	0.015	0.635	0.204
cg19353326	skyblue	13	112,815,083		N_Shelf		0.683	-0.001	0.719	0.963
cg19790509	skyblue	12	130,040,893	Body	OpenSea	TMEM132D	0.683	-0.004	0.813	0.657
cg04553364	skyblue	5	179,806,865		OpenSea		0.682	0.006	0.715	0.606
cg22526705	skyblue	1	2,335,890	3'UTR	S_Shore	RER1	0.682	-0.006	0.674	0.619
cg11160654	skyblue	15	60,369,068		OpenSea		0.681	-0.006	0.272	0.686
cg00364615	skyblue	15	67,424,723	Body	OpenSea	SMAD3	0.681	-0.002	0.491	0.862
cg01398502	skyblue	16	85,990,190		OpenSea		0.680	-0.006	0.792	0.662
cg02213684	skyblue	5	134,366,534	Body	N_Shore	PITX1	0.679	-0.050	0.164	0.051
cg06001205	skyblue	5	22,213,259	5'UTR	OpenSea	CDH12	0.678	-0.016	0.346	0.484
cg01218896	skyblue	15	96,911,988		S_Shore		0.677	-0.011	0.426	0.262
cg10516516	skyblue	3	54,231,340	Body	OpenSea	CACNA2D3	0.677	-0.008	0.560	0.597
cg18366169	skyblue	5	1,948,875		N_Shore		0.676	-0.001	0.767	0.975
cg22792349	skyblue	10	89,979,884		OpenSea		0.675	-0.020	0.812	0.082
cg21801091	skyblue	4	68,027,126		OpenSea		0.675	0.008	0.654	0.494

cg12622597	skyblue	5	134,363,053	N_Shore		0.674	-0.005	0.054	0.518
cg16786581	skyblue	6	10,320,712	S_Shore		0.674	-0.008	0.509	0.375
cg07338584	skyblue	8	36,757,631 Body	OpenSea	KCNU1	0.673	-0.009	0.516	0.549
cg19533958	skyblue	5	4,116,185	OpenSea		0.673	-0.014	0.904	0.156
cg14482556	skyblue	13	112,512,365	OpenSea		0.671	-0.014	0.738	0.290
cg07835482	skyblue	2	182,656,091	OpenSea		0.670	0.000	0.744	0.959
cg19448644	skyblue	3	50,844,676 Body	OpenSea	DOCK3	0.670	-0.021	0.534	0.078
cg16871449	skyblue	12	132,094,100	OpenSea		0.668	-0.001	0.798	0.916
cg11532513	skyblue	3	54,962,242 TSS200	OpenSea	LRTM1	0.668	-0.006	0.435	0.585
cg17707493	skyblue	17	42,222,405 Body	S_Shelf	C17orf53	0.666	-0.003	0.945	0.623
cg02100373	skyblue	5	134,367,090 Body	Island	PITX1	0.665	-0.022	0.136	0.231
cg12065779	skyblue	10	134,789,568	N_Shore		0.665	-0.007	0.691	0.512
cg24456002	skyblue	15	96,911,165	N_Shore		0.665	-0.016	0.174	0.453
cg13837997	skyblue	7	156,917,109	OpenSea		0.665	-0.013	0.740	0.186
cg02550069	skyblue	4	181,749,222	OpenSea		0.665	-0.002	0.931	0.821
cg13718278	skyblue	2	201,402,735 Body	OpenSea	SGOL2	0.664	0.000	0.869	0.960
cg17811423	skyblue	15	68,484,160 3'UTR	OpenSea	CALML4	0.664	-0.002	0.240	0.819
cg03261682	skyblue	10	6,233,757 Body	OpenSea	PFKFB3	0.664	-0.004	0.846	0.691
cg09689633	skyblue	16	14,458,509	OpenSea		0.664	-0.010	0.221	0.239
cg07185425	skyblue	1	234,365,756 Body	N_Shore	SLC35F3	0.663	-0.013	0.810	0.303
cg22775636	skyblue	4	85,139,232	OpenSea		0.663	-0.017	0.601	0.467
cg09713684	skyblue	5	134,372,398	N_Shore		0.663	-0.026	0.556	0.101
cg26094990	skyblue	10	134,771,944	N_Shelf		0.661	-0.007	0.705	0.494
cg03216884	skyblue	6	56,514,787 Body	OpenSea	DST	0.660	-0.013	0.926	0.106
cg18166655	skyblue	1	184,944,153 TSS1500	S_Shore	FAM129A	0.659	-0.001	0.421	0.932
cg06123891	skyblue	3	148,717,232 Body	OpenSea	GYG1	0.659	0.001	0.460	0.904
cg11208869	skyblue	5	153,667,063 Body	OpenSea	GALNT10	0.658	0.004	0.674	0.725
cg06742151	skyblue	13	74,040,163	OpenSea		0.656	-0.004	0.951	0.613
cg13304825	skyblue	17	79,297,548 5'UTR	OpenSea	TMEM105	0.656	-0.006	0.510	0.507
cg08219459	skyblue	16	68,734,735	S_Shelf		0.656	-0.006	0.539	0.587
cg07132650	skyblue	16	83,659,882 Body	OpenSea	CDH13	0.655	-0.008	0.748	0.256
cg07079314	skyblue	2	234,384,677 3'UTR	N_Shore	USP40	0.655	-0.008	0.883	0.510
cg04101060	skyblue	5	134,364,968 Body	Island	PITX1	0.655	-0.031	0.263	0.077
cg23170535	skyblue	10	1,213,441	S_Shelf		0.654	-0.007	0.839	0.514
cg05673110	skyblue	13	37,269,461 Body	OpenSea	C13orf36	0.654	0.005	0.797	0.629
cg06883279	skyblue	1	172,801,651	OpenSea		0.654	-0.012	0.816	0.278
cg23816019	skyblue	3	8,653,513	OpenSea		0.654	-0.009	0.728	0.410
cg25023291	skyblue	12	11,339,792 TSS1500	OpenSea	TAS2R42	0.654	-0.034	0.407	0.130
cg14786686	skyblue	10	1,713,335 Body	OpenSea	ADARB2	0.653	-0.003	0.584	0.750
cg24072947	skyblue	3	136,674,783	OpenSea		0.653	-0.002	0.368	0.853
cg07710211	skyblue	6	42,900,123 Body	S_Shelf	CNPY3	0.652	-0.009	0.800	0.517
cg10471944	skyblue	7	157,345,246 Body	N_Shore	PTPRN2	0.652	-0.005	0.581	0.575
cg21217092	skyblue	15	41,036,786 Body	OpenSea	FAM82A2	0.652	-0.004	0.953	0.582
cg18606375	skyblue	5	134,365,728 Body	N_Shore	PITX1	0.652	-0.045	0.294	0.053
cg08844387	skyblue	1	1,114,172 TSS1500	N_Shore	TLL10	0.652	-0.002	0.838	0.749
cg27570984	skyblue	16	55,125,644	OpenSea		0.651	-0.015	0.519	0.530
cg11151544	skyblue	12	56,135,681 TSS1500	N_Shore	GDF11	0.651	0.001	0.495	0.932
cg08297686	skyblue	14	68,943,486 Body	OpenSea	RAD51L1	0.650	0.002	0.606	0.775
cg05123263	skyblue	10	131,223,404	OpenSea		0.650	0.002	0.651	0.895
cg08552189	skyblue	16	77,915,951 Body	OpenSea	VAT1L	0.650	0.001	0.436	0.887
cg15021629	skyblue	13	111,957,651 3'UTR	OpenSea	ARHGEF7	0.649	0.001	0.874	0.955
cg03953506	skyblue	12	17,732,825	OpenSea		0.649	-0.018	0.322	0.209
cg20382403	skyblue	5	179,345,915	OpenSea		0.649	-0.015	0.535	0.164
cg00156395	skyblue	10	11,516,002 Body	OpenSea	USP6NL	0.649	-0.023	0.504	0.042
cg22168676	skyblue	6	10,060,780	OpenSea		0.649	-0.003	0.484	0.800
cg14534674	skyblue	9	90,440,466	S_Shore		0.649	-0.005	0.880	0.541
cg06204040	skyblue	16	89,037,481 Body	S_Shelf	CBFA2T3	0.648	-0.017	0.679	0.235
cg00847221	skyblue	17	64,948,442	OpenSea		0.648	-0.008	0.613	0.426
cg16248515	skyblue	3	156,840,234	S_Shore		0.647	0.001	0.505	0.901
cg12361772	skyblue	17	9,160,821 Body	OpenSea	STX8	0.647	-0.012	0.362	0.198
cg13333722	skyblue	3	37,944,838 Body	OpenSea	CTDSPL	0.647	-0.009	0.776	0.403
cg19559628	skyblue	15	73,636,424 Body	OpenSea	HCN4	0.645	-0.002	0.734	0.788
cg04461895	skyblue	8	1,642,380 Body	S_Shore	DLGAP2	0.644	0.000	0.920	0.979
cg22070156	skyblue	13	102,104,991 1stExon	N_Shore	ITGBL1	0.644	0.005	0.692	0.855
cg23411869	skyblue	17	74,846,412	OpenSea		0.644	0.010	0.377	0.416
cg22736383	skyblue	4	8,024,970 Body	OpenSea	ABLIM2	0.644	-0.002	0.787	0.856
cg07024905	skyblue	13	21,364,364 Body	OpenSea	XPO4	0.643	-0.039	0.734	0.021

cg12716232	skyblue	8	43,001,931	Body	OpenSea	HGSNAT	0.642	-0.020	0.811	0.230
cg24661860	skyblue	1	10,784,363	5'UTR	OpenSea	CASZ1	0.642	-0.005	0.409	0.680
cg15558448	skyblue	2	50,422,390	Body	OpenSea	NRXN1	0.642	-0.043	0.651	0.023
cg15030949	skyblue	10	130,844,727		OpenSea		0.641	-0.008	0.632	0.638
cg08373003	skyblue	5	134,367,099	Body	Island	PITX1	0.640	-0.014	0.078	0.339
cg16059943	skyblue	1	2,013,748	Body	OpenSea	PRKCZ	0.640	-0.009	0.730	0.521
cg12524725	skyblue	2	239,427,019		OpenSea		0.638	-0.021	0.712	0.284
cg20743218	skyblue	1	9,804,520	Body	OpenSea	CLSTN1	0.638	-0.008	0.847	0.187
cg16449012	skyblue	4	17,781,880	Body	N_Shore	FAM184B	0.638	0.007	0.203	0.557
cg15549700	skyblue	1	4,722,690	Body	N_Shelf	AJAP1	0.636	-0.013	0.829	0.307
cg24650748	skyblue	5	4,116,171		OpenSea		0.636	-0.012	0.885	0.229
cg22711009	skyblue	10	118,576,132		OpenSea		0.636	-0.002	0.692	0.900
cg00344358	skyblue	12	56,135,693	TSS1500	N_Shore	GDF11	0.636	-0.006	0.789	0.577
cg05058973	skyblue	7	31,002,599	TSS1500	OpenSea	GHRHR	0.635	-0.010	0.674	0.338
cg17440386	skyblue	11	70,997,821		OpenSea		0.635	-0.005	0.885	0.654
cg27488364	skyblue	2	234,072,811	Body	OpenSea	INPP5D	0.635	-0.007	0.862	0.462
cg23399257	skyblue	2	394,481		OpenSea		0.635	0.003	0.614	0.857
cg19704630	skyblue	17	3,872,385		OpenSea		0.634	0.003	0.834	0.824
cg06387622	skyblue	6	1,100,823	Body	OpenSea	LOC285768	0.634	0.011	0.770	0.206
cg09664433	skyblue	6	30,535,884		N_Shelf		0.634	-0.008	0.924	0.424
cg24673875	skyblue	4	188,034,964		OpenSea		0.633	-0.023	0.770	0.201
cg12214653	skyblue	4	3,263,229	Body	OpenSea	C4orf44	0.632	0.004	0.908	0.785
cg08884928	skyblue	17	57,431,996	Body	OpenSea	YPEL2	0.632	0.002	0.508	0.828
cg08755784	skyblue	16	27,829,728	Body	OpenSea	GSG1L	0.632	-0.018	0.455	0.270
cg16791797	skyblue	12	132,931,179		S_Shore		0.632	0.007	0.637	0.468
cg27368726	skyblue	2	38,385,687	Body	OpenSea	C2orf58	0.632	-0.014	0.519	0.163
cg20516032	skyblue	8	128,994,030	Body	OpenSea	PVT1	0.632	-0.015	0.573	0.196
cg07646467	skyblue	10	130,844,899		OpenSea		0.631	-0.021	0.718	0.255
cg23631669	skyblue	10	1,713,418	Body	OpenSea	ADARB2	0.631	-0.003	0.797	0.774
cg17070935	skyblue	8	51,364,244	Body	OpenSea	SNTG1	0.631	-0.009	0.524	0.483
cg21365287	skyblue	10	133,768,327	Body	OpenSea	PPP2R2D	0.631	-0.002	0.974	0.350
cg16145211	skyblue	17	75,695,378		OpenSea		0.630	-0.012	0.924	0.236
cg05035280	skyblue	1	1,909,092	Body	N_Shore	KIAA1751	0.630	0.001	0.498	0.951
cg26558591	skyblue	16	27,829,801	Body	OpenSea	GSG1L	0.630	0.000	0.451	0.986
cg19039481	skyblue	2	394,115		OpenSea		0.630	-0.005	0.463	0.692
cg00814614	skyblue	12	81,544,241	Body	OpenSea	ACSS3	0.629	-0.008	0.717	0.545
cg17542296	skyblue	12	130,711,524		OpenSea		0.629	-0.010	0.685	0.372
cg04453624	skyblue	11	117,515,073	Body	OpenSea	DSCAML1	0.629	-0.004	0.804	0.619
cg00005112	skyblue	16	69,958,840	TSS200	OpenSea	WWP2	0.629	0.004	0.426	0.738
cg17504641	skyblue	10	44,458,167		OpenSea		0.628	-0.018	0.757	0.183
cg22407504	skyblue	11	1,243,090	TSS1500	OpenSea	MUC5B	0.628	-0.001	0.714	0.932
cg08590359	skyblue	17	3,641,885	Body	OpenSea	ITGAE	0.628	0.005	0.407	0.695
cg05505103	skyblue	11	109,785,847		OpenSea		0.627	-0.031	0.567	0.114
cg04705866	skyblue	5	54,320,790	Body	OpenSea	GZMK	0.627	-0.004	0.817	0.698
cg08520702	skyblue	8	142,157,693	Body	OpenSea	DENND3	0.626	-0.017	0.593	0.155
cg17371621	skyblue	15	61,264,283	Body	OpenSea	RORA	0.626	-0.005	0.878	0.654
cg01695994	skyblue	17	80,246,403		N_Shelf		0.625	-0.023	0.427	0.102
cg22131726	skyblue	6	154,614,218	5'UTR	OpenSea	IPCEF1	0.624	-0.027	0.511	0.076
cg16656428	skyblue	17	74,846,241		OpenSea		0.623	0.005	0.819	0.621
cg12666976	skyblue	2	1,482,838	Body	S_Shore	TPO	0.623	0.009	0.471	0.269
cg05453378	skyblue	13	51,914,201	TSS1500	OpenSea	SERPINE3	0.622	-0.006	0.683	0.418
cg25700432	skyblue	13	20,797,446	Body	OpenSea	GJB6	0.622	-0.002	0.637	0.814
cg03991547	skyblue	13	112,815,119		N_Shelf		0.622	0.000	0.542	0.980
cg08423857	skyblue	16	84,840,454		OpenSea		0.622	-0.022	0.761	0.047
cg06119630	skyblue	10	130,269,030		OpenSea		0.621	-0.012	0.599	0.302
cg09645291	skyblue	10	79,036,209	Body	OpenSea	KCNMA1	0.621	-0.019	0.591	0.103
cg12817107	skyblue	2	157,013,368		OpenSea		0.620	-0.012	0.559	0.492
cg10543219	skyblue	3	46,441,609		OpenSea		0.619	-0.008	0.545	0.412
cg02993699	skyblue	4	3,415,135	Body	Island	RGS12	0.618	0.007	0.706	0.376
cg04011461	skyblue	16	89,638,389		N_Shelf		0.618	-0.009	0.724	0.527
cg11001665	skyblue	13	107,078,397		OpenSea		0.618	-0.018	0.867	0.042
cg26793019	skyblue	8	2,795,929	3'UTR	OpenSea	CSMD1	0.618	-0.016	0.869	0.149
cg10461878	skyblue	3	158,904,717	Body	OpenSea	IQCJ	0.617	-0.027	0.654	0.021
cg00543944	skyblue	4	123,524,574		OpenSea		0.617	-0.008	0.517	0.419
cg19885979	skyblue	6	30,175,967	5'UTR	OpenSea	TRIM26	0.616	-0.005	0.773	0.579
cg16293118	skyblue	13	102,105,006	1stExon	N_Shore	ITGBL1	0.615	0.003	0.515	0.848
cg06779961	skyblue	1	29,139,758	Body	S_Shore	OPRD1	0.614	0.001	0.293	0.905

cg10717610	skyblue	2	394,242	OpenSea		0.614	0.001	0.710	0.939
cg08123673	skyblue	6	169,092,358	OpenSea		0.614	-0.001	0.783	0.837
cg19759107	skyblue	13	112,875,371	OpenSea		0.613	-0.013	0.909	0.150
cg25226701	skyblue	4	189,612,833	OpenSea		0.613	-0.009	0.754	0.434
cg19500334	skyblue	1	5,896,653	OpenSea		0.612	-0.010	0.582	0.390
cg11582891	skyblue	6	167,768,382	S_Shelf		0.612	0.000	0.866	0.995
cg24630957	skyblue	12	105,503,674	Body	S_Shore KIAA1033	0.612	-0.003	0.519	0.727
cg14847845	skyblue	18	76,123,396	N_Shore		0.612	0.009	0.647	0.445
cg09911881	skyblue	6	32,020,377	Body	OpenSea TNXB	0.612	0.004	0.725	0.653
cg04326741	skyblue	7	1,937,120	Body	N_Shore MAD1L1	0.609	-0.006	0.850	0.278
cg13693143	skyblue	6	52,008,713	TSS1500	OpenSea MIR206	0.608	-0.016	0.684	0.194
cg08537751	skyblue	5	22,213,263	5'UTR	OpenSea CDH12	0.607	-0.012	0.314	0.561
cg09501314	skyblue	15	25,919,674	OpenSea		0.607	-0.010	0.523	0.132
cg01211165	skyblue	8	53,011,019	OpenSea		0.606	-0.036	0.785	0.186
cg24396686	skyblue	3	67,774,792	OpenSea		0.606	-0.004	0.584	0.738
cg12679790	skyblue	13	28,518,899	TSS1500	OpenSea ATP5EP2	0.606	0.001	0.593	0.947
cg05028639	skyblue	8	566,371	OpenSea		0.605	0.000	0.455	0.997
cg14786290	skyblue	15	83,954,849	TSS1500	S_Shore BNC1	0.605	0.000	0.970	0.998
cg25785495	skyblue	3	134,910,848	Body	OpenSea EPHB1	0.605	-0.016	0.771	0.033
cg26860604	skyblue	16	69,958,964	1stExon	OpenSea WWP2	0.605	-0.003	0.441	0.842
cg04181189	skyblue	11	129,817,418	5'UTR	OpenSea PRDM10	0.604	-0.010	0.710	0.250
cg08091526	skyblue	16	79,156,020	Body	OpenSea WWOX	0.604	-0.005	0.857	0.605
cg14429765	skyblue	8	6,492,531	Body	OpenSea MCPH1	0.604	-0.011	0.722	0.412
cg14884747	skyblue	4	142,141,697	TSS1500	N_Shore ZNF330	0.604	-0.001	0.970	0.821
cg05274680	skyblue	20	60,502,248	Body	N_Shore CDH4	0.603	-0.006	0.543	0.446
cg01163340	skyblue	12	130,933,962	Body	N_Shore RIMBP2	0.603	0.005	0.694	0.553
cg04718185	skyblue	5	1,207,046	Body	Island SLC6A19	0.603	0.007	0.536	0.546
cg27089736	skyblue	2	3,714,278	5'UTR	OpenSea ALLC	0.602	-0.006	0.946	0.338
cg13331542	skyblue	19	54,985,364	TSS1500	S_Shelf CDC42EP5	0.602	0.003	0.637	0.795
cg06289826	skyblue	16	29,789,503	TSS200	OpenSea ZG16	0.601	-0.008	0.533	0.318
cg27307693	skyblue	15	50,714,304	N_Shelf		0.601	-0.004	0.622	0.633
cg06176608	skyblue	1	2,019,526	Body	OpenSea PRKCZ	0.600	0.007	0.561	0.438
cg15033034	skyblue	3	194,106,984	OpenSea		0.600	0.010	0.473	0.360
cg05138203	skyblue	13	102,104,707	TSS1500	N_Shore ITGBL1	0.599	-0.030	0.810	0.163
cg15147693	skyblue	6	24,362,928	S_Shelf		0.599	-0.003	0.839	0.842
cg02999385	skyblue	16	57,846,754	OpenSea		0.599	-0.012	0.469	0.257
cg14430698	skyblue	2	131,482,665	N_Shelf		0.598	-0.001	0.867	0.941
cg26363695	skyblue	4	80,203,299	OpenSea		0.598	-0.018	0.357	0.148
cg15645728	skyblue	1	4,662,148	OpenSea		0.597	-0.018	0.667	0.074
cg07917644	skyblue	15	101,766,122	Body	OpenSea CHSY1	0.597	-0.003	0.579	0.879
cg09226888	skyblue	16	6,030,320	OpenSea		0.597	-0.006	0.389	0.645
cg07540326	skyblue	7	7,392,557	OpenSea		0.597	0.006	0.623	0.638
cg08619295	skyblue	10	6,364,079	OpenSea		0.597	0.005	0.622	0.448
cg05973305	skyblue	5	87,168,997	OpenSea		0.596	0.013	0.555	0.238
cg20916500	skyblue	8	652,685	Body	S_Shore ERICH1	0.595	-0.001	0.898	0.909
cg13659446	skyblue	17	60,709,613	Body	S_Shelf MRC2	0.594	-0.012	0.384	0.136
cg00498434	skyblue	2	212,917,701	Body	OpenSea ERBB4	0.594	-0.020	0.761	0.089
cg21307484	skyblue	22	37,546,220	TSS1500	OpenSea IL2RB	0.593	0.005	0.356	0.526
cg26338723	skyblue	10	117,884,983	Body	Island GFRA1	0.593	0.002	0.890	0.904
cg00277685	skyblue	16	88,362,075	OpenSea		0.593	0.004	0.723	0.640
cg08772111	skyblue	2	240,002,329	Body	N_Shelf HDAC4	0.592	-0.024	0.721	0.210
cg20410409	skyblue	1	158,724,057	TSS1500	OpenSea OR6K6	0.592	-0.021	0.892	0.614
cg11449860	skyblue	2	397,781	OpenSea		0.592	-0.006	0.372	0.657
cg07256206	skyblue	5	93,732,031	Body	OpenSea C5orf36	0.592	-0.008	0.977	0.077
cg22800959	skyblue	6	32,020,477	Body	OpenSea TNXB	0.591	-0.005	0.932	0.300
cg10443019	skyblue	6	30,112,423	Body	OpenSea TRIM40	0.589	-0.001	0.772	0.916
cg05064567	skyblue	17	78,870,138	Body	Island RPTOR	0.589	0.003	0.732	0.876
cg14073818	skyblue	5	143,009,741	OpenSea		0.589	-0.003	0.414	0.879
cg03511031	skyblue	7	157,460,477	Body	OpenSea PTPRN2	0.587	0.002	0.919	0.917
cg03078141	skyblue	4	129,721,849	OpenSea		0.587	-0.002	0.817	0.802
cg26608694	skyblue	11	102,029,941	Body	OpenSea YAP1	0.587	-0.003	0.580	0.622
cg06589239	skyblue	7	961,457	Body	S_Shore ADAP1	0.586	-0.002	0.728	0.822
cg05962265	skyblue	16	88,152,064	N_Shore		0.586	-0.007	0.464	0.374
cg20979652	skyblue	8	40,791,285	OpenSea		0.585	-0.005	0.915	0.205
cg08006053	skyblue	8	143,402,284	Body	S_Shelf TSNARE1	0.585	0.003	0.805	0.762
cg21977507	skyblue	17	12,145,856	OpenSea		0.584	0.009	0.212	0.566
cg02596107	skyblue	19	13,080,124	TSS1500	OpenSea DAND5	0.583	0.004	0.671	0.696

cg02399826	skyblue	5	136,530,712	Body	OpenSea	SPOCK1	0.583	-0.026	0.565	0.073
cg04924511	skyblue	3	10,334,731	Body	OpenSea	GHRLOS	0.581	-0.007	0.522	0.613
cg00151048	skyblue	1	102,098,127		OpenSea		0.581	0.002	0.746	0.865
cg16515457	skyblue	15	57,341,718	Body	OpenSea	TCF12	0.581	0.012	0.667	0.477
cg01255486	skyblue	5	112,199,323	Body	S_Shelf	SRP19	0.580	-0.004	0.859	0.736
cg01642901	skyblue	4	170,190,012	Body	N_Shore	SH3RF1	0.580	-0.002	0.722	0.883
cg03625149	skyblue	7	112,120,734	TSS200	OpenSea	C7orf53	0.579	-0.004	0.724	0.537
cg01084500	skyblue	1	244,973,602		OpenSea		0.579	-0.019	0.715	0.354
cg18251417	skyblue	7	1,340,592		S_Shelf		0.578	-0.001	0.748	0.949
cg06959251	skyblue	13	51,837,066	Body	OpenSea	FAM124A	0.578	-0.003	0.296	0.693
cg18098386	skyblue	8	24,796,813		N_Shelf		0.577	-0.011	0.692	0.494
cg25009088	skyblue	8	6,456,255	Body	OpenSea	MCPH1	0.576	0.010	0.515	0.479
cg27517502	skyblue	10	1,248,770	Body	N_Shelf	ADARB2	0.576	-0.009	0.830	0.681
cg27596297	skyblue	10	130,844,884		OpenSea		0.576	-0.027	0.774	0.207
cg25832123	skyblue	7	158,818,053	Body	S_Shore	LOC154822	0.575	-0.020	0.566	0.032
cg26950756	skyblue	15	78,707,683		OpenSea		0.575	-0.008	0.707	0.430
cg05483731	skyblue	12	132,845,481	Body	N_Shore	GALNT9	0.574	0.003	0.615	0.791
cg08155109	skyblue	4	173,731,209	Body	OpenSea	GALNTL6	0.574	-0.038	0.517	0.048
cg14406878	skyblue	2	236,720,914	Body	OpenSea	AGAP1	0.573	0.011	0.491	0.202
cg22322277	skyblue	6	75,459,158		OpenSea		0.573	-0.033	0.821	0.040
cg20890243	skyblue	7	123,241,798		OpenSea		0.573	-0.012	0.618	0.437
cg27421679	skyblue	3	48,788,345	3'UTR	OpenSea	PRKAR2A	0.572	-0.005	0.626	0.705
cg08072507	skyblue	7	133,897,858	Body	OpenSea	LRGUK	0.572	-0.028	0.735	0.006
cg25044765	skyblue	11	8,084,497	Body	OpenSea	TUB	0.571	-0.001	0.785	0.910
cg21918755	skyblue	8	1,974,719		S_Shelf		0.570	0.000	0.539	0.999
cg14802502	skyblue	5	2,338,616		OpenSea		0.570	-0.012	0.662	0.605
cg00047753	skyblue	17	8,244,936	Body	OpenSea	ODF4	0.570	-0.004	0.539	0.689
cg08474856	skyblue	13	114,842,204	Body	S_Shore	RASA3	0.569	-0.019	0.799	0.217
cg04672622	skyblue	12	114,724,257		OpenSea		0.569	0.009	0.326	0.575
cg13200854	skyblue	4	90,836,547	Body	OpenSea	MMRN1	0.569	-0.005	0.582	0.720
cg07279321	skyblue	6	12,717,790	TSS200	OpenSea	PHACTR1	0.568	-0.007	0.046	0.382
cg00206468	skyblue	16	85,990,019		OpenSea		0.568	0.001	0.619	0.869
cg17135392	skyblue	22	19,697,889		N_Shelf		0.568	0.005	0.693	0.456
cg01471111	skyblue	12	372,246	TSS1500	OpenSea	SLC6A13	0.568	-0.031	0.333	0.045
cg22301128	skyblue	4	77,011,716	Body	OpenSea	ART3	0.568	-0.014	0.306	0.376
cg13447080	skyblue	8	131,054,408		OpenSea		0.568	-0.009	0.768	0.557
cg16298612	skyblue	12	97,256,591		OpenSea		0.568	-0.005	0.537	0.660
cg10297426	skyblue	13	53,314,813	TSS1500	S_Shore	LECT1	0.568	-0.034	0.862	0.016
cg03474687	skyblue	14	104,179,160	5'UTR	N_Shelf	XRCC3	0.568	-0.006	0.443	0.420
cg22243733	skyblue	11	7,506,434	TSS200	OpenSea	OLFML1	0.568	0.010	0.564	0.219
cg16315417	skyblue	1	2,187,457	Body	OpenSea	SKI	0.568	0.000	0.695	0.954
cg08429871	skyblue	13	107,078,237		OpenSea		0.567	-0.027	0.753	0.069
cg02236673	skyblue	11	117,957,569	Body	OpenSea	TMPRSS4	0.567	-0.011	0.545	0.144
cg19966472	skyblue	18	21,725,731	Body	OpenSea	CABYR	0.567	-0.007	0.945	0.216
cg04821520	skyblue	11	37,525,709		OpenSea		0.567	-0.012	0.404	0.392
cg16578291	skyblue	17	78,870,409	Body	Island	RPTOR	0.566	0.009	0.738	0.740
cg03861347	skyblue	20	46,412,713	5'UTR	N_Shore	SULF2	0.565	0.000	0.354	0.994
cg01336571	skyblue	13	113,107,782		Island		0.565	0.008	0.691	0.349
cg25367912	skyblue	1	119,442,195	Body	OpenSea	TBX15	0.564	-0.032	0.311	0.085
cg20172636	skyblue	10	134,610,332		N_Shore		0.564	-0.001	0.695	0.906
cg12052052	skyblue	10	133,645,819		S_Shore		0.563	-0.002	0.307	0.876
cg27638284	skyblue	20	39,127,000		OpenSea		0.563	-0.007	0.709	0.476
cg24484895	skyblue	1	2,771,846		N_Shore		0.562	-0.001	0.912	0.839
cg16079414	skyblue	2	168,244,895		OpenSea		0.562	-0.012	0.808	0.456
cg13414059	skyblue	2	1,497,815	Body	S_Shelf	TPO	0.562	0.005	0.722	0.763
cg09702315	skyblue	10	133,677,197		OpenSea		0.562	-0.005	0.676	0.579
cg08945443	skyblue	10	75,193,254	5'UTR	OpenSea	ZMYND17	0.561	0.009	0.682	0.502
cg02081402	skyblue	2	240,002,678	Body	N_Shelf	HDAC4	0.561	-0.010	0.607	0.400
cg12011522	skyblue	2	179,192,421	Body	OpenSea	OSBPL6	0.560	-0.012	0.253	0.263
cg23046045	skyblue	11	116,285,258		OpenSea		0.559	-0.012	0.438	0.117
cg21442881	skyblue	8	142,160,081	Body	OpenSea	DENND3	0.559	-0.008	0.746	0.361
cg26242479	skyblue	7	41,687,762		OpenSea		0.559	0.000	0.817	0.994
cg02648441	skyblue	16	89,242,827	Body	N_Shelf	CDH15	0.559	-0.002	0.670	0.874
cg02272334	skyblue	2	10,114,151	Body	OpenSea	GRHL1	0.559	-0.019	0.821	0.252
cg21113846	skyblue	7	837,536		OpenSea		0.558	-0.004	0.771	0.697
cg10799386	skyblue	10	108,332,882		OpenSea		0.557	-0.020	0.688	0.114
cg08728118	skyblue	6	14,965,804		OpenSea		0.556	-0.006	0.649	0.369

cg02725493	skyblue	4	8,025,039	Body	OpenSea	ABLIM2	0.555	-0.004	0.897	0.567
cg10375964	skyblue	13	112,815,146		N_Shelf		0.555	-0.012	0.656	0.330
cg07018026	skyblue	1	45,106,495	Body	OpenSea	RNF220	0.554	0.001	0.511	0.880
cg04253697	skyblue	16	66,468,719	5'UTR	OpenSea	BEAN	0.554	0.003	0.892	0.607
cg11030420	skyblue	6	136,758,308	Body	OpenSea	MAP7	0.553	-0.002	0.622	0.889
cg03933026	skyblue	11	130,089,890		OpenSea		0.553	0.011	0.848	0.401
cg22155080	skyblue	5	56,368,149		OpenSea		0.552	0.005	0.886	0.703
cg02947498	skyblue	14	90,139,566		OpenSea		0.551	-0.005	0.815	0.419
cg17977304	skyblue	6	29,623,992	TSS1500	OpenSea	MOG	0.551	0.013	0.298	0.464
cg06301555	skyblue	13	29,158,152		OpenSea		0.551	0.003	0.412	0.712
cg13320947	skyblue	19	55,824,463	Body	Island	TMEM150B	0.550	0.006	0.530	0.320
cg24579970	skyblue	1	7,123,315	Body	S_Shore	CAMTA1	0.550	0.001	0.705	0.956
cg16198450	skyblue	5	159,655,853	TSS1500	OpenSea	FABP6	0.550	0.007	0.641	0.399
cg19422369	skyblue	7	2,827,064	Body	OpenSea	GNA12	0.550	-0.008	0.854	0.591
cg04532707	skyblue	8	145,637,525		N_Shore		0.549	-0.003	0.666	0.728
cg09461420	skyblue	7	155,996,361		OpenSea		0.549	0.004	0.901	0.651
cg09194742	skyblue	10	118,576,158		OpenSea		0.549	-0.004	0.761	0.671
cg00949532	skyblue	8	6,456,854	Body	OpenSea	MCPh1	0.549	-0.007	0.510	0.319
cg26379012	skyblue	17	77,964,070	Body	N_Shore	TBC1D16	0.548	-0.034	0.684	0.030
cg12403778	skyblue	12	11,804,115	Body	S_Shore	ETV6	0.547	-0.006	0.169	0.518
cg00000108	skyblue	3	37,459,206	Body	OpenSea	C3orf35	0.547	0.000	0.983	0.975
cg04655995	skyblue	16	84,424,089	Body	OpenSea	ATP2C2	0.547	-0.007	0.887	0.362
cg11044716	skyblue	13	37,269,129	5'UTR	OpenSea	C13orf36	0.547	-0.005	0.894	0.625
cg20685233	skyblue	3	52,032,075		S_Shelf		0.546	-0.001	0.363	0.920
cg13494826	skyblue	9	132,472,473	Body	OpenSea	PRRX2	0.546	0.002	0.738	0.750
cg01717524	skyblue	1	120,204,880		OpenSea		0.545	-0.008	0.583	0.215
cg11687809	skyblue	1	1,962,016	3'UTR	S_Shore	GABRD	0.545	-0.002	0.693	0.796
cg08665251	skyblue	1	244,768,451	Body	OpenSea	C1orf101	0.544	-0.002	0.458	0.776
cg01840128	skyblue	5	1,207,205	Body	Island	SLC6A19	0.544	0.003	0.772	0.759
cg03110167	skyblue	19	3,964,912	Body	Island	DAPK3	0.544	0.008	0.877	0.485
cg10828561	skyblue	8	49,566,696		OpenSea		0.544	0.000	0.384	0.959
cg13428978	skyblue	8	1,993,987	5'UTR	OpenSea	MYOM2	0.543	-0.007	0.613	0.698
cg22526990	skyblue	19	33,788,511		N_Shelf		0.543	-0.003	0.498	0.741
cg12748839	skyblue	11	86,588,034		OpenSea		0.542	-0.015	0.596	0.211
cg25123564	skyblue	7	156,917,471		OpenSea		0.542	-0.013	0.784	0.436
cg21950605	skyblue	17	1,077,044	Body	OpenSea	ABR	0.541	-0.012	0.562	0.352
cg24513522	skyblue	17	77,393,929	5'UTR	OpenSea	HRNBP3	0.540	-0.003	0.740	0.701
cg00221012	skyblue	17	79,495,664	1stExon	Island	FSCN2	0.540	-0.005	0.391	0.556
cg01447475	skyblue	2	30,510,887		OpenSea		0.540	-0.010	0.446	0.278
cg15002721	skyblue	12	4,478,951	3'UTR	N_Shore	FGF23	0.538	-0.003	0.903	0.721
cg14992144	skyblue	3	10,334,743	Body	OpenSea	GHRLOS	0.537	-0.003	0.489	0.774
cg12753529	skyblue	10	51,525,504		OpenSea		0.537	-0.038	0.658	0.006
cg17977435	skyblue	6	164,340,614		OpenSea		0.536	-0.018	0.831	0.088
cg09648809	skyblue	5	1,207,231	Body	Island	SLC6A19	0.535	0.008	0.881	0.370
cg08013890	skyblue	12	66,965,641	Body	OpenSea	GRIP1	0.534	-0.008	0.487	0.472
cg26589485	skyblue	17	1,838,439	3'UTR	N_Shore	RTN4RL1	0.534	0.002	0.785	0.808
cg25734161	skyblue	11	134,137,345		OpenSea		0.534	-0.009	0.831	0.479
cg08024169	skyblue	7	1,365,082		S_Shore		0.533	0.002	0.769	0.771
cg23511157	skyblue	7	123,241,752		OpenSea		0.532	-0.013	0.620	0.391
cg07671477	skyblue	5	1,228,671	Body	S_Shore	SLC6A18	0.531	-0.008	0.959	0.277
cg14403741	skyblue	12	126,465,336		OpenSea		0.531	-0.021	0.802	0.142
cg03945895	skyblue	1	14,111,352	Body	OpenSea	PRDM2	0.530	-0.001	0.873	0.851
cg10239860	skyblue	1	71,172,023		OpenSea		0.530	0.000	0.461	0.957
cg08625842	skyblue	1	42,929,499		Island		0.528	-0.007	0.159	0.352
cg00526629	skyblue	1	187,378,159		OpenSea		0.528	-0.017	0.839	0.211
cg04823738	skyblue	15	23,631,875		OpenSea		0.528	-0.003	0.896	0.748
cg06385079	skyblue	16	89,634,522		S_Shore		0.527	-0.012	0.661	0.146
cg23865698	skyblue	16	84,327,808	TSS1500	N_Shore	WFDC1	0.527	0.002	0.510	0.762
cg02043000	skyblue	5	1,228,081	Body	S_Shore	SLC6A18	0.527	-0.031	0.343	0.137
cg22745397	skyblue	4	42,122,161	Body	OpenSea	BEND4	0.527	0.001	0.301	0.878
cg05986052	skyblue	7	6,212,576	Body	S_Shore	CYTH3	0.527	0.000	0.640	0.950
cg19939793	skyblue	5	151,119,245		OpenSea		0.526	0.005	0.586	0.515
cg16842280	skyblue	17	10,422,189	TSS1500	OpenSea	MYH1	0.525	-0.003	0.839	0.845
cg17968925	skyblue	1	1,499,694	Body	S_Shelf	SSU72	0.525	-0.004	0.756	0.662
cg05351141	skyblue	16	1,100,552		N_Shore		0.525	0.004	0.606	0.648
cg02309752	skyblue	8	11,835,607		OpenSea		0.525	0.007	0.525	0.357
cg04885333	skyblue	17	80,341,642		OpenSea		0.524	0.004	0.689	0.732

cg23962746	skyblue	1	209,105,888	OpenSea		0.522	-0.042	0.744	0.011
cg11346030	skyblue	1	184,090,950	OpenSea		0.522	-0.008	0.919	0.279
cg13263512	skyblue	7	77,652,412 Body	S_Shelf	MAGI2	0.521	-0.017	0.426	0.118
cg16698913	skyblue	5	174,543,104	OpenSea		0.521	-0.013	0.422	0.196
cg14879418	skyblue	5	72,571,312	OpenSea		0.520	0.005	0.657	0.483
cg13741211	skyblue	7	98,607,297 Body	N_Shore	TRRAP	0.520	-0.007	0.533	0.481
cg15417244	skyblue	12	41,831,558 5'UTR	OpenSea	PDZRN4	0.520	-0.009	0.739	0.393
cg13586794	skyblue	10	20,885,882	OpenSea		0.519	0.001	0.804	0.946
cg07766572	skyblue	16	84,252,213	N_Shelf		0.519	0.003	0.601	0.676
cg23261743	skyblue	12	132,982,483	N_Shore		0.519	-0.008	0.625	0.294
cg22092292	skyblue	17	3,462,255 TSS1500	OpenSea	TRPV3	0.519	-0.002	0.808	0.874
cg04551776	skyblue	5	393,366 Body	OpenSea	AHRR	0.519	0.005	0.677	0.561
cg16217510	skyblue	5	1,836,793	OpenSea		0.518	0.003	0.567	0.755
cg01960885	skyblue	18	24,765,781 TSS1500	S_Shore	CHST9	0.518	-0.016	0.287	0.080
cg26029538	skyblue	10	134,851,944	N_Shore		0.518	0.000	0.833	0.976
cg23906191	skyblue	7	1,053,629 Body	S_Shore	C7orf50	0.518	0.000	0.793	0.948
cg24880222	skyblue	15	50,541,536 Body	OpenSea	HDC	0.517	-0.008	0.508	0.630
cg07368069	skyblue	12	107,631,018	OpenSea		0.517	-0.017	0.322	0.055
cg10887810	skyblue	1	119,442,124 Body	OpenSea	TBX15	0.517	-0.033	0.558	0.019
cg17731065	skyblue	17	597,584 Body	OpenSea	VPS53	0.516	-0.028	0.752	0.132
cg01998801	skyblue	4	2,396,368 Body	OpenSea	ZFYVE28	0.516	0.003	0.653	0.693
cg26986989	skyblue	5	2,338,998	OpenSea		0.514	0.001	0.586	0.952
cg15806780	skyblue	11	117,515,100 Body	OpenSea	DSCAML1	0.514	-0.016	0.657	0.104
cg19807716	skyblue	1	178,832,759 Body	OpenSea	ANGPTL1	0.514	-0.005	0.409	0.556
cg26345613	skyblue	10	1,713,384 Body	OpenSea	ADARB2	0.514	-0.012	0.900	0.361
cg07783491	skyblue	13	23,029,611	OpenSea		0.514	-0.006	0.341	0.530
cg04314111	skyblue	1	2,003,577 Body	N_Shore	PRKCZ	0.513	0.002	0.781	0.717
cg07930673	skyblue	2	2,650,283	N_Shelf		0.513	0.007	0.720	0.511
cg26400341	skyblue	17	76,617,964	OpenSea		0.513	0.002	0.619	0.745
cg20980592	skyblue	6	46,761,035 TSS200	OpenSea	MEP1A	0.512	-0.017	0.721	0.244
cg23158189	skyblue	12	132,845,336 Body	N_Shore	GALNT9	0.510	-0.003	0.824	0.790
cg10437931	skyblue	2	12,746,791	OpenSea		0.510	0.011	0.336	0.425
cg18639734	skyblue	17	2,860,745 Body	OpenSea	RAP1GAP2	0.508	0.003	0.903	0.713
cg27423739	skyblue	3	193,830,418	OpenSea		0.508	0.000	0.431	0.993
cg00335802	skyblue	18	10,791,505 Body	OpenSea	FAM38B	0.507	-0.015	0.784	0.195
cg14257435	skyblue	14	97,165,297	OpenSea		0.507	-0.018	0.648	0.100
cg06866827	skyblue	1	2,948,464	OpenSea		0.505	-0.006	0.629	0.620
cg16522250	skyblue	3	1,382,597 Body	OpenSea	CNTN6	0.505	-0.014	0.825	0.316
cg26626829	skyblue	2	181,386,053	OpenSea		0.505	0.015	0.585	0.299
cg22470465	skyblue	19	19,278,512 Body	N_Shelf	LOC729991-N	0.504	-0.028	0.656	0.030
cg13765417	skyblue	14	102,514,768 Body	OpenSea	DYNC1H1	0.504	0.002	0.855	0.787
cg20257821	skyblue	8	1,500,400 Body	N_Shore	DLGAP2	0.504	0.007	0.659	0.452
cg16599817	skyblue	1	2,036,283 1stExon	N_Shelf	PRKCZ	0.504	-0.002	0.434	0.830
cg23562479	skyblue	11	4,469,894 TSS1500	OpenSea	OR52K2	0.503	-0.022	0.325	0.022
cg02438611	skyblue	17	55,828,107	OpenSea		0.503	-0.011	0.718	0.262
cg05305262	skyblue	16	89,634,681	S_Shore		0.502	-0.006	0.426	0.401
cg01213440	skyblue	7	131,323,188	OpenSea		0.502	0.006	0.701	0.644
cg24168991	skyblue	10	106,078,922 5'UTR	S_Shelf	ITPRIP	0.502	-0.004	0.927	0.559
cg23651585	skyblue	7	70,252,448 Body	N_Shelf	AUTS2	0.501	0.004	0.942	0.451
cg26647453	skyblue	4	100,432,162 5'UTR	OpenSea	C4orf17	0.501	-0.005	0.291	0.663
cg01794926	skyblue	15	92,470,387 Body	OpenSea	SLCO3A1	0.500	-0.025	0.470	0.186
cg14506260	skyblue	10	25,797,307 Body	OpenSea	GPR158	0.500	0.006	0.510	0.570
cg08707847	skyblue	16	10,934,709	OpenSea		0.498	0.001	0.600	0.935
cg02523679	skyblue	12	372,790 TSS1500	OpenSea	SLC6A13	0.498	-0.005	0.350	0.571
cg18062128	skyblue	2	97,501,603	N_Shelf		0.498	0.005	0.909	0.430
cg22118465	skyblue	3	52,486,691 Body	N_Shelf	TNNC1	0.498	-0.001	0.746	0.878
cg17208748	skyblue	3	197,194,394	OpenSea		0.497	0.015	0.330	0.099
cg22975277	skyblue	2	186,968,467	OpenSea		0.496	0.011	0.787	0.332
cg20377955	skyblue	7	20,827,825 TSS1500	N_Shelf	SP8	0.495	-0.002	0.080	0.782
cg08189186	skyblue	19	38,793,546 TSS1500	OpenSea	C19orf33	0.495	-0.004	0.567	0.664
cg11585605	skyblue	1	52,401,955 Body	OpenSea	RAB3B	0.494	-0.017	0.810	0.064
cg07308243	skyblue	16	85,074,963 5'UTR	OpenSea	KIAA0513	0.494	0.009	0.475	0.663
cg22964758	skyblue	12	47,481,988	OpenSea		0.493	-0.013	0.453	0.381
cg06580966	skyblue	16	7,684,063 Body	OpenSea	A2BP1	0.492	0.001	0.405	0.900
cg23495995	skyblue	11	65,311,181 Body	N_Shelf	LTBP3	0.492	0.005	0.677	0.471
cg18447299	skyblue	5	140,894,884 3'UTR	S_Shore	DIAPH1	0.492	0.008	0.761	0.273
cg15966757	skyblue	12	372,259 TSS1500	OpenSea	SLC6A13	0.492	-0.019	0.628	0.185

cg12883014	skyblue	12	104,855,500	Body	S_Shelf	CHST11	0.491	-0.001	0.890	0.962
cg09818637	skyblue	17	20,683,924		N_Shelf		0.489	0.002	0.691	0.789
cg11342764	skyblue	15	29,428,738	Body	OpenSea	FAM189A1	0.488	0.001	0.564	0.872
cg02026637	skyblue	12	132,348,618		OpenSea		0.486	-0.004	0.583	0.560
cg22505395	skyblue	12	372,191	TSS200	OpenSea	SLC6A13	0.486	-0.001	0.186	0.879
cg02680398	skyblue	8	4,629,524	Body	OpenSea	CSMD1	0.485	0.007	0.606	0.599
cg26247841	skyblue	4	114,252,967	Body	OpenSea	ANK2	0.485	-0.013	0.650	0.152
cg27176262	skyblue	6	32,797,830	Body	OpenSea	TAP2	0.485	-0.001	0.857	0.940
cg08978665	skyblue	16	3,115,707	5'UTR	OpenSea	IL32	0.483	-0.001	0.782	0.931
cg03424304	skyblue	10	133,878,719		N_Shore		0.482	0.004	0.466	0.559
cg11275526	skyblue	4	190,438,459		OpenSea		0.482	0.012	0.504	0.690
cg01773518	skyblue	1	22,972,756	Body	N_Shore	C1QC	0.481	0.009	0.812	0.242
cg09867546	skyblue	6	169,287,265		S_Shore		0.481	-0.018	0.447	0.268
cg26837644	skyblue	12	371,950	5'UTR	OpenSea	SLC6A13	0.481	-0.015	0.113	0.122
cg16797972	skyblue	3	89,156,071	TSS1500	OpenSea	EPHA3	0.479	-0.009	0.719	0.431
cg01062116	skyblue	1	3,352,435	3'UTR	S_Shore	PRDM16	0.479	-0.024	0.708	0.029
cg26927634	skyblue	16	89,004,858	5'UTR	N_Shore	CBFA2T3	0.479	0.007	0.673	0.159
cg25825970	skyblue	8	23,543,266		S_Shelf		0.478	-0.010	0.639	0.325
cg25457674	skyblue	6	32,303,820	Body	OpenSea	C6orf10	0.477	-0.006	0.895	0.458
cg12649683	skyblue	20	57,975,832		N_Shelf		0.477	-0.017	0.212	0.110
cg13411951	skyblue	9	79,306,054	Body	OpenSea	PRUNE2	0.476	-0.008	0.527	0.574
cg23058246	skyblue	12	133,383,890	Body	OpenSea	GOLGA3	0.475	0.003	0.819	0.686
cg11235451	skyblue	17	48,989,061		OpenSea		0.474	-0.014	0.377	0.087
cg13309012	skyblue	21	26,946,167	Body	OpenSea	MIR155HG	0.472	0.000	0.844	0.972
cg14355581	skyblue	13	28,518,682	TSS1500	OpenSea	ATP5EP2	0.472	-0.006	0.561	0.483
cg04460362	skyblue	17	79,913,303	Body	Island	NOTUM	0.471	-0.013	0.609	0.145
cg13423274	skyblue	11	28,695,679		OpenSea		0.470	-0.008	0.930	0.338
cg02749088	skyblue	2	68,672,834		OpenSea		0.469	-0.005	0.788	0.753
cg11415512	skyblue	11	1,102,479	Body	OpenSea	MUC2	0.466	0.010	0.618	0.273
cg11669283	skyblue	1	2,282,601	Body	OpenSea	LOC10012953	0.466	0.007	0.689	0.349
cg27239981	skyblue	6	166,263,710		N_Shelf		0.466	-0.015	0.271	0.345
cg18327147	skyblue	10	133,087,111	Body	OpenSea	TCERG1L	0.463	0.003	0.953	0.369
cg09368075	skyblue	2	210,011,147		S_Shore		0.463	0.000	0.405	0.968
cg02308706	skyblue	17	1,616,635	Body	N_Shelf	C17orf91	0.462	0.003	0.418	0.739
cg22889914	skyblue	10	99,331,332	TSS1500	S_Shore	ANKRD2	0.460	-0.005	0.809	0.588
cg05689267	skyblue	6	32,798,439	Body	OpenSea	TAP2	0.458	-0.002	0.410	0.762
cg11652496	skyblue	15	77,324,526	Body	Island	PSTPIP1	0.458	-0.006	0.459	0.652
cg02593884	skyblue	16	2,984,574	Body	OpenSea	FLYWCH1	0.457	-0.005	0.729	0.637
cg01333824	skyblue	16	89,949,981	Body	S_Shelf	TCF25	0.457	0.001	0.591	0.924
cg14225090	skyblue	9	38,237,796		N_Shelf		0.457	-0.001	0.926	0.927
cg00086426	skyblue	16	10,934,373		OpenSea		0.456	-0.006	0.794	0.655
cg07478501	skyblue	19	11,305,231	5'UTR	S_Shore	KANK2	0.453	0.004	0.586	0.611
cg15806038	skyblue	2	3,601,756	Body	N_Shelf	RNASEH1	0.450	-0.002	0.980	0.356
cg01378222	skyblue	16	28,622,494	TSS1500	N_Shelf	SULT1A1	0.450	-0.003	0.490	0.728
cg25422405	skyblue	17	3,674,611	Body	OpenSea	ITGAE	0.449	0.005	0.380	0.561
cg11378052	skyblue	14	74,027,058	TSS1500	OpenSea	HEATR4	0.449	-0.001	0.837	0.937
cg14434109	skyblue	9	136,919,671	5'UTR	S_Shore	BRD3	0.448	0.000	0.800	0.991
cg00513169	skyblue	10	1,713,065	Body	OpenSea	ADARB2	0.444	0.008	0.654	0.341
cg19382714	skyblue	6	29,624,846	1stExon	OpenSea	MOG	0.443	0.004	0.711	0.580
cg01903327	skyblue	14	75,531,782	TSS1500	OpenSea	ACYP1	0.443	-0.006	0.689	0.421
cg00310410	skyblue	2	105,852,798		N_Shore		0.443	-0.020	0.616	0.184
cg03750525	skyblue	17	79,793,795	TSS1500	S_Shelf	DYSFIP1	0.441	0.007	0.638	0.457
cg24730892	skyblue	1	6,094,993	5'UTR	OpenSea	KCNAB2	0.441	-0.009	0.499	0.543
cg04362887	skyblue	14	91,285,234		S_Shelf		0.440	-0.006	0.573	0.426
cg22480875	skyblue	12	77,417,567	3'UTR	OpenSea	E2F7	0.440	-0.049	0.757	0.004
cg26724798	skyblue	11	113,844,828	TSS1500	OpenSea	HTR3A	0.440	-0.002	0.929	0.780
cg06315909	skyblue	17	76,227,508	5'UTR	N_Shore	LOC283999	0.439	0.016	0.596	0.112
cg08307030	skyblue	15	76,634,380	3'UTR	Island	ISL2	0.439	0.008	0.238	0.679
cg26756193	skyblue	16	3,040,021		OpenSea		0.438	-0.002	0.616	0.864
cg19900677	skyblue	1	1,999,533	Body	OpenSea	PRKCZ	0.437	0.005	0.791	0.445
cg12984729	skyblue	15	76,633,817	Body	Island	ISL2	0.436	0.014	0.257	0.439
cg10088491	skyblue	15	76,634,454	3'UTR	Island	ISL2	0.436	0.011	0.220	0.320
cg13001963	skyblue	5	10,467,973		OpenSea		0.432	-0.006	0.350	0.629
cg07536737	skyblue	2	98,630,091		OpenSea		0.429	-0.012	0.801	0.459
cg08861091	skyblue	19	51,891,339	TSS200	OpenSea	LIM2	0.428	-0.006	0.540	0.374
cg17560073	skyblue	8	124,850,602		OpenSea		0.426	-0.014	0.532	0.221
cg19349476	skyblue	13	101,315,254	Body	OpenSea	TMTC4	0.425	0.014	0.696	0.419



cg23401601	skyblue	13	100,578,634	OpenSea		0.425	0.013	0.372	0.275
cg04751276	skyblue	15	76,634,843	Island		0.424	0.017	0.408	0.405
cg03688324	skyblue	13	22,251,017 Body	S_Shore	FGF9	0.422	-0.001	0.428	0.922
cg09446465	skyblue	2	1,842,860 Body	Island	MYT1L	0.419	0.008	0.926	0.164
cg12376805	skyblue	7	65,969,653	N_Shore		0.416	0.001	0.880	0.883
cg27237814	skyblue	6	30,860,014 Body	OpenSea	DDR1	0.413	0.006	0.606	0.343
cg07192048	skyblue	11	70,560,211 Body	N_Shelf	SHANK2	0.412	0.002	0.363	0.860
cg10650853	skyblue	12	132,676,840	S_Shore		0.411	0.011	0.575	0.291
cg22590522	skyblue	17	73,629,390 Body	S_Shore	RECQL5	0.408	0.007	0.642	0.309
cg03411939	skyblue	9	99,258,148	N_Shore		0.402	0.007	0.856	0.450
cg20763234	skyblue	8	1,854,608 Body	OpenSea	ARHGEF10	0.401	-0.010	0.678	0.181
cg26088629	skyblue	13	113,676,938 Body	Island	MCF2L	0.400	0.009	0.634	0.160
cg00361176	skyblue	7	75,260,791 Body	OpenSea	HIP1	0.398	-0.001	0.782	0.904
cg26155170	skyblue	1	943,064	OpenSea		0.398	0.001	0.788	0.896
cg20804101	skyblue	12	371,916 5'UTR	OpenSea	SLC6A13	0.397	-0.008	0.280	0.485
cg06793162	skyblue	6	32,452,388	OpenSea		0.394	-0.006	0.722	0.760
cg25715134	skyblue	19	13,614,358 Body	N_Shelf	CACNA1A	0.394	0.000	0.775	0.996
cg19420604	skyblue	17	60,828,406 Body	OpenSea	10-Mar	0.393	-0.014	0.509	0.425
cg09235788	skyblue	1	111,220,207	S_Shelf		0.393	0.005	0.636	0.678
cg17754042	skyblue	4	2,338,980 Body	N_Shelf	ZFYVE28	0.390	0.000	0.607	0.992
cg01540203	skyblue	17	80,662,407	OpenSea		0.387	0.000	0.729	0.981
cg15677985	skyblue	2	160,031,778 Body	OpenSea	TANC1	0.387	0.000	0.872	0.945
cg18822703	skyblue	17	73,316,335 3'UTR	OpenSea	GRB2	0.384	-0.007	0.944	0.266
cg16761276	skyblue	8	3,412,728 Body	OpenSea	CSMD1	0.382	-0.011	0.251	0.278
cg06375967	skyblue	15	76,633,364 Body	Island	ISL2	0.380	0.004	0.140	0.767
cg02376282	skyblue	11	1,543,206 Body	OpenSea	HCCA2	0.378	-0.004	0.881	0.440
cg21145248	skyblue	5	176,816,679 Body	OpenSea	SLC34A1	0.376	0.002	0.332	0.891
cg14433497	skyblue	15	76,634,516 3'UTR	Island	ISL2	0.375	-0.014	0.139	0.494
cg08080660	skyblue	8	56,773,721	OpenSea		0.375	-0.014	0.130	0.170
cg26020513	skyblue	8	11,568,356 Body	S_Shore	GATA4	0.369	-0.007	0.932	0.361
cg18878654	skyblue	10	134,186,874 Body	OpenSea	LRRC27	0.364	0.008	0.733	0.419
cg25541968	skyblue	11	7,848,142 TSS1500	OpenSea	OR5P3	0.359	0.003	0.531	0.870
cg03243551	skyblue	6	33,288,941 Body	Island	DAXX	0.358	0.003	0.868	0.607
cg22123784	skyblue	8	144,437,507	OpenSea		0.355	0.013	0.719	0.347
cg00537673	skyblue	6	43,141,823 Body	N_Shore	SRF	0.355	0.009	0.475	0.075
cg05143116	skyblue	15	76,633,086 Body	Island	ISL2	0.352	0.015	0.078	0.177
cg07743702	skyblue	11	116,298,874	OpenSea		0.345	-0.012	0.250	0.279
cg02241986	skyblue	10	5,566,543 TSS1500	N_Shore	CALML3	0.344	-0.007	0.376	0.436
cg17781464	skyblue	12	53,320,306	OpenSea		0.344	0.006	0.483	0.446
cg00710862	skyblue	2	85,545,908 3'UTR	OpenSea	TGOLN2	0.337	0.008	0.624	0.349
cg25365014	skyblue	5	2,727,713	OpenSea		0.335	-0.006	0.426	0.663
cg24309040	skyblue	12	111,664,600 Body	OpenSea	CUX2	0.329	-0.029	0.918	0.036
cg24319508	skyblue	6	394,966 Body	S_Shore	IRF4	0.325	-0.026	0.400	0.039
cg02215899	skyblue	16	83,966,922	OpenSea		0.324	-0.003	0.664	0.710
cg23580945	skyblue	17	37,186,341	OpenSea		0.322	0.009	0.760	0.311
cg08753468	skyblue	7	71,911,541	OpenSea		0.320	0.000	0.297	0.986
cg20993386	skyblue	17	65,408,367 Body	OpenSea	PITPNC1	0.316	-0.021	0.589	0.103
cg13618529	skyblue	8	32,334,811 Body	OpenSea	NRG1	0.316	-0.018	0.447	0.195
cg05986067	skyblue	4	184,908,573 Body	OpenSea	STOX2	0.300	0.001	0.470	0.863
cg19002027	skyblue	13	113,049,747 Body	OpenSea	C13orf28	0.297	-0.006	0.519	0.545
cg17903590	skyblue	1	28,623,081	OpenSea		0.293	-0.022	0.311	0.016
cg04310488	skyblue	6	160,675,744 Body	N_Shelf	SLC22A2	0.288	0.001	0.060	0.917
cg12935478	skyblue	21	44,898,206 TSS200	OpenSea	C21orf84	0.288	0.010	0.466	0.116
cg12368105	skyblue	11	34,881,685	OpenSea		0.286	0.002	0.439	0.871
cg19989018	skyblue	12	51,592,080 Body	OpenSea	POU6F1	0.257	-0.001	0.598	0.902
cg03296283	skyblue	1	2,928,403	N_Shore		0.250	-0.004	0.467	0.697
cg11303842	skyblue	8	144,070,338 Body	OpenSea	LOC10013366	0.187	-0.009	0.362	0.280
cg23058239	skyblue	12	54,868,395 TSS1500	OpenSea	GTSF1	0.133	-0.018	0.109	0.033
cg07414492	skyblue	20	3,656,411 Body	S_Shore	ADAM33	0.131	-0.008	0.292	0.165

**CpGs in the mediumpurple3 module:**

cg5_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_CpG_Is	Gene	MM	Beta.diff	AveBeta	P.Value
cg06712340	mediumpurp		5 140,070,388	TSS1500	N_Shore	HARS2	0.794	0.010	0.385	0.337
cg16000360	mediumpurp		1 228,328,880	Body	S_Shore	GUK1	0.789	0.022	0.277	0.020
cg14498394	mediumpurp		9 140,512,455	5'UTR	N_Shore	C9orf37	0.768	0.010	0.165	0.193
cg15316508	mediumpurp		3 64,008,330	Body	N_Shore	PSMD6	0.767	0.028	0.307	0.029
cg17355809	mediumpurp		1 231,475,345	Body	S_Shore	C1orf124	0.747	0.029	0.621	0.121

cg03719040	mediumpurp	4	4,250,665	TSS1500	S_Shore	TMEM128	0.727	0.016	0.381	0.098
cg18566672	mediumpurp	19	39,831,825	TSS1500	N_Shore	SAMD4B	0.725	0.005	0.351	0.392
cg08810053	mediumpurp	6	31,926,072	Body	N_Shore	RDBP	0.720	0.023	0.570	0.117
cg15697646	mediumpurp	3	49,057,813	TSS200	N_Shore	NDUFAF3	0.719	0.017	0.275	0.175
cg07869651	mediumpurp	5	177,581,603	TSS1500	S_Shore	NHP2	0.715	0.014	0.627	0.157
cg07469594	mediumpurp	15	64,456,062	TSS1500	S_Shore	PIIB	0.713	0.021	0.273	0.028
cg06365567	mediumpurp	3	49,057,806	TSS200	N_Shore	NDUFAF3	0.698	0.012	0.179	0.252
cg13176070	mediumpurp	2	32,503,943	Body	S_Shore	YIPF4	0.696	-0.003	0.585	0.892
cg23099211	mediumpurp	14	24,912,934	TSS1500	S_Shore	SDR39U1	0.695	0.010	0.333	0.511
cg12936220	mediumpurp	5	172,385,477	Body	N_Shore	LOC10026816	0.695	-0.001	0.304	0.868
cg02798801	mediumpurp	7	99,005,263	TSS1500	N_Shore	BUD31	0.693	0.012	0.501	0.266
cg12634840	mediumpurp	5	177,581,713	TSS1500	S_Shore	NHP2	0.693	0.016	0.617	0.030
cg26394308	mediumpurp	17	74,067,861	Body	N_Shore	SRP68	0.692	0.010	0.328	0.359
cg06626102	mediumpurp	5	1,346,156	TSS1500	S_Shore	CLPTM1L	0.686	0.007	0.552	0.438
cg24137332	mediumpurp	4	83,957,095	Body		COPS4	0.685	0.029	0.551	0.065
cg24710073	mediumpurp	6	170,864,351	5'UTR	S_Shore	TBP	0.683	0.017	0.428	0.093
cg00817189	mediumpurp	4	4,250,606	TSS1500	S_Shore	TMEM128	0.676	0.002	0.213	0.866
cg26273129	mediumpurp	5	140,070,306	TSS1500	N_Shore	HARS2	0.674	-0.005	0.392	0.688
cg17881353	mediumpurp	17	44,928,210	TSS1500	N_Shore	WNT9B	0.673	0.011	0.383	0.223
cg20035459	mediumpurp	16	3,068,707	TSS1500	N_Shore	CLDN6	0.672	0.032	0.587	0.036
cg10914467	mediumpurp	6	31,939,224	TSS1500	N_Shore	STK19	0.670	0.027	0.391	0.008
cg23120942	mediumpurp	17	58,755,752	5'UTR	S_Shore	BCAS3	0.669	0.007	0.282	0.396
cg09388991	mediumpurp	8	30,669,313	Body	N_Shore	PPP2CB	0.668	0.005	0.510	0.676
cg01756799	mediumpurp	17	40,715,281	1stExon	Island	COASY	0.667	0.016	0.580	0.139
cg20537992	mediumpurp	11	64,852,354	Body	S_Shore	ZFPL1	0.666	0.017	0.408	0.156
cg24674504	mediumpurp	5	140,189,548	Body	S_Shore	PCDHA2	0.666	0.032	0.582	0.054
cg01938422	mediumpurp	1	35,659,480	TSS1500	S_Shore	SFPQ	0.665	0.046	0.589	0.058
cg01070095	mediumpurp	16	30,968,205	TSS1500	N_Shore	SETD1A	0.665	0.020	0.560	0.149
cg05852052	mediumpurp	16	11,946,115	TSS1500	S_Shore	RSL1D1	0.662	0.009	0.273	0.660
cg01494896	mediumpurp	2	88,990,555	TSS1500	N_Shore	RPIA	0.662	-0.003	0.168	0.765
cg03182908	mediumpurp	1	20,833,814	Body	N_Shore	MUL1	0.660	0.007	0.421	0.583
cg01453111	mediumpurp	16	87,798,736	Body	N_Shore	KLHDC4	0.659	0.012	0.419	0.134
cg14004921	mediumpurp	9	140,023,416		N_Shore		0.657	0.015	0.470	0.057
cg14569814	mediumpurp	5	154,316,874	Body	N_Shore	GEMIN5	0.656	0.018	0.171	0.065
cg24317406	mediumpurp	1	174,967,663	TSS1500	N_Shore	CACYBP	0.655	0.001	0.580	0.904
cg04376747	mediumpurp	19	36,120,543	Body	S_Shore	RBM42	0.655	0.018	0.322	0.117
cg11409350	mediumpurp	17	73,126,499	3'UTR	N_Shore	NT5C	0.655	0.000	0.743	0.968
cg21302622	mediumpurp	2	209,271,234	TSS1500	N_Shore	PTH2R	0.654	0.004	0.280	0.618
cg26837372	mediumpurp	6	31,938,861	TSS200	N_Shore	STK19	0.653	0.014	0.728	0.175
cg09009349	mediumpurp	16	3,492,724	Body	N_Shore	ZNF597	0.652	0.014	0.629	0.318
cg04334324	mediumpurp	19	58,110,862	TSS1500	N_Shore	ZNF530	0.652	0.008	0.210	0.575
cg10293804	mediumpurp	16	3,068,529	TSS1500	N_Shore	CLDN6	0.650	0.003	0.102	0.731
cg19546207	mediumpurp	14	89,493,095		N_Shore		0.649	0.008	0.272	0.324
cg08095654	mediumpurp	19	58,728,560		Island		0.648	0.022	0.511	0.190
cg07109801	mediumpurp	3	49,057,661	Body	N_Shore	MIR425	0.648	0.021	0.552	0.039
cg14682846	mediumpurp	7	99,150,111	TSS1500	S_Shore	C7orf38	0.646	0.001	0.034	0.622
cg05441039	mediumpurp	16	89,723,364	Body	Island	CHMP1A	0.646	0.018	0.200	0.157
cg04415896	mediumpurp	19	47,759,410	TSS1500	N_Shore	CCDC9	0.645	-0.005	0.109	0.634
cg00010932	mediumpurp	2	170,680,664	Body	N_Shore	METTL5	0.639	0.028	0.325	0.037
cg27038428	mediumpurp	8	125,485,867	TSS1500	N_Shore	RNF139	0.638	0.023	0.264	0.080
cg27055685	mediumpurp	6	33,258,248	Body	S_Shore	PFDN6	0.637	0.003	0.411	0.705
cg25080206	mediumpurp	18	11,852,567	3'UTR	S_Shore	CHMP1B	0.636	0.013	0.110	0.198
cg05758978	mediumpurp	7	44,614,305	TSS200	S_Shore	DDX56	0.635	0.041	0.623	0.103
cg25474358	mediumpurp	3	139,107,739	Body	N_Shore	COPB2	0.633	0.031	0.175	0.057
cg14905631	mediumpurp	10	102,746,534	TSS1500	Island	C10orf2	0.633	0.002	0.354	0.811
cg06359132	mediumpurp	10	99,160,096	Body	N_Shore	RRP12	0.633	0.025	0.475	0.007
cg15834814	mediumpurp	19	9,609,704	TSS1500	S_Shore	ZNF560	0.632	0.035	0.388	0.003
cg19783404	mediumpurp	11	67,751,269				0.631	0.022	0.514	0.004
cg20758542	mediumpurp	22	17,565,149	TSS1500	N_Shore	IL17RA	0.630	0.011	0.735	0.318
cg20243176	mediumpurp	1	113,008,524		N_Shore		0.629	0.009	0.487	0.370
cg05512310	mediumpurp	11	16,761,290	Body	S_Shore	C11orf58	0.628	0.014	0.279	0.075
cg06764842	mediumpurp	6	43,396,116		S_Shore		0.626	0.015	0.406	0.118
cg09360654	mediumpurp	1	45,806,501	TSS1500	S_Shore	MUTYH	0.626	0.008	0.265	0.383
cg04241075	mediumpurp	1	46,807,263	Body	S_Shore	NSUN4	0.625	0.013	0.311	0.093
cg15777472	mediumpurp	11	65,685,874	TSS1500	N_Shore	DRAP1	0.622	0.003	0.485	0.797
cg17929169	mediumpurp	6	112,195,522	TSS1500	S_Shore	FYN	0.622	0.013	0.254	0.356
cg13657951	mediumpurp	9	123,964,651	TSS1500	S_Shore	RAB14	0.622	0.003	0.090	0.673

cg16051361	mediumpurp	12	72,149,658	Body	S_Shore	RAB21	0.621	0.026	0.110	0.015
cg20474675	mediumpurp	11	16,761,292	Body	S_Shore	C11orf58	0.621	0.007	0.328	0.417
cg08897044	mediumpurp	19	12,950,850	Body	N_Shore	MAST1	0.620	0.022	0.575	0.005
cg03382121	mediumpurp	6	33,291,921	TSS1500	S_Shore	DAXX	0.620	0.012	0.258	0.246
cg10262997	mediumpurp	11	18,654,886	Body	N_Shore	SPTY2D1	0.618	0.005	0.308	0.657
cg19917300	mediumpurp	17	80,022,823	Body	Island	DUS1L	0.617	0.012	0.556	0.289
cg00668034	mediumpurp	1	28,098,848	TSS1500	N_Shore	STX12	0.616	0.031	0.210	0.052
cg01589580	mediumpurp	18	77,440,800	Body	S_Shore	CTDP1	0.616	0.010	0.527	0.488
cg17069873	mediumpurp	19	40,732,784	TSS200	S_Shore	CNTD2	0.616	0.010	0.437	0.161
cg14718170	mediumpurp	2	220,463,257	Body	S_Shore	STK11IP	0.615	0.011	0.273	0.235
cg17847861	mediumpurp	19	40,972,683	TSS1500	Island	SPTBN4	0.615	0.040	0.347	0.085
cg09924998	mediumpurp	12	122,751,933	TSS1500	S_Shore	VPS33A	0.615	0.017	0.502	0.085
cg06268956	mediumpurp	11	2,423,196	TSS1500	S_Shore	TSSC4	0.614	0.007	0.684	0.464
cg21937460	mediumpurp	17	30,185,369	Body	N_Shore	C17orf79	0.613	0.015	0.410	0.123
cg09313046	mediumpurp	16	74,331,618	Body	S_Shore	PSMD7	0.612	0.006	0.293	0.597
cg01940055	mediumpurp	4	146,018,582	5'UTR	N_Shore	ANAPC10	0.612	0.020	0.725	0.211
cg25303540	mediumpurp	11	119,206,052	1stExon	S_Shore	RNF26	0.611	-0.001	0.604	0.897
cg17960080	mediumpurp	17	26,926,868	TSS1500	S_Shore	SPAG5	0.611	0.010	0.371	0.491
cg02859934	mediumpurp	16	5,083,072	Body	N_Shore	NAGPA	0.611	0.014	0.287	0.111
cg01775612	mediumpurp	16	31,484,199	Body	S_Shore	TGFB111	0.610	-0.001	0.506	0.924
cg13369337	mediumpurp	10	13,629,909	Body	S_Shore	PRPF18	0.608	0.025	0.563	0.045
cg26681017	mediumpurp	16	89,723,193	Body	Island	CHMP1A	0.608	0.024	0.486	0.046
cg24502192	mediumpurp	12	58,138,329	TSS1500	S_Shore	TSPAN31	0.607	0.008	0.354	0.511
cg02243630	mediumpurp	4	154,386,540	TSS1500	N_Shore	KIAA0922	0.606	0.016	0.530	0.152
cg12104266	mediumpurp	20	44,601,447	TSS1500	S_Shore	ZNF335	0.606	0.015	0.249	0.100
cg25408620	mediumpurp	7	56,173,166	Body	N_Shore	CHCHD2	0.605	0.010	0.641	0.454
cg03418659	mediumpurp	16	31,128,414	TSS1500	N_Shore	MYST1	0.604	-0.005	0.163	0.653
cg04149916	mediumpurp	6	31,939,319	TSS1500	N_Shore	STK19	0.603	0.038	0.353	0.018
cg14500718	mediumpurp	1	156,251,456	TSS1500	S_Shore	TMEM79	0.602	0.007	0.335	0.420
cg25597625	mediumpurp	6	24,583,496	Body	S_Shore	KIAA0319	0.602	0.021	0.489	0.132
cg04108360	mediumpurp	11	67,771,791	TSS200	S_Shore	UNC93B1	0.602	0.008	0.356	0.277
cg07294734	mediumpurp	19	1,242,323	Body	Island	ATP5D	0.602	0.010	0.565	0.319
cg26808478	mediumpurp	1	6,760,926	Body	N_Shore	DNAJC11	0.601	0.020	0.428	0.059
cg07734926	mediumpurp	6	28,832,358	Body	S_Shore		0.601	-0.003	0.383	0.751
cg05280478	mediumpurp	17	73,662,588	Body	N_Shore	RECQL5	0.601	0.021	0.543	0.195
cg24809269	mediumpurp	17	74,260,692	TSS1500	N_Shore	FAM100B	0.601	0.011	0.796	0.276
cg12108146	mediumpurp	8	144,329,866	5'UTR	S_Shore	ZFP41	0.600	0.015	0.475	0.054
cg05775627	mediumpurp	12	49,690,254	Body	Island	PRPH	0.598	-0.001	0.585	0.916
cg20768326	mediumpurp	11	2,086,058	Body	S_Shore		0.598	0.015	0.714	0.282
cg02713563	mediumpurp	19	45,680,948	Body	N_Shore	TRAPPC6A	0.597	0.017	0.171	0.097
cg22124136	mediumpurp	13	34,391,985	TSS1500	N_Shore	RFC3	0.596	-0.004	0.224	0.730
cg07786254	mediumpurp	19	59,085,608	TSS1500	N_Shore	MZF1	0.596	0.004	0.426	0.643
cg25549791	mediumpurp	1	24,126,230	TSS200	N_Shore	GALE	0.596	0.014	0.293	0.059
cg25340973	mediumpurp	13	48,574,637	Body	N_Shore	SUCLA2	0.595	0.011	0.554	0.434
cg11571442	mediumpurp	22	31,555,852	TSS1500	N_Shore	RNF185	0.595	-0.005	0.171	0.818
cg03201337	mediumpurp	10	69,609,995	Body	S_Shore		0.594	0.006	0.865	0.691
cg02303324	mediumpurp	6	136,872,323	TSS1500	S_Shore	MAP7	0.594	0.018	0.463	0.283
cg01052512	mediumpurp	16	2,098,739	Body	S_Shore	TSC2	0.593	0.014	0.566	0.215
cg24876527	mediumpurp	6	139,095,462	Body	S_Shore	CCDC28A	0.593	0.041	0.226	0.020
cg24012595	mediumpurp	7	99,150,098	TSS1500	S_Shore	C7orf38	0.592	0.003	0.040	0.512
cg10805956	mediumpurp	1	156,697,624	1stExon	N_Shore	ISG20L2	0.591	0.018	0.106	0.023
cg10130811	mediumpurp	11	66,277,720	TSS1500	S_Shore	BBS1	0.591	-0.001	0.438	0.908
cg07175191	mediumpurp	17	26,988,607	TSS1500	N_Shore	SUPT6H	0.590	0.007	0.070	0.270
cg05483406	mediumpurp	8	146,013,229	TSS1500	S_Shore	ZNF34	0.590	0.008	0.378	0.235
cg15357934	mediumpurp	12	58,138,320	TSS1500	S_Shore	TSPAN31	0.590	0.003	0.302	0.824
cg03548344	mediumpurp	16	3,245,106	Body	S_Shore		0.589	0.011	0.724	0.424
cg00044354	mediumpurp	1	67,389,884	TSS1500	N_Shore	MIER1	0.588	0.038	0.369	0.026
cg14637470	mediumpurp	9	131,798,317	TSS1500	N_Shore	FAM73B	0.587	0.007	0.363	0.406
cg14092997	mediumpurp	19	6,425,737	TSS1500	Island	KHSRP	0.586	-0.017	0.605	0.162
cg10654546	mediumpurp	12	56,617,576	TSS1500	N_Shore	OBFC2B	0.586	0.022	0.665	0.353
cg21689613	mediumpurp	17	40,950,290	TSS1500	N_Shore	CNTD1	0.586	-0.003	0.312	0.707
cg25561382	mediumpurp	19	18,795,207	Body	S_Shore	CRTC1	0.585	0.010	0.512	0.045
cg05654329	mediumpurp	5	177,581,506	TSS1500	S_Shore	NHP2	0.584	0.016	0.890	0.027
cg24560288	mediumpurp	11	61,130,361	5'UTR	S_Shore	TMEM138	0.583	-0.003	0.099	0.763
cg08342619	mediumpurp	19	56,914,764	TSS1500	N_Shore	ZNF583	0.582	0.050	0.388	0.009
cg14310606	mediumpurp	9	139,693,852	Body	N_Shore	KIAA1984	0.581	0.017	0.506	0.124
cg19113686	mediumpurp	3	101,406,347	TSS1500	S_Shore	RPL24	0.581	0.022	0.786	0.194

cg16190718	mediumpurp	6	31,939,106	TSS1500	N_Shore	STK19	0.581	0.034	0.414	0.000
cg26826183	mediumpurp	19	10,231,701	TSS1500	S_Shore	EIF3G	0.580	0.021	0.552	0.014
cg05350315	mediumpurp	1	32,716,961	5'UTR	S_Shelf	LCK	0.580	0.009	0.671	0.289
cg17815049	mediumpurp	1	246,728,663	TSS1500	N_Shore	CNST	0.580	0.003	0.719	0.850
cg02220965	mediumpurp	16	31,128,310	TSS1500	N_Shore	MYST1	0.579	-0.002	0.236	0.893
cg14256102	mediumpurp	19	52,511,853	TSS1500	S_Shore	ZNF615	0.578	0.013	0.175	0.286
cg08548172	mediumpurp	10	13,629,984	Body	S_Shore	PRPF18	0.576	0.035	0.327	0.007
cg09333631	mediumpurp	3	44,802,604	TSS1500	N_Shore	KIF15	0.576	0.013	0.173	0.446
cg01869058	mediumpurp	6	31,926,196	Body	N_Shore	RDBP	0.575	0.007	0.442	0.470
cg15336893	mediumpurp	11	67,210,282	5'UTR		CORO1B	0.575	0.007	0.527	0.373
cg10798225	mediumpurp	11	448,822	TSS1500	N_Shore	PTDSS2	0.575	0.003	0.400	0.703
cg07548257	mediumpurp	22	31,686,466	Body	N_Shore	PIK3IP1	0.574	0.017	0.280	0.078
cg23906067	mediumpurp	6	31,939,112	TSS1500	N_Shore	STK19	0.573	0.039	0.452	0.001
cg01816014	mediumpurp	1	14,027,378	5'UTR	S_Shore	PRDM2	0.570	0.003	0.296	0.761
cg02634414	mediumpurp	10	91,294,781	5'UTR	N_Shore	SLC16A12	0.570	0.011	0.131	0.422
cg09560297	mediumpurp	19	37,406,349	TSS1500	N_Shore	ZNF568	0.570	0.012	0.545	0.183
cg19346992	mediumpurp	10	70,939,271	TSS1500	N_Shore	SUPV3L1	0.570	0.000	0.067	0.943
cg10514633	mediumpurp	2	74,150,123		N_Shelf		0.568	0.032	0.355	0.042
cg02443658	mediumpurp	16	28,986,829	Body	S_Shore	SPNS1	0.568	0.021	0.478	0.010
cg24505395	mediumpurp	11	62,358,505	Body	N_Shore	TUT1	0.566	0.017	0.089	0.026
cg11051752	mediumpurp	6	158,375,814				0.566	0.010	0.451	0.169
cg09890374	mediumpurp	16	67,928,026	5'UTR	S_Shore	PSKH1	0.565	0.008	0.383	0.443
cg01844176	mediumpurp	12	27,176,208	Body	S_Shore	MED21	0.564	0.006	0.177	0.657
cg04269747	mediumpurp	11	111,956,647	Body	N_Shore	TIMM8B	0.563	0.012	0.461	0.138
cg07831277	mediumpurp	10	23,003,984	TSS1500	S_Shore	PIP4K2A	0.563	0.009	0.441	0.407
cg20621224	mediumpurp	19	6,199,093		N_Shore		0.561	0.016	0.086	0.036
cg24775616	mediumpurp	17	1,157,257				0.560	0.028	0.202	0.259
cg18251449	mediumpurp	19	58,728,390		Island		0.556	0.020	0.492	0.173
cg07507951	mediumpurp	1	247,096,025	TSS1500	S_Shore	AHCTF1	0.554	0.005	0.488	0.677
cg07169826	mediumpurp	7	142,334,043				0.553	0.001	0.473	0.882
cg01986131	mediumpurp	17	42,092,588	TSS1500	S_Shore	TMEM101	0.553	-0.002	0.325	0.868
cg10253465	mediumpurp	19	45,996,844	Body	N_Shore	RTN2	0.552	0.036	0.444	0.007
cg04044206	mediumpurp	8	146,227,573	Body	N_Shore	ZNF252	0.551	0.011	0.383	0.433
cg02605776	mediumpurp	1	111,507,160	TSS1500	S_Shore	C1orf103	0.550	0.002	0.309	0.852
cg22958248	mediumpurp	12	56,545,428	TSS1500	N_Shore	MYL6B	0.548	0.013	0.540	0.236
cg07249247	mediumpurp	7	2,595,893	TSS1500	S_Shore	C7orf27	0.548	0.002	0.912	0.813
cg03876340	mediumpurp	3	155,570,582	Body	N_Shore	SLC33A1	0.547	0.023	0.530	0.192
cg14768256	mediumpurp	3	44,754,587	5'UTR	S_Shore	ZNF502	0.545	0.014	0.491	0.490
cg26588045	mediumpurp	19	41,283,090	Body	N_Shore	MIA	0.544	0.015	0.407	0.068
cg25077752	mediumpurp	19	2,899,864	TSS1500	N_Shore	ZNF57	0.543	0.031	0.876	0.020
cg11684897	mediumpurp	17	2,951,666		N_Shore		0.542	0.024	0.364	0.064
cg17711870	mediumpurp	8	87,354,470	TSS1500	N_Shore	WWP1	0.542	0.021	0.208	0.037
cg26648758	mediumpurp	19	4,816,176	3'UTR		TICAM1	0.540	0.001	0.748	0.944
cg24061122	mediumpurp	5	137,672,901	TSS1500	N_Shore	FAM53C	0.539	0.022	0.360	0.059
cg22331294	mediumpurp	3	45,698,299	Body		LIMD1	0.538	-0.001	0.476	0.831
cg24533720	mediumpurp	7	6,099,233	TSS1500	S_Shore	EIF2AK1	0.538	0.015	0.495	0.281
cg06979771	mediumpurp	16	24,266,773	TSS200	N_Shore	CACNG3	0.538	0.015	0.444	0.146
cg20074859	mediumpurp	19	1,395,572	3'UTR	Island	NDUFS7	0.537	0.013	0.585	0.117
cg09573809	mediumpurp	19	58,874,563	TSS1500	S_Shore	ZNF497	0.537	0.001	0.077	0.911
cg12617928	mediumpurp	16	231,742		Island		0.536	0.005	0.159	0.713
cg16367168	mediumpurp	16	231,905		S_Shore		0.535	-0.002	0.553	0.894
cg23095634	mediumpurp	4	1,284,946	Body	S_Shore	MAEA	0.535	0.000	0.502	0.977
cg09167911	mediumpurp	1	53,307,865	TSS1500	N_Shore	ZYG11A	0.534	0.006	0.742	0.719
cg02674804	mediumpurp	19	1,492,043	Body	S_Shore	REEP6	0.533	0.002	0.779	0.813
cg01256165	mediumpurp	20	62,716,606	5'UTR	N_Shore	OPRL1	0.533	0.002	0.487	0.777
cg16774084	mediumpurp	14	107,210,989				0.533	0.013	0.651	0.365
cg23437843	mediumpurp	3	44,596,360	TSS1500	N_Shore	ZNF167	0.528	0.015	0.359	0.117
cg24731625	mediumpurp	1	247,276,552	TSS1500	S_Shore	C1orf229	0.523	0.005	0.453	0.445
cg07031996	mediumpurp	1	38,324,738	5'UTR	N_Shore	MTF1	0.522	0.001	0.029	0.787
cg20067471	mediumpurp	6	32,765,281				0.521	0.016	0.333	0.099
cg03667591	mediumpurp	2	242,040,890	Body	N_Shore	MTERFD2	0.521	0.011	0.321	0.329
cg11953311	mediumpurp	6	31,870,840	TSS1500	S_Shore	ZBTB12	0.518	0.017	0.422	0.016
cg07408740	mediumpurp	7	44,645,306	TSS1500	N_Shore	OGDH	0.517	0.021	0.597	0.051
cg27002247	mediumpurp	19	58,549,241	Body	N_Shore	ZSCAN1	0.515	0.004	0.528	0.831
cg13644239	mediumpurp	5	891,886	TSS1500	N_Shore	TRIP13	0.515	0.021	0.530	0.003
cg23689052	mediumpurp	2	97,427,102	1stExon	Island	CNNM4	0.514	-0.010	0.106	0.281
cg03565323	mediumpurp	17	16,472,866	TSS1500	S_Shore	ZNF287	0.514	0.021	0.305	0.046

cg00546153	mediumpurp	1	40,205,266	5'UTR	S_Shore	PPIE	0.513	0.017	0.323	0.068
cg14286514	mediumpurp	9	32,525,315	Body	N_Shore	DDX58	0.513	0.023	0.627	0.233
cg16685608	mediumpurp	14	52,211,579				0.512	0.057	0.749	0.001
cg01161877	mediumpurp	5	158,690,922	5'UTR	S_Shore	UBLCP1	0.510	0.000	0.759	0.994
cg23090606	mediumpurp	19	43,970,034	TSS1500	S_Shore	LYPD3	0.509	0.017	0.383	0.029
cg02641400	mediumpurp	9	94,876,239	Body	N_Shore	SPTLC1	0.508	0.007	0.728	0.588
cg07557792	mediumpurp	22	50,969,783	Body	Island	ODF3B	0.507	0.016	0.166	0.210
cg04579505	mediumpurp	16	67,261,564	Body	S_Shore	TMEM208	0.505	0.002	0.086	0.812
cg07183637	mediumpurp	6	31,940,692	Body	S_Shore	STK19	0.502	-0.012	0.219	0.250
cg15744128	mediumpurp	2	27,850,964	Body		CCDC121	0.501	0.026	0.220	0.006
cg09656942	mediumpurp	17	18,761,022	TSS1500	N_Shore	PRPSAP2	0.501	0.035	0.133	0.008
cg25388527	mediumpurp	18	43,684,054	5'UTR	N_Shore	ATP5A1	0.501	0.014	0.321	0.354
cg24196814	mediumpurp	1	231,665,086	Body	S_Shore	TSNAX-DISC1	0.500	0.002	0.028	0.233
cg04600699	mediumpurp	16	2,831,856		N_Shelf		0.499	0.003	0.490	0.673
cg15030465	mediumpurp	19	51,400,352	TSS1500		KLK1	0.499	0.001	0.737	0.961
cg07760794	mediumpurp	17	36,006,043		S_Shelf		0.497	0.013	0.418	0.085
cg12879713	mediumpurp	11	64,878,720	Body	N_Shore	C11orf2	0.496	0.014	0.858	0.018
cg01123541	mediumpurp	11	6,256,799	TSS1500	S_Shore	FAM160A2	0.495	0.003	0.024	0.250
cg18555073	mediumpurp	15	45,002,662	TSS1500	N_Shore	B2M	0.492	0.024	0.365	0.055
cg15646382	mediumpurp	5	140,018,709	TSS1500	N_Shore	TMCO6	0.491	-0.005	0.279	0.789
cg12289476	mediumpurp	4	76,781,503	3'UTR		PPEF2	0.490	0.008	0.766	0.432
cg23700125	mediumpurp	8	101,157,661	1stExon	Island	FBXO43	0.487	-0.001	0.288	0.908
cg11953245	mediumpurp	1	228,291,591	TSS1500	S_Shore	C1orf35	0.487	0.031	0.281	0.080
cg13810644	mediumpurp	7	44,614,451	TSS1500	S_Shore	DDX56	0.486	0.023	0.509	0.089
cg07829465	mediumpurp	6	30,079,536	Body		TRIM31	0.485	0.006	0.434	0.377
cg03033688	mediumpurp	16	22,824,489	TSS1500	N_Shore	HS3ST2	0.485	0.008	0.244	0.415
cg15972984	mediumpurp	2	99,756,731	TSS1500	N_Shore	C2orf15	0.485	0.026	0.478	0.141
cg10011799	mediumpurp	9	123,554,649	5'UTR	N_Shore	FBXW2	0.483	0.016	0.618	0.260
cg11851456	mediumpurp	14	23,938,418	TSS1500		NGDN	0.482	-0.001	0.025	0.529
cg08121041	mediumpurp	2	239,147,445	3'UTR	N_Shore	HES6	0.479	0.005	0.748	0.678
cg21034183	mediumpurp	22	40,442,424	5'UTR	S_Shore	TNRC6B	0.479	0.010	0.479	0.465
cg00385441	mediumpurp	20	43,991,402	TSS1500	N_Shore	SYS1	0.477	-0.013	0.522	0.334
cg03778899	mediumpurp	10	93,682,808	TSS1500	N_Shore	BTAF1	0.477	0.022	0.863	0.110
cg10498083	mediumpurp	6	30,428,323		N_Shelf		0.476	0.039	0.209	0.005
cg09366796	mediumpurp	5	75,012,313	5'UTR	N_Shore	C5orf37	0.476	0.030	0.558	0.081
cg02072018	mediumpurp	3	9,884,995	Body	N_Shore	RPUSD3	0.475	-0.002	0.029	0.475
cg09281683	mediumpurp	16	687,888		S_Shore		0.473	0.011	0.665	0.084
cg22759185	mediumpurp	19	1,492,038	Body	S_Shore	REEP6	0.473	0.011	0.614	0.314
cg13702536	mediumpurp	12	123,215,553	TSS1500		GPR81	0.472	0.006	0.572	0.661
cg07271361	mediumpurp	6	31,940,855	Body	S_Shore	STK19	0.469	0.014	0.481	0.348
cg22538757	mediumpurp	12	34,755,126				0.468	0.024	0.809	0.097
cg07581849	mediumpurp	1	203,239,062		N_Shelf		0.468	0.005	0.733	0.534
cg02529723	mediumpurp	5	140,105,629	TSS200		VTRNA1-3	0.465	0.017	0.158	0.175
cg05210239	mediumpurp	12	132,855,224	Body	Island	GALNT9	0.465	0.022	0.567	0.018
cg23330451	mediumpurp	3	138,739,922	TSS200	Island	PRR23B	0.464	0.035	0.387	0.195
cg24322366	mediumpurp	4	190,567,721		Island		0.461	0.012	0.460	0.237
cg10368128	mediumpurp	19	57,702,442	TSS1500	N_Shore	ZNF264	0.459	0.001	0.662	0.960
cg16263722	mediumpurp	1	29,523,841	Body		MECR	0.454	0.009	0.514	0.096
cg02165330	mediumpurp	11	124,542,984	Body	N_Shore	SIAE	0.451	0.012	0.412	0.194
cg09919392	mediumpurp	16	34,809,677		Island		0.449	-0.004	0.494	0.788
cg09650731	mediumpurp	16	46,823,623		N_Shore		0.449	0.019	0.699	0.024
cg04832873	mediumpurp	6	30,640,219	Body	N_Shore	DHX16	0.442	0.003	0.089	0.695
cg07629854	mediumpurp	12	112,280,892	TSS200	S_Shore	C12orf47	0.442	0.000	0.029	0.961
cg04040861	mediumpurp	8	144,610,554	Body		ZC3H3	0.440	0.004	0.687	0.450
cg00900444	mediumpurp	6	31,548,291		N_Shore		0.438	0.007	0.390	0.384
cg04165720	mediumpurp	19	7,677,604	Body	Island	KIAA1543	0.436	0.008	0.830	0.289
cg26647265	mediumpurp	6	29,932,621				0.433	0.000	0.044	0.880
cg06490943	mediumpurp	7	56,184,217	TSS200	S_Shore	LOC389493	0.428	0.005	0.365	0.582
cg06468108	mediumpurp	2	173,539,091				0.426	0.013	0.625	0.562
cg02512108	mediumpurp	7	1,315,671		Island		0.424	0.015	0.518	0.099
cg07272042	mediumpurp	16	85,860,163		N_Shelf		0.423	0.022	0.783	0.009
cg13743052	mediumpurp	14	107,253,426				0.421	0.023	0.444	0.054
cg20376009	mediumpurp	16	34,296,108		Island		0.419	-0.010	0.482	0.367
cg16659497	mediumpurp	16	34,659,664		Island		0.417	0.018	0.740	0.332
cg08039583	mediumpurp	12	32,258,877	TSS1500	N_Shore	BICD1	0.412	0.014	0.539	0.102
cg10849498	mediumpurp	6	31,829,800	Body	N_Shore	NEU1	0.411	0.019	0.575	0.073
cg04013595	mediumpurp	6	30,484,429				0.405	0.003	0.017	0.183

cg07869256	mediumpurp	12	55,247,753	TSS1500		MUCL1	0.404	0.001	0.156	0.940
cg13924432	mediumpurp	2	220,223,283		Island		0.399	0.020	0.119	0.011
cg21209022	mediumpurp	7	71,217,765				0.388	0.002	0.448	0.885
cg09071294	mediumpurp	12	109,531,515	TSS1500	S_Shore	ALKBH2	0.383	-0.004	0.030	0.254
cg20798574	mediumpurp	1	229,479,495	TSS1500	S_Shore	C1orf96	0.377	-0.004	0.110	0.597
cg04576203	mediumpurp	2	74,757,825	Body	Island	HTRA2	0.361	0.003	0.030	0.223
cg09163442	mediumpurp	7	54,827,431	TSS1500	S_Shore	SEC61G	0.348	-0.001	0.019	0.643
cg22160121	mediumpurp	3	138,153,168	TSS1500	N_Shore	ESYT3	0.346	0.021	0.276	0.173
cg04487479	mediumpurp	6	70,993,328	Body	S_Shore	COL9A1	0.346	0.024	0.459	0.073
cg17631150	mediumpurp	11	126,173,261	TSS1500	N_Shore	DCPS	0.337	0.021	0.502	0.082
cg00629102	mediumpurp	16	2,495,471	Body		CCNF	0.324	0.004	0.877	0.494

Suppl. Tab. 9. CpGs in the ME79:salmon (row: 2; n=3,348; 1,488 unique genes), ME13:orange (row: 3,355; n=878; 553 unique genes), ME30:black (row: 4,236; n=10,135; 4,270 unique genes), ME4:yellow (row: 14,374; n=29,032; 9,859 unique genes) and ME18:saddlebrown (row: 43,409; n=682; 460 unique genes) module sorted by each module's module membership (MM) of annotated genes

CpGs in the salmon module:						FL EWAS				
cgs_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	RelationCpG_IsI:Gene	MM	Beta.diff	AveBeta	P.Value	
cg01369207	salmon		2	45,484,726	OpenSea		0.921	-0.011	0.122	0.185
cg12670357	salmon		6	168,069,162	OpenSea		0.918	-0.018	0.149	0.055
cg07857469	salmon		4	81,107,185	5'UTR	S_Shore PRDM8	0.909	-0.001	0.054	0.845
cg15055773	salmon		7	107,647,750	S_Shelf		0.907	-0.004	0.161	0.600
cg03149567	salmon		10	134,441,442	Body	OpenSea INPP5A	0.906	-0.016	0.205	0.112
cg24851818	salmon		12	1,738,446	1stExon	N_Shore WNT5B	0.905	0.003	0.119	0.688
cg06391412	salmon		3	71,295,684	5'UTR	OpenSea FOXP1	0.901	-0.007	0.186	0.345
cg09351315	salmon		17	77,775,823		Island	0.901	-0.003	0.055	0.485
cg21226516	salmon		2	157,186,666	Body	S_Shore NR4A2	0.898	-0.009	0.096	0.267
cg13817265	salmon		12	24,104,357	5'UTR	OpenSea SOX5	0.896	-0.002	0.096	0.803
cg27639662	salmon		4	81,111,393	5'UTR	S_Shore PRDM8	0.895	-0.001	0.086	0.870
cg06075652	salmon		16	86,253,508		OpenSea	0.895	-0.001	0.184	0.904
cg20695936	salmon		1	25,257,624	TSS1500	Island RUNX3	0.893	-0.002	0.153	0.826
cg23381646	salmon		7	44,187,310	Body	S_Shore GCK	0.891	-0.003	0.069	0.631
cg23381884	salmon		6	1,597,525		N_Shore	0.890	-0.012	0.196	0.459
cg20232746	salmon		4	174,440,598		S_Shore	0.889	-0.013	0.120	0.184
cg18460375	salmon		7	25,782,327		OpenSea	0.889	-0.002	0.281	0.807
cg19697382	salmon		1	7,711,079	Body	OpenSea CAMTA1	0.886	-0.002	0.145	0.859
cg22726349	salmon		1	2,990,678	Body	Island PRDM16	0.886	-0.012	0.190	0.298
cg11405200	salmon		6	14,212,128		S_Shore	0.886	0.003	0.059	0.629
cg13508369	salmon		9	129,884,026	5'UTR	OpenSea ANGPTL2	0.885	0.002	0.133	0.843
cg19214097	salmon		2	202,814,249		OpenSea	0.884	-0.006	0.253	0.696
cg10959664	salmon		13	98,979,676	Body	OpenSea FARP1	0.883	-0.012	0.195	0.309
cg05403689	salmon		12	89,748,932		S_Shore	0.882	-0.012	0.237	0.295
cg12968041	salmon		22	29,280,932	5'UTR	S_Shore ZNRF3	0.882	-0.006	0.073	0.443
cg05441133	salmon		10	48,416,891	TSS200	S_Shelf GDF2	0.881	-0.025	0.331	0.074
cg03909983	salmon		8	72,758,461		S_Shore	0.875	0.000	0.139	0.973
cg15438548	salmon		10	123,098,791		OpenSea	0.872	-0.011	0.347	0.352
cg12801917	salmon		17	15,417,503	Body	OpenSea FAM18B2	0.871	-0.005	0.059	0.420
cg01216877	salmon		3	24,869,928		N_Shore	0.868	-0.011	0.234	0.375
cg12328660	salmon		3	119,896,128	Body	OpenSea GPR156	0.868	-0.003	0.045	0.408
cg13938098	salmon		6	112,575,966	TSS200	S_Shore LAMA4	0.868	-0.004	0.053	0.286
cg21606956	salmon		1	184,211,934		OpenSea	0.867	-0.006	0.375	0.491
cg00003578	salmon		1	12,600,529		Island	0.867	0.002	0.103	0.810
cg09595050	salmon		4	81,110,205	5'UTR	Island PRDM8	0.867	-0.003	0.154	0.785
cg25950769	salmon		15	85,945,991	5'UTR	OpenSea AKAP13	0.866	-0.007	0.170	0.377
cg15247509	salmon		10	48,416,977	TSS200	S_Shelf GDF2	0.866	-0.023	0.204	0.113
cg07714420	salmon		16	85,123,342	3'UTR	OpenSea KIAA0513	0.865	-0.003	0.198	0.738
cg19862899	salmon		10	82,173,556	TSS200	OpenSea C10orf58	0.865	-0.005	0.175	0.622
cg06782204	salmon		12	4,030,007		OpenSea	0.865	-0.004	0.048	0.232
cg25943845	salmon		10	48,416,839	5'UTR	S_Shelf GDF2	0.864	-0.011	0.223	0.319
cg09836827	salmon		12	6,163,024	Body	N_Shelf VWF	0.864	-0.005	0.180	0.579
cg18796287	salmon		5	138,730,886	TSS200	Island LOC389333	0.864	-0.006	0.234	0.418
cg13106389	salmon		1	25,257,626	TSS1500	Island RUNX3	0.862	-0.012	0.166	0.265
cg14197071	salmon		4	81,110,459	5'UTR	Island PRDM8	0.862	0.003	0.058	0.740
cg22539744	salmon		3	64,476,370		OpenSea	0.861	-0.006	0.363	0.527
cg23850750	salmon		6	1,612,589	3'UTR	Island FOXC1	0.861	-0.006	0.109	0.559
cg03171924	salmon		1	25,258,332	Body	Island RUNX3	0.860	0.002	0.085	0.783
cg23550826	salmon		4	55,095,282	1stExon	N_Shore PDGFRA	0.859	-0.003	0.026	0.228
cg11334406	salmon		17	4,546,450	TSS1500	S_Shore ALOX15	0.858	0.001	0.227	0.917
cg15613761	salmon		19	46,404,710	Body	Island MYPOP	0.858	-0.015	0.124	0.056
cg10013501	salmon		1	25,257,813	TSS1500	Island RUNX3	0.858	0.005	0.216	0.777
cg20876852	salmon		7	130,134,488	5'UTR	S_Shore MEST	0.857	-0.004	0.175	0.724
cg03565777	salmon		12	125,028,339		Island	0.854	-0.003	0.121	0.714
cg09644356	salmon		2	121,322,010		OpenSea	0.853	-0.002	0.095	0.832
cg12216518	salmon		15	66,999,709	TSS1500	S_Shelf SMAD6	0.853	-0.002	0.062	0.609
cg26926138	salmon		4	54,960,034		S_Shore	0.853	-0.003	0.072	0.596
cg23837220	salmon		10	50,143,397	Body	OpenSea WDFY4	0.852	-0.001	0.043	0.754
cg06252564	salmon		9	970,605		Island	0.851	-0.004	0.133	0.694
cg22132509	salmon		3	160,475,102	Body	S_Shore PPM1L	0.851	-0.008	0.065	0.216
cg02433515	salmon		15	37,311,908	Body	OpenSea MEIS2	0.850	-0.016	0.252	0.123
cg08472795	salmon		2	129,067,253	Body	OpenSea HS6ST1	0.850	-0.002	0.069	0.642

cg13612207	salmon	6	41,604,752	TSS1500	Island	MDFI	0.850	-0.004	0.140	0.648
cg11938455	salmon	6	15,622,032	Body	OpenSea	DTNBP1	0.850	-0.006	0.151	0.485
cg03969515	salmon	1	16,553,267		N_Shore		0.849	-0.003	0.085	0.621
cg09905511	salmon	2	77,621,916	Body	OpenSea	LRRMT4	0.849	-0.005	0.089	0.526
cg12752647	salmon	10	73,849,106	TSS1500	S_Shore	SPOCK2	0.849	0.006	0.262	0.540
cg12575928	salmon	11	22,687,660	TSS1500	N_Shore	GAS2	0.849	-0.011	0.115	0.146
cg25233672	salmon	5	172,087,055	Body	OpenSea	NEURL1B	0.849	-0.003	0.130	0.647
cg06288351	salmon	20	43,729,897	TSS200	S_Shore	KCNS1	0.848	-0.004	0.061	0.407
cg25149218	salmon	2	205,411,524	Body	S_Shore	PARDB3B	0.848	-0.004	0.101	0.596
cg16967578	salmon	1	218,575,437	Body	OpenSea	TGFB2	0.848	-0.003	0.102	0.795
cg12178237	salmon	13	36,050,522	1stExon	S_Shore	MAB2111	0.847	0.000	0.038	0.922
cg22399984	salmon	6	1,601,802		Island		0.847	-0.004	0.089	0.677
cg23579062	salmon	9	34,457,500	Body	Island	C9orf25	0.846	-0.002	0.131	0.562
cg04757901	salmon	6	32,060,794	Body	N_Shelf	TNXB	0.846	-0.008	0.143	0.525
cg16038636	salmon	17	74,138,073	TSS1500	S_Shore	FOXJ1	0.846	-0.002	0.055	0.626
cg17728974	salmon	6	105,403,577	TSS1500	S_Shelf	LIN28B	0.846	-0.003	0.060	0.479
cg07497520	salmon	17	8,905,741		N_Shore		0.845	0.002	0.034	0.685
cg26396443	salmon	14	99,729,005	Body	OpenSea	BCL11B	0.845	-0.005	0.134	0.674
cg19240213	salmon	7	27,163,095	5'UTR	N_Shore	HOXA3	0.844	-0.011	0.107	0.228
cg24753061	salmon	18	19,752,362	Body	Island	GATA6	0.844	-0.006	0.207	0.602
cg11813265	salmon	14	95,238,671		N_Shore		0.844	-0.003	0.086	0.570
cg26939946	salmon	17	19,314,395	TSS200	OpenSea	RNF112	0.844	-0.001	0.038	0.791
cg11380072	salmon	3	81,540,527	Body	OpenSea	GBE1	0.844	-0.007	0.316	0.642
cg00149716	salmon	20	13,200,069		N_Shore		0.844	-0.002	0.123	0.850
cg10606176	salmon	4	129,482,097		OpenSea		0.843	-0.035	0.187	0.015
cg02150354	salmon	5	92,914,202	Body	N_Shore	FLJ42709	0.842	-0.006	0.125	0.439
cg25127214	salmon	2	182,525,194		S_Shelf		0.841	-0.002	0.049	0.711
cg20962638	salmon	2	229,553,401		OpenSea		0.841	-0.007	0.431	0.275
cg20180843	salmon	7	100,091,181	Body	Island	C7orf51	0.840	0.003	0.061	0.490
cg04610718	salmon	12	103,353,362	3'UTR	S_Shore	ASCL1	0.840	-0.002	0.045	0.556
cg07838943	salmon	1	12,493,840	Body	OpenSea	VPS13D	0.839	-0.010	0.120	0.226
cg13812927	salmon	9	89,517,863		OpenSea		0.839	-0.014	0.104	0.113
cg08052629	salmon	19	38,746,615	Body	N_Shore	PPP1R14A	0.839	-0.009	0.096	0.309
cg14177925	salmon	14	22,465,676		OpenSea		0.838	-0.009	0.170	0.357
cg14933494	salmon	7	2,661,902		OpenSea		0.838	-0.003	0.037	0.338
cg10349498	salmon	11	68,766,027		OpenSea		0.838	0.004	0.035	0.229
cg00060800	salmon	5	141,600,994		OpenSea		0.837	0.003	0.112	0.722
cg13577556	salmon	9	975,059		N_Shore		0.837	-0.004	0.073	0.356
cg15818632	salmon	1	3,017,794	Body	OpenSea	PRDM16	0.837	-0.008	0.133	0.376
cg01093028	salmon	12	89,749,080		S_Shore		0.837	-0.007	0.300	0.541
cg11914795	salmon	10	63,422,555	TSS200	Island	C10orf107	0.837	-0.001	0.057	0.803
cg00463502	salmon	17	48,912,548	TSS200	OpenSea	WFIKKN2	0.836	-0.003	0.261	0.746
cg03499943	salmon	10	126,211,704	Body	OpenSea	LHPP	0.836	-0.010	0.152	0.487
cg11589885	salmon	2	3,452,919	Body	S_Shore	TTC15	0.836	-0.014	0.513	0.242
cg01624637	salmon	16	87,739,377	TSS200	S_Shore	LOC1001296	0.835	0.004	0.203	0.610
cg06008378	salmon	5	176,925,570	TSS1500	S_Shore	PDLIM7	0.835	-0.014	0.162	0.110
cg25374813	salmon	5	138,719,374	TSS1500	OpenSea	SLC23A1	0.834	-0.002	0.081	0.777
cg14086013	salmon	6	41,604,740	TSS1500	Island	MDFI	0.834	-0.006	0.124	0.342
cg07698121	salmon	16	85,659,946	5'UTR	S_Shore	KIAA0182	0.833	-0.010	0.114	0.370
cg25460984	salmon	6	1,608,396		Island		0.833	-0.001	0.152	0.892
cg25349472	salmon	5	172,717,714		N_Shelf		0.833	0.001	0.081	0.891
cg20904475	salmon	8	61,823,027		Island		0.833	-0.003	0.082	0.559
cg25513433	salmon	11	10,316,555	TSS1500	S_Shore	SBF2	0.832	0.001	0.066	0.867
cg06663149	salmon	4	41,457,558	Body	OpenSea	LIMCH1	0.832	-0.008	0.049	0.183
cg08700306	salmon	19	33,686,390	Body	S_Shore	LRP3	0.832	-0.003	0.059	0.505
cg08589354	salmon	16	86,548,895		N_Shore		0.832	-0.017	0.132	0.163
cg17824906	salmon	12	1,700,011	Body	N_Shelf	FBXL14	0.832	-0.006	0.110	0.408
cg01156077	salmon	2	63,275,178	TSS1500	Island	LOC1001322	0.831	-0.008	0.108	0.122
cg09712756	salmon	6	125,276,550	Body	OpenSea	STL	0.831	-0.001	0.260	0.938
cg15947910	salmon	4	55,708,795		OpenSea		0.831	-0.006	0.321	0.465
cg02637537	salmon	8	22,447,181	Body	OpenSea	PDLIM2	0.831	-0.003	0.043	0.608
cg01395127	salmon	6	1,601,229		N_Shore		0.831	-0.015	0.234	0.378
cg05204104	salmon	2	235,403,141	3'UTR	N_Shore	ARL4C	0.831	0.008	0.111	0.519
cg17001566	salmon	1	2,990,490	Body	Island	PRDM16	0.831	-0.002	0.050	0.718
cg23146197	salmon	12	66,271,002	Body	OpenSea	HMGA2	0.830	-0.001	0.075	0.761
cg01691827	salmon	16	86,599,189		N_Shore		0.830	-0.003	0.275	0.825
cg07432111	salmon	17	64,940,745		OpenSea		0.830	-0.009	0.072	0.077



cg12305431	salmon	7	27,157,855	5'UTR	S_Shelf	HOXA3	0.829	-0.001	0.067	0.838
cg15923139	salmon	4	186,801,896	5'UTR	OpenSea	SORBS2	0.829	-0.011	0.335	0.350
cg19057830	salmon	10	77,165,673	Body	Island	C10orf41	0.829	0.000	0.047	0.956
cg25882256	salmon	1	25,257,759	TSS1500	Island	RUNX3	0.829	-0.001	0.075	0.883
cg14134256	salmon	11	94,502,879	Body	S_Shore	AMOTL1	0.828	-0.003	0.131	0.705
cg20009327	salmon	12	57,869,031	Body	N_Shore	ARHGAP9	0.828	-0.006	0.102	0.214
cg09879794	salmon	7	128,432,231	1stExon	S_Shore	CCDC136	0.828	0.001	0.086	0.837
cg18275589	salmon	5	39,427,599		S_Shelf		0.827	-0.008	0.078	0.270
cg05571063	salmon	16	86,980,091		OpenSea		0.827	-0.010	0.153	0.358
cg13491071	salmon	9	94,661,334	Body	N_Shore	ROR2	0.826	-0.008	0.121	0.277
cg11703470	salmon	6	99,276,280		S_Shore		0.826	0.000	0.075	0.989
cg21865249	salmon	1	208,144,007		OpenSea		0.826	-0.007	0.073	0.311
cg24006721	salmon	1	25,258,225	TSS1500	Island	RUNX3	0.826	0.002	0.046	0.723
cg23871276	salmon	7	1,577,697	5'UTR	S_Shore	MAFK	0.825	0.005	0.207	0.602
cg05522011	salmon	4	81,122,726	Body	N_Shore	PRDM8	0.825	0.003	0.069	0.821
cg08042258	salmon	9	102,591,302	Body	Island	NR4A3	0.825	-0.001	0.071	0.929
cg24463471	salmon	1	25,257,978	TSS1500	Island	RUNX3	0.825	-0.003	0.076	0.718
cg15141195	salmon	6	1,394,758	Body	S_Shore	FOXF2	0.825	0.001	0.134	0.910
cg18954401	salmon	4	81,124,767	3'UTR	Island	PRDM8	0.825	-0.012	0.224	0.409
cg02339793	salmon	17	79,225,573	Body	OpenSea	SLC38A10	0.825	-0.004	0.503	0.658
cg00109764	salmon	3	43,811,308		OpenSea		0.825	0.000	0.062	0.946
cg09484541	salmon	5	74,161,187	5'UTR	N_Shore	FAM169A	0.824	0.002	0.122	0.878
cg21213617	salmon	9	124,989,241	Body	Island	LHX6	0.823	-0.004	0.228	0.629
cg07744618	salmon	1	27,678,015	Body	Island	SYTL1	0.823	-0.005	0.181	0.582
cg14305801	salmon	9	126,775,546	Body	Island	LHX2	0.823	-0.008	0.167	0.549
cg21506509	salmon	22	28,194,981	1stExon	Island	MN1	0.823	-0.001	0.084	0.905
cg18496440	salmon	5	158,532,302		Island		0.822	0.001	0.149	0.920
cg10682957	salmon	11	117,756,485		OpenSea		0.822	-0.004	0.031	0.217
cg18430152	salmon	7	27,162,401	5'UTR	Island	HOXA3	0.822	0.002	0.069	0.784
cg08639389	salmon	4	26,995,889	Body	OpenSea	STIM2	0.822	-0.013	0.357	0.188
cg21704109	salmon	11	44,332,558	TSS1500	Island	ALX4	0.822	-0.002	0.085	0.817
cg11213150	salmon	9	129,884,457	5'UTR	OpenSea	ANGPTL2	0.822	-0.005	0.076	0.393
cg04250451	salmon	1	25,257,784	TSS1500	Island	RUNX3	0.822	0.003	0.186	0.847
cg13305657	salmon	1	25,258,181	TSS1500	Island	RUNX3	0.821	-0.004	0.235	0.752
cg26174583	salmon	6	1,392,624	Body	N_Shore	FOXF2	0.821	0.002	0.215	0.826
cg12968732	salmon	2	67,788,868		OpenSea		0.821	0.005	0.257	0.608
cg03259887	salmon	16	85,608,894		OpenSea		0.821	-0.003	0.081	0.571
cg14299572	salmon	10	34,021,103		OpenSea		0.821	-0.004	0.075	0.623
cg00929376	salmon	1	25,258,236	TSS1500	Island	RUNX3	0.821	-0.003	0.075	0.750
cg08553601	salmon	4	53,729,461	Body	S_Shore	RASL11B	0.820	-0.001	0.042	0.858
cg12435059	salmon	3	37,291,314	Body	OpenSea	GOLGA4	0.820	-0.006	0.520	0.499
cg24596898	salmon	1	41,849,189		Island		0.820	-0.013	0.097	0.093
cg01160692	salmon	17	1,959,620	1stExon	Island	HIC1	0.820	-0.003	0.181	0.792
cg27047836	salmon	5	158,533,081		N_Shore		0.820	0.000	0.270	0.964
cg09798023	salmon	7	27,161,624	5'UTR	N_Shore	HOXA3	0.819	0.000	0.054	0.979
cg08916461	salmon	2	105,031,896		OpenSea		0.819	-0.011	0.113	0.307
cg25312440	salmon	1	76,547,234	Body	OpenSea	ST6GALNAC3	0.819	-0.009	0.122	0.429
cg22270027	salmon	4	81,128,234		Island		0.819	-0.005	0.037	0.469
cg10996039	salmon	7	27,178,861		N_Shore		0.819	-0.001	0.131	0.942
cg06373870	salmon	4	81,117,853	TSS1500	N_Shore	PRDM8	0.819	-0.005	0.096	0.718
cg00318947	salmon	7	27,154,914	5'UTR	N_Shore	HOXA3	0.818	-0.005	0.048	0.218
cg01107874	salmon	10	77,165,618	Body	Island	C10orf41	0.818	-0.006	0.157	0.616
cg05112120	salmon	17	10,119,723		OpenSea		0.818	-0.005	0.096	0.461
cg07317017	salmon	15	74,218,715	TSS200	Island	LOXL1	0.818	-0.003	0.040	0.431
cg23764129	salmon	11	113,846,017	1stExon	OpenSea	HTR3A	0.818	-0.004	0.100	0.531
cg02586730	salmon	11	65,639,869	5'UTR	Island	EFEMP2	0.818	-0.013	0.133	0.083
cg00404717	salmon	4	174,912,178		OpenSea		0.817	0.000	0.120	0.989
cg19925872	salmon	15	90,543,392	TSS1500	N_Shore	ZNF710	0.817	-0.004	0.148	0.439
cg05796838	salmon	19	17,953,157	Body	Island	JAK3	0.817	-0.004	0.090	0.688
cg18876084	salmon	6	47,369,949		OpenSea		0.817	0.004	0.275	0.677
cg23920642	salmon	7	121,947,425		S_Shore		0.817	-0.001	0.079	0.865
cg08313539	salmon	6	127,094,710		OpenSea		0.817	-0.004	0.140	0.634
cg24075175	salmon	11	128,560,240		Island		0.816	-0.006	0.127	0.429
cg23313665	salmon	9	130,517,848	Body	Island	SH2D3C	0.816	-0.001	0.095	0.899
cg03689403	salmon	12	89,749,377		S_Shore		0.816	0.005	0.207	0.649
cg17943647	salmon	4	154,125,374	TSS1500	OpenSea	TRIM2	0.816	-0.001	0.045	0.766
cg04436994	salmon	1	221,055,665	Body	Island	HLX	0.815	-0.013	0.200	0.484

cg03958883	salmon	11	73,020,729	1stExon	S_Shore	ARHGEF17	0.815	0.002	0.074	0.756
cg00928397	salmon	2	175,198,952	TSS1500	N_Shore	SP9	0.815	-0.003	0.055	0.502
cg08802933	salmon	2	219,282,528	TSS1500	OpenSea	VIL1	0.814	0.002	0.133	0.751
cg05668853	salmon	17	27,044,169	Body	Island	RAB34	0.814	-0.005	0.118	0.352
cg14216068	salmon	7	27,146,445	3'UTR	Island	HOXA3	0.814	0.000	0.065	0.972
cg19503963	salmon	17	2,085,005	Body	OpenSea	SMG6	0.814	0.000	0.113	0.990
cg13808198	salmon	1	8,087,518	TSS1500	S_Shore	ERRFI1	0.813	0.000	0.263	0.969
cg20746552	salmon	10	63,809,108	Body	OpenSea	ARID5B	0.813	-0.012	0.102	0.060
cg21245816	salmon	5	43,044,675	Body	S_Shore	LOC153684	0.813	0.002	0.047	0.670
cg08772942	salmon	17	2,626,991		N_Shore		0.813	-0.009	0.101	0.250
cg00431187	salmon	7	27,161,749	5'UTR	N_Shore	HOXA3	0.813	-0.002	0.077	0.737
cg17354303	salmon	9	96,716,665	Body	Island	BARX1	0.812	-0.005	0.218	0.659
cg24949783	salmon	3	28,618,233		S_Shore		0.812	-0.001	0.046	0.819
cg17263053	salmon	2	26,785,187	TSS1500	Island	C2orf70	0.812	-0.006	0.123	0.348
cg00335735	salmon	2	222,355,484	Body	OpenSea	EPHA4	0.811	-0.001	0.071	0.940
cg21244086	salmon	15	45,479,462	Body	N_Shore	SHF	0.811	-0.004	0.052	0.356
cg05109569	salmon	7	27,146,430	3'UTR	Island	HOXA3	0.811	-0.002	0.107	0.824
cg17202781	salmon	3	5,019,217		N_Shore		0.811	-0.001	0.047	0.841
cg19635505	salmon	14	20,903,555	5'UTR	Island	KLHL33	0.811	-0.002	0.128	0.822
cg13575217	salmon	5	139,081,079		Island		0.811	-0.001	0.059	0.819
cg26627769	salmon	5	92,938,402		N_Shore		0.810	-0.013	0.145	0.269
cg09417209	salmon	16	11,715,746		OpenSea		0.810	-0.008	0.088	0.252
cg25067242	salmon	1	115,881,259	TSS1500	Island	NGF	0.809	-0.001	0.102	0.902
cg20145009	salmon	14	105,399,175	Body	Island	PLD4	0.809	-0.006	0.099	0.491
cg09317554	salmon	4	151,505,084	Body	Island	LRBA	0.808	-0.012	0.070	0.184
cg00040268	salmon	7	27,152,899	5'UTR	N_Shore	HOXA3	0.808	-0.003	0.059	0.521
cg06951265	salmon	10	131,213,816		OpenSea		0.808	-0.002	0.357	0.853
cg15096829	salmon	1	202,092,005	TSS200	OpenSea	GPR37L1	0.808	-0.006	0.098	0.466
cg06314111	salmon	12	58,119,915	3'UTR	Island	AGAP2	0.807	0.004	0.130	0.672
cg17249170	salmon	10	119,305,798	Body	S_Shore	EMX2	0.807	0.005	0.238	0.608
cg16224163	salmon	3	187,870,621	TSS1500	N_Shore	LPP	0.807	-0.003	0.103	0.693
cg22736807	salmon	5	92,938,149		N_Shore		0.807	-0.008	0.108	0.462
cg16938363	salmon	6	1,614,285		Island		0.807	0.001	0.028	0.760
cg19353947	salmon	2	145,269,644	Body	N_Shelf	ZEB2	0.807	0.002	0.117	0.837
cg26104986	salmon	11	75,275,303	5'UTR	S_Shore	SERPINH1	0.807	-0.012	0.099	0.107
cg02154252	salmon	1	79,472,532	TSS200	Island	ELTD1	0.807	-0.003	0.093	0.591
cg27338807	salmon	16	87,739,385	TSS200	S_Shore	LOC1001296	0.807	-0.006	0.142	0.473
cg07508304	salmon	16	85,208,316		S_Shelf		0.807	-0.005	0.324	0.687
cg02106682	salmon	7	27,184,461	TSS1500	Island	HOXA5	0.806	0.001	0.123	0.915
cg18202834	salmon	1	232,689,426		OpenSea		0.806	-0.002	0.403	0.789
cg26474043	salmon	5	148,442,857	TSS200	OpenSea	SH3TC2	0.806	-0.002	0.064	0.706
cg09825979	salmon	7	27,179,432		Island		0.806	-0.006	0.139	0.521
cg09059319	salmon	8	99,986,175		Island		0.806	-0.005	0.094	0.550
cg09498948	salmon	8	93,116,100		S_Shore		0.805	-0.005	0.053	0.373
cg06264984	salmon	2	38,300,885	Body	N_Shore	CYP1B1	0.805	0.006	0.102	0.604
cg23340218	salmon	3	23,653,462		OpenSea		0.805	0.000	0.098	0.961
cg26884581	salmon	11	64,527,414	1stExon	OpenSea	PYGM	0.804	0.000	0.094	0.982
cg00715696	salmon	16	85,660,534	5'UTR	S_Shore	KIAA0182	0.804	-0.005	0.103	0.595
cg16549043	salmon	1	156,050,126	Body	N_Shore	MEX3A	0.804	-0.001	0.066	0.797
cg01572694	salmon	17	46,657,555	TSS1500	N_Shore	MIR10A	0.804	-0.006	0.094	0.613
cg23659289	salmon	17	43,472,725	3'UTR	Island	ARHGAP27	0.804	-0.005	0.043	0.432
cg14316944	salmon	17	79,485,529		N_Shore		0.804	-0.004	0.075	0.570
cg14477868	salmon	5	92,938,260		N_Shore		0.804	-0.002	0.101	0.866
cg16341836	salmon	10	90,641,389	5'UTR	S_Shore	STAMBPL1	0.803	-0.005	0.405	0.615
cg06984903	salmon	16	73,100,426		Island		0.803	-0.024	0.183	0.050
cg00955808	salmon	6	21,754,525	Body	OpenSea	FLJ22536	0.803	-0.011	0.419	0.499
cg09172260	salmon	1	1,536,101		Island		0.803	-0.003	0.179	0.630
cg17882587	salmon	2	18,933,408		OpenSea		0.803	0.002	0.379	0.805
cg02150018	salmon	12	56,781,267		OpenSea		0.803	-0.002	0.177	0.765
cg23878494	salmon	11	63,687,937		S_Shore		0.803	-0.002	0.119	0.774
cg20079298	salmon	15	40,572,326		Island		0.802	-0.001	0.024	0.762
cg04290119	salmon	6	73,330,208	TSS1500	N_Shore	KCNQ5	0.802	-0.003	0.046	0.452
cg02317313	salmon	12	122,235,206	Body	Island	LOC338799	0.801	-0.006	0.072	0.380
cg05462339	salmon	5	138,311,077	Body	OpenSea	SIL1	0.801	-0.006	0.142	0.381
cg19066171	salmon	4	72,061,917	5'UTR	OpenSea	SLC4A4	0.801	-0.016	0.132	0.132
cg18149394	salmon	2	242,446,735	Body	N_Shore	STK25	0.801	-0.004	0.096	0.431
cg10832655	salmon	4	121,991,576	5'UTR	N_Shore	C4orf31	0.801	-0.001	0.205	0.944

cg06695286	salmon	12	42,880,445	5'UTR	S_Shelf	PRICKLE1	0.801	0.008	0.420	0.420
cg03586564	salmon	18	77,158,676	Body	Island	NFATC1	0.801	-0.010	0.362	0.437
cg17833265	salmon	17	48,042,135		Island		0.800	-0.004	0.036	0.243
cg04221877	salmon	1	25,257,515	TSS1500	Island	RUNX3	0.800	-0.003	0.142	0.843
cg04352088	salmon	22	43,609,331	Body	S_Shelf	SCUBE1	0.800	-0.004	0.052	0.238
cg24704476	salmon	1	956,799	Body	S_Shore	AGRN	0.800	-0.012	0.194	0.239
cg22598426	salmon	4	85,417,755	Body	Island	NKX6-1	0.800	-0.003	0.107	0.762
cg07884255	salmon	7	33,804,562		OpenSea		0.800	-0.014	0.325	0.200
cg25988321	salmon	14	95,238,750		N_Shore		0.800	-0.002	0.057	0.677
cg18680977	salmon	7	27,155,039	5'UTR	Island	HOXA3	0.799	-0.002	0.118	0.849
cg04232360	salmon	1	2,792,744		OpenSea		0.799	0.001	0.126	0.914
cg01557951	salmon	1	50,892,299		N_Shore		0.799	0.004	0.111	0.596
cg01757168	salmon	3	128,215,565		Island		0.799	-0.005	0.048	0.328
cg04778178	salmon	7	27,162,294	5'UTR	Island	HOXA3	0.798	-0.001	0.094	0.832
cg09144964	salmon	7	27,150,262	5'UTR	Island	HOXA3	0.798	-0.003	0.158	0.759
cg00053916	salmon	8	37,457,329		OpenSea		0.798	-0.003	0.081	0.682
cg07049592	salmon	7	27,184,450	TSS1500	Island	HOXA5	0.797	0.006	0.153	0.666
cg01328703	salmon	3	142,836,347		N_Shore		0.797	-0.002	0.487	0.857
cg13967702	salmon	1	217,312,060	TSS1500	S_Shore	ESRRG	0.797	-0.004	0.061	0.514
cg25141995	salmon	5	133,341,459	TSS1500	Island	VDAC1	0.797	-0.006	0.290	0.236
cg06996175	salmon	19	2,546,877	5'UTR	Island	GNF7	0.797	-0.003	0.054	0.563
cg02988727	salmon	14	21,567,520	5'UTR	S_Shore	ZNF219	0.797	-0.001	0.059	0.845
cg09430976	salmon	8	25,907,314		N_Shore		0.797	0.001	0.066	0.861
cg20889395	salmon	17	48,912,556	TSS200	OpenSea	WFIKKN2	0.796	-0.002	0.116	0.873
cg01516005	salmon	10	122,709,814		S_Shore		0.796	0.002	0.054	0.735
cg03670908	salmon	3	40,966,965		OpenSea		0.796	-0.010	0.172	0.260
cg11969213	salmon	17	43,324,322	TSS1500	N_Shore	LOC10013391	0.796	-0.004	0.031	0.248
cg02665578	salmon	20	62,153,239	3'UTR	Island	PPDPF	0.796	0.000	0.126	0.968
cg04872399	salmon	1	201,346,784	5'UTR	OpenSea	TNNT2	0.796	-0.009	0.077	0.137
cg09825080	salmon	16	86,940,337		OpenSea		0.796	0.003	0.373	0.786
cg05584759	salmon	12	57,869,421	Body	Island	ARHGAP9	0.795	-0.005	0.105	0.467
cg24369728	salmon	10	77,472,158		OpenSea		0.795	0.003	0.030	0.382
cg09858862	salmon	1	23,887,514	TSS1500	S_Shore	ID3	0.795	-0.007	0.344	0.560
cg18342060	salmon	11	10,321,757		N_Shelf		0.795	-0.018	0.513	0.185
cg10408284	salmon	17	48,912,327	TSS1500	OpenSea	WFIKKN2	0.794	-0.002	0.061	0.606
cg17466082	salmon	2	1,557,859		OpenSea		0.794	-0.010	0.166	0.196
cg03051392	salmon	3	50,360,176	5'UTR	S_Shore	HYAL2	0.794	-0.004	0.119	0.561
cg14543255	salmon	17	8,905,775		N_Shore		0.794	-0.002	0.038	0.760
cg15903032	salmon	10	101,297,605		Island		0.794	-0.001	0.095	0.903
cg05227215	salmon	5	139,057,496	5'UTR	S_Shore	CXXC5	0.794	-0.001	0.101	0.953
cg02149069	salmon	12	6,649,733	Body	Island	IFFO1	0.794	-0.005	0.107	0.329
cg01494399	salmon	16	81,709,890	Body	N_Shore	CMIP	0.794	-0.007	0.219	0.301
cg18316974	salmon	1	92,947,035	Body	Island	GFI1	0.793	-0.001	0.089	0.936
cg18468354	salmon	14	36,993,517		Island		0.793	-0.005	0.051	0.351
cg17158913	salmon	1	10,764,886	5'UTR	Island	CASZ1	0.793	0.000	0.075	0.995
cg12543949	salmon	4	159,094,034	TSS1500	OpenSea	FAM198B	0.793	0.001	0.115	0.895
cg05895403	salmon	16	31,150,380	3'UTR	N_Shelf	PRSS36	0.793	0.004	0.100	0.514
cg04798016	salmon	11	65,375,067	Body	Island	MAP3K11	0.792	-0.012	0.121	0.289
cg10749822	salmon	11	44,332,913	TSS1500	S_Shore	ALX4	0.792	0.002	0.183	0.805
cg17568611	salmon	10	12,543,618	Body	OpenSea	CAMK1D	0.792	0.000	0.230	0.981
cg27338466	salmon	10	95,059,631		OpenSea		0.792	0.000	0.056	0.980
cg04514255	salmon	17	46,658,170	TSS1500	N_Shore	MIR10A	0.792	0.000	0.215	0.967
cg26838949	salmon	1	200,985,069	Body	OpenSea	KIF21B	0.791	-0.003	0.337	0.747
cg03595881	salmon	8	25,895,105	Body	N_Shelf	EBF2	0.791	-0.003	0.273	0.859
cg17278960	salmon	1	59,775,908	5'UTR	OpenSea	FGGY	0.791	-0.001	0.468	0.917
cg02303505	salmon	8	91,592,157		OpenSea		0.791	0.001	0.060	0.911
cg09814127	salmon	14	103,593,235	Body	Island	TNFAIP2	0.791	-0.002	0.130	0.816
cg00815644	salmon	7	28,205,577	Body	OpenSea	JAZF1	0.791	-0.003	0.319	0.802
cg03536885	salmon	7	27,163,820	5'UTR	Island	HOXA3	0.790	-0.001	0.099	0.909
cg24360871	salmon	7	27,163,929	5'UTR	Island	HOXA3	0.790	-0.006	0.053	0.399
cg04226002	salmon	11	113,953,462	Body	N_Shore	ZBTB16	0.790	-0.008	0.423	0.394
cg04635983	salmon	5	3,602,558		Island		0.790	-0.009	0.178	0.493
cg02343604	salmon	1	23,884,703	3'UTR	N_Shore	ID3	0.789	-0.011	0.071	0.042
cg17721879	salmon	5	158,532,473		Island		0.789	0.012	0.084	0.296
cg06908618	salmon	16	87,739,453	TSS200	S_Shore	LOC10012961	0.789	-0.001	0.060	0.798
cg26402660	salmon	7	27,179,268		Island		0.789	-0.002	0.054	0.795
cg23766724	salmon	7	27,172,631		S_Shore		0.789	-0.021	0.312	0.158

cg20203114	salmon	3	169,382,106	TSS1500	S_Shore	MECOM	0.789	-0.002	0.029	0.211
cg04360675	salmon	4	90,630,122		OpenSea		0.788	-0.018	0.243	0.213
cg20674490	salmon	1	25,240,932	Body	OpenSea	RUNX3	0.788	-0.012	0.204	0.234
cg10642548	salmon	10	77,165,750	Body	Island	C10orf41	0.788	-0.004	0.308	0.719
cg00082939	salmon	10	77,165,293	Body	Island	C10orf41	0.788	-0.004	0.091	0.768
cg10987682	salmon	2	23,509,827		OpenSea		0.788	0.000	0.414	0.981
cg14374799	salmon	8	21,882,942	Body	S_Shore	NPM2	0.788	-0.007	0.117	0.364
cg08715231	salmon	8	25,906,064		S_Shore		0.787	0.002	0.050	0.382
cg06626184	salmon	9	126,775,931	Body	Island	LHX2	0.787	-0.004	0.104	0.533
cg21010475	salmon	4	42,401,610	Body	S_Shore	SHISA3	0.787	-0.001	0.089	0.882
cg12037450	salmon	1	85,513,124	5'UTR	N_Shore	MCOLN3	0.787	-0.002	0.041	0.696
cg04334651	salmon	16	4,366,968		Island		0.786	-0.008	0.056	0.158
cg26442852	salmon	11	2,431,603	Body	N_Shelf	TRPM5	0.786	-0.007	0.085	0.297
cg27566403	salmon	17	76,719,612	Body	OpenSea	CYTH1	0.786	-0.002	0.151	0.804
cg06772717	salmon	8	72,466,764		N_Shore		0.785	-0.001	0.081	0.955
cg10002066	salmon	13	114,896,192	Body	N_Shore	RASA3	0.785	-0.002	0.269	0.741
cg14389547	salmon	19	3,398,778	Body	Island	NFIC	0.785	-0.001	0.127	0.896
cg17153122	salmon	6	1,311,165		Island		0.785	-0.004	0.047	0.480
cg11599981	salmon	19	6,475,902	Body	Island	DENND1C	0.785	-0.014	0.116	0.146
cg13764350	salmon	6	159,247,062		OpenSea		0.785	-0.009	0.218	0.308
cg22935317	salmon	14	23,447,078	Body	N_Shelf	JUB	0.784	-0.002	0.063	0.660
cg14427527	salmon	5	176,793,960	Body	Island	RGS14	0.784	-0.003	0.109	0.770
cg05949660	salmon	6	109,777,642	TSS1500	Island	MICAL1	0.784	0.004	0.122	0.463
cg19685491	salmon	12	2,800,278	Body	Island	CACNA1C	0.784	-0.002	0.125	0.895
cg02402882	salmon	5	56,620,429		OpenSea		0.784	0.002	0.143	0.784
cg07617338	salmon	2	63,285,846		N_Shore		0.784	-0.001	0.078	0.929
cg20608085	salmon	11	45,943,130	TSS200	N_Shore	GYLTL1B	0.784	-0.005	0.077	0.359
cg13424029	salmon	10	101,297,508		Island		0.783	0.004	0.039	0.167
cg16406967	salmon	7	27,155,036	5'UTR	Island	HOXA3	0.783	0.001	0.086	0.927
cg09278107	salmon	14	105,779,826	TSS1500	N_Shore	PACS2	0.783	-0.003	0.239	0.600
cg06880667	salmon	6	10,416,337	Body	N_Shore	TFAP2A	0.782	0.000	0.161	0.985
cg11419931	salmon	17	46,570,504		Island		0.782	-0.008	0.234	0.381
cg13731808	salmon	9	138,250,282		OpenSea		0.782	-0.013	0.215	0.158
cg02189760	salmon	19	49,842,655	Body	Island	CD37	0.782	-0.006	0.102	0.433
cg05644462	salmon	16	85,261,785		OpenSea		0.782	-0.007	0.185	0.262
cg11080549	salmon	5	92,909,968	Body	S_Shore	FLJ42709	0.782	-0.014	0.136	0.188
cg16656493	salmon	6	42,893,167	Body	Island	PTCRA	0.781	-0.013	0.257	0.271
cg07197059	salmon	14	23,836,012	TSS1500	S_Shore	EF3	0.781	-0.005	0.052	0.183
cg06902698	salmon	1	151,137,676	TSS1500	OpenSea	SCNM1	0.781	-0.001	0.057	0.800
cg01154283	salmon	2	36,603,543	Body	OpenSea	CRIM1	0.781	-0.009	0.122	0.267
cg25342568	salmon	4	1,768,564		Island		0.780	-0.006	0.076	0.287
cg10316525	salmon	15	40,572,137		Island		0.780	-0.001	0.042	0.826
cg18011517	salmon	2	42,175,341		OpenSea		0.780	0.000	0.024	0.904
cg00928816	salmon	10	63,809,098	Body	OpenSea	ARID5B	0.780	-0.006	0.127	0.451
cg13566436	salmon	1	25,240,865	Body	OpenSea	RUNX3	0.779	-0.013	0.163	0.213
cg27560796	salmon	6	33,864,689		OpenSea		0.779	-0.006	0.105	0.302
cg00654888	salmon	2	119,603,133	Body	Island	EN1	0.779	-0.007	0.085	0.187
cg12334488	salmon	2	20,871,173	Body	Island	GDF7	0.779	-0.001	0.179	0.923
cg18526607	salmon	5	54,519,307		Island		0.779	-0.005	0.057	0.664
cg09508531	salmon	5	122,424,059	TSS1500	N_Shore	PRDM6	0.779	0.007	0.073	0.544
cg05575639	salmon	8	61,593,696	5'UTR	S_Shore	CHD7	0.779	0.002	0.107	0.851
cg10982443	salmon	14	20,903,611	5'UTR	Island	KLHL33	0.779	-0.005	0.037	0.363
cg11971423	salmon	17	46,653,711	3'UTR	N_Shore	HOXB4	0.779	0.000	0.132	0.980
cg24945231	salmon	6	41,339,246		Island		0.778	0.002	0.058	0.821
cg20608100	salmon	19	39,797,750	3'UTR	N_Shore	LRFN1	0.778	-0.002	0.057	0.698
cg14574951	salmon	3	55,861,102	Body	OpenSea	ERC2	0.778	-0.022	0.187	0.082
cg03120475	salmon	10	15,411,913	Body	N_Shore	FAM171A1	0.778	-0.005	0.049	0.178
cg17826679	salmon	19	10,736,038	TSS200	Island	SLC44A2	0.777	-0.002	0.038	0.715
cg19089201	salmon	7	45,002,287	3'UTR	Island	MYO1G	0.777	-0.002	0.113	0.874
cg00518266	salmon	6	5,997,791		N_Shore		0.777	0.000	0.045	0.897
cg09050331	salmon	8	70,984,917	TSS1500	S_Shore	PRDM14	0.777	0.000	0.021	0.961
cg14776738	salmon	19	6,476,756	Body	Island	DENND1C	0.777	-0.003	0.078	0.722
cg19142043	salmon	3	29,724,842	Body	OpenSea	RBMS3	0.777	-0.011	0.242	0.366
cg19031429	salmon	7	2,519,831		OpenSea		0.776	-0.004	0.202	0.621
cg01657186	salmon	12	679,900	Body	S_Shore	NINJ2	0.776	0.000	0.059	0.958
cg18064468	salmon	17	46,570,458		Island		0.776	-0.006	0.137	0.618
cg18175809	salmon	3	62,355,525	3'UTR	Island	FEZF2	0.776	-0.001	0.027	0.649

cg26844213	salmon	6	11,233,592	TSS1500	OpenSea	NEDD9	0.776	-0.007	0.229	0.420
cg18603473	salmon	10	50,143,375	Body	OpenSea	WDFY4	0.776	0.001	0.063	0.890
cg17397607	salmon	2	205,403,360		OpenSea		0.776	0.004	0.268	0.641
cg06050642	salmon	22	23,864,344		Island		0.776	0.001	0.042	0.874
cg19442201	salmon	15	40,572,550		Island		0.776	-0.003	0.039	0.410
cg13822849	salmon	9	137,999,757	Body	S_Shelf	OLFM1	0.775	0.002	0.061	0.813
cg07522913	salmon	7	27,150,403	5'UTR	Island	HOXA3	0.775	-0.006	0.088	0.471
cg17775899	salmon	7	27,179,426		Island		0.775	-0.004	0.190	0.675
cg25036779	salmon	6	1,615,236		Island		0.775	0.001	0.062	0.899
cg02747823	salmon	10	112,444,852	Body	OpenSea	RBM20	0.775	0.004	0.271	0.778
cg01613691	salmon	19	1,105,380	Body	Island	GPX4	0.775	-0.012	0.154	0.031
cg09798077	salmon	5	60,899,133		OpenSea		0.775	0.012	0.180	0.282
cg04604708	salmon	7	137,638,053	Body	OpenSea	CREB3L2	0.774	0.000	0.192	0.996
cg09482093	salmon	17	19,314,328	TSS200	OpenSea	RNF112	0.774	-0.009	0.188	0.234
cg24757533	salmon	17	74,494,286	5'UTR	N_Shelf	RHBDF2	0.774	0.002	0.089	0.778
cg20045155	salmon	14	54,348,098		OpenSea		0.774	-0.001	0.115	0.940
cg14845812	salmon	2	45,240,373		Island		0.774	-0.001	0.122	0.975
cg01521258	salmon	1	64,937,528	Body	S_Shore	CACHD1	0.773	-0.003	0.029	0.371
cg14131038	salmon	2	106,360,709	TSS1500	N_Shore	NCK2	0.773	-0.003	0.094	0.786
cg13828227	salmon	9	130,517,095	Body	Island	SH2D3C	0.773	-0.001	0.224	0.895
cg18195765	salmon	1	23,006,953		S_Shelf		0.773	0.001	0.402	0.917
cg00470044	salmon	2	28,456,184	Body	OpenSea	BRE	0.773	-0.003	0.084	0.663
cg14178043	salmon	1	223,921,358	Body	OpenSea	CAPN2	0.772	-0.007	0.208	0.381
cg01539849	salmon	11	47,376,754	3'UTR	Island	SPI1	0.771	-0.005	0.181	0.664
cg11737757	salmon	1	2,885,168		Island		0.770	-0.006	0.149	0.557
cg09870137	salmon	22	46,320,026	Body	S_Shore	WNT7B	0.770	-0.007	0.078	0.191
cg07996594	salmon	1	25,257,505	TSS1500	Island	RUNX3	0.770	-0.013	0.090	0.370
cg13768290	salmon	2	63,285,491		N_Shore		0.770	0.006	0.077	0.454
cg23884175	salmon	11	76,495,749	5'UTR	S_Shore	TSKU	0.770	0.000	0.093	0.953
cg04745662	salmon	16	86,852,700		OpenSea		0.769	-0.004	0.286	0.555
cg01357135	salmon	3	160,475,128	Body	S_Shore	PPM1L	0.769	-0.001	0.035	0.626
cg06077443	salmon	18	10,457,385	Body	S_Shelf	APCDD1	0.769	-0.006	0.267	0.780
cg00770998	salmon	14	61,119,707		N_Shelf		0.769	-0.001	0.082	0.861
cg16482878	salmon	15	37,402,488		N_Shore		0.768	0.006	0.104	0.548
cg16483033	salmon	17	1,090,441	1stExon	OpenSea	ABR	0.768	0.001	0.331	0.898
cg25449950	salmon	4	24,797,174	5'UTR	N_Shelf	SOD3	0.768	0.000	0.033	0.916
cg00511334	salmon	16	67,918,840	1stExon	Island	NRN1L	0.768	0.001	0.221	0.948
cg17889682	salmon	7	95,402,733	5'UTR	S_Shore	DYNC111	0.768	-0.005	0.059	0.402
cg22132788	salmon	7	45,002,486	Body	Island	MYO1G	0.768	-0.003	0.094	0.789
cg21100077	salmon	13	100,627,366		S_Shelf		0.767	-0.009	0.049	0.137
cg25903783	salmon	17	59,475,486		Island		0.767	0.000	0.090	0.951
cg19177125	salmon	18	19,752,414	Body	S_Shore	GATA6	0.767	-0.012	0.232	0.338
cg11853830	salmon	5	92,914,036	Body	N_Shore	FLJ42709	0.767	-0.002	0.423	0.833
cg19256813	salmon	12	117,627,286	Body	N_Shore	FBXO21	0.767	-0.001	0.039	0.781
cg07276534	salmon	3	193,534,580		OpenSea		0.767	-0.002	0.059	0.749
cg06992285	salmon	8	99,952,047		Island		0.766	-0.003	0.030	0.215
cg19817912	salmon	7	27,162,768	5'UTR	N_Shore	HOXA3	0.766	-0.006	0.074	0.346
cg14286208	salmon	14	20,903,445	5'UTR	Island	KLHL33	0.766	0.000	0.097	0.952
cg05917713	salmon	6	42,264,793	5'UTR	OpenSea	TRERF1	0.765	0.011	0.445	0.260
cg20710709	salmon	14	37,135,671	Body	Island	PAX9	0.765	-0.008	0.136	0.443
cg14439622	salmon	18	19,752,292	Body	Island	GATA6	0.765	-0.002	0.040	0.758
cg02857760	salmon	2	177,012,562		Island		0.764	0.002	0.055	0.684
cg24041556	salmon	19	10,736,059	TSS200	Island	SLC44A2	0.764	-0.003	0.038	0.525
cg10865498	salmon	20	35,975,022	5'UTR	S_Shore	SRC	0.764	-0.002	0.076	0.744
cg10993442	salmon	1	25,257,587	TSS1500	Island	RUNX3	0.764	-0.005	0.234	0.575
cg11826961	salmon	17	38,221,639	5'UTR	S_Shore	THRA	0.764	-0.004	0.048	0.249
cg12919119	salmon	3	37,904,293	Body	S_Shore	CTDSPL	0.764	-0.001	0.129	0.891
cg03583016	salmon	2	200,331,675	TSS1500	S_Shore	FLJ32063	0.764	0.000	0.033	0.905
cg07973435	salmon	6	100,905,458	Body	Island	SIM1	0.764	-0.003	0.049	0.639
cg08126875	salmon	6	125,743,207		OpenSea		0.763	0.002	0.055	0.742
cg14710529	salmon	2	9,387,472	Body	OpenSea	ASAP2	0.763	-0.005	0.472	0.480
cg18123948	salmon	8	11,560,781	TSS1500	Island	GATA4	0.763	-0.004	0.055	0.327
cg23307680	salmon	13	38,443,104	5'UTR	N_Shore	TRPC4	0.763	-0.008	0.050	0.149
cg00200734	salmon	9	970,379		Island		0.763	0.000	0.053	0.947
cg05487507	salmon	17	46,671,861	Body	N_Shore	LOC404266	0.763	-0.002	0.214	0.821
cg19048532	salmon	7	27,148,002	Body	Island	HOXA3	0.763	-0.014	0.188	0.321
cg05228404	salmon	10	125,851,279		Island		0.763	0.001	0.022	0.512

cg23595222	salmon	22	46,449,430	Body	N_Shore	C22orf26	0.763	0.002	0.070	0.753
cg14202679	salmon	6	99,276,357		S_Shore		0.762	-0.004	0.036	0.159
cg21806242	salmon	11	72,532,891	Body	Island	ATG16L2	0.762	-0.021	0.105	0.096
cg13512268	salmon	7	27,183,973	TSS1500	Island	HOXA5	0.762	0.002	0.108	0.864
cg02952809	salmon	7	128,094,710	TSS1500	N_Shore	C7orf68	0.762	-0.009	0.068	0.188
cg13466694	salmon	9	129,380,728	Body	S_Shelf	LMX1B	0.761	-0.003	0.043	0.540
cg14512563	salmon	15	96,897,190		Island		0.761	-0.010	0.100	0.294
cg23697796	salmon	10	93,334,974	Body	OpenSea	LOC1001889	0.761	-0.005	0.147	0.535
cg08155249	salmon	5	72,919,936		N_Shore		0.761	0.001	0.116	0.903
cg01745499	salmon	6	34,206,084	5'UTR	Island	HMGA1	0.760	-0.010	0.125	0.084
cg21495653	salmon	4	13,550,589	TSS1500	S_Shore	LOC285548	0.760	0.002	0.040	0.624
cg03564338	salmon	16	50,585,384	Body	S_Shore	NKD1	0.760	0.002	0.254	0.834
cg17280740	salmon	11	31,840,862	TSS1500	N_Shore	PAX6	0.760	-0.008	0.180	0.320
cg21700511	salmon	20	3,713,032	TSS1500	N_Shore	HSPA12B	0.760	-0.004	0.060	0.444
cg16880946	salmon	7	27,188,465	TSS1500	N_Shore	HOXA6	0.760	-0.011	0.201	0.298
cg22507723	salmon	12	58,131,768	1stExon	Island	AGAP2	0.759	-0.009	0.086	0.351
cg00969405	salmon	7	27,184,441	TSS1500	Island	HOXA5	0.759	-0.002	0.081	0.834
cg12594244	salmon	15	74,218,754	TSS200	Island	LOXL1	0.759	-0.001	0.058	0.886
cg23667127	salmon	12	1,739,917	5'UTR	S_Shore	WNT5B	0.759	0.003	0.061	0.705
cg12163132	salmon	17	59,475,917	TSS1500	Island	TBX2	0.759	0.007	0.079	0.291
cg22977892	salmon	8	25,907,769		N_Shore		0.758	-0.005	0.062	0.542
cg09978353	salmon	17	72,759,282	Body	OpenSea	SLC9A3R1	0.758	-0.003	0.063	0.702
cg07763467	salmon	10	7,383,727	Body	OpenSea	SFMBT2	0.758	-0.005	0.258	0.650
cg19858749	salmon	12	114,882,068		S_Shore		0.758	0.001	0.197	0.956
cg03871267	salmon	5	67,483,475		OpenSea		0.758	-0.005	0.142	0.603
cg13695746	salmon	10	13,002,582	Body	OpenSea	CCDC3	0.758	-0.005	0.101	0.583
cg14644557	salmon	10	31,300,871	5'UTR	OpenSea	ZNF438	0.758	0.000	0.441	0.971
cg12528056	salmon	11	60,619,955	3'UTR	Island	GPR44	0.757	-0.008	0.164	0.574
cg06386307	salmon	6	100,895,211	Body	Island	SIM1	0.757	-0.009	0.143	0.449
cg04462561	salmon	13	24,837,937	Body	OpenSea	SPATA13	0.757	-0.004	0.055	0.351
cg16729850	salmon	12	53,339,813		N_Shelf		0.757	-0.004	0.053	0.219
cg05321361	salmon	5	2,750,263	Body	Island	IRX2	0.756	-0.002	0.078	0.646
cg24842859	salmon	1	25,257,599	TSS1500	Island	RUNX3	0.756	-0.007	0.087	0.415
cg15658793	salmon	19	3,398,810	Body	Island	NFIC	0.756	-0.001	0.113	0.912
cg21195468	salmon	9	126,773,095	TSS1500	N_Shore	LHX2	0.756	-0.003	0.066	0.440
cg02829688	salmon	1	119,527,008	5'UTR	Island	TBX15	0.756	-0.007	0.045	0.068
cg10820551	salmon	22	45,608,345	Body	OpenSea	C22orf9	0.756	0.002	0.090	0.785
cg02985787	salmon	6	140,287,064		OpenSea		0.755	-0.010	0.130	0.237
cg18768784	salmon	3	141,516,271	Body	Island	GRK7	0.755	-0.001	0.023	0.690
cg05851442	salmon	7	27,153,212	5'UTR	Island	HOXA3	0.755	-0.004	0.125	0.730
cg11630996	salmon	6	47,113,599		OpenSea		0.755	-0.009	0.539	0.416
cg07214164	salmon	2	105,480,254		Island		0.755	-0.006	0.090	0.591
cg04831795	salmon	7	80,471,317	Body	OpenSea	SEMA3C	0.755	-0.001	0.489	0.951
cg15279308	salmon	12	2,800,500	3'UTR	Island	CACNA1C	0.755	-0.007	0.090	0.539
cg24797276	salmon	13	44,111,314	5'UTR	OpenSea	ENOX1	0.755	-0.018	0.449	0.132
cg18592365	salmon	1	79,472,536	TSS200	Island	ELTD1	0.754	0.003	0.108	0.640
cg26094789	salmon	14	37,135,586	Body	Island	PAX9	0.754	-0.005	0.117	0.686
cg22905282	salmon	10	100,175,540	TSS1500	OpenSea	PYROXD2	0.754	-0.001	0.081	0.812
cg03579904	salmon	16	87,739,430	TSS200	S_Shore	LOC1001296	0.754	-0.008	0.149	0.474
cg08587845	salmon	5	134,870,506	1stExon	N_Shore	NEUROG1	0.754	-0.006	0.052	0.314
cg02852238	salmon	15	42,174,934	Body	S_Shore	SPTBN5	0.754	0.003	0.232	0.650
cg01803759	salmon	1	27,831,295		OpenSea		0.754	-0.004	0.063	0.541
cg16735881	salmon	13	36,045,352	Body	Island	NBEA	0.754	0.000	0.039	0.928
cg18261205	salmon	15	96,897,151		Island		0.754	-0.008	0.065	0.199
cg13547767	salmon	17	16,205,608	Body	OpenSea	PIGL	0.753	0.000	0.492	0.962
cg07153966	salmon	7	27,147,590	Body	Island	HOXA3	0.753	-0.001	0.087	0.825
cg16191087	salmon	9	116,225,764	TSS1500	Island	RGS3	0.753	-0.004	0.107	0.621
cg18147543	salmon	1	16,276,294	5'UTR	OpenSea	ZBTB17	0.753	0.001	0.035	0.708
cg17820591	salmon	17	4,853,706	TSS1500	Island	ENO3	0.753	-0.002	0.028	0.456
cg14688662	salmon	7	1,688,174		S_Shore		0.753	-0.006	0.082	0.366
cg18455390	salmon	17	76,719,591	Body	OpenSea	CYTH1	0.752	-0.008	0.305	0.347
cg03521774	salmon	8	81,478,172		OpenSea		0.752	0.000	0.041	0.965
cg23925513	salmon	17	6,923,526		N_Shore		0.752	-0.002	0.052	0.609
cg07608033	salmon	10	36,056,930		S_Shelf		0.752	-0.013	0.400	0.388
cg01397521	salmon	2	232,546,381		S_Shore		0.752	-0.006	0.071	0.247
cg21422016	salmon	7	1,753,659	5'UTR	Island	ELFN1	0.752	-0.005	0.273	0.587
cg03879971	salmon	11	102,123,441		OpenSea		0.752	-0.013	0.456	0.217

cg17902551	salmon	12	2,801,061	3'UTR	Island	CACNA1C	0.751	-0.005	0.100	0.643
cg19940312	salmon	4	20,257,590	Body	S_Shore	SLIT2	0.751	0.000	0.145	0.983
cg25449484	salmon	5	92,929,372	Body	Island	NR2F1	0.751	-0.003	0.185	0.839
cg09148852	salmon	12	122,235,169	Body	Island	LOC338799	0.751	-0.001	0.038	0.775
cg10635061	salmon	2	106,055,006	1stExon	OpenSea	FHL2	0.751	-0.006	0.164	0.242
cg01888395	salmon	9	132,145,105		N_Shore		0.751	-0.004	0.130	0.630
cg27331292	salmon	9	130,516,695	Body	Island	SH2D3C	0.751	0.008	0.203	0.382
cg04027548	salmon	12	21,926,447	Body	OpenSea	KCNJ8	0.751	-0.002	0.281	0.900
cg14523817	salmon	1	212,455,336		N_Shelf		0.751	-0.022	0.508	0.146
cg13359161	salmon	4	124,552,897		OpenSea		0.750	-0.011	0.377	0.154
cg10356759	salmon	12	248,889	Body	S_Shore	IQSEC3	0.750	0.000	0.020	0.887
cg10583043	salmon	5	92,931,401		S_Shore		0.750	-0.012	0.258	0.297
cg20459849	salmon	2	161,127,884		S_Shore		0.750	-0.011	0.199	0.344
cg13206063	salmon	6	109,777,592	TSS1500	Island	MICAL1	0.750	-0.001	0.067	0.855
cg21243944	salmon	9	137,118,148		OpenSea		0.750	-0.008	0.063	0.415
cg04185382	salmon	16	4,424,441	5'UTR	S_Shelf	VASN	0.750	-0.010	0.170	0.357
cg11929842	salmon	1	27,677,872	Body	Island	SYTL1	0.750	-0.018	0.223	0.211
cg01843189	salmon	9	100,612,587		N_Shore		0.750	0.001	0.045	0.825
cg06390651	salmon	2	177,023,667		N_Shore		0.750	-0.003	0.034	0.208
cg24761525	salmon	17	46,651,745	5'UTR	N_Shelf	HOXB3	0.750	-0.011	0.108	0.235
cg03832522	salmon	2	218,898,668		Island		0.749	0.000	0.043	0.974
cg22688564	salmon	19	6,271,968	Body	Island	MLLT1	0.749	-0.013	0.160	0.104
cg11622008	salmon	3	140,769,610	TSS1500	N_Shore	SPSB4	0.749	0.004	0.123	0.626
cg14493161	salmon	13	95,363,007	1stExon	N_Shore	SOX21	0.749	-0.006	0.065	0.270
cg13289579	salmon	8	142,289,876		OpenSea		0.749	0.001	0.084	0.926
cg27153155	salmon	6	100,901,804	Body	N_Shore	SIM1	0.749	-0.003	0.029	0.110
cg05487895	salmon	5	139,080,952		N_Shore		0.749	-0.002	0.037	0.506
cg17930194	salmon	9	124,982,834	Body	Island	LHX6	0.748	0.000	0.015	0.800
cg23664396	salmon	1	23,895,366		S_Shore		0.747	0.003	0.095	0.699
cg00682096	salmon	17	46,672,924	Body	N_Shore	LOC404266	0.747	-0.010	0.232	0.511
cg23515702	salmon	2	206,673,425		OpenSea		0.747	0.000	0.517	0.997
cg16484401	salmon	6	133,188,400		OpenSea		0.747	0.003	0.174	0.717
cg02627455	salmon	7	27,157,818	5'UTR	S_Shelf	HOXA3	0.747	0.000	0.060	0.937
cg09672187	salmon	5	1,885,367		Island		0.747	-0.002	0.077	0.748
cg08079596	salmon	2	85,999,628	Body	OpenSea	ATOH8	0.747	0.002	0.047	0.711
cg13444413	salmon	12	58,131,011	1stExon	Island	AGAP2	0.747	-0.005	0.147	0.666
cg16116203	salmon	12	6,876,922	Body	Island	PTMS	0.747	-0.003	0.099	0.576
cg23160781	salmon	14	53,923,501		OpenSea		0.747	-0.007	0.549	0.432
cg12167548	salmon	2	8,464,763		OpenSea		0.747	-0.002	0.025	0.510
cg22185879	salmon	20	62,153,193	Body	Island	PPDPF	0.746	0.001	0.123	0.898
cg01609275	salmon	14	37,049,091		N_Shore		0.746	0.000	0.046	0.965
cg03736235	salmon	19	1,071,622	Body	Island	HMHA1	0.746	0.006	0.204	0.640
cg13882377	salmon	10	126,211,811	Body	OpenSea	LHPP	0.746	-0.005	0.052	0.437
cg01815912	salmon	16	2,089,851	3'UTR	S_Shore	NTHL1	0.746	-0.006	0.120	0.341
cg15089705	salmon	18	53,446,784		N_Shore		0.746	-0.005	0.044	0.339
cg06262069	salmon	10	77,165,905	Body	Island	C10orf41	0.746	-0.002	0.268	0.915
cg06707081	salmon	8	11,560,779	TSS1500	Island	GATA4	0.746	-0.007	0.062	0.348
cg24203800	salmon	17	8,702,868	TSS1500	S_Shore	MFS6L	0.745	-0.002	0.082	0.590
cg12517027	salmon	18	55,469,021		N_Shore		0.745	0.001	0.063	0.938
cg08791347	salmon	10	13,831,250	Body	OpenSea	FRMD4A	0.745	-0.007	0.382	0.341
cg03745491	salmon	19	6,476,951	Body	Island	DENND1C	0.745	-0.003	0.062	0.585
cg27403658	salmon	7	90,335,803		OpenSea		0.745	-0.011	0.314	0.371
cg06784824	salmon	11	47,376,985	Body	Island	SPI1	0.745	-0.003	0.039	0.406
cg25125060	salmon	6	108,488,915	Body	Island	NR2E1	0.745	0.004	0.064	0.636
cg05947740	salmon	8	22,089,778	1stExon	S_Shore	PHYHIP	0.745	-0.003	0.059	0.444
cg19735250	salmon	17	43,318,610	Body	Island	FMNL1	0.745	-0.004	0.145	0.725
cg17473712	salmon	1	64,287,452	Body	OpenSea	ROR1	0.744	0.005	0.241	0.484
cg18290233	salmon	5	92,931,173		S_Shore		0.744	-0.012	0.239	0.430
cg14757228	salmon	6	32,116,858	3'UTR	Island	PRRT1	0.744	0.002	0.051	0.715
cg01035931	salmon	19	47,367,462		S_Shelf		0.744	-0.009	0.238	0.178
cg18670770	salmon	4	121,991,672	5'UTR	N_Shore	C4orf31	0.744	0.001	0.048	0.936
cg23715045	salmon	11	124,621,944	Body	OpenSea	VSIG2	0.744	-0.008	0.213	0.454
cg09370594	salmon	19	2,291,872	5'UTR	Island	LINGO3	0.744	-0.008	0.144	0.574
cg16823042	salmon	12	58,119,992	3'UTR	Island	AGAP2	0.744	-0.006	0.044	0.423
cg13061124	salmon	8	58,903,894		N_Shelf		0.744	-0.014	0.345	0.298
cg04117801	salmon	17	46,651,867	TSS200	N_Shelf	HOXB3	0.744	-0.002	0.054	0.720
cg25296103	salmon	2	145,268,533	Body	OpenSea	ZEB2	0.743	0.004	0.081	0.732

cg04171235	salmon	17	46,604,393	Island		0.743	-0.011	0.104	0.413	
cg06849477	salmon	22	45,072,724	5'UTR	OpenSea	PRR5	0.743	-0.001	0.095	0.836
cg10536999	salmon	7	26,193,109	Body	S_Shore	NFE2L3	0.743	0.000	0.027	0.912
cg05766251	salmon	17	37,024,760	TSS1500	N_Shore	LASP1	0.743	0.002	0.159	0.842
cg08692733	salmon	10	112,404,738	Body	S_Shore	RBM20	0.743	-0.001	0.025	0.727
cg02483661	salmon	1	2,460,621	3'UTR	N_Shore	HES5	0.743	-0.003	0.093	0.718
cg04103021	salmon	4	174,441,703		N_Shore		0.743	-0.009	0.449	0.517
cg24859236	salmon	1	9,750,213	5'UTR	Island	PIK3CD	0.743	-0.005	0.050	0.339
cg24177393	salmon	5	43,037,517		Island		0.743	-0.001	0.035	0.889
cg21399057	salmon	17	46,631,910	5'UTR	Island	HOXB3	0.742	-0.005	0.115	0.494
cg12061917	salmon	6	29,601,556	TSS1500	S_Shore	GABBR1	0.742	-0.002	0.056	0.648
cg04132452	salmon	3	160,475,035	Body	S_Shore	PPM1L	0.742	-0.004	0.055	0.427
cg09502865	salmon	16	88,600,155	Body	Island	ZFPM1	0.742	-0.010	0.228	0.331
cg25932446	salmon	10	13,858,592	Body	OpenSea	FRMD4A	0.741	-0.001	0.428	0.958
cg23082862	salmon	10	128,993,115	5'UTR	N_Shore	FAM196A	0.741	0.001	0.046	0.748
cg14093610	salmon	2	223,162,666	Body	N_Shore	PAX3	0.741	-0.002	0.031	0.601
cg24535475	salmon	12	7,167,900	TSS200	OpenSea	C1S	0.741	-0.006	0.093	0.265
cg27364012	salmon	6	109,322,605	Body	OpenSea	SESN1	0.741	-0.028	0.384	0.163
cg26519401	salmon	4	53,729,056	Body	S_Shore	RASL11B	0.741	-0.006	0.065	0.308
cg14882265	salmon	7	27,184,375	TSS1500	Island	HOXA5	0.740	0.000	0.137	0.979
cg04337653	salmon	6	100,905,587	Body	Island	SIM1	0.740	-0.001	0.048	0.866
cg16748008	salmon	7	27,155,002	5'UTR	Island	HOXA3	0.740	0.001	0.036	0.745
cg19268976	salmon	19	41,129,636	Body	N_Shore	LTBP4	0.740	-0.003	0.243	0.673
cg04907257	salmon	5	7,395,318	TSS1500	Island	ADCY2	0.740	-0.004	0.035	0.256
cg01593673	salmon	17	46,648,014	5'UTR	OpenSea	HOXB3	0.739	-0.007	0.070	0.182
cg26297005	salmon	7	27,162,090	5'UTR	Island	HOXA3	0.739	-0.003	0.060	0.556
cg10654803	salmon	5	41,809,936	Body	OpenSea	OXCT1	0.739	-0.009	0.417	0.353
cg21173803	salmon	22	27,299,879		OpenSea		0.739	-0.006	0.167	0.406
cg18127680	salmon	3	187,871,034	TSS1500	N_Shore	LPP	0.739	-0.001	0.033	0.778
cg19333883	salmon	11	130,320,219	Body	S_Shore	ADAMTS15	0.739	0.000	0.090	0.989
cg08865365	salmon	19	45,948,021		Island		0.739	-0.008	0.070	0.144
cg13163919	salmon	15	70,388,014	Body	Island	TLE3	0.738	-0.001	0.053	0.739
cg08398805	salmon	8	25,904,621		Island		0.738	-0.003	0.052	0.403
cg00626702	salmon	4	1,647,016	Body	S_Shore	FAM53A	0.738	-0.003	0.097	0.753
cg25662822	salmon	3	116,755,155		OpenSea		0.738	-0.008	0.076	0.270
cg10809166	salmon	12	54,346,462		N_Shore		0.738	0.003	0.090	0.667
cg00187557	salmon	5	139,081,136		Island		0.738	0.001	0.031	0.557
cg11963006	salmon	1	201,507,574		N_Shore		0.738	0.006	0.123	0.567
cg02022224	salmon	17	39,967,428	Body	Island	SC65	0.738	-0.004	0.057	0.253
cg23889730	salmon	14	94,254,131	5'UTR	Island	PRIMA1	0.737	0.003	0.083	0.703
cg15090509	salmon	7	11,872,073	TSS1500	OpenSea	THSD7A	0.737	-0.001	0.038	0.815
cg16661123	salmon	6	32,062,160	Body	N_Shore	TNXB	0.737	0.002	0.479	0.835
cg17265419	salmon	2	182,321,489	TSS200	N_Shore	ITGA4	0.737	-0.001	0.044	0.834
cg19889634	salmon	14	70,438,900	Body	OpenSea	SMOC1	0.737	0.000	0.184	0.963
cg19721087	salmon	6	105,403,899	TSS1500	S_Shelf	LIN28B	0.737	-0.001	0.048	0.789
cg00776080	salmon	12	53,442,322	5'UTR	S_Shore	TENC1	0.737	-0.008	0.124	0.363
cg03883295	salmon	2	119,603,489	Body	Island	EN1	0.736	0.001	0.078	0.831
cg05805852	salmon	4	83,505,549		OpenSea		0.736	0.000	0.474	0.984
cg05959430	salmon	8	37,005,558		OpenSea		0.736	-0.001	0.241	0.911
cg21303745	salmon	17	77,959,826	Body	OpenSea	TBC1D16	0.736	-0.005	0.565	0.633
cg11354105	salmon	2	25,475,805	Body	Island	DNMT3A	0.736	0.000	0.046	0.926
cg08877188	salmon	3	195,943,579	1stExon	OpenSea	OSTalpha	0.736	0.006	0.103	0.463
cg20974609	salmon	7	27,181,671	Body	N_Shore	HOXA5	0.736	-0.002	0.049	0.741
cg00461612	salmon	2	223,158,076	Body	N_Shore	PAX3	0.735	0.004	0.145	0.648
cg15628917	salmon	1	60,539,559	TSS200	S_Shore	C1orf87	0.735	-0.003	0.036	0.341
cg14027333	salmon	6	32,116,317	3'UTR	N_Shore	PRRT1	0.735	0.000	0.067	0.941
cg07305933	salmon	8	129,079,496	Body	OpenSea	PVT1	0.735	0.000	0.178	0.991
cg22729539	salmon	12	122,519,119	Body	S_Shore	MLXIP	0.735	-0.007	0.404	0.412
cg26669793	salmon	1	170,637,600	Body	S_Shelf	PRRX1	0.735	-0.013	0.135	0.529
cg00760203	salmon	17	37,254,921	Body	OpenSea	PLXDC1	0.735	-0.018	0.134	0.079
cg21896766	salmon	8	114,444,395	Body	N_Shore	CSMD3	0.735	0.009	0.071	0.270
cg18127922	salmon	17	46,672,255	Body	N_Shore	LOC404266	0.735	-0.007	0.341	0.534
cg18341905	salmon	8	26,323,315		OpenSea		0.735	-0.003	0.078	0.681
cg10493506	salmon	2	230,340,591	Body	OpenSea	DNER	0.734	-0.001	0.035	0.673
cg23120601	salmon	15	40,583,227	Body	Island	PLCB2	0.734	-0.015	0.095	0.167
cg26266708	salmon	15	76,630,962	Body	Island	ISL2	0.734	-0.011	0.189	0.580
cg19816811	salmon	7	27,188,364	TSS1500	N_Shore	HOXA6	0.734	-0.003	0.266	0.792



cg21097354	salmon	7	27,179,161	Island		0.734	-0.005	0.068	0.554
cg17167253	salmon	2	119,603,383 Body	Island	EN1	0.734	-0.002	0.039	0.395
cg05383442	salmon	1	48,022,001	OpenSea		0.734	-0.003	0.055	0.548
cg13661832	salmon	9	98,495,510	S_Shelf		0.734	-0.013	0.564	0.369
cg15911153	salmon	5	138,730,783 1stExon	Island	LOC389333	0.734	-0.012	0.142	0.478
cg14892570	salmon	19	15,559,628 TSS1500	OpenSea	MIR1470	0.733	-0.001	0.111	0.815
cg17071045	salmon	4	54,969,609	S_Shore		0.733	0.001	0.072	0.881
cg25390165	salmon	7	27,184,188 TSS1500	Island	HOXA5	0.733	0.005	0.143	0.579
cg01467100	salmon	10	6,246,406 Body	Island	PFKFB3	0.733	-0.002	0.102	0.694
cg08307469	salmon	5	37,835,889 TSS1500	N_Shore	GDNF	0.733	-0.009	0.139	0.437
cg05301866	salmon	2	162,279,964 Body	Island	TBR1	0.733	-0.005	0.037	0.128
cg08571918	salmon	2	105,275,920	Island		0.733	-0.005	0.111	0.723
cg26916621	salmon	17	46,657,346 TSS200	N_Shore	MIR10A	0.733	-0.005	0.156	0.649
cg11153400	salmon	22	46,449,498 Body	N_Shore	C22orf26	0.733	-0.004	0.054	0.583
cg03331514	salmon	7	1,577,016 5'UTR	S_Shore	MAFK	0.732	0.000	0.166	0.973
cg08129759	salmon	1	202,091,944 TSS200	OpenSea	GPR37L1	0.732	-0.007	0.130	0.212
cg07739179	salmon	17	42,081,810 TSS1500	N_Shore	NAGS	0.732	-0.001	0.034	0.731
cg01180479	salmon	11	65,374,833 Body	Island	MAP3K11	0.732	-0.010	0.125	0.455
cg12835736	salmon	6	1,395,164 3'UTR	S_Shore	FOXF2	0.732	0.003	0.231	0.857
cg21780952	salmon	6	118,989,666	OpenSea		0.732	-0.002	0.492	0.851
cg19554281	salmon	15	39,726,997	OpenSea		0.732	0.006	0.316	0.587
cg01571001	salmon	3	128,215,433	Island		0.732	-0.005	0.035	0.403
cg07227769	salmon	11	67,479,369	Island		0.732	0.001	0.055	0.886
cg14285150	salmon	17	46,659,019	Island		0.731	-0.007	0.064	0.269
cg14080585	salmon	20	60,639,721 1stExon	Island	TAF4	0.731	-0.006	0.043	0.160
cg25334575	salmon	13	100,641,744	Island		0.731	-0.005	0.070	0.371
cg10180281	salmon	7	26,897,714 Body	OpenSea	SKAP2	0.731	-0.002	0.088	0.840
cg06086887	salmon	2	71,128,997 Body	Island	VAX2	0.731	-0.002	0.061	0.804
cg03505148	salmon	12	58,131,345 1stExon	Island	AGAP2	0.731	-0.006	0.167	0.534
cg13883603	salmon	9	130,516,816 Body	Island	SH2D3C	0.731	-0.009	0.263	0.419
cg21033440	salmon	11	65,409,861 Body	Island	SIPA1	0.731	0.001	0.114	0.882
cg03829542	salmon	11	67,029,374	OpenSea		0.731	-0.002	0.091	0.776
cg24274579	salmon	17	59,534,637 Body	Island	TBX4	0.730	-0.007	0.065	0.405
cg02636004	salmon	3	119,747,339 Body	OpenSea	GSK3B	0.730	-0.004	0.378	0.545
cg20779917	salmon	7	121,946,959	S_Shore		0.730	-0.001	0.040	0.705
cg13665981	salmon	10	73,849,167 TSS1500	S_Shore	SPOCK2	0.730	0.007	0.145	0.674
cg14435807	salmon	15	74,218,780 TSS200	Island	LOXL1	0.730	0.001	0.020	0.453
cg14021880	salmon	2	27,301,369 TSS200	N_Shelf	EMILIN1	0.730	-0.002	0.168	0.852
cg15852446	salmon	15	40,583,422 Body	Island	PLCB2	0.730	-0.004	0.173	0.588
cg25840608	salmon	15	71,149,242	S_Shelf		0.730	0.010	0.330	0.236
cg13262831	salmon	8	138,333,292	OpenSea		0.730	0.015	0.136	0.130
cg06866686	salmon	14	95,236,879 TSS1500	N_Shore	GSC	0.730	-0.002	0.063	0.655
cg13571460	salmon	9	124,989,337 Body	Island	LHX6	0.730	0.000	0.063	0.959
cg19842809	salmon	14	37,125,997 TSS1500	N_Shore	PAX9	0.729	0.001	0.035	0.617
cg04850731	salmon	12	57,618,943 Body	Island	NXP4	0.729	-0.007	0.058	0.516
cg19688403	salmon	14	37,124,247	N_Shore		0.729	-0.018	0.140	0.093
cg20073553	salmon	4	13,545,291 Body	Island	NKX3-2	0.729	-0.001	0.044	0.732
cg11511084	salmon	17	79,950,366 Body	N_Shore	ASPSCR1	0.729	-0.005	0.331	0.458
cg10400390	salmon	1	27,853,797	N_Shore		0.729	-0.001	0.057	0.880
cg02194398	salmon	4	142,556,368 TSS1500	N_Shore	IL15	0.729	-0.005	0.441	0.488
cg17266581	salmon	18	74,799,572 Body	Island	MBP	0.728	-0.005	0.052	0.438
cg22155724	salmon	5	176,794,405 Body	Island	RGS14	0.728	-0.031	0.238	0.073
cg21240474	salmon	6	138,019,013	OpenSea		0.728	-0.011	0.089	0.089
cg11071202	salmon	14	88,462,554	S_Shelf		0.728	0.002	0.075	0.782
cg24338091	salmon	19	46,270,244 Body	Island	SIX5	0.728	-0.004	0.044	0.511
cg03573945	salmon	8	25,897,342 Body	Island	EBF2	0.727	0.002	0.031	0.560
cg15803221	salmon	17	38,473,166 TSS1500	Island	RARA	0.727	-0.009	0.061	0.303
cg04587220	salmon	19	1,071,208 Body	Island	HMHA1	0.727	-0.007	0.157	0.623
cg19622422	salmon	19	17,942,025 Body	N_Shore	JAK3	0.727	0.000	0.122	0.999
cg15963463	salmon	1	25,253,237 Body	N_Shelf	RUNX3	0.727	0.000	0.023	0.753
cg19961151	salmon	5	68,207,879	OpenSea		0.727	-0.002	0.312	0.846
cg08969950	salmon	5	92,929,679 3'UTR	N_Shore	NR2F1	0.727	-0.007	0.192	0.523
cg18809076	salmon	7	55,177,623 Body	OpenSea	EGFR	0.726	-0.001	0.520	0.943
cg13280041	salmon	6	138,866,865 Body	OpenSea	NHSL1	0.726	0.001	0.037	0.803
cg15627089	salmon	11	16,625,751	N_Shore		0.726	-0.005	0.041	0.376
cg05584597	salmon	3	155,463,691	S_Shore		0.726	-0.001	0.038	0.739
cg05891572	salmon	7	33,462,512 Body	OpenSea	BBS9	0.726	-0.008	0.509	0.489

cg00470636	salmon	8	26,440,349	Body	S_Shelf	DPYSL2	0.725	-0.003	0.049	0.516
cg16095551	salmon	6	155,816,164		OpenSea		0.725	-0.004	0.375	0.639
cg01674147	salmon	4	153,878,055	Body	OpenSea	FHDC1	0.725	-0.009	0.069	0.109
cg02160608	salmon	2	113,956,634	Body	Island	PSD4	0.725	-0.012	0.090	0.329
cg13461390	salmon	1	217,312,478	TSS1500	S_Shore	ESRRG	0.725	-0.004	0.157	0.727
cg12640049	salmon	1	18,503,103	Body	OpenSea	IGSF21	0.725	-0.001	0.129	0.831
cg14621323	salmon	5	176,827,161	1stExon	Island	PFN3	0.725	0.008	0.103	0.538
cg17203647	salmon	8	25,897,201	Body	Island	EBF2	0.725	0.002	0.098	0.780
cg21250433	salmon	12	10,283,763	TSS1500	OpenSea	CLEC7A	0.724	-0.003	0.355	0.801
cg03721058	salmon	3	50,360,041	5'UTR	Island	HYAL2	0.724	-0.007	0.270	0.329
cg16705744	salmon	3	27,756,039		N_Shore		0.724	-0.003	0.035	0.350
cg10536276	salmon	2	113,956,344	Body	Island	PSD4	0.724	-0.009	0.060	0.149
cg05832869	salmon	16	85,240,650		N_Shore		0.724	-0.004	0.120	0.534
cg08241477	salmon	5	92,929,573	3'UTR	N_Shore	NR2F1	0.724	-0.004	0.287	0.712
cg17600918	salmon	6	154,809,230	Body	OpenSea	CNKSR3	0.724	0.008	0.297	0.569
cg02311193	salmon	17	46,660,002		Island		0.724	0.000	0.101	0.982
cg05621339	salmon	2	85,483,362	Body	OpenSea	TCF7L1	0.723	-0.010	0.080	0.186
cg08729178	salmon	15	93,633,249	TSS1500	S_Shore	RGMA	0.723	0.002	0.033	0.430
cg22258713	salmon	8	144,267,518		Island		0.723	-0.011	0.124	0.387
cg18372607	salmon	11	31,827,084	Body	N_Shore	PAX6	0.723	-0.007	0.061	0.436
cg15757019	salmon	4	149,756,665		OpenSea		0.723	-0.007	0.052	0.301
cg01539948	salmon	4	174,427,487		N_Shore		0.723	-0.020	0.141	0.123
cg22723675	salmon	13	95,358,092		N_Shore		0.722	-0.006	0.054	0.373
cg11511175	salmon	12	58,119,979	3'UTR	Island	AGAP2	0.722	-0.001	0.037	0.810
cg20820622	salmon	15	70,354,647	Body	OpenSea	TLE3	0.722	0.010	0.112	0.307
cg11729934	salmon	6	1,601,693		Island		0.722	-0.002	0.021	0.495
cg14798653	salmon	19	6,475,497	Body	Island	DENND1C	0.722	-0.007	0.075	0.486
cg14395444	salmon	12	2,800,182	Body	Island	CACNA1C	0.722	-0.002	0.064	0.764
cg17875935	salmon	15	45,666,384	Body	N_Shelf	GATM	0.722	-0.011	0.304	0.498
cg22986999	salmon	11	68,781,976	TSS1500	S_Shelf	MRGPRF	0.722	-0.001	0.032	0.714
cg26995224	salmon	12	121,974,146	Body	N_Shore	KDM2B	0.722	-0.003	0.038	0.294
cg13710969	salmon	17	79,393,463	Body	Island	BAHCC1	0.722	-0.004	0.212	0.657
cg01156373	salmon	2	213,248,884	Body	OpenSea	ERBB4	0.721	-0.008	0.451	0.389
cg23133355	salmon	7	2,519,789		OpenSea		0.721	-0.004	0.154	0.773
cg00003625	salmon	17	48,912,543	TSS200	OpenSea	WFIKN2	0.721	-0.015	0.110	0.122
cg02363630	salmon	10	99,532,138	TSS1500	S_Shore	SFRP5	0.721	-0.003	0.109	0.568
cg25023298	salmon	10	77,156,697		Island		0.721	0.012	0.096	0.579
cg11869828	salmon	11	116,700,447	TSS200	OpenSea	APOC3	0.721	0.001	0.417	0.898
cg13932046	salmon	10	78,343,530		OpenSea		0.721	0.010	0.336	0.528
cg13638420	salmon	11	32,448,293	Body	Island	WT1	0.721	-0.004	0.038	0.143
cg09041678	salmon	11	31,839,947	TSS1500	N_Shore	PAX6	0.721	-0.002	0.049	0.550
cg11223933	salmon	17	43,319,137	Body	Island	FMNL1	0.721	-0.009	0.065	0.281
cg13491462	salmon	6	1,384,491		Island		0.721	-0.010	0.091	0.438
cg05931423	salmon	5	115,697,214		Island		0.721	-0.003	0.069	0.574
cg04561005	salmon	17	25,872,931	5'UTR	OpenSea	KSR1	0.720	-0.008	0.392	0.173
cg01255417	salmon	6	10,422,636		Island		0.720	-0.007	0.111	0.466
cg11934419	salmon	6	112,575,850	TSS200	S_Shore	LAMA4	0.720	-0.009	0.052	0.051
cg22806527	salmon	5	175,087,093	5'UTR	S_Shore	HRH2	0.720	-0.010	0.162	0.366
cg24389585	salmon	7	27,184,125	TSS1500	Island	HOXA5	0.720	0.002	0.218	0.859
cg00036871	salmon	2	220,436,894	TSS1500	S_Shore	OBSL1	0.719	-0.007	0.267	0.390
cg16509777	salmon	2	45,172,265	3'UTR	S_Shore	SIX3	0.719	-0.007	0.048	0.061
cg06433023	salmon	6	108,488,544	Body	Island	NR2E1	0.719	0.004	0.080	0.637
cg16786102	salmon	4	41,867,462		Island		0.719	-0.002	0.091	0.682
cg04800503	salmon	17	46,648,533	5'UTR	OpenSea	HOXB3	0.719	-0.020	0.152	0.120
cg24601030	salmon	11	111,847,747	TSS1500	N_Shore	DIXDC1	0.719	-0.009	0.087	0.169
cg26495303	salmon	10	119,291,766	Body	N_Shelf	EMX2OS	0.719	0.000	0.034	0.936
cg17502434	salmon	19	45,975,859	Body	Island	FOSB	0.719	-0.003	0.045	0.359
cg23263802	salmon	14	74,185,398	3'UTR	N_Shore	C14orf43	0.719	0.002	0.119	0.693
cg26559974	salmon	5	37,835,506	5'UTR	N_Shore	GDNF	0.719	-0.001	0.227	0.880
cg24427243	salmon	1	12,128,100	Body	S_Shelf	TNFRSF8	0.719	0.002	0.071	0.730
cg07510282	salmon	10	90,644,018	5'UTR	S_Shelf	STAMBPL1	0.719	-0.023	0.477	0.214
cg17427639	salmon	1	20,803,085		OpenSea		0.719	-0.006	0.111	0.358
cg04601957	salmon	2	105,467,144		N_Shore		0.718	-0.004	0.047	0.484
cg23424933	salmon	2	45,157,613		S_Shore		0.718	0.001	0.038	0.653
cg00210271	salmon	12	54,088,934		N_Shore		0.718	0.002	0.062	0.797
cg25943719	salmon	15	101,421,391	Body	S_Shore	ALDH1A3	0.718	0.002	0.264	0.874
cg09708616	salmon	6	85,478,576		N_Shelf		0.718	-0.001	0.027	0.711

cg20057633	salmon	20	57,899,909	3'UTR	OpenSea	EDN3	0.718	-0.008	0.075	0.256
cg15168043	salmon	8	77,618,770	Body	OpenSea	ZFHx4	0.718	-0.004	0.485	0.649
cg27455017	salmon	7	150,037,988	5'UTR	Island	RARRES2	0.718	-0.011	0.086	0.096
cg17393041	salmon	3	64,136,333	Body	OpenSea	PRICKLE2	0.717	-0.002	0.180	0.684
cg02839593	salmon	16	66,934,539		OpenSea		0.717	-0.004	0.256	0.454
cg02005600	salmon	7	27,183,686	TSS1500	Island	HOXA5	0.717	-0.003	0.046	0.287
cg19092096	salmon	1	110,612,474	Body	Island	ALX3	0.717	-0.003	0.073	0.633
cg26295435	salmon	16	67,682,065	Body	Island	RLTPR	0.717	-0.003	0.155	0.660
cg26841048	salmon	17	46,622,454	TSS200	S_Shore	HOXB2	0.717	0.001	0.080	0.883
cg21706229	salmon	17	70,112,877		Island		0.717	-0.003	0.059	0.763
cg09508016	salmon	20	21,682,854		N_Shore		0.717	-0.016	0.194	0.178
cg01771416	salmon	3	101,567,360	5'UTR	N_Shore	NFKBIZ	0.717	-0.005	0.261	0.527
cg09662411	salmon	1	92,946,132	Body	Island	GFI1	0.717	-0.008	0.201	0.352
cg00267839	salmon	8	1,337,571		N_Shelf		0.716	-0.004	0.168	0.720
cg21531685	salmon	3	73,672,063	Body	N_Shore	PDZRN3	0.716	-0.007	0.412	0.317
cg13883696	salmon	1	61,519,888		Island		0.716	-0.010	0.077	0.156
cg01659586	salmon	3	13,114,343	Body	N_Shore	IQSEC1	0.716	-0.001	0.075	0.840
cg16110541	salmon	1	68,679,600	Body	OpenSea	GPR177	0.716	0.000	0.453	0.974
cg14841828	salmon	14	99,729,088	Body	OpenSea	BCL11B	0.716	0.003	0.068	0.795
cg11260715	salmon	7	22,602,834		OpenSea		0.716	-0.001	0.040	0.506
cg23251761	salmon	1	9,750,061	5'UTR	Island	PIK3CD	0.716	-0.005	0.055	0.376
cg17187433	salmon	2	8,118,191	TSS1500	OpenSea	LOC339788	0.716	0.000	0.540	0.993
cg13016314	salmon	8	99,958,470	5'UTR	S_Shore	OSR2	0.716	0.000	0.030	0.905
cg17882867	salmon	15	71,704,440	Body	OpenSea	THSD4	0.715	-0.002	0.087	0.783
cg10095954	salmon	17	3,848,324	Body	Island	ATP2A3	0.715	-0.008	0.087	0.404
cg01556275	salmon	1	59,245,597		N_Shore		0.715	-0.001	0.101	0.912
cg07486252	salmon	4	114,213,914	Body	OpenSea	ANK2	0.715	-0.004	0.182	0.577
cg01246617	salmon	5	53,751,493	5'UTR	OpenSea	HSPB3	0.715	-0.005	0.503	0.665
cg09880291	salmon	7	27,184,109	TSS1500	Island	HOXA5	0.715	0.003	0.163	0.784
cg05049329	salmon	1	226,924,846	Body	Island	ITPKB	0.715	-0.002	0.062	0.761
cg04371726	salmon	2	63,285,645		N_Shore		0.714	0.000	0.034	0.935
cg08784129	salmon	11	31,827,379	Body	N_Shore	PAX6	0.714	-0.002	0.058	0.783
cg17585615	salmon	21	46,128,908	Body	N_Shore	C21orf29	0.714	-0.005	0.050	0.414
cg04645050	salmon	16	86,603,761		S_Shore		0.714	0.000	0.183	0.994
cg25451194	salmon	2	61,407,414	5'UTR	S_Shelf	AHSA2	0.714	0.005	0.129	0.454
cg04552852	salmon	11	844,390	TSS200	S_Shore	TSPAN4	0.714	-0.001	0.019	0.702
cg17809595	salmon	15	40,395,913	Body	OpenSea	BMF	0.714	-0.004	0.110	0.511
cg01678084	salmon	15	67,022,087	Body	OpenSea	SMAD6	0.713	0.011	0.075	0.138
cg07859439	salmon	2	197,792,757	TSS1500	S_Shore	PGAP1	0.713	-0.002	0.125	0.810
cg21406271	salmon	1	25,258,082	TSS1500	Island	RUNX3	0.713	-0.001	0.066	0.812
cg16262201	salmon	1	3,157,480	Body	N_Shore	PRDM16	0.713	-0.005	0.096	0.609
cg23009123	salmon	10	94,450,531	Body	N_Shore	HHEX	0.713	-0.003	0.046	0.320
cg23392845	salmon	7	2,660,962		OpenSea		0.713	0.001	0.060	0.768
cg11666559	salmon	1	221,067,662		Island		0.713	0.003	0.067	0.683
cg13752933	salmon	9	90,114,755	Body	S_Shore	DAPK1	0.713	0.004	0.096	0.593
cg13933293	salmon	3	184,301,826		Island		0.713	-0.005	0.132	0.512
cg06585708	salmon	5	3,602,413		Island		0.713	0.002	0.021	0.590
cg25686087	salmon	19	46,270,412	Body	Island	SIX5	0.713	-0.001	0.094	0.911
cg22980156	salmon	17	15,366,916	5'UTR	OpenSea	CDRT4	0.712	-0.001	0.032	0.814
cg19570154	salmon	2	5,513,337		OpenSea		0.712	0.000	0.041	0.985
cg09907068	salmon	2	197,159,060	Body	OpenSea	HECW2	0.712	-0.012	0.531	0.349
cg11409510	salmon	12	42,981,814	5'UTR	N_Shore	PRICKLE1	0.712	-0.006	0.143	0.494
cg25721982	salmon	22	19,746,156	5'UTR	Island	TBX1	0.712	-0.003	0.082	0.656
cg01064725	salmon	1	204,461,714		N_Shore		0.712	-0.001	0.109	0.880
cg23193613	salmon	8	144,267,725		Island		0.712	-0.005	0.048	0.398
cg24576945	salmon	3	42,743,203	5'UTR	OpenSea	HHATL	0.711	-0.006	0.050	0.184
cg16608018	salmon	10	122,739,544		S_Shore		0.711	-0.001	0.030	0.701
cg10717691	salmon	1	210,426,358		OpenSea		0.711	0.005	0.046	0.569
cg02275294	salmon	1	179,262,462	TSS1500	N_Shore	SOAT1	0.711	-0.001	0.024	0.299
cg13493526	salmon	14	77,492,788	1stExon	Island	C14orf4	0.711	-0.002	0.050	0.759
cg09550810	salmon	1	61,519,890		Island		0.711	-0.003	0.043	0.487
cg09187505	salmon	6	106,434,429		Island		0.711	-0.001	0.041	0.918
cg08202399	salmon	16	14,280,512	Body	OpenSea	MKL2	0.710	-0.001	0.036	0.675
cg18307783	salmon	5	92,931,623		S_Shore		0.710	-0.029	0.360	0.073
cg04582254	salmon	10	131,756,487	Body	N_Shore	EBF3	0.710	-0.001	0.317	0.948
cg04845649	salmon	16	67,199,463	Body	Island	HSF4	0.710	-0.009	0.065	0.051
cg26796443	salmon	12	15,844,458	5'UTR	OpenSea	EPS8	0.710	0.004	0.510	0.701

cg02331910	salmon	1	153,599,831	5'UTR	OpenSea	S100A13	0.710	-0.001	0.031	0.803
cg02930888	salmon	10	112,402,954	TSS1500	Island	RBM20	0.710	0.001	0.061	0.776
cg04938966	salmon	16	86,530,790		Island		0.710	-0.004	0.056	0.692
cg04172795	salmon	14	100,578,523	Body	OpenSea	EVL	0.710	0.000	0.229	1.000
cg18280830	salmon	14	57,265,875		S_Shore		0.710	-0.004	0.051	0.513
cg24355907	salmon	6	99,273,157		S_Shore		0.710	-0.001	0.056	0.670
cg24627621	salmon	6	42,109,176	Body	N_Shore	C6orf132	0.709	-0.005	0.368	0.517
cg19033654	salmon	6	30,711,138	3'UTR	Island	IER3	0.709	-0.002	0.050	0.571
cg10672201	salmon	12	103,353,320	3'UTR	S_Shore	ASCL1	0.709	-0.004	0.039	0.259
cg02286857	salmon	2	47,297,177	Body	OpenSea	TTC7A	0.709	0.012	0.164	0.229
cg09782540	salmon	6	10,398,698	Body	Island	TFAP2A	0.709	0.001	0.041	0.836
cg23014425	salmon	17	46,648,525	5'UTR	OpenSea	HOXB3	0.709	-0.027	0.217	0.091
cg08166362	salmon	3	128,998,952	Body	S_Shore	C3orf37	0.708	-0.006	0.098	0.519
cg09415955	salmon	1	10,709,885	Body	S_Shore	CASZ1	0.708	-0.001	0.036	0.836
cg20044443	salmon	15	68,345,880	TSS1500	N_Shore	PIAS1	0.708	-0.001	0.368	0.885
cg00690402	salmon	17	46,669,566	TSS200	Island	LOC404266	0.708	-0.012	0.106	0.212
cg23363031	salmon	11	131,863,202	Body	OpenSea	NTM	0.708	-0.011	0.430	0.252
cg06206626	salmon	22	26,825,900	5'UTR	S_Shore	ASPHD2	0.708	-0.002	0.160	0.665
cg14270302	salmon	6	32,114,687		N_Shore		0.708	0.002	0.049	0.625
cg20787196	salmon	12	26,987,031	TSS1500	S_Shore	ITPR2	0.707	0.000	0.028	0.878
cg02630214	salmon	3	147,098,585		OpenSea		0.707	-0.004	0.043	0.387
cg24849648	salmon	7	120,964,019	TSS1500	OpenSea	WNT16	0.707	-0.011	0.096	0.150
cg18609078	salmon	4	13,538,807		S_Shore		0.707	-0.007	0.116	0.439
cg07310671	salmon	16	85,253,980		OpenSea		0.707	0.001	0.084	0.930
cg03029755	salmon	17	76,265,444		OpenSea		0.707	-0.002	0.047	0.546
cg09109520	salmon	16	57,673,258	5'UTR	OpenSea	GPR56	0.707	-0.003	0.039	0.347
cg13343392	salmon	15	30,175,531		OpenSea		0.706	0.005	0.054	0.385
cg23401461	salmon	2	47,058,307	Body	OpenSea	LOC1001342	0.706	-0.013	0.482	0.234
cg25104637	salmon	11	64,405,452	Body	Island	NRXN2	0.706	-0.006	0.108	0.339
cg17965690	salmon	19	10,736,049	TSS200	Island	SLC44A2	0.706	-0.005	0.083	0.458
cg15368455	salmon	5	37,835,958	TSS1500	N_Shore	GDNF	0.706	0.004	0.192	0.694
cg08492173	salmon	5	3,597,311	Body	Island	IRX1	0.706	0.001	0.023	0.574
cg07673740	salmon	4	85,414,194		Island		0.706	0.000	0.180	0.975
cg10381071	salmon	15	70,391,035	TSS1500	Island	TLE3	0.706	-0.001	0.033	0.883
cg03711485	salmon	10	101,296,036	3'UTR	Island	NKX2-3	0.706	0.000	0.109	0.999
cg06264060	salmon	22	41,075,007	TSS200	OpenSea	MCHR1	0.706	0.010	0.488	0.318
cg11028872	salmon	2	204,486,921		OpenSea		0.706	-0.020	0.384	0.178
cg04697454	salmon	15	93,633,408	TSS1500	S_Shore	RGMA	0.706	-0.001	0.076	0.920
cg22867816	salmon	4	16,081,205	5'UTR	N_Shelf	PROM1	0.706	-0.008	0.509	0.502
cg15490070	salmon	1	203,148,132	3'UTR	OpenSea	CHI3L1	0.706	-0.005	0.609	0.586
cg03020554	salmon	8	99,951,730		N_Shore		0.705	0.000	0.019	0.848
cg18356785	salmon	11	47,611,780	Body	Island	C1QTNF4	0.705	-0.013	0.100	0.332
cg22798223	salmon	1	2,783,100		OpenSea		0.705	-0.015	0.277	0.330
cg22395765	salmon	7	157,362,094	Body	S_Shore	PTPRN2	0.705	-0.002	0.050	0.655
cg04212846	salmon	21	36,168,008	Body	S_Shelf	RUNX1	0.704	-0.006	0.536	0.533
cg22707705	salmon	2	219,646,114	TSS1500	N_Shore	CYP27A1	0.704	-0.012	0.196	0.143
cg10833393	salmon	19	46,651,227	5'UTR	OpenSea	IGFL2	0.704	-0.003	0.129	0.623
cg18017926	salmon	5	172,661,487	Body	Island	NKX2-5	0.704	-0.006	0.121	0.482
cg18397073	salmon	19	42,600,278	Body	Island	POU2F2	0.704	-0.003	0.057	0.621
cg04848682	salmon	14	77,492,060	1stExon	Island	C14orf4	0.704	0.002	0.073	0.787
cg16536718	salmon	5	44,390,215	TSS1500	OpenSea	FGF10	0.704	-0.004	0.067	0.654
cg14608384	salmon	5	54,516,879		Island		0.704	-0.002	0.028	0.324
cg25453154	salmon	10	81,203,244	Body	N_Shore	ZCCHC24	0.704	-0.003	0.184	0.525
cg06850005	salmon	10	35,926,564		N_Shore		0.704	0.003	0.046	0.468
cg18855674	salmon	8	72,469,553		Island		0.704	0.005	0.072	0.609
cg08834350	salmon	10	29,228,916		OpenSea		0.703	-0.001	0.118	0.883
cg12742432	salmon	1	27,677,860	Body	Island	SYTL1	0.703	-0.015	0.191	0.290
cg27041026	salmon	15	32,633,891		N_Shore		0.703	0.000	0.203	0.986
cg03191919	salmon	3	196,134,040	Body	OpenSea	UBXN7	0.703	-0.003	0.082	0.628
cg14748380	salmon	1	179,713,788	5'UTR	Island	FAM163A	0.703	-0.004	0.038	0.459
cg05905531	salmon	19	8,591,721	Body	Island	MYO1F	0.703	-0.013	0.212	0.177
cg03523785	salmon	14	29,234,981	TSS1500	Island	FOXG1	0.703	0.001	0.033	0.809
cg02898721	salmon	17	38,473,222	TSS1500	N_Shore	RARA	0.703	-0.002	0.087	0.790
cg06486098	salmon	11	100,558,998	Body	S_Shore	FLJ32810	0.702	-0.002	0.044	0.533
cg11089489	salmon	14	37,124,313		N_Shore		0.702	-0.005	0.059	0.516
cg02308560	salmon	19	1,071,176	Body	Island	HMHA1	0.702	-0.010	0.124	0.467
cg11113066	salmon	10	101,281,981		Island		0.702	0.000	0.150	0.984

cg11073773	salmon	7	25,897,512		N_Shore		0.702	0.001	0.133	0.920
cg24759795	salmon	8	114,444,356	Body	N_Shore	CSMD3	0.702	0.004	0.050	0.564
cg21864868	salmon	17	46,673,002	Body	N_Shore	LOC404266	0.702	-0.009	0.249	0.503
cg07319605	salmon	2	114,474,155	3'UTR	OpenSea	SLC35F5	0.702	-0.001	0.462	0.909
cg01328833	salmon	19	4,277,322	TSS1500	N_Shore	SHD	0.701	-0.002	0.081	0.794
cg18144247	salmon	6	151,576,127	Body	OpenSea	AKAP12	0.701	-0.003	0.275	0.847
cg05207637	salmon	16	74,134,895		OpenSea		0.701	-0.014	0.265	0.153
cg15962969	salmon	6	138,866,887	Body	OpenSea	NHSL1	0.701	-0.003	0.081	0.697
cg26263263	salmon	10	118,893,430	3'UTR	N_Shore	VAX1	0.701	-0.008	0.061	0.060
cg02404377	salmon	11	20,043,971	TSS1500	OpenSea	NAV2	0.701	0.004	0.114	0.646
cg07813265	salmon	1	100,820,528	Body	S_Shore	CDC14A	0.701	0.003	0.206	0.559
cg19986012	salmon	17	46,627,848	Body	Island	HOXB3	0.701	-0.016	0.178	0.075
cg25117523	salmon	17	76,719,640	Body	OpenSea	CYTH1	0.701	0.000	0.125	0.970
cg11935708	salmon	5	998,978		OpenSea		0.700	-0.003	0.479	0.686
cg19027710	salmon	3	142,837,529	TSS1500	N_Shore	CHST2	0.700	-0.001	0.509	0.953
cg11122944	salmon	17	9,924,800	Body	OpenSea	GAS7	0.700	-0.008	0.132	0.283
cg10683929	salmon	3	147,077,354		Island		0.700	-0.008	0.062	0.087
cg03019986	salmon	17	46,628,850	Body	N_Shore	HOXB3	0.700	-0.021	0.119	0.051
cg00575066	salmon	6	10,390,039		Island		0.700	0.000	0.020	0.982
cg09682727	salmon	5	139,953,966		OpenSea		0.700	-0.002	0.058	0.564
cg02114084	salmon	14	75,894,209	TSS1500	N_Shore	JDP2	0.700	-0.002	0.085	0.709
cg05746227	salmon	5	54,516,830		Island		0.700	-0.008	0.076	0.074
cg24598922	salmon	6	144,143,992	Body	OpenSea	PHACTR2	0.699	-0.006	0.060	0.191
cg14058329	salmon	7	27,183,946	TSS1500	Island	HOXA5	0.699	0.002	0.212	0.900
cg01351315	salmon	17	46,667,737	TSS200	N_Shore	LOC404266	0.699	-0.004	0.263	0.742
cg04527918	salmon	2	27,531,170	TSS200	Island	UCN	0.699	-0.004	0.073	0.481
cg24362098	salmon	11	44,332,507	TSS1500	Island	ALX4	0.699	-0.003	0.064	0.297
cg12876356	salmon	1	92,946,825	Body	Island	GF11	0.699	-0.006	0.075	0.185
cg13211832	salmon	6	169,978,387	Body	S_Shore	WDR27	0.699	0.012	0.280	0.310
cg23322933	salmon	14	61,109,207		Island		0.699	-0.012	0.124	0.522
cg22365240	salmon	2	105,374,995		OpenSea		0.699	0.000	0.061	0.967
cg13874780	salmon	7	155,164,294		N_Shore		0.698	-0.003	0.135	0.632
cg26250228	salmon	2	166,700,068		OpenSea		0.698	-0.001	0.532	0.931
cg03976645	salmon	7	16,724,981	Body	OpenSea	BZW2	0.698	-0.007	0.502	0.452
cg02047547	salmon	16	19,126,242	1stExon	Island	ITPRIPL2	0.698	-0.005	0.066	0.563
cg04094811	salmon	6	1,393,336	Body	Island	FOXF2	0.698	-0.002	0.049	0.696
cg19196335	salmon	7	27,184,094	TSS1500	Island	HOXA5	0.698	-0.007	0.217	0.578
cg15786205	salmon	6	108,495,578	Body	N_Shore	NR2E1	0.698	-0.005	0.051	0.226
cg10416206	salmon	2	223,162,797	Body	N_Shore	PAX3	0.698	0.002	0.040	0.497
cg00618183	salmon	17	75,143,600	Body	OpenSea	SEC14L1	0.698	0.000	0.330	0.991
cg21531679	salmon	3	185,455,026	Body	OpenSea	IGF2BP2	0.698	-0.003	0.047	0.417
cg26248586	salmon	14	95,693,981	Body	OpenSea	CLMN	0.698	0.002	0.163	0.723
cg09387528	salmon	21	47,876,058		N_Shelf		0.698	-0.003	0.393	0.620
cg24902920	salmon	6	10,416,373	Body	N_Shore	TFAP2A	0.697	-0.001	0.116	0.954
cg07207652	salmon	17	45,798,257		OpenSea		0.697	0.000	0.029	0.947
cg25866143	salmon	7	27,183,262	5'UTR	Island	HOXA5	0.697	-0.005	0.078	0.511
cg07314186	salmon	1	51,443,114		N_Shore		0.697	-0.001	0.024	0.554
cg09315367	salmon	19	10,736,006	TSS200	Island	SLC44A2	0.697	-0.003	0.093	0.689
cg27127887	salmon	8	11,831,823	Body	OpenSea	DEFB136	0.697	0.000	0.187	0.968
cg05291508	salmon	10	124,892,233		N_Shore		0.697	0.001	0.022	0.636
cg15325070	salmon	1	2,792,704		OpenSea		0.696	0.000	0.113	0.989
cg23792308	salmon	17	14,104,659	Body	OpenSea	COX10	0.696	0.000	0.205	0.990
cg13373589	salmon	6	10,416,034	Body	N_Shore	TFAP2A	0.696	-0.001	0.064	0.853
cg10690919	salmon	17	48,912,545	TSS200	OpenSea	WFIKKN2	0.696	-0.004	0.048	0.528
cg06222012	salmon	2	67,442,562		OpenSea		0.696	-0.001	0.049	0.762
cg08936785	salmon	1	117,452,320	TSS1500	Island	PTGFRN	0.696	-0.002	0.022	0.119
cg19510698	salmon	15	101,421,249	Body	S_Shore	ALDH1A3	0.696	-0.014	0.485	0.361
cg03662545	salmon	16	85,254,209		OpenSea		0.696	-0.004	0.094	0.678
cg19710662	salmon	1	15,256,222	Body	OpenSea	KIAA1026	0.696	-0.001	0.387	0.870
cg20971147	salmon	1	14,866,944		OpenSea		0.696	-0.005	0.242	0.422
cg04844564	salmon	16	51,184,205	Body	Island	SALL1	0.695	-0.007	0.079	0.142
cg00484122	salmon	2	20,579,065		OpenSea		0.695	-0.005	0.046	0.105
cg11829253	salmon	15	77,320,787	Body	S_Shore	PSTPIP1	0.695	0.003	0.132	0.726
cg15614119	salmon	2	11,925,153	Body	Island	LPIN1	0.695	-0.005	0.046	0.290
cg23057870	salmon	8	80,679,111	Body	N_Shore	HEY1	0.695	0.003	0.147	0.733
cg04707408	salmon	7	27,233,073		Island		0.695	-0.001	0.096	0.840
cg21249708	salmon	12	123,601,893		OpenSea		0.695	-0.003	0.441	0.765

cg03128060	salmon	6	142,623,767	Body	S_Shore	GPR126	0.695	-0.005	0.122	0.503
cg06492024	salmon	2	183,224,447	Body	OpenSea	PDE1A	0.695	0.002	0.417	0.832
cg03023152	salmon	8	102,505,556	Body	Island	GRHL2	0.694	-0.003	0.048	0.446
cg01588379	salmon	7	151,433,326	Body	OpenSea	PRKAG2	0.694	-0.004	0.023	0.108
cg02961798	salmon	16	67,687,392	Body	Island	RLTPR	0.694	-0.002	0.039	0.781
cg00471141	salmon	8	19,796,299	TSS1500	N_Shore	LPL	0.694	0.000	0.256	0.984
cg13433729	salmon	6	159,231,891	Body	OpenSea	EZR	0.693	-0.002	0.110	0.811
cg01840419	salmon	15	100,890,979	TSS1500	S_Shore	FLJ42289	0.693	-0.003	0.157	0.589
cg02046160	salmon	9	88,874,667	TSS200	OpenSea	C9orf153	0.693	-0.002	0.512	0.882
cg05546784	salmon	22	50,585,427	TSS200	OpenSea	MOV10L1	0.693	0.002	0.113	0.814
cg00703885	salmon	2	128,440,247	TSS1500	OpenSea	LIMS2	0.693	0.001	0.413	0.924
cg11173941	salmon	5	2,750,203	Body	Island	IRX2	0.693	0.010	0.208	0.280
cg17624073	salmon	17	79,393,583	Body	Island	BAHCC1	0.693	-0.001	0.104	0.914
cg09265876	salmon	12	25,537,944		N_Shore		0.693	-0.004	0.047	0.257
cg21646520	salmon	7	139,614,808	Body	OpenSea	TBXAS1	0.693	0.008	0.453	0.313
cg21791252	salmon	6	33,864,756		OpenSea		0.693	-0.005	0.060	0.368
cg19610529	salmon	14	61,108,807		N_Shore		0.693	-0.011	0.210	0.614
cg20318845	salmon	2	45,237,781	TSS1500	Island	SIX2	0.693	-0.005	0.047	0.323
cg17931641	salmon	7	25,897,232		N_Shore		0.692	-0.001	0.040	0.814
cg05820959	salmon	7	151,248,135		OpenSea		0.692	0.002	0.138	0.771
cg03113878	salmon	7	100,091,364	Body	Island	C7orf51	0.692	0.002	0.021	0.315
cg08284876	salmon	5	91,970,207		OpenSea		0.692	-0.010	0.581	0.434
cg22235407	salmon	15	66,209,223	Body	OpenSea	MEGF11	0.692	-0.001	0.032	0.597
cg17353337	salmon	6	138,866,898	Body	OpenSea	NHSL1	0.692	0.007	0.058	0.275
cg14708990	salmon	11	76,839,217	TSS200	OpenSea	MYO7A	0.692	-0.001	0.044	0.869
cg07676709	salmon	17	46,673,442	Body	N_Shore	LOC404266	0.691	-0.002	0.075	0.872
cg08692903	salmon	16	85,424,553		OpenSea		0.691	-0.004	0.154	0.567
cg25738176	salmon	17	3,848,506	Body	Island	ATP2A3	0.691	0.000	0.083	0.996
cg12712768	salmon	12	121,416,315	TSS1500	N_Shore	HNF1A	0.691	-0.005	0.170	0.369
cg10050816	salmon	16	86,549,237		Island		0.691	-0.002	0.038	0.616
cg15194531	salmon	17	43,318,900	Body	Island	FMNL1	0.691	-0.016	0.206	0.153
cg20547777	salmon	8	119,086,580	Body	OpenSea	EXT1	0.691	-0.005	0.040	0.156
cg20585676	salmon	2	63,275,039	TSS200	Island	LOC1001322	0.691	-0.011	0.038	0.055
cg08297751	salmon	4	174,448,705	Body	Island	HAND2	0.691	-0.011	0.077	0.310
cg19350020	salmon	11	118,489,198	Body	OpenSea	PHLDB1	0.691	-0.010	0.077	0.194
cg00790307	salmon	17	17,684,042	TSS1500	N_Shore	SMCR5	0.691	-0.011	0.315	0.111
cg08082810	salmon	14	61,108,391		N_Shore		0.691	0.005	0.225	0.773
cg06237983	salmon	7	27,187,269	1stExon	Island	HOXA6	0.690	0.000	0.091	0.991
cg24217894	salmon	12	58,120,635	Body	Island	LOC1001307	0.690	0.001	0.075	0.904
cg08261702	salmon	7	150,103,112	Body	N_Shore	LOC728743	0.690	-0.008	0.061	0.035
cg11007075	salmon	8	22,722,124	Body	N_Shore	PEBP4	0.690	-0.001	0.098	0.864
cg05318142	salmon	2	85,999,498	Body	OpenSea	ATOH8	0.689	0.000	0.029	0.902
cg06206801	salmon	18	24,131,379	5'UTR	S_Shore	KCTD1	0.689	-0.002	0.025	0.382
cg27539733	salmon	16	87,160,879		OpenSea		0.689	-0.005	0.120	0.522
cg03215181	salmon	4	122,873,487	TSS1500	S_Shore	TRPC3	0.689	-0.008	0.106	0.297
cg04917446	salmon	17	46,699,073	3'UTR	Island	HOXB9	0.688	0.002	0.040	0.553
cg06536806	salmon	5	54,081,633		OpenSea		0.688	-0.041	0.176	0.031
cg03854595	salmon	16	11,347,455		N_Shore		0.688	-0.002	0.242	0.716
cg22930986	salmon	3	59,171,831		OpenSea		0.688	0.004	0.210	0.668
cg10775230	salmon	3	46,742,491	TSS1500	N_Shore	TMIE	0.688	-0.004	0.160	0.661
cg16651314	salmon	11	121,699,840		OpenSea		0.688	-0.002	0.170	0.675
cg15957341	salmon	11	7,275,418	Body	S_Shore	SYT9	0.688	-0.002	0.041	0.520
cg24461194	salmon	10	113,975,156		OpenSea		0.688	-0.012	0.268	0.215
cg15255390	salmon	17	46,632,154	5'UTR	Island	HOXB3	0.688	-0.009	0.148	0.281
cg19999161	salmon	7	27,155,358	5'UTR	Island	HOXA3	0.688	-0.001	0.081	0.893
cg13609544	salmon	17	46,664,647		OpenSea		0.688	-0.003	0.217	0.812
cg15447610	salmon	8	6,328,807	Body	OpenSea	MCPH1	0.687	-0.007	0.565	0.492
cg23590202	salmon	7	27,188,770	TSS1500	N_Shore	HOXA6	0.687	-0.005	0.130	0.649
cg26725502	salmon	11	27,034,225		OpenSea		0.687	-0.013	0.200	0.291
cg24771349	salmon	3	187,457,475	5'UTR	N_Shore	BCL6	0.687	0.001	0.018	0.511
cg25375757	salmon	6	32,014,739	Body	OpenSea	TNXB	0.687	0.006	0.291	0.565
cg11041060	salmon	6	168,841,399	TSS1500	N_Shore	SMOC2	0.687	-0.010	0.125	0.194
cg20277126	salmon	1	3,507,151	Body	OpenSea	MEGF6	0.687	-0.004	0.235	0.749
cg16622899	salmon	7	1,577,003	5'UTR	S_Shore	MAFK	0.686	0.006	0.276	0.607
cg13590876	salmon	14	105,154,689	TSS1500	N_Shore	INF2	0.686	-0.005	0.104	0.553
cg05950572	salmon	11	14,004,854	Body	OpenSea	SPON1	0.686	-0.007	0.065	0.315
cg00980058	salmon	1	233,248,709	Body	OpenSea	PCNXL2	0.686	-0.001	0.167	0.833

cg11946503	salmon	5	134,870,514	1stExon	N_Shore	NEUROG1	0.686	-0.007	0.035	0.062
cg07016556	salmon	17	79,393,532	Body	Island	BAHCC1	0.686	-0.001	0.097	0.909
cg21242356	salmon	17	46,667,683	TSS200	N_Shore	LOC404266	0.686	-0.008	0.202	0.384
cg22226680	salmon	11	1,841,885		OpenSea		0.685	0.001	0.225	0.840
cg15045292	salmon	17	5,403,149	3'UTR	Island	LOC728392	0.685	-0.015	0.121	0.036
cg25957124	salmon	16	21,171,084	5'UTR	S_Shore	TMEM159	0.685	0.003	0.130	0.720
cg18410271	salmon	17	43,472,435	3'UTR	N_Shore	ARHGAP27	0.685	-0.004	0.198	0.512
cg19481686	salmon	9	22,005,288	Body	N_Shore	CDKN2BAS	0.685	-0.003	0.031	0.318
cg26234658	salmon	7	36,343,787		OpenSea		0.685	-0.004	0.096	0.607
cg05089225	salmon	4	7,395,027	Body	OpenSea	SORCS2	0.685	-0.005	0.123	0.445
cg23387569	salmon	12	58,120,011	3'UTR	Island	AGAP2	0.685	-0.007	0.039	0.211
cg06312283	salmon	11	31,840,628	TSS1500	N_Shore	PAX6	0.685	-0.005	0.033	0.052
cg08433504	salmon	15	39,872,071	TSS1500	N_Shore	THBS1	0.685	-0.003	0.031	0.229
cg20639396	salmon	6	128,839,906	Body	N_Shore	PTPRK	0.684	0.002	0.053	0.518
cg04854328	salmon	5	92,914,828	Body	Island	FLJ42709	0.684	0.000	0.061	0.905
cg01493728	salmon	12	95,557,840	Body	OpenSea	FGD6	0.684	-0.004	0.137	0.498
cg17454746	salmon	20	62,716,485	5'UTR	Island	OPRL1	0.684	0.001	0.124	0.872
cg18589526	salmon	7	138,575,872	Body	OpenSea	KIAA1549	0.684	-0.011	0.428	0.063
cg13493426	salmon	14	34,111,564	Body	OpenSea	NPAS3	0.684	0.002	0.143	0.888
cg19592898	salmon	6	1,620,889		Island		0.684	0.002	0.348	0.860
cg15487105	salmon	22	19,744,051	TSS200	Island	TBX1	0.684	0.003	0.044	0.572
cg04938109	salmon	12	64,384,670	Body	OpenSea	SRGAP1	0.684	0.002	0.464	0.899
cg20387775	salmon	6	158,136,705		OpenSea		0.683	0.001	0.504	0.922
cg14369329	salmon	14	70,104,457	5'UTR	OpenSea	KIAA0247	0.683	-0.003	0.093	0.544
cg05621843	salmon	9	97,806,397	Body	N_Shore	C9orf3	0.683	-0.006	0.469	0.516
cg24410453	salmon	6	53,919,041	Body	OpenSea	C6orf142	0.683	-0.001	0.057	0.837
cg25090510	salmon	5	156,886,990	TSS200	Island	NIPAL4	0.683	-0.002	0.021	0.135
cg00866321	salmon	16	77,421,693	Body	OpenSea	ADAMTS18	0.683	-0.007	0.494	0.578
cg06363559	salmon	6	33,175,156	TSS1500	N_Shore	RING1	0.683	-0.002	0.022	0.341
cg17818471	salmon	2	177,012,640		Island		0.683	-0.001	0.054	0.819
cg20038591	salmon	10	119,306,659	Body	S_Shore	EMX2	0.683	0.002	0.073	0.835
cg01417669	salmon	2	24,273,454	Body	S_Shore	FKBP1B	0.683	0.001	0.261	0.899
cg10914815	salmon	13	99,148,667	Body	OpenSea	STK24	0.683	0.002	0.413	0.839
cg04004558	salmon	16	11,348,684	3'UTR	Island	SOCS1	0.683	-0.003	0.091	0.533
cg17217665	salmon	6	44,186,914	TSS1500	N_Shore	SLC29A1	0.683	-0.005	0.071	0.421
cg10592478	salmon	12	53,612,641	Body	N_Shore	RARG	0.683	0.001	0.055	0.939
cg23129930	salmon	7	27,186,993	1stExon	Island	HOXA6	0.683	0.000	0.165	0.986
cg23108037	salmon	1	3,507,069	Body	OpenSea	MEGF6	0.682	-0.004	0.198	0.612
cg06561886	salmon	19	10,736,299	5'UTR	Island	SLC44A2	0.682	-0.018	0.130	0.291
cg21283066	salmon	6	100,615,670		OpenSea		0.682	0.006	0.116	0.602
cg00679184	salmon	14	75,447,722		Island		0.682	-0.008	0.043	0.060
cg20318252	salmon	17	55,594,714	Body	OpenSea	MSI2	0.681	0.002	0.379	0.795
cg00788521	salmon	12	2,229,269	Body	OpenSea	CACNA1C	0.681	0.008	0.215	0.413
cg10835083	salmon	2	222,395,101	Body	OpenSea	EPHA4	0.681	0.004	0.263	0.767
cg19416462	salmon	6	14,533,530		OpenSea		0.681	-0.010	0.189	0.256
cg26236177	salmon	14	61,110,649		S_Shore		0.681	-0.010	0.108	0.638
cg19645616	salmon	19	10,444,917	TSS1500	Island	RAVER1	0.681	0.000	0.078	0.984
cg21853871	salmon	17	46,628,717	Body	N_Shore	HOXB3	0.681	-0.012	0.209	0.347
cg01301319	salmon	7	27,153,580	5'UTR	Island	HOXA3	0.681	-0.003	0.083	0.760
cg25963980	salmon	11	35,442,225	TSS1500	S_Shore	SLC1A2	0.681	0.006	0.175	0.573
cg00233565	salmon	5	176,160,659		OpenSea		0.681	-0.003	0.136	0.579
cg06844968	salmon	18	24,131,604	5'UTR	S_Shore	KCTD1	0.681	-0.008	0.071	0.353
cg19959677	salmon	14	61,120,783		N_Shelf		0.681	0.002	0.171	0.880
cg16324314	salmon	14	77,480,847		OpenSea		0.681	0.000	0.214	0.949
cg13293524	salmon	17	46,651,822	TSS200	N_Shelf	HOXB3	0.681	-0.010	0.148	0.356
cg23884241	salmon	7	27,169,957	1stExon	Island	HOXA4	0.681	0.008	0.080	0.617
cg11724970	salmon	7	27,182,493	Body	N_Shore	HOXA5	0.680	0.002	0.078	0.831
cg10768321	salmon	19	49,842,035	Body	Island	CD37	0.680	-0.003	0.238	0.691
cg04003582	salmon	5	92,936,507		N_Shelf		0.680	-0.006	0.090	0.411
cg01860706	salmon	15	68,220,285		OpenSea		0.680	-0.003	0.081	0.730
cg17966560	salmon	1	156,357,871		N_Shore		0.680	-0.004	0.070	0.575
cg06926146	salmon	1	170,629,502		N_Shore		0.680	-0.009	0.100	0.547
cg05430989	salmon	3	133,749,309	TSS1500	S_Shore	SLCO2A1	0.679	-0.002	0.060	0.462
cg23336695	salmon	15	71,804,736	Body	OpenSea	THSD4	0.679	0.003	0.099	0.733
cg21215818	salmon	9	126,169,333	Body	OpenSea	DENND1A	0.679	-0.001	0.177	0.919
cg09811860	salmon	1	211,803,715		OpenSea		0.679	-0.002	0.194	0.868
cg26217813	salmon	17	3,378,996	TSS1500	S_Shelf	ASPA	0.679	-0.011	0.311	0.368

cg22593177	salmon	10	82,174,376	Body	OpenSea	C10orf58	0.679	-0.005	0.325	0.581
cg19522050	salmon	10	101,281,275		Island		0.679	0.018	0.146	0.103
cg08168379	salmon	16	51,279,186		OpenSea		0.679	-0.005	0.230	0.550
cg00071727	salmon	13	98,869,894	Body	OpenSea	FARP1	0.678	-0.006	0.470	0.512
cg20046343	salmon	6	41,528,785	5'UTR	Island	FOXP4	0.678	-0.016	0.348	0.092
cg12176783	salmon	20	62,694,000	TSS200	Island	TCEA2	0.678	-0.010	0.052	0.104
cg18648169	salmon	12	125,028,295		Island		0.678	-0.006	0.188	0.529
cg15211908	salmon	1	112,531,263	5'UTR	N_Shore	KCND3	0.678	-0.001	0.049	0.699
cg04517429	salmon	4	155,413,618	TSS1500	S_Shore	DCHS2	0.678	-0.001	0.044	0.648
cg23378722	salmon	13	49,882,500		OpenSea		0.678	-0.003	0.156	0.589
cg24112000	salmon	20	60,950,667		S_Shore		0.678	-0.004	0.071	0.566
cg24275315	salmon	4	85,417,312	Body	N_Shore	NKX6-1	0.678	0.002	0.056	0.841
cg11065036	salmon	13	39,828,976		OpenSea		0.678	-0.001	0.273	0.925
cg05059480	salmon	15	40,633,202	TSS200	OpenSea	C15orf52	0.678	-0.002	0.090	0.758
cg23510807	salmon	7	2,567,893	3'UTR	S_Shore	LFNG	0.678	0.003	0.379	0.613
cg19933595	salmon	4	146,857,013	Body	N_Shore	ZNF827	0.678	-0.001	0.032	0.576
cg15200445	salmon	19	3,698,926	Body	N_Shore	PIP5K1C	0.677	0.000	0.132	0.985
cg12781794	salmon	11	118,505,740	Body	Island	PHLDB1	0.677	0.000	0.183	0.987
cg08488945	salmon	3	181,422,202	Body	OpenSea	SOX2OT	0.677	0.000	0.062	0.994
cg15895197	salmon	2	27,301,490	1stExon	N_Shelf	EMILIN1	0.677	-0.003	0.043	0.537
cg02640147	salmon	5	170,024,515	Body	OpenSea	KCNIP1	0.677	-0.010	0.179	0.318
cg03568507	salmon	2	240,153,791	Body	Island	HDAC4	0.677	0.006	0.248	0.412
cg10553204	salmon	2	20,871,195	3'UTR	Island	GDF7	0.677	0.002	0.087	0.848
cg13734282	salmon	7	137,125,473	Body	OpenSea	DGKI	0.677	0.004	0.577	0.771
cg11970695	salmon	1	3,634,044	Body	N_Shore	TP73	0.677	-0.007	0.156	0.417
cg05748163	salmon	8	25,897,763	Body	N_Shore	EBF2	0.677	0.010	0.179	0.463
cg00987534	salmon	7	73,207,968		OpenSea		0.676	-0.003	0.029	0.441
cg25324164	salmon	11	61,598,330	Body	S_Shore	FADS2	0.676	0.002	0.127	0.802
cg04728310	salmon	19	45,947,905		Island		0.676	-0.001	0.070	0.838
cg01449136	salmon	14	61,109,317		Island		0.676	-0.008	0.192	0.632
cg04034583	salmon	2	119,603,108	Body	Island	EN1	0.676	-0.008	0.097	0.408
cg03405909	salmon	11	31,845,639		N_Shore		0.676	-0.002	0.041	0.532
cg01807748	salmon	1	94,534,645	Body	OpenSea	ABCA4	0.675	-0.004	0.373	0.585
cg01823161	salmon	5	64,422,261		OpenSea		0.675	-0.002	0.083	0.758
cg08545213	salmon	3	37,959,356	Body	OpenSea	CTDSPL	0.675	-0.004	0.481	0.497
cg04904099	salmon	16	68,678,010	TSS200	N_Shore	CDH3	0.675	0.000	0.019	0.902
cg13029423	salmon	16	86,549,276		Island		0.675	0.002	0.042	0.702
cg04569429	salmon	17	37,024,625	TSS1500	N_Shore	LASP1	0.675	-0.002	0.030	0.389
cg16061656	salmon	11	115,088,907	Body	OpenSea	CADM1	0.675	0.003	0.433	0.756
cg03463411	salmon	4	81,118,188	TSS1500	Island	PRDM8	0.675	0.004	0.047	0.685
cg05928290	salmon	14	54,418,728	Body	Island	BMP4	0.675	0.007	0.139	0.616
cg11808677	salmon	12	6,960,079	TSS1500	N_Shore	USP5	0.674	0.000	0.109	0.966
cg13220900	salmon	6	35,285,967	Body	OpenSea	DEF6	0.674	-0.010	0.165	0.424
cg06630455	salmon	6	10,410,494	Body	Island	TFAP2A	0.674	0.002	0.087	0.648
cg17495715	salmon	2	176,950,273		Island		0.674	-0.001	0.033	0.599
cg10913846	salmon	14	37,133,714	Body	N_Shore	PAX9	0.674	-0.006	0.089	0.553
cg21169762	salmon	14	81,790,336	Body	OpenSea	STON2	0.674	-0.001	0.207	0.921
cg23691894	salmon	10	111,765,904	1stExon	N_Shore	ADD3	0.674	-0.004	0.056	0.506
cg26731885	salmon	10	104,380,564	Body	OpenSea	SUFU	0.673	-0.010	0.275	0.130
cg23206520	salmon	2	189,158,094	5'UTR	S_Shore	GULP1	0.673	0.000	0.040	0.965
cg17980283	salmon	2	45,156,642		Island		0.673	-0.021	0.134	0.078
cg02792168	salmon	10	101,281,924		Island		0.673	0.002	0.083	0.774
cg09068953	salmon	7	133,513,138	Body	OpenSea	EXOC4	0.673	-0.007	0.382	0.606
cg00182639	salmon	12	114,841,671	Body	N_Shore	TBX5	0.673	0.000	0.091	0.958
cg19034505	salmon	13	95,366,050		Island		0.673	-0.005	0.051	0.286
cg16388178	salmon	4	174,427,507		N_Shore		0.673	-0.015	0.400	0.310
cg22772747	salmon	7	27,164,285	5'UTR	S_Shore	HOXA3	0.672	0.003	0.123	0.669
cg02749463	salmon	17	46,646,359	5'UTR	OpenSea	HOXB3	0.672	-0.002	0.046	0.400
cg12359001	salmon	7	1,576,765	5'UTR	S_Shore	MAFK	0.672	0.001	0.181	0.889
cg05076221	salmon	7	27,182,637	Body	Island	HOXA5	0.672	0.001	0.110	0.898
cg03005293	salmon	1	151,805,241	TSS1500	OpenSea	RORC	0.672	0.002	0.160	0.713
cg05897316	salmon	3	40,657,497		S_Shore		0.672	-0.003	0.073	0.410
cg06508062	salmon	21	38,063,872		N_Shore		0.672	-0.002	0.068	0.791
cg26390041	salmon	17	70,201,666		OpenSea		0.671	0.000	0.017	0.926
cg00835193	salmon	19	2,291,780	5'UTR	Island	LINGO3	0.671	-0.003	0.104	0.657
cg12563372	salmon	8	25,908,503		N_Shore		0.671	-0.002	0.038	0.432
cg09594069	salmon	7	37,956,906	TSS1500	S_Shore	SFRP4	0.671	0.001	0.051	0.838



cg23936031	salmon	7	27,183,133	1stExon	Island	HOXA5	0.671	-0.002	0.051	0.752
cg15341575	salmon	10	93,883,989	Body	OpenSea	CPEB3	0.671	-0.018	0.247	0.022
cg08461752	salmon	10	43,522,343		OpenSea		0.671	-0.004	0.029	0.074
cg03213259	salmon	16	67,189,948	Body	S_Shore	TRADD	0.671	0.001	0.033	0.703
cg26194477	salmon	14	29,234,890	TSS1500	Island	FOXG1	0.671	0.000	0.047	0.911
cg21338660	salmon	20	24,452,007	5'UTR	Island	TMEM90B	0.671	-0.008	0.070	0.231
cg26578682	salmon	5	2,750,163	Body	Island	IRX2	0.670	0.000	0.113	0.945
cg08832220	salmon	3	55,516,184	Body	Island	WNT5A	0.670	-0.014	0.083	0.172
cg02444226	salmon	2	66,545,288		OpenSea		0.670	0.018	0.582	0.106
cg27406678	salmon	4	85,417,612	Body	N_Shore	NKX6-1	0.670	0.001	0.033	0.787
cg27391693	salmon	4	95,680,102	5'UTR	S_Shore	BMPR1B	0.670	0.001	0.026	0.491
cg19880542	salmon	3	11,678,156	Body	OpenSea	VGLL4	0.669	0.021	0.228	0.193
cg15164782	salmon	3	99,507,048	5'UTR	OpenSea	COL8A1	0.669	-0.013	0.196	0.325
cg05118960	salmon	3	50,359,978	5'UTR	Island	HYAL2	0.669	-0.001	0.046	0.768
cg13081009	salmon	1	8,430,745	5'UTR	OpenSea	RERE	0.668	-0.001	0.110	0.939
cg25960038	salmon	17	46,667,789	TSS200	N_Shore	LOC404266	0.668	-0.008	0.166	0.546
cg27315314	salmon	10	29,228,903		OpenSea		0.668	0.008	0.101	0.264
cg08170519	salmon	11	133,804,959	Body	OpenSea	IGSF9B	0.668	0.003	0.223	0.595
cg00687306	salmon	15	37,398,943		OpenSea		0.668	-0.003	0.024	0.144
cg13572782	salmon	18	74,799,495	Body	Island	MBP	0.667	0.002	0.077	0.816
cg22063434	salmon	4	174,427,529		N_Shore		0.667	-0.026	0.344	0.108
cg09574499	salmon	7	27,168,962	Body	N_Shore	HOXA4	0.667	-0.005	0.066	0.410
cg14658493	salmon	7	27,184,077	TSS1500	Island	HOXA5	0.667	0.000	0.046	0.975
cg01557798	salmon	1	228,400,628	Body	Island	OBSCN	0.667	0.000	0.051	0.880
cg11648522	salmon	1	15,272,238	TSS200	OpenSea	KIAA1026	0.667	0.005	0.121	0.441
cg01353646	salmon	12	58,132,733	TSS1500	Island	AGAP2	0.667	-0.004	0.028	0.187
cg15095913	salmon	7	1,576,976	5'UTR	S_Shore	MAFK	0.667	0.009	0.247	0.457
cg11498726	salmon	8	26,250,323	Body	OpenSea	BNIP3L	0.666	-0.014	0.492	0.282
cg17421417	salmon	5	92,934,644		S_Shelf		0.666	-0.011	0.276	0.416
cg09806671	salmon	1	165,324,679	Body	Island	LMX1A	0.666	-0.001	0.034	0.770
cg25387624	salmon	5	154,133,459	Body	N_Shore	LARP1	0.666	0.001	0.124	0.807
cg18203366	salmon	1	200,010,626	Body	Island	NR5A2	0.666	-0.001	0.035	0.648
cg22276811	salmon	8	18,541,627	Body	OpenSea	PSD3	0.666	-0.011	0.307	0.445
cg06231565	salmon	12	1,738,268	TSS200	N_Shore	WNT5B	0.666	-0.008	0.078	0.150
cg04743876	salmon	7	130,013,617		OpenSea		0.666	-0.004	0.059	0.601
cg14603539	salmon	21	42,212,414	Body	N_Shore	DSCAM	0.666	0.001	0.426	0.944
cg02838492	salmon	9	116,861,288	1stExon	Island	KIF12	0.665	0.002	0.140	0.749
cg15033969	salmon	11	57,105,814	TSS200	S_Shelf	P2RX3	0.665	0.002	0.229	0.687
cg26235048	salmon	6	131,132,063		OpenSea		0.665	-0.007	0.125	0.543
cg09041614	salmon	8	121,417,181	Body	OpenSea	MRPL13	0.665	-0.007	0.647	0.654
cg14557202	salmon	12	54,764,371	Body	Island	ZNF385A	0.665	-0.003	0.029	0.522
cg22912834	salmon	2	45,227,645		Island		0.665	-0.005	0.185	0.736
cg25595793	salmon	19	10,736,117	TSS200	Island	SLC44A2	0.665	-0.001	0.046	0.918
cg06446408	salmon	16	73,266,679		OpenSea		0.665	-0.003	0.464	0.728
cg19052547	salmon	7	151,418,881	Body	N_Shelf	PRKAG2	0.665	-0.007	0.231	0.267
cg10783294	salmon	12	679,668	Body	S_Shore	NINJ2	0.665	0.007	0.165	0.531
cg21245875	salmon	15	70,354,825	Body	OpenSea	TLE3	0.664	0.005	0.128	0.576
cg24769398	salmon	3	188,666,022		S_Shore		0.664	-0.005	0.098	0.483
cg04039397	salmon	3	111,260,783	TSS200	OpenSea	CD96	0.664	0.006	0.096	0.464
cg27581031	salmon	17	48,348,565	TSS1500	N_Shore	TMEM92	0.664	0.004	0.360	0.476
cg08687386	salmon	6	30,711,206	3'UTR	Island	IER3	0.664	-0.011	0.105	0.054
cg08736638	salmon	20	21,682,505		N_Shore		0.664	0.002	0.076	0.872
cg11529346	salmon	6	168,665,455		OpenSea		0.664	0.001	0.190	0.891
cg03963011	salmon	11	128,418,551	Body	N_Shore	ETS1	0.664	0.000	0.033	0.829
cg13744172	salmon	16	54,972,647		Island		0.664	-0.002	0.046	0.432
cg07212702	salmon	6	157,137,791	Body	OpenSea	ARID1B	0.664	-0.011	0.104	0.345
cg20569108	salmon	10	21,822,303	TSS1500	N_Shore	MLLT10	0.664	-0.005	0.200	0.663
cg22216196	salmon	19	15,564,105	Body	Island	RASAL3	0.663	-0.015	0.167	0.300
cg24562110	salmon	13	80,324,480		OpenSea		0.663	0.000	0.030	0.831
cg00035000	salmon	1	25,255,003	Body	N_Shore	RUNX3	0.663	-0.001	0.037	0.824
cg05330121	salmon	10	77,166,684	Body	Island	C10orf41	0.663	-0.012	0.536	0.503
cg13257412	salmon	2	211,340,637	Body	N_Shore	LANCL1	0.663	0.001	0.055	0.732
cg13029400	salmon	3	141,087,190	5'UTR	OpenSea	ZBTB38	0.663	0.001	0.043	0.875
cg05412333	salmon	8	11,560,838	TSS1500	Island	GATA4	0.663	-0.002	0.039	0.626
cg01323381	salmon	7	27,184,264	TSS1500	Island	HOXA5	0.663	0.002	0.040	0.676
cg21082400	salmon	5	72,595,958		S_Shore		0.663	-0.001	0.045	0.911
cg25017900	salmon	10	35,102,487	Body	N_Shore	PARD3	0.662	-0.001	0.246	0.855

cg26154937	salmon	10	49,674,883	Body	S_Shore	ARHGAP22	0.662	-0.002	0.115	0.856
cg21971800	salmon	17	831,348	Body	OpenSea	NXN	0.662	0.001	0.095	0.869
cg24668061	salmon	17	43,318,760	Body	Island	FMNL1	0.662	-0.012	0.255	0.351
cg09357684	salmon	1	6,684,860	TSS1500	N_Shore	THAP3	0.662	-0.003	0.088	0.693
cg18587137	salmon	14	103,593,503	Body	Island	TNFAIP2	0.662	-0.016	0.125	0.267
cg11672390	salmon	1	3,157,510	Body	Island	PRDM16	0.662	-0.004	0.106	0.641
cg02888092	salmon	2	238,865,252		S_Shore		0.661	0.006	0.150	0.351
cg24460126	salmon	1	179,713,828	5'UTR	Island	FAM163A	0.661	-0.001	0.121	0.930
cg07598580	salmon	1	86,620,525	Body	N_Shore	COL24A1	0.661	-0.007	0.304	0.436
cg00158789	salmon	17	59,534,683	Body	Island	TBX4	0.661	-0.002	0.092	0.815
cg15135093	salmon	1	183,382,318	Body	N_Shelf	NMNAT2	0.660	-0.015	0.626	0.210
cg25505106	salmon	15	48,936,208	Body	N_Shore	FBN1	0.660	0.000	0.097	0.939
cg02349264	salmon	16	8,960,833	5'UTR	N_Shore	CARHSP1	0.660	-0.001	0.019	0.342
cg00445126	salmon	2	63,276,010	TSS1500	Island	LOC1001322	0.660	-0.003	0.037	0.391
cg20794824	salmon	3	170,138,205	Body	S_Shore	CLDN11	0.660	0.002	0.410	0.825
cg06819935	salmon	16	50,003,431		OpenSea		0.660	0.000	0.024	0.971
cg20154222	salmon	8	106,626,898	Body	OpenSea	ZFPM2	0.660	-0.019	0.553	0.152
cg06186155	salmon	17	46,648,582	5'UTR	OpenSea	HOXB3	0.660	-0.024	0.238	0.091
cg15204874	salmon	1	54,822,298	Body	Island	SSBP3	0.660	-0.005	0.083	0.334
cg04819760	salmon	10	22,765,645		Island		0.660	-0.001	0.054	0.782
cg25800765	salmon	12	85,673,347	TSS1500	N_Shore	ALX1	0.660	-0.005	0.057	0.318
cg06202737	salmon	2	128,166,279		S_Shore		0.660	-0.003	0.122	0.703
cg13980799	salmon	10	119,000,215	TSS1500	N_Shore	SLC18A2	0.659	-0.003	0.037	0.359
cg15065622	salmon	18	30,051,564	TSS1500	S_Shore	FAM59A	0.659	0.000	0.027	0.825
cg01954737	salmon	2	223,164,459	TSS1500	S_Shore	PAX3	0.659	-0.001	0.026	0.665
cg17876645	salmon	1	65,713,771		OpenSea		0.659	0.014	0.254	0.112
cg06635722	salmon	4	13,532,622		S_Shore		0.659	-0.003	0.089	0.737
cg10789300	salmon	8	117,170,823		OpenSea		0.659	-0.006	0.377	0.568
cg14485744	salmon	8	119,086,710	Body	OpenSea	EXT1	0.659	-0.003	0.032	0.306
cg09491120	salmon	6	1,394,986	Body	S_Shore	FOXF2	0.658	0.010	0.243	0.571
cg18987431	salmon	2	104,000,490		OpenSea		0.658	-0.003	0.484	0.680
cg21697198	salmon	11	129,246,394	Body	Island	BARX2	0.658	0.000	0.024	0.778
cg25417675	salmon	6	31,651,059		Island		0.658	-0.019	0.110	0.132
cg01167502	salmon	6	106,441,506		N_Shore		0.658	0.000	0.045	0.989
cg15254671	salmon	19	8,591,513	Body	Island	MYO1F	0.658	-0.005	0.077	0.383
cg21306988	salmon	13	108,867,134	5'UTR	Island	LIG4	0.658	-0.005	0.036	0.243
cg24477886	salmon	17	36,813,798		OpenSea		0.658	-0.006	0.234	0.493
cg12214647	salmon	3	50,492,883	Body	OpenSea	CACNA2D2	0.658	-0.007	0.616	0.364
cg13165983	salmon	2	227,342,994		OpenSea		0.658	0.007	0.185	0.646
cg07584855	salmon	1	221,055,545	Body	Island	HLX	0.657	-0.002	0.289	0.885
cg08454824	salmon	8	637,468	Body	Island	ERICH1	0.657	-0.008	0.118	0.471
cg26419378	salmon	5	14,299,110	Body	OpenSea	TRIO	0.657	-0.009	0.575	0.428
cg24576358	salmon	5	134,350,122		OpenSea		0.657	0.000	0.150	0.996
cg02436004	salmon	3	128,211,540	5'UTR	Island	GATA2	0.657	0.001	0.074	0.747
cg06129210	salmon	16	17,565,129	TSS1500	OpenSea	XYLT1	0.657	-0.001	0.050	0.755
cg23417096	salmon	8	134,250,016	3'UTR	OpenSea	NDRG1	0.657	0.002	0.107	0.773
cg25415932	salmon	3	9,791,051	TSS1500	N_Shore	OGG1	0.657	-0.002	0.036	0.515
cg17130457	salmon	12	76,414,729		OpenSea		0.657	-0.008	0.275	0.451
cg05628702	salmon	20	35,491,052	Body	Island	C20orf117	0.656	-0.004	0.028	0.331
cg20427865	salmon	16	57,406,353	TSS200	OpenSea	CX3CL1	0.656	0.001	0.063	0.923
cg19767800	salmon	5	92,914,085	Body	N_Shore	FLJ42709	0.656	-0.007	0.431	0.345
cg24500487	salmon	10	89,420,794	Body	S_Shore	PAPSS2	0.656	0.000	0.156	0.960
cg03471047	salmon	15	51,455,849		OpenSea		0.656	-0.005	0.050	0.329
cg02370877	salmon	8	76,316,876		N_Shelf		0.656	-0.004	0.053	0.493
cg11601663	salmon	10	15,666,820	Body	OpenSea	ITGA8	0.656	-0.009	0.554	0.376
cg20415947	salmon	1	235,043,974		OpenSea		0.655	-0.010	0.212	0.311
cg19469688	salmon	21	47,449,364		N_Shelf		0.655	-0.007	0.347	0.695
cg11284842	salmon	5	92,931,817		S_Shore		0.655	-0.031	0.430	0.152
cg03604367	salmon	7	12,610,817	Body	Island	SCIN	0.655	-0.005	0.057	0.185
cg07441278	salmon	3	48,256,968		OpenSea		0.655	-0.006	0.137	0.474
cg08915171	salmon	2	105,273,376		N_Shelf		0.655	-0.029	0.570	0.095
cg13341668	salmon	3	50,359,909	5'UTR	Island	HYAL2	0.654	-0.001	0.044	0.802
cg02689489	salmon	10	31,423,315		Island		0.654	-0.001	0.034	0.809
cg20934520	salmon	17	34,838,488		N_Shore		0.654	-0.001	0.037	0.763
cg14830003	salmon	1	38,022,657	1stExon	Island	DNALI1	0.654	-0.002	0.044	0.461
cg15429214	salmon	22	43,166,281		Island		0.654	-0.012	0.076	0.262
cg27283345	salmon	6	10,416,531	Body	N_Shore	TFAP2A	0.654	0.008	0.170	0.512

cg07921371	salmon	13	20,768,536	TSS1500	S_Shore	GJB2	0.654	0.003	0.031	0.350
cg02388453	salmon	15	37,084,662	Body	OpenSea	C15orf41	0.653	0.001	0.084	0.888
cg25806347	salmon	2	45,164,720		Island		0.653	0.000	0.039	0.919
cg20445245	salmon	6	45,631,799		Island		0.653	-0.003	0.133	0.544
cg02051616	salmon	5	172,661,132	Body	Island	NKX2-5	0.653	-0.005	0.070	0.384
cg13545874	salmon	17	72,984,872	Body	S_Shore	CDR2L	0.653	0.000	0.023	0.969
cg06371836	salmon	20	22,559,867	TSS1500	Island	C20orf56	0.653	0.000	0.016	0.665
cg00544337	salmon	10	82,116,203	TSS1500	Island	DYDC2	0.653	-0.002	0.079	0.629
cg23087306	salmon	10	119,294,055	Body	Island	EMX2OS	0.653	-0.006	0.090	0.161
cg13807496	salmon	11	44,332,540	TSS1500	Island	ALX4	0.653	-0.002	0.040	0.604
cg05983695	salmon	3	50,492,818	Body	OpenSea	CACNA2D2	0.653	-0.004	0.602	0.595
cg04552418	salmon	1	31,958,245		OpenSea		0.653	0.002	0.072	0.747
cg00914726	salmon	1	60,539,400	1stExon	Island	C1orf87	0.653	-0.003	0.047	0.463
cg20317123	salmon	6	134,214,026	3'UTR	Island	TCF21	0.653	-0.001	0.044	0.853
cg14562327	salmon	1	2,469,506		N_Shelf		0.652	0.003	0.267	0.650
cg25840926	salmon	2	20,647,987	1stExon	Island	RHOB	0.652	-0.001	0.052	0.744
cg19489503	salmon	10	101,298,812		N_Shore		0.652	0.006	0.184	0.613
cg17432857	salmon	7	27,184,438	TSS1500	Island	HOXA5	0.652	-0.003	0.048	0.556
cg12699865	salmon	20	32,583,031	5'UTR	S_Shore	RALY	0.652	-0.003	0.141	0.518
cg15000222	salmon	12	117,486,164	Body	S_Shore	TESC	0.652	-0.003	0.044	0.535
cg20755721	salmon	21	38,070,524	TSS1500	Island	SIM2	0.652	-0.002	0.090	0.865
cg20584841	salmon	19	1,070,986	Body	Island	HMHA1	0.652	0.003	0.089	0.764
cg00119279	salmon	4	174,427,146		N_Shore		0.651	-0.019	0.322	0.280
cg11650763	salmon	5	92,930,530		Island		0.651	-0.016	0.270	0.322
cg07005767	salmon	8	107,782,538	TSS200	OpenSea	ABRA	0.651	-0.002	0.403	0.708
cg22962123	salmon	7	27,153,605	5'UTR	Island	HOXA3	0.651	-0.001	0.042	0.856
cg12359904	salmon	3	156,848,454		OpenSea		0.651	0.001	0.041	0.808
cg18918390	salmon	10	21,605,038		OpenSea		0.651	-0.004	0.042	0.246
cg00950497	salmon	10	116,393,423	Body	S_Shore	ABLIM1	0.651	0.002	0.077	0.702
cg05083202	salmon	21	40,146,149	TSS1500	OpenSea	NCRNA00114	0.651	0.002	0.484	0.819
cg07779313	salmon	2	192,731,534		OpenSea		0.651	-0.001	0.057	0.825
cg09216797	salmon	10	134,514,573	Body	OpenSea	INPP5A	0.651	0.001	0.622	0.930
cg26263675	salmon	17	72,743,191	3'UTR	N_Shore	RAB37	0.651	-0.022	0.130	0.019
cg27367615	salmon	16	86,229,910		OpenSea		0.651	-0.001	0.030	0.792
cg14896559	salmon	19	3,481,957	TSS1500	Island	C19orf77	0.650	-0.016	0.188	0.166
cg24803517	salmon	5	94,621,517	TSS1500	S_Shore	MCTP1	0.650	-0.001	0.061	0.864
cg17855823	salmon	6	89,572,705	Body	OpenSea	RNGTT	0.650	-0.004	0.514	0.641
cg07206712	salmon	15	53,087,887		S_Shore		0.650	0.000	0.028	0.973
cg21526172	salmon	19	18,980,110	Body	Island	GDF1	0.650	0.010	0.090	0.592
cg20778199	salmon	6	148,020,881		OpenSea		0.650	-0.025	0.422	0.040
cg07452306	salmon	2	73,299,297	TSS1500	S_Shore	SFXN5	0.650	-0.004	0.063	0.163
cg20899625	salmon	3	126,721,131	Body	OpenSea	PLXNA1	0.650	-0.008	0.060	0.111
cg23253448	salmon	8	22,548,828	Body	Island	EGR3	0.650	-0.007	0.068	0.086
cg26463328	salmon	4	174,445,349		S_Shore		0.649	-0.009	0.343	0.571
cg08076158	salmon	16	86,539,022		N_Shore		0.649	-0.002	0.066	0.706
cg11492040	salmon	11	2,016,513	Body	N_Shore	H19	0.649	0.001	0.416	0.801
cg07466788	salmon	17	80,194,552	Body	Island	SLC16A3	0.648	-0.001	0.245	0.859
cg07289618	salmon	2	48,800,297	5'UTR	OpenSea	STON1-GTF2.	0.648	-0.001	0.228	0.816
cg01370449	salmon	7	27,183,369	TSS200	Island	HOXA5	0.648	0.003	0.029	0.270
cg07687131	salmon	12	93,967,580	Body	S_Shore	SOCS2	0.648	-0.008	0.087	0.400
cg13668207	salmon	12	65,904,452		OpenSea		0.648	0.007	0.162	0.507
cg26244646	salmon	17	59,391,924	Body	OpenSea	BCAS3	0.648	-0.002	0.149	0.794
cg08722383	salmon	7	5,594,654		Island		0.648	-0.004	0.042	0.209
cg10552446	salmon	2	66,809,923		S_Shore		0.648	-0.002	0.115	0.783
cg15964468	salmon	6	28,351,351	Body	Island	ZSCAN12	0.648	0.001	0.035	0.836
cg01324550	salmon	17	46,676,099	Body	S_Shore	LOC404266	0.647	-0.004	0.201	0.750
cg14532755	salmon	4	1,762,460		N_Shelf		0.647	0.000	0.080	0.996
cg13966628	salmon	1	240,629,046	Body	OpenSea	FMN2	0.647	-0.001	0.043	0.632
cg23721254	salmon	3	70,538,099		OpenSea		0.647	-0.008	0.272	0.506
cg19005842	salmon	11	130,357,474		OpenSea		0.647	0.004	0.499	0.670
cg02320543	salmon	14	61,109,545		Island		0.647	-0.005	0.197	0.799
cg12179011	salmon	20	22,560,481	TSS1500	S_Shore	C20orf56	0.647	0.004	0.067	0.376
cg27047044	salmon	5	39,817,018		OpenSea		0.647	-0.015	0.376	0.321
cg11714430	salmon	2	191,517,645	5'UTR	S_Shelf	NAB1	0.646	-0.011	0.601	0.332
cg20605886	salmon	10	77,472,147		OpenSea		0.646	0.016	0.116	0.324
cg01964852	salmon	7	27,146,262	3'UTR	Island	HOXA3	0.646	0.002	0.046	0.690
cg15874390	salmon	14	96,752,011	3'UTR	OpenSea	ATG2B	0.646	-0.001	0.143	0.884

cg16516639	salmon	1	111,050,810	OpenSea		0.646	0.000	0.044	0.862
cg24935121	salmon	1	155,022,635 TSS1500	N_Shore	ADAM15	0.646	0.000	0.253	0.969
cg20161791	salmon	7	2,558,431 Body	Island	LFNG	0.645	-0.001	0.027	0.587
cg13300915	salmon	15	46,592,937	OpenSea		0.645	0.003	0.382	0.747
cg00203284	salmon	1	47,910,914	Island		0.645	-0.002	0.030	0.374
cg03207666	salmon	7	27,183,950 TSS1500	Island	HOXA5	0.645	0.001	0.255	0.946
cg07658809	salmon	10	134,914,910 Body	S_Shore	GPR123	0.645	0.008	0.168	0.357
cg13172549	salmon	7	27,153,636 5'UTR	Island	HOXA3	0.645	-0.002	0.039	0.760
cg02852670	salmon	14	20,903,410 5'UTR	Island	KLHL33	0.645	-0.001	0.033	0.665
cg08505243	salmon	6	32,116,112	N_Shore		0.645	-0.003	0.171	0.719
cg00930455	salmon	7	96,654,548 TSS1500	S_Shore	DLX5	0.645	-0.006	0.058	0.172
cg22494858	salmon	1	110,611,712 Body	Island	ALX3	0.644	-0.002	0.044	0.438
cg00241663	salmon	3	128,209,772 5'UTR	Island	GATA2	0.644	0.004	0.066	0.544
cg02455571	salmon	1	162,175,014 Body	OpenSea	NOS1AP	0.643	0.002	0.714	0.880
cg13916835	salmon	17	2,078,431 Body	OpenSea	SMG6	0.643	-0.006	0.052	0.165
cg05296818	salmon	14	61,117,162 TSS1500	S_Shore	SIX1	0.643	-0.005	0.039	0.185
cg19236493	salmon	17	46,629,596 Body	Island	HOXB3	0.643	-0.005	0.175	0.694
cg14546115	salmon	6	20,817,980 Body	OpenSea	CDKAL1	0.643	0.007	0.589	0.684
cg08697503	salmon	2	223,166,946 5'UTR	N_Shore	CCDC140	0.643	0.000	0.016	0.746
cg21170920	salmon	1	18,957,373 TSS200	Island	PAX7	0.643	-0.001	0.044	0.685
cg27588093	salmon	1	3,276,413 Body	S_Shore	PRDM16	0.643	-0.007	0.126	0.422
cg21597025	salmon	3	142,837,564 TSS1500	N_Shore	CHST2	0.643	0.001	0.448	0.930
cg07009284	salmon	8	76,318,515	N_Shore		0.643	-0.005	0.066	0.564
cg04309234	salmon	6	106,441,468	N_Shore		0.643	-0.003	0.053	0.647
cg25079691	salmon	8	25,908,057	N_Shore		0.643	-0.003	0.060	0.521
cg03819089	salmon	2	66,298,217	OpenSea		0.643	0.006	0.097	0.632
cg00044466	salmon	16	15,238,525	OpenSea		0.643	-0.006	0.167	0.334
cg11708116	salmon	6	169,426,333	S_Shore		0.642	-0.001	0.362	0.947
cg06640123	salmon	10	21,638,844	OpenSea		0.642	-0.011	0.072	0.103
cg03487027	salmon	10	77,159,055 Body	Island	ZNF503	0.642	0.003	0.062	0.853
cg06531379	salmon	1	47,911,449	S_Shore		0.642	0.000	0.021	0.945
cg05669853	salmon	6	107,435,226 1stExon	N_Shore	BEND3	0.642	-0.004	0.093	0.458
cg09557556	salmon	11	17,760,574 Body	S_Shelf	KCNC1	0.642	-0.009	0.080	0.244
cg24051554	salmon	1	151,811,620 Body	Island	LOC1001321	0.642	0.001	0.028	0.639
cg18748525	salmon	6	36,409,367 5'UTR	N_Shore	PXT1	0.642	-0.012	0.139	0.104
cg04351734	salmon	7	27,155,173 5'UTR	Island	HOXA3	0.642	-0.004	0.114	0.619
cg18747039	salmon	13	100,650,031	Island		0.642	-0.008	0.092	0.267
cg26972969	salmon	5	87,973,899 Body	N_Shore	LOC645323	0.642	0.000	0.027	0.911
cg13608545	salmon	22	43,166,139	Island		0.641	-0.014	0.143	0.361
cg12042187	salmon	2	105,274,747	N_Shore		0.641	-0.021	0.412	0.275
cg19797741	salmon	5	92,910,052 Body	S_Shore	FLJ42709	0.641	-0.024	0.318	0.027
cg14943135	salmon	6	168,558,115	OpenSea		0.641	-0.006	0.268	0.669
cg06724305	salmon	1	50,887,944 5'UTR	Island	DMRTA2	0.641	-0.002	0.046	0.543
cg07764113	salmon	10	10,684,863	OpenSea		0.641	-0.007	0.104	0.326
cg01215651	salmon	4	165,675,138	OpenSea		0.640	-0.005	0.124	0.625
cg14359052	salmon	6	106,546,744 Body	OpenSea	PRDM1	0.640	-0.002	0.036	0.486
cg20411340	salmon	1	1,175,370	S_Shore		0.640	-0.010	0.162	0.219
cg06940168	salmon	17	64,370,665 Body	OpenSea	PRKCA	0.640	-0.002	0.135	0.666
cg25139229	salmon	10	49,674,458 Body	Island	ARHGAP22	0.640	0.002	0.066	0.810
cg03623835	salmon	3	190,040,974 TSS1500	S_Shore	CLDN1	0.640	0.006	0.389	0.553
cg25964213	salmon	8	17,207,503 Body	OpenSea	MTMR7	0.640	0.006	0.539	0.477
cg25620356	salmon	7	18,535,407 TSS1500	OpenSea	HDAC9	0.640	0.002	0.049	0.737
cg18451016	salmon	1	38,461,880	Island		0.639	-0.006	0.051	0.261
cg23089425	salmon	8	19,034,837	OpenSea		0.639	0.001	0.402	0.857
cg27430624	salmon	2	206,304,062 Body	OpenSea	PARD3B	0.639	0.006	0.396	0.506
cg21966075	salmon	1	156,358,066	Island		0.639	-0.001	0.048	0.735
cg01447951	salmon	15	63,889,527 TSS200	N_Shelf	FBXL22	0.639	-0.003	0.154	0.556
cg08846870	salmon	19	15,568,360 Body	Island	RASAL3	0.639	-0.006	0.064	0.480
cg27126872	salmon	8	1,948,999 5'UTR	N_Shore	KBTBD11	0.639	-0.002	0.030	0.260
cg21935981	salmon	22	45,608,465 Body	OpenSea	C22orf9	0.639	-0.011	0.063	0.047
cg22808633	salmon	19	15,563,870 Body	Island	RASAL3	0.639	-0.001	0.190	0.868
cg23371754	salmon	4	114,214,449 Body	OpenSea	ANK2	0.638	0.001	0.156	0.916
cg10647101	salmon	22	19,744,026 TSS200	Island	TBX1	0.638	-0.014	0.110	0.064
cg21880903	salmon	4	39,408,665 1stExon	OpenSea	KLB	0.638	-0.006	0.042	0.227
cg27067781	salmon	6	32,116,853 3'UTR	Island	PRRT1	0.638	0.003	0.054	0.645
cg06159353	salmon	5	72,595,807	Island		0.638	-0.002	0.070	0.734
cg24211976	salmon	15	60,285,744	N_Shore		0.638	-0.004	0.078	0.604

cg17472736	salmon	12	16,135,031	Body	OpenSea	DERA	0.638	-0.007	0.430	0.288
cg19761304	salmon	19	18,980,103	Body	Island	GDF1	0.638	0.008	0.066	0.606
cg07925311	salmon	16	57,835,436	5'UTR	N_Shore	KIFC3	0.637	-0.004	0.150	0.725
cg16104837	salmon	15	77,320,672	Body	S_Shore	PSTPIP1	0.637	0.004	0.084	0.618
cg08750504	salmon	2	172,946,193		Island		0.637	-0.006	0.038	0.186
cg24641186	salmon	6	50,804,147	Body	OpenSea	TFAP2B	0.637	0.000	0.037	0.962
cg03809526	salmon	10	4,358,517		OpenSea		0.637	0.008	0.326	0.294
cg07610853	salmon	13	113,346,616	Body	S_Shore	ATP11A	0.637	0.009	0.391	0.223
cg08009487	salmon	12	53,208,325	1stExon	OpenSea	KRT4	0.637	-0.013	0.085	0.076
cg05430021	salmon	8	123,110,321		OpenSea		0.637	-0.005	0.349	0.712
cg00808086	salmon	16	73,098,934		N_Shore		0.637	-0.012	0.269	0.410
cg07586026	salmon	1	12,600,225		N_Shore		0.637	-0.003	0.032	0.263
cg10284771	salmon	6	45,645,204		OpenSea		0.636	0.000	0.054	0.986
cg11152302	salmon	14	24,867,472	TSS1500	N_Shore	NYNRIN	0.636	0.000	0.039	0.902
cg00138101	salmon	17	1,961,109	Body	Island	HIC1	0.636	-0.016	0.185	0.099
cg12502577	salmon	12	57,615,581	Body	N_Shelf	NXP4	0.636	0.010	0.134	0.287
cg13773631	salmon	9	96,715,843	Body	Island	BARX1	0.636	-0.004	0.075	0.587
cg18643029	salmon	14	23,464,310	Body	OpenSea	C14orf93	0.636	-0.001	0.097	0.907
cg05143345	salmon	14	23,447,408	Body	N_Shelf	JUB	0.636	0.003	0.153	0.707
cg19241679	salmon	19	2,302,401	5'UTR	N_Shore	LINGO3	0.636	-0.005	0.052	0.349
cg09077752	salmon	11	115,631,389		S_Shore		0.635	-0.001	0.062	0.804
cg11193342	salmon	12	116,872,185		OpenSea		0.635	0.000	0.023	0.982
cg05979400	salmon	2	27,295,591	TSS1500	S_Shore	LOC1001287	0.635	-0.001	0.061	0.770
cg10707081	salmon	13	67,721,697	Body	OpenSea	PCDH9	0.635	-0.001	0.064	0.952
cg18146737	salmon	1	92,946,700	Body	Island	GFI1	0.635	-0.008	0.109	0.495
cg03416645	salmon	3	105,087,206	Body	N_Shore	ALCAM	0.634	0.008	0.043	0.078
cg02956248	salmon	6	32,120,901	TSS1500	N_Shore	PPT2	0.634	0.000	0.020	0.872
cg20307885	salmon	7	27,130,090		S_Shore		0.634	0.006	0.267	0.681
cg02247178	salmon	13	31,506,687	TSS200	OpenSea	C13orf26	0.634	0.001	0.036	0.841
cg07415423	salmon	11	120,387,622		OpenSea		0.634	-0.007	0.091	0.616
cg19435284	salmon	4	13,532,671		S_Shore		0.634	-0.003	0.060	0.609
cg07597892	salmon	20	17,663,972	TSS1500	S_Shore	RRBP1	0.634	0.009	0.296	0.353
cg00347757	salmon	13	20,768,560	TSS1500	S_Shore	GJB2	0.634	0.000	0.034	0.890
cg11264392	salmon	19	15,564,092	Body	Island	RASAL3	0.634	-0.018	0.260	0.106
cg25640519	salmon	3	141,516,705	Body	S_Shore	GRK7	0.633	0.001	0.100	0.841
cg08356262	salmon	5	75,838,704	Body	OpenSea	IQGAP2	0.633	-0.011	0.561	0.353
cg21446172	salmon	1	223,745,234	Body	S_Shore	CAPN8	0.633	-0.003	0.398	0.716
cg24522254	salmon	2	174,878,113		S_Shore		0.633	-0.003	0.046	0.476
cg12580943	salmon	1	2,203,648	Body	OpenSea	SKI	0.633	-0.001	0.134	0.898
cg23670904	salmon	8	94,416,863		OpenSea		0.633	-0.003	0.121	0.583
cg13842240	salmon	4	13,539,213		S_Shore		0.633	-0.006	0.165	0.515
cg07858113	salmon	6	30,711,561	3'UTR	Island	IER3	0.633	-0.014	0.143	0.134
cg11581865	salmon	11	120,078,840		N_Shelf		0.633	-0.008	0.165	0.432
cg05323879	salmon	17	46,642,104	5'UTR	Island	HOXB3	0.633	-0.008	0.075	0.189
cg01724607	salmon	6	99,278,360		N_Shore		0.633	0.000	0.040	0.956
cg11433622	salmon	2	66,667,549	Body	OpenSea	MEIS1	0.633	-0.007	0.063	0.325
cg19324940	salmon	6	134,213,992	3'UTR	Island	TCF21	0.632	0.002	0.058	0.842
cg24869272	salmon	11	850,296	5'UTR	Island	TSPAN4	0.632	-0.002	0.064	0.716
cg20965469	salmon	2	100,266,111	Body	OpenSea	AFF3	0.632	-0.006	0.149	0.448
cg19064523	salmon	7	19,158,210	TSS1500	S_Shore	TWIST1	0.632	-0.006	0.083	0.251
cg02388150	salmon	8	41,165,699	Body	N_Shore	SFRP1	0.632	0.000	0.022	0.861
cg08498833	salmon	8	134,003,896	Body	OpenSea	TG	0.632	0.001	0.313	0.941
cg00038020	salmon	1	223,575,793		OpenSea		0.632	0.005	0.511	0.606
cg02175321	salmon	11	103,930,844	Body	OpenSea	PDGFD	0.632	-0.001	0.471	0.888
cg09239106	salmon	12	49,937,997	Body	OpenSea	KCNH3	0.632	-0.002	0.145	0.852
cg11598403	salmon	18	74,799,500	Body	Island	MBP	0.631	0.001	0.063	0.913
cg11738543	salmon	12	93,967,225	Body	Island	SOCS2	0.631	-0.001	0.052	0.721
cg23483765	salmon	5	156,886,996	TSS200	Island	NIPAL4	0.631	-0.001	0.027	0.417
cg20408776	salmon	17	43,319,382	Body	S_Shore	FMNL1	0.630	-0.007	0.115	0.558
cg19236794	salmon	1	1,181,769	Body	Island	FAM132A	0.630	-0.008	0.067	0.258
cg21301805	salmon	1	119,534,644		N_Shore		0.630	0.002	0.053	0.803
cg00927495	salmon	9	96,715,687	Body	Island	BARX1	0.630	0.000	0.029	0.943
cg10501093	salmon	14	103,593,520	Body	Island	TNFAIP2	0.630	-0.005	0.077	0.686
cg00262446	salmon	4	101,439,228	5'UTR	OpenSea	EMCN	0.630	0.000	0.027	0.860
cg01020413	salmon	2	66,810,487		S_Shore		0.629	-0.007	0.309	0.619
cg14626259	salmon	21	38,079,019	Body	N_Shore	SIM2	0.629	-0.006	0.173	0.641
cg17603689	salmon	1	50,883,013		Island		0.629	-0.003	0.050	0.656

cg09760574	salmon	20	34,605,662	Body	OpenSea	C2orf152	0.629	-0.005	0.047	0.291
cg13034073	salmon	7	2,769,681	3'UTR	OpenSea	GNA12	0.629	0.003	0.283	0.615
cg16209664	salmon	3	147,131,146	Body	Island	ZIC1	0.629	-0.007	0.057	0.175
cg13634423	salmon	3	151,596,028	5'UTR	OpenSea	SUCNR1	0.629	-0.006	0.417	0.451
cg19045239	salmon	19	46,799,505	TSS1500	N_Shore	HIF3A	0.629	-0.003	0.065	0.633
cg22987448	salmon	19	8,591,364	Body	Island	MYO1F	0.629	-0.012	0.073	0.207
cg23994043	salmon	2	200,326,725	TSS1500	Island	SATB2	0.629	-0.006	0.035	0.026
cg04265576	salmon	7	27,187,372	TSS200	Island	HOXA6	0.629	0.003	0.041	0.551
cg19923326	salmon	11	2,828,778	Body	Island	KCNQ1	0.629	-0.002	0.108	0.837
cg05774699	salmon	7	27,184,316	TSS1500	Island	HOXA5	0.629	0.010	0.134	0.295
cg14159704	salmon	9	89,580,839		OpenSea		0.629	-0.015	0.269	0.128
cg26903996	salmon	5	137,072,746	TSS1500	OpenSea	KLHL3	0.628	-0.014	0.518	0.315
cg00711072	salmon	17	46,669,489	TSS200	Island	LOC404266	0.628	-0.010	0.080	0.340
cg23475474	salmon	17	63,527,924	Body	OpenSea	AXIN2	0.628	0.001	0.151	0.869
cg20911718	salmon	14	24,867,491	TSS1500	N_Shore	NYNRIN	0.628	-0.006	0.067	0.218
cg05499499	salmon	2	220,263,615		OpenSea		0.628	0.004	0.567	0.750
cg21474786	salmon	17	46,631,948	5'UTR	Island	HOXB3	0.627	-0.007	0.211	0.515
cg02020945	salmon	6	1,383,693		Island		0.627	-0.008	0.115	0.444
cg26854298	salmon	4	174,442,087		N_Shore		0.627	-0.020	0.566	0.098
cg12810523	salmon	7	27,187,374	TSS200	Island	HOXA6	0.627	0.004	0.052	0.397
cg15666214	salmon	6	108,438,316		Island		0.627	-0.009	0.048	0.075
cg02876258	salmon	4	81,185,723		N_Shore		0.627	0.008	0.054	0.019
cg03296797	salmon	16	84,870,066	5'UTR	OpenSea	CRISPLD2	0.627	-0.005	0.043	0.159
cg26195356	salmon	5	2,743,601		S_Shelf		0.627	-0.026	0.097	0.102
cg26157386	salmon	14	36,994,270		Island		0.627	-0.003	0.030	0.400
cg09831105	salmon	12	99,287,469	Body	N_Shore	ANKS1B	0.626	-0.003	0.029	0.078
cg24081873	salmon	17	27,503,437	5'UTR	N_Shore	MYO18A	0.626	-0.008	0.096	0.193
cg02768162	salmon	12	108,992,148	TSS1500	OpenSea	TMEM119	0.626	0.002	0.159	0.719
cg04129469	salmon	1	18,956,762	TSS1500	N_Shore	PAX7	0.626	0.005	0.044	0.274
cg17439757	salmon	5	128,797,416	Body	Island	ADAMTS19	0.626	0.001	0.046	0.786
cg07302910	salmon	10	118,891,355	3'UTR	N_Shore	VAX1	0.626	-0.003	0.073	0.568
cg19993219	salmon	6	161,188,822		S_Shore		0.626	-0.004	0.171	0.663
cg07135032	salmon	1	165,322,099	Body	Island	LMX1A	0.626	-0.003	0.025	0.463
cg08990507	salmon	5	55,529,213	TSS200	OpenSea	ANKRD55	0.626	-0.003	0.183	0.642
cg19183743	salmon	7	27,188,020	TSS1500	S_Shore	HOXA6	0.626	-0.005	0.191	0.785
cg12475507	salmon	1	3,567,852	TSS1500	Island	TP73	0.626	-0.020	0.094	0.031
cg20457275	salmon	6	1,394,071	Body	Island	FOXF2	0.626	0.007	0.141	0.752
cg11994390	salmon	7	30,287,790		OpenSea		0.625	-0.005	0.069	0.382
cg19917565	salmon	11	16,625,664		N_Shore		0.625	-0.008	0.238	0.317
cg01857838	salmon	6	166,108,110		OpenSea		0.625	-0.011	0.524	0.378
cg01109643	salmon	13	113,547,231		N_Shore		0.625	0.000	0.147	0.980
cg20722088	salmon	12	89,742,886	3'UTR	N_Shelf	DUSP6	0.625	-0.009	0.360	0.537
cg24933919	salmon	13	77,298,665		OpenSea		0.625	-0.001	0.460	0.964
cg09674215	salmon	7	19,158,134	TSS1500	S_Shore	TWIST1	0.625	-0.002	0.030	0.202
cg15922699	salmon	5	134,362,967		N_Shore		0.625	-0.013	0.142	0.100
cg13745632	salmon	10	50,507,003	TSS200	OpenSea	C10orf71	0.625	-0.002	0.052	0.672
cg20382867	salmon	2	12,310,085		OpenSea		0.625	0.006	0.290	0.489
cg26337070	salmon	2	85,999,873	Body	OpenSea	ATOH8	0.624	0.004	0.060	0.589
cg14555350	salmon	5	142,580,618	Body	OpenSea	ARHGAP26	0.624	-0.001	0.420	0.863
cg09010852	salmon	5	92,934,479		S_Shelf		0.624	-0.013	0.430	0.237
cg26807767	salmon	18	24,765,643	TSS1500	S_Shore	CHST9	0.624	-0.003	0.061	0.521
cg13166213	salmon	8	11,560,563	TSS1500	Island	GATA4	0.623	0.000	0.030	0.960
cg05092308	salmon	2	63,285,365		N_Shore		0.623	0.003	0.042	0.303
cg09130043	salmon	8	11,561,283	TSS1500	Island	GATA4	0.623	-0.001	0.065	0.773
cg05923197	salmon	14	54,418,804	Body	Island	BMP4	0.623	0.007	0.064	0.348
cg19598584	salmon	7	27,142,810	TSS1500	N_Shore	HOXA2	0.623	-0.002	0.025	0.328
cg16772514	salmon	17	43,046,872	TSS1500	N_Shore	C1QL1	0.623	-0.014	0.328	0.243
cg13026730	salmon	3	71,804,139	1stExon	Island	GPR27	0.623	-0.002	0.056	0.739
cg18038207	salmon	12	80,581,062		OpenSea		0.623	-0.007	0.376	0.372
cg08811332	salmon	21	43,185,385	Body	N_Shore	RIPK4	0.622	-0.001	0.331	0.946
cg11806178	salmon	20	39,319,929		Island		0.622	0.001	0.088	0.920
cg07485417	salmon	8	21,882,851	Body	Island	NPM2	0.622	0.001	0.063	0.889
cg00920572	salmon	12	54,349,349	Body	Island	HOXC12	0.622	-0.006	0.098	0.332
cg23255320	salmon	14	33,603,572	Body	OpenSea	NPAS3	0.622	-0.001	0.470	0.962
cg09162909	salmon	1	10,075,991	3'UTR	OpenSea	RBP7	0.622	-0.004	0.093	0.632
cg18106366	salmon	14	38,590,628		OpenSea		0.622	-0.005	0.444	0.603
cg06795963	salmon	17	40,932,359	TSS1500	Island	WNK4	0.622	-0.006	0.129	0.277

cg04087740	salmon	3	71,804,142	1stExon	Island	GPR27	0.622	0.000	0.044	0.940
cg22418829	salmon	5	180,486,604	Body	Island	BTNL9	0.621	0.004	0.053	0.575
cg27403406	salmon	20	48,325,721	Body	N_Shelf	B4GALT5	0.621	-0.013	0.436	0.388
cg08751265	salmon	13	95,366,044		Island		0.621	-0.002	0.029	0.208
cg19873536	salmon	10	116,475,283		OpenSea		0.621	0.006	0.257	0.489
cg26584545	salmon	12	96,183,197	Body	N_Shore	NTN4	0.621	0.000	0.027	0.793
cg07014072	salmon	10	122,738,745		N_Shore		0.621	0.000	0.032	0.869
cg14394939	salmon	21	18,983,396	5'UTR	N_Shore	BTG3	0.620	-0.001	0.159	0.869
cg01070161	salmon	3	197,547,891	Body	OpenSea	LRCH3	0.620	-0.004	0.072	0.491
cg02776658	salmon	19	35,800,589	Body	N_Shore	MAG	0.620	-0.030	0.164	0.031
cg27149931	salmon	19	1,319,206		S_Shelf		0.620	-0.005	0.082	0.311
cg15951188	salmon	17	7,832,680	1stExon	Island	KCNAB3	0.620	-0.013	0.068	0.190
cg27302255	salmon	12	20,336,617		OpenSea		0.620	-0.012	0.338	0.193
cg18620571	salmon	14	103,593,505	Body	Island	TNFAIP2	0.620	-0.011	0.085	0.411
cg03936104	salmon	10	77,164,747	Body	Island	C10orf41	0.620	0.002	0.028	0.251
cg10768548	salmon	2	111,489,888	TSS1500	N_Shore	ACOXL	0.620	0.003	0.063	0.557
cg00487831	salmon	16	67,073,948	Body	OpenSea	CBFB	0.619	-0.004	0.666	0.693
cg14061067	salmon	9	16,413,736	3'UTR	OpenSea	BNC2	0.619	0.002	0.450	0.922
cg17775765	salmon	13	95,354,021		N_Shore		0.619	-0.038	0.243	0.036
cg07862235	salmon	8	123,730,704		OpenSea		0.619	0.000	0.518	0.981
cg10899301	salmon	6	10,416,007	Body	N_Shore	TFAP2A	0.619	-0.002	0.056	0.791
cg20113012	salmon	17	71,308,660	TSS1500	Island	CDC42EP4	0.618	-0.001	0.030	0.646
cg10500737	salmon	21	17,566,381	Body	OpenSea	C21orf34	0.618	-0.005	0.064	0.434
cg03267697	salmon	2	220,362,212	TSS1500	Island	GMPPA	0.618	-0.001	0.081	0.926
cg04986616	salmon	11	63,537,378	TSS1500	Island	C11orf95	0.618	0.000	0.013	0.964
cg25156915	salmon	4	174,427,388		N_Shore		0.618	-0.002	0.363	0.879
cg13937905	salmon	12	53,612,551	Body	N_Shore	RARG	0.618	-0.010	0.204	0.501
cg09595163	salmon	3	55,515,541	Body	N_Shore	WNT5A	0.618	-0.003	0.017	0.389
cg13896106	salmon	17	72,754,589	Body	OpenSea	SLC9A3R1	0.618	0.001	0.134	0.832
cg26537478	salmon	2	66,668,012	Body	OpenSea	MEIS1	0.618	-0.008	0.214	0.451
cg18798289	salmon	5	72,530,245		S_Shore		0.617	0.002	0.081	0.794
cg10246081	salmon	12	49,726,893	Body	Island	C1QL4	0.617	0.002	0.033	0.608
cg01959516	salmon	6	2,449,276		OpenSea		0.617	0.000	0.022	0.815
cg05151360	salmon	15	37,402,723		N_Shore		0.617	0.001	0.055	0.843
cg21167985	salmon	13	113,540,421	3'UTR	Island	ATP11A	0.617	-0.003	0.062	0.718
cg07545743	salmon	12	121,409,957	Body	OpenSea	C12orf27	0.617	-0.008	0.331	0.747
cg08183303	salmon	16	447,934	Body	S_Shore	NME4	0.617	-0.003	0.140	0.729
cg03913921	salmon	7	120,496,827	5'UTR	N_Shore	TSPAN12	0.616	0.000	0.028	0.977
cg12802310	salmon	2	38,304,720	TSS1500	S_Shore	CYP1B1	0.616	0.004	0.137	0.653
cg26915370	salmon	7	134,575,524	TSS1500	OpenSea	CALD1	0.616	0.002	0.159	0.723
cg19399165	salmon	2	27,301,252	TSS200	OpenSea	EMILIN1	0.616	-0.002	0.164	0.793
cg13683667	salmon	1	9,527,208		OpenSea		0.616	-0.003	0.192	0.749
cg13300670	salmon	1	2,896,834		OpenSea		0.616	-0.007	0.316	0.342
cg15564619	salmon	1	2,163,437	Body	S_Shelf	SKI	0.616	-0.002	0.033	0.299
cg08222943	salmon	8	100,795,832	Body	OpenSea	VPS13B	0.616	-0.005	0.546	0.643
cg23005885	salmon	15	90,543,450	TSS1500	Island	ZNF710	0.616	-0.005	0.039	0.300
cg24454695	salmon	1	235,814,326	TSS1500	Island	GNG4	0.615	-0.006	0.081	0.181
cg20224885	salmon	3	127,678,993	Body	OpenSea	KBTBD12	0.615	-0.009	0.270	0.230
cg14844989	salmon	11	31,128,820		OpenSea		0.615	0.000	0.040	0.993
cg01176028	salmon	21	43,653,234	Body	N_Shore	ABCG1	0.615	-0.001	0.423	0.895
cg04158049	salmon	1	16,550,535		N_Shelf		0.615	0.000	0.561	0.976
cg24837084	salmon	12	122,310,688		OpenSea		0.615	-0.002	0.380	0.803
cg14613508	salmon	5	92,934,027		S_Shelf		0.615	-0.016	0.460	0.270
cg27011060	salmon	11	31,825,226	Body	N_Shore	PAX6	0.615	-0.006	0.027	0.124
cg11367159	salmon	12	110,044,531		OpenSea		0.615	0.000	0.032	0.986
cg02573566	salmon	1	153,599,479	5'UTR	OpenSea	S100A13	0.615	-0.008	0.104	0.221
cg01412419	salmon	16	87,856,264		OpenSea		0.614	-0.019	0.185	0.370
cg26069745	salmon	7	27,142,200	1stExon	N_Shore	HOXA2	0.614	-0.003	0.043	0.353
cg16775752	salmon	10	49,674,530	Body	Island	ARHGAP22	0.614	-0.021	0.244	0.221
cg07925670	salmon	17	7,253,489	Body	Island	ACAP1	0.614	0.000	0.027	0.981
cg05578595	salmon	3	186,542,905		N_Shelf		0.614	0.001	0.080	0.848
cg27428708	salmon	16	54,851,977		OpenSea		0.614	-0.006	0.245	0.621
cg01907098	salmon	21	45,149,141	Body	Island	PDXK	0.614	-0.002	0.028	0.368
cg07029873	salmon	1	217,311,014	1stExon	Island	ESRRG	0.613	0.002	0.034	0.455
cg03520282	salmon	8	16,856,591	Body	N_Shelf	FGF20	0.613	-0.022	0.518	0.103
cg07946633	salmon	1	2,984,245	Body	Island	FLJ42875	0.613	-0.008	0.159	0.488
cg13872005	salmon	2	105,275,613		Island		0.613	-0.009	0.073	0.314

cg04567517	salmon	7	151,157,240	OpenSea		0.613	0.000	0.037	0.867
cg21376799	salmon	6	30,094,960	N_Shore		0.613	-0.001	0.050	0.895
cg10659805	salmon	7	96,631,680 Body	Island	DLX6AS	0.613	0.004	0.034	0.550
cg24612707	salmon	7	128,094,774 TSS1500	N_Shore	C7orf68	0.613	-0.007	0.068	0.268
cg04865113	salmon	1	48,960,137	OpenSea		0.612	0.007	0.127	0.263
cg12748890	salmon	1	27,676,205 Body	Island	SYTL1	0.612	-0.003	0.042	0.613
cg15895339	salmon	10	20,210,338 Body	OpenSea	PLXDC2	0.612	0.001	0.530	0.876
cg12232308	salmon	6	30,711,580 3'UTR	Island	IER3	0.612	-0.012	0.118	0.140
cg26075184	salmon	10	101,281,703	Island		0.612	-0.002	0.031	0.223
cg05449257	salmon	1	75,595,408 5'UTR	N_Shore	LHX8	0.612	0.000	0.027	0.937
cg22559034	salmon	5	92,910,534 Body	S_Shore	FLJ42709	0.612	-0.017	0.227	0.120
cg26202427	salmon	10	61,802,654 Body	OpenSea	ANK3	0.612	-0.006	0.440	0.511
cg08218971	salmon	16	29,826,754 TSS1500	Island	C16orf53	0.612	-0.002	0.049	0.377
cg19465320	salmon	17	40,426,890 5'UTR	N_Shore	STAT5B	0.612	-0.002	0.546	0.844
cg13321105	salmon	1	217,313,824	S_Shelf		0.612	-0.011	0.314	0.491
cg01988233	salmon	16	88,885,049 Body	S_Shore	GALNS	0.611	0.002	0.311	0.735
cg15690853	salmon	13	97,928,270 5'UTR	OpenSea	MBNL2	0.611	-0.009	0.571	0.426
cg07628705	salmon	14	51,339,074 5'UTR	Island	ABHD12B	0.611	-0.007	0.058	0.137
cg17479840	salmon	17	9,863,061 Body	OpenSea	GAS7	0.611	0.001	0.041	0.554
cg11719362	salmon	7	25,900,355	N_Shore		0.611	0.000	0.071	0.987
cg10927449	salmon	2	63,286,621	Island		0.611	-0.012	0.061	0.062
cg06937409	salmon	14	91,281,948 Body	N_Shore	TTC7B	0.610	-0.002	0.209	0.790
cg05485853	salmon	11	64,612,847 TSS1500	S_Shore	CDC42BPG	0.610	0.002	0.106	0.780
cg07085361	salmon	2	105,484,357	Island		0.610	-0.007	0.097	0.457
cg23533513	salmon	11	76,849,324 Body	Island	MYO7A	0.610	-0.003	0.067	0.800
cg10315249	salmon	11	66,235,081 5'UTR	S_Shore	PELI3	0.610	-0.004	0.085	0.349
cg22957360	salmon	10	101,282,572	N_Shore		0.610	0.004	0.053	0.455
cg12910087	salmon	4	175,140,004	OpenSea		0.610	-0.021	0.106	0.103
cg22773899	salmon	12	114,878,163	Island		0.610	-0.002	0.148	0.889
cg19315261	salmon	1	177,225,876 Body	OpenSea	FAM5B	0.610	-0.003	0.038	0.460
cg20091689	salmon	2	97,524,862 TSS1500	S_Shore	ANKRD39	0.610	-0.005	0.041	0.166
cg16103421	salmon	15	102,068,632	OpenSea		0.609	-0.007	0.089	0.294
cg12350325	salmon	12	2,800,909 3'UTR	Island	CACNA1C	0.609	0.002	0.026	0.674
cg08101036	salmon	7	27,153,655 5'UTR	N_Shore	HOXA3	0.609	-0.003	0.027	0.476
cg13285600	salmon	12	22,528,629	OpenSea		0.608	-0.004	0.770	0.808
cg17196051	salmon	8	37,005,572	OpenSea		0.608	0.005	0.190	0.629
cg13053825	salmon	15	65,537,964	OpenSea		0.608	-0.003	0.346	0.700
cg17612681	salmon	2	66,298,197	OpenSea		0.608	-0.004	0.067	0.625
cg18876602	salmon	6	17,393,472 TSS1500	OpenSea	CAP2	0.608	-0.004	0.124	0.369
cg13918518	salmon	17	59,488,240 TSS1500	Island	C17orf82	0.608	0.002	0.027	0.412
cg15686334	salmon	8	60,030,291 Body	Island	TOX	0.608	0.000	0.027	0.918
cg24164563	salmon	17	74,136,395 Body	Island	FOXJ1	0.608	0.000	0.028	0.880
cg17518215	salmon	2	172,973,241	Island		0.608	-0.005	0.047	0.220
cg03805618	salmon	2	175,198,664 TSS1500	N_Shore	SP9	0.608	-0.001	0.021	0.412
cg20124223	salmon	11	111,847,692 TSS1500	N_Shore	DIXDC1	0.607	0.000	0.035	0.918
cg23260254	salmon	12	111,369,495	OpenSea		0.607	-0.005	0.092	0.317
cg09596958	salmon	12	58,132,105 TSS200	N_Shore	AGAP2	0.607	-0.007	0.041	0.131
cg01142302	salmon	3	9,988,590 Body	Island	PRRT3	0.607	0.002	0.090	0.800
cg17805540	salmon	4	13,543,730 Body	Island	NKX3-2	0.607	-0.009	0.108	0.479
cg14805996	salmon	10	118,923,234	Island		0.606	-0.008	0.058	0.124
cg05886620	salmon	7	1,266,180	S_Shore		0.606	-0.010	0.082	0.242
cg05377949	salmon	3	127,951,287 Body	OpenSea	EEFSEC	0.606	-0.012	0.168	0.179
cg02276070	salmon	5	149,683,066 TSS1500	S_Shore	ARSI	0.606	0.001	0.145	0.882
cg18469436	salmon	14	87,652,828	OpenSea		0.606	0.000	0.397	0.980
cg15491950	salmon	3	132,004,600	OpenSea		0.606	-0.005	0.121	0.618
cg23454797	salmon	7	27,183,990 TSS1500	Island	HOXA5	0.606	0.006	0.128	0.545
cg01580681	salmon	4	174,450,016 1stExon	N_Shore	HAND2	0.606	-0.003	0.035	0.248
cg24012811	salmon	10	118,034,357 TSS1500	S_Shore	GFRA1	0.606	-0.001	0.019	0.486
cg21291672	salmon	1	29,451,713 TSS1500	Island	TMEM200B	0.606	-0.006	0.072	0.363
cg23662142	salmon	20	55,199,914	N_Shore		0.606	0.000	0.076	0.974
cg25983553	salmon	10	130,339,134	N_Shore		0.605	-0.003	0.038	0.145
cg26732155	salmon	15	37,236,977 Body	OpenSea	MEIS2	0.605	0.003	0.424	0.759
cg01236734	salmon	7	95,050,561 Body	OpenSea	PON2	0.605	-0.005	0.359	0.640
cg21357247	salmon	2	235,996,646	OpenSea		0.605	-0.005	0.226	0.600
cg22164009	salmon	6	14,729,030	OpenSea		0.605	-0.006	0.539	0.477
cg20148850	salmon	6	10,422,227	N_Shore		0.605	-0.001	0.172	0.931
cg04106190	salmon	7	120,964,168 TSS1500	OpenSea	WNT16	0.605	-0.005	0.420	0.521



cg01159576	salmon	9	129,386,206	Body	Island	LMX1B	0.605	0.000	0.056	0.987
cg05048976	salmon	3	55,516,243	Body	Island	WNT5A	0.604	-0.007	0.059	0.248
cg01536884	salmon	5	92,928,458	Body	N_Shore	NR2F1	0.604	-0.013	0.572	0.286
cg26367439	salmon	10	44,701,964		Island		0.604	0.005	0.459	0.515
cg18086475	salmon	3	12,543,311	Body	OpenSea	TSEN2	0.604	0.009	0.393	0.400
cg08400124	salmon	4	77,507,102	Body	Island	SHROOM3	0.604	0.011	0.176	0.227
cg24495062	salmon	10	63,683,346	Body	OpenSea	ARID5B	0.604	-0.009	0.202	0.196
cg12595281	salmon	15	93,633,172	TSS1500	Island	RGMA	0.604	-0.002	0.037	0.561
cg01076874	salmon	19	39,797,966	3'UTR	Island	LRFN1	0.604	-0.004	0.047	0.246
cg00556407	salmon	8	95,369,439		OpenSea		0.604	0.000	0.187	0.955
cg24677093	salmon	10	77,166,172	Body	Island	C10orf41	0.604	-0.015	0.424	0.458
cg04025761	salmon	12	111,514,551	Body	OpenSea	CUX2	0.604	-0.008	0.117	0.380
cg09107344	salmon	12	53,612,734	Body	N_Shore	RARG	0.603	-0.001	0.039	0.857
cg03024720	salmon	8	9,765,601		S_Shore		0.603	-0.002	0.027	0.289
cg01963297	salmon	1	154,841,980	1stExon	OpenSea	KCNN3	0.603	0.005	0.133	0.558
cg20634266	salmon	1	91,190,493		Island		0.603	-0.001	0.033	0.572
cg12860635	salmon	6	30,095,140		N_Shore		0.603	-0.002	0.047	0.670
cg19731612	salmon	5	176,559,334	TSS1500	Island	NSD1	0.603	-0.001	0.088	0.932
cg05714559	salmon	5	149,980,682	1stExon	OpenSea	SYNPO	0.603	0.002	0.453	0.817
cg07068761	salmon	14	77,505,182		OpenSea		0.602	0.001	0.058	0.783
cg21617353	salmon	17	43,319,371	Body	S_Shore	FMNL1	0.602	-0.018	0.158	0.211
cg12910797	salmon	17	46,651,722	5'UTR	N_Shelf	HOXB3	0.602	-0.009	0.059	0.315
cg20028470	salmon	2	27,530,829	5'UTR	Island	UCN	0.602	-0.004	0.063	0.460
cg03750567	salmon	1	27,676,637	Body	Island	SYTL1	0.602	-0.014	0.116	0.222
cg27181142	salmon	19	46,270,322	Body	Island	SIX5	0.602	-0.006	0.102	0.464
cg11820833	salmon	14	65,187,054	5'UTR	OpenSea	PLEKHG3	0.602	-0.009	0.521	0.260
cg23058037	salmon	7	158,824,108	Body	Island	VIPR2	0.602	-0.001	0.046	0.766
cg25167574	salmon	4	79,861,398	TSS1500	S_Shore	PAQR3	0.602	0.014	0.512	0.134
cg24353272	salmon	1	218,510,204	3'UTR	OpenSea	RRP15	0.602	-0.008	0.674	0.535
cg24740868	salmon	1	60,539,362	1stExon	Island	C1orf87	0.602	-0.004	0.075	0.680
cg16209444	salmon	3	58,522,771	5'UTR	OpenSea	ACOX2	0.602	0.001	0.273	0.812
cg10275770	salmon	17	62,084,205	5'UTR	OpenSea	ICAM2	0.602	0.002	0.314	0.708
cg22656420	salmon	2	74,740,238	TSS1500	N_Shore	TLX2	0.601	-0.004	0.038	0.085
cg02289590	salmon	6	128,541,775	Body	OpenSea	PTPRK	0.601	-0.001	0.677	0.924
cg01040585	salmon	17	36,907,054		N_Shore		0.601	0.000	0.020	0.822
cg27504195	salmon	3	113,342,400	Body	OpenSea	SIDT1	0.601	0.008	0.127	0.420
cg25496930	salmon	3	32,280,966	Body	S_Shore	CMTM8	0.601	0.001	0.033	0.522
cg23337650	salmon	3	73,620,925	Body	OpenSea	PDZRN3	0.601	-0.005	0.050	0.482
cg26022488	salmon	7	1,426,710		S_Shelf		0.601	-0.006	0.299	0.520
cg06225294	salmon	3	114,477,961	5'UTR	OpenSea	ZBTB20	0.601	0.007	0.195	0.366
cg13759905	salmon	2	233,741,920		S_Shore		0.601	0.003	0.094	0.586
cg10192198	salmon	9	973,184		Island		0.601	0.001	0.067	0.895
cg26620530	salmon	12	115,102,726		Island		0.601	0.008	0.080	0.570
cg25923345	salmon	7	100,304,669	Body	S_Shore	POP7	0.601	-0.001	0.094	0.899
cg18032014	salmon	7	95,402,431	5'UTR	Island	DYNC111	0.601	-0.001	0.024	0.497
cg22053945	salmon	17	46,651,360	5'UTR	N_Shelf	HOXB3	0.600	-0.008	0.107	0.457
cg18009690	salmon	2	119,602,480	Body	N_Shore	EN1	0.600	-0.005	0.078	0.356
cg09607712	salmon	3	64,328,459		OpenSea		0.600	-0.011	0.697	0.301
cg25433552	salmon	5	159,560,548		OpenSea		0.600	-0.003	0.071	0.558
cg04814450	salmon	16	72,821,665	Body	S_Shore	ZFH3	0.600	0.001	0.028	0.781
cg19356389	salmon	6	33,175,140	TSS1500	N_Shore	RING1	0.600	-0.001	0.052	0.934
cg14162144	salmon	14	20,903,913	TSS200	S_Shore	KLHL33	0.600	-0.005	0.138	0.411
cg02870829	salmon	2	40,740,063	TSS1500	OpenSea	SLC8A1	0.600	-0.006	0.439	0.623
cg27364741	salmon	2	63,281,069	Body	Island	OTX1	0.600	0.006	0.043	0.370
cg17797848	salmon	1	109,842,096	Body	OpenSea	MYBPHL	0.600	-0.005	0.374	0.674
cg24721647	salmon	4	185,726,836	5'UTR	S_Shelf	ACSL1	0.599	-0.001	0.492	0.919
cg18100702	salmon	5	3,600,572	Body	Island	IRX1	0.599	0.003	0.069	0.726
cg02948624	salmon	22	19,743,759	TSS1500	Island	TBX1	0.599	-0.011	0.071	0.075
cg25560775	salmon	15	65,707,468	Body	OpenSea	IGDCC4	0.599	0.006	0.420	0.595
cg14706297	salmon	2	43,328,266		Island		0.599	-0.002	0.035	0.544
cg23052830	salmon	14	61,119,919		N_Shelf		0.599	0.001	0.049	0.704
cg14102437	salmon	2	33,359,688	1stExon	OpenSea	LTBP1	0.599	-0.003	0.148	0.584
cg11199014	salmon	19	39,798,563	Body	Island	LRFN1	0.599	0.003	0.104	0.718
cg25324047	salmon	10	22,765,840		Island		0.599	-0.001	0.040	0.809
cg04010915	salmon	12	110,547,053		OpenSea		0.599	0.001	0.135	0.832
cg26206396	salmon	14	29,234,904	TSS1500	Island	FOXG1	0.599	-0.002	0.044	0.582
cg13599734	salmon	8	55,479,004		OpenSea		0.598	0.000	0.029	0.986

cg16565394	salmon	6	100,896,674	Body	N_Shore	SIM1	0.598	0.006	0.082	0.474
cg05663453	salmon	1	22,782,452	5'UTR	S_Shelf	ZBTB40	0.598	-0.009	0.213	0.352
cg05210480	salmon	7	24,539,647		OpenSea		0.598	-0.002	0.276	0.692
cg27023597	salmon	17	57,918,262	TSS1500	OpenSea	MIR21	0.598	-0.007	0.149	0.458
cg27348423	salmon	4	37,456,396	5'UTR	S_Shore	C4orf19	0.598	-0.004	0.280	0.655
cg19451167	salmon	7	96,655,981		S_Shore		0.598	-0.001	0.057	0.894
cg03258665	salmon	1	16,472,461	Body	N_Shelf	EPHA2	0.598	-0.008	0.145	0.366
cg12864721	salmon	10	77,164,987	Body	Island	C10orf41	0.598	0.001	0.040	0.737
cg01573140	salmon	7	44,687,078	Body	OpenSea	OGDH	0.598	-0.016	0.601	0.101
cg02365780	salmon	2	101,437,872	5'UTR	S_Shore	NPAS2	0.598	-0.003	0.158	0.817
cg16709734	salmon	7	27,229,062		S_Shore		0.597	0.001	0.041	0.871
cg23361103	salmon	5	92,932,120		S_Shore		0.597	-0.004	0.068	0.442
cg05202616	salmon	12	110,993,883	Body	OpenSea	PPTC7	0.597	-0.008	0.241	0.371
cg16426764	salmon	10	126,211,892	Body	OpenSea	LHPP	0.597	-0.002	0.030	0.442
cg05551114	salmon	4	15,376,116	Body	OpenSea	C1QTNF7	0.597	-0.013	0.497	0.265
cg07118895	salmon	17	54,398,673	Body	OpenSea	ANKFN1	0.597	-0.001	0.111	0.951
cg16592897	salmon	1	111,023,201	TSS200	OpenSea	CYMP	0.597	0.003	0.211	0.738
cg21992250	salmon	11	60,718,709	1stExon	Island	SLC15A3	0.597	-0.003	0.113	0.701
cg25978327	salmon	1	8,065,039		OpenSea		0.596	-0.017	0.282	0.037
cg03839949	salmon	3	128,210,541	5'UTR	Island	GATA2	0.596	0.003	0.089	0.714
cg06230674	salmon	18	20,716,991	Body	Island	CABLES1	0.596	-0.009	0.081	0.180
cg22690339	salmon	6	38,249,061	Body	OpenSea	BTBD9	0.596	-0.023	0.587	0.064
cg05798670	salmon	4	168,156,080	TSS1500	S_Shore	SPOCK3	0.596	-0.001	0.027	0.485
cg04843051	salmon	6	13,849,011		OpenSea		0.596	-0.005	0.312	0.463
cg01323104	salmon	4	87,958,903	Body	OpenSea	AFF1	0.596	0.013	0.279	0.253
cg07638500	salmon	3	123,371,420	Body	OpenSea	MYLK	0.596	-0.002	0.037	0.401
cg24428144	salmon	12	28,180,450		OpenSea		0.596	-0.002	0.088	0.723
cg11495377	salmon	2	545,645		OpenSea		0.596	0.001	0.459	0.870
cg11556846	salmon	2	200,468,728		Island		0.595	0.001	0.046	0.788
cg09195389	salmon	13	20,767,968	TSS1500	S_Shore	GJB2	0.595	0.001	0.030	0.741
cg26299756	salmon	6	85,478,807		N_Shelf		0.595	-0.001	0.039	0.817
cg19188855	salmon	12	54,355,476		Island		0.595	0.001	0.023	0.746
cg20248093	salmon	17	77,722,496		Island		0.595	-0.001	0.020	0.460
cg25718383	salmon	7	130,020,096	TSS200	N_Shore	CPA1	0.595	-0.003	0.265	0.710
cg19432886	salmon	5	124,394,386		OpenSea		0.595	0.002	0.060	0.678
cg20674206	salmon	1	63,004,738	Body	OpenSea	DOCK7	0.595	-0.013	0.565	0.367
cg16216407	salmon	4	24,797,140	5'UTR	N_Shelf	SOD3	0.594	-0.001	0.041	0.617
cg13342364	salmon	17	75,283,939	TSS200	OpenSea	9-Sep	0.594	-0.004	0.308	0.590
cg24737324	salmon	20	19,867,143		OpenSea		0.594	-0.004	0.027	0.113
cg02118562	salmon	3	124,082,907	Body	OpenSea	KALRN	0.594	0.006	0.453	0.449
cg06365535	salmon	17	59,534,102	Body	Island	TBX4	0.594	-0.011	0.091	0.344
cg03260240	salmon	17	46,632,965	5'UTR	S_Shore	HOXB3	0.593	-0.005	0.052	0.340
cg07161369	salmon	7	38,350,464		N_Shore		0.593	0.014	0.402	0.323
cg14522034	salmon	21	46,706,759	Body	Island	POFUT2	0.593	0.004	0.102	0.466
cg26947127	salmon	12	12,901,747	Body	OpenSea	APOLD1	0.593	-0.003	0.552	0.790
cg16790466	salmon	20	50,414,839	Body	N_Shelf	SALL4	0.593	0.004	0.494	0.761
cg06504162	salmon	11	11,559,800	Body	OpenSea	GALNTL4	0.593	0.002	0.624	0.862
cg26948226	salmon	2	192,365,744		OpenSea		0.593	0.000	0.450	0.981
cg20747380	salmon	7	27,142,275	1stExon	N_Shore	HOXA2	0.593	0.000	0.031	0.926
cg19310340	salmon	7	150,037,297	Body	N_Shore	RARRES2	0.592	-0.004	0.227	0.549
cg06759993	salmon	6	144,065,203	Body	OpenSea	PHACTR2	0.592	-0.003	0.028	0.273
cg16708623	salmon	4	154,125,208	TSS1500	OpenSea	TRIM2	0.592	0.001	0.035	0.713
cg02985445	salmon	7	97,908,505		N_Shore		0.592	0.003	0.321	0.711
cg13037245	salmon	11	67,141,961	Body	S_Shore	LOC1001309	0.592	0.000	0.024	0.864
cg00759329	salmon	1	82,208,723		OpenSea		0.592	0.000	0.122	0.989
cg16386697	salmon	22	51,017,162	TSS200	S_Shore	CPT1B	0.592	-0.004	0.173	0.619
cg26118045	salmon	4	174,427,715		N_Shore		0.591	-0.007	0.418	0.608
cg02178684	salmon	14	37,127,671	5'UTR	Island	PAX9	0.591	-0.002	0.039	0.466
cg07376805	salmon	1	161,833,149	Body	OpenSea	ATF6	0.591	0.004	0.571	0.704
cg14832317	salmon	4	13,526,597		Island		0.591	0.005	0.130	0.519
cg07752095	salmon	4	128,630,266	Body	OpenSea	INTU	0.591	0.004	0.093	0.627
cg05260966	salmon	22	33,197,394	Body	Island	SYN3	0.591	-0.006	0.131	0.201
cg18059464	salmon	10	134,915,277	Body	S_Shore	GPR123	0.590	0.004	0.436	0.513
cg02387639	salmon	3	179,384,293	Body	OpenSea	USP13	0.590	0.006	0.219	0.476
cg23513966	salmon	15	76,630,209	Body	Island	ISL2	0.590	-0.013	0.081	0.198
cg16608652	salmon	1	193,155,390	5'UTR	OpenSea	B3GALT2	0.590	0.001	0.123	0.828
cg13337949	salmon	6	30,711,586	3'UTR	Island	IER3	0.590	-0.007	0.186	0.372

cg02468250	salmon	11	31,834,344	TSS1500	Island	PAX6	0.590	-0.002	0.025	0.344
cg14976741	salmon	12	4,872,921	Body	OpenSea	GALNT8	0.590	0.003	0.103	0.610
cg17616537	salmon	17	46,628,663	Body	N_Shore	HOXB3	0.590	-0.018	0.155	0.200
cg00231504	salmon	6	100,906,448	Body	Island	SIM1	0.590	-0.001	0.024	0.668
cg19958593	salmon	14	87,265,617		OpenSea		0.590	-0.011	0.530	0.423
cg10785263	salmon	1	63,785,867		Island		0.590	-0.002	0.021	0.228
cg02705163	salmon	6	138,893,673	TSS200	OpenSea	NHSL1	0.590	-0.005	0.056	0.256
cg11290860	salmon	5	50,674,642		N_Shelf		0.590	-0.001	0.022	0.328
cg09737078	salmon	16	4,366,839		Island		0.589	-0.003	0.046	0.523
cg21469772	salmon	9	124,989,294	Body	Island	LHX6	0.589	-0.005	0.090	0.535
cg13924998	salmon	7	41,531,155		OpenSea		0.589	-0.013	0.121	0.070
cg27121661	salmon	3	16,525,721	Body	OpenSea	RFTN1	0.589	-0.002	0.361	0.831
cg07874353	salmon	7	150,075,335	TSS1500	N_Shore	ZNF775	0.589	-0.001	0.023	0.352
cg00682734	salmon	20	55,200,973		Island		0.589	-0.002	0.118	0.662
cg02467956	salmon	12	116,737,735		OpenSea		0.589	-0.001	0.130	0.881
cg23118561	salmon	13	51,565,237		OpenSea		0.588	-0.004	0.045	0.542
cg07397616	salmon	22	38,035,109	TSS1500	N_Shore	SH3BP1	0.588	-0.007	0.386	0.266
cg03485669	salmon	8	13,016,635	Body	OpenSea	DLC1	0.588	-0.003	0.036	0.260
cg03774463	salmon	7	96,636,616	Body	S_Shore	DLX6AS	0.588	0.001	0.038	0.606
cg14920846	salmon	1	201,618,209	1stExon	Island	NAV1	0.588	-0.005	0.055	0.428
cg03044178	salmon	20	61,151,721	Body	Island	C20orf166	0.588	-0.002	0.195	0.845
cg26268145	salmon	11	72,301,724	Body	Island	PDE2A	0.588	0.001	0.050	0.784
cg10072261	salmon	4	119,980,361	3'UTR	OpenSea	SYNPO2	0.588	-0.002	0.528	0.869
cg05641529	salmon	4	100,242,957	TSS1500	OpenSea	ADH1B	0.587	-0.007	0.115	0.470
cg15065049	salmon	17	46,629,018	Body	N_Shore	HOXB3	0.587	-0.012	0.302	0.227
cg09813610	salmon	5	3,601,357	3'UTR	Island	IRX1	0.587	-0.007	0.146	0.366
cg12160586	salmon	12	103,349,994	TSS1500	N_Shore	ASCL1	0.587	-0.005	0.085	0.286
cg13924715	salmon	11	10,750,890		OpenSea		0.587	-0.001	0.025	0.705
cg10684486	salmon	10	12,917,286		OpenSea		0.587	-0.006	0.083	0.269
cg07184237	salmon	7	150,754,081	Body	N_Shore	CDK5	0.587	-0.002	0.182	0.819
cg15794859	salmon	6	134,214,134	3'UTR	Island	TCF21	0.587	0.001	0.083	0.921
cg14283944	salmon	12	114,883,316		N_Shore		0.586	0.000	0.030	0.910
cg08230483	salmon	10	88,123,453	Body	Island	GRID1	0.586	-0.001	0.048	0.921
cg09670535	salmon	1	18,959,427	Body	Island	PAX7	0.586	-0.003	0.057	0.316
cg13277040	salmon	20	62,716,332	5'UTR	Island	OPRL1	0.586	-0.005	0.109	0.475
cg27266176	salmon	14	65,170,689	TSS1500	N_Shore	PLEKHG3	0.586	0.001	0.049	0.663
cg17695791	salmon	11	91,913,958		OpenSea		0.586	0.001	0.605	0.912
cg05638500	salmon	15	101,795,550		S_Shelf		0.586	-0.001	0.306	0.941
cg12345526	salmon	2	173,159,062		OpenSea		0.586	-0.002	0.328	0.828
cg01538166	salmon	17	17,743,987		Island		0.586	0.000	0.046	0.992
cg07224931	salmon	12	121,130,567	Body	OpenSea	MLEC	0.586	-0.002	0.373	0.670
cg08536617	salmon	10	78,540,716		OpenSea		0.586	-0.007	0.682	0.568
cg16477869	salmon	7	36,317,371	Body	OpenSea	EEDP1	0.585	0.001	0.559	0.950
cg12251895	salmon	2	207,980,866	Body	OpenSea	KLF7	0.585	-0.006	0.104	0.455
cg01775245	salmon	8	6,452,110	Body	OpenSea	MCPH1	0.585	0.003	0.060	0.581
cg10126372	salmon	8	52,722,237	TSS1500	OpenSea	PXDNL	0.585	0.012	0.250	0.136
cg03671075	salmon	4	78,573,680		OpenSea		0.585	-0.005	0.120	0.447
cg13473120	salmon	9	126,776,767	Body	Island	LHX2	0.585	0.001	0.035	0.871
cg16324958	salmon	11	2,828,568	Body	Island	KCNQ1	0.585	0.002	0.053	0.772
cg01845111	salmon	20	31,446,967	5'UTR	OpenSea	EFCAB8	0.585	-0.013	0.167	0.069
cg09908750	salmon	7	27,143,585	TSS1500	S_Shore	HOXA2	0.584	-0.001	0.040	0.628
cg21109038	salmon	15	90,543,610	TSS1500	Island	ZNF710	0.584	-0.012	0.080	0.153
cg21543918	salmon	6	138,893,159	1stExon	OpenSea	NHSL1	0.584	-0.006	0.042	0.165
cg16902746	salmon	19	5,338,881	5'UTR	Island	PTPRS	0.584	-0.001	0.037	0.723
cg04285652	salmon	8	23,584,042		Island		0.584	0.004	0.065	0.396
cg07991704	salmon	4	72,096,973	5'UTR	OpenSea	SLC4A4	0.584	0.009	0.193	0.210
cg15137566	salmon	4	13,544,301	Body	Island	NKX3-2	0.584	-0.002	0.071	0.678
cg14534803	salmon	11	19,692,446	Body	OpenSea	NAV2	0.584	-0.001	0.532	0.931
cg06668065	salmon	5	92,909,069	Body	S_Shore	FLJ42709	0.584	-0.051	0.316	0.037
cg00321007	salmon	17	15,340,112	3'UTR	OpenSea	CDRT4	0.584	0.002	0.253	0.821
cg18193764	salmon	5	134,879,961		S_Shore		0.584	-0.002	0.018	0.048
cg09934789	salmon	8	126,444,741	Body	S_Shore	TRIB1	0.583	-0.001	0.032	0.724
cg01093696	salmon	5	92,936,528		N_Shelf		0.583	-0.007	0.114	0.337
cg18019825	salmon	7	1,329,016		Island		0.583	-0.004	0.406	0.714
cg21663431	salmon	19	10,736,355	Body	Island	SLC44A2	0.583	-0.001	0.051	0.813
cg13165009	salmon	17	32,905,661	Body	N_Shore	C17orf102	0.583	-0.002	0.102	0.724
cg10451078	salmon	8	11,560,851	TSS1500	Island	GATA4	0.583	-0.003	0.029	0.450

cg13531748	salmon	8	23,261,967	TSS1500	S_Shore	LOXL2	0.583	-0.002	0.033	0.289
cg01826117	salmon	16	85,181,279		OpenSea		0.582	-0.007	0.592	0.409
cg07264048	salmon	6	10,556,326	5'UTR	OpenSea	GCNT2	0.582	-0.004	0.058	0.259
cg00921266	salmon	7	27,153,663	5'UTR	N_Shore	HOXA3	0.582	-0.006	0.029	0.271
cg07421329	salmon	8	16,908,905	Body	OpenSea	EFHA2	0.582	-0.003	0.129	0.710
cg16512661	salmon	5	2,743,620		S_Shelf		0.582	-0.031	0.143	0.054
cg20480274	salmon	17	27,313,125	Body	Island	SEZ6	0.581	0.004	0.062	0.315
cg20509780	salmon	22	45,898,295	TSS1500	Island	FBLN1	0.581	-0.002	0.041	0.347
cg22978620	salmon	3	128,210,888	5'UTR	Island	GATA2	0.581	-0.001	0.025	0.549
cg25051331	salmon	5	77,253,833		Island		0.581	-0.002	0.029	0.191
cg15775921	salmon	2	223,156,136	Body	Island	PAX3	0.581	0.000	0.020	0.682
cg00519063	salmon	1	94,373,434	Body	N_Shore	GCLM	0.581	0.005	0.176	0.626
cg13436155	salmon	13	100,644,217		S_Shore		0.581	-0.001	0.021	0.482
cg14962509	salmon	1	36,039,655	Body	Island	TFAP2E	0.581	-0.005	0.037	0.363
cg13997975	salmon	10	77,158,502	3'UTR	Island	ZNF503	0.581	-0.015	0.122	0.504
cg08005460	salmon	17	38,473,382	TSS1500	N_Shore	RARA	0.581	-0.001	0.029	0.626
cg25307665	salmon	7	27,183,694	TSS1500	Island	HOXA5	0.580	0.000	0.021	0.928
cg19600538	salmon	1	95,329,706	Body	OpenSea	SLC44A3	0.580	0.002	0.235	0.814
cg24525176	salmon	1	47,909,931		Island		0.580	-0.002	0.039	0.219
cg20636352	salmon	2	200,468,832		Island		0.580	-0.004	0.037	0.266
cg22462726	salmon	3	184,209,261		Island		0.580	0.003	0.179	0.848
cg20367852	salmon	3	187,457,520	5'UTR	N_Shore	BCL6	0.580	0.000	0.024	0.728
cg09025625	salmon	1	154,942,509	Body	N_Shelf	SHC1	0.580	-0.002	0.151	0.713
cg17077180	salmon	1	38,461,687		Island		0.580	-0.002	0.187	0.894
cg16657691	salmon	7	105,225,723		S_Shore		0.580	0.017	0.480	0.210
cg23530330	salmon	13	51,792,702		N_Shelf		0.580	-0.013	0.444	0.165
cg03538504	salmon	15	66,581,018		OpenSea		0.579	-0.003	0.588	0.778
cg04797061	salmon	16	31,159,920	Body	Island	PRSS36	0.579	-0.005	0.096	0.675
cg11223101	salmon	6	33,360,547	Body	S_Shore	KIFC1	0.579	-0.004	0.088	0.478
cg24210813	salmon	17	46,669,644	TSS200	Island	LOC404266	0.579	-0.008	0.131	0.143
cg14687145	salmon	2	29,234,537	Body	OpenSea	FAM179A	0.579	-0.009	0.125	0.226
cg22616255	salmon	1	221,049,980		N_Shore		0.578	-0.005	0.343	0.715
cg00632486	salmon	15	99,140,338		OpenSea		0.578	-0.001	0.027	0.655
cg27175093	salmon	14	57,265,910		S_Shore		0.578	0.000	0.024	0.998
cg09497201	salmon	8	25,906,243		S_Shore		0.578	-0.001	0.035	0.659
cg15903213	salmon	10	43,522,190		OpenSea		0.577	-0.004	0.044	0.025
cg07523043	salmon	6	30,175,299	5'UTR	OpenSea	TRIM26	0.577	0.004	0.175	0.515
cg19643053	salmon	7	27,184,271	TSS1500	Island	HOXA5	0.577	0.007	0.107	0.478
cg26394940	salmon	22	46,449,461	Body	N_Shore	C22orf26	0.577	-0.007	0.046	0.181
cg21918313	salmon	2	73,496,203	Body	Island	FBXO41	0.577	0.009	0.070	0.398
cg20550154	salmon	14	52,487,779	Body	OpenSea	NID2	0.577	0.005	0.243	0.754
cg16184803	salmon	4	111,542,444	Body	Island	PITX2	0.577	-0.009	0.067	0.111
cg20454887	salmon	2	54,935,920		OpenSea		0.577	-0.013	0.074	0.090
cg01940425	salmon	2	63,276,565	TSS1500	Island	OTX1	0.577	-0.001	0.020	0.452
cg09907758	salmon	11	63,537,459	TSS1500	S_Shore	C11orf95	0.577	0.001	0.058	0.835
cg25019722	salmon	6	37,503,610		Island		0.577	-0.005	0.036	0.135
cg02030542	salmon	16	70,722,454	Body	S_Shelf	VAC14	0.577	-0.006	0.060	0.217
cg14665192	salmon	12	6,898,711	5'UTR	OpenSea	CD4	0.577	0.001	0.047	0.502
cg17383842	salmon	3	50,553,718		OpenSea		0.576	0.000	0.020	0.766
cg26773567	salmon	10	82,173,535	TSS200	OpenSea	C10orf58	0.576	0.001	0.260	0.932
cg21869609	salmon	19	2,291,613	Body	Island	LINGO3	0.576	-0.004	0.025	0.471
cg04522625	salmon	3	64,751,651	Body	OpenSea	MIRS48A2	0.576	-0.004	0.439	0.620
cg06655414	salmon	19	17,942,272	Body	Island	JAK3	0.576	-0.004	0.163	0.629
cg20343063	salmon	11	57,089,744	5'UTR	N_Shore	TNKS1BP1	0.575	-0.006	0.118	0.337
cg16778156	salmon	15	37,402,581		N_Shore		0.575	0.000	0.042	0.939
cg16604035	salmon	1	27,863,299	3'UTR	OpenSea	AHDC1	0.574	-0.003	0.186	0.533
cg09868598	salmon	5	50,674,015		OpenSea		0.574	-0.008	0.126	0.486
cg04098891	salmon	5	32,714,525	Body	S_Shore	NPR3	0.574	0.003	0.064	0.401
cg10371414	salmon	16	79,451,857		OpenSea		0.574	-0.004	0.180	0.814
cg26126806	salmon	17	17,685,031	5'UTR	Island	RAI1	0.574	-0.008	0.051	0.115
cg16601590	salmon	13	34,782,424		OpenSea		0.574	-0.027	0.575	0.031
cg22322465	salmon	4	174,459,201	Body	Island	NBLA00301	0.574	-0.006	0.088	0.297
cg00830419	salmon	2	20,371,971		OpenSea		0.574	0.000	0.393	0.977
cg14098223	salmon	1	2,262,333	Body	N_Shelf	MORN1	0.574	0.000	0.132	0.979
cg20048529	salmon	7	98,740,022	Body	N_Shore	SMURF1	0.574	-0.001	0.055	0.746
cg17951713	salmon	8	130,698,161		OpenSea		0.573	0.000	0.032	0.976
cg11403708	salmon	20	62,605,086		N_Shore		0.573	-0.005	0.032	0.084

cg03393040	salmon	12	113,587,340	TSS1500	N_Shelf	CCDC42B	0.573	-0.001	0.026	0.665
cg16722536	salmon	22	19,744,067	TSS200	Island	TBX1	0.573	-0.004	0.126	0.641
cg24779381	salmon	15	74,466,794	TSS200	N_Shore	ISLR	0.573	0.006	0.193	0.462
cg00908833	salmon	6	50,810,432	Body	N_Shore	TFAP2B	0.573	-0.004	0.074	0.278
cg24115040	salmon	7	96,652,375	Body	N_Shore	DLX5	0.573	0.001	0.034	0.753
cg02931685	salmon	19	14,376,360		N_Shore		0.573	-0.006	0.056	0.242
cg04995300	salmon	3	66,848,608		OpenSea		0.573	0.000	0.042	0.988
cg21751684	salmon	15	89,920,887	TSS1500	Island	LOC254559	0.572	-0.005	0.039	0.218
cg04088433	salmon	12	91,576,441	1stExon	OpenSea	DCN	0.572	0.000	0.198	0.971
cg09704116	salmon	17	46,666,958	TSS1500	N_Shelf	LOC404266	0.572	-0.004	0.108	0.706
cg12378817	salmon	10	133,961,235	Body	OpenSea	JAKMIP3	0.572	0.001	0.318	0.908
cg18947951	salmon	2	63,285,739		N_Shore		0.572	0.002	0.037	0.351
cg12236088	salmon	2	105,275,812		Island		0.572	-0.003	0.022	0.191
cg02798280	salmon	19	39,087,135	Body	Island	MAP4K1	0.571	-0.012	0.048	0.293
cg03222323	salmon	17	59,534,903	Body	Island	TBX4	0.571	-0.002	0.032	0.573
cg05895376	salmon	15	37,399,118		N_Shelf		0.571	0.000	0.021	0.945
cg02000808	salmon	7	27,156,062	5'UTR	S_Shore	HOXA3	0.571	0.010	0.065	0.060
cg21552014	salmon	3	146,026,497		OpenSea		0.571	-0.002	0.470	0.860
cg02570638	salmon	5	92,940,568		S_Shore		0.571	-0.029	0.437	0.122
cg13726218	salmon	13	72,438,249	Body	N_Shore	DACH1	0.571	0.004	0.089	0.602
cg22473770	salmon	17	29,647,977	5'UTR	OpenSea	EV12A	0.571	0.000	0.500	0.999
cg26895804	salmon	8	145,917,243		OpenSea		0.571	-0.004	0.057	0.539
cg14634687	salmon	17	47,094,252	Body	S_Shelf	IGF2BP1	0.571	-0.008	0.055	0.143
cg08657654	salmon	7	27,138,974		S_Shelf		0.570	0.000	0.020	0.815
cg12437821	salmon	12	114,852,027		Island		0.570	0.002	0.032	0.788
cg13891220	salmon	4	111,549,953	Body	Island	PITX2	0.570	0.001	0.051	0.716
cg16652303	salmon	11	126,872,777		N_Shore		0.570	-0.044	0.209	0.005
cg01478204	salmon	11	44,339,330		N_Shore		0.570	0.010	0.170	0.320
cg25291653	salmon	20	19,867,145		OpenSea		0.570	-0.004	0.031	0.337
cg12548176	salmon	12	55,640,113	TSS1500	OpenSea	OR6C74	0.570	-0.004	0.514	0.661
cg12568669	salmon	8	11,666,485	Body	S_Shore	FDFT1	0.570	-0.004	0.064	0.561
cg08461339	salmon	2	241,459,227	Body	N_Shore	ANKMY1	0.570	-0.008	0.103	0.216
cg08823954	salmon	11	73,359,662	5'UTR	OpenSea	PLEKHB1	0.570	0.002	0.128	0.672
cg16429505	salmon	7	100,488,398	TSS1500	N_Shore	UFSP1	0.569	0.002	0.026	0.253
cg09885505	salmon	16	73,099,184		N_Shore		0.569	-0.017	0.272	0.377
cg00430542	salmon	16	73,098,732		N_Shore		0.569	0.002	0.321	0.914
cg08422793	salmon	15	70,051,510		OpenSea		0.569	-0.002	0.482	0.778
cg25371919	salmon	2	63,284,481		N_Shore		0.569	0.008	0.057	0.372
cg19799702	salmon	7	2,757,342		N_Shore		0.569	0.002	0.129	0.753
cg04673462	salmon	1	38,461,896		Island		0.568	-0.010	0.115	0.485
cg23645261	salmon	19	30,940,563	Body	N_Shore	ZNF536	0.568	-0.001	0.356	0.925
cg15846434	salmon	18	76,733,103		Island		0.568	0.002	0.018	0.298
cg01181681	salmon	1	223,317,364	TSS1500	S_Shore	TLR5	0.568	-0.002	0.239	0.835
cg11213369	salmon	7	1,270,925		Island		0.568	0.001	0.027	0.562
cg00760014	salmon	1	19,267,827	Body	OpenSea	IFFO2	0.568	-0.002	0.248	0.865
cg02524863	salmon	3	193,858,041		N_Shore		0.568	0.000	0.083	0.966
cg27464144	salmon	17	66,951,572	TSS200	OpenSea	ABCA8	0.568	0.000	0.098	0.964
cg03352106	salmon	12	21,926,476	Body	OpenSea	KCNJ8	0.568	0.000	0.034	0.997
cg08334034	salmon	15	93,615,039	Body	N_Shore	RGMA	0.567	0.000	0.035	0.996
cg09645336	salmon	5	60,458,807	TSS1500	S_Shore	C5orf43	0.567	0.001	0.020	0.313
cg00786761	salmon	3	184,209,224		Island		0.567	0.000	0.275	0.978
cg12018521	salmon	7	115,858,134	Body	OpenSea	TES	0.567	-0.013	0.610	0.222
cg27127608	salmon	5	158,488,659	Body	OpenSea	EBF1	0.567	-0.004	0.126	0.700
cg18625289	salmon	19	1,591,035	Body	N_Shore	MBD3	0.566	0.001	0.435	0.885
cg12015737	salmon	7	27,184,030	TSS1500	Island	HOXA5	0.566	0.003	0.065	0.628
cg14361033	salmon	9	124,981,504	Body	N_Shore	LHX6	0.566	-0.002	0.043	0.369
cg12802570	salmon	10	44,069,360	5'UTR	Island	ZNF239	0.566	0.000	0.048	0.948
cg10137010	salmon	17	3,462,438	TSS1500	OpenSea	TRPV3	0.566	-0.007	0.336	0.417
cg00616135	salmon	15	63,413,614	TSS1500	N_Shore	LACTB	0.566	0.008	0.128	0.239
cg27543403	salmon	5	58,335,880	Body	Island	PDE4D	0.566	-0.003	0.037	0.227
cg01171212	salmon	2	177,036,436	Body	Island	HOXD3	0.566	-0.008	0.132	0.223
cg13487312	salmon	11	57,089,738	5'UTR	N_Shore	TNKS1BP1	0.565	-0.006	0.097	0.478
cg04679712	salmon	8	25,898,839	Body	N_Shore	EBF2	0.565	0.005	0.078	0.583
cg09164580	salmon	8	97,157,878	Body	Island	GDF6	0.565	0.000	0.033	0.934
cg03691530	salmon	8	128,834,932	Body	OpenSea	PVT1	0.565	0.010	0.208	0.276
cg05515072	salmon	11	45,231,326	Body	N_Shelf	PRDM11	0.565	0.000	0.029	0.999
cg17449197	salmon	5	176,302,976	Body	N_Shore	UNC5A	0.565	-0.002	0.238	0.859

cg10961323	salmon	1	24,127,976	TSS1500	S_Shore	GALE	0.565	0.000	0.136	0.996
cg27631638	salmon	2	138,892,947		OpenSea		0.565	-0.004	0.661	0.624
cg11062056	salmon	12	52,249,852		OpenSea		0.565	-0.001	0.018	0.288
cg06023791	salmon	20	3,653,555	Body	Island	ADAM33	0.565	-0.004	0.048	0.471
cg05546863	salmon	16	66,613,220	TSS200	Island	CMTM2	0.565	-0.004	0.046	0.475
cg00864474	salmon	17	9,143,838	3'UTR	Island	NTN1	0.564	-0.002	0.049	0.629
cg02592586	salmon	2	60,830,257		OpenSea		0.564	0.001	0.025	0.814
cg08706567	salmon	1	43,814,983	Body	Island	MPL	0.564	-0.003	0.035	0.351
cg22915582	salmon	3	128,204,047	Body	N_Shore	GATA2	0.564	0.004	0.048	0.436
cg12438547	salmon	13	100,642,971		Island		0.564	-0.017	0.064	0.042
cg08336425	salmon	12	125,140,167		OpenSea		0.564	0.000	0.019	0.814
cg03669782	salmon	4	54,970,254		S_Shelf		0.564	-0.001	0.028	0.485
cg23046919	salmon	12	102,795,843	3'UTR	OpenSea	IGF1	0.563	-0.004	0.106	0.596
cg18103859	salmon	14	61,110,002		S_Shore		0.563	-0.004	0.059	0.771
cg21613389	salmon	17	2,807,593	Body	OpenSea	RAP1GAP2	0.563	-0.002	0.112	0.738
cg19494100	salmon	6	18,387,313	TSS1500	N_Shore	RNF144B	0.563	0.003	0.231	0.610
cg10588962	salmon	17	46,667,587	TSS1500	N_Shore	LOC404266	0.563	-0.010	0.112	0.492
cg05387399	salmon	10	124,893,766		N_Shore		0.563	0.001	0.037	0.532
cg00848945	salmon	12	2,800,919	3'UTR	Island	CACNA1C	0.563	0.000	0.026	0.965
cg26198197	salmon	4	108,204,800		OpenSea		0.563	0.002	0.169	0.810
cg19442415	salmon	11	116,567,334		OpenSea		0.563	-0.008	0.365	0.295
cg00791764	salmon	4	53,727,839	TSS1500	N_Shore	RASL11B	0.563	0.001	0.080	0.937
cg14579864	salmon	9	79,632,225		N_Shore		0.562	0.001	0.038	0.645
cg14976342	salmon	1	15,255,231	Body	S_Shelf	KIAA1026	0.562	0.015	0.322	0.359
cg20316440	salmon	1	8,457,758	5'UTR	OpenSea	RERE	0.562	0.001	0.490	0.860
cg12262378	salmon	17	6,899,522	1stExon	Island	ALOX12	0.562	-0.001	0.020	0.680
cg16267236	salmon	3	133,464,463	TSS1500	N_Shore	TF	0.562	-0.003	0.836	0.722
cg04322572	salmon	10	43,447,618		OpenSea		0.562	0.000	0.034	1.000
cg16739441	salmon	12	21,926,524	Body	OpenSea	KCNJ8	0.562	0.006	0.054	0.355
cg13508175	salmon	10	88,296,364		Island		0.562	-0.002	0.034	0.481
cg15417365	salmon	17	56,609,082	Body	Island	4-Sep	0.561	-0.002	0.058	0.513
cg17766305	salmon	10	90,147,030	Body	OpenSea	RNLS	0.561	-0.003	0.062	0.628
cg15648389	salmon	12	54,448,769	Body	S_Shore	HOXC4	0.561	-0.003	0.036	0.122
cg05485462	salmon	16	3,062,349	TSS200	N_Shore	CLDN9	0.561	-0.012	0.116	0.279
cg13216022	salmon	15	51,631,687	TSS1500	N_Shelf	CYP19A1	0.561	0.008	0.258	0.410
cg12695465	salmon	6	10,556,147	5'UTR	OpenSea	GCNT2	0.561	-0.002	0.026	0.276
cg03666441	salmon	17	7,254,671	TSS1500	Island	KCTD11	0.561	-0.001	0.017	0.333
cg18801955	salmon	11	15,651,124		OpenSea		0.561	-0.018	0.471	0.111
cg20817131	salmon	7	27,184,167	TSS1500	Island	HOXA5	0.561	0.007	0.058	0.256
cg13865934	salmon	1	2,262,474	Body	N_Shelf	MORN1	0.561	0.002	0.180	0.837
cg00503302	salmon	3	62,355,319		Island		0.560	-0.002	0.023	0.391
cg19811337	salmon	11	65,374,663	Body	N_Shore	MAP3K11	0.560	0.000	0.028	0.946
cg10157266	salmon	2	71,963,655		OpenSea		0.560	-0.004	0.390	0.497
cg15810758	salmon	6	99,290,349		Island		0.560	-0.004	0.032	0.130
cg06452419	salmon	17	55,938,940		N_Shore		0.560	-0.001	0.019	0.258
cg03342208	salmon	13	95,358,540		N_Shore		0.560	0.004	0.048	0.368
cg21848191	salmon	14	68,607,773	Body	OpenSea	RAD51L1	0.559	-0.011	0.394	0.383
cg22177451	salmon	2	57,986,550		OpenSea		0.559	-0.014	0.294	0.113
cg19641327	salmon	5	15,834,770	Body	OpenSea	FBXL7	0.559	-0.012	0.258	0.203
cg00806704	salmon	13	28,539,042	Body	N_Shore	CDX2	0.559	-0.001	0.062	0.874
cg06023841	salmon	7	73,308,204		OpenSea		0.559	-0.002	0.304	0.694
cg01546793	salmon	11	116,913,720	Body	OpenSea	SIK3	0.558	-0.009	0.642	0.640
cg21518089	salmon	11	22,362,708	Body	N_Shore	SLC17A6	0.558	-0.002	0.045	0.448
cg24579887	salmon	5	92,905,692	Body	N_Shore	FLJ42709	0.558	-0.014	0.595	0.269
cg09735851	salmon	15	40,615,289		Island		0.558	-0.003	0.059	0.605
cg20782117	salmon	7	95,865,631	Body	OpenSea	SLC25A13	0.558	0.001	0.149	0.890
cg21546184	salmon	8	65,283,649		S_Shore		0.557	-0.001	0.020	0.349
cg07409418	salmon	4	174,429,649		N_Shore		0.557	-0.005	0.463	0.785
cg26164879	salmon	1	38,599,626		OpenSea		0.557	0.002	0.045	0.612
cg06796709	salmon	16	84,645,176	Body	OpenSea	COTL1	0.557	-0.004	0.508	0.623
cg20945566	salmon	17	46,800,020	TSS200	N_Shore	PRAC	0.557	-0.004	0.046	0.141
cg16865965	salmon	2	85,811,662	Body	Island	VAMP5	0.557	-0.016	0.066	0.143
cg22842797	salmon	17	48,912,621	1stExon	OpenSea	WFIKKN2	0.557	-0.004	0.050	0.348
cg17698366	salmon	7	35,300,534		N_Shore		0.556	-0.027	0.429	0.076
cg10512089	salmon	11	57,408,751	Body	OpenSea	MIR130A	0.556	0.012	0.267	0.032
cg18076842	salmon	11	93,262,607	5'UTR	OpenSea	C11orf75	0.556	-0.007	0.474	0.501
cg14962049	salmon	5	145,166,924	Body	OpenSea	PRELID2	0.556	0.011	0.446	0.370

cg17640485	salmon	3	195,620,147	Body	N_Shelf	TNK2	0.556	-0.013	0.122	0.177
cg23204968	salmon	7	27,183,816	TSS1500	Island	HOXA5	0.555	0.003	0.048	0.466
cg26660631	salmon	1	47,015,494	Body	OpenSea	KNCN	0.555	0.008	0.214	0.225
cg10165801	salmon	17	46,651,186	5'UTR	N_Shelf	HOXB3	0.555	-0.010	0.074	0.161
cg26708781	salmon	4	87,921,477	Body	OpenSea	AFF1	0.555	0.004	0.330	0.694
cg19704853	salmon	11	125,133,609	5'UTR	OpenSea	PKNOX2	0.555	-0.001	0.024	0.753
cg06100639	salmon	7	143,602,068		S_Shelf		0.555	-0.002	0.113	0.825
cg02523270	salmon	3	193,987,651		Island		0.555	-0.003	0.045	0.707
cg04836472	salmon	21	34,405,997		Island		0.555	-0.014	0.090	0.272
cg02518245	salmon	16	51,573,168		OpenSea		0.555	-0.011	0.112	0.157
cg20666917	salmon	2	99,439,848	Body	Island	C2orf55	0.554	-0.005	0.103	0.518
cg04188555	salmon	2	236,579,949	Body	Island	AGAP1	0.554	-0.004	0.050	0.179
cg07351143	salmon	10	22,623,910		Island		0.554	-0.003	0.055	0.364
cg14219900	salmon	1	156,119,542		OpenSea		0.554	-0.014	0.150	0.164
cg06409153	salmon	17	67,323,953	TSS1500	S_Shore	ABCA5	0.554	0.002	0.042	0.554
cg17373554	salmon	5	72,594,735		Island		0.553	0.001	0.019	0.588
cg03785303	salmon	19	34,396,716		Island		0.553	0.001	0.048	0.749
cg08755743	salmon	3	128,205,418	Body	N_Shore	GATA2	0.553	0.003	0.052	0.355
cg25190001	salmon	12	49,371,310	TSS1500	N_Shore	WNT1	0.553	-0.002	0.121	0.703
cg22734676	salmon	4	185,139,478	TSS1500	OpenSea	ENPP6	0.553	-0.009	0.454	0.204
cg07112604	salmon	14	91,836,354	Body	OpenSea	CCDC88C	0.553	-0.004	0.052	0.293
cg08571680	salmon	11	67,407,505	TSS1500	OpenSea	TBX10	0.553	-0.008	0.153	0.294
cg15966954	salmon	5	135,231,547	TSS200	OpenSea	IL9	0.552	-0.008	0.203	0.215
cg22754206	salmon	20	61,151,391	Body	N_Shore	C20orf166	0.552	-0.001	0.345	0.888
cg17229929	salmon	12	6,648,862	3'UTR	N_Shore	IFFO1	0.552	0.009	0.475	0.322
cg09229492	salmon	16	50,626,578	Body	OpenSea	NKD1	0.552	0.006	0.312	0.443
cg23345508	salmon	6	148,079,619		OpenSea		0.552	-0.006	0.596	0.683
cg21491107	salmon	16	85,649,026	5'UTR	Island	KIAA0182	0.552	-0.001	0.418	0.888
cg27579805	salmon	17	76,101,307	3'UTR	S_Shore	TNRC6C	0.552	-0.006	0.103	0.294
cg01789576	salmon	1	228,337,311	TSS1500	OpenSea	GJC2	0.551	0.001	0.261	0.936
cg19979643	salmon	10	6,018,610	Body	N_Shore	IL15RA	0.551	-0.003	0.068	0.485
cg06966811	salmon	14	57,276,789	5'UTR	Island	OTX2	0.551	-0.007	0.053	0.108
cg25771271	salmon	1	119,550,191		Island		0.551	-0.005	0.049	0.238
cg04442426	salmon	5	37,832,522	Body	N_Shelf	GDNF	0.551	0.002	0.284	0.705
cg24256191	salmon	1	81,978,221		OpenSea		0.551	0.023	0.451	0.061
cg17210938	salmon	1	59,043,173	TSS200	Island	TACSTD2	0.550	-0.002	0.032	0.426
cg04203646	salmon	19	1,467,008	Body	Island	APC2	0.550	-0.019	0.067	0.084
cg13316854	salmon	2	177,027,856	TSS1500	Island	HOXD3	0.550	0.002	0.021	0.138
cg08178956	salmon	2	42,345,201		OpenSea		0.550	-0.010	0.383	0.358
cg09153930	salmon	2	27,070,303	TSS1500	Island	DPYSL5	0.550	0.001	0.037	0.814
cg08584759	salmon	10	11,912,126	Body	Island	C10orf47	0.550	-0.012	0.058	0.336
cg05938001	salmon	2	172,952,948	Body	Island	DLX1	0.550	-0.004	0.046	0.276
cg03942932	salmon	6	106,441,441		N_Shore		0.550	0.002	0.038	0.507
cg21657704	salmon	17	80,851,007	Body	OpenSea	TBCD	0.550	-0.003	0.322	0.645
cg14649073	salmon	13	113,437,118	Body	N_Shelf	ATP11A	0.550	-0.008	0.459	0.224
cg08405119	salmon	4	53,728,999	Body	Island	RASL11B	0.549	-0.007	0.054	0.114
cg00377332	salmon	3	45,761,250	Body	OpenSea	SACM1L	0.549	-0.012	0.432	0.262
cg04969921	salmon	2	224,810,714	TSS1500	S_Shore	WDFY1	0.549	-0.005	0.361	0.532
cg16273943	salmon	8	38,175,684	Body	OpenSea	WHSC1L1	0.549	0.004	0.243	0.612
cg15126179	salmon	13	79,181,338		Island		0.549	-0.001	0.030	0.717
cg19720302	salmon	17	65,990,670	TSS1500	S_Shore	C17orf58	0.549	0.001	0.151	0.951
cg20059492	salmon	1	12,603,854		S_Shelf		0.549	0.004	0.561	0.858
cg20815297	salmon	4	13,541,663		N_Shore		0.548	-0.019	0.206	0.171
cg06942814	salmon	7	27,170,819	TSS1500	S_Shore	HOXA4	0.548	0.000	0.043	0.995
cg01184975	salmon	12	114,852,091		Island		0.547	0.002	0.048	0.865
cg03961010	salmon	10	64,397,487	5'UTR	OpenSea	ZNF365	0.547	0.008	0.388	0.480
cg19768599	salmon	3	124,931,727	TSS200	Island	SLC12A8	0.547	0.001	0.078	0.799
cg27151303	salmon	7	27,184,821		Island		0.547	-0.004	0.053	0.611
cg18623263	salmon	2	172,242,908	Body	OpenSea	METTL8	0.547	-0.011	0.829	0.142
cg15527515	salmon	14	23,630,709	Body	OpenSea	SLC7A8	0.547	-0.006	0.468	0.539
cg23257935	salmon	1	118,727,834	5'UTR	Island	SPAG17	0.546	-0.003	0.048	0.524
cg21606036	salmon	5	78,985,900	Body	OpenSea	CMYA5	0.546	0.000	0.034	0.928
cg18297437	salmon	3	147,131,332	Body	Island	ZIC1	0.546	-0.006	0.021	0.090
cg08368875	salmon	10	134,334,241		OpenSea		0.546	0.004	0.262	0.615
cg12670347	salmon	12	114,847,578	TSS1500	Island	TBX5	0.545	-0.006	0.046	0.128
cg20229931	salmon	21	47,647,656	Body	N_Shore	LSS	0.545	-0.010	0.087	0.187
cg24914185	salmon	2	200,663,789		OpenSea		0.545	0.011	0.102	0.194

cg21017569	salmon	17	7,832,769	TSS200	Island	KCNAB3	0.545	-0.007	0.037	0.331
cg02941008	salmon	1	20,810,527	Body	Island	CAMK2N1	0.545	-0.003	0.033	0.069
cg12107247	salmon	17	75,759,464		OpenSea		0.545	-0.004	0.314	0.578
cg13844402	salmon	13	112,716,025		Island		0.544	-0.003	0.065	0.409
cg07899997	salmon	12	85,671,892		N_Shore		0.544	-0.009	0.062	0.392
cg02466016	salmon	5	155,956,646	Body	OpenSea	SGCD	0.544	-0.011	0.661	0.480
cg02832512	salmon	6	22,113,516	Body	OpenSea	FLJ22536	0.544	-0.012	0.409	0.272
cg05023691	salmon	1	192,605,253	TSS200	OpenSea	RGS13	0.543	-0.021	0.558	0.370
cg13833632	salmon	10	64,038,330		OpenSea		0.543	0.004	0.114	0.691
cg23971170	salmon	1	165,326,269	TSS1500	Island	LMX1A	0.543	0.000	0.025	0.812
cg14158153	salmon	15	42,141,147	Body	OpenSea	SPTBN5	0.543	-0.006	0.589	0.514
cg16771406	salmon	7	27,191,352		S_Shore		0.543	-0.005	0.050	0.173
cg04474049	salmon	7	116,164,533	TSS1500	N_Shore	CAV1	0.543	0.000	0.110	0.998
cg08457421	salmon	22	31,536,431	5'UTR	OpenSea	PLA2G3	0.542	-0.001	0.059	0.581
cg24659758	salmon	10	71,891,123	5'UTR	N_Shore	AIFM2	0.542	0.006	0.836	0.407
cg06568490	salmon	3	13,525,965	Body	S_Shelf	HDAC11	0.542	0.010	0.199	0.217
cg27284120	salmon	19	52,302,551	5'UTR	OpenSea	FPR3	0.541	0.010	0.566	0.234
cg18407095	salmon	2	26,846,581	Body	OpenSea	CIB4	0.541	0.001	0.157	0.937
cg14013695	salmon	7	27,184,176	TSS1500	Island	HOXA5	0.541	0.006	0.070	0.353
cg07240834	salmon	4	175,139,755		OpenSea		0.541	-0.010	0.052	0.096
cg06166490	salmon	7	27,143,334	TSS1500	Island	HOXA2	0.541	-0.002	0.040	0.538
cg08235161	salmon	14	57,262,049		Island		0.541	-0.002	0.035	0.429
cg17842918	salmon	13	113,540,400	3'UTR	Island	ATP11A	0.541	-0.003	0.034	0.724
cg22910462	salmon	22	17,680,578	TSS200	OpenSea	CECR1	0.541	-0.007	0.112	0.585
cg07524679	salmon	2	74,742,593	Body	Island	TLX2	0.540	-0.003	0.071	0.568
cg02119494	salmon	15	70,168,944		OpenSea		0.540	0.003	0.416	0.752
cg08074534	salmon	6	100,895,143	Body	Island	SIM1	0.540	-0.001	0.037	0.844
cg16524232	salmon	16	88,445,933		N_Shelf		0.539	-0.006	0.512	0.352
cg13356792	salmon	2	53,192,311		OpenSea		0.539	-0.001	0.181	0.833
cg23824183	salmon	8	124,285,055	5'UTR	N_Shore	ZHX1	0.539	0.000	0.266	0.989
cg04371130	salmon	7	1,407,571		N_Shore		0.539	-0.007	0.427	0.412
cg01610123	salmon	5	134,770,100		OpenSea		0.538	0.005	0.416	0.560
cg09459774	salmon	3	71,457,237	5'UTR	OpenSea	FOXP1	0.538	0.003	0.143	0.641
cg05369327	salmon	14	95,826,853		Island		0.538	0.003	0.048	0.716
cg17126924	salmon	17	25,773,641		OpenSea		0.537	-0.012	0.461	0.217
cg13440795	salmon	8	10,210,267	Body	OpenSea	MSRA	0.537	-0.013	0.561	0.312
cg05988266	salmon	3	67,433,172	Body	OpenSea	SUCLG2	0.537	-0.005	0.421	0.512
cg00591868	salmon	19	19,729,048	Body	N_Shore	PBX4	0.537	-0.017	0.204	0.104
cg18751141	salmon	7	27,138,173		S_Shore		0.536	-0.002	0.028	0.397
cg13432205	salmon	10	134,079,311	Body	OpenSea	STK32C	0.536	-0.006	0.153	0.455
cg21667836	salmon	12	3,599,355	TSS1500	N_Shore	PRMT8	0.536	0.001	0.051	0.722
cg13893012	salmon	9	112,593,847	Body	OpenSea	PALM2	0.536	0.003	0.168	0.664
cg17510278	salmon	20	21,696,115	3'UTR	S_Shore	PAX1	0.536	0.000	0.071	0.964
cg01439670	salmon	11	76,381,165	5'UTR	N_Shore	LRRC32	0.536	-0.013	0.177	0.048
cg20483374	salmon	11	119,211,646	5'UTR	Island	C1QTNF5	0.536	-0.003	0.027	0.096
cg24091995	salmon	12	30,948,636		Island		0.535	0.000	0.040	0.937
cg22259536	salmon	3	31,763,271	Body	OpenSea	OSBPL10	0.535	0.006	0.290	0.741
cg13026795	salmon	3	16,379,963	Body	OpenSea	RFTN1	0.535	-0.004	0.413	0.459
cg24103475	salmon	11	126,149,274		N_Shelf		0.535	0.007	0.293	0.266
cg16997642	salmon	7	27,184,159	TSS1500	Island	HOXA5	0.535	0.008	0.081	0.428
cg19047868	salmon	17	46,669,485	TSS200	Island	LOC404266	0.535	-0.003	0.055	0.705
cg05031448	salmon	5	173,764,100		OpenSea		0.535	0.032	0.308	0.176
cg23006204	salmon	9	130,700,866	TSS200	S_Shore	DPM2	0.535	-0.004	0.062	0.467
cg22590902	salmon	15	87,460,178	Body	OpenSea	AGBL1	0.534	0.002	0.280	0.841
cg20371266	salmon	2	233,390,781	TSS200	S_Shore	CHRND	0.534	-0.001	0.033	0.505
cg04334016	salmon	6	154,769,781	Body	OpenSea	CNKS33	0.534	0.004	0.099	0.479
cg18585263	salmon	4	124,770,629	Body	OpenSea	LOC285419	0.534	-0.009	0.357	0.615
cg17301311	salmon	17	48,641,896	Body	S_Shelf	CACNA1G	0.534	0.000	0.027	0.921
cg14844341	salmon	5	139,089,549		Island		0.534	-0.004	0.036	0.143
cg21619325	salmon	2	19,559,211	TSS1500	N_Shore	OSR1	0.533	-0.005	0.419	0.470
cg12215739	salmon	2	177,014,966	TSS1500	Island	HOXD4	0.533	-0.006	0.039	0.108
cg08824221	salmon	11	27,417,374	Body	OpenSea	LGR4	0.533	0.005	0.409	0.661
cg21165027	salmon	5	172,663,784	TSS1500	Island	NKX2-5	0.533	0.000	0.141	0.944
cg22143698	salmon	5	10,608,058	Body	OpenSea	ANKRD33B	0.532	0.001	0.283	0.866
cg01039401	salmon	12	3,070,406	5'UTR	S_Shore	TEAD4	0.532	-0.004	0.351	0.636
cg22083053	salmon	4	13,541,444		N_Shelf		0.532	-0.013	0.096	0.303
cg22030072	salmon	2	119,603,673	Body	Island	EN1	0.532	0.001	0.036	0.708



cg19127138	salmon	7	65,196,881	OpenSea		0.532	-0.003	0.074	0.689	
cg20709110	salmon	22	19,946,873	5'UTR	OpenSea	COMT	0.532	-0.001	0.034	0.843
cg25767345	salmon	18	54,788,969	Island		0.532	0.002	0.056	0.509	
cg26289449	salmon	17	71,772,827	Body	OpenSea	C17orf54	0.531	-0.004	0.511	0.700
cg05511872	salmon	11	70,824,260	Body	OpenSea	SHANK2	0.531	0.003	0.220	0.747
cg02642822	salmon	17	46,666,926	TSS1500	N_Shelf	LOC404266	0.531	-0.012	0.114	0.359
cg22249789	salmon	2	63,284,574	N_Shore		0.531	0.003	0.041	0.634	
cg11468255	salmon	17	77,780,000	S_Shore		0.531	-0.001	0.067	0.806	
cg10097313	salmon	14	25,591,076	OpenSea		0.531	0.003	0.496	0.741	
cg18893120	salmon	8	125,741,209	TSS1500	Island	MTSS1	0.531	0.009	0.111	0.324
cg07661965	salmon	12	83,864,815	OpenSea		0.531	-0.010	0.266	0.408	
cg02385908	salmon	17	77,822,099	S_Shelf		0.531	-0.008	0.473	0.389	
cg23031975	salmon	2	67,601,521	OpenSea		0.530	0.004	0.273	0.747	
cg01629240	salmon	17	46,642,011	5'UTR	Island	HOXB3	0.530	-0.009	0.075	0.405
cg02898239	salmon	6	148,931,950	OpenSea		0.530	0.006	0.543	0.487	
cg20714110	salmon	3	137,489,672	Island		0.530	-0.003	0.033	0.261	
cg02956355	salmon	16	81,477,864	TSS1500	Island	CMIP	0.530	-0.002	0.026	0.178
cg00274587	salmon	6	33,280,900	Body	N_Shore	TAPBP	0.530	-0.006	0.070	0.213
cg17393917	salmon	12	106,533,840	TSS200	S_Shore	NUAK1	0.530	-0.002	0.017	0.175
cg07028396	salmon	10	93,805,682	Island		0.530	-0.003	0.038	0.213	
cg07077013	salmon	2	177,025,198	Island		0.530	-0.002	0.022	0.142	
cg11891395	salmon	7	96,652,153	Body	Island	DLX5	0.529	-0.009	0.059	0.195
cg15720112	salmon	5	125,036,315	OpenSea		0.529	0.000	0.040	0.971	
cg18495563	salmon	11	33,061,907	5'UTR	S_Shore	TCP11L1	0.529	0.004	0.089	0.573
cg24769190	salmon	10	84,413,538	Body	OpenSea	NRG3	0.529	-0.008	0.602	0.423
cg00360474	salmon	6	37,504,404	S_Shore		0.529	-0.004	0.090	0.370	
cg04181892	salmon	2	54,936,027	OpenSea		0.528	-0.012	0.098	0.127	
cg03463523	salmon	16	73,099,917	Island		0.528	-0.020	0.186	0.246	
cg04611801	salmon	17	56,402,029	Body	Island	BZRAP1	0.528	-0.008	0.027	0.014
cg13008631	salmon	2	227,663,034	1stExon	Island	IRS1	0.528	-0.022	0.179	0.055
cg12875039	salmon	3	50,492,746	Body	OpenSea	CACNA2D2	0.528	-0.008	0.587	0.321
cg11691298	salmon	2	26,396,787	Body	Island	FAM59B	0.528	-0.004	0.054	0.180
cg25369185	salmon	20	30,439,610	S_Shore		0.528	0.007	0.396	0.264	
cg04193160	salmon	1	228,400,419	Body	Island	OBSCN	0.528	-0.005	0.078	0.476
cg06117341	salmon	16	3,062,653	1stExon	N_Shore	CLDN9	0.527	-0.001	0.039	0.790
cg15085899	salmon	12	125,003,064	5'UTR	Island	NCOR2	0.527	0.001	0.022	0.400
cg11007850	salmon	2	129,216,138	OpenSea		0.527	-0.011	0.151	0.178	
cg00187129	salmon	16	66,580,422	Body	N_Shelf	TK2	0.527	-0.004	0.469	0.777
cg14908170	salmon	2	240,405,317	OpenSea		0.527	-0.022	0.447	0.081	
cg12831866	salmon	20	24,452,036	5'UTR	Island	TMEM90B	0.527	-0.001	0.024	0.404
cg07363961	salmon	5	539,880	S_Shelf		0.526	-0.005	0.200	0.655	
cg17370195	salmon	8	843,943	OpenSea		0.526	-0.001	0.164	0.952	
cg21647035	salmon	1	16,473,479	Body	N_Shore	EPHA2	0.526	-0.020	0.377	0.061
cg07893801	salmon	20	39,767,358	Body	S_Shore	PLCG1	0.526	0.000	0.032	0.929
cg25382128	salmon	12	54,346,509	N_Shore		0.526	-0.002	0.152	0.919	
cg02800607	salmon	10	100,991,959	Body	N_Shore	HPSE2	0.526	0.000	0.022	0.888
cg17665601	salmon	8	131,162,292	Body	OpenSea	ASAP1	0.525	-0.017	0.564	0.189
cg07995438	salmon	11	67,349,309	N_Shore		0.525	0.011	0.234	0.447	
cg05550893	salmon	17	1,880,884	Body	Island	RTN4RL1	0.525	-0.006	0.051	0.159
cg23412850	salmon	12	93,967,387	Body	Island	SOCS2	0.525	-0.004	0.038	0.213
cg02276974	salmon	15	78,634,235	Body	S_Shore	CRABP1	0.525	-0.007	0.126	0.427
cg19082560	salmon	5	3,603,280	S_Shore		0.525	-0.001	0.048	0.758	
cg24012880	salmon	11	44,880,910	5'UTR	OpenSea	TSPAN18	0.525	-0.004	0.543	0.738
cg13485230	salmon	18	9,709,310	Body	Island	RAB31	0.525	-0.001	0.031	0.665
cg15591276	salmon	7	1,265,851	S_Shore		0.525	-0.014	0.153	0.215	
cg18181201	salmon	1	242,686,709	5'UTR	N_Shore	PLD5	0.525	0.000	0.019	0.927
cg03452625	salmon	3	11,537,620	Body	OpenSea	ATG7	0.524	0.004	0.107	0.626
cg12727138	salmon	2	162,102,947	S_Shore		0.524	0.009	0.489	0.543	
cg15406387	salmon	4	111,397,332	1stExon	N_Shore	ENPEP	0.524	-0.001	0.026	0.677
cg09461005	salmon	10	34,612,060	Body	OpenSea	PAR3	0.524	-0.005	0.517	0.578
cg12357514	salmon	13	38,308,871	Body	OpenSea	TRPC4	0.524	-0.010	0.554	0.250
cg06688910	salmon	8	122,466,955	OpenSea		0.523	-0.005	0.091	0.640	
cg26605164	salmon	10	102,821,565	1stExon	Island	KAZALD1	0.523	-0.006	0.067	0.370
cg03052128	salmon	12	85,671,811	N_Shelf		0.523	-0.009	0.105	0.245	
cg13794390	salmon	1	42,724,714	Body	OpenSea	FOXJ3	0.523	-0.017	0.549	0.167
cg05793120	salmon	4	13,529,809	Island		0.523	-0.001	0.044	0.727	
cg08856420	salmon	6	31,047,558	OpenSea		0.523	0.000	0.052	0.869	

cg02127234	salmon	8	67,688,534	5'UTR	S_Shore	SGK3	0.523	0.004	0.548	0.677
cg01803928	salmon	13	50,701,619		Island		0.522	-0.003	0.045	0.696
cg04063045	salmon	2	71,124,531		N_Shelf		0.522	0.003	0.094	0.451
cg15827092	salmon	14	83,600,849		OpenSea		0.522	-0.001	0.088	0.859
cg12832282	salmon	8	125,753,427		OpenSea		0.522	-0.008	0.668	0.577
cg16283208	salmon	11	59,323,398		OpenSea		0.522	0.000	0.024	0.881
cg04027043	salmon	11	8,378,791		OpenSea		0.522	0.001	0.234	0.913
cg06181508	salmon	3	147,102,840		OpenSea		0.522	0.000	0.082	0.915
cg22904711	salmon	19	44,278,628	Body	Island	KCNN4	0.522	-0.002	0.041	0.791
cg19237879	salmon	11	9,113,458	TSS1500	Island	SCUBE2	0.522	-0.010	0.114	0.074
cg11353250	salmon	6	75,794,995	3'UTR	Island	COL12A1	0.522	-0.025	0.210	0.196
cg19921917	salmon	4	169,418,224	5'UTR	OpenSea	PALLD	0.522	0.031	0.280	0.137
cg15395354	salmon	4	100,242,862	TSS1500	OpenSea	ADH1B	0.521	-0.003	0.061	0.682
cg17042914	salmon	11	68,898,666		OpenSea		0.521	0.000	0.790	0.975
cg09134314	salmon	6	13,924,570	TSS1500	N_Shore	RNF182	0.521	0.000	0.014	0.568
cg06303238	salmon	20	50,418,959	1stExon	Island	SALL4	0.521	0.001	0.054	0.892
cg02312438	salmon	2	168,148,419		N_Shore		0.521	0.002	0.160	0.780
cg24145595	salmon	5	10,778,241		OpenSea		0.521	-0.004	0.414	0.737
cg06275642	salmon	2	68,546,038	Body	N_Shore	CNRIP1	0.520	-0.001	0.034	0.486
cg07367601	salmon	1	235,114,342		OpenSea		0.520	0.001	0.606	0.864
cg02251349	salmon	8	74,004,752	Body	N_Shore	C8orf84	0.520	-0.013	0.277	0.178
cg10282491	salmon	16	3,062,368	TSS200	N_Shore	CLDN9	0.520	-0.008	0.126	0.274
cg25507719	salmon	15	57,620,452		S_Shore		0.520	0.001	0.520	0.857
cg10297792	salmon	12	115,129,446		N_Shore		0.519	0.003	0.363	0.843
cg13537102	salmon	9	132,360,781		S_Shore		0.519	-0.001	0.546	0.928
cg06490988	salmon	3	128,212,001	5'UTR	Island	GATA2	0.519	0.001	0.039	0.799
cg22352078	salmon	8	41,424,982		Island		0.519	-0.005	0.108	0.514
cg07870914	salmon	1	47,915,951		Island		0.519	0.004	0.042	0.175
cg26529687	salmon	2	133,514,793	Body	OpenSea	NCKAP5	0.518	0.000	0.402	0.976
cg04043455	salmon	10	131,669,461	Body	S_Shelf	EBF3	0.518	-0.002	0.094	0.835
cg22562461	salmon	7	86,274,769	5'UTR	OpenSea	GRM3	0.518	-0.002	0.025	0.133
cg03844971	salmon	12	122,518,517	Body	S_Shore	MLXIP	0.517	-0.003	0.042	0.338
cg03551963	salmon	5	39,502,320		OpenSea		0.517	-0.006	0.091	0.314
cg07748583	salmon	7	151,157,166		OpenSea		0.517	0.001	0.037	0.716
cg17599748	salmon	6	31,589,597	TSS1500	S_Shore	SNORA38	0.517	-0.003	0.073	0.490
cg21510194	salmon	2	236,172,370		OpenSea		0.517	-0.009	0.395	0.287
cg10482632	salmon	1	201,476,606	TSS1500	S_Shore	CSRP1	0.517	-0.004	0.190	0.561
cg03209412	salmon	4	183,728,196		Island		0.516	-0.001	0.072	0.913
cg24065641	salmon	17	69,357,976		OpenSea		0.516	-0.005	0.348	0.553
cg19091036	salmon	12	114,878,144		Island		0.516	0.008	0.252	0.673
cg04243033	salmon	7	116,856,666	Body	OpenSea	ST7	0.516	0.006	0.567	0.606
cg03662049	salmon	2	164,204,829		Island		0.516	-0.007	0.074	0.131
cg07379574	salmon	19	18,724,173	Body	S_Shore	TMEM59L	0.516	0.000	0.022	0.725
cg25738279	salmon	1	68,027,617		OpenSea		0.516	0.007	0.085	0.091
cg25030049	salmon	1	56,169,508		OpenSea		0.516	-0.020	0.643	0.039
cg14889079	salmon	19	54,606,153	TSS200	Island	NDUFA3	0.516	0.001	0.017	0.203
cg17457637	salmon	7	27,170,717	TSS1500	S_Shore	HOXA4	0.516	0.001	0.027	0.707
cg07195926	salmon	3	128,203,414	Body	N_Shelf	GATA2	0.516	0.002	0.109	0.872
cg01539854	salmon	7	150,655,109	Body	Island	KCNH2	0.516	0.004	0.356	0.733
cg08522676	salmon	12	54,343,702		Island		0.515	0.000	0.024	0.935
cg12086281	salmon	7	134,924,584	Body	OpenSea	STRA8	0.515	-0.011	0.577	0.176
cg25044651	salmon	5	115,298,720	1stExon	Island	LVRN	0.515	0.001	0.050	0.824
cg12584785	salmon	15	32,325,334	Body	S_Shelf	CHRNA7	0.515	0.014	0.341	0.037
cg14602839	salmon	17	63,060,161		OpenSea		0.515	-0.009	0.673	0.368
cg18031661	salmon	5	163,133,751		OpenSea		0.515	0.000	0.501	0.999
cg05730038	salmon	17	8,702,698	TSS200	Island	MFSD6L	0.514	0.003	0.039	0.737
cg10447977	salmon	3	64,598,405	Body	OpenSea	ADAMTS9	0.514	-0.012	0.240	0.047
cg13495381	salmon	10	124,102,444		OpenSea		0.514	0.011	0.192	0.151
cg10433904	salmon	6	131,281,636	5'UTR	OpenSea	EPB41L2	0.514	-0.007	0.625	0.387
cg22534919	salmon	17	73,558,434	Body	N_Shore	LLGL2	0.514	-0.003	0.762	0.773
cg07781401	salmon	17	19,773,621		S_Shore		0.514	0.001	0.920	0.881
cg03294619	salmon	5	172,661,803	1stExon	Island	NKX2-5	0.514	0.000	0.017	0.701
cg16458436	salmon	12	114,846,412	TSS200	Island	TBX5	0.514	0.000	0.024	0.883
cg10116893	salmon	17	9,019,124	Body	Island	NTN1	0.513	-0.004	0.072	0.661
cg10288437	salmon	6	158,432,894	Body	OpenSea	SYNJ2	0.513	0.007	0.436	0.382
cg16731157	salmon	1	24,830,054	5'UTR	S_Shore	RCAN3	0.513	0.002	0.107	0.717
cg10207277	salmon	8	114,449,243	TSS200	OpenSea	CSMD3	0.513	0.000	0.022	0.867

cg22603555	salmon	10	105,375,201	Body	OpenSea	SH3PXD2A	0.513	0.012	0.302	0.311
cg26330116	salmon	15	37,173,000	Body	Island	LOC145845	0.513	0.007	0.067	0.442
cg16662570	salmon	5	54,067,028		OpenSea		0.512	-0.006	0.490	0.471
cg10271260	salmon	10	88,020,589	Body	N_Shelf	GRID1	0.512	-0.004	0.167	0.695
cg04578362	salmon	2	145,592,759		OpenSea		0.512	0.016	0.188	0.088
cg10815835	salmon	6	170,396,327		OpenSea		0.512	-0.007	0.266	0.468
cg12150256	salmon	3	50,359,849	5'UTR	Island	HYAL2	0.512	-0.003	0.066	0.512
cg10148591	salmon	19	7,197,021	Body	N_Shore	INSR	0.512	-0.014	0.109	0.025
cg13081568	salmon	6	125,144,887	3'UTR	OpenSea	NKAIN2	0.512	-0.003	0.312	0.696
cg13209441	salmon	7	96,626,151	Body	OpenSea	DLX6AS	0.512	-0.001	0.018	0.282
cg09089913	salmon	3	119,863,394		OpenSea		0.512	-0.002	0.374	0.701
cg25721744	salmon	10	102,767,357	3'UTR	S_Shore	LZTS2	0.511	0.004	0.434	0.454
cg19735903	salmon	13	31,552,275		OpenSea		0.511	0.007	0.554	0.510
cg17723156	salmon	10	124,247,117	Body	OpenSea	HTRA1	0.511	0.002	0.080	0.753
cg27315333	salmon	2	63,285,950		Island		0.511	0.007	0.067	0.449
cg13966557	salmon	4	184,908,884	Body	OpenSea	STOX2	0.511	0.012	0.136	0.178
cg08604505	salmon	8	128,932,775	Body	OpenSea	PVT1	0.511	-0.028	0.792	0.032
cg08574915	salmon	17	79,924,772		OpenSea		0.511	0.002	0.058	0.648
cg22429852	salmon	17	66,030,553	TSS1500	N_Shore	KPNA2	0.510	0.021	0.366	0.428
cg03602288	salmon	17	46,641,863	5'UTR	Island	HOXB3	0.510	-0.018	0.116	0.242
cg08939974	salmon	6	32,187,918	Body	OpenSea	NOTCH4	0.510	0.003	0.353	0.612
cg12857945	salmon	14	37,127,275	5'UTR	Island	PAX9	0.509	-0.003	0.025	0.085
cg16912563	salmon	10	77,157,423		Island		0.509	-0.002	0.130	0.887
cg11703637	salmon	20	61,509,768	3'UTR	S_Shore	DIDO1	0.509	-0.010	0.748	0.482
cg17655451	salmon	5	53,959,665		OpenSea		0.509	0.008	0.366	0.554
cg16492341	salmon	10	26,856,105	Body	Island	APBB1IP	0.509	0.007	0.077	0.388
cg03547631	salmon	1	3,447,557	Body	Island	MEGF6	0.509	-0.004	0.034	0.149
cg00601711	salmon	5	1,089,507	Body	S_Shore	SLC12A7	0.508	0.005	0.287	0.361
cg18053030	salmon	6	47,097,679		OpenSea		0.508	-0.025	0.607	0.048
cg14317230	salmon	8	98,708,278	Body	OpenSea	MTDH	0.508	-0.002	0.657	0.917
cg00297721	salmon	20	55,200,767		Island		0.508	-0.008	0.089	0.128
cg11699265	salmon	7	98,990,265	Body	Island	ARPC1B	0.508	-0.003	0.046	0.685
cg13019568	salmon	14	95,826,830		Island		0.508	-0.001	0.072	0.901
cg03875235	salmon	11	625,052	TSS200	Island	MUPCDH	0.508	-0.011	0.501	0.245
cg07065220	salmon	3	193,987,540		Island		0.508	-0.004	0.043	0.595
cg22481950	salmon	6	161,395,786		OpenSea		0.507	0.011	0.308	0.215
cg19570321	salmon	11	63,258,214	Body	N_Shore	HRASLS5	0.507	0.007	0.126	0.328
cg17092519	salmon	11	70,964,256		S_Shore		0.507	-0.001	0.030	0.700
cg08972588	salmon	6	32,014,674	Body	OpenSea	TNXB	0.507	0.006	0.203	0.523
cg02954562	salmon	12	6,649,806	Body	Island	IFFO1	0.507	-0.001	0.020	0.541
cg12487901	salmon	5	140,872,334	Body	Island	PCDHGA4	0.506	0.005	0.401	0.455
cg22477343	salmon	20	39,312,069		Island		0.506	0.000	0.030	0.890
cg23375877	salmon	17	75,992,311		OpenSea		0.506	-0.006	0.663	0.645
cg01169726	salmon	7	96,654,425	TSS1500	S_Shore	DLX5	0.506	0.000	0.038	0.975
cg07922606	salmon	6	26,225,389	1stExon	Island	HIST1H3E	0.506	0.002	0.029	0.759
cg00079056	salmon	9	33,239,641	Body	OpenSea	SUGT1P1	0.506	0.002	0.573	0.859
cg21612617	salmon	4	126,813,319		OpenSea		0.506	0.000	0.433	0.985
cg21217577	salmon	3	129,694,683	Body	Island	TRH	0.505	-0.010	0.040	0.012
cg02837600	salmon	21	46,714,458	Body	N_Shore	LOC642852	0.505	-0.002	0.043	0.631
cg09130674	salmon	6	39,195,019	Body	N_Shore	KCNK5	0.505	-0.006	0.125	0.561
cg21578987	salmon	21	40,029,669	5'UTR	N_Shelf	ERG	0.505	-0.050	0.414	0.037
cg15953461	salmon	14	77,489,763		N_Shelf		0.505	0.001	0.177	0.929
cg12821367	salmon	3	64,205,670	5'UTR	OpenSea	PRICKLE2	0.505	0.002	0.612	0.871
cg03532904	salmon	12	114,877,894		N_Shore		0.505	0.002	0.051	0.855
cg24794857	salmon	4	187,113,578	Body	S_Shore	CYP4V2	0.504	-0.004	0.047	0.347
cg00510320	salmon	16	67,686,943	Body	Island	RLTPR	0.504	-0.007	0.045	0.174
cg01756461	salmon	15	102,036,983		OpenSea		0.504	-0.006	0.244	0.533
cg01775379	salmon	2	159,316,264	5'UTR	S_Shore	PKP4	0.504	0.012	0.273	0.362
cg09253931	salmon	11	826,942	TSS1500	Island	EFCAB4A	0.504	0.001	0.018	0.499
cg25032089	salmon	17	46,643,351	5'UTR	S_Shore	HOXB3	0.503	-0.004	0.148	0.771
cg01432561	salmon	8	24,815,367	TSS1500	S_Shore	NEFL	0.503	0.000	0.046	0.999
cg00109703	salmon	20	39,320,005		N_Shore		0.503	-0.003	0.054	0.604
cg00799539	salmon	12	103,353,183	3'UTR	S_Shore	ASCL1	0.503	-0.012	0.107	0.145
cg13364038	salmon	14	101,925,279		Island		0.503	0.000	0.059	0.926
cg11237948	salmon	19	45,976,488	3'UTR	S_Shore	FOSB	0.502	0.002	0.107	0.746
cg17674725	salmon	2	133,426,418	5'UTR	N_Shore	LYPD1	0.502	0.000	0.046	0.858
cg25991468	salmon	7	28,475,121	5'UTR	OpenSea	CREB5	0.502	-0.003	0.599	0.889

cg01609214	salmon	8	135,817,625	TSS1500	OpenSea	MIR30D	0.502	-0.015	0.593	0.334
cg17142664	salmon	7	110,906,785	Body	OpenSea	IMMP2L	0.502	-0.003	0.230	0.870
cg13676220	salmon	9	135,333,078	Body	OpenSea	C9orf171	0.502	0.023	0.124	0.055
cg09381737	salmon	9	140,173,549	Body	Island	C9orf167	0.501	-0.007	0.426	0.598
cg10605977	salmon	10	133,961,265	Body	OpenSea	JAKMIP3	0.501	0.002	0.195	0.738
cg24138691	salmon	17	79,251,354	Body	N_Shelf	SLC38A10	0.501	-0.003	0.230	0.778
cg02037425	salmon	14	42,662,538		OpenSea		0.501	0.000	0.395	0.974
cg00767000	salmon	16	87,525,307	1stExon	OpenSea	ZCCHC14	0.501	0.004	0.091	0.563
cg14269096	salmon	18	56,532,433	5'UTR	S_Shore	ZNF532	0.501	0.001	0.083	0.878
cg03420978	salmon	4	37,542,310	5'UTR	OpenSea	C4orf19	0.501	0.001	0.041	0.828
cg19861427	salmon	19	18,830,612	Body	Island	CRTC1	0.500	0.011	0.385	0.071
cg25926515	salmon	10	70,321,889	5'UTR	S_Shore	TET1	0.500	-0.002	0.028	0.116
cg10489614	salmon	1	98,512,194	TSS1500	S_Shore	MIR137	0.500	0.000	0.052	0.927
cg26441979	salmon	8	79,143,895		OpenSea		0.500	-0.007	0.094	0.431
cg14144201	salmon	9	140,096,108	TSS1500	S_Shore	C9orf75	0.499	0.006	0.160	0.445
cg12634080	salmon	13	28,549,922		Island		0.499	0.000	0.030	0.973
cg13058710	salmon	17	70,119,609	Body	Island	SOX9	0.498	0.010	0.150	0.315
cg14882311	salmon	2	42,328,410		Island		0.498	-0.009	0.123	0.198
cg12450872	salmon	15	63,386,759		OpenSea		0.498	0.002	0.618	0.878
cg00592593	salmon	22	50,585,197	Body	OpenSea	MOV10L1	0.498	0.001	0.445	0.864
cg18675610	salmon	10	32,216,311	5'UTR	N_Shore	ARHGAP12	0.498	-0.003	0.040	0.294
cg11505661	salmon	12	57,618,965	Body	Island	NXPH4	0.498	-0.005	0.072	0.475
cg15570395	salmon	4	185,129,048	Body	OpenSea	ENPP6	0.498	-0.037	0.831	0.014
cg22495176	salmon	1	184,637,006		S_Shelf		0.498	-0.012	0.604	0.385
cg06159896	salmon	12	95,840,443		OpenSea		0.498	-0.002	0.032	0.409
cg07438103	salmon	11	47,175,143	Body	OpenSea	C11orf49	0.497	-0.008	0.081	0.150
cg15473186	salmon	3	53,530,075	Body	Island	CACNA1D	0.497	0.002	0.067	0.727
cg05046936	salmon	17	79,054,073	Body	S_Shore	BAIAP2	0.497	0.000	0.071	0.954
cg08677347	salmon	8	19,615,514		S_Shore		0.497	-0.012	0.104	0.142
cg17860158	salmon	1	205,012,569	5'UTR	OpenSea	CNTN2	0.497	-0.006	0.063	0.198
cg06654901	salmon	20	21,689,759	Body	Island	PAX1	0.497	0.004	0.036	0.564
cg26821681	salmon	8	125,827,396		OpenSea		0.497	0.002	0.248	0.751
cg03344149	salmon	13	28,535,559		Island		0.497	0.000	0.051	0.971
cg21170029	salmon	1	209,799,330	Body	Island	LAMB3	0.497	-0.002	0.578	0.705
cg13626863	salmon	10	71,813,912	5'UTR	S_Shore	H2AFY2	0.496	-0.005	0.070	0.289
cg18383668	salmon	19	45,594,410	3'UTR	Island	GEMIN7	0.496	0.001	0.059	0.952
cg00712181	salmon	10	71,577,188	Body	OpenSea	COL13A1	0.495	0.004	0.143	0.615
cg03632704	salmon	5	87,973,439	Body	N_Shore	LOC645323	0.495	0.003	0.038	0.512
cg04981619	salmon	2	43,328,122		Island		0.495	-0.007	0.083	0.369
cg05235344	salmon	6	11,810,356		OpenSea		0.495	0.004	0.188	0.494
cg24718827	salmon	5	10,563,092	TSS1500	Island	ANKRD33B	0.495	-0.007	0.089	0.454
cg10266490	salmon	1	55,013,709	TSS200	OpenSea	ACOT11	0.494	-0.003	0.103	0.607
cg19644991	salmon	5	122,482,336	Body	OpenSea	PRDM6	0.494	0.008	0.449	0.372
cg20830994	salmon	17	62,401,400	TSS200	OpenSea	PECAM1	0.494	0.002	0.362	0.755
cg17121140	salmon	13	111,719,003		N_Shore		0.494	-0.018	0.157	0.206
cg24526587	salmon	1	164,587,676	Body	OpenSea	PBX1	0.494	-0.021	0.439	0.199
cg05457563	salmon	19	1,467,029	Body	Island	APC2	0.494	-0.027	0.108	0.106
cg15943335	salmon	8	113,655,436	Body	OpenSea	CSMD3	0.494	0.010	0.505	0.472
cg07027613	salmon	12	7,260,608	Body	OpenSea	C1RL	0.494	-0.004	0.116	0.476
cg04717895	salmon	16	31,541,298		OpenSea		0.494	-0.003	0.048	0.305
cg08804892	salmon	3	42,201,374	TSS1500	OpenSea	TRAK1	0.493	-0.001	0.051	0.814
cg07443932	salmon	17	48,845,064	TSS200	OpenSea	C17orf73	0.493	0.001	0.851	0.891
cg21198712	salmon	9	98,534,327		OpenSea		0.493	0.006	0.139	0.429
cg00347677	salmon	1	63,795,636		Island		0.493	-0.003	0.037	0.440
cg23000734	salmon	10	126,850,823	TSS1500	Island	CTBP2	0.492	-0.013	0.067	0.108
cg07088950	salmon	14	95,403,143		OpenSea		0.492	-0.001	0.470	0.880
cg08992499	salmon	3	63,956,514	Body	OpenSea	ATXN7	0.492	0.006	0.545	0.505
cg22327646	salmon	12	114,878,570		Island		0.492	-0.004	0.360	0.751
cg01262133	salmon	6	45,645,147		OpenSea		0.492	0.007	0.103	0.287
cg10075378	salmon	16	67,207,864	TSS200	N_Shore	NOL3	0.492	-0.001	0.034	0.532
cg23634124	salmon	17	48,049,952	TSS200	Island	DLX4	0.491	0.000	0.019	0.940
cg02919799	salmon	17	48,070,788	Body	Island	DLX3	0.491	-0.003	0.070	0.614
cg25229172	salmon	12	96,336,121	TSS1500	N_Shore	AMDHD1	0.491	-0.020	0.121	0.075
cg21727486	salmon	11	112,831,501	TSS1500	N_Shore	NCAM1	0.491	0.000	0.339	0.997
cg15117516	salmon	10	72,576,586	5'UTR	S_Shore	SGPL1	0.491	0.000	0.087	0.923
cg13080487	salmon	11	34,622,359		OpenSea		0.491	-0.002	0.128	0.778
cg03155200	salmon	11	2,833,259	Body	OpenSea	KCNQ1	0.491	-0.001	0.757	0.875

cg17481903	salmon	5	92,930,052	N_Shore		0.491	-0.011	0.564	0.393	
cg12431299	salmon	2	241,758,282	5'UTR	Island	KIF1A	0.490	0.004	0.078	0.503
cg20623601	salmon	2	46,526,843	Body	Island	EPAS1	0.490	0.001	0.027	0.404
cg16922763	salmon	13	111,719,172		N_Shore		0.490	-0.012	0.240	0.390
cg22626522	salmon	22	41,763,436	1stExon	OpenSea	TEF	0.490	0.001	0.042	0.774
cg01682784	salmon	12	131,142,360		OpenSea		0.490	-0.012	0.284	0.284
cg14292522	salmon	12	100,535,489	Body	N_Shore	UHRF1BP1L	0.490	0.004	0.243	0.661
cg02800334	salmon	8	124,750,855	TSS1500	OpenSea	ANXA13	0.490	-0.017	0.542	0.226
cg23638252	salmon	1	50,891,750		N_Shore		0.489	0.001	0.038	0.796
cg06401979	salmon	7	27,143,717	TSS1500	S_Shore	HOXA2	0.489	-0.001	0.056	0.839
cg21769057	salmon	7	90,630,110	Body	OpenSea	CDK14	0.488	-0.016	0.502	0.265
cg01715143	salmon	2	185,462,269	TSS1500	N_Shore	ZNF804A	0.488	0.000	0.042	0.970
cg09284708	salmon	6	39,901,897	Body	Island	MOCOS1	0.488	-0.003	0.045	0.348
cg06675478	salmon	13	112,721,786	TSS200	Island	SOX1	0.487	-0.006	0.100	0.491
cg11975019	salmon	1	150,245,537	Body	S_Shelf	C1orf54	0.487	0.003	0.206	0.786
cg19575804	salmon	20	22,559,456	TSS200	N_Shore	C2orf56	0.487	-0.002	0.046	0.283
cg22171993	salmon	5	81,818,816		OpenSea		0.487	0.000	0.455	0.961
cg17526103	salmon	8	9,765,691		S_Shore		0.487	0.001	0.020	0.403
cg01329687	salmon	16	11,761,803	TSS1500	N_Shore	SNN	0.487	-0.013	0.133	0.075
cg10619644	salmon	7	69,149,951	Body	OpenSea	AUTS2	0.487	-0.001	0.606	0.932
cg05389174	salmon	22	20,192,371	TSS1500	OpenSea	LOC150197	0.487	-0.023	0.316	0.081
cg23994191	salmon	5	176,310,098	Body	OpenSea	HK3	0.487	0.005	0.150	0.374
cg22801992	salmon	3	128,210,000	5'UTR	Island	GATA2	0.486	-0.001	0.069	0.772
cg08325519	salmon	12	130,571,246		OpenSea		0.486	-0.001	0.026	0.741
cg23972738	salmon	2	66,667,039	Body	OpenSea	MEIS1	0.486	-0.001	0.062	0.915
cg04163216	salmon	1	9,777,888	Body	S_Shore	PIK3CD	0.486	-0.011	0.076	0.170
cg15190760	salmon	15	58,724,225	1stExon	OpenSea	LIPC	0.486	-0.004	0.911	0.555
cg02217586	salmon	13	96,654,416	Body	OpenSea	UGGT2	0.486	0.001	0.514	0.904
cg08795964	salmon	8	72,468,987		Island		0.486	0.000	0.020	0.928
cg05490983	salmon	17	7,164,286	Body	Island	CLDN7	0.486	-0.004	0.067	0.278
cg19406036	salmon	15	66,914,425		Island		0.485	-0.002	0.028	0.203
cg06382559	salmon	10	102,896,640	Body	Island	TLX1	0.485	0.001	0.053	0.893
cg26120636	salmon	2	174,512,647		OpenSea		0.485	-0.001	0.343	0.889
cg18187581	salmon	7	121,955,310		N_Shore		0.485	-0.003	0.034	0.044
cg22145172	salmon	19	19,174,151	TSS1500	N_Shore	SLC25A42	0.485	-0.001	0.016	0.340
cg00833393	salmon	9	35,731,638	5'UTR	N_Shore	TLN1	0.485	0.000	0.019	0.680
cg20810345	salmon	1	240,162,334		S_Shore		0.485	-0.004	0.078	0.586
cg23898189	salmon	14	80,682,691		OpenSea		0.484	-0.003	0.459	0.693
cg19339146	salmon	4	62,397,911	Body	OpenSea	LPHN3	0.484	-0.010	0.448	0.487
cg13581362	salmon	14	105,287,326	TSS1500	OpenSea	MGC23270	0.483	0.005	0.092	0.569
cg18391427	salmon	17	34,122,800	TSS200	Island	MMP28	0.483	-0.001	0.038	0.601
cg12118269	salmon	10	102,893,980	Body	Island	TLX1	0.483	0.003	0.035	0.395
cg03969996	salmon	19	46,999,055	1stExon	Island	PNMAL2	0.483	0.002	0.024	0.361
cg12235459	salmon	12	106,974,935		Island		0.483	-0.002	0.044	0.615
cg09106903	salmon	1	217,309,568	5'UTR	N_Shore	ESRRG	0.482	0.001	0.044	0.789
cg14308375	salmon	4	111,545,119	TSS1500	S_Shore	PITX2	0.482	-0.002	0.040	0.588
cg21899500	salmon	3	51,740,850	TSS1500	Island	GRM2	0.482	-0.001	0.096	0.905
cg25499543	salmon	15	39,871,876	TSS1500	N_Shore	THBS1	0.481	0.000	0.037	0.954
cg18319366	salmon	8	122,651,271	TSS1500	N_Shore	HAS2AS	0.481	0.006	0.137	0.583
cg17012665	salmon	8	1,974,195		S_Shore		0.481	-0.012	0.075	0.034
cg19886853	salmon	1	8,277,746		Island		0.481	-0.002	0.039	0.572
cg07351758	salmon	3	59,752,350	Body	OpenSea	FHIT	0.481	-0.007	0.557	0.407
cg10372921	salmon	15	74,218,733	TSS200	Island	LOXL1	0.481	-0.002	0.027	0.505
cg01776188	salmon	5	172,664,082		Island		0.480	-0.001	0.016	0.277
cg08128768	salmon	9	124,462,182	Body	Island	DAB2IP	0.480	0.006	0.059	0.365
cg13539205	salmon	19	59,025,345	3'UTR	Island	ZBTB45	0.480	-0.006	0.051	0.100
cg00730077	salmon	6	168,068,881		OpenSea		0.480	0.002	0.513	0.770
cg20902783	salmon	14	21,494,071	TSS1500	Island	NDRG2	0.480	-0.004	0.044	0.094
cg27144670	salmon	15	52,161,438	Body	OpenSea	TMOD3	0.479	-0.013	0.564	0.193
cg13208088	salmon	6	10,392,519		S_Shore		0.479	0.001	0.122	0.951
cg12977447	salmon	12	4,224,915		OpenSea		0.479	0.006	0.331	0.407
cg02248749	salmon	6	32,041,191	Body	OpenSea	TNXB	0.479	0.013	0.466	0.208
cg27196467	salmon	4	21,305,490	Body	OpenSea	KCNIP4	0.479	0.007	0.112	0.475
cg03247892	salmon	19	10,398,215	Body	Island	ICAM4	0.479	-0.003	0.026	0.164
cg09884076	salmon	5	72,595,434		Island		0.479	0.000	0.025	0.848
cg02092616	salmon	14	105,154,749	TSS1500	N_Shore	INF2	0.478	-0.003	0.144	0.590
cg17239923	salmon	11	128,556,611		N_Shelf		0.478	0.000	0.020	0.986

cg02180189	salmon	11	2,710,486	Body	OpenSea	KCNQ1	0.478	-0.001	0.380	0.826
cg02493211	salmon	11	118,781,633	TSS200	Island	BCL9L	0.478	0.000	0.036	0.975
cg03922126	salmon	6	73,330,297	TSS1500	N_Shore	KCNQ5	0.477	0.002	0.038	0.497
cg04224064	salmon	14	36,992,233		Island		0.477	-0.001	0.020	0.516
cg21002957	salmon	19	15,568,894	Body	Island	RASAL3	0.477	-0.003	0.095	0.711
cg27430977	salmon	19	1,826,373	Body	N_Shore	REXO1	0.477	0.001	0.054	0.828
cg07791011	salmon	3	62,363,922		N_Shore		0.477	0.002	0.042	0.631
cg08271153	salmon	14	69,726,221	TSS1500	N_Shore	GALNTL1	0.477	-0.001	0.021	0.434
cg14647944	salmon	9	73,095,740		OpenSea		0.476	0.000	0.102	0.979
cg21067632	salmon	3	71,258,221	5'UTR	OpenSea	FOXP1	0.476	0.003	0.639	0.834
cg13177275	salmon	1	201,683,549	Body	OpenSea	NAV1	0.476	0.001	0.500	0.871
cg10428938	salmon	7	98,990,837	Body	Island	ARPC1B	0.475	-0.002	0.026	0.355
cg06545268	salmon	8	9,756,974		Island		0.475	0.000	0.109	0.986
cg17611235	salmon	11	1,991,188		Island		0.475	-0.001	0.040	0.826
cg03065467	salmon	4	109,093,243	TSS200	Island	LOC641518	0.474	-0.001	0.023	0.242
cg21761355	salmon	12	131,930,674		OpenSea		0.474	-0.002	0.433	0.857
cg23079702	salmon	11	1,394,909		OpenSea		0.474	-0.002	0.450	0.887
cg14988680	salmon	1	212,688,417		Island		0.474	-0.012	0.063	0.204
cg00619628	salmon	6	151,258,451	Body	OpenSea	MTHFD1L	0.474	-0.002	0.528	0.846
cg21739816	salmon	4	3,746,443		N_Shore		0.474	0.010	0.333	0.187
cg07477034	salmon	17	53,341,969	TSS1500	N_Shore	HLF	0.474	-0.002	0.038	0.523
cg12164248	salmon	8	114,445,955	Body	S_Shore	CSMD3	0.474	-0.001	0.021	0.409
cg13248581	salmon	22	17,680,545	TSS200	OpenSea	CECR1	0.474	-0.011	0.115	0.415
cg12013443	salmon	13	100,609,685		Island		0.474	-0.005	0.062	0.128
cg02711929	salmon	10	124,220,396	TSS1500	Island	HTRA1	0.473	-0.001	0.088	0.912
cg00142402	salmon	17	75,956,190		S_Shore		0.473	-0.002	0.032	0.351
cg21512447	salmon	5	153,863,826		S_Shore		0.473	0.002	0.019	0.368
cg23156059	salmon	10	72,268,925	5'UTR	OpenSea	KIAA1274	0.473	-0.002	0.077	0.696
cg11715228	salmon	19	6,464,013	TSS1500	Island	CRB3	0.473	0.003	0.046	0.374
cg05654361	salmon	16	2,338,111	Body	Island	ABCA3	0.472	-0.004	0.565	0.534
cg21608600	salmon	2	45,228,716		Island		0.472	-0.007	0.058	0.507
cg25458175	salmon	19	59,025,570	Body	Island	ZBTB45	0.472	0.000	0.051	0.959
cg16900604	salmon	2	208,260,036		OpenSea		0.472	-0.012	0.426	0.190
cg11014463	salmon	6	56,818,479	TSS1500	N_Shore	BEND6	0.472	-0.005	0.050	0.221
cg07704718	salmon	3	58,222,074	TSS1500	N_Shore	ABHD6	0.471	-0.006	0.418	0.461
cg15153141	salmon	5	81,470,056	Body	OpenSea	ATG10	0.471	-0.001	0.265	0.933
cg17330838	salmon	11	57,267,101	Body	Island	SLC43A1	0.471	-0.001	0.047	0.686
cg05627138	salmon	5	548,499		OpenSea		0.471	0.007	0.060	0.112
cg17696194	salmon	11	58,941,051	Body	Island	DTX4	0.471	0.001	0.019	0.527
cg09088576	salmon	1	36,947,785	5'UTR	OpenSea	CSF3R	0.471	-0.001	0.270	0.940
cg15556886	salmon	4	81,123,306	Body	N_Shore	PRDM8	0.471	0.000	0.033	0.961
cg10764101	salmon	2	241,374,174	TSS1500	N_Shore	GPC1	0.471	0.001	0.046	0.709
cg13449606	salmon	1	27,686,328	Body	N_Shore	MAP3K6	0.471	0.018	0.817	0.058
cg25540871	salmon	8	38,561,225		OpenSea		0.471	0.000	0.107	0.947
cg00002224	salmon	8	144,120,399	TSS1500	OpenSea	C8orf31	0.471	0.030	0.147	0.011
cg04453050	salmon	3	51,740,896	TSS200	Island	GRM2	0.471	0.001	0.024	0.692
cg02493798	salmon	17	6,899,577	Body	Island	ALOX12	0.471	-0.004	0.022	0.201
cg22997617	salmon	7	42,533,001		N_Shore		0.470	-0.001	0.066	0.868
cg04404489	salmon	13	79,175,210	3'UTR	N_Shore	POU4F1	0.470	0.004	0.059	0.302
cg24626660	salmon	12	32,551,988		N_Shore		0.470	0.000	0.029	0.802
cg20321153	salmon	1	63,795,435		Island		0.470	-0.003	0.068	0.510
cg17242937	salmon	4	111,561,114		S_Shore		0.470	0.000	0.031	0.937
cg21646955	salmon	6	35,108,921	Body	Island	TCP11	0.470	-0.035	0.216	0.110
cg02891574	salmon	19	58,986,999	TSS1500	Island	ZNF446	0.469	0.002	0.022	0.305
cg11968804	salmon	1	212,688,447		Island		0.469	-0.013	0.072	0.195
cg14015765	salmon	10	132,734,310		OpenSea		0.469	-0.016	0.244	0.221
cg12253175	salmon	12	58,132,093	TSS200	N_Shore	AGAP2	0.469	-0.005	0.072	0.402
cg03936449	salmon	16	56,696,967		Island		0.468	0.002	0.061	0.727
cg01407062	salmon	15	91,538,575	TSS1500	S_Shore	PRC1	0.468	0.011	0.132	0.197
cg07438888	salmon	14	34,529,890		Island		0.468	-0.002	0.056	0.396
cg26585724	salmon	15	90,208,739	3'UTR	N_Shore	PLIN1	0.468	0.001	0.049	0.753
cg06094642	salmon	17	35,290,307		N_Shore		0.468	0.000	0.015	0.766
cg14011070	salmon	1	235,811,811	5'UTR	N_Shore	GNG4	0.467	-0.012	0.419	0.548
cg21902772	salmon	3	25,468,324	TSS1500	OpenSea	RARB	0.467	-0.004	0.396	0.559
cg02426324	salmon	7	40,680,454	Body	OpenSea	C7orf10	0.467	-0.007	0.634	0.638
cg23212796	salmon	1	3,089,597	Body	OpenSea	PRDM16	0.467	0.012	0.594	0.489
cg22460204	salmon	7	39,332,836	Body	OpenSea	POU6F2	0.466	0.001	0.335	0.892

cg27457925	salmon	2	121,009,855	TSS1500	N_Shore	RALB	0.466	0.003	0.033	0.064
cg25924807	salmon	3	2,696,551	Body	OpenSea	CNTN4	0.466	0.005	0.453	0.794
cg21830459	salmon	22	17,680,563	TSS200	OpenSea	CECR1	0.466	-0.014	0.137	0.355
cg19399100	salmon	4	70,519,695		OpenSea		0.466	-0.009	0.460	0.455
cg10147974	salmon	12	1,759,064		S_Shelf		0.465	-0.015	0.510	0.124
cg20291049	salmon	2	105,472,217	1stExon	Island	POU3F3	0.464	0.000	0.048	0.971
cg18872215	salmon	6	136,872,115	TSS1500	Island	MAP7	0.464	0.001	0.034	0.834
cg17838359	salmon	5	52,780,901	Body	S_Shelf	FST	0.464	-0.011	0.712	0.213
cg14082645	salmon	9	129,372,478		N_Shore		0.464	-0.006	0.065	0.221
cg20640246	salmon	12	89,749,718		S_Shore		0.464	-0.003	0.556	0.766
cg08335254	salmon	11	123,430,575	Body	OpenSea	GRAMD1B	0.464	0.000	0.064	0.964
cg12571892	salmon	4	120,551,256	TSS1500	S_Shore	PDE5A	0.463	-0.003	0.599	0.832
cg07861448	salmon	8	72,757,787	TSS1500	S_Shore	MSC	0.463	-0.001	0.048	0.856
cg20743134	salmon	3	69,061,356	5'UTR	N_Shore	C3orf64	0.463	0.002	0.122	0.769
cg25339054	salmon	5	50,673,808		OpenSea		0.463	0.002	0.046	0.775
cg19639041	salmon	4	1,569,746		N_Shore		0.463	0.001	0.092	0.921
cg09293890	salmon	6	43,682,839		OpenSea		0.462	-0.008	0.281	0.323
cg26237168	salmon	8	10,872,648	Body	N_Shore	XKR6	0.462	0.001	0.024	0.526
cg18527669	salmon	8	144,509,298		N_Shore		0.462	-0.001	0.027	0.474
cg11654325	salmon	2	242,810,927	TSS1500	S_Shelf	C2orf85	0.462	0.000	0.080	0.975
cg12823839	salmon	7	155,175,340		S_Shore		0.462	-0.006	0.076	0.188
cg09921610	salmon	4	41,259,866	Body	Island	UCHL1	0.462	-0.001	0.054	0.719
cg17264609	salmon	2	105,051,018	Body	OpenSea	LOC150568	0.462	-0.003	0.075	0.607
cg02260774	salmon	4	8,228,048	Body	OpenSea	SH3TC1	0.462	0.006	0.307	0.358
cg18521743	salmon	19	59,025,573	Body	Island	ZBTB45	0.462	-0.007	0.176	0.558
cg01602345	salmon	1	3,277,525	Body	S_Shelf	PRDM16	0.461	0.002	0.625	0.819
cg03724423	salmon	7	27,170,755	TSS1500	S_Shore	HOXA4	0.461	-0.001	0.021	0.660
cg16617301	salmon	19	46,999,109	1stExon	Island	PNMAL2	0.461	0.008	0.044	0.190
cg12194701	salmon	8	99,952,749		Island		0.461	0.002	0.044	0.441
cg12585222	salmon	15	62,739,149		OpenSea		0.461	0.006	0.469	0.688
cg03714619	salmon	2	45,160,445		N_Shore		0.461	-0.001	0.028	0.777
cg10837806	salmon	14	52,734,156	TSS1500	N_Shore	PTGDR	0.460	0.001	0.091	0.918
cg08572565	salmon	14	51,298,737	TSS1500	S_Shore	NIN	0.460	-0.003	0.037	0.160
cg04704856	salmon	1	203,320,190	1stExon	OpenSea	FMOD	0.460	-0.007	0.126	0.357
cg02017282	salmon	17	44,896,923	TSS1500	Island	WNT3	0.460	-0.001	0.026	0.696
cg02193146	salmon	1	110,752,257		Island		0.460	0.001	0.156	0.932
cg02745636	salmon	14	61,104,571		Island		0.459	0.000	0.082	0.979
cg13870494	salmon	9	72,658,358	TSS200	N_Shore	MAMDC2	0.459	0.001	0.071	0.895
cg01904145	salmon	3	71,831,301	Body	N_Shelf	PROK2	0.459	0.003	0.234	0.786
cg06013395	salmon	3	184,280,712	Body	Island	EPHB3	0.459	0.010	0.077	0.666
cg21890025	salmon	7	1,084,594	Body	Island	C7orf50	0.459	-0.003	0.058	0.293
cg22997113	salmon	7	27,170,241	1stExon	Island	HOXA4	0.459	0.004	0.053	0.425
cg24690437	salmon	13	31,480,273	TSS200	Island	C13orf33	0.459	-0.004	0.054	0.100
cg26336059	salmon	1	153,958,977	TSS200	OpenSea	RAB13	0.458	0.000	0.029	0.846
cg20445035	salmon	19	44,174,593	TSS200	S_Shore	PLAUR	0.458	-0.001	0.045	0.744
cg06796779	salmon	3	128,204,927	Body	N_Shore	GATA2	0.458	0.005	0.217	0.651
cg05307803	salmon	16	86,774,865		OpenSea		0.458	0.008	0.079	0.239
cg20380689	salmon	5	37,836,392	TSS1500	N_Shore	GDNF	0.458	0.003	0.043	0.440
cg09179845	salmon	5	40,909,532	TSS200	OpenSea	C7	0.458	0.000	0.038	0.911
cg24675730	salmon	1	28,994,850	TSS1500	OpenSea	GMEB1	0.458	-0.001	0.046	0.818
cg02351713	salmon	6	73,329,475		N_Shore		0.457	-0.003	0.358	0.769
cg01215442	salmon	19	18,980,443	Body	Island	GDF1	0.457	-0.001	0.117	0.850
cg04149015	salmon	16	31,159,854	Body	Island	PRSS36	0.457	-0.004	0.048	0.319
cg15736169	salmon	13	112,761,025		Island		0.457	0.000	0.032	0.888
cg26923084	salmon	14	52,536,893	TSS1500	S_Shore	NID2	0.457	-0.020	0.247	0.094
cg23630867	salmon	4	153,528,146		OpenSea		0.457	-0.003	0.530	0.650
cg03605454	salmon	4	150,806,283		OpenSea		0.457	-0.006	0.486	0.554
cg10430963	salmon	17	37,124,558	TSS1500	OpenSea	FBXO47	0.456	-0.012	0.791	0.440
cg23029801	salmon	22	18,958,135	Body	Island	DGCR5	0.456	-0.001	0.035	0.667
cg16072192	salmon	5	2,741,047		Island		0.456	0.000	0.020	0.727
cg24349610	salmon	10	119,644,968		OpenSea		0.456	-0.001	0.220	0.930
cg25612428	salmon	5	10,649,867	Body	Island	ANKRD33B	0.456	-0.040	0.281	0.140
cg18477163	salmon	1	228,402,036	Body	Island	OBSCN	0.456	0.010	0.486	0.180
cg14106308	salmon	3	157,217,286	5'UTR	OpenSea	VEPH1	0.456	0.000	0.024	0.904
cg13183298	salmon	1	2,376,119		S_Shore		0.455	-0.005	0.620	0.495
cg17509989	salmon	5	176,798,049	Body	S_Shelf	RGS14	0.455	0.000	0.022	0.956
cg19638477	salmon	3	128,212,273	TSS1500	Island	GATA2	0.455	0.000	0.074	1.000

cg07937271	salmon	4	13,542,719	3'UTR	N_Shore	NKX3-2	0.455	-0.008	0.278	0.604
cg12057127	salmon	17	46,699,155	3'UTR	S_Shore	HOXB9	0.455	0.006	0.094	0.290
cg09951349	salmon	8	11,561,584	TSS200	Island	GATA4	0.455	-0.003	0.052	0.266
cg20379671	salmon	22	39,320,879		N_Shelf		0.454	0.005	0.048	0.267
cg18742785	salmon	15	100,270,048	Body	N_Shelf	LYSMD4	0.454	-0.018	0.463	0.080
cg25020073	salmon	10	4,925,586	Body	OpenSea	tAKR	0.454	0.008	0.347	0.408
cg11088489	salmon	17	75,305,722	5'UTR	OpenSea	9-Sep	0.454	0.000	0.437	0.991
cg08875947	salmon	3	63,880,859	5'UTR	OpenSea	ATXN7	0.454	-0.008	0.713	0.374
cg07407754	salmon	11	73,720,406	TSS200	OpenSea	UCP3	0.454	0.000	0.708	0.948
cg04017512	salmon	10	35,195,138		OpenSea		0.454	-0.006	0.089	0.781
cg14398661	salmon	9	129,433,779	Body	Island	LMX1B	0.454	-0.004	0.076	0.620
cg01361021	salmon	2	72,079,609		Island		0.453	-0.005	0.044	0.156
cg10007927	salmon	6	32,095,148	Body	N_Shelf	ATF6B	0.453	0.012	0.228	0.090
cg24925400	salmon	4	111,552,353	Body	N_Shore	PITX2	0.453	-0.002	0.037	0.562
cg15996397	salmon	2	100,831,189		OpenSea		0.453	0.007	0.414	0.414
cg15622619	salmon	1	2,828,135		Island		0.453	-0.003	0.590	0.727
cg05638589	salmon	7	47,457,995	Body	OpenSea	TNS3	0.453	-0.007	0.579	0.428
cg18456523	salmon	5	54,516,805		Island		0.453	0.000	0.019	0.766
cg17333767	salmon	22	17,680,561	TSS200	OpenSea	CECR1	0.453	-0.009	0.180	0.573
cg14473575	salmon	3	193,788,394		N_Shore		0.453	-0.001	0.174	0.913
cg06028917	salmon	3	59,035,407	5'UTR	Island	C3orf67	0.453	0.000	0.082	0.953
cg03661164	salmon	7	148,560,646	5'UTR	OpenSea	EZH2	0.452	-0.004	0.733	0.666
cg11038774	salmon	11	128,556,774		N_Shelf		0.452	0.000	0.031	0.792
cg08802053	salmon	5	92,932,045		S_Shore		0.452	-0.002	0.463	0.814
cg09334731	salmon	1	7,020,807	Body	N_Shore	CAMTA1	0.452	-0.003	0.313	0.620
cg03509898	salmon	14	104,190,750	Body	N_Shelf	ZFYVE21	0.452	0.001	0.461	0.922
cg14316431	salmon	9	96,721,817		Island		0.451	-0.003	0.045	0.384
cg19267457	salmon	1	64,394,702	Body	OpenSea	ROR1	0.451	-0.004	0.141	0.445
cg17507671	salmon	4	111,542,063	Body	Island	PITX2	0.451	-0.001	0.040	0.820
cg07107130	salmon	11	76,745,431	TSS200	OpenSea	B3GNT6	0.451	0.015	0.228	0.038
cg16055406	salmon	6	108,438,667		Island		0.451	-0.011	0.081	0.031
cg06586265	salmon	3	170,040,557		OpenSea		0.451	0.000	0.549	0.987
cg07036370	salmon	6	122,931,164	5'UTR	Island	PKIB	0.450	-0.001	0.053	0.701
cg15855924	salmon	13	111,565,111	Body	N_Shore	ANKRD10	0.449	0.002	0.070	0.698
cg01652190	salmon	22	50,026,171	Body	Island	C22orf34	0.449	-0.006	0.102	0.628
cg03760951	salmon	11	2,160,875	Body	Island	INS-IGF2	0.449	-0.001	0.023	0.533
cg00358516	salmon	7	97,882,212	TSS1500	S_Shore	TECPR1	0.449	-0.006	0.797	0.459
cg18343480	salmon	6	18,005,932		OpenSea		0.449	0.001	0.074	0.857
cg21239660	salmon	17	45,006,500	Body	OpenSea	GOSR2	0.449	0.000	0.544	0.993
cg00431447	salmon	16	15,529,115	Body	S_Shore	C16orf45	0.449	0.000	0.028	0.968
cg27027069	salmon	6	76,626,770	3'UTR	OpenSea	MYO6	0.449	-0.019	0.655	0.217
cg23193497	salmon	6	166,051,206	Body	OpenSea	PDE10A	0.449	-0.006	0.324	0.755
cg09596429	salmon	11	13,030,517	TSS200	Island	RASSF10	0.449	0.000	0.034	0.863
cg23524354	salmon	13	112,874,850		OpenSea		0.449	0.004	0.382	0.593
cg09281220	salmon	2	220,460,085		N_Shelf		0.448	0.002	0.109	0.686
cg20712263	salmon	12	131,438,527	5'UTR	OpenSea	GPR133	0.448	-0.006	0.051	0.222
cg10950524	salmon	7	2,139,216	Body	OpenSea	MAD1L1	0.448	-0.011	0.687	0.309
cg05389024	salmon	2	170,366,131	TSS200	OpenSea	KBTBD10	0.448	0.001	0.135	0.863
cg05501996	salmon	5	50,673,730		OpenSea		0.448	0.008	0.040	0.282
cg24065270	salmon	5	142,005,152	5'UTR	OpenSea	FGF1	0.448	-0.006	0.196	0.596
cg11864774	salmon	6	42,386,773	5'UTR	OpenSea	TRERF1	0.448	-0.003	0.861	0.733
cg08227290	salmon	14	75,908,005	Body	OpenSea	JDP2	0.448	0.003	0.187	0.617
cg06134790	salmon	12	130,961,479	Body	OpenSea	RIMBP2	0.447	0.003	0.148	0.753
cg21304453	salmon	20	3,218,794	TSS1500	Island	SLC4A11	0.447	-0.002	0.019	0.013
cg27273675	salmon	2	105,911,437	Body	OpenSea	TGFBRAP1	0.447	-0.010	0.242	0.366
cg22079747	salmon	2	228,736,145	TSS200	N_Shore	WDR69	0.447	0.001	0.027	0.720
cg01750654	salmon	3	179,170,617	TSS1500	S_Shore	GNB4	0.447	0.015	0.380	0.353
cg09918657	salmon	16	14,397,207	TSS1500	S_Shore	MIR193B	0.447	0.000	0.029	0.934
cg07026666	salmon	1	204,050,380	5'UTR	OpenSea	SOX13	0.447	0.005	0.234	0.529
cg01167755	salmon	5	139,284,498	Body	S_Shore	NRG2	0.447	0.000	0.027	0.936
cg22762813	salmon	7	65,196,614		OpenSea		0.446	0.002	0.101	0.772
cg21871232	salmon	14	95,693,881	Body	OpenSea	CLMN	0.446	0.005	0.161	0.652
cg03623401	salmon	16	12,043,656		OpenSea		0.445	0.001	0.033	0.710
cg03356026	salmon	3	176,912,588	5'UTR	N_Shelf	TBL1XR1	0.445	-0.005	0.180	0.607
cg05774801	salmon	4	154,709,756	1stExon	Island	SFRP2	0.445	-0.002	0.030	0.401
cg13702053	salmon	5	2,752,601	TSS1500	Island	IRX2	0.445	-0.001	0.039	0.739
cg06297541	salmon	16	22,384,949	Body	N_Shore	CDR2	0.445	-0.005	0.131	0.555



cg17386213	salmon	6	108,488,335	Body	Island	NR2E1	0.444	0.000	0.018	0.665
cg21192063	salmon	7	150,948,686	Body	Island	SMARCD3	0.444	-0.001	0.032	0.638
cg24046305	salmon	7	86,689,346	TSS1500	S_Shore	KIAA1324L	0.444	0.001	0.011	0.317
cg19213744	salmon	22	50,585,216	Body	OpenSea	MOV10L1	0.444	-0.003	0.311	0.792
cg19679250	salmon	7	134,463,072	TSS1500	OpenSea	CALD1	0.444	0.001	0.639	0.923
cg02491017	salmon	12	54,410,380	TSS1500	N_Shore	HOXC4	0.443	0.000	0.031	0.979
cg01838544	salmon	16	57,576,594	TSS200	OpenSea	GPR114	0.443	0.006	0.546	0.712
cg16336494	salmon	6	151,188,259	Body	S_Shore	MTHFD1L	0.443	0.000	0.025	0.830
cg09557462	salmon	8	26,721,736	1stExon	Island	ADRA1A	0.443	0.000	0.032	0.957
cg12045999	salmon	12	23,069,755		OpenSea		0.442	0.004	0.262	0.613
cg19623360	salmon	7	27,191,914		S_Shore		0.442	-0.013	0.051	0.176
cg05990080	salmon	3	37,965,818	Body	OpenSea	CTDSPL	0.442	0.002	0.419	0.805
cg13265583	salmon	10	124,214,151	TSS200	OpenSea	ARMS2	0.442	0.001	0.442	0.883
cg15457390	salmon	4	2,844,730	TSS1500	N_Shore	ADD1	0.441	0.000	0.021	0.797
cg16243243	salmon	12	125,669,895		N_Shore		0.441	-0.001	0.098	0.801
cg14503935	salmon	12	131,864,894		OpenSea		0.441	0.012	0.285	0.167
cg23418510	salmon	10	25,240,660	Body	N_Shore	PRTFDC1	0.441	0.001	0.366	0.914
cg17881200	salmon	7	27,138,850		S_Shelf		0.441	-0.001	0.031	0.482
cg12504163	salmon	7	148,324,051		OpenSea		0.441	0.008	0.887	0.356
cg01106926	salmon	4	13,539,255		S_Shore		0.441	0.002	0.090	0.787
cg12011876	salmon	12	132,836,216	Body	N_Shore	GALNT9	0.441	-0.002	0.452	0.900
cg17872407	salmon	15	75,972,447	Body	N_Shelf	CSPG4	0.440	0.001	0.728	0.878
cg10144198	salmon	10	134,001,728	Body	S_Shore	DPYSL4	0.440	-0.001	0.038	0.696
cg03211327	salmon	15	52,470,919	Body	N_Shore	GNB5	0.439	0.002	0.487	0.765
cg21932416	salmon	2	176,997,707		N_Shelf		0.439	0.000	0.033	0.802
cg25449466	salmon	20	55,834,002	Body	OpenSea	BMP7	0.439	0.002	0.685	0.798
cg17171407	salmon	8	119,960,777	Body	N_Shelf	TNFRSF11B	0.439	0.027	0.252	0.172
cg24398479	salmon	7	27,192,061		S_Shore		0.439	-0.029	0.124	0.225
cg09016968	salmon	6	99,290,635		Island		0.439	-0.006	0.075	0.390
cg09312576	salmon	6	1,385,351		S_Shore		0.439	-0.015	0.372	0.097
cg24043916	salmon	1	164,290,241		N_Shore		0.439	-0.001	0.030	0.727
cg24725576	salmon	14	29,234,671		N_Shore		0.439	-0.001	0.034	0.799
cg08711067	salmon	7	140,103,737	TSS200	OpenSea	RAB19	0.438	0.003	0.166	0.566
cg26719062	salmon	6	30,095,349		Island		0.438	0.000	0.042	0.998
cg23533419	salmon	12	54,090,519		S_Shore		0.438	0.001	0.045	0.818
cg00875989	salmon	18	44,774,054		Island		0.438	-0.003	0.035	0.268
cg26048025	salmon	1	200,843,156	1stExon	Island	GPR25	0.437	-0.013	0.108	0.199
cg26442883	salmon	16	49,686,662	Body	OpenSea	ZNF423	0.437	0.002	0.276	0.777
cg10780949	salmon	15	67,418,316	Body	OpenSea	SMAD3	0.437	-0.006	0.187	0.302
cg03615269	salmon	8	116,679,830	5'UTR	Island	TRPS1	0.437	-0.005	0.059	0.188
cg23427912	salmon	4	189,059,510	TSS1500	OpenSea	TRIML1	0.436	-0.011	0.446	0.279
cg07770222	salmon	8	144,120,106	TSS1500	OpenSea	C8orf31	0.436	0.033	0.119	0.065
cg01089319	salmon	2	171,676,809	Body	Island	GAD1	0.436	0.008	0.071	0.357
cg15225091	salmon	10	119,001,590	Body	S_Shore	SLC18A2	0.436	-0.002	0.059	0.689
cg02181639	salmon	14	77,737,621	1stExon	Island	NGB	0.436	-0.003	0.058	0.384
cg09135343	salmon	12	68,041,428	TSS1500	N_Shore	DYRK2	0.436	-0.002	0.055	0.468
cg26189303	salmon	5	159,897,910		OpenSea		0.436	-0.001	0.209	0.967
cg06761530	salmon	17	75,373,219	5'UTR	S_Shelf	9-Sep	0.435	0.024	0.447	0.125
cg18911395	salmon	12	113,907,122	Body	N_Shore	LHX5	0.435	0.001	0.063	0.801
cg27383562	salmon	6	155,584,850	Body	OpenSea	TFB1M	0.435	-0.007	0.809	0.623
cg12739419	salmon	7	116,140,593	Body	S_Shore	CAV2	0.435	-0.005	0.064	0.479
cg01169559	salmon	10	831,247		OpenSea		0.435	-0.015	0.204	0.379
cg07012770	salmon	18	2,847,301	1stExon	Island	EMILIN2	0.434	-0.001	0.020	0.434
cg09374437	salmon	19	52,769,790		N_Shelf		0.434	-0.007	0.421	0.671
cg22156632	salmon	2	219,725,069	Body	S_Shore	WNT6	0.434	0.003	0.062	0.359
cg09490603	salmon	15	74,658,166	1stExon	Island	CYP11A1	0.434	0.000	0.026	0.906
cg05482942	salmon	10	102,899,285		Island		0.434	0.003	0.026	0.436
cg03218396	salmon	8	96,377,380		OpenSea		0.434	0.001	0.056	0.779
cg00093478	salmon	13	112,996,967		N_Shore		0.434	0.003	0.389	0.730
cg15287806	salmon	10	237,794	Body	OpenSea	ZMYND11	0.433	0.012	0.468	0.368
cg02071712	salmon	12	104,235,554	TSS1500	S_Shore	NT5DC3	0.433	-0.002	0.045	0.446
cg17063371	salmon	7	33,631,473	Body	OpenSea	BBS9	0.433	0.012	0.670	0.373
cg25465406	salmon	17	7,906,098	5'UTR	Island	GUCY2D	0.433	0.000	0.042	0.811
cg20078972	salmon	19	15,391,832	TSS1500	OpenSea	BRD4	0.433	0.003	0.139	0.644
cg09449150	salmon	11	129,731,815		OpenSea		0.432	0.004	0.084	0.527
cg19489699	salmon	14	24,021,451		S_Shore		0.432	0.000	0.947	0.936
cg07139329	salmon	1	201,708,558	TSS1500	N_Shore	NAV1	0.432	-0.002	0.026	0.322

cg03534375	salmon	3	57,743,163	TSS200	S_Shore	SLMAP	0.431	0.000	0.041	0.927
cg22496809	salmon	6	85,472,949	Body	Island	TBX18	0.431	-0.004	0.051	0.269
cg16681649	salmon	11	86,643,955		OpenSea		0.430	0.007	0.639	0.627
cg14590843	salmon	5	37,838,290	5'UTR	Island	GDNF	0.430	0.004	0.046	0.095
cg18486235	salmon	1	91,300,387		N_Shore		0.429	-0.001	0.022	0.454
cg06685968	salmon	7	27,192,246		S_Shore		0.429	-0.021	0.045	0.080
cg15918160	salmon	5	126,186,280		OpenSea		0.429	-0.007	0.977	0.024
cg14533595	salmon	10	77,157,494		Island		0.429	-0.011	0.161	0.675
cg03279206	salmon	20	3,064,001	Body	Island	AVP	0.429	-0.001	0.037	0.703
cg18402101	salmon	11	77,789,467	Body	N_Shore	NDUFC2	0.429	0.012	0.160	0.228
cg00061629	salmon	11	44,325,258	Body	N_Shore	ALX4	0.429	0.007	0.087	0.784
cg20665259	salmon	7	150,659,402	Body	S_Shelf	KCNH2	0.428	-0.001	0.257	0.898
cg06008062	salmon	11	73,358,518	TSS200	OpenSea	PLEKHB1	0.428	0.001	0.270	0.952
cg00105628	salmon	20	21,087,165		Island		0.428	-0.001	0.020	0.647
cg04941630	salmon	16	54,962,001		N_Shore		0.428	-0.001	0.021	0.337
cg11311289	salmon	2	29,204,142	TSS200	OpenSea	FAM179A	0.428	-0.006	0.139	0.558
cg07213060	salmon	20	21,694,827	Body	Island	PAX1	0.428	0.001	0.038	0.836
cg02525989	salmon	3	186,211,511		OpenSea		0.427	0.000	0.059	0.965
cg22988851	salmon	3	41,752,483	Body	OpenSea	ULK4	0.427	-0.010	0.530	0.081
cg15805337	salmon	11	12,935,897	Body	OpenSea	TEAD1	0.427	0.007	0.521	0.460
cg06398251	salmon	3	184,033,620	Body	S_Shore	EIF4G1	0.426	-0.002	0.120	0.769
cg10739556	salmon	7	27,192,056		S_Shore		0.426	-0.019	0.072	0.224
cg11964773	salmon	1	14,924,077	TSS1500	N_Shore	KIAA1026	0.426	0.001	0.481	0.880
cg13829189	salmon	9	140,353,134	Body	Island	NELF	0.426	0.000	0.055	0.937
cg25760227	salmon	8	130,691,556		OpenSea		0.425	-0.001	0.460	0.848
cg06777902	salmon	10	127,622,996	Body	OpenSea	FANK1	0.425	-0.001	0.191	0.919
cg14279345	salmon	1	59,948,108	Body	OpenSea	FGGY	0.425	-0.003	0.672	0.806
cg03692563	salmon	11	31,846,414		N_Shore		0.425	-0.002	0.051	0.695
cg15082257	salmon	17	68,361,994		OpenSea		0.425	-0.021	0.565	0.107
cg21299542	salmon	4	111,550,407	Body	S_Shore	PITX2	0.425	-0.001	0.019	0.273
cg08508325	salmon	11	3,079,039	TSS1500	S_Shore	CARS	0.425	-0.001	0.022	0.590
cg24482544	salmon	1	160,371,455	5'UTR	S_Shore	VANGL2	0.425	0.004	0.227	0.521
cg05030450	salmon	5	167,480,853	Body	OpenSea	ODZ2	0.424	-0.015	0.813	0.091
cg12926300	salmon	5	143,253,949		OpenSea		0.424	-0.008	0.488	0.458
cg00138641	salmon	16	14,397,074	TSS1500	Island	MIR193B	0.423	-0.003	0.026	0.063
cg26673396	salmon	15	80,215,042	5'UTR	N_Shore	ST20	0.423	0.010	0.155	0.477
cg13318787	salmon	5	50,262,177		N_Shelf		0.423	-0.017	0.208	0.122
cg26322737	salmon	3	21,720,400	Body	OpenSea	ZNF385D	0.423	-0.016	0.634	0.224
cg00953480	salmon	9	37,034,933	TSS1500	Island	PAX5	0.423	-0.004	0.035	0.067
cg10588696	salmon	15	76,631,894	Body	N_Shore	ISL2	0.423	-0.001	0.202	0.924
cg15556943	salmon	20	21,694,617	Body	Island	PAX1	0.423	-0.003	0.058	0.793
cg17018946	salmon	18	5,894,665		N_Shore		0.422	-0.001	0.032	0.564
cg11217193	salmon	1	12,538,341	Body	OpenSea	VPS13D	0.422	0.001	0.189	0.822
cg15440512	salmon	17	4,401,718	TSS1500	N_Shore	SPNS2	0.422	-0.002	0.084	0.625
cg09247060	salmon	6	50,787,803	Body	Island	TFAP2B	0.421	-0.005	0.046	0.088
cg10923838	salmon	12	120,242,330	Body	S_Shore	CIT	0.421	0.001	0.019	0.384
cg10849393	salmon	10	94,332,706	Body	N_Shore	IDE	0.421	0.034	0.468	0.237
cg03435979	salmon	2	10,141,690	3'UTR	OpenSea	GRHL1	0.421	0.018	0.740	0.309
cg03655371	salmon	5	134,827,355		Island		0.420	0.000	0.029	0.953
cg14475381	salmon	10	131,401,268	Body	OpenSea	MGMT	0.420	-0.012	0.739	0.405
cg09235583	salmon	6	30,711,141	3'UTR	Island	IER3	0.420	0.000	0.022	0.818
cg05380019	salmon	7	19,146,555		N_Shore		0.420	0.001	0.025	0.712
cg05845403	salmon	13	96,293,882	Body	Island	DZIP1	0.420	-0.003	0.358	0.671
cg12793753	salmon	6	75,933,274		OpenSea		0.420	0.001	0.578	0.925
cg09313445	salmon	14	71,177,141		OpenSea		0.419	-0.002	0.227	0.830
cg14123543	salmon	12	114,877,063		N_Shore		0.419	0.007	0.191	0.609
cg11328661	salmon	11	2,235,203		OpenSea		0.418	0.000	0.728	0.976
cg22267770	salmon	6	10,422,139		N_Shore		0.418	-0.004	0.035	0.234
cg06476685	salmon	2	241,459,638	Body	Island	ANKMY1	0.418	-0.003	0.058	0.634
cg08072202	salmon	14	76,844,671	5'UTR	S_Shore	ESRRB	0.417	-0.004	0.326	0.508
cg24931191	salmon	3	36,248,859		OpenSea		0.417	0.004	0.109	0.679
cg02954903	salmon	3	112,359,935	1stExon	OpenSea	CCDC80	0.417	-0.010	0.050	0.094
cg14157578	salmon	9	110,764,967		OpenSea		0.416	-0.014	0.261	0.371
cg00949922	salmon	1	16,514,382		OpenSea		0.416	-0.001	0.032	0.686
cg13794993	salmon	18	76,740,284	1stExon	Island	SALL3	0.416	-0.002	0.037	0.504
cg00309402	salmon	4	170,981,967	3'UTR	OpenSea	AADAT	0.415	-0.001	0.936	0.843
cg04726200	salmon	11	2,930,485	Body	Island	SLC22A18	0.415	-0.004	0.053	0.689

cg19451673	salmon	12	48,398,730	TSS1500	Island	COL2A1	0.415	-0.001	0.024	0.624
cg14234152	salmon	2	173,601,413	Body	S_Shore	RAPGEF4	0.414	0.000	0.068	0.995
cg05221748	salmon	5	122,621,289		OpenSea		0.414	0.001	0.035	0.715
cg06640718	salmon	6	91,417,950		OpenSea		0.413	-0.035	0.674	0.044
cg10783149	salmon	14	55,707,866		OpenSea		0.413	-0.008	0.136	0.491
cg07616791	salmon	15	101,661,720		OpenSea		0.413	0.016	0.240	0.102
cg01033356	salmon	10	1,402,917	Body	N_Shore	ADARB2	0.413	-0.002	0.241	0.932
cg01210554	salmon	7	27,191,564		S_Shore		0.413	-0.014	0.065	0.188
cg26657240	salmon	15	81,475,061		OpenSea		0.412	0.004	0.199	0.586
cg21015266	salmon	8	144,120,648	TSS200	OpenSea	C8orf31	0.412	0.029	0.216	0.078
cg24363820	salmon	22	51,016,703	5'UTR	Island	CPT1B	0.412	-0.004	0.066	0.610
cg26905768	salmon	7	34,098,803	Body	OpenSea	BMPPER	0.411	0.013	0.588	0.372
cg19380295	salmon	2	9,243,141		OpenSea		0.411	-0.006	0.550	0.488
cg16547027	salmon	18	24,127,588	5'UTR	Island	KCTD1	0.411	-0.003	0.051	0.346
cg26082202	salmon	14	76,617,983	TSS1500	N_Shore	C14orf118	0.411	-0.001	0.100	0.931
cg15143788	salmon	5	92,909,434	Body	S_Shore	FLJ42709	0.411	-0.037	0.464	0.018
cg11944784	salmon	15	83,773,136		N_Shelf		0.411	-0.003	0.611	0.834
cg09039689	salmon	11	46,639,039	Body	Island	KIAA0652	0.410	0.000	0.015	0.969
cg08658787	salmon	12	113,916,646		Island		0.410	0.000	0.059	0.967
cg23510089	salmon	4	73,531,188		OpenSea		0.409	-0.008	0.190	0.407
cg24908097	salmon	6	116,744,279	Body	OpenSea	DSE	0.409	-0.006	0.510	0.599
cg08929399	salmon	3	151,778,972		OpenSea		0.409	-0.013	0.381	0.274
cg13504704	salmon	15	90,669,481		OpenSea		0.409	0.002	0.219	0.883
cg18817990	salmon	4	13,543,119	3'UTR	N_Shore	NKX3-2	0.408	-0.019	0.460	0.217
cg12299795	salmon	1	64,982,093	Body	OpenSea	CACHD1	0.408	0.009	0.613	0.366
cg21605369	salmon	6	76,092,436	Body	OpenSea	FILIP1	0.408	0.005	0.529	0.656
cg26516362	salmon	5	178,986,906	5'UTR	Island	RUFY1	0.407	0.000	0.017	0.824
cg23990272	salmon	1	25,906,648		OpenSea		0.407	0.012	0.494	0.148
cg11869018	salmon	5	116,378,307		OpenSea		0.407	-0.011	0.386	0.523
cg05413305	salmon	17	79,366,851		Island		0.407	0.003	0.033	0.185
cg23590159	salmon	1	26,629,895	5'UTR	N_Shelf	UBXN11	0.407	0.001	0.970	0.800
cg14881601	salmon	19	42,905,440		N_Shore		0.407	-0.002	0.097	0.634
cg08294772	salmon	8	138,135,392		OpenSea		0.407	0.008	0.176	0.373
cg17050616	salmon	22	50,585,229	Body	OpenSea	MOV10L1	0.407	0.004	0.396	0.735
cg16643151	salmon	10	88,124,063	Body	Island	GRID1	0.407	-0.002	0.046	0.697
cg10068408	salmon	11	62,783,394	TSS200	OpenSea	SLC22A8	0.406	0.008	0.200	0.251
cg07110405	salmon	11	70,917,533	5'UTR	OpenSea	SHANK2	0.406	-0.014	0.062	0.049
cg04612566	salmon	8	144,120,706	1stExon	OpenSea	C8orf31	0.406	0.049	0.248	0.027
cg05022368	salmon	8	38,858,552	Body	S_Shelf	ADAM9	0.406	-0.002	0.722	0.876
cg08795786	salmon	8	144,120,335	TSS1500	OpenSea	C8orf31	0.406	0.043	0.185	0.021
cg17690086	salmon	6	36,344,146	Body	OpenSea	ETV7	0.406	0.000	0.939	0.969
cg06085743	salmon	1	1,245,014	Body	Island	PUSL1	0.406	-0.001	0.074	0.786
cg01081346	salmon	22	51,017,151	TSS200	S_Shore	CPT1B	0.405	-0.011	0.154	0.411
cg27403635	salmon	5	113,698,291	1stExon	Island	KCNN2	0.405	0.002	0.023	0.127
cg19526568	salmon	13	100,643,087		Island		0.405	-0.015	0.147	0.016
cg16786274	salmon	13	102,865,555	Body	OpenSea	FGF14	0.405	0.005	0.509	0.458
cg14693465	salmon	15	76,632,292	Body	Island	ISL2	0.405	-0.005	0.072	0.312
cg02845063	salmon	3	121,312,241	1stExon	OpenSea	FBXO40	0.405	0.002	0.113	0.703
cg26717763	salmon	6	28,832,567		S_Shore		0.405	0.017	0.178	0.284
cg12790874	salmon	13	100,310,405	Body	Island	CLYBL	0.404	-0.005	0.024	0.115
cg15335768	salmon	2	218,268,053	Body	OpenSea	DIRC3	0.404	0.003	0.095	0.718
cg01870916	salmon	8	37,005,619		OpenSea		0.404	-0.011	0.107	0.212
cg16256902	salmon	4	183,826,405	Body	OpenSea	DCTD	0.404	0.002	0.304	0.747
cg06086198	salmon	12	29,021,552		OpenSea		0.404	0.024	0.429	0.014
cg01018477	salmon	5	172,658,226		N_Shore		0.403	-0.019	0.336	0.230
cg20322093	salmon	17	72,931,788	TSS200	Island	OTOP3	0.403	0.000	0.058	0.920
cg24506604	salmon	12	52,579,502	Body	OpenSea	KRT80	0.403	-0.003	0.693	0.702
cg20720597	salmon	2	3,699,334		Island		0.403	-0.003	0.044	0.635
cg07430153	salmon	12	76,424,847	1stExon	Island	PHLDA1	0.402	-0.003	0.048	0.556
cg02919960	salmon	7	27,192,549		S_Shore		0.402	-0.013	0.282	0.270
cg20587236	salmon	12	109,900,956	Body	OpenSea	KCTD10	0.402	0.005	0.068	0.465
cg13092405	salmon	1	228,075,423		Island		0.402	-0.006	0.049	0.520
cg06411578	salmon	12	54,695,036	TSS1500	OpenSea	NFE2	0.402	-0.002	0.047	0.397
cg03029255	salmon	8	144,120,681	1stExon	OpenSea	C8orf31	0.402	0.036	0.223	0.023
cg09214254	salmon	6	168,841,455	TSS1500	Island	SMOC2	0.402	-0.003	0.059	0.550
cg25594106	salmon	14	35,023,957		N_Shore		0.402	-0.006	0.550	0.539
cg00708789	salmon	4	16,083,440	5'UTR	N_Shore	PROM1	0.401	-0.010	0.605	0.329

cg20524425	salmon	5	135,170,272	TSS200	Island	LOC153328	0.401	0.000	0.018	0.824
cg14882966	salmon	2	3,699,353		Island		0.401	-0.005	0.044	0.460
cg00997551	salmon	8	109,096,151	TSS1500	S_Shore	RSPO2	0.401	0.006	0.073	0.428
cg04452534	salmon	5	56,133,370	Body	OpenSea	MAP3K1	0.401	-0.009	0.448	0.511
cg15153887	salmon	6	41,123,110	TSS1500	OpenSea	TREML1	0.401	0.001	0.047	0.822
cg19778776	salmon	1	206,807,380	TSS1500	N_Shore	DYRK3	0.400	0.001	0.101	0.913
cg26217572	salmon	13	27,540,240		OpenSea		0.400	0.005	0.223	0.337
cg27364650	salmon	3	43,899,898		OpenSea		0.400	0.001	0.027	0.453
cg14076417	salmon	5	43,412,601	TSS200	OpenSea	CCL28	0.399	0.001	0.653	0.961
cg22623649	salmon	8	99,179,021		OpenSea		0.399	0.001	0.612	0.930
cg08677210	salmon	17	55,550,613	Body	OpenSea	MSI2	0.398	0.002	0.278	0.827
cg27260617	salmon	3	148,447,161	5'UTR	OpenSea	AGTR1	0.398	-0.006	0.284	0.531
cg04768697	salmon	19	15,122,135	1stExon	Island	CCDC105	0.398	0.000	0.028	0.874
cg22797114	salmon	7	150,660,317	Body	OpenSea	KCNH2	0.398	-0.001	0.085	0.907
cg14659662	salmon	1	54,151,053	5'UTR	OpenSea	GLIS1	0.398	0.009	0.042	0.062
cg24075743	salmon	16	11,375,385	TSS200	OpenSea	PRM1	0.398	-0.008	0.565	0.483
cg13491139	salmon	9	139,627,019		S_Shelf		0.397	0.001	0.419	0.952
cg20444256	salmon	19	45,826,341	TSS1500	N_Shore	CKM	0.397	0.008	0.439	0.425
cg13712852	salmon	2	85,814,940	Body	S_Shelf	VAMP5	0.397	-0.010	0.363	0.199
cg22348290	salmon	8	72,459,499		N_Shore		0.397	0.006	0.251	0.646
cg04518155	salmon	4	170,679,294	TSS1500	S_Shore	C4orf27	0.396	-0.002	0.026	0.328
cg04457051	salmon	4	141,178,469	5'UTR	S_Shelf	SCOC	0.396	-0.032	0.606	0.058
cg26502018	salmon	2	181,770,937		OpenSea		0.396	-0.006	0.565	0.720
cg27187667	salmon	18	44,775,009		Island		0.396	-0.005	0.193	0.479
cg16300419	salmon	17	36,666,154	Body	Island	ARHGAP23	0.395	-0.002	0.059	0.707
cg24009881	salmon	8	29,719,552		OpenSea		0.395	0.000	0.350	0.998
cg16170936	salmon	12	48,167,799	Body	S_Shore	SLC48A1	0.395	-0.005	0.051	0.124
cg23430771	salmon	5	33,984,781	TSS200	OpenSea	SLC45A2	0.395	0.015	0.495	0.120
cg19414598	salmon	22	38,965,745	5'UTR	Island	DMC1	0.395	-0.001	0.029	0.476
cg09482050	salmon	16	67,686,832	Body	N_Shore	RLTPR	0.395	0.005	0.028	0.367
cg22730140	salmon	5	172,660,996	Body	Island	NKX2-5	0.395	0.000	0.035	0.950
cg24553058	salmon	2	113,831,203	Body	OpenSea	IL1F10	0.395	-0.018	0.350	0.120
cg17655415	salmon	10	89,802,559		OpenSea		0.395	0.002	0.065	0.882
cg18435000	salmon	12	249,109	Body	S_Shore	IQSEC3	0.395	0.000	0.166	0.987
cg22462010	salmon	8	124,173,385		Island		0.394	-0.004	0.049	0.428
cg14944923	salmon	8	108,544,188		OpenSea		0.394	-0.027	0.212	0.122
cg02865595	salmon	1	36,771,714	TSS1500	N_Shore	C1orf113	0.394	0.001	0.180	0.853
cg26281475	salmon	7	5,863,813	Body	S_Shore	ZNF815	0.394	0.013	0.805	0.314
cg04111071	salmon	7	19,813,299	TSS1500	S_Shore	TMEM196	0.393	-0.001	0.025	0.676
cg15282973	salmon	12	125,346,253	Body	N_Shore	SCARB1	0.393	0.004	0.294	0.747
cg21371809	salmon	10	14,052,028	Body	OpenSea	FRMD4A	0.393	-0.001	0.031	0.595
cg06471596	salmon	7	101,579,936	Body	OpenSea	CUX1	0.393	-0.009	0.092	0.372
cg18661819	salmon	2	131,113,440	TSS200	Island	PTPN18	0.393	-0.001	0.039	0.759
cg13467292	salmon	9	129,264,616	Body	S_Shelf	FAM125B	0.393	-0.009	0.884	0.127
cg24126967	salmon	6	28,945,500		OpenSea		0.393	-0.008	0.564	0.696
cg17700620	salmon	10	68,805,443	Body	OpenSea	CTNNA3	0.393	-0.002	0.955	0.603
cg11550234	salmon	19	14,550,997	TSS200	N_Shore	PKN1	0.393	0.003	0.530	0.700
cg22335692	salmon	19	34,258,947	Body	N_Shelf	CHST8	0.392	-0.009	0.080	0.128
cg22991148	salmon	21	46,131,099	Body	S_Shore	C21orf29	0.392	0.000	0.026	0.808
cg00947023	salmon	17	11,953,402	Body	OpenSea	MAP2K4	0.392	-0.009	0.853	0.458
cg04816699	salmon	7	4,921,827	5'UTR	N_Shore	RADIL	0.392	0.007	0.075	0.292
cg24620617	salmon	4	903,575	Body	S_Shelf	GAK	0.392	0.008	0.875	0.240
cg12854483	salmon	19	11,649,671	1stExon	OpenSea	CNN1	0.391	0.001	0.034	0.767
cg07325459	salmon	2	221,913,600		OpenSea		0.391	-0.015	0.536	0.141
cg03387346	salmon	5	54,526,536		N_Shore		0.391	-0.008	0.219	0.400
cg20563468	salmon	14	29,225,754		OpenSea		0.391	0.004	0.119	0.608
cg23217512	salmon	15	70,877,866		Island		0.391	-0.001	0.019	0.410
cg09299055	salmon	15	41,793,629	Body	Island	ITPKA	0.391	-0.002	0.029	0.199
cg12654032	salmon	20	61,146,941	TSS1500	N_Shore	C20orf166	0.391	-0.010	0.549	0.274
cg13761998	salmon	17	37,894,403	TSS200	OpenSea	GRB7	0.390	-0.002	0.023	0.128
cg08330972	salmon	4	2,403,930	Body	S_Shelf	ZFYVE28	0.390	0.000	0.035	0.821
cg03972838	salmon	22	39,897,580	TSS1500	N_Shore	SMCR7L	0.390	-0.002	0.341	0.777
cg16516400	salmon	1	231,177,201	TSS1500	S_Shore	FAM89A	0.390	-0.014	0.124	0.102
cg02434059	salmon	17	29,248,604	TSS200	N_Shore	ADAP2	0.390	0.014	0.527	0.268
cg24155961	salmon	2	10,615,752		OpenSea		0.389	0.001	0.927	0.705
cg01106989	salmon	6	52,858,459	Body	N_Shore	GSTA4	0.389	0.003	0.231	0.739
cg20116804	salmon	6	48,036,212	1stExon	Island	C6orf138	0.389	-0.004	0.052	0.348

cg14561934	salmon	10	15,412,027	Body	N_Shore	FAM171A1	0.389	0.000	0.038	0.864
cg03811891	salmon	6	158,937,286		Island		0.389	0.000	0.041	0.993
cg02441711	salmon	17	80,291,105	5'UTR	Island	SECTM1	0.389	0.002	0.107	0.841
cg01190989	salmon	4	22,502,077	Body	OpenSea	GPR125	0.389	0.002	0.151	0.847
cg02745459	salmon	15	96,207,497		OpenSea		0.388	0.006	0.576	0.674
cg04328562	salmon	19	11,649,701	1stExon	OpenSea	CNN1	0.388	0.001	0.041	0.752
cg24961194	salmon	10	118,594,607		OpenSea		0.387	0.006	0.451	0.581
cg11946666	salmon	1	3,247,595	Body	OpenSea	PRDM16	0.387	-0.004	0.514	0.693
cg07351637	salmon	15	49,548,794	Body	OpenSea	GALK2	0.387	-0.003	0.750	0.855
cg20432507	salmon	20	21,689,861	Body	Island	PAX1	0.387	0.001	0.071	0.884
cg06781563	salmon	16	85,646,914	TSS200	Island	KIAA0182	0.386	-0.002	0.126	0.786
cg23031196	salmon	12	46,664,096	TSS1500	S_Shore	SLC38A1	0.386	0.011	0.508	0.438
cg23051299	salmon	2	75,938,289	TSS200	S_Shore	C2orf3	0.386	-0.003	0.042	0.376
cg24254488	salmon	7	25,991,654		S_Shore		0.386	-0.002	0.090	0.766
cg16683060	salmon	13	99,974,673	Body	OpenSea	UBAC2	0.386	-0.031	0.604	0.039
cg20597409	salmon	14	37,640,455	Body	N_Shore	SLC25A21	0.385	0.000	0.848	0.970
cg15974053	salmon	19	49,339,789	5'UTR	N_Shore	HSD17B14	0.385	-0.002	0.061	0.806
cg00699569	salmon	1	157,536,296		OpenSea		0.385	-0.002	0.649	0.844
cg25602756	salmon	1	247,611,881	3'UTR	N_Shelf	NLRP3	0.385	-0.009	0.070	0.310
cg02227034	salmon	10	128,080,679		S_Shelf		0.385	-0.007	0.812	0.687
cg18133012	salmon	6	135,995,357	Body	OpenSea	C6orf217	0.385	0.009	0.529	0.447
cg24375748	salmon	4	81,392,619	Body	OpenSea	C4orf22	0.385	0.012	0.554	0.310
cg23442672	salmon	12	114,877,179		N_Shore		0.384	0.009	0.195	0.661
cg26472133	salmon	7	156,797,104		Island		0.384	0.001	0.034	0.760
cg09969806	salmon	2	241,758,399	5'UTR	Island	KIF1A	0.384	0.001	0.071	0.898
cg08073874	salmon	12	5,405,444		OpenSea		0.384	0.010	0.660	0.497
cg14662355	salmon	1	165,324,810	5'UTR	Island	LMX1A	0.384	-0.001	0.022	0.500
cg11381149	salmon	6	134,356,379	Body	OpenSea	SLC2A12	0.383	0.011	0.372	0.512
cg13405222	salmon	6	20,811,065	Body	OpenSea	CDKAL1	0.383	-0.001	0.509	0.961
cg22549870	salmon	15	89,949,776		Island		0.383	-0.001	0.027	0.575
cg08190928	salmon	6	106,433,985		Island		0.383	0.000	0.029	0.935
cg10530889	salmon	10	93,805,590		Island		0.383	-0.004	0.111	0.310
cg05724257	salmon	6	34,524,290	TSS200	OpenSea	SPDEF	0.383	0.001	0.383	0.810
cg01882395	salmon	17	43,717,810	Body	OpenSea	C17orf69	0.383	0.006	0.162	0.390
cg26052586	salmon	18	20,717,411	Body	S_Shore	CABLES1	0.383	-0.004	0.566	0.642
cg04982488	salmon	10	116,103,698	Body	OpenSea	AFAP1L2	0.382	-0.006	0.416	0.403
cg17810765	salmon	2	242,127,836	TSS200	OpenSea	ANO7	0.382	-0.002	0.170	0.698
cg01427815	salmon	1	165,811,984	Body	OpenSea	UCK2	0.380	0.008	0.348	0.507
cg10592592	salmon	10	74,034,663	Body	Island	DDIT4	0.380	0.005	0.064	0.268
cg01843020	salmon	15	76,629,771	Body	N_Shore	ISL2	0.379	-0.001	0.021	0.773
cg19719475	salmon	3	23,849,114	Body	S_Shore	UBE2E1	0.378	0.003	0.583	0.719
cg26996175	salmon	11	57,244,416		Island		0.378	-0.005	0.051	0.073
cg24637374	salmon	5	75,740,907	Body	OpenSea	IQGAP2	0.378	0.002	0.675	0.891
cg03513363	salmon	20	30,458,745	5'UTR	S_Shore	TTL9	0.378	-0.001	0.016	0.278
cg01966878	salmon	4	90,757,139	5'UTR	N_Shore	SNCA	0.377	0.008	0.351	0.677
cg02932314	salmon	17	42,733,698	TSS200	Island	C17orf104	0.377	-0.007	0.069	0.283
cg00252472	salmon	6	150,739,173		OpenSea		0.377	0.009	0.398	0.262
cg05945665	salmon	5	153,986,184		N_Shelf		0.377	0.001	0.467	0.887
cg21436544	salmon	1	95,249,289		OpenSea		0.377	0.010	0.323	0.195
cg01997272	salmon	14	103,740,476		Island		0.376	-0.002	0.037	0.695
cg08039704	salmon	17	48,047,123	Body	Island	DLX4	0.376	0.000	0.027	0.689
cg11009335	salmon	2	166,651,299	TSS1500	S_Shore	GALNT3	0.376	0.000	0.027	0.894
cg01306985	salmon	6	29,720,340	TSS1500	N_Shore	IFITM4P	0.376	-0.001	0.077	0.900
cg06504925	salmon	11	126,872,760		N_Shore		0.376	-0.036	0.509	0.014
cg02837591	salmon	6	101,850,261	Body	Island	GRIK2	0.375	0.000	0.018	0.735
cg19202014	salmon	11	417,578	TSS200	Island	SIGIRR	0.375	-0.011	0.113	0.079
cg06206902	salmon	7	27,191,226		S_Shore		0.375	-0.002	0.028	0.312
cg07391831	salmon	17	6,797,590	Body	Island	ALOX12P2	0.375	0.005	0.055	0.468
cg02043070	salmon	14	105,190,158	TSS1500	Island	ADSSL1	0.373	0.000	0.035	0.991
cg24499462	salmon	15	37,095,576	Body	OpenSea	CSNK1A1P	0.372	0.021	0.754	0.054
cg25623524	salmon	19	58,862,063	TSS1500	Island	NCRNA00181	0.372	-0.014	0.038	0.031
cg13470032	salmon	9	214,612	1stExon	Island	C9orf66	0.371	0.001	0.039	0.775
cg24994504	salmon	5	57,879,417	Body	S_Shore	RAB3C	0.371	0.001	0.017	0.426
cg05635617	salmon	3	49,977,228	TSS1500	N_Shore	RBM6	0.370	-0.004	0.118	0.570
cg00097038	salmon	1	197,382,771	Body	OpenSea	CRB1	0.370	0.021	0.505	0.079
cg22712983	salmon	2	219,187,374	TSS1500	N_Shore	PNKD	0.370	0.006	0.091	0.627
cg21610836	salmon	6	6,547,015	Body	Island	LOC285780	0.370	-0.004	0.046	0.133

cg15458977	salmon	8	17,541,992	Body	OpenSea	MTUS1	0.370	-0.003	0.624	0.758
cg10441628	salmon	5	159,399,432	Body	Island	ADRA1B	0.369	-0.005	0.083	0.218
cg12648520	salmon	6	28,778,195		N_Shelf		0.369	0.000	0.016	0.828
cg05554939	salmon	20	3,208,921	Body	N_Shore	SLC4A11	0.368	0.018	0.684	0.271
cg15318568	salmon	11	111,794,346	Body	N_Shelf	C11orf52	0.368	-0.008	0.234	0.559
cg26195881	salmon	14	74,959,018	Body	N_Shore	NPC2	0.367	0.006	0.123	0.342
cg06261066	salmon	20	2,360,396	TSS1500	OpenSea	TGM6	0.367	0.007	0.317	0.418
cg17007574	salmon	2	238,571,511	Body	OpenSea	LRRFIP1	0.366	0.007	0.107	0.638
cg03612413	salmon	21	38,066,918		N_Shore		0.366	0.001	0.045	0.793
cg08286791	salmon	2	80,412,398	Body	OpenSea	CTNNA2	0.365	0.000	0.687	0.969
cg10820544	salmon	8	37,079,006		OpenSea		0.365	-0.009	0.643	0.578
cg07324702	salmon	15	101,861,037	Body	OpenSea	PCSK6	0.365	0.003	0.207	0.857
cg00984009	salmon	7	131,657,233		OpenSea		0.365	0.006	0.466	0.566
cg07053014	salmon	6	44,187,132	TSS200	N_Shore	SLC29A1	0.365	0.000	0.020	0.665
cg18645081	salmon	1	221,051,758	TSS1500	N_Shore	HLX	0.365	0.000	0.313	0.979
cg25461300	salmon	18	3,015,372		S_Shelf		0.364	-0.006	0.165	0.419
cg06896770	salmon	1	63,153,194	Body	N_Shore	DOCK7	0.364	-0.093	0.096	0.028
cg03352173	salmon	3	112,013,130	TSS200	OpenSea	SLC9A10	0.364	0.011	0.327	0.554
cg15892785	salmon	1	6,309,343	3'UTR	Island	GPR153	0.363	-0.001	0.029	0.890
cg02711397	salmon	19	39,360,313	Body	Island	RINL	0.363	-0.003	0.034	0.394
cg01194320	salmon	16	50,493,166		OpenSea		0.362	0.000	0.030	0.849
cg17967059	salmon	13	20,763,457	Body	N_Shelf	GJB2	0.362	-0.010	0.396	0.445
cg01444808	salmon	5	132,113,860	TSS1500	S_Shore	8-Sep	0.362	-0.008	0.500	0.558
cg26548729	salmon	2	127,401,321		OpenSea		0.361	0.004	0.588	0.662
cg20437604	salmon	1	150,954,554	1stExon	OpenSea	ANXA9	0.361	0.006	0.480	0.390
cg23646044	salmon	17	42,941,002	Body	OpenSea	EFTUD2	0.361	-0.022	0.670	0.032
cg01766943	salmon	2	54,829,624	Body	OpenSea	SPTBN1	0.361	0.005	0.486	0.635
cg15511801	salmon	10	88,296,171		Island		0.360	0.000	0.073	0.994
cg04353853	salmon	6	40,554,669	5'UTR	Island	LRFN2	0.360	-0.002	0.039	0.457
cg21881798	salmon	11	8,931,708	TSS1500	N_Shore	C11orf17	0.360	0.000	0.042	0.960
cg20924425	salmon	2	240,121,297	Body	OpenSea	HDAC4	0.359	-0.015	0.481	0.228
cg06637774	salmon	11	72,975,702	5'UTR	Island	P2RY6	0.359	-0.002	0.033	0.538
cg05487589	salmon	8	25,896,196	Body	N_Shore	EBF2	0.359	0.029	0.252	0.061
cg07313523	salmon	16	57,450,669		OpenSea		0.358	0.000	0.039	0.993
cg18671950	salmon	15	48,936,953	Body	Island	FBN1	0.358	-0.003	0.031	0.114
cg23909013	salmon	21	39,288,941	TSS1500	Island	KCNJ6	0.358	0.000	0.017	0.649
cg23499115	salmon	3	179,590,806	Body	OpenSea	PEX5L	0.358	-0.014	0.391	0.400
cg04666975	salmon	14	60,977,353	Body	Island	SIX6	0.357	0.001	0.022	0.443
cg06232205	salmon	15	40,120,808	Body	OpenSea	GPR176	0.357	0.001	0.069	0.903
cg11957261	salmon	8	119,727,631		OpenSea		0.357	0.005	0.415	0.587
cg05278858	salmon	10	111,037,038		OpenSea		0.356	-0.009	0.278	0.419
cg15183991	salmon	8	145,047,566	Body	Island	PLEC1	0.356	0.001	0.027	0.882
cg16956804	salmon	4	24,147,074		OpenSea		0.356	-0.014	0.527	0.221
cg07027430	salmon	16	7,354,685	Body	S_Shore	A2BP1	0.356	-0.001	0.053	0.887
cg04318504	salmon	6	136,869,967	Body	N_Shore	MAP7	0.355	-0.019	0.099	0.522
cg08855938	salmon	1	214,398,483		OpenSea		0.355	-0.013	0.044	0.036
cg20018812	salmon	2	209,010,996	TSS200	OpenSea	CRYGB	0.355	-0.001	0.714	0.936
cg00883831	salmon	2	208,636,032		S_Shore		0.355	-0.001	0.031	0.598
cg06597462	salmon	7	155,243,251		Island		0.355	-0.002	0.027	0.101
cg05670898	salmon	16	66,460,448	TSS1500	N_Shore	BEAN	0.354	-0.010	0.152	0.292
cg27585939	salmon	11	108,983,607		OpenSea		0.354	0.002	0.144	0.866
cg22906524	salmon	22	19,960,525	Body	Island	ARVCF	0.354	0.004	0.440	0.462
cg22888463	salmon	3	71,779,016	5'UTR	OpenSea	EIF4E3	0.353	0.000	0.114	0.965
cg11902362	salmon	12	89,749,822		S_Shore		0.353	-0.005	0.684	0.715
cg09178385	salmon	1	35,246,759	TSS200	N_Shore	GJB3	0.353	0.012	0.223	0.109
cg17148876	salmon	12	95,730,175		OpenSea		0.352	0.017	0.128	0.187
cg26642510	salmon	19	6,501,778	Body	N_Shore	TUBB4	0.352	0.001	0.029	0.390
cg08640824	salmon	1	2,162,506	Body	S_Shore	SKI	0.351	0.000	0.038	0.960
cg05486094	salmon	2	85,804,476	TSS200	OpenSea	VAMP8	0.351	-0.002	0.511	0.797
cg07085590	salmon	2	206,053,812	Body	OpenSea	PARD3B	0.351	0.007	0.573	0.594
cg04738552	salmon	19	6,502,763	TSS1500	S_Shore	TUBB4	0.351	0.001	0.043	0.910
cg01605516	salmon	7	152,369,723	Body	N_Shelf	XRCC2	0.351	-0.004	0.869	0.691
cg23830855	salmon	11	67,085,209	TSS200	Island	LOC1001309	0.350	0.000	0.027	0.945
cg23206851	salmon	7	27,143,046	TSS1500	N_Shore	HOXA2	0.349	-0.002	0.026	0.347
cg11290182	salmon	10	130,831,273		OpenSea		0.349	0.010	0.482	0.263
cg02268561	salmon	10	15,212,066	TSS1500	S_Shore	NMT2	0.349	-0.001	0.373	0.929
cg04532834	salmon	19	4,535,188	1stExon	Island	PLIN5	0.349	0.003	0.081	0.540

cg25792718	salmon	11	107,879,063	TSS1500	N_Shore	CUL5	0.348	-0.001	0.874	0.893
cg07887891	salmon	3	33,429,950	3'UTR	OpenSea	UBP1	0.348	0.001	0.765	0.903
cg17589397	salmon	1	17,574,178	TSS1500	OpenSea	PADI3	0.348	-0.010	0.863	0.215
cg02500231	salmon	12	117,797,209	5'UTR	N_Shore	NOS1	0.347	0.005	0.096	0.412
cg16589486	salmon	1	101,748,547		OpenSea		0.347	-0.006	0.662	0.816
cg27519693	salmon	19	46,084,524	Body	N_Shelf	OPA3	0.346	0.005	0.872	0.603
cg03651493	salmon	5	32,714,243	Body	Island	NPR3	0.346	-0.003	0.046	0.427
cg12044000	salmon	2	1,605,890		OpenSea		0.346	0.006	0.534	0.503
cg12166080	salmon	12	27,706,343	5'UTR	OpenSea	PPFIBP1	0.346	-0.012	0.743	0.440
cg06595693	salmon	15	40,649,989	TSS1500	N_Shore	DISP2	0.345	-0.005	0.067	0.326
cg03597347	salmon	6	28,058,909	TSS200	OpenSea	ZSCAN12L1	0.345	-0.004	0.094	0.657
cg11597497	salmon	19	45,257,305	Body	N_Shore	BCL3	0.344	0.002	0.071	0.757
cg26657539	salmon	4	132,649,229		N_Shore		0.344	-0.039	0.901	0.196
cg00858899	salmon	11	69,455,277	TSS1500	Island	CCND1	0.344	0.003	0.057	0.473
cg13462583	salmon	11	5,355,684		OpenSea		0.344	0.002	0.551	0.848
cg11564601	salmon	22	30,592,435		OpenSea		0.344	0.003	0.043	0.329
cg04344190	salmon	16	78,218,445	Body	OpenSea	WVOX	0.344	-0.042	0.277	0.011
cg18170989	salmon	13	49,975,383	5'UTR	OpenSea	CAB39L	0.343	0.009	0.103	0.180
cg26032198	salmon	7	27,192,339		S_Shore		0.343	-0.017	0.071	0.128
cg12818699	salmon	6	24,877,582	5'UTR	OpenSea	FAM65B	0.343	-0.008	0.548	0.281
cg18194655	salmon	3	58,400,105	Body	OpenSea	PXK	0.343	-0.005	0.684	0.815
cg00575153	salmon	8	145,047,469	Body	Island	PLEC1	0.342	0.002	0.060	0.739
cg19709355	salmon	17	38,504,102	Body	S_Shelf	RARA	0.342	0.000	0.051	0.939
cg02784350	salmon	1	3,447,721	Body	Island	MEGF6	0.342	-0.001	0.026	0.399
cg04406454	salmon	6	10,398,494	3'UTR	N_Shore	TFAP2A	0.342	0.000	0.066	0.893
cg20337028	salmon	17	75,181,836	Body	OpenSea	SEC14L1	0.341	0.003	0.556	0.656
cg25203286	salmon	18	32,070,275		N_Shelf		0.340	-0.004	0.398	0.686
cg23892580	salmon	19	11,071,746	5'UTR	Island	SMARCA4	0.339	0.000	0.023	0.941
cg06304895	salmon	9	139,255,792		Island		0.339	0.003	0.271	0.731
cg20468883	salmon	15	59,982,396	TSS1500	S_Shore	BNIP2	0.338	0.006	0.416	0.655
cg19702771	salmon	4	82,058,885	Body	OpenSea	PRKG2	0.337	0.004	0.576	0.704
cg01890845	salmon	11	8,102,475	TSS1500	Island	TUB	0.337	-0.001	0.026	0.591
cg24526433	salmon	17	37,794,080	5'UTR	S_Shore	STARD3	0.337	0.000	0.018	0.940
cg13532463	salmon	9	101,126,107	Body	OpenSea	GABBR2	0.336	-0.003	0.150	0.718
cg22874988	salmon	3	111,451,090	TSS1500	OpenSea	PHLDB2	0.336	-0.001	0.804	0.910
cg18126097	salmon	1	200,014,673	Body	S_Shelf	NR5A2	0.336	0.025	0.809	0.077
cg09662852	salmon	16	11,707,685		OpenSea		0.336	-0.077	0.234	0.001
cg23058435	salmon	14	36,983,949	TSS1500	S_Shore	SFTA3	0.336	0.000	0.027	0.418
cg00997655	salmon	5	125,929,132	Body	N_Shore	ALDH7A1	0.336	-0.022	0.334	0.168
cg26251325	salmon	5	54,518,745		N_Shore		0.334	0.000	0.028	0.814
cg24706793	salmon	4	152,097,698	5'UTR	OpenSea	SH3D19	0.333	-0.016	0.735	0.258
cg22247664	salmon	1	110,199,126	Body	Island	GSTM4	0.333	0.002	0.055	0.652
cg26647111	salmon	11	31,128,758		OpenSea		0.332	0.002	0.028	0.446
cg21116077	salmon	1	10,920,786		OpenSea		0.332	-0.004	0.653	0.767
cg13544294	salmon	17	70,188,923		OpenSea		0.332	-0.010	0.605	0.158
cg22209445	salmon	3	196,041,192	Body	N_Shelf	TCTEX1D2	0.332	0.010	0.292	0.392
cg09852127	salmon	5	140,254,845	TSS200	N_Shore	PCDHA12	0.331	-0.002	0.052	0.674
cg19855215	salmon	2	209,010,986	TSS200	OpenSea	CRYGB	0.330	0.002	0.717	0.755
cg06967124	salmon	5	180,045,597	Body	N_Shore	FLT4	0.329	-0.006	0.332	0.576
cg07645299	salmon	2	63,991,864		OpenSea		0.329	0.008	0.496	0.277
cg21105916	salmon	5	140,620,904	Body	Island	PCDHB19P	0.329	0.022	0.160	0.218
cg21235334	salmon	20	31,351,171	5'UTR	Island	DNMT3B	0.329	0.000	0.029	0.945
cg09888026	salmon	17	79,303,434	5'UTR	OpenSea	TMEM105	0.329	0.000	0.099	0.989
cg11087128	salmon	2	38,693,029		OpenSea		0.329	0.002	0.624	0.823
cg05129597	salmon	15	44,970,408	TSS1500	OpenSea	PATL2	0.328	-0.003	0.876	0.623
cg16305379	salmon	12	54,347,702	TSS1500	N_Shore	HOXC12	0.328	0.001	0.042	0.734
cg22929859	salmon	12	114,835,179	Body	S_Shore	TBX5	0.328	0.003	0.422	0.777
cg12877935	salmon	11	2,164,780	Body	N_Shore	IGF2AS	0.327	0.000	0.034	0.941
cg23305046	salmon	6	36,646,245	TSS1500	Island	CDKN1A	0.327	-0.001	0.023	0.311
cg21901277	salmon	2	132,152,297		Island		0.326	-0.001	0.020	0.368
cg17263974	salmon	15	102,030,215	TSS200	Island	PCSK6	0.326	-0.002	0.033	0.381
cg09229912	salmon	12	111,471,963	1stExon	Island	CUX2	0.326	-0.004	0.040	0.200
cg08221811	salmon	20	61,733,863	Body	Island	HAR1A	0.325	-0.001	0.036	0.818
cg25588348	salmon	14	76,334,455	Body	OpenSea	TTL5	0.324	0.004	0.079	0.588
cg23642747	salmon	10	105,036,645	TSS1500	Island	INA	0.324	-0.005	0.072	0.321
cg07937631	salmon	13	79,184,529		S_Shore		0.324	-0.004	0.162	0.794
cg11775521	salmon	11	74,178,795	TSS200	Island	KCNE3	0.324	-0.004	0.133	0.703

cg03816707	salmon	20	43,726,544	Body	Island	KCNS1	0.323	-0.018	0.066	0.075
cg01687177	salmon	3	134,127,586		S_Shore		0.323	0.011	0.898	0.307
cg00378510	salmon	19	2,291,020	Body	Island	LINGO3	0.323	0.000	0.036	0.851
cg00057667	salmon	6	140,069,730		OpenSea		0.322	-0.019	0.723	0.207
cg20067780	salmon	17	78,008,520	5'UTR	N_Shore	TBC1D16	0.322	0.002	0.078	0.742
cg02806156	salmon	12	89,728,752		OpenSea		0.322	-0.005	0.353	0.692
cg00774050	salmon	4	73,935,472	TSS200	Island	COX18	0.322	0.000	0.016	0.495
cg10805721	salmon	6	83,075,187	Body	Island	TPBG	0.322	-0.005	0.031	0.022
cg18115406	salmon	9	129,376,723	TSS200	Island	LMX1B	0.321	0.001	0.039	0.710
cg26736812	salmon	17	48,042,353		Island		0.321	-0.001	0.014	0.517
cg25415978	salmon	17	63,097,125		S_Shore		0.321	-0.001	0.043	0.740
cg19250639	salmon	1	39,281,166		N_Shelf		0.320	-0.008	0.741	0.461
cg16785840	salmon	2	45,451,027		OpenSea		0.320	0.024	0.514	0.115
cg20201402	salmon	2	8,116,953	TSS200	OpenSea	LOC339788	0.320	-0.016	0.596	0.286
cg00909806	salmon	1	212,688,762		S_Shore		0.319	-0.047	0.141	0.026
cg15678861	salmon	8	144,462,502	Body	N_Shore	RHPN1	0.319	0.004	0.842	0.405
cg07048623	salmon	12	108,028,560	Body	OpenSea	BTBD11	0.319	-0.002	0.483	0.822
cg09008063	salmon	16	25,026,527	Body	Island	ARHGAP17	0.319	0.000	0.026	0.875
cg16821068	salmon	11	129,245,691	TSS200	Island	BARX2	0.318	-0.001	0.041	0.751
cg01069823	salmon	22	35,796,649	Body	Island	MCM5	0.316	-0.028	0.072	0.333
cg11412418	salmon	5	172,658,730		N_Shore		0.316	0.000	0.134	1.000
cg01550963	salmon	19	45,873,902	TSS200	Island	ERCC2	0.316	0.000	0.012	0.846
cg13570262	salmon	9	101,470,796	1stExon	Island	GABBR2	0.314	0.003	0.035	0.151
cg11877297	salmon	10	81,965,725	TSS1500	N_Shore	ANXA11	0.314	-0.004	0.119	0.519
cg23002238	salmon	13	112,838,970		OpenSea		0.314	-0.001	0.515	0.900
cg12734449	salmon	6	30,038,004	3'UTR	N_Shore	PPP1R11	0.313	-0.005	0.926	0.379
cg02709907	salmon	1	214,452,015		N_Shelf		0.312	0.004	0.722	0.700
cg08286038	salmon	16	88,520,912	Body	Island	ZFPM1	0.308	0.002	0.059	0.570
cg01451101	salmon	16	73,099,565		N_Shore		0.308	-0.032	0.450	0.288
cg09989939	salmon	13	99,230,352	TSS1500	S_Shore	STK24	0.308	0.003	0.489	0.698
cg13457165	salmon	1	40,105,079	Body	Island	HEYL	0.307	0.002	0.079	0.799
cg12580156	salmon	10	112,588,051	Body	OpenSea	RBM20	0.306	0.019	0.564	0.013
cg18710053	salmon	5	126,409,061	5'UTR	Island	FLJ44606	0.306	-0.044	0.351	0.071
cg22104578	salmon	2	173,601,360	Body	S_Shore	RAPGEF4	0.306	0.001	0.042	0.819
cg19691778	salmon	8	97,157,756	Body	Island	GDF6	0.305	0.000	0.024	0.973
cg18172495	salmon	20	61,178,767		Island		0.304	0.007	0.937	0.301
cg02587074	salmon	1	233,220,806	Body	OpenSea	PCNXL2	0.303	-0.008	0.932	0.170
cg08384314	salmon	6	30,711,680	3'UTR	Island	IER3	0.303	-0.001	0.028	0.634
cg04548156	salmon	2	45,112,257		OpenSea		0.302	0.010	0.439	0.178
cg00983948	salmon	6	158,937,485		Island		0.301	0.005	0.082	0.704
cg17033047	salmon	1	111,214,851	3'UTR	N_Shore	KCNA3	0.301	-0.002	0.082	0.826
cg24864887	salmon	15	76,635,638		S_Shore		0.300	0.005	0.081	0.673
cg10914544	salmon	1	94,374,370	Body	Island	GCLM	0.299	0.000	0.036	0.990
cg24657518	salmon	6	1,599,401		Island		0.299	-0.008	0.852	0.490
cg26232504	salmon	6	30,875,592	TSS1500	N_Shore	GTF2H4	0.298	-0.006	0.066	0.215
cg16558348	salmon	9	86,322,296	Body	Island	UBQLN1	0.298	0.000	0.023	0.921
cg16852704	salmon	2	74,743,243	Body	Island	TLX2	0.297	-0.001	0.058	0.801
cg08802409	salmon	3	50,649,298	TSS200	Island	CISH	0.297	-0.001	0.019	0.251
cg23654127	salmon	10	95,326,313	TSS200	Island	GPR120	0.296	0.000	0.018	0.952
cg00123762	salmon	6	41,343,697		S_Shore		0.296	0.000	0.033	0.966
cg21244038	salmon	2	33,737,453	5'UTR	OpenSea	RASGRP3	0.295	0.006	0.688	0.638
cg01757798	salmon	14	57,857,253	TSS200	Island	NAA30	0.295	-0.003	0.029	0.041
cg13560853	salmon	12	78,710,064		OpenSea		0.295	0.005	0.107	0.472
cg11178920	salmon	15	63,674,276	TSS1500	S_Shore	CA12	0.294	-0.003	0.036	0.219
cg05835744	salmon	10	99,185,929	TSS200	Island	PGAM1	0.293	0.001	0.017	0.555
cg05034642	salmon	8	120,885,549	TSS1500	N_Shore	DEPDC6	0.293	0.002	0.078	0.703
cg23524341	salmon	17	61,554,653	1stExon	Island	ACE	0.293	0.002	0.044	0.717
cg11884030	salmon	7	4,652,822		OpenSea		0.293	0.016	0.266	0.342
cg10101074	salmon	13	46,961,818	TSS200	S_Shore	C13orf18	0.293	-0.002	0.017	0.049
cg26081841	salmon	5	87,441,969		OpenSea		0.291	0.000	0.015	0.651
cg14403398	salmon	17	17,942,860	TSS1500	Island	ATPAF2	0.289	0.000	0.026	0.761
cg25449542	salmon	17	1,957,605	TSS1500	Island	HIC1	0.289	0.000	0.022	0.854
cg22747848	salmon	8	38,758,734	TSS200	Island	PLEKHA2	0.288	-0.001	0.035	0.698
cg16969871	salmon	3	141,944,620	TSS200	S_Shore	GK5	0.287	0.001	0.037	0.520
cg24785804	salmon	10	94,827,745	Body	N_Shore	CYP26C1	0.285	-0.002	0.060	0.815
cg11439596	salmon	5	1,931,376		Island		0.285	0.000	0.023	0.960
cg10543363	salmon	10	11,784,253	TSS200	N_Shore	ECHDC3	0.282	0.001	0.040	0.834



cg15251212	salmon	17	36,508,330	1stExon	Island	SOCS7	0.280	0.001	0.018	0.604
cg05972316	salmon	5	1,204,924	Body	N_Shelf	SLC6A19	0.279	0.004	0.070	0.520
cg04150516	salmon	2	233,388,495		Island		0.275	0.000	0.018	0.861

**CpGs in the orange module:**

CGs_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_CpG	Gene	MM	Methylation_rAve	Beta	P.Value
cg11191368	orange	8	81,665,271	Body	OpenSea	ZNF704	0.920	-0.007	0.066	0.456
cg25886621	orange	12	93,130,251	TSS200	OpenSea	PLEKHG7	0.909	-0.004	0.282	0.745
cg25008444	orange	5	67,586,258	Body	S_Shore	PIK3R1	0.904	-0.003	0.061	0.684
cg13125627	orange	8	40,010,631	TSS1500	OpenSea	C8orf4	0.901	-0.007	0.119	0.684
cg00236305	orange	2	1,796,076	Body	OpenSea	MYT1L	0.892	-0.002	0.236	0.871
cg09444685	orange	5	159,355,481	Body	OpenSea	ADRA1B	0.892	0.001	0.152	0.920
cg01823853	orange	7	27,646,144	Body	OpenSea	HIBADH	0.888	-0.014	0.325	0.403
cg22764289	orange	8	110,586,775	3'UTR	OpenSea	GOLSYN	0.883	-0.005	0.160	0.778
cg02704103	orange	3	72,846,991	Body	OpenSea	SHQ1	0.873	0.004	0.157	0.816
cg13528513	orange	3	148,418,460	5'UTR	S_Shelf	AGTR1	0.870	0.000	0.230	0.993
cg02212009	orange	11	12,820,860	Body	OpenSea	TEAD1	0.869	-0.016	0.332	0.355
cg22755445	orange	2	102,772,036	5'UTR	OpenSea	IL1R1	0.869	-0.010	0.463	0.392
cg19700035	orange	2	110,036,832	Body	OpenSea	SH3RF3	0.867	-0.006	0.320	0.558
cg09490124	orange	7	105,128,488	Body	OpenSea	PUS7	0.865	-0.005	0.070	0.510
cg04120520	orange	16	85,708,039	3'UTR	OpenSea	KIAA0182	0.863	-0.002	0.175	0.890
cg15207055	orange	4	152,096,590	5'UTR	OpenSea	SH3D19	0.862	0.000	0.496	0.988
cg25206536	orange	4	11,369,007	TSS1500	N_Shore	MIR572	0.862	0.006	0.091	0.577
cg10923036	orange	4	57,931,299	Body	OpenSea	IGFBP7	0.862	-0.007	0.243	0.395
cg03461110	orange	7	4,778,881	Body	OpenSea	FOXP1	0.860	-0.001	0.036	0.731
cg06881965	orange	14	69,600,007	Body	OpenSea	DCAF5	0.860	0.002	0.276	0.868
cg01417625	orange	1	183,187,433	Body	OpenSea	LAMC2	0.860	0.005	0.305	0.668
cg22539670	orange	3	32,000,667	Body	OpenSea	OSBP10	0.858	-0.005	0.196	0.634
cg09631880	orange	12	94,213,192	Body	OpenSea	CRADD	0.857	-0.006	0.157	0.490
cg13895393	orange	13	97,928,122	5'UTR	OpenSea	MBNL2	0.857	0.008	0.304	0.519
cg26435254	orange	1	3,087,999	Body	OpenSea	PRDM16	0.853	-0.004	0.063	0.544
cg01983373	orange	14	101,196,130	Body	S_Shelf	DLK1	0.852	0.000	0.225	0.956
cg03430116	orange	16	85,083,564	5'UTR	OpenSea	KIAA0513	0.852	0.010	0.459	0.305
cg15477500	orange	3	44,957,542	3'UTR	OpenSea	ZDHHC3	0.850	-0.004	0.135	0.742
cg04827020	orange	15	39,875,655	Body	S_Shelf	THBS1	0.849	-0.001	0.205	0.972
cg00731232	orange	9	18,437,917		N_Shore		0.848	0.010	0.164	0.454
cg09709457	orange	3	194,875,295	Body	OpenSea	C3orf21	0.846	-0.003	0.107	0.811
cg23675587	orange	14	68,925,902	Body	OpenSea	RAD51L1	0.845	-0.003	0.150	0.747
cg00486259	orange	4	152,096,720	TSS200	OpenSea	SH3D19	0.844	0.001	0.458	0.904
cg11440915	orange	13	76,387,161	Body	OpenSea	LMO7	0.842	0.003	0.184	0.701
cg08757222	orange	6	21,824,803	Body	OpenSea	FLJ22536	0.842	-0.013	0.177	0.365
cg11584098	orange	5	115,914,999		S_Shelf		0.841	-0.005	0.148	0.717
cg20799917	orange	2	38,894,198	Body	OpenSea	GALM	0.840	0.003	0.193	0.827
cg09551145	orange	1	11,790,591		OpenSea		0.840	-0.006	0.142	0.652
cg02104952	orange	1	201,481,480		OpenSea		0.840	-0.008	0.188	0.412
cg13860928	orange	1	209,915,875		OpenSea		0.840	-0.001	0.404	0.908
cg27203560	orange	3	193,629,645		OpenSea		0.839	-0.002	0.215	0.775
cg21443699	orange	7	142,637,936	3'UTR	OpenSea	C7orf34	0.838	0.004	0.318	0.728
cg17923947	orange	14	50,584,005	TSS1500	S_Shore	C14orf138	0.838	-0.014	0.192	0.377
cg02371631	orange	2	202,748,718	Body	OpenSea	CDK15	0.838	0.003	0.188	0.825
cg16185750	orange	4	174,912,071		OpenSea		0.837	-0.009	0.132	0.503
cg01008405	orange	5	139,039,026	5'UTR	N_Shore	CXXC5	0.835	-0.004	0.294	0.606
cg02657611	orange	1	45,814,632	Body	OpenSea	TESK2	0.835	0.003	0.117	0.660
cg06147361	orange	12	24,689,930	5'UTR	OpenSea	SOX5	0.833	-0.006	0.236	0.614
cg02927679	orange	10	112,260,509	Body	S_Shore	DUSP5	0.833	-0.001	0.215	0.965
cg20543968	orange	12	72,529,102		OpenSea		0.832	-0.006	0.384	0.642
cg23369234	orange	12	2,511,478	Body	OpenSea	CACNA1C	0.828	0.000	0.129	0.971
cg20039443	orange	20	50,108,912	Body	Island	NFATC2	0.828	-0.003	0.085	0.796
cg22704057	orange	2	74,425,085	TSS1500	N_Shore	MTHFD2	0.827	0.001	0.428	0.903
cg19445684	orange	5	142,077,529	5'UTR	OpenSea	FGF1	0.825	0.006	0.231	0.542
cg06055229	orange	5	124,077,966	Body	OpenSea	ZNF608	0.825	-0.005	0.046	0.580
cg27597853	orange	2	150,419,026		OpenSea		0.825	0.004	0.083	0.612
cg19462635	orange	11	121,237,843		S_Shelf		0.824	0.001	0.075	0.911
cg14799927	orange	6	30,175,074	5'UTR	OpenSea	TRIM26	0.822	-0.003	0.085	0.630
cg20232291	orange	3	102,392,777		OpenSea		0.820	-0.005	0.173	0.586
cg18738190	orange	10	73,740,291	5'UTR	OpenSea	CHST3	0.820	-0.011	0.232	0.499
cg07363131	orange	16	86,965,114		N_Shore		0.819	0.003	0.150	0.752

cg26115228	orange	2	85,116,113	OpenSea		0.817	-0.002	0.089	0.772
cg23314866	orange	19	48,016,020 Body	N_Shore	NAPA	0.814	0.000	0.262	0.993
cg23181433	orange	8	17,477,018 Body	OpenSea	PDGFRL	0.813	-0.010	0.311	0.537
cg01302668	orange	6	117,087,238 TSS1500	S_Shore	FAM162B	0.812	-0.012	0.321	0.260
cg13107973	orange	1	215,178,658 TSS1500	OpenSea	KCNK2	0.810	0.003	0.171	0.803
cg12646800	orange	13	36,456,681 Body	OpenSea	MIR548F5	0.810	0.002	0.239	0.828
cg04066316	orange	4	189,433,040	OpenSea		0.809	-0.004	0.548	0.733
cg24877842	orange	3	42,201,898 1stExon	OpenSea	TRAK1	0.808	-0.003	0.123	0.708
cg19287857	orange	15	39,890,699	OpenSea		0.808	-0.003	0.107	0.847
cg05052407	orange	16	4,389,420 3'UTR	OpenSea	GLIS2	0.807	0.000	0.211	0.988
cg24435571	orange	10	104,436,140 3'UTR	OpenSea	ARL3	0.805	-0.007	0.093	0.376
cg09984479	orange	22	38,635,620 Body	OpenSea	TMEM184B	0.804	-0.003	0.047	0.511
cg02291532	orange	15	39,874,776 Body	S_Shore	THBS1	0.804	-0.004	0.203	0.710
cg21189146	orange	6	32,069,841 5'UTR	OpenSea	TNXB	0.804	0.006	0.626	0.733
cg13287553	orange	7	4,784,419 Body	N_Shore	FOXP1	0.802	-0.006	0.101	0.356
cg07917031	orange	1	232,571,335 Body	OpenSea	SIPA1L2	0.801	0.001	0.316	0.888
cg05648303	orange	4	141,264,393 5'UTR	OpenSea	SCOC	0.800	-0.005	0.045	0.595
cg01203286	orange	2	46,873,926	OpenSea		0.797	-0.003	0.434	0.851
cg18081104	orange	1	151,826,123 1stExon	OpenSea	THEM5	0.797	0.008	0.423	0.313
cg13663116	orange	9	116,372,034	OpenSea		0.797	-0.002	0.039	0.648
cg03526468	orange	16	31,484,571 Body	S_Shore	TGFB111	0.797	0.005	0.467	0.440
cg11971662	orange	8	99,499,993 Body	OpenSea	STK3	0.795	-0.039	0.464	0.051
cg20707907	orange	4	48,257,144 5'UTR	OpenSea	TEC	0.794	0.007	0.353	0.658
cg20597486	orange	1	158,979,841 5'UTR	OpenSea	IFI16	0.794	0.015	0.327	0.254
cg01558960	orange	16	86,963,079	N_Shelf		0.793	-0.006	0.108	0.620
cg04293307	orange	17	63,553,581 Body	N_Shelf	AXIN2	0.793	0.007	0.271	0.641
cg05890727	orange	14	55,764,647 5'UTR	N_Shore	FBXO34	0.793	-0.001	0.168	0.924
cg14351425	orange	10	120,968,739 Body	S_Shore	GRK5	0.793	-0.002	0.038	0.598
cg19313660	orange	1	219,606,404	OpenSea		0.790	-0.005	0.397	0.525
cg26740249	orange	17	76,036,514 5'UTR	N_Shore	TNRC6C	0.790	-0.001	0.141	0.899
cg06779113	orange	1	228,273,674 5'UTR	S_Shelf	ARF1	0.790	-0.001	0.413	0.912
cg01513063	orange	17	75,470,567 Body	OpenSea	9-Sep	0.790	0.002	0.368	0.799
cg00569091	orange	1	8,424,793 5'UTR	OpenSea	RERE	0.789	-0.003	0.131	0.734
cg17118391	orange	4	1,583,898	S_Shore		0.788	0.016	0.191	0.282
cg07277892	orange	4	178,158,833	OpenSea		0.787	-0.012	0.424	0.200
cg02413040	orange	21	36,419,648 Body	OpenSea	RUNX1	0.787	0.001	0.034	0.731
cg10970484	orange	14	105,052,804 Body	N_Shelf	C14orf180	0.787	0.005	0.202	0.660
cg00240205	orange	2	69,450,115 Body	OpenSea	ANTXR1	0.787	0.007	0.406	0.582
cg20316614	orange	1	226,065,637 5'UTR	N_Shelf	TMEM63A	0.787	-0.001	0.060	0.880
cg16671360	orange	16	2,300,569 Body	N_Shore	DCI	0.786	-0.003	0.305	0.825
cg12618270	orange	8	8,667,411 Body	OpenSea	MFHAS1	0.786	-0.005	0.086	0.536
cg25720793	orange	1	160,983,767 Body	OpenSea	F11R	0.785	-0.002	0.033	0.681
cg02417360	orange	13	113,398,673 Body	OpenSea	ATP11A	0.785	-0.009	0.162	0.520
cg01081737	orange	8	142,238,752 TSS200	S_Shore	SLC45A4	0.783	-0.006	0.216	0.599
cg02054358	orange	17	70,335,431	OpenSea		0.783	-0.004	0.053	0.453
cg23896514	orange	7	150,103,902 Body	N_Shore	LOC728743	0.781	-0.006	0.052	0.185
cg26904406	orange	6	111,927,312 1stExon	OpenSea	TRAF3IP2	0.781	-0.006	0.048	0.434
cg18121989	orange	8	134,462,272	OpenSea		0.781	0.009	0.221	0.372
cg08291506	orange	15	89,525,620	OpenSea		0.781	-0.006	0.156	0.405
cg00384847	orange	1	12,291,339 5'UTR	S_Shore	VPS13D	0.780	-0.003	0.061	0.391
cg26330304	orange	15	90,569,017 5'UTR	OpenSea	ZNF710	0.777	0.004	0.175	0.621
cg11111225	orange	2	27,135,972 Body	OpenSea	DPYSL5	0.777	-0.002	0.127	0.807
cg24156983	orange	17	3,343,601 Body	OpenSea	SPATA22	0.776	0.002	0.490	0.885
cg05547853	orange	5	180,236,251 5'UTR	N_Shore	MGAT1	0.776	0.003	0.120	0.618
cg07197230	orange	22	17,956,641 1stExon	OpenSea	CECR2	0.774	-0.011	0.081	0.242
cg15287594	orange	20	42,938,795 Body	N_Shore	FITM2	0.774	-0.008	0.161	0.320
cg03437912	orange	13	29,232,327 TSS1500	N_Shore	POMP	0.774	-0.006	0.110	0.429
cg21686287	orange	2	73,021,348 Body	OpenSea	EXOC6B	0.773	-0.009	0.136	0.358
cg15136953	orange	3	110,793,466 Body	S_Shelf	PVRL3	0.771	-0.002	0.410	0.925
cg04213384	orange	13	98,960,589 Body	OpenSea	FARP1	0.771	0.027	0.275	0.069
cg10974128	orange	10	93,393,509 TSS1500	S_Shore	PPP1R3C	0.770	0.007	0.280	0.414
cg18942579	orange	17	57,915,773 Body	OpenSea	TMEM49	0.770	0.000	0.076	0.996
cg08491125	orange	15	89,181,942 TSS200	OpenSea	ISG20	0.768	-0.005	0.056	0.388
cg26094842	orange	10	114,476,947 Body	OpenSea	VTI1A	0.767	0.012	0.430	0.388
cg26897909	orange	1	206,629,196 Body	OpenSea	SRGAP2	0.767	0.010	0.390	0.398
cg02268156	orange	16	66,162,107	OpenSea		0.766	-0.004	0.239	0.832
cg17892917	orange	3	107,823,424	OpenSea		0.765	-0.005	0.057	0.431

cg13762691	orange	22	17,956,560	TSS200	OpenSea	CECR2	0.765	-0.005	0.052	0.237
cg17594256	orange	13	46,014,654		OpenSea		0.764	-0.001	0.037	0.866
cg06856687	orange	20	44,934,509		N_Shore		0.763	-0.002	0.047	0.713
cg18879828	orange	11	46,942,432		S_Shelf		0.763	0.007	0.381	0.389
cg04645070	orange	11	34,393,106		OpenSea		0.763	0.008	0.345	0.410
cg04920032	orange	12	50,262,986	3'UTR	OpenSea	FAIM2	0.763	0.003	0.105	0.606
cg17744078	orange	5	171,023,504		OpenSea		0.763	-0.010	0.204	0.201
cg16703934	orange	7	128,786,732	Body	S_Shore	TSPAN33	0.762	0.008	0.441	0.397
cg06672753	orange	19	35,531,990	5'UTR	Island	HPN	0.761	-0.008	0.103	0.402
cg15077792	orange	10	73,324,481	Body	OpenSea	CDH23	0.759	-0.005	0.296	0.489
cg13900719	orange	17	48,382,610		OpenSea		0.759	0.001	0.221	0.914
cg04423294	orange	3	188,479,059	Body	OpenSea	LPP	0.759	0.018	0.452	0.112
cg18174678	orange	1	42,801,761	TSS1500	S_Shore	FOXJ3	0.759	-0.003	0.076	0.703
cg07830269	orange	1	240,363,446	Body	OpenSea	FMN2	0.758	-0.012	0.078	0.189
cg04295172	orange	11	108,365,051	Body	N_Shelf	KDEL2	0.758	0.003	0.295	0.746
cg19007141	orange	4	140,808,552	Body	OpenSea	MAML3	0.757	0.001	0.128	0.916
cg23252902	orange	6	711,405		S_Shore		0.757	0.000	0.027	0.983
cg26878870	orange	5	124,080,713	1stExon	OpenSea	ZNF608	0.757	-0.002	0.066	0.890
cg15073784	orange	2	105,406,666		OpenSea		0.757	0.001	0.063	0.842
cg10589813	orange	20	48,809,978		S_Shore		0.757	0.005	0.189	0.568
cg22082438	orange	1	55,992,818		OpenSea		0.756	-0.006	0.296	0.609
cg06060137	orange	13	72,650,518		OpenSea		0.756	-0.001	0.082	0.876
cg26413942	orange	5	124,081,751	TSS1500	OpenSea	ZNF608	0.755	-0.002	0.031	0.672
cg12224508	orange	2	28,589,782		OpenSea		0.755	-0.006	0.038	0.401
cg11852579	orange	4	3,657,880		OpenSea		0.754	0.000	0.044	0.933
cg00126889	orange	8	42,103,037		OpenSea		0.753	0.000	0.122	0.987
cg06972724	orange	5	130,943,742	Body	OpenSea	RAPGEF6	0.753	-0.010	0.304	0.363
cg25109238	orange	3	52,074,172		OpenSea		0.753	0.002	0.121	0.854
cg04751089	orange	2	227,659,636	3'UTR	N_Shelf	IRS1	0.753	0.005	0.067	0.410
cg10491122	orange	1	217,886,461	Body	OpenSea	SPATA17	0.753	-0.001	0.531	0.904
cg06149159	orange	6	7,975,374		OpenSea		0.752	-0.002	0.028	0.588
cg19118533	orange	6	111,927,323	1stExon	OpenSea	TRAF3IP2	0.752	-0.002	0.047	0.759
cg27494897	orange	2	151,061,125		OpenSea		0.751	-0.013	0.183	0.204
cg04395788	orange	8	119,081,939	Body	OpenSea	EXT1	0.751	-0.018	0.414	0.087
cg08229360	orange	3	37,904,475	Body	S_Shore	CTDSPL	0.750	0.000	0.043	0.935
cg21710324	orange	1	226,069,189	5'UTR	N_Shore	TMEM63A	0.750	-0.002	0.040	0.509
cg19761273	orange	17	80,232,096	TSS1500	S_Shore	CSNK1D	0.750	-0.001	0.069	0.779
cg01564661	orange	14	105,942,636	Body	N_Shore	CRIP2	0.750	0.001	0.109	0.930
cg19244380	orange	11	46,612,744	5'UTR	N_Shelf	AMBRA1	0.750	0.000	0.508	0.993
cg22965600	orange	10	29,824,383	Body	OpenSea	SVIL	0.750	-0.006	0.288	0.589
cg18112235	orange	2	196,451,226		OpenSea		0.749	0.000	0.312	0.960
cg07463059	orange	1	158,979,810	5'UTR	OpenSea	IFI16	0.749	-0.003	0.202	0.806
cg02883503	orange	16	75,423,900	Body	OpenSea	CFDP1	0.748	-0.001	0.414	0.889
cg01439754	orange	2	112,293,267		OpenSea		0.748	-0.002	0.359	0.720
cg10717869	orange	1	205,780,912	5'UTR	N_Shore	SLC41A1	0.747	-0.004	0.143	0.429
cg06543221	orange	16	86,899,685		OpenSea		0.747	-0.005	0.368	0.374
cg11231349	orange	1	162,050,656	Body	OpenSea	NOS1AP	0.747	0.002	0.384	0.885
cg10541663	orange	3	177,528,511		OpenSea		0.747	-0.004	0.153	0.846
cg05296619	orange	13	114,834,683	Body	N_Shore	RASA3	0.746	-0.001	0.213	0.872
cg25801976	orange	8	48,648,112	3'UTR	N_Shore	KIAA0146	0.746	0.000	0.028	0.962
cg20752683	orange	3	29,218,208		OpenSea		0.746	-0.001	0.364	0.943
cg25684105	orange	12	104,613,662	Body	S_Shelf	TXNRD1	0.745	0.001	0.382	0.931
cg12327691	orange	10	101,493,322	TSS1500	S_Shore	COX15	0.745	0.003	0.346	0.791
cg27190239	orange	12	10,085,174	TSS200	OpenSea	CLEC2A	0.745	0.002	0.421	0.836
cg14212967	orange	1	214,445,695		OpenSea		0.745	0.010	0.385	0.349
cg26570844	orange	7	101,579,003	Body	OpenSea	CUX1	0.745	0.010	0.666	0.432
cg09862950	orange	6	132,275,639		S_Shelf		0.744	-0.002	0.079	0.742
cg24687805	orange	15	55,513,621	Body	OpenSea	RAB27A	0.743	-0.010	0.195	0.332
cg25979244	orange	1	231,991,715	Body	OpenSea	DISC1	0.743	0.005	0.597	0.650
cg08270005	orange	8	96,179,452		OpenSea		0.743	0.004	0.391	0.745
cg10837142	orange	10	121,765,342		OpenSea		0.743	0.003	0.072	0.651
cg05815419	orange	10	100,154,826	Body	OpenSea	PYROXD2	0.743	-0.008	0.403	0.347
cg12799029	orange	17	984,184	Body	S_Shelf	ABR	0.743	0.006	0.079	0.388
cg16234490	orange	4	77,138,082		S_Shelf		0.742	-0.004	0.454	0.658
cg19677927	orange	8	17,018,331	Body	S_Shelf	ZDHHC2	0.742	-0.003	0.371	0.795
cg24634333	orange	6	111,887,834	Body	OpenSea	TRAF3IP2	0.742	0.001	0.128	0.911
cg20797216	orange	19	8,212,234	1stExon	N_Shelf	FBN3	0.742	0.001	0.155	0.848

cg06775523	orange	1	3,514,921	Body	S_Shelf	MEGF6	0.740	-0.004	0.057	0.548
cg19418273	orange	7	137,562,440	3'UTR	OpenSea	CREB3L2	0.740	-0.003	0.287	0.842
cg23548201	orange	3	195,623,792	TSS1500	S_Shore	TNK2	0.739	-0.007	0.065	0.436
cg05928849	orange	11	122,993,208	Body	OpenSea	ASAM	0.739	-0.001	0.287	0.877
cg17942666	orange	17	59,415,548	Body	OpenSea	BCAS3	0.738	-0.002	0.229	0.896
cg15579567	orange	3	138,952,482	TSS200	OpenSea	PISRT1	0.738	-0.011	0.412	0.426
cg25077189	orange	8	93,285,604		OpenSea		0.737	-0.014	0.143	0.335
cg22386583	orange	17	78,753,756	Body	OpenSea	RPTOR	0.737	-0.009	0.509	0.510
cg16039071	orange	6	43,968,282	TSS200	N_Shore	C6orf223	0.736	-0.001	0.040	0.774
cg07153965	orange	11	125,552,087	TSS1500	OpenSea	ACRV1	0.736	0.004	0.665	0.786
cg20567355	orange	8	52,754,434	Body	OpenSea	PCMTD1	0.736	-0.012	0.426	0.367
cg23994061	orange	2	3,633,519		OpenSea		0.735	-0.008	0.071	0.300
cg23429240	orange	12	109,040,983	3'UTR	OpenSea	CORO1C	0.735	0.000	0.203	0.997
cg12080157	orange	3	122,888,362		OpenSea		0.733	0.006	0.282	0.665
cg22872195	orange	8	35,401,908	Body	OpenSea	UNC5D	0.733	0.002	0.475	0.846
cg17826956	orange	1	77,230,619		OpenSea		0.733	-0.002	0.064	0.796
cg24019054	orange	22	45,072,455	5'UTR	OpenSea	PRR5	0.732	-0.014	0.146	0.163
cg14159523	orange	9	90,185,475	Body	OpenSea	DAPK1	0.732	-0.020	0.355	0.263
cg16286925	orange	5	108,339,964	Body	OpenSea	FER	0.732	-0.009	0.417	0.230
cg17939444	orange	8	40,010,443	TSS1500	OpenSea	C8orf4	0.732	-0.004	0.242	0.688
cg17886959	orange	16	56,642,024	TSS1500	N_Shore	MT2A	0.731	0.003	0.385	0.789
cg01973181	orange	12	124,436,804	5'UTR	OpenSea	CCDC92	0.731	-0.003	0.192	0.882
cg04423314	orange	7	100,239,188	TSS200	OpenSea	TFR2	0.730	-0.001	0.169	0.941
cg17105005	orange	11	130,260,541		OpenSea		0.730	-0.008	0.146	0.262
cg19449067	orange	6	152,011,103	TSS1500	OpenSea	ESR1	0.730	-0.002	0.225	0.841
cg06451822	orange	17	36,108,713		S_Shelf		0.730	-0.010	0.112	0.138
cg12559197	orange	5	76,654,783	Body	OpenSea	PDE8B	0.729	0.000	0.221	0.990
cg16452651	orange	21	35,016,873	5'UTR	S_Shore	ITSN1	0.729	-0.003	0.392	0.741
cg14426428	orange	6	106,961,936	Body	S_Shore	AIM1	0.728	0.005	0.201	0.709
cg02019444	orange	21	35,016,787	5'UTR	S_Shore	ITSN1	0.728	-0.007	0.305	0.527
cg01523881	orange	1	200,985,689	Body	OpenSea	KIF21B	0.727	0.002	0.040	0.707
cg19159092	orange	1	856,059	TSS1500	S_Shore	FLJ39609	0.726	-0.001	0.286	0.901
cg13356540	orange	1	7,449,057	Body	OpenSea	CAMTA1	0.726	-0.003	0.247	0.727
cg12562327	orange	10	134,859,818		N_Shore		0.726	-0.009	0.292	0.193
cg13010869	orange	6	17,584,127		OpenSea		0.726	0.007	0.434	0.613
cg08888918	orange	5	168,894,603		OpenSea		0.725	-0.012	0.192	0.261
cg21091841	orange	13	34,251,239		OpenSea		0.725	0.001	0.166	0.923
cg18036081	orange	22	29,605,147	Body	S_Shelf	EMID1	0.725	0.003	0.295	0.598
cg02100497	orange	9	90,273,707	Body	N_Shore	DAPK1	0.724	0.003	0.428	0.763
cg07665222	orange	11	125,552,186	TSS1500	OpenSea	ACRV1	0.724	0.006	0.613	0.698
cg14192542	orange	17	64,187,581	5'UTR	N_Shore	CCDC46	0.722	0.001	0.084	0.851
cg01872122	orange	5	16,940,481		S_Shelf		0.722	-0.002	0.493	0.811
cg19028462	orange	13	113,677,628	Body	Island	MCF2L	0.722	0.013	0.140	0.323
cg22923409	orange	10	13,749,245	Body	OpenSea	FRMD4A	0.721	-0.003	0.031	0.242
cg24056365	orange	1	110,834,615		OpenSea		0.721	-0.006	0.089	0.390
cg15871371	orange	3	71,274,624	5'UTR	OpenSea	FOXP1	0.721	-0.014	0.218	0.239
cg17058475	orange	11	68,607,737	5'UTR	N_Shore	CPT1A	0.720	-0.001	0.036	0.821
cg01120874	orange	9	133,811,816	Body	N_Shore	FIBCD1	0.720	0.007	0.256	0.426
cg19932080	orange	15	78,631,179	TSS1500	N_Shore	CRABP1	0.720	0.007	0.511	0.408
cg06024215	orange	17	75,210,996	3'UTR	S_Shore	SEC14L1	0.720	0.000	0.218	0.972
cg10575219	orange	7	105,313,992	Body	OpenSea	ATXN7L1	0.718	-0.007	0.362	0.603
cg09007470	orange	19	38,746,639	Body	Island	PPP1R14A	0.718	0.000	0.177	0.955
cg21691367	orange	6	151,325,642	Body	OpenSea	MTHFD1L	0.718	-0.001	0.413	0.959
cg12333043	orange	6	138,849,110	Body	OpenSea	NHSL1	0.718	0.007	0.212	0.685
cg21193484	orange	14	61,938,892	Body	OpenSea	PRKCH	0.717	-0.002	0.050	0.714
cg17296078	orange	10	99,259,721	TSS1500	S_Shore	MMS19	0.717	-0.003	0.028	0.180
cg15012214	orange	3	56,810,320	Body	OpenSea	ARHGEF3	0.716	0.000	0.311	0.991
cg16557526	orange	16	87,730,518	3'UTR	OpenSea	JPH3	0.716	0.006	0.263	0.443
cg15089567	orange	7	1,957,317	Body	OpenSea	MAD1L1	0.716	-0.007	0.320	0.497
cg20313628	orange	2	17,700,224	TSS1500	OpenSea	RAD51AP2	0.716	-0.009	0.333	0.344
cg00655147	orange	10	91,292,402	5'UTR	N_Shelf	SLC16A12	0.715	-0.011	0.548	0.433
cg01681525	orange	17	79,374,741	Body	Island	BAHCC1	0.715	0.006	0.203	0.552
cg11832793	orange	4	24,212,454		OpenSea		0.714	0.013	0.170	0.176
cg24787865	orange	11	47,042,656	Body	OpenSea	C11orf49	0.714	-0.001	0.711	0.932
cg17104258	orange	1	167,090,646	Body	Island	DUSP27	0.714	-0.010	0.058	0.214
cg07285807	orange	3	49,235,826	TSS200	N_Shore	CCDC36	0.714	0.008	0.452	0.371
cg09337391	orange	20	45,871,363	Body	S_Shelf	ZMYND8	0.714	-0.008	0.093	0.310

cg02905900	orange	1	55,013,517	TSS1500	OpenSea	ACOT11	0.714	-0.007	0.155	0.268
cg23400169	orange	8	18,611,395	Body	OpenSea	PSD3	0.713	0.004	0.491	0.667
cg26543112	orange	6	133,188,277		OpenSea		0.713	0.001	0.068	0.857
cg26313247	orange	6	28,493,113	TSS1500	OpenSea	GPX5	0.713	-0.008	0.054	0.423
cg03547355	orange	1	227,003,060		OpenSea		0.712	0.001	0.047	0.795
cg25613478	orange	10	79,972,037		OpenSea		0.712	-0.002	0.376	0.795
cg01288611	orange	8	59,521,651	Body	OpenSea	NSMAF	0.712	-0.003	0.335	0.755
cg00716848	orange	2	3,633,875		OpenSea		0.712	-0.013	0.632	0.261
cg25778871	orange	5	107,715,830	Body	N_Shore	FBXL17	0.711	-0.005	0.053	0.197
cg27614723	orange	15	92,399,897	Body	S_Shelf	SLCO3A1	0.710	0.004	0.216	0.636
cg27551625	orange	10	88,691,926		OpenSea		0.710	0.005	0.694	0.782
cg01723706	orange	4	124,814,442	Body	OpenSea	LOC285419	0.709	-0.005	0.035	0.381
cg18195130	orange	4	110,833,944	TSS200	OpenSea	EGF	0.709	-0.003	0.059	0.485
cg07067744	orange	11	1,421,172	Body	OpenSea	BRSK2	0.709	0.022	0.336	0.044
cg15034300	orange	2	85,134,468		S_Shore		0.708	0.002	0.078	0.615
cg27315157	orange	1	79,086,197	5'UTR	OpenSea	IFI44L	0.707	0.004	0.079	0.621
cg12996913	orange	3	72,338,454		OpenSea		0.707	0.003	0.055	0.732
cg19734536	orange	1	160,607,887	Body	OpenSea	SLAMF1	0.707	-0.001	0.093	0.929
cg27579233	orange	1	22,827,348	Body	OpenSea	ZBTB40	0.706	-0.007	0.055	0.262
cg01878708	orange	2	227,555,410		OpenSea		0.706	-0.001	0.428	0.925
cg23489137	orange	2	161,290,449	Body	OpenSea	RBMS1	0.705	-0.012	0.280	0.533
cg21005412	orange	2	29,149,902	Body	OpenSea	WDR43	0.705	0.014	0.508	0.087
cg20466382	orange	21	45,881,507		N_Shelf		0.705	0.004	0.363	0.533
cg10177154	orange	5	95,858,534		OpenSea		0.704	0.007	0.207	0.529
cg07029411	orange	17	12,704,978	Body	OpenSea	RICH2	0.704	-0.001	0.220	0.916
cg23862925	orange	4	37,244,248		N_Shore		0.704	-0.007	0.395	0.457
cg00290758	orange	10	121,171,859	Body	OpenSea	GRK5	0.704	0.001	0.266	0.964
cg16396978	orange	1	25,936,677		OpenSea		0.704	-0.001	0.172	0.947
cg08936706	orange	3	46,906,385	TSS1500	OpenSea	MYL3	0.704	-0.008	0.420	0.375
cg07774964	orange	15	65,133,105	TSS1500	N_Shore	PLEKHO2	0.704	0.002	0.051	0.659
cg16923137	orange	10	15,410,179	Body	N_Shelf	FAM171A1	0.702	0.001	0.514	0.931
cg08194458	orange	3	42,054,606		N_Shore		0.702	0.000	0.118	0.987
cg03226666	orange	6	124,151,503	Body	OpenSea	NKAIN2	0.702	-0.005	0.332	0.465
cg14306650	orange	9	129,829,146	Body	OpenSea	RALGPS1	0.702	-0.012	0.297	0.490
cg13261883	orange	7	3,988,772	Body	OpenSea	SDK1	0.702	-0.003	0.083	0.634
cg01532075	orange	3	133,131,484	Body	OpenSea	BFSP2	0.702	0.007	0.488	0.457
cg20192997	orange	11	117,696,015	Body	OpenSea	FXYD2	0.701	0.000	0.022	0.778
cg22598885	orange	8	38,175,609	Body	OpenSea	WHSC1L1	0.701	0.004	0.362	0.652
cg00841988	orange	14	100,204,153		Island		0.700	0.003	0.170	0.833
cg03747456	orange	12	52,586,127	TSS1500	OpenSea	KRT80	0.700	-0.005	0.231	0.407
cg02012974	orange	3	66,492,992	Body	OpenSea	LRIG1	0.700	0.005	0.039	0.150
cg10795342	orange	7	4,174,939	Body	OpenSea	SDK1	0.699	-0.005	0.607	0.664
cg04510919	orange	4	7,282,819	Body	OpenSea	SORCS2	0.699	0.011	0.305	0.092
cg26253663	orange	22	25,799,504		N_Shore		0.698	-0.006	0.164	0.540
cg04112866	orange	2	105,925,965	5'UTR	OpenSea	TGFBRAP1	0.698	0.008	0.432	0.344
cg24335070	orange	2	179,914,864		OpenSea		0.696	-0.006	0.033	0.452
cg17696160	orange	14	37,136,192	Body	Island	PAX9	0.695	-0.005	0.032	0.484
cg15541170	orange	2	238,224,257		OpenSea		0.695	-0.005	0.063	0.465
cg09247170	orange	14	87,616,490		OpenSea		0.695	-0.003	0.063	0.542
cg14057303	orange	9	109,683,834	Body	OpenSea	MIR548Q	0.694	0.001	0.143	0.936
cg00402547	orange	18	6,835,382	5'UTR	OpenSea	ARHGAP28	0.694	-0.002	0.348	0.893
cg14547726	orange	6	116,832,794	TSS200	OpenSea	FAM26E	0.693	0.000	0.159	0.992
cg01495299	orange	8	128,003,923		OpenSea		0.693	-0.001	0.041	0.817
cg11911653	orange	5	2,170,490		OpenSea		0.692	-0.010	0.239	0.404
cg13887261	orange	9	96,082,521	Body	S_Shelf	C9orf129	0.691	0.011	0.419	0.283
cg01649334	orange	3	101,547,296	5'UTR	OpenSea	NFKBIZ	0.691	-0.006	0.055	0.172
cg25753473	orange	6	170,532,835		S_Shelf		0.691	0.002	0.229	0.910
cg25827670	orange	17	15,255,513		OpenSea		0.691	-0.002	0.559	0.836
cg06184396	orange	8	143,283,647	Body	OpenSea	NCRNA00051	0.690	0.002	0.262	0.786
cg20784693	orange	2	239,984,030	Body	OpenSea	HDAC4	0.689	-0.002	0.286	0.858
cg04482762	orange	16	86,965,395		Island		0.689	-0.001	0.297	0.958
cg02016094	orange	7	44,345,367	Body	N_Shelf	CAMK2B	0.689	0.009	0.580	0.244
cg18989085	orange	11	133,256,591	Body	OpenSea	OPCML	0.689	-0.003	0.329	0.842
cg27531731	orange	7	75,362,554	Body	OpenSea	HIP1	0.689	-0.001	0.450	0.901
cg06298579	orange	16	85,590,569		Island		0.688	-0.001	0.031	0.778
cg26798936	orange	16	66,162,203		OpenSea		0.688	0.001	0.037	0.893
cg14970991	orange	5	68,245,848		OpenSea		0.687	-0.003	0.040	0.496

cg22708087	orange	13	32,780,062	Body	OpenSea	FRY	0.686	-0.003	0.342	0.728
cg00948520	orange	16	4,000,652		OpenSea		0.685	0.000	0.139	0.983
cg15920906	orange	12	111,619,414	Body	OpenSea	CUX2	0.685	0.007	0.199	0.525
cg20322766	orange	2	7,999,224		OpenSea		0.685	0.001	0.581	0.901
cg11755201	orange	1	7,551,851	Body	OpenSea	CAMTA1	0.685	-0.009	0.066	0.153
cg02263932	orange	20	50,109,099	Body	Island	NFATC2	0.684	-0.005	0.060	0.271
cg02366320	orange	16	88,967,522	Body	S_Shore	CBFA2T3	0.684	-0.006	0.432	0.592
cg06888698	orange	14	100,204,149		Island		0.684	0.011	0.165	0.220
cg19122260	orange	17	78,808,570	Body	OpenSea	RPTOR	0.684	-0.004	0.557	0.550
cg04874782	orange	2	241,900,108		OpenSea		0.683	0.003	0.031	0.367
cg12792931	orange	14	77,499,162		Island		0.683	0.004	0.226	0.607
cg26381210	orange	10	88,632,654	5'UTR	OpenSea	BMPR1A	0.683	-0.007	0.467	0.383
cg18771737	orange	3	43,448,041	Body	OpenSea	ANO10	0.683	0.004	0.566	0.689
cg12417775	orange	1	212,463,238	Body	S_Shelf	PPP2R5A	0.683	-0.025	0.309	0.036
cg21869956	orange	17	35,078,334		N_Shore		0.682	-0.008	0.245	0.378
cg07184986	orange	5	159,714,788	Body	OpenSea	CCNJL	0.682	-0.003	0.069	0.565
cg03289906	orange	7	94,538,408	TSS1500	S_Shore	PPP1R9A	0.681	0.003	0.187	0.662
cg11556592	orange	17	79,283,300	TSS1500	N_Shore	C17orf55	0.680	-0.005	0.055	0.262
cg15094117	orange	5	147,184,031		OpenSea		0.679	0.004	0.445	0.690
cg10715460	orange	17	21,278,879	TSS1500	N_Shore	KCNJ12	0.679	0.006	0.491	0.522
cg16667251	orange	2	54,697,181	5'UTR	OpenSea	SPTBN1	0.678	-0.004	0.134	0.656
cg00692833	orange	13	42,795,206	Body	OpenSea	DGKH	0.678	-0.004	0.488	0.592
cg23873406	orange	7	1,957,026	Body	OpenSea	MAD1L1	0.677	-0.002	0.341	0.848
cg16664523	orange	5	67,586,170	Body	S_Shore	PIK3R1	0.676	-0.003	0.052	0.481
cg22993706	orange	8	75,542,856		OpenSea		0.676	-0.012	0.257	0.348
cg16796458	orange	16	85,254,655		OpenSea		0.674	0.011	0.220	0.277
cg06824199	orange	1	47,157,809	Body	OpenSea	KIAA0494	0.674	0.002	0.435	0.810
cg06934572	orange	2	9,458,925	Body	N_Shore	ASAP2	0.674	0.003	0.345	0.657
cg14865868	orange	2	12,856,040	TSS1500	N_Shore	TRIB2	0.673	-0.006	0.156	0.585
cg17801546	orange	1	167,090,974	Body	Island	DUSP27	0.671	-0.005	0.075	0.502
cg08354053	orange	17	30,630,872	Body	OpenSea	RHBDL3	0.671	0.005	0.206	0.484
cg14905466	orange	6	134,499,143	TSS200	S_Shore	SGK1	0.670	-0.005	0.439	0.587
cg15852150	orange	12	42,875,816	5'UTR	N_Shore	PRICKLE1	0.670	-0.014	0.163	0.307
cg18792365	orange	8	13,132,967	Body	N_Shore	DLC1	0.670	-0.016	0.209	0.385
cg13444966	orange	11	2,705,357	Body	OpenSea	KCNQ1	0.669	-0.003	0.441	0.827
cg05212706	orange	14	100,204,072		Island		0.669	-0.012	0.141	0.368
cg11236550	orange	1	167,090,757	Body	Island	DUSP27	0.669	-0.015	0.088	0.033
cg14632485	orange	11	113,216,820	Body	OpenSea	TTC12	0.668	0.001	0.209	0.924
cg03842258	orange	15	67,135,396		Island		0.667	-0.002	0.035	0.488
cg10725937	orange	6	41,130,978	TSS200	OpenSea	TREM2	0.666	0.005	0.495	0.503
cg18448977	orange	2	147,807,867		OpenSea		0.666	-0.003	0.166	0.700
cg26455724	orange	17	39,984,176	Body	OpenSea	NTSC3L	0.666	0.012	0.728	0.386
cg16549694	orange	1	42,204,925	5'UTR	OpenSea	HIVEP3	0.665	0.000	0.076	0.986
cg09453760	orange	7	47,693,630	TSS1500	OpenSea	C7orf65	0.664	0.006	0.275	0.452
cg12785694	orange	3	160,122,168	Body	S_Shelf	SMC4	0.663	-0.001	0.361	0.950
cg01047748	orange	19	35,849,024	TSS1500	OpenSea	FFAR3	0.663	0.001	0.349	0.933
cg26389380	orange	3	11,330,567	5'UTR	OpenSea	ATG7	0.662	0.007	0.432	0.553
cg17861277	orange	5	150,385,659		OpenSea		0.661	-0.006	0.051	0.175
cg19103429	orange	7	92,460,784	Body	N_Shore	CDK6	0.661	0.007	0.261	0.565
cg16953473	orange	17	59,539,587	Body	Island	TBX4	0.661	0.000	0.020	0.969
cg16762030	orange	15	50,148,234		OpenSea		0.661	-0.008	0.398	0.383
cg12646786	orange	1	178,986,264		OpenSea		0.661	0.002	0.030	0.509
cg04904385	orange	7	19,158,692	TSS1500	S_Shore	TWIST1	0.660	-0.004	0.070	0.689
cg15298486	orange	10	102,046,690	TSS1500	S_Shore	BLOC1S2	0.660	-0.003	0.114	0.628
cg10703786	orange	7	5,123,074		Island		0.659	0.010	0.504	0.136
cg26526397	orange	7	155,700,304		OpenSea		0.659	0.006	0.141	0.445
cg10583311	orange	12	133,082,545	Body	OpenSea	FBRSL1	0.658	0.003	0.209	0.520
cg12543245	orange	7	116,080,203		OpenSea		0.658	0.005	0.547	0.719
cg07913153	orange	1	236,680,761	TSS1500	OpenSea	LGALS8	0.658	-0.004	0.193	0.701
cg01939704	orange	4	15,376,129	Body	OpenSea	C1QTNF7	0.658	0.004	0.532	0.636
cg17198320	orange	10	695,877	Body	OpenSea	DIP2C	0.657	0.017	0.173	0.133
cg02328930	orange	16	85,591,871		S_Shore		0.657	0.000	0.112	0.964
cg15327641	orange	2	3,715,039	5'UTR	OpenSea	ALLC	0.657	0.000	0.291	0.971
cg20343827	orange	13	107,869,769	Body	OpenSea	FAM155A	0.656	0.005	0.420	0.745
cg18361098	orange	14	37,136,391	Body	S_Shore	PAX9	0.656	-0.002	0.022	0.518
cg04597312	orange	16	85,933,163	5'UTR	S_Shore	IRF8	0.654	-0.001	0.412	0.927
cg16686174	orange	17	75,373,081	5'UTR	S_Shelf		0.654	0.001	0.508	0.924

cg04845871	orange	1	207,996,319	OpenSea		0.654	0.003	0.256	0.566
cg11271171	orange	5	94,124,467 Body	OpenSea	MCTP1	0.653	0.005	0.330	0.614
cg07800034	orange	16	4,426,960 5'UTR	OpenSea	VASN	0.652	-0.001	0.377	0.899
cg24760869	orange	10	116,422,769 Body	OpenSea	ABLIM1	0.651	0.003	0.511	0.660
cg24419094	orange	2	10,266,986 Body	S_Shelf	RRM2	0.650	-0.004	0.155	0.791
cg07441263	orange	3	130,295,128 Body	OpenSea	COL6A6	0.650	-0.005	0.392	0.496
cg08941576	orange	11	46,957,888 TSS1500	N_Shore	C11orf49	0.649	0.004	0.466	0.730
cg02641917	orange	2	198,127,245	OpenSea		0.649	-0.013	0.536	0.465
cg13893782	orange	6	136,358,918 Body	OpenSea	PDE7B	0.647	0.000	0.022	0.821
cg14823935	orange	1	211,308,714 TSS1500	S_Shore	KCNH1	0.647	0.002	0.113	0.862
cg16995768	orange	7	157,531,239 Body	OpenSea	PTPRN2	0.646	0.005	0.287	0.615
cg27179041	orange	3	61,889,812 Body	OpenSea	PTPRG	0.646	0.011	0.192	0.382
cg11773779	orange	5	142,442,486 Body	OpenSea	ARHGAP26	0.646	0.006	0.359	0.671
cg14644846	orange	3	128,073,866 Body	OpenSea	EEFSEC	0.646	-0.001	0.199	0.900
cg01076704	orange	20	31,127,744	S_Shelf		0.645	0.005	0.500	0.445
cg22332066	orange	1	210,501,621 TSS1500	N_Shore	HHAT	0.644	-0.001	0.354	0.892
cg12355586	orange	6	148,869,895 3'UTR	OpenSea	SASH1	0.644	0.002	0.461	0.896
cg24951263	orange	5	43,772,975	OpenSea		0.643	0.002	0.244	0.794
cg05865340	orange	2	240,362,550	OpenSea		0.642	-0.001	0.033	0.690
cg15342452	orange	10	127,823,065 Body	OpenSea	ADAM12	0.642	-0.006	0.233	0.627
cg27173292	orange	12	46,386,015	S_Shore		0.641	-0.001	0.019	0.668
cg20813518	orange	1	81,929,622	OpenSea		0.641	0.009	0.396	0.614
cg05869611	orange	7	80,096,608 Body	OpenSea	GNAT3	0.640	0.000	0.179	0.991
cg15515537	orange	12	133,067,734 Body	Island	FBRSL1	0.640	-0.001	0.018	0.370
cg15579696	orange	1	2,822,706	OpenSea		0.639	0.012	0.126	0.365
cg21386586	orange	13	114,321,641 1stExon	OpenSea	GRK1	0.639	0.004	0.198	0.539
cg08617683	orange	12	133,083,589 Body	OpenSea	FBRSL1	0.639	-0.003	0.043	0.526
cg05616379	orange	2	26,943,660 Body	OpenSea	KCNK3	0.639	0.001	0.526	0.817
cg03784436	orange	7	19,145,530	N_Shore		0.639	-0.002	0.223	0.941
cg14648774	orange	20	61,900,546	N_Shelf		0.638	-0.008	0.366	0.327
cg24919468	orange	4	185,195,769	OpenSea		0.636	-0.001	0.580	0.948
cg03476109	orange	2	27,408,527	OpenSea		0.635	-0.003	0.061	0.688
cg27475442	orange	17	2,756,701 Body	Island	RAP1GAP2	0.635	-0.004	0.038	0.314
cg05272807	orange	16	1,232,363 Body	N_Shelf	CACNA1H	0.635	0.003	0.122	0.702
cg17016000	orange	20	19,869,644 TSS1500	OpenSea	RIN2	0.634	-0.001	0.485	0.926
cg27144884	orange	21	47,457,188	Island		0.634	0.000	0.706	0.983
cg24634746	orange	1	7,538,723 Body	OpenSea	CAMTA1	0.634	-0.001	0.485	0.895
cg13434411	orange	9	970,297	Island		0.634	-0.004	0.022	0.547
cg06884352	orange	8	122,808,923	OpenSea		0.633	-0.005	0.454	0.628
cg26833538	orange	11	67,777,715 TSS200	OpenSea	ALDH3B1	0.633	0.004	0.120	0.623
cg12002745	orange	8	124,179,875	OpenSea		0.633	0.000	0.387	0.976
cg04131395	orange	16	85,171,181	Island		0.633	-0.003	0.022	0.108
cg00549758	orange	20	31,642,282 TSS1500	OpenSea	C20orf185	0.632	0.007	0.466	0.294
cg22467534	orange	17	73,841,658 TSS1500	OpenSea	UNC13D	0.632	-0.002	0.209	0.699
cg02184281	orange	18	46,447,797 Body	Island	SMAD7	0.632	0.008	0.463	0.351
cg17516539	orange	5	156,680,697 3'UTR	OpenSea	ITK	0.631	-0.001	0.059	0.862
cg13313294	orange	2	231,646,024 Body	OpenSea	CAB39	0.631	-0.006	0.226	0.514
cg05532966	orange	21	43,198,797	S_Shore		0.631	-0.004	0.096	0.595
cg13770417	orange	6	168,418,632 1stExon	OpenSea	KIF25	0.631	-0.004	0.260	0.850
cg03806501	orange	7	81,130,829	OpenSea		0.630	0.005	0.129	0.572
cg24760467	orange	10	102,760,784 5'UTR	S_Shore	LZTS2	0.630	0.006	0.256	0.367
cg11338745	orange	3	52,716,501 5'UTR	N_Shelf	PBRM1	0.630	0.007	0.510	0.685
cg03968911	orange	10	118,734,132 Body	OpenSea	KIAA1598	0.629	-0.002	0.048	0.650
cg04759376	orange	10	77,190,437	N_Shore		0.628	-0.005	0.079	0.562
cg14260169	orange	10	72,344,881	OpenSea		0.628	0.001	0.024	0.646
cg23387692	orange	18	24,276,464 Body	OpenSea	LOC728606	0.628	-0.001	0.271	0.940
cg23061672	orange	3	197,663,860 Body	OpenSea	IQCG	0.627	0.018	0.558	0.066
cg12517577	orange	1	43,769,489 Body	N_Shore	TIE1	0.627	0.011	0.621	0.272
cg04377609	orange	3	9,358,914	OpenSea		0.624	0.002	0.181	0.878
cg12426612	orange	17	25,905,125 Body	OpenSea	KSR1	0.624	-0.001	0.310	0.819
cg17000076	orange	10	1,780,263 TSS1500	S_Shore	ADARB2	0.624	0.001	0.121	0.882
cg22250546	orange	19	33,791,370 3'UTR	N_Shore	CEBPA	0.623	0.001	0.148	0.943
cg04111467	orange	3	197,663,873 Body	OpenSea	IQCG	0.623	0.014	0.626	0.191
cg13411948	orange	2	40,575,296 Body	OpenSea	SLC8A1	0.623	-0.010	0.154	0.204
cg07398839	orange	15	101,661,834	OpenSea		0.622	-0.006	0.075	0.245
cg05157360	orange	13	113,613,660	OpenSea		0.621	0.006	0.040	0.133
cg14170043	orange	2	59,203,693	OpenSea		0.621	0.008	0.255	0.459

cg25091527	orange	13	110,918,683	Body	Island	COL4A1	0.621	0.009	0.209	0.250
cg25123670	orange	14	94,588,068		OpenSea		0.620	-0.003	0.152	0.565
cg22501666	orange	6	32,070,101	5'UTR	OpenSea	TNXB	0.620	-0.003	0.577	0.882
cg06255601	orange	13	51,086,835		OpenSea		0.620	0.000	0.027	0.983
cg12386061	orange	3	37,906,586	Body	S_Shelf	CTDSPL	0.619	0.013	0.137	0.126
cg00423487	orange	19	4,455,957	Body	N_Shore	UBXN6	0.618	-0.009	0.172	0.324
cg11002698	orange	6	111,135,096	Body	N_Shore	CDK19	0.618	0.004	0.221	0.579
cg02886077	orange	4	48,779,921	5'UTR	N_Shore	FRYL	0.616	-0.007	0.079	0.178
cg23910243	orange	16	31,484,618	Body	S_Shore	TGFB111	0.616	0.003	0.437	0.702
cg12537329	orange	13	113,677,777	Body	Island	MCF2L	0.615	0.015	0.260	0.294
cg03966055	orange	22	40,387,288		N_Shelf		0.615	0.006	0.367	0.386
cg11182257	orange	10	118,652,981	Body	OpenSea	KIAA1598	0.614	0.000	0.021	0.782
cg04305808	orange	7	99,614,209	5'UTR	S_Shore	ZKSCAN1	0.614	-0.001	0.045	0.748
cg22495037	orange	4	142,055,319	TSS1500	S_Shore	RNF150	0.614	0.000	0.395	0.995
cg02066518	orange	2	114,463,932		OpenSea		0.614	0.001	0.519	0.958
cg24119284	orange	3	58,344,724	Body	OpenSea	PXK	0.613	-0.017	0.570	0.290
cg04890934	orange	8	28,242,205	5'UTR	N_Shore	ZNF395	0.612	0.002	0.136	0.595
cg00692173	orange	1	53,217,358	Body	OpenSea	ZYG11B	0.610	0.004	0.066	0.562
cg14779797	orange	12	110,150,087		Island		0.610	-0.003	0.056	0.409
cg01951477	orange	8	134,116,754	Body	OpenSea	TG	0.609	0.001	0.468	0.957
cg10064312	orange	16	86,121,312		OpenSea		0.608	0.008	0.414	0.362
cg00782188	orange	16	85,555,434		S_Shelf		0.608	0.005	0.320	0.699
cg21610221	orange	15	93,722,499		OpenSea		0.608	-0.012	0.091	0.247
cg12659494	orange	21	38,073,934	Body	S_Shore	SIM2	0.608	-0.003	0.036	0.273
cg15278699	orange	10	134,209,347	TSS1500	N_Shore	PWWP2B	0.608	0.003	0.350	0.581
cg04500896	orange	2	74,775,717	Body	N_Shore	LOXL3	0.607	-0.006	0.177	0.323
cg11526848	orange	6	75,794,800	3'UTR	N_Shore	COL12A1	0.607	-0.002	0.022	0.474
cg14703061	orange	11	120,435,915		Island		0.605	-0.002	0.044	0.457
cg09481483	orange	16	11,734,383		OpenSea		0.604	0.000	0.054	0.941
cg04809136	orange	2	24,300,158	TSS1500	Island	SF3B14	0.604	-0.001	0.043	0.733
cg00068810	orange	4	75,857,963	TSS1500	N_Shore	PARM1	0.603	-0.002	0.049	0.575
cg04543901	orange	17	63,519,783		OpenSea		0.603	-0.018	0.537	0.295
cg19622662	orange	1	167,090,972	Body	Island	DUSP27	0.603	-0.003	0.056	0.471
cg18932008	orange	1	85,426,586	Body	OpenSea	MCOLN2	0.603	-0.008	0.615	0.699
cg02104456	orange	15	83,726,483	Body	OpenSea	BTBD1	0.602	-0.006	0.642	0.682
cg00639200	orange	17	41,081,377		OpenSea		0.602	0.000	0.022	0.743
cg17244980	orange	10	49,664,616	Body	OpenSea	ARHGAP22	0.602	-0.001	0.033	0.787
cg17148580	orange	8	109,498,750	Body	OpenSea	TTC35	0.602	0.017	0.423	0.323
cg27334919	orange	7	19,158,378	TSS1500	S_Shore	TWIST1	0.601	0.001	0.152	0.941
cg18710162	orange	17	33,390,808	TSS200	OpenSea	RFFL	0.600	0.005	0.161	0.461
cg13641591	orange	11	75,528,534	Body	S_Shore	UVRAG	0.600	0.005	0.421	0.561
cg01797450	orange	6	168,134,760		N_Shore		0.599	0.000	0.075	0.996
cg12446246	orange	1	208,418,552	TSS1500	S_Shore	PLXNA2	0.598	-0.006	0.212	0.311
cg04575202	orange	2	9,235,972		OpenSea		0.598	-0.005	0.065	0.390
cg17658266	orange	6	74,978,996		OpenSea		0.597	0.007	0.305	0.445
cg11724602	orange	3	197,099,072		OpenSea		0.596	-0.001	0.045	0.752
cg20140377	orange	1	165,545,110	Body	OpenSea	LOC400794	0.595	-0.005	0.084	0.554
cg15896084	orange	13	114,927,664		S_Shore		0.595	-0.012	0.060	0.204
cg20977312	orange	5	172,748,917	Body	OpenSea	STC2	0.594	0.011	0.635	0.333
cg12096762	orange	15	88,296,044		OpenSea		0.593	-0.002	0.077	0.807
cg11245569	orange	11	8,679,885	5'UTR	OpenSea	TRIM66	0.592	0.011	0.179	0.414
cg02872868	orange	4	186,565,192	Body	OpenSea	SORBS2	0.591	0.015	0.381	0.071
cg21182715	orange	12	95,567,919	Body	OpenSea	FGD6	0.591	-0.008	0.319	0.411
cg07971863	orange	15	69,755,671		OpenSea		0.590	-0.009	0.073	0.113
cg26219674	orange	1	154,680,613	Body	OpenSea	KCNN3	0.590	0.009	0.585	0.291
cg08503681	orange	5	145,895,884	TSS1500	OpenSea	GPR151	0.589	-0.003	0.143	0.717
cg27589814	orange	16	1,149,424		N_Shelf		0.588	0.013	0.237	0.061
cg20627046	orange	2	201,271,178	Body	OpenSea	SPATS2L	0.588	0.001	0.280	0.842
cg03573445	orange	14	105,154,858	TSS1500	N_Shore	INF2	0.588	-0.002	0.304	0.796
cg23132624	orange	13	33,590,473	TSS200	Island	KL	0.588	0.002	0.020	0.347
cg26942124	orange	5	124,080,075	1stExon	OpenSea	ZNF608	0.587	-0.007	0.160	0.510
cg02291164	orange	14	59,296,302		OpenSea		0.587	-0.021	0.258	0.239
cg08981537	orange	2	54,858,444	Body	S_Shore	SPTBN1	0.586	-0.003	0.452	0.590
cg26788216	orange	2	102,844,110	Body	OpenSea	IL1RL2	0.585	0.007	0.302	0.448
cg07955474	orange	16	85,935,556	5'UTR	S_Shelf	IRF8	0.585	0.004	0.540	0.661
cg24496841	orange	7	19,152,017		Island		0.585	-0.007	0.058	0.354
cg14119792	orange	6	31,021,422	TSS1500	OpenSea	HCG22	0.584	0.007	0.470	0.580



cg12977346	orange	8	8,621,874	OpenSea		0.583	-0.013	0.376	0.252
cg17748520	orange	1	226,298,746	S_Shore		0.582	0.000	0.020	0.782
cg05069909	orange	4	81,953,202 Body	S_Shore	BMP3	0.582	-0.001	0.029	0.706
cg09510077	orange	11	68,722,976	OpenSea		0.582	-0.005	0.039	0.244
cg23704802	orange	8	87,356,638 5'UTR	S_Shore	WWP1	0.582	-0.006	0.060	0.613
cg22274813	orange	21	38,067,101	N_Shore		0.582	-0.014	0.065	0.187
cg20164964	orange	12	3,213,850 5'UTR	OpenSea	TSPAN9	0.582	0.015	0.491	0.231
cg22380322	orange	1	36,566,160 TSS1500	OpenSea	COL8A2	0.582	0.007	0.605	0.524
cg25284762	orange	11	57,267,679 Body	S_Shore	SLC43A1	0.582	-0.008	0.277	0.280
cg19212453	orange	6	105,691,356	OpenSea		0.582	-0.004	0.355	0.684
cg18628646	orange	4	184,908,739 Body	OpenSea	STOX2	0.581	0.005	0.216	0.730
cg05445490	orange	11	131,893,019 Body	OpenSea	NTM	0.580	0.002	0.566	0.853
cg18997901	orange	6	76,461,321 5'UTR	S_Shelf	MYO6	0.579	0.003	0.554	0.704
cg27409771	orange	16	10,711,296	OpenSea		0.578	0.000	0.135	0.958
cg15556591	orange	4	1,027,967	Island		0.577	0.002	0.391	0.866
cg21932231	orange	2	36,668,864 Body	OpenSea	CRIM1	0.577	0.011	0.584	0.311
cg18453446	orange	21	28,219,387	S_Shore		0.576	0.001	0.028	0.467
cg27589809	orange	3	50,650,410 TSS1500	S_Shore	CISH	0.576	0.001	0.327	0.875
cg17521134	orange	15	88,120,995 Body	OpenSea	NCRNA00052	0.576	0.003	0.395	0.655
cg14559879	orange	1	178,902,042	OpenSea		0.575	0.005	0.565	0.607
cg26110834	orange	1	213,500,126	OpenSea		0.574	0.006	0.579	0.460
cg10884544	orange	12	104,302,786 Body	OpenSea	LOC253724	0.573	0.005	0.100	0.488
cg07870879	orange	7	1,365,868	S_Shelf		0.573	0.003	0.531	0.483
cg07538039	orange	4	15,376,135 Body	OpenSea	C1QTNF7	0.573	-0.003	0.549	0.813
cg24832218	orange	17	78,832,948 Body	S_Shore	RPTOR	0.573	0.017	0.296	0.056
cg20142213	orange	8	17,767,511	OpenSea		0.573	0.008	0.423	0.369
cg02716826	orange	9	33,447,032 Body	N_Shore	SUGT1P1	0.571	-0.006	0.424	0.376
cg26900934	orange	10	77,191,098	Island		0.570	-0.001	0.035	0.412
cg08319291	orange	7	140,251,789 Body	OpenSea	DENND2A	0.570	0.002	0.455	0.766
cg15405084	orange	4	187,864,009	OpenSea		0.569	0.017	0.638	0.040
cg06050964	orange	8	98,160,907	OpenSea		0.568	-0.004	0.506	0.718
cg03357952	orange	4	1,027,974	Island		0.567	0.000	0.367	0.957
cg06929449	orange	16	199,414	OpenSea		0.566	-0.011	0.060	0.064
cg03024301	orange	6	52,440,589 Body	N_Shore	TRAM2	0.566	-0.009	0.297	0.297
cg24046864	orange	14	54,427,219	N_Shelf		0.566	0.011	0.606	0.309
cg05741490	orange	11	110,300,161 TSS1500	N_Shore	FDX1	0.565	-0.015	0.330	0.181
cg23662138	orange	21	46,495,607 5'UTR	S_Shore	ADARB1	0.565	-0.009	0.136	0.334
cg03916225	orange	1	111,768,837 TSS1500	OpenSea	CHI3L2	0.565	0.002	0.061	0.816
cg04352977	orange	16	74,069,885	OpenSea		0.564	-0.006	0.098	0.452
cg13499717	orange	3	157,307,519 Body	OpenSea	C3orf55	0.564	0.000	0.462	0.992
cg19782190	orange	14	103,487,004 Body	OpenSea	CDC42BPB	0.563	-0.005	0.470	0.413
cg24464265	orange	4	809,452 Body	N_Shelf	CPLX1	0.562	0.000	0.022	0.998
cg00840270	orange	16	1,231,464 Body	S_Shore	CACNA1H	0.561	-0.007	0.220	0.296
cg12595667	orange	2	136,872,094 3'UTR	N_Shore	CXCR4	0.559	0.014	0.418	0.365
cg04262428	orange	11	70,673,256 Body	S_Shore	SHANK2	0.558	0.002	0.098	0.856
cg13567360	orange	9	123,745,713 Body	OpenSea	C5	0.557	-0.012	0.726	0.258
cg08472727	orange	13	24,847,935 Body	OpenSea	SPATA13	0.557	-0.007	0.741	0.405
cg19865727	orange	14	52,827,805	OpenSea		0.556	-0.003	0.409	0.761
cg05376617	orange	2	237,145,141 Body	N_Shore	ASB18	0.556	0.008	0.053	0.106
cg10373891	orange	13	52,338,758	OpenSea		0.555	-0.002	0.090	0.707
cg23696886	orange	8	22,437,193 TSS1500	S_Shore	PDLIM2	0.555	0.006	0.151	0.369
cg07685034	orange	21	47,269,627 TSS1500	OpenSea	PCBP3	0.554	0.000	0.393	0.986
cg24995503	orange	14	103,046,300	OpenSea		0.554	0.002	0.515	0.769
cg06509837	orange	19	610,955 Body	N_Shore	HCN2	0.553	0.016	0.145	0.276
cg03384440	orange	3	523,375	OpenSea		0.552	0.007	0.079	0.471
cg18015393	orange	8	13,574,698	OpenSea		0.552	-0.004	0.255	0.457
cg05576949	orange	3	185,540,331 Body	N_Shore	IGF2BP2	0.549	0.003	0.082	0.607
cg12054453	orange	17	57,915,717 Body	OpenSea	TMEM49	0.548	0.006	0.041	0.209
cg14356225	orange	8	2,383,594	OpenSea		0.548	0.002	0.426	0.870
cg01782798	orange	16	70,680,365 TSS200	OpenSea	IL34	0.547	-0.013	0.314	0.070
cg11422551	orange	1	183,812,856 Body	OpenSea	RGL1	0.546	0.001	0.267	0.917
cg05662664	orange	2	241,110,281	OpenSea		0.546	0.001	0.492	0.926
cg07703530	orange	8	81,422,474 Body	OpenSea	ZBTB10	0.546	0.000	0.267	0.987
cg04461802	orange	6	142,623,433 5'UTR	Island	GPR126	0.545	-0.002	0.043	0.406
cg00582524	orange	16	51,184,392 Body	Island	SALL1	0.545	0.000	0.017	0.891
cg14522718	orange	9	130,868,874 Body	OpenSea	SLC25A25	0.544	0.001	0.880	0.830
cg22488750	orange	1	22,678,029	OpenSea		0.544	-0.006	0.062	0.229

cg04623440	orange	8	35,401,742	Body	OpenSea	UNC5D	0.542	-0.002	0.265	0.835
cg19833103	orange	13	47,126,551	TSS1500	N_Shore	LRCH1	0.541	0.006	0.234	0.524
cg14477584	orange	15	90,293,274	3'UTR	Island	MESP1	0.541	-0.003	0.029	0.161
cg15867963	orange	4	139,143,309	Body	OpenSea	SLC7A11	0.540	-0.008	0.322	0.359
cg11097675	orange	5	175,612,438		OpenSea		0.540	0.007	0.357	0.425
cg12151545	orange	11	47,373,000	Body	N_Shelf	MYBPC3	0.540	0.011	0.510	0.104
cg25042258	orange	7	148,427,662	Body	OpenSea	CUL1	0.539	0.000	0.263	0.981
cg21642245	orange	3	195,623,347	TSS1500	S_Shore	TNK2	0.537	-0.006	0.156	0.611
cg23322114	orange	7	1,426,612		S_Shelf		0.536	0.005	0.361	0.497
cg27476248	orange	12	111,515,109	Body	OpenSea	CUX2	0.535	0.010	0.241	0.396
cg07358855	orange	8	99,960,843	5'UTR	Island	OSR2	0.535	-0.004	0.043	0.230
cg21691753	orange	13	114,321,595	TSS200	OpenSea	GRK1	0.532	0.012	0.479	0.075
cg25701164	orange	15	101,460,502	5'UTR	S_Shore	LRRK1	0.532	0.012	0.213	0.252
cg21015805	orange	17	73,080,225		N_Shelf		0.531	0.001	0.255	0.907
cg14527110	orange	5	131,561,292	5'UTR	N_Shore	P4HA2	0.531	0.001	0.314	0.847
cg22828884	orange	3	71,217,277	Body	OpenSea	FOXP1	0.531	0.027	0.401	0.102
cg10724791	orange	4	140,586,921	1stExon	OpenSea	MGST2	0.530	0.000	0.025	0.913
cg04246113	orange	1	120,316,152		OpenSea		0.530	-0.017	0.650	0.224
cg00767581	orange	2	177,015,125	TSS1500	Island	HOXD4	0.530	-0.003	0.168	0.673
cg04306507	orange	14	55,594,613	TSS1500	N_Shore	LGALS3	0.529	0.044	0.352	0.015
cg13604592	orange	21	45,393,592	Body	Island	AGPAT3	0.526	-0.010	0.665	0.323
cg27257137	orange	2	19,563,334		S_Shore		0.523	0.000	0.035	0.995
cg05028555	orange	10	110,741,628		OpenSea		0.523	-0.006	0.206	0.628
cg14679230	orange	19	42,931,679	TSS200	S_Shelf	LIPE	0.522	0.005	0.551	0.591
cg24250669	orange	11	133,402,589	TSS200	OpenSea	OPCML	0.522	0.004	0.137	0.492
cg09825309	orange	12	124,990,897	5'UTR	OpenSea	NCOR2	0.522	0.001	0.035	0.529
cg22095263	orange	17	41,545,935		OpenSea		0.521	-0.005	0.358	0.622
cg11750300	orange	15	68,503,423	Body	OpenSea	CLN6	0.521	-0.003	0.092	0.538
cg25407528	orange	2	54,860,603	Body	OpenSea	SPTBN1	0.521	0.002	0.454	0.749
cg21743307	orange	3	54,159,139	Body	S_Shelf	CACNA2D3	0.521	0.004	0.367	0.819
cg13609089	orange	6	10,610,691	Body	OpenSea	GCNT2	0.521	0.001	0.485	0.910
cg10964388	orange	12	96,069,024	Body	OpenSea	NTN4	0.518	0.016	0.463	0.264
cg14665523	orange	10	89,421,684	Body	S_Shore	PAPSS2	0.518	0.011	0.571	0.400
cg22947094	orange	1	16,170,630	Body	N_Shelf	FLJ37453	0.518	0.014	0.446	0.330
cg18278694	orange	1	179,945,973	5'UTR	OpenSea	CEP350	0.517	-0.004	0.496	0.700
cg18433009	orange	10	72,013,286		N_Shore		0.517	-0.002	0.208	0.866
cg02675859	orange	17	76,227,227	TSS200	N_Shore	LOC283999	0.516	0.004	0.197	0.483
cg25597623	orange	3	50,306,456	5'UTR	N_Shelf	SEMA3B	0.515	0.007	0.294	0.342
cg13804476	orange	13	113,976,694	Body	S_Shore	LAMP1	0.514	-0.004	0.460	0.623
cg11915901	orange	10	31,074,432		Island		0.514	0.001	0.064	0.723
cg00494683	orange	2	149,868,126	Body	S_Shore	KIF5C	0.514	-0.003	0.851	0.704
cg16874930	orange	19	5,889,808		N_Shelf		0.514	-0.008	0.235	0.251
cg01522820	orange	1	182,694,922		OpenSea		0.514	-0.006	0.591	0.646
cg14257519	orange	4	141,797,676	Body	OpenSea	RNF150	0.513	0.006	0.745	0.739
cg15232240	orange	6	90,143,704	5'UTR	S_Shore	ANKRD6	0.512	0.000	0.053	0.924
cg16625770	orange	8	38,300,134	Body	OpenSea	FGFR1	0.511	0.000	0.011	0.926
cg07628084	orange	6	112,576,119	TSS1500	S_Shore	LAMA4	0.511	-0.004	0.130	0.659
cg07214715	orange	2	86,114,883	Body	N_Shore	ST3GALS5	0.510	0.001	0.047	0.620
cg20267101	orange	3	113,006,232	3'UTR	OpenSea	BOC	0.510	0.003	0.235	0.728
cg24848452	orange	8	37,015,311		OpenSea		0.509	-0.014	0.423	0.163
cg06590074	orange	20	691,211		S_Shore		0.508	0.005	0.252	0.426
cg16319860	orange	5	148,766,974		OpenSea		0.506	-0.008	0.380	0.294
cg22631616	orange	4	141,575,212	Body	OpenSea	TBC1D9	0.506	0.022	0.379	0.248
cg16872841	orange	13	110,993,558	Body	OpenSea	COL4A2	0.506	-0.009	0.437	0.313
cg08861493	orange	11	119,189,289	TSS1500	S_Shore	MCAM	0.506	0.003	0.327	0.631
cg10485752	orange	1	26,021,655	Body	OpenSea	MAN1C1	0.505	-0.004	0.212	0.749
cg06429887	orange	14	24,600,500	TSS200	N_Shore	FITM1	0.504	-0.006	0.438	0.576
cg19788308	orange	3	32,443,454	Body	Island	CMTM7	0.504	-0.002	0.061	0.651
cg03760759	orange	1	156,549,533	5'UTR	OpenSea	TTC24	0.504	0.010	0.708	0.241
cg00588614	orange	10	43,932,900	Body	S_Shore	ZNF487	0.504	-0.001	0.130	0.792
cg16398133	orange	2	26,947,234	Body	N_Shelf	KCNK3	0.503	-0.005	0.456	0.628
cg26118221	orange	4	8,262,589		OpenSea		0.502	-0.001	0.046	0.857
cg18880897	orange	5	96,211,810	5'UTR	OpenSea	ERAP2	0.502	0.001	0.206	0.966
cg02293044	orange	22	29,703,543	5'UTR	Island	GAS2L1	0.502	-0.004	0.269	0.617
cg22247748	orange	2	134,326,204	TSS200	OpenSea	NCKAP5	0.501	0.016	0.354	0.147
cg15097489	orange	19	42,448,675		S_Shelf		0.500	0.002	0.269	0.811
cg12033014	orange	5	176,514,432	5'UTR	Island	FGFR4	0.500	0.001	0.087	0.826

cg14711997	orange	7	150,652,864	5'UTR	Island	KCNH2	0.496	-0.008	0.091	0.332
cg23013864	orange	6	17,393,396	TSS1500	OpenSea	CAP2	0.496	-0.008	0.142	0.314
cg11824564	orange	17	80,970,825	Body	S_Shore	B3GNTL1	0.494	-0.007	0.391	0.576
cg15929771	orange	1	12,466,185	Body	OpenSea	VPS13D	0.494	-0.004	0.103	0.514
cg10767665	orange	19	44,279,027	Body	S_Shore	KCNN4	0.494	0.000	0.093	0.942
cg13424940	orange	9	136,844,397	Body	N_Shore	VAV2	0.493	-0.008	0.225	0.412
cg02170478	orange	4	55,100,995	5'UTR	S_Shore	PDGFRA	0.493	0.000	0.365	0.959
cg00333843	orange	16	79,627,884	3'UTR	S_Shelf	MAF	0.492	0.003	0.457	0.831
cg05009172	orange	14	105,012,513		OpenSea		0.492	0.012	0.149	0.219
cg19411734	orange	1	13,877,579		N_Shelf		0.491	-0.011	0.522	0.349
cg04654489	orange	16	17,165,002		OpenSea		0.490	0.000	0.054	0.946
cg16477774	orange	11	65,325,249	1stExon	Island	LTBP3	0.490	-0.002	0.045	0.594
cg06353259	orange	16	88,937,797		S_Shore		0.487	-0.010	0.141	0.405
cg24559983	orange	21	38,592,988		Island		0.487	-0.006	0.053	0.325
cg12750103	orange	1	2,559,320	Body	N_Shore	MMEL1	0.487	-0.005	0.193	0.585
cg09550909	orange	3	36,949,957	Body	OpenSea	TRANK1	0.487	-0.001	0.307	0.897
cg09041527	orange	8	11,659,497	TSS1500	N_Shore	FDFT1	0.486	-0.005	0.137	0.251
cg04698114	orange	16	51,184,379	Body	Island	SALL1	0.485	0.000	0.017	0.820
cg26588194	orange	5	149,379,518	TSS1500	N_Shore	HMGXB3	0.484	0.003	0.207	0.801
cg06553058	orange	12	117,036,929		OpenSea		0.482	0.013	0.421	0.219
cg06818159	orange	4	16,628,713	Body	OpenSea	LDB2	0.481	-0.007	0.429	0.371
cg01796225	orange	11	89,954,258	Body	N_Shore	CHORDC1	0.481	-0.015	0.446	0.307
cg06683510	orange	15	47,618,795		OpenSea		0.481	0.014	0.259	0.022
cg25943118	orange	11	121,260,362		OpenSea		0.481	0.011	0.237	0.089
cg18358020	orange	5	170,744,407		S_Shore		0.479	0.002	0.061	0.790
cg12735333	orange	15	68,350,548	Body	S_Shelf	PIAS1	0.478	-0.005	0.359	0.473
cg05303690	orange	8	32,284,962	Body	OpenSea	NRG1	0.477	-0.010	0.597	0.351
cg26984593	orange	10	14,051,636	Body	OpenSea	FRMD4A	0.477	-0.007	0.190	0.731
cg12714665	orange	11	15,739,896		OpenSea		0.476	0.003	0.508	0.648
cg11879354	orange	6	159,075,773	5'UTR	OpenSea	SYTL3	0.476	0.001	0.182	0.848
cg23870168	orange	2	240,121,206	Body	OpenSea	HDAC4	0.474	-0.006	0.350	0.611
cg05666036	orange	6	101,848,236	Body	N_Shore	GRIK2	0.473	0.017	0.190	0.212
cg25287268	orange	13	50,694,004	Body	N_Shelf	DLEU2	0.473	-0.006	0.043	0.282
cg09864050	orange	7	19,150,174		N_Shore		0.472	-0.014	0.315	0.457
cg26996569	orange	12	121,829,743		OpenSea		0.472	0.015	0.507	0.194
cg08734931	orange	10	14,051,649	Body	OpenSea	FRMD4A	0.471	-0.003	0.118	0.842
cg25683810	orange	2	204,547,817		OpenSea		0.470	0.010	0.561	0.555
cg21164765	orange	8	104,310,843	TSS1500	Island	FZD6	0.468	0.000	0.023	0.967
cg20019720	orange	6	154,832,845	TSS1500	S_Shore	CNKSR3	0.467	0.005	0.070	0.360
cg03521113	orange	12	25,204,672	TSS1500	OpenSea	LRMP	0.467	-0.006	0.206	0.421
cg15920561	orange	14	73,083,724		OpenSea		0.467	0.008	0.481	0.435
cg16676037	orange	10	7,459,103		S_Shelf		0.465	0.003	0.090	0.651
cg10143603	orange	16	51,200,128		OpenSea		0.465	-0.005	0.336	0.413
cg05527337	orange	6	168,841,257	TSS1500	N_Shore	SMOC2	0.465	0.001	0.153	0.864
cg25332265	orange	18	77,194,663	Body	N_Shore	NFATC1	0.464	0.000	0.746	0.997
cg12083893	orange	10	91,111,929		OpenSea		0.464	0.002	0.197	0.819
cg06470424	orange	19	1,968,456	5'UTR	N_Shore	CSNK1G2	0.464	-0.001	0.263	0.932
cg23507131	orange	1	159,174,156	TSS1500	OpenSea	DARC	0.463	-0.010	0.345	0.170
cg27004669	orange	22	28,010,598		Island		0.463	0.007	0.067	0.351
cg24237862	orange	7	37,026,842	Body	OpenSea	ELMO1	0.462	-0.002	0.026	0.176
cg07026636	orange	14	103,691,799		OpenSea		0.462	0.014	0.296	0.025
cg02613108	orange	10	56,561,134	TSS200	OpenSea	PCDH15	0.461	0.007	0.077	0.247
cg13432391	orange	19	10,828,930	1stExon	Island	DNM2	0.461	-0.006	0.055	0.172
cg03582419	orange	4	177,804,777		OpenSea		0.460	-0.057	0.535	0.196
cg27641240	orange	5	131,786,388	Body	OpenSea	C5orf56	0.460	0.003	0.587	0.839
cg17969123	orange	19	18,745,971		OpenSea		0.459	0.000	0.144	0.994
cg02939879	orange	11	68,762,243		OpenSea		0.459	0.003	0.315	0.768
cg13770399	orange	6	64,281,639	TSS1500	N_Shore	PTP4A1	0.458	0.006	0.106	0.470
cg25622896	orange	11	75,920,233		Island		0.457	0.000	0.025	0.934
cg06751920	orange	1	12,704,007	TSS1500	OpenSea	AADA4L4	0.457	0.006	0.668	0.508
cg23316807	orange	19	56,628,171	5'UTR	N_Shelf	ZNF787	0.456	-0.004	0.957	0.150
cg05950212	orange	1	149,860,711	TSS1500	S_Shore	HIST2H2AB	0.456	0.017	0.165	0.054
cg08763617	orange	6	138,183,963		N_Shelf		0.455	0.015	0.187	0.096
cg16758809	orange	12	43,151,825		OpenSea		0.455	-0.004	0.484	0.690
cg16105461	orange	11	61,485,853	5'UTR	N_Shelf	DAGLA	0.454	-0.005	0.177	0.573
cg07981588	orange	8	101,965,659	TSS1500	S_Shore	YWHAZ	0.452	-0.001	0.044	0.722
cg08804207	orange	17	20,812,157		Island		0.452	0.000	0.042	0.922

cg12120292	orange	17	3,867,227	Body	Island	ATP2A3	0.450	-0.002	0.030	0.453
cg26867765	orange	3	128,448,775	5'UTR	S_Shelf	RAB7A	0.450	-0.009	0.271	0.382
cg01700683	orange	15	63,510,942	Body	OpenSea	RAB8B	0.449	-0.009	0.481	0.438
cg19251564	orange	6	166,418,922		N_Shelf		0.447	0.006	0.101	0.421
cg04085585	orange	7	77,648,378	3'UTR	N_Shore	MAGI2	0.447	-0.001	0.024	0.572
cg16425829	orange	12	119,632,544	3'UTR	OpenSea	HSPB8	0.444	-0.001	0.691	0.962
cg24617008	orange	8	141,468,762	TSS1500	S_Shore	TRAPPC9	0.443	0.023	0.432	0.011
cg19601035	orange	12	48,399,140	TSS1500	N_Shore	COL2A1	0.442	-0.002	0.106	0.814
cg05922210	orange	4	155,253,864	Body	N_Shore	DCHS2	0.439	0.013	0.249	0.191
cg15781363	orange	22	18,484,586	5'UTR	S_Shore	MICAL3	0.439	0.000	0.025	0.823
cg09206294	orange	15	42,072,687	Body	OpenSea	MAPKBP1	0.439	0.011	0.151	0.138
cg20318662	orange	2	47,452	TSS1500	S_Shore	FAM110C	0.438	0.000	0.081	0.952
cg18697636	orange	5	524,503	5'UTR	Island	SLC9A3	0.438	-0.002	0.016	0.221
cg27002303	orange	10	93,335,196	Body	OpenSea	LOC1001889.	0.437	0.004	0.460	0.814
cg04006303	orange	17	61,934,523	Body	OpenSea	TCAM1	0.436	-0.003	0.327	0.718
cg26924392	orange	17	75,238,749		OpenSea		0.435	-0.006	0.271	0.721
cg04255044	orange	16	87,415,168	Body	N_Shore	FBXO31	0.435	-0.007	0.514	0.502
cg21172011	orange	21	36,577,638		OpenSea		0.434	-0.008	0.060	0.172
cg26009801	orange	19	18,338,153	TSS1500	S_Shore	PDE4C	0.434	0.003	0.447	0.792
cg26999423	orange	17	10,017,891	Body	OpenSea	GAS7	0.434	-0.010	0.159	0.453
cg08698010	orange	3	58,319,343	Body	S_Shore	PXK	0.432	0.001	0.040	0.950
cg00616687	orange	21	38,072,186	1stExon	Island	SIM2	0.431	-0.007	0.026	0.213
cg09514561	orange	6	32,373,620	Body	OpenSea	BTNL2	0.429	0.006	0.134	0.787
cg07714276	orange	6	7,169,632	5'UTR	OpenSea	RREB1	0.429	-0.009	0.330	0.099
cg25215047	orange	13	51,733,079		OpenSea		0.429	-0.011	0.634	0.459
cg16855845	orange	19	12,991,665	Body	N_Shore	DNASE2	0.428	0.002	0.037	0.687
cg00459617	orange	19	8,111,382		N_Shelf		0.427	-0.001	0.407	0.864
cg10038907	orange	14	50,154,240	Body	N_Shore	POLE2	0.427	-0.002	0.036	0.494
cg25590826	orange	15	74,557,537	Body	OpenSea	CCDC33	0.427	0.001	0.027	0.570
cg05986933	orange	2	43,020,457	TSS1500	Island	HAAO	0.426	0.000	0.018	0.734
cg00413352	orange	1	2,847,213		Island		0.425	0.009	0.735	0.452
cg02364610	orange	11	46,317,036	Body	Island	CREB3L1	0.423	-0.001	0.023	0.244
cg08333463	orange	5	171,534,792	Body	OpenSea	STK10	0.422	-0.008	0.414	0.467
cg02341645	orange	17	71,756,141	Body	OpenSea	C17orf54	0.421	0.017	0.260	0.413
cg20002354	orange	1	32,757,402	TSS1500	N_Shore	HDAC1	0.420	0.000	0.017	0.700
cg07863022	orange	17	75,315,108	5'UTR	OpenSea	9-Sep	0.418	-0.004	0.526	0.730
cg24343823	orange	10	133,048,362	Body	OpenSea	TCERG1L	0.418	0.005	0.175	0.500
cg21796547	orange	14	73,705,457	5'UTR	N_Shore	PAPLN	0.417	-0.002	0.064	0.653
cg27243140	orange	17	72,931,664	TSS1500	N_Shore	OTOP3	0.417	-0.001	0.018	0.298
cg22171829	orange	7	95,225,520	1stExon	Island	PDK4	0.415	-0.002	0.029	0.301
cg12870876	orange	2	203,736,356	5'UTR	Island	ICA1L	0.414	0.001	0.031	0.861
cg02643782	orange	3	14,853,225		S_Shore		0.413	-0.006	0.127	0.389
cg18104012	orange	3	62,358,241	Body	Island	FEZF2	0.412	0.001	0.025	0.552
cg14204791	orange	21	44,394,797	5'UTR	Island	PKNOX1	0.410	-0.001	0.074	0.836
cg12584826	orange	3	73,672,398	Body	N_Shore	PDZRN3	0.410	0.009	0.531	0.316
cg17061505	orange	11	1,594,896	Body	N_Shore	HCCA2	0.408	0.000	0.022	0.663
cg14129397	orange	17	78,451,961		Island		0.408	0.000	0.027	0.915
cg20569825	orange	9	94,124,060	1stExon	Island	AUH	0.408	-0.001	0.043	0.643
cg26687406	orange	6	169,717,976		OpenSea		0.407	-0.007	0.503	0.330
cg03889507	orange	5	33,309,433		OpenSea		0.407	-0.002	0.202	0.923
cg09668400	orange	13	26,625,325	TSS200	Island	SHISA2	0.407	0.000	0.022	0.682
cg03217729	orange	16	11,222,890	Body	OpenSea	CLEC16A	0.406	0.000	0.150	0.957
cg16957523	orange	4	11,431,359	TSS1500	S_Shore	HS3ST1	0.405	-0.004	0.075	0.510
cg16634544	orange	3	117,520,653		OpenSea		0.404	0.007	0.333	0.483
cg03646329	orange	13	48,987,165	5'UTR	OpenSea	LPAR6	0.400	-0.014	0.118	0.212
cg13094391	orange	3	47,866,881	Body	Island	DHX30	0.396	-0.001	0.033	0.590
cg08961196	orange	8	8,749,494	1stExon	Island	MFHAS1	0.396	0.001	0.361	0.950
cg14663965	orange	6	108,495,385	Body	N_Shore	NR2E1	0.394	-0.007	0.158	0.478
cg11541897	orange	5	78,281,793	TSS200	S_Shore	ARSB	0.393	-0.015	0.345	0.635
cg02484850	orange	22	36,783,942	5'UTR	Island	MYH9	0.392	-0.004	0.032	0.267
cg05357861	orange	7	51,460,827		S_Shelf		0.390	0.007	0.723	0.350
cg23995143	orange	10	30,791,343		OpenSea		0.390	0.002	0.050	0.486
cg01470356	orange	4	41,746,614	3'UTR	N_Shore	PHOX2B	0.388	0.005	0.371	0.735
cg23973115	orange	10	62,540,149	Body	S_Shore	CDK1	0.387	-0.040	0.426	0.071
cg20165416	orange	10	89,264,080	TSS200	N_Shore	MINPP1	0.386	-0.004	0.061	0.489
cg09750643	orange	11	1,718,086	Body	S_Shelf	HCCA2	0.386	0.004	0.671	0.725
cg02690519	orange	19	9,964,420	3'UTR	N_Shore	OLFM2	0.385	0.003	0.592	0.716

cg05215310	orange	19	4,790,990	TSS1500	N_Shore	FEM1A	0.385	0.015	0.599	0.283
cg04729594	orange	2	33,172,444	1stExon	Island	LTBP1	0.382	-0.007	0.034	0.013
cg04398978	orange	17	77,814,064	TSS1500	Island	CBX4	0.382	-0.002	0.068	0.750
cg13860849	orange	11	66,084,469	1stExon	Island	CD248	0.381	-0.003	0.066	0.541
cg12439977	orange	5	172,759,099		S_Shelf		0.380	-0.003	0.087	0.652
cg23111970	orange	8	145,754,589	3'UTR	Island	KIAA1688	0.379	-0.002	0.024	0.512
cg14793287	orange	12	48,578,573	3'UTR	Island	C12orf68	0.378	0.007	0.060	0.037
cg17661928	orange	14	74,725,362	Body	Island	VSX2	0.376	-0.010	0.064	0.128
cg10820736	orange	17	80,970,892	Body	S_Shore	B3GNTL1	0.376	0.010	0.279	0.449
cg04179571	orange	14	68,444,789	Body	OpenSea	RAD51L1	0.375	-0.009	0.386	0.432
cg24513387	orange	8	1,273,604		OpenSea		0.374	-0.016	0.183	0.235
cg13716829	orange	9	140,196,785	TSS200	Island	NRARP	0.372	0.000	0.038	0.944
cg12411068	orange	19	11,072,235	5'UTR	Island	SMARCA4	0.372	-0.001	0.020	0.648
cg12311346	orange	5	56,204,834	TSS1500	N_Shore	C5orf35	0.371	-0.003	0.068	0.847
cg26348902	orange	4	1,399,938		Island		0.370	0.000	0.047	0.947
cg00907402	orange	1	27,560,845	TSS200	Island	WDTC1	0.370	0.000	0.016	0.902
cg13779777	orange	17	79,435,897		OpenSea		0.367	0.010	0.505	0.380
cg21158317	orange	17	19,314,299	TSS200	OpenSea	RNF112	0.366	-0.005	0.144	0.499
cg00647317	orange	7	50,633,725	TSS1500	OpenSea	DDC	0.366	0.006	0.228	0.667
cg13783238	orange	3	160,121,821	Body	S_Shelf	SMC4	0.364	-0.007	0.699	0.513
cg05784532	orange	1	230,284,198	Body	OpenSea	GALNT2	0.363	-0.006	0.572	0.437
cg24889058	orange	7	136,610,019	5'UTR	OpenSea	CHRM2	0.362	0.003	0.298	0.679
cg20985587	orange	17	27,943,450	Body	Island	CORO6	0.362	0.020	0.264	0.045
cg21001008	orange	6	31,368,503		S_Shore		0.361	-0.001	0.047	0.736
cg00737264	orange	6	169,049,498	Body	OpenSea	SMOC2	0.361	-0.009	0.102	0.286
cg09348948	orange	6	75,911,783	Body	Island	COL12A1	0.360	-0.015	0.122	0.065
cg15978561	orange	2	240,196,996	Body	Island	HDAC4	0.360	-0.008	0.281	0.537
cg03807316	orange	19	39,998,290	Body	Island	DLL3	0.359	0.021	0.363	0.343
cg02011723	orange	19	12,831,888	5'UTR	Island	TNPO2	0.357	-0.003	0.131	0.902
cg27326431	orange	15	89,010,500	TSS200	Island	MRPS11	0.357	0.000	0.021	0.548
cg09180977	orange	1	22,453,144	Body	N_Shelf	WNT4	0.355	0.014	0.702	0.052
cg13132577	orange	1	60,392,140	Body	N_Shore	CYP2J2	0.354	-0.001	0.040	0.850
cg19077854	orange	5	122,220,652	Body	OpenSea	SNX24	0.353	0.001	0.492	0.932
cg25122395	orange	18	49,866,002	TSS1500	N_Shelf	DCC	0.353	-0.001	0.066	0.908
cg03752965	orange	8	35,580,432	Body	OpenSea	UNC5D	0.352	0.001	0.563	0.946
cg01719260	orange	1	27,702,692	TSS1500	OpenSea	FCN3	0.350	-0.007	0.662	0.317
cg24368031	orange	17	60,726,097	Body	N_Shelf	MRC2	0.350	0.000	0.036	0.881
cg08577727	orange	19	13,876,570	Body	S_Shore	MRI1	0.348	0.000	0.344	0.967
cg14727438	orange	20	2,854,131	TSS200	Island	PTPRA	0.343	0.000	0.020	0.643
cg13334727	orange	5	132,113,601	TSS200	Island	8-Sep	0.342	-0.003	0.060	0.560
cg16653408	orange	22	42,313,569		N_Shore		0.342	0.002	0.417	0.760
cg22591040	orange	3	58,106,772	Body	N_Shelf	FLNB	0.342	0.006	0.721	0.529
cg14130664	orange	9	86,151,893	Body	N_Shore	FRMD3	0.340	0.002	0.040	0.610
cg01427575	orange	19	51,171,712	Body	Island	SHANK1	0.340	-0.001	0.022	0.585
cg16280683	orange	5	61,708,653	1stExon	Island	IPO11	0.337	0.001	0.031	0.720
cg10006515	orange	19	34,895,882	Body	S_Shore	PDCD2L	0.336	0.000	0.151	0.960
cg16375048	orange	4	157,883,937	Body	OpenSea	PDGFC	0.334	-0.002	0.282	0.853
cg19391498	orange	2	38,892,846	TSS1500	OpenSea	GALM	0.334	-0.013	0.211	0.152
cg24508974	orange	10	103,330,391		S_Shore		0.333	-0.003	0.101	0.604
cg23495556	orange	7	44,836,196	TSS200	Island	PPIA	0.331	-0.005	0.046	0.390
cg03430348	orange	19	6,502,101	Body	Island	TUBB4	0.330	-0.004	0.041	0.108
cg23893460	orange	15	72,492,422	Body	S_Shelf	PKM2	0.327	0.008	0.770	0.178
cg16432009	orange	22	37,955,936	TSS1500	N_Shore	CDC42EP1	0.327	-0.007	0.486	0.461
cg25582401	orange	12	58,133,411	TSS1500	S_Shore	AGAP2	0.326	0.011	0.299	0.116
cg02635314	orange	3	47,620,448	TSS200	Island	CSPG5	0.325	-0.001	0.022	0.699
cg07560408	orange	20	2,444,631	TSS1500	OpenSea	SNORD119	0.325	0.008	0.927	0.119
cg04379055	orange	17	77,173,076	5'UTR	OpenSea	HRNBP3	0.325	-0.018	0.477	0.018
cg25736002	orange	4	57,773,436	TSS1500	N_Shore	REST	0.324	-0.008	0.031	0.029
cg23224090	orange	17	80,190,033	TSS200	S_Shore	SLC16A3	0.323	0.000	0.041	0.967
cg14904647	orange	10	44,864,378		OpenSea		0.322	-0.002	0.540	0.915
cg17381632	orange	17	8,279,794		Island		0.320	-0.001	0.043	0.686
cg00683984	orange	7	45,615,337	Body	Island	ADCY1	0.320	0.007	0.064	0.051
cg02841844	orange	10	45,455,421	5'UTR	Island	RASSF4	0.318	0.001	0.060	0.834
cg08551532	orange	19	39,998,270	Body	Island	DLL3	0.317	0.022	0.333	0.371
cg00078861	orange	5	154,429,562		OpenSea		0.316	0.009	0.142	0.347
cg18914023	orange	14	74,868,443		OpenSea		0.316	-0.003	0.058	0.506
cg25673274	orange	7	39,989,860	TSS200	Island	CDK13	0.316	0.000	0.016	0.486

cg19168631	orange	14	59,655,243	TSS200	Island	DAAM1	0.316	0.001	0.015	0.384
cg22512322	orange	3	64,009,096	5'UTR	Island	PSMD6	0.314	0.000	0.045	0.957
cg23502204	orange	11	87,905,295	Body	N_Shelf	RAB38	0.313	-0.005	0.638	0.634
cg21771250	orange	22	40,406,049	Body	OpenSea	FAM83F	0.313	0.004	0.318	0.815
cg13263591	orange	8	102,142,199		S_Shelf		0.313	0.006	0.655	0.631
cg06148736	orange	22	18,985,691		Island		0.311	0.001	0.114	0.954
cg03261800	orange	9	36,985,761	Body	N_Shore	PAX5	0.310	0.000	0.051	0.974
cg21016266	orange	12	122,356,598	1stExon	Island	WDR66	0.308	-0.042	0.098	0.154
cg03356778	orange	11	120,110,544	TSS1500	Island	POU2F3	0.308	-0.002	0.049	0.638
cg22829325	orange	8	144,120,484	TSS200	OpenSea	C8orf31	0.293	0.009	0.032	0.054
cg15022387	orange	19	50,096,791	Body	Island	PRR12	0.290	-0.001	0.041	0.641
cg05231308	orange	2	27,531,163	TSS200	Island	UCN	0.287	0.013	0.197	0.078
cg20701182	orange	2	24,300,061	TSS1500	Island	SF3B14	0.267	0.001	0.073	0.821

**CpGs in the black module:**

CGs_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_CpC	Gene	MM	methylation_r	AveBeta	P.Value
cg02797569	black	7	100,200,009	1stExon	N_Shore	PCOLCE	0.922	-0.001	0.193	0.922
cg27069566	black	7	100,200,003	1stExon	N_Shore	PCOLCE	0.913	-0.002	0.336	0.804
cg08210688	black	2	63,276,723	TSS1500	Island	OTX1	0.903	-0.002	0.035	0.202
cg26055950	black	1	3,600,852	Body	OpenSea	TP73	0.898	0.003	0.038	0.248
cg02633229	black	15	40,674,878	TSS200	N_Shore	C15orf23	0.896	-0.002	0.210	0.885
cg08980461	black	9	124,413,513	Body	Island	DAB2IP	0.894	0.001	0.046	0.737
cg13231921	black	13	95,360,542		S_Shore		0.893	-0.003	0.044	0.207
cg03353926	black	2	45,165,527		Island		0.891	-0.002	0.045	0.171
cg12341365	black	6	46,816,779		OpenSea		0.888	0.000	0.037	0.849
cg05158024	black	16	85,191,946		OpenSea		0.883	-0.005	0.184	0.626
cg08089200	black	3	137,485,266		S_Shore		0.883	0.000	0.035	0.848
cg17808882	black	8	16,859,924	TSS1500	S_Shore	FGF20	0.883	0.002	0.044	0.226
cg05975410	black	5	43,020,352		S_Shore		0.881	-0.003	0.044	0.092
cg03726556	black	2	119,607,379		Island		0.880	-0.002	0.036	0.348
cg02084046	black	5	139,027,359	TSS1500	N_Shore	CXXC5	0.879	0.002	0.031	0.271
cg09408098	black	1	170,631,331		N_Shore		0.879	0.000	0.033	0.753
cg05959170	black	3	62,353,312		N_Shore		0.878	0.002	0.035	0.200
cg02771142	black	11	31,819,678	Body	N_Shore	PAX6	0.877	-0.001	0.043	0.549
cg06402330	black	7	100,199,982	1stExon	N_Shore	PCOLCE	0.877	0.001	0.407	0.961
cg05100282	black	14	99,713,430	Body	Island	BCL11B	0.877	0.002	0.171	0.829
cg25049733	black	6	1,987,269	Body	OpenSea	GMD5	0.877	-0.002	0.043	0.271
cg03978041	black	1	200,862,726	TSS1500	S_Shelf	C1orf106	0.873	0.009	0.502	0.449
cg20565980	black	5	43,019,873		S_Shore		0.869	-0.002	0.035	0.380
cg24642523	black	14	65,009,265	1stExon	S_Shore	HSPA2	0.869	0.000	0.058	0.874
cg11282156	black	3	63,428,840	5'UTR	OpenSea	SYNPR	0.868	-0.001	0.033	0.436
cg11853000	black	19	12,075,035	TSS1500	N_Shore	ZNF763	0.867	0.003	0.255	0.653
cg11491247	black	1	155,035,530	TSS1500	Island	EFNA4	0.867	0.005	0.222	0.403
cg14736905	black	1	178,693,969	TSS1500	Island	RALGPS2	0.867	-0.003	0.051	0.238
cg25433316	black	2	10,197,543	3'UTR	OpenSea	CYS1	0.866	-0.002	0.036	0.265
cg01475577	black	7	128,829,615	Body	S_Shore	SMO	0.866	0.000	0.041	0.783
cg24301690	black	3	128,712,676	5'UTR	Island	KIAA1257	0.865	-0.001	0.038	0.686
cg12268637	black	2	176,964,502	TSS200	Island	HOXD12	0.865	-0.003	0.062	0.424
cg00238349	black	3	52,187,791	Body	N_Shore	WDR51A	0.865	-0.001	0.043	0.794
cg16564940	black	17	7,117,310	Body	N_Shore	DLG4	0.864	0.000	0.041	0.999
cg15665400	black	2	133,428,652	TSS200	Island	LYPD1	0.863	0.003	0.029	0.305
cg08158862	black	1	200,012,526	Body	S_Shore	NR5A2	0.863	0.002	0.060	0.671
cg21410991	black	5	50,678,451	TSS1500	N_Shore	ISL1	0.862	0.000	0.032	0.994
cg01953658	black	15	96,904,404		N_Shore		0.862	0.003	0.119	0.694
cg10245608	black	9	92,221,282	3'UTR	Island	GADD45G	0.862	-0.003	0.104	0.630
cg09448946	black	14	90,526,697	TSS1500	Island	KCNK13	0.862	0.000	0.044	0.834
cg07875786	black	5	92,918,927	TSS200	N_Shore	NR2F1	0.862	0.000	0.023	0.936
cg02569759	black	3	10,052,551	5'UTR	Island	LOC401052	0.862	0.000	0.182	0.954
cg25829425	black	6	6,004,897	Body	Island	NRN1	0.861	0.000	0.029	0.973
cg21431041	black	2	162,272,536	TSS200	N_Shore	TBR1	0.861	-0.002	0.040	0.352
cg08196842	black	14	65,016,517	TSS200	Island	C14orf50	0.861	-0.001	0.052	0.803
cg11845417	black	11	111,789,613	1stExon	OpenSea	C11orf52	0.860	0.000	0.082	0.992
cg01061391	black	13	79,168,573		N_Shore		0.860	-0.001	0.057	0.784
cg17449088	black	5	112,537,657	Body	OpenSea	MCC	0.860	-0.005	0.075	0.295
cg25602457	black	18	49,868,101	Body	N_Shore	DCC	0.860	0.000	0.036	0.791
cg01304890	black	4	81,106,772	5'UTR	S_Shore	PRDM8	0.860	0.000	0.035	0.901
cg13477806	black	1	63,783,576		Island		0.860	-0.001	0.028	0.406

cg10899768	black	8	102,506,635	Body	S_Shore	GRHL2	0.859	0.004	0.162	0.637
cg01302656	black	14	29,254,853	Body	Island	C14orf23	0.859	0.000	0.035	0.765
cg00565348	black	6	6,003,303	Body	Island	NRN1	0.859	-0.004	0.157	0.387
cg13107768	black	1	119,542,229		N_Shore		0.859	0.000	0.044	0.892
cg05721773	black	1	207,083,336	Body	S_Shore	FAIM3	0.859	-0.001	0.148	0.737
cg09778794	black	15	76,628,385	TSS1500	N_Shore	ISL2	0.858	0.001	0.052	0.593
cg17848763	black	2	127,414,381	Body	S_Shore	GYPC	0.858	0.001	0.069	0.784
cg20755342	black	11	117,746,377	5'UTR	N_Shore	FXVD6	0.858	-0.001	0.043	0.517
cg22383874	black	17	48,670,670	Body	OpenSea	CACNA1G	0.858	0.000	0.100	0.981
cg04291025	black	15	69,746,140	Body	S_Shore	RPLP1	0.857	-0.001	0.047	0.486
cg25122511	black	11	85,522,637	TSS1500	S_Shore	SYTL2	0.857	0.000	0.042	0.916
cg16691593	black	5	76,934,634	TSS200	Island	OTP	0.857	0.000	0.027	0.997
cg24263062	black	20	2,730,191	Body	Island	EBF4	0.857	0.001	0.062	0.902
cg00441434	black	8	26,434,054	TSS1500	N_Shore	DPYSL2	0.856	0.000	0.036	0.847
cg04894705	black	1	212,606,756	Body	Island	NENF	0.856	-0.001	0.047	0.719
cg19746873	black	4	153,601,349	TSS200	OpenSea	TMEM154	0.856	0.001	0.088	0.800
cg25286536	black	1	63,792,134		S_Shore		0.855	-0.002	0.029	0.275
cg04427498	black	7	20,830,657		Island		0.855	-0.001	0.033	0.729
cg11622324	black	13	100,630,688		N_Shore		0.855	0.001	0.030	0.530
cg14454907	black	2	177,022,285		N_Shelf		0.855	0.002	0.036	0.375
cg13689044	black	7	129,424,943		N_Shore		0.855	-0.001	0.042	0.502
cg01753263	black	5	171,879,957	Body	N_Shore	SH3PXD2B	0.855	0.001	0.033	0.706
cg20367712	black	4	54,967,809	Body	Island	GSX2	0.854	-0.001	0.051	0.535
cg14174204	black	2	63,276,700	TSS1500	Island	OTX1	0.854	-0.001	0.040	0.555
cg12278705	black	1	86,045,474	TSS1500	N_Shore	CYR61	0.854	-0.005	0.110	0.434
cg23625660	black	5	135,266,516	5'UTR	Island	FBXL21	0.854	-0.001	0.042	0.489
cg13365524	black	6	100,902,093	Body	N_Shore	SIM1	0.854	0.001	0.022	0.594
cg24295381	black	8	25,902,594	TSS1500	Island	EBF2	0.854	0.001	0.038	0.555
cg03987227	black	5	139,494,540	1stExon	Island	PURA	0.854	0.000	0.029	0.897
cg08951051	black	16	4,993,543		OpenSea		0.853	-0.001	0.031	0.583
cg25843346	black	6	31,762,555	Body	N_Shore	VARS	0.853	-0.004	0.080	0.178
cg07130890	black	2	172,949,281	TSS1500	Island	DLX1	0.853	-0.002	0.050	0.276
cg26231732	black	10	100,069,542		OpenSea		0.852	-0.002	0.050	0.481
cg09592112	black	7	121,943,705	Body	N_Shore	FEZF1	0.852	0.000	0.059	0.906
cg10365984	black	6	91,004,430	5'UTR	N_Shore	BACH2	0.852	-0.007	0.112	0.393
cg20463927	black	5	76,939,501		N_Shore		0.852	-0.002	0.052	0.446
cg09643136	black	2	223,176,683		Island		0.851	-0.004	0.050	0.109
cg26499363	black	17	46,796,119		N_Shore		0.851	0.001	0.032	0.684
cg20125091	black	1	92,952,641	TSS1500	S_Shore	GF11	0.850	-0.001	0.072	0.707
cg10938702	black	5	43,039,867	1stExon	N_Shore	C5orf39	0.850	0.000	0.057	0.995
cg17839366	black	2	121,003,270		OpenSea		0.850	0.000	0.043	0.884
cg18366919	black	19	15,344,364	TSS1500	Island	EPHX3	0.850	0.002	0.062	0.723
cg21713473	black	4	155,663,311		N_Shore		0.850	0.002	0.063	0.546
cg23060456	black	2	152,956,034	TSS1500	S_Shore	CACNB4	0.850	-0.001	0.040	0.701
cg19221620	black	2	175,208,144		N_Shore		0.849	-0.001	0.045	0.685
cg01471293	black	6	33,265,322	Body	N_Shore	RGL2	0.849	-0.001	0.043	0.667
cg27599376	black	2	44,995,908	Body	OpenSea	C2orf34	0.849	0.000	0.043	0.901
cg01202265	black	4	142,053,146	Body	N_Shore	RNF150	0.849	0.001	0.036	0.648
cg20950301	black	11	12,029,738	Body	Island	DKK3	0.849	-0.003	0.039	0.143
cg26172544	black	6	100,914,141		N_Shore		0.848	0.000	0.027	0.780
cg10745499	black	6	100,906,685	Body	Island	SIM1	0.848	-0.001	0.058	0.763
cg02469838	black	16	54,404,655		OpenSea		0.847	0.000	0.033	0.957
cg24435879	black	7	155,166,205		Island		0.847	-0.001	0.041	0.640
cg04267691	black	17	9,862,752	Body	OpenSea	GAS7	0.847	0.001	0.033	0.618
cg01757312	black	13	112,720,565	TSS1500	Island	SOX1	0.847	-0.001	0.035	0.745
cg22884051	black	8	65,490,901	TSS1500	N_Shore	LOC401463	0.847	-0.003	0.047	0.264
cg14478713	black	9	16,653,688	Body	OpenSea	BNC2	0.846	-0.004	0.080	0.318
cg00506866	black	2	10,263,480	Body	Island	RRM2	0.846	-0.003	0.040	0.192
cg05944137	black	7	155,301,734	5'UTR	N_Shore	CNPY1	0.846	0.000	0.040	0.952
cg19352038	black	2	223,164,869	TSS1500	S_Shore	PAX3	0.846	0.000	0.027	0.923
cg08832414	black	3	183,993,571	Body	N_Shore	ECE2	0.845	0.000	0.040	0.842
cg13691003	black	1	75,600,399	Body	N_Shore	LHX8	0.845	0.000	0.030	0.780
cg03331300	black	2	169,102,866	Body	N_Shore	STK39	0.845	0.000	0.050	0.986
cg02161900	black	10	28,035,631	TSS1500	S_Shore	MKX	0.845	0.000	0.050	0.836
cg15270892	black	3	27,762,352	Body	Island	EOMES	0.845	-0.002	0.039	0.222
cg05110943	black	18	28,682,497	TSS200	S_Shore	DSC2	0.845	0.003	0.051	0.333
cg06359394	black	2	187,559,328	Body	S_Shore	FAM171B	0.845	0.001	0.029	0.518

cg25423573	black	10	81,158,982	Body	OpenSea	ZCCHC24	0.844	0.005	0.160	0.458
cg03527086	black	11	64,074,137	5'UTR	S_Shore	ESRRA	0.844	0.008	0.327	0.199
cg03945538	black	1	173,447,427	Body	S_Shore	PRDX6	0.843	-0.001	0.055	0.860
cg00234616	black	2	74,740,572	TSS1500	Island	TLX2	0.843	-0.001	0.031	0.290
cg07985720	black	7	79,084,127	TSS1500	S_Shore	MAGI2	0.843	0.001	0.047	0.697
cg22190705	black	2	9,346,217	TSS1500	N_Shore	ASAP2	0.842	-0.001	0.028	0.685
cg12735838	black	6	32,086,902	Body	OpenSea	ATF6B	0.842	-0.002	0.047	0.515
cg18447645	black	7	155,303,298	5'UTR	S_Shore	CNPY1	0.842	0.000	0.055	0.896
cg01923999	black	8	127,568,677	3'UTR	Island	FAM84B	0.842	-0.003	0.032	0.276
cg16429927	black	2	172,430,723		OpenSea		0.842	-0.001	0.037	0.602
cg01805282	black	6	133,563,764	5'UTR	Island	EYA4	0.842	-0.002	0.033	0.263
cg10709021	black	8	30,890,108	1stExon	OpenSea	PURG	0.842	0.000	0.030	0.988
cg16423756	black	11	122,526,190	TSS1500	N_Shore	UBASH3B	0.842	-0.001	0.055	0.674
cg01480180	black	7	90,896,329	1stExon	Island	FZD1	0.841	-0.001	0.052	0.723
cg19767477	black	5	127,420,684	Body	S_Shore	SLC12A2	0.841	-0.001	0.029	0.521
cg14652095	black	6	26,018,185	TSS200	N_Shelf	HIST1H1A	0.841	0.001	0.040	0.818
cg14187678	black	2	162,272,687	5'UTR	N_Shore	TBR1	0.841	-0.003	0.029	0.075
cg22268510	black	6	32,118,420	Body	Island	PRRT1	0.840	0.004	0.058	0.393
cg01965939	black	5	148,442,694	1stExon	OpenSea	SH3TC2	0.840	0.000	0.042	0.998
cg09999582	black	2	103,352,711	Body	N_Shore	MFS09	0.840	0.000	0.045	0.863
cg22585595	black	8	65,489,881	TSS200	N_Shore	LOC401463	0.840	0.001	0.036	0.461
cg24412895	black	8	102,115,923		OpenSea		0.840	0.001	0.121	0.821
cg08312412	black	5	141,443,781		OpenSea		0.840	0.003	0.037	0.134
cg20509092	black	5	74,162,771	TSS200	S_Shore	FAM169A	0.840	0.000	0.051	0.989
cg04448477	black	4	55,095,148	TSS200	N_Shore	PDGFRA	0.840	-0.002	0.040	0.343
cg06209689	black	1	47,696,348	TSS1500	N_Shore	TAL1	0.839	-0.005	0.052	0.130
cg18259342	black	2	219,184,859	Body	N_Shelf	PNKD	0.839	-0.002	0.049	0.559
cg22896793	black	20	3,712,795	TSS1500	N_Shore	HSPA12B	0.839	-0.006	0.486	0.475
cg00064255	black	1	90,100,012	5'UTR	S_Shore	LRRC8C	0.839	-0.002	0.073	0.771
cg02971581	black	1	10,895,950		Island		0.839	0.000	0.023	0.647
cg16592121	black	10	133,794,558	Body	Island	BNIP3	0.839	0.001	0.048	0.654
cg09517873	black	1	12,656,315	Body	S_Shore	DHRS3	0.839	-0.001	0.092	0.907
cg19332102	black	11	124,588,484		S_Shore		0.838	0.000	0.027	0.939
cg12938020	black	2	177,027,075		N_Shore		0.838	-0.001	0.038	0.781
cg02600430	black	13	100,623,942	1stExon	Island	ZIC5	0.837	0.000	0.038	0.996
cg01376826	black	3	147,129,826	Body	N_Shore	ZIC1	0.837	-0.003	0.051	0.440
cg00791905	black	1	92,950,472	5'UTR	Island	GFI1	0.837	0.001	0.058	0.713
cg00453202	black	16	85,482,380		OpenSea		0.836	-0.001	0.063	0.802
cg17584196	black	11	82,445,114	TSS1500	S_Shore	FAM181B	0.836	-0.004	0.063	0.160
cg21029045	black	4	111,551,987	Body	N_Shore	PITX2	0.836	0.000	0.023	0.736
cg14681629	black	5	43,041,808	TSS1500	N_Shore	C5orf39	0.836	-0.001	0.037	0.611
cg15496956	black	1	47,701,206		S_Shelf		0.836	-0.003	0.030	0.427
cg00303183	black	2	162,283,559		N_Shore		0.835	0.000	0.073	0.965
cg20886165	black	4	110,482,323	Body	S_Shore	CCDC109B	0.835	-0.002	0.047	0.397
cg00323501	black	22	37,464,839	Body	N_Shore	TMPRSS6	0.835	-0.005	0.041	0.016
cg24466873	black	4	174,460,053	Body	Island	NBLA00301	0.835	0.001	0.041	0.735
cg14106085	black	1	47,902,269	1stExon	N_Shore	FOXD2	0.835	0.000	0.044	0.924
cg17480077	black	1	10,895,517		N_Shore		0.835	0.004	0.159	0.583
cg02930996	black	18	29,265,842	TSS1500	S_Shore	B4GALT6	0.835	0.002	0.041	0.190
cg03086663	black	5	92,918,912	TSS200	N_Shore	NR2F1	0.834	0.001	0.025	0.387
cg00501467	black	6	13,015,202	Body	Island	PHACTR1	0.834	-0.004	0.078	0.426
cg20041088	black	1	91,192,803		Island		0.834	-0.009	0.082	0.051
cg24960291	black	3	185,538,892	Body	N_Shelf	IGF2BP2	0.834	-0.003	0.058	0.262
cg19922825	black	2	45,029,543		N_Shore		0.834	-0.001	0.037	0.478
cg24765360	black	2	119,611,101		N_Shore		0.834	-0.001	0.033	0.425
cg14726488	black	6	137,815,572	TSS200	N_Shore	OLIG3	0.834	0.002	0.048	0.324
cg27110277	black	8	16,860,121	TSS1500	S_Shore	FGF20	0.834	0.001	0.039	0.414
cg01682504	black	12	57,620,607		S_Shore		0.834	0.000	0.033	0.848
cg03148184	black	4	111,562,513		S_Shore		0.833	0.001	0.038	0.546
cg03454663	black	3	156,848,265		OpenSea		0.833	0.001	0.058	0.792
cg20996682	black	7	79,084,048	TSS1500	S_Shore	MAGI2	0.833	0.002	0.033	0.251
cg03653817	black	1	181,065,498		OpenSea		0.833	-0.002	0.049	0.491
cg20569203	black	12	120,799,911	Body	Island	MSI1	0.832	-0.001	0.024	0.323
cg08663201	black	12	4,380,729		Island		0.832	-0.002	0.051	0.417
cg02764478	black	6	100,904,316	Body	N_Shore	SIM1	0.832	-0.002	0.027	0.146
cg00055679	black	13	79,170,430		Island		0.832	0.000	0.032	0.933
cg13176012	black	2	157,176,971		Island		0.832	-0.002	0.038	0.281



cg04550823	black	1	87,617,916	Body	Island	LOC339524	0.831	0.001	0.046	0.863
cg01809941	black	5	14,581,404	TSS1500	N_Shore	FAM105A	0.831	0.001	0.038	0.730
cg00855990	black	1	18,959,354	Body	Island	PAX7	0.831	-0.001	0.044	0.671
cg15080430	black	6	70,876,494	Body	OpenSea	COL19A1	0.831	-0.002	0.066	0.713
cg06786238	black	1	33,231,190	Body	OpenSea	KIAA1522	0.831	-0.007	0.097	0.324
cg19425332	black	10	118,898,869	TSS1500	N_Shore	VAX1	0.831	0.000	0.037	0.882
cg05490659	black	7	27,212,357	Body	N_Shore	HOXA10	0.830	0.002	0.045	0.570
cg13722700	black	10	46,993,502	TSS200	S_Shore	GPRIN2	0.830	-0.011	0.078	0.061
cg26030063	black	14	42,078,342	5'UTR	S_Shelf	LRFN5	0.830	-0.001	0.047	0.839
cg00822840	black	2	172,951,828	Body	Island	DLX1	0.830	0.002	0.046	0.276
cg11128216	black	11	31,825,833	Body	Island	PAX6	0.830	-0.003	0.041	0.170
cg07010948	black	13	79,181,613		Island		0.830	-0.006	0.094	0.142
cg13695535	black	5	66,124,603	1stExon	OpenSea	MAST4	0.830	0.002	0.041	0.251
cg06811094	black	1	200,272,112		S_Shore		0.829	0.000	0.042	0.871
cg13952483	black	1	223,101,782	1stExon	OpenSea	DISP1	0.829	-0.005	0.055	0.278
cg13234062	black	11	65,668,299	TSS1500	S_Shore	FOSL1	0.829	-0.002	0.040	0.371
cg18978531	black	15	70,403,809		OpenSea		0.829	0.000	0.017	0.765
cg23971069	black	1	214,158,686		N_Shore		0.829	-0.003	0.057	0.155
cg26792080	black	2	200,324,879	5'UTR	Island	SATB2	0.829	-0.001	0.021	0.529
cg20027296	black	5	170,737,396	Body	Island	TLX3	0.829	-0.002	0.076	0.599
cg04584009	black	19	1,826,957	Body	Island	REXO1	0.829	0.001	0.256	0.939
cg24343310	black	11	57,249,947		Island		0.829	-0.001	0.053	0.761
cg10391633	black	4	111,558,464	1stExon	N_Shelf	PITX2	0.829	-0.006	0.094	0.200
cg25617328	black	5	76,939,333		N_Shelf		0.829	-0.002	0.053	0.531
cg19750643	black	11	44,795,814	5'UTR	OpenSea	TSPAN18	0.828	0.002	0.042	0.442
cg12074182	black	2	176,948,596	5'UTR	N_Shore	EVX2	0.828	0.001	0.040	0.697
cg07643096	black	6	117,802,588	TSS1500	N_Shore	DCBLD1	0.828	0.002	0.043	0.533
cg09481972	black	12	54,410,666	5'UTR	N_Shore	HOXC4	0.828	-0.002	0.033	0.397
cg12007596	black	12	6,756,678	TSS200	Island	ACRBP	0.828	-0.001	0.042	0.783
cg01021196	black	14	38,340,164		OpenSea		0.827	-0.002	0.176	0.783
cg03466326	black	1	205,270,559		OpenSea		0.827	-0.001	0.050	0.672
cg24877677	black	5	43,020,627		S_Shore		0.827	-0.001	0.030	0.297
cg14127910	black	2	105,488,326		N_Shore		0.827	0.000	0.029	0.822
cg25258843	black	8	10,587,305	Body	Island	SOX7	0.827	-0.003	0.043	0.254
cg22539420	black	2	200,329,680		Island		0.826	-0.001	0.017	0.447
cg23417875	black	2	102,313,069	TSS1500	N_Shore	MAP4K4	0.826	-0.002	0.042	0.310
cg12848808	black	15	68,125,599	Body	N_Shore	LBXCOR1	0.826	-0.001	0.042	0.765
cg04453971	black	2	127,413,505	TSS200	N_Shore	GYPE	0.826	-0.001	0.094	0.736
cg10893043	black	1	51,442,760		N_Shore		0.826	-0.001	0.066	0.792
cg23162001	black	3	50,541,407	TSS1500	S_Shore	CACNA2D2	0.826	-0.002	0.046	0.391
cg13905757	black	10	15,411,709	Body	N_Shore	FAM171A1	0.826	0.000	0.037	0.835
cg02493217	black	1	42,806,405		OpenSea		0.826	-0.003	0.056	0.449
cg21128951	black	6	40,996,213	Body	Island	UNC5CL	0.826	-0.011	0.118	0.051
cg08677535	black	9	505,721	5'UTR	Island	KANK1	0.826	-0.001	0.081	0.832
cg10675276	black	6	133,561,898	TSS1500	N_Shore	EYA4	0.826	0.000	0.041	0.896
cg13102294	black	6	32,121,393	TSS1500	N_Shore	PPT2	0.826	0.003	0.069	0.467
cg03342498	black	6	10,411,372	Body	N_Shore	TFAP2A	0.826	0.000	0.026	0.940
cg02832357	black	17	40,429,406	TSS1500	S_Shore	STAT5B	0.825	0.000	0.028	0.945
cg01401037	black	3	185,839,955		OpenSea		0.825	-0.002	0.044	0.469
cg07722220	black	2	206,812,926		OpenSea		0.825	0.002	0.047	0.360
cg05061804	black	9	135,282,417	TSS200	S_Shore	TTF1	0.825	-0.001	0.052	0.688
cg16165903	black	3	32,023,351	5'UTR	Island	ZNF860	0.825	-0.003	0.124	0.627
cg02721902	black	17	46,825,371		Island		0.825	-0.003	0.053	0.266
cg00250500	black	10	77,169,599		Island		0.825	0.000	0.060	0.967
cg25893275	black	1	95,008,050	TSS1500	Island	F3	0.825	-0.001	0.047	0.540
cg00302494	black	2	237,080,354		Island		0.825	0.001	0.037	0.410
cg07003558	black	16	55,404,939		OpenSea		0.824	0.003	0.073	0.514
cg05094081	black	2	172,950,967	Body	N_Shore	DLX1	0.824	0.001	0.023	0.313
cg02948884	black	5	134,369,017	Body	Island	PITX1	0.824	-0.001	0.038	0.677
cg17694351	black	7	27,252,737		Island		0.823	-0.003	0.049	0.281
cg20307896	black	12	114,883,063		S_Shore		0.823	0.003	0.104	0.760
cg09541256	black	6	45,388,522	TSS1500	N_Shore	RUNX2	0.823	-0.001	0.042	0.846
cg05436231	black	1	27,709,789	1stExon	Island	CD164L2	0.823	0.000	0.023	0.569
cg19300924	black	1	119,536,064		S_Shore		0.823	0.000	0.036	0.833
cg21385909	black	15	31,621,843	Body	Island	KLF13	0.823	0.002	0.198	0.731
cg20096204	black	3	169,378,675	Body	N_Shore	MECOM	0.823	0.001	0.057	0.822
cg07364220	black	18	55,105,880	Body	Island	ONECUT2	0.823	-0.002	0.050	0.370

cg19583211	black	2	162,273,185	1stExon	N_Shore	TBR1	0.822	0.000	0.027	0.936
cg18187680	black	10	8,095,825	TSS1500	Island	FLJ45983	0.822	0.000	0.021	0.945
cg03233885	black	8	49,293,546		Island		0.822	-0.007	0.081	0.081
cg20187047	black	6	152,702,444	Body	OpenSea	SYNE1	0.822	-0.004	0.074	0.427
cg23857896	black	12	58,290,957		S_Shore		0.822	-0.002	0.048	0.202
cg17568707	black	6	137,818,327		Island		0.822	0.001	0.024	0.610
cg27554782	black	15	78,933,106	Body	N_Shore	CHRNB4	0.822	0.000	0.061	0.909
cg12198704	black	6	27,258,540		N_Shore		0.822	0.000	0.018	0.744
cg00795248	black	1	197,888,305	Body	S_Shore	LHX9	0.821	0.001	0.026	0.664
cg04013090	black	8	67,342,485	1stExon	S_Shore	RRS1	0.821	-0.002	0.028	0.391
cg18562243	black	3	181,414,189	Body	S_Shore	SOX2OT	0.821	0.000	0.048	0.881
cg05740045	black	8	65,499,926		Island		0.821	0.000	0.032	0.861
cg14130039	black	6	32,121,225	TSS200	N_Shore	PPT2	0.821	-0.001	0.027	0.726
cg00949753	black	1	214,157,306		N_Shore		0.821	-0.002	0.068	0.563
cg19714985	black	10	77,043,608		OpenSea		0.820	0.000	0.029	0.867
cg24258699	black	8	72,756,901	TSS200	S_Shore	MSC	0.820	0.002	0.046	0.408
cg14221171	black	7	97,361,759	5'UTR	Island	TAC1	0.820	0.001	0.039	0.754
cg17950095	black	7	27,224,700	TSS1500	N_Shore	HOXA11AS	0.819	0.002	0.057	0.358
cg09784934	black	2	177,023,062		N_Shore		0.819	0.003	0.032	0.230
cg00170620	black	16	56,669,038		Island		0.819	-0.011	0.132	0.094
cg05950943	black	16	2,520,971	TSS1500	N_Shore	NTN3	0.819	-0.001	0.055	0.678
cg22142858	black	6	6,004,804	Body	Island	NRN1	0.819	0.000	0.056	0.957
cg00597801	black	4	109,092,918	TSS1500	N_Shore	LOC641518	0.819	-0.003	0.044	0.210
cg08439109	black	17	46,089,344		N_Shore		0.819	-0.001	0.032	0.363
cg01109464	black	15	60,292,819		S_Shore		0.819	-0.001	0.056	0.579
cg01833417	black	1	116,917,089	Body	S_Shore	ATP1A1	0.819	0.000	0.020	0.719
cg05781984	black	6	43,237,642	Body	Island	TTBK1	0.819	-0.005	0.080	0.261
cg06757385	black	1	228,644,917	TSS1500	N_Shore	HIST3H2BB	0.818	0.000	0.030	0.798
cg09076431	black	1	197,889,163	Body	N_Shore	LHX9	0.818	-0.002	0.052	0.380
cg01139039	black	7	150,778,208	TSS1500	Island	FASTK	0.817	-0.002	0.036	0.191
cg11967654	black	16	51,189,801		Island		0.817	0.000	0.024	0.978
cg09743437	black	5	43,000,790		Island		0.817	0.001	0.020	0.651
cg10923408	black	13	31,506,710	TSS200	OpenSea	C13orf26	0.817	0.001	0.043	0.658
cg19185846	black	2	71,123,233		N_Shelf		0.817	0.011	0.387	0.346
cg12577850	black	6	139,351,113	5'UTR	S_Shore	C6orf115	0.817	-0.001	0.056	0.768
cg00510447	black	16	3,071,608	Body	S_Shore	TNFRSF12A	0.817	0.002	0.063	0.661
cg11710912	black	13	107,217,605	Body	N_Shelf	ARGLU1	0.817	-0.002	0.053	0.333
cg05176958	black	8	142,316,435		N_Shore		0.817	-0.003	0.054	0.179
cg07342322	black	1	192,508,724		OpenSea		0.817	0.000	0.042	0.825
cg04462652	black	2	133,429,088	TSS1500	S_Shore	LYPD1	0.817	0.003	0.033	0.155
cg00146676	black	4	113,442,804		N_Shore		0.817	-0.003	0.039	0.304
cg22682811	black	20	21,372,462		Island		0.817	0.002	0.028	0.116
cg24719321	black	11	122,850,490	Body	N_Shore	BSX	0.816	0.000	0.016	0.545
cg07771539	black	8	99,957,225	5'UTR	S_Shore	OSR2	0.816	-0.001	0.044	0.444
cg01080998	black	5	87,981,177	TSS1500	Island	LOC645323	0.816	-0.002	0.046	0.378
cg14849140	black	11	4,010,752	Body	OpenSea	STIM1	0.816	-0.003	0.174	0.747
cg19414706	black	8	76,319,215		N_Shore		0.816	-0.001	0.039	0.521
cg07751196	black	9	116,916,031		N_Shore		0.816	0.001	0.026	0.717
cg06688396	black	8	92,053,433	TSS1500	OpenSea	TMEM55A	0.816	-0.002	0.037	0.184
cg13773570	black	6	6,006,707	Body	Island	NRN1	0.816	0.002	0.038	0.456
cg12585943	black	6	32,121,368	TSS1500	N_Shore	PPT2	0.816	0.000	0.046	0.930
cg05762488	black	1	64,140,332		OpenSea		0.816	-0.004	0.037	0.090
cg11917694	black	10	90,639,684	TSS1500	N_Shore	STAMBPL1	0.816	-0.003	0.050	0.182
cg25962735	black	13	100,631,588		N_Shore		0.816	0.000	0.017	0.899
cg02486497	black	5	141,191,557		OpenSea		0.816	-0.001	0.043	0.438
cg16423375	black	5	76,937,424		S_Shore		0.815	0.001	0.026	0.547
cg15398617	black	12	26,277,706	1stExon	N_Shore	BHLHE41	0.815	0.000	0.014	0.655
cg01287054	black	7	156,795,156		N_Shore		0.815	-0.001	0.046	0.776
cg11521965	black	7	137,028,604	TSS200	OpenSea	PTN	0.815	-0.001	0.040	0.719
cg09746494	black	4	147,568,715		OpenSea		0.815	-0.002	0.042	0.183
cg04104738	black	8	105,600,242	Body	N_Shore	LRP12	0.815	0.000	0.037	0.906
cg10643489	black	2	219,434,658	Body	S_Shore	RQCD1	0.815	0.002	0.103	0.591
cg02135395	black	5	172,755,183	1stExon	Island	STC2	0.814	0.000	0.043	0.878
cg04508701	black	6	137,813,878	1stExon	N_Shore	OLIG3	0.814	0.001	0.029	0.459
cg13181251	black	18	24,130,450	5'UTR	Island	KCTD1	0.814	0.001	0.072	0.779
cg07769947	black	2	220,601,262		OpenSea		0.814	0.001	0.053	0.719
cg20769926	black	6	166,419,012		N_Shelf		0.814	0.001	0.044	0.520

cg00627029	black	17	72,322,791	Body	S_Shore	KIF19	0.814	-0.002	0.031	0.256
cg22203776	black	3	147,112,316	Body	N_Shore	ZIC4	0.814	-0.001	0.042	0.547
cg07793808	black	12	122,019,006	TSS200	S_Shore	KDM2B	0.814	-0.001	0.032	0.478
cg07115767	black	7	19,146,255		Island		0.814	0.001	0.036	0.728
cg02010852	black	9	126,118,355	TSS200	OpenSea	CRB2	0.814	-0.002	0.055	0.632
cg22441882	black	8	20,040,654	1stExon	OpenSea	SLC18A1	0.814	-0.005	0.058	0.129
cg01650776	black	7	150,748,518	Body	Island	ACCN3	0.814	0.007	0.105	0.092
cg01834614	black	1	147,143,012	TSS1500	S_Shore	ACP6	0.814	-0.003	0.192	0.627
cg04396896	black	11	125,364,611	5'UTR	N_Shore	FEZ1	0.814	0.003	0.037	0.144
cg10343787	black	16	57,319,093	TSS1500	S_Shore	PLLP	0.814	-0.002	0.048	0.494
cg22851557	black	1	3,038,068	Body	Island	PRDM16	0.814	-0.002	0.268	0.770
cg00028211	black	2	45,028,802		N_Shore		0.814	-0.003	0.066	0.621
cg25212090	black	1	197,882,170	Body	S_Shore	LHX9	0.814	0.000	0.037	0.852
cg08813349	black	13	100,630,430		N_Shore		0.814	0.000	0.065	0.988
cg09242181	black	11	46,940,517	TSS1500	S_Shore	LRP4	0.814	-0.001	0.036	0.388
cg26301565	black	3	194,117,261	3'UTR	N_Shore	GP5	0.814	-0.004	0.037	0.068
cg21390363	black	17	18,171,734		S_Shelf		0.814	0.001	0.059	0.779
cg09181644	black	4	141,490,428	TSS1500	S_Shore	UCP1	0.813	-0.001	0.036	0.410
cg27025995	black	8	139,926,236	TSS200	OpenSea	COL22A1	0.813	-0.001	0.033	0.701
cg24919768	black	2	110,873,031	Body	Island	MALL	0.813	0.003	0.057	0.456
cg13718827	black	9	131,008,520	TSS1500	N_Shelf	MIR199B	0.813	-0.004	0.198	0.612
cg04902929	black	1	116,958,941	Body	N_Shelf	C1orf203	0.813	0.002	0.227	0.635
cg20432671	black	1	167,682,922		N_Shore		0.813	-0.001	0.018	0.329
cg08966624	black	5	36,693,068		S_Shelf		0.813	-0.003	0.074	0.458
cg26999345	black	22	37,584,441	TSS200	OpenSea	C1QTNF6	0.813	-0.001	0.042	0.461
cg08362210	black	7	27,209,828	TSS1500	S_Shore	MIR196B	0.813	0.002	0.054	0.443
cg05778494	black	1	155,165,346		S_Shore		0.813	0.001	0.032	0.391
cg18830527	black	2	87,018,966	TSS200	S_Shore	CD8A	0.812	-0.007	0.280	0.378
cg25576818	black	7	27,233,141		S_Shore		0.812	-0.002	0.058	0.511
cg13582435	black	15	53,096,481		Island		0.812	0.000	0.025	0.744
cg03521044	black	7	20,838,564		S_Shore		0.812	0.003	0.053	0.339
cg01543654	black	17	46,800,639	Body	Island	C17orf93	0.812	-0.001	0.036	0.617
cg13855261	black	17	14,206,572	Body	Island	HS3ST3B1	0.812	-0.001	0.038	0.802
cg12148129	black	2	177,502,274		Island		0.812	-0.001	0.042	0.709
cg14733535	black	12	99,287,793	Body	N_Shore	ANKS1B	0.812	-0.002	0.030	0.286
cg14588078	black	8	65,489,863	TSS200	N_Shore	LOC401463	0.811	0.001	0.023	0.359
cg23587449	black	4	155,663,689	TSS1500	N_Shore	LRAT	0.811	-0.001	0.029	0.740
cg09703910	black	2	56,236,435		OpenSea		0.811	0.002	0.032	0.450
cg14242936	black	12	52,404,134	Body	S_Shelf	GRASP	0.811	0.002	0.053	0.424
cg02497700	black	1	244,213,358	TSS1500	N_Shore	ZNF238	0.811	-0.001	0.032	0.407
cg18959309	black	1	220,864,248	Body	Island	C1orf115	0.811	-0.002	0.114	0.618
cg02224980	black	2	223,169,501	3'UTR	N_Shore	CCDC140	0.811	-0.005	0.048	0.195
cg24470447	black	6	127,441,993	Body	S_Shore	RSPO3	0.811	0.000	0.028	0.924
cg19411025	black	5	87,968,118	Body	N_Shore	LOC645323	0.811	0.001	0.031	0.565
cg21073927	black	8	11,562,155	5'UTR	Island	GATA4	0.810	-0.004	0.039	0.094
cg02996801	black	4	113,441,944		N_Shelf		0.810	0.000	0.045	0.899
cg24085344	black	17	47,485,676	Body	OpenSea	PHB	0.810	0.000	0.060	0.961
cg16996144	black	1	67,217,950	TSS200	N_Shore	TCTEX1D1	0.810	0.001	0.051	0.608
cg04865691	black	13	112,723,421	1stExon	Island	SOX1	0.810	0.000	0.039	0.973
cg19759788	black	1	16,084,493	TSS1500	N_Shore	FBLIM1	0.810	-0.001	0.030	0.750
cg22478310	black	6	100,911,744	TSS200	N_Shore	SIM1	0.810	-0.002	0.036	0.393
cg21210531	black	1	235,105,604		OpenSea		0.810	0.000	0.098	0.966
cg07097417	black	1	212,002,770	5'UTR	N_Shore	LPGAT1	0.810	0.006	0.124	0.366
cg23006519	black	2	121,223,740	Body	OpenSea	LOC84931	0.810	0.003	0.180	0.581
cg05024939	black	4	113,442,251		N_Shore		0.810	-0.002	0.027	0.244
cg19498319	black	7	16,793,126	TSS1500	N_Shore	TSPAN13	0.809	-0.001	0.053	0.725
cg03933131	black	3	46,506,483	TSS200	S_Shore	LTF	0.809	0.002	0.040	0.342
cg05580603	black	6	170,606,266		Island		0.809	0.003	0.067	0.282
cg12810084	black	7	27,225,319	Body	Island	HOXA11AS	0.809	0.000	0.049	0.975
cg21504624	black	9	34,653,580	5'UTR	OpenSea	IL11RA	0.809	-0.004	0.047	0.077
cg04603391	black	19	31,844,056		Island		0.809	0.004	0.070	0.520
cg04641787	black	10	8,096,154	TSS1500	Island	FLJ45983	0.809	0.000	0.030	0.772
cg09266206	black	1	197,884,882	Body	N_Shore	LHX9	0.809	-0.005	0.052	0.128
cg02705909	black	19	18,879,450	Body	OpenSea	CRTC1	0.809	0.000	0.205	0.983
cg18467978	black	19	47,134,906		N_Shelf		0.809	-0.005	0.451	0.590
cg25281186	black	1	50,893,830		S_Shore		0.809	0.002	0.030	0.452
cg12075497	black	18	24,130,267	5'UTR	Island	KCTD1	0.809	0.001	0.038	0.744

cg07548213	black	2	162,271,751	TSS1500	N_Shore	TBR1	0.808	-0.002	0.054	0.558
cg17771652	black	5	82,767,968	5'UTR	N_Shore	VCAN	0.808	0.001	0.024	0.660
cg10239098	black	2	176,995,556	1stExon	Island	HOXD8	0.808	-0.001	0.020	0.643
cg25721132	black	11	68,611,016		N_Shore		0.808	-0.002	0.070	0.667
cg17215863	black	8	85,097,246	5'UTR	Island	RALYL	0.808	-0.002	0.038	0.417
cg19599666	black	3	187,871,024	TSS1500	N_Shore	LPP	0.808	-0.003	0.043	0.320
cg21716693	black	6	36,806,882	Body	Island	CPNE5	0.808	-0.002	0.059	0.520
cg05245070	black	17	72,745,994	Body	S_Shore	SLC9A3R1	0.808	0.000	0.045	0.847
cg15169077	black	6	46,139,019	TSS1500	OpenSea	ENPP5	0.808	0.003	0.045	0.180
cg20515377	black	6	167,276,650	TSS1500	S_Shore	RPS6KA2	0.808	-0.001	0.040	0.724
cg00907204	black	7	92,461,971	Body	N_Shore	CDK6	0.807	-0.003	0.047	0.260
cg02483593	black	1	63,792,183		S_Shore		0.807	-0.001	0.031	0.713
cg18733548	black	17	77,766,817		Island		0.807	-0.010	0.070	0.064
cg14095959	black	4	77,723,415		Island		0.807	-0.001	0.055	0.757
cg00430080	black	11	134,202,533	Body	S_Shore	GLB1L2	0.807	0.000	0.061	0.921
cg23838245	black	7	81,399,458	TSS200	OpenSea	HGF	0.806	0.003	0.050	0.441
cg06722630	black	7	100,661,996	3'UTR	OpenSea	MUC12	0.806	0.000	0.408	0.971
cg21253459	black	15	60,288,404		N_Shore		0.806	-0.001	0.037	0.568
cg08134754	black	8	65,494,785	1stExon	S_Shore	BHLHE22	0.806	-0.001	0.041	0.527
cg02606403	black	2	63,276,268	TSS1500	Island	LOC1001322	0.805	-0.002	0.026	0.237
cg06339657	black	5	76,505,932	TSS1500	N_Shore	PDE8B	0.805	-0.002	0.030	0.113
cg06980387	black	5	87,980,882	TSS1500	Island	LOC645323	0.805	0.001	0.030	0.749
cg19264651	black	9	126,780,399	Body	Island	LHX2	0.805	-0.002	0.025	0.081
cg08213375	black	14	104,286,397	Body	OpenSea	PPP1R13B	0.805	-0.002	0.036	0.220
cg18383890	black	13	100,636,252	Body	N_Shore	ZIC2	0.805	-0.001	0.041	0.754
cg02156380	black	1	180,882,591	Body	Island	KIAA1614	0.805	-0.002	0.030	0.270
cg05710032	black	16	87,813,069		Island		0.805	0.002	0.229	0.766
cg03780927	black	11	118,781,150	1stExon	Island	BCL9L	0.805	-0.002	0.028	0.259
cg03308399	black	7	27,146,237	3'UTR	Island	HOXA3	0.805	0.008	0.152	0.535
cg09478396	black	7	140,339,480		N_Shore		0.805	-0.002	0.061	0.648
cg08627352	black	2	60,778,395	Body	N_Shore	BCL11A	0.804	0.000	0.037	0.980
cg16973098	black	13	95,359,203		N_Shore		0.804	0.001	0.027	0.727
cg13199639	black	6	33,360,495	Body	S_Shore	KIFC1	0.804	0.001	0.023	0.604
cg03016906	black	6	99,275,391		N_Shore		0.804	-0.003	0.027	0.034
cg08062338	black	3	181,428,669	Body	N_Shore	SOX2OT	0.804	-0.002	0.044	0.525
cg19953427	black	6	166,078,843		S_Shore		0.804	0.000	0.033	0.941
cg00873601	black	12	116,044,025		OpenSea		0.804	0.007	0.122	0.398
cg04071118	black	20	37,555,933	Body	S_Shore	FAM83D	0.804	-0.001	0.042	0.576
cg24621972	black	2	223,160,175	Body	Island	PAX3	0.804	0.000	0.025	0.773
cg01150433	black	3	147,142,182		Island		0.804	-0.001	0.041	0.772
cg03932406	black	2	65,657,881	Body	Island	SPRED2	0.803	0.001	0.039	0.741
cg26427535	black	1	240,783,389		OpenSea		0.803	-0.001	0.426	0.870
cg20556936	black	2	176,952,705		Island		0.803	-0.004	0.056	0.372
cg27237537	black	21	45,683,513	TSS1500	OpenSea	DNMT3L	0.803	0.004	0.051	0.275
cg04629204	black	1	26,348,325	1stExon	OpenSea	EXTL1	0.803	-0.003	0.047	0.340
cg06858559	black	3	9,291,773	TSS1500	OpenSea	SRGAP3	0.803	0.004	0.161	0.604
cg04875789	black	7	131,240,514	Body	Island	PODXL	0.803	-0.001	0.035	0.453
cg03999434	black	12	1,639,034		Island		0.803	-0.003	0.034	0.190
cg10957151	black	2	176,986,956	TSS1500	Island	HOXD9	0.803	0.000	0.026	0.904
cg13156931	black	13	28,554,471	Body	Island	PRHOXNB	0.803	-0.005	0.055	0.113
cg06658146	black	4	58,029,765		N_Shore		0.803	-0.002	0.059	0.484
cg20785796	black	2	200,326,721	TSS1500	Island	SATB2	0.802	-0.003	0.077	0.552
cg01261503	black	17	62,493,599	TSS1500	S_Shore	POLG2	0.802	0.000	0.054	0.952
cg13500072	black	1	36,788,387	Body	Island	FAM176B	0.802	-0.005	0.059	0.286
cg07862554	black	3	154,797,083	TSS1500	N_Shore	MME	0.802	-0.001	0.029	0.598
cg20528093	black	11	31,837,144	5'UTR	Island	PAX6	0.802	0.002	0.022	0.134
cg01821161	black	2	172,956,823		N_Shelf		0.802	0.002	0.047	0.525
cg07339662	black	7	1,271,925	TSS1500	Island	UNCX	0.802	-0.002	0.037	0.369
cg13496838	black	2	223,164,747	TSS1500	S_Shore	PAX3	0.802	-0.001	0.037	0.554
cg10256249	black	2	65,657,578	Body	N_Shore	SPRED2	0.802	0.001	0.039	0.628
cg03356689	black	11	128,586,365	Body	OpenSea	FLI1	0.802	-0.003	0.053	0.268
cg10196737	black	7	105,683,109		OpenSea		0.801	-0.001	0.052	0.774
cg03492327	black	14	57,273,276	5'UTR	N_Shore	OTX2	0.801	-0.002	0.038	0.396
cg07846167	black	1	16,084,758	TSS1500	N_Shore	FBLIM1	0.801	-0.002	0.043	0.293
cg17288560	black	17	37,720,009		OpenSea		0.801	0.001	0.040	0.683
cg23254184	black	14	53,620,237	TSS200	S_Shore	DDHD1	0.801	0.001	0.097	0.832
cg16732175	black	19	49,250,180	TSS200	N_Shelf	IZUMO1	0.800	0.001	0.027	0.412

cg15659911	black	12	13,431,373	OpenSea		0.800	-0.003	0.049	0.248
cg14071612	black	9	112,081,275 Body	N_Shore	EPB41L4B	0.800	-0.002	0.064	0.421
cg01749784	black	4	113,444,577	N_Shore		0.800	-0.003	0.035	0.077
cg14971998	black	5	139,488,181	S_Shore		0.800	0.000	0.021	0.848
cg04793090	black	3	128,903,277 TSS1500	S_Shore	CNBP	0.800	0.001	0.050	0.514
cg26026615	black	12	115,130,855	S_Shore		0.800	0.001	0.032	0.588
cg06186150	black	1	2,458,298 TSS1500	S_Shore	PANK4	0.800	-0.001	0.067	0.689
cg15588215	black	3	27,766,045	S_Shore		0.800	0.002	0.035	0.293
cg00667647	black	1	119,542,475	N_Shore		0.800	0.000	0.049	0.975
cg09706021	black	6	33,399,109 Body	S_Shelf	SYNGAP1	0.800	0.002	0.039	0.536
cg09916157	black	8	23,584,760	Island		0.799	-0.003	0.031	0.156
cg03610228	black	10	21,799,395	S_Shore		0.799	0.003	0.051	0.387
cg15608483	black	2	175,192,815	N_Shore		0.799	-0.001	0.028	0.549
cg00083046	black	2	175,204,844	Island		0.799	-0.001	0.039	0.575
cg19373874	black	12	115,946,022	OpenSea		0.799	0.003	0.389	0.684
cg14672084	black	5	140,857,941 Body	Island	PCDHGA4	0.799	0.013	0.165	0.187
cg25117362	black	10	104,221,598 5'UTR	S_Shore	TMEM180	0.799	-0.007	0.063	0.166
cg14970515	black	17	77,816,034	Island		0.798	-0.001	0.053	0.783
cg21722242	black	4	2,464,050	Island		0.798	0.000	0.037	0.928
cg07119829	black	2	223,168,487 5'UTR	N_Shore	CCDC140	0.798	0.003	0.024	0.024
cg15514496	black	18	12,287,561	Island		0.798	0.000	0.042	0.921
cg16519300	black	1	16,084,830 TSS1500	N_Shore	FBLIM1	0.798	0.001	0.061	0.911
cg15632862	black	1	38,471,572 TSS1500	S_Shore	FHL3	0.798	-0.003	0.054	0.338
cg27228191	black	1	156,053,525	S_Shore		0.798	0.012	0.353	0.378
cg06078469	black	17	55,335,955 Body	S_Shore	MSI2	0.798	-0.002	0.062	0.694
cg13545495	black	9	118,916,132 5'UTR	N_Shore	PAPPA	0.798	-0.001	0.036	0.545
cg13379794	black	5	3,590,590	N_Shore		0.797	-0.002	0.058	0.560
cg04451175	black	8	16,860,088 TSS1500	S_Shore	FGF20	0.797	0.000	0.044	0.971
cg17402060	black	12	81,108,011	N_Shelf		0.797	0.018	0.198	0.285
cg25819602	black	7	96,627,634 Body	N_Shelf	DLX6AS	0.797	0.000	0.021	0.799
cg25941299	black	7	113,727,916	S_Shore		0.797	-0.002	0.057	0.588
cg13759172	black	7	100,661,991 3'UTR	OpenSea	MUC12	0.797	0.001	0.160	0.826
cg25412546	black	5	76,925,450 3'UTR	Island	OTP	0.797	0.001	0.026	0.689
cg18862566	black	6	45,391,916 Body	S_Shore	RUNX2	0.797	-0.008	0.181	0.345
cg06315606	black	7	87,564,812 Body	S_Shore	ADAM22	0.797	0.004	0.473	0.576
cg03249890	black	2	175,199,803 TSS200	Island	SP9	0.797	-0.002	0.042	0.183
cg15878670	black	12	49,485,085 Body	Island	DHH	0.797	0.000	0.133	0.980
cg18338775	black	2	177,022,121	N_Shelf		0.797	-0.002	0.026	0.200
cg14403130	black	1	44,873,057 5'UTR	Island	RNF220	0.797	-0.003	0.038	0.108
cg22461324	black	7	155,252,944 Body	S_Shore	EN2	0.797	-0.001	0.034	0.662
cg13572145	black	2	80,529,621 Body	N_Shore	CTNNA2	0.797	0.001	0.034	0.779
cg05496514	black	5	87,985,513	Island		0.797	-0.003	0.037	0.290
cg01825295	black	3	147,131,617 3'UTR	S_Shore	ZIC1	0.797	0.001	0.080	0.782
cg21665738	black	6	70,576,388 TSS200	N_Shore	COL19A1	0.796	0.001	0.048	0.690
cg06322432	black	10	112,289,853	N_Shore		0.796	0.001	0.082	0.785
cg07646791	black	6	166,667,648	S_Shore		0.796	0.001	0.040	0.848
cg22416596	black	22	50,710,746	S_Shore		0.796	0.005	0.289	0.561
cg12284802	black	15	79,723,655 TSS1500	N_Shore	KIAA1024	0.796	0.001	0.028	0.702
cg12782654	black	11	66,085,299 TSS1500	S_Shore	CD248	0.796	-0.002	0.053	0.526
cg06884875	black	11	46,313,051 Body	N_Shelf	CREB3L1	0.796	0.005	0.665	0.578
cg19880462	black	10	61,468,548 5'UTR	N_Shore	SLC16A9	0.796	-0.002	0.047	0.556
cg03856178	black	2	97,202,314 TSS200	Island	ARID5A	0.796	-0.003	0.044	0.290
cg00142257	black	9	124,990,276 Body	Island	LHX6	0.796	0.000	0.027	0.757
cg11117099	black	17	43,325,657 Body	Island	LOC1001339	0.796	-0.001	0.046	0.423
cg07911080	black	13	28,553,792 Body	N_Shore	PRHOXNB	0.796	0.001	0.033	0.674
cg09549015	black	1	95,008,041 TSS1500	Island	F3	0.796	-0.002	0.054	0.390
cg17342925	black	2	119,610,605	N_Shore		0.796	0.000	0.092	0.887
cg03621841	black	16	49,673,985 Body	S_Shore	ZNF423	0.796	-0.007	0.101	0.259
cg24870340	black	6	35,147,239	N_Shelf		0.796	-0.002	0.285	0.764
cg11190277	black	11	69,455,213 TSS1500	Island	CCND1	0.796	0.000	0.043	0.937
cg11904056	black	5	92,918,910 TSS200	N_Shore	NR2F1	0.796	0.002	0.022	0.213
cg21621538	black	7	24,614,206 5'UTR	OpenSea	MPP6	0.796	0.002	0.055	0.433
cg03186986	black	2	69,869,962 Body	N_Shore	AAK1	0.796	0.001	0.053	0.659
cg20773320	black	5	179,048,967 Body	N_Shore	HNRNPH1	0.796	0.000	0.027	0.855
cg04201750	black	5	3,591,012	Island		0.795	-0.002	0.028	0.408
cg26188726	black	16	31,225,957 5'UTR	Island	TRIM72	0.795	0.003	0.102	0.633
cg17891011	black	10	8,096,152 TSS1500	Island	FLJ45983	0.795	-0.001	0.019	0.572

cg23772205	black	7	155,249,941	TSS1500	Island	EN2	0.795	0.001	0.041	0.738
cg04980590	black	5	3,590,820		Island		0.795	-0.001	0.045	0.748
cg24678611	black	1	3,567,732	TSS1500	Island	TP73	0.795	0.001	0.060	0.826
cg26739800	black	16	84,177,597	5'UTR	N_Shore	HSDL1	0.795	-0.001	0.032	0.374
cg13928411	black	16	22,103,791	TSS200	OpenSea	VWA3A	0.795	0.001	0.044	0.718
cg07483304	black	7	27,211,741	Body	N_Shore	HOXA10	0.795	0.002	0.070	0.624
cg20336981	black	6	137,816,475	TSS1500	Island	OLIG3	0.795	0.000	0.028	0.761
cg07541200	black	5	43,020,238		S_Shore		0.795	0.000	0.027	0.933
cg26077454	black	14	95,240,500		S_Shore		0.795	0.001	0.029	0.607
cg04590721	black	10	102,807,587		N_Shore		0.795	-0.002	0.049	0.432
cg02576092	black	1	27,668,556	1stExon	OpenSea	SYTL1	0.795	0.000	0.043	0.791
cg16565913	black	4	40,632,362	TSS1500	Island	RBM47	0.795	0.000	0.038	0.994
cg26822986	black	18	21,199,691	Body	Island	ANKRD29	0.794	0.004	0.084	0.355
cg14440640	black	14	61,578,115		OpenSea		0.794	0.001	0.266	0.954
cg00914781	black	1	47,902,275	1stExon	N_Shore	FOXD2	0.794	-0.003	0.057	0.371
cg03801871	black	2	30,453,395	TSS1500	N_Shore	LBH	0.794	-0.001	0.025	0.684
cg13432294	black	1	8,937,640	5'UTR	N_Shore	ENO1	0.794	-0.003	0.063	0.264
cg01900413	black	11	128,419,356	Body	Island	ETS1	0.794	0.001	0.026	0.670
cg09241332	black	3	147,126,638	TSS1500	N_Shore	ZIC1	0.794	0.000	0.019	0.617
cg19768356	black	6	36,547,772		OpenSea		0.794	-0.004	0.058	0.252
cg24058566	black	5	87,974,100	Body	Island	LOC645323	0.793	0.000	0.024	0.933
cg06332859	black	2	136,876,188	TSS1500	N_Shore	CXCR4	0.793	0.000	0.018	0.867
cg22002034	black	1	119,549,948		Island		0.793	-0.003	0.053	0.389
cg24828663	black	4	85,421,050		N_Shore		0.793	-0.004	0.038	0.031
cg11828621	black	3	27,766,252		S_Shore		0.793	-0.002	0.029	0.116
cg04384626	black	4	41,882,580		Island		0.793	-0.001	0.028	0.577
cg25930591	black	7	96,627,602	Body	N_Shelf	DLX6AS	0.793	-0.001	0.033	0.488
cg27494497	black	7	35,293,080	Body	Island	TBX20	0.793	-0.001	0.051	0.682
cg01883155	black	17	74,565,009	Body	OpenSea	ST6GALNAC2	0.793	-0.002	0.120	0.856
cg00585901	black	1	155,035,388	TSS1500	Island	EFNA4	0.793	0.001	0.044	0.732
cg21543859	black	6	45,391,645	Body	Island	RUNX2	0.793	-0.011	0.085	0.022
cg18241942	black	14	57,277,739	TSS1500	N_Shore	OTX2	0.793	0.000	0.074	0.946
cg17024199	black	17	74,881,747	Body	S_Shelf	MGAT5B	0.793	-0.002	0.033	0.323
cg25678088	black	7	96,632,460	Body	S_Shore	DLX6AS	0.793	0.002	0.043	0.444
cg24875029	black	2	105,471,438	TSS1500	Island	POU3F3	0.792	0.000	0.048	0.978
cg17331199	black	12	56,414,882	1stExon	OpenSea	IKZF4	0.792	-0.002	0.042	0.259
cg02071074	black	13	52,585,283	Body	N_Shore	ATP7B	0.792	-0.004	0.046	0.074
cg20756891	black	5	170,743,951		Island		0.792	-0.003	0.047	0.286
cg04994964	black	16	56,666,640	5'UTR	Island	MT1M	0.792	-0.002	0.026	0.332
cg01922613	black	1	94,560,851	Body	OpenSea	ABCA4	0.792	0.000	0.400	0.956
cg17473896	black	11	67,272,980	TSS200	S_Shore	PITPNM1	0.792	0.000	0.046	0.983
cg24376295	black	3	188,665,276		Island		0.792	0.000	0.041	0.945
cg02211646	black	7	114,055,210	1stExon	OpenSea	FOXP2	0.792	-0.002	0.077	0.766
cg06954855	black	1	159,801,570	Body	OpenSea	SLAMF8	0.792	0.000	0.038	0.914
cg22132508	black	3	138,658,878		Island		0.792	-0.001	0.047	0.609
cg12648201	black	2	27,665,141	TSS200	Island	KRTCAP3	0.792	-0.003	0.148	0.606
cg19458020	black	17	38,473,119	TSS1500	Island	RARA	0.792	0.001	0.032	0.720
cg13799227	black	1	228,652,581		S_Shore		0.792	0.000	0.032	0.960
cg21182196	black	14	95,786,801	TSS1500	S_Shore	CLMN	0.792	0.005	0.139	0.511
cg20690125	black	17	74,476,978	Body	S_Shore	RHBDF2	0.791	-0.001	0.036	0.662
cg08968222	black	10	61,123,090	TSS1500	S_Shore	FAM13C	0.791	-0.002	0.070	0.687
cg05210501	black	7	27,219,344	1stExon	Island	HOXA10	0.791	-0.003	0.028	0.120
cg05794695	black	1	214,777,596	5'UTR	N_Shore	CENPF	0.791	0.001	0.022	0.259
cg18715243	black	8	37,658,755	Body	S_Shelf	GPR124	0.791	-0.001	0.026	0.448
cg13467672	black	17	40,464,625		Island		0.791	0.001	0.041	0.611
cg00408348	black	11	122,851,122	Body	N_Shore	BSX	0.791	0.002	0.062	0.616
cg16248287	black	10	21,804,965	Body	N_Shore	C10orf140	0.791	-0.002	0.039	0.389
cg11213308	black	11	30,606,612	5'UTR	Island	MPPED2	0.791	-0.002	0.031	0.219
cg27425996	black	7	51,383,344	Body	Island	COBL	0.791	0.000	0.015	0.967
cg06568438	black	13	80,315,399		OpenSea		0.791	0.000	0.053	0.936
cg13910493	black	12	53,628,120		S_Shelf		0.791	0.005	0.107	0.382
cg24220279	black	10	124,900,053		Island		0.791	-0.001	0.022	0.387
cg14252492	black	11	44,332,224	TSS1500	N_Shore	ALX4	0.791	-0.003	0.051	0.190
cg22239201	black	4	95,678,703	TSS1500	N_Shore	BMPR1B	0.791	-0.001	0.035	0.778
cg06359703	black	1	41,847,297		Island		0.790	0.000	0.038	0.900
cg17681491	black	10	123,356,205	5'UTR	N_Shore	FGFR2	0.790	-0.002	0.044	0.495
cg27519330	black	10	46,971,222	TSS1500	Island	SYT15	0.790	0.002	0.039	0.458

cg00795024	black	1	214,157,026	N_Shore		0.790	-0.001	0.045	0.646	
cg26084511	black	7	20,818,226	Island		0.790	-0.002	0.054	0.384	
cg02592133	black	2	99,526,035	5'UTR	OpenSea	C2orf55	0.790	0.000	0.018	0.894
cg17215449	black	22	50,968,516	TSS1500	Island	TYMP	0.790	0.002	0.035	0.447
cg01965751	black	17	38,218,791	TSS1500	N_Shore	THRA	0.790	0.001	0.054	0.695
cg17884843	black	3	147,141,132		N_Shore		0.790	-0.004	0.049	0.040
cg26530061	black	7	27,265,522		S_Shore		0.790	-0.001	0.028	0.572
cg01472882	black	2	85,980,609	TSS1500	Island	ATOH8	0.790	-0.001	0.029	0.397
cg11260097	black	7	121,940,647		Island		0.790	-0.003	0.027	0.065
cg22837714	black	2	198,120,525		OpenSea		0.790	0.003	0.065	0.539
cg14891410	black	11	32,458,769	Body	N_Shore	WIT1	0.790	-0.006	0.067	0.105
cg13483597	black	16	31,488,438	Body	Island	TGFB111	0.790	-0.005	0.071	0.281
cg26321999	black	6	30,854,011	5'UTR	S_Shore	DDR1	0.789	0.001	0.035	0.697
cg00481350	black	4	113,432,595		Island		0.789	-0.001	0.031	0.558
cg01912955	black	6	100,906,383	Body	Island	SIM1	0.789	-0.005	0.082	0.275
cg03905795	black	11	70,670,880	Body	N_Shore	SHANK2	0.789	0.006	0.069	0.278
cg27145096	black	18	19,477,995		S_Shore		0.789	-0.004	0.100	0.401
cg18043825	black	17	46,802,517	3'UTR	N_Shore	HOXB13	0.789	0.000	0.016	0.634
cg09749813	black	6	85,474,209	TSS1500	S_Shore	TBX18	0.789	-0.002	0.025	0.154
cg04724540	black	1	166,916,762	Body	N_Shore	ILDR2	0.789	0.001	0.057	0.739
cg00589520	black	7	23,513,039		N_Shore		0.789	0.000	0.042	0.940
cg01174264	black	4	80,992,999	Body	N_Shore	ANTXR2	0.789	0.000	0.045	0.889
cg08493294	black	2	25,500,416	Body	Island	DNMT3A	0.789	-0.004	0.111	0.678
cg15726807	black	19	41,857,198	Body	N_Shore	TGFB1	0.789	-0.001	0.047	0.646
cg15755265	black	15	63,673,502	Body	N_Shore	CA12	0.788	0.003	0.034	0.124
cg01202155	black	10	119,302,540	1stExon	Island	EMX2	0.788	-0.003	0.026	0.060
cg04092393	black	11	3,186,929	TSS1500	S_Shore	OSBPL5	0.788	-0.001	0.036	0.520
cg09904907	black	11	66,024,375	TSS1500	N_Shore	KLC2	0.788	0.006	0.329	0.366
cg10099638	black	21	47,517,484	TSS1500	N_Shore	COL6A2	0.788	-0.004	0.054	0.184
cg05825244	black	20	2,730,488	Body	Island	EBF4	0.788	-0.001	0.024	0.692
cg04834097	black	7	63,774,078	5'UTR	OpenSea	LOC728927	0.788	-0.006	0.095	0.153
cg06849504	black	1	91,301,484		Island		0.788	0.000	0.052	0.939
cg00105253	black	14	105,647,194	Body	N_Shore	NUDT14	0.788	-0.001	0.042	0.692
cg16426479	black	5	43,020,566		S_Shore		0.788	-0.009	0.153	0.329
cg05348324	black	11	119,668,165		OpenSea		0.788	0.000	0.050	0.998
cg09606564	black	17	19,290,353	Body	OpenSea	MFAP4	0.788	0.001	0.023	0.558
cg17960164	black	8	145,018,928	Body	Island	PLEC1	0.787	0.000	0.449	0.959
cg01553209	black	10	22,625,874		Island		0.787	0.000	0.018	0.919
cg04131799	black	2	97,193,006		Island		0.787	0.014	0.244	0.012
cg20992114	black	4	111,542,825	Body	Island	PITX2	0.787	-0.002	0.077	0.545
cg05287480	black	7	27,176,127		N_Shelf		0.787	-0.002	0.021	0.145
cg25694447	black	3	157,824,150	TSS200	S_Shore	SHOX2	0.787	-0.001	0.030	0.659
cg13720362	black	6	108,492,271	Body	S_Shore	NR2E1	0.787	-0.002	0.053	0.613
cg23492043	black	1	177,134,266	TSS1500	S_Shore	ASTN1	0.787	-0.001	0.033	0.631
cg25761326	black	10	11,206,792	TSS200	N_Shore	CUGBP2	0.787	0.004	0.055	0.456
cg23851558	black	2	6,121,420	TSS1500	OpenSea	LOC400940	0.787	0.000	0.192	0.972
cg01567239	black	5	43,017,982		Island		0.787	0.006	0.043	0.041
cg18241829	black	2	176,952,696		Island		0.787	0.000	0.040	0.931
cg11817631	black	11	85,522,609	TSS1500	S_Shore	SYTL2	0.787	-0.001	0.043	0.703
cg13266096	black	11	62,366,806	Body	N_Shore	MTA2	0.787	-0.001	0.045	0.698
cg07020001	black	12	122,019,031	TSS200	S_Shore	KDM2B	0.787	0.002	0.026	0.342
cg07981044	black	7	128,510,184		Island		0.787	-0.003	0.098	0.659
cg05806233	black	7	79,763,748	TSS1500	N_Shore	GNAI1	0.786	-0.002	0.039	0.323
cg14952457	black	6	50,818,685		S_Shore		0.786	0.000	0.037	0.823
cg03316098	black	6	29,601,398	TSS1500	S_Shore	GABBR1	0.786	-0.003	0.039	0.081
cg17452615	black	12	122,019,080	TSS200	S_Shore	KDM2B	0.786	0.002	0.035	0.422
cg17918002	black	10	28,035,719	TSS1500	S_Shore	MXK	0.786	0.001	0.028	0.369
cg01311674	black	7	120,970,521	Body	Island	WNT16	0.786	0.002	0.040	0.270
cg03504245	black	8	50,822,168		N_Shore		0.786	-0.002	0.056	0.685
cg10540626	black	2	71,124,470		N_Shelf		0.786	0.002	0.072	0.723
cg12738718	black	6	32,121,204	TSS200	N_Shore	PPT2	0.786	0.000	0.013	0.784
cg13372766	black	1	228,464,049	Body	Island	OBSCN	0.786	0.000	0.057	0.910
cg23495581	black	8	23,572,595		S_Shore		0.786	0.000	0.028	0.940
cg04273431	black	6	30,523,215	Body	N_Shore	GNL1	0.786	0.000	0.046	0.871
cg21009265	black	11	46,410,121		N_Shore		0.786	-0.004	0.073	0.267
cg17611674	black	10	8,094,431	Body	Island	FLJ45983	0.786	-0.004	0.097	0.307
cg25304107	black	2	177,017,331	Body	Island	HOXD4	0.786	-0.001	0.043	0.798

cg10432440	black	16	86,597,802	Island		0.786	-0.001	0.028	0.625
cg06223539	black	11	70,517,374 Body	OpenSea	SHANK2	0.786	0.001	0.037	0.683
cg08355260	black	2	74,729,429 TSS1500	Island	LOC151534	0.786	0.002	0.029	0.259
cg09456782	black	13	114,146,038 5'UTR	Island	TMCO3	0.786	0.004	0.070	0.293
cg17342973	black	3	184,301,239	Island		0.786	0.000	0.023	0.909
cg27228136	black	22	37,608,819 TSS1500	OpenSea	SSTR3	0.785	-0.002	0.043	0.497
cg27534520	black	15	99,343,918 Body	OpenSea	IGF1R	0.785	-0.001	0.034	0.635
cg15982700	black	7	27,154,911 5'UTR	N_Shore	HOXA3	0.785	0.001	0.040	0.720
cg04176122	black	11	118,779,835 Body	N_Shore	BCL9L	0.785	0.002	0.035	0.396
cg00253658	black	16	54,210,496	OpenSea		0.785	0.003	0.054	0.315
cg13502346	black	14	65,170,209 TSS1500	N_Shore	PLEKHG3	0.785	0.001	0.039	0.740
cg05352087	black	1	75,600,124 Body	N_Shore	LHX8	0.785	0.000	0.018	0.822
cg23811268	black	2	20,189,267 Body	N_Shore	WDR35	0.785	0.001	0.022	0.562
cg10970328	black	12	6,931,525 5'UTR	N_Shore	GPR162	0.785	-0.005	0.056	0.057
cg04631202	black	1	25,942,460 TSS1500	N_Shore	MAN1C1	0.785	0.002	0.036	0.276
cg01446798	black	6	100,911,240 1stExon	N_Shore	SIM1	0.785	0.000	0.027	0.897
cg22118126	black	20	39,969,481 TSS200	S_Shore	LPIN3	0.785	-0.002	0.056	0.580
cg16636671	black	3	147,126,403 TSS1500	N_Shore	ZIC1	0.785	0.002	0.035	0.390
cg06014092	black	15	77,924,281 Body	N_Shore	LINGO1	0.785	-0.001	0.091	0.858
cg24975834	black	13	112,720,171	N_Shore		0.785	0.002	0.034	0.371
cg19951244	black	5	172,672,766	Island		0.784	0.000	0.037	0.954
cg07313155	black	17	38,218,601 TSS1500	N_Shore	THRA	0.784	-0.001	0.081	0.818
cg18198999	black	1	50,890,153 TSS1500	N_Shore	DMRTA2	0.784	0.001	0.024	0.272
cg18221021	black	11	84,432,312 Body	OpenSea	DLG2	0.784	0.001	0.045	0.518
cg05354479	black	14	71,276,874 TSS1500	S_Shore	MAP3K9	0.784	-0.003	0.074	0.506
cg06254440	black	9	126,779,285 Body	Island	LHX2	0.784	-0.001	0.024	0.324
cg11129008	black	3	181,428,647 Body	N_Shore	SOX2OT	0.784	-0.001	0.035	0.644
cg06264679	black	6	32,121,433 Body	N_Shore	PPT2	0.784	-0.002	0.056	0.472
cg05057834	black	3	37,495,654 Body	S_Shore	ITGA9	0.784	-0.004	0.097	0.250
cg02485597	black	17	35,291,560	N_Shore		0.784	-0.001	0.033	0.700
cg15824056	black	6	158,402,261 TSS1500	Island	SYNJ2	0.784	-0.003	0.164	0.645
cg00104845	black	5	140,892,370 3'UTR	N_Shore	PCDHGB5	0.784	0.002	0.027	0.326
cg24500959	black	10	99,474,813 Body	S_Shore	MARVELD1	0.784	-0.003	0.030	0.226
cg05539217	black	10	119,304,379 Body	Island	EMX2OS	0.783	0.001	0.040	0.712
cg17480278	black	3	62,364,834	S_Shore		0.783	0.001	0.064	0.798
cg15826897	black	19	15,343,373 5'UTR	N_Shore	EPHX3	0.783	-0.002	0.064	0.593
cg13049182	black	3	181,428,579 Body	N_Shore	SOX2OT	0.783	-0.004	0.055	0.298
cg21784917	black	7	79,084,038 TSS1500	S_Shore	MAGI2	0.783	-0.001	0.027	0.507
cg08418980	black	5	172,665,400	Island		0.783	-0.001	0.035	0.443
cg22543992	black	7	81,399,680 TSS1500	OpenSea	HGF	0.783	0.005	0.126	0.306
cg26018901	black	4	47,840,011 5'UTR	S_Shore	CORIN	0.783	-0.001	0.045	0.698
cg21159993	black	5	139,554,405 TSS1500	Island	C5orf32	0.783	0.000	0.017	0.667
cg04979435	black	16	67,875,655 TSS1500	N_Shore	THAP11	0.783	0.003	0.127	0.419
cg24519393	black	1	38,470,540 5'UTR	N_Shore	FHL3	0.782	-0.002	0.033	0.296
cg03253303	black	17	29,753,081 Body	OpenSea	RAB11FIP4	0.782	-0.001	0.049	0.627
cg11327857	black	4	123,747,558 TSS1500	N_Shore	FGF2	0.782	0.000	0.070	0.944
cg16502826	black	1	970,237 Body	Island	AGRN	0.782	0.001	0.476	0.918
cg18595542	black	17	77,770,301 Body	N_Shore	CBX8	0.782	0.000	0.029	0.999
cg24085885	black	19	18,879,446 Body	OpenSea	CRTC1	0.782	0.007	0.215	0.664
cg21674153	black	18	29,264,051 Body	N_Shore	B4GALT6	0.782	0.002	0.021	0.230
cg01839430	black	2	216,177,098 Body	Island	ATIC	0.782	-0.004	0.065	0.444
cg12873454	black	1	14,924,611 TSS1500	Island	KIAA1026	0.782	0.002	0.050	0.357
cg00514407	black	2	224,904,626 TSS1500	Island	SERPINE2	0.782	-0.003	0.039	0.294
cg12439899	black	6	10,415,232 Body	Island	TFAP2A	0.781	-0.001	0.020	0.107
cg01284306	black	21	19,190,629 Body	N_Shore	C21orf91	0.781	0.000	0.026	0.849
cg01019875	black	17	6,945,620 Body	Island	SLC16A11	0.781	0.001	0.017	0.554
cg16619378	black	17	14,207,530 Body	Island	HS3ST3B1	0.781	0.003	0.035	0.176
cg22367310	black	2	241,856,114	Island		0.781	0.001	0.054	0.748
cg23688719	black	1	65,935,654 5'UTR	OpenSea	LEPR	0.781	-0.002	0.050	0.637
cg07851675	black	5	2,755,540	Island		0.781	0.000	0.025	0.874
cg10138970	black	2	223,172,052	S_Shore		0.781	0.001	0.021	0.574
cg25742464	black	1	201,978,971 TSS1500	OpenSea	ELF3	0.781	0.005	0.092	0.361
cg03492827	black	7	72,838,601	Island		0.781	-0.001	0.053	0.795
cg07339783	black	2	176,952,826	Island		0.780	-0.001	0.022	0.455
cg19227031	black	6	32,118,315 Body	Island	PRRT1	0.780	0.010	0.243	0.456
cg19516340	black	2	10,263,696 Body	S_Shore	RRM2	0.780	0.005	0.075	0.137
cg02709321	black	16	52,581,551 5'UTR	Island	TOX3	0.780	-0.003	0.071	0.463



cg11077026	black	1	159,915,970	TSS1500	S_Shore	IGSF9	0.780	0.000	0.050	0.959
cg14943908	black	6	31,589,196	5'UTR	S_Shore	BAT2	0.780	-0.002	0.039	0.203
cg01679043	black	6	152,958,548	TSS1500	S_Shore	SYNE1	0.780	0.001	0.038	0.762
cg07501233	black	13	100,641,900		Island		0.780	-0.006	0.067	0.075
cg11255039	black	16	29,801,946	TSS200	Island	KIF22	0.780	-0.004	0.058	0.403
cg27639030	black	5	140,858,107	Body	S_Shore	PCDHGA4	0.780	-0.001	0.074	0.865
cg15207619	black	13	49,975,643	5'UTR	OpenSea	CAB39L	0.780	0.002	0.034	0.262
cg10987597	black	13	112,726,058		N_Shore		0.780	-0.006	0.065	0.228
cg17727033	black	10	122,702,447		OpenSea		0.779	0.000	0.043	0.998
cg02283735	black	1	44,011,587	Body	OpenSea	PTPRF	0.779	0.010	0.126	0.262
cg07650504	black	12	48,397,055	Body	N_Shore	COL2A1	0.779	-0.002	0.039	0.172
cg18434354	black	2	121,224,009	TSS200	OpenSea	LOC84931	0.779	0.005	0.380	0.426
cg15560495	black	20	56,804,158		S_Shore		0.779	-0.001	0.036	0.550
cg04122632	black	11	45,392,826		OpenSea		0.779	0.000	0.028	0.942
cg06974592	black	5	172,665,149		N_Shore		0.779	-0.004	0.053	0.221
cg06183849	black	1	165,190,886	Body	OpenSea	LMX1A	0.779	-0.002	0.038	0.396
cg12743470	black	14	74,815,085	TSS200	OpenSea	C14orf115	0.779	0.002	0.090	0.768
cg07350718	black	1	86,045,841	TSS1500	N_Shore	CYR61	0.779	0.002	0.038	0.232
cg03919114	black	1	109,656,984	Body	S_Shore	KIAA1324	0.779	-0.001	0.056	0.701
cg18431640	black	13	100,637,191	Body	Island	ZIC2	0.779	-0.002	0.032	0.307
cg26704078	black	18	24,131,115	5'UTR	Island	KCTD1	0.779	0.001	0.052	0.829
cg03431972	black	5	153,857,918	TSS200	Island	HAND1	0.779	0.000	0.027	0.885
cg07118000	black	8	37,656,246	Body	S_Shore	GPR124	0.779	-0.002	0.045	0.434
cg03388712	black	1	168,271,061	Body	OpenSea	TBX19	0.779	0.005	0.250	0.585
cg03923071	black	5	153,852,929		N_Shore		0.779	-0.001	0.054	0.687
cg19222784	black	11	20,044,428	TSS1500	OpenSea	NAV2	0.779	-0.003	0.034	0.276
cg17484733	black	2	85,362,030	Body	Island	TCF7L1	0.778	0.003	0.053	0.485
cg24276105	black	11	45,686,055	5'UTR	N_Shore	CHST1	0.778	0.002	0.045	0.482
cg22272457	black	11	31,833,013	TSS200	Island	PAX6	0.778	-0.001	0.044	0.656
cg07318417	black	4	56,502,898	TSS1500	S_Shore	NMU	0.778	0.001	0.028	0.479
cg22946066	black	6	126,308,385	Body	S_Shore	TRMT11	0.778	0.004	0.046	0.153
cg04303382	black	17	77,766,421		Island		0.778	-0.004	0.050	0.140
cg14168733	black	1	201,708,718	TSS1500	N_Shore	NAV1	0.778	-0.013	0.100	0.105
cg11157816	black	1	114,522,185	1stExon	OpenSea	OLFML3	0.778	-0.001	0.019	0.621
cg17186163	black	10	45,474,317	5'UTR	OpenSea	C10orf10	0.778	0.000	0.080	0.995
cg17349081	black	9	82,188,559	Body	Island	TLE4	0.778	-0.001	0.032	0.768
cg13783444	black	14	75,536,434	1stExon	S_Shore	FAM164C	0.778	-0.003	0.043	0.106
cg27032184	black	22	46,731,129	TSS200	N_Shore	TRMU	0.778	0.001	0.047	0.739
cg26544594	black	2	63,276,833	TSS1500	Island	OTX1	0.778	0.000	0.022	0.797
cg00505502	black	9	133,028,557		Island		0.777	0.002	0.068	0.534
cg02249292	black	10	28,035,655	TSS1500	S_Shore	MKX	0.777	0.000	0.033	0.899
cg09988461	black	6	134,210,138	TSS200	N_Shore	TCF21	0.777	-0.002	0.031	0.375
cg13208704	black	17	36,761,029	Body	N_Shore	SRCIN1	0.777	0.001	0.036	0.724
cg17662182	black	3	169,385,996		N_Shore		0.777	0.000	0.031	0.847
cg20705081	black	6	34,495,308	Body	Island	PACIN1	0.777	-0.004	0.039	0.092
cg15089387	black	5	110,406,661	TSS1500	N_Shelf	TSLP	0.777	-0.001	0.046	0.852
cg14035521	black	9	37,486,469	Body	S_Shore	POLR1E	0.777	0.003	0.047	0.254
cg16247183	black	1	225,865,110		Island		0.777	-0.009	0.136	0.154
cg02369542	black	1	41,119,940	5'UTR	Island	RIMS3	0.776	-0.001	0.039	0.637
cg23750445	black	12	54,347,938	TSS1500	N_Shore	HOXC12	0.776	0.005	0.098	0.177
cg17695841	black	11	45,825,485	TSS200	N_Shore	SLC35C1	0.776	0.002	0.357	0.742
cg16535018	black	17	36,829,606	1stExon	N_Shore	C17orf96	0.776	-0.001	0.027	0.477
cg05656900	black	2	26,235,097		OpenSea		0.776	0.000	0.046	0.968
cg16409367	black	15	37,394,754	TSS1500	S_Shore	MEIS2	0.776	-0.001	0.040	0.741
cg07987890	black	15	69,366,322	Body	Island	MIR548H4	0.776	0.001	0.068	0.745
cg24142106	black	9	71,319,485	TSS1500	N_Shore	PIP5K1B	0.776	0.001	0.083	0.798
cg08651573	black	13	31,675,073		OpenSea		0.776	0.010	0.292	0.138
cg10095577	black	1	75,600,421	Body	N_Shore	LHX8	0.776	0.001	0.039	0.378
cg23961466	black	5	76,936,545		Island		0.776	-0.002	0.029	0.208
cg15796978	black	2	48,982,509	Body	N_Shore	LHCGR	0.776	0.001	0.052	0.766
cg05542614	black	5	153,855,845	Body	Island	HAND1	0.776	0.002	0.045	0.319
cg25123225	black	4	39,063,859	5'UTR	OpenSea	KLHL5	0.776	0.000	0.034	0.834
cg00327524	black	8	144,510,753		N_Shore		0.776	0.000	0.024	0.771
cg12539415	black	2	177,016,167	5'UTR	N_Shore	HOXD4	0.776	0.003	0.054	0.481
cg20998319	black	2	157,177,345		Island		0.776	0.000	0.031	0.966
cg04134048	black	8	23,021,610	TSS200	S_Shore	TNFRSF10D	0.775	0.001	0.045	0.622
cg04747941	black	15	70,877,925		Island		0.775	-0.002	0.045	0.244

cg21215929	black	5	14,873,039	TSS1500	S_Shore	ANKH	0.775	-0.001	0.062	0.830
cg05969808	black	10	102,978,788		S_Shore		0.775	-0.001	0.070	0.789
cg26513837	black	11	3,014,269	TSS1500	S_Shore	NAP1L4	0.775	-0.001	0.095	0.810
cg21493127	black	5	16,617,587	TSS1500	S_Shore	FAM134B	0.775	-0.003	0.051	0.256
cg24633390	black	1	173,159,746	Body	OpenSea	TNFSF4	0.775	0.003	0.076	0.618
cg26077811	black	11	119,232,263	Body	N_Shelf	USP2	0.775	-0.003	0.063	0.399
cg09605636	black	2	200,334,584	Body	N_Shore	FLJ32063	0.775	-0.002	0.032	0.314
cg10626816	black	1	39,025,249		OpenSea		0.775	0.004	0.091	0.556
cg09980176	black	19	11,532,175	Body	N_Shore	CCDC151	0.775	-0.003	0.046	0.387
cg10003961	black	6	168,293,749	Body	OpenSea	MLLT4	0.775	0.021	0.297	0.003
cg14456683	black	3	147,127,010	TSS200	Island	ZIC1	0.775	-0.001	0.033	0.740
cg03483632	black	11	35,639,276	TSS1500	N_Shore	FJX1	0.775	-0.003	0.040	0.136
cg11469321	black	4	104,021,294	TSS1500	OpenSea	BDH2	0.775	0.000	0.054	0.891
cg13829419	black	6	143,167,279	5'UTR	OpenSea	HIVEP2	0.775	-0.002	0.127	0.820
cg20855296	black	17	16,255,560	Body	N_Shore	CENPV	0.775	0.001	0.026	0.601
cg12572049	black	4	81,106,414	TSS200	S_Shore	PRDM8	0.775	0.000	0.017	0.732
cg06777194	black	16	1,030,444	TSS1500	Island	SOX8	0.775	-0.020	0.131	0.009
cg04512917	black	5	83,679,211	Body	N_Shore	EDIL3	0.775	-0.001	0.024	0.608
cg23401445	black	4	113,442,419		N_Shore		0.774	-0.001	0.044	0.432
cg17459182	black	2	241,866,514		OpenSea		0.774	0.008	0.067	0.074
cg03527867	black	16	4,401,940	TSS1500	S_Shore	Magmas	0.774	-0.004	0.053	0.215
cg22671421	black	10	102,507,979	Body	Island	PAX2	0.774	-0.002	0.044	0.481
cg22816278	black	1	16,571,023		OpenSea		0.774	0.000	0.030	0.916
cg00171729	black	6	52,416,856	Body	OpenSea	TRAM2	0.774	-0.003	0.040	0.456
cg11373252	black	2	219,938,304		OpenSea		0.774	-0.002	0.057	0.572
cg00667862	black	1	91,300,446		N_Shore		0.774	0.001	0.024	0.647
cg21923619	black	14	29,235,469	TSS1500	Island	FOXG1	0.774	-0.002	0.055	0.453
cg01027532	black	7	27,155,974	5'UTR	S_Shore	HOXA3	0.774	-0.003	0.065	0.539
cg16608407	black	7	27,225,865	Body	N_Shore	HOXA11AS	0.773	0.002	0.076	0.743
cg21049361	black	6	30,655,870	TSS1500	S_Shore	KIAA1949	0.773	-0.002	0.119	0.615
cg11513700	black	7	27,245,296		Island		0.773	-0.001	0.026	0.699
cg23871640	black	1	110,611,807	Body	Island	ALX3	0.773	-0.002	0.039	0.336
cg23133011	black	11	122,847,242		N_Shore		0.773	-0.001	0.022	0.482
cg26724949	black	16	86,610,230		Island		0.773	-0.001	0.019	0.392
cg09578568	black	4	113,432,770		S_Shore		0.773	0.001	0.046	0.709
cg11967546	black	6	27,655,170		N_Shore		0.773	0.001	0.025	0.288
cg21283081	black	3	128,152,179		Island		0.773	0.001	0.068	0.711
cg16579438	black	3	24,537,301	TSS1500	Island	THRB	0.773	0.000	0.087	0.995
cg06258672	black	15	51,387,677	Body	Island	TNFAIP8L3	0.773	0.000	0.039	0.796
cg03490331	black	5	172,672,817		Island		0.772	0.000	0.044	0.999
cg08004278	black	7	121,950,926		Island		0.772	-0.001	0.047	0.514
cg04822748	black	7	27,225,897	Body	N_Shore	HOXA11AS	0.772	0.002	0.048	0.446
cg17933512	black	13	100,631,545		N_Shore		0.772	-0.001	0.023	0.494
cg25566507	black	19	17,952,399	Body	Island	JAK3	0.772	-0.006	0.208	0.678
cg14896463	black	7	116,592,956	TSS1500	N_Shore	ST7OT4	0.772	-0.001	0.049	0.652
cg21808635	black	7	55,225,133	Body	OpenSea	EGFR	0.772	0.006	0.521	0.668
cg26307926	black	2	71,116,765		S_Shore		0.772	0.000	0.040	0.887
cg08731068	black	17	77,960,689	Body	OpenSea	TBC1D16	0.772	-0.005	0.547	0.363
cg22031614	black	15	76,628,424	TSS1500	N_Shore	ISL2	0.772	-0.002	0.035	0.502
cg25815229	black	13	79,183,932		S_Shore		0.772	-0.001	0.062	0.850
cg08571859	black	5	112,073,350	TSS1500	OpenSea	APC	0.772	0.001	0.026	0.468
cg12265623	black	7	8,481,994	Body	Island	NXP1	0.772	0.000	0.041	0.970
cg06484572	black	6	41,605,494	TSS1500	Island	MDF1	0.772	-0.001	0.045	0.502
cg02538199	black	9	37,034,277	1stExon	Island	PAX5	0.772	-0.001	0.032	0.674
cg23117316	black	7	135,346,802	TSS1500	N_Shore	PL-5283	0.772	0.000	0.243	0.947
cg04030401	black	16	67,196,699	TSS1500	N_Shore	HSF4	0.772	-0.003	0.061	0.348
cg21248274	black	8	63,162,277	Body	S_Shore	NKAIN3	0.772	-0.001	0.033	0.621
cg01960016	black	5	174,152,363	Body	Island	MSX2	0.772	-0.003	0.039	0.202
cg07247419	black	20	21,376,484	3'UTR	Island	NKX2-4	0.771	0.000	0.024	0.801
cg17807663	black	17	46,622,012	1stExon	S_Shore	HOXB2	0.771	-0.003	0.044	0.321
cg05294159	black	17	43,047,548		Island		0.771	-0.004	0.057	0.120
cg11073255	black	6	31,762,455	Body	N_Shore	VARS	0.771	-0.002	0.036	0.468
cg05672912	black	5	174,115,735		OpenSea		0.771	-0.001	0.029	0.447
cg14051236	black	14	100,029,763	Body	OpenSea	CCDC85C	0.771	-0.001	0.129	0.767
cg18678107	black	14	100,130,465	Body	S_Shelf	HHIPL1	0.771	0.003	0.072	0.439
cg21273659	black	1	149,138,451		S_Shore		0.771	-0.001	0.049	0.725
cg02457328	black	12	103,355,190		S_Shelf		0.771	0.001	0.021	0.481

cg14725082	black	15	101,587,738	Body	OpenSea	LRRK1	0.771	0.005	0.158	0.521
cg19392396	black	7	50,861,654	TSS1500	S_Shore	GRB10	0.771	-0.004	0.079	0.338
cg02860602	black	12	103,356,060		N_Shelf		0.771	-0.002	0.029	0.135
cg15140465	black	11	77,184,194	5'UTR	Island	PAK1	0.771	-0.001	0.019	0.517
cg21352006	black	12	24,102,581	5'UTR	OpenSea	SOX5	0.771	-0.001	0.023	0.554
cg10678266	black	7	24,614,348	5'UTR	OpenSea	MPP6	0.771	0.000	0.045	0.961
cg18091385	black	14	99,502,466		OpenSea		0.771	0.000	0.034	0.990
cg19052064	black	17	48,278,952	1stExon	Island	COL1A1	0.771	0.000	0.016	0.626
cg04479219	black	13	88,326,918	5'UTR	Island	SLITRK5	0.770	0.000	0.040	0.957
cg16119128	black	15	40,630,304	Body	OpenSea	C15orf52	0.770	0.001	0.030	0.601
cg13496596	black	9	137,534,945	Body	S_Shore	COL5A1	0.770	0.000	0.025	0.777
cg02039815	black	2	224,904,724	TSS1500	Island	SERPINE2	0.770	-0.003	0.054	0.425
cg10665321	black	19	19,221,392	Body	Island	SLC25A42	0.770	-0.001	0.024	0.709
cg07972632	black	7	1,280,365		Island		0.770	-0.001	0.033	0.635
cg16298481	black	1	89,989,717	TSS1500	N_Shore	LRRK8B	0.770	-0.002	0.035	0.172
cg12562076	black	6	137,808,930		N_Shore		0.770	0.001	0.054	0.743
cg27583307	black	2	200,320,750	Body	Island	SATB2	0.770	0.000	0.027	0.771
cg15584401	black	2	75,426,367	1stExon	N_Shore	TACR1	0.770	0.003	0.079	0.522
cg17278528	black	2	177,005,719		S_Shore		0.770	-0.004	0.047	0.041
cg03840467	black	17	75,278,162	Body	Island	9-Sep	0.770	0.008	0.301	0.660
cg03045323	black	19	11,484,448	TSS1500	N_Shore	C19orf39	0.770	0.006	0.055	0.072
cg16524701	black	7	42,275,601	5'UTR	N_Shore	GLI3	0.770	0.000	0.034	0.879
cg08095985	black	15	66,544,325	5'UTR	N_Shore	MEGF11	0.770	0.000	0.037	0.956
cg00569447	black	5	50,695,224		Island		0.770	-0.002	0.037	0.252
cg00718831	black	12	278,159	Body	OpenSea	IQSEC3	0.770	-0.003	0.072	0.451
cg04008913	black	3	43,327,465	TSS1500	N_Shore	SNRK	0.770	-0.001	0.152	0.917
cg00907283	black	22	20,286,454		Island		0.770	0.002	0.031	0.238
cg17176016	black	6	108,441,207		Island		0.769	0.002	0.056	0.585
cg17471939	black	1	3,600,879	Body	OpenSea	TP73	0.769	0.001	0.015	0.280
cg14546394	black	8	72,756,863	TSS200	S_Shore	MSC	0.769	-0.001	0.023	0.624
cg00119073	black	3	187,870,713	TSS1500	N_Shore	LPP	0.769	-0.001	0.044	0.866
cg05683445	black	16	28,303,182	TSS1500	N_Shore	SBK1	0.769	-0.003	0.046	0.134
cg02283643	black	8	70,378,740	TSS200	OpenSea	SULF1	0.769	0.000	0.040	0.851
cg07491676	black	15	76,400,783	5'UTR	OpenSea	C15orf27	0.769	0.007	0.137	0.327
cg24616539	black	11	31,848,828		S_Shore		0.769	-0.001	0.047	0.751
cg12788037	black	17	33,775,860	TSS200	N_Shore	SLFN13	0.769	-0.002	0.034	0.437
cg25742745	black	6	30,689,865	Body	S_Shore	TUBB	0.769	-0.003	0.048	0.430
cg02086801	black	5	76,928,406	Body	S_Shore	OTP	0.769	-0.002	0.075	0.630
cg02845988	black	12	93,836,455	TSS1500	S_Shore	UBE2N	0.769	0.000	0.031	0.914
cg01881322	black	6	53,660,854	Body	Island	LRRK1	0.769	0.001	0.038	0.616
cg06573459	black	3	153,840,654	Body	S_Shore	SGEF	0.769	0.000	0.027	0.945
cg00559234	black	1	9,885,909	TSS1500	S_Shore	CLSTN1	0.769	0.000	0.035	0.803
cg04968127	black	11	10,715,213	1stExon	OpenSea	MRV11	0.769	0.003	0.485	0.707
cg06747888	black	2	162,271,859	TSS1500	N_Shore	TBR1	0.769	0.000	0.023	0.732
cg12679760	black	1	36,786,615	Body	Island	C1orf113	0.769	0.001	0.071	0.880
cg23344321	black	17	28,707,212	Body	S_Shore	CPD	0.769	0.002	0.042	0.524
cg19204131	black	6	10,385,320		Island		0.769	0.000	0.024	0.869
cg16137147	black	1	221,067,896		Island		0.769	0.007	0.059	0.441
cg02470521	black	2	176,971,304	TSS1500	N_Shore	HOXD11	0.769	0.000	0.033	0.786
cg09467508	black	3	137,486,265		N_Shore		0.768	0.001	0.019	0.200
cg08655330	black	1	19,132,135		OpenSea		0.768	0.004	0.496	0.573
cg00812009	black	4	175,135,765		S_Shore		0.768	-0.003	0.022	0.094
cg26967619	black	2	218,621,497	TSS200	Island	DIRC3	0.768	0.000	0.050	0.991
cg25149551	black	1	156,897,062	Body	N_Shore	C1orf92	0.768	-0.003	0.046	0.036
cg15677364	black	6	30,687,221	TSS1500	N_Shore	TUBB	0.768	0.000	0.073	0.979
cg17552801	black	10	99,332,121	TSS200	S_Shore	ANKRD2	0.768	0.001	0.110	0.880
cg05323533	black	4	41,750,362	Body	N_Shore	PHOX2B	0.768	0.000	0.034	0.840
cg20577468	black	8	80,803,196		N_Shore		0.768	0.000	0.063	0.960
cg09006159	black	2	98,329,811	TSS1500	OpenSea	ZAP70	0.768	0.002	0.478	0.702
cg08815081	black	10	28,035,731	TSS1500	S_Shore	MKX	0.768	0.002	0.048	0.482
cg00102955	black	1	150,230,345	1stExon	OpenSea	CA14	0.768	-0.003	0.035	0.125
cg23223933	black	10	103,603,292	1stExon	Island	KCNIP2	0.768	-0.005	0.045	0.179
cg20648272	black	20	35,068,341	Body	S_Shelf	DLGAP4	0.767	-0.001	0.046	0.742
cg22685502	black	3	72,496,851	TSS1500	Island	RYBP	0.767	-0.005	0.075	0.288
cg24642169	black	1	212,731,669		Island		0.767	-0.002	0.063	0.527
cg03126561	black	11	12,434,050	Body	OpenSea	PARVA	0.767	-0.005	0.104	0.321
cg11964461	black	5	179,606,623	5'UTR	OpenSea	RASGEF1C	0.767	0.003	0.324	0.696

cg22590062	black	17	62,658,919	TSS1500	S_Shore	SMURF2	0.767	0.001	0.031	0.576
cg03023089	black	22	36,806,580		Island		0.767	-0.004	0.070	0.386
cg11983576	black	15	53,090,807		S_Shelf		0.767	-0.002	0.029	0.307
cg04606076	black	13	80,934,105		OpenSea		0.767	0.000	0.036	0.930
cg05135156	black	1	184,355,420	TSS1500	Island	C1orf21	0.767	0.003	0.028	0.050
cg25478113	black	7	113,723,483		N_Shore		0.767	-0.002	0.024	0.185
cg03306615	black	11	2,292,890	TSS1500	Island	ASCL2	0.767	-0.002	0.120	0.872
cg25131544	black	1	62,107,624		OpenSea		0.767	-0.001	0.039	0.809
cg22168941	black	6	126,071,319	Body	Island	HEY2	0.767	0.000	0.033	0.924
cg21136371	black	11	1,991,065		Island		0.767	-0.002	0.053	0.424
cg17319576	black	1	86,047,239	Body	Island	CYR61	0.766	0.001	0.033	0.559
cg20692998	black	1	214,159,203		N_Shore		0.766	0.000	0.035	0.895
cg12167239	black	22	19,166,808	TSS1500	Island	SLC25A1	0.766	-0.002	0.041	0.253
cg03609666	black	19	49,250,439	TSS1500	N_Shelf	IZUMO1	0.766	-0.001	0.021	0.632
cg02799880	black	13	99,630,462	Body	OpenSea	DOCK9	0.766	-0.002	0.041	0.458
cg09678615	black	16	52,579,163	5'UTR	N_Shore	TOX3	0.766	-0.001	0.025	0.411
cg09464990	black	17	70,724,035	Body	OpenSea	SLC39A11	0.766	-0.001	0.040	0.581
cg23887746	black	20	57,228,464	Body	S_Shelf	STX16	0.766	0.001	0.058	0.809
cg19005438	black	15	60,295,158	TSS1500	N_Shore	FOXB1	0.766	-0.002	0.042	0.429
cg06679087	black	10	99,473,206	TSS1500	Island	MARVELD1	0.766	0.002	0.035	0.184
cg14334161	black	10	72,201,622	TSS200	S_Shore	NODAL	0.766	-0.010	0.537	0.252
cg12753631	black	6	31,566,610		OpenSea		0.766	-0.001	0.190	0.799
cg17804100	black	1	42,277,934	5'UTR	OpenSea	HIVEP3	0.766	-0.004	0.050	0.113
cg01564033	black	11	44,332,216	TSS1500	N_Shore	ALX4	0.765	-0.001	0.023	0.636
cg23024136	black	5	153,853,154		Island		0.765	0.000	0.018	0.622
cg13148085	black	17	65,242,711	TSS1500	S_Shore	HELZ	0.765	-0.001	0.045	0.751
cg13123964	black	8	38,323,238	5'UTR	N_Shore	FGFR1	0.765	0.000	0.023	0.935
cg22924250	black	14	73,358,241	Body	N_Shore	DPF3	0.765	-0.001	0.058	0.897
cg07889201	black	20	2,490,030	TSS1500	S_Shore	ZNF343	0.765	0.002	0.038	0.419
cg07336617	black	5	76,935,080	TSS1500	Island	OTP	0.765	-0.001	0.076	0.814
cg14909464	black	13	29,107,295		S_Shore		0.765	-0.005	0.043	0.002
cg21402071	black	15	78,933,902	TSS1500	S_Shore	CHRNB4	0.765	-0.002	0.049	0.408
cg12477370	black	6	45,391,852	Body	S_Shore	RUNX2	0.765	-0.008	0.091	0.319
cg08969198	black	22	43,011,054	TSS200	Island	RNU12	0.765	0.002	0.088	0.792
cg10344369	black	11	31,846,622		N_Shore		0.765	-0.002	0.040	0.332
cg14819891	black	5	168,370,991	Body	OpenSea	SLIT3	0.765	0.004	0.153	0.552
cg23133255	black	8	91,803,670	TSS1500	Island	NECAB1	0.765	-0.004	0.202	0.424
cg00937262	black	7	123,672,103	1stExon	Island	TMEM229A	0.765	0.000	0.029	0.981
cg21849844	black	13	100,611,865		Island		0.765	0.000	0.031	0.870
cg00747849	black	22	19,165,386	Body	Island	SLC25A1	0.764	-0.001	0.037	0.801
cg13084345	black	1	36,948,733	TSS1500	OpenSea	CSF3R	0.764	-0.006	0.417	0.266
cg01719210	black	2	71,128,191	Body	Island	VAX2	0.764	-0.004	0.050	0.098
cg05154390	black	1	36,929,274	Body	N_Shore	MRPS15	0.764	-0.003	0.055	0.407
cg00142036	black	10	13,388,442	5'UTR	OpenSea	SEPHS1	0.764	0.000	0.046	0.992
cg21859053	black	3	12,330,363	5'UTR	S_Shore	PPARG	0.764	0.000	0.044	0.824
cg07516483	black	8	77,586,264	Body	N_Shelf	LOC1001923	0.764	0.002	0.053	0.327
cg27426220	black	7	143,106,126	TSS200	OpenSea	EPHA1	0.764	0.001	0.030	0.309
cg17187762	black	22	28,070,120		N_Shelf		0.764	-0.002	0.070	0.584
cg04296699	black	1	151,810,904	Body	Island	C2CD4D	0.764	0.000	0.040	0.942
cg04088697	black	7	96,627,050	Body	OpenSea	DLX6AS	0.764	0.000	0.020	0.923
cg00020474	black	1	8,214,963		OpenSea		0.764	0.000	0.031	0.978
cg09644065	black	6	127,835,750	Body	N_Shore	C6orf174	0.764	-0.001	0.040	0.750
cg04452713	black	6	56,707,687	Body	N_Shore	DST	0.764	0.000	0.028	0.915
cg18331412	black	5	135,364,986	Body	Island	TGFBI	0.764	-0.005	0.055	0.196
cg21519787	black	19	49,133,421	3'UTR	Island	SPHK2	0.764	-0.003	0.040	0.326
cg02097309	black	19	13,266,390		Island		0.764	0.002	0.035	0.316
cg06745740	black	7	81,399,587	TSS200	OpenSea	HGF	0.764	0.000	0.033	0.855
cg03707308	black	6	6,002,766	Body	Island	NRN1	0.764	0.001	0.033	0.332
cg11063110	black	7	129,985,205	5'UTR	OpenSea	CPA5	0.763	0.006	0.086	0.337
cg03465652	black	2	121,625,735	Body	S_Shore	GLI2	0.763	0.001	0.051	0.596
cg09511119	black	7	121,945,743	TSS1500	Island	FEZF1	0.763	-0.002	0.035	0.147
cg11671913	black	5	43,017,685		N_Shore		0.763	0.001	0.019	0.529
cg01048445	black	2	241,772,076		Island		0.763	-0.001	0.043	0.793
cg07557690	black	1	92,352,407	TSS1500	S_Shore	TGFBR3	0.763	0.000	0.048	0.999
cg19382657	black	18	501,234	TSS1500	S_Shore	COLEC12	0.763	0.000	0.026	0.965
cg27480727	black	2	223,164,831	TSS1500	S_Shore	PAX3	0.763	0.001	0.033	0.680
cg14830601	black	10	118,893,602	Body	Island	VAX1	0.763	0.001	0.039	0.538

cg03981954	black	7	121,942,010	3'UTR	N_Shore	FEZF1	0.763	0.000	0.016	0.994
cg05981785	black	2	74,210,960		N_Shore		0.763	-0.003	0.322	0.633
cg18410945	black	7	157,257,054		N_Shelf		0.763	0.009	0.224	0.293
cg24963001	black	17	46,651,952	TSS200	N_Shelf	HOXB3	0.763	0.002	0.127	0.819
cg04123310	black	1	27,677,072	Body	Island	SYTL1	0.763	-0.008	0.215	0.256
cg09048129	black	11	119,234,607	1stExon	Island	USP2	0.763	0.003	0.045	0.432
cg04438074	black	10	63,422,539	TSS200	Island	C10orf107	0.762	-0.014	0.123	0.020
cg21650077	black	11	112,831,853	TSS200	N_Shore	NCAM1	0.762	0.001	0.042	0.602
cg27427581	black	10	8,075,716		N_Shore		0.762	-0.017	0.220	0.038
cg15261665	black	3	46,506,374	5'UTR	Island	LTF	0.762	0.002	0.071	0.797
cg06799321	black	16	66,995,143	1stExon	OpenSea	CES3	0.762	-0.002	0.040	0.330
cg20747538	black	3	137,838,021		S_Shelf		0.762	-0.001	0.250	0.815
cg06087019	black	3	27,770,182		N_Shore		0.762	0.000	0.024	0.915
cg15590950	black	1	44,874,649	5'UTR	S_Shore	RNF220	0.762	0.001	0.014	0.687
cg11590405	black	7	35,577,258		Island		0.761	0.002	0.030	0.141
cg14489801	black	10	103,603,810	TSS200	S_Shore	KCNIP2	0.761	-0.002	0.055	0.320
cg17649293	black	2	71,134,791	Body	Island	VAX2	0.761	0.001	0.033	0.699
cg18869127	black	2	113,956,255	Body	N_Shore	PSD4	0.761	-0.001	0.083	0.879
cg24350296	black	13	24,144,486	TSS1500	OpenSea	TNFRSF19	0.761	-0.001	0.038	0.679
cg08045981	black	11	130,710,076		OpenSea		0.761	0.000	0.043	0.930
cg05454076	black	2	219,763,330		Island		0.761	0.001	0.035	0.666
cg20480642	black	8	52,722,185	TSS200	OpenSea	PXDNL	0.761	0.003	0.080	0.580
cg03889542	black	3	44,039,578		Island		0.761	-0.002	0.024	0.095
cg13030331	black	2	241,497,599	TSS200	Island	ANKMY1	0.761	0.000	0.063	0.879
cg20387429	black	1	91,300,288		N_Shore		0.761	0.001	0.029	0.727
cg21700166	black	14	91,720,227	TSS200	Island	GPR68	0.761	-0.005	0.047	0.025
cg17910813	black	19	47,923,387	TSS1500	N_Shore	MEIS3	0.761	0.001	0.041	0.664
cg03796321	black	15	86,162,442	Body	OpenSea	AKAP13	0.761	0.000	0.021	0.982
cg00888007	black	12	4,382,184	TSS1500	Island	CCND2	0.761	-0.002	0.029	0.321
cg03861097	black	21	34,393,589		N_Shore		0.761	0.000	0.038	0.951
cg03941587	black	4	123,747,634	TSS1500	N_Shore	FGF2	0.760	0.002	0.024	0.091
cg14663264	black	1	91,192,798		Island		0.760	-0.008	0.069	0.123
cg26168324	black	10	119,302,318	1stExon	Island	EMX2	0.760	-0.001	0.033	0.397
cg18944010	black	1	119,522,855	5'UTR	S_Shore	TBX15	0.760	0.000	0.024	0.773
cg06755825	black	15	96,959,633		Island		0.760	-0.002	0.043	0.239
cg02897537	black	10	124,893,832		N_Shore		0.760	-0.001	0.041	0.469
cg08641090	black	2	72,375,141	TSS200	N_Shore	CYP26B1	0.760	0.000	0.053	0.881
cg08154612	black	17	7,037,098		OpenSea		0.760	0.004	0.331	0.749
cg07146912	black	3	73,671,377	Body	N_Shore	PDZRN3	0.760	0.003	0.114	0.685
cg24424424	black	11	101,453,106	Body	N_Shore	TRPC6	0.760	-0.001	0.022	0.578
cg11708616	black	6	1,314,219	1stExon	Island	FOXQ1	0.760	-0.001	0.025	0.602
cg06639166	black	6	100,913,923		N_Shore		0.760	-0.001	0.029	0.749
cg10685612	black	17	43,047,405		N_Shore		0.760	-0.003	0.272	0.715
cg12115991	black	6	108,438,047		Island		0.760	-0.001	0.046	0.837
cg13604794	black	17	48,050,338	Body	Island	DLX4	0.759	-0.003	0.052	0.334
cg15878619	black	6	30,687,373	TSS1500	N_Shore	TUBB	0.759	0.000	0.034	0.760
cg11814235	black	18	28,621,490	Body	Island	DSC3	0.759	-0.001	0.021	0.528
cg05671070	black	10	8,095,960	TSS1500	Island	FLJ45983	0.759	0.000	0.016	0.963
cg19719902	black	1	44,874,576	5'UTR	S_Shore	RNF220	0.759	-0.001	0.051	0.881
cg02462195	black	21	28,340,304	TSS1500	S_Shore	ADAMT55	0.759	0.002	0.034	0.252
cg04925385	black	13	52,378,555	TSS1500	Island	DHRS12	0.759	0.001	0.053	0.766
cg10421029	black	16	30,936,028	1stExon	S_Shore	FBXL19	0.759	0.001	0.039	0.609
cg10028348	black	7	130,794,597	TSS1500	N_Shore	MKLN1	0.759	-0.001	0.041	0.806
cg05651903	black	3	186,543,527		N_Shore		0.759	0.001	0.046	0.781
cg06143732	black	7	129,912,803	Body	OpenSea	CPA2	0.759	0.002	0.076	0.737
cg20978277	black	8	28,481,148		S_Shore		0.759	-0.003	0.036	0.105
cg23449696	black	3	147,125,942	TSS1500	N_Shore	ZIC1	0.759	0.001	0.028	0.300
cg01236132	black	13	112,723,581	1stExon	Island	SOX1	0.759	-0.001	0.056	0.630
cg15926776	black	1	50,893,730		Island		0.759	0.000	0.027	0.889
cg12622680	black	7	158,819,620		S_Shore		0.759	-0.005	0.392	0.563
cg05325934	black	7	28,220,606	TSS200	S_Shore	JAZF1	0.759	-0.001	0.045	0.825
cg03719693	black	4	109,093,430	Body	Island	LOC641518	0.759	0.004	0.114	0.331
cg26822414	black	8	65,492,615	TSS200	N_Shore	BHLHE22	0.759	0.002	0.031	0.275
cg12109838	black	4	103,996,978	5'UTR	N_Shore	NHEDC2	0.759	0.001	0.062	0.858
cg24110050	black	1	67,217,853	TSS1500	N_Shore	TCTEX1D1	0.759	0.000	0.025	0.859
cg15134801	black	5	60,138,838	5'UTR	N_Shore	ELOVL7	0.759	-0.003	0.038	0.323
cg02854331	black	1	55,462,704		Island		0.759	0.000	0.037	0.843

cg22811647	black	14	105,748,448	Body	OpenSea	BRF1	0.758	0.000	0.046	0.968
cg00088183	black	1	91,185,168		Island		0.758	0.000	0.022	0.807
cg13732857	black	2	45,029,729		Island		0.758	0.001	0.024	0.252
cg05915981	black	6	131,571,669	1stExon	OpenSea	AKAP7	0.758	0.002	0.063	0.591
cg17515145	black	1	107,682,283	TSS1500	N_Shore	NTNG1	0.758	-0.003	0.038	0.083
cg06174599	black	5	76,925,446	3'UTR	Island	OTP	0.758	0.004	0.026	0.014
cg17932631	black	2	96,990,861	TSS1500	Island	ITPRIPL1	0.758	0.001	0.062	0.815
cg10135197	black	3	126,854,676		Island		0.758	-0.002	0.048	0.378
cg08021945	black	12	9,065,639		N_Shore		0.758	-0.003	0.047	0.320
cg21658814	black	6	125,933,555		OpenSea		0.758	-0.003	0.057	0.530
cg24842086	black	1	119,531,857	5'UTR	N_Shore	TBX15	0.758	-0.007	0.077	0.116
cg27195326	black	12	41,087,459	5'UTR	S_Shore	CNTN1	0.758	-0.002	0.060	0.557
cg00541476	black	8	70,404,716	5'UTR	OpenSea	SULF1	0.758	0.001	0.033	0.550
cg05267118	black	11	2,907,884	TSS1500	S_Shore	CDKN1C	0.758	-0.002	0.172	0.607
cg18293662	black	3	27,766,054		S_Shore		0.758	-0.001	0.024	0.534
cg18131548	black	1	47,696,212	TSS1500	N_Shore	TAL1	0.758	-0.002	0.047	0.496
cg23231462	black	1	228,136,503	TSS1500	S_Shore	WNT9A	0.758	0.002	0.027	0.238
cg17110052	black	19	51,858,208	TSS200	OpenSea	ETFB	0.758	-0.001	0.025	0.338
cg24778896	black	15	65,394,063	Body	N_Shore	LOC390595	0.757	0.000	0.043	0.944
cg17768691	black	12	14,720,948	TSS200	Island	PLBD1	0.757	-0.004	0.081	0.373
cg05373723	black	4	141,347,993	5'UTR	N_Shore	CLGN	0.757	-0.002	0.067	0.514
cg21423724	black	7	121,512,875	TSS1500	N_Shore	PTPRZ1	0.757	-0.002	0.038	0.348
cg25452067	black	10	101,281,603		Island		0.757	-0.002	0.024	0.280
cg24161793	black	2	96,990,762	TSS1500	N_Shore	ITPRIPL1	0.757	-0.001	0.040	0.704
cg04556008	black	10	119,293,800	Body	N_Shore	EMX2OS	0.757	-0.002	0.032	0.243
cg01129459	black	14	60,386,828		S_Shore		0.757	0.001	0.034	0.775
cg00202441	black	4	47,033,126	TSS200	N_Shore	GABRB1	0.757	0.002	0.070	0.543
cg24460144	black	5	149,569,880	5'UTR	Island	SLC6A7	0.757	0.000	0.065	0.907
cg13400203	black	2	96,055,060		Island		0.757	0.003	0.045	0.370
cg00017970	black	1	26,487,737	5'UTR	N_Shore	GRRP1	0.757	-0.004	0.060	0.183
cg16004738	black	14	105,155,327	TSS1500	N_Shore	INF2	0.757	-0.006	0.322	0.501
cg25487404	black	8	37,551,945	TSS1500	Island	ZNF703	0.757	-0.001	0.029	0.594
cg16361966	black	10	124,905,786		Island		0.757	-0.004	0.070	0.194
cg02779944	black	1	200,004,584	Body	Island	NR5A2	0.757	0.001	0.051	0.672
cg21111500	black	1	85,665,902	Body	Island	SYDE2	0.757	0.001	0.020	0.397
cg10512292	black	12	4,378,267		N_Shore		0.757	0.000	0.018	0.767
cg08640619	black	1	157,989,520	Body	OpenSea	KIRREL	0.757	-0.003	0.038	0.327
cg20484352	black	4	38,869,779	5'UTR	Island	FAM114A1	0.757	0.000	0.037	0.940
cg02352240	black	16	51,188,372		Island		0.757	-0.004	0.039	0.258
cg10441934	black	10	100,995,640	TSS200	S_Shore	HPSE2	0.757	-0.002	0.028	0.153
cg27237508	black	15	29,864,169	TSS1500	S_Shore	FAM189A1	0.757	0.000	0.014	0.734
cg10367023	black	2	223,177,287		Island		0.757	0.001	0.049	0.854
cg12484393	black	15	39,110,097		OpenSea		0.757	0.002	0.041	0.333
cg00281551	black	4	41,884,566		Island		0.757	-0.005	0.044	0.150
cg27078890	black	11	128,457,459	TSS200	OpenSea	ETS1	0.757	-0.002	0.028	0.301
cg20274430	black	22	41,075,992	Body	OpenSea	MCHR1	0.757	0.000	0.219	0.997
cg18959207	black	10	18,549,686	1stExon	OpenSea	CACNB2	0.756	-0.001	0.102	0.875
cg18741586	black	3	52,868,999	1stExon	OpenSea	MUSTN1	0.756	-0.004	0.276	0.546
cg19450479	black	3	5,018,817		N_Shore		0.756	0.001	0.037	0.592
cg15557036	black	17	48,041,891		Island		0.756	0.000	0.021	0.770
cg16797777	black	6	160,389,717	TSS1500	N_Shore	IGF2R	0.756	-0.001	0.031	0.470
cg03989260	black	1	119,529,360	5'UTR	N_Shore	TBX15	0.756	-0.001	0.030	0.739
cg03811629	black	5	139,176,077	5'UTR	Island	PSD2	0.756	0.002	0.038	0.305
cg05214685	black	2	223,177,493		Island		0.756	0.000	0.037	0.905
cg11077516	black	13	100,620,486	Body	Island	ZIC5	0.756	-0.002	0.048	0.515
cg19572637	black	2	66,660,175		N_Shore		0.756	0.000	0.019	0.614
cg06381803	black	19	46,119,475	Body	Island	EML2	0.756	-0.003	0.060	0.484
cg23325963	black	2	45,160,093		Island		0.756	0.006	0.042	0.154
cg15095922	black	5	1,800,542	TSS1500	Island	NDUFS6	0.756	-0.002	0.032	0.437
cg07528484	black	11	45,907,808	Body	Island	MAPK8IP1	0.756	-0.003	0.070	0.268
cg10675797	black	3	141,547,143		OpenSea		0.756	0.013	0.633	0.201
cg00840115	black	2	145,282,103		Island		0.756	-0.001	0.036	0.691
cg11455862	black	7	35,577,269		Island		0.755	-0.002	0.058	0.619
cg07410188	black	5	153,864,967		S_Shelf		0.755	-0.001	0.040	0.643
cg11863728	black	5	134,872,126	TSS1500	S_Shore	NEUROG1	0.755	0.001	0.024	0.634
cg12569736	black	8	140,643,235	Body	OpenSea	KCNK9	0.755	0.004	0.064	0.226
cg17665652	black	4	114,214,093	Body	OpenSea	ANK2	0.755	-0.001	0.040	0.662

cg06832853	black	11	31,892,855	OpenSea		0.755	0.001	0.035	0.492
cg05133205	black	6	32,121,249 TSS200	N_Shore	PPT2	0.755	0.000	0.038	1.000
cg13476077	black	1	200,009,373 Body	N_Shore	NR5A2	0.755	0.000	0.022	1.000
cg20431766	black	2	16,083,031 Body	Island	MYCN	0.755	-0.006	0.101	0.310
cg23545105	black	4	48,908,833 TSS200	Island	OCIAD2	0.755	0.001	0.103	0.926
cg02143487	black	17	79,316,286	Island		0.754	-0.002	0.021	0.019
cg25323554	black	17	27,135,257 5'UTR	N_Shelf	C17orf63	0.754	0.000	0.027	0.883
cg23693200	black	20	4,701,448 TSS1500	OpenSea	PRND	0.754	0.004	0.031	0.011
cg21611810	black	12	114,841,870 5'UTR	N_Shore	TBX5	0.754	0.002	0.028	0.361
cg22630667	black	5	153,862,673	S_Shore		0.754	0.002	0.045	0.479
cg05363938	black	17	61,043,072	N_Shore		0.754	0.004	0.042	0.107
cg10504065	black	9	66,456,639	N_Shore		0.754	0.012	0.364	0.334
cg12068257	black	1	16,091,149 5'UTR	OpenSea	FBLIM1	0.754	0.004	0.300	0.424
cg14894848	black	22	48,884,945 TSS1500	Island	FAM19A5	0.754	0.002	0.072	0.795
cg03430633	black	11	119,580,588 Body	OpenSea	PVRL1	0.754	-0.003	0.035	0.170
cg18530324	black	18	46,064,992 TSS1500	N_Shore	KIAA0427	0.754	0.000	0.046	0.881
cg17743381	black	1	39,024,825	OpenSea		0.754	0.001	0.177	0.847
cg13844049	black	1	68,759,259	OpenSea		0.754	0.000	0.045	0.926
cg26351966	black	10	102,106,080 TSS1500	N_Shore	SCD	0.754	0.000	0.177	0.966
cg12659883	black	1	119,543,057	Island		0.754	-0.001	0.023	0.465
cg01185080	black	15	90,543,813 TSS1500	Island	ZNF710	0.754	-0.001	0.069	0.797
cg21963854	black	15	69,366,348 Body	Island	MIR548H4	0.754	0.003	0.043	0.237
cg02631189	black	1	113,421,910	OpenSea		0.754	0.002	0.484	0.704
cg08254353	black	17	31,254,670 TSS1500	N_Shore	TMEM98	0.753	-0.001	0.055	0.687
cg26371206	black	20	17,512,208 Body	Island	BFSP1	0.753	-0.001	0.042	0.434
cg24765394	black	9	129,088,647 TSS1500	Island	FAM125B	0.753	0.002	0.033	0.309
cg04003500	black	9	71,788,759 TSS1500	Island	TJP2	0.753	-0.001	0.037	0.645
cg02245378	black	2	223,161,771 Body	Island	PAX3	0.753	0.000	0.036	0.959
cg16688112	black	16	88,922,774 Body	Island	GALNS	0.753	0.000	0.062	0.931
cg24525763	black	10	135,075,002	Island		0.753	-0.005	0.094	0.370
cg14258143	black	1	32,714,146 Body	Island	FAM167B	0.753	-0.002	0.036	0.617
cg13661519	black	7	27,141,088 Body	N_Shelf	HOXA2	0.753	0.001	0.055	0.918
cg25383503	black	19	18,714,552 Body	N_Shore	CRLF1	0.753	-0.002	0.027	0.397
cg24244374	black	1	214,153,472	Island		0.753	-0.001	0.030	0.707
cg14789659	black	10	63,809,073 Body	OpenSea	ARID5B	0.753	-0.002	0.036	0.488
cg22260478	black	6	132,272,790 TSS1500	S_Shore	CTGF	0.753	-0.001	0.041	0.618
cg05214427	black	11	393,938 TSS1500	N_Shore	PKP3	0.753	0.000	0.518	0.981
cg14236665	black	10	5,853,447 Body	N_Shore	GDI2	0.753	-0.001	0.058	0.854
cg18647237	black	5	43,017,561	N_Shore		0.753	0.001	0.028	0.518
cg07571451	black	7	51,384,931 TSS1500	Island	COBL	0.752	-0.001	0.048	0.708
cg06611426	black	12	52,404,161 Body	S_Shelf	GRASP	0.752	0.005	0.046	0.159
cg09350895	black	14	73,958,573 Body	Island	HEATR4	0.752	0.007	0.057	0.314
cg12049236	black	14	38,057,893	S_Shore		0.752	-0.001	0.027	0.690
cg08062812	black	1	91,191,232	Island		0.752	-0.001	0.035	0.445
cg09160123	black	1	41,981,735 Body	N_Shore	HIVEP3	0.752	-0.004	0.043	0.045
cg11196848	black	8	16,859,833 TSS200	S_Shore	FGF20	0.752	-0.007	0.100	0.228
cg25323112	black	5	174,152,885 Body	S_Shore	MSX2	0.752	-0.004	0.040	0.249
cg01367005	black	17	38,518,966 1stExon	Island	GJD3	0.752	0.001	0.073	0.742
cg04746199	black	2	114,034,534 Body	N_Shore	PAX8	0.752	0.000	0.027	0.874
cg22304399	black	19	13,319,324 Body	Island	CACNA1A	0.752	-0.013	0.402	0.280
cg08787268	black	17	47,072,857	Island		0.752	-0.001	0.022	0.558
cg16323034	black	6	37,533,807	OpenSea		0.752	0.000	0.052	0.912
cg02055963	black	13	28,543,520 TSS1500	Island	CDX2	0.752	0.001	0.032	0.511
cg03626672	black	2	237,478,664 5'UTR	S_Shore	CXCR7	0.752	0.001	0.018	0.533
cg03514351	black	1	65,991,765 5'UTR	Island	LEPR	0.752	-0.001	0.027	0.307
cg10737118	black	20	37,354,790 Body	Island	SLC32A1	0.752	0.000	0.046	0.944
cg10006762	black	11	65,342,202 TSS1500	Island	EHBP1L1	0.752	-0.003	0.252	0.613
cg05868799	black	8	71,316,869 TSS1500	S_Shore	NCOA2	0.752	-0.004	0.045	0.083
cg21757127	black	19	18,525,886	N_Shore		0.752	-0.002	0.043	0.311
cg00644823	black	1	91,301,461	Island		0.752	-0.001	0.057	0.765
cg07027513	black	18	29,265,840 TSS1500	S_Shore	B4GALT6	0.751	0.006	0.052	0.055
cg04447981	black	11	65,405,351 TSS1500	N_Shelf	SIPA1	0.751	-0.002	0.062	0.448
cg21595709	black	19	15,344,186 TSS1500	Island	EPHX3	0.751	0.002	0.045	0.390
cg06710648	black	1	58,716,377 TSS200	S_Shore	DAB1	0.751	-0.001	0.051	0.680
cg06972903	black	1	6,580,525 TSS1500	OpenSea	PLEKHG5	0.751	-0.002	0.082	0.739
cg23393242	black	7	156,813,480	Island		0.751	-0.005	0.073	0.193
cg21071896	black	15	83,377,929 Body	N_Shore	AP3B2	0.751	0.000	0.032	0.938

cg10988673	black	15	74,423,898	5'UTR	N_Shore	ISLR2	0.751	-0.001	0.019	0.489
cg11408933	black	5	141,191,429		OpenSea		0.751	0.004	0.047	0.312
cg25578028	black	17	7,905,704	TSS1500	N_Shore	GUCY2D	0.751	0.000	0.038	0.855
cg26332061	black	20	2,674,697	Body	Island	EBF4	0.751	0.000	0.059	0.896
cg12182937	black	6	33,215,649		N_Shore		0.751	0.000	0.135	0.967
cg00839844	black	18	46,474,644	Body	N_Shore	SMAD7	0.751	-0.003	0.047	0.212
cg26880239	black	1	167,472,435	Body	OpenSea	CD247	0.751	0.005	0.080	0.221
cg24623271	black	13	100,635,002	1stExon	Island	ZIC2	0.751	-0.003	0.036	0.044
cg22233974	black	1	39,546,511	TSS1500	N_Shore	MACF1	0.751	-0.002	0.059	0.633
cg01635878	black	4	56,502,849	TSS1500	S_Shore	NMU	0.751	0.003	0.040	0.106
cg13784855	black	8	128,806,938	TSS1500	S_Shore	MIR1204	0.751	-0.001	0.030	0.622
cg18459489	black	10	118,890,977	3'UTR	N_Shore	VAX1	0.751	0.001	0.038	0.741
cg17153727	black	6	50,812,112	3'UTR	N_Shore	TFAP2B	0.751	-0.002	0.046	0.585
cg13160251	black	15	56,286,575	TSS1500	S_Shore	NEDD4	0.751	0.002	0.042	0.525
cg04041960	black	10	121,301,765	Body	Island	RGS10	0.751	-0.001	0.045	0.795
cg23187159	black	8	33,456,955	5'UTR	Island	DUSP26	0.750	0.002	0.028	0.206
cg14948757	black	16	56,669,726		Island		0.750	0.001	0.032	0.692
cg08549396	black	1	18,959,891	Body	S_Shore	PAX7	0.750	0.001	0.053	0.703
cg19641315	black	11	72,979,794	TSS1500	S_Shelf	P2RY6	0.750	0.003	0.566	0.609
cg06993307	black	16	54,969,051		N_Shore		0.750	0.001	0.021	0.562
cg14196395	black	2	71,823,517	Body	OpenSea	DYSF	0.750	0.004	0.197	0.711
cg06764239	black	1	119,544,772		S_Shore		0.750	0.000	0.041	0.936
cg20073686	black	11	105,481,863	Body	S_Shore	GRIA4	0.750	-0.001	0.017	0.412
cg10912240	black	14	29,235,907	TSS1500	Island	FOXG1	0.750	-0.002	0.032	0.276
cg13631259	black	11	67,396,845	Body	Island	NUDT8	0.750	-0.005	0.111	0.279
cg06173536	black	1	235,814,462	TSS1500	Island	GNG4	0.750	-0.001	0.045	0.832
cg21237418	black	17	27,045,043	TSS200	Island	RAB34	0.750	0.001	0.046	0.736
cg01581018	black	3	147,110,595	Body	Island	ZIC4	0.750	0.001	0.028	0.369
cg03603381	black	15	38,857,474	TSS1500	Island	RASGRP1	0.750	-0.001	0.069	0.781
cg23037132	black	1	40,105,664	TSS1500	Island	HEYL	0.750	0.001	0.025	0.378
cg26875813	black	13	110,958,892	Body	Island	COL4A1	0.750	-0.002	0.027	0.132
cg16005939	black	1	91,191,990		Island		0.750	0.000	0.031	0.956
cg19007731	black	8	93,107,394	5'UTR	OpenSea	RUNX1T1	0.750	0.002	0.163	0.681
cg00197058	black	17	59,554,672	Body	OpenSea	TBX4	0.750	0.001	0.084	0.863
cg21503297	black	3	157,824,510	TSS1500	S_Shore	SHOX2	0.750	0.000	0.028	0.926
cg25308742	black	5	3,590,983		Island		0.750	-0.002	0.028	0.229
cg18043267	black	10	135,170,752	Body	Island	C10orf125	0.750	0.000	0.029	0.904
cg15652723	black	4	111,560,494		N_Shore		0.750	-0.001	0.065	0.667
cg15144888	black	11	128,760,367	TSS1500	N_Shore	KCNJ5	0.749	-0.001	0.032	0.637
cg18855104	black	2	45,181,829		N_Shore		0.749	0.006	0.074	0.162
cg14020762	black	7	100,465,657	Body	S_Shore	TRIP6	0.749	0.008	0.036	0.008
cg05870140	black	14	101,923,427		N_Shore		0.749	0.001	0.032	0.498
cg03966094	black	22	21,058,792	Body	Island	TMEM191A	0.749	0.006	0.194	0.225
cg08935125	black	16	3,068,085	5'UTR	Island	CLDN6	0.749	0.002	0.053	0.527
cg13631913	black	1	9,600,345	Body	Island	SLC25A33	0.749	0.000	0.026	0.749
cg00041666	black	6	152,702,330	Body	OpenSea	SYNE1	0.749	-0.004	0.055	0.325
cg10261735	black	8	101,871,481		OpenSea		0.749	-0.005	0.211	0.419
cg17872866	black	2	86,565,377	TSS200	S_Shore	REEP1	0.749	0.004	0.134	0.411
cg27549944	black	1	204,328,843	5'UTR	OpenSea	PLEKHA6	0.749	-0.003	0.051	0.404
cg03157040	black	19	1,861,890	Body	Island	KLF16	0.749	0.002	0.021	0.032
cg00056767	black	13	44,453,183	5'UTR	N_Shore	CCDC122	0.749	0.002	0.041	0.372
cg08498787	black	11	57,250,780		Island		0.749	0.001	0.021	0.251
cg03760839	black	1	119,531,718	5'UTR	N_Shore	TBX15	0.749	0.004	0.106	0.684
cg17642369	black	7	47,783,644		OpenSea		0.749	-0.003	0.034	0.233
cg22203582	black	5	76,507,680	Body	S_Shore	PDE8B	0.749	0.000	0.063	0.900
cg26311734	black	4	94,755,520		N_Shore		0.749	-0.001	0.027	0.535
cg02460652	black	15	76,431,858	Body	OpenSea	C15orf27	0.749	0.001	0.063	0.845
cg19815340	black	3	27,770,391		N_Shore		0.749	0.002	0.032	0.159
cg14265068	black	17	77,763,497		Island		0.749	-0.004	0.049	0.063
cg04408897	black	6	29,596,901	TSS1500	S_Shore	GABBR1	0.749	-0.003	0.066	0.331
cg14775296	black	2	66,672,841	Body	Island	MEIS1	0.749	0.000	0.022	0.810
cg13690564	black	20	36,148,182	5'UTR	N_Shore	BLCAP	0.748	-0.002	0.062	0.572
cg16411883	black	5	106,878,353	Body	OpenSea	EFNA5	0.748	0.001	0.035	0.440
cg13713283	black	7	131,240,531	Body	Island	PODXL	0.748	-0.003	0.037	0.103
cg13347970	black	6	137,809,630		Island		0.748	0.000	0.038	0.889
cg00221494	black	13	98,794,593	TSS1500	Island	FARP1	0.748	0.003	0.049	0.279
cg26021960	black	3	147,140,297		N_Shore		0.748	0.002	0.073	0.646



cg12032370	black	10	102,976,942	Island		0.748	0.002	0.028	0.283	
cg17722675	black	6	133,563,382	5'UTR	Island	EYA4	0.748	0.000	0.033	0.848
cg15013496	black	18	76,745,056	Body	S_Shelf	SALL3	0.748	0.000	0.061	0.946
cg04818845	black	1	6,580,167	TSS200	OpenSea	PLEKHG5	0.748	-0.004	0.067	0.371
cg06760518	black	2	237,087,777		Island		0.748	0.000	0.018	0.610
cg23454038	black	5	72,742,787	3'UTR	S_Shore	FOXD1	0.748	-0.001	0.017	0.564
cg03166835	black	19	50,393,997	Body	Island	IL4I1	0.748	0.000	0.047	0.994
cg04607372	black	5	54,523,900		Island		0.748	0.001	0.035	0.490
cg24446586	black	7	27,225,078	Body	Island	HOXA11AS	0.748	-0.001	0.028	0.510
cg18801806	black	11	118,869,385	Body	S_Shore	CCDC84	0.748	-0.001	0.056	0.657
cg16374999	black	12	49,688,980	5'UTR	Island	PRPH	0.748	0.000	0.033	0.999
cg05692819	black	2	149,432,332	Body	OpenSea	EPC2	0.747	0.000	0.415	0.955
cg17329292	black	1	33,895,890		N_Shore		0.747	0.001	0.055	0.794
cg02749735	black	3	185,912,253	Body	S_Shore	DGKG	0.747	0.000	0.014	0.877
cg24943609	black	17	47,438,093	5'UTR	N_Shore	ZNF652	0.747	-0.001	0.074	0.875
cg20103758	black	5	128,300,696	TSS1500	N_Shore	SLC27A6	0.747	0.004	0.068	0.404
cg04155862	black	3	127,541,172	5'UTR	N_Shore	MGLL	0.747	-0.001	0.084	0.815
cg05214546	black	12	15,941,507	5'UTR	N_Shore	EPS8	0.747	-0.002	0.027	0.219
cg20325547	black	1	9,431,594		S_Shelf		0.747	-0.009	0.074	0.134
cg06927305	black	17	1,617,447	Body	N_Shore	C17orf91	0.747	0.001	0.037	0.644
cg01071966	black	5	76,248,923	1stExon	N_Shore	CRHBP	0.747	-0.003	0.153	0.580
cg23999932	black	4	54,976,184		Island		0.747	0.003	0.040	0.184
cg26259537	black	7	27,209,247	TSS200	Island	MIR196B	0.747	0.000	0.033	0.161
cg01381586	black	2	10,587,627	5'UTR	N_Shore	ODC1	0.747	-0.001	0.027	0.493
cg19884965	black	11	79,150,305	5'UTR	Island	ODZ4	0.747	-0.003	0.051	0.104
cg27658017	black	5	76,114,522	TSS1500	N_Shore	F2RL1	0.747	0.000	0.036	0.920
cg08463231	black	15	78,103,228		OpenSea		0.747	0.008	0.689	0.203
cg23986620	black	2	177,012,706		S_Shore		0.747	0.001	0.051	0.893
cg22663372	black	2	45,161,107		N_Shore		0.747	0.001	0.046	0.642
cg17108064	black	15	78,857,060	TSS1500	N_Shore	CHRNA5	0.747	0.003	0.057	0.467
cg02091109	black	5	76,940,449		N_Shore		0.747	0.001	0.022	0.361
cg24608381	black	2	139,538,746	TSS1500	S_Shore	NXPB2	0.747	-0.003	0.045	0.301
cg17976121	black	11	69,451,115		N_Shore		0.747	0.001	0.043	0.589
cg12000995	black	2	27,665,139	TSS200	Island	KRTCAP3	0.747	0.004	0.058	0.502
cg21276379	black	2	46,523,790	TSS1500	Island	EPAS1	0.747	0.000	0.077	0.913
cg13039082	black	11	77,123,331	5'UTR	S_Shore	PAK1	0.747	-0.007	0.164	0.109
cg22784386	black	6	100,903,817	Body	N_Shore	SIM1	0.747	-0.001	0.031	0.652
cg25143508	black	1	203,449,947	5'UTR	OpenSea	PRELP	0.746	-0.001	0.040	0.526
cg12222949	black	1	184,005,360	Body	Island	GLT25D2	0.746	0.004	0.069	0.464
cg23603376	black	7	19,147,382		S_Shore		0.746	0.001	0.017	0.334
cg15393275	black	2	45,165,193		Island		0.746	0.003	0.044	0.390
cg20387139	black	6	33,265,424	Body	N_Shore	RGL2	0.746	-0.002	0.026	0.215
cg19248602	black	17	46,795,931		N_Shore		0.746	-0.001	0.032	0.814
cg24328539	black	15	45,671,016	Body	Island	LOC145663	0.746	0.002	0.031	0.165
cg07047570	black	20	20,350,813	1stExon	S_Shore	INSM1	0.746	-0.001	0.025	0.386
cg24000814	black	3	184,301,730		Island		0.746	0.000	0.021	0.808
cg10631716	black	8	135,469,436		OpenSea		0.746	0.002	0.030	0.316
cg05065926	black	8	144,329,806	5'UTR	S_Shore	ZFP41	0.746	0.002	0.045	0.354
cg24988684	black	17	76,128,556	Body	S_Shore	TMC8	0.746	0.010	0.356	0.246
cg14116122	black	12	85,673,884	TSS200	Island	ALX1	0.746	0.000	0.013	0.949
cg23273897	black	3	154,796,861	TSS1500	N_Shore	MME	0.746	0.001	0.058	0.849
cg09871637	black	1	87,800,511	Body	N_Shore	LMO4	0.746	-0.001	0.039	0.710
cg13758543	black	13	79,169,714		N_Shore		0.746	0.000	0.024	0.902
cg25369015	black	1	9,599,256	TSS1500	N_Shore	SLC25A33	0.746	0.001	0.020	0.329
cg23489627	black	3	73,674,339	TSS1500	Island	PDZRN3	0.745	0.000	0.036	0.775
cg02706018	black	7	27,168,780	3'UTR	N_Shore	HOXA4	0.745	0.002	0.202	0.694
cg17641252	black	14	67,878,535	Body	Island	PLEK2	0.745	0.014	0.183	0.166
cg13396738	black	6	30,850,718	TSS1500	N_Shore	DDR1	0.745	-0.007	0.096	0.119
cg06306198	black	3	147,128,998	Body	Island	ZIC1	0.745	-0.001	0.050	0.803
cg17486263	black	1	200,011,726	Body	Island	NR5A2	0.745	0.000	0.025	0.978
cg21092808	black	2	177,029,850	5'UTR	Island	HOXD3	0.745	0.000	0.029	0.825
cg06331300	black	7	20,830,702		Island		0.745	0.000	0.019	0.902
cg17285208	black	10	1,778,594	Body	N_Shore	ADARB2	0.745	0.002	0.038	0.379
cg03532263	black	14	103,012,356		S_Shore		0.745	0.009	0.205	0.351
cg08514558	black	10	81,106,712	TSS1500	N_Shore	PPIF	0.745	0.008	0.451	0.345
cg12131007	black	2	171,218,057	Body	OpenSea	MYO3B	0.745	0.000	0.034	0.858
cg00020405	black	5	65,439,520	TSS1500	N_Shore	SFRS12	0.745	0.001	0.082	0.867

cg03742238	black	4	41,748,676	Body	N_Shore	PHOX2B	0.745	0.001	0.039	0.703
cg24762359	black	13	25,254,447	TSS1500	Island	ATP12A	0.745	-0.002	0.047	0.445
cg25920686	black	19	46,455,981	Body	N_Shore	NOVA2	0.745	-0.001	0.273	0.918
cg01033938	black	11	130,298,880	TSS1500	S_Shore	ADAMTS8	0.745	-0.002	0.045	0.552
cg25599198	black	17	3,848,156	Body	Island	ATP2A3	0.745	-0.012	0.126	0.261
cg21885864	black	13	100,644,507		S_Shore		0.744	0.000	0.030	0.797
cg15061025	black	3	45,883,859	TSS1500	Island	LZTFL1	0.744	-0.001	0.038	0.679
cg00346985	black	1	46,940,516		S_Shore		0.744	0.011	0.166	0.224
cg10799440	black	8	120,685,686		OpenSea		0.744	0.000	0.048	0.932
cg17569124	black	7	27,183,643	TSS1500	Island	HOXA5	0.744	0.000	0.033	0.891
cg15177855	black	11	70,517,411	Body	OpenSea	SHANK2	0.744	-0.004	0.237	0.615
cg22079043	black	11	1,785,631	TSS1500	S_Shore	CTSD	0.744	0.001	0.230	0.897
cg13456504	black	1	91,191,583		Island		0.744	0.001	0.017	0.606
cg20173170	black	6	31,127,120	5'UTR	S_Shore	TCF19	0.744	-0.003	0.059	0.320
cg00868131	black	1	54,952,901		N_Shore		0.744	0.000	0.051	0.988
cg18016254	black	3	122,296,505	5'UTR	N_Shore	PARP15	0.744	-0.001	0.032	0.581
cg14418690	black	9	139,221,716	TSS1500	OpenSea	GPSM1	0.744	-0.003	0.036	0.052
cg21304285	black	1	244,525,971	5'UTR	OpenSea	C1orf100	0.744	-0.002	0.043	0.569
cg11280525	black	5	87,955,695	Body	Island	LOC645323	0.744	-0.002	0.034	0.234
cg07607008	black	7	47,621,905		S_Shore		0.743	-0.004	0.078	0.358
cg13630095	black	9	125,137,594	Body	OpenSea	PTGS1	0.743	-0.002	0.047	0.546
cg01028849	black	8	65,490,422	TSS1500	N_Shore	LOC401463	0.743	0.002	0.031	0.263
cg07820868	black	1	119,528,638	5'UTR	N_Shore	TBX15	0.743	-0.004	0.049	0.369
cg03321503	black	6	91,320,082		N_Shore		0.743	-0.001	0.028	0.772
cg16644023	black	7	27,154,845	5'UTR	N_Shore	HOXA3	0.743	-0.001	0.024	0.712
cg14299940	black	9	131,684,923	Body	OpenSea	PHYHD1	0.743	0.001	0.022	0.373
cg19687230	black	15	72,490,380	TSS1500	S_Shore	GRAMD2	0.743	0.001	0.147	0.889
cg14329989	black	11	119,192,155		Island		0.743	0.001	0.115	0.814
cg24317285	black	3	157,825,196	TSS1500	S_Shore	SHOX2	0.743	-0.001	0.038	0.533
cg27403778	black	14	55,035,029	Body	Island	SAMD4A	0.743	0.000	0.025	0.881
cg03168947	black	3	42,201,649	Body	OpenSea	TRAK1	0.743	-0.002	0.067	0.740
cg09758420	black	6	41,343,830		S_Shore		0.743	-0.002	0.030	0.292
cg20518446	black	11	62,315,034	TSS1500	Island	AHNAK	0.743	-0.003	0.053	0.178
cg08286738	black	2	72,373,238	Body	Island	CYP26B1	0.743	0.000	0.027	0.711
cg04640109	black	8	106,330,173	TSS1500	N_Shore	ZFPM2	0.743	0.000	0.026	0.809
cg11908294	black	18	46,067,903	5'UTR	S_Shore	KIAA0427	0.743	0.000	0.043	0.794
cg23097296	black	1	33,231,167	Body	OpenSea	KIAA1522	0.742	0.000	0.024	0.861
cg05051606	black	16	22,103,855	TSS200	OpenSea	VWA3A	0.742	-0.001	0.028	0.636
cg14657834	black	8	67,875,441		Island		0.742	0.000	0.019	0.871
cg15383276	black	22	29,709,282	3'UTR	Island	RASL10A	0.742	0.002	0.140	0.574
cg20142535	black	1	203,097,628	5'UTR	S_Shore	ADORA1	0.742	0.001	0.040	0.738
cg13399544	black	8	144,649,678	Body	Island	C8orf73	0.742	0.020	0.278	0.108
cg27080119	black	4	120,987,409	Body	N_Shore	MAD2L1	0.742	0.001	0.017	0.530
cg17102069	black	6	37,139,542	Body	S_Shore	PIM1	0.742	0.001	0.019	0.298
cg21201657	black	19	5,624,574	Body	S_Shore	SAFB	0.742	-0.003	0.053	0.248
cg00812861	black	9	35,114,699	5'UTR	N_Shore	KIAA1539	0.742	-0.003	0.048	0.110
cg24416609	black	2	231,773,530	3'UTR	OpenSea	GPR55	0.742	0.006	0.274	0.329
cg23407475	black	10	75,671,462	Body	S_Shore	C10orf55	0.742	-0.003	0.044	0.127
cg17030679	black	6	35,696,300	5'UTR	S_Shore	FKBP5	0.742	-0.003	0.051	0.400
cg07891971	black	15	41,245,016	TSS1500	Island	CHAC1	0.742	0.000	0.076	0.997
cg09941712	black	15	81,068,966		N_Shelf		0.742	-0.001	0.049	0.839
cg22282672	black	5	121,465,223	1stExon	OpenSea	ZNF474	0.742	0.000	0.050	0.967
cg18783055	black	6	88,639,609		OpenSea		0.742	0.001	0.048	0.592
cg01422797	black	6	100,053,305	TSS1500	N_Shore	PRDM13	0.742	-0.001	0.041	0.659
cg02054431	black	6	31,589,593	TSS1500	S_Shore	SNORA38	0.742	-0.001	0.034	0.584
cg18917853	black	19	18,723,119	TSS1500	Island	TMEM59L	0.742	-0.001	0.028	0.525
cg16994941	black	5	141,218,887		OpenSea		0.741	0.000	0.088	0.981
cg09473359	black	13	24,477,933		Island		0.741	0.001	0.045	0.721
cg08889797	black	3	147,106,489	3'UTR	N_Shelf	ZIC4	0.741	0.000	0.029	0.897
cg14162959	black	22	39,898,040	TSS1500	N_Shore	SMCR7L	0.741	-0.002	0.060	0.450
cg07356486	black	3	133,646,095		Island		0.741	-0.002	0.058	0.483
cg21925968	black	8	25,899,683	Body	Island	EBF2	0.741	0.007	0.228	0.413
cg10630155	black	4	16,085,666	TSS200	Island	PROM1	0.741	-0.001	0.031	0.630
cg27642771	black	20	3,762,167	TSS200	S_Shelf	SPEF1	0.741	-0.002	0.074	0.700
cg03974889	black	1	91,192,162		Island		0.741	-0.003	0.028	0.083
cg07733800	black	11	112,831,841	TSS200	N_Shore	NCAM1	0.741	0.000	0.040	0.776
cg14481315	black	2	74,227,474		N_Shelf		0.741	0.000	0.038	0.996

cg13444518	black	9	135,466,773	S_Shore		0.741	-0.001	0.028	0.356	
cg12757011	black	2	162,281,111	3'UTR	S_Shore	TBR1	0.741	-0.001	0.051	0.753
cg24722099	black	12	58,160,843	5'UTR	S_Shore	CYP27B1	0.741	0.001	0.027	0.520
cg04340435	black	13	114,145,973	5'UTR	Island	TMCO3	0.741	0.001	0.057	0.774
cg23075364	black	11	57,267,445	Body	S_Shore	SLC43A1	0.741	0.000	0.018	0.815
cg04420907	black	17	9,480,215	Body	S_Shore	WDR16	0.741	0.001	0.050	0.786
cg26751455	black	11	45,433,229		OpenSea		0.741	0.000	0.105	0.918
cg15006175	black	8	145,698,660	Body	Island	KIFC2	0.741	0.000	0.029	0.839
cg02028751	black	17	74,378,849		Island		0.740	-0.001	0.025	0.471
cg22648885	black	8	99,957,472	5'UTR	S_Shore	OSR2	0.740	0.001	0.021	0.593
cg20768043	black	5	50,679,681	Body	S_Shore	ISL1	0.740	-0.002	0.032	0.305
cg03958979	black	6	108,486,387	TSS1500	Island	NR2E1	0.740	0.001	0.074	0.768
cg25400396	black	19	58,400,559	TSS200	S_Shore	ZNF814	0.740	0.004	0.043	0.119
cg02431672	black	1	43,534,324		Island		0.740	0.001	0.033	0.713
cg23105827	black	1	16,539,119	TSS200	OpenSea	ARHGEF19	0.740	-0.001	0.062	0.718
cg05419198	black	8	145,753,896	Body	Island	MGC70857	0.740	0.002	0.064	0.614
cg19838087	black	11	61,442,541		OpenSea		0.740	0.004	0.077	0.516
cg13146379	black	21	46,826,053	Body	Island	COL18A1	0.740	-0.002	0.036	0.358
cg06460883	black	5	154,137,632	Body	S_Shore	LARP1	0.740	-0.002	0.032	0.304
cg05092861	black	7	27,220,034	TSS200	S_Shore	HOXA10	0.740	-0.003	0.039	0.171
cg23024158	black	10	78,011,952	Body	OpenSea	C10orf11	0.740	-0.002	0.213	0.826
cg13612847	black	2	171,672,205	TSS1500	N_Shore	GAD1	0.740	0.001	0.028	0.728
cg25901381	black	7	27,225,485	Body	N_Shore	HOXA11AS	0.740	0.000	0.035	0.968
cg25968437	black	6	33,819,738		OpenSea		0.740	-0.003	0.079	0.542
cg16184495	black	19	15,343,350	5'UTR	N_Shore	EPHX3	0.740	0.000	0.051	0.890
cg24178740	black	2	219,850,465	TSS200	Island	FEV	0.740	-0.003	0.043	0.094
cg12730323	black	1	200,004,757	Body	Island	NR5A2	0.739	0.001	0.032	0.397
cg27354537	black	10	101,283,644		S_Shore		0.739	-0.002	0.079	0.579
cg21713424	black	7	50,535,952	Body	Island	DDC	0.739	0.001	0.029	0.270
cg19178742	black	6	30,070,099		Island		0.739	0.000	0.063	0.963
cg07974473	black	14	29,235,092	TSS1500	Island	FOXG1	0.739	-0.004	0.037	0.019
cg08613144	black	2	133,428,836	1stExon	Island	LYPD1	0.739	0.008	0.042	0.028
cg00344443	black	11	115,530,150		Island		0.739	-0.001	0.023	0.305
cg27234090	black	11	119,251,854	5'UTR	N_Shore	USP2	0.739	-0.003	0.035	0.210
cg20865151	black	6	6,724,842		OpenSea		0.739	-0.001	0.048	0.816
cg16510793	black	9	116,450,346		Island		0.739	0.000	0.045	0.948
cg07037112	black	10	103,534,934	Body	N_Shore	FGF8	0.739	-0.002	0.039	0.440
cg04630848	black	20	62,886,664	TSS1500	N_Shore	PCMTD2	0.739	-0.001	0.021	0.661
cg18030833	black	3	137,490,793		Island		0.739	-0.001	0.018	0.480
cg19454317	black	20	4,573,571		S_Shore		0.739	0.000	0.047	0.853
cg11915205	black	2	86,565,178	TSS1500	S_Shore	REEP1	0.739	-0.002	0.051	0.299
cg22659049	black	4	41,646,672	Body	S_Shore	LIMCH1	0.738	0.002	0.079	0.800
cg15718289	black	12	54,410,671	5'UTR	N_Shore	HOXC4	0.738	-0.001	0.014	0.119
cg02479842	black	2	11,123,536		OpenSea		0.738	-0.002	0.381	0.730
cg04609245	black	4	41,646,293	Body	Island	LIMCH1	0.738	0.003	0.038	0.209
cg01277331	black	2	219,748,759	Body	Island	WNT10A	0.738	-0.002	0.090	0.586
cg02904657	black	15	40,571,997		N_Shore		0.738	0.003	0.040	0.155
cg05036846	black	1	24,648,984	TSS1500	Island	GRHL3	0.738	0.004	0.048	0.094
cg02081733	black	15	68,120,412	Body	Island	LBXCOR1	0.738	0.002	0.039	0.380
cg24510494	black	4	154,144,462	Body	Island	TRIM2	0.738	0.003	0.048	0.418
cg10288510	black	1	214,158,727		Island		0.738	0.001	0.056	0.583
cg16806891	black	4	182,425,400		OpenSea		0.738	-0.001	0.264	0.897
cg14486921	black	8	114,449,226	1stExon	OpenSea	CSMD3	0.738	0.001	0.028	0.562
cg13694576	black	11	31,837,965	5'UTR	Island	PAX6	0.738	0.003	0.053	0.410
cg24361265	black	15	44,068,668	Body	Island	ELL3	0.738	0.000	0.043	0.945
cg22230538	black	8	28,258,841		N_Shore		0.738	0.000	0.019	0.760
cg06571387	black	2	176,964,101	TSS1500	Island	HOXD12	0.738	-0.005	0.073	0.204
cg12131828	black	17	46,663,648		S_Shelf		0.737	0.002	0.125	0.772
cg06798106	black	8	55,380,185		Island		0.737	0.000	0.022	0.980
cg17265994	black	11	2,905,024	3'UTR	Island	CDKN1C	0.737	0.000	0.034	0.837
cg14987799	black	14	21,342,066		OpenSea		0.737	0.001	0.042	0.740
cg25708328	black	2	177,022,056		N_Shelf		0.737	-0.002	0.033	0.276
cg17340391	black	3	128,151,578		N_Shore		0.737	-0.001	0.025	0.287
cg16892553	black	17	46,035,108	1stExon	OpenSea	PRR15L	0.737	-0.012	0.214	0.087
cg00917569	black	16	51,187,388		Island		0.737	0.002	0.030	0.357
cg15712226	black	12	96,252,066	TSS1500	Island	SNRPF	0.737	0.002	0.240	0.833
cg12221212	black	1	156,474,724		N_Shore		0.737	-0.002	0.072	0.731

cg17146526	black	2	175,192,666		N_Shore		0.737	-0.006	0.247	0.429
cg02532341	black	3	10,399,439	Body	N_Shore	ATP2B2	0.737	0.002	0.284	0.774
cg06117153	black	16	85,203,932		Island		0.737	-0.004	0.060	0.164
cg07318983	black	1	91,185,922		S_Shore		0.737	0.002	0.061	0.698
cg12430618	black	1	207,085,966	Body	S_Shelf	FAIM3	0.737	0.000	0.024	0.804
cg12817840	black	5	124,070,989	Body	OpenSea	ZNF608	0.737	-0.002	0.034	0.293
cg23060272	black	3	187,870,863	TSS1500	N_Shore	LPP	0.737	0.001	0.025	0.443
cg16589135	black	3	44,063,404		Island		0.737	-0.001	0.040	0.538
cg11386080	black	6	56,112,392	TSS200	Island	COL21A1	0.736	0.001	0.024	0.556
cg17844606	black	7	31,174,318		OpenSea		0.736	0.001	0.043	0.573
cg06911084	black	7	96,652,894	Body	N_Shore	DLX5	0.736	-0.001	0.033	0.633
cg22622834	black	1	204,367,853		OpenSea		0.736	-0.001	0.063	0.677
cg11568697	black	18	72,916,393	Body	Island	ZADH2	0.736	-0.006	0.041	0.022
cg08794939	black	16	88,521,230	Body	Island	ZFPM1	0.736	0.000	0.022	0.696
cg05874450	black	6	105,627,246	5'UTR	N_Shore	POPDC3	0.736	-0.002	0.054	0.442
cg19303187	black	2	172,968,881	TSS1500	S_Shore	DLX2	0.736	0.000	0.039	0.937
cg05921579	black	17	61,776,513	Body	N_Shore	LIMD2	0.736	0.002	0.092	0.732
cg16661000	black	15	89,437,710	5'UTR	N_Shore	HAPLN3	0.736	-0.001	0.030	0.675
cg01582947	black	7	149,156,500	5'UTR	N_Shore	ZNF777	0.736	0.000	0.251	0.918
cg09121269	black	14	74,181,427	TSS1500	S_Shore	PNMA1	0.736	0.001	0.029	0.506
cg23618344	black	12	54,423,428	5'UTR	Island	HOXC4	0.736	0.001	0.048	0.752
cg20230508	black	11	69,500,644		Island		0.736	0.001	0.032	0.586
cg24988255	black	7	27,225,396	Body	Island	HOXA11AS	0.736	-0.001	0.050	0.667
cg22055687	black	5	87,980,298	Body	N_Shore	LOC645323	0.736	-0.002	0.041	0.313
cg11688568	black	20	58,179,414	TSS200	N_Shore	PHACTR3	0.736	-0.001	0.022	0.387
cg22917372	black	12	122,186,536	Body	OpenSea	TMEM120B	0.736	-0.002	0.042	0.471
cg00941241	black	1	9,885,960	TSS1500	S_Shore	CLSTN1	0.736	-0.003	0.040	0.116
cg08536841	black	19	49,250,452	TSS1500	N_Shelf	IZUMO1	0.736	0.000	0.026	0.859
cg02102424	black	3	12,046,618	Body	Island	SYN2	0.736	-0.003	0.043	0.169
cg10087399	black	1	109,940,029	Body	N_Shore	SORT1	0.735	0.001	0.034	0.692
cg23899359	black	19	2,051,565	TSS1500	Island	MKMK2	0.735	-0.003	0.031	0.103
cg00582970	black	17	60,947,793		OpenSea		0.735	0.000	0.032	0.982
cg11163933	black	3	240,139	5'UTR	Island	CHL1	0.735	0.000	0.029	0.864
cg11511777	black	2	219,725,959	Body	S_Shore	WNT6	0.735	0.000	0.032	0.929
cg25563256	black	17	7,341,641	TSS1500	N_Shore	FGF11	0.735	0.001	0.034	0.621
cg07207490	black	11	118,492,463	Body	OpenSea	PHLDB1	0.735	0.000	0.024	0.908
cg07613752	black	3	27,756,421		Island		0.735	0.000	0.040	0.909
cg24683414	black	1	92,952,581	TSS1500	Island	GFI1	0.735	0.000	0.022	0.759
cg00326464	black	6	10,404,084	Body	N_Shore	TFAP2A	0.735	0.001	0.030	0.709
cg17091577	black	6	30,854,233	5'UTR	S_Shore	DDR1	0.735	-0.001	0.024	0.742
cg14258877	black	2	161,127,827		S_Shore		0.735	-0.006	0.089	0.394
cg12213111	black	17	4,488,481	Body	Island	SMTNL2	0.735	0.001	0.032	0.334
cg23947376	black	10	27,548,601		S_Shore		0.735	-0.001	0.048	0.746
cg19165640	black	1	21,661,813	Body	OpenSea	ECE1	0.735	0.006	0.213	0.428
cg03853208	black	7	25,989,763	TSS200	N_Shore	MIR148A	0.734	-0.001	0.027	0.556
cg08043592	black	19	56,687,388	1stExon	OpenSea	GALP	0.734	-0.001	0.038	0.730
cg11673291	black	1	36,787,145		Island		0.734	-0.004	0.044	0.376
cg06807117	black	1	204,329,004	5'UTR	OpenSea	PLEKHA6	0.734	-0.004	0.054	0.236
cg11651285	black	20	21,494,762	TSS200	Island	NKX2-2	0.734	-0.002	0.032	0.194
cg19049194	black	2	175,193,754		Island		0.734	-0.001	0.040	0.745
cg21238457	black	11	75,917,353	Body	Island	WNT11	0.734	0.001	0.044	0.739
cg22653915	black	8	52,722,023	TSS200	OpenSea	PXDNL	0.734	-0.003	0.062	0.480
cg25755575	black	1	217,311,531	TSS1500	Island	ESRRG	0.734	0.000	0.038	0.942
cg10904972	black	11	119,227,328	3'UTR	Island	USP2	0.734	0.000	0.022	0.828
cg17763743	black	3	9,343,967		OpenSea		0.734	0.003	0.193	0.515
cg22041190	black	11	125,037,348	5'UTR	S_Shore	PKNOX2	0.734	-0.004	0.061	0.459
cg25680829	black	1	180,198,309	TSS1500	Island	LHX4	0.734	-0.001	0.033	0.545
cg12093519	black	7	19,146,441		N_Shore		0.734	0.000	0.025	0.874
cg04806447	black	3	137,485,369		S_Shore		0.734	-0.001	0.023	0.711
cg05368038	black	15	31,621,727	Body	Island	KLF13	0.734	-0.001	0.048	0.496
cg26373518	black	22	31,518,942	TSS200	OpenSea	INPP5J	0.734	-0.001	0.026	0.384
cg00666845	black	17	39,943,423	TSS1500	S_Shore	JUP	0.734	-0.002	0.157	0.683
cg11332163	black	4	54,975,593		Island		0.734	0.014	0.251	0.107
cg04341324	black	8	10,590,177		Island		0.734	0.004	0.061	0.440
cg07444473	black	2	200,332,380	TSS1500	N_Shore	FLJ32063	0.734	0.002	0.023	0.165
cg24155429	black	3	185,911,885	Body	Island	DGKG	0.734	0.002	0.035	0.493
cg03602029	black	6	137,814,078	1stExon	N_Shore	OLIG3	0.734	-0.002	0.031	0.387

cg12564285	black	5	131,593,104	TSS1500	Island	PDLIM4	0.733	0.001	0.055	0.667
cg10309886	black	20	57,407,747	Body	OpenSea	GNASAS	0.733	-0.008	0.359	0.338
cg02881929	black	4	41,882,868		Island		0.733	0.002	0.024	0.149
cg22201614	black	17	70,116,298	TSS1500	Island	SOX9	0.733	-0.001	0.040	0.791
cg24125828	black	6	32,117,049	Body	Island	PRRT1	0.733	0.008	0.226	0.472
cg13488201	black	10	128,077,323	TSS200	Island	ADAM12	0.733	0.001	0.057	0.733
cg00400221	black	8	38,323,291	5'UTR	N_Shore	FGFR1	0.733	-0.001	0.025	0.595
cg03616377	black	14	60,386,272		Island		0.733	-0.001	0.036	0.642
cg09147985	black	11	40,314,618	5'UTR	OpenSea	LRRC4C	0.733	0.001	0.095	0.836
cg18629334	black	6	27,101,763	TSS1500	S_Shore	HIST1H2BJ	0.733	0.002	0.030	0.365
cg25777549	black	8	25,902,400	TSS200	Island	EBF2	0.733	-0.002	0.026	0.061
cg04819775	black	5	87,974,436	Body	N_Shore	LOC645323	0.733	0.000	0.051	0.984
cg23829395	black	12	46,796,953		OpenSea		0.733	-0.002	0.045	0.655
cg22798977	black	1	13,909,743	TSS1500	Island	PDPN	0.733	0.001	0.076	0.739
cg16200879	black	19	4,326,975	Body	Island	STAP2	0.733	0.005	0.064	0.448
cg01751802	black	19	11,309,639	TSS1500	S_Shore	KANK2	0.733	0.005	0.531	0.591
cg02316596	black	11	120,434,979		Island		0.733	-0.001	0.026	0.476
cg13404038	black	9	126,123,344	Body	OpenSea	CRB2	0.733	-0.003	0.186	0.634
cg10632094	black	3	23,244,068	TSS1500	Island	UBE2E2	0.733	-0.001	0.074	0.830
cg10836809	black	9	4,300,203	TSS200	S_Shore	GLIS3	0.733	0.001	0.036	0.734
cg15366353	black	6	116,691,382	TSS1500	N_Shore	DSE	0.732	-0.002	0.125	0.628
cg24087211	black	6	139,309,874	TSS1500	S_Shore	REPS1	0.732	-0.002	0.059	0.709
cg24900983	black	6	152,128,528	TSS1500	N_Shore	ESR1	0.732	-0.003	0.030	0.090
cg10393811	black	2	176,983,927	Body	S_Shore	HOXD10	0.732	0.001	0.042	0.744
cg16757821	black	17	73,073,940		Island		0.732	-0.005	0.065	0.215
cg09981996	black	19	18,061,380	TSS1500	Island	KCNN1	0.732	0.002	0.026	0.107
cg09006749	black	13	44,453,208	5'UTR	Island	CCDC122	0.732	-0.001	0.052	0.858
cg22300957	black	4	41,748,857	Body	N_Shore	PHOX2B	0.732	-0.003	0.045	0.225
cg26433034	black	7	128,430,626	TSS1500	N_Shore	CCDC136	0.732	-0.002	0.040	0.154
cg16539741	black	7	29,359,435	Body	OpenSea	CHN2	0.732	0.008	0.109	0.244
cg05687834	black	12	106,534,276	TSS1500	S_Shore	NUAK1	0.732	0.002	0.046	0.578
cg25732028	black	17	46,619,313		Island		0.732	-0.001	0.051	0.692
cg18336674	black	5	170,735,264	TSS1500	Island	TLX3	0.732	-0.009	0.057	0.053
cg12062099	black	1	85,527,597	TSS1500	OpenSea	WDR63	0.732	-0.003	0.048	0.318
cg10446869	black	1	155,147,431	Body	Island	TRIM46	0.732	0.001	0.046	0.597
cg10048349	black	11	111,783,267	TSS1500	OpenSea	CRYAB	0.732	-0.002	0.024	0.099
cg23313126	black	2	162,270,889		Island		0.732	0.001	0.027	0.707
cg16325502	black	2	223,166,435	5'UTR	N_Shore	CCDC140	0.732	-0.002	0.039	0.271
cg08506931	black	2	223,168,861	Body	Island	CCDC140	0.732	-0.003	0.028	0.113
cg11646887	black	17	45,918,805	TSS200	S_Shore	SCRN3	0.732	-0.004	0.042	0.018
cg22975160	black	19	43,979,614	Body	Island	PHLDB3	0.732	0.000	0.017	0.470
cg06791719	black	5	87,979,441	Body	N_Shore	LOC645323	0.732	0.001	0.026	0.566
cg02582940	black	2	97,308,417	TSS200	OpenSea	FER1L5	0.732	-0.001	0.034	0.699
cg01530981	black	1	209,756,892	TSS200	OpenSea	CAMK1G	0.732	-0.001	0.040	0.580
cg21908235	black	1	146,551,744		Island		0.732	-0.001	0.068	0.941
cg03009240	black	19	3,507,867	5'UTR	S_Shore	FZR1	0.731	-0.011	0.179	0.244
cg02777885	black	6	99,281,818	TSS1500	Island	POU3F2	0.731	0.000	0.034	0.773
cg24601716	black	13	28,498,451	Body	Island	PDX1	0.731	-0.001	0.057	0.646
cg05882699	black	10	126,840,591	5'UTR	Island	CTBP2	0.731	-0.006	0.128	0.466
cg13638257	black	6	33,280,436	Body	N_Shore	TAPBP	0.731	0.001	0.043	0.706
cg02780919	black	11	9,026,308	TSS1500	Island	NRIP3	0.731	0.005	0.076	0.314
cg20183094	black	7	121,950,924		Island		0.731	-0.002	0.042	0.272
cg01054354	black	15	100,272,751	5'UTR	N_Shore	LYSMD4	0.731	0.003	0.046	0.324
cg04506585	black	17	70,116,204	TSS1500	N_Shore	SOX9	0.731	-0.002	0.049	0.558
cg11153239	black	3	115,343,529	Body	OpenSea	GAP43	0.731	-0.005	0.058	0.252
cg23967554	black	10	104,170,222	Body	Island	PSD	0.731	0.001	0.109	0.869
cg10954182	black	12	104,532,377	TSS1500	Island	NFYB	0.731	-0.002	0.047	0.350
cg06865612	black	2	946,999	Body	Island	SNTG2	0.731	0.000	0.038	0.798
cg07486383	black	5	37,838,363	5'UTR	Island	GDNF	0.731	0.000	0.019	0.929
cg01987202	black	15	40,633,194	TSS200	OpenSea	C15orf52	0.731	-0.001	0.043	0.601
cg19255477	black	1	151,810,586	TSS1500	Island	LOC1001321	0.731	-0.005	0.076	0.588
cg24956866	black	7	134,464,129	TSS200	OpenSea	CALD1	0.731	0.001	0.033	0.552
cg04993089	black	4	185,089,919	Body	Island	ENPP6	0.731	-0.001	0.026	0.596
cg00290974	black	11	10,316,461	TSS1500	Island	SBF2	0.731	0.000	0.046	0.915
cg26575057	black	6	170,606,506		S_Shore		0.731	0.002	0.043	0.643
cg14606431	black	2	71,126,505	TSS1500	N_Shore	VAX2	0.731	0.001	0.055	0.764
cg13877974	black	1	201,708,888	TSS200	Island	NAV1	0.731	-0.006	0.075	0.579

cg06319713	black	1	226,249,408	TSS1500	N_Shore	LOC440926	0.730	0.000	0.037	0.935
cg25786366	black	22	24,817,597		N_Shore		0.730	0.004	0.144	0.544
cg20545458	black	6	26,046,341		S_Shore		0.730	0.000	0.139	0.981
cg00021476	black	16	85,660,215	5'UTR	S_Shore	KIAA0182	0.730	-0.002	0.043	0.409
cg12847554	black	6	100,909,443	Body	Island	SIM1	0.730	0.000	0.023	0.751
cg18763911	black	19	15,561,037	TSS1500	N_Shelf	WIZ	0.730	-0.001	0.032	0.663
cg23740491	black	6	27,228,267		Island		0.730	-0.001	0.056	0.829
cg08550839	black	19	35,633,553	Body	Island	FXD1	0.730	0.001	0.040	0.860
cg12951488	black	11	115,516,632		OpenSea		0.730	0.015	0.184	0.032
cg12405048	black	12	112,074,086		OpenSea		0.730	-0.002	0.074	0.624
cg21912938	black	7	28,220,594	TSS200	S_Shore	JAZF1	0.730	0.001	0.051	0.844
cg06745030	black	2	232,260,139	TSS200	Island	B3GNT7	0.730	-0.002	0.146	0.743
cg20533899	black	11	76,381,105	5'UTR	N_Shore	LRRC32	0.730	-0.002	0.054	0.612
cg11948766	black	8	49,494,499		OpenSea		0.730	0.006	0.449	0.391
cg01306563	black	7	114,055,074	1stExon	OpenSea	FOXP2	0.730	0.000	0.021	0.789
cg20895511	black	11	2,160,055	Body	Island	INS-IGF2	0.730	0.003	0.172	0.781
cg11064966	black	5	32,506,514		OpenSea		0.730	0.001	0.029	0.647
cg07766263	black	3	170,303,045	5'UTR	Island	SLC7A14	0.730	0.003	0.090	0.629
cg04925864	black	16	67,562,517	TSS1500	N_Shore	FAM65A	0.730	-0.001	0.045	0.664
cg08515285	black	22	20,306,749	Body	N_Shore	DGCR6L	0.730	0.002	0.061	0.485
cg01889237	black	6	137,816,623	TSS1500	Island	OLIG3	0.730	-0.005	0.062	0.111
cg07226201	black	22	27,834,629		Island		0.729	-0.003	0.041	0.347
cg10437265	black	15	77,819,839		OpenSea		0.729	-0.004	0.036	0.062
cg03451574	black	1	61,542,546	TSS1500	Island	NFIA	0.729	-0.001	0.030	0.497
cg02525108	black	11	122,847,582		Island		0.729	0.002	0.034	0.287
cg22047350	black	5	54,523,532		Island		0.729	-0.001	0.022	0.246
cg20823481	black	4	185,736,247	5'UTR	OpenSea	ACSL1	0.729	-0.001	0.045	0.735
cg17024452	black	12	4,380,025		Island		0.729	-0.001	0.027	0.647
cg00665106	black	1	201,515,370		OpenSea		0.729	0.002	0.525	0.720
cg02086195	black	1	12,656,232	Body	Island	DHRS3	0.729	0.000	0.035	0.874
cg09706243	black	11	67,121,634	Body	S_Shore	LOC1001309	0.729	0.002	0.058	0.599
cg14709837	black	2	54,950,056		N_Shore		0.729	0.002	0.036	0.332
cg23626546	black	6	13,924,355	TSS1500	N_Shore	RNF182	0.729	-0.011	0.140	0.138
cg08684361	black	6	30,852,823	5'UTR	S_Shore	DDR1	0.729	0.001	0.025	0.492
cg10851251	black	15	68,131,281		N_Shore		0.729	-0.002	0.063	0.616
cg14076729	black	1	38,126,628		OpenSea		0.729	-0.002	0.053	0.572
cg05630800	black	1	178,840,298	TSS200	OpenSea	ANGPTL1	0.729	0.000	0.045	0.906
cg03380964	black	4	152,967,221		OpenSea		0.729	0.002	0.068	0.744
cg13890428	black	8	142,316,216		N_Shelf		0.729	0.000	0.039	0.941
cg18494190	black	10	102,589,532	3'UTR	N_Shore	PAX2	0.729	0.004	0.133	0.475
cg08605301	black	7	29,924,135	Body	Island	WIPF3	0.729	-0.030	0.321	0.065
cg14665951	black	2	220,492,021	TSS1500	N_Shore	SLC4A3	0.729	0.000	0.027	0.816
cg10981464	black	1	156,830,284	Body	Island	NRK1	0.729	-0.003	0.038	0.085
cg24344074	black	1	113,218,414	Body	S_Shore	MOV10	0.729	-0.002	0.037	0.388
cg26891410	black	1	47,696,260	TSS1500	N_Shore	TAL1	0.728	-0.001	0.037	0.469
cg22598563	black	5	131,563,921	TSS1500	Island	P4HA2	0.728	-0.006	0.050	0.047
cg21238609	black	17	38,472,961	5'UTR	Island	RARA	0.728	0.001	0.023	0.397
cg27165884	black	10	99,473,085	TSS1500	Island	MARVELD1	0.728	-0.003	0.086	0.535
cg02892388	black	7	155,260,310		Island		0.728	-0.001	0.034	0.754
cg14263391	black	17	37,894,014	TSS1500	OpenSea	GRB7	0.728	-0.003	0.048	0.542
cg05894970	black	3	119,041,204	Body	N_Shore	CDGAP	0.728	0.002	0.031	0.293
cg03489023	black	2	19,557,201	5'UTR	Island	OSR1	0.728	0.000	0.021	0.920
cg11382529	black	8	65,490,613	TSS1500	N_Shore	LOC401463	0.728	-0.004	0.043	0.392
cg10900703	black	10	21,824,407	Body	Island	MLLT10	0.728	-0.004	0.048	0.155
cg11688949	black	8	27,115,956	TSS200	OpenSea	STMN4	0.728	-0.002	0.033	0.428
cg24621354	black	7	115,850,382	TSS200	Island	TES	0.728	0.000	0.041	0.972
cg19563307	black	2	43,577,309	Body	OpenSea	THADA	0.727	-0.002	0.029	0.451
cg26001207	black	5	92,921,509	Body	N_Shore	NR2F1	0.727	-0.001	0.032	0.517
cg01735049	black	16	9,187,613	Body	S_Shore	C16orf72	0.727	0.000	0.019	0.670
cg03180426	black	9	139,964,156	Body	Island	C9orf140	0.727	-0.006	0.137	0.284
cg14700577	black	3	47,517,001	5'UTR	Island	SCAP	0.727	0.004	0.059	0.333
cg10481740	black	4	1,857,103	Body	Island	LETM1	0.727	0.001	0.063	0.672
cg03125531	black	8	1,906,418	3'UTR	OpenSea	ARHGEF10	0.727	-0.004	0.422	0.547
cg01785359	black	8	38,757,652	TSS1500	N_Shore	PLEKHA2	0.727	-0.003	0.070	0.650
cg26022526	black	4	8,271,319	TSS200	Island	HTRA3	0.727	0.000	0.025	0.839
cg10628205	black	1	61,547,131	Body	N_Shore	NFIA	0.727	-0.002	0.022	0.172
cg09426103	black	7	96,654,554	TSS1500	S_Shore	DLX5	0.727	0.000	0.037	0.797

cg05512483	black	11	62,621,791	TSS1500	N_Shore	SNORD30	0.727	0.001	0.029	0.563
cg00160962	black	12	124,616,497		OpenSea		0.727	0.004	0.531	0.728
cg25019989	black	4	54,961,835		S_Shelf		0.727	-0.001	0.021	0.273
cg22835157	black	15	41,218,352		Island		0.727	0.000	0.087	0.958
cg00785170	black	1	201,438,757	TSS1500	S_Shore	PHLDA3	0.727	0.001	0.024	0.669
cg04223553	black	5	153,852,934		N_Shore		0.727	0.000	0.026	0.793
cg08149253	black	22	45,899,292	Body	Island	FBLN1	0.727	0.000	0.026	0.840
cg19197440	black	17	1,811,269		N_Shore		0.727	-0.002	0.183	0.805
cg24064279	black	5	137,839,461		OpenSea		0.727	0.003	0.058	0.387
cg23576807	black	2	54,950,120		N_Shore		0.727	0.003	0.026	0.078
cg15885672	black	17	59,488,116	TSS1500	Island	C17orf82	0.727	0.001	0.066	0.860
cg23649140	black	8	37,661,612	Body	OpenSea	GPR124	0.727	0.001	0.053	0.700
cg26162108	black	12	54,410,323	TSS1500	N_Shore	HOXC4	0.727	0.000	0.031	0.987
cg00134645	black	5	76,940,989		N_Shore		0.727	0.000	0.015	0.875
cg06148118	black	11	33,892,246	TSS1500	S_Shore	LMO2	0.727	0.000	0.033	0.818
cg03763508	black	7	27,140,942	Body	N_Shelf	HOXA2	0.727	-0.003	0.040	0.335
cg06521615	black	2	162,271,801	TSS1500	N_Shore	TBR1	0.727	0.001	0.023	0.317
cg07266616	black	4	55,093,241		Island		0.726	-0.001	0.026	0.388
cg01821429	black	3	193,922,273		Island		0.726	-0.001	0.038	0.797
cg17568996	black	22	42,828,125	Body	OpenSea	NFAM1	0.726	-0.002	0.016	0.161
cg07128416	black	3	113,160,490	TSS200	Island	WDR52	0.726	-0.003	0.098	0.743
cg15068733	black	17	7,342,846	1stExon	Island	FGF11	0.726	0.000	0.027	0.847
cg24008177	black	15	52,972,085	TSS1500	S_Shore	KIAA1370	0.726	0.001	0.024	0.638
cg17980119	black	2	219,472,607	TSS200	OpenSea	PLCD4	0.726	0.002	0.031	0.367
cg02569698	black	6	35,480,129	Body	Island	TULP1	0.726	0.000	0.025	0.988
cg05211662	black	5	128,795,605	TSS1500	Island	ADAMTS19	0.726	0.000	0.041	0.844
cg04025675	black	15	45,671,028	Body	Island	LOC145663	0.726	-0.001	0.031	0.702
cg00851389	black	16	56,669,681		Island		0.726	-0.002	0.032	0.365
cg19304407	black	18	20,512,860	TSS1500	N_Shore	RBBP8	0.726	0.001	0.034	0.721
cg20654074	black	15	41,223,179	Body	Island	DLL4	0.726	0.000	0.080	0.992
cg02063759	black	1	119,543,295		Island		0.726	0.000	0.032	0.793
cg10622825	black	1	172,413,349	TSS200	S_Shore	PIGC	0.726	0.002	0.076	0.581
cg26035171	black	17	28,705,464	TSS1500	Island	CPD	0.726	0.002	0.038	0.329
cg03864483	black	3	23,851,909	Body	N_Shore	UBE2E1	0.726	-0.002	0.182	0.662
cg26839284	black	1	110,162,246	TSS1500	N_Shore	AMPD2	0.726	0.000	0.029	0.923
cg04111789	black	6	41,908,262	Body	N_Shore	CCND3	0.726	-0.002	0.040	0.344
cg22112267	black	2	66,804,706		Island		0.726	0.001	0.044	0.551
cg19192590	black	2	178,524,533	Body	OpenSea	PDE11A	0.726	-0.003	0.100	0.618
cg06921282	black	11	536,299	TSS1500	Island	HRAS	0.726	0.002	0.052	0.416
cg12762816	black	2	172,953,392	3'UTR	S_Shore	DLX1	0.726	0.001	0.073	0.818
cg11640591	black	3	46,925,181	Body	Island	PTH1R	0.726	-0.001	0.047	0.507
cg00577935	black	5	112,073,348	TSS1500	OpenSea	APC	0.726	0.000	0.019	0.808
cg05685023	black	3	187,870,940	TSS1500	N_Shore	LPP	0.726	-0.003	0.071	0.497
cg08151705	black	17	33,775,917	TSS200	N_Shore	SLFN13	0.726	-0.006	0.039	0.080
cg04874031	black	7	134,464,411	5'UTR	OpenSea	CALD1	0.726	-0.006	0.061	0.174
cg13014709	black	12	58,148,389	TSS1500	N_Shore	9-Mar	0.726	0.001	0.054	0.599
cg13228642	black	1	181,057,360	TSS1500	N_Shore	IER5	0.726	0.001	0.048	0.872
cg24139443	black	17	74,131,549		N_Shelf		0.726	-0.001	0.044	0.662
cg26417361	black	6	99,292,838		Island		0.725	-0.001	0.023	0.431
cg18769353	black	7	137,028,617	TSS200	OpenSea	PTN	0.725	0.000	0.015	0.986
cg15776617	black	2	9,324,111		OpenSea		0.725	0.007	0.139	0.379
cg09966978	black	9	33,025,025	TSS200	N_Shore	DNAJA1	0.725	0.002	0.040	0.554
cg04948892	black	3	181,428,462	Body	N_Shore	SOX2OT	0.725	0.000	0.035	0.974
cg02639927	black	1	77,334,748	Body	S_Shore	ST6GALNAC5	0.725	0.000	0.020	0.914
cg17242664	black	4	5,710,761	5'UTR	S_Shore	EVC2	0.725	-0.004	0.110	0.465
cg13568348	black	2	54,952,346	1stExon	Island	EML6	0.725	-0.001	0.046	0.668
cg20605061	black	2	176,973,835	Body	S_Shore	HOXD11	0.725	-0.001	0.029	0.608
cg24332389	black	1	6,558,085	Body	S_Shore	PLEKHG5	0.725	0.001	0.270	0.956
cg03036373	black	14	37,051,902	TSS200	N_Shore	NKX2-8	0.725	0.002	0.030	0.131
cg18040878	black	12	54,409,229	TSS1500	S_Shore	HOXC4	0.725	0.009	0.108	0.238
cg05676400	black	4	174,443,865		Island		0.725	0.000	0.020	0.790
cg05453820	black	8	81,523,903		OpenSea		0.725	-0.005	0.077	0.337
cg07886712	black	22	29,665,413	Body	S_Shore	EWSR1	0.725	0.000	0.031	0.808
cg27557829	black	1	7,022,041	Body	Island	CAMTA1	0.725	-0.009	0.204	0.224
cg03731896	black	19	49,474,391	Body	S_Shore	GYS1	0.725	0.000	0.052	0.934
cg25386234	black	1	119,542,159		N_Shore		0.725	0.001	0.029	0.609
cg25862975	black	6	108,454,984		N_Shore		0.725	0.000	0.039	0.916

cg14831380	black	8	144,510,421	N_Shore		0.725	0.000	0.023	0.935	
cg27395208	black	11	128,557,481	N_Shelf		0.725	0.000	0.018	0.813	
cg26620959	black	6	152,958,489	1stExon	S_Shore	SYNE1	0.725	-0.002	0.027	0.218
cg24532083	black	3	44,100,380		OpenSea		0.725	-0.002	0.133	0.592
cg09778828	black	9	132,245,624		Island		0.725	-0.004	0.043	0.202
cg20745684	black	7	29,923,339	Body	N_Shore	WIPF3	0.725	-0.009	0.133	0.094
cg23121335	black	11	67,784,489	Body	OpenSea	ALDH3B1	0.725	0.001	0.026	0.524
cg11859982	black	7	127,907,529		N_Shelf		0.725	-0.007	0.084	0.179
cg05397812	black	11	14,994,847	TSS1500	N_Shore	CALCA	0.725	0.000	0.026	0.945
cg19818890	black	11	76,033,391		Island		0.724	0.005	0.082	0.178
cg14582298	black	10	31,610,093	1stExon	Island	ZEB1	0.724	-0.001	0.017	0.426
cg22215942	black	22	46,042,119		S_Shore		0.724	0.005	0.669	0.386
cg20368818	black	11	33,800,056		S_Shelf		0.724	-0.006	0.093	0.276
cg03506216	black	8	11,550,001		Island		0.724	0.000	0.024	0.994
cg04666029	black	11	2,552,843	Body	N_Shore	KCNQ1	0.724	-0.002	0.032	0.198
cg17677987	black	17	13,018,217		OpenSea		0.724	-0.001	0.036	0.472
cg11328436	black	12	54,360,511	Body	Island	HOTAIR	0.724	-0.004	0.062	0.289
cg01968493	black	2	185,462,493	TSS1500	N_Shore	ZNF804A	0.724	0.001	0.029	0.605
cg04872675	black	12	108,983,234		OpenSea		0.724	0.002	0.066	0.738
cg12132731	black	1	205,313,575	5'UTR	Island	KLHDC8A	0.724	0.000	0.030	0.979
cg04126266	black	1	18,963,958	Body	N_Shore	PAX7	0.724	-0.001	0.044	0.563
cg06884401	black	4	89,978,251	1stExon	OpenSea	FAM13A	0.724	0.001	0.021	0.421
cg24293297	black	7	20,831,044		S_Shore		0.724	-0.002	0.018	0.099
cg09571713	black	4	168,154,775	Body	N_Shore	SPOCK3	0.724	-0.001	0.024	0.439
cg21183329	black	9	124,976,219	Body	Island	LHX6	0.724	-0.001	0.040	0.821
cg17467873	black	5	10,307,544	5'UTR	Island	CMBL	0.724	0.001	0.017	0.432
cg00230502	black	12	119,772,381	TSS200	Island	CCDC60	0.724	0.001	0.027	0.699
cg16975587	black	3	46,506,206	Body	Island	LTF	0.724	0.001	0.041	0.788
cg13338207	black	3	98,452,879	5'UTR	S_Shore	ST3GAL6	0.724	0.002	0.023	0.105
cg07641807	black	13	92,001,959	TSS1500	S_Shore	MIR19A	0.724	0.002	0.040	0.607
cg14442061	black	17	17,740,468	TSS200	Island	SREBF1	0.724	0.002	0.045	0.559
cg19667304	black	12	68,043,875	Body	Island	DYRK2	0.724	0.000	0.020	0.946
cg07747571	black	3	12,910,409		OpenSea		0.724	-0.008	0.117	0.120
cg03963689	black	17	17,739,407	Body	N_Shore	SREBF1	0.724	-0.001	0.022	0.544
cg13219108	black	20	9,495,130	TSS200	N_Shore	C20orf103	0.724	-0.001	0.039	0.764
cg15174021	black	8	101,693,194		OpenSea		0.724	0.004	0.053	0.236
cg24283921	black	11	10,477,461	TSS200	OpenSea	AMPD3	0.723	0.001	0.031	0.470
cg06974755	black	9	135,996,931	Body	Island	RALGDS	0.723	-0.004	0.080	0.630
cg22451657	black	1	6,558,088	Body	S_Shore	PLEKHG5	0.723	-0.009	0.177	0.453
cg02162880	black	6	10,419,846	TSS200	Island	TFAP2A	0.723	0.000	0.040	0.921
cg08035323	black	2	9,843,525		OpenSea		0.723	0.007	0.256	0.266
cg05734675	black	10	537,033	Body	OpenSea	DIP2C	0.723	0.000	0.072	0.927
cg09313705	black	17	46,622,491	TSS200	S_Shore	HOXB2	0.723	0.000	0.041	0.827
cg15232290	black	11	1,785,683	TSS1500	S_Shore	CTSD	0.723	-0.005	0.224	0.364
cg01471713	black	1	220,864,279	Body	S_Shore	C1orf115	0.723	-0.001	0.049	0.708
cg04378874	black	16	77,823,616	Body	S_Shore	VAT1L	0.723	0.000	0.015	0.774
cg07783843	black	2	176,997,311		S_Shore		0.723	0.000	0.044	0.931
cg22393461	black	1	10,010,658	5'UTR	OpenSea	NMNAT1	0.723	-0.001	0.047	0.719
cg14230696	black	2	176,968,920		N_Shore		0.723	0.002	0.031	0.400
cg15757793	black	17	77,217,025	5'UTR	OpenSea	HRNBP3	0.723	0.000	0.051	0.923
cg10030791	black	11	57,364,888	TSS1500	OpenSea	SERPING1	0.723	0.000	0.195	0.988
cg09863659	black	20	30,328,246	5'UTR	S_Shore	TPX2	0.723	-0.001	0.036	0.648
cg15286094	black	7	116,660,213	Body	OpenSea	ST7	0.723	0.001	0.119	0.912
cg05532414	black	2	172,971,090		Island		0.723	-0.002	0.047	0.244
cg25272655	black	1	228,644,958	TSS1500	N_Shore	HIST3H2BB	0.723	0.000	0.043	0.829
cg00208504	black	4	140,200,520	Body	N_Shore	C4orf49	0.723	-0.001	0.050	0.764
cg00036664	black	4	185,938,303		N_Shore		0.723	0.000	0.034	0.907
cg09492887	black	7	103,085,978	5'UTR	Island	SLC26A5	0.723	-0.001	0.024	0.652
cg19683989	black	15	95,938,185		OpenSea		0.723	0.000	0.115	0.940
cg03321133	black	2	176,993,115	TSS1500	Island	HOXD8	0.723	-0.002	0.083	0.756
cg07091207	black	7	1,708,892		Island		0.722	-0.001	0.026	0.730
cg05628549	black	11	6,341,895	TSS200	Island	PRKCDBP	0.722	0.002	0.061	0.719
cg05413199	black	16	67,430,454	Body	S_Shore	ZDHHC1	0.722	-0.002	0.044	0.614
cg26141228	black	21	44,495,141	5'UTR	Island	CBS	0.722	0.001	0.028	0.437
cg24087613	black	4	129,112,470	Body	OpenSea	LARP1B	0.722	0.001	0.038	0.605
cg09172296	black	10	21,807,166	5'UTR	S_Shore	C10orf140	0.722	0.000	0.035	0.875
cg16317457	black	11	123,173,103		Island		0.722	-0.006	0.050	0.154



cg16758813	black	6	50,818,862	S_Shore		0.722	-0.001	0.016	0.191
cg22309923	black	7	35,297,281	Island		0.722	-0.002	0.042	0.439
cg23565821	black	6	33,385,056 Body	N_Shore	CUTA	0.722	0.002	0.055	0.558
cg12590051	black	12	54,398,891	N_Shore		0.722	0.000	0.100	0.996
cg04212239	black	3	160,119,314 Body	S_Shore	SMC4	0.722	0.003	0.031	0.149
cg00377320	black	17	47,988,100	Island		0.722	0.001	0.050	0.696
cg24157531	black	1	200,009,447 Body	N_Shore	NR5A2	0.722	0.000	0.017	0.693
cg03886558	black	12	57,869,490 Body	Island	ARHGAP9	0.722	-0.003	0.022	0.224
cg09730930	black	5	174,135,571	OpenSea		0.722	-0.007	0.293	0.554
cg18200326	black	16	67,282,115 TSS1500	Island	FHOD1	0.722	-0.003	0.089	0.313
cg27472102	black	12	77,459,941 TSS1500	Island	E2F7	0.722	-0.001	0.028	0.707
cg05027336	black	7	27,209,350 TSS200	Island	MIR196B	0.722	0.000	0.062	0.998
cg25349820	black	22	25,346,354	N_Shore		0.721	0.002	0.036	0.154
cg25386707	black	10	131,748,428 Body	OpenSea	EBF3	0.721	-0.002	0.024	0.077
cg27069921	black	5	54,523,727	Island		0.721	-0.001	0.036	0.404
cg21340070	black	2	60,783,960	S_Shore		0.721	0.000	0.024	0.850
cg25149428	black	3	50,653,397 TSS1500	N_Shore	MAPKAPK3	0.721	0.000	0.020	0.987
cg12303084	black	20	45,985,741 TSS1500	OpenSea	ZMYND8	0.721	-0.004	0.064	0.174
cg08069287	black	11	72,868,833	OpenSea		0.721	-0.002	0.479	0.860
cg10398682	black	15	83,952,019 Body	Island	BNC1	0.721	-0.005	0.054	0.066
cg25608041	black	4	37,891,834 TSS1500	Island	TBC1D1	0.721	-0.002	0.041	0.292
cg25310081	black	12	56,959,642 Body	OpenSea	RBMS2	0.721	0.002	0.248	0.756
cg19734255	black	3	147,086,945	OpenSea		0.721	0.000	0.013	0.564
cg15044760	black	2	45,177,243	Island		0.721	-0.003	0.074	0.492
cg04368094	black	14	56,586,522 Body	S_Shore	PELI2	0.721	0.000	0.033	0.767
cg26824516	black	15	101,419,293 TSS1500	Island	ALDH1A3	0.721	-0.003	0.035	0.159
cg01977762	black	19	4,909,193 TSS1500	N_Shore	UHRF1	0.721	-0.010	0.198	0.325
cg24169822	black	7	27,170,994 TSS1500	S_Shore	HOXA4	0.721	0.001	0.032	0.674
cg10141008	black	13	74,862,034	OpenSea		0.721	0.000	0.100	0.962
cg12311132	black	11	32,112,154 TSS1500	N_Shore	RCN1	0.721	-0.003	0.051	0.248
cg19984146	black	10	90,968,091 TSS1500	S_Shore	CH25H	0.721	0.000	0.029	0.994
cg06520675	black	10	102,996,310 Body	Island	FLJ41350	0.721	0.000	0.051	0.986
cg09616640	black	4	41,216,812 TSS200	Island	APBB2	0.721	-0.002	0.047	0.434
cg04665046	black	9	123,691,674	Island		0.721	0.000	0.255	0.963
cg00044995	black	19	408,683 5'UTR	Island	C2CD4C	0.721	0.001	0.023	0.440
cg16617774	black	5	146,435,656 5'UTR	OpenSea	PPP2R2B	0.721	-0.002	0.146	0.681
cg15875654	black	13	113,000,801	S_Shelf		0.721	0.000	0.024	0.851
cg10965575	black	2	182,321,496 TSS200	N_Shore	ITGA4	0.721	-0.001	0.031	0.515
cg02379082	black	7	156,811,484	Island		0.721	0.000	0.020	0.853
cg14071869	black	6	41,624,407	S_Shelf		0.720	-0.004	0.119	0.265
cg09451613	black	10	123,804,060 Body	OpenSea	TACC2	0.720	0.003	0.051	0.426
cg05374451	black	17	79,009,761 TSS1500	Island	FLJ90757	0.720	-0.005	0.081	0.238
cg24237081	black	12	24,102,807 5'UTR	OpenSea	SOX5	0.720	-0.001	0.024	0.420
cg14312649	black	8	25,909,385	Island		0.720	0.000	0.027	0.830
cg19655952	black	7	114,055,204 1stExon	OpenSea	FOXP2	0.720	0.001	0.037	0.800
cg24349832	black	1	15,478,848 TSS1500	N_Shore	TMEM51	0.720	-0.002	0.046	0.537
cg19024632	black	2	18,059,103 TSS1500	Island	KCNS3	0.720	-0.008	0.090	0.103
cg05050944	black	4	54,970,135	S_Shelf		0.720	-0.005	0.057	0.062
cg10376286	black	1	116,710,606	N_Shore		0.720	0.000	0.063	0.947
cg06680481	black	20	22,549,253 Body	Island	C20orf56	0.720	0.000	0.044	0.860
cg05563595	black	6	30,140,305 3'UTR	S_Shore	TRIM15	0.720	-0.001	0.044	0.588
cg20693209	black	11	13,984,067 1stExon	Island	SPON1	0.720	0.000	0.020	0.854
cg07993468	black	7	73,389,632	OpenSea		0.720	0.001	0.546	0.913
cg18948199	black	12	118,313,708 Body	OpenSea	KSR2	0.720	0.002	0.038	0.449
cg06981716	black	7	98,030,795 TSS1500	S_Shore	BAIAP2L1	0.720	0.000	0.048	0.948
cg05799507	black	16	56,677,223 TSS1500	Island	MT1DP	0.720	0.002	0.025	0.159
cg13380319	black	7	78,600,265 Body	OpenSea	MAGI2	0.720	0.000	0.507	0.978
cg08255057	black	13	107,686,974	OpenSea		0.720	-0.008	0.627	0.582
cg11283429	black	13	28,549,574	N_Shore		0.720	-0.004	0.042	0.043
cg20931973	black	6	110,679,832 TSS1500	Island	C6orf186	0.720	-0.003	0.049	0.408
cg02466947	black	5	87,969,157 TSS200	N_Shore	LOC645323	0.719	-0.002	0.032	0.196
cg16275981	black	5	87,986,030	S_Shore		0.719	-0.001	0.012	0.422
cg21956614	black	4	129,439,073	OpenSea		0.719	0.004	0.194	0.475
cg06574422	black	12	111,181,673 TSS1500	S_Shore	PPP1CC	0.719	0.000	0.018	0.680
cg03662064	black	13	29,069,888 TSS1500	Island	FLT1	0.719	-0.002	0.046	0.356
cg00176043	black	1	67,900,465	S_Shelf		0.719	-0.011	0.242	0.332
cg06942183	black	17	46,622,607 TSS1500	S_Shore	HOXB2	0.719	-0.006	0.074	0.375

cg10096645	black	18	24,130,851	5'UTR	Island	KCTD1	0.719	-0.003	0.051	0.243
cg05915866	black	16	73,090,838	5'UTR	N_Shore	ZFHX3	0.719	-0.001	0.021	0.463
cg03593336	black	1	99,471,295	TSS1500	S_Shore	LPPR5	0.719	0.003	0.046	0.312
cg24897141	black	5	139,283,199	Body	N_Shore	NRG2	0.719	0.000	0.045	0.980
cg17526229	black	11	20,177,746		Island		0.719	-0.003	0.027	0.095
cg05508639	black	15	90,745,541	Body	S_Shore	SEMA4B	0.719	-0.002	0.058	0.624
cg01496203	black	4	121,843,035	Body	N_Shore	PRDM5	0.719	-0.001	0.029	0.650
cg26195706	black	10	88,391,827		Island		0.719	-0.004	0.053	0.157
cg01654862	black	3	159,480,947	Body	Island	SCHIP1	0.719	-0.003	0.034	0.154
cg25370658	black	6	7,673,306		OpenSea		0.719	0.000	0.248	0.976
cg01293485	black	3	42,847,044	TSS1500	S_Shore	HIGD1A	0.719	0.001	0.162	0.866
cg04613313	black	13	79,183,823		Island		0.719	-0.001	0.025	0.351
cg09368188	black	1	245,330,018	Body	OpenSea	KIF26B	0.718	-0.001	0.028	0.549
cg07694975	black	12	6,756,671	TSS200	Island	ACRBP	0.718	-0.004	0.065	0.365
cg20306511	black	22	19,718,791		S_Shore		0.718	-0.005	0.123	0.247
cg17964844	black	12	49,367,911		N_Shelf		0.718	0.000	0.040	0.864
cg09502015	black	5	87,441,873		OpenSea		0.718	0.000	0.026	0.837
cg11084718	black	12	93,834,066	Body	N_Shore	UBE2N	0.718	-0.002	0.027	0.222
cg05222982	black	13	28,545,214		S_Shore		0.718	-0.004	0.047	0.138
cg02224369	black	11	33,758,529	TSS1500	S_Shore	CD59	0.718	-0.003	0.050	0.358
cg11864574	black	10	22,635,028	Body	S_Shore	SPAG6	0.718	0.000	0.035	0.818
cg13443605	black	17	14,207,036	Body	Island	HS3ST3B1	0.718	-0.001	0.027	0.372
cg08038776	black	1	55,462,422		N_Shore		0.718	0.000	0.037	0.985
cg00940280	black	8	131,456,284		Island		0.718	0.001	0.018	0.468
cg16114141	black	6	139,351,353	5'UTR	S_Shore	C6orf115	0.718	-0.016	0.165	0.095
cg08533745	black	12	28,124,011	TSS1500	S_Shore	PTHLH	0.718	-0.001	0.035	0.533
cg24913868	black	10	101,296,069	3'UTR	Island	NKX2-3	0.718	0.003	0.124	0.656
cg24680632	black	12	116,044,032		OpenSea		0.718	-0.001	0.065	0.935
cg01687401	black	20	825,050	5'UTR	N_Shore	FAM110A	0.718	0.002	0.052	0.519
cg10686550	black	10	6,020,330	TSS200	S_Shore	IL15RA	0.718	-0.001	0.025	0.745
cg02186769	black	6	30,881,645	TSS1500	Island	VAR52	0.718	0.000	0.037	0.977
cg20353935	black	18	55,098,450		N_Shelf		0.718	-0.001	0.034	0.339
cg25457832	black	8	49,647,579	Body	N_Shore	EFCAB1	0.718	0.005	0.173	0.641
cg24809407	black	7	27,274,919		N_Shore		0.718	-0.002	0.051	0.301
cg08063911	black	5	133,451,474	5'UTR	S_Shore	TCF7	0.718	-0.003	0.049	0.247
cg00177243	black	10	18,434,068	Body	S_Shelf	CACNB2	0.718	-0.008	0.176	0.174
cg26332310	black	1	91,182,305	1stExon	Island	BARHL2	0.718	-0.001	0.021	0.416
cg19032066	black	14	37,131,601	Body	Island	PAX9	0.718	0.000	0.044	0.923
cg18824585	black	8	114,445,084	Body	Island	CSMD3	0.718	0.000	0.026	0.918
cg19363579	black	9	135,460,728	Body	N_Shore	BARHL1	0.718	0.002	0.031	0.287
cg07638935	black	10	102,821,427	1stExon	Island	KAZALD1	0.718	0.001	0.060	0.649
cg15991405	black	2	176,988,480	Body	N_Shore	HOXD9	0.717	-0.002	0.035	0.312
cg18863922	black	1	156,889,882	TSS1500	N_Shore	C1orf92	0.717	-0.008	0.508	0.326
cg27294796	black	15	90,456,387	TSS200	S_Shore	C15orf38	0.717	0.004	0.064	0.229
cg21542223	black	1	91,190,005		N_Shore		0.717	0.000	0.040	0.945
cg19403029	black	8	10,587,055	Body	N_Shore	SOX7	0.717	-0.001	0.084	0.878
cg26343510	black	11	72,975,668	5'UTR	Island	P2RY6	0.717	-0.001	0.061	0.781
cg00334063	black	3	147,106,010	3'UTR	N_Shelf	ZIC4	0.717	-0.001	0.028	0.726
cg09088720	black	5	154,091,976	TSS1500	OpenSea	LARP1	0.717	-0.002	0.138	0.615
cg26890354	black	5	140,864,020	Body	N_Shore	PCDHGA4	0.717	0.005	0.067	0.160
cg01244270	black	2	172,953,630	3'UTR	S_Shore	DLX1	0.717	-0.002	0.040	0.223
cg04983821	black	5	133,407,209		S_Shore		0.717	0.005	0.180	0.301
cg02333706	black	6	108,478,494		N_Shore		0.717	-0.001	0.025	0.508
cg21215767	black	2	119,599,819	3'UTR	Island	EN1	0.717	0.000	0.023	0.949
cg01449144	black	8	49,782,592		N_Shore		0.717	0.003	0.178	0.687
cg00762662	black	10	23,727,572	TSS1500	N_Shore	OTUD1	0.717	-0.010	0.175	0.089
cg24727290	black	6	30,850,868	TSS1500	N_Shore	DDR1	0.717	0.003	0.237	0.559
cg18563999	black	12	54,785,003	Body	Island	ZNF385A	0.717	0.005	0.041	0.138
cg13855776	black	10	50,506,896	TSS1500	OpenSea	C10orf71	0.717	-0.005	0.124	0.524
cg14563954	black	3	147,141,286		N_Shore		0.717	0.002	0.046	0.503
cg17906339	black	1	204,183,529	TSS1500	OpenSea	GOLT1A	0.717	-0.002	0.079	0.614
cg21029769	black	11	130,029,515	TSS200	N_Shore	ST14	0.717	-0.002	0.042	0.367
cg23415212	black	17	37,331,429	3'UTR	Island	CACNB1	0.717	-0.004	0.052	0.259
cg01525855	black	22	42,763,955		N_Shore		0.717	-0.003	0.234	0.607
cg04951797	black	3	20,226,964	5'UTR	N_Shore	SGOL1	0.717	-0.001	0.031	0.435
cg25062797	black	10	118,893,528	Body	Island	VAX1	0.717	0.000	0.024	0.925
cg01158680	black	7	79,083,997	TSS1500	S_Shore	MAGI2	0.717	0.002	0.026	0.204

cg03437157	black	6	100,052,633	S_Shore		0.717	0.001	0.027	0.249
cg11235663	black	10	108,924,867 TSS1500	S_Shore	SORCS1	0.716	0.001	0.024	0.694
cg17604223	black	4	109,093,158 TSS200	Island	LOC641518	0.716	0.000	0.023	0.675
cg26117025	black	1	33,390,700	OpenSea		0.716	0.000	0.040	0.879
cg18977727	black	22	37,952,950	N_Shelf		0.716	0.000	0.057	0.981
cg18115656	black	9	101,705,939 TSS200	Island	COL15A1	0.716	-0.002	0.050	0.535
cg07995570	black	1	91,192,025	Island		0.716	0.000	0.011	0.805
cg24719601	black	4	41,750,466 1stExon	N_Shore	PHOX2B	0.716	-0.001	0.034	0.636
cg15107724	black	1	36,054,124 Body	OpenSea	TFAP2E	0.716	0.001	0.115	0.917
cg11226328	black	1	29,213,367 TSS1500	N_Shore	EPB41	0.716	-0.001	0.053	0.660
cg09549240	black	15	75,250,560 TSS1500	N_Shore	RPP25	0.716	0.002	0.039	0.454
cg11672277	black	18	32,556,104 TSS1500	N_Shore	MAPRE2	0.716	-0.005	0.088	0.341
cg22032532	black	12	88,974,665 TSS1500	Island	KITLG	0.716	0.000	0.037	0.827
cg12462720	black	20	62,739,073 TSS1500	S_Shore	NPBWR2	0.716	-0.004	0.198	0.548
cg05251000	black	9	132,935,664 Body	S_Shore	FREQ	0.716	0.000	0.050	0.942
cg21841239	black	1	86,622,737 TSS1500	Island	COL24A1	0.715	-0.002	0.054	0.478
cg06786153	black	15	78,327,011 Body	OpenSea	TBC1D2B	0.715	-0.003	0.234	0.748
cg19283196	black	4	48,485,233 TSS200	N_Shore	SLC10A4	0.715	0.000	0.046	0.929
cg25902889	black	19	4,305,090 Body	Island	FSD1	0.715	0.001	0.053	0.805
cg23197460	black	4	144,436,129 Body	S_Shore	SMARCA5	0.715	0.000	0.032	0.793
cg08661469	black	17	72,732,823 TSS200	N_Shore	RAB37	0.715	-0.002	0.033	0.411
cg07935790	black	2	119,612,313	N_Shore		0.715	-0.001	0.026	0.589
cg17739208	black	7	30,927,257 Body	OpenSea	FAM188B	0.715	0.002	0.306	0.790
cg19856728	black	5	87,963,592 Body	OpenSea	LOC645323	0.715	0.002	0.033	0.428
cg00327355	black	2	240,884,831	OpenSea		0.715	0.003	0.401	0.619
cg18455523	black	3	24,563,685	S_Shore		0.715	-0.001	0.065	0.607
cg03660500	black	1	197,887,649 Body	Island	LHX9	0.715	-0.001	0.011	0.345
cg04355435	black	1	43,736,290 5'UTR	N_Shelf	TMEM125	0.715	-0.001	0.042	0.714
cg20318096	black	1	31,846,110 TSS200	OpenSea	FABP3	0.715	-0.002	0.036	0.217
cg02716635	black	12	97,857,304 TSS1500	OpenSea	RMST	0.715	0.002	0.050	0.670
cg07007717	black	1	197,885,607 TSS1500	N_Shore	LHX9	0.715	0.000	0.020	1.000
cg08248849	black	14	65,172,195 5'UTR	S_Shore	PLEKHG3	0.715	0.004	0.044	0.145
cg14125468	black	9	132,113,996	N_Shore		0.715	0.000	0.033	0.885
cg12160258	black	10	63,213,396 TSS200	S_Shore	TMEM26	0.715	0.001	0.018	0.517
cg27033919	black	11	62,622,173 TSS1500	N_Shore	SNORD30	0.715	0.001	0.018	0.466
cg14295924	black	11	1,990,900	Island		0.715	-0.001	0.027	0.585
cg22955778	black	6	27,798,556	N_Shore		0.715	0.001	0.028	0.757
cg08878323	black	7	96,652,464 Body	N_Shore	DLX5	0.715	0.001	0.029	0.527
cg03663715	black	5	72,744,904 TSS1500	N_Shelf	FOXD1	0.715	-0.001	0.014	0.188
cg08934785	black	7	27,196,759 TSS1500	N_Shore	HOXA7	0.715	0.008	0.206	0.438
cg27466845	black	11	64,397,734 Body	Island	NRXN2	0.715	0.005	0.064	0.365
cg27523527	black	1	91,196,145	S_Shelf		0.715	0.000	0.044	0.845
cg27314998	black	4	30,720,246	N_Shore		0.715	0.001	0.019	0.193
cg17214107	black	4	123,747,542 TSS1500	N_Shore	FGF2	0.715	0.000	0.017	0.599
cg06333719	black	11	100,557,736 TSS1500	N_Shore	FLJ32810	0.715	0.001	0.037	0.583
cg07129924	black	7	155,261,402	Island		0.715	0.000	0.025	0.744
cg10590964	black	2	202,929,157	OpenSea		0.715	-0.004	0.084	0.379
cg04434593	black	11	67,139,546 Body	N_Shore	LOC1001309	0.715	-0.002	0.031	0.331
cg11746684	black	8	11,057,265 Body	N_Shore	XKR6	0.715	0.005	0.110	0.357
cg19272984	black	13	100,636,299 Body	N_Shore	ZIC2	0.715	-0.001	0.035	0.560
cg15976388	black	1	114,696,946 TSS1500	Island	SYT6	0.714	0.001	0.054	0.826
cg02183903	black	8	37,557,857	N_Shore		0.714	-0.001	0.043	0.510
cg20849121	black	1	12,679,951	S_Shore		0.714	0.001	0.042	0.575
cg07930539	black	2	177,025,975	N_Shore		0.714	-0.002	0.037	0.460
cg23430388	black	3	63,429,828 Body	OpenSea	SYNPR	0.714	0.020	0.248	0.013
cg04837832	black	10	101,290,958	Island		0.714	-0.001	0.028	0.617
cg00802478	black	4	40,588,553 5'UTR	OpenSea	RBM47	0.714	-0.002	0.028	0.300
cg12930100	black	3	181,428,697 Body	N_Shore	SOX2OT	0.714	-0.002	0.033	0.129
cg04907595	black	1	25,258,264 TSS1500	Island	RUNX3	0.714	0.001	0.039	0.853
cg05331731	black	18	11,147,146 Body	N_Shore	FAM38B	0.714	0.000	0.203	0.961
cg11503274	black	5	149,546,934 Body	Island	CDX1	0.714	-0.007	0.503	0.471
cg09917979	black	7	1,275,630 Body	Island	UNCX	0.714	-0.003	0.047	0.210
cg04692403	black	6	134,210,812 1stExon	Island	TCF21	0.714	-0.002	0.032	0.281
cg07289306	black	3	44,039,357	Island		0.714	0.000	0.025	0.921
cg19284211	black	20	20,347,495 TSS1500	Island	INSM1	0.714	-0.002	0.039	0.494
cg14462779	black	10	76,803,669 Body	Island	DUPD1	0.714	-0.007	0.311	0.429
cg00486022	black	16	57,796,748 Body	S_Shore	KIFC3	0.714	0.011	0.840	0.130

cg20180061	black	3	181,445,385	Body	S_Shore	SOX2OT	0.714	-0.001	0.022	0.634
cg00764217	black	7	116,660,240	Body	OpenSea	ST7	0.714	-0.001	0.026	0.708
cg11767757	black	21	40,145,404	TSS200	OpenSea	NCRNA00114	0.714	-0.003	0.376	0.705
cg06756211	black	1	223,936,799	Body	Island	CAPN2	0.714	0.000	0.017	0.793
cg17054759	black	22	49,844,102		S_Shore		0.713	-0.001	0.050	0.763
cg26053832	black	16	54,971,600		Island		0.713	0.003	0.043	0.225
cg17019053	black	2	74,875,263	TSS200	Island	C2orf65	0.713	-0.002	0.111	0.798
cg11526866	black	1	20,813,614	TSS1500	S_Shore	CAMK2N1	0.713	-0.003	0.057	0.406
cg20963227	black	4	41,868,203		N_Shore		0.713	0.001	0.037	0.624
cg24035484	black	12	20,000,505		OpenSea		0.713	0.000	0.250	0.965
cg08039301	black	17	47,072,907		Island		0.713	-0.003	0.125	0.312
cg04180046	black	7	45,002,736	Body	Island	MYO1G	0.713	0.001	0.081	0.824
cg18839504	black	5	172,665,119		N_Shore		0.713	0.003	0.035	0.157
cg06268921	black	1	214,158,573		N_Shore		0.713	0.000	0.024	0.940
cg04681554	black	7	27,283,409	Body	Island	EVX1	0.713	0.000	0.022	0.960
cg26920757	black	9	130,541,237	TSS200	OpenSea	SH2D3C	0.713	-0.014	0.233	0.050
cg25851789	black	1	217,309,794	5'UTR	N_Shore	ESRRG	0.713	0.000	0.031	0.996
cg03420242	black	16	49,893,122		Island		0.713	0.000	0.023	0.766
cg08911152	black	8	134,105,078	Body	OpenSea	TG	0.713	-0.008	0.075	0.051
cg18951332	black	2	220,777,552		OpenSea		0.713	-0.001	0.063	0.841
cg17355329	black	5	76,937,980		S_Shore		0.713	0.007	0.096	0.267
cg13643585	black	17	46,704,004	TSS200	Island	HOXB9	0.713	-0.002	0.028	0.107
cg23646888	black	3	112,929,672		N_Shore		0.712	0.013	0.217	0.071
cg05711710	black	10	93,793,140		OpenSea		0.712	0.001	0.243	0.860
cg27405554	black	13	79,183,424		Island		0.712	0.000	0.019	0.809
cg16353006	black	1	197,882,469	Body	S_Shore	LHX9	0.712	-0.001	0.035	0.692
cg13701109	black	5	128,795,472	TSS1500	N_Shore	ADAMTS19	0.712	0.000	0.039	0.799
cg22673543	black	10	13,933,229	Body	N_Shore	FRMD4A	0.712	-0.005	0.223	0.546
cg25596289	black	17	10,741,383	1stExon	OpenSea	PIRT	0.712	0.002	0.265	0.711
cg04948014	black	12	120,241,494	Body	N_Shore	CIT	0.712	-0.001	0.079	0.867
cg11063729	black	6	10,415,653	Body	N_Shore	TFAP2A	0.712	-0.001	0.019	0.239
cg19509675	black	14	57,603,592		OpenSea		0.712	0.006	0.178	0.394
cg04107773	black	20	62,273,555	Body	Island	STMN3	0.712	0.000	0.225	0.990
cg01012330	black	3	192,634,059	Body	N_Shore	C3orf59	0.712	-0.003	0.032	0.062
cg27018070	black	1	38,470,578	5'UTR	N_Shore	FHL3	0.712	0.000	0.021	0.812
cg04313735	black	11	73,357,194	TSS200	OpenSea	PLEKHB1	0.712	-0.003	0.080	0.448
cg26955383	black	10	105,218,660	TSS200	S_Shore	CALHM1	0.712	0.001	0.316	0.835
cg04621893	black	10	22,624,687		Island		0.712	-0.004	0.042	0.107
cg25037384	black	2	63,277,127	TSS1500	Island	OTX1	0.712	0.000	0.024	0.876
cg07478265	black	17	36,859,570		Island		0.712	-0.003	0.038	0.160
cg14638453	black	11	63,804,481	Body	S_Shore	MACROD1	0.712	-0.002	0.049	0.552
cg14467281	black	9	33,044,611	3'UTR	Island	SMU1	0.712	0.000	0.018	0.850
cg11746813	black	12	54,448,090	1stExon	Island	HOXC4	0.712	-0.001	0.020	0.524
cg25938806	black	2	177,028,162	TSS1500	N_Shore	HOXD3	0.711	0.001	0.025	0.375
cg09916174	black	7	134,576,049	TSS200	OpenSea	CALD1	0.711	-0.005	0.051	0.267
cg25511429	black	6	6,008,125	TSS1500	N_Shore	NRN1	0.711	0.000	0.026	0.880
cg11066209	black	7	2,282,252	TSS1500	S_Shore	FTSJ2	0.711	-0.005	0.126	0.303
cg24393699	black	1	197,744,782	TSS200	Island	DENND1B	0.711	0.001	0.056	0.648
cg12598837	black	11	113,845,788	TSS200	OpenSea	HTR3A	0.711	-0.002	0.030	0.506
cg07037725	black	5	141,699,580	5'UTR	OpenSea	SPRY4	0.711	-0.003	0.036	0.112
cg19657351	black	6	10,521,558	TSS200	OpenSea	GCNT2	0.711	0.002	0.026	0.255
cg20171999	black	8	67,343,066		N_Shore		0.711	0.004	0.219	0.724
cg04882188	black	10	61,468,611	5'UTR	Island	SLC16A9	0.711	-0.002	0.040	0.359
cg23217419	black	1	180,881,088	TSS1500	N_Shore	KIAA1614	0.711	-0.002	0.033	0.462
cg23106912	black	1	85,464,261	TSS1500	S_Shore	MCOLN2	0.711	-0.003	0.057	0.304
cg20495964	black	6	36,744,880	Body	OpenSea	CPNE5	0.711	0.005	0.339	0.609
cg13554207	black	1	85,359,134	TSS1500	Island	LPAR3	0.711	-0.001	0.020	0.306
cg15110353	black	10	102,985,377		Island		0.711	-0.002	0.067	0.618
cg06400704	black	1	240,256,644	1stExon	Island	FMN2	0.711	0.000	0.018	0.828
cg24030449	black	8	16,859,671	1stExon	S_Shore	FGF20	0.710	0.000	0.017	0.561
cg07030277	black	15	53,075,825	Body	N_Shore	ONECUT1	0.710	0.000	0.026	0.889
cg13886799	black	2	242,127,948	5'UTR	OpenSea	AN07	0.710	0.004	0.066	0.408
cg05256269	black	2	176,956,841	TSS1500	N_Shore	HOXD13	0.710	-0.004	0.071	0.348
cg26224060	black	5	94,957,243	1stExon	Island	GPR150	0.710	-0.001	0.052	0.808
cg15117372	black	6	35,992,219	5'UTR	N_Shelf	SLC26A8	0.710	-0.001	0.068	0.657
cg18944451	black	2	177,023,716		N_Shore		0.710	0.002	0.039	0.496
cg00592781	black	12	66,122,874		Island		0.710	-0.001	0.024	0.430

cg24856456	black	8	56,923,352	3'UTR	OpenSea	LYN	0.710	0.005	0.051	0.111
cg06000144	black	15	31,599,035		OpenSea		0.710	0.004	0.133	0.542
cg08972081	black	3	139,259,435	TSS1500	S_Shore	RBP1	0.710	-0.007	0.069	0.216
cg18702197	black	2	177,027,641	TSS1500	Island	HOXD3	0.710	-0.001	0.025	0.482
cg04152629	black	12	49,211,867	TSS1500	N_Shore	CACNB3	0.710	0.000	0.023	0.809
cg02257405	black	5	131,346,985	Body	Island	ACSL6	0.710	-0.001	0.108	0.925
cg06014307	black	13	112,728,576		S_Shore		0.710	0.001	0.038	0.605
cg15032098	black	4	41,258,560	TSS1500	N_Shore	UCHL1	0.710	-0.001	0.020	0.451
cg15452389	black	6	168,200,267		S_Shelf		0.710	-0.006	0.538	0.257
cg26825532	black	3	62,355,103		N_Shore		0.710	0.000	0.021	0.842
cg03904876	black	12	54,322,092		S_Shore		0.710	-0.001	0.037	0.632
cg22975913	black	11	32,457,727	Body	N_Shore	WIT1	0.710	-0.001	0.021	0.369
cg05941631	black	2	46,521,469		N_Shelf		0.710	-0.007	0.148	0.195
cg13981356	black	18	22,006,370	TSS1500	Island	IMPACT	0.710	-0.002	0.039	0.306
cg07210840	black	20	1,927,816		Island		0.710	0.001	0.028	0.512
cg25755283	black	1	119,531,093	5'UTR	N_Shore	TBX15	0.710	0.000	0.020	0.773
cg23151014	black	4	2,418,311	Body	Island	ZFYVE28	0.710	-0.004	0.045	0.132
cg21917728	black	6	41,471,064		N_Shore		0.710	-0.005	0.046	0.076
cg23247191	black	11	68,815,682	TSS1500	N_Shore	TPCN2	0.710	-0.011	0.588	0.096
cg14512346	black	14	92,788,914	TSS1500	Island	SLC24A4	0.709	-0.001	0.040	0.630
cg03894490	black	3	159,942,832	TSS1500	N_Shore	LOC401097	0.709	0.000	0.018	0.677
cg07248455	black	15	69,591,753	5'UTR	Island	PAQR5	0.709	-0.001	0.033	0.354
cg11654024	black	1	85,230,119		OpenSea		0.709	0.003	0.198	0.646
cg02051806	black	12	86,650,107	5'UTR	OpenSea	MGAT4C	0.709	0.000	0.115	0.987
cg18053607	black	22	31,518,963	5'UTR	OpenSea	INPP5J	0.709	-0.001	0.048	0.783
cg06013060	black	10	131,813,094		Island		0.709	-0.002	0.496	0.644
cg15037823	black	3	71,730,474	3'UTR	OpenSea	EIF4E3	0.709	-0.001	0.098	0.894
cg24243629	black	18	56,532,628	5'UTR	S_Shore	ZNF532	0.709	-0.002	0.024	0.381
cg26450717	black	6	31,650,835		Island		0.709	0.000	0.026	0.886
cg04892182	black	1	33,231,382	Body	OpenSea	KIAA1522	0.709	0.010	0.074	0.175
cg22377998	black	22	20,004,881	TSS1500	S_Shore	ARVCF	0.709	0.001	0.043	0.665
cg21193577	black	14	101,036,322	TSS200	S_Shore	BEGAIN	0.709	-0.001	0.100	0.857
cg00766964	black	13	24,693,844		OpenSea		0.709	-0.003	0.069	0.630
cg09303236	black	17	38,657,915	TSS200	OpenSea	TNS4	0.709	0.008	0.618	0.181
cg11143399	black	1	157,133,444		OpenSea		0.709	0.004	0.038	0.016
cg25361844	black	11	65,405,362	TSS1500	N_Shelf	SIPA1	0.709	-0.001	0.018	0.211
cg23548163	black	19	46,807,119	5'UTR	Island	HIF3A	0.709	-0.007	0.067	0.230
cg07123069	black	12	54,367,250	1stExon	Island	HOXC11	0.709	0.001	0.024	0.452
cg01871127	black	2	177,026,301		N_Shore		0.709	0.003	0.030	0.111
cg18708460	black	6	100,051,339		Island		0.709	-0.001	0.051	0.567
cg05847960	black	20	10,152,774		Island		0.709	0.000	0.043	0.792
cg05664072	black	2	239,198,294	TSS1500	S_Shore	PER2	0.709	-0.001	0.034	0.566
cg06112708	black	7	20,827,185	TSS1500	S_Shore	SP8	0.709	0.000	0.063	0.933
cg17108430	black	4	108,745,557	TSS200	N_Shore	SGMS2	0.708	0.002	0.034	0.321
cg17182270	black	17	17,349,027		OpenSea		0.708	-0.011	0.704	0.153
cg02763617	black	5	64,331,196		N_Shore		0.708	-0.002	0.059	0.553
cg22454686	black	8	81,807,805		S_Shore		0.708	0.001	0.053	0.807
cg26298409	black	10	28,030,747	Body	Island	MKX	0.708	0.001	0.045	0.844
cg14415160	black	1	47,010,105		Island		0.708	0.003	0.040	0.211
cg17949969	black	4	8,073,790	Body	OpenSea	ABLIM2	0.708	0.001	0.045	0.835
cg08701183	black	7	21,209,781		OpenSea		0.708	-0.003	0.052	0.468
cg18515591	black	11	111,383,288	TSS1500	Island	BTG4	0.708	0.002	0.061	0.464
cg19579160	black	2	173,940,277	TSS1500	N_Shore	ZAK	0.708	-0.002	0.048	0.199
cg13535212	black	2	88,752,553	TSS1500	Island	FOXI3	0.708	0.006	0.039	0.028
cg20034372	black	15	37,179,610	TSS1500	Island	LOC145845	0.708	-0.001	0.041	0.552
cg07589968	black	20	43,729,910	TSS200	S_Shore	KCNS1	0.708	-0.007	0.101	0.156
cg06854084	black	10	101,292,507	TSS200	Island	NKX2-3	0.708	0.000	0.024	0.952
cg05324789	black	10	134,602,475		Island		0.708	0.000	0.060	0.908
cg26418147	black	1	205,743,515	Body	N_Shore	RAB7L1	0.708	0.002	0.092	0.612
cg11813976	black	8	25,901,335	Body	Island	EBF2	0.708	0.002	0.049	0.483
cg19991899	black	2	9,347,943	Body	Island	ASAP2	0.707	0.000	0.032	0.893
cg01350680	black	10	124,903,314		S_Shore		0.707	0.000	0.039	0.957
cg14007706	black	19	6,459,035	Body	N_Shore	SLC25A23	0.707	0.002	0.036	0.415
cg03182958	black	2	223,288,923	TSS1500	Island	SGPP2	0.707	0.002	0.028	0.162
cg04442638	black	17	73,873,823	Body	Island	TRIM47	0.707	0.000	0.051	0.894
cg01708273	black	2	176,974,060	3'UTR	S_Shore	HOXD11	0.707	0.000	0.023	0.985
cg10140454	black	17	17,626,019	5'UTR	Island	RAI1	0.707	-0.008	0.055	0.127

cg01460436	black	20	44,687,454	3'UTR	Island	SLC12A5	0.707	-0.001	0.021	0.586
cg05207048	black	5	167,513,456	Body	OpenSea	ODZ2	0.707	-0.001	0.026	0.368
cg13668314	black	9	130,692,638	Body	N_Shore	PIP5K1	0.707	0.001	0.045	0.710
cg10350880	black	7	100,423,220	Body	N_Shore	EPHB4	0.707	-0.004	0.082	0.539
cg14614844	black	5	54,179,305		N_Shore		0.707	-0.001	0.021	0.511
cg17213060	black	3	45,077,881		S_Shore		0.707	0.000	0.037	0.962
cg09188099	black	7	27,245,747		S_Shore		0.707	0.002	0.039	0.436
cg22653139	black	2	73,142,088		N_Shore		0.707	0.000	0.027	0.822
cg06537230	black	7	96,653,183	Body	N_Shore	DLX5	0.706	-0.001	0.058	0.677
cg25637894	black	3	147,074,130		N_Shelf		0.706	0.001	0.017	0.523
cg17510003	black	11	131,737,914	Body	OpenSea	NTM	0.706	0.001	0.026	0.522
cg06080874	black	18	46,501,625		Island		0.706	0.003	0.027	0.154
cg23092823	black	1	53,528,612	Body	Island	PODN	0.706	-0.003	0.020	0.018
cg24800063	black	19	6,481,729	1stExon	OpenSea	DENND1C	0.706	0.008	0.334	0.076
cg26354493	black	19	4,305,072	Body	Island	FSD1	0.706	0.004	0.040	0.099
cg13721134	black	8	86,350,390	TSS1500	N_Shore	CA3	0.706	0.003	0.020	0.034
cg18060846	black	10	111,683,482	TSS200	Island	XPNPEP1	0.706	0.001	0.043	0.601
cg25499397	black	3	51,990,575	1stExon	Island	GPR62	0.706	-0.001	0.050	0.726
cg01844321	black	20	35,490,815	Body	N_Shore	C20orf117	0.706	-0.005	0.048	0.181
cg00313914	black	1	201,618,901	Body	Island	NAV1	0.706	0.002	0.035	0.481
cg18883836	black	1	29,240,705	5'UTR	N_Shore	EPB41	0.706	0.000	0.020	0.872
cg01967379	black	2	27,309,812	5'UTR	S_Shore	KHK	0.706	0.000	0.027	0.891
cg24846573	black	12	133,065,806	TSS1500	N_Shore	FBRSL1	0.706	-0.003	0.121	0.417
cg22327427	black	8	95,653,287	TSS200	N_Shore	ESRP1	0.706	0.000	0.039	0.874
cg15095327	black	3	9,944,512	1stExon	OpenSea	IL17RE	0.706	0.001	0.222	0.827
cg12426802	black	1	25,175,293		Island		0.706	0.001	0.048	0.844
cg12281657	black	14	65,016,595	TSS200	Island	C14orf50	0.706	0.000	0.030	0.869
cg22841772	black	6	27,559,939		OpenSea		0.706	-0.002	0.034	0.413
cg24620905	black	1	149,908,781	5'UTR	OpenSea	MTMR11	0.706	-0.003	0.040	0.318
cg08373610	black	2	198,540,621	TSS200	OpenSea	RFTN2	0.706	0.002	0.038	0.577
cg24051481	black	13	95,364,062	1stExon	Island	SOX21	0.706	0.001	0.042	0.637
cg05722504	black	4	41,749,361	Body	Island	PHOX2B	0.706	-0.002	0.063	0.523
cg04359828	black	10	32,216,031	5'UTR	N_Shore	ARHGAP12	0.706	0.005	0.215	0.562
cg17177455	black	2	176,969,218		Island		0.706	0.000	0.024	0.823
cg12730843	black	1	201,915,899	TSS200	OpenSea	LMOD1	0.706	-0.002	0.033	0.122
cg21175642	black	3	48,701,770	TSS1500	S_Shore	CELSR3	0.706	0.003	0.048	0.095
cg15689835	black	9	129,387,721	Body	Island	LMX1B	0.705	-0.001	0.044	0.645
cg15503722	black	11	122,850,522	Body	N_Shore	BSX	0.705	0.002	0.032	0.297
cg02270332	black	6	106,475,062		OpenSea		0.705	-0.004	0.302	0.568
cg09253696	black	17	73,873,529	Body	Island	TRIM47	0.705	-0.001	0.080	0.901
cg14963371	black	1	27,719,463	5'UTR	S_Shore	GPR3	0.705	0.000	0.023	1.000
cg06843889	black	5	42,949,542		N_Shore		0.705	0.000	0.023	0.692
cg23445461	black	5	140,864,733	Body	Island	PCDHGA4	0.705	-0.002	0.040	0.535
cg00253228	black	8	145,025,610	Body	S_Shore	PLEC1	0.705	-0.003	0.042	0.314
cg24757562	black	5	174,487,132		OpenSea		0.705	0.001	0.039	0.655
cg22197050	black	2	63,276,183	TSS1500	Island	LOC1001322	0.705	-0.004	0.032	0.077
cg02248486	black	7	27,183,196	1stExon	Island	HOXA5	0.705	-0.001	0.027	0.623
cg10633601	black	1	47,696,701	TSS1500	Island	TAL1	0.705	0.000	0.026	0.849
cg14027891	black	9	129,279,545		S_Shelf		0.705	0.000	0.024	0.974
cg07136873	black	19	1,876,580		Island		0.705	-0.003	0.039	0.140
cg13859433	black	6	33,739,653	3'UTR	Island	LEMD2	0.705	-0.003	0.029	0.095
cg03398002	black	1	15,272,082	Body	OpenSea	KIAA1026	0.705	-0.005	0.051	0.236
cg03914922	black	5	87,985,200		N_Shore		0.705	0.001	0.029	0.288
cg06153634	black	12	52,627,576	Body	Island	KRT7	0.705	0.000	0.062	0.895
cg08693738	black	13	79,170,627		Island		0.705	-0.005	0.054	0.035
cg25054311	black	5	149,340,861	5'UTR	Island	SLC26A2	0.705	0.000	0.026	0.968
cg24273512	black	6	105,628,147	TSS1500	S_Shore	POPDC3	0.705	-0.005	0.086	0.313
cg19532307	black	3	164,912,664	5'UTR	OpenSea	SLITRK3	0.705	0.000	0.015	0.891
cg09543478	black	2	71,125,482		N_Shore		0.704	0.000	0.035	0.896
cg23442209	black	10	102,995,987	Body	N_Shore	FLJ41350	0.704	0.001	0.039	0.825
cg09227621	black	1	228,225,606	Body	Island	WNT3A	0.704	0.003	0.035	0.351
cg17126555	black	19	10,445,516	TSS1500	Island	RAVER1	0.704	-0.004	0.040	0.274
cg11010122	black	4	100,868,318	TSS1500	S_Shore	DNAJB14	0.704	0.000	0.061	0.890
cg16260424	black	1	145,092,576		N_Shelf		0.704	-0.003	0.036	0.194
cg10637688	black	11	1,846,414		N_Shore		0.704	-0.008	0.205	0.177
cg27287254	black	6	33,160,067	5'UTR	Island	COL11A2	0.704	0.000	0.034	0.828
cg08026735	black	2	98,703,888	5'UTR	Island	VWA3B	0.704	-0.003	0.039	0.244

cg16421616	black	2	151,444,499		OpenSea		0.704	0.002	0.535	0.784
cg11992621	black	2	172,960,519		Island		0.704	-0.001	0.029	0.431
cg26546105	black	7	100,168,143		Island		0.704	0.000	0.038	1.000
cg10589949	black	1	119,544,161		Island		0.704	-0.002	0.051	0.298
cg04873548	black	17	38,375,119	TSS1500	N_Shore	WIPF2	0.704	0.001	0.028	0.415
cg01386424	black	6	100,039,476		Island		0.704	0.001	0.037	0.792
cg03146625	black	12	54,448,729	Body	S_Shore	HOXC4	0.704	-0.002	0.038	0.494
cg01422881	black	1	44,873,692	5'UTR	Island	RNF220	0.704	-0.002	0.074	0.741
cg02914379	black	6	41,605,784	TSS1500	Island	MDFI	0.703	0.000	0.032	0.916
cg06962746	black	22	45,016,487		Island		0.703	-0.004	0.032	0.092
cg06043159	black	8	143,556,871	Body	Island	BAI1	0.703	0.000	0.031	0.799
cg22516643	black	1	107,682,302	TSS1500	N_Shore	NTNG1	0.703	-0.003	0.051	0.208
cg19085507	black	4	94,753,295		N_Shelf		0.703	-0.004	0.049	0.249
cg26953727	black	6	134,176,231		OpenSea		0.703	-0.006	0.049	0.068
cg26482626	black	7	151,512,698	Body	OpenSea	PRKAG2	0.703	-0.017	0.536	0.056
cg25509871	black	19	40,871,557	5'UTR	N_Shore	PLD3	0.703	0.000	0.019	0.931
cg03311232	black	1	46,951,291		Island		0.703	-0.002	0.038	0.109
cg00730172	black	1	91,176,405		Island		0.703	-0.001	0.046	0.633
cg12933162	black	9	101,705,908	TSS1500	Island	COL15A1	0.703	-0.003	0.040	0.307
cg26461417	black	4	184,719,929		S_Shore		0.703	-0.002	0.040	0.390
cg19221545	black	10	103,603,812	TSS200	S_Shore	KCNIP2	0.703	0.001	0.055	0.474
cg09321758	black	12	54,343,506		N_Shore		0.703	0.000	0.035	0.887
cg13750949	black	14	105,293,957		S_Shore		0.703	-0.002	0.045	0.296
cg04141796	black	5	42,950,062		N_Shore		0.703	0.003	0.069	0.626
cg16303918	black	2	219,848,528	Body	N_Shore	FEV	0.703	0.000	0.040	0.894
cg06759518	black	3	72,496,799	TSS1500	Island	RYBP	0.703	-0.003	0.069	0.307
cg14550153	black	9	134,258,834		OpenSea		0.703	-0.005	0.076	0.451
cg02182308	black	10	8,080,045		S_Shore		0.703	0.000	0.025	0.837
cg19406511	black	1	156,036,311	Body	OpenSea	RAB25	0.703	-0.005	0.061	0.189
cg03369807	black	4	94,748,860	TSS1500	N_Shore	ATOH1	0.703	-0.001	0.050	0.655
cg10103266	black	2	176,977,458		Island		0.703	-0.003	0.040	0.143
cg04132146	black	6	87,862,158		Island		0.703	0.001	0.025	0.559
cg10071643	black	6	137,814,356	1stExon	Island	OLIG3	0.703	0.000	0.016	0.687
cg09045681	black	6	31,127,178	5'UTR	S_Shore	TCF19	0.703	-0.002	0.040	0.335
cg23116322	black	2	63,276,478	TSS1500	Island	OTX1	0.703	0.000	0.019	0.704
cg09609418	black	11	66,079,140		Island		0.703	0.003	0.107	0.485
cg23764900	black	11	8,616,102	TSS1500	S_Shore	STK33	0.703	0.000	0.031	0.870
cg00673006	black	2	97,483,133	1stExon	Island	CNNM3	0.703	-0.005	0.053	0.074
cg21445230	black	16	67,969,367	Body	Island	PSMB10	0.703	-0.004	0.047	0.175
cg24674215	black	13	51,723,181		OpenSea		0.703	-0.002	0.031	0.238
cg07606384	black	10	94,823,251	Body	Island	CYP26C1	0.703	-0.002	0.216	0.810
cg24482288	black	19	13,985,587	TSS200	S_Shore	MIR181D	0.703	0.004	0.453	0.487
cg17478749	black	6	31,589,365	TSS1500	S_Shore	SNORA38	0.702	0.000	0.017	0.904
cg23547017	black	2	177,030,171	5'UTR	S_Shore	HOXD3	0.702	0.002	0.028	0.331
cg08559989	black	6	99,292,919		Island		0.702	-0.001	0.023	0.634
cg17139392	black	12	66,430,294		OpenSea		0.702	0.001	0.068	0.837
cg21989425	black	17	28,667,441		OpenSea		0.702	0.000	0.027	0.863
cg18669966	black	2	176,961,753		N_Shore		0.702	0.000	0.026	0.760
cg16373229	black	7	121,942,209	Body	N_Shore	FEZF1	0.702	0.001	0.054	0.724
cg03769383	black	12	41,583,367	Body	S_Shore	PDZRN4	0.702	0.001	0.040	0.754
cg17045389	black	13	30,882,067	TSS1500	S_Shore	KATNAL1	0.702	0.002	0.029	0.060
cg11444332	black	10	8,088,904		N_Shelf		0.702	0.000	0.035	0.813
cg16836355	black	15	41,218,333		Island		0.702	0.004	0.058	0.315
cg24486037	black	1	151,345,181	TSS200	OpenSea	SELENBP1	0.702	-0.001	0.069	0.786
cg21166964	black	5	72,529,816		Island		0.702	-0.004	0.069	0.118
cg01721754	black	16	616,935	TSS200	S_Shore	NHLRC4	0.702	-0.001	0.037	0.405
cg12340454	black	15	61,519,486	Body	N_Shore	RORA	0.702	0.000	0.067	0.902
cg02188939	black	17	1,509,883	Body	Island	SLC43A2	0.702	0.009	0.414	0.209
cg07409292	black	4	90,228,685	5'UTR	N_Shore	GPRIN3	0.702	-0.001	0.053	0.761
cg25493948	black	15	33,154,262	Body	OpenSea	FMN1	0.702	0.011	0.267	0.119
cg02576915	black	1	40,769,669	Body	Island	COL9A2	0.702	0.004	0.482	0.617
cg17413078	black	19	49,137,698	Body	N_Shore	DBP	0.702	0.001	0.033	0.724
cg12304113	black	8	139,926,188	5'UTR	OpenSea	COL22A1	0.702	0.001	0.019	0.374
cg22081371	black	1	177,827,903		OpenSea		0.702	-0.010	0.150	0.178
cg00978785	black	17	71,185,631		N_Shelf		0.702	0.011	0.795	0.164
cg12728621	black	20	34,743,092	5'UTR	OpenSea	EPB41L1	0.702	-0.001	0.022	0.313
cg00077904	black	5	151,078,909		OpenSea		0.701	-0.004	0.098	0.481

cg24554061	black	11	63,705,760	TSS1500	N_Shore	NAA40	0.701	-0.001	0.032	0.565
cg01059609	black	5	140,904,554	Body	OpenSea	DIAPH1	0.701	0.002	0.047	0.374
cg08334310	black	6	28,555,337	TSS1500	S_Shore	SCAND3	0.701	-0.002	0.044	0.440
cg12730468	black	17	63,274,652		OpenSea		0.701	0.000	0.021	0.721
cg16185419	black	11	8,337,468		OpenSea		0.701	0.006	0.344	0.265
cg02375320	black	2	38,978,881	TSS1500	S_Shore	SFRS7	0.701	0.000	0.029	0.795
cg20299703	black	1	65,731,886	Body	S_Shore	DNAJC6	0.701	-0.001	0.018	0.451
cg09772333	black	19	42,437,309		Island		0.701	-0.003	0.168	0.689
cg00562553	black	7	27,169,740	1stExon	Island	HOXA4	0.701	0.011	0.152	0.250
cg15935965	black	1	59,550,124		OpenSea		0.701	0.000	0.057	0.918
cg05926722	black	14	26,674,202		Island		0.701	0.003	0.043	0.380
cg15244786	black	12	54,446,279	5'UTR	N_Shore	HOXC4	0.701	-0.019	0.335	0.114
cg07298299	black	11	45,943,237	1stExon	N_Shore	GYLTL1B	0.701	0.000	0.030	0.976
cg10210397	black	8	42,410,091		OpenSea		0.701	0.006	0.188	0.482
cg04917197	black	10	112,290,331		S_Shore		0.701	0.002	0.027	0.272
cg21936280	black	17	37,774,934		S_Shore		0.701	-0.001	0.054	0.536
cg17181022	black	10	94,823,302	Body	S_Shore	CYP26C1	0.701	0.001	0.148	0.829
cg05624445	black	18	24,764,599	5'UTR	N_Shore	CHST9	0.701	0.001	0.024	0.467
cg24446178	black	12	100,750,702	TSS200	OpenSea	SLC17A8	0.701	0.005	0.042	0.084
cg19092164	black	3	45,209,187		OpenSea		0.701	0.001	0.026	0.441
cg19119071	black	6	83,904,067	TSS1500	S_Shore	PGM3	0.701	0.000	0.027	0.813
cg02915939	black	6	30,711,022	3'UTR	Island	IER3	0.701	-0.004	0.033	0.009
cg03699385	black	15	47,476,206		N_Shore		0.701	-0.004	0.094	0.576
cg06095752	black	2	102,313,242	TSS1500	N_Shore	MAP4K4	0.701	-0.001	0.134	0.855
cg17140469	black	8	18,238,381		OpenSea		0.701	0.006	0.276	0.374
cg19305681	black	10	94,821,657	Body	Island	CYP26C1	0.701	-0.001	0.052	0.774
cg08794544	black	11	45,825,518	TSS200	N_Shore	SLC35C1	0.701	-0.005	0.062	0.082
cg06605803	black	10	118,547,802		Island		0.700	0.000	0.035	0.957
cg23954268	black	5	172,672,454		Island		0.700	-0.001	0.020	0.286
cg20768915	black	1	220,992,242		OpenSea		0.700	0.003	0.370	0.838
cg25854162	black	2	217,497,617	TSS1500	N_Shore	IGFBP2	0.700	0.000	0.033	0.924
cg12803068	black	7	45,002,919	Body	S_Shore	MYO1G	0.700	0.002	0.164	0.756
cg03948870	black	9	126,770,454		N_Shore		0.700	0.000	0.020	0.910
cg18736141	black	17	6,945,510	Body	Island	SLC16A11	0.700	0.000	0.025	0.948
cg10083898	black	12	66,123,380		S_Shore		0.700	-0.002	0.025	0.169
cg03962691	black	1	115,881,130	TSS1500	Island	NGF	0.700	-0.002	0.034	0.379
cg10782923	black	12	56,329,731	5'UTR	Island	DGKA	0.700	0.018	0.259	0.180
cg16797831	black	1	109,657,035	Body	S_Shore	KIAA1324	0.700	-0.003	0.058	0.496
cg17990532	black	5	50,679,817	Body	S_Shore	ISL1	0.700	-0.001	0.019	0.543
cg24116534	black	6	134,176,481		OpenSea		0.700	0.001	0.050	0.839
cg19813884	black	1	59,043,370	TSS1500	S_Shore	TACSTD2	0.700	-0.003	0.061	0.394
cg08786026	black	6	126,068,238		N_Shore		0.700	0.000	0.027	0.880
cg06583576	black	3	147,073,118		N_Shelf		0.700	0.001	0.039	0.621
cg02532538	black	17	33,787,739		Island		0.700	-0.009	0.058	0.187
cg05102394	black	4	148,402,899	Body	S_Shore	EDNRA	0.700	0.001	0.023	0.351
cg00741624	black	14	93,897,389	5'UTR	Island	KIAA1409	0.700	-0.002	0.031	0.269
cg14574037	black	2	155,553,986	TSS1500	N_Shore	KCNJ3	0.700	0.000	0.024	0.727
cg07088882	black	11	8,038,043		N_Shelf		0.700	0.000	0.028	0.856
cg15448210	black	6	33,401,514	Body	OpenSea	SYNGAP1	0.700	-0.002	0.131	0.623
cg14971718	black	6	30,175,327	5'UTR	OpenSea	TRIM26	0.700	0.002	0.073	0.758
cg00410106	black	2	207,140,303	5'UTR	S_Shore	ZDBF2	0.699	0.001	0.017	0.134
cg24115232	black	5	1,243,907	Body	Island	SLC6A18	0.699	-0.010	0.126	0.234
cg22800233	black	10	93,805,441		N_Shore		0.699	-0.002	0.066	0.565
cg18695670	black	14	61,123,667		Island		0.699	-0.002	0.071	0.777
cg14934413	black	11	20,184,162		N_Shore		0.699	0.000	0.028	0.693
cg10918927	black	12	54,411,193	5'UTR	N_Shore	HOXC4	0.699	-0.001	0.043	0.405
cg05467160	black	2	176,945,526	Body	Island	EVX2	0.699	0.000	0.037	0.984
cg03276479	black	8	97,507,958	Body	S_Shore	SDC2	0.699	0.001	0.168	0.845
cg03231735	black	16	9,184,099	TSS1500	N_Shore	C16orf72	0.699	-0.004	0.028	0.008
cg04569608	black	11	64,018,309	TSS1500	N_Shore	PLCB3	0.699	0.000	0.025	0.753
cg21784254	black	13	108,922,428	1stExon	OpenSea	TNFSF13B	0.699	0.000	0.096	0.961
cg16007772	black	14	59,950,363	Body	N_Shore	C14orf149	0.699	0.001	0.031	0.421
cg04982951	black	10	8,096,635	TSS1500	Island	FLJ45983	0.699	0.000	0.023	0.838
cg07737802	black	12	95,537,812	Body	OpenSea	FGD6	0.699	-0.004	0.036	0.125
cg11615152	black	13	20,176,789		S_Shore		0.699	0.003	0.032	0.119
cg19756790	black	2	45,176,863		Island		0.699	0.001	0.028	0.441
cg13894192	black	11	2,398,138	TSS1500	N_Shore	CD81	0.699	-0.003	0.273	0.708



cg01258201	black	6	36,808,494	TSS1500	Island	CPNE5	0.699	-0.004	0.040	0.046
cg02610600	black	7	73,118,632	Body	Island	STX1A	0.699	0.005	0.094	0.319
cg19476053	black	2	223,167,463	5'UTR	Island	CCDC140	0.699	-0.001	0.034	0.442
cg02863339	black	12	110,149,510		N_Shore		0.699	-0.007	0.275	0.138
cg05597624	black	1	44,874,524	5'UTR	S_Shore	RNF220	0.698	0.000	0.028	0.927
cg02822958	black	2	46,747,628	TSS1500	OpenSea	ATP6V1E2	0.698	-0.014	0.214	0.325
cg13133835	black	12	125,239,803		OpenSea		0.698	0.008	0.152	0.305
cg01274122	black	8	8,749,938	1stExon	Island	MFHAS1	0.698	-0.004	0.050	0.406
cg02254407	black	11	73,357,159	TSS200	OpenSea	PLEKHB1	0.698	-0.004	0.071	0.479
cg14415816	black	12	106,978,920	Body	N_Shore	RFX4	0.698	0.000	0.038	0.932
cg23166656	black	7	28,893,613		Island		0.698	0.000	0.050	0.977
cg14631706	black	18	35,104,534	Body	Island	BRUNOL4	0.698	-0.003	0.054	0.550
cg18304280	black	14	103,010,694		N_Shore		0.698	0.003	0.329	0.672
cg04598774	black	11	31,821,590	Body	S_Shore	PAX6	0.698	-0.004	0.035	0.053
cg25577821	black	15	53,098,475		Island		0.698	0.000	0.061	0.957
cg06493166	black	6	144,386,146	TSS1500	S_Shore	PLAGL1	0.698	0.001	0.055	0.794
cg00693710	black	8	102,313,771		OpenSea		0.698	0.001	0.046	0.819
cg08837858	black	19	42,720,994	Body	Island	DEDD2	0.698	-0.001	0.050	0.509
cg08133486	black	6	100,911,746	TSS200	N_Shore	SIM1	0.698	0.001	0.027	0.699
cg04203238	black	4	16,085,702	TSS200	Island	PROM1	0.698	0.001	0.026	0.647
cg09741070	black	5	43,040,998	TSS1500	Island	C5orf39	0.698	0.001	0.027	0.666
cg00341606	black	17	17,740,405	TSS200	Island	SREBF1	0.698	0.001	0.040	0.818
cg07994661	black	4	153,856,847		N_Shore		0.698	0.000	0.039	0.997
cg18700133	black	17	8,013,202	Body	Island	ALOXE3	0.698	0.004	0.054	0.396
cg08390209	black	9	22,005,563	Body	N_Shore	CDKN2BAS	0.698	-0.001	0.026	0.677
cg03512637	black	6	33,215,685		N_Shore		0.698	0.001	0.024	0.547
cg03298437	black	15	96,961,054		S_Shore		0.698	0.001	0.024	0.569
cg15148757	black	4	87,857,305	5'UTR	S_Shore	AFF1	0.698	0.001	0.040	0.685
cg10736654	black	2	66,804,532		Island		0.698	-0.002	0.047	0.421
cg14980667	black	5	172,666,228		S_Shore		0.698	-0.003	0.048	0.241
cg19831957	black	19	46,386,030		Island		0.697	-0.004	0.067	0.280
cg08821811	black	16	11,391,517		OpenSea		0.697	0.000	0.034	0.832
cg16461246	black	20	61,447,614	TSS1500	N_Shore	COL9A3	0.697	-0.002	0.091	0.711
cg02616418	black	4	154,125,681	5'UTR	OpenSea	TRIM2	0.697	-0.004	0.054	0.273
cg13761440	black	11	30,608,165	TSS1500	S_Shore	MPPED2	0.697	-0.003	0.058	0.343
cg24725841	black	17	77,811,683	Body	N_Shore	CBX4	0.697	-0.001	0.060	0.833
cg22045225	black	12	114,841,792	5'UTR	N_Shore	TBX5	0.697	0.000	0.030	0.782
cg04913265	black	11	133,939,627	Body	Island	JAM3	0.697	0.000	0.015	0.869
cg27288614	black	19	35,635,774	Body	S_Shore	FXYP7	0.697	0.000	0.036	0.914
cg13372879	black	2	172,948,073		Island		0.697	-0.001	0.029	0.639
cg13121699	black	2	185,462,397	TSS1500	N_Shore	ZNF804A	0.697	0.001	0.016	0.133
cg26213453	black	15	89,455,860	Body	N_Shore	MFGE8	0.697	-0.002	0.029	0.171
cg15855336	black	20	62,612,235	TSS1500	N_Shore	SAMD10	0.697	-0.001	0.143	0.799
cg14289461	black	6	112,575,929	TSS200	S_Shore	LAMA4	0.697	-0.001	0.029	0.731
cg00586817	black	2	200,329,872		S_Shore		0.697	-0.001	0.030	0.383
cg14023999	black	15	90,543,224		N_Shore		0.697	0.000	0.029	0.895
cg26452091	black	4	147,575,999		N_Shore		0.697	0.000	0.032	0.843
cg08199758	black	16	3,062,426	TSS200	N_Shore	CLDN9	0.697	-0.005	0.063	0.305
cg06795527	black	7	27,245,018		Island		0.697	-0.002	0.026	0.286
cg01763749	black	22	21,368,291	TSS1500	Island	P2RX6	0.697	0.001	0.024	0.396
cg04961911	black	9	35,079,141	Body	N_Shore	FANCG	0.697	-0.001	0.034	0.632
cg17476271	black	11	128,562,408	TSS1500	N_Shore	FLI1	0.697	-0.001	0.037	0.761
cg06396724	black	14	61,188,239	Body	Island	SIX4	0.697	0.002	0.030	0.249
cg08128274	black	1	206,832,043		OpenSea		0.697	-0.007	0.122	0.301
cg19811087	black	1	91,184,501		Island		0.697	-0.001	0.016	0.303
cg21618620	black	12	54,408,427		Island		0.697	-0.001	0.044	0.637
cg15480012	black	6	30,647,083	Body	OpenSea	KIAA1949	0.697	-0.003	0.080	0.380
cg27117005	black	5	157,171,615	Body	S_Shore	LSM11	0.697	-0.002	0.049	0.347
cg15786280	black	4	15,779,879	TSS200	N_Shore	CD38	0.697	0.003	0.067	0.587
cg23288335	black	2	172,965,046	3'UTR	Island	DLX2	0.696	-0.002	0.033	0.284
cg12130768	black	17	9,550,545	Body	S_Shore	USP43	0.696	-0.007	0.119	0.184
cg25922624	black	4	154,075,471	5'UTR	S_Shore	TRIM2	0.696	0.000	0.059	0.934
cg14868747	black	11	44,331,978	TSS1500	N_Shore	ALX4	0.696	0.001	0.026	0.627
cg15100945	black	1	90,287,507	1stExon	S_Shore	LRRC8D	0.696	0.001	0.022	0.252
cg13920934	black	15	96,596,478		OpenSea		0.696	-0.001	0.044	0.612
cg26451547	black	11	36,397,596	5'UTR	N_Shore	PRR5L	0.696	-0.002	0.037	0.301
cg16561266	black	17	62,777,777	Body	Island	LOC146880	0.696	0.000	0.030	0.842

cg03506372	black	11	60,897,603	OpenSea		0.696	0.001	0.020	0.319
cg04612952	black	15	91,364,242	S_Shore		0.696	0.007	0.576	0.380
cg19853517	black	5	139,283,262 Body	N_Shore	NRG2	0.696	0.000	0.024	0.880
cg15464821	black	1	167,682,648	N_Shore		0.696	0.003	0.028	0.278
cg24644201	black	11	46,299,066 TSS200	N_Shore	CREB3L1	0.696	-0.003	0.032	0.046
cg03014241	black	16	11,348,611 3'UTR	Island	SOCS1	0.696	0.004	0.074	0.507
cg00688311	black	12	133,100,714 Body	N_Shore	FBRSL1	0.696	0.001	0.392	0.874
cg03709307	black	17	37,760,652 3'UTR	N_Shore	NEUROD2	0.696	0.000	0.029	0.922
cg19812944	black	7	767,893 TSS1500	S_Shore	PRKAR1B	0.696	-0.002	0.191	0.741
cg04543865	black	16	81,347,551 TSS1500	N_Shore	GAN	0.696	0.001	0.024	0.563
cg10237044	black	1	75,598,280 Body	S_Shore	LHX8	0.696	0.000	0.026	0.873
cg13786863	black	11	68,610,743 TSS1500	N_Shore	CPT1A	0.696	0.000	0.047	0.905
cg24544490	black	1	155,290,961 5'UTR	Island	RUSC1	0.696	0.003	0.052	0.608
cg26686150	black	12	93,637,466	OpenSea		0.696	-0.001	0.208	0.887
cg04757350	black	10	71,529,128	OpenSea		0.696	0.009	0.426	0.418
cg16496526	black	20	44,258,267 TSS200	OpenSea	WFDC10A	0.696	0.000	0.043	0.879
cg14471364	black	2	157,177,936	S_Shore		0.695	-0.002	0.029	0.131
cg00342953	black	18	2,654,819 TSS1500	N_Shore	SMCHD1	0.695	-0.002	0.027	0.355
cg23699879	black	15	58,358,811 TSS1500	S_Shore	ALDH1A2	0.695	-0.006	0.094	0.247
cg10784928	black	19	19,971,578	Island		0.695	0.006	0.082	0.333
cg18878210	black	10	77,021,880	OpenSea		0.695	-0.003	0.540	0.875
cg17942121	black	6	100,911,964 TSS1500	N_Shore	SIM1	0.695	-0.001	0.021	0.542
cg14993900	black	6	10,421,069 TSS1500	N_Shore	TFAP2A	0.695	0.000	0.127	0.983
cg05469695	black	2	37,899,953 TSS1500	S_Shore	CDC42EP3	0.695	0.000	0.018	0.800
cg26129769	black	3	157,824,148 TSS200	S_Shore	SHOX2	0.695	-0.003	0.024	0.052
cg05382956	black	11	10,627,849 Body	OpenSea	MRV1	0.695	0.003	0.069	0.615
cg00386007	black	10	50,143,337 Body	OpenSea	WDFY4	0.695	0.003	0.216	0.670
cg26668989	black	1	110,186,163	Island		0.695	-0.003	0.082	0.489
cg01933695	black	14	77,495,691 TSS1500	S_Shore	C14orf4	0.695	-0.001	0.038	0.575
cg10658666	black	2	63,276,718 TSS1500	Island	OTX1	0.695	-0.001	0.027	0.550
cg17479943	black	1	119,546,928	N_Shelf		0.695	0.001	0.053	0.876
cg15706936	black	2	237,079,766	N_Shore		0.695	0.001	0.030	0.480
cg26580095	black	1	92,545,650 TSS1500	N_Shore	BTBD8	0.695	-0.008	0.233	0.096
cg01177854	black	16	68,270,387 TSS1500	Island	ESRP2	0.695	-0.002	0.097	0.563
cg07574163	black	14	77,498,976	N_Shore		0.694	-0.004	0.321	0.560
cg27136740	black	2	172,965,837 Body	Island	DLX2	0.694	-0.005	0.047	0.088
cg08153752	black	1	2,458,258 TSS1500	Island	PANK4	0.694	0.001	0.037	0.665
cg13611989	black	9	133,710,064 TSS1500	N_Shore	ABL1	0.694	-0.002	0.078	0.617
cg00866399	black	2	73,148,052 Body	Island	EMX1	0.694	-0.001	0.031	0.590
cg19516009	black	8	22,018,080 TSS1500	S_Shelf	SFTPC	0.694	0.008	0.693	0.373
cg10717463	black	18	76,740,962 Body	Island	SALL3	0.694	-0.001	0.029	0.533
cg16166160	black	6	108,479,144	Island		0.694	-0.001	0.027	0.703
cg264446929	black	12	52,445,820 5'UTR	S_Shore	NR4A1	0.694	-0.001	0.049	0.734
cg24582934	black	13	42,032,736 Body	S_Shore	C13orf15	0.694	-0.002	0.030	0.312
cg26251101	black	2	46,768,944 TSS1500	N_Shore	RHOQ	0.694	-0.001	0.047	0.700
cg16386080	black	9	90,589,146 Body	N_Shore	CDK20	0.694	-0.002	0.032	0.197
cg10999413	black	10	102,892,131 TSS1500	N_Shore	TLX1NB	0.694	0.000	0.051	0.863
cg25283465	black	1	111,323,341	Island		0.694	0.002	0.034	0.131
cg21245372	black	11	3,819,539 Body	S_Shore	PGAP2	0.694	-0.004	0.289	0.584
cg01573194	black	16	67,695,217 Body	Island	PARD6A	0.694	0.000	0.036	0.810
cg24170090	black	17	16,945,301 TSS1500	N_Shore	MPRIP	0.694	-0.001	0.021	0.289
cg11164649	black	17	47,297,130 Body	Island	ABI3	0.694	0.007	0.523	0.533
cg06727338	black	15	95,847,523	OpenSea		0.694	0.012	0.358	0.178
cg23520422	black	12	76,423,956 3'UTR	N_Shore	PHLDA1	0.694	0.001	0.023	0.582
cg04276953	black	1	18,980,700 Body	OpenSea	PAX7	0.694	-0.003	0.032	0.240
cg13660279	black	16	54,318,221 Body	Island	IRX3	0.694	-0.002	0.062	0.624
cg02448222	black	7	129,007,565 TSS1500	OpenSea	AHCYL2	0.694	-0.002	0.033	0.295
cg10064871	black	11	6,341,908 TSS200	Island	PRKCDP	0.694	0.000	0.100	0.975
cg16835233	black	22	22,862,479 5'UTR	N_Shore	ZNF280B	0.694	0.001	0.027	0.424
cg05911153	black	11	120,125,934 Body	OpenSea	POU2F3	0.694	0.000	0.049	0.894
cg25930780	black	3	46,506,292 Body	Island	LTF	0.694	0.002	0.029	0.428
cg16419441	black	8	105,478,683 Body	Island	DPYS	0.694	-0.001	0.034	0.692
cg02587624	black	7	27,240,181 TSS1500	Island	HOXA13	0.694	-0.003	0.034	0.124
cg20268352	black	2	201,612,944	OpenSea		0.694	-0.003	0.054	0.345
cg08891071	black	5	150,399,909 TSS200	N_Shore	GPX3	0.694	-0.006	0.123	0.082
cg00262621	black	1	1,566,374 TSS1500	Island	MMP23B	0.694	-0.001	0.051	0.772
cg21200841	black	4	103,266,907 TSS1500	S_Shore	SLC39A8	0.693	0.001	0.024	0.249

cg13986355	black	14	105,236,538	3'UTR	N_Shelf	AKT1	0.693	0.005	0.285	0.416
cg05021743	black	1	151,810,893	Body	Island	C2CD4D	0.693	0.000	0.027	0.904
cg00782828	black	1	54,940,382		Island		0.693	0.000	0.166	0.933
cg07799277	black	5	98,368,443		OpenSea		0.693	0.001	0.059	0.768
cg00983520	black	22	51,017,067	1stExon	S_Shore	CPT1B	0.693	-0.001	0.026	0.513
cg13501279	black	1	167,523,555	TSS1500	S_Shore	CREG1	0.693	0.001	0.054	0.841
cg03046819	black	1	201,858,339	Body	OpenSea	SHISA4	0.693	-0.002	0.041	0.279
cg10981580	black	1	236,306,767	Body	S_Shore	GPR137B	0.693	-0.001	0.028	0.450
cg02239862	black	3	33,260,743	TSS200	Island	SUSD5	0.693	-0.001	0.023	0.698
cg07941927	black	13	100,644,041		S_Shore		0.693	-0.004	0.050	0.216
cg09785586	black	11	44,338,421		Island		0.693	-0.001	0.029	0.603
cg02170525	black	2	87,018,382	5'UTR	S_Shore	CD8A	0.693	-0.005	0.047	0.174
cg19984262	black	4	175,135,406		Island		0.693	0.000	0.045	0.907
cg06005318	black	6	30,690,213	Body	S_Shore	TUBB	0.693	-0.002	0.045	0.385
cg21837192	black	12	54,398,765		N_Shore		0.693	0.018	0.113	0.136
cg12558519	black	19	18,748,017	Body	OpenSea	KLHL26	0.693	0.000	0.031	0.991
cg05966978	black	10	11,207,437	Body	Island	CUGBP2	0.693	-0.002	0.054	0.813
cg10130900	black	16	68,003,410	TSS1500	Island	SLC12A4	0.693	-0.006	0.067	0.168
cg09506504	black	6	106,439,790		N_Shelf		0.693	-0.001	0.077	0.680
cg01641792	black	19	10,572,362	Body	OpenSea	PDE4A	0.693	0.002	0.023	0.076
cg16745446	black	15	29,863,648	TSS1500	Island	FAM189A1	0.693	0.001	0.042	0.655
cg05801246	black	10	125,651,549	TSS200	S_Shore	CPXM2	0.693	0.003	0.105	0.563
cg24759279	black	10	7,128,104		OpenSea		0.693	-0.008	0.099	0.225
cg11738701	black	8	97,167,470	Body	N_Shelf	GDF6	0.693	0.003	0.034	0.323
cg27170782	black	17	46,800,028	TSS200	N_Shore	PRAC	0.692	0.002	0.032	0.310
cg22519422	black	5	72,595,112		Island		0.692	-0.002	0.021	0.189
cg10201167	black	6	99,273,607		S_Shore		0.692	-0.003	0.048	0.299
cg14126020	black	20	61,149,009	5'UTR	N_Shore	C20orf166	0.692	-0.002	0.029	0.037
cg05040501	black	14	91,883,268	Body	N_Shore	CCDC88C	0.692	-0.003	0.030	0.052
cg14646075	black	2	228,736,089	TSS1500	N_Shore	WDR69	0.692	-0.003	0.046	0.335
cg17427666	black	15	52,029,231	Body	Island	LYSMD2	0.692	0.001	0.040	0.532
cg14269973	black	13	46,425,904	TSS200	OpenSea	SIAH3	0.692	0.000	0.026	0.883
cg22538780	black	8	77,585,448	Body	OpenSea	LOC1001923	0.692	-0.001	0.028	0.412
cg05835726	black	7	27,183,861	TSS1500	Island	HOXA5	0.692	0.003	0.044	0.442
cg24786875	black	5	94,027,853	Body	OpenSea	ANKRD32	0.692	-0.002	0.052	0.676
cg00546491	black	7	32,111,062	TSS200	S_Shore	PDE1C	0.692	-0.006	0.135	0.223
cg09704415	black	1	48,937,250	Body	N_Shore	SPATA6	0.692	-0.004	0.080	0.198
cg08703191	black	17	70,114,577		N_Shore		0.692	-0.002	0.050	0.379
cg04413153	black	10	94,448,728	TSS1500	Island	HHEX	0.692	0.000	0.024	0.986
cg09341580	black	22	38,218,159	TSS1500	N_Shelf	GALR3	0.692	-0.001	0.034	0.690
cg17987968	black	5	152,869,882	TSS1500	OpenSea	GRIA1	0.692	0.010	0.505	0.177
cg06702537	black	16	9,053,911	Body	N_Shelf	USP7	0.692	-0.001	0.131	0.765
cg26796135	black	15	45,671,001	Body	Island	LOC145663	0.692	0.001	0.048	0.749
cg01705934	black	7	155,258,915		Island		0.692	0.000	0.134	0.998
cg26378417	black	17	77,773,337		Island		0.692	-0.001	0.031	0.517
cg08857729	black	1	67,217,826	TSS1500	N_Shore	TCTEX1D1	0.692	-0.001	0.026	0.680
cg24056567	black	8	18,871,909	TSS1500	Island	PSD3	0.691	-0.001	0.060	0.848
cg17189494	black	1	11,740,665	5'UTR	N_Shore	MAD2L2	0.691	-0.002	0.072	0.641
cg24173629	black	22	25,575,559	Body	S_Shore	KIAA1671	0.691	0.011	0.339	0.164
cg17162260	black	2	63,276,779	TSS1500	Island	OTX1	0.691	0.001	0.048	0.678
cg21398794	black	6	32,118,432	Body	Island	PRRT1	0.691	0.000	0.022	0.820
cg06643271	black	17	76,128,170	Body	Island	TMC8	0.691	0.002	0.117	0.728
cg03396896	black	3	194,117,107	3'UTR	N_Shore	GP5	0.691	0.000	0.023	0.858
cg22914338	black	19	14,376,960		Island		0.691	0.000	0.065	0.912
cg23493585	black	9	126,770,664		Island		0.691	0.000	0.029	0.740
cg26507427	black	6	100,054,548	TSS200	N_Shore	PRDM13	0.691	0.001	0.110	0.826
cg22185100	black	20	20,344,529		Island		0.691	-0.001	0.031	0.501
cg14825633	black	11	69,704,700		N_Shelf		0.691	0.001	0.044	0.833
cg15396653	black	5	139,423,353	TSS1500	S_Shore	NRG2	0.691	-0.001	0.034	0.520
cg00693978	black	1	146,556,675		Island		0.691	0.000	0.028	0.822
cg02471153	black	8	99,440,331	Body	Island	KCNS2	0.691	0.003	0.144	0.715
cg05091570	black	1	201,709,336	Body	Island	NAV1	0.691	-0.005	0.098	0.711
cg12935434	black	4	4,329,441		OpenSea		0.691	0.001	0.021	0.448
cg15751090	black	2	69,534,751		Island		0.691	0.002	0.052	0.566
cg22911898	black	11	94,473,405		N_Shore		0.691	0.004	0.101	0.555
cg01246444	black	2	161,775,589		OpenSea		0.691	0.007	0.383	0.313
cg02966404	black	7	47,631,325		OpenSea		0.691	-0.005	0.039	0.033

cg05342515	black	2	177,024,172	N_Shore		0.691	0.000	0.038	0.852
cg00968241	black	3	156,543,833 TSS1500	N_Shore	LEKR1	0.691	-0.011	0.062	0.040
cg01949993	black	1	183,155,116 TSS200	OpenSea	LAMC2	0.691	0.000	0.030	0.991
cg08623535	black	5	121,414,267 TSS1500	S_Shore	LOX	0.691	0.001	0.031	0.543
cg21845953	black	8	77,593,360 Body	N_Shore	LOC1001923	0.691	0.000	0.021	0.749
cg07050616	black	10	102,996,197 Body	Island	FLJ41350	0.691	0.000	0.039	0.914
cg09123368	black	10	118,899,024 TSS1500	N_Shore	VAX1	0.691	0.000	0.021	0.714
cg26683259	black	5	77,943,417 5'UTR	N_Shore	LHFPL2	0.691	0.000	0.028	0.817
cg24754277	black	9	90,114,156 Body	S_Shore	DAPK1	0.691	-0.001	0.165	0.881
cg11854183	black	19	38,741,928 3'UTR	OpenSea	PPP1R14A	0.690	-0.006	0.054	0.233
cg07921712	black	15	96,596,630	OpenSea		0.690	-0.001	0.043	0.769
cg14769589	black	17	47,957,813	N_Shore		0.690	-0.001	0.051	0.778
cg10246141	black	12	32,909,796 TSS1500	S_Shore	YARS2	0.690	0.000	0.121	0.997
cg17506553	black	10	72,968,808	N_Shelf		0.690	0.001	0.031	0.556
cg17083504	black	12	49,365,123 5'UTR	S_Shore	WNT10B	0.690	-0.001	0.041	0.625
cg03479694	black	2	172,953,032 3'UTR	Island	DLX1	0.690	0.000	0.028	0.770
cg07866131	black	15	41,850,280 TSS1500	N_Shore	TYRO3	0.690	0.001	0.021	0.380
cg16328007	black	1	41,119,988 5'UTR	Island	RIMS3	0.690	0.000	0.032	0.875
cg23455440	black	7	45,961,508 TSS1500	S_Shore	IGFBP3	0.690	0.001	0.025	0.708
cg02257550	black	16	56,486,271 Body	S_Shore	OGFOD1	0.690	0.001	0.042	0.690
cg03945034	black	1	7,565,342 Body	OpenSea	CAMTA1	0.690	0.003	0.831	0.508
cg21367811	black	7	27,169,136 Body	N_Shore	HOXA4	0.690	-0.001	0.038	0.771
cg19373199	black	14	103,010,825	Island		0.690	0.005	0.194	0.500
cg10936352	black	1	50,889,836 TSS1500	Island	DMRTA2	0.690	0.000	0.028	0.801
cg03927893	black	22	17,850,130	Island		0.690	0.001	0.017	0.596
cg00172849	black	1	103,574,532 TSS1500	OpenSea	COL11A1	0.690	-0.001	0.028	0.702
cg09786257	black	5	95,768,695 1stExon	N_Shore	PCSK1	0.690	-0.005	0.051	0.055
cg10191210	black	5	42,992,128	Island		0.690	-0.002	0.033	0.254
cg12883523	black	8	55,372,392 Body	Island	SOX17	0.690	0.000	0.044	0.855
cg25556330	black	7	27,279,575	S_Shore		0.690	-0.001	0.026	0.369
cg14416523	black	2	162,273,928 Body	N_Shore	TBR1	0.690	-0.002	0.030	0.397
cg15589153	black	4	152,246,020	N_Shore		0.690	-0.003	0.040	0.031
cg18748499	black	17	38,517,641 1stExon	N_Shore	GJD3	0.689	0.003	0.061	0.506
cg24593559	black	6	168,226,225 TSS1500	Island	MLLT4	0.689	0.002	0.022	0.186
cg00228017	black	18	53,447,841	Island		0.689	-0.012	0.070	0.030
cg05232853	black	12	26,276,329 Body	S_Shore	BHLHE41	0.689	0.002	0.034	0.347
cg06497668	black	2	45,155,703	Island		0.689	0.000	0.024	0.822
cg10150813	black	4	25,865,178 TSS1500	Island	SEL1L3	0.689	-0.002	0.051	0.293
cg10703826	black	1	119,532,116 1stExon	Island	TBX15	0.689	-0.001	0.036	0.687
cg26442903	black	4	110,107,068 Body	OpenSea	COL25A1	0.689	0.006	0.612	0.535
cg26630231	black	13	112,726,482	Island		0.689	-0.002	0.029	0.308
cg14006677	black	11	111,808,394 Body	S_Shore	DIXDC1	0.689	0.001	0.020	0.619
cg05020685	black	4	40,858,965 Body	Island	APBB2	0.689	-0.004	0.042	0.535
cg12192691	black	7	27,291,695	Island		0.689	0.000	0.030	0.926
cg07354371	black	1	43,736,391 5'UTR	N_Shelf	TMEM125	0.689	-0.001	0.060	0.614
cg17790928	black	7	1,277,790	Island		0.688	-0.001	0.044	0.758
cg00400104	black	7	130,790,359 Body	Island	FLJ43663	0.688	-0.002	0.058	0.357
cg10420161	black	10	102,899,983	Island		0.688	-0.007	0.043	0.160
cg20994660	black	2	162,272,299 TSS1500	N_Shore	TBR1	0.688	-0.004	0.025	0.013
cg08064292	black	15	98,196,234	Island		0.688	0.002	0.021	0.152
cg02871659	black	16	2,014,063 TSS1500	N_Shore	SNHG9	0.688	0.000	0.055	0.997
cg00233028	black	11	44,642,914	OpenSea		0.688	-0.002	0.020	0.102
cg25127444	black	7	27,238,279 Body	N_Shore	HOXA13	0.688	0.000	0.034	0.902
cg14613540	black	18	61,616,369 TSS1500	OpenSea	HMSD	0.688	0.000	0.057	0.959
cg22364465	black	1	208,352,754 Body	OpenSea	PLXNA2	0.688	-0.007	0.120	0.165
cg14126688	black	17	46,671,497 Body	S_Shore	LOC404266	0.688	0.000	0.013	0.530
cg00615913	black	20	37,063,096 Body	N_Shore	LOC388796	0.688	-0.001	0.045	0.543
cg01234133	black	17	48,279,072 TSS200	S_Shore	COL1A1	0.688	0.000	0.050	0.816
cg22866825	black	5	125,936,419 TSS1500	N_Shore	PHAX	0.688	0.000	0.018	0.763
cg01144286	black	20	9,495,596 Body	Island	C20orf103	0.688	-0.001	0.033	0.774
cg22663995	black	22	24,921,616 Body	OpenSea	UPB1	0.688	0.000	0.035	0.814
cg11625868	black	16	68,572,892 TSS1500	Island	ZFP90	0.688	-0.001	0.029	0.542
cg16907885	black	17	79,317,768	Island		0.688	-0.001	0.018	0.336
cg25511667	black	6	33,048,732 Body	Island	HLA-DPB1	0.688	0.000	0.064	0.997
cg11931762	black	20	9,488,920	S_Shore		0.688	-0.003	0.043	0.158
cg10187674	black	17	67,323,922 TSS1500	S_Shore	ABCA5	0.688	0.001	0.037	0.677
cg02717339	black	2	97,524,767 TSS1500	S_Shore	ANKRD39	0.688	-0.005	0.058	0.363

cg20954179	black	4	175,138,488	S_Shelf		0.687	-0.002	0.028	0.188
cg09767126	black	8	103,877,365 TSS1500	S_Shore	AZIN1	0.687	0.009	0.063	0.083
cg00296121	black	10	13,933,247 Body	N_Shore	FRMD4A	0.687	0.000	0.017	0.629
cg15320854	black	7	107,300,939 TSS200	N_Shore	SLC26A4	0.687	0.003	0.051	0.421
cg01291088	black	16	67,687,648 Body	Island	RLTPR	0.687	-0.002	0.050	0.608
cg09747891	black	5	33,893,097 TSS1500	S_Shore	ADAMTS12	0.687	-0.001	0.039	0.606
cg21057429	black	12	4,382,425 TSS1500	N_Shore	CCND2	0.687	0.000	0.023	0.970
cg10851413	black	10	99,532,174 TSS1500	S_Shore	SFRP5	0.687	-0.001	0.031	0.492
cg20414783	black	12	66,135,018	N_Shore		0.687	-0.001	0.036	0.799
cg20659435	black	10	77,156,218	Island		0.687	-0.001	0.125	0.891
cg10509254	black	4	174,452,133 Body	Island	NBLA00301	0.687	-0.004	0.035	0.011
cg13702629	black	15	66,546,648 TSS1500	S_Shore	MEGF11	0.687	-0.001	0.020	0.321
cg11430718	black	3	57,113,702 TSS1500	Island	ARHGEF3	0.687	-0.003	0.026	0.142
cg23615741	black	10	101,297,642	Island		0.687	0.000	0.025	0.751
cg19203457	black	6	114,181,798 3'UTR	S_Shore	MARCKS	0.687	-0.001	0.033	0.692
cg21040360	black	2	3,383,326 TSS200	N_Shore	TTC15	0.687	-0.001	0.024	0.542
cg26760589	black	20	55,839,288 Body	Island	BMP7	0.687	-0.001	0.040	0.700
cg07652237	black	6	170,125,491 TSS1500	OpenSea	PHF10	0.687	-0.002	0.045	0.459
cg14590011	black	6	34,113,887	Island		0.687	-0.002	0.094	0.761
cg00059225	black	5	151,304,357 1stExon	Island	GLRA1	0.687	0.000	0.028	0.814
cg24715245	black	4	41,258,794 TSS200	Island	UCHL1	0.687	-0.002	0.032	0.180
cg19022814	black	1	62,107,477	OpenSea		0.687	-0.005	0.123	0.400
cg19046725	black	3	189,838,081 5'UTR	Island	LEPREL1	0.687	0.000	0.019	0.931
cg06432655	black	19	36,523,405 5'UTR	Island	CLIP3	0.687	-0.005	0.055	0.184
cg02693210	black	5	173,008,882 Body	OpenSea	LOC285593	0.686	0.000	0.220	0.971
cg01817067	black	12	117,627,223 Body	N_Shore	FBXO21	0.686	0.001	0.033	0.761
cg03283842	black	2	179,343,803 TSS1500	N_Shore	FKBP7	0.686	-0.003	0.058	0.363
cg10004780	black	2	131,722,307 Body	S_Shore	ARHGEF4	0.686	0.000	0.056	0.961
cg11715828	black	1	44,884,150 Body	Island	RNF220	0.686	0.001	0.034	0.521
cg26962870	black	2	237,068,673	Island		0.686	-0.007	0.084	0.134
cg25246431	black	11	12,398,874 TSS1500	N_Shore	PARVA	0.686	0.001	0.022	0.620
cg07680533	black	1	151,345,248 TSS200	OpenSea	SELENBP1	0.686	-0.009	0.058	0.025
cg12918271	black	1	16,861,818	Island		0.686	-0.001	0.026	0.459
cg26826004	black	5	140,792,596 Body	N_Shore	PCDHGA4	0.686	0.003	0.145	0.601
cg13631094	black	9	94,619,684 Body	OpenSea	ROR2	0.686	0.002	0.343	0.694
cg12234455	black	19	49,220,235 TSS200	N_Shelf	MAMSTR	0.686	-0.002	0.051	0.535
cg12462224	black	2	232,545,380	Island		0.686	0.006	0.286	0.579
cg07349815	black	3	123,751,269	N_Shore		0.686	-0.002	0.029	0.264
cg20492868	black	1	42,202,048 5'UTR	OpenSea	HIVEP3	0.686	0.005	0.350	0.283
cg04631458	black	7	1,329,462	Island		0.686	-0.002	0.046	0.684
cg00180762	black	12	26,379,588 Body	OpenSea	SSPN	0.686	0.002	0.056	0.603
cg23918047	black	17	79,828,356 5'UTR	N_Shore	ARHGDI A	0.686	-0.003	0.041	0.070
cg03907847	black	13	28,495,908 Body	Island	PDX1	0.686	-0.003	0.067	0.364
cg11828446	black	1	47,489,776 Body	S_Shore	CYP4X1	0.686	-0.001	0.028	0.409
cg13488013	black	17	47,592,680	S_Shelf		0.686	0.009	0.324	0.119
cg10788618	black	17	46,622,022 1stExon	S_Shore	HOXB2	0.686	0.002	0.068	0.593
cg00400448	black	15	60,285,691	N_Shore		0.686	-0.002	0.172	0.857
cg17229678	black	6	32,121,555 Body	N_Shore	PPT2	0.686	0.001	0.077	0.781
cg20804555	black	14	95,235,869 Body	Island	GSC	0.685	-0.003	0.037	0.106
cg13985437	black	11	76,381,044 5'UTR	N_Shore	LRRC32	0.685	-0.001	0.040	0.593
cg25457331	black	6	16,238,547 TSS1500	N_Shore	GMPR	0.685	0.002	0.052	0.503
cg12961733	black	22	50,165,244	Island		0.685	0.008	0.342	0.348
cg12157438	black	10	94,835,255 Body	Island	CYP26A1	0.685	0.005	0.231	0.465
cg20861607	black	15	32,323,114 Body	S_Shore	CHRNA7	0.685	0.000	0.016	0.996
cg13880950	black	1	44,884,096 Body	Island	RNF220	0.685	0.001	0.016	0.253
cg03461967	black	17	27,896,173 Body	S_Shore	TP53I13	0.685	0.001	0.027	0.353
cg11496778	black	11	3,225,076	Island		0.685	-0.001	0.044	0.549
cg26136365	black	3	62,358,379 Body	Island	FEZF2	0.685	-0.003	0.056	0.280
cg10866709	black	8	11,561,361 TSS1500	Island	GATA4	0.685	-0.004	0.075	0.355
cg20334079	black	13	24,144,544 TSS200	OpenSea	TNFRSF19	0.685	0.000	0.038	0.998
cg01094564	black	11	3,663,198 1stExon	Island	ART5	0.685	-0.001	0.033	0.544
cg20207973	black	22	38,506,712 TSS200	OpenSea	BAIAP2L2	0.685	-0.008	0.270	0.548
cg17259358	black	6	99,273,385	S_Shore		0.685	-0.001	0.020	0.552
cg07249684	black	8	689,392	Island		0.685	0.001	0.040	0.563
cg01164344	black	10	83,636,782 Body	S_Shore	NRG3	0.685	0.000	0.019	0.695
cg12287936	black	5	1,800,606 TSS1500	Island	NDUFS6	0.685	-0.001	0.037	0.710
cg04892919	black	2	191,272,604 TSS1500	Island	MFSD6	0.685	-0.001	0.014	0.413

cg01335367	black	12	110,172,208	Body	OpenSea	MGC14436	0.685	-0.004	0.050	0.304
cg02596153	black	6	108,497,141	Body	Island	NR2E1	0.685	0.001	0.034	0.714
cg27370808	black	10	8,079,737		S_Shore		0.685	-0.002	0.028	0.190
cg16671899	black	10	95,326,033	TSS1500	N_Shore	GPR120	0.685	0.001	0.253	0.858
cg23077820	black	2	223,154,176	Body	N_Shore	PAX3	0.685	-0.001	0.060	0.815
cg26821745	black	2	177,023,183		N_Shore		0.685	-0.001	0.063	0.854
cg27507261	black	17	5,403,053	3'UTR	N_Shore	LOC728392	0.684	-0.004	0.139	0.594
cg11663667	black	4	155,662,515		N_Shore		0.684	0.001	0.029	0.655
cg18723341	black	3	2,141,614	TSS1500	Island	CNTN4	0.684	0.000	0.030	0.925
cg14401749	black	9	111,236,249		OpenSea		0.684	0.005	0.196	0.489
cg00089719	black	5	54,527,320	Body	Island	CCNO	0.684	-0.003	0.045	0.150
cg26898087	black	11	106,888,299	Body	N_Shore	GUCY1A2	0.684	0.000	0.019	0.841
cg00464095	black	8	38,008,630	TSS200	OpenSea	STAR	0.684	0.002	0.038	0.327
cg27213509	black	2	176,947,228	Body	Island	EVX2	0.684	-0.004	0.039	0.129
cg15237742	black	17	44,897,024	TSS1500	Island	WNT3	0.684	-0.002	0.066	0.559
cg11754318	black	2	176,964,506	TSS200	Island	HOXD12	0.684	-0.006	0.076	0.154
cg02429905	black	6	32,119,944	TSS1500	N_Shore	PRRT1	0.684	0.003	0.179	0.740
cg12739664	black	17	65,990,817	TSS1500	S_Shore	C17orf58	0.684	0.000	0.073	0.975
cg20149625	black	11	66,026,159	Body	Island	KLC2	0.684	0.001	0.053	0.815
cg17072368	black	17	56,004,592		OpenSea		0.684	0.000	0.378	0.966
cg01750157	black	17	72,426,840	TSS1500	Island	GPRC5C	0.684	-0.003	0.100	0.587
cg21852513	black	1	116,371,475		S_Shore		0.684	0.001	0.032	0.533
cg21570209	black	19	46,367,987	Body	S_Shore	FOXA3	0.684	0.000	0.026	0.699
cg02672936	black	16	70,414,816	3'UTR	Island	ST3GAL2	0.684	0.002	0.027	0.274
cg14504499	black	12	121,733,425	5'UTR	N_Shore	CAMKK2	0.684	-0.001	0.063	0.855
cg07692489	black	16	8,960,972	5'UTR	N_Shore	CARHSP1	0.684	-0.001	0.025	0.741
cg00498305	black	10	119,000,236	TSS1500	N_Shore	SLC18A2	0.684	-0.001	0.038	0.781
cg06871560	black	15	52,944,233	Body	OpenSea	KIAA1370	0.684	0.000	0.029	0.908
cg14085358	black	2	176,949,017	TSS1500	N_Shore	EVX2	0.684	0.001	0.046	0.889
cg16674860	black	10	100,206,094	5'UTR	OpenSea	HPS1	0.684	0.001	0.125	0.913
cg17965712	black	5	2,757,802		S_Shore		0.684	0.003	0.384	0.794
cg03363256	black	8	82,023,453	5'UTR	N_Shore	PAG1	0.684	0.001	0.064	0.828
cg09882629	black	15	73,661,340	1stExon	Island	HCN4	0.684	0.000	0.051	0.989
cg10495084	black	15	96,889,416		Island		0.684	-0.012	0.346	0.444
cg20712808	black	17	48,441,202		OpenSea		0.683	0.000	0.033	0.777
cg06416097	black	10	133,989,812	3'UTR	OpenSea	JAKMIP3	0.683	-0.001	0.038	0.578
cg08827756	black	6	6,006,770	Body	Island	NRN1	0.683	-0.001	0.021	0.379
cg08478871	black	20	30,606,493	Body	Island	C20orf160	0.683	-0.001	0.022	0.669
cg16860686	black	22	42,311,634		Island		0.683	0.000	0.054	0.912
cg19457506	black	17	43,099,559		Island		0.683	-0.003	0.053	0.268
cg26687579	black	1	2,243,111		N_Shelf		0.683	-0.004	0.165	0.408
cg20564273	black	8	114,446,439	Body	S_Shore	CSMD3	0.683	0.001	0.023	0.627
cg14485185	black	11	118,051,260		OpenSea		0.683	-0.002	0.029	0.424
cg21755725	black	19	50,708,619	5'UTR	Island	MYH14	0.683	0.001	0.027	0.361
cg11272515	black	3	147,077,468		Island		0.683	-0.004	0.083	0.322
cg01908395	black	5	174,147,991		Island		0.683	-0.001	0.022	0.314
cg26047313	black	8	80,677,891	Body	Island	HEY1	0.683	0.000	0.015	0.782
cg00785193	black	2	36,582,293	TSS1500	N_Shore	CRIM1	0.683	0.000	0.021	0.726
cg20786514	black	2	20,189,208	Body	N_Shore	WDR35	0.683	0.000	0.025	0.785
cg21703606	black	12	54,427,884	5'UTR	Island	HOXC4	0.683	0.003	0.136	0.640
cg03798566	black	17	77,784,669		Island		0.683	0.000	0.016	0.577
cg02090160	black	2	172,958,880		N_Shore		0.683	0.003	0.043	0.475
cg10312211	black	8	21,867,933		Island		0.683	0.000	0.055	0.945
cg02986494	black	19	1,248,287	TSS1500	Island	MIDN	0.683	0.001	0.026	0.600
cg04929703	black	1	91,300,390		N_Shore		0.683	0.001	0.026	0.598
cg20562447	black	11	68,611,596		Island		0.683	0.001	0.025	0.583
cg14364186	black	9	135,619,500	Body	OpenSea	C9orf98	0.683	0.004	0.056	0.530
cg18915128	black	17	26,878,963	Body	N_Shore	UNC119	0.683	-0.001	0.029	0.670
cg14263139	black	11	66,104,018	TSS200	S_Shore	RIN1	0.683	0.009	0.166	0.345
cg00488501	black	11	3,187,032	TSS1500	S_Shore	OSBPL5	0.683	-0.003	0.134	0.466
cg20726001	black	18	18,821,389	TSS1500	Island	GREB1L	0.682	-0.001	0.029	0.652
cg03862226	black	12	57,521,271	TSS1500	N_Shore	LRP1	0.682	-0.002	0.037	0.365
cg22065124	black	13	73,649,955	Body	OpenSea	KLF5	0.682	0.020	0.234	0.130
cg07190012	black	11	16,633,647		N_Shore		0.682	0.000	0.034	0.992
cg23942974	black	5	42,995,123		Island		0.682	0.000	0.027	0.943
cg19273995	black	4	27,086,400		OpenSea		0.682	0.002	0.021	0.110
cg24796842	black	12	4,379,504		Island		0.682	0.001	0.026	0.568

cg17978124	black	6	100,053,438	TSS1500	N_Shore	PRDM13	0.682	0.000	0.038	0.965
cg13356133	black	17	12,877,772	Body	Island	RICH2	0.682	0.003	0.080	0.631
cg00037457	black	17	59,531,744		Island		0.682	0.000	0.033	0.986
cg20682981	black	17	1,962,627	3'UTR	S_Shore	HIC1	0.682	-0.001	0.040	0.502
cg04044720	black	3	22,413,680		Island		0.682	-0.003	0.057	0.393
cg08094291	black	1	44,883,137	Body	Island	RNF220	0.682	0.000	0.042	0.973
cg01293179	black	2	176,996,285	Body	S_Shore	HOXD8	0.682	-0.002	0.036	0.244
cg03759454	black	6	5,999,888	Body	S_Shore	NRN1	0.682	-0.001	0.026	0.676
cg14208672	black	9	94,520,862	Body	OpenSea	ROR2	0.682	-0.002	0.395	0.819
cg27031754	black	5	54,185,940		OpenSea		0.682	0.002	0.073	0.720
cg27546391	black	12	31,742,648	Body	N_Shore	DENND5B	0.682	-0.002	0.022	0.008
cg06912830	black	1	205,197,460	5'UTR	N_Shore	TMCC2	0.682	-0.001	0.036	0.283
cg03244560	black	8	25,909,171		N_Shore		0.682	0.000	0.030	0.810
cg03962527	black	10	111,766,879	5'UTR	N_Shore	ADD3	0.682	-0.002	0.027	0.324
cg22940789	black	13	36,704,709	5'UTR	N_Shore	DCLK1	0.682	-0.002	0.041	0.289
cg13708645	black	12	121,974,305	Body	N_Shore	KDM2B	0.682	-0.001	0.038	0.626
cg00614617	black	17	8,921,074		N_Shelf		0.682	-0.004	0.080	0.540
cg22507154	black	1	91,185,233		Island		0.681	0.001	0.030	0.815
cg22271905	black	11	75,237,679	TSS1500	Island	GDPD5	0.681	0.006	0.074	0.225
cg25744613	black	11	113,929,810	TSS1500	Island	ZBTB16	0.681	-0.005	0.047	0.070
cg03441993	black	4	55,093,323		N_Shore		0.681	-0.001	0.048	0.651
cg15413177	black	16	88,521,287	Body	Island	ZFPM1	0.681	-0.001	0.040	0.599
cg20442078	black	2	27,531,360	TSS1500	Island	UCN	0.681	-0.001	0.069	0.903
cg06159269	black	1	8,767,347	5'UTR	S_Shelf	RERE	0.681	-0.001	0.045	0.840
cg08241939	black	1	204,700,816		OpenSea		0.681	0.011	0.237	0.210
cg25033364	black	11	17,760,602	Body	S_Shelf	KCNC1	0.681	-0.003	0.079	0.678
cg26397549	black	14	37,116,121		N_Shore		0.681	0.003	0.044	0.258
cg26612165	black	1	181,059,499	3'UTR	S_Shore	IER5	0.681	-0.001	0.037	0.462
cg13038685	black	14	77,504,478		OpenSea		0.681	0.000	0.067	0.956
cg08084860	black	2	237,080,340		Island		0.681	0.000	0.026	0.796
cg06675273	black	15	92,936,465	TSS1500	N_Shore	ST8SIA2	0.681	-0.001	0.040	0.530
cg02571816	black	19	38,747,378	TSS1500	Island	PPP1R14A	0.681	0.001	0.019	0.494
cg01352108	black	11	64,058,878	5'UTR	Island	KCNK4	0.681	-0.003	0.053	0.346
cg17959448	black	11	33,891,799	TSS1500	S_Shore	LMO2	0.681	-0.001	0.034	0.425
cg00049047	black	5	37,838,425	5'UTR	Island	GDNF	0.681	0.002	0.021	0.123
cg23660896	black	17	35,296,219	Body	Island	LHX1	0.681	0.000	0.043	0.919
cg01357116	black	4	94,749,496	TSS1500	Island	ATOH1	0.681	0.001	0.026	0.444
cg08479590	black	7	27,224,795	TSS1500	N_Shore	HOXA11AS	0.681	0.001	0.021	0.393
cg06510074	black	7	121,957,221		Island		0.681	-0.004	0.046	0.083
cg19897940	black	11	128,563,685	TSS200	Island	FLI1	0.681	-0.001	0.025	0.643
cg01381109	black	2	96,054,917		Island		0.681	0.002	0.064	0.650
cg19988338	black	13	110,440,179	TSS1500	Island	IRS2	0.681	-0.002	0.033	0.091
cg09191626	black	11	13,983,986	1stExon	N_Shore	SPON1	0.681	0.002	0.122	0.761
cg19048548	black	17	15,245,196	TSS1500	S_Shore	TEKT3	0.681	0.000	0.023	0.685
cg16563171	black	2	223,156,106	Body	Island	PAX3	0.681	-0.001	0.022	0.331
cg02751803	black	16	56,998,622	Body	OpenSea	CETP	0.680	0.000	0.025	0.902
cg01481159	black	20	21,489,196		Island		0.680	-0.001	0.033	0.640
cg05281645	black	17	33,673,036		OpenSea		0.680	-0.001	0.032	0.785
cg21134232	black	7	27,155,548	5'UTR	S_Shore	HOXA3	0.680	0.003	0.054	0.567
cg09982773	black	7	128,550,860	TSS200	Island	KCP	0.680	0.001	0.053	0.698
cg07721547	black	22	42,475,119	TSS1500	N_Shore	C22orf32	0.680	0.008	0.309	0.112
cg14458619	black	9	8,858,644	5'UTR	Island	PTPRD	0.680	0.002	0.027	0.243
cg03068051	black	1	64,935,169	TSS1500	N_Shore	CACHD1	0.680	0.003	0.211	0.552
cg03905867	black	11	31,821,064	Body	Island	PAX6	0.680	-0.001	0.020	0.525
cg11415275	black	1	146,715,872	Body	S_Shore	CHD1L	0.680	-0.002	0.065	0.637
cg16488098	black	7	131,240,440	Body	N_Shore	PODXL	0.680	0.001	0.023	0.660
cg09859492	black	2	218,723,349	Body	OpenSea	TNS1	0.680	-0.005	0.088	0.328
cg04893558	black	7	121,783,377	5'UTR	N_Shore	AASS	0.680	0.001	0.030	0.684
cg20088964	black	12	66,217,432	TSS1500	N_Shore	HMGGA2	0.680	-0.003	0.037	0.028
cg19844704	black	10	119,304,705	Body	Island	EMX2	0.680	-0.001	0.026	0.355
cg16171281	black	18	73,167,422		Island		0.680	0.000	0.043	0.927
cg27650906	black	20	21,372,807		S_Shore		0.680	0.001	0.026	0.250
cg17814717	black	7	151,512,049	TSS200	OpenSea	PRKAG2	0.680	-0.001	0.480	0.894
cg08938793	black	7	27,211,117	3'UTR	N_Shore	HOXA10	0.680	0.001	0.030	0.497
cg10879867	black	11	68,622,263		Island		0.680	-0.001	0.053	0.683
cg19831846	black	2	47,167,859	5'UTR	Island	MCFD2	0.680	-0.001	0.025	0.681
cg01981027	black	12	52,419,802		S_Shelf		0.680	0.001	0.041	0.575

cg01296593	black	16	86,599,976	TSS1500	Island	FOXC2	0.680	0.001	0.029	0.690
cg21493505	black	19	56,879,418	TSS1500	Island	ZNF542	0.680	-0.003	0.114	0.563
cg20786074	black	2	56,150,255	1stExon	N_Shore	EFEMP1	0.680	-0.001	0.036	0.403
cg18933494	black	11	8,616,016	TSS1500	S_Shore	STK33	0.679	-0.001	0.028	0.669
cg13127506	black	12	123,757,018	TSS1500	S_Shore	CDK2AP1	0.679	-0.010	0.086	0.103
cg16646662	black	10	1,778,529	Body	N_Shore	ADARB2	0.679	-0.003	0.036	0.316
cg03543314	black	4	124,321,007	5'UTR	S_Shore	SPRY1	0.679	0.000	0.031	0.911
cg01596834	black	3	183,993,711	TSS200	N_Shore	ECE2	0.679	0.000	0.026	0.737
cg13239348	black	10	131,768,533		Island		0.679	0.000	0.021	0.991
cg22413056	black	6	30,650,202	Body	OpenSea	KIAA1949	0.679	-0.004	0.158	0.595
cg11706983	black	7	27,233,454		S_Shore		0.679	0.000	0.030	0.771
cg06546066	black	2	241,856,000		Island		0.679	0.001	0.024	0.160
cg18107611	black	11	75,947,637		S_Shore		0.679	-0.002	0.055	0.502
cg14874516	black	18	5,630,951		S_Shore		0.679	0.001	0.044	0.591
cg10233913	black	1	17,446,162	TSS1500	S_Shore	PADI2	0.679	-0.011	0.063	0.006
cg22826874	black	3	142,608,218	TSS1500	Island	PCOLCE2	0.679	0.000	0.029	0.881
cg19459804	black	20	32,032,443	TSS1500	S_Shore	SNTA1	0.679	0.000	0.037	0.791
cg27514333	black	15	66,996,626	Body	S_Shore	SMAD6	0.679	0.000	0.028	0.847
cg03494022	black	18	43,992,823	Body	OpenSea	RNF165	0.679	-0.006	0.154	0.353
cg17195771	black	9	71,789,541	Body	Island	TJP2	0.679	-0.007	0.058	0.164
cg12368612	black	12	115,135,999		Island		0.679	-0.002	0.048	0.518
cg02719359	black	16	30,411,426		Island		0.679	0.002	0.021	0.108
cg08133584	black	16	609,679	TSS1500	N_Shore	C16orf11	0.679	-0.003	0.046	0.192
cg26723847	black	11	134,095,652	Body	S_Shore	VPS26B	0.679	0.002	0.061	0.548
cg13899188	black	4	154,144,286	Body	Island	TRIM2	0.679	0.003	0.028	0.166
cg16402452	black	12	58,129,855	Body	Island	AGAP2	0.678	-0.003	0.043	0.227
cg27314558	black	6	28,778,582		N_Shelf		0.678	0.000	0.014	0.799
cg22455694	black	2	176,974,001	3'UTR	S_Shore	HOXD11	0.678	-0.005	0.053	0.099
cg23810282	black	5	43,037,519		Island		0.678	-0.003	0.053	0.594
cg08698605	black	19	8,273,643	TSS1500	Island	LASS4	0.678	0.001	0.077	0.819
cg06109482	black	2	232,531,087		S_Shelf		0.678	0.012	0.146	0.350
cg00842325	black	20	21,503,536		Island		0.678	-0.002	0.027	0.155
cg19710451	black	17	46,654,202	Body	Island	HOXB4	0.678	-0.004	0.054	0.412
cg00161124	black	1	234,366,259	Body	N_Shore	SLC35F3	0.678	-0.002	0.097	0.777
cg14174336	black	16	67,208,654	Body	Island	NOL3	0.678	0.004	0.120	0.657
cg16840358	black	3	27,765,484		Island		0.677	-0.002	0.063	0.615
cg05083852	black	16	81,480,610	Body	S_Shore	CMIP	0.677	0.009	0.255	0.415
cg12910561	black	20	21,081,216		Island		0.677	0.001	0.037	0.596
cg11534680	black	2	11,680,020	5'UTR	OpenSea	GREB1	0.677	0.003	0.045	0.307
cg16235582	black	11	78,673,212	Body	Island	ODZ4	0.677	-0.001	0.035	0.520
cg01062942	black	19	15,568,935	Body	Island	RASAL3	0.677	-0.007	0.043	0.243
cg10884953	black	19	2,579,745	5'UTR	Island	GNG7	0.677	-0.001	0.033	0.694
cg18735810	black	5	50,260,204		OpenSea		0.677	0.000	0.035	0.828
cg26343889	black	15	68,848,244		N_Shelf		0.677	0.004	0.685	0.355
cg01146614	black	6	159,235,211	Body	N_Shelf	EZR	0.677	0.000	0.054	0.883
cg14528142	black	1	113,585,408		OpenSea		0.677	0.000	0.035	0.923
cg17924415	black	17	77,777,053		Island		0.677	-0.007	0.110	0.116
cg00899400	black	7	27,154,537	5'UTR	N_Shore	HOXA3	0.677	-0.016	0.195	0.088
cg15438207	black	8	95,003,953		OpenSea		0.677	-0.002	0.055	0.429
cg15300856	black	21	44,497,019	TSS1500	S_Shore	CBS	0.677	-0.001	0.029	0.495
cg15072619	black	10	18,294,563	Body	OpenSea	SLC39A12	0.677	-0.002	0.059	0.719
cg08818610	black	6	24,910,720	5'UTR	Island	FAM65B	0.677	0.000	0.024	0.982
cg26176204	black	2	236,401,677	TSS1500	N_Shore	AGAP1	0.677	-0.002	0.048	0.625
cg17156803	black	10	102,416,598		Island		0.677	-0.001	0.089	0.805
cg13503476	black	1	113,599,742		OpenSea		0.677	0.000	0.053	0.956
cg27217214	black	16	68,268,462	Body	N_Shore	ESRP2	0.676	0.003	0.266	0.569
cg04040925	black	17	78,011,083	Body	Island	CCDC40	0.676	0.000	0.053	0.952
cg27326687	black	15	43,803,504	TSS1500	S_Shore	TP53BP1	0.676	0.000	0.014	0.849
cg21256649	black	17	66,507,610	TSS1500	N_Shore	PRKAR1A	0.676	-0.003	0.025	0.044
cg16211161	black	11	113,907,291		Island		0.676	-0.001	0.052	0.712
cg01860897	black	1	90,309,605	5'UTR	Island	LRRC8D	0.676	0.005	0.394	0.462
cg04852972	black	1	1,897,728	Body	Island	KIAA1751	0.676	-0.006	0.465	0.519
cg13015284	black	11	64,410,392	1stExon	Island	NRXN2	0.676	0.001	0.091	0.814
cg27436003	black	13	20,734,544	5'UTR	N_Shore	GJA3	0.676	0.001	0.031	0.757
cg17894755	black	10	104,535,794	TSS200	OpenSea	C10orf26	0.676	0.001	0.038	0.502
cg16465430	black	14	23,289,114	TSS200	N_Shore	SLC7A7	0.676	0.009	0.368	0.170
cg18451814	black	14	57,278,188	TSS1500	Island	OTX2	0.676	-0.001	0.033	0.511



cg00643086	black	6	26,332,252		OpenSea		0.676	0.000	0.017	0.844
cg00698908	black	12	128,750,971 TSS1500		N_Shore	TMEM132C	0.676	-0.002	0.028	0.244
cg09934381	black	12	15,961,726		OpenSea		0.676	-0.001	0.026	0.405
cg26353166	black	10	79,196,147 Body		OpenSea	KCNMA1	0.676	-0.001	0.130	0.823
cg22508831	black	22	40,573,204 Body		OpenSea	TNRC6B	0.676	0.002	0.038	0.381
cg09842331	black	7	27,289,552		N_Shore		0.676	-0.001	0.059	0.696
cg11065015	black	20	327,170 TSS200		N_Shore	NRSN2	0.676	-0.001	0.128	0.881
cg27227250	black	2	62,797,865		OpenSea		0.676	0.000	0.106	0.996
cg19594218	black	1	62,660,556 1stExon		Island	L1TD1	0.676	-0.001	0.046	0.866
cg24159335	black	15	81,071,273 TSS1500		Island	KIAA1199	0.676	-0.001	0.029	0.556
cg26937798	black	16	27,326,054 5'UTR		S_Shore	IL4R	0.676	0.000	0.016	0.841
cg17895254	black	10	62,492,157		N_Shore		0.676	-0.005	0.227	0.597
cg16673929	black	19	13,134,830 Body		N_Shore	NFIX	0.676	-0.001	0.055	0.814
cg00460235	black	8	26,723,946 TSS1500		Island	ADRA1A	0.676	-0.001	0.035	0.571
cg18063495	black	5	50,262,796		N_Shelf		0.676	0.000	0.026	0.756
cg19514928	black	1	95,583,636 5'UTR		S_Shore	TMEM56	0.676	0.000	0.037	0.933
cg08311343	black	7	92,324,861 Body		OpenSea	CDK6	0.676	0.000	0.024	0.976
cg12878824	black	17	46,695,192		N_Shore		0.676	0.000	0.029	0.972
cg24792289	black	5	134,825,895		Island		0.676	0.000	0.014	0.729
cg02042310	black	1	46,940,420		Island		0.676	0.000	0.061	0.953
cg16692923	black	4	149,364,700 TSS1500		Island	NR3C2	0.676	-0.001	0.032	0.428
cg00348579	black	20	1,927,560		N_Shore		0.676	-0.001	0.028	0.473
cg26994225	black	2	119,616,769		Island		0.676	-0.001	0.035	0.763
cg21411366	black	4	24,797,176 5'UTR		N_Shelf	SOD3	0.676	-0.001	0.065	0.833
cg17925829	black	19	36,399,328 TSS200		OpenSea	TYROBP	0.675	0.008	0.269	0.115
cg26065488	black	3	171,176,016 Body		N_Shore	TNIK	0.675	0.001	0.068	0.916
cg03555157	black	2	128,439,171 1stExon		OpenSea	LIMS2	0.675	0.005	0.378	0.533
cg22698604	black	10	116,286,502 Body		OpenSea	ABLIM1	0.675	-0.001	0.027	0.402
cg23463099	black	3	140,229,290 Body		OpenSea	CLSTN2	0.675	0.000	0.065	0.941
cg12351433	black	2	48,982,957 TSS200		Island	LHCGR	0.675	-0.001	0.042	0.718
cg04121631	black	1	875,345 Body		N_Shore	SAMD11	0.675	-0.002	0.022	0.218
cg00997079	black	2	80,529,990 Body		Island	CTNNA2	0.675	-0.008	0.065	0.091
cg11909912	black	17	43,974,919 5'UTR		Island	MAPT	0.675	-0.001	0.022	0.610
cg03361164	black	6	100,915,805		Island		0.675	-0.001	0.026	0.623
cg06657050	black	15	53,083,587 TSS1500		Island	ONECUT1	0.675	-0.001	0.018	0.331
cg02040734	black	10	104,210,981 Body		Island	C10orf95	0.675	0.004	0.048	0.186
cg15204740	black	20	39,969,492 TSS200		S_Shore	LPIN3	0.675	0.001	0.037	0.792
cg21572731	black	3	111,804,981 TSS200		Island	C3orf52	0.675	0.000	0.046	0.885
cg07745373	black	11	58,941,415 Body		S_Shore	DTX4	0.675	-0.001	0.025	0.546
cg02288301	black	2	193,060,811 TSS1500		Island	TMEFF2	0.675	-0.001	0.015	0.463
cg13348944	black	11	118,047,121 1stExon		OpenSea	SCN2B	0.675	-0.004	0.046	0.190
cg06050341	black	8	124,552,839 Body		Island	FBXO32	0.675	-0.001	0.021	0.344
cg00224911	black	4	74,486,142 Body		Island	RASSF6	0.675	-0.007	0.070	0.215
cg04721087	black	15	40,674,900 TSS200		N_Shore	C15orf23	0.675	0.004	0.026	0.021
cg25509184	black	7	117,119,382 TSS1500		OpenSea	CFTR	0.675	-0.001	0.023	0.453
cg02803819	black	7	27,141,067 Body		N_Shelf	HOXA2	0.675	-0.002	0.022	0.271
cg19096571	black	7	129,423,354		Island		0.675	-0.003	0.031	0.113
cg03054277	black	1	228,400,217 Body		Island	OBSCN	0.675	-0.002	0.152	0.842
cg25702335	black	13	96,205,897 Body		S_Shore	CLDN10	0.675	-0.004	0.035	0.098
cg06470822	black	6	28,175,283		Island		0.675	0.001	0.014	0.361
cg10778310	black	7	128,509,080		N_Shore		0.675	0.002	0.036	0.517
cg07378762	black	3	169,376,470 Body		N_Shelf	MECOM	0.675	0.000	0.016	0.727
cg11308643	black	11	105,480,788 TSS200		N_Shore	GRIA4	0.675	-0.003	0.036	0.139
cg20817661	black	6	6,321,364 TSS1500		OpenSea	F13A1	0.675	0.001	0.025	0.357
cg23574802	black	14	89,017,726 5'UTR		Island	PTPN21	0.675	-0.002	0.045	0.272
cg18485596	black	6	111,435,084 Body		OpenSea	SLC16A10	0.675	0.002	0.133	0.694
cg02312904	black	17	59,234,870 Body		OpenSea	BCAS3	0.675	0.002	0.148	0.864
cg20925462	black	3	111,717,806 TSS200		OpenSea	TAGLN3	0.675	0.000	0.037	0.866
cg15236866	black	2	172,948,825 TSS1500		N_Shore	DLX1	0.674	0.001	0.062	0.818
cg26187876	black	2	191,514,902 5'UTR		S_Shore	NAB1	0.674	0.001	0.020	0.532
cg25375764	black	6	24,494,665 TSS1500		Island	ALDH5A1	0.674	0.000	0.121	0.990
cg07034329	black	5	66,124,395 TSS1500		OpenSea	MAST4	0.674	0.000	0.018	0.985
cg03276785	black	7	54,956,202		N_Shore		0.674	0.000	0.044	0.932
cg05194810	black	2	172,950,397 5'UTR		N_Shore	DLX1	0.674	0.004	0.029	0.031
cg20414262	black	12	53,887,329 5'UTR		S_Shore	MAP3K12	0.674	-0.002	0.047	0.250
cg16003238	black	15	65,670,876 TSS1500		S_Shore	IGDCC3	0.674	-0.003	0.056	0.519
cg24077001	black	2	71,504,971		S_Shore		0.674	-0.001	0.039	0.746

cg14685796	black	5	50,265,660	Island		0.674	0.000	0.023	0.799	
cg11638298	black	4	188,917,173	5'UTR	S_Shore	ZFP42	0.674	-0.004	0.099	0.562
cg13541073	black	17	61,505,609	OpenSea			0.674	0.000	0.529	0.987
cg22751954	black	6	143,023,932	OpenSea			0.674	0.002	0.211	0.606
cg13602274	black	6	37,667,518	S_Shore			0.674	0.006	0.047	0.108
cg14228146	black	2	119,607,395	Island			0.674	-0.002	0.046	0.313
cg11009362	black	12	118,313,924	Body	OpenSea	KSR2	0.674	0.001	0.031	0.482
cg24383418	black	3	27,770,852	N_Shore			0.674	0.002	0.028	0.100
cg12483773	black	11	111,170,635	5'UTR	S_Shore	C11orf93	0.674	-0.004	0.081	0.406
cg02269496	black	13	113,105,282	N_Shore			0.674	0.008	0.456	0.656
cg12308746	black	2	172,952,415	Body	N_Shore	DLX1	0.674	0.000	0.021	0.652
cg25344194	black	17	76,948,389	OpenSea			0.674	-0.001	0.171	0.817
cg09151742	black	12	122,018,897	5'UTR	S_Shore	KDM2B	0.674	-0.002	0.037	0.185
cg03528946	black	9	38,069,800	TSS1500	Island	SHB	0.674	-0.003	0.038	0.291
cg00697916	black	3	65,342,644	Body	Island	MAGI1	0.674	-0.010	0.273	0.278
cg18500448	black	7	149,322,992	TSS1500	S_Shore	ZNF767	0.674	0.001	0.083	0.890
cg04164184	black	2	105,468,708	N_Shore			0.674	-0.001	0.025	0.467
cg25471923	black	7	27,241,279	N_Shore			0.674	0.001	0.054	0.726
cg27661104	black	2	232,645,033	Body	N_Shore	PDE6D	0.674	-0.002	0.034	0.197
cg05726661	black	17	7,348,438	1stExon	Island	CHRN1	0.673	-0.003	0.039	0.254
cg16120415	black	1	156,399,787	TSS1500	OpenSea	C1orf61	0.673	-0.002	0.032	0.077
cg19008088	black	10	102,890,038	TSS1500	N_Shore	TLX1	0.673	0.001	0.024	0.686
cg20968743	black	11	44,883,965	5'UTR	OpenSea	TSPAN18	0.673	0.004	0.502	0.671
cg00128601	black	8	19,615,412	S_Shore			0.673	-0.003	0.027	0.029
cg09527270	black	2	25,390,385	5'UTR	N_Shore	POMC	0.673	-0.006	0.306	0.548
cg06395469	black	6	27,635,558	OpenSea			0.673	0.002	0.032	0.378
cg15141467	black	1	155,035,375	TSS1500	Island	EFNA4	0.673	0.000	0.032	0.874
cg11183001	black	5	34,838,922	TSS1500	Island	TTC23L	0.673	-0.003	0.031	0.130
cg01151821	black	8	124,554,187	TSS1500	S_Shore	FBXO32	0.673	0.000	0.032	0.961
cg07464358	black	7	100,952,364	OpenSea			0.673	0.000	0.157	0.991
cg06135689	black	17	35,085,060	OpenSea			0.673	-0.001	0.040	0.798
cg15095906	black	1	36,789,786	TSS200	S_Shore	FAM176B	0.673	-0.005	0.073	0.274
cg13084536	black	5	139,076,824	OpenSea			0.673	-0.001	0.054	0.786
cg24296765	black	4	40,752,895	Body	Island	NSUN7	0.673	-0.003	0.034	0.094
cg24691891	black	1	33,829,934	Body	OpenSea	PHC2	0.673	0.000	0.144	0.966
cg17218813	black	6	32,119,616	1stExon	S_Shore	PRRT1	0.673	0.001	0.040	0.777
cg17684207	black	6	163,746,145	TSS1500	OpenSea	LOC285796	0.673	-0.001	0.094	0.937
cg07431199	black	15	41,218,265	OpenSea			0.673	-0.001	0.042	0.641
cg25246692	black	22	37,545,924	5'UTR	OpenSea	IL2RB	0.673	-0.005	0.086	0.301
cg13362082	black	7	96,645,989	OpenSea			0.673	0.003	0.062	0.380
cg21480043	black	19	41,699,282	1stExon	Island	CYP2S1	0.673	-0.005	0.045	0.046
cg07557342	black	5	126,365,345	5'UTR	N_Shore	3-Mar	0.673	-0.001	0.031	0.774
cg26390156	black	14	24,101,543	OpenSea			0.673	-0.001	0.139	0.898
cg14236662	black	2	176,988,284	1stExon	Island	HOXD9	0.673	0.002	0.031	0.210
cg13255398	black	11	16,836,827	Body	OpenSea	PLEKHA7	0.673	-0.001	0.149	0.905
cg05300378	black	17	74,128,731	OpenSea			0.673	-0.002	0.039	0.457
cg00496272	black	16	67,877,232	5'UTR	S_Shore	CENPT	0.672	-0.003	0.059	0.225
cg09845314	black	1	41,119,634	5'UTR	N_Shore	RIMS3	0.672	0.002	0.082	0.689
cg26642224	black	4	174,443,242	N_Shore			0.672	0.000	0.018	0.967
cg25383323	black	10	125,033,830	OpenSea			0.672	0.008	0.396	0.683
cg03550129	black	2	1,596,054	S_Shore			0.672	-0.010	0.139	0.264
cg06412582	black	9	138,986,379	5'UTR	Island	NACC2	0.672	-0.003	0.047	0.112
cg02456219	black	6	41,754,918	3'UTR	Island	PRICKLE4	0.672	0.002	0.031	0.100
cg02358653	black	2	136,632,610	Body	N_Shore	MCM6	0.672	0.000	0.317	0.980
cg22840219	black	19	50,037,661	Body	Island	RCN3	0.672	0.001	0.022	0.286
cg26544247	black	2	25,473,781	Body	N_Shore	DNMT3A	0.672	0.001	0.018	0.404
cg14411103	black	12	114,883,396	N_Shore			0.672	0.001	0.020	0.164
cg24199400	black	3	113,160,430	TSS200	Island	WDR52	0.672	0.001	0.155	0.799
cg19012681	black	3	14,643,719	OpenSea			0.672	-0.003	0.034	0.043
cg08060857	black	16	85,202,526	OpenSea			0.672	0.000	0.024	0.749
cg13422817	black	12	4,550,927	Body	N_Shelf	FGF6	0.672	-0.003	0.073	0.437
cg00184376	black	13	28,499,045	3'UTR	Island	PDX1	0.672	-0.002	0.054	0.457
cg01015090	black	19	498,062	Body	Island	MADCAM1	0.672	0.004	0.054	0.233
cg25067702	black	17	70,723,227	Body	OpenSea	SLC39A11	0.672	-0.002	0.129	0.756
cg22749310	black	10	95,327,107	Body	Island	GPR120	0.672	-0.001	0.047	0.534
cg26112929	black	7	5,821,500	TSS1500	S_Shore	RNF216	0.672	-0.001	0.078	0.859
cg10195962	black	10	47,656,369	OpenSea			0.672	-0.003	0.031	0.075

cg01872024	black	11	94,502,804	Body	S_Shore	AMOTL1	0.672	0.001	0.023	0.513
cg18695839	black	12	54,446,944	5'UTR	N_Shore	HOXC4	0.672	-0.001	0.065	0.651
cg03430502	black	3	115,342,323	1stExon	OpenSea	GAP43	0.672	0.001	0.080	0.623
cg14009688	black	7	134,464,242	5'UTR	OpenSea	CALD1	0.672	0.000	0.015	0.698
cg20328588	black	11	117,747,934	5'UTR	S_Shore	FXYD6	0.672	-0.004	0.071	0.352
cg23328647	black	2	43,054,826		Island		0.672	0.001	0.035	0.761
cg26930006	black	14	60,798,844		S_Shelf		0.672	0.003	0.072	0.524
cg08575722	black	11	32,421,845	Body	OpenSea	WT1	0.672	-0.004	0.115	0.524
cg14997413	black	7	51,384,937	TSS1500	Island	COBL	0.672	0.001	0.026	0.466
cg01209909	black	20	55,500,189		N_Shore		0.671	-0.002	0.033	0.086
cg10880485	black	14	60,974,384		N_Shore		0.671	0.000	0.075	0.992
cg23934927	black	5	74,162,623	TSS200	Island	FAM169A	0.671	0.000	0.025	0.791
cg16664996	black	16	88,385,249		OpenSea		0.671	0.012	0.719	0.254
cg19798702	black	3	197,247,751	Body	OpenSea	BDH1	0.671	-0.005	0.180	0.565
cg06081306	black	17	37,760,830	3'UTR	N_Shore	NEUROD2	0.671	-0.002	0.026	0.085
cg22224597	black	1	41,444,871	TSS200	Island	CTPS	0.671	0.002	0.046	0.427
cg04656051	black	2	219,252,614	Body	Island	SLC11A1	0.671	-0.008	0.054	0.018
cg00260802	black	20	21,372,203		Island		0.671	0.000	0.035	0.823
cg06203476	black	7	121,956,502		N_Shore		0.671	-0.002	0.024	0.203
cg08630381	black	13	100,612,277		Island		0.671	0.000	0.015	0.879
cg06087255	black	8	139,272,627	Body	OpenSea	FAM135B	0.671	-0.003	0.081	0.682
cg05493394	black	6	133,562,035	TSS1500	N_Shore	EYA4	0.671	0.000	0.015	0.774
cg00787022	black	2	45,166,314		Island		0.671	-0.003	0.034	0.119
cg16076328	black	2	47,597,118	Body	Island	EPCAM	0.671	-0.003	0.050	0.443
cg17780731	black	5	67,483,678		OpenSea		0.671	0.000	0.015	0.835
cg02225085	black	5	87,975,992	Body	N_Shore	LOC645323	0.671	-0.001	0.022	0.575
cg17265693	black	17	7,166,490	TSS1500	S_Shore	CLDN7	0.671	0.007	0.058	0.070
cg15597109	black	1	10,711,695	Body	N_Shelf	CASZ1	0.671	-0.002	0.247	0.852
cg18991169	black	11	31,843,388		S_Shore		0.671	-0.001	0.031	0.674
cg02861615	black	1	39,036,030		OpenSea		0.671	0.001	0.037	0.863
cg05200540	black	10	103,985,853	TSS1500	Island	ELOVL3	0.671	-0.001	0.091	0.803
cg13841603	black	6	127,839,822	5'UTR	S_Shelf	C6orf174	0.671	-0.004	0.047	0.184
cg04321618	black	7	27,170,880	TSS1500	S_Shore	HOXA4	0.671	0.001	0.044	0.558
cg07991229	black	6	125,684,960		S_Shore		0.671	0.001	0.017	0.279
cg11471772	black	6	100,911,687	TSS200	N_Shore	SIM1	0.671	0.002	0.029	0.387
cg02247591	black	19	43,979,372	3'UTR	Island	PHLDB3	0.671	0.000	0.057	0.963
cg18990313	black	8	38,831,598	TSS200	Island	HTRA4	0.671	-0.001	0.037	0.688
cg04015522	black	8	142,425,246		N_Shore		0.671	-0.007	0.076	0.135
cg07539583	black	6	27,215,397	TSS200	N_Shelf	PRSS16	0.670	-0.001	0.163	0.824
cg02087079	black	5	177,811,349	Body	OpenSea	COL23A1	0.670	0.005	0.136	0.723
cg23323669	black	6	31,126,866	TSS1500	S_Shore	CCHCR1	0.670	-0.002	0.018	0.268
cg23855319	black	4	2,062,392	Body	Island	NAT8L	0.670	-0.001	0.053	0.641
cg10510775	black	6	34,954,867	Body	OpenSea	ANKS1A	0.670	0.000	0.066	0.988
cg24202381	black	5	153,862,450		Island		0.670	0.000	0.012	0.645
cg23003315	black	6	30,070,109		Island		0.670	-0.002	0.028	0.347
cg10365562	black	3	46,615,549	5'UTR	N_Shelf	LRRC2	0.670	0.003	0.041	0.451
cg02971381	black	12	6,641,751		N_Shore		0.670	-0.001	0.116	0.701
cg17669581	black	4	54,968,251		S_Shore		0.670	-0.002	0.032	0.211
cg12852499	black	13	79,170,959		Island		0.670	0.000	0.027	0.909
cg13321259	black	3	194,090,730	TSS1500	OpenSea	LRRC15	0.670	0.004	0.088	0.437
cg02958263	black	1	174,769,548	Body	OpenSea	RABGAP1L	0.670	0.003	0.070	0.580
cg22727783	black	5	14,441,074	Body	OpenSea	TRIO	0.670	-0.003	0.040	0.476
cg17659920	black	19	36,499,666	5'UTR	N_Shore	C19orf46	0.670	0.001	0.301	0.870
cg15522171	black	1	33,547,626	5'UTR	S_Shore	ADC	0.670	0.000	0.027	0.967
cg21198167	black	8	689,908		S_Shore		0.670	0.006	0.342	0.574
cg09582200	black	11	117,748,236	TSS1500	S_Shore	FXYD6	0.670	0.001	0.155	0.887
cg20311501	black	5	112,073,502	TSS200	OpenSea	APC	0.670	0.005	0.094	0.544
cg10394832	black	1	111,889,533	Body	Island	C1orf88	0.670	0.000	0.018	0.856
cg11631271	black	19	38,700,487		Island		0.670	0.000	0.019	0.591
cg00076538	black	5	38,257,555	TSS1500	N_Shore	EGFLAM	0.670	-0.001	0.023	0.194
cg26805749	black	11	16,627,534		Island		0.670	0.002	0.021	0.147
cg22344830	black	1	1,935,048	5'UTR	N_Shore	KIAA1751	0.670	0.000	0.020	0.980
cg19876672	black	10	118,891,266	3'UTR	N_Shore	VAX1	0.670	0.002	0.024	0.117
cg05759150	black	10	124,906,565	TSS1500	N_Shore	HMX2	0.670	-0.006	0.120	0.423
cg19719208	black	10	102,976,430		Island		0.670	-0.001	0.037	0.668
cg21739400	black	8	27,472,457	TSS200	Island	CLU	0.669	0.002	0.034	0.185
cg24250393	black	16	23,846,838	TSS1500	N_Shore	PRKCB	0.669	0.001	0.068	0.742

cg13737332	black	10	100,993,583	Body	N_Shore	HPSE2	0.669	-0.001	0.048	0.796
cg06687305	black	1	46,088,486	Body	Island	CCDC17	0.669	0.001	0.273	0.849
cg13702196	black	10	125,651,588	TSS200	S_Shore	CPXM2	0.669	-0.006	0.080	0.340
cg05852040	black	7	77,044,873	Body	Island	PION	0.669	0.000	0.025	0.544
cg06620514	black	14	74,793,271		OpenSea		0.669	-0.003	0.044	0.120
cg16825290	black	10	100,993,826	Body	Island	HPSE2	0.669	0.004	0.047	0.209
cg17017591	black	6	28,557,765		S_Shelf		0.669	0.006	0.249	0.703
cg06905130	black	2	287,148	Body	N_Shore	FAM150B	0.669	0.001	0.029	0.268
cg04460847	black	7	127,841,335		Island		0.669	-0.002	0.048	0.233
cg06616765	black	19	8,570,636		Island		0.669	-0.002	0.037	0.414
cg03852018	black	2	149,634,410	Body	S_Shore	KIF5C	0.669	-0.002	0.036	0.185
cg10860578	black	14	101,689,815		OpenSea		0.669	0.003	0.517	0.767
cg02524946	black	7	35,294,640	TSS1500	Island	TBX20	0.669	0.000	0.032	0.895
cg00782503	black	13	28,540,622	Body	Island	CDX2	0.669	-0.002	0.046	0.335
cg22352152	black	1	180,201,319	Body	Island	LHX4	0.669	-0.002	0.038	0.277
cg27560864	black	11	118,024,339	TSS1500	S_Shore	SCN4B	0.669	-0.004	0.063	0.295
cg01959435	black	22	39,759,957	TSS1500	OpenSea	SYNGR1	0.669	0.000	0.021	0.991
cg06289844	black	6	126,071,538	Body	S_Shore	HEY2	0.669	-0.002	0.018	0.131
cg01075805	black	15	60,298,519		Island		0.669	0.001	0.019	0.384
cg12852187	black	2	231,903,372	Body	S_Shore	C2orf72	0.669	0.005	0.069	0.317
cg02094252	black	10	102,807,849		Island		0.669	0.001	0.035	0.685
cg14993491	black	1	55,504,971	TSS1500	N_Shore	PCSK9	0.669	-0.001	0.038	0.775
cg17346952	black	12	57,630,107	Body	Island	NDUFA4L2	0.669	0.003	0.113	0.699
cg23072008	black	19	38,916,738	1stExon	OpenSea	RASGRP4	0.669	0.001	0.164	0.877
cg04326198	black	14	36,994,456		Island		0.669	0.000	0.026	0.905
cg03766998	black	18	12,378,044	TSS1500	S_Shore	AFG3L2	0.668	0.001	0.025	0.259
cg06968912	black	17	40,573,643	Body	N_Shore	PTRF	0.668	-0.003	0.043	0.267
cg10286983	black	6	24,494,717	TSS1500	Island	ALDH5A1	0.668	-0.003	0.038	0.081
cg12470011	black	1	205,473,662	TSS200	N_Shore	CDK18	0.668	0.000	0.027	0.743
cg13522882	black	2	102,316,496	Body	S_Shelf	MAP4K4	0.668	-0.001	0.026	0.656
cg01627483	black	1	32,708,341	TSS1500	S_Shore	MTMR9L	0.668	0.000	0.022	0.920
cg20038116	black	10	131,697,711	Body	S_Shore	EBF3	0.668	0.002	0.265	0.831
cg19614321	black	20	4,804,581	TSS1500	S_Shore	RASSF2	0.668	0.001	0.079	0.847
cg16310077	black	14	105,554,214		Island		0.668	-0.001	0.026	0.342
cg17173663	black	12	115,135,859		N_Shore		0.668	-0.003	0.038	0.265
cg26272443	black	19	41,083,341	Body	Island	SHKBP1	0.668	0.001	0.032	0.782
cg26681847	black	11	120,208,749	Body	S_Shore	ARHGEF12	0.668	0.001	0.060	0.777
cg16657448	black	1	47,902,371	1stExon	N_Shore	FOXO2	0.668	0.000	0.027	0.944
cg22196260	black	19	50,936,172	1stExon	S_Shore	MYBPC2	0.668	0.001	0.028	0.460
cg24700462	black	13	112,716,896		N_Shore		0.668	0.001	0.103	0.896
cg25330029	black	8	1,900,191	Body	OpenSea	ARHGEF10	0.668	-0.006	0.671	0.394
cg24893073	black	17	7,742,126	TSS1500	N_Shelf	KDM6B	0.668	-0.005	0.067	0.149
cg17616283	black	11	65,635,258	Body	OpenSea	EFEMP2	0.668	-0.001	0.070	0.757
cg03946671	black	20	62,693,973	TSS200	Island	TCEA2	0.668	0.024	0.211	0.149
cg17616646	black	11	67,271,660	5'UTR	Island	PITPNM1	0.668	-0.001	0.036	0.413
cg27203184	black	7	100,081,966	5'UTR	S_Shore	C7orf51	0.668	-0.001	0.041	0.528
cg25476766	black	13	112,724,454	1stExon	N_Shore	SOX1	0.668	0.000	0.019	0.989
cg01636582	black	11	844,593	5'UTR	S_Shore	TSPAN4	0.668	0.000	0.033	0.875
cg01486262	black	1	50,893,067		Island		0.668	-0.001	0.067	0.691
cg08910558	black	15	75,471,194		Island		0.668	-0.001	0.032	0.401
cg22533683	black	17	29,887,049	Body	Island	MIR193A	0.668	-0.010	0.139	0.106
cg04945541	black	17	43,299,826	Body	S_Shore	FMNL1	0.668	-0.001	0.050	0.708
cg19753867	black	20	35,383,166	Body	OpenSea	DSN1	0.668	-0.002	0.045	0.415
cg15188574	black	11	124,709,084		N_Shore		0.668	0.000	0.022	0.794
cg13033898	black	6	151,561,055	TSS200	N_Shore	AKAP12	0.668	0.001	0.041	0.866
cg00027674	black	11	87,908,897	TSS1500	S_Shore	RAB38	0.668	0.000	0.024	0.989
cg00996758	black	3	137,486,536		N_Shore		0.668	0.001	0.023	0.662
cg17681750	black	11	63,768,665	Body	Island	MACROD1	0.668	0.003	0.407	0.630
cg18962237	black	2	119,606,501	TSS1500	N_Shore	EN1	0.668	0.000	0.052	0.929
cg07849384	black	2	66,659,536		N_Shore		0.668	0.002	0.044	0.645
cg10021122	black	1	117,610,620	Body	OpenSea	TTF2	0.668	0.003	0.117	0.461
cg23453353	black	17	29,887,767		S_Shore		0.668	0.002	0.317	0.820
cg24712249	black	1	155,830,294	Body	Island	SYT11	0.668	-0.002	0.027	0.150
cg07570498	black	1	33,813,321	5'UTR	N_Shore	PHC2	0.668	0.000	0.110	0.976
cg22735105	black	20	62,423,401	5'UTR	S_Shore	ZBTB46	0.668	-0.016	0.459	0.245
cg17468773	black	8	143,591,568	Body	Island	BAI1	0.668	0.000	0.028	0.959
cg02622852	black	11	57,016,682		OpenSea		0.667	-0.003	0.028	0.050

cg23345300	black	2	177,000,621		N_Shore		0.667	0.001	0.044	0.757
cg06156376	black	3	157,823,814	1stExon	Island	SHOX2	0.667	-0.003	0.046	0.152
cg02832224	black	1	54,825,291	Body	S_Shelf	SSBP3	0.667	0.002	0.130	0.679
cg01764904	black	15	60,289,326		Island		0.667	0.000	0.058	0.971
cg15617545	black	11	57,365,018	TSS1500	OpenSea	SERPING1	0.667	-0.005	0.294	0.536
cg13916459	black	12	85,673,221	TSS1500	N_Shore	ALX1	0.667	-0.005	0.112	0.550
cg12620743	black	5	87,969,299	TSS200	N_Shore	LOC645323	0.667	0.002	0.029	0.184
cg04015907	black	20	825,489	Body	Island	FAM110A	0.667	0.004	0.042	0.093
cg20977864	black	16	71,264,290	5'UTR	N_Shore	HYDIN	0.667	0.004	0.238	0.567
cg24104611	black	22	45,637,132	TSS1500	S_Shore	C22orf9	0.667	-0.001	0.024	0.436
cg24342013	black	13	48,891,544	Body	Island	RB1	0.667	0.000	0.711	0.995
cg19266578	black	20	62,711,729	TSS1500	Island	RGS19	0.667	0.000	0.058	0.978
cg06394255	black	11	9,024,649	Body	N_Shore	NRIP3	0.667	-0.008	0.076	0.128
cg19940183	black	15	57,883,962	TSS200	N_Shore	GCOM1	0.667	-0.002	0.030	0.221
cg08145723	black	11	130,029,478	TSS1500	N_Shore	ST14	0.667	0.000	0.049	0.947
cg00194374	black	1	226,890,928	Body	N_Shore	ITPKB	0.667	-0.002	0.034	0.135
cg15324651	black	6	137,816,620	TSS1500	Island	OLIG3	0.667	-0.005	0.046	0.050
cg02019072	black	2	182,521,926	TSS200	Island	CERKL	0.667	0.000	0.016	0.594
cg03434029	black	1	45,274,048	TSS1500	S_Shore	TCTEX1D4	0.667	0.000	0.027	0.934
cg24879882	black	7	150,863,969	Body	Island	GBX1	0.667	-0.005	0.071	0.355
cg20615344	black	17	43,463,117		OpenSea		0.667	0.001	0.019	0.423
cg11045303	black	14	53,258,590	TSS1500	S_Shore	GNPNAT1	0.667	0.000	0.026	0.816
cg04636269	black	17	35,300,868		Island		0.667	-0.003	0.039	0.223
cg00583001	black	8	102,093,477		S_Shore		0.667	-0.001	0.039	0.463
cg19883813	black	10	8,098,005	Body	Island	GATA3	0.667	-0.002	0.041	0.485
cg20553394	black	11	64,879,336	TSS200	Island	TM7SF2	0.667	0.001	0.063	0.767
cg10702770	black	1	39,283,780		Island		0.667	0.000	0.048	0.986
cg21072795	black	12	54,920,931	Body	OpenSea	NCKAP1L	0.667	0.000	0.019	0.716
cg25520910	black	2	114,576,197		OpenSea		0.667	-0.001	0.022	0.727
cg23460950	black	8	27,472,513	TSS200	Island	CLU	0.666	-0.002	0.035	0.353
cg07142377	black	2	20,335,552		OpenSea		0.666	0.000	0.037	0.836
cg26256793	black	1	103,574,469	TSS1500	OpenSea	COL11A1	0.666	0.001	0.033	0.573
cg01382072	black	16	86,787,277		OpenSea		0.666	-0.018	0.279	0.141
cg04666027	black	15	74,583,589	Body	OpenSea	CCDC33	0.666	-0.001	0.049	0.727
cg00801512	black	17	28,996,047		OpenSea		0.666	0.002	0.028	0.217
cg17775091	black	2	66,654,137		Island		0.666	0.004	0.112	0.816
cg25207248	black	1	110,672,912		Island		0.666	-0.002	0.055	0.530
cg25741368	black	19	42,906,601	Body	S_Shore	LIPE	0.666	-0.003	0.172	0.617
cg07315234	black	2	105,489,264		Island		0.666	0.000	0.025	0.823
cg02303747	black	14	60,794,963		S_Shore		0.666	-0.021	0.313	0.094
cg15085603	black	19	49,250,252	TSS200	N_Shelf	IZUMO1	0.666	0.000	0.028	0.991
cg02843201	black	16	22,103,596	TSS1500	OpenSea	VWA3A	0.666	0.002	0.143	0.569
cg01888566	black	7	130,126,513	5'UTR	Island	MEST	0.666	-0.007	0.128	0.658
cg11194994	black	1	160,175,974	5'UTR	S_Shore	PEA15	0.666	-0.001	0.048	0.653
cg26293434	black	2	217,384,123		OpenSea		0.666	0.002	0.057	0.582
cg06077079	black	2	232,527,265		Island		0.666	-0.007	0.072	0.140
cg11837267	black	14	24,898,889	TSS1500	Island	KHNYN	0.666	-0.002	0.125	0.571
cg23236370	black	5	33,892,705	TSS1500	S_Shore	ADAMTS12	0.666	0.000	0.058	0.983
cg17865114	black	16	3,067,759	5'UTR	Island	CLDN6	0.666	0.002	0.115	0.713
cg04759982	black	9	117,265,427	Body	N_Shore	DFNB31	0.666	-0.003	0.231	0.526
cg07007152	black	7	155,601,965	Body	Island	SHH	0.666	-0.001	0.030	0.291
cg12408295	black	20	42,286,743		S_Shore		0.666	0.003	0.030	0.109
cg14073497	black	11	68,611,479		Island		0.666	0.004	0.032	0.083
cg01634141	black	6	6,321,052	TSS200	OpenSea	F13A1	0.666	-0.004	0.069	0.233
cg20624391	black	6	105,584,149	5'UTR	Island	BVES	0.666	0.000	0.014	0.819
cg08573295	black	12	70,758,965	TSS1500	N_Shore	KCNMB4	0.666	0.002	0.039	0.584
cg22886575	black	10	124,910,040	3'UTR	Island	HMX2	0.666	0.008	0.082	0.191
cg23771366	black	11	86,510,998	TSS1500	N_Shore	PRSS23	0.666	-0.002	0.276	0.759
cg04767484	black	15	76,629,104	TSS200	Island	ISL2	0.665	-0.002	0.033	0.121
cg06544111	black	7	27,281,344	TSS1500	N_Shore	EVX1	0.665	0.000	0.027	0.802
cg20406267	black	11	34,377,921	Body	N_Shore	ABTB2	0.665	0.001	0.034	0.799
cg15353597	black	2	102,313,163	TSS1500	N_Shore	MAP4K4	0.665	-0.002	0.093	0.743
cg07572790	black	17	37,754,424		S_Shore		0.665	-0.001	0.032	0.546
cg19223579	black	10	115,370,894	Body	OpenSea	NRAP	0.665	-0.001	0.019	0.314
cg07274694	black	16	86,860,801		OpenSea		0.665	0.002	0.205	0.753
cg11853267	black	14	103,607,856		S_Shelf		0.665	0.001	0.117	0.833
cg25216634	black	17	202,588	TSS200	N_Shelf	RPH3AL	0.665	0.000	0.041	0.866

cg07404921	black	1	75,600,250	Body	N_Shore	LHX8	0.665	0.000	0.019	0.683
cg07993743	black	17	44,928,288	TSS1500	Island	WNT9B	0.665	0.000	0.087	0.931
cg23260525	black	10	116,636,907	Body	OpenSea	FAM160B1	0.665	0.000	0.041	0.901
cg21245981	black	5	36,607,390	TSS1500	OpenSea	SLC1A3	0.665	0.000	0.021	0.790
cg16530881	black	17	38,708,399		OpenSea		0.665	-0.001	0.339	0.904
cg24472375	black	6	108,485,102		N_Shore		0.665	0.001	0.041	0.788
cg26472441	black	20	37,302,712		N_Shore		0.665	0.001	0.025	0.661
cg19321018	black	12	15,942,969	TSS1500	S_Shore	EPS8	0.665	0.005	0.082	0.276
cg26815395	black	1	180,485,043		OpenSea		0.665	0.010	0.216	0.054
cg24185864	black	8	9,762,057	TSS1500	N_Shore	MIR124-1	0.665	0.000	0.029	0.887
cg19853565	black	19	2,540,907	5'UTR	Island	GGG7	0.665	-0.007	0.061	0.207
cg08971771	black	17	48,049,979	TSS200	Island	DLX4	0.665	-0.004	0.026	0.079
cg22360649	black	11	65,657,733	TSS200	N_Shore	CCDC85B	0.665	-0.006	0.105	0.300
cg26590744	black	2	177,017,389	Body	Island	HOXD4	0.665	-0.001	0.033	0.471
cg19715557	black	14	61,114,755	Body	Island	SIX1	0.665	0.000	0.044	0.859
cg22441310	black	2	63,277,222	TSS1500	Island	OTX1	0.665	-0.002	0.018	0.056
cg05131334	black	15	77,924,569	Body	Island	LINGO1	0.665	-0.011	0.076	0.043
cg09550809	black	5	78,407,562	TSS200	OpenSea	BHMT	0.664	0.001	0.032	0.470
cg03700131	black	5	32,443,543	Body	N_Shore	ZFR	0.664	0.003	0.044	0.248
cg25905052	black	17	16,945,298	TSS1500	N_Shore	MPRIIP	0.664	0.001	0.028	0.275
cg23845889	black	8	17,270,608	Body	Island	MTMR7	0.664	-0.005	0.064	0.342
cg02169391	black	7	130,126,176	1stExon	Island	MEST	0.664	0.000	0.130	0.972
cg07168556	black	17	48,912,483	TSS200	OpenSea	WFIKKN2	0.664	-0.001	0.060	0.793
cg15106134	black	3	181,428,466	Body	N_Shore	SOX2OT	0.664	-0.002	0.034	0.331
cg05635036	black	12	110,149,962		N_Shore		0.664	-0.002	0.155	0.619
cg23031493	black	12	113,902,799	Body	Island	LHX5	0.664	0.000	0.031	0.955
cg09406989	black	16	68,772,469	Body	S_Shore	CDH1	0.664	-0.001	0.052	0.825
cg18502617	black	11	64,067,409	TSS1500	Island	C11orf20	0.664	-0.002	0.048	0.420
cg14042396	black	2	16,153,454		N_Shore		0.664	-0.003	0.046	0.263
cg08786829	black	7	41,739,801	Body	OpenSea	LOC285954	0.664	-0.002	0.030	0.280
cg05800416	black	8	19,460,097	TSS200	Island	CSGALNACT1	0.664	-0.003	0.058	0.632
cg14553881	black	17	79,361,650		Island		0.664	0.000	0.032	0.804
cg13914004	black	9	130,659,670	Body	N_Shore	ST6GALNAC6	0.664	0.001	0.028	0.461
cg18229422	black	2	176,958,552	Body	S_Shore	HOXD13	0.664	-0.001	0.019	0.335
cg15487620	black	1	160,084,833	TSS1500	OpenSea	ATP1A2	0.664	0.000	0.344	0.974
cg18902742	black	3	62,358,610	5'UTR	Island	FEZF2	0.664	0.001	0.031	0.311
cg14427233	black	2	37,551,081		N_Shore		0.664	0.000	0.016	0.506
cg13576669	black	14	77,519,601		OpenSea		0.664	-0.012	0.120	0.141
cg07082186	black	3	182,697,250	Body	N_Shore	DCUN1D1	0.664	0.000	0.035	0.996
cg06547490	black	10	134,222,053	3'UTR	S_Shelf	PWWP2B	0.664	0.004	0.107	0.697
cg20994254	black	7	27,227,340	Body	N_Shore	HOXA11AS	0.664	0.001	0.029	0.355
cg21524899	black	1	225,662,606		N_Shore		0.664	0.002	0.088	0.767
cg02614428	black	10	78,841,417	Body	OpenSea	KCNMA1	0.663	0.003	0.247	0.564
cg01686739	black	12	107,855,547	Body	OpenSea	BTBD11	0.663	0.010	0.338	0.078
cg19184897	black	12	58,282,506		OpenSea		0.663	-0.002	0.073	0.714
cg02380595	black	16	85,160,569		S_Shelf		0.663	-0.001	0.029	0.670
cg01348293	black	7	27,260,113		Island		0.663	0.001	0.034	0.734
cg11077561	black	3	197,026,019	TSS1500	Island	DLG1	0.663	-0.001	0.017	0.338
cg15167044	black	6	100,039,413		Island		0.663	0.002	0.025	0.201
cg20738500	black	15	89,921,156	TSS200	Island	LOC254559	0.663	-0.001	0.024	0.239
cg06047189	black	14	102,983,855		Island		0.663	0.001	0.044	0.796
cg03470772	black	4	85,503,328	TSS1500	N_Shore	CDS1	0.663	0.002	0.034	0.205
cg27235148	black	11	45,376,932		Island		0.663	0.000	0.026	0.868
cg01340312	black	6	30,687,511	TSS1500	N_Shore	TUBB	0.663	0.000	0.029	0.915
cg11045524	black	9	133,320,781	5'UTR	Island	ASS1	0.663	0.002	0.036	0.348
cg02991571	black	13	28,501,126		N_Shore		0.663	-0.001	0.025	0.420
cg04327538	black	10	126,136,929	Body	Island	NKX1-2	0.663	0.002	0.061	0.509
cg23051559	black	11	119,015,827		N_Shelf		0.663	0.000	0.027	0.731
cg10121601	black	1	47,698,126		Island		0.663	-0.002	0.026	0.107
cg14901671	black	17	70,589,079		Island		0.663	-0.001	0.082	0.578
cg01984304	black	1	91,191,813		Island		0.662	0.000	0.013	0.911
cg16509978	black	11	67,121,607	Body	S_Shore	LOC10013091	0.662	-0.001	0.034	0.667
cg04052706	black	16	72,981,543	Body	OpenSea	ZFH3	0.662	0.000	0.186	0.947
cg23933618	black	11	31,837,250	5'UTR	Island	PAX6	0.662	0.000	0.014	0.899
cg22292345	black	3	47,051,533	TSS1500	Island	LOC10012931	0.662	0.001	0.053	0.882
cg17282395	black	2	172,974,014		S_Shore		0.662	-0.004	0.044	0.179
cg00826203	black	1	41,706,807	5'UTR	N_Shore	SCMH1	0.662	-0.002	0.036	0.484

cg24069479	black	1	41,861,108	OpenSea		0.662	0.000	0.020	0.686
cg09700701	black	11	65,816,819 TSS200	S_Shore	GAL3ST3	0.662	-0.003	0.054	0.343
cg21304158	black	2	241,937,034 TSS1500	N_Shore	SNED1	0.662	-0.005	0.293	0.441
cg22766145	black	8	65,492,528 TSS1500	N_Shore	BHLHE22	0.662	0.001	0.024	0.511
cg17303833	black	10	97,889,448 TSS200	N_Shore	ZNF518A	0.662	-0.006	0.108	0.218
cg25952581	black	7	27,170,961 TSS1500	S_Shore	HOXA4	0.662	-0.001	0.039	0.737
cg12158889	black	2	84,663,044 Body	OpenSea	SUCLG1	0.662	0.001	0.070	0.848
cg02402637	black	2	43,054,840	Island		0.662	-0.003	0.038	0.103
cg00434010	black	6	100,903,691 Body	Island	SIM1	0.662	-0.001	0.026	0.431
cg24701575	black	11	31,845,389	N_Shore		0.662	-0.003	0.055	0.451
cg19488093	black	7	134,576,255 Body	OpenSea	CALD1	0.662	0.000	0.025	0.970
cg21942490	black	7	27,206,237 TSS1500	Island	HOXA9	0.662	0.000	0.044	0.928
cg07897048	black	6	41,755,086 3'UTR	Island	PRICKLE4	0.662	-0.001	0.047	0.457
cg21870662	black	17	2,241,570 Body	S_Shore	SGSM2	0.661	-0.002	0.080	0.722
cg09404551	black	8	121,136,951 TSS1500	N_Shore	COL14A1	0.661	-0.001	0.021	0.412
cg00222799	black	21	43,655,464 Body	Island	ABCG1	0.661	-0.006	0.241	0.252
cg00651488	black	16	85,236,465	OpenSea		0.661	0.001	0.388	0.893
cg17791651	black	1	38,513,489 TSS1500	Island	POU3F1	0.661	-0.002	0.049	0.456
cg26833602	black	9	95,821,549 Body	S_Shore	SUSD3	0.661	0.002	0.159	0.741
cg09820150	black	5	87,985,219	N_Shore		0.661	0.002	0.023	0.034
cg26668430	black	6	69,346,248 5'UTR	S_Shore	BAI3	0.661	-0.001	0.034	0.586
cg16779839	black	17	79,374,327 Body	Island	BAHCC1	0.661	0.000	0.050	0.892
cg25912911	black	12	20,523,121 1stExon	Island	PDE3A	0.661	0.002	0.026	0.191
cg10893278	black	12	54,377,225	N_Shore		0.661	0.005	0.050	0.253
cg00929635	black	20	44,035,918 5'UTR	Island	DBNDD2	0.661	-0.002	0.029	0.552
cg18879590	black	1	236,306,640 Body	Island	GPR137B	0.661	0.000	0.027	0.929
cg15254238	black	10	70,321,874 5'UTR	S_Shore	TET1	0.661	0.000	0.017	0.983
cg00489660	black	11	57,089,821 5'UTR	N_Shore	TNKS1BP1	0.661	-0.004	0.033	0.188
cg07141055	black	16	84,328,127 TSS1500	N_Shore	WFDC1	0.661	0.000	0.123	0.957
cg06687848	black	10	118,547,556	N_Shore		0.661	-0.002	0.043	0.284
cg12548634	black	1	44,884,109 Body	Island	RNF220	0.661	0.001	0.022	0.304
cg22383888	black	3	27,764,816 TSS1500	N_Shore	EOMES	0.661	-0.002	0.025	0.142
cg25685262	black	13	28,493,316 TSS1500	N_Shore	PDX1	0.661	0.001	0.047	0.742
cg02825887	black	9	34,591,041 TSS1500	Island	CNTFR	0.661	-0.001	0.378	0.911
cg21876964	black	22	36,851,623	S_Shore		0.661	-0.003	0.272	0.652
cg25590114	black	11	1,661,201 Body	OpenSea	HCCA2	0.661	-0.001	0.177	0.964
cg08305575	black	5	158,018,481	OpenSea		0.661	0.000	0.035	0.894
cg24136754	black	22	37,403,978 TSS200	OpenSea	C22orf33	0.661	0.001	0.154	0.887
cg04563438	black	8	42,065,244 TSS200	OpenSea	PLAT	0.661	-0.002	0.034	0.141
cg21037008	black	6	32,119,939 TSS1500	N_Shore	PRRT1	0.661	0.004	0.087	0.569
cg08134301	black	20	46,415,506 TSS200	Island	SULF2	0.661	-0.002	0.042	0.311
cg06699519	black	11	2,398,327 TSS1500	Island	CD81	0.661	0.002	0.033	0.180
cg25698741	black	10	120,006,292	OpenSea		0.661	-0.003	0.179	0.770
cg23845450	black	1	75,597,887 Body	S_Shore	LHX8	0.661	0.002	0.020	0.099
cg18638496	black	4	81,187,198 TSS1500	N_Shore	FGF5	0.661	0.000	0.016	0.707
cg23687149	black	20	19,739,422	Island		0.661	0.000	0.020	0.792
cg08035234	black	1	62,107,430	OpenSea		0.661	0.001	0.068	0.810
cg12793610	black	4	154,125,637 5'UTR	OpenSea	TRIM2	0.661	-0.002	0.028	0.261
cg10361167	black	11	69,626,349 Body	S_Shore	FGF3	0.661	-0.004	0.191	0.569
cg23699274	black	12	40,618,284 TSS1500	N_Shore	LRRK2	0.661	-0.001	0.027	0.440
cg13476072	black	1	149,908,313 Body	OpenSea	MTMR11	0.661	-0.002	0.020	0.259
cg06232807	black	16	51,185,132 TSS1500	Island	SALL1	0.661	0.000	0.030	0.998
cg21420366	black	1	115,880,072 5'UTR	N_Shore	NGF	0.661	-0.002	0.105	0.749
cg13695646	black	5	78,407,509 TSS200	OpenSea	BHMT	0.661	0.001	0.060	0.803
cg05401965	black	4	134,070,039 TSS1500	Island	PCDH10	0.660	0.001	0.026	0.501
cg08649201	black	6	6,004,464 Body	Island	NRN1	0.660	-0.001	0.027	0.399
cg26086468	black	18	5,628,160	N_Shore		0.660	-0.002	0.032	0.333
cg06152926	black	6	43,057,827 Body	OpenSea	PTK7	0.660	0.003	0.313	0.591
cg09317884	black	1	165,204,512 Body	Island	LMX1A	0.660	-0.001	0.029	0.573
cg13577505	black	22	50,706,248 Body	Island	MAPK11	0.660	0.001	0.015	0.314
cg08462988	black	3	147,087,225	OpenSea		0.660	-0.002	0.042	0.323
cg16821992	black	8	116,679,935 5'UTR	Island	TRPS1	0.660	0.000	0.020	0.840
cg07809589	black	2	66,664,535 Body	S_Shelf	MEIS1	0.660	0.004	0.054	0.358
cg01361351	black	22	29,467,363	Island		0.660	0.003	0.041	0.260
cg17101450	black	10	102,900,365	S_Shore		0.660	0.000	0.021	0.784
cg07883622	black	12	62,998,134 TSS1500	S_Shore	C12orf61	0.660	-0.001	0.019	0.621
cg13066016	black	1	63,786,083	Island		0.660	-0.003	0.040	0.070

cg18093866	black	6	30,851,753	TSS200	N_Shore	DDR1	0.660	0.003	0.242	0.679
cg22501342	black	6	37,322,729	Body	S_Shore	RNF8	0.660	0.002	0.043	0.422
cg07589612	black	8	97,171,668	Body	N_Shore	GDF6	0.660	-0.001	0.029	0.546
cg16265553	black	1	226,911,669	Body	OpenSea	ITPKB	0.660	-0.002	0.097	0.743
cg21785067	black	1	54,587,182		N_Shore		0.660	-0.010	0.084	0.017
cg08559772	black	13	28,518,317	TSS1500	OpenSea	ATP5EP2	0.660	-0.005	0.065	0.316
cg05897638	black	3	93,692,952	TSS200	S_Shore	PROS1	0.660	0.003	0.062	0.387
cg07733481	black	3	122,694,286	5'UTR	OpenSea	SEMA5B	0.660	0.000	0.022	0.768
cg20442573	black	17	47,575,315	Body	Island	NGFR	0.660	-0.001	0.047	0.618
cg22641093	black	19	17,536,024	3'UTR	OpenSea	FAM125A	0.660	-0.001	0.055	0.797
cg21364077	black	6	41,394,456		N_Shore		0.660	-0.004	0.056	0.371
cg25658463	black	19	14,543,048	TSS1500	Island	PKN1	0.660	-0.008	0.088	0.171
cg15539944	black	12	58,129,407	Body	N_Shore	AGAP2	0.660	0.000	0.037	0.992
cg00252615	black	5	160,976,283	TSS1500	S_Shore	GABRB2	0.660	-0.001	0.029	0.367
cg20923619	black	2	223,167,280	5'UTR	Island	CCDC140	0.660	0.000	0.023	0.834
cg06752482	black	17	58,499,816	TSS200	S_Shore	C17orf64	0.660	0.007	0.594	0.336
cg25702780	black	3	169,376,298	Body	N_Shelf	MECOM	0.659	-0.002	0.026	0.262
cg10381455	black	12	52,241,817		Island		0.659	0.000	0.020	0.961
cg00153106	black	5	172,671,561		Island		0.659	-0.001	0.032	0.513
cg17078253	black	2	176,944,273		Island		0.659	0.000	0.031	0.842
cg10005224	black	12	54,424,964	5'UTR	Island	HOXC4	0.659	0.003	0.057	0.481
cg01234610	black	17	48,912,265	TSS1500	OpenSea	WFIKN2	0.659	-0.006	0.048	0.081
cg15707428	black	2	11,679,845	TSS1500	OpenSea	GREB1	0.659	0.014	0.253	0.161
cg23849826	black	15	39,872,186	TSS1500	N_Shore	THBS1	0.659	0.000	0.024	0.840
cg06204638	black	18	12,656,910	TSS200	N_Shore	SPIRE1	0.659	0.000	0.018	0.734
cg17879189	black	6	100,054,469	TSS200	N_Shore	PRDM13	0.659	-0.004	0.052	0.267
cg00836662	black	7	100,844,445	TSS200	N_Shore	MOGAT3	0.659	0.000	0.068	0.955
cg00458965	black	17	35,297,309	Body	Island	LHX1	0.659	-0.001	0.022	0.602
cg04270799	black	12	57,944,059	1stExon	S_Shore	KIF5A	0.659	-0.002	0.041	0.460
cg10256477	black	12	49,934,029	Body	S_Shore	KCNH3	0.659	0.003	0.220	0.736
cg09072870	black	20	49,346,996	TSS1500	N_Shore	PAR6B	0.659	-0.002	0.036	0.329
cg09276883	black	1	210,501,966	TSS1500	N_Shore	HHAT	0.659	0.000	0.069	0.894
cg12929983	black	15	40,399,004	TSS1500	N_Shelf	BMF	0.659	-0.003	0.166	0.768
cg07056962	black	6	99,962,757	1stExon	N_Shore	USP45	0.659	0.000	0.020	0.850
cg13439730	black	16	31,146,999	1stExon	OpenSea	PRSS8	0.659	0.006	0.257	0.314
cg13862711	black	9	124,989,915	Body	Island	LHX6	0.659	0.000	0.031	0.941
cg13790796	black	1	43,424,660	1stExon	Island	SLC2A1	0.659	0.001	0.023	0.642
cg26937148	black	5	92,919,647	1stExon	Island	NR2F1	0.659	0.000	0.017	0.924
cg23035209	black	5	72,795,181	Body	S_Shore	BTF3	0.659	-0.004	0.047	0.090
cg05798720	black	18	24,235,718		Island		0.659	0.001	0.031	0.511
cg07464201	black	14	75,422,611	TSS1500	S_Shore	PGF	0.659	-0.008	0.061	0.007
cg22777724	black	17	46,622,516	TSS200	S_Shore	HOXB2	0.659	0.000	0.033	0.960
cg26477576	black	10	89,419,292	TSS200	N_Shore	PAPSS2	0.659	-0.002	0.027	0.090
cg22794304	black	5	169,734,762		OpenSea		0.658	0.004	0.302	0.472
cg15028756	black	12	7,343,000	Body	S_Shore	PEX5	0.658	-0.003	0.047	0.321
cg03735916	black	2	200,715,285		N_Shore		0.658	-0.001	0.030	0.406
cg25123895	black	2	21,267,113	TSS200	S_Shore	APOB	0.658	0.007	0.423	0.518
cg14039306	black	4	4,862,240	Body	Island	MSX1	0.658	-0.002	0.036	0.404
cg24128066	black	10	18,689,503	Body	OpenSea	CACNB2	0.658	0.000	0.011	0.804
cg18110535	black	18	3,012,413	TSS1500	N_Shore	LPIN2	0.658	0.000	0.028	0.927
cg24497836	black	15	48,470,678	TSS200	S_Shore	MYEF2	0.658	-0.002	0.039	0.292
cg10077672	black	22	42,063,028		S_Shore		0.658	-0.002	0.069	0.696
cg04863892	black	7	27,183,375	TSS200	Island	HOXA5	0.658	0.000	0.018	0.692
cg08189801	black	17	46,670,610	Body	Island	LOC404266	0.658	0.002	0.032	0.274
cg07138399	black	1	200,272,215		S_Shore		0.658	0.007	0.143	0.303
cg01441497	black	3	167,968,476	Body	S_Shore	C3orf50	0.658	0.001	0.028	0.656
cg27013696	black	7	19,158,030	TSS1500	Island	TWIST1	0.658	-0.003	0.139	0.613
cg13212382	black	3	44,597,491	5'UTR	S_Shore	ZNF167	0.658	0.003	0.036	0.205
cg12163952	black	2	201,983,233	5'UTR	Island	CFLAR	0.658	0.000	0.017	0.806
cg00311984	black	8	145,051,668	TSS1500	Island	PLEC1	0.658	0.008	0.102	0.281
cg25328184	black	5	110,406,414	TSS1500	N_Shelf	TSLP	0.658	0.003	0.019	0.083
cg26184741	black	3	9,291,739	TSS1500	OpenSea	SRGAP3	0.658	-0.003	0.212	0.579
cg00845765	black	8	145,700,821	Body	Island	FOXH1	0.658	-0.001	0.028	0.479
cg24083746	black	19	45,826,152	TSS200	N_Shore	CKM	0.658	0.000	0.251	0.981
cg15232798	black	5	167,719,548	Body	Island	WWC1	0.658	0.000	0.039	0.813
cg03761477	black	6	41,472,416		N_Shore		0.658	-0.015	0.238	0.026
cg13606592	black	7	121,895,636		OpenSea		0.658	0.004	0.102	0.420



cg04768501	black	3	9,956,823	Body	Island	IL17RE	0.658	-0.003	0.034	0.199
cg06427779	black	5	54,180,079		Island		0.658	0.000	0.087	0.918
cg25100871	black	3	52,039,819		OpenSea		0.658	-0.004	0.055	0.263
cg22426627	black	4	88,928,481	TSS1500	Island	PKD2	0.658	-0.002	0.022	0.272
cg24844000	black	17	58,228,344	Body	Island	CA4	0.657	-0.004	0.064	0.230
cg00539386	black	20	3,662,512	Body	Island	ADAM33	0.657	0.000	0.022	0.962
cg16725094	black	2	7,057,153	TSS1500	N_Shore	RNF144A	0.657	0.005	0.099	0.400
cg07056567	black	7	100,273,943	Body	Island	GNB2	0.657	-0.004	0.049	0.439
cg24852661	black	9	88,715,131	TSS1500	S_Shore	GOLM1	0.657	-0.001	0.040	0.847
cg09474442	black	2	120,189,867	Body	N_Shore	TMEM37	0.657	-0.001	0.054	0.786
cg19306380	black	1	228,463,260	Body	Island	OBSCN	0.657	0.000	0.019	0.825
cg01517680	black	16	49,499,006		Island		0.657	0.003	0.027	0.319
cg03329539	black	2	233,283,329		N_Shore		0.657	-0.002	0.047	0.505
cg04557452	black	11	62,691,251		Island		0.657	0.002	0.017	0.149
cg05980200	black	2	137,181,418		S_Shore		0.657	-0.002	0.046	0.406
cg05617469	black	13	100,624,281	TSS200	Island	ZIC5	0.657	0.000	0.049	0.859
cg06540458	black	1	226,951,747		OpenSea		0.657	0.001	0.101	0.843
cg27221334	black	3	79,068,813	TSS1500	S_Shore	ROBO1	0.657	0.001	0.032	0.620
cg07619142	black	11	44,971,049	5'UTR	Island	TP53I11	0.657	0.000	0.058	0.940
cg24535910	black	4	164,253,470	5'UTR	Island	NPY1R	0.657	0.000	0.023	0.880
cg23598080	black	1	180,204,499	Body	Island	LHX4	0.657	0.000	0.025	0.822
cg17255752	black	3	147,073,044		OpenSea		0.657	0.000	0.028	0.863
cg14940165	black	2	177,021,702		N_Shelf		0.657	0.000	0.026	0.939
cg16871828	black	1	145,474,701	Body	Island	ANKRD34A	0.657	0.000	0.038	0.930
cg06345789	black	17	43,325,791	Body	S_Shore	LOC1001339	0.657	-0.001	0.064	0.846
cg16970232	black	5	112,073,433	TSS200	OpenSea	APC	0.657	0.003	0.029	0.268
cg26288502	black	8	10,421,582		OpenSea		0.657	-0.004	0.050	0.121
cg10983208	black	10	73,848,320	5'UTR	S_Shore	SPOCK2	0.657	0.001	0.044	0.725
cg23437459	black	10	124,907,457	TSS200	Island	HMX2	0.657	-0.001	0.037	0.470
cg00189101	black	2	242,088,304	5'UTR	N_Shore	PASK	0.657	-0.003	0.039	0.061
cg08490768	black	2	74,730,047	1stExon	Island	LBX2	0.657	-0.002	0.055	0.390
cg17921412	black	5	5,495,287		Island		0.657	-0.008	0.176	0.213
cg16643589	black	16	23,765,810	TSS200	N_Shore	CHP2	0.657	0.001	0.231	0.809
cg09227144	black	7	73,021,344	Body	N_Shore	MLXIPL	0.657	-0.005	0.142	0.346
cg13932029	black	9	23,824,172	5'UTR	S_Shore	ELAVL2	0.657	-0.001	0.044	0.825
cg26697605	black	7	1,850,801		OpenSea		0.657	0.010	0.405	0.229
cg17299899	black	18	76,738,478		Island		0.657	-0.001	0.031	0.348
cg23740610	black	17	72,257,002	3'UTR	OpenSea	TTYH2	0.656	0.008	0.241	0.293
cg20250722	black	6	26,522,136	Body	Island	HCG11	0.656	0.004	0.055	0.178
cg06375761	black	6	33,280,408	Body	N_Shore	TAPBP	0.656	0.001	0.041	0.668
cg24030587	black	8	122,653,639	TSS200	S_Shore	HAS2	0.656	0.001	0.028	0.607
cg05499148	black	22	30,938,017		Island		0.656	0.002	0.095	0.516
cg22851299	black	21	46,976,340		Island		0.656	0.011	0.377	0.372
cg16117799	black	4	81,106,857	5'UTR	S_Shore	PRDM8	0.656	-0.002	0.035	0.353
cg06873806	black	8	65,492,792	TSS200	N_Shore	BHLHE22	0.656	0.001	0.027	0.699
cg23546474	black	2	223,163,033	Body	Island	PAX3	0.656	0.000	0.022	0.899
cg14405603	black	10	101,768,701	5'UTR	OpenSea	DNMBP	0.656	0.000	0.036	0.915
cg24683680	black	2	176,948,864	TSS200	N_Shore	EVX2	0.656	0.002	0.025	0.288
cg14636658	black	9	124,754,992	Body	OpenSea	TLL11	0.656	0.000	0.034	0.816
cg08891110	black	15	96,952,425		N_Shore		0.656	0.005	0.037	0.050
cg14329157	black	2	228,736,135	TSS200	N_Shore	WDR69	0.656	-0.001	0.029	0.659
cg25657187	black	5	87,969,213	TSS200	N_Shore	LOC645323	0.656	0.000	0.022	0.717
cg13857119	black	1	6,580,308	TSS1500	OpenSea	PLEKHG5	0.656	-0.003	0.045	0.450
cg15227982	black	10	104,535,854	TSS200	OpenSea	C10orf26	0.656	0.001	0.047	0.598
cg02247160	black	3	41,243,829	5'UTR	S_Shelf	CTNNB1	0.656	0.003	0.122	0.563
cg15945287	black	17	53,809,462	1stExon	OpenSea	TMEM100	0.656	-0.005	0.049	0.178
cg05062323	black	7	22,590,069		S_Shore		0.656	-0.002	0.038	0.148
cg13808147	black	3	32,433,055	TSS200	N_Shore	CMTM7	0.656	0.001	0.055	0.725
cg07136054	black	4	74,486,177	1stExon	Island	RASSF6	0.656	-0.007	0.059	0.287
cg05588903	black	16	84,866,150	5'UTR	OpenSea	CRISPLD2	0.656	-0.023	0.222	0.037
cg16196274	black	8	41,169,433		S_Shelf		0.656	0.001	0.169	0.874
cg01194712	black	14	91,643,885	Body	OpenSea	C14orf159	0.656	0.000	0.039	0.954
cg12762029	black	11	119,191,624		Island		0.656	-0.001	0.038	0.461
cg07150445	black	14	29,235,448	TSS1500	Island	FOXG1	0.656	-0.001	0.032	0.523
cg00380860	black	3	28,616,404		N_Shore		0.656	0.001	0.173	0.906
cg09959428	black	11	61,322,107	Body	N_Shore	SYT7	0.656	0.002	0.269	0.642
cg22389137	black	4	113,432,227		Island		0.656	0.001	0.026	0.679

cg07012484	black	1	167,619,748	Body	OpenSea	RCSD1	0.656	-0.002	0.321	0.776
cg13936387	black	19	12,917,143	TSS1500	N_Shore	RNASEH2A	0.656	0.001	0.036	0.565
cg13700939	black	2	128,166,166		Island		0.656	-0.007	0.089	0.212
cg11987645	black	7	21,985,935	TSS1500	S_Shore	CDCA7L	0.656	0.000	0.028	0.968
cg14770958	black	3	111,717,793	1stExon	OpenSea	TAGLN3	0.656	0.000	0.032	0.983
cg20268893	black	2	106,362,547	5'UTR	S_Shore	NCK2	0.655	-0.002	0.048	0.573
cg00017489	black	7	153,583,318	TSS1500	Island	DPP6	0.655	0.000	0.034	0.852
cg13014333	black	6	31,762,776	Body	N_Shore	VAR5	0.655	-0.001	0.020	0.348
cg20065768	black	16	29,796,685		Island		0.655	-0.004	0.058	0.481
cg17820459	black	5	150,400,531	Body	S_Shore	GPX3	0.655	-0.001	0.031	0.385
cg06410191	black	5	115,298,920	1stExon	Island	LVRN	0.655	-0.003	0.084	0.410
cg18875453	black	22	50,517,795	Body	S_Shelf	MLC1	0.655	-0.005	0.126	0.426
cg24433016	black	6	80,713,408	TSS1500	N_Shore	TTK	0.655	-0.001	0.187	0.885
cg25751787	black	11	31,847,880		Island		0.655	-0.001	0.047	0.500
cg07079219	black	11	59,323,318		OpenSea		0.655	0.000	0.031	0.785
cg21575509	black	3	138,658,704		Island		0.655	0.000	0.022	0.844
cg06482716	black	18	47,794,995		Island		0.655	0.003	0.078	0.653
cg00218447	black	12	54,428,171	5'UTR	Island	HOXC4	0.655	0.010	0.172	0.446
cg16851425	black	13	110,437,759	1stExon	Island	IRS2	0.655	0.001	0.024	0.682
cg00769161	black	12	58,130,183	Body	Island	AGAP2	0.655	0.001	0.074	0.891
cg08077673	black	7	130,126,368	5'UTR	Island	MEST	0.655	-0.002	0.194	0.885
cg07915884	black	1	245,474,048	Body	OpenSea	KIF26B	0.655	0.002	0.040	0.412
cg21695661	black	1	63,796,263		S_Shore		0.655	-0.001	0.035	0.787
cg09778596	black	2	162,282,922		N_Shore		0.655	0.005	0.101	0.473
cg06865255	black	6	55,740,182	1stExon	OpenSea	BMP5	0.655	-0.008	0.194	0.505
cg02584756	black	1	43,533,796		N_Shore		0.655	-0.006	0.084	0.271
cg18564686	black	2	10,169,675		OpenSea		0.655	0.001	0.051	0.716
cg20136061	black	3	147,136,586		N_Shore		0.655	-0.001	0.042	0.714
cg18042851	black	5	128,431,096	Body	S_Shore	ISOC1	0.655	-0.001	0.035	0.558
cg23378165	black	17	9,550,256	Body	S_Shore	USP43	0.655	-0.001	0.061	0.847
cg13941669	black	5	156,886,982	TSS200	Island	NIPAL4	0.655	-0.001	0.032	0.407
cg25451249	black	11	19,736,241	TSS200	S_Shore	LOC1001267	0.655	-0.002	0.022	0.090
cg12691620	black	1	53,152,081	3'UTR	OpenSea	C1orf163	0.655	0.000	0.034	0.802
cg25963822	black	7	100,270,831	TSS1500	N_Shore	GNB2	0.655	-0.001	0.030	0.711
cg10264687	black	16	51,147,461		N_Shore		0.655	-0.005	0.047	0.081
cg24537986	black	10	103,114,734	Body	S_Shore	BTRC	0.655	-0.002	0.034	0.198
cg20431250	black	6	108,492,653	Body	S_Shore	NR2E1	0.654	0.001	0.017	0.441
cg13641920	black	9	91,607,073	3'UTR	S_Shore	C9orf47	0.654	-0.001	0.020	0.709
cg06321883	black	6	70,576,541	5'UTR	N_Shore	COL19A1	0.654	0.002	0.034	0.275
cg18709570	black	12	8,172,018		S_Shore		0.654	0.001	0.017	0.500
cg16276108	black	5	180,213,189		OpenSea		0.654	0.006	0.176	0.199
cg05932139	black	16	680,872	TSS200	N_Shore	WFIKKN1	0.654	-0.005	0.122	0.518
cg13318071	black	15	90,319,420	TSS200	N_Shore	MESP2	0.654	-0.005	0.356	0.592
cg23008718	black	2	43,188,851		OpenSea		0.654	0.003	0.385	0.507
cg14073922	black	3	150,805,167	Body	Island	MED12L	0.654	-0.002	0.016	0.185
cg14610403	black	1	66,998,812	TSS1500	Island	SGIP1	0.654	-0.001	0.051	0.720
cg02881158	black	4	154,143,948	Body	Island	TRIM2	0.654	0.001	0.020	0.540
cg21456083	black	19	49,524,256		S_Shore		0.654	-0.003	0.043	0.165
cg06681768	black	17	48,049,970	TSS200	Island	DLX4	0.654	0.002	0.042	0.406
cg16525281	black	19	38,810,227	TSS1500	N_Shore	KCNK6	0.654	-0.001	0.057	0.598
cg18379780	black	14	70,656,116	TSS1500	S_Shore	SLC8A3	0.654	0.002	0.019	0.087
cg05457768	black	6	28,751,790		N_Shelf		0.654	0.000	0.026	0.895
cg18486815	black	6	35,286,315	Body	OpenSea	DEF6	0.654	-0.002	0.091	0.815
cg16820616	black	11	30,605,581	5'UTR	Island	MPPED2	0.654	0.009	0.190	0.414
cg19987665	black	2	223,159,250	Body	N_Shore	PAX3	0.654	0.000	0.021	0.855
cg26790247	black	3	147,108,512	Body	Island	ZIC4	0.654	-0.001	0.035	0.774
cg07747970	black	17	35,293,719	TSS1500	Island	LHX1	0.654	-0.001	0.022	0.652
cg00684075	black	2	85,969,661		OpenSea		0.654	0.000	0.041	0.909
cg24751773	black	2	107,192,564		OpenSea		0.654	0.001	0.042	0.817
cg03363289	black	9	124,990,165	Body	Island	LHX6	0.653	-0.002	0.031	0.312
cg08235970	black	1	18,957,023	TSS1500	Island	PAX7	0.653	0.001	0.026	0.574
cg22928082	black	20	3,218,522	TSS200	N_Shore	SLC4A11	0.653	0.002	0.053	0.543
cg24186459	black	3	181,459,418		OpenSea		0.653	-0.003	0.252	0.725
cg07561710	black	6	44,185,239		N_Shore		0.653	0.013	0.514	0.277
cg07094915	black	7	27,279,101		Island		0.653	-0.001	0.015	0.288
cg23666170	black	20	21,105,995	TSS1500	N_Shore	PLK1S1	0.653	0.000	0.019	0.906
cg24275730	black	2	98,703,108	TSS1500	N_Shore	VWA3B	0.653	0.000	0.019	0.655

cg21686694	black	1	44,870,714	TSS1500	N_Shore	RNF220	0.653	-0.003	0.077	0.539
cg26855219	black	12	5,152,756	TSS1500	N_Shore	KCNA5	0.653	-0.002	0.039	0.434
cg26491213	black	2	45,168,819	TSS1500	N_Shore	SIX3	0.653	0.000	0.011	0.602
cg10423771	black	10	50,604,499		Island		0.653	0.000	0.030	0.898
cg19439123	black	17	17,687,621	5'UTR	S_Shore	RAI1	0.653	-0.001	0.065	0.854
cg24643012	black	15	93,353,380		S_Shore		0.653	0.003	0.039	0.304
cg18097850	black	19	40,005,602	TSS200	N_Shore	SELV	0.653	-0.002	0.050	0.423
cg13980410	black	5	146,870,693		OpenSea		0.653	0.017	0.452	0.033
cg04898695	black	1	6,208,717	Body	Island	CHD5	0.653	0.000	0.022	0.904
cg27269903	black	6	86,351,016	Body	N_Shore	SYNCRIP	0.653	-0.002	0.036	0.434
cg11893552	black	6	168,045,268		OpenSea		0.653	0.000	0.343	0.992
cg08116238	black	12	53,693,322	TSS200	N_Shore	C12orf10	0.653	-0.002	0.046	0.585
cg16297993	black	3	183,484,947	Body	OpenSea	YEATS2	0.653	-0.005	0.293	0.287
cg10107890	black	2	44,314,289		Island		0.653	-0.015	0.261	0.135
cg08215811	black	5	139,742,900	Body	Island	SLC4A9	0.653	-0.002	0.063	0.554
cg19389953	black	7	121,939,827		N_Shore		0.653	-0.001	0.013	0.460
cg04919563	black	7	1,280,491		Island		0.653	0.002	0.042	0.312
cg00252282	black	12	5,542,736	Body	Island	NTF3	0.653	0.001	0.014	0.263
cg17709464	black	6	158,927,809	3'UTR	OpenSea	TULP4	0.653	0.003	0.453	0.616
cg09251914	black	16	85,364,534		S_Shore		0.653	-0.002	0.039	0.225
cg27234067	black	11	32,460,799	Body	Island	WIT1	0.653	0.000	0.070	0.965
cg04666465	black	16	23,520,563	Body	N_Shore	GGA2	0.653	-0.003	0.047	0.157
cg01449168	black	7	36,339,405	3'UTR	OpenSea	EEPDI	0.653	0.019	0.482	0.016
cg02498983	black	6	88,875,398	5'UTR	Island	CNR1	0.653	-0.002	0.030	0.156
cg08190615	black	11	116,760,808	Body	OpenSea	SIK3	0.653	0.007	0.325	0.542
cg06365623	black	2	55,389,666		OpenSea		0.653	-0.003	0.134	0.746
cg18720905	black	2	96,990,858	TSS1500	Island	ITPRIPL1	0.653	0.002	0.021	0.062
cg09942999	black	1	32,707,389	TSS200	S_Shore	MTMR9L	0.652	0.000	0.014	0.555
cg11855555	black	1	68,232,134	5'UTR	OpenSea	GN12	0.652	0.004	0.051	0.285
cg21399510	black	3	193,922,180		Island		0.652	-0.001	0.019	0.536
cg00625776	black	12	53,297,384	Body	N_Shore	KRT8	0.652	-0.006	0.068	0.097
cg05459517	black	8	123,795,904	5'UTR	S_Shore	ZHX2	0.652	-0.008	0.280	0.162
cg11413133	black	17	21,281,318	5'UTR	Island	KCNJ12	0.652	-0.002	0.030	0.488
cg05374129	black	2	27,505,530	TSS200	OpenSea	TRIM54	0.652	0.004	0.555	0.660
cg05329578	black	9	2,241,688		N_Shore		0.652	0.000	0.009	0.479
cg24165921	black	12	79,941,506		OpenSea		0.652	0.000	0.032	0.925
cg24636368	black	17	46,388,447	Body	OpenSea	SKAP1	0.652	-0.001	0.018	0.325
cg13102822	black	7	155,261,295		Island		0.652	0.000	0.042	0.922
cg09088834	black	20	25,565,460	5'UTR	Island	NINL	0.652	-0.003	0.033	0.126
cg12271587	black	9	135,282,793	TSS1500	S_Shore	TTF1	0.652	-0.014	0.661	0.107
cg06067372	black	18	55,106,337	Body	Island	ONECUT2	0.652	0.000	0.009	0.546
cg10519004	black	1	3,314,443	Body	S_Shelf	PRDM16	0.652	-0.003	0.491	0.752
cg02006615	black	7	157,485,230	Body	Island	PTPRN2	0.652	0.001	0.069	0.845
cg25679766	black	6	28,558,113		S_Shelf		0.652	0.007	0.280	0.471
cg09811464	black	9	135,465,645		Island		0.652	-0.005	0.043	0.035
cg15740492	black	14	73,361,825	TSS1500	S_Shore	DPF3	0.652	0.000	0.030	0.792
cg22677715	black	2	162,284,644		Island		0.652	0.000	0.072	0.944
cg13368923	black	6	1,379,065		Island		0.652	0.007	0.071	0.525
cg09528056	black	4	2,964,211	TSS1500	N_Shore	GRK4	0.652	0.000	0.034	0.997
cg20216139	black	11	16,632,509		Island		0.652	-0.001	0.046	0.734
cg14327531	black	10	8,097,331	5'UTR	Island	GATA3	0.652	-0.001	0.037	0.737
cg16400486	black	14	90,085,813	TSS1500	S_Shore	FOXN3	0.652	-0.003	0.042	0.048
cg17566936	black	4	48,271,107	5'UTR	N_Shore	TEC	0.651	0.001	0.065	0.767
cg11636127	black	6	10,521,715	5'UTR	OpenSea	GCNT2	0.651	0.001	0.097	0.787
cg20253151	black	10	112,258,544	Body	Island	DUSP5	0.651	0.000	0.022	0.900
cg06482498	black	6	31,802,029	TSS1500	N_Shore	C6orf48	0.651	0.005	0.080	0.278
cg16359657	black	1	41,119,931	5'UTR	Island	RIMS3	0.651	-0.003	0.042	0.096
cg00369658	black	11	57,365,088	1stExon	OpenSea	SERPING1	0.651	-0.002	0.033	0.336
cg07852231	black	2	71,116,638		S_Shore		0.651	0.000	0.031	0.936
cg14600824	black	9	134,430,262		Island		0.651	-0.002	0.470	0.731
cg19269473	black	17	55,939,590		Island		0.651	0.003	0.031	0.120
cg06824181	black	7	5,610,264		S_Shore		0.651	0.000	0.018	0.946
cg10387761	black	17	42,856,823	Body	Island	ADAM11	0.651	0.001	0.028	0.467
cg03844121	black	16	88,518,659	TSS1500	N_Shore	ZFPM1	0.651	0.006	0.354	0.381
cg07781399	black	11	69,455,287	TSS1500	Island	CCND1	0.651	-0.001	0.047	0.578
cg19613432	black	2	119,606,151	TSS1500	Island	EN1	0.651	-0.003	0.024	0.025
cg14469436	black	3	127,441,359	Body	OpenSea	MGLL	0.651	-0.001	0.294	0.861

cg00827893	black	13	33,162,946	5'UTR	S_Shore	PDS5B	0.651	-0.005	0.059	0.315
cg15495124	black	1	93,427,847	TSS1500	S_Shore	FAM69A	0.651	0.000	0.295	0.993
cg07603922	black	8	13,424,184	TSS200	OpenSea	C8orf48	0.651	0.001	0.015	0.485
cg08814531	black	6	33,280,571	Body	N_Shore	TAPBP	0.651	0.000	0.037	0.776
cg17928883	black	5	2,038,528		Island		0.651	0.000	0.031	0.946
cg16403102	black	12	1,640,660		Island		0.651	-0.002	0.044	0.318
cg09229918	black	16	2,041,916	Body	Island	SYNGR3	0.651	0.002	0.033	0.404
cg13051450	black	13	100,611,308		N_Shore		0.651	-0.003	0.063	0.590
cg00485849	black	4	74,486,170	1stExon	Island	RASSF6	0.651	-0.003	0.034	0.130
cg26084949	black	14	75,039,090	Body	OpenSea	LTBP2	0.651	0.003	0.116	0.763
cg12133952	black	1	44,497,352	TSS1500	S_Shore	SLC6A9	0.651	0.000	0.044	0.852
cg20807545	black	16	77,469,538	TSS1500	S_Shore	ADAMTS18	0.651	0.000	0.036	0.875
cg22303045	black	6	100,917,022		N_Shore		0.651	0.001	0.018	0.473
cg12301823	black	1	33,207,915	Body	S_Shore	KIAA1522	0.651	-0.006	0.165	0.108
cg01947583	black	4	8,310,999		S_Shelf		0.651	-0.008	0.305	0.259
cg12147489	black	7	27,227,472	Body	N_Shore	HOXA11AS	0.651	0.002	0.035	0.255
cg06934523	black	14	70,077,930	TSS1500	N_Shore	KIAA0247	0.651	0.000	0.069	0.951
cg25171685	black	15	63,334,355	TSS1500	Island	TPM1	0.651	-0.001	0.036	0.503
cg02690638	black	10	83,635,375	1stExon	Island	NRG3	0.650	0.000	0.029	0.862
cg13768137	black	2	177,039,426		N_Shore		0.650	-0.004	0.062	0.583
cg09178678	black	5	153,853,798		N_Shore		0.650	-0.005	0.095	0.214
cg05077231	black	13	49,793,054	TSS1500	N_Shore	MLNR	0.650	0.000	0.024	0.714
cg06397837	black	7	27,240,251	TSS1500	Island	HOXA13	0.650	-0.001	0.015	0.458
cg05825073	black	7	27,282,237	1stExon	Island	EVX1	0.650	-0.001	0.018	0.582
cg09188763	black	11	8,285,614	TSS1500	S_Shore	LMO1	0.650	0.000	0.024	0.885
cg15515258	black	13	112,728,932		S_Shore		0.650	0.000	0.035	0.920
cg13926338	black	1	109,941,043	TSS1500	S_Shore	SORT1	0.650	-0.002	0.076	0.603
cg12031863	black	16	4,587,854	5'UTR	Island	C16orf5	0.650	-0.005	0.047	0.152
cg09614300	black	10	124,894,076	TSS1500	Island	HMX3	0.650	-0.001	0.022	0.711
cg17552029	black	17	41,985,222	TSS200	S_Shore	MPP2	0.650	0.001	0.017	0.319
cg19323951	black	11	64,993,076	Body	N_Shore	SLC22A20	0.650	0.000	0.018	0.693
cg12196232	black	8	32,504,758	Body	OpenSea	NRG1	0.650	0.000	0.113	0.960
cg08136416	black	21	44,060,833		OpenSea		0.650	0.000	0.038	0.827
cg06288697	black	2	71,192,044	Body	N_Shore	ATP6V1B1	0.650	0.000	0.035	0.989
cg02101773	black	20	20,347,593	TSS1500	Island	INSM1	0.650	-0.001	0.019	0.285
cg26851933	black	9	20,620,030	Body	N_Shore	MLLT3	0.650	-0.001	0.043	0.661
cg25018049	black	1	201,472,826	5'UTR	N_Shelf	CSRP1	0.650	-0.006	0.075	0.286
cg16228323	black	10	43,818,243		Island		0.650	0.002	0.042	0.526
cg23436819	black	18	8,366,955	Body	N_Shore	LOC1001924	0.650	0.015	0.561	0.138
cg03444587	black	16	2,054,271	Body	Island	ZNF598	0.650	0.004	0.654	0.638
cg23436584	black	12	98,833,359		OpenSea		0.650	-0.007	0.093	0.385
cg00397179	black	12	115,130,140		Island		0.650	0.002	0.057	0.690
cg00007420	black	6	99,796,732	Body	N_Shore	C6orf168	0.650	-0.008	0.103	0.207
cg19798735	black	7	110,730,805	Body	OpenSea	IMMP2L	0.650	-0.009	0.337	0.313
cg19247124	black	1	47,697,496		Island		0.650	-0.001	0.023	0.339
cg12520549	black	2	162,280,741	3'UTR	S_Shore	TBR1	0.649	0.000	0.020	0.590
cg27628536	black	5	43,017,351		N_Shore		0.649	0.000	0.170	0.953
cg19725903	black	12	14,721,020	TSS1500	Island	PLBD1	0.649	0.000	0.030	0.952
cg05230567	black	19	49,575,079	Body	N_Shore	KCNA7	0.649	0.000	0.074	0.934
cg11966450	black	18	59,992,157	TSS1500	Island	TNFRSF11A	0.649	-0.001	0.025	0.343
cg04722030	black	19	12,511,947	5'UTR	Island	ZNF799	0.649	-0.001	0.052	0.538
cg18799217	black	5	87,985,589		Island		0.649	0.000	0.026	0.892
cg26740494	black	1	1,567,131	TSS1500	Island	MMP23A	0.649	0.010	0.166	0.301
cg26522592	black	1	165,323,232	Body	N_Shore	LMX1A	0.649	-0.002	0.025	0.333
cg07580591	black	15	68,851,466		N_Shore		0.649	0.002	0.064	0.617
cg24973993	black	12	120,242,513	Body	S_Shore	CIT	0.649	0.007	0.134	0.329
cg21905630	black	4	54,965,904	TSS1500	N_Shore	GSX2	0.649	0.000	0.021	0.844
cg12864235	black	5	27,038,782	TSS200	OpenSea	CDH9	0.649	0.000	0.028	0.847
cg27305255	black	1	8,763,838	5'UTR	S_Shore	RERE	0.649	0.000	0.031	0.969
cg01961156	black	12	14,135,228		Island		0.649	-0.007	0.154	0.268
cg10057065	black	1	155,292,227	Body	N_Shore	RUSC1	0.649	0.000	0.074	0.965
cg01619345	black	9	4,297,433	5'UTR	N_Shore	GLIS3	0.649	0.000	0.031	0.747
cg10540302	black	14	101,291,180	TSS1500	N_Shore	MEG3	0.649	-0.001	0.461	0.834
cg23391214	black	19	47,292,160	TSS1500	S_Shore	SLC1A5	0.649	0.002	0.036	0.252
cg15473084	black	5	50,265,600		Island		0.649	-0.003	0.044	0.096
cg03575602	black	10	12,390,599	TSS1500	N_Shore	CAMK1D	0.649	-0.003	0.239	0.662
cg02524725	black	10	35,852,468	Body	OpenSea	CCNY	0.649	-0.004	0.053	0.226

cg14319893	black	8	107,284,222	5'UTR	S_Shore	OXR1	0.649	0.001	0.021	0.494
cg05804948	black	19	30,717,217		Island		0.649	-0.001	0.021	0.620
cg22119466	black	2	9,331,371		OpenSea		0.649	0.001	0.109	0.887
cg20430077	black	10	102,983,513		Island		0.649	-0.003	0.048	0.471
cg22679003	black	18	25,756,510	Body	Island	CDH2	0.649	0.000	0.015	0.906
cg09043549	black	17	43,505,638		N_Shore		0.649	-0.001	0.054	0.776
cg23593694	black	4	7,149,161		OpenSea		0.649	-0.002	0.623	0.831
cg26897283	black	16	67,427,183	5'UTR	N_Shore	TPPP3	0.649	0.000	0.041	0.845
cg20997268	black	7	28,338,584	TSS1500	OpenSea	CREB5	0.649	0.000	0.247	0.979
cg16010596	black	6	33,739,607	3'UTR	Island	LEMD2	0.649	0.001	0.045	0.571
cg22620680	black	3	122,920,514	TSS1500	N_Shore	SEC22A	0.649	0.000	0.039	0.837
cg24259244	black	13	100,624,279	TSS200	Island	ZIC5	0.649	-0.003	0.066	0.298
cg14918927	black	12	105,477,694	Body	N_Shore	ALDH1L2	0.649	0.001	0.048	0.615
cg02825765	black	1	225,614,261	5'UTR	N_Shore	LBR	0.649	-0.002	0.054	0.551
cg23039580	black	15	99,194,431	Body	Island	IGF1R	0.648	0.000	0.031	0.995
cg27199976	black	3	107,149,396		N_Shore		0.648	0.000	0.204	0.981
cg19601636	black	22	20,001,066	5'UTR	N_Shelf	ARVCF	0.648	-0.002	0.041	0.217
cg02375208	black	5	77,804,381	Body	N_Shore	LHFPL2	0.648	-0.004	0.080	0.565
cg13239646	black	11	65,348,394	Body	N_Shelf	EHBP1L1	0.648	0.003	0.853	0.553
cg00393837	black	2	105,470,050		Island		0.648	0.000	0.023	0.873
cg09129100	black	5	72,715,464		Island		0.648	0.000	0.025	0.956
cg12671030	black	2	109,647,956		Island		0.648	-0.007	0.059	0.086
cg01894064	black	4	154,073,371	TSS1500	N_Shore	TRIM2	0.648	0.000	0.019	0.560
cg02195657	black	1	20,617,283	TSS200	OpenSea	VWA5B1	0.648	0.000	0.055	0.982
cg11673244	black	22	22,007,100	TSS1500	S_Shore	MIR130B	0.648	0.000	0.013	0.563
cg07271561	black	3	50,359,363	5'UTR	Island	HYAL2	0.648	-0.001	0.052	0.746
cg03000585	black	1	78,355,339	5'UTR	S_Shore	NEXN	0.648	-0.003	0.031	0.279
cg00828377	black	3	133,394,743		S_Shore		0.648	-0.003	0.089	0.655
cg23153680	black	2	220,083,916	TSS1500	Island	ABCB6	0.648	-0.001	0.026	0.601
cg14560430	black	3	32,863,175	Body	Island	TRIM71	0.648	-0.001	0.047	0.873
cg03413884	black	7	54,610,928	Body	N_Shore	VSTM2A	0.648	0.000	0.030	0.768
cg04450459	black	6	10,383,804		Island		0.648	0.000	0.028	0.847
cg23352191	black	17	61,627,082	TSS1500	N_Shore	DCAF7	0.648	0.000	0.042	0.925
cg18516158	black	5	76,939,772		N_Shore		0.648	0.000	0.018	0.629
cg05260466	black	3	27,756,661		Island		0.648	0.000	0.029	0.983
cg18278486	black	6	26,987,575	Body	N_Shore	LOC1002707	0.648	-0.002	0.045	0.472
cg26260038	black	4	16,085,716	TSS200	Island	PROM1	0.648	-0.008	0.093	0.269
cg13279244	black	7	20,838,581		S_Shore		0.648	0.000	0.017	0.916
cg01236573	black	1	26,248,897		N_Shore		0.648	-0.005	0.228	0.504
cg07673538	black	2	36,824,338	Body	N_Shore	FEZ2	0.648	0.006	0.096	0.401
cg03636880	black	6	33,048,687	Body	Island	HLA-DPB1	0.648	-0.001	0.051	0.898
cg04581214	black	19	1,267,741	Body	Island	C19orf23	0.648	-0.004	0.065	0.252
cg25727093	black	20	44,463,168	Body	Island	SNX21	0.648	0.001	0.030	0.717
cg04342924	black	8	142,185,183	Body	S_Shore	DENND3	0.648	-0.001	0.039	0.668
cg20804831	black	3	131,080,579	TSS200	Island	NUDT16P	0.648	-0.006	0.103	0.175
cg00107606	black	2	223,177,596		S_Shore		0.648	0.000	0.026	0.869
cg23335414	black	12	13,254,620	Body	Island	GSG1	0.647	-0.004	0.034	0.199
cg24207176	black	4	89,079,587	1stExon	N_Shore	ABCG2	0.647	-0.003	0.040	0.184
cg14374861	black	10	102,988,094	Body	Island	LBX1	0.647	-0.003	0.045	0.372
cg26825650	black	1	204,182,957	Body	OpenSea	GOLT1A	0.647	-0.001	0.111	0.850
cg11908057	black	7	27,171,154	TSS1500	S_Shore	HOXA4	0.647	-0.002	0.048	0.664
cg18561560	black	17	8,702,816	TSS200	Island	MFSD6L	0.647	0.004	0.082	0.528
cg14907986	black	6	24,645,932	1stExon	Island	KIAA0319	0.647	0.001	0.019	0.242
cg25255850	black	17	46,625,332		N_Shelf		0.647	-0.007	0.110	0.260
cg05301383	black	2	171,569,144	Body	N_Shore	LOC440925	0.647	0.001	0.032	0.833
cg17509612	black	9	132,598,774	TSS1500	S_Shore	C9orf78	0.647	-0.001	0.114	0.805
cg26924127	black	1	211,667,388	TSS1500	OpenSea	RD3	0.647	0.006	0.165	0.449
cg01426713	black	6	106,517,533		OpenSea		0.647	0.002	0.024	0.367
cg07483244	black	13	95,358,924		N_Shore		0.647	0.003	0.035	0.221
cg02564523	black	7	102,073,539	TSS1500	N_Shore	ORAI2	0.647	0.001	0.044	0.800
cg11688410	black	10	33,260,748		OpenSea		0.647	0.005	0.226	0.399
cg03199651	black	4	4,862,770	Body	N_Shore	MSX1	0.647	-0.001	0.017	0.436
cg19227170	black	16	680,877	TSS200	N_Shore	WFIKKN1	0.647	-0.001	0.033	0.452
cg21863888	black	6	31,127,173	5'UTR	S_Shore	TCF19	0.647	0.003	0.071	0.289
cg07553626	black	1	85,359,119	TSS1500	Island	LPAR3	0.647	0.000	0.019	0.691
cg26930816	black	1	20,802,941		OpenSea		0.647	-0.001	0.057	0.704
cg10110376	black	16	85,454,585		OpenSea		0.647	0.003	0.464	0.551

cg03724964	black	19	39,465,969	5'UTR	Island	FBXO17	0.646	-0.001	0.022	0.348
cg23403864	black	2	9,770,130	Body	N_Shore	YWHAQ	0.646	0.001	0.018	0.215
cg27314116	black	5	6,583,850	Body	S_Shore	LOC255167	0.646	-0.011	0.079	0.063
cg04205412	black	17	54,785,335		OpenSea		0.646	-0.001	0.028	0.695
cg13816999	black	11	12,398,883	TSS1500	N_Shore	PARVA	0.646	0.002	0.040	0.455
cg08116462	black	11	31,823,141	Body	S_Shore	PAX6	0.646	0.001	0.024	0.413
cg11785425	black	8	81,478,222		OpenSea		0.646	-0.001	0.041	0.854
cg06731942	black	15	66,586,493	Body	Island	DIS3L	0.646	-0.002	0.033	0.323
cg26687413	black	5	1,645,459		Island		0.646	-0.001	0.038	0.699
cg26654827	black	7	100,738,414		OpenSea		0.646	-0.007	0.172	0.478
cg18894200	black	7	157,484,250	Body	Island	PTPRN2	0.646	0.000	0.130	0.980
cg13153394	black	3	45,209,196		OpenSea		0.646	0.000	0.017	0.698
cg16580759	black	8	6,693,379	TSS1500	S_Shore	XKR5	0.646	0.002	0.034	0.206
cg18396984	black	14	37,049,893	3'UTR	Island	NKX2-8	0.646	0.000	0.017	0.764
cg08645860	black	16	85,969,301		OpenSea		0.646	0.007	0.401	0.436
cg01833196	black	10	105,453,229	Body	Island	SH3PXD2A	0.646	0.000	0.021	0.774
cg01797257	black	1	18,969,652	Body	Island	PAX7	0.646	0.000	0.029	0.914
cg24830664	black	19	4,278,583	TSS200	N_Shore	SHD	0.646	-0.001	0.025	0.508
cg19518104	black	8	70,981,345	Body	N_Shore	PRDM14	0.646	-0.007	0.088	0.339
cg01325465	black	16	85,123,554	3'UTR	OpenSea	KIAA0513	0.646	0.005	0.459	0.542
cg27309142	black	7	32,801,485		Island		0.646	-0.002	0.041	0.452
cg01514828	black	17	36,715,074	Body	N_Shore	SRCIN1	0.646	0.002	0.034	0.366
cg03559836	black	12	69,634,561	Body	S_Shore	CPSF6	0.646	0.001	0.022	0.600
cg04643145	black	4	94,753,403		N_Shelf		0.646	0.001	0.024	0.314
cg19184415	black	18	57,363,691	Body	N_Shore	CCBE1	0.646	-0.003	0.069	0.423
cg14241810	black	1	99,470,967	TSS1500	Island	LPPR5	0.646	0.000	0.021	0.757
cg09561125	black	7	108,097,477	TSS1500	S_Shore	NRCAM	0.646	0.003	0.067	0.519
cg22466217	black	16	89,788,880	TSS1500	Island	C16orf7	0.645	-0.003	0.042	0.181
cg13282152	black	8	65,492,683	TSS200	N_Shore	BHLHE22	0.645	0.000	0.027	0.860
cg19965810	black	2	163,695,793	TSS1500	OpenSea	KCNH7	0.645	-0.002	0.029	0.249
cg16103959	black	1	200,004,529	Body	Island	NR5A2	0.645	0.000	0.015	0.697
cg06358250	black	6	1,311,510	TSS1500	Island	FOXQ1	0.645	-0.001	0.027	0.361
cg05237114	black	8	58,905,672	TSS1500	N_Shore	FAM110B	0.645	-0.001	0.447	0.833
cg11052516	black	5	87,957,175	Body	Island	LOC645323	0.645	0.000	0.025	0.790
cg06772580	black	17	27,899,576	Body	Island	TP53I13	0.645	-0.005	0.288	0.257
cg25533774	black	7	16,505,409	1stExon	OpenSea	SOSTDC1	0.645	0.002	0.028	0.321
cg20947377	black	7	121,512,781	TSS1500	N_Shore	PTPRZ1	0.645	0.001	0.051	0.892
cg03100449	black	12	96,185,437	TSS1500	S_Shore	NTN4	0.645	0.000	0.019	0.935
cg12597169	black	2	223,166,094	5'UTR	N_Shore	CCDC140	0.645	-0.002	0.044	0.360
cg24755163	black	7	26,416,987		S_Shore		0.645	0.004	0.061	0.483
cg00591153	black	3	157,824,910	TSS1500	S_Shore	SHOX2	0.645	0.001	0.020	0.594
cg18539461	black	1	201,709,675	Body	S_Shore	NAV1	0.645	-0.002	0.041	0.490
cg11196237	black	10	102,890,886	TSS200	N_Shore	TLX1	0.645	0.002	0.032	0.118
cg13999606	black	14	58,862,457	TSS200	N_Shore	TOMM20L	0.645	-0.004	0.202	0.354
cg09218240	black	10	131,811,642		N_Shore		0.645	0.009	0.563	0.186
cg08872738	black	12	50,339,482		OpenSea		0.645	-0.002	0.035	0.286
cg14570838	black	11	128,562,353	TSS1500	N_Shore	FLI1	0.645	0.001	0.025	0.521
cg13081720	black	5	150,399,890	TSS200	N_Shore	GPX3	0.645	0.000	0.041	0.816
cg10013169	black	6	5,997,028		Island		0.645	-0.002	0.022	0.114
cg14377596	black	1	201,709,135	1stExon	Island	NAV1	0.645	-0.005	0.044	0.561
cg24747764	black	13	112,761,184		S_Shore		0.644	-0.001	0.034	0.505
cg02519218	black	12	133,424,286	Body	OpenSea	CHFR	0.644	0.003	0.287	0.637
cg04882394	black	1	1,565,931	3'UTR	Island	MIB2	0.644	-0.002	0.037	0.765
cg22719241	black	19	36,524,058	TSS1500	S_Shore	CLIP3	0.644	0.000	0.069	0.975
cg20401567	black	17	46,619,555		N_Shore		0.644	0.012	0.092	0.089
cg03790740	black	13	24,337,521	Body	OpenSea	MIPEP	0.644	0.000	0.135	0.968
cg24714905	black	13	100,637,241	Body	Island	ZIC2	0.644	0.000	0.035	0.937
cg01190024	black	10	8,078,357		Island		0.644	0.000	0.033	0.895
cg25157524	black	13	30,002,931	1stExon	OpenSea	MTUS2	0.644	0.001	0.030	0.618
cg01973695	black	11	128,560,328		Island		0.644	0.000	0.045	0.873
cg01119512	black	1	24,646,205	Body	N_Shore	GRHL3	0.644	0.000	0.171	0.921
cg14181576	black	1	27,961,563	5'UTR	Island	FGR	0.644	-0.001	0.027	0.615
cg00658082	black	2	74,669,380	TSS1500	Island	RTKN	0.644	0.007	0.389	0.465
cg02078943	black	7	155,175,194		Island		0.644	-0.003	0.037	0.241
cg01524618	black	6	144,980,804	Body	OpenSea	UTRN	0.644	-0.002	0.052	0.569
cg10506844	black	10	101,281,203		Island		0.644	0.030	0.201	0.114
cg08863620	black	10	88,136,768		Island		0.644	0.006	0.072	0.239

cg14684709	black	13	100,547,249	3'UTR	Island	CLYBL	0.644	0.000	0.018	0.659
cg05406923	black	6	99,090,481		OpenSea		0.644	0.002	0.214	0.708
cg02017534	black	13	46,425,999	TSS200	OpenSea	SIAH3	0.644	-0.001	0.045	0.743
cg26120958	black	11	6,439,806	5'UTR	N_Shore	APBB1	0.644	-0.001	0.037	0.463
cg01258751	black	6	100,911,949	TSS1500	N_Shore	SIM1	0.644	0.000	0.036	0.912
cg21017887	black	14	105,400,489		S_Shore		0.644	0.001	0.080	0.913
cg01772014	black	20	30,606,095	Body	N_Shore	C20orf160	0.644	-0.002	0.172	0.755
cg07713896	black	8	94,712,367	TSS1500	Island	FAM92A1	0.644	0.000	0.019	0.768
cg18442187	black	6	50,794,722	Body	S_Shelf	TFAP2B	0.643	-0.001	0.035	0.635
cg05374271	black	1	192,778,890	Body	S_Shore	RGS2	0.643	-0.011	0.071	0.177
cg04267400	black	17	37,754,160		S_Shore		0.643	0.000	0.024	0.829
cg17888155	black	1	76,082,173		Island		0.643	0.000	0.028	0.767
cg09774007	black	12	106,979,229	Body	N_Shore	RFX4	0.643	0.002	0.027	0.092
cg13463522	black	20	22,567,739		Island		0.643	-0.001	0.031	0.536
cg18497508	black	6	41,528,345	5'UTR	Island	FOXP4	0.643	-0.003	0.086	0.594
cg22456162	black	6	45,387,932	Body	Island	RUNX2	0.643	-0.001	0.036	0.678
cg07040303	black	5	2,915,185		OpenSea		0.643	0.014	0.244	0.078
cg01278596	black	5	139,228,062	Body	Island	NRG2	0.643	0.003	0.028	0.320
cg24035035	black	7	151,489,964	5'UTR	OpenSea	PRKAG2	0.643	-0.005	0.343	0.587
cg10226628	black	16	30,968,426	TSS200	Island	SETD1A	0.643	-0.001	0.020	0.223
cg04689048	black	19	46,999,289	TSS200	Island	PNMAL2	0.643	0.000	0.018	0.794
cg02847037	black	13	22,033,729	TSS1500	Island	ZDHHC20	0.643	0.001	0.039	0.535
cg20739435	black	5	43,019,773		S_Shore		0.643	-0.001	0.018	0.331
cg21208744	black	1	149,909,548	TSS1500	OpenSea	MTMR11	0.643	0.015	0.234	0.058
cg03369344	black	13	50,705,024		Island		0.643	-0.002	0.019	0.016
cg21179088	black	7	54,612,333	Body	Island	VSTM2A	0.643	0.000	0.019	0.948
cg18109320	black	5	87,985,809		Island		0.643	0.002	0.037	0.502
cg05360714	black	17	75,543,046		OpenSea		0.643	-0.001	0.071	0.748
cg06126335	black	7	73,497,616	TSS1500	N_Shore	LIMK1	0.643	-0.001	0.048	0.682
cg15270654	black	8	97,170,666	Body	N_Shore	GDF6	0.643	-0.001	0.034	0.689
cg02654449	black	16	27,254,785	Body	OpenSea	NSMCE1	0.643	0.005	0.230	0.464
cg04268950	black	11	130,298,854	TSS1500	S_Shore	ADAMTS8	0.643	-0.004	0.100	0.473
cg19759481	black	7	27,183,401	TSS200	Island	HOXA5	0.643	0.000	0.018	0.711
cg17305368	black	7	76,022,370	Body	Island	SRCRB4D	0.643	0.000	0.015	0.914
cg21032564	black	15	65,381,956		OpenSea		0.643	-0.003	0.162	0.720
cg23240927	black	11	1,320,497	Body	S_Shelf	TOLLIP	0.643	0.000	0.225	0.997
cg02305261	black	20	49,638,967	5'UTR	N_Shore	KCNG1	0.642	-0.001	0.055	0.669
cg26509715	black	2	119,600,627	Body	Island	EN1	0.642	0.002	0.019	0.096
cg22093901	black	11	9,528,385	Body	OpenSea	ZNF143	0.642	-0.002	0.060	0.497
cg01031400	black	8	23,021,513	1stExon	Island	TNFRSF10D	0.642	-0.002	0.075	0.729
cg07135237	black	10	21,808,126	5'UTR	S_Shore	C10orf140	0.642	0.002	0.032	0.210
cg02959637	black	11	64,513,289	TSS1500	Island	RASGRP2	0.642	0.001	0.026	0.407
cg06675375	black	13	79,174,811	3'UTR	N_Shore	POU4F1	0.642	0.001	0.020	0.479
cg17591640	black	2	26,836,608	Body	OpenSea	CIB4	0.642	-0.006	0.272	0.394
cg01577165	black	12	50,616,434	Body	OpenSea	LIMA1	0.642	0.003	0.047	0.421
cg11582403	black	7	27,229,028		Island		0.642	0.002	0.126	0.767
cg10083593	black	11	66,049,855	Body	Island	CNIH2	0.642	-0.002	0.046	0.200
cg05474605	black	5	42,812,244	TSS1500	OpenSea	SEPP1	0.642	0.000	0.030	0.858
cg14789828	black	11	62,201,168	3'UTR	OpenSea	AHNAK	0.642	0.010	0.410	0.310
cg20944379	black	1	207,069,392	TSS1500	OpenSea	IL24	0.642	-0.006	0.239	0.480
cg16811851	black	16	29,262,815		N_Shore		0.642	-0.006	0.123	0.499
cg00596048	black	1	41,847,267		Island		0.642	0.001	0.037	0.672
cg00814597	black	6	144,386,148	TSS1500	S_Shore	PLAGL1	0.642	-0.003	0.103	0.538
cg01679682	black	6	37,427,761	Body	OpenSea	FTSID2	0.642	0.011	0.561	0.193
cg08264805	black	1	155,291,224	5'UTR	N_Shore	RUSC1	0.642	0.019	0.456	0.160
cg23715029	black	3	42,201,568	Body	OpenSea	TRAK1	0.642	-0.008	0.127	0.154
cg02928664	black	19	54,976,506	Body	Island	CDC42EP5	0.642	0.003	0.031	0.497
cg03745912	black	10	120,924,721	Body	N_Shore	SFXN4	0.642	-0.004	0.068	0.363
cg12729305	black	1	208,497,546		OpenSea		0.642	-0.001	0.171	0.837
cg15896892	black	1	244,213,886	TSS1500	S_Shore	ZNF238	0.642	-0.004	0.182	0.553
cg18853376	black	10	23,633,759	1stExon	OpenSea	C10orf67	0.642	0.000	0.077	0.980
cg13344095	black	6	26,233,352		OpenSea		0.642	0.003	0.033	0.386
cg00681106	black	1	75,599,532	Body	N_Shore	LHX8	0.642	0.000	0.023	0.789
cg26668836	black	7	127,228,121	TSS1500	Island	ARF5	0.642	0.000	0.166	0.925
cg15241758	black	2	97,426,158	TSS1500	N_Shore	CNNM4	0.641	-0.006	0.100	0.180
cg12705340	black	3	38,070,342	Body	N_Shore	PLCD1	0.641	0.004	0.397	0.523
cg10118545	black	7	4,784,090	Body	N_Shore	FOXK1	0.641	0.003	0.103	0.499

cg19120717	black	6	41,343,647	S_Shore		0.641	-0.005	0.053	0.233	
cg22374237	black	7	126,891,197	5'UTR	N_Shore	GRM8	0.641	0.000	0.033	0.966
cg24100671	black	5	10,551,547		OpenSea		0.641	0.001	0.034	0.623
cg22490907	black	7	35,292,896	Body	N_Shore	TBX20	0.641	-0.001	0.035	0.782
cg07143451	black	17	25,676,440		Island		0.641	-0.003	0.027	0.146
cg26123605	black	3	147,141,614		N_Shore		0.641	-0.001	0.017	0.243
cg13411784	black	9	140,473,680	TSS1500	Island	WDR85	0.641	-0.003	0.049	0.374
cg16290689	black	13	31,506,685	TSS200	OpenSea	C13orf26	0.641	0.001	0.080	0.833
cg03464847	black	17	11,501,580	TSS200	N_Shore	DNAH9	0.641	-0.002	0.038	0.178
cg00023233	black	10	126,077,698		Island		0.641	-0.001	0.036	0.478
cg20942339	black	12	51,984,503	TSS1500	Island	SCN8A	0.641	0.001	0.019	0.129
cg27595849	black	2	33,700,849	5'UTR	OpenSea	RASGRP3	0.641	0.000	0.029	0.722
cg05985146	black	8	9,759,720	Body	N_Shore	LOC157627	0.641	-0.002	0.076	0.627
cg22471112	black	4	154,125,453	TSS200	OpenSea	TRIM2	0.641	0.000	0.023	0.926
cg08949655	black	2	176,940,301		N_Shelf		0.641	0.000	0.019	0.691
cg04003136	black	2	177,052,903	TSS1500	N_Shore	HOXD1	0.640	-0.001	0.031	0.459
cg13951491	black	1	45,793,032	1stExon	Island	HPDL	0.640	0.006	0.076	0.481
cg03994959	black	13	108,866,993	5'UTR	N_Shore	LIG4	0.640	-0.005	0.079	0.398
cg07440775	black	10	26,507,383	Body	Island	GAD2	0.640	-0.001	0.050	0.680
cg10810078	black	2	172,543,808	TSS200	N_Shore	DYNC112	0.640	0.002	0.035	0.109
cg18290981	black	11	63,789,520	Body	OpenSea	MACROD1	0.640	-0.002	0.462	0.927
cg09247506	black	22	24,820,655		Island		0.640	-0.001	0.022	0.495
cg26781726	black	12	122,235,309	Body	Island	LOC338799	0.640	0.000	0.045	0.866
cg24401656	black	2	175,450,074	Body	OpenSea	WIPF1	0.640	-0.006	0.066	0.228
cg14379719	black	8	11,561,508	TSS1500	Island	GATA4	0.640	0.001	0.044	0.573
cg03167763	black	1	20,512,397	TSS200	Island	UBXN10	0.640	0.003	0.056	0.410
cg21930351	black	17	33,775,642	5'UTR	Island	SLFN13	0.640	-0.003	0.046	0.468
cg04924185	black	16	56,710,098	Body	S_Shore	MT1IP	0.640	0.005	0.074	0.308
cg24089111	black	17	26,697,498	TSS1500	N_Shore	SARM1	0.640	-0.002	0.046	0.530
cg05798339	black	3	9,344,105		OpenSea		0.640	0.001	0.187	0.864
cg14727777	black	4	140,201,652	TSS200	S_Shore	C4orf49	0.640	0.003	0.056	0.664
cg00846995	black	17	46,702,028	Body	N_Shore	HOXB9	0.640	-0.001	0.020	0.397
cg16024891	black	17	2,839,082	Body	OpenSea	RAP1GAP2	0.640	-0.006	0.512	0.321
cg26509022	black	15	101,419,296	TSS1500	Island	ALDH1A3	0.640	0.000	0.025	0.998
cg05459203	black	7	44,530,674	TSS1500	S_Shore	NUDCD3	0.640	0.000	0.022	0.970
cg25639449	black	15	68,129,069		S_Shore		0.640	-0.002	0.023	0.214
cg06107816	black	8	80,803,365		N_Shore		0.640	0.001	0.042	0.573
cg09684846	black	16	10,912,718	TSS200	Island	FAM18A	0.640	-0.001	0.035	0.798
cg14980234	black	5	87,986,067		S_Shore		0.640	0.001	0.022	0.422
cg19641804	black	12	54,653,065	1stExon	OpenSea	CBX5	0.640	0.000	0.045	0.895
cg27477419	black	17	75,567,407		OpenSea		0.640	-0.001	0.043	0.692
cg24638849	black	6	84,419,360	TSS1500	Island	SNAP91	0.640	-0.007	0.069	0.059
cg10705379	black	10	99,080,932	1stExon	Island	FRAT1	0.640	0.000	0.038	0.971
cg21903994	black	17	7,977,111	Body	OpenSea	ALOX12B	0.640	0.002	0.032	0.291
cg13292777	black	11	34,196,220	Body	Island	ABTB2	0.640	0.002	0.034	0.156
cg16060204	black	11	72,301,306	Body	Island	PDE2A	0.640	0.001	0.039	0.769
cg07030506	black	6	50,817,921		N_Shore		0.639	-0.002	0.019	0.091
cg06540747	black	2	169,966,394		OpenSea		0.639	0.001	0.028	0.467
cg10951619	black	1	190,447,232	TSS1500	OpenSea	FAM5C	0.639	0.000	0.023	0.937
cg03837909	black	3	193,506,005		OpenSea		0.639	-0.008	0.143	0.267
cg16448636	black	7	21,209,509		OpenSea		0.639	-0.002	0.064	0.718
cg26817573	black	15	64,126,729	TSS1500	S_Shore	HERC1	0.639	0.003	0.082	0.373
cg09671650	black	17	65,525,235	Body	OpenSea	PITPNC1	0.639	-0.004	0.035	0.276
cg24540114	black	7	156,812,941		Island		0.639	0.000	0.038	0.805
cg05828005	black	6	28,504,908		OpenSea		0.639	0.019	0.418	0.135
cg21577889	black	1	60,281,077	Body	S_Shore	HOOK1	0.639	0.000	0.105	0.946
cg12638731	black	13	36,045,281	Body	Island	NBEA	0.639	0.001	0.034	0.827
cg20461912	black	3	138,664,350	1stExon	Island	FOXL2	0.639	0.000	0.042	0.873
cg21790851	black	13	73,634,643	Body	S_Shore	KLF5	0.639	-0.001	0.027	0.577
cg18724200	black	14	105,132,022		OpenSea		0.639	-0.001	0.072	0.790
cg14479889	black	5	112,073,426	TSS200	OpenSea	APC	0.639	0.001	0.027	0.671
cg16489192	black	7	75,678,113	Body	S_Shore	MDH2	0.639	0.002	0.030	0.185
cg26960333	black	13	92,051,705	Body	Island	GPC5	0.639	-0.002	0.074	0.572
cg05487664	black	11	61,277,316	1stExon	Island	LRRC10B	0.639	-0.007	0.274	0.255
cg08074820	black	20	2,733,358	Body	Island	EBF4	0.639	0.001	0.031	0.641
cg07064537	black	3	171,515,212	5'UTR	OpenSea	PLD1	0.639	0.007	0.693	0.326
cg16824584	black	20	31,170,822		Island		0.639	-0.003	0.033	0.151



cg23018091	black	1	32,758,168	Body	S_Shore	HDAC1	0.639	0.001	0.026	0.321
cg09267427	black	12	124,953,924	Body	S_Shelf	NCOR2	0.639	0.006	0.123	0.405
cg01750611	black	17	27,072,015	Body	S_Shore	TRAF4	0.639	-0.002	0.024	0.032
cg03830329	black	6	100,897,081	Body	Island	SIM1	0.639	0.000	0.043	0.927
cg00853733	black	12	122,244,223	Body	S_Shore	SETD1B	0.639	-0.007	0.070	0.095
cg10330056	black	2	209,536,324		OpenSea		0.639	-0.001	0.044	0.724
cg05621157	black	13	99,404,279	Body	N_Shore	SLC15A1	0.639	0.000	0.040	0.846
cg09182189	black	1	1,709,203	5'UTR	N_Shore	NADK	0.639	-0.001	0.024	0.558
cg10966876	black	2	239,755,461	TSS1500	Island	TWIST2	0.639	-0.003	0.085	0.726
cg21191365	black	14	90,529,014	Body	S_Shore	KCNK13	0.639	0.003	0.024	0.055
cg11248896	black	2	177,003,747		N_Shore		0.639	-0.002	0.106	0.779
cg09260441	black	20	53,091,739	TSS1500	Island	DOK5	0.639	0.001	0.036	0.472
cg00585714	black	8	97,156,859	Body	Island	GDF6	0.639	0.000	0.194	0.983
cg26682664	black	1	219,834,581		OpenSea		0.639	-0.003	0.029	0.148
cg15062377	black	1	200,004,205	Body	N_Shore	NR5A2	0.638	0.006	0.037	0.018
cg12295918	black	3	46,506,481	TSS200	S_Shore	LTF	0.638	0.000	0.030	0.809
cg26031541	black	6	28,304,451	TSS1500	OpenSea	ZNF323	0.638	0.000	0.019	0.715
cg14346035	black	8	94,928,406	TSS1500	N_Shore	PDP1	0.638	0.000	0.039	0.869
cg03948422	black	5	75,377,755		N_Shore		0.638	-0.010	0.152	0.122
cg10057904	black	14	102,530,122		OpenSea		0.638	0.012	0.524	0.106
cg22301854	black	4	8,081,109	Body	OpenSea	ABLIM2	0.638	0.001	0.059	0.823
cg03688058	black	7	89,840,708	TSS1500	N_Shore	STEAP2	0.638	-0.003	0.029	0.064
cg02855983	black	1	201,252,324	TSS1500	N_Shore	PKP1	0.638	0.000	0.032	0.979
cg26328335	black	12	50,354,840	TSS1500	Island	AQP5	0.638	-0.001	0.071	0.831
cg24789723	black	10	102,501,346		N_Shore		0.638	0.002	0.028	0.158
cg06160809	black	2	217,559,688	5'UTR	S_Shore	IGFBP5	0.638	0.000	0.034	0.916
cg02577049	black	1	1,851,347	TSS1500	Island	TMEM52	0.638	-0.004	0.033	0.066
cg07441518	black	11	31,846,849		N_Shore		0.638	0.000	0.021	0.494
cg04472001	black	3	126,398,566		S_Shore		0.638	0.001	0.310	0.813
cg06294470	black	6	37,276,086	Body	OpenSea	TBC1D22B	0.638	-0.002	0.032	0.403
cg20866075	black	17	77,777,010		Island		0.638	0.000	0.054	0.983
cg17785786	black	4	166,414,666	Body	OpenSea	CPE	0.638	-0.001	0.044	0.832
cg09290600	black	4	41,753,032		N_Shore		0.638	0.001	0.029	0.604
cg08715469	black	4	44,728,051	5'UTR	Island	GNPDA2	0.638	0.001	0.025	0.425
cg18396533	black	10	82,116,208	TSS1500	Island	DYDC2	0.638	-0.003	0.179	0.648
cg01622304	black	13	28,497,401	Body	N_Shore	PDX1	0.638	-0.001	0.030	0.705
cg01804925	black	6	27,107,588	3'UTR	S_Shore	HIST1H2BK	0.637	0.005	0.045	0.109
cg04681600	black	14	38,725,536	1stExon	Island	CLEC14A	0.637	0.000	0.089	0.961
cg04685570	black	12	114,841,202	Body	N_Shore	TBX5	0.637	0.001	0.018	0.372
cg15888290	black	2	119,600,348	3'UTR	Island	EN1	0.637	0.000	0.019	0.823
cg25951210	black	2	177,016,619	1stExon	Island	HOXD4	0.637	-0.001	0.099	0.924
cg09904497	black	18	76,737,834		Island		0.637	-0.002	0.023	0.131
cg25049387	black	6	28,555,353	TSS1500	S_Shore	SCAND3	0.637	-0.001	0.023	0.598
cg13067221	black	14	23,449,582	Body	N_Shore	JUB	0.637	-0.006	0.043	0.013
cg19895786	black	1	26,373,006	TSS1500	Island	SLC30A2	0.637	0.009	0.060	0.042
cg24011500	black	11	61,049,230	Body	OpenSea	VWCE	0.637	0.000	0.102	0.972
cg17900495	black	1	116,382,363	5'UTR	Island	NHLH2	0.637	0.000	0.018	0.865
cg01411921	black	7	25,893,858		S_Shore		0.637	0.006	0.061	0.444
cg23558002	black	13	28,553,501	Body	N_Shore	PRHOXNB	0.637	-0.001	0.018	0.287
cg02098029	black	5	72,746,867		N_Shore		0.637	0.000	0.030	0.934
cg23549534	black	14	77,492,902	1stExon	Island	C14orf4	0.637	-0.005	0.193	0.640
cg02839123	black	22	40,390,264	TSS1500	N_Shore	FAM83F	0.636	-0.006	0.159	0.373
cg02087931	black	7	134,576,290	Body	OpenSea	CALD1	0.636	-0.003	0.025	0.252
cg03592345	black	6	76,645,123	Body	OpenSea	IMPG1	0.636	-0.001	0.022	0.651
cg02243495	black	17	48,227,139	1stExon	Island	PPP1R9B	0.636	0.000	0.033	0.809
cg17919020	black	7	150,755,629	TSS1500	N_Shore	CDK5	0.636	0.000	0.049	0.845
cg11924260	black	12	125,036,266		N_Shelf		0.636	0.000	0.026	0.845
cg02627887	black	5	87,976,545	Body	Island	LOC645323	0.636	0.000	0.016	0.624
cg19006378	black	11	31,829,297	5'UTR	S_Shore	PAX6	0.636	0.001	0.051	0.671
cg17603502	black	17	14,204,056	TSS1500	N_Shore	HS3ST3B1	0.636	0.001	0.045	0.387
cg10683615	black	7	30,790,683	TSS1500	OpenSea	INMT	0.636	0.002	0.242	0.829
cg06355129	black	1	156,646,293	1stExon	Island	NES	0.636	-0.001	0.033	0.431
cg17570006	black	8	144,510,966		Island		0.636	0.001	0.024	0.222
cg06354392	black	2	176,970,064		N_Shore		0.636	0.000	0.026	0.981
cg04504312	black	16	19,533,619	TSS200	N_Shore	GDE1	0.636	-0.001	0.024	0.316
cg26820168	black	8	124,217,896	Body	N_Shore	FAM83A	0.636	0.004	0.332	0.575
cg05143735	black	2	127,978,490		S_Shore		0.636	0.002	0.043	0.428

cg19258034	black	19	41,055,125	Body	Island	SPTBN4	0.636	0.001	0.021	0.566
cg06153623	black	12	130,529,849		S_Shelf		0.636	0.001	0.020	0.471
cg20248822	black	1	19,922,867	TSS1500	N_Shore	C1orf151	0.636	-0.001	0.253	0.920
cg22108980	black	7	45,927,824	TSS200	N_Shore	IGFBP1	0.636	0.010	0.161	0.190
cg04937416	black	7	157,479,272	Body	Island	PTPRN2	0.636	-0.001	0.028	0.729
cg23669287	black	15	96,873,184	TSS1500	N_Shore	NR2F2	0.636	-0.002	0.059	0.572
cg26276120	black	12	6,977,747	Body	S_Shore	TPI1	0.636	0.000	0.027	0.830
cg10202457	black	1	183,387,751	TSS200	S_Shore	NMNAT2	0.636	0.001	0.016	0.215
cg11965311	black	15	37,178,755	TSS200	N_Shore	LOC145845	0.636	-0.008	0.459	0.544
cg23483572	black	15	55,879,749	Body	N_Shore	PYGO1	0.636	0.001	0.022	0.622
cg07380959	black	7	93,520,323	TSS1500	S_Shore	TFPI2	0.636	0.001	0.022	0.559
cg25390658	black	7	134,576,216	Body	OpenSea	CALD1	0.636	-0.002	0.034	0.643
cg00684125	black	7	21,209,165		OpenSea		0.636	0.000	0.048	0.972
cg04392320	black	9	129,375,311	TSS1500	Island	LMX1B	0.636	0.001	0.022	0.399
cg24718197	black	17	79,485,709		Island		0.636	-0.004	0.162	0.526
cg17462793	black	8	110,987,781	TSS1500	N_Shore	KCNV1	0.636	0.001	0.036	0.793
cg08033722	black	12	54,370,458		S_Shore		0.635	-0.007	0.042	0.091
cg26996818	black	5	178,017,853	TSS1500	S_Shore	COL23A1	0.635	0.001	0.029	0.682
cg15462349	black	14	37,116,296		Island		0.635	-0.003	0.062	0.259
cg06658147	black	10	97,889,407	TSS200	N_Shore	ZNF518A	0.635	0.004	0.235	0.753
cg11135108	black	1	154,929,791	TSS1500	OpenSea	PBXIP1	0.635	-0.011	0.204	0.206
cg20986875	black	2	238,768,641	Body	Island	RAMP1	0.635	0.000	0.036	0.916
cg26774079	black	18	597,075	5'UTR	OpenSea	CLUL1	0.635	0.001	0.063	0.765
cg13478928	black	1	75,596,724	Body	Island	LHX8	0.635	-0.002	0.024	0.203
cg04937144	black	17	46,832,631		Island		0.635	0.001	0.020	0.481
cg04809453	black	16	1,030,383	TSS1500	Island	SOX8	0.635	-0.002	0.018	0.052
cg15931839	black	6	111,880,530	3'UTR	OpenSea	TRAF3IP2	0.635	-0.004	0.197	0.408
cg12538950	black	11	74,022,910	TSS1500	S_Shore	P4HA3	0.635	-0.005	0.312	0.637
cg23616524	black	7	129,466,143		Island		0.635	0.002	0.202	0.839
cg18968597	black	18	30,051,521	TSS1500	S_Shore	FAM59A	0.635	-0.001	0.034	0.833
cg21456897	black	3	64,253,803		Island		0.635	-0.007	0.085	0.339
cg21197871	black	8	96,036,803	TSS1500	N_Shore	C8orf38	0.635	0.003	0.301	0.702
cg06179606	black	2	96,055,142		Island		0.635	0.001	0.024	0.422
cg09189896	black	2	85,766,104	TSS200	Island	MAT2A	0.635	-0.001	0.028	0.759
cg21518937	black	12	49,741,245	5'UTR	S_Shore	DNAJC22	0.635	0.000	0.038	0.835
cg14829606	black	6	166,579,974	Body	Island	T	0.635	-0.001	0.022	0.284
cg16428240	black	2	206,949,813	5'UTR	Island	INO80D	0.635	0.000	0.022	0.869
cg27455781	black	15	65,647,600	Body	N_Shore	IGDCC3	0.635	0.000	0.038	0.940
cg04854343	black	20	2,731,560	Body	N_Shore	EBF4	0.635	-0.001	0.036	0.481
cg24802014	black	19	30,717,755		Island		0.635	0.000	0.018	0.665
cg08169827	black	1	32,054,766		Island		0.635	-0.002	0.061	0.505
cg09349604	black	4	41,880,747		N_Shore		0.635	0.001	0.022	0.585
cg13866527	black	8	55,367,627		Island		0.635	0.000	0.019	0.922
cg08700651	black	1	24,513,482	Body	N_Shore	IL28RA	0.635	0.007	0.072	0.041
cg02273398	black	6	50,817,400		N_Shore		0.635	-0.001	0.022	0.291
cg19880790	black	4	86,749,040	Body	OpenSea	ARHGAP24	0.635	-0.003	0.263	0.636
cg14090487	black	22	38,003,190	TSS1500	N_Shore	GGA1	0.635	-0.001	0.020	0.310
cg13448968	black	2	220,406,543	Body	Island	CHPF	0.635	0.002	0.025	0.358
cg07847030	black	2	85,361,959	Body	Island	TCF7L1	0.634	0.001	0.022	0.263
cg19309676	black	19	50,191,439	TSS1500	Island	C19orf76	0.634	-0.001	0.262	0.769
cg03719083	black	6	10,415,290	Body	Island	TFAP2A	0.634	-0.001	0.027	0.586
cg27651243	black	7	156,799,148	Body	Island	MNX1	0.634	0.008	0.064	0.263
cg00572843	black	17	1,955,100	TSS1500	Island	MIR212	0.634	0.020	0.260	0.037
cg10540364	black	10	21,783,539	3'UTR	Island	C10orf114	0.634	0.000	0.022	0.813
cg03046445	black	12	26,277,826	1stExon	N_Shore	BHLHE41	0.634	-0.002	0.019	0.041
cg15207422	black	19	19,280,969	Body	N_Shore	LOC729991-1	0.634	-0.003	0.046	0.437
cg03403155	black	8	103,422,885	Body	N_Shore	UBR5	0.634	-0.005	0.075	0.358
cg22191510	black	17	58,498,712	TSS1500	Island	C17orf64	0.634	0.000	0.022	0.776
cg04304561	black	3	49,907,481	TSS200	Island	CAMKV	0.634	-0.001	0.074	0.806
cg03172801	black	18	3,246,174	TSS1500	N_Shore	MYL12A	0.634	-0.003	0.043	0.250
cg01364137	black	10	8,087,426		N_Shelf		0.634	-0.001	0.024	0.523
cg20038996	black	4	41,883,107		N_Shore		0.634	0.001	0.024	0.599
cg25144893	black	1	63,792,210		S_Shore		0.634	0.002	0.032	0.190
cg05700079	black	3	147,126,961	TSS1500	N_Shore	ZIC1	0.634	0.000	0.015	0.528
cg02545583	black	5	165,751,842		OpenSea		0.634	0.017	0.367	0.054
cg01458062	black	16	681,057	5'UTR	N_Shore	WFIKKN1	0.634	0.001	0.045	0.832
cg08813925	black	10	31,996,740		OpenSea		0.634	0.002	0.032	0.238

cg12175143	black	13	51,486,384	Body	S_Shore	RNASEH2B	0.634	-0.001	0.041	0.472
cg10213875	black	7	48,129,814	5'UTR	Island	UPP1	0.634	0.001	0.024	0.468
cg19316148	black	1	31,846,089	TSS200	OpenSea	FABP3	0.634	0.001	0.023	0.629
cg20499861	black	10	31,607,228	TSS1500	Island	ZEB1	0.634	0.001	0.026	0.770
cg07215199	black	20	22,549,361	Body	Island	C20orf56	0.634	-0.001	0.017	0.339
cg01701585	black	16	2,263,913	Body	Island	PGP	0.634	0.001	0.025	0.619
cg04487296	black	7	149,389,669		Island		0.634	-0.007	0.176	0.720
cg23997339	black	1	147,012,684	TSS1500	OpenSea	BCL9	0.634	0.000	0.021	0.910
cg08280468	black	16	12,997,534	Body	Island	SHISA9	0.634	0.001	0.038	0.590
cg24046474	black	9	130,212,550	Body	N_Shore	RPL12	0.634	0.001	0.036	0.700
cg18337963	black	11	46,383,209	1stExon	OpenSea	DGKZ	0.633	-0.003	0.058	0.556
cg22757391	black	4	1,166,270	Body	Island	LOC1001308	0.633	0.001	0.060	0.882
cg16933386	black	10	124,906,011		Island		0.633	-0.001	0.031	0.297
cg13895765	black	2	66,803,345		Island		0.633	0.000	0.030	0.972
cg12404168	black	13	91,370,196		OpenSea		0.633	0.009	0.124	0.105
cg09595479	black	12	49,689,212	1stExon	Island	PRPH	0.633	-0.001	0.027	0.468
cg08302480	black	19	54,369,133	TSS1500	N_Shore	MYADM	0.633	0.010	0.274	0.136
cg06368590	black	8	116,679,763	5'UTR	Island	TRPS1	0.633	0.000	0.015	0.684
cg01833143	black	8	109,094,346	Body	N_Shore	RSPO2	0.633	-0.001	0.016	0.380
cg14591123	black	3	38,040,395	Body	Island	VILL	0.633	0.000	0.057	0.926
cg08273640	black	4	6,909,718	TSS1500	N_Shore	TBC1D14	0.633	0.001	0.113	0.803
cg08035555	black	19	3,558,417	TSS1500	S_Shore	C19orf28	0.633	0.005	0.312	0.540
cg12258344	black	2	47,550,528		OpenSea		0.633	0.002	0.285	0.636
cg02595809	black	1	63,787,670	TSS1500	Island	FOXD3	0.633	0.001	0.026	0.606
cg06197377	black	1	55,505,061	TSS200	Island	PCSK9	0.633	-0.002	0.044	0.334
cg26988406	black	8	65,492,666	TSS200	N_Shore	BHLHE22	0.633	0.000	0.013	0.885
cg18660166	black	5	946,556		OpenSea		0.633	0.000	0.227	0.958
cg12138818	black	13	95,201,227		N_Shore		0.633	0.005	0.061	0.104
cg12990116	black	6	34,433,392	TSS1500	N_Shore	PACIN1	0.633	0.000	0.048	0.899
cg20708135	black	11	76,493,489	TSS1500	N_Shore	TSKU	0.633	0.009	0.115	0.283
cg04055345	black	10	116,264,862	Body	OpenSea	ABLIM1	0.633	-0.003	0.058	0.506
cg17655624	black	12	54,785,320	TSS1500	S_Shore	ZNF385A	0.633	0.002	0.040	0.281
cg00276799	black	11	107,463,054	Body	S_Shore	LOC643923	0.633	-0.004	0.065	0.386
cg21961487	black	12	106,979,430	Body	Island	RFX4	0.632	0.000	0.032	0.923
cg15448726	black	12	53,273,497		Island		0.632	-0.001	0.057	0.793
cg22970357	black	2	119,600,408	3'UTR	Island	EN1	0.632	0.000	0.039	0.997
cg07769015	black	8	142,238,770	TSS200	S_Shore	SLC45A4	0.632	-0.010	0.151	0.192
cg17261708	black	5	176,794,207	Body	Island	RGS14	0.632	-0.004	0.035	0.102
cg14056644	black	4	111,559,105	TSS1500	N_Shore	PITX2	0.632	-0.002	0.060	0.668
cg23793194	black	17	37,763,735	5'UTR	N_Shore	NEUROD2	0.632	0.000	0.036	0.959
cg24724506	black	19	55,964,383	3'UTR	S_Shore	ISOC2	0.632	-0.002	0.034	0.231
cg15529727	black	15	34,635,578	TSS1500	OpenSea	NOP10	0.632	-0.004	0.115	0.520
cg01272400	black	10	95,326,248	TSS200	Island	GPR120	0.632	0.000	0.034	0.900
cg04654288	black	6	10,390,247		Island		0.632	-0.003	0.043	0.278
cg10395317	black	2	162,273,011	1stExon	N_Shore	TBR1	0.632	0.000	0.023	0.910
cg13982098	black	5	87,955,859	Body	Island	LOC645323	0.632	0.000	0.052	0.904
cg01570972	black	2	10,090,656	TSS1500	N_Shore	GRHL1	0.632	0.005	0.221	0.588
cg14132388	black	12	120,242,490	Body	S_Shore	CIT	0.632	0.003	0.095	0.587
cg05474265	black	4	81,128,398		Island		0.632	0.002	0.068	0.713
cg17114584	black	11	613,792	Body	N_Shore	IRF7	0.632	-0.007	0.263	0.253
cg16872520	black	11	72,929,124	TSS1500	Island	P2RY2	0.632	-0.002	0.062	0.509
cg06855337	black	2	189,489,191		OpenSea		0.632	-0.016	0.232	0.134
cg19645221	black	14	38,058,284		S_Shore		0.632	0.000	0.039	0.998
cg16046561	black	2	175,193,478		Island		0.632	0.000	0.020	0.788
cg12578100	black	8	106,330,170	TSS1500	N_Shore	ZFPM2	0.632	-0.002	0.024	0.345
cg10740282	black	6	56,709,141	Body	Island	DST	0.632	-0.003	0.037	0.209
cg02267270	black	6	37,616,410	Body	Island	MDGA1	0.632	0.013	0.121	0.111
cg09299086	black	1	17,746,438	Body	Island	RCC2	0.632	0.001	0.069	0.841
cg10883303	black	7	27,239,024	1stExon	Island	HOXA13	0.632	0.001	0.023	0.371
cg00856041	black	6	27,798,455		N_Shore		0.632	0.001	0.027	0.719
cg02676175	black	17	7,253,720	TSS1500	Island	KCTD11	0.632	-0.004	0.043	0.253
cg08917795	black	16	56,716,597	Body	S_Shore	MT1X	0.632	-0.002	0.020	0.033
cg19830657	black	5	180,597,246		Island		0.632	-0.002	0.020	0.169
cg24235037	black	2	160,919,532	TSS1500	S_Shore	PLA2R1	0.632	0.000	0.047	0.975
cg21939395	black	7	143,599,425	TSS1500	Island	FAM115A	0.632	0.000	0.022	0.834
cg04247336	black	14	103,692,104		OpenSea		0.632	0.015	0.179	0.117
cg02368058	black	1	91,191,723		Island		0.631	0.000	0.017	0.909

cg06950023	black	19	2,041,985	Body	Island	MKNK2	0.631	0.005	0.114	0.731
cg03930313	black	17	36,621,405	Body	Island	ARHGAP23	0.631	-0.009	0.088	0.170
cg02520020	black	11	57,364,890	TSS1500	OpenSea	SERPING1	0.631	0.001	0.316	0.877
cg04674201	black	6	96,133,842		OpenSea		0.631	0.001	0.174	0.815
cg21195235	black	18	44,530,218	5'UTR	S_Shelf	KATNAL2	0.631	0.001	0.094	0.877
cg18394340	black	5	134,735,613	TSS1500	S_Shore	H2AFY	0.631	-0.004	0.089	0.238
cg10131095	black	10	90,343,174	TSS200	Island	RNLS	0.631	-0.004	0.079	0.733
cg11856711	black	12	54,785,309	TSS1500	S_Shore	ZNF385A	0.631	-0.001	0.041	0.544
cg06634716	black	1	217,311,151	TSS200	Island	ESRRG	0.631	0.002	0.053	0.702
cg18841159	black	6	70,992,041	Body	Island	COL9A1	0.631	0.000	0.038	0.955
cg21690777	black	1	6,583,834	3'UTR	OpenSea	NOL9	0.631	0.002	0.179	0.750
cg05392263	black	6	168,418,527	TSS200	OpenSea	KIF25	0.631	0.001	0.178	0.901
cg01141812	black	6	123,317,124	TSS1500	N_Shore	CLVS2	0.631	0.000	0.022	0.930
cg07554011	black	11	537,737	5'UTR	S_Shore	LRRC56	0.631	-0.005	0.302	0.387
cg09715768	black	13	114,202,537	Body	N_Shore	TMCO3	0.631	-0.011	0.596	0.262
cg07005055	black	1	113,052,167	Body	Island	WNT2B	0.631	-0.001	0.017	0.527
cg24493446	black	15	40,212,106	1stExon	Island	GPR176	0.631	0.000	0.029	0.852
cg21368609	black	8	91,803,657	TSS1500	Island	NECAB1	0.631	-0.001	0.047	0.726
cg13649658	black	9	140,680,393	Body	N_Shelf	EHMT1	0.631	0.007	0.413	0.257
cg08599266	black	2	25,142,473	TSS1500	Island	ADCY3	0.631	-0.002	0.030	0.201
cg19831403	black	10	88,453,678	Body	OpenSea	LDB3	0.631	-0.006	0.055	0.070
cg00679731	black	2	176,979,345		N_Shore		0.631	0.003	0.055	0.569
cg14161107	black	9	113,476,867	Body	OpenSea	MUSK	0.631	0.001	0.330	0.935
cg24468070	black	19	54,976,501	Body	Island	CDC42EP5	0.631	0.005	0.032	0.268
cg05976500	black	17	8,926,895	Body	Island	NTN1	0.631	0.001	0.043	0.647
cg10392428	black	14	89,782,402	Body	OpenSea	FOXP3	0.631	0.003	0.335	0.781
cg03218797	black	12	54,399,468		Island		0.630	0.017	0.183	0.175
cg20215112	black	17	43,065,055		OpenSea		0.630	-0.002	0.033	0.210
cg14501061	black	17	26,904,058	TSS200	OpenSea	ALDOC	0.630	-0.001	0.035	0.689
cg25085369	black	4	155,254,016	Body	N_Shore	DCHS2	0.630	0.005	0.044	0.283
cg10695105	black	12	49,943,166	Body	Island	KCNH3	0.630	-0.001	0.023	0.397
cg18443412	black	2	136,877,278		S_Shore		0.630	-0.001	0.022	0.395
cg14176274	black	9	977,770	Body	Island	DMRT3	0.630	-0.003	0.048	0.270
cg25757115	black	1	46,913,787		Island		0.630	0.003	0.032	0.250
cg01828733	black	1	201,708,932	TSS200	Island	NAV1	0.630	-0.004	0.104	0.763
cg26132298	black	14	60,952,933	TSS200	Island	C14orf39	0.630	-0.001	0.026	0.221
cg11857320	black	4	85,424,195		S_Shore		0.630	-0.001	0.179	0.873
cg06744740	black	14	56,584,485	TSS1500	N_Shore	PELI2	0.630	0.002	0.032	0.345
cg06071604	black	13	100,069,110		OpenSea		0.630	0.004	0.400	0.543
cg24663311	black	2	191,224,886	Body	OpenSea	INPP1	0.630	0.011	0.247	0.174
cg25369553	black	1	61,522,373		S_Shelf		0.630	-0.006	0.081	0.341
cg06906952	black	1	244,230,760		OpenSea		0.630	0.015	0.195	0.240
cg23561979	black	2	42,329,535		Island		0.630	0.002	0.053	0.468
cg23346622	black	7	27,289,195		N_Shore		0.630	0.002	0.035	0.468
cg14011639	black	5	140,797,234	Body	Island	PCDHGA4	0.630	0.001	0.033	0.416
cg21816001	black	8	86,019,311	TSS200	Island	LRRCC1	0.630	0.001	0.020	0.589
cg12121643	black	3	185,911,796	Body	Island	DGKG	0.630	-0.001	0.076	0.966
cg09867953	black	16	23,706,666	Body	OpenSea	ERN2	0.630	0.004	0.265	0.677
cg17839721	black	2	97,193,174		Island		0.630	0.000	0.027	0.769
cg08508368	black	8	86,157,364	TSS1500	N_Shore	CA13	0.630	-0.005	0.084	0.222
cg07685728	black	19	58,280,891	TSS200	N_Shore	ZNF586	0.630	0.000	0.019	0.742
cg22604316	black	1	46,958,801		S_Shore		0.630	0.000	0.022	0.860
cg22891862	black	10	101,279,697		N_Shore		0.630	0.000	0.018	0.789
cg07773434	black	11	64,015,289	TSS1500	Island	PPP1R14B	0.629	-0.002	0.024	0.340
cg04437966	black	5	60,954,562	Body	OpenSea	FLJ37543	0.629	0.004	0.117	0.440
cg01517311	black	5	128,796,702	Body	Island	ADAMTS19	0.629	0.000	0.018	0.859
cg10154122	black	19	38,754,855	TSS1500	Island	SPINT2	0.629	-0.001	0.112	0.719
cg15185986	black	13	98,919,378	Body	OpenSea	FARP1	0.629	0.001	0.022	0.437
cg25476129	black	2	220,341,206	Body	OpenSea	SPEG	0.629	-0.003	0.055	0.430
cg21212995	black	5	149,570,189	Body	S_Shore	SLC6A7	0.629	0.005	0.134	0.427
cg13975369	black	7	130,080,553	Body	Island	TSGA14	0.629	-0.001	0.120	0.934
cg02630604	black	7	129,781,596		Island		0.629	-0.003	0.055	0.314
cg10184431	black	6	27,783,226	TSS1500	S_Shore	HIST1H2AJ	0.629	0.002	0.055	0.397
cg06069154	black	1	156,889,826	TSS1500	N_Shore	C1orf92	0.629	-0.001	0.364	0.923
cg16747109	black	4	111,544,463	TSS1500	Island	PITX2	0.629	0.000	0.025	0.748
cg03667968	black	5	112,073,438	TSS200	OpenSea	APC	0.629	0.000	0.022	0.710
cg07819331	black	5	168,374,368	Body	OpenSea	SLIT3	0.629	-0.001	0.066	0.783

cg13382100	black	12	132,414,849	Body	S_Shore	PUS1	0.629	0.000	0.098	0.918
cg14039246	black	1	53,365,446	Body	OpenSea	ECHDC2	0.629	-0.002	0.090	0.754
cg23996302	black	1	201,140,803		S_Shore		0.629	0.007	0.434	0.222
cg19593490	black	6	29,943,188	Body	N_Shore	HCG9	0.629	0.000	0.038	0.858
cg08220136	black	13	79,168,325		N_Shore		0.629	0.000	0.028	0.743
cg26069068	black	8	125,741,265	TSS1500	Island	MTSS1	0.629	0.000	0.154	0.935
cg06168149	black	12	50,497,778	TSS200	OpenSea	GPD1	0.629	-0.001	0.042	0.735
cg04735908	black	14	23,538,430	Body	OpenSea	ACIN1	0.629	-0.001	0.013	0.368
cg05955332	black	3	126,471,560	Body	OpenSea	CHCHD6	0.629	-0.002	0.197	0.704
cg12634591	black	2	177,028,606	TSS200	N_Shore	HOXD3	0.629	0.002	0.026	0.094
cg08088161	black	19	55,791,950	TSS200	S_Shore	HSPBP1	0.629	-0.008	0.076	0.148
cg01396157	black	1	167,408,509	Body	N_Shore	CD247	0.629	0.013	0.132	0.066
cg18191248	black	15	90,808,575	TSS1500	Island	NGRN	0.629	-0.010	0.099	0.242
cg17213154	black	11	8,832,956	TSS1500	OpenSea	ST5	0.629	0.009	0.388	0.164
cg15522677	black	18	658,883	Body	S_Shore	TYMS	0.628	-0.002	0.098	0.728
cg16625109	black	2	175,192,189		N_Shore		0.628	-0.001	0.026	0.400
cg23856413	black	6	106,429,659		Island		0.628	-0.001	0.019	0.361
cg18637698	black	5	121,647,154	TSS1500	N_Shore	SNCAIP	0.628	0.001	0.040	0.723
cg03681834	black	11	41,481,358		OpenSea		0.628	0.003	0.096	0.667
cg23676151	black	6	108,491,372	Body	Island	NR2E1	0.628	-0.001	0.023	0.226
cg10143507	black	2	118,943,004		N_Shore		0.628	0.000	0.072	0.970
cg05744184	black	17	40,463,806	3'UTR	N_Shore	STAT5A	0.628	0.002	0.236	0.615
cg08975803	black	12	52,626,818	TSS200	Island	KRT7	0.628	0.000	0.033	0.934
cg08179037	black	6	29,705,815	Body	OpenSea	LOC285830	0.628	0.001	0.022	0.383
cg07492757	black	6	10,420,035	TSS1500	Island	TFAP2A	0.628	0.000	0.026	0.896
cg07457944	black	18	67,957,061	5'UTR	Island	SOCS6	0.628	-0.004	0.043	0.075
cg06804564	black	1	90,100,070	5'UTR	S_Shore	LRRC8C	0.628	-0.008	0.148	0.280
cg23635599	black	19	45,281,006	TSS200	N_Shore	CBLC	0.628	0.001	0.038	0.774
cg18462381	black	10	129,536,718	Body	Island	FOXI2	0.628	0.001	0.112	0.887
cg10387769	black	4	38,869,641	TSS200	Island	MIR574	0.628	-0.001	0.018	0.424
cg08624648	black	6	31,651,029		Island		0.628	0.000	0.020	0.604
cg02869929	black	13	28,527,832		Island		0.628	-0.002	0.026	0.103
cg23112326	black	10	8,087,098		OpenSea		0.628	-0.001	0.021	0.656
cg11881472	black	11	36,442,485	Body	OpenSea	PRR5L	0.628	0.000	0.030	0.932
cg20129210	black	13	100,547,192	3'UTR	Island	CLYBL	0.628	0.000	0.049	0.930
cg04606367	black	7	121,946,213		Island		0.628	-0.001	0.020	0.195
cg26106948	black	3	27,766,284		S_Shore		0.628	0.000	0.019	0.765
cg16186938	black	6	28,555,324	TSS1500	S_Shore	SCAND3	0.628	-0.002	0.039	0.522
cg21885973	black	15	67,145,855		OpenSea		0.628	0.003	0.035	0.241
cg07112210	black	17	74,864,065	TSS1500	N_Shore	MGAT5B	0.628	0.004	0.229	0.513
cg21840976	black	13	79,181,285		N_Shore		0.627	-0.003	0.037	0.360
cg15526954	black	18	77,139,085		Island		0.627	0.000	0.026	0.929
cg12865939	black	11	8,832,938	TSS1500	OpenSea	ST5	0.627	0.012	0.377	0.091
cg19385331	black	13	100,641,867		Island		0.627	-0.001	0.039	0.586
cg26697929	black	17	71,641,669	TSS1500	Island	SDK2	0.627	-0.001	0.032	0.444
cg03478497	black	18	31,021,003	TSS1500	S_Shore	C18orf34	0.627	0.003	0.126	0.529
cg08534628	black	13	100,650,073		Island		0.627	-0.012	0.173	0.107
cg24998096	black	5	115,912,261		Island		0.627	0.001	0.047	0.619
cg26970707	black	5	122,371,264	Body	N_Shore	PPIC	0.627	0.001	0.025	0.450
cg01293647	black	17	37,764,264	TSS200	Island	NEUROD2	0.627	-0.003	0.029	0.085
cg01014615	black	2	177,027,621	TSS1500	Island	HOXD3	0.627	0.001	0.039	0.797
cg10402698	black	15	67,000,045	TSS1500	S_Shelf	SMAD6	0.627	-0.001	0.106	0.842
cg18787478	black	5	42,950,995		N_Shore		0.627	0.000	0.025	0.831
cg27018424	black	6	33,173,425	Body	S_Shore	HSD17B8	0.627	0.001	0.257	0.805
cg25759916	black	1	975,667	Body	Island	AGRN	0.627	-0.005	0.054	0.080
cg24955845	black	17	33,775,779	1stExon	Island	SLFN13	0.627	-0.003	0.029	0.348
cg08574629	black	1	155,290,542	TSS200	N_Shore	RUSC1	0.627	0.003	0.041	0.332
cg07714757	black	8	143,532,138		Island		0.627	0.002	0.031	0.310
cg10971638	black	6	170,123,105	Body	OpenSea	PHF10	0.627	0.001	0.017	0.436
cg07913197	black	2	200,334,901	Body	N_Shore	FLJ32063	0.627	0.000	0.019	0.949
cg17871793	black	20	50,416,694	Body	N_Shore	SALL4	0.627	-0.002	0.044	0.386
cg01856529	black	12	54,653,091	1stExon	OpenSea	CBX5	0.627	-0.001	0.033	0.485
cg14127927	black	14	22,855,845		OpenSea		0.627	-0.002	0.191	0.740
cg10460377	black	14	33,403,226		Island		0.627	0.001	0.019	0.151
cg21204804	black	11	8,290,321		Island		0.627	0.000	0.020	0.696
cg17436656	black	12	53,627,106	TSS1500	S_Shore	RARG	0.627	0.010	0.175	0.339
cg07262635	black	10	18,689,378	Body	OpenSea	CACNB2	0.627	-0.004	0.061	0.377

cg03366850	black	7	28,998,595	TSS1500	S_Shore	TRIL	0.627	-0.002	0.069	0.777
cg01474544	black	6	4,774,793	Body	N_Shore	CDYL	0.627	-0.003	0.036	0.371
cg19120897	black	18	5,546,794		S_Shelf		0.627	0.002	0.169	0.698
cg05834805	black	9	123,631,524	Body	Island	PHF19	0.626	-0.002	0.034	0.370
cg13614181	black	13	42,031,103	TSS1500	Island	C13orf15	0.626	0.012	0.053	0.005
cg15059065	black	19	17,354,961	Body	N_Shore	NR2F6	0.626	-0.001	0.031	0.639
cg12298688	black	2	172,946,691		N_Shore		0.626	0.000	0.093	0.970
cg24805411	black	19	56,158,851	TSS200	N_Shore	CCDC106	0.626	0.000	0.134	0.941
cg13551227	black	10	103,604,019	TSS1500	S_Shore	KCNIP2	0.626	0.000	0.067	0.994
cg20202413	black	3	46,923,068	5'UTR	N_Shore	PTH1R	0.626	0.000	0.028	0.992
cg05258102	black	17	881,647	Body	N_Shore	NXN	0.626	0.000	0.025	0.944
cg11750592	black	8	65,289,227		N_Shore		0.626	0.000	0.028	0.911
cg22046408	black	19	41,106,164	TSS1500	Island	LTBP4	0.626	-0.005	0.058	0.438
cg00409684	black	10	102,984,527		Island		0.626	-0.002	0.055	0.539
cg26591930	black	11	70,672,986	Body	Island	SHANK2	0.626	0.005	0.037	0.268
cg03274456	black	11	62,273,116	Body	OpenSea	AHNAK	0.626	0.002	0.048	0.464
cg20912181	black	7	96,656,863		S_Shelf		0.626	0.000	0.039	0.976
cg11691189	black	2	47,743,741		OpenSea		0.626	0.003	0.187	0.752
cg09566069	black	9	35,676,365	Body	Island	CA9	0.626	-0.004	0.077	0.347
cg12943115	black	14	70,345,911	TSS1500	N_Shore	SMOC1	0.626	0.001	0.054	0.780
cg15445725	black	3	194,469,106		OpenSea		0.626	-0.004	0.405	0.741
cg22952142	black	15	68,549,178		OpenSea		0.626	0.000	0.028	0.749
cg15823698	black	18	29,598,400	TSS200	N_Shore	RNF125	0.626	0.001	0.030	0.288
cg01793704	black	7	130,126,024	TSS200	Island	MEST	0.626	-0.005	0.169	0.658
cg02733847	black	6	31,649,519	TSS1500	N_Shore	LY6G5C	0.626	-0.004	0.046	0.149
cg01632825	black	22	19,278,672	Body	Island	CLTCL1	0.626	0.002	0.025	0.276
cg25102370	black	4	174,451,141	5'UTR	Island	HAND2	0.626	0.001	0.032	0.634
cg05488160	black	6	27,259,162		Island		0.625	-0.001	0.081	0.891
cg03347671	black	2	218,875,467		S_Shore		0.625	0.000	0.024	0.992
cg03243450	black	5	1,800,782	TSS1500	Island	NDUFS6	0.625	-0.001	0.027	0.675
cg11741189	black	11	31,843,886		S_Shore		0.625	-0.002	0.030	0.321
cg12827555	black	14	74,706,031	TSS200	N_Shore	VSX2	0.625	-0.001	0.039	0.491
cg01216308	black	19	6,464,563	5'UTR	Island	CRB3	0.625	-0.002	0.068	0.322
cg27297505	black	2	121,324,526		OpenSea		0.625	0.003	0.294	0.608
cg12648074	black	5	140,864,474	Body	N_Shore	PCDHGA4	0.625	-0.001	0.030	0.737
cg27190138	black	10	98,479,757	Body	Island	PIK3AP1	0.625	-0.004	0.054	0.151
cg07963497	black	10	54,068,572		OpenSea		0.625	0.003	0.033	0.308
cg06720361	black	16	85,202,391		Island		0.625	0.003	0.335	0.725
cg25848158	black	1	151,966,808	TSS200	Island	S100A10	0.625	0.001	0.036	0.593
cg15469350	black	4	20,255,187	TSS200	Island	SLIT2	0.625	-0.002	0.026	0.227
cg09236658	black	6	108,485,152		N_Shore		0.625	0.001	0.049	0.595
cg02726377	black	4	108,745,279	TSS1500	N_Shore	SGMS2	0.625	-0.001	0.046	0.897
cg20742562	black	5	1,800,684	TSS1500	Island	NDUFS6	0.625	-0.001	0.039	0.663
cg18568589	black	19	9,609,395	TSS200	S_Shore	ZNF560	0.625	-0.001	0.097	0.921
cg16701896	black	7	27,233,411		S_Shore		0.625	-0.004	0.054	0.240
cg20437892	black	2	220,267,748		OpenSea		0.625	0.000	0.040	0.894
cg02530350	black	7	148,036,740	Body	Island	CNTNAP2	0.625	-0.002	0.033	0.374
cg04874103	black	6	33,872,383		OpenSea		0.625	-0.001	0.223	0.851
cg02480199	black	5	145,725,913		S_Shore		0.625	0.001	0.035	0.683
cg18635723	black	5	146,832,298	Body	N_Shore	DPYSL3	0.625	0.001	0.027	0.594
cg20233073	black	4	54,960,226		S_Shore		0.625	-0.002	0.036	0.322
cg23251042	black	11	743,738		N_Shelf		0.625	0.006	0.849	0.559
cg12382153	black	15	58,357,204	Body	N_Shore	ALDH1A2	0.625	-0.001	0.025	0.402
cg23503176	black	10	102,996,798	Body	S_Shore	FLJ41350	0.625	-0.003	0.058	0.397
cg00990385	black	12	113,587,690	1stExon	N_Shelf	CCDC42B	0.625	0.000	0.018	0.966
cg18261909	black	6	30,881,571	TSS1500	Island	VAR52	0.625	0.000	0.162	0.961
cg14203201	black	6	27,258,726		N_Shore		0.625	0.002	0.066	0.830
cg13907146	black	3	50,243,565	5'UTR	Island	SLC38A3	0.625	0.001	0.076	0.858
cg03440750	black	5	175,969,806		Island		0.625	0.002	0.060	0.426
cg02773041	black	1	40,204,384	TSS200	Island	PPIE	0.625	0.000	0.028	0.947
cg27587125	black	1	109,204,207	TSS200	Island	C1orf59	0.624	0.000	0.047	0.991
cg27656949	black	17	46,695,367		Island		0.624	0.002	0.029	0.417
cg09469355	black	1	2,161,886	Body	S_Shore	SKI	0.624	-0.003	0.069	0.647
cg06226534	black	1	156,890,805	Body	Island	C1orf92	0.624	0.005	0.074	0.242
cg19463518	black	19	634,035	TSS1500	S_Shore	POLRMT	0.624	0.000	0.036	0.885
cg26408600	black	14	24,559,812		N_Shelf		0.624	-0.005	0.291	0.445
cg03962678	black	11	118,398,094	TSS200	N_Shelf	TTC36	0.624	-0.004	0.415	0.514

cg15144631	black	7	2,607,139	Body	OpenSea	IQCE	0.624	0.001	0.174	0.880
cg04694437	black	5	88,185,051	5'UTR	N_Shore	MEF2C	0.624	0.000	0.023	0.781
cg07622001	black	5	158,758,903	TSS1500	S_Shore	IL12B	0.624	0.000	0.027	0.898
cg07773769	black	3	52,280,329	1stExon	S_Shore	PPM1M	0.624	0.000	0.061	0.997
cg13989852	black	15	68,260,324		N_Shore		0.624	0.006	0.102	0.269
cg23761161	black	8	146,051,969	TSS1500	Island	ZNF7	0.624	-0.004	0.060	0.189
cg18183624	black	17	47,076,904	Body	S_Shore	IGF2BP1	0.624	0.001	0.034	0.759
cg21034405	black	14	97,832,998		OpenSea		0.624	0.028	0.492	0.004
cg10806009	black	2	66,654,057		Island		0.624	-0.002	0.064	0.763
cg01137471	black	9	841,340	TSS1500	N_Shore	DMRT1	0.624	-0.001	0.024	0.491
cg09831553	black	20	60,943,241	TSS1500	S_Shore	LAMA5	0.624	-0.002	0.025	0.122
cg10331073	black	10	26,856,128	Body	Island	APBB1IP	0.624	0.006	0.073	0.424
cg12530503	black	15	89,911,148	TSS200	Island	MIR9-3	0.624	0.003	0.098	0.576
cg04556126	black	3	147,106,561	3'UTR	N_Shore	ZIC4	0.624	-0.002	0.026	0.337
cg18005828	black	10	120,031,911		OpenSea		0.624	-0.001	0.033	0.420
cg06599209	black	2	1,746,509	Body	N_Shore	PXDN	0.624	0.000	0.029	0.815
cg18250846	black	2	119,592,603		Island		0.624	-0.002	0.042	0.470
cg19220825	black	12	50,353,951	TSS1500	N_Shore	AQP5	0.624	0.005	0.119	0.379
cg09234616	black	11	32,452,592	Body	Island	WT1	0.624	0.000	0.049	0.955
cg02151997	black	6	32,060,791	Body	N_Shelf	TNXB	0.623	0.002	0.200	0.838
cg09556826	black	6	28,956,259		Island		0.623	0.005	0.095	0.412
cg05710562	black	3	13,323,633		Island		0.623	-0.003	0.052	0.261
cg19513071	black	5	87,441,918		OpenSea		0.623	0.001	0.016	0.544
cg15678844	black	10	26,500,780	Body	Island	MYO3A	0.623	0.002	0.020	0.212
cg15331332	black	6	29,692,111	Body	S_Shore	HLA-F	0.623	-0.005	0.063	0.179
cg25809841	black	19	51,162,684		S_Shore		0.623	0.000	0.019	0.862
cg16096717	black	1	117,375,409		OpenSea		0.623	0.011	0.152	0.115
cg21163429	black	10	44,788,812		Island		0.623	0.002	0.097	0.768
cg14376106	black	10	118,609,842		S_Shore		0.623	-0.002	0.186	0.743
cg24565274	black	11	19,736,253	TSS200	S_Shore	LOC1001267	0.623	-0.002	0.045	0.513
cg23013958	black	1	65,612,865	TSS1500	N_Shore	AK3L1	0.623	0.013	0.196	0.069
cg13702421	black	2	172,955,759		N_Shelf		0.623	0.002	0.071	0.498
cg00286125	black	19	36,246,906	Body	Island	HSPB6	0.623	-0.002	0.031	0.204
cg00701267	black	20	5,730,944	TSS200	OpenSea	C20orf196	0.623	0.000	0.044	0.978
cg16601359	black	12	2,955,294		OpenSea		0.623	0.001	0.073	0.702
cg04511728	black	6	137,817,846		N_Shore		0.623	-0.001	0.014	0.392
cg09255586	black	6	10,415,801	Body	N_Shore	TFAP2A	0.623	0.000	0.026	0.715
cg23905164	black	17	46,827,513		Island		0.623	0.002	0.028	0.276
cg16134191	black	11	31,847,509		Island		0.623	0.000	0.039	0.854
cg24377179	black	3	55,523,815		S_Shore		0.623	0.000	0.026	0.957
cg26104143	black	4	41,869,579		S_Shore		0.623	-0.002	0.029	0.263
cg23265500	black	14	65,016,591	TSS200	Island	C14orf50	0.623	0.000	0.039	0.877
cg01497613	black	17	48,041,301		Island		0.623	0.002	0.018	0.029
cg20040743	black	8	91,803,792	TSS200	Island	NECAB1	0.623	-0.003	0.029	0.121
cg13273128	black	2	45,241,620		S_Shore		0.623	0.004	0.027	0.038
cg09545510	black	10	102,976,835		Island		0.623	0.000	0.039	0.865
cg15639684	black	1	85,464,110	TSS1500	Island	MCOLN2	0.623	-0.003	0.034	0.083
cg19432993	black	7	27,143,287	TSS1500	Island	HOXA2	0.622	-0.003	0.068	0.508
cg13683975	black	1	27,943,724	Body	S_Shore	FGR	0.622	0.010	0.547	0.123
cg19516279	black	5	151,153,922	5'UTR	S_Shore	G3BP1	0.622	0.000	0.027	0.984
cg08319130	black	6	100,038,353		N_Shore		0.622	0.000	0.024	0.775
cg07273125	black	16	68,295,692		N_Shelf		0.622	-0.004	0.271	0.475
cg02256570	black	16	68,573,971	Body	S_Shore	ZFP90	0.622	0.000	0.036	0.783
cg23346408	black	10	81,001,957	Body	N_Shore	ZMIZ1	0.622	-0.002	0.057	0.633
cg10513702	black	1	200,003,800	Body	N_Shore	NR5A2	0.622	0.001	0.019	0.348
cg00941258	black	11	68,611,328		Island		0.622	-0.001	0.027	0.370
cg00089915	black	1	66,999,684	TSS200	S_Shore	SGIP1	0.622	-0.002	0.042	0.375
cg03085312	black	17	38,465,281	TSS200	OpenSea	RARA	0.622	0.004	0.031	0.046
cg00065048	black	1	27,962,037	TSS1500	S_Shore	FGR	0.622	0.001	0.054	0.733
cg07740579	black	17	76,124,173	5'UTR	N_Shelf	TMC6	0.622	-0.004	0.063	0.331
cg16819803	black	1	202,996,175		Island		0.622	0.002	0.031	0.438
cg18818531	black	11	65,668,277	TSS1500	S_Shore	FOSL1	0.622	0.006	0.125	0.298
cg21133433	black	4	169,991,796		OpenSea		0.622	0.007	0.303	0.484
cg04475069	black	1	116,382,122	5'UTR	Island	NHLH2	0.622	0.000	0.029	0.778
cg23430664	black	17	48,423,021	TSS1500	Island	XYLT2	0.622	-0.001	0.044	0.484
cg00670942	black	17	74,836,683		OpenSea		0.622	0.001	0.050	0.790
cg16691821	black	1	2,375,627		Island		0.622	0.000	0.028	0.950

cg11142389	black	3	147,125,765	TSS1500	N_Shore	ZIC4	0.622	0.001	0.033	0.448
cg00495311	black	3	120,068,861	TSS1500	S_Shore	LRRCS8	0.622	-0.002	0.042	0.324
cg20605134	black	6	15,400,462	Body	OpenSea	JARID2	0.622	-0.006	0.076	0.236
cg17147466	black	15	93,353,422		S_Shore		0.622	0.010	0.243	0.332
cg13615592	black	15	101,420,708	Body	Island	ALDH1A3	0.622	0.000	0.016	0.521
cg08615567	black	10	125,651,621	TSS200	S_Shore	CPXM2	0.622	0.000	0.061	0.918
cg27473871	black	12	123,636,279		S_Shore		0.622	-0.002	0.263	0.748
cg18817955	black	14	77,511,305		OpenSea		0.622	0.001	0.240	0.930
cg07545278	black	16	67,219,152	TSS1500	Island	KIAA0895L	0.621	-0.001	0.121	0.959
cg05836788	black	1	6,551,105	5'UTR	Island	PLEKHG5	0.621	-0.001	0.058	0.700
cg17970299	black	12	54,772,804	Body	Island	ZNF385A	0.621	-0.003	0.058	0.446
cg14298200	black	8	65,498,812		Island		0.621	-0.001	0.035	0.535
cg23019717	black	6	43,603,423	TSS200	N_Shore	MAD2L1BP	0.621	-0.001	0.024	0.386
cg09714778	black	3	74,664,098		Island		0.621	-0.001	0.035	0.641
cg22210145	black	13	28,545,263		S_Shore		0.621	0.001	0.032	0.696
cg24460369	black	12	109,549,041		Island		0.621	0.000	0.050	0.991
cg27385193	black	7	21,208,954		OpenSea		0.621	-0.001	0.205	0.895
cg00087417	black	6	35,887,678	Body	N_Shore	SRPK1	0.621	-0.002	0.027	0.220
cg00347798	black	3	45,077,649		Island		0.621	-0.003	0.041	0.294
cg23197007	black	6	30,655,617	TSS1500	S_Shore	KIAA1949	0.621	-0.001	0.028	0.565
cg02417480	black	4	152,247,150		S_Shore		0.621	0.000	0.020	0.792
cg22966060	black	19	5,686,806	Body	Island	HSD11B1L	0.621	0.001	0.033	0.547
cg05262436	black	6	137,815,569	TSS200	N_Shore	OLIG3	0.621	0.000	0.019	0.765
cg07789559	black	19	47,730,030	Body	Island	BBC3	0.621	0.001	0.032	0.426
cg05615230	black	12	863,605	Body	S_Shore	WNK1	0.621	-0.001	0.019	0.497
cg04885825	black	1	64,538,523	Body	OpenSea	ROR1	0.621	0.001	0.280	0.827
cg13887205	black	5	139,525,946		Island		0.621	0.000	0.022	0.800
cg08376643	black	10	64,880,766		OpenSea		0.621	0.007	0.569	0.635
cg23456739	black	6	33,163,286	Body	S_Shore	RXR8	0.621	0.004	0.271	0.355
cg18871289	black	17	72,210,278	TSS1500	Island	MGC16275	0.621	-0.003	0.072	0.582
cg07465480	black	6	18,156,341	TSS1500	Island	TPMT	0.620	0.000	0.039	0.769
cg01160882	black	10	54,075,082	Body	S_Shore	DKK1	0.620	-0.002	0.094	0.738
cg20559216	black	13	52,703,417	TSS1500	S_Shore	NEK5	0.620	-0.001	0.045	0.675
cg20516262	black	7	155,325,649	5'UTR	N_Shore	CNPY1	0.620	-0.001	0.048	0.730
cg06530961	black	18	12,038,718		Island		0.620	-0.002	0.031	0.300
cg02060689	black	10	122,738,656		N_Shore		0.620	-0.004	0.083	0.594
cg16352072	black	1	910,223	3'UTR	N_Shelf	PLEKHN1	0.620	-0.002	0.489	0.771
cg24673101	black	14	100,069,840	1stExon	Island	CCDC85C	0.620	0.001	0.030	0.612
cg11526928	black	6	10,411,204	Body	N_Shore	TFAP2A	0.620	-0.001	0.017	0.402
cg12262781	black	6	116,866,784	5'UTR	OpenSea	FAM26D	0.620	-0.008	0.453	0.457
cg05639258	black	11	64,879,330	TSS200	Island	TM7SF2	0.620	-0.001	0.020	0.170
cg13154880	black	4	48,486,472	Body	Island	SLC10A4	0.620	-0.003	0.039	0.129
cg21236315	black	2	45,162,467		Island		0.620	-0.001	0.047	0.661
cg18186394	black	1	40,783,185	TSS1500	S_Shore	COL9A2	0.620	0.000	0.024	0.877
cg04135498	black	3	120,628,544	Body	S_Shore	STXBP5L	0.620	-0.004	0.061	0.374
cg11839415	black	1	43,814,764	Body	Island	MPL	0.620	0.000	0.068	0.970
cg07382943	black	19	51,830,477	Body	Island	IGLON5	0.620	-0.002	0.023	0.280
cg15361590	black	5	140,864,701	Body	Island	PCDHGA4	0.620	-0.011	0.075	0.018
cg24770624	black	2	20,068,871		Island		0.620	-0.001	0.042	0.812
cg08499881	black	17	74,454,829	5'UTR	OpenSea	AANAT	0.620	-0.002	0.108	0.713
cg26470798	black	16	54,971,598		Island		0.620	0.001	0.018	0.239
cg22065526	black	2	220,436,921	TSS1500	S_Shore	OBSL1	0.620	0.000	0.046	0.965
cg01541867	black	9	86,755,499		Island		0.619	0.002	0.049	0.481
cg09297903	black	8	42,234,798	TSS200	OpenSea	DKK4	0.619	0.004	0.233	0.483
cg26721877	black	5	172,757,074	TSS1500	Island	STC2	0.619	0.003	0.042	0.328
cg16019612	black	19	708,568	TSS1500	Island	PALM	0.619	-0.009	0.158	0.217
cg08013793	black	3	49,905,354	5'UTR	N_Shore	CAMKV	0.619	0.002	0.047	0.491
cg05570980	black	3	111,804,983	TSS200	Island	C3orf52	0.619	0.001	0.058	0.726
cg04235146	black	12	110,718,311	TSS1500	N_Shore	ATP2A2	0.619	-0.001	0.036	0.365
cg05781996	black	15	65,481,537		S_Shelf		0.619	0.009	0.086	0.178
cg13719188	black	1	236,445,668	TSS1500	Island	ERO1LB	0.619	-0.002	0.025	0.159
cg17880014	black	2	71,693,165	TSS1500	Island	DYSF	0.619	0.009	0.083	0.176
cg07104209	black	7	27,281,872	TSS1500	N_Shore	EVX1	0.619	-0.001	0.023	0.661
cg04691908	black	11	128,565,168	Body	S_Shore	FLI1	0.619	-0.005	0.043	0.113
cg01535080	black	6	166,077,669		Island		0.619	-0.006	0.051	0.040
cg06341027	black	6	21,667,407	Body	S_Shore	FLJ22536	0.619	0.000	0.041	0.801
cg14319235	black	1	79,472,282	Body	Island	ELTD1	0.619	0.003	0.044	0.262



cg03323794	black	7	151,215,397	Body	N_Shore	RHEB	0.619	0.002	0.025	0.151
cg24745495	black	19	15,344,239	TSS1500	Island	EPHX3	0.619	0.000	0.051	0.969
cg11118422	black	6	28,557,883		S_Shelf		0.619	0.012	0.121	0.280
cg09336406	black	2	20,068,906		Island		0.619	-0.006	0.068	0.236
cg09210519	black	10	105,452,352	Body	Island	SH3PXD2A	0.619	0.000	0.026	0.928
cg14261840	black	3	62,360,417	TSS1500	S_Shore	FEZF2	0.619	-0.002	0.032	0.203
cg05699373	black	11	60,609,308	TSS200	N_Shore	CCDC86	0.619	-0.003	0.066	0.519
cg15124711	black	5	169,930,879	TSS200	N_Shore	KCNIP1	0.619	0.001	0.050	0.634
cg15922976	black	10	121,486,206	Body	S_Shore	INPP5F	0.618	-0.003	0.052	0.187
cg02156296	black	22	36,806,414		Island		0.618	0.000	0.036	0.945
cg02525822	black	16	84,682,731	5'UTR	Island	KLHL36	0.618	-0.001	0.032	0.378
cg08378567	black	6	136,172,815	TSS200	OpenSea	PDE7B	0.618	0.001	0.029	0.535
cg01024168	black	7	27,209,281	TSS200	Island	MIR196B	0.618	-0.002	0.030	0.145
cg12279419	black	6	33,943,662		Island		0.618	-0.002	0.056	0.540
cg19618955	black	2	175,209,865		S_Shore		0.618	0.000	0.028	0.726
cg21604042	black	6	35,181,401	TSS1500	Island	SCUBE3	0.618	0.001	0.024	0.368
cg09557034	black	7	11,872,059	TSS1500	OpenSea	THSD7A	0.618	-0.005	0.082	0.435
cg21351102	black	18	3,247,294	TSS1500	Island	MYL12A	0.618	-0.002	0.049	0.647
cg11809464	black	6	100,054,515	TSS200	N_Shore	PRDM13	0.618	-0.008	0.059	0.094
cg06882058	black	1	243,646,787	Body	Island	SDCCAG8	0.618	0.001	0.032	0.653
cg14614211	black	10	28,034,247	5'UTR	Island	MKX	0.618	0.001	0.037	0.630
cg00506049	black	7	75,887,380	Body	N_Shore	SRRM3	0.618	-0.003	0.204	0.745
cg08926287	black	3	14,443,694	TSS1500	Island	SLC6A6	0.618	-0.003	0.137	0.615
cg14331029	black	14	96,658,912		OpenSea		0.618	0.007	0.441	0.459
cg03157591	black	20	42,875,645	TSS1500	N_Shore	GDAP1L1	0.618	-0.003	0.067	0.441
cg18485720	black	19	720,740	Body	Island	PALM	0.618	-0.001	0.073	0.838
cg16619193	black	1	206,643,301	TSS1500	OpenSea	IKBKE	0.618	-0.003	0.094	0.557
cg04536922	black	4	89,978,566	TSS1500	OpenSea	FAM13A	0.618	0.000	0.016	0.652
cg23328852	black	5	132,946,269	5'UTR	N_Shore	FSTL4	0.618	0.001	0.192	0.949
cg01499197	black	13	28,544,814	TSS1500	Island	CDX2	0.618	-0.005	0.036	0.014
cg01323049	black	2	19,557,396	5'UTR	Island	OSR1	0.618	0.000	0.011	0.530
cg10931190	black	5	110,406,506	TSS1500	N_Shelf	TSLP	0.617	0.003	0.028	0.500
cg07891507	black	3	155,463,719		S_Shore		0.617	-0.001	0.044	0.802
cg09630404	black	8	38,008,543	5'UTR	OpenSea	STAR	0.617	0.000	0.018	0.689
cg24394172	black	4	46,995,203	Body	Island	GABRA4	0.617	-0.001	0.050	0.814
cg06821993	black	8	114,449,011	1stExon	S_Shelf	CSMD3	0.617	0.000	0.016	0.667
cg14706852	black	2	127,976,351		N_Shore		0.617	-0.006	0.036	0.007
cg06082050	black	1	91,630,943		OpenSea		0.617	-0.002	0.043	0.277
cg26451415	black	7	64,350,150		Island		0.617	0.003	0.082	0.636
cg20834178	black	4	6,944,071	Body	OpenSea	TBC1D14	0.617	-0.008	0.184	0.358
cg14778348	black	5	142,149,600	TSS1500	Island	ARHGAP26	0.617	0.001	0.038	0.590
cg06524668	black	16	85,298,355		OpenSea		0.617	0.002	0.286	0.735
cg13342435	black	11	30,605,787	5'UTR	Island	MPPED2	0.617	0.001	0.016	0.400
cg11896923	black	17	37,825,027	Body	S_Shore	PNMT	0.617	-0.007	0.136	0.280
cg23971110	black	6	99,275,960		Island		0.617	0.001	0.149	0.781
cg19718882	black	11	32,458,714	Body	N_Shore	WIT1	0.617	0.002	0.040	0.419
cg03524243	black	7	22,396,146	5'UTR	Island	RAPGEF5	0.617	-0.001	0.059	0.803
cg15384453	black	6	30,070,082		Island		0.617	-0.002	0.032	0.298
cg07028733	black	10	29,228,804		OpenSea		0.617	0.006	0.056	0.340
cg03814063	black	22	50,025,915	Body	Island	C22orf34	0.617	-0.011	0.118	0.189
cg00467420	black	10	1,779,432	1stExon	Island	ADARB2	0.617	-0.001	0.031	0.643
cg12498395	black	10	65,771,748		OpenSea		0.617	0.003	0.122	0.624
cg23477967	black	2	188,419,087	1stExon	OpenSea	TFPI	0.617	0.002	0.029	0.252
cg17072519	black	22	21,322,063	5'UTR	S_Shelf	AIFM3	0.617	-0.006	0.175	0.380
cg08481354	black	11	33,824,272		OpenSea		0.617	-0.001	0.027	0.298
cg02019125	black	3	156,323,952		OpenSea		0.617	0.005	0.075	0.225
cg18541254	black	13	112,709,550		N_Shore		0.616	-0.003	0.039	0.154
cg03560586	black	2	239,334,908	TSS1500	N_Shore	ASB1	0.616	0.000	0.042	0.994
cg19713196	black	1	201,368,390	Body	N_Shore	LAD1	0.616	-0.002	0.076	0.588
cg03415253	black	6	152,958,462	1stExon	Island	SYNE1	0.616	-0.001	0.027	0.542
cg21521117	black	6	27,247,908		OpenSea		0.616	0.002	0.036	0.386
cg22627800	black	1	204,333,036		OpenSea		0.616	0.000	0.050	0.859
cg20128802	black	6	41,601,612		N_Shelf		0.616	-0.002	0.061	0.652
cg00566759	black	18	28,682,345	1stExon	Island	DSC2	0.616	0.000	0.019	0.778
cg08296903	black	16	14,029,456	Body	OpenSea	ERCC4	0.616	-0.004	0.298	0.652
cg22049899	black	12	47,219,821	TSS200	OpenSea	SLC38A4	0.616	-0.001	0.017	0.125
cg07010075	black	2	121,199,631		N_Shore		0.616	-0.003	0.030	0.061

cg07023459	black	1	113,265,410	Body	N_Shore	FAM19A3	0.616	0.000	0.022	0.816
cg23185829	black	6	85,482,946		Island		0.616	-0.001	0.012	0.545
cg02360432	black	5	1,029,704	Body	OpenSea	NKD2	0.616	-0.007	0.328	0.540
cg27295595	black	16	29,796,756		Island		0.616	-0.003	0.224	0.738
cg03845289	black	11	129,245,744	TSS200	Island	BARX2	0.616	0.000	0.025	0.819
cg04799722	black	12	52,317,475		OpenSea		0.616	-0.001	0.028	0.481
cg03744043	black	18	45,662,275		N_Shore		0.616	-0.003	0.072	0.399
cg07540421	black	2	71,115,680		N_Shore		0.616	0.000	0.035	0.902
cg07539798	black	5	140,811,312	Body	Island	PCDHGA4	0.616	-0.004	0.187	0.539
cg14701072	black	22	41,075,428	5'UTR	OpenSea	MCHR1	0.616	0.000	0.027	0.972
cg04516112	black	3	124,303,404	TSS200	N_Shore	KALRN	0.616	-0.002	0.043	0.373
cg06496222	black	16	57,181,668	3'UTR	OpenSea	CPNE2	0.616	0.006	0.122	0.227
cg05994794	black	4	41,752,248	TSS1500	N_Shore	PHOX2B	0.616	0.001	0.026	0.429
cg08719712	black	7	130,419,485	TSS1500	S_Shore	KLF14	0.616	-0.002	0.023	0.185
cg04576568	black	2	220,377,822	TSS1500	Island	ACCN4	0.616	0.003	0.021	0.042
cg26755141	black	6	100,903,839	Body	N_Shore	SIM1	0.616	0.001	0.018	0.572
cg25270886	black	17	77,752,742	Body	Island	CBX2	0.616	-0.001	0.033	0.755
cg11584921	black	1	17,829,087		OpenSea		0.616	0.000	0.020	0.774
cg00336700	black	2	176,943,704		N_Shore		0.616	0.006	0.056	0.152
cg04557357	black	10	13,934,255	Body	S_Shore	FRMD4A	0.616	-0.001	0.026	0.680
cg04689023	black	19	13,266,516		Island		0.616	-0.003	0.037	0.123
cg07397399	black	3	66,025,220	TSS1500	Island	MAGI1	0.616	-0.001	0.025	0.534
cg09992746	black	15	60,285,821		N_Shore		0.616	-0.001	0.150	0.939
cg07811779	black	10	12,861,480	Body	OpenSea	CAMK1D	0.615	-0.005	0.475	0.390
cg01984511	black	12	113,495,839	1stExon	S_Shore	DTX1	0.615	-0.006	0.326	0.205
cg21279806	black	6	169,654,719	TSS1500	OpenSea	THBS2	0.615	-0.002	0.228	0.896
cg27173717	black	1	40,420,503	TSS1500	Island	MFSD2A	0.615	0.007	0.221	0.287
cg20674701	black	8	10,591,081		Island		0.615	-0.002	0.029	0.105
cg01295203	black	8	70,984,199	TSS1500	Island	PRDM14	0.615	-0.001	0.030	0.345
cg11972332	black	17	59,494,129		Island		0.615	-0.002	0.049	0.410
cg08058672	black	3	51,423,212	Body	S_Shore	MANF	0.615	0.000	0.049	0.944
cg18303477	black	10	94,180,046		N_Shore		0.615	-0.001	0.048	0.783
cg15248935	black	7	157,180,055	Body	OpenSea	DNAJB6	0.615	0.008	0.162	0.220
cg11700800	black	5	92,906,633	Body	Island	FLJ42709	0.615	-0.011	0.231	0.068
cg24392479	black	17	79,934,870	TSS1500	N_Shore	ASPSCR1	0.615	0.003	0.031	0.115
cg04580872	black	16	67,198,367	5'UTR	Island	HSF4	0.615	-0.001	0.039	0.732
cg17559809	black	5	83,680,968	TSS1500	S_Shore	EDIL3	0.615	-0.002	0.049	0.611
cg11756518	black	6	107,809,929	TSS1500	N_Shore	SOBP	0.615	-0.001	0.018	0.301
cg21428710	black	12	47,219,797	TSS200	OpenSea	SLC38A4	0.615	0.001	0.024	0.396
cg01583131	black	11	27,744,675	TSS1500	S_Shore	BDNF	0.615	0.000	0.029	0.953
cg07036460	black	2	105,489,429		Island		0.615	0.003	0.037	0.298
cg09720207	black	12	54,400,125		Island		0.615	0.000	0.025	0.798
cg01826574	black	9	843,179	Body	Island	DMRT1	0.615	0.002	0.021	0.078
cg25150721	black	1	100,826,388	Body	OpenSea	CDC14A	0.615	-0.003	0.036	0.182
cg10121429	black	16	75,466,707	Body	N_Shore	CFDP1	0.615	0.001	0.037	0.614
cg03547924	black	20	34,025,927	1stExon	S_Shelf	GDF5	0.615	0.002	0.054	0.717
cg13295238	black	5	158,478,629	Body	Island	EBF1	0.615	0.000	0.038	0.844
cg26607785	black	17	45,810,424	TSS200	N_Shore	TBX21	0.615	0.001	0.059	0.671
cg23706782	black	15	71,677,955	Body	OpenSea	THSD4	0.615	0.000	0.061	0.939
cg07338917	black	13	112,728,964		S_Shore		0.615	0.000	0.042	0.908
cg27624319	black	20	33,147,017	Body	Island	MAP1LC3A	0.615	-0.002	0.114	0.808
cg03429645	black	3	100,053,188	TSS1500	N_Shore	NIT2	0.615	0.000	0.054	0.945
cg06230948	black	6	33,280,518	Body	N_Shore	TAPBP	0.614	-0.001	0.023	0.749
cg27239280	black	16	30,907,679	TSS1500	S_Shore	CTF1	0.614	-0.001	0.033	0.413
cg14553740	black	9	18,976,715	Body	OpenSea	FAM154A	0.614	-0.005	0.227	0.484
cg09817427	black	6	85,474,313	TSS1500	S_Shore	TBX18	0.614	0.000	0.013	0.881
cg17493815	black	4	156,681,385	Body	Island	GUCY1B3	0.614	0.001	0.112	0.927
cg04441405	black	5	1,877,309		Island		0.614	-0.005	0.080	0.357
cg17568962	black	6	35,456,312	5'UTR	S_Shore	TEAD3	0.614	0.007	0.145	0.084
cg19186380	black	12	54,427,029	5'UTR	Island	HOXC4	0.614	0.002	0.049	0.376
cg18439195	black	17	41,980,192	Body	N_Shelf	MPP2	0.614	0.015	0.576	0.068
cg13851508	black	2	66,805,939		S_Shore		0.614	-0.001	0.018	0.368
cg13497089	black	4	83,718,406	Body	N_Shore	SCD5	0.614	0.004	0.247	0.477
cg26401673	black	3	43,431,343	Body	OpenSea	ANO10	0.614	-0.005	0.472	0.625
cg21581821	black	1	190,444,666	5'UTR	OpenSea	FAM5C	0.614	0.001	0.026	0.601
cg22552168	black	8	22,023,391	Body	OpenSea	BMP1	0.614	-0.001	0.020	0.186
cg26082368	black	6	37,673,708		Island		0.614	0.000	0.044	0.866

cg11750851	black	1	86,047,433	Body	S_Shore	CYR61	0.614	0.002	0.025	0.298
cg21803959	black	8	144,503,255		N_Shore		0.614	0.000	0.017	0.951
cg04905829	black	12	58,160,911	5'UTR	S_Shore	CYP27B1	0.614	0.001	0.043	0.691
cg18892212	black	16	31,499,991	Body	Island	SLC5A2	0.614	0.001	0.058	0.925
cg15910662	black	2	105,460,108		Island		0.614	-0.001	0.038	0.741
cg08049853	black	4	41,875,784		Island		0.614	0.000	0.025	0.981
cg27405988	black	3	48,171,915		OpenSea		0.614	-0.004	0.151	0.673
cg01130192	black	9	32,385,002	5'UTR	S_Shore	ACO1	0.614	-0.001	0.029	0.607
cg13921640	black	17	48,040,877		N_Shore		0.614	-0.008	0.186	0.328
cg15037137	black	7	27,144,302		N_Shore		0.614	-0.003	0.061	0.582
cg20381975	black	13	25,320,750		Island		0.614	0.003	0.174	0.602
cg00849692	black	6	99,295,724		N_Shore		0.613	-0.002	0.033	0.215
cg07178969	black	11	59,323,439		OpenSea		0.613	-0.002	0.061	0.743
cg23633010	black	1	228,225,886	Body	S_Shore	WNT3A	0.613	0.000	0.066	0.860
cg22006825	black	19	41,771,771	Body	S_Shore	HNRNPUL1	0.613	-0.002	0.073	0.410
cg14482308	black	2	18,059,109	TSS1500	Island	KCNS3	0.613	-0.002	0.032	0.384
cg09943102	black	7	73,157,788		OpenSea		0.613	0.001	0.065	0.732
cg03605404	black	20	34,251,574	5'UTR	N_Shore	CPNE1	0.613	0.000	0.022	0.632
cg08959216	black	7	35,293,309	1stExon	Island	TBX20	0.613	-0.001	0.028	0.591
cg05086282	black	14	102,228,853	Body	Island	PPP2R5C	0.613	0.000	0.051	0.972
cg13904704	black	1	20,693,892		S_Shore		0.613	0.002	0.030	0.359
cg11226913	black	14	29,254,961	Body	Island	C14orf23	0.613	0.000	0.029	0.839
cg19720265	black	1	220,700,883	TSS1500	N_Shore	MARK1	0.613	0.001	0.028	0.367
cg16625004	black	3	183,959,550	Body	Island	VWA5B2	0.613	-0.002	0.094	0.717
cg26395331	black	3	111,856,140		OpenSea		0.613	0.003	0.051	0.544
cg23362667	black	1	205,181,077	TSS1500	S_Shore	DSTYK	0.613	0.001	0.034	0.559
cg16266925	black	3	138,049,011	TSS1500	S_Shore	TXNDC6	0.613	-0.004	0.050	0.215
cg03844211	black	6	30,684,773	5'UTR	N_Shore	MDC1	0.613	-0.002	0.035	0.375
cg10005978	black	9	977,818	Body	Island	DMRT3	0.613	0.002	0.062	0.522
cg24283019	black	6	32,381,449		OpenSea		0.613	0.000	0.046	0.835
cg09564913	black	11	125,463,439	5'UTR	S_Shore	STT3A	0.613	0.000	0.014	0.634
cg12730853	black	1	64,935,328	TSS1500	N_Shore	CACHD1	0.613	-0.002	0.133	0.742
cg12417871	black	2	26,404,158	Body	N_Shelf	FAM59B	0.613	0.015	0.875	0.078
cg23008352	black	13	110,951,025	Body	OpenSea	COL4A1	0.613	-0.011	0.131	0.245
cg10074544	black	4	110,223,700	1stExon	Island	COL25A1	0.613	0.000	0.021	0.739
cg25639084	black	13	24,133,513		OpenSea		0.613	0.000	0.025	0.782
cg14410064	black	11	44,332,134	TSS1500	N_Shore	ALX4	0.613	0.001	0.024	0.407
cg04416981	black	16	89,043,707	TSS1500	OpenSea	CBFA2T3	0.613	-0.002	0.237	0.744
cg08683644	black	10	44,853,092		OpenSea		0.612	-0.010	0.386	0.244
cg08794157	black	17	15,164,627	5'UTR	Island	PMP22	0.612	-0.003	0.034	0.183
cg21542078	black	19	49,700,006	Body	Island	TRPM4	0.612	-0.003	0.491	0.780
cg10427868	black	10	80,936,798	5'UTR	OpenSea	ZMIZ1	0.612	0.000	0.590	0.954
cg09059945	black	7	130,126,018	TSS200	Island	MEST	0.612	-0.010	0.162	0.332
cg13877801	black	7	138,666,834	TSS1500	Island	KIAA1549	0.612	-0.001	0.027	0.700
cg05157251	black	18	57,566,460	TSS1500	N_Shore	PMAIP1	0.612	0.000	0.016	0.716
cg04310104	black	6	50,785,757	TSS1500	N_Shore	TFAP2B	0.612	0.000	0.020	0.837
cg07455975	black	2	175,112,849	5'UTR	N_Shore	OLA1	0.612	0.000	0.061	0.925
cg26134619	black	4	17,325,429		OpenSea		0.612	-0.005	0.027	0.018
cg09807565	black	4	56,502,788	TSS1500	S_Shore	NMU	0.612	0.001	0.023	0.326
cg08284496	black	17	37,894,027	TSS1500	OpenSea	GRB7	0.612	-0.003	0.082	0.643
cg03460137	black	6	100,051,480		Island		0.612	0.000	0.031	0.922
cg22961212	black	5	66,564,534		OpenSea		0.612	0.001	0.031	0.672
cg02381898	black	4	54,970,175		S_Shelf		0.612	0.000	0.027	0.740
cg15129679	black	1	85,513,315	5'UTR	N_Shore	MCOLN3	0.612	0.000	0.025	0.984
cg01495509	black	5	169,816,378	Body	OpenSea	KCNIP1	0.612	-0.003	0.163	0.655
cg05603292	black	6	29,691,631	Body	Island	HLA-F	0.612	-0.001	0.031	0.645
cg15392900	black	17	41,909,709	5'UTR	N_Shore	MPP3	0.612	0.000	0.212	0.968
cg19919344	black	5	153,856,213	Body	N_Shore	HAND1	0.612	-0.003	0.039	0.191
cg25077733	black	7	115,813,641		OpenSea		0.612	-0.007	0.285	0.371
cg11202131	black	8	65,490,343	TSS1500	N_Shore	LOC401463	0.612	0.000	0.016	0.846
cg22948808	black	11	46,360,763	Body	OpenSea	DGKZ	0.612	-0.009	0.073	0.054
cg16064097	black	1	46,955,990		Island		0.612	0.001	0.019	0.381
cg00340102	black	20	34,129,456	TSS1500	N_Shore	ERGIC3	0.612	-0.001	0.050	0.856
cg04661674	black	6	29,596,874	TSS1500	S_Shore	GABBR1	0.612	0.000	0.023	0.706
cg21464565	black	7	27,141,139	Body	N_Shelf	HOXA2	0.612	-0.003	0.045	0.369
cg20306180	black	22	32,340,197	5'UTR	Island	C22orf24	0.612	0.000	0.043	0.960
cg12251779	black	22	45,608,440	Body	OpenSea	C22orf9	0.611	-0.005	0.046	0.341

cg05982757	black	12	54,427,528	5'UTR	Island	HOXC4	0.611	0.001	0.046	0.780
cg16190266	black	14	38,680,855	3'UTR	Island	SSTR1	0.611	-0.004	0.044	0.191
cg08622677	black	12	3,601,306	Body	Island	PRMT8	0.611	-0.002	0.033	0.309
cg11640756	black	6	143,247,810	5'UTR	Island	HIVEP2	0.611	-0.002	0.040	0.388
cg02943290	black	1	231,005,387	TSS200	S_Shore	C1orf198	0.611	-0.008	0.065	0.126
cg06146234	black	7	155,599,625	Body	N_Shore	SHH	0.611	-0.003	0.070	0.554
cg08419589	black	4	74,486,230	1stExon	Island	RASSF6	0.611	-0.004	0.032	0.140
cg13409170	black	9	127,532,069	Body	Island	NR6A1	0.611	0.000	0.015	0.882
cg03682366	black	2	239,072,199		Island		0.611	0.006	0.194	0.379
cg03875195	black	2	27,486,363	TSS1500	Island	SLC30A3	0.611	0.007	0.089	0.267
cg27503360	black	17	43,890,749	Body	OpenSea	CRHR1	0.611	-0.004	0.146	0.402
cg01713438	black	1	175,116,228	3'UTR	OpenSea	TNN	0.611	0.000	0.397	0.991
cg13274107	black	2	102,090,371	5'UTR	Island	RFX8	0.611	-0.001	0.027	0.555
cg06418871	black	5	68,710,831	TSS200	Island	MARVELD2	0.611	0.005	0.049	0.321
cg08081424	black	2	159,749,591		OpenSea		0.611	0.000	0.390	0.979
cg01603079	black	10	102,976,327		Island		0.611	0.000	0.024	0.839
cg22372930	black	19	55,630,001	TSS1500	S_Shore	PPP1R12C	0.611	0.002	0.019	0.070
cg03217115	black	2	118,942,841		N_Shore		0.611	-0.003	0.205	0.717
cg05888175	black	1	91,301,204		Island		0.611	-0.006	0.111	0.276
cg18081338	black	6	17,212,963		OpenSea		0.611	0.000	0.035	0.946
cg03210277	black	1	26,233,332	1stExon	Island	STMN1	0.611	-0.001	0.026	0.503
cg22121570	black	15	37,176,940	Body	N_Shelf	LOC145845	0.611	0.012	0.233	0.465
cg19159365	black	1	67,218,505	5'UTR	S_Shore	TCTEX1D1	0.611	-0.002	0.088	0.739
cg13875111	black	2	27,487,130	TSS1500	Island	SLC30A3	0.611	-0.001	0.031	0.620
cg16836311	black	1	25,944,712	1stExon	Island	MAN1C1	0.611	-0.003	0.041	0.245
cg21770330	black	11	124,616,459	3'UTR	Island	NRGN	0.611	0.000	0.020	0.950
cg15593187	black	5	137,911,699	TSS1500	S_Shore	HSPA9	0.611	0.000	0.035	0.843
cg05426485	black	13	28,528,981		Island		0.611	0.000	0.021	0.927
cg01705131	black	6	35,732,480		N_Shore		0.610	0.003	0.038	0.117
cg06826457	black	12	12,867,669		N_Shelf		0.610	-0.008	0.128	0.207
cg12670305	black	6	31,762,630	Body	N_Shore	VARS	0.610	0.001	0.034	0.447
cg10735632	black	2	106,681,831	TSS1500	N_Shore	C2orf40	0.610	0.000	0.029	0.775
cg24678163	black	13	52,769,951	TSS1500	S_Shore	THSD1P	0.610	-0.002	0.429	0.827
cg04317399	black	7	27,170,313	1stExon	Island	HOXA4	0.610	-0.001	0.045	0.773
cg19823138	black	15	99,559,002		Island		0.610	-0.001	0.020	0.634
cg10718991	black	2	136,874,580	Body	Island	CXCR4	0.610	-0.003	0.036	0.067
cg00828762	black	8	42,234,732	TSS200	OpenSea	DKK4	0.610	0.001	0.039	0.738
cg13780516	black	9	124,262,551	TSS1500	Island	GGTA1	0.610	0.001	0.019	0.481
cg14569644	black	12	54,408,091		N_Shore		0.610	0.017	0.104	0.200
cg07068273	black	12	49,364,199	Body	Island	WNT10B	0.610	0.001	0.034	0.602
cg10909939	black	1	228,075,683		Island		0.610	0.014	0.155	0.323
cg23305899	black	14	101,539,489		OpenSea		0.610	0.036	0.572	0.075
cg02946204	black	14	54,430,663		Island		0.610	0.002	0.060	0.619
cg08792630	black	6	108,883,909	Body	S_Shore	FOXO3	0.610	0.003	0.027	0.072
cg02250258	black	13	110,789,675		N_Shore		0.610	0.001	0.027	0.438
cg09554300	black	1	201,123,894	TSS1500	S_Shore	TMEM9	0.610	0.002	0.032	0.346
cg04887321	black	16	55,090,590		N_Shore		0.610	0.001	0.030	0.499
cg05825420	black	10	119,303,479	Body	Island	EMX2OS	0.610	-0.001	0.047	0.695
cg04599403	black	5	926,793		Island		0.610	0.002	0.022	0.367
cg04655699	black	6	30,512,550	3'UTR	OpenSea	GNL1	0.610	0.007	0.283	0.172
cg12152002	black	14	57,279,496	TSS1500	S_Shore	OTX2OS1	0.610	0.003	0.036	0.364
cg12060744	black	19	58,095,581	TSS200	Island	ZIK1	0.610	0.006	0.160	0.401
cg23283839	black	6	158,939,381		S_Shore		0.610	0.001	0.031	0.341
cg16448890	black	3	8,783,613	Body	OpenSea	CAV3	0.610	0.002	0.039	0.433
cg01898964	black	2	175,203,497		N_Shore		0.610	-0.002	0.042	0.316
cg04833050	black	5	77,806,051	5'UTR	Island	LHFPL2	0.610	-0.002	0.051	0.646
cg06556702	black	12	58,004,448	Body	N_Shore	GEFT	0.609	-0.001	0.023	0.308
cg09978077	black	22	42,229,983	Body	Island	SREBF2	0.609	-0.002	0.061	0.659
cg13613280	black	1	115,881,044	TSS200	Island	NGF	0.609	-0.001	0.021	0.179
cg25045942	black	6	33,048,291	Body	N_Shore	HLA-DPB1	0.609	-0.001	0.039	0.759
cg13376158	black	17	73,128,023	TSS200	S_Shore	NT5C	0.609	0.000	0.041	0.991
cg04070176	black	16	3,020,118	Body	Island	PAQR4	0.609	0.002	0.042	0.283
cg23358564	black	5	131,608,775	3'UTR	S_Shore	PDLIM4	0.609	-0.001	0.186	0.890
cg24008577	black	3	62,353,504		N_Shore		0.609	-0.001	0.019	0.588
cg12057190	black	19	54,976,211	TSS1500	Island	LENG9	0.609	0.002	0.115	0.761
cg05215272	black	17	6,899,095	TSS1500	Island	ALOX12	0.609	-0.002	0.077	0.767
cg15364131	black	22	32,341,622	TSS1500	S_Shore	C22orf24	0.609	0.001	0.020	0.487

cg05674602	black	2	16,153,506	N_Shore		0.609	0.000	0.024	0.862
cg19046253	black	2	152,956,135 TSS1500	S_Shore	CACNB4	0.609	-0.001	0.018	0.321
cg05133578	black	12	46,663,407 TSS200	Island	SLC38A1	0.609	-0.004	0.051	0.082
cg24719107	black	13	38,172,876 5'UTR	OpenSea	POSTN	0.609	0.000	0.024	0.976
cg06083669	black	20	3,189,437 TSS1500	N_Shore	ITPA	0.609	0.001	0.061	0.761
cg20175390	black	2	119,599,459	Island		0.609	-0.003	0.039	0.324
cg18342026	black	6	29,521,046	N_Shore		0.609	-0.012	0.117	0.179
cg17280106	black	17	77,767,084	Island		0.609	0.000	0.014	0.784
cg24452591	black	12	47,224,823	N_Shore		0.609	-0.001	0.039	0.673
cg02164225	black	2	176,977,773	S_Shore		0.609	-0.001	0.023	0.562
cg19500766	black	7	127,841,927	S_Shore		0.609	-0.004	0.076	0.326
cg15385139	black	6	29,595,506 Body	Island	GABBR1	0.609	-0.001	0.032	0.652
cg02399371	black	17	79,306,875	OpenSea		0.609	-0.003	0.040	0.209
cg22942704	black	1	20,813,574 TSS1500	S_Shore	CAMK2N1	0.608	-0.001	0.050	0.378
cg03957124	black	6	37,016,869	S_Shelf		0.608	0.003	0.534	0.540
cg12600197	black	15	75,639,339 1stExon	N_Shore	NEIL1	0.608	0.004	0.337	0.444
cg09181792	black	7	117,119,393 TSS1500	OpenSea	CFTR	0.608	0.000	0.026	0.868
cg26311262	black	3	56,858,039 Body	OpenSea	ARHGEF3	0.608	-0.001	0.031	0.504
cg09307742	black	12	123,634,957	Island		0.608	0.000	0.037	0.852
cg14190522	black	9	124,344,221 Body	OpenSea	DAB2IP	0.608	-0.001	0.036	0.451
cg26033349	black	2	187,713,554 Body	N_Shore	ZSWIM2	0.608	-0.004	0.042	0.253
cg04346672	black	14	69,229,910	OpenSea		0.608	-0.003	0.034	0.092
cg11632438	black	3	158,519,176 TSS1500	N_Shore	MFSD1	0.608	-0.001	0.136	0.810
cg05539515	black	1	62,784,269 5'UTR	Island	KANK4	0.608	-0.006	0.066	0.129
cg16763443	black	14	38,080,240	Island		0.608	0.006	0.328	0.600
cg07634959	black	4	114,901,187 TSS1500	S_Shore	ARSJ	0.608	0.000	0.027	0.844
cg11028201	black	4	41,867,562	Island		0.608	0.000	0.026	0.738
cg16275882	black	7	1,288,184	S_Shore		0.608	0.000	0.021	0.941
cg27577972	black	1	151,513,502 Body	S_Shore	TUFT1	0.608	0.005	0.061	0.235
cg18557556	black	12	75,905,681 TSS1500	S_Shore	KRR1	0.608	0.002	0.048	0.693
cg07087686	black	1	47,691,845 5'UTR	S_Shore	TAL1	0.608	0.000	0.058	0.883
cg09601175	black	2	177,025,608	Island		0.608	-0.002	0.029	0.270
cg11644479	black	11	2,292,914 TSS1500	Island	ASCL2	0.608	0.013	0.290	0.186
cg18524739	black	2	105,471,348 TSS1500	Island	POU3F3	0.608	-0.003	0.039	0.064
cg06049868	black	13	112,717,707	S_Shore		0.608	-0.003	0.112	0.655
cg10368049	black	7	94,023,796 TSS200	OpenSea	COL1A2	0.608	-0.003	0.036	0.254
cg02435573	black	1	94,712,239	N_Shore		0.608	-0.001	0.020	0.468
cg01543184	black	17	79,881,543 5'UTR	S_Shore	MAFG	0.608	-0.002	0.245	0.896
cg12973365	black	21	38,353,318 5'UTR	S_Shore	HLCS	0.608	0.003	0.036	0.232
cg14115004	black	17	37,793,212 TSS200	N_Shore	STAR3	0.608	0.002	0.020	0.028
cg18318878	black	1	214,159,037	Island		0.608	0.000	0.016	0.954
cg22730327	black	1	178,310,650 Body	OpenSea	RASAL2	0.607	0.001	0.068	0.946
cg00314427	black	19	45,976,120 Body	Island	FOSB	0.607	-0.002	0.041	0.314
cg02788146	black	10	134,717,975	N_Shore		0.607	0.000	0.025	0.843
cg18285681	black	7	2,728,841 5'UTR	S_Shore	AMZ1	0.607	0.003	0.181	0.625
cg26374101	black	9	140,500,813 Body	Island	ARRDC1	0.607	-0.008	0.056	0.021
cg21428681	black	8	23,540,856 TSS1500	S_Shore	NKX3-1	0.607	0.002	0.036	0.382
cg08327371	black	16	23,849,401 Body	S_Shore	PRKCB	0.607	-0.002	0.044	0.481
cg09185773	black	13	27,132,773 5'UTR	S_Shore	WASF3	0.607	-0.001	0.015	0.120
cg16364675	black	14	103,096,221 Body	OpenSea	RCOR1	0.607	-0.005	0.049	0.112
cg18612461	black	15	75,251,733	Island		0.607	-0.001	0.051	0.708
cg02905245	black	3	112,359,652 5'UTR	OpenSea	CCDC80	0.607	-0.001	0.033	0.617
cg25233709	black	10	116,636,983 Body	OpenSea	FAM160B1	0.607	-0.001	0.019	0.363
cg03287658	black	6	41,410,918	Island		0.607	0.000	0.035	0.978
cg11378686	black	6	43,336,278 Body	N_Shore	ZNF318	0.607	-0.002	0.020	0.060
cg22377043	black	15	43,809,486 TSS1500	OpenSea	MAP1A	0.607	0.000	0.027	0.852
cg15931850	black	4	1,550,089	OpenSea		0.607	0.003	0.135	0.701
cg27024272	black	16	86,834,676	OpenSea		0.607	-0.009	0.100	0.227
cg00640087	black	6	31,707,202 TSS1500	N_Shore	MSH5	0.607	-0.002	0.028	0.357
cg14484649	black	11	82,444,456 1stExon	Island	FAM181B	0.607	0.000	0.073	0.993
cg14868994	black	2	45,155,672	Island		0.607	-0.002	0.025	0.259
cg04638679	black	13	50,202,713 5'UTR	OpenSea	ARL11	0.607	0.002	0.374	0.771
cg12468478	black	6	134,210,273 1stExon	N_Shore	TCF21	0.607	-0.001	0.038	0.666
cg22392708	black	17	39,093,770 1stExon	OpenSea	KRT23	0.607	-0.007	0.093	0.174
cg06002524	black	14	74,225,627 5'UTR	Island	C14orf43	0.607	-0.005	0.115	0.227
cg09161455	black	17	38,255,871 Body	Island	NR1D1	0.607	0.002	0.029	0.226
cg12636882	black	4	3,180,930 Body	OpenSea	HTT	0.607	0.000	0.290	0.970

cg02018408	black	16	25,269,986	TSS1500	S_Shore	ZKSCAN2	0.607	0.003	0.162	0.665
cg07236114	black	11	84,254,533	Body	OpenSea	DLG2	0.607	-0.005	0.054	0.224
cg15657686	black	4	37,978,666	Body	N_Shore	TBC1D1	0.607	0.000	0.020	0.798
cg15542784	black	4	41,750,722	1stExon	N_Shore	PHOX2B	0.607	0.000	0.052	0.924
cg17470942	black	6	134,210,279	1stExon	N_Shore	TCF21	0.606	0.000	0.017	0.868
cg00211115	black	11	69,257,736		N_Shore		0.606	-0.008	0.107	0.352
cg02304584	black	6	31,650,790		Island		0.606	-0.005	0.052	0.343
cg18337222	black	3	99,595,254	Body	S_Shore	C3orf26	0.606	-0.002	0.029	0.143
cg06681810	black	6	33,396,295	Body	Island	SYNGAP1	0.606	0.001	0.052	0.718
cg21495622	black	22	24,199,125	1stExon	Island	SLC2A11	0.606	-0.010	0.276	0.477
cg26260995	black	4	8,268,962		N_Shelf		0.606	-0.006	0.104	0.402
cg12834428	black	6	83,775,763	TSS1500	Island	UBE2CBP	0.606	-0.002	0.157	0.624
cg18245160	black	7	27,244,370		N_Shore		0.606	0.001	0.081	0.929
cg22276371	black	2	233,390,859	TSS200	S_Shore	CHRND	0.606	-0.003	0.042	0.444
cg13525448	black	10	102,986,601		Island		0.606	0.002	0.052	0.772
cg18381051	black	1	2,987,645	Body	Island	PRDM16	0.606	0.000	0.025	0.861
cg08354751	black	16	11,450,712		OpenSea		0.606	-0.006	0.103	0.269
cg16903811	black	22	21,316,245		N_Shelf		0.606	0.004	0.118	0.373
cg24676071	black	7	45,613,410	TSS1500	Island	ADCY1	0.606	-0.001	0.027	0.685
cg06596543	black	17	37,823,905	TSS1500	Island	PNMT	0.606	-0.003	0.052	0.364
cg09566763	black	17	7,553,760	TSS1500	N_Shore	ATP1B2	0.606	-0.008	0.102	0.077
cg15277906	black	8	97,170,364	Body	Island	GDF6	0.606	-0.003	0.029	0.404
cg00603274	black	11	61,596,626	Body	Island	FADS2	0.606	-0.001	0.021	0.418
cg0859956	black	7	150,498,205	1stExon	Island	TMEM176B	0.606	0.003	0.120	0.587
cg23953176	black	2	947,515	Body	S_Shore	SNTG2	0.606	0.007	0.063	0.295
cg11382477	black	7	155,264,170		S_Shelf		0.606	0.001	0.020	0.209
cg19751789	black	19	11,199,944	TSS200	N_Shore	LDLR	0.606	0.001	0.019	0.496
cg25112202	black	3	72,704,468		Island		0.606	-0.015	0.112	0.168
cg17906786	black	13	37,247,708	TSS1500	N_Shore	C13orf36	0.606	0.012	0.117	0.053
cg17819635	black	1	67,217,673	TSS1500	N_Shore	TCTEX1D1	0.606	0.012	0.079	0.056
cg03052030	black	3	36,985,516	Body	N_Shore	TRANK1	0.606	-0.002	0.029	0.271
cg27118825	black	19	46,318,748	TSS200	Island	RSPH6A	0.606	-0.005	0.066	0.322
cg23998478	black	2	121,269,292		OpenSea		0.605	0.007	0.142	0.214
cg23377551	black	12	58,130,154	Body	Island	AGAP2	0.605	-0.004	0.033	0.251
cg02627657	black	17	16,257,165	TSS1500	S_Shore	CENPV	0.605	0.004	0.116	0.624
cg07854547	black	8	50,823,173	TSS1500	S_Shore	SNTG1	0.605	-0.001	0.035	0.467
cg00766914	black	6	107,781,299	TSS1500	Island	PDSS2	0.605	-0.003	0.056	0.261
cg13371976	black	1	203,457,150	3'UTR	S_Shore	PRELP	0.605	-0.001	0.019	0.560
cg23169762	black	6	3,749,854	Body	N_Shore	C6orf145	0.605	-0.001	0.339	0.841
cg21361470	black	6	84,743,033	TSS1500	N_Shore	MRAP2	0.605	0.003	0.044	0.250
cg27183030	black	7	99,595,458		Island		0.605	0.000	0.032	0.805
cg21010262	black	9	138,391,250	Body	N_Shore	C9orf116	0.605	0.000	0.029	0.900
cg17238766	black	1	60,539,675	TSS1500	S_Shore	C1orf87	0.605	0.009	0.166	0.225
cg05550861	black	4	120,222,222	Body	S_Shore	C4orf3	0.605	-0.003	0.035	0.228
cg10101773	black	14	75,894,136	TSS1500	N_Shore	JDP2	0.605	-0.001	0.042	0.698
cg20199792	black	7	2,671,564	TSS200	Island	TTYH3	0.605	0.000	0.098	0.961
cg15793577	black	6	170,747,743		OpenSea		0.605	0.001	0.015	0.205
cg04350307	black	2	223,177,742		S_Shore		0.605	0.001	0.021	0.275
cg16718263	black	15	96,596,349		OpenSea		0.605	0.002	0.047	0.277
cg22358580	black	12	54,426,725	5'UTR	N_Shore	HOXC4	0.605	0.002	0.029	0.130
cg01075271	black	14	38,080,314		Island		0.605	0.017	0.070	0.024
cg00732251	black	6	99,276,866		S_Shore		0.605	0.006	0.071	0.272
cg12199011	black	12	57,026,411	Body	N_Shore	BAZZA	0.605	-0.002	0.029	0.266
cg14666564	black	2	177,030,228	5'UTR	S_Shore	HOXD3	0.605	0.001	0.034	0.477
cg06055763	black	7	81,399,308	5'UTR	OpenSea	HGF	0.605	0.010	0.298	0.187
cg03393426	black	10	102,986,686		Island		0.605	0.001	0.044	0.896
cg26180263	black	14	58,429,389		OpenSea		0.605	0.006	0.370	0.583
cg03698009	black	7	27,204,349	Body	Island	HOXA9	0.605	0.000	0.016	0.662
cg19992633	black	14	96,180,576	TSS200	Island	TCL1A	0.605	0.001	0.191	0.954
cg05548555	black	3	147,124,543	TSS1500	N_Shelf	ZIC4	0.605	0.002	0.017	0.067
cg11967480	black	10	112,290,198		Island		0.605	0.000	0.024	0.896
cg18568872	black	15	90,606,494	5'UTR	N_Shelf	ZNF710	0.605	-0.003	0.165	0.514
cg12589431	black	11	65,255,266		OpenSea		0.605	0.002	0.028	0.062
cg21026022	black	18	21,719,568	5'UTR	S_Shore	CABYR	0.605	0.004	0.078	0.519
cg26388152	black	17	27,944,453	Body	Island	CORO6	0.605	-0.002	0.031	0.182
cg11643991	black	11	57,568,305	Body	OpenSea	CTNND1	0.605	-0.004	0.078	0.380
cg27251694	black	21	46,129,247	Body	N_Shore	C21orf29	0.604	-0.003	0.050	0.113

cg22967396	black	14	57,283,942	Body	N_Shore	OTX2OS1	0.604	-0.001	0.023	0.430
cg17055993	black	8	134,115,431	Body	OpenSea	TG	0.604	0.002	0.241	0.640
cg17603132	black	11	8,190,152	Body	N_Shore	RIC3	0.604	-0.003	0.079	0.415
cg13911392	black	19	10,445,124	TSS1500	Island	RAVER1	0.604	-0.002	0.100	0.694
cg05168015	black	5	171,880,461	Body	N_Shore	SH3PXD2B	0.604	0.001	0.022	0.577
cg10253371	black	12	28,124,134	TSS1500	S_Shelf	PTHLH	0.604	-0.001	0.018	0.460
cg01802493	black	12	130,530,121		S_Shelf		0.604	0.000	0.126	0.988
cg02302348	black	10	3,542,628		OpenSea		0.604	0.004	0.241	0.671
cg09367198	black	14	23,541,523	TSS1500	OpenSea	ACIN1	0.604	-0.003	0.234	0.746
cg05896902	black	15	45,671,018	Body	Island	LOC145663	0.604	0.003	0.027	0.075
cg14517743	black	9	124,889,019		Island		0.604	-0.002	0.034	0.191
cg15981305	black	5	87,981,894	TSS1500	S_Shore	LOC645323	0.604	0.000	0.040	0.988
cg19714279	black	2	237,077,920	TSS1500	Island	GBX2	0.604	0.000	0.023	0.900
cg19355069	black	12	125,028,302		Island		0.604	-0.001	0.202	0.946
cg26704870	black	2	73,144,279	TSS1500	Island	EMX1	0.604	-0.001	0.028	0.753
cg11794215	black	17	35,423,816		OpenSea		0.604	-0.008	0.339	0.430
cg09247061	black	16	88,571,844	Body	N_Shore	ZFPM1	0.604	0.002	0.408	0.635
cg14424407	black	17	36,734,838	Body	Island	SRCIN1	0.604	-0.004	0.070	0.361
cg05208605	black	11	116,451,437		Island		0.604	0.000	0.030	0.840
cg18414021	black	14	100,069,535	1stExon	Island	CCDC85C	0.604	0.000	0.018	0.864
cg15595573	black	8	145,925,419		Island		0.604	0.000	0.022	0.844
cg06619282	black	9	131,182,093	TSS1500	N_Shore	CERCAM	0.604	-0.004	0.300	0.652
cg21869046	black	19	41,225,005	Body	S_Shore	ITPKC	0.604	-0.003	0.025	0.096
cg09390001	black	15	79,725,642	5'UTR	Island	KIAA1024	0.604	-0.004	0.181	0.618
cg20587394	black	12	54,332,209	TSS1500	N_Shore	HOXC13	0.604	-0.002	0.032	0.260
cg08034440	black	2	176,940,341		N_Shelf		0.604	0.001	0.020	0.424
cg22719623	black	6	154,360,732	1stExon	Island	OPRM1	0.604	-0.002	0.074	0.629
cg17361163	black	7	101,006,019	TSS200	Island	EMID2	0.604	-0.001	0.033	0.709
cg06902071	black	5	134,879,326		N_Shore		0.604	0.000	0.042	0.968
cg22633722	black	21	44,496,743	TSS1500	Island	CBS	0.604	0.000	0.050	0.990
cg06412523	black	8	22,551,655	TSS1500	Island	EGR3	0.604	-0.001	0.042	0.383
cg17770096	black	12	121,078,022	TSS1500	N_Shore	CABP1	0.604	-0.001	0.031	0.451
cg01602730	black	1	153,671,011		OpenSea		0.603	0.016	0.314	0.091
cg17887427	black	22	19,166,691	TSS1500	Island	SLC25A1	0.603	-0.001	0.028	0.403
cg24798398	black	2	176,937,524		S_Shore		0.603	0.013	0.073	0.268
cg15642326	black	19	45,754,146	TSS1500	N_Shore	MARK4	0.603	0.000	0.031	0.766
cg14974782	black	2	237,085,626		N_Shore		0.603	0.009	0.106	0.118
cg27391982	black	13	76,957,970		OpenSea		0.603	-0.007	0.048	0.111
cg00922378	black	14	105,527,251	5'UTR	OpenSea	GPR132	0.603	-0.004	0.343	0.506
cg15162330	black	4	41,364,101	Body	S_Shore	LIMCH1	0.603	0.000	0.028	0.785
cg03139057	black	19	39,989,234	TSS1500	N_Shore	DLL3	0.603	0.000	0.030	0.729
cg14705079	black	16	88,292,996		Island		0.603	-0.006	0.070	0.244
cg20708173	black	4	7,940,426	5'UTR	N_Shore	AFAP1	0.603	0.000	0.019	0.795
cg05822100	black	5	31,194,410	5'UTR	Island	CDH6	0.603	0.000	0.020	0.753
cg08864645	black	6	33,943,929		Island		0.603	0.001	0.084	0.900
cg08092105	black	16	58,535,384	Body	Island	NDRG4	0.603	-0.002	0.050	0.796
cg24874350	black	20	45,440,346		Island		0.603	-0.006	0.097	0.166
cg13765206	black	18	2,907,347	Body	Island	EMILIN2	0.603	-0.001	0.166	0.890
cg23342516	black	9	133,538,893	TSS1500	Island	PRDM12	0.603	0.001	0.037	0.409
cg15391464	black	17	27,047,549	Body	S_Shore	RPL23A	0.603	0.002	0.024	0.016
cg19813226	black	1	235,257,141		OpenSea		0.603	-0.006	0.079	0.280
cg03702975	black	1	223,316,252	5'UTR	Island	TLR5	0.603	0.002	0.082	0.692
cg08459186	black	17	71,533,337	Body	OpenSea	SDK2	0.603	-0.001	0.147	0.865
cg19285688	black	4	80,994,605	TSS200	S_Shore	ANTXR2	0.603	-0.001	0.055	0.858
cg22469388	black	17	48,912,860	1stExon	OpenSea	WFIKKN2	0.603	-0.004	0.066	0.302
cg06830665	black	1	20,802,818		OpenSea		0.603	0.000	0.022	0.997
cg08855170	black	3	27,756,139		N_Shore		0.603	0.000	0.032	0.772
cg05007549	black	4	81,103,968		N_Shore		0.603	0.002	0.106	0.675
cg20204986	black	11	32,448,067	Body	N_Shore	WT1	0.603	0.009	0.120	0.304
cg22618924	black	5	126,054,151		OpenSea		0.603	0.005	0.265	0.401
cg13393601	black	2	69,534,855		S_Shore		0.603	-0.001	0.030	0.763
cg20570544	black	1	36,653,591		OpenSea		0.602	0.002	0.068	0.659
cg03714773	black	7	91,764,589	TSS1500	S_Shore	CYP51A1	0.602	0.000	0.034	0.873
cg27294008	black	3	52,748,359	Body	OpenSea	NEK4	0.602	-0.008	0.503	0.541
cg23348764	black	5	140,749,834	Body	N_Shore	PCDHGA4	0.602	0.003	0.114	0.632
cg13796218	black	1	11,750,663	5'UTR	N_Shore	MAD2L2	0.602	-0.002	0.036	0.187
cg17838626	black	11	76,571,610	TSS1500	N_Shore	ACER3	0.602	0.002	0.081	0.607

cg13145458	black	22	31,556,086	TSS200	N_Shore	RNF185	0.602	-0.001	0.013	0.077
cg24596472	black	8	144,417,263	TSS1500	S_Shore	TOP1MT	0.602	-0.002	0.047	0.390
cg21255641	black	7	100,077,221	TSS1500	S_Shore	TSC22D4	0.602	-0.004	0.045	0.095
cg18685594	black	6	134,211,217	Body	Island	TCF21	0.602	0.001	0.030	0.625
cg00596373	black	19	7,939,442		Island		0.602	0.001	0.048	0.759
cg14167629	black	1	24,646,046	1stExon	N_Shelf	GRHL3	0.602	0.002	0.062	0.640
cg20271361	black	17	48,666,821	Body	OpenSea	CACNA1G	0.602	0.000	0.061	0.962
cg11864726	black	11	111,319,296		OpenSea		0.602	0.010	0.600	0.173
cg14242246	black	2	27,434,262	TSS1500	N_Shore	C2orf28	0.602	0.000	0.016	0.559
cg26545918	black	15	68,124,484	Body	N_Shore	LBXCOR1	0.602	0.004	0.223	0.603
cg08149682	black	19	1,355,918	5'UTR	S_Shore	MUM1	0.602	-0.001	0.039	0.712
cg17223809	black	1	86,620,676	Body	N_Shore	COL24A1	0.602	0.000	0.216	0.966
cg16568681	black	11	33,758,505	TSS1500	S_Shore	CD59	0.602	-0.009	0.058	0.073
cg26855208	black	15	34,331,888	TSS1500	S_Shore	AVEN	0.602	0.009	0.141	0.192
cg00157572	black	14	60,977,961	Body	Island	SIX6	0.602	0.003	0.035	0.271
cg13470504	black	6	6,546,375	Body	Island	LOC285780	0.602	0.000	0.079	0.963
cg16284213	black	6	32,952,568		OpenSea		0.602	0.003	0.054	0.555
cg25996835	black	15	72,978,165	TSS1500	N_Shore	BBS4	0.602	0.002	0.021	0.127
cg03854765	black	20	4,981,014	5'UTR	OpenSea	SLC23A2	0.602	-0.003	0.038	0.205
cg24503796	black	10	102,107,676	Body	Island	SCD	0.602	0.000	0.020	0.883
cg24009722	black	2	121,104,917	Body	Island	INHBB	0.602	0.000	0.023	0.930
cg26695123	black	12	54,132,220		Island		0.602	-0.002	0.051	0.648
cg06650914	black	18	74,208,293		Island		0.602	0.000	0.018	0.675
cg05833158	black	3	9,993,731	5'UTR	Island	PRRT3	0.602	0.000	0.022	0.816
cg23176632	black	12	372,139	TSS200	OpenSea	SLC6A13	0.602	0.000	0.047	0.953
cg21497990	black	7	155,255,122	Body	Island	EN2	0.602	-0.005	0.035	0.179
cg23642766	black	6	31,648,953	TSS1500	N_Shore	LY6G5C	0.602	0.000	0.020	0.818
cg19750282	black	6	43,670,519		OpenSea		0.602	-0.004	0.078	0.341
cg22266877	black	11	64,058,550	TSS1500	N_Shore	KCNK4	0.601	0.009	0.187	0.129
cg05823605	black	7	45,928,133	1stExon	Island	IGFBP1	0.601	-0.001	0.035	0.696
cg12098872	black	19	47,742,726		Island		0.601	-0.001	0.022	0.663
cg08660876	black	4	154,681,323	5'UTR	Island	RNF175	0.601	0.001	0.048	0.746
cg11382417	black	11	41,481,655		OpenSea		0.601	0.003	0.043	0.528
cg27351239	black	6	39,792,293	5'UTR	OpenSea	DAAM2	0.601	0.000	0.438	0.954
cg13050240	black	14	24,809,068	5'UTR	S_Shore	RIPK3	0.601	0.003	0.040	0.305
cg23724641	black	2	133,426,653	5'UTR	Island	LYPD1	0.601	0.000	0.021	0.737
cg02347356	black	1	1,983,003	Body	Island	PRKCZ	0.601	0.003	0.261	0.674
cg11020853	black	3	43,020,564	TSS200	N_Shore	FAM198A	0.601	0.010	0.162	0.071
cg18841634	black	18	49,868,236	Body	N_Shore	DCC	0.601	-0.002	0.030	0.288
cg11204830	black	1	87,169,814	TSS1500	N_Shore	SH3GLB1	0.601	-0.002	0.035	0.573
cg24371114	black	4	24,913,973	Body	OpenSea	CCDC149	0.601	-0.005	0.069	0.381
cg02534363	black	3	47,050,950	3'UTR	Island	NBEAL2	0.601	0.000	0.037	0.862
cg08549806	black	16	49,868,530		N_Shelf		0.601	-0.002	0.032	0.422
cg02346713	black	15	51,387,736	Body	Island	TNFAIP8L3	0.601	-0.003	0.043	0.411
cg14282004	black	19	46,270,700	Body	Island	SIX5	0.601	0.000	0.061	0.958
cg18421949	black	6	136,847,359	Body	OpenSea	MAP7	0.601	-0.002	0.097	0.732
cg01396387	black	16	82,660,450	TSS200	N_Shore	CDH13	0.601	0.000	0.027	0.793
cg10031532	black	6	28,555,021	1stExon	Island	SCAND3	0.601	0.003	0.047	0.393
cg13112154	black	10	102,996,565	Body	Island	FLJ41350	0.601	0.000	0.047	0.948
cg11827082	black	13	50,202,584	TSS200	OpenSea	ARL11	0.601	0.003	0.132	0.458
cg19764436	black	22	23,413,260	Body	Island	RTDR1	0.601	-0.004	0.060	0.116
cg27024932	black	21	44,495,796	5'UTR	Island	CBS	0.600	-0.001	0.040	0.790
cg04959634	black	7	27,219,224	Body	N_Shore	HOXA10	0.600	0.000	0.017	0.505
cg24422900	black	19	19,753,746	Body	N_Shore	GMIP	0.600	0.001	0.018	0.650
cg00334177	black	6	28,511,757		OpenSea		0.600	-0.001	0.039	0.855
cg22860172	black	1	3,099,917	Body	N_Shelf	PRDM16	0.600	0.007	0.758	0.177
cg00474080	black	6	30,923,243		Island		0.600	0.000	0.022	0.767
cg10641483	black	12	125,052,746		S_Shore		0.600	-0.003	0.047	0.266
cg02872545	black	6	30,923,697		S_Shore		0.600	0.000	0.026	0.931
cg22198132	black	12	54,410,251	TSS1500	N_Shore	HOXC4	0.600	0.009	0.080	0.187
cg22637538	black	17	7,348,327	TSS200	Island	CHRNB1	0.600	-0.001	0.034	0.443
cg22029157	black	1	209,979,665	TSS200	Island	IRF6	0.600	0.001	0.042	0.710
cg15787039	black	15	32,934,185	5'UTR	OpenSea	SCG5	0.600	-0.002	0.037	0.500
cg01652681	black	6	32,937,649	TSS1500	N_Shore	BRD2	0.600	-0.003	0.036	0.040
cg14312063	black	3	85,010,606	Body	S_Shore	CADM2	0.600	-0.001	0.120	0.956
cg19932515	black	2	98,326,480		OpenSea		0.600	-0.005	0.259	0.464
cg16382778	black	1	152,007,215	Body	N_Shore	S100A11	0.600	-0.006	0.085	0.315



cg09364688	black	1	36,038,877	TSS200	N_Shore	TFAP2E	0.600	-0.002	0.026	0.054
cg21255209	black	12	22,201,822	Body	S_Shelf	CMAS	0.600	0.000	0.364	0.978
cg15056128	black	17	38,821,487	TSS200	OpenSea	KRT222	0.600	0.000	0.035	0.836
cg02052956	black	20	62,455,321		OpenSea		0.600	-0.004	0.069	0.388
cg07816873	black	12	1,100,472	1stExon	Island	ERC1	0.600	0.002	0.156	0.840
cg18501026	black	3	50,712,096	TSS1500	Island	DOCK3	0.600	-0.002	0.027	0.122
cg20099830	black	12	114,842,031	5'UTR	N_Shore	TBX5	0.600	-0.001	0.035	0.761
cg09025324	black	6	116,691,685	TSS1500	N_Shore	DSE	0.600	0.004	0.029	0.030
cg27006764	black	7	50,861,472	TSS1500	Island	GRB10	0.600	0.000	0.030	0.857
cg07557639	black	3	117,481,358		OpenSea		0.600	-0.013	0.498	0.200
cg07488259	black	17	7,493,710	TSS1500	S_Shore	SOX15	0.600	0.004	0.744	0.448
cg10212621	black	1	120,311,649	TSS200	OpenSea	HMGCS2	0.600	0.003	0.287	0.661
cg10090985	black	8	13,134,273	Body	Island	DLC1	0.600	-0.001	0.037	0.567
cg25636665	black	2	80,549,579	Body	Island	CTNNA2	0.600	0.000	0.043	0.866
cg21950072	black	3	48,754,976	TSS1500	S_Shore	IP6K2	0.599	0.000	0.066	0.902
cg17915961	black	10	103,881,480	TSS1500	S_Shore	LDB1	0.599	-0.001	0.033	0.429
cg17074396	black	22	49,843,754		Island		0.599	0.000	0.052	0.932
cg07382435	black	1	50,880,864		N_Shore		0.599	-0.001	0.033	0.788
cg14971895	black	10	25,465,352	Body	Island	GPR158	0.599	0.003	0.029	0.092
cg17080423	black	4	81,189,774	Body	S_Shore	FGF5	0.599	0.001	0.055	0.893
cg04510459	black	1	92,048,287		OpenSea		0.599	0.000	0.321	0.970
cg14552106	black	9	96,710,915		Island		0.599	-0.002	0.029	0.252
cg17677030	black	2	50,575,069	Body	S_Shore	NRXN1	0.599	0.001	0.023	0.545
cg01253508	black	5	173,738,923		Island		0.599	0.002	0.069	0.549
cg10679688	black	13	100,624,965	TSS1500	S_Shore	ZIC5	0.599	-0.002	0.027	0.260
cg26808293	black	16	3,072,207	3'UTR	N_Shore	TNFRSF12A	0.599	-0.004	0.071	0.218
cg10749413	black	19	1,041,020	5'UTR	S_Shore	ABCA7	0.599	0.000	0.021	0.739
cg08287265	black	10	101,292,766	1stExon	Island	NKX2-3	0.599	-0.001	0.019	0.196
cg18521772	black	17	34,949,117	Body	S_Shore	DHRS11	0.599	-0.003	0.054	0.278
cg15698842	black	18	25,755,641	Body	Island	CDH2	0.599	-0.002	0.037	0.260
cg23173517	black	15	81,567,548	Body	OpenSea	IL16	0.599	-0.002	0.041	0.382
cg01420688	black	6	99,271,924		N_Shore		0.599	-0.001	0.034	0.673
cg11187807	black	15	60,412,939		OpenSea		0.599	0.003	0.291	0.590
cg11177235	black	1	55,089,182	Body	OpenSea	ACOT11	0.599	-0.005	0.053	0.265
cg00318899	black	3	50,284,137	TSS200	OpenSea	GNAI2	0.598	0.002	0.181	0.580
cg08983279	black	16	46,663,534		OpenSea		0.598	0.004	0.336	0.537
cg25325588	black	2	145,281,622		N_Shore		0.598	0.001	0.020	0.375
cg11991058	black	2	168,150,602		Island		0.598	0.000	0.025	0.808
cg20014822	black	11	69,517,103	Body	Island	FGF19	0.598	0.000	0.028	0.872
cg05423018	black	7	36,193,854	5'UTR	S_Shore	EEPD1	0.598	-0.001	0.367	0.923
cg05864868	black	6	148,899,489		OpenSea		0.598	0.001	0.040	0.819
cg24848890	black	3	9,957,467	Body	Island	IL17RE	0.598	-0.001	0.022	0.227
cg00809863	black	1	15,251,881	Body	S_Shore	KIAA1026	0.598	0.003	0.031	0.162
cg10089145	black	11	130,030,103	Body	Island	ST14	0.598	0.002	0.031	0.486
cg08236022	black	7	93,551,014	TSS200	OpenSea	GGG11	0.598	-0.009	0.111	0.152
cg26405695	black	12	39,836,148	Body	N_Shore	KIF21A	0.598	-0.001	0.041	0.590
cg19355210	black	12	114,739,935		OpenSea		0.598	0.000	0.014	0.569
cg14007549	black	11	104,034,330	Body	N_Shore	PDGFD	0.598	-0.002	0.043	0.176
cg09495769	black	7	27,225,342	Body	Island	HOXA11AS	0.598	0.002	0.022	0.326
cg19846295	black	15	94,654,174		OpenSea		0.598	0.001	0.104	0.889
cg12324629	black	17	19,771,548	TSS1500	N_Shore	ULK2	0.598	-0.001	0.174	0.864
cg24650913	black	17	80,970,434	Body	S_Shore	B3GNTL1	0.598	-0.018	0.533	0.047
cg23325673	black	19	34,397,439		Island		0.598	0.001	0.045	0.657
cg02778334	black	6	31,864,682	Body	N_Shore	EHMT2	0.598	-0.002	0.018	0.102
cg20594345	black	6	28,973,520	TSS1500	OpenSea	ZNF311	0.598	0.020	0.077	0.039
cg06581175	black	7	96,632,635	Body	N_Shore	DLX6AS	0.598	0.000	0.021	0.901
cg21413173	black	1	15,271,952	Body	OpenSea	KIAA1026	0.598	0.001	0.024	0.604
cg26491425	black	15	41,166,632	TSS200	S_Shore	RHOV	0.598	0.001	0.027	0.438
cg05005256	black	16	12,897,366	Body	Island	CPPED1	0.598	0.002	0.055	0.591
cg26133217	black	2	233,157,602	Body	OpenSea	DIS3L2	0.598	0.001	0.309	0.777
cg16331883	black	12	53,886,170	5'UTR	N_Shore	MAP3K12	0.597	-0.002	0.043	0.494
cg13416381	black	17	46,090,231		S_Shore		0.597	0.001	0.210	0.782
cg26296364	black	10	63,212,206	Body	N_Shore	TMEM26	0.597	-0.001	0.040	0.615
cg03107393	black	17	46,692,553	TSS1500	S_Shore	HOXB8	0.597	-0.001	0.025	0.386
cg00216138	black	15	37,171,175	Body	N_Shore	LOC145845	0.597	0.018	0.144	0.032
cg18091469	black	2	8,724,060		Island		0.597	-0.002	0.029	0.462
cg20744464	black	3	196,756,875	TSS200	Island	MF12	0.597	0.001	0.033	0.830

cg16808373	black	11	122,850,140	Body	S_Shore	BSX	0.597	-0.003	0.056	0.442
cg23057967	black	11	91,957,584		N_Shore		0.597	-0.001	0.034	0.472
cg18809126	black	3	11,623,526	Body	OpenSea	VGLL4	0.597	0.000	0.048	0.987
cg06607764	black	17	76,719,635	Body	OpenSea	CYTH1	0.597	-0.005	0.065	0.529
cg25203031	black	1	66,999,813	TSS200	S_Shore	SGIP1	0.597	0.001	0.024	0.575
cg04086019	black	6	139,349,634	TSS200	N_Shore	C6orf115	0.597	0.000	0.015	0.797
cg24364668	black	3	112,359,488	5'UTR	OpenSea	CCDC80	0.597	0.000	0.020	0.844
cg27268556	black	1	119,542,629		N_Shore		0.597	0.002	0.029	0.367
cg18487916	black	3	52,748,469	Body	OpenSea	NEK4	0.597	-0.002	0.297	0.782
cg21649604	black	22	39,714,288	Body	N_Shore	RPL3	0.597	0.000	0.025	0.911
cg20653518	black	10	103,539,953		Island		0.597	0.000	0.048	0.968
cg24546463	black	8	101,662,053	TSS200	S_Shore	SNX31	0.597	-0.001	0.042	0.612
cg18930354	black	3	147,109,629	Body	Island	ZIC4	0.597	0.000	0.016	0.653
cg01354046	black	5	171,057,339		Island		0.597	-0.001	0.024	0.604
cg05929767	black	2	3,012,844		OpenSea		0.597	-0.003	0.330	0.632
cg03690837	black	21	40,177,165	TSS1500	Island	ETS2	0.597	-0.001	0.021	0.368
cg17444738	black	4	85,417,969	Body	Island	NKX6-1	0.597	-0.004	0.048	0.270
cg06267200	black	2	73,403,921		Island		0.597	-0.002	0.048	0.556
cg00726615	black	3	113,252,640	Body	S_Shore	SIDT1	0.597	0.001	0.061	0.865
cg09005679	black	20	57,875,326	TSS200	Island	EDN3	0.597	0.000	0.036	0.898
cg09678035	black	2	121,833,117		OpenSea		0.597	0.000	0.023	0.940
cg16322014	black	11	6,518,559	5'UTR	OpenSea	DNHD1	0.597	-0.003	0.205	0.793
cg00199048	black	17	43,395,133	TSS1500	S_Shore	MAP3K14	0.597	0.000	0.041	0.788
cg15480336	black	15	74,465,558	TSS1500	N_Shelf	ISLR	0.597	-0.010	0.228	0.477
cg08122232	black	17	74,100,132	TSS1500	S_Shore	EXOC7	0.597	-0.002	0.459	0.890
cg12062220	black	15	53,087,232		Island		0.597	0.000	0.022	0.935
cg01271455	black	7	157,362,062	Body	S_Shore	PTPRN2	0.596	-0.002	0.034	0.260
cg12262372	black	1	61,542,211	TSS1500	N_Shore	NFIA	0.596	-0.001	0.300	0.946
cg12550866	black	7	27,281,315	TSS1500	N_Shore	EVX1	0.596	0.000	0.028	0.854
cg20340866	black	12	54,391,631		N_Shore		0.596	0.015	0.064	0.240
cg20949251	black	6	7,432,666		OpenSea		0.596	0.015	0.357	0.061
cg05238917	black	6	28,504,946		OpenSea		0.596	0.009	0.449	0.451
cg11939399	black	4	57,773,300	TSS1500	N_Shore	REST	0.596	0.001	0.033	0.640
cg03460682	black	2	219,646,316	TSS200	N_Shore	CYP27A1	0.596	0.000	0.025	0.959
cg25257671	black	22	18,531,243		Island		0.596	0.007	0.515	0.471
cg10195763	black	1	2,246,864		Island		0.596	0.000	0.060	0.989
cg14743534	black	7	44,079,036	TSS200	Island	FLJ35390	0.596	0.006	0.055	0.534
cg00906812	black	3	47,018,657	TSS1500	S_Shore	CCDC12	0.596	-0.003	0.046	0.278
cg04064050	black	6	127,663,586	5'UTR	N_Shore	ECHDC1	0.596	0.001	0.097	0.886
cg14112075	black	14	36,977,818	Body	Island	SFTA3	0.596	0.000	0.013	0.613
cg16933440	black	3	157,217,435	5'UTR	OpenSea	VEPH1	0.596	0.001	0.013	0.325
cg01294686	black	1	26,606,093	TSS200	N_Shore	SH3BGRL3	0.596	-0.002	0.140	0.811
cg03773820	black	8	6,264,959	Body	S_Shore	MCPH1	0.596	-0.001	0.032	0.707
cg07200348	black	13	36,045,201	Body	Island	NBEA	0.596	0.000	0.025	0.869
cg05895091	black	11	57,412,323		N_Shelf		0.596	0.003	0.057	0.270
cg24150153	black	1	94,703,463	TSS200	S_Shore	ARHGAP29	0.596	-0.001	0.021	0.542
cg25692524	black	13	52,769,662	TSS1500	Island	THSD1P	0.596	-0.011	0.118	0.243
cg14860917	black	8	18,871,440	TSS1500	Island	PSD3	0.595	-0.008	0.185	0.630
cg08938906	black	12	106,976,839	TSS200	N_Shore	RFX4	0.595	0.000	0.044	0.955
cg06836772	black	1	57,110,403	TSS1500	N_Shore	PRKAA2	0.595	-0.001	0.025	0.625
cg24262469	black	3	156,391,694	TSS1500	N_Shore	TIPARP	0.595	0.009	0.119	0.236
cg12589188	black	10	1,226,886		N_Shelf		0.595	0.000	0.295	0.986
cg26441486	black	22	50,317,300	Body	S_Shore	CRELD2	0.595	-0.008	0.385	0.460
cg02304226	black	16	50,699,197		OpenSea		0.595	0.006	0.284	0.469
cg20610915	black	6	27,635,667		OpenSea		0.595	-0.004	0.150	0.599
cg09859768	black	4	109,092,312	TSS1500	N_Shore	LOC641518	0.595	-0.004	0.063	0.385
cg06897145	black	16	3,238,937		Island		0.595	0.001	0.082	0.718
cg07104818	black	1	119,682,616	Body	N_Shore	WARS2	0.595	-0.001	0.026	0.440
cg15991104	black	6	88,407,390	Body	N_Shelf	AKIRIN2	0.595	0.003	0.032	0.292
cg09573890	black	11	73,087,205	TSS1500	N_Shore	RELT	0.595	0.001	0.060	0.774
cg24200059	black	17	80,375,975	Body	N_Shore	C17orf101	0.595	-0.003	0.048	0.234
cg11399100	black	19	18,722,368	TSS1500	Island	TMEM59L	0.595	-0.001	0.022	0.368
cg15188182	black	15	62,457,647	TSS200	Island	C2CD4B	0.595	0.000	0.093	0.903
cg19392831	black	10	120,355,756	TSS1500	Island	PRLHR	0.595	0.002	0.080	0.600
cg26982695	black	9	34,591,618		Island		0.595	0.004	0.106	0.459
cg23121457	black	15	80,543,983		N_Shore		0.595	-0.003	0.051	0.225
cg03706175	black	2	47,597,331	Body	S_Shore	EPCAM	0.595	0.002	0.332	0.844

cg09122423	black	11	107,540,995	OpenSea		0.595	-0.001	0.368	0.827
cg03525049	black	8	75,232,650 Body	Island	JPH1	0.595	0.000	0.025	0.755
cg04267704	black	4	165,304,259 5'UTR	N_Shore	1-Mar	0.595	0.000	0.024	0.966
cg03457195	black	2	162,284,206	Island		0.595	-0.004	0.067	0.356
cg17579770	black	13	60,105,965	OpenSea		0.595	0.000	0.015	0.686
cg04414274	black	17	1,957,866 TSS1500	Island	HIC1	0.595	0.001	0.035	0.405
cg05626259	black	15	68,851,385	N_Shore		0.595	0.001	0.077	0.893
cg21795544	black	5	42,993,440	N_Shore		0.595	-0.002	0.026	0.251
cg26035702	black	12	54,410,657 5'UTR	N_Shore	HOXC4	0.594	0.000	0.031	0.821
cg06635150	black	5	171,094,937	OpenSea		0.594	-0.006	0.234	0.638
cg26886259	black	5	151,486,992	OpenSea		0.594	0.004	0.100	0.402
cg26437825	black	5	43,020,161	S_Shore		0.594	-0.001	0.022	0.439
cg09384411	black	3	44,063,756	Island		0.594	0.002	0.032	0.197
cg12152919	black	6	133,561,886 TSS1500	N_Shore	EYA4	0.594	0.000	0.015	0.630
cg19947611	black	15	40,674,910 TSS200	N_Shore	C15orf23	0.594	0.002	0.021	0.239
cg07992044	black	11	68,096,049 Body	OpenSea	LRP5	0.594	0.000	0.028	0.767
cg00620190	black	6	26,240,307 TSS1500	N_Shore	HIST1H4F	0.594	0.021	0.094	0.082
cg08404221	black	19	39,523,309 TSS200	S_Shore	FBXO27	0.594	-0.001	0.074	0.729
cg11782387	black	11	69,851,538	OpenSea		0.594	-0.001	0.233	0.832
cg24234141	black	11	47,376,519 3'UTR	N_Shore	SPI1	0.594	-0.002	0.189	0.867
cg14396008	black	2	241,856,143	Island		0.594	0.005	0.027	0.074
cg25658983	black	13	46,426,026 TSS200	OpenSea	SIAH3	0.594	0.003	0.216	0.669
cg04551155	black	15	74,428,183 3'UTR	Island	ISLR2	0.594	0.000	0.019	0.818
cg27404023	black	2	162,283,994	Island		0.594	-0.002	0.026	0.191
cg11395799	black	1	115,213,248 TSS1500	S_Shore	DENND2C	0.594	0.000	0.061	0.917
cg20742389	black	19	14,591,033 Body	Island	GIPC1	0.594	-0.002	0.049	0.551
cg02174359	black	6	43,654,967 Body	N_Shore	MRPS18A	0.594	0.000	0.024	0.868
cg21852992	black	7	112,726,869 TSS1500	OpenSea	GPR85	0.593	-0.001	0.055	0.757
cg18473521	black	12	54,448,265 Body	S_Shore	HOXC4	0.593	-0.002	0.027	0.285
cg01406280	black	11	69,454,447 TSS1500	Island	CCND1	0.593	-0.001	0.022	0.541
cg02428119	black	19	58,520,874	Island		0.593	0.001	0.026	0.498
cg16312002	black	1	16,554,558	S_Shore		0.593	0.000	0.026	0.821
cg13560901	black	7	28,998,540 TSS1500	Island	TRIL	0.593	-0.006	0.076	0.187
cg26386624	black	12	54,366,859 TSS200	Island	HOXC11	0.593	0.002	0.035	0.306
cg06924459	black	6	17,102,643	S_Shore		0.593	-0.002	0.049	0.301
cg01513392	black	20	21,488,198	Island		0.593	-0.002	0.102	0.662
cg21686987	black	16	75,252,973 Body	OpenSea	CTRB1	0.593	0.003	0.579	0.610
cg20971488	black	1	228,786,295 Body	S_Shore	DUSP5P	0.593	0.034	0.523	0.026
cg20643952	black	12	54,398,809	N_Shore		0.593	0.004	0.042	0.431
cg18502021	black	8	23,540,946 TSS1500	S_Shore	NKX3-1	0.593	0.002	0.018	0.121
cg26303165	black	1	228,401,758 Body	Island	OBSCN	0.593	-0.001	0.028	0.418
cg21148404	black	18	34,833,339 3'UTR	N_Shore	BRUNOL4	0.593	0.008	0.283	0.175
cg09251292	black	6	117,087,056 TSS200	S_Shore	FAM162B	0.593	-0.003	0.076	0.547
cg12434681	black	7	27,167,364 TSS1500	N_Shelf	HOXA3	0.593	0.004	0.138	0.633
cg25140370	black	6	391,114 TSS1500	N_Shore	IRF4	0.593	0.001	0.032	0.503
cg05069228	black	3	61,793,623 Body	OpenSea	PTPRG	0.593	-0.005	0.203	0.596
cg22162848	black	17	73,717,736 5'UTR	Island	ITGB4	0.593	0.001	0.073	0.916
cg10315533	black	1	165,322,784 Body	N_Shore	LMX1A	0.593	0.000	0.022	0.952
cg26093148	black	1	151,690,075 TSS1500	N_Shelf	TNRC4	0.593	0.010	0.151	0.130
cg05108467	black	15	96,869,132 TSS200	S_Shelf	NR2F2	0.593	0.001	0.026	0.539
cg06106484	black	8	32,985,289	OpenSea		0.593	0.010	0.177	0.244
cg12269535	black	6	43,142,014 Body	Island	SRF	0.593	-0.003	0.045	0.294
cg03957108	black	2	63,276,545 TSS1500	Island	OTX1	0.593	-0.001	0.016	0.144
cg10659464	black	11	2,161,445 Body	Island	INS-IGF2	0.593	0.001	0.041	0.814
cg09872616	black	7	130,126,182 1stExon	Island	MEST	0.592	-0.009	0.331	0.415
cg10830713	black	1	62,904,021 5'UTR	S_Shore	USP1	0.592	0.001	0.018	0.459
cg08655844	black	7	55,640,714 TSS1500	S_Shore	VOPP1	0.592	-0.005	0.082	0.098
cg22321558	black	2	85,829,320 5'UTR	Island	TMEM150A	0.592	0.000	0.023	0.684
cg12798097	black	20	44,034,258 TSS1500	N_Shore	DBNDD2	0.592	0.002	0.163	0.712
cg03518417	black	1	6,483,657 TSS1500	N_Shore	ESPN	0.592	-0.002	0.033	0.187
cg06299997	black	7	94,023,557 TSS1500	OpenSea	COL1A2	0.592	0.001	0.037	0.624
cg00116234	black	9	18,474,243 1stExon	OpenSea	ADAMTSL1	0.592	0.000	0.019	0.708
cg22162870	black	1	212,872,426 Body	N_Shore	BATF3	0.592	0.000	0.036	0.917
cg02981992	black	6	70,576,168 TSS1500	N_Shore	COL19A1	0.592	0.000	0.229	0.955
cg14035771	black	1	98,515,272	N_Shelf		0.592	-0.002	0.014	0.074
cg01692252	black	17	37,893,005 TSS1500	OpenSea	GRB7	0.592	0.000	0.080	0.967
cg13120986	black	12	7,168,012 1stExon	OpenSea	C1S	0.592	0.000	0.030	0.889

cg24301724	black	12	131,617,044	Body	OpenSea	GPR133	0.592	-0.001	0.029	0.766
cg19389293	black	18	13,641,872	Body	Island	C18orf1	0.592	0.001	0.030	0.688
cg04675475	black	20	43,374,358	TSS200	Island	KCNK15	0.592	-0.001	0.074	0.800
cg02548364	black	16	56,703,551	TSS200	Island	MT1H	0.592	-0.005	0.026	0.072
cg16833452	black	17	74,519,436		OpenSea		0.592	0.002	0.090	0.795
cg03755535	black	3	49,907,556	TSS200	S_Shore	CAMKV	0.592	0.005	0.134	0.307
cg11368946	black	22	38,204,391	Body	S_Shore	GCAT	0.592	0.000	0.019	0.904
cg13413955	black	9	842,914	Body	Island	DMRT1	0.592	0.000	0.025	0.946
cg21878918	black	12	57,634,762	TSS1500	N_Shore	NDUFA4L2	0.591	0.000	0.019	0.915
cg09641486	black	7	150,755,542	TSS1500	N_Shore	CDK5	0.591	-0.001	0.152	0.853
cg05873137	black	17	64,901,072		OpenSea		0.591	-0.002	0.160	0.854
cg17405178	black	6	20,572,608	Body	OpenSea	CDKAL1	0.591	-0.004	0.144	0.621
cg01113435	black	3	52,479,105	TSS200	OpenSea	SEMA3G	0.591	-0.003	0.059	0.517
cg14099457	black	3	49,170,794	TSS200	OpenSea	LAMB2	0.591	-0.001	0.018	0.363
cg22179564	black	5	74,199,422		OpenSea		0.591	0.005	0.109	0.560
cg09550397	black	6	149,069,774	Body	Island	UST	0.591	0.000	0.027	0.761
cg16149077	black	4	54,017,750	Body	OpenSea	SCFD2	0.591	0.005	0.227	0.520
cg00431050	black	10	103,985,730	TSS1500	N_Shore	ELOVL3	0.591	0.013	0.357	0.025
cg07067710	black	11	115,631,452		S_Shore		0.591	0.000	0.137	0.924
cg06923531	black	19	14,542,965	TSS1500	Island	PKN1	0.591	0.002	0.068	0.696
cg14753334	black	3	73,674,702	TSS1500	S_Shore	PDZRN3	0.591	-0.001	0.023	0.679
cg02124912	black	1	202,091,933	TSS200	OpenSea	GPR37L1	0.591	-0.007	0.060	0.067
cg02804275	black	12	22,528,603		OpenSea		0.591	0.016	0.530	0.430
cg10979891	black	14	70,345,898	TSS1500	N_Shore	SMOC1	0.591	0.001	0.042	0.685
cg19797516	black	10	26,856,454	3'UTR	S_Shore	APBB1IP	0.591	-0.005	0.058	0.279
cg14514569	black	9	14,346,276		Island		0.591	0.012	0.127	0.299
cg06107159	black	2	128,432,243	Body	Island	LIMS2	0.591	-0.005	0.198	0.575
cg24803138	black	11	66,636,369	Body	OpenSea	PC	0.591	0.001	0.094	0.818
cg03589001	black	15	79,164,714	TSS1500	N_Shore	MORF4L1	0.591	-0.001	0.097	0.880
cg21848524	black	3	27,771,053		N_Shore		0.591	0.000	0.019	0.857
cg12923215	black	3	32,433,061	TSS200	N_Shore	CMTM7	0.591	-0.001	0.047	0.561
cg19146124	black	3	126,077,046	TSS1500	S_Shore	KLF15	0.591	0.003	0.084	0.415
cg07736602	black	12	132,689,151	Body	N_Shore	GALNT9	0.591	-0.003	0.471	0.656
cg18229848	black	13	28,491,326		N_Shore		0.591	0.000	0.019	0.588
cg12513505	black	18	13,868,447		N_Shore		0.591	0.004	0.031	0.035
cg00331343	black	3	136,581,031	TSS200	Island	NCK1	0.591	0.004	0.072	0.312
cg26388730	black	11	64,405,764	Body	Island	NRXN2	0.591	0.003	0.148	0.616
cg06654118	black	4	1,303,317	Body	N_Shore	MAEA	0.590	-0.001	0.025	0.578
cg04128746	black	10	128,995,134	TSS1500	Island	FAM196A	0.590	-0.001	0.021	0.626
cg04374393	black	3	137,483,503	TSS200	Island	SOX14	0.590	-0.008	0.124	0.135
cg03395562	black	4	146,857,246	Body	N_Shore	ZNF827	0.590	0.000	0.014	0.984
cg17278864	black	17	12,877,321	Body	Island	RICH2	0.590	-0.001	0.027	0.540
cg10765212	black	2	190,044,638	TSS200	OpenSea	COL5A2	0.590	-0.001	0.054	0.789
cg27316598	black	3	72,704,361		Island		0.590	0.001	0.022	0.741
cg20740028	black	7	28,450,406	5'UTR	S_Shore	CREB5	0.590	0.001	0.014	0.513
cg03253995	black	17	7,477,617	Body	S_Shore	EIF4A1	0.590	0.005	0.501	0.564
cg00201414	black	13	52,769,768	TSS1500	Island	THSD1P	0.590	-0.014	0.106	0.191
cg09816693	black	14	74,706,113	TSS200	N_Shore	VSX2	0.590	0.000	0.068	0.915
cg06931444	black	8	129,874,054		OpenSea		0.590	0.005	0.315	0.529
cg13224213	black	7	150,689,881	5'UTR	OpenSea	NOS3	0.590	-0.008	0.166	0.088
cg25090972	black	7	156,797,988	3'UTR	Island	MNX1	0.590	0.001	0.070	0.873
cg19145858	black	7	129,781,681		S_Shore		0.590	-0.001	0.039	0.771
cg15579587	black	2	238,600,061	TSS1500	Island	LRRFIP1	0.590	-0.004	0.039	0.263
cg18539122	black	13	79,169,872		N_Shore		0.590	0.002	0.027	0.227
cg24337786	black	19	39,108,672	TSS200	N_Shore	MAP4K1	0.590	-0.007	0.127	0.429
cg27337148	black	1	209,756,976	TSS200	OpenSea	CAMK1G	0.590	-0.002	0.034	0.451
cg24242519	black	2	16,846,569	5'UTR	OpenSea	FAM49A	0.590	-0.002	0.039	0.328
cg14473016	black	22	35,937,495	1stExon	Island	RASD2	0.590	0.001	0.034	0.505
cg03160935	black	9	132,242,593		N_Shore		0.589	0.006	0.277	0.291
cg05872306	black	14	29,236,535	1stExon	N_Shore	FOXG1	0.589	0.001	0.018	0.431
cg04655520	black	7	134,576,239	Body	OpenSea	CALD1	0.589	-0.001	0.019	0.706
cg08529931	black	10	88,124,564	Body	Island	GRID1	0.589	-0.004	0.049	0.275
cg26018382	black	1	220,983,793	Body	OpenSea	MOSC1	0.589	-0.008	0.102	0.392
cg05175318	black	14	79,747,774	Body	S_Shore	NRXN3	0.589	-0.011	0.135	0.029
cg14118175	black	13	94,152,384	Body	OpenSea	GPC6	0.589	-0.001	0.228	0.861
cg16933922	black	10	126,106,614	5'UTR	N_Shore	OAT	0.589	0.000	0.022	0.801
cg23753807	black	17	1,090,291	1stExon	OpenSea	ABR	0.589	-0.006	0.111	0.506

cg19468534	black	15	41,623,761	Body	N_Shore	OIP5	0.589	-0.002	0.709	0.850
cg01122241	black	4	41,882,748		Island		0.589	0.001	0.052	0.858
cg19218607	black	12	49,928,924		N_Shelf		0.589	-0.001	0.137	0.903
cg09315630	black	22	50,585,393	TSS200	OpenSea	MOV10L1	0.589	-0.004	0.101	0.614
cg11626007	black	20	43,743,835	TSS200	OpenSea	WFDC5	0.589	0.000	0.028	0.713
cg21894914	black	11	68,141,742	Body	OpenSea	LRP5	0.589	-0.001	0.040	0.560
cg05891849	black	17	8,736,136	Body	OpenSea	PIK3R6	0.589	0.000	0.027	0.877
cg01461552	black	11	20,692,867	Body	S_Shore	NELL1	0.589	-0.001	0.054	0.892
cg23839074	black	6	24,494,793	TSS1500	Island	ALDH5A1	0.589	-0.002	0.056	0.517
cg17368500	black	17	66,201,090		N_Shore		0.589	0.001	0.048	0.730
cg06818047	black	1	1,229,105	Body	Island	ACAP3	0.589	-0.008	0.481	0.537
cg14058476	black	14	24,835,609	TSS1500	N_Shore	NFATC4	0.589	-0.001	0.028	0.404
cg20334313	black	8	50,822,381		Island		0.589	-0.001	0.027	0.540
cg08183307	black	19	46,992,926		S_Shore		0.589	0.000	0.040	0.900
cg01156892	black	14	36,910,311		OpenSea		0.589	0.019	0.252	0.051
cg18492839	black	13	20,138,761		N_Shore		0.589	0.005	0.580	0.558
cg15197135	black	19	42,437,416		Island		0.589	0.009	0.368	0.540
cg05009601	black	7	121,944,500	1stExon	Island	FEZF1	0.589	-0.001	0.019	0.608
cg24330204	black	5	137,224,967	TSS200	N_Shore	PKD2L2	0.589	0.011	0.081	0.023
cg17757980	black	10	46,971,495	TSS1500	Island	SYT15	0.589	0.000	0.237	0.992
cg23060390	black	11	75,863,429		OpenSea		0.588	-0.002	0.042	0.543
cg21968765	black	3	100,712,345	TSS200	OpenSea	ABI3BP	0.588	0.000	0.020	0.920
cg27491025	black	19	10,946,246	Body	N_Shore	TMED1	0.588	0.009	0.265	0.161
cg12212591	black	7	73,021,662	Body	Island	MLXIPL	0.588	-0.001	0.030	0.587
cg12534150	black	5	112,073,613	1stExon	OpenSea	APC	0.588	0.001	0.028	0.611
cg25150155	black	20	42,193,746	TSS1500	OpenSea	SGK2	0.588	0.002	0.688	0.834
cg02394746	black	5	174,161,985		N_Shore		0.588	-0.013	0.144	0.155
cg10012059	black	19	4,327,106	Body	Island	STAP2	0.588	0.000	0.023	0.784
cg04023483	black	3	6,904,134	Body	Island	GRM7	0.588	0.000	0.031	0.978
cg13440139	black	10	102,444,675		S_Shelf		0.588	-0.001	0.042	0.555
cg15754594	black	2	106,184,688		OpenSea		0.588	-0.011	0.114	0.243
cg04672103	black	19	16,396,929		S_Shelf		0.588	-0.001	0.081	0.885
cg20202078	black	7	129,845,466	TSS200	S_Shore	TMEM209	0.588	-0.002	0.025	0.117
cg06321376	black	5	110,847,639	5'UTR	N_Shore	STARD4	0.588	-0.002	0.046	0.533
cg06388350	black	4	95,334,135		OpenSea		0.588	-0.006	0.060	0.267
cg25478614	black	3	187,387,866	Body	N_Shore	SST	0.588	0.001	0.046	0.730
cg13331559	black	1	85,514,554	TSS1500	Island	MCOLN3	0.588	0.000	0.064	0.887
cg07134230	black	1	156,631,248		S_Shelf		0.588	0.009	0.535	0.297
cg16310491	black	5	87,973,597	Body	N_Shore	LOC645323	0.588	0.004	0.063	0.406
cg03679521	black	17	37,764,153	5'UTR	Island	NEUROD2	0.588	-0.001	0.018	0.080
cg22322343	black	18	25,755,311	Body	N_Shore	CDH2	0.588	-0.002	0.030	0.149
cg20354580	black	3	128,713,146	TSS200	S_Shore	KIAA1257	0.588	0.001	0.032	0.373
cg05019671	black	5	77,943,786	5'UTR	N_Shore	LHFPL2	0.588	0.000	0.014	0.597
cg10689404	black	17	35,300,645		Island		0.588	0.002	0.124	0.831
cg08022436	black	2	155,555,414	1stExon	Island	KCNJ3	0.588	0.001	0.036	0.777
cg23827284	black	20	30,407,145	TSS200	N_Shelf	MYLK2	0.588	-0.001	0.389	0.852
cg07158747	black	1	91,196,488		S_Shelf		0.588	0.000	0.026	0.737
cg03373115	black	1	64,058,883	TSS200	N_Shore	PGM1	0.588	0.000	0.021	0.958
cg00297584	black	12	116,971,031	TSS1500	OpenSea	NCRNA0017:	0.588	0.000	0.024	0.720
cg13960192	black	19	3,093,904	TSS1500	N_Shore	GNA11	0.588	0.001	0.038	0.464
cg13667243	black	5	157,001,561	Body	Island	ADAM19	0.587	0.000	0.152	0.979
cg09337852	black	7	134,464,288	5'UTR	OpenSea	CALD1	0.587	0.000	0.032	0.978
cg10883621	black	2	26,624,604	TSS200	Island	C2orf39	0.587	0.000	0.078	0.948
cg18082515	black	10	95,197,126	Body	OpenSea	MYOF	0.587	0.002	0.063	0.757
cg15642307	black	6	32,061,084	Body	N_Shelf	TNXB	0.587	0.001	0.049	0.728
cg27641136	black	6	146,920,035	TSS200	Island	C6orf103	0.587	-0.001	0.021	0.521
cg04444949	black	1	11,795,746	TSS1500	N_Shore	AGTRAP	0.587	-0.004	0.057	0.198
cg07382132	black	10	101,280,887		N_Shore		0.587	0.008	0.213	0.160
cg08726298	black	5	174,115,575		OpenSea		0.587	-0.001	0.015	0.118
cg06708634	black	6	100,906,895	Body	S_Shore	SIM1	0.587	0.000	0.049	0.915
cg01876978	black	2	11,970,145		OpenSea		0.587	0.007	0.141	0.126
cg08397927	black	19	41,104,408	Body	N_Shore	LTBPA	0.587	-0.001	0.030	0.545
cg17848348	black	19	10,766,748	5'UTR	S_Shore	ILF3	0.587	0.000	0.036	0.822
cg00660817	black	5	132,073,706	TSS1500	S_Shore	KIF3A	0.587	-0.008	0.217	0.219
cg24930915	black	16	2,199,120	Body	Island	RAB26	0.587	-0.002	0.041	0.346
cg00079219	black	12	54,360,131	Body	N_Shore	HOTAIR	0.587	0.002	0.021	0.138
cg09035736	black	22	38,599,166	5'UTR	S_Shore	MAFF	0.587	-0.003	0.027	0.038

cg26559015	black	17	40,687,919	TSS200	N_Shore	NAGLU	0.587	0.001	0.026	0.405
cg24408656	black	20	21,503,861		Island		0.587	0.000	0.019	0.606
cg09023136	black	1	220,959,637	TSS1500	N_Shore	MOSC1	0.587	0.005	0.237	0.261
cg16636522	black	17	46,723,671		N_Shore		0.587	0.000	0.013	0.953
cg05768922	black	11	124,791,389	Body	S_Shore	HEPACAM	0.587	0.001	0.025	0.138
cg26009035	black	2	113,341,711	TSS1500	Island	CHCHD5	0.587	0.001	0.029	0.579
cg18335796	black	8	91,094,472	Body	OpenSea	CALB1	0.587	-0.001	0.064	0.808
cg17402373	black	5	176,852,891	TSS1500	N_Shore	GRK6	0.587	-0.001	0.028	0.684
cg25557739	black	14	97,744,285		OpenSea		0.587	-0.001	0.028	0.566
cg03721195	black	5	137,610,448	TSS200	S_Shore	GFRA3	0.587	-0.001	0.022	0.333
cg16215084	black	6	30,853,948	5'UTR	S_Shore	DDR1	0.587	0.002	0.034	0.435
cg06465011	black	16	84,860,871	5'UTR	OpenSea	CRISPLD2	0.587	-0.009	0.345	0.420
cg01066046	black	21	33,105,288	TSS1500	S_Shore	SFRS15	0.587	0.006	0.298	0.269
cg03630088	black	10	125,651,526	TSS200	S_Shore	CPXM2	0.587	0.000	0.045	0.884
cg22018051	black	1	154,943,349	5'UTR	N_Shelf	SHC1	0.587	0.000	0.020	0.831
cg06576732	black	20	20,344,672		Island		0.587	-0.003	0.058	0.304
cg04498418	black	6	101,850,540	Body	Island	GRIK2	0.587	-0.001	0.026	0.684
cg13931725	black	9	133,538,248		Island		0.586	-0.001	0.144	0.901
cg25467652	black	1	11,795,976	TSS200	Island	AGTRAP	0.586	-0.001	0.019	0.448
cg17830308	black	5	134,872,124	TSS1500	S_Shore	NEUROG1	0.586	-0.001	0.018	0.663
cg23599104	black	1	109,656,320	5'UTR	Island	C1orf194	0.586	0.000	0.020	0.725
cg04109822	black	20	50,158,057	Body	N_Shore	NFATC2	0.586	0.000	0.031	0.839
cg12997538	black	3	2,553,085	5'UTR	OpenSea	CNTN4	0.586	0.001	0.317	0.928
cg22454313	black	1	201,722,809	Body	OpenSea	NAV1	0.586	0.002	0.086	0.737
cg26714517	black	5	145,827,211	Body	Island	TCERG1	0.586	-0.002	0.072	0.408
cg13906069	black	1	115,213,259	TSS1500	S_Shore	DENND2C	0.586	0.001	0.025	0.492
cg18087266	black	1	25,257,629	TSS1500	Island	RUNX3	0.586	-0.001	0.156	0.884
cg26468696	black	5	141,331,010	Body	OpenSea	PCDH12	0.586	0.000	0.033	0.995
cg26385283	black	18	61,616,718	5'UTR	OpenSea	HMSD	0.586	-0.001	0.171	0.892
cg20269537	black	22	46,067,074	TSS1500	N_Shore	ATXN10	0.586	0.001	0.088	0.894
cg14900246	black	2	112,655,153	TSS1500	N_Shore	MERTK	0.586	-0.008	0.366	0.568
cg24768365	black	12	43,944,652	Body	N_Shore	ADAMTS20	0.586	0.008	0.427	0.207
cg00361695	black	22	50,699,354	Body	N_Shore	MAPK12	0.586	-0.001	0.032	0.347
cg08239804	black	6	134,497,755	TSS1500	Island	SGK1	0.586	-0.004	0.193	0.471
cg10883503	black	5	43,019,660		S_Shore		0.586	0.001	0.034	0.798
cg17644557	black	6	86,159,103	TSS200	N_Shore	NT5E	0.586	0.001	0.057	0.757
cg09476130	black	1	159,870,086	TSS200	Island	CCDC19	0.586	-0.002	0.030	0.281
cg00887755	black	2	68,871,696	TSS1500	S_Shore	PROKR1	0.586	0.000	0.139	0.785
cg23172480	black	6	117,802,786	TSS1500	N_Shore	DCBLD1	0.585	0.005	0.114	0.465
cg11101926	black	17	32,483,711	1stExon	N_Shore	ACCN1	0.585	0.000	0.026	0.744
cg05634879	black	17	26,267,036		OpenSea		0.585	0.009	0.330	0.466
cg03476860	black	12	30,948,794		Island		0.585	0.000	0.023	0.954
cg27179866	black	6	27,740,120		OpenSea		0.585	-0.002	0.029	0.209
cg12753606	black	6	135,504,989	Body	S_Shore	MYB	0.585	-0.016	0.086	0.013
cg22879667	black	4	4,868,441		Island		0.585	-0.003	0.037	0.189
cg20777398	black	6	28,956,244		Island		0.585	-0.001	0.130	0.891
cg13219590	black	14	97,492,191		OpenSea		0.585	-0.003	0.235	0.772
cg24275356	black	6	32,942,541	Body	S_Shore	BRD2	0.585	-0.001	0.019	0.539
cg08133931	black	17	48,636,626		Island		0.585	-0.003	0.064	0.277
cg26213873	black	1	112,939,056	5'UTR	Island	CTTNBP2NL	0.585	-0.002	0.034	0.291
cg12166222	black	17	77,785,792		Island		0.585	0.001	0.023	0.670
cg15459780	black	12	104,609,980	Body	Island	TXNRD1	0.585	0.000	0.020	0.946
cg12812233	black	4	40,752,838	Body	Island	NSUN7	0.585	0.000	0.018	0.572
cg12350474	black	17	46,578,476		OpenSea		0.585	-0.008	0.145	0.294
cg17683593	black	11	61,283,872	3'UTR	Island	SYT7	0.585	0.000	0.140	0.992
cg16158863	black	13	32,605,218	TSS1500	N_Shore	FRY	0.585	0.002	0.028	0.085
cg09190188	black	11	59,324,899		N_Shelf		0.585	0.000	0.023	0.877
cg09375033	black	3	137,833,634	5'UTR	N_Shore	DZIP1L	0.585	0.000	0.028	0.888
cg10242541	black	14	76,842,254	5'UTR	N_Shore	ESRRB	0.585	0.000	0.016	0.927
cg00028429	black	15	101,273,479		OpenSea		0.585	-0.005	0.134	0.544
cg09834794	black	3	147,087,702		OpenSea		0.585	0.000	0.016	0.882
cg08529260	black	10	100,994,381	Body	S_Shore	HPSE2	0.585	0.000	0.021	0.798
cg00120948	black	1	8,484,417	Body	S_Shore	RERE	0.584	0.000	0.021	0.841
cg06034548	black	5	95,194,408	Body	OpenSea	C5orf27	0.584	0.003	0.177	0.616
cg01870681	black	6	29,933,925		OpenSea		0.584	0.001	0.033	0.468
cg15355388	black	11	57,004,919	Body	OpenSea	APLNR	0.584	-0.002	0.081	0.721
cg20034202	black	2	232,260,136	TSS200	Island	B3GNT7	0.584	0.006	0.170	0.214

cg24688655	black	2	200,331,977	TSS1500	N_Shore	FLJ32063	0.584	-0.012	0.095	0.076
cg03169508	black	6	28,557,901		S_Shelf		0.584	0.004	0.103	0.727
cg18352162	black	3	156,848,854		OpenSea		0.584	0.004	0.187	0.508
cg04501840	black	1	226,737,975	Body	S_Shore	C1orf95	0.584	0.001	0.035	0.513
cg06232130	black	2	157,177,008		Island		0.584	0.000	0.018	0.816
cg05012697	black	15	88,798,331	Body	N_Shore	NTRK3	0.584	-0.006	0.071	0.088
cg06200048	black	6	70,576,502	1stExon	N_Shore	COL19A1	0.584	0.000	0.023	0.957
cg02774439	black	4	174,451,251	5'UTR	Island	HAND2	0.584	-0.001	0.015	0.355
cg07301105	black	2	232,379,665	TSS1500	Island	C2orf52	0.584	-0.003	0.201	0.799
cg10445449	black	13	100,644,420		S_Shore		0.584	-0.001	0.019	0.569
cg16574871	black	8	97,165,770	Body	N_Shelf	GDF6	0.584	0.013	0.363	0.332
cg24027996	black	12	111,834,727		N_Shore		0.584	0.000	0.047	0.972
cg13272546	black	17	27,313,239	Body	Island	SEZ6	0.584	0.000	0.028	0.864
cg03411979	black	13	52,028,301	TSS1500	S_Shore	INTS6	0.584	0.000	0.022	0.870
cg13583895	black	10	102,473,022		N_Shore		0.584	0.004	0.242	0.508
cg11898431	black	6	159,331,893		OpenSea		0.584	0.002	0.443	0.803
cg08489674	black	2	119,609,557		N_Shore		0.584	-0.004	0.058	0.324
cg20989777	black	8	91,094,422	Body	OpenSea	CALB1	0.584	0.000	0.024	0.912
cg22610980	black	12	70,083,090	Body	OpenSea	BEST3	0.584	0.011	0.276	0.129
cg23205529	black	6	32,938,380	TSS1500	N_Shore	BRD2	0.584	0.000	0.024	0.852
cg11631523	black	7	156,797,390		Island		0.584	0.000	0.029	0.970
cg08647349	black	1	7,439,692	Body	OpenSea	CAMTA1	0.584	-0.002	0.030	0.157
cg26196480	black	12	114,846,347	TSS200	Island	TBX5	0.583	0.000	0.038	0.891
cg26476939	black	6	32,065,043	Body	Island	TNXB	0.583	-0.005	0.466	0.570
cg00145079	black	15	68,112,888		N_Shore		0.583	0.013	0.234	0.120
cg20480783	black	10	44,186,106		Island		0.583	0.000	0.016	0.885
cg10989517	black	11	18,034,024	Body	N_Shore	SERGEF	0.583	-0.001	0.082	0.833
cg19042435	black	6	2,971,087	5'UTR	Island	SERPINB6	0.583	0.000	0.027	0.867
cg13544333	black	10	101,287,381		Island		0.583	0.003	0.070	0.562
cg06048436	black	13	43,938,637	Body	OpenSea	ENOX1	0.583	-0.001	0.439	0.935
cg03220447	black	11	19,745,293	Body	OpenSea	NAV2	0.583	-0.006	0.223	0.336
cg19273756	black	17	57,229,691	Body	N_Shelf	SKA2	0.583	-0.001	0.216	0.925
cg01334437	black	8	55,014,655	TSS200	Island	LYPLA1	0.583	0.000	0.032	0.741
cg27454102	black	10	32,428,473		OpenSea		0.583	0.003	0.371	0.568
cg09126203	black	1	12,661,455	Body	OpenSea	DHRS3	0.583	0.006	0.160	0.322
cg14179389	black	1	92,947,961	Body	Island	GF11	0.583	-0.006	0.026	0.007
cg09692771	black	2	165,478,413	TSS200	S_Shore	GRB14	0.583	-0.002	0.060	0.478
cg10775231	black	10	81,967,666		S_Shore		0.583	0.006	0.305	0.394
cg26328002	black	18	10,455,463	Body	S_Shore	APCDD1	0.583	-0.003	0.049	0.404
cg16501308	black	18	30,350,221	Body	Island	KLHL14	0.583	0.001	0.031	0.617
cg04002235	black	11	128,560,443		Island		0.583	-0.002	0.034	0.431
cg00647063	black	6	28,510,682		OpenSea		0.583	0.000	0.034	0.842
cg18784558	black	6	27,635,849		OpenSea		0.583	0.001	0.038	0.664
cg14826425	black	7	27,232,837		Island		0.583	0.000	0.018	0.948
cg05895665	black	7	20,818,725		S_Shore		0.583	-0.021	0.169	0.086
cg09438075	black	13	44,359,415	5'UTR	N_Shore	ENOX1	0.583	-0.002	0.264	0.684
cg21395519	black	3	122,746,985	TSS1500	Island	SEMA5B	0.583	-0.001	0.022	0.637
cg17632372	black	7	1,280,236		Island		0.583	0.001	0.020	0.100
cg25575065	black	22	51,066,394	5'UTR	Island	ARSA	0.583	-0.002	0.029	0.390
cg27304020	black	6	28,956,327		Island		0.583	0.004	0.160	0.687
cg09211763	black	2	190,044,504	1stExon	OpenSea	COL5A2	0.583	0.004	0.061	0.410
cg14412416	black	22	45,148,369	TSS200	OpenSea	ARHGAP8	0.582	0.000	0.056	0.981
cg17172331	black	17	76,081,215	Body	OpenSea	TNRC6C	0.582	0.005	0.216	0.592
cg09645475	black	20	815,316	TSS1500	S_Shore	FAM110A	0.582	0.000	0.214	0.999
cg15000827	black	9	110,228,655		Island		0.582	-0.003	0.063	0.475
cg04169774	black	2	239,198,437	TSS1500	S_Shore		0.582	-0.009	0.246	0.269
cg01682111	black	16	1,430,087	TSS1500	Island	UNKL	0.582	0.001	0.036	0.613
cg19634527	black	17	30,814,814	Body	Island	CDK5R1	0.582	-0.005	0.064	0.235
cg20577205	black	20	56,804,327		S_Shore		0.582	-0.001	0.026	0.643
cg10782668	black	13	28,496,082	Body	Island	PDX1	0.582	-0.001	0.017	0.361
cg21730993	black	6	86,159,210	TSS200	N_Shore	NT5E	0.582	-0.001	0.019	0.440
cg05630111	black	1	150,948,030	TSS1500	S_Shore	LASS2	0.582	-0.018	0.219	0.216
cg01858866	black	1	40,040,016	Body	N_Shore	PABPC4	0.582	0.000	0.026	1.000
cg05928904	black	17	16,924,597		OpenSea		0.582	-0.007	0.423	0.466
cg23616139	black	1	221,051,907	TSS1500	N_Shore	HLX	0.582	-0.001	0.029	0.770
cg07077965	black	2	177,503,592		S_Shore		0.582	0.007	0.150	0.580
cg26192612	black	6	72,129,509	Body	Island	C6orf155	0.582	-0.003	0.029	0.179

cg04311134	black	19	43,967,248	Body	Island	LYPD3	0.582	-0.004	0.053	0.171
cg02993069	black	1	36,786,777	3'UTR	Island	C1orf113	0.582	-0.008	0.062	0.132
cg18698884	black	11	16,632,724		Island		0.582	-0.001	0.025	0.378
cg22659356	black	2	169,104,591	TSS1500	S_Shore	STK39	0.582	-0.001	0.018	0.096
cg10215507	black	20	22,559,305	TSS200	N_Shore	C20orf56	0.582	-0.001	0.033	0.442
cg05605029	black	17	16,189,554	Body	OpenSea	PIGL	0.582	-0.002	0.027	0.150
cg23979412	black	18	44,776,850		N_Shore		0.582	0.002	0.050	0.689
cg26283098	black	17	10,021,690	Body	OpenSea	GAS7	0.582	0.006	0.591	0.550
cg00021256	black	2	219,848,373	Body	N_Shore	FEV	0.582	0.001	0.022	0.285
cg02856338	black	8	101,822,108		OpenSea		0.582	0.005	0.057	0.478
cg03878837	black	7	130,352,754	Body	N_Shore	COPG2	0.582	0.000	0.015	0.692
cg22853797	black	8	19,172,126	5'UTR	S_Shore	SH2D4A	0.582	-0.005	0.035	0.034
cg02049629	black	6	28,662,065		OpenSea		0.582	-0.011	0.070	0.221
cg02178648	black	1	18,964,181	Body	Island	PAX7	0.582	-0.001	0.061	0.876
cg16652259	black	2	172,949,501	TSS1500	Island	DLX1	0.582	0.001	0.028	0.655
cg13682722	black	14	90,798,568	TSS1500	S_Shore	C14orf102	0.582	-0.002	0.031	0.174
cg01554437	black	14	21,091,422		Island		0.582	0.004	0.094	0.769
cg11532431	black	7	27,169,674	Body	Island	HOXA4	0.582	-0.001	0.028	0.538
cg08144172	black	1	41,849,203		Island		0.582	-0.007	0.055	0.026
cg16387850	black	1	46,982,889		OpenSea		0.582	0.000	0.023	0.885
cg10796805	black	3	35,680,802		Island		0.582	-0.005	0.059	0.180
cg01995938	black	11	14,994,130	TSS1500	N_Shore	CALCA	0.581	0.005	0.072	0.278
cg09578353	black	1	10,490,236	5'UTR	N_Shore	APITD1	0.581	-0.008	0.242	0.299
cg18501202	black	6	125,855,421		OpenSea		0.581	-0.003	0.095	0.712
cg07145683	black	12	53,297,443	Body	Island	KRT8	0.581	-0.003	0.040	0.418
cg26866263	black	6	38,997,395	Body	OpenSea	DNAH8	0.581	-0.003	0.151	0.697
cg06630799	black	20	55,203,840	TSS1500	Island	TFAP2C	0.581	-0.001	0.032	0.737
cg24356964	black	1	3,605,979	TSS1500	N_Shore	TP73	0.581	0.018	0.527	0.092
cg14036856	black	1	43,751,563	TSS1500	OpenSea	C1orf210	0.581	-0.004	0.440	0.585
cg24588339	black	5	2,738,626		N_Shore		0.581	0.000	0.109	0.954
cg05015495	black	5	93,957,782	5'UTR	S_Shelf	ANKRD32	0.581	-0.002	0.182	0.867
cg26129417	black	5	134,527,034		Island		0.581	0.000	0.025	0.964
cg25928579	black	17	46,692,534	TSS1500	S_Shore	HOXB8	0.581	0.000	0.024	0.901
cg08161802	black	1	31,377,381	Body	N_Shelf	SDC3	0.581	-0.002	0.600	0.740
cg24895155	black	8	127,837,199		OpenSea		0.581	0.000	0.020	0.813
cg00954382	black	4	156,128,904	TSS1500	N_Shore	NPY2R	0.581	0.000	0.020	0.787
cg14775286	black	3	137,833,494	5'UTR	N_Shore	DZIP1L	0.581	0.002	0.030	0.388
cg13285968	black	2	180,725,645	5'UTR	N_Shore	ZNF385B	0.581	0.000	0.028	0.985
cg12308664	black	7	27,250,344		N_Shelf		0.581	-0.003	0.059	0.209
cg00386408	black	5	135,364,970	Body	Island	TGFBI	0.581	0.000	0.025	0.730
cg15920791	black	8	61,835,708		Island		0.581	-0.001	0.022	0.425
cg09075925	black	2	71,504,843		S_Shore		0.581	-0.001	0.030	0.460
cg12492027	black	20	35,089,174	TSS1500	N_Shore	DLGAP4	0.580	-0.001	0.446	0.837
cg21511941	black	15	72,489,609	Body	Island	GRAMD2	0.580	-0.001	0.033	0.735
cg02006647	black	19	45,738,115	TSS1500	Island	EXOC3L2	0.580	0.004	0.086	0.599
cg08462367	black	8	37,168,415		OpenSea		0.580	0.004	0.217	0.647
cg16992870	black	7	65,516,112		OpenSea		0.580	-0.005	0.149	0.481
cg18449389	black	14	23,776,482	5'UTR	OpenSea	BCL2L2	0.580	-0.001	0.027	0.350
cg01442257	black	5	43,018,002		Island		0.580	0.000	0.024	0.831
cg03177025	black	2	28,112,917	TSS1500	N_Shore	BRE	0.580	-0.004	0.106	0.457
cg15994159	black	17	17,584,505	TSS1500	Island	RAI1	0.580	-0.002	0.047	0.265
cg05872255	black	14	73,592,157		OpenSea		0.580	-0.001	0.149	0.949
cg05210904	black	8	72,459,565		Island		0.580	-0.007	0.115	0.149
cg04436755	black	15	74,218,767	TSS200	Island	LOXL1	0.580	-0.003	0.027	0.126
cg20177650	black	3	181,445,156	Body	S_Shore	SOX2OT	0.580	0.001	0.028	0.568
cg01033160	black	19	33,865,273	5'UTR	S_Shore	CEBPG	0.580	0.002	0.029	0.130
cg00063828	black	16	85,749,496	Body	OpenSea	C16orf74	0.580	-0.004	0.139	0.569
cg00965469	black	6	31,649,469	TSS1500	N_Shore	LY6G5C	0.580	0.000	0.075	0.965
cg08424491	black	20	3,656,074	Body	S_Shore	ADAM33	0.580	-0.009	0.455	0.355
cg14070162	black	17	40,575,582	TSS1500	S_Shore	PTRF	0.580	-0.003	0.044	0.255
cg01419914	black	17	79,374,691	Body	Island	BAHCC1	0.580	0.006	0.420	0.477
cg08180070	black	2	109,647,958		Island		0.580	-0.004	0.041	0.140
cg14274621	black	2	8,825,107		Island		0.580	0.000	0.035	0.861
cg01132696	black	6	33,048,558	Body	Island	HLA-DPB1	0.580	0.001	0.022	0.711
cg00310855	black	11	64,879,153	3'UTR	Island	C11orf2	0.580	0.000	0.030	0.751
cg10581837	black	13	76,334,707	TSS200	OpenSea	LMO7	0.580	-0.002	0.270	0.790
cg22979783	black	2	72,371,261	Body	Island	CYP26B1	0.580	0.000	0.022	0.962



cg23907051	black	2	101,730,305	Body	OpenSea	TBC1D8	0.580	-0.001	0.043	0.810
cg07560447	black	1	226,150,385		OpenSea		0.580	0.004	0.029	0.038
cg15611624	black	5	156,886,970	TSS200	Island	NIPAL4	0.580	-0.001	0.025	0.358
cg25418852	black	19	35,068,221	Body	N_Shore	LOC643719	0.579	0.004	0.382	0.694
cg10092374	black	17	79,988,647	TSS1500	Island	RAC3	0.579	-0.007	0.049	0.021
cg06995548	black	1	47,009,527		N_Shore		0.579	0.001	0.038	0.607
cg16080781	black	12	45,445,061	TSS200	Island	DBX2	0.579	-0.002	0.028	0.067
cg02925367	black	6	32,116,905	3'UTR	Island	PRRT1	0.579	0.000	0.030	0.842
cg21637050	black	15	40,075,651	TSS1500	S_Shore	FSIP1	0.579	0.001	0.021	0.661
cg18105725	black	6	160,554,003	Body	N_Shore	SLC22A1	0.579	0.007	0.361	0.406
cg12279128	black	22	24,109,851	Body	N_Shore	CHCHD10	0.579	0.001	0.025	0.322
cg24813736	black	5	63,255,045		Island		0.579	0.000	0.029	0.982
cg19744936	black	19	15,343,395	5'UTR	N_Shore	EPHX3	0.579	0.004	0.052	0.204
cg01949455	black	9	131,937,559		Island		0.579	0.001	0.091	0.896
cg10593047	black	2	232,526,667		Island		0.579	-0.002	0.160	0.784
cg27606473	black	2	217,205,778	Body	OpenSea	4-Mar	0.579	0.000	0.154	0.955
cg08145798	black	11	64,610,635	Body	N_Shore	CDC42BPG	0.579	0.009	0.553	0.183
cg00672333	black	17	36,728,456	Body	N_Shore	SRCIN1	0.579	-0.001	0.020	0.330
cg11879741	black	13	104,535,504		OpenSea		0.579	0.000	0.019	0.933
cg27537164	black	6	168,079,127		Island		0.579	-0.001	0.028	0.343
cg07694864	black	17	40,700,509		Island		0.579	0.003	0.022	0.226
cg14148862	black	8	69,244,205		S_Shore		0.579	0.000	0.020	0.943
cg14202048	black	7	23,636,744	TSS1500	Island	CCDC126	0.579	0.008	0.216	0.317
cg02318527	black	19	41,318,069		Island		0.579	-0.002	0.038	0.535
cg02463253	black	17	27,369,851	TSS200	OpenSea	PIPOX	0.579	0.001	0.028	0.478
cg21650962	black	6	50,794,057	Body	S_Shelf	TFAP2B	0.579	-0.005	0.027	0.005
cg15949277	black	1	37,939,724	TSS1500	Island	ZC3H12A	0.578	0.000	0.031	0.970
cg01614746	black	6	78,360,046		Island		0.578	0.001	0.231	0.946
cg26918808	black	1	67,950,349		OpenSea		0.578	-0.001	0.046	0.777
cg05221455	black	11	829,616	Body	Island	EFCAB4A	0.578	-0.014	0.151	0.110
cg12395125	black	11	116,659,119	TSS1500	N_Shore	ZNF259	0.578	-0.001	0.059	0.749
cg04829946	black	10	23,480,237	TSS1500	N_Shore	PTF1A	0.578	0.001	0.036	0.546
cg14788334	black	1	26,606,110	TSS200	N_Shore	SH3BGRL3	0.578	0.008	0.330	0.268
cg20819617	black	6	43,045,052	Body	Island	PTK7	0.578	-0.001	0.023	0.356
cg05166354	black	22	45,216,631	Body	OpenSea	ARHGAP8	0.578	0.001	0.181	0.916
cg18240400	black	10	46,168,597	TSS1500	Island	ANUBL1	0.578	-0.006	0.047	0.008
cg25649655	black	8	145,692,504	TSS1500	Island	CYHR1	0.578	-0.001	0.053	0.850
cg12076551	black	7	121,955,441		N_Shore		0.578	-0.002	0.034	0.459
cg22515654	black	1	10,590,672	Body	OpenSea	PEX14	0.578	0.002	0.073	0.622
cg11926610	black	15	37,403,211		Island		0.578	-0.001	0.030	0.613
cg02990368	black	1	204,120,649	Body	Island	ETNK2	0.578	-0.004	0.057	0.206
cg02026235	black	16	725,862	TSS1500	N_Shelf	RHBDL1	0.578	-0.002	0.056	0.512
cg15939253	black	11	66,049,932	Body	Island	CNIH2	0.578	0.000	0.028	0.841
cg26116542	black	14	38,054,297		S_Shore		0.578	0.009	0.125	0.520
cg10966187	black	11	65,789,910	Body	Island	CATSPER1	0.578	-0.002	0.090	0.669
cg17320698	black	11	30,510,489	Body	OpenSea	MPPED2	0.578	-0.002	0.039	0.425
cg11249902	black	17	77,783,207		N_Shore		0.578	-0.004	0.188	0.413
cg07191012	black	1	33,182,372		OpenSea		0.578	-0.003	0.059	0.280
cg10634551	black	3	178,254,242	5'UTR	OpenSea	KCNMB2	0.578	-0.003	0.057	0.505
cg24194775	black	9	35,791,475	TSS1500	N_Shore	NPR2	0.578	-0.003	0.028	0.149
cg16474684	black	4	2,470,049	TSS1500	N_Shore	RNF4	0.578	-0.001	0.079	0.818
cg08623644	black	19	19,643,011	Body	N_Shore	YJEFN3	0.578	0.007	0.358	0.339
cg20884298	black	13	46,190,037	TSS200	OpenSea	FAM194B	0.578	-0.001	0.061	0.753
cg09544050	black	8	143,580,965	Body	Island	BAI1	0.578	0.004	0.200	0.736
cg15660418	black	12	54,409,257	TSS1500	S_Shore	HOXC4	0.578	0.014	0.090	0.156
cg25885803	black	11	47,290,281	TSS1500	N_Shore	MADD	0.578	0.006	0.211	0.137
cg01981760	black	16	53,737,576	TSS1500	N_Shore	FTO	0.578	0.000	0.028	0.770
cg19694418	black	14	65,289,947	TSS200	OpenSea	SPTB	0.578	-0.002	0.046	0.514
cg12542255	black	19	45,976,195	Body	Island	FOSB	0.578	0.001	0.019	0.561
cg20916535	black	6	117,592,262	Body	Island	VGLL2	0.578	0.001	0.027	0.695
cg15056966	black	3	120,003,702		N_Shore		0.578	0.001	0.046	0.751
cg13323615	black	19	40,948,566	5'UTR	N_Shore	SERTAD3	0.578	-0.002	0.033	0.195
cg25001305	black	8	27,283,945	Body	OpenSea	PTK2B	0.578	0.001	0.111	0.866
cg21166347	black	6	33,240,215	TSS1500	S_Shore	VPS52	0.578	0.001	0.018	0.230
cg13910681	black	9	130,740,599	Body	N_Shore	FAM102A	0.578	-0.005	0.046	0.121
cg01976623	black	14	94,255,901	TSS1500	S_Shore	PRIMA1	0.577	0.017	0.266	0.005
cg10288541	black	7	156,811,252		Island		0.577	-0.002	0.031	0.461

cg01768342	black	1	26,517,056	TSS200	OpenSea	CATSPER4	0.577	0.001	0.029	0.338
cg05301811	black	1	20,813,666	TSS1500	S_Shore	CAMK2N1	0.577	-0.002	0.036	0.363
cg15650274	black	9	91,150,624	1stExon	Island	NXNL2	0.577	-0.004	0.075	0.375
cg08269653	black	1	177,225,530	Body	OpenSea	FAM5B	0.577	-0.003	0.252	0.626
cg01065780	black	22	36,019,471	TSS200	OpenSea	MB	0.577	0.000	0.028	0.839
cg18843682	black	12	54,425,156	5'UTR	Island	HOXC4	0.577	0.001	0.061	0.850
cg27569321	black	3	128,968,106	TSS1500	N_Shore	COPG	0.577	0.001	0.013	0.370
cg10307145	black	14	76,796,185		OpenSea		0.577	-0.001	0.027	0.652
cg05929019	black	1	183,155,154	TSS200	OpenSea	LAMC2	0.577	0.000	0.026	0.787
cg25646005	black	3	1,555,473		OpenSea		0.577	0.003	0.114	0.763
cg15343200	black	6	32,095,291	Body	N_Shelf	ATF6B	0.577	-0.001	0.027	0.619
cg15148933	black	4	94,756,031		Island		0.577	-0.001	0.030	0.686
cg25747427	black	15	89,561,135		OpenSea		0.577	0.000	0.015	0.657
cg21681109	black	7	32,468,131		S_Shore		0.577	0.000	0.056	0.930
cg26534807	black	11	72,301,235	Body	N_Shore	PDE2A	0.577	-0.003	0.057	0.309
cg23788856	black	1	204,159,729	Body	Island	KISS1	0.577	-0.007	0.064	0.052
cg12408494	black	3	171,757,077	TSS1500	N_Shore	FNDC3B	0.577	0.007	0.166	0.334
cg27238866	black	6	31,566,558		OpenSea		0.577	0.001	0.023	0.433
cg01439105	black	16	1,465,080	TSS1500	S_Shore	UNKL	0.577	-0.003	0.053	0.268
cg17296589	black	13	113,366,074	Body	OpenSea	ATP11A	0.577	0.001	0.022	0.391
cg21781979	black	13	100,547,292	3'UTR	Island	CLYBL	0.577	0.000	0.021	0.991
cg00459078	black	17	43,024,659	5'UTR	Island	KIF18B	0.577	-0.001	0.029	0.242
cg06369349	black	19	49,503,178	Body	OpenSea	RUVBL2	0.577	0.002	0.053	0.531
cg03277560	black	9	102,587,494	5'UTR	Island	NR4A3	0.577	0.001	0.154	0.890
cg20684180	black	3	38,080,635	TSS200	Island	DLEC1	0.577	0.000	0.019	0.918
cg04200224	black	6	25,652,390	TSS200	Island	SCGN	0.577	-0.002	0.029	0.103
cg11827910	black	11	31,825,756	Body	Island	PAX6	0.577	-0.003	0.032	0.157
cg00994601	black	6	31,628,797	TSS1500	S_Shore	C6orf47	0.577	0.000	0.031	0.952
cg27170015	black	16	23,689,753	TSS1500	N_Shore	PLK1	0.577	0.008	0.173	0.176
cg14666404	black	3	183,016,948	Body	OpenSea	MCF2L2	0.577	0.004	0.763	0.512
cg20798604	black	6	33,153,208	Body	OpenSea	COL11A2	0.577	0.008	0.516	0.441
cg05339588	black	3	134,125,870		Island		0.577	-0.004	0.104	0.360
cg27089768	black	14	96,180,598	TSS200	Island	TCL1A	0.577	0.007	0.126	0.655
cg07538339	black	8	93,107,298	5'UTR	OpenSea	RUNX1T1	0.577	0.000	0.039	0.921
cg06495131	black	6	6,003,746	Body	Island	NRN1	0.577	-0.004	0.039	0.036
cg25766247	black	8	59,714,165		OpenSea		0.576	-0.006	0.158	0.313
cg26896787	black	1	228,603,707	5'UTR	Island	TRIM17	0.576	-0.002	0.111	0.668
cg07015554	black	1	39,074,102		OpenSea		0.576	0.000	0.082	0.933
cg01647632	black	15	89,438,905	TSS200	S_Shore	HAPLN3	0.576	-0.003	0.029	0.040
cg11735846	black	1	4,770,935	Body	N_Shore	AJAP1	0.576	-0.003	0.051	0.444
cg02853616	black	4	94,755,787		Island		0.576	0.000	0.015	0.742
cg01317569	black	5	60,140,824	TSS1500	S_Shore	ELOVL7	0.576	0.001	0.477	0.945
cg26931475	black	12	46,743,214		OpenSea		0.576	0.002	0.244	0.780
cg20670361	black	1	25,258,679	Body	Island	RUNX3	0.576	-0.004	0.128	0.562
cg03543600	black	17	4,614,422	Body	Island	ARRB2	0.576	0.000	0.020	0.850
cg04105511	black	12	54,409,207	TSS1500	S_Shore	HOXC4	0.576	0.004	0.074	0.598
cg17866732	black	2	110,372,875	TSS1500	Island	10-Sep	0.576	-0.003	0.161	0.696
cg11228126	black	10	71,338,674		Island		0.576	-0.001	0.035	0.463
cg09272923	black	1	7,730,096	Body	OpenSea	CAMTA1	0.576	-0.013	0.216	0.205
cg25071651	black	4	101,112,317	TSS1500	S_Shore	DDIT4L	0.576	0.000	0.053	0.962
cg08197797	black	6	138,428,995	TSS1500	S_Shore	PERP	0.576	0.002	0.034	0.157
cg19854915	black	3	27,770,995		N_Shore		0.576	-0.002	0.025	0.213
cg08745329	black	10	6,189,073	Body	S_Shore	PFKFB3	0.576	-0.001	0.524	0.880
cg01512721	black	4	152,198,183	TSS200	OpenSea	PRSS48	0.576	0.002	0.428	0.760
cg16668150	black	8	90,915,339	5'UTR	Island	OSGIN2	0.576	-0.001	0.032	0.665
cg11517269	black	6	28,058,789	TSS200	OpenSea	ZSCAN12L1	0.576	0.002	0.175	0.860
cg11871421	black	17	6,679,476	TSS200	Island	FBXO39	0.576	0.000	0.037	0.891
cg17548844	black	17	35,289,875		N_Shore		0.576	0.001	0.034	0.604
cg11783264	black	19	1,905,046	TSS1500	N_Shore	SCAMP4	0.576	0.005	0.064	0.209
cg04266474	black	7	36,318,491	Body	OpenSea	EEDP1	0.576	0.002	0.069	0.736
cg25233900	black	10	133,793,646	Body	Island	BNIP3	0.576	0.006	0.084	0.540
cg13581859	black	6	33,048,706	Body	Island	HLA-DPB1	0.576	-0.007	0.064	0.343
cg13032616	black	6	83,072,747	TSS1500	N_Shore	TPBG	0.576	-0.001	0.038	0.540
cg12615879	black	12	58,013,172	TSS1500	Island	SLC26A10	0.576	0.002	0.171	0.906
cg00666746	black	19	15,217,781	TSS1500	N_Shore	SYDE1	0.576	-0.004	0.089	0.386
cg15835620	black	17	26,903,872	5'UTR	OpenSea	ALDOC	0.576	-0.001	0.087	0.907
cg04066824	black	2	220,493,112	Body	S_Shore	SLC4A3	0.576	0.003	0.277	0.590

cg00516481	black	21	44,073,202	TSS1500	Island	PDE9A	0.576	-0.006	0.052	0.015
cg20907471	black	20	21,679,525		OpenSea		0.575	-0.001	0.065	0.776
cg16681239	black	7	64,349,915		Island		0.575	-0.002	0.079	0.721
cg15977719	black	7	25,021,503		Island		0.575	0.000	0.018	0.807
cg08254359	black	12	54,398,518		N_Shore		0.575	0.034	0.304	0.056
cg23886495	black	2	9,695,866	5'UTR	Island	ADAM17	0.575	0.001	0.018	0.179
cg14854355	black	17	26,708,366	Body	Island	SARM1	0.575	0.000	0.068	0.995
cg01699584	black	4	44,450,999	TSS200	Island	KCTD8	0.575	-0.001	0.015	0.396
cg13477780	black	7	75,897,549	Body	S_Shore	SRRM3	0.575	-0.002	0.054	0.594
cg10171504	black	10	28,032,506	5'UTR	Island	MKX	0.575	-0.001	0.032	0.471
cg02841155	black	5	128,301,328	5'UTR	Island	SLC27A6	0.575	-0.002	0.061	0.535
cg23845574	black	10	135,051,270	TSS200	Island	VENTX	0.575	0.001	0.026	0.588
cg18351406	black	4	77,819,688	TSS1500	S_Shore	ANKRD56	0.575	-0.002	0.028	0.430
cg23661183	black	10	116,286,593	Body	OpenSea	ABLIM1	0.575	-0.001	0.016	0.453
cg19828220	black	17	46,682,413	Body	N_Shelf	LOC404266	0.575	0.014	0.477	0.121
cg16224018	black	12	124,069,324	1stExon	Island	TMED2	0.575	0.006	0.263	0.597
cg21822187	black	12	66,286,141	Body	OpenSea	HMGA2	0.575	0.001	0.035	0.826
cg23434998	black	5	41,870,910	TSS200	S_Shore	OXCT1	0.575	0.000	0.074	0.928
cg15624634	black	20	45,524,169	5'UTR	S_Shore	EYA2	0.575	0.001	0.022	0.541
cg26103512	black	17	80,231,812	TSS1500	Island	CSNK1D	0.575	0.001	0.028	0.388
cg06958567	black	18	52,495,541	TSS1500	N_Shore	RAB27B	0.575	0.001	0.019	0.277
cg19483007	black	3	149,327,651	Body	OpenSea	WWTR1	0.575	0.002	0.359	0.808
cg13602242	black	6	151,186,614	TSS200	N_Shore	MTHFD1L	0.575	-0.002	0.041	0.344
cg14430141	black	1	175,568,377	5'UTR	Island	TNR	0.575	-0.006	0.045	0.160
cg04295928	black	11	3,829,466	Body	N_Shore	PGAP2	0.575	-0.001	0.039	0.346
cg26668276	black	7	96,633,311	Body	N_Shore	DLX6AS	0.575	0.001	0.021	0.467
cg22066108	black	4	3,534,761	TSS1500	Island	LRPAP1	0.575	0.000	0.237	0.961
cg08393041	black	3	147,109,426	Body	Island	ZIC4	0.575	-0.003	0.025	0.180
cg01209599	black	16	432,973	TSS1500	S_Shore	TMEM8A	0.575	-0.011	0.166	0.208
cg00425217	black	19	13,205,470	3'UTR	N_Shore	NFIX	0.575	0.011	0.248	0.071
cg16212279	black	11	1,370,329		OpenSea		0.575	-0.004	0.243	0.463
cg16902122	black	15	62,815,218		OpenSea		0.574	0.002	0.077	0.834
cg07498275	black	16	51,184,886	TSS1500	Island	SALL1	0.574	0.000	0.071	0.898
cg22198044	black	4	2,819,614	TSS1500	Island	SH3BP2	0.574	0.000	0.044	0.964
cg04353251	black	17	46,713,842		N_Shore		0.574	-0.001	0.019	0.412
cg17243896	black	4	176,986,745	TSS1500	N_Shore	WDR17	0.574	-0.007	0.075	0.079
cg14724613	black	7	86,273,429	1stExon	OpenSea	GRM3	0.574	-0.001	0.020	0.462
cg04374654	black	11	75,479,408	TSS1500	N_Shore	DGAT2	0.574	0.000	0.030	0.789
cg23880581	black	15	78,912,387	Body	Island	CHRNA3	0.574	-0.001	0.019	0.356
cg00806311	black	1	244,625,112	Body	S_Shore	C1orf101	0.574	-0.007	0.121	0.312
cg27246147	black	17	47,987,056		N_Shore		0.574	0.009	0.088	0.141
cg03049303	black	10	103,816,154	TSS1500	S_Shore	C10orf76	0.574	0.000	0.033	0.820
cg04464940	black	21	18,983,803	5'UTR	N_Shore	BTG3	0.574	0.001	0.025	0.395
cg08457620	black	17	1,900,131	Body	N_Shore	RTN4RL1	0.574	0.006	0.412	0.473
cg21941611	black	17	3,378,804	TSS1500	S_Shelf	ASPA	0.574	-0.013	0.334	0.168
cg10653131	black	13	24,154,260	5'UTR	S_Shore	TNFRSF19	0.574	0.001	0.026	0.436
cg00806505	black	1	171,622,329	TSS1500	OpenSea	MYOC	0.574	0.008	0.601	0.479
cg08527324	black	17	54,655,325		OpenSea		0.574	0.001	0.062	0.875
cg09941406	black	12	54,391,325		S_Shore		0.574	0.037	0.132	0.091
cg03508526	black	8	17,014,845	Body	S_Shore	ZDHHC2	0.574	0.004	0.074	0.449
cg12696328	black	1	227,729,680		Island		0.574	-0.001	0.033	0.600
cg08844848	black	3	3,840,514	TSS1500	Island	LRRN1	0.574	-0.001	0.018	0.610
cg03985727	black	7	15,727,525	TSS1500	OpenSea	MEOX2	0.574	0.000	0.014	0.884
cg00506343	black	12	54,421,033	5'UTR	N_Shelf	HOXC4	0.574	0.022	0.156	0.075
cg14085262	black	1	203,155,938	TSS200	OpenSea	CHI3L1	0.574	-0.009	0.346	0.288
cg03395898	black	14	76,448,011	1stExon	N_Shore	TGFB3	0.574	-0.002	0.036	0.317
cg10297561	black	8	49,231,655		Island		0.574	-0.004	0.065	0.406
cg15040157	black	15	69,323,876	Body	N_Shore	MIR548H4	0.574	0.000	0.099	0.978
cg26835506	black	6	109,038,353		OpenSea		0.574	-0.002	0.706	0.824
cg26214972	black	12	120,780,777	3'UTR	OpenSea	MSI1	0.574	0.008	0.378	0.633
cg01518279	black	1	156,401,601		N_Shelf		0.574	0.002	0.018	0.013
cg08772588	black	19	56,000,201	Body	N_Shore	SSC5D	0.574	0.000	0.228	0.981
cg21781964	black	20	49,708,657		OpenSea		0.574	0.003	0.026	0.090
cg17485838	black	7	27,138,712		S_Shore		0.574	-0.002	0.018	0.116
cg06761203	black	12	58,147,888	TSS1500	N_Shore	9-Mar	0.573	0.000	0.182	0.982
cg25402480	black	12	53,719,777		Island		0.573	0.001	0.032	0.478
cg08904363	black	7	102,790,119	TSS1500	Island	NAPEPLD	0.573	0.000	0.054	0.959

cg08504407	black	17	77,397,606	5'UTR	OpenSea	HRNBP3	0.573	0.005	0.218	0.433
cg08209473	black	16	48,399,769	5'UTR	Island	SIAH1	0.573	0.004	0.079	0.352
cg16686733	black	20	25,566,563	TSS1500	S_Shore	NINL	0.573	-0.002	0.022	0.279
cg17406383	black	17	71,948,506		Island		0.573	0.002	0.101	0.702
cg15678513	black	8	142,431,934	TSS200	S_Shelf	PTP4A3	0.573	0.005	0.786	0.503
cg22441543	black	22	50,355,555	Body	Island	PIM3	0.573	0.000	0.028	0.889
cg25874953	black	15	69,082,449	Body	OpenSea	ANP32A	0.573	0.001	0.039	0.519
cg00273657	black	10	127,262,562	TSS1500	OpenSea	LOC1001697	0.573	-0.003	0.516	0.776
cg07336987	black	11	625,147	TSS200	N_Shore	MUPCDH	0.573	-0.002	0.478	0.841
cg23845168	black	17	31,271,015		OpenSea		0.573	-0.003	0.248	0.753
cg19786627	black	14	29,235,904	TSS1500	Island	FOXG1	0.573	0.001	0.022	0.207
cg04945735	black	4	186,456,009	Body	Island	PDLIM3	0.573	0.000	0.021	0.970
cg09812541	black	1	19,639,438	TSS1500	S_Shore	AKR7A2	0.573	0.000	0.035	0.933
cg12545687	black	13	53,423,262	TSS1500	N_Shore	PCDH8	0.573	0.002	0.038	0.279
cg12740337	black	6	28,058,973	Body	OpenSea	ZSCAN12L1	0.573	-0.003	0.247	0.842
cg08141615	black	12	110,172,214	Body	OpenSea	MGC14436	0.573	-0.007	0.042	0.046
cg17210604	black	17	1,958,117	TSS1500	Island	HIC1	0.573	0.000	0.026	0.852
cg13199589	black	1	42,845,990	TSS1500	Island	RIMKLA	0.573	-0.001	0.042	0.629
cg10415767	black	17	17,726,759	Body	N_Shore	SREBF1	0.573	0.008	0.130	0.132
cg19319393	black	1	6,321,737	TSS1500	S_Shore	GPR153	0.573	-0.003	0.051	0.305
cg02434051	black	19	54,848,878	Body	OpenSea	LILRA4	0.573	-0.001	0.253	0.887
cg12062198	black	8	22,419,460	Body	N_Shelf	SORBS3	0.572	0.000	0.035	0.871
cg11825926	black	9	129,374,641		Island		0.572	-0.003	0.047	0.313
cg26834680	black	1	111,814,208		S_Shore		0.572	0.001	0.052	0.789
cg05164926	black	17	7,255,624	5'UTR	Island	KCTD11	0.572	0.000	0.023	0.828
cg00806826	black	10	2,812,567		N_Shelf		0.572	-0.006	0.368	0.317
cg19133883	black	20	1,447,874	5'UTR	S_Shore	NSFL1C	0.572	0.001	0.030	0.648
cg07514505	black	13	96,743,754	1stExon	Island	HS6ST3	0.572	0.002	0.029	0.252
cg14700230	black	19	18,719,623		N_Shore		0.572	0.008	0.473	0.352
cg07651452	black	2	240,323,957	TSS1500	S_Shore	HDAC4	0.572	-0.001	0.032	0.444
cg24940576	black	11	125,904,314	5'UTR	OpenSea	CDON	0.572	-0.009	0.216	0.289
cg22658451	black	6	116,550,594	Body	OpenSea	NT5DC1	0.572	0.000	0.344	0.967
cg07968224	black	6	71,276,472	TSS200	N_Shore	C6orf57	0.572	0.001	0.045	0.694
cg20731529	black	2	200,296,767	Body	OpenSea	SATB2	0.572	-0.003	0.039	0.145
cg06608376	black	6	116,783,574	Body	Island	FAM26F	0.572	-0.007	0.111	0.118
cg18317494	black	8	22,014,496	TSS200	Island	LGI3	0.572	0.000	0.044	0.984
cg13168924	black	19	8,386,583	TSS1500	Island	NDUFA7	0.572	0.003	0.440	0.734
cg24235518	black	20	61,371,425	Body	OpenSea	NTSR1	0.572	0.003	0.329	0.744
cg23586322	black	8	121,138,232	5'UTR	S_Shore	COL14A1	0.572	-0.001	0.027	0.698
cg12956091	black	14	38,054,759		S_Shore		0.572	0.005	0.082	0.667
cg15096140	black	2	192,109,731	TSS1500	N_Shore	MYO1B	0.572	0.001	0.189	0.859
cg21141024	black	14	59,422,098		OpenSea		0.572	0.000	0.018	0.964
cg01395351	black	12	57,421,088		OpenSea		0.572	-0.003	0.218	0.619
cg00886780	black	6	35,149,727		N_Shore		0.572	0.003	0.311	0.601
cg05598919	black	7	45,128,053	Body	Island	NACAD	0.571	0.002	0.429	0.760
cg27451484	black	7	155,166,435		Island		0.571	0.001	0.037	0.497
cg03015498	black	10	7,517,765		OpenSea		0.571	0.007	0.132	0.419
cg20855763	black	17	40,761,195	1stExon	Island	FAM134C	0.571	0.000	0.019	0.930
cg25215292	black	5	135,265,753	TSS1500	N_Shore	FBXL21	0.571	0.004	0.233	0.527
cg04140974	black	6	18,387,360	TSS1500	N_Shore	RNF144B	0.571	-0.003	0.044	0.261
cg09921810	black	16	31,227,497	Body	Island	TRIM72	0.571	0.001	0.021	0.360
cg26806924	black	20	33,760,017	1stExon	N_Shelf	PROCR	0.571	0.002	0.053	0.451
cg00386663	black	16	692,659	Body	Island	FAM195A	0.571	-0.003	0.075	0.452
cg00901982	black	2	70,257,298		OpenSea		0.571	-0.004	0.196	0.571
cg01877814	black	15	89,879,097	TSS1500	S_Shore	POLG	0.571	0.000	0.039	0.885
cg21919809	black	19	36,132,842	1stExon	N_Shore	ETV2	0.571	0.004	0.291	0.559
cg00684824	black	6	56,112,024	5'UTR	N_Shore	COL21A1	0.571	0.001	0.047	0.739
cg19211915	black	11	32,452,513	Body	Island	WT1	0.571	0.006	0.122	0.480
cg21255657	black	17	77,006,304	TSS1500	S_Shore	CANT1	0.571	0.000	0.035	0.896
cg01792532	black	1	33,284,208	TSS1500	S_Shore	YARS	0.571	0.001	0.166	0.831
cg18533397	black	1	110,186,005		Island		0.571	0.001	0.030	0.356
cg20543681	black	20	642,673	3'UTR	Island	SCRT2	0.571	-0.001	0.044	0.629
cg13796250	black	6	108,169,200		N_Shore		0.571	0.003	0.052	0.238
cg17289764	black	8	21,990,742		S_Shore		0.571	-0.004	0.043	0.149
cg03145924	black	1	90,228,473		N_Shore		0.571	0.003	0.038	0.563
cg03730946	black	19	6,475,456	Body	Island	DENND1C	0.571	-0.004	0.048	0.256
cg01923252	black	6	108,436,849		N_Shore		0.571	0.002	0.049	0.561

cg22798214	black	1	212,692,190	S_Shelf		0.571	-0.002	0.073	0.726
cg03660326	black	12	53,895,436 1stExon	S_Shore	TARBP2	0.571	-0.001	0.027	0.333
cg16487577	black	1	226,099,147	OpenSea		0.571	-0.001	0.082	0.775
cg25665697	black	15	66,857,881 TSS200	OpenSea	LCTL	0.571	0.004	0.366	0.409
cg13547127	black	6	145,217,150	OpenSea		0.570	0.003	0.050	0.333
cg27134827	black	6	32,121,566 Body	N_Shore	PPT2	0.570	0.001	0.027	0.576
cg17444904	black	7	29,603,253 TSS200	Island	PRR15	0.570	-0.001	0.023	0.407
cg11614093	black	6	155,406,298	OpenSea		0.570	-0.005	0.063	0.323
cg22847228	black	5	140,792,700 Body	N_Shore	PCDHGA4	0.570	0.001	0.027	0.394
cg26222731	black	15	57,695,943 5'UTR	OpenSea	CGNL1	0.570	-0.009	0.399	0.164
cg14507088	black	9	130,690,399 Body	S_Shore	PIP5KL1	0.570	0.000	0.047	0.923
cg13420364	black	1	234,857,659	OpenSea		0.570	-0.004	0.044	0.158
cg02532725	black	15	35,087,506 5'UTR	OpenSea	ACTC1	0.570	-0.010	0.148	0.270
cg12030690	black	4	90,759,203 TSS1500	S_Shore	SNCA	0.570	-0.001	0.023	0.568
cg11702085	black	6	28,956,804	S_Shore		0.570	0.011	0.084	0.219
cg08876103	black	1	39,572,323 Body	S_Shore	MACF1	0.570	0.000	0.018	0.762
cg06283270	black	15	93,353,066	Island		0.570	-0.007	0.059	0.051
cg05363449	black	12	4,379,373	Island		0.570	-0.002	0.047	0.331
cg14331163	black	9	77,111,663 TSS1500	N_Shore	RORB	0.570	0.001	0.028	0.705
cg09013981	black	16	57,334,839	OpenSea		0.570	-0.001	0.022	0.640
cg24964694	black	6	36,308,389	OpenSea		0.570	0.000	0.037	0.912
cg03711457	black	11	113,746,831 TSS1500	S_Shore	USP28	0.570	-0.003	0.191	0.593
cg19112895	black	3	147,075,099	N_Shelf		0.570	0.001	0.023	0.224
cg06402325	black	1	85,464,166 TSS1500	Island	MCOLN2	0.570	0.000	0.025	0.687
cg04240109	black	1	18,972,430 Body	N_Shore	PAX7	0.570	0.001	0.098	0.880
cg18612627	black	12	14,135,203	Island		0.570	-0.005	0.052	0.084
cg07550331	black	4	185,938,933 TSS1500	N_Shore	HELT	0.570	0.001	0.043	0.632
cg02545261	black	5	174,115,717	OpenSea		0.570	-0.002	0.022	0.098
cg07310916	black	2	232,330,273 TSS1500	S_Shore	NCL	0.570	0.010	0.500	0.084
cg12891195	black	13	20,734,717 5'UTR	N_Shore	GJA3	0.570	0.002	0.038	0.357
cg24262325	black	21	43,305,576 3'UTR	OpenSea	C2CD2	0.570	-0.001	0.299	0.811
cg27544190	black	21	33,785,434 Body	Island	C21orf63	0.570	0.001	0.038	0.652
cg22622937	black	7	48,129,444 5'UTR	Island	UPP1	0.570	-0.002	0.034	0.130
cg18059891	black	19	36,499,721 TSS200	N_Shore	C19orf46	0.570	-0.002	0.156	0.758
cg03833604	black	12	54,378,500 TSS1500	N_Shore	HOXC10	0.570	0.000	0.019	0.692
cg09234672	black	16	51,187,750	Island		0.570	-0.001	0.034	0.554
cg18693345	black	5	2,754,148 Body	Island	C5orf38	0.570	-0.001	0.026	0.493
cg26393541	black	4	183,064,952 Body	Island	MGC45800	0.569	0.000	0.017	0.609
cg16057826	black	21	36,041,334 TSS1500	Island	CLIC6	0.569	0.013	0.229	0.411
cg05588496	black	18	67,067,721 TSS1500	Island	DOK6	0.569	-0.001	0.035	0.708
cg14246940	black	9	129,434,406 Body	S_Shore	LMX1B	0.569	-0.001	0.776	0.879
cg10444491	black	4	7,394,790 Body	OpenSea	SORCS2	0.569	-0.003	0.213	0.798
cg23047500	black	10	118,765,255 TSS200	S_Shore	KIAA1598	0.569	0.000	0.022	0.893
cg00750088	black	6	41,649,914	N_Shore		0.569	0.000	0.021	0.882
cg21679391	black	1	1,286,917	S_Shore		0.569	-0.001	0.130	0.942
cg18088242	black	15	45,422,325 5'UTR	Island	DUOX1	0.569	0.002	0.019	0.067
cg05358900	black	12	32,553,295	S_Shore		0.569	0.001	0.060	0.874
cg11245053	black	12	48,416,949	OpenSea		0.569	0.002	0.457	0.717
cg17851725	black	2	121,269,372	OpenSea		0.569	0.019	0.399	0.061
cg06654537	black	13	100,641,317	N_Shore		0.569	-0.006	0.049	0.040
cg20511832	black	15	78,934,280 TSS1500	S_Shore	CHRNB4	0.569	0.002	0.051	0.551
cg13655082	black	9	125,109,046	Island		0.569	0.000	0.019	0.968
cg14321284	black	9	137,186,149	OpenSea		0.569	0.006	0.335	0.630
cg21905139	black	14	36,978,195 Body	S_Shore	SFTA3	0.569	0.000	0.023	0.990
cg13975303	black	22	36,850,894	Island		0.569	-0.006	0.131	0.251
cg20594809	black	1	75,594,531 5'UTR	N_Shore	LHX8	0.569	0.000	0.053	0.928
cg03839074	black	5	43,000,303	N_Shore		0.569	0.000	0.021	0.872
cg08889687	black	3	110,789,300	N_Shore		0.569	0.000	0.016	0.625
cg14971320	black	10	43,699,070 Body	S_Shore	RASGEF1A	0.569	0.000	0.033	0.976
cg09773586	black	12	46,778,276	S_Shore		0.569	0.000	0.027	0.925
cg17602167	black	6	36,561,558 TSS1500	N_Shore	SFRS3	0.569	-0.009	0.088	0.061
cg13990926	black	12	54,133,447	S_Shore		0.569	0.000	0.020	0.586
cg09307794	black	6	53,851,924	OpenSea		0.569	-0.002	0.092	0.787
cg10639585	black	12	130,387,131 Body	N_Shore	TMEM132D	0.569	0.001	0.061	0.858
cg14504269	black	3	138,658,941	Island		0.569	-0.002	0.024	0.338
cg15886244	black	5	90,576,628	Island		0.568	-0.001	0.021	0.171
cg21501525	black	19	31,843,948	Island		0.568	0.001	0.030	0.726

cg06573245	black	2	121,433,298	OpenSea		0.568	0.000	0.022	0.840
cg02333467	black	7	100,290,845	N_Shore		0.568	-0.001	0.027	0.293
cg05112555	black	17	71,739,385	OpenSea		0.568	0.020	0.408	0.149
cg15172053	black	8	105,342,214	Island		0.568	-0.006	0.182	0.493
cg00920162	black	6	33,140,396 Body	OpenSea	COL11A2	0.568	0.006	0.480	0.527
cg00314029	black	2	161,348,665 Body	N_Shore	RBMS1	0.568	-0.002	0.032	0.244
cg05143360	black	20	4,741,328	N_Shore		0.568	0.000	0.030	0.778
cg05776388	black	17	72,983,414 TSS1500	N_Shore	CDR2L	0.568	0.001	0.064	0.719
cg18265162	black	1	210,407,588 TSS200	Island	C1orf133	0.568	0.000	0.040	0.897
cg07057831	black	12	131,323,042 Body	N_Shore	STX2	0.568	-0.005	0.077	0.195
cg01078824	black	7	27,220,047 TSS200	S_Shore	HOXA10	0.568	0.003	0.165	0.526
cg03706436	black	19	30,717,225	Island		0.568	0.000	0.023	0.786
cg21160842	black	11	32,112,091 TSS1500	N_Shore	RCN1	0.568	0.001	0.041	0.480
cg03666500	black	6	92,009,684	OpenSea		0.568	0.007	0.079	0.388
cg22953017	black	2	201,451,303 Body	S_Shore	AOX1	0.568	-0.006	0.092	0.155
cg27143570	black	10	102,975,075	N_Shore		0.568	0.000	0.048	0.873
cg18682731	black	10	134,680,867	N_Shore		0.568	0.013	0.513	0.090
cg26695909	black	8	81,639,869 Body	OpenSea	ZNF704	0.568	0.000	0.022	0.955
cg22117172	black	7	91,764,530 TSS1500	S_Shore	CYP51A1	0.568	-0.001	0.036	0.712
cg17910586	black	3	52,479,098 TSS200	OpenSea	SEMA3G	0.567	0.002	0.091	0.714
cg22923514	black	10	115,999,708 5'UTR	S_Shore	VWA2	0.567	-0.012	0.231	0.051
cg14230397	black	17	46,799,986 TSS200	N_Shore	PRAC	0.567	0.001	0.031	0.704
cg21484863	black	6	21,131,734 Body	OpenSea	CDKAL1	0.567	-0.006	0.895	0.534
cg04978408	black	1	26,632,539 5'UTR	N_Shore	UBXN11	0.567	-0.003	0.090	0.557
cg00439658	black	17	72,848,669 Body	Island	GRIN2C	0.567	0.002	0.055	0.502
cg00073543	black	1	38,941,882	N_Shore		0.567	0.000	0.020	0.838
cg23497704	black	12	113,910,034 TSS200	Island	LHX5	0.567	-0.006	0.106	0.182
cg14724471	black	20	57,089,461 Body	Island	APCDD1L	0.567	-0.003	0.064	0.407
cg00508975	black	3	26,666,151 5'UTR	Island	LRRC3B	0.567	0.003	0.044	0.445
cg24650501	black	1	165,324,990 5'UTR	Island	LMX1A	0.567	0.000	0.013	0.827
cg01912040	black	17	1,106,553	N_Shore		0.567	-0.004	0.210	0.716
cg02094273	black	11	86,636,018	OpenSea		0.567	0.010	0.228	0.436
cg14864853	black	5	63,801,847 TSS1500	Island	RGS7BP	0.567	-0.001	0.042	0.762
cg09110148	black	1	39,284,377	Island		0.567	0.002	0.023	0.116
cg15426869	black	3	127,266,149	N_Shore		0.567	-0.009	0.327	0.296
cg14614792	black	1	19,668,147 Body	S_Shelf	CAPZB	0.567	0.000	0.024	0.742
cg12894126	black	9	134,405,925 Body	N_Shore	UCK1	0.567	-0.002	0.089	0.563
cg08168400	black	6	30,910,605 Body	OpenSea	DPCR1	0.567	-0.003	0.031	0.076
cg09786383	black	13	78,494,010 TSS1500	S_Shore	EDNRB	0.567	0.001	0.039	0.740
cg07917909	black	6	159,591,467 Body	S_Shore	FNDC1	0.567	0.001	0.022	0.632
cg21488066	black	6	28,367,898 TSS1500	S_Shore	ZSCAN12	0.567	0.001	0.027	0.539
cg19099049	black	15	48,011,466 5'UTR	S_Shore	SEMA6D	0.567	-0.001	0.024	0.256
cg08310866	black	17	21,281,163 5'UTR	Island	KCNJ12	0.567	0.000	0.037	0.794
cg00971396	black	3	184,081,400 Body	S_Shore	POLR2H	0.567	-0.002	0.048	0.416
cg03883275	black	10	49,608,385 TSS1500	OpenSea	MAPK8	0.567	-0.030	0.230	0.003
cg08428707	black	20	32,398,882 TSS1500	N_Shore	CHMP4B	0.567	0.000	0.019	0.682
cg27020966	black	6	139,540,827	OpenSea		0.566	-0.007	0.056	0.060
cg18500436	black	4	62,065,809	N_Shore		0.566	0.000	0.019	0.763
cg14514237	black	10	45,868,696 TSS1500	N_Shore	ALOX5	0.566	0.001	0.031	0.629
cg23791611	black	2	192,015,726 1stExon	OpenSea	STAT4	0.566	-0.002	0.034	0.343
cg14800014	black	5	125,800,764 Body	OpenSea	GRAMD3	0.566	-0.002	0.546	0.769
cg23008153	black	5	63,461,305 TSS1500	N_Shore	RNF180	0.566	-0.004	0.165	0.490
cg14254419	black	1	110,162,217 TSS1500	N_Shore	AMPD2	0.566	0.001	0.151	0.790
cg19220586	black	1	167,522,470 Body	Island	CREG1	0.566	0.001	0.033	0.732
cg26094122	black	17	28,705,364 TSS1500	Island	CPD	0.566	-0.004	0.089	0.373
cg06878663	black	7	158,907,110 Body	S_Shore	VIPR2	0.566	-0.003	0.405	0.697
cg14242696	black	14	73,361,964 TSS1500	S_Shore	DPF3	0.566	0.000	0.032	0.761
cg07056138	black	8	103,120,260 5'UTR	OpenSea	NCALD	0.566	0.003	0.250	0.614
cg16315020	black	1	109,359,175 Body	OpenSea	AKNAD1	0.566	0.000	0.076	0.951
cg05141234	black	6	33,265,267 Body	N_Shore	RLG2	0.566	-0.003	0.072	0.397
cg25567448	black	2	97,175,065 TSS1500	S_Shore	NEURL3	0.566	-0.003	0.614	0.684
cg02348437	black	2	202,545,694 Body	OpenSea	MPP4	0.566	-0.010	0.149	0.162
cg06616245	black	12	57,854,236 5'UTR	S_Shore	GLI1	0.566	-0.001	0.032	0.698
cg23790219	black	17	71,301,599 5'UTR	OpenSea	CDC42EP4	0.566	-0.006	0.059	0.085
cg14080434	black	12	113,905,682 Body	Island	LHX5	0.566	-0.003	0.033	0.166
cg17093088	black	7	6,544,329 Body	S_Shore	GRID2IP	0.566	0.000	0.040	0.842
cg14470209	black	3	128,598,183 TSS200	Island	ACAD9	0.566	0.000	0.034	0.821

cg22449114	black	20	590,243	Body	Island	TCF15	0.566	0.008	0.083	0.130
cg25884854	black	12	48,358,104	Body	S_Shore	TMEM106C	0.566	-0.002	0.025	0.290
cg05166871	black	17	46,233,714	Body	OpenSea	SKAP1	0.566	-0.003	0.301	0.752
cg15833534	black	1	31,845,985	TSS200	OpenSea	FABP3	0.566	-0.001	0.033	0.761
cg15705470	black	5	87,972,265	Body	N_Shore	LOC645323	0.566	-0.002	0.044	0.387
cg21738443	black	12	12,473,531		OpenSea		0.566	0.000	0.093	0.940
cg03218374	black	20	896,981	TSS200	OpenSea	ANGPT4	0.565	0.000	0.014	0.866
cg23917057	black	2	88,752,619	TSS1500	Island	FOXI3	0.565	0.000	0.023	0.908
cg03766449	black	15	89,920,918	TSS1500	Island	LOC254559	0.565	-0.013	0.179	0.166
cg12353688	black	7	27,265,004		N_Shore		0.565	-0.004	0.046	0.143
cg25120945	black	6	29,975,416	Body	S_Shore	HLA-J	0.565	-0.003	0.044	0.358
cg06704884	black	4	40,665,353		OpenSea		0.565	0.000	0.035	0.886
cg02858402	black	1	204,183,519	TSS1500	OpenSea	GOLT1A	0.565	0.000	0.021	0.809
cg01201797	black	2	208,635,605	TSS1500	S_Shore	FZD5	0.565	0.002	0.073	0.810
cg21406409	black	1	10,413,700	Body	OpenSea	KIF1B	0.565	0.012	0.243	0.062
cg13252401	black	2	233,793,311	Body	Island	NGEF	0.565	0.001	0.049	0.728
cg24462476	black	5	134,375,427		Island		0.565	-0.001	0.036	0.771
cg19676181	black	4	56,660,398		S_Shore		0.565	0.006	0.255	0.687
cg00980244	black	6	108,396,327	TSS1500	Island	OSTM1	0.565	0.001	0.030	0.539
cg24072927	black	7	157,809,451	Body	OpenSea	PTPRN2	0.565	-0.003	0.059	0.560
cg20273670	black	17	21,356,245		Island		0.565	0.002	0.035	0.261
cg24664038	black	6	27,512,849		OpenSea		0.565	0.000	0.017	0.971
cg18174542	black	22	41,956,861	TSS200	OpenSea	CSDC2	0.565	0.000	0.050	0.867
cg22675922	black	11	2,889,840	TSS1500	N_Shore	KCNQ1DN	0.565	0.007	0.138	0.358
cg02911875	black	16	49,314,038	Body	Island	CBLN1	0.565	-0.002	0.028	0.222
cg14809705	black	17	33,814,817	Body	Island	SLFN12L	0.565	-0.012	0.090	0.053
cg24709033	black	7	27,224,568	TSS1500	Island	HOXA11AS	0.565	0.000	0.075	0.939
cg05085636	black	2	165,874,828		OpenSea		0.565	0.002	0.092	0.820
cg01074584	black	8	41,168,072	TSS1500	S_Shore	SFRP1	0.565	-0.001	0.089	0.927
cg14484145	black	5	149,792,371	TSS200	OpenSea	CD74	0.565	-0.001	0.070	0.853
cg14377594	black	9	1,051,505	5'UTR	N_Shore	DMRT2	0.565	0.003	0.110	0.760
cg19539004	black	22	30,643,376	TSS1500	S_Shore	LIF	0.564	0.006	0.420	0.251
cg25792593	black	19	8,559,219	Body	S_Shelf	PRAM1	0.564	0.000	0.179	0.979
cg26247880	black	17	1,131,424		N_Shore		0.564	-0.004	0.151	0.627
cg13483263	black	17	7,493,150	1stExon	S_Shore	SOX15	0.564	0.013	0.311	0.192
cg24279744	black	3	10,408,402	Body	OpenSea	ATP2B2	0.564	0.007	0.063	0.058
cg13072625	black	8	54,795,315	Body	S_Shore	RGS20	0.564	0.000	0.059	0.984
cg03746015	black	16	11,141,000	Body	OpenSea	CLEC16A	0.564	0.006	0.502	0.704
cg07803859	black	10	98,590,797	TSS1500	N_Shore	LCOR	0.564	-0.007	0.084	0.207
cg01650726	black	7	45,927,893	TSS200	N_Shore	IGFBP1	0.564	0.000	0.074	0.942
cg02895319	black	12	50,222,810	Body	S_Shore	LOC1002868	0.564	0.002	0.097	0.732
cg19102771	black	2	223,166,909	5'UTR	N_Shore	CCDC140	0.564	0.000	0.019	0.659
cg26064895	black	4	48,271,121	5'UTR	N_Shore	TEC	0.564	0.000	0.235	0.997
cg20974724	black	7	121,944,450	1stExon	Island	FEZF1	0.564	-0.001	0.017	0.323
cg06217245	black	20	33,103,252	TSS1500	N_Shore	DYNLRB1	0.564	-0.002	0.045	0.560
cg02376553	black	6	10,413,523	Body	Island	TFAP2A	0.564	0.002	0.078	0.383
cg09685682	black	16	89,778,914	Body	S_Shore	C16orf7	0.564	-0.003	0.040	0.039
cg02771744	black	7	7,995,879		OpenSea		0.564	-0.017	0.087	0.036
cg19537591	black	11	111,956,782	Body	N_Shore	TIMM8B	0.564	0.003	0.041	0.189
cg11748187	black	10	114,713,108	Body	S_Shore	TCF7L2	0.564	-0.002	0.057	0.712
cg03736807	black	12	54,654,045	TSS1500	OpenSea	CBX5	0.564	0.000	0.229	0.999
cg00933538	black	6	32,121,471	Body	N_Shore	PPT2	0.564	0.000	0.021	0.770
cg10375267	black	16	87,523,700	Body	OpenSea	ZCCHC14	0.564	-0.010	0.229	0.240
cg15090211	black	6	3,232,464		S_Shore		0.564	0.001	0.062	0.715
cg22701032	black	2	70,484,527	TSS1500	N_Shore	PCYOX1	0.564	0.012	0.146	0.126
cg03671276	black	17	38,183,370	Body	OpenSea	MED24	0.564	-0.004	0.113	0.349
cg25735305	black	11	124,629,580	Body	Island	ESAM	0.564	0.002	0.032	0.521
cg22808351	black	1	156,783,633	Body	Island	SH2D2A	0.564	0.009	0.089	0.040
cg12864912	black	4	6,988,209	Body	N_Shore	TBC1D14	0.564	0.000	0.024	0.814
cg02285784	black	14	23,527,216	TSS1500	Island	CDH24	0.564	-0.001	0.022	0.512
cg01539133	black	19	4,607,324		Island		0.564	-0.001	0.048	0.738
cg18676033	black	6	29,691,815	Body	Island	HLA-F	0.564	-0.005	0.066	0.190
cg10535922	black	5	122,426,269	Body	Island	PRDM6	0.564	-0.004	0.048	0.105
cg09296270	black	2	65,087,288		S_Shore		0.564	0.005	0.136	0.356
cg07621046	black	10	118,429,658	TSS200	Island	C10orf82	0.563	-0.004	0.067	0.416
cg04209035	black	2	220,463,052	Body	S_Shore	STK11IP	0.563	-0.002	0.035	0.242
cg05743278	black	7	129,709,803	TSS1500	N_Shore	KLHDC10	0.563	-0.001	0.028	0.599

cg14847009	black	1	175,162,515	TSS1500	S_Shore	KIAA0040	0.563	-0.003	0.053	0.423
cg01564135	black	7	27,281,216	TSS1500	N_Shore	EVX1	0.563	0.002	0.092	0.778
cg06619766	black	2	223,171,105		Island		0.563	-0.001	0.028	0.758
cg22007486	black	2	119,602,212	Body	N_Shore	EN1	0.563	-0.005	0.156	0.554
cg20991421	black	6	87,646,740	TSS1500	N_Shore	HTR1E	0.563	-0.004	0.129	0.534
cg20100147	black	6	108,436,275		Island		0.563	0.000	0.020	0.840
cg09553187	black	8	65,294,798		S_Shelf		0.563	0.001	0.028	0.593
cg07336438	black	16	1,131,466		S_Shore		0.563	-0.002	0.062	0.649
cg23676439	black	4	155,663,836	TSS1500	Island	LRAT	0.563	-0.001	0.022	0.156
cg05514971	black	9	130,329,588	Body	N_Shore	FAM129B	0.563	0.000	0.038	0.813
cg19002149	black	1	36,644,059	Body	Island	MAP7D1	0.563	0.005	0.342	0.401
cg17988780	black	6	30,698,780	Body	OpenSea	FLOT1	0.563	0.006	0.177	0.291
cg02286715	black	4	6,473,881	Body	Island	PPP2R2C	0.563	-0.001	0.027	0.354
cg02170784	black	16	1,034,527	Body	Island	SOX8	0.563	0.001	0.590	0.887
cg20059151	black	1	95,286,311	5'UTR	Island	SLC44A3	0.563	-0.006	0.269	0.319
cg09840968	black	15	37,394,840	TSS1500	S_Shore	MEIS2	0.563	0.000	0.016	0.731
cg24850580	black	10	88,159,614		Island		0.563	0.000	0.044	0.913
cg13278353	black	2	208,635,942		S_Shore		0.563	0.000	0.027	0.797
cg07075085	black	3	64,572,729	Body	OpenSea	ADAMT59	0.563	0.008	0.163	0.539
cg24524850	black	1	44,496,039	5'UTR	Island	SLC6A9	0.563	0.005	0.099	0.322
cg00408678	black	6	36,897,641		OpenSea		0.563	-0.002	0.137	0.839
cg12187807	black	13	107,686,999		OpenSea		0.563	-0.003	0.563	0.758
cg13189149	black	10	102,985,868		Island		0.563	0.005	0.075	0.638
cg04180823	black	6	167,652,028		OpenSea		0.563	0.006	0.602	0.285
cg26146308	black	6	30,851,884	TSS1500	N_Shore	DDR1	0.563	-0.001	0.039	0.584
cg18817318	black	13	77,565,875	TSS200	N_Shore	CLN5	0.563	0.001	0.058	0.822
cg22134923	black	11	62,314,874	TSS1500	Island	AHNAK	0.563	-0.001	0.058	0.823
cg16663033	black	1	15,272,108	Body	OpenSea	KIAA1026	0.563	-0.004	0.037	0.200
cg01939562	black	5	3,105,012		OpenSea		0.563	0.001	0.031	0.844
cg18029933	black	19	55,824,565	Body	Island	TMEM150B	0.563	-0.003	0.448	0.707
cg22285914	black	12	53,729,659	TSS200	OpenSea	SP7	0.563	0.003	0.760	0.746
cg07402062	black	16	89,894,098	TSS1500	N_Shore	SPIRE2	0.562	-0.009	0.085	0.117
cg10996816	black	4	6,903,963		OpenSea		0.562	-0.001	0.047	0.656
cg01161204	black	11	115,530,932		S_Shore		0.562	0.001	0.019	0.283
cg18803104	black	6	28,956,324		Island		0.562	0.011	0.089	0.318
cg08794940	black	6	30,711,073	3'UTR	Island	IER3	0.562	0.000	0.028	0.899
cg16198723	black	3	112,359,557	5'UTR	OpenSea	CCDC80	0.562	-0.001	0.014	0.105
cg23515460	black	14	73,361,747	TSS1500	S_Shore	DPF3	0.562	0.000	0.017	0.742
cg04751133	black	5	170,846,273	TSS1500	Island	FGF18	0.562	0.000	0.028	0.954
cg06976485	black	6	32,086,928	Body	OpenSea	ATF6B	0.562	0.000	0.032	0.803
cg26654807	black	10	81,002,218	Body	Island	ZMIZ1	0.562	-0.002	0.025	0.236
cg15075241	black	2	10,587,052	TSS200	N_Shore	SNORA80B	0.562	-0.003	0.563	0.750
cg17723653	black	10	75,407,823	Body	S_Shore	SYNP02L	0.562	0.004	0.057	0.360
cg03404143	black	10	102,986,973	3'UTR	Island	LBX1	0.562	0.007	0.055	0.526
cg00819788	black	17	7,308,579	TSS1500	Island	C17orf61	0.562	-0.004	0.096	0.420
cg19183879	black	15	85,880,815		OpenSea		0.562	-0.001	0.188	0.893
cg03449543	black	16	3,149,264		OpenSea		0.562	0.008	0.499	0.415
cg17396404	black	6	32,086,878	Body	OpenSea	ATF6B	0.562	-0.001	0.018	0.081
cg02301805	black	7	18,125,881		N_Shore		0.562	-0.002	0.038	0.449
cg23060384	black	3	194,206,773		N_Shore		0.562	-0.001	0.017	0.378
cg23629140	black	17	76,309,869		N_Shore		0.562	0.006	0.185	0.220
cg20089538	black	18	77,724,428	TSS200	Island	HSBP1L1	0.562	-0.001	0.029	0.801
cg13879776	black	3	170,136,263	TSS1500	Island	CLDN11	0.562	0.001	0.032	0.572
cg13789015	black	9	136,890,014	TSS1500	N_Shore	NCRNA00094	0.562	0.002	0.034	0.595
cg07483811	black	18	2,846,237	TSS1500	N_Shore	EMILIN2	0.562	-0.004	0.079	0.386
cg10974980	black	15	74,243,781	Body	OpenSea	LOXL1	0.562	-0.003	0.031	0.278
cg00272971	black	10	102,419,564		Island		0.562	0.001	0.033	0.472
cg22913903	black	12	49,740,968	TSS200	S_Shore	DNAJC22	0.562	0.000	0.061	0.997
cg19782061	black	4	174,415,868		OpenSea		0.562	-0.008	0.096	0.300
cg08604594	black	10	33,798,231		OpenSea		0.562	-0.003	0.059	0.627
cg26781466	black	6	10,521,612	1stExon	OpenSea	GCNT2	0.562	0.002	0.077	0.746
cg26554505	black	3	55,516,711	Body	N_Shore	WNT5A	0.562	0.000	0.027	0.697
cg00965748	black	20	39,319,235	TSS1500	Island	MAFB	0.562	-0.003	0.061	0.470
cg01550716	black	1	243,646,318	Body	N_Shore	SDCCAG8	0.562	0.000	0.020	0.970
cg12225226	black	13	79,168,370		N_Shore		0.561	0.000	0.023	0.930
cg18750433	black	15	91,643,036	TSS200	Island	SV2B	0.561	0.000	0.015	0.717
cg26513131	black	16	4,556,572	Body	OpenSea	HMOX2	0.561	0.001	0.027	0.573



cg12969193	black	2	176,988,505	Body	N_Shore	HOXD9	0.561	-0.001	0.032	0.533
cg13973090	black	11	66,206,505	TSS200	OpenSea	MRPL11	0.561	0.000	0.024	0.879
cg15861540	black	19	3,606,463	5'UTR	Island	TBXA2R	0.561	0.000	0.070	0.958
cg13800079	black	17	48,255,578		OpenSea		0.561	-0.003	0.043	0.305
cg03776080	black	7	45,961,455	TSS1500	S_Shore	IGFBP3	0.561	0.002	0.092	0.674
cg00666280	black	12	2,902,480		N_Shore		0.561	0.007	0.497	0.450
cg14275340	black	14	58,862,450	TSS200	N_Shore	TOMM20L	0.561	-0.010	0.235	0.116
cg03238581	black	15	76,006,143	TSS1500	OpenSea	CSPG4	0.561	0.001	0.133	0.913
cg18094999	black	11	113,746,795	TSS1500	S_Shore	USP28	0.561	0.001	0.035	0.767
cg02989351	black	2	9,770,584	5'UTR	Island	YWHAQ	0.561	0.008	0.086	0.205
cg03456213	black	9	97,767,954	Body	Island	C9orf3	0.561	-0.002	0.023	0.166
cg08098420	black	16	66,164,601		OpenSea		0.561	0.001	0.203	0.936
cg04687486	black	8	33,330,940	TSS1500	S_Shore	FUT10	0.561	0.014	0.190	0.010
cg24473393	black	11	24,518,149	TSS1500	N_Shore	LUZP2	0.561	0.001	0.048	0.836
cg03219657	black	11	64,981,125	TSS1500	OpenSea	SLC22A20	0.561	0.000	0.225	0.996
cg15916646	black	7	27,225,127	Body	Island	HOXA11AS	0.561	0.001	0.078	0.866
cg19713911	black	11	1,410,081	TSS1500	N_Shore	BRSK2	0.561	-0.001	0.029	0.749
cg01152499	black	1	118,148,320	TSS1500	Island	FAM46C	0.561	0.000	0.024	0.688
cg21690505	black	1	226,314,883		OpenSea		0.561	-0.009	0.442	0.342
cg26308530	black	17	63,558,518	TSS1500	S_Shore	AXIN2	0.561	-0.003	0.067	0.578
cg21020944	black	13	42,845,694	TSS1500	N_Shore	AKAP11	0.561	-0.003	0.028	0.119
cg22533573	black	11	32,452,771	Body	S_Shore	WT1	0.560	0.002	0.059	0.752
cg10317380	black	11	122,934,257	TSS1500	S_Shore	HSPA8	0.560	0.003	0.161	0.637
cg00250430	black	9	1,051,579	5'UTR	N_Shore	DMRT2	0.560	0.000	0.026	0.828
cg23907108	black	11	64,405,993	Body	Island	NRXN2	0.560	-0.003	0.035	0.099
cg12099279	black	19	40,732,518	1stExon	Island	CNTD2	0.560	0.002	0.057	0.607
cg14825462	black	7	87,564,570	Body	Island	ADAM22	0.560	-0.005	0.063	0.147
cg17180631	black	1	201,708,788	TSS200	Island	NAV1	0.560	-0.001	0.013	0.598
cg10420942	black	14	76,843,181	5'UTR	Island	ESRRB	0.560	0.001	0.021	0.415
cg15281294	black	12	120,731,179		OpenSea		0.560	-0.001	0.028	0.309
cg22798849	black	7	27,155,234	5'UTR	Island	HOXA3	0.560	0.000	0.082	0.884
cg23546023	black	11	85,374,547	1stExon	N_Shore	CREBZF	0.560	0.000	0.022	0.765
cg02434035	black	7	1,273,835	Body	Island	UNCX	0.560	0.002	0.023	0.230
cg01554474	black	1	155,107,599	TSS1500	N_Shore	RAG1AP1	0.560	0.000	0.046	0.911
cg02064300	black	1	6,053,801	TSS1500	S_Shore	NPHP4	0.560	0.002	0.054	0.415
cg16127759	black	1	110,613,596	TSS1500	S_Shore	ALX3	0.560	0.001	0.076	0.771
cg14205321	black	6	100,050,662		N_Shore		0.560	0.000	0.016	0.838
cg10398799	black	10	32,636,781	TSS1500	S_Shore	EPC1	0.560	-0.001	0.048	0.631
cg27375166	black	16	22,006,319	Body	OpenSea	C16orf65	0.559	0.000	0.695	0.937
cg05595301	black	8	145,028,230	Body	Island	PLEC1	0.559	-0.001	0.026	0.301
cg07375840	black	15	96,900,143		Island		0.559	-0.001	0.019	0.341
cg04780159	black	16	70,414,430	3'UTR	Island	ST3GAL2	0.559	0.001	0.038	0.763
cg09358481	black	17	38,600,305	1stExon	Island	IGFBP4	0.559	-0.002	0.032	0.127
cg26894575	black	1	153,518,054	5'UTR	OpenSea	S100A4	0.559	0.005	0.268	0.375
cg01460202	black	16	23,706,506	Body	OpenSea	ERN2	0.559	0.000	0.025	0.874
cg02587602	black	11	123,302,047		Island		0.559	-0.001	0.061	0.720
cg19183542	black	15	49,448,572	Body	S_Shore	GALK2	0.559	-0.002	0.134	0.816
cg27637363	black	17	27,945,387	Body	Island	CORO6	0.559	-0.007	0.124	0.101
cg01958916	black	1	151,119,525	TSS1500	S_Shore	SEMA6C	0.559	-0.003	0.041	0.059
cg10210594	black	1	208,132,787		Island		0.559	-0.005	0.038	0.402
cg15683295	black	7	27,245,542		S_Shore		0.559	-0.001	0.029	0.755
cg01466976	black	5	170,740,289		N_Shore		0.559	0.000	0.051	0.947
cg07321753	black	13	31,618,695		OpenSea		0.559	0.000	0.017	0.592
cg10149605	black	9	139,879,629	3'UTR	Island	LCNL1	0.559	-0.001	0.064	0.732
cg06294712	black	8	65,492,280	TSS1500	N_Shore	BHLHE22	0.559	0.001	0.020	0.350
cg26804299	black	8	25,847,266	Body	OpenSea	EBF2	0.559	0.004	0.139	0.741
cg15941449	black	2	172,949,738	TSS1500	Island	DLX1	0.559	-0.001	0.034	0.714
cg16617366	black	18	46,064,816	TSS1500	N_Shore	KIAA0427	0.559	-0.006	0.083	0.244
cg09881545	black	3	5,137,630		Island		0.559	-0.001	0.031	0.670
cg24365117	black	15	89,879,190	TSS1500	S_Shore	POLG	0.559	-0.003	0.038	0.350
cg21481950	black	6	29,601,498	TSS1500	S_Shore	GABBR1	0.559	0.002	0.028	0.175
cg13000136	black	5	34,839,819	5'UTR	S_Shore	TTC23L	0.559	0.009	0.129	0.228
cg02361458	black	1	57,111,511	Body	S_Shore	PRKAA2	0.559	0.001	0.027	0.519
cg22467567	black	2	217,559,885	5'UTR	S_Shore	IGFBP5	0.559	0.001	0.019	0.477
cg00987558	black	16	2,069,444	TSS200	N_Shore	NPW	0.558	0.001	0.715	0.926
cg24640390	black	10	71,336,969		N_Shore		0.558	0.001	0.037	0.571
cg24162251	black	14	32,420,205		OpenSea		0.558	-0.002	0.019	0.108

cg05323725	black	17	35,294,713	1stExon	Island	LHX1	0.558	0.000	0.014	0.915
cg00532802	black	11	121,594,220		OpenSea		0.558	0.001	0.023	0.353
cg02430935	black	10	124,909,028	Body	Island	HMX2	0.558	0.000	0.046	0.886
cg25146111	black	4	40,059,615	5'UTR	S_Shore	N4BP2	0.558	-0.001	0.012	0.146
cg07572052	black	1	149,821,168	TSS1500	N_Shore	HIST2H2AA4	0.558	-0.001	0.022	0.464
cg18390610	black	17	48,278,927	1stExon	Island	COL1A1	0.558	-0.001	0.023	0.170
cg14588642	black	11	67,139,423	Body	N_Shore	LOC1001309	0.558	-0.006	0.059	0.063
cg02398682	black	1	32,802,228	TSS1500	Island	MARCKSL1	0.558	-0.002	0.027	0.212
cg20000812	black	6	99,276,697		S_Shore		0.558	-0.003	0.031	0.042
cg27206026	black	16	57,907,171		OpenSea		0.558	-0.007	0.097	0.366
cg01370541	black	4	41,882,812		Island		0.558	0.000	0.016	0.886
cg00712857	black	11	63,767,561	Body	Island	MACROD1	0.558	0.003	0.085	0.597
cg03930964	black	22	23,522,374	TSS200	N_Shore	BCR	0.558	0.001	0.045	0.810
cg02958634	black	2	119,594,696		S_Shore		0.558	0.000	0.026	0.800
cg13628577	black	5	122,431,121	Body	Island	PRDM6	0.558	0.003	0.070	0.658
cg14422315	black	10	99,664,004	Body	OpenSea	CRTAC1	0.558	0.006	0.289	0.286
cg25101863	black	11	69,650,231		OpenSea		0.558	0.009	0.118	0.326
cg11019430	black	10	29,096,857		OpenSea		0.558	-0.001	0.019	0.619
cg25835733	black	10	26,503,897	TSS1500	N_Shore	GAD2	0.558	0.004	0.058	0.283
cg14433074	black	6	30,711,090	3'UTR	Island	IER3	0.558	-0.003	0.040	0.314
cg04809787	black	17	7,348,339	TSS200	Island	CHRN1	0.558	0.000	0.048	0.960
cg22641201	black	10	60,401,105	Body	OpenSea	BICC1	0.558	0.001	0.103	0.920
cg07858973	black	3	133,255,001		OpenSea		0.558	0.000	0.029	0.871
cg11730722	black	10	102,985,514		Island		0.558	-0.001	0.038	0.902
cg12080909	black	17	27,917,982	TSS1500	N_Shore	GIT1	0.558	-0.003	0.030	0.023
cg04084892	black	2	17,722,836	5'UTR	S_Shore	VSNL1	0.557	0.002	0.025	0.098
cg08852894	black	17	77,815,779		Island		0.557	0.001	0.036	0.528
cg25465322	black	19	44,860,658	5'UTR	Island	ZFP112	0.557	-0.001	0.025	0.622
cg00510111	black	2	197,458,521	TSS1500	Island	HECW2	0.557	0.000	0.063	0.975
cg09035882	black	20	50,720,331	Body	N_Shore	ZFP64	0.557	0.001	0.039	0.719
cg07896438	black	2	214,053,162		OpenSea		0.557	-0.002	0.107	0.769
cg14726637	black	1	207,669,308	TSS200	N_Shore	CR1	0.557	-0.001	0.065	0.828
cg00355389	black	3	139,653,431	TSS1500	Island	CLSTN2	0.557	0.003	0.088	0.525
cg01524278	black	12	54,355,460		Island		0.557	0.000	0.026	0.782
cg10089193	black	16	1,140,939	3'UTR	N_Shore	C1QTNF8	0.557	0.003	0.321	0.560
cg11567288	black	6	26,758,166		OpenSea		0.557	0.000	0.054	0.970
cg11410718	black	7	27,170,412	TSS200	Island	HOXA4	0.557	0.000	0.024	0.942
cg23274561	black	1	156,084,271	TSS200	N_Shore	LMNA	0.557	0.001	0.152	0.906
cg00628788	black	18	33,529,997		Island		0.557	0.000	0.030	0.954
cg00115954	black	8	11,536,551		N_Shore		0.557	0.004	0.459	0.595
cg15952840	black	8	11,451,312		OpenSea		0.557	0.007	0.324	0.385
cg16829306	black	1	21,671,508	Body	Island	ECE1	0.557	-0.001	0.023	0.573
cg26772788	black	18	75,609,054		N_Shelf		0.557	-0.001	0.338	0.966
cg01340542	black	1	65,468,273		Island		0.557	-0.002	0.030	0.245
cg24940583	black	1	36,020,939	5'UTR	N_Shore	KIAA0319L	0.557	0.006	0.342	0.258
cg22998476	black	10	74,058,092		S_Shore		0.557	0.000	0.027	0.852
cg22461835	black	8	26,723,365	TSS1500	Island	ADRA1A	0.557	-0.002	0.021	0.155
cg26643142	black	12	54,399,494		Island		0.557	0.029	0.337	0.068
cg05055782	black	3	49,396,193	TSS1500	S_Shore	GPX1	0.557	-0.002	0.048	0.432
cg09676684	black	11	61,062,962	TSS200	Island	VWCE	0.557	-0.001	0.049	0.713
cg03125400	black	2	43,327,937		Island		0.557	0.006	0.418	0.444
cg25920279	black	11	132,814,471	TSS1500	S_Shore	OPCML	0.556	-0.001	0.036	0.420
cg20963741	black	13	95,359,162		N_Shore		0.556	0.002	0.035	0.269
cg25526475	black	19	53,696,326	5'UTR	Island	ZNF665	0.556	-0.006	0.162	0.357
cg11694262	black	13	100,644,657		S_Shore		0.556	-0.001	0.015	0.393
cg08448833	black	3	5,068,731		S_Shore		0.556	-0.003	0.029	0.106
cg27017658	black	14	21,093,081		Island		0.556	0.001	0.026	0.329
cg05513806	black	3	181,438,216	Body	S_Shore	SOX2OT	0.556	0.000	0.029	0.916
cg13993945	black	1	202,779,497		N_Shore		0.556	-0.002	0.046	0.528
cg24698655	black	6	28,557,774		S_Shelf		0.556	0.002	0.067	0.798
cg03656020	black	7	100,805,972	3'UTR	N_Shore	VGf	0.556	-0.001	0.037	0.576
cg02679291	black	19	48,248,902	1stExon	Island	GLTSCR2	0.556	-0.002	0.371	0.827
cg01987516	black	10	101,282,726		Island		0.556	0.003	0.034	0.198
cg11070772	black	22	50,710,489		Island		0.556	0.001	0.021	0.241
cg16226669	black	5	153,784,705	Body	Island	GALNT10	0.556	-0.001	0.045	0.638
cg00073003	black	13	112,724,583	1stExon	N_Shore	SOX1	0.556	0.003	0.057	0.458
cg04816302	black	1	145,473,213	5'UTR	Island	ANKRD34A	0.556	0.000	0.019	0.914

cg22952703	black	6	88,875,569	5'UTR	Island	CNR1	0.556	-0.001	0.022	0.687
cg12231969	black	2	119,605,253	1stExon	Island	EN1	0.556	-0.003	0.043	0.243
cg02648847	black	1	167,408,735	Body	Island	CD247	0.556	-0.001	0.013	0.503
cg03565241	black	2	9,286,157		OpenSea		0.556	0.006	0.390	0.484
cg00052578	black	3	132,843,565	5'UTR	OpenSea	TMEM108	0.556	-0.001	0.055	0.851
cg15338327	black	10	101,280,209		Island		0.556	0.000	0.018	0.840
cg21573047	black	13	41,238,501	Body	Island	FOXO1	0.556	-0.003	0.020	0.012
cg13186884	black	8	65,285,831		N_Shore		0.556	0.001	0.017	0.629
cg17353900	black	17	10,101,010	Body	N_Shore	GAS7	0.556	-0.006	0.092	0.347
cg19555986	black	6	136,872,119	TSS1500	Island	MAP7	0.556	-0.001	0.030	0.498
cg06287318	black	20	21,496,129	TSS1500	Island	NKX2-2	0.556	0.001	0.014	0.140
cg13200838	black	1	91,194,708		S_Shore		0.555	-0.002	0.015	0.013
cg01654627	black	19	10,697,690	Body	N_Shore	AP1M2	0.555	0.003	0.193	0.776
cg06959103	black	17	45,810,436	TSS200	N_Shore	TBX21	0.555	0.000	0.018	0.962
cg21517389	black	7	50,861,602	TSS1500	Island	GRB10	0.555	0.000	0.024	0.952
cg22184210	black	15	57,883,722	TSS1500	N_Shore	GCOM1	0.555	-0.004	0.204	0.613
cg21487207	black	12	54,410,576	TSS200	N_Shore	HOXC4	0.555	0.002	0.029	0.324
cg16299747	black	10	118,429,952	TSS1500	S_Shore	C10orf82	0.555	-0.005	0.077	0.450
cg17210004	black	17	63,512,677		OpenSea		0.555	0.009	0.171	0.251
cg12876594	black	9	35,791,798	TSS1500	Island	NPR2	0.555	0.003	0.038	0.112
cg06719671	black	12	125,347,797	Body	Island	SCARB1	0.555	-0.001	0.027	0.586
cg13717684	black	3	111,830,803	Body	OpenSea	C3orf52	0.555	-0.006	0.082	0.275
cg24565496	black	16	1,021,302	TSS1500	Island	LMF1	0.555	-0.002	0.077	0.753
cg12232274	black	6	150,185,854	TSS1500	S_Shore	LRP11	0.555	-0.001	0.021	0.400
cg09928766	black	19	51,815,373	Body	Island	IGLON5	0.555	-0.002	0.036	0.300
cg07960762	black	1	100,111,727	1stExon	OpenSea	PALMD	0.555	-0.003	0.051	0.391
cg13753670	black	17	65,991,773		S_Shore		0.555	0.000	0.039	0.828
cg00373499	black	5	137,224,723	TSS1500	N_Shore	PKD2L2	0.555	0.016	0.318	0.092
cg19298774	black	19	10,398,798	3'UTR	N_Shore	ICAM4	0.555	0.000	0.354	0.978
cg13874654	black	17	9,019,336	Body	S_Shore	NTN1	0.555	-0.002	0.109	0.662
cg00837812	black	7	138,665,354	Body	N_Shore	KIAA1549	0.555	0.000	0.026	0.775
cg27609986	black	20	2,797,501	Body	OpenSea	LOC1002887	0.555	-0.003	0.722	0.743
cg22979422	black	12	56,694,490	TSS1500	S_Shore	CS	0.555	0.001	0.023	0.627
cg20713492	black	1	154,293,482	TSS200	OpenSea	AQP10	0.555	-0.001	0.047	0.700
cg19709468	black	20	21,082,942		N_Shore		0.555	0.000	0.028	0.807
cg19531536	black	14	76,873,334	5'UTR	OpenSea	ESRRB	0.555	0.002	0.338	0.838
cg22345576	black	19	36,000,517	Body	OpenSea	DMKN	0.555	0.000	0.181	0.990
cg01059449	black	18	44,338,099	TSS1500	Island	ST8SIA5	0.555	0.003	0.040	0.189
cg08069370	black	15	64,387,884	TSS1500	N_Shore	SNX1	0.555	-0.002	0.094	0.851
cg25537434	black	2	237,086,492		N_Shore		0.555	0.001	0.039	0.848
cg12081645	black	4	157,920,476		OpenSea		0.555	0.001	0.035	0.776
cg04823796	black	9	139,948,927	TSS1500	Island	ENTPD2	0.555	-0.004	0.116	0.495
cg06606199	black	12	115,174,773		Island		0.555	0.002	0.062	0.620
cg19888869	black	4	54,967,674	Body	Island	GSX2	0.554	0.001	0.017	0.291
cg12624641	black	14	90,420,569	Body	N_Shore	C14orf143	0.554	0.000	0.057	0.920
cg22486834	black	6	52,859,107	5'UTR	N_Shore	GSTA4	0.554	0.001	0.028	0.749
cg12905836	black	12	54,409,770	TSS1500	N_Shore	HOXC4	0.554	-0.002	0.183	0.889
cg01723934	black	17	46,680,461	Body	OpenSea	LOC404266	0.554	0.014	0.086	0.024
cg15473868	black	16	56,716,621	Body	S_Shore	MT1X	0.554	-0.014	0.080	0.061
cg15285250	black	7	8,482,107	Body	Island	NXP1	0.554	0.001	0.020	0.430
cg17534034	black	8	106,586,880	Body	OpenSea	ZFPM2	0.554	-0.008	0.855	0.493
cg04272011	black	14	79,746,359	Body	S_Shore	NRXN3	0.554	-0.001	0.029	0.435
cg03853809	black	1	220,863,382	TSS1500	N_Shore	C1orf115	0.554	0.003	0.132	0.767
cg23960707	black	17	56,083,289	Body	N_Shore	SFRS1	0.554	-0.005	0.072	0.190
cg26146542	black	18	32,073,016	TSS1500	N_Shore	DTNA	0.554	0.001	0.023	0.449
cg17255214	black	20	43,538,372	TSS1500	N_Shore	PABPC1L	0.554	0.004	0.057	0.204
cg23097415	black	10	13,391,488	TSS1500	OpenSea	SEPHS1	0.554	0.001	0.025	0.169
cg17301842	black	17	7,919,258	Body	Island	GUCY2D	0.554	-0.005	0.051	0.094
cg06475223	black	18	21,498,693	Body	OpenSea	LAMA3	0.554	-0.001	0.186	0.917
cg11698099	black	16	67,695,462	Body	Island	PARDA6A	0.554	-0.005	0.039	0.007
cg12606396	black	13	58,204,379	TSS1500	S_Shore	PCDH17	0.554	0.001	0.023	0.556
cg02430138	black	11	67,275,245	Body	Island	CDK2AP2	0.554	-0.001	0.017	0.558
cg05597349	black	10	102,882,978	5'UTR	Island	TLX1NB	0.554	0.001	0.039	0.608
cg06025456	black	6	32,120,863	TSS1500	N_Shore	PPT2	0.554	-0.001	0.042	0.815
cg26166004	black	2	201,983,237	5'UTR	Island	CFLAR	0.554	0.001	0.033	0.685
cg23165623	black	6	152,128,411	TSS1500	N_Shore	ESR1	0.554	0.000	0.025	0.891
cg00292001	black	3	46,853,850		Island		0.553	0.004	0.162	0.468

cg00205703	black	3	184,054,901	5'UTR	N_Shore	FAM131A	0.553	0.003	0.093	0.589
cg01089249	black	2	171,676,553	Body	Island	GAD1	0.553	0.002	0.048	0.634
cg01156550	black	11	2,292,751	TSS1500	Island	ASCL2	0.553	-0.001	0.235	0.942
cg07537964	black	19	3,722,604		S_Shore		0.553	0.000	0.028	0.989
cg06396119	black	13	49,792,767		N_Shore		0.553	0.000	0.022	0.934
cg04099808	black	4	38,115,022	Body	OpenSea	TBC1D1	0.553	0.000	0.814	0.956
cg22319784	black	5	180,486,879	3'UTR	Island	BTNL9	0.553	-0.001	0.061	0.851
cg24639754	black	4	8,651,092		OpenSea		0.553	-0.005	0.284	0.313
cg20486569	black	22	19,512,228	1stExon	Island	CLDN5	0.553	0.000	0.024	0.756
cg00862894	black	20	982,653	Body	Island	RSPO4	0.553	0.004	0.048	0.104
cg15416179	black	17	21,189,859	Body	S_Shore	MAP2K3	0.553	-0.001	0.023	0.164
cg03065625	black	11	46,941,490	TSS1500	S_Shore	LRP4	0.553	0.000	0.021	0.881
cg09935388	black	1	92,947,588	Body	Island	GFI1	0.553	-0.003	0.035	0.308
cg06282247	black	2	151,281,841		OpenSea		0.553	-0.005	0.241	0.610
cg08685733	black	17	42,215,609		N_Shelf		0.553	0.005	0.050	0.078
cg06197769	black	12	12,868,983	TSS1500	N_Shore	CDKN1B	0.553	-0.010	0.321	0.285
cg06693983	black	19	55,889,216	Body	Island	TMEM190	0.553	0.000	0.030	0.929
cg27294841	black	11	33,722,046	1stExon	N_Shore	C11orf91	0.553	0.001	0.091	0.780
cg12624087	black	22	32,341,561	TSS1500	S_Shore	C22orf24	0.553	0.000	0.015	0.820
cg16309325	black	11	8,264,034	Body	OpenSea	LMO1	0.553	-0.002	0.451	0.859
cg16380888	black	1	16,563,954	TSS1500	S_Shore	C1orf89	0.553	0.001	0.171	0.833
cg20748132	black	12	125,217,707		OpenSea		0.553	-0.010	0.632	0.177
cg01269537	black	16	70,415,514	3'UTR	Island	ST3GAL2	0.553	0.000	0.018	0.683
cg08263991	black	20	62,715,781	5'UTR	N_Shore	OPRL1	0.552	-0.002	0.023	0.141
cg08053686	black	4	6,223,581		Island		0.552	0.006	0.090	0.339
cg20894686	black	6	50,803,903	Body	OpenSea	TFAP2B	0.552	-0.001	0.016	0.501
cg00130165	black	4	66,536,603	TSS1500	Island	EPHA5	0.552	0.000	0.022	0.989
cg07817024	black	1	119,535,500		N_Shore		0.552	0.000	0.042	0.966
cg00047050	black	11	107,879,431	5'UTR	N_Shore	CUL5	0.552	0.000	0.024	0.771
cg04120578	black	7	100,304,340	5'UTR	S_Shore	POP7	0.552	0.001	0.037	0.495
cg10136012	black	8	23,585,151		S_Shore		0.552	0.012	0.248	0.290
cg10380652	black	1	65,612,850	TSS1500	N_Shore	AK3L1	0.552	0.003	0.235	0.713
cg04910591	black	3	46,506,104	Body	N_Shore	LTF	0.552	0.003	0.174	0.703
cg25232795	black	5	150,860,100	Body	OpenSea	SLC36A1	0.552	0.008	0.396	0.416
cg18864227	black	2	145,353,995		OpenSea		0.552	0.001	0.055	0.697
cg12124927	black	11	120,434,391		N_Shore		0.552	0.003	0.588	0.683
cg00360256	black	12	133,065,724	TSS1500	N_Shore	FBRSL1	0.552	0.007	0.250	0.284
cg10943249	black	15	53,097,289		N_Shore		0.552	0.000	0.026	0.814
cg14564247	black	3	48,594,968	TSS1500	S_Shore	PFKFB4	0.552	0.000	0.035	0.823
cg16169475	black	6	14,407,532		OpenSea		0.552	-0.021	0.258	0.185
cg25558099	black	17	18,219,121	TSS1500	S_Shore	TOP3A	0.552	0.000	0.048	0.927
cg11180921	black	11	57,090,226	5'UTR	N_Shore	TNKS1BP1	0.552	0.003	0.051	0.324
cg18144593	black	2	71,116,411		Island		0.552	0.000	0.042	0.932
cg16874077	black	7	127,238,538	Body	OpenSea	FSCN3	0.551	-0.002	0.183	0.790
cg04457658	black	6	37,732,313		OpenSea		0.551	0.001	0.058	0.751
cg08727311	black	1	24,542,899		OpenSea		0.551	0.002	0.110	0.700
cg27560561	black	2	105,484,823		S_Shore		0.551	0.007	0.148	0.305
cg13909582	black	1	50,886,071	Body	Island	DMRTA2	0.551	0.002	0.133	0.787
cg12801474	black	6	75,914,803	5'UTR	Island	COL12A1	0.551	0.000	0.021	0.879
cg08453483	black	2	119,613,877		Island		0.551	-0.002	0.035	0.463
cg13593287	black	14	65,289,994	TSS200	OpenSea	SPTB	0.551	0.004	0.099	0.377
cg11970192	black	15	80,215,376	Body	Island	C15orf37	0.551	0.000	0.034	0.914
cg10832093	black	12	131,303,194	Body	Island	STX2	0.551	-0.004	0.511	0.775
cg05963085	black	3	112,359,648	5'UTR	OpenSea	CCDC80	0.551	-0.005	0.038	0.032
cg06251289	black	16	66,639,593	Body	S_Shore	CMTM3	0.551	-0.001	0.023	0.745
cg02585702	black	12	25,055,262	Body	N_Shore	BCAT1	0.551	-0.012	0.212	0.310
cg00777805	black	6	134,214,649	3'UTR	S_Shore	TCF21	0.551	0.009	0.274	0.207
cg25116388	black	17	46,692,422	TSS200	S_Shore	HOXB8	0.551	-0.002	0.029	0.517
cg22955449	black	10	106,028,519	TSS200	N_Shore	GSTO2	0.551	0.001	0.038	0.655
cg03158581	black	5	153,858,816	TSS1500	Island	HAND1	0.551	-0.006	0.058	0.037
cg06487082	black	18	56,530,106	1stExon	N_Shore	ZNF532	0.551	0.001	0.020	0.454
cg20721917	black	17	46,089,218		N_Shore		0.551	-0.002	0.026	0.101
cg23398091	black	18	23,806,189	TSS1500	N_Shore	TAF4B	0.551	0.000	0.114	0.986
cg06908778	black	10	22,634,602	Body	Island	SPAG6	0.551	0.001	0.034	0.767
cg11574184	black	8	145,755,264	TSS1500	Island	MGC70857	0.550	-0.001	0.041	0.676
cg03975876	black	1	67,773,073	5'UTR	N_Shore	IL12RB2	0.550	0.001	0.044	0.780
cg18124917	black	17	1,956,691		Island		0.550	0.015	0.342	0.045

cg03760809	black	20	20,344,345	N_Shore		0.550	-0.001	0.024	0.683
cg11273478	black	15	27,019,265 TSS1500	S_Shore	GABRB3	0.550	0.001	0.027	0.615
cg13852284	black	10	77,548,353 Body	OpenSea	C10orf11	0.550	-0.002	0.048	0.565
cg25446361	black	10	124,220,504 TSS1500	Island	HTRA1	0.550	-0.001	0.046	0.574
cg10674793	black	3	183,872,704 TSS1500	N_Shore	DVL3	0.550	0.004	0.114	0.475
cg19116814	black	4	176,922,556 5'UTR	Island	GPM6A	0.550	0.000	0.024	0.924
cg10129944	black	6	12,718,408 5'UTR	OpenSea	PHACTR1	0.550	0.002	0.060	0.712
cg15904523	black	19	44,763,979 TSS200	Island	ZNF233	0.550	-0.001	0.018	0.429
cg22602019	black	1	32,714,308 3'UTR	S_Shore	FAM167B	0.550	-0.002	0.038	0.361
cg09729866	black	11	61,665,465 3'UTR	OpenSea	RAB31L1	0.550	0.010	0.365	0.116
cg17115250	black	6	28,557,291	S_Shelf		0.550	0.007	0.032	0.014
cg09430223	black	11	2,871,423	Island		0.550	0.005	0.554	0.501
cg12611527	black	2	157,257,110	Island		0.550	-0.001	0.021	0.407
cg16979070	black	6	150,463,417 TSS1500	N_Shore	PPP1R14C	0.550	0.001	0.014	0.348
cg23413066	black	4	13,548,755 Body	Island	LOC285548	0.550	0.000	0.013	0.387
cg03614513	black	1	115,632,038 1stExon	Island	TSPAN2	0.550	0.000	0.046	0.773
cg22705959	black	2	208,635,887	S_Shore		0.550	-0.002	0.051	0.569
cg02103924	black	1	110,672,857	Island		0.550	0.003	0.061	0.505
cg16096311	black	1	151,693,261 TSS1500	N_Shore	C1orf230	0.550	0.007	0.083	0.148
cg02794784	black	15	99,646,736 Body	S_Shore	SYNM	0.550	0.003	0.082	0.611
cg22685807	black	6	28,945,189	OpenSea		0.550	0.005	0.233	0.738
cg17919186	black	14	91,883,555 Body	Island	CCDC88C	0.550	-0.001	0.018	0.224
cg05042708	black	10	105,212,813 TSS1500	S_Shore	CALHM2	0.549	0.001	0.285	0.883
cg09092093	black	5	58,335,954 Body	S_Shore	PDE4D	0.549	0.000	0.034	0.954
cg02029441	black	14	61,117,067 TSS1500	S_Shore	SIX1	0.549	0.000	0.027	0.706
cg07541701	black	12	54,389,934	S_Shore		0.549	0.027	0.243	0.135
cg09684856	black	2	218,578,423 Body	OpenSea	DIRC3	0.549	0.000	0.016	0.805
cg05738152	black	2	287,354 Body	Island	FAM150B	0.549	-0.001	0.031	0.683
cg27094856	black	19	41,732,589 Body	S_Shore	AXL	0.549	0.001	0.032	0.860
cg22011804	black	7	150,779,284 TSS1500	Island	FASTK	0.549	0.000	0.466	0.927
cg23972298	black	1	32,665,582 TSS1500	N_Shore	CCDC28B	0.549	0.003	0.241	0.691
cg07452312	black	5	153,775,466 Body	OpenSea	GALNT10	0.549	0.010	0.396	0.479
cg19222525	black	20	62,492,220 TSS1500	N_Shore	C20orf135	0.549	0.007	0.376	0.165
cg04658707	black	21	47,453,889	Island		0.549	-0.006	0.628	0.653
cg12614789	black	15	76,638,473	Island		0.549	-0.004	0.038	0.185
cg05142677	black	16	88,601,446 3'UTR	Island	ZFPM1	0.549	0.004	0.186	0.763
cg10894072	black	1	51,985,215 TSS1500	Island	EPS15	0.549	0.000	0.028	0.929
cg17163949	black	13	114,800,441 Body	N_Shelf	RASA3	0.549	0.003	0.308	0.521
cg03228132	black	7	129,781,429	Island		0.549	-0.001	0.034	0.644
cg02254574	black	17	32,483,640 1stExon	N_Shore	ACCN1	0.549	-0.002	0.023	0.275
cg09255732	black	1	32,171,050 TSS1500	S_Shore	COL16A1	0.549	0.001	0.031	0.593
cg21088420	black	5	7,849,836 Body	N_Shore	C5orf49	0.549	0.004	0.073	0.413
cg24643417	black	9	503,937 TSS1500	Island	KANK1	0.549	0.000	0.047	0.957
cg03612747	black	10	43,858,053	Island		0.549	-0.002	0.047	0.495
cg10502957	black	12	123,757,070 TSS1500	S_Shore	CDK2AP1	0.549	-0.004	0.077	0.558
cg01998808	black	16	892,282	N_Shelf		0.549	0.015	0.216	0.088
cg06299284	black	11	636,659 TSS1500	Island	DRD4	0.549	0.001	0.032	0.832
cg16932017	black	13	52,028,209 TSS1500	S_Shore	INTS6	0.549	-0.001	0.042	0.777
cg24828151	black	5	54,516,779	Island		0.549	-0.001	0.044	0.478
cg25201511	black	5	2,757,137	S_Shore		0.548	-0.006	0.058	0.319
cg21901643	black	5	160,973,008 Body	N_Shore	GABRB2	0.548	0.006	0.070	0.323
cg01413809	black	1	85,462,483 1stExon	N_Shore	MCOLN2	0.548	-0.002	0.037	0.432
cg14087351	black	7	73,037,990 Body	Island	MLXIPL	0.548	-0.004	0.052	0.048
cg04837533	black	12	26,986,864 TSS1500	S_Shore	ITPR2	0.548	0.002	0.021	0.124
cg01865721	black	19	45,150,552 Body	Island	PVR	0.548	0.014	0.646	0.244
cg24998816	black	14	51,706,677 TSS1500	N_Shore	TMX1	0.548	0.001	0.018	0.360
cg12486169	black	10	118,368,986	Island		0.548	0.000	0.044	0.945
cg27627876	black	16	88,102,820 Body	S_Shore	BANP	0.548	0.010	0.596	0.358
cg21914941	black	7	158,261,145 Body	OpenSea	PTPRN2	0.548	0.000	0.070	0.976
cg11849281	black	7	35,494,507	Island		0.548	0.006	0.031	0.011
cg24915511	black	1	181,057,458 TSS200	N_Shore	IER5	0.548	-0.003	0.062	0.341
cg14021871	black	19	19,384,381 TSS1500	S_Shore	TM6SF2	0.548	0.011	0.237	0.076
cg05067995	black	9	135,456,776 TSS1500	Island	BARHL1	0.548	-0.001	0.102	0.891
cg22359606	black	2	182,545,492 TSS200	N_Shelf	NEUROD1	0.548	0.000	0.018	0.801
cg22370006	black	6	154,360,344 TSS200	N_Shore	OPRM1	0.548	-0.001	0.039	0.883
cg04560456	black	6	105,405,068 1stExon	S_Shelf	LIN28B	0.547	-0.003	0.031	0.134
cg22488904	black	1	6,661,399 Body	N_Shore	KLHL21	0.547	-0.002	0.039	0.274

cg23488804	black	17	42,393,982	Body	S_Shore	RUNDC3A	0.547	0.003	0.059	0.318
cg14519997	black	9	14,321,079		N_Shore		0.547	0.000	0.016	0.670
cg00675037	black	8	55,382,194		N_Shore		0.547	0.003	0.195	0.703
cg06074123	black	4	56,660,460		S_Shore		0.547	0.007	0.462	0.588
cg23684316	black	2	72,946,664	Body	OpenSea	EXOC6B	0.547	-0.003	0.056	0.502
cg22409383	black	5	138,609,379	TSS1500	Island	MATR3	0.547	0.002	0.049	0.506
cg03600516	black	5	14,581,651	TSS1500	Island	FAM105A	0.547	-0.001	0.034	0.399
cg16439823	black	15	90,728,020	TSS200	Island	SEMA4B	0.547	-0.002	0.044	0.365
cg07850418	black	3	147,110,378	Body	Island	ZIC4	0.547	0.000	0.014	0.965
cg04347582	black	3	128,205,496	Body	Island	GATA2	0.547	-0.002	0.033	0.388
cg24967701	black	17	37,894,165	TSS1500	OpenSea	GRB7	0.547	0.000	0.034	0.921
cg14313310	black	1	184,006,816	5'UTR	S_Shore	GLT25D2	0.547	-0.010	0.073	0.023
cg03200818	black	1	197,871,534	TSS200	N_Shore	C1orf53	0.547	-0.001	0.040	0.775
cg18530551	black	5	172,670,879		Island		0.547	0.000	0.016	0.868
cg27586487	black	10	79,687,289	Body	S_Shore	LOC10012821	0.547	0.000	0.034	0.827
cg19954341	black	6	166,583,523	TSS1500	S_Shore	T	0.547	-0.001	0.097	0.775
cg10818339	black	1	206,223,499	TSS1500	N_Shore	AVPR1B	0.547	0.000	0.052	0.937
cg19579216	black	17	42,081,856	TSS200	N_Shore	NAGS	0.547	-0.001	0.055	0.785
cg12544191	black	5	172,671,754		Island		0.547	-0.002	0.029	0.069
cg14691529	black	12	54,357,771	Body	N_Shore	HOTAIR	0.547	0.000	0.041	0.940
cg10859192	black	12	54,071,672	TSS1500	S_Shore	ATP5G2	0.547	0.002	0.189	0.856
cg23533683	black	19	46,144,774		N_Shore		0.547	0.000	0.030	0.902
cg19743881	black	7	115,850,438	TSS200	Island	TES	0.547	0.001	0.030	0.684
cg15046818	black	12	96,587,840	TSS1500	Island	ELK3	0.547	0.001	0.021	0.310
cg15396367	black	9	139,972,779	Body	Island	UAP1L1	0.547	-0.001	0.068	0.800
cg19544746	black	4	8,405,046	Body	OpenSea	ACOX3	0.547	-0.001	0.039	0.636
cg02531794	black	7	76,039,208	TSS200	OpenSea	SRCRB4D	0.546	0.007	0.333	0.446
cg20275507	black	6	70,576,315	TSS200	N_Shore	COL19A1	0.546	0.005	0.082	0.355
cg26547236	black	17	75,136,326	TSS1500	Island	SEC14L1	0.546	0.000	0.034	0.869
cg25775322	black	4	154,710,373	TSS200	Island	SFRP2	0.546	0.002	0.020	0.223
cg02884239	black	17	75,369,228	TSS200	Island	9-Sep	0.546	-0.003	0.035	0.132
cg07658533	black	2	47,596,136	TSS200	N_Shore	EPCAM	0.546	-0.001	0.033	0.717
cg02600974	black	9	88,713,706	5'UTR	Island	GOLM1	0.546	0.000	0.031	0.820
cg07923686	black	8	65,491,318	TSS1500	Island	BHLHE22	0.546	0.001	0.021	0.481
cg00151709	black	1	29,101,952		Island		0.546	-0.001	0.039	0.788
cg26824423	black	16	58,498,818	5'UTR	S_Shore	NDRG4	0.546	0.000	0.038	0.933
cg08005849	black	7	81,399,399	5'UTR	OpenSea	HGF	0.546	0.001	0.168	0.860
cg20588285	black	21	45,707,344	Body	S_Shore	AIRE	0.546	0.003	0.142	0.722
cg20941258	black	3	46,618,668	5'UTR	Island	LRRC2	0.546	0.000	0.021	0.896
cg09234582	black	6	33,048,286	Body	N_Shore	HLA-DPB1	0.546	0.000	0.027	0.791
cg06391982	black	3	13,936,753		Island		0.546	-0.003	0.030	0.164
cg04330683	black	19	22,715,410		Island		0.546	0.003	0.108	0.493
cg00169725	black	5	176,543,901		Island		0.546	-0.008	0.044	0.020
cg10203610	black	4	155,664,150	TSS1500	Island	LRAT	0.546	-0.010	0.089	0.067
cg07033202	black	3	46,853,631		N_Shore		0.546	-0.002	0.069	0.583
cg07263382	black	18	44,237,087	TSS200	S_Shore	LOXHD1	0.546	0.011	0.808	0.210
cg25524350	black	7	94,284,893	Body	Island	SGCE	0.545	-0.002	0.020	0.028
cg12988276	black	13	27,580,924		OpenSea		0.545	0.002	0.052	0.711
cg11023900	black	3	138,657,666		Island		0.545	-0.003	0.020	0.044
cg11802635	black	17	4,487,606	TSS1500	Island	SMTNL2	0.545	0.000	0.035	0.771
cg05314799	black	3	134,108,233		OpenSea		0.545	-0.002	0.411	0.799
cg21249771	black	2	242,484,705		S_Shelf		0.545	-0.003	0.174	0.800
cg14375937	black	10	94,825,667	Body	Island	CYP26C1	0.545	-0.001	0.021	0.517
cg13514578	black	12	50,016,646	TSS1500	N_Shore	PRPF40B	0.545	0.000	0.019	0.865
cg22234962	black	1	155,291,297	5'UTR	N_Shore	RUSC1	0.545	0.002	0.028	0.331
cg10010183	black	1	29,651,806	Body	OpenSea	PTPRU	0.545	0.013	0.522	0.299
cg11528367	black	11	8,625,709		OpenSea		0.545	0.000	0.036	0.859
cg21408763	black	7	128,472,459	Body	S_Shore	FLNC	0.545	-0.002	0.034	0.266
cg01568919	black	12	130,647,890	1stExon	Island	FZD10	0.545	-0.005	0.043	0.101
cg17029168	black	20	21,494,547	5'UTR	Island	NKX2-2	0.545	-0.001	0.019	0.409
cg21041775	black	12	54,425,418	5'UTR	N_Shore	HOXC4	0.545	0.009	0.101	0.305
cg06637893	black	16	67,700,960	1stExon	Island	C16orf86	0.545	-0.006	0.096	0.190
cg25151916	black	17	7,197,432	Body	Island	YBX2	0.545	-0.006	0.141	0.301
cg25164649	black	6	28,176,230		S_Shore		0.545	0.000	0.020	0.658
cg11076306	black	4	41,430,667	Body	OpenSea	LIMCH1	0.545	-0.012	0.134	0.112
cg06346667	black	3	137,488,697		N_Shore		0.545	0.000	0.020	0.987
cg14639847	black	12	54,389,982		S_Shore		0.545	0.012	0.083	0.323

cg10962336	black	13	48,807,050	TSS1500	Island	ITM2B	0.545	0.000	0.026	0.733
cg15159104	black	15	43,809,865	5'UTR	OpenSea	MAP1A	0.545	0.001	0.050	0.757
cg15855970	black	6	99,273,338		S_Shore		0.545	0.000	0.015	0.936
cg07713411	black	15	41,914,347		Island		0.544	-0.006	0.133	0.504
cg12065138	black	1	4,771,201	Body	N_Shore	AJAP1	0.544	0.000	0.019	0.869
cg08750440	black	2	43,447,375		OpenSea		0.544	0.003	0.046	0.265
cg15727424	black	6	32,016,100	Body	OpenSea	TNXB	0.544	0.004	0.061	0.192
cg16214053	black	4	10,462,849		Island		0.544	0.001	0.305	0.901
cg03856786	black	19	58,874,501	TSS1500	Island	ZNF497	0.544	-0.002	0.044	0.414
cg10264012	black	6	78,359,965		Island		0.544	0.012	0.181	0.177
cg25790695	black	6	155,635,567	5'UTR	Island	TFB1M	0.544	-0.001	0.058	0.604
cg12173558	black	8	69,244,734		S_Shore		0.544	0.002	0.074	0.506
cg11757293	black	8	145,692,581	Body	S_Shore	KIFC2	0.544	-0.002	0.080	0.758
cg01804679	black	1	32,707,303	Body	S_Shore	MTMR9L	0.544	-0.001	0.027	0.300
cg02493846	black	1	151,809,534	TSS1500	N_Shore	LOC1001321	0.544	0.001	0.276	0.872
cg23719318	black	2	20,865,651	TSS1500	Island	GDF7	0.544	0.000	0.023	0.878
cg04226536	black	11	111,411,071	TSS200	Island	LAYN	0.544	-0.003	0.063	0.490
cg08482167	black	6	144,066,847	Body	OpenSea	PHACTR2	0.544	-0.005	0.064	0.546
cg06190244	black	17	48,284,395		OpenSea		0.544	-0.004	0.051	0.266
cg03133735	black	4	111,562,270		S_Shore		0.544	0.001	0.076	0.895
cg22848150	black	8	57,358,165	Body	Island	PENK	0.544	-0.001	0.023	0.229
cg14180030	black	9	123,475,675	Body	N_Shore	MEGF9	0.544	0.009	0.103	0.022
cg15822765	black	6	28,956,387		Island		0.544	0.010	0.079	0.291
cg00308503	black	5	160,171,384	5'UTR	OpenSea	ATP10B	0.544	0.004	0.450	0.713
cg10322443	black	14	65,722,585		OpenSea		0.544	-0.004	0.112	0.467
cg00481644	black	15	89,921,158	TSS200	Island	LOC254559	0.544	-0.009	0.075	0.266
cg05555111	black	14	38,054,165		Island		0.544	0.004	0.168	0.812
cg22227586	black	10	88,854,610	TSS1500	Island	FAM35A	0.544	0.000	0.022	0.673
cg10308810	black	10	49,514,273		N_Shore		0.544	0.001	0.216	0.899
cg02571819	black	12	124,017,613	Body	Island	RILPL1	0.544	-0.002	0.049	0.595
cg22985731	black	1	161,500,751		Island		0.544	0.001	0.030	0.232
cg26348939	black	11	65,641,335	TSS1500	Island	EFEMP2	0.544	0.000	0.026	0.978
cg06808498	black	14	60,974,525	TSS1500	N_Shore	SIX6	0.544	0.001	0.023	0.594
cg00065957	black	1	53,099,352	Body	S_Shore	FAM159A	0.544	0.004	0.277	0.503
cg02697094	black	12	117,320,299	TSS1500	S_Shore	HRK	0.544	-0.003	0.150	0.635
cg16931969	black	4	113,985,495	Body	OpenSea	ANK2	0.544	0.004	0.230	0.700
cg27550270	black	6	117,086,996	TSS200	S_Shore	FAM162B	0.544	-0.002	0.038	0.257
cg00424690	black	6	43,478,455	TSS200	Island	C6orf154	0.544	0.016	0.333	0.039
cg07894352	black	19	44,763,993	TSS200	Island	ZNF233	0.544	-0.001	0.051	0.863
cg21762788	black	8	9,756,501		Island		0.544	-0.003	0.038	0.527
cg01977079	black	11	17,036,644	TSS1500	S_Shore	PLEKHA7	0.543	0.002	0.025	0.095
cg03827337	black	5	63,801,834	TSS1500	Island	RGS7BP	0.543	0.002	0.031	0.341
cg08066673	black	14	52,325,747	TSS1500	OpenSea	GNG2	0.543	-0.001	0.392	0.938
cg00324725	black	16	56,581,212		OpenSea		0.543	0.003	0.065	0.478
cg24765079	black	16	68,772,430	Body	S_Shore	CDH1	0.543	-0.004	0.043	0.135
cg11175192	black	2	219,724,918	Body	Island	WNT6	0.543	0.001	0.057	0.833
cg22403266	black	7	45,962,090	TSS1500	S_Shore	IGFBP3	0.543	0.001	0.015	0.472
cg24446071	black	19	19,281,270	Body	Island	LOC729991-1	0.543	-0.005	0.032	0.042
cg22424108	black	1	95,285,531	TSS1500	N_Shore	SLC44A3	0.543	0.003	0.135	0.582
cg00986445	black	1	145,507,653	1stExon	Island	RBM8A	0.543	0.006	0.345	0.579
cg07997682	black	22	41,418,886		Island		0.543	0.000	0.026	0.840
cg06564232	black	6	50,810,993	Body	Island	TFAP2B	0.543	-0.001	0.020	0.126
cg14514716	black	2	159,867,130	5'UTR	OpenSea	TANC1	0.543	0.001	0.042	0.824
cg09959242	black	13	85,004,775		OpenSea		0.543	-0.018	0.074	0.007
cg22488367	black	22	45,608,448	Body	OpenSea	C22orf9	0.543	-0.006	0.041	0.206
cg03980268	black	15	26,147,082		OpenSea		0.543	-0.007	0.358	0.449
cg09120138	black	1	201,925,022	Body	Island	TIMM17A	0.543	-0.001	0.027	0.347
cg17952719	black	2	28,612,965		Island		0.543	0.001	0.029	0.686
cg26748578	black	2	65,217,211	1stExon	Island	SLC1A4	0.543	-0.003	0.112	0.768
cg12401918	black	6	32,164,723	TSS1500	S_Shore	GPSM3	0.543	0.004	0.037	0.111
cg14871870	black	12	22,441,560	Body	OpenSea	ST8SIA1	0.543	-0.001	0.585	0.850
cg10244666	black	11	32,421,808	Body	OpenSea	WT1	0.543	0.002	0.046	0.705
cg13514778	black	20	34,204,988	Body	Island	SPAG4	0.542	0.001	0.043	0.560
cg14450238	black	2	219,262,134		N_Shore		0.542	0.001	0.030	0.392
cg13520327	black	17	61,600,957	Body	OpenSea	KCNH6	0.542	0.006	0.109	0.264
cg08975922	black	6	1,378,677		Island		0.542	0.000	0.029	0.798
cg02715546	black	15	55,881,162	TSS200	Island	PYGO1	0.542	0.000	0.019	0.631

cg24392889	black	17	77,775,305	Island		0.542	-0.001	0.035	0.445	
cg25452503	black	7	23,052,616	5'UTR	N_Shore	FAM126A	0.542	-0.001	0.026	0.631
cg15012468	black	1	205,539,221	Body	S_Shore	MFS4	0.542	0.011	0.352	0.232
cg12621514	black	10	54,073,047	TSS1500	N_Shore	DKK1	0.542	-0.002	0.026	0.231
cg25577842	black	11	32,459,760	Body	Island	WIT1	0.542	0.003	0.028	0.239
cg06002197	black	16	81,039,458	TSS1500	N_Shore	CENPN	0.542	0.001	0.036	0.576
cg20897119	black	7	116,164,422	TSS1500	N_Shore	CAV1	0.542	0.000	0.021	0.694
cg22185558	black	6	28,973,524	TSS1500	OpenSea	ZNF311	0.542	0.013	0.058	0.090
cg05106770	black	4	128,545,193		S_Shore		0.542	-0.018	0.120	0.057
cg17127956	black	13	24,007,995	TSS200	OpenSea	SACS	0.542	-0.001	0.030	0.304
cg03865667	black	13	58,205,678	TSS200	N_Shore	PCDH17	0.542	0.000	0.046	0.893
cg06857304	black	10	94,826,314	Body	Island	CYP26C1	0.542	0.005	0.219	0.558
cg22724063	black	6	30,684,760	5'UTR	N_Shore	MDC1	0.542	0.004	0.049	0.304
cg12434944	black	7	48,031,559	Body	OpenSea	SUNC1	0.542	-0.001	0.021	0.501
cg21438382	black	7	20,825,862	5'UTR	S_Shore	SP8	0.542	0.000	0.021	0.755
cg00667751	black	6	28,956,320		Island		0.542	0.005	0.251	0.649
cg24208826	black	12	54,389,891		S_Shore		0.541	0.041	0.126	0.088
cg11964308	black	12	54,535,018		OpenSea		0.541	0.001	0.037	0.764
cg21305834	black	6	99,291,401		Island		0.541	-0.001	0.052	0.632
cg06674793	black	16	1,543,103	TSS1500	Island	TELO2	0.541	-0.001	0.022	0.593
cg13775636	black	10	711,897	Body	Island	DIP2C	0.541	-0.011	0.264	0.282
cg23348014	black	7	94,023,483	TSS1500	OpenSea	COL1A2	0.541	0.000	0.031	0.889
cg04918082	black	7	100,547,176		OpenSea		0.541	0.005	0.173	0.441
cg13845439	black	18	25,756,333	Body	Island	CDH2	0.541	0.001	0.025	0.542
cg26697320	black	7	26,437,681		N_Shore		0.541	-0.002	0.067	0.697
cg09674468	black	1	234,300,299	Body	OpenSea	SLC35F3	0.541	0.000	0.069	0.942
cg20441701	black	7	21,466,380	TSS1500	N_Shore	SP4	0.541	0.000	0.069	0.960
cg00616243	black	13	95,202,420		S_Shore		0.541	0.002	0.022	0.036
cg04466246	black	2	241,508,464	5'UTR	Island	RNPEPL1	0.541	-0.002	0.043	0.383
cg26430287	black	15	67,439,567	Body	OpenSea	SMAD3	0.541	0.001	0.059	0.847
cg16309260	black	3	45,838,338	TSS1500	S_Shore	SLC6A20	0.541	0.000	0.034	0.874
cg21119074	black	6	20,211,654	Body	N_Shore	MBOAT1	0.541	0.001	0.161	0.899
cg23760687	black	13	25,621,735		S_Shore		0.541	-0.001	0.037	0.670
cg07546654	black	11	1,320,546	Body	S_Shelf	TOLLIP	0.541	-0.009	0.261	0.377
cg06868946	black	8	56,015,785	1stExon	S_Shore	XKR4	0.541	-0.004	0.056	0.298
cg13472192	black	1	41,350,014		Island		0.541	-0.001	0.020	0.651
cg12116027	black	12	58,130,410	Body	N_Shore	AGAP2	0.541	-0.002	0.045	0.585
cg04207385	black	6	88,877,064	TSS1500	Island	CNR1	0.541	-0.001	0.019	0.503
cg00599770	black	7	27,196,825	TSS1500	N_Shore	HOXA7	0.541	-0.001	0.213	0.834
cg11671598	black	4	111,563,111		S_Shelf		0.541	-0.005	0.269	0.621
cg12323274	black	18	34,834,605	Body	Island	BRUNOL4	0.541	0.005	0.049	0.037
cg11101846	black	5	10,250,579	TSS1500	Island	FAM173B	0.541	0.001	0.023	0.673
cg03740640	black	1	165,600,573	5'UTR	Island	MGST3	0.541	0.000	0.034	0.977
cg08506163	black	6	127,840,334	5'UTR	S_Shelf	C6orf174	0.540	0.000	0.021	0.735
cg12945444	black	8	11,536,969		Island		0.540	-0.003	0.043	0.583
cg11288999	black	19	41,222,328	5'UTR	N_Shore	ADCK4	0.540	-0.001	0.030	0.691
cg09893576	black	12	95,266,710		N_Shore		0.540	0.005	0.105	0.343
cg17392573	black	6	27,259,010		Island		0.540	0.004	0.108	0.739
cg22374525	black	1	116,370,764		N_Shore		0.540	0.001	0.050	0.787
cg04576672	black	12	54,422,239	5'UTR	N_Shore	HOXC4	0.540	0.001	0.021	0.696
cg02351761	black	15	75,661,240	TSS1500	S_Shore	MAN2C1	0.540	0.002	0.025	0.166
cg13476950	black	3	52,351,680	5'UTR	OpenSea	DNAH1	0.540	-0.001	0.077	0.819
cg11821439	black	7	29,833,650		OpenSea		0.540	0.002	0.118	0.821
cg08070327	black	7	27,184,059	TSS1500	Island	HOXA5	0.540	0.008	0.125	0.411
cg18242103	black	14	52,734,253	TSS200	Island	PTGDR	0.540	0.000	0.050	0.941
cg25406138	black	4	147,560,770	Body	Island	POU4F2	0.540	0.001	0.028	0.785
cg12599673	black	15	71,408,847	TSS1500	S_Shore	CT62	0.540	-0.004	0.162	0.733
cg04092800	black	5	40,681,444	Body	Island	PTGER4	0.540	-0.004	0.254	0.725
cg26786382	black	11	61,277,328	1stExon	Island	LRRC10B	0.540	-0.011	0.369	0.125
cg00306909	black	2	175,194,079		S_Shore		0.540	-0.006	0.242	0.389
cg17118836	black	8	94,508,434		OpenSea		0.540	-0.009	0.416	0.266
cg01543179	black	8	23,539,388	Body	N_Shore	NKX3-1	0.540	-0.001	0.038	0.780
cg01249187	black	16	1,204,617	Body	Island	CACNA1H	0.540	-0.006	0.078	0.178
cg27210390	black	17	52,978,583	Body	S_Shore	TOM1L1	0.540	0.000	0.195	0.974
cg03432955	black	6	29,795,501	5'UTR	N_Shore	HLA-G	0.540	-0.005	0.069	0.608
cg02918577	black	15	93,633,145	TSS1500	Island	RGMA	0.540	0.000	0.040	0.989
cg18106925	black	1	145,092,485		N_Shelf		0.539	-0.005	0.111	0.263



cg07621224	black	7	50,355,506	5'UTR	OpenSea	IKZF1	0.539	0.001	0.176	0.805
cg05339727	black	2	165,812,079	TSS200	OpenSea	SLC38A11	0.539	0.001	0.085	0.870
cg11039729	black	10	35,668,325	Body	OpenSea	CCNY	0.539	-0.003	0.169	0.626
cg13895322	black	12	6,877,740	Body	S_Shore	PTMS	0.539	0.000	0.095	0.988
cg23930825	black	6	43,613,365	Body	Island	RSPH9	0.539	-0.008	0.068	0.052
cg04858631	black	10	74,035,570	3'UTR	S_Shore	DDIT4	0.539	-0.002	0.034	0.286
cg04258272	black	11	64,611,804	Body	Island	CDC42BPG	0.539	0.000	0.030	0.977
cg17645823	black	12	114,846,321	TSS200	Island	TBX5	0.539	-0.004	0.055	0.175
cg20215007	black	7	149,468,365	5'UTR	N_Shore	ZNF467	0.539	-0.001	0.051	0.836
cg17972655	black	15	90,709,123		OpenSea		0.539	0.003	0.050	0.451
cg15532149	black	12	64,173,363	TSS1500	N_Shore	TMEM5	0.539	0.000	0.030	0.792
cg14807365	black	17	18,908,235	Body	Island	SLC5A10	0.539	0.002	0.023	0.254
cg15351741	black	12	5,276,482		OpenSea		0.539	0.004	0.575	0.489
cg23413104	black	2	118,982,263		Island		0.539	-0.006	0.070	0.259
cg02480144	black	14	101,121,093		Island		0.539	0.000	0.154	0.985
cg13010299	black	20	34,129,465	TSS1500	N_Shore	ERGIC3	0.538	-0.003	0.038	0.121
cg11306628	black	7	560,119	TSS1500	Island	PDGFA	0.538	-0.001	0.032	0.489
cg10543450	black	2	119,592,325		N_Shore		0.538	-0.001	0.056	0.729
cg04491089	black	16	84,151,300	TSS1500	S_Shore	MBTPS1	0.538	-0.001	0.053	0.784
cg07589899	black	2	62,020,677		OpenSea		0.538	-0.001	0.054	0.646
cg05031016	black	14	24,804,153	TSS1500	Island	ADCY4	0.538	-0.001	0.031	0.486
cg26279668	black	4	21,949,853	5'UTR	N_Shore	KCNIP4	0.538	-0.001	0.025	0.518
cg23359665	black	6	32,120,907	TSS1500	N_Shore	PPT2	0.538	0.000	0.028	0.554
cg24421906	black	18	11,947,936		Island		0.538	-0.001	0.031	0.710
cg21306240	black	1	38,230,845	TSS200	Island	EPHA10	0.538	0.000	0.022	0.951
cg06248767	black	8	56,852,290	5'UTR	OpenSea	LYN	0.538	0.004	0.090	0.663
cg11570511	black	1	16,543,021		N_Shore		0.538	-0.003	0.035	0.193
cg17806798	black	1	46,807,113	Body	S_Shore	NSUN4	0.538	0.000	0.097	0.445
cg20559537	black	5	177,539,937	TSS1500	N_Shore	N4BP3	0.538	-0.034	0.498	0.016
cg11910287	black	19	53,561,811		Island		0.538	0.000	0.031	0.743
cg19835478	black	21	47,401,109	TSS1500	Island	COL6A1	0.538	-0.002	0.034	0.367
cg00953154	black	7	45,025,620	TSS1500	N_Shore	SNORA9	0.538	-0.002	0.033	0.446
cg17177995	black	1	70,035,846		S_Shore		0.538	-0.002	0.017	0.181
cg13497475	black	15	73,976,511	TSS200	N_Shore	CD276	0.538	0.000	0.021	0.823
cg15641446	black	17	14,203,157	TSS1500	Island	HS3ST3B1	0.538	0.001	0.016	0.610
cg02159999	black	8	30,085,163		OpenSea		0.538	-0.001	0.051	0.635
cg01393233	black	1	64,935,571	TSS1500	Island	CACHD1	0.538	0.000	0.018	0.998
cg17605021	black	6	27,247,586		OpenSea		0.538	0.002	0.032	0.572
cg19233001	black	1	201,346,876	TSS200	OpenSea	TNNT2	0.538	-0.001	0.167	0.861
cg03359516	black	9	126,771,184		Island		0.538	0.001	0.015	0.301
cg23771929	black	9	132,934,195	TSS1500	N_Shore	FREQ	0.538	-0.010	0.076	0.034
cg15475576	black	12	99,289,295	Body	Island	ANKS1B	0.538	0.001	0.026	0.510
cg07308975	black	10	1,568,806	Body	OpenSea	ADARB2	0.538	0.006	0.434	0.410
cg26993251	black	11	63,934,014	TSS1500	Island	MACROD1	0.538	0.001	0.048	0.725
cg06038864	black	2	167,350,889		OpenSea		0.538	-0.005	0.075	0.210
cg02966722	black	15	34,876,471	TSS1500	S_Shore	GOLGA8B	0.538	0.003	0.185	0.610
cg16275295	black	15	101,661,984		OpenSea		0.537	0.000	0.028	0.915
cg25862444	black	1	147,737,016		Island		0.537	0.003	0.056	0.606
cg11084474	black	12	133,007,675		N_Shelf		0.537	0.016	0.301	0.100
cg18494043	black	13	67,568,518	Body	OpenSea	PCDH9	0.537	-0.001	0.053	0.799
cg02994956	black	22	29,876,534	1stExon	Island	NEFH	0.537	-0.007	0.075	0.340
cg16448102	black	7	20,825,824	5'UTR	S_Shore	SP8	0.537	-0.002	0.025	0.238
cg05826677	black	7	48,031,468	Body	OpenSea	SUNC1	0.537	0.000	0.031	0.867
cg26153631	black	12	54,379,056	1stExon	Island	HOXC10	0.537	-0.008	0.112	0.334
cg19868691	black	2	219,744,597	TSS1500	N_Shore	WNT10A	0.537	0.000	0.026	0.767
cg18804667	black	5	58,883,392	Body	OpenSea	PDE4D	0.537	0.000	0.027	0.943
cg05244581	black	8	25,315,002	Body	N_Shore	KCTD9	0.537	0.000	0.017	0.794
cg20266910	black	6	26,577,678		OpenSea		0.537	0.000	0.037	0.902
cg09159022	black	8	4,849,522	Body	Island	CSMD1	0.537	0.002	0.025	0.120
cg09858022	black	17	38,465,333	TSS200	OpenSea	RARA	0.537	0.000	0.032	0.991
cg03974717	black	16	67,217,376	1stExon	N_Shore	KIAA0895L	0.537	0.000	0.016	0.865
cg13539424	black	14	101,544,221		OpenSea		0.537	-0.001	0.031	0.589
cg03049691	black	17	27,039,032	TSS200	S_Shore	PROCA1	0.537	-0.002	0.073	0.786
cg07670188	black	12	124,066,860		N_Shelf		0.537	0.003	0.145	0.711
cg17396989	black	4	2,011,427	TSS1500	Island	WHSC2	0.537	-0.002	0.026	0.171
cg19370653	black	4	111,550,040	Body	Island	PITX2	0.537	-0.001	0.026	0.720
cg12865837	black	6	100,911,526	1stExon	N_Shore	SIM1	0.537	-0.002	0.047	0.548

cg12344247	black	6	170,615,455	TSS1500	Island	FAM120B	0.537	0.000	0.028	0.780
cg26046467	black	18	59,000,498		N_Shore		0.537	0.009	0.076	0.103
cg22465123	black	18	29,598,437	TSS200	N_Shore	RNF125	0.537	-0.001	0.033	0.643
cg24073074	black	17	66,432,759	Body	OpenSea	WIPI1	0.537	-0.010	0.276	0.217
cg18689504	black	6	32,164,585	TSS1500	S_Shore	GPSM3	0.536	0.000	0.056	0.985
cg23008606	black	8	26,722,933	TSS200	Island	ADRA1A	0.536	0.004	0.055	0.301
cg12531953	black	8	56,793,075	5'UTR	Island	LYN	0.536	0.004	0.102	0.482
cg27426351	black	10	43,362,370		S_Shore		0.536	0.002	0.069	0.542
cg11448683	black	1	45,274,099	TSS1500	S_Shore	TCTEX1D4	0.536	0.000	0.031	0.910
cg18987335	black	2	177,039,862		Island		0.536	-0.003	0.038	0.612
cg07119434	black	1	151,103,642		N_Shore		0.536	-0.001	0.032	0.728
cg06362313	black	12	6,645,287	Body	S_Shore	GAPDH	0.536	0.009	0.265	0.159
cg02474563	black	10	134,442,032	Body	OpenSea	INPP5A	0.536	-0.004	0.164	0.769
cg19960420	black	10	101,282,185		N_Shore		0.536	-0.005	0.042	0.121
cg17795252	black	3	181,328,009	TSS200	OpenSea	SOX2OT	0.536	-0.004	0.049	0.249
cg24990131	black	6	6,320,710	5'UTR	OpenSea	F13A1	0.536	0.000	0.024	0.923
cg24675344	black	1	154,732,993	Body	Island	KCNN3	0.536	0.001	0.021	0.608
cg07551364	black	1	27,693,782	TSS1500	S_Shore	MAP3K6	0.536	-0.007	0.104	0.140
cg04319276	black	19	42,445,244		Island		0.536	0.002	0.043	0.659
cg19856897	black	7	142,495,846		S_Shore		0.536	0.003	0.029	0.139
cg11716270	black	1	39,025,311		OpenSea		0.536	-0.003	0.055	0.272
cg01749491	black	2	176,948,693	TSS200	N_Shore	EVX2	0.536	0.000	0.022	0.798
cg00463562	black	15	65,118,189	TSS1500	S_Shore	PIF1	0.536	0.001	0.022	0.254
cg14129473	black	5	10,695,241	Body	OpenSea	DAP	0.536	0.002	0.174	0.774
cg04358463	black	19	56,215,104		N_Shore		0.536	0.014	0.255	0.289
cg06865993	black	10	2,373,548		OpenSea		0.536	0.009	0.910	0.161
cg09754413	black	6	13,925,567	5'UTR	S_Shore	RNF182	0.536	0.001	0.024	0.350
cg18642177	black	1	228,195,779	Body	Island	WNT3A	0.536	-0.003	0.060	0.585
cg04381888	black	12	48,195,549	Body	OpenSea	HDAC7	0.536	0.004	0.564	0.561
cg17170948	black	1	59,281,383		N_Shore		0.536	0.001	0.024	0.496
cg01080924	black	22	46,449,550	Body	N_Shore	C22orf26	0.536	-0.012	0.107	0.275
cg08867241	black	15	53,087,487		Island		0.536	0.000	0.039	0.988
cg27548568	black	6	49,517,734	TSS1500	N_Shore	C6orf141	0.536	-0.004	0.584	0.728
cg05301470	black	6	28,558,006		S_Shelf		0.535	0.008	0.168	0.654
cg05356496	black	7	107,300,998	TSS200	N_Shore	SLC26A4	0.535	0.003	0.053	0.415
cg03599357	black	18	76,737,392		Island		0.535	0.002	0.020	0.137
cg19403534	black	10	120,355,419	TSS1500	Island	PRLHR	0.535	0.000	0.061	0.934
cg12357534	black	13	95,086,146		OpenSea		0.535	0.004	0.106	0.700
cg11682350	black	6	33,240,284	TSS1500	S_Shore	VPS52	0.535	-0.001	0.035	0.349
cg00345862	black	13	53,313,845	1stExon	Island	LECT1	0.535	-0.004	0.155	0.433
cg23414001	black	20	33,681,070	TSS1500	S_Shore	TRPC4AP	0.535	0.004	0.261	0.671
cg25198579	black	15	67,358,136	TSS200	Island	SMAD3	0.535	0.003	0.042	0.188
cg13679010	black	4	105,416,281		Island		0.535	0.001	0.027	0.366
cg19094243	black	2	193,058,628	Body	N_Shore	TMEFF2	0.535	-0.015	0.077	0.046
cg11706911	black	1	15,910,989	Body	N_Shore	AGMAT	0.535	-0.003	0.067	0.558
cg03828874	black	5	3,605,954		N_Shore		0.535	-0.004	0.171	0.690
cg17881007	black	7	151,106,022	Body	N_Shore	WDR86	0.535	-0.002	0.045	0.696
cg05103992	black	6	159,290,440		N_Shore		0.535	-0.003	0.049	0.452
cg24722198	black	13	113,567,732		OpenSea		0.535	0.021	0.502	0.019
cg27616227	black	8	108,510,314	TSS200	OpenSea	ANGPT1	0.534	0.018	0.398	0.406
cg13380103	black	5	178,770,629	Body	N_Shore	ADAMTS2	0.534	0.004	0.110	0.407
cg16166968	black	1	120,439,036	1stExon	Island	ADAM30	0.534	0.006	0.223	0.480
cg00884529	black	7	16,685,823	Body	Island	BZW2	0.534	0.000	0.057	0.881
cg25503381	black	15	39,871,923	TSS1500	N_Shore	THBS1	0.534	0.000	0.030	0.908
cg14342850	black	9	34,666,173		S_Shore		0.534	0.000	0.023	0.905
cg27215768	black	10	98,425,148	Body	OpenSea	PIK3AP1	0.534	-0.011	0.410	0.487
cg12526474	black	7	140,097,579	5'UTR	N_Shore	SLC37A3	0.534	0.000	0.023	0.882
cg02226939	black	17	28,619,481	TSS1500	S_Shore	BLMH	0.534	0.000	0.018	0.931
cg20961045	black	17	55,952,128	Body	OpenSea	CUEDC1	0.534	0.003	0.128	0.562
cg10949583	black	2	179,343,740	TSS1500	N_Shore	FKBP7	0.534	0.000	0.056	0.911
cg00665405	black	12	50,899,548	Body	S_Shore	DIP2B	0.534	0.000	0.024	0.784
cg01197613	black	8	110,704,289	TSS1500	S_Shore	GOLSYN	0.534	0.001	0.044	0.762
cg18345386	black	3	62,363,466		N_Shore		0.534	-0.003	0.058	0.362
cg25717239	black	7	43,153,595	5'UTR	S_Shore	HECW1	0.534	-0.003	0.033	0.116
cg22174486	black	11	536,817	TSS1500	Island	HRAS	0.534	-0.002	0.081	0.713
cg15681577	black	11	41,481,497		OpenSea		0.534	0.004	0.068	0.696
cg14299675	black	9	91,149,046	TSS1500	N_Shore	NXNL2	0.534	-0.002	0.057	0.461

cg18446578	black	5	115,908,322	5'UTR	N_Shore	SEMA6A	0.534	0.000	0.018	0.592
cg10050661	black	17	38,821,420	TSS200	OpenSea	KRT222	0.534	-0.002	0.030	0.177
cg27423228	black	3	43,021,399	Body	S_Shore	FAM198A	0.534	0.002	0.076	0.634
cg17322044	black	12	125,140,105		OpenSea		0.534	-0.001	0.023	0.535
cg10285466	black	14	38,725,710	TSS200	S_Shore	CLEC14A	0.534	0.007	0.335	0.679
cg07415373	black	22	27,153,015		Island		0.534	-0.034	0.311	0.007
cg08787968	black	11	32,451,777	Body	N_Shore	WT1	0.534	0.009	0.138	0.328
cg04598121	black	8	57,358,505	Body	Island	PENK	0.533	-0.001	0.028	0.558
cg23915769	black	5	115,297,488	TSS1500	N_Shore	LVRN	0.533	0.001	0.032	0.763
cg00458932	black	2	208,199,465		OpenSea		0.533	-0.003	0.032	0.328
cg06451843	black	2	200,334,805	Body	N_Shore	FLJ32063	0.533	-0.001	0.024	0.510
cg06619938	black	12	54,376,127		N_Shelf		0.533	-0.002	0.057	0.666
cg22730459	black	11	83,548,035	Body	OpenSea	DLG2	0.533	0.001	0.031	0.481
cg26157149	black	19	36,001,618	TSS1500	OpenSea	DMKN	0.533	-0.001	0.148	0.824
cg23628478	black	14	100,784,781		OpenSea		0.533	-0.003	0.130	0.501
cg11992241	black	17	7,036,993		OpenSea		0.533	0.010	0.134	0.317
cg12480903	black	1	167,423,965	Body	N_Shore	CD247	0.533	-0.006	0.076	0.290
cg09884341	black	5	87,974,464	Body	N_Shore	LOC645323	0.533	-0.002	0.016	0.148
cg07739113	black	6	27,255,829		N_Shelf		0.533	0.005	0.040	0.125
cg04890137	black	12	63,066,770	Body	OpenSea	PPM1H	0.533	-0.003	0.182	0.697
cg14210726	black	17	76,136,952	Body	Island	TMC8	0.533	0.007	0.288	0.292
cg13447539	black	3	23,244,125	TSS1500	Island	UBE2E2	0.533	0.000	0.022	0.829
cg20032370	black	17	80,251,467		Island		0.533	-0.002	0.035	0.175
cg20343048	black	21	36,041,527	TSS200	Island	CLIC6	0.533	0.005	0.136	0.671
cg08477158	black	17	58,807,667	Body	OpenSea	BCAS3	0.533	0.003	0.205	0.757
cg12275981	black	1	223,316,272	5'UTR	Island	TLR5	0.533	0.008	0.072	0.067
cg23808004	black	11	134,145,490	TSS1500	N_Shore	GLB1L3	0.532	-0.002	0.026	0.082
cg15448064	black	19	15,560,215	5'UTR	N_Shelf	WIZ	0.532	-0.001	0.029	0.553
cg07864883	black	3	42,743,077	5'UTR	OpenSea	HHATL	0.532	-0.004	0.064	0.270
cg18054745	black	11	1,370,793		OpenSea		0.532	-0.001	0.534	0.936
cg25804541	black	17	80,189,381	5'UTR	Island	SLC16A3	0.532	0.000	0.028	0.919
cg11457119	black	2	172,959,114		N_Shore		0.532	-0.002	0.024	0.046
cg01234044	black	7	1,277,585		Island		0.532	-0.001	0.018	0.384
cg11216064	black	5	50,263,586		N_Shore		0.532	0.001	0.028	0.333
cg21790305	black	6	33,396,387	Body	S_Shore	SYNGAP1	0.532	0.000	0.028	0.804
cg26670249	black	19	14,223,997	Body	OpenSea	PRKACA	0.532	0.005	0.137	0.428
cg14427009	black	13	58,207,058	1stExon	Island	PCDH17	0.532	-0.003	0.112	0.601
cg16785344	black	12	120,703,817	TSS1500	S_Shore	PXN	0.532	0.003	0.056	0.388
cg06745944	black	12	124,246,391	TSS1500	N_Shore	DNAH10	0.532	-0.001	0.014	0.292
cg15015892	black	1	151,810,887	Body	Island	C2CD4D	0.532	-0.003	0.046	0.422
cg09537533	black	20	592,957		S_Shore		0.532	-0.002	0.380	0.817
cg21068094	black	18	55,862,711	5'UTR	Island	NEDD4L	0.532	0.001	0.273	0.957
cg07537699	black	6	31,646,834	Body	N_Shelf	LY6G5C	0.532	0.006	0.451	0.361
cg17790311	black	6	29,944,093	Body	N_Shore	HCG9	0.532	0.003	0.122	0.808
cg11462315	black	2	43,455,048	TSS1500	S_Shore	ZFP36L2	0.531	0.002	0.052	0.361
cg05650674	black	16	68,677,997	TSS200	N_Shore	CDH3	0.531	0.000	0.207	0.956
cg14373018	black	11	64,981,297	TSS200	OpenSea	SLC22A20	0.531	-0.005	0.386	0.575
cg17300750	black	16	2,288,072	Body	Island	DNASE1L2	0.531	0.003	0.168	0.778
cg00360794	black	15	41,803,850	Body	Island	LTK	0.531	-0.002	0.069	0.617
cg07028869	black	12	49,741,164	5'UTR	S_Shore	DNAJC22	0.531	-0.001	0.044	0.762
cg23570958	black	18	59,853,916	5'UTR	N_Shore	PIGN	0.531	0.000	0.017	0.889
cg09498572	black	13	112,707,805		Island		0.531	-0.001	0.036	0.573
cg10865119	black	6	170,190,112	Body	Island	C6orf122	0.531	-0.003	0.062	0.394
cg05852143	black	12	5,540,116	TSS1500	Island	NTF3	0.531	0.000	0.034	0.945
cg13593448	black	19	41,111,757	Body	Island	LTBP4	0.531	-0.002	0.045	0.425
cg08547691	black	17	9,143,754	3'UTR	Island	NTN1	0.531	0.000	0.024	0.671
cg03018058	black	2	227,700,114	TSS1500	N_Shore	RHBDD1	0.531	0.001	0.057	0.908
cg22668740	black	12	54,788,291		S_Shelf		0.531	0.003	0.296	0.487
cg16984944	black	3	99,979,425	TSS1500	N_Shore	TBC1D23	0.531	-0.003	0.080	0.646
cg23279522	black	2	66,659,348		N_Shore		0.531	-0.001	0.029	0.863
cg14515581	black	9	31,031,140		OpenSea		0.531	0.002	0.078	0.802
cg13361185	black	1	91,185,749		S_Shore		0.531	-0.003	0.037	0.150
cg10656742	black	13	24,152,779	TSS1500	N_Shore	TNFRSF19	0.531	-0.001	0.154	0.936
cg01264639	black	5	73,839,484		OpenSea		0.531	0.008	0.072	0.284
cg13738195	black	4	155,413,469	TSS1500	S_Shore	DCHS2	0.531	0.000	0.016	0.785
cg14508777	black	3	42,847,116	TSS1500	S_Shore	HIGD1A	0.531	0.007	0.188	0.407
cg06758350	black	21	36,259,460	5'UTR	Island	RUNX1	0.531	-0.005	0.051	0.096

cg05317686	black	10	88,345,314	OpenSea		0.531	0.000	0.028	0.768
cg26932432	black	11	31,830,524 5'UTR	N_Shore	PAX6	0.531	-0.001	0.036	0.715
cg00165323	black	1	70,035,080	S_Shore		0.531	0.003	0.024	0.071
cg00525011	black	16	122,031 5'UTR	Island	RHBDF1	0.531	-0.002	0.047	0.431
cg02648941	black	13	88,329,884 Body	Island	SLITRK5	0.531	-0.001	0.044	0.850
cg10820926	black	14	30,397,408 TSS1500	Island	PRKD1	0.531	-0.002	0.028	0.115
cg21545859	black	3	5,068,037	Island		0.531	-0.010	0.103	0.070
cg21766898	black	6	50,814,089 3'UTR	S_Shore	TFAP2B	0.530	-0.002	0.022	0.157
cg14689479	black	8	53,326,618	OpenSea		0.530	0.007	0.208	0.621
cg00426498	black	17	27,507,667 TSS1500	S_Shore	MYO18A	0.530	-0.001	0.084	0.767
cg20323445	black	1	9,189,669 TSS1500	Island	GPR157	0.530	0.003	0.039	0.205
cg19050990	black	1	98,511,523	Island		0.530	0.000	0.013	0.714
cg24304919	black	5	113,699,194 Body	Island	KCNN2	0.530	0.000	0.031	0.792
cg19387228	black	4	8,442,570 TSS200	Island	ACOX3	0.530	-0.002	0.036	0.254
cg22513528	black	15	77,861,673	OpenSea		0.530	-0.003	0.188	0.679
cg24249411	black	11	27,744,759 TSS1500	S_Shore	BDNF	0.530	-0.001	0.044	0.755
cg05794044	black	1	244,816,000 TSS1500	N_Shore	PPPDE1	0.530	-0.002	0.040	0.190
cg02279987	black	1	1,181,757 Body	Island	FAM132A	0.530	-0.004	0.173	0.529
cg18126557	black	1	247,611,842 3'UTR	N_Shelf	NLRP3	0.530	0.000	0.045	0.947
cg17842066	black	12	7,125,201 Body	N_Shore	LPCAT3	0.530	0.003	0.031	0.090
cg26904700	black	5	75,379,748 5'UTR	Island	SV2C	0.530	0.000	0.022	0.860
cg15426459	black	8	11,813,211	OpenSea		0.530	-0.004	0.056	0.130
cg11205312	black	1	151,137,619 TSS1500	OpenSea	SCNM1	0.530	-0.005	0.090	0.338
cg26330416	black	11	62,691,066	Island		0.530	0.005	0.073	0.443
cg19360852	black	12	12,848,977 5'UTR	N_Shore	GPR19	0.530	-0.002	0.216	0.743
cg12866292	black	17	8,079,312 Body	N_Shore	TMEM107	0.530	0.001	0.031	0.370
cg06998145	black	14	55,878,758 TSS200	S_Shore	KIAA0831	0.530	0.000	0.027	0.808
cg16507172	black	2	220,416,148 Body	N_Shore	OBSL1	0.530	0.000	0.032	0.989
cg19058685	black	12	54,440,806 5'UTR	Island	HOXC4	0.530	0.016	0.321	0.185
cg25845367	black	13	100,627,175	S_Shelf		0.530	-0.001	0.018	0.326
cg00309339	black	7	22,893,653	N_Shore		0.530	0.003	0.042	0.208
cg26767214	black	15	40,762,864 TSS1500	N_Shore	CHST14	0.530	-0.001	0.034	0.733
cg26517663	black	15	60,295,294 TSS1500	N_Shore	FOXB1	0.530	0.000	0.027	0.777
cg14597148	black	15	67,834,631 TSS1500	N_Shore	MAP2K5	0.530	0.001	0.035	0.482
cg20402783	black	12	54,381,013 Body	S_Shore	HOXC10	0.530	-0.015	0.106	0.195
cg10496915	black	6	89,855,751 TSS200	Island	PM20D2	0.529	-0.004	0.030	0.024
cg01604946	black	5	148,398,804 Body	OpenSea	SH3TC2	0.529	0.010	0.268	0.333
cg20917891	black	18	49,868,176 Body	N_Shore	DCC	0.529	0.001	0.019	0.456
cg00035623	black	19	55,919,836 TSS1500	S_Shore	UBE2S	0.529	-0.004	0.065	0.303
cg15725989	black	17	35,098,710	OpenSea		0.529	-0.007	0.403	0.665
cg17490089	black	19	8,398,300 Body	Island	KANK3	0.529	-0.008	0.360	0.244
cg20886011	black	2	165,479,150 TSS1500	S_Shore	GRB14	0.529	0.012	0.212	0.088
cg04573550	black	14	38,680,313 3'UTR	Island	SSTR1	0.529	-0.003	0.046	0.366
cg05517791	black	7	73,157,351	S_Shelf		0.529	-0.003	0.260	0.675
cg11078875	black	1	5,805,293	OpenSea		0.529	0.006	0.352	0.533
cg05423393	black	6	111,888,567 Body	OpenSea	TRAF3IP2	0.529	0.004	0.129	0.572
cg04320476	black	17	1,492,206 Body	Island	SLC43A2	0.529	0.001	0.786	0.871
cg21953025	black	2	216,877,750 Body	N_Shore	MREG	0.529	0.002	0.046	0.521
cg01192900	black	11	111,383,668 Body	Island	MIR34B	0.529	0.000	0.033	0.807
cg05370662	black	1	44,172,378 TSS1500	N_Shore	ST3GAL3	0.529	0.000	0.022	0.647
cg21577836	black	1	175,568,710 5'UTR	Island	TNR	0.529	-0.005	0.090	0.638
cg09505809	black	1	180,123,222 TSS1500	N_Shore	QSOX1	0.529	0.004	0.199	0.698
cg21780393	black	17	46,618,919	N_Shore		0.529	-0.005	0.078	0.416
cg18492126	black	21	22,369,802 TSS1500	Island	NCAM2	0.529	0.001	0.056	0.690
cg00725401	black	8	70,945,169	N_Shore		0.529	0.001	0.014	0.498
cg26929925	black	5	138,714,136 Body	Island	SLC23A1	0.529	0.004	0.202	0.798
cg08566437	black	5	161,494,500 TSS200	OpenSea	GABRG2	0.529	-0.001	0.049	0.785
cg01128482	black	2	177,028,621 TSS200	N_Shore	HOXD3	0.529	0.002	0.052	0.535
cg11860412	black	19	1,753,217 TSS1500	Island	ONECUT3	0.529	-0.002	0.040	0.535
cg20686828	black	1	151,764,147 TSS1500	S_Shore	TDRKH	0.529	0.001	0.025	0.728
cg01635555	black	16	73,101,264	S_Shore		0.529	-0.006	0.099	0.385
cg26582230	black	4	3,371,652 Body	N_Shelf	RGS12	0.529	0.005	0.146	0.527
cg17831002	black	19	41,882,232 TSS1500	N_Shore	TMEM91	0.529	0.000	0.053	0.919
cg16514724	black	10	97,453,245 Body	N_Shore	TCTN3	0.529	0.002	0.024	0.127
cg05774756	black	5	158,527,982 TSS1500	Island	EBF1	0.529	0.000	0.022	0.870
cg02061431	black	1	92,150,549 Body	OpenSea	TGFBR3	0.529	-0.003	0.059	0.301
cg05316463	black	14	95,786,663 TSS1500	S_Shore	CLMN	0.528	0.000	0.024	0.773

cg04341730	black	4	175,135,312	Island		0.528	-0.004	0.051	0.169
cg06776256	black	12	13,043,728 TSS1500	N_Shore	GPRCSA	0.528	-0.003	0.037	0.095
cg02628483	black	15	70,317,124	OpenSea		0.528	-0.004	0.914	0.764
cg24539517	black	10	121,161,258 Body	OpenSea	GRK5	0.528	0.001	0.026	0.707
cg12213457	black	12	102,090,980 TSS1500	N_Shore	CHPT1	0.528	0.001	0.045	0.835
cg01597632	black	4	147,443,489 TSS1500	Island	SLC10A7	0.528	-0.001	0.027	0.669
cg13284614	black	3	52,569,169 TSS200	N_Shore	NT5DC2	0.528	-0.003	0.200	0.842
cg08412188	black	7	74,074,356 5'UTR	S_Shore	GTF2I	0.528	0.001	0.042	0.696
cg21160099	black	6	100,060,917 Body	N_Shore	PRDM13	0.528	-0.003	0.028	0.259
cg26724450	black	8	145,064,008 TSS1500	Island	GRINA	0.528	0.001	0.024	0.664
cg20698862	black	10	112,290,112	Island		0.528	-0.001	0.019	0.222
cg03317463	black	16	67,193,191 TSS1500	Island	FBXL8	0.528	0.001	0.036	0.483
cg20320624	black	17	77,216,455 5'UTR	OpenSea	HRNBP3	0.528	0.000	0.081	0.963
cg11594833	black	12	54,444,985 5'UTR	N_Shore	HOXC4	0.528	0.011	0.431	0.234
cg07225598	black	1	228,646,916 TSS1500	S_Shore	HIST3H2A	0.528	0.002	0.029	0.179
cg14847502	black	10	30,724,194 5'UTR	S_Shore	MAP3K8	0.528	-0.001	0.046	0.735
cg12736438	black	13	111,214,457 TSS1500	Island	RAB20	0.528	-0.001	0.027	0.571
cg16710894	black	10	8,092,264	Island		0.528	-0.001	0.054	0.704
cg25450266	black	19	35,494,294 Body	S_Shelf	GRAMD1A	0.528	0.004	0.049	0.227
cg12457238	black	10	102,499,150	Island		0.528	0.000	0.029	0.796
cg11895451	black	1	16,533,891 Body	Island	ARHGEF19	0.528	-0.002	0.088	0.695
cg12588917	black	6	29,692,082 Body	Island	HLA-F	0.528	-0.007	0.052	0.365
cg26105227	black	11	17,495,097 Body	N_Shelf	ABCC8	0.528	-0.001	0.051	0.845
cg00023919	black	11	66,839,191 3'UTR	Island	RHOD	0.528	0.023	0.428	0.077
cg17107540	black	10	72,197,470 Body	N_Shelf	NODAL	0.527	-0.026	0.190	0.028
cg02411198	black	8	142,111,579	OpenSea		0.527	-0.004	0.181	0.667
cg10536101	black	1	16,400,330 TSS1500	S_Shore	FAM131C	0.527	-0.004	0.048	0.105
cg23429510	black	2	176,936,942	S_Shore		0.527	0.003	0.082	0.655
cg14404746	black	9	140,116,137 TSS1500	Island	RNF208	0.527	-0.004	0.051	0.275
cg15032239	black	15	22,891,954 TSS1500	Island	CYFIP1	0.527	0.000	0.016	0.933
cg09173768	black	2	176,989,349 3'UTR	Island	HOXD9	0.527	-0.004	0.064	0.284
cg21349625	black	12	113,917,449	Island		0.527	0.006	0.067	0.279
cg18928362	black	14	68,283,524 TSS1500	OpenSea	ZFYVE26	0.527	0.004	0.026	0.002
cg24324354	black	12	58,004,248 Body	Island	GEFT	0.527	0.001	0.059	0.873
cg02101486	black	7	96,652,245 Body	Island	DLX5	0.527	-0.002	0.038	0.411
cg13563725	black	15	27,212,911	Island		0.527	0.004	0.047	0.266
cg16264616	black	12	54,390,824	S_Shore		0.527	0.012	0.327	0.308
cg16919356	black	7	150,780,878 TSS1500	Island	TMUB1	0.527	0.001	0.037	0.332
cg15935770	black	14	70,160,160 Body	OpenSea	KIAA0247	0.527	0.011	0.125	0.140
cg17191178	black	3	157,824,217 TSS1500	S_Shore	SHOX2	0.527	0.000	0.019	0.904
cg06207804	black	1	44,398,998 1stExon	N_Shore	ARTN	0.527	-0.002	0.062	0.457
cg08869955	black	9	112,262,011 TSS1500	Island	PTPN3	0.527	-0.002	0.031	0.345
cg18020955	black	1	147,790,806	S_Shore		0.527	0.008	0.333	0.453
cg24878090	black	11	46,354,005 TSS1500	N_Shore	DGKZ	0.527	-0.004	0.181	0.615
cg09473576	black	1	20,813,647 TSS1500	S_Shore	CAMK2N1	0.527	-0.002	0.030	0.299
cg06766367	black	16	67,062,687 TSS1500	Island	CBFB	0.527	0.006	0.153	0.287
cg01565824	black	17	79,361,553	Island		0.526	-0.001	0.043	0.707
cg22661239	black	7	105,331,690 Body	OpenSea	ATXN7L1	0.526	0.005	0.100	0.366
cg16000331	black	22	42,230,138 Body	S_Shore	SREBF2	0.526	0.000	0.025	0.981
cg15133351	black	2	176,948,732 TSS200	N_Shore	EVX2	0.526	0.001	0.026	0.648
cg01086978	black	8	68,255,088 Body	N_Shore	ARFGEF1	0.526	-0.002	0.047	0.272
cg26011364	black	2	102,091,299 TSS200	S_Shore	RFX8	0.526	-0.005	0.129	0.548
cg02970525	black	1	201,915,999 TSS1500	OpenSea	LMOD1	0.526	0.000	0.020	0.858
cg13849999	black	1	156,427,361	Island		0.526	-0.001	0.020	0.640
cg18791205	black	7	19,146,324	N_Shore		0.526	-0.001	0.022	0.406
cg22272282	black	6	27,107,670 3'UTR	S_Shore	HIST1H2BK	0.526	0.008	0.030	0.060
cg22102688	black	5	180,486,155 Body	Island	BTNL9	0.526	0.000	0.030	0.907
cg11081894	black	10	101,283,847	S_Shore		0.526	0.007	0.072	0.174
cg22207405	black	2	70,853,907	OpenSea		0.526	0.014	0.348	0.259
cg10945274	black	13	100,611,036	N_Shore		0.526	-0.004	0.042	0.161
cg14634534	black	2	119,616,825	Island		0.526	-0.001	0.042	0.796
cg10997479	black	3	62,362,924	Island		0.526	-0.012	0.104	0.127
cg02619408	black	1	156,818,592 Body	N_Shore	NTRK1	0.526	-0.002	0.138	0.807
cg09711746	black	11	32,460,375 Body	N_Shore	WIT1	0.526	0.003	0.042	0.579
cg23675401	black	4	4,867,481	Island		0.526	-0.003	0.138	0.634
cg25536676	black	1	55,353,327 TSS1500	Island	DHCR24	0.526	-0.002	0.064	0.572
cg25962358	black	5	140,347,293 1stExon	S_Shore	PCDHAC2	0.526	-0.010	0.432	0.370

cg22165208	black	7	129,425,932	S_Shore		0.526	0.000	0.029	0.867
cg00464519	black	9	37,034,655 TSS200	Island	PAX5	0.526	-0.001	0.038	0.442
cg13382072	black	19	1,851,882	Island		0.526	0.000	0.109	0.983
cg19077494	black	2	158,723,291 5'UTR	OpenSea	ACVR1	0.526	-0.008	0.329	0.259
cg03509094	black	19	7,928,546 Body	Island	EVISL	0.526	0.007	0.339	0.204
cg03691549	black	12	53,443,911 5'UTR	S_Shelf	TENC1	0.526	-0.005	0.029	0.061
cg21070272	black	3	93,698,461 TSS1500	N_Shore	ARL13B	0.526	0.002	0.430	0.857
cg22055815	black	5	43,040,621 TSS200	Island	C5orf39	0.526	0.000	0.012	0.882
cg04049530	black	8	38,688,279 Body	OpenSea	TACC1	0.526	0.000	0.078	0.975
cg04220579	black	7	915,756 TSS1500	Island	C7orf20	0.526	-0.001	0.044	0.714
cg08215788	black	2	37,898,101 5'UTR	N_Shore	CDC42EP3	0.526	-0.001	0.041	0.735
cg16251626	black	1	43,672,622 Body	OpenSea	WDR65	0.525	0.004	0.072	0.494
cg00667789	black	1	59,042,065 1stExon	Island	TACSTD2	0.525	-0.011	0.066	0.180
cg17057783	black	11	57,283,183 TSS200	Island	SLC43A1	0.525	-0.001	0.021	0.132
cg07523958	black	19	47,181,684 Body	Island	PRKD2	0.525	0.018	0.513	0.007
cg16521454	black	5	150,158,951 Body	S_Shore	C5orf62	0.525	0.001	0.186	0.924
cg05908587	black	14	69,726,251 TSS1500	Island	GALNTL1	0.525	-0.001	0.032	0.584
cg25876656	black	1	210,407,480 TSS200	Island	C1orf133	0.525	-0.002	0.034	0.265
cg25682097	black	14	105,954,118 Body	Island	CRIP1	0.525	-0.005	0.060	0.175
cg06550984	black	10	23,480,002 TSS1500	N_Shore	PTF1A	0.525	-0.001	0.041	0.611
cg14883008	black	22	39,898,101 TSS200	Island	SMCR7L	0.525	-0.001	0.044	0.487
cg15149600	black	5	145,724,518	Island		0.525	0.001	0.044	0.513
cg03499234	black	1	47,910,239	Island		0.525	0.000	0.016	0.663
cg26053864	black	15	35,087,635 5'UTR	OpenSea	ACTC1	0.525	-0.001	0.062	0.836
cg17545346	black	6	28,956,609	S_Shore		0.525	0.004	0.027	0.155
cg02432528	black	11	75,237,526 TSS1500	Island	GDPD5	0.525	0.000	0.022	0.811
cg06733155	black	7	73,508,868 Body	OpenSea	LIMK1	0.525	-0.001	0.054	0.840
cg04209460	black	17	4,711,018 5'UTR	S_Shore	PLD2	0.525	-0.002	0.053	0.382
cg24531009	black	7	99,987,853 Body	OpenSea	PILRA	0.525	0.005	0.456	0.587
cg24796663	black	6	33,377,748 TSS1500	N_Shore	PHF1	0.525	-0.003	0.037	0.073
cg07392101	black	19	4,909,263 TSS1500	Island	UHRF1	0.525	-0.003	0.027	0.101
cg18364858	black	14	103,227,298	OpenSea		0.525	-0.002	0.102	0.836
cg22597733	black	4	158,142,891 Body	N_Shore	GRIA2	0.525	-0.002	0.030	0.347
cg22353818	black	14	104,095,074 TSS1500	Island	KLC1	0.525	0.000	0.031	0.953
cg01373911	black	1	6,269,367 Body	Island	RNF207	0.525	-0.002	0.025	0.407
cg11540476	black	6	31,651,249	Island		0.525	-0.003	0.052	0.374
cg11171778	black	16	25,078,048	Island		0.525	0.001	0.060	0.875
cg15410411	black	12	54,392,884 TSS1500	N_Shore	HOXC9	0.525	-0.002	0.071	0.757
cg20652404	black	15	74,218,904 5'UTR	Island	LOXL1	0.525	0.003	0.045	0.290
cg06593715	black	3	42,814,427 5'UTR	N_Shore	CCDC13	0.524	-0.003	0.039	0.272
cg25916282	black	2	177,023,760	N_Shore		0.524	0.000	0.028	0.650
cg14953666	black	2	16,162,992	OpenSea		0.524	-0.003	0.112	0.611
cg00733728	black	13	79,171,230	Island		0.524	-0.003	0.022	0.074
cg09622982	black	2	133,428,523 TSS200	Island	LYPD1	0.524	0.000	0.028	0.981
cg02767242	black	2	162,274,424 Body	N_Shore	TBR1	0.524	0.000	0.027	0.880
cg15944766	black	8	29,210,790	Island		0.524	0.000	0.022	0.893
cg01673674	black	8	97,166,036 Body	N_Shelf	GDF6	0.524	0.015	0.216	0.242
cg16290866	black	8	97,167,768 Body	N_Shore	GDF6	0.524	0.015	0.138	0.222
cg07384961	black	16	3,068,128 5'UTR	Island	CLDN6	0.524	-0.001	0.035	0.651
cg19308222	black	4	75,230,391 TSS1500	OpenSea	EREG	0.524	0.001	0.136	0.917
cg10330019	black	3	24,562,864	Island		0.524	-0.002	0.038	0.299
cg07085895	black	11	19,262,124 1stExon	Island	E2F8	0.524	-0.001	0.030	0.372
cg16541852	black	2	219,763,059	Island		0.524	-0.001	0.020	0.193
cg04930469	black	17	41,832,882 Body	Island	SOST	0.524	-0.001	0.031	0.479
cg17428242	black	5	54,263	Island		0.524	0.001	0.019	0.281
cg16404106	black	11	86,085,623 TSS200	N_Shore	CCDC81	0.524	-0.001	0.048	0.672
cg04275841	black	7	143,105,966 1stExon	OpenSea	EPHA1	0.524	0.003	0.073	0.279
cg07959070	black	22	50,026,188 Body	Island	C22orf34	0.523	-0.005	0.046	0.436
cg23502883	black	15	93,959,149	OpenSea		0.523	0.002	0.451	0.783
cg12711814	black	1	8,939,529 TSS1500	S_Shore	ENO1	0.523	-0.006	0.062	0.041
cg12938014	black	5	176,107,020	N_Shore		0.523	-0.001	0.037	0.784
cg25159539	black	15	68,570,818 1stExon	Island	FEM1B	0.523	-0.002	0.023	0.150
cg14103343	black	19	49,220,223 TSS200	N_Shelf	MAMSTR	0.523	-0.003	0.043	0.360
cg07403152	black	3	27,771,389	N_Shore		0.523	0.001	0.023	0.426
cg22921760	black	14	22,005,368 TSS200	OpenSea	SALL2	0.523	-0.001	0.070	0.773
cg00651216	black	6	44,213,720 TSS1500	Island	HSP90AB1	0.523	0.002	0.082	0.699
cg22774211	black	1	120,439,014 1stExon	Island	ADAM30	0.523	0.002	0.329	0.792

cg19059495	black	6	30,095,495	Island		0.523	-0.001	0.017	0.168
cg14948785	black	11	7,041,870 1stExon	Island	NLRP14	0.523	0.002	0.041	0.382
cg13683827	black	12	47,617,751 5'UTR	OpenSea	FAM113B	0.523	0.003	0.401	0.607
cg15338967	black	13	49,175,326	OpenSea		0.522	-0.006	0.319	0.382
cg04036593	black	2	62,797,926	OpenSea		0.522	-0.005	0.180	0.606
cg11632906	black	10	100,028,468 TSS1500	Island	LOXL4	0.522	0.002	0.064	0.524
cg20174696	black	6	167,765,215	S_Shore		0.522	0.003	0.064	0.619
cg26787863	black	1	204,286,467 5'UTR	OpenSea	PLEKHA6	0.522	-0.007	0.217	0.467
cg04085896	black	1	8,088,516	S_Shore		0.522	-0.004	0.129	0.632
cg14018690	black	3	111,804,832 TSS1500	N_Shore	C3orf52	0.522	-0.002	0.064	0.695
cg12446953	black	1	20,960,867 Body	S_Shore	PINK1	0.522	0.002	0.054	0.555
cg12304599	black	12	15,374,513 TSS1500	Island	RERG	0.522	-0.001	0.022	0.260
cg10614045	black	11	20,182,122 TSS1500	Island	DBX1	0.522	-0.001	0.027	0.674
cg04731091	black	10	1,102,917 5'UTR	Island	WDR37	0.522	0.001	0.067	0.917
cg13556253	black	18	47,901,210 TSS200	N_Shore	SKA1	0.522	0.000	0.036	0.780
cg21004684	black	11	68,695,532 Body	OpenSea	IGHMBP2	0.522	-0.012	0.493	0.241
cg01577029	black	12	133,000,830	S_Shore		0.522	0.012	0.350	0.239
cg24161652	black	6	50,813,859 3'UTR	S_Shore	TFAP2B	0.522	-0.004	0.027	0.041
cg01143579	black	17	1,956,958 TSS1500	Island	HIC1	0.522	0.002	0.070	0.664
cg15156059	black	2	45,660,831 Body	OpenSea	SRBD1	0.522	0.006	0.199	0.538
cg26702958	black	10	102,996,254 Body	Island	FLJ41350	0.522	-0.002	0.041	0.718
cg09225321	black	17	72,920,278 TSS200	Island	OTOP2	0.522	-0.007	0.073	0.109
cg22070243	black	2	172,378,774 TSS200	N_Shore	CYBRD1	0.522	0.000	0.026	0.985
cg02774935	black	22	22,090,816 TSS1500	Island	YPEL1	0.521	0.006	0.535	0.655
cg10002133	black	15	88,798,448 Body	N_Shore	NTRK3	0.521	0.002	0.029	0.216
cg05719612	black	10	18,629,545 Body	OpenSea	CACNB2	0.521	-0.001	0.024	0.710
cg01405445	black	19	36,246,406 3'UTR	Island	HSPB6	0.521	0.000	0.037	0.852
cg10317717	black	7	48,129,904 5'UTR	Island	UPP1	0.521	0.001	0.027	0.592
cg11245116	black	11	64,948,311 TSS1500	N_Shore	CAPN1	0.521	-0.001	0.063	0.650
cg02812662	black	16	2,245,987 Body	Island	CASKIN1	0.521	-0.002	0.022	0.051
cg07390924	black	1	901,725 TSS200	Island	PLEKHN1	0.521	-0.002	0.212	0.794
cg25188032	black	13	84,455,028 1stExon	S_Shore	SLITRK1	0.521	0.000	0.133	0.963
cg01559302	black	19	48,246,266 3'UTR	N_Shore	EHD2	0.521	-0.005	0.077	0.526
cg19736608	black	4	47,840,050 5'UTR	S_Shore	CORIN	0.521	0.002	0.021	0.118
cg02940165	black	19	57,149,563	Island		0.521	0.000	0.023	0.970
cg15080361	black	2	134,841,337	OpenSea		0.521	-0.017	0.474	0.106
cg07738439	black	14	101,924,458	Island		0.521	-0.009	0.112	0.103
cg16585911	black	1	155,830,264 Body	Island	SYT11	0.521	-0.001	0.019	0.456
cg05937292	black	5	77,269,342	S_Shore		0.521	-0.002	0.026	0.139
cg08890824	black	16	66,958,786 Body	Island	RRAD	0.521	-0.002	0.035	0.216
cg10040922	black	8	124,778,506	N_Shore		0.521	-0.004	0.088	0.405
cg13783725	black	6	117,589,651 Body	N_Shore	VGLL2	0.521	-0.001	0.058	0.824
cg16624888	black	12	109,711,141	OpenSea		0.521	-0.004	0.037	0.168
cg01823544	black	7	119,912,693 TSS1500	N_Shore	KCND2	0.521	0.000	0.020	0.909
cg01727646	black	1	26,337,472	OpenSea		0.521	0.014	0.199	0.172
cg23318713	black	10	75,670,697 TSS200	Island	PLAU	0.521	0.000	0.020	0.721
cg08279075	black	16	54,318,772 Body	Island	IRX3	0.521	0.002	0.021	0.048
cg08038052	black	4	55,098,359 5'UTR	Island	PDGFRA	0.521	0.001	0.016	0.428
cg10771480	black	14	64,319,275 TSS1500	N_Shore	SYNE2	0.520	0.001	0.042	0.729
cg06980547	black	7	22,894,557	Island		0.520	0.000	0.015	0.798
cg26803725	black	1	38,916,929	OpenSea		0.520	0.003	0.501	0.762
cg06751366	black	16	50,280,723	S_Shore		0.520	0.004	0.115	0.545
cg05569328	black	6	32,044,384 Body	N_Shelf	TNXB	0.520	-0.001	0.171	0.856
cg10372188	black	11	117,748,169 TSS1500	S_Shore	FXVD6	0.520	-0.003	0.098	0.708
cg03244696	black	2	172,947,846	Island		0.520	0.000	0.020	0.903
cg17721910	black	19	12,997,021 Body	Island	KLF1	0.520	-0.002	0.075	0.618
cg25693302	black	18	55,862,678 5'UTR	Island	NEDD4L	0.520	-0.005	0.045	0.357
cg16359550	black	11	109,292,809 TSS200	N_Shore	C11orf87	0.520	-0.003	0.047	0.469
cg02090418	black	4	113,333,269 Body	Island	ALPK1	0.520	0.011	0.418	0.352
cg16752583	black	7	142,583,731 TSS1500	OpenSea	TRPV6	0.520	-0.014	0.284	0.073
cg04788957	black	10	105,438,008 Body	OpenSea	SH3PXD2A	0.520	0.000	0.111	0.964
cg02910913	black	17	72,968,277 Body	Island	C17orf28	0.520	-0.002	0.026	0.266
cg07442568	black	4	78,980,533 Body	S_Shore	FRAS1	0.520	-0.001	0.030	0.619
cg18476530	black	11	67,141,747 Body	S_Shore	LOC1001309	0.520	0.000	0.017	0.480
cg21019043	black	2	237,080,535	N_Shore		0.520	-0.002	0.024	0.009
cg07565472	black	2	219,848,258 Body	N_Shore	FEV	0.520	0.004	0.317	0.549
cg09214112	black	14	99,584,421	Island		0.520	-0.003	0.030	0.198

cg18316498	black	11	111,250,196	TSS200	OpenSea	POU2AF1	0.520	0.016	0.514	0.050
cg10668399	black	12	4,380,586		Island		0.520	0.000	0.024	0.897
cg16419706	black	3	141,596,184	Body	Island	ATP1B3	0.520	-0.001	0.034	0.644
cg20972917	black	7	151,330,066	Body	OpenSea	PRKAG2	0.520	-0.005	0.256	0.466
cg15032957	black	19	3,037,744	Body	S_Shore	TLE2	0.520	0.004	0.554	0.611
cg02457623	black	1	203,599,089	5'UTR	S_Shore	ATP2B4	0.520	0.000	0.032	0.830
cg01693350	black	11	32,452,187	Body	Island	WT1	0.520	0.018	0.244	0.317
cg01940964	black	7	128,471,600	Body	S_Shore	FLNC	0.520	-0.003	0.042	0.128
cg07173275	black	1	57,890,636	5'UTR	Island	DAB1	0.520	-0.001	0.023	0.523
cg20635409	black	12	103,359,273		Island		0.520	0.000	0.058	0.929
cg24421668	black	5	179,244,452	5'UTR	Island	SQSTM1	0.519	0.000	0.039	0.909
cg15043801	black	19	10,305,911	TSS200	S_Shore	DNMT1	0.519	0.000	0.011	0.999
cg21429551	black	7	30,635,762	Body	S_Shore	GARS	0.519	0.003	0.052	0.384
cg02126435	black	16	74,701,421	TSS1500	S_Shore	RFWD3	0.519	0.001	0.023	0.721
cg22997177	black	12	54,070,527	TSS1500	N_Shore	ATP5G2	0.519	-0.007	0.288	0.509
cg09486778	black	2	223,169,609	3'UTR	N_Shore	CCDC140	0.519	-0.002	0.033	0.247
cg07660838	black	17	32,909,375	Body	S_Shore	TMEM132E	0.519	0.001	0.042	0.770
cg07631407	black	6	43,243,961	Body	Island	TTBK1	0.519	0.000	0.032	0.930
cg24592027	black	11	20,182,575	TSS1500	N_Shore	DBX1	0.519	0.002	0.029	0.283
cg02410887	black	8	56,791,798	TSS1500	N_Shore	LYN	0.519	0.002	0.026	0.306
cg19917989	black	6	14,925,093		OpenSea		0.519	0.000	0.049	0.953
cg03388025	black	16	89,894,329	TSS1500	Island	SPIRE2	0.519	-0.001	0.021	0.429
cg14410589	black	9	14,346,834		Island		0.519	0.009	0.059	0.231
cg27552599	black	20	37,590,471	TSS1500	N_Shore	DHX35	0.519	-0.007	0.059	0.195
cg12868583	black	22	44,320,504	Body	Island	PNPLA3	0.519	0.006	0.140	0.459
cg15244327	black	8	23,021,690	TSS200	S_Shore	TNFRSF10D	0.519	-0.002	0.159	0.885
cg00207352	black	3	48,470,181	5'UTR	N_Shore	PLXNB1	0.519	-0.002	0.019	0.097
cg10809165	black	12	14,909,556		OpenSea		0.519	-0.008	0.084	0.219
cg00314750	black	8	107,281,821	TSS1500	N_Shore	OXR1	0.519	-0.001	0.046	0.657
cg22930390	black	19	911,815	Body	Island	C19orf22	0.519	0.003	0.555	0.724
cg21783355	black	2	44,066,198	TSS1500	OpenSea	ABCG5	0.519	0.009	0.761	0.522
cg10781408	black	1	151,810,899	Body	Island	C2CD4D	0.519	-0.002	0.042	0.420
cg26458452	black	7	140,341,135		Island		0.519	0.000	0.264	0.938
cg12078155	black	6	27,259,121		Island		0.519	0.004	0.056	0.571
cg00536924	black	7	93,551,004	TSS200	OpenSea	GNG11	0.519	-0.008	0.063	0.038
cg17293936	black	3	185,911,519	Body	Island	DGKG	0.518	0.003	0.023	0.276
cg01070065	black	1	32,714,023	Body	Island	FAM167B	0.518	-0.002	0.066	0.512
cg17842562	black	2	122,335,472	Body	OpenSea	CLASP1	0.518	0.002	0.793	0.838
cg01965476	black	15	40,530,997	5'UTR	N_Shore	PAK6	0.518	-0.001	0.280	0.841
cg08072402	black	11	41,481,502		OpenSea		0.518	0.001	0.054	0.863
cg22731271	black	2	66,667,059	Body	OpenSea	MEIS1	0.518	-0.005	0.068	0.298
cg13872739	black	9	95,246,206	Body	OpenSea	CENPP	0.518	0.019	0.657	0.105
cg21146503	black	11	20,178,677	Body	Island	DBX1	0.518	-0.001	0.068	0.730
cg20586076	black	10	133,252,332		OpenSea		0.518	0.013	0.094	0.142
cg11117945	black	20	45,524,714	5'UTR	S_Shore	EYA2	0.518	0.004	0.086	0.582
cg23148467	black	5	174,150,813	TSS1500	N_Shore	MSX2	0.518	-0.003	0.054	0.514
cg08944893	black	2	105,461,870		S_Shore		0.518	0.000	0.017	0.729
cg24883265	black	1	5,917,845		OpenSea		0.518	0.010	0.275	0.339
cg25266895	black	7	4,921,975	5'UTR	N_Shore	RADIL	0.518	0.002	0.040	0.360
cg23367478	black	12	20,521,299	TSS1500	N_Shore	PDE3A	0.518	0.000	0.022	0.896
cg05285582	black	10	118,923,093		Island		0.518	-0.002	0.027	0.275
cg15233183	black	19	16,187,102	Body	Island	TPM4	0.518	0.001	0.027	0.497
cg09523819	black	16	216,757	3'UTR	S_Shore	HBM	0.518	-0.005	0.063	0.256
cg22565033	black	10	111,968,112	Body	Island	MXI1	0.518	-0.001	0.033	0.271
cg12239557	black	10	123,778,187	5'UTR	OpenSea	TACC2	0.518	0.013	0.251	0.205
cg03840504	black	3	122,296,369	TSS200	N_Shore	PARP15	0.518	-0.002	0.129	0.696
cg10652583	black	11	44,338,186		Island		0.518	-0.002	0.037	0.395
cg23861420	black	11	20,230,448		OpenSea		0.517	-0.005	0.046	0.064
cg04743945	black	7	86,273,058	TSS200	OpenSea	GRM3	0.517	0.000	0.020	0.638
cg18958126	black	13	100,547,367	3'UTR	Island	CLYBL	0.517	0.007	0.077	0.284
cg10379890	black	6	391,208	TSS1500	Island	IRF4	0.517	0.002	0.022	0.194
cg20907051	black	1	47,999,516		Island		0.517	0.000	0.034	0.935
cg17588455	black	6	33,048,485	Body	Island	HLA-DPB1	0.517	-0.002	0.059	0.760
cg06245229	black	8	21,999,703	TSS1500	S_Shore	REEP4	0.517	0.001	0.055	0.821
cg10720723	black	7	157,476,443	Body	N_Shore	PTPRN2	0.517	0.002	0.061	0.679
cg22601577	black	19	14,202,476	TSS1500	OpenSea	SAMD1	0.517	0.000	0.019	0.671
cg16501440	black	17	66,032,328	5'UTR	S_Shore	KPNA2	0.517	0.001	0.033	0.410



cg17535961	black	5	171,094,783	OpenSea		0.517	-0.010	0.412	0.323
cg03074026	black	8	65,281,424	N_Shore		0.517	0.001	0.049	0.832
cg18074297	black	21	36,041,612 TSS200	Island	CLIC6	0.517	0.000	0.016	0.833
cg24163210	black	1	1,713,944	Island		0.517	0.001	0.060	0.876
cg22272277	black	7	4,837,937	OpenSea		0.517	0.000	0.036	0.975
cg26295921	black	7	157,476,575 Body	N_Shore	PTPRN2	0.517	-0.001	0.052	0.800
cg26670674	black	14	104,686,088	N_Shore		0.517	0.002	0.360	0.871
cg00058708	black	2	24,162,568 TSS1500	N_Shore	UBXN2A	0.517	0.001	0.036	0.607
cg06115614	black	3	128,205,143 Body	N_Shore	GATA2	0.517	0.012	0.256	0.342
cg23100626	black	2	96,804,247 TSS200	OpenSea	ASTL	0.517	-0.001	0.117	0.904
cg11248491	black	7	6,312,525 TSS1500	Island	CYTH3	0.517	-0.001	0.024	0.405
cg16802592	black	15	37,179,603 TSS1500	Island	LOC145845	0.517	0.000	0.027	0.848
cg10230427	black	6	57,038,227 Body	S_Shore	BAG2	0.517	0.000	0.041	0.966
cg01423335	black	13	93,881,110 Body	S_Shore	GPC6	0.516	0.000	0.015	0.673
cg21871952	black	1	111,814,146	S_Shore		0.516	-0.003	0.163	0.810
cg26848718	black	11	32,454,975 Body	Island	WT1	0.516	0.000	0.020	0.737
cg20627099	black	1	11,822,296	Island		0.516	-0.003	0.035	0.090
cg16511229	black	7	130,126,153 1stExon	Island	MEST	0.516	-0.016	0.291	0.338
cg24437070	black	20	62,417,813 Body	N_Shelf	ZBTB46	0.516	0.002	0.040	0.231
cg03595161	black	7	1,127,767 5'UTR	S_Shore	GPER	0.516	0.000	0.037	0.947
cg19423014	black	18	59,560,091 1stExon	N_Shore	RNF152	0.516	0.000	0.014	0.976
cg01834776	black	14	24,898,905 TSS1500	Island	KHNYN	0.516	-0.003	0.239	0.722
cg03317517	black	19	20,188,803 1stExon	OpenSea	ZNF90	0.516	-0.001	0.039	0.548
cg09630437	black	19	2,740,301 TSS1500	Island	SLC39A3	0.516	-0.001	0.038	0.488
cg10146935	black	1	871,308 Body	Island	SAMD11	0.516	0.000	0.051	0.893
cg25277950	black	19	46,142,914 TSS1500	N_Shore	MIR330	0.516	0.003	0.189	0.658
cg16299576	black	8	10,872,819 Body	N_Shore	XKR6	0.516	0.000	0.024	0.754
cg00475193	black	11	64,879,185 TSS200	Island	TM7SF2	0.516	0.005	0.037	0.066
cg08098868	black	17	54,253,244 Body	OpenSea	ANKFN1	0.516	-0.002	0.029	0.242
cg17011360	black	13	25,620,833	N_Shore		0.516	0.005	0.128	0.502
cg22646710	black	1	114,696,798 TSS1500	N_Shore	SYT6	0.516	0.000	0.015	0.696
cg08814849	black	19	10,624,868 Body	Island	S1PR5	0.516	-0.005	0.055	0.266
cg03530364	black	3	68,056,706 Body	N_Shore	FAM19A1	0.516	-0.006	0.102	0.321
cg21830368	black	17	75,373,327 5'UTR	S_Shelf	9-Sep	0.516	0.003	0.227	0.695
cg20525088	black	13	112,859,484	OpenSea		0.516	-0.001	0.032	0.608
cg01752462	black	2	242,156,822 Body	N_Shore	ANO7	0.516	0.002	0.238	0.810
cg00998451	black	13	100,608,123	Island		0.516	-0.004	0.050	0.103
cg21310336	black	6	28,973,446 TSS1500	OpenSea	ZNF311	0.515	0.016	0.059	0.021
cg15446391	black	11	32,452,370 Body	Island	WT1	0.515	0.018	0.275	0.206
cg15918732	black	11	57,364,939 TSS1500	OpenSea	SERPING1	0.515	-0.005	0.258	0.693
cg02388378	black	16	54,968,727	N_Shore		0.515	0.000	0.033	0.901
cg02604503	black	5	134,872,315 TSS1500	S_Shore	NEUROG1	0.515	0.005	0.046	0.170
cg16777618	black	11	128,694,184	Island		0.515	0.002	0.119	0.853
cg18049638	black	6	28,733,695	OpenSea		0.515	-0.002	0.049	0.520
cg11718030	black	11	27,744,363 TSS1500	Island	BDNF	0.515	-0.001	0.031	0.553
cg22861561	black	12	48,397,730 Body	N_Shore	COL2A1	0.515	-0.001	0.024	0.430
cg13564742	black	9	100,614,879 TSS1500	N_Shore	FOXE1	0.515	-0.002	0.035	0.426
cg07250162	black	17	46,832,247	Island		0.515	0.003	0.040	0.168
cg18975156	black	1	43,643,537 Body	OpenSea	WDR65	0.515	0.006	0.067	0.317
cg03648020	black	1	931,327	N_Shelf		0.515	0.002	0.141	0.745
cg06829299	black	8	65,286,632	Island		0.515	-0.001	0.037	0.412
cg12309653	black	15	37,170,454 Body	N_Shelf	LOC145845	0.515	0.020	0.254	0.153
cg02022733	black	5	140,864,578 Body	Island	PCDHGA4	0.515	-0.005	0.054	0.204
cg02707152	black	11	64,980,819 TSS1500	OpenSea	SLC22A20	0.515	-0.001	0.132	0.799
cg22326553	black	12	124,155,458 TSS1500	N_Shore	TCTN2	0.515	0.001	0.033	0.730
cg18651300	black	5	153,568,897 TSS1500	N_Shore	GALNT10	0.514	-0.003	0.134	0.438
cg07954885	black	6	32,935,263 TSS1500	N_Shore	BRD2	0.514	-0.003	0.039	0.158
cg11869862	black	15	37,399,798	N_Shelf		0.514	-0.006	0.506	0.677
cg05454501	black	5	76,373,391 Body	Island	ZBED3	0.514	0.006	0.038	0.326
cg16655791	black	6	106,429,610	Island		0.514	-0.002	0.031	0.480
cg12461677	black	19	58,862,089 TSS1500	Island	NCRNA00181	0.514	-0.030	0.147	0.006
cg17486860	black	11	32,454,840 Body	N_Shore	WT1	0.514	0.006	0.051	0.289
cg12033214	black	22	27,017,910 TSS200	OpenSea	CRYBA4	0.514	0.005	0.565	0.413
cg10242602	black	4	188,916,875 TSS200	Island	ZFP42	0.514	0.004	0.055	0.599
cg07016493	black	6	27,265,786	OpenSea		0.514	0.002	0.023	0.374
cg23685155	black	12	54,396,440 Body	S_Shore	HOXC9	0.514	0.008	0.082	0.516
cg05429319	black	11	131,559,158 Body	N_Shore	NTM	0.514	0.017	0.587	0.019

cg21931656	black	11	72,462,963	5'UTR	N_Shore	ARAP1	0.514	-0.002	0.066	0.618
cg11060907	black	12	116,971,025	TSS1500	OpenSea	NCRNA00173	0.514	0.001	0.027	0.749
cg10269365	black	2	223,166,989	5'UTR	N_Shore	CCDC140	0.514	0.000	0.030	0.831
cg16765226	black	16	87,905,302		S_Shore		0.514	0.002	0.037	0.366
cg10297473	black	16	51,184,152	Body	Island	SALL1	0.514	-0.001	0.021	0.696
cg11071926	black	1	116,380,316	3'UTR	N_Shore	NHLH2	0.514	0.000	0.026	0.925
cg09819371	black	8	131,456,044		Island		0.514	0.002	0.044	0.511
cg11836829	black	1	212,605,702	TSS1500	N_Shore	NENF	0.514	0.002	0.335	0.779
cg26394257	black	8	38,964,993	TSS200	N_Shore	ADAM32	0.514	-0.029	0.227	0.102
cg20976694	black	18	55,714,052	Body	S_Shore	NEDD4L	0.514	-0.009	0.119	0.319
cg17462074	black	12	14,133,168	TSS200	N_Shore	GRIN2B	0.514	0.000	0.029	0.748
cg14673247	black	3	59,136,006		OpenSea		0.514	-0.002	0.218	0.852
cg01879473	black	2	223,160,102	Body	Island	PAX3	0.514	-0.001	0.025	0.548
cg12593021	black	7	2,208,492	Body	OpenSea	MAD1L1	0.514	0.004	0.951	0.245
cg00988592	black	7	84,904,903		OpenSea		0.513	0.001	0.902	0.918
cg21951648	black	17	53,784,724		OpenSea		0.513	0.002	0.103	0.791
cg16688437	black	2	208,632,990	Body	Island	FZD5	0.513	0.001	0.031	0.737
cg23112192	black	17	27,893,542	1stExon	Island	ABHD15	0.513	-0.001	0.083	0.855
cg00901051	black	1	208,132,490		Island		0.513	-0.006	0.052	0.174
cg07513657	black	16	86,353,539		OpenSea		0.513	-0.006	0.225	0.618
cg10948790	black	5	175,200,015		N_Shore		0.513	0.005	0.218	0.561
cg18185665	black	17	16,257,111	TSS1500	Island	CENPV	0.513	-0.004	0.143	0.378
cg24549153	black	18	37,421,319		N_Shore		0.513	-0.008	0.080	0.144
cg00364357	black	15	64,443,650	TSS1500	Island	SNX22	0.513	0.000	0.032	0.810
cg06284231	black	14	38,724,255	1stExon	Island	CLEC14A	0.513	-0.005	0.194	0.681
cg09755872	black	7	23,245,557		Island		0.513	0.006	0.229	0.659
cg00019495	black	4	57,547,525	5'UTR	OpenSea	HOPX	0.512	0.007	0.075	0.275
cg23258940	black	19	55,995,851	TSS1500	Island	NAT14	0.512	0.006	0.366	0.471
cg19909239	black	4	111,555,503	5'UTR	Island	PITX2	0.512	-0.003	0.074	0.692
cg13823791	black	17	17,184,990	TSS1500	S_Shore	COPS3	0.512	0.000	0.020	0.777
cg05080371	black	16	88,387,274		OpenSea		0.512	-0.009	0.612	0.093
cg20504791	black	20	22,562,478	3'UTR	N_Shore	FOXA2	0.512	0.000	0.031	0.939
cg23072711	black	5	167,474,670	Body	OpenSea	ODZ2	0.512	0.003	0.345	0.710
cg25186143	black	17	635,064	TSS1500	N_Shore	FAM57A	0.512	0.001	0.067	0.775
cg18959007	black	18	2,847,623	Body	Island	EMILIN2	0.512	0.000	0.049	0.974
cg18008766	black	2	38,978,896	TSS1500	S_Shore	SFRS7	0.512	-0.001	0.037	0.362
cg05766489	black	16	50,875,307		Island		0.512	-0.005	0.105	0.562
cg02723856	black	15	53,086,726		Island		0.512	0.000	0.025	0.902
cg20469139	black	17	29,297,458	TSS1500	N_Shore	RNF135	0.512	-0.001	0.047	0.855
cg10491648	black	2	74,648,490	TSS1500	N_Shore	WDR54	0.512	-0.004	0.051	0.368
cg18318560	black	5	131,563,015	TSS200	N_Shore	P4HA2	0.512	0.003	0.036	0.067
cg03427330	black	13	111,465,028		Island		0.512	0.003	0.124	0.815
cg24192569	black	7	4,184,151	Body	OpenSea	SDK1	0.512	-0.004	0.097	0.684
cg04421271	black	11	87,908,938	TSS1500	S_Shore	RAB38	0.512	0.000	0.048	0.885
cg09337254	black	2	85,640,762		N_Shore		0.512	-0.002	0.023	0.176
cg06624951	black	12	133,055,588		N_Shore		0.512	-0.009	0.748	0.212
cg03739573	black	16	77,469,540	TSS1500	S_Shore	ADAMTS18	0.512	-0.005	0.078	0.405
cg07546433	black	8	102,063,914		OpenSea		0.512	0.005	0.081	0.489
cg25596297	black	2	223,162,875	Body	N_Shore	PAX3	0.512	0.000	0.022	0.845
cg10232654	black	17	46,689,553	TSS1500	N_Shore	HOXB7	0.512	0.000	0.028	0.701
cg04678623	black	5	174,862,224		OpenSea		0.512	-0.002	0.023	0.139
cg01797527	black	20	6,749,480	5'UTR	Island	BMP2	0.512	0.000	0.013	0.590
cg22574569	black	12	106,530,317	Body	N_Shore	NUAK1	0.512	0.000	0.020	0.832
cg01602479	black	22	41,593,266		Island		0.512	0.001	0.023	0.668
cg02063488	black	2	73,496,909	Body	Island	FBXO41	0.511	0.004	0.127	0.502
cg06895295	black	6	39,760,647	TSS200	S_Shore	DAAM2	0.511	0.002	0.058	0.512
cg17052926	black	7	915,758	TSS1500	Island	C7orf20	0.511	0.000	0.058	0.942
cg27460943	black	4	149,362,809	5'UTR	N_Shore	NR3C2	0.511	0.001	0.048	0.747
cg13826452	black	6	26,758,395		OpenSea		0.511	0.004	0.037	0.285
cg18833788	black	19	48,994,043	Body	N_Shelf	LMTK3	0.511	0.013	0.469	0.356
cg02554345	black	10	50,604,569		Island		0.511	0.003	0.036	0.234
cg26550710	black	8	97,167,878	Body	N_Shore	GDF6	0.511	0.006	0.156	0.511
cg15086113	black	19	1,766,358	Body	Island	ONECUT3	0.511	0.003	0.035	0.081
cg11237406	black	17	4,649,333	3'UTR	OpenSea	ZMYND15	0.511	0.000	0.038	0.838
cg11869510	black	17	65,990,431	TSS1500	S_Shore	C17orf58	0.511	-0.001	0.026	0.410
cg00011856	black	2	217,560,946	TSS1500	S_Shore	IGFBP5	0.511	0.019	0.739	0.207
cg17263206	black	5	154,071,247		S_Shore		0.511	0.001	0.056	0.862

cg13155823	black	8	80,993,721	Body	OpenSea	TPD52	0.511	-0.008	0.827	0.396
cg12312265	black	10	72,546,531	TSS1500	OpenSea	C10orf27	0.511	-0.005	0.871	0.342
cg06341195	black	8	145,751,956	5'UTR	Island	LRRC24	0.510	0.001	0.325	0.912
cg02871995	black	11	111,410,960	TSS1500	Island	LAYN	0.510	0.005	0.059	0.214
cg27493010	black	12	126,675,667		Island		0.510	0.001	0.023	0.713
cg16264722	black	12	108,647,479		OpenSea		0.510	0.000	0.033	0.932
cg09659734	black	16	56,227,065	Body	S_Shore	DKFZP434H1	0.510	0.000	0.025	0.846
cg07201717	black	1	25,031,947		OpenSea		0.510	0.008	0.363	0.396
cg01396872	black	2	71,294,879	TSS1500	N_Shore	NAGK	0.510	-0.001	0.030	0.769
cg17328407	black	5	157,288,521		S_Shelf		0.510	-0.001	0.408	0.912
cg10084383	black	12	118,404,706	Body	N_Shore	KSR2	0.510	0.013	0.411	0.016
cg14165978	black	1	40,156,757	5'UTR	N_Shore	HPCAL4	0.510	0.010	0.063	0.081
cg02640572	black	16	30,075,788	5'UTR	N_Shore	ALDOA	0.510	0.004	0.336	0.532
cg21375869	black	19	11,908,712	TSS1500	N_Shore	ZNF491	0.510	-0.002	0.144	0.724
cg23877323	black	15	90,895,989	5'UTR	Island	ZNF774	0.510	-0.001	0.026	0.323
cg09545730	black	11	67,071,885	Body	S_Shore	SSH3	0.510	0.002	0.337	0.785
cg10580056	black	15	35,086,928	Body	OpenSea	ACTC1	0.510	-0.018	0.278	0.084
cg05418150	black	16	22,018,727	TSS1500	N_Shore	C16orf52	0.509	-0.001	0.042	0.604
cg21375869	black	15	37,170,554	Body	N_Shore	LOC145845	0.509	0.006	0.053	0.272
cg02186542	black	16	77,469,167	TSS200	S_Shore	ADAMTS18	0.509	0.001	0.027	0.397
cg25213107	black	11	134,282,864	TSS1500	Island	B3GAT1	0.509	-0.003	0.031	0.240
cg17835961	black	2	176,936,808		Island		0.509	0.001	0.136	0.838
cg15053022	black	19	36,048,484	Body	N_Shore	ATP4A	0.509	0.001	0.025	0.387
cg23816247	black	8	104,153,827	Body	S_Shore	BAALC	0.509	0.005	0.143	0.480
cg13990559	black	17	26,904,150	TSS200	OpenSea	ALDOC	0.509	-0.003	0.081	0.344
cg20956278	black	22	38,478,457	Body	Island	SLC16A8	0.509	-0.002	0.025	0.188
cg14076239	black	13	53,712,850		OpenSea		0.509	0.005	0.174	0.556
cg04482712	black	17	72,757,293	Body	OpenSea	SLC9A3R1	0.509	0.001	0.298	0.853
cg17495087	black	8	96,085,689		Island		0.509	0.007	0.059	0.479
cg18882486	black	12	115,461,557		OpenSea		0.509	0.001	0.374	0.949
cg16603896	black	16	15,188,395	TSS1500	S_Shore	RRN3	0.509	-0.001	0.038	0.578
cg15745921	black	1	231,003,632	Body	Island	C1orf198	0.509	0.000	0.018	0.681
cg18358723	black	5	87,955,618	Body	N_Shore	LOC645323	0.509	-0.001	0.022	0.713
cg21321248	black	7	150,674,972	1stExon	Island	KCNH2	0.509	0.001	0.033	0.740
cg22757101	black	19	3,607,136	TSS1500	Island	TBXA2R	0.509	-0.001	0.046	0.639
cg05892030	black	14	51,431,710		OpenSea		0.509	-0.002	0.030	0.359
cg00881585	black	4	41,753,568		N_Shore		0.509	-0.001	0.024	0.400
cg16932560	black	6	31,589,994	TSS1500	S_Shore	SNORA38	0.509	0.001	0.052	0.810
cg26153364	black	1	72,749,064	TSS1500	Island	NEGR1	0.509	0.001	0.019	0.404
cg04352803	black	2	36,824,275	Body	N_Shore	FEZ2	0.509	0.018	0.822	0.109
cg12928471	black	20	61,492,204	Body	Island	TCFL5	0.509	0.000	0.060	0.949
cg09601629	black	19	15,122,224	Body	S_Shore	CCDC105	0.508	0.000	0.054	0.945
cg06947430	black	19	51,228,937	3'UTR	S_Shore	CLEC11A	0.508	0.001	0.055	0.793
cg10528576	black	14	101,192,913	TSS1500	Island	DLK1	0.508	-0.020	0.146	0.106
cg04407762	black	4	113,442,791		N_Shore		0.508	0.000	0.015	0.813
cg01160557	black	20	44,651,777	Body	S_Shore	SLC12A5	0.508	-0.001	0.063	0.745
cg14753599	black	10	88,728,361	1stExon	Island	C10orf116	0.508	-0.004	0.195	0.643
cg04729913	black	10	8,094,482	Body	Island	FLJ45983	0.508	0.007	0.127	0.322
cg16423028	black	8	63,160,417	TSS1500	N_Shore	NKAIN3	0.508	0.001	0.027	0.669
cg21172377	black	7	27,213,893	Body	Island	HOXA10	0.508	0.000	0.067	0.971
cg18835048	black	5	10,249,761	Body	Island	FAM173B	0.508	0.001	0.033	0.750
cg18090004	black	7	1,283,896		Island		0.508	0.000	0.035	0.875
cg05025046	black	2	119,013,708		OpenSea		0.508	0.006	0.245	0.248
cg02670686	black	16	57,125,674	TSS1500	N_Shore	CPNE2	0.508	0.000	0.020	0.956
cg09613281	black	2	9,227,279		OpenSea		0.508	-0.004	0.093	0.565
cg01123783	black	7	147,591,551	TSS1500	OpenSea	MIR548F3	0.508	0.011	0.396	0.444
cg01347529	black	1	92,495,342	TSS200	N_Shore	EPHX4	0.508	-0.001	0.029	0.551
cg04122873	black	6	28,956,226		Island		0.508	0.006	0.091	0.462
cg09697510	black	7	100,737,984		OpenSea		0.508	0.018	0.405	0.139
cg16805117	black	6	28,831,492		N_Shore		0.508	0.006	0.045	0.144
cg01508380	black	14	23,305,585	TSS1500	N_Shore	MMP14	0.508	0.000	0.018	0.880
cg06937939	black	10	6,128,602		N_Shelf		0.508	-0.007	0.189	0.478
cg04257984	black	2	171,568,984	Body	N_Shore	LOC440925	0.508	-0.001	0.024	0.359
cg00683332	black	16	51,188,697		Island		0.508	-0.002	0.036	0.200
cg03696599	black	2	124,782,261	TSS1500	Island	CNTNAP5	0.508	-0.002	0.024	0.167
cg25753010	black	13	32,889,434	TSS200	N_Shore	BRCA2	0.508	0.001	0.027	0.701
cg06158650	black	1	119,522,637	5'UTR	Island	TBX15	0.508	0.001	0.019	0.577

cg15079315	black	20	4,981,089	5'UTR	OpenSea	SLC23A2	0.508	-0.002	0.058	0.478
cg20970369	black	1	111,744,108	TSS1500	N_Shelf	DENND2D	0.508	-0.004	0.385	0.564
cg00042568	black	3	14,987,939	TSS1500	N_Shore	NR2C2	0.508	0.000	0.021	0.870
cg25856383	black	2	38,303,219	1stExon	Island	CYP1B1	0.507	0.001	0.020	0.238
cg06221449	black	1	29,102,029		Island		0.507	0.000	0.340	0.989
cg02775129	black	4	119,771,670		OpenSea		0.507	0.015	0.092	0.124
cg10586619	black	4	6,989,536	Body	S_Shore	TBC1D14	0.507	-0.001	0.024	0.300
cg03617487	black	15	43,803,877	TSS1500	S_Shore	TP53BP1	0.507	-0.001	0.034	0.562
cg09753013	black	13	34,185,311		OpenSea		0.507	0.005	0.436	0.478
cg20993403	black	20	34,700,329	TSS200	OpenSea	EPB41L1	0.507	0.004	0.377	0.474
cg23244095	black	1	1,476,269	TSS1500	Island	C1orf70	0.507	-0.002	0.144	0.761
cg18632712	black	18	19,748,135	TSS1500	Island	GATA6	0.507	0.000	0.024	0.879
cg03717588	black	11	56,948,018	TSS1500	Island	LRRC55	0.507	0.008	0.056	0.047
cg13486820	black	1	91,182,288	1stExon	Island	BARHL2	0.507	-0.003	0.027	0.113
cg13640362	black	3	193,964,970		OpenSea		0.507	0.002	0.341	0.815
cg04043816	black	12	57,870,181	Body	Island	ARHGAP9	0.507	0.000	0.064	0.990
cg13190306	black	11	18,415,923	TSS200	Island	LDHA	0.507	0.001	0.036	0.484
cg04787675	black	12	104,683,308	5'UTR	S_Shore	TXNRD1	0.507	0.004	0.136	0.604
cg00552704	black	6	32,121,420	TSS1500	N_Shore	PPT2	0.507	-0.001	0.017	0.573
cg14618996	black	8	38,964,944	TSS200	N_Shore	ADAM32	0.507	-0.016	0.103	0.102
cg12385599	black	7	56,184,153	TSS200	Island	LOC389493	0.507	0.008	0.035	0.161
cg04058639	black	4	169,930,757	Body	N_Shore	CBR4	0.507	0.000	0.025	0.696
cg27351358	black	11	27,743,258	TSS1500	N_Shore	BDNF	0.507	0.000	0.019	0.693
cg05662500	black	3	32,147,877	TSS1500	Island	GPD1L	0.507	0.001	0.064	0.747
cg20162696	black	8	102,167,694		OpenSea		0.507	0.010	0.142	0.029
cg13261825	black	10	98,939,742	Body	OpenSea	SLIT1	0.507	0.001	0.019	0.273
cg17920479	black	20	44,650,246	TSS200	N_Shore	SLC12A5	0.506	0.001	0.057	0.836
cg08924430	black	4	106,067,052	TSS1500	N_Shore	TET2	0.506	0.000	0.052	0.971
cg09754272	black	1	156,399,638	TSS1500	OpenSea	C1orf61	0.506	-0.001	0.021	0.440
cg14963928	black	1	40,392,088		OpenSea		0.506	0.004	0.454	0.860
cg00205756	black	16	7,762,118	3'UTR	OpenSea	A2BP1	0.506	-0.001	0.499	0.908
cg10495754	black	17	27,039,058	TSS200	S_Shore	PROCA1	0.506	-0.001	0.034	0.509
cg07704554	black	17	72,931,736	TSS200	Island	OTOP3	0.506	-0.003	0.114	0.352
cg01091951	black	5	42,993,450		N_Shore		0.506	-0.002	0.026	0.412
cg15068079	black	5	180,479,586	Body	Island	BTNL9	0.506	0.001	0.068	0.946
cg26678970	black	13	79,171,469		S_Shore		0.506	0.002	0.028	0.168
cg08332908	black	17	38,465,326	TSS200	OpenSea	RARA	0.506	0.000	0.032	0.911
cg15626665	black	1	33,366,803	Body	Island	TMEM54	0.506	0.002	0.041	0.357
cg09885735	black	15	60,297,747	Body	Island	FOXB1	0.506	0.002	0.049	0.750
cg16409650	black	13	96,744,161	Body	Island	HS6ST3	0.506	-0.001	0.023	0.354
cg27228559	black	10	119,806,499	Body	Island	CASC2	0.506	0.000	0.023	0.785
cg23305678	black	19	45,932,328		S_Shore		0.506	0.000	0.092	0.995
cg25896734	black	7	105,221,826	Body	N_Shore	EFCAB10	0.506	-0.007	0.042	0.009
cg16051027	black	20	32,320,358	Body	Island	ZNF341	0.506	-0.002	0.046	0.421
cg07581365	black	17	77,770,444	Body	N_Shore	CBX8	0.506	-0.001	0.036	0.706
cg06089512	black	4	147,867,158	TSS200	Island	TTC29	0.506	0.001	0.021	0.552
cg07070728	black	3	141,399,954		OpenSea		0.506	-0.014	0.156	0.102
cg04415434	black	3	126,423,069	TSS200	Island	CHCHD6	0.505	0.000	0.016	0.882
cg08634318	black	3	13,323,642		Island		0.505	-0.001	0.032	0.578
cg05171584	black	6	152,128,535	TSS1500	N_Shore	ESR1	0.505	-0.009	0.062	0.159
cg07631919	black	14	94,493,296	Body	Island	OTUB2	0.505	-0.004	0.026	0.011
cg02799448	black	6	137,817,008	TSS1500	Island	OLIG3	0.505	-0.001	0.023	0.494
cg00590761	black	1	55,008,319		Island		0.505	-0.001	0.024	0.737
cg11696922	black	8	20,161,053		Island		0.505	0.001	0.025	0.208
cg14014720	black	9	90,113,998	Body	S_Shore	DAPK1	0.505	-0.001	0.024	0.455
cg16699385	black	6	138,427,309	Body	N_Shore	PERP	0.505	0.002	0.104	0.772
cg07327299	black	17	37,896,063	5'UTR	OpenSea	GRB7	0.505	0.003	0.049	0.348
cg09099868	black	10	22,622,793		N_Shore		0.505	-0.001	0.019	0.335
cg23688817	black	7	87,105,293	TSS1500	Island	ABCB4	0.505	0.000	0.020	0.688
cg27525626	black	3	61,726,357	Body	OpenSea	PTPRG	0.505	0.010	0.781	0.355
cg25314902	black	5	87,971,446	Body	Island	LOC645323	0.505	-0.001	0.027	0.353
cg16045566	black	19	41,769,634	TSS1500	N_Shore	HNRNPUL1	0.505	0.000	0.018	0.964
cg16340618	black	18	55,104,628	Body	Island	ONECUT2	0.505	-0.004	0.031	0.056
cg02629070	black	6	41,394,156		N_Shore		0.505	0.000	0.275	0.981
cg22824998	black	19	46,974,972	TSS200	Island	PNMAL1	0.505	-0.001	0.020	0.461
cg25975485	black	12	54,446,537	5'UTR	N_Shore	HOXC4	0.505	-0.011	0.126	0.161
cg26153054	black	2	132,152,814		Island		0.505	0.001	0.053	0.885

cg02716792	black	16	81,480,551	Body	S_Shore	CMIP	0.505	0.005	0.071	0.113
cg22111078	black	5	172,655,925		Island		0.505	0.002	0.022	0.457
cg14464509	black	7	1,265,378		Island		0.505	0.000	0.017	0.748
cg04840356	black	2	239,755,585	TSS1500	Island	TWIST2	0.505	0.006	0.074	0.207
cg00611495	black	16	1,120,275	Body	Island	LOC146336	0.505	-0.009	0.091	0.110
cg12335708	black	2	162,931,003	1stExon	S_Shore	DPP4	0.505	-0.001	0.141	0.814
cg00717218	black	14	52,781,800	1stExon	Island	PTGER2	0.505	0.003	0.053	0.329
cg22532843	black	4	180,978,836		N_Shore		0.504	-0.001	0.028	0.603
cg20764358	black	17	800,100	Body	OpenSea	NXN	0.504	-0.009	0.455	0.526
cg21473741	black	7	138,436,009	Body	OpenSea	ATP6V0A4	0.504	-0.025	0.210	0.102
cg15268244	black	15	77,196,840		N_Shore		0.504	-0.002	0.349	0.854
cg08368654	black	6	1,378,868		Island		0.504	0.000	0.019	0.785
cg17634781	black	4	186,508,880	Body	OpenSea	SORBS2	0.504	0.003	0.105	0.810
cg25923207	black	11	62,192,276		OpenSea		0.504	-0.005	0.396	0.681
cg24879782	black	2	19,561,482		Island		0.504	-0.027	0.086	0.204
cg02002551	black	8	24,772,878	5'UTR	S_Shore	NEFM	0.504	0.001	0.026	0.643
cg09497644	black	15	54,051,747	5'UTR	Island	WDR72	0.504	0.000	0.066	0.914
cg05039548	black	1	91,190,366		N_Shore		0.504	-0.003	0.033	0.334
cg22284422	black	18	74,240,476	TSS200	OpenSea	LOC284276	0.504	0.016	0.147	0.126
cg06657852	black	16	86,786,582		OpenSea		0.504	0.010	0.897	0.119
cg04792270	black	1	211,872,162		OpenSea		0.504	0.003	0.098	0.545
cg07716052	black	11	32,454,748	Body	N_Shore	WT1	0.504	0.011	0.098	0.285
cg09975867	black	1	18,958,324	Body	Island	PAX7	0.504	0.001	0.042	0.745
cg17587648	black	3	173,115,905	TSS1500	S_Shore	NLGN1	0.504	0.001	0.016	0.500
cg18894552	black	14	53,478,112		OpenSea		0.504	0.013	0.458	0.313
cg15264255	black	8	99,306,718	TSS200	Island	NIPAL2	0.504	-0.001	0.027	0.185
cg19959917	black	10	44,878,373	Body	N_Shore	CXCL12	0.504	0.000	0.369	0.972
cg27208052	black	16	58,058,642	TSS1500	N_Shore	MMP15	0.504	-0.004	0.030	0.039
cg13675389	black	9	38,069,796	TSS1500	Island	SHB	0.504	0.000	0.031	0.799
cg23306832	black	11	116,968,354	Body	N_Shore	SIK3	0.504	0.000	0.027	0.696
cg09796146	black	16	33,937,240		N_Shore		0.504	0.002	0.484	0.866
cg06933965	black	12	108,732,994	1stExon	OpenSea	CMKLR1	0.504	0.006	0.078	0.253
cg12846656	black	5	72,683,866		OpenSea		0.504	-0.007	0.239	0.266
cg07628841	black	2	27,851,430	TSS200	OpenSea	GPN1	0.504	-0.006	0.446	0.348
cg04156607	black	19	47,923,653	TSS1500	N_Shore	MEIS3	0.503	-0.004	0.049	0.195
cg07573985	black	6	33,386,467	TSS1500	S_Shore	CUTA	0.503	-0.001	0.142	0.929
cg02820514	black	3	147,124,827	TSS1500	N_Shelf	ZIC4	0.503	0.000	0.049	0.939
cg14199762	black	9	127,266,395	5'UTR	Island	NR5A1	0.503	-0.003	0.134	0.584
cg23093090	black	10	104,574,429	3'UTR	OpenSea	C10orf26	0.503	0.008	0.599	0.564
cg23407670	black	14	75,518,217	5'UTR	Island	MLH3	0.503	0.004	0.032	0.090
cg22733133	black	7	155,251,925	Body	Island	EN2	0.503	-0.003	0.029	0.095
cg24611264	black	11	120,008,944	TSS200	S_Shore	TRIM29	0.503	-0.007	0.209	0.465
cg03877376	black	12	114,846,162	1stExon	Island	TBX5	0.503	-0.001	0.015	0.131
cg22879408	black	11	107,460,901	TSS1500	N_Shore	ELMOD1	0.503	-0.002	0.035	0.131
cg17908846	black	20	32,320,553	Body	Island	ZNF341	0.503	-0.001	0.200	0.862
cg06349174	black	11	3,877,476	5'UTR	S_Shore	STIM1	0.503	-0.003	0.083	0.506
cg23490887	black	6	117,584,596		Island		0.503	-0.002	0.029	0.616
cg09169673	black	11	17,373,160	TSS200	Island	DKFZp686O2	0.503	0.000	0.029	0.962
cg11762306	black	17	35,303,488		Island		0.503	0.001	0.058	0.837
cg18998543	black	7	2,769,865	3'UTR	OpenSea	GNA12	0.503	0.000	0.244	0.999
cg01906879	black	3	81,811,016	TSS200	S_Shore	GBE1	0.502	0.001	0.047	0.634
cg16622920	black	6	28,956,312		Island		0.502	0.013	0.250	0.221
cg01817364	black	5	43,037,411		Island		0.502	-0.003	0.085	0.629
cg01280841	black	7	100,181,701	Body	N_Shore	LRCH4	0.502	0.005	0.520	0.523
cg19307180	black	13	42,803,600	3'UTR	OpenSea	DGKH	0.502	-0.004	0.265	0.683
cg08506869	black	8	48,572,447	Body	OpenSea	KIAA0146	0.502	0.000	0.022	0.978
cg14112958	black	15	57,599,225	Body	Island	LOC283663	0.502	-0.003	0.110	0.506
cg08081725	black	16	15,743,607	TSS1500	N_Shore	NDE1	0.502	-0.001	0.030	0.447
cg05346193	black	11	73,087,168	TSS1500	N_Shore	RELT	0.502	-0.002	0.082	0.471
cg18395499	black	1	149,194,510		OpenSea		0.502	-0.013	0.080	0.104
cg04329105	black	14	59,932,321	TSS1500	S_Shore	GPR135	0.502	0.001	0.116	0.876
cg08867707	black	8	1,923,115	5'UTR	S_Shore	KBTBD11	0.502	0.027	0.383	0.018
cg12946225	black	19	3,573,751	Body	Island	HMG20B	0.502	-0.001	0.028	0.549
cg13890649	black	9	79,629,843		N_Shore		0.502	0.002	0.047	0.482
cg24592790	black	8	27,450,047		Island		0.502	-0.016	0.080	0.147
cg01937803	black	14	103,605,307		Island		0.502	-0.001	0.052	0.836
cg08927016	black	7	156,796,145		Island		0.502	0.004	0.097	0.532

cg14965368	black	8	53,255,167	5'UTR	OpenSea	ST18	0.502	-0.009	0.119	0.379
cg05139788	black	6	50,690,647	Body	N_Shore	TFAP2D	0.502	0.003	0.043	0.467
cg26055210	black	11	62,310,752	5'UTR	N_Shelf	AHNAK	0.502	0.001	0.076	0.909
cg04508804	black	3	45,077,765		S_Shore		0.502	-0.002	0.018	0.045
cg23676302	black	2	177,025,859		N_Shore		0.502	0.005	0.038	0.094
cg27657333	black	12	30,975,867		Island		0.502	0.000	0.021	0.955
cg15081344	black	1	35,396,310		S_Shore		0.501	0.001	0.081	0.815
cg14020052	black	2	240,174,659	Body	OpenSea	HDAC4	0.501	-0.004	0.287	0.712
cg15182326	black	10	60,028,707	TSS200	Island	CISD1	0.501	-0.003	0.036	0.224
cg21770622	black	11	46,383,066	Body	OpenSea	DGKZ	0.501	-0.002	0.038	0.349
cg14298457	black	2	177,012,117		N_Shore		0.501	0.000	0.070	0.963
cg14827832	black	17	2,454,989		OpenSea		0.501	-0.002	0.065	0.743
cg04079301	black	3	147,106,635	3'UTR	N_Shore	ZIC4	0.501	-0.002	0.017	0.127
cg16557178	black	17	46,804,309	Body	Island	HOXB13	0.501	-0.009	0.099	0.100
cg26074349	black	12	50,426,727		Island		0.501	0.011	0.061	0.013
cg00110785	black	7	45,927,947	TSS200	N_Shore	IGFBP1	0.501	0.005	0.137	0.389
cg22524980	black	12	115,893,200		S_Shelf		0.501	-0.004	0.246	0.563
cg13338798	black	6	28,557,846		S_Shelf		0.501	0.004	0.050	0.586
cg06035815	black	6	26,189,597	TSS1500	S_Shore	HIST1H4D	0.501	-0.003	0.063	0.598
cg13603171	black	6	132,723,164	TSS1500	S_Shore	MOXD1	0.501	-0.004	0.103	0.654
cg07967679	black	12	52,626,814	TSS200	Island	KRT7	0.501	0.001	0.034	0.647
cg12583095	black	10	92,618,141	TSS1500	S_Shore	HTR7	0.501	0.001	0.019	0.194
cg19957162	black	2	208,631,259	3'UTR	N_Shore	FZD5	0.501	-0.009	0.207	0.213
cg00231728	black	4	113,442,709		N_Shore		0.501	0.001	0.026	0.705
cg05491854	black	6	24,910,562	5'UTR	N_Shore	FAM65B	0.500	0.007	0.094	0.188
cg17781313	black	6	50,817,374		N_Shore		0.500	-0.001	0.025	0.408
cg25399461	black	17	80,824,633	Body	N_Shelf	TBCD	0.500	0.008	0.460	0.295
cg00674004	black	10	101,280,750		N_Shore		0.500	0.024	0.320	0.002
cg04209727	black	18	30,350,441	Body	Island	KLHL14	0.500	-0.001	0.024	0.454
cg12148940	black	5	159,546,625	TSS200	S_Shore	PWWP2A	0.500	0.000	0.021	0.991
cg21884905	black	8	144,511,672	1stExon	Island	MAFA	0.500	-0.001	0.020	0.545
cg11333189	black	1	234,462,420		OpenSea		0.500	-0.001	0.063	0.883
cg16018474	black	1	158,119,501		Island		0.500	-0.001	0.026	0.657
cg06340987	black	11	20,182,695	TSS1500	N_Shore	DBX1	0.500	0.003	0.029	0.098
cg23132268	black	5	147,162,169	5'UTR	OpenSea	JAKMIP2	0.500	0.000	0.030	0.992
cg03786808	black	17	41,994,384	TSS200	OpenSea	C17orf88	0.500	0.019	0.715	0.112
cg03377980	black	7	1,363,035		Island		0.500	0.007	0.284	0.301
cg23143313	black	6	129,251,318	Body	Island	LAMA2	0.500	0.000	0.481	0.995
cg18877252	black	5	75,380,987	5'UTR	S_Shore	SV2C	0.500	0.002	0.058	0.694
cg17103155	black	4	4,840,199		OpenSea		0.500	0.009	0.152	0.299
cg11100933	black	5	1,174,646		S_Shelf		0.500	-0.006	0.208	0.487
cg06258780	black	5	7,851,407	TSS200	Island	C5orf49	0.500	-0.005	0.039	0.002
cg06557421	black	10	125,650,718	Body	N_Shore	CPXM2	0.500	-0.011	0.247	0.461
cg26398848	black	2	263,559	TSS1500	Island	ACP1	0.500	-0.004	0.051	0.226
cg03989273	black	5	133,468,435	Body	OpenSea	TCF7	0.500	-0.012	0.319	0.151
cg15310857	black	3	64,253,534		Island		0.500	0.003	0.113	0.739
cg06680201	black	11	71,824,165	TSS1500	S_Shore	C11orf51	0.500	0.000	0.019	0.943
cg10902144	black	3	28,618,700		S_Shore		0.500	0.007	0.254	0.248
cg10454529	black	1	16,544,210		Island		0.499	-0.002	0.031	0.300
cg07434260	black	19	10,698,036	TSS200	Island	AP1M2	0.499	0.002	0.027	0.360
cg06558502	black	19	57,610,699		Island		0.499	0.000	0.025	0.855
cg09176957	black	10	94,799,641	Body	OpenSea	EXOC6	0.499	0.005	0.300	0.451
cg05113927	black	2	27,531,244	TSS200	Island	UCN	0.499	0.007	0.202	0.493
cg13279673	black	6	50,674,522		OpenSea		0.499	-0.001	0.018	0.419
cg11619390	black	1	32,931,179	5'UTR	S_Shore	ZBTB8B	0.499	0.002	0.058	0.352
cg17166812	black	1	161,169,574	5'UTR	N_Shelf	NDUFS2	0.499	-0.005	0.111	0.314
cg20229496	black	19	35,395,800		N_Shore		0.499	0.001	0.031	0.582
cg11924452	black	2	241,185,198		Island		0.499	0.015	0.647	0.187
cg06394247	black	9	36,986,788	Body	Island	PAX5	0.499	-0.003	0.033	0.051
cg17398595	black	9	17,578,725	TSS1500	Island	SH3GL2	0.499	0.001	0.142	0.861
cg03919980	black	8	140,717,689		Island		0.499	0.003	0.056	0.355
cg20317748	black	15	40,633,124	1stExon	OpenSea	C15orf52	0.499	-0.002	0.049	0.718
cg21989299	black	2	70,484,546	TSS1500	N_Shore	PCYOX1	0.499	0.012	0.311	0.271
cg05867134	black	16	31,009,035	Body	Island	STX1B	0.499	0.001	0.231	0.904
cg06118999	black	10	90,343,192	TSS200	Island	RNLS	0.499	-0.005	0.149	0.708
cg09629954	black	17	42,143,874	Body	Island	LSM12	0.498	0.014	0.221	0.218
cg13360404	black	7	129,710,309	TSS200	Island	KLHDC10	0.498	0.000	0.016	0.591

cg10098888	black	2	227,665,799	S_Shore		0.498	0.002	0.021	0.334
cg20080664	black	4	8,594,857 5'UTR	S_Shore	CPZ	0.498	-0.005	0.060	0.106
cg01445052	black	1	197,886,681 5'UTR	N_Shore	LHX9	0.498	0.000	0.032	0.879
cg26633084	black	4	56,660,328	S_Shore		0.498	-0.004	0.525	0.829
cg09053536	black	12	115,117,551 Body	N_Shelf	TBX3	0.498	0.009	0.249	0.457
cg05767421	black	8	120,221,185 Body	Island	MAL2	0.498	-0.004	0.052	0.341
cg17475857	black	20	31,366,466 5'UTR	OpenSea	DNMT3B	0.498	0.000	0.699	0.978
cg07088414	black	7	16,570,042	S_Shelf		0.498	-0.019	0.783	0.025
cg23371639	black	1	2,517,342 TSS1500	N_Shore	C1orf93	0.498	0.000	0.031	0.909
cg24195486	black	14	92,788,580 TSS1500	N_Shore	SLC24A4	0.498	0.013	0.135	0.095
cg26036199	black	1	153,940,256 TSS200	S_Shore	SLC39A1	0.498	-0.002	0.036	0.165
cg16090192	black	5	74,063,324 TSS1500	S_Shore	GFM2	0.498	0.000	0.033	0.928
cg17749454	black	17	73,101,934 Body	N_Shelf	SLC16A5	0.498	0.002	0.169	0.837
cg25657713	black	6	100,038,708	Island		0.498	0.002	0.033	0.374
cg24795958	black	15	35,087,616 5'UTR	OpenSea	ACTC1	0.498	-0.001	0.020	0.394
cg09761975	black	6	33,167,642 TSS1500	N_Shore	SLC39A7	0.498	-0.001	0.037	0.609
cg26753208	black	2	18,569,314	OpenSea		0.498	0.012	0.295	0.134
cg01447185	black	4	56,212,994 Body	Island	SRD5A3	0.498	-0.003	0.057	0.350
cg07715201	black	5	37,840,839 TSS1500	S_Shore	GDNF	0.498	-0.001	0.015	0.221
cg25277041	black	6	5,995,953	N_Shore		0.497	0.007	0.209	0.363
cg23640701	black	12	52,301,634 5'UTR	S_Shore	ACVRL1	0.497	-0.003	0.409	0.657
cg07347256	black	16	84,711,616	OpenSea		0.497	0.012	0.443	0.260
cg01204927	black	6	28,505,394	OpenSea		0.497	0.014	0.502	0.263
cg16718162	black	1	23,963,971 Body	OpenSea	MDS2	0.497	0.001	0.053	0.783
cg25067727	black	14	50,332,340	S_Shelf		0.497	0.000	0.029	0.881
cg10342899	black	10	102,822,249 5'UTR	Island	KAZALD1	0.497	-0.002	0.047	0.434
cg14505174	black	20	62,739,062 TSS1500	S_Shore	NPBWR2	0.497	-0.003	0.344	0.606
cg09699787	black	2	1,711,759 Body	OpenSea	PXDN	0.497	0.003	0.057	0.567
cg17740645	black	17	37,894,413 TSS200	OpenSea	GRB7	0.497	-0.002	0.025	0.101
cg14098847	black	14	101,923,218	N_Shore		0.497	-0.003	0.025	0.081
cg04822018	black	17	34,959,680 Body	S_Shore	MRM1	0.497	0.000	0.044	0.908
cg13226669	black	1	228,197,109 Body	S_Shore	WNT3A	0.497	0.002	0.073	0.684
cg07644368	black	5	115,152,785 TSS1500	S_Shore	CDO1	0.497	-0.001	0.032	0.512
cg23537887	black	3	54,157,647 Body	S_Shore	CACNA2D3	0.497	0.012	0.101	0.033
cg10172783	black	17	42,082,036 1stExon	Island	NAGS	0.497	-0.007	0.048	0.049
cg18192294	black	10	90,343,204 TSS200	Island	RNLS	0.497	-0.003	0.051	0.742
cg05887270	black	1	26,129,627 Body	OpenSea	SEPN1	0.497	-0.005	0.345	0.693
cg13366774	black	12	10,336,861 Body	OpenSea	C12orf59	0.497	0.008	0.554	0.405
cg24733450	black	6	150,246,821	Island		0.497	-0.002	0.068	0.653
cg07717903	black	5	140,753,536 Body	N_Shore	PCDHGA4	0.497	0.013	0.239	0.285
cg06896987	black	2	177,003,735	N_Shore		0.497	-0.001	0.117	0.866
cg14845962	black	12	58,120,237 3'UTR	Island	AGAP2	0.497	0.000	0.037	0.931
cg05920383	black	11	43,291,188	OpenSea		0.497	0.005	0.365	0.659
cg00236576	black	17	81,039,406 Body	Island	METRNL	0.497	0.006	0.320	0.271
cg24255089	black	3	62,364,390	S_Shore		0.497	-0.003	0.032	0.070
cg21171978	black	22	32,029,943	S_Shelf		0.496	0.001	0.238	0.763
cg25075347	black	6	133,731,801 Body	OpenSea	EYA4	0.496	-0.011	0.150	0.664
cg12275868	black	11	14,996,956	S_Shore		0.496	-0.005	0.038	0.254
cg05508585	black	10	118,900,001	Island		0.496	-0.002	0.022	0.235
cg04004363	black	17	70,964,490 Body	OpenSea	SLC39A11	0.496	0.006	0.697	0.280
cg13095737	black	5	177,034,964 Body	N_Shore	B4GALT7	0.496	0.007	0.212	0.475
cg03205252	black	16	51,187,536	Island		0.496	-0.001	0.015	0.508
cg03799283	black	15	96,910,011	Island		0.496	-0.013	0.082	0.244
cg07808231	black	19	41,111,347 Body	Island	LTBP4	0.496	-0.004	0.030	0.309
cg03287940	black	3	24,537,338 TSS1500	Island	THRB	0.496	0.000	0.018	0.877
cg25684640	black	7	1,277,154	Island		0.496	0.000	0.025	0.739
cg21461564	black	8	63,999,030 TSS1500	S_Shore	TTPA	0.496	0.001	0.052	0.684
cg08053137	black	12	54,385,436 TSS200	N_Shelf	MIR196A2	0.496	-0.001	0.163	0.875
cg03675083	black	3	194,064,806 5'UTR	OpenSea	CPN2	0.496	-0.002	0.066	0.796
cg00112517	black	17	37,783,011 TSS200	N_Shore	PPP1R1B	0.496	-0.001	0.019	0.350
cg09333471	black	7	24,796,355 5'UTR	N_Shore	DFNA5	0.496	-0.004	0.051	0.268
cg26575633	black	1	156,846,336 Body	OpenSea	NTRK1	0.496	0.018	0.393	0.174
cg04854637	black	11	134,285,140	S_Shelf		0.496	0.005	0.312	0.397
cg06330691	black	11	78,673,290 Body	S_Shore	ODZ4	0.496	0.000	0.024	0.881
cg22855325	black	11	19,368,277	S_Shore		0.496	-0.001	0.027	0.438
cg16750157	black	4	174,460,124 Body	S_Shore	NBLA00301	0.496	0.000	0.017	0.781
cg23774717	black	10	26,856,095 Body	Island	APBB1IP	0.496	-0.003	0.071	0.621

cg05254749	black	14	45,552,862	TSS1500	N_Shore	PRPF39	0.496	0.000	0.033	0.983
cg09970175	black	15	48,011,443	5'UTR	S_Shore	SEMA6D	0.495	-0.002	0.026	0.144
cg27534599	black	22	17,680,477	Body	OpenSea	CECR1	0.495	0.002	0.050	0.774
cg07686872	black	7	156,794,879		N_Shore		0.495	0.002	0.036	0.383
cg00083018	black	6	101,840,329		N_Shore		0.495	-0.002	0.039	0.295
cg10823693	black	7	155,168,600		S_Shore		0.495	0.003	0.046	0.275
cg11245990	black	11	68,621,969		N_Shore		0.495	-0.006	0.200	0.519
cg11697427	black	10	102,590,168		Island		0.495	-0.001	0.028	0.566
cg01524853	black	12	54,447,807	1stExon	Island	HOXC4	0.495	-0.002	0.023	0.285
cg00099441	black	2	11,264,766		OpenSea		0.495	0.000	0.036	0.777
cg04488822	black	14	103,558,134		Island		0.495	-0.005	0.111	0.233
cg04362858	black	3	54,154,926		Island		0.495	0.000	0.025	0.749
cg13927566	black	1	91,172,288		Island		0.495	-0.002	0.036	0.160
cg03641497	black	7	94,876,484	Body	OpenSea	PPP1R9A	0.495	-0.005	0.090	0.500
cg03331978	black	1	38,600,001		OpenSea		0.495	0.000	0.203	0.976
cg08834436	black	22	27,831,818		N_Shelf		0.495	0.002	0.036	0.411
cg16361302	black	2	19,561,327		Island		0.495	-0.019	0.077	0.275
cg12000587	black	17	30,186,630	TSS1500	S_Shore	C17orf79	0.495	0.001	0.056	0.761
cg24251035	black	7	138,721,065	TSS1500	S_Shore	ZC3HAV1L	0.495	0.000	0.146	0.995
cg10839041	black	20	335,239	3'UTR	OpenSea	NRSN2	0.495	0.000	0.022	0.891
cg04272086	black	18	49,867,359	Body	N_Shore	DCC	0.495	0.003	0.040	0.289
cg05124021	black	7	157,487,066	Body	S_Shore	PTPRN2	0.494	-0.003	0.121	0.697
cg13879455	black	12	58,133,008	TSS1500	S_Shore	AGAP2	0.494	-0.002	0.048	0.640
cg23323867	black	9	127,631,275	TSS1500	Island	ARPC5L	0.494	0.000	0.018	0.891
cg23637124	black	15	49,255,455	5'UTR	Island	SHC4	0.494	0.001	0.018	0.488
cg00181439	black	6	78,172,691	1stExon	Island	HTR1B	0.494	0.000	0.118	0.977
cg15572489	black	7	157,481,091	Body	Island	PTPRN2	0.494	-0.002	0.045	0.595
cg20040488	black	6	28,956,510		Island		0.494	0.011	0.106	0.258
cg12514789	black	7	19,158,123	TSS1500	S_Shore	TWIST1	0.494	-0.001	0.028	0.720
cg12164922	black	8	61,573,309		OpenSea		0.494	-0.001	0.096	0.879
cg07054253	black	19	3,801,294	5'UTR	N_Shore	MATK	0.494	0.001	0.037	0.818
cg17181362	black	20	57,090,749	TSS1500	S_Shore	APCDD1L	0.494	-0.009	0.305	0.365
cg18303028	black	2	176,969,162		N_Shore		0.494	-0.001	0.026	0.666
cg06838175	black	1	15,573,636	TSS200	Island	FHAD1	0.494	-0.002	0.032	0.472
cg05404698	black	6	28,956,247		Island		0.494	0.002	0.068	0.805
cg19773045	black	1	153,747,600	TSS200	N_Shore	SLC27A3	0.494	-0.001	0.045	0.674
cg07678449	black	4	171,011,395	TSS1500	Island	AADAT	0.494	0.000	0.028	0.990
cg00304185	black	16	1,033,074	Body	Island	SOX8	0.494	0.011	0.403	0.351
cg21219966	black	9	101,142,609	Body	OpenSea	GABBR2	0.494	-0.001	0.208	0.902
cg07301795	black	5	157,001,698	Body	Island	ADAM19	0.494	-0.004	0.143	0.469
cg20525665	black	19	5,805,595		Island		0.494	-0.001	0.032	0.377
cg06650786	black	19	15,312,129	TSS1500	S_Shore	NOTCH3	0.494	-0.001	0.034	0.387
cg18675097	black	6	28,227,127	5'UTR	Island	NKAPL	0.494	-0.008	0.104	0.481
cg17934948	black	1	215,255,716	TSS1500	N_Shore	KCNK2	0.494	0.001	0.026	0.159
cg13993270	black	1	91,317,469		S_Shore		0.494	0.001	0.023	0.662
cg16116407	black	2	231,852,154		Island		0.493	-0.008	0.078	0.329
cg27029821	black	8	70,983,741	TSS200	Island	PRDM14	0.493	0.000	0.035	0.994
cg09793988	black	16	55,543,053	1stExon	Island	LPCAT2	0.493	0.001	0.039	0.633
cg01466741	black	5	134,733,519	5'UTR	N_Shore	H2AFY	0.493	0.008	0.151	0.123
cg20510285	black	6	11,263,797	Body	OpenSea	NEDD9	0.493	0.001	0.022	0.707
cg24113950	black	17	36,577,900		S_Shelf		0.493	-0.001	0.021	0.490
cg22865831	black	1	23,495,514	TSS200	OpenSea	LUZP1	0.493	-0.001	0.028	0.689
cg03645984	black	19	55,998,490	3'UTR	S_Shore	NAT14	0.493	-0.001	0.207	0.814
cg02962602	black	17	80,171,413	TSS1500	S_Shore	CCDC57	0.493	-0.001	0.020	0.341
cg16578742	black	5	35,617,687	TSS1500	N_Shore	SPEF2	0.493	-0.016	0.392	0.180
cg09332353	black	6	27,215,376	TSS200	N_Shelf	PRSS16	0.493	0.001	0.354	0.897
cg19708337	black	1	93,544,307	TSS1500	N_Shore	MTF2	0.493	-0.001	0.037	0.506
cg11348345	black	12	104,850,219	TSS1500	N_Shore	CHST11	0.493	0.001	0.013	0.316
cg21372571	black	6	114,665,013		S_Shore		0.493	0.000	0.020	0.794
cg02338222	black	9	132,245,400		Island		0.493	0.002	0.028	0.165
cg10245752	black	19	55,678,034	TSS200	Island	C19orf51	0.493	0.001	0.024	0.563
cg13442749	black	9	96,337,681	TSS1500	N_Shore	PHF2	0.492	0.000	0.021	0.799
cg06987504	black	8	109,261,215	TSS1500	S_Shore	EIF3E	0.492	0.000	0.017	0.913
cg10837843	black	5	172,199,244	TSS1500	Island	DUSP1	0.492	-0.001	0.024	0.282
cg14377703	black	17	19,647,973	Body	N_Shore	ALDH3A1	0.492	0.000	0.072	0.975
cg20600874	black	7	1,280,640		Island		0.492	-0.002	0.129	0.702
cg26900995	black	17	20,060,311	Body	S_Shore	CYTSB	0.492	0.001	0.090	0.804



cg26262482	black	1	64,937,345	Body	S_Shore	CACHD1	0.492	-0.001	0.011	0.305
cg01275297	black	20	35,201,324	TSS1500	Island	TGIF2	0.492	0.000	0.034	0.876
cg11488893	black	11	14,994,381	TSS1500	N_Shore	CALCA	0.492	0.000	0.039	0.896
cg01401327	black	7	101,457,175		N_Shore		0.492	0.004	0.082	0.572
cg11107149	black	4	960,835	Body	Island	DGKQ	0.492	0.008	0.882	0.233
cg11693364	black	19	11,998,457	TSS1500	N_Shore	ZNF69	0.492	0.003	0.034	0.110
cg17778382	black	6	31,047,572		OpenSea		0.492	-0.001	0.022	0.567
cg05379127	black	19	12,885,939	Body	Island	HOOK2	0.492	-0.002	0.021	0.145
cg25048564	black	21	33,244,752	TSS1500	N_Shore	HUNK	0.492	0.001	0.019	0.050
cg01688688	black	5	140,614,000	Body	N_Shore	PCDHB18	0.492	0.000	0.070	0.943
cg13985445	black	9	90,340,577	TSS1500	N_Shore	CTSL1	0.492	0.003	0.040	0.227
cg02834497	black	19	12,405,873	TSS200	S_Shore	ZNF44	0.492	-0.001	0.020	0.333
cg01736356	black	4	164,465,789	Body	OpenSea	1-Mar	0.491	0.012	0.235	0.457
cg14777903	black	3	192,958,565	TSS1500	N_Shore	HRASLS	0.491	0.004	0.078	0.450
cg23052213	black	14	45,605,121	TSS1500	Island	FKBP3	0.491	0.003	0.025	0.019
cg09971562	black	11	128,694,679		Island		0.491	0.016	0.321	0.550
cg12029804	black	17	38,821,390	5'UTR	OpenSea	KRT222	0.491	0.000	0.017	0.864
cg16553500	black	1	32,169,868	TSS200	Island	COL16A1	0.491	0.001	0.030	0.686
cg15547662	black	1	26,324,823	TSS200	Island	PAFAH2	0.491	-0.012	0.129	0.126
cg19158754	black	11	69,794,856		OpenSea		0.491	-0.008	0.117	0.227
cg24912842	black	10	103,880,264	TSS200	Island	LDB1	0.491	-0.002	0.052	0.511
cg22392876	black	7	131,581,445		OpenSea		0.491	0.013	0.629	0.123
cg04704531	black	12	54,409,491	TSS1500	S_Shore	HOXC4	0.491	0.001	0.034	0.744
cg15422685	black	3	62,356,774	Body	Island	FEZF2	0.491	0.000	0.072	0.978
cg01294702	black	17	74,136,978	5'UTR	Island	FOXJ1	0.491	-0.001	0.039	0.657
cg02510779	black	3	134,205,173	5'UTR	Island	CEP63	0.490	0.000	0.021	0.860
cg24338780	black	1	174,968,123	TSS1500	N_Shore	CACYBP	0.490	0.003	0.025	0.104
cg26110645	black	2	73,090,063		S_Shore		0.490	0.000	0.034	0.949
cg12699274	black	1	4,161,496		OpenSea		0.490	-0.002	0.047	0.557
cg04846036	black	10	8,079,205		S_Shore		0.490	-0.003	0.031	0.112
cg21428393	black	7	26,244,131	Body	S_Shelf	CBX3	0.490	0.000	0.023	0.768
cg24236903	black	17	48,610,110	1stExon	N_Shelf	EPN3	0.490	0.001	0.028	0.418
cg25470148	black	1	25,257,931	TSS1500	Island	RUNX3	0.490	0.004	0.101	0.563
cg26404172	black	20	1,783,515		N_Shore		0.490	0.002	0.114	0.726
cg27320127	black	2	47,798,396	TSS1500	Island	KCNK12	0.490	0.000	0.031	0.865
cg26326372	black	14	105,946,393	3'UTR	S_Shore	CRIP2	0.490	0.004	0.618	0.618
cg04232903	black	1	6,546,839	5'UTR	S_Shore	PLEKHG5	0.490	0.000	0.038	0.850
cg23224142	black	8	37,082,537		OpenSea		0.490	0.001	0.370	0.948
cg04304705	black	22	48,884,960	TSS1500	Island	FAM19A5	0.490	0.001	0.030	0.632
cg09022607	black	10	114,712,695	Body	S_Shore	TCF7L2	0.490	0.002	0.106	0.646
cg05509190	black	2	177,503,639		S_Shore		0.490	0.024	0.210	0.089
cg01614597	black	19	14,185,403	Body	Island	LOC113230	0.490	-0.003	0.040	0.093
cg02902477	black	6	26,197,071	Body	Island	HIST1H3D	0.490	-0.002	0.025	0.239
cg25560696	black	6	85,481,532		N_Shore		0.490	0.001	0.023	0.528
cg10999598	black	5	125,936,257	TSS1500	N_Shore	PHAX	0.490	-0.004	0.145	0.642
cg04434147	black	19	45,281,287	1stExon	Island	CBLC	0.490	0.001	0.033	0.678
cg16893174	black	17	6,797,708	Body	Island	ALOX12P2	0.490	-0.004	0.054	0.389
cg09900893	black	1	26,865,376	Body	OpenSea	RPS6KA1	0.490	0.005	0.295	0.431
cg08427067	black	11	95,015,466		OpenSea		0.490	0.011	0.360	0.214
cg05884711	black	16	2,563,274	TSS1500	N_Shore	ATP6V0C	0.490	-0.006	0.212	0.474
cg23736307	black	8	27,182,930	5'UTR	N_Shore	PTK2B	0.490	-0.004	0.052	0.452
cg26133091	black	8	18,998,811		OpenSea		0.490	-0.003	0.096	0.616
cg18601426	black	7	158,381,220	TSS1500	Island	PTPRN2	0.489	0.001	0.071	0.885
cg02227919	black	2	171,569,132	Body	N_Shore	LOC440925	0.489	0.000	0.021	0.997
cg12963529	black	20	43,540,202	Body	S_Shore	PABPC1L	0.489	-0.002	0.167	0.855
cg21137823	black	1	1,981,270	TSS1500	Island	PRKCZ	0.489	0.006	0.049	0.248
cg21589115	black	19	49,867,114	5'UTR	Island	DKKL1	0.489	0.001	0.039	0.764
cg15114672	black	5	82,766,884	TSS1500	N_Shore	VCAN	0.489	-0.001	0.021	0.394
cg05590196	black	1	33,220,274	Body	S_Shore	KIAA1522	0.489	0.001	0.023	0.280
cg17332603	black	4	7,326,576	Body	OpenSea	SORCS2	0.489	-0.003	0.470	0.708
cg17156743	black	6	28,603,171		Island		0.489	0.000	0.027	0.905
cg25861169	black	15	77,927,358		Island		0.489	0.006	0.136	0.510
cg04937184	black	14	54,423,845	TSS1500	S_Shore	BMP4	0.489	-0.009	0.053	0.015
cg06546607	black	19	34,013,019	TSS1500	S_Shore	PEPD	0.489	-0.003	0.080	0.251
cg14298680	black	10	71,330,352		N_Shore		0.489	0.005	0.090	0.347
cg05566965	black	22	18,256,588	5'UTR	N_Shore	BID	0.489	0.001	0.041	0.791
cg17016301	black	8	146,013,004	TSS1500	S_Shore	ZNF34	0.489	0.002	0.045	0.318

cg15120085	black	1	32,041,898	TSS200	OpenSea	TINAGL1	0.489	-0.009	0.259	0.179
cg19037350	black	5	140,734,648	TSS200	N_Shore	PCDHGA4	0.489	0.004	0.199	0.548
cg12032359	black	15	40,986,923	TSS1500	Island	RAD51	0.489	0.000	0.016	0.946
cg26857670	black	7	27,225,448	Body	Island	HOXA11AS	0.489	-0.003	0.042	0.128
cg17731209	black	21	38,937,316		S_Shore		0.489	-0.010	0.533	0.286
cg07620533	black	5	140,793,470	Body	N_Shore	PCDHGA4	0.489	0.014	0.196	0.083
cg15212266	black	1	21,879,311	5'UTR	OpenSea	ALPL	0.488	-0.002	0.128	0.768
cg19990651	black	6	33,048,555	Body	Island	HLA-DPB1	0.488	0.001	0.022	0.511
cg15206473	black	6	35,049,613	Body	OpenSea	ANKS1A	0.488	0.002	0.453	0.757
cg23954968	black	11	22,454,517		Island		0.488	-0.010	0.113	0.426
cg08063228	black	16	89,055,915		OpenSea		0.488	0.014	0.406	0.027
cg04325221	black	15	45,410,047	Body	S_Shore	DUOXA1	0.488	0.001	0.167	0.893
cg10567964	black	1	205,312,695	Body	Island	KLHDC8A	0.488	0.001	0.046	0.722
cg10249828	black	1	75,594,261	1stExon	N_Shore	LHX8	0.488	0.014	0.245	0.195
cg17099568	black	8	65,284,438		N_Shore		0.488	-0.001	0.041	0.639
cg16204357	black	14	101,923,155		N_Shore		0.488	-0.010	0.052	0.133
cg27659903	black	2	236,514,471	Body	OpenSea	AGAP1	0.488	0.001	0.021	0.474
cg02934600	black	1	107,600,376	1stExon	Island	PRMT6	0.488	0.000	0.101	0.976
cg02363950	black	1	156,676,793	TSS1500	S_Shore	CRABP2	0.488	0.000	0.029	0.775
cg08827700	black	11	2,925,969	Body	S_Shelf	SLC22A18	0.488	-0.004	0.806	0.514
cg16081388	black	17	60,215,342		Island		0.488	0.002	0.569	0.708
cg00043564	black	7	101,005,832	TSS1500	N_Shore	EMID2	0.488	-0.004	0.074	0.267
cg19985870	black	19	34,398,004		Island		0.488	0.002	0.368	0.793
cg06164440	black	8	22,432,385	3'UTR	N_Shelf	SORBS3	0.488	0.000	0.281	0.975
cg05797276	black	6	84,743,025	TSS1500	N_Shore	MRAP2	0.488	0.003	0.053	0.360
cg03218192	black	17	33,914,403	1stExon	OpenSea	AP2B1	0.487	0.002	0.330	0.867
cg06139341	black	12	126,675,719		Island		0.487	0.000	0.031	0.890
cg09619390	black	2	19,553,546	Body	S_Shore	OSR1	0.487	-0.003	0.378	0.644
cg12870811	black	3	62,361,449		N_Shore		0.487	0.000	0.046	0.952
cg15017278	black	16	127,449	5'UTR	Island	MPG	0.487	-0.001	0.276	0.942
cg10172669	black	4	42,154,840	1stExon	Island	BEND4	0.487	0.000	0.019	0.864
cg16929199	black	7	155,243,417		Island		0.487	0.000	0.025	0.825
cg13187764	black	6	28,677,521		OpenSea		0.487	-0.001	0.017	0.294
cg11837391	black	3	128,199,781	3'UTR	OpenSea	GATA2	0.487	0.008	0.517	0.522
cg11347411	black	7	150,020,925	TSS200	S_Shore	ACTR3C	0.487	-0.006	0.056	0.299
cg16492615	black	10	105,436,246	Body	OpenSea	SH3PXD2A	0.487	0.010	0.841	0.194
cg01382864	black	2	220,174,251	TSS200	Island	PTPRN	0.487	0.000	0.025	0.917
cg08874512	black	19	51,831,274	Body	S_Shore	IGLON5	0.487	-0.005	0.044	0.087
cg23199788	black	4	1,620,039		OpenSea		0.487	-0.001	0.687	0.911
cg20195812	black	2	192,015,677	1stExon	OpenSea	STAT4	0.487	-0.001	0.050	0.872
cg24529736	black	13	96,205,679	Body	S_Shore	CLDN10	0.487	-0.002	0.038	0.479
cg21645826	black	19	19,313,533	Body	N_Shore	NR2C2AP	0.487	0.001	0.059	0.905
cg25975689	black	12	54,330,354		N_Shelf		0.487	-0.001	0.021	0.428
cg14285881	black	9	139,952,218		S_Shelf		0.487	-0.006	0.533	0.477
cg12177922	black	1	154,245,232	1stExon	Island	HAX1	0.486	0.010	0.293	0.489
cg02294764	black	13	112,714,769		N_Shore		0.486	0.001	0.060	0.845
cg13573036	black	1	119,551,851		S_Shore		0.486	0.001	0.035	0.803
cg03167389	black	4	42,154,927	TSS200	Island	BEND4	0.486	-0.007	0.087	0.397
cg23980859	black	1	55,844,285		OpenSea		0.486	-0.005	0.396	0.449
cg15237152	black	19	11,649,631	1stExon	OpenSea	CNN1	0.486	0.000	0.042	0.782
cg24519084	black	15	35,087,773	1stExon	OpenSea	ACTC1	0.486	-0.003	0.030	0.201
cg09435617	black	6	28,973,353	TSS1500	OpenSea	ZNF311	0.486	0.005	0.036	0.311
cg17644856	black	2	10,687,962		OpenSea		0.486	0.004	0.755	0.453
cg16632159	black	10	7,466,434		OpenSea		0.486	0.003	0.282	0.757
cg12166570	black	14	74,225,642	5'UTR	Island	C14orf43	0.486	-0.002	0.136	0.686
cg27603069	black	11	65,123,374	Body	Island	TIGD3	0.486	0.005	0.071	0.381
cg07419144	black	18	55,100,658		N_Shore		0.486	-0.003	0.040	0.333
cg01797488	black	17	66,194,621	TSS200	Island	LOC440461	0.486	0.005	0.044	0.086
cg07406191	black	3	147,105,190	3'UTR	N_Shelf	ZIC4	0.486	0.000	0.036	0.994
cg25315816	black	12	96,252,245	TSS1500	Island	SNRPF	0.486	0.000	0.016	0.555
cg04424630	black	4	149,363,778	TSS200	Island	NR3C2	0.486	0.000	0.019	0.840
cg18250838	black	15	78,632,184	TSS1500	N_Shore	CRABP1	0.486	-0.003	0.045	0.221
cg23639989	black	5	14,581,642	TSS1500	Island	FAM105A	0.486	-0.001	0.022	0.248
cg11610350	black	3	64,253,705		Island		0.486	-0.003	0.040	0.553
cg07925738	black	1	16,847,839		Island		0.486	0.002	0.362	0.944
cg23544107	black	19	18,534,672	Body	S_Shelf	SSBP4	0.486	0.001	0.448	0.854
cg07066561	black	16	89,927,387	Body	OpenSea	SPIRE2	0.486	-0.001	0.076	0.847

cg01928076	black	17	77,818,356	Island		0.485	0.000	0.081	0.951
cg11267527	black	10	44,881,934 TSS1500	Island	CXCL12	0.485	0.005	0.362	0.634
cg22082709	black	3	148,415,516 TSS200	Island	AGTR1	0.485	0.000	0.021	0.691
cg19598567	black	5	141,931,207	OpenSea		0.485	0.005	0.042	0.420
cg05178683	black	4	958,773 Body	N_Shore	DGKQ	0.485	0.001	0.556	0.909
cg05271276	black	15	59,279,841 TSS200	Island	RNF111	0.485	0.000	0.017	0.977
cg24944395	black	17	7,166,718 TSS1500	S_Shore	CLDN7	0.485	0.002	0.067	0.592
cg14755852	black	8	23,386,014 TSS1500	N_Shore	SLC25A37	0.485	-0.007	0.111	0.160
cg26373051	black	2	121,492,364	N_Shore		0.485	-0.001	0.492	0.890
cg24932457	black	1	175,568,559 5'UTR	Island	TNR	0.485	-0.014	0.107	0.316
cg01327474	black	16	28,223,637 TSS1500	Island	XPO6	0.485	0.001	0.018	0.295
cg13589218	black	7	4,783,964 Body	N_Shore	FOXK1	0.485	0.009	0.597	0.394
cg00852846	black	2	85,664,713	Island		0.485	-0.012	0.089	0.164
cg19579058	black	2	233,389,143	Island		0.485	-0.016	0.083	0.007
cg07542594	black	3	100,428,070 TSS200	Island	TFG	0.485	-0.001	0.024	0.526
cg02915785	black	2	219,233,544	S_Shore		0.484	-0.004	0.253	0.738
cg08988797	black	8	102,505,513 Body	Island	GRHL2	0.484	0.000	0.020	0.727
cg02630694	black	10	12,236,833 TSS1500	N_Shore	CDC123	0.484	-0.001	0.025	0.542
cg16708451	black	19	54,411,208	N_Shore		0.484	0.000	0.032	0.869
cg15754901	black	17	5,402,972 3'UTR	N_Shore	LOC728392	0.484	0.003	0.402	0.821
cg15043935	black	19	2,487,819	N_Shore		0.484	-0.004	0.451	0.474
cg24029517	black	4	11,429,531 5'UTR	Island	HS3ST1	0.484	0.001	0.028	0.574
cg01518465	black	12	49,351,708 TSS1500	S_Shore	ARF3	0.484	-0.001	0.032	0.639
cg17799033	black	7	157,476,329 Body	N_Shore	PTPRN2	0.484	0.001	0.175	0.950
cg00126638	black	6	29,795,583 5'UTR	Island	HLA-G	0.484	-0.001	0.040	0.746
cg01468420	black	6	33,393,112 Body	N_Shore	SYNGAP1	0.484	-0.001	0.040	0.575
cg05781999	black	7	155,174,129	Island		0.484	0.000	0.023	0.902
cg01688776	black	21	43,135,973 TSS200	OpenSea	C21orf129	0.484	-0.004	0.326	0.568
cg05159438	black	11	69,515,681 Body	N_Shore	FGF19	0.484	0.002	0.097	0.777
cg07472704	black	13	113,763,758 Body	Island	F7	0.484	0.013	0.230	0.480
cg04528038	black	16	21,171,097 5'UTR	S_Shore	TMEM159	0.484	-0.001	0.059	0.679
cg09625158	black	6	32,764,901	OpenSea		0.484	0.001	0.019	0.283
cg04723493	black	8	104,310,810 TSS1500	Island	FZD6	0.484	0.000	0.035	0.998
cg01162920	black	16	68,362,700 Body	OpenSea	PRMT7	0.484	0.002	0.085	0.575
cg16847315	black	7	116,139,414 TSS200	N_Shore	CAV2	0.483	0.005	0.305	0.518
cg16470716	black	6	28,956,719	S_Shore		0.483	0.014	0.086	0.088
cg14816087	black	6	27,259,043	Island		0.483	0.002	0.082	0.812
cg02083234	black	3	62,357,769 Body	Island	FEZF2	0.483	0.002	0.027	0.151
cg15120732	black	6	73,330,106 TSS1500	N_Shore	KCNQ5	0.483	0.001	0.026	0.783
cg01196531	black	15	53,083,238 TSS1500	Island	ONCUT1	0.483	0.004	0.055	0.114
cg21530649	black	7	32,111,237 TSS1500	S_Shore	PDE1C	0.483	0.014	0.404	0.081
cg12612465	black	6	37,533,112	OpenSea		0.483	0.010	0.241	0.279
cg07006889	black	12	106,980,192 Body	Island	RFX4	0.483	-0.001	0.032	0.764
cg01287936	black	15	65,197,900	Island		0.483	-0.001	0.044	0.552
cg04358246	black	9	95,857,704 TSS1500	Island	C9orf89	0.483	0.000	0.040	0.970
cg10041416	black	7	1,215,871	OpenSea		0.483	0.001	0.074	0.711
cg06023661	black	6	32,164,801 Body	S_Shore	NOTCH4	0.483	0.002	0.041	0.548
cg00035636	black	13	21,900,591	Island		0.483	0.003	0.040	0.516
cg11676902	black	6	100,061,972 Body	Island	PRDM13	0.483	0.002	0.034	0.505
cg09563216	black	1	150,255,241 1stExon	S_Shore	C1orf51	0.483	-0.001	0.020	0.431
cg20862047	black	10	126,150,218 TSS200	N_Shore	LHPP	0.483	-0.003	0.046	0.208
cg16466652	black	19	6,271,960 Body	Island	MLLT1	0.483	-0.010	0.120	0.202
cg01404615	black	4	107,958,572 TSS1500	S_Shore	DKK2	0.482	0.002	0.020	0.223
cg00923744	black	1	230,204,526 Body	S_Shore	GALNT2	0.482	-0.001	0.069	0.761
cg03096126	black	18	56,531,159 5'UTR	Island	ZNF532	0.482	-0.001	0.032	0.726
cg27522367	black	12	50,497,732 TSS200	OpenSea	GPD1	0.482	-0.001	0.071	0.735
cg05753328	black	8	124,171,421	N_Shore		0.482	0.004	0.207	0.693
cg23250574	black	6	28,661,310	OpenSea		0.482	0.008	0.196	0.711
cg01711746	black	3	138,657,291	Island		0.482	-0.001	0.015	0.263
cg14252488	black	1	245,361,403 Body	OpenSea	KIF26B	0.482	-0.003	0.081	0.687
cg02857273	black	3	57,541,377 TSS1500	N_Shore	PDE12	0.482	-0.001	0.339	0.972
cg15552158	black	2	172,953,270 3'UTR	S_Shore	DLX1	0.482	0.000	0.039	0.732
cg17901584	black	1	55,353,706 TSS1500	S_Shore	DHCR24	0.482	0.005	0.220	0.544
cg08484671	black	19	41,055,297 Body	Island	SPTBN4	0.482	-0.001	0.027	0.437
cg01505870	black	2	85,107,190 Body	N_Shore	C2orf89	0.482	-0.001	0.048	0.765
cg23063647	black	4	206,339 TSS200	N_Shore	ZNF876P	0.482	-0.005	0.057	0.343
cg03108701	black	6	97,731,400 Body	S_Shore	MIR548H3	0.482	-0.001	0.029	0.262

cg26044428	black	14	77,279,408	TSS200	Island	ANGEL1	0.482	-0.001	0.022	0.251
cg14966117	black	5	137,371,950		S_Shelf		0.482	-0.003	0.029	0.019
cg21117965	black	2	220,325,369	Body	OpenSea	SPEG	0.481	-0.001	0.023	0.368
cg03576419	black	2	183,731,676	TSS200	N_Shore	FRZB	0.481	0.000	0.026	0.802
cg27353919	black	3	48,754,970	TSS1500	S_Shore	IP6K2	0.481	-0.004	0.058	0.331
cg26309870	black	6	98,117,205		OpenSea		0.481	0.002	0.022	0.167
cg13059495	black	1	3,540,478	TSS1500	N_Shore	TPRG1L	0.481	0.002	0.056	0.720
cg26487948	black	5	172,359,575	Body	OpenSea	ERGIC1	0.481	0.000	0.023	0.567
cg09302903	black	17	46,801,314	Body	N_Shore	C17orf93	0.481	-0.001	0.026	0.178
cg09144707	black	2	171,678,251	Body	N_Shore	GAD1	0.481	0.015	0.189	0.233
cg01687862	black	7	75,814,979		OpenSea		0.481	-0.011	0.245	0.239
cg12923585	black	5	132,149,015	TSS200	Island	ANKRD43	0.481	-0.003	0.051	0.219
cg03937290	black	1	27,852,711		N_Shore		0.481	-0.003	0.399	0.550
cg21388029	black	2	102,003,306	Body	Island	CREG2	0.481	-0.002	0.027	0.139
cg01579299	black	8	27,450,062		Island		0.481	-0.017	0.101	0.137
cg01708411	black	12	57,631,839	5'UTR	N_Shore	NDUFA4L2	0.481	-0.002	0.042	0.442
cg26610624	black	1	1,981,268	TSS1500	Island	PRKCZ	0.481	0.010	0.087	0.129
cg17888033	black	8	143,858,414	5'UTR	Island	LYNX1	0.481	-0.008	0.125	0.313
cg18664712	black	5	149,792,463	TSS200	OpenSea	CD74	0.481	0.001	0.033	0.680
cg14164099	black	15	95,870,475		S_Shore		0.480	0.004	0.081	0.587
cg05261702	black	19	3,574,300	Body	Island	HMG20B	0.480	0.004	0.053	0.354
cg01850179	black	19	10,340,795	5'UTR	Island	S1PR2	0.480	-0.002	0.046	0.518
cg16740476	black	6	27,247,970		OpenSea		0.480	0.000	0.020	0.695
cg08607082	black	19	10,381,924	Body	Island	ICAM1	0.480	-0.001	0.069	0.765
cg07537417	black	18	74,332,553		OpenSea		0.480	0.000	0.023	0.961
cg03876618	black	4	57,976,034	Body	Island	IGFBP7	0.480	0.003	0.047	0.249
cg16196175	black	7	27,289,120		N_Shore		0.480	-0.002	0.047	0.514
cg03645851	black	22	19,110,554	TSS1500	S_Shore	DGCR2	0.480	-0.001	0.029	0.436
cg11482099	black	11	31,833,477	TSS1500	Island	PAX6	0.480	0.000	0.020	0.752
cg13889415	black	9	116,943,379	Body	OpenSea	COL27A1	0.480	0.000	0.317	0.995
cg03333149	black	12	52,473,731		Island		0.480	0.012	0.452	0.783
cg05428268	black	11	62,539,386	5'UTR	S_Shore	TAF6L	0.480	-0.002	0.037	0.381
cg09419352	black	10	50,604,330		Island		0.480	0.000	0.019	0.927
cg18178197	black	22	50,098,317		Island		0.480	0.012	0.275	0.299
cg15005677	black	11	45,918,197	Body	N_Shelf	MAPK8IP1	0.480	-0.002	0.032	0.317
cg16895261	black	4	3,391,305	Body	OpenSea	RGS12	0.480	-0.004	0.342	0.445
cg14583825	black	19	54,393,040	Body	Island	PRKCG	0.480	-0.002	0.039	0.071
cg02611770	black	18	46,502,975		Island		0.480	-0.003	0.077	0.559
cg10989261	black	1	6,844,145	TSS1500	N_Shore	CAMTA1	0.480	0.000	0.038	0.846
cg24182508	black	19	54,672,312	Body	S_Shelf	TMC4	0.480	-0.003	0.036	0.071
cg16711124	black	16	29,796,373		Island		0.479	0.004	0.326	0.667
cg07046818	black	8	97,166,291	Body	N_Shelf	GDF6	0.479	0.009	0.132	0.382
cg13578408	black	7	8,475,484	Body	S_Shore	NXP1	0.479	0.008	0.074	0.095
cg24514884	black	6	134,639,203	TSS200	S_Shore	SGK1	0.479	0.000	0.121	0.911
cg23719950	black	11	63,933,701	TSS200	Island	MACROD1	0.479	-0.002	0.045	0.635
cg16268214	black	12	49,351,537	TSS1500	S_Shore	ARF3	0.479	-0.001	0.025	0.303
cg04215703	black	10	102,826,625		Island		0.479	-0.001	0.025	0.604
cg13099892	black	4	174,013,995		OpenSea		0.479	0.011	0.148	0.091
cg05934660	black	1	42,929,392		Island		0.479	0.002	0.037	0.436
cg09053097	black	11	44,914,828	5'UTR	OpenSea	TSPAN18	0.479	-0.002	0.286	0.757
cg23423766	black	6	13,614,841	TSS1500	N_Shore	NOL7	0.479	-0.002	0.045	0.446
cg03261929	black	13	79,168,211		N_Shore		0.479	0.001	0.021	0.642
cg16852588	black	10	64,134,403	5'UTR	Island	ZNF365	0.479	0.001	0.038	0.791
cg27662454	black	19	13,975,669		Island		0.479	0.001	0.037	0.522
cg19907915	black	11	133,821,252	Body	OpenSea	IGSF9B	0.479	0.001	0.075	0.854
cg03946923	black	4	109,093,221	TSS200	Island	LOC641518	0.479	0.000	0.018	0.644
cg14416248	black	4	3,170,095	Body	OpenSea	HTT	0.479	0.010	0.687	0.232
cg10443049	black	7	8,481,537	Body	N_Shore	NXP1	0.479	0.000	0.016	0.729
cg14230719	black	9	123,492,289		OpenSea		0.479	-0.003	0.125	0.581
cg18151674	black	1	121,139,264		S_Shore		0.479	-0.002	0.366	0.723
cg24570624	black	14	77,493,278	1stExon	Island	C14orf4	0.479	0.005	0.104	0.535
cg27664496	black	12	113,515,835	Body	Island	DTX1	0.479	0.003	0.081	0.683
cg07230446	black	2	233,561,722	TSS1500	N_Shore	GIGYF2	0.479	0.000	0.027	0.921
cg26025169	black	13	112,332,591		OpenSea		0.479	0.005	0.177	0.738
cg03583111	black	2	220,283,442	1stExon	Island	DES	0.479	-0.001	0.058	0.728
cg09254980	black	21	47,010,106		Island		0.478	-0.001	0.177	0.930
cg09720117	black	12	5,152,546	TSS1500	N_Shore	KCNA5	0.478	0.010	0.205	0.168

cg01139861	black	7	50,343,298	TSS1500	Island	IKZF1	0.478	-0.003	0.037	0.296
cg03630273	black	19	49,618,499	Body	Island	LIN7B	0.478	-0.001	0.158	0.879
cg15055101	black	19	6,766,609	5'UTR	N_Shore	SH2D3A	0.478	0.012	0.239	0.142
cg12599850	black	1	95,006,451	Body	N_Shore	F3	0.478	-0.004	0.267	0.692
cg05315206	black	19	17,958,505	5'UTR	Island	JAK3	0.478	0.000	0.031	0.856
cg13900767	black	9	139,551,542		Island		0.478	0.001	0.302	0.839
cg16944093	black	2	128,422,120	Body	Island	LIMS2	0.478	0.000	0.052	0.913
cg14439476	black	9	101,017,421	Body	Island	TBC1D2	0.478	-0.002	0.072	0.647
cg03058660	black	19	48,919,198	Body	Island	GRIN2D	0.478	0.007	0.332	0.628
cg11796996	black	6	33,280,159	Body	N_Shore	TAPBP	0.478	0.004	0.192	0.658
cg18345924	black	21	22,372,231	Body	S_Shore	NCAM2	0.478	0.006	0.369	0.380
cg16273597	black	6	14,117,480	TSS1500	N_Shore	CD83	0.478	-0.003	0.028	0.030
cg15924259	black	1	9,687,259		Island		0.478	-0.002	0.043	0.335
cg00117172	black	1	25,255,838	Body	Island	RUNX3	0.478	0.000	0.021	0.807
cg00648476	black	11	123,525,237	1stExon	Island	SCN3B	0.478	-0.001	0.034	0.607
cg03152092	black	19	41,869,545	5'UTR	N_Shore	B9D2	0.478	-0.003	0.277	0.655
cg21495321	black	8	124,429,792	Body	S_Shore	WDYHV1	0.478	0.008	0.114	0.323
cg09590068	black	12	54,400,494		Island		0.478	0.030	0.204	0.041
cg24573501	black	5	76,114,373	TSS1500	N_Shore	F2RL1	0.478	0.001	0.049	0.850
cg06239191	black	8	145,163,136	Body	Island	KIAA1875	0.478	0.002	0.457	0.906
cg05172068	black	6	26,421,598	TSS200	OpenSea	BTN2A3	0.477	0.001	0.016	0.325
cg01180552	black	16	54,316,931		Island		0.477	0.014	0.123	0.277
cg07265743	black	17	59,535,253	Body	Island	TBX4	0.477	0.000	0.026	0.848
cg04181528	black	15	89,943,836		Island		0.477	-0.004	0.056	0.388
cg04236263	black	1	17,305,798	5'UTR	N_Shore	MFAP2	0.477	-0.011	0.262	0.216
cg19702271	black	6	46,703,495	TSS1500	S_Shore	PLA2G7	0.477	0.007	0.119	0.243
cg12712746	black	22	44,351,370	1stExon	Island	SAMM50	0.477	-0.004	0.055	0.090
cg18218772	black	14	59,296,690		OpenSea		0.477	-0.036	0.416	0.001
cg07177860	black	2	26,402,318	Body	S_Shore	FAM59B	0.477	0.007	0.282	0.293
cg12961080	black	14	99,736,143	Body	Island	BCL11B	0.477	-0.001	0.042	0.519
cg02917321	black	22	38,215,204		S_Shore		0.477	0.002	0.063	0.707
cg20776385	black	15	40,613,333		N_Shore		0.477	0.001	0.025	0.423
cg02028339	black	6	125,991,844		OpenSea		0.477	0.002	0.232	0.844
cg13746854	black	9	34,370,894	Body	Island	KIAA1161	0.477	0.006	0.175	0.454
cg18486150	black	1	21,044,874	TSS1500	S_Shore	KIF17	0.477	0.003	0.077	0.664
cg11929896	black	10	79,398,838	TSS1500	S_Shore	KCNMA1	0.477	-0.011	0.284	0.169
cg13407446	black	9	123,698,965		OpenSea		0.477	0.000	0.037	0.875
cg04090604	black	21	46,222,557	TSS1500	S_Shore	UBE2G2	0.476	0.000	0.031	0.917
cg08893575	black	19	39,658,314	5'UTR	N_Shore	PAK4	0.476	0.002	0.351	0.777
cg09363564	black	1	169,337,483	TSS1500	OpenSea	NME7	0.476	-0.006	0.137	0.193
cg01347682	black	4	140,656,794	Body	Island	MAML3	0.476	0.001	0.036	0.526
cg04384031	black	17	19,631,485		S_Shelf		0.476	-0.001	0.036	0.760
cg08784911	black	1	204,346,839		Island		0.476	-0.004	0.042	0.168
cg12903530	black	1	181,097,897		OpenSea		0.476	0.007	0.509	0.357
cg16003064	black	12	56,102,252	TSS1500	S_Shore	ITGA7	0.476	-0.001	0.023	0.503
cg18284089	black	4	153,601,384	TSS200	OpenSea	TMEM154	0.476	0.003	0.025	0.023
cg01884321	black	4	15,683,497	1stExon	Island	LOC285550	0.476	-0.001	0.023	0.313
cg24330379	black	3	48,647,389	TSS1500	Island	UQCRC1	0.476	0.003	0.149	0.820
cg03104428	black	1	102,462,043	Body	OpenSea	OLFM3	0.476	0.006	0.099	0.441
cg08350776	black	5	54,516,538		Island		0.476	0.001	0.021	0.625
cg21301942	black	2	119,608,651		S_Shore		0.476	0.000	0.020	0.889
cg05203213	black	2	73,419,551		OpenSea		0.476	-0.005	0.050	0.133
cg09816471	black	16	11,761,860	TSS1500	Island	SNN	0.476	0.000	0.050	0.991
cg19236995	black	1	98,515,177		N_Shelf		0.476	-0.001	0.021	0.305
cg22233093	black	11	65,381,871	TSS200	Island	MAP3K11	0.476	0.000	0.043	0.772
cg10950113	black	16	69,166,907	TSS1500	Island	CHTF8	0.476	-0.004	0.046	0.235
cg16596957	black	16	87,575,150		OpenSea		0.476	0.010	0.215	0.204
cg26636010	black	2	20,306,539		OpenSea		0.476	-0.001	0.306	0.968
cg21769619	black	11	32,454,768	Body	N_Shore	WT1	0.476	0.011	0.111	0.282
cg21146592	black	6	100,062,762	3'UTR	S_Shore	PRDM13	0.476	-0.002	0.027	0.212
cg02298525	black	1	233,596,023		OpenSea		0.476	-0.007	0.192	0.309
cg14599284	black	5	167,719,687	Body	Island	WWC1	0.476	0.002	0.040	0.235
cg04149578	black	10	134,202,519		OpenSea		0.476	0.004	0.147	0.465
cg27595512	black	8	20,162,045		S_Shore		0.476	-0.005	0.221	0.694
cg03713186	black	7	100,872,377		N_Shelf		0.476	0.002	0.911	0.742
cg27112972	black	17	74,378,252		N_Shore		0.476	-0.001	0.034	0.677
cg25285904	black	18	73,628,634		Island		0.476	0.002	0.037	0.457

cg27531356	black	7	148,036,978	Body	S_Shore	CNTNAP2	0.476	0.002	0.029	0.102
cg10801102	black	17	80,023,921	TSS1500	Island	DUS1L	0.476	-0.004	0.149	0.494
cg19878838	black	4	77,135,506	TSS1500	S_Shore	SCARB2	0.475	-0.006	0.232	0.384
cg08466982	black	2	24,162,619	TSS1500	N_Shore	UBXN2A	0.475	0.000	0.016	0.652
cg04562491	black	12	113,495,386	TSS1500	Island	DTX1	0.475	-0.007	0.217	0.319
cg01139059	black	2	122,512,988	TSS200	Island	TSN	0.475	0.000	0.043	0.968
cg27265170	black	1	50,889,510	TSS1500	Island	DMRTA2	0.475	0.000	0.027	0.882
cg25881170	black	3	107,810,507	TSS1500	Island	CD47	0.475	-0.002	0.211	0.750
cg08401758	black	16	87,887,443	Body	OpenSea	SLC7A5	0.475	0.002	0.034	0.553
cg20938454	black	8	145,104,971		Island		0.475	0.001	0.047	0.649
cg18862210	black	6	168,815,477		S_Shore		0.475	-0.019	0.489	0.204
cg03258472	black	19	6,463,949	TSS1500	N_Shore	CRB3	0.475	0.003	0.253	0.730
cg07777790	black	1	229,570,188	TSS1500	Island	ACTA1	0.475	0.002	0.037	0.443
cg14196186	black	17	72,732,698	TSS1500	N_Shore	RAB37	0.475	0.000	0.043	0.846
cg00282704	black	10	21,786,410	TSS1500	Island	MIR1915	0.475	0.000	0.028	0.803
cg21340500	black	8	81,478,334		OpenSea		0.475	-0.002	0.042	0.475
cg23505303	black	18	70,534,110	TSS1500	Island	NETO1	0.475	0.000	0.023	0.745
cg19553910	black	7	151,038,594	TSS1500	N_Shore	NUB1	0.475	0.001	0.065	0.886
cg17486946	black	10	103,533,783	Body	N_Shore	FGF8	0.475	-0.002	0.053	0.482
cg04583232	black	11	22,362,874	Body	Island	SLC17A6	0.475	-0.003	0.065	0.472
cg26859016	black	1	206,643,375	TSS1500	OpenSea	IKBKE	0.475	0.011	0.431	0.134
cg27169020	black	15	83,954,229	TSS1500	S_Shore	BNC1	0.475	-0.001	0.119	0.894
cg23737263	black	2	43,328,424		S_Shore		0.474	0.027	0.373	0.006
cg13636880	black	19	58,280,927	TSS200	Island	ZNF586	0.474	0.000	0.026	0.846
cg18866587	black	1	16,375,046	TSS1500	OpenSea	CLCNKB	0.474	0.000	0.053	0.909
cg25622928	black	1	92,496,160	Body	S_Shore	EPHX4	0.474	0.000	0.084	0.959
cg24851364	black	10	57,390,306		N_Shore		0.474	-0.001	0.019	0.264
cg12847793	black	6	30,852,874	5'UTR	S_Shore	DDR1	0.474	0.002	0.132	0.695
cg11706177	black	7	155,579,794		N_Shore		0.474	0.005	0.088	0.400
cg15817960	black	12	54,409,599	TSS1500	S_Shore	HOXC4	0.474	0.018	0.120	0.088
cg01451328	black	14	61,115,053	Body	Island	SIX1	0.474	-0.001	0.020	0.685
cg13934406	black	6	32,120,878	TSS1500	N_Shore	PPT2	0.474	0.001	0.031	0.353
cg18486707	black	6	33,175,225	TSS1500	N_Shore	RING1	0.474	0.003	0.064	0.416
cg08862203	black	16	87,350,553		N_Shore		0.474	-0.006	0.046	0.011
cg18593210	black	17	81,021,770		N_Shelf		0.474	0.001	0.569	0.929
cg07747616	black	6	7,729,794	Body	S_Shore	BMP6	0.474	0.009	0.441	0.357
cg08381325	black	2	148,779,683	TSS1500	S_Shore	ORC4L	0.474	0.000	0.017	0.703
cg26779985	black	2	45,398,292		S_Shore		0.474	0.018	0.235	0.094
cg03898845	black	1	117,114,009	TSS1500	S_Shore	CD58	0.474	-0.001	0.027	0.430
cg15832311	black	2	242,675,047	Body	Island	D2HGDH	0.474	0.000	0.053	0.868
cg00962304	black	19	55,896,449	TSS1500	Island	RPL28	0.474	0.001	0.033	0.670
cg15315385	black	11	32,452,839	Body	S_Shore	WT1	0.474	0.020	0.124	0.094
cg13803976	black	2	87,016,129	Body	Island	CD8A	0.474	-0.002	0.040	0.284
cg04765277	black	10	8,094,679	Body	Island	FLJ45983	0.474	0.003	0.077	0.525
cg09756089	black	11	14,996,997		S_Shore		0.474	0.003	0.120	0.620
cg27002522	black	12	54,426,772	5'UTR	N_Shore	HOXC4	0.474	0.001	0.102	0.907
cg16795466	black	8	11,560,510	TSS1500	Island	GATA4	0.473	0.001	0.021	0.425
cg07656391	black	2	32,264,720	5'UTR	N_Shore	DPY30	0.473	0.002	0.030	0.126
cg07503918	black	10	54,068,594		OpenSea		0.473	-0.009	0.109	0.355
cg11811513	black	2	185,462,408	TSS1500	N_Shore	ZNF804A	0.473	0.000	0.018	0.860
cg18547659	black	7	75,830,863	TSS1500	N_Shore	SRRM3	0.473	0.003	0.038	0.151
cg00155310	black	6	50,814,011	3'UTR	S_Shore	TFAP2B	0.473	-0.001	0.029	0.628
cg05222924	black	11	32,450,486	Body	N_Shore	WT1	0.473	0.007	0.073	0.508
cg09297468	black	6	87,647,376	1stExon	Island	HTR1E	0.473	0.001	0.027	0.715
cg08594936	black	7	31,726,704	TSS200	OpenSea	C7orf16	0.473	0.012	0.179	0.334
cg09648702	black	11	20,184,779		Island		0.473	0.001	0.020	0.139
cg18823499	black	2	776,666		OpenSea		0.473	-0.006	0.381	0.491
cg02479211	black	13	111,719,677		N_Shore		0.473	-0.003	0.065	0.628
cg05256228	black	19	17,320,265	Body	N_Shelf	MYO9B	0.473	-0.006	0.610	0.475
cg16792632	black	14	64,761,208	TSS200	Island	ESR2	0.473	0.000	0.020	0.759
cg12993715	black	3	147,140,847		N_Shore		0.473	-0.001	0.029	0.562
cg23346128	black	3	15,319,599	Body	OpenSea	SH3BP5	0.473	0.029	0.525	0.243
cg05792572	black	11	77,757,450		OpenSea		0.473	0.001	0.064	0.782
cg25169784	black	13	96,706,045	TSS1500	S_Shore	UGGT2	0.473	0.001	0.016	0.257
cg11294761	black	17	80,275,530	TSS200	N_Shore	CD7	0.473	0.003	0.271	0.558
cg00864064	black	7	150,974,391	TSS200	Island	SMARCD3	0.473	0.001	0.023	0.689
cg13130319	black	14	77,964,542	Body	N_Shore	ISM2	0.473	0.003	0.073	0.500

cg25439807	black	18	3,771,151	Body	N_Shore	DLGAP1	0.473	0.001	0.019	0.613
cg25445612	black	21	47,401,277	TSS1500	Island	COL6A1	0.473	-0.001	0.013	0.189
cg21339969	black	1	226,737,393	Body	Island	C1orf95	0.472	-0.002	0.068	0.437
cg20899446	black	9	140,335,857	5'UTR	Island	ENTPD8	0.472	0.001	0.031	0.727
cg04731988	black	20	3,051,954	TSS1500	N_Shore	OXT	0.472	0.004	0.568	0.603
cg26402405	black	5	148,693,811	Body	OpenSea	AFAP1L1	0.472	0.006	0.618	0.409
cg21173623	black	9	139,685,156	TSS1500	N_Shore	TMEM141	0.472	-0.001	0.019	0.503
cg27130359	black	8	96,085,994		S_Shore		0.472	0.003	0.390	0.796
cg16886175	black	7	114,562,063	TSS200	N_Shore	MDFIC	0.472	-0.001	0.024	0.300
cg00376735	black	19	11,473,212	Body	Island	LPPR2	0.472	0.017	0.431	0.271
cg15865742	black	9	115,984,268	TSS1500	S_Shore	FKBP15	0.472	0.001	0.028	0.395
cg26151467	black	13	112,724,221	1stExon	S_Shore	SOX1	0.472	0.002	0.032	0.131
cg02124758	black	10	124,910,217		Island		0.472	0.001	0.065	0.823
cg07155223	black	1	217,307,696	5'UTR	N_Shore	ESRRG	0.472	0.000	0.022	0.850
cg04046629	black	11	60,775,831	Body	Island	CD6	0.472	-0.002	0.033	0.355
cg04824711	black	10	89,621,740	TSS1500	N_Shore	PTEN	0.472	-0.001	0.018	0.305
cg06035531	black	6	100,056,127	Body	S_Shore	PRDM13	0.472	0.010	0.077	0.097
cg17079034	black	2	239,047,280	TSS200	N_Shore	KLHL30	0.472	-0.002	0.192	0.796
cg03065311	black	20	62,601,662	TSS1500	Island	ZNF512B	0.472	-0.001	0.021	0.429
cg23268630	black	1	32,264,315	Body	OpenSea	SPOCD1	0.472	0.008	0.226	0.117
cg06516124	black	11	32,450,591	Body	N_Shore	WT1	0.472	0.010	0.057	0.203
cg01170694	black	5	72,431,891		OpenSea		0.472	0.005	0.068	0.301
cg13301003	black	11	32,449,254	Body	Island	WT1	0.472	0.012	0.210	0.419
cg10886225	black	8	33,282,384	Body	OpenSea	FUT10	0.472	-0.001	0.259	0.939
cg17046141	black	5	53,173,166		OpenSea		0.472	-0.012	0.114	0.263
cg18615431	black	19	19,250,617	TSS1500	S_Shore	TMEM161A	0.471	-0.002	0.050	0.542
cg11592576	black	3	42,915,467	3'UTR	OpenSea	CYP8B1	0.471	0.016	0.494	0.040
cg26963795	black	17	2,206,215	TSS1500	N_Shore	SRR	0.471	0.000	0.044	0.816
cg24227984	black	19	4,474,970	Body	S_Shore	HDGF2	0.471	-0.003	0.091	0.588
cg09878554	black	12	50,478,887	TSS200	Island	SMARCD1	0.471	0.000	0.019	0.788
cg00143643	black	10	77,191,062		Island		0.471	-0.001	0.027	0.479
cg13420845	black	1	155,220,231	Body	Island	FAM189B	0.471	0.036	0.180	0.025
cg00338391	black	7	1,283,981		Island		0.471	0.001	0.020	0.390
cg03179435	black	10	14,051,821	Body	OpenSea	FRMD4A	0.471	-0.004	0.035	0.224
cg18761223	black	2	10,092,455	Body	Island	GRHL1	0.470	0.001	0.030	0.535
cg06833110	black	2	66,673,316	Body	Island	MEIS1	0.470	0.001	0.024	0.675
cg14034968	black	3	147,140,754		N_Shore		0.470	0.000	0.018	0.872
cg09180171	black	1	22,677,913		OpenSea		0.470	0.000	0.017	0.789
cg21356104	black	6	132,834,508	TSS200	S_Shore	STX7	0.470	0.000	0.030	0.720
cg04486019	black	6	28,510,281		OpenSea		0.470	-0.002	0.046	0.352
cg14932468	black	2	72,373,914	Body	Island	CYP26B1	0.470	0.001	0.016	0.183
cg04288999	black	2	66,667,852	Body	OpenSea	MEIS1	0.470	-0.006	0.136	0.427
cg25628989	black	11	57,093,345	TSS1500	S_Shore	TNKS1BP1	0.470	0.005	0.146	0.501
cg03928546	black	19	15,121,591	5'UTR	Island	CCDC105	0.470	0.001	0.047	0.747
cg27634695	black	4	113,739,184	TSS200	OpenSea	ANK2	0.470	0.000	0.040	0.953
cg12614687	black	5	76,926,752	Body	Island	OTP	0.470	-0.001	0.026	0.660
cg20883227	black	6	28,742,389		OpenSea		0.470	0.008	0.179	0.223
cg09240763	black	2	200,330,851		S_Shore		0.470	0.000	0.023	0.786
cg00637988	black	15	90,294,732	TSS200	Island	MESP1	0.470	-0.001	0.228	0.839
cg19934381	black	17	80,944,090	Body	OpenSea	B3GNTL1	0.470	-0.009	0.177	0.352
cg13922451	black	6	28,557,542		S_Shelf		0.470	0.003	0.046	0.532
cg12457611	black	3	169,941,221	Body	S_Shore	PRKCI	0.469	0.001	0.017	0.392
cg05483021	black	8	54,569,668		Island		0.469	0.001	0.015	0.364
cg15235999	black	19	52,996,352	5'UTR	Island	ZNF578	0.469	0.007	0.107	0.552
cg03441770	black	4	81,128,845		S_Shore		0.469	-0.009	0.214	0.466
cg01195276	black	11	121,567,477		OpenSea		0.469	0.004	0.185	0.773
cg00500936	black	12	121,735,583	1stExon	S_Shore	CAMKK2	0.469	0.001	0.063	0.678
cg05050657	black	1	46,957,105		Island		0.469	0.002	0.045	0.352
cg18369939	black	1	3,239,916	Body	Island	PRDM16	0.469	0.012	0.087	0.205
cg23890282	black	6	33,756,082	Body	Island	LEMD2	0.469	0.001	0.021	0.291
cg04276508	black	6	50,819,054		S_Shore		0.469	0.001	0.032	0.603
cg04886060	black	16	82,044,788	5'UTR	N_Shore	SDR42E1	0.469	0.011	0.180	0.312
cg13674486	black	7	132,882,182		OpenSea		0.469	-0.002	0.272	0.795
cg11220950	black	16	2,042,693	Body	Island	SYNGR3	0.469	0.014	0.172	0.032
cg16438210	black	14	91,885,492	TSS1500	S_Shore	CCDC88C	0.469	-0.005	0.103	0.455
cg21155367	black	1	90,229,095		Island		0.469	-0.001	0.033	0.595
cg11589966	black	7	94,285,685	5'UTR	Island	PEG10	0.469	-0.002	0.513	0.595

cg17304262	black	5	140,071,104	TSS200	Island	HARS	0.469	-0.001	0.020	0.537
cg02700894	black	3	12,045,449	TSS1500	N_Shore	SYN2	0.469	-0.002	0.023	0.495
cg17754945	black	1	85,514,684	TSS1500	S_Shore	MCOLN3	0.468	0.001	0.031	0.519
cg10711778	black	2	202,317,236	5'UTR	S_Shore	STRADB	0.468	0.002	0.043	0.418
cg15442583	black	3	119,065,177	Body	OpenSea	CDGAP	0.468	-0.004	0.236	0.569
cg27306382	black	3	49,158,580	3'UTR	S_Shore	LAMB2	0.468	-0.007	0.093	0.114
cg16352283	black	1	27,338,978	1stExon	Island	FAM46B	0.468	0.002	0.081	0.745
cg10375456	black	19	10,380,576	TSS1500	Island	ICAM1	0.468	-0.001	0.039	0.565
cg20708516	black	8	37,773,605		OpenSea		0.468	0.002	0.033	0.246
cg23893997	black	7	26,904,682	TSS1500	Island	SKAP2	0.468	0.000	0.018	0.997
cg21110646	black	11	9,336,536	TSS1500	S_Shore	TMEM41B	0.468	0.001	0.018	0.597
cg12782180	black	7	127,880,932	TSS1500	Island	LEP	0.468	-0.014	0.119	0.222
cg04560225	black	1	91,195,336		S_Shelf		0.468	-0.001	0.032	0.316
cg06067842	black	10	63,213,385	TSS200	S_Shore	TMEM26	0.468	-0.001	0.016	0.479
cg17605476	black	4	158,143,917	Body	Island	GRIA2	0.468	-0.001	0.025	0.539
cg04041568	black	12	132,979,486		N_Shelf		0.468	0.017	0.400	0.010
cg16463460	black	11	32,454,718	Body	N_Shore	WT1	0.468	0.023	0.204	0.113
cg12073016	black	15	78,631,878	TSS1500	N_Shore	CRABP1	0.468	-0.009	0.117	0.241
cg27321079	black	7	100,034,454	TSS1500	S_Shore	C7orf47	0.468	0.001	0.037	0.722
cg21336049	black	3	111,805,371	1stExon	Island	C3orf52	0.468	0.003	0.028	0.110
cg06623935	black	1	214,159,131		N_Shore		0.468	0.000	0.011	0.745
cg14345572	black	17	79,259,383	Body	Island	SLC38A10	0.468	0.003	0.557	0.672
cg11436462	black	6	5,851,031		N_Shore		0.467	0.003	0.127	0.649
cg15364537	black	1	205,538,310	1stExon	Island	MFSD4	0.467	0.001	0.027	0.678
cg14916983	black	15	40,674,883	TSS200	N_Shore	C15orf23	0.467	0.000	0.087	0.969
cg23205454	black	15	82,379,883		OpenSea		0.467	-0.010	0.435	0.257
cg06634950	black	3	169,487,146	1stExon	Island	ARPM1	0.467	-0.001	0.195	0.917
cg17104824	black	2	177,014,959	TSS1500	Island	HOXD4	0.467	0.001	0.097	0.945
cg10183150	black	4	120,222,239	Body	S_Shore	C4orf3	0.467	-0.001	0.080	0.867
cg20564283	black	8	49,469,560		S_Shore		0.467	-0.003	0.091	0.721
cg25444386	black	4	55,990,944	Body	N_Shore	KDR	0.467	0.000	0.028	0.956
cg01759761	black	5	7,850,327	Body	Island	C5orf49	0.467	-0.001	0.029	0.441
cg00309133	black	15	69,452,320	Body	N_Shore	MIR548H4	0.467	0.015	0.239	0.012
cg08165291	black	17	27,047,555	Body	S_Shore	RPL23A	0.467	0.001	0.027	0.369
cg16204509	black	12	105,478,582	TSS1500	S_Shore	ALDH1L2	0.467	0.002	0.175	0.797
cg15483044	black	14	73,525,134	TSS200	Island	RBM25	0.467	0.000	0.011	0.792
cg08706907	black	11	46,696,158	Body	OpenSea	KIAA0652	0.467	0.007	0.356	0.150
cg02227188	black	12	54,396,354	Body	S_Shore	HOXC9	0.467	0.023	0.180	0.245
cg06231244	black	1	2,460,761	3'UTR	Island	HES5	0.467	0.000	0.067	0.911
cg22941646	black	1	235,814,339	TSS1500	Island	GNB4	0.467	-0.003	0.029	0.101
cg23283495	black	1	209,979,779	TSS1500	S_Shore	IRF6	0.467	-0.003	0.047	0.576
cg13433278	black	2	172,958,358		N_Shore		0.467	-0.002	0.049	0.562
cg14567593	black	19	13,265,338	3'UTR	N_Shore	IER2	0.467	0.000	0.025	0.890
cg04438525	black	16	49,313,307	3'UTR	N_Shore	CBLN1	0.467	-0.001	0.026	0.276
cg00007644	black	11	20,623,259	Body	Island	SLCGA5	0.467	0.003	0.056	0.524
cg21282282	black	1	109,705,170	Body	OpenSea	KIAA1324	0.467	0.011	0.159	0.290
cg06053605	black	8	26,519,438		OpenSea		0.467	0.000	0.024	0.984
cg22884440	black	8	131,370,028	Body	N_Shore	ASAP1	0.467	-0.001	0.170	0.794
cg18008019	black	13	100,641,646		Island		0.466	-0.001	0.037	0.667
cg25859099	black	7	20,818,767		S_Shore		0.466	-0.019	0.141	0.130
cg11452221	black	12	58,004,830	Body	N_Shore	GEFT	0.466	0.000	0.053	0.916
cg23461870	black	2	172,966,642	Body	Island	DLX2	0.466	-0.003	0.063	0.464
cg10716823	black	15	69,744,850	TSS1500	N_Shore	RPLP1	0.466	0.000	0.015	0.673
cg20940127	black	6	134,238,091		OpenSea		0.466	0.014	0.358	0.200
cg00566999	black	1	45,955,733	5'UTR	N_Shore	TESK2	0.466	0.001	0.030	0.466
cg01187496	black	5	167,718,124	TSS1500	N_Shore	WWC1	0.466	0.004	0.141	0.670
cg22916338	black	5	141,160,077		OpenSea		0.466	0.030	0.319	0.008
cg22161575	black	1	1,229,112	Body	Island	ACAP3	0.466	0.002	0.276	0.877
cg18334881	black	10	102,982,492		Island		0.466	-0.001	0.023	0.578
cg08147050	black	11	93,394,607	TSS1500	N_Shore	KIAA1731	0.466	-0.003	0.035	0.034
cg14701491	black	3	127,634,449		Island		0.466	0.001	0.037	0.880
cg19724344	black	1	877,647	Body	Island	SAMD11	0.466	0.001	0.044	0.712
cg14566624	black	1	6,321,582	TSS1500	S_Shore	GPR153	0.466	-0.003	0.034	0.184
cg22242216	black	19	48,947,578	3'UTR	Island	GRIN2D	0.466	0.002	0.164	0.877
cg05238517	black	11	104,034,227	Body	N_Shore	PDGFD	0.466	0.000	0.025	0.953
cg03933572	black	2	150,187,926	5'UTR	S_Shore	LYPD6	0.465	0.001	0.019	0.533
cg00280758	black	4	140,221,967	TSS1500	N_Shore	NAA15	0.465	0.002	0.021	0.228



cg24592906	black	6	100,911,550	1stExon	N_Shore	SIM1	0.465	0.003	0.038	0.449
cg04678392	black	15	68,114,548		N_Shore		0.465	0.000	0.029	0.886
cg10426502	black	17	72,196,042		N_Shelf		0.465	-0.001	0.027	0.629
cg15980076	black	10	94,822,747	Body	Island	CYP26C1	0.465	-0.003	0.078	0.545
cg22820364	black	14	81,901,540		N_Shore		0.465	-0.006	0.047	0.093
cg24154326	black	20	30,556,611	Body	S_Shore	XKR7	0.465	-0.006	0.052	0.080
cg08905114	black	9	95,897,015	TSS1500	Island	NINJ1	0.464	-0.006	0.150	0.396
cg13741406	black	19	47,207,882	Body	S_Shore	PRKD2	0.464	0.009	0.219	0.087
cg14780132	black	4	155,254,602	Body	Island	DCHS2	0.464	-0.002	0.055	0.596
cg06326072	black	11	111,895,455	TSS200	N_Shore	DLAT	0.464	0.000	0.035	0.954
cg24912023	black	2	110,979,750	Body	OpenSea	NCRNA00116	0.464	0.011	0.348	0.296
cg16169375	black	6	43,197,328	TSS200	Island	C6orf108	0.464	-0.001	0.020	0.599
cg02469330	black	3	194,090,586	TSS200	OpenSea	LRRCL15	0.464	0.007	0.059	0.072
cg11195797	black	13	100,547,331	3'UTR	Island	CLYBL	0.464	0.001	0.035	0.699
cg08616061	black	5	140,753,570	Body	N_Shore	PCDHGA4	0.464	0.003	0.148	0.695
cg07683388	black	2	198,029,332	Body	Island	ANKRD44	0.464	-0.001	0.062	0.921
cg06451228	black	11	64,397,333	Body	N_Shore	NRXN2	0.464	0.003	0.472	0.617
cg04611812	black	6	75,911,956	Body	Island	COL12A1	0.464	-0.014	0.142	0.187
cg03881663	black	13	28,495,173	Body	Island	PDX1	0.464	-0.001	0.041	0.697
cg03671710	black	6	31,866,508	TSS1500	N_Shore	EHMT2	0.464	0.001	0.039	0.566
cg12014008	black	10	48,439,443	TSS1500	S_Shore	GDF10	0.464	-0.001	0.093	0.851
cg13902108	black	9	139,449,889		OpenSea		0.464	0.007	0.440	0.302
cg03387585	black	11	126,455,596	Body	OpenSea	KIRREL3	0.464	0.005	0.208	0.605
cg15101980	black	5	149,681,950	5'UTR	Island	ARSI	0.464	0.001	0.108	0.887
cg09985282	black	13	100,608,447		Island		0.464	0.002	0.076	0.714
cg01432620	black	13	100,636,183	Body	N_Shore	ZIC2	0.463	0.001	0.016	0.231
cg24325996	black	15	78,632,194	TSS1500	N_Shore	CRABP1	0.463	0.004	0.070	0.405
cg22504580	black	17	9,548,032	TSS1500	N_Shore	USP43	0.463	0.000	0.023	0.987
cg21229570	black	12	115,124,768		Island		0.463	-0.001	0.033	0.767
cg09473510	black	4	187,476,573	TSS200	Island	MTNR1A	0.463	0.000	0.019	0.935
cg11627823	black	7	129,424,539		N_Shore		0.463	0.016	0.095	0.024
cg26960083	black	7	143,106,298	TSS1500	OpenSea	EPHA1	0.463	-0.011	0.118	0.139
cg15321288	black	8	38,326,400	TSS200	S_Shore	FGFR1	0.463	0.000	0.024	0.787
cg08299063	black	6	28,677,698		OpenSea		0.463	0.010	0.117	0.353
cg10031995	black	22	45,064,086	TSS1500	N_Shore	PRR5	0.463	-0.006	0.085	0.184
cg21096502	black	7	56,174,374	TSS200	Island	CHCHD2	0.463	-0.002	0.039	0.418
cg04006133	black	16	84,172,431	5'UTR	OpenSea	HSDL1	0.463	0.010	0.376	0.251
cg12052265	black	11	104,034,058	Body	N_Shore	PDGFD	0.463	-0.003	0.052	0.572
cg24231804	black	15	67,316,861		OpenSea		0.462	0.003	0.233	0.676
cg11798857	black	20	22,566,289	TSS1500	N_Shore	FOXA2	0.462	0.001	0.059	0.762
cg21039631	black	1	117,112,854	Body	N_Shore	CD58	0.462	0.000	0.133	0.970
cg01855070	black	3	42,201,314	TSS1500	OpenSea	TRAK1	0.462	-0.005	0.079	0.451
cg10457539	black	4	85,418,584	Body	Island	NKX6-1	0.462	-0.002	0.065	0.729
cg15414638	black	6	28,956,731		S_Shore		0.462	0.017	0.136	0.224
cg03248820	black	10	102,822,873	Body	Island	KAZALD1	0.462	0.008	0.079	0.090
cg09462445	black	2	217,559,131	Body	Island	IGFBP5	0.462	0.000	0.016	0.817
cg22583711	black	7	154,795,321	TSS1500	Island	PAXIP1	0.462	-0.001	0.035	0.700
cg16081281	black	8	23,559,839		Island		0.462	0.005	0.050	0.153
cg13133987	black	17	35,289,677		N_Shore		0.462	0.002	0.086	0.641
cg25685983	black	19	10,677,491	3'UTR	N_Shore	CDKN2D	0.462	0.003	0.253	0.669
cg19794507	black	12	54,391,285		S_Shore		0.462	0.012	0.049	0.158
cg03285577	black	5	3,605,905		N_Shore		0.462	-0.003	0.146	0.790
cg08945450	black	1	11,795,905	TSS1500	N_Shore	AGTRAP	0.462	-0.002	0.045	0.353
cg00714725	black	10	94,825,576	Body	Island	CYP26C1	0.462	0.000	0.019	0.966
cg01295399	black	10	50,820,278	1stExon	Island	SLC18A3	0.462	0.013	0.102	0.238
cg23009419	black	3	46,618,597	5'UTR	Island	LRRCL2	0.461	0.006	0.070	0.238
cg02882530	black	4	776,504		S_Shore		0.461	0.010	0.251	0.452
cg26616083	black	1	26,736,154	TSS1500	N_Shore	LIN28	0.461	0.001	0.032	0.447
cg12244052	black	7	45,961,469	TSS1500	S_Shore	IGFBP3	0.461	-0.007	0.107	0.371
cg27413462	black	11	14,993,866	TSS200	N_Shore	CALCA	0.461	-0.002	0.028	0.149
cg14385738	black	1	114,414,340	5'UTR	OpenSea	PTPN22	0.461	0.015	0.605	0.036
cg14337844	black	14	99,740,585		Island		0.461	0.006	0.054	0.154
cg12593812	black	3	51,990,638	1stExon	Island	GPR62	0.461	-0.002	0.058	0.535
cg01129847	black	19	2,281,919	5'UTR	S_Shelf	C19orf35	0.461	0.013	0.595	0.192
cg08812936	black	3	178,254,213	TSS200	OpenSea	KCNMB2	0.461	-0.010	0.180	0.254
cg02368606	black	16	31,119,484	TSS200	N_Shore	BCKDK	0.461	0.001	0.508	0.935
cg05767455	black	6	31,940,052	Body	Island	STK19	0.461	0.001	0.031	0.710

cg25750389	black	4	111,544,016	1stExon	Island	PITX2	0.461	0.001	0.022	0.417
cg14196028	black	10	69,523,483		N_Shore		0.461	-0.002	0.028	0.082
cg13589318	black	9	132,176,355		Island		0.461	-0.005	0.087	0.345
cg12858460	black	3	27,763,737	1stExon	Island	EOMES	0.461	0.001	0.023	0.250
cg03817107	black	5	169,532,775	TSS200	N_Shore	FOXI1	0.460	0.019	0.312	0.019
cg06398908	black	19	6,108,864	5'UTR	Island	RFX2	0.460	-0.002	0.032	0.253
cg03052301	black	11	32,459,954	Body	N_Shore	WIT1	0.460	0.007	0.044	0.129
cg25979526	black	15	52,778,344	Body	OpenSea	MYO5A	0.460	0.016	0.157	0.235
cg19980929	black	12	42,632,907	TSS1500	S_Shore	YAF2	0.460	0.040	0.229	0.028
cg18856478	black	1	43,814,358	Body	Island	MPL	0.460	0.000	0.039	0.925
cg02225847	black	16	67,563,418	5'UTR	N_Shore	FAM65A	0.460	-0.003	0.047	0.216
cg15388975	black	1	45,120,147	3'UTR	N_Shore	TMEM53	0.460	0.001	0.870	0.915
cg20186396	black	17	80,275,498	TSS200	N_Shore	CD7	0.460	0.009	0.695	0.168
cg04610235	black	17	56,592,440	Body	S_Shore	MTMR4	0.460	0.014	0.550	0.021
cg04605287	black	1	54,953,486		N_Shore		0.460	-0.014	0.197	0.122
cg03082813	black	3	47,554,177	Body	N_Shore	C3orf75	0.460	0.000	0.026	0.909
cg02595377	black	2	220,387,323	Body	Island	ACCN4	0.460	0.001	0.070	0.788
cg26275662	black	4	1,021,107		Island		0.460	0.011	0.544	0.055
cg14956197	black	14	36,993,831		Island		0.460	-0.001	0.016	0.225
cg06329537	black	16	23,568,656	TSS1500	Island	UBFD1	0.460	0.000	0.014	0.888
cg02188185	black	6	30,039,524	Body	S_Shore	RNF39	0.460	0.009	0.108	0.465
cg08326370	black	10	124,904,126		N_Shore		0.460	0.000	0.028	0.915
cg27631817	black	6	10,060,938		OpenSea		0.460	-0.002	0.223	0.832
cg18738581	black	3	9,944,183	TSS200	OpenSea	IL17RE	0.460	0.014	0.291	0.098
cg20295537	black	10	57,389,906		N_Shore		0.460	-0.005	0.039	0.128
cg14633562	black	17	58,755,080	TSS200	Island	BCAS3	0.460	0.001	0.034	0.498
cg03751906	black	12	129,307,800	Body	N_Shore	SLC15A4	0.459	0.003	0.047	0.331
cg05795931	black	3	69,435,510	TSS200	N_Shore	FRMD4B	0.459	0.001	0.084	0.922
cg05145534	black	13	113,097,975		OpenSea		0.459	0.003	0.033	0.201
cg00066816	black	5	158,758,353	TSS1500	N_Shore	IL12B	0.459	-0.005	0.190	0.620
cg00509921	black	16	79,632,331	3'UTR	N_Shore	MAF	0.459	0.001	0.020	0.187
cg09355771	black	2	177,043,147		Island		0.459	0.000	0.029	0.930
cg22213752	black	17	36,874,660	Body	OpenSea	MLLT6	0.459	-0.003	0.893	0.634
cg04215213	black	2	159,602,169		OpenSea		0.459	-0.003	0.026	0.030
cg11268280	black	8	142,316,072		N_Shelf		0.459	-0.001	0.023	0.455
cg14515791	black	1	178,310,545	Body	OpenSea	RASAL2	0.459	-0.003	0.043	0.313
cg19013222	black	6	30,883,526	Body	S_Shore	VARS2	0.459	-0.002	0.038	0.328
cg22812770	black	1	52,195,547	5'UTR	Island	OSBP19	0.459	-0.001	0.031	0.584
cg22511262	black	11	32,455,192	Body	Island	WT1	0.459	0.000	0.028	0.875
cg10380362	black	6	30,646,949	Body	OpenSea	KIAA1949	0.459	-0.003	0.303	0.543
cg21211418	black	9	34,957,783	TSS1500	Island	KIAA1045	0.459	0.001	0.071	0.851
cg18609783	black	2	175,199,349	TSS1500	N_Shore	SP9	0.459	0.000	0.028	0.930
cg24221919	black	7	157,480,107	Body	Island	PTPRN2	0.459	-0.002	0.095	0.828
cg03283569	black	9	127,963,181	1stExon	S_Shore	RABEPK	0.459	0.001	0.031	0.600
cg13521973	black	19	38,811,027	Body	S_Shore	KCNK6	0.459	0.002	0.035	0.371
cg24482053	black	14	75,518,003	5'UTR	Island	MLH3	0.459	0.001	0.039	0.497
cg23344395	black	3	192,634,002	Body	N_Shore	C3orf59	0.459	0.006	0.267	0.501
cg16539957	black	14	38,066,873		N_Shore		0.459	-0.004	0.042	0.305
cg17987112	black	5	174,158,654		N_Shore		0.459	0.000	0.023	0.829
cg14845282	black	3	131,080,593	TSS200	Island	NUDT16P	0.459	0.004	0.099	0.370
cg05646015	black	2	3,697,458		N_Shore		0.458	0.016	0.601	0.126
cg11341528	black	7	94,139,401	1stExon	Island	CASD1	0.458	0.001	0.021	0.468
cg20082357	black	17	40,611,017	5'UTR	Island	ATP6V0A1	0.458	-0.001	0.019	0.142
cg06114087	black	13	53,423,940	TSS1500	N_Shore	PCDH8	0.458	0.000	0.018	0.823
cg05274323	black	4	4,386,745	TSS1500	N_Shore	D4S234E	0.458	0.010	0.257	0.369
cg17906267	black	1	95,582,329	TSS1500	N_Shore	TMEM56	0.458	0.003	0.057	0.321
cg19281238	black	20	3,870,569	Body	Island	PANK2	0.458	0.002	0.022	0.019
cg11801481	black	14	38,055,252		N_Shore		0.458	0.024	0.297	0.188
cg00099869	black	10	52,751,764	Body	Island	PRKG1	0.458	-0.003	0.040	0.035
cg20501518	black	3	157,821,919	Body	N_Shore	SHOX2	0.457	0.001	0.025	0.738
cg18652346	black	6	28,733,673		OpenSea		0.457	-0.003	0.043	0.334
cg14428080	black	9	96,723,014		Island		0.457	0.001	0.018	0.440
cg11116086	black	15	32,943,612	Body	OpenSea	SCG5	0.457	-0.009	0.099	0.288
cg13905258	black	2	45,158,117		N_Shore		0.457	0.003	0.055	0.597
cg21500354	black	11	6,518,331	TSS200	OpenSea	DNHD1	0.457	-0.005	0.331	0.675
cg10668414	black	20	34,895,979		S_Shore		0.457	0.001	0.111	0.871
cg02173289	black	14	101,925,020		Island		0.457	-0.004	0.062	0.277

cg02967428	black	8	104,510,754	N_Shore		0.457	0.001	0.020	0.578
cg21498772	black	8	63,161,077 TSS1500	Island	NKAIN3	0.457	-0.004	0.053	0.143
cg27490875	black	2	69,418,131 Body	OpenSea	ANTXR1	0.457	-0.003	0.054	0.334
cg27603915	black	11	20,692,113 Body	S_Shore	NELL1	0.457	0.000	0.021	0.637
cg10442113	black	5	151,329,120	OpenSea		0.457	0.006	0.176	0.387
cg26181939	black	11	61,063,062 TSS1500	Island	VWCE	0.457	0.002	0.063	0.598
cg19259199	black	8	681,730 TSS1500	Island	ERICH1	0.456	0.003	0.094	0.561
cg23896164	black	21	38,120,518 3'UTR	Island	SIM2	0.456	-0.001	0.049	0.893
cg17296482	black	12	4,382,188 TSS1500	Island	CCND2	0.456	-0.001	0.016	0.155
cg05172259	black	14	38,053,972	Island		0.456	0.002	0.054	0.867
cg14434870	black	6	99,279,054	N_Shore		0.456	-0.001	0.039	0.814
cg12127196	black	1	50,489,240 Body	N_Shore	AGBL4	0.456	-0.008	0.060	0.148
cg03469618	black	3	75,956,295	Island		0.456	0.000	0.049	0.991
cg20659418	black	6	114,176,105	N_Shelf		0.456	0.000	0.022	0.822
cg12041401	black	1	181,561,511 Body	OpenSea	CACNA1E	0.456	-0.001	0.307	0.926
cg19092837	black	1	10,271,724 5'UTR	S_Shore	KIF1B	0.456	0.004	0.075	0.478
cg01138867	black	5	160,975,792 TSS1500	S_Shore	GABRB2	0.455	0.001	0.021	0.501
cg11106287	black	6	33,265,605 Body	N_Shore	RGL2	0.455	-0.001	0.031	0.561
cg00998427	black	11	61,323,029 Body	Island	SYT7	0.455	0.001	0.017	0.367
cg08170787	black	1	155,290,535 TSS200	N_Shore	RUSC1	0.455	0.012	0.096	0.119
cg10720654	black	9	33,676,517 Body	OpenSea	PTENP1	0.455	0.014	0.324	0.294
cg00014998	black	2	177,014,962 TSS1500	Island	HOXD4	0.455	0.003	0.073	0.728
cg04885336	black	3	195,270,848 TSS1500	S_Shore	PPP1R2	0.455	0.002	0.163	0.831
cg20992361	black	7	14,755,869 Body	OpenSea	DGKB	0.455	-0.002	0.908	0.765
cg06619621	black	11	32,354,742	N_Shore		0.455	0.001	0.096	0.927
cg08795279	black	16	56,623,816 Body	Island	MT3	0.455	0.003	0.098	0.670
cg07522416	black	6	39,016,326 TSS1500	Island	GLP1R	0.455	-0.005	0.069	0.135
cg04010586	black	1	36,788,436 Body	Island	FAM176B	0.455	-0.001	0.149	0.907
cg09874901	black	18	21,269,902 1stExon	Island	LAMA3	0.455	0.000	0.043	0.876
cg04363768	black	8	56,793,160 5'UTR	Island	LYN	0.455	0.001	0.029	0.458
cg01437571	black	19	33,792,148 3'UTR	Island	CEBPA	0.455	-0.003	0.050	0.359
cg18464726	black	12	6,305,192	N_Shelf		0.455	-0.011	0.212	0.017
cg09993780	black	6	31,648,544 TSS1500	N_Shore	LY6G5C	0.455	-0.001	0.022	0.206
cg16399365	black	1	244,213,577 TSS1500	Island	ZNF238	0.455	0.003	0.051	0.308
cg04843111	black	1	156,617,074 Body	S_Shore	BCAN	0.455	0.009	0.430	0.208
cg19029181	black	3	147,130,536 Body	Island	ZIC1	0.455	0.001	0.033	0.681
cg19315081	black	11	10,326,100 TSS1500	Island	ADM	0.455	0.000	0.024	0.966
cg14671384	black	12	47,219,920 TSS200	OpenSea	SLC38A4	0.454	-0.001	0.086	0.833
cg22491279	black	19	8,008,671 TSS200	Island	TIMM44	0.454	0.000	0.020	0.804
cg21853510	black	17	80,285,525 5'UTR	OpenSea	SECTM1	0.454	-0.016	0.277	0.203
cg21007190	black	7	128,578,297 5'UTR	Island	IRF5	0.454	-0.003	0.090	0.698
cg02972715	black	14	24,039,333 Body	S_Shelf	JPH4	0.454	0.003	0.859	0.647
cg12090740	black	18	60,988,058 TSS1500	Island	BCL2	0.454	0.001	0.040	0.832
cg00158333	black	17	47,075,855 Body	Island	IGF2BP1	0.454	0.000	0.018	0.694
cg25750228	black	12	53,267,626	N_Shore		0.454	0.002	0.103	0.783
cg10461547	black	3	13,323,567	Island		0.454	0.006	0.043	0.099
cg20767025	black	7	128,431,850 TSS1500	Island	CCDC136	0.454	0.000	0.025	0.866
cg00584683	black	2	101,435,094	Island		0.454	-0.001	0.028	0.332
cg13340636	black	3	147,110,667 Body	Island	ZIC4	0.454	0.001	0.030	0.642
cg09000779	black	3	136,867,925	OpenSea		0.454	0.007	0.325	0.623
cg05493841	black	12	70,083,096 Body	OpenSea	BEST3	0.454	0.014	0.260	0.115
cg20387815	black	2	25,391,666 TSS200	Island	POMC	0.454	0.000	0.027	0.978
cg26127652	black	6	28,973,426 TSS1500	OpenSea	ZNF311	0.454	0.007	0.051	0.283
cg08422745	black	4	174,089,978 5'UTR	N_Shore	GALNT7	0.454	0.004	0.100	0.564
cg12406559	black	18	56,530,302 1stExon	N_Shore	ZNF532	0.454	0.000	0.027	0.883
cg02969141	black	7	15,727,598 TSS1500	OpenSea	MEOX2	0.453	0.001	0.034	0.578
cg02282631	black	5	42,953,543	S_Shore		0.453	0.002	0.064	0.786
cg06494167	black	2	86,946,815 TSS1500	Island	RMND5A	0.453	0.000	0.014	0.847
cg05048002	black	16	30,077,837 5'UTR	Island	ALDOA	0.453	0.002	0.023	0.059
cg11676636	black	10	49,812,258 Body	N_Shore	ARHGAP22	0.453	-0.020	0.463	0.162
cg25819026	black	19	41,060,392 Body	Island	SPTBN4	0.453	-0.001	0.111	0.935
cg21069942	black	11	69,683,461	Island		0.453	-0.016	0.216	0.329
cg08676425	black	19	41,882,327 TSS200	N_Shore	TMEM91	0.453	-0.002	0.033	0.202
cg12532266	black	5	132,201,652 TSS1500	N_Shore	GDF9	0.453	-0.020	0.495	0.099
cg13829104	black	12	115,118,806 Body	N_Shore	TBX3	0.453	0.010	0.181	0.486
cg05417332	black	16	30,104,025 3'UTR	S_Shore	YPEL3	0.453	-0.015	0.307	0.023
cg25382400	black	3	181,445,514 Body	S_Shore	SOX2OT	0.453	0.000	0.020	0.968

cg14510359	black	1	2,559,930	Body	Island	MMEL1	0.452	-0.001	0.049	0.738
cg23307203	black	19	18,499,309	Body	Island	GDF15	0.452	0.001	0.017	0.643
cg26931202	black	7	117,854,634		Island		0.452	0.014	0.112	0.237
cg26791399	black	3	147,124,687	TSS1500	N_Shelf	ZIC4	0.452	0.002	0.068	0.711
cg02726943	black	15	50,475,039	1stExon	Island	SLC27A2	0.452	0.004	0.071	0.334
cg07524456	black	11	45,868,501	TSS1500	N_Shore	CRY2	0.452	0.008	0.120	0.352
cg19591595	black	10	133,651,815		OpenSea		0.452	0.000	0.110	0.940
cg22630713	black	7	128,577,824	TSS200	Island	IRF5	0.452	0.000	0.035	0.887
cg19631472	black	11	18,415,641	TSS1500	N_Shore	LDHA	0.452	0.005	0.365	0.536
cg26178446	black	2	192,542,487	TSS1500	N_Shore	OBFC2A	0.452	0.003	0.032	0.063
cg01702042	black	14	96,967,897	TSS1500	N_Shore	PAPOLA	0.452	0.001	0.027	0.611
cg08668199	black	3	127,795,571		Island		0.452	0.001	0.025	0.353
cg05512100	black	7	32,109,997	Body	N_Shore	PDE1C	0.452	0.000	0.015	0.812
cg09354556	black	3	47,051,341		Island		0.452	-0.001	0.037	0.555
cg26355573	black	18	5,197,388	TSS200	Island	LOC642597	0.452	0.001	0.017	0.246
cg27458265	black	16	55,542,981	1stExon	Island	LPCAT2	0.451	0.002	0.075	0.717
cg08461451	black	19	2,295,092	5'UTR	Island	LINGO3	0.451	0.003	0.216	0.820
cg16935061	black	6	1,395,278	3'UTR	S_Shore	FOXF2	0.451	0.006	0.379	0.498
cg15233892	black	6	117,591,433	Body	N_Shore	VGLL2	0.451	-0.001	0.022	0.372
cg12944183	black	14	104,073,931		OpenSea		0.451	0.008	0.156	0.400
cg15257755	black	8	22,225,668	5'UTR	S_Shore	SLC39A14	0.451	-0.002	0.057	0.704
cg01870907	black	17	77,775,687		Island		0.451	-0.003	0.139	0.621
cg27592331	black	18	19,756,582	Body	N_Shore	GATA6	0.451	-0.003	0.059	0.510
cg04138103	black	5	38,796,759		OpenSea		0.451	-0.008	0.687	0.376
cg21458907	black	3	62,860,802	5'UTR	Island	CADPS	0.451	0.000	0.022	0.811
cg12432236	black	13	58,209,133	1stExon	S_Shore	PCDH17	0.451	-0.003	0.034	0.123
cg25827022	black	17	7,287,652	Body	Island	TNK1	0.451	0.001	0.034	0.615
cg13127800	black	12	114,404,250	TSS200	Island	RBM19	0.451	0.001	0.017	0.471
cg08131184	black	19	33,764,378		Island		0.450	0.007	0.216	0.419
cg08752135	black	11	61,284,417	3'UTR	S_Shore	SYT7	0.450	-0.001	0.089	0.901
cg04223924	black	2	98,552,472	Body	OpenSea	TMEM131	0.450	0.002	0.043	0.446
cg23339454	black	4	1,165,267	Body	Island	SPON2	0.450	-0.002	0.083	0.604
cg08996748	black	15	40,651,036	Body	Island	DISP2	0.450	-0.004	0.075	0.342
cg10245988	black	3	12,046,420	Body	Island	SYN2	0.450	-0.001	0.029	0.383
cg17561241	black	12	54,070,294	1stExon	N_Shore	ATP5G2	0.450	-0.007	0.066	0.296
cg18199666	black	10	50,821,031	TSS1500	N_Shore	CHAT	0.450	0.000	0.032	0.875
cg07863240	black	5	6,819,474		N_Shelf		0.450	0.003	0.166	0.722
cg11071207	black	1	110,611,218	Body	Island	ALX3	0.450	-0.002	0.024	0.200
cg05928053	black	2	182,549,565		S_Shore		0.450	0.003	0.064	0.522
cg25782229	black	11	32,450,692	Body	N_Shore	WT1	0.450	0.026	0.145	0.133
cg18959988	black	12	7,072,891	TSS1500	OpenSea	MIR141	0.450	0.008	0.517	0.183
cg25256661	black	17	7,137,939	TSS200	Island	DVL2	0.450	0.002	0.033	0.507
cg19890879	black	3	44,039,289		Island		0.450	0.004	0.051	0.127
cg11309785	black	2	72,922,245	Body	OpenSea	EXOC6B	0.450	-0.003	0.051	0.414
cg13770865	black	10	72,575,083	TSS1500	N_Shore	SGPL1	0.450	0.009	0.737	0.259
cg19633305	black	7	31,162,236		OpenSea		0.449	0.003	0.033	0.330
cg16957313	black	5	172,199,661	TSS1500	S_Shore	DUSP1	0.449	-0.002	0.042	0.502
cg18770763	black	11	724,525	Body	N_Shore	EPS8L2	0.449	0.008	0.472	0.467
cg19709608	black	3	16,558,965		S_Shelf		0.449	-0.016	0.291	0.059
cg00986610	black	16	86,554,580		OpenSea		0.449	0.022	0.569	0.046
cg23916496	black	10	85,997,314	Body	Island	LRIT1	0.449	0.007	0.376	0.601
cg09737197	black	11	68,607,675	5'UTR	N_Shore	CPT1A	0.449	0.000	0.023	0.973
cg16844333	black	10	89,167,457		OpenSea		0.449	-0.004	0.396	0.764
cg09040078	black	16	23,291,476		OpenSea		0.449	0.008	0.548	0.583
cg22473727	black	5	172,199,667	TSS1500	S_Shore	DUSP1	0.449	0.000	0.066	0.916
cg10336144	black	1	41,156,988	TSS1500	N_Shore	NFYC	0.449	0.000	0.031	0.889
cg24660670	black	1	116,371,083		Island		0.449	0.000	0.031	0.989
cg13861524	black	19	50,836,391		Island		0.449	-0.002	0.025	0.183
cg00474713	black	16	28,888,747	TSS1500	N_Shelf	ATP2A1	0.449	-0.014	0.657	0.091
cg15951661	black	14	71,277,141	TSS1500	S_Shore	MAP3K9	0.449	0.004	0.039	0.149
cg26014634	black	17	70,113,514		Island		0.449	-0.001	0.030	0.603
cg12437024	black	20	61,147,602	TSS200	Island	C20orf166	0.449	0.001	0.053	0.780
cg25109663	black	3	114,102,785	5'UTR	OpenSea	ZBTB20	0.448	0.003	0.064	0.428
cg00554413	black	1	59,042,113	1stExon	Island	TACSTD2	0.448	-0.002	0.070	0.658
cg07385423	black	1	161,697,574	3'UTR	S_Shore	FCRLB	0.448	0.010	0.190	0.389
cg15078329	black	1	222,628,324		OpenSea		0.448	0.013	0.205	0.184
cg04065086	black	1	151,104,186	3'UTR	Island	SEMA6C	0.448	-0.013	0.236	0.177

cg13771753	black	6	32,016,070	Body	OpenSea	TNXB	0.448	0.001	0.070	0.862
cg07177394	black	21	43,100,703	Body	OpenSea	NCRNA00111	0.448	-0.009	0.550	0.227
cg10257521	black	11	1,903,828	Body	S_Shore	LSP1	0.448	-0.003	0.067	0.327
cg08129953	black	2	242,448,802	TSS1500	S_Shore	STK25	0.448	0.008	0.131	0.283
cg19937061	black	13	25,320,133		Island		0.448	0.000	0.023	0.958
cg01117364	black	10	135,132,509		S_Shore		0.448	-0.001	0.070	0.840
cg21209091	black	8	42,234,975	TSS1500	OpenSea	DKK4	0.448	0.001	0.045	0.670
cg20257553	black	2	160,919,462	TSS1500	S_Shore	PLA2R1	0.448	-0.002	0.025	0.100
cg02486421	black	8	131,027,724		N_Shore		0.448	0.010	0.369	0.287
cg08494390	black	4	87,980,297	Body	OpenSea	AFF1	0.448	0.002	0.363	0.727
cg18395636	black	11	87,908,785	TSS200	S_Shore	RAB38	0.448	-0.001	0.024	0.666
cg25687894	black	17	40,075,716	TSS1500	S_Shore	ACLY	0.447	0.000	0.026	0.895
cg17558126	black	1	206,680,250	TSS1500	Island	RASSF5	0.447	-0.008	0.218	0.444
cg10314172	black	2	64,681,735	Body	Island	HSPC159	0.447	0.001	0.016	0.017
cg18210026	black	2	121,495,096		Island		0.447	0.005	0.202	0.575
cg03585447	black	15	29,077,683		Island		0.447	-0.001	0.105	0.940
cg00653387	black	7	137,028,535	5'UTR	OpenSea	PTN	0.447	0.000	0.016	0.987
cg24550010	black	1	65,731,107	Body	N_Shore	DNAJC6	0.447	0.000	0.026	0.723
cg00270625	black	22	51,017,019	1stExon	Island	CPT1B	0.447	-0.002	0.111	0.907
cg14983135	black	7	48,129,822	5'UTR	Island	UPP1	0.447	0.001	0.031	0.783
cg02360514	black	19	45,975,990	Body	Island	FOSB	0.447	0.000	0.033	0.990
cg02599463	black	1	156,611,574	TSS200	N_Shore	BCAN	0.447	-0.003	0.023	0.007
cg06346505	black	10	116,164,640	TSS200	S_Shore	AFAP1L2	0.447	0.006	0.197	0.351
cg14981807	black	3	71,833,543	Body	N_Shore	PROK2	0.447	0.000	0.037	0.986
cg00473167	black	3	191,046,872	TSS200	N_Shore	CCDC50	0.447	0.000	0.022	0.788
cg19431272	black	19	10,625,429	Body	Island	S1PR5	0.447	-0.019	0.137	0.120
cg13846270	black	13	51,417,929	TSS200	Island	DLEU7	0.447	0.002	0.020	0.109
cg27517968	black	2	208,546,083		Island		0.447	0.003	0.053	0.545
cg27383975	black	19	17,356,182	TSS200	Island	NR2F6	0.447	0.002	0.058	0.627
cg23500537	black	5	140,419,819		OpenSea		0.447	0.002	0.107	0.782
cg04874129	black	16	55,690,873	1stExon	Island	SLC6A2	0.447	-0.001	0.053	0.955
cg02713068	black	6	64,281,743	TSS200	N_Shore	PTP4A1	0.447	0.000	0.012	0.658
cg17772163	black	5	68,787,760	TSS1500	N_Shore	OCLN	0.447	0.006	0.173	0.557
cg08858540	black	5	346,238	Body	S_Shore	AHRR	0.446	0.051	0.523	0.007
cg20335672	black	13	102,572,300	Body	S_Shelf	FGF14	0.446	-0.003	0.036	0.030
cg17161718	black	6	33,160,156	5'UTR	Island	COL11A2	0.446	-0.002	0.031	0.179
cg07146435	black	10	100,028,499	TSS1500	Island	LOXL4	0.446	-0.004	0.088	0.374
cg20358020	black	2	109,150,681		Island		0.446	0.000	0.026	0.666
cg25718467	black	15	37,172,509	Body	Island	LOC145845	0.446	0.002	0.030	0.060
cg11303738	black	3	42,977,889		Island		0.446	-0.009	0.592	0.536
cg06520812	black	19	46,000,742	TSS1500	N_Shore	RTN2	0.446	-0.007	0.094	0.292
cg05339066	black	10	90,343,166	TSS200	Island	RNLS	0.446	-0.005	0.174	0.807
cg20539816	black	17	5,988,249	Body	OpenSea	WSCD1	0.446	0.000	0.512	0.997
cg11889478	black	19	55,574,671	TSS200	Island	RDH13	0.446	0.000	0.019	0.641
cg14250740	black	3	175,244,596	Body	OpenSea	NAALADL2	0.446	0.034	0.447	0.009
cg09719850	black	12	6,993,936		OpenSea		0.446	0.012	0.633	0.254
cg13999106	black	2	51,260,003	TSS1500	OpenSea	NRXN1	0.446	0.006	0.045	0.092
cg15731655	black	12	54,357,604	Body	N_Shelf	HOTAIR	0.446	0.001	0.025	0.366
cg00486564	black	2	73,151,879	Body	Island	EMX1	0.446	0.000	0.028	0.874
cg19956147	black	17	800,431	Body	OpenSea	NXN	0.445	0.001	0.443	0.931
cg07451297	black	17	7,486,874	TSS200	Island	MPDU1	0.445	-0.005	0.049	0.090
cg24862514	black	11	44,972,672	TSS200	Island	TP53I11	0.445	0.001	0.028	0.493
cg05667379	black	2	115,920,764	Body	Island	DPP10	0.445	0.000	0.019	0.892
cg26465389	black	10	135,060,475		OpenSea		0.445	-0.018	0.201	0.513
cg04884318	black	10	130,064,296		S_Shore		0.445	-0.018	0.329	0.303
cg02161478	black	14	57,279,669	TSS1500	S_Shore	OTX2OS1	0.445	0.000	0.013	0.672
cg11941633	black	12	54,422,447	5'UTR	N_Shore	HOXC4	0.445	0.001	0.036	0.762
cg25034856	black	4	77,959,279	3'UTR	OpenSea	11-Sep	0.445	0.001	0.937	0.919
cg16879976	black	2	153,032,884	TSS1500	Island	STAM2	0.445	0.001	0.042	0.835
cg07061500	black	6	159,290,520		N_Shore		0.445	-0.007	0.114	0.245
cg22800590	black	1	214,170,114	Body	OpenSea	PROX1	0.445	0.006	0.427	0.370
cg01085210	black	14	38,067,219		N_Shore		0.445	-0.001	0.029	0.769
cg27017993	black	14	74,814,040	TSS1500	OpenSea	C14orf115	0.444	0.001	0.828	0.919
cg14231871	black	1	220,702,321	Body	Island	MARK1	0.444	0.000	0.024	0.968
cg08612779	black	20	33,460,767	TSS200	Island	GGT7	0.444	-0.001	0.022	0.230
cg06212607	black	1	235,491,708	TSS200	Island	GGPS1	0.444	0.000	0.022	0.977
cg04838832	black	10	72,502,473	Body	OpenSea	ADAMTS14	0.444	0.000	0.031	0.909

cg06504655	black	3	184,104,115	Body	N_Shore	CHRD	0.444	0.004	0.489	0.606
cg14085840	black	19	40,939,429		N_Shore		0.444	0.000	0.025	0.830
cg26960492	black	13	114,048,670		Island		0.444	0.007	0.107	0.208
cg20715295	black	19	42,807,159	TSS1500	S_Shore	PAFAH1B3	0.444	0.005	0.103	0.492
cg09484032	black	12	54,329,854		N_Shelf		0.444	0.000	0.053	0.917
cg21410080	black	21	43,639,862	Body	Island	ABCG1	0.444	0.000	0.020	0.569
cg13218688	black	18	72,125,544	TSS1500	S_Shore	FAM69C	0.444	0.009	0.222	0.474
cg17465304	black	9	116,861,442	TSS200	Island	KIF12	0.444	0.007	0.083	0.332
cg14783581	black	3	137,482,478	TSS1500	N_Shore	SOX14	0.444	-0.002	0.021	0.074
cg08196138	black	13	114,830,277	Body	OpenSea	RASA3	0.444	0.001	0.209	0.804
cg13015908	black	21	34,481,860		OpenSea		0.444	0.000	0.026	0.762
cg01511557	black	1	50,514,319	Body	Island	ELAVL4	0.443	0.005	0.120	0.546
cg04130427	black	9	77,113,915	Body	Island	RORB	0.443	-0.001	0.026	0.585
cg15731815	black	1	6,269,260	Body	Island	RNF207	0.443	-0.002	0.074	0.851
cg00462672	black	6	28,806,251		N_Shore		0.443	0.003	0.039	0.382
cg25231225	black	22	35,937,531	1stExon	Island	RASD2	0.443	0.000	0.033	0.994
cg26711638	black	5	1,201,359	TSS1500	N_Shore	SLC6A19	0.443	-0.015	0.480	0.338
cg01027976	black	22	42,734,612		Island		0.443	-0.005	0.390	0.415
cg14642432	black	16	6,533,163	5'UTR	Island	A2BP1	0.443	0.016	0.070	0.082
cg16100690	black	12	7,260,877	TSS200	OpenSea	LOC283314	0.443	-0.003	0.037	0.013
cg22852065	black	4	52,942,997	Body	Island	SPATA18	0.443	0.001	0.031	0.489
cg19029904	black	13	79,161,619		OpenSea		0.443	0.004	0.067	0.616
cg25338563	black	8	103,669,495		S_Shore		0.443	0.004	0.112	0.492
cg03502656	black	2	71,114,246		N_Shore		0.443	0.000	0.058	0.929
cg23540704	black	17	43,046,275	TSS1500	Island	C1QL1	0.443	-0.003	0.031	0.182
cg17220161	black	1	203,242,601		Island		0.443	0.000	0.218	0.969
cg24211214	black	2	159,762,496		OpenSea		0.443	-0.016	0.115	0.102
cg19717595	black	1	57,887,655	5'UTR	N_Shore	DAB1	0.443	-0.001	0.032	0.555
cg02448597	black	6	32,160,605	5'UTR	N_Shelf	GPSM3	0.442	-0.001	0.260	0.902
cg08453194	black	6	41,904,398	Body	OpenSea	CCND3	0.442	0.008	0.323	0.311
cg07135732	black	1	91,184,290	TSS1500	Island	BARHL2	0.442	0.001	0.021	0.433
cg09994418	black	14	38,053,726		Island		0.442	0.006	0.079	0.672
cg13826890	black	14	57,275,282	5'UTR	Island	OTX2	0.442	0.000	0.034	0.795
cg12216208	black	12	6,756,377	Body	Island	ACRBP	0.442	0.005	0.065	0.421
cg23797471	black	6	135,504,410	Body	S_Shore	MYB	0.442	0.000	0.019	0.933
cg11765288	black	7	18,535,767	TSS200	OpenSea	HDAC9	0.442	0.002	0.034	0.208
cg08438435	black	15	29,408,145	Body	Island	APBA2	0.442	0.003	0.075	0.659
cg09090941	black	12	117,319,914	TSS1500	Island	HRK	0.442	0.001	0.042	0.779
cg03101021	black	7	126,891,319	5'UTR	Island	GRM8	0.442	-0.001	0.027	0.484
cg27009703	black	7	27,204,894	1stExon	Island	HOXA9	0.442	-0.001	0.039	0.885
cg13651137	black	9	136,522,662	Body	OpenSea	DBH	0.442	0.000	0.376	0.990
cg23681745	black	2	202,004,875	Body	OpenSea	CFLAR	0.442	0.004	0.230	0.825
cg14453762	black	9	135,058,277	Body	OpenSea	NTNG2	0.442	0.010	0.391	0.263
cg00806461	black	3	194,408,071	1stExon	Island	FAM43A	0.442	0.001	0.043	0.855
cg00417823	black	16	56,330,268	Body	OpenSea	GNAO1	0.442	0.007	0.394	0.375
cg20694988	black	1	116,694,667		Island		0.442	-0.002	0.039	0.290
cg22780475	black	19	45,281,526	1stExon	S_Shore	CBLC	0.442	0.015	0.393	0.181
cg20342184	black	8	102,503,970	TSS1500	N_Shore	GRHL2	0.442	0.000	0.017	0.752
cg27308504	black	11	33,183,473	TSS1500	S_Shore	CSTF3	0.441	-0.003	0.297	0.739
cg18953104	black	6	139,613,145	5'UTR	OpenSea	TXLNB	0.441	0.005	0.176	0.648
cg17431345	black	15	80,748,403	Body	OpenSea	ARNT2	0.441	0.006	0.129	0.388
cg24554147	black	5	161,274,930	TSS1500	OpenSea	GABRA1	0.441	0.000	0.023	0.990
cg24202522	black	3	13,689,764		OpenSea		0.441	0.002	0.022	0.194
cg24033859	black	3	154,796,701	TSS1500	N_Shore	MME	0.441	-0.002	0.187	0.800
cg01360093	black	1	21,995,967	TSS200	N_Shore	RAP1GAP	0.441	-0.001	0.024	0.798
cg02844545	black	6	10,882,043	1stExon	Island	GCM2	0.441	0.000	0.028	0.746
cg18086868	black	1	220,463,627		OpenSea		0.441	-0.004	0.339	0.668
cg10476584	black	17	77,788,722		Island		0.441	-0.004	0.068	0.400
cg04697148	black	7	24,325,079	Body	Island	NPY	0.441	-0.019	0.065	0.009
cg07124687	black	6	28,956,332		Island		0.441	0.012	0.071	0.093
cg18949315	black	20	57,418,015	Body	S_Shore	GNASAS	0.441	0.000	0.272	0.970
cg22961457	black	20	62,370,310	3'UTR	Island	LIME1	0.441	0.000	0.054	0.970
cg18491080	black	15	60,286,463		N_Shore		0.441	-0.002	0.027	0.271
cg18457433	black	8	93,075,534	Body	OpenSea	RUNX1T1	0.441	0.007	0.224	0.554
cg00170188	black	17	42,441,553	TSS1500	S_Shore	FAM171A2	0.441	-0.007	0.095	0.414
cg24691336	black	10	62,492,301		N_Shore		0.441	-0.008	0.152	0.351
cg05170759	black	2	3,285,048	Body	N_Shore	TSSC1	0.440	-0.021	0.458	0.078

cg17542835	black	12	112,847,507	TSS200	S_Shore	RPL6	0.440	0.001	0.020	0.366
cg09243909	black	16	53,871,485	Body	OpenSea	FTO	0.440	-0.002	0.148	0.915
cg02875558	black	17	37,309,177	TSS1500	S_Shore	PLXDC1	0.440	0.001	0.053	0.785
cg05971894	black	12	54,399,254		N_Shore		0.440	0.015	0.429	0.055
cg15626828	black	1	198,651,141	Body	OpenSea	PTPRC	0.440	0.002	0.148	0.775
cg13691442	black	19	58,878,570		Island		0.440	-0.016	0.745	0.355
cg06157219	black	1	2,063,875	5'UTR	Island	PRKCZ	0.440	-0.007	0.173	0.706
cg13170032	black	1	221,052,143	TSS1500	Island	HLX	0.440	-0.001	0.051	0.771
cg04420141	black	17	63,133,231	TSS1500	N_Shore	RGS9	0.440	0.007	0.067	0.138
cg02416424	black	17	39,684,825	TSS200	S_Shore	KRT19	0.440	-0.001	0.038	0.731
cg15207826	black	4	141,348,043	5'UTR	Island	CLGN	0.440	-0.001	0.051	0.663
cg02121943	black	12	115,121,489	1stExon	Island	TBX3	0.440	-0.003	0.054	0.349
cg04829830	black	14	105,339,549	5'UTR	OpenSea	KIAA0284	0.440	0.017	0.332	0.291
cg23759826	black	7	35,735,287	TSS1500	S_Shore	HERPUD2	0.440	0.009	0.152	0.445
cg12351587	black	4	85,405,251		Island		0.440	0.013	0.161	0.162
cg02931058	black	2	239,047,245	TSS200	N_Shore	KLHL30	0.440	0.008	0.461	0.382
cg09531959	black	6	31,554,558	Body	OpenSea	LST1	0.440	0.009	0.446	0.197
cg02121529	black	13	40,746,549		Island		0.440	-0.005	0.053	0.422
cg16005271	black	10	102,321,736		N_Shore		0.439	0.002	0.080	0.816
cg26884658	black	18	5,625,382		N_Shelf		0.439	-0.005	0.433	0.526
cg00755043	black	9	91,150,159	1stExon	Island	NXNL2	0.439	0.001	0.042	0.670
cg23752563	black	19	54,466,187	TSS200	N_Shore	CACNG8	0.439	0.000	0.018	0.866
cg22823273	black	14	76,580,302		OpenSea		0.439	0.018	0.430	0.102
cg11177980	black	1	41,982,115	Body	S_Shore	HIVEP3	0.439	-0.009	0.078	0.112
cg03228974	black	6	30,067,855		N_Shore		0.439	0.003	0.098	0.766
cg24442913	black	11	14,994,606	TSS1500	N_Shore	CALCA	0.439	-0.003	0.257	0.681
cg09498652	black	2	176,950,596		Island		0.439	-0.002	0.033	0.191
cg10283695	black	11	107,465,210	5'UTR	S_Shelf	ELMOD1	0.439	0.006	0.399	0.534
cg18648570	black	13	113,732,896	Body	S_Shore	MCF2L	0.439	0.004	0.783	0.473
cg17315281	black	4	7,193,783	TSS1500	N_Shore	SORCS2	0.439	0.007	0.498	0.483
cg09944659	black	12	124,779,228	5'UTR	N_Shore	FAM101A	0.439	0.007	0.362	0.550
cg02625138	black	10	4,426,261		OpenSea		0.439	0.012	0.343	0.208
cg25508679	black	6	28,956,403		Island		0.438	0.002	0.123	0.903
cg18327157	black	7	157,486,718	Body	Island	PTPRN2	0.438	-0.005	0.202	0.393
cg07271261	black	3	11,610,613	Body	S_Shore	VGLL4	0.438	0.009	0.405	0.132
cg11442717	black	6	170,125,241	TSS1500	OpenSea	PHF10	0.438	0.000	0.020	0.955
cg03000419	black	11	82,997,694	TSS1500	S_Shore	CCDC90B	0.438	-0.003	0.429	0.632
cg13893543	black	1	224,805,631	Body	Island	CNIH3	0.438	0.000	0.024	0.962
cg14515453	black	7	19,158,041	TSS1500	Island	TWIST1	0.438	-0.001	0.030	0.487
cg14579898	black	4	103,179,053	Body	OpenSea	SLC39A8	0.438	-0.005	0.378	0.582
cg26069562	black	6	29,691,981	Body	Island	HLA-F	0.438	0.000	0.027	0.755
cg03422911	black	1	237,205,295	TSS1500	Island	RYR2	0.438	0.003	0.032	0.083
cg26678920	black	11	6,341,888	TSS200	Island	PRKCDDBP	0.438	0.001	0.024	0.581
cg19428722	black	10	100,994,478	Body	S_Shore	HPSE2	0.438	0.000	0.032	0.877
cg03690187	black	15	41,233,838		Island		0.437	-0.001	0.033	0.423
cg11255159	black	19	18,401,021		N_Shore		0.437	0.001	0.095	0.724
cg05429527	black	6	1,596,122		N_Shelf		0.437	-0.002	0.204	0.817
cg09433509	black	13	100,611,085		N_Shore		0.437	0.005	0.104	0.268
cg11703796	black	12	6,055,201	Body	OpenSea	ANO2	0.437	0.006	0.217	0.332
cg16006841	black	5	176,797,999	Body	S_Shelf	RGS14	0.437	-0.001	0.044	0.909
cg12067522	black	15	52,405,000	TSS200	S_Shore	BCL2L10	0.437	-0.021	0.152	0.009
cg00655184	black	18	19,997,912	TSS200	OpenSea	CTAGE1	0.437	-0.014	0.373	0.124
cg07685357	black	11	121,971,954	TSS1500	OpenSea	MIR125B1	0.437	0.004	0.214	0.746
cg14256008	black	12	131,200,631		Island		0.437	-0.001	0.029	0.550
cg17263363	black	6	29,933,915		OpenSea		0.437	-0.001	0.031	0.792
cg14883605	black	14	57,021,828		OpenSea		0.437	-0.002	0.034	0.283
cg19038540	black	1	101,701,364	TSS1500	N_Shore	S1PR1	0.437	-0.002	0.017	0.028
cg11205072	black	6	28,510,306		OpenSea		0.436	-0.001	0.044	0.554
cg01175812	black	12	4,919,001	5'UTR	Island	KCNA6	0.436	0.001	0.027	0.739
cg08808904	black	19	41,060,475	Body	Island	SPTBN4	0.436	0.005	0.099	0.543
cg01568244	black	16	67,218,584	TSS1500	Island	KIAA0895L	0.436	0.004	0.083	0.542
cg03284866	black	8	124,173,487		Island		0.436	-0.005	0.060	0.363
cg16326242	black	2	119,566,109		OpenSea		0.436	0.000	0.113	0.965
cg27142680	black	17	36,956,789	TSS1500	S_Shore	PIP4K2B	0.436	0.002	0.134	0.788
cg22344631	black	2	177,012,133		N_Shore		0.436	-0.005	0.100	0.326
cg14588178	black	10	48,439,430	TSS1500	S_Shore	GDF10	0.436	0.002	0.190	0.797
cg02447304	black	6	74,024,628		Island		0.436	-0.008	0.153	0.596

cg22660542	black	12	54,402,431	TSS1500	N_Shore	HOXC8	0.436	0.045	0.354	0.107
cg03440762	black	5	174,158,195		N_Shore		0.436	-0.030	0.311	0.128
cg06644428	black	2	233,284,112		Island		0.436	0.000	0.019	0.946
cg06970290	black	11	64,951,536	Body	N_Shore	CAPN1	0.436	0.001	0.406	0.827
cg13643452	black	14	38,725,650	TSS200	S_Shore	CLEC14A	0.436	0.010	0.362	0.555
cg02683578	black	6	31,649,432	TSS1500	N_Shore	LY6G5C	0.435	0.000	0.013	0.734
cg20897136	black	10	74,034,667	Body	Island	DDIT4	0.435	0.000	0.094	0.982
cg25732522	black	19	10,514,404	TSS200	Island	MIR1181	0.435	0.000	0.031	0.897
cg19235339	black	10	90,342,899	1stExon	Island	RNLS	0.435	-0.003	0.073	0.818
cg07281879	black	11	32,459,626	Body	Island	WIT1	0.435	0.002	0.030	0.731
cg05119316	black	6	29,716,135	Body	N_Shore	LOC285830	0.435	0.000	0.030	0.793
cg13979305	black	4	2,421,218	TSS1500	S_Shore	ZFYVE28	0.435	-0.001	0.036	0.514
cg03558837	black	2	239,029,375	Body	OpenSea	ESPNL	0.435	-0.013	0.063	0.095
cg24123518	black	15	74,422,550	5'UTR	Island	ISLR2	0.435	0.000	0.032	0.854
cg17988503	black	19	36,134,800	Body	Island	ETV2	0.435	0.001	0.025	0.497
cg09563922	black	2	121,200,209		N_Shore		0.435	-0.001	0.029	0.431
cg27144485	black	10	74,033,095	TSS1500	N_Shore	DDIT4	0.435	-0.001	0.028	0.452
cg22498396	black	6	133,036,545	TSS1500	OpenSea	VNN1	0.434	-0.002	0.256	0.783
cg09501892	black	1	11,121,054	TSS1500	S_Shore	SRM	0.434	-0.001	0.034	0.340
cg08941457	black	20	25,129,562	TSS1500	Island	LOC284798	0.434	0.001	0.024	0.558
cg11755405	black	14	63,511,872	1stExon	N_Shore	KCNH5	0.434	0.002	0.030	0.254
cg08545129	black	7	117,854,304		Island		0.434	0.023	0.213	0.113
cg10941747	black	20	55,841,898	TSS200	S_Shore	BMP7	0.434	-0.001	0.015	0.596
cg08701515	black	16	2,933,096	TSS200	Island	FLYWCH2	0.434	0.000	0.021	0.976
cg18440048	black	22	24,093,826	TSS1500	S_Shore	ZNF70	0.434	0.000	0.028	0.926
cg01013324	black	17	7,608,068	TSS1500	N_Shore	EFNB3	0.434	0.000	0.020	0.755
cg21231458	black	20	21,485,933		Island		0.434	0.000	0.021	0.736
cg06061360	black	3	134,319,898	3'UTR	OpenSea	KY	0.434	0.001	0.019	0.441
cg24161018	black	7	131,847,456	Body	OpenSea	PLXNA4	0.434	0.002	0.407	0.762
cg02273477	black	17	800,084	Body	OpenSea	NXN	0.434	-0.011	0.496	0.348
cg21772838	black	20	54,967,497	TSS200	Island	AURKA	0.433	-0.001	0.022	0.739
cg09795809	black	4	183,062,729	Body	N_Shore	MGC45800	0.433	0.005	0.393	0.647
cg23910835	black	4	154,710,900	TSS1500	N_Shore	SFRP2	0.433	0.000	0.032	0.924
cg13683183	black	6	28,510,597		OpenSea		0.433	-0.003	0.066	0.423
cg19821361	black	21	46,012,520	TSS200	OpenSea	KRTAP10-6	0.433	0.010	0.544	0.303
cg05063999	black	3	64,253,605		Island		0.433	-0.004	0.026	0.413
cg10568634	black	10	5,005,562	5'UTR	OpenSea	AKR1C1	0.433	0.003	0.128	0.722
cg21776599	black	1	1,830,693		OpenSea		0.433	-0.001	0.375	0.819
cg09533168	black	5	175,560,568		OpenSea		0.433	0.011	0.336	0.305
cg20933297	black	11	128,694,388		Island		0.433	0.004	0.091	0.780
cg24231037	black	15	68,117,551	TSS1500	Island	LBXCOR1	0.433	-0.001	0.023	0.173
cg00333946	black	15	99,975,310		OpenSea		0.433	-0.008	0.498	0.471
cg05923226	black	19	15,121,516	TSS200	N_Shore	CCDC105	0.433	-0.006	0.074	0.120
cg03925072	black	8	37,468,473		OpenSea		0.433	-0.002	0.186	0.732
cg09851465	black	1	60,539,671	TSS1500	S_Shore	C1orf87	0.433	0.012	0.112	0.196
cg10233654	black	12	89,744,621	Body	N_Shore	DUSP6	0.433	-0.001	0.029	0.523
cg23423227	black	10	124,913,446	TSS1500	N_Shore	BUB3	0.433	-0.006	0.341	0.589
cg23063807	black	2	506,174		S_Shelf		0.433	0.005	0.069	0.379
cg08380539	black	1	85,039,702	Body	N_Shore	CTBS	0.433	-0.001	0.043	0.744
cg09957391	black	12	57,984,777	TSS200	Island	PIP4K2C	0.432	0.000	0.023	0.770
cg05455720	black	8	65,291,703	TSS200	S_Shore	MIR124-2	0.432	-0.003	0.044	0.412
cg06607719	black	12	57,024,232	Body	Island	BAZ2A	0.432	-0.002	0.060	0.422
cg16564525	black	1	156,561,143	TSS1500	N_Shore	APOA1BP	0.432	0.005	0.258	0.634
cg12157344	black	12	129,460,967	Body	OpenSea	GLT1D1	0.432	-0.003	0.078	0.736
cg07542476	black	19	49,843,160	Body	Island	CD37	0.432	-0.004	0.294	0.564
cg26478107	black	6	26,595,280		N_Shore		0.432	0.021	0.085	0.009
cg19246007	black	6	56,112,216	5'UTR	Island	COL21A1	0.432	-0.003	0.037	0.291
cg14338345	black	9	22,447,679	1stExon	Island	DMRTA1	0.432	-0.005	0.090	0.523
cg19525717	black	20	43,160,249	TSS200	N_Shore	PKIG	0.432	0.002	0.134	0.769
cg14222434	black	6	166,051,228	Body	OpenSea	PDE10A	0.432	-0.021	0.458	0.236
cg21139150	black	21	46,976,175		Island		0.432	0.003	0.045	0.761
cg10168457	black	17	79,882,876	TSS1500	N_Shore	MAFG	0.432	0.001	0.436	0.840
cg08389151	black	19	58,862,087	TSS1500	Island	NCRNA00181	0.432	-0.037	0.130	0.002
cg04707519	black	10	21,799,314		Island		0.432	0.000	0.019	0.731
cg08912400	black	20	61,993,427	TSS1500	Island	CHRNA4	0.432	-0.007	0.140	0.384
cg04306817	black	16	30,075,547	TSS200	N_Shore	ALDOA	0.432	-0.002	0.050	0.520
cg06681434	black	12	108,617,683	Body	OpenSea	WSCD2	0.432	-0.001	0.113	0.936



cg03110491	black	19	11,615,848	Body	N_Shore	ZNF653	0.432	-0.004	0.048	0.063
cg13094752	black	14	23,305,548	TSS1500	N_Shore	MMP14	0.432	-0.003	0.031	0.077
cg16036528	black	8	25,909,472		Island		0.432	-0.001	0.028	0.537
cg07756483	black	19	44,281,665	Body	S_Shelf	KCNN4	0.432	0.000	0.031	0.910
cg04188397	black	8	134,582,582	5'UTR	Island	ST3GAL1	0.432	-0.001	0.024	0.691
cg11015549	black	19	1,026,207	TSS200	N_Shore	CNN2	0.432	0.003	0.050	0.410
cg08501622	black	5	151,138,456	TSS1500	S_Shore	ATOX1	0.432	0.000	0.023	0.903
cg00893242	black	7	127,291,580	TSS1500	N_Shore	SND1	0.432	0.000	0.021	0.747
cg26366048	black	6	56,820,386	5'UTR	S_Shore	BEND6	0.432	0.001	0.019	0.477
cg03164805	black	16	1,024,326		S_Shelf		0.432	-0.012	0.202	0.292
cg27289267	black	21	37,433,233	5'UTR	S_Shore	SETD4	0.431	0.001	0.017	0.447
cg21214293	black	5	145,713,882		Island		0.431	-0.002	0.054	0.511
cg07663813	black	8	81,785,835	5'UTR	Island	ZNF704	0.431	0.003	0.097	0.661
cg19977633	black	5	141,117,222		OpenSea		0.431	-0.005	0.156	0.513
cg00899855	black	16	87,499,925	Body	OpenSea	ZCCHC14	0.431	0.009	0.492	0.124
cg06957310	black	17	29,283,870	Body	OpenSea	ADAP2	0.431	-0.001	0.310	0.894
cg18334819	black	17	20,841,285		OpenSea		0.431	0.003	0.938	0.354
cg25512439	black	3	2,553,112	5'UTR	OpenSea	CNTN4	0.431	0.000	0.184	0.964
cg11862714	black	17	46,644,175	5'UTR	S_Shelf	HOXB3	0.431	0.002	0.507	0.860
cg06972969	black	10	60,935,663	TSS1500	N_Shore	PHYHIPL	0.431	-0.008	0.101	0.518
cg10752158	black	4	81,185,022		N_Shelf		0.431	0.000	0.016	0.742
cg15437651	black	4	128,554,035	TSS200	OpenSea	INTU	0.431	0.001	0.022	0.358
cg20004315	black	12	47,985,234		OpenSea		0.431	0.001	0.194	0.934
cg26977936	black	6	28,558,022		S_Shelf		0.431	0.007	0.231	0.679
cg22702351	black	6	163,673,239	Body	OpenSea	PACRG	0.431	0.002	0.360	0.815
cg02109605	black	3	13,028,573	Body	OpenSea	IQSEC1	0.431	0.014	0.417	0.145
cg12230728	black	12	58,021,569	Body	Island	B4GALNT1	0.431	0.001	0.025	0.576
cg16264642	black	5	11,384,581	Body	N_Shore	CTNND2	0.431	-0.014	0.169	0.025
cg15831598	black	19	10,215,551	TSS1500	N_Shore	PPAN	0.431	0.013	0.419	0.104
cg05104080	black	2	239,112,693	TSS1500	S_Shore	ILKAP	0.431	0.003	0.435	0.590
cg15747390	black	13	111,297,551	Body	N_Shelf	CARS2	0.431	0.001	0.230	0.847
cg26511585	black	22	43,810,812	5'UTR	S_Shelf	MPPED1	0.431	0.011	0.866	0.177
cg23554497	black	12	103,359,836		S_Shore		0.430	-0.011	0.074	0.046
cg27588605	black	6	99,271,944		N_Shore		0.430	-0.001	0.022	0.571
cg13707224	black	9	1,043,825		N_Shore		0.430	0.031	0.560	0.030
cg09852607	black	3	128,205,200	Body	N_Shore	GATA2	0.430	0.008	0.166	0.481
cg16265348	black	20	25,129,542	TSS1500	Island	LOC284798	0.430	0.002	0.030	0.408
cg24938560	black	2	85,025,863	Body	OpenSea	DNAH6	0.430	0.001	0.705	0.919
cg03004598	black	7	29,603,370	TSS200	N_Shore	PRR15	0.430	-0.002	0.034	0.283
cg02966574	black	15	68,872,082	Body	S_Shore	CORO2B	0.430	-0.009	0.085	0.189
cg19934366	black	17	8,151,011	Body	N_Shore	C17orf68	0.430	-0.007	0.072	0.067
cg13610168	black	9	131,159,813		S_Shelf		0.430	0.001	0.024	0.608
cg15996882	black	17	17,715,815	3'UTR	Island	SREBF1	0.430	-0.004	0.062	0.258
cg09844976	black	5	148,188,454		OpenSea		0.430	0.002	0.182	0.804
cg10387543	black	1	29,102,068		Island		0.430	0.001	0.080	0.852
cg16182713	black	7	100,728,343	TSS1500	N_Shelf	TRIM56	0.430	-0.005	0.103	0.365
cg25878063	black	2	159,736,477		OpenSea		0.430	-0.017	0.806	0.222
cg11438986	black	20	62,085,851	Body	Island	KCNQ2	0.430	0.001	0.236	0.935
cg15559186	black	20	62,283,742	Body	Island	STMN3	0.430	-0.001	0.030	0.675
cg25083933	black	12	6,250,313		OpenSea		0.429	0.002	0.389	0.809
cg20893579	black	22	38,215,064		Island		0.429	0.002	0.059	0.577
cg27111970	black	5	139,492,957	TSS1500	Island	PURA	0.429	-0.001	0.028	0.661
cg12478809	black	15	75,230,753	TSS1500	S_Shore	COX5A	0.429	0.001	0.026	0.683
cg25204094	black	9	100,747,473	Body	Island	ANP32B	0.429	0.004	0.093	0.362
cg13492803	black	15	32,933,783	TSS200	OpenSea	SCG5	0.429	-0.008	0.144	0.328
cg00360769	black	4	101,110,248	Body	N_Shore	DDIT4L	0.429	0.002	0.119	0.820
cg26077378	black	3	21,792,857	TSS200	OpenSea	ZNF385D	0.429	-0.002	0.026	0.076
cg05238069	black	17	16,257,135	TSS1500	Island	CENPV	0.429	0.000	0.129	0.946
cg12557418	black	8	110,552,613	1stExon	Island	EBAG9	0.429	-0.002	0.019	0.034
cg00017362	black	8	19,711,803		OpenSea		0.429	0.013	0.553	0.304
cg10215884	black	5	87,564,247	Body	N_Shore	TMEM161B	0.429	0.005	0.046	0.192
cg08408453	black	11	72,354,574	TSS1500	S_Shore	PDE2A	0.429	0.014	0.147	0.071
cg05237485	black	8	11,555,440		Island		0.429	-0.003	0.045	0.289
cg16104283	black	1	31,381,941	TSS1500	Island	SDC3	0.429	0.000	0.019	0.892
cg21840697	black	2	121,101,388		Island		0.429	-0.003	0.035	0.058
cg16583884	black	18	52,625,444	TSS200	N_Shore	CCDC68	0.429	-0.006	0.068	0.436
cg09481537	black	12	131,701,863		OpenSea		0.429	0.028	0.508	0.019

cg19722671	black	8	1,404,197	N_Shore		0.429	0.004	0.477	0.657
cg00918181	black	18	11,947,875	Island		0.429	-0.005	0.233	0.824
cg11065518	black	2	207,630,263 TSS1500	S_Shore	MDH1B	0.428	0.000	0.019	0.990
cg24974729	black	11	67,764,320 Body	N_Shore	UNC93B1	0.428	0.110	0.401	0.019
cg16174234	black	19	33,463,305 5'UTR	Island	C19orf40	0.428	-0.001	0.071	0.811
cg15484033	black	3	86,224,327	OpenSea		0.428	0.002	0.209	0.751
cg22645881	black	17	37,824,988 Body	Island	PNMT	0.428	-0.003	0.116	0.523
cg16377327	black	11	36,531,770 1stExon	Island	TRAF6	0.428	-0.004	0.074	0.380
cg04096767	black	11	32,449,450 Body	Island	WT1	0.428	0.021	0.177	0.151
cg26298737	black	1	225,964,937 TSS1500	N_Shore	SRP9	0.428	0.023	0.200	0.107
cg14777342	black	12	57,480,090	N_Shore		0.428	0.000	0.028	0.885
cg00818106	black	10	134,221,503 3'UTR	S_Shore	PWWP2B	0.427	0.002	0.089	0.866
cg26958597	black	7	105,222,048 TSS200	N_Shore	EFCAB10	0.427	-0.001	0.026	0.567
cg18669381	black	1	16,539,088 5'UTR	OpenSea	ARHGEF19	0.427	0.003	0.212	0.518
cg19763428	black	7	32,109,831 Body	N_Shore	PDE1C	0.427	0.001	0.025	0.393
cg03405128	black	4	77,341,841	N_Shore		0.427	-0.024	0.241	0.051
cg23741520	black	15	83,954,231 TSS1500	S_Shore	BNC1	0.427	0.007	0.214	0.573
cg05461259	black	1	2,344,699 TSS1500	Island	PEX10	0.427	-0.019	0.229	0.182
cg12598340	black	1	33,367,416 TSS1500	S_Shore	TMEM54	0.427	0.007	0.136	0.340
cg22761431	black	17	7,609,416 Body	S_Shore	EFNB3	0.427	0.000	0.022	0.989
cg10971507	black	3	10,290,889 Body	Island	TATDN2	0.427	0.000	0.019	0.809
cg06447795	black	20	36,793,996 TSS1500	S_Shore	TGM2	0.427	-0.003	0.151	0.664
cg17439660	black	18	906,020 Body	Island	ADCYAP1	0.427	0.001	0.022	0.221
cg10144483	black	4	180,981,242	S_Shore		0.426	0.001	0.036	0.556
cg12006284	black	11	32,449,638 Body	Island	WT1	0.426	0.032	0.223	0.132
cg05823218	black	2	74,725,810 Body	Island	LBX2	0.426	0.001	0.017	0.227
cg06710937	black	13	23,489,940	Island		0.426	0.007	0.043	0.470
cg26585868	black	7	149,322,723 TSS1500	S_Shore	ZNF767	0.426	0.000	0.030	0.982
cg12765028	black	4	13,526,659	Island		0.426	-0.002	0.050	0.714
cg05899869	black	6	3,053,528	OpenSea		0.426	-0.002	0.265	0.921
cg17973773	black	8	27,695,870 TSS1500	S_Shore	PBK	0.426	0.011	0.867	0.200
cg02257791	black	14	22,217,085	OpenSea		0.426	-0.004	0.087	0.598
cg01963278	black	6	30,457,850 Body	Island	HLA-E	0.426	0.001	0.024	0.621
cg22840780	black	13	58,207,650 1stExon	Island	PCDH17	0.426	-0.001	0.028	0.627
cg08344081	black	6	41,339,785	Island		0.426	-0.003	0.040	0.236
cg06081951	black	11	14,991,413 Body	N_Shelf	CALCA	0.426	-0.009	0.177	0.167
cg07915343	black	11	18,477,680 1stExon	Island	LDHAL6A	0.426	0.028	0.572	0.157
cg10920297	black	11	94,803,188 1stExon	S_Shelf	SFRS2B	0.426	-0.006	0.201	0.543
cg20668662	black	10	105,452,885 Body	Island	SH3PXD2A	0.426	-0.001	0.031	0.471
cg26424649	black	7	90,307,521	OpenSea		0.426	0.018	0.230	0.250
cg16792842	black	8	25,899,459 Body	Island	EBF2	0.425	0.002	0.040	0.365
cg21995800	black	1	111,984,376 Body	OpenSea	WDR77	0.425	0.001	0.448	0.910
cg02352723	black	19	58,666,456	Island		0.425	0.001	0.025	0.402
cg15391151	black	1	55,274,185 Body	S_Shelf	C1orf177	0.425	-0.001	0.829	0.937
cg16523839	black	19	10,077,134 Body	Island	COL5A3	0.425	0.006	0.071	0.234
cg26206948	black	5	172,663,731 TSS1500	Island	NKX2-5	0.425	0.004	0.198	0.626
cg03093786	black	16	27,413,786 TSS1500	OpenSea	IL21R	0.425	0.002	0.066	0.773
cg17413943	black	11	27,739,827 Body	N_Shore	BDNF	0.425	-0.001	0.023	0.358
cg07690882	black	11	128,694,303	Island		0.425	0.005	0.071	0.684
cg15171221	black	6	28,973,328 TSS1500	OpenSea	ZNF311	0.425	0.006	0.057	0.324
cg15713707	black	5	169,930,905 TSS200	N_Shore	KCNIP1	0.425	0.003	0.031	0.064
cg01066157	black	6	152,451,023 Body	OpenSea	SYNE1	0.425	0.017	0.373	0.017
cg25513635	black	19	18,981,378 5'UTR	S_Shore	GDF1	0.425	-0.002	0.030	0.227
cg12739504	black	8	77,689,057 Body	OpenSea	ZFH4	0.425	0.000	0.915	0.961
cg09000302	black	3	43,414,570 Body	OpenSea	ANO10	0.425	0.004	0.483	0.498
cg25568337	black	6	157,098,338 TSS1500	OpenSea	ARID1B	0.425	-0.006	0.127	0.360
cg08390760	black	6	28,973,318 TSS1500	OpenSea	ZNF311	0.425	0.004	0.033	0.472
cg12279601	black	1	47,488,757 TSS1500	N_Shore	CYP4X1	0.425	0.012	0.802	0.157
cg24296478	black	10	98,590,574 TSS1500	N_Shore	LCOR	0.425	0.005	0.143	0.639
cg03742808	black	17	76,128,634 Body	S_Shore	TMC8	0.425	0.001	0.497	0.847
cg05724658	black	4	104,869,097	OpenSea		0.424	0.010	0.847	0.352
cg13564816	black	9	118,207,596	OpenSea		0.424	-0.007	0.102	0.460
cg03426023	black	16	54,972,078	Island		0.424	-0.001	0.031	0.741
cg11236755	black	17	79,108,051 Body	N_Shore	AATK	0.424	0.007	0.431	0.322
cg25038082	black	17	37,896,074 5'UTR	OpenSea	GRB7	0.424	0.001	0.094	0.828
cg15332750	black	6	30,646,940 Body	OpenSea	KIAA1949	0.424	-0.001	0.091	0.846
cg02135122	black	10	76,642,824 Body	OpenSea	MYST4	0.424	0.010	0.518	0.240

cg23239150	black	4	5,754,217	Body	OpenSea	EVC	0.424	-0.009	0.501	0.719
cg14900773	black	17	80,935,431	Body	OpenSea	B3GNTL1	0.424	-0.002	0.922	0.561
cg18858739	black	1	167,426,278	Body	S_Shore	CD247	0.424	0.013	0.790	0.120
cg00632466	black	8	98,610,888		OpenSea		0.424	0.002	0.084	0.718
cg03324961	black	8	23,605,601		OpenSea		0.424	0.019	0.088	0.091
cg17353733	black	9	124,313,186		Island		0.424	-0.005	0.037	0.014
cg07476472	black	2	709,025		OpenSea		0.423	-0.009	0.520	0.498
cg03162314	black	19	51,600,935	3'UTR	N_Shore	CTU1	0.423	-0.005	0.271	0.590
cg11617938	black	6	29,692,281	Body	S_Shore	HLA-F	0.423	-0.007	0.252	0.488
cg13736514	black	6	26,305,472		OpenSea		0.423	-0.012	0.178	0.616
cg14068853	black	9	134,156,685		N_Shore		0.423	-0.005	0.417	0.615
cg05994850	black	6	30,095,341		Island		0.423	-0.001	0.054	0.891
cg04630748	black	7	100,964,998	1stExon	Island	RABL5	0.423	0.002	0.233	0.784
cg10589235	black	13	107,569,888		N_Shore		0.423	-0.017	0.124	0.195
cg05639310	black	4	2,420,719	TSS1500	Island	ZFYVE28	0.423	0.001	0.035	0.803
cg03691818	black	12	53,085,038	Body	OpenSea	KRT77	0.423	-0.005	0.049	0.589
cg16597406	black	17	8,130,173	3'UTR	S_Shelf	C17orf68	0.423	0.005	0.039	0.314
cg06954761	black	6	33,601,863	Body	S_Shore	ITPR3	0.423	0.001	0.020	0.454
cg18799284	black	8	22,034,390	Body	Island	BMP1	0.423	0.020	0.717	0.138
cg09033638	black	2	128,642,357	5'UTR	N_Shore	AMMECR1L	0.422	-0.003	0.045	0.450
cg22629853	black	10	30,638,455	TSS200	S_Shore	MTPAP	0.422	0.001	0.121	0.912
cg22229906	black	12	25,055,421	Body	N_Shore	BCAT1	0.422	-0.004	0.108	0.671
cg00460049	black	1	66,998,806	TSS1500	N_Shore	SGIP1	0.422	-0.002	0.021	0.102
cg18943588	black	10	7,517,833		OpenSea		0.422	-0.007	0.169	0.553
cg11952236	black	7	101,962,267		S_Shore		0.422	0.003	0.452	0.745
cg02905828	black	11	62,622,234	TSS1500	N_Shore	SNORD30	0.422	0.000	0.026	0.665
cg03644378	black	17	7,761,459	1stExon	Island	CYB5D1	0.422	0.000	0.027	0.758
cg10168722	black	14	38,068,608		Island		0.422	-0.011	0.192	0.362
cg00708105	black	12	101,110,754		Island		0.422	0.002	0.027	0.280
cg16324899	black	2	145,298,195		OpenSea		0.422	-0.012	0.846	0.455
cg11368617	black	11	133,582,402		OpenSea		0.422	-0.002	0.036	0.242
cg15904283	black	10	23,484,867		S_Shore		0.422	0.000	0.051	0.955
cg04910638	black	1	40,997,064	TSS200	N_Shore	ZNF684	0.422	-0.005	0.045	0.158
cg03495030	black	12	121,437,256	Body	OpenSea	HNF1A	0.421	0.003	0.384	0.756
cg03625287	black	13	24,121,359		Island		0.421	0.003	0.260	0.848
cg01780009	black	17	80,944,193	Body	OpenSea	B3GNTL1	0.421	-0.005	0.115	0.582
cg02466588	black	17	47,563,766		OpenSea		0.421	-0.002	0.029	0.194
cg10124710	black	1	146,544,267		Island		0.421	0.003	0.036	0.182
cg13179216	black	19	36,450,916		Island		0.421	0.001	0.158	0.922
cg06045319	black	10	79,395,902	Body	N_Shore	KCNMA1	0.421	-0.003	0.168	0.652
cg14391855	black	11	66,104,174	TSS200	S_Shore	RIN1	0.421	0.008	0.327	0.378
cg12571493	black	4	174,256,943	TSS1500	S_Shore	HMGB2	0.421	0.002	0.069	0.667
cg00260116	black	7	100,813,838	3'UTR	N_Shore	C7orf52	0.421	0.002	0.071	0.647
cg08159594	black	7	102,790,168	TSS1500	S_Shore	NAPEPLD	0.421	-0.018	0.195	0.024
cg24657523	black	15	48,470,754	TSS200	S_Shore	MYEF2	0.421	-0.002	0.104	0.670
cg09883286	black	12	95,943,114	TSS1500	S_Shore	USP44	0.421	0.002	0.123	0.882
cg09990169	black	2	241,835,740	TSS200	OpenSea	C2orf54	0.420	0.013	0.330	0.173
cg06686226	black	20	61,983,795	Body	S_Shore	CHRNA4	0.420	0.003	0.045	0.406
cg09641376	black	6	29,520,965		N_Shore		0.420	0.006	0.196	0.505
cg24804705	black	5	70,751,216	TSS1500	N_Shore	BDP1	0.420	0.000	0.027	0.825
cg00403251	black	9	129,986,197		N_Shore		0.420	0.016	0.418	0.059
cg05422049	black	2	1,595,734		Island		0.420	-0.003	0.112	0.710
cg09359103	black	1	154,839,909	Body	OpenSea	KCNN3	0.420	0.011	0.106	0.342
cg04816394	black	5	80,529,067	Body	OpenSea	RNU5E	0.420	0.000	0.043	0.951
cg17011709	black	10	94,826,053	Body	Island	CYP26C1	0.420	-0.008	0.050	0.355
cg02346790	black	3	122,296,409	TSS200	N_Shore	PARP15	0.420	-0.004	0.601	0.666
cg17463447	black	3	129,249,423	Body	OpenSea	RHO	0.420	-0.004	0.053	0.341
cg21155870	black	9	34,591,604		Island		0.419	0.002	0.073	0.575
cg00758881	black	16	58,534,681	Body	N_Shore	NDRG4	0.419	-0.007	0.050	0.407
cg21316772	black	9	33,167,933	TSS1500	Island	B4GALT1	0.419	0.006	0.289	0.363
cg02056144	black	12	54,070,517	TSS1500	N_Shore	ATP5G2	0.419	-0.001	0.052	0.705
cg17534009	black	6	10,384,104		Island		0.419	0.000	0.021	0.716
cg23506042	black	5	50,262,673		N_Shelf		0.419	0.000	0.058	0.953
cg21284680	black	6	10,412,206	Body	Island	TFAP2A	0.419	-0.001	0.025	0.476
cg10161743	black	19	48,917,816	Body	N_Shore	GRIN2D	0.419	0.005	0.442	0.682
cg10379418	black	1	53,936,188		OpenSea		0.419	0.007	0.122	0.498
cg18101152	black	8	31,096,463		OpenSea		0.419	0.000	0.126	0.966

cg08379637	black	21	31,311,387	Body	Island	GRIK1	0.419	0.003	0.105	0.618
cg00183647	black	3	59,035,993	TSS1500	S_Shore	C3orf67	0.419	-0.001	0.024	0.194
cg02372145	black	8	23,605,543		OpenSea		0.418	0.004	0.035	0.467
cg22799141	black	12	114,885,621		N_Shore		0.418	0.003	0.239	0.771
cg05060949	black	7	156,798,581	Body	Island	MNX1	0.418	0.013	0.088	0.267
cg11604426	black	17	30,592,406	TSS1500	N_Shore	RHBDL3	0.418	-0.002	0.037	0.639
cg05548190	black	5	176,432,570	5'UTR	N_Shore	UIMC1	0.418	-0.006	0.117	0.452
cg00853979	black	1	32,681,368	Body	OpenSea	DCDC2B	0.418	0.000	0.058	0.879
cg20386487	black	15	96,898,045		OpenSea		0.418	-0.001	0.026	0.551
cg06794543	black	15	42,749,748	TSS200	OpenSea	ZFP106	0.418	-0.002	0.033	0.413
cg24482850	black	1	205,291,215	TSS1500	S_Shore	NUAK2	0.418	0.004	0.483	0.703
cg22280258	black	17	4,545,157	TSS200	S_Shore	ALOX15	0.418	-0.007	0.056	0.239
cg07833779	black	1	112,050,772	Body	OpenSea	ADORA3	0.418	0.002	0.021	0.299
cg14141061	black	11	119,881,616		OpenSea		0.418	0.001	0.719	0.888
cg07381283	black	1	2,391,837		S_Shelf		0.418	0.002	0.444	0.701
cg02466572	black	10	94,826,319	Body	Island	CYP26C1	0.417	0.003	0.112	0.739
cg02641560	black	1	24,828,811	TSS1500	N_Shore	RCAN3	0.417	-0.001	0.022	0.495
cg08450404	black	19	58,326,441	TSS200	S_Shore	ZNF552	0.417	0.002	0.045	0.380
cg26283141	black	6	33,240,471	TSS1500	S_Shore	VPS52	0.417	0.003	0.354	0.714
cg24647428	black	3	100,789,257		OpenSea		0.417	0.012	0.465	0.340
cg21630725	black	11	3,637,427		OpenSea		0.417	0.008	0.918	0.056
cg13901000	black	15	68,757,342		OpenSea		0.417	0.004	0.847	0.730
cg21552063	black	6	14,212,256		S_Shore		0.417	0.002	0.136	0.820
cg13923669	black	17	72,948,705	Body	OpenSea	C17orf28	0.417	-0.001	0.573	0.901
cg27424148	black	16	86,531,713		Island		0.417	-0.001	0.044	0.793
cg22063654	black	8	72,758,701		S_Shelf		0.417	0.000	0.028	0.856
cg05875463	black	18	60,385,273	Body	S_Shore	PHLPP1	0.416	-0.003	0.053	0.494
cg19958021	black	2	5,840,827	3'UTR	S_Shelf	SOX11	0.416	-0.005	0.568	0.508
cg15262516	black	13	110,958,418	Body	N_Shore	COL4A1	0.416	-0.001	0.026	0.551
cg13976375	black	1	39,281,613		N_Shore		0.416	-0.004	0.055	0.657
cg12017635	black	12	72,343,656	Body	OpenSea	TPH2	0.416	0.022	0.157	0.027
cg16523643	black	15	37,395,171		S_Shore		0.415	-0.014	0.138	0.198
cg22640819	black	19	22,990,650		Island		0.415	0.008	0.115	0.463
cg05818685	black	5	11,384,682	Body	Island	CTNND2	0.415	-0.005	0.107	0.470
cg11032623	black	5	10,905,182		OpenSea		0.415	-0.008	0.106	0.352
cg26376280	black	12	117,593,259	Body	N_Shore	FBXO21	0.415	-0.001	0.235	0.848
cg10236414	black	13	84,455,742	1stExon	S_Shore	SLITRK1	0.415	0.005	0.061	0.355
cg04782072	black	6	8,102,505	Body	Island	EEF1E1	0.415	-0.001	0.039	0.538
cg09784307	black	15	75,248,768	1stExon	Island	RPP25	0.415	-0.003	0.038	0.267
cg15752343	black	10	124,904,190		N_Shore		0.415	0.012	0.131	0.053
cg23705224	black	15	48,483,948	1stExon	OpenSea	CTXN2	0.415	0.005	0.068	0.367
cg22273925	black	10	23,984,977	5'UTR	Island	KIAA1217	0.415	0.000	0.037	0.983
cg00874990	black	7	156,409,160		Island		0.415	0.003	0.057	0.335
cg00702547	black	16	34,214,362		OpenSea		0.415	0.002	0.269	0.852
cg08198377	black	14	51,707,975	Body	S_Shore	TMX1	0.415	0.027	0.132	0.026
cg13545297	black	12	54,404,315	Body	S_Shore	HOXC8	0.415	0.067	0.216	0.035
cg09473396	black	3	65,131,979		OpenSea		0.415	0.002	0.077	0.615
cg19005319	black	12	130,481,832		OpenSea		0.414	0.013	0.309	0.079
cg07501988	black	19	39,086,733	Body	N_Shore	MAP4K1	0.414	0.002	0.068	0.702
cg12430467	black	15	30,115,299	TSS1500	S_Shore	TJP1	0.414	-0.001	0.101	0.902
cg14355622	black	2	175,870,404	TSS1500	S_Shore	CHN1	0.414	0.001	0.026	0.289
cg26995690	black	13	36,346,376	3'UTR	OpenSea	DCLK1	0.414	0.005	0.091	0.602
cg26492720	black	13	42,534,711	Body	N_Shore	KIAA0564	0.414	0.002	0.045	0.556
cg04892836	black	12	115,174,285		Island		0.413	0.005	0.376	0.544
cg14207553	black	2	106,071,427		OpenSea		0.413	-0.008	0.202	0.492
cg00579960	black	21	33,102,593	Body	N_Shore	SFRS15	0.413	-0.007	0.169	0.458
cg11017318	black	14	62,279,992		Island		0.413	0.000	0.141	0.959
cg04967578	black	18	13,641,894	Body	Island	C18orf1	0.413	0.000	0.044	0.951
cg05493001	black	19	52,195,559	TSS1500	OpenSea	MIR125A	0.413	0.005	0.262	0.316
cg26281107	black	4	187,927,166		OpenSea		0.413	0.025	0.481	0.004
cg07198150	black	1	86,623,101	TSS1500	S_Shore	COL24A1	0.413	0.002	0.448	0.760
cg22891600	black	2	104,018,319		OpenSea		0.413	-0.002	0.029	0.150
cg10024583	black	17	45,772,800	1stExon	Island	TBKBP1	0.413	-0.001	0.028	0.428
cg08535938	black	1	161,128,985	TSS1500	N_Shore	USP21	0.413	0.004	0.352	0.466
cg02244695	black	7	150,497,346	5'UTR	Island	TMEM176B	0.413	-0.003	0.039	0.236
cg07123855	black	22	39,323,204		Island		0.413	0.006	0.204	0.669
cg01402814	black	16	30,418,374	TSS1500	N_Shore	ZNF771	0.413	-0.002	0.086	0.846

cg26268276	black	11	33,038,313	Body	S_Shore	DEPDC7	0.413	-0.001	0.103	0.904
cg19210302	black	3	45,635,099	TSS1500	Island	LIMD1	0.413	-0.003	0.076	0.382
cg17065262	black	17	27,506,097	5'UTR	N_Shore	MYO18A	0.413	0.003	0.249	0.792
cg04856896	black	1	32,665,450	TSS1500	N_Shore	CCDC28B	0.412	0.014	0.568	0.055
cg11121623	black	14	56,586,572	Body	S_Shore	PELI2	0.412	-0.001	0.044	0.713
cg04156464	black	16	56,224,504	TSS1500	N_Shore	GNAO1	0.412	0.001	0.024	0.454
cg15416643	black	8	24,815,840		S_Shore		0.412	-0.009	0.118	0.470
cg09871285	black	3	113,932,855		OpenSea		0.412	0.001	0.112	0.864
cg23181580	black	11	22,454,301		Island		0.412	-0.008	0.063	0.369
cg10030921	black	10	99,393,523	TSS200	S_Shore	MORN4	0.412	-0.006	0.093	0.400
cg20084504	black	13	28,369,514		N_Shore		0.412	0.000	0.027	0.936
cg17185639	black	17	45,330,862	TSS1500	N_Shore	ITGB3	0.412	0.003	0.707	0.811
cg02657865	black	6	32,077,744	TSS1500	OpenSea	TNXB	0.412	0.001	0.505	0.875
cg06525987	black	5	161,494,645	TSS200	OpenSea	GABRG2	0.412	0.002	0.081	0.688
cg08197569	black	19	56,040,376		N_Shore		0.412	-0.034	0.551	0.083
cg00468820	black	18	63,418,672	5'UTR	S_Shore	CDH7	0.411	-0.002	0.021	0.328
cg14370752	black	11	6,518,438	TSS200	OpenSea	DNHD1	0.411	-0.009	0.151	0.450
cg15409133	black	12	132,900,072	Body	N_Shore	GALNT9	0.411	-0.002	0.028	0.471
cg26542218	black	12	129,461,043	Body	OpenSea	GLT1D1	0.411	0.000	0.302	0.978
cg02475474	black	6	29,635,158	3'UTR	OpenSea	MOG	0.411	-0.007	0.132	0.517
cg05920317	black	7	8,472,973	TSS1500	N_Shore	NXPB1	0.411	0.000	0.084	0.972
cg22029297	black	1	26,736,798	TSS1500	N_Shore	LIN28	0.411	0.000	0.033	0.766
cg22605643	black	1	163,039,012	1stExon	OpenSea	RGS4	0.411	0.002	0.024	0.252
cg11242764	black	4	3,466,246	Body	S_Shore	DOK7	0.411	0.008	0.606	0.180
cg14933246	black	13	50,091,767	Body	OpenSea	PHF11	0.411	0.005	0.825	0.684
cg08901901	black	1	160,951,907		OpenSea		0.411	-0.002	0.036	0.549
cg13651833	black	9	71,788,748	TSS1500	Island	TJP2	0.411	-0.003	0.032	0.019
cg08737116	black	1	116,563,487	Body	OpenSea	SLC22A15	0.411	0.001	0.243	0.862
cg15545035	black	12	28,128,288		Island		0.411	-0.001	0.021	0.609
cg17868340	black	10	125,853,676		S_Shore		0.411	0.001	0.021	0.423
cg00187059	black	6	33,289,693	Body	N_Shore	DAXX	0.410	0.006	0.403	0.266
cg22362636	black	4	2,758,447	TSS1500	S_Shore	TNIP2	0.410	-0.006	0.071	0.211
cg25755804	black	1	111,813,307		N_Shore		0.410	-0.001	0.395	0.926
cg15778610	black	6	161,695,509	TSS1500	OpenSea	AGPAT4	0.410	0.001	0.047	0.734
cg27546241	black	19	7,701,753	TSS1500	Island	STXB2	0.410	-0.019	0.205	0.043
cg00495303	black	18	3,771,110	Body	N_Shore	DLGAP1	0.410	0.000	0.060	0.992
cg24488435	black	12	54,583,029	TSS1500	OpenSea	SMUG1	0.410	0.000	0.027	0.979
cg02461363	black	10	63,212,496	Body	Island	TMEM26	0.410	0.004	0.029	0.131
cg23197867	black	14	100,659,756		S_Shore		0.410	-0.001	0.079	0.901
cg19359333	black	12	52,240,545		N_Shore		0.409	0.004	0.165	0.678
cg05193369	black	10	94,821,773	Body	Island	CYP26C1	0.409	0.000	0.145	0.921
cg12260798	black	6	26,240,519	TSS200	N_Shore	HIST1H4F	0.409	0.000	0.025	0.935
cg05390356	black	1	10,277,983	5'UTR	OpenSea	KIF1B	0.409	-0.009	0.337	0.502
cg06273376	black	22	48,972,349	Body	Island	FAM19A5	0.409	-0.002	0.019	0.096
cg15215155	black	7	128,473,311	Body	S_Shelf	FLNC	0.409	0.013	0.098	0.054
cg03299990	black	20	1,757,570		N_Shore		0.409	0.001	0.015	0.447
cg10820045	black	2	198,174,542		N_Shore		0.409	0.002	0.034	0.501
cg15226514	black	3	63,856,759	5'UTR	OpenSea	ATXN7	0.409	0.002	0.920	0.771
cg14096180	black	11	67,141,628	1stExon	S_Shore	CLCF1	0.409	0.001	0.028	0.635
cg07053697	black	12	111,374,835		OpenSea		0.409	0.008	0.240	0.364
cg05131266	black	14	91,591,888	5'UTR	OpenSea	C14orf159	0.409	-0.013	0.508	0.623
cg08474164	black	2	177,503,596		S_Shore		0.409	0.000	0.041	0.909
cg03062991	black	7	1,271,868	TSS1500	Island	UNCX	0.408	0.000	0.013	0.492
cg20491446	black	17	80,656,612	TSS200	Island	RAB40B	0.408	-0.001	0.021	0.582
cg23490638	black	6	28,557,467		S_Shelf		0.408	0.003	0.032	0.192
cg16415785	black	3	42,305,237	5'UTR	Island	CCK	0.408	0.000	0.028	0.749
cg21570702	black	11	71,814,692	Body	S_Shore	LRTOMT	0.408	-0.004	0.104	0.542
cg21097036	black	6	127,840,640	TSS200	S_Shelf	C6orf174	0.408	0.003	0.029	0.190
cg10185119	black	2	200,325,426	TSS200	Island	SATB2	0.408	-0.001	0.033	0.358
cg14232218	black	9	93,922,330		Island		0.408	-0.030	0.341	0.307
cg07178825	black	1	3,649,574	Body	Island	TP73	0.407	0.019	0.054	0.050
cg18171645	black	3	150,439,434		OpenSea		0.407	-0.003	0.231	0.776
cg01951086	black	4	111,551,642	Body	N_Shore	PITX2	0.407	-0.001	0.025	0.625
cg18225844	black	16	31,147,177	TSS200	OpenSea	PRSS8	0.407	0.005	0.140	0.417
cg00990380	black	6	28,601,477		N_Shore		0.407	-0.011	0.763	0.532
cg12424785	black	2	154,728,133	TSS1500	Island	GALNT13	0.407	0.001	0.061	0.759
cg15867079	black	4	117,847,545		S_Shore		0.407	-0.006	0.061	0.252

cg11075416	black	11	128,557,265	N_Shelf		0.407	0.000	0.016	0.614
cg02473237	black	6	139,004,011	OpenSea		0.407	0.014	0.476	0.396
cg04878745	black	8	144,614,425 Body	OpenSea	ZC3H3	0.407	-0.006	0.055	0.277
cg26329538	black	14	89,759,952 Body	OpenSea	FOXN3	0.407	0.016	0.558	0.241
cg20653075	black	8	65,291,682 TSS200	S_Shore	MIR124-2	0.407	0.003	0.061	0.479
cg11531947	black	10	115,995,261	N_Shelf		0.407	-0.003	0.600	0.842
cg22748740	black	6	28,973,350 TSS1500	OpenSea	ZNF311	0.407	0.005	0.047	0.490
cg26570448	black	5	168,729,554 TSS1500	S_Shore	SLIT3	0.407	-0.001	0.140	0.893
cg03156115	black	3	28,283,456 Body	Island	CMC1	0.406	0.000	0.015	0.650
cg00174421	black	8	26,372,472 TSS1500	Island	PNMA2	0.406	0.001	0.015	0.370
cg23982812	black	12	14,004,950 Body	OpenSea	GRIN2B	0.406	0.003	0.100	0.773
cg10617784	black	2	71,134,586 Body	Island	VAX2	0.406	0.000	0.033	0.955
cg01996297	black	6	33,970,166	OpenSea		0.406	0.004	0.837	0.594
cg07865216	black	10	98,910,008 Body	OpenSea	SLIT1	0.406	0.011	0.363	0.336
cg03131724	black	11	58,731,433	Island		0.406	0.007	0.153	0.531
cg23491743	black	2	241,989,271 Body	Island	SNED1	0.406	0.025	0.227	0.100
cg18773591	black	2	51,001,003 Body	OpenSea	NRXN1	0.406	0.002	0.312	0.827
cg03208426	black	10	94,822,337 Body	Island	CYP26C1	0.406	0.003	0.069	0.487
cg06471748	black	7	73,185,168 TSS1500	S_Shore	CLDN3	0.406	-0.006	0.069	0.222
cg01328164	black	9	35,814,704 Body	Island	HINT2	0.406	0.000	0.027	0.815
cg21569854	black	14	105,830,309 Body	N_Shore	PACS2	0.406	0.014	0.797	0.300
cg22452837	black	6	28,664,155	OpenSea		0.405	0.021	0.130	0.264
cg22934970	black	17	1,957,698 TSS1500	Island	HIC1	0.405	0.000	0.021	0.951
cg25032375	black	2	61,293,268 5'UTR	Island	KIAA1841	0.405	0.000	0.022	0.734
cg25048751	black	12	107,297,185	OpenSea		0.405	0.001	0.016	0.460
cg21216477	black	12	54,440,773 5'UTR	Island	HOXC4	0.405	0.017	0.225	0.162
cg09645126	black	3	184,870,685 1stExon	Island	C3orf70	0.405	-0.002	0.036	0.357
cg12127282	black	2	177,014,685 TSS1500	N_Shore	HOXD4	0.405	0.003	0.061	0.666
cg08499602	black	8	27,132,306	OpenSea		0.405	0.000	0.019	0.834
cg14480507	black	4	6,021,538	OpenSea		0.405	0.000	0.045	0.904
cg16498194	black	12	130,647,874 1stExon	Island	FZD10	0.405	-0.008	0.078	0.183
cg12486710	black	1	178,512,616 Body	S_Shore	C1orf220	0.405	-0.003	0.149	0.651
cg14649140	black	7	27,214,201 TSS1500	Island	HOXA10	0.405	0.006	0.048	0.063
cg02189888	black	19	46,582,065	Island		0.405	-0.011	0.072	0.104
cg16046898	black	3	155,812,108	OpenSea		0.405	-0.004	0.510	0.643
cg01204210	black	10	103,044,312	Island		0.405	-0.003	0.146	0.663
cg26041076	black	17	236,249	S_Shore		0.405	0.001	0.065	0.615
cg14631386	black	8	93,114,305	Island		0.405	0.000	0.032	0.845
cg07130869	black	3	28,283,173 5'UTR	Island	CMC1	0.405	0.000	0.015	0.839
cg25864523	black	6	28,557,388	S_Shelf		0.405	0.006	0.030	0.043
cg16123101	black	1	177,140,812 5'UTR	S_Shore	FAM5B	0.405	-0.001	0.023	0.724
cg03591496	black	6	33,280,653 Body	N_Shore	TAPBP	0.404	0.000	0.029	0.971
cg20945853	black	5	133,406,542	N_Shore		0.404	0.007	0.195	0.217
cg18516471	black	3	42,978,248	S_Shore		0.404	-0.028	0.626	0.062
cg01022219	black	18	13,641,735 Body	Island	C18orf1	0.404	-0.004	0.086	0.617
cg03413097	black	7	156,811,422	Island		0.404	0.000	0.019	0.736
cg17821168	black	3	127,175,050	S_Shore		0.404	-0.006	0.065	0.198
cg08012521	black	17	46,719,864	Island		0.404	-0.001	0.090	0.893
cg02246426	black	8	97,162,431 Body	OpenSea	GDF6	0.404	0.021	0.239	0.272
cg11013726	black	15	65,116,557 5'UTR	Island	PIF1	0.404	0.000	0.032	0.876
cg13167372	black	17	70,536,814	S_Shore		0.404	0.006	0.082	0.211
cg08409074	black	2	201,983,242 5'UTR	Island	CFLAR	0.404	-0.002	0.016	0.291
cg04055615	black	6	31,697,723 5'UTR	Island	DDAH2	0.404	0.000	0.017	0.617
cg03892356	black	12	54,420,837 5'UTR	N_Shelf	HOXC4	0.403	0.054	0.245	0.047
cg20862669	black	2	160,142,734 5'UTR	Island	WDSUB1	0.403	-0.002	0.028	0.125
cg06916706	black	16	4,465,613 Body	N_Shore	CORO7	0.403	0.002	0.067	0.620
cg12398330	black	11	124,734,412 TSS1500	N_Shore	ROBO3	0.403	0.000	0.146	0.994
cg27579359	black	16	55,736,319 3'UTR	OpenSea	SLC6A2	0.403	0.000	0.942	0.903
cg19335130	black	5	146,256,776 Body	N_Shore	PPP2R2B	0.403	0.011	0.279	0.127
cg08216021	black	8	110,552,896 5'UTR	S_Shore	EBAG9	0.403	0.013	0.249	0.116
cg22268231	black	19	50,922,484 Body	OpenSea	SPIB	0.403	-0.003	0.100	0.668
cg09893504	black	2	11,273,901 Body	OpenSea	C2orf50	0.402	0.009	0.344	0.191
cg22215815	black	12	57,619,178 Body	Island	NXPH4	0.402	0.001	0.046	0.717
cg10384064	black	14	95,156,065	OpenSea		0.402	0.000	0.025	0.814
cg05231018	black	17	46,806,763 TSS1500	S_Shore	HOXB13	0.402	0.003	0.024	0.067
cg00279001	black	18	15,197,867	Island		0.402	0.009	0.130	0.366
cg16487825	black	6	130,339,998 5'UTR	N_Shore	L3MBTL3	0.402	-0.001	0.015	0.440

cg25497399	black	11	32,355,324	Island		0.402	0.007	0.160	0.628
cg10173307	black	2	175,352,195 TSS1500	S_Shore	GPR155	0.402	0.001	0.021	0.116
cg06861736	black	22	20,918,809 Body	OpenSea	MED15	0.402	0.001	0.306	0.924
cg26743024	black	17	64,960,282 TSS1500	N_Shore	CACNG4	0.402	-0.004	0.245	0.558
cg05787556	black	5	170,735,186 TSS1500	Island	TLX3	0.402	-0.004	0.049	0.407
cg17518825	black	2	46,523,461 TSS1500	N_Shore	EPAS1	0.402	0.003	0.321	0.804
cg24593688	black	13	45,885,599	N_Shore		0.402	-0.001	0.022	0.611
cg16161425	black	5	79,950,956 Body	S_Shore	MSH3	0.401	0.001	0.023	0.632
cg08368148	black	13	80,917,381	S_Shore		0.401	-0.004	0.033	0.134
cg25603636	black	5	140,613,998 Body	N_Shore	PCDHB18	0.401	0.001	0.059	0.912
cg15539420	black	17	46,692,248 5'UTR	S_Shore	HOXB8	0.401	-0.007	0.081	0.328
cg18064152	black	8	23,082,721 TSS200	Island	TNFRSF10A	0.401	-0.004	0.041	0.101
cg23254031	black	14	48,144,765 TSS1500	Island	MDGA2	0.401	-0.002	0.022	0.263
cg00035316	black	2	176,993,017 TSS1500	Island	HOXD8	0.401	-0.001	0.029	0.396
cg18886444	black	3	49,378,032 TSS1500	S_Shore	USP4	0.401	0.001	0.023	0.724
cg10242496	black	6	137,242,316 TSS1500	Island	SLC35D3	0.401	0.001	0.047	0.784
cg21782315	black	6	170,531,847	S_Shore		0.401	0.008	0.739	0.427
cg10600701	black	3	169,381,939 TSS1500	S_Shore	MECOM	0.401	0.005	0.060	0.253
cg11084334	black	3	9,594,264 Body	Island	LHFPL4	0.400	0.004	0.144	0.600
cg00890208	black	9	37,025,102 Body	N_Shore	PAX5	0.400	0.000	0.086	0.984
cg15636087	black	19	58,194,098 Body	S_Shore	ZNF551	0.400	0.000	0.269	0.972
cg13028471	black	4	139,163,535 TSS200	OpenSea	SLC7A11	0.400	0.002	0.048	0.650
cg11737298	black	11	132,217,395	OpenSea		0.400	0.002	0.296	0.874
cg16728223	black	6	29,691,603 Body	Island	HLA-F	0.400	0.002	0.051	0.502
cg26883712	black	6	28,973,466 TSS1500	OpenSea	ZNF311	0.400	0.017	0.068	0.045
cg05552035	black	8	37,699,239 Body	Island	GPR124	0.400	0.014	0.513	0.194
cg02540827	black	2	201,221,975 5'UTR	OpenSea	SPATS2L	0.400	-0.001	0.187	0.860
cg01154355	black	5	124,043,109 Body	OpenSea	ZNF608	0.400	0.012	0.307	0.114
cg19366877	black	1	204,010,639 TSS1500	OpenSea	C1orf157	0.400	-0.001	0.214	0.941
cg07911664	black	13	112,627,528	Island		0.400	-0.005	0.077	0.591
cg18344930	black	5	87,441,081	S_Shelf		0.399	-0.001	0.050	0.912
cg18108683	black	7	102,477,205 Body	OpenSea	FBXL13	0.399	-0.009	0.366	0.566
cg12427688	black	1	155,829,126 TSS200	Island	SYT11	0.399	0.000	0.017	0.723
cg11207763	black	11	69,517,471 Body	N_Shore	FGF19	0.399	-0.004	0.092	0.406
cg12467264	black	5	175,200,071	N_Shore		0.399	-0.002	0.038	0.579
cg10629004	black	20	21,696,467 3'UTR	S_Shore	PAX1	0.399	-0.005	0.108	0.551
cg17751776	black	17	27,370,117 5'UTR	OpenSea	PIPOX	0.399	0.011	0.168	0.064
cg01882150	black	11	63,933,998 TSS1500	Island	MACROD1	0.399	0.003	0.073	0.418
cg15842884	black	20	5,591,925 TSS1500	S_Shore	RP5-1022P6.	0.399	-0.001	0.025	0.678
cg03590464	black	2	120,189,318 TSS200	Island	TMEM37	0.399	0.001	0.029	0.706
cg00091953	black	4	143,326,541 Body	OpenSea	INPP4B	0.399	0.004	0.066	0.633
cg08182501	black	2	177,003,406	N_Shore		0.399	0.000	0.275	0.966
cg13777717	black	5	76,250,527 Body	Island	CRHBP	0.399	0.000	0.141	0.957
cg23444265	black	19	48,918,205 Body	Island	GRIN2D	0.399	0.000	0.159	0.975
cg21655267	black	2	129,083,470	S_Shelf		0.399	-0.008	0.789	0.270
cg21985690	black	5	79,330,669 TSS1500	N_Shore	THBS4	0.399	-0.002	0.062	0.761
cg00757933	black	6	29,760,864 TSS200	Island	HCG4	0.399	0.008	0.128	0.412
cg05548179	black	15	51,425,282	OpenSea		0.399	-0.001	0.076	0.846
cg08292023	black	11	88,242,253 Body	Island	GRM5	0.398	0.000	0.128	0.988
cg05404010	black	16	51,186,211 TSS1500	Island	SALL1	0.398	0.001	0.020	0.561
cg06596054	black	12	57,998,581 TSS200	OpenSea	DTX3	0.398	-0.009	0.072	0.128
cg03474525	black	6	167,287,812	S_Shelf		0.398	0.009	0.773	0.316
cg08872590	black	8	145,748,059 Body	Island	LRRC24	0.398	0.000	0.017	0.944
cg08387014	black	11	1,848,742	S_Shore		0.397	0.006	0.402	0.346
cg03513464	black	1	58,898,672	OpenSea		0.397	0.001	0.023	0.660
cg08940511	black	2	241,922,778	Island		0.397	0.000	0.032	0.928
cg14334441	black	6	27,235,820	OpenSea		0.397	0.003	0.029	0.478
cg00063703	black	12	20,521,087 TSS1500	N_Shore	PDE3A	0.397	0.003	0.090	0.277
cg18487343	black	14	60,864,465	Island		0.397	0.012	0.443	0.375
cg23328613	black	3	48,633,059 TSS1500	S_Shore	COL7A1	0.397	-0.004	0.064	0.385
cg07694621	black	2	43,151,938	OpenSea		0.397	0.015	0.461	0.177
cg02255844	black	6	114,662,458	N_Shore		0.397	0.000	0.040	0.881
cg18710462	black	6	108,486,123 TSS1500	Island	NR2E1	0.397	-0.002	0.022	0.022
cg11298786	black	1	228,195,794 Body	Island	WNT3A	0.397	0.001	0.034	0.767
cg16937769	black	12	54,409,485 TSS1500	S_Shore	HOXC4	0.397	0.011	0.048	0.036
cg18206481	black	1	165,204,502 Body	Island	LMX1A	0.397	0.001	0.077	0.876
cg09854515	black	4	111,554,385 5'UTR	N_Shore	PITX2	0.396	0.012	0.190	0.381

cg12387154	black	6	32,119,639	1stExon	S_Shore	PRRT1	0.396	0.001	0.045	0.454
cg07354581	black	15	35,585,747		OpenSea		0.396	-0.011	0.149	0.156
cg00178864	black	4	140,201,574	TSS200	S_Shore	C4orf49	0.396	0.000	0.162	0.974
cg06316886	black	2	177,027,043		N_Shore		0.396	0.001	0.038	0.757
cg06864587	black	19	45,843,694	TSS1500	N_Shore	KLC3	0.396	-0.005	0.172	0.406
cg13526488	black	17	78,793,807	Body	N_Shelf	RPTOR	0.396	0.002	0.497	0.832
cg21737226	black	8	53,326,668		OpenSea		0.396	0.007	0.172	0.413
cg05391486	black	1	201,123,919	TSS1500	S_Shore	TMEM9	0.396	-0.002	0.036	0.509
cg01296199	black	3	123,752,573		Island		0.396	0.000	0.030	0.948
cg15253293	black	17	79,366,853		Island		0.395	0.003	0.034	0.125
cg25965471	black	6	43,211,235	5'UTR	Island	TTBK1	0.395	-0.002	0.050	0.586
cg10799055	black	6	27,725,188		OpenSea		0.395	0.001	0.023	0.417
cg04217450	black	5	158,526,693	1stExon	N_Shore	EBF1	0.395	-0.001	0.025	0.626
cg18280126	black	11	57,235,389	Body	S_Shelf	RTN4RL2	0.395	0.012	0.415	0.405
cg10785311	black	12	50,135,515	TSS200	Island	TMBIM6	0.395	-0.005	0.090	0.666
cg26150754	black	1	33,178,054		OpenSea		0.395	0.000	0.024	0.664
cg09491281	black	8	56,686,114	TSS1500	Island	TMEM68	0.395	0.000	0.034	0.764
cg12982322	black	11	32,449,821	Body	S_Shore	WT1	0.394	0.023	0.241	0.132
cg09926212	black	7	102,073,671	TSS1500	Island	ORAI2	0.394	0.000	0.019	0.597
cg06180152	black	6	30,043,492	1stExon	Island	RNF39	0.394	-0.011	0.066	0.048
cg17973115	black	1	25,333,445		OpenSea		0.394	0.002	0.023	0.332
cg26671246	black	1	23,203,462	Body	OpenSea	EPHB2	0.394	0.002	0.507	0.735
cg19869415	black	16	50,186,636	TSS200	OpenSea	PAPD5	0.394	0.001	0.033	0.413
cg21092462	black	1	211,307,761	TSS1500	S_Shore	KCNH1	0.394	-0.008	0.140	0.186
cg26430081	black	12	130,529,394		S_Shelf		0.394	0.012	0.321	0.221
cg06592791	black	19	38,925,549	Body	S_Shore	RYR1	0.394	-0.002	0.024	0.240
cg00057272	black	8	135,726,252	TSS1500	S_Shore	ZFAT	0.394	0.000	0.247	0.955
cg23350889	black	12	133,100,618	Body	N_Shore	FBRSL1	0.394	0.000	0.075	0.928
cg12929487	black	4	41,869,175		Island		0.394	0.002	0.026	0.314
cg05129572	black	15	56,138,634	Body	OpenSea	NEDD4	0.393	0.030	0.110	0.140
cg01055594	black	2	20,190,349	TSS1500	S_Shore	WDR35	0.393	0.004	0.253	0.738
cg04104526	black	1	156,818,749	Body	Island	NTRK1	0.393	-0.003	0.030	0.120
cg21769514	black	8	2,743,697		OpenSea		0.393	0.001	0.407	0.956
cg14514226	black	1	205,197,651	5'UTR	Island	TMCC2	0.393	-0.001	0.025	0.570
cg04812509	black	10	90,342,738	Body	Island	RNLS	0.393	-0.005	0.080	0.725
cg25968571	black	12	26,348,749	5'UTR	Island	SSPN	0.393	0.000	0.023	0.887
cg25140345	black	1	2,440,291	Body	Island	PANK4	0.393	-0.001	0.680	0.911
cg04407215	black	3	53,304,322		OpenSea		0.393	0.004	0.333	0.414
cg15669183	black	13	108,518,621	1stExon	Island	FAM155A	0.393	0.000	0.029	0.800
cg09927651	black	17	1,090,869	TSS1500	OpenSea	ABR	0.393	-0.007	0.402	0.569
cg06956786	black	7	3,713,348	Body	OpenSea	SDK1	0.393	0.008	0.180	0.368
cg04186657	black	6	29,690,893	TSS1500	N_Shore	HLA-F	0.393	0.040	0.547	0.176
cg21832906	black	1	221,785,710		OpenSea		0.392	-0.011	0.156	0.062
cg20242280	black	17	64,826,184		OpenSea		0.392	0.001	0.021	0.577
cg25530661	black	4	56,301,576	3'UTR	OpenSea	CLOCK	0.392	0.006	0.366	0.356
cg19040474	black	17	151,914	Body	N_Shore	RPH3AL	0.392	0.016	0.654	0.112
cg18838431	black	11	74,178,800	TSS1500	Island	KCNE3	0.392	-0.003	0.291	0.726
cg01908338	black	1	2,984,525	TSS1500	Island	FLJ42875	0.392	-0.002	0.051	0.609
cg05057634	black	17	74,865,178	1stExon	Island	MGAT5B	0.392	-0.003	0.030	0.225
cg26648592	black	12	13,153,907	Body	N_Shore	HTR7P	0.392	0.001	0.014	0.385
cg23770265	black	7	2,968,559	Body	Island	CARD11	0.392	0.003	0.587	0.689
cg07150045	black	2	163,696,187	TSS1500	OpenSea	KCNH7	0.392	-0.010	0.106	0.077
cg07264025	black	12	86,658,860	5'UTR	OpenSea	MGAT4C	0.392	-0.005	0.258	0.794
cg02732509	black	12	58,241,200	TSS1500	S_Shore	CTDSP2	0.392	0.000	0.230	0.970
cg19675684	black	1	39,456,578	TSS1500	N_Shore	AKIRIN1	0.392	0.001	0.025	0.552
cg11824172	black	1	60,280,096	TSS1500	N_Shore	HOOK1	0.391	-0.012	0.091	0.223
cg20710730	black	17	46,705,577		S_Shore		0.391	0.016	0.140	0.034
cg02686681	black	2	241,853,954		N_Shore		0.391	-0.001	0.028	0.412
cg18944047	black	17	72,322,143	TSS1500	Island	KIF19	0.391	0.000	0.020	0.727
cg12266551	black	19	45,394,624	5'UTR	Island	TOMM40	0.391	-0.001	0.022	0.376
cg10779037	black	1	36,930,382	TSS1500	S_Shore	MRPS15	0.391	0.002	0.026	0.172
cg13977486	black	10	104,211,296	5'UTR	S_Shore	C10orf95	0.391	0.006	0.326	0.340
cg10259518	black	2	233,765,616	Body	N_Shore	NGEF	0.391	0.013	0.733	0.161
cg12445658	black	2	129,063,880	Body	OpenSea	HS6ST1	0.391	0.005	0.379	0.618
cg07913096	black	1	28,573,940		Island		0.390	0.004	0.027	0.257
cg04137530	black	1	25,495,326		OpenSea		0.390	0.004	0.286	0.859
cg05902711	black	16	89,114,919		S_Shore		0.390	-0.003	0.141	0.676



cg24769924	black	12	32,553,033	Island		0.390	0.004	0.085	0.533
cg16406892	black	12	115,118,777 Body	N_Shore	TBX3	0.390	0.007	0.115	0.588
cg26509328	black	18	44,787,728	Island		0.390	-0.002	0.081	0.725
cg09008080	black	1	162,041,072 Body	S_Shore	NOS1AP	0.390	0.001	0.026	0.360
cg03201166	black	3	24,170,261 Body	OpenSea	THRB	0.389	-0.002	0.546	0.886
cg20688987	black	12	56,110,162 Body	Island	BLOC1S1	0.389	0.001	0.016	0.592
cg14900124	black	2	177,017,630 Body	S_Shore	HOXD4	0.389	0.008	0.160	0.313
cg00774457	black	2	58,479,214	S_Shore		0.389	-0.013	0.568	0.219
cg16228090	black	16	3,356,011 5'UTR	Island	ZNF75A	0.389	-0.005	0.111	0.637
cg11005826	black	11	2,165,961 Body	S_Shore	IGF2AS	0.388	-0.018	0.201	0.039
cg00107682	black	15	96,888,959	Island		0.388	0.000	0.025	0.788
cg27650726	black	4	6,676,596 Body	S_Shore	LOC93622	0.388	-0.001	0.034	0.566
cg12740757	black	2	30,144,623 TSS200	Island	ALK	0.388	0.001	0.020	0.122
cg25763788	black	6	78,172,950 1stExon	Island	HTR1B	0.388	0.007	0.050	0.017
cg09246829	black	12	54,322,396	S_Shore		0.388	0.000	0.016	0.925
cg05229742	black	1	165,249,378 Body	OpenSea	LMX1A	0.388	0.011	0.448	0.086
cg19672271	black	4	103,940,878 TSS200	Island	NHEDC1	0.388	0.001	0.017	0.717
cg06443034	black	17	78,417,973	Island		0.388	0.008	0.165	0.455
cg12733254	black	1	26,682,999	N_Shelf		0.388	0.000	0.725	0.992
cg21510164	black	3	5,468,160	OpenSea		0.388	0.000	0.020	0.678
cg09516959	black	7	30,721,478 Body	Island	CRHR2	0.387	-0.003	0.062	0.276
cg13343639	black	10	100,995,599 1stExon	S_Shore	HPSE2	0.387	-0.001	0.038	0.756
cg10280347	black	10	122,217,069 Body	Island	PPAPDC1A	0.387	-0.002	0.078	0.687
cg07138551	black	18	5,196,738 Body	Island	LOC642597	0.387	0.005	0.034	0.081
cg10278162	black	2	97,193,688	S_Shore		0.387	-0.003	0.028	0.106
cg22371227	black	1	177,139,876 TSS1500	N_Shore	FAM5B	0.387	-0.001	0.020	0.506
cg16911810	black	2	119,596,346	N_Shelf		0.387	0.004	0.374	0.598
cg27295412	black	1	1,347,832	OpenSea		0.387	0.021	0.868	0.085
cg25593573	black	3	45,077,920	S_Shore		0.387	-0.003	0.198	0.860
cg23206461	black	1	147,782,116	Island		0.387	0.003	0.053	0.510
cg01954337	black	11	3,819,010 TSS200	Island	PGAP2	0.387	0.000	0.032	0.990
cg24622205	black	11	6,625,060 5'UTR	Island	ILK	0.386	0.001	0.022	0.465
cg01534416	black	19	51,308,546 TSS1500	S_Shore	C19orf48	0.386	-0.001	0.029	0.605
cg25882785	black	17	46,724,583	S_Shore		0.386	-0.001	0.043	0.656
cg24613691	black	5	132,155,460	Island		0.386	0.006	0.105	0.674
cg16398944	black	6	57,182,319 TSS200	OpenSea	PRIM2	0.386	0.000	0.019	0.943
cg02371408	black	5	82,767,280 TSS1500	N_Shore	VCAN	0.386	0.000	0.029	0.963
cg06322412	black	9	124,975,754 Body	Island	LHX6	0.386	-0.009	0.355	0.279
cg24485957	black	6	28,956,565	Island		0.386	-0.001	0.040	0.762
cg06633066	black	19	7,735,510	S_Shore		0.386	-0.004	0.020	0.115
cg26224311	black	15	47,476,133	N_Shore		0.386	0.005	0.403	0.712
cg21685138	black	17	9,195,676 Body	OpenSea	STX8	0.386	-0.001	0.102	0.756
cg08160331	black	11	75,140,865 1stExon	Island	KLHL35	0.386	0.001	0.116	0.911
cg16407604	black	1	40,724,172 Body	S_Shore	ZMPSTE24	0.386	0.001	0.029	0.897
cg06384763	black	19	12,203,198 Body	Island	ZNF788	0.386	0.000	0.014	0.671
cg25918716	black	1	45,672,438 TSS200	S_Shore	ZSWIM5	0.385	-0.001	0.057	0.809
cg18371700	black	21	36,041,579 TSS200	Island	CLIC6	0.385	0.001	0.031	0.881
cg24524435	black	20	62,588,125 Body	Island	UCKL1AS	0.385	-0.001	0.028	0.691
cg17781710	black	2	171,671,480	N_Shore		0.385	0.004	0.043	0.072
cg13073773	black	14	95,234,658 3'UTR	Island	GSC	0.385	0.001	0.024	0.204
cg08070646	black	12	52,616,097 Body	OpenSea	LOC283404	0.385	-0.006	0.259	0.636
cg05107500	black	16	6,070,292 5'UTR	Island	A2BP1	0.385	0.000	0.073	0.873
cg22261467	black	15	24,672,463	Island		0.385	0.023	0.259	0.091
cg16182986	black	5	16,180,419 TSS1500	Island	11-Mar	0.385	-0.001	0.025	0.392
cg26799209	black	8	72,754,953 Body	N_Shore	MSC	0.385	-0.001	0.023	0.653
cg12611723	black	9	139,940,867 TSS200	Island	NPDC1	0.385	0.001	0.026	0.541
cg04003850	black	3	192,126,165 5'UTR	Island	FGF12	0.385	0.000	0.022	0.997
cg14776998	black	3	32,863,439 Body	S_Shore	TRIM71	0.385	0.006	0.114	0.446
cg06094126	black	1	17,025,723 Body	N_Shore	ESPNP	0.385	-0.008	0.266	0.291
cg13438032	black	8	55,162,383	OpenSea		0.385	0.006	0.354	0.536
cg26546864	black	15	81,426,434 TSS1500	N_Shore	C15orf26	0.384	-0.007	0.085	0.382
cg13774019	black	9	37,029,805 Body	N_Shore	PAX5	0.384	-0.002	0.046	0.710
cg04264726	black	3	49,710,768 TSS1500	N_Shore	APEH	0.384	0.002	0.301	0.889
cg12451837	black	10	35,119,627	OpenSea		0.384	-0.001	0.027	0.484
cg24756292	black	17	79,332,142	OpenSea		0.384	-0.007	0.861	0.370
cg26738614	black	12	1,929,588 1stExon	OpenSea	LRTM2	0.384	0.002	0.070	0.814
cg13619408	black	1	109,756,118 TSS1500	N_Shore	SARS	0.384	0.007	0.322	0.391

cg04800195	black	5	180,287,904	TSS1500	Island	ZFP62	0.384	0.000	0.030	0.901
cg17280299	black	5	132,082,690	TSS1500	N_Shore	CCNI2	0.384	0.000	0.099	0.991
cg19214184	black	12	112,621,527	Body	N_Shore	C12orf51	0.384	-0.001	0.464	0.943
cg24605325	black	2	128,168,798		S_Shelf		0.384	-0.002	0.024	0.277
cg05649708	black	10	131,771,695		Island		0.384	0.001	0.151	0.942
cg25914921	black	7	77,669,867	Body	Island	MAGI2	0.383	0.001	0.312	0.915
cg01560972	black	11	8,190,837	TSS1500	S_Shore	RIC3	0.383	-0.003	0.029	0.242
cg16672223	black	16	81,650,677	Body	OpenSea	CMIP	0.383	0.004	0.332	0.566
cg21020871	black	13	43,457,994		OpenSea		0.383	0.016	0.166	0.334
cg22012115	black	5	130,973,643		S_Shelf		0.383	0.010	0.906	0.195
cg16785690	black	9	135,037,323	TSS200	Island	NTNG2	0.383	0.001	0.031	0.620
cg18233405	black	8	98,290,148	1stExon	Island	TSPYL5	0.383	-0.001	0.019	0.339
cg25885042	black	2	59,477,248		OpenSea		0.383	-0.001	0.033	0.599
cg00105025	black	6	28,973,483	TSS1500	OpenSea	ZNF311	0.383	0.016	0.161	0.149
cg19551420	black	11	33,891,639	TSS200	S_Shore	LMO2	0.382	-0.001	0.032	0.676
cg02568761	black	12	34,496,768		Island		0.382	-0.001	0.275	0.966
cg15017982	black	11	1,785,723	TSS1500	S_Shore	CTSD	0.382	-0.005	0.139	0.547
cg08112724	black	14	88,788,364	Body	N_Shore	KCNK10	0.382	-0.003	0.061	0.569
cg16383222	black	8	145,688,536	Body	Island	CYHR1	0.382	-0.007	0.076	0.050
cg05155840	black	4	174,448,841	Body	Island	HAND2	0.382	-0.001	0.030	0.553
cg05247809	black	17	66,194,706	TSS200	Island	LOC440461	0.382	0.001	0.070	0.919
cg23605961	black	7	751,331	5'UTR	N_Shore	PRKAR1B	0.382	-0.003	0.029	0.365
cg00840332	black	7	127,881,269	TSS200	Island	LEP	0.382	0.002	0.033	0.725
cg21477176	black	19	54,445,888	3'UTR	S_Shore	CACNG7	0.382	-0.001	0.075	0.860
cg05555455	black	3	148,804,550	TSS1500	Island	HLTF	0.382	-0.001	0.038	0.726
cg01745726	black	22	24,129,337	1stExon	Island	SMARCB1	0.381	-0.002	0.023	0.369
cg18120111	black	21	43,917,047	TSS1500	Island	RSPH1	0.381	-0.006	0.109	0.167
cg15870818	black	3	180,319,597	TSS1500	N_Shore	TTC14	0.380	-0.002	0.205	0.687
cg11716598	black	10	135,139,716	Body	Island	CALY	0.380	0.003	0.227	0.588
cg06586775	black	20	34,204,993	Body	Island	SPAG4	0.380	0.002	0.032	0.418
cg22356324	black	10	71,077,947	Body	Island	HK1	0.380	-0.001	0.122	0.869
cg04026169	black	4	85,422,265		N_Shore		0.380	0.017	0.254	0.156
cg08155953	black	20	32,031,801	TSS200	Island	SNTA1	0.380	0.006	0.167	0.685
cg25556474	black	10	115,933,628	5'UTR	Island	C10orf118	0.380	-0.001	0.035	0.746
cg04682135	black	3	157,260,764	TSS1500	Island	C3orf55	0.380	-0.003	0.095	0.784
cg04187185	black	5	43,396,953	Body	Island	CCL28	0.380	-0.001	0.046	0.756
cg22115748	black	15	65,342,270	5'UTR	OpenSea	OSTBETA	0.380	-0.003	0.544	0.763
cg07488684	black	15	59,729,906	TSS1500	N_Shore	FAM81A	0.380	0.003	0.021	0.163
cg26972389	black	5	169,407,753	TSS200	OpenSea	FAM196B	0.379	0.002	0.068	0.805
cg17080893	black	8	82,192,535	TSS1500	Island	FABP5	0.379	-0.001	0.058	0.822
cg11420761	black	11	105,958,762	Body	OpenSea	AASDHPPT	0.379	-0.013	0.105	0.090
cg08901917	black	7	140,772,932		Island		0.379	0.001	0.030	0.874
cg23752000	black	17	78,442,298	3'UTR	N_Shore	NPTX1	0.379	-0.003	0.069	0.527
cg00929336	black	16	81,437,496		Island		0.379	-0.001	0.084	0.884
cg05330360	black	17	38,023,993	TSS1500	N_Shore	ZBPB2	0.379	0.000	0.335	0.977
cg14577472	black	20	42,295,538	TSS200	Island	MYBL2	0.379	0.000	0.018	0.873
cg14361252	black	13	111,465,457		Island		0.379	0.027	0.278	0.468
cg15388804	black	14	36,993,079		N_Shore		0.379	-0.021	0.209	0.025
cg02529035	black	2	220,377,885	TSS1500	Island	ACCN4	0.379	0.000	0.028	0.890
cg17365369	black	19	52,773,256	Body	Island	ZNF766	0.379	0.000	0.092	0.990
cg02288088	black	2	119,615,605		N_Shore		0.379	-0.003	0.051	0.435
cg21173406	black	11	44,338,128		Island		0.379	0.002	0.027	0.308
cg06110816	black	10	112,256,825	TSS1500	N_Shore	DUSP5	0.379	0.000	0.106	0.934
cg06776898	black	15	73,611,079		N_Shore		0.378	0.001	0.037	0.615
cg26076750	black	5	98,105,150	5'UTR	Island	RGMB	0.378	0.001	0.015	0.246
cg05052450	black	3	147,140,118		S_Shore		0.378	0.001	0.021	0.203
cg13411015	black	14	57,274,900	5'UTR	Island	OTX2	0.378	0.000	0.024	0.993
cg18347010	black	17	55,888,532		OpenSea		0.378	0.012	0.115	0.358
cg15862452	black	14	23,235,611	TSS200	N_Shore	OXA1L	0.378	-0.001	0.030	0.836
cg27492584	black	17	70,599,307		OpenSea		0.378	-0.007	0.418	0.222
cg08572767	black	1	26,644,234	TSS200	OpenSea	CD52	0.378	0.006	0.334	0.600
cg11935147	black	1	145,075,831	1stExon	Island	PDE4DIP	0.378	-0.002	0.057	0.591
cg21865150	black	17	46,804,239	Body	Island	HOXB13	0.378	-0.004	0.076	0.518
cg17938383	black	17	11,146,040	Body	S_Shore	SHISA6	0.378	-0.003	0.323	0.800
cg03564320	black	2	154,336,148	TSS1500	S_Shore	RPRM	0.377	-0.005	0.141	0.500
cg03776662	black	5	122,430,677	Body	Island	PRDM6	0.377	0.007	0.099	0.448
cg17096191	black	1	162,039,224	TSS1500	N_Shore	NOS1AP	0.377	-0.001	0.032	0.675

cg02305251	black	12	57,388,441	5'UTR	OpenSea	GPR182	0.377	0.004	0.743	0.736
cg09775533	black	20	32,857,151		Island		0.377	0.002	0.075	0.883
cg01770362	black	8	23,385,913	TSS1500	N_Shore	SLC25A37	0.377	0.008	0.248	0.293
cg10465465	black	16	12,050,254		OpenSea		0.377	-0.001	0.540	0.891
cg00756808	black	15	34,629,473	5'UTR	N_Shore	SLC12A6	0.377	0.000	0.026	0.930
cg06418475	black	19	17,008,851	Body	Island	CPAMD8	0.377	0.008	0.237	0.324
cg15279364	black	7	98,466,963	Body	N_Shore	TMEM130	0.377	-0.007	0.079	0.416
cg27473406	black	17	63,119,899		S_Shore		0.376	0.006	0.358	0.493
cg07917269	black	15	74,421,584	Body	Island	LOC283731	0.376	-0.003	0.038	0.114
cg01776738	black	2	223,175,334		N_Shore		0.376	-0.004	0.096	0.529
cg24005685	black	4	111,549,880	Body	Island	PITX2	0.376	-0.001	0.032	0.459
cg23764381	black	10	116,852,687	TSS1500	Island	ATRNL1	0.376	0.002	0.015	0.054
cg26730543	black	6	30,039,600	Body	S_Shore	RNF39	0.376	0.005	0.304	0.599
cg27263741	black	21	43,099,365	TSS200	OpenSea	NCRNA00111	0.376	-0.001	0.031	0.429
cg24713653	black	1	205,181,033	TSS1500	S_Shore	DSTYK	0.376	-0.002	0.043	0.632
cg24055029	black	6	32,055,137	Body	Island	TNXB	0.376	-0.019	0.292	0.246
cg11841127	black	1	205,317,528	5'UTR	S_Shelf	KLHDC8A	0.375	-0.003	0.375	0.567
cg22478317	black	2	110,271,930		OpenSea		0.375	-0.001	0.498	0.896
cg19006060	black	12	15,374,609	TSS1500	S_Shore	RERG	0.375	-0.001	0.038	0.503
cg06469229	black	5	59,188,213	Body	N_Shore	PDE4D	0.375	0.003	0.025	0.269
cg04028070	black	10	12,391,599	1stExon	Island	CAMK1D	0.375	-0.002	0.093	0.591
cg05054998	black	21	46,378,625	Body	Island	C21orf70	0.375	0.008	0.538	0.383
cg14462265	black	9	23,683,888		OpenSea		0.375	-0.006	0.296	0.646
cg01982455	black	5	149,829,250	5'UTR	Island	RPS14	0.375	0.000	0.025	0.652
cg19925558	black	1	1,072,370		Island		0.374	0.005	0.116	0.462
cg16860267	black	18	11,908,803	TSS200	Island	MPPE1	0.374	0.000	0.019	0.719
cg17063929	black	11	89,224,799	5'UTR	S_Shore	NOX4	0.374	-0.003	0.048	0.464
cg13085980	black	12	94,544,425	Body	S_Shore	PLXNC1	0.374	0.003	0.023	0.027
cg23612557	black	16	3,014,320	1stExon	Island	KREMEN2	0.374	0.000	0.017	0.850
cg20967585	black	7	154,862,524	TSS200	N_Shore	HTR5A	0.374	0.008	0.249	0.589
cg24006654	black	1	41,131,970	TSS1500	S_Shore	RIMS3	0.374	-0.008	0.268	0.482
cg26946905	black	16	89,441,595	5'UTR	S_Shelf	ANKRD11	0.374	0.033	0.622	0.014
cg18269141	black	1	2,063,966	5'UTR	Island	PRKCZ	0.374	0.003	0.459	0.855
cg20164016	black	1	175,474,471	5'UTR	OpenSea	TNR	0.373	0.006	0.285	0.490
cg22799420	black	14	102,028,994	3'UTR	Island	DIO3	0.373	0.016	0.451	0.187
cg21838488	black	13	79,234,435	TSS1500	S_Shore	RNF219	0.373	0.008	0.180	0.658
cg03504865	black	4	107,958,152	TSS1500	S_Shore	DKK2	0.373	-0.005	0.063	0.407
cg18537001	black	1	38,230,834	TSS200	Island	EPHA10	0.373	-0.003	0.038	0.030
cg16120742	black	7	50,345,049	5'UTR	S_Shore	IKZF1	0.373	-0.028	0.445	0.184
cg16238419	black	22	50,451,414	TSS1500	N_Shore	IL17REL	0.373	-0.001	0.573	0.921
cg04920474	black	2	44,395,004	TSS1500	Island	PPM1B	0.372	0.004	0.040	0.450
cg26201811	black	22	51,111,714	TSS1500	N_Shore	SHANK3	0.372	-0.002	0.026	0.044
cg12141135	black	17	37,382,508	TSS1500	S_Shore	STAC2	0.372	0.003	0.083	0.655
cg19598293	black	7	117,854,765		S_Shore		0.372	0.010	0.046	0.030
cg04627863	black	2	234,741,670		OpenSea		0.372	0.008	0.380	0.471
cg24955682	black	6	29,815,805		N_Shelf		0.372	-0.001	0.077	0.912
cg23015341	black	6	50,813,341	3'UTR	Island	TFAP2B	0.371	-0.004	0.050	0.275
cg22886139	black	5	140,306,985	1stExon	Island	PCDHAC1	0.371	-0.002	0.176	0.843
cg12806797	black	12	14,926,572	TSS1500	N_Shore	H2AFJ	0.371	0.003	0.343	0.841
cg02162286	black	5	5,887,361		Island		0.371	-0.005	0.051	0.354
cg14658867	black	20	443,632	TSS1500	S_Shore	TBC1D20	0.371	-0.004	0.040	0.292
cg06341590	black	4	57,624,431		OpenSea		0.371	-0.003	0.081	0.665
cg25074426	black	14	89,017,776	5'UTR	Island	PTPN21	0.371	0.001	0.045	0.757
cg16571983	black	13	78,492,922	5'UTR	Island	EDNRB	0.371	0.000	0.014	0.886
cg20681321	black	10	129,683,366	Body	OpenSea	CLRN3	0.370	0.000	0.900	0.976
cg15140703	black	7	99,775,532	TSS200	Island	STAG3	0.370	0.001	0.018	0.585
cg07132038	black	7	151,575,677	TSS1500	S_Shore	PRKAG2	0.370	-0.007	0.364	0.440
cg15293063	black	17	75,379,504	5'UTR	OpenSea	9-Sep	0.370	0.008	0.555	0.535
cg22621272	black	12	54,409,336	TSS1500	S_Shore	HOXC4	0.370	-0.001	0.193	0.881
cg13641903	black	11	32,452,608	Body	Island	WT1	0.370	0.030	0.188	0.089
cg02758552	black	3	49,395,714	1stExon	Island	GPX1	0.370	0.009	0.362	0.294
cg12079548	black	12	8,068,600		OpenSea		0.370	0.004	0.233	0.826
cg04456238	black	11	32,450,104	Body	S_Shore	WT1	0.370	0.027	0.229	0.165
cg13726459	black	12	54,409,657	TSS1500	S_Shore	HOXC4	0.370	0.023	0.274	0.111
cg11875926	black	13	114,760,892	Body	N_Shelf	RASA3	0.370	0.017	0.476	0.015
cg13403503	black	5	1,359,585		OpenSea		0.370	0.011	0.638	0.163
cg05039475	black	3	35,680,791		Island		0.370	-0.008	0.077	0.157

cg25484904	black	4	48,988,015	TSS1500	Island	CWH43	0.369	0.003	0.155	0.721
cg16740744	black	19	30,302,030	TSS1500	N_Shore	CCNE1	0.369	-0.012	0.502	0.266
cg24906410	black	19	44,249,756	Body	OpenSea	C19orf61	0.369	-0.014	0.284	0.151
cg16357582	black	1	201,476,557	TSS200	S_Shore	CSR1	0.369	0.002	0.447	0.715
cg02800810	black	21	28,340,139	TSS1500	Island	ADAMTSS	0.369	-0.004	0.063	0.466
cg09829379	black	16	19,078,878	TSS200	N_Shore	COQ7	0.369	0.000	0.021	0.675
cg07850987	black	17	46,645,972	5'UTR	S_Shelf	HOXB3	0.369	0.001	0.038	0.649
cg24308560	black	3	49,941,425	TSS200	Island	MST1R	0.369	-0.002	0.107	0.769
cg27204993	black	9	4,662,937	Body	Island	C9orf68	0.369	-0.015	0.184	0.058
cg27254295	black	16	80,574,757	TSS200	Island	DYNLRB2	0.369	0.001	0.023	0.365
cg18804920	black	7	146,572,638	Body	OpenSea	CNTNAP2	0.369	-0.003	0.894	0.720
cg01505176	black	6	31,763,310	5'UTR	Island	VARS	0.369	0.000	0.016	0.589
cg04557057	black	7	12,151,638		S_Shore		0.369	0.002	0.238	0.890
cg02481256	black	19	11,465,868	TSS200	N_Shore	LPPR2	0.369	0.006	0.180	0.334
cg15779837	black	19	48,918,116	Body	Island	GRIN2D	0.368	-0.010	0.131	0.569
cg10438649	black	12	64,215,897		Island		0.368	-0.018	0.422	0.225
cg17228942	black	11	7,041,930	1stExon	Island	NLRP14	0.368	0.002	0.057	0.756
cg25884488	black	4	153,601,388	TSS200	OpenSea	TMEM154	0.368	-0.002	0.064	0.663
cg01321673	black	22	50,438,363	Body	Island	IL17REL	0.368	0.000	0.046	0.964
cg20779239	black	5	1,156,453		Island		0.368	0.001	0.022	0.378
cg23068499	black	2	176,986,026	TSS1500	N_Shore	HOXD9	0.368	0.010	0.101	0.163
cg04885072	black	12	16,513,009	Body	OpenSea	MGST1	0.368	0.008	0.186	0.382
cg01608635	black	15	89,028,369		OpenSea		0.368	-0.002	0.123	0.719
cg07433923	black	6	147,827,800		N_Shore		0.368	-0.001	0.031	0.509
cg04829993	black	10	71,561,459	TSS200	Island	COL13A1	0.368	0.000	0.025	0.883
cg26019295	black	12	54,409,212	TSS1500	S_Shore	HOXC4	0.368	0.006	0.047	0.235
cg10730435	black	15	99,987,955		OpenSea		0.367	0.011	0.396	0.477
cg21186900	black	8	24,859,537		S_Shore		0.367	0.019	0.181	0.095
cg12108730	black	16	69,141,258	5'UTR	Island	HAS3	0.367	0.001	0.035	0.779
cg05877497	black	2	66,667,946	Body	OpenSea	MEIS1	0.367	-0.008	0.175	0.573
cg00161970	black	1	167,684,333		Island		0.367	0.000	0.033	0.944
cg04922154	black	7	27,284,348	Body	N_Shore	EVX1	0.367	0.003	0.149	0.705
cg22834713	black	6	28,984,341		N_Shore		0.367	0.001	0.029	0.841
cg22153728	black	1	25,291,584	TSS200	OpenSea	RUNX3	0.367	-0.009	0.800	0.140
cg04004513	black	17	46,303,232	Body	OpenSea	SKAP1	0.367	0.001	0.398	0.905
cg19814934	black	5	42,950,152		N_Shore		0.367	-0.004	0.040	0.065
cg14507891	black	3	49,208,514	TSS1500	N_Shore	KLHDC8B	0.367	0.010	0.259	0.204
cg15139163	black	3	11,408,424	Body	OpenSea	ATG7	0.367	0.007	0.365	0.569
cg18613324	black	22	36,236,760	Body	OpenSea	RBM9	0.367	-0.002	0.057	0.539
cg22444584	black	15	37,174,661	Body	S_Shore	LOC145845	0.367	0.008	0.108	0.294
cg12135856	black	21	42,219,139	TSS200	Island	DSCAM	0.367	0.001	0.024	0.570
cg06019590	black	5	496,476	Body	N_Shore	SLC9A3	0.367	0.021	0.337	0.243
cg25781595	black	19	48,918,712	Body	N_Shore	GRIN2D	0.366	-0.001	0.310	0.956
cg11407801	black	1	857,657		N_Shore		0.366	0.003	0.835	0.464
cg00814898	black	6	474,297		OpenSea		0.366	0.034	0.471	0.010
cg22836229	black	8	49,647,717	5'UTR	Island	EFCAB1	0.366	0.000	0.027	0.866
cg09678212	black	3	41,240,163	TSS1500	Island	CTNNB1	0.366	0.000	0.050	0.980
cg01901210	black	5	125,758,791	Body	N_Shore	GRAMD3	0.366	-0.003	0.122	0.615
cg15373239	black	10	119,303,225	Body	Island	EMX2OS	0.366	-0.002	0.048	0.632
cg17067528	black	6	30,712,517	TSS200	S_Shore	IER3	0.366	-0.001	0.023	0.408
cg26207408	black	2	203,500,527	Body	Island	FAM117B	0.366	0.000	0.030	0.787
cg13878456	black	17	38,020,344	Body	N_Shore	IKZF3	0.366	0.007	0.191	0.276
cg02995055	black	13	42,535,448	TSS1500	Island	KIAA0564	0.366	-0.001	0.023	0.365
cg01885291	black	6	28,984,832		S_Shore		0.366	0.003	0.027	0.232
cg09559882	black	19	46,142,291	Body	N_Shelf	EML2	0.366	-0.001	0.028	0.691
cg09715353	black	2	120,190,031	Body	Island	TMEM37	0.365	0.005	0.069	0.436
cg18140268	black	1	147,781,827		N_Shore		0.365	0.026	0.126	0.036
cg20478089	black	14	35,099,711	TSS1500	S_Shore	SNX6	0.365	-0.002	0.101	0.779
cg08145590	black	3	119,422,161	Body	Island	C3orf15	0.365	0.000	0.015	0.738
cg05852786	black	13	111,466,326		S_Shore		0.365	0.017	0.854	0.196
cg25604994	black	2	201,983,264	5'UTR	Island	CFLAR	0.365	-0.001	0.020	0.625
cg05654278	black	3	52,516,335	Body	OpenSea	NISCH	0.365	0.008	0.319	0.486
cg10792302	black	12	54,376,019		N_Shelf		0.365	-0.017	0.117	0.342
cg08496953	black	17	42,733,527	TSS1500	Island	C17orf104	0.365	-0.014	0.114	0.392
cg14541209	black	12	113,530,566	Body	N_Shore	DTX1	0.365	0.003	0.028	0.036
cg22991320	black	20	56,725,871	TSS200	Island	C20orf85	0.364	-0.014	0.082	0.001
cg12555334	black	7	56,120,290	Body	S_Shore	CCT6A	0.364	0.017	0.177	0.099

cg21664504	black	8	62,052,409	Island		0.364	-0.005	0.055	0.177
cg20767111	black	7	155,249,648 TSS1500	Island	EN2	0.364	0.000	0.024	0.893
cg15603896	black	7	100,231,672 Body	S_Shore	TFR2	0.364	0.002	0.307	0.893
cg14615768	black	17	8,924,093 TSS1500	N_Shore	NTN1	0.364	0.005	0.058	0.222
cg15566554	black	17	72,208,504 TSS1500	Island	TTYH2	0.364	-0.002	0.055	0.594
cg07368796	black	10	43,800,133	N_Shore		0.364	-0.013	0.148	0.048
cg02888146	black	6	143,267,449 TSS1500	Island	HIVEP2	0.364	0.002	0.027	0.122
cg04284535	black	17	41,624,145 TSS1500	Island	ETV4	0.364	0.008	0.066	0.054
cg25581063	black	3	93,781,934 5'UTR	Island	NSUN3	0.363	0.002	0.026	0.148
cg06733329	black	5	176,740,039 TSS1500	S_Shore	MXD3	0.363	0.002	0.104	0.820
cg18682615	black	19	53,936,474 5'UTR	S_Shore	ZNF761	0.363	0.014	0.149	0.416
cg10667877	black	8	70,745,342 5'UTR	Island	SLCO5A1	0.363	0.000	0.017	0.854
cg22047387	black	12	55,413,872 1stExon	OpenSea	NEUROD4	0.363	0.000	0.029	0.812
cg04719435	black	11	120,111,025 5'UTR	S_Shore	POU2F3	0.363	0.001	0.027	0.185
cg13891189	black	9	116,164,001 TSS1500	S_Shore	ALAD	0.363	0.004	0.207	0.520
cg09195593	black	17	7,745,025 5'UTR	N_Shore	KDM6B	0.363	-0.001	0.017	0.160
cg26380443	black	5	140,625,240 1stExon	N_Shore	PCDHB15	0.363	0.001	0.029	0.558
cg24543854	black	11	115,860,954	OpenSea		0.363	0.013	0.420	0.176
cg06881898	black	1	95,006,539 Body	N_Shore	F3	0.362	0.002	0.154	0.870
cg04190002	black	22	51,113,604 Body	Island	SHANK3	0.362	-0.013	0.350	0.152
cg20335959	black	17	79,480,594 TSS1500	Island	ACTG1	0.362	0.001	0.075	0.836
cg27655214	black	12	95,840,848	OpenSea		0.362	0.011	0.204	0.454
cg27534828	black	7	4,824,387 Body	Island	KIAA0415	0.362	0.009	0.693	0.143
cg13859324	black	17	33,474,692 TSS200	OpenSea	UNC45B	0.362	0.013	0.248	0.084
cg14633052	black	9	137,961,985	OpenSea		0.362	0.002	0.093	0.830
cg02713960	black	16	746,048 Body	S_Shore	FBXL16	0.362	0.016	0.198	0.154
cg15461491	black	12	54,501,223 Body	S_Shore	FLJ12825	0.362	0.012	0.239	0.144
cg11229160	black	6	5,510,800 Body	OpenSea	FARS2	0.362	-0.003	0.702	0.752
cg04266887	black	2	97,215,848 Body	Island	ARID5A	0.362	0.011	0.467	0.222
cg11320910	black	8	11,538,786	Island		0.362	-0.005	0.255	0.753
cg20983112	black	11	75,480,246 Body	S_Shore	DGAT2	0.362	0.003	0.034	0.366
cg11793783	black	5	176,103,447	N_Shelf		0.361	0.002	0.502	0.802
cg04034577	black	2	241,836,375 TSS1500	OpenSea	C2orf54	0.361	0.015	0.183	0.227
cg27252395	black	6	24,358,327 1stExon	N_Shore	KAAG1	0.361	0.000	0.019	0.760
cg02309273	black	1	38,412,744 TSS200	OpenSea	INPP5B	0.361	0.002	0.018	0.036
cg05874561	black	4	154,709,828 1stExon	Island	SFRP2	0.361	-0.003	0.020	0.181
cg01468621	black	11	1,411,609 Body	Island	BRSK2	0.361	-0.001	0.026	0.751
cg19843891	black	8	48,675,647	N_Shore		0.361	-0.001	0.173	0.956
cg06451900	black	15	37,172,274 Body	N_Shore	LOC145845	0.361	0.023	0.373	0.132
cg00501272	black	6	29,760,505 Body	Island	HCG4	0.361	-0.001	0.031	0.529
cg07343821	black	6	27,637,537	OpenSea		0.361	0.011	0.061	0.235
cg16191009	black	3	9,745,369 TSS200	N_Shore	CPNE9	0.361	0.006	0.343	0.434
cg14367229	black	13	28,367,741 Body	Island	GSX1	0.361	-0.012	0.098	0.058
cg03134871	black	17	73,781,215 Body	Island	UNK	0.361	-0.001	0.027	0.497
cg19578835	black	14	38,067,622	Island		0.360	-0.005	0.025	0.170
cg07045891	black	15	101,548,676 Body	Island	LRRK1	0.360	0.001	0.022	0.565
cg02013961	black	6	142,468,197 TSS1500	Island	VTA1	0.360	0.001	0.044	0.772
cg17465886	black	1	179,262,956 TSS200	Island	SOAT1	0.360	0.000	0.019	0.975
cg12806613	black	1	63,540,205	OpenSea		0.360	-0.001	0.121	0.927
cg20737185	black	6	110,679,566 TSS200	Island	C6orf186	0.360	0.000	0.045	0.987
cg03013276	black	22	24,058,932 Body	N_Shore	LOC91316	0.360	0.008	0.269	0.465
cg14733672	black	22	35,777,245 Body	S_Shore	HMOX1	0.360	0.000	0.020	0.849
cg12426748	black	11	22,454,152	N_Shore		0.360	-0.004	0.034	0.484
cg12941249	black	2	219,860,379	N_Shore		0.360	0.010	0.186	0.423
cg23339165	black	8	143,419,015 Body	OpenSea	TSNARE1	0.360	-0.005	0.596	0.689
cg14188639	black	11	2,161,544 Body	Island	INS-IGF2	0.360	0.005	0.042	0.145
cg22584138	black	17	28,562,220 5'UTR	N_Shore	SLC6A4	0.360	0.019	0.327	0.038
cg10960055	black	6	28,664,226	OpenSea		0.360	0.001	0.150	0.972
cg20050877	black	8	17,487,895 Body	OpenSea	PDGFRL	0.360	0.002	0.348	0.800
cg25148589	black	4	158,141,936 1stExon	N_Shore	GRIA2	0.359	-0.001	0.029	0.672
cg20720059	black	2	14,772,731 TSS200	Island	FAM84A	0.359	0.000	0.018	0.911
cg14453251	black	3	101,443,389 TSS200	N_Shore	CEP97	0.359	0.000	0.015	0.824
cg14635269	black	9	129,439,339 Body	OpenSea	LMX1B	0.359	0.002	0.060	0.795
cg20979061	black	19	49,939,949 Body	Island	SLC17A7	0.359	-0.002	0.124	0.891
cg07340007	black	13	99,103,124 3'UTR	OpenSea	STK24	0.359	-0.003	0.352	0.715
cg21898073	black	2	38,604,685 TSS1500	S_Shore	ATL2	0.359	-0.001	0.021	0.115
cg21229184	black	6	28,710,807	OpenSea		0.359	0.002	0.041	0.694

cg05473289	black	6	32,016,257	Body	OpenSea	TNXB	0.359	0.008	0.693	0.267
cg12940439	black	1	67,600,707		Island		0.359	-0.004	0.045	0.765
cg25577437	black	3	28,282,732	TSS1500	N_Shore	CMC1	0.358	-0.001	0.018	0.394
cg15458461	black	7	4,923,615	TSS1500	S_Shore	RADIL	0.358	-0.004	0.119	0.601
cg13652493	black	2	70,369,050		N_Shore		0.358	0.002	0.027	0.258
cg02742133	black	14	77,608,987	TSS1500	S_Shore	ZDHHC22	0.358	-0.006	0.121	0.525
cg21197425	black	4	103,940,854	1stExon	Island	NHEDC1	0.358	0.003	0.028	0.531
cg09662201	black	15	39,371,335		OpenSea		0.358	0.009	0.868	0.402
cg23431508	black	5	10,250,999	TSS1500	Island	FAM173B	0.358	0.001	0.026	0.817
cg25372296	black	1	98,510,328		N_Shore		0.358	-0.003	0.114	0.732
cg25561913	black	10	77,161,129	1stExon	Island	ZNF503	0.358	0.000	0.063	0.972
cg05730092	black	14	101,036,470	TSS1500	S_Shore	BEGAIN	0.358	-0.006	0.446	0.548
cg25217100	black	13	37,249,426	5'UTR	S_Shore	C13orf36	0.357	0.015	0.138	0.312
cg20552296	black	10	100,995,305	1stExon	S_Shore	HPSE2	0.357	0.001	0.029	0.750
cg04792712	black	8	17,271,105	TSS200	Island	MTMR7	0.357	0.001	0.023	0.501
cg18232816	black	12	33,591,505	Body	N_Shore	SYT10	0.357	0.008	0.112	0.367
cg10582608	black	6	28,664,190		OpenSea		0.357	0.003	0.215	0.888
cg04236512	black	1	8,274,044		S_Shore		0.357	0.004	0.494	0.807
cg14075156	black	18	77,294,574		S_Shelf		0.357	0.005	0.297	0.578
cg20119148	black	19	18,344,195	5'UTR	Island	PDE4C	0.356	-0.006	0.061	0.184
cg11525285	black	14	74,706,336	1stExon	Island	VSX2	0.356	-0.001	0.037	0.740
cg24720336	black	1	151,170,427	TSS1500	N_Shore	PIP5K1A	0.356	0.003	0.034	0.218
cg05394663	black	1	228,248,785	3'UTR	S_Shore	WNT3A	0.356	0.011	0.058	0.046
cg07122178	black	8	41,168,481	TSS1500	S_Shore	SFRP1	0.356	0.008	0.060	0.070
cg18992688	black	1	206,223,241	TSS1500	N_Shore	AVPR1B	0.356	0.000	0.059	0.988
cg08253164	black	12	133,345,322		OpenSea		0.356	0.012	0.155	0.321
cg00108569	black	22	24,819,864		Island		0.356	0.002	0.037	0.445
cg08999896	black	5	178,685,787	Body	S_Shore	ADAMTS2	0.356	0.007	0.484	0.156
cg10224600	black	17	43,975,063	5'UTR	S_Shore	MAPT	0.356	0.000	0.023	0.719
cg13903421	black	2	219,738,714	3'UTR	Island	WNT6	0.356	0.013	0.106	0.449
cg25691070	black	22	46,041,550		Island		0.356	-0.002	0.024	0.197
cg04851268	black	3	172,167,445	TSS1500	N_Shore	GHSR	0.356	0.002	0.038	0.461
cg21186708	black	13	112,716,728		N_Shore		0.356	-0.001	0.020	0.531
cg18366455	black	3	181,444,757	Body	Island	SOX2OT	0.355	-0.001	0.036	0.683
cg26444116	black	19	384,408		Island		0.355	-0.013	0.367	0.372
cg03739172	black	1	19,046,707	Body	S_Shelf	PAX7	0.355	0.012	0.178	0.128
cg11262906	black	1	85,462,892	TSS200	Island	MCOLN2	0.355	-0.005	0.037	0.152
cg03986829	black	3	62,358,234	Body	Island	FEZF2	0.355	0.002	0.042	0.715
cg20169823	black	12	116,354,837		Island		0.355	-0.002	0.134	0.880
cg16243665	black	19	5,720,655	TSS200	Island	TMEM146	0.355	-0.003	0.035	0.416
cg06119051	black	8	86,376,306	5'UTR	Island	CA2	0.355	-0.002	0.023	0.421
cg18055394	black	3	89,156,478	TSS200	OpenSea	EPHA3	0.355	0.008	0.156	0.263
cg06094482	black	1	40,158,708		S_Shore		0.355	-0.002	0.569	0.890
cg04557883	black	6	3,753,083	TSS1500	S_Shore	C6orf145	0.355	-0.001	0.038	0.783
cg00442109	black	10	23,492,798		OpenSea		0.354	0.004	0.118	0.755
cg01819759	black	13	79,234,251	TSS1500	S_Shore	RNF219	0.354	0.001	0.203	0.970
cg20471413	black	6	32,055,135	Body	Island	TNXB	0.354	-0.014	0.442	0.231
cg11174640	black	6	27,259,237		S_Shore		0.354	0.011	0.066	0.200
cg24120357	black	5	118,691,415	Body	Island	TNFAIP8	0.354	0.001	0.033	0.567
cg20407267	black	10	130,009,175		Island		0.354	-0.001	0.058	0.811
cg26269613	black	4	142,558,451	5'UTR	S_Shore	IL15	0.353	0.000	0.047	0.980
cg11258943	black	9	100,615,357	TSS200	Island	FOXE1	0.353	0.000	0.025	0.949
cg05773309	black	1	20,732,480		OpenSea		0.353	0.003	0.114	0.700
cg27641532	black	6	27,648,317		S_Shore		0.353	0.004	0.159	0.756
cg13469595	black	1	111,813,852		Island		0.353	-0.007	0.079	0.463
cg02458812	black	6	36,842,251	Body	N_Shore	PPIL1	0.353	0.000	0.023	0.882
cg06399029	black	19	41,102,791	TSS1500	N_Shore	LTBP4	0.353	0.000	0.286	0.990
cg03888592	black	12	48,210,934	Body	N_Shelf	HDAC7	0.352	-0.002	0.399	0.734
cg10785284	black	17	33,775,295	5'UTR	Island	SLFN13	0.352	-0.003	0.032	0.313
cg05596664	black	3	171,179,040	TSS1500	S_Shore	TNIK	0.352	0.000	0.025	0.690
cg03914284	black	17	4,686,232	Body	Island	TM4SF5	0.352	0.010	0.264	0.455
cg19040163	black	7	75,932,877	Body	Island	HSPB1	0.352	0.001	0.019	0.759
cg26712477	black	6	28,984,445		Island		0.352	0.003	0.028	0.445
cg22498099	black	15	78,857,571	TSS1500	N_Shore	CHRNA5	0.352	-0.001	0.025	0.485
cg08610181	black	19	8,942,746		Island		0.352	-0.001	0.022	0.494
cg07148744	black	1	28,573,877		Island		0.352	0.007	0.030	0.152
cg20060632	black	14	21,467,375	TSS200	OpenSea	SLC39A2	0.352	0.010	0.402	0.203

cg18192083	black	1	6,086,254	TSS200	Island	KCNAB2	0.351	-0.036	0.103	0.023
cg18770231	black	1	102,119,095		OpenSea		0.351	0.010	0.190	0.421
cg10521638	black	4	74,734,919	TSS200	Island	CXCL1	0.351	0.001	0.018	0.352
cg10930308	black	6	30,039,476	Body	Island	RNF39	0.351	-0.001	0.025	0.803
cg21157107	black	9	110,399,894		Island		0.351	-0.007	0.059	0.041
cg09471587	black	7	128,766,655	Body	Island	LOC407835	0.351	-0.012	0.488	0.326
cg18477009	black	12	121,087,777	TSS1500	OpenSea	CABP1	0.351	0.018	0.257	0.139
cg11176493	black	1	228,248,237	3'UTR	S_Shore	WNT3A	0.351	-0.001	0.019	0.367
cg25586361	black	11	32,455,444	Body	Island	WT1	0.351	0.009	0.097	0.234
cg12410273	black	9	88,714,903	5'UTR	Island	GOLM1	0.350	-0.005	0.058	0.180
cg04419610	black	19	48,946,564	Body	Island	GRIN2D	0.350	0.001	0.214	0.974
cg04774229	black	20	62,670,729	Body	Island	NCRNA00176	0.350	-0.007	0.091	0.145
cg01060471	black	10	103,911,733	TSS200	Island	NOLC1	0.350	-0.002	0.079	0.622
cg17255450	black	4	5,710,372	5'UTR	Island	EVC2	0.350	-0.009	0.090	0.491
cg08587542	black	5	141,303,900	Body	S_Shore	KIAA0141	0.350	0.003	0.061	0.420
cg25545336	black	2	223,520,958	TSS200	S_Shore	FARSB	0.350	0.000	0.032	0.952
cg16575444	black	16	57,416,858	Body	S_Shore	CX3CL1	0.350	0.001	0.885	0.795
cg08275282	black	19	54,463,048		N_Shelf		0.350	0.000	0.027	0.801
cg20769774	black	16	50,775,476	TSS1500	N_Shore	CYLD	0.350	0.001	0.054	0.869
cg04321555	black	19	34,285,737		N_Shore		0.350	0.000	0.071	0.982
cg00474746	black	11	35,684,799	1stExon	Island	TRIM44	0.349	-0.006	0.176	0.431
cg22210497	black	5	175,561,172		OpenSea		0.349	0.010	0.117	0.408
cg27564579	black	20	61,456,564	Body	Island	COL9A3	0.349	0.010	0.068	0.097
cg11503720	black	1	166,944,856	TSS1500	Island	ILDR2	0.349	0.000	0.015	0.719
cg07677856	black	17	61,926,188		N_Shore		0.349	0.008	0.568	0.483
cg18998365	black	5	142,781,532	5'UTR	N_Shore	NR3C1	0.349	-0.002	0.200	0.889
cg20777128	black	17	1,945,076	Body	Island	DPH1	0.349	0.000	0.023	0.994
cg03613132	black	8	37,888,764	Body	Island	EIF4EBP1	0.349	0.001	0.029	0.290
cg06180606	black	16	450,904	TSS1500	Island	DECR2	0.348	0.017	0.329	0.090
cg05605371	black	4	103,940,876	TSS200	Island	NHEDC1	0.348	0.002	0.024	0.669
cg01269597	black	2	175,200,286	Body	Island	SP9	0.348	-0.001	0.021	0.469
cg22709192	black	12	54,366,909	5'UTR	Island	HOXC11	0.348	0.000	0.027	0.941
cg17330093	black	6	79,380,538		OpenSea		0.348	0.002	0.340	0.860
cg03732535	black	3	49,171,051	TSS1500	OpenSea	LAMB2	0.348	-0.001	0.022	0.449
cg02920216	black	21	19,616,939	TSS1500	N_Shore	CHODL	0.348	-0.002	0.099	0.763
cg16678099	black	17	40,250,199		N_Shore		0.348	-0.007	0.108	0.413
cg14527802	black	6	138,188,823	5'UTR	Island	TNFAIP3	0.348	0.000	0.012	0.609
cg24914355	black	2	176,959,229	Body	S_Shore	HOXD13	0.348	0.001	0.032	0.632
cg21505925	black	21	38,807,423	Body	OpenSea	DYRK1A	0.348	0.008	0.258	0.320
cg10497162	black	6	28,109,624	TSS200	Island	ZNF192	0.348	0.000	0.042	0.891
cg22109708	black	5	132,148,179	TSS1500	N_Shore	ANKRD43	0.348	-0.007	0.371	0.497
cg01005080	black	1	75,592,950	TSS1500	S_Shore	LHX8	0.348	0.011	0.258	0.474
cg09307431	black	12	69,485,428		OpenSea		0.348	0.004	0.382	0.664
cg24612420	black	17	40,075,182	1stExon	Island	ACLY	0.348	0.000	0.018	0.935
cg14013220	black	1	244,998,909	1stExon	Island	FAM36A	0.347	0.000	0.020	0.905
cg04101934	black	4	186,921,299		OpenSea		0.347	0.024	0.437	0.291
cg17745211	black	2	74,725,369	Body	Island	LBX2	0.347	-0.001	0.077	0.810
cg18364502	black	14	73,524,688	TSS1500	N_Shore	RBM25	0.347	0.002	0.059	0.756
cg17696629	black	8	94,713,190	Body	Island	FAM92A1	0.347	0.001	0.083	0.806
cg22268271	black	22	39,548,261	Body	Island	CBX7	0.347	0.000	0.056	0.896
cg23932491	black	10	119,295,056	Body	Island	EMX2OS	0.347	-0.001	0.019	0.298
cg16644457	black	11	22,359,480	TSS200	N_Shelf	SLC17A6	0.347	0.000	0.024	0.916
cg02953125	black	2	1,079,100	Body	OpenSea	SNTG2	0.347	-0.011	0.574	0.630
cg17682794	black	6	30,875,588	TSS1500	N_Shore	GTF2H4	0.347	-0.005	0.081	0.515
cg04764907	black	10	126,842,580	5'UTR	S_Shore	CTBP2	0.347	0.007	0.163	0.164
cg17489695	black	6	50,680,997	TSS1500	N_Shore	TFAP2D	0.346	0.001	0.025	0.621
cg03515494	black	12	8,068,627		OpenSea		0.346	-0.005	0.348	0.819
cg06800578	black	1	44,683,416	Body	S_Shelf	DMAP1	0.346	0.006	0.138	0.375
cg14458575	black	2	238,380,390		N_Shelf		0.346	-0.005	0.295	0.517
cg08375866	black	1	50,799,151		Island		0.346	-0.003	0.098	0.777
cg12020533	black	22	25,678,262		N_Shore		0.346	0.000	0.026	0.717
cg06360465	black	3	50,341,183	TSS200	OpenSea	HYAL1	0.346	0.021	0.507	0.093
cg14951292	black	16	4,525,986	TSS1500	N_Shore	HMOX2	0.346	0.001	0.561	0.917
cg18808929	black	8	61,825,469		S_Shelf		0.346	-0.007	0.099	0.241
cg16112226	black	11	126,310,323	Body	OpenSea	KIRREL3	0.346	-0.012	0.617	0.581
cg13323902	black	5	140,090,859	TSS200	OpenSea	VTRNA1-1	0.346	0.004	0.184	0.729
cg17786697	black	5	122,430,509	Body	N_Shore	PRDM6	0.346	0.014	0.265	0.380

cg04267590	black	5	14,581,942	1stExon	Island	FAM105A	0.345	-0.001	0.015	0.518
cg02639111	black	13	26,922,789	Body	OpenSea	CDK8	0.345	0.011	0.921	0.194
cg05723527	black	15	45,405,871	5'UTR	N_Shore	DUOX2	0.345	0.003	0.030	0.226
cg09836344	black	4	1,243,392	TSS1500	Island	C4orf42	0.345	-0.003	0.048	0.569
cg00500705	black	12	114,029,659		Island		0.345	0.003	0.026	0.061
cg23345151	black	18	77,292,947		S_Shore		0.345	0.008	0.589	0.782
cg26222247	black	15	90,357,521	5'UTR	Island	ANPEP	0.345	0.021	0.164	0.039
cg21760402	black	6	50,690,590	Body	N_Shore	TFAP2D	0.345	0.002	0.033	0.285
cg15584790	black	6	29,692,475	Body	S_Shore	HLA-F	0.345	-0.015	0.445	0.497
cg03552103	black	2	110,373,002	TSS1500	Island	10-Sep	0.344	-0.012	0.100	0.163
cg20390711	black	6	127,796,683	Body	Island	C6orf174	0.344	0.001	0.728	0.927
cg07172885	black	12	133,757,907	TSS200	N_Shore	ZNF268	0.344	0.002	0.190	0.823
cg04975617	black	1	227,922,304	TSS1500	N_Shore	SNAP47	0.344	0.006	0.078	0.225
cg12238291	black	20	46,415,744	TSS1500	S_Shore	SULF2	0.344	0.020	0.434	0.010
cg17608490	black	2	219,848,580	Body	N_Shore	FEV	0.344	-0.005	0.118	0.590
cg03512392	black	2	197,504,139	TSS1500	N_Shore	CCDC150	0.344	-0.001	0.045	0.666
cg24109477	black	10	129,245,347	Body	OpenSea	DOCK1	0.344	0.001	0.742	0.879
cg25659923	black	10	134,300,380		N_Shelf		0.344	0.001	0.792	0.917
cg02903929	black	2	216,602,247		OpenSea		0.343	0.003	0.210	0.764
cg12643049	black	11	14,402,943		Island		0.343	0.001	0.036	0.395
cg22760295	black	17	42,402,188	5'UTR	Island	SLC25A39	0.342	0.001	0.017	0.650
cg10601026	black	10	64,579,140	TSS1500	S_Shore	EGR2	0.342	0.009	0.315	0.512
cg02330706	black	17	73,629,402	Body	S_Shore	RECCQ5	0.342	0.003	0.311	0.587
cg04947907	black	12	133,345,285		OpenSea		0.342	0.006	0.235	0.613
cg20622470	black	15	91,445,801		Island		0.342	-0.001	0.018	0.799
cg25294504	black	20	9,491,559		N_Shelf		0.342	0.001	0.789	0.968
cg14225146	black	17	72,744,664	TSS200	Island	SLC9A3R1	0.342	-0.001	0.025	0.785
cg11374933	black	8	9,766,172		S_Shore		0.342	-0.005	0.567	0.673
cg10218472	black	6	31,513,867	TSS1500	S_Shelf	NFKBIL1	0.341	0.003	0.101	0.796
cg11356029	black	5	72,112,729	Body	Island	TNPO1	0.341	0.000	0.023	0.938
cg10928103	black	11	15,959,981		Island		0.341	0.007	0.476	0.254
cg08364654	black	3	42,978,180		S_Shore		0.341	-0.023	0.541	0.094
cg24633656	black	20	61,447,194	TSS1500	N_Shore	COL9A3	0.340	0.000	0.394	0.972
cg03608000	black	19	11,998,623	TSS200	N_Shore	ZNF69	0.340	0.000	0.017	0.624
cg01335781	black	3	180,319,840	TSS200	Island	TTC14	0.339	0.000	0.013	0.844
cg05356564	black	1	21,044,770	TSS1500	Island	KIF17	0.339	0.007	0.070	0.230
cg06645921	black	12	8,025,394	5'UTR	Island	SLC2A14	0.339	0.013	0.177	0.422
cg06965961	black	1	226,270,741		Island		0.339	0.002	0.018	0.082
cg21864959	black	1	11,847,863	3'UTR	OpenSea	MTHFR	0.339	0.003	0.339	0.817
cg09760963	black	4	154,680,808	Body	Island	RNF175	0.339	0.000	0.036	0.753
cg05913451	black	5	140,090,684	TSS200	OpenSea	VTRNA1-1	0.339	0.007	0.028	0.100
cg18781988	black	5	140,723,549	Body	Island	PCDHGA2	0.339	0.012	0.087	0.187
cg11775292	black	15	33,487,631		S_Shore		0.339	-0.006	0.371	0.594
cg13364410	black	19	19,373,755	TSS200	S_Shore	HAPLN4	0.339	0.009	0.185	0.135
cg19311244	black	4	77,341,912		N_Shore		0.339	-0.021	0.409	0.128
cg15927357	black	18	47,013,900	TSS1500	Island	C18orf32	0.339	-0.009	0.076	0.100
cg19260084	black	12	103,349,055		N_Shore		0.339	0.001	0.115	0.926
cg12606933	black	5	157,078,573	1stExon	Island	SOX30	0.338	-0.008	0.347	0.548
cg25882579	black	8	24,799,414		N_Shore		0.338	0.002	0.018	0.340
cg05935827	black	2	233,765,872	Body	Island	NGEF	0.338	0.030	0.529	0.005
cg08297094	black	19	33,166,201	TSS200	Island	ANKRD27	0.338	0.000	0.033	0.969
cg11736230	black	14	104,313,012	Body	N_Shore	PPP1R13B	0.338	0.002	0.050	0.500
cg24777351	black	2	165,811,816	1stExon	OpenSea	SLC38A11	0.338	-0.004	0.103	0.725
cg18296956	black	5	140,090,936	Body	OpenSea	VTRNA1-1	0.338	0.003	0.023	0.195
cg17337483	black	10	135,436,467		Island		0.338	0.011	0.303	0.494
cg27637940	black	5	63,985,374	TSS1500	N_Shore	FAM159B	0.338	-0.004	0.858	0.701
cg00008446	black	1	156,815,774	Body	Island	NTRK1	0.338	-0.007	0.085	0.177
cg26612849	black	19	37,407,413	TSS1500	Island	ZNF829	0.338	0.004	0.068	0.419
cg22610655	black	20	20,346,426		Island		0.337	-0.002	0.021	0.098
cg22112435	black	1	46,664,449	Body	OpenSea	POMGNT1	0.337	0.007	0.081	0.238
cg19563510	black	17	79,881,483	5'UTR	S_Shore	MAFG	0.337	0.004	0.112	0.813
cg06122000	black	6	83,775,663	TSS200	Island	UBE2CBP	0.337	-0.001	0.040	0.563
cg00250409	black	16	73,206,310		OpenSea		0.337	-0.004	0.196	0.659
cg03687700	black	2	24,271,844	TSS1500	N_Shore	FKBP1B	0.337	0.006	0.205	0.475
cg15468907	black	1	47,070,278	TSS1500	S_Shore	MKMK1	0.337	0.003	0.030	0.188
cg24723883	black	19	2,608,495	5'UTR	S_Shore	GNG7	0.337	0.017	0.609	0.104
cg09639931	black	17	38,024,394	TSS200	Island	ZBP2	0.337	-0.009	0.175	0.585



cg10693071	black	5	114,516,422	TSS200	S_Shore	TRIM36	0.337	-0.002	0.035	0.298
cg17963840	black	8	26,722,861	1stExon	Island	ADRA1A	0.337	0.008	0.191	0.328
cg25056460	black	10	122,215,896	TSS1500	N_Shore	PPAPDC1A	0.337	0.000	0.027	0.747
cg01566213	black	4	1,579,287		N_Shore		0.336	-0.004	0.607	0.823
cg23458843	black	12	58,136,445	TSS1500	S_Shelf	AGAP2	0.336	0.006	0.529	0.432
cg12171660	black	8	1,140,517		S_Shore		0.336	-0.002	0.542	0.897
cg18716076	black	5	50,677,808	TSS1500	N_Shore	ISL1	0.336	-0.002	0.024	0.262
cg08245317	black	11	16,633,070		N_Shore		0.336	-0.009	0.058	0.057
cg14301713	black	12	54,402,443	TSS1500	N_Shore	HOXC8	0.336	0.042	0.235	0.092
cg12384932	black	13	101,803,483	Body	OpenSea	NALCN	0.335	0.010	0.274	0.439
cg02624701	black	19	49,937,176	Body	Island	SLC17A7	0.335	0.031	0.212	0.064
cg12615982	black	3	169,483,122	TSS1500	S_Shore	TERC	0.335	-0.003	0.400	0.790
cg00005847	black	2	177,029,073	5'UTR	N_Shore	HOXD3	0.335	0.012	0.076	0.116
cg22054756	black	15	68,521,294	Body	N_Shore	CLN6	0.335	-0.001	0.023	0.405
cg24956533	black	15	37,173,638	Body	S_Shore	LOC145845	0.335	0.023	0.399	0.121
cg17069313	black	4	185,018,478	Body	Island	ENPP6	0.335	0.002	0.338	0.843
cg15550036	black	3	48,956,180	1stExon	Island	C3orf71	0.335	0.001	0.020	0.132
cg07579946	black	22	19,949,893	5'UTR	OpenSea	COMT	0.334	-0.006	0.335	0.361
cg10275315	black	15	83,954,246	TSS1500	S_Shore	BNC1	0.334	0.006	0.112	0.537
cg22897615	black	6	32,117,079	Body	Island	PRRT1	0.334	0.003	0.035	0.190
cg20211653	black	9	107,688,724	5'UTR	N_Shore	ABCA1	0.334	0.004	0.029	0.089
cg12947833	black	11	111,783,499	5'UTR	OpenSea	HSPB2	0.334	-0.007	0.050	0.168
cg00407944	black	9	139,424,152	Body	N_Shore	NOTCH1	0.334	-0.003	0.359	0.668
cg01077724	black	1	75,590,483		N_Shore		0.334	0.002	0.216	0.886
cg03159127	black	6	42,847,590	TSS200	OpenSea	RPL7L1	0.334	0.011	0.476	0.266
cg20116199	black	12	64,784,686	TSS1500	S_Shore	C12orf56	0.334	-0.001	0.047	0.785
cg13355424	black	1	157,165,134		Island		0.334	0.008	0.286	0.624
cg25082959	black	13	103,046,930	Body	Island	FGF14	0.334	0.000	0.023	0.903
cg02168558	black	11	112,045,982	TSS1500	OpenSea	BCO2	0.334	0.000	0.027	0.990
cg01784507	black	1	227,016,024		OpenSea		0.333	0.006	0.281	0.506
cg05877118	black	13	100,506,823	Body	OpenSea	CLYBL	0.333	0.017	0.673	0.214
cg24121172	black	20	60,796,414	TSS1500	S_Shore	HRH3	0.333	0.008	0.148	0.396
cg22572908	black	2	131,722,274	Body	S_Shore	ARHGEF4	0.333	0.002	0.086	0.723
cg20814826	black	17	2,206,919	TSS1500	Island	SRR	0.333	0.000	0.023	0.732
cg20108357	black	11	27,718,978	Body	N_Shelf	BDNF	0.333	0.013	0.333	0.295
cg06494782	black	12	52,995,446	TSS200	S_Shore	KRT72	0.333	0.007	0.250	0.285
cg07816006	black	12	131,401,305		OpenSea		0.333	0.004	0.118	0.766
cg21865128	black	4	87,813,585	TSS200	Island	C4orf36	0.333	0.001	0.026	0.559
cg20430104	black	7	47,764,246		OpenSea		0.333	0.002	0.344	0.834
cg12996622	black	7	38,370,988		OpenSea		0.332	0.014	0.625	0.331
cg10027487	black	16	66,729,871	Body	Island	CMTM4	0.332	-0.001	0.043	0.812
cg02268951	black	13	114,018,864	TSS1500	Island	GRTP1	0.332	-0.004	0.038	0.404
cg25058261	black	12	115,109,452	3'UTR	N_Shore	TBX3	0.332	-0.005	0.077	0.480
cg25827112	black	1	45,956,773	5'UTR	Island	TESK2	0.332	0.000	0.019	0.853
cg19528976	black	7	100,823,280	5'UTR	N_Shore	C7orf52	0.332	-0.001	0.023	0.540
cg13549845	black	4	93,225,960	Body	N_Shore	GRID2	0.332	0.000	0.034	0.824
cg03312958	black	5	2,749,302	Body	Island	IRX2	0.332	-0.006	0.178	0.601
cg21576728	black	1	113,683,521		OpenSea		0.331	-0.002	0.338	0.885
cg15406010	black	6	108,478,650		Island		0.331	0.000	0.041	0.847
cg23121350	black	17	38,219,361	5'UTR	Island	THRA	0.331	0.001	0.031	0.597
cg05950755	black	19	17,952,486	Body	Island	JAK3	0.331	-0.003	0.385	0.800
cg00681321	black	4	104,022,149	TSS1500	OpenSea	BDH2	0.331	0.025	0.297	0.029
cg21242918	black	10	118,897,194	Body	Island	VAX1	0.330	0.000	0.036	0.935
cg03469129	black	15	90,190,637	Body	N_Shore	KIF7	0.330	0.006	0.081	0.389
cg16848712	black	12	46,767,747	TSS1500	S_Shore	SLC38A2	0.330	-0.004	0.123	0.536
cg17431391	black	19	38,042,109	TSS200	S_Shore	ZNF540	0.330	0.002	0.193	0.871
cg10626896	black	13	114,810,794	Body	N_Shelf	RASA3	0.330	0.015	0.852	0.164
cg11392667	black	1	165,567,492		Island		0.330	-0.004	0.026	0.379
cg17190891	black	7	101,962,112	3'UTR	Island	SH2B2	0.330	-0.002	0.194	0.778
cg27467358	black	12	132,901,800	Body	S_Shore	GALNT9	0.329	0.026	0.464	0.009
cg23217680	black	8	9,029,456		OpenSea		0.329	0.011	0.338	0.204
cg25438440	black	3	98,241,168	5'UTR	N_Shore	CLDND1	0.329	-0.001	0.016	0.378
cg24084706	black	19	4,475,136	Body	S_Shelf	HDGF2	0.329	0.010	0.305	0.114
cg17852507	black	4	154,125,720	Body	OpenSea	TRIM2	0.329	-0.001	0.052	0.786
cg18079653	black	10	72,648,646	TSS200	S_Shore	PCBD1	0.329	0.004	0.090	0.705
cg17329202	black	13	113,807,930		S_Shore		0.329	-0.024	0.304	0.062
cg08214995	black	16	22,826,243	1stExon	Island	HS3ST2	0.329	-0.003	0.072	0.518

cg04424544	black	9	138,193,722	Island		0.328	-0.001	0.343	0.953
cg21012057	black	1	15,538,911 5'UTR	N_Shelf	TMEM51	0.328	-0.014	0.862	0.438
cg25198481	black	3	164,912,187 5'UTR	OpenSea	SLITRK3	0.328	0.008	0.083	0.167
cg00183468	black	3	142,926,178	OpenSea		0.328	0.002	0.779	0.891
cg04543938	black	6	28,956,426	Island		0.328	0.004	0.094	0.751
cg01461067	black	2	85,980,044 TSS1500	N_Shore	ATOH8	0.328	-0.034	0.622	0.156
cg17713376	black	6	27,525,713	OpenSea		0.328	0.022	0.100	0.083
cg21902544	black	18	70,211,515 1stExon	Island	CBLN2	0.328	0.000	0.017	0.919
cg03836586	black	7	8,477,597 Body	S_Shelf	NXP1	0.328	0.002	0.122	0.852
cg15544654	black	1	197,882,295 Body	S_Shore	LHX9	0.328	-0.001	0.030	0.392
cg03294124	black	2	219,537,004 TSS1500	S_Shore	RNF25	0.328	0.000	0.017	0.632
cg02785792	black	1	29,139,278 Body	Island	OPRD1	0.328	0.004	0.041	0.137
cg16097191	black	1	9,262,511	S_Shelf		0.328	-0.003	0.230	0.766
cg15373950	black	12	99,039,295 5'UTR	Island	APAF1	0.327	0.000	0.075	0.956
cg04565201	black	13	53,382,856 TSS1500	OpenSea	MIR759	0.327	0.008	0.458	0.430
cg10885338	black	2	106,682,640 Body	S_Shore	C2orf40	0.327	-0.024	0.292	0.177
cg09406615	black	3	165,555,103 1stExon	OpenSea	BCHE	0.327	0.004	0.114	0.637
cg20189913	black	7	96,633,631 Body	N_Shore	DLX6AS	0.327	-0.010	0.169	0.334
cg12806521	black	12	6,677,729 TSS1500	Island	NOP2	0.327	-0.001	0.076	0.827
cg02331830	black	8	145,008,288 Body	N_Shore	PLEC1	0.327	0.012	0.365	0.355
cg24306982	black	1	119,549,312	Island		0.327	0.000	0.027	0.838
cg17061156	black	4	184,941,494	OpenSea		0.327	-0.008	0.528	0.627
cg07569918	black	1	212,002,970 5'UTR	N_Shore	LPGAT1	0.327	0.001	0.059	0.869
cg02590088	black	2	47,761,452 Body	OpenSea	KCNK12	0.326	-0.001	0.458	0.902
cg10612128	black	2	220,942,540	OpenSea		0.326	-0.015	0.342	0.092
cg08772163	black	13	50,202,570 TSS200	OpenSea	ARL11	0.326	0.002	0.049	0.299
cg09088508	black	12	122,231,455 1stExon	Island	RHOF	0.326	-0.003	0.065	0.654
cg14346243	black	4	90,757,452 5'UTR	N_Shore	SNCA	0.326	-0.002	0.023	0.316
cg15753746	black	2	171,679,591 Body	Island	GAD1	0.326	0.003	0.041	0.625
cg19273773	black	7	102,790,112 TSS1500	Island	NAPEPLD	0.326	-0.002	0.048	0.521
cg01386493	black	8	37,824,529 TSS1500	S_Shore	ADRB3	0.325	0.004	0.286	0.770
cg17651381	black	5	180,596,477	N_Shore		0.325	0.001	0.029	0.488
cg04802236	black	17	37,010,032 1stExon	Island	RPL23	0.325	0.000	0.018	0.430
cg05303208	black	1	91,178,472 Body	S_Shore	BARHL2	0.325	-0.003	0.132	0.541
cg02867776	black	5	72,674,434	N_Shore		0.325	0.001	0.168	0.909
cg01732984	black	13	48,575,859 TSS1500	S_Shore	SUCLA2	0.325	-0.014	0.224	0.334
cg19698993	black	1	244,213,616 TSS1500	Island	ZNF238	0.325	-0.002	0.059	0.524
cg17628040	black	10	46,763,211 TSS1500	S_Shore	BMS1P1	0.324	0.000	0.026	0.671
cg26072437	black	4	170,581,380 Body	OpenSea	CLCN3	0.324	0.001	0.024	0.360
cg06751898	black	16	89,114,766	Island		0.324	-0.006	0.254	0.528
cg20298098	black	4	48,019,555 Body	S_Shore	NIPAL1	0.324	0.001	0.023	0.497
cg04305399	black	17	78,417,962	Island		0.324	0.000	0.086	0.957
cg18773223	black	9	131,549,619 1stExon	S_Shore	TBC1D13	0.324	-0.001	0.024	0.358
cg07153010	black	22	21,312,388	S_Shore		0.324	-0.004	0.089	0.534
cg11151820	black	5	10,250,162 TSS200	Island	CCT5	0.324	0.002	0.012	0.178
cg06207120	black	15	45,996,521	Island		0.324	0.006	0.075	0.464
cg25236427	black	3	113,233,553 5'UTR	N_Shore	CCDC52	0.323	0.000	0.019	0.748
cg10050900	black	1	9,712,928 Body	Island	C1orf200	0.323	0.000	0.163	0.994
cg27152312	black	7	96,221,849	OpenSea		0.323	0.006	0.354	0.684
cg07917127	black	4	99,064,746 TSS1500	Island	C4orf37	0.323	0.001	0.030	0.607
cg18665871	black	3	71,113,124 Body	N_Shore	FOXP1	0.323	-0.004	0.108	0.753
cg24550149	black	1	55,246,954 Body	Island	TTC22	0.323	0.000	0.029	0.932
cg01990997	black	3	42,977,777	N_Shore		0.322	-0.011	0.314	0.427
cg13011109	black	5	167,955,758 TSS1500	N_Shore	FBLL1	0.322	-0.003	0.083	0.788
cg19037922	black	4	108,853,386 Body	Island	CYP2U1	0.322	0.015	0.065	0.119
cg07447742	black	13	49,793,170 TSS1500	N_Shore	MLNR	0.322	0.007	0.084	0.366
cg09156610	black	11	107,436,979 TSS1500	OpenSea	ALKBH8	0.322	-0.004	0.120	0.638
cg07046369	black	10	102,586,254 Body	Island	PAX2	0.322	-0.002	0.039	0.587
cg20494374	black	6	27,525,678	OpenSea		0.322	0.015	0.109	0.342
cg02063695	black	1	17,012,568	OpenSea		0.322	-0.018	0.207	0.329
cg24701966	black	4	69,216,018 TSS200	S_Shore	YTHDC1	0.322	-0.001	0.031	0.682
cg25035655	black	11	68,519,245 TSS1500	S_Shore	MTL5	0.321	-0.002	0.111	0.694
cg05462543	black	7	155,251,716 1stExon	Island	EN2	0.321	0.001	0.057	0.928
cg06910896	black	1	202,968,892	OpenSea		0.321	0.014	0.357	0.097
cg21264131	black	17	72,857,053 TSS1500	Island	GRIN2C	0.321	0.001	0.069	0.806
cg06236987	black	6	114,225,023 TSS1500	OpenSea	FLJ34503	0.321	0.029	0.620	0.120
cg11737172	black	8	1,923,052 5'UTR	S_Shore	KBTBD11	0.321	0.001	0.029	0.408

cg26994526	black	18	47,719,735	Body	N_Shore	MYO5B	0.321	0.006	0.128	0.525
cg07660665	black	10	1,147,798	Body	N_Shore	WDR37	0.321	0.005	0.954	0.298
cg24895178	black	17	14,207,927	Body	S_Shore	HS3ST3B1	0.321	-0.011	0.608	0.197
cg15827779	black	14	103,524,899	TSS1500	S_Shore	CDC42BPB	0.321	0.000	0.028	0.688
cg23906060	black	15	79,574,773	TSS1500	N_Shore	ANKRD34C	0.321	0.020	0.210	0.011
cg21625464	black	11	314,044	1stExon	N_Shore	IFITM1	0.320	0.000	0.021	0.788
cg09884561	black	3	45,268,038	TSS1500	Island	TMEM158	0.320	-0.001	0.018	0.581
cg04961448	black	9	140,814,587	Body	N_Shore	CACNA1B	0.320	-0.006	0.462	0.656
cg10909080	black	17	79,881,468	5'UTR	S_Shore	MAFG	0.319	0.003	0.190	0.871
cg14052511	black	9	14,993,584	Body	OpenSea	LOC389705	0.319	0.017	0.080	0.080
cg00419321	black	1	75,593,476	TSS1500	N_Shelf	LHX8	0.318	0.009	0.082	0.555
cg23570694	black	10	50,976,348		Island		0.318	-0.012	0.315	0.094
cg09045007	black	12	54,392,734	TSS1500	N_Shore	HOXC9	0.318	-0.007	0.101	0.345
cg19017142	black	2	64,431,245		OpenSea		0.318	0.001	0.107	0.928
cg23222201	black	10	111,985,261	Body	N_Shore	MXI1	0.318	0.014	0.261	0.421
cg05822926	black	7	8,302,235	TSS200	Island	ICA1	0.318	0.001	0.168	0.842
cg18274619	black	3	127,494,852	Body	OpenSea	MGLL	0.318	-0.001	0.538	0.900
cg22714811	black	3	42,977,896		Island		0.318	-0.012	0.644	0.456
cg02409177	black	8	26,721,870	1stExon	Island	ADRA1A	0.318	0.002	0.131	0.775
cg07885629	black	7	129,422,915		N_Shore		0.318	-0.002	0.040	0.470
cg14617594	black	6	3,118,749	TSS200	Island	BPHL	0.317	-0.002	0.037	0.725
cg22995959	black	14	59,931,024	1stExon	Island	GPR135	0.317	-0.007	0.155	0.554
cg26335620	black	19	48,215,149	TSS1500	N_Shore	EHD2	0.317	0.000	0.318	0.973
cg08463485	black	3	121,740,927	1stExon	OpenSea	ILDR1	0.317	0.001	0.081	0.847
cg19471574	black	5	87,441,654		OpenSea		0.317	0.001	0.055	0.874
cg03593578	black	2	45,028,225		N_Shore		0.317	-0.001	0.029	0.715
cg14069965	black	6	24,357,816	1stExon	Island	KAAG1	0.317	-0.003	0.114	0.782
cg18872016	black	17	72,192,970		OpenSea		0.317	-0.024	0.219	0.040
cg19614911	black	2	47,749,060	Body	Island	KCNK12	0.317	-0.005	0.225	0.452
cg08346820	black	11	22,454,661		S_Shore		0.317	-0.003	0.050	0.661
cg08404028	black	16	23,766,112	1stExon	Island	CHP2	0.316	-0.001	0.015	0.730
cg24027965	black	2	149,894,786	TSS200	N_Shore	LYPD6B	0.316	-0.012	0.282	0.324
cg24787335	black	19	51,893,899		N_Shelf		0.316	0.003	0.139	0.697
cg16113530	black	5	114,632,040	Body	Island	CCDC112	0.316	0.001	0.036	0.563
cg26766885	black	7	96,220,185		OpenSea		0.316	0.015	0.098	0.038
cg01720176	black	6	32,978,281	TSS1500	S_Shelf	HLA-DOA	0.316	0.005	0.435	0.719
cg25353171	black	8	9,755,804		N_Shore		0.316	-0.007	0.107	0.280
cg22984282	black	6	32,632,568	Body	Island	HLA-DQB1	0.316	-0.022	0.248	0.662
cg08952407	black	5	42,756,860	TSS200	OpenSea	CCDC152	0.316	0.043	0.639	0.050
cg09980114	black	14	102,669,785	Body	OpenSea	WDR20	0.315	0.013	0.587	0.135
cg03574289	black	7	149,571,017	TSS200	Island	LOC401431	0.315	0.002	0.022	0.125
cg02378501	black	13	35,516,044	TSS1500	OpenSea	NBEA	0.315	-0.001	0.021	0.382
cg19746940	black	12	114,832,429	Body	N_Shore	TBX5	0.315	0.011	0.113	0.111
cg22867608	black	10	64,573,356	Body	Island	EGR2	0.315	0.002	0.769	0.917
cg20275928	black	17	79,283,959	TSS1500	Island	C17orf55	0.315	-0.002	0.514	0.900
cg12873350	black	10	72,976,676	Body	N_Shore	UNC5B	0.315	-0.003	0.653	0.877
cg02820040	black	2	241,836,501	TSS1500	OpenSea	C2orf54	0.315	0.010	0.342	0.316
cg06999381	black	4	103,940,936	TSS200	Island	NHEDC1	0.315	0.002	0.018	0.109
cg13633270	black	18	55,095,555		Island		0.314	0.001	0.071	0.880
cg25223095	black	3	16,927,003	Body	S_Shore	PLCL2	0.314	0.000	0.050	0.980
cg05785155	black	2	182,547,401		N_Shore		0.314	-0.004	0.039	0.109
cg15572779	black	7	151,145,683		Island		0.314	-0.003	0.034	0.181
cg11929898	black	3	111,760,010	5'UTR	OpenSea	TMPRSS7	0.314	0.002	0.899	0.844
cg02151301	black	20	30,101,785	TSS1500	N_Shore	HM13	0.314	0.004	0.219	0.660
cg14968732	black	12	39,298,639	Body	N_Shore	CPNE8	0.314	0.016	0.221	0.253
cg05491001	black	4	62,066,539		Island		0.313	0.002	0.024	0.358
cg21053529	black	15	35,046,760	TSS200	Island	GJD2	0.313	-0.001	0.047	0.828
cg02549645	black	10	72,201,216	Body	Island	NODAL	0.313	-0.002	0.038	0.354
cg20425293	black	12	93,861,147	TSS200	N_Shore	MRPL42	0.313	-0.010	0.075	0.067
cg23941599	black	5	114,880,796	TSS1500	S_Shore	FEM1C	0.313	-0.012	0.139	0.208
cg05106058	black	4	172,735,924	Body	S_Shore	GALNTL6	0.313	0.033	0.352	0.088
cg13401823	black	1	204,910,715	5'UTR	OpenSea	NFASC	0.313	0.003	0.337	0.636
cg18706879	black	14	74,353,254	TSS1500	Island	ZNF410	0.313	0.005	0.089	0.240
cg02514686	black	10	86,300,587		Island		0.312	-0.003	0.025	0.287
cg24401870	black	13	70,682,525	1stExon	S_Shore	KLHL1	0.312	0.014	0.365	0.087
cg09741221	black	17	1,082,885	Body	Island	ABR	0.312	0.003	0.034	0.134
cg22897198	black	6	36,391,250	Body	Island	PXT1	0.312	-0.002	0.035	0.203

cg16898822	black	8	142,626,817		N_Shelf		0.312	0.002	0.085	0.775
cg12156944	black	8	97,162,506	Body	OpenSea	GDF6	0.312	0.016	0.485	0.173
cg21776794	black	13	20,806,746	TSS1500	Island	GJB6	0.312	-0.015	0.115	0.083
cg12289251	black	10	18,689,471	Body	OpenSea	CACNB2	0.312	-0.004	0.035	0.023
cg02874942	black	19	11,689,649	TSS1500	Island	ACP5	0.311	0.001	0.035	0.433
cg26597539	black	5	40,680,670	5'UTR	Island	PTGER4	0.311	0.000	0.033	0.968
cg06839483	black	9	34,372,236	Body	Island	KIAA1161	0.311	0.008	0.780	0.536
cg02919564	black	6	47,210,376	Body	OpenSea	TNFRSF21	0.311	-0.015	0.126	0.101
cg14891209	black	15	37,170,381	Body	N_Shelf	LOC145845	0.311	0.017	0.101	0.127
cg09530810	black	17	46,831,490		N_Shore		0.311	0.001	0.045	0.677
cg20050113	black	2	103,236,861	Body	S_Shore	SLC9A2	0.311	-0.006	0.273	0.400
cg13125157	black	17	50,237,403	TSS1500	S_Shore	CA10	0.311	-0.001	0.099	0.935
cg12384004	black	13	26,586,254	Body	N_Shore	ATP8A2	0.310	-0.002	0.337	0.895
cg10505785	black	20	23,028,890	1stExon	Island	THBD	0.310	-0.005	0.272	0.615
cg08343943	black	1	165,668,116	TSS1500	S_Shore	ALDH9A1	0.310	0.000	0.021	0.794
cg02099233	black	5	146,832,387	Body	N_Shore	DPYSL3	0.310	-0.001	0.025	0.341
cg18947739	black	11	69,590,282	TSS200	Island	FGF4	0.310	-0.001	0.017	0.739
cg05446860	black	20	25,129,126	Body	Island	LOC284798	0.310	0.000	0.057	0.960
cg08169020	black	14	69,256,888	Body	Island	ZFP36L1	0.309	0.000	0.027	0.934
cg25498107	black	15	41,100,233	TSS1500	S_Shore	DNAJC17	0.309	-0.033	0.311	0.253
cg26449119	black	15	101,383,738		OpenSea		0.309	0.003	0.415	0.836
cg17207545	black	7	102,134,668		N_Shore		0.309	-0.011	0.314	0.528
cg19888017	black	6	170,589,483		Island		0.309	0.003	0.437	0.821
cg02047702	black	1	38,019,822	1stExon	Island	SNIP1	0.309	0.000	0.016	0.914
cg15802323	black	7	127,228,142	TSS1500	Island	ARF5	0.309	-0.004	0.173	0.535
cg09098624	black	8	11,558,334		N_Shore		0.309	-0.020	0.124	0.268
cg24292016	black	12	121,087,689	TSS1500	OpenSea	CABP1	0.309	0.011	0.087	0.093
cg02573089	black	17	57,233,042	TSS200	S_Shore	PRR11	0.309	0.000	0.016	0.761
cg12810212	black	2	232,379,626	TSS1500	Island	C2orf52	0.309	0.002	0.038	0.265
cg16235197	black	12	111,758,873	Body	S_Shore	CUX2	0.309	-0.001	0.041	0.785
cg00090609	black	12	108,155,279	TSS1500	S_Shore	PRDM4	0.309	0.000	0.019	0.726
cg26880187	black	12	56,473,976	5'UTR	Island	ERBB3	0.308	-0.001	0.033	0.374
cg08695418	black	4	6,729,199		Island		0.308	-0.015	0.467	0.528
cg01430870	black	2	99,954,399	Body	Island	EIF5B	0.308	-0.001	0.025	0.520
cg17102269	black	8	3,830,691	Body	OpenSea	CSMD1	0.308	0.034	0.276	0.024
cg16637223	black	17	40,075,292	TSS200	Island	ACLY	0.308	0.000	0.029	0.989
cg00155052	black	12	125,051,384		Island		0.308	0.007	0.049	0.263
cg26612727	black	17	38,024,636	1stExon	Island	ZBPB2	0.308	-0.005	0.252	0.762
cg03457587	black	19	54,694,791	TSS1500	Island	MBOAT7	0.308	-0.002	0.031	0.104
cg04105250	black	2	171,679,114	Body	Island	GAD1	0.307	0.004	0.068	0.708
cg12308054	black	5	132,386,310	TSS1500	N_Shore	HSPA4	0.307	-0.007	0.052	0.063
cg20545907	black	5	17,401,890		OpenSea		0.307	0.002	0.175	0.853
cg05627256	black	5	10,249,860	Body	Island	FAM173B	0.307	0.002	0.022	0.731
cg15559684	black	3	63,428,234	Body	OpenSea	SYNPR	0.307	-0.002	0.794	0.900
cg23243608	black	3	196,675,529	Body	OpenSea	PIGZ	0.306	0.003	0.427	0.873
cg27454064	black	12	64,215,611		Island		0.306	-0.004	0.154	0.863
cg10225865	black	8	54,605,566		OpenSea		0.306	0.000	0.087	0.979
cg22680399	black	2	209,272,057	Body	S_Shore	PTH2R	0.306	-0.001	0.095	0.855
cg06563943	black	17	71,188,271	TSS1500	N_Shore	COG1	0.306	0.002	0.050	0.725
cg13673363	black	9	130,997,032	Body	S_Shore	DNM1	0.306	0.000	0.928	0.970
cg05602615	black	14	99,947,482	TSS1500	Island	SETD3	0.306	0.001	0.025	0.525
cg04398391	black	2	109,744,523	TSS1500	N_Shore	SH3RF3	0.306	0.001	0.025	0.462
cg07837717	black	19	2,841,006	TSS1500	Island	ZNF555	0.306	-0.002	0.054	0.488
cg03735370	black	6	31,430,919	TSS200	OpenSea	HCP5	0.305	0.007	0.049	0.180
cg22287492	black	11	2,161,411	Body	Island	INS-IGF2	0.305	0.000	0.037	0.952
cg25094149	black	1	32,253,906		N_Shore		0.305	0.000	0.022	0.891
cg11648062	black	19	45,312,060	TSS1500	Island	BCAM	0.305	0.000	0.029	0.834
cg22512573	black	12	130,529,214		S_Shelf		0.305	0.000	0.355	0.986
cg01286685	black	6	30,039,025	Body	Island	RNF39	0.305	-0.001	0.029	0.844
cg16475951	black	10	13,390,286	TSS200	OpenSea	SEPHS1	0.304	-0.001	0.034	0.684
cg18519050	black	14	105,181,796	Body	S_Shore	INF2	0.304	0.012	0.763	0.051
cg13947999	black	9	138,193,768		Island		0.304	-0.022	0.302	0.175
cg06624310	black	2	239,628,974		OpenSea		0.304	-0.018	0.114	0.033
cg16756998	black	22	20,118,943	TSS1500	Island	ZDHC8	0.304	-0.002	0.055	0.795
cg04607865	black	7	20,834,362		N_Shelf		0.304	-0.001	0.017	0.366
cg02469871	black	12	103,218,581		Island		0.304	0.002	0.027	0.346
cg20803293	black	1	110,254,709	TSS200	OpenSea	GSTM5	0.304	0.035	0.152	0.160

cg05503460	black	15	51,387,651	Body	Island	TNFAIP8L3	0.303	-0.001	0.048	0.710
cg26024341	black	10	35,415,980	5'UTR	Island	CREM	0.303	0.000	0.018	0.982
cg09580336	black	1	116,915,122	TSS1500	N_Shore	ATP1A1	0.303	0.008	0.051	0.025
cg27310092	black	1	151,945,663		OpenSea		0.303	0.000	0.072	0.962
cg13067634	black	1	45,806,350	TSS1500	S_Shore	MUTYH	0.303	0.001	0.068	0.910
cg26370729	black	5	76,115,672	Body	Island	F2RL1	0.303	-0.002	0.045	0.661
cg20432211	black	4	77,342,104		Island		0.303	-0.050	0.134	0.024
cg18094781	black	3	25,469,430	TSS1500	OpenSea	RARB	0.303	-0.003	0.027	0.101
cg01412473	black	5	168,729,847		S_Shore		0.303	-0.003	0.073	0.486
cg14826456	black	10	115,804,095	1stExon	Island	ADRB1	0.303	-0.009	0.077	0.121
cg03642463	black	17	77,178,665	5'UTR	N_Shore	HRNBP3	0.302	0.004	0.054	0.074
cg00280220	black	17	61,926,910		Island		0.302	-0.002	0.381	0.878
cg09573761	black	22	38,219,336	TSS200	N_Shore	GALR3	0.302	-0.007	0.780	0.585
cg02825977	black	10	94,825,848	Body	Island	CYP26C1	0.302	-0.001	0.024	0.776
cg09194364	black	11	119,612,475		Island		0.302	0.004	0.057	0.265
cg09244635	black	3	57,529,873	5'UTR	OpenSea	DNAH12	0.301	-0.004	0.073	0.520
cg12858902	black	1	110,254,854	TSS200	OpenSea	GSTM5	0.301	0.019	0.217	0.380
cg25584668	black	6	31,095,908	5'UTR	OpenSea	PSORS1C1	0.301	0.005	0.256	0.589
cg03287574	black	5	1,886,956		Island		0.301	-0.004	0.048	0.245
cg23233843	black	4	41,878,739		N_Shore		0.301	-0.016	0.735	0.312
cg19395400	black	17	40,897,308	TSS1500	S_Shore	EZH1	0.301	-0.003	0.155	0.734
cg18825594	black	2	10,184,650	Body	Island	KLF11	0.301	-0.009	0.376	0.667
cg17546052	black	8	140,717,285		Island		0.301	-0.005	0.295	0.706
cg06623918	black	6	96,969,491	TSS1500	N_Shore	KIAA0776	0.300	-0.004	0.067	0.464
cg16303742	black	3	15,540,471	TSS200	OpenSea	COLQ	0.300	0.028	0.347	0.340
cg26915704	black	18	77,211,963	Body	S_Shore	NFATC1	0.300	-0.001	0.616	0.933
cg22580629	black	12	56,390,979	TSS200	OpenSea	SUOX	0.299	0.000	0.036	0.956
cg03202557	black	6	29,617,599		N_Shore		0.299	-0.001	0.034	0.782
cg07724466	black	2	30,369,105	TSS1500	N_Shore	YPEL5	0.299	0.001	0.068	0.831
cg02452435	black	17	71,188,192	TSS1500	N_Shore	COG1	0.299	0.000	0.041	0.940
cg09114153	black	11	2,322,329	Body	OpenSea	C11orf21	0.299	0.003	0.458	0.690
cg12397802	black	10	64,573,476	Body	Island	EGR2	0.298	0.014	0.877	0.312
cg10084644	black	7	99,775,521	TSS200	Island	STAG3	0.298	-0.001	0.035	0.800
cg04790357	black	5	40,680,416	1stExon	Island	PTGER4	0.298	-0.003	0.055	0.567

**CpGs in the yellow module:**

cg	FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_CpG	Gene	MM	Methylation_AveBeta	P.Value	
cg12167564	yellow		1	236,047,034		OpenSea		0.958	0.006	0.499	0.454
cg11622162	yellow		17	78,237,543	Body	S_Shelf	RNF213	0.956	0.009	0.639	0.465
cg11685223	yellow		20	23,344,170	TSS1500	N_Shore	GZF1	0.956	0.012	0.595	0.118
cg19634573	yellow		10	126,397,072	5'UTR	OpenSea	FAM53B	0.956	0.003	0.211	0.771
cg09693106	yellow		22	46,449,821	1stExon	Island	C22orf26	0.955	0.006	0.455	0.548
cg09137533	yellow		22	46,469,091		S_Shore		0.955	0.022	0.274	0.183
cg10665488	yellow		11	796,569	TSS1500	N_Shore	SLC25A22	0.955	0.010	0.352	0.158
cg26549330	yellow		22	46,471,442		S_Shelf		0.955	0.009	0.353	0.391
cg03834031	yellow		22	46,465,717		N_Shore		0.953	0.010	0.260	0.374
cg00815325	yellow		19	5,691,899	3'UTR	Island	LONP1	0.953	0.005	0.433	0.437
cg01557549	yellow		3	53,168,665		S_Shelf		0.951	0.011	0.627	0.187
cg27055782	yellow		11	2,397,486	TSS1500	N_Shore	CD81	0.951	0.015	0.752	0.038
cg13522406	yellow		6	30,581,820	5'UTR	N_Shelf	PPP1R10	0.950	0.007	0.592	0.279
cg05395156	yellow		10	75,631,701	Body	N_Shore	CAMK2G	0.950	0.001	0.554	0.887
cg11320084	yellow		1	185,014,181	TSS1500	N_Shore	RNF2	0.949	0.009	0.522	0.184
cg10536786	yellow		1	7,550,036	Body	OpenSea	CAMTA1	0.949	0.017	0.553	0.218
cg22885052	yellow		3	47,066,821	Body	OpenSea	SETD2	0.949	0.005	0.566	0.534
cg10339295	yellow		14	101,942,203		OpenSea		0.948	0.025	0.465	0.028
cg00982136	yellow		2	201,726,139	Body	N_Shelf	CLK1	0.948	0.013	0.462	0.279
cg15960924	yellow		3	32,151,282	Body	S_Shelf	GPD1L	0.948	0.011	0.510	0.348
cg10445599	yellow		12	12,558,857	Body	OpenSea	LOH12CR1	0.947	0.011	0.513	0.423
cg24843443	yellow		4	169,402,197	TSS1500	S_Shore	DDX60L	0.947	-0.003	0.308	0.810
cg02485922	yellow		16	30,379,391	Body	N_Shore	TBC1D10B	0.947	0.012	0.397	0.055
cg18661379	yellow		10	104,393,081	3'UTR	OpenSea	SUFU	0.946	0.012	0.336	0.374
cg07854959	yellow		17	47,093,489	Body	S_Shore	IGF2BP1	0.946	0.003	0.554	0.795
cg01612449	yellow		11	66,410,467	Body	N_Shore	RBM4	0.946	-0.003	0.543	0.721
cg25685359	yellow		22	46,473,721		OpenSea		0.946	0.015	0.390	0.108
cg13519902	yellow		3	50,639,079		OpenSea		0.946	0.004	0.322	0.559
cg11977605	yellow		4	1,076,247	Body	OpenSea	RNF212	0.945	0.017	0.421	0.062
cg09152089	yellow		1	24,469,564	1stExon	OpenSea	IL22RA1	0.944	0.014	0.371	0.204

cg11831003	yellow	11	5,646,029	Body	OpenSea	TRIM6-TRIM:	0.944	0.019	0.344	0.212
cg25138553	yellow	1	22,223,841	Body	OpenSea	HSPG2	0.943	0.010	0.497	0.377
cg22719658	yellow	1	151,743,711	3'UTR	OpenSea	OAZ3	0.943	0.017	0.601	0.028
cg14631541	yellow	9	139,306,089	TSS1500	S_Shore	SDCCAG3	0.943	0.007	0.615	0.337
cg19934294	yellow	4	2,933,421	Body	N_Shore	MFSD10	0.943	0.009	0.647	0.197
cg12238593	yellow	6	26,440,340	TSS1500	OpenSea	BTN3A3	0.943	0.029	0.538	0.029
cg06361606	yellow	1	154,915,180		OpenSea		0.943	0.013	0.492	0.177
cg06399164	yellow	3	42,695,035	TSS200	N_Shore	ZBTB47	0.942	0.011	0.412	0.248
cg07114422	yellow	1	2,183,438	Body	OpenSea	SKI	0.942	0.013	0.646	0.120
cg22755370	yellow	11	12,125,622		OpenSea		0.942	0.017	0.510	0.170
cg21115691	yellow	1	207,140,927	Body	OpenSea	FCAMR	0.942	0.007	0.298	0.267
cg08204162	yellow	8	22,785,567	TSS200	OpenSea	PEBP4	0.942	0.018	0.286	0.199
cg06182359	yellow	1	161,088,957	TSS1500	S_Shore	PFDN2	0.942	0.012	0.252	0.325
cg08822118	yellow	3	184,037,481	Body	OpenSea	EIF4G1	0.941	0.006	0.722	0.572
cg09829983	yellow	2	7,017,698	TSS200	OpenSea	RSAD2	0.941	0.013	0.138	0.332
cg01790438	yellow	5	10,332,117		N_Shore		0.941	0.010	0.541	0.260
cg00289254	yellow	11	65,197,783		OpenSea		0.940	0.009	0.171	0.385
cg09477232	yellow	7	106,061,801		OpenSea		0.940	0.008	0.321	0.464
cg16243532	yellow	3	138,617,437		OpenSea		0.940	0.019	0.281	0.293
cg11644052	yellow	2	69,665,132	TSS1500	S_Shore	NFU1	0.940	0.009	0.324	0.480
cg25050723	yellow	11	1,777,552	Body	S_Shelf	HCCA2	0.940	0.007	0.753	0.428
cg01269795	yellow	6	26,440,101	TSS1500	OpenSea	BTN3A3	0.940	0.007	0.424	0.486
cg06712541	yellow	22	39,321,611		N_Shore		0.940	0.008	0.704	0.356
cg03443331	yellow	2	97,302,668	Body	N_Shore	KIAA1310	0.939	0.008	0.535	0.324
cg26330809	yellow	6	112,620,506		OpenSea		0.939	-0.003	0.761	0.631
cg02205073	yellow	16	19,175,822		N_Shelf		0.939	0.009	0.498	0.309
cg05891054	yellow	17	40,380,254	Body	OpenSea	STAT5B	0.938	0.021	0.563	0.217
cg21990144	yellow	2	201,726,666	5'UTR	N_Shelf	CLK1	0.938	0.006	0.207	0.482
cg01708924	yellow	11	64,089,278	3'UTR	S_Shelf	PRDX5	0.938	0.011	0.682	0.244
cg17413194	yellow	17	63,053,996	TSS1500	S_Shore	GNA13	0.937	0.009	0.664	0.271
cg09519218	yellow	10	126,390,317	Body	OpenSea	FAM53B	0.937	0.022	0.545	0.012
cg08761535	yellow	16	75,079,000	Body	OpenSea	ZNRF1	0.937	0.016	0.633	0.118
cg12816936	yellow	3	128,806,370		OpenSea		0.937	0.018	0.392	0.106
cg01478155	yellow	20	3,764,694	1stExon	N_Shore	CENPB	0.937	0.016	0.669	0.087
cg06104975	yellow	16	2,262,804	3'UTR	N_Shore	PGP	0.937	0.005	0.567	0.534
cg09962809	yellow	16	88,589,918	Body	N_Shore	ZFPM1	0.937	0.016	0.562	0.120
cg11041314	yellow	5	139,021,650		S_Shelf		0.936	0.004	0.660	0.645
cg13845351	yellow	9	112,073,098	Body	OpenSea	EPB41L4B	0.936	0.011	0.508	0.306
cg00409816	yellow	1	2,037,476	5'UTR	N_Shore	PRKCZ	0.936	0.005	0.708	0.516
cg09062708	yellow	1	61,649,907	Body	OpenSea	NFIA	0.936	0.015	0.201	0.302
cg04689058	yellow	16	66,953,825	TSS1500	N_Shelf	CDH16	0.936	0.006	0.458	0.501
cg04635504	yellow	11	2,829,241	Body	S_Shore	KCNQ1	0.936	0.003	0.793	0.672
cg13761284	yellow	9	130,708,393	Body	S_Shore	FAM102A	0.936	0.012	0.458	0.293
cg07391913	yellow	3	56,818,298	Body	OpenSea	ARHGEF3	0.936	0.020	0.507	0.116
cg09887323	yellow	1	6,348,460	Body	OpenSea	ACOT7	0.935	0.011	0.657	0.146
cg02774160	yellow	22	24,979,633	TSS200	OpenSea	GGT1	0.935	0.016	0.679	0.145
cg27200630	yellow	3	138,494,226		OpenSea		0.935	0.009	0.623	0.390
cg00448868	yellow	16	66,775,493	Body	OpenSea	DYNC11L2	0.935	0.013	0.192	0.420
cg09495207	yellow	16	67,978,445	3'UTR	OpenSea	SLC12A4	0.935	0.009	0.542	0.410
cg13121428	yellow	14	76,446,161	Body	N_Shelf	TGFB3	0.935	0.018	0.419	0.158
cg02753354	yellow	19	1,074,727	Body	Island	HMHA1	0.935	0.019	0.635	0.090
cg02564259	yellow	16	67,978,429	3'UTR	OpenSea	SLC12A4	0.935	0.019	0.744	0.112
cg02566627	yellow	12	58,232,984	Body	OpenSea	CTDSP2	0.935	0.006	0.377	0.347
cg18461635	yellow	3	46,990,143	Body	OpenSea	CCDC12	0.935	0.011	0.746	0.218
cg26109145	yellow	17	79,045,877	Body	S_Shore	BAIAP2	0.934	0.009	0.696	0.435
cg13787135	yellow	14	21,270,407	5'UTR	OpenSea	RNASE1	0.934	0.011	0.508	0.151
cg01354137	yellow	1	2,359,459		N_Shore		0.934	0.018	0.678	0.091
cg16808505	yellow	11	68,223,655		OpenSea		0.934	0.011	0.486	0.112
cg20463533	yellow	10	134,705,855		OpenSea		0.934	0.007	0.763	0.555
cg04676627	yellow	19	59,024,873	TSS1500	N_Shore	SLC27A5	0.934	0.012	0.791	0.132
cg10955164	yellow	22	39,919,237		S_Shelf		0.934	0.004	0.594	0.560
cg17714799	yellow	4	110,625,080	TSS1500	S_Shore	CASP6	0.933	0.012	0.235	0.306
cg26226650	yellow	3	50,276,265	Body	S_Shore	GNAI2	0.933	0.012	0.571	0.127
cg21142743	yellow	1	228,272,495	5'UTR	S_Shore	ARF1	0.933	0.006	0.237	0.411
cg04244857	yellow	17	7,671,200	Body	Island	DNAH2	0.933	0.005	0.647	0.648
cg19649900	yellow	19	1,155,030	5'UTR	Island	SBNO2	0.933	-0.002	0.408	0.820
cg20414098	yellow	11	65,150,159	TSS200	N_Shelf	SLC25A45	0.933	0.011	0.254	0.138

cg17671280	yellow	4	186,990,202	TSS200	OpenSea	TLR3	0.933	0.018	0.263	0.031
cg16021018	yellow	3	46,449,313	5'UTR	OpenSea	CCRL2	0.933	0.011	0.666	0.233
cg20696432	yellow	17	18,881,907	Body	OpenSea	SLC5A10	0.933	0.009	0.586	0.376
cg27478224	yellow	10	91,061,115	TSS1500	OpenSea	IFIT2	0.933	0.012	0.575	0.252
cg19469742	yellow	19	59,024,899	TSS1500	N_Shore	SLC27A5	0.933	0.010	0.653	0.210
cg02490185	yellow	1	26,136,899	Body	OpenSea	SEPN1	0.933	0.007	0.653	0.315
cg20309353	yellow	17	18,089,940	Body	S_Shore	ALKBH5	0.933	0.008	0.421	0.264
cg04659582	yellow	2	231,276,073		OpenSea		0.932	0.014	0.419	0.127
cg10611580	yellow	17	75,319,942	5'UTR	OpenSea	9-Sep	0.932	0.006	0.463	0.282
cg02769206	yellow	12	109,210,684	Body	OpenSea	SSH1	0.932	0.011	0.538	0.255
cg24518098	yellow	1	2,146,288		S_Shore		0.932	-0.001	0.284	0.881
cg11803251	yellow	4	41,659,108	Body	OpenSea	LIMCH1	0.932	0.001	0.572	0.880
cg01302136	yellow	6	43,118,059	Body	OpenSea	PTK7	0.932	0.007	0.307	0.682
cg22608507	yellow	12	123,379,308	Body	N_Shore	VPS37B	0.932	0.014	0.416	0.088
cg16857771	yellow	7	56,160,409	5'UTR	OpenSea	PHKG1	0.932	0.008	0.545	0.470
cg17083685	yellow	13	90,053,523		OpenSea		0.931	0.018	0.226	0.171
cg14155035	yellow	6	32,097,184	TSS1500	N_Shore	ATF6B	0.931	0.004	0.596	0.616
cg24044501	yellow	10	72,056,549		OpenSea		0.931	0.012	0.472	0.167
cg14377923	yellow	14	105,923,665	Body	OpenSea	MTA1	0.931	0.009	0.401	0.166
cg14576436	yellow	2	223,917,872	Body	Island	KCNE4	0.931	0.018	0.721	0.089
cg22633936	yellow	10	82,300,588	Body	OpenSea	SH2D4B	0.931	0.000	0.595	0.968
cg04292442	yellow	10	72,124,092	Body	OpenSea	LRRC20	0.931	0.026	0.555	0.129
cg00872683	yellow	4	40,398,005		OpenSea		0.931	0.010	0.315	0.293
cg21994818	yellow	8	96,805,352		OpenSea		0.931	0.025	0.508	0.041
cg06713671	yellow	19	5,914,158	TSS200	N_Shore	CAPS	0.930	0.011	0.678	0.269
cg06635946	yellow	22	46,470,016		S_Shore		0.930	0.011	0.204	0.494
cg06872822	yellow	5	6,582,121	TSS1500	N_Shore	LOC255167	0.930	0.006	0.578	0.629
cg05463027	yellow	6	17,988,748	TSS1500	S_Shore	KIF13A	0.930	0.018	0.305	0.039
cg26639479	yellow	16	30,363,681	3'UTR	N_Shelf	CD2BP2	0.930	0.020	0.476	0.118
cg01196158	yellow	1	93,912,688	TSS1500	N_Shore	FNBP1L	0.930	0.030	0.380	0.024
cg03378645	yellow	16	81,659,528	Body	OpenSea	CMIP	0.930	0.017	0.485	0.042
cg08677140	yellow	6	30,582,241	5'UTR	N_Shelf	PPP1R10	0.930	0.017	0.248	0.172
cg26224018	yellow	1	64,942,153	Body	OpenSea	CACHD1	0.929	0.007	0.439	0.486
cg12195314	yellow	19	2,491,255		S_Shore		0.929	0.010	0.733	0.243
cg03796943	yellow	2	220,233,953		OpenSea		0.929	0.016	0.453	0.223
cg20879468	yellow	5	133,983,708	TSS1500	N_Shore	SEC24A	0.929	0.010	0.106	0.331
cg09328012	yellow	22	46,481,677	TSS200	N_Shore	LOC400931	0.929	0.005	0.698	0.610
cg07084930	yellow	14	105,935,351	Body	N_Shore	MTA1	0.928	0.006	0.430	0.493
cg11050612	yellow	3	149,374,066	Body	N_Shore	WWTR1	0.928	0.015	0.254	0.189
cg26210267	yellow	4	668,877	TSS1500	S_Shore	ATP5I	0.928	0.003	0.360	0.662
cg13836518	yellow	9	100,883,593	3'UTR	S_Shore	CORO2A	0.928	0.008	0.458	0.567
cg05002602	yellow	14	68,140,486	Body	N_Shore	VTI1B	0.928	0.010	0.437	0.289
cg09868374	yellow	15	82,217,218		OpenSea		0.928	0.029	0.639	0.039
cg01185345	yellow	13	99,218,287	Body	OpenSea	STK24	0.928	0.011	0.528	0.148
cg04407490	yellow	14	75,936,582	3'UTR	OpenSea	JDP2	0.928	0.021	0.602	0.117
cg20229014	yellow	8	134,529,378	5'UTR	OpenSea	ST3GAL1	0.927	0.012	0.269	0.311
cg20917083	yellow	12	15,114,233	5'UTR	OpenSea	ARHGDI	0.927	0.022	0.567	0.005
cg10977734	yellow	6	30,582,416	5'UTR	N_Shelf	PPP1R10	0.927	0.004	0.216	0.596
cg25487405	yellow	22	46,473,039		OpenSea		0.927	0.007	0.619	0.465
cg01974375	yellow	1	151,298,954	TSS1500	N_Shore	PI4KB	0.927	0.004	0.166	0.563
cg27167562	yellow	16	1,104,808		N_Shelf		0.927	0.010	0.537	0.170
cg03231596	yellow	8	12,987,546	Body	N_Shore	DLC1	0.927	0.016	0.223	0.373
cg02326949	yellow	8	126,581,837		OpenSea		0.927	0.024	0.562	0.050
cg04886157	yellow	16	30,380,006	Body	N_Shore	TBC1D10B	0.927	0.005	0.220	0.370
cg00468395	yellow	16	28,193,063	Body	OpenSea	XPO6	0.927	0.012	0.430	0.316
cg20682143	yellow	1	231,561,152	TSS1500	S_Shelf	EGLN1	0.927	0.010	0.398	0.352
cg21828951	yellow	7	148,420,058	5'UTR	OpenSea	CUL1	0.927	0.014	0.517	0.074
cg01960096	yellow	1	157,012,966	Body	N_Shelf	ARHGFE11	0.926	-0.002	0.328	0.866
cg03208245	yellow	16	70,717,902	Body	N_Shore	MTSS1L	0.926	0.013	0.562	0.030
cg10397932	yellow	1	2,166,155	Body	OpenSea	SKI	0.926	0.003	0.272	0.667
cg03043157	yellow	6	97,010,903	5'UTR	OpenSea	FHL5	0.926	0.014	0.133	0.210
cg10689175	yellow	6	34,625,341	Body	OpenSea	G6orf106	0.926	0.020	0.332	0.118
cg14833621	yellow	12	47,801,438		OpenSea		0.926	0.024	0.593	0.109
cg20670923	yellow	18	9,915,771	Body	S_Shore	VAPA	0.926	0.006	0.501	0.498
cg17050941	yellow	2	6,072,933	Body	OpenSea	LOC150622	0.926	0.010	0.352	0.215
cg14915316	yellow	10	3,149,852	Body	S_Shore	PFKP	0.926	0.000	0.696	0.969
cg00682367	yellow	20	48,963,280		S_Shelf		0.926	0.007	0.146	0.530

cg26035489	yellow	22	30,164,162	TSS1500	S_Shore	ZMAT5	0.926	0.004	0.280	0.488
cg15102749	yellow	11	66,510,893	TSS1500	N_Shore	C11orf80	0.926	0.022	0.585	0.096
cg21757368	yellow	6	121,656,329	TSS1500	S_Shore	C6orf170	0.926	0.001	0.436	0.877
cg14472181	yellow	9	136,921,209	5'UTR	S_Shore	BRD3	0.926	0.015	0.518	0.268
cg09460229	yellow	22	30,141,053	Body	OpenSea	ZMAT5	0.926	0.021	0.666	0.033
cg07797805	yellow	20	25,387,977	TSS1500	N_Shore	GIN51	0.925	0.008	0.558	0.362
cg02506867	yellow	16	68,121,045	Body	S_Shore	NFATC3	0.925	0.008	0.130	0.618
cg04427651	yellow	1	27,152,694	TSS1500	N_Shore	ZDHHC18	0.925	0.011	0.358	0.154
cg26395513	yellow	7	1,239,908		OpenSea		0.925	-0.002	0.210	0.787
cg04603976	yellow	19	4,052,706	Body	N_Shore	ZBTB7A	0.925	0.004	0.573	0.552
cg01209023	yellow	11	61,733,046	Body	N_Shore	FTH1	0.925	0.014	0.442	0.175
cg18004847	yellow	19	1,155,056	5'UTR	Island	SBNO2	0.925	0.001	0.266	0.921
cg07749597	yellow	5	42,840,698		OpenSea		0.925	0.017	0.689	0.255
cg15954235	yellow	6	34,514,887	5'UTR	S_Shelf	SPDEF	0.924	0.019	0.569	0.053
cg26460483	yellow	7	97,914,016	Body	S_Shelf	BRI3	0.924	0.010	0.412	0.101
cg15377174	yellow	6	30,568,625	3'UTR	OpenSea	PPP1R10	0.924	0.009	0.721	0.430
cg20852557	yellow	3	184,035,519	Body	S_Shelf	EIF4G1	0.924	-0.003	0.579	0.645
cg24525364	yellow	1	35,730,504		N_Shelf		0.924	0.020	0.300	0.024
cg07058109	yellow	17	40,264,861	TSS200	OpenSea	DHX58	0.924	0.014	0.291	0.165
cg09978533	yellow	22	46,465,160		N_Shore		0.924	0.005	0.500	0.645
cg02635407	yellow	4	8,200,549	TSS1500	OpenSea	SH3TC1	0.924	0.012	0.648	0.097
cg27609721	yellow	16	69,271,235	Body	OpenSea	SNTB2	0.924	0.017	0.558	0.124
cg27010834	yellow	10	99,527,173	3'UTR	N_Shelf	SFRP5	0.924	-0.002	0.351	0.785
cg02078292	yellow	11	2,397,655	TSS1500	N_Shore	CD81	0.924	0.007	0.706	0.498
cg13716026	yellow	9	75,192,209	5'UTR	OpenSea	TMC1	0.923	0.016	0.442	0.352
cg13713989	yellow	3	48,776,948		OpenSea		0.923	0.018	0.511	0.072
cg11060666	yellow	5	148,851,518		OpenSea		0.923	0.006	0.403	0.485
cg23963984	yellow	10	79,659,038	Body	OpenSea	DLG5	0.923	0.016	0.458	0.133
cg17499826	yellow	19	46,284,986	Body	S_Shore	DMPK	0.923	0.010	0.731	0.201
cg10584986	yellow	15	29,825,929	Body	OpenSea	FAM189A1	0.923	0.010	0.206	0.191
cg26843872	yellow	16	30,368,792	3'UTR	S_Shelf	TBC1D10B	0.923	0.001	0.343	0.818
cg25135145	yellow	3	16,233,024	Body	OpenSea	GALNTL2	0.923	0.016	0.758	0.063
cg13562284	yellow	11	32,110,323		N_Shelf		0.923	0.006	0.560	0.367
cg01942845	yellow	5	80,692,267	Body	S_Shelf	RNU5E	0.923	-0.010	0.484	0.380
cg09018299	yellow	16	24,748,339	Body	OpenSea	TNRC6A	0.923	0.011	0.733	0.212
cg16519668	yellow	16	75,279,566	Body	OpenSea	BCAR1	0.923	0.012	0.248	0.164
cg10487998	yellow	1	21,838,665	5'UTR	S_Shelf	ALPL	0.923	0.012	0.281	0.135
cg12680205	yellow	10	80,303,482		OpenSea		0.923	0.013	0.412	0.123
cg20528837	yellow	3	45,052,889	3'UTR	OpenSea	EXOSC7	0.923	-0.002	0.668	0.891
cg11018604	yellow	5	71,507,163		OpenSea		0.923	0.008	0.647	0.460
cg27214856	yellow	22	46,473,343		OpenSea		0.923	0.008	0.775	0.424
cg05798664	yellow	1	36,825,645	Body	OpenSea	STK40	0.923	0.004	0.673	0.606
cg04233230	yellow	1	155,910,958	TSS1500	OpenSea	RXFP4	0.923	0.009	0.624	0.235
cg00729275	yellow	18	24,445,134	Body	S_Shore	AQP4	0.922	0.020	0.399	0.056
cg19730887	yellow	3	15,085,146	3'UTR	OpenSea	NR2C2	0.922	-0.008	0.660	0.232
cg13736128	yellow	17	15,901,788	Body	N_Shore	ZSWIM7	0.922	0.005	0.626	0.772
cg24547396	yellow	22	19,928,740	TSS1500	N_Shore	COMT	0.922	0.009	0.413	0.234
cg23197862	yellow	8	135,732,917		OpenSea		0.922	0.004	0.214	0.668
cg07069844	yellow	19	1,617,027	Body	S_Shore	TCF3	0.922	0.010	0.440	0.242
cg08749443	yellow	15	90,224,098	TSS1500	OpenSea	PLIN1	0.922	0.014	0.696	0.226
cg21163444	yellow	12	54,765,670	Body	S_Shore	ZNF385A	0.922	0.008	0.175	0.501
cg21215325	yellow	15	35,178,803	Body	OpenSea	AQR	0.922	0.028	0.599	0.046
cg23211736	yellow	1	59,012,820	TSS1500	S_Shore	OMA1	0.922	0.022	0.489	0.016
cg24199203	yellow	19	3,387,811	Body	N_Shore	NFIC	0.922	0.010	0.574	0.421
cg11798182	yellow	14	98,444,513	TSS200	OpenSea	C14orf64	0.922	-0.001	0.308	0.957
cg24318076	yellow	17	18,091,662	Body	S_Shelf	ALKBH5	0.922	0.009	0.515	0.407
cg19689368	yellow	7	135,433,610	TSS200	OpenSea	FAM180A	0.922	0.019	0.567	0.154
cg07910488	yellow	2	2,030,970	5'UTR	OpenSea	MYT1L	0.921	-0.002	0.668	0.802
cg25403283	yellow	10	63,629,487		OpenSea		0.921	0.013	0.666	0.171
cg17471102	yellow	19	5,851,255	5'UTR	OpenSea	FUT3	0.921	0.003	0.204	0.666
cg20169521	yellow	2	202,563,587	TSS200	OpenSea	MPP4	0.921	0.008	0.401	0.490
cg18778196	yellow	15	67,054,877	Body	OpenSea	SMAD6	0.921	0.010	0.575	0.213
cg20669012	yellow	3	11,102,341		OpenSea		0.921	0.016	0.639	0.017
cg06432875	yellow	16	27,865,008	Body	OpenSea	GSG1L	0.921	-0.004	0.536	0.501
cg12049875	yellow	20	19,955,868	Body	Island	RIN2	0.921	-0.006	0.402	0.562
cg23478124	yellow	11	85,776,966	Body	N_Shelf	PICALM	0.921	0.006	0.332	0.543
cg15318861	yellow	22	36,044,328	TSS200	OpenSea	APOL6	0.921	0.012	0.116	0.298



cg04119678	yellow	1	32,402,509	5'UTR	N_Shore	PTP4A2	0.921	0.013	0.288	0.087
cg02746852	yellow	2	239,464,819		OpenSea		0.921	0.006	0.568	0.573
cg12558090	yellow	9	130,979,331	Body	N_Shore	DNM1	0.921	0.015	0.503	0.074
cg23368715	yellow	12	7,245,510	TSS1500	OpenSea	C1R	0.920	0.004	0.447	0.483
cg14526039	yellow	3	49,210,221	Body	S_Shore	KLHDC8B	0.920	0.012	0.501	0.075
cg06498520	yellow	4	186,990,006	TSS1500	OpenSea	TLR3	0.920	0.004	0.128	0.756
cg05438708	yellow	16	81,520,178	Body	OpenSea	CMIP	0.920	0.008	0.572	0.349
cg19414630	yellow	8	48,648,874		N_Shore		0.920	0.017	0.230	0.314
cg18055585	yellow	15	88,668,892	Body	OpenSea	NTRK3	0.920	0.015	0.540	0.128
cg15770702	yellow	17	43,384,845	5'UTR	OpenSea	MAP3K14	0.920	0.026	0.284	0.134
cg02843277	yellow	6	155,569,443	Body	OpenSea	TIAM2	0.920	0.008	0.740	0.428
cg10470208	yellow	16	2,058,701	Body	N_Shore	ZNF598	0.920	0.002	0.166	0.846
cg23201812	yellow	11	34,771,918		OpenSea		0.920	0.028	0.591	0.092
cg09119854	yellow	17	63,550,766	Body	OpenSea	AXIN2	0.920	0.008	0.141	0.327
cg00700239	yellow	12	119,595,495	3'UTR	S_Shelf	SRRM4	0.920	0.007	0.749	0.302
cg26017408	yellow	10	116,161,327	Body	N_Shelf	AFAP1L2	0.920	0.008	0.683	0.466
cg11484576	yellow	11	63,272,554	TSS1500	OpenSea	LGALS12	0.920	0.019	0.690	0.068
cg09468264	yellow	1	59,340,913		OpenSea		0.920	0.021	0.240	0.105
cg25298189	yellow	19	935,259	Body	S_Shelf	ARID3A	0.919	0.004	0.267	0.736
cg26049998	yellow	17	65,602,730	Body	OpenSea	PITPNC1	0.919	0.012	0.156	0.424
cg07719604	yellow	16	67,232,460	TSS1500	N_Shore	ELMO3	0.919	0.012	0.330	0.161
cg19862213	yellow	2	25,456,072	3'UTR	OpenSea	DNMT3A	0.919	0.006	0.658	0.484
cg09408366	yellow	1	84,462,335	5'UTR	N_Shore	TTLL7	0.919	0.029	0.246	0.035
cg13648715	yellow	4	77,133,417	Body	N_Shore	SCARB2	0.919	0.014	0.405	0.327
cg23168192	yellow	14	23,624,788	Body	OpenSea	SLC7A8	0.919	0.023	0.647	0.058
cg07863354	yellow	17	80,832,611	Body	S_Shelf	TBCD	0.919	0.011	0.817	0.307
cg09903452	yellow	17	75,315,244	5'UTR	OpenSea	SEPT9	0.919	0.006	0.480	0.528
cg10919111	yellow	10	74,075,783		N_Shelf		0.919	0.008	0.285	0.369
cg02036387	yellow	11	65,197,533		OpenSea		0.919	-0.002	0.539	0.813
cg16636721	yellow	21	47,920,571	Body	S_Shore	DIP2A	0.919	0.020	0.628	0.033
cg21538216	yellow	22	44,577,063	5'UTR	OpenSea	PARVG	0.919	0.011	0.571	0.112
cg09478002	yellow	2	71,944,165		OpenSea		0.919	0.012	0.444	0.217
cg16853770	yellow	12	123,355,562	Body	S_Shelf	VPS37B	0.918	0.006	0.350	0.560
cg09703323	yellow	11	65,197,876		OpenSea		0.918	0.014	0.105	0.275
cg00777198	yellow	12	52,828,273	TSS200	OpenSea	KRT75	0.918	0.006	0.562	0.380
cg21288889	yellow	6	89,792,677	Body	S_Shore	PNRC1	0.918	0.002	0.208	0.776
cg05729490	yellow	7	27,404,187		OpenSea		0.918	0.005	0.421	0.637
cg11959387	yellow	19	6,721,027	TSS1500	OpenSea	C3	0.918	0.007	0.662	0.411
cg05223441	yellow	6	43,818,920		OpenSea		0.918	0.004	0.532	0.636
cg04880751	yellow	1	241,695,164	TSS1500	OpenSea	KMO	0.918	0.038	0.591	0.011
cg04252203	yellow	3	194,696,866		OpenSea		0.918	0.014	0.448	0.135
cg00682263	yellow	15	66,188,803	3'UTR	OpenSea	MEGF11	0.918	0.024	0.609	0.177
cg25953417	yellow	6	30,690,712	Body	S_Shore	TUBB	0.918	0.007	0.204	0.468
cg17395211	yellow	7	155,654,226		OpenSea		0.918	0.011	0.501	0.331
cg02324432	yellow	4	166,130,172	TSS1500	S_Shore	KLHL2	0.917	0.010	0.487	0.210
cg02623718	yellow	1	240,565,704	Body	N_Shelf	FMN2	0.917	-0.001	0.714	0.968
cg01477835	yellow	4	87,989,696	Body	OpenSea	AFF1	0.917	0.010	0.393	0.468
cg09436767	yellow	3	184,035,154	Body	S_Shore	EIF4G1	0.917	0.013	0.464	0.043
cg13484608	yellow	17	21,191,452	Body	S_Shelf	MAP2K3	0.917	0.022	0.511	0.074
cg14036776	yellow	8	37,595,363	5'UTR	S_Shore	ERLIN2	0.917	0.014	0.466	0.110
cg10307052	yellow	17	21,065,542	Body	OpenSea	DHRS7B	0.917	0.023	0.398	0.075
cg13536080	yellow	11	85,659,096		OpenSea		0.917	0.012	0.257	0.432
cg01081168	yellow	1	212,278,486		OpenSea		0.917	0.013	0.317	0.393
cg26246342	yellow	6	32,945,423	Body	OpenSea	BRD2	0.917	0.006	0.578	0.398
cg03603260	yellow	1	151,021,364	Body	S_Shore	C1orf56	0.917	0.002	0.578	0.835
cg19116023	yellow	3	184,038,421	Body	OpenSea	EIF4G1	0.917	0.010	0.798	0.394
cg07495027	yellow	13	78,492,216	Body	N_Shore	EDNRB	0.917	0.006	0.669	0.594
cg18695263	yellow	3	196,387,505	Body	Island	LRRC33	0.917	0.006	0.744	0.504
cg16451306	yellow	5	71,475,356	Body	OpenSea	MAP1B	0.917	0.022	0.436	0.025
cg01356198	yellow	3	187,929,513	TSS1500	OpenSea	LPP	0.917	0.011	0.738	0.215
cg17071855	yellow	17	3,819,880	1stExon	OpenSea	P2RX1	0.917	0.001	0.161	0.889
cg16954165	yellow	10	90,681,265	Body	OpenSea	STAMBPL1	0.917	-0.002	0.417	0.874
cg14900154	yellow	17	4,074,385	Body	OpenSea	ANKFY1	0.917	0.008	0.627	0.228
cg26876444	yellow	1	65,887,413	5'UTR	S_Shore	LEPR	0.916	0.012	0.105	0.262
cg00256675	yellow	4	802,962	Body	S_Shelf	CPLX1	0.916	0.013	0.465	0.228
cg04329382	yellow	22	46,480,891	TSS1500	N_Shore	LOC400931	0.916	0.009	0.772	0.237
cg05583087	yellow	3	12,894,947		OpenSea		0.916	0.012	0.200	0.194

cg05380127	yellow	6	32,171,823	Body	OpenSea	NOTCH4	0.916	0.009	0.629	0.196
cg13174898	yellow	1	202,104,055	Body	OpenSea	ARL8A	0.916	0.006	0.606	0.372
cg03724368	yellow	17	56,024,688		OpenSea		0.916	0.012	0.482	0.279
cg02194129	yellow	14	104,171,313	Body	OpenSea	XRCC3	0.916	0.003	0.677	0.626
cg15473329	yellow	19	39,862,918	Body	OpenSea	SAMD4B	0.916	0.006	0.674	0.444
cg16746355	yellow	14	65,228,827	Body	OpenSea	SPTB	0.916	-0.002	0.594	0.798
cg00034769	yellow	14	98,444,533	TSS200	OpenSea	C14orf64	0.916	0.008	0.289	0.328
cg22040039	yellow	12	112,195,089		OpenSea		0.916	0.008	0.745	0.261
cg02881186	yellow	8	140,892,009	Body	OpenSea	TRAPPC9	0.916	0.011	0.458	0.349
cg18041960	yellow	11	123,415,568	Body	OpenSea	GRAMD1B	0.916	0.012	0.653	0.156
cg26225478	yellow	5	1,506,445	Body	OpenSea	LPCAT1	0.916	0.009	0.767	0.217
cg01346501	yellow	17	38,254,714	Body	N_Shore	NR1D1	0.915	0.003	0.442	0.679
cg14384093	yellow	9	111,878,565	Body	N_Shelf	C9orf5	0.915	0.018	0.580	0.228
cg24860886	yellow	1	24,645,397	TSS1500	N_Shelf	GRHL3	0.915	0.005	0.120	0.685
cg05885012	yellow	17	55,980,673	5'UTR	OpenSea	CUEDC1	0.915	0.004	0.175	0.627
cg14409083	yellow	12	13,349,724	5'UTR	OpenSea	EMP1	0.915	-0.001	0.450	0.902
cg13719901	yellow	3	46,608,139	5'UTR	S_Shore	LRRC2	0.915	0.011	0.236	0.289
cg14538319	yellow	15	93,464,153	Body	OpenSea	CHD2	0.915	0.017	0.610	0.051
cg07405370	yellow	20	62,528,249	5'UTR	S_Shore	DNAJC5	0.915	0.008	0.241	0.443
cg04500377	yellow	8	38,090,208	5'UTR	S_Shore	DDHD2	0.915	0.013	0.360	0.126
cg01059100	yellow	16	31,214,607	TSS1500	S_Shore	PYCARD	0.915	0.014	0.659	0.118
cg12178147	yellow	12	109,576,929	TSS1500	OpenSea	ACACB	0.915	0.015	0.567	0.237
cg20312012	yellow	2	97,331,035	Body	OpenSea	FER1L5	0.915	-0.007	0.765	0.520
cg06912792	yellow	1	22,416,735	Body	OpenSea	CDC42	0.915	0.005	0.299	0.467
cg10020040	yellow	1	3,397,621	3'UTR	S_Shelf	ARHGEF16	0.915	0.001	0.526	0.889
cg25319237	yellow	13	30,057,464	Body	S_Shelf	MTUS2	0.915	0.015	0.728	0.141
cg09025210	yellow	3	141,132,146	5'UTR	OpenSea	ZBTB38	0.915	0.004	0.291	0.518
cg20198183	yellow	10	49,832,794		OpenSea		0.915	0.002	0.539	0.864
cg02927655	yellow	12	27,167,667	TSS1500	S_Shore	TM7SF3	0.915	0.013	0.126	0.165
cg17517296	yellow	2	43,107,458		OpenSea		0.915	0.012	0.291	0.293
cg02030141	yellow	1	51,124,256	Body	OpenSea	FAF1	0.914	0.027	0.286	0.185
cg25754068	yellow	2	183,292,092	Body	OpenSea	PDE1A	0.914	0.016	0.467	0.244
cg14917706	yellow	8	27,751,531	Body	OpenSea	SCARA5	0.914	0.011	0.531	0.276
cg18972765	yellow	13	113,422,671	Body	N_Shelf	ATP11A	0.914	0.005	0.794	0.593
cg12845432	yellow	11	2,397,773	TSS1500	N_Shore	CD81	0.914	0.012	0.736	0.258
cg13480549	yellow	1	2,058,790	5'UTR	OpenSea	PRKCZ	0.914	0.010	0.759	0.188
cg25571414	yellow	4	25,659,572	5'UTR	S_Shelf	SLC34A2	0.914	0.016	0.764	0.158
cg17833106	yellow	1	161,060,000	TSS1500	OpenSea	PVRL4	0.914	0.006	0.770	0.403
cg16385335	yellow	11	71,710,614	TSS200	OpenSea	IL18BP	0.914	0.012	0.441	0.068
cg18593374	yellow	10	126,302,546	3'UTR	N_Shore	LHPP	0.914	0.002	0.721	0.808
cg07408552	yellow	17	40,611,995	5'UTR	S_Shore	ATP6V0A1	0.914	0.014	0.214	0.257
cg02625024	yellow	17	17,465,361	Body	Island	PEMT	0.914	0.003	0.625	0.718
cg07034563	yellow	5	176,919,739	Body	S_Shore	PDLIM7	0.914	0.013	0.673	0.117
cg07615364	yellow	3	52,088,726	Body	N_Shore	DUSP7	0.914	0.001	0.744	0.877
cg11032640	yellow	2	151,112,658		OpenSea		0.914	0.013	0.674	0.343
cg09725286	yellow	8	134,419,335		OpenSea		0.914	0.009	0.567	0.250
cg05343021	yellow	19	10,773,698	5'UTR	OpenSea	ILF3	0.914	0.005	0.465	0.424
cg01781529	yellow	1	22,444,030	3'UTR	N_Shelf	WNT4	0.914	0.008	0.583	0.428
cg06204101	yellow	1	2,039,671	5'UTR	N_Shore	PRKCZ	0.913	0.002	0.717	0.802
cg21550372	yellow	14	100,908,908	Body	OpenSea	WDR25	0.913	0.008	0.713	0.513
cg10305000	yellow	16	1,682,412	Body	OpenSea	CRAMP1L	0.913	0.008	0.728	0.479
cg11616676	yellow	7	87,848,143	Body	N_Shore	SRI	0.913	0.011	0.091	0.179
cg22514229	yellow	1	94,118,054	Body	OpenSea	BCAR3	0.913	0.015	0.345	0.306
cg09680149	yellow	12	6,487,052	TSS1500	OpenSea	SCNN1A	0.913	0.013	0.609	0.075
cg02308798	yellow	2	211,034,024	5'UTR	N_Shore	C2orf67	0.913	0.008	0.357	0.398
cg19293162	yellow	19	2,513,302	3'UTR	Island	GNG7	0.913	0.022	0.471	0.040
cg18182216	yellow	1	150,978,385	5'UTR	N_Shelf	FAM63A	0.913	0.009	0.146	0.341
cg14199150	yellow	9	136,930,919	5'UTR	OpenSea	BRD3	0.913	0.007	0.631	0.509
cg03441853	yellow	15	73,075,003	Body	N_Shore	ADPGK	0.913	0.011	0.299	0.164
cg06068373	yellow	3	42,594,510	3'UTR	OpenSea	SEC22C	0.913	0.010	0.321	0.388
cg09258479	yellow	1	47,655,861	TSS200	OpenSea	PDZK1IP1	0.913	0.013	0.542	0.089
cg17718182	yellow	1	245,002,565	Body	S_Shelf	FAM36A	0.913	0.002	0.719	0.857
cg19843457	yellow	12	132,288,611		S_Shelf		0.913	0.015	0.238	0.179
cg01919011	yellow	14	75,936,668	3'UTR	OpenSea	JDP2	0.913	0.025	0.733	0.121
cg22313519	yellow	19	18,385,724	TSS1500	OpenSea	KIAA1683	0.912	0.034	0.464	0.035
cg09685250	yellow	13	114,305,121	Body	S_Shelf	ATP4B	0.912	0.002	0.595	0.741
cg25630910	yellow	12	123,753,186	Body	N_Shore	CDK2AP1	0.912	0.020	0.540	0.048

cg00653615	yellow	1	151,029,327	5'UTR	N_Shelf	CDC42SE1	0.912	0.007	0.646	0.293
cg16604233	yellow	6	33,128,923		N_Shore		0.912	0.014	0.454	0.169
cg07471507	yellow	8	81,086,294		S_Shelf		0.912	0.009	0.763	0.401
cg07038342	yellow	3	145,969,625	TSS1500	S_Shore	PLSCR4	0.912	0.004	0.399	0.821
cg25841344	yellow	17	78,354,577	Body	OpenSea	RNF213	0.912	0.008	0.758	0.274
cg01477933	yellow	12	122,922,107		OpenSea		0.912	0.003	0.298	0.694
cg08259168	yellow	1	78,509,494		N_Shelf		0.912	-0.001	0.660	0.894
cg26680428	yellow	1	226,322,870		OpenSea		0.912	0.012	0.532	0.059
cg20692268	yellow	1	25,358,981		OpenSea		0.912	0.007	0.517	0.541
cg06042849	yellow	10	547,025	Body	OpenSea	DIP2C	0.912	0.003	0.272	0.782
cg02505177	yellow	10	103,574,626	Body	N_Shelf	MGEA5	0.912	0.012	0.447	0.028
cg05266142	yellow	13	114,792,744	Body	OpenSea	RASA3	0.912	0.009	0.632	0.420
cg17830209	yellow	17	79,006,166	Body	N_Shore	FLJ90757	0.912	0.003	0.717	0.765
cg24823222	yellow	10	30,247,300		OpenSea		0.911	0.010	0.771	0.358
cg25736145	yellow	7	143,052,137	3'UTR	OpenSea	FAM131B	0.911	0.010	0.718	0.261
cg22630169	yellow	19	13,108,217	Body	S_Shore	NFIX	0.911	0.010	0.606	0.312
cg25382032	yellow	3	184,035,178	Body	S_Shore	EIF4G1	0.911	0.014	0.772	0.035
cg01831771	yellow	13	113,428,172	Body	N_Shore	ATP11A	0.911	-0.013	0.747	0.384
cg14752089	yellow	8	128,773,042		OpenSea		0.911	0.008	0.589	0.386
cg21322248	yellow	15	77,289,047	Body	OpenSea	PSTPIP1	0.911	0.014	0.489	0.076
cg17342469	yellow	22	46,473,074		OpenSea		0.911	0.008	0.769	0.569
cg12828656	yellow	5	132,577,108	Body	OpenSea	FSTL4	0.911	0.007	0.661	0.296
cg20237820	yellow	8	20,002,826	3'UTR	OpenSea	SLC18A1	0.911	0.009	0.355	0.326
cg13346820	yellow	5	865,318	Body	Island	BRD9	0.911	0.008	0.735	0.278
cg19422300	yellow	20	61,989,375	Body	N_Shelf	CHRNA4	0.911	0.005	0.779	0.445
cg21292067	yellow	17	3,880,172		OpenSea		0.911	0.009	0.351	0.228
cg03122532	yellow	21	39,644,216	5'UTR	OpenSea	KCNJ15	0.911	0.002	0.511	0.856
cg15414132	yellow	11	65,150,358	TSS1500	N_Shelf	SLC25A45	0.911	0.014	0.339	0.288
cg26165081	yellow	11	14,562,955	Body	OpenSea	PSMA1	0.911	0.013	0.412	0.198
cg02004723	yellow	20	42,574,341	5'UTR	OpenSea	TOX2	0.911	0.009	0.753	0.298
cg09530594	yellow	19	10,855,405	Body	OpenSea	DNM2	0.911	0.014	0.361	0.012
cg04220416	yellow	14	105,045,877	TSS200	OpenSea	C14orf180	0.910	0.014	0.548	0.239
cg02820901	yellow	13	113,351,484	Body	Island	ATP11A	0.910	-0.003	0.777	0.846
cg24450653	yellow	1	205,060,293	Body	OpenSea	RBBP5	0.910	0.002	0.735	0.770
cg18313182	yellow	11	818,903	1stExon	N_Shore	PNPLA2	0.910	0.012	0.669	0.145
cg13835114	yellow	9	133,327,530	5'UTR	OpenSea	ASS1	0.910	0.004	0.139	0.595
cg12069151	yellow	6	30,580,546	5'UTR	OpenSea	PPP1R10	0.910	0.000	0.570	0.976
cg00609473	yellow	14	23,351,842	TSS1500	N_Shelf	REM2	0.910	0.007	0.271	0.363
cg01377358	yellow	20	30,948,211	Body	S_Shore	ASXL1	0.910	-0.001	0.295	0.855
cg03127388	yellow	1	204,195,149	Body	OpenSea	PLEKHA6	0.910	0.011	0.798	0.255
cg24766816	yellow	6	30,568,535	3'UTR	OpenSea	PPP1R10	0.910	0.008	0.420	0.586
cg07945618	yellow	15	99,926,398	3'UTR	OpenSea	LRRRC28	0.910	-0.008	0.582	0.387
cg08008692	yellow	1	159,961,591		OpenSea		0.910	0.010	0.506	0.217
cg08553913	yellow	17	37,028,977	Body	S_Shore	LASP1	0.910	0.005	0.375	0.412
cg17142723	yellow	17	41,324,085	5'UTR	S_Shore	NBR1	0.910	0.010	0.470	0.246
cg02049210	yellow	8	48,647,583	Body	N_Shelf	KIAA0146	0.910	0.006	0.118	0.468
cg14742445	yellow	22	30,195,299	Body	OpenSea	ASCC2	0.910	0.015	0.673	0.035
cg16315582	yellow	11	104,839,349	TSS200	OpenSea	CASP4	0.910	0.006	0.114	0.545
cg08478016	yellow	1	9,258,033		N_Shore		0.910	0.009	0.644	0.312
cg10197238	yellow	14	21,269,744	3'UTR	OpenSea	RNASE1	0.910	0.013	0.646	0.131
cg25750209	yellow	2	56,089,476		OpenSea		0.910	0.017	0.450	0.349
cg00973876	yellow	17	77,899,208		N_Shore		0.909	0.018	0.241	0.157
cg25686172	yellow	2	6,072,801	TSS200	OpenSea	LOC150622	0.909	0.010	0.530	0.283
cg04245944	yellow	6	142,968,942		OpenSea		0.909	0.022	0.268	0.068
cg22979433	yellow	5	80,528,609	Body	OpenSea	RNU5E	0.909	0.006	0.633	0.530
cg02673850	yellow	1	211,828,484		OpenSea		0.909	0.013	0.594	0.221
cg02228185	yellow	17	3,379,567	1stExon	OpenSea	ASPA	0.909	-0.002	0.459	0.932
cg15030415	yellow	17	2,908,068	Body	OpenSea	RAP1GAP2	0.909	0.007	0.482	0.519
cg22128197	yellow	1	154,529,357	Body	N_Shore	UBE2Q1	0.909	0.008	0.291	0.338
cg01763884	yellow	22	50,721,626	Body	Island	PLXNB2	0.909	-0.006	0.818	0.333
cg00263248	yellow	14	98,444,151	Body	OpenSea	C14orf64	0.909	0.022	0.571	0.179
cg24512644	yellow	22	41,248,902	Body	N_Shelf	ST13	0.909	0.006	0.704	0.601
cg06755438	yellow	2	219,885,614	Body	OpenSea	CCDC108	0.909	0.005	0.658	0.581
cg24898863	yellow	1	153,363,580	TSS200	OpenSea	S100A8	0.909	0.012	0.488	0.100
cg10517919	yellow	1	226,707,583		OpenSea		0.909	-0.003	0.713	0.741
cg14761454	yellow	11	108,092,087	TSS1500	N_Shore	ATM	0.909	0.031	0.238	0.020
cg05533615	yellow	21	46,291,868	Body	N_Shore	PTTG1IP	0.909	0.007	0.475	0.158

cg03292206	yellow	2	111,424,914	Body	OpenSea	BUB1	0.909	0.014	0.767	0.360
cg04556393	yellow	1	167,849,931	Body	OpenSea	ADCY10	0.909	-0.008	0.724	0.363
cg05879734	yellow	2	238,850,757		OpenSea		0.908	0.000	0.570	0.981
cg15388210	yellow	1	36,005,826	Body	OpenSea	KIAA0319L	0.908	0.017	0.570	0.084
cg23437420	yellow	11	278,450	TSS200	N_Shore	NLRP6	0.908	0.019	0.712	0.021
cg18188739	yellow	1	2,058,941	5'UTR	OpenSea	PRKCZ	0.908	0.014	0.656	0.143
cg20534570	yellow	22	41,763,093	TSS1500	OpenSea	TEF	0.908	0.005	0.139	0.512
cg10005273	yellow	11	65,197,613		OpenSea		0.908	0.006	0.192	0.397
cg03556243	yellow	3	114,343,779	5'UTR	OpenSea	ZBTB20	0.908	0.024	0.473	0.066
cg13001097	yellow	6	144,652,488	Body	OpenSea	UTRN	0.908	-0.003	0.528	0.790
cg13786023	yellow	1	179,723,524	5'UTR	OpenSea	FAM163A	0.908	0.007	0.529	0.507
cg10578938	yellow	5	156,695,410	5'UTR	S_Shore	CYFIP2	0.908	0.014	0.638	0.168
cg16424082	yellow	12	51,323,740	Body	OpenSea	METTL7A	0.908	0.004	0.750	0.625
cg16062483	yellow	14	98,444,417	Body	OpenSea	C14orf64	0.908	-0.001	0.408	0.959
cg24778160	yellow	11	76,894,469	Body	S_Shelf	MYO7A	0.908	0.016	0.723	0.078
cg14069928	yellow	9	136,845,816	Body	S_Shore	VAV2	0.908	-0.001	0.302	0.894
cg03714916	yellow	6	36,645,886	TSS1500	N_Shore	CDKN1A	0.908	0.007	0.312	0.192
cg13180252	yellow	17	18,151,277	Body	S_Shore	FLII	0.908	0.011	0.553	0.066
cg25596783	yellow	13	80,715,583		OpenSea		0.908	0.002	0.205	0.831
cg05191397	yellow	7	5,437,001	Body	OpenSea	TNRC18	0.908	0.006	0.450	0.495
cg03363565	yellow	16	474,528	TSS1500	N_Shore	RAB11FIP3	0.908	0.019	0.507	0.074
cg19660243	yellow	12	125,048,224		N_Shelf		0.908	0.004	0.463	0.644
cg08285677	yellow	15	71,371,827		OpenSea		0.908	0.011	0.563	0.317
cg01557792	yellow	14	70,162,755	Body	OpenSea	KIAA0247	0.908	0.015	0.358	0.081
cg19946376	yellow	3	184,035,137	Body	S_Shore	EIF4G1	0.907	0.004	0.652	0.561
cg12522311	yellow	19	13,113,893	Body	S_Shore	NFIX	0.907	0.016	0.584	0.064
cg01612824	yellow	14	56,313,920		OpenSea		0.907	0.012	0.419	0.318
cg03885055	yellow	1	16,723,232	3'UTR	OpenSea	C1orf144	0.907	0.025	0.600	0.015
cg20522398	yellow	7	17,316,151		OpenSea		0.907	0.021	0.597	0.106
cg05694021	yellow	12	19,699,504		OpenSea		0.907	0.006	0.426	0.538
cg14517133	yellow	6	42,664,420	3'UTR	OpenSea	PRPH2	0.907	0.009	0.613	0.542
cg12147198	yellow	4	47,838,169	Body	N_Shore	CORIN	0.907	0.001	0.459	0.885
cg04404543	yellow	12	54,019,307	5'UTR	N_Shore	ATF7	0.907	0.013	0.503	0.078
cg11133226	yellow	3	127,504,560	Body	OpenSea	MGLL	0.907	0.013	0.601	0.056
cg07604732	yellow	16	19,295,632	TSS1500	OpenSea	LOC728276	0.907	0.011	0.692	0.148
cg03938043	yellow	1	212,207,851	Body	N_Shore	INTS7	0.907	0.004	0.318	0.722
cg08009711	yellow	21	43,346,184	Body	OpenSea	C2CD2	0.907	0.006	0.558	0.402
cg02747950	yellow	15	63,526,883	Body	OpenSea	RAB8B	0.907	0.027	0.663	0.021
cg24954207	yellow	3	128,217,091		S_Shore		0.907	0.004	0.406	0.579
cg02553054	yellow	12	50,478,480	TSS1500	N_Shore	SMARCD1	0.907	0.000	0.488	0.961
cg02888243	yellow	16	30,533,458	3'UTR	N_Shelf	ITGAL	0.907	0.009	0.314	0.459
cg01445659	yellow	19	17,414,977	TSS1500	N_Shore	MRPL34	0.906	0.005	0.520	0.728
cg06616081	yellow	15	77,336,938	3'UTR	OpenSea	TSPAN3	0.906	0.008	0.581	0.327
cg05586607	yellow	11	1,965,447		N_Shelf		0.906	0.004	0.531	0.562
cg02331649	yellow	3	52,926,322	Body	OpenSea	TMEM110	0.906	0.001	0.462	0.961
cg16689232	yellow	20	61,813,301		S_Shelf		0.906	0.016	0.410	0.133
cg26184501	yellow	17	48,139,723	Body	OpenSea	ITGA3	0.906	0.010	0.633	0.104
cg09331409	yellow	11	75,315,116	Body	OpenSea	MAP6	0.906	0.008	0.427	0.540
cg23097878	yellow	11	45,879,730	Body	OpenSea	CRY2	0.906	0.014	0.479	0.308
cg16284674	yellow	10	135,123,337	Body	Island	ZNF511	0.906	0.016	0.792	0.226
cg01818539	yellow	17	33,324,773	Body	OpenSea	LIG3	0.906	0.008	0.665	0.450
cg25344401	yellow	7	4,755,415	Body	N_Shelf	FOXK1	0.906	0.034	0.738	0.011
cg17904575	yellow	14	102,290,370	Body	OpenSea	PPP2R5C	0.906	0.007	0.471	0.590
cg18175263	yellow	22	50,903,744	Body	S_Shore	SBF1	0.906	0.013	0.767	0.378
cg08380391	yellow	17	79,109,729	Body	Island	AATK	0.906	0.006	0.565	0.508
cg12281446	yellow	15	42,787,302	TSS1500	S_Shelf	SNAP23	0.906	0.002	0.304	0.783
cg04811942	yellow	8	143,868,062	TSS200	OpenSea	LY6D	0.906	0.008	0.595	0.340
cg25968247	yellow	3	57,581,113	Body	N_Shore	ARF4	0.906	0.004	0.331	0.695
cg04494800	yellow	6	149,775,853	Body	N_Shore	ZC3H12D	0.906	0.013	0.105	0.364
cg14402385	yellow	9	138,895,232		OpenSea		0.906	0.013	0.647	0.124
cg25479732	yellow	5	80,528,698	Body	OpenSea	RNU5E	0.906	0.014	0.294	0.169
cg24714094	yellow	22	23,467,005	3'UTR	OpenSea	GNAZ	0.906	0.009	0.443	0.373
cg11423096	yellow	5	176,423,596	5'UTR	OpenSea	UIMC1	0.906	0.014	0.588	0.416
cg00461650	yellow	16	14,003,724		OpenSea		0.906	0.023	0.553	0.117
cg06051411	yellow	17	73,044,991	Body	S_Shore	KCTD2	0.906	0.024	0.677	0.077
cg05654164	yellow	1	85,725,892	TSS1500	S_Shore	C1orf52	0.906	-0.006	0.185	0.576
cg22072829	yellow	1	155,157,194	3'UTR	OpenSea	TRIM46	0.905	0.007	0.699	0.424

cg07876051	yellow	10	3,159,145	Body	N_Shore	PFKP	0.905	-0.005	0.730	0.697
cg07751669	yellow	9	114,546,247	TSS1500	OpenSea	C9orf84	0.905	0.002	0.361	0.913
cg06900514	yellow	2	39,696,979		OpenSea		0.905	0.008	0.554	0.221
cg02271139	yellow	17	79,110,023	Body	S_Shore	AATK	0.905	0.008	0.643	0.285
cg14398963	yellow	11	2,397,538	TSS1500	N_Shore	CD81	0.905	0.012	0.790	0.128
cg19856845	yellow	14	93,116,513	Body	OpenSea	RIN3	0.905	0.007	0.382	0.520
cg25224048	yellow	5	38,467,248		OpenSea		0.905	0.023	0.576	0.067
cg18270343	yellow	8	143,748,005	5'UTR	N_Shelf	JRK	0.905	-0.005	0.681	0.537
cg24559147	yellow	1	36,020,018	Body	N_Shelf	KIAA0319L	0.905	0.015	0.187	0.296
cg14670092	yellow	19	10,232,899		S_Shelf		0.905	0.014	0.673	0.183
cg00042837	yellow	17	37,028,650	Body	S_Shore	LASP1	0.905	0.011	0.410	0.226
cg24305156	yellow	11	45,871,936	Body	S_Shelf	CRY2	0.905	0.007	0.592	0.347
cg00187692	yellow	13	52,199,954	Body	OpenSea	WDFY2	0.905	0.019	0.378	0.239
cg00087792	yellow	16	4,000,986		OpenSea		0.905	0.019	0.708	0.209
cg10107783	yellow	11	121,474,197	Body	OpenSea	SORL1	0.904	0.003	0.750	0.754
cg16504798	yellow	19	8,643,540	TSS1500	OpenSea	MYO1F	0.904	-0.001	0.541	0.941
cg20284239	yellow	1	168,091,000	5'UTR	OpenSea	GPR161	0.904	0.023	0.602	0.063
cg05754179	yellow	11	125,985,044		OpenSea		0.904	0.021	0.507	0.074
cg18836576	yellow	6	33,677,751	Body	N_Shore	C6orf125	0.904	0.011	0.712	0.318
cg06250904	yellow	12	107,351,181	5'UTR	S_Shore	C12orf23	0.904	0.012	0.083	0.195
cg08627986	yellow	10	46,966,245	Body	N_Shelf	SYT15	0.904	0.002	0.840	0.746
cg01078772	yellow	20	30,920,486	3'UTR	OpenSea	KIF3B	0.904	0.009	0.834	0.197
cg06426831	yellow	1	100,435,258	TSS1500	N_Shore	SLC35A3	0.904	0.004	0.146	0.522
cg18597188	yellow	14	104,178,670	5'UTR	N_Shelf	XRCC3	0.904	0.005	0.692	0.525
cg20066750	yellow	11	62,389,892	TSS1500	S_Shore	B3GAT3	0.904	0.001	0.085	0.872
cg21921630	yellow	1	32,828,784	TSS1500	S_Shore	LOC1001280	0.904	-0.008	0.715	0.241
cg19497511	yellow	2	238,609,807	Body	OpenSea	LRRFIP1	0.904	0.015	0.432	0.138
cg09029902	yellow	20	52,199,594	5'UTR	S_Shore	ZNF217	0.904	0.013	0.510	0.215
cg09245319	yellow	2	227,049,703		OpenSea		0.904	0.017	0.686	0.273
cg10028434	yellow	14	104,160,076	Body	OpenSea	KLC1	0.904	0.003	0.696	0.637
cg19737746	yellow	12	96,628,738	Body	OpenSea	ELK3	0.904	0.018	0.593	0.133
cg03596877	yellow	6	30,568,668	3'UTR	OpenSea	PPP1R10	0.904	0.014	0.750	0.227
cg14535746	yellow	12	96,652,787	Body	OpenSea	ELK3	0.904	0.007	0.465	0.601
cg21578921	yellow	4	4,393,416	Body	S_Shelf	D4S234E	0.904	-0.002	0.609	0.884
cg01392656	yellow	12	125,578,483	Body	Island	AACS	0.904	0.018	0.512	0.155
cg24277586	yellow	3	52,099,561	TSS1500	OpenSea	C3orf74	0.903	0.008	0.681	0.304
cg09643312	yellow	2	160,655,081	TSS1500	S_Shore	CD302	0.903	0.021	0.250	0.139
cg12415720	yellow	13	39,613,327	TSS1500	S_Shore	C13orf23	0.903	0.017	0.153	0.075
cg08986767	yellow	7	92,747,308	1stExon	OpenSea	SAMD9	0.903	0.007	0.317	0.614
cg17395738	yellow	11	78,534,297	Body	OpenSea	ODZ4	0.903	0.003	0.736	0.799
cg02306936	yellow	6	30,881,316	TSS1500	N_Shore	VAR52	0.903	0.008	0.650	0.210
cg24085232	yellow	5	151,195,433		OpenSea		0.903	0.018	0.316	0.109
cg09967440	yellow	10	127,444,969	Body	OpenSea	C10orf137	0.903	0.010	0.568	0.224
cg14871736	yellow	3	139,346,734	5'UTR	OpenSea	NMNAT3	0.903	0.003	0.252	0.770
cg16983541	yellow	3	52,231,347	TSS1500	N_Shore	ALAS1	0.903	0.005	0.322	0.661
cg05782454	yellow	16	4,702,834	Body	Island	MGRN1	0.903	0.005	0.807	0.585
cg01989521	yellow	14	103,522,012	Body	N_Shore	CDC42BPB	0.903	0.000	0.344	0.979
cg07672051	yellow	5	149,887,787	5'UTR	OpenSea	NDST1	0.903	0.015	0.717	0.057
cg14300531	yellow	11	73,969,506		OpenSea		0.903	0.005	0.512	0.636
cg26694386	yellow	1	244,868,765	Body	OpenSea	PPPDE1	0.903	0.000	0.465	0.982
cg00957665	yellow	10	104,406,345	Body	S_Shore	TRIM8	0.903	0.002	0.197	0.698
cg00108098	yellow	3	122,637,664	Body	N_Shelf	SEMA5B	0.903	0.000	0.255	0.982
cg23539753	yellow	2	231,280,698	TSS200	OpenSea	SP100	0.903	0.011	0.497	0.327
cg09982224	yellow	11	67,775,972	TSS200	OpenSea	ALDH3B1	0.903	0.020	0.601	0.038
cg20806175	yellow	1	161,186,839	Body	OpenSea	FCER1G	0.903	0.013	0.635	0.122
cg10532384	yellow	3	141,161,876	Body	OpenSea	ZBTB38	0.902	-0.001	0.729	0.892
cg00791854	yellow	1	154,392,070	Body	OpenSea	IL6R	0.902	0.011	0.270	0.201
cg22339338	yellow	1	159,891,638	5'UTR	N_Shelf	TAGLN2	0.902	0.008	0.692	0.514
cg08015107	yellow	11	8,618,950		S_Shelf		0.902	0.010	0.261	0.377
cg24436462	yellow	1	183,595,745	3'UTR	OpenSea	ARPC5	0.902	0.018	0.431	0.361
cg01402255	yellow	1	153,800,699	Body	OpenSea	GATAD2B	0.902	0.002	0.598	0.841
cg18846889	yellow	14	100,032,685	Body	OpenSea	CCDC85C	0.902	0.009	0.669	0.337
cg07913124	yellow	12	14,217,094		OpenSea		0.902	0.011	0.653	0.487
cg06151074	yellow	6	31,669,888	Body	N_Shore	BAT5	0.902	0.004	0.124	0.621
cg13241645	yellow	3	52,235,959	Body	S_Shelf	ALAS1	0.902	0.022	0.515	0.035
cg04645534	yellow	8	23,712,550	TSS1500	OpenSea	STC1	0.902	0.020	0.233	0.149
cg03594078	yellow	8	22,131,675	TSS1500	N_Shore	PIWIL2	0.902	-0.005	0.606	0.716

cg14479837	yellow	12	129,128,018	Body	OpenSea	TMEM132C	0.902	0.016	0.598	0.145
cg07178968	yellow	15	42,130,662	Body	OpenSea	JMJD7-PLA2C	0.902	0.002	0.534	0.705
cg10374402	yellow	10	82,300,600	Body	OpenSea	SH2D4B	0.902	0.002	0.742	0.848
cg26880216	yellow	17	36,849,935		OpenSea		0.902	0.008	0.656	0.097
cg09504612	yellow	10	116,467,988		OpenSea		0.902	0.005	0.511	0.448
cg26469387	yellow	15	31,846,670	Body	OpenSea	OTUD7A	0.902	0.015	0.671	0.184
cg01548463	yellow	7	135,433,715	TSS200	OpenSea	FAM180A	0.902	0.013	0.588	0.342
cg01020263	yellow	16	50,732,073	Body	OpenSea	NOD2	0.902	0.029	0.547	0.004
cg27191921	yellow	22	43,042,910	5'UTR	N_Shelf	CYB5R3	0.902	0.010	0.528	0.225
cg22041417	yellow	19	16,178,195	TSS200	N_Shore	TPM4	0.902	0.000	0.250	0.963
cg13700912	yellow	7	1,968,348	Body	S_Shore	MAD1L1	0.902	0.008	0.697	0.393
cg21515406	yellow	5	3,325,150		N_Shore		0.901	0.010	0.660	0.343
cg14836555	yellow	14	24,743,391		S_Shelf		0.901	0.010	0.760	0.338
cg19721764	yellow	1	208,377,348	Body	OpenSea	PLXNA2	0.901	0.014	0.434	0.163
cg26637881	yellow	16	87,879,698	Body	OpenSea	SLC7A5	0.901	0.010	0.826	0.163
cg03462322	yellow	16	126,397	TSS1500	N_Shore	MPG	0.901	0.011	0.308	0.109
cg12776171	yellow	17	72,442,928	Body	Island	GPRC5C	0.901	0.017	0.537	0.044
cg11562153	yellow	6	28,493,500	TSS1500	OpenSea	GPX5	0.901	0.008	0.608	0.360
cg00479912	yellow	16	79,472,241		OpenSea		0.901	0.013	0.637	0.160
cg05246110	yellow	11	68,238,943	5'UTR	OpenSea	SAPS3	0.901	0.004	0.712	0.589
cg11068517	yellow	14	24,741,710	TSS1500	S_Shore	RABGGTA	0.901	0.001	0.676	0.865
cg04573702	yellow	14	23,857,834	Body	N_Shore	MYH6	0.901	0.004	0.480	0.462
cg25213452	yellow	1	206,630,385	Body	OpenSea	SRGAP2	0.901	0.011	0.650	0.153
cg12471171	yellow	11	75,898,203	Body	OpenSea	WNT11	0.901	-0.002	0.661	0.752
cg07953015	yellow	19	48,285,322	3'UTR	S_Shelf	SEPW1	0.901	0.013	0.701	0.210
cg04384112	yellow	16	75,339,383	Body	OpenSea	CFDP1	0.901	0.012	0.381	0.313
cg20793071	yellow	1	54,520,450	Body	S_Shore	C1orf83	0.901	0.001	0.649	0.886
cg23702848	yellow	14	104,172,109	Body	OpenSea	XRCC3	0.901	-0.002	0.674	0.807
cg17300723	yellow	11	62,647,277	Body	N_Shore	SLC3A2	0.901	0.015	0.240	0.148
cg07353306	yellow	6	32,799,098	Body	OpenSea	TAP2	0.901	0.003	0.772	0.677
cg17791799	yellow	4	16,036,123	Body	OpenSea	PROM1	0.901	0.027	0.485	0.186
cg17871993	yellow	7	65,673,056	5'UTR	S_Shelf	TPST1	0.901	0.000	0.550	1.000
cg18946533	yellow	15	78,384,840	TSS200	OpenSea	SH2D7	0.901	0.013	0.556	0.043
cg07891271	yellow	15	101,783,037	Body	OpenSea	CHSY1	0.900	0.010	0.448	0.125
cg22749810	yellow	17	78,237,389	5'UTR	S_Shelf	RNF213	0.900	0.024	0.161	0.055
cg16738646	yellow	1	43,409,193	Body	OpenSea	SLC2A1	0.900	0.012	0.681	0.266
cg08928696	yellow	1	225,632,889		OpenSea		0.900	-0.001	0.558	0.923
cg06909254	yellow	2	86,092,937	Body	OpenSea	ST3GAL5	0.900	0.022	0.500	0.003
cg21755672	yellow	6	169,051,023	Body	OpenSea	SMOC2	0.900	-0.001	0.778	0.897
cg20583432	yellow	6	12,045,381	Body	OpenSea	HIVEP1	0.900	0.013	0.620	0.218
cg00293940	yellow	12	60,044,871		OpenSea		0.900	0.004	0.112	0.693
cg03655330	yellow	3	50,337,494	3'UTR	S_Shore	HYAL1	0.900	0.015	0.467	0.018
cg24453118	yellow	13	47,229,927	Body	OpenSea	LRCH1	0.900	0.015	0.176	0.201
cg02615833	yellow	5	175,976,342	TSS200	OpenSea	PCDH24	0.900	0.002	0.557	0.813
cg06222162	yellow	12	48,131,444	Body	OpenSea	RAPGEF3	0.900	0.007	0.331	0.336
cg10298992	yellow	16	75,103,853	Body	OpenSea	ZNRF1	0.900	0.016	0.583	0.124
cg06738887	yellow	15	60,688,010	5'UTR	N_Shore	ANXA2	0.900	0.008	0.629	0.335
cg25962699	yellow	3	170,332,444		OpenSea		0.900	0.008	0.510	0.314
cg05561696	yellow	10	3,149,796	Body	S_Shore	PFKP	0.900	0.004	0.690	0.724
cg01882113	yellow	2	206,724,023		OpenSea		0.899	0.018	0.441	0.082
cg06897661	yellow	16	50,322,074	5'UTR	OpenSea	ADCY7	0.899	0.002	0.811	0.759
cg03285428	yellow	3	73,050,093	Body	S_Shelf	PPP4R2	0.899	-0.015	0.787	0.058
cg18991240	yellow	2	71,298,920	Body	S_Shelf	NAGK	0.899	-0.002	0.768	0.873
cg08162124	yellow	13	113,428,094	Body	N_Shore	ATP11A	0.899	-0.005	0.781	0.749
cg06126721	yellow	17	1,478,065	3'UTR	Island	SLC43A2	0.899	0.002	0.171	0.859
cg04365568	yellow	19	45,809,373		S_Shelf		0.899	0.008	0.455	0.489
cg10124993	yellow	14	105,478,712	5'UTR	OpenSea	CDCA4	0.899	0.011	0.815	0.086
cg00071051	yellow	6	44,222,845	Body	N_Shore	SLC35B2	0.899	0.008	0.581	0.271
cg21421984	yellow	7	98,520,513	Body	OpenSea	TRRAP	0.899	0.012	0.443	0.041
cg24362726	yellow	4	130,013,618	Body	N_Shore	SCLT1	0.899	0.013	0.411	0.075
cg07904865	yellow	7	1,127,420	5'UTR	S_Shore	GPER	0.899	0.004	0.515	0.762
cg22852830	yellow	2	105,989,959	Body	OpenSea	FHL2	0.899	0.002	0.316	0.807
cg09621472	yellow	3	113,439,314	3'UTR	OpenSea	NAA50	0.899	0.003	0.599	0.806
cg17515110	yellow	12	95,752,517		OpenSea		0.899	-0.006	0.538	0.567
cg19853703	yellow	22	36,044,792	5'UTR	OpenSea	APOL6	0.899	0.016	0.306	0.019
cg09195098	yellow	6	10,529,972	Body	OpenSea	GCNT2	0.899	-0.003	0.695	0.715
cg27385773	yellow	3	50,201,416	Body	OpenSea	SEMA3F	0.899	0.020	0.535	0.031

cg08866634	yellow	5	175,962,338	5'UTR	N_Shore	RNF44	0.899	-0.006	0.632	0.369
cg20122518	yellow	7	810,958	Body	N_Shelf	HEATR2	0.899	-0.005	0.273	0.602
cg01196336	yellow	4	1,186,469	Body	N_Shore	LOC1001308	0.899	0.011	0.499	0.190
cg23580000	yellow	16	50,322,156	1stExon	OpenSea	ADCY7	0.899	0.004	0.717	0.697
cg11750706	yellow	1	14,077,143	Body	S_Shore	PRDM2	0.899	0.008	0.425	0.398
cg19420720	yellow	17	79,816,504	Body	N_Shore	P4HB	0.899	-0.001	0.735	0.877
cg04767756	yellow	16	10,652,706	5'UTR	OpenSea	EMP2	0.899	0.013	0.712	0.326
cg01049678	yellow	7	150,147,536	TSS1500	OpenSea	GIMAP8	0.898	0.007	0.683	0.210
cg02001779	yellow	2	231,281,264	Body	OpenSea	SP100	0.898	0.018	0.088	0.033
cg11011736	yellow	17	33,934,776	Body	OpenSea	AP2B1	0.898	0.009	0.500	0.421
cg13725172	yellow	6	109,267,293	Body	OpenSea	ARMC2	0.898	0.001	0.316	0.931
cg24989181	yellow	20	30,781,821	3'UTR	S_Shelf	PLAGL2	0.898	0.001	0.724	0.913
cg02389859	yellow	5	1,201,691	TSS200	Island	SLC6A19	0.898	-0.001	0.605	0.895
cg27466129	yellow	16	85,060,822	TSS1500	N_Shore	KIAA0513	0.898	0.017	0.427	0.086
cg07209686	yellow	20	1,103,280	Body	S_Shelf	PSMF1	0.898	0.007	0.088	0.576
cg09290175	yellow	22	39,688,265		Island		0.898	0.015	0.753	0.233
cg00211661	yellow	11	72,433,619	Body	OpenSea	ARAP1	0.898	0.002	0.310	0.748
cg08160085	yellow	12	2,045,730		OpenSea		0.898	0.024	0.546	0.060
cg08767936	yellow	3	195,600,608	Body	N_Shore	TNK2	0.898	0.010	0.710	0.374
cg01710147	yellow	1	207,233,419	Body	OpenSea	PFKFB2	0.898	0.000	0.676	0.996
cg12179661	yellow	9	140,333,805	5'UTR	N_Shore	ENTPD8	0.898	0.010	0.415	0.126
cg19921353	yellow	6	33,043,574	TSS200	OpenSea	HLA-DPB1	0.898	0.006	0.494	0.366
cg13718960	yellow	14	21,271,313	TSS1500	OpenSea	RNASE1	0.898	0.002	0.771	0.818
cg05187003	yellow	21	34,641,507	Body	S_Shelf	IL10RB	0.898	0.011	0.562	0.097
cg01731783	yellow	14	74,211,788	5'UTR	OpenSea	C14orf43	0.898	0.007	0.676	0.267
cg12614090	yellow	10	116,444,240	1stExon	OpenSea	ABLIM1	0.898	-0.007	0.217	0.355
cg23321140	yellow	5	150,410,007	3'UTR	OpenSea	TNIP1	0.898	0.015	0.531	0.294
cg16744438	yellow	11	118,657,127	5'UTR	OpenSea	DDX6	0.898	-0.004	0.229	0.700
cg09012471	yellow	3	137,907,359	5'UTR	S_Shore	ARMC8	0.898	0.010	0.261	0.378
cg27570892	yellow	3	14,160,542	Body	OpenSea	CHCHD4	0.898	0.003	0.629	0.793
cg10610648	yellow	10	5,969,457	Body	OpenSea	FBXO18	0.898	0.018	0.723	0.236
cg13171679	yellow	8	41,258,634		OpenSea		0.898	0.013	0.557	0.161
cg06774445	yellow	1	36,793,290		S_Shelf		0.898	0.009	0.862	0.210
cg01418188	yellow	11	3,145,609	Body	S_Shelf	OSBPL5	0.897	0.013	0.550	0.133
cg17612991	yellow	19	6,721,016	TSS1500	OpenSea	C3	0.897	0.013	0.709	0.135
cg26312071	yellow	15	90,727,783	TSS1500	N_Shore	SEMA4B	0.897	0.005	0.658	0.655
cg11100481	yellow	5	149,867,577		S_Shore		0.897	0.016	0.722	0.006
cg08615333	yellow	14	76,447,413	1stExon	N_Shore	TGFB3	0.897	0.005	0.349	0.572
cg19907725	yellow	1	153,539,397	TSS1500	OpenSea	S100A2	0.897	0.003	0.693	0.679
cg07668993	yellow	20	43,883,307	TSS200	OpenSea	SLPI	0.897	0.003	0.066	0.615
cg15350661	yellow	12	322,641	5'UTR	OpenSea	SLC6A12	0.897	0.009	0.627	0.174
cg13110334	yellow	22	19,003,848	TSS1500	OpenSea	DGCR9	0.897	0.024	0.708	0.015
cg13595495	yellow	9	137,279,412	Body	OpenSea	RXRA	0.897	0.003	0.504	0.655
cg13977235	yellow	19	33,172,072		S_Shelf		0.897	0.019	0.729	0.114
cg16639915	yellow	15	64,960,011	Body	OpenSea	ZNF609	0.897	0.001	0.331	0.896
cg09844094	yellow	6	12,586,063		OpenSea		0.897	0.001	0.755	0.933
cg24144853	yellow	3	194,258,370		OpenSea		0.897	0.015	0.511	0.043
cg00737979	yellow	5	134,990,285	TSS1500	OpenSea	LOC340074	0.897	0.001	0.406	0.934
cg08381046	yellow	5	112,294,315		OpenSea		0.897	0.004	0.704	0.719
cg27637730	yellow	7	155,438,919	Body	S_Shore	RBM33	0.897	-0.001	0.629	0.915
cg16278496	yellow	14	98,444,476	TSS200	OpenSea	C14orf64	0.897	0.010	0.200	0.391
cg14218480	yellow	9	139,842,749		N_Shore		0.897	0.009	0.322	0.183
cg12419334	yellow	4	184,121,800	Body	OpenSea	WWC2	0.896	-0.003	0.196	0.834
cg00375581	yellow	21	47,530,767	5'UTR	N_Shore	COL6A2	0.896	0.010	0.627	0.229
cg23379208	yellow	6	30,522,674	Body	N_Shore	GNL1	0.896	0.008	0.497	0.254
cg12592359	yellow	20	30,944,839	TSS1500	N_Shore	ASXL1	0.896	0.000	0.296	0.979
cg11249486	yellow	12	322,659	5'UTR	OpenSea	SLC6A12	0.896	0.004	0.752	0.543
cg04119984	yellow	5	171,190,154		OpenSea		0.896	0.026	0.737	0.019
cg11365440	yellow	3	46,608,179	5'UTR	S_Shore	LRRRC2	0.896	0.007	0.433	0.557
cg20919143	yellow	14	105,739,057	Body	S_Shore	BRF1	0.896	-0.002	0.852	0.777
cg04939326	yellow	11	73,278,053	5'UTR	OpenSea	FAM168A	0.896	0.000	0.722	0.942
cg15577126	yellow	2	218,932,178		OpenSea		0.896	0.015	0.401	0.037
cg14543966	yellow	9	123,537,218	Body	OpenSea	FBXW2	0.896	0.005	0.779	0.431
cg00571819	yellow	9	133,455,886	TSS1500	S_Shore	LOC1002722	0.896	0.009	0.534	0.317
cg20026664	yellow	4	87,999,314	Body	OpenSea	AFF1	0.896	0.004	0.513	0.648
cg01876176	yellow	11	24,260,751		OpenSea		0.896	0.018	0.526	0.117
cg24427660	yellow	11	818,892	TSS200	N_Shore	PNPLA2	0.896	0.022	0.531	0.004

cg03368634	yellow	16	3,824,553	Body	OpenSea	CREBBP	0.896	0.012	0.488	0.201
cg26792365	yellow	22	41,251,628	TSS1500	N_Shore	XPNPEP3	0.896	-0.004	0.193	0.735
cg07207367	yellow	16	67,978,216	3'UTR	OpenSea	SLC12A4	0.896	0.009	0.511	0.346
cg09262100	yellow	14	103,416,268	Body	OpenSea	CDC42BPB	0.896	0.004	0.294	0.638
cg12205429	yellow	7	2,328,896	Body	OpenSea	SNX8	0.896	0.015	0.687	0.325
cg03290977	yellow	4	15,402,686	Body	OpenSea	C1QTNF7	0.895	0.006	0.632	0.639
cg07312051	yellow	1	15,656,086	Body	OpenSea	FHAD1	0.895	0.013	0.514	0.138
cg06061092	yellow	10	521,787	Body	N_Shelf	DIP2C	0.895	0.000	0.795	0.977
cg15414930	yellow	6	17,985,564	Body	N_Shore	KIF13A	0.895	0.014	0.642	0.166
cg23457862	yellow	2	201,982,439	5'UTR	N_Shore	CFLAR	0.895	-0.002	0.448	0.886
cg21216015	yellow	1	26,230,906	Body	N_Shore	STMN1	0.895	0.000	0.570	0.970
cg02835421	yellow	1	44,411,569	TSS1500	N_Shore	IPO13	0.895	0.007	0.238	0.512
cg23078123	yellow	1	68,577,796	Body	OpenSea	GPR177	0.895	0.015	0.570	0.163
cg17192381	yellow	18	60,792,598	3'UTR	OpenSea	BCL2	0.895	0.007	0.694	0.500
cg08621778	yellow	1	202,102,420	3'UTR	OpenSea	ARL8A	0.895	0.009	0.750	0.482
cg10096040	yellow	14	100,504,533		OpenSea		0.895	0.009	0.288	0.338
cg17580613	yellow	7	23,338,304	TSS1500	N_Shore	C7orf30	0.895	0.006	0.778	0.625
cg01813071	yellow	11	102,401,616	TSS200	OpenSea	MMP7	0.895	0.018	0.507	0.106
cg14918548	yellow	2	101,350,221		OpenSea		0.895	0.016	0.473	0.096
cg11609556	yellow	17	79,006,044	Body	N_Shore	FLJ90757	0.895	0.001	0.677	0.895
cg25894160	yellow	20	24,974,513	TSS1500	S_Shore	C20orf3	0.895	0.014	0.247	0.101
cg16301617	yellow	17	76,128,906	Body	S_Shore	TMC8	0.895	0.013	0.684	0.076
cg09290120	yellow	2	157,291,759	TSS1500	N_Shore	GPD2	0.895	-0.001	0.446	0.932
cg21870229	yellow	21	45,145,841	Body	N_Shelf	PDXK	0.895	0.005	0.169	0.706
cg27016579	yellow	5	168,778,028		OpenSea		0.895	0.036	0.335	0.031
cg25508181	yellow	5	110,971,507		OpenSea		0.895	0.011	0.633	0.348
cg14255417	yellow	10	104,417,977	3'UTR	S_Shore	TRIM8	0.895	-0.005	0.173	0.588
cg06374185	yellow	3	45,637,480	1stExon	S_Shore	LIMD1	0.895	0.010	0.104	0.454
cg10781087	yellow	1	25,916,755		OpenSea		0.895	0.002	0.583	0.772
cg14149304	yellow	1	26,145,407	TSS1500	N_Shore	FAM54B	0.894	0.007	0.115	0.425
cg19123882	yellow	11	63,438,084	Body	N_Shore	ATL3	0.894	0.051	0.257	0.012
cg17934894	yellow	4	27,050,410		OpenSea		0.894	0.009	0.183	0.432
cg00872695	yellow	16	86,592,030		S_Shelf		0.894	0.016	0.654	0.128
cg16210355	yellow	13	107,028,903		OpenSea		0.894	-0.003	0.755	0.739
cg02951062	yellow	4	74,269,908	TSS200	OpenSea	ALB	0.894	0.023	0.653	0.215
cg22978515	yellow	3	184,037,588	Body	OpenSea	EIF4G1	0.894	-0.004	0.688	0.763
cg19742687	yellow	11	88,025,975		OpenSea		0.894	-0.006	0.676	0.575
cg12444076	yellow	21	45,722,068	Body	S_Shore	PFKL	0.894	0.007	0.668	0.264
cg17988326	yellow	1	41,091,703	3'UTR	OpenSea	RIMS3	0.894	0.008	0.678	0.140
cg00589488	yellow	3	49,760,249	Body	N_Shore	GMPPB	0.894	0.004	0.692	0.525
cg19682666	yellow	19	4,443,084	3'UTR	N_Shelf	CHAF1A	0.894	0.007	0.709	0.414
cg04509882	yellow	3	184,038,317	Body	OpenSea	EIF4G1	0.894	-0.003	0.688	0.674
cg04321396	yellow	11	65,480,401	Body	S_Shore	KAT5	0.894	0.010	0.313	0.123
cg08447992	yellow	10	93,389,086	3'UTR	N_Shelf	PPP1R3C	0.894	0.022	0.668	0.156
cg11912215	yellow	2	1,377,931		OpenSea		0.894	-0.003	0.537	0.702
cg09626867	yellow	3	45,053,351	Body	OpenSea	EXOSC7	0.894	0.003	0.148	0.738
cg05165862	yellow	12	50,030,609	Body	OpenSea	PRPF40B	0.894	-0.005	0.789	0.504
cg18719665	yellow	18	21,572,656	TSS200	OpenSea	TTC39C	0.894	0.024	0.511	0.101
cg08973688	yellow	17	47,983,990		N_Shelf		0.894	0.001	0.643	0.865
cg18173263	yellow	17	17,465,242	Body	Island	PEMT	0.894	-0.002	0.827	0.768
cg23660755	yellow	17	73,110,554	Body	S_Shelf	ARMC7	0.894	0.015	0.286	0.152
cg07321092	yellow	11	65,144,724	Body	OpenSea	SLC25A45	0.894	0.010	0.448	0.254
cg09001777	yellow	19	5,851,504	TSS200	OpenSea	FUT3	0.894	0.007	0.567	0.307
cg07835443	yellow	16	89,734,986	Body	Island	C16orf55	0.894	-0.006	0.681	0.551
cg08270205	yellow	1	1,377,525	3'UTR	S_Shore	VWA1	0.894	0.013	0.532	0.141
cg24050112	yellow	19	19,726,386	Body	N_Shelf	PBX4	0.894	0.009	0.830	0.267
cg19688616	yellow	11	71,821,744	3'UTR	N_Shore	LRTOMT	0.894	0.008	0.628	0.325
cg02235659	yellow	3	45,066,580	TSS1500	OpenSea	CLEC3B	0.893	0.018	0.591	0.070
cg12929809	yellow	12	98,150,305		OpenSea		0.893	0.021	0.705	0.078
cg00910616	yellow	1	41,245,733		N_Shelf		0.893	0.009	0.647	0.251
cg19356311	yellow	1	1,856,073		N_Shelf		0.893	0.000	0.332	0.980
cg04536829	yellow	3	127,771,995	Body	S_Shore	SEC61A1	0.893	0.008	0.099	0.241
cg15296856	yellow	17	80,199,608		N_Shore		0.893	0.004	0.577	0.611
cg02742281	yellow	16	3,027,577	Body	N_Shelf	PKMYT1	0.893	0.020	0.505	0.111
cg20274462	yellow	8	95,980,625		OpenSea		0.893	0.011	0.374	0.141
cg08453008	yellow	5	136,955,189	3'UTR	OpenSea	KLHL3	0.893	-0.001	0.633	0.888
cg02121547	yellow	11	113,649,020	TSS1500	OpenSea	CLDN25	0.893	0.002	0.315	0.739



cg26037142	yellow	6	32,097,481	TSS1500	N_Shore	ATF6B	0.893	0.006	0.327	0.533
cg11010575	yellow	15	42,129,464	Body	OpenSea	JMJD7-PLA2C	0.893	0.004	0.822	0.698
cg12120406	yellow	17	25,822,056	5'UTR	OpenSea	KSR1	0.893	0.000	0.830	0.969
cg23042318	yellow	19	1,270,330	Body	S_Shore	CIRBP	0.893	0.001	0.133	0.900
cg00154957	yellow	1	109,850,562	TSS1500	OpenSea	MYBPHL	0.893	0.008	0.591	0.299
cg25813942	yellow	18	2,843,518		N_Shelf		0.893	0.002	0.739	0.859
cg22587600	yellow	2	46,883,368		OpenSea		0.893	0.002	0.576	0.803
cg06854842	yellow	2	26,947,187	Body	N_Shelf	KCNK3	0.893	0.008	0.399	0.210
cg06489569	yellow	16	87,589,319		OpenSea		0.893	0.018	0.769	0.237
cg08117728	yellow	6	32,179,567	Body	OpenSea	NOTCH4	0.893	-0.006	0.661	0.494
cg03655174	yellow	8	30,505,290	Body	OpenSea	GTF2E2	0.893	0.006	0.375	0.721
cg22509053	yellow	7	46,745,061		OpenSea		0.893	0.004	0.466	0.772
cg18213495	yellow	6	17,985,408	Body	N_Shelf	KIF13A	0.892	-0.011	0.309	0.259
cg02029665	yellow	22	46,441,799	TSS1500	S_Shore	LOC1002717	0.892	0.001	0.772	0.860
cg24260847	yellow	8	37,595,307	5'UTR	S_Shore	ERLIN2	0.892	0.018	0.388	0.010
cg01502743	yellow	19	18,883,801	Body	N_Shore	CRTC1	0.892	0.009	0.627	0.226
cg05285917	yellow	11	1,073,525	TSS1500	OpenSea	MUC2	0.892	0.011	0.093	0.087
cg15446939	yellow	17	38,296,011	TSS1500	OpenSea	CASC3	0.892	0.001	0.300	0.929
cg13756932	yellow	2	136,737,707	Body	OpenSea	DARS	0.892	0.006	0.613	0.648
cg22501143	yellow	1	21,110,436	5'UTR	N_Shelf	HP1BP3	0.892	0.003	0.574	0.749
cg13123826	yellow	13	113,427,327	Body	N_Shore	ATP11A	0.892	-0.007	0.736	0.416
cg08591998	yellow	7	73,466,006	Body	OpenSea	ELN	0.892	0.007	0.443	0.393
cg11828163	yellow	7	5,531,009	Body	N_Shelf	FBXL18	0.892	0.018	0.585	0.096
cg08379897	yellow	2	85,805,621	Body	OpenSea	VAMP8	0.892	0.012	0.592	0.164
cg23192749	yellow	5	40,570,344		OpenSea		0.892	-0.005	0.562	0.760
cg22350438	yellow	1	33,150,185	Body	OpenSea	SYNC	0.892	0.023	0.607	0.176
cg19779123	yellow	11	57,061,898		OpenSea		0.892	0.015	0.782	0.043
cg12266861	yellow	1	35,449,720		N_Shore		0.892	0.000	0.549	0.959
cg00579036	yellow	6	25,138,551	TSS1500	N_Shore	CMAH	0.892	0.012	0.517	0.255
cg24467387	yellow	19	1,168,354	5'UTR	N_Shore	SBNO2	0.892	0.018	0.814	0.072
cg22431309	yellow	7	140,396,019	Body	N_Shore	LOC1001347	0.892	0.013	0.587	0.098
cg17232217	yellow	4	1,203,104	TSS1500	Island	LOC1001308	0.892	0.003	0.842	0.640
cg20945738	yellow	13	108,922,032	5'UTR	OpenSea	TNFSF13B	0.892	0.002	0.254	0.861
cg22621652	yellow	7	135,433,736	TSS200	OpenSea	FAM180A	0.892	-0.001	0.571	0.909
cg03047121	yellow	19	41,768,080	TSS1500	N_Shore	HNRNPUL1	0.892	0.013	0.145	0.179
cg05306773	yellow	19	5,851,616	TSS200	OpenSea	FUT3	0.891	-0.001	0.769	0.926
cg09937039	yellow	14	75,989,203	Body	OpenSea	BATF	0.891	0.006	0.478	0.325
cg01291854	yellow	12	96,613,911	5'UTR	OpenSea	ELK3	0.891	0.005	0.776	0.686
cg24118773	yellow	5	172,287,924	Body	OpenSea	ERGIC1	0.891	0.014	0.491	0.122
cg05502283	yellow	19	13,203,715	3'UTR	N_Shelf	NFIX	0.891	0.014	0.519	0.112
cg09138892	yellow	17	79,005,662	Body	N_Shore	FLJ90757	0.891	-0.001	0.808	0.902
cg02244431	yellow	2	236,588,226	Body	OpenSea	AGAP1	0.891	0.021	0.525	0.057
cg18981338	yellow	14	24,422,419	TSS1500	N_Shore	DHRS4	0.891	0.016	0.548	0.023
cg14725580	yellow	6	34,663,155	Body	N_Shore	C6orf106	0.891	0.001	0.394	0.943
cg01191154	yellow	22	37,593,672		N_Shore		0.891	0.014	0.678	0.073
cg08282819	yellow	16	27,437,900	TSS1500	OpenSea	IL21R	0.891	0.003	0.507	0.739
cg00509649	yellow	5	1,103,848	Body	S_Shelf	SLC12A7	0.891	0.003	0.292	0.875
cg20262021	yellow	14	105,933,862	Body	S_Shore	MTA1	0.891	0.020	0.794	0.050
cg16117513	yellow	1	2,139,657	TSS1500	S_Shelf	C1orf86	0.891	0.001	0.639	0.887
cg13535903	yellow	3	197,094,201		OpenSea		0.891	0.012	0.654	0.095
cg00539154	yellow	1	7,181,893	Body	OpenSea	CAMTA1	0.891	0.000	0.522	0.990
cg16289421	yellow	1	154,151,980	Body	N_Shelf	TPM3	0.891	0.004	0.612	0.579
cg19017293	yellow	17	80,201,299		N_Shore		0.891	0.015	0.366	0.102
cg15203271	yellow	4	1,203,168	TSS1500	Island	LOC1001308	0.891	0.011	0.733	0.354
cg09341448	yellow	19	49,164,383	Body	N_Shore	SEC1	0.891	0.009	0.501	0.312
cg25041735	yellow	7	148,700,287	3'UTR	OpenSea	PDIA4	0.891	0.002	0.686	0.812
cg02344497	yellow	3	27,472,828	Body	OpenSea	SLC4A7	0.890	0.031	0.366	0.021
cg00024471	yellow	3	188,692,547		OpenSea		0.890	0.028	0.499	0.018
cg09486764	yellow	12	26,288,294		OpenSea		0.890	0.004	0.345	0.668
cg00412294	yellow	12	97,300,582	TSS1500	N_Shore	NEDD1	0.890	0.026	0.554	0.046
cg14788046	yellow	12	31,402,470		N_Shelf		0.890	0.004	0.712	0.583
cg27338353	yellow	22	46,471,129		S_Shelf		0.890	0.002	0.790	0.844
cg17920246	yellow	10	14,116,424	Body	OpenSea	FRMD4A	0.890	0.004	0.120	0.707
cg04193037	yellow	7	99,637,061		OpenSea		0.890	0.016	0.752	0.354
cg05786140	yellow	4	129,292,585		OpenSea		0.890	0.015	0.762	0.064
cg19238380	yellow	1	156,093,948	Body	OpenSea	LMNA	0.890	0.021	0.677	0.044
cg06899237	yellow	6	153,353,519	Body	OpenSea	RGS17	0.890	0.008	0.246	0.553

cg27024654	yellow	5	133,904,674	Body	OpenSea	PHF15	0.890	-0.004	0.403	0.715
cg26177760	yellow	6	31,507,785	Body	N_Shore	BAT1	0.890	-0.001	0.638	0.885
cg11401784	yellow	1	16,092,264	Body	OpenSea	FBLIM1	0.890	0.015	0.691	0.034
cg11856932	yellow	12	53,447,059	5'UTR	N_Shore	TENC1	0.890	0.011	0.660	0.299
cg23326536	yellow	13	78,491,199	Body	N_Shore	EDNRB	0.890	0.006	0.602	0.654
cg22244986	yellow	1	201,405,370		OpenSea		0.889	0.014	0.361	0.225
cg17495046	yellow	1	2,017,010	Body	OpenSea	PRKCZ	0.889	0.006	0.734	0.425
cg25318211	yellow	6	109,778,433	TSS1500	S_Shore	MICAL1	0.889	0.012	0.310	0.336
cg06149981	yellow	11	1,243,947	TSS1500	N_Shelf	MUC5B	0.889	0.016	0.476	0.090
cg07957995	yellow	1	224,644,750		OpenSea		0.889	0.010	0.651	0.185
cg26361436	yellow	11	10,921,186		OpenSea		0.889	0.022	0.551	0.076
cg22580512	yellow	12	125,002,474	5'UTR	N_Shore	NCOR2	0.889	0.012	0.286	0.388
cg06420129	yellow	16	24,831,018	Body	OpenSea	TNRC6A	0.889	0.016	0.375	0.368
cg04993290	yellow	11	93,822,740	Body	S_Shore	HEPHL1	0.889	0.002	0.802	0.718
cg04242898	yellow	22	43,043,131	TSS200	N_Shore	CYB5R3	0.889	0.005	0.299	0.545
cg18827756	yellow	15	42,130,735	Body	OpenSea	JMJD7-PLA2C	0.889	0.011	0.620	0.120
cg03747028	yellow	1	28,970,259	TSS1500	S_Shore	TAF12	0.889	0.009	0.073	0.152
cg04511534	yellow	17	4,463,371	Body	OpenSea	GGT6	0.889	0.003	0.671	0.736
cg15010140	yellow	2	128,644,922		S_Shore		0.889	-0.009	0.626	0.440
cg06270993	yellow	7	23,338,250	TSS1500	N_Shore	C7orf30	0.889	0.025	0.427	0.058
cg02451670	yellow	1	212,207,806	Body	N_Shore	INTS7	0.889	0.006	0.646	0.559
cg13625187	yellow	12	27,736,287	5'UTR	OpenSea	PPFIBP1	0.889	0.000	0.773	0.971
cg21330960	yellow	22	23,415,915	Body	S_Shelf	RTDR1	0.889	0.022	0.607	0.019
cg05618401	yellow	7	135,433,760	TSS200	OpenSea	FAM180A	0.889	0.009	0.511	0.530
cg06853894	yellow	1	12,204,096	3'UTR	OpenSea	TNFRSF8	0.889	0.003	0.583	0.751
cg24730612	yellow	14	75,649,973		OpenSea		0.889	0.010	0.437	0.379
cg03375371	yellow	2	69,665,094	TSS1500	S_Shore	NFU1	0.889	0.005	0.765	0.521
cg16334524	yellow	21	44,898,123	TSS200	OpenSea	C21orf84	0.889	0.008	0.610	0.344
cg22874989	yellow	15	29,277,898	5'UTR	OpenSea	APBA2	0.889	0.015	0.522	0.120
cg16144864	yellow	1	177,244,231	Body	OpenSea	FAM5B	0.889	0.010	0.201	0.353
cg01363433	yellow	10	132,908,294	Body	OpenSea	TCERG1L	0.889	0.017	0.677	0.067
cg00654448	yellow	8	142,365,315		N_Shore		0.889	0.006	0.646	0.461
cg26383193	yellow	4	47,488,375	5'UTR	OpenSea	ATP10D	0.889	-0.001	0.259	0.961
cg27395200	yellow	6	32,942,710	Body	S_Shore	BRD2	0.889	-0.001	0.179	0.910
cg11556559	yellow	17	17,465,162	Body	Island	PEMT	0.889	0.005	0.551	0.365
cg21821674	yellow	1	16,063,471	Body	OpenSea	SLC25A34	0.888	0.012	0.583	0.160
cg02625590	yellow	19	41,880,276	5'UTR	N_Shelf	TMEM91	0.888	0.002	0.426	0.776
cg23222488	yellow	5	176,755,393		N_Shelf		0.888	0.009	0.739	0.158
cg09915396	yellow	17	2,907,895	Body	OpenSea	RAP1GAP2	0.888	0.006	0.202	0.654
cg07390791	yellow	2	239,464,827		OpenSea		0.888	-0.001	0.562	0.950
cg13471188	yellow	2	20,638,399		OpenSea		0.888	0.004	0.472	0.559
cg07912003	yellow	2	75,797,838	TSS1500	OpenSea	FAM176A	0.888	0.003	0.789	0.710
cg07107113	yellow	1	16,087,752	5'UTR	S_Shore	FBLIM1	0.888	0.006	0.501	0.408
cg26827394	yellow	16	1,362,626	5'UTR	N_Shore	UBE2I	0.888	0.000	0.872	0.968
cg14022995	yellow	11	2,397,350	TSS1500	N_Shore	CD81	0.888	0.012	0.816	0.141
cg24262376	yellow	1	151,137,274	TSS1500	OpenSea	SCNM1	0.888	0.007	0.662	0.499
cg17188384	yellow	13	97,874,279	TSS1500	OpenSea	MBNL2	0.888	0.002	0.122	0.842
cg19695867	yellow	1	109,585,390	TSS1500	S_Shore	WDR47	0.888	0.010	0.314	0.207
cg06534752	yellow	20	35,448,345	Body	S_Shelf	C20orf117	0.888	0.004	0.090	0.506
cg03635685	yellow	22	24,550,642	Body	N_Shore	CABIN1	0.888	0.001	0.619	0.853
cg04561571	yellow	12	93,834,146	Body	N_Shore	UBE2N	0.888	0.007	0.436	0.382
cg09822812	yellow	6	30,855,729	TSS1500	S_Shelf	DDR1	0.888	-0.003	0.655	0.705
cg02670637	yellow	1	56,184,693		OpenSea		0.888	0.015	0.570	0.105
cg16093296	yellow	10	131,660,649	Body	OpenSea	EBF3	0.888	0.005	0.854	0.553
cg21589273	yellow	3	113,416,452	TSS1500	S_Shore	KIAA2018	0.888	-0.004	0.195	0.623
cg07223937	yellow	6	134,313,583	Body	OpenSea	SLC2A12	0.888	0.004	0.676	0.640
cg09522706	yellow	7	99,691,447	Body	OpenSea	MCM7	0.888	0.014	0.387	0.084
cg02619205	yellow	9	117,157,157	TSS1500	N_Shelf	AKNA	0.888	0.013	0.125	0.097
cg04862321	yellow	6	30,580,928	5'UTR	N_Shelf	PPP1R10	0.888	-0.004	0.533	0.584
cg21456212	yellow	13	113,359,836	Body	OpenSea	ATP11A	0.888	-0.009	0.763	0.407
cg07125725	yellow	7	99,612,773	TSS1500	N_Shore	ZKSCAN1	0.888	-0.003	0.611	0.658
cg01747664	yellow	1	36,614,437	Body	N_Shore	TRAPPC3	0.887	-0.002	0.277	0.834
cg24797508	yellow	5	67,583,609	Body	N_Shore	PIK3R1	0.887	0.017	0.581	0.053
cg18006990	yellow	6	43,594,962	Body	N_Shore	GTPBP2	0.887	0.007	0.373	0.258
cg00301555	yellow	10	98,366,681	Body	OpenSea	PIK3AP1	0.887	0.016	0.775	0.134
cg03303585	yellow	4	75,585,178		OpenSea		0.887	0.017	0.443	0.071
cg17342283	yellow	10	70,847,882	1stExon	OpenSea	SRGN	0.887	0.008	0.594	0.287

cg02200717	yellow	14	21,511,676	3'UTR	OpenSea	RNASE7	0.887	0.000	0.590	0.947
cg08398132	yellow	2	8,557,381		OpenSea		0.887	0.019	0.581	0.056
cg02222982	yellow	11	67,207,599	Body	S_Shelf	CORO1B	0.887	0.004	0.734	0.467
cg05960182	yellow	1	16,160,360		N_Shore		0.887	0.001	0.275	0.937
cg10809507	yellow	12	1,605,950		OpenSea		0.887	0.006	0.361	0.546
cg10456541	yellow	2	8,721,512		N_Shelf		0.887	-0.007	0.746	0.369
cg12798040	yellow	14	104,171,840	Body	OpenSea	XRCC3	0.887	-0.002	0.626	0.666
cg25949033	yellow	10	3,149,760	Body	S_Shore	PFKP	0.887	0.011	0.739	0.491
cg06864443	yellow	15	45,929,860	5'UTR	S_Shelf	SQRDL	0.887	0.008	0.132	0.435
cg01160818	yellow	5	131,747,058	5'UTR	S_Shore	C5orf56	0.887	0.005	0.178	0.553
cg10960375	yellow	3	42,694,144	TSS1500	N_Shore	ZBTB47	0.887	0.004	0.304	0.501
cg06233202	yellow	2	64,501,134		OpenSea		0.887	0.007	0.541	0.259
cg07340894	yellow	8	8,238,774	Body	OpenSea	PRAGMIN	0.887	-0.002	0.771	0.828
cg16669455	yellow	11	104,839,343	TSS200	OpenSea	CASP4	0.887	0.003	0.241	0.815
cg16658412	yellow	7	1,883,420	Body	N_Shore	MAD1L1	0.887	-0.008	0.718	0.453
cg27109043	yellow	8	142,247,864		OpenSea		0.887	-0.007	0.872	0.354
cg07297777	yellow	12	56,097,482	Body	N_Shelf	ITGA7	0.887	0.005	0.614	0.408
cg15102179	yellow	11	2,965,028		N_Shore		0.886	0.002	0.749	0.783
cg00004608	yellow	6	134,272,463		N_Shore		0.886	0.014	0.577	0.043
cg19348484	yellow	15	91,413,236	5'UTR	N_Shore	FURIN	0.886	0.004	0.615	0.581
cg16398956	yellow	14	100,212,958		OpenSea		0.886	-0.002	0.288	0.748
cg10317026	yellow	1	155,056,636	Body	N_Shore	EFNA3	0.886	0.006	0.415	0.375
cg08722200	yellow	20	55,960,520		N_Shelf		0.886	0.002	0.875	0.760
cg06815308	yellow	1	3,088,524	Body	OpenSea	PRDM16	0.886	0.009	0.823	0.179
cg10406027	yellow	16	11,876,912	TSS1500	OpenSea	ZC3H7A	0.886	0.010	0.128	0.546
cg14058100	yellow	14	104,622,028	Body	Island	KIF26A	0.886	0.001	0.856	0.910
cg13469457	yellow	9	110,501,986		OpenSea		0.886	0.031	0.598	0.069
cg04757239	yellow	7	44,198,380	Body	OpenSea	GCK	0.886	0.010	0.683	0.130
cg10725344	yellow	7	135,433,639	TSS200	OpenSea	FAM180A	0.886	0.015	0.738	0.244
cg00542992	yellow	5	141,595,654		OpenSea		0.886	0.010	0.350	0.385
cg18045685	yellow	7	22,629,474		OpenSea		0.886	0.018	0.281	0.107
cg23817981	yellow	3	32,993,063	TSS200	OpenSea	CCR4	0.886	0.000	0.319	0.976
cg04196298	yellow	17	1,480,710	Body	S_Shore	SLC43A2	0.886	-0.003	0.174	0.715
cg23173466	yellow	14	65,565,498	Body	N_Shelf	MAX	0.886	0.009	0.594	0.381
cg24099680	yellow	13	113,424,278	Body	N_Shore	ATP11A	0.886	0.001	0.788	0.940
cg23440155	yellow	1	47,264,601	TSS200	OpenSea	CYP4B1	0.886	0.007	0.651	0.540
cg19900989	yellow	18	42,321,831	Body	N_Shelf	SETBP1	0.886	0.009	0.724	0.413
cg02880169	yellow	8	100,885,941	Body	OpenSea	VPS13B	0.886	-0.013	0.788	0.188
cg12719844	yellow	8	131,685,278		OpenSea		0.886	0.017	0.588	0.076
cg05146223	yellow	5	27,084,372		OpenSea		0.886	0.018	0.588	0.203
cg24731441	yellow	22	46,481,822	TSS200	Island	LOC400931	0.885	0.003	0.551	0.653
cg20108872	yellow	7	127,595,297	Body	OpenSea	SND1	0.885	0.010	0.750	0.194
cg14601621	yellow	9	97,848,457	3'UTR	Island	C9orf3	0.885	0.005	0.625	0.708
cg15626112	yellow	8	131,025,902		N_Shelf		0.885	-0.005	0.667	0.611
cg20400248	yellow	8	9,005,257	5'UTR	N_Shelf	PPP1R3B	0.885	0.008	0.473	0.434
cg20222376	yellow	19	15,530,606	TSS1500	S_Shore	AKAP8L	0.885	0.009	0.335	0.282
cg04673465	yellow	4	85,570,164	3'UTR	OpenSea	CDS1	0.885	-0.004	0.202	0.796
cg00546897	yellow	21	45,232,232	Body	OpenSea	LOC284837	0.885	0.009	0.774	0.221
cg04365777	yellow	2	40,646,370	Body	OpenSea	SLC8A1	0.885	0.003	0.648	0.759
cg21889703	yellow	6	136,607,649	5'UTR	N_Shelf	BCLAF1	0.885	0.017	0.653	0.099
cg01459052	yellow	3	47,016,537	Body	N_Shore	CCDC12	0.885	0.006	0.588	0.251
cg15929395	yellow	11	117,695,828	Body	OpenSea	FXD2	0.885	0.008	0.417	0.441
cg05958352	yellow	14	21,270,924	5'UTR	OpenSea	RNASE1	0.885	0.012	0.731	0.149
cg21768294	yellow	15	90,754,792	Body	OpenSea	SEMA4B	0.885	0.008	0.456	0.170
cg01662869	yellow	16	4,730,410	Body	Island	MGRN1	0.885	0.008	0.499	0.503
cg12997187	yellow	12	116,382,890		OpenSea		0.885	0.019	0.485	0.108
cg03837963	yellow	16	15,666,930	Body	OpenSea	C16orf45	0.885	0.009	0.682	0.429
cg07184988	yellow	6	33,363,057	Body	S_Shelf	KIFC1	0.885	-0.003	0.713	0.751
cg04508114	yellow	10	116,444,414	TSS200	OpenSea	ABLIM1	0.885	0.008	0.366	0.525
cg01901332	yellow	11	75,031,054	Body	OpenSea	ARRB1	0.885	-0.002	0.722	0.740
cg27539046	yellow	1	32,451,252		OpenSea		0.885	0.016	0.118	0.113
cg16704920	yellow	1	2,169,407	Body	OpenSea	SKI	0.885	0.002	0.494	0.714
cg11538810	yellow	22	46,481,727	TSS200	N_Shore	LOC400931	0.885	0.005	0.691	0.492
cg21083936	yellow	11	2,295,090		S_Shelf		0.885	0.002	0.712	0.830
cg08036333	yellow	12	116,382,986		OpenSea		0.885	-0.001	0.794	0.936
cg17432061	yellow	17	36,924,844	3'UTR	OpenSea	PIP4K2B	0.885	-0.001	0.372	0.892
cg22588546	yellow	17	8,382,941	Body	S_Shelf	MYH10	0.885	0.012	0.818	0.266

cg14582057	yellow	7	4,765,312	Body	S_Shore	FO XK1	0.885	0.008	0.130	0.386
cg21597692	yellow	11	123,057,074	Body	OpenSea	ASAM	0.885	-0.006	0.776	0.485
cg04276536	yellow	16	57,567,813	5'UTR	N_Shelf	CCDC102A	0.885	0.001	0.462	0.925
cg00187465	yellow	1	52,830,898	5'UTR	N_Shore	CC2D1B	0.885	0.005	0.568	0.493
cg03316359	yellow	7	43,502,573	Body	OpenSea	HECW1	0.885	0.013	0.494	0.131
cg16754788	yellow	8	97,803,770	Body	OpenSea	PGCP	0.885	0.002	0.736	0.866
cg21302812	yellow	19	10,506,915	Body	Island	CDC37	0.884	-0.009	0.672	0.364
cg04257163	yellow	12	89,620,072		OpenSea		0.884	0.015	0.304	0.302
cg05261851	yellow	16	68,001,206	Body	N_Shore	SLC12A4	0.884	0.008	0.507	0.206
cg00340958	yellow	20	48,328,658	Body	N_Shore	B4GALT5	0.884	0.001	0.441	0.875
cg26767974	yellow	2	240,143,979	Body	OpenSea	HDAC4	0.884	0.021	0.320	0.103
cg15125626	yellow	1	33,347,228		OpenSea		0.884	0.003	0.780	0.687
cg27446570	yellow	1	3,809,532	Body	S_Shore	C1orf174	0.884	0.004	0.789	0.624
cg23843705	yellow	1	12,270,775		OpenSea		0.884	0.005	0.673	0.434
cg04549287	yellow	13	52,952,319	Body	OpenSea	THSD1	0.884	0.006	0.739	0.282
cg24902478	yellow	12	78,241,621	Body	OpenSea	NAV3	0.884	-0.005	0.362	0.566
cg23081855	yellow	7	134,889,789	Body	OpenSea	WDR91	0.884	0.027	0.776	0.103
cg22820188	yellow	1	156,086,004	Body	S_Shore	LMNA	0.884	0.002	0.095	0.792
cg10025200	yellow	17	1,477,843	3'UTR	N_Shore	SLC43A2	0.884	0.000	0.260	0.993
cg22357164	yellow	17	78,237,117	5'UTR	S_Shore	RNF213	0.884	0.002	0.543	0.737
cg20426710	yellow	22	50,248,907	5'UTR	N_Shore	ZBED4	0.884	0.007	0.269	0.410
cg20102019	yellow	20	17,592,922		N_Shelf		0.884	0.001	0.466	0.869
cg02839802	yellow	22	38,963,969	Body	N_Shore	DMC1	0.884	0.008	0.797	0.650
cg04789403	yellow	15	80,271,218		OpenSea		0.884	0.010	0.407	0.469
cg06377256	yellow	16	2,769,484	Body	N_Shore	PRSS27	0.884	0.012	0.642	0.076
cg18237739	yellow	10	63,167,726	3'UTR	OpenSea	TMEM26	0.884	-0.004	0.362	0.827
cg17494863	yellow	2	101,638,916	Body	OpenSea	TBC1D8	0.884	0.000	0.749	0.989
cg14615559	yellow	9	130,911,577	TSS200	OpenSea	LCN2	0.883	0.011	0.625	0.294
cg04167854	yellow	11	18,031,127	Body	N_Shelf	SERGEF	0.883	0.009	0.681	0.514
cg10012920	yellow	11	123,222,531		OpenSea		0.883	0.010	0.721	0.155
cg12750031	yellow	8	92,221,717	Body	OpenSea	LRRRC69	0.883	0.010	0.731	0.264
cg18484299	yellow	2	171,787,393	Body	S_Shore	GORASP2	0.883	0.010	0.556	0.315
cg09173587	yellow	20	4,666,747	TSS200	N_Shore	PRNP	0.883	0.006	0.062	0.311
cg10588362	yellow	11	64,728,445	TSS1500	OpenSea	C11orf85	0.883	0.011	0.641	0.399
cg02604522	yellow	22	46,330,821	Body	S_Shelf	WNT7B	0.883	0.008	0.588	0.256
cg03781224	yellow	3	127,481,599	Body	OpenSea	MGLL	0.883	-0.001	0.605	0.907
cg27464065	yellow	12	12,940,610	3'UTR	S_Shore	APOLD1	0.883	0.007	0.691	0.384
cg08323277	yellow	2	20,248,420	Body	N_Shelf	LAPTM4A	0.883	-0.005	0.317	0.574
cg15647617	yellow	7	5,566,311		N_Shelf		0.883	0.006	0.662	0.485
cg02001279	yellow	19	940,967	Body	Island	ARID3A	0.883	0.009	0.563	0.491
cg18986335	yellow	3	156,846,983		OpenSea		0.883	0.008	0.574	0.211
cg11975793	yellow	2	223,917,577	Body	Island	KCNE4	0.883	0.005	0.481	0.652
cg10888644	yellow	5	6,755,790	3'UTR	S_Shore	POLS	0.883	0.005	0.786	0.487
cg17631451	yellow	3	48,507,354	5'UTR	OpenSea	TREX1	0.883	0.026	0.350	0.014
cg05372434	yellow	10	38,265,937	TSS1500	S_Shore	ZNF25	0.883	0.007	0.284	0.415
cg17898069	yellow	1	234,445,489	Body	OpenSea	SLC35F3	0.883	0.011	0.585	0.187
cg02138198	yellow	12	57,485,116	Body	S_Shelf	NAB2	0.883	0.007	0.671	0.194
cg20989443	yellow	1	230,301,268	Body	OpenSea	GALNT2	0.883	-0.005	0.822	0.468
cg25362050	yellow	17	38,470,900	5'UTR	N_Shelf	RARA	0.883	0.013	0.690	0.180
cg22167893	yellow	7	65,671,551	5'UTR	S_Shore	TPST1	0.883	0.005	0.132	0.561
cg05933037	yellow	16	81,223,254	Body	OpenSea	PKD1L2	0.883	0.006	0.367	0.642
cg24204951	yellow	2	239,172,084	Body	OpenSea	PER2	0.883	0.010	0.535	0.316
cg00352652	yellow	16	88,547,533	Body	OpenSea	ZFPM1	0.883	-0.001	0.735	0.899
cg02933228	yellow	11	64,611,087	Body	N_Shore	CDC42BPG	0.883	0.003	0.728	0.667
cg12353788	yellow	17	7,792,061	Body	S_Shelf	CHD3	0.883	0.019	0.613	0.053
cg11324953	yellow	4	3,077,939	Body	S_Shore	HTT	0.883	0.002	0.594	0.805
cg20784823	yellow	7	112,213,418		OpenSea		0.883	0.005	0.445	0.422
cg00186909	yellow	12	93,129,288	TSS1500	OpenSea	PLEKHG7	0.883	0.006	0.157	0.442
cg24387198	yellow	3	133,381,208	TSS1500	S_Shore	TOPBP1	0.882	0.002	0.174	0.741
cg00612633	yellow	2	105,759,884		N_Shore		0.882	0.003	0.364	0.649
cg14640066	yellow	2	55,237,421	Body	OpenSea	RTN4	0.882	0.004	0.212	0.702
cg07891983	yellow	10	35,484,533	Body	OpenSea	CREM	0.882	-0.001	0.151	0.885
cg25406699	yellow	1	54,744,131	Body	OpenSea	SSBP3	0.882	0.010	0.490	0.143
cg00325139	yellow	6	57,178,623		OpenSea		0.882	0.008	0.768	0.352
cg12117986	yellow	10	27,976,377	Body	OpenSea	MKX	0.882	0.007	0.636	0.521
cg00211174	yellow	3	127,332,098	Body	OpenSea	MCM2	0.882	-0.003	0.512	0.769
cg03103919	yellow	10	18,629,674	Body	OpenSea	CACNB2	0.882	0.036	0.267	0.012

cg01185921	yellow	10	116,444,463	TSS200	OpenSea	ABLIM1	0.882	0.009	0.197	0.373
cg11237573	yellow	1	32,574,586	Body	S_Shore	KPNA6	0.882	0.018	0.289	0.050
cg10803923	yellow	12	56,637,310	Body	OpenSea	ANKRD52	0.882	0.001	0.839	0.870
cg04940435	yellow	20	44,420,291	5'UTR	N_Shore	WFDC3	0.882	0.010	0.305	0.155
cg27287167	yellow	19	18,267,904	Body	S_Shore	PIK3R2	0.882	0.020	0.273	0.123
cg04440283	yellow	8	110,098,923	TSS1500	OpenSea	TRHR	0.882	0.000	0.361	0.979
cg02501746	yellow	7	30,209,513		OpenSea		0.882	0.006	0.766	0.483
cg24949191	yellow	5	73,969,223		OpenSea		0.882	0.009	0.605	0.294
cg23521507	yellow	14	52,519,112	Body	OpenSea	NID2	0.882	-0.007	0.212	0.427
cg13308137	yellow	11	47,528,955	5'UTR	OpenSea	CUGBP1	0.882	0.025	0.721	0.005
cg09256448	yellow	16	638,327		N_Shore		0.882	0.013	0.459	0.040
cg24405951	yellow	1	19,337,477		OpenSea		0.882	0.010	0.614	0.151
cg06449334	yellow	20	17,593,441		N_Shore		0.882	0.008	0.620	0.229
cg06484123	yellow	19	53,107,200		S_Shelf		0.882	0.010	0.667	0.239
cg16677112	yellow	1	155,103,905	Body	S_Shelf	EFNA1	0.882	0.001	0.730	0.899
cg00892255	yellow	14	51,243,177	Body	OpenSea	NIN	0.882	0.004	0.858	0.624
cg01171706	yellow	4	83,717,639	Body	N_Shore	SCD5	0.882	0.000	0.808	0.993
cg04915044	yellow	2	86,263,895	Body	OpenSea	POLR1A	0.882	0.006	0.457	0.605
cg08618463	yellow	4	146,467,791	Body	OpenSea	SMAD1	0.881	0.014	0.652	0.325
cg08424966	yellow	7	157,692,973	Body	N_Shore	PTPRN2	0.881	0.003	0.580	0.699
cg00940433	yellow	1	200,144,354	3'UTR	OpenSea	NR5A2	0.881	0.020	0.691	0.166
cg00534318	yellow	3	129,032,826		N_Shore		0.881	0.004	0.407	0.429
cg15125012	yellow	1	19,730,056	Body	OpenSea	CAPZB	0.881	0.010	0.655	0.237
cg16983159	yellow	5	138,862,441	TSS200	OpenSea	TMEM173	0.881	-0.003	0.204	0.730
cg08446111	yellow	16	48,279,428	Body	S_Shore	LONP2	0.881	0.001	0.448	0.853
cg19919209	yellow	11	64,804,476	Body	N_Shelf	SNX15	0.881	0.013	0.409	0.052
cg24064639	yellow	17	66,592,243	Body	N_Shelf	FAM20A	0.881	0.004	0.572	0.746
cg17344321	yellow	7	22,617,382		OpenSea		0.881	0.002	0.173	0.926
cg02240539	yellow	15	81,163,247	5'UTR	OpenSea	KIAA1199	0.881	0.023	0.537	0.076
cg12397205	yellow	11	1,244,002	TSS1500	N_Shelf	MUC5B	0.881	0.013	0.375	0.242
cg08458487	yellow	10	81,709,191	TSS1500	OpenSea	SFTPD	0.881	0.005	0.657	0.539
cg09570214	yellow	12	110,326,108		OpenSea		0.881	-0.004	0.437	0.587
cg18505959	yellow	6	31,670,195	Body	N_Shore	BAT5	0.881	0.017	0.105	0.018
cg27657537	yellow	22	20,863,762	Body	S_Shore	MED15	0.881	-0.008	0.166	0.224
cg11624479	yellow	11	9,285,586	Body	N_Shore	DENND5A	0.881	-0.007	0.220	0.475
cg16257215	yellow	1	202,092,296	1stExon	OpenSea	GPR37L1	0.881	0.017	0.533	0.061
cg19184449	yellow	12	52,700,707	Body	N_Shore	KRT86	0.881	0.009	0.836	0.205
cg05376469	yellow	2	102,649,931		OpenSea		0.881	0.009	0.125	0.399
cg27230009	yellow	3	11,241,399	5'UTR	OpenSea	HRH1	0.881	0.012	0.723	0.113
cg14445047	yellow	9	139,332,115	Body	N_Shore	INPP5E	0.881	0.003	0.278	0.644
cg26840755	yellow	11	65,197,776		OpenSea		0.881	0.013	0.257	0.147
cg01011757	yellow	2	233,416,425	TSS1500	S_Shore	TIGD1	0.881	0.002	0.760	0.836
cg13550410	yellow	1	36,004,549	Body	OpenSea	KIAA0319L	0.881	-0.004	0.851	0.541
cg22228439	yellow	1	46,766,431	Body	N_Shore	LRRC41	0.881	0.006	0.681	0.254
cg08097973	yellow	11	71,793,051	5'UTR	S_Shore	LRTOMT	0.881	0.006	0.728	0.413
cg01152624	yellow	11	106,239,635		OpenSea		0.881	0.022	0.329	0.032
cg06574960	yellow	2	232,265,084	3'UTR	S_Shore	B3GNT7	0.881	0.013	0.412	0.107
cg09135441	yellow	12	67,073,760	TSS1500	OpenSea	GRIP1	0.881	0.011	0.706	0.233
cg24961795	yellow	20	39,769,764	Body	S_Shelf	PLCG1	0.881	0.004	0.350	0.522
cg19217535	yellow	2	65,355,927	Body	N_Shore	RAB1A	0.881	-0.001	0.382	0.942
cg16348385	yellow	16	30,106,822	1stExon	N_Shore	YPEL3	0.880	0.008	0.140	0.107
cg24441127	yellow	1	181,002,976	TSS200	OpenSea	MR1	0.880	0.011	0.690	0.362
cg27174787	yellow	19	16,178,240	TSS200	N_Shore	TPM4	0.880	-0.008	0.338	0.485
cg27221193	yellow	20	62,466,924		S_Shelf		0.880	0.028	0.632	0.032
cg04814352	yellow	13	97,909,916	5'UTR	OpenSea	MBNL2	0.880	0.003	0.694	0.749
cg09943560	yellow	14	91,581,064	5'UTR	OpenSea	C14orf159	0.880	0.008	0.118	0.287
cg18860873	yellow	12	79,952,102		OpenSea		0.880	0.002	0.755	0.782
cg26364080	yellow	2	232,121,314	Body	S_Shore	ARMC9	0.880	-0.005	0.778	0.635
cg13344855	yellow	19	11,300,651	Body	N_Shelf	KANK2	0.880	0.006	0.216	0.706
cg18562121	yellow	2	27,076,093	5'UTR	S_Shelf	DPYSL5	0.880	0.027	0.432	0.020
cg02055353	yellow	11	126,287,023		S_Shore		0.880	0.006	0.537	0.378
cg23679724	yellow	20	57,581,478	Body	N_Shore	CTSZ	0.880	0.012	0.744	0.086
cg03450734	yellow	17	45,899,862	TSS1500	OpenSea	OSBPL7	0.880	0.017	0.569	0.034
cg27118035	yellow	16	31,891,978	Body	OpenSea	ZNF267	0.880	0.003	0.523	0.730
cg23042148	yellow	2	25,502,040	Body	S_Shore	DNMT3A	0.880	0.020	0.543	0.051
cg04383154	yellow	17	80,968,667	Body	N_Shore	B3GNTL1	0.880	0.007	0.640	0.444
cg13489049	yellow	21	42,875,961	Body	N_Shelf	TMPRSS2	0.880	0.002	0.387	0.720

cg05663278	yellow	16	8,979,125	OpenSea		0.880	0.001	0.865	0.861
cg12169889	yellow	17	60,969,792	OpenSea		0.880	0.007	0.428	0.480
cg05249026	yellow	16	11,031,524 3'UTR	N_Shelf	DEXI	0.880	0.011	0.639	0.129
cg01676322	yellow	17	43,213,429 5'UTR	S_Shelf	ACBD4	0.880	0.009	0.497	0.247
cg11638399	yellow	8	29,441,416	OpenSea		0.880	0.020	0.419	0.082
cg05659314	yellow	1	153,590,020 TSS1500	OpenSea	S100A14	0.880	-0.006	0.779	0.467
cg08321576	yellow	12	10,022,229 1stExon	OpenSea	CLEC2B	0.880	0.007	0.102	0.558
cg27015931	yellow	16	22,012,404 1stExon	OpenSea	C16orf65	0.880	0.004	0.141	0.460
cg08233235	yellow	19	55,898,727 Body	S_Shore	RPL28	0.880	-0.003	0.506	0.764
cg11293312	yellow	19	49,252,020 3'UTR	N_Shore	FUT1	0.879	0.017	0.730	0.035
cg00319334	yellow	11	2,397,523 TSS1500	N_Shore	CD81	0.879	0.001	0.865	0.941
cg19828537	yellow	2	97,563,889 Body	OpenSea	FAM178B	0.879	-0.002	0.754	0.783
cg26310273	yellow	3	55,377,420	OpenSea		0.879	0.013	0.726	0.153
cg10535320	yellow	17	61,908,869 Body	S_Shelf	PSMC5	0.879	-0.001	0.598	0.838
cg27412268	yellow	8	140,871,437 Body	OpenSea	TRAPP9	0.879	0.007	0.702	0.466
cg00009421	yellow	2	44,065,571 Body	OpenSea	ABCG5	0.879	0.007	0.715	0.316
cg11721349	yellow	6	53,850,329	OpenSea		0.879	0.018	0.456	0.287
cg04310074	yellow	1	11,211,495 Body	OpenSea	MTOR	0.879	0.000	0.864	0.985
cg08232895	yellow	19	47,177,742 3'UTR	N_Shelf	PRKD2	0.879	0.007	0.735	0.346
cg03471150	yellow	1	201,797,198 TSS1500	N_Shore	IPO9	0.879	0.001	0.694	0.927
cg03729092	yellow	12	117,029,821	OpenSea		0.879	0.017	0.365	0.135
cg17427305	yellow	15	57,881,059	N_Shelf		0.879	0.009	0.752	0.303
cg06261500	yellow	7	127,484,663 Body	OpenSea	SND1	0.879	-0.006	0.850	0.433
cg22253771	yellow	13	113,435,678 Body	OpenSea	ATP11A	0.879	0.011	0.645	0.109
cg14140379	yellow	4	6,695,380 TSS200	OpenSea	S100P	0.879	0.017	0.747	0.034
cg04830629	yellow	12	71,558,336	OpenSea		0.879	0.045	0.303	0.031
cg12369869	yellow	3	184,035,508 Body	S_Shelf	EIF4G1	0.879	-0.003	0.794	0.736
cg14153927	yellow	19	46,846,465 3'UTR	N_Shelf	HIF3A	0.879	0.004	0.515	0.480
cg06111140	yellow	7	158,575,756 Body	OpenSea	ESYT2	0.879	0.027	0.513	0.002
cg00657287	yellow	5	71,755,571 Body	N_Shore	ZNF366	0.879	0.011	0.826	0.250
cg06331700	yellow	13	22,661,121	OpenSea		0.879	0.022	0.465	0.175
cg14290170	yellow	9	138,136,674	S_Shore		0.879	0.000	0.717	0.966
cg02503376	yellow	17	7,283,817 TSS1500	N_Shore	TNK1	0.879	0.007	0.120	0.442
cg15357078	yellow	7	151,082,220 Body	S_Shelf	WDR86	0.879	0.000	0.763	0.970
cg24803614	yellow	11	61,733,475 Body	N_Shore	FTH1	0.879	0.011	0.254	0.290
cg02679028	yellow	8	143,868,917 TSS1500	OpenSea	LY6D	0.879	0.007	0.567	0.278
cg08462030	yellow	6	167,033,966 Body	S_Shore	RPS6KA2	0.879	0.002	0.399	0.740
cg22912732	yellow	8	48,910,636	OpenSea		0.879	0.017	0.631	0.081
cg21647182	yellow	2	1,657,483 Body	OpenSea	PXDN	0.878	0.026	0.754	0.027
cg05781767	yellow	3	127,347,362 TSS1500	N_Shore	PODXL2	0.878	0.013	0.542	0.172
cg08918658	yellow	6	158,447,883 Body	OpenSea	SYNJ2	0.878	0.005	0.495	0.619
cg03036214	yellow	15	63,640,658 Body	OpenSea	CA12	0.878	0.012	0.333	0.261
cg20710258	yellow	3	195,552,341	OpenSea		0.878	0.003	0.755	0.709
cg04408104	yellow	2	160,106,670 Body	OpenSea	WDSUB1	0.878	0.010	0.546	0.404
cg09929567	yellow	14	75,936,789 3'UTR	OpenSea	JDP2	0.878	0.013	0.838	0.258
cg13514049	yellow	9	110,495,709	OpenSea		0.878	0.016	0.438	0.158
cg12230883	yellow	3	184,035,527 Body	S_Shelf	EIF4G1	0.878	0.008	0.854	0.231
cg27300045	yellow	19	47,610,813 Body	N_Shelf	ZC3H4	0.878	0.006	0.487	0.468
cg26503792	yellow	6	30,580,581 5'UTR	OpenSea	PPP1R10	0.878	0.006	0.499	0.394
cg06839111	yellow	16	67,978,450 3'UTR	OpenSea	SLC12A4	0.878	0.009	0.527	0.301
cg02123767	yellow	17	71,295,007 5'UTR	OpenSea	CDC42EP4	0.878	0.013	0.488	0.162
cg11396509	yellow	19	39,389,915 5'UTR	N_Shore	SIRT2	0.878	0.006	0.099	0.476
cg13170891	yellow	6	30,568,532 3'UTR	OpenSea	PPP1R10	0.878	-0.001	0.382	0.943
cg26286901	yellow	8	22,595,307 Body	OpenSea	PEBP4	0.878	-0.003	0.731	0.812
cg02311794	yellow	15	86,302,971 3'UTR	S_Shore	KLHL25	0.878	-0.005	0.855	0.445
cg10970251	yellow	11	796,421 TSS1500	N_Shore	SLC25A22	0.878	0.004	0.105	0.711
cg20986904	yellow	4	1,601,044	Island		0.878	-0.002	0.668	0.876
cg16712730	yellow	15	29,399,274 Body	S_Shelf	APBA2	0.878	0.008	0.704	0.272
cg12228061	yellow	12	116,382,677	OpenSea		0.878	0.004	0.765	0.740
cg20707195	yellow	2	25,596,386	N_Shelf		0.878	0.018	0.443	0.057
cg19982668	yellow	17	61,753,497 Body	OpenSea	MAP3K3	0.878	0.002	0.140	0.859
cg07426960	yellow	11	69,469,290	S_Shore		0.878	0.001	0.553	0.856
cg17802464	yellow	22	30,868,156 TSS200	OpenSea	SEC14L3	0.878	0.020	0.435	0.036
cg20726282	yellow	6	37,693,575	OpenSea		0.878	0.002	0.561	0.860
cg05723219	yellow	4	187,605,157 Body	OpenSea	FAT1	0.878	0.006	0.753	0.657
cg01425293	yellow	1	155,150,019 Body	S_Shelf	TRIM46	0.878	0.002	0.796	0.797
cg20774166	yellow	6	31,627,617 1stExon	N_Shore	C6orf47	0.878	0.016	0.299	0.024

cg26843110	yellow	15	74,935,742	Body	OpenSea	EDC3	0.878	-0.006	0.598	0.510
cg27107685	yellow	7	30,590,918		OpenSea		0.878	0.018	0.396	0.196
cg13354250	yellow	6	169,558,175		OpenSea		0.878	0.021	0.467	0.091
cg23979832	yellow	17	79,031,550	Body	OpenSea	BAIAP2	0.878	0.006	0.535	0.471
cg14668981	yellow	3	133,112,774	Body	OpenSea	TMEM108	0.878	0.024	0.584	0.131
cg23334643	yellow	12	132,848,344	Body	Island	GALNT9	0.878	0.010	0.493	0.151
cg09317128	yellow	4	56,265,301	Body	S_Shelf	TMEM165	0.878	-0.005	0.458	0.498
cg00864666	yellow	2	173,850,250	Body	OpenSea	RAPGEF4	0.878	0.007	0.833	0.338
cg20494563	yellow	4	127,898,808		OpenSea		0.878	-0.004	0.357	0.640
cg00460704	yellow	2	179,314,738	Body	N_Shore	PRKRA	0.878	0.017	0.139	0.033
cg19262315	yellow	11	67,325,980		OpenSea		0.878	0.009	0.494	0.304
cg21552001	yellow	6	47,202,394	Body	OpenSea	TNFRSF21	0.878	-0.002	0.845	0.807
cg13302154	yellow	12	15,039,432	TSS1500	OpenSea	MGP	0.878	-0.010	0.378	0.396
cg07275218	yellow	6	32,942,714	Body	S_Shore	BRD2	0.878	0.005	0.257	0.656
cg09113070	yellow	2	86,114,036	Body	N_Shore	ST3GAL5	0.878	0.021	0.306	0.015
cg07530599	yellow	17	74,275,137	Body	OpenSea	QRICH2	0.877	0.016	0.758	0.050
cg01775492	yellow	1	35,439,960		N_Shelf		0.877	0.003	0.563	0.826
cg16340136	yellow	14	104,800,445		Island		0.877	0.020	0.531	0.020
cg02127888	yellow	16	1,665,900	Body	S_Shore	CRAMP1L	0.877	0.003	0.242	0.769
cg06219310	yellow	4	802,229	Body	S_Shelf	CPLX1	0.877	-0.002	0.589	0.773
cg23236366	yellow	1	201,777,257	Body	OpenSea	NAV1	0.877	0.001	0.806	0.864
cg06686156	yellow	16	20,420,222	TSS1500	OpenSea	ACSM5	0.877	0.024	0.654	0.013
cg02571874	yellow	3	12,799,985	5'UTR	OpenSea	TMEM40	0.877	0.006	0.097	0.477
cg03217227	yellow	1	249,119,553	5'UTR	N_Shore	SH3BP5L	0.877	0.013	0.400	0.131
cg03307717	yellow	21	44,524,639	5'UTR	N_Shelf	U2AF1	0.877	-0.010	0.627	0.188
cg03572680	yellow	11	124,768,554	TSS1500	OpenSea	ROBO4	0.877	0.000	0.512	0.963
cg22373770	yellow	1	9,224,198		OpenSea		0.877	0.008	0.525	0.444
cg04675251	yellow	7	6,702,706		N_Shore		0.877	0.010	0.567	0.204
cg00353006	yellow	11	47,199,457	TSS1500	S_Shore	ARFGAP2	0.877	-0.001	0.221	0.878
cg26192689	yellow	2	206,730,773		OpenSea		0.877	0.012	0.812	0.080
cg22803410	yellow	20	61,298,133	TSS200	OpenSea	LOC1001278:	0.877	0.005	0.668	0.504
cg10295552	yellow	17	35,464,574	Body	OpenSea	ACACA	0.877	0.019	0.579	0.106
cg11919694	yellow	16	30,380,600	1stExon	N_Shore	TBC1D10B	0.877	0.015	0.208	0.101
cg10410146	yellow	7	44,112,411	3'UTR	OpenSea	POLM	0.877	0.000	0.624	0.974
cg03134962	yellow	16	31,083,405	5'UTR	N_Shore	ZNF668	0.877	0.003	0.440	0.704
cg03552937	yellow	7	44,795,713	TSS200	OpenSea	ZMIZ2	0.877	0.011	0.484	0.346
cg18354248	yellow	10	93,390,311	Body	N_Shelf	PPP1R3C	0.877	0.019	0.796	0.284
cg26530713	yellow	1	153,928,406	Body	N_Shelf	CRTC2	0.877	0.007	0.517	0.364
cg21488289	yellow	8	57,233,269	TSS200	S_Shore	SDR16C5	0.877	0.001	0.569	0.842
cg04372674	yellow	7	30,951,381	TSS200	OpenSea	AQP1	0.877	0.000	0.125	0.962
cg08764162	yellow	10	31,147,088	Body	OpenSea	ZNF438	0.877	0.008	0.469	0.439
cg16219954	yellow	21	46,893,155	Body	N_Shore	COL18A1	0.877	-0.002	0.823	0.799
cg23640802	yellow	10	32,219,402		S_Shore		0.877	0.022	0.211	0.172
cg25139649	yellow	1	2,165,579	Body	OpenSea	SKI	0.877	-0.007	0.506	0.538
cg27243405	yellow	6	138,859,576	Body	OpenSea	NHSL1	0.877	0.007	0.308	0.486
cg03980550	yellow	11	8,754,370	Body	S_Shore	ST5	0.877	0.013	0.592	0.233
cg09579953	yellow	2	101,925,467	TSS1500	S_Shore	RNF149	0.877	0.007	0.316	0.361
cg15108641	yellow	10	99,263,320	Body	S_Shelf	UBTD1	0.877	0.010	0.697	0.280
cg07238926	yellow	10	118,350,475	TSS200	OpenSea	PNLIPRP1	0.877	0.005	0.724	0.505
cg26766373	yellow	11	75,063,913	TSS1500	S_Shore	ARRB1	0.877	0.001	0.626	0.848
cg06960881	yellow	17	15,168,483	1stExon	S_Shore	PMP22	0.877	0.028	0.686	0.021
cg23249922	yellow	10	134,231,549		OpenSea		0.876	0.010	0.721	0.306
cg08310088	yellow	16	28,081,556		OpenSea		0.876	0.024	0.413	0.006
cg11680118	yellow	1	232,940,371	TSS1500	N_Shore	KIAA1383	0.876	0.012	0.707	0.263
cg21815337	yellow	3	4,348,344	Body	S_Shelf	SETMAR	0.876	-0.004	0.508	0.772
cg11637721	yellow	11	65,486,928	3'UTR	N_Shore	KAT5	0.876	0.018	0.519	0.031
cg25607361	yellow	13	29,230,532		N_Shelf		0.876	0.000	0.783	0.997
cg07775292	yellow	22	30,720,496	Body	N_Shelf	TBC1D10A	0.876	0.007	0.495	0.429
cg23261343	yellow	6	45,413,792	Body	OpenSea	RUNX2	0.876	0.005	0.093	0.607
cg15825304	yellow	2	241,505,201		N_Shore		0.876	0.002	0.805	0.843
cg22761483	yellow	2	216,489,226		OpenSea		0.876	0.003	0.243	0.745
cg14588411	yellow	7	87,850,377	Body	S_Shore	SRI	0.876	0.009	0.359	0.378
cg01244346	yellow	2	74,272,962	TSS1500	OpenSea	TET3	0.876	0.016	0.711	0.040
cg02293775	yellow	10	126,425,471	5'UTR	OpenSea	FAM53B	0.876	0.003	0.273	0.700
cg17866352	yellow	17	75,283,431	Body	OpenSea	9-Sep	0.876	0.009	0.627	0.125
cg19465268	yellow	7	75,517,941	3'UTR	OpenSea	RHBDD2	0.876	0.005	0.716	0.590
cg04365980	yellow	16	78,056,736	Body	OpenSea	CLEC3A	0.876	0.008	0.714	0.403

cg11692403	yellow	10	72,191,087	OpenSea		0.876	0.006	0.733	0.487
cg14685146	yellow	17	42,088,751 3'UTR	N_Shelf	TMEM101	0.876	-0.001	0.818	0.883
cg15931471	yellow	15	67,033,330 Body	OpenSea	SMAD6	0.876	0.022	0.491	0.177
cg14861545	yellow	11	7,013,459	OpenSea		0.876	0.011	0.531	0.229
cg20211816	yellow	6	17,988,861 TSS1500	S_Shore	KIF13A	0.876	0.010	0.147	0.307
cg23149300	yellow	10	36,958,940	OpenSea		0.876	0.008	0.451	0.241
cg26831416	yellow	19	39,142,011 Body	S_Shelf	ACTN4	0.876	0.027	0.508	0.030
cg06578434	yellow	19	1,155,225 5'UTR	Island	SBNO2	0.876	0.014	0.202	0.308
cg02590060	yellow	1	53,685,388 Body	N_Shore	C1orf123	0.876	0.013	0.497	0.101
cg10869531	yellow	4	2,808,489 5'UTR	OpenSea	SH3BP2	0.876	-0.006	0.688	0.426
cg04075024	yellow	11	67,167,826 Body	N_Shore	PPP1CA	0.876	0.004	0.660	0.679
cg04173586	yellow	19	2,167,496 Body	S_Shore	DOT1L	0.876	0.003	0.200	0.845
cg00372375	yellow	8	8,749,343 1stExon	Island	MFHAS1	0.875	0.016	0.479	0.178
cg16589830	yellow	1	212,284,214	OpenSea		0.875	0.008	0.113	0.413
cg02225720	yellow	17	3,623,472 Body	N_Shelf	ITGAE	0.875	0.015	0.748	0.188
cg24314662	yellow	15	72,071,616 3'UTR	OpenSea	THSD4	0.875	0.008	0.533	0.396
cg19755928	yellow	3	128,723,491 Body	S_Shore	CCDC48	0.875	0.017	0.661	0.185
cg10823804	yellow	1	32,042,921 Body	OpenSea	TINAGL1	0.875	0.001	0.845	0.915
cg10671066	yellow	1	160,492,861 Body	OpenSea	SLAMF6	0.875	-0.001	0.312	0.901
cg13133883	yellow	10	86,004,660 TSS200	OpenSea	RGR	0.875	0.017	0.345	0.015
cg14138540	yellow	15	93,571,988	OpenSea		0.875	0.011	0.591	0.311
cg14175304	yellow	17	78,237,397 5'UTR	S_Shelf	RNF213	0.875	0.005	0.136	0.541
cg13870539	yellow	10	95,848,649 TSS200	OpenSea	PLCE1	0.875	0.007	0.200	0.443
cg05551003	yellow	3	11,267,072 5'UTR	OpenSea	HRH1	0.875	0.008	0.557	0.188
cg01988285	yellow	3	50,306,107 5'UTR	OpenSea	SEMA3B	0.875	0.020	0.465	0.050
cg03870448	yellow	4	41,214,687 5'UTR	N_Shore	APBB2	0.875	0.009	0.430	0.218
cg02847588	yellow	1	8,271,997	Island		0.875	0.014	0.695	0.067
cg03417473	yellow	1	113,216,382 TSS1500	N_Shore	MOV10	0.875	0.010	0.103	0.116
cg13023677	yellow	5	137,675,418 5'UTR	S_Shore	FAM53C	0.875	0.002	0.582	0.782
cg08171483	yellow	3	38,010,391 Body	OpenSea	CTDSPL	0.875	0.009	0.727	0.323
cg02283691	yellow	19	33,182,526 TSS1500	N_Shore	NUDT19	0.875	0.009	0.077	0.258
cg08711188	yellow	13	113,386,485 Body	S_Shelf	ATP11A	0.875	-0.007	0.879	0.342
cg03766851	yellow	2	47,141,740 5'UTR	N_Shore	MCFD2	0.875	0.003	0.676	0.602
cg22372668	yellow	1	167,525,175	S_Shelf		0.875	0.000	0.518	0.989
cg07638689	yellow	19	8,204,480 Body	S_Shelf	FBN3	0.875	0.023	0.449	0.018
cg07807026	yellow	12	2,041,581	OpenSea		0.875	0.001	0.263	0.849
cg08209691	yellow	8	143,868,049 TSS200	OpenSea	LY6D	0.875	0.012	0.516	0.128
cg26933683	yellow	17	61,918,738 Body	N_Shore	SMARCD2	0.875	0.002	0.291	0.794
cg26727032	yellow	16	67,993,705 Body	OpenSea	SLC12A4	0.875	0.007	0.477	0.307
cg17848681	yellow	19	1,244,764 3'UTR	N_Shelf	ATP5D	0.875	0.004	0.127	0.578
cg26380350	yellow	13	113,362,275 Body	OpenSea	ATP11A	0.875	-0.009	0.842	0.428
cg13915314	yellow	21	46,387,229 Body	Island	C21orf70	0.875	0.003	0.855	0.693
cg10354495	yellow	2	69,665,232 TSS1500	S_Shore	NFU1	0.875	0.011	0.773	0.230
cg00741695	yellow	6	961,559 Body	OpenSea	LOC285768	0.875	0.019	0.698	0.135
cg25483191	yellow	8	67,050,040 Body	OpenSea	TRIM55	0.875	0.009	0.632	0.389
cg01026796	yellow	5	54,602,543 Body	N_Shore	DHX29	0.875	0.008	0.213	0.472
cg02859516	yellow	4	111,105,688 Body	OpenSea	ELOVL6	0.875	0.011	0.416	0.160
cg24389347	yellow	3	126,277,693 1stExon	OpenSea	C3orf22	0.875	0.017	0.604	0.048
cg16512144	yellow	3	170,458,976	OpenSea		0.875	0.005	0.435	0.565
cg01966129	yellow	22	22,901,880 TSS200	S_Shore	PRAME	0.875	0.002	0.539	0.835
cg06637618	yellow	1	203,595,048 TSS1500	N_Shelf	ATP2B4	0.875	0.011	0.179	0.062
cg04912273	yellow	1	27,461,082 Body	OpenSea	SLC9A1	0.875	0.005	0.719	0.530
cg26005232	yellow	1	27,247,829 TSS1500	N_Shore	NUDC	0.875	0.006	0.598	0.501
cg19508285	yellow	3	68,781,767 3'UTR	OpenSea	FAM19A4	0.875	0.010	0.660	0.336
cg12909523	yellow	1	19,217,472 Body	OpenSea	ALDH4A1	0.875	0.012	0.256	0.185
cg18166947	yellow	22	18,189,443 Body	OpenSea	BCL2L13	0.875	0.002	0.317	0.856
cg18529243	yellow	11	58,911,115 5'UTR	S_Shore	FAM111A	0.875	0.000	0.636	0.998
cg15901963	yellow	7	544,847 Body	OpenSea	PDGFA	0.875	0.004	0.691	0.599
cg27624424	yellow	6	160,112,604 Body	N_Shore	SOD2	0.874	-0.007	0.136	0.477
cg04407417	yellow	12	52,228,651	OpenSea		0.874	0.004	0.479	0.444
cg16118592	yellow	4	1,148,569	OpenSea		0.874	0.003	0.569	0.700
cg07029980	yellow	7	104,640,734	OpenSea		0.874	0.013	0.277	0.223
cg07073460	yellow	18	9,547,085 3'UTR	OpenSea	PPP4R1	0.874	0.002	0.821	0.814
cg25803107	yellow	2	6,072,744 TSS200	OpenSea	LOC150622	0.874	0.009	0.664	0.334
cg10926487	yellow	17	76,917,906 Body	N_Shelf	TIMP2	0.874	0.007	0.804	0.576
cg21327194	yellow	17	72,443,018 Body	Island	GPRC5C	0.874	0.002	0.574	0.808
cg08715862	yellow	16	67,275,028 Body	S_Shelf	FHOD1	0.874	0.008	0.239	0.536



cg03713668	yellow	15	41,316,752	Body	OpenSea	INO80	0.874	0.006	0.554	0.601
cg17600231	yellow	13	45,008,526	3'UTR	N_Shelf	TSC22D1	0.874	0.002	0.601	0.899
cg21094022	yellow	22	46,481,603	TSS1500	N_Shore	LOC400931	0.874	0.001	0.816	0.948
cg00058923	yellow	1	161,069,167	Body	S_Shore	KLHDC9	0.874	0.005	0.852	0.537
cg09865015	yellow	4	1,202,509	Body	N_Shore	LOC1001308	0.874	0.009	0.686	0.491
cg24211908	yellow	17	72,443,401	3'UTR	S_Shore	GPRC5C	0.874	0.007	0.625	0.381
cg13611006	yellow	17	45,983,023	Body	OpenSea	SP2	0.874	0.020	0.492	0.005
cg16172923	yellow	7	1,883,390	Body	N_Shore	MAD1L1	0.874	-0.006	0.819	0.597
cg15928132	yellow	4	26,492,378	TSS1500	OpenSea	CCKAR	0.874	-0.005	0.542	0.651
cg18887458	yellow	7	115,995,934		OpenSea		0.874	-0.005	0.677	0.581
cg23680518	yellow	19	36,020,232	TSS1500	N_Shelf	SBSN	0.874	0.002	0.707	0.802
cg22495848	yellow	1	2,425,173	Body	OpenSea	PLCH2	0.874	0.011	0.647	0.314
cg07924575	yellow	22	26,881,231	TSS1500	S_Shore	HPS4	0.874	0.013	0.414	0.084
cg13956700	yellow	17	27,452,013	Body	OpenSea	MYO18A	0.874	-0.005	0.868	0.395
cg16045823	yellow	7	73,295,154		OpenSea		0.874	0.005	0.485	0.431
cg14327393	yellow	9	75,141,633	5'UTR	OpenSea	TMC1	0.874	0.011	0.466	0.156
cg26844804	yellow	15	102,267,900		S_Shelf		0.874	0.008	0.813	0.524
cg07988060	yellow	17	30,234,789		OpenSea		0.874	0.001	0.145	0.925
cg15476790	yellow	2	218,786,102	5'UTR	OpenSea	TNS1	0.873	0.003	0.480	0.683
cg20117103	yellow	15	26,045,681	Body	OpenSea	ATP10A	0.873	0.012	0.721	0.292
cg22724943	yellow	1	26,070,246	Body	OpenSea	MAN1C1	0.873	0.010	0.648	0.173
cg00562598	yellow	17	8,311,594		OpenSea		0.873	0.018	0.746	0.024
cg18080604	yellow	7	30,951,492	1stExon	OpenSea	AQP1	0.873	-0.007	0.187	0.349
cg20850016	yellow	3	5,165,254	Body	S_Shore	ARL8B	0.873	0.006	0.294	0.316
cg26113233	yellow	5	174,673,622		OpenSea		0.873	0.003	0.569	0.678
cg13675859	yellow	6	47,002,973	5'UTR	OpenSea	GPR110	0.873	0.016	0.479	0.183
cg05712295	yellow	4	1,235,781	Body	S_Shore	CTBP1	0.873	0.007	0.762	0.268
cg06943309	yellow	1	163,392,482		N_Shore		0.873	0.002	0.635	0.895
cg26584983	yellow	12	93,798,975		OpenSea		0.873	-0.007	0.635	0.485
cg17237951	yellow	1	180,922,636		N_Shore		0.873	0.002	0.575	0.879
cg20576322	yellow	4	85,886,384	5'UTR	N_Shore	WDFY3	0.873	0.009	0.580	0.434
cg08805748	yellow	6	30,538,523	TSS1500	N_Shore	ABCF1	0.873	0.012	0.449	0.140
cg00563566	yellow	1	230,883,182	1stExon	OpenSea	CAPN9	0.873	0.004	0.746	0.546
cg08234504	yellow	5	139,013,317		N_Shelf		0.873	0.011	0.677	0.118
cg19131476	yellow	11	64,387,923	Body	OpenSea	NRXN2	0.873	0.001	0.229	0.911
cg26739691	yellow	7	45,637,270	Body	OpenSea	ADCY1	0.873	0.003	0.704	0.726
cg09424308	yellow	4	7,046,094	TSS1500	S_Shore	CCDC96	0.873	0.012	0.324	0.042
cg03319638	yellow	15	42,387,193	TSS1500	OpenSea	PLA2G4D	0.873	0.010	0.615	0.247
cg04105230	yellow	15	101,938,681	Body	Island	PCSK6	0.873	-0.004	0.674	0.532
cg02962647	yellow	6	158,655,004		S_Shore		0.873	0.006	0.485	0.436
cg13784195	yellow	21	27,104,564	5'UTR	N_Shelf	ATP5J	0.873	-0.002	0.781	0.881
cg23274951	yellow	1	161,171,632	5'UTR	N_Shore	NDUFS2	0.873	0.012	0.549	0.191
cg00824156	yellow	2	127,801,271		OpenSea		0.873	0.005	0.629	0.478
cg17918556	yellow	2	169,372,300	Body	OpenSea	LASS6	0.873	0.013	0.628	0.233
cg05091736	yellow	17	14,942,129		OpenSea		0.873	0.034	0.658	0.060
cg16361890	yellow	5	179,220,545	TSS1500	N_Shelf	LTC4S	0.873	0.026	0.505	0.036
cg20224218	yellow	9	129,261,375	Body	N_Shore	FAM125B	0.873	-0.004	0.563	0.453
cg03908904	yellow	19	5,914,009	TSS200	N_Shore	CAPS	0.873	0.007	0.631	0.237
cg16455798	yellow	16	85,083,652	5'UTR	OpenSea	KIAA0513	0.873	0.013	0.701	0.488
cg25628461	yellow	4	687,023		S_Shelf		0.873	0.009	0.748	0.198
cg09737668	yellow	1	159,923,525	Body	OpenSea	SLAMF9	0.873	0.013	0.707	0.189
cg03982787	yellow	17	38,468,610	5'UTR	OpenSea	RARA	0.873	0.001	0.502	0.912
cg24149590	yellow	14	75,867,231		OpenSea		0.873	0.015	0.457	0.242
cg14571004	yellow	9	101,568,975	TSS1500	N_Shore	GALNT12	0.873	-0.003	0.748	0.698
cg12570975	yellow	11	69,206,335		OpenSea		0.873	0.011	0.791	0.097
cg27330193	yellow	3	114,137,930	5'UTR	OpenSea	ZBTB20	0.873	0.029	0.724	0.071
cg07261196	yellow	16	75,601,025	Body	S_Shore	GABARAPL2	0.873	0.003	0.172	0.667
cg21899777	yellow	22	46,771,084	Body	S_Shore	CELSR1	0.873	0.007	0.741	0.461
cg19082559	yellow	20	56,289,697		N_Shelf		0.872	-0.003	0.680	0.702
cg03301165	yellow	16	19,712,046	3'UTR	OpenSea	C16orf62	0.872	0.011	0.694	0.413
cg19341652	yellow	6	116,600,143	TSS1500	N_Shore	DSE	0.872	-0.010	0.514	0.360
cg15854001	yellow	2	86,560,700	Body	N_Shelf	REEP1	0.872	0.003	0.308	0.813
cg15457276	yellow	19	4,832,024	TSS1500	S_Shore	TICAM1	0.872	0.006	0.067	0.231
cg00346898	yellow	1	231,761,721	Body	N_Shore	TSNAX-DISC1	0.872	0.010	0.298	0.155
cg04275977	yellow	2	110,833,739		S_Shelf		0.872	-0.004	0.525	0.496
cg16773677	yellow	7	65,635,328		OpenSea		0.872	0.014	0.397	0.083
cg01606027	yellow	22	31,607,212	TSS1500	N_Shore	LIMK2	0.872	0.000	0.599	0.986

cg18838941	yellow	10	15,376,939	Body	OpenSea	FAM171A1	0.872	0.003	0.856	0.719
cg06654604	yellow	7	92,776,975	5'UTR	OpenSea	SAMD9L	0.872	0.023	0.088	0.151
cg26508170	yellow	17	53,771,307		OpenSea		0.872	0.022	0.557	0.122
cg18708013	yellow	6	149,803,206	5'UTR	OpenSea	ZC3H12D	0.872	0.008	0.491	0.309
cg01847344	yellow	21	45,929,576	Body	S_Shelf	C21orf29	0.872	0.004	0.778	0.443
cg01802545	yellow	14	93,196,432	Body	OpenSea	LGMN	0.872	0.010	0.420	0.233
cg21679468	yellow	6	127,785,332	3'UTR	OpenSea	C6orf174	0.872	0.001	0.771	0.929
cg00657780	yellow	16	50,285,254		OpenSea		0.872	0.008	0.553	0.337
cg07982208	yellow	19	47,840,366	TSS200	OpenSea	GPR77	0.872	0.005	0.401	0.353
cg20707066	yellow	11	18,809,866	5'UTR	N_Shelf	PTPN5	0.872	0.001	0.703	0.841
cg10778971	yellow	14	94,577,101	5'UTR	OpenSea	IFI27	0.872	0.002	0.177	0.820
cg09831875	yellow	12	124,907,162	Body	OpenSea	NCOR2	0.872	-0.007	0.330	0.631
cg16489259	yellow	10	32,438,418		OpenSea		0.872	0.013	0.443	0.177
cg06986734	yellow	8	128,902,684	Body	OpenSea	PVT1	0.872	0.004	0.750	0.545
cg05783290	yellow	7	150,383,337	5'UTR	OpenSea	GIMAP2	0.871	0.015	0.443	0.182
cg12684668	yellow	5	150,403,466	Body	S_Shelf	GPX3	0.871	-0.005	0.831	0.433
cg13375984	yellow	4	89,445,274	TSS1500	S_Shore	PIGY	0.871	0.008	0.183	0.282
cg02378269	yellow	15	40,697,591	TSS200	N_Shore	IVD	0.871	0.002	0.058	0.751
cg05463966	yellow	11	67,803,951	Body	N_Shelf	NDUFS8	0.871	-0.001	0.618	0.837
cg08991437	yellow	3	14,963,073	Body	OpenSea	FGD5	0.871	0.003	0.631	0.691
cg17314478	yellow	17	34,087,282	TSS1500	N_Shelf	C17orf50	0.871	0.009	0.642	0.186
cg26771557	yellow	17	16,955,261	Body	OpenSea	MPRIP	0.871	0.005	0.713	0.539
cg00327697	yellow	8	24,076,220		OpenSea		0.871	-0.005	0.089	0.365
cg22544881	yellow	7	130,712,346	Body	OpenSea	FLJ43663	0.871	0.008	0.736	0.194
cg00576774	yellow	7	28,725,676	TSS200	OpenSea	CREB5	0.871	0.002	0.066	0.817
cg08463024	yellow	6	31,508,167	Body	N_Shore	BAT1	0.871	0.006	0.200	0.488
cg19889066	yellow	5	74,330,425		N_Shore		0.871	-0.007	0.711	0.433
cg00850552	yellow	21	46,236,351	Body	N_Shore	SUMO3	0.871	0.006	0.835	0.270
cg06518251	yellow	11	67,776,030	TSS200	OpenSea	ALDH3B1	0.871	0.016	0.398	0.085
cg12308279	yellow	11	8,731,033	Body	OpenSea	ST5	0.871	0.019	0.506	0.106
cg21731304	yellow	3	139,346,818	5'UTR	OpenSea	NMNAT3	0.871	0.007	0.713	0.496
cg17833419	yellow	1	19,392,447		OpenSea		0.871	-0.002	0.601	0.743
cg00689534	yellow	15	79,282,030	Body	OpenSea	RASGRF1	0.871	0.000	0.644	0.954
cg02675173	yellow	8	99,738,789	Body	OpenSea	STK3	0.871	0.001	0.534	0.925
cg22976533	yellow	14	105,784,090	Body	S_Shelf	PACS2	0.871	0.006	0.494	0.655
cg19992207	yellow	2	111,874,495	Body	N_Shore	ACOXL	0.871	0.016	0.462	0.033
cg15410441	yellow	8	143,700,158		S_Shelf		0.871	0.009	0.661	0.211
cg16588163	yellow	3	190,251,464	5'UTR	OpenSea	IL1RAP	0.871	0.006	0.518	0.602
cg02384251	yellow	4	1,205,914	3'UTR	Island	CTBP1	0.871	0.012	0.529	0.169
cg19718359	yellow	1	111,035,897		OpenSea		0.871	-0.004	0.671	0.578
cg24543939	yellow	5	53,952,507		OpenSea		0.871	0.019	0.495	0.036
cg08448711	yellow	10	92,794,806		OpenSea		0.871	0.015	0.070	0.029
cg15881795	yellow	12	106,361,273		OpenSea		0.871	0.005	0.729	0.659
cg12532095	yellow	6	166,260,964		OpenSea		0.871	0.003	0.574	0.812
cg03578464	yellow	3	8,928,666	Body	OpenSea	RAD18	0.871	0.000	0.697	0.976
cg08134091	yellow	6	11,213,750	Body	OpenSea	NEDD9	0.871	0.012	0.611	0.150
cg08320413	yellow	10	127,455,161	3'UTR	OpenSea	MMP21	0.870	-0.001	0.842	0.942
cg10441898	yellow	1	43,839,507		OpenSea		0.870	0.009	0.782	0.242
cg06433801	yellow	4	83,384,006		OpenSea		0.870	-0.003	0.876	0.711
cg04699460	yellow	16	20,751,800	Body	N_Shore	THUMPDI	0.870	0.009	0.324	0.353
cg19375810	yellow	3	42,787,927	Body	OpenSea	CCDC13	0.870	0.004	0.420	0.492
cg04726091	yellow	4	140,216,130	Body	N_Shore	NDUFC1	0.870	-0.002	0.436	0.851
cg08443357	yellow	20	1,310,000	TSS200	S_Shelf	SDCBP2	0.870	-0.005	0.570	0.470
cg13659542	yellow	2	31,044,986		OpenSea		0.870	0.002	0.717	0.843
cg05945401	yellow	6	31,506,990	Body	N_Shelf	BAT1	0.870	0.000	0.630	0.974
cg05356226	yellow	16	88,835,315	Body	N_Shelf	FAM38A	0.870	0.006	0.738	0.350
cg17222682	yellow	1	82,147,424		OpenSea		0.870	0.008	0.273	0.547
cg27049993	yellow	17	65,370,839		N_Shelf		0.870	0.003	0.164	0.739
cg18217706	yellow	21	43,734,404	Body	OpenSea	TFF3	0.870	0.010	0.579	0.317
cg12231584	yellow	1	3,701,819	Body	N_Shore	LRRC47	0.870	0.005	0.765	0.428
cg17380091	yellow	19	1,822,445	Body	Island	REXO1	0.870	0.007	0.814	0.247
cg13178361	yellow	1	162,532,502	5'UTR	S_Shore	UAP1	0.870	0.017	0.276	0.032
cg01885796	yellow	3	155,346,882	Body	OpenSea	PLCH1	0.870	-0.007	0.789	0.562
cg03435448	yellow	3	52,310,724	Body	N_Shore	WDR82	0.870	0.001	0.178	0.921
cg16674484	yellow	5	149,887,497	TSS200	OpenSea	NDST1	0.870	-0.002	0.846	0.794
cg12380764	yellow	1	206,971,195	TSS1500	OpenSea	IL19	0.870	-0.005	0.449	0.599
cg01020475	yellow	13	114,304,812	Body	S_Shelf	ATP4B	0.870	0.003	0.850	0.745

cg25984524	yellow	10	104,871,849	Body	OpenSea	NT5C2	0.870	-0.001	0.828	0.946
cg24162781	yellow	14	21,089,025		N_Shelf		0.870	0.010	0.592	0.455
cg24766030	yellow	17	34,311,861	Body	OpenSea	CCL14	0.870	0.004	0.771	0.524
cg06655217	yellow	16	67,970,865	TSS200	S_Shore	PSMB10	0.870	0.001	0.078	0.895
cg26249834	yellow	14	52,479,816	Body	OpenSea	NID2	0.870	0.013	0.643	0.206
cg02102075	yellow	16	474,430	TSS1500	N_Shore	RAB11FIP3	0.870	0.014	0.530	0.218
cg11854227	yellow	3	121,714,109	Body	S_Shore	ILDR1	0.870	0.006	0.617	0.374
cg13881341	yellow	19	49,259,215	TSS200	S_Shelf	FGF21	0.870	0.003	0.473	0.743
cg16884940	yellow	12	102,455,204	Body	N_Shore	CCDC53	0.870	0.003	0.044	0.467
cg17085721	yellow	6	35,645,341	5'UTR	OpenSea	FKBP5	0.870	0.007	0.820	0.451
cg24744557	yellow	12	322,649	5'UTR	OpenSea	SLC6A12	0.870	0.008	0.527	0.201
cg08080060	yellow	19	41,307,090	1stExon	Island	EGLN2	0.870	-0.002	0.825	0.675
cg05805172	yellow	10	104,417,083	Body	Island	TRIM8	0.869	0.000	0.576	1.000
cg24633312	yellow	7	43,300,742	Body	OpenSea	HECW1	0.869	0.005	0.693	0.443
cg11145776	yellow	12	322,514	5'UTR	OpenSea	SLC6A12	0.869	0.009	0.642	0.306
cg01541347	yellow	7	4,729,920	Body	OpenSea	FOXK1	0.869	0.012	0.561	0.123
cg17462417	yellow	1	31,528,165	Body	OpenSea	PUM1	0.869	-0.001	0.712	0.897
cg04740205	yellow	11	82,871,065	Body	S_Shelf	PCF11	0.869	-0.009	0.642	0.403
cg17740743	yellow	1	1,986,220	Body	S_Shelf	PRKCZ	0.869	0.004	0.714	0.531
cg17687367	yellow	13	80,510,936		OpenSea		0.869	0.025	0.468	0.114
cg27525636	yellow	7	157,171,342	Body	OpenSea	DNAJB6	0.869	0.005	0.748	0.536
cg14766769	yellow	9	125,874,000	TSS200	OpenSea	MIR600	0.869	0.009	0.578	0.198
cg22162638	yellow	15	33,406,111		OpenSea		0.869	0.016	0.679	0.026
cg02578470	yellow	3	127,320,670	Body	N_Shelf	MCM2	0.869	0.017	0.540	0.064
cg26002218	yellow	14	103,986,227	Body	N_Shore	CKB	0.869	0.011	0.461	0.394
cg14377791	yellow	19	40,169,912	TSS200	OpenSea	LOC400696	0.869	-0.006	0.162	0.448
cg01336231	yellow	3	16,523,047	Body	OpenSea	RFTN1	0.869	0.005	0.165	0.595
cg00830252	yellow	12	16,039,824	Body	S_Shelf	STRAP	0.869	0.020	0.677	0.025
cg06964027	yellow	11	1,073,496	TSS1500	OpenSea	MUC2	0.869	0.018	0.349	0.119
cg19107296	yellow	5	80,565,010	Body	OpenSea	RNU5E	0.869	0.004	0.402	0.661
cg14005153	yellow	13	113,350,993	Body	Island	ATP11A	0.869	-0.003	0.903	0.637
cg01172419	yellow	16	1,159,092		S_Shelf		0.869	0.007	0.526	0.309
cg02420027	yellow	13	41,632,640		N_Shore		0.869	-0.003	0.767	0.586
cg15274171	yellow	21	35,755,964	Body	OpenSea	FAM165B	0.869	0.008	0.809	0.408
cg01542023	yellow	16	28,550,637	TSS200	OpenSea	NUPR1	0.869	0.003	0.669	0.750
cg06718369	yellow	4	153,028,110		OpenSea		0.869	0.010	0.534	0.311
cg18844118	yellow	7	26,191,489	TSS1500	N_Shore	NFE2L3	0.869	0.006	0.449	0.458
cg05002336	yellow	11	2,397,562	TSS1500	N_Shore	CD81	0.869	-0.002	0.844	0.848
cg01005308	yellow	20	48,768,686	Body	N_Shore	TMEM189	0.869	0.008	0.732	0.239
cg14583406	yellow	2	9,248,024		OpenSea		0.869	0.010	0.500	0.186
cg26933107	yellow	12	52,450,213	Body	OpenSea	NR4A1	0.869	0.011	0.700	0.163
cg01462546	yellow	22	20,864,312	Body	S_Shelf	MED15	0.869	0.000	0.853	0.997
cg11445542	yellow	15	75,943,684	Body	S_Shelf	SNX33	0.869	0.004	0.569	0.599
cg17098103	yellow	1	42,385,160	TSS1500	S_Shore	HIVEP3	0.869	0.013	0.609	0.195
cg19427746	yellow	17	4,889,932	5'UTR	N_Shore	CAMTA2	0.869	0.004	0.417	0.672
cg13863007	yellow	9	95,766,607	Body	OpenSea	FGD3	0.869	-0.001	0.452	0.855
cg19604110	yellow	17	73,773,023	3'UTR	N_Shore	H3F3B	0.869	-0.003	0.541	0.815
cg11452043	yellow	2	131,814,000	Body	OpenSea	FAM168B	0.869	0.010	0.701	0.461
cg00297966	yellow	8	126,186,709	Body	OpenSea	NSMCE2	0.869	0.001	0.465	0.944
cg14276730	yellow	20	40,040,268	Body	OpenSea	CHD6	0.869	-0.004	0.702	0.784
cg19816445	yellow	22	50,682,500	1stExon	N_Shore	TUBGCP6	0.869	0.005	0.093	0.584
cg13345558	yellow	5	40,796,738	Body	N_Shore	PRKAA1	0.869	0.007	0.585	0.535
cg13572771	yellow	14	68,871,428	Body	OpenSea	RAD51L1	0.869	-0.004	0.645	0.638
cg21160429	yellow	9	1,871,778		OpenSea		0.869	0.004	0.514	0.606
cg26621780	yellow	12	113,547,430	Body	N_Shelf	RASAL1	0.868	-0.006	0.516	0.385
cg07554046	yellow	11	15,933,403		OpenSea		0.868	0.000	0.256	0.978
cg08726667	yellow	16	28,573,379	5'UTR	OpenSea	CCDC101	0.868	0.009	0.459	0.381
cg16205058	yellow	14	20,924,369	Body	S_Shore	APEX1	0.868	0.013	0.221	0.089
cg16537367	yellow	20	16,729,319	Body	OpenSea	OTOR	0.868	0.014	0.614	0.296
cg17821664	yellow	15	65,337,917	1stExon	OpenSea	OSTBETA	0.868	0.000	0.481	0.977
cg21394171	yellow	3	122,755,851		OpenSea		0.868	0.005	0.563	0.704
cg04502852	yellow	8	131,450,313		OpenSea		0.868	0.002	0.286	0.857
cg24310786	yellow	6	33,080,054	TSS1500	OpenSea	HLA-DPB2	0.868	0.006	0.554	0.507
cg01612883	yellow	12	125,023,115		N_Shore		0.868	0.000	0.699	0.954
cg02045355	yellow	6	26,365,194	TSS1500	OpenSea	BTN3A2	0.868	0.000	0.347	0.988
cg21880079	yellow	8	8,419,587		OpenSea		0.868	0.004	0.742	0.686
cg01820962	yellow	6	116,511,817	Body	OpenSea	NT5DC1	0.868	0.009	0.110	0.582

cg09791673	yellow	1	39,877,065	1stExon	S_Shore	KIAA0754	0.868	0.001	0.393	0.870
cg01942226	yellow	4	154,218,350	Body	S_Shore	TRIM2	0.868	0.016	0.631	0.186
cg02682520	yellow	5	159,895,160		OpenSea		0.868	0.012	0.543	0.119
cg17156862	yellow	1	18,806,982	TSS1500	N_Shore	KLHDC7A	0.868	0.009	0.677	0.385
cg15090549	yellow	13	67,231,519	Body	OpenSea	PCDH9	0.868	0.011	0.130	0.435
cg07349777	yellow	8	53,528,402		OpenSea		0.868	-0.008	0.783	0.457
cg06431604	yellow	16	48,640,483	Body	N_Shelf	N4BP1	0.868	0.004	0.668	0.525
cg24360617	yellow	22	39,353,495	TSS200	OpenSea	APOBEC3A	0.868	0.005	0.598	0.460
cg10819238	yellow	19	1,155,184	5'UTR	Island	SBNO2	0.868	0.003	0.103	0.786
cg02066441	yellow	1	17,858,588		OpenSea		0.868	0.019	0.512	0.058
cg19334176	yellow	10	443,029	Body	N_Shore	DIP2C	0.868	-0.005	0.541	0.466
cg23206160	yellow	4	140,661,865	Body	OpenSea	MAML3	0.868	-0.001	0.047	0.809
cg08930904	yellow	17	80,297,325		OpenSea		0.868	0.007	0.665	0.405
cg15462501	yellow	22	40,437,196		N_Shelf		0.868	0.010	0.195	0.447
cg25616869	yellow	3	48,443,867		OpenSea		0.868	0.018	0.825	0.091
cg22695779	yellow	6	33,313,437		OpenSea		0.868	0.006	0.587	0.471
cg02570493	yellow	6	42,089,403	Body	OpenSea	C6orf132	0.868	0.001	0.566	0.834
cg03002136	yellow	13	52,437,322	5'UTR	OpenSea	CCDC70	0.867	0.010	0.108	0.245
cg07081759	yellow	10	126,330,905	Body	OpenSea	FAM53B	0.867	0.009	0.763	0.286
cg04345118	yellow	2	113,995,456	Body	S_Shore	PAX8	0.867	0.000	0.664	0.966
cg26400275	yellow	3	29,494,928	Body	OpenSea	RBMS3	0.867	0.009	0.292	0.534
cg15959205	yellow	14	91,281,552	Body	N_Shore	TTC7B	0.867	0.030	0.499	0.001
cg20092936	yellow	3	195,600,311	Body	N_Shore	TNK2	0.867	0.002	0.792	0.855
cg05693982	yellow	12	12,940,390	Body	Island	APOLD1	0.867	0.021	0.462	0.108
cg15476396	yellow	15	80,610,082		OpenSea		0.867	0.018	0.684	0.133
cg10812027	yellow	1	2,839,247		OpenSea		0.867	0.005	0.656	0.684
cg24071927	yellow	1	19,567,861	Body	OpenSea	KIAA0090	0.867	0.006	0.179	0.587
cg21179831	yellow	6	31,508,137	Body	N_Shore	BAT1	0.867	0.000	0.499	0.962
cg14468090	yellow	3	129,032,864		N_Shore		0.867	0.009	0.679	0.196
cg14066993	yellow	4	1,203,049	TSS1500	Island	LOC1001308	0.867	-0.002	0.704	0.736
cg25304816	yellow	1	36,627,734	Body	OpenSea	MAP7D1	0.867	0.010	0.446	0.195
cg03612333	yellow	1	183,746,956	Body	OpenSea	RGL1	0.867	0.003	0.768	0.743
cg08530879	yellow	12	51,071,743	Body	OpenSea	DIP2B	0.867	-0.002	0.390	0.900
cg09274826	yellow	1	156,718,357	Body	N_Shelf	HDGF	0.867	0.003	0.287	0.623
cg01671575	yellow	1	230,513,566	TSS200	OpenSea	PGBD5	0.867	-0.005	0.845	0.456
cg00857536	yellow	10	50,298,306	Body	OpenSea	C10orf72	0.867	0.019	0.601	0.121
cg22489510	yellow	2	8,675,599		OpenSea		0.867	0.004	0.605	0.561
cg05501617	yellow	4	185,339,075	Body	OpenSea	IRF2	0.867	0.012	0.649	0.273
cg09678939	yellow	6	149,806,081	5'UTR	OpenSea	ZC3H12D	0.867	-0.004	0.757	0.689
cg26127425	yellow	2	238,382,343		N_Shore		0.867	-0.003	0.687	0.664
cg14172846	yellow	1	112,960,391	Body	OpenSea	CTTNBP2NL	0.867	0.007	0.618	0.729
cg14016879	yellow	9	133,354,284	Body	OpenSea	ASS1	0.867	0.012	0.708	0.174
cg20580833	yellow	10	99,628,950	Body	OpenSea	CRTAC1	0.866	0.006	0.421	0.428
cg25080973	yellow	11	8,743,670	Body	OpenSea	ST5	0.866	0.011	0.444	0.114
cg10973881	yellow	1	151,148,689	TSS200	OpenSea	TMOD4	0.866	0.006	0.548	0.385
cg15320998	yellow	7	148,936,039	TSS1500	N_Shore	ZNF212	0.866	0.002	0.602	0.851
cg09730689	yellow	4	122,184,241		OpenSea		0.866	0.000	0.902	0.981
cg02856190	yellow	11	94,282,491	1stExon	S_Shelf	FUT4	0.866	0.005	0.531	0.510
cg10257332	yellow	3	47,869,137	Body	S_Shelf	DHX30	0.866	0.007	0.664	0.443
cg15465279	yellow	14	104,668,845		OpenSea		0.866	0.017	0.669	0.234
cg02645135	yellow	16	69,516,238		OpenSea		0.866	0.012	0.716	0.410
cg24284910	yellow	6	86,302,808	Body	N_Shore	SNX14	0.866	0.003	0.050	0.621
cg26017506	yellow	3	57,312,779	1stExon	OpenSea	ASB14	0.866	0.001	0.569	0.951
cg05828925	yellow	8	22,500,482	TSS1500	OpenSea	FLJ14107	0.866	0.000	0.577	0.989
cg22209918	yellow	6	33,128,903		N_Shore		0.866	0.024	0.550	0.024
cg20131968	yellow	17	61,850,012	5'UTR	N_Shore	CCDC47	0.866	0.015	0.680	0.079
cg09951047	yellow	9	97,848,306	3'UTR	Island	C9orf3	0.866	-0.002	0.740	0.820
cg21787323	yellow	11	85,338,252	TSS1500	N_Shore	TMEM126B	0.866	0.000	0.145	0.985
cg00238570	yellow	2	110,871,644	Body	N_Shore	MALL	0.866	0.003	0.817	0.742
cg03193328	yellow	7	65,746,852	Body	OpenSea	TPST1	0.866	-0.006	0.612	0.488
cg20571913	yellow	17	78,161,495	Body	N_Shelf	CARD14	0.866	0.007	0.457	0.307
cg16805944	yellow	12	11,323,616	5'UTR	N_Shore	PRR4	0.866	0.008	0.049	0.068
cg13303520	yellow	1	32,856,704	Body	N_Shelf	BSDC1	0.866	0.006	0.482	0.298
cg09530438	yellow	10	106,095,350		N_Shelf		0.866	-0.001	0.716	0.923
cg22855988	yellow	14	21,731,063	5'UTR	OpenSea	HNRNPC	0.866	-0.007	0.540	0.484
cg07302934	yellow	16	4,380,753	TSS1500	S_Shelf	GLIS2	0.866	0.012	0.638	0.058
cg03234072	yellow	13	99,124,270	Body	N_Shelf	STK24	0.866	0.009	0.752	0.454

cg20738274	yellow	1	207,201,020	5'UTR	OpenSea	C1orf116	0.866	0.002	0.709	0.768
cg22647092	yellow	7	74,122,902	Body	OpenSea	GTF2I	0.866	0.014	0.680	0.306
cg09075787	yellow	2	69,965,513		N_Shelf		0.866	-0.005	0.846	0.529
cg06174704	yellow	1	32,821,327		S_Shelf		0.866	0.004	0.621	0.562
cg12232463	yellow	2	100,926,650	Body	OpenSea	LONRF2	0.866	0.008	0.324	0.577
cg21774136	yellow	1	8,593,495	Body	OpenSea	RERE	0.866	0.003	0.849	0.749
cg19501190	yellow	11	73,021,274	1stExon	S_Shore	ARHGEF17	0.866	-0.002	0.709	0.778
cg03672272	yellow	22	46,470,191		S_Shore		0.866	0.009	0.193	0.379
cg06369407	yellow	1	234,045,196	Body	S_Shelf	SLC35F3	0.866	0.009	0.574	0.269
cg24328095	yellow	17	80,205,093	Body	N_Shore	CSNK1D	0.866	0.008	0.516	0.156
cg04685747	yellow	19	8,458,793	Body	S_Shelf	RAB11B	0.866	0.016	0.666	0.057
cg07851290	yellow	2	31,108,366		OpenSea		0.865	0.011	0.566	0.094
cg03050965	yellow	1	101,705,237	Body	S_Shelf	S1PR1	0.865	0.006	0.744	0.441
cg16962115	yellow	1	236,016,383	5'UTR	OpenSea	LYST	0.865	0.004	0.427	0.765
cg22226904	yellow	1	27,819,060		S_Shelf		0.865	0.008	0.384	0.286
cg14986464	yellow	6	31,669,902	Body	N_Shore	BAT5	0.865	0.012	0.304	0.119
cg22795345	yellow	13	111,935,508	Body	Island	ARHGEF7	0.865	0.007	0.837	0.512
cg15219685	yellow	6	111,580,120	TSS1500	N_Shore	KIAA1919	0.865	0.004	0.332	0.655
cg00428296	yellow	1	230,513,970	TSS1500	OpenSea	PGBD5	0.865	-0.003	0.853	0.678
cg00426089	yellow	1	212,671,907		OpenSea		0.865	0.010	0.739	0.279
cg07002832	yellow	4	140,003,444	Body	N_Shore	ELF2	0.865	0.003	0.673	0.707
cg09218250	yellow	3	9,943,848	TSS1500	OpenSea	IL17RE	0.865	0.007	0.520	0.367
cg04852339	yellow	2	159,841,571	5'UTR	OpenSea	TANC1	0.865	0.009	0.399	0.103
cg02072975	yellow	1	45,249,541	3'UTR	N_Shore	BEST4	0.865	-0.002	0.365	0.821
cg04088152	yellow	1	6,062,462		OpenSea		0.865	0.009	0.424	0.298
cg20905680	yellow	6	32,151,723	Body	OpenSea	AGER	0.865	0.004	0.783	0.557
cg06072835	yellow	16	86,112,019		OpenSea		0.865	0.013	0.573	0.374
cg14546276	yellow	9	131,960,321		OpenSea		0.865	0.005	0.348	0.531
cg09148649	yellow	11	3,253,659	TSS200	N_Shore	MRGPRE	0.865	0.010	0.178	0.312
cg21482174	yellow	17	9,694,800	TSS200	OpenSea	DHRS7C	0.865	0.007	0.663	0.423
cg07116693	yellow	15	90,310,901		OpenSea		0.865	-0.002	0.182	0.751
cg16594502	yellow	15	40,339,900		OpenSea		0.865	0.005	0.312	0.578
cg25311963	yellow	1	1,546,691		N_Shelf		0.865	0.002	0.488	0.819
cg24969820	yellow	3	98,497,864	Body	OpenSea	ST3GAL6	0.865	0.004	0.241	0.619
cg06419432	yellow	17	25,707,535		OpenSea		0.865	0.005	0.093	0.546
cg17832704	yellow	17	7,516,888	TSS1500	N_Shore	SHBG	0.865	-0.002	0.394	0.776
cg17940256	yellow	2	65,179,622		OpenSea		0.865	0.009	0.711	0.362
cg16597665	yellow	1	185,013,658	TSS1500	N_Shore	RNF2	0.865	0.016	0.622	0.275
cg24134959	yellow	10	126,705,555	Body	OpenSea	CTBP2	0.865	0.009	0.836	0.311
cg22493616	yellow	7	100,400,274	3'UTR	OpenSea	EPHB4	0.865	0.008	0.546	0.601
cg10575842	yellow	19	41,430,077	TSS200	OpenSea	CYP2B7P1	0.865	0.004	0.762	0.585
cg02573873	yellow	16	81,520,244	Body	OpenSea	CMIP	0.865	0.020	0.558	0.090
cg13987606	yellow	1	160,002,698	TSS1500	S_Shore	PIGM	0.865	0.000	0.559	0.976
cg13829680	yellow	9	136,746,975	Body	OpenSea	VAV2	0.865	0.021	0.653	0.104
cg07346603	yellow	5	169,659,751	TSS200	N_Shore	C5orf58	0.865	-0.002	0.694	0.887
cg16612422	yellow	3	29,738,084	Body	OpenSea	RBMS3	0.865	-0.002	0.723	0.838
cg05398036	yellow	1	186,504,948		OpenSea		0.865	0.014	0.487	0.250
cg04466886	yellow	16	66,521,191		OpenSea		0.865	0.011	0.437	0.268
cg11479000	yellow	5	112,044,832	5'UTR	S_Shore	APC	0.865	0.010	0.289	0.408
cg12155963	yellow	7	150,147,553	TSS1500	OpenSea	GIMAP8	0.865	0.002	0.529	0.711
cg09851989	yellow	17	55,235		N_Shore		0.864	-0.004	0.530	0.640
cg08894487	yellow	19	941,243	Body	Island	ARID3A	0.864	0.011	0.796	0.459
cg21395110	yellow	7	141,385,273	Body	OpenSea	KIAA1147	0.864	0.013	0.576	0.528
cg13664588	yellow	17	74,557,494	TSS1500	S_Shelf	SNORD1A	0.864	-0.002	0.540	0.859
cg02531768	yellow	10	521,758	Body	N_Shelf	DIP2C	0.864	0.004	0.756	0.530
cg12699156	yellow	17	7,517,016	TSS1500	N_Shore	SHBG	0.864	0.007	0.476	0.296
cg11786870	yellow	1	203,576,481		OpenSea		0.864	0.006	0.615	0.454
cg13975362	yellow	6	46,890,512	TSS1500	OpenSea	GPR116	0.864	-0.007	0.864	0.329
cg26435198	yellow	16	10,703,283		OpenSea		0.864	0.006	0.710	0.555
cg12149795	yellow	21	47,882,121	Body	S_Shelf	DIP2A	0.864	0.001	0.686	0.938
cg17046586	yellow	12	50,665,774	5'UTR	OpenSea	LIMA1	0.864	0.004	0.634	0.777
cg24870966	yellow	17	79,282,893	5'UTR	N_Shore	C17orf55	0.864	-0.005	0.397	0.619
cg03044735	yellow	22	25,201,891	TSS1500	N_Shore	SGSM1	0.864	-0.005	0.067	0.264
cg26170660	yellow	6	28,493,601	TSS200	OpenSea	GPX5	0.864	0.021	0.465	0.038
cg02699829	yellow	19	13,216,355	Body	S_Shore	TRMT1	0.864	0.004	0.757	0.598
cg25161129	yellow	17	66,452,343	Body	N_Shore	WIPI1	0.864	0.023	0.202	0.132
cg13575612	yellow	3	156,552,224	Body	OpenSea	LEKR1	0.864	0.001	0.614	0.940

cg03557445	yellow	3	8,615,444	Body	OpenSea	LOH3CR2A	0.864	0.030	0.342	0.046
cg22929787	yellow	5	141,737,266		S_Shore		0.864	0.009	0.474	0.376
cg10108591	yellow	1	9,190,516	TSS1500	S_Shore	GPR157	0.864	0.009	0.860	0.331
cg12026992	yellow	10	90,004,011		OpenSea		0.864	0.014	0.548	0.360
cg13910174	yellow	2	46,715,231		OpenSea		0.864	0.015	0.407	0.086
cg03668763	yellow	11	9,549,286	3'UTR	OpenSea	ZNF143	0.864	0.038	0.213	0.052
cg15877831	yellow	15	76,732,628	Body	OpenSea	SCAPER	0.864	0.019	0.776	0.133
cg26387796	yellow	7	150,147,927	TSS200	OpenSea	GIMAP8	0.864	0.011	0.342	0.223
cg08010619	yellow	11	9,769,192	Body	OpenSea	SWAP70	0.864	0.006	0.715	0.424
cg19393006	yellow	9	135,820,767	TSS1500	S_Shore	TSC1	0.864	-0.012	0.554	0.059
cg06286026	yellow	4	3,013,267	Body	OpenSea	GRK4	0.864	0.006	0.616	0.666
cg27218154	yellow	11	36,469,878	Body	OpenSea	PRR5L	0.864	0.013	0.689	0.071
cg23596308	yellow	13	111,747,937		S_Shelf		0.864	0.000	0.568	0.984
cg00264799	yellow	12	102,848,839	Body	OpenSea	IGF1	0.864	0.039	0.489	0.016
cg18133072	yellow	1	28,287,782	Body	S_Shore	XKR8	0.864	0.010	0.341	0.061
cg16516044	yellow	2	88,352,636	5'UTR	N_Shelf	KRCC1	0.864	-0.001	0.766	0.943
cg26878688	yellow	19	11,308,876	TSS1500	S_Shore	KANK2	0.863	-0.001	0.453	0.857
cg24033742	yellow	1	38,493,031		OpenSea		0.863	-0.002	0.695	0.787
cg18796027	yellow	6	33,375,357	Body	N_Shelf	KIFC1	0.863	0.004	0.360	0.546
cg11945905	yellow	20	62,665,676	TSS200	N_Shelf	NCRNA00176	0.863	0.005	0.621	0.383
cg06520521	yellow	11	62,323,216		OpenSea		0.863	0.006	0.297	0.658
cg24057701	yellow	13	112,278,928		S_Shelf		0.863	0.022	0.487	0.035
cg04026948	yellow	8	97,953,330	Body	OpenSea	PGCP	0.863	0.019	0.613	0.175
cg14715778	yellow	17	73,840,989	TSS200	OpenSea	UNC13D	0.863	0.016	0.394	0.012
cg17205313	yellow	18	21,572,748	5'UTR	OpenSea	TTC39C	0.863	0.021	0.622	0.122
cg04033718	yellow	16	4,419,241	Body	N_Shelf	CORO7	0.863	0.008	0.780	0.159
cg07333545	yellow	6	52,170,606		N_Shore		0.863	0.010	0.293	0.497
cg11118440	yellow	12	125,249,923		OpenSea		0.863	0.000	0.290	0.974
cg17714987	yellow	4	89,445,475	TSS1500	S_Shore	PIGY	0.863	-0.007	0.613	0.550
cg07697770	yellow	5	135,389,705	Body	OpenSea	TGFBI	0.863	0.008	0.530	0.353
cg13016308	yellow	11	3,253,581	5'UTR	N_Shore	MRGPRE	0.863	0.007	0.573	0.404
cg21114429	yellow	14	50,584,136	TSS1500	S_Shore	C14orf138	0.863	0.003	0.450	0.919
cg17237804	yellow	10	71,199,355		OpenSea		0.863	0.002	0.551	0.799
cg11825603	yellow	1	23,449,368	5'UTR	OpenSea	LUZP1	0.863	0.006	0.322	0.450
cg27295118	yellow	14	22,902,226		OpenSea		0.863	0.003	0.429	0.756
cg04619120	yellow	8	62,520,228	Body	OpenSea	ASPH	0.863	-0.008	0.810	0.548
cg22967717	yellow	5	92,695,561		OpenSea		0.863	-0.002	0.194	0.811
cg14323173	yellow	7	92,747,373	TSS200	OpenSea	SAMD9	0.863	0.029	0.383	0.116
cg04060317	yellow	12	5,603,248	TSS200	N_Shore	NTF3	0.863	0.008	0.774	0.228
cg09187107	yellow	17	79,006,087	Body	N_Shore	FLJ90757	0.863	-0.001	0.792	0.905
cg22548551	yellow	12	7,041,426	5'UTR	S_Shelf	ATN1	0.863	0.005	0.624	0.500
cg14202146	yellow	10	104,182,414	Body	S_Shore	FBXL15	0.863	0.004	0.162	0.488
cg07331053	yellow	8	27,347,861	TSS1500	N_Shore	EPHX2	0.863	-0.002	0.740	0.842
cg14877461	yellow	14	94,953,890	Body	OpenSea	SERPINA12	0.863	0.016	0.847	0.041
cg19957511	yellow	5	139,620,943	Body	OpenSea	C5orf32	0.863	0.001	0.356	0.822
cg08217234	yellow	19	4,042,688		N_Shelf		0.863	0.014	0.564	0.064
cg14731044	yellow	11	19,259,298	Body	N_Shelf	E2F8	0.863	0.005	0.791	0.652
cg15645757	yellow	1	154,521,578	3'UTR	OpenSea	UBE2Q1	0.863	-0.004	0.773	0.506
cg07397033	yellow	10	98,031,201	5'UTR	OpenSea	BLNK	0.863	0.022	0.243	0.060
cg20440187	yellow	6	32,180,641	Body	OpenSea	NOTCH4	0.863	0.010	0.767	0.259
cg16791210	yellow	2	85,581,378	TSS1500	N_Shore	ELMOD3	0.862	0.016	0.420	0.090
cg17924072	yellow	19	1,075,067	Body	Island	HMHA1	0.862	0.020	0.662	0.024
cg17970107	yellow	1	25,831,485		OpenSea		0.862	0.004	0.914	0.374
cg24802745	yellow	4	1,029,654		S_Shore		0.862	0.011	0.635	0.218
cg10775595	yellow	11	78,534,072	Body	OpenSea	ODZ4	0.862	0.014	0.763	0.369
cg09243533	yellow	1	19,281,949	Body	Island	IFFO2	0.862	-0.002	0.095	0.532
cg12570716	yellow	10	3,822,379	Body	N_Shore	KLF6	0.862	0.022	0.620	0.004
cg15829826	yellow	11	65,153,860	TSS200	Island	FRMD8	0.862	0.002	0.399	0.717
cg17133388	yellow	3	122,102,727	TSS1500	N_Shore	FAM162A	0.862	0.000	0.180	0.991
cg08778287	yellow	15	99,499,615	Body	N_Shore	IGF1R	0.862	0.022	0.627	0.053
cg13430173	yellow	9	112,914,149	Body	OpenSea	AKAP2	0.862	-0.001	0.570	0.854
cg10828904	yellow	10	126,703,991	Body	OpenSea	CTBP2	0.862	0.009	0.614	0.226
cg00614157	yellow	5	112,258,374	TSS1500	S_Shore	REEP5	0.862	0.007	0.040	0.134
cg06887454	yellow	12	24,850,642		OpenSea		0.862	0.009	0.528	0.655
cg11510043	yellow	13	97,934,205	Body	OpenSea	MBNL2	0.862	-0.001	0.830	0.926
cg08696640	yellow	6	41,531,327	5'UTR	S_Shelf	FOXP4	0.862	-0.003	0.561	0.694
cg18385299	yellow	1	226,373,204	Body	N_Shore	ACBD3	0.862	0.003	0.723	0.741

cg11643442	yellow	6	31,590,513	TSS1500	S_Shore	SNORA38	0.862	0.009	0.247	0.282
cg25457815	yellow	13	113,427,738	Body	N_Shore	ATP11A	0.862	0.000	0.616	0.992
cg20623949	yellow	4	3,265,280	Body	OpenSea	C4orf44	0.862	0.014	0.666	0.027
cg26714425	yellow	5	10,330,845		N_Shelf		0.862	0.011	0.504	0.061
cg10694598	yellow	7	95,957,175		OpenSea		0.862	0.007	0.736	0.419
cg07514618	yellow	14	103,979,422		OpenSea		0.862	0.033	0.592	0.062
cg00459445	yellow	7	8,126,369	3'UTR	OpenSea	GLCCI1	0.862	0.005	0.649	0.711
cg10515048	yellow	14	50,697,283	Body	N_Shore	SOS2	0.862	-0.001	0.132	0.840
cg18185980	yellow	2	175,426,016	3'UTR	OpenSea	WIPF1	0.862	0.017	0.529	0.194
cg27106909	yellow	16	30,106,897	1stExon	N_Shore	YPEL3	0.862	0.007	0.333	0.221
cg06763568	yellow	1	120,284,868	Body	OpenSea	PHGDH	0.862	0.003	0.725	0.629
cg06432753	yellow	4	146,118,165		OpenSea		0.862	-0.008	0.534	0.348
cg03204322	yellow	1	84,767,878	TSS1500	S_Shelf	SAMD13	0.862	0.004	0.660	0.699
cg18998172	yellow	5	136,340,207	Body	OpenSea	SPOCK1	0.862	-0.007	0.724	0.405
cg13707337	yellow	12	25,347,663	TSS1500	N_Shore	LYRM5	0.862	0.013	0.638	0.333
cg16092330	yellow	14	105,864,430	3'UTR	N_Shore	PACS2	0.862	0.003	0.516	0.803
cg25165060	yellow	12	29,891,306	Body	OpenSea	TMTC1	0.862	-0.009	0.854	0.276
cg18384588	yellow	22	46,463,747		N_Shelf		0.862	0.013	0.512	0.378
cg09942210	yellow	12	124,965,227	Body	OpenSea	NCOR2	0.862	-0.001	0.086	0.878
cg05903736	yellow	2	240,197,131	Body	S_Shore	HDAC4	0.862	0.009	0.598	0.379
cg09371620	yellow	12	46,319,990	Body	OpenSea	SFRS2IP	0.862	-0.001	0.704	0.905
cg24058365	yellow	1	110,923,328	Body	OpenSea	SLC16A4	0.862	-0.016	0.701	0.327
cg23199907	yellow	13	33,305,966	Body	OpenSea	PDS5B	0.862	0.009	0.659	0.253
cg08938062	yellow	20	5,589,042	5'UTR	N_Shelf	RP5-1022P6.	0.862	0.006	0.499	0.624
cg10125636	yellow	19	51,847,299		S_Shelf		0.862	0.009	0.575	0.288
cg21660392	yellow	17	66,950,545	5'UTR	OpenSea	ABCA8	0.861	0.023	0.462	0.223
cg08993283	yellow	7	17,585,471		OpenSea		0.861	0.013	0.641	0.414
cg05982345	yellow	11	48,191,068	3'UTR	OpenSea	PTPRJ	0.861	-0.003	0.732	0.661
cg26615176	yellow	11	65,150,416	TSS1500	N_Shelf	SLC25A45	0.861	0.011	0.287	0.209
cg17393572	yellow	5	176,326,365	TSS200	OpenSea	HK3	0.861	0.001	0.462	0.853
cg12966875	yellow	20	43,883,746	TSS1500	OpenSea	SLPI	0.861	-0.006	0.307	0.492
cg06943925	yellow	5	132,145,434		N_Shelf		0.861	-0.002	0.508	0.816
cg19452248	yellow	5	143,883,482		OpenSea		0.861	-0.013	0.720	0.231
cg22673972	yellow	3	14,415,346		OpenSea		0.861	0.007	0.657	0.275
cg24370375	yellow	1	39,624,920	Body	OpenSea	MACF1	0.861	0.015	0.479	0.412
cg26956007	yellow	16	77,904,190	Body	OpenSea	VAT1L	0.861	0.012	0.499	0.273
cg11607358	yellow	17	78,337,016	Body	OpenSea	RNF213	0.861	0.002	0.872	0.813
cg06285475	yellow	10	73,885,299	Body	OpenSea	ASCC1	0.861	0.018	0.686	0.190
cg14851204	yellow	17	79,045,695	Body	Island	BAIAP2	0.861	-0.002	0.829	0.831
cg23732182	yellow	21	44,898,090	Body	OpenSea	C21orf84	0.861	-0.001	0.670	0.905
cg05401312	yellow	6	33,838,308		OpenSea		0.861	0.005	0.784	0.458
cg11187204	yellow	17	36,480,526		OpenSea		0.861	0.008	0.800	0.418
cg06026425	yellow	5	157,284,650	Body	N_Shore	CLINT1	0.861	0.003	0.612	0.752
cg21783599	yellow	6	30,881,152	TSS1500	N_Shore	VAR52	0.861	0.001	0.814	0.865
cg11806439	yellow	14	101,157,950		OpenSea		0.861	0.017	0.714	0.292
cg18127159	yellow	4	140,834,822	Body	OpenSea	MAML3	0.861	-0.012	0.430	0.350
cg00293660	yellow	6	55,103,999	Body	OpenSea	HCRTR2	0.861	0.001	0.511	0.916
cg08248579	yellow	6	17,988,937	TSS1500	S_Shore	KIF13A	0.861	-0.002	0.544	0.905
cg04969878	yellow	12	72,079,240	TSS1500	N_Shore	TMEM19	0.861	0.015	0.714	0.417
cg10103635	yellow	11	67,326,002		OpenSea		0.861	0.010	0.546	0.175
cg07837534	yellow	1	161,038,506	Body	OpenSea	ARHGAP30	0.861	0.008	0.599	0.234
cg00022688	yellow	10	114,136,011	5'UTR	OpenSea	ACSL5	0.861	0.003	0.099	0.613
cg15602420	yellow	1	20,205,059		N_Shelf		0.861	0.007	0.504	0.213
cg09092525	yellow	20	58,570,133	Body	OpenSea	CDH26	0.861	0.006	0.605	0.510
cg00951770	yellow	14	24,741,663	TSS1500	S_Shore	RABGGTA	0.861	0.005	0.716	0.524
cg08140609	yellow	1	1,494,641	Body	N_Shelf	SSU72	0.861	0.000	0.632	0.948
cg11712482	yellow	22	19,928,667	TSS1500	N_Shore	COMT	0.861	0.011	0.568	0.247
cg14489073	yellow	6	52,746,664		OpenSea		0.861	0.019	0.836	0.030
cg04307587	yellow	19	44,104,283	3'UTR	S_Shelf	ZNF576	0.861	0.009	0.768	0.264
cg00300298	yellow	20	30,308,956	Body	N_Shore	BCL2L1	0.860	0.006	0.532	0.450
cg06908919	yellow	14	35,587,750	Body	N_Shelf	PPP2R3C	0.860	0.005	0.752	0.728
cg14051662	yellow	9	137,279,180	Body	OpenSea	RXRA	0.860	0.004	0.804	0.590
cg11854981	yellow	6	42,219,847	Body	OpenSea	TRERF1	0.860	0.022	0.118	0.108
cg00651497	yellow	15	48,829,009	Body	OpenSea	FBN1	0.860	0.016	0.510	0.127
cg16863332	yellow	10	64,566,678	3'UTR	S_Shore	ADO	0.860	0.001	0.589	0.933
cg04363228	yellow	6	32,155,141	Body	OpenSea	PBX2	0.860	0.020	0.738	0.022
cg17910105	yellow	3	149,119,554		OpenSea		0.860	0.002	0.102	0.805

cg03008741	yellow	16	69,148,573	Body	OpenSea	HAS3	0.860	-0.005	0.872	0.495
cg09127448	yellow	10	126,704,108	Body	OpenSea	CTBP2	0.860	0.017	0.789	0.034
cg15693572	yellow	3	22,412,385		N_Shore		0.860	-0.001	0.682	0.940
cg13856674	yellow	15	93,722,590		OpenSea		0.860	0.000	0.617	0.991
cg25703567	yellow	6	52,128,822	3'UTR	OpenSea	MCM3	0.860	-0.008	0.223	0.265
cg24902461	yellow	10	121,031,392	Body	OpenSea	GRK5	0.860	0.003	0.312	0.752
cg16402715	yellow	2	45,640,532	Body	OpenSea	SRBD1	0.860	0.027	0.691	0.091
cg13745489	yellow	3	45,695,038	Body	OpenSea	LIMD1	0.860	0.023	0.641	0.043
cg10907727	yellow	6	86,324,303	Body	OpenSea	SYNCRIP	0.860	-0.002	0.634	0.908
cg27159583	yellow	21	38,289,905	Body	OpenSea	H LCS	0.860	0.018	0.458	0.260
cg13355704	yellow	2	69,968,414	TSS1500	N_Shore	ANXA4	0.860	-0.001	0.126	0.860
cg26705765	yellow	19	10,252,866	Body	Island	DNMT1	0.860	0.008	0.817	0.519
cg05208056	yellow	2	106,502,915	Body	OpenSea	NCK2	0.860	0.007	0.774	0.360
cg07151747	yellow	2	158,977,473	Body	OpenSea	UPP2	0.860	0.012	0.713	0.306
cg04016485	yellow	12	26,244,324		OpenSea		0.860	-0.009	0.866	0.271
cg01436033	yellow	13	113,426,962	Body	S_Shore	ATP11A	0.860	-0.001	0.841	0.929
cg22695729	yellow	5	176,906,134		OpenSea		0.860	0.009	0.318	0.122
cg14179944	yellow	14	35,867,515		OpenSea		0.860	0.018	0.474	0.006
cg04279139	yellow	12	27,925,367	TSS1500	OpenSea	LOC1001338	0.860	0.003	0.631	0.784
cg00736406	yellow	16	23,504,930	Body	OpenSea	GGA2	0.860	0.006	0.777	0.514
cg05954120	yellow	1	156,254,757	Body	OpenSea	TMEM79	0.860	-0.003	0.689	0.700
cg01589860	yellow	11	72,433,836	Body	N_Shelf	ARAP1	0.860	-0.008	0.631	0.211
cg19550914	yellow	3	52,084,505	3'UTR	OpenSea	DUSP7	0.860	0.008	0.582	0.216
cg00499237	yellow	2	97,169,033	Body	S_Shelf	NEURL3	0.860	0.007	0.627	0.221
cg03447547	yellow	14	94,577,039	TSS200	OpenSea	IFI27	0.860	-0.004	0.327	0.699
cg22246344	yellow	2	45,183,790		S_Shore		0.860	0.007	0.562	0.398
cg02639366	yellow	1	36,275,039	Body	S_Shore	EIF2C4	0.860	0.009	0.348	0.211
cg16617723	yellow	18	24,443,905	TSS1500	S_Shore	AQP4	0.860	0.004	0.288	0.674
cg15481791	yellow	1	203,829,890	TSS1500	N_Shore	SNRPE	0.860	0.006	0.470	0.651
cg19494811	yellow	6	34,356,253	Body	N_Shelf	NUDT3	0.860	0.013	0.814	0.217
cg18883198	yellow	1	25,758,604	Body	S_Shore	TMEM57	0.860	0.003	0.234	0.669
cg04908088	yellow	13	20,925,063		OpenSea		0.860	0.003	0.513	0.659
cg20924286	yellow	3	170,136,159	TSS1500	N_Shore	CLDN11	0.860	-0.003	0.325	0.753
cg09596614	yellow	9	112,970,404	5'UTR	OpenSea	C9orf152	0.860	0.008	0.602	0.283
cg09642075	yellow	15	74,303,043	Body	OpenSea	PML	0.859	-0.002	0.676	0.881
cg08850169	yellow	1	161,171,469	5'UTR	N_Shore	NDUFS2	0.859	0.003	0.446	0.688
cg18091264	yellow	15	66,795,595	Body	OpenSea	SNORD18A	0.859	-0.009	0.417	0.328
cg06738786	yellow	20	19,265,058	Body	OpenSea	LOC1001302	0.859	0.001	0.631	0.915
cg05967487	yellow	11	65,353,416	Body	S_Shore	EHBP1L1	0.859	0.015	0.233	0.161
cg16903174	yellow	2	9,468,351	Body	OpenSea	ASAP2	0.859	0.008	0.698	0.352
cg04096368	yellow	21	43,988,782	Body	N_Shore	SLC37A1	0.859	0.006	0.799	0.393
cg25383093	yellow	6	83,902,161	5'UTR	N_Shore	PGM3	0.859	0.011	0.465	0.182
cg01636354	yellow	3	134,078,647	Body	N_Shore	AMOTL2	0.859	0.004	0.871	0.477
cg06289725	yellow	11	62,689,081	TSS200	N_Shore	CHRM1	0.859	0.019	0.263	0.029
cg04913250	yellow	10	53,060,815	Body	OpenSea	PRKG1	0.859	0.001	0.331	0.954
cg14507845	yellow	9	137,418,069		OpenSea		0.859	0.003	0.587	0.774
cg16924045	yellow	2	191,343,262	Body	OpenSea	MFSD6	0.859	0.016	0.578	0.108
cg01511567	yellow	11	57,103,631	TSS1500	S_Shore	SSRP1	0.859	0.006	0.422	0.435
cg06892907	yellow	8	103,818,062		N_Shore		0.859	0.012	0.741	0.031
cg10843210	yellow	3	195,613,589	Body	Island	TNK2	0.859	0.005	0.525	0.349
cg10930027	yellow	11	47,607,760	TSS1500	N_Shelf	FAM180B	0.859	0.014	0.601	0.144
cg04867423	yellow	1	162,680,120	5'UTR	OpenSea	DDR2	0.859	0.000	0.692	0.990
cg08168431	yellow	1	55,230,707	TSS1500	S_Shore	PARS2	0.859	0.007	0.071	0.262
cg02235497	yellow	10	127,941,989	Body	OpenSea	ADAM12	0.859	0.020	0.749	0.168
cg23922724	yellow	11	76,474,735		OpenSea		0.859	0.015	0.560	0.119
cg17681054	yellow	2	241,230,425		OpenSea		0.859	0.002	0.749	0.780
cg10120652	yellow	8	9,182,252		OpenSea		0.859	0.001	0.638	0.872
cg25129000	yellow	5	3,325,695		N_Shore		0.859	0.006	0.742	0.540
cg11532433	yellow	2	24,735,298		OpenSea		0.859	0.001	0.569	0.950
cg21837323	yellow	1	36,397,936	5'UTR	S_Shore	EIF2C3	0.859	0.021	0.619	0.063
cg24374161	yellow	11	46,582,058	5'UTR	OpenSea	AMBRA1	0.859	-0.008	0.730	0.421
cg16398761	yellow	14	74,220,238	5'UTR	OpenSea	C14orf43	0.859	0.004	0.557	0.530
cg09367967	yellow	19	13,050,586	Body	S_Shore	CALR	0.859	-0.002	0.704	0.793
cg06308720	yellow	10	81,006,066	Body	S_Shelf	ZMIZ1	0.859	0.015	0.565	0.180
cg17910470	yellow	17	76,795,278	Body	N_Shelf	USP36	0.859	-0.009	0.709	0.308
cg16686429	yellow	19	46,284,983	Body	S_Shore	DMPK	0.858	0.008	0.855	0.341
cg18914852	yellow	2	204,773,790		OpenSea		0.858	-0.001	0.591	0.926



cg12104246	yellow	6	24,718,589	Body	N_Shore	C6orf62	0.858	0.024	0.411	0.068
cg18594033	yellow	10	112,524,504	Body	OpenSea	RBM20	0.858	-0.007	0.879	0.328
cg14561362	yellow	4	146,461,062	Body	OpenSea	SMAD1	0.858	0.005	0.840	0.426
cg20714487	yellow	11	64,918,439		OpenSea		0.858	0.016	0.147	0.284
cg12357366	yellow	3	177,158,101		OpenSea		0.858	-0.010	0.745	0.223
cg11733958	yellow	17	17,023,057	Body	OpenSea	MPRIP	0.858	0.014	0.649	0.113
cg21258821	yellow	13	41,702,795	3'UTR	N_Shelf	KBTBD6	0.858	0.017	0.596	0.208
cg17484237	yellow	5	156,536,107	5'UTR	OpenSea	HAVCR2	0.858	0.000	0.728	0.950
cg01104306	yellow	11	4,066,205	Body	OpenSea	STIM1	0.858	0.014	0.605	0.106
cg19238824	yellow	7	135,433,790	TSS200	OpenSea	FAM180A	0.858	0.014	0.602	0.364
cg01817009	yellow	16	67,978,182	3'UTR	OpenSea	SLC12A4	0.858	0.010	0.863	0.244
cg27588356	yellow	6	161,459,571	Body	OpenSea	MAP3K4	0.858	0.005	0.806	0.728
cg11201229	yellow	11	17,191,235	1stExon	OpenSea	PIK3C2A	0.858	0.003	0.824	0.788
cg08895618	yellow	5	149,887,008	TSS1500	OpenSea	NDST1	0.858	0.014	0.266	0.127
cg13976657	yellow	13	113,350,479	Body	Island	ATP11A	0.858	-0.003	0.780	0.821
cg15123428	yellow	2	10,186,139	Body	S_Shore	KLF11	0.858	0.001	0.739	0.876
cg26253134	yellow	2	70,751,721	Body	OpenSea	TGFA	0.858	0.014	0.520	0.077
cg09276998	yellow	10	29,991,884	5'UTR	OpenSea	SVIL	0.858	-0.006	0.129	0.476
cg03884238	yellow	9	112,970,590	TSS200	OpenSea	C9orf152	0.858	0.001	0.891	0.923
cg15827285	yellow	5	31,408,578	Body	OpenSea	RNASEN	0.858	-0.002	0.757	0.786
cg24996440	yellow	2	3,583,570		OpenSea		0.858	0.014	0.421	0.115
cg07505941	yellow	13	99,135,804	Body	OpenSea	STK24	0.858	-0.003	0.611	0.698
cg23196756	yellow	10	72,165,580	Body	S_Shore	EIF4EBP2	0.858	0.022	0.394	0.032
cg09899220	yellow	16	67,232,281	TSS1500	N_Shore	ELMO3	0.858	0.005	0.570	0.573
cg02863179	yellow	10	63,779,053	Body	OpenSea	ARID5B	0.858	0.015	0.494	0.184
cg18710945	yellow	14	24,887,496	3'UTR	OpenSea	NYNRIN	0.858	0.003	0.754	0.727
cg03343063	yellow	1	16,023,706	Body	OpenSea	PLEKHM2	0.858	0.005	0.561	0.573
cg22706992	yellow	5	115,322,511	Body	OpenSea	LVRN	0.858	0.015	0.240	0.338
cg12051819	yellow	1	114,717,638		OpenSea		0.858	0.016	0.548	0.236
cg16455444	yellow	8	140,676,190	Body	OpenSea	KCNK9	0.857	0.010	0.775	0.300
cg08943045	yellow	1	9,043,919		OpenSea		0.857	0.008	0.580	0.314
cg03605542	yellow	5	59,929,339	Body	OpenSea	DEPDC1B	0.857	0.001	0.287	0.874
cg14665965	yellow	5	134,868,054		N_Shelf		0.857	0.017	0.464	0.131
cg23155805	yellow	9	140,111,991	3'UTR	Island	NDOR1	0.857	0.004	0.572	0.584
cg20359042	yellow	13	99,135,583	Body	OpenSea	STK24	0.857	0.000	0.591	0.978
cg00699461	yellow	21	44,071,900		N_Shore		0.857	0.005	0.615	0.672
cg08644498	yellow	1	46,502,608		OpenSea		0.857	0.003	0.431	0.529
cg07778290	yellow	12	6,325,048	Body	OpenSea	CD9	0.857	0.000	0.850	0.987
cg27471192	yellow	11	59,015,338		OpenSea		0.857	0.034	0.539	0.013
cg26118326	yellow	1	150,547,677	3'UTR	N_Shelf	MCL1	0.857	-0.011	0.719	0.421
cg07072391	yellow	2	238,418,720	Body	OpenSea	MLPH	0.857	-0.002	0.702	0.766
cg12675571	yellow	5	148,808,721	Body	OpenSea	LOC728264	0.857	0.008	0.667	0.278
cg00754027	yellow	1	200,590,459	TSS1500	S_Shore	KIF14	0.857	-0.001	0.184	0.944
cg14609407	yellow	20	43,883,172	1stExon	OpenSea	SLPI	0.857	0.002	0.647	0.714
cg13599835	yellow	13	113,396,111	Body	OpenSea	ATP11A	0.857	0.002	0.679	0.757
cg03591467	yellow	2	163,101,493	TSS1500	OpenSea	FAP	0.857	0.016	0.388	0.130
cg01567509	yellow	1	15,104,223	Body	OpenSea	KIAA1026	0.857	0.012	0.723	0.373
cg26063719	yellow	10	17,273,187	Body	S_Shore	VIM	0.857	0.021	0.197	0.190
cg14378039	yellow	20	41,873,421		OpenSea		0.857	0.010	0.664	0.132
cg25330264	yellow	7	4,806,949	3'UTR	Island	FO XK1	0.857	0.011	0.851	0.173
cg15755476	yellow	11	47,510,670	5'UTR	OpenSea	CUGBP1	0.857	0.008	0.752	0.607
cg25017777	yellow	1	9,298,817	5'UTR	S_Shelf	H6PD	0.857	0.005	0.568	0.547
cg03061352	yellow	16	68,002,909	TSS1500	Island	SLC12A4	0.857	0.004	0.149	0.661
cg25634041	yellow	3	185,348,303	3'UTR	OpenSea	SEN P2	0.857	-0.001	0.693	0.982
cg13547725	yellow	4	56,686,245	Body	OpenSea	LOC644145	0.857	0.007	0.426	0.500
cg18623216	yellow	3	155,421,970	5'UTR	OpenSea	PLCH1	0.857	0.007	0.721	0.337
cg10818160	yellow	1	53,924,389	TSS1500	N_Shore	DMRTB1	0.857	0.002	0.859	0.785
cg15160524	yellow	2	218,771,426	5'UTR	OpenSea	TNS1	0.857	0.017	0.511	0.097
cg04844987	yellow	10	114,136,053	5'UTR	OpenSea	ACSL5	0.857	0.010	0.550	0.128
cg24435741	yellow	11	10,471,371	TSS1500	N_Shore	AMPD3	0.857	0.003	0.750	0.733
cg27248029	yellow	17	71,039,644	Body	OpenSea	SLC39A11	0.857	0.015	0.394	0.114
cg18212762	yellow	11	64,556,654	3'UTR	OpenSea	MAP4K2	0.857	0.010	0.502	0.085
cg04815959	yellow	5	156,962,414	Body	OpenSea	ADAM19	0.857	0.017	0.551	0.139
cg06930252	yellow	22	50,903,229	Body	Island	SBF1	0.857	0.001	0.844	0.925
cg20484322	yellow	11	67,817,309	Body	OpenSea	TCIRG1	0.857	0.000	0.613	0.991
cg24375218	yellow	18	46,461,399	Body	OpenSea	SMAD7	0.857	0.017	0.552	0.326
cg09942166	yellow	14	101,157,915		OpenSea		0.857	0.011	0.840	0.339

cg06957820	yellow	5	133,706,474	TSS1500	N_Shore	UBE2B	0.857	0.009	0.286	0.279
cg19797930	yellow	2	242,481,817		Island		0.857	0.003	0.618	0.676
cg20906621	yellow	3	148,416,308	5'UTR	S_Shore	AGTR1	0.857	0.036	0.349	0.001
cg03147185	yellow	2	97,008,030	Body	OpenSea	NCAPH	0.857	0.009	0.564	0.223
cg27243686	yellow	12	9,478,612		OpenSea		0.857	0.002	0.786	0.890
cg03271080	yellow	2	86,255,119	Body	OpenSea	POLR1A	0.857	0.005	0.700	0.417
cg22656048	yellow	10	696,356	Body	OpenSea	DIP2C	0.857	0.014	0.783	0.052
cg16404170	yellow	10	126,330,876	Body	OpenSea	FAM53B	0.856	0.009	0.842	0.257
cg20899781	yellow	2	9,705,768		OpenSea		0.856	0.005	0.807	0.529
cg18369654	yellow	1	145,417,038	3'UTR	S_Shore	HFE2	0.856	0.004	0.477	0.693
cg23056923	yellow	10	73,497,629	TSS200	OpenSea	C10orf105	0.856	0.009	0.635	0.271
cg03046705	yellow	5	131,746,062	TSS1500	N_Shore	C5orf56	0.856	0.005	0.082	0.410
cg15021670	yellow	15	42,386,726	1stExon	OpenSea	PLA2G4D	0.856	0.003	0.817	0.699
cg05733703	yellow	4	39,977,200	Body	N_Shore	PDS5A	0.856	0.006	0.579	0.414
cg01727686	yellow	11	63,997,306	Body	N_Shore	NUDT22	0.856	0.009	0.502	0.240
cg07093501	yellow	10	134,739,658		N_Shore		0.856	-0.005	0.813	0.428
cg04185310	yellow	2	47,717,244		OpenSea		0.856	0.008	0.565	0.303
cg16649560	yellow	16	27,338,391	5'UTR	OpenSea	IL4R	0.856	0.010	0.553	0.201
cg06978288	yellow	4	77,228,884	Body	S_Shore	STBD1	0.856	0.009	0.458	0.184
cg22696984	yellow	2	75,833,496		OpenSea		0.856	0.003	0.569	0.768
cg07824897	yellow	6	56,371,192	Body	OpenSea	DST	0.856	-0.008	0.744	0.486
cg06033531	yellow	5	176,980,153	5'UTR	N_Shore	FAM193B	0.856	0.001	0.181	0.935
cg14647190	yellow	11	67,326,023		OpenSea		0.856	0.012	0.553	0.141
cg27178401	yellow	16	10,652,711	5'UTR	OpenSea	EMP2	0.856	0.004	0.864	0.650
cg06163593	yellow	10	120,718,790		OpenSea		0.856	0.006	0.108	0.296
cg00350448	yellow	11	72,433,866	Body	N_Shelf	ARAP1	0.856	-0.006	0.497	0.357
cg15068641	yellow	2	236,636,823	Body	OpenSea	AGAP1	0.856	0.002	0.602	0.782
cg02966475	yellow	16	65,105,516	5'UTR	OpenSea	CDH11	0.856	0.017	0.703	0.151
cg20605818	yellow	10	72,166,322	Body	S_Shore	EIF4EBP2	0.856	0.016	0.346	0.102
cg00460983	yellow	10	91,133,941		OpenSea		0.856	0.009	0.249	0.338
cg06829760	yellow	2	16,845,412	5'UTR	OpenSea	FAM49A	0.856	0.007	0.538	0.319
cg06625004	yellow	1	228,278,432	5'UTR	OpenSea	ARF1	0.856	0.011	0.551	0.145
cg09820557	yellow	17	8,249,349	3'UTR	OpenSea	ODF4	0.856	0.012	0.673	0.164
cg13648127	yellow	9	72,665,127	Body	OpenSea	MAMDC2	0.856	0.006	0.713	0.404
cg18519072	yellow	2	56,185,789		OpenSea		0.856	0.003	0.769	0.737
cg09424398	yellow	16	80,934,340		OpenSea		0.856	0.002	0.346	0.804
cg25581330	yellow	4	186,434,993	Body	OpenSea	PDLIM3	0.856	0.004	0.656	0.614
cg16167050	yellow	1	243,326,617	Body	OpenSea	CEP170	0.856	0.002	0.742	0.822
cg15507719	yellow	18	34,837,160	Body	S_Shelf	BRUNOL4	0.856	0.004	0.667	0.561
cg14418693	yellow	9	103,359,868		N_Shore		0.856	0.006	0.806	0.393
cg08625564	yellow	17	1,553,453	TSS200	S_Shore	RILP	0.856	0.005	0.564	0.426
cg15995592	yellow	2	160,614,976	Body	OpenSea	7-Mar	0.855	0.020	0.607	0.214
cg01115432	yellow	7	158,498,647	TSS1500	S_Shore	NCAPG2	0.855	-0.003	0.613	0.774
cg07834396	yellow	10	23,385,979	Body	S_Shore	MSRB2	0.855	0.006	0.330	0.538
cg19576241	yellow	12	116,756,805		OpenSea		0.855	0.016	0.566	0.317
cg10420159	yellow	17	1,641,537	3'UTR	OpenSea	WDR81	0.855	0.012	0.693	0.243
cg11530289	yellow	8	67,350,852	Body	N_Shore	ADHFE1	0.855	0.002	0.621	0.852
cg08336604	yellow	12	93,809,819	Body	OpenSea	UBE2N	0.855	-0.002	0.801	0.856
cg05881068	yellow	10	131,660,591	Body	OpenSea	EBF3	0.855	0.007	0.878	0.368
cg16310095	yellow	1	155,952,959		OpenSea		0.855	0.001	0.480	0.882
cg00439384	yellow	3	122,785,558	TSS1500	N_Shore	PDIA5	0.855	0.002	0.154	0.718
cg07234388	yellow	1	156,261,841	Body	S_Shore	TMEM79	0.855	0.012	0.498	0.092
cg25502093	yellow	5	159,827,333	TSS1500	S_Shore	C5orf54	0.855	0.009	0.161	0.367
cg08800710	yellow	13	113,488,053	Body	S_Shore	ATP11A	0.855	-0.004	0.832	0.680
cg13547889	yellow	9	139,433,088	Body	OpenSea	NOTCH1	0.855	0.010	0.632	0.125
cg07818422	yellow	13	52,301,946	Body	OpenSea	WDFY2	0.855	0.012	0.726	0.282
cg23551494	yellow	17	39,495,535		OpenSea		0.855	0.031	0.479	0.090
cg19504184	yellow	17	1,170,806		N_Shore		0.855	0.007	0.261	0.228
cg00474798	yellow	2	84,684,489	Body	N_Shore	SUCLG1	0.855	0.016	0.693	0.182
cg08304120	yellow	11	65,381,096	1stExon	N_Shore	MAP3K11	0.855	0.009	0.183	0.218
cg10024478	yellow	16	16,243,918	3'UTR	OpenSea	ABCC6	0.855	0.005	0.642	0.549
cg10941749	yellow	15	52,030,519	TSS200	S_Shore	LYSMD2	0.855	-0.007	0.619	0.327
cg23504246	yellow	15	49,715,342	Body	OpenSea	C15orf33	0.855	0.011	0.284	0.405
cg24311643	yellow	1	159,748,210		N_Shelf		0.855	0.001	0.614	0.834
cg27371539	yellow	11	124,488,923	Body	N_Shelf	PANX3	0.855	0.005	0.591	0.490
cg15242225	yellow	21	36,421,857	TSS1500	OpenSea	RUNX1	0.855	0.009	0.600	0.551
cg19226626	yellow	10	116,310,860	Body	OpenSea	ABLIM1	0.855	0.013	0.633	0.453

cg04579966	yellow	13	24,846,221	Body	OpenSea	SPATA13	0.855	0.011	0.236	0.568
cg13226308	yellow	11	35,019,673		OpenSea		0.855	0.010	0.698	0.271
cg13631444	yellow	8	110,098,866	TSS1500	OpenSea	TRHR	0.855	-0.002	0.303	0.893
cg15025485	yellow	6	32,943,839	Body	S_Shelf	BRD2	0.855	-0.003	0.677	0.793
cg17879478	yellow	20	2,086,632	Body	S_Shelf	STK35	0.855	0.005	0.763	0.472
cg06978604	yellow	1	231,471,504	1stExon	N_Shore	EXOC8	0.855	0.006	0.760	0.467
cg01937819	yellow	9	130,616,110	Body	N_Shore	ENG	0.855	0.004	0.465	0.657
cg05173159	yellow	12	95,491,799	Body	OpenSea	FGD6	0.855	0.009	0.831	0.219
cg24496021	yellow	11	72,662,461	Body	OpenSea	FCHSD2	0.854	0.003	0.797	0.813
cg06652329	yellow	12	102,874,566	TSS200	OpenSea	IGF1	0.854	0.009	0.106	0.311
cg02319818	yellow	19	39,618,272	5'UTR	S_Shore	PAK4	0.854	0.008	0.436	0.209
cg05773108	yellow	16	85,520,007		S_Shore		0.854	0.000	0.728	0.963
cg11426157	yellow	5	149,979,610	TSS1500	OpenSea	SYNPO	0.854	0.020	0.489	0.061
cg18854872	yellow	2	198,292,151	Body	OpenSea	SF3B1	0.854	0.006	0.688	0.479
cg10660903	yellow	17	45,307,606		OpenSea		0.854	0.002	0.334	0.772
cg01808739	yellow	1	93,912,802	TSS1500	N_Shore	FNBP1L	0.854	0.014	0.421	0.140
cg16793781	yellow	2	173,558,030		OpenSea		0.854	0.012	0.285	0.237
cg03194226	yellow	3	45,066,832	TSS1500	OpenSea	CLEC3B	0.854	0.010	0.748	0.161
cg02013841	yellow	13	49,159,767		OpenSea		0.854	0.022	0.504	0.130
cg14652230	yellow	3	49,466,297	Body	N_Shore	NICN1	0.854	0.006	0.167	0.352
cg24674640	yellow	7	104,628,750		S_Shelf		0.854	0.000	0.487	0.996
cg09018904	yellow	3	43,408,318	3'UTR	S_Shelf	ANO10	0.854	0.016	0.854	0.103
cg00760729	yellow	2	161,236,088	Body	OpenSea	RBMS1	0.854	0.009	0.071	0.162
cg04629424	yellow	12	7,020,815	Body	N_Shelf	LRRC23	0.854	0.011	0.522	0.222
cg26782787	yellow	22	31,835,691	3'UTR	OpenSea	EIF4ENIF1	0.854	0.006	0.730	0.495
cg16127573	yellow	11	57,532,299	5'UTR	OpenSea	CTNND1	0.854	0.001	0.061	0.901
cg01552504	yellow	16	50,188,903	Body	OpenSea	PAPD5	0.854	0.005	0.300	0.614
cg15552370	yellow	5	172,117,322	3'UTR	S_Shelf	NEURL1B	0.854	0.010	0.665	0.206
cg02942142	yellow	4	169,401,797	TSS200	S_Shore	DDX60L	0.854	0.006	0.080	0.345
cg01347596	yellow	19	10,252,900	Body	Island	DNMT1	0.854	0.009	0.763	0.498
cg17843066	yellow	1	84,761,826		N_Shelf		0.854	-0.008	0.823	0.448
cg23585420	yellow	14	104,668,772		OpenSea		0.854	0.016	0.450	0.224
cg05397490	yellow	13	33,105,476	Body	OpenSea	N4BP2L2	0.854	-0.002	0.875	0.778
cg01373189	yellow	13	33,002,820	TSS1500	S_Shore	N4BP2L1	0.854	-0.001	0.623	0.938
cg23466059	yellow	18	56,422,682		OpenSea		0.854	0.016	0.554	0.012
cg25874148	yellow	13	36,497,471	Body	OpenSea	MIR548F5	0.854	0.004	0.760	0.559
cg24924502	yellow	17	79,109,777	Body	Island	AATK	0.854	0.000	0.855	0.982
cg06197751	yellow	3	153,912,866	Body	OpenSea	SGEF	0.853	0.007	0.669	0.341
cg09807227	yellow	17	80,201,957		N_Shore		0.853	0.004	0.715	0.435
cg15310162	yellow	21	37,852,822	5'UTR	OpenSea	CLDN14	0.853	-0.002	0.775	0.885
cg25190824	yellow	1	40,255,903	TSS1500	S_Shore	BMP8B	0.853	0.004	0.660	0.676
cg25587091	yellow	15	66,125,463		OpenSea		0.853	-0.002	0.103	0.788
cg02483462	yellow	9	140,939,579	Body	N_Shore	CACNA1B	0.853	0.011	0.573	0.092
cg10557552	yellow	14	102,681,613	Body	S_Shore	WDR20	0.853	0.015	0.413	0.306
cg04674060	yellow	17	7,792,063	Body	S_Shelf	CHD3	0.853	0.010	0.378	0.178
cg20918218	yellow	15	40,509,703	Body	OpenSea	BUB1B	0.853	0.015	0.278	0.192
cg27530093	yellow	19	41,815,095	TSS1500	N_Shore	CCDC97	0.853	0.001	0.636	0.867
cg00150785	yellow	20	25,581,368		N_Shore		0.853	0.011	0.435	0.194
cg11805647	yellow	15	81,362,969		OpenSea		0.853	0.009	0.415	0.364
cg16104139	yellow	5	134,829,480		S_Shore		0.853	-0.006	0.528	0.582
cg10667810	yellow	19	36,704,922	5'UTR	N_Shore	ZNF565	0.853	0.010	0.522	0.137
cg14140874	yellow	11	75,277,124	5'UTR	N_Shore	SERPINH1	0.853	0.001	0.548	0.939
cg26306994	yellow	12	6,493,521	1stExon	Island	LTBR	0.853	0.026	0.460	0.025
cg18756580	yellow	20	47,803,232	5'UTR	N_Shore	STAU1	0.853	-0.003	0.164	0.729
cg26477169	yellow	17	75,196,864	Body	OpenSea	SEC14L1	0.853	0.004	0.176	0.805
cg26183190	yellow	6	33,754,751	Body	N_Shore	LEMD2	0.853	-0.002	0.812	0.859
cg04353438	yellow	19	5,621,182	Body	N_Shore	SAFB2	0.853	0.010	0.824	0.221
cg12758082	yellow	13	113,407,769	Body	N_Shelf	ATP11A	0.853	0.003	0.815	0.673
cg01580228	yellow	11	93,467,095	TSS200	OpenSea	MIR1304	0.853	-0.006	0.839	0.392
cg24461171	yellow	1	197,745,025	TSS1500	S_Shore	DENND1B	0.853	0.013	0.574	0.045
cg24049880	yellow	1	161,171,211	5'UTR	N_Shore	NDUFS2	0.853	0.017	0.481	0.079
cg22861669	yellow	1	9,904,386		OpenSea		0.853	0.002	0.745	0.781
cg14095761	yellow	9	35,713,238	Body	OpenSea	TLN1	0.853	0.009	0.857	0.071
cg09878914	yellow	6	31,507,316	Body	N_Shelf	BAT1	0.853	0.005	0.827	0.420
cg17734698	yellow	12	129,127,968	Body	OpenSea	TMEM132C	0.853	-0.001	0.563	0.882
cg18259504	yellow	14	51,000,058	1stExon	S_Shore	ATL1	0.853	0.007	0.225	0.413
cg24659295	yellow	1	51,680,516		OpenSea		0.853	0.012	0.229	0.127

cg19314777	yellow	1	235,477,322	Body	OpenSea	ARID4B	0.853	0.003	0.567	0.691
cg10621441	yellow	11	45,354,409		OpenSea		0.853	0.000	0.508	0.993
cg05694095	yellow	5	169,659,745	TSS1500	N_Shore	C5orf58	0.853	-0.005	0.627	0.740
cg13043117	yellow	14	61,992,820	Body	OpenSea	PRKCH	0.853	0.001	0.707	0.815
cg00858483	yellow	12	123,238,275	Body	S_Shore	DENR	0.853	0.008	0.549	0.568
cg15893493	yellow	8	124,194,847	1stExon	OpenSea	FAM83A	0.853	0.019	0.343	0.048
cg12211091	yellow	19	2,512,999	3'UTR	N_Shore	GNF7	0.852	0.002	0.647	0.771
cg04349839	yellow	4	25,789,390	Body	OpenSea	SEL1L3	0.852	0.008	0.817	0.423
cg06485706	yellow	16	28,996,270	Body	OpenSea	LAT	0.852	0.005	0.507	0.386
cg21422605	yellow	1	85,313,514	Body	OpenSea	LPAR3	0.852	0.016	0.559	0.161
cg25179876	yellow	10	33,483,109	Body	OpenSea	NRP1	0.852	0.012	0.208	0.417
cg01991934	yellow	14	93,412,768	Body	OpenSea	ITPK1	0.852	0.009	0.487	0.174
cg09853388	yellow	13	33,887,012		OpenSea		0.852	-0.013	0.674	0.249
cg25471956	yellow	8	101,859,439		OpenSea		0.852	0.003	0.118	0.717
cg08862452	yellow	8	144,903,025	Body	OpenSea	PUF60	0.852	0.013	0.807	0.173
cg09636525	yellow	4	7,052,612	Body	Island	TADA2B	0.852	0.005	0.662	0.424
cg13221458	yellow	6	160,112,632	Body	N_Shore	SOD2	0.852	0.001	0.438	0.957
cg02276944	yellow	2	157,291,826	TSS1500	N_Shore	GPD2	0.852	0.009	0.480	0.243
cg12691651	yellow	15	73,075,087	Body	N_Shore	ADPGK	0.852	0.010	0.321	0.145
cg18951352	yellow	6	149,806,077	5'UTR	OpenSea	ZC3H12D	0.852	-0.002	0.637	0.768
cg06308537	yellow	17	4,850,290	Body	N_Shore	PFN1	0.852	0.014	0.130	0.046
cg19450302	yellow	11	9,160,869	3'UTR	OpenSea	DENND5A	0.852	0.006	0.823	0.441
cg09149894	yellow	6	32,097,233	TSS1500	N_Shore	ATF6B	0.852	0.004	0.726	0.674
cg13166098	yellow	14	75,313,044		OpenSea		0.852	0.012	0.384	0.240
cg06389950	yellow	16	75,240,536	Body	OpenSea	CTRB2	0.852	-0.004	0.639	0.692
cg23209606	yellow	1	8,515,930	Body	OpenSea	RERE	0.852	0.001	0.619	0.862
cg15868692	yellow	13	111,005,573	Body	OpenSea	COL4A2	0.852	0.008	0.499	0.170
cg02987482	yellow	19	6,274,208	Body	S_Shelf	MLLT1	0.852	0.007	0.311	0.438
cg05053979	yellow	14	89,681,043	Body	OpenSea	FOXN3	0.852	0.012	0.508	0.167
cg18766847	yellow	2	135,595,627	TSS1500	OpenSea	ACMSD	0.852	-0.002	0.780	0.879
cg05543520	yellow	3	66,500,703	Body	OpenSea	LRIG1	0.852	0.024	0.681	0.016
cg17707274	yellow	11	102,401,523	TSS200	OpenSea	MMP7	0.852	0.008	0.699	0.412
cg17412560	yellow	2	95,963,403	Body	OpenSea	KCNIP3	0.852	0.011	0.456	0.317
cg15511120	yellow	11	6,598,119		OpenSea		0.852	0.014	0.394	0.102
cg09651136	yellow	15	72,525,012	TSS1500	S_Shore	PKM2	0.852	0.005	0.653	0.538
cg22502382	yellow	12	32,701,732	5'UTR	OpenSea	FGD4	0.852	0.011	0.434	0.288
cg01954585	yellow	15	86,270,435	Body	OpenSea	AKAP13	0.852	0.003	0.780	0.789
cg08900384	yellow	11	72,546,168		OpenSea		0.852	0.009	0.833	0.075
cg23163513	yellow	11	1,481,925	Body	Island	BRSK2	0.852	0.023	0.499	0.031
cg20279561	yellow	13	113,356,724	Body	OpenSea	ATP11A	0.852	-0.021	0.731	0.095
cg04890576	yellow	17	73,032,613		S_Shore		0.852	0.024	0.424	0.048
cg16995086	yellow	13	32,614,209	Body	OpenSea	FRY	0.852	0.025	0.344	0.302
cg20138861	yellow	3	169,775,992	5'UTR	OpenSea	GPR160	0.852	0.005	0.845	0.506
cg24812103	yellow	8	101,735,630	TSS1500	S_Shore	PABPC1	0.852	0.006	0.672	0.396
cg08418670	yellow	19	4,374,567	Body	S_Shelf	SH3GL1	0.852	0.017	0.844	0.055
cg03753942	yellow	8	61,926,269		OpenSea		0.852	0.006	0.576	0.403
cg05004973	yellow	17	75,905,560		OpenSea		0.852	0.011	0.432	0.257
cg16439130	yellow	6	149,658,548	5'UTR	OpenSea	MAP3K7IP2	0.852	0.018	0.441	0.182
cg09690215	yellow	2	241,216,697		OpenSea		0.852	-0.004	0.216	0.711
cg07145783	yellow	1	160,855,077	TSS200	OpenSea	ITLN1	0.852	0.003	0.455	0.843
cg02725123	yellow	3	32,619,278		OpenSea		0.852	0.009	0.091	0.531
cg26070099	yellow	1	33,471,937		OpenSea		0.852	0.007	0.660	0.484
cg27153059	yellow	11	18,719,942	TSS1500	N_Shore	TMEM86A	0.852	0.001	0.168	0.884
cg02459543	yellow	8	94,924,611		N_Shelf		0.852	-0.002	0.872	0.800
cg20790367	yellow	1	31,492,493	Body	OpenSea	PUM1	0.852	-0.002	0.711	0.786
cg13823666	yellow	9	104,139,000	5'UTR	OpenSea	BAAT	0.851	0.007	0.617	0.473
cg09456094	yellow	2	231,280,878	5'UTR	OpenSea	SP100	0.851	0.018	0.247	0.076
cg04545963	yellow	14	35,872,393	Body	N_Shore	NFKBIA	0.851	0.003	0.493	0.637
cg01101058	yellow	14	70,235,157	Body	S_Shore	SFRS5	0.851	0.005	0.673	0.521
cg03940662	yellow	16	1,373,608	Body	OpenSea	UBE2I	0.851	0.002	0.532	0.704
cg16118379	yellow	1	11,207,707	Body	OpenSea	MTOR	0.851	-0.009	0.663	0.564
cg02176502	yellow	5	158,892,858	Body	OpenSea	LOC285627	0.851	0.007	0.814	0.402
cg02709032	yellow	19	33,699,683	3'UTR	S_Shore	SLC7A10	0.851	0.006	0.398	0.661
cg06466796	yellow	2	218,691,529	Body	OpenSea	TNS1	0.851	0.011	0.489	0.089
cg04210187	yellow	10	103,331,611		S_Shore		0.851	0.009	0.569	0.227
cg07932300	yellow	6	139,454,928	TSS1500	N_Shore	HECA	0.851	0.010	0.389	0.155
cg03485667	yellow	16	75,143,200	3'UTR	OpenSea	ZNRF1	0.851	0.025	0.534	0.057

cg21897676	yellow	13	113,428,161	Body	N_Shore	ATP11A	0.851	-0.007	0.843	0.580
cg17329534	yellow	1	154,980,743	5'UTR	OpenSea	ZBTB7B	0.851	0.009	0.627	0.148
cg14109388	yellow	4	25,940,163		OpenSea		0.851	0.009	0.556	0.308
cg12607120	yellow	2	122,515,888	Body	S_Shelf	TSN	0.851	-0.001	0.774	0.938
cg22067839	yellow	3	47,889,960	Body	N_Shore	DHX30	0.851	0.003	0.724	0.600
cg14003265	yellow	9	139,796,499	Body	OpenSea	TRAF2	0.851	0.013	0.791	0.052
cg12221087	yellow	17	78,237,432	5'UTR	S_Shelf	RNF213	0.851	0.014	0.180	0.318
cg07952905	yellow	17	27,275,352	Body	N_Shore	PHF12	0.851	0.006	0.320	0.492
cg15274870	yellow	11	71,900,970	1stExon	OpenSea	FOLR1	0.851	0.002	0.644	0.740
cg16741128	yellow	2	64,860,886	3'UTR	OpenSea	SERTAD2	0.851	0.006	0.692	0.499
cg03001484	yellow	6	70,507,230	TSS200	S_Shore	LMBRD1	0.851	0.000	0.525	0.971
cg13299776	yellow	3	148,847,007	TSS1500	N_Shore	HPS3	0.851	0.012	0.212	0.253
cg16147932	yellow	14	105,165,186	5'UTR	N_Shelf	INF2	0.851	0.012	0.836	0.215
cg23628721	yellow	6	116,332,682	Body	OpenSea	FRK	0.851	0.028	0.361	0.073
cg12944530	yellow	2	201,982,310	5'UTR	N_Shore	CFLAR	0.851	0.006	0.460	0.560
cg22804770	yellow	12	2,786,316	Body	N_Shelf	CACNA1C	0.851	0.004	0.694	0.544
cg11209289	yellow	3	138,101,415	Body	OpenSea	MRAS	0.851	0.002	0.749	0.789
cg26166595	yellow	11	11,998,715	Body	OpenSea	DKK3	0.851	0.009	0.223	0.194
cg01290009	yellow	10	134,980,513	Body	Island	KNDC1	0.851	0.032	0.685	0.009
cg25074794	yellow	10	45,958,885	Body	OpenSea	8-Mar	0.851	0.004	0.849	0.525
cg07396817	yellow	3	185,453,355	Body	OpenSea	IGF2BP2	0.851	0.006	0.617	0.771
cg18748064	yellow	13	113,423,268	Body	N_Shore	ATP11A	0.851	-0.007	0.812	0.620
cg08815403	yellow	4	88,244,142	TSS200	OpenSea	HSD17B13	0.851	0.008	0.476	0.302
cg02900356	yellow	16	31,214,494	TSS1500	S_Shore	PYCARD	0.851	0.013	0.446	0.064
cg26126740	yellow	20	42,574,332	5'UTR	OpenSea	TOX2	0.851	0.003	0.627	0.635
cg27425327	yellow	12	102,270,723	TSS1500	N_Shore	DRAM1	0.850	0.017	0.289	0.125
cg13707189	yellow	9	19,028,399	Body	S_Shore	FAM154A	0.850	0.018	0.647	0.326
cg27156542	yellow	14	105,932,812	Body	Island	MTA1	0.850	-0.004	0.760	0.770
cg16558770	yellow	15	90,548,037	5'UTR	S_Shelf	ZNF710	0.850	0.011	0.750	0.222
cg06623295	yellow	17	77,539,754		OpenSea		0.850	0.004	0.299	0.769
cg13300630	yellow	3	78,756,422	Body	OpenSea	ROBO1	0.850	-0.004	0.510	0.672
cg01443852	yellow	12	52,938,023	3'UTR	OpenSea	KRT71	0.850	0.006	0.710	0.470
cg10920224	yellow	14	103,367,591	Body	OpenSea	TRAF3	0.850	0.006	0.720	0.648
cg23912072	yellow	5	176,326,924	TSS1500	OpenSea	HK3	0.850	-0.004	0.802	0.623
cg06100684	yellow	10	23,383,753	TSS1500	N_Shore	MSRB2	0.850	-0.007	0.707	0.482
cg07600998	yellow	1	147,146,108		S_Shelf		0.850	-0.009	0.539	0.161
cg08206898	yellow	10	116,581,183	TSS1500	N_Shore	FAM160B1	0.850	-0.001	0.072	0.887
cg20837626	yellow	2	54,195,596	Body	N_Shelf	PSME4	0.850	0.004	0.438	0.425
cg20448706	yellow	14	32,941,841	Body	OpenSea	AKAP6	0.850	0.009	0.275	0.362
cg16735875	yellow	15	99,367,484	Body	OpenSea	IGF1R	0.850	0.009	0.572	0.265
cg05290780	yellow	13	39,609,377	Body	N_Shelf	C13orf23	0.850	0.005	0.697	0.707
cg24387285	yellow	22	50,747,822		S_Shore		0.850	0.000	0.466	0.963
cg02871021	yellow	11	10,715,715	TSS1500	OpenSea	MRV11	0.850	0.004	0.482	0.524
cg17782974	yellow	10	104,406,990	Body	S_Shelf	TRIM8	0.850	0.003	0.747	0.751
cg27640064	yellow	7	4,752,983	Body	OpenSea	FOXK1	0.850	-0.003	0.722	0.824
cg10916651	yellow	1	22,962,986	TSS200	OpenSea	C1QA	0.850	0.010	0.494	0.243
cg12628061	yellow	1	56,453,730		OpenSea		0.850	0.019	0.658	0.275
cg26824174	yellow	1	114,522,444	Body	OpenSea	OLFML3	0.850	0.011	0.331	0.312
cg05306029	yellow	2	102,117,488		OpenSea		0.850	0.014	0.579	0.195
cg21008399	yellow	12	56,120,816	Body	N_Shore	CD63	0.850	0.012	0.645	0.092
cg21993290	yellow	2	233,703,120	Body	OpenSea	GIGYF2	0.850	-0.010	0.448	0.165
cg15397593	yellow	12	2,273,119	Body	OpenSea	CACNA1C	0.850	0.026	0.523	0.071
cg03146065	yellow	17	7,417,598	3'UTR	OpenSea	POLR2A	0.850	0.007	0.376	0.241
cg17499345	yellow	1	86,048,585	Body	S_Shore	CYR61	0.850	0.008	0.718	0.325
cg04533078	yellow	16	89,382,131	Body	OpenSea	ANKRD11	0.849	0.001	0.692	0.825
cg17582074	yellow	4	83,189,641		OpenSea		0.849	0.007	0.577	0.316
cg16683508	yellow	8	57,233,314	TSS200	S_Shore	SDR16C5	0.849	0.002	0.717	0.846
cg13385114	yellow	1	9,656,493	Body	OpenSea	TMEM201	0.849	0.003	0.229	0.731
cg03069731	yellow	7	116,738,693	Body	OpenSea	ST7	0.849	0.016	0.588	0.163
cg19527159	yellow	5	138,533,634	5'UTR	N_Shore	SIL1	0.849	0.006	0.054	0.141
cg09096067	yellow	10	15,820,266	3'UTR	OpenSea	FAM188A	0.849	-0.001	0.737	0.950
cg07157030	yellow	14	63,671,356	5'UTR	OpenSea	RHOJ	0.849	0.020	0.225	0.078
cg21464220	yellow	2	242,242,798	5'UTR	OpenSea	HDLBP	0.849	0.016	0.582	0.061
cg05948763	yellow	1	2,205,824	Body	OpenSea	SKI	0.849	0.006	0.562	0.622
cg02742555	yellow	11	15,200,692	Body	OpenSea	INSC	0.849	-0.001	0.461	0.872
cg27652869	yellow	5	172,216,846		OpenSea		0.849	0.016	0.551	0.023
cg17738861	yellow	5	32,233,621	Body	OpenSea	MTMR12	0.849	0.032	0.571	0.010

cg08364730	yellow	16	3,906,833	Body	OpenSea	CREBBP	0.849	0.003	0.886	0.642
cg24681307	yellow	1	110,526,191	TSS1500	N_Shore	AHCYL1	0.849	-0.002	0.672	0.845
cg08190175	yellow	22	41,814,253		S_Shelf		0.849	-0.008	0.325	0.235
cg00310940	yellow	1	9,129,648	5'UTR	N_Shore	SLC2A5	0.849	0.014	0.536	0.137
cg13074458	yellow	4	57,985,198		OpenSea		0.849	-0.010	0.740	0.329
cg00907198	yellow	3	153,811,985		OpenSea		0.849	0.007	0.740	0.545
cg21828716	yellow	14	23,857,953	Body	N_Shore	MYH6	0.849	0.006	0.459	0.373
cg20293609	yellow	1	86,048,540	Body	S_Shore	CYR61	0.849	-0.003	0.739	0.708
cg08576185	yellow	16	2,055,684	Body	S_Shore	ZNF598	0.849	0.011	0.872	0.085
cg04761094	yellow	19	42,913,736	Body	N_Shore	LIPE	0.849	0.006	0.782	0.307
cg18320854	yellow	17	79,001,543		OpenSea		0.849	-0.003	0.600	0.724
cg24541021	yellow	2	218,896,725		N_Shore		0.849	-0.004	0.745	0.563
cg11797145	yellow	1	29,557,769	TSS1500	S_Shore	MECR	0.849	0.001	0.257	0.854
cg05652328	yellow	17	7,479,977	Body	S_Shelf	EIF4A1	0.849	0.009	0.637	0.104
cg08217545	yellow	19	3,388,013	Body	Island	NFIC	0.849	-0.010	0.390	0.381
cg06009215	yellow	5	113,647,903		OpenSea		0.849	0.018	0.609	0.246
cg07452879	yellow	17	71,274,436		OpenSea		0.849	0.009	0.100	0.334
cg08235220	yellow	8	40,835,933		OpenSea		0.849	0.005	0.249	0.511
cg23921196	yellow	2	70,978,771	5'UTR	OpenSea	ADD2	0.849	-0.003	0.800	0.788
cg09676669	yellow	7	30,951,272	TSS200	OpenSea	AQP1	0.849	0.000	0.063	0.947
cg25350986	yellow	7	4,762,844	Body	N_Shore	FOXK1	0.849	-0.005	0.907	0.369
cg21208539	yellow	11	93,864,142	Body	S_Shore	PANX1	0.849	0.010	0.489	0.378
cg05877397	yellow	16	49,672,444	Body	Island	ZNF423	0.849	-0.009	0.733	0.245
cg27154769	yellow	19	56,177,793	Body	S_Shore	U2AF2	0.849	0.006	0.668	0.288
cg14055887	yellow	9	136,236,665	Body	OpenSea	SURF4	0.849	-0.001	0.776	0.905
cg24940861	yellow	1	85,041,449	TSS1500	S_Shore	CTBS	0.849	-0.004	0.868	0.641
cg02426071	yellow	16	30,825,529		Island		0.849	-0.002	0.170	0.712
cg14168059	yellow	10	73,687,855		OpenSea		0.849	0.009	0.563	0.553
cg14265502	yellow	19	19,319,214		N_Shelf		0.849	0.016	0.307	0.042
cg01359236	yellow	8	11,763,828		S_Shelf		0.848	0.012	0.558	0.039
cg12817389	yellow	8	62,602,522	Body	OpenSea	ASPH	0.848	0.015	0.428	0.059
cg02261780	yellow	19	3,097,728	Body	Island	GNA11	0.848	0.000	0.826	0.946
cg09352815	yellow	10	130,337,228		N_Shore		0.848	-0.003	0.592	0.799
cg17534092	yellow	12	125,322,578	Body	N_Shore	SCARB1	0.848	0.008	0.716	0.395
cg12275289	yellow	6	30,691,665	Body	S_Shelf	TUBB	0.848	-0.002	0.295	0.841
cg12731568	yellow	11	67,196,864	Body	S_Shore	RPS6KB2	0.848	0.008	0.756	0.238
cg22934200	yellow	2	61,407,270	5'UTR	S_Shore	AHSA2	0.848	0.003	0.448	0.819
cg22500328	yellow	6	134,428,142		OpenSea		0.848	0.028	0.764	0.035
cg06642677	yellow	1	203,829,775	TSS1500	N_Shore	SNRPE	0.848	0.011	0.326	0.305
cg15797422	yellow	17	47,656,736	3'UTR	S_Shelf	NXPB3	0.848	0.004	0.500	0.648
cg03418876	yellow	17	48,799,340	Body	S_Shelf	LUC7L3	0.848	-0.009	0.531	0.418
cg13452522	yellow	10	92,837,362		OpenSea		0.848	-0.007	0.184	0.272
cg20218614	yellow	8	124,194,935	1stExon	OpenSea	FAM83A	0.848	0.013	0.790	0.124
cg17938220	yellow	6	158,195,158		OpenSea		0.848	0.014	0.503	0.090
cg13908395	yellow	1	109,585,161	TSS1500	S_Shore	WDR47	0.848	0.009	0.223	0.210
cg10706649	yellow	11	65,064,139	Body	OpenSea	POLA2	0.848	0.008	0.533	0.596
cg15136410	yellow	2	96,873,066	Body	N_Shore	STARD7	0.848	-0.008	0.215	0.525
cg19049607	yellow	12	12,764,333	TSS1500	N_Shore	CREBL2	0.848	0.007	0.049	0.213
cg18832348	yellow	5	94,844,511	Body	OpenSea	TTC37	0.848	-0.005	0.725	0.770
cg14394264	yellow	11	46,121,221	5'UTR	OpenSea	PHF21A	0.848	0.001	0.368	0.954
cg05490366	yellow	11	2,397,831	TSS1500	N_Shore	CD81	0.848	0.003	0.856	0.768
cg26362766	yellow	14	78,083,524	TSS1500	S_Shore	SPTLC2	0.848	-0.011	0.121	0.297
cg09354692	yellow	6	160,122,650		OpenSea		0.848	0.004	0.722	0.762
cg05694563	yellow	17	17,465,224	Body	Island	PEMT	0.848	0.004	0.567	0.502
cg16733643	yellow	1	41,575,522	Body	OpenSea	SCMH1	0.848	0.023	0.260	0.177
cg15155209	yellow	3	14,502,277	Body	OpenSea	SLC6A6	0.848	0.019	0.470	0.112
cg14434745	yellow	15	90,756,012	Body	OpenSea	SEMA4B	0.848	-0.003	0.834	0.715
cg02931410	yellow	1	28,853,697	Body	N_Shelf	SNHG3-RCC1	0.848	0.015	0.883	0.036
cg06445944	yellow	5	67,586,928	Body	S_Shelf	PIK3R1	0.848	0.009	0.547	0.313
cg12299361	yellow	1	53,796,769		S_Shelf		0.848	0.002	0.689	0.740
cg14381712	yellow	1	12,546,623	Body	OpenSea	VPS13D	0.848	0.005	0.221	0.669
cg13065206	yellow	15	41,062,017	Body	OpenSea	DNAJC17	0.848	-0.005	0.518	0.608
cg15784615	yellow	12	6,493,767	Body	S_Shore	LTBR	0.848	0.015	0.369	0.020
cg19964454	yellow	11	69,458,595	Body	Island	CCND1	0.848	0.010	0.310	0.048
cg07552374	yellow	11	6,418,966	Body	OpenSea	APBB1	0.848	0.015	0.421	0.110
cg07405257	yellow	13	37,631,087	5'UTR	N_Shelf	FAM48A	0.848	-0.008	0.881	0.117
cg19274703	yellow	22	41,806,451		N_Shelf		0.848	0.007	0.478	0.350

cg18581777	yellow	15	75,105,186	TSS200	OpenSea	LMAN1L	0.847	0.013	0.546	0.224
cg24032304	yellow	12	112,860,691	Body	S_Shelf	PTPN11	0.847	-0.002	0.492	0.757
cg20804756	yellow	6	31,507,857	Body	N_Shore	BAT1	0.847	0.005	0.227	0.535
cg08292104	yellow	14	69,361,049	Body	OpenSea	ACTN1	0.847	0.011	0.733	0.186
cg06496454	yellow	7	4,807,062	3'UTR	Island	FOXK1	0.847	0.005	0.835	0.612
cg06285307	yellow	3	128,771,903		OpenSea		0.847	0.005	0.564	0.605
cg18329175	yellow	1	228,394,607	TSS1500	OpenSea	OBSCN	0.847	0.011	0.444	0.122
cg24338748	yellow	17	34,947,916	TSS1500	N_Shore	DHRS11	0.847	0.005	0.115	0.398
cg17514199	yellow	1	238,051,451	Body	OpenSea	LOC1001303	0.847	0.005	0.669	0.644
cg17782000	yellow	19	18,303,124	TSS1500	N_Shore	MPV17L2	0.847	0.007	0.126	0.488
cg06422678	yellow	7	150,147,922	TSS200	OpenSea	GIMAP8	0.847	0.000	0.263	0.971
cg04385523	yellow	3	44,381,576	5'UTR	S_Shore	C3orf23	0.847	0.001	0.800	0.924
cg18024358	yellow	1	3,420,815	Body	OpenSea	MEGF6	0.847	-0.008	0.826	0.256
cg12068366	yellow	19	4,548,354	Body	S_Shelf	SEMA6B	0.847	0.007	0.669	0.279
cg22803642	yellow	10	60,198,125		OpenSea		0.847	0.008	0.794	0.338
cg14422906	yellow	6	51,951,835	5'UTR	OpenSea	PKHD1	0.847	0.007	0.783	0.312
cg25843115	yellow	6	134,217,613		S_Shore		0.847	0.005	0.376	0.599
cg20054412	yellow	7	1,143,524	Body	S_Shore	C7orf50	0.847	0.014	0.654	0.141
cg16597737	yellow	1	173,572,370	TSS200	OpenSea	SLC9A11	0.847	0.027	0.493	0.087
cg13961587	yellow	13	113,382,154	Body	N_Shore	ATP11A	0.847	-0.010	0.829	0.176
cg23165164	yellow	11	131,240,559	1stExon	OpenSea	NTM	0.847	0.015	0.241	0.280
cg13667389	yellow	17	79,004,850	Body	N_Shore	FLJ90757	0.847	0.005	0.533	0.510
cg01919999	yellow	5	180,668,568	Body	N_Shore	GNB2L1	0.847	-0.001	0.615	0.895
cg26027052	yellow	6	36,821,364		OpenSea		0.847	0.000	0.678	0.997
cg18808904	yellow	20	11,898,851	1stExon	OpenSea	BTBD3	0.847	0.010	0.611	0.236
cg23824666	yellow	6	28,493,661	TSS200	OpenSea	GPX5	0.847	0.005	0.712	0.530
cg03894450	yellow	7	72,970,595	Body	N_Shore	BCL7B	0.847	0.004	0.425	0.584
cg12590005	yellow	6	35,997,326	Body	S_Shore	MAPK14	0.847	-0.001	0.072	0.938
cg00263368	yellow	7	150,999,591		N_Shore		0.846	0.004	0.472	0.532
cg14773365	yellow	5	175,108,285	5'UTR	OpenSea	HRH2	0.846	0.007	0.622	0.515
cg12873903	yellow	17	40,514,805	5'UTR	OpenSea	STAT3	0.846	0.001	0.862	0.883
cg09152259	yellow	2	128,156,114		N_Shelf		0.846	0.006	0.201	0.425
cg03066080	yellow	17	77,539,424		OpenSea		0.846	-0.005	0.639	0.627
cg18474885	yellow	21	46,292,084	Body	N_Shore	PTTG1IP	0.846	0.008	0.204	0.121
cg02565132	yellow	2	109,559,473	5'UTR	S_Shore	EDAR	0.846	0.020	0.696	0.031
cg27135298	yellow	17	65,361,838	Body	N_Shore	PSMD12	0.846	0.012	0.163	0.111
cg00788170	yellow	1	227,921,688	TSS1500	N_Shore	SNAP47	0.846	0.011	0.570	0.027
cg04272820	yellow	17	38,228,538	5'UTR	OpenSea	THRA	0.846	0.020	0.411	0.021
cg16970828	yellow	3	49,851,353	5'UTR	OpenSea	UBA7	0.846	0.008	0.074	0.329
cg10312522	yellow	4	129,275,525		OpenSea		0.846	0.006	0.133	0.545
cg24402165	yellow	11	27,427,559	Body	OpenSea	LGR4	0.846	0.002	0.805	0.746
cg00876449	yellow	19	19,844,278	TSS1500	S_Shore	ZNF14	0.846	0.020	0.088	0.022
cg24534872	yellow	17	73,110,680	Body	OpenSea	ARMC7	0.846	0.018	0.251	0.075
cg25533247	yellow	19	15,530,630	TSS1500	S_Shore	AKAP8L	0.846	0.018	0.470	0.059
cg20142972	yellow	7	150,652,808	5'UTR	Island	KCNH2	0.846	-0.002	0.104	0.753
cg00736958	yellow	3	52,099,548	TSS1500	OpenSea	C3orf74	0.846	0.002	0.600	0.807
cg18020072	yellow	6	31,590,640	TSS1500	S_Shore	SNORA38	0.846	0.005	0.448	0.318
cg12449685	yellow	11	124,768,950	TSS1500	OpenSea	ROBO4	0.846	0.004	0.083	0.549
cg14270002	yellow	13	111,935,521	Body	Island	ARHGEF7	0.846	0.010	0.818	0.473
cg00630870	yellow	10	89,113,843		N_Shore		0.846	0.002	0.766	0.844
cg07996393	yellow	6	43,792,951		OpenSea		0.846	-0.010	0.650	0.232
cg24877510	yellow	4	78,742,376		S_Shore		0.846	0.001	0.768	0.921
cg09668627	yellow	1	1,371,844	Body	S_Shore	VWA1	0.846	0.003	0.573	0.797
cg16174121	yellow	11	47,736,254	1stExon	N_Shore	AGBL2	0.846	0.017	0.166	0.115
cg12449722	yellow	5	1,162,279		OpenSea		0.846	0.002	0.320	0.752
cg02392124	yellow	10	28,876,249	Body	OpenSea	WAC	0.846	0.008	0.860	0.407
cg01709096	yellow	1	16,087,977	5'UTR	S_Shelf	FBLIM1	0.846	-0.003	0.326	0.849
cg25286679	yellow	1	245,879,613		OpenSea		0.846	0.010	0.641	0.222
cg08151370	yellow	3	43,073,152	Body	OpenSea	FAM198A	0.846	0.025	0.724	0.057
cg14125542	yellow	2	16,796,185	5'UTR	OpenSea	FAM49A	0.846	0.015	0.754	0.198
cg05256304	yellow	11	116,969,870	TSS1500	S_Shore	SIK3	0.846	0.006	0.322	0.353
cg27324576	yellow	3	157,212,036	Body	OpenSea	VEPH1	0.846	0.011	0.866	0.311
cg16525277	yellow	5	171,190,008		OpenSea		0.845	0.010	0.188	0.714
cg12710480	yellow	20	32,254,216	Body	N_Shore	NECAB3	0.845	0.004	0.252	0.659
cg01065679	yellow	1	222,245,218		OpenSea		0.845	0.002	0.678	0.833
cg00986910	yellow	3	55,450,569		OpenSea		0.845	0.022	0.717	0.027
cg06335372	yellow	3	42,806,748	5'UTR	OpenSea	CCDC13	0.845	0.004	0.657	0.585

cg20501434	yellow	22	30,868,167	TSS200	OpenSea	SEC14L3	0.845	0.018	0.448	0.094
cg16336436	yellow	14	76,178,685	Body	OpenSea	TLL5	0.845	0.006	0.593	0.461
cg19765281	yellow	19	15,485,159	Body	S_Shore	AKAP8	0.845	0.012	0.764	0.047
cg27413385	yellow	17	7,515,425	Body	N_Shelf	FXR2	0.845	0.009	0.498	0.386
cg07304483	yellow	11	1,328,622	Body	N_Shore	TOLLIP	0.845	0.004	0.713	0.433
cg15721238	yellow	3	196,520,408	Body	OpenSea	PAK2	0.845	0.000	0.816	0.992
cg19370689	yellow	7	102,558,323	5'UTR	OpenSea	LRRC17	0.845	0.012	0.533	0.455
cg24025255	yellow	14	69,617,774	Body	N_Shore	DCAF5	0.845	0.004	0.475	0.596
cg22277972	yellow	12	108,960,008	Body	S_Shelf	ISCU	0.845	0.010	0.721	0.211
cg19496554	yellow	6	50,081,576		OpenSea		0.845	-0.002	0.819	0.837
cg23473081	yellow	12	13,349,569	TSS200	OpenSea	EMP1	0.845	0.003	0.035	0.494
cg16145324	yellow	6	36,020,012	Body	OpenSea	MAPK14	0.845	0.012	0.551	0.123
cg27162642	yellow	12	131,513,346	Body	N_Shelf	GPR133	0.845	0.003	0.664	0.596
cg08117110	yellow	15	81,605,232	3'UTR	OpenSea	STAR5	0.845	0.018	0.615	0.093
cg16711866	yellow	1	36,935,656	Body	OpenSea	CSF3R	0.845	-0.006	0.781	0.571
cg05673137	yellow	6	41,007,003	TSS200	OpenSea	UNC5CL	0.845	0.006	0.627	0.467
cg13634681	yellow	15	63,050,577	Body	OpenSea	TLN2	0.845	0.013	0.447	0.062
cg11150901	yellow	1	241,694,605	TSS1500	OpenSea	KMO	0.845	0.002	0.359	0.811
cg16155588	yellow	13	113,861,933	TSS1500	N_Shore	CUL4A	0.845	0.002	0.412	0.804
cg15252509	yellow	18	56,337,165	TSS1500	N_Shore	MALT1	0.845	0.002	0.851	0.821
cg00824222	yellow	7	17,978,107	Body	N_Shore	SNX13	0.845	0.002	0.797	0.838
cg13668129	yellow	19	41,768,075	TSS1500	N_Shore	HNRNPUL1	0.845	0.005	0.348	0.503
cg01868869	yellow	14	50,866,735		S_Shelf		0.845	-0.005	0.537	0.575
cg16146033	yellow	11	62,767,323	Body	OpenSea	SLC22A8	0.845	0.000	0.644	0.994
cg26242531	yellow	14	104,190,678	Body	N_Shelf	ZFYVE21	0.845	0.005	0.201	0.588
cg00928596	yellow	16	14,403,022	TSS200	OpenSea	MIR365-1	0.845	0.021	0.640	0.063
cg15967278	yellow	8	29,886,272		S_Shore		0.845	0.011	0.654	0.117
cg00996764	yellow	19	51,382,591	3'UTR	OpenSea	KLK2	0.845	0.006	0.655	0.454
cg10495270	yellow	14	76,009,633	Body	N_Shelf	BATF	0.845	0.005	0.475	0.471
cg22228142	yellow	11	96,620,007		OpenSea		0.845	0.007	0.700	0.648
cg21186955	yellow	7	100,729,412	5'UTR	N_Shelf	TRIM56	0.845	0.009	0.699	0.379
cg12482501	yellow	10	119,507,902		OpenSea		0.845	0.000	0.845	0.954
cg09140851	yellow	8	19,170,432	TSS1500	N_Shore	SH2D4A	0.845	0.013	0.459	0.055
cg14251777	yellow	7	150,147,655	TSS1500	OpenSea	GIMAP8	0.845	0.014	0.488	0.018
cg06637550	yellow	22	37,585,337	TSS1500	OpenSea	C1QTNF6	0.845	0.012	0.648	0.308
cg20935106	yellow	12	6,561,229	1stExon	OpenSea	TAPBP1	0.845	0.012	0.135	0.162
cg01142066	yellow	2	96,010,652	Body	N_Shore	KCNIP3	0.845	0.004	0.714	0.560
cg18832407	yellow	14	21,271,355	TSS1500	OpenSea	RNASE1	0.844	0.011	0.826	0.226
cg23186333	yellow	11	35,161,900	Body	S_Shore	CD44	0.844	0.024	0.481	0.322
cg05707492	yellow	17	78,833,484	Body	S_Shore	RPTOR	0.844	0.015	0.222	0.135
cg06697448	yellow	3	8,544,912	Body	S_Shore	LMCD1	0.844	0.011	0.528	0.284
cg06729034	yellow	15	51,339,830		OpenSea		0.844	-0.005	0.688	0.560
cg05198733	yellow	11	58,912,052	TSS200	S_Shore	FAM111A	0.844	0.002	0.220	0.796
cg25814096	yellow	17	73,782,472	Body	S_Shore	UNK	0.844	0.016	0.360	0.091
cg14716323	yellow	2	207,194,123		OpenSea		0.844	0.002	0.747	0.831
cg14999833	yellow	5	82,360,866	Body	OpenSea	TMEM167A	0.844	0.000	0.687	0.991
cg08711867	yellow	1	185,014,241	TSS1500	N_Shore	RNF2	0.844	0.003	0.073	0.652
cg06219337	yellow	17	1,278,466	Body	OpenSea	YWHAE	0.844	0.003	0.733	0.645
cg17952075	yellow	2	23,854,382	Body	S_Shelf	KLHL29	0.844	0.004	0.641	0.710
cg23139584	yellow	8	56,987,506	TSS1500	S_Shore	RPS20	0.844	0.001	0.323	0.930
cg25303023	yellow	6	169,301,413		OpenSea		0.844	-0.004	0.814	0.752
cg13154614	yellow	2	159,040,337	Body	OpenSea	CCDC148	0.844	0.004	0.826	0.573
cg23954655	yellow	13	99,223,562	Body	OpenSea	STK24	0.844	0.010	0.686	0.128
cg02455392	yellow	1	232,514,215		OpenSea		0.844	0.006	0.550	0.442
cg19350870	yellow	2	73,008,384	Body	OpenSea	EXOC6B	0.844	0.013	0.627	0.359
cg11908453	yellow	2	242,209,506	5'UTR	N_Shore	HDLBP	0.844	-0.005	0.681	0.571
cg14543780	yellow	4	7,768,575	Body	OpenSea	AFAP1	0.844	0.002	0.671	0.745
cg02735962	yellow	10	14,740,875	Body	OpenSea	FAM107B	0.844	0.014	0.742	0.111
cg00024046	yellow	2	20,398,358		OpenSea		0.844	0.002	0.687	0.792
cg14435645	yellow	17	77,128,623	5'UTR	S_Shore	HRNBP3	0.844	-0.001	0.616	0.874
cg14286732	yellow	9	90,208,854	Body	OpenSea	DAPK1	0.844	0.021	0.577	0.087
cg00108715	yellow	3	52,565,015	Body	N_Shore	NT5DC2	0.844	0.007	0.476	0.442
cg01526854	yellow	6	41,900,498	3'UTR	OpenSea	BYSL	0.844	0.006	0.666	0.397
cg24074177	yellow	4	26,492,488	TSS1500	OpenSea	CCKAR	0.844	0.008	0.367	0.446
cg19417129	yellow	19	45,459,933	Body	S_Shore	CLPTM1	0.844	0.003	0.251	0.797
cg19116959	yellow	4	146,841,472	Body	OpenSea	ZNF827	0.844	0.008	0.469	0.386
cg12192282	yellow	2	143,632,190		OpenSea		0.844	0.009	0.736	0.291



cg04167075	yellow	14	50,576,289	3'UTR	OpenSea	C14orf138	0.844	0.002	0.457	0.802
cg04330326	yellow	19	2,770,448	5'UTR	N_Shelf	SGTA	0.843	0.004	0.554	0.590
cg11957248	yellow	10	105,238,964	5'UTR	OpenSea	CALHM3	0.843	0.005	0.610	0.423
cg07038243	yellow	5	149,868,855		S_Shelf		0.843	0.010	0.429	0.134
cg10524915	yellow	14	94,857,046	TSS200	OpenSea	SERPINA1	0.843	0.004	0.084	0.522
cg11801374	yellow	20	30,597,694	TSS1500	OpenSea	C20orf160	0.843	0.002	0.806	0.765
cg04981574	yellow	5	176,449,406	TSS1500	N_Shore	ZNF346	0.843	0.020	0.184	0.028
cg14710552	yellow	7	134,832,584	TSS200	OpenSea	TMEM140	0.843	0.006	0.178	0.623
cg14719722	yellow	7	150,148,022	5'UTR	OpenSea	GIMAP8	0.843	0.004	0.420	0.653
cg25426742	yellow	2	198,478,885	Body	OpenSea	RFTN2	0.843	-0.002	0.701	0.941
cg15608892	yellow	3	126,721,586	Body	OpenSea	PLXNA1	0.843	0.016	0.670	0.073
cg03608502	yellow	15	62,537,760		OpenSea		0.843	0.001	0.692	0.842
cg13048147	yellow	17	73,044,542	TSS1500	S_Shore	ATP5H	0.843	0.012	0.767	0.314
cg05590087	yellow	5	38,640,041		OpenSea		0.843	0.004	0.621	0.673
cg20638429	yellow	22	24,979,642	TSS200	OpenSea	GGT1	0.843	0.001	0.398	0.853
cg08090640	yellow	17	41,159,289	Body	OpenSea	IFI35	0.843	0.003	0.871	0.678
cg24403644	yellow	20	42,574,624	5'UTR	OpenSea	TOX2	0.843	0.006	0.599	0.504
cg21705505	yellow	21	45,558,301	Body	N_Shelf	C21orf33	0.843	-0.001	0.769	0.892
cg25070442	yellow	8	881,586		OpenSea		0.843	-0.005	0.607	0.456
cg15702277	yellow	1	8,477,935	5'UTR	OpenSea	RERE	0.843	0.009	0.573	0.203
cg02427468	yellow	7	158,575,934	Body	OpenSea	ESYT2	0.843	0.008	0.592	0.358
cg17314961	yellow	13	113,435,942	Body	OpenSea	ATP11A	0.843	0.002	0.869	0.827
cg06822340	yellow	7	147,355,839	Body	OpenSea	CNTNAP2	0.843	0.009	0.604	0.558
cg10070185	yellow	14	94,857,151	TSS200	OpenSea	SERPINA1	0.843	0.001	0.697	0.920
cg12810626	yellow	1	160,764,664	TSS1500	OpenSea	LY9	0.843	0.011	0.362	0.584
cg10208934	yellow	2	27,805,334	TSS1500	N_Shore	ZNF512	0.843	-0.003	0.862	0.709
cg15346781	yellow	2	7,017,571	TSS1500	OpenSea	RSAD2	0.843	0.007	0.873	0.470
cg08061524	yellow	22	46,472,568		OpenSea		0.843	0.008	0.862	0.495
cg07543967	yellow	19	49,055,443	1stExon	OpenSea	SULT2B1	0.843	0.011	0.626	0.200
cg01303236	yellow	5	73,934,842	5'UTR	N_Shore	ENC1	0.843	0.003	0.421	0.720
cg15906007	yellow	22	38,890,714	Body	OpenSea	DDX17	0.843	0.000	0.827	0.963
cg25814752	yellow	12	56,106,386	TSS1500	N_Shelf	ITGA7	0.843	0.015	0.433	0.070
cg24078695	yellow	1	230,882,977	TSS200	OpenSea	CAPN9	0.843	0.008	0.634	0.354
cg11758283	yellow	6	7,998,697		OpenSea		0.843	0.010	0.538	0.283
cg24406391	yellow	1	155,938,911	Body	OpenSea	ARHGEF2	0.843	0.000	0.388	0.967
cg03556021	yellow	5	112,258,649	TSS1500	S_Shore	REEP5	0.843	0.000	0.610	0.955
cg24485038	yellow	1	9,657,892	Body	OpenSea	TMEM201	0.843	0.014	0.709	0.086
cg05489292	yellow	12	112,331,187	3'UTR	OpenSea	MAPKAPK5	0.843	-0.006	0.768	0.549
cg06023161	yellow	6	31,590,572	TSS1500	S_Shore	SNORA38	0.843	0.005	0.634	0.438
cg26394380	yellow	2	85,896,001	TSS1500	OpenSea	SFTPB	0.842	0.005	0.639	0.562
cg14737571	yellow	13	113,436,568	Body	N_Shelf	ATP11A	0.842	0.004	0.796	0.545
cg16401770	yellow	7	112,739,805		OpenSea		0.842	0.027	0.641	0.079
cg04106785	yellow	17	30,813,145	TSS1500	N_Shore	CDK5R1	0.842	-0.001	0.624	0.935
cg24924577	yellow	15	90,735,148	5'UTR	OpenSea	SEMA4B	0.842	0.016	0.513	0.223
cg18653982	yellow	5	176,920,259	Body	S_Shore	PDLIM7	0.842	-0.003	0.446	0.585
cg18151410	yellow	15	92,367,692		OpenSea		0.842	0.010	0.263	0.182
cg18532208	yellow	7	212,938	Body	OpenSea	FAM20C	0.842	0.002	0.742	0.882
cg14847134	yellow	1	156,122,709	TSS1500	OpenSea	SEMA4A	0.842	0.003	0.565	0.632
cg01472113	yellow	9	114,658,195	TSS1500	N_Shore	UGCG	0.842	0.014	0.665	0.097
cg00238249	yellow	6	71,276,258	TSS1500	N_Shore	C6orf57	0.842	0.015	0.331	0.141
cg12993791	yellow	7	100,210,745	Body	S_Shore	MOSPD3	0.842	-0.006	0.269	0.401
cg26542888	yellow	1	185,014,264	TSS1500	N_Shore	RNF2	0.842	0.001	0.065	0.765
cg10826175	yellow	10	55,016,939		OpenSea		0.842	-0.007	0.825	0.521
cg20680265	yellow	7	70,194,602	Body	OpenSea	AUTS2	0.842	0.003	0.681	0.703
cg22742299	yellow	19	1,313,502		Island		0.842	0.008	0.503	0.253
cg12734710	yellow	1	1,486,459	Body	N_Shelf	SSU72	0.842	0.001	0.446	0.887
cg02308150	yellow	10	102,593,679		S_Shelf		0.842	0.004	0.460	0.659
cg01768697	yellow	14	100,613,226	Body	N_Shelf	DEGS2	0.842	0.000	0.730	0.952
cg06646276	yellow	16	29,857,097	Body	S_Shore	MVP	0.842	0.005	0.668	0.635
cg15648041	yellow	1	86,048,923	3'UTR	S_Shore	CYR61	0.842	0.005	0.568	0.497
cg24315815	yellow	3	145,969,579	TSS1500	S_Shore	PLSCR4	0.842	0.025	0.726	0.076
cg06873564	yellow	2	220,554,043		OpenSea		0.842	-0.006	0.817	0.406
cg18889144	yellow	1	46,145,067	5'UTR	OpenSea	GPBP1L1	0.842	0.003	0.121	0.724
cg14499577	yellow	8	1,414,612		OpenSea		0.842	0.019	0.246	0.196
cg09386073	yellow	17	73,007,747	TSS1500	N_Shore	ICT1	0.842	0.001	0.808	0.906
cg15000071	yellow	3	134,889,493	Body	OpenSea	EPHB1	0.842	0.005	0.566	0.397
cg12198176	yellow	22	23,415,316	Body	S_Shore	RTDR1	0.842	0.002	0.634	0.768

cg01676795	yellow	7	75,586,348	Body	OpenSea	POR	0.842	0.002	0.875	0.840
cg14290445	yellow	9	139,745,116	Body	S_Shore	PHPT1	0.842	0.007	0.699	0.377
cg05021312	yellow	20	32,078,768	Body	S_Shore	CBFA2T2	0.842	0.004	0.681	0.722
cg02926868	yellow	11	66,374,763		OpenSea		0.842	0.010	0.548	0.553
cg20481287	yellow	12	12,224,457	5'UTR	OpenSea	BCL2L14	0.842	-0.002	0.635	0.781
cg10297617	yellow	14	91,610,405	5'UTR	OpenSea	C14orf159	0.842	0.016	0.648	0.099
cg23723105	yellow	1	68,150,193	TSS1500	N_Shore	GADD45A	0.842	0.006	0.078	0.447
cg22480459	yellow	2	55,395,888		OpenSea		0.842	0.005	0.077	0.377
cg06972578	yellow	9	140,916,078	Body	N_Shore	CACNA1B	0.842	0.015	0.714	0.035
cg27005906	yellow	12	6,540,162		OpenSea		0.842	0.010	0.819	0.281
cg07895499	yellow	3	156,409,317	Body	OpenSea	TIPARP	0.841	-0.005	0.708	0.660
cg09839592	yellow	2	239,478,514		OpenSea		0.841	-0.009	0.691	0.204
cg23170346	yellow	8	134,863,880		OpenSea		0.841	-0.007	0.147	0.467
cg00278392	yellow	6	16,802,505		OpenSea		0.841	0.015	0.727	0.203
cg10831642	yellow	10	105,378,344	Body	OpenSea	SH3PXD2A	0.841	0.007	0.678	0.362
cg00608965	yellow	12	91,572,191	1stExon	OpenSea	DCN	0.841	0.007	0.600	0.570
cg16210842	yellow	5	139,511,585		OpenSea		0.841	-0.010	0.460	0.226
cg24972087	yellow	18	77,387,841		S_Shore		0.841	0.009	0.657	0.280
cg23145621	yellow	7	1,406,289		N_Shelf		0.841	0.009	0.381	0.188
cg20818806	yellow	13	110,885,926	Body	OpenSea	COL4A1	0.841	-0.005	0.599	0.733
cg21929860	yellow	1	11,024,261	TSS200	OpenSea	C1orf127	0.841	0.010	0.727	0.408
cg00029678	yellow	17	78,354,382	Body	OpenSea	RNF213	0.841	0.010	0.781	0.229
cg05883695	yellow	3	43,019,724	TSS1500	N_Shore	FAM198A	0.841	-0.001	0.704	0.938
cg26538224	yellow	22	37,591,954		N_Shelf		0.841	-0.003	0.832	0.723
cg12577010	yellow	7	134,832,544	TSS1500	OpenSea	TMEM140	0.841	0.007	0.197	0.367
cg18109838	yellow	5	88,185,987	5'UTR	S_Shore	MEF2C	0.841	0.012	0.127	0.160
cg08279092	yellow	1	24,071,557	Body	S_Shore	TCEB3	0.841	-0.006	0.439	0.729
cg13692543	yellow	9	35,510,933	5'UTR	OpenSea	RUSC2	0.841	-0.004	0.259	0.711
cg14861570	yellow	17	53,499,954	TSS1500	S_Shore	MMD	0.841	0.003	0.594	0.643
cg13199429	yellow	14	63,670,711	TSS1500	OpenSea	RHOJ	0.841	0.004	0.510	0.794
cg14250028	yellow	17	80,897,246	Body	N_Shore	TBCD	0.841	0.008	0.785	0.176
cg16399589	yellow	17	26,824,423	3'UTR	OpenSea	SLC13A2	0.841	0.005	0.733	0.457
cg07238066	yellow	11	65,188,862	TSS1500	N_Shore	NEAT1	0.841	-0.003	0.233	0.477
cg15318546	yellow	12	133,069,091	Body	S_Shore	FBRSL1	0.841	-0.006	0.758	0.543
cg25428429	yellow	6	42,788,831	5'UTR	OpenSea	KIAA0240	0.841	0.009	0.487	0.210
cg16403326	yellow	12	50,359,051	3'UTR	N_Shelf	AQP5	0.841	0.001	0.346	0.856
cg13530039	yellow	11	62,689,557	TSS1500	N_Shore	CHRM1	0.841	0.012	0.512	0.103
cg01109135	yellow	14	105,532,252	TSS1500	OpenSea	GPR132	0.841	0.011	0.645	0.132
cg09026539	yellow	3	39,237,940		OpenSea		0.841	-0.003	0.124	0.624
cg25316172	yellow	5	156,695,161	5'UTR	S_Shore	CYFIP2	0.841	0.016	0.884	0.032
cg11290998	yellow	12	104,449,753		OpenSea		0.841	0.003	0.300	0.750
cg01793945	yellow	16	4,420,291	Body	N_Shore	CORO7	0.841	-0.002	0.663	0.823
cg14392677	yellow	9	139,432,990	Body	OpenSea	NOTCH1	0.841	0.001	0.726	0.798
cg13358186	yellow	17	7,461,775	5'UTR	N_Shelf	TNFSF13	0.841	0.005	0.100	0.496
cg25375029	yellow	1	244,820,484	Body	S_Shelf	PPPDE1	0.841	0.005	0.892	0.502
cg26295786	yellow	14	31,731,725		OpenSea		0.841	0.025	0.296	0.063
cg10389812	yellow	15	99,458,162	Body	OpenSea	IGF1R	0.841	-0.005	0.780	0.620
cg12498181	yellow	13	113,436,309	Body	N_Shelf	ATP11A	0.841	0.007	0.558	0.632
cg11471401	yellow	12	52,888,480	TSS1500	OpenSea	KRT6A	0.841	-0.002	0.447	0.837
cg17802486	yellow	15	33,179,514	Body	OpenSea	FMN1	0.841	0.001	0.689	0.954
cg01874672	yellow	4	1,204,956		N_Shore		0.841	0.012	0.385	0.125
cg21196839	yellow	9	116,358,024	Body	OpenSea	RGS3	0.841	0.002	0.809	0.793
cg22331159	yellow	2	233,924,713	TSS1500	N_Shore	INPP5D	0.841	-0.002	0.709	0.757
cg05631737	yellow	8	49,780,701		N_Shore		0.841	0.007	0.676	0.398
cg12053257	yellow	10	35,383,575		S_Shelf		0.841	-0.004	0.878	0.655
cg09112476	yellow	2	232,580,215		OpenSea		0.841	-0.002	0.212	0.712
cg24853975	yellow	5	112,666,914	Body	OpenSea	MCC	0.841	0.001	0.690	0.933
cg04743859	yellow	11	67,817,488	Body	OpenSea	TCIRG1	0.841	0.006	0.467	0.341
cg23342234	yellow	19	5,914,311	5'UTR	N_Shore	CAPS	0.841	0.008	0.670	0.313
cg10329579	yellow	1	17,754,830	Body	OpenSea	RCC2	0.841	-0.002	0.725	0.824
cg12425180	yellow	1	40,033,305	Body	OpenSea	PABPC4	0.841	0.007	0.814	0.307
cg07665466	yellow	3	137,816,617	Body	OpenSea	DZIP1L	0.841	0.002	0.708	0.786
cg10157208	yellow	19	13,112,449	Body	Island	NFIX	0.841	-0.001	0.840	0.935
cg20102280	yellow	13	47,470,793	5'UTR	OpenSea	HTR2A	0.841	0.018	0.697	0.210
cg19917083	yellow	2	112,814,452	Body	S_Shore	TMEM87B	0.841	0.003	0.208	0.705
cg09232021	yellow	16	79,630,003	3'UTR	N_Shelf	MAF	0.841	0.005	0.784	0.722
cg09366339	yellow	3	48,957,246	TSS1500	S_Shore	C3orf71	0.841	-0.002	0.123	0.773

cg08634041	yellow	13	78,494,330	TSS1500	S_Shore	EDNRB	0.841	-0.001	0.774	0.945
cg22805381	yellow	14	51,760,188		OpenSea		0.841	0.018	0.447	0.072
cg09285095	yellow	22	46,440,394	Body	Island	LOC1002717	0.841	-0.003	0.079	0.601
cg26007849	yellow	14	90,874,616	3'UTR	OpenSea	CALM1	0.840	0.016	0.534	0.279
cg18128495	yellow	5	176,728,620	3'UTR	N_Shore	RAB24	0.840	0.001	0.823	0.875
cg13378013	yellow	10	62,206,867		OpenSea		0.840	0.000	0.430	0.989
cg18151262	yellow	19	1,254,251	Body	Island	MIDN	0.840	-0.007	0.803	0.420
cg07430820	yellow	17	7,792,191	Body	S_Shelf	CHD3	0.840	0.003	0.346	0.579
cg16654458	yellow	10	104,393,942		OpenSea		0.840	0.009	0.768	0.250
cg19755916	yellow	14	28,081,779		OpenSea		0.840	0.001	0.816	0.949
cg07353895	yellow	15	90,611,758	Body	S_Shore	ZNF710	0.840	-0.001	0.864	0.925
cg13586051	yellow	3	58,200,471	TSS200	OpenSea	DNASE1L3	0.840	0.003	0.779	0.712
cg01827908	yellow	22	43,528,287	3'UTR	OpenSea	MCAT	0.840	0.001	0.836	0.916
cg00830813	yellow	7	984,874	Body	N_Shore	ADAP1	0.840	0.010	0.713	0.184
cg04752680	yellow	19	14,114,100	5'UTR	N_Shelf	RFX1	0.840	0.012	0.551	0.170
cg25104233	yellow	2	18,158,708		OpenSea		0.840	0.008	0.710	0.284
cg22505962	yellow	3	45,067,627	TSS200	OpenSea	CLEC3B	0.840	0.002	0.176	0.810
cg23707540	yellow	10	126,836,038	5'UTR	N_Shelf	CTBP2	0.840	0.003	0.554	0.751
cg09987231	yellow	14	105,923,632	Body	OpenSea	MTA1	0.840	0.006	0.801	0.293
cg02447620	yellow	6	43,604,584	Body	S_Shore	MAD2L1BP	0.840	0.005	0.419	0.362
cg01943447	yellow	1	180,901,423	Body	N_Shelf	KIAA1614	0.840	0.006	0.830	0.304
cg21144009	yellow	1	208,281,523	Body	OpenSea	PLXNA2	0.840	0.004	0.423	0.561
cg05676570	yellow	2	135,985,164	Body	OpenSea	ZRANB3	0.840	0.008	0.741	0.561
cg26297819	yellow	22	41,763,280	TSS200	OpenSea	TEF	0.840	0.004	0.088	0.528
cg16806195	yellow	7	1,487,784	Body	N_Shelf	MICALL2	0.840	0.010	0.522	0.329
cg06530443	yellow	1	45,975,796	3'UTR	OpenSea	MMACHC	0.840	0.002	0.618	0.832
cg12982543	yellow	3	190,105,609	TSS1500	OpenSea	CLDN16	0.840	-0.003	0.827	0.762
cg06724937	yellow	15	51,056,548	Body	N_Shore	SPPL2A	0.840	0.036	0.281	0.007
cg18477429	yellow	12	57,595,353	Body	N_Shore	LRP1	0.840	0.002	0.772	0.654
cg23371877	yellow	7	152,067,904	Body	S_Shelf	MLL3	0.840	0.032	0.591	0.015
cg01551013	yellow	14	100,203,942		N_Shore		0.840	0.011	0.389	0.443
cg09664445	yellow	17	2,612,406	5'UTR	N_Shore	KIAA0664	0.840	0.006	0.583	0.326
cg21670987	yellow	15	50,350,432	Body	OpenSea	ATP8B4	0.840	0.003	0.552	0.737
cg07346187	yellow	6	149,775,621	Body	N_Shelf	ZC3H12D	0.840	0.007	0.058	0.553
cg20464143	yellow	5	16,728,219	Body	OpenSea	MYO10	0.840	0.003	0.503	0.788
cg13126638	yellow	12	6,487,080	TSS1500	OpenSea	SCNN1A	0.840	-0.008	0.777	0.385
cg21697512	yellow	1	208,081,541	Body	N_Shelf	CD34	0.840	0.000	0.632	0.961
cg15975980	yellow	7	151,101,020	Body	OpenSea	WDR86	0.840	0.002	0.856	0.764
cg08115732	yellow	17	76,171,794	Body	OpenSea	TK1	0.840	0.000	0.851	0.987
cg13758054	yellow	9	136,930,777	5'UTR	OpenSea	BRD3	0.840	0.001	0.535	0.949
cg17400113	yellow	15	93,617,146	1stExon	Island	RGMA	0.839	0.002	0.682	0.866
cg03864479	yellow	5	38,534,081	5'UTR	OpenSea	LIFR	0.839	0.000	0.516	0.945
cg23309843	yellow	5	126,987,825	5'UTR	OpenSea	CTXN3	0.839	0.008	0.747	0.466
cg17548395	yellow	10	60,461,164	Body	OpenSea	BICC1	0.839	0.002	0.723	0.898
cg11959156	yellow	20	62,865,391	Body	OpenSea	MYT1	0.839	0.002	0.872	0.795
cg03412618	yellow	22	46,481,099	TSS1500	N_Shore	LOC400931	0.839	0.007	0.860	0.192
cg25187161	yellow	1	29,510,025	TSS1500	S_Shore	SFRS4	0.839	-0.003	0.629	0.855
cg01710361	yellow	1	51,769,687	Body	OpenSea	TTC39A	0.839	0.012	0.588	0.087
cg04117356	yellow	17	4,406,024	Body	S_Shelf	SPNS2	0.839	0.006	0.309	0.357
cg14898646	yellow	7	820,298	Body	N_Shore	HEATR2	0.839	0.012	0.851	0.324
cg02347989	yellow	11	65,634,083	3'UTR	OpenSea	EFEMP2	0.839	0.007	0.536	0.252
cg04742977	yellow	14	91,127,460	Body	OpenSea	TTC7B	0.839	-0.010	0.837	0.189
cg24393844	yellow	12	68,115,110		OpenSea		0.839	-0.007	0.796	0.347
cg06875985	yellow	1	182,572,153	Body	N_Shore	RGS16	0.839	0.003	0.560	0.678
cg04457572	yellow	10	73,303,234	Body	OpenSea	CDH23	0.839	0.015	0.647	0.068
cg06882877	yellow	1	156,217,801	5'UTR	S_Shore	PAQR6	0.839	0.006	0.484	0.365
cg19755003	yellow	22	46,489,736	Body	OpenSea	LOC400931	0.839	0.001	0.741	0.914
cg00225623	yellow	13	24,845,891	Body	OpenSea	SPATA13	0.839	-0.002	0.494	0.843
cg06939852	yellow	16	51,068,651		OpenSea		0.839	0.018	0.411	0.040
cg08900518	yellow	1	41,410,216		OpenSea		0.839	0.013	0.635	0.120
cg20112376	yellow	4	6,118,443	5'UTR	S_Shelf	JAKMIP1	0.839	0.009	0.638	0.229
cg11608390	yellow	6	2,021,942	Body	OpenSea	GMDS	0.839	0.017	0.416	0.131
cg13716760	yellow	9	15,371,248		OpenSea		0.839	0.017	0.677	0.205
cg10782206	yellow	14	76,445,988	Body	N_Shelf	TGFB3	0.839	0.017	0.225	0.203
cg03389046	yellow	1	2,839,220		OpenSea		0.839	0.004	0.565	0.694
cg01773858	yellow	11	73,076,892	Body	S_Shelf	ARHGEF17	0.839	-0.001	0.696	0.808
cg19641924	yellow	13	113,556,413		S_Shelf		0.839	0.016	0.603	0.233

cg27190654	yellow	4	109,387,521	OpenSea		0.839	0.004	0.634	0.638	
cg13580002	yellow	15	57,626,444	OpenSea		0.839	0.000	0.807	0.970	
cg15207662	yellow	5	175,108,315	5'UTR	OpenSea	HRH2	0.839	0.009	0.535	0.427
cg24268966	yellow	12	66,341,719	Body	OpenSea	HMGGA2	0.839	-0.015	0.641	0.222
cg25447717	yellow	3	183,952,205	Body	S_Shelf	VWA5B2	0.839	0.006	0.300	0.238
cg03966751	yellow	17	48,367,746	OpenSea		0.839	0.002	0.443	0.750	
cg21913981	yellow	12	120,151,706	TSS200	OpenSea	MIR1178	0.839	0.011	0.743	0.235
cg22879292	yellow	3	71,951,848	OpenSea		0.839	0.003	0.358	0.763	
cg08883078	yellow	2	97,291,520	Body	OpenSea	KIAA1310	0.839	0.004	0.105	0.796
cg23850913	yellow	6	15,505,452	Body	OpenSea	JARID2	0.839	0.009	0.275	0.333
cg08236623	yellow	13	98,126,882	OpenSea		0.839	0.000	0.476	0.983	
cg00391479	yellow	19	1,313,527	Island		0.839	0.006	0.322	0.467	
cg23721345	yellow	1	27,043,524	Body	OpenSea	ARID1A	0.839	-0.004	0.786	0.759
cg05900648	yellow	2	129,243,364	N_Shore		0.839	0.006	0.604	0.466	
cg07035704	yellow	8	75,616,533	TSS1500	OpenSea	MIR2052	0.839	0.008	0.548	0.633
cg00719237	yellow	17	47,583,662	Body	Island	NGFR	0.839	0.018	0.606	0.038
cg13941555	yellow	1	2,565,265	TSS1500	OpenSea	MMEL1	0.839	0.015	0.623	0.116
cg13148151	yellow	3	45,637,978	Body	S_Shelf	LIMD1	0.839	0.025	0.712	0.106
cg25923056	yellow	19	41,306,455	1stExon	N_Shore	EGLN2	0.839	0.005	0.656	0.434
cg16498741	yellow	8	41,144,520	Body	OpenSea	SFRP1	0.839	0.002	0.737	0.892
cg08008144	yellow	8	1,983,127	OpenSea		0.838	0.009	0.326	0.331	
cg19981982	yellow	11	120,418,900	OpenSea		0.838	0.006	0.423	0.294	
cg25196611	yellow	1	64,276,571	Body	OpenSea	ROR1	0.838	0.006	0.344	0.505
cg24985035	yellow	17	36,147,478	OpenSea		0.838	0.028	0.513	0.026	
cg12690119	yellow	3	141,043,080	1stExon	OpenSea	ZBTB38	0.838	-0.007	0.819	0.330
cg05277329	yellow	16	67,273,168	Body	S_Shore	FHOD1	0.838	0.009	0.783	0.166
cg18503031	yellow	3	69,915,406	Body	OpenSea	MITF	0.838	0.011	0.359	0.124
cg07997596	yellow	1	3,685,319	Body	N_Shelf	CGDC27	0.838	0.018	0.646	0.014
cg00160619	yellow	3	160,823,318	TSS200	S_Shore	B3GALNT1	0.838	0.001	0.184	0.933
cg04103918	yellow	17	4,726,687	3'UTR	OpenSea	PLD2	0.838	-0.007	0.582	0.478
cg21611170	yellow	5	114,938,389	Body	S_Shore	TMED7-TICAI	0.838	0.001	0.301	0.907
cg23328194	yellow	8	26,687,962	Body	OpenSea	ADRA1A	0.838	-0.003	0.619	0.784
cg15063443	yellow	6	30,900,560	TSS1500	OpenSea	SFTA2	0.838	0.007	0.550	0.308
cg24721789	yellow	1	203,840,145	3'UTR	OpenSea	SNRPE	0.838	0.001	0.764	0.881
cg15115522	yellow	11	125,115,327	5'UTR	OpenSea	PKNOX2	0.838	0.033	0.732	0.011
cg10176514	yellow	1	7,688,803	Body	OpenSea	CAMTA1	0.838	0.003	0.729	0.704
cg01611626	yellow	16	2,565,338	Body	S_Shore	ATP6V0C	0.838	0.010	0.620	0.169
cg23525708	yellow	14	70,152,683	Body	OpenSea	KIAA0247	0.838	0.019	0.422	0.036
cg23248729	yellow	1	60,186,076	Body	OpenSea	FGGY	0.838	0.008	0.738	0.572
cg02872693	yellow	20	18,295,599	Body	OpenSea	ZNF133	0.838	-0.006	0.705	0.389
cg25010752	yellow	1	116,460,862	OpenSea		0.838	-0.001	0.753	0.936	
cg00105102	yellow	1	156,217,178	5'UTR	S_Shore	PAQR6	0.838	-0.003	0.729	0.725
cg24790419	yellow	19	18,385,930	TSS1500	OpenSea	KIAA1683	0.838	0.039	0.477	0.024
cg27178155	yellow	13	45,621,949	OpenSea		0.838	-0.004	0.405	0.655	
cg19229215	yellow	7	73,476,337	Body	OpenSea	ELN	0.838	0.000	0.627	0.991
cg24239961	yellow	6	31,794,472	TSS1500	N_Shore	HSPA1B	0.838	0.011	0.629	0.495
cg00775863	yellow	2	80,229,409	Body	OpenSea	CTNNA2	0.838	0.007	0.534	0.544
cg17543539	yellow	20	61,045,751	Body	N_Shelf	GATA5	0.838	-0.006	0.743	0.537
cg00070235	yellow	16	1,682,446	Body	OpenSea	CRAMP1L	0.838	0.007	0.890	0.357
cg09021393	yellow	7	95,849,568	TSS1500	OpenSea	MIR591	0.838	0.002	0.723	0.888
cg18935453	yellow	11	68,167,030	Body	OpenSea	LRP5	0.838	0.004	0.253	0.700
cg22725310	yellow	18	43,755,103	5'UTR	Island	C18orf25	0.838	0.005	0.073	0.363
cg16380351	yellow	13	45,991,575	5'UTR	N_Shore	SLC25A30	0.838	0.007	0.048	0.213
cg23663547	yellow	17	38,710,320	3'UTR	OpenSea	CCR7	0.838	0.007	0.363	0.439
cg06623197	yellow	22	30,400,763	Body	OpenSea	MTMR3	0.838	0.003	0.715	0.703
cg26150922	yellow	2	100,937,072	Body	N_Shore	LONRF2	0.838	0.008	0.841	0.386
cg09086087	yellow	16	68,000,763	1stExon	N_Shore	SLC12A4	0.838	0.017	0.462	0.039
cg01823925	yellow	5	156,967,901	Body	OpenSea	ADAM19	0.838	0.013	0.697	0.136
cg26990835	yellow	16	29,831,705	TSS200	S_Shelf	MVP	0.838	-0.001	0.052	0.677
cg22221831	yellow	12	15,039,397	TSS1500	OpenSea	MGP	0.838	0.000	0.514	0.988
cg03991512	yellow	16	75,150,456	Body	S_Shore	LDHD	0.838	-0.008	0.382	0.310
cg19973338	yellow	17	76,141,249	TSS1500	OpenSea	C17orf99	0.838	0.012	0.426	0.169
cg11105610	yellow	17	76,976,352	TSS1500	OpenSea	LGALS3BP	0.838	0.009	0.663	0.354
cg07795614	yellow	5	141,812,398	OpenSea		0.837	0.008	0.396	0.202	
cg18115766	yellow	3	23,960,290	Body	S_Shore	RPL15	0.837	0.001	0.759	0.904
cg10947764	yellow	1	31,449,882	Body	OpenSea	PUM1	0.837	-0.012	0.830	0.200
cg27584135	yellow	3	15,975,501	OpenSea		0.837	-0.007	0.641	0.564	

cg17969853	yellow	6	108,615,613	TSS1500	N_Shore	LACE1	0.837	0.006	0.767	0.420
cg07383950	yellow	15	78,832,523	TSS1500	N_Shore	PSMA4	0.837	-0.002	0.051	0.592
cg21266845	yellow	1	168,698,479	TSS200	OpenSea	DPT	0.837	0.022	0.601	0.063
cg06662132	yellow	10	104,406,731	Body	S_Shore	TRIM8	0.837	0.008	0.167	0.104
cg16570634	yellow	16	4,385,108	Body	OpenSea	GLIS2	0.837	0.001	0.624	0.891
cg14313748	yellow	9	101,498,661	3'UTR	OpenSea	ANKS6	0.837	0.013	0.765	0.269
cg12315997	yellow	4	39,461,668	Body	S_Shore	LIAS	0.837	-0.007	0.333	0.474
cg01612366	yellow	4	14,113,465		OpenSea		0.837	0.010	0.289	0.465
cg26923410	yellow	7	30,951,432	TSS200	OpenSea	AQP1	0.837	-0.008	0.136	0.215
cg06824394	yellow	7	86,846,535	Body	N_Shelf	C7orf23	0.837	0.005	0.682	0.434
cg22676516	yellow	7	157,808,983	Body	OpenSea	PTPRN2	0.837	0.003	0.465	0.663
cg10176011	yellow	8	1,905,280	Body	OpenSea	ARHGEF10	0.837	0.018	0.676	0.217
cg14591352	yellow	13	113,030,235	TSS1500	OpenSea	C13orf28	0.837	0.002	0.774	0.820
cg03830181	yellow	13	20,676,097		OpenSea		0.837	0.008	0.514	0.215
cg10136168	yellow	14	77,783,447	Body	N_Shelf	POMT2	0.837	0.007	0.793	0.269
cg18842310	yellow	13	113,627,484	Body	S_Shelf	MCF2L	0.837	-0.003	0.543	0.617
cg22050157	yellow	11	1,054,176		N_Shelf		0.837	0.006	0.455	0.251
cg05355067	yellow	20	56,243,503	5'UTR	N_Shelf	PMEPA1	0.837	0.010	0.662	0.137
cg20362308	yellow	17	15,412,141	Body	OpenSea	FAM18B2	0.837	-0.004	0.290	0.584
cg24430578	yellow	1	231,761,688	Body	N_Shore	TSNAX-DISC1	0.837	0.007	0.390	0.199
cg02132051	yellow	14	73,020,007	Body	OpenSea	RGS6	0.837	0.003	0.573	0.769
cg18454299	yellow	15	44,959,064	Body	S_Shelf	PATL2	0.837	0.005	0.600	0.641
cg13795986	yellow	1	155,880,507	Body	OpenSea	RIT1	0.837	0.009	0.085	0.335
cg09789874	yellow	12	125,262,045		OpenSea		0.837	0.001	0.445	0.887
cg12613632	yellow	1	95,385,935	Body	OpenSea	CNN3	0.837	0.006	0.727	0.328
cg20232550	yellow	8	144,344,793	3'UTR	OpenSea	ZFP41	0.837	0.015	0.803	0.138
cg04398285	yellow	10	13,424,851		OpenSea		0.836	0.004	0.429	0.594
cg27270412	yellow	10	33,622,332	Body	N_Shore	NRP1	0.836	0.021	0.172	0.182
cg12662084	yellow	6	17,809,126	Body	OpenSea	KIF13A	0.836	-0.004	0.872	0.608
cg01809797	yellow	22	31,796,612	Body	S_Shore	DRG1	0.836	0.002	0.618	0.821
cg05156582	yellow	1	2,171,253	Body	OpenSea	SKI	0.836	0.007	0.721	0.243
cg13243168	yellow	17	61,915,833	Body	N_Shelf	SMARCD2	0.836	0.006	0.334	0.464
cg25249849	yellow	11	117,695,486	Body	OpenSea	FXD2	0.836	0.009	0.375	0.261
cg23049226	yellow	15	102,182,534	3'UTR	OpenSea	TM2D3	0.836	-0.003	0.644	0.870
cg05652141	yellow	3	127,058,958		S_Shore		0.836	0.007	0.443	0.247
cg05193538	yellow	1	26,097,991	Body	Island	MAN1C1	0.836	0.000	0.197	0.971
cg10433043	yellow	6	152,432,725		OpenSea		0.836	0.028	0.509	0.015
cg04276007	yellow	7	107,386,512	Body	S_Shore	CBLL1	0.836	-0.001	0.676	0.856
cg09606034	yellow	20	1,184,182	1stExon	OpenSea	C20orf202	0.836	-0.004	0.129	0.624
cg23515651	yellow	15	77,988,841		OpenSea		0.836	0.008	0.316	0.428
cg24185680	yellow	7	157,171,288	Body	OpenSea	DNAJB6	0.836	-0.004	0.787	0.632
cg13885243	yellow	9	130,377,351	Body	S_Shelf	STXBP1	0.836	0.015	0.666	0.178
cg00871980	yellow	3	124,510,673	Body	OpenSea	ITGB5	0.836	0.011	0.501	0.334
cg06757356	yellow	13	60,712,449	Body	OpenSea	DIAPH3	0.836	-0.001	0.581	0.906
cg14601357	yellow	20	62,168,764	TSS200	S_Shore	PTK6	0.836	0.004	0.545	0.550
cg22031706	yellow	15	77,988,665		OpenSea		0.836	0.007	0.401	0.452
cg15111822	yellow	4	3,425,910	Body	OpenSea	RGS12	0.836	-0.002	0.881	0.827
cg01437161	yellow	12	8,834,114		OpenSea		0.836	0.019	0.166	0.099
cg02230133	yellow	8	143,424,799	Body	OpenSea	TSNARE1	0.836	0.003	0.766	0.810
cg26744362	yellow	19	56,168,861	Body	N_Shore	U2AF2	0.836	0.007	0.491	0.377
cg13682096	yellow	15	43,513,306	1stExon	OpenSea	EPB42	0.836	0.001	0.676	0.827
cg21899374	yellow	8	144,915,517		N_Shelf		0.836	0.000	0.840	0.990
cg23092956	yellow	2	54,846,562	Body	OpenSea	SPTBN1	0.836	0.005	0.107	0.730
cg10109731	yellow	16	88,472,541		OpenSea		0.836	-0.007	0.585	0.566
cg15980707	yellow	13	113,348,722	Body	N_Shore	ATP11A	0.836	-0.001	0.620	0.884
cg00602295	yellow	16	81,328,089		OpenSea		0.836	0.021	0.548	0.045
cg22067676	yellow	6	126,281,331	Body	S_Shelf	HINT3	0.836	0.001	0.807	0.922
cg11825899	yellow	9	35,844,849	Body	N_Shore	TMEM8B	0.836	0.012	0.112	0.150
cg01361361	yellow	3	188,618,380		OpenSea		0.836	-0.003	0.753	0.682
cg22859585	yellow	8	52,722,512	TSS1500	OpenSea	PXDNL	0.836	0.004	0.474	0.602
cg19241468	yellow	3	122,399,344	TSS1500	N_Shore	PARP14	0.836	0.000	0.303	0.994
cg19718306	yellow	3	134,371,507		S_Shore		0.836	-0.001	0.603	0.898
cg02013781	yellow	6	11,810,820		OpenSea		0.836	0.002	0.749	0.759
cg23499133	yellow	3	50,189,428		N_Shelf		0.836	0.005	0.737	0.471
cg13735863	yellow	20	61,298,096	TSS200	OpenSea	LOC1001278:	0.836	0.018	0.413	0.017
cg15921887	yellow	10	27,909,711		OpenSea		0.835	0.003	0.486	0.803
cg05316065	yellow	8	130,799,007	1stExon	OpenSea	GSDMC	0.835	0.007	0.568	0.391

cg00109344	yellow	9	116,344,532	Body	N_Shore	RGS3	0.835	0.001	0.308	0.936
cg03818395	yellow	10	90,612,228	TSS1500	OpenSea	ANKRD22	0.835	0.008	0.647	0.519
cg00618711	yellow	16	70,688,052	Body	OpenSea	IL34	0.835	0.000	0.376	0.948
cg07755718	yellow	8	8,639,450		OpenSea		0.835	-0.002	0.863	0.856
cg21940220	yellow	17	76,184,081	Body	S_Shore	AFMID	0.835	0.016	0.756	0.195
cg13511576	yellow	6	31,634,890	Body	S_Shore	CSNK2B	0.835	0.001	0.635	0.805
cg23022313	yellow	11	66,674,504	5'UTR	OpenSea	PC	0.835	0.010	0.610	0.162
cg05285228	yellow	7	124,571,219	TSS1500	S_Shore	POT1	0.835	0.004	0.746	0.551
cg00804078	yellow	6	110,736,941	TSS200	OpenSea	DDO	0.835	0.024	0.566	0.085
cg03522083	yellow	2	3,474,169	Body	OpenSea	TTC15	0.835	-0.011	0.829	0.324
cg16975225	yellow	12	52,437,342		OpenSea		0.835	0.007	0.817	0.297
cg27059354	yellow	14	100,346,529	Body	OpenSea	EML1	0.835	-0.003	0.722	0.787
cg11909975	yellow	2	128,159,058		S_Shore		0.835	0.001	0.743	0.878
cg20579480	yellow	1	183,622,007	5'UTR	OpenSea	APOBEC4	0.835	0.014	0.540	0.064
cg21370255	yellow	10	134,150,489	Body	OpenSea	LRRC27	0.835	0.019	0.626	0.061
cg10811485	yellow	13	99,630,583	Body	OpenSea	DOCK9	0.835	0.000	0.320	0.984
cg25950036	yellow	7	158,342,934	Body	Island	PTPRN2	0.835	0.001	0.884	0.897
cg22691587	yellow	1	40,349,894	TSS1500	S_Shore	TRIT1	0.835	-0.001	0.791	0.913
cg06840154	yellow	1	26,149,754	Body	S_Shelf	FAM54B	0.835	0.004	0.589	0.646
cg07703358	yellow	7	138,702,117		OpenSea		0.835	0.007	0.251	0.352
cg24301930	yellow	11	65,408,496	Body	Island	SIPA1	0.835	0.001	0.830	0.798
cg26148020	yellow	8	13,136,639	Body	S_Shelf	DLC1	0.835	-0.001	0.747	0.954
cg01239154	yellow	20	30,776,159		N_Shore		0.835	0.001	0.886	0.851
cg04089800	yellow	1	46,654,770	3'UTR	OpenSea	POMGNT1	0.835	-0.003	0.855	0.676
cg23258615	yellow	10	81,961,468	5'UTR	N_Shelf	ANXA11	0.835	0.004	0.777	0.496
cg15616915	yellow	2	219,266,163	Body	S_Shore	CTDSP1	0.835	0.005	0.194	0.490
cg04621866	yellow	8	144,567,481	Body	N_Shore	ZC3H3	0.835	0.006	0.626	0.432
cg05307935	yellow	13	113,406,750	Body	N_Shelf	ATP11A	0.835	-0.001	0.786	0.855
cg05094216	yellow	3	151,101,921	Body	OpenSea	MED12L	0.835	-0.001	0.761	0.929
cg23464041	yellow	6	33,663,938	3'UTR	OpenSea	ITPR3	0.835	0.020	0.716	0.011
cg22780731	yellow	19	7,910,811	5'UTR	N_Shore	EVISL	0.835	0.009	0.731	0.290
cg03834116	yellow	2	27,403,477		OpenSea		0.835	0.004	0.733	0.727
cg14284797	yellow	9	136,545,056	Body	OpenSea	SARDH	0.835	0.002	0.801	0.798
cg19556854	yellow	6	32,945,549	Body	OpenSea	BRD2	0.835	0.003	0.752	0.697
cg08295410	yellow	5	156,990,663	Body	OpenSea	ADAM19	0.835	0.004	0.337	0.704
cg08681689	yellow	3	184,034,132	Body	S_Shore	EIF4G1	0.835	0.006	0.526	0.348
cg01931714	yellow	17	53,665,388		OpenSea		0.835	0.020	0.531	0.094
cg01492909	yellow	11	2,397,811	TSS1500	N_Shore	CD81	0.835	-0.004	0.655	0.626
cg00466425	yellow	6	30,856,491	5'UTR	S_Shelf	DDR1	0.835	-0.002	0.410	0.856
cg14624546	yellow	11	8,800,270	5'UTR	OpenSea	ST5	0.834	0.014	0.552	0.190
cg15537850	yellow	8	144,661,051	TSS1500	S_Shore	NAPRT1	0.834	0.019	0.581	0.102
cg05237436	yellow	5	138,533,428	5'UTR	N_Shore	SIL1	0.834	0.012	0.314	0.283
cg05690260	yellow	4	25,836,272	Body	OpenSea	SEL1L3	0.834	0.001	0.770	0.951
cg13726166	yellow	17	27,403,888	TSS1500	N_Shelf	TIAF1	0.834	0.000	0.693	0.982
cg13171904	yellow	15	63,051,004	Body	OpenSea	TLN2	0.834	0.007	0.248	0.339
cg06902558	yellow	10	3,141,803	Body	OpenSea	PFKP	0.834	0.007	0.691	0.381
cg10698910	yellow	22	50,716,403	Body	Island	PLXNB2	0.834	0.005	0.742	0.487
cg14721213	yellow	1	171,154,612	5'UTR	OpenSea	FMO2	0.834	0.015	0.729	0.305
cg02458516	yellow	8	40,602,363	Body	OpenSea	ZMAT4	0.834	0.011	0.565	0.263
cg11910782	yellow	19	40,266,791	TSS1500	OpenSea	LEUTX	0.834	0.003	0.735	0.704
cg19827089	yellow	4	144,254,752		N_Shelf		0.834	0.001	0.609	0.921
cg10351284	yellow	8	125,617,225	Body	OpenSea	MTSS1	0.834	0.014	0.669	0.129
cg21907850	yellow	4	186,130,024	TSS1500	N_Shore	SNX25	0.834	0.011	0.531	0.523
cg07937427	yellow	15	59,592,763	Body	OpenSea	MYO1E	0.834	-0.005	0.588	0.637
cg08658895	yellow	17	79,066,577	Body	OpenSea	BAIAP3	0.834	-0.013	0.796	0.068
cg01708091	yellow	6	28,552,674	Body	N_Shelf	SCAND3	0.834	-0.008	0.708	0.294
cg23222472	yellow	7	112,135,961		OpenSea		0.834	0.013	0.356	0.497
cg13333267	yellow	3	50,196,135	5'UTR	S_Shelf	SEMA3F	0.834	0.006	0.661	0.347
cg14389122	yellow	15	74,945,851	Body	OpenSea	EDC3	0.834	0.013	0.375	0.129
cg08651517	yellow	1	110,888,403	3'UTR	OpenSea	RBM15	0.834	-0.011	0.636	0.192
cg20450123	yellow	8	19,540,210	TSS200	OpenSea	CSGALNACT1	0.834	0.006	0.703	0.592
cg20799095	yellow	1	225,924,665		OpenSea		0.834	0.009	0.612	0.651
cg06276663	yellow	10	105,579,899	Body	OpenSea	SH3PXD2A	0.834	0.003	0.149	0.725
cg05616965	yellow	8	848,352		N_Shore		0.834	-0.007	0.800	0.290
cg07932199	yellow	12	112,008,034	Body	OpenSea	ATXN2	0.834	0.003	0.412	0.690
cg04890560	yellow	16	88,459,527		Island		0.834	0.001	0.572	0.863
cg18545433	yellow	2	175,753,137	Body	OpenSea	CHN1	0.834	0.002	0.704	0.858

cg24631162	yellow	6	31,508,318	5'UTR	N_Shore	BAT1	0.834	-0.002	0.149	0.807
cg23860451	yellow	7	99,697,496	Body	N_Shore	MCM7	0.834	0.010	0.445	0.166
cg03983270	yellow	16	81,731,249	Body	OpenSea	CMIP	0.834	0.004	0.844	0.719
cg01200021	yellow	6	40,359,007		N_Shore		0.834	-0.001	0.624	0.906
cg24018190	yellow	4	74,280,794	Body	OpenSea	ALB	0.834	-0.006	0.522	0.653
cg07652189	yellow	4	4,587,217		OpenSea		0.834	0.002	0.565	0.791
cg17666418	yellow	6	106,612,002		OpenSea		0.834	0.003	0.599	0.727
cg05887421	yellow	15	35,839,041	TSS1500	S_Shore	ATPBD4	0.834	0.009	0.601	0.172
cg22859679	yellow	12	12,509,725	TSS1500	N_Shore	LOH12CR1	0.834	0.003	0.418	0.764
cg00686083	yellow	6	33,421,476	TSS1500	N_Shore	ZBTB9	0.834	0.001	0.052	0.893
cg22706505	yellow	2	202,563,406	5'UTR	OpenSea	MPP4	0.834	-0.002	0.503	0.823
cg13823964	yellow	9	94,190,932		S_Shelf		0.834	0.022	0.572	0.059
cg03741850	yellow	1	9,664,395	Body	OpenSea	TMEM201	0.834	0.009	0.757	0.410
cg16785520	yellow	15	90,604,217	5'UTR	OpenSea	ZNF710	0.834	0.008	0.588	0.402
cg04719166	yellow	1	166,806,295		N_Shelf		0.834	0.005	0.855	0.652
cg21085022	yellow	6	34,648,170	Body	OpenSea	C6orf106	0.834	0.008	0.857	0.538
cg08202287	yellow	2	232,259,281	TSS1500	N_Shore	B3GNT7	0.834	-0.001	0.735	0.870
cg05397809	yellow	7	43,918,148	Body	OpenSea	URGCP	0.834	-0.001	0.758	0.866
cg10616974	yellow	17	74,511,719		OpenSea		0.834	0.033	0.478	0.030
cg21263566	yellow	1	95,561,502		OpenSea		0.833	0.000	0.669	0.982
cg14673267	yellow	3	11,058,924	Body	Island	SLC6A1	0.833	-0.006	0.867	0.286
cg25772076	yellow	1	2,218,495	Body	N_Shelf	SKI	0.833	0.004	0.620	0.731
cg24938761	yellow	19	2,091,406	5'UTR	N_Shelf	MOBK2LA	0.833	0.007	0.804	0.408
cg17087499	yellow	1	237,706,764	Body	OpenSea	RYR2	0.833	0.002	0.414	0.844
cg17477990	yellow	1	144,937,317	Body	OpenSea	PDE4DIP	0.833	-0.010	0.647	0.240
cg07338464	yellow	5	148,244,123		OpenSea		0.833	0.009	0.361	0.378
cg07051833	yellow	12	93,808,395	Body	OpenSea	UBE2N	0.833	-0.010	0.767	0.144
cg05644602	yellow	2	74,795,186	Body	OpenSea	C2orf65	0.833	0.008	0.740	0.343
cg19532939	yellow	12	14,996,525	TSS200	OpenSea	ART4	0.833	0.012	0.406	0.305
cg10929210	yellow	2	84,743,279	TSS1500	N_Shore	DNAH6	0.833	0.018	0.397	0.038
cg27609217	yellow	11	46,258,039		N_Shore		0.833	-0.001	0.768	0.923
cg13667150	yellow	9	135,608,341	Body	OpenSea	C9orf98	0.833	-0.001	0.493	0.900
cg12177851	yellow	15	89,178,776		OpenSea		0.833	-0.001	0.621	0.946
cg13749939	yellow	11	796,434	TSS1500	N_Shore	SLC25A22	0.833	0.003	0.050	0.568
cg23652172	yellow	19	10,691,765	Body	N_Shore	AP1M2	0.833	0.005	0.203	0.394
cg05087455	yellow	2	7,171,869	Body	N_Shore	RNF144A	0.833	0.003	0.500	0.561
cg00254556	yellow	8	27,318,934	3'UTR	N_Shore	CHRNA2	0.833	0.009	0.611	0.153
cg02885771	yellow	6	144,163,654	TSS1500	N_Shore	LTV1	0.833	0.020	0.517	0.071
cg23245481	yellow	7	97,911,938	Body	S_Shore	BRI3	0.833	0.000	0.411	0.984
cg08591668	yellow	11	94,150,725	3'UTR	OpenSea	MRE11A	0.833	-0.023	0.356	0.061
cg09559798	yellow	10	126,688,792	Body	S_Shore	CTBP2	0.833	0.007	0.876	0.383
cg03779374	yellow	3	114,343,825	5'UTR	OpenSea	ZBTB20	0.833	0.002	0.375	0.838
cg21126020	yellow	6	30,128,775	TSS200	OpenSea	TRIM10	0.833	0.002	0.676	0.818
cg21880624	yellow	21	40,194,678	Body	Island	ETS2	0.833	0.001	0.919	0.825
cg20375836	yellow	13	99,135,543	Body	OpenSea	STK24	0.833	-0.006	0.546	0.393
cg26827893	yellow	20	21,105,829	TSS1500	N_Shore	PLK1S1	0.833	0.004	0.508	0.540
cg13403259	yellow	9	123,145,884		OpenSea		0.833	-0.002	0.643	0.820
cg07262457	yellow	3	128,777,371		OpenSea		0.833	0.012	0.622	0.159
cg18900271	yellow	2	110,863,886	Body	OpenSea	MALL	0.833	0.017	0.619	0.070
cg10045446	yellow	7	32,530,734	5'UTR	S_Shore	LSM5	0.833	0.020	0.408	0.164
cg21953058	yellow	15	41,309,253	Body	OpenSea	INO80	0.833	-0.021	0.406	0.344
cg12932102	yellow	6	169,051,431	Body	OpenSea	SMOC2	0.833	0.011	0.473	0.416
cg22721796	yellow	5	140,018,644	TSS1500	N_Shore	TMCO6	0.833	0.003	0.352	0.837
cg16691196	yellow	1	20,508,651		N_Shelf		0.833	0.003	0.721	0.687
cg13906968	yellow	16	29,831,676	TSS200	S_Shelf	MVP	0.833	0.001	0.071	0.913
cg23099587	yellow	4	74,570,525		OpenSea		0.833	0.011	0.358	0.225
cg02774334	yellow	1	156,123,500	5'UTR	OpenSea	SEMA4A	0.833	0.014	0.649	0.042
cg26476173	yellow	16	48,334,459	Body	OpenSea	LONP2	0.833	0.003	0.732	0.839
cg20251241	yellow	14	21,949,306	Body	S_Shelf	TOX4	0.833	0.001	0.778	0.874
cg08031413	yellow	1	154,528,842	Body	N_Shore	UBE2Q1	0.833	-0.002	0.514	0.853
cg13603551	yellow	7	150,549,406	TSS200	OpenSea	ABP1	0.833	0.001	0.790	0.880
cg20490088	yellow	1	112,054,997	Body	N_Shelf	ADORA3	0.833	0.000	0.452	0.981
cg17261120	yellow	11	12,578,707		OpenSea		0.833	-0.014	0.199	0.118
cg05725703	yellow	3	46,906,118	TSS1500	OpenSea	MYL3	0.833	0.002	0.295	0.831
cg22732770	yellow	2	129,494,095		N_Shore		0.833	0.015	0.524	0.034
cg12492496	yellow	19	18,271,859	Body	Island	PIK3R2	0.833	0.004	0.810	0.712
cg07379581	yellow	1	201,350,797	3'UTR	OpenSea	LAD1	0.833	0.009	0.619	0.081

cg17836612	yellow	17	76,976,357	TSS1500	OpenSea	LGALS3BP	0.833	0.006	0.441	0.560
cg13376120	yellow	2	208,675,738		OpenSea		0.832	0.001	0.058	0.861
cg18580117	yellow	15	42,787,236	TSS1500	S_Shelf	SNAP23	0.832	0.017	0.408	0.017
cg15064086	yellow	6	1,075,978	Body	OpenSea	LOC285768	0.832	0.008	0.525	0.418
cg17568039	yellow	11	70,980,922		OpenSea		0.832	0.006	0.854	0.498
cg22627406	yellow	19	10,958,968	TSS200	OpenSea	C19orf38	0.832	0.018	0.530	0.088
cg21899640	yellow	6	168,609,219		N_Shelf		0.832	0.010	0.595	0.310
cg14080888	yellow	9	130,712,990	5'UTR	OpenSea	FAM102A	0.832	0.000	0.491	0.979
cg17284168	yellow	6	134,491,531	Body	OpenSea	SGK1	0.832	-0.003	0.577	0.703
cg14093474	yellow	1	14,052,489	Body	OpenSea	PRDM2	0.832	-0.002	0.701	0.800
cg00813603	yellow	19	19,175,730	5'UTR	S_Shore	SLC25A42	0.832	0.004	0.027	0.288
cg08376992	yellow	16	68,033,509	TSS200	OpenSea	DPEP2	0.832	-0.003	0.432	0.725
cg18389339	yellow	18	3,730,593	Body	S_Shore	DLGAP1	0.832	0.000	0.799	0.982
cg06907680	yellow	14	91,580,129	TSS1500	OpenSea	C14orf159	0.832	0.009	0.307	0.281
cg10203842	yellow	1	19,280,546	Body	N_Shore	IFFO2	0.832	-0.008	0.897	0.187
cg03998264	yellow	12	53,932,355	Body	OpenSea	ATF7	0.832	0.006	0.270	0.610
cg14766700	yellow	11	58,911,067	5'UTR	S_Shore	FAM111A	0.832	0.024	0.534	0.194
cg05532178	yellow	10	70,979,827	TSS1500	OpenSea	HKDC1	0.832	0.001	0.576	0.862
cg13306921	yellow	1	54,863,529	Body	OpenSea	SSBP3	0.832	0.010	0.290	0.261
cg24101009	yellow	11	93,863,858	Body	S_Shore	PANX1	0.832	0.004	0.502	0.576
cg07389922	yellow	17	7,154,007	Body	N_Shore	DULLARD	0.832	0.005	0.162	0.431
cg23840027	yellow	1	29,225,533	5'UTR	OpenSea	EPB41	0.832	0.014	0.358	0.146
cg06196145	yellow	11	818,752	TSS200	N_Shore	PNPLA2	0.832	0.009	0.090	0.184
cg10902738	yellow	8	134,895,500		OpenSea		0.832	0.010	0.533	0.325
cg10350722	yellow	12	3,490,214		OpenSea		0.832	0.014	0.198	0.170
cg21640654	yellow	2	234,389,140	Body	S_Shelf	USP40	0.832	-0.002	0.632	0.771
cg01263541	yellow	19	34,891,190	3'UTR	N_Shelf	GPI	0.832	0.002	0.784	0.750
cg20498563	yellow	3	155,446,146		OpenSea		0.832	-0.004	0.929	0.432
cg10539122	yellow	1	201,777,275	Body	OpenSea	NAV1	0.832	-0.002	0.897	0.732
cg05529343	yellow	3	22,412,124		N_Shore		0.832	-0.004	0.700	0.827
cg22509164	yellow	1	46,766,957	Body	N_Shore	LRRC41	0.832	0.006	0.371	0.277
cg11000381	yellow	2	241,264,198		S_Shore		0.832	0.008	0.739	0.209
cg26551200	yellow	7	2,681,369	Body	OpenSea	TTYH3	0.832	0.015	0.315	0.226
cg16327228	yellow	10	27,968,396	Body	OpenSea	MKX	0.832	0.014	0.448	0.199
cg01420254	yellow	6	26,195,488		N_Shore		0.832	0.006	0.198	0.620
cg00324592	yellow	8	42,914,541	Body	S_Shelf	FNTA	0.832	0.003	0.511	0.776
cg23125506	yellow	15	41,198,534		OpenSea		0.832	0.001	0.028	0.667
cg00531137	yellow	16	57,643,932		OpenSea		0.832	0.008	0.114	0.419
cg14610335	yellow	9	117,012,651	Body	OpenSea	COL27A1	0.832	0.000	0.455	0.938
cg24982697	yellow	13	113,521,532	Body	OpenSea	ATP11A	0.832	0.003	0.584	0.653
cg23185774	yellow	6	36,972,163	TSS1500	OpenSea	FGD2	0.832	0.003	0.580	0.629
cg10991475	yellow	11	134,651,602		OpenSea		0.832	-0.001	0.609	0.929
cg16340030	yellow	11	59,554,873	Body	OpenSea	STX3	0.832	0.002	0.515	0.793
cg15240876	yellow	7	49,268,605		OpenSea		0.832	0.002	0.654	0.825
cg04565622	yellow	5	149,381,502	5'UTR	S_Shore	HMGXB3	0.832	0.006	0.230	0.496
cg25515997	yellow	15	60,673,898	Body	OpenSea	ANXA2	0.832	0.012	0.820	0.235
cg04118124	yellow	1	43,231,249	Body	N_Shore	LEPRE1	0.832	0.013	0.152	0.269
cg16490659	yellow	10	32,166,103	Body	OpenSea	ARHGAP12	0.832	0.014	0.763	0.305
cg15810304	yellow	4	57,183,618	Body	S_Shore	KIAA1211	0.832	0.010	0.661	0.617
cg25096142	yellow	1	173,572,181	1stExon	OpenSea	SLC9A11	0.831	0.000	0.805	0.963
cg17135423	yellow	1	20,142,562	TSS1500	OpenSea	RNF186	0.831	0.014	0.628	0.041
cg02081846	yellow	11	35,186,440	Body	OpenSea	CD44	0.831	-0.004	0.841	0.689
cg26884667	yellow	2	26,828,219	Body	OpenSea	CIB4	0.831	-0.001	0.741	0.928
cg06152215	yellow	12	124,422,259	Body	S_Shore	CCDC92	0.831	0.006	0.870	0.417
cg21949305	yellow	22	24,828,655	Body	OpenSea	C22orf45	0.831	-0.014	0.362	0.067
cg24600221	yellow	15	99,303,869	Body	OpenSea	IGF1R	0.831	0.002	0.346	0.948
cg27551856	yellow	16	87,250,689		Island		0.831	0.011	0.779	0.352
cg21220462	yellow	9	92,005,563	Body	OpenSea	SEMA4D	0.831	0.006	0.718	0.450
cg25098793	yellow	1	55,332,551	Body	OpenSea	DHCR24	0.831	0.000	0.836	0.979
cg02596427	yellow	2	47,295,058	Body	OpenSea	TTC7A	0.831	0.007	0.834	0.369
cg05406678	yellow	5	217,550	5'UTR	N_Shore	CCDC127	0.831	0.009	0.214	0.460
cg06488187	yellow	17	25,735,730		OpenSea		0.831	0.007	0.073	0.501
cg06911110	yellow	1	17,293,971	Body	S_Shore	CROCC	0.831	-0.001	0.226	0.930
cg02123534	yellow	7	965,485	Body	N_Shore	ADAP1	0.831	0.019	0.777	0.072
cg12088946	yellow	11	5,645,913	Body	OpenSea	TRIM6-TRIM:	0.831	-0.011	0.895	0.105
cg25684151	yellow	8	126,588,554		OpenSea		0.831	-0.002	0.787	0.835
cg09425481	yellow	12	53,338,607		OpenSea		0.831	-0.003	0.852	0.728



cg06609583	yellow	13	113,429,298	Body	Island	ATP11A	0.831	-0.012	0.777	0.305
cg13771227	yellow	9	133,975,990	Body	S_Shelf	AIF1L	0.831	0.009	0.475	0.137
cg27635271	yellow	15	75,941,576	1stExon	S_Shore	SNX33	0.831	0.006	0.264	0.237
cg13843840	yellow	10	80,963,128	Body	OpenSea	ZMIZ1	0.831	-0.004	0.532	0.587
cg27087377	yellow	22	26,875,563	TSS200	N_Shelf	HPS4	0.831	0.007	0.512	0.361
cg18622896	yellow	10	87,307,950		OpenSea		0.831	0.002	0.271	0.857
cg16266126	yellow	1	153,957,455	Body	OpenSea	RAB13	0.831	0.005	0.785	0.563
cg00572323	yellow	16	29,706,151	Body	N_Shore	QPRT	0.831	0.011	0.558	0.417
cg23763877	yellow	20	5,988,223	Body	S_Shore	CRLS1	0.831	0.000	0.816	0.975
cg16537224	yellow	10	120,350,338		N_Shelf		0.831	0.001	0.862	0.908
cg18994063	yellow	5	156,389,699	Body	OpenSea	TIMD4	0.831	0.018	0.552	0.021
cg13479953	yellow	4	120,428,634	Body	OpenSea	PDE5A	0.831	0.008	0.742	0.641
cg16409259	yellow	11	68,117,110	Body	S_Shore	LRP5	0.831	-0.006	0.872	0.390
cg14304702	yellow	11	102,002,205	Body	OpenSea	YAP1	0.831	0.001	0.619	0.888
cg18186552	yellow	1	28,053,278	Body	S_Shore	FAM76A	0.831	0.006	0.057	0.230
cg00558718	yellow	3	120,397,653	Body	OpenSea	HGD	0.831	0.018	0.086	0.163
cg06821641	yellow	1	2,016,915	Body	OpenSea	PRKCZ	0.831	0.013	0.906	0.053
cg19349283	yellow	19	19,339,362	Body	S_Shelf	NCAN	0.831	0.013	0.596	0.117
cg15166590	yellow	11	47,607,809	TSS1500	N_Shelf	FAM180B	0.831	0.022	0.634	0.062
cg14326305	yellow	9	107,573,154	Body	OpenSea	ABCA1	0.831	0.006	0.607	0.379
cg05765605	yellow	16	69,360,307		N_Shelf		0.831	0.006	0.836	0.394
cg24401187	yellow	4	77,922,792	Body	OpenSea	11-Sep	0.831	0.006	0.629	0.559
cg18084554	yellow	19	929,046	5'UTR	N_Shore	ARID3A	0.830	0.008	0.586	0.152
cg24530510	yellow	11	75,115,385	Body	OpenSea	RPS3	0.830	-0.004	0.742	0.402
cg03570045	yellow	13	28,562,886	TSS200	OpenSea	PRHOXNB	0.830	0.002	0.779	0.736
cg02833588	yellow	1	9,967,849	5'UTR	N_Shore	CTNNBIP1	0.830	-0.001	0.658	0.942
cg09677330	yellow	13	74,487,535	Body	OpenSea	KLF12	0.830	0.014	0.508	0.303
cg16807101	yellow	12	100,517,446	Body	OpenSea	UHRF1BP1L	0.830	-0.005	0.863	0.600
cg25454110	yellow	7	2,329,077	Body	OpenSea	SNX8	0.830	0.029	0.616	0.064
cg09322349	yellow	1	24,645,184	TSS1500	N_Shelf	GRHL3	0.830	-0.001	0.552	0.956
cg03919488	yellow	12	63,179,691	Body	OpenSea	PPM1H	0.830	-0.002	0.595	0.767
cg19836199	yellow	21	36,421,941	TSS1500	OpenSea	RUNX1	0.830	-0.001	0.811	0.898
cg04304802	yellow	10	73,499,965	Body	OpenSea	CDH23	0.830	0.000	0.264	0.973
cg16944597	yellow	3	184,055,379	1stExon	N_Shore	FAM131A	0.830	0.014	0.652	0.200
cg04953238	yellow	2	153,196,858	Body	S_Shelf	FMNL2	0.830	0.039	0.494	0.036
cg13704497	yellow	6	31,590,622	TSS1500	S_Shore	SNORA38	0.830	0.006	0.717	0.447
cg01704198	yellow	3	33,757,893	Body	N_Shore	CLASP2	0.830	-0.002	0.776	0.849
cg05989312	yellow	15	57,887,611	Body	S_Shelf	GCOM1	0.830	0.004	0.368	0.771
cg17943672	yellow	3	44,397,397	Body	OpenSea	C3orf23	0.830	0.015	0.606	0.384
cg09711028	yellow	12	21,976,788	Body	OpenSea	ABCC9	0.830	-0.003	0.893	0.753
cg02991727	yellow	1	47,646,024		OpenSea		0.830	-0.009	0.701	0.274
cg18272377	yellow	4	184,207,126	Body	OpenSea	WWC2	0.830	0.002	0.730	0.827
cg15488794	yellow	20	30,262,899	Body	OpenSea	BCL2L1	0.830	0.014	0.517	0.032
cg25513073	yellow	11	2,481,641	TSS1500	OpenSea	KCNQ1	0.830	0.000	0.738	0.944
cg02763671	yellow	22	20,103,541	Body	N_Shore	TRMT2A	0.830	0.014	0.765	0.086
cg08106339	yellow	11	4,977,429	TSS1500	OpenSea	OR51A2	0.830	0.021	0.769	0.133
cg03230175	yellow	2	157,291,462	TSS1500	N_Shore	GPD2	0.830	0.006	0.824	0.400
cg18147395	yellow	13	30,579,100		OpenSea		0.830	0.000	0.853	0.978
cg12688542	yellow	12	124,897,975	Body	N_Shelf	NCOR2	0.830	0.008	0.715	0.415
cg04678916	yellow	2	54,900,910		OpenSea		0.830	0.003	0.532	0.769
cg01059704	yellow	5	34,914,428	Body	N_Shore	RAD1	0.830	-0.015	0.576	0.134
cg13351860	yellow	6	30,856,386	TSS200	S_Shelf	DDR1	0.830	0.001	0.562	0.924
cg19853143	yellow	2	65,585,470	Body	OpenSea	SPRED2	0.830	0.023	0.749	0.115
cg10908116	yellow	13	110,885,404	Body	OpenSea	COL4A1	0.830	0.004	0.610	0.729
cg07665063	yellow	12	125,257,223		OpenSea		0.830	-0.005	0.404	0.469
cg14910288	yellow	18	10,033,220		S_Shore		0.830	-0.004	0.344	0.762
cg19811994	yellow	3	50,373,641	Body	N_Shore	RASSF1	0.830	0.000	0.841	0.990
cg15513620	yellow	1	120,174,873	5'UTR	OpenSea	ZNF697	0.829	0.001	0.264	0.893
cg16928044	yellow	1	145,589,929	TSS1500	S_Shore	NUDT17	0.829	0.016	0.393	0.012
cg26233331	yellow	4	6,695,614	1stExon	OpenSea	S100P	0.829	0.010	0.537	0.130
cg17803589	yellow	21	46,948,365	Body	N_Shelf	SLC19A1	0.829	0.007	0.731	0.392
cg24178676	yellow	5	172,264,981	Body	S_Shelf	ERGIC1	0.829	0.002	0.462	0.695
cg06266582	yellow	11	64,871,778	Body	N_Shelf	C11orf2	0.829	0.007	0.442	0.597
cg23884120	yellow	12	121,198,406		OpenSea		0.829	0.004	0.787	0.620
cg08164191	yellow	14	65,623,632		OpenSea		0.829	0.012	0.290	0.270
cg06644515	yellow	1	173,834,831	TSS1500	N_Shelf	SNORD47	0.829	-0.009	0.418	0.385
cg00314660	yellow	2	37,312,231	5'UTR	S_Shore	CCDC75	0.829	0.019	0.285	0.042

cg23040305	yellow	1	183,846,243	Body	OpenSea	RGL1	0.829	-0.001	0.743	0.880
cg02468770	yellow	7	151,077,901		N_Shore		0.829	-0.005	0.472	0.511
cg02947125	yellow	14	104,376,026		OpenSea		0.829	0.019	0.594	0.013
cg04147272	yellow	15	79,261,496	Body	OpenSea	RASGRF1	0.829	-0.001	0.727	0.878
cg27616751	yellow	7	100,883,077	3'UTR	OpenSea	FIS1	0.829	0.001	0.917	0.786
cg02479305	yellow	12	106,484,618	Body	OpenSea	NUAK1	0.829	-0.001	0.880	0.936
cg21935536	yellow	15	90,338,183	Body	OpenSea	ANPEP	0.829	0.003	0.488	0.807
cg05298628	yellow	12	123,379,569	Body	N_Shore	VPS37B	0.829	0.017	0.442	0.020
cg00290101	yellow	11	92,624,742	3'UTR	OpenSea	FAT3	0.829	0.009	0.586	0.609
cg10340117	yellow	19	3,984,058	Body	N_Shore	EEF2	0.829	0.002	0.774	0.790
cg14352682	yellow	6	30,614,168	TSS1500	N_Shore	C6orf136	0.829	0.008	0.664	0.259
cg24680129	yellow	12	13,318,625		OpenSea		0.829	0.001	0.585	0.856
cg01799015	yellow	19	707,791	TSS1500	N_Shore	PALM	0.829	0.009	0.662	0.295
cg09882118	yellow	3	48,508,272	Body	OpenSea	TREX1	0.829	0.021	0.531	0.024
cg00937515	yellow	16	29,272,909		OpenSea		0.829	0.017	0.609	0.185
cg20784259	yellow	1	114,518,035	3'UTR	OpenSea	HIPK1	0.829	0.000	0.688	0.969
cg02047661	yellow	3	51,976,883	TSS1500	S_Shore	RRP9	0.829	0.010	0.746	0.316
cg08657939	yellow	11	69,295,007		OpenSea		0.829	0.016	0.629	0.008
cg09538129	yellow	7	99,691,888	TSS1500	OpenSea	MIR25	0.829	0.009	0.600	0.162
cg03010972	yellow	7	130,920,239	Body	OpenSea	MKLN1	0.829	0.001	0.510	0.919
cg17310654	yellow	12	46,319,993	Body	OpenSea	SFRS2IP	0.829	0.004	0.693	0.700
cg09850137	yellow	3	112,390,601		OpenSea		0.829	0.007	0.701	0.570
cg10378735	yellow	7	142,558,305	5'UTR	OpenSea	EPHB6	0.829	0.015	0.543	0.262
cg07171504	yellow	8	103,662,317	3'UTR	N_Shelf	KLF10	0.829	-0.004	0.783	0.435
cg00294109	yellow	3	3,219,781	Body	N_Shore	CRBN	0.829	-0.002	0.719	0.842
cg04018214	yellow	12	91,572,199	1stExon	OpenSea	DCN	0.829	0.007	0.592	0.573
cg08425760	yellow	1	11,795,897	TSS1500	N_Shore	AGTRAP	0.829	0.003	0.303	0.611
cg25211705	yellow	22	37,252,282		N_Shore		0.829	0.007	0.493	0.562
cg20436912	yellow	22	30,902,642	TSS1500	S_Shore	SEC14L4	0.829	0.017	0.651	0.013
cg01421380	yellow	11	62,446,817	TSS1500	S_Shore	UBXN1	0.829	0.009	0.303	0.385
cg12867987	yellow	4	122,792,031	TSS1500	S_Shore	BBS7	0.829	0.018	0.329	0.055
cg20036207	yellow	19	10,397,031	TSS1500	N_Shore	ICAM4	0.829	0.001	0.526	0.883
cg22274117	yellow	6	16,713,613	5'UTR	OpenSea	ATXN1	0.828	0.002	0.620	0.841
cg13093389	yellow	14	21,557,638	3'UTR	N_Shore	FLJ10357	0.828	0.020	0.698	0.021
cg24622589	yellow	3	58,613,446		OpenSea		0.828	0.023	0.120	0.130
cg00145141	yellow	17	4,464,022	TSS200	OpenSea	GGT6	0.828	0.016	0.690	0.090
cg02795014	yellow	17	77,016,153		N_Shelf		0.828	0.002	0.446	0.777
cg01291474	yellow	15	65,393,339	Body	N_Shore	LOC390595	0.828	-0.002	0.889	0.737
cg17592268	yellow	2	144,477,916	Body	OpenSea	ARHGAP15	0.828	-0.001	0.711	0.866
cg03074946	yellow	12	120,687,694	5'UTR	OpenSea	PXN	0.828	0.007	0.407	0.325
cg11175836	yellow	1	18,806,700	TSS1500	N_Shelf	KLHDC7A	0.828	0.006	0.481	0.345
cg14448086	yellow	10	3,151,088	Body	S_Shelf	PFKP	0.828	0.001	0.936	0.851
cg03232842	yellow	16	56,995,201	TSS1500	OpenSea	CETP	0.828	-0.004	0.369	0.767
cg21587837	yellow	6	31,525,894	Body	OpenSea	NFKBIL1	0.828	-0.004	0.718	0.470
cg09877009	yellow	10	6,605,133	5'UTR	OpenSea	PRKCCQ	0.828	0.000	0.510	0.979
cg23667108	yellow	7	1,954,008	Body	S_Shelf	MAD1L1	0.828	0.014	0.749	0.107
cg25196508	yellow	12	49,181,554	5'UTR	N_Shore	ADCY6	0.828	0.007	0.595	0.471
cg06160853	yellow	3	174,155,855		N_Shelf		0.828	-0.008	0.832	0.528
cg02838877	yellow	13	97,873,877	TSS1500	OpenSea	MBNL2	0.828	-0.008	0.532	0.456
cg11093508	yellow	8	27,873,795		OpenSea		0.828	0.004	0.506	0.645
cg22586221	yellow	15	78,984,179		OpenSea		0.828	0.005	0.500	0.399
cg24946736	yellow	19	7,542,181	Body	Island	PEX11G	0.828	0.011	0.599	0.317
cg07872947	yellow	2	1,732,172	Body	OpenSea	PXDN	0.828	0.007	0.714	0.387
cg04646674	yellow	19	13,113,482	Body	Island	NFIX	0.828	-0.005	0.390	0.356
cg17786894	yellow	2	65,131,556		OpenSea		0.828	0.020	0.746	0.024
cg19850728	yellow	3	97,688,465	5'UTR	N_Shelf	MINA	0.828	-0.005	0.442	0.560
cg00278359	yellow	6	30,652,829	Body	N_Shore	KIAA1949	0.828	0.014	0.641	0.063
cg11747279	yellow	17	21,096,632		OpenSea		0.828	0.003	0.485	0.757
cg00162104	yellow	4	2,926,894	Body	N_Shore	ADD1	0.828	0.005	0.705	0.525
cg03368358	yellow	17	3,820,044	TSS200	OpenSea	P2RX1	0.828	-0.001	0.488	0.923
cg14186558	yellow	9	116,062,240	TSS1500	OpenSea	RNF183	0.828	0.007	0.587	0.487
cg03236534	yellow	13	113,417,204	Body	N_Shelf	ATP11A	0.828	-0.001	0.828	0.931
cg02173455	yellow	7	6,770,940		S_Shore		0.828	-0.001	0.793	0.856
cg13754355	yellow	9	139,635,449	Body	S_Shore	LCN10	0.828	0.014	0.823	0.062
cg04192663	yellow	14	69,730,478	Body	S_Shelf	GALNTL1	0.828	0.009	0.745	0.154
cg03973622	yellow	17	55,520,759	Body	OpenSea	MSI2	0.828	0.005	0.496	0.426
cg08145262	yellow	12	69,869,974	5'UTR	OpenSea	FRS2	0.828	0.012	0.446	0.242

cg00985388	yellow	3	183,952,212	Body	S_Shelf	VWA5B2	0.828	0.006	0.377	0.392
cg26882204	yellow	1	85,040,580	TSS1500	S_Shore	CTBS	0.828	0.003	0.758	0.734
cg18760055	yellow	1	10,788,219	5'UTR	OpenSea	CASZ1	0.828	0.019	0.637	0.024
cg17557141	yellow	11	43,947,677		OpenSea		0.828	0.001	0.145	0.959
cg09063262	yellow	11	85,358,506	TSS1500	N_Shore	TMEM126A	0.828	0.033	0.215	0.002
cg10735582	yellow	3	150,140,075	Body	OpenSea	TSC22D2	0.828	-0.008	0.670	0.331
cg24332685	yellow	6	31,508,126	Body	N_Shore	BAT1	0.828	-0.004	0.453	0.658
cg01535312	yellow	6	39,903,199	TSS1500	S_Shore	MOC51	0.828	0.022	0.728	0.079
cg20074031	yellow	2	169,630,423	3'UTR	OpenSea	LASS6	0.828	0.005	0.164	0.496
cg20927567	yellow	17	27,049,656	Body	N_Shelf	RPL23A	0.828	0.006	0.702	0.401
cg10919098	yellow	11	66,388,426	Body	S_Shelf	RBM14	0.828	0.004	0.669	0.686
cg14771877	yellow	17	76,141,038	TSS1500	S_Shelf	C17orf99	0.828	0.007	0.457	0.339
cg02264238	yellow	3	51,426,377	Body	N_Shelf	MANF	0.828	-0.005	0.695	0.458
cg11301492	yellow	17	79,701,610		OpenSea		0.828	0.000	0.725	0.995
cg07273304	yellow	8	124,693,755	Body	OpenSea	ANXA13	0.828	-0.004	0.753	0.582
cg24709951	yellow	17	73,033,009		S_Shore		0.828	0.015	0.519	0.270
cg26985681	yellow	16	15,135,397	Body	OpenSea	NTAN1	0.828	0.014	0.748	0.061
cg21881327	yellow	22	24,979,569	TSS200	OpenSea	GGT1	0.828	0.008	0.590	0.337
cg01928143	yellow	16	85,038,564	5'UTR	OpenSea	ZDHHC7	0.828	-0.010	0.858	0.233
cg24285543	yellow	7	150,148,073	5'UTR	OpenSea	GIMAP8	0.827	0.011	0.501	0.090
cg06839417	yellow	3	149,106,151		OpenSea		0.827	0.003	0.829	0.666
cg27655935	yellow	8	95,655,136	Body	S_Shore	ESRP1	0.827	0.001	0.326	0.917
cg07757611	yellow	3	52,559,064	Body	S_Shore	NT5DC2	0.827	0.005	0.598	0.489
cg02531277	yellow	7	101,558,597	Body	N_Shore	CUX1	0.827	-0.006	0.834	0.588
cg09869729	yellow	5	176,326,528	TSS200	OpenSea	HK3	0.827	0.005	0.597	0.478
cg16686135	yellow	4	128,791,896		OpenSea		0.827	0.004	0.668	0.485
cg22725222	yellow	12	53,899,066	Body	S_Shelf	TARBP2	0.827	0.009	0.816	0.217
cg10713137	yellow	20	61,918,367	Body	N_Shore	ARFGAP1	0.827	0.002	0.736	0.886
cg26395285	yellow	6	28,481,217	Body	OpenSea	GPX6	0.827	0.000	0.779	0.992
cg21552029	yellow	19	34,855,749	TSS1500	N_Shore	GPI	0.827	0.005	0.163	0.490
cg10131075	yellow	3	61,237,865	TSS1500	S_Shore	FHIT	0.827	0.015	0.543	0.176
cg08877960	yellow	1	6,308,320	3'UTR	N_Shore	GPR153	0.827	0.011	0.517	0.092
cg27175332	yellow	11	71,900,176	TSS1500	OpenSea	FOLR1	0.827	-0.001	0.676	0.901
cg15484384	yellow	3	134,203,672	5'UTR	N_Shore	ANAPC13	0.827	0.013	0.444	0.078
cg24505713	yellow	11	10,770,035		N_Shelf		0.827	0.008	0.483	0.261
cg10868445	yellow	4	147,163,613		OpenSea		0.827	0.008	0.555	0.506
cg22947000	yellow	16	81,272,281	TSS200	OpenSea	BCMO1	0.827	0.016	0.084	0.068
cg11777870	yellow	14	52,191,937	Body	OpenSea	FRMD6	0.827	-0.002	0.759	0.842
cg04619882	yellow	1	109,741,037	Body	OpenSea	KIAA1324	0.827	0.008	0.448	0.312
cg14149172	yellow	1	151,298,905	TSS200	N_Shore	PI4KB	0.827	0.006	0.154	0.416
cg26764244	yellow	1	68,299,511	TSS1500	S_Shore	GNG12	0.827	0.003	0.084	0.569
cg20005742	yellow	14	103,007,070		N_Shelf		0.827	0.002	0.326	0.825
cg23537415	yellow	19	56,169,445	Body	N_Shore	U2AF2	0.827	0.002	0.341	0.826
cg12569007	yellow	10	93,387,144		OpenSea		0.827	0.015	0.803	0.031
cg04694022	yellow	6	30,582,352	5'UTR	N_Shelf	PPP1R10	0.827	0.013	0.353	0.190
cg19217955	yellow	17	7,123,994	TSS1500	S_Shore	DLG4	0.827	0.004	0.211	0.465
cg05957190	yellow	12	105,096,609	Body	OpenSea	CHST11	0.827	0.023	0.601	0.118
cg21681643	yellow	2	114,039,512	Body	S_Shelf	LOC440839	0.827	0.008	0.704	0.409
cg02658690	yellow	13	110,885,846	Body	OpenSea	COL4A1	0.827	-0.003	0.607	0.826
cg00664730	yellow	6	168,393,930		S_Shelf		0.827	-0.004	0.725	0.753
cg21598343	yellow	13	114,261,986	Body	S_Shore	TFDP1	0.827	0.009	0.661	0.105
cg13333374	yellow	10	114,133,235	TSS1500	OpenSea	ACSL5	0.827	0.005	0.738	0.495
cg16646054	yellow	5	150,157,726	TSS200	N_Shore	C5orf62	0.827	0.003	0.461	0.743
cg14481222	yellow	11	102,187,974	TSS1500	N_Shore	BIRC3	0.827	0.020	0.318	0.095
cg02671941	yellow	17	16,849,388	Body	OpenSea	TNFRSF13B	0.826	0.011	0.607	0.083
cg09585333	yellow	11	65,340,843	Body	N_Shore	FAM89B	0.826	0.008	0.360	0.285
cg24561266	yellow	5	118,966,450	Body	OpenSea	FAM170A	0.826	0.002	0.747	0.840
cg16272084	yellow	7	75,318,254	Body	OpenSea	HIP1	0.826	-0.002	0.570	0.830
cg06005098	yellow	16	79,472,521		OpenSea		0.826	0.029	0.613	0.003
cg14232128	yellow	4	183,207,543		OpenSea		0.826	0.008	0.795	0.339
cg12362629	yellow	22	36,716,469	Body	N_Shore	MYH9	0.826	-0.003	0.843	0.617
cg08450348	yellow	4	1,302,456	Body	N_Shore	MAEA	0.826	0.002	0.862	0.853
cg19964761	yellow	11	111,126,790	5'UTR	OpenSea	C11orf53	0.826	-0.001	0.766	0.897
cg15350036	yellow	7	86,973,677	TSS1500	N_Shore	CROT	0.826	-0.011	0.853	0.285
cg19220719	yellow	10	77,532,329		OpenSea		0.826	0.011	0.730	0.312
cg06711259	yellow	22	39,095,898	1stExon	N_Shore	JOSD1	0.826	0.017	0.275	0.101
cg02909793	yellow	20	56,324,509		S_Shore		0.826	0.008	0.396	0.319

cg05099464	yellow	11	120,302,922	Body	OpenSea	ARHGEF12	0.826	-0.003	0.835	0.761
cg00404923	yellow	4	184,882,211	Body	OpenSea	STOX2	0.826	0.013	0.077	0.099
cg08321382	yellow	2	239,505,772		OpenSea		0.826	0.007	0.551	0.594
cg15188939	yellow	15	72,809,154	Body	OpenSea	ARIH1	0.826	0.012	0.775	0.105
cg00935894	yellow	8	110,705,093	TSS1500	S_Shore	GOLSYN	0.826	0.006	0.595	0.710
cg22109370	yellow	17	77,070,546	TSS1500	OpenSea	ENGASE	0.826	0.009	0.836	0.266
cg27414481	yellow	11	6,342,510	TSS1500	S_Shore	PRKCDBP	0.826	0.012	0.573	0.162
cg26100256	yellow	17	35,631,408	Body	OpenSea	ACACA	0.826	0.000	0.728	0.971
cg23726802	yellow	7	155,617,398		OpenSea		0.826	-0.001	0.739	0.892
cg07530063	yellow	14	100,613,692	Body	N_Shore	DEGS2	0.826	-0.002	0.762	0.847
cg06579738	yellow	11	111,165,311	3'UTR	N_Shelf	C11orf92	0.826	0.019	0.667	0.089
cg10833439	yellow	21	42,793,818	5'UTR	S_Shore	MX1	0.826	-0.001	0.886	0.893
cg14614563	yellow	10	32,218,901	TSS1500	S_Shore	ARHGAP12	0.826	0.011	0.078	0.189
cg18122696	yellow	11	1,855,389	TSS1500	OpenSea	SYT8	0.826	0.004	0.704	0.496
cg06398474	yellow	2	240,291,509	5'UTR	OpenSea	HDAC4	0.826	0.004	0.657	0.524
cg22498676	yellow	1	226,254,585	Body	S_Shelf	LOC440926	0.826	0.009	0.511	0.419
cg00808969	yellow	11	77,898,785	TSS1500	N_Shore	USP35	0.826	0.007	0.266	0.266
cg19589060	yellow	5	176,326,516	TSS200	OpenSea	HK3	0.826	0.005	0.734	0.560
cg00692774	yellow	2	10,223,596		S_Shelf		0.826	0.004	0.615	0.630
cg15443020	yellow	2	173,743,268	Body	OpenSea	RAPGEF4	0.826	0.006	0.483	0.472
cg16009714	yellow	17	70,241,415		OpenSea		0.826	0.010	0.587	0.262
cg10615580	yellow	17	79,005,548	Body	N_Shore	FLJ90757	0.826	0.007	0.712	0.327
cg01939535	yellow	5	55,010,789		S_Shelf		0.826	-0.001	0.848	0.881
cg07888912	yellow	19	11,305,913	5'UTR	N_Shore	KANK2	0.826	-0.004	0.236	0.561
cg14549976	yellow	18	77,551,537		N_Shore		0.825	0.008	0.290	0.511
cg00462700	yellow	10	134,021,845	Body	S_Shelf	STK32C	0.825	0.015	0.544	0.110
cg04044418	yellow	16	89,789,362	Body	S_Shore	ZNF276	0.825	0.011	0.434	0.075
cg16768937	yellow	17	27,299,936	Body	OpenSea	SEZ6	0.825	-0.002	0.758	0.750
cg05436939	yellow	4	1,202,599	Body	N_Shore	LOC1001308	0.825	0.001	0.662	0.852
cg00970979	yellow	3	53,229,491		N_Shore		0.825	0.016	0.677	0.017
cg24138433	yellow	11	69,925,268	Body	S_Shore	ANO1	0.825	0.003	0.464	0.736
cg26311610	yellow	7	73,593,138	Body	S_Shelf	EIF4H	0.825	0.000	0.565	0.975
cg18993757	yellow	17	4,889,754	5'UTR	N_Shore	CAMTA2	0.825	0.006	0.355	0.160
cg08678429	yellow	20	40,247,988	TSS1500	S_Shore	CHD6	0.825	0.000	0.718	0.962
cg11168687	yellow	4	185,726,782	5'UTR	S_Shelf	ACSL1	0.825	0.005	0.791	0.608
cg07339393	yellow	10	3,789,537		OpenSea		0.825	-0.002	0.901	0.688
cg20168514	yellow	1	171,282,607	TSS1500	OpenSea	FMO4	0.825	0.003	0.444	0.759
cg07899076	yellow	7	5,675,839	Body	OpenSea	RNF216	0.825	0.002	0.280	0.760
cg07110854	yellow	7	23,525,412		OpenSea		0.825	0.007	0.657	0.348
cg23014871	yellow	10	43,656,166	Body	OpenSea	CSGALNACT2	0.825	0.012	0.806	0.369
cg13743736	yellow	9	35,609,853	3'UTR	S_Shelf	TESK1	0.825	0.008	0.654	0.171
cg10546210	yellow	14	21,175,838		OpenSea		0.825	-0.007	0.711	0.405
cg01032675	yellow	19	3,136,430	1stExon	OpenSea	GNA15	0.825	-0.001	0.918	0.824
cg21593015	yellow	4	184,893,118	Body	OpenSea	STOX2	0.825	0.007	0.795	0.283
cg01195214	yellow	16	1,362,243	5'UTR	N_Shore	UBE2I	0.825	0.000	0.515	0.965
cg06458707	yellow	7	1,083,209	Body	N_Shore	C7orf50	0.825	0.004	0.717	0.463
cg16404784	yellow	14	38,087,605		N_Shelf		0.825	-0.004	0.477	0.599
cg23200931	yellow	14	45,367,690	5'UTR	S_Shore	C14orf28	0.825	0.011	0.662	0.438
cg26782881	yellow	17	41,977,585	Body	N_Shore	MPP2	0.825	-0.002	0.315	0.796
cg06650256	yellow	17	72,527,724	TSS200	OpenSea	CD300LB	0.825	-0.001	0.703	0.906
cg12394941	yellow	1	20,205,035		N_Shelf		0.825	-0.002	0.622	0.861
cg20778071	yellow	6	43,729,725		OpenSea		0.825	0.000	0.678	0.973
cg06206670	yellow	13	113,436,564	Body	N_Shelf	ATP11A	0.825	0.003	0.829	0.682
cg19552441	yellow	22	18,275,800	Body	Island	MICAL3	0.825	0.005	0.689	0.588
cg08594681	yellow	8	27,468,684	1stExon	N_Shelf	CLU	0.825	0.013	0.371	0.146
cg19296509	yellow	4	7,046,066	TSS1500	S_Shore	CCDC96	0.825	0.006	0.316	0.469
cg10215414	yellow	16	67,361,708	TSS1500	OpenSea	KCTD19	0.825	0.004	0.305	0.438
cg18844163	yellow	5	142,362,123	Body	OpenSea	ARHGAP26	0.825	-0.001	0.439	0.878
cg18137244	yellow	7	2,444,210	5'UTR	S_Shore	CHST12	0.825	0.002	0.339	0.852
cg21454760	yellow	1	27,087,961	Body	OpenSea	ARID1A	0.825	-0.013	0.578	0.068
cg26188825	yellow	6	15,578,074	Body	OpenSea	DTNBP1	0.825	0.007	0.551	0.402
cg12098949	yellow	17	75,367,442	5'UTR	N_Shore	9-Sep	0.825	0.014	0.508	0.032
cg03092680	yellow	6	168,597,666		OpenSea		0.825	0.008	0.592	0.248
cg17593512	yellow	4	40,441,513	5'UTR	S_Shore	RBM47	0.825	0.011	0.719	0.174
cg10713002	yellow	8	144,905,047	Body	OpenSea	PUF60	0.825	0.014	0.660	0.043
cg05327509	yellow	13	101,175,894	Body	OpenSea	PCCA	0.824	0.015	0.864	0.184
cg17253459	yellow	1	114,522,670	Body	OpenSea	OLFML3	0.824	0.001	0.446	0.902

cg00755588	yellow	9	139,737,793	TSS1500	N_Shore	C9orf172	0.824	0.015	0.423	0.017
cg13601836	yellow	3	13,892,306	Body	N_Shelf	WNT7A	0.824	0.002	0.765	0.824
cg13983442	yellow	1	176,174,365	Body	N_Shore	RFWD2	0.824	0.011	0.622	0.198
cg04170282	yellow	7	2,025,606	Body	N_Shore	MAD1L1	0.824	0.015	0.794	0.039
cg00208274	yellow	7	4,779,342	Body	OpenSea	FO XK1	0.824	0.013	0.580	0.319
cg02416781	yellow	5	82,331,856		OpenSea		0.824	0.000	0.158	0.978
cg02116794	yellow	10	32,341,127	Body	N_Shelf	KIF5B	0.824	-0.008	0.862	0.351
cg11802013	yellow	11	69,469,175	3'UTR	S_Shore	CCND1	0.824	0.013	0.689	0.120
cg00294261	yellow	5	124,091,260		OpenSea		0.824	0.003	0.866	0.759
cg21146957	yellow	12	80,838,996	Body	OpenSea	PTPRQ	0.824	0.033	0.351	0.023
cg21078330	yellow	2	134,104,516	Body	OpenSea	NCKAP5	0.824	0.024	0.458	0.016
cg23840219	yellow	6	109,381,072	Body	OpenSea	SESN1	0.824	-0.004	0.590	0.776
cg18993047	yellow	14	69,309,405		OpenSea		0.824	0.012	0.639	0.227
cg21431832	yellow	22	26,875,652	TSS200	N_Shelf	HPS4	0.824	0.001	0.661	0.901
cg02006107	yellow	8	80,943,347	TSS1500	S_Shore	MRPS28	0.824	0.004	0.833	0.544
cg23873415	yellow	10	13,771,465	Body	OpenSea	FRMD4A	0.824	-0.003	0.707	0.733
cg09588074	yellow	13	111,699,131		OpenSea		0.824	-0.006	0.759	0.459
cg24327132	yellow	15	72,520,632	5'UTR	N_Shore	PKM2	0.824	0.015	0.654	0.095
cg01887440	yellow	16	11,844,845	3'UTR	OpenSea	ZC3H7A	0.824	0.007	0.814	0.445
cg13535736	yellow	9	111,863,775	Body	OpenSea	C9orf5	0.824	-0.003	0.780	0.788
cg01242977	yellow	5	111,071,312	Body	OpenSea	C5orf13	0.824	-0.013	0.555	0.111
cg20868668	yellow	1	100,435,035	TSS1500	N_Shore	SLC35A3	0.824	0.008	0.417	0.407
cg00405484	yellow	8	141,544,373	Body	N_Shore	EIF2C2	0.824	0.007	0.777	0.216
cg21544415	yellow	12	26,288,686		OpenSea		0.824	0.021	0.458	0.040
cg03280622	yellow	8	145,023,013	Body	N_Shore	PLEC1	0.824	0.002	0.449	0.883
cg02379079	yellow	20	36,974,843	TSS200	OpenSea	LBP	0.824	0.005	0.647	0.678
cg17431739	yellow	10	23,384,047	TSS1500	N_Shore	MSRB2	0.824	0.007	0.219	0.296
cg09136052	yellow	7	95,546,508	Body	OpenSea	DYNC111	0.824	-0.007	0.841	0.590
cg25976932	yellow	3	123,138,958	Body	OpenSea	ADCY5	0.824	0.010	0.871	0.197
cg18529079	yellow	5	133,942,609	3'UTR	OpenSea	SAR1B	0.824	0.008	0.710	0.652
cg08484560	yellow	13	113,413,587	Body	S_Shelf	ATP11A	0.824	-0.001	0.810	0.867
cg01214061	yellow	4	174,290,520		N_Shore		0.824	0.009	0.162	0.223
cg03082779	yellow	20	45,947,025	Body	OpenSea	ZMYND8	0.824	0.007	0.228	0.172
cg13214542	yellow	18	33,552,019	TSS1500	N_Shore	C18orf21	0.824	0.017	0.189	0.116
cg08739221	yellow	12	15,933,742	5'UTR	OpenSea	EPS8	0.824	0.005	0.544	0.613
cg13452215	yellow	1	42,630,436	TSS200	OpenSea	GUCA2A	0.824	0.005	0.687	0.493
cg24569831	yellow	15	93,617,168	1stExon	Island	RGMA	0.824	-0.005	0.725	0.694
cg17517458	yellow	2	11,205,980		OpenSea		0.824	0.004	0.317	0.528
cg05214511	yellow	4	80,572,259		OpenSea		0.824	0.011	0.476	0.385
cg05419984	yellow	3	196,438,463	TSS1500	N_Shore	PIGX	0.823	0.006	0.340	0.583
cg07908039	yellow	6	30,856,439	TSS200	S_Shelf	DDR1	0.823	0.003	0.828	0.856
cg14131376	yellow	14	85,715,831		OpenSea		0.823	-0.008	0.841	0.406
cg13624988	yellow	5	173,602,861		OpenSea		0.823	0.023	0.634	0.097
cg07689731	yellow	1	31,393,915		OpenSea		0.823	-0.006	0.797	0.587
cg26830958	yellow	4	1,041,664		N_Shore		0.823	0.005	0.439	0.548
cg00387445	yellow	1	151,584,078	TSS1500	N_Shore	SNX27	0.823	0.005	0.291	0.577
cg20210647	yellow	21	45,560,984	Body	Island	C21orf33	0.823	-0.010	0.590	0.248
cg03970483	yellow	10	99,894,087	TSS1500	N_Shore	C10orf28	0.823	-0.006	0.788	0.339
cg00786406	yellow	1	114,474,389	5'UTR	S_Shore	HIPK1	0.823	0.006	0.572	0.662
cg23433345	yellow	12	77,059,628		OpenSea		0.823	-0.007	0.632	0.372
cg10639811	yellow	3	152,083,133	Body	OpenSea	MBNL1	0.823	-0.006	0.668	0.722
cg09019648	yellow	1	39,574,285	Body	S_Shelf	MACF1	0.823	0.005	0.696	0.593
cg19957803	yellow	5	133,510,077	5'UTR	N_Shore	SKP1	0.823	-0.002	0.608	0.669
cg22192374	yellow	12	3,450,832		OpenSea		0.823	0.002	0.316	0.756
cg09598437	yellow	12	52,643,118		N_Shore		0.823	0.012	0.516	0.190
cg10531918	yellow	3	53,189,890		N_Shore		0.823	0.010	0.549	0.203
cg03821443	yellow	11	1,320,329	Body	S_Shelf	TOLLIP	0.823	0.017	0.800	0.129
cg15898112	yellow	15	77,988,506		OpenSea		0.823	0.005	0.254	0.618
cg11878867	yellow	6	150,167,359	Body	OpenSea	LRP11	0.823	-0.010	0.714	0.225
cg01070907	yellow	14	100,684,433		S_Shelf		0.823	0.007	0.659	0.328
cg05262829	yellow	1	226,921,576	Body	N_Shelf	ITPKB	0.823	0.001	0.581	0.937
cg09941363	yellow	1	51,730,449	Body	OpenSea	RNF11	0.823	0.006	0.627	0.596
cg16896539	yellow	10	70,096,482	5'UTR	S_Shelf	HNRNPH3	0.823	-0.001	0.141	0.940
cg14419046	yellow	9	90,043,268		OpenSea		0.823	0.004	0.673	0.685
cg16401270	yellow	1	32,404,469	TSS1500	S_Shore	PTP4A2	0.823	0.000	0.073	0.962
cg21144589	yellow	7	148,992,974	Body	S_Shore	ZNF783	0.823	-0.007	0.800	0.327
cg13670057	yellow	9	133,721,945	Body	OpenSea	ABL1	0.823	0.000	0.236	0.991

cg08924415	yellow	8	144,902,836	Body	OpenSea	PUF60	0.823	0.005	0.729	0.529
cg02101307	yellow	10	86,004,424	TSS1500	OpenSea	RGR	0.823	0.021	0.621	0.020
cg03127370	yellow	16	2,520,192	TSS1500	N_Shore	NTN3	0.823	0.010	0.592	0.158
cg14794298	yellow	11	13,336,674	5'UTR	OpenSea	ARNTL	0.823	-0.002	0.662	0.739
cg23866916	yellow	19	1,155,738	5'UTR	N_Shore	SBNO2	0.823	0.001	0.641	0.900
cg20451050	yellow	12	92,955,405		OpenSea		0.823	-0.007	0.328	0.717
cg12940993	yellow	14	21,271,148	TSS200	OpenSea	RNASE1	0.823	0.009	0.411	0.139
cg17156983	yellow	10	18,951,159	Body	S_Shelf	ARL5B	0.823	-0.003	0.770	0.797
cg21814178	yellow	12	51,720,755		OpenSea		0.823	0.005	0.405	0.606
cg03569412	yellow	19	1,593,943	TSS1500	S_Shore	MBD3	0.823	0.001	0.669	0.838
cg01671681	yellow	3	155,421,735	5'UTR	OpenSea	PLCH1	0.823	0.005	0.770	0.530
cg23903597	yellow	17	61,704,154	Body	S_Shelf	MAP3K3	0.823	0.003	0.527	0.839
cg02481669	yellow	6	31,496,733	TSS200	OpenSea	MCCD1	0.823	-0.012	0.807	0.150
cg17451586	yellow	6	32,942,808	Body	S_Shore	BRD2	0.823	0.004	0.055	0.471
cg11740921	yellow	14	74,946,960	3'UTR	OpenSea	NPC2	0.822	-0.007	0.768	0.357
cg20244273	yellow	11	7,597,349	Body	OpenSea	PPFIBP2	0.822	0.006	0.618	0.414
cg17219326	yellow	3	44,517,846	5'UTR	N_Shore	ZNF445	0.822	0.000	0.071	0.995
cg16349093	yellow	5	90,485,840		OpenSea		0.822	0.012	0.411	0.256
cg18079499	yellow	14	90,868,646	Body	S_Shelf	CALM1	0.822	0.005	0.700	0.501
cg06216883	yellow	8	2,023,251	Body	OpenSea	MYOM2	0.822	-0.001	0.060	0.892
cg20211056	yellow	2	74,648,306	TSS1500	N_Shore	WDR54	0.822	0.005	0.120	0.597
cg12483545	yellow	1	2,198,879	Body	OpenSea	SKI	0.822	-0.010	0.698	0.371
cg23141902	yellow	22	39,712,694	Body	N_Shelf	RPL3	0.822	0.003	0.429	0.688
cg26588612	yellow	6	148,562,337		OpenSea		0.822	0.009	0.748	0.404
cg23747342	yellow	12	25,539,794		S_Shore		0.822	0.014	0.136	0.218
cg14713146	yellow	2	171,782,647		N_Shelf		0.822	0.001	0.747	0.874
cg16760587	yellow	4	17,517,594	Body	S_Shelf	CLRN2	0.822	0.006	0.533	0.509
cg00341732	yellow	22	31,479,561	Body	N_Shore	SMTN	0.822	0.012	0.583	0.084
cg22409100	yellow	2	40,658,918	TSS1500	OpenSea	SLC8A1	0.822	0.010	0.697	0.408
cg27057525	yellow	8	145,232,228	Body	N_Shelf	HEATR7A	0.822	0.003	0.707	0.714
cg24840062	yellow	3	45,160,270	Body	OpenSea	CDCP1	0.822	0.002	0.590	0.848
cg26575105	yellow	6	109,010,960		OpenSea		0.822	-0.001	0.870	0.828
cg26680127	yellow	16	46,783,018	TSS1500	OpenSea	MYLK3	0.822	0.002	0.278	0.625
cg23057943	yellow	5	137,877,800	Body	N_Shore	ETF1	0.822	-0.002	0.066	0.763
cg26055062	yellow	7	55,090,516	Body	S_Shelf	EGFR	0.822	-0.003	0.857	0.769
cg14472716	yellow	9	137,236,548	Body	OpenSea	RXRA	0.822	0.004	0.572	0.589
cg07715777	yellow	6	33,128,963		N_Shore		0.822	0.013	0.374	0.118
cg21622464	yellow	17	56,164,461	Body	S_Shelf	DYNLL2	0.822	0.009	0.644	0.227
cg24124954	yellow	6	31,508,106	Body	N_Shore	BAT1	0.822	-0.004	0.385	0.673
cg12105450	yellow	2	202,048,100	5'UTR	OpenSea	CASP10	0.822	0.004	0.594	0.673
cg01205831	yellow	9	130,699,236	Body	N_Shore	DPM2	0.822	0.003	0.514	0.678
cg00629117	yellow	16	1,844,932	TSS200	S_Shelf	IGFALS	0.822	-0.006	0.770	0.459
cg01782024	yellow	1	91,989,267	Body	OpenSea	CDC7	0.822	0.011	0.555	0.201
cg16421467	yellow	14	67,654,854	TSS1500	OpenSea	FAM71D	0.822	0.003	0.856	0.591
cg00099602	yellow	6	87,993,447	3'UTR	OpenSea	GJB7	0.822	0.014	0.727	0.144
cg21162344	yellow	9	132,476,894	Body	OpenSea	PRRX2	0.822	0.014	0.723	0.142
cg07026882	yellow	13	113,417,167	Body	N_Shelf	ATP11A	0.822	0.007	0.669	0.575
cg06013113	yellow	16	678,127	3'UTR	Island	RAB40C	0.821	-0.009	0.814	0.376
cg08850243	yellow	6	30,169,768	5'UTR	OpenSea	TRIM26	0.821	0.010	0.717	0.410
cg23512275	yellow	21	45,232,595	TSS200	OpenSea	LOC284837	0.821	0.007	0.414	0.294
cg08831080	yellow	3	121,348,609	3'UTR	OpenSea	FBXO40	0.821	0.003	0.720	0.593
cg00702647	yellow	1	15,655,764	Body	OpenSea	FHAD1	0.821	-0.005	0.712	0.598
cg17355042	yellow	17	7,128,557	3'UTR	OpenSea	ACADVL	0.821	0.004	0.629	0.537
cg19145218	yellow	20	749,336	TSS200	OpenSea	C20orf54	0.821	-0.009	0.636	0.163
cg03395188	yellow	2	219,266,059	Body	S_Shore	CTDSP1	0.821	0.009	0.450	0.140
cg21139312	yellow	17	55,663,225	Body	OpenSea	MSI2	0.821	0.008	0.763	0.493
cg19321696	yellow	10	129,350,922	3'UTR	OpenSea	NPS	0.821	0.008	0.257	0.672
cg03617456	yellow	1	11,160,205	TSS1500	S_Shore	EXOSC10	0.821	-0.004	0.236	0.600
cg03342543	yellow	2	241,715,115	Body	N_Shore	KIF1A	0.821	0.002	0.637	0.756
cg20160996	yellow	11	63,990,575	Body	N_Shelf	FERMT3	0.821	-0.010	0.869	0.117
cg15286618	yellow	11	67,250,164	TSS1500	N_Shore	AIP	0.821	0.001	0.059	0.907
cg24478803	yellow	2	26,786,046	Body	Island	C2orf70	0.821	0.007	0.555	0.319
cg07479303	yellow	1	216,988,411	5'UTR	OpenSea	ESRRG	0.821	-0.006	0.566	0.726
cg24727216	yellow	20	30,947,724	Body	S_Shore	ASXL1	0.821	0.008	0.275	0.311
cg11699666	yellow	6	44,225,648	TSS1500	S_Shore	SLC35B2	0.821	0.000	0.043	0.953
cg27340749	yellow	3	48,507,385	5'UTR	OpenSea	TREX1	0.821	0.013	0.158	0.205
cg27249422	yellow	17	40,264,678	5'UTR	OpenSea	DHX58	0.821	0.004	0.202	0.669

cg17332198	yellow	12	58,209,913	TSS200	OpenSea	AVIL	0.821	0.001	0.358	0.810
cg11661000	yellow	11	1,413,315	Body	S_Shore	BRSK2	0.821	0.007	0.873	0.269
cg12830671	yellow	10	73,335,297	Body	OpenSea	CDH23	0.821	0.003	0.585	0.570
cg26565099	yellow	1	166,846,182	TSS1500	S_Shore	TADA1	0.821	0.009	0.643	0.239
cg01274752	yellow	19	49,120,447	Body	N_Shore	RPL18	0.821	-0.007	0.661	0.381
cg06312985	yellow	7	32,961,866	Body	OpenSea	RP9P	0.821	0.005	0.699	0.517
cg23815853	yellow	12	48,147,034	Body	OpenSea	RAPGEF3	0.821	0.001	0.687	0.854
cg02119693	yellow	2	192,161,142	Body	OpenSea	MYO1B	0.821	0.022	0.562	0.316
cg05626616	yellow	17	75,473,895	Body	OpenSea	9-Sep	0.821	0.007	0.576	0.112
cg07708721	yellow	6	31,590,586	TSS1500	S_Shore	SNORA38	0.821	0.002	0.457	0.674
cg15976539	yellow	18	24,445,318	Body	S_Shore	C18orf16	0.821	0.003	0.517	0.655
cg18085660	yellow	4	1,202,898	TSS200	N_Shore	LOC1001308	0.821	0.016	0.700	0.029
cg06960356	yellow	11	2,596,416	Body	Island	KCNQ1	0.821	0.011	0.665	0.049
cg16341979	yellow	14	94,576,977	TSS200	OpenSea	IFI27	0.821	-0.009	0.702	0.300
cg03581271	yellow	4	169,806,766	Body	OpenSea	PALLD	0.821	0.030	0.624	0.009
cg07107916	yellow	1	212,457,424	TSS1500	N_Shore	PPP2R5A	0.821	0.002	0.564	0.854
cg07816074	yellow	4	8,201,560	5'UTR	OpenSea	SH3TC1	0.821	0.001	0.911	0.898
cg23541926	yellow	3	155,422,092	TSS200	OpenSea	PLCH1	0.821	0.003	0.702	0.810
cg01538731	yellow	16	87,757,018	Body	S_Shelf	KLHDC4	0.820	0.014	0.169	0.359
cg11598872	yellow	17	75,881,232	TSS1500	N_Shelf	FLJ45079	0.820	0.009	0.416	0.141
cg14927126	yellow	11	116,860,925	Body	OpenSea	SIK3	0.820	0.015	0.513	0.133
cg26818820	yellow	5	135,468,000	TSS1500	N_Shore	SMAD5	0.820	0.012	0.587	0.176
cg10218000	yellow	17	8,301,183	TSS200	OpenSea	RNF222	0.820	0.009	0.762	0.393
cg06889971	yellow	5	76,384,057	Body	S_Shore	LOC728723	0.820	0.011	0.329	0.430
cg22022321	yellow	1	53,508,381	Body	OpenSea	SCP2	0.820	-0.005	0.840	0.641
cg16481332	yellow	7	2,654,053	3'UTR	OpenSea	IQCE	0.820	0.017	0.225	0.149
cg14995202	yellow	12	92,464,328		OpenSea		0.820	-0.015	0.594	0.261
cg17755610	yellow	2	231,688,740		N_Shelf		0.820	0.013	0.477	0.024
cg18123677	yellow	3	167,454,339	5'UTR	S_Shore	SERPINI1	0.820	0.015	0.251	0.235
cg04715649	yellow	14	103,416,122	Body	OpenSea	CDC42BPB	0.820	0.000	0.906	0.954
cg05487105	yellow	3	137,729,296	Body	S_Shore	CLDN18	0.820	0.001	0.684	0.934
cg08140459	yellow	14	75,086,513		OpenSea		0.820	0.007	0.412	0.239
cg13425294	yellow	8	125,934,433		OpenSea		0.820	0.039	0.680	0.040
cg23062810	yellow	7	73,720,808	5'UTR	Island	CLIP2	0.820	0.013	0.474	0.190
cg20792744	yellow	15	44,723,502	5'UTR	S_Shelf	CTDSPL2	0.820	0.003	0.651	0.770
cg24154161	yellow	6	32,820,421	Body	N_Shore	TAP1	0.820	0.015	0.241	0.113
cg06086389	yellow	16	22,981,614		OpenSea		0.820	0.007	0.576	0.427
cg12406124	yellow	3	156,876,145	Body	N_Shore	CCNL1	0.820	0.007	0.764	0.376
cg01902066	yellow	16	50,727,242		OpenSea		0.820	0.004	0.086	0.445
cg07059784	yellow	2	233,416,233	TSS1500	S_Shore	TIGD1	0.820	-0.001	0.575	0.880
cg13052625	yellow	3	47,865,946	Body	N_Shore	DHX30	0.820	0.002	0.376	0.802
cg06952577	yellow	1	2,244,585		N_Shore		0.820	0.015	0.594	0.055
cg05803810	yellow	16	27,507,356	Body	OpenSea	GTF3C1	0.820	-0.001	0.829	0.869
cg15819360	yellow	8	134,462,357		OpenSea		0.820	0.006	0.573	0.544
cg21116457	yellow	18	43,304,007	TSS200	OpenSea	SLC14A1	0.820	-0.002	0.717	0.821
cg18256640	yellow	15	26,047,382	Body	OpenSea	ATP10A	0.820	0.012	0.814	0.287
cg06005876	yellow	2	85,817,498	Body	OpenSea	VAMP5	0.820	-0.003	0.419	0.682
cg25331919	yellow	18	47,092,023	Body	S_Shelf	LIPG	0.820	0.009	0.598	0.486
cg20825994	yellow	4	25,448,682		OpenSea		0.820	0.002	0.861	0.836
cg21339084	yellow	2	128,422,433	Body	S_Shore	LIMS2	0.820	-0.002	0.732	0.730
cg24691792	yellow	20	1,183,986	TSS200	OpenSea	C20orf202	0.820	-0.002	0.139	0.845
cg13046524	yellow	20	48,728,642	Body	N_Shore	UBE2V1	0.820	0.006	0.360	0.387
cg10881616	yellow	17	27,073,614	Body	S_Shelf	TRAF4	0.820	0.009	0.444	0.084
cg08747277	yellow	6	96,048,126	Body	OpenSea	MANEA	0.820	0.029	0.695	0.202
cg07918509	yellow	17	62,083,407	Body	OpenSea	ICAM2	0.820	0.010	0.499	0.279
cg24350771	yellow	7	18,329,602		OpenSea		0.820	0.001	0.253	0.848
cg17741809	yellow	10	90,985,055	Body	OpenSea	LIPA	0.819	0.001	0.451	0.926
cg18477569	yellow	6	90,951,134	5'UTR	OpenSea	BACH2	0.819	-0.002	0.525	0.775
cg23914328	yellow	15	29,393,367	Body	N_Shelf	APBA2	0.819	-0.004	0.680	0.600
cg02256455	yellow	14	104,165,475	Body	S_Shore	XRCC3	0.819	-0.007	0.834	0.109
cg10512951	yellow	6	70,500,634	Body	OpenSea	LMBRD1	0.819	-0.008	0.751	0.453
cg14872036	yellow	3	123,049,031	Body	OpenSea	ADCY5	0.819	0.013	0.473	0.306
cg24780570	yellow	12	133,067,700	Body	Island	FBRSL1	0.819	-0.001	0.173	0.879
cg23691090	yellow	22	46,449,981	1stExon	Island	C22orf26	0.819	-0.001	0.098	0.916
cg10785793	yellow	1	207,392,261		OpenSea		0.819	0.010	0.571	0.220
cg08989979	yellow	11	192,141	TSS1500	OpenSea	LOC653486	0.819	0.008	0.173	0.377
cg22891070	yellow	19	46,801,642	Body	S_Shore	HIF3A	0.819	-0.002	0.136	0.914

cg14010720	yellow	20	62,168,878	TSS200	S_Shore	PTK6	0.819	0.000	0.901	0.999
cg06094611	yellow	7	11,010,872		N_Shelf		0.819	-0.003	0.507	0.747
cg11277834	yellow	3	11,323,560	5'UTR	OpenSea	ATG7	0.819	0.010	0.719	0.234
cg25947773	yellow	2	223,771,010	5'UTR	OpenSea	ACSL3	0.819	0.002	0.573	0.798
cg17660833	yellow	3	11,267,020	5'UTR	OpenSea	HRH1	0.819	0.010	0.726	0.295
cg25248045	yellow	2	102,381,786	Body	OpenSea	MAP4K4	0.819	0.004	0.626	0.694
cg14074366	yellow	9	91,014,994	5'UTR	OpenSea	SPIN1	0.819	0.000	0.609	0.996
cg19430694	yellow	7	811,390	Body	N_Shelf	HEATR2	0.819	-0.009	0.124	0.309
cg00913954	yellow	1	36,852,956	TSS1500	S_Shore	STK40	0.819	0.017	0.779	0.057
cg01606875	yellow	9	25,678,753	1stExon	S_Shore	TUSC1	0.819	0.005	0.119	0.578
cg06916001	yellow	16	14,403,004	TSS200	OpenSea	MIR365-1	0.819	0.010	0.632	0.270
cg26824216	yellow	3	187,086,147	TSS200	OpenSea	RTP4	0.819	0.010	0.721	0.239
cg27052183	yellow	11	66,411,986	3'UTR	S_Shore	RBM4	0.819	0.014	0.544	0.124
cg00363737	yellow	10	116,031,419	Body	OpenSea	VWA2	0.819	0.003	0.790	0.731
cg13341982	yellow	17	38,708,603		OpenSea		0.819	0.015	0.521	0.317
cg04526365	yellow	6	34,858,220	Body	S_Shore	ANKS1A	0.819	0.010	0.227	0.342
cg18372896	yellow	14	75,897,376	5'UTR	S_Shore	JDP2	0.819	-0.007	0.213	0.559
cg17230535	yellow	7	32,626,962		OpenSea		0.819	-0.006	0.764	0.508
cg04371567	yellow	4	8,248,849		OpenSea		0.819	-0.003	0.736	0.621
cg13849419	yellow	9	71,802,071	Body	OpenSea	TJP2	0.819	-0.012	0.386	0.371
cg16649771	yellow	17	73,936,726	5'UTR	N_Shore	FBF1	0.819	0.000	0.080	0.956
cg23313005	yellow	5	176,965,046	Body	OpenSea	FAM193B	0.819	0.005	0.718	0.415
cg19274606	yellow	6	43,968,252	TSS200	N_Shore	C6orf223	0.819	0.013	0.138	0.220
cg00186374	yellow	2	151,659,068		OpenSea		0.819	0.002	0.836	0.719
cg09627520	yellow	3	58,410,836	3'UTR	OpenSea	PXK	0.819	-0.014	0.358	0.180
cg12439423	yellow	8	41,522,721	Body	OpenSea	ANK1	0.819	0.006	0.617	0.404
cg05889541	yellow	13	103,245,138		N_Shelf		0.819	0.010	0.321	0.148
cg25792473	yellow	4	1,029,484		Island		0.819	0.013	0.503	0.053
cg12679230	yellow	3	155,463,133		S_Shore		0.819	0.013	0.433	0.276
cg23222406	yellow	12	106,751,060	TSS1500	N_Shore	POLR3B	0.819	-0.007	0.621	0.513
cg07572435	yellow	8	143,868,013	TSS200	OpenSea	LY6D	0.819	0.013	0.875	0.036
cg26236009	yellow	20	56,236,410	5'UTR	N_Shelf	PMEPA1	0.819	0.020	0.702	0.137
cg10279148	yellow	16	8,960,126	5'UTR	N_Shelf	CARHSP1	0.818	0.016	0.592	0.054
cg05857283	yellow	16	55,870,175		S_Shelf		0.818	0.008	0.883	0.351
cg09308639	yellow	2	103,413,023	Body	OpenSea	TMEM182	0.818	-0.004	0.583	0.652
cg21579556	yellow	7	127,668,506	3'UTR	N_Shelf	LRRRC4	0.818	0.005	0.365	0.598
cg16071029	yellow	6	1,594,034		OpenSea		0.818	0.009	0.466	0.339
cg19656486	yellow	8	143,648,647		S_Shelf		0.818	0.006	0.271	0.616
cg21414505	yellow	1	2,180,697	Body	OpenSea	SKI	0.818	-0.001	0.597	0.939
cg10586546	yellow	6	31,634,657	TSS1500	S_Shore	BAT4	0.818	0.013	0.351	0.152
cg07935357	yellow	17	17,469,733	Body	OpenSea	PEMT	0.818	0.004	0.672	0.503
cg07263492	yellow	8	99,835,768	Body	N_Shore	STK3	0.818	-0.001	0.537	0.942
cg21092388	yellow	11	114,352,850		OpenSea		0.818	-0.003	0.465	0.773
cg00900226	yellow	4	15,161,468		OpenSea		0.818	0.006	0.826	0.397
cg03431918	yellow	17	77,716,367		S_Shore		0.818	0.006	0.562	0.333
cg04544196	yellow	8	52,807,648	5'UTR	N_Shelf	PCMTD1	0.818	0.003	0.666	0.736
cg00745835	yellow	10	80,778,842	Body	OpenSea	LOC283050	0.818	-0.007	0.741	0.627
cg23138250	yellow	5	33,401,870		OpenSea		0.818	0.017	0.401	0.166
cg24408469	yellow	22	46,770,440	Body	Island	CELSR1	0.818	-0.002	0.284	0.917
cg19946638	yellow	11	70,859,647	5'UTR	OpenSea	SHANK2	0.818	0.004	0.605	0.496
cg09458566	yellow	11	116,857,794	Body	OpenSea	SIK3	0.818	-0.003	0.590	0.820
cg10157936	yellow	14	105,220,767	Body	S_Shore	SIVA1	0.818	0.007	0.607	0.234
cg20575856	yellow	10	50,428,882		OpenSea		0.818	0.006	0.807	0.467
cg11915001	yellow	19	12,175,268	TSS1500	N_Shore	ZNF844	0.818	0.010	0.312	0.279
cg21469505	yellow	18	47,085,749		N_Shore		0.818	0.010	0.556	0.342
cg11360522	yellow	13	113,379,828	Body	N_Shelf	ATP11A	0.818	0.008	0.620	0.355
cg03345668	yellow	1	47,081,524	TSS1500	N_Shore	MOBK2C	0.818	0.006	0.818	0.273
cg03976543	yellow	4	8,221,101	Body	OpenSea	SH3TC1	0.818	0.007	0.551	0.289
cg07654569	yellow	8	79,577,796	TSS1500	N_Shore	FAM164A	0.818	0.006	0.538	0.604
cg14308612	yellow	11	67,161,732	Body	S_Shore	RAD9A	0.818	-0.006	0.713	0.307
cg04543516	yellow	20	21,589,093		OpenSea		0.818	0.003	0.841	0.718
cg13047336	yellow	7	151,004,970		S_Shelf		0.818	0.015	0.505	0.068
cg11099899	yellow	21	37,852,334	5'UTR	OpenSea	CLDN14	0.818	0.014	0.598	0.123
cg13855852	yellow	10	6,065,835	Body	OpenSea	IL2RA	0.818	0.011	0.542	0.199
cg09205751	yellow	11	278,394	TSS200	N_Shore	NLRP6	0.818	0.021	0.625	0.015
cg09217157	yellow	10	97,624,891	Body	OpenSea	ENTPD1	0.818	0.010	0.480	0.446
cg07149639	yellow	13	113,488,043	Body	S_Shore	ATP11A	0.818	-0.009	0.860	0.220



cg04021454	yellow	1	28,968,404	5'UTR	N_Shore	TAF12	0.818	0.013	0.719	0.341
cg06540876	yellow	6	31,870,600	TSS1500	S_Shore	ZBTB12	0.818	0.014	0.562	0.088
cg08644381	yellow	7	149,480,305	Body	OpenSea	SSPO	0.818	0.009	0.670	0.147
cg21210376	yellow	8	27,695,667	TSS1500	S_Shore	PBK	0.818	0.007	0.448	0.325
cg02232988	yellow	14	53,340,748	Body	OpenSea	FERMT2	0.818	0.014	0.718	0.449
cg05134426	yellow	5	124,080,479	1stExon	OpenSea	ZNF608	0.818	0.001	0.144	0.930
cg16840364	yellow	4	84,539,569		OpenSea		0.818	0.011	0.828	0.216
cg09797390	yellow	1	112,263,095		OpenSea		0.817	0.014	0.560	0.158
cg07252363	yellow	6	33,360,697	Body	S_Shore	KIFC1	0.817	0.005	0.547	0.512
cg06998507	yellow	16	84,273,740	TSS1500	S_Shelf	KCNG4	0.817	0.000	0.344	0.995
cg01144965	yellow	8	1,811,760	Body	OpenSea	ARHGEF10	0.817	0.010	0.717	0.200
cg21162938	yellow	5	95,115,604	Body	OpenSea	RHOBTB3	0.817	-0.004	0.828	0.676
cg01910478	yellow	14	76,373,678	Body	OpenSea	TTLL5	0.817	0.000	0.682	0.965
cg26277787	yellow	2	1,425,560	Body	OpenSea	TPO	0.817	0.002	0.645	0.734
cg26414257	yellow	4	6,888,038		OpenSea		0.817	0.009	0.608	0.255
cg16321975	yellow	2	233,924,852	TSS200	N_Shore	INPP5D	0.817	0.003	0.758	0.574
cg19007988	yellow	3	87,277,465	Body	S_Shore	CHMP2B	0.817	0.007	0.476	0.571
cg23416740	yellow	18	21,033,823	Body	S_Shore	RIOK3	0.817	0.000	0.019	0.786
cg23959115	yellow	17	79,006,667	Body	Island	FLJ90757	0.817	0.004	0.900	0.366
cg05709782	yellow	20	48,960,165		Island		0.817	0.006	0.838	0.540
cg08488756	yellow	21	45,551,018	3'UTR	N_Shelf	PWP2	0.817	0.007	0.575	0.277
cg27507569	yellow	3	134,045,136		OpenSea		0.817	-0.001	0.691	0.893
cg06533408	yellow	12	69,139,618	TSS1500	N_Shore	SLC35E3	0.817	0.005	0.632	0.695
cg06906869	yellow	13	52,734,154	TSS1500	S_Shore	NEK3	0.817	0.005	0.432	0.760
cg26813796	yellow	1	225,806,065	Body	OpenSea	ENAH	0.817	0.004	0.830	0.681
cg05517233	yellow	5	135,468,041	TSS1500	N_Shore	SMAD5	0.817	0.008	0.343	0.355
cg02467073	yellow	17	1,732,572	TSS1500	N_Shore	RPA1	0.817	0.000	0.062	0.933
cg23214395	yellow	1	20,141,778	TSS200	OpenSea	RNF186	0.817	0.000	0.479	0.983
cg11736544	yellow	17	42,196,657	5'UTR	N_Shelf	HDAC5	0.817	0.002	0.750	0.739
cg18947276	yellow	2	48,795,067	TSS1500	OpenSea	STON1-GTF2.	0.817	0.017	0.425	0.117
cg20520804	yellow	10	3,149,673	Body	S_Shore	PFKP	0.817	0.008	0.827	0.556
cg11784243	yellow	6	25,369,563	Body	OpenSea	LRRC16A	0.817	0.001	0.625	0.964
cg10922280	yellow	16	68,034,227	TSS1500	OpenSea	DPEP2	0.817	0.004	0.621	0.480
cg08348100	yellow	12	122,261,828	Body	S_Shore	SETD1B	0.817	0.005	0.844	0.439
cg09042577	yellow	11	119,185,584	Body	N_Shore	MCAM	0.817	-0.003	0.876	0.745
cg24462992	yellow	10	84,502,511	Body	OpenSea	NRG3	0.817	0.004	0.783	0.586
cg07911905	yellow	12	105,096,644	Body	OpenSea	CHST11	0.817	0.012	0.563	0.423
cg24760753	yellow	2	159,534,030	Body	OpenSea	PKP4	0.817	0.011	0.754	0.370
cg22879111	yellow	5	149,923,998	Body	OpenSea	NDST1	0.817	0.003	0.514	0.665
cg08247289	yellow	13	113,400,754	Body	OpenSea	ATP11A	0.817	-0.019	0.849	0.053
cg05802169	yellow	1	213,599,020		OpenSea		0.817	0.008	0.765	0.187
cg10980921	yellow	8	103,705,294		OpenSea		0.817	-0.007	0.866	0.371
cg08145949	yellow	4	1,798,209	Body	N_Shore	FGFR3	0.817	0.001	0.782	0.827
cg08991927	yellow	5	146,436,805	5'UTR	OpenSea	PPP2R2B	0.817	-0.006	0.871	0.464
cg26746469	yellow	20	36,663,290	TSS1500	S_Shore	KIAA0406	0.817	0.006	0.689	0.311
cg03946955	yellow	1	156,096,301	Body	OpenSea	LMNA	0.817	0.006	0.430	0.404
cg00012194	yellow	22	50,720,288	Body	Island	PLXNB2	0.817	-0.011	0.829	0.162
cg08105471	yellow	3	74,439,236	Body	OpenSea	CNTN3	0.817	0.014	0.414	0.181
cg19311375	yellow	2	46,542,361	Body	OpenSea	EPAS1	0.817	-0.008	0.782	0.250
cg14480449	yellow	14	105,933,035	Body	Island	MTA1	0.817	-0.002	0.827	0.792
cg02659568	yellow	1	116,221,763	Body	OpenSea	VANGL1	0.817	-0.004	0.733	0.510
cg03058556	yellow	6	33,421,509	TSS1500	N_Shore	ZBTB9	0.817	0.002	0.075	0.766
cg23889047	yellow	1	7,705,756	Body	OpenSea	CAMTA1	0.817	0.015	0.350	0.064
cg15463966	yellow	3	148,446,998	5'UTR	OpenSea	AGTR1	0.817	-0.003	0.711	0.748
cg05647733	yellow	12	106,474,322	Body	OpenSea	NUAK1	0.817	0.005	0.130	0.520
cg18833958	yellow	6	33,421,468	TSS1500	N_Shore	ZBTB9	0.817	-0.001	0.112	0.890
cg03028506	yellow	15	38,577,420	Body	OpenSea	SPRED1	0.816	-0.009	0.897	0.231
cg20625138	yellow	1	7,913,667	TSS1500	OpenSea	UTS2	0.816	0.010	0.507	0.231
cg20822884	yellow	1	49,240,625	Body	N_Shore	BEND5	0.816	-0.003	0.839	0.673
cg26607897	yellow	1	167,510,839	3'UTR	OpenSea	CREG1	0.816	0.029	0.756	0.107
cg13979887	yellow	9	5,831,999	Body	N_Shore	ERMP1	0.816	-0.002	0.397	0.896
cg04857231	yellow	15	42,782,520		N_Shore		0.816	0.011	0.511	0.330
cg07218744	yellow	16	1,096,754		N_Shore		0.816	0.010	0.779	0.185
cg11857142	yellow	7	127,682,579	Body	OpenSea	SND1	0.816	0.007	0.761	0.233
cg14737704	yellow	22	50,728,534	Body	Island	PLXNB2	0.816	0.009	0.674	0.195
cg11273834	yellow	6	149,863,603	Body	N_Shelf	PPIL4	0.816	-0.002	0.728	0.701
cg04128967	yellow	14	70,046,847		OpenSea		0.816	0.013	0.266	0.389

cg18142162	yellow	1	43,281,678	Body	N_Shore	CCDC23	0.816	0.005	0.107	0.626
cg06190046	yellow	16	83,986,382	5'UTR	OpenSea	OSGIN1	0.816	-0.002	0.226	0.870
cg08164233	yellow	13	37,394,589	Body	S_Shore	RFXAP	0.816	-0.006	0.644	0.487
cg26801943	yellow	2	74,880,862	TSS1500	N_Shore	SEMA4F	0.816	0.011	0.484	0.342
cg08057698	yellow	6	30,568,683	3'UTR	OpenSea	PPP1R10	0.816	-0.006	0.844	0.522
cg16620283	yellow	2	203,155,849	TSS200	OpenSea	SNORD11B	0.816	0.002	0.519	0.883
cg24107163	yellow	1	207,095,332	5'UTR	OpenSea	FAIM3	0.816	0.005	0.610	0.391
cg04920630	yellow	3	127,772,689	Body	S_Shore	SEC61A1	0.816	0.005	0.541	0.430
cg24756865	yellow	14	103,652,182		N_Shelf		0.816	-0.002	0.225	0.855
cg04156850	yellow	17	73,402,572	TSS1500	S_Shore	GRB2	0.816	0.008	0.193	0.310
cg27130993	yellow	5	148,545,635	Body	OpenSea	ABLIM3	0.816	0.027	0.563	0.040
cg10753298	yellow	10	98,807,172	Body	S_Shelf	SLIT1	0.816	0.002	0.692	0.808
cg16725305	yellow	2	18,780,617		OpenSea		0.816	0.033	0.623	0.051
cg12730047	yellow	3	147,232,332		OpenSea		0.816	0.003	0.502	0.820
cg13767778	yellow	9	95,736,309	5'UTR	OpenSea	FGD3	0.816	0.009	0.672	0.224
cg00856997	yellow	4	2,366,103	Body	N_Shore	ZFYVE28	0.816	0.004	0.663	0.589
cg20508508	yellow	17	48,473,757	Body	N_Shore	LRRC59	0.816	0.001	0.079	0.900
cg01419713	yellow	8	42,038,135	Body	OpenSea	PLAT	0.816	-0.006	0.746	0.546
cg20927307	yellow	2	242,518,158		N_Shore		0.816	-0.005	0.770	0.588
cg12018581	yellow	7	1,031,548		S_Shore		0.816	-0.001	0.390	0.832
cg13433363	yellow	20	43,375,708	Body	S_Shore	KCNK15	0.816	0.009	0.086	0.250
cg22080436	yellow	11	4,212,471		S_Shelf		0.816	0.019	0.670	0.083
cg07528237	yellow	19	1,884,145	5'UTR	N_Shore	FAM108A1	0.816	0.002	0.336	0.660
cg24473500	yellow	7	871,436	5'UTR	OpenSea	UNC84A	0.816	0.014	0.266	0.416
cg00995807	yellow	14	104,172,224	Body	OpenSea	XRCC3	0.816	-0.008	0.836	0.143
cg23956760	yellow	19	19,178,708	5'UTR	S_Shelf	SLC25A42	0.816	0.001	0.700	0.925
cg20338426	yellow	11	86,188,827	Body	OpenSea	ME3	0.816	0.026	0.575	0.052
cg13423770	yellow	1	156,338,775	TSS1500	Island	RHBG	0.816	0.008	0.288	0.320
cg13933373	yellow	7	54,927,525		OpenSea		0.816	0.002	0.413	0.897
cg26233209	yellow	5	115,178,764	TSS1500	S_Shore	ATG12	0.816	0.006	0.328	0.532
cg08543952	yellow	17	79,651,806	TSS1500	S_Shore	ARL16	0.816	0.010	0.150	0.174
cg00549561	yellow	16	22,296,110	3'UTR	OpenSea	EEF2K	0.816	0.002	0.555	0.824
cg11948159	yellow	11	57,103,751	TSS1500	S_Shore	SSRP1	0.816	0.008	0.488	0.318
cg15900386	yellow	2	27,371,879	TSS200	N_Shore	TCF23	0.816	0.010	0.591	0.217
cg06870470	yellow	19	11,315,767	Body	N_Shelf	DOCK6	0.815	0.012	0.559	0.317
cg01994750	yellow	11	95,500,778		OpenSea		0.815	0.034	0.654	0.071
cg10668933	yellow	12	22,200,200	Body	S_Shore	CMAS	0.815	0.003	0.714	0.784
cg03954861	yellow	12	6,561,352	1stExon	OpenSea	TAPBPL	0.815	0.015	0.237	0.082
cg22532155	yellow	17	79,304,683	TSS1500	OpenSea	TMEM105	0.815	-0.001	0.751	0.930
cg10714639	yellow	19	1,075,104	Body	S_Shore	HMHA1	0.815	0.021	0.792	0.045
cg22693435	yellow	5	175,082,301		N_Shelf		0.815	0.002	0.780	0.731
cg18519757	yellow	20	23,339,257		S_Shore		0.815	0.005	0.397	0.655
cg09072291	yellow	2	173,792,545	Body	OpenSea	RAPGEF4	0.815	-0.007	0.845	0.413
cg17784808	yellow	6	36,410,268	5'UTR	N_Shore	PXT1	0.815	-0.001	0.551	0.950
cg00781519	yellow	9	25,678,683	1stExon	Island	TUSC1	0.815	0.007	0.185	0.534
cg00573235	yellow	16	56,883,532		OpenSea		0.815	0.009	0.518	0.466
cg16564132	yellow	7	47,193,871		OpenSea		0.815	0.006	0.747	0.467
cg22548109	yellow	10	126,812,808	5'UTR	OpenSea	CTBP2	0.815	0.009	0.591	0.173
cg12124589	yellow	1	180,127,817	Body	S_Shelf	QSOX1	0.815	0.008	0.583	0.229
cg06132502	yellow	15	71,145,127	Body	N_Shore	LARP6	0.815	0.011	0.442	0.357
cg15457481	yellow	4	100,326,030		OpenSea		0.815	0.001	0.770	0.943
cg19708554	yellow	1	166,136,816	TSS1500	S_Shore	FAM78B	0.815	0.020	0.325	0.045
cg16569347	yellow	17	7,369,066	Body	Island	ZBTB4	0.815	0.002	0.779	0.798
cg14825735	yellow	6	1,594,066		OpenSea		0.815	-0.009	0.723	0.580
cg14565651	yellow	1	9,145,034	Body	OpenSea	SLC2A5	0.815	0.006	0.629	0.553
cg09728487	yellow	4	141,079,462		S_Shelf		0.815	0.007	0.144	0.433
cg19622777	yellow	2	86,341,240	Body	OpenSea	PTCD3	0.815	-0.001	0.862	0.917
cg02664479	yellow	20	62,690,218	5'UTR	S_Shore	TCEA2	0.815	0.015	0.755	0.064
cg16399745	yellow	12	6,604,039	5'UTR	S_Shore	NCAPD2	0.815	0.003	0.354	0.834
cg06964030	yellow	22	20,073,636	Body	Island	MIR1306	0.815	0.001	0.614	0.866
cg02093006	yellow	10	32,201,942	5'UTR	OpenSea	ARHGAP12	0.815	0.004	0.419	0.588
cg25756470	yellow	22	37,256,947	TSS200	OpenSea	NCF4	0.815	0.002	0.562	0.770
cg01928418	yellow	22	41,810,665		S_Shore		0.815	0.004	0.282	0.439
cg06500792	yellow	2	65,006,618		OpenSea		0.815	-0.001	0.279	0.933
cg01385708	yellow	16	4,373,570		N_Shelf		0.815	0.010	0.607	0.180
cg00356694	yellow	17	4,337,202	TSS200	OpenSea	SPNS3	0.815	0.006	0.545	0.329
cg23225508	yellow	17	62,500,377	Body	N_Shore	DDX5	0.815	-0.001	0.709	0.944

cg06112654	yellow	10	35,505,599	S_Shore		0.815	0.009	0.296	0.266
cg00738897	yellow	16	85,198,673	S_Shore		0.815	0.014	0.522	0.122
cg09849688	yellow	1	27,060,511 Body	OpenSea	ARID1A	0.815	-0.015	0.441	0.089
cg01713505	yellow	4	146,018,691 5'UTR	N_Shore	ANAPC10	0.815	0.011	0.061	0.107
cg08665853	yellow	5	141,348,202 TSS1500	N_Shore	RNF14	0.815	0.017	0.455	0.157
cg23143090	yellow	6	169,689,939	OpenSea		0.815	0.014	0.644	0.074
cg26348847	yellow	14	65,216,504 Body	S_Shore	SPTB	0.815	0.002	0.740	0.704
cg00026290	yellow	4	10,686,554 TSS200	OpenSea	CLNK	0.815	0.001	0.560	0.937
cg15347788	yellow	18	74,172,098 5'UTR	S_Shore	ZNF516	0.815	-0.007	0.598	0.454
cg21768042	yellow	5	141,059,890 Body	OpenSea	ARAP3	0.815	0.003	0.825	0.660
cg20112500	yellow	6	31,021,744 TSS1500	OpenSea	HCG22	0.815	0.002	0.097	0.782
cg08725366	yellow	7	18,329,916	OpenSea		0.815	-0.002	0.515	0.858
cg25215230	yellow	4	15,679,598	N_Shelf		0.814	0.003	0.857	0.750
cg15617609	yellow	12	123,352,774 Body	S_Shore	VPS37B	0.814	-0.001	0.785	0.923
cg04374813	yellow	8	30,012,889 TSS1500	N_Shore	DCTN6	0.814	0.010	0.282	0.142
cg03662459	yellow	9	34,654,290 5'UTR	OpenSea	IL11RA	0.814	0.015	0.578	0.215
cg18273412	yellow	10	93,647,857	S_Shore		0.814	0.007	0.402	0.240
cg21600346	yellow	17	75,905,364	OpenSea		0.814	0.013	0.671	0.290
cg24710309	yellow	1	235,423,736 Body	OpenSea	ARID4B	0.814	-0.008	0.616	0.489
cg02054108	yellow	2	61,607,478 Body	OpenSea	USP34	0.814	0.013	0.605	0.441
cg17774960	yellow	8	144,676,206 5'UTR	Island	EEF1D	0.814	-0.009	0.848	0.334
cg15087455	yellow	1	224,037,430	S_Shelf		0.814	-0.008	0.840	0.281
cg25609954	yellow	4	3,472,246 Body	N_Shelf	DOK7	0.814	0.017	0.800	0.058
cg16669650	yellow	6	42,110,833 TSS200	S_Shore	C6orf132	0.814	-0.005	0.254	0.529
cg24503449	yellow	19	18,266,888 Body	Island	PIK3R2	0.814	-0.003	0.928	0.557
cg04307795	yellow	10	130,281,583	OpenSea		0.814	-0.003	0.762	0.692
cg15231872	yellow	19	18,054,785 3'UTR	N_Shelf	CCDC124	0.814	0.001	0.717	0.882
cg01292175	yellow	18	24,445,240 Body	S_Shore	AQP4	0.814	0.009	0.779	0.271
cg16719865	yellow	2	234,394,478 Body	OpenSea	USP40	0.814	0.010	0.751	0.371
cg04959790	yellow	11	47,278,977 5'UTR	OpenSea	NR1H3	0.814	0.008	0.198	0.392
cg14502172	yellow	10	5,454,184 TSS1500	N_Shore	NET1	0.814	0.008	0.195	0.406
cg25674286	yellow	1	112,046,915 Body	OpenSea	ADORA3	0.814	0.007	0.329	0.501
cg26685404	yellow	16	23,957,272 Body	OpenSea	PRKCB	0.814	0.009	0.623	0.277
cg06669598	yellow	6	127,622,363 3'UTR	OpenSea	ECHDC1	0.814	0.009	0.740	0.582
cg22505006	yellow	1	154,981,829 5'UTR	OpenSea	ZBTB7B	0.814	0.005	0.639	0.447
cg00205598	yellow	10	134,359,217 Body	N_Shore	INPP5A	0.814	0.008	0.882	0.393
cg18767920	yellow	18	33,048,493 3'UTR	OpenSea	INO80C	0.814	0.002	0.804	0.883
cg17936572	yellow	3	35,706,114 5'UTR	OpenSea	ARPP-21	0.814	0.024	0.420	0.027
cg06430509	yellow	21	44,853,470	OpenSea		0.814	0.014	0.484	0.187
cg26244164	yellow	8	12,987,449 Body	N_Shore	DLC1	0.814	0.000	0.658	0.968
cg26350373	yellow	15	42,449,015 TSS200	OpenSea	PLA2G4F	0.814	-0.008	0.608	0.258
cg08128361	yellow	16	67,336,052 Body	OpenSea	KCTD19	0.814	-0.004	0.752	0.658
cg16701767	yellow	1	27,026,841 Body	S_Shelf	ARID1A	0.814	0.009	0.141	0.230
cg14020652	yellow	9	38,339,335	OpenSea		0.814	0.009	0.281	0.285
cg23216434	yellow	1	67,871,362	OpenSea		0.814	0.008	0.559	0.325
cg15391601	yellow	19	35,849,176 TSS1500	OpenSea	FFAR3	0.814	0.001	0.084	0.870
cg16916782	yellow	13	113,261,142	S_Shore		0.814	0.006	0.617	0.473
cg26126879	yellow	8	103,916,295	OpenSea		0.814	0.003	0.742	0.747
cg19995539	yellow	12	120,539,137 Body	N_Shelf	RAB35	0.814	0.014	0.583	0.108
cg06019763	yellow	6	25,028,080	OpenSea		0.814	0.011	0.738	0.183
cg09323395	yellow	10	134,980,671 Body	Island	KNDC1	0.814	0.027	0.660	0.008
cg26663796	yellow	17	80,255,734	OpenSea		0.814	0.000	0.161	0.987
cg15832329	yellow	2	242,296,992 5'UTR	S_Shore	FARP2	0.814	0.011	0.637	0.277
cg16431787	yellow	6	1,082,220 Body	OpenSea	LOC285768	0.814	0.007	0.333	0.417
cg15529155	yellow	10	119,507,741	OpenSea		0.814	0.010	0.606	0.172
cg22438810	yellow	9	130,911,792 1stExon	OpenSea	LCN2	0.814	0.015	0.726	0.074
cg24910675	yellow	9	130,616,917 5'UTR	S_Shore	ENG	0.814	0.004	0.091	0.398
cg23257934	yellow	1	234,858,982	OpenSea		0.814	0.003	0.675	0.789
cg26738160	yellow	11	47,459,510 3'UTR	OpenSea	RAPSN	0.813	-0.006	0.529	0.459
cg06768393	yellow	7	127,589,252 Body	OpenSea	SND1	0.813	-0.006	0.699	0.518
cg08523694	yellow	5	57,076,192	OpenSea		0.813	-0.003	0.760	0.680
cg20477147	yellow	20	57,265,991	N_Shore		0.813	0.000	0.295	0.990
cg21550483	yellow	17	6,984,106 TSS1500	OpenSea	CLEC10A	0.813	-0.003	0.671	0.722
cg01271982	yellow	16	89,417,545 5'UTR	OpenSea	ANKRD11	0.813	0.002	0.904	0.779
cg17935233	yellow	1	156,338,826 TSS200	Island	RHBG	0.813	-0.002	0.198	0.769
cg09414280	yellow	12	120,130,253 Body	S_Shore	CIT	0.813	-0.004	0.651	0.844
cg11576424	yellow	5	131,750,756 5'UTR	S_Shelf	C5orf56	0.813	-0.001	0.240	0.902

cg11098259	yellow	15	58,430,391	TSS200	OpenSea	AQP9	0.813	0.002	0.749	0.924
cg06896207	yellow	19	2,095,364	5'UTR	N_Shore	MOBK2A	0.813	0.004	0.625	0.537
cg14023881	yellow	1	77,230,704		OpenSea		0.813	0.026	0.219	0.090
cg23875401	yellow	19	40,267,283	1stExon	OpenSea	LEUTX	0.813	0.002	0.811	0.763
cg22215508	yellow	4	26,024,198		OpenSea		0.813	0.016	0.441	0.075
cg07095330	yellow	17	36,889,069	Body	S_Shelf	CISD3	0.813	-0.009	0.850	0.445
cg17001430	yellow	6	168,418,276	TSS1500	OpenSea	KIF25	0.813	0.013	0.430	0.367
cg15676837	yellow	1	202,137,199	Body	OpenSea	PTPRV	0.813	0.008	0.740	0.473
cg02888247	yellow	6	24,719,235	1stExon	N_Shore	C6orf62	0.813	0.024	0.701	0.054
cg03870329	yellow	7	155,085,773		N_Shelf		0.813	-0.002	0.688	0.781
cg02171725	yellow	8	95,564,335	Body	N_Shore	KIAA1429	0.813	0.009	0.704	0.418
cg10929758	yellow	2	54,857,270	Body	S_Shore	SPTBN1	0.813	0.003	0.877	0.569
cg21698310	yellow	17	48,224,718	Body	N_Shore	PPP1R9B	0.813	0.005	0.423	0.472
cg26953469	yellow	10	31,872,296		OpenSea		0.813	0.012	0.737	0.254
cg05830425	yellow	13	21,654,356		OpenSea		0.813	0.017	0.213	0.224
cg15132013	yellow	1	2,163,529	Body	S_Shelf	SKI	0.813	0.008	0.461	0.494
cg19100988	yellow	5	43,731,068		OpenSea		0.813	0.010	0.654	0.469
cg26298599	yellow	13	98,154,591		OpenSea		0.813	0.002	0.279	0.746
cg27518892	yellow	16	57,566,936	5'UTR	N_Shelf	CCDC102A	0.813	0.012	0.332	0.113
cg03524147	yellow	10	119,138,665		S_Shelf		0.813	0.011	0.632	0.212
cg26721803	yellow	6	30,690,844	Body	S_Shore	TUBB	0.813	0.005	0.281	0.474
cg00431324	yellow	16	30,672,051		S_Shore		0.813	-0.003	0.336	0.740
cg08447373	yellow	5	90,478,943		OpenSea		0.813	-0.003	0.843	0.747
cg16406611	yellow	11	300,404	TSS1500	S_Shore	IFITM5	0.813	0.028	0.218	0.099
cg10873171	yellow	7	44,145,333	Body	OpenSea	AEBP1	0.813	0.001	0.344	0.916
cg13058453	yellow	1	85,584,420	Body	OpenSea	WDR63	0.813	0.000	0.583	0.946
cg10549986	yellow	2	7,018,153	1stExon	OpenSea	RSAD2	0.813	0.006	0.838	0.527
cg16399833	yellow	14	104,345,945		OpenSea		0.813	0.005	0.608	0.548
cg18764544	yellow	1	54,803,684	Body	OpenSea	SSBP3	0.813	-0.005	0.429	0.647
cg03669367	yellow	7	1,031,588		S_Shore		0.813	0.000	0.693	0.989
cg00026412	yellow	10	62,059,894	Body	OpenSea	ANK3	0.813	0.006	0.758	0.467
cg00934624	yellow	14	74,318,234	TSS1500	N_Shore	PTGR2	0.813	0.009	0.367	0.254
cg18179039	yellow	4	141,642,191	Body	OpenSea	TBC1D9	0.813	0.011	0.580	0.183
cg19804859	yellow	22	22,901,145	5'UTR	N_Shore	PRAME	0.813	-0.006	0.694	0.482
cg19619956	yellow	5	176,967,557	5'UTR	OpenSea	FAM193B	0.813	0.009	0.703	0.257
cg02365900	yellow	17	81,050,089	Body	N_Shore	METRNL	0.813	-0.008	0.809	0.442
cg16213217	yellow	13	50,074,189	Body	S_Shelf	PHF11	0.813	0.000	0.872	0.942
cg24943405	yellow	6	105,936,926		OpenSea		0.813	-0.009	0.837	0.338
cg11436113	yellow	20	19,191,145		N_Shore		0.813	-0.002	0.678	0.788
cg01242698	yellow	13	112,908,629		OpenSea		0.813	0.017	0.476	0.046
cg00618323	yellow	5	176,515,533	5'UTR	S_Shore	FGFR4	0.813	0.003	0.371	0.752
cg05391884	yellow	16	73,206,607		OpenSea		0.813	0.000	0.158	0.975
cg10459187	yellow	16	50,218,944	Body	OpenSea	PAPD5	0.813	0.004	0.605	0.478
cg05642923	yellow	17	61,896,912	3'UTR	OpenSea	FTSJ3	0.813	-0.022	0.622	0.056
cg16691944	yellow	3	44,519,652	TSS1500	S_Shore	ZNF445	0.813	0.010	0.683	0.075
cg19479086	yellow	5	158,602,264	Body	OpenSea	RNF145	0.813	-0.019	0.572	0.082
cg21353144	yellow	4	124,323,362	Body	S_Shelf	SPRY1	0.813	0.009	0.874	0.235
cg21740177	yellow	3	119,381,682		OpenSea		0.813	0.007	0.593	0.430
cg23463310	yellow	11	65,188,784	TSS1500	N_Shore	NEAT1	0.813	0.006	0.424	0.377
cg26672426	yellow	9	132,514,582	Body	OpenSea	PTGES	0.813	-0.003	0.450	0.668
cg02050917	yellow	1	2,173,571	Body	OpenSea	SKI	0.812	-0.004	0.678	0.643
cg04261496	yellow	7	4,753,002	Body	OpenSea	FOXK1	0.812	0.006	0.794	0.660
cg15591803	yellow	1	111,733,668	Body	OpenSea	DENND2D	0.812	0.029	0.524	0.060
cg15809352	yellow	2	121,748,218	Body	S_Shore	GLI2	0.812	0.004	0.770	0.508
cg10888399	yellow	22	18,061,368	5'UTR	N_Shelf	SLC25A18	0.812	-0.008	0.624	0.410
cg05604874	yellow	17	80,200,785		Island		0.812	0.025	0.321	0.021
cg07719679	yellow	7	87,936,392	TSS200	OpenSea	STEAP4	0.812	0.003	0.173	0.654
cg23218567	yellow	7	72,396,499	5'UTR	S_Shore	POM121	0.812	0.004	0.077	0.599
cg11938738	yellow	6	134,999,799		OpenSea		0.812	-0.004	0.269	0.733
cg14325025	yellow	2	102,608,155	TSS200	OpenSea	IL1R2	0.812	-0.002	0.645	0.837
cg11197945	yellow	3	137,729,135	Body	Island	CLDN18	0.812	0.003	0.622	0.661
cg02481642	yellow	20	43,343,760	TSS200	OpenSea	WISP2	0.812	0.001	0.219	0.905
cg11141340	yellow	1	26,802,999	3'UTR	S_Shelf	HMG2	0.812	0.005	0.570	0.598
cg16093580	yellow	17	47,992,380		OpenSea		0.812	0.007	0.850	0.298
cg22379576	yellow	1	173,790,504	5'UTR	N_Shelf	CENPL	0.812	0.001	0.703	0.878
cg10514420	yellow	2	24,231,022		N_Shore		0.812	0.004	0.860	0.627
cg10322794	yellow	21	47,740,892	Body	N_Shore	C21orf58	0.812	0.003	0.309	0.838

cg09119494	yellow	1	23,851,471	Body	OpenSea	E2F2	0.812	0.017	0.346	0.090
cg02205072	yellow	3	126,328,430	TSS1500	OpenSea	TXNRD3IT1	0.812	-0.006	0.904	0.319
cg00229387	yellow	6	43,445,942	5'UTR	OpenSea	TJAP1	0.812	0.007	0.455	0.142
cg08284263	yellow	10	92,958,627		OpenSea		0.812	0.017	0.786	0.251
cg13468149	yellow	3	27,546,100		OpenSea		0.812	0.001	0.686	0.946
cg13882090	yellow	6	33,246,094	1stExon	S_Shore	B3GALT4	0.812	0.007	0.667	0.242
cg25283254	yellow	13	41,838,093	TSS1500	OpenSea	MTRF1	0.812	-0.002	0.039	0.614
cg01896424	yellow	11	20,010,227	Body	OpenSea	NAV2	0.812	0.003	0.551	0.716
cg08737189	yellow	7	131,223,417	Body	OpenSea	PODXL	0.812	0.006	0.806	0.462
cg21152628	yellow	11	60,704,616	3'UTR	S_Shelf	TMEM132A	0.812	0.007	0.582	0.273
cg18444673	yellow	19	36,389,500	5'UTR	N_Shore	NFKBID	0.812	0.005	0.508	0.486
cg13257690	yellow	14	101,908,752		N_Shore		0.812	0.014	0.743	0.037
cg18935449	yellow	11	45,723,785		OpenSea		0.812	-0.003	0.813	0.659
cg22164891	yellow	20	52,199,729	TSS200	S_Shore	ZNF217	0.812	0.013	0.591	0.109
cg00202760	yellow	16	88,871,911	Body	Island	CDT1	0.812	0.009	0.610	0.172
cg03032053	yellow	7	1,495,311	Body	N_Shelf	MICALL2	0.812	-0.004	0.584	0.551
cg22356814	yellow	1	54,448,011		OpenSea		0.812	0.013	0.501	0.151
cg22957691	yellow	2	36,790,185	Body	OpenSea	FEZ2	0.812	-0.004	0.882	0.655
cg17018839	yellow	17	77,122,986	5'UTR	OpenSea	HRNBP3	0.812	0.023	0.598	0.003
cg25475999	yellow	11	35,282,046	3'UTR	OpenSea	SLC1A2	0.812	0.005	0.680	0.519
cg08548498	yellow	20	43,883,546	TSS1500	OpenSea	SLPI	0.812	-0.015	0.699	0.110
cg15982261	yellow	7	30,492,035	Body	OpenSea	NOD1	0.812	-0.002	0.745	0.803
cg16427983	yellow	12	123,453,858	5'UTR	S_Shelf	ABCB9	0.812	0.027	0.573	0.089
cg27497781	yellow	1	111,833,467	TSS200	OpenSea	CHIA	0.812	0.015	0.323	0.282
cg02034887	yellow	3	121,612,991	TSS200	OpenSea	SLC15A2	0.812	0.017	0.669	0.088
cg26323077	yellow	11	95,831,121	Body	OpenSea	MAML2	0.812	-0.017	0.866	0.046
cg10128479	yellow	1	156,465,749	5'UTR	N_Shelf	MEF2D	0.812	0.003	0.483	0.646
cg13310076	yellow	3	196,296,754	TSS1500	S_Shore	WDR53	0.812	0.010	0.091	0.178
cg10490645	yellow	11	112,835,124	Body	S_Shore	NCAM1	0.812	-0.011	0.797	0.401
cg05328461	yellow	19	10,231,566	TSS1500	S_Shore	EIF3G	0.812	0.014	0.614	0.176
cg07237089	yellow	6	167,280,873		N_Shelf		0.812	0.010	0.371	0.167
cg15158847	yellow	1	207,095,315	5'UTR	OpenSea	FAIM3	0.812	0.010	0.470	0.070
cg09399878	yellow	11	67,326,220		OpenSea		0.812	0.010	0.372	0.201
cg21028562	yellow	3	50,287,909	Body	OpenSea	GNAI2	0.812	0.001	0.681	0.826
cg06811607	yellow	18	24,442,671	Body	N_Shore	AQP4	0.812	0.003	0.863	0.646
cg18962786	yellow	14	32,030,354	TSS1500	OpenSea	NUBPL	0.811	0.017	0.259	0.118
cg27290215	yellow	10	116,392,933	Body	S_Shore	ABLIM1	0.811	0.013	0.262	0.173
cg26218835	yellow	11	111,617,422	Body	OpenSea	PPP2R1B	0.811	-0.008	0.723	0.395
cg00753399	yellow	2	74,404,556	Body	N_Shore	MOBKL1B	0.811	-0.006	0.855	0.416
cg18592384	yellow	2	9,459,318	Body	Island	ASAP2	0.811	-0.006	0.833	0.351
cg14756795	yellow	6	31,621,299	TSS1500	S_Shore	BAT3	0.811	0.009	0.122	0.270
cg18391937	yellow	14	55,539,537		OpenSea		0.811	-0.012	0.525	0.335
cg26552621	yellow	19	1,271,019	TSS1500	S_Shore	C19orf23	0.811	0.005	0.562	0.485
cg12683410	yellow	20	2,108,416	3'UTR	OpenSea	STK35	0.811	0.002	0.761	0.869
cg07941108	yellow	14	90,741,814		OpenSea		0.811	0.005	0.767	0.367
cg11142617	yellow	1	2,324,205	TSS1500	S_Shore	MORN1	0.811	0.009	0.402	0.157
cg01922891	yellow	16	4,714,647	Body	OpenSea	MGRN1	0.811	-0.002	0.767	0.830
cg10438560	yellow	1	53,642,234		OpenSea		0.811	0.005	0.734	0.458
cg11611244	yellow	11	1,507,263	Body	OpenSea	HCCA2	0.811	0.004	0.525	0.462
cg06539116	yellow	5	148,597,365	Body	OpenSea	ABLIM3	0.811	0.013	0.312	0.196
cg10479431	yellow	17	7,461,421	Body	N_Shelf	TNFSF12-TNF	0.811	0.001	0.117	0.845
cg14714537	yellow	8	92,261,789	5'UTR	OpenSea	SLC26A7	0.811	0.000	0.050	0.948
cg08349093	yellow	10	123,387,147		OpenSea		0.811	0.007	0.541	0.162
cg19224164	yellow	4	2,966,384	Body	S_Shore	GRK4	0.811	-0.002	0.063	0.820
cg13790353	yellow	11	85,565,559	TSS1500	N_Shore	CCDC83	0.811	0.016	0.473	0.192
cg10133500	yellow	3	50,396,252	1stExon	N_Shore	TMEM115	0.811	0.001	0.249	0.914
cg01318557	yellow	7	73,624,319	5'UTR	OpenSea	LAT2	0.811	0.000	0.464	0.965
cg19411699	yellow	2	225,792,082	Body	OpenSea	DOCK10	0.811	0.001	0.686	0.930
cg12453687	yellow	11	82,745,712	5'UTR	OpenSea	RAB30	0.811	-0.003	0.133	0.812
cg24200175	yellow	11	85,668,951	3'UTR	OpenSea	PICALM	0.811	-0.001	0.866	0.923
cg12738913	yellow	2	1,054,860	Body	S_Shelf	SNTG2	0.811	-0.003	0.741	0.630
cg24247370	yellow	13	99,142,703	Body	OpenSea	STK24	0.811	0.001	0.791	0.843
cg15910686	yellow	17	78,161,479	Body	N_Shelf	CARD14	0.811	0.000	0.537	0.987
cg00257455	yellow	1	65,530,538		N_Shore		0.811	0.010	0.330	0.234
cg06711175	yellow	5	55,543,927		OpenSea		0.811	0.011	0.170	0.474
cg12660777	yellow	6	32,154,833	Body	OpenSea	PBX2	0.811	0.005	0.587	0.410
cg14990808	yellow	6	28,493,651	TSS200	OpenSea	GPX5	0.811	-0.007	0.659	0.522

cg24767519	yellow	14	97,090,367	OpenSea		0.811	0.005	0.714	0.458
cg05636593	yellow	17	42,429,529 Body	N_Shore	GRN	0.811	0.008	0.804	0.209
cg02994246	yellow	1	21,587,174 Body	OpenSea	ECE1	0.811	0.009	0.693	0.345
cg00006459	yellow	4	148,635,716	OpenSea		0.811	0.001	0.759	0.916
cg15752436	yellow	17	20,937,757 Body	OpenSea	USP22	0.811	0.006	0.755	0.340
cg18636558	yellow	3	121,613,703 Body	OpenSea	SLC15A2	0.811	0.008	0.057	0.164
cg02533339	yellow	16	14,403,040 TSS200	OpenSea	MIR365-1	0.811	0.003	0.484	0.803
cg01870976	yellow	15	101,887,154 3'UTR	OpenSea	PCSK6	0.811	0.016	0.605	0.172
cg18257485	yellow	4	2,956,627 Body	N_Shore	NOP14	0.811	0.006	0.891	0.236
cg06417225	yellow	12	118,573,533 TSS1500	N_Shore	PEBP1	0.811	0.006	0.079	0.397
cg26646411	yellow	22	19,841,374 5'UTR	N_Shore	GNB1L	0.811	0.000	0.492	0.980
cg22878148	yellow	4	55,104,084 5'UTR	S_Shelf	PDGFRA	0.811	0.006	0.926	0.321
cg18184218	yellow	10	24,755,438 Body	OpenSea	KIAA1217	0.811	-0.002	0.529	0.863
cg22327527	yellow	7	38,669,088 Body	N_Shore	AMPH	0.811	-0.001	0.664	0.873
cg08943375	yellow	1	156,452,258 Body	OpenSea	MEF2D	0.811	0.011	0.748	0.036
cg06177278	yellow	1	236,848,453 TSS1500	N_Shore	ACTN2	0.810	-0.008	0.611	0.478
cg08537660	yellow	11	12,699,661 5'UTR	S_Shelf	TEAD1	0.810	0.006	0.511	0.576
cg11308319	yellow	2	240,291,426 5'UTR	OpenSea	HDAC4	0.810	0.005	0.515	0.447
cg03313075	yellow	13	45,428,117	OpenSea		0.810	-0.008	0.568	0.379
cg24601055	yellow	1	87,372,153 Body	OpenSea	15-Sep	0.810	0.002	0.504	0.825
cg02657160	yellow	3	98,311,063 Body	N_Shore	CPOX	0.810	-0.003	0.571	0.686
cg01861537	yellow	11	121,507,724	OpenSea		0.810	0.001	0.826	0.938
cg22106280	yellow	5	141,891,754	OpenSea		0.810	-0.006	0.474	0.664
cg08610383	yellow	16	67,753,757 TSS1500	S_Shore	GFOD2	0.810	0.003	0.062	0.378
cg15044573	yellow	10	126,434,204 TSS1500	S_Shore	FAM53B	0.810	0.001	0.537	0.900
cg01574513	yellow	16	85,981,720	Island		0.810	-0.001	0.833	0.836
cg14230647	yellow	2	1,669,072 Body	N_Shore	PXDN	0.810	-0.012	0.514	0.376
cg16677144	yellow	1	1,790,217 5'UTR	OpenSea	GNB1	0.810	0.005	0.237	0.507
cg25666830	yellow	13	50,995,080	OpenSea		0.810	0.007	0.874	0.260
cg07410597	yellow	3	66,404,129 Body	OpenSea	SLC25A26	0.810	-0.003	0.333	0.686
cg03761471	yellow	7	143,077,178 TSS1500	N_Shore	ZYX	0.810	0.002	0.455	0.800
cg08505883	yellow	5	162,860,583	N_Shelf		0.810	0.008	0.512	0.408
cg22361181	yellow	17	40,171,740 TSS1500	N_Shore	NKIRAS2	0.810	-0.005	0.532	0.373
cg05113410	yellow	2	102,327,511 Body	OpenSea	MAP4K4	0.810	0.011	0.690	0.131
cg08403885	yellow	2	149,373,142	OpenSea		0.810	0.004	0.522	0.529
cg01518016	yellow	19	39,695,237 TSS1500	S_Shore	SYCN	0.810	0.012	0.502	0.296
cg00718923	yellow	15	67,486,665 3'UTR	OpenSea	SMAD3	0.810	0.003	0.590	0.632
cg00139681	yellow	7	106,125,168	OpenSea		0.810	0.006	0.324	0.601
cg20717932	yellow	17	38,226,278 5'UTR	OpenSea	THRA	0.810	0.001	0.184	0.936
cg01998345	yellow	7	44,612,077 Body	N_Shore	DDX56	0.810	-0.001	0.850	0.920
cg23433370	yellow	12	27,396,894 TSS200	N_Shore	STK38L	0.810	0.006	0.777	0.598
cg15067687	yellow	7	127,658,301 Body	OpenSea	SND1	0.810	0.001	0.609	0.848
cg07272654	yellow	16	86,011,988	OpenSea		0.810	0.002	0.623	0.734
cg16291917	yellow	6	31,590,576 TSS1500	S_Shore	SNORA38	0.810	-0.002	0.582	0.800
cg06551661	yellow	2	10,691,849	OpenSea		0.810	0.017	0.761	0.024
cg23173586	yellow	14	20,945,319 3'UTR	OpenSea	PNP	0.810	-0.002	0.837	0.756
cg00985983	yellow	22	30,728,510 3'UTR	OpenSea	SF3A1	0.810	0.007	0.746	0.224
cg07481027	yellow	10	75,631,588 Body	N_Shelf	CAMK2G	0.810	0.010	0.781	0.156
cg18219160	yellow	12	120,755,827	S_Shore		0.810	0.008	0.592	0.438
cg20805999	yellow	4	119,606,266 TSS1500	N_Shore	METTL14	0.810	0.001	0.099	0.938
cg24777564	yellow	5	33,563,927 Body	OpenSea	ADAMTS12	0.810	-0.005	0.760	0.476
cg14990644	yellow	5	112,771,691 TSS1500	OpenSea	TSSK1B	0.810	0.010	0.764	0.348
cg10677933	yellow	22	24,556,023 Body	S_Shelf	CABIN1	0.810	-0.009	0.808	0.245
cg13956924	yellow	11	126,222,227	N_Shelf		0.810	0.009	0.681	0.172
cg00675650	yellow	3	172,429,335 TSS1500	S_Shore	NCEH1	0.810	0.000	0.439	0.971
cg13371767	yellow	13	113,473,689 Body	N_Shore	ATP11A	0.810	-0.014	0.823	0.184
cg04583339	yellow	22	39,710,023 Body	OpenSea	RPL3	0.810	0.000	0.720	0.980
cg14240353	yellow	12	102,873,312 Body	OpenSea	IGF1	0.810	0.008	0.248	0.444
cg16366686	yellow	17	75,315,837 5'UTR	OpenSea	9-Sep	0.810	0.005	0.389	0.508
cg19473799	yellow	5	3,511,975	OpenSea		0.810	0.021	0.780	0.065
cg24422797	yellow	17	80,633,179 Body	OpenSea	RAB40B	0.810	0.003	0.621	0.635
cg09577651	yellow	20	1,600,705 TSS200	OpenSea	SIRPB1	0.810	0.004	0.763	0.518
cg23588029	yellow	6	32,137,166 Body	S_Shore	AGPAT1	0.810	0.007	0.688	0.362
cg12138102	yellow	15	23,933,560 TSS1500	S_Shore	NDN	0.810	0.002	0.741	0.777
cg17344055	yellow	11	7,608,078 Body	OpenSea	PPFIBP2	0.810	0.011	0.838	0.183
cg08420239	yellow	16	30,539,387 TSS1500	S_Shore	ZNF768	0.810	0.000	0.118	0.981
cg02332936	yellow	9	115,140,584	N_Shore		0.810	-0.005	0.872	0.682

cg22152446	yellow	4	48,754,953	5'UTR	OpenSea	FRYL	0.809	0.001	0.696	0.949
cg23314055	yellow	12	51,455,536	3'UTR	OpenSea	CSRNP2	0.809	-0.009	0.860	0.356
cg07680129	yellow	4	1,808,029	Body	Island	FGFR3	0.809	0.007	0.541	0.285
cg05807489	yellow	16	1,062,945		S_Shelf		0.809	0.002	0.646	0.725
cg09874127	yellow	3	49,851,439	TSS200	OpenSea	UBA7	0.809	0.001	0.043	0.795
cg02984092	yellow	15	89,178,874		OpenSea		0.809	0.004	0.599	0.776
cg11926473	yellow	18	11,980,297	TSS1500	N_Shore	IMPA2	0.809	0.003	0.100	0.724
cg14956327	yellow	6	110,737,053	TSS1500	OpenSea	DDO	0.809	0.014	0.454	0.164
cg21595092	yellow	2	42,950,061		OpenSea		0.809	-0.004	0.578	0.843
cg08993922	yellow	7	2,212,490	Body	OpenSea	MAD1L1	0.809	0.005	0.558	0.661
cg12469809	yellow	18	74,240,034	TSS1500	OpenSea	LOC284276	0.809	0.020	0.770	0.101
cg15418499	yellow	11	112,028,288	5'UTR	OpenSea	IL18	0.809	0.006	0.848	0.486
cg05877528	yellow	22	26,875,552	TSS200	N_Shelf	HPS4	0.809	0.005	0.592	0.452
cg06366792	yellow	12	121,179,966		S_Shelf		0.809	0.007	0.795	0.224
cg26149678	yellow	11	71,709,917	TSS200	OpenSea	IL18BP	0.809	0.003	0.729	0.572
cg01815263	yellow	3	5,237,478	Body	OpenSea	EDEM1	0.809	0.010	0.503	0.050
cg27570992	yellow	7	105,470,737	Body	OpenSea	ATXN7L1	0.809	-0.003	0.755	0.676
cg06223120	yellow	9	140,022,932		N_Shore		0.809	0.011	0.522	0.065
cg18146927	yellow	1	200,835,888		OpenSea		0.809	0.003	0.492	0.556
cg14376761	yellow	12	12,416,946	Body	N_Shelf	LRP6	0.809	0.008	0.740	0.480
cg14305711	yellow	2	62,132,430	TSS1500	OpenSea	COMMD1	0.809	0.019	0.305	0.099
cg09871181	yellow	17	39,911,422	3'UTR	N_Shelf	JUP	0.809	0.007	0.746	0.337
cg14172849	yellow	14	104,171,259	Body	OpenSea	XRCC3	0.809	0.004	0.804	0.503
cg06193838	yellow	2	128,272,540	Body	OpenSea	IWS1	0.809	0.009	0.714	0.194
cg13912274	yellow	7	157,095,237		S_Shore		0.809	0.011	0.397	0.131
cg04666346	yellow	7	609,693	Body	N_Shore	PRKAR1B	0.809	0.008	0.715	0.372
cg08654262	yellow	1	85,796,055	Body	OpenSea	DDAH1	0.809	0.003	0.760	0.703
cg03639223	yellow	17	7,369,125	Body	Island	ZBTB4	0.809	0.000	0.625	0.979
cg01054402	yellow	2	85,551,850	Body	N_Shelf	TGOLN2	0.808	0.008	0.728	0.280
cg04869854	yellow	11	67,186,575	Body	N_Shore	ATPGD1	0.808	0.024	0.607	0.017
cg25647583	yellow	15	91,427,184	TSS1500	N_Shore	FES	0.808	0.010	0.518	0.214
cg06958766	yellow	14	76,446,087	Body	N_Shelf	TGFB3	0.808	-0.013	0.179	0.438
cg08199003	yellow	10	127,571,375	TSS1500	OpenSea	DHX32	0.808	0.014	0.745	0.195
cg06786860	yellow	1	220,876,396		OpenSea		0.808	0.011	0.655	0.075
cg10727259	yellow	10	101,686,538	TSS1500	OpenSea	NCRNA0009	0.808	0.001	0.543	0.904
cg02786912	yellow	3	190,105,606	TSS1500	OpenSea	CLDN16	0.808	-0.009	0.767	0.305
cg14143519	yellow	9	96,080,793	Body	S_Shore	C9orf129	0.808	0.008	0.592	0.349
cg04558553	yellow	4	69,960,869	TSS1500	OpenSea	UGT2B7	0.808	0.007	0.725	0.621
cg08215318	yellow	16	86,016,387		OpenSea		0.808	0.006	0.846	0.586
cg09700337	yellow	12	118,775,197	5'UTR	OpenSea	TAOK3	0.808	-0.011	0.262	0.334
cg20240736	yellow	19	5,597,285	Body	S_Shelf	SAFB2	0.808	-0.001	0.787	0.910
cg22768487	yellow	22	46,770,253	Body	N_Shore	CELSR1	0.808	0.003	0.511	0.820
cg20373326	yellow	16	82,068,803	TSS200	OpenSea	HSD17B2	0.808	0.000	0.737	0.974
cg10500653	yellow	1	39,407,651	TSS200	OpenSea	RHBDL2	0.808	0.001	0.146	0.945
cg03646605	yellow	11	86,383,804	TSS1500	S_Shore	ME3	0.808	-0.003	0.776	0.739
cg02339592	yellow	1	181,955,925		OpenSea		0.808	0.013	0.669	0.115
cg08067346	yellow	16	25,011,481	Body	OpenSea	ARHGAP17	0.808	0.001	0.631	0.874
cg24294950	yellow	7	126,752,911	Body	OpenSea	GRM8	0.808	0.003	0.456	0.656
cg02666556	yellow	11	57,791,314	TSS200	OpenSea	OR9Q1	0.808	0.005	0.515	0.436
cg27326113	yellow	8	91,953,125	Body	OpenSea	NECAB1	0.808	0.010	0.310	0.347
cg13654183	yellow	6	32,078,624	TSS1500	OpenSea	TNXB	0.808	0.010	0.693	0.290
cg14584255	yellow	6	163,149,320	Body	S_Shore	PACRG	0.808	0.015	0.422	0.197
cg25180248	yellow	8	64,002,124		S_Shelf		0.808	0.021	0.449	0.201
cg00718261	yellow	7	1,787,944		S_Shore		0.808	0.002	0.639	0.801
cg23998391	yellow	12	57,848,560	TSS1500	OpenSea	INHBE	0.808	0.011	0.467	0.063
cg05262711	yellow	16	2,807,476	Body	S_Shore	SRRM2	0.808	0.001	0.542	0.890
cg01500055	yellow	17	46,143,709		OpenSea		0.808	-0.004	0.884	0.566
cg04853995	yellow	12	112,550,460		S_Shelf		0.808	0.008	0.685	0.305
cg08056061	yellow	3	176,285,796		OpenSea		0.808	0.024	0.537	0.325
cg03052099	yellow	16	67,951,373	Body	OpenSea	PSKH1	0.808	-0.010	0.774	0.317
cg14009440	yellow	1	45,138,784	Body	N_Shore	TMEM53	0.808	0.024	0.704	0.022
cg02690256	yellow	2	10,953,520	TSS1500	S_Shore	PDIA6	0.808	0.005	0.529	0.486
cg11739399	yellow	1	206,669,785	3'UTR	OpenSea	IKBKE	0.808	0.006	0.640	0.324
cg24822529	yellow	5	134,582,880		OpenSea		0.808	0.010	0.477	0.158
cg15998609	yellow	1	216,774,956	Body	S_Shore	ESRRG	0.808	0.015	0.332	0.098
cg05998153	yellow	5	134,075,279	Body	S_Shore	CAMLG	0.808	0.004	0.225	0.771
cg00901161	yellow	8	22,785,712	TSS1500	OpenSea	PEBP4	0.808	0.014	0.679	0.138

cg11804721	yellow	1	153,752,529	3'UTR	N_Shelf	SLC27A3	0.808	-0.006	0.656	0.390
cg07377907	yellow	16	69,150,318	3'UTR	OpenSea	HAS3	0.808	0.004	0.867	0.543
cg08872742	yellow	16	66,400,320	TSS1500	OpenSea	CDH5	0.807	0.010	0.547	0.196
cg25461186	yellow	12	122,518,089	Body	S_Shore	MLXIP	0.807	0.004	0.651	0.683
cg04439776	yellow	10	71,907,412	TSS1500	S_Shore	TYSND1	0.807	-0.001	0.649	0.882
cg11299264	yellow	19	18,920,396		OpenSea		0.807	0.009	0.418	0.295
cg12086806	yellow	11	45,716,445		OpenSea		0.807	-0.003	0.515	0.645
cg08170227	yellow	14	69,422,517	Body	OpenSea	ACTN1	0.807	0.007	0.268	0.322
cg04742719	yellow	7	100,463,759	Body	Island	SLC12A9	0.807	0.005	0.826	0.510
cg23213449	yellow	1	24,627,488		OpenSea		0.807	0.008	0.745	0.315
cg01244468	yellow	11	75,240,537		S_Shelf		0.807	0.007	0.637	0.176
cg16709403	yellow	6	17,470,162	Body	OpenSea	CAP2	0.807	0.020	0.758	0.218
cg18921306	yellow	7	75,596,055	Body	OpenSea	POR	0.807	0.009	0.884	0.140
cg18376817	yellow	15	64,438,372		OpenSea		0.807	0.015	0.524	0.183
cg17549513	yellow	17	9,694,789	TSS200	OpenSea	DHRS7C	0.807	-0.003	0.784	0.664
cg15898874	yellow	15	96,515,411		OpenSea		0.807	0.003	0.167	0.751
cg02090805	yellow	8	52,721,657	Body	OpenSea	PXDNL	0.807	0.006	0.519	0.478
cg15225810	yellow	19	750,790	TSS1500	S_Shelf	C19orf21	0.807	0.006	0.681	0.458
cg09030212	yellow	1	107,681,350	TSS1500	N_Shore	NTNG1	0.807	0.007	0.585	0.528
cg02770751	yellow	19	795,467		Island		0.807	0.010	0.673	0.386
cg01634964	yellow	19	11,093,622	5'UTR	OpenSea	SMARCA4	0.807	-0.011	0.889	0.220
cg24892069	yellow	10	33,562,205	Body	OpenSea	NRP1	0.807	-0.005	0.079	0.574
cg18145937	yellow	5	132,010,740	Body	OpenSea	IL4	0.807	-0.001	0.692	0.949
cg02896354	yellow	1	2,262,923	Body	N_Shelf	MORN1	0.807	0.007	0.720	0.340
cg18566883	yellow	21	38,919,676		OpenSea		0.807	-0.019	0.429	0.123
cg27549208	yellow	7	43,965,451	5'UTR	N_Shore	URGCP	0.807	0.016	0.708	0.262
cg01070903	yellow	17	77,801,039		OpenSea		0.807	0.017	0.578	0.017
cg06188083	yellow	10	91,093,005	Body	OpenSea	IFIT3	0.807	0.012	0.704	0.187
cg06349450	yellow	16	85,867,170		S_Shelf		0.807	0.002	0.614	0.887
cg26236235	yellow	2	10,584,541	Body	N_Shelf	ODC1	0.807	0.003	0.738	0.641
cg00733683	yellow	19	1,244,464	3'UTR	S_Shore	ATP5D	0.807	-0.001	0.086	0.888
cg00300627	yellow	9	132,646,360		N_Shore		0.807	0.012	0.465	0.276
cg19775589	yellow	3	14,862,820	1stExon	OpenSea	FGD5	0.807	-0.008	0.875	0.208
cg05992368	yellow	17	1,572,755	Body	OpenSea	PRPF8	0.807	0.001	0.212	0.840
cg16392942	yellow	16	89,909,677	Body	OpenSea	SPIRE2	0.807	0.004	0.742	0.564
cg01634146	yellow	19	13,127,389	Body	S_Shelf	NFIX	0.807	0.012	0.560	0.187
cg10959950	yellow	5	38,535,574	5'UTR	OpenSea	LIFR	0.807	-0.011	0.824	0.910
cg20503288	yellow	7	127,329,180	Body	OpenSea	SND1	0.807	-0.018	0.805	0.109
cg14507433	yellow	9	96,275,894	Body	N_Shelf	FAM120A	0.806	0.009	0.783	0.289
cg21221455	yellow	15	63,342,288	Body	S_Shore	TPM1	0.806	0.009	0.692	0.298
cg08880327	yellow	1	24,470,647	TSS1500	OpenSea	IL22RA1	0.806	0.003	0.631	0.906
cg23854567	yellow	12	120,694,893	Body	OpenSea	PXN	0.806	0.008	0.104	0.463
cg20208394	yellow	4	7,052,425	Body	Island	TADA2B	0.806	0.002	0.741	0.802
cg14363954	yellow	9	139,437,479	Body	N_Shore	NOTCH1	0.806	0.010	0.601	0.140
cg21275838	yellow	15	59,608,124	Body	OpenSea	MYO1E	0.806	0.005	0.847	0.554
cg14043316	yellow	22	50,743,420	5'UTR	N_Shore	PLXNB2	0.806	0.023	0.619	0.003
cg11942603	yellow	2	69,969,794	5'UTR	S_Shore	ANXA4	0.806	0.002	0.665	0.781
cg20072118	yellow	12	52,653,637		S_Shore		0.806	0.010	0.829	0.212
cg17224892	yellow	17	1,094,496		OpenSea		0.806	0.015	0.562	0.025
cg01620785	yellow	2	27,436,111	TSS1500	S_Shore	SLC5A6	0.806	0.007	0.175	0.364
cg00048697	yellow	4	56,459,255	TSS1500	OpenSea	PDCL2	0.806	0.008	0.824	0.291
cg25237396	yellow	19	802,198	Body	N_Shelf	PTBP1	0.806	-0.002	0.649	0.852
cg07724304	yellow	17	73,509,955	5'UTR	N_Shore	CASKIN2	0.806	0.002	0.813	0.693
cg26032317	yellow	8	98,387,840		OpenSea		0.806	0.002	0.560	0.911
cg18702278	yellow	4	650,632	Body	Island	PDE6B	0.806	0.006	0.676	0.304
cg10704177	yellow	1	62,209,607	5'UTR	S_Shore	INADL	0.806	0.005	0.534	0.497
cg14181956	yellow	14	93,532,563	Body	OpenSea	ITPK1	0.806	0.003	0.507	0.770
cg07027075	yellow	4	39,461,721	Body	S_Shore	LIAS	0.806	0.001	0.489	0.954
cg03192619	yellow	19	17,829,972	TSS1500	N_Shore	MAP1S	0.806	0.002	0.070	0.640
cg02150582	yellow	6	9,398,309		N_Shore		0.806	0.005	0.625	0.610
cg25756617	yellow	1	43,734,917	TSS1500	N_Shelf	TMEM125	0.806	0.001	0.744	0.928
cg01541600	yellow	16	87,988,715	5'UTR	N_Shelf	BANP	0.806	0.012	0.733	0.104
cg01581222	yellow	19	10,958,952	TSS200	OpenSea	C19orf38	0.806	0.017	0.536	0.129
cg02864638	yellow	17	20,840,716		OpenSea		0.806	0.001	0.896	0.861
cg08368055	yellow	16	72,129,315	5'UTR	S_Shore	DHX38	0.806	0.018	0.794	0.024
cg06126698	yellow	16	88,535,609	Body	N_Shore	ZFPM1	0.806	-0.007	0.700	0.502
cg12218759	yellow	20	20,690,106	Body	N_Shelf	RALGAPA2	0.806	0.010	0.674	0.165



cg04100395	yellow	17	6,984,187	TSS1500	OpenSea	CLEC10A	0.806	-0.003	0.760	0.661
cg23844085	yellow	18	74,063,855		S_Shore		0.806	0.024	0.646	0.041
cg11369206	yellow	3	69,061,764	5'UTR	N_Shore	C3orf64	0.806	0.009	0.382	0.294
cg26589351	yellow	17	47,712,139	5'UTR	OpenSea	SPOP	0.806	0.015	0.768	0.370
cg00442282	yellow	17	38,471,064	5'UTR	N_Shore	RARA	0.806	0.013	0.434	0.034
cg16898498	yellow	3	187,421,110	TSS1500	OpenSea	RTP2	0.806	0.006	0.686	0.424
cg17200441	yellow	12	52,715,348	TSS200	S_Shore	KRT83	0.806	0.008	0.204	0.273
cg08629379	yellow	10	118,350,470	TSS200	OpenSea	PNLIPRP1	0.806	0.005	0.622	0.593
cg10141942	yellow	16	1,652,482	Body	OpenSea	IFT140	0.806	0.001	0.731	0.879
cg20664313	yellow	12	133,071,297	Body	N_Shelf	FBRSL1	0.806	0.011	0.605	0.031
cg05140293	yellow	2	219,619,504	3'UTR	OpenSea	TTLL4	0.806	0.003	0.934	0.506
cg00501904	yellow	1	226,001,675	5'UTR	S_Shelf	EPHX1	0.806	0.017	0.332	0.060
cg11056766	yellow	11	1,230,072		S_Shore		0.806	0.012	0.634	0.121
cg24960149	yellow	7	156,786,278		OpenSea		0.805	0.016	0.469	0.016
cg21837069	yellow	1	1,369,466	TSS1500	N_Shore	VWA1	0.805	-0.001	0.142	0.942
cg08580602	yellow	5	10,366,924	Body	OpenSea	6-Mar	0.805	0.010	0.605	0.544
cg03720950	yellow	12	112,629,930	Body	OpenSea	C12orf51	0.805	0.011	0.682	0.291
cg14627805	yellow	21	44,576,592		S_Shelf		0.805	-0.004	0.656	0.466
cg02440396	yellow	17	12,366,545		OpenSea		0.805	0.009	0.494	0.438
cg04202620	yellow	8	1,872,355	Body	OpenSea	ARHGEF10	0.805	0.003	0.386	0.831
cg08355863	yellow	6	33,587,496		N_Shore		0.805	0.019	0.600	0.040
cg06240200	yellow	3	46,974,965	Body	OpenSea	CCDC12	0.805	0.007	0.573	0.261
cg23158500	yellow	15	39,759,194		OpenSea		0.805	0.018	0.672	0.212
cg25364972	yellow	2	217,075,573		OpenSea		0.805	-0.004	0.805	0.605
cg25710107	yellow	13	101,187,390	TSS1500	S_Shelf	A2LD1	0.805	0.010	0.777	0.261
cg00044505	yellow	8	48,649,086		N_Shore		0.805	0.004	0.047	0.533
cg12442803	yellow	11	125,933,698	TSS1500	S_Shore	CDON	0.805	0.001	0.783	0.904
cg24269657	yellow	13	113,759,771	TSS1500	N_Shore	F7	0.805	0.024	0.374	0.000
cg17359753	yellow	19	40,790,165	5'UTR	N_Shore	AKT2	0.805	0.010	0.319	0.199
cg13516362	yellow	19	11,308,987	TSS1500	S_Shore	KANK2	0.805	0.010	0.801	0.310
cg20896936	yellow	13	22,395,950		OpenSea		0.805	-0.006	0.503	0.678
cg15428496	yellow	3	37,940,044	Body	OpenSea	CTDSPL	0.805	0.008	0.878	0.370
cg01622416	yellow	21	31,310,508	Body	N_Shore	GRIK1	0.805	0.007	0.836	0.317
cg21693907	yellow	1	203,595,061	TSS1500	N_Shelf	ATP2B4	0.805	0.007	0.254	0.293
cg17918158	yellow	3	99,463,106	5'UTR	OpenSea	COL8A1	0.805	0.011	0.764	0.359
cg19520452	yellow	1	59,369,156		N_Shore		0.805	0.006	0.227	0.442
cg26972614	yellow	11	71,710,885	5'UTR	OpenSea	IL18BP	0.805	0.010	0.540	0.164
cg26163463	yellow	5	139,926,773	TSS1500	N_Shore	EIF4EBP3	0.805	0.017	0.449	0.067
cg01108112	yellow	9	139,254,189		N_Shore		0.805	0.002	0.467	0.832
cg05848175	yellow	1	153,330,257	TSS200	OpenSea	S100A9	0.805	-0.001	0.540	0.917
cg08404328	yellow	4	56,212,072	TSS1500	N_Shore	SRD5A3	0.805	0.003	0.073	0.665
cg13088465	yellow	1	227,170,628	Body	OpenSea	CABC1	0.805	-0.007	0.826	0.528
cg26946836	yellow	2	71,064,086	TSS1500	OpenSea	CD207	0.805	0.007	0.869	0.305
cg21006425	yellow	7	99,002,374	Body	N_Shelf	PDAP1	0.805	0.003	0.796	0.630
cg06117855	yellow	3	45,067,788	1stExon	OpenSea	CLEC3B	0.805	0.000	0.052	0.998
cg00244776	yellow	6	30,883,192	Body	S_Shore	VARS2	0.805	0.004	0.530	0.530
cg09942220	yellow	7	86,850,688		S_Shore		0.805	0.010	0.851	0.323
cg17518965	yellow	19	3,178,955	1stExon	Island	S1PR4	0.805	-0.002	0.776	0.845
cg02011607	yellow	12	114,792,545	3'UTR	OpenSea	TBX5	0.805	0.007	0.326	0.240
cg03491270	yellow	6	88,401,820	Body	OpenSea	AKIRIN2	0.805	0.001	0.695	0.889
cg03756814	yellow	2	148,416,907		OpenSea		0.805	0.003	0.596	0.659
cg15173586	yellow	8	124,784,802	Body	S_Shelf	FAM91A1	0.805	0.000	0.772	0.997
cg04055693	yellow	8	52,308,227	Body	OpenSea	PXDNL	0.804	0.012	0.727	0.278
cg14618923	yellow	6	108,978,075	Body	OpenSea	FOXO3	0.804	-0.004	0.756	0.799
cg18964251	yellow	7	95,849,578	TSS1500	OpenSea	MIR591	0.804	-0.002	0.887	0.804
cg03191794	yellow	12	83,102,075	Body	OpenSea	TMTC2	0.804	-0.007	0.846	0.482
cg06352750	yellow	2	192,711,926	5'UTR	OpenSea	SDPR	0.804	0.004	0.104	0.632
cg14577593	yellow	11	1,360,038		Island		0.804	0.003	0.587	0.724
cg14380517	yellow	21	18,985,761	TSS1500	S_Shore	BTG3	0.804	-0.007	0.137	0.213
cg12573502	yellow	11	2,485,281	Body	OpenSea	KCNQ1	0.804	-0.011	0.874	0.076
cg22902891	yellow	2	220,256,401		S_Shelf		0.804	-0.010	0.842	0.342
cg02772159	yellow	5	171,808,623	Body	OpenSea	SH3PXD2B	0.804	0.009	0.910	0.123
cg18391972	yellow	6	37,458,535	Body	OpenSea	C6orf129	0.804	0.002	0.639	0.740
cg10206397	yellow	20	2,085,344	Body	S_Shore	STK35	0.804	0.009	0.730	0.221
cg24206431	yellow	17	78,161,467	Body	N_Shelf	CARD14	0.804	0.003	0.527	0.763
cg02249841	yellow	11	2,397,784	TSS1500	N_Shore	CD81	0.804	0.009	0.590	0.257
cg25310310	yellow	2	229,546,364		OpenSea		0.804	0.002	0.085	0.718

cg01391299	yellow	5	147,648,312	TSS200	OpenSea	SPINK5L3	0.804	0.000	0.558	0.964
cg15862165	yellow	12	94,161,116	Body	OpenSea	CRADD	0.804	0.009	0.111	0.227
cg07189204	yellow	1	155,225,808	3'UTR	S_Shore	SCAMP3	0.804	0.007	0.130	0.230
cg20584555	yellow	11	61,717,780	5'UTR	OpenSea	BEST1	0.804	0.008	0.657	0.344
cg10061770	yellow	16	68,366,844	Body	OpenSea	PRMT7	0.804	0.009	0.262	0.596
cg11742202	yellow	6	74,364,667	TSS1500	S_Shore	SLC17A5	0.804	0.022	0.653	0.022
cg22160267	yellow	19	16,181,372	Body	S_Shelf	TPM4	0.804	0.010	0.651	0.183
cg09479341	yellow	17	40,119,957	Body	Island	CNP	0.804	0.006	0.735	0.470
cg15747933	yellow	2	152,146,478	TSS200	S_Shore	NMI	0.804	0.003	0.080	0.669
cg02179700	yellow	10	3,336,162		OpenSea		0.804	0.007	0.582	0.377
cg00813509	yellow	12	124,941,317	Body	Island	NCOR2	0.804	-0.003	0.796	0.727
cg06267728	yellow	6	32,097,116	TSS1500	N_Shore	ATF6B	0.804	0.008	0.914	0.151
cg23499955	yellow	10	50,396,425	TSS200	OpenSea	C10orf128	0.804	0.005	0.424	0.598
cg02001991	yellow	4	71,992,842		OpenSea		0.804	0.004	0.680	0.486
cg12600843	yellow	6	30,179,881	5'UTR	N_Shore	TRIM26	0.804	0.008	0.578	0.351
cg14564939	yellow	1	24,438,607	1stExon	OpenSea	MYOM3	0.804	-0.001	0.656	0.855
cg20413742	yellow	12	8,931,477		OpenSea		0.804	0.009	0.541	0.300
cg14240223	yellow	9	139,429,185	Body	S_Shore	NOTCH1	0.804	0.018	0.663	0.013
cg24163668	yellow	18	77,219,495	Body	Island	NFATC1	0.804	0.001	0.859	0.855
cg02524112	yellow	16	73,206,624		OpenSea		0.804	0.006	0.176	0.623
cg25652742	yellow	2	240,152,334	Body	N_Shore	HDAC4	0.804	-0.004	0.631	0.618
cg04121771	yellow	3	149,191,624	TSS1500	OpenSea	TM4SF4	0.804	0.005	0.533	0.561
cg04497889	yellow	4	7,046,407	Body	S_Shore	TADA2B	0.803	0.001	0.620	0.894
cg23254497	yellow	19	2,495,334		S_Shore		0.803	0.003	0.383	0.740
cg07577824	yellow	20	17,943,403	Body	OpenSea	SNX5	0.803	0.003	0.497	0.693
cg09981533	yellow	6	31,507,701	Body	N_Shore	BAT1	0.803	0.006	0.674	0.593
cg27377632	yellow	19	677,895	Body	N_Shore	FSTL3	0.803	0.014	0.708	0.029
cg13597013	yellow	17	78,922,527	Body	S_Shore	RPTOR	0.803	0.032	0.732	0.020
cg02984188	yellow	1	24,646,392	Body	N_Shore	GRHL3	0.803	0.022	0.342	0.176
cg13615963	yellow	6	167,536,521	5'UTR	OpenSea	CCR6	0.803	-0.011	0.619	0.136
cg01139342	yellow	16	85,520,338		S_Shore		0.803	-0.003	0.900	0.542
cg13754518	yellow	15	65,357,972	Body	N_Shelf	RASL12	0.803	0.017	0.596	0.058
cg07962315	yellow	9	77,704,473	Body	S_Shore	OSTF1	0.803	0.016	0.270	0.123
cg16227072	yellow	11	77,320,503	3'UTR	OpenSea	AQP11	0.803	0.000	0.757	0.993
cg05986853	yellow	16	67,920,209	3'UTR	S_Shore	NRN1L	0.803	0.007	0.632	0.384
cg18378955	yellow	1	203,840,808		OpenSea		0.803	-0.015	0.699	0.161
cg10120555	yellow	16	68,263,340	3'UTR	OpenSea	ESRP2	0.803	0.012	0.187	0.217
cg14472888	yellow	2	151,477,988		OpenSea		0.803	0.020	0.653	0.041
cg15293061	yellow	6	30,522,620	Body	N_Shore	GNL1	0.803	0.010	0.706	0.117
cg18837429	yellow	14	75,050,528	Body	N_Shelf	LTBP2	0.803	0.001	0.818	0.824
cg16347123	yellow	7	134,091,998		OpenSea		0.803	0.006	0.566	0.392
cg17993504	yellow	3	129,117,409	Body	OpenSea	RPL32P3	0.803	0.004	0.515	0.615
cg27068143	yellow	13	47,471,264	TSS200	OpenSea	HTR2A	0.803	0.011	0.775	0.276
cg14886990	yellow	3	52,563,633	Body	N_Shelf	NT5DC2	0.803	0.006	0.774	0.274
cg25468915	yellow	6	167,152,254	Body	OpenSea	RPS6KA2	0.803	0.008	0.722	0.479
cg25404454	yellow	4	144,297,236	Body	OpenSea	GAB1	0.803	-0.006	0.832	0.467
cg01829342	yellow	14	52,218,954		OpenSea		0.803	0.012	0.893	0.036
cg19248564	yellow	22	43,042,879	5'UTR	N_Shelf	CYB5R3	0.803	0.005	0.369	0.468
cg08484337	yellow	6	31,590,563	TSS1500	S_Shore	SNORA38	0.803	0.010	0.733	0.157
cg14902773	yellow	14	39,961,218		OpenSea		0.803	0.012	0.593	0.254
cg01295785	yellow	18	12,437,948		S_Shelf		0.803	-0.004	0.863	0.569
cg14028769	yellow	7	38,673,294		S_Shelf		0.803	0.000	0.821	0.970
cg23373850	yellow	11	75,898,132	Body	OpenSea	WNT11	0.803	-0.007	0.742	0.557
cg02597246	yellow	16	81,711,959	Body	Island	CMIP	0.803	-0.003	0.818	0.646
cg00225067	yellow	3	45,647,141	Body	OpenSea	LIMD1	0.803	0.007	0.854	0.576
cg26542796	yellow	5	72,148,356	Body	S_Shelf	TNPO1	0.803	0.003	0.886	0.736
cg13758331	yellow	2	111,893,676	Body	OpenSea	BCL2L11	0.803	0.009	0.537	0.377
cg26530942	yellow	2	232,110,727	Body	N_Shelf	ARMC9	0.803	-0.008	0.812	0.300
cg17814615	yellow	1	53,523,572		N_Shelf		0.803	0.000	0.706	0.962
cg24210810	yellow	19	46,527,410	TSS1500	S_Shore	PGLYRP1	0.803	-0.002	0.404	0.872
cg15580355	yellow	3	183,003,859	Body	OpenSea	MCF2L2	0.803	0.001	0.521	0.873
cg15313740	yellow	2	171,625,337		N_Shore		0.803	0.001	0.662	0.854
cg14423468	yellow	8	48,175,416	Body	S_Shore	KIAA0146	0.803	0.005	0.671	0.462
cg26796518	yellow	12	6,184,516	Body	OpenSea	VWF	0.802	0.005	0.824	0.304
cg08304059	yellow	1	26,145,437	TSS1500	N_Shore	FAM54B	0.802	0.010	0.288	0.371
cg07034255	yellow	5	32,297,979	Body	OpenSea	MTMR12	0.802	-0.001	0.812	0.885
cg04391391	yellow	19	13,904,774	TSS1500	N_Shore	ZSWIM4	0.802	0.015	0.587	0.037

cg27640763	yellow	12	91,503,109	5'UTR	OpenSea	LUM	0.802	0.013	0.329	0.347
cg03794214	yellow	22	42,912,017	Body	S_Shore	RRP7A	0.802	0.007	0.590	0.410
cg08528970	yellow	4	76,640,579		OpenSea		0.802	0.011	0.512	0.168
cg27561786	yellow	1	8,525,010	Body	OpenSea	RERE	0.802	0.003	0.676	0.694
cg03256955	yellow	3	30,649,017	Body	S_Shore	TGFBR2	0.802	0.000	0.021	0.864
cg23429457	yellow	14	35,135,441		OpenSea		0.802	0.013	0.118	0.161
cg14759482	yellow	13	114,280,854	Body	S_Shore	TFDP1	0.802	0.000	0.359	0.976
cg11983038	yellow	13	34,251,128		OpenSea		0.802	0.005	0.432	0.720
cg25904964	yellow	20	60,955,979		S_Shelf		0.802	0.004	0.227	0.730
cg03129324	yellow	10	124,889,295		N_Shelf		0.802	-0.006	0.565	0.450
cg21591278	yellow	8	1,596,244	Body	S_Shelf	DLGAP2	0.802	0.016	0.586	0.050
cg15837913	yellow	9	5,449,890	TSS1500	N_Shore	CD274	0.802	0.004	0.746	0.768
cg20478261	yellow	17	79,017,421	Body	OpenSea	BAIAP2	0.802	0.002	0.638	0.728
cg06509598	yellow	3	129,436,051	Body	OpenSea	TMCC1	0.802	-0.004	0.878	0.548
cg06532613	yellow	5	61,713,646	TSS1500	OpenSea	IPO11	0.802	0.007	0.815	0.548
cg00458681	yellow	22	19,010,419	Body	OpenSea	DGCR10	0.802	0.008	0.577	0.564
cg13724182	yellow	2	9,761,025	Body	OpenSea	YWHAQ	0.802	0.003	0.695	0.792
cg15228983	yellow	19	42,582,914	Body	N_Shore	ZNF574	0.802	0.002	0.754	0.797
cg00337020	yellow	19	2,241,089	5'UTR	S_Shelf	SF3A2	0.802	-0.009	0.838	0.210
cg00014085	yellow	2	85,581,505	TSS1500	N_Shore	ELMOD3	0.802	-0.001	0.059	0.722
cg04225551	yellow	8	102,526,827	Body	OpenSea	GRHL2	0.802	0.011	0.346	0.192
cg13547237	yellow	11	65,687,877	TSS1500	S_Shore	C11orf68	0.802	0.005	0.300	0.484
cg07106625	yellow	6	11,870,215		OpenSea		0.802	0.003	0.193	0.760
cg18721838	yellow	4	155,790,525		OpenSea		0.802	0.012	0.721	0.398
cg21756647	yellow	11	75,024,611	Body	OpenSea	ARRB1	0.802	0.013	0.470	0.215
cg17140307	yellow	1	93,251,203	Body	S_Shore	EVIS	0.802	0.002	0.177	0.839
cg07093324	yellow	2	114,652,143	Body	S_Shelf	ACTR3	0.802	0.001	0.821	0.870
cg17866455	yellow	15	85,173,951	TSS1500	N_Shore	SCAND2	0.802	0.022	0.624	0.059
cg04867052	yellow	16	68,253,678	Body	OpenSea	NFATC3	0.802	0.004	0.887	0.633
cg26705724	yellow	15	41,061,984	Body	OpenSea	DNAJC17	0.802	-0.002	0.686	0.811
cg11196788	yellow	11	71,737,549	Body	OpenSea	NUMA1	0.802	0.012	0.431	0.087
cg20535067	yellow	10	134,794,320		S_Shelf		0.802	0.000	0.671	0.972
cg01468711	yellow	16	29,706,291	Body	Island	QPRT	0.802	0.014	0.866	0.058
cg20159193	yellow	6	34,352,082	Body	OpenSea	NUDT3	0.802	0.006	0.668	0.512
cg06900843	yellow	7	589,096	3'UTR	Island	PRKAR1B	0.802	0.004	0.728	0.594
cg15364355	yellow	7	127,567,722	Body	OpenSea	SND1	0.802	0.003	0.472	0.746
cg00480115	yellow	19	35,606,877	5'UTR	OpenSea	FXD3	0.802	0.008	0.614	0.318
cg22576083	yellow	22	38,885,964	Body	OpenSea	DDX17	0.802	0.001	0.889	0.905
cg12067421	yellow	1	203,246,482		S_Shelf		0.802	0.004	0.697	0.564
cg08448751	yellow	3	52,479,601	TSS1500	OpenSea	SEMA3G	0.802	-0.001	0.754	0.924
cg11524773	yellow	6	85,715,849		OpenSea		0.802	0.023	0.388	0.218
cg00275449	yellow	3	195,162,127	Body	N_Shore	ACAP2	0.802	-0.001	0.869	0.941
cg27233151	yellow	4	82,057,467	Body	OpenSea	PRKG2	0.802	0.020	0.487	0.079
cg12882189	yellow	17	80,402,891	Body	S_Shore	C17orf62	0.802	0.002	0.645	0.749
cg23841288	yellow	7	158,342,105	Body	N_Shore	PTPRN2	0.802	0.015	0.427	0.192
cg13672342	yellow	2	96,930,546	TSS1500	N_Shore	CIAO1	0.802	0.010	0.470	0.357
cg11406977	yellow	11	103,721,961		OpenSea		0.802	0.004	0.476	0.671
cg15895782	yellow	1	214,650,225	5'UTR	OpenSea	PTPN14	0.802	0.012	0.657	0.139
cg13962372	yellow	1	22,415,149	Body	OpenSea	CDC42	0.802	0.004	0.694	0.510
cg20710603	yellow	17	1,227,932		S_Shore		0.801	0.006	0.457	0.324
cg15633369	yellow	10	52,984,440	Body	OpenSea	PRKG1	0.801	0.006	0.474	0.592
cg02967813	yellow	2	3,681,328	Body	N_Shore	COLEC11	0.801	-0.001	0.923	0.915
cg19712123	yellow	1	232,940,329	TSS1500	N_Shore	KIAA1383	0.801	0.005	0.799	0.460
cg03095103	yellow	9	136,677,064	Body	N_Shore	VAV2	0.801	0.008	0.787	0.242
cg23308950	yellow	13	113,378,301	Body	OpenSea	ATP11A	0.801	-0.003	0.859	0.803
cg18825531	yellow	11	62,321,136		OpenSea		0.801	0.018	0.178	0.087
cg20322433	yellow	1	33,800,173	5'UTR	OpenSea	PHC2	0.801	-0.002	0.777	0.719
cg03102824	yellow	1	51,703,649	Body	S_Shore	RNF11	0.801	0.010	0.279	0.325
cg02853355	yellow	16	85,132,373	3'UTR	OpenSea	FAM92B	0.801	-0.012	0.690	0.179
cg09796089	yellow	14	104,668,921		OpenSea		0.801	0.008	0.715	0.490
cg24663636	yellow	14	35,872,875	Body	N_Shore	NFKBIA	0.801	0.002	0.071	0.683
cg08628635	yellow	6	20,483,859	Body	OpenSea	E2F3	0.801	-0.011	0.755	0.254
cg02573234	yellow	11	65,088,334	5'UTR	OpenSea	CDC42EP2	0.801	0.007	0.658	0.270
cg07957035	yellow	16	49,623,763	Body	OpenSea	ZNF423	0.801	-0.008	0.665	0.406
cg06502279	yellow	16	474,467	TSS1500	N_Shore	RAB11FIP3	0.801	0.021	0.461	0.106
cg05643453	yellow	1	160,159,453	TSS1500	OpenSea	CASQ1	0.801	0.017	0.476	0.041
cg25574111	yellow	19	46,544,802	TSS1500	OpenSea	IGFL4	0.801	0.006	0.469	0.476

cg03797115	yellow	4	110,625,010	TSS1500	S_Shore	CASP6	0.801	0.007	0.055	0.414
cg22257056	yellow	3	32,462,766	Body	OpenSea	CMTM7	0.801	0.008	0.594	0.229
cg25093045	yellow	4	5,990,638	TSS1500	OpenSea	C4orf50	0.801	0.015	0.511	0.043
cg18811130	yellow	10	131,268,886	Body	S_Shelf	MGMT	0.801	-0.006	0.795	0.737
cg08271229	yellow	1	2,222,674	Body	S_Shore	SKI	0.801	0.014	0.640	0.169
cg24040989	yellow	5	149,979,572	TSS1500	OpenSea	SYNPO	0.801	0.002	0.319	0.781
cg24871714	yellow	19	37,095,466	Body	N_Shore	ZNF529	0.801	0.013	0.273	0.310
cg09188697	yellow	12	28,014,877		OpenSea		0.801	0.003	0.668	0.790
cg27614178	yellow	2	204,515,030		OpenSea		0.801	0.002	0.364	0.902
cg10835417	yellow	15	94,985,190	Body	OpenSea	MCTP2	0.801	0.004	0.693	0.638
cg17272331	yellow	6	101,328,506	5'UTR	N_Shore	ASCC3	0.801	0.007	0.054	0.037
cg11943056	yellow	6	31,845,413	Body	OpenSea	SLC44A4	0.801	0.011	0.620	0.150
cg24002003	yellow	15	101,668,143		OpenSea		0.801	0.011	0.199	0.181
cg06872964	yellow	1	79,085,250	TSS1500	OpenSea	IFI44L	0.801	0.010	0.524	0.113
cg10851715	yellow	8	49,984,830	TSS200	OpenSea	C8orf22	0.801	0.009	0.396	0.348
cg07476236	yellow	13	21,680,693		S_Shelf		0.801	0.033	0.532	0.042
cg05628506	yellow	19	56,696,870	3'UTR	OpenSea	GALP	0.801	-0.012	0.863	0.241
cg09430445	yellow	3	42,918,546	TSS1500	N_Shelf	CYP8B1	0.801	0.001	0.414	0.916
cg02872263	yellow	6	150,724,678	3'UTR	OpenSea	IYD	0.801	0.010	0.106	0.291
cg03097389	yellow	13	45,008,447	3'UTR	N_Shelf	TSC22D1	0.801	0.007	0.733	0.450
cg25463399	yellow	1	43,820,383		N_Shelf		0.801	-0.003	0.873	0.657
cg16651780	yellow	16	81,037,892	5'UTR	N_Shelf	C16orf61	0.801	-0.011	0.692	0.517
cg22744818	yellow	22	39,917,833	Body	S_Shore	ATF4	0.801	0.005	0.418	0.598
cg06669752	yellow	5	138,534,431	TSS1500	S_Shore	SIL1	0.801	-0.002	0.391	0.888
cg19940969	yellow	15	59,980,268	Body	N_Shore	BNIP2	0.801	0.003	0.099	0.706
cg10581071	yellow	5	10,653,304	3'UTR	S_Shelf	ANKRD33B	0.801	0.019	0.556	0.051
cg26765295	yellow	16	11,187,192	Body	OpenSea	CLEC16A	0.801	0.002	0.599	0.733
cg15402926	yellow	5	67,775,050		OpenSea		0.801	0.006	0.917	0.355
cg07116972	yellow	3	32,463,713	Body	OpenSea	CMTM7	0.801	0.011	0.040	0.231
cg19438912	yellow	19	56,176,636	Body	Island	U2AF2	0.801	0.004	0.683	0.561
cg09853702	yellow	12	47,665,230		OpenSea		0.801	0.007	0.733	0.464
cg26479028	yellow	16	82,068,702	TSS200	OpenSea	HSD17B2	0.801	-0.003	0.714	0.721
cg22011888	yellow	11	63,856,712	Body	S_Shelf	MACROD1	0.801	0.000	0.686	0.963
cg13485366	yellow	9	137,174,989		OpenSea		0.801	0.017	0.638	0.113
cg11816043	yellow	22	39,377,864	TSS1500	OpenSea	APOBEC3B	0.801	0.010	0.359	0.361
cg05511148	yellow	4	43,277,401		OpenSea		0.801	-0.003	0.745	0.772
cg23721586	yellow	1	92,197,531	Body	OpenSea	TGFBR3	0.801	0.054	0.502	0.011
cg07198365	yellow	10	3,572,665		OpenSea		0.801	0.001	0.614	0.949
cg21055554	yellow	12	113,652,889	5'UTR	OpenSea	IQCD	0.801	0.002	0.731	0.830
cg24787443	yellow	5	147,781,634	Body	OpenSea	FBXO38	0.801	-0.005	0.860	0.562
cg11999002	yellow	2	134,728,762		OpenSea		0.801	0.009	0.678	0.302
cg14635659	yellow	7	155,790,771		OpenSea		0.801	0.014	0.876	0.033
cg04944393	yellow	2	46,748,208	TSS1500	OpenSea	ATP6V1E2	0.800	0.003	0.868	0.761
cg09843173	yellow	1	100,316,334	TSS200	S_Shore	AGL	0.800	0.014	0.045	0.001
cg04548715	yellow	7	99,598,775		S_Shelf		0.800	-0.002	0.623	0.844
cg25964744	yellow	8	135,813,830	TSS1500	OpenSea	MIR30B	0.800	-0.001	0.838	0.892
cg25274320	yellow	11	64,886,406	TSS1500	S_Shore	ZNHIT2	0.800	0.005	0.789	0.442
cg05011468	yellow	2	96,997,582		N_Shelf		0.800	-0.012	0.929	0.082
cg03909356	yellow	17	75,362,226	5'UTR	OpenSea	9-Sep	0.800	0.008	0.596	0.264
cg06748584	yellow	17	79,520,919	TSS1500	S_Shore	C17orf70	0.800	0.008	0.063	0.359
cg24491704	yellow	4	38,693,552	Body	S_Shelf	KLF3	0.800	0.009	0.842	0.380
cg14763104	yellow	11	2,406,384	Body	N_Shore	CD81	0.800	0.007	0.692	0.316
cg02059176	yellow	2	44,327,637		OpenSea		0.800	-0.005	0.757	0.699
cg03460012	yellow	16	1,722,332	Body	OpenSea	CRAMP1L	0.800	0.010	0.780	0.231
cg19967176	yellow	15	67,119,789		OpenSea		0.800	0.011	0.498	0.094
cg05884192	yellow	14	52,515,736	Body	OpenSea	NID2	0.800	0.009	0.403	0.185
cg15979171	yellow	1	2,171,212	Body	OpenSea	SKI	0.800	0.003	0.752	0.605
cg24670151	yellow	17	73,256,558	Body	N_Shore	GGA3	0.800	0.010	0.618	0.406
cg07824081	yellow	16	30,124,904	TSS200	OpenSea	GDPD3	0.800	0.005	0.568	0.314
cg19503826	yellow	19	56,187,810	TSS200	S_Shore	EPN1	0.800	-0.002	0.835	0.813
cg03185794	yellow	13	101,237,439		N_Shelf		0.800	0.006	0.776	0.432
cg13145289	yellow	2	242,210,216	5'UTR	N_Shore	HDLBP	0.800	0.008	0.780	0.211
cg09958940	yellow	13	41,108,802		N_Shore		0.800	0.008	0.747	0.378
cg06832820	yellow	11	64,543,849	Body	N_Shore	SF1	0.800	-0.003	0.680	0.706
cg08976554	yellow	12	124,908,112	Body	N_Shelf	NCOR2	0.800	-0.009	0.418	0.234
cg16193295	yellow	18	34,338,686	Body	N_Shore	FHOD3	0.800	0.003	0.526	0.576
cg18265608	yellow	11	44,087,367	TSS1500	N_Shore	ACCS	0.800	0.020	0.288	0.095

cg15376972	yellow	7	95,064,926	TSS1500	S_Shore	PON2	0.800	-0.008	0.754	0.450
cg25944168	yellow	2	88,862,221	Body	OpenSea	EIF2AK3	0.800	0.008	0.442	0.517
cg25069420	yellow	2	203,140,218	Body	OpenSea	NOP58	0.800	0.009	0.864	0.330
cg10942898	yellow	5	133,708,361	Body	S_Shore	UBE2B	0.800	0.007	0.062	0.123
cg00876678	yellow	16	2,319,586	TSS1500	S_Shore	RNPS1	0.800	0.011	0.540	0.107
cg09217350	yellow	6	74,960,030		OpenSea		0.800	0.006	0.218	0.690
cg07631309	yellow	10	106,020,930	Body	OpenSea	GSTO1	0.800	-0.006	0.490	0.569
cg06728970	yellow	21	39,037,746	Body	N_Shelf	KCNJ6	0.800	0.021	0.551	0.161
cg09873772	yellow	16	4,896,197	Body	N_Shore	GLYR1	0.800	-0.008	0.492	0.223
cg00220661	yellow	18	74,241,269	Body	OpenSea	LOC284276	0.800	-0.003	0.125	0.774
cg01556552	yellow	1	10,695,686		N_Shelf		0.800	0.002	0.396	0.784
cg10323531	yellow	7	1,240,091		OpenSea		0.800	0.009	0.413	0.221
cg20045394	yellow	17	36,184,576		OpenSea		0.800	0.013	0.431	0.084
cg16253870	yellow	12	68,959,172		OpenSea		0.800	0.003	0.767	0.835
cg24206872	yellow	17	58,502,294	Body	S_Shelf	C17orf64	0.799	0.011	0.641	0.265
cg27121959	yellow	11	100,905,070	3'UTR	OpenSea	PGR	0.799	0.014	0.577	0.253
cg25015613	yellow	11	102,664,716	Body	OpenSea	MMP1	0.799	-0.002	0.730	0.751
cg22713444	yellow	1	145,512,660	Body	N_Shelf	GNRHR2	0.799	0.005	0.815	0.586
cg13279566	yellow	3	160,823,315	TSS200	S_Shore	B3GALNT1	0.799	0.005	0.050	0.138
cg04514683	yellow	7	150,549,175	TSS1500	OpenSea	ABP1	0.799	0.007	0.556	0.256
cg02423080	yellow	5	149,423,471	Body	OpenSea	HMGXB3	0.799	0.006	0.511	0.381
cg20080845	yellow	22	50,174,170	Body	N_Shelf	BRD1	0.799	0.011	0.716	0.093
cg06332964	yellow	22	47,253,846	Body	N_Shore	TBC1D22A	0.799	0.016	0.647	0.401
cg01923881	yellow	12	124,242,821	3'UTR	N_Shelf	ATP6V0A2	0.799	0.003	0.846	0.787
cg18190866	yellow	22	30,751,495	Body	N_Shore	SF3A1	0.799	-0.001	0.514	0.845
cg04474366	yellow	3	186,505,347	TSS200	S_Shelf	SNORA4	0.799	0.000	0.604	0.987
cg11485152	yellow	3	3,171,664	Body	S_Shelf	TRNT1	0.799	-0.003	0.710	0.727
cg08576104	yellow	12	66,562,945	Body	N_Shore	TMBIM4	0.799	0.002	0.036	0.572
cg03211636	yellow	1	8,354,313		OpenSea		0.799	-0.009	0.732	0.229
cg21540035	yellow	7	99,612,715	TSS1500	N_Shore	ZKSCAN1	0.799	-0.003	0.856	0.765
cg16374343	yellow	17	1,014,352	Body	S_Shore	ABR	0.799	0.006	0.624	0.424
cg01982788	yellow	12	56,556,339	3'UTR	OpenSea	SMARCC2	0.799	0.015	0.621	0.027
cg18219418	yellow	15	72,563,529	1stExon	N_Shore	PARP6	0.799	-0.009	0.797	0.161
cg01874562	yellow	19	18,873,037	Body	Island	CRTC1	0.799	0.007	0.615	0.462
cg08810582	yellow	12	69,139,650	TSS1500	N_Shore	SLC35E3	0.799	0.000	0.328	0.975
cg08180921	yellow	12	125,257,262		OpenSea		0.799	0.002	0.559	0.773
cg21408061	yellow	1	155,989,796	Body	N_Shore	SSR2	0.799	0.014	0.670	0.165
cg09742465	yellow	2	8,618,154		OpenSea		0.799	0.012	0.816	0.097
cg01574390	yellow	16	21,623,651	Body	OpenSea	METTL9	0.799	0.020	0.554	0.019
cg05347965	yellow	17	55,663,256	Body	OpenSea	MSI2	0.799	0.013	0.703	0.279
cg10424530	yellow	16	30,379,585	Body	N_Shore	TBC1D10B	0.799	0.004	0.050	0.410
cg10588705	yellow	17	20,903,244	3'UTR	OpenSea	USP22	0.799	0.004	0.673	0.586
cg01368430	yellow	7	148,663,948		OpenSea		0.799	0.005	0.180	0.603
cg08563570	yellow	2	85,426,502	Body	OpenSea	TCF7L1	0.799	-0.008	0.792	0.366
cg17796043	yellow	15	91,137,788	Body	OpenSea	CRTC3	0.799	0.007	0.504	0.326
cg24230188	yellow	22	37,461,787	3'UTR	N_Shelf	TMPRSS6	0.799	0.003	0.532	0.585
cg17980508	yellow	1	79,085,713	TSS1500	OpenSea	IFI44L	0.799	0.015	0.180	0.156
cg21427213	yellow	3	187,872,975	5'UTR	S_Shore	LPP	0.799	0.025	0.614	0.071
cg20016631	yellow	4	38,871,320	5'UTR	S_Shore	FAM114A1	0.799	0.021	0.642	0.030
cg05484231	yellow	8	67,972,631	Body	N_Shelf	COPSS5	0.799	0.002	0.782	0.672
cg12668403	yellow	5	173,072,294		OpenSea		0.799	0.006	0.519	0.305
cg18720682	yellow	10	70,165,978	Body	N_Shore	RUFY2	0.799	-0.004	0.076	0.424
cg21247874	yellow	9	37,487,279	Body	S_Shore	POLR1E	0.799	0.011	0.228	0.281
cg03018001	yellow	19	751,098	TSS200	S_Shelf	C19orf21	0.799	0.002	0.680	0.788
cg14111697	yellow	9	80,462,928	Body	OpenSea	GNAQ	0.799	-0.012	0.583	0.099
cg04868238	yellow	8	22,501,100	TSS1500	OpenSea	FLJ14107	0.799	0.003	0.438	0.826
cg27537795	yellow	18	52,265,510	3'UTR	OpenSea	C18orf26	0.799	0.001	0.555	0.813
cg08900409	yellow	19	18,475,669	3'UTR	OpenSea	PGPEP1	0.799	0.001	0.085	0.912
cg15393702	yellow	18	21,243,529	TSS1500	S_Shore	ANKRD29	0.799	0.005	0.701	0.579
cg21127537	yellow	11	113,184,936	TSS1500	N_Shore	TTC12	0.799	-0.004	0.460	0.699
cg24433265	yellow	12	52,389,247	3'UTR	OpenSea	ACVR1B	0.799	-0.002	0.644	0.784
cg08443563	yellow	2	112,456,811		OpenSea		0.799	0.006	0.577	0.665
cg05136531	yellow	2	40,006,891	TSS1500	S_Shore	THUMP2	0.799	0.024	0.453	0.085
cg23272088	yellow	11	2,504,813	Body	OpenSea	KCNQ1	0.799	-0.003	0.566	0.729
cg26112999	yellow	1	16,351,651	Body	OpenSea	CLCNKA	0.799	0.000	0.830	0.970
cg16973715	yellow	3	64,254,112		S_Shore		0.799	0.003	0.523	0.626
cg23614000	yellow	11	47,353,259	3'UTR	OpenSea	MYBPC3	0.799	-0.002	0.764	0.821

cg06635797	yellow	19	4,915,394	Body	N_Shore	UHRF1	0.799	0.001	0.645	0.963
cg14425045	yellow	9	123,631,825	Body	S_Shore	PHF19	0.799	0.006	0.827	0.370
cg16998564	yellow	1	88,271,572		OpenSea		0.799	-0.001	0.644	0.963
cg21275283	yellow	17	18,011,513	TSS1500	OpenSea	MYO15A	0.799	0.005	0.751	0.436
cg24024661	yellow	19	1,074,425	Body	N_Shore	HMHA1	0.798	0.002	0.915	0.614
cg12866090	yellow	10	3,572,595		OpenSea		0.798	0.004	0.518	0.748
cg12045829	yellow	17	7,452,926	Body	S_Shore	TNFSF12	0.798	-0.005	0.802	0.666
cg17658113	yellow	11	1,413,282	Body	S_Shore	BRSK2	0.798	0.004	0.701	0.763
cg23130075	yellow	11	67,418,365	TSS1500	OpenSea	ACY3	0.798	0.003	0.727	0.648
cg19082960	yellow	1	213,831,368		OpenSea		0.798	0.016	0.677	0.015
cg25132662	yellow	1	218,537,543	Body	OpenSea	TGFB2	0.798	0.000	0.262	0.962
cg11657615	yellow	16	67,449,861	5'UTR	N_Shore	ZDHHC1	0.798	-0.003	0.120	0.642
cg03848545	yellow	10	103,592,494	Body	S_Shore	KCNIP2	0.798	0.011	0.465	0.095
cg04986004	yellow	5	136,984,794	TSS1500	OpenSea	MIR874	0.798	0.002	0.461	0.851
cg08426962	yellow	5	94,076,140	Body	OpenSea	MCTP1	0.798	-0.006	0.597	0.572
cg04037228	yellow	3	45,636,386	1stExon	S_Shore	LIMD1	0.798	0.001	0.398	0.943
cg12548760	yellow	10	70,332,296	Body	OpenSea	TET1	0.798	0.005	0.820	0.681
cg13916080	yellow	9	129,624,994	5'UTR	S_Shore	ZBTB34	0.798	0.014	0.227	0.107
cg14041603	yellow	6	168,394,198		S_Shelf		0.798	-0.002	0.895	0.834
cg14042099	yellow	11	114,068,801	Body	N_Shore	ZBTB16	0.798	-0.004	0.187	0.640
cg00087244	yellow	7	74,042,487		OpenSea		0.798	0.014	0.216	0.210
cg08119256	yellow	13	113,483,183	Body	N_Shelf	ATP11A	0.798	-0.004	0.922	0.410
cg14526997	yellow	9	140,525,207	Body	OpenSea	EHMT1	0.798	0.013	0.658	0.080
cg00661523	yellow	3	151,985,426	TSS1500	N_Shore	MBNL1	0.798	0.007	0.480	0.543
cg08782002	yellow	17	61,847,885	5'UTR	N_Shelf	CCDC47	0.798	0.006	0.635	0.419
cg02661034	yellow	5	1,477,269	Body	OpenSea	LPCAT1	0.798	0.001	0.749	0.845
cg25941751	yellow	2	46,613,544	3'UTR	OpenSea	EPAS1	0.798	0.010	0.583	0.269
cg11143193	yellow	12	123,713,553		N_Shelf		0.798	0.000	0.606	0.963
cg18982073	yellow	17	42,275,458	1stExon	N_Shore	ATXN7L3	0.798	0.012	0.473	0.055
cg20541656	yellow	8	98,787,334	TSS1500	N_Shore	LAPTM4B	0.798	0.006	0.304	0.462
cg07196577	yellow	1	109,850,486	TSS1500	OpenSea	MYBPHL	0.798	0.012	0.425	0.093
cg06483978	yellow	17	79,967,042	Body	Island	ASPSCR1	0.798	0.000	0.765	0.970
cg05626117	yellow	19	7,798,327	TSS1500	S_Shore	CLEC4G	0.798	-0.005	0.718	0.670
cg25341089	yellow	12	133,149,020	Body	Island	FBRSL1	0.798	0.000	0.785	0.983
cg27329559	yellow	10	56,561,543	TSS1500	OpenSea	PCDH15	0.798	0.022	0.371	0.085
cg21127580	yellow	6	901,081		OpenSea		0.798	0.029	0.419	0.130
cg00536718	yellow	7	2,478,297		OpenSea		0.798	0.002	0.534	0.732
cg16892393	yellow	17	41,919,603		OpenSea		0.798	0.008	0.171	0.225
cg24011511	yellow	6	130,288,563		OpenSea		0.798	0.014	0.506	0.258
cg12859046	yellow	1	193,155,208	5'UTR	OpenSea	B3GALT2	0.798	0.017	0.543	0.244
cg16497157	yellow	7	820,338	Body	N_Shore	HEATR2	0.798	0.012	0.840	0.314
cg17131579	yellow	6	33,256,216	TSS1500	N_Shore	PFDN6	0.798	-0.001	0.510	0.797
cg18033335	yellow	19	11,034,897	Body	S_Shelf	YIPF2	0.798	0.011	0.613	0.152
cg22352122	yellow	11	453,757	Body	S_Shelf	PTDSS2	0.798	0.002	0.706	0.783
cg05338083	yellow	11	102,187,976	TSS1500	N_Shore	BIRC3	0.798	0.010	0.324	0.253
cg18882687	yellow	1	228,275,828	5'UTR	OpenSea	ARF1	0.798	-0.007	0.821	0.314
cg06615154	yellow	1	153,522,553	TSS1500	OpenSea	S100A3	0.798	0.005	0.532	0.406
cg04153130	yellow	7	4,456,396		OpenSea		0.798	0.019	0.563	0.379
cg21643939	yellow	3	172,467,326		N_Shore		0.798	0.007	0.571	0.414
cg14043527	yellow	11	64,642,516	Body	N_Shelf	EHD1	0.798	0.019	0.606	0.008
cg08534055	yellow	16	9,190,392	Body	S_Shelf	C16orf72	0.798	-0.002	0.862	0.775
cg09769755	yellow	17	43,074,945		OpenSea		0.798	0.008	0.628	0.315
cg03059247	yellow	8	11,287,657	Body	OpenSea	C8orf12	0.798	0.015	0.624	0.036
cg02902261	yellow	7	72,991,150	Body	N_Shore	TBL2	0.797	0.005	0.616	0.384
cg14530290	yellow	10	80,853,985	5'UTR	OpenSea	ZMIZ1	0.797	0.005	0.597	0.449
cg19937039	yellow	14	94,759,767	TSS1500	OpenSea	SERPINA10	0.797	-0.002	0.446	0.786
cg19824894	yellow	3	156,873,744	Body	N_Shelf	CCNL1	0.797	-0.007	0.807	0.504
cg03312532	yellow	15	90,166,033	Body	OpenSea	C15orf42	0.797	0.001	0.774	0.908
cg02150231	yellow	22	47,159,188	Body	S_Shore	TBC1D22A	0.797	0.006	0.107	0.298
cg11594821	yellow	6	30,458,601	Body	S_Shore	HLA-E	0.797	-0.002	0.897	0.710
cg14403068	yellow	9	2,726,670	Body	OpenSea	KCNV2	0.797	0.018	0.812	0.113
cg00408567	yellow	5	153,785,262	Body	S_Shore	GALNT10	0.797	0.009	0.498	0.344
cg22175781	yellow	13	101,175,948	Body	OpenSea	PCCA	0.797	0.003	0.836	0.841
cg21155609	yellow	1	32,713,275	1stExon	N_Shore	FAM167B	0.797	0.003	0.769	0.643
cg14283480	yellow	19	56,187,475	5'UTR	S_Shore	EPN1	0.797	0.013	0.351	0.358
cg17924366	yellow	20	25,042,656		S_Shelf		0.797	0.006	0.741	0.349
cg02462661	yellow	15	74,275,622	3'UTR	OpenSea	STOML1	0.797	0.004	0.110	0.644

cg17186103	yellow	2	121,442,251	OpenSea		0.797	0.002	0.706	0.904
cg10222734	yellow	10	52,612,019 5'UTR	OpenSea	A1CF	0.797	-0.002	0.831	0.876
cg19091779	yellow	12	13,200,089 Body	S_Shelf	KIAA1467	0.797	-0.002	0.787	0.879
cg19917530	yellow	2	133,855,847 Body	OpenSea	NCKAP5	0.797	0.008	0.748	0.555
cg03328388	yellow	16	28,886,581	OpenSea		0.797	-0.001	0.421	0.945
cg25349034	yellow	3	149,265,300 Body	OpenSea	WWTR1	0.797	0.031	0.645	0.109
cg04300159	yellow	17	16,281,514	N_Shelf		0.797	0.014	0.702	0.150
cg14723921	yellow	6	5,969,260	OpenSea		0.797	0.004	0.333	0.619
cg10418289	yellow	14	23,308,294 Body	S_Shore	MMP14	0.797	0.010	0.436	0.125
cg26626042	yellow	6	32,151,594 Body	OpenSea	AGER	0.797	0.007	0.882	0.226
cg23256802	yellow	5	133,313,281 Body	OpenSea	VDAC1	0.797	0.004	0.862	0.635
cg21781648	yellow	4	829,753	S_Shore		0.797	0.001	0.864	0.888
cg12272160	yellow	20	44,062,286	N_Shelf		0.797	0.002	0.371	0.860
cg11942594	yellow	3	167,659,189	OpenSea		0.797	0.009	0.871	0.282
cg23981354	yellow	6	139,455,976 TSS1500	N_Shore	HECA	0.797	0.004	0.579	0.551
cg10712091	yellow	6	108,141,883 5'UTR	OpenSea	SCML4	0.797	0.031	0.129	0.020
cg12562828	yellow	11	65,076,843	OpenSea		0.797	0.009	0.566	0.139
cg00525496	yellow	6	11,203,784 Body	OpenSea	NEDD9	0.797	0.010	0.773	0.063
cg14165142	yellow	20	3,778,655 Body	S_Shore	CDC25B	0.797	0.003	0.756	0.656
cg20352178	yellow	15	69,099,262 Body	OpenSea	C15orf28	0.797	0.010	0.470	0.290
cg00522588	yellow	12	49,449,063 1stExon	OpenSea	MLL2	0.797	-0.003	0.756	0.596
cg05979232	yellow	10	73,496,014 5'UTR	OpenSea	C10orf105	0.797	0.007	0.742	0.339
cg11809162	yellow	1	2,241,792	N_Shelf		0.797	0.009	0.644	0.121
cg01234420	yellow	22	46,453,808 Body	N_Shelf	LOC150381	0.797	0.008	0.785	0.293
cg19694241	yellow	10	104,211,488 TSS200	S_Shore	C10orf95	0.797	0.001	0.554	0.830
cg24381155	yellow	10	103,289,745 Body	OpenSea	BTRC	0.797	0.013	0.713	0.308
cg23659250	yellow	22	50,174,065 Body	N_Shelf	BRD1	0.796	0.014	0.616	0.044
cg14405197	yellow	4	2,303,660 Body	N_Shore	ZFYVE28	0.796	-0.005	0.274	0.520
cg01299997	yellow	7	100,886,961 Body	N_Shore	FIS1	0.796	0.001	0.596	0.919
cg10155522	yellow	11	94,868,555	OpenSea		0.796	0.005	0.630	0.637
cg13748799	yellow	10	11,056,954 Body	N_Shelf	CUGBP2	0.796	0.002	0.545	0.818
cg21841678	yellow	2	86,113,086 Body	N_Shelf	ST3GAL5	0.796	0.001	0.895	0.931
cg10650729	yellow	22	21,978,797	N_Shelf		0.796	0.016	0.457	0.104
cg19310148	yellow	7	26,196,274 Body	S_Shelf	NFE2L3	0.796	-0.006	0.271	0.451
cg06353720	yellow	10	91,087,558 TSS200	OpenSea	IFIT3	0.796	0.017	0.110	0.165
cg26539631	yellow	6	32,097,439 TSS1500	N_Shore	ATF6B	0.796	0.007	0.313	0.539
cg17184704	yellow	10	11,727,286	OpenSea		0.796	0.008	0.713	0.553
cg23143104	yellow	14	103,691,361	S_Shelf		0.796	0.003	0.650	0.685
cg24603926	yellow	12	120,151,679 TSS200	OpenSea	MIR1178	0.796	0.005	0.777	0.631
cg27506442	yellow	13	30,948,716 TSS1500	OpenSea	LOC1001889	0.796	0.013	0.433	0.126
cg17567562	yellow	3	47,687,980 Body	OpenSea	SMARCC1	0.796	-0.008	0.833	0.477
cg27513684	yellow	1	27,729,053	OpenSea		0.796	0.003	0.375	0.649
cg25095814	yellow	2	202,098,016 TSS200	OpenSea	CASP8	0.796	0.015	0.660	0.089
cg23620236	yellow	14	45,368,282 5'UTR	S_Shore	C14orf28	0.796	-0.005	0.726	0.775
cg27035734	yellow	12	86,230,557 TSS1500	OpenSea	RASSF9	0.796	0.003	0.332	0.650
cg16795307	yellow	13	33,780,362 TSS200	OpenSea	STARD13	0.796	0.023	0.289	0.024
cg21792983	yellow	4	25,818,940 Body	OpenSea	SEL1L3	0.796	-0.004	0.761	0.632
cg06361383	yellow	10	50,339,928 Body	Island	FAM170B	0.796	0.021	0.672	0.068
cg07935264	yellow	2	113,594,375 TSS200	OpenSea	IL1B	0.796	-0.011	0.531	0.311
cg15149645	yellow	16	28,550,619 TSS200	OpenSea	NUPR1	0.796	0.004	0.589	0.651
cg17084044	yellow	1	1,150,416 TSS1500	S_Shore	TNFRSF4	0.796	0.007	0.681	0.250
cg17530247	yellow	3	48,955,643 TSS1500	N_Shore	ARIH2	0.796	0.010	0.207	0.287
cg12611897	yellow	3	155,349,216 Body	OpenSea	PLCH1	0.796	0.015	0.554	0.243
cg14434062	yellow	15	70,767,419	OpenSea		0.796	0.019	0.792	0.192
cg17532976	yellow	12	53,937,515 Body	OpenSea	ATF7	0.796	0.001	0.096	0.938
cg24586039	yellow	8	30,359,221 Body	OpenSea	RBPMS	0.796	-0.003	0.668	0.727
cg26885816	yellow	11	74,303,012 TSS1500	N_Shore	POLD3	0.796	0.011	0.620	0.152
cg08726522	yellow	11	8,739,587 Body	OpenSea	ST5	0.796	0.006	0.043	0.402
cg14769121	yellow	7	98,722,470 Body	OpenSea	SMURF1	0.796	-0.001	0.662	0.909
cg15050051	yellow	7	1,782,000 5'UTR	N_Shelf	ELFN1	0.796	0.004	0.865	0.523
cg16123211	yellow	14	105,915,004 Body	N_Shore	MTA1	0.796	0.008	0.577	0.316
cg05660881	yellow	13	24,798,240 Body	OpenSea	SPATA13	0.796	-0.007	0.834	0.246
cg24997562	yellow	12	121,476,720 1stExon	OpenSea	OASL	0.796	-0.011	0.468	0.158
cg17559156	yellow	11	57,269,634 Body	S_Shelf	SLC43A1	0.796	0.010	0.727	0.303
cg04206967	yellow	8	110,098,844 TSS1500	OpenSea	TRHR	0.796	0.005	0.422	0.597
cg16399664	yellow	12	113,417,284 Body	OpenSea	OAS2	0.795	0.003	0.677	0.682
cg14022501	yellow	9	137,335,080	S_Shelf		0.795	0.011	0.597	0.076

cg21091766	yellow	5	176,898,673	Body	S_Shelf	DBN1	0.795	0.001	0.542	0.842
cg23101680	yellow	13	46,277,286	Body	OpenSea	SPERT	0.795	-0.007	0.693	0.387
cg23069367	yellow	13	113,358,319	Body	OpenSea	ATP11A	0.795	0.010	0.699	0.303
cg23866687	yellow	11	96,026,956	Body	OpenSea	MAML2	0.795	0.010	0.137	0.569
cg05161795	yellow	3	45,018,949	TSS1500	S_Shore	ZDHHC3	0.795	-0.002	0.809	0.770
cg24611970	yellow	2	159,790,917		OpenSea		0.795	-0.002	0.307	0.898
cg17850367	yellow	10	27,150,498	TSS1500	S_Shore	ABI1	0.795	0.017	0.443	0.083
cg16793622	yellow	6	31,602,975	Body	S_Shelf	BAT2	0.795	0.005	0.745	0.420
cg14632507	yellow	3	73,468,875	Body	OpenSea	PDZRN3	0.795	0.020	0.776	0.221
cg12669355	yellow	7	116,514,552	Body	OpenSea	CAPZA2	0.795	-0.004	0.642	0.691
cg01317045	yellow	16	57,849,655		OpenSea		0.795	0.002	0.838	0.667
cg06872548	yellow	17	78,716,983	Body	N_Shelf	RPTOR	0.795	0.010	0.491	0.345
cg24371954	yellow	13	111,128,102	Body	OpenSea	COL4A2	0.795	-0.007	0.773	0.572
cg09505513	yellow	7	5,432,820	Body	S_Shelf	TNRC18	0.795	0.007	0.829	0.284
cg21278764	yellow	1	38,481,765	Body	S_Shelf	UTP11L	0.795	0.013	0.497	0.333
cg14732540	yellow	1	92,414,722	TSS1500	Island	BRDT	0.795	-0.004	0.672	0.657
cg22111527	yellow	11	69,260,136		S_Shore		0.795	0.005	0.663	0.485
cg18168672	yellow	20	61,905,223	5'UTR	S_Shore	ARFGAP1	0.795	0.016	0.555	0.066
cg00469897	yellow	7	47,611,829		OpenSea		0.795	0.012	0.094	0.177
cg19225602	yellow	11	75,269,316		N_Shelf		0.795	-0.002	0.130	0.833
cg18849583	yellow	14	32,836,157	5'UTR	OpenSea	AKAP6	0.795	0.008	0.795	0.419
cg19442264	yellow	17	4,168,034	TSS1500	S_Shore	ANKFY1	0.795	0.011	0.417	0.098
cg24816866	yellow	6	163,149,674	Body	S_Shore	PACRG	0.795	0.008	0.740	0.362
cg19620994	yellow	1	12,774,904	TSS1500	OpenSea	AADACL3	0.795	0.001	0.803	0.930
cg25767870	yellow	1	118,188,756		OpenSea		0.795	0.012	0.441	0.150
cg17506061	yellow	15	79,243,526		OpenSea		0.795	-0.002	0.083	0.829
cg02423185	yellow	13	37,337,525		OpenSea		0.795	-0.004	0.860	0.643
cg04063906	yellow	7	588,539		N_Shore		0.795	0.005	0.652	0.402
cg03566787	yellow	11	47,517,381	TSS1500	OpenSea	CUGBP1	0.795	0.000	0.726	0.994
cg02088785	yellow	13	99,223,336	Body	OpenSea	STK24	0.795	-0.006	0.749	0.380
cg13338734	yellow	19	13,113,668	Body	S_Shore	NFIX	0.795	0.002	0.741	0.890
cg11861579	yellow	4	99,031,533	Body	OpenSea	C4orf37	0.795	-0.001	0.802	0.924
cg24519157	yellow	20	54,987,662	Body	OpenSea	CASS4	0.795	0.009	0.509	0.324
cg01878963	yellow	1	112,147,900		OpenSea		0.795	0.009	0.866	0.329
cg18208185	yellow	10	45,169,265		OpenSea		0.795	-0.001	0.650	0.919
cg05548488	yellow	3	50,658,472	Body	S_Shelf	MAPKAPK3	0.795	0.005	0.669	0.436
cg06508379	yellow	19	19,104,064	3'UTR	OpenSea	SFRS14	0.794	0.027	0.646	0.092
cg03432176	yellow	2	160,655,066	TSS1500	S_Shore	CD302	0.794	0.003	0.069	0.662
cg01947837	yellow	14	104,770,575		OpenSea		0.794	0.017	0.677	0.061
cg19194237	yellow	2	73,485,189	3'UTR	OpenSea	FBXO41	0.794	0.021	0.696	0.001
cg21285555	yellow	8	52,771,466	Body	OpenSea	PCMTD1	0.794	0.016	0.592	0.160
cg06474225	yellow	10	124,228,770	Body	OpenSea	HTRA1	0.794	0.000	0.776	1.000
cg00734567	yellow	1	86,172,782	Body	N_Shore	ZNHIT6	0.794	0.013	0.260	0.086
cg08264906	yellow	1	23,197,180	Body	OpenSea	EPHB2	0.794	-0.004	0.194	0.668
cg18879998	yellow	17	80,895,949	Body	N_Shelf	TBCD	0.794	0.001	0.885	0.942
cg15348679	yellow	21	45,626,491		S_Shelf		0.794	0.012	0.467	0.252
cg21012061	yellow	1	205,568,557	Body	OpenSea	MFSD4	0.794	-0.003	0.243	0.670
cg15646919	yellow	18	77,608,799		Island		0.794	0.001	0.679	0.877
cg20184056	yellow	10	64,323,709	5'UTR	OpenSea	ZNF365	0.794	0.004	0.934	0.508
cg07732472	yellow	19	15,390,948	5'UTR	OpenSea	BRD4	0.794	0.008	0.459	0.445
cg19576697	yellow	5	176,837,920	TSS1500	OpenSea	F12	0.794	-0.003	0.717	0.727
cg18906520	yellow	12	123,461,288	Body	S_Shore	OGFOD2	0.794	0.011	0.683	0.143
cg14221831	yellow	16	66,952,714	1stExon	N_Shelf	CDH16	0.794	0.001	0.676	0.845
cg19510626	yellow	1	113,934,971	Body	S_Shore	MAGI3	0.794	0.001	0.357	0.858
cg23599385	yellow	2	106,637,299		OpenSea		0.794	0.001	0.144	0.944
cg07306737	yellow	6	33,247,141	Body	S_Shore	WDR46	0.794	0.003	0.617	0.698
cg23291900	yellow	1	223,316,927	TSS1500	S_Shore	TLR5	0.794	0.012	0.560	0.150
cg07825294	yellow	19	1,415,757	Body	N_Shelf	DAZAP1	0.794	0.016	0.253	0.114
cg06097557	yellow	3	197,475,984	TSS1500	N_Shore	FYTDD1	0.794	-0.003	0.241	0.624
cg03510732	yellow	10	114,871,931	Body	OpenSea	TCF7L2	0.794	0.003	0.643	0.732
cg17713673	yellow	12	46,466,053		OpenSea		0.794	-0.005	0.072	0.314
cg12611448	yellow	3	185,255,217	Body	OpenSea	LIPH	0.794	0.003	0.472	0.683
cg09796457	yellow	15	68,571,585	Body	S_Shore	FEM1B	0.794	-0.003	0.104	0.669
cg13007035	yellow	12	91,573,135	5'UTR	OpenSea	DCN	0.794	0.016	0.512	0.291
cg07583137	yellow	8	82,644,012	TSS1500	N_Shore	CHMP4C	0.794	0.016	0.739	0.066
cg05080966	yellow	8	145,549,812	Body	N_Shore	DGAT1	0.794	0.001	0.431	0.881
cg03899412	yellow	5	3,325,319		N_Shore		0.794	0.008	0.575	0.353



cg16640599	yellow	4	119,732,131	Body	OpenSea	SEC24D	0.794	-0.001	0.797	0.910
cg14018735	yellow	9	136,270,734	3'UTR	OpenSea	C9orf96	0.794	0.003	0.710	0.705
cg12280798	yellow	17	48,856,029		N_Shelf		0.794	-0.007	0.631	0.452
cg16463700	yellow	2	108,993,737	TSS1500	OpenSea	SULT1C4	0.794	0.002	0.609	0.749
cg10140501	yellow	14	52,289,204		OpenSea		0.794	-0.001	0.807	0.962
cg01710351	yellow	1	160,617,092	TSS200	OpenSea	SLAMF1	0.794	0.010	0.806	0.085
cg20324262	yellow	19	12,958,871	Body	Island	MAST1	0.794	0.005	0.290	0.404
cg27235955	yellow	3	154,848,194	Body	OpenSea	MME	0.794	0.000	0.844	0.977
cg26461855	yellow	6	30,695,686	3'UTR	OpenSea	FLOT1	0.794	0.020	0.606	0.064
cg21069176	yellow	3	24,347,656	5'UTR	OpenSea	THRB	0.794	0.014	0.683	0.220
cg05058846	yellow	10	79,270,707	Body	OpenSea	KCNMA1	0.794	0.001	0.708	0.921
cg15103179	yellow	12	56,097,787	Body	N_Shelf	ITGA7	0.793	0.014	0.633	0.051
cg09248660	yellow	6	24,969,848		OpenSea		0.793	0.002	0.456	0.774
cg03283421	yellow	10	124,610,984	5'UTR	OpenSea	FAM24B	0.793	0.011	0.689	0.297
cg23583454	yellow	6	30,582,333	5'UTR	N_Shelf	PPP1R10	0.793	0.015	0.602	0.273
cg21172319	yellow	8	18,067,770	5'UTR	OpenSea	NAT1	0.793	0.007	0.335	0.378
cg26974214	yellow	10	91,151,885	TSS1500	OpenSea	IFIT1	0.793	0.007	0.617	0.662
cg00756887	yellow	1	161,059,654	TSS1500	OpenSea	PVRL4	0.793	-0.002	0.819	0.856
cg01081303	yellow	4	2,241,822	Body	N_Shore	HAUS3	0.793	0.004	0.642	0.629
cg18484162	yellow	3	33,760,207	TSS1500	S_Shore	CLASP2	0.793	0.000	0.049	0.942
cg21484315	yellow	2	2,712,669		OpenSea		0.793	0.006	0.480	0.327
cg13127231	yellow	13	111,806,949	Body	S_Shore	ARHGEF7	0.793	0.007	0.415	0.583
cg15538820	yellow	9	136,084,818	TSS200	OpenSea	OBP2B	0.793	-0.002	0.769	0.771
cg17164954	yellow	6	157,345,266	Body	S_Shelf	ARID1B	0.793	0.013	0.156	0.179
cg22487912	yellow	8	49,889,757		N_Shore		0.793	0.011	0.624	0.164
cg06976589	yellow	4	1,304,048	Body	N_Shore	MAEA	0.793	0.004	0.349	0.719
cg06169627	yellow	1	2,938,819	1stExon	Island	ACTRT2	0.793	0.009	0.736	0.160
cg24363858	yellow	6	138,752,062	Body	OpenSea	NHSL1	0.793	0.009	0.789	0.135
cg00741992	yellow	16	30,432,687		S_Shelf		0.793	0.012	0.609	0.097
cg15704909	yellow	20	57,765,489	TSS1500	N_Shore	ZNF831	0.793	-0.005	0.931	0.371
cg11985116	yellow	2	1,567,042		OpenSea		0.793	-0.007	0.704	0.352
cg26841102	yellow	1	5,574,888		OpenSea		0.793	0.001	0.106	0.798
cg05357695	yellow	14	23,623,480	5'UTR	OpenSea	SLC7A8	0.793	0.009	0.543	0.174
cg04626878	yellow	20	62,168,809	TSS200	S_Shore	PTK6	0.793	0.001	0.764	0.875
cg24763467	yellow	12	121,786,942	Body	N_Shelf	ANAPC5	0.793	-0.001	0.911	0.884
cg24530943	yellow	13	113,408,267	Body	N_Shore	ATP11A	0.793	-0.001	0.787	0.835
cg23900225	yellow	10	35,894,222	TSS200	N_Shelf	GJD4	0.793	0.005	0.622	0.477
cg08754067	yellow	5	40,833,236	TSS1500	N_Shelf	SNORD72	0.793	0.003	0.331	0.727
cg25619461	yellow	1	226,617,992		OpenSea		0.793	0.017	0.517	0.105
cg06357685	yellow	16	70,812,814	Body	OpenSea	VAC14	0.793	0.014	0.540	0.278
cg06140698	yellow	3	127,945,571	Body	OpenSea	EEFSEC	0.793	0.016	0.686	0.076
cg19309341	yellow	19	13,200,609	Body	S_Shore	NFIX	0.793	0.007	0.685	0.540
cg26572608	yellow	15	80,543,353		N_Shore		0.793	0.009	0.527	0.452
cg08106792	yellow	1	153,509,323	TSS1500	S_Shore	S100A6	0.793	0.005	0.537	0.344
cg14794655	yellow	2	54,558,352	Body	S_Shore	C2orf73	0.793	0.005	0.306	0.477
cg16087630	yellow	11	67,890,322	TSS1500	S_Shore	CHKA	0.793	0.005	0.808	0.374
cg20621021	yellow	10	72,163,541	TSS1500	N_Shore	EIF4EBP2	0.793	-0.007	0.057	0.192
cg26059632	yellow	1	153,030,751	TSS1500	OpenSea	SPRR2A	0.793	0.014	0.548	0.109
cg18893025	yellow	8	62,529,801	Body	OpenSea	ASPH	0.793	0.000	0.816	0.969
cg23526087	yellow	14	68,973,466	Body	OpenSea	RAD51L1	0.793	0.011	0.570	0.188
cg25085245	yellow	7	100,032,816		N_Shore		0.793	0.003	0.216	0.749
cg01172899	yellow	2	230,933,751	TSS200	S_Shore	SLC16A14	0.793	0.008	0.141	0.257
cg24662231	yellow	17	41,002,433	3'UTR	OpenSea	AOC2	0.793	0.017	0.588	0.012
cg08617354	yellow	10	68,858,663	Body	OpenSea	CTNNA3	0.793	0.005	0.304	0.720
cg14328415	yellow	9	139,847,314	Body	Island	LCN12	0.793	0.030	0.812	0.047
cg25703361	yellow	15	69,076,089	Body	OpenSea	ANP32A	0.793	0.006	0.540	0.428
cg09548638	yellow	5	148,443,744	TSS1500	OpenSea	SH3TC2	0.793	0.004	0.706	0.570
cg21664281	yellow	3	193,561,005		OpenSea		0.793	-0.001	0.677	0.926
cg25954269	yellow	15	71,092,216		OpenSea		0.792	0.020	0.488	0.111
cg04373487	yellow	2	106,743,960	Body	OpenSea	UXS1	0.792	-0.004	0.779	0.746
cg10862018	yellow	15	73,077,046	TSS1500	S_Shore	ADPGK	0.792	0.006	0.626	0.483
cg15616310	yellow	11	94,570,647	Body	OpenSea	AMOTL1	0.792	0.034	0.316	0.076
cg09101894	yellow	5	67,583,627	Body	N_Shore	PIK3R1	0.792	0.007	0.769	0.393
cg25630588	yellow	3	50,357,322	Body	N_Shore	HYAL2	0.792	0.007	0.794	0.265
cg22220710	yellow	18	7,011,217	Body	N_Shore	LAMA1	0.792	0.001	0.796	0.894
cg11843333	yellow	4	15,719,138	Body	OpenSea	BST1	0.792	0.007	0.780	0.420
cg10946404	yellow	8	59,575,772		S_Shelf		0.792	-0.007	0.752	0.320

cg20376082	yellow	11	1,229,932	S_Shore		0.792	0.007	0.713	0.465
cg21553700	yellow	3	195,600,410 Body	N_Shore	TNK2	0.792	0.001	0.877	0.941
cg02612270	yellow	16	1,015,103 Body	S_Shore	LMF1	0.792	0.016	0.692	0.043
cg00004219	yellow	12	132,536,833 Body	OpenSea	EP400	0.792	0.002	0.838	0.801
cg16264776	yellow	1	92,549,234 Body	S_Shelf	BTBD8	0.792	0.005	0.914	0.461
cg04614923	yellow	12	93,096,622 TSS1500	OpenSea	C12orf74	0.792	0.007	0.749	0.331
cg12608507	yellow	2	207,025,477 Body	S_Shore	EEF1B2	0.792	-0.006	0.469	0.479
cg05582979	yellow	4	10,686,610 TSS1500	OpenSea	CLNK	0.792	0.020	0.839	0.018
cg11634248	yellow	11	67,926,133 Body	OpenSea	SUV420H1	0.792	-0.007	0.764	0.376
cg18529958	yellow	11	8,936,435 Body	S_Shelf	C11orf17	0.792	-0.005	0.685	0.447
cg00163365	yellow	4	84,203,456 Body	N_Shore	COQ2	0.792	0.001	0.360	0.869
cg00741634	yellow	19	19,432,407 Body	S_Shore	KIAA0892	0.792	0.004	0.094	0.483
cg04064028	yellow	2	170,335,723 TSS1500	N_Shore	BBS5	0.792	0.010	0.476	0.082
cg16756022	yellow	17	645,119 3'UTR	OpenSea	FAM57A	0.792	0.008	0.853	0.279
cg23372723	yellow	17	1,015,100 Body	S_Shelf	ABR	0.792	0.008	0.812	0.326
cg02912379	yellow	1	145,054,067 Body	OpenSea	PDE4DIP	0.792	0.018	0.572	0.021
cg19468883	yellow	12	121,198,447	OpenSea		0.792	0.007	0.738	0.538
cg07121795	yellow	1	16,768,162 Body	S_Shore	NECAP2	0.792	0.024	0.390	0.017
cg16971745	yellow	2	163,175,403 TSS1500	OpenSea	IFIH1	0.792	0.001	0.078	0.731
cg15156584	yellow	6	18,433,220 Body	OpenSea	RNF144B	0.792	0.008	0.730	0.290
cg00458754	yellow	10	88,427,813 TSS1500	OpenSea	LDB3	0.792	0.008	0.580	0.444
cg11645556	yellow	11	14,322,256 Body	OpenSea	RRAS2	0.792	-0.003	0.300	0.672
cg12795893	yellow	12	57,038,757 Body	N_Shore	ATP5B	0.792	0.003	0.618	0.693
cg17266475	yellow	15	92,642,144 Body	OpenSea	SLCO3A1	0.792	0.014	0.528	0.081
cg10507988	yellow	2	46,593,271 Body	OpenSea	EPAS1	0.792	0.001	0.743	0.915
cg23501005	yellow	3	195,870,009	OpenSea		0.792	-0.002	0.685	0.839
cg16449219	yellow	14	51,290,169 5'UTR	OpenSea	NIN	0.792	0.015	0.672	0.222
cg22542139	yellow	17	17,465,476 Body	S_Shore	PEMT	0.792	0.002	0.847	0.826
cg16054278	yellow	1	212,620,748	OpenSea		0.792	0.002	0.900	0.759
cg21392385	yellow	15	52,428,589 Body	OpenSea	GNB5	0.792	0.013	0.660	0.126
cg20000132	yellow	1	204,956,398 Body	OpenSea	NFASC	0.792	0.000	0.455	0.957
cg20048045	yellow	10	73,770,523 3'UTR	S_Shelf	CHST3	0.792	0.021	0.708	0.104
cg05152300	yellow	16	17,458,534 Body	OpenSea	XYLT1	0.792	0.006	0.244	0.555
cg06888383	yellow	16	88,933,359 TSS1500	N_Shelf	PABPN1L	0.792	0.003	0.605	0.606
cg27097762	yellow	14	21,923,087	N_Shore		0.792	0.011	0.607	0.362
cg22301418	yellow	13	113,514,151 Body	OpenSea	ATP11A	0.792	0.001	0.779	0.909
cg13941760	yellow	2	198,063,781 TSS1500	OpenSea	ANKRD44	0.792	0.000	0.741	0.997
cg04208996	yellow	8	144,488,011	N_Shore		0.792	0.013	0.820	0.173
cg16110314	yellow	1	246,203,683 Body	OpenSea	SMYD3	0.792	-0.003	0.899	0.721
cg25514148	yellow	11	46,294,375	OpenSea		0.792	-0.003	0.467	0.480
cg11340527	yellow	11	58,953,689 Body	OpenSea	DTX4	0.791	0.009	0.572	0.167
cg10498429	yellow	11	64,051,762 TSS1500	N_Shore	GPR137	0.791	0.000	0.104	0.951
cg18450582	yellow	7	95,546,539 Body	OpenSea	DYNC1I1	0.791	-0.016	0.452	0.422
cg16661744	yellow	17	60,868,835 Body	OpenSea	10-Mar	0.791	0.006	0.398	0.619
cg27534833	yellow	12	123,347,897	N_Shelf		0.791	0.004	0.241	0.542
cg06367149	yellow	15	61,254,575 Body	OpenSea	RORA	0.791	0.013	0.636	0.280
cg16447680	yellow	12	55,379,100 TSS1500	OpenSea	KIAA0748	0.791	0.009	0.476	0.496
cg09244244	yellow	5	94,891,907 Body	S_Shore	ARSK	0.791	-0.004	0.099	0.600
cg05019173	yellow	10	134,860,050	N_Shore		0.791	0.006	0.840	0.362
cg22532475	yellow	10	104,410,764 Body	OpenSea	TRIM8	0.791	0.006	0.672	0.411
cg00265826	yellow	6	82,323,837	OpenSea		0.791	0.011	0.489	0.352
cg12712481	yellow	7	75,934,414	S_Shore		0.791	0.031	0.607	0.035
cg17425584	yellow	11	115,261,735 Body	OpenSea	CADM1	0.791	0.010	0.805	0.486
cg01406456	yellow	2	62,520,912	OpenSea		0.791	0.017	0.318	0.033
cg05361406	yellow	12	119,616,913 5'UTR	OpenSea	HSPB8	0.791	0.006	0.267	0.408
cg12411858	yellow	22	20,863,268 Body	S_Shore	MED15	0.791	0.007	0.641	0.382
cg23690893	yellow	19	14,671,371 Body	OpenSea	TECR	0.791	0.011	0.749	0.286
cg13282971	yellow	11	62,309,364 5'UTR	N_Shelf	AHNAK	0.791	0.007	0.609	0.377
cg16300565	yellow	5	32,388,665 Body	OpenSea	ZFR	0.791	-0.006	0.843	0.521
cg03753642	yellow	8	75,261,222 TSS1500	N_Shore	GDAP1	0.791	-0.016	0.888	0.040
cg02235918	yellow	6	72,043,561	OpenSea		0.791	0.013	0.868	0.229
cg03260530	yellow	17	81,049,494 Body	N_Shore	METRNL	0.791	0.004	0.648	0.734
cg23974688	yellow	17	49,333,393 5'UTR	N_Shelf	MBTD1	0.791	-0.007	0.877	0.335
cg10352237	yellow	22	46,481,248 TSS1500	N_Shore	LOC400931	0.791	0.003	0.944	0.490
cg01821684	yellow	7	6,415,217 Body	S_Shore	RAC1	0.791	0.028	0.631	0.052
cg27246744	yellow	3	31,746,590 Body	OpenSea	OSBPL10	0.791	0.011	0.525	0.122
cg20756245	yellow	4	1,201,588 Body	N_Shore	LOC1001308	0.791	0.018	0.534	0.063

cg00382185	yellow	17	4,464,011	TSS200	OpenSea	GGT6	0.791	0.012	0.541	0.093
cg06521145	yellow	19	2,048,650	Body	N_Shore	MKNK2	0.791	0.007	0.487	0.260
cg14928057	yellow	17	4,891,542	3'UTR	S_Shore	INCA1	0.791	0.006	0.103	0.503
cg26290391	yellow	8	57,672,069		OpenSea		0.791	0.006	0.761	0.602
cg06906464	yellow	7	134,288,099		OpenSea		0.791	0.033	0.496	0.011
cg21650862	yellow	2	62,899,546	TSS1500	OpenSea	EHBP1	0.791	0.002	0.923	0.731
cg01628067	yellow	1	2,222,419	Body	Island	SKI	0.791	-0.009	0.165	0.188
cg01076459	yellow	17	2,908,230	Body	OpenSea	RAP1GAP2	0.791	0.003	0.749	0.752
cg15663823	yellow	5	64,103,336	Body	OpenSea	SDCCAG10	0.791	-0.005	0.789	0.667
cg10504000	yellow	11	2,402,391	Body	S_Shelf	CD81	0.791	-0.001	0.493	0.934
cg08618173	yellow	16	81,709,749	Body	N_Shelf	CMIP	0.791	0.002	0.517	0.848
cg06780202	yellow	12	48,099,217	5'UTR	N_Shore	RPAP3	0.791	0.005	0.059	0.246
cg20099806	yellow	17	61,849,988	5'UTR	N_Shore	CCDC47	0.791	0.004	0.646	0.680
cg14318679	yellow	17	700,464		OpenSea		0.791	-0.001	0.864	0.815
cg05131034	yellow	16	88,773,950	Body	S_Shore	CTU2	0.791	0.017	0.505	0.025
cg18923105	yellow	14	64,675,705	Body	OpenSea	SYNE2	0.791	0.010	0.763	0.204
cg17837526	yellow	5	172,410,489	TSS1500	N_Shore	ATP6V0E1	0.791	0.003	0.066	0.652
cg10835823	yellow	5	169,659,763	TSS200	N_Shore	C5orf58	0.791	0.000	0.685	0.979
cg00095333	yellow	17	70,172,535		OpenSea		0.791	-0.005	0.888	0.453
cg20765522	yellow	6	32,154,715	Body	OpenSea	PBX2	0.791	0.003	0.664	0.663
cg13553147	yellow	1	45,243,960	TSS200	S_Shelf	SNORD38B	0.791	0.008	0.486	0.211
cg27611263	yellow	2	40,007,061	TSS1500	S_Shore	THUMPD2	0.791	0.016	0.522	0.146
cg16308270	yellow	1	205,344,150		OpenSea		0.791	0.019	0.333	0.044
cg10236631	yellow	14	36,899,948		OpenSea		0.791	0.002	0.692	0.807
cg09939948	yellow	15	90,548,043	5'UTR	S_Shelf	ZNF710	0.791	0.004	0.185	0.425
cg15991175	yellow	3	52,313,923	TSS1500	S_Shore	WDR82	0.791	0.010	0.629	0.187
cg07584031	yellow	2	233,416,387	TSS1500	S_Shore	TIGD1	0.791	-0.011	0.720	0.905
cg03287692	yellow	19	41,307,228	1stExon	Island	EGLN2	0.791	0.002	0.759	0.052
cg27302645	yellow	15	42,089,208	Body	OpenSea	MAPKBP1	0.791	0.026	0.798	0.020
cg01747518	yellow	14	103,994,927	TSS1500	N_Shore	TRMT61A	0.791	0.008	0.236	0.308
cg04166432	yellow	2	181,843,717	TSS1500	N_Shore	UBE2E3	0.791	0.013	0.418	0.118
cg11866107	yellow	14	60,650,956		OpenSea		0.790	-0.006	0.130	0.570
cg11932891	yellow	7	105,354,444	Body	OpenSea	ATXN7L1	0.790	0.010	0.725	0.138
cg15757012	yellow	2	21,116,968		OpenSea		0.790	0.008	0.475	0.495
cg06846495	yellow	2	232,326,668	Body	N_Shore	NCL	0.790	0.005	0.670	0.639
cg17635080	yellow	12	109,030,115		OpenSea		0.790	0.003	0.734	0.764
cg07150145	yellow	1	47,656,137	TSS1500	OpenSea	PDZK1IP1	0.790	0.022	0.457	0.002
cg14270890	yellow	9	133,762,659	3'UTR	S_Shore	ABL1	0.790	0.003	0.853	0.686
cg02751453	yellow	18	77,725,136	Body	S_Shore	HSBP1L1	0.790	0.018	0.247	0.127
cg26290219	yellow	6	33,128,906		N_Shore		0.790	0.017	0.379	0.060
cg14574843	yellow	4	24,281,858		OpenSea		0.790	0.001	0.503	0.933
cg06511330	yellow	1	234,635,574		OpenSea		0.790	0.030	0.577	0.071
cg11216632	yellow	1	155,944,655	Body	N_Shelf	ARHGEF2	0.790	-0.011	0.284	0.235
cg23688465	yellow	14	21,486,042	Body	OpenSea	NDRG2	0.790	-0.003	0.820	0.623
cg00732656	yellow	3	150,459,814	3'UTR	OpenSea	SIAH2	0.790	0.006	0.624	0.673
cg14812743	yellow	6	136,405,726	Body	OpenSea	PDE7B	0.790	0.009	0.705	0.312
cg04650094	yellow	6	41,006,974	TSS200	OpenSea	UNC5CL	0.790	-0.010	0.247	0.052
cg16547579	yellow	20	4,954,333	5'UTR	OpenSea	SLC23A2	0.790	0.005	0.209	0.817
cg18986218	yellow	14	91,225,366	Body	S_Shore	TTC7B	0.790	0.007	0.601	0.414
cg19534805	yellow	19	6,418,059	Body	S_Shelf	KHSRP	0.790	0.013	0.744	0.229
cg14402017	yellow	11	300,490	TSS1500	S_Shore	IFITM5	0.790	0.016	0.429	0.122
cg23647768	yellow	11	1,054,538		N_Shore		0.790	0.010	0.339	0.142
cg06522206	yellow	12	117,651,299	3'UTR	OpenSea	NOS1	0.790	-0.009	0.709	0.504
cg20240791	yellow	1	226,068,334	5'UTR	N_Shore	TMEM63A	0.790	0.001	0.709	0.851
cg13420413	yellow	1	2,347,015		S_Shore		0.790	0.002	0.682	0.822
cg05208400	yellow	2	227,538,347		OpenSea		0.790	0.009	0.269	0.207
cg11246422	yellow	11	12,620,869		OpenSea		0.790	0.002	0.703	0.825
cg18665526	yellow	5	135,361,707		N_Shelf		0.790	0.010	0.684	0.383
cg20215212	yellow	17	28,618,041	Body	N_Shore	BLMH	0.790	0.009	0.252	0.209
cg15895121	yellow	5	141,625,843		OpenSea		0.790	0.008	0.344	0.359
cg01595951	yellow	5	54,834,655		S_Shelf		0.790	0.002	0.639	0.808
cg03365520	yellow	2	54,867,326	Body	OpenSea	SPTBN1	0.790	0.015	0.799	0.079
cg04327010	yellow	8	102,233,884		N_Shelf		0.790	0.001	0.852	0.851
cg07090356	yellow	18	23,668,764	Body	N_Shore	SS18	0.790	0.004	0.749	0.591
cg10281889	yellow	16	67,450,719	TSS1500	S_Shore	ZDHHC1	0.790	-0.007	0.196	0.319
cg04850059	yellow	1	225,883,161		OpenSea		0.789	0.007	0.766	0.485
cg13876325	yellow	17	16,190,098	Body	OpenSea	PIGL	0.789	0.010	0.426	0.235

cg20966553	yellow	6	20,313,787	OpenSea		0.789	0.004	0.758	0.504
cg09832443	yellow	7	28,612,680 Body	OpenSea	CREB5	0.789	0.006	0.690	0.457
cg01999566	yellow	6	30,624,449 Body	OpenSea	DHX16	0.789	0.004	0.596	0.513
cg21616047	yellow	2	224,467,359 TSS1500	OpenSea	SCG2	0.789	0.009	0.137	0.338
cg15010006	yellow	6	31,937,973 TSS1500	N_Shore	STK19	0.789	0.002	0.729	0.679
cg04036049	yellow	12	57,923,710 3'UTR	OpenSea	MBD6	0.789	0.011	0.477	0.266
cg14629665	yellow	9	136,819,477 Body	OpenSea	VAV2	0.789	-0.001	0.733	0.814
cg13720022	yellow	9	95,264,477 Body	OpenSea	CENPP	0.789	0.006	0.608	0.312
cg17184255	yellow	1	12,304,762 Body	OpenSea	VPS13D	0.789	0.006	0.885	0.477
cg18759732	yellow	2	65,889,827	OpenSea		0.789	0.012	0.641	0.240
cg26776551	yellow	13	51,944,507 Body	OpenSea	INTS6	0.789	0.005	0.795	0.434
cg15052665	yellow	6	141,804,349	OpenSea		0.789	0.031	0.513	0.009
cg01333333	yellow	9	140,093,677 1stExon	N_Shore	C9orf75	0.789	0.006	0.609	0.389
cg08151828	yellow	19	11,093,828 5'UTR	OpenSea	SMARCA4	0.789	-0.009	0.856	0.350
cg21505923	yellow	3	72,226,668	OpenSea		0.789	-0.002	0.290	0.830
cg09517751	yellow	1	234,741,797 3'UTR	N_Shelf	IRF2BP2	0.789	0.012	0.045	0.030
cg12035782	yellow	2	232,757,030 TSS200	OpenSea	MIR1471	0.789	0.012	0.749	0.182
cg07820783	yellow	11	100,720,914 Body	OpenSea	FLJ32810	0.789	0.001	0.815	0.924
cg00819141	yellow	7	1,657,422	N_Shore		0.789	0.004	0.475	0.734
cg14060417	yellow	12	112,746,621	OpenSea		0.789	0.004	0.777	0.719
cg04427462	yellow	19	47,218,031 TSS1500	N_Shore	PRKD2	0.789	0.006	0.278	0.493
cg00502077	yellow	1	226,186,128 Body	N_Shore	C1orf55	0.789	0.008	0.693	0.351
cg24705010	yellow	6	42,229,503 Body	S_Shelf	TRERF1	0.789	-0.006	0.872	0.309
cg15846886	yellow	17	79,790,116 5'UTR	N_Shore	FAM195B	0.789	0.001	0.121	0.895
cg09351471	yellow	6	32,798,887 Body	OpenSea	TAP2	0.789	-0.005	0.759	0.581
cg21245718	yellow	9	93,943,683	OpenSea		0.789	0.000	0.699	0.980
cg13512830	yellow	3	149,530,294 TSS200	Island	RNF13	0.789	-0.003	0.062	0.769
cg13976496	yellow	5	135,156,607	OpenSea		0.789	0.002	0.805	0.790
cg04071779	yellow	7	30,517,627 5'UTR	N_Shore	NOD1	0.789	0.007	0.239	0.299
cg07210669	yellow	4	6,695,475 TSS200	OpenSea	S100P	0.789	-0.004	0.671	0.788
cg03135577	yellow	11	45,928,988 TSS200	OpenSea	C11orf94	0.789	0.007	0.665	0.249
cg20382601	yellow	13	110,571,583	OpenSea		0.789	0.006	0.851	0.386
cg13576483	yellow	11	67,290,850 1stExon	S_Shelf	CABP2	0.789	0.017	0.532	0.018
cg13521367	yellow	9	80,650,395	S_Shelf		0.789	0.001	0.027	0.725
cg10352205	yellow	13	34,217,479	OpenSea		0.789	0.018	0.653	0.171
cg00547365	yellow	1	6,605,420 Body	OpenSea	NOL9	0.789	0.001	0.689	0.844
cg01861131	yellow	16	4,845,708 Body	OpenSea	LOC440335	0.789	-0.009	0.713	0.259
cg22908000	yellow	2	237,489,107 5'UTR	OpenSea	CXCR7	0.789	0.012	0.816	0.340
cg17397836	yellow	15	93,607,234 Body	N_Shore	RGMA	0.789	0.009	0.802	0.359
cg08358683	yellow	5	43,602,380 TSS1500	N_Shore	NNT	0.789	0.001	0.330	0.954
cg13725899	yellow	9	139,422,109 Body	S_Shore	NOTCH1	0.789	0.005	0.624	0.436
cg15972264	yellow	6	11,279,680 Body	OpenSea	NEDD9	0.789	0.008	0.765	0.447
cg11363527	yellow	4	72,125,918 Body	OpenSea	SLC4A4	0.788	0.001	0.579	0.867
cg15856748	yellow	13	101,629,969	OpenSea		0.788	-0.007	0.816	0.408
cg25072262	yellow	17	78,336,438 Body	OpenSea	RNF213	0.788	0.011	0.867	0.078
cg13882486	yellow	9	113,778,640 5'UTR	OpenSea	LPAR1	0.788	0.002	0.383	0.769
cg16639540	yellow	12	716,805 Body	N_Shore	NINJ2	0.788	0.000	0.267	0.990
cg06689816	yellow	5	158,639,111	S_Shelf		0.788	-0.009	0.438	0.457
cg00288844	yellow	16	11,835,360 Body	N_Shore	TXNDC11	0.788	0.010	0.674	0.187
cg20696451	yellow	10	14,881,628 Body	S_Shore	HSPA14	0.788	0.015	0.679	0.035
cg02566359	yellow	7	73,095,446 3'UTR	N_Shore	DNAJC30	0.788	0.013	0.663	0.102
cg16454426	yellow	8	49,984,564 TSS1500	OpenSea	C8orf22	0.788	0.004	0.719	0.742
cg09936572	yellow	1	16,932,575 5'UTR	OpenSea	NBPF1	0.788	0.003	0.806	0.748
cg08469834	yellow	11	104,839,074 Body	OpenSea	CASP4	0.788	0.004	0.126	0.593
cg09538452	yellow	19	18,496,756 TSS1500	N_Shore	GDF15	0.788	0.009	0.341	0.212
cg11869184	yellow	7	100,062,030 TSS200	OpenSea	C7orf61	0.788	0.005	0.825	0.441
cg11580844	yellow	6	32,097,158 TSS1500	N_Shore	ATF6B	0.788	-0.001	0.850	0.861
cg16595667	yellow	14	77,567,533 5'UTR	S_Shelf	KIAA1737	0.788	0.008	0.539	0.261
cg03347927	yellow	21	44,526,464 5'UTR	N_Shore	U2AF1	0.788	0.024	0.508	0.061
cg24497361	yellow	11	3,858,493 5'UTR	N_Shelf	RHOG	0.788	0.006	0.842	0.258
cg02886263	yellow	16	14,403,144 Body	OpenSea	MIR365-1	0.788	0.007	0.309	0.471
cg07534823	yellow	11	126,687,800 Body	OpenSea	KIRREL3	0.788	0.008	0.670	0.242
cg13104187	yellow	4	42,711,967	OpenSea		0.788	0.007	0.707	0.574
cg03331035	yellow	8	135,813,886 TSS1500	OpenSea	MIR30B	0.788	0.010	0.639	0.214
cg14024321	yellow	9	95,286,432 Body	OpenSea	CENPP	0.788	0.008	0.729	0.240
cg00745693	yellow	7	1,136,023 Body	S_Shore	C7orf50	0.788	0.010	0.569	0.145
cg00137016	yellow	19	52,675,231 TSS1500	S_Shore	ZNF836	0.788	0.014	0.468	0.058

cg17755082	yellow	4	187,621,221	Body	OpenSea	FAT1	0.788	0.006	0.600	0.485
cg16245345	yellow	5	179,922,339	5'UTR	S_Shore	CNOT6	0.788	0.002	0.206	0.823
cg23972735	yellow	12	121,890,311	Body	Island	KDM2B	0.788	-0.012	0.805	0.116
cg16414052	yellow	16	1,704,944	Body	N_Shore	CRAMP1L	0.788	0.003	0.916	0.569
cg23498925	yellow	13	52,952,113	Body	OpenSea	THSD1	0.788	-0.002	0.781	0.751
cg00253398	yellow	22	46,833,806	Body	N_Shore	CELSR1	0.788	0.018	0.506	0.061
cg18670076	yellow	3	189,675,162	3'UTR	OpenSea	LEPREL1	0.788	0.000	0.836	0.957
cg11367973	yellow	12	51,633,848	Body	S_Shore	DAZAP2	0.788	-0.004	0.412	0.641
cg10383424	yellow	6	12,586,134		OpenSea		0.788	-0.003	0.806	0.650
cg27597681	yellow	2	241,264,261		S_Shore		0.788	0.005	0.760	0.520
cg22332666	yellow	2	190,628,945	TSS1500	OpenSea	OSGEPL1	0.788	0.000	0.716	0.959
cg01349368	yellow	12	3,000,903	Body	S_Shore	TULP3	0.788	0.015	0.326	0.076
cg25881535	yellow	12	52,625,897	TSS1500	N_Shore	KRT7	0.788	0.009	0.697	0.255
cg01470599	yellow	9	38,422,794	Body	N_Shore	IGFBPL1	0.788	-0.008	0.778	0.294
cg23975973	yellow	7	95,546,556	Body	OpenSea	DYNC111	0.788	-0.009	0.343	0.465
cg04873188	yellow	2	70,143,463	Body	S_Shore	MXD1	0.788	0.009	0.715	0.521
cg13665414	yellow	6	110,796,813	Body	N_Shore	SLC22A16	0.788	0.001	0.514	0.879
cg15076217	yellow	1	207,975,699	TSS1500	OpenSea	MIR29C	0.788	0.004	0.560	0.390
cg13995774	yellow	5	179,189,810	Body	OpenSea	MAML1	0.788	0.007	0.695	0.412
cg06312848	yellow	7	32,919,504	5'UTR	OpenSea	KBTBD2	0.788	0.015	0.470	0.276
cg15604953	yellow	1	226,078,135	TSS1500	S_Shelf	LEFTY1	0.788	0.000	0.510	0.981
cg16306706	yellow	1	42,643,274	3'UTR	OpenSea	FOXJ3	0.788	-0.001	0.050	0.694
cg23664174	yellow	4	54,357,316	Body	OpenSea	LNX1	0.787	0.011	0.343	0.326
cg15277378	yellow	7	5,272,208	3'UTR	OpenSea	WIPI2	0.787	0.000	0.826	0.980
cg18696348	yellow	7	22,400,418		S_Shelf		0.787	-0.005	0.935	0.171
cg24581650	yellow	5	172,263,112	Body	S_Shore	ERGIC1	0.787	0.003	0.866	0.550
cg22987011	yellow	5	75,753,776	Body	OpenSea	IQGAP2	0.787	-0.008	0.376	0.544
cg08211704	yellow	8	124,007,664		OpenSea		0.787	0.006	0.646	0.516
cg14523238	yellow	9	101,192,792	Body	OpenSea	GABBR2	0.787	-0.005	0.123	0.561
cg26020695	yellow	13	46,355,841	3'UTR	OpenSea	SIAH3	0.787	0.010	0.420	0.380
cg17415265	yellow	17	63,225,111		OpenSea		0.787	-0.008	0.455	0.726
cg07132492	yellow	13	113,492,042	Body	N_Shore	ATP11A	0.787	0.019	0.732	0.066
cg10434977	yellow	8	67,472,493		OpenSea		0.787	0.012	0.229	0.240
cg00705894	yellow	19	53,189,507	Body	N_Shelf	ZNF83	0.787	-0.003	0.851	0.717
cg12081325	yellow	1	45,413,279	Body	OpenSea	EIF2B3	0.787	-0.009	0.137	0.242
cg01304894	yellow	16	70,715,140	Body	S_Shore	MTSS1L	0.787	0.005	0.726	0.370
cg03390416	yellow	17	47,666,241		OpenSea		0.787	-0.002	0.848	0.744
cg11119767	yellow	2	174,024,669	Body	OpenSea	ZAK	0.787	0.017	0.254	0.083
cg00510956	yellow	1	32,478,440	TSS1500	N_Shore	KHDRBS1	0.787	0.002	0.864	0.836
cg25996077	yellow	2	228,331,319		OpenSea		0.787	0.006	0.537	0.436
cg08931647	yellow	16	832,963	TSS200	Island	MSLNL	0.787	0.000	0.869	0.987
cg03380645	yellow	2	85,895,048	Body	OpenSea	SFTPB	0.787	0.006	0.629	0.472
cg23878490	yellow	14	62,265,250		OpenSea		0.787	0.016	0.636	0.309
cg14642395	yellow	11	64,322,079	TSS1500	OpenSea	SLC22A11	0.787	0.021	0.503	0.072
cg21837569	yellow	3	50,126,067	TSS1500	N_Shore	RBM5	0.787	0.003	0.757	0.668
cg01900358	yellow	5	1,476,090	Body	OpenSea	LPCAT1	0.787	-0.001	0.754	0.873
cg02466798	yellow	19	941,571	Body	Island	ARID3A	0.787	0.015	0.582	0.053
cg02483204	yellow	12	116,893,985		OpenSea		0.787	0.014	0.068	0.061
cg27015161	yellow	2	24,816,070	5'UTR	OpenSea	NCOA1	0.787	0.004	0.823	0.600
cg26683252	yellow	17	54,802,123		OpenSea		0.787	-0.011	0.824	0.185
cg12334842	yellow	4	184,127,739	Body	OpenSea	WWC2	0.787	0.001	0.919	0.915
cg06813782	yellow	20	31,046,836	Body	S_Shelf	C20orf112	0.787	-0.002	0.862	0.769
cg16323609	yellow	3	48,885,591	TSS1500	S_Shore	PRKAR2A	0.787	0.009	0.649	0.218
cg09564253	yellow	17	37,028,105	Body	S_Shore	LASP1	0.787	0.008	0.269	0.167
cg06853697	yellow	1	1,868,638		OpenSea		0.787	0.008	0.728	0.314
cg25137372	yellow	12	96,390,059	1stExon	S_Shore	HAL	0.787	0.008	0.451	0.444
cg05231542	yellow	2	219,902,901	Body	N_Shelf	CCDC108	0.787	0.007	0.625	0.326
cg03265490	yellow	2	27,371,840	TSS200	N_Shore	TCF23	0.787	0.009	0.428	0.167
cg08015496	yellow	1	160,314,061	Body	S_Shore	NCSTN	0.787	0.005	0.674	0.538
cg13300689	yellow	12	9,826,503	Body	OpenSea	CLEC2D	0.787	0.004	0.402	0.687
cg08411235	yellow	11	35,297,026	Body	OpenSea	SLC1A2	0.787	0.018	0.664	0.073
cg15925505	yellow	6	36,854,355	Body	S_Shore	Gorf89	0.787	0.019	0.382	0.129
cg05110225	yellow	7	56,131,707	TSS1500	N_Shore	SUMF2	0.787	0.004	0.169	0.425
cg05366909	yellow	11	125,333,752	Body	OpenSea	FEZ1	0.787	-0.005	0.566	0.751
cg05100650	yellow	15	44,212,363	Body	OpenSea	FRMD5	0.787	0.015	0.575	0.072
cg07636142	yellow	7	69,292,759	Body	OpenSea	AUTS2	0.787	-0.003	0.535	0.681
cg25437886	yellow	3	45,677,346	Body	OpenSea	LIMD1	0.787	0.006	0.588	0.628

cg04742397	yellow	14	95,986,554	S_Shelf		0.787	0.009	0.579	0.200
cg21937462	yellow	21	45,561,490 Body	S_Shore	C21orf33	0.787	-0.006	0.671	0.316
cg01509243	yellow	14	105,123,576	N_Shelf		0.787	-0.003	0.488	0.665
cg01868347	yellow	2	38,817,587 Body	OpenSea	HNRPLL	0.787	-0.005	0.890	0.619
cg11219614	yellow	8	49,984,776 TSS200	OpenSea	C8orf22	0.786	-0.005	0.182	0.593
cg10112270	yellow	1	21,913,458	OpenSea		0.786	-0.007	0.186	0.460
cg10962805	yellow	2	125,672,110 3'UTR	OpenSea	CNTNAP5	0.786	-0.006	0.881	0.214
cg26918987	yellow	5	179,518,013	S_Shore		0.786	-0.002	0.248	0.794
cg21557473	yellow	7	69,289,866 Body	OpenSea	AUTS2	0.786	0.001	0.336	0.923
cg21631428	yellow	4	122,298,456 Body	N_Shelf	QRFPR	0.786	0.005	0.616	0.653
cg16265140	yellow	1	3,078,206 Body	N_Shelf	PRDM16	0.786	0.003	0.767	0.730
cg00904578	yellow	17	63,009,964 3'UTR	OpenSea	GNA13	0.786	-0.006	0.936	0.286
cg09264231	yellow	1	178,056,133	OpenSea		0.786	0.001	0.728	0.863
cg15169374	yellow	10	18,629,677 Body	OpenSea	CACNB2	0.786	0.015	0.149	0.152
cg22371859	yellow	3	9,005,479 TSS1500	S_Shore	RAD18	0.786	-0.005	0.115	0.507
cg06337342	yellow	7	27,963,567 Body	OpenSea	JAZF1	0.786	0.007	0.746	0.300
cg14360029	yellow	9	131,168,250	OpenSea		0.786	-0.003	0.793	0.739
cg06270545	yellow	15	65,385,417 3'UTR	OpenSea	LOC390595	0.786	0.009	0.821	0.241
cg23025459	yellow	1	3,134,420 Body	OpenSea	PRDM16	0.786	0.004	0.768	0.532
cg05487954	yellow	10	38,144,887 Body	N_Shore	ZNF248	0.786	0.007	0.684	0.413
cg02182794	yellow	4	13,369,795 3'UTR	OpenSea	RAB28	0.786	0.000	0.427	0.979
cg14435997	yellow	2	1,808,183 Body	OpenSea	MYT1L	0.786	0.023	0.823	0.013
cg16286142	yellow	3	10,215,652 Body	OpenSea	IRAK2	0.786	0.012	0.424	0.095
cg13706784	yellow	16	1,014,975 Body	Island	LMF1	0.786	0.003	0.674	0.652
cg17945755	yellow	6	78,362,377	S_Shelf		0.786	0.009	0.877	0.337
cg19871361	yellow	10	11,505,280 Body	Island	USP6NL	0.786	-0.008	0.880	0.239
cg01523772	yellow	17	79,955,171 Body	N_Shelf	ASPSR1	0.786	-0.004	0.667	0.584
cg10993074	yellow	6	31,627,313 1stExon	N_Shore	C6orf47	0.786	-0.004	0.694	0.557
cg10308253	yellow	6	149,803,111 5'UTR	OpenSea	ZC3H12D	0.786	0.024	0.419	0.069
cg07905975	yellow	6	33,288,366 Body	N_Shore	DAXX	0.786	0.016	0.804	0.112
cg06992846	yellow	8	126,448,837 3'UTR	OpenSea	TRIB1	0.786	-0.012	0.809	0.157
cg00240880	yellow	20	43,343,233 TSS1500	OpenSea	WISP2	0.786	0.013	0.663	0.158
cg00866632	yellow	3	52,028,763 Body	N_Shore	RPL29	0.786	0.001	0.791	0.873
cg07611626	yellow	8	139,784,450 Body	OpenSea	COL22A1	0.786	0.007	0.886	0.248
cg05266796	yellow	6	16,723,783 5'UTR	OpenSea	ATXN1	0.786	0.005	0.700	0.694
cg12001930	yellow	7	134,212,339 TSS200	OpenSea	AKR1B10	0.786	0.006	0.375	0.503
cg06259934	yellow	10	81,034,374 Body	OpenSea	ZMIZ1	0.786	0.012	0.590	0.346
cg19130630	yellow	7	47,706,474	OpenSea		0.786	0.007	0.677	0.316
cg06752267	yellow	5	177,799,205 Body	OpenSea	COL23A1	0.786	0.014	0.600	0.235
cg23565826	yellow	17	75,548,591	OpenSea		0.786	0.004	0.448	0.510
cg14643497	yellow	11	65,150,181 TSS200	N_Shelf	SLC25A45	0.786	-0.001	0.053	0.608
cg20404260	yellow	18	2,917,509 3'UTR	OpenSea	LPIN2	0.786	0.004	0.814	0.577
cg12420283	yellow	1	173,990,399	N_Shore		0.786	0.007	0.050	0.167
cg07372450	yellow	10	18,679,429 Body	OpenSea	CACNB2	0.786	0.002	0.903	0.713
cg24216893	yellow	2	1,426,674 Body	OpenSea	TPO	0.786	0.031	0.748	0.058
cg27303733	yellow	11	8,007,457 TSS1500	N_Shore	EIF3F	0.786	0.005	0.723	0.626
cg26040244	yellow	2	98,858,011 Body	OpenSea	VWA3B	0.786	0.015	0.731	0.177
cg26775695	yellow	11	1,229,901	S_Shore		0.785	0.003	0.815	0.743
cg11571702	yellow	5	134,690,408 Body	OpenSea	H2AFY	0.785	-0.005	0.929	0.323
cg02570354	yellow	3	31,728,749 Body	OpenSea	OSBPL10	0.785	0.004	0.489	0.657
cg21700772	yellow	7	1,644,443	S_Shore		0.785	0.004	0.667	0.681
cg08776109	yellow	3	50,356,233 Body	N_Shore	HYAL2	0.785	-0.001	0.516	0.798
cg17270013	yellow	15	79,236,839 Body	N_Shore	CTSH	0.785	-0.001	0.488	0.884
cg19185579	yellow	8	41,906,128 Body	N_Shelf	MYST3	0.785	-0.003	0.495	0.635
cg04592811	yellow	17	16,200,581 Body	OpenSea	PIGL	0.785	0.003	0.792	0.784
cg19389875	yellow	15	72,106,970 Body	S_Shelf	NR2E3	0.785	0.004	0.735	0.492
cg14994180	yellow	11	85,376,470 TSS1500	S_Shore	CREBZF	0.785	0.011	0.438	0.223
cg23803709	yellow	10	54,203,646	OpenSea		0.785	0.029	0.551	0.036
cg09956592	yellow	7	129,793,333	OpenSea		0.785	0.009	0.462	0.158
cg04099158	yellow	7	40,566,521 Body	OpenSea	C7orf10	0.785	-0.008	0.885	0.451
cg12360736	yellow	3	151,985,869 1stExon	N_Shore	MBNL1	0.785	-0.001	0.109	0.941
cg04897932	yellow	17	8,460,923 Body	OpenSea	MYH10	0.785	0.002	0.872	0.800
cg00700008	yellow	4	120,138,107 5'UTR	S_Shelf	USP53	0.785	-0.006	0.753	0.769
cg06703856	yellow	5	132,213,462 3'UTR	OpenSea	AFF4	0.785	0.005	0.732	0.517
cg18820060	yellow	5	3,536,525	S_Shore		0.785	0.008	0.807	0.308
cg00313106	yellow	1	228,562,526 Body	N_Shelf	OBSCN	0.785	0.009	0.669	0.276
cg05370136	yellow	19	36,910,116 TSS1500	S_Shore	ZFP82	0.785	0.014	0.336	0.259

cg05640322	yellow	1	228,285,781	3'UTR	N_Shelf	ARF1	0.785	0.006	0.911	0.195
cg10153733	yellow	9	33,042,787	3'UTR	N_Shore	SMU1	0.785	0.015	0.739	0.059
cg17915189	yellow	7	43,789,728		OpenSea		0.785	0.018	0.665	0.124
cg27336300	yellow	19	42,778,755		S_Shore		0.785	0.005	0.882	0.451
cg13687834	yellow	10	3,514,783		OpenSea		0.785	0.016	0.688	0.171
cg11145772	yellow	3	12,966,188	Body	OpenSea	IQSEC1	0.785	0.003	0.769	0.559
cg05141014	yellow	5	59,784,203	Body	OpenSea	PART1	0.785	0.002	0.697	0.817
cg02956542	yellow	1	153,321,421	TSS1500	OpenSea	PGLYRP4	0.785	0.005	0.525	0.496
cg02867145	yellow	3	53,162,890	Body	N_Shore	RFT1	0.785	-0.016	0.733	0.119
cg08902698	yellow	19	1,271,174	TSS1500	S_Shore	C19orf23	0.785	-0.007	0.701	0.251
cg13524037	yellow	6	32,904,074	Body	OpenSea	HLA-DMB	0.785	0.010	0.494	0.265
cg10430205	yellow	1	89,357,988	TSS1500	S_Shore	GTF2B	0.785	-0.005	0.754	0.666
cg26804891	yellow	16	2,055,242	Body	S_Shore	ZNF598	0.785	0.011	0.808	0.329
cg07157396	yellow	6	170,760,710		N_Shelf		0.785	-0.002	0.803	0.734
cg06848487	yellow	10	116,337,203	Body	OpenSea	ABLIM1	0.785	0.009	0.846	0.420
cg00639215	yellow	16	4,702,769	Body	Island	MGRN1	0.784	0.008	0.912	0.327
cg01101020	yellow	12	132,562,425	3'UTR	OpenSea	EP400	0.784	0.001	0.862	0.883
cg00941010	yellow	8	107,218,994		OpenSea		0.784	0.008	0.737	0.372
cg26240231	yellow	7	1,148,101	Body	N_Shore	C7orf50	0.784	0.001	0.720	0.948
cg01321088	yellow	4	91,156,155	5'UTR	OpenSea	FAM190A	0.784	0.010	0.737	0.404
cg07385490	yellow	5	1,318,548	Body	OpenSea	CLPTM1L	0.784	0.000	0.818	0.965
cg12030031	yellow	6	6,614,798	Body	OpenSea	LOC285780	0.784	-0.017	0.493	0.032
cg08287306	yellow	16	66,585,924	TSS1500	N_Shore	CKLF	0.784	0.003	0.480	0.748
cg13941682	yellow	4	702,545	5'UTR	S_Shelf	PCGF3	0.784	-0.014	0.850	0.176
cg27067922	yellow	6	147,643,548	Body	OpenSea	STXBP5	0.784	0.023	0.705	0.267
cg10881110	yellow	1	16,062,737	TSS200	OpenSea	SLC25A34	0.784	0.007	0.610	0.452
cg18547299	yellow	19	14,049,578	Body	OpenSea	PODNL1	0.784	0.002	0.282	0.788
cg22510662	yellow	5	36,202,853	Body	OpenSea	C5orf33	0.784	0.006	0.616	0.428
cg17373345	yellow	8	66,946,188	5'UTR	OpenSea	DNAJC5B	0.784	0.000	0.817	0.963
cg26771969	yellow	19	15,358,258	3'UTR	OpenSea	BRD4	0.784	0.012	0.643	0.033
cg14960373	yellow	21	47,530,705	5'UTR	N_Shore	COL6A2	0.784	0.007	0.717	0.524
cg16540789	yellow	16	75,150,784	TSS200	S_Shore	LDHD	0.784	0.001	0.439	0.915
cg08784966	yellow	6	37,248,768	Body	OpenSea	TBC1D22B	0.784	-0.004	0.672	0.574
cg02592743	yellow	6	46,889,624	5'UTR	OpenSea	GPR116	0.784	0.012	0.602	0.064
cg05041871	yellow	2	1,732,234	Body	OpenSea	PXDN	0.784	0.008	0.705	0.349
cg21922731	yellow	12	57,157,130	5'UTR	OpenSea	HSD17B6	0.784	-0.003	0.092	0.517
cg06869505	yellow	1	15,527,517	5'UTR	OpenSea	TMEM51	0.784	0.004	0.626	0.526
cg25199254	yellow	1	77,230,837		OpenSea		0.784	0.020	0.444	0.050
cg23565749	yellow	11	102,188,025	TSS200	N_Shore	BIRC3	0.784	0.002	0.045	0.697
cg26488978	yellow	6	42,247,372	5'UTR	OpenSea	TRERF1	0.784	0.010	0.708	0.145
cg05501426	yellow	16	1,037,381		Island		0.784	0.017	0.165	0.235
cg21643547	yellow	1	205,240,462	Body	S_Shore	TMCC2	0.784	0.007	0.696	0.642
cg07141317	yellow	1	2,327,775	Body	OpenSea	RER1	0.784	0.001	0.900	0.759
cg00795584	yellow	6	82,649,352		OpenSea		0.784	0.001	0.613	0.947
cg24343430	yellow	8	117,457,111		OpenSea		0.784	0.011	0.679	0.209
cg14505741	yellow	4	1,202,780	TSS200	N_Shore	LOC1001308	0.784	0.002	0.799	0.770
cg07346648	yellow	1	1,266,657	TSS200	N_Shore	TAS1R3	0.784	0.004	0.678	0.587
cg23741330	yellow	6	116,832,940	1stExon	OpenSea	FAM26E	0.784	0.007	0.280	0.408
cg10794973	yellow	6	43,692,678		OpenSea		0.784	0.004	0.862	0.568
cg01215525	yellow	1	33,591,142		N_Shore		0.784	0.009	0.761	0.142
cg15490643	yellow	2	44,935,276	Body	OpenSea	C2orf34	0.784	0.009	0.224	0.347
cg13369817	yellow	1	55,116,866	Body	OpenSea	C1orf175	0.784	0.020	0.472	0.125
cg04009429	yellow	7	100,883,125	Body	OpenSea	FIS1	0.784	0.008	0.863	0.281
cg15090834	yellow	20	310,001	1stExon	S_Shore	SOX12	0.784	0.000	0.290	0.954
cg09957933	yellow	15	57,065,793		OpenSea		0.784	-0.016	0.836	0.050
cg06239726	yellow	7	50,517,434	5'UTR	N_Shore	FIGNL1	0.784	0.007	0.176	0.319
cg27606671	yellow	11	67,914,463		OpenSea		0.784	0.011	0.623	0.078
cg25553466	yellow	10	133,945,935	Body	N_Shelf	JAKMIP3	0.784	0.017	0.500	0.453
cg23186952	yellow	11	58,384,274	Body	OpenSea	ZFP91	0.784	-0.004	0.839	0.733
cg17366544	yellow	8	145,154,839	Body	N_Shelf	SHARPIN	0.784	0.014	0.739	0.067
cg24994625	yellow	17	40,949,811	TSS1500	N_Shore	CNTD1	0.784	0.006	0.837	0.416
cg08614638	yellow	11	65,685,108	Body	Island	C11orf68	0.784	0.012	0.752	0.063
cg26058884	yellow	6	30,579,440	5'UTR	OpenSea	PPP1R10	0.784	0.005	0.827	0.412
cg08270023	yellow	12	132,619,174		N_Shore		0.784	0.021	0.720	0.006
cg15128365	yellow	19	1,554,655		N_Shore		0.784	-0.011	0.779	0.285
cg21757189	yellow	8	134,462,510		OpenSea		0.784	0.012	0.775	0.137
cg15666789	yellow	18	29,171,545	TSS200	OpenSea	TTR	0.784	0.002	0.773	0.796

cg27561222	yellow	1	85,411,171	Body	OpenSea	MCOLN2	0.784	0.018	0.206	0.161
cg19404207	yellow	7	99,587,136		OpenSea		0.784	0.003	0.795	0.704
cg05017154	yellow	10	92,213,236		OpenSea		0.784	0.007	0.675	0.331
cg04271289	yellow	19	1,152,147	Body	Island	SBNO2	0.784	-0.009	0.878	0.330
cg12133078	yellow	1	229,460,525	3'UTR	OpenSea	C1orf96	0.784	0.000	0.918	0.966
cg22496254	yellow	4	17,811,165	TSS1500	N_Shore	NCAPG	0.784	0.004	0.278	0.709
cg27407423	yellow	10	5,851,600	Body	N_Shelf	GDI2	0.783	0.004	0.567	0.526
cg16764778	yellow	15	41,061,410	Body	OpenSea	DNAJC17	0.783	0.002	0.644	0.848
cg19679302	yellow	7	81,238,309		N_Shelf		0.783	0.003	0.828	0.755
cg00795125	yellow	7	5,409,340	Body	N_Shore	TNRC18	0.783	0.007	0.816	0.419
cg14536764	yellow	2	46,229,463	Body	OpenSea	PRKCE	0.783	-0.001	0.625	0.916
cg01550348	yellow	1	85,809,159	Body	OpenSea	DDAH1	0.783	0.010	0.740	0.576
cg12254614	yellow	3	178,831,804		OpenSea		0.783	0.010	0.301	0.526
cg25318785	yellow	13	111,127,601	Body	OpenSea	COL4A2	0.783	-0.003	0.760	0.761
cg10462778	yellow	5	172,314,133	Body	OpenSea	ERGIC1	0.783	0.008	0.611	0.400
cg03196440	yellow	20	62,583,946	TSS1500	N_Shelf	UCKL1AS	0.783	0.014	0.774	0.011
cg21143428	yellow	5	136,640,472	Body	OpenSea	SPOCK1	0.783	0.011	0.265	0.222
cg17345994	yellow	11	57,567,448	Body	OpenSea	CTNND1	0.783	-0.002	0.745	0.833
cg22828383	yellow	12	125,002,191	5'UTR	Island	NCOR2	0.783	0.006	0.229	0.620
cg13509702	yellow	8	144,896,307	Body	N_Shore	SCRIB	0.783	0.000	0.725	0.991
cg13865610	yellow	7	17,598,458		OpenSea		0.783	0.006	0.704	0.619
cg05034446	yellow	1	209,961,872	Body	S_Shelf	IRF6	0.783	-0.003	0.721	0.703
cg03532673	yellow	7	102,787,746	5'UTR	N_Shore	NAPEPLD	0.783	0.012	0.485	0.263
cg04006143	yellow	4	140,217,312	TSS1500	S_Shore	NDUFC1	0.783	0.004	0.348	0.715
cg01855010	yellow	16	87,465,786	Body	OpenSea	ZCCHC14	0.783	0.004	0.711	0.572
cg18674267	yellow	14	74,039,910	Body	S_Shelf	ACOT2	0.783	0.009	0.567	0.195
cg03102442	yellow	8	125,738,432	Body	N_Shore	MTSS1	0.783	-0.005	0.513	0.551
cg19710672	yellow	22	21,982,391	3'UTR	N_Shore	YDJC	0.783	0.001	0.729	0.859
cg25136124	yellow	1	228,336,717	TSS1500	OpenSea	GJC2	0.783	0.001	0.748	0.902
cg17069437	yellow	7	100,064,485	3'UTR	OpenSea	TSC22D4	0.783	0.010	0.635	0.066
cg16034652	yellow	14	93,798,309	5'UTR	N_Shore	BTBD7	0.783	0.018	0.362	0.089
cg00097800	yellow	2	46,593,258	Body	OpenSea	EPAS1	0.783	0.002	0.792	0.807
cg24248367	yellow	3	102,452,667		OpenSea		0.783	0.014	0.676	0.153
cg01054110	yellow	12	125,002,332	5'UTR	Island	NCOR2	0.783	0.006	0.252	0.737
cg23882545	yellow	2	202,122,653	5'UTR	OpenSea	CASP8	0.783	0.035	0.465	0.024
cg06967127	yellow	17	1,358,271	Body	N_Shore	CRK	0.783	0.008	0.570	0.248
cg25368647	yellow	5	176,736,591	Body	N_Shore	MXD3	0.783	0.007	0.897	0.245
cg21045770	yellow	18	43,306,919	5'UTR	OpenSea	SLC14A1	0.783	0.003	0.733	0.681
cg06219806	yellow	11	62,308,810	5'UTR	OpenSea	AHNAK	0.783	0.000	0.811	0.942
cg22877380	yellow	2	131,804,299	3'UTR	OpenSea	ARHGEF4	0.783	0.001	0.844	0.814
cg20449726	yellow	1	15,276,987	Body	OpenSea	KIAA1026	0.783	0.010	0.654	0.210
cg17699047	yellow	4	153,230,630		OpenSea		0.783	-0.019	0.651	0.173
cg11569933	yellow	6	31,631,675	Body	N_Shore	BAT4	0.783	0.006	0.673	0.536
cg14984878	yellow	2	54,781,750	Body	N_Shelf	SPTBN1	0.783	-0.002	0.845	0.846
cg22734165	yellow	11	1,220,336		N_Shore		0.783	0.004	0.602	0.517
cg13166875	yellow	22	30,868,060	TSS200	OpenSea	SEC14L3	0.783	0.013	0.527	0.123
cg00822241	yellow	19	49,201,468	5'UTR	S_Shore	FUT2	0.783	0.003	0.450	0.654
cg02521750	yellow	16	81,712,054	Body	Island	CMIP	0.783	0.007	0.827	0.226
cg24428232	yellow	1	166,124,419	TSS1500	OpenSea	MIR921	0.783	0.003	0.554	0.563
cg17156633	yellow	1	46,215,776	5'UTR	N_Shore	IPP	0.783	0.014	0.288	0.115
cg27347434	yellow	3	32,726,203	TSS1500	N_Shore	CNOT10	0.783	0.013	0.262	0.160
cg26373541	yellow	4	6,644,336	3'UTR	S_Shore	MRFAP1	0.783	-0.009	0.654	0.441
cg09731079	yellow	16	67,263,157	3'UTR	S_Shelf	TMEM208	0.783	-0.016	0.866	0.080
cg12599598	yellow	4	185,923,887		N_Shelf		0.783	-0.011	0.662	0.258
cg05251190	yellow	10	104,196,206	TSS200	S_Shelf	MIR146B	0.783	0.003	0.669	0.703
cg22200744	yellow	2	2,030,359	5'UTR	OpenSea	MYT1L	0.783	0.007	0.664	0.403
cg24719489	yellow	1	164,735,833	Body	OpenSea	PBX1	0.783	0.001	0.762	0.909
cg20332503	yellow	7	143,081,287	Body	S_Shelf	ZYX	0.783	0.001	0.810	0.940
cg08835985	yellow	16	69,362,743	3'UTR	N_Shore	PDF	0.783	0.006	0.776	0.549
cg17345450	yellow	6	166,259,938		OpenSea		0.782	0.008	0.609	0.359
cg08915615	yellow	1	27,817,311	TSS1500	S_Shore	WASF2	0.782	-0.007	0.334	0.373
cg00959616	yellow	12	128,866,668	Body	OpenSea	TMEM132C	0.782	0.018	0.311	0.188
cg16405432	yellow	14	95,973,710		OpenSea		0.782	-0.004	0.798	0.715
cg00521255	yellow	5	139,726,689	TSS1500	S_Shore	HBEGF	0.782	-0.002	0.126	0.819
cg14059339	yellow	6	28,875,356	Body	OpenSea	TRIM27	0.782	-0.003	0.886	0.669
cg02104138	yellow	5	163,187,595		OpenSea		0.782	0.018	0.386	0.050
cg00435064	yellow	17	76,374,256	TSS1500	N_Shore	PGS1	0.782	0.002	0.493	0.800



cg17059388	yellow	4	177,262,070	OpenSea		0.782	0.008	0.648	0.548
cg26135172	yellow	3	45,595,231	OpenSea		0.782	-0.010	0.302	0.204
cg19676502	yellow	14	50,438,151	OpenSea		0.782	0.025	0.586	0.012
cg04011357	yellow	16	50,585,731 Body	S_Shelf	NKD1	0.782	0.003	0.908	0.567
cg09024606	yellow	1	2,324,221 TSS1500	S_Shore	MORN1	0.782	0.001	0.605	0.939
cg04539476	yellow	14	23,351,487 TSS1500	OpenSea	REM2	0.782	0.007	0.374	0.277
cg18956547	yellow	2	219,031,719 TSS200	OpenSea	CXCR1	0.782	0.000	0.607	0.960
cg18890020	yellow	12	112,081,363 3'UTR	OpenSea	BRAP	0.782	-0.014	0.151	0.108
cg01422262	yellow	1	108,506,291 Body	N_Shore	VAV3	0.782	0.012	0.074	0.087
cg15408360	yellow	14	102,432,104 Body	S_Shore	DYNC1H1	0.782	0.021	0.501	0.048
cg25593954	yellow	17	47,753,964 5'UTR	N_Shore	SPOP	0.782	0.012	0.397	0.031
cg26089541	yellow	12	53,264,923	N_Shelf		0.782	0.008	0.525	0.207
cg23818921	yellow	4	76,871,621 3'UTR	OpenSea	SDAD1	0.782	0.005	0.619	0.779
cg23323827	yellow	2	121,108,755 3'UTR	S_Shore	INHBB	0.782	-0.001	0.837	0.853
cg07572251	yellow	8	26,688,088 Body	OpenSea	ADRA1A	0.782	0.013	0.431	0.287
cg06838584	yellow	11	2,504,581 Body	OpenSea	KCNQ1	0.782	0.005	0.632	0.541
cg10101634	yellow	3	32,432,642 TSS1500	N_Shore	CMTM7	0.782	0.002	0.850	0.799
cg02340615	yellow	12	104,617,058 Body	OpenSea	TXNRD1	0.782	0.007	0.280	0.622
cg01115569	yellow	7	155,436,277 TSS1500	N_Shore	RBM33	0.782	0.003	0.392	0.625
cg18079948	yellow	10	20,009,221	OpenSea		0.782	0.015	0.497	0.245
cg20026633	yellow	3	49,837,529 TSS1500	N_Shelf	CDH29	0.782	0.003	0.561	0.708
cg27465569	yellow	12	44,153,853 5'UTR	S_Shore	IRAK4	0.782	-0.002	0.761	0.836
cg26537323	yellow	6	32,014,059 TSS200	OpenSea	TNXB	0.782	0.011	0.808	0.083
cg14734340	yellow	11	57,412,660 3'UTR	N_Shore	YPEL4	0.782	0.010	0.496	0.407
cg17173451	yellow	7	138,310,864 Body	OpenSea	SVOPL	0.782	0.003	0.447	0.557
cg26264896	yellow	2	131,655,129	OpenSea		0.782	0.006	0.767	0.346
cg12194594	yellow	13	113,426,250 Body	S_Shore	ATP11A	0.782	0.003	0.711	0.710
cg01244514	yellow	14	101,495,847 TSS200	OpenSea	MIR494	0.782	0.004	0.642	0.672
cg09169356	yellow	10	2,323,382	OpenSea		0.782	0.027	0.637	0.117
cg26182859	yellow	1	153,762,201	OpenSea		0.782	0.017	0.674	0.027
cg20876170	yellow	17	74,736,402 Body	S_Shelf	MFS11	0.782	0.020	0.685	0.048
cg20661303	yellow	1	226,129,561 TSS1500	S_Shore	LEFTY2	0.782	0.006	0.401	0.276
cg27185298	yellow	6	30,885,205 Body	S_Shelf	VARS2	0.782	-0.001	0.722	0.833
cg24787130	yellow	5	146,948,683	OpenSea		0.782	0.007	0.721	0.597
cg12250807	yellow	2	136,598,602 Body	OpenSea	MCM6	0.782	0.001	0.672	0.823
cg22120095	yellow	3	50,488,020 Body	OpenSea	CACNA2D2	0.782	0.009	0.395	0.446
cg00770317	yellow	10	13,424,911	OpenSea		0.782	0.018	0.410	0.044
cg07148594	yellow	3	52,565,909 Body	N_Shore	NT5DC2	0.782	-0.005	0.741	0.415
cg25194322	yellow	1	166,131,844 Body	N_Shelf	FAM78B	0.782	0.006	0.617	0.304
cg13587564	yellow	9	137,003,752 5'UTR	S_Shore	WDR5	0.782	-0.008	0.849	0.369
cg19622675	yellow	5	139,683,183 TSS1500	OpenSea	PFDN1	0.782	0.013	0.268	0.288
cg00349542	yellow	21	43,546,493 Body	N_Shore	UMODL1	0.782	0.001	0.819	0.892
cg07167594	yellow	22	19,010,468 Body	OpenSea	DGCR10	0.782	-0.011	0.583	0.283
cg03173502	yellow	6	15,505,345 Body	OpenSea	JARID2	0.782	0.009	0.106	0.354
cg15621458	yellow	12	97,300,429 TSS1500	N_Shore	NEDD1	0.782	-0.003	0.739	0.739
cg22949732	yellow	3	13,358,482 3'UTR	OpenSea	NUP210	0.782	0.006	0.711	0.368
cg12182708	yellow	10	99,223,744 Body	OpenSea	MMS19	0.782	0.001	0.555	0.933
cg02736746	yellow	1	208,263,446 Body	OpenSea	PLXNA2	0.782	0.022	0.726	0.043
cg07854954	yellow	4	83,348,086 Body	N_Shore	HNRPD1	0.781	0.002	0.393	0.837
cg18909389	yellow	6	31,701,110 Body	S_Shelf	CLIC1	0.781	0.006	0.485	0.365
cg20319654	yellow	2	29,121,607 Body	S_Shelf	WDR43	0.781	0.005	0.814	0.535
cg20730333	yellow	10	118,349,587 TSS1500	OpenSea	PNLIPRP1	0.781	0.005	0.608	0.279
cg04797957	yellow	17	76,840,488	S_Shelf		0.781	0.012	0.773	0.080
cg11223196	yellow	2	105,857,809 TSS1500	N_Shore	GPR45	0.781	0.008	0.674	0.327
cg25883405	yellow	7	104,865,796 Body	OpenSea	SRPK2	0.781	-0.001	0.788	0.913
cg26791879	yellow	10	131,005,696	OpenSea		0.781	0.039	0.737	0.068
cg09726198	yellow	3	58,448,969	OpenSea		0.781	0.019	0.836	0.053
cg07995893	yellow	7	104,650,933	N_Shelf		0.781	0.015	0.434	0.129
cg26164897	yellow	4	20,259,899 Body	S_Shelf	SLIT2	0.781	0.004	0.832	0.701
cg24299913	yellow	19	42,408,316 Body	Island	ARHGEF1	0.781	0.003	0.758	0.652
cg15209604	yellow	7	46,018,431	OpenSea		0.781	0.015	0.686	0.057
cg21967545	yellow	19	5,838,807 1stExon	OpenSea	FUT6	0.781	0.001	0.411	0.895
cg02730714	yellow	16	69,143,775 Body	Island	HAS3	0.781	-0.008	0.906	0.219
cg26236741	yellow	10	130,610,237	OpenSea		0.781	0.002	0.463	0.787
cg06913219	yellow	20	25,433,878 3'UTR	OpenSea	NINL	0.781	-0.002	0.097	0.804
cg13711966	yellow	2	42,071,660	S_Shelf		0.781	-0.004	0.809	0.665
cg10930366	yellow	14	67,752,711 Body	OpenSea	MPP5	0.781	0.016	0.696	0.251

cg06769377	yellow	1	228,350,860		N_Shelf		0.781	0.023	0.418	0.023
cg26244838	yellow	5	1,110,226	Body	N_Shore	SLC12A7	0.781	0.000	0.903	0.941
cg16872595	yellow	18	77,710,649	Body	N_Shore	PQLC1	0.781	-0.001	0.437	0.947
cg17926816	yellow	7	5,510,538		OpenSea		0.781	0.004	0.293	0.518
cg02952379	yellow	12	18,869,080	Body	OpenSea	PLCZ1	0.781	-0.003	0.498	0.826
cg14888579	yellow	11	46,426,289	Body	OpenSea	AMBRA1	0.781	-0.012	0.870	0.117
cg20364187	yellow	16	3,139,060	3'UTR	Island	ZSCAN10	0.781	-0.012	0.924	0.202
cg23837623	yellow	17	1,478,208	3'UTR	Island	SLC43A2	0.781	0.003	0.227	0.547
cg23851011	yellow	1	153,585,915	TSS1500	OpenSea	S100A16	0.781	0.006	0.798	0.376
cg15167202	yellow	5	149,997,153	5'UTR	OpenSea	SYNPO	0.781	-0.003	0.631	0.731
cg24174730	yellow	19	18,321,168	3'UTR	S_Shore	PDE4C	0.781	0.000	0.599	0.985
cg14917244	yellow	8	27,469,001	TSS200	N_Shelf	CLU	0.781	0.002	0.081	0.831
cg22111705	yellow	4	8,430,496	5'UTR	S_Shore	ACOX3	0.781	0.001	0.102	0.824
cg23558213	yellow	22	41,215,939	TSS1500	S_Shore	SLC25A17	0.781	-0.001	0.264	0.915
cg26956245	yellow	7	30,518,972	TSS1500	S_Shore	NOD1	0.781	0.019	0.278	0.175
cg08890627	yellow	17	75,196,940	Body	OpenSea	SEC14L1	0.781	0.006	0.418	0.753
cg25960063	yellow	15	101,790,505	Body	N_Shore	CHSY1	0.781	0.002	0.412	0.765
cg21301148	yellow	14	23,878,195	TSS1500	OpenSea	MYH6	0.781	0.011	0.459	0.054
cg26342114	yellow	5	172,244,462		OpenSea		0.781	0.032	0.340	0.111
cg16860392	yellow	6	112,005,207	Body	OpenSea	FYN	0.781	0.009	0.626	0.671
cg13567405	yellow	11	94,372,017		OpenSea		0.781	0.003	0.574	0.664
cg22446709	yellow	15	90,641,379	Body	N_Shelf	IDH2	0.781	0.005	0.161	0.535
cg20157753	yellow	2	113,594,343	1stExon	OpenSea	IL1B	0.781	-0.011	0.512	0.448
cg00519208	yellow	1	93,258,319	TSS1500	OpenSea	EVIS	0.781	0.015	0.524	0.197
cg09503194	yellow	22	41,833,279	Body	OpenSea	TOB2	0.781	0.000	0.752	0.993
cg15674181	yellow	10	3,158,688	Body	N_Shelf	PFKP	0.781	-0.004	0.751	0.644
cg13033858	yellow	12	109,248,326	Body	N_Shelf	SSH1	0.780	0.008	0.607	0.417
cg02301528	yellow	12	12,939,519	Body	N_Shore	APOLD1	0.780	0.006	0.613	0.453
cg07440264	yellow	11	33,744,977	5'UTR	OpenSea	CD59	0.780	0.006	0.718	0.287
cg10013003	yellow	6	26,025,568		N_Shore		0.780	0.007	0.770	0.362
cg10685961	yellow	10	32,557,982	3'UTR	OpenSea	EPC1	0.780	0.003	0.779	0.832
cg05922563	yellow	17	40,611,593	5'UTR	S_Shore	ATP6V0A1	0.780	0.018	0.341	0.120
cg18617679	yellow	12	51,632,035	TSS1500	N_Shore	DAZAP2	0.780	0.000	0.127	0.979
cg01611622	yellow	19	36,020,306	TSS1500	N_Shelf	SBSN	0.780	-0.003	0.561	0.686
cg23906454	yellow	6	108,785,671	Body	OpenSea	LACE1	0.780	0.039	0.657	0.022
cg17807777	yellow	5	9,374,198	Body	OpenSea	SEMA5A	0.780	0.009	0.628	0.369
cg16067628	yellow	17	79,109,808	Body	Island	AATK	0.780	0.011	0.543	0.275
cg05471495	yellow	2	101,369,330		OpenSea		0.780	0.000	0.606	0.960
cg19381811	yellow	3	49,851,713	TSS1500	OpenSea	UBA7	0.780	-0.004	0.406	0.524
cg18455364	yellow	14	100,749,461		N_Shelf		0.780	0.000	0.847	0.991
cg13488220	yellow	9	128,309,365	Body	OpenSea	MAPKAP1	0.780	0.006	0.865	0.462
cg12605747	yellow	15	66,798,443	TSS1500	OpenSea	RPL4	0.780	0.015	0.512	0.054
cg20649663	yellow	2	197,112,771	Body	OpenSea	HECW2	0.780	0.015	0.640	0.107
cg13423054	yellow	3	160,192,028		OpenSea		0.780	0.008	0.714	0.348
cg21762655	yellow	3	30,554,481		OpenSea		0.780	0.003	0.643	0.761
cg19450816	yellow	2	237,551,858		OpenSea		0.780	0.001	0.457	0.855
cg24214699	yellow	10	134,150,451	Body	OpenSea	LRRC27	0.780	0.009	0.855	0.424
cg25285433	yellow	4	25,657,951	5'UTR	S_Shore	SLC34A2	0.780	0.009	0.610	0.277
cg19688584	yellow	6	167,529,678	5'UTR	OpenSea	CCR6	0.780	0.019	0.627	0.093
cg03390636	yellow	15	80,843,452	Body	OpenSea	ARNT2	0.780	0.010	0.044	0.263
cg01083884	yellow	13	113,641,411	Body	OpenSea	MCF2L	0.780	0.004	0.678	0.537
cg18857314	yellow	20	37,380,519	Body	S_Shelf	ACTR5	0.780	-0.004	0.722	0.589
cg20156116	yellow	1	156,699,437	Body	S_Shore	C1orf66	0.780	0.005	0.449	0.594
cg01284033	yellow	10	70,286,653	Body	N_Shore	SLC25A16	0.780	0.004	0.100	0.547
cg21038291	yellow	17	70,332,630		OpenSea		0.780	0.007	0.700	0.255
cg24624841	yellow	19	54,704,151	TSS1500	N_Shore	RPS9	0.780	-0.001	0.240	0.933
cg21812277	yellow	13	25,085,776	5'UTR	N_Shore	PARP4	0.780	0.016	0.638	0.201
cg00114694	yellow	15	40,644,728	5'UTR	OpenSea	PHGR1	0.780	0.000	0.645	0.976
cg14694075	yellow	17	36,059,830	Body	OpenSea	HNF1B	0.780	-0.009	0.542	0.352
cg25730020	yellow	18	56,701,518	TSS1500	OpenSea	LOC390858	0.780	0.010	0.698	0.299
cg12592365	yellow	17	78,765,948	Body	OpenSea	RPTOR	0.780	-0.002	0.901	0.754
cg02277453	yellow	11	15,169,792	Body	OpenSea	INSC	0.780	-0.004	0.804	0.764
cg16889659	yellow	15	67,043,450	Body	OpenSea	SMAD6	0.780	0.006	0.631	0.323
cg12833048	yellow	6	29,639,582	3'UTR	OpenSea	MOG	0.780	0.006	0.701	0.518
cg00369202	yellow	6	33,989,844	3'UTR	OpenSea	GRM4	0.780	0.004	0.359	0.422
cg08619385	yellow	4	144,438,035	Body	S_Shelf	SMARCA5	0.780	0.002	0.914	0.825
cg27641628	yellow	7	134,833,031	5'UTR	OpenSea	TMEM140	0.780	0.015	0.662	0.046

cg15189210	yellow	8	125,820,785	OpenSea		0.780	0.014	0.558	0.078
cg27009545	yellow	15	83,776,915 Body	Island	TM6SF1	0.780	0.009	0.368	0.274
cg21201294	yellow	7	47,611,926	OpenSea		0.780	0.015	0.640	0.027
cg16885861	yellow	11	2,401,346 Body	S_Shore	CD81	0.780	-0.001	0.620	0.943
cg00587342	yellow	22	41,983,798 Body	N_Shore	PMM1	0.780	-0.003	0.606	0.672
cg03134947	yellow	16	28,996,021 TSS200	OpenSea	LAT	0.780	0.008	0.635	0.196
cg14609289	yellow	17	77,083,037 3'UTR	OpenSea	ENGASE	0.779	0.010	0.527	0.153
cg04184185	yellow	4	1,235,735 Body	S_Shore	CTBP1	0.779	0.009	0.601	0.205
cg01281993	yellow	16	11,374,090	S_Shelf		0.779	0.008	0.600	0.285
cg15344504	yellow	3	31,677,078 Body	OpenSea	STT3B	0.779	0.004	0.762	0.788
cg17933224	yellow	19	42,774,330	S_Shore		0.779	0.004	0.892	0.514
cg02696253	yellow	6	106,964,589 Body	S_Shelf	AIM1	0.779	-0.010	0.858	0.209
cg18990157	yellow	2	27,166,550 Body	OpenSea	DPYSL5	0.779	0.007	0.611	0.548
cg25277353	yellow	17	74,911,529 Body	OpenSea	MGAT5B	0.779	0.014	0.606	0.053
cg20723350	yellow	4	23,891,596 1stExon	OpenSea	PPARGC1A	0.779	0.011	0.150	0.201
cg20744362	yellow	22	50,050,164 Body	OpenSea	C22orf34	0.779	0.003	0.897	0.685
cg22450662	yellow	1	182,879,035 Body	OpenSea	C1orf14	0.779	0.002	0.890	0.792
cg21473814	yellow	19	18,873,268 Body	Island	CRTC1	0.779	0.005	0.180	0.604
cg13689560	yellow	19	2,095,643 TSS1500	Island	C19orf36	0.779	0.003	0.666	0.809
cg27558541	yellow	1	110,350,324	OpenSea		0.779	0.011	0.682	0.098
cg10717214	yellow	6	31,543,557 1stExon	OpenSea	TNF	0.779	0.001	0.482	0.852
cg10080966	yellow	10	112,260,867 Body	S_Shelf	DUSP5	0.779	-0.002	0.533	0.764
cg02413097	yellow	17	74,149,880 Body	OpenSea	RNF157	0.779	0.025	0.444	0.068
cg05656374	yellow	21	42,733,825 TSS200	OpenSea	MX2	0.779	0.021	0.568	0.026
cg07023324	yellow	13	78,435,465	OpenSea		0.779	-0.002	0.658	0.872
cg19406161	yellow	7	80,550,908	S_Shelf		0.779	0.001	0.924	0.921
cg08272268	yellow	1	200,380,059 TSS1500	S_Shore	ZNF281	0.779	0.008	0.525	0.371
cg17317859	yellow	14	75,231,455 Body	S_Shore	YLP1	0.779	0.004	0.154	0.649
cg08621277	yellow	11	68,271,518 5'UTR	OpenSea	SAPS3	0.779	-0.007	0.718	0.451
cg00895196	yellow	6	22,147,182 Body	OpenSea	FLJ22536	0.779	0.001	0.919	0.816
cg27125177	yellow	10	85,956,635 Body	S_Shore	PCDH21	0.779	-0.003	0.600	0.678
cg27100140	yellow	12	122,129,167	S_Shelf		0.779	0.002	0.457	0.839
cg22872033	yellow	14	21,725,703 5'UTR	OpenSea	HNRNPC	0.779	-0.010	0.535	0.526
cg03275648	yellow	9	96,940,848 TSS1500	OpenSea	MIRLET7D	0.779	-0.004	0.779	0.586
cg07675811	yellow	7	5,426,831 Body	N_Shore	TNRC18	0.779	0.000	0.830	0.989
cg25022611	yellow	12	107,380,263 5'UTR	N_Shore	MTERFD3	0.779	0.009	0.091	0.264
cg18483764	yellow	4	88,570,638 TSS1500	OpenSea	DMP1	0.779	0.019	0.610	0.292
cg19259125	yellow	13	113,396,924 Body	OpenSea	ATP11A	0.779	-0.004	0.916	0.552
cg19265600	yellow	7	5,402,333 Body	S_Shore	TNRC18	0.779	0.008	0.812	0.198
cg00947744	yellow	22	50,945,565 TSS1500	N_Shore	NCAPH2	0.779	0.005	0.396	0.439
cg07436562	yellow	17	73,750,299 Body	S_Shore	ITGB4	0.779	0.012	0.609	0.156
cg00537820	yellow	9	140,346,864 Body	N_Shore	NELF	0.779	0.012	0.749	0.060
cg18044543	yellow	10	91,144,795 3'UTR	OpenSea	IFIT1L	0.779	-0.002	0.816	0.869
cg23822312	yellow	1	244,361,336	OpenSea		0.779	0.008	0.729	0.141
cg17214023	yellow	2	10,176,748	OpenSea		0.779	0.006	0.814	0.355
cg18067096	yellow	2	223,598,699	OpenSea		0.779	0.004	0.705	0.736
cg11137277	yellow	1	234,615,236 TSS1500	S_Shore	TARBP1	0.779	0.005	0.082	0.479
cg17106157	yellow	18	19,410,150 TSS1500	OpenSea	MIR1-2	0.779	0.022	0.602	0.102
cg25921609	yellow	17	8,379,225 Body	N_Shore	MYH10	0.779	0.007	0.876	0.163
cg19430553	yellow	18	46,459,934 Body	OpenSea	SMAD7	0.779	0.002	0.726	0.815
cg13613439	yellow	9	131,683,312 1stExon	OpenSea	PHYHD1	0.778	0.016	0.551	0.218
cg05153345	yellow	14	21,270,575 5'UTR	OpenSea	RNASE1	0.778	0.005	0.875	0.515
cg03515098	yellow	21	38,117,454 Body	N_Shelf	SIM2	0.778	0.005	0.589	0.594
cg02584377	yellow	12	122,489,545 Body	OpenSea	BCL7A	0.778	0.008	0.798	0.344
cg10244461	yellow	3	189,839,357 5'UTR	S_Shore	LEPREL1	0.778	-0.004	0.787	0.592
cg27254338	yellow	17	34,192,710 Body	OpenSea	C17orf66	0.778	0.000	0.654	0.983
cg21434376	yellow	4	141,563,054 Body	OpenSea	TBC1D9	0.778	0.004	0.552	0.793
cg04606995	yellow	7	1,116,361 Body	N_Shelf	C7orf50	0.778	0.010	0.478	0.332
cg10738865	yellow	11	2,356,706	OpenSea		0.778	0.000	0.886	0.976
cg26361535	yellow	8	144,576,604 Body	OpenSea	ZC3H3	0.778	0.005	0.269	0.532
cg07152828	yellow	16	30,586,481	S_Shelf		0.778	-0.001	0.805	0.946
cg03499581	yellow	15	78,384,868 TSS200	OpenSea	SH2D7	0.778	0.007	0.630	0.306
cg12452909	yellow	3	38,514,858 Body	OpenSea	ACVR2B	0.778	-0.013	0.861	0.078
cg11750962	yellow	1	11,194,678 Body	OpenSea	MTOR	0.778	0.012	0.805	0.230
cg18348274	yellow	7	66,389,009 5'UTR	S_Shelf	C7orf42	0.778	-0.005	0.865	0.470
cg26687842	yellow	13	41,055,491 TSS1500	OpenSea	LOC646982	0.778	0.006	0.853	0.187
cg07759857	yellow	17	79,060,804 Body	OpenSea	BAIAP2	0.778	-0.008	0.739	0.320

cg21320793	yellow	4	646,853	TSS200	N_Shore	PDE6B	0.778	0.010	0.842	0.286
cg04444661	yellow	5	38,552,952	5'UTR	N_Shelf	LIFR	0.778	0.005	0.900	0.446
cg26023709	yellow	10	102,745,343	Body	N_Shore	MRPL43	0.778	-0.005	0.666	0.647
cg27640302	yellow	11	57,296,133	3'UTR	OpenSea	TIMM10	0.778	-0.006	0.453	0.242
cg23181035	yellow	19	42,593,016	3'UTR	OpenSea	POU2F2	0.778	-0.003	0.572	0.480
cg05807849	yellow	11	132,946,692	Body	OpenSea	OPCML	0.778	0.001	0.739	0.905
cg09599529	yellow	2	31,400,310	Body	OpenSea	CAPN14	0.778	-0.007	0.814	0.322
cg05795390	yellow	1	160,112,673	3'UTR	OpenSea	ATP1A2	0.778	0.011	0.816	0.119
cg04685962	yellow	16	50,583,729	Body	S_Shore	NKD1	0.778	0.023	0.703	0.133
cg19113920	yellow	17	11,803,540	Body	OpenSea	DNAH9	0.778	-0.001	0.215	0.961
cg25099490	yellow	14	23,583,133		OpenSea		0.778	0.008	0.632	0.368
cg12226006	yellow	10	123,350,909	Body	OpenSea	FGFR2	0.778	-0.001	0.853	0.915
cg20775254	yellow	2	95,940,705	Body	OpenSea	PROM2	0.778	0.001	0.795	0.840
cg12870518	yellow	22	18,512,081	TSS200	OpenSea	FLJ41941	0.778	0.018	0.610	0.080
cg27507372	yellow	15	30,228,725		OpenSea		0.778	0.003	0.844	0.582
cg16693595	yellow	19	16,734,556	Body	N_Shelf	MED26	0.778	0.000	0.911	0.964
cg26408612	yellow	6	31,507,879	Body	N_Shore	BAT1	0.778	0.000	0.631	0.972
cg21853021	yellow	11	2,920,146	Body	N_Shelf	SLC22A18AS	0.778	0.013	0.533	0.142
cg13345299	yellow	22	26,876,075	TSS1500	N_Shelf	HPS4	0.778	0.007	0.681	0.319
cg02299950	yellow	1	3,087,637	Body	OpenSea	PRDM16	0.778	-0.006	0.087	0.247
cg10056739	yellow	13	113,429,178	Body	Island	ATP11A	0.778	-0.014	0.666	0.172
cg26195652	yellow	1	43,765,944	TSS1500	OpenSea	TIE1	0.778	0.005	0.912	0.287
cg00245778	yellow	1	179,064,635	3'UTR	OpenSea	TOR3A	0.778	-0.003	0.662	0.847
cg25877553	yellow	20	1,352,657	3'UTR	OpenSea	FKBP1A	0.778	0.006	0.671	0.321
cg07338715	yellow	2	109,649,281		S_Shore		0.778	-0.002	0.893	0.747
cg26881651	yellow	13	39,327,640	Body	OpenSea	FREM2	0.778	0.013	0.534	0.212
cg19939693	yellow	10	31,410,359		OpenSea		0.778	-0.006	0.793	0.739
cg23288563	yellow	14	21,491,469	Body	N_Shore	NDRG2	0.778	-0.001	0.727	0.877
cg13965202	yellow	11	69,469,820		S_Shore		0.778	0.007	0.440	0.413
cg12078253	yellow	2	42,281,792	Body	OpenSea	PKDCC	0.778	0.000	0.761	0.958
cg15741354	yellow	8	8,146,129		OpenSea		0.778	0.003	0.131	0.765
cg16413675	yellow	16	2,520,055	TSS1500	N_Shore	NTN3	0.778	0.006	0.510	0.290
cg19506628	yellow	5	653,442	3'UTR	OpenSea	CEP72	0.777	0.001	0.912	0.873
cg23978968	yellow	1	101,704,656	Body	S_Shore	S1PR1	0.777	0.004	0.538	0.664
cg05413282	yellow	9	33,796,088	Body	OpenSea	PRSS3	0.777	0.010	0.849	0.155
cg10717408	yellow	1	229,571,762		S_Shore		0.777	-0.001	0.481	0.882
cg16170708	yellow	1	6,390,830	Body	OpenSea	ACOT7	0.777	0.018	0.535	0.082
cg16479633	yellow	8	20,080,666		OpenSea		0.777	0.022	0.534	0.137
cg16478145	yellow	2	188,419,830	TSS1500	OpenSea	TFPI	0.777	-0.002	0.786	0.873
cg09831491	yellow	3	44,689,721	3'UTR	N_Shore	ZNF197	0.777	0.000	0.881	0.982
cg16825062	yellow	17	12,694,678	Body	S_Shore	RICH2	0.777	0.003	0.681	0.641
cg03746765	yellow	17	15,288,099		OpenSea		0.777	-0.015	0.496	0.142
cg26146900	yellow	21	45,552,556	TSS1500	N_Shore	C21orf33	0.777	0.003	0.645	0.783
cg11029358	yellow	21	46,875,433	5'UTR	N_Shore	COL18A1	0.777	-0.001	0.193	0.884
cg15857661	yellow	10	104,196,243	TSS200	S_Shelf	MIR146B	0.777	0.008	0.717	0.339
cg14148088	yellow	14	101,495,827	TSS200	OpenSea	MIR494	0.777	0.002	0.843	0.813
cg16973527	yellow	15	70,767,570		OpenSea		0.777	0.018	0.526	0.282
cg02976109	yellow	12	124,119,053	Body	S_Shore	GTF2H3	0.777	0.011	0.680	0.156
cg06605704	yellow	16	4,551,147	5'UTR	OpenSea	HMOX2	0.777	0.007	0.764	0.549
cg12248883	yellow	11	6,219,573	TSS1500	OpenSea	OR52W1	0.777	0.001	0.794	0.869
cg04727071	yellow	19	4,061,359	5'UTR	S_Shore	ZBTB7A	0.777	0.003	0.470	0.704
cg04100595	yellow	12	27,615,138		OpenSea		0.777	0.011	0.631	0.383
cg22224628	yellow	18	66,381,506	TSS1500	N_Shore	CCDC102B	0.777	0.006	0.080	0.205
cg27002826	yellow	5	176,520,024	Body	N_Shore	FGFR4	0.777	0.001	0.805	0.902
cg05405872	yellow	11	16,761,533	Body	S_Shore	C11orf58	0.777	0.008	0.293	0.501
cg23702046	yellow	12	3,371,110	Body	OpenSea	TSPAN9	0.777	0.017	0.737	0.245
cg13460297	yellow	2	172,581,104	Body	OpenSea	DYNC1I2	0.777	0.013	0.435	0.312
cg11319403	yellow	7	116,377,467	Body	OpenSea	MET	0.777	0.004	0.421	0.527
cg00067720	yellow	5	67,521,141	TSS1500	OpenSea	PIK3R1	0.777	0.009	0.591	0.290
cg01535980	yellow	9	140,708,214	Body	N_Shore	EHMT1	0.777	0.011	0.749	0.232
cg24827357	yellow	3	66,813,437		OpenSea		0.777	0.014	0.725	0.386
cg00639656	yellow	17	27,050,360	TSS200	N_Shelf	SNORD42A	0.777	0.003	0.551	0.554
cg11136250	yellow	1	38,273,056	TSS1500	N_Shore	C1orf122	0.777	0.005	0.259	0.630
cg15491385	yellow	3	72,537,392		OpenSea		0.777	0.004	0.696	0.442
cg25925473	yellow	5	502,920	Body	S_Shore	SLC9A3	0.777	0.004	0.759	0.728
cg08530859	yellow	8	143,851,287	TSS200	OpenSea	LYNX1	0.777	-0.010	0.887	0.224
cg01617018	yellow	16	30,116,135	3'UTR	OpenSea	GDPD3	0.777	0.001	0.597	0.887

cg22388260	yellow	16	14,403,138	TSS200	OpenSea	MIR365-1	0.777	0.006	0.296	0.504
cg04695882	yellow	16	20,756,332		S_Shelf		0.777	0.000	0.095	0.974
cg06438559	yellow	5	136,478,693	Body	OpenSea	SPOCK1	0.777	0.010	0.650	0.308
cg00364457	yellow	6	38,608,738	TSS1500	S_Shore	BTBD9	0.777	0.014	0.419	0.038
cg22906451	yellow	19	1,994,824	Body	S_Shore	BTBD2	0.777	0.017	0.810	0.116
cg05614013	yellow	19	11,253,754		OpenSea		0.777	0.003	0.058	0.684
cg05655190	yellow	19	54,971,879	Body	Island	LENG8	0.777	0.002	0.654	0.818
cg10362842	yellow	10	123,353,578	TSS200	N_Shelf	FGFR2	0.777	0.010	0.620	0.167
cg12423623	yellow	2	45,469,414		OpenSea		0.777	0.008	0.196	0.457
cg08229740	yellow	7	51,521,154		OpenSea		0.777	-0.003	0.804	0.783
cg13993197	yellow	1	111,817,803		S_Shelf		0.777	0.020	0.776	0.118
cg25974901	yellow	1	20,396,750	1stExon	OpenSea	PLA2G5	0.777	0.030	0.503	0.028
cg09671371	yellow	3	139,079,976	Body	OpenSea	COPB2	0.777	0.002	0.905	0.815
cg14038755	yellow	1	172,897,600		OpenSea		0.777	0.010	0.836	0.406
cg03316934	yellow	2	220,510,231		OpenSea		0.777	0.013	0.298	0.348
cg09564509	yellow	2	242,210,639	5'UTR	N_Shore	HDLBP	0.776	0.018	0.545	0.063
cg25368116	yellow	11	87,064,843		OpenSea		0.776	0.002	0.718	0.819
cg11385536	yellow	1	227,133,801	5'UTR	OpenSea	CABC1	0.776	-0.004	0.534	0.568
cg02410867	yellow	19	16,198,843	Body	OpenSea	TPM4	0.776	-0.001	0.663	0.926
cg02508251	yellow	2	153,508,150	3'UTR	OpenSea	PRPF40A	0.776	-0.007	0.721	0.579
cg15128334	yellow	3	185,215,532	Body	N_Shore	TMEM41A	0.776	0.007	0.496	0.261
cg12972705	yellow	8	1,915,076		OpenSea		0.776	-0.006	0.347	0.566
cg27572927	yellow	17	29,803,845	Body	OpenSea	RAB11FIP4	0.776	0.002	0.575	0.799
cg02103401	yellow	3	37,033,373	1stExon	N_Shore	EPM2AIP1	0.776	0.003	0.129	0.805
cg08556090	yellow	20	48,960,176		Island		0.776	0.003	0.903	0.632
cg18483487	yellow	3	45,208,900		OpenSea		0.776	0.009	0.293	0.204
cg06721231	yellow	16	69,222,939	Body	S_Shore	SNTB2	0.776	-0.006	0.088	0.434
cg25962992	yellow	2	60,986,556	Body	S_Shelf	PAPOLG	0.776	0.012	0.869	0.229
cg25132536	yellow	17	19,152,434	5'UTR	OpenSea	EPN2	0.776	0.021	0.578	0.016
cg15001032	yellow	7	50,632,994	5'UTR	OpenSea	DDC	0.776	-0.015	0.308	0.220
cg26690414	yellow	1	154,528,408	Body	N_Shelf	UBE2Q1	0.776	0.008	0.729	0.202
cg08550435	yellow	4	23,829,879	Body	OpenSea	PPARGC1A	0.776	0.005	0.636	0.746
cg13849525	yellow	19	46,418,069	TSS200	S_Shore	NANOS2	0.776	0.007	0.373	0.212
cg23124613	yellow	15	89,731,485	Body	OpenSea	ABHD2	0.776	-0.008	0.632	0.373
cg01938476	yellow	12	7,076,853	TSS200	N_Shelf	SCARNA12	0.776	0.000	0.842	0.954
cg04264633	yellow	20	17,540,561	TSS1500	OpenSea	BFSP1	0.776	-0.004	0.653	0.716
cg23204113	yellow	10	91,408,027		S_Shelf		0.776	0.003	0.524	0.815
cg13557804	yellow	6	33,117,976		OpenSea		0.776	0.007	0.808	0.779
cg02661728	yellow	7	17,018,326		OpenSea		0.776	0.011	0.371	0.340
cg26571928	yellow	20	62,032,422		Island		0.776	0.010	0.501	0.209
cg10881451	yellow	1	173,443,209		N_Shelf		0.776	0.006	0.736	0.364
cg12923268	yellow	6	31,691,812	Body	S_Shore	C6orf25	0.776	0.006	0.665	0.471
cg15832822	yellow	15	45,018,591		OpenSea		0.776	0.004	0.327	0.749
cg05362405	yellow	6	32,822,352	Body	Island	PSMB9	0.776	0.017	0.151	0.112
cg02892650	yellow	16	67,380,234	Body	OpenSea	LRRC36	0.776	0.017	0.795	0.189
cg11734289	yellow	1	115,314,981	3'UTR	OpenSea	SIKE1	0.776	0.000	0.954	0.960
cg02336827	yellow	3	45,636,190	TSS200	S_Shore	LIMD1	0.776	0.004	0.110	0.471
cg02285386	yellow	22	35,695,157	TSS1500	N_Shore	TOM1	0.776	0.005	0.731	0.599
cg23941016	yellow	15	78,315,944	Body	OpenSea	TBC1D2B	0.776	0.001	0.625	0.862
cg13348574	yellow	17	207,478		S_Shore		0.776	-0.015	0.773	0.189
cg11545871	yellow	6	33,679,895	TSS1500	S_Shore	C6orf125	0.776	-0.001	0.318	0.939
cg06829788	yellow	1	228,581,405	3'UTR	N_Shore	TRIM11	0.776	0.003	0.522	0.744
cg16905822	yellow	10	924,646	Body	OpenSea	LARP4B	0.776	0.005	0.804	0.595
cg08734237	yellow	16	87,744,948	Body	S_Shore	KLHDC4	0.776	-0.004	0.886	0.375
cg17033391	yellow	5	141,015,659	Body	N_Shore	HDAC3	0.776	0.015	0.491	0.130
cg08940075	yellow	1	95,388,680	Body	N_Shelf	CNN3	0.776	0.000	0.862	0.939
cg16058975	yellow	1	80,192,949		OpenSea		0.776	0.011	0.614	0.369
cg24418941	yellow	19	2,062,522		S_Shore		0.776	0.006	0.590	0.354
cg04411841	yellow	16	58,033,649	5'UTR	N_Shore	ZNF319	0.775	0.007	0.312	0.246
cg26815229	yellow	1	60,392,933	TSS1500	S_Shore	CYP2J2	0.775	0.010	0.299	0.441
cg20976787	yellow	6	43,064,460	Body	OpenSea	PTK7	0.775	0.017	0.401	0.043
cg10664801	yellow	17	25,647,475		OpenSea		0.775	0.015	0.833	0.103
cg14532519	yellow	22	42,612,642	TSS1500	OpenSea	TCF20	0.775	0.007	0.786	0.307
cg08693490	yellow	12	116,757,896		OpenSea		0.775	0.009	0.376	0.295
cg25805837	yellow	10	130,935,371		OpenSea		0.775	0.006	0.908	0.346
cg18700940	yellow	17	43,371,099	5'UTR	OpenSea	MAP3K14	0.775	0.006	0.671	0.576
cg10241183	yellow	1	88,026,790		OpenSea		0.775	-0.002	0.757	0.868

cg14900031	yellow	4	6,695,377	TSS200	OpenSea	S100P	0.775	0.015	0.780	0.061
cg04833731	yellow	16	30,124,803	1stExon	OpenSea	GDPD3	0.775	0.001	0.865	0.938
cg08940252	yellow	15	93,127,080		OpenSea		0.775	-0.006	0.782	0.404
cg12180319	yellow	15	48,705,662	Body	OpenSea	FBN1	0.775	0.004	0.110	0.694
cg08204050	yellow	17	27,189,285	TSS1500	OpenSea	MIR451	0.775	0.009	0.567	0.207
cg23557926	yellow	1	196,620,963	TSS200	OpenSea	CFH	0.775	0.022	0.439	0.149
cg08461425	yellow	12	121,971,790	Body	N_Shelf	KDM2B	0.775	0.011	0.500	0.164
cg04020713	yellow	12	53,457,968	3'UTR	OpenSea	TENC1	0.775	0.004	0.352	0.579
cg23426912	yellow	6	30,920,836	Body	N_Shelf	DPCR1	0.775	0.004	0.710	0.505
cg07739826	yellow	11	59,378,927	Body	N_Shelf	OSBP	0.775	0.004	0.887	0.398
cg00742649	yellow	22	29,190,731	3'UTR	OpenSea	XBP1	0.775	0.003	0.710	0.802
cg03145930	yellow	1	228,870,556	TSS1500	N_Shore	RHOU	0.775	0.014	0.648	0.211
cg13978856	yellow	4	40,918,191	Body	OpenSea	APBB2	0.775	0.018	0.517	0.094
cg14848143	yellow	1	42,618,891	TSS200	OpenSea	GUCA2B	0.775	0.006	0.642	0.345
cg08169341	yellow	8	48,437,852	Body	OpenSea	KIAA0146	0.775	0.011	0.084	0.116
cg12120741	yellow	13	78,492,306	1stExon	N_Shore	EDNRB	0.775	-0.001	0.342	0.954
cg12505085	yellow	10	75,913,585	Body	S_Shelf	ADK	0.775	-0.049	0.594	0.044
cg22867643	yellow	6	114,292,802	TSS1500	S_Shore	HDAC2	0.775	0.003	0.225	0.795
cg20035980	yellow	17	19,880,241	Body	N_Shore	AKAP10	0.775	-0.001	0.396	0.902
cg02737554	yellow	3	36,690,229		OpenSea		0.775	0.022	0.609	0.086
cg06937882	yellow	20	24,974,362	TSS1500	S_Shore	C20orf3	0.775	0.000	0.183	0.986
cg09855706	yellow	1	244,965,648		OpenSea		0.775	0.005	0.580	0.549
cg04607671	yellow	16	85,383,193		OpenSea		0.775	0.028	0.460	0.048
cg08139238	yellow	16	22,219,550	5'UTR	S_Shore	EEF2K	0.775	0.002	0.182	0.848
cg26366091	yellow	1	111,770,274	TSS200	OpenSea	CHI3L2	0.775	-0.001	0.837	0.877
cg00020991	yellow	4	169,930,429	Body	N_Shore	CBR4	0.775	0.011	0.747	0.174
cg03517466	yellow	1	182,573,989	TSS1500	S_Shore	RGS16	0.775	-0.003	0.328	0.670
cg06869171	yellow	1	155,949,839		S_Shore		0.775	-0.001	0.407	0.842
cg20341504	yellow	2	54,900,998		OpenSea		0.775	0.012	0.774	0.391
cg08879579	yellow	2	239,478,440		OpenSea		0.775	0.001	0.542	0.888
cg09116580	yellow	5	2,223,732		OpenSea		0.775	0.015	0.627	0.186
cg14193430	yellow	8	77,806,227		OpenSea		0.775	0.008	0.158	0.468
cg25130920	yellow	3	128,182,217	5'UTR	OpenSea	DNAJB8	0.775	-0.003	0.792	0.758
cg27500720	yellow	19	37,709,707		S_Shore		0.775	0.011	0.362	0.122
cg05948157	yellow	14	75,330,608	TSS200	OpenSea	PROX2	0.775	0.007	0.589	0.353
cg14999189	yellow	17	2,908,369	Body	OpenSea	RAP1GAP2	0.775	0.015	0.511	0.016
cg03714676	yellow	8	48,174,649	Body	S_Shore	KIAA0146	0.775	0.022	0.510	0.060
cg00863893	yellow	17	76,876,239	Body	OpenSea	TIMP2	0.775	0.005	0.669	0.526
cg16985652	yellow	1	27,241,897	TSS1500	OpenSea	NR0B2	0.775	0.006	0.560	0.506
cg15657100	yellow	2	161,420,987		OpenSea		0.775	0.012	0.724	0.263
cg13252580	yellow	13	27,743,164	Body	OpenSea	USP12	0.775	0.015	0.479	0.173
cg04870174	yellow	1	179,782,240	Body	OpenSea	FAM163A	0.774	0.016	0.820	0.212
cg20416874	yellow	1	8,611,966	Body	OpenSea	RERE	0.774	0.000	0.510	0.980
cg03693486	yellow	1	20,914,322	TSS1500	OpenSea	CDA	0.774	0.010	0.543	0.217
cg20029311	yellow	14	74,100,086		N_Shore		0.774	0.019	0.305	0.019
cg24768463	yellow	12	7,043,676	Body	N_Shelf	ATN1	0.774	0.000	0.545	0.943
cg00519069	yellow	19	14,491,737	TSS1500	OpenSea	CD97	0.774	0.011	0.763	0.343
cg04436449	yellow	3	185,214,835	Body	N_Shore	TMEM41A	0.774	0.005	0.762	0.425
cg23260877	yellow	5	179,742,954	Body	S_Shore	GFPT2	0.774	0.000	0.226	0.964
cg00387658	yellow	20	54,986,793	TSS1500	OpenSea	CASS4	0.774	0.002	0.829	0.845
cg06799163	yellow	5	137,670,363		N_Shelf		0.774	-0.002	0.773	0.809
cg00981877	yellow	20	50,366,841	Body	OpenSea	ATP9A	0.774	-0.002	0.335	0.751
cg16947791	yellow	13	111,905,195	Body	N_Shore	ARHGEF7	0.774	-0.004	0.768	0.556
cg10439431	yellow	17	34,345,172	TSS200	OpenSea	CCL23	0.774	-0.009	0.646	0.237
cg25440131	yellow	13	113,384,582	Body	S_Shore	ATP11A	0.774	0.004	0.800	0.697
cg03353047	yellow	10	24,331,904	5'UTR	OpenSea	KIAA1217	0.774	0.004	0.860	0.635
cg05657292	yellow	22	17,980,996	Body	OpenSea	CECR2	0.774	-0.004	0.545	0.720
cg17271145	yellow	19	10,526,715		N_Shore		0.774	0.002	0.116	0.821
cg00201457	yellow	3	140,405,436	Body	S_Shelf	TRIM42	0.774	-0.014	0.593	0.030
cg13857678	yellow	9	75,079,943		OpenSea		0.774	0.014	0.679	0.072
cg19779886	yellow	11	69,866,327		OpenSea		0.774	0.026	0.768	0.001
cg23839687	yellow	15	89,874,807	Body	N_Shore	POLG	0.774	-0.001	0.866	0.811
cg26203383	yellow	22	40,297,048	TSS200	OpenSea	GRAP2	0.774	0.018	0.760	0.054
cg16219860	yellow	3	158,679,875		OpenSea		0.774	0.000	0.843	0.967
cg14732852	yellow	11	64,579,543	TSS1500	S_Shore	MEN1	0.774	0.007	0.892	0.370
cg21167046	yellow	4	1,295,078	Body	OpenSea	MAEA	0.774	-0.006	0.740	0.423
cg06431864	yellow	5	179,868,587		OpenSea		0.774	-0.004	0.903	0.683

cg10215763	yellow	7	142,636,470	TSS200	OpenSea	C7orf34	0.774	0.004	0.908	0.595
cg18176723	yellow	15	75,336,436	Body	OpenSea	PPCDC	0.774	-0.002	0.304	0.869
cg22140363	yellow	12	6,561,547	Body	OpenSea	TAPBPL	0.774	0.003	0.054	0.627
cg11145632	yellow	22	29,781,841	5'UTR	N_Shelf	AP1B1	0.774	0.003	0.544	0.702
cg14266217	yellow	7	38,226,703	5'UTR	OpenSea	STARD3NL	0.774	0.014	0.751	0.262
cg18134411	yellow	6	312,058	Body	OpenSea	DUSP22	0.774	0.003	0.750	0.765
cg18506744	yellow	19	1,102,627	TSS1500	N_Shore	GPX4	0.774	-0.002	0.271	0.800
cg24844211	yellow	5	59,784,544	Body	OpenSea	PART1	0.774	-0.008	0.877	0.402
cg17854066	yellow	4	55,575,932	Body	OpenSea	KIT	0.774	-0.003	0.316	0.671
cg01567771	yellow	14	22,191,382		OpenSea		0.774	0.008	0.694	0.441
cg09868299	yellow	11	69,259,957		S_Shore		0.774	-0.001	0.628	0.859
cg13877715	yellow	1	35,914,081	Body	OpenSea	KIAA0319L	0.774	-0.001	0.722	0.915
cg18155888	yellow	1	2,266,591	Body	S_Shore	MORN1	0.774	0.009	0.735	0.357
cg00221718	yellow	3	128,914,668		OpenSea		0.774	0.011	0.794	0.210
cg05772946	yellow	16	4,545,139	TSS1500	OpenSea	HMOX2	0.774	-0.003	0.916	0.699
cg06090684	yellow	12	101,672,472	TSS1500	N_Shore	UTP20	0.774	0.013	0.488	0.097
cg14297867	yellow	9	27,526,172	5'UTR	N_Shelf	MOBKLB	0.774	-0.003	0.896	0.721
cg09288962	yellow	16	56,640,057		N_Shelf		0.773	0.002	0.824	0.875
cg14275880	yellow	9	91,268,133	TSS1500	OpenSea	LOC286238	0.773	0.001	0.575	0.954
cg27576259	yellow	16	2,567,316	Body	N_Shelf	ATP6V0C	0.773	0.004	0.862	0.581
cg08995449	yellow	8	101,802,144		OpenSea		0.773	0.014	0.749	0.091
cg25956344	yellow	5	112,824,765	TSS1500	S_Shore	MCC	0.773	0.006	0.230	0.584
cg24376339	yellow	2	192,155,833	Body	OpenSea	MYO1B	0.773	0.020	0.536	0.092
cg00148223	yellow	5	957,913		N_Shore		0.773	0.013	0.703	0.113
cg16659880	yellow	15	63,921,589	Body	OpenSea	HERC1	0.773	0.001	0.856	0.930
cg18437584	yellow	13	113,473,619	Body	N_Shore	ATP11A	0.773	-0.018	0.877	0.123
cg08800893	yellow	22	36,727,569	Body	OpenSea	MYH9	0.773	0.013	0.676	0.047
cg04695027	yellow	11	65,793,986	1stExon	S_Shelf	CATSPER1	0.773	0.011	0.462	0.150
cg01283625	yellow	10	13,568,099		N_Shelf		0.773	0.015	0.583	0.350
cg25276004	yellow	11	110,341,932		OpenSea		0.773	-0.003	0.711	0.810
cg11262216	yellow	17	41,723,227	Body	Island	MEOX1	0.773	0.000	0.655	0.994
cg14214856	yellow	10	36,965,362		OpenSea		0.773	0.007	0.536	0.279
cg17797863	yellow	4	2,009,396	Body	N_Shore	WHSC2	0.773	-0.004	0.677	0.615
cg17947364	yellow	6	106,056,667		OpenSea		0.773	0.000	0.851	0.992
cg03063943	yellow	8	848,452		N_Shore		0.773	0.003	0.775	0.548
cg24990317	yellow	12	124,908,617	Body	N_Shelf	NCOR2	0.773	0.018	0.704	0.010
cg07337914	yellow	16	85,881,624		S_Shelf		0.773	0.010	0.484	0.164
cg24694743	yellow	1	32,088,013	Body	S_Shelf	HCRTR1	0.773	0.012	0.773	0.015
cg01774093	yellow	9	32,549,962	Body	N_Shore	TOPORS	0.773	0.001	0.532	0.892
cg02920178	yellow	16	1,364,965	Body	S_Shore	UBE2I	0.773	-0.004	0.779	0.567
cg20405384	yellow	2	27,371,891	TSS200	N_Shore	TCF23	0.773	0.013	0.417	0.085
cg18532215	yellow	3	145,879,568	TSS1500	S_Shore	PLOD2	0.773	0.004	0.082	0.666
cg01038207	yellow	3	50,330,361	3'UTR	S_Shore	HYAL3	0.773	0.007	0.251	0.376
cg27291385	yellow	2	219,266,135	Body	S_Shore	CTDSP1	0.773	0.005	0.121	0.536
cg09728392	yellow	16	66,585,799	TSS1500	N_Shore	CKLF	0.773	-0.004	0.596	0.616
cg12391964	yellow	1	1,986,275	Body	S_Shelf	PRKCZ	0.773	0.006	0.751	0.613
cg24406162	yellow	1	24,017,943	TSS1500	N_Shore	RPL11	0.773	0.008	0.738	0.469
cg13983182	yellow	9	130,853,333	Body	OpenSea	SLC25A25	0.773	0.010	0.385	0.142
cg26282299	yellow	8	142,189,729	Body	OpenSea	DENND3	0.773	0.012	0.536	0.231
cg00148325	yellow	17	72,244,451	TSS200	OpenSea	TTYH2	0.773	0.002	0.662	0.823
cg09879186	yellow	9	140,709,033	Body	Island	EHMT1	0.773	-0.001	0.792	0.860
cg24843003	yellow	19	1,409,547	Body	S_Shore	DAZAP1	0.773	0.003	0.515	0.655
cg02958180	yellow	17	80,193,771	5'UTR	N_Shore	SLC16A3	0.773	0.003	0.792	0.585
cg04229059	yellow	16	58,718,971	TSS1500	S_Shore	SLC38A7	0.773	-0.012	0.285	0.055
cg18649464	yellow	3	65,181,932		OpenSea		0.773	-0.012	0.617	0.122
cg00968167	yellow	1	19,810,215	Body	N_Shore	CAPZB	0.773	0.001	0.783	0.883
cg08372212	yellow	10	130,610,431		OpenSea		0.773	0.017	0.686	0.194
cg24005169	yellow	6	31,146,942	TSS1500	N_Shore	PSORS1C3	0.773	0.003	0.586	0.694
cg07796597	yellow	10	11,379,739		OpenSea		0.773	0.013	0.844	0.145
cg26921093	yellow	17	63,534,688	Body	S_Shore	AXIN2	0.773	-0.008	0.733	0.253
cg12426870	yellow	1	59,282,482		S_Shore		0.773	0.014	0.320	0.100
cg26914205	yellow	18	77,865,873	TSS1500	OpenSea	ADNP2	0.773	-0.005	0.727	0.559
cg26643047	yellow	2	46,746,850	1stExon	OpenSea	ATP6V1E2	0.773	0.005	0.709	0.681
cg03075605	yellow	11	96,123,810	5'UTR	S_Shore	JRKL	0.773	0.009	0.404	0.491
cg17038049	yellow	6	31,021,365	TSS1500	OpenSea	HCG22	0.773	-0.003	0.573	0.778
cg11803589	yellow	12	6,197,837	Body	OpenSea	VWF	0.772	0.014	0.696	0.028
cg04846156	yellow	8	145,668,591	Body	N_Shore	NFKBIL2	0.772	0.003	0.533	0.582

cg26648094	yellow	16	84,908,201	Body	OpenSea	CRISPLD2	0.772	0.008	0.776	0.504
cg27519016	yellow	13	114,280,887	Body	S_Shore	TFDP1	0.772	-0.006	0.492	0.646
cg19244300	yellow	1	110,113,304	Body	OpenSea	GNAI3	0.772	0.006	0.363	0.260
cg11261958	yellow	3	118,958,539	5'UTR	N_Shore	B4GALT4	0.772	0.004	0.494	0.696
cg18226166	yellow	19	45,996,901	Body	N_Shore	RTN2	0.772	0.002	0.149	0.776
cg14602234	yellow	9	137,884,872		OpenSea		0.772	-0.005	0.741	0.601
cg09861057	yellow	1	154,492,947	Body	OpenSea	TDRD10	0.772	0.011	0.747	0.201
cg17825709	yellow	7	100,887,364	Body	N_Shore	FIS1	0.772	0.002	0.349	0.809
cg06786804	yellow	1	1,377,938	3'UTR	S_Shelf	VWA1	0.772	-0.010	0.792	0.364
cg26365668	yellow	4	84,375,973	TSS1500	N_Shore	MRPS18C	0.772	0.014	0.518	0.296
cg21161367	yellow	1	108,474,727	Body	OpenSea	VAV3	0.772	-0.004	0.949	0.326
cg14037728	yellow	9	116,645,936	Body	OpenSea	ZNF618	0.772	0.022	0.552	0.078
cg18858249	yellow	7	77,646,929	3'UTR	N_Shore	MAGI2	0.772	0.003	0.874	0.745
cg05186793	yellow	17	44,235,520	Body	OpenSea	KIAA1267	0.772	0.008	0.816	0.511
cg02363655	yellow	8	145,955,421	Body	N_Shore	ZNF251	0.772	0.016	0.599	0.075
cg11643510	yellow	2	16,124,837		OpenSea		0.772	0.008	0.394	0.465
cg14345882	yellow	6	26,364,793	TSS1500	OpenSea	BTN3A2	0.772	-0.004	0.598	0.755
cg17466952	yellow	8	22,844,396	TSS1500	OpenSea	RHOBTB2	0.772	0.008	0.841	0.279
cg19536127	yellow	2	47,404,286	TSS1500	S_Shore	CALM2	0.772	0.006	0.051	0.131
cg11143857	yellow	1	202,559,755	3'UTR	OpenSea	SYT2	0.772	0.012	0.862	0.264
cg25165932	yellow	12	109,025,846	5'UTR	OpenSea	SELPLG	0.772	0.000	0.550	0.989
cg12636499	yellow	10	105,408,599	Body	OpenSea	SH3PXD2A	0.772	0.009	0.652	0.246
cg13563070	yellow	1	43,145,343		N_Shelf		0.772	0.004	0.873	0.681
cg10988513	yellow	15	41,224,235	Body	S_Shore	DLL4	0.772	0.012	0.504	0.090
cg10218194	yellow	12	47,496,835		OpenSea		0.772	0.019	0.488	0.389
cg20270953	yellow	15	101,792,838	TSS1500	S_Shore	CHSY1	0.772	0.002	0.019	0.180
cg21817750	yellow	5	71,543,106	Body	OpenSea	MRPS27	0.772	-0.003	0.725	0.778
cg22744783	yellow	5	9,105,500	Body	OpenSea	SEMA5A	0.772	0.000	0.773	0.992
cg27004195	yellow	2	79,866,085	5'UTR	OpenSea	CTNNA2	0.772	0.002	0.621	0.860
cg02959407	yellow	17	55,118,144		OpenSea		0.772	0.002	0.888	0.760
cg01534527	yellow	3	38,003,247	Body	OpenSea	CTDSPL	0.772	0.011	0.658	0.084
cg12017434	yellow	19	35,086,248	TSS1500	OpenSea	SCGBL	0.772	0.015	0.735	0.077
cg03753454	yellow	16	70,787,597	Body	OpenSea	VAC14	0.772	0.019	0.733	0.029
cg00588090	yellow	12	132,412,438	TSS1500	N_Shore	PUS1	0.772	0.003	0.872	0.774
cg03709663	yellow	16	85,731,277		OpenSea		0.772	0.002	0.660	0.784
cg05596621	yellow	10	50,344,077		S_Shelf		0.772	0.016	0.807	0.223
cg07880384	yellow	6	31,913,323	3'UTR	OpenSea	C2	0.772	0.002	0.535	0.823
cg09069290	yellow	22	20,745,587		N_Shelf		0.772	0.007	0.800	0.262
cg27534534	yellow	6	139,139,712	Body	OpenSea	ECT2L	0.772	-0.001	0.727	0.950
cg08996445	yellow	16	70,700,420	Body	S_Shelf	MTSS1L	0.772	0.003	0.887	0.651
cg10030624	yellow	6	30,551,619	TSS1500	OpenSea	MIR877	0.772	0.003	0.851	0.525
cg04070847	yellow	3	112,693,867	1stExon	OpenSea	CD200R1	0.772	0.011	0.459	0.162
cg10938486	yellow	16	20,420,716	TSS200	OpenSea	ACSM5	0.771	0.016	0.341	0.048
cg05504025	yellow	11	66,799,218	Body	OpenSea	SYT12	0.771	-0.003	0.770	0.694
cg06162872	yellow	8	25,546,737		OpenSea		0.771	0.001	0.269	0.909
cg20943095	yellow	15	75,123,394	3'UTR	OpenSea	CPLX3	0.771	0.013	0.766	0.154
cg26969888	yellow	19	14,064,254	TSS200	S_Shore	PODNL1	0.771	0.006	0.419	0.555
cg07213830	yellow	1	1,093,940		S_Shore		0.771	0.010	0.385	0.371
cg19132680	yellow	12	95,449,869	Body	OpenSea	NR2C1	0.771	-0.009	0.951	0.066
cg11389756	yellow	6	28,875,354	Body	OpenSea	TRIM27	0.771	-0.005	0.770	0.602
cg15304674	yellow	7	91,923,194	5'UTR	OpenSea	ANKIB1	0.771	-0.009	0.826	0.458
cg01797381	yellow	3	57,128,136	3'UTR	N_Shelf	IL17RD	0.771	0.012	0.724	0.279
cg25036527	yellow	22	36,123,779	Body	OpenSea	APOL5	0.771	0.013	0.241	0.253
cg22488717	yellow	2	26,785,946	Body	Island	C2orf70	0.771	0.010	0.507	0.188
cg09173325	yellow	12	53,458,408	3'UTR	OpenSea	SPRYD3	0.771	0.010	0.648	0.189
cg03955764	yellow	10	45,604,781	Body	OpenSea	LOC10013331	0.771	0.002	0.779	0.783
cg18405765	yellow	19	48,052,357	Body	S_Shelf	ZNF541	0.771	0.000	0.710	0.979
cg01653417	yellow	17	80,256,028		OpenSea		0.771	0.000	0.126	0.971
cg27122888	yellow	11	64,379,586	Body	S_Shelf	NRXN2	0.771	-0.001	0.790	0.902
cg07328796	yellow	2	227,389,311		OpenSea		0.771	0.009	0.641	0.406
cg05414254	yellow	16	53,535,931	5'UTR	N_Shore	AKTIP	0.771	0.002	0.726	0.735
cg18298494	yellow	14	76,447,327	1stExon	N_Shore	TGFB3	0.771	0.005	0.302	0.539
cg19301742	yellow	6	33,421,180	3'UTR	N_Shore	SYNGAP1	0.771	0.007	0.370	0.350
cg19074198	yellow	21	46,954,058	Body	S_Shore	SLC19A1	0.771	0.015	0.609	0.076
cg15573687	yellow	1	42,308,910	5'UTR	OpenSea	HIVEP3	0.771	0.006	0.787	0.662
cg21236446	yellow	2	239,895,510		OpenSea		0.771	0.004	0.835	0.638
cg05538432	yellow	12	7,167,751	TSS1500	OpenSea	C1S	0.771	0.034	0.779	0.014



cg19280364	yellow	15	73,077,442	TSS1500	S_Shore	ADPGK	0.771	0.015	0.670	0.249
cg14066645	yellow	17	56,770,424	TSS1500	S_Shore	TEX14	0.771	-0.001	0.056	0.862
cg18265845	yellow	6	32,147,440	Body	OpenSea	RNF5	0.771	0.000	0.623	0.976
cg26866474	yellow	5	53,992,027		OpenSea		0.771	0.004	0.667	0.661
cg26220203	yellow	1	201,100,716		OpenSea		0.771	0.007	0.859	0.258
cg26398793	yellow	6	28,493,284	TSS1500	OpenSea	GPX5	0.771	0.007	0.905	0.282
cg21156057	yellow	9	133,709,397	TSS1500	N_Shore	ABL1	0.771	0.035	0.399	0.025
cg24536146	yellow	1	207,997,166		OpenSea		0.771	-0.008	0.488	0.195
cg08331960	yellow	16	2,076,597	TSS1500	N_Shore	SLC9A3R2	0.771	0.011	0.422	0.025
cg03331229	yellow	11	102,821,111	Body	OpenSea	MMP13	0.771	0.006	0.614	0.568
cg07537734	yellow	4	157,893,541	TSS1500	S_Shore	PDGFC	0.771	0.002	0.039	0.555
cg26401541	yellow	6	91,078,974		OpenSea		0.771	0.017	0.109	0.160
cg00163018	yellow	1	237,413,813	Body	OpenSea	RYR2	0.771	0.015	0.675	0.096
cg04000940	yellow	11	47,351,460	3'UTR	OpenSea	MADD	0.771	0.014	0.425	0.050
cg21718735	yellow	18	46,473,573	Body	N_Shore	SMAD7	0.771	0.001	0.147	0.938
cg03306641	yellow	11	5,645,703	Body	OpenSea	TRIM6-TRIM:	0.771	0.012	0.883	0.150
cg06581718	yellow	19	7,541,760	3'UTR	N_Shore	PEX11G	0.771	0.010	0.634	0.417
cg14675200	yellow	13	43,328,403		OpenSea		0.771	-0.001	0.683	0.946
cg11342331	yellow	6	161,739,798		OpenSea		0.771	0.009	0.768	0.330
cg22670759	yellow	3	50,487,955	Body	OpenSea	CACNA2D2	0.771	0.004	0.190	0.603
cg16651286	yellow	16	72,233,895		OpenSea		0.771	0.006	0.545	0.554
cg25500001	yellow	10	31,117,548		OpenSea		0.771	0.018	0.358	0.041
cg04247508	yellow	8	48,557,420	Body	OpenSea	KIAA0146	0.771	0.007	0.849	0.302
cg02900760	yellow	1	212,261,297	Body	OpenSea	DTL	0.771	-0.001	0.741	0.852
cg21942576	yellow	1	46,126,885	5'UTR	OpenSea	GPBP1L1	0.771	-0.003	0.814	0.729
cg11201288	yellow	1	70,669,885	Body	N_Shore	LRRC40	0.771	-0.005	0.870	0.535
cg00704780	yellow	2	242,207,920	5'UTR	N_Shelf	HDLBP	0.770	0.003	0.588	0.618
cg17021880	yellow	1	964,506	Body	Island	AGRN	0.770	0.009	0.653	0.292
cg03886436	yellow	3	118,491,179		OpenSea		0.770	-0.022	0.819	0.099
cg20218678	yellow	13	50,745,306	TSS1500	OpenSea	FAM10A4	0.770	-0.006	0.922	0.348
cg16455894	yellow	17	16,966,893	Body	OpenSea	MPRIP	0.770	-0.003	0.629	0.790
cg24691330	yellow	8	125,150,452		OpenSea		0.770	0.011	0.706	0.406
cg10491546	yellow	10	126,752,908	5'UTR	OpenSea	CTBP2	0.770	-0.014	0.925	0.017
cg06398114	yellow	7	2,674,181	Body	S_Shelf	TTYH3	0.770	0.010	0.406	0.236
cg25927227	yellow	8	41,127,218	Body	OpenSea	SFRP1	0.770	-0.005	0.302	0.553
cg04570540	yellow	13	113,383,816	Body	S_Shore	ATP11A	0.770	-0.015	0.887	0.163
cg14859088	yellow	22	43,343,959	TSS1500	OpenSea	PACSIN2	0.770	0.011	0.673	0.109
cg14772615	yellow	6	33,116,235		OpenSea		0.770	0.017	0.508	0.423
cg13777609	yellow	9	34,664,009	TSS1500	N_Shore	CCL27	0.770	0.018	0.528	0.021
cg13852093	yellow	18	74,770,815	Body	S_Shore	MBP	0.770	0.010	0.685	0.511
cg00174179	yellow	3	49,450,293	TSS1500	S_Shore	RHOA	0.770	0.011	0.598	0.097
cg12639429	yellow	18	21,572,622	TSS200	OpenSea	TTC39C	0.770	0.014	0.383	0.223
cg06379532	yellow	3	32,898,362	Body	OpenSea	TRIM71	0.770	0.004	0.602	0.555
cg19909063	yellow	19	13,113,455	Body	Island	NFIX	0.770	0.003	0.420	0.630
cg15999099	yellow	8	120,223,866	Body	S_Shelf	MAL2	0.770	0.020	0.790	0.057
cg26158023	yellow	3	42,881,414	5'UTR	OpenSea	CCBP2	0.770	0.003	0.359	0.563
cg11555919	yellow	1	84,763,932	TSS200	N_Shore	SAMD13	0.770	0.004	0.217	0.535
cg21736476	yellow	11	56,614,928		OpenSea		0.770	-0.001	0.737	0.910
cg08527448	yellow	5	150,070,582	3'UTR	OpenSea	RBM22	0.770	0.025	0.605	0.006
cg09764761	yellow	17	44,105,544	3'UTR	OpenSea	MAPT	0.770	0.000	0.703	0.999
cg18419358	yellow	6	158,384,009		OpenSea		0.770	-0.001	0.882	0.827
cg08810238	yellow	17	27,225,046	TSS1500	S_Shore	FLOT2	0.770	0.001	0.565	0.910
cg05585475	yellow	5	140,015,193		N_Shelf		0.770	-0.008	0.596	0.448
cg27256309	yellow	19	49,220,485	TSS1500	N_Shelf	MAMSTR	0.770	0.010	0.276	0.124
cg19824379	yellow	19	1,419,752	Body	Island	DAZAP1	0.770	-0.003	0.826	0.530
cg05032348	yellow	11	71,715,168	Body	OpenSea	NUMA1	0.770	0.008	0.741	0.217
cg15701237	yellow	3	187,086,154	TSS200	OpenSea	RTP4	0.770	0.005	0.787	0.489
cg13681655	yellow	2	20,413,180	Body	OpenSea	SDC1	0.770	0.003	0.632	0.697
cg19956078	yellow	4	153,831,380	3'UTR	OpenSea	ARFIP1	0.770	0.006	0.820	0.423
cg17740140	yellow	20	39,659,249	Body	S_Shore	TOP1	0.770	-0.003	0.662	0.698
cg14998896	yellow	3	185,080,218	TSS1500	OpenSea	MAP3K13	0.770	0.005	0.749	0.708
cg08658371	yellow	3	127,347,343	TSS1500	N_Shore	PODXL2	0.770	-0.001	0.891	0.914
cg14914238	yellow	15	83,620,321	Body	N_Shore	HOMER2	0.770	0.002	0.671	0.830
cg01561719	yellow	10	90,611,855	TSS200	OpenSea	ANKRD22	0.770	0.011	0.524	0.244
cg23244761	yellow	6	161,796,850	Body	OpenSea	PARK2	0.770	0.009	0.385	0.591
cg10592521	yellow	19	1,560,658	Body	S_Shelf	MEX3D	0.770	0.010	0.673	0.200
cg08426733	yellow	1	1,376,740	3'UTR	S_Shore	VWA1	0.770	-0.001	0.441	0.913

cg27607438	yellow	10	133,058,988	Body	S_Shore	TCERG1L	0.770	0.006	0.779	0.333
cg05964640	yellow	16	84,390,897		OpenSea		0.769	0.005	0.162	0.489
cg01678913	yellow	16	72,984,472	Body	OpenSea	ZFH3	0.769	0.003	0.872	0.682
cg18705541	yellow	4	77,660,055	Body	N_Shore	SHROOM3	0.769	0.003	0.817	0.741
cg15158530	yellow	3	49,821,340	5'UTR	N_Shelf	IP6K1	0.769	0.008	0.855	0.208
cg14875498	yellow	14	77,809,880	Body	OpenSea	TMED8	0.769	0.007	0.930	0.090
cg19024599	yellow	2	109,886,730	Body	OpenSea	SH3RF3	0.769	0.012	0.756	0.125
cg14074174	yellow	19	7,986,206	Body	S_Shore	SNAPC2	0.769	0.011	0.612	0.083
cg13884617	yellow	7	47,987,703	Body	OpenSea	PKD1L1	0.769	-0.001	0.796	0.872
cg12354321	yellow	11	76,093,056	TSS1500	S_Shore	PRKRIR	0.769	0.001	0.542	0.884
cg07282201	yellow	11	67,177,296	3'UTR	S_Shore	TBC1D10C	0.769	0.007	0.694	0.212
cg01352090	yellow	16	4,103,533	Body	OpenSea	ADCY9	0.769	0.013	0.126	0.293
cg15261730	yellow	7	55,280,797		OpenSea		0.769	0.021	0.672	0.011
cg00559560	yellow	21	47,317,093	Body	N_Shore	PCBP3	0.769	-0.003	0.829	0.682
cg16301975	yellow	6	168,394,160		S_Shelf		0.769	0.001	0.791	0.913
cg23228481	yellow	6	32,137,188	Body	S_Shore	AGPAT1	0.769	0.005	0.573	0.469
cg02503299	yellow	13	113,872,903	5'UTR	S_Shelf	CUL4A	0.769	-0.005	0.827	0.414
cg19350357	yellow	2	152,118,835	TSS1500	S_Shore	RBM43	0.769	-0.001	0.423	0.938
cg14530006	yellow	17	75,472,168	Body	OpenSea	9-Sep	0.769	0.017	0.623	0.037
cg26377557	yellow	19	18,667,414	TSS1500	N_Shore	C19orf50	0.769	0.002	0.678	0.735
cg00667525	yellow	19	18,699,118	TSS1500	N_Shore	C19orf60	0.769	0.016	0.421	0.098
cg22255435	yellow	15	74,556,873	Body	OpenSea	CCDC33	0.769	0.020	0.530	0.057
cg27147785	yellow	12	113,416,145	TSS200	OpenSea	OAS2	0.769	0.013	0.531	0.093
cg23632393	yellow	1	2,145,116		S_Shore		0.769	0.008	0.644	0.294
cg22911687	yellow	5	102,211,822	Body	OpenSea	PAM	0.769	-0.022	0.440	0.022
cg23024967	yellow	3	40,150,853	Body	OpenSea	MYRIP	0.769	0.000	0.756	0.959
cg14949630	yellow	6	151,258,879	Body	OpenSea	MTHFD1L	0.769	-0.007	0.829	0.568
cg26029221	yellow	1	12,653,721	Body	N_Shelf	DHRS3	0.769	0.011	0.508	0.124
cg17890983	yellow	13	37,394,336	Body	S_Shore	RFXAP	0.769	0.012	0.459	0.121
cg00246486	yellow	3	112,642,487	3'UTR	OpenSea	CD200R1	0.769	0.016	0.807	0.055
cg04661436	yellow	15	79,169,207	Body	S_Shelf	MORF4L1	0.769	0.012	0.524	0.482
cg25989227	yellow	4	10,095,183	Body	OpenSea	WDR1	0.769	0.005	0.877	0.313
cg11132223	yellow	1	169,696,560	Body	OpenSea	SELE	0.769	-0.005	0.906	0.482
cg23553576	yellow	11	85,451,557	Body	OpenSea	SYTL2	0.769	-0.003	0.295	0.831
cg15154339	yellow	13	114,304,661	Body	S_Shelf	ATP4B	0.769	-0.002	0.914	0.777
cg14425347	yellow	6	33,395,005	Body	N_Shore	SYNGAP1	0.769	0.000	0.166	0.964
cg17875429	yellow	12	52,432,565		S_Shore		0.769	0.005	0.773	0.400
cg12688670	yellow	16	29,801,602	TSS1500	N_Shore	KIF22	0.769	0.002	0.136	0.673
cg27079927	yellow	6	73,843,323	Body	OpenSea	KCNQ5	0.769	0.006	0.793	0.656
cg00989904	yellow	3	136,340,367	Body	OpenSea	STAG1	0.769	-0.006	0.826	0.482
cg18452347	yellow	8	176,533	Body	N_Shelf	RPL23AP53	0.769	0.008	0.826	0.542
cg09385667	yellow	3	73,543,236	Body	OpenSea	PDZRN3	0.769	0.013	0.645	0.400
cg13353733	yellow	11	773,106	Body	N_Shelf	PDDC1	0.769	0.014	0.532	0.078
cg26672159	yellow	6	30,579,650	5'UTR	OpenSea	PPP1R10	0.769	-0.005	0.864	0.536
cg19062966	yellow	18	32,924,746	TSS1500	S_Shore	ZNF24	0.769	0.005	0.046	0.230
cg00488512	yellow	22	19,465,503	Body	N_Shore	UFD1L	0.769	0.001	0.027	0.656
cg13221924	yellow	17	6,495,080	Body	OpenSea	KIAA0753	0.769	0.026	0.674	0.033
cg11579421	yellow	10	134,211,857	Body	S_Shore	PWWP2B	0.769	0.000	0.353	0.992
cg01310345	yellow	17	79,066,515	Body	OpenSea	BAIAP2	0.769	-0.004	0.839	0.672
cg18787420	yellow	20	30,309,466	Body	N_Shore	BCL2L1	0.768	0.015	0.646	0.066
cg14487111	yellow	9	137,032,976		S_Shelf		0.768	0.006	0.669	0.585
cg02626929	yellow	16	3,011,661		N_Shore		0.768	0.009	0.413	0.093
cg16854533	yellow	3	133,727,885	Body	OpenSea	SLCO2A1	0.768	-0.001	0.691	0.907
cg17927730	yellow	1	185,013,789	TSS1500	N_Shore	RNF2	0.768	0.001	0.705	0.953
cg02295509	yellow	17	48,256,402		OpenSea		0.768	0.006	0.797	0.419
cg15871828	yellow	2	55,988,638		OpenSea		0.768	0.018	0.696	0.174
cg21593835	yellow	3	123,354,036	Body	OpenSea	MYLK	0.768	0.005	0.682	0.435
cg15883181	yellow	17	78,336,395	Body	OpenSea	RNF213	0.768	0.000	0.895	0.938
cg15408855	yellow	12	106,736,581	Body	OpenSea	TCP11L2	0.768	0.011	0.244	0.262
cg15339605	yellow	7	115,670,795	1stExon	OpenSea	TFEC	0.768	-0.006	0.531	0.578
cg20803211	yellow	6	28,403,086	Body	OpenSea	ZSCAN23	0.768	-0.002	0.784	0.785
cg09002358	yellow	5	57,541,568		OpenSea		0.768	0.001	0.647	0.944
cg11210343	yellow	12	95,869,153	Body	S_Shore	METAP2	0.768	-0.005	0.129	0.516
cg17156534	yellow	20	39,658,922	Body	S_Shore	TOP1	0.768	0.001	0.084	0.837
cg09882647	yellow	20	43,991,346	TSS1500	N_Shore	SYS1	0.768	-0.003	0.199	0.775
cg08841511	yellow	10	86,184,581	Body	OpenSea	FAM190B	0.768	0.003	0.053	0.298
cg26334518	yellow	17	19,807,272		OpenSea		0.768	0.006	0.858	0.570

cg12048331	yellow	3	52,302,150	Body	OpenSea	WDR82	0.768	-0.003	0.950	0.339
cg10842095	yellow	12	56,843,596	TSS1500	S_Shore	TIMELESS	0.768	0.027	0.376	0.018
cg16079716	yellow	13	112,630,795		Island		0.768	0.007	0.597	0.549
cg23959872	yellow	10	105,106,746	Body	N_Shelf	PCGF6	0.768	0.000	0.935	0.982
cg27486585	yellow	6	30,459,595	Body	S_Shore	HLA-E	0.768	0.002	0.928	0.637
cg23637880	yellow	8	142,189,756	Body	OpenSea	DENND3	0.768	0.016	0.838	0.098
cg04905201	yellow	16	89,119,709		S_Shore		0.768	0.001	0.435	0.827
cg21125441	yellow	14	52,533,693	Body	N_Shore	NID2	0.768	0.001	0.911	0.877
cg12010750	yellow	11	17,803,160	Body	S_Shore	KCNC1	0.768	0.005	0.630	0.391
cg07359991	yellow	16	30,995,944	TSS1500	S_Shelf	HSD3B7	0.768	0.009	0.767	0.248
cg13261802	yellow	3	132,760,544	5'UTR	S_Shelf	TMEM108	0.768	0.004	0.658	0.797
cg13435326	yellow	3	178,907,655	5'UTR	OpenSea	PIK3CA	0.768	0.003	0.105	0.724
cg11389960	yellow	15	31,277,661	Body	OpenSea	MTMR10	0.768	0.006	0.746	0.442
cg12364786	yellow	15	64,056,664	Body	OpenSea	HERC1	0.768	0.005	0.523	0.741
cg23746628	yellow	4	74,439,996	3'UTR	OpenSea	RASSF6	0.768	0.006	0.869	0.322
cg25936358	yellow	13	114,301,996		N_Shore		0.768	0.003	0.215	0.854
cg03722802	yellow	1	26,495,178	TSS1500	N_Shore	ZNF593	0.768	-0.005	0.563	0.667
cg17221941	yellow	1	10,730,684	Body	OpenSea	CASZ1	0.768	-0.003	0.785	0.649
cg02313986	yellow	15	40,672,041		N_Shelf		0.768	0.001	0.429	0.890
cg00726786	yellow	2	242,039,676	Body	N_Shore	MTERFD2	0.768	-0.007	0.887	0.275
cg15597855	yellow	1	117,753,602	TSS200	OpenSea	VTCN1	0.768	0.011	0.647	0.104
cg18685879	yellow	3	141,012,746	3'UTR	OpenSea	ACPL2	0.768	0.001	0.784	0.941
cg27178772	yellow	6	89,794,756	3'UTR	S_Shelf	PNRC1	0.768	0.014	0.662	0.056
cg27259408	yellow	19	10,427,154	TSS1500	S_Shore	FDX1L	0.768	-0.007	0.198	0.344
cg07111861	yellow	15	57,737,942	Body	OpenSea	CGNL1	0.768	-0.004	0.706	0.721
cg26313319	yellow	6	33,362,895	Body	S_Shelf	KIFC1	0.768	0.003	0.610	0.624
cg21176629	yellow	8	67,838,106	TSS1500	S_Shore	SNHG6	0.768	0.018	0.535	0.075
cg25072666	yellow	17	79,533,843	Body	OpenSea	NPLOC4	0.768	0.004	0.049	0.768
cg02965178	yellow	16	53,538,660	TSS1500	S_Shore	AKTIP	0.768	-0.001	0.470	0.849
cg11064170	yellow	2	178,080,435	Body	S_Shelf	HNRNPA3	0.768	-0.004	0.879	0.270
cg23246666	yellow	2	236,672,684	Body	N_Shore	AGAP1	0.767	-0.006	0.756	0.731
cg00284179	yellow	2	155,314,028		OpenSea		0.767	-0.005	0.785	0.471
cg11509269	yellow	22	40,439,926	TSS1500	N_Shore	TNRC6B	0.767	0.004	0.099	0.624
cg03976712	yellow	1	2,946,727		OpenSea		0.767	0.002	0.566	0.816
cg15435490	yellow	3	155,867,120	Body	OpenSea	KCNAB1	0.767	-0.009	0.185	0.479
cg01428095	yellow	1	228,134,229	Body	N_Shore	WNT9A	0.767	0.020	0.521	0.061
cg21411781	yellow	3	131,984,709		OpenSea		0.767	0.009	0.776	0.315
cg01715680	yellow	14	93,725,377	Body	OpenSea	BTBD7	0.767	0.005	0.847	0.618
cg07351322	yellow	7	104,738,380	Body	OpenSea	MLL5	0.767	-0.001	0.545	0.911
cg13681701	yellow	5	1,103,910	Body	S_Shelf	SLC12A7	0.767	-0.004	0.220	0.591
cg21218183	yellow	1	92,760,687	Body	N_Shelf	GLMN	0.767	0.002	0.820	0.788
cg09040752	yellow	17	41,003,155	TSS200	OpenSea	AOC3	0.767	0.001	0.317	0.863
cg05309989	yellow	14	50,527,872		OpenSea		0.767	-0.002	0.395	0.833
cg25650964	yellow	13	33,544,014		OpenSea		0.767	0.007	0.680	0.530
cg25141611	yellow	13	113,422,162	Body	S_Shore	ATP11A	0.767	-0.004	0.652	0.715
cg06841964	yellow	16	2,635,445	Body	S_Shore	PDPK1	0.767	-0.015	0.790	0.233
cg00493422	yellow	4	57,547,872	TSS200	OpenSea	HOPX	0.767	0.007	0.308	0.554
cg01310768	yellow	5	89,823,130	5'UTR	N_Shore	LYSMD3	0.767	0.004	0.784	0.708
cg08639762	yellow	1	201,437,298	3'UTR	N_Shore	PHLDA3	0.767	0.024	0.474	0.024
cg12483947	yellow	10	72,640,100	3'UTR	OpenSea	SGPL1	0.767	-0.007	0.377	0.385
cg21959619	yellow	8	145,581,006	Body	N_Shore	FBXL6	0.767	0.013	0.592	0.048
cg16226866	yellow	6	110,418,140		OpenSea		0.767	0.003	0.093	0.809
cg08305799	yellow	8	30,580,804	Body	N_Shelf	GSR	0.767	0.000	0.570	0.991
cg01201215	yellow	5	151,137,430	Body	N_Shore	ATOX1	0.767	0.012	0.455	0.136
cg14094498	yellow	9	119,000,864	Body	OpenSea	PAPPA	0.767	-0.006	0.690	0.330
cg14489570	yellow	8	144,099,280	TSS1500	N_Shore	LY6E	0.767	0.009	0.490	0.150
cg12494373	yellow	12	46,581,199	3'UTR	OpenSea	SLC38A1	0.767	0.010	0.614	0.475
cg10737521	yellow	5	179,335,243	TSS1500	S_Shore	TBC1D9B	0.767	0.008	0.472	0.569
cg00321824	yellow	6	160,873,675	3'UTR	OpenSea	SLC22A3	0.767	-0.002	0.740	0.816
cg19495308	yellow	6	30,120,031	3'UTR	OpenSea	TRIM10	0.767	0.009	0.582	0.434
cg02065833	yellow	22	50,023,741	Body	N_Shore	C22orf34	0.767	0.005	0.764	0.417
cg14608275	yellow	3	172,429,421	TSS1500	S_Shore	NCEH1	0.767	0.005	0.743	0.578
cg26609398	yellow	16	2,752,235	Body	OpenSea	KCTD5	0.767	0.001	0.806	0.916
cg02911432	yellow	12	128,754,513	Body	S_Shore	TMEM132C	0.767	-0.009	0.378	0.383
cg08705647	yellow	5	132,608,124	Body	OpenSea	FSTL4	0.767	0.009	0.559	0.517
cg26524547	yellow	1	201,820,022	Body	OpenSea	IPO9	0.767	-0.007	0.713	0.448
cg10092251	yellow	13	101,196,790		OpenSea		0.767	-0.010	0.686	0.534

cg01880399	yellow	4	187,590,579	Body	OpenSea	FAT1	0.767	0.000	0.925	0.973
cg04104966	yellow	8	143,505,825		N_Shelf		0.767	-0.003	0.770	0.702
cg00117335	yellow	1	117,206,442	Body	N_Shelf	IGSF3	0.767	-0.001	0.902	0.836
cg02732508	yellow	16	89,628,853	Body	S_Shore	RPL13	0.767	0.001	0.543	0.923
cg07741805	yellow	5	35,940,037	TSS1500	OpenSea	CAPSL	0.767	0.008	0.848	0.315
cg21003878	yellow	14	24,872,323	Body	S_Shelf	NYNRIN	0.767	0.016	0.383	0.204
cg12868707	yellow	8	75,261,544	TSS1500	N_Shore	GDAP1	0.767	-0.010	0.485	0.397
cg17880320	yellow	1	160,256,132	TSS1500	OpenSea	PEX19	0.767	0.002	0.594	0.805
cg03149958	yellow	6	36,326,677		OpenSea		0.767	0.013	0.514	0.092
cg00698688	yellow	19	49,055,432	1stExon	OpenSea	SULT2B1	0.767	0.002	0.603	0.794
cg20987067	yellow	8	8,747,297	Body	N_Shore	MFHAS1	0.767	0.009	0.506	0.267
cg10369594	yellow	6	31,603,340	Body	S_Shelf	BAT2	0.767	0.006	0.618	0.230
cg17474524	yellow	20	62,168,831	TSS200	S_Shore	PTK6	0.767	0.004	0.748	0.578
cg05255811	yellow	6	39,192,009	Body	OpenSea	KCNK5	0.766	0.022	0.443	0.078
cg01190666	yellow	20	62,204,908	5'UTR	N_Shore	PRIC285	0.766	0.012	0.672	0.164
cg02426464	yellow	17	1,481,305	Body	S_Shelf	SLC43A2	0.766	0.012	0.526	0.017
cg11562596	yellow	11	61,717,766	5'UTR	OpenSea	BEST1	0.766	0.008	0.801	0.286
cg00153101	yellow	1	2,431,753	Body	N_Shore	PLCH2	0.766	0.017	0.755	0.008
cg03806812	yellow	2	86,180,836		OpenSea		0.766	0.005	0.491	0.514
cg18638581	yellow	2	75,059,602	TSS200	N_Shore	HK2	0.766	0.010	0.759	0.069
cg23437162	yellow	3	49,067,151	3'UTR	S_Shore	QRICH1	0.766	0.009	0.097	0.141
cg05830220	yellow	16	87,757,033	Body	S_Shelf	KLHDC4	0.766	0.014	0.250	0.486
cg22258538	yellow	11	14,403,163		S_Shore		0.766	-0.001	0.114	0.810
cg23095243	yellow	14	32,435,490		OpenSea		0.766	0.011	0.503	0.298
cg02087383	yellow	4	72,651,102	TSS1500	OpenSea	GC	0.766	-0.009	0.946	0.080
cg02514003	yellow	2	1,378,035		OpenSea		0.766	-0.013	0.841	0.292
cg10532980	yellow	7	1,971,467	Body	S_Shore	MAD1L1	0.766	0.001	0.765	0.812
cg13939166	yellow	9	140,850,133	Body	OpenSea	CACNA1B	0.766	0.008	0.708	0.129
cg10414946	yellow	11	59,856,358	Body	OpenSea	MS4A2	0.766	0.001	0.823	0.890
cg07245558	yellow	1	246,886,514	TSS1500	N_Shore	SCCPDH	0.766	0.006	0.715	0.208
cg24313592	yellow	11	72,020,031	Body	OpenSea	CLPB	0.766	-0.001	0.459	0.939
cg09386420	yellow	16	85,204,599		Island		0.766	-0.002	0.637	0.695
cg22804358	yellow	22	24,574,487	3'UTR	OpenSea	CABIN1	0.766	0.014	0.714	0.063
cg00657508	yellow	7	39,772,168	TSS1500	N_Shore	LOC349114	0.766	0.003	0.898	0.685
cg13727957	yellow	9	88,579,621	Body	OpenSea	NAA35	0.766	-0.011	0.576	0.376
cg19987540	yellow	12	72,145,031		N_Shelf		0.766	-0.009	0.586	0.311
cg08073153	yellow	6	33,754,833	Body	N_Shore	LEMD2	0.766	-0.013	0.597	0.128
cg24340898	yellow	8	67,782,729	TSS1500	OpenSea	C8orf45	0.766	0.009	0.650	0.389
cg20784813	yellow	1	21,999,106		S_Shelf		0.766	-0.003	0.720	0.657
cg26202964	yellow	2	109,999,383	Body	OpenSea	SH3RF3	0.766	0.000	0.630	0.973
cg07495470	yellow	22	43,009,195	Body	N_Shore	POLDIP3	0.766	0.005	0.354	0.474
cg08121478	yellow	19	47,217,786	TSS1500	N_Shore	PRKD2	0.766	-0.004	0.054	0.436
cg04890237	yellow	1	2,537,585	Body	N_Shore	MMEL1	0.766	0.004	0.612	0.628
cg25747935	yellow	11	4,977,540	TSS1500	OpenSea	OR51A2	0.766	0.005	0.816	0.657
cg14414873	yellow	9	112,970,463	TSS200	OpenSea	C9orf152	0.766	0.003	0.693	0.798
cg19900050	yellow	13	115,001,386	Body	S_Shore	CDC16	0.766	0.009	0.129	0.458
cg02707277	yellow	6	32,945,906	Body	OpenSea	BRD2	0.766	0.004	0.485	0.627
cg23098051	yellow	17	19,648,846	1stExon	S_Shore	ALDH3A1	0.766	0.009	0.580	0.326
cg05715649	yellow	1	202,680,562	TSS1500	S_Shore	SYT2	0.766	0.021	0.534	0.040
cg25130277	yellow	1	167,904,675	TSS1500	N_Shore	DCAF6	0.766	0.008	0.088	0.041
cg03071146	yellow	2	54,010,103	Body	N_Shelf	LOC1003026	0.766	0.005	0.821	0.613
cg24446932	yellow	10	46,976,264		OpenSea		0.766	0.003	0.305	0.522
cg02108620	yellow	3	42,002,230	5'UTR	N_Shore	ULK4	0.766	0.004	0.484	0.678
cg14039237	yellow	9	130,833,354	Body	S_Shelf	SLC25A25	0.766	0.017	0.513	0.041
cg01102854	yellow	11	63,605,717	TSS1500	N_Shore	MARK2	0.766	0.007	0.501	0.284
cg24568579	yellow	12	111,841,024		N_Shore		0.766	0.011	0.251	0.105
cg08195491	yellow	16	50,746,063	Body	OpenSea	NOD2	0.766	0.011	0.567	0.172
cg20220639	yellow	6	30,295,328	TSS1500	S_Shore	HCG18	0.766	0.018	0.153	0.006
cg23207673	yellow	1	35,649,498	3'UTR	OpenSea	SFPQ	0.766	0.004	0.831	0.683
cg21236845	yellow	5	98,115,329	Body	OpenSea	RGMB	0.766	-0.005	0.830	0.469
cg19909658	yellow	17	38,447,008	Body	S_Shelf	CDC6	0.766	0.006	0.814	0.475
cg07302959	yellow	7	92,198,639	Body	OpenSea	FAM133B	0.766	-0.014	0.830	0.413
cg19328649	yellow	17	63,053,432	TSS1500	S_Shore	GNA13	0.766	-0.001	0.427	0.874
cg26108976	yellow	14	70,082,429	5'UTR	S_Shelf	KIAA0247	0.766	0.011	0.423	0.174
cg24312985	yellow	1	6,684,957	TSS1500	N_Shore	THAP3	0.766	0.010	0.270	0.081
cg04062040	yellow	2	103,343,421	Body	OpenSea	MFSD9	0.766	0.009	0.785	0.312
cg19201723	yellow	20	7,921,280	TSS200	OpenSea	HAO1	0.765	0.002	0.609	0.831

cg24036039	yellow	1	3,397,125	Body	S_Shore	ARHGEF16	0.765	-0.002	0.674	0.829
cg06046580	yellow	2	232,757,414	TSS1500	OpenSea	MIR1471	0.765	0.003	0.628	0.689
cg17491759	yellow	6	100,676,774		N_Shore		0.765	0.005	0.084	0.379
cg06734510	yellow	2	198,673,750	Body	S_Shelf	PLCL1	0.765	0.020	0.623	0.113
cg23986158	yellow	1	8,847,014	5'UTR	OpenSea	RERE	0.765	-0.005	0.906	0.467
cg10597192	yellow	3	64,227,700		OpenSea		0.765	-0.005	0.769	0.540
cg18044967	yellow	11	2,334,942	Body	OpenSea	TSPAN32	0.765	0.007	0.762	0.351
cg16963852	yellow	3	150,479,084	Body	N_Shore	SIAH2	0.765	0.006	0.570	0.588
cg20522029	yellow	22	43,343,992	TSS1500	OpenSea	PAC SIN2	0.765	0.008	0.778	0.350
cg22546122	yellow	19	16,178,253	TSS200	N_Shore	TPM4	0.765	-0.009	0.276	0.632
cg16803737	yellow	6	33,592,658	Body	S_Shelf	ITPR3	0.765	0.007	0.597	0.292
cg23899147	yellow	6	110,864,433		OpenSea		0.765	0.000	0.814	0.950
cg06476131	yellow	13	47,471,052	1stExon	OpenSea	HTR2A	0.765	0.007	0.108	0.603
cg13038025	yellow	15	42,130,650	Body	OpenSea	JMJD7-PLAZC	0.765	-0.004	0.580	0.537
cg02829456	yellow	2	201,982,020	5'UTR	N_Shore	CFLAR	0.765	0.000	0.021	0.827
cg14193290	yellow	4	5,480,519	Body	OpenSea	STK32B	0.765	-0.001	0.502	0.918
cg12873919	yellow	20	30,309,627	Body	N_Shore	BCL2L1	0.765	0.006	0.664	0.501
cg24862252	yellow	8	97,536,009	Body	OpenSea	SDC2	0.765	-0.001	0.699	0.879
cg01537769	yellow	13	94,075,842	Body	OpenSea	GPC6	0.765	0.006	0.747	0.702
cg03572260	yellow	17	37,808,339	5'UTR	OpenSea	STARD3	0.765	-0.002	0.894	0.767
cg19685205	yellow	12	8,672,038	Body	OpenSea	CLEC4D	0.765	-0.012	0.691	0.259
cg16611352	yellow	17	3,819,429	1stExon	OpenSea	P2RX1	0.765	0.002	0.767	0.785
cg04112626	yellow	4	79,861,272	TSS1500	S_Shore	PAQR3	0.765	0.014	0.284	0.096
cg12604192	yellow	1	111,062,127	TSS1500	OpenSea	KCNA10	0.765	-0.005	0.399	0.512
cg03406626	yellow	11	96,036,104	Body	OpenSea	MAML2	0.765	0.022	0.862	0.124
cg17976205	yellow	20	61,002,857	TSS1500	OpenSea	C20orf151	0.765	0.012	0.603	0.061
cg25814293	yellow	7	1,883,251	Body	N_Shore	MAD1L1	0.765	0.007	0.498	0.631
cg25979543	yellow	1	17,888,104	5'UTR	OpenSea	ARHGEF10L	0.765	-0.001	0.844	0.873
cg04997045	yellow	4	1,240,068	Body	N_Shore	CTBP1	0.765	-0.001	0.954	0.834
cg19832721	yellow	17	44,249,866	TSS1500	OpenSea	KIAA1267	0.765	-0.001	0.883	0.913
cg04680150	yellow	2	44,065,627	Body	OpenSea	ABCG5	0.765	0.012	0.806	0.095
cg10403251	yellow	16	9,206,298	Body	OpenSea	C16orf72	0.765	0.002	0.683	0.721
cg03117079	yellow	1	91,488,015	TSS1500	S_Shore	ZNF644	0.765	0.001	0.453	0.950
cg03348466	yellow	15	91,104,770	Body	OpenSea	CRTC3	0.765	-0.007	0.906	0.311
cg26794812	yellow	15	99,050,082	5'UTR	OpenSea	FAM169B	0.765	0.018	0.705	0.156
cg02309868	yellow	19	35,741,001	Body	S_Shore	LSR	0.765	0.001	0.607	0.877
cg01894846	yellow	14	100,752,463		S_Shore		0.765	0.014	0.538	0.201
cg27601809	yellow	11	72,091,020	Body	OpenSea	CLPB	0.765	0.002	0.704	0.783
cg11205006	yellow	22	26,875,499	1stExon	N_Shelf	HPS4	0.765	0.005	0.861	0.507
cg19301114	yellow	6	161,796,785	Body	OpenSea	PARK2	0.765	0.001	0.100	0.961
cg06134860	yellow	16	67,977,992	3'UTR	OpenSea	SLC12A4	0.765	0.002	0.803	0.785
cg16335868	yellow	5	169,780,480	TSS1500	OpenSea	KCNIP1	0.765	-0.003	0.297	0.773
cg21751873	yellow	3	27,723,084		OpenSea		0.765	0.007	0.183	0.545
cg08276542	yellow	21	44,525,949	5'UTR	N_Shore	U2AF1	0.765	0.004	0.658	0.688
cg08221272	yellow	13	99,135,770	Body	OpenSea	STK24	0.765	-0.006	0.946	0.055
cg03708990	yellow	17	45,899,469	TSS1500	OpenSea	OSBPL7	0.765	0.004	0.525	0.640
cg07706558	yellow	11	12,183,446	5'UTR	OpenSea	MICAL2	0.765	0.016	0.855	0.099
cg14415629	yellow	11	33,033,607		N_Shelf		0.765	0.006	0.493	0.457
cg15928742	yellow	2	171,822,907	3'UTR	OpenSea	GORASP2	0.765	0.010	0.561	0.173
cg06556244	yellow	7	143,089,459	Body	OpenSea	EPHA1	0.765	0.003	0.237	0.744
cg23864752	yellow	4	4,695,575		OpenSea		0.765	0.006	0.401	0.434
cg00467652	yellow	3	50,357,644	Body	Island	HYAL2	0.765	0.012	0.725	0.071
cg06807696	yellow	14	35,832,310		OpenSea		0.765	-0.008	0.417	0.440
cg15552249	yellow	4	88,450,824	TSS200	OpenSea	SPARCL1	0.765	0.006	0.077	0.342
cg13963807	yellow	11	67,165,707	3'UTR	N_Shore	PPP1CA	0.765	0.006	0.756	0.329
cg26894259	yellow	1	27,817,246	TSS1500	S_Shore	WASF2	0.765	0.006	0.322	0.355
cg18953039	yellow	10	1,031,432		N_Shelf		0.765	0.001	0.904	0.905
cg09499136	yellow	6	168,975,608	Body	S_Shore	SMOC2	0.765	0.013	0.208	0.318
cg00814751	yellow	5	176,072,170	Body	N_Shore	EIF4E1B	0.764	0.005	0.679	0.481
cg17232357	yellow	15	67,012,832	Body	OpenSea	SMAD6	0.764	0.000	0.592	0.951
cg15647311	yellow	19	12,897,519		N_Shelf		0.764	0.001	0.423	0.908
cg08260790	yellow	8	98,294,370		S_Shelf		0.764	-0.004	0.840	0.665
cg15884185	yellow	4	7,368,808	Body	OpenSea	SORCS2	0.764	0.010	0.554	0.184
cg00939684	yellow	16	1,599,150	Body	Island	IFT140	0.764	0.002	0.780	0.642
cg07069636	yellow	16	30,671,749		S_Shore		0.764	0.001	0.470	0.827
cg01296230	yellow	2	12,894,736		OpenSea		0.764	0.004	0.861	0.589
cg26978960	yellow	16	62,460		OpenSea		0.764	0.003	0.741	0.774

cg12827188	yellow	4	155,511,987	TSS200	OpenSea	FGA	0.764	0.001	0.643	0.838
cg20608895	yellow	13	109,896,380		OpenSea		0.764	0.008	0.655	0.389
cg13215285	yellow	1	22,237,254	Body	OpenSea	HSPG2	0.764	0.015	0.707	0.060
cg00220677	yellow	5	35,230,935	TSS200	OpenSea	PRLR	0.764	0.010	0.381	0.449
cg25792999	yellow	15	98,065,822		OpenSea		0.764	0.016	0.794	0.113
cg27530370	yellow	1	154,589,288	5'UTR	OpenSea	ADAR	0.764	0.004	0.521	0.618
cg17916418	yellow	3	128,368,141	Body	N_Shore	RPN1	0.764	0.009	0.303	0.454
cg14905600	yellow	10	134,226,361	3'UTR	OpenSea	PWWP2B	0.764	0.004	0.855	0.625
cg05927645	yellow	1	5,943,175	Body	OpenSea	NPHP4	0.764	0.000	0.728	0.983
cg01886634	yellow	9	80,849,717	TSS1500	N_Shore	CEP78	0.764	0.004	0.681	0.546
cg11399640	yellow	15	73,285,234		OpenSea		0.764	0.009	0.154	0.489
cg06309980	yellow	16	1,491,215	Body	N_Shelf	CCDC154	0.764	0.003	0.705	0.736
cg07787543	yellow	6	901,310		OpenSea		0.764	0.006	0.196	0.565
cg11490805	yellow	5	3,226,466		OpenSea		0.764	0.006	0.572	0.612
cg10241809	yellow	17	80,197,360	3'UTR	S_Shore	SLC16A3	0.764	0.012	0.430	0.123
cg03763873	yellow	13	43,565,901	Body	N_Shore	EPSTI1	0.764	0.002	0.374	0.849
cg21201393	yellow	5	38,445,522	TSS200	OpenSea	EGFLAM	0.764	-0.014	0.788	0.350
cg07215003	yellow	5	133,532,149	3'UTR	OpenSea	PPP2CA	0.764	0.003	0.719	0.727
cg17820022	yellow	1	2,425,860	Body	OpenSea	PLCH2	0.764	0.002	0.604	0.893
cg08937734	yellow	1	19,422,904	Body	OpenSea	UBR4	0.764	-0.002	0.489	0.799
cg24929538	yellow	3	73,164,119		S_Shelf		0.764	0.003	0.645	0.600
cg14104148	yellow	11	126,203,133	Body	OpenSea	DCPS	0.764	0.004	0.874	0.456
cg23338773	yellow	7	44,183,642		N_Shore		0.764	-0.005	0.837	0.325
cg15415945	yellow	6	31,627,678	1stExon	N_Shore	C6orf47	0.764	0.027	0.438	0.017
cg10481202	yellow	12	49,581,272	Body	N_Shore	TUBA1A	0.764	0.032	0.307	0.037
cg13573745	yellow	9	97,405,553		S_Shelf		0.764	0.017	0.689	0.033
cg05083067	yellow	11	4,661,335	1stExon	OpenSea	OR51D1	0.764	0.001	0.807	0.892
cg27043548	yellow	14	99,567,309		OpenSea		0.764	0.011	0.800	0.230
cg25679475	yellow	3	118,705,126	Body	OpenSea	IGSF11	0.764	-0.008	0.705	0.380
cg19222574	yellow	3	126,706,207	TSS1500	N_Shore	PLXNA1	0.764	-0.001	0.579	0.929
cg01890417	yellow	1	91,488,275	TSS1500	S_Shore	ZNF644	0.764	-0.009	0.814	0.392
cg06894204	yellow	19	608,804	Body	N_Shelf	HCN2	0.764	-0.010	0.736	0.197
cg00656991	yellow	6	71,136,165	5'UTR	OpenSea	FAM135A	0.764	0.006	0.858	0.451
cg15108490	yellow	11	36,177,699	Body	OpenSea	LDLRAD3	0.764	0.007	0.655	0.259
cg13954206	yellow	12	110,059,808		OpenSea		0.764	0.014	0.737	0.255
cg26057765	yellow	7	91,513,110		S_Shelf		0.764	0.010	0.580	0.083
cg08371643	yellow	17	58,231,248	Body	S_Shelf	CA4	0.764	0.011	0.715	0.059
cg06224178	yellow	8	131,360,571	Body	OpenSea	ASAP1	0.764	0.009	0.703	0.520
cg00892567	yellow	20	56,323,934		N_Shore		0.764	0.012	0.070	0.163
cg03226752	yellow	16	1,835,533	Body	N_Shore	NUBP2	0.764	0.006	0.774	0.397
cg12717584	yellow	1	23,122,112	Body	OpenSea	EPHB2	0.763	-0.021	0.752	0.094
cg01465824	yellow	6	1,930,446	Body	OpenSea	GMDS	0.763	0.000	0.765	0.979
cg08428545	yellow	4	111,507,452		N_Shore		0.763	0.015	0.116	0.146
cg02212389	yellow	7	151,070,905	Body	OpenSea	NUB1	0.763	0.004	0.670	0.538
cg26977737	yellow	21	22,175,522	TSS200	OpenSea	C21orf131	0.763	0.019	0.774	0.017
cg04330122	yellow	3	119,316,820	1stExon	OpenSea	PLA1A	0.763	0.008	0.649	0.268
cg14969542	yellow	3	100,684,923	Body	OpenSea	ABI3BP	0.763	0.010	0.760	0.472
cg02176678	yellow	2	219,576,539	5'UTR	S_Shore	TTLL4	0.763	0.013	0.268	0.211
cg24838237	yellow	11	112,505,689		OpenSea		0.763	0.016	0.646	0.289
cg04914221	yellow	15	63,116,514	Body	OpenSea	TLN2	0.763	0.009	0.606	0.371
cg00965578	yellow	22	36,560,801	5'UTR	OpenSea	APOL3	0.763	0.003	0.805	0.679
cg21000762	yellow	17	78,892,850	Body	N_Shelf	RPTOR	0.763	0.004	0.924	0.370
cg21637865	yellow	4	26,041,119		OpenSea		0.763	-0.015	0.600	0.120
cg24577455	yellow	1	2,069,012	5'UTR	S_Shelf	PRKCZ	0.763	0.013	0.612	0.125
cg27598107	yellow	2	102,759,782		S_Shore		0.763	0.004	0.106	0.652
cg08464513	yellow	16	30,136,024	TSS1500	S_Shore	MAPK3	0.763	0.010	0.815	0.278
cg01860774	yellow	14	64,969,374	5'UTR	N_Shore	ZBTB25	0.763	0.003	0.845	0.627
cg13471932	yellow	9	135,992,243	Body	N_Shelf	RALGDS	0.763	0.003	0.855	0.544
cg01281718	yellow	6	71,376,634	TSS1500	N_Shore	SMAP1	0.763	0.000	0.890	1.000
cg12887711	yellow	5	42,583,692	Body	OpenSea	GHR	0.763	0.003	0.067	0.562
cg06748146	yellow	10	71,104,724	Body	OpenSea	HK1	0.763	-0.007	0.723	0.227
cg26833883	yellow	1	154,965,572	3'UTR	OpenSea	FLAD1	0.763	0.010	0.585	0.187
cg06239064	yellow	12	66,697,621	Body	OpenSea	HELB	0.763	-0.005	0.905	0.354
cg18489755	yellow	3	183,533,873	3'UTR	OpenSea	MAP6D1	0.763	0.013	0.721	0.079
cg14306058	yellow	9	112,078,580	Body	N_Shelf	EPB41L4B	0.763	0.007	0.843	0.318
cg08144406	yellow	7	51,381,086	Body	N_Shelf	COBL	0.763	0.026	0.672	0.031
cg23157360	yellow	2	75,979,318		OpenSea		0.763	0.010	0.393	0.441

cg20391220	yellow	15	71,059,029	S_Shelf		0.763	-0.004	0.315	0.817
cg18599155	yellow	3	5,163,620 TSS1500	N_Shore	ARL8B	0.763	0.015	0.699	0.192
cg05913474	yellow	8	144,815,204 5'UTR	Island	FAM83H	0.763	0.012	0.678	0.202
cg06219624	yellow	5	111,496,180 TSS1500	N_Shore	SNORA13	0.763	0.001	0.879	0.922
cg12296269	yellow	1	17,091,021 TSS200	OpenSea	MST1P9	0.763	0.006	0.540	0.344
cg13136655	yellow	6	149,806,131 5'UTR	OpenSea	ZC3H12D	0.763	0.007	0.531	0.528
cg15559674	yellow	6	149,803,426 5'UTR	OpenSea	ZC3H12D	0.763	0.018	0.485	0.033
cg05194346	yellow	15	101,305,443	OpenSea		0.763	0.011	0.478	0.356
cg03753191	yellow	13	43,566,902 TSS1500	S_Shore	EPSTI1	0.763	0.000	0.619	0.982
cg19592720	yellow	2	95,971,840 Body	OpenSea	KCNIP3	0.763	0.005	0.762	0.689
cg20045040	yellow	22	22,052,942 3'UTR	OpenSea	YPEL1	0.763	0.008	0.461	0.195
cg11514288	yellow	13	47,471,197 TSS200	OpenSea	HTR2A	0.763	0.009	0.125	0.356
cg13565300	yellow	10	48,437,796 Body	N_Shore	GDF10	0.763	0.012	0.700	0.231
cg14869949	yellow	6	105,547,437 3'UTR	OpenSea	BVES	0.763	0.000	0.838	0.997
cg01229567	yellow	1	1,549,818 TSS1500	N_Shore	MIB2	0.763	0.016	0.479	0.192
cg17593404	yellow	7	107,531,310 TSS1500	N_Shore	DLD	0.763	0.002	0.048	0.608
cg25278298	yellow	4	1,305,282 Body	S_Shore	MAEA	0.763	0.000	0.722	0.960
cg01243312	yellow	2	136,422,981 Body	OpenSea	MIR128-1	0.763	0.013	0.382	0.304
cg12934016	yellow	15	25,654,256 5'UTR	OpenSea	UBE3A	0.763	-0.011	0.822	0.336
cg02246800	yellow	16	87,717,961 Body	N_Shore	JPH3	0.763	0.008	0.816	0.231
cg11265874	yellow	3	133,643,042	N_Shelf		0.763	0.001	0.644	0.946
cg26649504	yellow	12	112,196,397	OpenSea		0.763	0.001	0.795	0.856
cg14267222	yellow	10	125,847,615	N_Shelf		0.763	0.008	0.409	0.203
cg16751203	yellow	2	127,950,803 Body	OpenSea	CYP27C1	0.763	0.010	0.877	0.228
cg21355487	yellow	10	49,688,893 Body	S_Shore	ARHGAP22	0.763	0.002	0.337	0.825
cg07382129	yellow	15	100,249,186 Body	OpenSea	MEF2A	0.762	0.005	0.454	0.570
cg00483992	yellow	1	35,449,536	N_Shore		0.762	-0.001	0.530	0.943
cg13633756	yellow	19	48,828,393 TSS1500	S_Shelf	EMP3	0.762	-0.007	0.108	0.238
cg20782743	yellow	18	24,445,262 Body	S_Shore	AQP4	0.762	0.019	0.651	0.061
cg09813400	yellow	5	150,431,636 Body	OpenSea	TNIP1	0.762	0.001	0.718	0.837
cg24047736	yellow	2	39,006,193 Body	OpenSea	GEMIN6	0.762	0.006	0.375	0.438
cg22596738	yellow	1	236,688,128 5'UTR	S_Shore	LGALS8	0.762	0.000	0.033	0.973
cg16681157	yellow	16	49,594,482 Body	OpenSea	ZNF423	0.762	0.027	0.796	0.074
cg01484156	yellow	8	102,802,615 5'UTR	OpenSea	NCALD	0.762	0.013	0.548	0.249
cg03893339	yellow	3	132,438,643 Body	N_Shelf	NPHP3	0.762	0.000	0.810	0.987
cg06898168	yellow	7	5,447,353 Body	OpenSea	TNRC18	0.762	0.013	0.509	0.056
cg23183422	yellow	5	179,565,544 5'UTR	S_Shore	RASGEF1C	0.762	0.010	0.573	0.242
cg09259534	yellow	1	218,472,841 Body	OpenSea	RRP15	0.762	0.003	0.426	0.668
cg10258719	yellow	10	35,896,405 Body	N_Shore	GJD4	0.762	0.007	0.422	0.384
cg16151362	yellow	6	167,508,053	S_Shore		0.762	0.006	0.677	0.504
cg12682805	yellow	11	57,828,341 5'UTR	OpenSea	OR9Q1	0.762	-0.002	0.760	0.882
cg18247124	yellow	11	122,943,141 3'UTR	OpenSea	ASAM	0.762	-0.003	0.926	0.623
cg17383329	yellow	7	21,813,087 Body	OpenSea	DNAH11	0.762	-0.003	0.719	0.824
cg12895857	yellow	6	140,383,629	OpenSea		0.762	0.009	0.081	0.283
cg14445012	yellow	9	115,926,922	OpenSea		0.762	0.004	0.797	0.508
cg15804598	yellow	17	43,224,418 TSS1500	N_Shore	HEXIM1	0.762	0.008	0.521	0.246
cg16914953	yellow	7	100,798,809 Body	S_Shore	AP1S1	0.762	0.010	0.731	0.138
cg02794358	yellow	2	54,816,818 Body	OpenSea	SPTBN1	0.762	-0.029	0.468	0.017
cg12412030	yellow	18	8,406,757 3'UTR	OpenSea	PTPRM	0.762	-0.008	0.801	0.459
cg10716612	yellow	4	184,113,429 Body	OpenSea	WWC2	0.762	0.000	0.659	0.950
cg16779976	yellow	10	98,031,125 1stExon	OpenSea	BLNK	0.762	0.007	0.793	0.397
cg00209918	yellow	16	30,991,472 Body	N_Shore	SETD1A	0.762	-0.005	0.924	0.405
cg24163242	yellow	8	48,648,813	N_Shore		0.762	0.004	0.046	0.612
cg22444610	yellow	2	201,375,087 TSS1500	S_Shore	KCTD18	0.762	0.002	0.243	0.813
cg05625284	yellow	3	32,509,105	N_Shore		0.762	0.002	0.642	0.763
cg09298484	yellow	2	99,759,406 TSS1500	S_Shore	TSGA10	0.762	0.005	0.778	0.619
cg05540716	yellow	17	27,077,424 3'UTR	OpenSea	TRAF4	0.762	0.015	0.111	0.062
cg26136772	yellow	7	4,754,681 Body	N_Shelf	FOKK1	0.762	0.000	0.917	0.957
cg23248452	yellow	5	9,631,117 TSS1500	OpenSea	TAS2R1	0.762	0.006	0.763	0.332
cg00591333	yellow	17	79,109,910 Body	Island	AATK	0.762	0.009	0.484	0.311
cg01799115	yellow	8	135,827,395	OpenSea		0.762	-0.001	0.705	0.925
cg17117459	yellow	13	25,085,405 5'UTR	N_Shore	PARP4	0.762	-0.007	0.938	0.103
cg08336300	yellow	6	109,331,442 Body	S_Shore	SESN1	0.762	-0.005	0.471	0.575
cg09130190	yellow	11	32,115,439 Body	S_Shelf	RCN1	0.762	0.003	0.818	0.605
cg05483505	yellow	11	59,785,552	OpenSea		0.761	0.005	0.698	0.562
cg19638176	yellow	19	12,782,961 Body	S_Shore	MORG1	0.761	-0.001	0.260	0.799
cg14196507	yellow	10	96,443,383 1stExon	OpenSea	CYP2C18	0.761	-0.003	0.921	0.466

cg19198919	yellow	12	109,527,430	Body	N_Shelf	ALKBH2	0.761	0.008	0.646	0.291
cg09349128	yellow	22	50,327,986		N_Shore		0.761	0.007	0.515	0.246
cg14609668	yellow	9	34,651,062	TSS1500	OpenSea	IL11RA	0.761	0.008	0.428	0.227
cg13502252	yellow	1	153,762,372		OpenSea		0.761	0.008	0.253	0.312
cg13788625	yellow	9	140,340,778		N_Shelf		0.761	0.006	0.860	0.313
cg03156260	yellow	4	75,721,361	TSS1500	S_Shore	BTC	0.761	0.000	0.703	0.968
cg17331741	yellow	6	151,258,832	Body	OpenSea	MTHFD1L	0.761	-0.002	0.819	0.894
cg19040026	yellow	4	103,789,592	Body	N_Shore	UBE2D3	0.761	0.027	0.086	0.025
cg22068211	yellow	3	128,295,141	TSS1500	OpenSea	C3orf27	0.761	-0.004	0.855	0.410
cg06511482	yellow	1	882,546	Body	N_Shelf	NOC2L	0.761	0.002	0.804	0.644
cg20231444	yellow	13	113,429,356	Body	Island	ATP11A	0.761	-0.013	0.915	0.182
cg18147296	yellow	1	812,539	TSS1500	OpenSea	FAM41C	0.761	0.007	0.532	0.441
cg19221489	yellow	20	48,530,654	TSS1500	N_Shore	SPATA2	0.761	0.009	0.749	0.169
cg03779937	yellow	2	173,319,893	Body	OpenSea	ITGA6	0.761	0.005	0.835	0.507
cg25551219	yellow	22	50,909,865	Body	N_Shelf	SBF1	0.761	0.006	0.742	0.385
cg08288016	yellow	4	187,590,536	Body	OpenSea	FAT1	0.761	-0.011	0.777	0.311
cg12669271	yellow	8	118,987,299	Body	OpenSea	EXT1	0.761	0.038	0.535	0.024
cg03002688	yellow	4	26,152,723		OpenSea		0.761	0.003	0.751	0.692
cg19589396	yellow	8	103,937,374		OpenSea		0.761	0.015	0.580	0.028
cg17235179	yellow	5	154,240,634	5'UTR	S_Shelf	CNOT8	0.761	0.004	0.897	0.527
cg27591371	yellow	6	31,627,633	1stExon	N_Shore	C6orf47	0.761	0.012	0.186	0.053
cg01663295	yellow	11	65,837,194	TSS1500	N_Shore	PACS1	0.761	0.002	0.079	0.580
cg02319187	yellow	9	137,229,907	Body	Island	RXRA	0.761	-0.002	0.839	0.811
cg25214376	yellow	10	1,781,920		S_Shore		0.761	0.005	0.662	0.543
cg13179330	yellow	2	54,756,247	TSS200	OpenSea	RPL23AP32	0.761	0.000	0.930	0.951
cg18015809	yellow	6	47,202,254	Body	OpenSea	TNFRSF21	0.761	0.012	0.765	0.162
cg25827710	yellow	13	46,742,802	5'UTR	OpenSea	LCP1	0.761	0.004	0.530	0.661
cg18681014	yellow	14	105,660,876		N_Shore		0.761	0.016	0.110	0.314
cg19580792	yellow	10	64,568,066	3'UTR	S_Shelf	ADO	0.761	-0.009	0.790	0.293
cg06179039	yellow	16	67,263,524	3'UTR	S_Shelf	FHOD1	0.761	0.004	0.770	0.510
cg15690542	yellow	1	151,172,905	Body	S_Shore	PIP5K1A	0.761	0.003	0.268	0.650
cg21746711	yellow	3	52,435,298	3'UTR	OpenSea	BAP1	0.761	0.001	0.842	0.918
cg10766021	yellow	7	148,983,373	Body	S_Shore	ZNF783	0.761	0.005	0.654	0.429
cg24034923	yellow	1	213,184,996	Body	N_Shelf	ANGEL2	0.761	-0.001	0.680	0.934
cg21101335	yellow	19	5,808,269		S_Shelf		0.761	0.018	0.833	0.009
cg13798621	yellow	1	1,396,125	Body	Island	ATAD3C	0.761	-0.003	0.782	0.708
cg08928753	yellow	1	43,770,707	Body	Island	TIE1	0.761	0.015	0.736	0.404
cg07635249	yellow	11	1,703,424	Body	OpenSea	HCCA2	0.761	-0.005	0.620	0.631
cg24520885	yellow	10	76,747,956	Body	OpenSea	MYST4	0.761	0.010	0.786	0.275
cg20355301	yellow	9	97,848,107	3'UTR	N_Shore	C9orf3	0.761	0.004	0.634	0.642
cg03497895	yellow	15	59,598,984	Body	OpenSea	MYO1E	0.761	-0.008	0.822	0.434
cg23636099	yellow	2	114,359,251	Body	OpenSea	MGC13005	0.761	0.009	0.863	0.075
cg24681499	yellow	1	42,706,997	Body	OpenSea	FOXJ3	0.761	0.005	0.800	0.394
cg00590817	yellow	1	8,272,081		Island		0.761	0.013	0.391	0.291
cg22833375	yellow	14	74,318,277	TSS1500	N_Shore	PTGR2	0.761	0.008	0.085	0.244
cg26377276	yellow	2	106,485,483	Body	OpenSea	NCK2	0.761	0.004	0.655	0.520
cg00392257	yellow	1	156,696,747	1stExon	N_Shore	ISG20L2	0.761	0.008	0.697	0.271
cg14722290	yellow	11	3,144,774	Body	S_Shelf	OSBPL5	0.761	0.008	0.865	0.569
cg10331829	yellow	11	35,343,789	Body	OpenSea	SLC1A2	0.761	0.016	0.727	0.161
cg12645075	yellow	2	122,776,847		OpenSea		0.761	-0.005	0.593	0.547
cg24151087	yellow	17	19,450,271	Body	OpenSea	SLC47A1	0.761	0.003	0.539	0.749
cg06828613	yellow	1	209,859,738	5'UTR	OpenSea	HSD11B1	0.761	-0.001	0.868	0.870
cg04341210	yellow	13	37,250,088	5'UTR	S_Shore	C13orf36	0.761	0.008	0.895	0.255
cg11552023	yellow	15	73,595,120	3'UTR	OpenSea	NEO1	0.761	-0.003	0.809	0.554
cg01219924	yellow	17	79,004,947	Body	N_Shore	FLJ90757	0.760	0.009	0.616	0.223
cg26668042	yellow	5	1,514,077	Body	OpenSea	LPCAT1	0.760	-0.003	0.596	0.688
cg27132471	yellow	15	92,613,280	Body	OpenSea	SLCO3A1	0.760	0.006	0.810	0.335
cg23934955	yellow	8	145,024,939	5'UTR	Island	PLEC1	0.760	0.011	0.592	0.381
cg18299670	yellow	6	161,554,633	3'UTR	OpenSea	AGPAT4	0.760	-0.014	0.754	0.187
cg15958828	yellow	3	71,598,380	5'UTR	OpenSea	FOXP1	0.760	0.002	0.769	0.749
cg06016427	yellow	4	71,862,187	Body	S_Shelf	DCK	0.760	-0.001	0.407	0.919
cg13992911	yellow	5	1,003,504		N_Shore		0.760	-0.006	0.517	0.575
cg16301894	yellow	4	129,389,744		OpenSea		0.760	0.002	0.260	0.905
cg04156729	yellow	2	240,646,190		N_Shelf		0.760	0.015	0.716	0.047
cg24253367	yellow	17	26,941,992	TSS1500	OpenSea	FLJ25006	0.760	0.003	0.536	0.561
cg15639951	yellow	17	43,367,609	Body	OpenSea	MAP3K14	0.760	0.003	0.664	0.628
cg08844770	yellow	19	3,982,903	Body	Island	EEF2	0.760	-0.001	0.774	0.919



cg24699699	yellow	1	93,258,316	TSS1500	OpenSea	EVIS	0.760	0.025	0.582	0.025
cg13049862	yellow	17	1,384,170	Body	S_Shelf	MYO1C	0.760	0.007	0.754	0.220
cg02451516	yellow	16	74,657,147	3'UTR	OpenSea	RFWD3	0.760	0.005	0.745	0.668
cg09399801	yellow	15	34,874,183	Body	N_Shore	GOLGA8B	0.760	0.007	0.776	0.318
cg10583997	yellow	2	32,583,696	Body	S_Shore	BIRC6	0.760	0.016	0.522	0.041
cg18406700	yellow	6	116,833,441	Body	OpenSea	FAM26E	0.760	0.001	0.492	0.956
cg07131742	yellow	11	66,112,880	3'UTR	N_Shore	B3GNT1	0.760	0.006	0.069	0.210
cg09203802	yellow	10	82,178,348	Body	OpenSea	C10orf58	0.760	0.002	0.610	0.688
cg11993160	yellow	18	12,404,041		N_Shelf		0.760	0.009	0.518	0.307
cg02625925	yellow	19	1,976,376	Body	N_Shore	CSNK1G2	0.760	0.009	0.797	0.103
cg13244293	yellow	3	25,832,283	TSS1500	OpenSea	NGLY1	0.760	-0.002	0.777	0.769
cg12858593	yellow	8	22,131,899	TSS1500	N_Shore	PIWIL2	0.760	-0.006	0.305	0.763
cg04618897	yellow	7	4,829,256	Body	S_Shore	KIAA0415	0.760	0.005	0.903	0.438
cg03765041	yellow	7	158,620,335	Body	N_Shore	ESYT2	0.760	0.007	0.353	0.268
cg19244553	yellow	7	2,476,987		S_Shelf		0.760	0.004	0.828	0.669
cg06456031	yellow	7	134,832,850	1stExon	OpenSea	TMEM140	0.760	0.013	0.512	0.246
cg05336188	yellow	19	18,959,506	Body	OpenSea	UPF1	0.760	0.008	0.459	0.292
cg15301881	yellow	10	133,949,800	Body	N_Shore	JAKMIP3	0.760	0.004	0.581	0.689
cg00000029	yellow	16	53,468,112	TSS1500	N_Shore	RBL2	0.760	0.006	0.374	0.658
cg25257748	yellow	8	144,446,737		N_Shelf		0.760	0.016	0.489	0.029
cg01091099	yellow	2	54,815,680	Body	OpenSea	SPTBN1	0.760	-0.004	0.718	0.600
cg06879222	yellow	16	85,730,838		OpenSea		0.760	0.002	0.532	0.853
cg01807946	yellow	17	80,205,481	Body	N_Shore	CSNK1D	0.760	0.007	0.873	0.341
cg04609635	yellow	2	24,398,695	Body	S_Shore	C2orf84	0.760	0.010	0.459	0.342
cg00689213	yellow	2	79,366,964	TSS1500	OpenSea	REG1P	0.760	0.002	0.796	0.843
cg00871133	yellow	17	37,793,028	TSS1500	N_Shore	STAR3D3	0.760	0.006	0.081	0.149
cg12534390	yellow	19	12,880,420	Body	N_Shore	HOOK2	0.760	0.002	0.509	0.791
cg04185041	yellow	16	67,564,545	5'UTR	S_Shore	FAM65A	0.760	0.010	0.254	0.106
cg16934235	yellow	11	108,423,124	TSS200	OpenSea	EXPH5	0.760	0.002	0.279	0.872
cg20948923	yellow	14	28,081,449		OpenSea		0.760	0.001	0.897	0.924
cg04430582	yellow	17	6,922,320	TSS1500	N_Shelf	MIR195	0.760	0.009	0.828	0.232
cg22508930	yellow	12	69,016,159	5'UTR	OpenSea	RAP1B	0.760	0.004	0.883	0.610
cg24731111	yellow	1	201,012,098	Body	OpenSea	CACNA15	0.760	0.000	0.070	0.934
cg01044293	yellow	2	173,296,469	Body	S_Shelf	ITGA6	0.760	0.002	0.806	0.842
cg13929323	yellow	9	114,364,066		S_Shelf		0.760	0.007	0.404	0.664
cg07133930	yellow	10	70,821,371		OpenSea		0.759	0.002	0.359	0.844
cg17508477	yellow	13	113,429,562	Body	S_Shore	ATP11A	0.759	-0.013	0.815	0.438
cg26607031	yellow	1	9,602,701	Body	S_Shelf	SLC25A33	0.759	0.019	0.297	0.109
cg27559747	yellow	1	27,916,108	5'UTR	OpenSea	AHDC1	0.759	0.009	0.624	0.154
cg11534593	yellow	11	120,044,594		OpenSea		0.759	0.023	0.428	0.003
cg19443023	yellow	17	78,923,344	Body	S_Shore	RPTOR	0.759	0.011	0.945	0.048
cg11818438	yellow	8	119,916,530		OpenSea		0.759	0.005	0.880	0.428
cg20760057	yellow	6	130,017,522	Body	OpenSea	ARHGAP18	0.759	-0.005	0.508	0.686
cg12316142	yellow	5	146,790,205	Body	OpenSea	DPYSL3	0.759	-0.012	0.932	0.084
cg00333528	yellow	6	89,927,485	5'UTR	OpenSea	GABRR1	0.759	0.003	0.503	0.664
cg20426671	yellow	17	1,466,709	TSS1500	S_Shore	PITPNA	0.759	0.005	0.703	0.448
cg11710659	yellow	1	153,762,434		OpenSea		0.759	0.011	0.515	0.176
cg00643235	yellow	6	24,650,840	3'UTR	OpenSea	TTRAP	0.759	-0.014	0.659	0.206
cg11504718	yellow	13	113,537,807	3'UTR	S_Shore	ATP11A	0.759	-0.005	0.842	0.449
cg11003536	yellow	11	130,356,702		OpenSea		0.759	0.009	0.527	0.388
cg07735577	yellow	4	141,019,154	Body	OpenSea	MAML3	0.759	-0.008	0.880	0.153
cg25668626	yellow	12	113,343,603	TSS1500	OpenSea	OAS1	0.759	-0.011	0.852	0.092
cg09282085	yellow	22	39,713,086	Body	N_Shelf	RPL3	0.759	0.004	0.481	0.548
cg17098965	yellow	20	52,199,520	5'UTR	S_Shore	ZNF217	0.759	0.024	0.444	0.231
cg15093194	yellow	12	49,246,579	TSS1500	S_Shore	DDX23	0.759	0.000	0.249	0.987
cg11114211	yellow	7	151,828,888		S_Shore		0.759	0.011	0.538	0.139
cg03370951	yellow	10	50,396,692	TSS1500	OpenSea	C10orf128	0.759	-0.008	0.824	0.241
cg01174752	yellow	16	88,554,846	Body	Island	ZFPM1	0.759	-0.014	0.521	0.345
cg11273176	yellow	2	26,947,126	Body	N_Shelf	KCNK3	0.759	0.018	0.476	0.157
cg25580656	yellow	14	104,197,160	Body	S_Shelf	ZFYVE21	0.759	0.002	0.870	0.795
cg25631092	yellow	3	17,785,312	TSS1500	S_Shore	TBC1D5	0.759	0.010	0.683	0.486
cg20066001	yellow	1	2,406,733	TSS1500	N_Shelf	PLCH2	0.759	0.013	0.606	0.066
cg05144259	yellow	7	157,808,584	Body	OpenSea	PTPRN2	0.759	0.000	0.537	0.994
cg04203587	yellow	4	75,895,612	Body	OpenSea	PARM1	0.759	0.021	0.669	0.108
cg25924274	yellow	2	121,071,122		OpenSea		0.759	0.004	0.203	0.646
cg09163035	yellow	17	37,054,726	Body	OpenSea	LASP1	0.759	-0.001	0.800	0.890
cg18139800	yellow	6	32,151,517	Body	OpenSea	AGER	0.759	-0.001	0.675	0.892

cg11462079	yellow	7	127,269,283	OpenSea		0.759	0.001	0.788	0.872
cg19453093	yellow	14	88,655,985 Body	OpenSea	KCNK10	0.759	0.004	0.226	0.765
cg21236177	yellow	9	134,297,287	OpenSea		0.759	0.007	0.810	0.303
cg14603605	yellow	11	12,279,778 Body	OpenSea	MICAL2	0.759	0.001	0.659	0.937
cg16139517	yellow	3	2,783,388 Body	OpenSea	CNTN4	0.759	-0.006	0.677	0.391
cg07207982	yellow	6	34,984,930 Body	OpenSea	ANKS1A	0.759	-0.005	0.131	0.524
cg01176715	yellow	2	211,037,310 TSS1500	S_Shore	C2orf67	0.759	-0.001	0.307	0.899
cg12091936	yellow	11	70,303,534	OpenSea		0.759	0.011	0.768	0.356
cg02975505	yellow	1	36,625,168 Body	S_Shelf	MAP7D1	0.759	-0.002	0.810	0.737
cg09357350	yellow	3	171,894,094 Body	OpenSea	FNDC3B	0.759	-0.006	0.695	0.471
cg05299479	yellow	19	2,813,428 3'UTR	S_Shore	THOP1	0.759	-0.003	0.649	0.707
cg26962618	yellow	15	70,767,183	OpenSea		0.759	0.014	0.791	0.273
cg05673882	yellow	5	74,862,702 Body	OpenSea	POLK	0.759	0.001	0.690	0.900
cg06793600	yellow	1	42,127,247 5'UTR	N_Shore	HIVEP3	0.759	0.005	0.116	0.451
cg00669760	yellow	2	44,735,195 Body	OpenSea	C2orf34	0.759	0.012	0.194	0.274
cg07345510	yellow	15	74,317,259 Body	S_Shore	PML	0.758	0.007	0.703	0.317
cg00730887	yellow	4	160,149,604	OpenSea		0.758	-0.007	0.169	0.426
cg03029893	yellow	10	75,521,906 Body	OpenSea	SEC24C	0.758	0.005	0.874	0.540
cg25350899	yellow	1	941,382	S_Shelf		0.758	0.006	0.638	0.467
cg04984556	yellow	1	11,359,053	OpenSea		0.758	0.013	0.774	0.018
cg03447083	yellow	16	66,993,711 TSS1500	OpenSea	CES3	0.758	0.003	0.504	0.573
cg11049583	yellow	8	110,158,883	OpenSea		0.758	0.018	0.633	0.177
cg13300480	yellow	1	64,485,696 Body	OpenSea	ROR1	0.758	0.010	0.270	0.216
cg07891457	yellow	11	67,442,075 1stExon	OpenSea	ALDH3B2	0.758	0.019	0.873	0.029
cg10805039	yellow	17	750,241 Body	OpenSea	NXN	0.758	0.009	0.164	0.639
cg06127256	yellow	16	73,206,588	OpenSea		0.758	0.004	0.204	0.738
cg25726425	yellow	2	234,637,574 Body	OpenSea	UGT1A10	0.758	0.025	0.665	0.086
cg05173058	yellow	15	93,573,245	OpenSea		0.758	0.000	0.659	0.986
cg07698039	yellow	10	4,540,959	OpenSea		0.758	0.017	0.279	0.096
cg20847228	yellow	3	50,297,087	N_Shore		0.758	-0.006	0.711	0.472
cg10912634	yellow	5	139,929,838 3'UTR	S_Shelf	SRA1	0.758	0.011	0.845	0.200
cg00019654	yellow	14	82,148,289	OpenSea		0.758	0.025	0.453	0.044
cg26570233	yellow	11	93,475,962 TSS1500	S_Shore	TAF1D	0.758	-0.007	0.867	0.337
cg02436605	yellow	8	146,125,223 5'UTR	N_Shore	ZNF250	0.758	-0.003	0.591	0.754
cg21048669	yellow	16	78,056,379 TSS200	OpenSea	CLEC3A	0.758	0.004	0.436	0.504
cg02578162	yellow	16	3,927,429 Body	N_Shelf	CREBBP	0.758	0.018	0.722	0.015
cg08677954	yellow	6	31,604,108 Body	OpenSea	BAT2	0.758	-0.008	0.798	0.217
cg17393940	yellow	10	20,288,084 Body	OpenSea	PLXDC2	0.758	0.020	0.496	0.139
cg16675872	yellow	8	130,253,618	OpenSea		0.758	0.021	0.451	0.068
cg01917259	yellow	1	38,414,057 TSS1500	OpenSea	INPP5B	0.758	0.003	0.440	0.751
cg06246000	yellow	16	1,488,895 Body	S_Shore	CCDC154	0.758	0.002	0.783	0.764
cg00638574	yellow	1	209,956,565 Body	N_Shore	C1orf74	0.758	0.006	0.788	0.342
cg00782355	yellow	16	85,881,502	S_Shelf		0.758	0.012	0.556	0.028
cg14795894	yellow	7	99,591,962	N_Shelf		0.758	0.003	0.068	0.485
cg11556122	yellow	10	94,177,845	N_Shelf		0.758	-0.002	0.899	0.810
cg10648960	yellow	7	2,677,986 Body	OpenSea	TTYH3	0.758	0.001	0.374	0.906
cg20439473	yellow	17	56,061,070 Body	N_Shelf	VEZF1	0.758	-0.002	0.729	0.817
cg15068318	yellow	6	2,958,750 Body	OpenSea	SERPINB6	0.758	-0.013	0.758	0.203
cg09847753	yellow	11	73,588,532 TSS1500	S_Shore	CHCHD8	0.758	0.004	0.082	0.564
cg19413392	yellow	5	134,181,241 TSS200	N_Shore	C5orf24	0.758	0.004	0.547	0.630
cg25103275	yellow	1	111,025,075 Body	OpenSea	CYMP	0.758	0.005	0.437	0.659
cg04307508	yellow	19	10,959,101 TSS200	OpenSea	C19orf38	0.758	0.007	0.224	0.255
cg00676711	yellow	8	21,268,342	OpenSea		0.758	0.004	0.323	0.734
cg13206429	yellow	8	142,422,799	N_Shelf		0.758	0.007	0.494	0.433
cg01933405	yellow	7	128,862,133	N_Shelf		0.758	0.017	0.445	0.140
cg15459822	yellow	2	205,546,112 Body	OpenSea	PARD3B	0.758	-0.011	0.749	0.338
cg18151030	yellow	21	43,222,961 Body	S_Shore	PRDM15	0.758	0.011	0.660	0.453
cg04724807	yellow	14	62,396,305	OpenSea		0.758	0.005	0.743	0.592
cg24095374	yellow	5	176,799,366 3'UTR	OpenSea	RGS14	0.758	0.010	0.841	0.092
cg09473585	yellow	3	62,305,519 5'UTR	S_Shore	C3orf14	0.758	0.011	0.824	0.075
cg06340364	yellow	7	6,655,973 Body	S_Shore	ZNF853	0.758	0.007	0.303	0.185
cg23975062	yellow	2	131,862,386 TSS200	N_Shore	PLEKHB2	0.758	0.001	0.041	0.650
cg09255851	yellow	16	24,555,610 Body	S_Shelf	RBBP6	0.757	0.000	0.321	0.994
cg11869049	yellow	3	48,278,910	N_Shelf		0.757	0.030	0.613	0.040
cg18357371	yellow	6	25,874,590 TSS200	OpenSea	SLC17A3	0.757	-0.006	0.905	0.487
cg27029518	yellow	18	72,166,324 TSS1500	S_Shelf	CNDP2	0.757	0.006	0.493	0.344
cg19256656	yellow	6	30,579,560 5'UTR	OpenSea	PPP1R10	0.757	0.003	0.931	0.642

cg04118462	yellow	3	149,530,148	TSS1500	N_Shore	RNF13	0.757	0.013	0.543	0.035
cg12734386	yellow	15	76,531,223	Body	OpenSea	ETFA	0.757	-0.002	0.840	0.842
cg08601673	yellow	16	2,083,393	Body	N_Shelf	SLC9A3R2	0.757	0.014	0.485	0.025
cg15135803	yellow	1	12,579,742		OpenSea		0.757	0.005	0.416	0.494
cg02018400	yellow	8	1,829,522	Body	N_Shore	ARHGEF10	0.757	0.009	0.523	0.306
cg06206957	yellow	7	33,080,615	TSS200	OpenSea	NT5C3	0.757	-0.002	0.814	0.742
cg16254394	yellow	14	80,678,065	TSS1500	OpenSea	DIO2	0.757	0.012	0.163	0.209
cg02988755	yellow	13	110,918,331	Body	Island	COL4A1	0.757	0.009	0.724	0.135
cg20316048	yellow	2	183,580,463	TSS1500	N_Shore	DNAJC10	0.757	0.001	0.024	0.593
cg26810908	yellow	1	238,054,569	TSS1500	OpenSea	ZP4	0.757	-0.002	0.806	0.802
cg12080566	yellow	2	75,798,232	TSS1500	OpenSea	FAM176A	0.757	0.017	0.171	0.089
cg13615027	yellow	8	100,825,020	Body	OpenSea	VPS13B	0.757	0.018	0.801	0.229
cg15028339	yellow	5	34,693,546	Body	OpenSea	RAI14	0.757	-0.001	0.754	0.923
cg17972789	yellow	15	70,372,105	Body	OpenSea	TLE3	0.757	0.014	0.520	0.166
cg26608718	yellow	19	15,530,737	TSS1500	S_Shore	AKAP8L	0.757	0.007	0.304	0.521
cg21470711	yellow	3	195,995,846	Body	OpenSea	PCYT1A	0.757	0.007	0.806	0.357
cg10572465	yellow	1	114,414,042	Body	OpenSea	PTPN22	0.757	0.010	0.798	0.173
cg04214370	yellow	1	246,203,659	Body	OpenSea	SMYD3	0.757	0.007	0.805	0.430
cg00193959	yellow	10	129,232,405	Body	OpenSea	DOCK1	0.757	0.007	0.508	0.439
cg19750606	yellow	22	32,854,329	TSS1500	OpenSea	BPIL2	0.757	0.002	0.609	0.753
cg05360911	yellow	6	144,654,512	Body	OpenSea	UTRN	0.757	-0.001	0.970	0.810
cg13639881	yellow	16	19,421,817	TSS1500	Island	TMC5	0.757	0.000	0.149	0.947
cg18334392	yellow	5	9,547,825	TSS1500	S_Shore	SNORD123	0.757	-0.005	0.153	0.684
cg18752363	yellow	4	2,941,760	Body	OpenSea	C4orf10	0.757	0.004	0.913	0.328
cg15156712	yellow	1	54,362,886	Body	OpenSea	DIO1	0.757	0.007	0.701	0.539
cg26500914	yellow	6	33,288,323	Body	N_Shore	DAXX	0.757	0.015	0.733	0.297
cg16445423	yellow	2	98,609,870	Body	N_Shore	TMEM131	0.757	-0.008	0.749	0.245
cg12608633	yellow	10	101,468,959	3'UTR	OpenSea	ENTPD7	0.757	-0.001	0.860	0.923
cg01881444	yellow	3	69,061,575	5'UTR	N_Shore	C3orf64	0.757	0.005	0.435	0.632
cg21648069	yellow	12	1,157,718	Body	OpenSea	ERC1	0.757	0.023	0.805	0.048
cg14418297	yellow	9	83,000,016		OpenSea		0.757	-0.027	0.877	0.027
cg11656382	yellow	2	149,406,282	Body	S_Shelf	EPC2	0.757	-0.001	0.566	0.927
cg09569347	yellow	6	30,460,548	3'UTR	S_Shelf	HLA-E	0.757	0.004	0.847	0.518
cg03421440	yellow	1	92,414,520	TSS1500	N_Shore	BRDT	0.757	-0.003	0.898	0.653
cg07571951	yellow	7	75,931,608	TSS1500	N_Shore	HSPB1	0.757	0.006	0.258	0.278
cg19915361	yellow	14	66,171,222	Body	OpenSea	FUT8	0.757	0.007	0.682	0.568
cg04258676	yellow	1	94,240,208		OpenSea		0.757	-0.012	0.713	0.306
cg09842053	yellow	2	31,637,849	TSS1500	OpenSea	XDH	0.757	-0.005	0.804	0.486
cg05323683	yellow	8	95,168,291	Body	OpenSea	CDH17	0.757	0.017	0.580	0.127
cg08691577	yellow	5	14,668,489	Body	S_Shelf	FAM105B	0.757	0.005	0.710	0.442
cg19586165	yellow	17	37,814,072	Body	OpenSea	STAR3D3	0.757	0.002	0.814	0.712
cg00519829	yellow	10	99,696,219	Body	OpenSea	CRTAC1	0.757	0.006	0.803	0.322
cg13334949	yellow	20	44,471,068	3'UTR	S_Shore	SNX21	0.757	-0.021	0.710	0.015
cg12833018	yellow	11	62,037,564	TSS200	OpenSea	SCGB2A2	0.757	0.003	0.636	0.702
cg04260676	yellow	1	1,774,322	5'UTR	OpenSea	GNB1	0.757	-0.003	0.889	0.645
cg03935379	yellow	5	1,282,703	Body	Island	TERT	0.757	0.013	0.690	0.253
cg20811788	yellow	22	50,721,368	Body	Island	PLXB2	0.757	-0.003	0.598	0.673
cg00962254	yellow	16	678,050	3'UTR	Island	RAB40C	0.757	0.001	0.722	0.930
cg13859639	yellow	11	2,846,716	Body	OpenSea	KCNQ1	0.757	-0.003	0.240	0.715
cg02695062	yellow	6	30,851,417	TSS1500	N_Shore	DDR1	0.757	0.006	0.362	0.310
cg00809267	yellow	18	55,816,433	TSS200	OpenSea	NEDD4L	0.757	-0.002	0.587	0.775
cg22347642	yellow	8	41,382,951		N_Shelf		0.757	0.002	0.734	0.878
cg15110917	yellow	7	7,959,339		OpenSea		0.757	0.004	0.909	0.665
cg27270541	yellow	19	48,614,177	TSS200	OpenSea	PLA2G4C	0.757	0.007	0.059	0.141
cg12947138	yellow	5	71,475,303	Body	OpenSea	MAP1B	0.757	0.016	0.332	0.027
cg08416522	yellow	21	30,451,568	TSS1500	OpenSea	C21orf7	0.757	-0.001	0.678	0.881
cg21546155	yellow	5	159,894,937		OpenSea		0.756	0.008	0.594	0.390
cg04622200	yellow	15	100,654,734	Body	OpenSea	ADAMTS17	0.756	0.005	0.477	0.617
cg08280368	yellow	14	71,110,536	Body	S_Shore	TTC9	0.756	0.016	0.661	0.064
cg09251197	yellow	16	30,000,254	Body	S_Shore	TAOK2	0.756	-0.010	0.761	0.377
cg03531754	yellow	8	124,194,312	TSS1500	OpenSea	FAM83A	0.756	0.009	0.670	0.109
cg25076628	yellow	8	41,406,329		OpenSea		0.756	0.004	0.907	0.504
cg04556210	yellow	19	47,840,110	TSS1500	OpenSea	GPR77	0.756	-0.002	0.591	0.760
cg19262818	yellow	2	28,931,852		OpenSea		0.756	0.014	0.724	0.241
cg23167506	yellow	7	1,303,302		OpenSea		0.756	0.007	0.541	0.327
cg09907628	yellow	16	89,498,634	5'UTR	N_Shore	ANKRD11	0.756	0.012	0.476	0.098
cg25882887	yellow	8	22,844,374	TSS1500	OpenSea	RHOBTB2	0.756	0.014	0.839	0.023

cg24325790	yellow	17	34,345,392	TSS1500	OpenSea	CCL23	0.756	0.002	0.682	0.711
cg18610978	yellow	2	135,206,815	TSS200	OpenSea	LOC151162	0.756	-0.008	0.849	0.329
cg16254946	yellow	1	54,058,616	Body	OpenSea	GLIS1	0.756	0.008	0.488	0.229
cg15621178	yellow	5	148,663,537	Body	OpenSea	AFAP1L1	0.756	0.010	0.724	0.103
cg08472142	yellow	1	155,007,166	Body	OpenSea	DCST1	0.756	0.006	0.754	0.398
cg22530255	yellow	1	3,051,692	Body	OpenSea	PRDM16	0.756	0.009	0.841	0.201
cg00230205	yellow	4	722,282	5'UTR	N_Shelf	PCGF3	0.756	-0.001	0.850	0.880
cg04141185	yellow	8	143,424,755	Body	OpenSea	TSNARE1	0.756	0.005	0.767	0.580
cg12560772	yellow	6	100,368,134	3'UTR	OpenSea	MCHR2	0.756	0.008	0.519	0.259
cg08255475	yellow	16	88,871,329	Body	N_Shore	CDT1	0.756	-0.007	0.115	0.462
cg25002294	yellow	1	228,559,321	Body	S_Shore	OBSCN	0.756	0.002	0.798	0.825
cg26054057	yellow	3	38,010,715	Body	OpenSea	CTDSP4	0.756	0.007	0.684	0.483
cg07217030	yellow	8	142,233,642	Body	S_Shore	SLC45A4	0.756	0.009	0.801	0.149
cg22109796	yellow	4	15,376,170	Body	OpenSea	C1QTNF7	0.756	0.016	0.587	0.258
cg06325565	yellow	11	63,889,842	Body	S_Shelf	MACROD1	0.756	0.003	0.641	0.623
cg14323984	yellow	4	6,695,203	TSS1500	OpenSea	S100P	0.756	0.011	0.697	0.166
cg16330535	yellow	1	2,254,757	Body	Island	MORN1	0.756	0.007	0.734	0.239
cg01257799	yellow	11	118,753,476	TSS1500	OpenSea	CXCR5	0.756	0.011	0.449	0.102
cg00790970	yellow	1	39,920,621	Body	OpenSea	MACF1	0.756	-0.002	0.763	0.730
cg06334307	yellow	11	76,839,476	1stExon	OpenSea	MYO7A	0.756	0.007	0.267	0.276
cg00755950	yellow	2	69,910,490		OpenSea		0.756	-0.002	0.036	0.464
cg22273355	yellow	13	113,439,949	Body	N_Shore	ATP11A	0.756	-0.005	0.966	0.108
cg03143046	yellow	6	43,758,007		OpenSea		0.756	0.014	0.475	0.084
cg07517948	yellow	15	67,801,494		OpenSea		0.756	-0.008	0.911	0.243
cg09888012	yellow	1	234,861,409		OpenSea		0.756	-0.002	0.439	0.765
cg01152025	yellow	9	15,305,873	Body	N_Shore	TTC39B	0.756	0.011	0.740	0.188
cg19192626	yellow	17	38,708,638		OpenSea		0.756	0.007	0.512	0.489
cg18749404	yellow	17	76,975,944	1stExon	OpenSea	LGALS3BP	0.756	-0.001	0.483	0.967
cg26047334	yellow	2	218,785,909	5'UTR	OpenSea	TNS1	0.756	0.001	0.078	0.761
cg14003627	yellow	9	123,204,555	Body	OpenSea	CDK5RAP2	0.756	-0.007	0.760	0.620
cg12322672	yellow	11	126,761,638	Body	OpenSea	KIRREL3	0.756	-0.011	0.510	0.226
cg00292029	yellow	6	36,703,127		OpenSea		0.756	-0.006	0.107	0.732
cg12104689	yellow	17	58,600,131	Body	N_Shelf	APPBP2	0.756	-0.007	0.877	0.248
cg13044444	yellow	6	30,029,721	Body	S_Shore	ZNRD1	0.756	0.005	0.261	0.556
cg25456477	yellow	12	86,230,367	TSS200	OpenSea	RASSF9	0.756	0.010	0.264	0.425
cg23104816	yellow	6	30,552,010	Body	OpenSea	ABCF1	0.756	-0.005	0.887	0.536
cg23320649	yellow	3	50,604,613	5'UTR	N_Shore	C3orf18	0.756	0.006	0.506	0.321
cg01940753	yellow	15	81,069,622		N_Shore		0.756	0.013	0.547	0.152
cg03262295	yellow	4	1,807,954	Body	Island	FGFR3	0.756	-0.001	0.945	0.865
cg19942431	yellow	8	143,460,186	5'UTR	OpenSea	TSNARE1	0.756	0.001	0.880	0.778
cg13414654	yellow	2	10,224,232		S_Shelf		0.756	-0.011	0.631	0.179
cg18966152	yellow	1	86,077,581		OpenSea		0.756	0.012	0.652	0.467
cg02130027	yellow	6	47,444,894	TSS1500	N_Shore	CD2AP	0.756	0.005	0.057	0.582
cg00237876	yellow	17	41,924,043	TSS1500	OpenSea	CD300LG	0.756	-0.003	0.565	0.697
cg17133833	yellow	8	18,714,482	Body	OpenSea	PSD3	0.756	0.007	0.573	0.556
cg27021520	yellow	3	33,760,473	TSS1500	S_Shore	CLASP2	0.755	0.000	0.693	0.966
cg16246188	yellow	11	113,947,203	Body	OpenSea	ZBTB16	0.755	0.004	0.511	0.718
cg04172497	yellow	11	59,382,296	Body	N_Shore	OSBP	0.755	0.001	0.109	0.809
cg02707357	yellow	8	28,483,997		S_Shelf		0.755	0.000	0.553	0.970
cg13871708	yellow	6	30,921,007	3'UTR	N_Shelf	DPCR1	0.755	-0.002	0.445	0.850
cg23705113	yellow	11	77,774,867	TSS200	OpenSea	THRSP	0.755	0.006	0.658	0.536
cg03868944	yellow	5	171,808,449	Body	OpenSea	SH3PXD2B	0.755	0.030	0.722	0.063
cg10919177	yellow	3	44,519,663	TSS1500	S_Shore	ZNF445	0.755	0.008	0.531	0.204
cg20383084	yellow	1	26,325,121	TSS1500	S_Shore	PAFAH2	0.755	0.003	0.042	0.423
cg00016255	yellow	17	41,133,928	TSS1500	S_Shore	AARSD1	0.755	0.006	0.539	0.436
cg21108215	yellow	1	183,791,720	Body	OpenSea	RGL1	0.755	0.015	0.599	0.238
cg24095850	yellow	17	34,271,125		OpenSea		0.755	0.001	0.805	0.894
cg02097120	yellow	1	154,492,952	Body	OpenSea	TDRD10	0.755	0.016	0.547	0.011
cg11533825	yellow	15	69,099,444	Body	OpenSea	ANP32A	0.755	0.008	0.787	0.173
cg11314042	yellow	6	143,380,966	TSS1500	N_Shore	AIG1	0.755	0.000	0.604	0.963
cg01947769	yellow	1	2,362,403		S_Shelf		0.755	0.023	0.598	0.009
cg15970074	yellow	8	144,908,222	Body	N_Shelf	PUF60	0.755	0.008	0.523	0.438
cg16278747	yellow	6	31,603,374	Body	S_Shelf	BAT2	0.755	0.008	0.690	0.213
cg23859055	yellow	7	16,684,067	Body	N_Shore	ANKMY2	0.755	-0.005	0.495	0.610
cg18877361	yellow	14	105,973,846		OpenSea		0.755	0.008	0.692	0.294
cg14004232	yellow	6	26,401,691	TSS1500	OpenSea	BTN3A1	0.755	0.016	0.759	0.037
cg11347903	yellow	7	112,050,578		OpenSea		0.755	0.007	0.810	0.458

cg08683263	yellow	16	30,078,162	5'UTR	S_Shore	ALDOA	0.755	0.014	0.272	0.111
cg26774385	yellow	6	35,354,049	5'UTR	OpenSea	PPARD	0.755	0.000	0.811	0.995
cg26401551	yellow	1	8,889,780		OpenSea		0.755	0.001	0.391	0.798
cg12541626	yellow	19	47,217,900	TSS1500	N_Shore	PRKD2	0.755	-0.004	0.064	0.478
cg24307128	yellow	6	159,551,393		S_Shore		0.755	0.012	0.826	0.079
cg23994025	yellow	11	103,608,623		OpenSea		0.755	0.011	0.605	0.096
cg15563355	yellow	15	44,086,617	3'UTR	S_Shore	SERF2	0.755	0.002	0.885	0.696
cg05398883	yellow	1	42,630,335	1stExon	OpenSea	GUCA2A	0.755	-0.009	0.758	0.268
cg21450723	yellow	22	46,482,009	Body	Island	LOC400931	0.755	-0.004	0.892	0.663
cg14147196	yellow	3	11,078,979	3'UTR	OpenSea	SLC6A1	0.755	0.009	0.842	0.209
cg13037437	yellow	14	64,562,705	Body	OpenSea	SYNE2	0.755	0.005	0.813	0.581
cg17794358	yellow	6	32,097,257	TSS1500	N_Shore	ATF6B	0.755	0.002	0.561	0.742
cg25565850	yellow	2	220,424,853	Body	N_Shelf	OBSL1	0.755	0.007	0.479	0.392
cg13290059	yellow	2	104,781,890		OpenSea		0.755	-0.008	0.828	0.436
cg05712725	yellow	2	159,944,539	Body	OpenSea	TANC1	0.755	0.003	0.884	0.615
cg03655402	yellow	18	77,454,656	Body	S_Shore	CTDP1	0.755	0.008	0.633	0.514
cg02538681	yellow	10	90,611,911	TSS200	OpenSea	ANKRD22	0.755	-0.002	0.717	0.850
cg22962923	yellow	1	1,839,959		Island		0.755	0.003	0.660	0.694
cg24777028	yellow	5	141,348,256	TSS1500	N_Shore	RNF14	0.755	0.021	0.231	0.077
cg02865832	yellow	17	77,083,140	3'UTR	OpenSea	ENGASE	0.755	0.016	0.791	0.012
cg23540819	yellow	8	17,940,228	Body	N_Shore	ASAH1	0.755	0.004	0.694	0.540
cg05154234	yellow	12	48,204,680	Body	N_Shelf	HDAC7	0.755	-0.011	0.819	0.231
cg13983307	yellow	9	99,539,795	5'UTR	N_Shore	ZNF510	0.755	0.017	0.405	0.122
cg22624697	yellow	17	57,760,065	Body	OpenSea	CLTC	0.755	-0.003	0.811	0.704
cg24596244	yellow	1	59,920,114	Body	OpenSea	FGGY	0.755	-0.002	0.658	0.868
cg27124218	yellow	16	48,191,328		OpenSea		0.755	0.004	0.883	0.481
cg05779675	yellow	16	50,637,092	Body	OpenSea	NKD1	0.755	0.009	0.614	0.191
cg26335530	yellow	1	2,060,642	5'UTR	N_Shelf	PRKCZ	0.755	0.007	0.700	0.416
cg23032936	yellow	10	48,573,365		OpenSea		0.755	0.011	0.182	0.191
cg04564000	yellow	3	114,343,068	5'UTR	OpenSea	ZBTB20	0.755	-0.004	0.201	0.715
cg02627682	yellow	1	180,166,674	TSS1500	OpenSea	FLJ23867	0.755	0.000	0.659	0.996
cg26345142	yellow	12	109,305,794	3'UTR	OpenSea	SVOP	0.755	0.002	0.794	0.814
cg16790560	yellow	11	1,223,782		S_Shore		0.755	0.007	0.838	0.211
cg07749613	yellow	2	97,073,539		OpenSea		0.755	0.004	0.053	0.411
cg19507725	yellow	7	75,279,630	Body	OpenSea	HIP1	0.755	-0.002	0.705	0.853
cg07986199	yellow	12	2,743,038	Body	OpenSea	CACNA1C	0.755	0.004	0.697	0.586
cg12610744	yellow	12	53,208,762	TSS1500	OpenSea	KRT4	0.755	-0.001	0.755	0.872
cg22697325	yellow	1	39,619,385	Body	OpenSea	MACF1	0.754	0.009	0.511	0.087
cg00585790	yellow	2	109,204,845	1stExon	OpenSea	LIMS1	0.754	-0.002	0.557	0.842
cg26038589	yellow	17	28,444,874	Body	S_Shore	CCDC55	0.754	-0.004	0.304	0.809
cg14423778	yellow	3	151,985,433	TSS1500	N_Shore	MBNL1	0.754	0.003	0.574	0.819
cg19987768	yellow	17	750,306	Body	OpenSea	NXN	0.754	0.009	0.170	0.627
cg17265115	yellow	4	734,692	Body	N_Shelf	PCGF3	0.754	0.000	0.714	0.987
cg08818207	yellow	6	32,820,355	Body	N_Shore	TAP1	0.754	0.000	0.608	0.987
cg06776976	yellow	1	212,588,580	TSS1500	S_Shore	TMEM206	0.754	-0.005	0.646	0.499
cg22876901	yellow	2	67,751,758		OpenSea		0.754	-0.013	0.531	0.468
cg20813827	yellow	6	170,397,195		OpenSea		0.754	0.009	0.695	0.203
cg04377077	yellow	3	44,379,424	TSS1500	N_Shore	C3orf23	0.754	0.012	0.117	0.138
cg08133476	yellow	13	114,106,419	Body	OpenSea	ADPRHL1	0.754	0.009	0.812	0.352
cg14428359	yellow	7	130,145,336	3'UTR	OpenSea	MEST	0.754	0.007	0.702	0.444
cg01946966	yellow	1	51,697,969		N_Shelf		0.754	0.010	0.707	0.541
cg25405452	yellow	8	38,125,449	Body	N_Shore	PPAPDC1B	0.754	0.007	0.534	0.257
cg17593472	yellow	5	142,065,676	5'UTR	OpenSea	FGF1	0.754	0.010	0.337	0.140
cg13916961	yellow	7	552,135	Body	S_Shore	PDGFA	0.754	0.000	0.933	0.945
cg11389257	yellow	19	342,177	Body	N_Shore	MIER2	0.754	0.006	0.727	0.342
cg08534016	yellow	5	35,771,584	Body	OpenSea	SPEF2	0.754	0.008	0.553	0.386
cg24395504	yellow	6	154,869,909		OpenSea		0.754	0.000	0.268	0.976
cg01001286	yellow	15	81,475,638		OpenSea		0.754	0.012	0.427	0.143
cg01731766	yellow	20	60,953,534		Island		0.754	0.018	0.587	0.130
cg06766636	yellow	6	116,598,395	1stExon	N_Shelf	TSPYL1	0.754	0.032	0.398	0.050
cg04606550	yellow	5	14,226,569	Body	OpenSea	TRIO	0.754	0.000	0.926	0.972
cg03206537	yellow	20	44,521,739	Body	S_Shore	CTSA	0.754	0.004	0.852	0.512
cg23069057	yellow	4	14,867,316		S_Shelf		0.754	-0.004	0.931	0.577
cg06385449	yellow	11	63,974,123	TSS200	N_Shore	FERMT3	0.754	0.007	0.721	0.296
cg01415919	yellow	20	62,043,457	Body	Island	KCNQ2	0.754	-0.007	0.872	0.405
cg24252536	yellow	6	33,169,253	1stExon	S_Shore	SLC39A7	0.754	0.011	0.340	0.229
cg26641022	yellow	12	125,000,767	5'UTR	N_Shore	NCOR2	0.754	-0.002	0.775	0.816

cg05872570	yellow	10	126,305,930	S_Shore		0.754	0.007	0.853	0.355
cg25263238	yellow	10	98,031,750 TSS1500	OpenSea	BLNK	0.754	0.000	0.718	0.974
cg06193766	yellow	10	375,391 Body	S_Shelf	DIP2C	0.754	0.012	0.402	0.211
cg16655795	yellow	19	42,897,238	N_Shelf		0.754	0.003	0.778	0.689
cg27179002	yellow	7	127,747,345	N_Shore		0.754	0.003	0.610	0.677
cg10933959	yellow	15	100,890,907 TSS1500	S_Shore	FLJ42289	0.754	0.014	0.410	0.327
cg02305651	yellow	19	5,997,013 Body	N_Shore	RFX2	0.754	0.003	0.903	0.581
cg11484353	yellow	20	39,958,249	OpenSea		0.754	0.003	0.207	0.731
cg24083720	yellow	2	124,445,420	OpenSea		0.754	-0.004	0.780	0.673
cg21001667	yellow	20	32,954,013 5'UTR	S_Shelf	ITCH	0.754	0.011	0.698	0.135
cg11080552	yellow	1	8,556,722 Body	OpenSea	RERE	0.754	0.007	0.756	0.204
cg22660370	yellow	8	64,132,778	OpenSea		0.754	0.001	0.608	0.886
cg07627445	yellow	4	1,029,632	Island		0.754	0.017	0.592	0.014
cg18211886	yellow	8	49,053,695	OpenSea		0.754	-0.008	0.686	0.584
cg19869608	yellow	12	56,649,358 Body	N_Shelf	ANKRD52	0.754	-0.006	0.849	0.556
cg22923050	yellow	19	19,038,994 Body	N_Shore	DDX49	0.754	0.009	0.774	0.274
cg19351838	yellow	12	132,333,341 Body	N_Shore	MMP17	0.754	0.004	0.621	0.612
cg04967734	yellow	11	108,570,019 Body	OpenSea	DDX10	0.754	-0.006	0.858	0.453
cg21566860	yellow	3	11,242,797 5'UTR	OpenSea	HRH1	0.754	0.003	0.881	0.516
cg04425617	yellow	3	183,309,985	OpenSea		0.754	0.003	0.604	0.736
cg07879671	yellow	8	37,508,139	OpenSea		0.754	-0.002	0.896	0.767
cg03405593	yellow	19	6,212,001 3'UTR	Island	MLLT1	0.754	0.016	0.607	0.022
cg07927072	yellow	2	28,117,087 5'UTR	S_Shelf	BRE	0.754	0.001	0.633	0.811
cg15904162	yellow	17	39,832,286	OpenSea		0.753	-0.001	0.703	0.898
cg14340463	yellow	19	58,665,643	N_Shore		0.753	-0.001	0.595	0.949
cg20271602	yellow	17	26,852,532 Body	OpenSea	FOXN1	0.753	0.004	0.824	0.489
cg22170528	yellow	11	45,723,814	OpenSea		0.753	0.000	0.922	0.984
cg02235049	yellow	3	186,559,186 TSS1500	OpenSea	ADIPOQ	0.753	0.004	0.779	0.562
cg24890045	yellow	4	187,580,886 Body	OpenSea	FAT1	0.753	0.002	0.578	0.815
cg03364683	yellow	4	169,402,298 TSS1500	S_Shore	DDX60L	0.753	0.010	0.701	0.175
cg00697286	yellow	17	67,557,527	OpenSea		0.753	0.006	0.534	0.565
cg11775488	yellow	10	95,586,237	OpenSea		0.753	0.017	0.309	0.102
cg10974219	yellow	17	12,669,028 3'UTR	OpenSea	MYOCD	0.753	0.005	0.562	0.656
cg23681730	yellow	11	35,683,551 TSS1500	N_Shore	TRIM44	0.753	0.010	0.201	0.411
cg11136341	yellow	8	142,289,745	OpenSea		0.753	0.020	0.297	0.157
cg13148650	yellow	3	45,624,053	OpenSea		0.753	0.002	0.578	0.858
cg07174453	yellow	16	27,476,281 Body	OpenSea	GTF3C1	0.753	0.006	0.749	0.389
cg11263011	yellow	17	6,922,223 TSS1500	N_Shelf	MIR195	0.753	0.009	0.867	0.265
cg04908961	yellow	13	92,003,278 Body	S_Shore	MIR17HG	0.753	-0.004	0.558	0.509
cg01993685	yellow	4	175,204,127 TSS1500	N_Shore	KIAA1712	0.753	0.015	0.100	0.144
cg27136023	yellow	6	30,174,651 5'UTR	OpenSea	TRIM26	0.753	-0.006	0.770	0.434
cg07218081	yellow	3	45,066,714 TSS1500	OpenSea	CLEC3B	0.753	0.002	0.825	0.782
cg25061701	yellow	17	62,608,856 Body	OpenSea	SMURF2	0.753	-0.003	0.454	0.753
cg01159380	yellow	3	49,201,579 Body	N_Shore	CCDC71	0.753	0.005	0.831	0.389
cg01940437	yellow	4	184,780,455	OpenSea		0.753	0.012	0.786	0.100
cg27128761	yellow	5	151,055,650 Body	OpenSea	SPARC	0.753	0.004	0.510	0.593
cg25399818	yellow	17	4,624,569 3'UTR	OpenSea	ARRB2	0.753	0.015	0.662	0.060
cg04073840	yellow	2	11,605,539 Body	N_Shore	E2F6	0.753	0.004	0.117	0.477
cg08442713	yellow	5	117,822,219	OpenSea		0.753	-0.012	0.863	0.211
cg07142723	yellow	8	105,431,269 Body	OpenSea	DPYS	0.753	0.010	0.548	0.188
cg07042546	yellow	11	117,104,996 Body	S_Shore	RNF214	0.753	0.001	0.747	0.806
cg01198391	yellow	4	15,376,180 Body	OpenSea	C1QTNF7	0.753	0.011	0.581	0.416
cg09579281	yellow	7	30,515,286 5'UTR	N_Shelf	NOD1	0.753	-0.005	0.607	0.469
cg06650246	yellow	1	206,897,270 Body	OpenSea	MAPKAPK2	0.753	0.010	0.596	0.262
cg14856606	yellow	1	207,277,547 TSS200	OpenSea	C4BPA	0.753	0.004	0.567	0.547
cg01916724	yellow	3	51,975,220 TSS1500	N_Shore	PARP3	0.753	-0.001	0.120	0.801
cg00638165	yellow	13	113,362,357 Body	OpenSea	ATP11A	0.753	-0.013	0.921	0.084
cg06755717	yellow	14	101,196,092 Body	S_Shelf	DLK1	0.753	0.001	0.479	0.933
cg22999025	yellow	17	19,977,025	OpenSea		0.753	0.016	0.345	0.020
cg13292082	yellow	2	164,414,764	OpenSea		0.753	0.008	0.689	0.239
cg03292149	yellow	19	45,279,765 TSS1500	N_Shore	CBLC	0.753	0.000	0.684	0.995
cg24313303	yellow	1	27,113,219 TSS1500	N_Shore	PIGV	0.753	0.005	0.287	0.387
cg01314044	yellow	11	94,246,036	S_Shore		0.753	0.008	0.174	0.363
cg14774117	yellow	6	44,310,005 TSS1500	OpenSea	SPATS1	0.753	0.006	0.501	0.490
cg08611549	yellow	12	108,064,394	OpenSea		0.753	0.019	0.614	0.111
cg08812235	yellow	7	23,397,533 Body	OpenSea	IGF2BP3	0.753	0.000	0.069	0.920
cg00047501	yellow	2	201,680,860 Body	S_Shelf	BZW1	0.753	0.011	0.850	0.191

cg01104250	yellow	16	57,567,919	5'UTR	N_Shore	CCDC102A	0.753	0.002	0.691	0.839
cg01477971	yellow	2	103,405,951	Body	OpenSea	TMEM182	0.753	0.008	0.703	0.522
cg17176676	yellow	22	23,441,402	Body	S_Shelf	RTDR1	0.753	0.013	0.553	0.127
cg03459811	yellow	3	48,465,320	Body	OpenSea	PLXNB1	0.753	-0.008	0.846	0.259
cg09560590	yellow	5	143,191,663	TSS200	OpenSea	HMH81	0.752	0.002	0.774	0.795
cg07505049	yellow	5	34,831,987	3'UTR	OpenSea	RAI14	0.752	0.022	0.674	0.252
cg26438284	yellow	11	2,406,307	Body	N_Shore	CD81	0.752	-0.004	0.694	0.476
cg05548672	yellow	16	9,207,383	Body	OpenSea	C16orf72	0.752	0.000	0.819	0.968
cg15580458	yellow	10	121,155,124	Body	OpenSea	GRK5	0.752	-0.001	0.571	0.928
cg06174454	yellow	3	50,371,818	Body	N_Shelf	RASSF1	0.752	-0.003	0.844	0.661
cg11287400	yellow	3	69,914,738	Body	OpenSea	MITF	0.752	0.000	0.693	0.984
cg22098511	yellow	17	79,476,521		N_Shore		0.752	-0.005	0.198	0.489
cg26422832	yellow	7	140,179,608	TSS1500	S_Shore	MKRN1	0.752	0.009	0.084	0.198
cg17823346	yellow	10	80,848,143	5'UTR	OpenSea	ZMI21	0.752	0.009	0.645	0.115
cg21910650	yellow	6	42,982,891	TSS1500	S_Shore	MEA1	0.752	0.005	0.340	0.686
cg09375488	yellow	7	95,115,026	TSS1500	OpenSea	ASB4	0.752	-0.001	0.720	0.928
cg23313755	yellow	10	112,180,280		OpenSea		0.752	0.017	0.703	0.053
cg22771548	yellow	5	73,044,623	Body	OpenSea	RGNEF	0.752	0.016	0.409	0.198
cg00747160	yellow	16	57,286,437	3'UTR	OpenSea	ARL2BP	0.752	-0.004	0.859	0.640
cg10413861	yellow	6	164,614,646		OpenSea		0.752	0.006	0.866	0.569
cg12572352	yellow	13	113,430,266	Body	S_Shore	ATP11A	0.752	0.010	0.797	0.253
cg10808560	yellow	2	106,500,430	Body	S_Shore	NCK2	0.752	-0.001	0.824	0.868
cg20792206	yellow	15	66,791,435	TSS1500	S_Shore	SNAPC5	0.752	0.011	0.241	0.273
cg14066757	yellow	19	44,285,568	TSS200	OpenSea	KCNN4	0.752	0.016	0.609	0.012
cg00415939	yellow	11	85,772,935	Body	OpenSea	PICALM	0.752	0.009	0.591	0.541
cg27366532	yellow	16	3,843,012	Body	OpenSea	CREBBP	0.752	-0.002	0.813	0.720
cg00482994	yellow	6	32,945,234	Body	OpenSea	BRD2	0.752	0.002	0.874	0.686
cg22455527	yellow	7	73,241,878		N_Shelf		0.752	0.010	0.520	0.260
cg24857399	yellow	2	47,433,265		OpenSea		0.752	0.010	0.763	0.167
cg01074365	yellow	11	713,200	Body	S_Shore	EPS8L2	0.752	0.007	0.585	0.400
cg14084888	yellow	8	117,777,782	TSS1500	N_Shore	UTP23	0.752	0.004	0.741	0.736
cg15084269	yellow	1	180,993,237	TSS1500	S_Shore	STX6	0.752	-0.003	0.911	0.599
cg25774148	yellow	1	964,497	Body	Island	AGRN	0.752	0.001	0.768	0.910
cg19704755	yellow	1	10,965,094		OpenSea		0.752	0.012	0.840	0.301
cg25221919	yellow	1	234,845,770		OpenSea		0.752	0.000	0.678	0.987
cg04845176	yellow	3	44,617,875	Body	N_Shore	ZNF167	0.752	-0.007	0.927	0.277
cg18456621	yellow	17	80,297,270		OpenSea		0.752	0.009	0.576	0.342
cg27618792	yellow	6	133,138,210	Body	S_Shelf	RPS12	0.752	0.013	0.851	0.106
cg05525368	yellow	1	43,825,904	Body	S_Shore	CDC20	0.752	-0.003	0.638	0.681
cg04625338	yellow	7	55,141,971	Body	OpenSea	EGFR	0.752	0.006	0.773	0.583
cg27220934	yellow	12	105,723,904	TSS1500	N_Shore	C12orf75	0.752	0.014	0.295	0.246
cg19568115	yellow	14	70,830,156		S_Shelf		0.752	-0.002	0.208	0.728
cg01421021	yellow	1	10,719,929	Body	Island	CASZ1	0.752	-0.006	0.946	0.103
cg14461181	yellow	9	82,372,581		OpenSea		0.752	-0.008	0.889	0.417
cg08645207	yellow	2	201,489,698	Body	OpenSea	AOX1	0.752	0.007	0.869	0.402
cg12371587	yellow	22	42,093,157	3'UTR	N_Shelf	C22orf46	0.752	0.003	0.254	0.673
cg23063740	yellow	3	55,182,246		OpenSea		0.752	0.004	0.656	0.818
cg26182964	yellow	10	135,186,011	Body	N_Shore	ECHS1	0.752	0.008	0.735	0.247
cg12366895	yellow	13	112,613,543		S_Shelf		0.752	0.041	0.613	0.009
cg19711268	yellow	14	103,367,858	Body	OpenSea	TRAF3	0.752	-0.001	0.774	0.942
cg22827827	yellow	2	198,367,525	Body	S_Shelf	HSPE1	0.752	-0.004	0.675	0.633
cg08581018	yellow	16	832,942	TSS200	Island	MSLNL	0.752	-0.002	0.762	0.833
cg03960100	yellow	16	2,262,165	TSS1500	N_Shore	C16orf79	0.751	0.003	0.621	0.678
cg06296503	yellow	6	134,217,401		S_Shore		0.751	-0.003	0.050	0.632
cg13721644	yellow	3	47,446,543	Body	OpenSea	PTPN23	0.751	0.003	0.554	0.657
cg04110105	yellow	3	46,395,356	5'UTR	OpenSea	CCR2	0.751	-0.006	0.727	0.579
cg22798737	yellow	7	94,927,713	3'UTR	OpenSea	PON1	0.751	-0.015	0.886	0.147
cg01043374	yellow	17	4,604,812	Body	N_Shelf	PELP1	0.751	0.001	0.725	0.911
cg00544032	yellow	1	118,239,410		OpenSea		0.751	0.006	0.577	0.680
cg24900927	yellow	5	75,778,823	Body	OpenSea	IQGAP2	0.751	-0.004	0.951	0.355
cg15438211	yellow	17	79,967,022	Body	Island	ASPSR1	0.751	0.008	0.666	0.232
cg14497491	yellow	17	77,982,477	Body	N_Shore	TBC1D16	0.751	0.010	0.177	0.168
cg04599922	yellow	1	40,348,330	Body	N_Shore	TRIT1	0.751	0.007	0.252	0.392
cg25487008	yellow	21	45,559,838	Body	N_Shore	C21orf33	0.751	0.010	0.680	0.173
cg13995599	yellow	13	113,426,270	Body	S_Shore	ATP11A	0.751	0.005	0.659	0.559
cg11439695	yellow	12	2,561,024	Body	OpenSea	CACNA1C	0.751	-0.007	0.657	0.351
cg24808271	yellow	19	57,922,164	TSS1500	N_Shore	ZNF17	0.751	0.018	0.562	0.004

cg13477354	yellow	1	101,705,539	Body	S_Shelf	S1PR1	0.751	0.002	0.902	0.784
cg14496799	yellow	9	112,664,160	Body	OpenSea	PALM2	0.751	0.004	0.772	0.429
cg06102690	yellow	4	24,981,807	TSS200	OpenSea	CCDC149	0.751	0.007	0.274	0.454
cg05030574	yellow	11	65,189,075	TSS1500	N_Shore	NEAT1	0.751	-0.001	0.053	0.789
cg11202634	yellow	8	37,184,569		OpenSea		0.751	-0.002	0.705	0.806
cg11318133	yellow	12	113,416,268	TSS200	OpenSea	OAS2	0.751	0.019	0.285	0.178
cg06805557	yellow	11	6,440,931	TSS1500	S_Shore	APBB1	0.751	0.008	0.103	0.203
cg05765011	yellow	16	4,103,225	Body	OpenSea	ADCY9	0.751	0.012	0.298	0.216
cg06580196	yellow	3	50,366,021	TSS1500	S_Shore	TUSC2	0.751	0.007	0.270	0.242
cg03940520	yellow	17	47,925,010	Body	N_Shelf	TAC4	0.751	0.008	0.715	0.537
cg23982279	yellow	3	178,790,077	TSS1500	S_Shore	ZMAT3	0.751	-0.002	0.103	0.730
cg18637383	yellow	2	37,308,026	Body	N_Shelf	HEATR5B	0.751	0.001	0.874	0.817
cg23329208	yellow	4	149,360,981	5'UTR	N_Shelf	NR3C2	0.751	-0.005	0.921	0.441
cg12899649	yellow	6	33,043,762	5'UTR	OpenSea	HLA-DPB1	0.751	0.009	0.376	0.302
cg05863499	yellow	17	56,073,079		OpenSea		0.751	0.013	0.159	0.139
cg08406698	yellow	6	168,785,320		OpenSea		0.751	0.003	0.881	0.748
cg23617067	yellow	1	220,292,508	Body	OpenSea	IARS2	0.751	0.003	0.912	0.702
cg11117684	yellow	11	100,599,394	Body	OpenSea	FLJ32810	0.751	-0.006	0.724	0.629
cg10187713	yellow	20	49,345,687		N_Shore		0.751	0.007	0.786	0.417
cg24463664	yellow	8	38,160,704	Body	OpenSea	WHSC1L1	0.751	0.004	0.624	0.814
cg14470121	yellow	16	1,587,684	Body	Island	IFT140	0.751	-0.004	0.802	0.508
cg22681495	yellow	15	86,058,755	Body	OpenSea	AKAP13	0.751	0.008	0.633	0.745
cg21198755	yellow	14	105,045,938	TSS200	OpenSea	C14orf180	0.751	0.006	0.349	0.515
cg04981010	yellow	20	61,298,156	TSS200	OpenSea	LOC1001278	0.751	0.012	0.648	0.116
cg25351755	yellow	4	153,561,975	Body	OpenSea	TMEM154	0.751	0.001	0.297	0.926
cg12686260	yellow	5	175,957,615	Body	OpenSea	RNF44	0.751	0.010	0.764	0.086
cg05873857	yellow	10	5,727,926	5'UTR	S_Shore	C10orf18	0.751	0.005	0.054	0.365
cg02927042	yellow	1	21,476,669	5'UTR	OpenSea	EIF4G3	0.751	0.035	0.639	0.033
cg26140749	yellow	8	143,821,266		Island		0.751	0.011	0.574	0.120
cg19102120	yellow	5	118,132,145		OpenSea		0.751	0.005	0.785	0.653
cg16313243	yellow	8	135,850,921		OpenSea		0.751	-0.006	0.533	0.570
cg07816047	yellow	3	38,010,838	Body	OpenSea	CTDSPL	0.751	0.015	0.667	0.089
cg26860257	yellow	19	42,755,793	Body	N_Shore	ERF	0.751	0.010	0.562	0.168
cg02852557	yellow	15	25,907,264		OpenSea		0.751	0.022	0.515	0.006
cg14059221	yellow	17	28,803,808	TSS1500	N_Shore	GOSR1	0.751	-0.002	0.442	0.838
cg27659557	yellow	14	22,111,727		OpenSea		0.751	-0.004	0.615	0.506
cg14599440	yellow	18	11,909,634	TSS1500	S_Shore	MPPE1	0.751	0.011	0.702	0.231
cg23399286	yellow	8	133,072,873	TSS1500	OpenSea	OC90	0.751	-0.002	0.855	0.778
cg14482116	yellow	17	12,690,037		N_Shelf		0.751	0.002	0.725	0.843
cg00661485	yellow	5	169,533,372	1stExon	Island	FOXI1	0.751	0.002	0.625	0.787
cg16172329	yellow	2	162,907,368	Body	OpenSea	DPP4	0.751	0.016	0.602	0.313
cg18394552	yellow	5	159,428,643		OpenSea		0.751	0.016	0.558	0.109
cg00658411	yellow	16	4,467,558	TSS1500	S_Shore	CORO7	0.751	0.013	0.556	0.152
cg21462440	yellow	19	16,585,897		S_Shelf		0.751	-0.007	0.735	0.578
cg17923377	yellow	22	50,174,057	Body	N_Shelf	BRD1	0.751	0.003	0.631	0.789
cg13870520	yellow	4	77,131,705	Body	N_Shelf	SCARB2	0.751	-0.012	0.733	0.050
cg16382314	yellow	1	2,200,962	Body	OpenSea	SKI	0.751	0.006	0.842	0.346
cg04334723	yellow	19	13,054,427	Body	N_Shelf	CALR	0.751	0.005	0.822	0.397
cg08608523	yellow	8	128,866,525	Body	OpenSea	PVT1	0.751	0.016	0.533	0.100
cg04400131	yellow	1	65,005,934	Body	OpenSea	CACHD1	0.750	0.014	0.523	0.174
cg08033130	yellow	3	45,983,597	TSS1500	OpenSea	CXCR6	0.750	0.002	0.598	0.919
cg02772509	yellow	1	212,102,812		OpenSea		0.750	0.010	0.346	0.273
cg12771165	yellow	7	134,918,653	Body	Island	STRA8	0.750	0.009	0.883	0.284
cg26650655	yellow	5	88,178,400	5'UTR	N_Shore	MEF2C	0.750	0.003	0.017	0.085
cg10827754	yellow	2	101,038,262		S_Shelf		0.750	-0.005	0.850	0.751
cg27526649	yellow	1	208,132,004		N_Shore		0.750	0.012	0.853	0.062
cg23620047	yellow	1	245,963,324	Body	OpenSea	SMYD3	0.750	-0.005	0.780	0.465
cg03062717	yellow	19	35,940,483	TSS200	OpenSea	FFAR2	0.750	0.002	0.562	0.848
cg05301609	yellow	17	19,577,717	Body	OpenSea	ALDH3A2	0.750	-0.001	0.914	0.930
cg19834855	yellow	14	90,885,702		OpenSea		0.750	0.006	0.046	0.154
cg26377281	yellow	12	4,403,352	Body	OpenSea	CCND2	0.750	0.006	0.463	0.237
cg25080747	yellow	11	2,289,117		N_Shore		0.750	0.012	0.669	0.100
cg25620901	yellow	7	808,592	Body	Island	HEATR2	0.750	0.004	0.750	0.839
cg00339319	yellow	1	223,899,845	TSS1500	N_Shore	CAPN2	0.750	0.006	0.262	0.249
cg11136665	yellow	12	47,671,358		OpenSea		0.750	0.012	0.585	0.254
cg15704699	yellow	17	26,439,377	Body	OpenSea	NLK	0.750	0.001	0.464	0.899
cg07979357	yellow	19	14,142,353	5'UTR	N_Shore	IL27RA	0.750	-0.012	0.176	0.220



cg04096619	yellow	5	9,547,595	TSS1500	S_Shore	SNORD123	0.750	0.030	0.708	0.107
cg12127991	yellow	1	228,870,637	TSS1500	N_Shore	RHOU	0.750	0.015	0.204	0.169
cg04173182	yellow	4	54,446,035	5'UTR	OpenSea	LNK1	0.750	0.007	0.882	0.430
cg25416067	yellow	17	75,315,667	5'UTR	OpenSea	9-Sep	0.750	0.003	0.627	0.788
cg05638830	yellow	1	47,181,214	Body	N_Shelf	KIAA0494	0.750	0.000	0.643	0.971
cg01157280	yellow	2	238,499,464	1stExon	OpenSea	RAB17	0.750	0.021	0.623	0.016
cg07709903	yellow	5	167,774,352	Body	OpenSea	WWC1	0.750	0.008	0.662	0.147
cg17341765	yellow	12	65,997,206		OpenSea		0.750	0.002	0.625	0.893
cg26231267	yellow	10	12,648,032	Body	OpenSea	CAMK1D	0.750	0.005	0.335	0.620
cg18775606	yellow	3	47,890,260	Body	N_Shore	DHX30	0.750	0.005	0.617	0.468
cg06388418	yellow	16	27,237,190	Body	OpenSea	NSMCE1	0.750	0.006	0.651	0.402
cg25165860	yellow	10	96,551	TSS1500	S_Shore	TUBB8	0.750	0.017	0.530	0.435
cg03967293	yellow	1	209,826,863	TSS1500	OpenSea	LAMB3	0.750	0.005	0.418	0.460
cg14118465	yellow	14	105,958,792	Body	S_Shore	C14orf80	0.750	0.014	0.741	0.073
cg23309527	yellow	14	52,771,169		OpenSea		0.750	0.006	0.801	0.520
cg06390484	yellow	7	134,575,271	TSS1500	OpenSea	CALD1	0.750	0.017	0.535	0.112
cg12942552	yellow	5	57,749,839	3'UTR	OpenSea	PLK2	0.750	-0.003	0.220	0.858
cg12776902	yellow	4	144,452,479	Body	OpenSea	SMARCA5	0.750	-0.001	0.778	0.884
cg04012986	yellow	10	93,350,190	Body	OpenSea	LOC1001889	0.750	0.024	0.405	0.209
cg00852033	yellow	16	2,058,572	Body	N_Shore	ZNF598	0.750	0.013	0.316	0.167
cg26578408	yellow	13	112,555,823		OpenSea		0.750	0.019	0.783	0.020
cg01022370	yellow	8	8,749,074	1stExon	Island	MFHAS1	0.750	0.005	0.492	0.634
cg08108655	yellow	16	1,488,807	Body	S_Shore	CCDC154	0.750	0.009	0.696	0.267
cg09520904	yellow	11	69,462,943	Body	S_Shore	CCND1	0.750	0.005	0.569	0.522
cg08026651	yellow	2	84,743,142	TSS1500	N_Shore	DNAH6	0.750	0.005	0.714	0.596
cg21834684	yellow	14	81,797,427	Body	OpenSea	STON2	0.750	-0.006	0.786	0.301
cg23063374	yellow	13	22,030,131	Body	N_Shelf	ZDHHC20	0.750	-0.001	0.930	0.868
cg04901623	yellow	4	39,122,942	3'UTR	OpenSea	KLHL5	0.750	0.001	0.865	0.948
cg09852221	yellow	1	205,912,646	TSS200	OpenSea	SLC26A9	0.750	0.010	0.603	0.190
cg15648345	yellow	17	56,297,360	TSS1500	S_Shore	MKS1	0.750	0.001	0.681	0.952
cg02325160	yellow	4	187,621,836	Body	OpenSea	FAT1	0.750	-0.007	0.703	0.410
cg01375248	yellow	3	142,724,451	Body	S_Shelf	SR140	0.750	0.005	0.889	0.508
cg09277709	yellow	19	46,224,285	5'UTR	S_Shelf	FBXO46	0.750	0.015	0.703	0.150
cg24587080	yellow	6	160,016,373		OpenSea		0.750	0.012	0.746	0.254
cg25354657	yellow	11	129,991,445	Body	N_Shelf	APLP2	0.750	0.006	0.885	0.350
cg18181975	yellow	6	117,882,457	3'UTR	OpenSea	GOPC	0.750	-0.002	0.666	0.896
cg09732711	yellow	10	130,696,072		OpenSea		0.750	-0.006	0.871	0.515
cg08119325	yellow	3	195,613,212	Body	N_Shore	TNK2	0.750	0.013	0.444	0.066
cg26912636	yellow	20	56,286,391	5'UTR	S_Shore	PMEPA1	0.749	-0.013	0.687	0.043
cg05529091	yellow	12	111,475,875	Body	S_Shore	CUX2	0.749	0.002	0.566	0.773
cg09293816	yellow	19	50,015,532	TSS200	N_Shore	FCGRT	0.749	0.004	0.384	0.659
cg19795338	yellow	3	193,273,475	TSS1500	OpenSea	ATP13A4	0.749	0.010	0.600	0.347
cg25982880	yellow	19	4,916,593	Body	Island	UHRF1	0.749	0.020	0.819	0.089
cg05299486	yellow	17	40,609,380	TSS1500	N_Shore	ATP6V0A1	0.749	0.013	0.255	0.537
cg26251680	yellow	1	7,515,712	Body	OpenSea	CAMTA1	0.749	0.003	0.716	0.780
cg03433942	yellow	3	128,295,045	TSS200	OpenSea	C3orf27	0.749	0.005	0.558	0.453
cg22204103	yellow	4	41,540,115	Body	OpenSea	LIMCH1	0.749	-0.003	0.762	0.723
cg14958956	yellow	10	102,722,131	3'UTR	OpenSea	FAM178A	0.749	0.001	0.924	0.909
cg21411834	yellow	1	215,740,071	TSS1500	N_Shore	KCTD3	0.749	0.000	0.888	0.988
cg16639311	yellow	10	131,005,778		OpenSea		0.749	0.015	0.515	0.394
cg02311364	yellow	3	13,001,256	Body	OpenSea	IQSEC1	0.749	0.000	0.776	0.953
cg13442016	yellow	10	104,196,339	Body	S_Shelf	MIR146B	0.749	0.006	0.811	0.525
cg06589109	yellow	16	85,690,690	Body	OpenSea	KIAA0182	0.749	-0.002	0.613	0.839
cg11352146	yellow	11	65,192,550	Body	S_Shore	NEAT1	0.749	0.013	0.352	0.027
cg17719202	yellow	10	111,984,891	Body	N_Shore	MXI1	0.749	0.002	0.860	0.799
cg18756545	yellow	19	58,666,863		S_Shore		0.749	0.008	0.085	0.299
cg24966363	yellow	8	8,932,588		OpenSea		0.749	-0.002	0.075	0.863
cg09205945	yellow	7	137,662,133	Body	OpenSea	CREB3L2	0.749	-0.002	0.940	0.607
cg21842916	yellow	2	42,880,391	Body	OpenSea	MTA3	0.749	0.004	0.672	0.631
cg12105382	yellow	12	4,390,091	Body	OpenSea	CCND2	0.749	0.002	0.302	0.755
cg26775558	yellow	10	114,867,635	Body	OpenSea	TCF7L2	0.749	0.000	0.736	0.984
cg25298754	yellow	3	111,314,102	5'UTR	OpenSea	ZBED2	0.749	-0.005	0.630	0.382
cg14986357	yellow	1	44,888,866	Body	OpenSea	RNF220	0.749	0.009	0.822	0.343
cg14578247	yellow	12	120,173,057	Body	OpenSea	CIT	0.749	0.002	0.964	0.469
cg01778864	yellow	1	109,729,851	Body	OpenSea	KIAA1324	0.749	0.016	0.603	0.071
cg09696120	yellow	2	98,349,083	Body	N_Shore	ZAP70	0.749	0.001	0.720	0.887
cg23067082	yellow	12	7,073,179	TSS200	OpenSea	MIR141	0.749	0.009	0.604	0.223

cg27374881	yellow	3	186,504,006	TSS1500	S_Shore	SNORA63	0.749	-0.017	0.658	0.114
cg27345346	yellow	19	36,259,144	3'UTR	OpenSea	C19orf55	0.749	0.007	0.632	0.390
cg16809762	yellow	16	81,327,958		OpenSea		0.749	0.005	0.619	0.633
cg08103568	yellow	4	100,737,138	TSS1500	OpenSea	DAPP1	0.749	0.020	0.781	0.006
cg00944001	yellow	16	70,823,386	Body	OpenSea	VAC14	0.749	0.001	0.958	0.820
cg08822715	yellow	12	114,404,604	TSS1500	S_Shore	RBM19	0.749	0.009	0.081	0.171
cg14333542	yellow	10	75,647,561		OpenSea		0.749	0.003	0.083	0.780
cg01174743	yellow	6	157,932,074	Body	OpenSea	ZDHC14	0.749	-0.004	0.878	0.462
cg04350627	yellow	7	82,993,656	3'UTR	OpenSea	SEMA3E	0.749	0.011	0.820	0.362
cg16855929	yellow	1	231,561,414	TSS1500	S_Shelf	EGLN1	0.749	0.004	0.458	0.633
cg03957695	yellow	1	227,733,522		S_Shelf		0.749	0.016	0.698	0.130
cg12776033	yellow	6	31,939,059	TSS1500	N_Shore	STK19	0.749	0.019	0.573	0.031
cg24910161	yellow	17	38,119,198	TSS200	OpenSea	GSDMA	0.749	0.005	0.723	0.535
cg01984798	yellow	17	4,463,911	TSS200	OpenSea	GGT6	0.749	0.012	0.577	0.096
cg06864079	yellow	14	23,352,029	TSS1500	N_Shelf	REM2	0.749	0.015	0.352	0.034
cg22225849	yellow	6	11,188,760	Body	OpenSea	NEDD9	0.749	-0.002	0.890	0.854
cg13866767	yellow	13	78,470,850	Body	OpenSea	EDNRB	0.749	0.007	0.443	0.424
cg04048893	yellow	10	132,284,393		OpenSea		0.749	-0.002	0.947	0.714
cg05117823	yellow	1	3,056,152	Body	N_Shore	PRDM16	0.749	0.011	0.791	0.116
cg24717731	yellow	19	35,797,954	Body	N_Shelf	MAG	0.749	-0.007	0.672	0.363
cg16199747	yellow	6	147,235,033		OpenSea		0.749	0.021	0.389	0.030
cg24654025	yellow	10	5,685,896	Body	S_Shelf	ASB13	0.749	0.019	0.688	0.082
cg23625823	yellow	4	183,698,078	Body	OpenSea	ODZ3	0.748	0.012	0.573	0.297
cg21027599	yellow	6	159,639,549	Body	OpenSea	FNDC1	0.748	0.002	0.831	0.801
cg05667311	yellow	10	98,797,490	Body	OpenSea	SLIT1	0.748	0.004	0.268	0.703
cg16353174	yellow	2	129,543,148		OpenSea		0.748	-0.022	0.809	0.061
cg00472520	yellow	17	79,006,834	Body	Island	FLJ90757	0.748	0.008	0.626	0.183
cg07117311	yellow	16	67,966,314	TSS1500	N_Shelf	CTRL	0.748	0.009	0.739	0.205
cg01549570	yellow	14	104,622,128	Body	Island	KIF26A	0.748	-0.006	0.816	0.322
cg10827253	yellow	1	120,253,477	TSS1500	N_Shore	PHGDH	0.748	-0.009	0.709	0.330
cg19136632	yellow	3	69,133,862	TSS1500	N_Shore	ARL6IP5	0.748	0.008	0.543	0.427
cg04661457	yellow	12	92,531,553		OpenSea		0.748	-0.012	0.635	0.423
cg21917090	yellow	4	77,816,250	3'UTR	N_Shore	ANKRD56	0.748	0.003	0.790	0.711
cg02879967	yellow	11	14,477,198		OpenSea		0.748	0.003	0.904	0.680
cg10471356	yellow	13	113,382,760	Body	Island	ATP11A	0.748	-0.023	0.895	0.061
cg04215055	yellow	17	74,911,520	Body	OpenSea	MGAT5B	0.748	0.004	0.585	0.587
cg04339360	yellow	13	73,635,568	Body	S_Shore	KLF5	0.748	0.009	0.883	0.263
cg07017562	yellow	14	60,099,815	Body	S_Shelf	RTN1	0.748	-0.008	0.826	0.334
cg03451204	yellow	16	75,282,783	Body	N_Shore	BCAR1	0.748	0.014	0.799	0.025
cg04276417	yellow	10	33,227,909	5'UTR	OpenSea	ITGB1	0.748	0.015	0.277	0.049
cg07988171	yellow	19	16,199,419	Body	OpenSea	TPM4	0.748	0.005	0.311	0.616
cg26534812	yellow	17	75,524,155		N_Shore		0.748	0.005	0.727	0.599
cg10103373	yellow	2	241,080,193	TSS200	OpenSea	OTOS	0.748	0.004	0.547	0.594
cg17614801	yellow	17	77,128,546	5'UTR	S_Shore	HRNBP3	0.748	0.008	0.778	0.293
cg02377915	yellow	22	22,307,573	TSS1500	S_Shore	PPM1F	0.748	-0.002	0.593	0.744
cg18353345	yellow	21	46,961,669	5'UTR	Island	SLC19A1	0.748	0.002	0.080	0.754
cg17239478	yellow	6	23,955,726		OpenSea		0.748	0.000	0.768	0.989
cg11727592	yellow	13	46,916,922	3'UTR	OpenSea	C13orf18	0.748	0.006	0.643	0.413
cg21043424	yellow	7	73,300,908		OpenSea		0.748	0.009	0.304	0.246
cg23165500	yellow	5	152,949,095	Body	OpenSea	GRIA1	0.748	0.004	0.832	0.704
cg12178669	yellow	10	51,566,202	5'UTR	S_Shore	NCOA4	0.748	0.024	0.424	0.068
cg06270737	yellow	6	138,785,358	Body	OpenSea	NHSL1	0.748	0.002	0.886	0.837
cg04695732	yellow	22	17,598,801	1stExon	N_Shore	CECR6	0.748	0.013	0.577	0.063
cg04598420	yellow	11	75,527,994	Body	S_Shore	UVRAG	0.748	0.000	0.328	0.988
cg01749702	yellow	20	1,187,652	Body	OpenSea	C20orf202	0.748	0.009	0.646	0.400
cg11732301	yellow	1	12,210,795		OpenSea		0.748	0.000	0.671	0.965
cg08897054	yellow	1	160,189,219	Body	OpenSea	DCAF8	0.748	0.017	0.783	0.073
cg21251785	yellow	9	73,484,407	TSS1500	OpenSea	TRPM3	0.748	0.007	0.868	0.518
cg06773488	yellow	18	74,726,002	Body	OpenSea	MBP	0.748	-0.005	0.249	0.688
cg09714424	yellow	13	103,381,760	3'UTR	OpenSea	LOC643677	0.748	0.019	0.847	0.089
cg10185917	yellow	19	6,358,267		N_Shelf		0.748	0.004	0.452	0.516
cg20059377	yellow	15	78,369,232	Body	N_Shore	TBC1D2B	0.748	0.001	0.577	0.921
cg03034540	yellow	16	67,450,810	TSS1500	S_Shore	ZDHC1	0.748	0.003	0.722	0.687
cg11086415	yellow	2	178,467,658		OpenSea		0.748	0.012	0.580	0.287
cg10961249	yellow	1	2,436,883	3'UTR	S_Shore	PLCH2	0.748	-0.004	0.277	0.705
cg11770527	yellow	13	113,410,349	Body	Island	ATP11A	0.748	0.009	0.876	0.323
cg20245822	yellow	12	104,734,362	Body	OpenSea	TXNRD1	0.748	0.003	0.763	0.749

cg20327845	yellow	10	3,138,418	Body	OpenSea	PFKP	0.748	-0.006	0.873	0.565
cg19736117	yellow	19	50,058,328		N_Shore		0.748	0.006	0.668	0.328
cg09365240	yellow	15	99,664,148	Body	OpenSea	SYNM	0.748	0.007	0.098	0.550
cg22079195	yellow	2	100,799,756		OpenSea		0.748	0.017	0.578	0.248
cg07030727	yellow	2	85,536,594	3'UTR	OpenSea	TCF7L1	0.748	0.005	0.525	0.747
cg06015733	yellow	8	38,090,440	5'UTR	S_Shore	DDHD2	0.747	0.012	0.546	0.093
cg10802371	yellow	3	149,530,305	TSS200	Island	RNF13	0.747	0.008	0.221	0.556
cg04779597	yellow	3	150,345,472	3'UTR	OpenSea	SELT	0.747	0.018	0.593	0.185
cg27308445	yellow	5	149,699,675		OpenSea		0.747	0.005	0.482	0.669
cg22915373	yellow	13	110,337,639		OpenSea		0.747	0.012	0.569	0.137
cg16329896	yellow	7	47,515,060	5'UTR	OpenSea	TNS3	0.747	0.006	0.589	0.337
cg22364219	yellow	1	16,714,091	Body	OpenSea	C1orf144	0.747	0.035	0.285	0.060
cg27050407	yellow	6	24,832,728	Body	OpenSea	FAM65B	0.747	0.004	0.912	0.591
cg05969150	yellow	16	72,882,495	Body	OpenSea	ZFX3	0.747	-0.002	0.602	0.771
cg02023138	yellow	12	51,701,979	Body	OpenSea	BIN2	0.747	-0.004	0.850	0.595
cg17217443	yellow	17	36,511,291	Body	S_Shelf	SOCS7	0.747	0.015	0.835	0.041
cg03203646	yellow	19	40,896,064	5'UTR	S_Shore	HIPK4	0.747	0.000	0.657	0.938
cg14195117	yellow	9	114,936,583	Body	N_Shore	SUSD1	0.747	0.001	0.713	0.926
cg20249566	yellow	19	16,830,739	TSS200	OpenSea	NWD1	0.747	0.006	0.826	0.609
cg19521693	yellow	19	54,468,577	Body	S_Shore	CACNG8	0.747	0.009	0.606	0.228
cg25769412	yellow	3	132,077,190	Body	OpenSea	ACPP	0.747	-0.004	0.604	0.625
cg01750716	yellow	8	14,660,063	Body	OpenSea	SGCZ	0.747	0.011	0.800	0.370
cg21413797	yellow	3	134,165,843		OpenSea		0.747	0.013	0.567	0.049
cg11911286	yellow	2	109,177,239		OpenSea		0.747	0.024	0.640	0.034
cg12571879	yellow	19	7,741,955	5'UTR	N_Shelf	C19orf59	0.747	0.008	0.625	0.460
cg10489928	yellow	6	31,592,247	Body	S_Shelf	BAT2	0.747	0.006	0.818	0.412
cg08365638	yellow	16	9,212,442	3'UTR	OpenSea	C16orf72	0.747	-0.001	0.932	0.827
cg27620173	yellow	11	94,017,285		OpenSea		0.747	0.024	0.303	0.108
cg12629796	yellow	7	74,050,146		OpenSea		0.747	0.005	0.069	0.417
cg25246031	yellow	19	46,732,864	TSS200	OpenSea	IGFL1	0.747	0.001	0.580	0.845
cg24380059	yellow	20	56,196,288	TSS1500	OpenSea	ZBP1	0.747	0.010	0.682	0.157
cg23415995	yellow	4	128,704,651	Body	S_Shore	HSPA4L	0.747	0.015	0.254	0.293
cg24308336	yellow	20	37,270,989	Body	N_Shelf	C20orf95	0.747	0.006	0.633	0.375
cg26971420	yellow	17	38,085,230	TSS1500	S_Shore	ORMDL3	0.747	0.002	0.962	0.438
cg09622122	yellow	4	660,957	Body	S_Shelf	PDE6B	0.747	0.007	0.716	0.352
cg20365336	yellow	6	16,986,186		OpenSea		0.747	0.008	0.268	0.218
cg19755714	yellow	4	140,842,902	Body	OpenSea	MAML3	0.747	0.009	0.656	0.254
cg10616795	yellow	5	76,464,212		OpenSea		0.747	-0.002	0.418	0.803
cg19595244	yellow	1	110,526,158	TSS1500	N_Shore	AHCYL1	0.747	-0.005	0.844	0.544
cg03209720	yellow	6	157,727,126	Body	OpenSea	C6orf35	0.747	0.001	0.613	0.874
cg15002204	yellow	6	49,429,719	TSS1500	N_Shore	CENPQ	0.747	0.008	0.207	0.370
cg03608515	yellow	13	98,112,404	Body	OpenSea	RAP2A	0.747	0.001	0.761	0.900
cg25510090	yellow	19	56,616,706	5'UTR	S_Shore	ZNF787	0.747	0.013	0.473	0.289
cg27598979	yellow	13	37,495,632	TSS1500	S_Shore	SMAD9	0.747	0.009	0.745	0.218
cg05317096	yellow	14	99,285,985		OpenSea		0.747	0.007	0.381	0.433
cg08550260	yellow	1	54,474,578	3'UTR	OpenSea	LDLRAD1	0.747	0.005	0.622	0.512
cg10462187	yellow	10	124,067,402	Body	OpenSea	BTBD16	0.747	-0.003	0.524	0.754
cg03762535	yellow	1	119,911,480	5'UTR	OpenSea	HAO2	0.747	-0.007	0.625	0.445
cg19198993	yellow	12	131,708,300		OpenSea		0.747	0.024	0.814	0.007
cg05662240	yellow	19	33,628,483	Body	S_Shelf	WDR88	0.746	0.001	0.735	0.904
cg09313766	yellow	14	65,273,621	Body	OpenSea	SPTB	0.746	0.003	0.890	0.700
cg20366633	yellow	6	32,797,234	Body	OpenSea	TAP2	0.746	-0.010	0.729	0.278
cg02577881	yellow	14	55,739,068	5'UTR	S_Shore	FBXO34	0.746	-0.005	0.043	0.117
cg06271652	yellow	16	23,144,103	Body	OpenSea	USP31	0.746	-0.003	0.727	0.711
cg00663396	yellow	3	124,885,385	Body	OpenSea	SLC12A8	0.746	0.026	0.651	0.115
cg09455823	yellow	2	201,606,912		OpenSea		0.746	0.016	0.586	0.043
cg14133064	yellow	9	5,530,115	Body	OpenSea	PDCD1LG2	0.746	-0.002	0.516	0.824
cg08699489	yellow	10	11,504,666	Body	N_Shore	USP6NL	0.746	0.009	0.747	0.166
cg00026327	yellow	17	79,056,183	Body	S_Shelf	BAIAP2	0.746	0.006	0.738	0.272
cg21895453	yellow	19	55,973,778	TSS1500	S_Shore	ISOC2	0.746	0.010	0.062	0.123
cg25400422	yellow	17	80,008,917	TSS1500	Island	GPS1	0.746	0.008	0.355	0.257
cg16640358	yellow	2	239,892,057		S_Shelf		0.746	0.002	0.631	0.764
cg06852461	yellow	1	207,975,182		OpenSea		0.746	0.002	0.683	0.781
cg02815538	yellow	1	111,822,494	TSS1500	OpenSea	LOC149620	0.746	-0.010	0.730	0.192
cg18671037	yellow	14	90,984,545		OpenSea		0.746	0.000	0.232	0.982
cg15955522	yellow	5	143,553,445	5'UTR	S_Shelf	KCTD16	0.746	-0.006	0.318	0.628
cg10251007	yellow	17	42,015,891		Island		0.746	0.010	0.596	0.376

cg16527041	yellow	4	124,080,576	Body	OpenSea	SPATA5	0.746	0.003	0.614	0.867
cg02973416	yellow	11	796,069	5'UTR	N_Shore	SLC25A22	0.746	0.005	0.048	0.318
cg06933384	yellow	5	74,808,293	TSS1500	S_Shore	COL4A3BP	0.746	0.015	0.135	0.091
cg08459783	yellow	4	2,259,249	Body	N_Shelf	MXD4	0.746	0.014	0.664	0.083
cg21764043	yellow	5	149,239,114	3'UTR	OpenSea	PDE6A	0.746	0.001	0.702	0.928
cg08412537	yellow	5	171,720,399		N_Shelf		0.746	-0.006	0.726	0.555
cg19235893	yellow	2	105,493,611		S_Shelf		0.746	0.000	0.656	0.960
cg04049225	yellow	16	85,672,175	5'UTR	S_Shore	KIAA0182	0.746	-0.001	0.733	0.900
cg21291321	yellow	7	101,566,940	Body	OpenSea	CUX1	0.746	0.012	0.790	0.119
cg12817436	yellow	19	1,068,561	Body	Island	HMHA1	0.746	0.001	0.598	0.941
cg11955845	yellow	22	36,681,311	Body	OpenSea	MYH9	0.746	-0.002	0.762	0.739
cg18668449	yellow	20	60,925,179	Body	N_Shore	LAMA5	0.746	0.014	0.722	0.263
cg22892043	yellow	11	61,731,930	3'UTR	N_Shelf	BEST1	0.746	-0.003	0.905	0.683
cg24352934	yellow	17	1,053,717	Body	OpenSea	ABR	0.746	0.000	0.929	0.973
cg02910281	yellow	1	39,407,451	1stExon	OpenSea	RHBDL2	0.746	-0.003	0.394	0.792
cg05047710	yellow	17	6,915,240	TSS1500	N_Shore	RNASEK	0.746	0.005	0.049	0.329
cg13286620	yellow	3	14,715,425	TSS1500	OpenSea	C3orf20	0.746	0.029	0.233	0.063
cg03075065	yellow	16	84,336,445	Body	OpenSea	WFDC1	0.746	0.005	0.703	0.699
cg04221624	yellow	10	72,274,527	5'UTR	OpenSea	KIAA1274	0.746	0.001	0.830	0.958
cg20000866	yellow	7	33,923,088		OpenSea		0.746	0.007	0.778	0.237
cg03910557	yellow	6	126,074,639	Body	S_Shelf	HEY2	0.746	0.008	0.289	0.549
cg04667114	yellow	13	34,185,082		OpenSea		0.746	0.018	0.452	0.072
cg13485718	yellow	14	93,315,488		OpenSea		0.746	-0.003	0.684	0.874
cg08303283	yellow	9	139,843,753		N_Shore		0.746	0.010	0.779	0.297
cg12594635	yellow	12	54,129,457		N_Shelf		0.746	0.000	0.711	0.943
cg26878190	yellow	5	1,794,420		OpenSea		0.746	0.010	0.744	0.080
cg13172905	yellow	8	30,341,765	Body	OpenSea	RBPMS	0.746	-0.004	0.933	0.453
cg08935301	yellow	3	8,543,732	Body	S_Shore	LMCD1	0.746	0.004	0.277	0.711
cg03532013	yellow	19	42,592,983	3'UTR	OpenSea	POU2F2	0.746	-0.008	0.714	0.334
cg05338167	yellow	15	68,498,251	1stExon	OpenSea	CALML4	0.746	0.005	0.879	0.361
cg13940218	yellow	1	22,207,207	Body	N_Shelf	HSPG2	0.746	0.005	0.856	0.278
cg18642234	yellow	3	49,394,622	3'UTR	N_Shore	GPX1	0.746	0.014	0.773	0.061
cg16083447	yellow	2	99,226,287	TSS1500	S_Shore	C2orf64	0.745	0.001	0.803	0.919
cg10070788	yellow	17	76,220,955	3'UTR	OpenSea	BIRC5	0.745	-0.004	0.891	0.610
cg00130180	yellow	2	242,625,439	Body	N_Shore	DTYMK	0.745	0.015	0.262	0.280
cg04643397	yellow	12	120,118,807	3'UTR	OpenSea	PRKAB1	0.745	0.001	0.834	0.889
cg01357958	yellow	17	43,340,592	Body	S_Shore	LOC10013391	0.745	0.023	0.542	0.111
cg00852595	yellow	12	99,548,437	1stExon	OpenSea	ANKS1B	0.745	0.006	0.372	0.424
cg22060113	yellow	19	36,422,140		N_Shore		0.745	0.003	0.099	0.585
cg08529269	yellow	1	43,514,755		OpenSea		0.745	0.005	0.626	0.541
cg13921921	yellow	1	155,931,763	Body	OpenSea	ARHGEF2	0.745	0.009	0.610	0.201
cg00547530	yellow	16	3,559,687	Body	OpenSea	CLUAP1	0.745	0.010	0.800	0.375
cg00280812	yellow	12	52,585,844	TSS200	OpenSea	KRT80	0.745	0.009	0.618	0.169
cg22025263	yellow	1	43,419,475	Body	N_Shelf	SLC2A1	0.745	0.007	0.760	0.528
cg08133816	yellow	16	67,867,224	Body	N_Shore	CENPT	0.745	0.007	0.070	0.051
cg12656653	yellow	10	13,771,427	Body	OpenSea	FRMD4A	0.745	0.010	0.702	0.393
cg21240684	yellow	2	3,526,841		S_Shelf		0.745	0.009	0.293	0.566
cg14665413	yellow	4	38,859,728	TSS1500	OpenSea	TLR6	0.745	-0.002	0.386	0.862
cg21828233	yellow	1	113,164,672	Body	S_Shelf	CAPZA1	0.745	-0.018	0.741	0.030
cg16629695	yellow	19	19,492,076		N_Shelf		0.745	-0.005	0.400	0.511
cg19968946	yellow	3	73,481,531	Body	OpenSea	PDZRN3	0.745	0.003	0.810	0.696
cg11659361	yellow	1	11,708,292		N_Shore		0.745	0.011	0.618	0.327
cg13902067	yellow	9	116,062,223	TSS1500	OpenSea	RNF183	0.745	-0.007	0.719	0.583
cg08783616	yellow	17	16,389,293	Body	OpenSea	C17orf76	0.745	0.002	0.135	0.732
cg23996349	yellow	8	22,831,506		OpenSea		0.745	0.000	0.209	0.993
cg23965590	yellow	11	119,133,451	Body	OpenSea	CBL	0.745	-0.004	0.570	0.429
cg13560436	yellow	5	56,248,587	TSS1500	S_Shore	MIER3	0.745	0.011	0.216	0.179
cg03042633	yellow	1	2,183,365	Body	OpenSea	SKI	0.745	0.003	0.362	0.639
cg09396032	yellow	16	85,669,462	5'UTR	N_Shore	KIAA0182	0.745	0.004	0.740	0.444
cg10385101	yellow	7	707,728	Body	N_Shelf	PRKAR1B	0.745	0.006	0.686	0.495
cg01249544	yellow	10	69,372,655	Body	OpenSea	CTNNA3	0.745	0.004	0.786	0.715
cg11625933	yellow	3	81,811,322	TSS1500	S_Shore	GBE1	0.745	0.002	0.496	0.826
cg22527572	yellow	12	4,740,542	Body	OpenSea	AKAP3	0.745	-0.002	0.829	0.816
cg21840908	yellow	7	75,596,046	Body	OpenSea	POR	0.745	0.011	0.860	0.144
cg05942551	yellow	2	127,801,137		OpenSea		0.745	0.000	0.717	0.999
cg15930777	yellow	6	12,343,201		OpenSea		0.745	-0.002	0.553	0.817
cg23634624	yellow	7	140,296,664	Body	OpenSea	DENND2A	0.745	0.020	0.428	0.209

cg19678561	yellow	7	129,252,859	5'UTR	S_Shore	NRF1	0.745	0.005	0.045	0.080
cg22476269	yellow	20	61,335,865		N_Shelf		0.745	0.015	0.174	0.188
cg19420101	yellow	7	98,996,656	Body	OpenSea	PDAP1	0.745	-0.004	0.784	0.689
cg12355172	yellow	11	67,418,315	TSS200	OpenSea	ACY3	0.745	0.012	0.552	0.126
cg18210619	yellow	17	8,178,743		OpenSea		0.745	0.001	0.643	0.936
cg01753788	yellow	8	145,024,929	5'UTR	Island	PLEC1	0.745	0.003	0.441	0.800
cg14073946	yellow	9	73,103,756		OpenSea		0.745	-0.006	0.752	0.637
cg13587908	yellow	9	139,616,233	Body	N_Shore	FAM69B	0.745	0.008	0.328	0.278
cg23095517	yellow	1	204,093,985	Body	OpenSea	SOX13	0.745	0.000	0.668	0.940
cg18370407	yellow	19	47,246,715	Body	N_Shelf	STRN4	0.745	0.011	0.617	0.269
cg12972064	yellow	3	171,887,393	Body	OpenSea	FNDC3B	0.745	0.005	0.752	0.555
cg24987259	yellow	11	66,336,293	TSS1500	S_Shore	CTSF	0.745	0.007	0.255	0.538
cg17879376	yellow	1	32,212,024	Body	S_Shelf	BAI2	0.745	0.010	0.616	0.296
cg13357341	yellow	1	150,849,964	TSS1500	S_Shore	ARNT	0.745	0.018	0.670	0.049
cg01450274	yellow	3	171,396,325	Body	OpenSea	PLD1	0.745	-0.009	0.893	0.227
cg01314252	yellow	3	9,943,828	TSS1500	OpenSea	IL17RE	0.745	0.002	0.569	0.757
cg21599748	yellow	15	41,211,285		OpenSea		0.745	0.001	0.465	0.903
cg13563026	yellow	4	47,512,538	5'UTR	OpenSea	ATP10D	0.745	0.004	0.515	0.673
cg22416002	yellow	22	39,713,062	Body	N_Shelf	RPL3	0.745	-0.001	0.696	0.875
cg00742040	yellow	6	36,566,732	Body	OpenSea	SFRS3	0.745	0.000	0.607	0.951
cg01367929	yellow	6	169,117,811		OpenSea		0.745	0.001	0.547	0.824
cg22917286	yellow	12	25,539,889		S_Shore		0.745	0.011	0.172	0.452
cg18119407	yellow	2	201,980,504	TSS1500	N_Shore	CFLAR	0.744	0.000	0.922	0.993
cg141112978	yellow	10	74,804,603	Body	OpenSea	P4HA1	0.744	-0.002	0.882	0.842
cg25687507	yellow	12	117,173,003	Body	N_Shelf	C12orf49	0.744	0.006	0.748	0.380
cg06064115	yellow	17	2,648,524		N_Shelf		0.744	0.010	0.383	0.591
cg21302133	yellow	4	91,156,113	5'UTR	OpenSea	FAM190A	0.744	0.011	0.454	0.243
cg06592080	yellow	16	3,543,548	3'UTR	N_Shelf	C16orf90	0.744	0.007	0.814	0.293
cg02293991	yellow	11	64,005,428	3'UTR	N_Shelf	VEGFB	0.744	-0.003	0.600	0.627
cg09741713	yellow	12	62,471,915	5'UTR	OpenSea	FAM19A2	0.744	-0.001	0.464	0.840
cg13339791	yellow	2	70,322,659		OpenSea		0.744	0.002	0.583	0.801
cg22384395	yellow	15	101,429,537	Body	OpenSea	ALDH1A3	0.744	0.014	0.412	0.042
cg15422708	yellow	19	2,213,373	Body	N_Shore	DOT1L	0.744	0.003	0.895	0.717
cg21181989	yellow	7	100,031,215	3'UTR	N_Shelf	MEPCE	0.744	0.016	0.770	0.025
cg22940848	yellow	1	2,222,486	Body	Island	SKI	0.744	-0.001	0.149	0.927
cg26863308	yellow	11	119,040,090	5'UTR	S_Shore	NLRX1	0.744	0.008	0.214	0.307
cg13607226	yellow	9	124,262,699	TSS1500	S_Shore	GGTA1	0.744	0.005	0.409	0.541
cg12639558	yellow	12	121,958,832	Body	OpenSea	KDM2B	0.744	-0.002	0.636	0.798
cg08991742	yellow	2	69,002,218	5'UTR	OpenSea	ARHGAP25	0.744	-0.014	0.703	0.076
cg19546700	yellow	19	939,596	Body	Island	ARID3A	0.744	-0.005	0.923	0.505
cg13866214	yellow	18	12,304,803		N_Shelf		0.744	0.010	0.464	0.361
cg18862975	yellow	21	37,092,865	TSS200	OpenSea	MIR802	0.744	0.017	0.302	0.162
cg20268689	yellow	2	20,431,435		OpenSea		0.744	-0.008	0.750	0.319
cg06929724	yellow	13	97,991,122	Body	OpenSea	MBNL2	0.744	-0.005	0.492	0.692
cg12209946	yellow	3	14,987,434		N_Shore		0.744	-0.008	0.633	0.530
cg04048339	yellow	6	31,496,644	TSS200	OpenSea	MCCD1	0.744	0.000	0.373	0.996
cg05658512	yellow	7	2,594,133	5'UTR	N_Shore	C7orf27	0.744	0.013	0.772	0.052
cg19860160	yellow	1	1,045,382	5'UTR	N_Shore	C1orf159	0.744	0.013	0.619	0.085
cg13509421	yellow	12	110,476,821	3'UTR	OpenSea	ANKRD13A	0.744	0.005	0.594	0.592
cg17980786	yellow	3	32,933,637	3'UTR	OpenSea	TRIM71	0.744	0.006	0.664	0.418
cg19039367	yellow	6	30,012,436	Body	OpenSea	NCRNA00171	0.744	0.026	0.679	0.025
cg22050330	yellow	6	32,765,022		OpenSea		0.744	0.002	0.064	0.663
cg09456905	yellow	15	48,412,241	TSS1500	OpenSea	SLC24A5	0.744	0.001	0.713	0.921
cg17022488	yellow	1	29,462,399		S_Shore		0.744	0.013	0.724	0.126
cg07995558	yellow	16	74,402,737	TSS1500	S_Shore	LOC283922	0.744	0.007	0.209	0.189
cg13919341	yellow	6	30,029,929	Body	S_Shore	ZNRD1	0.744	0.019	0.580	0.008
cg12403329	yellow	17	8,371,203	3'UTR	OpenSea	NDEL1	0.744	0.006	0.867	0.532
cg08065063	yellow	2	11,059,462		OpenSea		0.744	0.004	0.607	0.697
cg05198963	yellow	10	30,336,870	5'UTR	OpenSea	KIAA1462	0.744	0.007	0.729	0.243
cg02967056	yellow	3	111,853,315	TSS1500	OpenSea	GCET2	0.744	-0.016	0.914	0.052
cg09235702	yellow	19	53,771,332	TSS1500	OpenSea	VN1R4	0.744	-0.008	0.725	0.357
cg27031099	yellow	8	126,620,534		OpenSea		0.744	0.015	0.658	0.090
cg08681293	yellow	19	1,221,756	Body	S_Shore	STK11	0.744	0.009	0.449	0.260
cg22788065	yellow	13	37,107,434		OpenSea		0.744	0.008	0.625	0.342
cg27057524	yellow	1	101,830,939		OpenSea		0.744	0.010	0.693	0.193
cg07777344	yellow	5	10,757,842	Body	N_Shelf	DAP	0.744	0.015	0.621	0.238
cg05648614	yellow	3	5,180,520	Body	OpenSea	ARL8B	0.744	0.007	0.622	0.421

cg18805892	yellow	1	160,764,791	TSS1500	OpenSea	LY9	0.744	0.013	0.602	0.546
cg18995788	yellow	8	62,673,444		OpenSea		0.744	0.003	0.807	0.862
cg11822964	yellow	19	47,129,337	TSS1500	S_Shore	PTGIR	0.744	0.011	0.650	0.242
cg24319143	yellow	6	312,026	Body	OpenSea	DUSP22	0.744	0.016	0.650	0.088
cg11342821	yellow	1	91,557,617		OpenSea		0.743	-0.004	0.659	0.577
cg01605783	yellow	21	45,232,587	TSS200	OpenSea	LOC284837	0.743	0.015	0.593	0.023
cg13708803	yellow	8	138,898,243		OpenSea		0.743	0.002	0.611	0.800
cg00870279	yellow	6	33,256,222	TSS1500	N_Shore	PFDN6	0.743	0.004	0.555	0.491
cg21983520	yellow	5	175,526,951	Body	OpenSea	FAM153B	0.743	0.004	0.789	0.708
cg10255761	yellow	3	49,210,029	5'UTR	S_Shore	KLHDC8B	0.743	0.005	0.414	0.290
cg03649796	yellow	1	10,106,565	Body	OpenSea	UBE4B	0.743	-0.001	0.724	0.930
cg00797152	yellow	10	5,541,568	TSS200	S_Shore	CALML5	0.743	0.000	0.752	0.959
cg13845858	yellow	9	139,916,992	Body	N_Shore	ABCA2	0.743	0.006	0.883	0.232
cg10210624	yellow	19	58,662,595	TSS1500	S_Shore	ZNF329	0.743	-0.013	0.553	0.423
cg10084993	yellow	16	2,077,647	Body	S_Shore	SLC9A3R2	0.743	-0.002	0.368	0.802
cg16069986	yellow	11	70,650,456	Body	OpenSea	SHANK2	0.743	0.010	0.613	0.240
cg14778622	yellow	2	136,743,698	TSS1500	S_Shore	DARS	0.743	0.012	0.415	0.221
cg16854013	yellow	12	122,633,036		OpenSea		0.743	-0.002	0.824	0.773
cg12256070	yellow	11	45,820,489		OpenSea		0.743	-0.002	0.772	0.721
cg06477164	yellow	2	37,375,682	TSS1500	OpenSea	EIF2AK2	0.743	0.002	0.941	0.650
cg04554720	yellow	21	35,552,831	TSS200	OpenSea	C21orf82	0.743	0.027	0.596	0.053
cg25446153	yellow	11	118,826,709	TSS1500	OpenSea	UPK2	0.743	0.004	0.832	0.615
cg21649629	yellow	8	66,933,425	TSS1500	OpenSea	DNAJC5B	0.743	-0.002	0.959	0.572
cg01465102	yellow	4	40,942,131	Body	OpenSea	APBB2	0.743	0.025	0.495	0.004
cg07060505	yellow	12	116,756,136		OpenSea		0.743	-0.008	0.930	0.300
cg01298987	yellow	16	30,005,856	Body	N_Shore	HIRIP3	0.743	0.012	0.574	0.066
cg05332565	yellow	6	131,642,853		OpenSea		0.743	0.014	0.820	0.372
cg00145118	yellow	5	141,393,931	TSS1500	S_Shore	GNPDA1	0.743	0.006	0.377	0.356
cg15761609	yellow	17	66,598,067	TSS1500	S_Shore	FAM20A	0.743	-0.006	0.491	0.536
cg25086732	yellow	14	79,111,579	5'UTR	OpenSea	NRXN3	0.743	-0.012	0.774	0.170
cg11263420	yellow	19	50,019,310	Body	S_Shelf	FCGRT	0.743	-0.005	0.438	0.550
cg22405493	yellow	8	115,493,513		OpenSea		0.743	0.017	0.614	0.053
cg04093885	yellow	5	62,074,261	TSS1500	OpenSea	ISCA1L	0.743	-0.010	0.578	0.571
cg00199091	yellow	6	42,228,954	Body	S_Shore	TRERF1	0.743	-0.004	0.164	0.613
cg08401725	yellow	11	34,296,462	Body	OpenSea	ABTB2	0.743	0.004	0.207	0.608
cg20740903	yellow	17	76,170,799	3'UTR	OpenSea	TK1	0.743	0.002	0.783	0.775
cg26437009	yellow	16	73,266,442		OpenSea		0.743	0.019	0.657	0.031
cg24112692	yellow	12	22,415,858	Body	OpenSea	ST8SIA1	0.743	0.005	0.461	0.615
cg05674150	yellow	9	16,872,192	TSS1500	S_Shore	BNC2	0.743	0.004	0.071	0.369
cg11245989	yellow	2	221,239,287		OpenSea		0.743	0.008	0.566	0.371
cg23737927	yellow	12	5,149,153		N_Shelf		0.743	0.009	0.812	0.337
cg14152591	yellow	10	14,587,920	Body	OpenSea	FAM107B	0.743	-0.004	0.726	0.659
cg04064452	yellow	2	242,486,462		OpenSea		0.743	0.004	0.059	0.384
cg00946491	yellow	13	33,760,517	5'UTR	OpenSea	STARD13	0.743	-0.001	0.791	0.938
cg16003913	yellow	16	127,072	5'UTR	N_Shore	MPG	0.743	0.010	0.412	0.101
cg07591885	yellow	1	209,793,473	Body	OpenSea	LAMB3	0.743	-0.010	0.657	0.157
cg11702456	yellow	2	231,280,907	5'UTR	OpenSea	SP100	0.743	0.005	0.052	0.370
cg26542660	yellow	4	56,813,860	TSS1500	N_Shore	CEP135	0.743	-0.001	0.776	0.848
cg13567349	yellow	11	134,255,144	Body	S_Shore	B3GAT1	0.743	-0.005	0.665	0.502
cg22396280	yellow	2	2,770,105		N_Shelf		0.743	0.005	0.802	0.513
cg24962827	yellow	3	24,262,634	Body	OpenSea	THRB	0.743	0.017	0.361	0.061
cg05887082	yellow	19	10,959,073	TSS200	OpenSea	C19orf38	0.743	0.002	0.042	0.410
cg18171392	yellow	22	24,938,255	3'UTR	OpenSea	C22orf13	0.743	0.001	0.744	0.929
cg09398138	yellow	16	75,060,108	Body	OpenSea	ZNRF1	0.743	0.001	0.812	0.908
cg12363726	yellow	17	79,011,542	Body	S_Shore	BAIAP2	0.743	0.001	0.602	0.875
cg24198896	yellow	6	31,770,844	Body	N_Shelf	LSM2	0.743	0.001	0.785	0.881
cg16112766	yellow	10	80,925,057	5'UTR	OpenSea	ZMIZ1	0.743	0.028	0.580	0.013
cg27655512	yellow	11	2,287,421		N_Shelf		0.743	0.003	0.733	0.711
cg19708986	yellow	15	80,824,318	Body	OpenSea	ARNT2	0.742	0.005	0.524	0.616
cg24747122	yellow	17	63,053,929	TSS1500	S_Shore	GNA13	0.742	-0.002	0.897	0.706
cg22517527	yellow	21	48,056,967	Body	S_Shore	PRMT2	0.742	0.010	0.821	0.286
cg25471593	yellow	1	69,547,404		OpenSea		0.742	-0.001	0.786	0.947
cg11147724	yellow	7	157,322,117		S_Shore		0.742	0.005	0.789	0.477
cg11593253	yellow	6	57,055,034	3'UTR	OpenSea	RAB23	0.742	0.013	0.519	0.246
cg04131468	yellow	17	12,694,449	Body	S_Shore	RICH2	0.742	0.010	0.583	0.205
cg16359034	yellow	16	2,795,664	Body	OpenSea	LOC1001287	0.742	-0.006	0.716	0.415
cg10896586	yellow	6	47,009,737	5'UTR	OpenSea	GPR110	0.742	0.000	0.850	0.999

cg11013714	yellow	3	138,128,339	OpenSea		0.742	-0.004	0.604	0.605
cg08637119	yellow	11	3,239,218 1stExon	Island	MRGPRG	0.742	0.007	0.791	0.553
cg18443571	yellow	15	90,547,692 5'UTR	S_Shore	ZNF710	0.742	0.010	0.188	0.266
cg25461389	yellow	3	52,080,778	OpenSea		0.742	0.003	0.272	0.601
cg00776405	yellow	8	133,967,862 Body	OpenSea	TG	0.742	0.013	0.510	0.270
cg00421624	yellow	1	153,746,588 TSS1500	N_Shore	SLC27A3	0.742	-0.001	0.804	0.928
cg12706425	yellow	9	73,029,578 TSS200	S_Shore	KLF9	0.742	0.012	0.117	0.196
cg07052737	yellow	2	26,224,428	OpenSea		0.742	0.010	0.881	0.237
cg21132536	yellow	20	33,465,180 Body	S_Shore	ACSS2	0.742	0.011	0.593	0.413
cg10635149	yellow	3	10,670,704	OpenSea		0.742	-0.001	0.832	0.896
cg19398115	yellow	10	90,750,169 TSS200	N_Shore	FAS	0.742	0.005	0.036	0.067
cg24223942	yellow	17	29,152,934 TSS1500	S_Shore	CRLF3	0.742	-0.004	0.123	0.562
cg15900052	yellow	1	87,404,379 Body	OpenSea	HS2ST1	0.742	0.008	0.455	0.488
cg06107216	yellow	21	40,124,363 TSS200	OpenSea	NCRNA00114	0.742	0.008	0.606	0.298
cg18697991	yellow	3	64,823,081 Body	OpenSea	MIR548A2	0.742	0.007	0.755	0.469
cg23406451	yellow	18	32,171,998 5'UTR	OpenSea	DTNA	0.742	0.009	0.886	0.352
cg09872392	yellow	7	56,161,020 TSS1500	OpenSea	PHKG1	0.742	0.010	0.836	0.208
cg01838941	yellow	10	46,993,924 5'UTR	S_Shore	GPRIN2	0.742	-0.002	0.744	0.793
cg26132144	yellow	2	120,777,192 Body	OpenSea	EPB41L5	0.742	0.003	0.345	0.774
cg17643662	yellow	20	30,407,052 TSS200	N_Shelf	MYLK2	0.742	0.003	0.509	0.623
cg01360605	yellow	20	58,983,676	OpenSea		0.742	0.003	0.704	0.711
cg24174145	yellow	12	52,585,892 TSS200	OpenSea	KRT80	0.742	0.005	0.583	0.660
cg07178563	yellow	2	233,924,857 TSS200	N_Shore	INPP5D	0.742	0.001	0.572	0.924
cg06512918	yellow	1	228,350,199	N_Shelf		0.742	-0.005	0.127	0.392
cg24152732	yellow	19	4,180,820 Body	N_Shore	SIRT6	0.742	0.006	0.569	0.542
cg14989661	yellow	3	38,216,354 Body	OpenSea	OXSR1	0.742	-0.002	0.950	0.622
cg08423562	yellow	1	38,466,544 5'UTR	OpenSea	FHL3	0.742	0.017	0.399	0.031
cg02710481	yellow	18	77,707,172 Body	N_Shelf	PQLC1	0.742	0.004	0.854	0.623
cg07377446	yellow	19	39,754,498	N_Shore		0.742	0.011	0.327	0.167
cg05638426	yellow	3	12,878,574 Body	N_Shelf	RPL32	0.742	-0.003	0.821	0.766
cg13199720	yellow	4	154,475,566 Body	OpenSea	KIAA0922	0.742	-0.014	0.842	0.261
cg14723977	yellow	19	15,532,806 3'UTR	N_Shelf	WIZ	0.742	0.016	0.572	0.311
cg16292333	yellow	1	206,857,717 TSS1500	N_Shore	MAPKAPK2	0.742	0.002	0.327	0.844
cg25603883	yellow	1	154,944,357 5'UTR	N_Shore	SHC1	0.742	0.002	0.714	0.830
cg00595197	yellow	16	731,220 Body	Island	STUB1	0.742	0.014	0.136	0.085
cg18054943	yellow	17	7,283,897 TSS1500	N_Shore	TNK1	0.742	0.002	0.065	0.747
cg23320499	yellow	12	12,659,177 Body	OpenSea	DUSP16	0.742	-0.008	0.152	0.371
cg10894512	yellow	10	90,712,478 5'UTR	OpenSea	ACTA2	0.742	0.007	0.596	0.491
cg24502901	yellow	1	24,086,220 3'UTR	OpenSea	TCEB3	0.742	0.002	0.810	0.793
cg08784317	yellow	7	39,731,097 Body	OpenSea	RALA	0.742	0.005	0.955	0.187
cg01195196	yellow	16	2,770,211 1stExon	Island	PRSS27	0.742	0.000	0.857	0.975
cg18833329	yellow	4	54,232,530 TSS1500	S_Shore	SCFD2	0.742	0.015	0.193	0.094
cg01789743	yellow	1	236,159,467 Body	S_Shelf	NID1	0.742	0.004	0.865	0.631
cg17309003	yellow	14	77,335,130 Body	OpenSea	C14orf166B	0.742	0.020	0.775	0.017
cg13541713	yellow	4	119,947,251 Body	OpenSea	SYNPO2	0.742	-0.009	0.535	0.516
cg13861294	yellow	12	100,750,473 TSS1500	OpenSea	SLC17A8	0.742	0.009	0.128	0.324
cg15992347	yellow	11	85,565,475 TSS1500	N_Shore	CCDC83	0.742	0.012	0.290	0.265
cg23657809	yellow	1	43,847,821	OpenSea		0.742	0.020	0.401	0.153
cg19207090	yellow	3	47,053,445 Body	S_Shore	LOC1001293	0.742	0.001	0.838	0.861
cg05374044	yellow	8	19,451,024 5'UTR	OpenSea	CSGALNACT1	0.742	0.011	0.628	0.323
cg26112170	yellow	13	114,103,713 Body	OpenSea	ADPRHL1	0.742	-0.008	0.627	0.302
cg02033582	yellow	17	29,394,814	OpenSea		0.741	-0.007	0.919	0.266
cg00806259	yellow	16	68,265,587 Body	N_Shelf	ESRP2	0.741	0.001	0.794	0.930
cg20936892	yellow	17	57,297,306 TSS1500	N_Shore	GDPD1	0.741	0.003	0.335	0.813
cg17624891	yellow	5	127,180,473	OpenSea		0.741	0.006	0.650	0.348
cg27048140	yellow	7	99,058,641 Body	OpenSea	ATP5J2	0.741	0.001	0.694	0.874
cg08120226	yellow	3	195,531,633 Body	OpenSea	MUC4	0.741	0.006	0.700	0.396
cg27561818	yellow	16	57,832,760 TSS1500	N_Shelf	KIFC3	0.741	0.005	0.810	0.478
cg04156889	yellow	3	186,819,780	OpenSea		0.741	-0.004	0.127	0.742
cg23125970	yellow	13	110,918,441 Body	Island	COL4A1	0.741	0.012	0.711	0.279
cg00870166	yellow	8	74,660,057 TSS1500	S_Shore	STAU2	0.741	-0.001	0.075	0.929
cg00464046	yellow	7	134,854,551 Body	N_Shore	C7orf49	0.741	0.011	0.690	0.210
cg01788029	yellow	4	123,301,064 5'UTR	S_Shore	ADAD1	0.741	0.005	0.895	0.450
cg16707262	yellow	6	30,164,282 Body	OpenSea	TRIM26	0.741	0.005	0.840	0.382
cg06022936	yellow	6	33,283,987 Body	N_Shore	ZBTB22	0.741	0.008	0.687	0.171
cg09964873	yellow	8	143,868,136 TSS200	OpenSea	LY6D	0.741	-0.005	0.871	0.162
cg02089348	yellow	4	1,724,449 TSS1500	S_Shore	TMEM129	0.741	0.012	0.413	0.104

cg22680073	yellow	2	128,162,581	N_Shelf		0.741	-0.004	0.532	0.581	
cg03569637	yellow	12	47,609,357	Body	OpenSea	LOC10023321	0.741	-0.002	0.829	0.697
cg04722643	yellow	17	80,289,500	5'UTR	N_Shore	SECTM1	0.741	0.009	0.768	0.198
cg00334976	yellow	20	61,003,303	TSS1500	OpenSea	C2orf151	0.741	0.013	0.663	0.043
cg07702888	yellow	1	156,338,793	TSS1500	Island	RHBG	0.741	-0.006	0.329	0.516
cg27592465	yellow	16	2,315,779	5'UTR	N_Shore	RNPS1	0.741	-0.001	0.892	0.936
cg20584732	yellow	15	42,349,694		OpenSea		0.741	-0.004	0.482	0.784
cg06795858	yellow	7	2,699,820	Body	N_Shore	TTYH3	0.741	0.007	0.781	0.255
cg06716182	yellow	11	96,074,944	1stExon	OpenSea	MAML2	0.741	-0.005	0.255	0.788
cg02647929	yellow	16	4,714,080	Body	OpenSea	MGRN1	0.741	0.007	0.856	0.333
cg23919433	yellow	17	79,830,196	TSS1500	S_Shore	ARHGDI	0.741	-0.005	0.062	0.546
cg19240569	yellow	11	63,331,821	TSS1500	OpenSea	HRASLS2	0.741	0.001	0.751	0.878
cg03634775	yellow	16	30,758,831	TSS1500	N_Shore	PHKG2	0.741	0.009	0.612	0.233
cg12092005	yellow	14	99,532,847		OpenSea		0.741	0.003	0.601	0.643
cg16146810	yellow	14	64,675,620	Body	OpenSea	SYNE2	0.741	-0.003	0.675	0.730
cg18152276	yellow	22	37,824,806	TSS1500	S_Shore	ELFN2	0.741	0.003	0.449	0.663
cg16420340	yellow	12	31,083,391	5'UTR	S_Shelf	TSPAN11	0.741	0.012	0.615	0.049
cg18091615	yellow	7	137,675,881	Body	OpenSea	CREB3L2	0.741	-0.002	0.310	0.890
cg10589281	yellow	11	924,500	TSS1500	N_Shore	AP2A2	0.741	0.019	0.739	0.001
cg14630032	yellow	3	148,898,124	Body	OpenSea	CP	0.741	-0.002	0.671	0.740
cg21147433	yellow	8	22,632,225	Body	OpenSea	PEBP4	0.741	0.002	0.760	0.846
cg04570362	yellow	1	9,871,402	Body	OpenSea	CLSTN1	0.741	0.002	0.823	0.846
cg20126098	yellow	12	91,710,375		OpenSea		0.741	0.002	0.922	0.741
cg12080675	yellow	5	179,335,223	TSS1500	S_Shore	TBC1D9B	0.741	0.012	0.435	0.473
cg05242416	yellow	3	48,128,669	5'UTR	N_Shore	MAP4	0.741	0.014	0.259	0.200
cg01342196	yellow	1	158,979,538	TSS200	OpenSea	IFI16	0.741	0.014	0.496	0.314
cg09577932	yellow	19	32,975,200	3'UTR	OpenSea	DPY19L3	0.741	-0.002	0.750	0.778
cg13824877	yellow	6	170,453,283		N_Shore		0.741	0.007	0.812	0.242
cg23340505	yellow	13	114,927,933		S_Shore		0.741	0.003	0.143	0.685
cg10512020	yellow	12	69,950,496	5'UTR	OpenSea	FRS2	0.741	0.000	0.864	0.980
cg00011924	yellow	17	8,301,192	TSS200	OpenSea	RNF222	0.741	0.016	0.595	0.150
cg12296552	yellow	3	11,058,843	5'UTR	Island	SLC6A1	0.741	-0.009	0.869	0.135
cg03606954	yellow	11	43,701,349	TSS1500	N_Shore	HSD17B12	0.741	0.013	0.343	0.129
cg18098867	yellow	7	47,373,830	Body	OpenSea	TNS3	0.741	-0.001	0.614	0.964
cg17170442	yellow	2	234,322,970	Body	OpenSea	DGKD	0.741	0.002	0.819	0.746
cg11760395	yellow	10	33,701,708		OpenSea		0.741	0.009	0.722	0.390
cg07283804	yellow	11	18,035,852	TSS1500	S_Shore	SERGEF	0.741	0.011	0.761	0.289
cg03534662	yellow	3	45,636,225	TSS200	S_Shore	LIMD1	0.741	0.012	0.174	0.194
cg06838283	yellow	5	111,090,142	Body	N_Shelf	C5orf13	0.741	0.015	0.286	0.282
cg04525673	yellow	11	116,228,419		OpenSea		0.741	0.004	0.738	0.651
cg01631064	yellow	15	65,377,975		OpenSea		0.741	0.005	0.495	0.528
cg19659215	yellow	12	21,488,180	5'UTR	OpenSea	SLCO1A2	0.741	0.000	0.569	0.982
cg24909660	yellow	11	47,276,469	5'UTR	OpenSea	NR1H3	0.741	0.008	0.222	0.270
cg16574333	yellow	17	80,898,443	Body	N_Shore	TBCD	0.741	0.005	0.846	0.503
cg20886183	yellow	11	133,230,391	Body	N_Shore	OPCML	0.741	-0.004	0.763	0.585
cg21190804	yellow	12	8,398,718		S_Shelf		0.741	-0.001	0.729	0.919
cg12260435	yellow	2	202,484,156	TSS1500	S_Shore	ALS2CR11	0.741	-0.001	0.464	0.914
cg08119498	yellow	16	30,756,300		N_Shelf		0.741	0.002	0.896	0.794
cg04756223	yellow	2	46,325,268	Body	OpenSea	PRKCE	0.741	0.001	0.080	0.964
cg04707013	yellow	10	111,177,826		OpenSea		0.741	-0.005	0.469	0.660
cg09383389	yellow	3	169,754,436	TSS1500	N_Shore	GPR160	0.741	0.006	0.587	0.373
cg14213581	yellow	3	54,674,847	TSS1500	OpenSea	HESRG	0.740	-0.001	0.827	0.883
cg03162410	yellow	19	14,671,422	Body	OpenSea	TECR	0.740	0.005	0.628	0.525
cg11827097	yellow	2	231,280,903	5'UTR	OpenSea	SP100	0.740	0.007	0.047	0.120
cg22485298	yellow	6	30,853,333	5'UTR	S_Shore	DDR1	0.740	0.011	0.312	0.145
cg16084190	yellow	11	61,716,821	TSS1500	OpenSea	BEST1	0.740	-0.006	0.514	0.744
cg01992280	yellow	6	44,239,208	Body	S_Shore	TMEM151B	0.740	0.016	0.676	0.066
cg06793505	yellow	12	121,164,278	Body	S_Shore	ACADS	0.740	0.002	0.580	0.742
cg09994035	yellow	2	241,826,199	3'UTR	N_Shore	C2orf54	0.740	0.018	0.667	0.035
cg08031689	yellow	3	135,870,058	Body	OpenSea	MSL2	0.740	0.003	0.766	0.744
cg16324121	yellow	3	9,954,273	Body	N_Shelf	IL17RE	0.740	0.013	0.668	0.171
cg12435725	yellow	3	58,293,450	5'UTR	S_Shore	RPP14	0.740	0.024	0.570	0.040
cg25382573	yellow	12	93,096,844	5'UTR	OpenSea	C12orf74	0.740	-0.002	0.714	0.789
cg26954729	yellow	11	75,950,762		S_Shelf		0.740	0.004	0.735	0.628
cg13756251	yellow	9	137,675,723	Body	OpenSea	COL5A1	0.740	0.002	0.850	0.649
cg22570288	yellow	4	15,970,272	3'UTR	OpenSea	PROM1	0.740	0.001	0.838	0.949
cg07321467	yellow	4	81,960,704	Body	OpenSea	BMP3	0.740	0.010	0.551	0.252



cg21749951	yellow	2	239,860,241	OpenSea		0.740	0.003	0.787	0.796
cg18606460	yellow	4	123,082,094	OpenSea		0.740	-0.007	0.809	0.629
cg18247223	yellow	11	44,908,673 5'UTR	OpenSea	TSPAN18	0.740	0.003	0.722	0.652
cg07159023	yellow	17	39,615,988 3'UTR	OpenSea	KRT32	0.740	-0.001	0.435	0.828
cg04859918	yellow	10	71,893,017 TSS1500	S_Shore	AIFM2	0.740	0.008	0.561	0.383
cg08141659	yellow	13	113,622,633 TSS200	N_Shore	MCF2L	0.740	-0.006	0.447	0.475
cg11691093	yellow	22	36,727,373 Body	OpenSea	MYH9	0.740	0.010	0.658	0.201
cg21287322	yellow	4	114,214,278 Body	OpenSea	ANK2	0.740	0.011	0.181	0.134
cg18701970	yellow	12	106,349,515	OpenSea		0.740	-0.009	0.848	0.292
cg00397585	yellow	2	26,570,033 TSS1500	S_Shore	GPR113	0.740	0.003	0.048	0.302
cg26810690	yellow	1	3,622,130 Body	N_Shore	TP73	0.740	0.020	0.611	0.045
cg06129556	yellow	15	64,634,880 5'UTR	OpenSea	CSNK1G1	0.740	-0.004	0.856	0.620
cg08758352	yellow	17	46,205,147	OpenSea		0.740	0.005	0.816	0.596
cg15644626	yellow	8	11,616,798 3'UTR	OpenSea	GATA4	0.740	0.000	0.584	0.988
cg22345428	yellow	11	129,781,496 Body	OpenSea	PRDM10	0.740	0.004	0.284	0.579
cg00831127	yellow	1	23,038,925 Body	S_Shore	EPHB2	0.740	-0.008	0.803	0.527
cg04324821	yellow	2	101,397,191	OpenSea		0.740	0.010	0.491	0.142
cg13948456	yellow	9	139,239,853 Body	Island	GPSM1	0.740	0.011	0.590	0.277
cg00453808	yellow	19	44,116,206 Body	OpenSea	ZNF428	0.740	-0.004	0.707	0.469
cg20215476	yellow	3	148,708,241 TSS1500	N_Shore	GYG1	0.740	0.013	0.732	0.345
cg15451548	yellow	1	2,144,873	S_Shore		0.740	-0.003	0.402	0.765
cg17344040	yellow	11	64,626,220 Body	S_Shelf	EHD1	0.740	0.010	0.868	0.092
cg13485320	yellow	11	2,920,128 Body	N_Shelf	SLC22A18AS	0.740	0.013	0.443	0.017
cg16636226	yellow	3	26,669,219 5'UTR	S_Shelf	LRRC3B	0.740	0.003	0.893	0.720
cg03588812	yellow	22	19,777,109 Body	S_Shore	GNB1L	0.740	0.005	0.816	0.552
cg18054578	yellow	19	47,735,960 1stExon	S_Shore	BBC3	0.740	0.001	0.377	0.858
cg19006008	yellow	19	16,999,768 TSS200	N_Shore	F2RL3	0.740	0.010	0.500	0.352
cg24350484	yellow	3	42,438,614 3'UTR	OpenSea	LYZL4	0.740	-0.002	0.716	0.777
cg23966547	yellow	11	57,174,470 3'UTR	OpenSea	SLC43A3	0.740	-0.003	0.909	0.647
cg03885639	yellow	11	124,481,310 TSS200	OpenSea	PANX3	0.740	0.000	0.779	0.990
cg12640469	yellow	1	53,067,717 TSS1500	N_Shore	GPX7	0.740	0.003	0.181	0.617
cg26400421	yellow	11	33,334,443 Body	OpenSea	HIPK3	0.740	0.008	0.557	0.425
cg23047236	yellow	17	27,369,447 TSS1500	OpenSea	PIPOX	0.740	0.012	0.439	0.096
cg00841151	yellow	7	100,612,136 TSS1500	S_Shelf	MUC12	0.740	0.008	0.318	0.178
cg24627299	yellow	7	116,311,496 TSS1500	N_Shore	MET	0.740	0.004	0.597	0.747
cg02535060	yellow	10	134,150,690 Body	OpenSea	LRRC27	0.740	0.001	0.599	0.890
cg06162324	yellow	10	43,867,104 5'UTR	OpenSea	FXYD4	0.739	-0.002	0.773	0.754
cg27365991	yellow	5	123,036,376	OpenSea		0.739	-0.017	0.514	0.263
cg09485853	yellow	15	72,495,878 Body	OpenSea	PKM2	0.739	0.019	0.588	0.182
cg27261921	yellow	6	33,361,102 Body	S_Shore	KIFC1	0.739	0.000	0.338	0.980
cg27467282	yellow	13	52,116,184	OpenSea		0.739	-0.007	0.232	0.569
cg12617473	yellow	3	26,418,374	OpenSea		0.739	-0.006	0.702	0.470
cg25238480	yellow	11	11,335,633 Body	OpenSea	GALNTL4	0.739	0.006	0.850	0.382
cg20685981	yellow	19	42,871,187 Body	N_Shelf	MEGF8	0.739	0.007	0.668	0.337
cg05032957	yellow	11	7,869,872 TSS1500	OpenSea	OR5E1P	0.739	0.003	0.735	0.730
cg01800253	yellow	22	22,290,866 Body	N_Shore	PPM1F	0.739	0.002	0.748	0.719
cg20868817	yellow	1	160,677,398 Body	OpenSea	CD48	0.739	-0.006	0.564	0.326
cg27378540	yellow	5	74,659,162	OpenSea		0.739	0.004	0.547	0.568
cg00789427	yellow	19	56,631,288 5'UTR	N_Shore	ZNF787	0.739	0.002	0.715	0.875
cg10672416	yellow	12	123,718,706 5'UTR	S_Shore	C12orf65	0.739	0.017	0.633	0.079
cg25899154	yellow	11	72,897,143	OpenSea		0.739	0.006	0.695	0.403
cg01212848	yellow	10	116,364,370 Body	OpenSea	ABLIM1	0.739	-0.003	0.916	0.528
cg12067764	yellow	1	153,762,244	OpenSea		0.739	0.009	0.474	0.392
cg02018291	yellow	17	65,487,462 Body	OpenSea	PITPNC1	0.739	0.009	0.547	0.373
cg25918267	yellow	11	1,524,715 Body	OpenSea	HCCA2	0.739	0.009	0.658	0.236
cg23419907	yellow	2	220,154,319	OpenSea		0.739	0.009	0.477	0.363
cg04569233	yellow	3	39,321,449 Body	OpenSea	CX3CR1	0.739	0.004	0.781	0.628
cg07383757	yellow	11	3,647,654 TSS200	OpenSea	TRPC2	0.739	-0.006	0.784	0.313
cg08830672	yellow	16	67,516,286 TSS1500	S_Shore	ATP6VOD1	0.739	0.003	0.839	0.742
cg05869699	yellow	10	82,258,734 Body	OpenSea	TSPAN14	0.739	0.005	0.136	0.586
cg19026320	yellow	21	31,588,354 TSS200	OpenSea	CLDN8	0.739	-0.009	0.836	0.263
cg14711108	yellow	1	44,813,163 Body	OpenSea	ERI3	0.739	0.012	0.233	0.387
cg09524508	yellow	3	49,202,530 5'UTR	N_Shore	CCDC71	0.739	0.013	0.805	0.122
cg01567672	yellow	4	2,261,343 Body	N_Shore	MXD4	0.739	0.005	0.592	0.492
cg26057577	yellow	2	241,187,429	S_Shelf		0.739	0.009	0.287	0.347
cg07141002	yellow	22	38,201,690 1stExon	Island	H1FO	0.739	-0.002	0.127	0.866
cg19442920	yellow	19	6,371,790 TSS1500	N_Shore	ALKBH7	0.739	0.018	0.749	0.112

cg08615354	yellow	5	38,468,217	OpenSea		0.739	0.010	0.583	0.187
cg04331189	yellow	2	160,142,303	N_Shore	WDSUB1	0.739	0.004	0.722	0.572
cg01296705	yellow	5	175,108,269	OpenSea	HRH2	0.739	0.010	0.440	0.357
cg16176600	yellow	6	116,381,609	OpenSea	FRK	0.739	0.015	0.538	0.145
cg05955036	yellow	1	150,130,379	OpenSea	PLEKH01	0.739	-0.008	0.783	0.281
cg25760783	yellow	10	14,405,679	OpenSea		0.739	0.003	0.887	0.722
cg22775642	yellow	12	125,332,183	OpenSea	SCARB1	0.739	0.003	0.718	0.703
cg06291350	yellow	7	132,800,301	OpenSea		0.739	0.011	0.736	0.142
cg07427211	yellow	16	696,003	N_Shore	FAM195A	0.739	-0.003	0.483	0.698
cg24639535	yellow	1	246,023,674	OpenSea	SMYD3	0.739	0.002	0.490	0.772
cg18088415	yellow	6	31,770,979	N_Shelf	LSM2	0.739	-0.004	0.882	0.617
cg14237148	yellow	13	113,417,122	N_Shelf	ATP11A	0.739	-0.001	0.736	0.928
cg12279138	yellow	1	224,370,322	N_Shore	DEGS1	0.739	0.013	0.587	0.207
cg24790788	yellow	3	145,879,626	S_Shore	PL0D2	0.739	0.005	0.068	0.558
cg25223878	yellow	4	100,125,999	OpenSea	ADH6	0.739	-0.004	0.727	0.672
cg08691332	yellow	12	72,142,653	OpenSea		0.739	0.009	0.829	0.352
cg10832076	yellow	12	21,418,929	OpenSea	SLCO1A2	0.739	0.009	0.743	0.278
cg19758448	yellow	17	37,828,296	S_Shelf	PGAP3	0.739	0.007	0.783	0.359
cg01161055	yellow	12	32,437,813	OpenSea	BICD1	0.739	0.010	0.864	0.253
cg12747410	yellow	11	60,524,073	OpenSea	MS4A15	0.739	0.003	0.908	0.695
cg23349014	yellow	5	134,688,457	OpenSea	H2AFY	0.739	-0.009	0.911	0.188
cg11361636	yellow	3	74,662,850	N_Shore		0.739	0.018	0.226	0.291
cg23955417	yellow	1	26,880,928	OpenSea	MIR1976	0.739	0.005	0.520	0.528
cg18716635	yellow	8	97,116,497	OpenSea		0.739	0.007	0.568	0.564
cg07701049	yellow	8	141,559,946	S_Shore	EIF2C2	0.739	0.011	0.662	0.126
cg05314420	yellow	2	95,690,169	N_Shore	MAL	0.739	0.010	0.473	0.446
cg27054424	yellow	7	105,094,993	OpenSea		0.739	0.002	0.891	0.796
cg11786966	yellow	1	64,508,232	OpenSea	ROR1	0.739	-0.006	0.813	0.612
cg04215238	yellow	10	105,841,897	OpenSea	COL17A1	0.739	-0.002	0.558	0.817
cg03978961	yellow	7	109,186,249	OpenSea		0.739	0.002	0.576	0.813
cg00612985	yellow	2	101,257,313	OpenSea		0.739	0.015	0.747	0.133
cg05976955	yellow	11	19,366,443	N_Shore		0.739	-0.001	0.653	0.900
cg22491058	yellow	1	207,277,466	OpenSea	C4BPA	0.739	0.010	0.468	0.199
cg13358873	yellow	2	69,271,042	OpenSea	ANTXR1	0.739	0.015	0.849	0.223
cg23924737	yellow	17	55,928,753	S_Shore	MRPS23	0.739	0.004	0.615	0.651
cg12737536	yellow	10	5,227,162	OpenSea	AKR1CL1	0.739	-0.008	0.834	0.439
cg03193847	yellow	4	169,637,496	OpenSea	PALLD	0.738	-0.016	0.509	0.102
cg22254464	yellow	6	29,130,035	N_Shelf		0.738	0.000	0.694	0.984
cg20814718	yellow	8	35,091,430	N_Shore		0.738	-0.002	0.727	0.745
cg03756929	yellow	1	232,944,625	S_Shelf	KIAA1383	0.738	0.001	0.744	0.954
cg23035597	yellow	1	1,063,527	OpenSea		0.738	0.008	0.632	0.334
cg03116740	yellow	11	841,335	N_Shore	TSPAN4	0.738	0.008	0.667	0.295
cg05160248	yellow	6	157,284,510	OpenSea	ARID1B	0.738	-0.007	0.712	0.708
cg24894970	yellow	11	122,655,638	OpenSea	UBASH3B	0.738	-0.010	0.401	0.428
cg16575322	yellow	8	22,786,190	OpenSea	PEBP4	0.738	0.002	0.788	0.775
cg05898092	yellow	17	80,022,616	N_Shore	DUS1L	0.738	0.007	0.683	0.443
cg13905899	yellow	1	231,275,535	OpenSea		0.738	0.032	0.578	0.041
cg04284956	yellow	4	1,895,190	OpenSea	WHSC1	0.738	-0.005	0.696	0.561
cg07883124	yellow	13	113,634,042	Island	MCF2L	0.738	0.005	0.796	0.633
cg04232972	yellow	16	30,671,644	S_Shore		0.738	-0.005	0.239	0.576
cg00566320	yellow	1	32,172,204	S_Shelf		0.738	0.009	0.622	0.373
cg08993878	yellow	12	98,151,379	OpenSea		0.738	0.016	0.529	0.256
cg08898569	yellow	11	125,760,891	S_Shelf	HYLS1	0.738	0.008	0.434	0.500
cg18437633	yellow	2	161,056,639	OpenSea	ITGB6	0.738	-0.002	0.883	0.809
cg17481912	yellow	3	158,390,821	OpenSea	LXN	0.738	0.014	0.594	0.168
cg17745291	yellow	2	203,778,143	S_Shore	WDR12	0.738	0.014	0.679	0.180
cg22317846	yellow	19	17,862,385	S_Shelf	FCHO1	0.738	0.002	0.310	0.667
cg15973546	yellow	10	104,429,532	OpenSea		0.738	0.018	0.616	0.074
cg27123522	yellow	6	28,493,312	OpenSea	GPX5	0.738	0.002	0.686	0.842
cg02313922	yellow	3	59,560,961	OpenSea		0.738	0.010	0.825	0.114
cg17798978	yellow	19	49,977,247	OpenSea	FLT3LG	0.738	0.001	0.072	0.742
cg01910727	yellow	1	226,842,455	OpenSea	ITPKB	0.738	-0.002	0.779	0.743
cg04245131	yellow	1	235,133,338	OpenSea		0.738	0.010	0.282	0.164
cg21913652	yellow	11	35,651,841	OpenSea		0.738	-0.015	0.779	0.153
cg02486181	yellow	16	85,464,307	N_Shore		0.738	0.000	0.881	0.988
cg05694089	yellow	1	16,159,484	N_Shore		0.738	0.001	0.904	0.885
cg07756477	yellow	15	75,105,012	OpenSea	LMAN1L	0.738	0.006	0.664	0.444

cg08146111	yellow	13	51,544,280	3'UTR	OpenSea	RNASEH2B	0.738	0.008	0.844	0.266
cg27426436	yellow	19	18,775,242	Body	N_Shelf	KLHL26	0.738	-0.002	0.664	0.780
cg14851544	yellow	14	102,438,734	Body	OpenSea	DYNC1H1	0.738	0.000	0.736	0.954
cg18320734	yellow	10	74,386,252	TSS1500	S_Shore	CBARA1	0.738	0.002	0.018	0.153
cg26522585	yellow	19	661,747	Body	N_Shore	RNF126	0.738	0.003	0.222	0.648
cg15133734	yellow	20	48,728,113	Body	N_Shore	UBE2V1	0.738	-0.002	0.496	0.747
cg17734802	yellow	1	54,358,862	TSS1500	S_Shelf	DIO1	0.738	0.007	0.691	0.393
cg04753163	yellow	6	42,249,488	5'UTR	OpenSea	TRERF1	0.738	0.004	0.635	0.678
cg17839611	yellow	17	47,286,802	TSS1500	OpenSea	ABI3	0.738	0.007	0.819	0.251
cg10691866	yellow	7	65,817,282	Body	OpenSea	TPST1	0.738	0.007	0.207	0.452
cg27543607	yellow	16	89,762,101	3'UTR	S_Shore	CDK10	0.738	0.010	0.704	0.115
cg24366168	yellow	19	3,097,712	Body	Island	GNA11	0.738	-0.002	0.922	0.723
cg00665650	yellow	5	138,676,787	TSS1500	N_Shore	PAIP2	0.738	-0.002	0.641	0.779
cg26489497	yellow	16	28,512,017	Body	S_Shelf	IL27	0.738	0.003	0.305	0.695
cg15667493	yellow	5	55,404,179	Body	OpenSea	ANKRD55	0.738	0.009	0.442	0.231
cg00860090	yellow	1	226,832,000	Body	S_Shelf	ITPKB	0.738	0.002	0.471	0.735
cg09225701	yellow	4	8,248,877		OpenSea		0.737	0.006	0.719	0.362
cg25811633	yellow	3	71,626,654	5'UTR	N_Shelf	FOXP1	0.737	-0.002	0.667	0.773
cg02699834	yellow	12	53,039,430	Body	OpenSea	KRT2	0.737	0.011	0.699	0.124
cg26552163	yellow	16	1,589,859	Body	N_Shore	IFT140	0.737	0.006	0.803	0.260
cg11309214	yellow	2	136,707,979	Body	OpenSea	DARS	0.737	-0.015	0.917	0.008
cg26872780	yellow	2	149,478,494	Body	OpenSea	EPC2	0.737	-0.002	0.388	0.845
cg10146186	yellow	1	179,781,957	5'UTR	OpenSea	FAM163A	0.737	0.013	0.514	0.215
cg26849830	yellow	12	109,178,373	3'UTR	OpenSea	SSH1	0.737	-0.004	0.862	0.658
cg24830367	yellow	12	108,083,606	Body	S_Shelf	PWP1	0.737	0.002	0.889	0.789
cg05850205	yellow	8	67,350,187	Body	N_Shore	ADHFE1	0.737	0.010	0.639	0.101
cg10902101	yellow	22	48,899,955	Body	S_Shelf	FAM19A5	0.737	0.000	0.889	0.969
cg05390144	yellow	11	34,533,464	5'UTR	OpenSea	ELF5	0.737	0.013	0.848	0.030
cg25721832	yellow	3	81,913,557		OpenSea		0.737	0.007	0.338	0.594
cg22677858	yellow	1	201,797,722	TSS1500	N_Shore	IPO9	0.737	0.003	0.555	0.698
cg02173970	yellow	10	134,723,505		S_Shore		0.737	0.008	0.811	0.167
cg05889123	yellow	6	47,491,923	Body	OpenSea	CD2AP	0.737	0.003	0.911	0.668
cg06879822	yellow	19	42,719,482	Body	N_Shore	DEDD2	0.737	-0.009	0.707	0.327
cg04454285	yellow	16	86,016,317		OpenSea		0.737	0.001	0.550	0.928
cg16241062	yellow	12	96,832,118		OpenSea		0.737	0.001	0.777	0.959
cg16502747	yellow	14	23,531,625	Body	S_Shelf	ACIN1	0.737	0.001	0.533	0.888
cg10747785	yellow	22	36,681,296	Body	OpenSea	MYH9	0.737	0.008	0.688	0.206
cg26557179	yellow	3	46,538,716	TSS1500	OpenSea	RTP3	0.737	0.002	0.563	0.825
cg20173065	yellow	4	122,618,732	TSS1500	S_Shore	ANXA5	0.737	-0.001	0.057	0.897
cg13608458	yellow	14	43,653,106		OpenSea		0.737	-0.006	0.783	0.625
cg25711950	yellow	12	110,662,056		OpenSea		0.737	-0.009	0.849	0.479
cg24086268	yellow	2	3,633,333		OpenSea		0.737	0.001	0.228	0.947
cg08198075	yellow	6	123,033,536	5'UTR	OpenSea	PKIB	0.737	0.000	0.377	0.954
cg14730524	yellow	11	92,617,118	Body	S_Shore	FAT3	0.737	0.002	0.840	0.703
cg13073302	yellow	17	637,000	Body	S_Shore	FAM57A	0.737	0.006	0.252	0.523
cg22259778	yellow	3	128,881,044	TSS1500	S_Shore	ISY1	0.737	0.005	0.033	0.044
cg20031900	yellow	4	2,733,908	3'UTR	Island	FAM193A	0.737	0.008	0.625	0.279
cg23622047	yellow	2	173,701,464	Body	OpenSea	RAPGEF4	0.737	0.001	0.640	0.855
cg03356494	yellow	13	96,158,480	Body	OpenSea	CLDN10	0.737	0.010	0.617	0.125
cg12226717	yellow	11	94,135,006	TSS1500	S_Shore	GPR83	0.737	0.010	0.249	0.298
cg01517968	yellow	12	52,348,879	Body	S_Shelf	ACVR1B	0.737	-0.003	0.110	0.806
cg13587756	yellow	19	13,889,434	3'UTR	S_Shelf	C19orf53	0.737	0.005	0.605	0.629
cg02495743	yellow	11	104,789,052		OpenSea		0.737	0.005	0.032	0.208
cg17680092	yellow	5	148,523,798	Body	S_Shelf	ABLIM3	0.737	0.005	0.415	0.588
cg27045835	yellow	16	21,191,089	3'UTR	OpenSea	TMEM159	0.737	0.007	0.806	0.353
cg03458344	yellow	1	170,964,477	Body	OpenSea	C1orf129	0.737	-0.001	0.537	0.904
cg08564487	yellow	17	75,319,751	5'UTR	OpenSea	9-Sep	0.737	0.010	0.693	0.091
cg21832243	yellow	21	38,444,223	TSS1500	N_Shore	TTC3	0.737	0.010	0.261	0.416
cg23736055	yellow	6	3,743,284	Body	OpenSea	C6orf145	0.737	0.001	0.510	0.814
cg26029997	yellow	3	48,507,610	5'UTR	OpenSea	TREX1	0.737	0.019	0.281	0.179
cg14035045	yellow	3	50,606,289	TSS1500	N_Shore	HEMK1	0.737	0.013	0.517	0.086
cg26185508	yellow	1	54,619,445	TSS200	OpenSea	CDCP2	0.737	0.009	0.762	0.289
cg04329551	yellow	1	9,212,521	TSS1500	OpenSea	MIR34A	0.737	0.003	0.511	0.658
cg17697873	yellow	8	1,654,843	3'UTR	OpenSea	DLGAP2	0.737	-0.004	0.557	0.662
cg27537972	yellow	12	98,738,197		OpenSea		0.737	0.001	0.475	0.942
cg22614927	yellow	1	24,195,587	TSS1500	S_Shore	FUCA1	0.737	-0.010	0.417	0.381
cg02543159	yellow	22	43,815,950	5'UTR	N_Shore	MPPED1	0.737	0.008	0.356	0.190

cg13491737	yellow	13	111,295,728	Body	S_Shore	CARS2	0.737	-0.004	0.756	0.738
cg07790569	yellow	1	118,730,253		S_Shelf		0.737	0.001	0.788	0.945
cg08345465	yellow	6	108,901,318	Body	OpenSea	FOXO3	0.737	0.004	0.801	0.663
cg14693375	yellow	5	135,526,021		N_Shore		0.737	-0.013	0.709	0.146
cg09867268	yellow	5	956,521		N_Shelf		0.737	0.011	0.694	0.271
cg26804128	yellow	1	229,644,411	TSS1500	S_Shore	NUP133	0.737	0.005	0.083	0.508
cg08522143	yellow	19	19,844,224	TSS1500	S_Shore	ZNF14	0.737	0.024	0.117	0.025
cg11841649	yellow	5	131,989,505		N_Shelf		0.737	-0.004	0.396	0.661
cg10778379	yellow	4	1,902,465	1stExon	OpenSea	WHSC1	0.736	-0.006	0.689	0.505
cg08529295	yellow	1	245,132,782	TSS1500	N_Shore	EFCAB2	0.736	0.025	0.233	0.080
cg05777410	yellow	2	158,162,587	Body	OpenSea	GALNT5	0.736	-0.005	0.784	0.745
cg13227806	yellow	3	113,811,946		OpenSea		0.736	0.001	0.412	0.897
cg23079012	yellow	2	8,343,710		OpenSea		0.736	0.005	0.850	0.620
cg05532093	yellow	18	77,186,817	Body	S_Shore	NFATC1	0.736	0.020	0.566	0.011
cg21059475	yellow	14	100,203,976		N_Shore		0.736	-0.002	0.093	0.842
cg15125868	yellow	21	35,746,798	TSS1500	N_Shore	FAM165B	0.736	0.004	0.912	0.421
cg25320388	yellow	11	6,767,766		OpenSea		0.736	0.009	0.580	0.294
cg08239426	yellow	1	244,965,954		OpenSea		0.736	0.008	0.761	0.247
cg22816048	yellow	1	151,193,947	Body	OpenSea	PIP5K1A	0.736	-0.002	0.904	0.809
cg18094824	yellow	4	104,119,899	TSS1500	S_Shore	CENPE	0.736	0.001	0.015	0.477
cg16364085	yellow	3	138,043,140	Body	OpenSea	TXNDC6	0.736	-0.002	0.857	0.847
cg17395184	yellow	15	42,750,462	TSS1500	OpenSea	ZFP106	0.736	0.017	0.494	0.023
cg14153069	yellow	9	131,683,257	1stExon	OpenSea	PHYHD1	0.736	0.015	0.493	0.122
cg21241675	yellow	9	93,925,541		S_Shelf		0.736	0.005	0.709	0.474
cg00075103	yellow	3	176,295,392		OpenSea		0.736	-0.002	0.292	0.895
cg01596674	yellow	9	130,342,290	TSS1500	OpenSea	FAM129B	0.736	0.007	0.590	0.289
cg08697732	yellow	17	81,014,091		N_Shore		0.736	0.015	0.686	0.157
cg21567958	yellow	14	104,376,199		OpenSea		0.736	0.009	0.921	0.132
cg17002899	yellow	14	21,727,471	5'UTR	OpenSea	HNRNPC	0.736	0.004	0.840	0.463
cg11355849	yellow	2	54,903,054		OpenSea		0.736	-0.003	0.813	0.727
cg22042465	yellow	8	28,667,808	Body	OpenSea	INTS9	0.736	-0.002	0.773	0.854
cg11388238	yellow	2	201,375,098	TSS1500	S_Shore	KCTD18	0.736	-0.007	0.230	0.399
cg10864680	yellow	13	108,922,274	1stExon	OpenSea	TNFSF13B	0.736	0.005	0.391	0.565
cg06200697	yellow	11	57,528,838	TSS1500	OpenSea	CTNND1	0.736	0.006	0.268	0.546
cg14827502	yellow	7	150,148,025	5'UTR	OpenSea	GIMAP8	0.736	-0.001	0.290	0.915
cg13764652	yellow	3	148,688,774		OpenSea		0.736	0.002	0.795	0.888
cg01337047	yellow	18	28,897,113	TSS1500	OpenSea	DSG1	0.736	-0.007	0.223	0.501
cg03687650	yellow	11	3,144,685	Body	S_Shelf	OSBPL5	0.736	0.009	0.345	0.262
cg01639635	yellow	14	57,859,336	Body	S_Shore	NAA30	0.736	0.002	0.326	0.873
cg22834542	yellow	11	88,288,530	Body	OpenSea	GRM5	0.736	-0.003	0.662	0.852
cg18580322	yellow	14	31,027,815	TSS1500	N_Shore	G2E3	0.736	0.002	0.423	0.918
cg01105337	yellow	20	2,308,707	Body	N_Shore	TGM3	0.736	0.001	0.716	0.854
cg09178384	yellow	4	170,193,375	TSS1500	S_Shore	SH3RF1	0.736	-0.003	0.693	0.699
cg12530472	yellow	1	227,980,068		S_Shelf		0.736	0.004	0.742	0.538
cg08473725	yellow	20	49,545,230	5'UTR	N_Shore	ADNP	0.736	0.005	0.510	0.498
cg05312685	yellow	8	134,614,600		OpenSea		0.736	0.005	0.521	0.749
cg02059927	yellow	2	74,936,232		OpenSea		0.736	0.005	0.617	0.803
cg26864526	yellow	3	11,178,064	TSS1500	OpenSea	HRH1	0.736	0.007	0.665	0.394
cg11970797	yellow	13	20,994,066	Body	OpenSea	CRYL1	0.736	-0.005	0.728	0.737
cg02439517	yellow	6	38,685,753		S_Shelf		0.736	0.004	0.954	0.311
cg07572909	yellow	1	113,467,640	Body	OpenSea	SLC16A1	0.736	-0.007	0.870	0.384
cg09994756	yellow	4	8,185,163		OpenSea		0.736	-0.006	0.388	0.565
cg02079700	yellow	22	43,166,347		S_Shore		0.736	-0.001	0.468	0.901
cg00261690	yellow	1	28,856,281	Body	N_Shore	SNHG3-RCC1	0.736	0.003	0.746	0.795
cg08825225	yellow	11	128,586,960	Body	OpenSea	FLI1	0.736	0.004	0.585	0.624
cg01027229	yellow	7	86,572,891	Body	OpenSea	KIAA1324L	0.736	-0.008	0.863	0.535
cg25003275	yellow	4	7,940,128	5'UTR	N_Shore	AFAP1	0.736	0.005	0.050	0.229
cg24721309	yellow	13	113,384,392	Body	S_Shore	ATP11A	0.736	-0.004	0.919	0.510
cg10522979	yellow	16	4,300,186		N_Shelf		0.736	0.010	0.690	0.292
cg10519437	yellow	14	35,184,556	TSS1500	S_Shore	CFL2	0.736	-0.008	0.578	0.571
cg00621084	yellow	2	191,400,610	TSS1500	S_Shore	TMEM194B	0.736	0.000	0.702	0.994
cg05393025	yellow	1	20,141,781	TSS200	OpenSea	RNF186	0.736	0.002	0.450	0.781
cg15227911	yellow	17	7,792,059	Body	S_Shelf	CHD3	0.736	0.013	0.218	0.229
cg07438401	yellow	3	67,698,057	Body	OpenSea	SUCLG2	0.736	-0.003	0.619	0.596
cg26837896	yellow	5	111,077,837	Body	OpenSea	CSorf13	0.736	-0.004	0.878	0.682
cg15973075	yellow	5	12,355,075		OpenSea		0.736	-0.019	0.706	0.026
cg02864619	yellow	17	78,933,961	Body	N_Shore	RPTOR	0.736	0.006	0.941	0.251

cg21042139	yellow	17	32,683,478	1stExon	OpenSea	CCL13	0.736	-0.006	0.798	0.256
cg07895504	yellow	20	44,807,643	Body	S_Shore	CDH22	0.736	0.004	0.531	0.537
cg08322234	yellow	17	55,663,284	Body	OpenSea	MSI2	0.736	0.011	0.799	0.240
cg27636740	yellow	7	87,936,414	TSS1500	OpenSea	STEAP4	0.735	0.000	0.029	0.876
cg24995674	yellow	13	111,127,505	Body	OpenSea	COL4A2	0.735	0.004	0.733	0.617
cg17154975	yellow	12	131,513,361	Body	N_Shelf	GPR133	0.735	0.010	0.560	0.114
cg06808585	yellow	1	160,051,087	TSS1500	N_Shelf	KCNJ9	0.735	0.004	0.202	0.645
cg23639134	yellow	2	9,459,065	Body	N_Shore	ASAP2	0.735	0.004	0.293	0.566
cg16590466	yellow	16	30,795,267	Body	Island	ZNF629	0.735	0.002	0.855	0.717
cg01771737	yellow	2	240,199,147	Body	S_Shelf	HDAC4	0.735	0.002	0.800	0.703
cg04958703	yellow	17	4,844,722	TSS1500	S_Shore	SLC25A11	0.735	0.020	0.390	0.042
cg23995459	yellow	1	53,191,787	TSS1500	N_Shore	ZYG11B	0.735	0.026	0.517	0.044
cg13276704	yellow	3	8,484,059	Body	OpenSea		0.735	0.001	0.312	0.853
cg14212012	yellow	3	82,860,625	Body	S_Shelf		0.735	0.004	0.399	0.690
cg05026403	yellow	10	45,471,971	3'UTR	S_Shore	C10orf10	0.735	0.006	0.870	0.337
cg13429719	yellow	9	130,327,532	Body	N_Shelf	FAM129B	0.735	-0.001	0.954	0.838
cg18436324	yellow	6	32,820,583	TSS1500	N_Shore	PSMB9	0.735	0.015	0.126	0.080
cg12424867	yellow	1	19,752,812	Body	OpenSea	CAPZB	0.735	0.004	0.790	0.563
cg08594589	yellow	5	176,919,234	Body	Island	PDLIM7	0.735	0.006	0.489	0.345
cg25992874	yellow	7	142,997,642	3'UTR	OpenSea	CASP2	0.735	0.001	0.834	0.813
cg24892628	yellow	19	1,509,841	Body	N_Shore	ADAMTSL5	0.735	0.015	0.637	0.085
cg20076516	yellow	22	46,481,816	TSS200	Island	LOC400931	0.735	-0.005	0.904	0.572
cg27382409	yellow	10	47,088,062	3'UTR	OpenSea	PPYR1	0.735	0.001	0.623	0.876
cg15651345	yellow	1	26,495,094	TSS1500	N_Shore	ZNF593	0.735	0.010	0.514	0.324
cg07627639	yellow	16	55,544,136	Body	S_Shore	LPCAT2	0.735	0.009	0.472	0.213
cg13599248	yellow	6	74,364,700	TSS1500	S_Shore	SLC17A5	0.735	0.007	0.836	0.379
cg04670874	yellow	8	636,371	Body	N_Shore	ERICH1	0.735	-0.003	0.677	0.800
cg16010628	yellow	12	49,692,283	3'UTR	S_Shore	PRPH	0.735	0.018	0.245	0.006
cg08999812	yellow	17	80,740,950	Body	S_Shore	TBCD	0.735	-0.009	0.911	0.087
cg26070379	yellow	1	9,667,405	Body	N_Shelf	TMEM201	0.735	-0.001	0.705	0.834
cg05424678	yellow	7	105,910,233	Body	OpenSea	NAMPT	0.735	-0.009	0.905	0.309
cg15401579	yellow	6	31,670,197	Body	N_Shore	BAT5	0.735	0.002	0.028	0.326
cg08048699	yellow	11	57,296,305	Body	OpenSea	TIMM10	0.735	0.001	0.890	0.811
cg01577760	yellow	11	67,776,123	1stExon	OpenSea	ALDH3B1	0.735	0.003	0.869	0.539
cg24616366	yellow	20	1,781,084	Body	N_Shelf		0.735	0.020	0.644	0.060
cg12697789	yellow	4	186,990,425	5'UTR	OpenSea	TLR3	0.735	0.001	0.018	0.568
cg04230403	yellow	10	90,750,176	TSS200	N_Shore	FAS	0.735	0.005	0.032	0.027
cg01481000	yellow	1	33,514,858	Body	N_Shore		0.735	-0.003	0.697	0.666
cg18769818	yellow	11	72,433,059	5'UTR	OpenSea	ARAP1	0.735	0.008	0.213	0.404
cg07149179	yellow	3	134,978,680	3'UTR	OpenSea	EPHB1	0.735	0.013	0.667	0.055
cg00571809	yellow	1	3,397,113	Body	S_Shore	ARHGEF16	0.735	-0.001	0.779	0.833
cg00042409	yellow	3	113,232,968	5'UTR	N_Shore	CCDC52	0.735	0.008	0.302	0.401
cg23538064	yellow	6	31,913,275	3'UTR	OpenSea	C2	0.735	0.010	0.775	0.130
cg13624150	yellow	9	137,763,059	Body	OpenSea		0.735	0.009	0.642	0.404
cg22632666	yellow	17	27,043,146	Body	N_Shore	RAB34	0.735	0.004	0.718	0.571
cg05894801	yellow	6	155,850,469	Body	OpenSea		0.735	0.012	0.789	0.203
cg06077738	yellow	3	63,872,429	5'UTR	OpenSea	ATXN7	0.735	-0.003	0.720	0.671
cg00919013	yellow	8	12,613,847	TSS1500	S_Shore	LONRF1	0.735	0.003	0.215	0.738
cg19403610	yellow	10	128,359,014	Body	OpenSea		0.735	-0.011	0.839	0.296
cg11772801	yellow	14	51,711,237	Body	S_Shelf	TMX1	0.735	-0.004	0.850	0.402
cg02228403	yellow	3	11,522,965	Body	OpenSea	ATG7	0.735	-0.004	0.950	0.404
cg24068815	yellow	14	96,661,225	Body	OpenSea		0.735	-0.009	0.883	0.326
cg02675652	yellow	12	51,477,739	TSS1500	S_Shore	CSRNP2	0.735	0.006	0.302	0.556
cg15110473	yellow	2	47,716,517	Body	OpenSea		0.735	-0.001	0.707	0.924
cg22809683	yellow	1	182,998,916	Body	OpenSea	LAMC1	0.734	0.000	0.745	0.982
cg16598405	yellow	6	31,621,210	TSS1500	S_Shore	BAT3	0.734	0.019	0.130	0.014
cg13015710	yellow	12	125,039,343	Body	Island		0.734	0.005	0.533	0.382
cg11112729	yellow	7	148,936,221	TSS1500	N_Shore	ZNF212	0.734	0.004	0.800	0.679
cg27582563	yellow	2	20,384,285	Body	OpenSea		0.734	0.001	0.637	0.863
cg08315133	yellow	5	140,018,653	TSS1500	N_Shore	TMCO6	0.734	0.001	0.369	0.904
cg07306755	yellow	8	95,274,853	TSS1500	S_Shore	GEM	0.734	0.006	0.500	0.390
cg03680338	yellow	6	22,043,967	Body	OpenSea	FLJ22536	0.734	0.001	0.425	0.946
cg16364066	yellow	10	6,821,184	Body	OpenSea		0.734	0.011	0.661	0.296
cg05819594	yellow	16	2,533,580	5'UTR	OpenSea	TBC1D24	0.734	0.008	0.406	0.183
cg03879613	yellow	7	142,965,938	3'UTR	OpenSea	GSTK1	0.734	0.003	0.780	0.643
cg08851837	yellow	16	57,558,820	Body	N_Shelf	CCDC102A	0.734	0.007	0.784	0.402
cg18881723	yellow	1	160,616,870	5'UTR	OpenSea	SLAMF1	0.734	0.008	0.835	0.131

cg01926614	yellow	3	117,714,932	N_Shore		0.734	0.007	0.044	0.071
cg02120470	yellow	1	67,267,129 TSS200	OpenSea	INSL5	0.734	-0.005	0.943	0.310
cg04335714	yellow	22	25,799,070	N_Shore		0.734	-0.002	0.080	0.825
cg20706778	yellow	2	75,798,122 TSS1500	OpenSea	FAM176A	0.734	0.015	0.205	0.088
cg27048208	yellow	10	75,543,235 3'UTR	S_Shore	CHCHD1	0.734	-0.010	0.879	0.179
cg15193228	yellow	22	30,855,332 3'UTR	OpenSea	SEC14L3	0.734	0.008	0.580	0.355
cg05666287	yellow	3	49,757,470 TSS1500	S_Shore	AMIGO3	0.734	0.011	0.413	0.327
cg19864468	yellow	2	113,346,566 3'UTR	OpenSea	CHCHD5	0.734	0.006	0.848	0.291
cg12209937	yellow	2	27,371,628 TSS1500	N_Shore	TCF23	0.734	0.004	0.575	0.569
cg09195550	yellow	21	45,746,856 Body	S_Shelf	PFKL	0.734	0.007	0.731	0.281
cg00719626	yellow	19	15,575,685 TSS1500	OpenSea	RASAL3	0.734	0.005	0.430	0.543
cg18518916	yellow	4	185,456,125	OpenSea		0.734	-0.006	0.529	0.428
cg17183905	yellow	12	110,253,842 5'UTR	OpenSea	TRPV4	0.734	-0.001	0.446	0.934
cg11847636	yellow	19	50,015,523 TSS200	N_Shore	FCGRT	0.734	0.000	0.580	0.996
cg02743070	yellow	10	80,834,309 5'UTR	S_Shelf	ZMIZ1	0.734	0.005	0.734	0.441
cg19038230	yellow	13	47,126,445 TSS1500	N_Shore	LRCH1	0.734	0.012	0.231	0.168
cg02769104	yellow	1	27,333,245 Body	S_Shore	FAM46B	0.734	0.005	0.507	0.397
cg05141059	yellow	3	195,162,052 Body	N_Shore	ACAP2	0.734	-0.005	0.578	0.391
cg01432329	yellow	10	131,005,737	OpenSea		0.734	0.029	0.741	0.073
cg16624482	yellow	21	43,548,126 Body	S_Shore	UMODL1	0.734	-0.002	0.671	0.882
cg05741395	yellow	15	42,173,869 Body	N_Shore	SPTBN5	0.734	0.007	0.336	0.101
cg03519967	yellow	1	26,010,346 Body	OpenSea	MAN1C1	0.734	0.006	0.289	0.259
cg09373511	yellow	10	127,560,294 Body	OpenSea	DHX32	0.734	0.000	0.577	0.996
cg13044649	yellow	3	195,849,011	OpenSea		0.734	-0.009	0.909	0.304
cg23787321	yellow	2	43,385,844	OpenSea		0.734	0.011	0.374	0.140
cg27384342	yellow	16	3,658,374 Body	N_Shelf	BTBD12	0.734	-0.003	0.925	0.515
cg20216752	yellow	17	6,913,521 Body	N_Shelf	ALOX12	0.734	0.000	0.783	0.982
cg14476562	yellow	9	14,159,600 Body	OpenSea	NFIB	0.734	-0.002	0.911	0.765
cg17154542	yellow	10	103,815,129 5'UTR	N_Shore	C10orf76	0.734	0.005	0.068	0.353
cg02484391	yellow	1	22,889,301 TSS1500	N_Shore	EPHA8	0.734	0.004	0.753	0.675
cg11343713	yellow	7	45,749,313 Body	OpenSea	ADCY1	0.734	0.008	0.681	0.273
cg09372692	yellow	4	148,785,459 Body	OpenSea	ARHGAP10	0.734	-0.005	0.921	0.393
cg02055988	yellow	22	31,671,702 Body	N_Shore	LIMK2	0.734	0.000	0.664	0.975
cg26832211	yellow	11	71,259,251 TSS1500	OpenSea	KRTAP5-9	0.734	0.007	0.859	0.211
cg00985958	yellow	6	71,605,996 Body	OpenSea	B3GAT2	0.734	0.006	0.717	0.560
cg07365071	yellow	1	113,006,721	N_Shelf		0.734	-0.003	0.788	0.687
cg21839211	yellow	6	167,508,041	S_Shore		0.734	0.008	0.708	0.291
cg03048054	yellow	3	52,109,608 3'UTR	OpenSea	WDR51A	0.734	-0.008	0.844	0.312
cg17810098	yellow	22	19,929,066 Body	N_Shore	TXNRD2	0.733	0.014	0.146	0.157
cg08528170	yellow	19	13,947,914 TSS1500	S_Shelf	MIR24-2	0.733	-0.003	0.439	0.675
cg09508556	yellow	6	31,106,982 Body	OpenSea	PSORS1C1	0.733	0.004	0.774	0.609
cg05961212	yellow	3	119,298,195 TSS1500	N_Shore	ADPRH	0.733	0.001	0.142	0.902
cg13202213	yellow	1	7,532,211 Body	OpenSea	CAMTA1	0.733	0.000	0.423	1.000
cg01229421	yellow	16	11,370,688 TSS1500	S_Shore	PRM2	0.733	0.004	0.811	0.531
cg03786846	yellow	13	113,383,006 Body	Island	ATP11A	0.733	-0.011	0.919	0.248
cg06674275	yellow	13	113,430,153 Body	S_Shore	ATP11A	0.733	-0.002	0.944	0.750
cg26629942	yellow	17	49,998,512 Body	OpenSea	CA10	0.733	0.002	0.584	0.811
cg02637086	yellow	19	41,117,232 Body	N_Shore	LTBP4	0.733	0.002	0.639	0.647
cg18915691	yellow	17	75,587,472	OpenSea		0.733	0.008	0.609	0.316
cg03467087	yellow	6	158,448,134 Body	OpenSea	SYNJ2	0.733	0.002	0.815	0.787
cg04477431	yellow	6	31,631,716 Body	N_Shore	BAT4	0.733	0.013	0.444	0.155
cg09842420	yellow	3	183,563,241 Body	OpenSea	PARL	0.733	0.001	0.954	0.736
cg13643509	yellow	17	78,915,655 Body	Island	RPTOR	0.733	0.029	0.693	0.110
cg08122234	yellow	14	21,270,850 5'UTR	OpenSea	RNASE1	0.733	-0.007	0.853	0.494
cg00873009	yellow	2	24,634,127	OpenSea		0.733	0.001	0.708	0.889
cg06139893	yellow	21	47,404,109 Body	Island	COL6A1	0.733	0.007	0.784	0.285
cg26443127	yellow	10	31,987,230	OpenSea		0.733	0.019	0.501	0.079
cg06372151	yellow	12	49,340,730 5'UTR	OpenSea	ARF3	0.733	-0.014	0.698	0.196
cg13408344	yellow	15	31,631,240 Body	OpenSea	KLF13	0.733	0.001	0.603	0.885
cg01785706	yellow	12	118,570,077	N_Shelf		0.733	0.002	0.580	0.836
cg00336867	yellow	2	10,857,774	N_Shelf		0.733	0.011	0.592	0.315
cg27641076	yellow	11	62,211,788 Body	N_Shore	AHNAK	0.733	-0.007	0.589	0.652
cg24347894	yellow	4	146,684,278 3'UTR	S_Shore	ZNF827	0.733	0.002	0.862	0.623
cg24806066	yellow	1	184,633,039	N_Shore		0.733	0.003	0.439	0.776
cg00956142	yellow	1	28,765,031 Body	OpenSea	PHACTR4	0.733	0.005	0.275	0.623
cg09269619	yellow	4	713,179 5'UTR	N_Shore	PCGF3	0.733	0.005	0.729	0.480
cg08719642	yellow	9	139,595,476	N_Shore		0.733	0.006	0.503	0.447

cg15719255	yellow	19	18,508,620	TSS1500	OpenSea	LRRC25	0.733	0.004	0.219	0.682
cg24390519	yellow	8	37,702,396	Body	S_Shelf	BRF2	0.733	-0.004	0.627	0.492
cg05325887	yellow	16	611,985	5'UTR	S_Shore	C16orf11	0.733	0.002	0.751	0.726
cg19344626	yellow	19	16,830,749	TSS200	OpenSea	NWD1	0.733	0.003	0.889	0.760
cg11185291	yellow	9	139,744,617	Body	Island	PHPT1	0.733	0.011	0.385	0.075
cg06495763	yellow	11	2,925,470	Body	S_Shore	SLC22A18	0.733	-0.001	0.679	0.924
cg23252815	yellow	20	44,420,276	5'UTR	N_Shore	WFDC3	0.733	-0.001	0.436	0.953
cg10189395	yellow	17	52,849,566		OpenSea		0.733	-0.009	0.749	0.354
cg13420089	yellow	9	92,253,441	TSS1500	OpenSea	LOC1001290	0.733	0.004	0.423	0.533
cg08293531	yellow	15	101,601,180	Body	OpenSea	LRRK1	0.733	0.006	0.697	0.411
cg10681065	yellow	7	100,239,172	5'UTR	OpenSea	TFR2	0.733	-0.004	0.428	0.679
cg05476287	yellow	5	176,522,511	Body	S_Shore	FGFR4	0.733	0.012	0.591	0.157
cg11316503	yellow	17	40,949,085		N_Shore		0.733	-0.001	0.887	0.887
cg24128292	yellow	8	30,419,935	3'UTR	OpenSea	RBPMS	0.733	0.000	0.829	0.977
cg14361947	yellow	9	140,780,551	Body	S_Shelf	CACNA1B	0.733	0.002	0.453	0.738
cg20695587	yellow	4	68,995,759	TSS200	OpenSea	TMPRSS11F	0.733	-0.007	0.807	0.405
cg07449758	yellow	6	31,692,300	Body	S_Shore	C6orf25	0.733	0.002	0.866	0.736
cg22221738	yellow	1	149,895,655	Body	N_Shelf	SF3B4	0.733	0.007	0.727	0.181
cg16123269	yellow	6	30,135,113	Body	OpenSea	TRIM15	0.733	0.011	0.651	0.171
cg02933431	yellow	6	32,081,711		OpenSea		0.733	-0.002	0.608	0.864
cg20710635	yellow	6	108,582,940	TSS1500	S_Shore	SNX3	0.732	-0.002	0.214	0.857
cg01150918	yellow	2	130,348,025		S_Shelf		0.732	0.006	0.502	0.197
cg24861124	yellow	8	27,850,423	TSS1500	OpenSea	SCARA5	0.732	0.003	0.087	0.623
cg06686857	yellow	8	94,751,454	TSS1500	N_Shore	C8orf39	0.732	0.033	0.580	0.044
cg20981184	yellow	14	95,979,816		N_Shelf		0.732	-0.005	0.877	0.345
cg01416295	yellow	1	156,710,278	5'UTR	N_Shore	MRPL24	0.732	0.021	0.206	0.032
cg23885131	yellow	12	56,600,379	Body	OpenSea	RNF41	0.732	-0.008	0.592	0.271
cg15787712	yellow	19	13,948,243	TSS1500	S_Shelf	MIR24-2	0.732	0.009	0.852	0.259
cg21019522	yellow	11	2,920,789	TSS200	N_Shelf	SLC22A18	0.732	0.007	0.510	0.318
cg22074858	yellow	1	89,488,430	1stExon	OpenSea	GBP3	0.732	0.003	0.765	0.725
cg26028440	yellow	1	27,982,716		N_Shelf		0.732	0.007	0.489	0.268
cg04047472	yellow	16	1,679,796	Body	S_Shelf	CRAMP1L	0.732	-0.002	0.785	0.752
cg09762021	yellow	1	153,762,224		OpenSea		0.732	0.011	0.329	0.146
cg01192051	yellow	15	89,879,515	TSS1500	S_Shore	POLG	0.732	0.012	0.446	0.301
cg14648190	yellow	10	525,733	Body	Island	DIP2C	0.732	-0.005	0.844	0.633
cg10759158	yellow	2	227,418,479		OpenSea		0.732	-0.007	0.868	0.434
cg07917478	yellow	1	179,786,966		OpenSea		0.732	0.017	0.462	0.046
cg04355697	yellow	13	20,731,771	5'UTR	N_Shelf	GJA3	0.732	0.012	0.573	0.219
cg03110310	yellow	16	3,163,755	Body	OpenSea	ZNF205	0.732	0.017	0.845	0.136
cg25223798	yellow	4	7,191,910		N_Shelf		0.732	-0.008	0.550	0.206
cg03493123	yellow	5	177,029,444	Body	N_Shore	B4GALT7	0.732	0.002	0.653	0.784
cg05706061	yellow	9	115,912,974	TSS1500	N_Shore	SLC31A2	0.732	0.000	0.234	0.974
cg22948337	yellow	13	113,119,625		N_Shelf		0.732	-0.002	0.700	0.766
cg05262369	yellow	1	205,716,365	Body	N_Shore	NUCKS1	0.732	-0.014	0.481	0.069
cg12476455	yellow	1	46,052,453	Body	S_Shore	NASP	0.732	-0.007	0.783	0.438
cg18299068	yellow	4	1,305,425	Body	S_Shore	MAEA	0.732	0.014	0.792	0.070
cg21877464	yellow	5	151,056,339	5'UTR	OpenSea	SPARC	0.732	-0.001	0.622	0.856
cg23725583	yellow	8	120,649,714	Body	OpenSea	ENPP2	0.732	-0.002	0.754	0.825
cg15792957	yellow	2	47,604,206	Body	OpenSea	EPCAM	0.732	0.005	0.804	0.668
cg27041257	yellow	7	142,960,290	TSS1500	OpenSea	GSTK1	0.732	0.004	0.056	0.208
cg27090087	yellow	6	54,172,378	TSS1500	OpenSea	TINAG	0.732	-0.009	0.760	0.274
cg01016119	yellow	3	56,835,282	Body	N_Shore	ARHGEF3	0.732	0.002	0.521	0.754
cg08257293	yellow	20	30,308,440	Body	N_Shelf	BCL2L1	0.732	0.014	0.312	0.196
cg18760360	yellow	15	60,953,215	Body	OpenSea	RORA	0.732	0.015	0.818	0.229
cg12392519	yellow	17	47,308,867	TSS1500	S_Shore	PHOSPHO1	0.732	0.016	0.499	0.050
cg13787671	yellow	10	78,336,507		OpenSea		0.732	0.010	0.176	0.287
cg20389822	yellow	4	3,520,760	Body	S_Shore	LRPAP1	0.732	0.005	0.713	0.485
cg12950181	yellow	5	93,447,648	TSS1500	S_Shore	FAM172A	0.732	-0.005	0.640	0.680
cg10859789	yellow	2	238,252,417	Body	OpenSea	COL6A3	0.732	0.003	0.830	0.677
cg14012925	yellow	7	101,556,907	Body	N_Shelf	CUX1	0.732	0.000	0.682	0.976
cg25685996	yellow	17	80,015,866	3'UTR	S_Shelf	DUS1L	0.732	0.005	0.800	0.419
cg09088580	yellow	5	14,491,507	Body	S_Shelf	TRIO	0.732	0.003	0.844	0.757
cg06971029	yellow	16	22,398,775		OpenSea		0.732	-0.012	0.137	0.471
cg05617873	yellow	2	95,971,856	Body	OpenSea	KCNIP3	0.732	0.001	0.717	0.906
cg01181485	yellow	4	153,454,027	5'UTR	N_Shelf	FBXW7	0.732	0.012	0.697	0.078
cg23126166	yellow	10	90,235,224	Body	OpenSea	RNLS	0.732	0.000	0.420	0.989
cg11281005	yellow	13	113,396,948	Body	OpenSea	ATP11A	0.732	-0.005	0.958	0.262

cg16419054	yellow	14	105,804,208	Body	OpenSea	PACS2	0.732	0.008	0.723	0.191
cg23214985	yellow	17	1,537,890	3'UTR	N_Shore	SCARF1	0.732	0.004	0.818	0.681
cg16423425	yellow	5	97,992,865		OpenSea		0.732	-0.001	0.927	0.838
cg02260710	yellow	16	85,730,584		OpenSea		0.732	0.010	0.552	0.192
cg04409030	yellow	12	93,963,292	TSS1500	N_Shore	SOCS2	0.732	0.002	0.907	0.700
cg05273302	yellow	19	2,095,560	TSS1500	Island	C19orf36	0.732	0.002	0.844	0.767
cg10598030	yellow	7	75,419,119	TSS200	OpenSea	CCL26	0.732	0.014	0.545	0.180
cg26373351	yellow	12	12,031,304	Body	OpenSea	ETV6	0.732	0.004	0.655	0.549
cg12456510	yellow	21	43,771,355	TSS200	OpenSea	TFF2	0.732	0.014	0.631	0.116
cg03160508	yellow	11	66,823,684	TSS1500	N_Shore	RHOD	0.732	0.006	0.244	0.389
cg23791626	yellow	17	65,542,892	Body	OpenSea	PITPNC1	0.732	-0.005	0.189	0.419
cg08862742	yellow	11	3,022,200	3'UTR	OpenSea	CARS	0.732	0.008	0.646	0.555
cg07112884	yellow	14	68,548,136	Body	OpenSea	RAD51L1	0.732	0.006	0.735	0.601
cg16265859	yellow	1	19,401,069	3'UTR	OpenSea	UBR4	0.732	-0.006	0.874	0.327
cg22097891	yellow	4	4,405,946	Body	OpenSea	D4S234E	0.732	-0.019	0.774	0.190
cg03638489	yellow	16	86,592,652		S_Shelf		0.732	0.009	0.690	0.408
cg22202786	yellow	5	76,383,494	Body	S_Shore	LOC728723	0.732	0.002	0.046	0.666
cg18080370	yellow	3	62,305,486	1stExon	S_Shore	C3orf14	0.732	-0.009	0.906	0.256
cg21498471	yellow	19	33,183,713	Body	S_Shore	NUDT19	0.731	0.016	0.529	0.139
cg14475620	yellow	2	70,377,064	3'UTR	OpenSea	C2orf42	0.731	0.000	0.922	0.984
cg05694250	yellow	10	46,996,357	5'UTR	S_Shelf	GPRIN2	0.731	0.006	0.731	0.290
cg18829068	yellow	11	94,975,774		OpenSea		0.731	0.019	0.618	0.158
cg21941821	yellow	22	39,712,633	Body	N_Shelf	RPL3	0.731	0.005	0.256	0.540
cg19511444	yellow	13	112,788,578		OpenSea		0.731	0.004	0.848	0.608
cg08557188	yellow	13	113,420,371	Body	Island	ATP11A	0.731	0.012	0.811	0.511
cg11835355	yellow	22	36,561,746	5'UTR	OpenSea	APOL3	0.731	0.000	0.814	0.962
cg16955407	yellow	6	11,279,656	Body	OpenSea	NEDD9	0.731	0.003	0.882	0.617
cg02404636	yellow	22	31,891,804	TSS1500	N_Shore	SF11	0.731	0.007	0.079	0.536
cg13674249	yellow	9	86,321,038	Body	N_Shore	UBQLN1	0.731	0.000	0.870	0.960
cg02463137	yellow	10	125,778,039	Body	OpenSea	CHST15	0.731	0.004	0.575	0.810
cg22164207	yellow	1	152,383,842	Body	OpenSea	CRNN	0.731	0.029	0.454	0.106
cg26100059	yellow	10	182,473	5'UTR	S_Shore	ZMYND11	0.731	0.008	0.148	0.107
cg21997672	yellow	7	123,221,351		OpenSea		0.731	-0.004	0.624	0.645
cg24448421	yellow	12	68,737,061		OpenSea		0.731	0.009	0.429	0.201
cg12073319	yellow	4	15,965,025	TSS200	OpenSea	FGFBP2	0.731	0.013	0.699	0.067
cg20139336	yellow	6	10,495,435		OpenSea		0.731	0.007	0.863	0.321
cg25294752	yellow	7	155,567,804	3'UTR	OpenSea	RBM33	0.731	0.000	0.818	0.976
cg22437405	yellow	1	38,000,170		OpenSea		0.731	0.008	0.452	0.471
cg11964338	yellow	19	52,847,185	5'UTR	OpenSea	ZNF610	0.731	-0.010	0.593	0.304
cg00260201	yellow	17	46,029,581	3'UTR	OpenSea	PRR15L	0.731	-0.002	0.856	0.699
cg15146567	yellow	3	42,948,626	5'UTR	S_Shore	ZNF662	0.731	0.014	0.631	0.071
cg02480666	yellow	1	35,259,746	5'UTR	S_Shore	GJA4	0.731	-0.002	0.761	0.761
cg03115444	yellow	12	122,835,060	Body	OpenSea	CLIP1	0.731	0.010	0.819	0.427
cg12516954	yellow	5	134,714,262	Body	OpenSea	H2AFY	0.731	0.002	0.651	0.759
cg05320944	yellow	14	76,018,865		OpenSea		0.731	-0.004	0.605	0.691
cg00540819	yellow	10	134,803,507		N_Shore		0.731	-0.007	0.809	0.358
cg25425705	yellow	3	123,782,393		OpenSea		0.731	-0.004	0.087	0.488
cg13032018	yellow	12	118,573,531	TSS1500	N_Shore	PEBP1	0.731	0.004	0.077	0.641
cg26271591	yellow	2	178,125,956	Body	N_Shelf	NFE2L2	0.731	0.019	0.475	0.105
cg18006637	yellow	4	89,713,820	Body	OpenSea	FAM13A	0.731	0.003	0.753	0.682
cg06660522	yellow	1	211,725,112		OpenSea		0.731	-0.008	0.173	0.661
cg11202871	yellow	7	134,851,177	Body	N_Shelf	C7orf49	0.731	0.002	0.763	0.777
cg00326648	yellow	2	61,246,248	Body	OpenSea	PEX13	0.731	0.002	0.941	0.573
cg01800884	yellow	11	73,075,695	Body	S_Shore	ARHGEF17	0.731	0.007	0.592	0.256
cg22923895	yellow	7	101,180,719	Body	OpenSea	EMID2	0.731	-0.005	0.717	0.414
cg25415384	yellow	22	42,097,582	Body	S_Shore	MEI1	0.731	0.001	0.833	0.907
cg22822219	yellow	14	24,105,017	TSS1500	OpenSea	DHRS2	0.731	0.005	0.628	0.603
cg03346415	yellow	16	69,854,895	Body	OpenSea	WWP2	0.731	0.012	0.466	0.311
cg10249246	yellow	14	105,877,289		N_Shore		0.731	-0.001	0.368	0.910
cg04215126	yellow	7	105,621,846	Body	OpenSea	FLJ23834	0.731	0.003	0.368	0.655
cg06899009	yellow	2	153,443,171	Body	OpenSea	FMNL2	0.731	0.014	0.804	0.291
cg21412629	yellow	1	3,154,700	Body	N_Shore	PRDM16	0.731	0.002	0.517	0.819
cg11967765	yellow	7	2,774,195	Body	N_Shore	GNA12	0.731	0.004	0.794	0.472
cg04464727	yellow	6	33,131,769	Body	S_Shelf	COL11A2	0.731	0.000	0.562	0.972
cg16657886	yellow	11	1,855,502	TSS200	OpenSea	SYT8	0.731	0.001	0.753	0.940
cg02629942	yellow	1	68,649,673	Body	OpenSea	GPR177	0.731	0.009	0.868	0.323
cg13587449	yellow	10	72,240,883	5'UTR	S_Shelf	KIAA1274	0.731	0.015	0.722	0.013



cg13954461	yellow	19	1,975,271	Body	Island	CSNK1G2	0.731	0.005	0.602	0.580
cg00345744	yellow	7	156,929,167		N_Shelf		0.731	-0.004	0.406	0.708
cg13377056	yellow	1	145,705,805	Body	OpenSea	CD160	0.731	0.015	0.419	0.052
cg10620434	yellow	1	5,586,357		OpenSea		0.731	0.011	0.710	0.191
cg10178203	yellow	5	10,308,250	TSS200	S_Shore	CMBL	0.731	0.003	0.348	0.697
cg02827572	yellow	6	34,566,245	Body	OpenSea	C6orf106	0.731	0.008	0.789	0.374
cg27150417	yellow	20	44,462,035	TSS1500	N_Shore	SNX21	0.731	0.011	0.182	0.168
cg26473548	yellow	5	172,868,268		OpenSea		0.730	0.006	0.479	0.321
cg12635790	yellow	8	96,112,814		OpenSea		0.730	0.009	0.074	0.343
cg03224812	yellow	12	3,807,404	5'UTR	OpenSea	EFCAB4B	0.730	0.011	0.775	0.239
cg14397813	yellow	9	80,522,508	Body	OpenSea	GNAQ	0.730	0.011	0.815	0.173
cg14184614	yellow	6	3,778,005		OpenSea		0.730	0.010	0.461	0.074
cg07470314	yellow	8	21,766,704	3'UTR	N_Shelf	DOK2	0.730	0.006	0.264	0.365
cg25767154	yellow	8	145,594,413		N_Shelf		0.730	0.018	0.777	0.033
cg18550846	yellow	20	48,767,148	Body	N_Shelf	TMEM189	0.730	-0.005	0.929	0.356
cg04468927	yellow	16	70,514,664	3'UTR	OpenSea	COG4	0.730	0.001	0.661	0.892
cg25574227	yellow	10	73,153,701		N_Shelf		0.730	0.005	0.810	0.395
cg04234597	yellow	5	3,851,581		N_Shelf		0.730	-0.002	0.553	0.840
cg14569771	yellow	4	153,022,369		OpenSea		0.730	0.005	0.760	0.608
cg03834023	yellow	2	27,356,128	Body	N_Shore	PREB	0.730	0.006	0.589	0.509
cg23448153	yellow	19	46,418,941	TSS1500	S_Shore	NANOS2	0.730	0.003	0.254	0.830
cg21142272	yellow	16	67,224,341	TSS1500	OpenSea	EXOC3L	0.730	0.002	0.349	0.596
cg24686189	yellow	17	47,913,532		OpenSea		0.730	-0.007	0.093	0.484
cg21822146	yellow	14	77,961,897	Body	N_Shelf	ISM2	0.730	0.005	0.724	0.699
cg00349404	yellow	10	106,100,036		S_Shore		0.730	-0.002	0.260	0.744
cg20427331	yellow	13	52,000,062	Body	OpenSea	INTS6	0.730	-0.007	0.932	0.190
cg23054121	yellow	11	2,423,159	TSS1500	S_Shore	TSSC4	0.730	-0.004	0.766	0.539
cg12225979	yellow	21	44,103,900	Body	N_Shore	PDE9A	0.730	0.002	0.844	0.652
cg14770102	yellow	11	58,984,446		OpenSea		0.730	-0.009	0.747	0.419
cg16671674	yellow	2	142,150,452	Body	OpenSea	LRP1B	0.730	0.010	0.599	0.363
cg08651003	yellow	1	1,758,731	5'UTR	OpenSea	GNB1	0.730	0.003	0.501	0.816
cg06658391	yellow	2	113,875,233	TSS1500	OpenSea	IL1RN	0.730	0.042	0.790	0.002
cg12727940	yellow	3	145,969,718	TSS1500	S_Shore	PLSCR4	0.730	0.026	0.764	0.050
cg07922924	yellow	1	11,211,274	Body	OpenSea	MTOR	0.730	-0.004	0.271	0.759
cg16689761	yellow	7	141,360,223	3'UTR	OpenSea	KIAA1147	0.730	0.008	0.673	0.487
cg13353574	yellow	8	61,326,925		OpenSea		0.730	0.005	0.578	0.405
cg27480819	yellow	12	23,686,149	3'UTR	OpenSea	SOX5	0.730	0.006	0.728	0.451
cg01072609	yellow	7	140,338,624		N_Shore		0.730	0.012	0.778	0.087
cg05177685	yellow	6	30,558,470	Body	OpenSea	ABCF1	0.730	-0.002	0.755	0.814
cg08161081	yellow	20	34,327,466	Body	N_Shelf	RBM39	0.730	-0.008	0.875	0.266
cg15392111	yellow	4	140,216,263	Body	N_Shore	NDUFC1	0.730	0.000	0.401	0.973
cg00956423	yellow	6	30,029,760	Body	S_Shore	ZNRD1	0.730	0.022	0.090	0.000
cg25803977	yellow	8	143,820,035		N_Shore		0.730	-0.001	0.824	0.831
cg00151251	yellow	2	198,173,194		N_Shore		0.730	0.004	0.711	0.523
cg08467371	yellow	2	233,180,415	Body	OpenSea	DIS3L2	0.730	0.000	0.709	0.980
cg02923047	yellow	9	140,342,917	3'UTR	N_Shore	NELF	0.730	0.009	0.581	0.461
cg03042477	yellow	16	31,472,055	Body	S_Shore	ARMCS	0.730	0.005	0.270	0.668
cg05826823	yellow	9	130,968,072	TSS1500	S_Shore	CIZ1	0.730	0.003	0.691	0.601
cg09263904	yellow	12	58,219,817	Body	OpenSea	CTDSP2	0.730	-0.002	0.732	0.815
cg00024516	yellow	4	123,506,194		OpenSea		0.730	-0.001	0.731	0.848
cg12389356	yellow	4	166,382,661	Body	OpenSea	CPE	0.730	0.006	0.789	0.672
cg04568819	yellow	9	137,659,754	Body	N_Shore	COL5A1	0.730	0.006	0.871	0.296
cg18856043	yellow	6	31,845,739	Body	OpenSea	SLC44A4	0.730	0.003	0.438	0.547
cg15182320	yellow	11	192,096	TSS1500	OpenSea	LOC653486	0.730	-0.008	0.250	0.505
cg10520349	yellow	10	3,871,234		OpenSea		0.730	0.006	0.042	0.162
cg04781305	yellow	10	35,624,429	TSS1500	N_Shore	CCNY	0.730	0.022	0.589	0.087
cg17240987	yellow	20	44,421,576	TSS1500	S_Shore	WFDC3	0.730	0.009	0.499	0.179
cg13470125	yellow	19	614,474	Body	N_Shore	HCN2	0.730	0.005	0.756	0.636
cg18283844	yellow	1	114,495,894	Body	OpenSea	HIPK1	0.730	-0.007	0.859	0.341
cg09364501	yellow	16	1,609,468	Body	OpenSea	IFT140	0.730	0.002	0.760	0.650
cg10365597	yellow	2	30,929,997		OpenSea		0.730	0.004	0.262	0.653
cg06959664	yellow	1	18,015,648	Body	OpenSea	ARHGEF10L	0.730	0.006	0.804	0.443
cg16904330	yellow	3	119,299,162	5'UTR	S_Shore	ADPRH	0.729	0.004	0.053	0.299
cg15582335	yellow	3	45,179,804	Body	OpenSea	CDCP1	0.729	0.001	0.897	0.861
cg04924555	yellow	6	157,505,996	Body	OpenSea	ARID1B	0.729	0.007	0.764	0.326
cg05740575	yellow	8	104,387,844	Body	S_Shelf	CTHRC1	0.729	-0.001	0.611	0.918
cg21591452	yellow	17	79,304,628	TSS200	OpenSea	TMEM105	0.729	0.005	0.744	0.520

cg10251446	yellow	3	187,624,824	OpenSea		0.729	0.009	0.595	0.372
cg05976481	yellow	12	92,524,968	OpenSea		0.729	0.011	0.647	0.223
cg14844236	yellow	12	123,753,212 Body	N_Shore	CDK2AP1	0.729	0.011	0.726	0.226
cg23945481	yellow	6	31,938,984 TSS1500	N_Shore	STK19	0.729	0.009	0.704	0.234
cg14199090	yellow	1	65,990,564 5'UTR	N_Shore	LEPR	0.729	0.003	0.651	0.605
cg23575732	yellow	11	43,701,083 TSS1500	N_Shore	HSD17B12	0.729	0.001	0.768	0.894
cg26728709	yellow	4	114,823,338 3'UTR	OpenSea	ARSJ	0.729	0.005	0.730	0.590
cg08493063	yellow	16	11,330,934	S_Shelf		0.729	-0.012	0.739	0.071
cg09984096	yellow	8	17,195,444 Body	OpenSea	MTMR7	0.729	-0.001	0.588	0.883
cg18739166	yellow	3	3,866,752 5'UTR	OpenSea	LRRN1	0.729	0.004	0.459	0.679
cg00350478	yellow	6	168,480,013 TSS200	S_Shore	FRMD1	0.729	0.015	0.683	0.072
cg09801621	yellow	16	57,499,367 Body	S_Shelf	POLR2C	0.729	-0.001	0.955	0.748
cg12127162	yellow	17	48,140,412 Body	OpenSea	ITGA3	0.729	0.002	0.819	0.715
cg08522784	yellow	6	38,060,312 Body	OpenSea	ZFAND3	0.729	0.001	0.651	0.878
cg27624229	yellow	6	32,049,053 Body	S_Shore	TNXB	0.729	0.004	0.479	0.543
cg15151059	yellow	1	150,936,875 3'UTR	OpenSea	SETDB1	0.729	-0.004	0.745	0.591
cg11739626	yellow	19	50,381,908 TSS1500	S_Shore	AKT1S1	0.729	0.007	0.670	0.362
cg16762195	yellow	17	40,264,815 TSS200	OpenSea	DHX58	0.729	0.002	0.044	0.584
cg08328160	yellow	6	32,151,394 Body	OpenSea	AGER	0.729	0.002	0.799	0.709
cg27312916	yellow	11	85,469,117 TSS200	OpenSea	SYTL2	0.729	0.001	0.804	0.874
cg11229267	yellow	22	23,519,916	N_Shelf		0.729	0.013	0.814	0.168
cg07443529	yellow	17	36,953,613 Body	N_Shore	PIP4K2B	0.729	0.003	0.769	0.667
cg07959978	yellow	1	65,994,091 5'UTR	S_Shelf	LEPR	0.729	-0.011	0.764	0.207
cg10460033	yellow	3	13,894,328 Body	N_Shore	WNT7A	0.729	0.007	0.558	0.301
cg06394229	yellow	19	39,303,775 TSS200	OpenSea	LGALS4	0.729	0.000	0.745	0.972
cg03613618	yellow	8	97,658,325 5'UTR	S_Shore	PGCP	0.729	0.006	0.503	0.391
cg02911957	yellow	2	206,647,218 Body	OpenSea	NRP2	0.729	0.001	0.938	0.913
cg00229508	yellow	15	76,019,993 3'UTR	OpenSea	ODF3L1	0.729	0.012	0.787	0.026
cg08877617	yellow	16	68,002,838 TSS1500	Island	SLC12A4	0.729	-0.001	0.022	0.710
cg17129576	yellow	17	27,508,027 TSS1500	S_Shore	MYO18A	0.729	0.011	0.688	0.243
cg21527370	yellow	6	109,750,590 Body	OpenSea	PPIL6	0.729	0.006	0.226	0.400
cg22164921	yellow	5	102,710,400	OpenSea		0.729	-0.014	0.484	0.455
cg02075791	yellow	10	93,174,498 Body	S_Shelf	LOC1001889-	0.729	0.007	0.555	0.366
cg13435834	yellow	7	1,123,508 Body	N_Shelf	C7orf50	0.729	0.007	0.502	0.437
cg22511321	yellow	22	38,013,333 Body	OpenSea	GGA1	0.729	-0.002	0.843	0.671
cg09353705	yellow	1	62,761,846 5'UTR	OpenSea	KANK4	0.729	0.013	0.043	0.126
cg09540738	yellow	8	81,080,281 Body	N_Shelf	TPD52	0.729	-0.002	0.612	0.852
cg01298120	yellow	11	2,499,341 Body	OpenSea	KCNQ1	0.729	0.010	0.768	0.459
cg20171624	yellow	2	12,907,910	OpenSea		0.729	0.005	0.803	0.606
cg13305444	yellow	1	225,838,196 Body	N_Shelf	ENAH	0.729	0.008	0.310	0.534
cg19236454	yellow	19	42,799,926 3'UTR	OpenSea	CIC	0.729	0.008	0.744	0.165
cg07824182	yellow	10	74,013,682	OpenSea		0.729	0.014	0.837	0.122
cg02575768	yellow	6	41,073,142 Body	S_Shelf	LOC221442	0.729	0.005	0.850	0.569
cg10143731	yellow	1	171,453,943 TSS1500	N_Shore	BAT2L2	0.729	-0.004	0.909	0.656
cg11953516	yellow	2	27,719,501 TSS1500	S_Shore	FNDC4	0.729	-0.002	0.698	0.802
cg19213675	yellow	11	214,949 3'UTR	OpenSea	RIC8A	0.729	-0.001	0.818	0.813
cg00709775	yellow	3	10,369,677 3'UTR	N_Shore	ATP2B2	0.729	0.013	0.439	0.079
cg00563348	yellow	15	41,184,109	N_Shelf		0.729	-0.003	0.259	0.742
cg05668613	yellow	11	6,416,634 3'UTR	OpenSea	APBB1	0.728	0.011	0.538	0.056
cg03188495	yellow	19	3,136,515 1stExon	OpenSea	GNA15	0.728	0.008	0.624	0.236
cg07147033	yellow	1	1,549,615 TSS1500	N_Shore	MIB2	0.728	0.002	0.540	0.879
cg27345111	yellow	17	80,796,743 Body	OpenSea	TBCD	0.728	0.001	0.897	0.911
cg23817292	yellow	21	30,442,054 Body	N_Shelf	CCT8	0.728	-0.004	0.950	0.303
cg25076881	yellow	1	159,409,836 1stExon	OpenSea	OR10J1	0.728	0.002	0.542	0.791
cg02026611	yellow	16	2,826,048 Body	N_Shore	TCEB2	0.728	0.006	0.608	0.333
cg24295300	yellow	19	4,043,300	N_Shore		0.728	0.004	0.942	0.557
cg18255663	yellow	11	68,971,452	OpenSea		0.728	0.016	0.562	0.006
cg26037504	yellow	12	56,113,808 TSS1500	S_Shelf	RDH5	0.728	0.012	0.616	0.128
cg21363348	yellow	7	134,832,221 TSS1500	OpenSea	TMEM140	0.728	0.010	0.401	0.241
cg18295744	yellow	10	80,872,926 5'UTR	OpenSea	ZMIZ1	0.728	0.008	0.653	0.240
cg15935121	yellow	1	2,230,601 Body	N_Shore	SKI	0.728	0.007	0.553	0.282
cg03852963	yellow	16	89,557,923 TSS1500	S_Shore	ANKRD11	0.728	0.000	0.060	0.928
cg26430305	yellow	1	207,277,581 TSS200	OpenSea	C4BPA	0.728	0.004	0.605	0.581
cg19280540	yellow	19	16,553,711 Body	OpenSea	EPS15L1	0.728	0.003	0.118	0.693
cg14669921	yellow	2	54,015,318 Body	S_Shore	LOC1003026-	0.728	-0.001	0.871	0.852
cg00220335	yellow	5	1,343,783 Body	N_Shore	CLPTM1L	0.728	-0.014	0.643	0.279
cg12560128	yellow	12	113,416,061 TSS1500	OpenSea	OAS2	0.728	0.007	0.727	0.320

cg08551615	yellow	17	47,533,703	OpenSea		0.728	-0.002	0.309	0.662
cg15200418	yellow	7	4,755,010 Body	N_Shelf	FOXX1	0.728	0.001	0.262	0.891
cg26941291	yellow	5	6,711,100	N_Shore		0.728	-0.006	0.589	0.381
cg05509753	yellow	16	31,482,618 TSS1500	N_Shore	TGFB11	0.728	0.013	0.511	0.050
cg17786129	yellow	10	79,239,764 Body	OpenSea	KCNMA1	0.728	-0.005	0.758	0.345
cg22550847	yellow	4	79,240,082 Body	OpenSea	FRAS1	0.728	0.003	0.838	0.754
cg19617213	yellow	19	1,074,926 Body	Island	HMHA1	0.728	0.012	0.636	0.207
cg25664021	yellow	12	57,595,357 Body	N_Shore	LRP1	0.728	0.001	0.678	0.885
cg15638366	yellow	2	173,313,454 Body	OpenSea	ITGA6	0.728	0.016	0.656	0.167
cg06796271	yellow	20	42,187,587 TSS200	OpenSea	SGK2	0.728	0.005	0.687	0.489
cg13415850	yellow	2	73,459,842 Body	N_Shore	C2orf7	0.728	0.007	0.201	0.285
cg19223129	yellow	4	7,052,403 Body	Island	TADA2B	0.728	0.002	0.922	0.630
cg07055259	yellow	2	236,300,855	OpenSea		0.728	0.002	0.935	0.852
cg07294814	yellow	8	144,348,648 TSS1500	N_Shore	GLI4	0.728	0.013	0.262	0.275
cg04548002	yellow	14	100,614,449 Body	N_Shore	DEGS2	0.728	0.007	0.686	0.322
cg00352780	yellow	20	33,544,183 TSS1500	S_Shore	GSS	0.728	-0.002	0.277	0.810
cg01134794	yellow	4	78,529,898 Body	OpenSea	CXCL13	0.728	0.001	0.835	0.946
cg25377483	yellow	5	73,978,496	N_Shelf		0.728	0.000	0.757	0.968
cg19606153	yellow	3	42,733,759 3'UTR	OpenSea	KBTBD5	0.728	-0.003	0.587	0.735
cg04794141	yellow	14	92,325,159 5'UTR	OpenSea	TC2N	0.728	0.008	0.398	0.402
cg07204711	yellow	17	74,001,139 Body	N_Shelf	CDK3	0.728	0.005	0.899	0.538
cg04595479	yellow	10	93,150,018 Body	OpenSea	LOC1001889	0.728	0.009	0.631	0.526
cg20698667	yellow	1	218,523,325 Body	S_Shelf	TGFB2	0.728	0.003	0.361	0.798
cg02294870	yellow	17	41,479,663	S_Shelf		0.728	0.000	0.829	0.939
cg22475071	yellow	3	64,338,594	OpenSea		0.728	0.009	0.666	0.440
cg11554605	yellow	7	95,115,354 1stExon	OpenSea	ASB4	0.728	0.004	0.872	0.640
cg14694622	yellow	3	171,836,486 Body	OpenSea	FND3B	0.728	-0.007	0.921	0.156
cg09753772	yellow	2	3,633,407	OpenSea		0.728	-0.004	0.150	0.741
cg20998435	yellow	6	33,256,377 TSS1500	N_Shore	PFDN6	0.728	-0.006	0.145	0.313
cg16501235	yellow	1	150,245,988 Body	OpenSea	C1orf54	0.728	0.004	0.695	0.541
cg11984608	yellow	3	190,105,555 TSS1500	OpenSea	CLDN16	0.728	-0.007	0.824	0.446
cg14787880	yellow	2	203,244,123 Body	S_Shore	BMP2	0.728	0.010	0.102	0.241
cg23031484	yellow	1	11,936,586	OpenSea		0.728	-0.011	0.572	0.647
cg19352832	yellow	8	42,608,976 Body	OpenSea	CHRNA6	0.728	-0.004	0.748	0.563
cg00863397	yellow	16	67,215,239 5'UTR	N_Shelf	KIAA0895L	0.728	0.004	0.809	0.641
cg25105578	yellow	6	147,973,101	OpenSea		0.728	0.011	0.844	0.432
cg13336485	yellow	6	32,172,007 Body	OpenSea	NOTCH4	0.728	0.002	0.794	0.792
cg24501381	yellow	1	43,001,072 5'UTR	OpenSea	CCDC30	0.727	0.005	0.778	0.590
cg04100971	yellow	11	112,035,679 TSS1500	OpenSea	IL18	0.727	0.006	0.771	0.575
cg10037913	yellow	16	27,246,970 Body	OpenSea	NSMCE1	0.727	0.001	0.427	0.876
cg08389686	yellow	5	179,763,678 Body	OpenSea	GFPT2	0.727	0.004	0.781	0.343
cg18485530	yellow	13	59,547,037	OpenSea		0.727	0.007	0.680	0.567
cg17746316	yellow	2	9,401,362 Body	OpenSea	ASAP2	0.727	0.005	0.769	0.737
cg04596060	yellow	12	114,404,600 TSS1500	S_Shore	RBM19	0.727	0.001	0.041	0.612
cg04972979	yellow	20	749,148 1stExon	OpenSea	C2orf54	0.727	-0.003	0.563	0.689
cg16363985	yellow	2	3,604,987 Body	N_Shore	RNASEH1	0.727	0.008	0.272	0.332
cg13610138	yellow	12	59,281,920 Body	OpenSea	LRIG3	0.727	0.030	0.708	0.045
cg01695279	yellow	15	83,733,816 Body	N_Shore	BTBD1	0.727	0.002	0.622	0.755
cg23162647	yellow	11	11,994,913 Body	OpenSea	DKK3	0.727	0.001	0.614	0.914
cg04811205	yellow	2	55,563,533 Body	OpenSea	CCDC88A	0.727	-0.006	0.829	0.532
cg20803910	yellow	17	6,659,375 5'UTR	OpenSea	XAF1	0.727	0.007	0.538	0.625
cg02583589	yellow	3	19,791,456	OpenSea		0.727	0.002	0.772	0.784
cg09333325	yellow	14	104,611,819 Body	OpenSea	KIF26A	0.727	0.001	0.832	0.825
cg19693031	yellow	1	145,441,552 3'UTR	OpenSea	TXNIP	0.727	-0.004	0.935	0.445
cg04043623	yellow	20	32,891,984 5'UTR	S_Shore	AHCY	0.727	-0.002	0.888	0.755
cg25049162	yellow	3	42,700,354 Body	Island	ZBTB47	0.727	0.014	0.820	0.065
cg25406011	yellow	11	1,254,421 Body	Island	MUC5B	0.727	0.009	0.788	0.101
cg04211309	yellow	16	58,056,296	N_Shelf		0.727	0.009	0.664	0.254
cg02726819	yellow	7	158,800,869 TSS200	S_Shore	LOC154822	0.727	0.010	0.613	0.166
cg16754455	yellow	6	12,196,694	OpenSea		0.727	0.010	0.843	0.271
cg16174681	yellow	5	108,220,453 Body	OpenSea	FER	0.727	-0.001	0.403	0.869
cg06242879	yellow	12	56,497,745 TSS1500	N_Shore	PA2G4	0.727	-0.003	0.089	0.541
cg05132222	yellow	15	41,304,870 Body	OpenSea	INO80	0.727	-0.009	0.679	0.236
cg00170236	yellow	7	99,691,604 TSS1500	OpenSea	MIR25	0.727	0.005	0.768	0.408
cg14125003	yellow	11	67,978,396 5'UTR	N_Shore	SUV420H1	0.727	-0.001	0.893	0.917
cg25102206	yellow	14	75,897,342 5'UTR	S_Shore	JDP2	0.727	0.002	0.502	0.624
cg17696566	yellow	8	142,356,693	OpenSea		0.727	0.000	0.591	0.997

cg06806862	yellow	3	184,934,396	Body	OpenSea	EHHADH	0.727	0.019	0.569	0.029
cg07757535	yellow	4	1,339,547		N_Shore		0.727	0.011	0.243	0.387
cg20260841	yellow	4	56,420,110		OpenSea		0.727	-0.006	0.385	0.431
cg05504759	yellow	3	52,087,583	Body	N_Shelf	DUSP7	0.727	0.005	0.420	0.424
cg21843586	yellow	11	2,397,201	TSS1500	N_Shore	CD81	0.727	0.012	0.614	0.149
cg03847348	yellow	1	2,413,705	Body	N_Shore	PLCH2	0.727	-0.013	0.770	0.170
cg08770935	yellow	17	17,255,562		OpenSea		0.727	0.011	0.629	0.130
cg09501509	yellow	6	89,745,356		OpenSea		0.727	0.004	0.554	0.638
cg09168222	yellow	4	89,299,733	TSS200	N_Shore	HERC6	0.727	0.006	0.815	0.449
cg11154879	yellow	20	61,001,775	5'UTR	OpenSea	C20orf151	0.727	0.004	0.722	0.537
cg11151193	yellow	5	134,990,806	TSS1500	OpenSea	LOC340074	0.727	0.000	0.843	0.984
cg03599891	yellow	17	42,577,982	Body	N_Shelf	GPATCH8	0.727	0.013	0.662	0.209
cg23753351	yellow	4	40,860,327	Body	S_Shore	APBB2	0.727	-0.012	0.846	0.272
cg23474723	yellow	12	44,153,746	5'UTR	S_Shore	IRAK4	0.727	0.003	0.839	0.666
cg08363193	yellow	10	89,690,234	Body	OpenSea	PTEN	0.727	-0.003	0.891	0.659
cg01455398	yellow	17	77,200,481	5'UTR	OpenSea	HRNBP3	0.727	-0.003	0.516	0.625
cg12232903	yellow	4	10,686,413	TSS200	OpenSea	CLNK	0.727	0.001	0.718	0.855
cg15034393	yellow	3	152,856,773		OpenSea		0.727	0.004	0.637	0.629
cg05084525	yellow	8	130,389,960		OpenSea		0.727	-0.014	0.762	0.173
cg24345747	yellow	2	87,015,813	Body	N_Shore	CD8A	0.727	0.010	0.287	0.273
cg24142894	yellow	15	97,322,434		OpenSea		0.727	0.000	0.451	0.951
cg26471398	yellow	8	141,287,030	Body	OpenSea	TRAPPC9	0.727	-0.009	0.620	0.125
cg02482497	yellow	1	153,610,672	Body	S_Shelf	C1orf77	0.727	-0.006	0.886	0.489
cg20018253	yellow	14	94,346,104		OpenSea		0.727	0.005	0.233	0.535
cg14700524	yellow	10	3,282,231		OpenSea		0.727	0.004	0.906	0.462
cg14543285	yellow	14	103,129,037	Body	OpenSea	RCOR1	0.727	0.008	0.545	0.577
cg02758674	yellow	11	33,795,236	Body	N_Shore	FBXO3	0.726	0.003	0.067	0.606
cg15672749	yellow	17	56,297,193	TSS1500	S_Shore	MKS1	0.726	-0.003	0.431	0.767
cg04703800	yellow	6	56,956,578	Body	S_Shore	ZNF451	0.726	0.003	0.637	0.688
cg17392018	yellow	7	134,590,119	Body	OpenSea	CALD1	0.726	0.013	0.728	0.224
cg08822523	yellow	4	91,156,290	5'UTR	OpenSea	FAM190A	0.726	0.009	0.295	0.372
cg04553960	yellow	2	241,721,320	Body	Island	KIF1A	0.726	0.005	0.601	0.235
cg12978800	yellow	7	151,403,164	Body	OpenSea	PRKAG2	0.726	0.008	0.444	0.283
cg27640078	yellow	4	156,875,661	TSS1500	S_Shore	CTSO	0.726	0.005	0.873	0.662
cg11391618	yellow	17	69,324,042		OpenSea		0.726	0.010	0.711	0.384
cg14414406	yellow	9	100,326,029	Body	OpenSea	TMOD1	0.726	-0.003	0.693	0.697
cg02085891	yellow	1	9,256,865		N_Shore		0.726	0.005	0.046	0.236
cg11021222	yellow	12	97,300,417	TSS1500	N_Shore	NEDD1	0.726	0.001	0.739	0.916
cg08392746	yellow	7	105,134,734	Body	OpenSea	PUS7	0.726	0.006	0.806	0.478
cg25236791	yellow	3	52,302,252	Body	OpenSea	WDR82	0.726	0.003	0.936	0.583
cg02005758	yellow	3	128,454,730	5'UTR	OpenSea	RAB7A	0.726	-0.006	0.642	0.533
cg00502017	yellow	15	90,068,229	TSS1500	OpenSea	LOC283761	0.726	0.010	0.693	0.154
cg12070987	yellow	11	67,804,055	Body	N_Shelf	NDUFS8	0.726	0.001	0.938	0.815
cg01909856	yellow	9	139,438,290	Body	N_Shore	NOTCH1	0.726	0.008	0.481	0.189
cg26608663	yellow	16	4,007,772		OpenSea		0.726	0.021	0.536	0.005
cg13550401	yellow	7	2,288,716	Body	OpenSea	NUDT1	0.726	0.006	0.758	0.666
cg26433640	yellow	10	12,762,778	Body	OpenSea	CAMK1D	0.726	0.004	0.321	0.795
cg03447880	yellow	7	31,121,827	Body	OpenSea	ADCYAP1R1	0.726	0.009	0.625	0.206
cg03014427	yellow	14	45,552,678	TSS1500	N_Shore	PRPF39	0.726	-0.002	0.706	0.798
cg07178278	yellow	16	73,266,047		OpenSea		0.726	0.012	0.867	0.237
cg00695982	yellow	8	64,210,438		OpenSea		0.726	0.000	0.630	0.982
cg09653364	yellow	5	1,144,377		OpenSea		0.726	-0.011	0.918	0.207
cg12233232	yellow	11	43,379,844	TSS1500	N_Shore	TTC17	0.726	0.028	0.552	0.040
cg02099572	yellow	13	110,885,345	Body	OpenSea	COL4A1	0.726	0.017	0.582	0.210
cg18704047	yellow	5	59,783,668	TSS200	OpenSea	PART1	0.726	-0.006	0.126	0.614
cg06652210	yellow	17	1,944,594	TSS1500	N_Shore	OVCA2	0.726	0.005	0.672	0.446
cg26215982	yellow	12	4,915,878		N_Shelf		0.726	0.011	0.604	0.148
cg11124652	yellow	2	62,462,782		OpenSea		0.726	-0.009	0.781	0.181
cg12855547	yellow	5	112,824,700	TSS200	S_Shore	MCC	0.726	0.008	0.476	0.396
cg16749930	yellow	11	71,709,978	TSS1500	OpenSea	IL18BP	0.726	0.001	0.609	0.922
cg13520770	yellow	11	3,117,181	Body	S_Shelf	OSBPL5	0.726	0.010	0.651	0.278
cg25189904	yellow	1	68,299,493	TSS1500	S_Shore	GNL12	0.726	0.012	0.180	0.194
cg00293644	yellow	1	32,674,341	TSS1500	S_Shelf	DCDC2B	0.726	0.007	0.865	0.217
cg18747742	yellow	6	19,180,751		OpenSea		0.726	0.002	0.670	0.893
cg16581097	yellow	17	31,204,643	TSS1500	S_Shore	MYO1D	0.726	-0.002	0.160	0.729
cg21095280	yellow	6	36,724,036	Body	OpenSea	CPNE5	0.726	0.004	0.758	0.621
cg00168191	yellow	19	3,097,565	Body	Island	GNA11	0.726	0.001	0.845	0.884

cg14145159	yellow	8	22,855,652	Body	N_Shore	RHOBTB2	0.726	-0.004	0.705	0.612
cg17326451	yellow	7	86,975,534	5'UTR	S_Shore	CROT	0.726	0.011	0.555	0.254
cg12585028	yellow	12	25,347,695	TSS1500	N_Shore	LYRM5	0.726	0.010	0.061	0.107
cg03068843	yellow	8	12,985,953	Body	N_Shelf	DLC1	0.726	-0.010	0.738	0.199
cg13263057	yellow	2	68,357,899	3'UTR	OpenSea	WDR92	0.726	0.001	0.931	0.904
cg03183451	yellow	2	46,220,673	Body	OpenSea	PRKCE	0.725	-0.002	0.079	0.652
cg10284755	yellow	14	97,081,899		OpenSea		0.725	0.010	0.793	0.207
cg07667327	yellow	3	119,911,457	Body	OpenSea	GPR156	0.725	-0.002	0.840	0.744
cg17317690	yellow	7	212,915	Body	OpenSea	FAM20C	0.725	0.008	0.855	0.531
cg21647278	yellow	2	207,026,795	Body	S_Shore	EEF1B2	0.725	0.004	0.789	0.683
cg15377887	yellow	21	42,440,661		OpenSea		0.725	-0.001	0.833	0.899
cg02959609	yellow	1	151,693,503	TSS1500	N_Shore	C1orf230	0.725	0.007	0.244	0.352
cg14607755	yellow	9	139,962,279	Body	N_Shore	C9orf140	0.725	0.000	0.201	0.975
cg11719157	yellow	17	1,466,715	TSS1500	S_Shore	PITPNA	0.725	0.007	0.755	0.505
cg23448998	yellow	17	17,110,353	TSS1500	S_Shore	PLD6	0.725	0.003	0.460	0.707
cg21296602	yellow	11	93,476,060	TSS1500	S_Shore	TAF1D	0.725	-0.012	0.900	0.056
cg27597473	yellow	6	32,172,013	Body	OpenSea	NOTCH4	0.725	-0.001	0.698	0.788
cg14820927	yellow	18	34,408,166	Body	N_Shore	C18orf10	0.725	0.004	0.038	0.103
cg07600721	yellow	11	74,129,169		OpenSea		0.725	-0.007	0.894	0.299
cg08556107	yellow	5	429,891	Body	OpenSea	AHRR	0.725	0.009	0.577	0.265
cg05061769	yellow	15	59,700,360		OpenSea		0.725	-0.001	0.802	0.953
cg19063768	yellow	20	25,392,112	Body	S_Shelf	GINS1	0.725	0.008	0.894	0.233
cg15169266	yellow	7	41,376,887		OpenSea		0.725	-0.032	0.723	0.009
cg04202957	yellow	2	207,023,158	TSS1500	N_Shore	EEF1B2	0.725	0.016	0.164	0.116
cg07435275	yellow	5	72,471,841		OpenSea		0.725	0.008	0.623	0.139
cg14727763	yellow	10	78,961,643	Body	OpenSea	KCNMA1	0.725	-0.015	0.192	0.303
cg16389386	yellow	7	154,704,574		N_Shore		0.725	0.007	0.335	0.420
cg04055874	yellow	17	16,282,434		N_Shore		0.725	0.003	0.882	0.715
cg15642933	yellow	1	179,557,780		N_Shelf		0.725	0.004	0.808	0.560
cg13835029	yellow	14	24,664,216	Body	N_Shore	TM9SF1	0.725	-0.002	0.675	0.858
cg26288715	yellow	6	135,506,834	Body	S_Shelf	MYB	0.725	0.019	0.660	0.049
cg00606396	yellow	5	19,531,574	Body	OpenSea	CDH18	0.725	0.005	0.847	0.584
cg14326991	yellow	6	46,889,760	TSS200	OpenSea	GPR116	0.725	-0.004	0.589	0.458
cg01425188	yellow	8	28,479,277		N_Shore		0.725	-0.001	0.905	0.835
cg20830848	yellow	7	134,853,645	Body	N_Shore	C7orf49	0.725	-0.001	0.849	0.855
cg20039211	yellow	7	142,548,670		N_Shelf		0.725	-0.001	0.642	0.918
cg15910502	yellow	3	20,085,136	Body	S_Shelf	KAT2B	0.725	0.029	0.391	0.023
cg04741284	yellow	20	56,324,226		Island		0.725	0.032	0.213	0.023
cg19166799	yellow	10	88,658,528	Body	OpenSea	BMPRI1A	0.725	0.001	0.552	0.905
cg05570237	yellow	21	27,934,499	Body	OpenSea	CYR1	0.725	-0.012	0.916	0.144
cg13002506	yellow	11	76,998,821	TSS1500	OpenSea	GDPD4	0.725	0.003	0.822	0.719
cg12731010	yellow	2	218,755,486	Body	OpenSea	TNS1	0.725	-0.001	0.941	0.749
cg17638160	yellow	5	177,942,470	Body	N_Shelf	COL23A1	0.725	0.001	0.741	0.903
cg05544715	yellow	2	1,426,301	Body	OpenSea	TPO	0.725	-0.002	0.843	0.844
cg04503570	yellow	1	226,897,117	Body	OpenSea	ITPKB	0.725	0.002	0.630	0.784
cg13978689	yellow	1	160,549,261	TSS200	OpenSea	CD84	0.725	0.004	0.809	0.683
cg17011964	yellow	13	107,142,673	3'UTR	N_Shelf	EFNB2	0.725	0.003	0.490	0.790
cg15447231	yellow	1	101,537,255		OpenSea		0.725	0.004	0.625	0.747
cg18618429	yellow	3	122,043,865	TSS200	OpenSea	CSTA	0.725	0.002	0.533	0.877
cg02817981	yellow	2	198,379,881	TSS1500	N_Shore	MOBKL3	0.725	0.001	0.151	0.953
cg15847527	yellow	7	47,611,885		OpenSea		0.725	0.020	0.331	0.075
cg12773030	yellow	7	30,543,611	Body	N_Shore	GGCT	0.725	0.006	0.192	0.498
cg07730301	yellow	11	67,777,952	5'UTR	OpenSea	ALDH3B1	0.725	0.009	0.367	0.210
cg12992112	yellow	6	25,138,632	TSS200	N_Shore	CMAH	0.725	-0.019	0.299	0.334
cg27217148	yellow	10	105,111,158	TSS1500	S_Shore	PCGF6	0.725	-0.002	0.500	0.739
cg11447922	yellow	17	78,161,572	Body	N_Shelf	CARD14	0.725	-0.004	0.203	0.600
cg21829239	yellow	1	160,608,184	Body	OpenSea	SLAMF1	0.725	0.001	0.663	0.843
cg00549433	yellow	2	15,700,282	Body	N_Shore	NBAS	0.725	0.003	0.056	0.534
cg05978306	yellow	17	1,373,774	Body	N_Shore	MYO1C	0.725	0.003	0.824	0.625
cg25282976	yellow	17	79,005,047	Body	N_Shore	FLJ90757	0.725	0.012	0.563	0.080
cg04556418	yellow	4	184,367,379	Body	S_Shore	CDKN2AIP	0.725	0.004	0.801	0.635
cg09443388	yellow	8	56,131,518	Body	OpenSea	XKR4	0.725	0.009	0.771	0.457
cg16094145	yellow	12	719,491	Body	S_Shore	NINJ2	0.724	0.008	0.469	0.158
cg05436007	yellow	6	147,213,060		OpenSea		0.724	0.009	0.552	0.326
cg24375626	yellow	1	182,098,716		OpenSea		0.724	0.001	0.760	0.844
cg10158774	yellow	7	30,015,780	5'UTR	OpenSea	SCRN1	0.724	-0.005	0.953	0.286
cg26988016	yellow	19	10,612,802	5'UTR	N_Shore	KEAP1	0.724	0.000	0.054	0.941

cg24051943	yellow	6	31,870,891	TSS1500	S_Shore	ZBTB12	0.724	0.011	0.543	0.174
cg13707025	yellow	14	88,789,044	Body	N_Shore	KCNK10	0.724	0.001	0.078	0.897
cg15475650	yellow	10	120,938,899	TSS1500	S_Shore	PRDX3	0.724	-0.004	0.244	0.754
cg20356482	yellow	9	97,356,092	TSS200	OpenSea	FBP2	0.724	0.020	0.417	0.010
cg24498180	yellow	1	47,137,226	TSS1500	S_Shelf	C1orf223	0.724	0.003	0.876	0.691
cg05203217	yellow	20	43,730,072	TSS1500	S_Shore	KCNS1	0.724	0.004	0.452	0.702
cg00043800	yellow	2	74,612,144	TSS1500	OpenSea	LOC1001895	0.724	0.009	0.611	0.149
cg08421478	yellow	13	22,666,424		OpenSea		0.724	-0.010	0.854	0.329
cg18624544	yellow	14	21,567,646	5'UTR	S_Shore	ZNF219	0.724	0.010	0.155	0.156
cg23627083	yellow	2	171,787,727	Body	S_Shore	GORASP2	0.724	-0.003	0.910	0.584
cg12884495	yellow	17	73,842,017	3'UTR	OpenSea	WBP2	0.724	0.007	0.568	0.430
cg07236076	yellow	6	34,662,875	Body	N_Shore	C6orf106	0.724	0.003	0.836	0.765
cg01810953	yellow	1	68,150,400	TSS1500	N_Shore	GADD45A	0.724	0.000	0.048	0.944
cg17422176	yellow	10	73,497,772	TSS200	OpenSea	C10orf105	0.724	0.002	0.583	0.895
cg14410557	yellow	9	138,221,097		OpenSea		0.724	0.006	0.657	0.287
cg15067827	yellow	1	184,722,970	Body	N_Shore	EDEM3	0.724	0.008	0.105	0.371
cg14856679	yellow	22	42,086,191	TSS1500	S_Shore	C22orf46	0.724	0.005	0.071	0.534
cg03533141	yellow	1	45,243,518	Body	S_Shore	SNORD38A	0.724	-0.004	0.412	0.603
cg19502050	yellow	13	106,644,047		OpenSea		0.724	0.013	0.430	0.084
cg09480855	yellow	16	11,835,468	Body	N_Shore	TXNDC11	0.724	0.012	0.310	0.227
cg15972506	yellow	3	11,079,298	3'UTR	OpenSea	SLC6A1	0.724	0.009	0.638	0.178
cg08461352	yellow	8	58,910,391	5'UTR	S_Shelf	FAM110B	0.724	0.011	0.502	0.313
cg15377152	yellow	2	29,344,035	5'UTR	OpenSea	CLIP4	0.724	0.000	0.803	0.993
cg25091228	yellow	5	67,586,433	TSS200	S_Shore	PIK3R1	0.724	0.005	0.653	0.625
cg02350039	yellow	6	138,813,263	Body	OpenSea	NHSL1	0.724	-0.006	0.752	0.568
cg13957558	yellow	19	11,435,095	Body	OpenSea	TSPAN16	0.724	0.001	0.230	0.979
cg19747195	yellow	12	8,834,135		OpenSea		0.724	0.006	0.135	0.422
cg23878404	yellow	17	39,183,475	TSS200	OpenSea	KRTAP1-5	0.724	0.007	0.470	0.531
cg02652597	yellow	2	85,811,292	TSS1500	N_Shore	VAMP5	0.724	0.005	0.285	0.386
cg18951718	yellow	12	6,745,343	TSS200	OpenSea	LPAR5	0.724	0.015	0.495	0.043
cg06730718	yellow	16	50,186,224	TSS1500	OpenSea	PAPD5	0.724	0.001	0.080	0.917
cg21844669	yellow	12	119,771,135	TSS1500	N_Shore	CCDC60	0.724	0.010	0.817	0.321
cg19573166	yellow	14	23,822,408	TSS1500	S_Shore	SLC22A17	0.724	0.003	0.152	0.693
cg19674178	yellow	15	49,752,768	Body	OpenSea	FGF7	0.724	0.005	0.855	0.683
cg24259363	yellow	3	8,525,217		OpenSea		0.724	0.002	0.037	0.762
cg10126234	yellow	14	104,195,533	Body	S_Shore	ZFYVE21	0.724	-0.002	0.653	0.824
cg09752271	yellow	11	125,658,038	1stExon	OpenSea	PATE3	0.724	-0.002	0.733	0.712
cg08035694	yellow	1	192,921,988		OpenSea		0.724	0.002	0.806	0.851
cg02979487	yellow	4	88,014,081	Body	OpenSea	AFF1	0.724	-0.001	0.344	0.902
cg13382516	yellow	10	52,336,353	5'UTR	OpenSea	SGMS1	0.724	0.011	0.317	0.333
cg09627339	yellow	10	100,162,672	Body	OpenSea	PYROXD2	0.724	0.006	0.816	0.505
cg24567694	yellow	7	154,719,693	TSS1500	OpenSea	LOC1001327	0.724	0.012	0.408	0.424
cg11409081	yellow	6	36,568,488	Body	OpenSea	SFRS3	0.724	-0.005	0.959	0.158
cg06070644	yellow	4	25,677,759	Body	N_Shore	SLC34A2	0.724	0.006	0.853	0.344
cg02960016	yellow	3	11,192,067	5'UTR	N_Shelf	HRH1	0.723	-0.006	0.639	0.382
cg20099458	yellow	7	5,272,275	3'UTR	OpenSea	WIP1	0.723	0.005	0.640	0.553
cg11353300	yellow	2	101,889,668	TSS200	OpenSea	SNORD89	0.723	0.000	0.686	0.971
cg15728909	yellow	18	64,271,469	TSS1500	OpenSea	CDH19	0.723	0.018	0.686	0.202
cg07315493	yellow	16	1,608,794	Body	S_Shelf	IFT140	0.723	0.008	0.852	0.131
cg25692621	yellow	7	95,115,163	TSS200	OpenSea	ASB4	0.723	0.012	0.468	0.176
cg22606681	yellow	7	138,147,038	Body	S_Shore	TRIM24	0.723	0.004	0.670	0.728
cg01359165	yellow	15	102,033,014		S_Shelf		0.723	-0.009	0.827	0.305
cg01611223	yellow	2	27,630,550	Body	N_Shore	PPM1G	0.723	0.002	0.887	0.782
cg13770361	yellow	6	31,621,369	TSS1500	S_Shore	BAT3	0.723	0.011	0.194	0.175
cg07467649	yellow	7	72,856,462	3'UTR	OpenSea	BAZ1B	0.723	0.006	0.724	0.391
cg14174912	yellow	10	3,824,516	Body	S_Shore	KLF6	0.723	0.020	0.389	0.048
cg26952803	yellow	10	63,926,610		OpenSea		0.723	0.002	0.184	0.928
cg22804839	yellow	6	150,689,918	TSS200	OpenSea	IYD	0.723	0.019	0.678	0.023
cg12881321	yellow	3	160,822,268	5'UTR	N_Shore	B3GALNT1	0.723	0.003	0.253	0.799
cg26081974	yellow	13	114,065,897		N_Shore		0.723	0.008	0.605	0.509
cg22687766	yellow	1	207,490,952		N_Shelf		0.723	0.008	0.533	0.245
cg13236257	yellow	11	61,258,107	3'UTR	OpenSea	C11orf66	0.723	0.008	0.505	0.318
cg10447080	yellow	6	76,203,225	5'UTR	OpenSea	FILIP1	0.723	0.000	0.058	0.967
cg18422853	yellow	15	30,049,198	Body	OpenSea	TJP1	0.723	-0.001	0.920	0.942
cg11117438	yellow	7	1,239,811		OpenSea		0.723	-0.010	0.408	0.345
cg00199059	yellow	20	45,317,219	Body	N_Shore	TP53RK	0.723	0.000	0.421	0.983
cg13845561	yellow	9	71,631,514		S_Shelf		0.723	0.006	0.351	0.405

cg02284278	yellow	1	110,777,870	OpenSea		0.723	0.001	0.148	0.908
cg25641145	yellow	8	101,572,366 TSS1500	S_Shore	ANKRD46	0.723	0.004	0.578	0.580
cg16971889	yellow	20	5,584,138 Body	OpenSea	RP5-1022P6.	0.723	-0.002	0.708	0.767
cg22996783	yellow	11	69,213,768	OpenSea		0.723	0.002	0.739	0.806
cg19246761	yellow	1	1,549,799 TSS1500	N_Shore	MIB2	0.723	0.013	0.308	0.357
cg08846327	yellow	5	14,359,614 Body	OpenSea	TRIO	0.723	0.008	0.835	0.148
cg03517250	yellow	16	85,196,491	N_Shore		0.723	0.007	0.616	0.428
cg21920102	yellow	6	56,878,281 Body	OpenSea	BEND6	0.723	-0.003	0.931	0.681
cg20283505	yellow	1	175,490,611 5'UTR	OpenSea	TNR	0.723	0.007	0.574	0.350
cg00207428	yellow	16	2,031,785 TSS1500	N_Shore	NOXO1	0.723	0.012	0.628	0.373
cg08558886	yellow	2	151,469,837	OpenSea		0.723	-0.005	0.735	0.457
cg16992161	yellow	1	39,269,401	N_Shore		0.723	0.009	0.470	0.476
cg12094736	yellow	10	105,524,943 Body	OpenSea	SH3PXD2A	0.723	-0.001	0.784	0.845
cg12477452	yellow	3	11,237,939 5'UTR	OpenSea	HRH1	0.723	0.024	0.447	0.033
cg22313574	yellow	8	27,468,981 TSS200	N_Shelf	CLU	0.723	0.001	0.090	0.906
cg07562926	yellow	3	133,668,017 Body	OpenSea	SLCO2A1	0.723	0.004	0.750	0.508
cg16367606	yellow	16	71,893,832 Body	N_Shore	ATXN1L	0.723	0.001	0.793	0.815
cg10148280	yellow	3	148,846,750 TSS1500	N_Shore	HPS3	0.723	0.008	0.213	0.349
cg07144984	yellow	3	114,864,747 5'UTR	N_Shore	ZBTB20	0.723	0.012	0.383	0.491
cg20181739	yellow	2	109,907,962 Body	OpenSea	SH3RF3	0.723	0.007	0.888	0.406
cg16908948	yellow	10	45,500,256 3'UTR	S_Shelf	ZNF22	0.723	0.007	0.870	0.371
cg06122613	yellow	1	151,297,900 Body	N_Shelf	PI4KB	0.723	0.006	0.902	0.431
cg04546165	yellow	1	228,112,858 Body	N_Shore	WNT9A	0.723	0.014	0.805	0.181
cg07296926	yellow	2	223,989,054	OpenSea		0.722	0.006	0.674	0.464
cg19547694	yellow	22	50,174,005 Body	N_Shelf	BRD1	0.722	0.000	0.892	0.945
cg12447928	yellow	6	25,193,435	OpenSea		0.722	0.001	0.810	0.894
cg05261299	yellow	12	52,437,299	OpenSea		0.722	0.004	0.810	0.584
cg01771479	yellow	8	144,198,810	OpenSea		0.722	0.024	0.616	0.033
cg01501760	yellow	22	40,738,706	N_Shelf		0.722	0.006	0.473	0.426
cg20536794	yellow	5	153,921,858	OpenSea		0.722	0.012	0.675	0.200
cg01084990	yellow	16	65,105,581 5'UTR	OpenSea	CDH11	0.722	0.009	0.448	0.325
cg00952789	yellow	21	28,215,206 Body	N_Shore	ADAMTS1	0.722	-0.002	0.603	0.876
cg13753662	yellow	17	77,831,173	N_Shelf		0.722	-0.009	0.641	0.362
cg11991903	yellow	7	157,794,519 Body	OpenSea	PTPRN2	0.722	0.009	0.773	0.239
cg12580096	yellow	19	14,017,658 TSS1500	S_Shore	C19orf57	0.722	0.007	0.158	0.245
cg14269813	yellow	9	3,899,055 Body	OpenSea	GLIS3	0.722	-0.025	0.337	0.089
cg00093080	yellow	12	117,421,224 Body	OpenSea	FBXW8	0.722	0.025	0.656	0.130
cg03450593	yellow	15	55,968,870 Body	OpenSea	PRTG	0.722	0.003	0.601	0.785
cg12800266	yellow	6	37,225,002 TSS1500	N_Shore	TBC1D22B	0.722	0.020	0.260	0.095
cg05014245	yellow	10	82,172,262 5'UTR	S_Shelf	C10orf58	0.722	0.011	0.711	0.182
cg22713958	yellow	17	76,976,245 TSS200	OpenSea	LGALS3BP	0.722	0.008	0.343	0.531
cg07073120	yellow	17	79,994,884 Body	Island	DCXR	0.722	0.005	0.124	0.519
cg05818605	yellow	7	30,768,346	OpenSea		0.722	0.008	0.481	0.267
cg20254718	yellow	20	1,371,017 Body	N_Shelf	FKBP1A	0.722	-0.014	0.384	0.325
cg13993509	yellow	7	158,738,490 3'UTR	OpenSea	WDR60	0.722	0.003	0.952	0.644
cg13022534	yellow	5	171,831,028 Body	OpenSea	SH3PXD2B	0.722	0.020	0.738	0.083
cg12339425	yellow	7	133,438,515 Body	OpenSea	EXOC4	0.722	-0.001	0.944	0.891
cg00376910	yellow	15	89,765,061 TSS200	OpenSea	RLBP1	0.722	0.011	0.504	0.131
cg11465630	yellow	21	45,560,663 Body	Island	C21orf33	0.722	0.005	0.614	0.533
cg06254274	yellow	1	202,137,086 TSS200	OpenSea	PTPRV	0.722	0.005	0.519	0.612
cg11441704	yellow	21	45,145,759 Body	N_Shelf	PDXK	0.722	-0.002	0.300	0.821
cg23131909	yellow	2	219,267,443 Body	S_Shore	MIR26B	0.722	0.009	0.856	0.289
cg18412730	yellow	22	23,435,458 Body	N_Shelf	RTDR1	0.722	0.002	0.795	0.828
cg27168076	yellow	2	232,186,928 Body	OpenSea	ARMC9	0.722	0.013	0.626	0.115
cg17145652	yellow	8	42,750,650 5'UTR	N_Shore	RNF170	0.722	0.011	0.724	0.165
cg16688582	yellow	7	28,386,631 5'UTR	OpenSea	CREB5	0.722	0.019	0.583	0.126
cg14340196	yellow	7	94,045,777 Body	OpenSea	COL1A2	0.722	0.004	0.778	0.606
cg00972313	yellow	10	1,531,243 Body	OpenSea	ADARB2	0.722	0.003	0.707	0.771
cg25384556	yellow	13	112,633,175	S_Shelf		0.722	-0.018	0.510	0.315
cg22325673	yellow	4	6,377,625 Body	N_Shelf	PPP2R2C	0.722	0.003	0.682	0.743
cg08891382	yellow	5	82,848,792 Body	OpenSea	VCAN	0.722	0.007	0.400	0.714
cg10523000	yellow	1	118,198,739	OpenSea		0.722	-0.007	0.666	0.332
cg00754253	yellow	11	63,259,187 TSS1500	S_Shore	HRASLS5	0.722	0.013	0.396	0.350
cg01851672	yellow	5	54,829,607 Body	N_Shore	PPAP2A	0.722	0.009	0.142	0.376
cg19058262	yellow	19	1,231,292 Body	Island	C19orf26	0.722	0.013	0.912	0.148
cg14755831	yellow	22	19,279,882 TSS1500	S_Shore	CLTCL1	0.722	0.008	0.225	0.581
cg18121601	yellow	17	1,462,838 Body	N_Shelf	PITPNA	0.722	0.007	0.616	0.278

cg25105657	yellow	3	33,925,802	OpenSea		0.722	-0.001	0.645	0.885
cg04503319	yellow	16	89,368,367 Body	N_Shelf	ANKRD11	0.722	0.013	0.640	0.138
cg18649028	yellow	6	155,428,138 5'UTR	OpenSea	TIAM2	0.722	0.007	0.491	0.297
cg14701108	yellow	2	3,131,293	OpenSea		0.722	0.009	0.794	0.334
cg21178378	yellow	3	64,175,242 Body	OpenSea	PRICKLE2	0.722	0.007	0.531	0.438
cg25044876	yellow	22	43,041,146 5'UTR	N_Shelf	CY5R3	0.722	0.000	0.077	0.956
cg03433986	yellow	11	62,477,624 TSS1500	S_Shore	BSCL2	0.722	0.012	0.885	0.113
cg15539073	yellow	19	30,897,675 5'UTR	OpenSea	ZNF536	0.722	0.011	0.278	0.310
cg17231571	yellow	3	6,489,133	OpenSea		0.722	0.005	0.746	0.514
cg06966083	yellow	2	174,625,146	OpenSea		0.722	0.007	0.718	0.232
cg02512168	yellow	16	3,163,228 5'UTR	OpenSea	ZNF205	0.721	0.023	0.153	0.055
cg25925252	yellow	5	178,913,683	OpenSea		0.721	0.009	0.667	0.102
cg16880567	yellow	2	18,585,915	OpenSea		0.721	-0.008	0.910	0.258
cg21009972	yellow	17	42,925,127 TSS200	OpenSea	HIGD1B	0.721	0.015	0.667	0.177
cg00534624	yellow	16	1,845,096 TSS200	S_Shelf	IGFALS	0.721	0.009	0.817	0.303
cg07696006	yellow	15	74,528,563 TSS200	OpenSea	CCDC33	0.721	0.007	0.754	0.584
cg14982472	yellow	21	43,619,651 TSS1500	OpenSea	ABCG1	0.721	-0.002	0.573	0.766
cg20883194	yellow	12	45,801,769 Body	OpenSea	ANO6	0.721	0.002	0.758	0.876
cg04443360	yellow	7	50,633,211 TSS200	OpenSea	DDC	0.721	-0.016	0.549	0.101
cg07984358	yellow	10	24,704,829 Body	OpenSea	KIAA1217	0.721	0.009	0.124	0.030
cg12081946	yellow	13	21,296,465 3'UTR	S_Shore	IL17D	0.721	0.003	0.077	0.530
cg26328687	yellow	11	96,076,794 TSS1500	OpenSea	MAML2	0.721	0.008	0.726	0.281
cg21799270	yellow	5	133,985,246 Body	S_Shore	SEC24A	0.721	0.010	0.156	0.283
cg24355809	yellow	17	746,574 Body	S_Shore	NXN	0.721	0.024	0.606	0.101
cg17516945	yellow	8	38,088,501 TSS1500	N_Shore	DDHD2	0.721	0.001	0.022	0.426
cg13962589	yellow	9	131,647,126 5'UTR	S_Shelf	LRRC8A	0.721	-0.006	0.690	0.412
cg06711306	yellow	5	159,895,052	OpenSea		0.721	0.006	0.558	0.496
cg01708977	yellow	2	182,824,828	OpenSea		0.721	-0.005	0.754	0.651
cg06835483	yellow	17	7,991,103 TSS200	OpenSea	ALOX12B	0.721	0.004	0.383	0.555
cg19091784	yellow	3	48,507,618 5'UTR	OpenSea	TREX1	0.721	0.022	0.276	0.167
cg11637695	yellow	17	78,808,060 Body	OpenSea	RPTOR	0.721	0.020	0.775	0.093
cg18424776	yellow	19	8,456,316 Body	S_Shore	RAB11B	0.721	0.009	0.729	0.213
cg00035937	yellow	7	91,874,085 5'UTR	N_Shore	KRIT1	0.721	-0.001	0.621	0.934
cg26886572	yellow	11	3,009,206 5'UTR	N_Shelf	NAP1L4	0.721	-0.004	0.923	0.500
cg24013741	yellow	14	94,393,791 Body	OpenSea	FAM181A	0.721	0.008	0.655	0.260
cg19998073	yellow	14	89,078,443 3'UTR	OpenSea	ZC3H14	0.721	0.016	0.543	0.029
cg24105685	yellow	9	95,298,969 Body	OpenSea	CENPP	0.721	-0.004	0.821	0.819
cg13897388	yellow	9	77,282,233 Body	OpenSea	RORB	0.721	-0.002	0.544	0.822
cg10447615	yellow	1	109,506,805 TSS1500	S_Shore	CLCC1	0.721	0.009	0.745	0.408
cg01479396	yellow	17	7,529,693 Body	N_Shore	SHBG	0.721	0.004	0.807	0.628
cg04588708	yellow	16	811,078 TSS200	OpenSea	MSLN	0.721	0.003	0.804	0.788
cg25032321	yellow	13	99,227,533 Body	N_Shore	STK24	0.721	0.011	0.392	0.443
cg04258138	yellow	16	636,227	N_Shelf		0.721	0.015	0.588	0.163
cg19991948	yellow	10	121,335,173 3'UTR	OpenSea	TIAL1	0.721	0.008	0.852	0.349
cg27464846	yellow	16	88,268,600	S_Shore		0.721	-0.016	0.174	0.372
cg13291694	yellow	6	136,584,563 Body	OpenSea	BCLAF1	0.721	-0.001	0.888	0.871
cg22476252	yellow	17	80,087,405 Body	S_Shelf	CCDC57	0.721	0.007	0.730	0.319
cg04336561	yellow	7	157,548,939 Body	N_Shore	PTPRN2	0.721	-0.006	0.763	0.634
cg06092178	yellow	3	50,708,855	N_Shelf		0.721	0.000	0.632	0.955
cg06547984	yellow	19	1,280,841	Island		0.721	0.012	0.508	0.152
cg10655396	yellow	19	1,077,244 Body	N_Shelf	HMHA1	0.721	0.002	0.673	0.767
cg14145632	yellow	8	86,112,946 5'UTR	OpenSea	E2F5	0.721	0.012	0.814	0.198
cg07675656	yellow	16	2,105,015 Body	Island	TSC2	0.721	0.002	0.789	0.825
cg23227726	yellow	11	72,143,885 Body	N_Shore	CLPB	0.721	0.007	0.527	0.152
cg14536425	yellow	5	77,873,366 5'UTR	OpenSea	LHFPL2	0.721	-0.006	0.928	0.304
cg13464337	yellow	9	130,699,468 Body	N_Shore	DPM2	0.721	0.000	0.541	0.951
cg01129958	yellow	8	19,458,710 5'UTR	N_Shore	CSGALNACT1	0.721	-0.009	0.840	0.408
cg00636194	yellow	20	44,168,629 TSS1500	OpenSea	WFDC6	0.720	0.008	0.420	0.534
cg17349406	yellow	20	37,209,890 1stExon	OpenSea	ADIG	0.720	0.009	0.734	0.111
cg17603763	yellow	11	94,799,719 TSS1500	N_Shore	SFRS2B	0.720	0.002	0.656	0.838
cg23902454	yellow	15	30,098,131 Body	OpenSea	TJP1	0.720	0.005	0.786	0.611
cg09905635	yellow	7	47,525,243 5'UTR	OpenSea	TNS3	0.720	-0.002	0.400	0.834
cg07035046	yellow	9	79,791,064 TSS1500	N_Shore	VPS13A	0.720	0.001	0.928	0.937
cg18276135	yellow	11	194,498 3'UTR	OpenSea	LOC653486	0.720	0.009	0.738	0.135
cg14887099	yellow	13	51,060,599	OpenSea		0.720	0.005	0.506	0.695
cg06684503	yellow	17	36,873,584 Body	OpenSea	MLLT6	0.720	0.023	0.775	0.037
cg09490277	yellow	6	35,419,591 TSS1500	N_Shore	FANCE	0.720	0.004	0.266	0.605



cg19979108	yellow	5	171,870,875	Body	OpenSea	SH3PXD2B	0.720	-0.029	0.864	0.016
cg13429270	yellow	18	10,727,599	Body	S_Shore	FAM38B	0.720	0.005	0.599	0.655
cg13997788	yellow	2	46,593,223	Body	OpenSea	EPAS1	0.720	-0.004	0.676	0.680
cg17387577	yellow	12	124,864,657	Body	OpenSea	NCOR2	0.720	-0.004	0.145	0.569
cg04402693	yellow	4	87,710,183	Body	OpenSea	PTPN13	0.720	-0.003	0.869	0.595
cg03077492	yellow	5	43,413,095	TSS1500	OpenSea	CCL28	0.720	0.005	0.939	0.302
cg23089691	yellow	1	2,828,244		Island		0.720	0.008	0.606	0.341
cg16976499	yellow	6	76,330,505	Body	OpenSea	SENP6	0.720	0.015	0.744	0.105
cg00473639	yellow	11	126,861,050	Body	OpenSea	KIRREL3	0.720	0.001	0.740	0.843
cg00078245	yellow	12	53,579,063	Body	S_Shelf	ZNF740	0.720	-0.003	0.925	0.532
cg21899520	yellow	18	71,957,896	Body	N_Shore	CYB5A	0.720	-0.002	0.506	0.883
cg21122693	yellow	4	2,513,755	Body	OpenSea	RNF4	0.720	0.008	0.898	0.147
cg16083168	yellow	11	75,678,837	Body	OpenSea	UVRAG	0.720	0.003	0.921	0.679
cg00747975	yellow	14	77,333,987	Body	OpenSea	C14orf166B	0.720	0.013	0.569	0.226
cg08276042	yellow	16	2,740,348	Body	OpenSea	KCTD5	0.720	0.005	0.835	0.292
cg26798702	yellow	1	1,373,044	Body	N_Shore	VWA1	0.720	0.005	0.776	0.512
cg12488096	yellow	10	71,927,914	5'UTR	N_Shelf	SAR1A	0.720	0.001	0.871	0.862
cg13427748	yellow	15	70,767,649		OpenSea		0.720	0.015	0.677	0.219
cg06214007	yellow	1	89,829,308	TSS200	OpenSea	GBP6	0.720	-0.005	0.503	0.501
cg25331880	yellow	19	30,435,467	Body	S_Shore	C19orf2	0.720	0.005	0.750	0.472
cg26672202	yellow	11	77,941,180	Body	OpenSea	GAB2	0.720	0.008	0.507	0.521
cg11223252	yellow	2	86,851,318	TSS1500	S_Shore	RNF103	0.720	-0.003	0.102	0.616
cg02021127	yellow	9	130,691,409	Body	N_Shore	PIPSKL1	0.720	-0.006	0.568	0.377
cg05922429	yellow	12	7,077,914	Body	N_Shore	PHB2	0.720	-0.002	0.826	0.792
cg09143713	yellow	20	9,141,615	5'UTR	OpenSea	PLCB4	0.720	0.023	0.424	0.023
cg26849931	yellow	5	141,014,062	Body	N_Shelf	HDAC3	0.720	0.019	0.611	0.003
cg08834018	yellow	22	18,924,883	TSS1500	S_Shore	PRODH	0.720	0.018	0.729	0.008
cg06268398	yellow	3	197,236,638		OpenSea		0.720	0.007	0.370	0.234
cg18183618	yellow	3	170,894,132	Body	OpenSea	TNIK	0.720	-0.002	0.800	0.841
cg23259001	yellow	14	105,800,169	Body	S_Shelf	PACS2	0.720	0.001	0.744	0.798
cg01908020	yellow	15	45,494,784	TSS1500	S_Shelf	SHF	0.720	0.011	0.434	0.124
cg15414028	yellow	10	14,644,188	Body	N_Shore	FAM107B	0.720	0.006	0.571	0.342
cg02652125	yellow	6	99,857,406	Body	OpenSea	SFRS18	0.720	0.001	0.952	0.911
cg01325271	yellow	5	179,247,603	5'UTR	N_Shore	SQSTM1	0.720	-0.001	0.171	0.923
cg20702417	yellow	2	25,538,295	5'UTR	OpenSea	DNMT3A	0.720	0.001	0.810	0.924
cg01799856	yellow	17	37,794,335	5'UTR	S_Shore	STAR3D3	0.720	0.000	0.434	0.998
cg23266598	yellow	10	128,152,247	Body	OpenSea	C10orf90	0.720	0.002	0.387	0.702
cg20740299	yellow	5	179,048,527	Body	N_Shore	HNRNP11	0.720	0.005	0.098	0.532
cg22835712	yellow	2	102,737,379		OpenSea		0.720	0.007	0.734	0.620
cg16125397	yellow	14	35,021,983		N_Shelf		0.720	0.008	0.746	0.482
cg22608655	yellow	1	154,933,512	Body	N_Shore	PYGO2	0.720	0.010	0.317	0.104
cg25003147	yellow	1	9,187,683	Body	N_Shore	GPR157	0.720	0.002	0.302	0.860
cg04203702	yellow	4	11,369,349	TSS1500	N_Shore	MIR572	0.720	0.003	0.641	0.783
cg25598376	yellow	3	15,084,348	Body	OpenSea	NR2C2	0.720	-0.004	0.572	0.780
cg08752459	yellow	12	10,022,682	TSS1500	OpenSea	CLEC2B	0.720	0.014	0.647	0.301
cg19380361	yellow	15	85,290,890	TSS1500	N_Shore	ZNF592	0.720	0.009	0.229	0.303
cg11653675	yellow	2	46,811,648	3'UTR	OpenSea	RHOQ	0.720	0.005	0.837	0.576
cg12153422	yellow	14	75,075,712	Body	N_Shore	LTBP2	0.720	0.004	0.095	0.417
cg14453187	yellow	2	129,492,760		N_Shore		0.720	0.003	0.822	0.653
cg26841425	yellow	10	45,958,771	Body	OpenSea	8-Mar	0.719	0.006	0.925	0.250
cg25265360	yellow	6	32,081,789		OpenSea		0.719	0.002	0.282	0.667
cg22904406	yellow	6	33,288,296	Body	N_Shore	DAXX	0.719	0.021	0.742	0.172
cg25429672	yellow	11	73,692,155	5'UTR	N_Shore	UCP2	0.719	0.018	0.538	0.016
cg01878807	yellow	14	24,422,368	TSS1500	N_Shore	DHRS4	0.719	0.014	0.527	0.274
cg24342961	yellow	2	97,351,094	Body	OpenSea	FER1L5	0.719	0.006	0.098	0.556
cg06427867	yellow	21	31,588,661	TSS1500	OpenSea	CLDN8	0.719	-0.008	0.915	0.348
cg07776130	yellow	10	115,942,218	5'UTR	S_Shelf	TDRD1	0.719	0.004	0.895	0.653
cg26270847	yellow	2	224,743,324	3'UTR	OpenSea	WDFY1	0.719	0.005	0.832	0.458
cg07247610	yellow	1	9,097,422	3'UTR	N_Shore	SLC2A5	0.719	0.018	0.557	0.019
cg12045443	yellow	12	89,777,963		OpenSea		0.719	0.010	0.230	0.226
cg03441171	yellow	8	144,965,352		N_Shore		0.719	0.001	0.533	0.917
cg16238149	yellow	13	111,173,329		OpenSea		0.719	0.004	0.435	0.590
cg10441522	yellow	1	223,566,127	TSS1500	N_Shore	C1orf65	0.719	0.007	0.766	0.549
cg06879746	yellow	6	30,883,768	Body	S_Shore	VAR52	0.719	0.002	0.521	0.839
cg16151538	yellow	20	33,676,388	Body	N_Shelf	TRPC4AP	0.719	-0.006	0.786	0.454
cg15239888	yellow	19	7,996,745	Body	N_Shore	TIMM44	0.719	0.002	0.757	0.752
cg19500607	yellow	5	148,034,319	TSS1500	S_Shore	HTR4	0.719	0.001	0.806	0.926

cg09581611	yellow	16	67,978,158	3'UTR	OpenSea	SLC12A4	0.719	0.000	0.592	0.995
cg27388962	yellow	10	4,705,434	Body	OpenSea	LOC1002160	0.719	-0.006	0.136	0.371
cg20995172	yellow	6	31,627,225	1stExon	N_Shore	C6orf47	0.719	-0.003	0.740	0.728
cg07511409	yellow	5	159,733,301	Body	OpenSea	CCNJL	0.719	0.011	0.636	0.164
cg01295034	yellow	16	48,576,092	3'UTR	OpenSea	N4BP1	0.719	0.001	0.727	0.927
cg02390624	yellow	11	85,469,919	TSS1500	OpenSea	SYTL2	0.719	-0.001	0.804	0.863
cg04275847	yellow	10	126,105,697	5'UTR	N_Shore	OAT	0.719	0.011	0.827	0.357
cg02094283	yellow	11	114,165,695	TSS1500	OpenSea	NNMT	0.719	0.007	0.801	0.614
cg00019118	yellow	12	132,851,518	Body	N_Shelf	GALNT9	0.719	0.019	0.721	0.029
cg04323313	yellow	11	95,566,388	Body	OpenSea	MTMR2	0.719	-0.013	0.900	0.087
cg18193916	yellow	8	141,369,053	Body	OpenSea	TRAPPC9	0.719	0.005	0.789	0.470
cg16398581	yellow	1	59,986,591	Body	OpenSea	FGGY	0.719	0.004	0.591	0.716
cg22753382	yellow	4	3,660,005		OpenSea		0.719	0.001	0.511	0.917
cg02560081	yellow	7	842,128		OpenSea		0.719	0.003	0.342	0.782
cg06531671	yellow	17	58,498,466	TSS1500	N_Shore	C17orf64	0.719	0.000	0.045	0.940
cg21614723	yellow	17	55,213,563		OpenSea		0.719	0.011	0.580	0.100
cg17423650	yellow	1	185,218,725	Body	OpenSea	C1orf26	0.719	0.002	0.664	0.699
cg16563819	yellow	1	43,854,997	Body	N_Shore	MED8	0.719	0.006	0.083	0.165
cg13863153	yellow	21	39,628,679	5'UTR	OpenSea	KCNJ15	0.719	-0.006	0.785	0.428
cg18027174	yellow	3	119,298,236	TSS1500	N_Shore	ADPRH	0.719	0.004	0.173	0.540
cg03755566	yellow	10	90,695,563	Body	OpenSea	ACTA2	0.719	-0.001	0.602	0.958
cg08176258	yellow	7	1,938,450	Body	S_Shore	MAD1L1	0.719	0.003	0.945	0.522
cg06994022	yellow	18	45,660,070		N_Shelf		0.719	0.007	0.086	0.429
cg22450974	yellow	1	181,283,348		N_Shelf		0.719	-0.005	0.761	0.699
cg05537387	yellow	7	55,174,999	Body	OpenSea	EGFR	0.719	-0.003	0.842	0.790
cg02137183	yellow	7	141,250,424	TSS1500	N_Shore	AGK	0.719	0.003	0.417	0.662
cg12775137	yellow	6	45,608,797		OpenSea		0.719	0.008	0.831	0.230
cg01008154	yellow	1	46,509,395	Body	OpenSea	PIK3R3	0.719	0.007	0.533	0.400
cg22643740	yellow	22	37,640,514	TSS1500	OpenSea	RAC2	0.719	-0.001	0.269	0.901
cg26307814	yellow	1	9,787,215	3'UTR	N_Shelf	PIK3CD	0.719	0.015	0.360	0.194
cg15835542	yellow	6	45,709,808		OpenSea		0.719	0.008	0.242	0.462
cg09385032	yellow	19	32,252,709		OpenSea		0.719	0.005	0.933	0.256
cg17201542	yellow	3	122,818,413	Body	OpenSea	PDIA5	0.719	0.000	0.927	0.962
cg19360850	yellow	1	155,654,191	5'UTR	N_Shelf	YY1AP1	0.719	-0.007	0.925	0.133
cg24367777	yellow	10	6,828,769		OpenSea		0.719	0.017	0.516	0.296
cg10002850	yellow	7	55,089,770	Body	S_Shore	EGFR	0.719	-0.002	0.950	0.739
cg22230640	yellow	6	32,805,807	Body	N_Shore	TAP2	0.719	-0.006	0.067	0.252
cg14096415	yellow	2	235,891,856	5'UTR	OpenSea	SH3BP4	0.719	0.001	0.596	0.861
cg26552477	yellow	7	143,029		OpenSea		0.719	0.017	0.707	0.120
cg25414209	yellow	13	36,785,834	Body	N_Shelf	SOHLH2	0.718	0.011	0.593	0.168
cg16023337	yellow	17	39,662,206	TSS1500	OpenSea	KRT13	0.718	0.014	0.706	0.044
cg00873616	yellow	20	43,920,241		N_Shore		0.718	0.010	0.594	0.138
cg26322739	yellow	2	86,248,333	Body	OpenSea	LOC90784	0.718	-0.001	0.311	0.875
cg26976208	yellow	8	106,487,433	Body	OpenSea	ZFPM2	0.718	0.011	0.856	0.384
cg27201679	yellow	10	1,120,794	Body	OpenSea	WDR37	0.718	0.001	0.834	0.948
cg14096229	yellow	6	32,374,493	Body	OpenSea	BTNL2	0.718	0.017	0.668	0.237
cg13592947	yellow	5	1,111,049	Body	N_Shore	SLC12A7	0.718	0.003	0.340	0.694
cg09721078	yellow	17	29,140,180	Body	OpenSea	CRLF3	0.718	0.001	0.874	0.940
cg21246665	yellow	14	94,759,743	TSS1500	OpenSea	SERPINA10	0.718	0.005	0.680	0.533
cg22813798	yellow	7	100,484,748	Body	N_Shore	SRRT	0.718	0.008	0.782	0.268
cg24086068	yellow	4	77,356,008	TSS1500	OpenSea	SHROOM3	0.718	0.010	0.551	0.192
cg26883161	yellow	1	183,689,455	5'UTR	OpenSea	RGL1	0.718	0.017	0.624	0.229
cg03031182	yellow	21	46,948,702	Body	N_Shore	SLC19A1	0.718	0.001	0.801	0.900
cg27094846	yellow	14	57,548,155		OpenSea		0.718	-0.004	0.907	0.656
cg07832674	yellow	3	9,943,884	TSS1500	OpenSea	IL17RE	0.718	0.003	0.787	0.695
cg06601581	yellow	16	85,404,654		N_Shelf		0.718	0.007	0.405	0.436
cg05807291	yellow	13	95,131,809	1stExon	OpenSea	DCT	0.718	-0.003	0.833	0.790
cg16574310	yellow	16	811,013	TSS200	OpenSea	MSLN	0.718	0.004	0.405	0.560
cg17072087	yellow	12	123,350,673	3'UTR	N_Shore	VPS37B	0.718	0.000	0.793	0.977
cg10814646	yellow	21	38,117,644	3'UTR	N_Shelf	SIM2	0.718	0.004	0.679	0.546
cg12981876	yellow	7	100,279,795	Body	OpenSea	GIGYF1	0.718	0.010	0.730	0.111
cg09427417	yellow	12	112,194,570	3'UTR	OpenSea	ACAD10	0.718	0.008	0.893	0.233
cg17462438	yellow	1	174,864,228	Body	OpenSea	RABGAP1L	0.718	0.013	0.617	0.208
cg18106582	yellow	5	53,816,023	1stExon	S_Shore	SNX18	0.718	0.022	0.388	0.031
cg26804315	yellow	1	95,487,088	Body	OpenSea	ALG14	0.718	0.002	0.464	0.839
cg20677171	yellow	19	56,608,297	Body	N_Shore	ZNF787	0.718	-0.007	0.647	0.564
cg11289139	yellow	4	113,623,016		N_Shelf		0.718	0.000	0.629	0.999

cg26052635	yellow	2	29,339,307	5'UTR	S_Shore	CLIP4	0.718	0.003	0.651	0.835
cg11004117	yellow	3	128,295,084	TSS200	OpenSea	C3orf27	0.718	0.006	0.781	0.148
cg21451998	yellow	1	110,198,240	TSS1500	N_Shore	GSTM4	0.718	0.018	0.353	0.070
cg05209306	yellow	19	39,899,376	3'UTR	N_Shore	ZFP36	0.718	-0.003	0.860	0.638
cg00372774	yellow	22	22,902,198	TSS1500	S_Shore	PRAME	0.718	0.009	0.796	0.312
cg19782880	yellow	3	9,757,565	Body	OpenSea	CPNE9	0.718	-0.001	0.575	0.897
cg06125591	yellow	16	4,741,495		N_Shore		0.718	0.007	0.707	0.398
cg11576468	yellow	19	20,749,810	TSS1500	OpenSea	ZNF737	0.718	0.003	0.873	0.658
cg09841898	yellow	14	50,886,416	3'UTR	OpenSea	MAP4K5	0.718	-0.001	0.953	0.882
cg07139527	yellow	17	80,969,525	Body	N_Shore	B3GNTL1	0.718	-0.004	0.870	0.718
cg06609498	yellow	2	240,233,240	Body	OpenSea	HDAC4	0.718	-0.016	0.388	0.077
cg13216025	yellow	9	140,512,513	5'UTR	N_Shore	C9orf37	0.718	0.002	0.019	0.233
cg26709300	yellow	16	30,106,682	1stExon	N_Shore	YPEL3	0.718	0.002	0.739	0.725
cg06444294	yellow	19	50,164,473	Body	N_Shelf	IRF3	0.718	0.008	0.787	0.345
cg07930940	yellow	19	18,044,745	5'UTR	S_Shore	CCDC124	0.718	0.014	0.513	0.121
cg08530632	yellow	1	89,037,170		OpenSea		0.718	0.016	0.727	0.074
cg10667167	yellow	19	12,662,910	TSS1500	S_Shore	ZNF564	0.718	0.006	0.125	0.476
cg26872907	yellow	6	161,796,854	Body	OpenSea	PARK2	0.718	0.000	0.178	0.975
cg02133234	yellow	8	144,922,496	5'UTR	N_Shore	NRBP2	0.718	0.020	0.355	0.036
cg22653140	yellow	10	81,214,225		OpenSea		0.718	-0.007	0.099	0.476
cg06719487	yellow	1	10,489,962	TSS200	N_Shore	APITD1	0.718	-0.007	0.418	0.543
cg26514793	yellow	10	73,769,127	3'UTR	S_Shore	CHST3	0.718	0.017	0.464	0.087
cg17636366	yellow	6	139,918,661		OpenSea		0.718	0.004	0.918	0.543
cg17597631	yellow	1	8,443,425	5'UTR	OpenSea	RERE	0.718	-0.003	0.931	0.609
cg16721489	yellow	2	165,192,830		OpenSea		0.718	0.011	0.594	0.203
cg12110327	yellow	10	38,264,581	5'UTR	N_Shore	ZNF25	0.718	-0.001	0.244	0.942
cg26534677	yellow	8	27,630,505	TSS1500	N_Shore	CCDC25	0.718	0.020	0.548	0.129
cg14947547	yellow	12	6,493,495	1stExon	Island	LTBR	0.718	-0.010	0.116	0.299
cg17586880	yellow	11	118,779,017	Body	N_Shelf	BCL9L	0.718	0.008	0.730	0.227
cg19091789	yellow	5	111,084,878	Body	OpenSea	C5orf13	0.718	0.001	0.925	0.848
cg18499530	yellow	3	197,476,046	TSS1500	N_Shore	FYTTD1	0.718	0.001	0.035	0.642
cg10889502	yellow	1	200,398,670		OpenSea		0.718	0.008	0.892	0.289
cg21132229	yellow	17	40,757,728	Body	N_Shelf	FAM134C	0.718	-0.004	0.786	0.512
cg06379531	yellow	1	184,020,410	TSS1500	N_Shore	TSEN15	0.718	0.004	0.064	0.187
cg04691233	yellow	11	133,989,435	Body	OpenSea	JAM3	0.718	0.001	0.902	0.920
cg21451906	yellow	1	161,192,549	Body	OpenSea	APOA2	0.718	0.012	0.665	0.034
cg03772108	yellow	7	116,889,900		OpenSea		0.718	-0.005	0.667	0.371
cg01420215	yellow	2	224,821,720	TSS1500	N_Shore	MRPL44	0.718	0.009	0.286	0.332
cg04188238	yellow	4	187,477,310	TSS1500	S_Shore	MTNR1A	0.718	0.014	0.928	0.006
cg11520395	yellow	1	227,924,115	TSS1500	S_Shore	JMJD4	0.717	-0.001	0.712	0.856
cg21234471	yellow	9	92,023,797	5'UTR	OpenSea	SEMA4D	0.717	0.012	0.683	0.172
cg07124366	yellow	3	10,361,044	Body	N_Shore	SEC13	0.717	-0.002	0.655	0.780
cg18973247	yellow	1	27,070,873	Body	OpenSea	ARID1A	0.717	-0.001	0.486	0.885
cg08780218	yellow	5	172,194,729		N_Shelf		0.717	-0.014	0.853	0.014
cg19574327	yellow	11	96,466,206		OpenSea		0.717	0.002	0.463	0.789
cg00863469	yellow	19	49,116,423	1stExon	Island	FAM83E	0.717	0.013	0.756	0.057
cg09062970	yellow	11	67,373,652	TSS1500	N_Shore	NDUFV1	0.717	0.016	0.681	0.124
cg07862612	yellow	19	1,566,150	Body	N_Shore	MEX3D	0.717	0.006	0.560	0.557
cg18816996	yellow	5	178,018,186	TSS1500	S_Shore	COL23A1	0.717	0.009	0.544	0.143
cg16521605	yellow	19	46,363,340	5'UTR	N_Shelf	SYMPK	0.717	0.002	0.841	0.844
cg26034658	yellow	11	65,836,743	TSS1500	N_Shore	PACS1	0.717	0.003	0.847	0.636
cg15654264	yellow	1	150,340,011	Body	S_Shelf	RPRD2	0.717	-0.023	0.747	0.127
cg15618525	yellow	5	180,022,909		S_Shelf		0.717	0.005	0.612	0.402
cg00624410	yellow	16	57,127,968	5'UTR	S_Shore	CPNE2	0.717	-0.006	0.600	0.340
cg15549973	yellow	1	159,823,687	Body	N_Shore	C1orf204	0.717	0.006	0.130	0.318
cg18143701	yellow	3	176,862,885	5'UTR	OpenSea	TBL1XR1	0.717	-0.014	0.627	0.274
cg01882498	yellow	4	83,934,956	TSS1500	S_Shore	LINS4	0.717	0.005	0.323	0.762
cg01130898	yellow	2	219,473,002	5'UTR	OpenSea	PLCD4	0.717	0.007	0.523	0.273
cg26628496	yellow	8	8,998,853	Body	OpenSea	PPP1R3B	0.717	-0.005	0.895	0.288
cg10041830	yellow	16	31,504,009	Body	S_Shelf	C16orf58	0.717	0.006	0.698	0.370
cg17575906	yellow	5	111,090,585	Body	N_Shelf	C5orf13	0.717	0.006	0.226	0.661
cg12474881	yellow	22	36,681,321	Body	OpenSea	MYH9	0.717	0.008	0.842	0.207
cg01218053	yellow	2	233,940,417	Body	OpenSea	INPP5D	0.717	0.000	0.479	0.928
cg09299924	yellow	13	73,647,575	Body	OpenSea	KLF5	0.717	0.001	0.885	0.913
cg10600536	yellow	11	47,608,204	TSS200	N_Shelf	FAM180B	0.717	0.017	0.575	0.032
cg25353436	yellow	10	10,839,523		OpenSea		0.717	0.002	0.655	0.859
cg14425054	yellow	9	136,860,187		S_Shore		0.717	0.009	0.664	0.322

cg18148283	yellow	17	79,952,142	Body	Island	ASPSCR1	0.717	0.003	0.750	0.717
cg16301036	yellow	12	118,808,298	5'UTR	N_Shore	TAOK3	0.717	-0.003	0.938	0.539
cg02967610	yellow	19	57,149,813		S_Shore		0.717	0.003	0.590	0.761
cg27326661	yellow	8	80,922,579	Body	OpenSea	MRPS28	0.717	-0.006	0.763	0.725
cg07144666	yellow	7	6,501,749	3'UTR	OpenSea	KDELR2	0.717	0.000	0.950	0.945
cg13568622	yellow	9	104,197,886	5'UTR	OpenSea	ALDOB	0.717	-0.001	0.247	0.858
cg15640243	yellow	4	176,920,601	5'UTR	N_Shore	GPM6A	0.717	-0.003	0.951	0.454
cg24103799	yellow	2	16,834,516	5'UTR	OpenSea	FAM49A	0.717	0.004	0.492	0.565
cg05685435	yellow	12	57,851,749	3'UTR	N_Shore	INHBE	0.717	0.003	0.612	0.645
cg19283298	yellow	13	98,090,226	Body	S_Shelf	RAP2A	0.717	0.041	0.553	0.005
cg06483239	yellow	15	40,331,866	TSS1500	S_Shore	SRP14	0.717	-0.008	0.074	0.284
cg12486521	yellow	1	114,429,815	Body	OpenSea	BCL2L15	0.717	0.000	0.855	0.979
cg20742696	yellow	1	226,129,824	TSS1500	S_Shelf	LEFTY2	0.717	-0.001	0.514	0.857
cg09520126	yellow	7	158,802,720	Body	S_Shelf	LOC154822	0.717	-0.002	0.919	0.661
cg12077460	yellow	8	8,702,053	Body	OpenSea	MFHAS1	0.717	0.002	0.618	0.838
cg18325866	yellow	10	116,585,424	Body	S_Shelf	FAM160B1	0.717	0.003	0.928	0.582
cg15937958	yellow	19	42,947,133	1stExon	OpenSea	CXCL17	0.717	0.006	0.698	0.425
cg24277817	yellow	19	13,135,662	Body	Island	NFIX	0.717	0.003	0.230	0.568
cg07437464	yellow	7	39,785,084	Body	OpenSea	LOC349114	0.716	0.001	0.312	0.835
cg08460635	yellow	2	219,267,203	Body	S_Shore	CTDSP1	0.716	0.000	0.769	0.945
cg04910587	yellow	1	205,721,920		S_Shelf		0.716	-0.004	0.745	0.667
cg22512256	yellow	4	8,221,132	Body	OpenSea	SH3TC1	0.716	0.002	0.901	0.692
cg19287917	yellow	6	36,269,736	Body	OpenSea	PNPLA1	0.716	0.010	0.400	0.444
cg04171487	yellow	4	126,245,530	Body	OpenSea	FAT4	0.716	-0.004	0.760	0.783
cg10595753	yellow	17	80,898,281	Body	N_Shore	TBCD	0.716	-0.001	0.952	0.717
cg01537455	yellow	1	205,038,308	Body	N_Shore	CNTN2	0.716	0.016	0.559	0.202
cg03221702	yellow	19	10,792,991	Body	OpenSea	ILF3	0.716	0.008	0.807	0.356
cg23845249	yellow	11	68,861,649		OpenSea		0.716	0.006	0.413	0.408
cg24594979	yellow	1	14,286,966		OpenSea		0.716	-0.005	0.171	0.482
cg14178533	yellow	9	136,728,554	Body	Island	VAV2	0.716	-0.005	0.733	0.493
cg10770287	yellow	14	96,970,127	Body	S_Shore	PAPOLA	0.716	0.006	0.664	0.669
cg01666416	yellow	7	129,401,208		N_Shore		0.716	-0.003	0.720	0.709
cg09998861	yellow	16	86,538,106		N_Shore		0.716	0.012	0.627	0.103
cg14841514	yellow	10	80,866,619	5'UTR	OpenSea	ZMIZ1	0.716	0.009	0.747	0.182
cg17514088	yellow	17	76,503,074	Body	S_Shelf	DNAH17	0.716	0.001	0.795	0.880
cg13478974	yellow	12	112,745,007	TSS1500	OpenSea	C12orf51	0.716	0.009	0.624	0.410
cg14506515	yellow	9	14,749,903	Body	OpenSea	FREM1	0.716	0.010	0.793	0.221
cg02411582	yellow	16	27,232,615	3'UTR	OpenSea	JMJD5	0.716	0.009	0.738	0.171
cg03704061	yellow	1	230,883,300	1stExon	OpenSea	CAPN9	0.716	0.010	0.574	0.158
cg05251755	yellow	2	25,263,807	TSS1500	N_Shore	EFR3B	0.716	-0.013	0.888	0.087
cg10097906	yellow	6	164,235,612		OpenSea		0.716	0.000	0.836	0.962
cg19162496	yellow	4	77,356,175	TSS200	OpenSea	SHROOM3	0.716	0.013	0.237	0.171
cg04124740	yellow	17	64,400,691	Body	OpenSea	PRKCA	0.716	0.005	0.062	0.421
cg05602799	yellow	12	109,487,105		N_Shelf		0.716	-0.011	0.787	0.129
cg14688905	yellow	12	51,403,056	Body	OpenSea	SLC11A2	0.716	0.011	0.749	0.183
cg17187705	yellow	13	35,735,300	Body	OpenSea	NBEA	0.716	0.020	0.671	0.065
cg03887092	yellow	6	1,080,885	Body	OpenSea	LOC285768	0.716	0.000	0.950	0.978
cg18773844	yellow	11	69,463,247	Body	S_Shore	CCND1	0.716	0.017	0.683	0.033
cg20626045	yellow	10	45,477,672	Body	OpenSea	RASSF4	0.716	0.002	0.810	0.736
cg02149965	yellow	6	30,883,203	Body	S_Shore	VAR52	0.716	0.005	0.785	0.484
cg11186344	yellow	1	19,253,694	Body	OpenSea	IFFO2	0.716	-0.004	0.818	0.477
cg25911551	yellow	4	144,266,241	Body	OpenSea	GAB1	0.716	0.000	0.088	0.952
cg13039251	yellow	5	32,018,601	Body	OpenSea	PDZD2	0.716	-0.005	0.697	0.713
cg00647233	yellow	1	4,000,154		OpenSea		0.716	-0.003	0.460	0.755
cg09082441	yellow	12	11,805,154	Body	S_Shelf	ETV6	0.716	0.001	0.258	0.942
cg01914555	yellow	16	6,624,095	5'UTR	OpenSea	A2BP1	0.716	0.008	0.550	0.173
cg22881750	yellow	6	36,795,406	Body	OpenSea	CPNE5	0.716	0.008	0.644	0.251
cg15205441	yellow	10	126,782,357	5'UTR	OpenSea	CTBP2	0.716	0.005	0.719	0.687
cg01405685	yellow	5	32,691,919		OpenSea		0.716	-0.012	0.930	0.037
cg19708418	yellow	15	101,820,662		S_Shelf		0.716	0.004	0.844	0.645
cg27463141	yellow	16	56,689,112		N_Shelf		0.716	0.007	0.495	0.428
cg26656337	yellow	5	159,866,472		OpenSea		0.716	0.008	0.156	0.352
cg21885231	yellow	7	1,453,743		S_Shore		0.716	0.000	0.494	0.988
cg21641573	yellow	4	1,210,478	Body	S_Shore	CTBP1	0.716	0.010	0.627	0.214
cg21459867	yellow	4	981,492	Body	Island	IDUA	0.716	0.003	0.689	0.637
cg11802797	yellow	1	10,437,649	3'UTR	OpenSea	KIF1B	0.716	0.006	0.400	0.453
cg06061002	yellow	6	29,638,918	3'UTR	OpenSea	MOG	0.716	0.004	0.619	0.592

cg22127848	yellow	17	64,295,986	N_Shelf		0.716	-0.003	0.941	0.656
cg03103850	yellow	1	3,620,919 Body	N_Shelf	TP73	0.716	0.005	0.889	0.311
cg24981097	yellow	13	99,224,694 Body	N_Shelf	STK24	0.716	0.008	0.289	0.296
cg03112145	yellow	1	155,106,882 3'UTR	N_Shore	EFNA1	0.716	-0.005	0.581	0.378
cg05575393	yellow	10	114,544,316 Body	OpenSea	VT11A	0.715	-0.012	0.605	0.244
cg01595397	yellow	6	41,887,954 Body	N_Shore	MED20	0.715	0.012	0.679	0.261
cg01437135	yellow	1	94,579,396 Body	OpenSea	ABCA4	0.715	0.000	0.578	0.965
cg21069965	yellow	6	25,230,306	OpenSea		0.715	0.004	0.536	0.681
cg16308841	yellow	2	101,886,706 3'UTR	OpenSea	C2orf29	0.715	-0.010	0.771	0.191
cg06972972	yellow	2	1,425,205 Body	OpenSea	TPO	0.715	0.006	0.771	0.276
cg14102576	yellow	14	93,453,170 Body	OpenSea	ITPK1	0.715	0.004	0.895	0.428
cg21106505	yellow	11	562,547 Body	S_Shore	RASSF7	0.715	-0.001	0.862	0.885
cg21147063	yellow	21	34,354,927	S_Shelf		0.715	-0.008	0.851	0.359
cg09007354	yellow	1	54,100,163 5'UTR	OpenSea	GLIS1	0.715	0.000	0.732	0.969
cg14149663	yellow	9	72,371,073 Body	N_Shelf	PTAR1	0.715	-0.002	0.755	0.826
cg05545808	yellow	16	81,712,102 Body	Island	CMIP	0.715	0.014	0.878	0.017
cg10124355	yellow	19	5,037,004 Body	Island	KDM4B	0.715	0.002	0.474	0.830
cg09958065	yellow	10	12,648,526 Body	OpenSea	CAMK1D	0.715	-0.003	0.832	0.753
cg22247495	yellow	7	589,215 3'UTR	Island	PRKAR1B	0.715	0.002	0.873	0.853
cg03526384	yellow	10	98,331,533 Body	OpenSea	TM9SF3	0.715	0.002	0.676	0.862
cg03032122	yellow	11	9,337,659 TSS1500	S_Shore	TMEM41B	0.715	-0.009	0.728	0.449
cg05641048	yellow	15	59,908,622 5'UTR	OpenSea	GCNT3	0.715	0.009	0.546	0.191
cg20672819	yellow	20	30,533,177 3'UTR	OpenSea	PDRG1	0.715	0.004	0.616	0.606
cg05928581	yellow	11	1,885,097 Body	OpenSea	LSP1	0.715	0.005	0.582	0.520
cg10657965	yellow	7	101,888,125 Body	N_Shelf	CUX1	0.715	0.007	0.814	0.331
cg15529542	yellow	15	86,338,692 TSS1500	S_Shore	KLHL25	0.715	0.006	0.625	0.506
cg05093113	yellow	20	49,200,925 TSS1500	OpenSea	MIR645	0.715	0.001	0.733	0.897
cg20981615	yellow	4	48,136,280 TSS200	OpenSea	TXK	0.715	0.008	0.859	0.305
cg08976874	yellow	11	31,885,698	OpenSea		0.715	0.001	0.587	0.948
cg13485420	yellow	22	20,117,174	N_Shore		0.715	0.010	0.632	0.133
cg13411229	yellow	8	143,823,898 TSS200	S_Shelf	SLURP1	0.715	0.007	0.818	0.382
cg14220887	yellow	14	76,130,978 Body	S_Shelf	TLL5	0.715	-0.012	0.768	0.408
cg08866695	yellow	12	109,596,187 Body	S_Shelf	ACACB	0.715	-0.006	0.751	0.702
cg02677865	yellow	19	19,223,563 3'UTR	S_Shore	SLC25A42	0.715	0.002	0.744	0.847
cg20163324	yellow	17	41,158,762 TSS200	OpenSea	IFI35	0.715	-0.001	0.099	0.872
cg22307974	yellow	2	46,768,111	N_Shore		0.715	0.004	0.668	0.664
cg20968595	yellow	11	133,230,305 Body	N_Shore	OPCML	0.715	-0.009	0.735	0.263
cg09785958	yellow	13	113,274,490	OpenSea		0.715	0.016	0.473	0.070
cg06271561	yellow	15	85,359,854 TSS200	N_Shore	ALPK3	0.715	0.020	0.745	0.017
cg01517832	yellow	11	1,329,962 Body	N_Shore	TOLLIP	0.715	0.017	0.630	0.046
cg21246872	yellow	17	38,295,894 TSS1500	OpenSea	CASC3	0.715	0.013	0.487	0.208
cg26279183	yellow	14	75,665,683	OpenSea		0.715	0.009	0.716	0.345
cg15813594	yellow	5	38,445,563 TSS200	OpenSea	EGFLAM	0.715	0.006	0.634	0.627
cg11861654	yellow	20	35,374,881 TSS1500	S_Shore	NDRG3	0.715	0.004	0.426	0.726
cg07313373	yellow	1	247,579,131 TSS1500	OpenSea	NLRP3	0.715	0.007	0.575	0.363
cg12151446	yellow	22	35,780,926 Body	S_Shelf	HMOX1	0.715	0.008	0.832	0.337
cg04743510	yellow	17	39,793,142	OpenSea		0.715	0.006	0.472	0.486
cg00157562	yellow	7	800,728 Body	S_Shelf	HEATR2	0.715	0.000	0.886	0.996
cg08477641	yellow	3	48,507,508 5'UTR	OpenSea	TREX1	0.715	0.001	0.061	0.850
cg20221591	yellow	2	241,076,340 TSS1500	S_Shore	MYEOV2	0.715	0.010	0.561	0.486
cg07722995	yellow	22	47,013,855	N_Shore		0.715	0.010	0.564	0.341
cg13345353	yellow	2	242,715,022 TSS1500	S_Shelf	GAL3ST2	0.715	0.019	0.690	0.031
cg09813248	yellow	12	121,164,194 Body	S_Shore	ACADS	0.715	-0.004	0.813	0.531
cg25937598	yellow	10	105,240,427 TSS1500	OpenSea	CALHM3	0.715	0.015	0.619	0.015
cg18394118	yellow	12	102,270,878 TSS1500	Island	DRAM1	0.715	0.005	0.138	0.409
cg17862981	yellow	2	149,869,265 3'UTR	S_Shelf	KIF5C	0.715	-0.007	0.893	0.247
cg07288447	yellow	2	27,371,818 TSS200	N_Shore	TCF23	0.714	0.011	0.636	0.413
cg09230350	yellow	6	31,937,582 TSS1500	N_Shelf	STK19	0.714	-0.004	0.853	0.593
cg14006239	yellow	9	133,970,439 TSS1500	N_Shore	AIF1L	0.714	-0.001	0.679	0.917
cg17906332	yellow	17	4,873,515 Body	S_Shore	CAMTA2	0.714	0.007	0.726	0.342
cg02821464	yellow	11	1,945,607 Body	N_Shore	TNNT3	0.714	-0.001	0.792	0.892
cg06502281	yellow	19	18,359,505 TSS1500	OpenSea	PDE4C	0.714	-0.004	0.774	0.735
cg26712809	yellow	20	54,986,888 TSS1500	OpenSea	CASS4	0.714	-0.005	0.519	0.710
cg16198930	yellow	2	54,900,343	OpenSea		0.714	0.028	0.644	0.062
cg11163330	yellow	8	101,534,515 3'UTR	OpenSea	ANKRD46	0.714	-0.001	0.942	0.829
cg05235540	yellow	6	30,582,174 5'UTR	N_Shelf	PPP1R10	0.714	-0.001	0.923	0.909
cg06670550	yellow	17	61,853,694 5'UTR	S_Shore	DDX42	0.714	0.007	0.566	0.405

cg09440340	yellow	1	116,654,415	5'UTR	OpenSea	C1orf161	0.714	0.000	0.264	0.936
cg18118198	yellow	14	25,100,740	Body	OpenSea	GZMB	0.714	0.015	0.738	0.086
cg10319331	yellow	12	126,105,704	Body	OpenSea	TMEM132B	0.714	-0.005	0.704	0.554
cg27468704	yellow	22	26,875,823	TSS1500	N_Shelf	HPS4	0.714	-0.013	0.746	0.154
cg10285525	yellow	20	62,167,942	Body	N_Shore	PTK6	0.714	0.009	0.545	0.200
cg18109798	yellow	12	20,848,473	5'UTR	OpenSea	SLCO1C1	0.714	0.002	0.614	0.871
cg13925809	yellow	9	84,646,696		OpenSea		0.714	0.005	0.394	0.494
cg26508444	yellow	10	126,330,845	Body	OpenSea	FAM53B	0.714	0.009	0.532	0.249
cg11081272	yellow	11	78,130,236	TSS1500	S_Shore	GAB2	0.714	0.007	0.499	0.538
cg04900872	yellow	2	31,803,536	Body	N_Shore	SRD5A2	0.714	0.006	0.713	0.427
cg09338412	yellow	22	24,979,554	TSS200	OpenSea	GGT1	0.714	-0.002	0.595	0.843
cg27176995	yellow	4	622,887	Body	S_Shelf	PDE6B	0.714	0.002	0.651	0.752
cg04019522	yellow	2	127,852,450	Body	OpenSea	BIN1	0.714	0.016	0.101	0.026
cg16845363	yellow	3	35,730,817	Body	OpenSea	ARPP-21	0.714	-0.006	0.804	0.514
cg05068848	yellow	4	23,335,733		OpenSea		0.714	-0.007	0.861	0.491
cg24854606	yellow	1	228,352,940	TSS1500	N_Shore	C1orf69	0.714	0.009	0.118	0.305
cg02544257	yellow	16	70,510,663	Body	S_Shelf	FUK	0.714	0.012	0.474	0.157
cg21908084	yellow	1	222,882,319	Body	N_Shelf	AIDA	0.714	0.014	0.802	0.233
cg07160420	yellow	17	48,863,591		OpenSea		0.714	0.011	0.771	0.296
cg06055845	yellow	19	40,788,787	TSS1500	N_Shore	MIR641	0.714	0.011	0.535	0.220
cg03573179	yellow	6	36,165,382	5'UTR	S_Shore	BRPF3	0.714	-0.010	0.062	0.192
cg09925075	yellow	14	60,098,793	Body	S_Shore	RTN1	0.714	-0.002	0.776	0.865
cg10363005	yellow	11	126,867,352	Body	N_Shelf	KIRREL3	0.714	-0.002	0.284	0.838
cg11752320	yellow	17	60,741,166	Body	N_Shelf	MRC2	0.714	-0.002	0.826	0.695
cg11902641	yellow	6	1,418,924		OpenSea		0.714	0.000	0.649	0.991
cg18796704	yellow	6	132,216,033	3'UTR	OpenSea	ENPP1	0.714	-0.001	0.806	0.938
cg06891178	yellow	10	3,300,329		OpenSea		0.714	-0.001	0.681	0.886
cg05347216	yellow	16	1,193,884		OpenSea		0.714	0.004	0.598	0.456
cg06927134	yellow	22	19,118,202	3'UTR	N_Shore	DGCR14	0.714	0.002	0.911	0.681
cg08553630	yellow	3	139,261,380		S_Shelf		0.714	-0.010	0.697	0.288
cg11873462	yellow	8	144,611,940	Body	OpenSea	ZC3H3	0.714	-0.022	0.666	0.176
cg22718891	yellow	1	52,035,148		OpenSea		0.714	0.010	0.286	0.308
cg20641545	yellow	12	89,984,390	3'UTR	OpenSea	ATP2B1	0.714	-0.013	0.733	0.251
cg21112954	yellow	14	75,330,798	TSS1500	OpenSea	PROX2	0.714	0.001	0.722	0.938
cg23627350	yellow	1	183,095,301	Body	OpenSea	LAMC1	0.714	-0.005	0.828	0.496
cg14826797	yellow	5	33,444,867	Body	S_Shelf	TARS	0.714	-0.006	0.787	0.508
cg07511587	yellow	16	1,364,129	Body	Island	UBE2I	0.714	0.000	0.814	0.943
cg15371806	yellow	6	168,417,634	TSS1500	OpenSea	KIF25	0.714	0.030	0.718	0.054
cg01968457	yellow	2	232,786,343		N_Shelf		0.714	-0.001	0.839	0.793
cg23536138	yellow	8	22,084,861	Body	OpenSea	PHYHIP	0.714	0.009	0.458	0.176
cg23782909	yellow	12	101,945,864		OpenSea		0.714	-0.001	0.255	0.957
cg13464573	yellow	2	7,172,097	Body	N_Shore	RNF144A	0.714	0.002	0.664	0.740
cg15373767	yellow	7	30,951,328	TSS200	OpenSea	AQP1	0.714	0.000	0.061	0.921
cg14155397	yellow	15	66,678,782	TSS1500	N_Shore	MAP2K1	0.714	0.007	0.202	0.617
cg25689525	yellow	7	139,688,876	Body	OpenSea	TBXAS1	0.714	-0.002	0.774	0.717
cg02955354	yellow	7	1,135,879	Body	Island	C7orf50	0.714	0.022	0.521	0.021
cg12590404	yellow	1	110,855,257		OpenSea		0.714	-0.004	0.060	0.265
cg05814654	yellow	16	27,413,177	TSS1500	OpenSea	IL21R	0.714	0.013	0.469	0.075
cg11826008	yellow	20	34,249,284	5'UTR	N_Shelf	CPNE1	0.714	0.016	0.688	0.072
cg17830754	yellow	19	5,679,875	TSS1500	N_Shore	HSD11B1L	0.714	0.014	0.170	0.025
cg21587650	yellow	12	95,044,711	TSS1500	S_Shore	TMCC3	0.713	0.004	0.036	0.096
cg19566879	yellow	6	16,334,128	5'UTR	OpenSea	ATXN1	0.713	-0.004	0.875	0.598
cg18973101	yellow	1	156,251,280	TSS1500	OpenSea	TMEM79	0.713	0.005	0.371	0.550
cg08299791	yellow	4	1,832,771	Body	S_Shelf	LETM1	0.713	-0.002	0.682	0.777
cg20144984	yellow	1	38,604,476		OpenSea		0.713	-0.002	0.096	0.827
cg16127514	yellow	10	29,273,678		OpenSea		0.713	-0.003	0.909	0.729
cg00008621	yellow	14	62,179,983	Body	OpenSea	HIF1A	0.713	-0.002	0.914	0.756
cg14267780	yellow	11	1,643,498	Body	OpenSea	HCCA2	0.713	-0.007	0.698	0.368
cg01898377	yellow	20	48,960,272		Island		0.713	0.012	0.698	0.148
cg26643914	yellow	5	172,963,035		OpenSea		0.713	0.010	0.683	0.161
cg02198895	yellow	13	110,759,424		OpenSea		0.713	-0.003	0.648	0.752
cg01735991	yellow	6	70,501,068	Body	OpenSea	LMBRD1	0.713	0.000	0.516	0.958
cg18705155	yellow	6	39,194,077	Body	N_Shelf	KCNK5	0.713	0.000	0.662	0.939
cg04293175	yellow	11	14,282,775	Body	S_Shore	SPON1	0.713	0.040	0.795	0.005
cg10877049	yellow	1	230,513,522	TSS200	OpenSea	PGBD5	0.713	0.001	0.950	0.758
cg27145042	yellow	16	25,026,956	TSS1500	S_Shore	ARHGAP17	0.713	-0.004	0.115	0.412
cg19794481	yellow	12	7,073,240	TSS200	OpenSea	MIR141	0.713	0.001	0.710	0.837

cg02529547	yellow	17	48,259,089	OpenSea		0.713	0.015	0.384	0.014
cg19723734	yellow	7	2,271,673 5'UTR	N_Shore	MAD1L1	0.713	0.001	0.265	0.875
cg20324858	yellow	1	154,529,936 Body	N_Shore	UBE2Q1	0.713	0.010	0.377	0.309
cg19032532	yellow	19	2,547,067 5'UTR	S_Shore	GNG7	0.713	0.001	0.771	0.906
cg18226957	yellow	2	128,604,857 3'UTR	OpenSea	POLR2D	0.713	0.001	0.807	0.917
cg22916586	yellow	12	12,686,957 5'UTR	OpenSea	DUSP16	0.713	0.007	0.563	0.473
cg07810884	yellow	19	16,178,099 TSS1500	N_Shore	TPM4	0.713	0.005	0.786	0.557
cg18250453	yellow	8	73,924,925 Body	S_Shelf	TERF1	0.713	0.008	0.901	0.206
cg12599168	yellow	7	142,554,539 5'UTR	S_Shore	EPHB6	0.713	-0.006	0.706	0.405
cg16631417	yellow	17	41,993,127 TSS1500	OpenSea	C17orf88	0.713	0.020	0.795	0.045
cg25986322	yellow	18	46,447,961 Body	Island	SMAD7	0.713	0.004	0.870	0.556
cg05193435	yellow	20	2,538,721 Body	N_Shore	TMC2	0.713	0.015	0.742	0.042
cg04853978	yellow	1	210,855,908 3'UTR	N_Shore	KCNH1	0.713	-0.001	0.819	0.884
cg09730719	yellow	6	33,246,390 1stExon	S_Shore	B3GALT4	0.713	0.014	0.561	0.017
cg19001290	yellow	3	14,602,840	OpenSea		0.713	0.000	0.697	0.999
cg25529875	yellow	6	13,413,705 Body	OpenSea	GFOD1	0.713	0.009	0.374	0.459
cg15139254	yellow	17	72,829,938 Body	N_Shelf	TMEM104	0.713	0.007	0.765	0.285
cg01813752	yellow	6	39,869,180 Body	N_Shore	DAAM2	0.713	-0.002	0.744	0.740
cg00232402	yellow	18	77,385,290	N_Shore		0.713	-0.010	0.604	0.377
cg09263024	yellow	10	133,950,036 Body	N_Shore	JAKMIP3	0.713	0.013	0.586	0.107
cg03142554	yellow	6	82,958,230 TSS1500	S_Shore	IBTK	0.713	0.027	0.486	0.074
cg16229671	yellow	2	75,937,132 Body	N_Shore	C2orf3	0.713	0.010	0.586	0.404
cg26395761	yellow	7	107,700,124 Body	OpenSea	LAMB4	0.713	0.013	0.632	0.408
cg19575132	yellow	14	21,676,297	OpenSea		0.713	0.003	0.792	0.709
cg12982531	yellow	6	71,938,489	OpenSea		0.713	0.003	0.753	0.700
cg03133821	yellow	2	1,513,998 Body	N_Shelf	TPO	0.713	-0.002	0.952	0.764
cg14317414	yellow	9	109,991,376	OpenSea		0.713	0.008	0.509	0.351
cg09839874	yellow	16	66,604,187 Body	S_Shelf	CMTM1	0.713	-0.001	0.795	0.830
cg09712066	yellow	5	59,783,629 TSS200	OpenSea	PART1	0.713	0.008	0.237	0.353
cg19983948	yellow	4	154,491,023 Body	OpenSea	KIAA0922	0.713	-0.005	0.911	0.509
cg21253193	yellow	6	64,355,042 TSS1500	OpenSea	PHF3	0.713	0.012	0.686	0.102
cg27394136	yellow	17	62,492,387 Body	N_Shore	POLG2	0.713	0.005	0.179	0.632
cg04743609	yellow	3	149,052,364 TSS1500	OpenSea	TM4SF18	0.713	0.022	0.475	0.168
cg04447756	yellow	5	138,644,986 Body	OpenSea	MATR3	0.713	-0.003	0.465	0.831
cg21320768	yellow	13	50,070,766 Body	S_Shore	PHF11	0.713	0.005	0.410	0.363
cg24546683	yellow	1	242,097,870	OpenSea		0.713	0.015	0.462	0.102
cg01044662	yellow	2	75,938,360 TSS1500	S_Shore	C2orf3	0.713	-0.002	0.084	0.698
cg21895593	yellow	7	138,917,734 Body	S_Shore	UBN2	0.713	-0.003	0.050	0.373
cg25695041	yellow	4	68,567,439 TSS1500	S_Shore	UBA6	0.713	0.024	0.402	0.062
cg12026858	yellow	11	114,067,446 Body	N_Shelf	ZBTB16	0.713	0.002	0.694	0.746
cg23486701	yellow	2	54,789,491 Body	S_Shelf	SPTBN1	0.712	-0.007	0.696	0.485
cg09690072	yellow	17	37,324,234	S_Shelf		0.712	0.013	0.709	0.099
cg14601770	yellow	8	481,319 Body	OpenSea	C8orf42	0.712	0.001	0.862	0.914
cg21105477	yellow	5	133,560,149 Body	N_Shore	PPP2CA	0.712	0.005	0.058	0.267
cg04521583	yellow	15	44,087,089 3'UTR	S_Shore	SERF2	0.712	0.007	0.674	0.299
cg07739478	yellow	6	31,692,234 Body	S_Shore	C6orf25	0.712	0.003	0.812	0.629
cg04281209	yellow	4	8,608,003 Body	OpenSea	CPZ	0.712	0.002	0.727	0.842
cg03852847	yellow	2	233,439,513	OpenSea		0.712	0.001	0.728	0.907
cg09347824	yellow	6	44,262,755 5'UTR	N_Shelf	TCTE1	0.712	0.002	0.620	0.679
cg09352647	yellow	6	112,261,156	OpenSea		0.712	0.004	0.588	0.562
cg00667048	yellow	1	2,314,670 Body	N_Shore	MORN1	0.712	0.005	0.735	0.478
cg12275370	yellow	2	10,425,661	OpenSea		0.712	0.007	0.864	0.231
cg27165033	yellow	10	134,650,068	OpenSea		0.712	0.024	0.635	0.005
cg10660666	yellow	9	134,305,380 TSS200	OpenSea	BAT2L1	0.712	-0.013	0.821	0.228
cg05275576	yellow	11	130,523,347	OpenSea		0.712	0.009	0.363	0.204
cg21861265	yellow	1	31,457,938 Body	OpenSea	PUM1	0.712	0.011	0.500	0.373
cg14362814	yellow	11	118,952,474 3'UTR	N_Shelf	VPS11	0.712	0.013	0.793	0.132
cg02488338	yellow	5	63,798,214	N_Shelf		0.712	0.001	0.022	0.416
cg07301061	yellow	12	80,663,711	OpenSea		0.712	-0.018	0.372	0.070
cg02416986	yellow	1	44,446,201 1stExon	S_Shore	B4GALT2	0.712	0.010	0.525	0.141
cg07963705	yellow	10	33,212,865 Body	OpenSea	ITGB1	0.712	0.004	0.847	0.489
cg19176285	yellow	6	31,895,179 TSS200	OpenSea	C2	0.712	0.012	0.864	0.185
cg00185122	yellow	16	3,099,434 Body	S_Shelf	MMP25	0.712	-0.008	0.778	0.361
cg15908708	yellow	2	219,030,830 5'UTR	OpenSea	CXCR1	0.712	-0.002	0.795	0.737
cg16747164	yellow	4	38,754,508	OpenSea		0.712	0.005	0.311	0.460
cg26162295	yellow	17	38,119,207 TSS200	OpenSea	GSDMA	0.712	-0.002	0.523	0.789
cg01378158	yellow	16	67,312,308 TSS1500	N_Shore	PLEKHG4	0.712	0.007	0.634	0.337

cg10359006	yellow	11	75,058,879	Body	N_Shelf	ARRB1	0.712	0.007	0.283	0.308
cg11049863	yellow	17	80,832,470	Body	S_Shelf	TBCD	0.712	0.006	0.682	0.557
cg17045635	yellow	10	80,998,130	Body	N_Shelf	ZMIZ1	0.712	0.005	0.553	0.500
cg13724311	yellow	17	7,163,599	3'UTR	N_Shore	CLDN7	0.712	-0.005	0.887	0.474
cg02607237	yellow	10	134,801,360		N_Shelf		0.712	0.022	0.473	0.113
cg22225298	yellow	1	179,339,155	Body	S_Shelf	C1orf125	0.712	-0.010	0.141	0.198
cg13453589	yellow	9	33,850,099	Body	OpenSea	UBE2R2	0.712	0.003	0.501	0.610
cg01569295	yellow	1	231,155,862	TSS200	OpenSea	MIR1182	0.712	0.006	0.880	0.280
cg01819912	yellow	1	235,572,023	Body	OpenSea	TBCE	0.712	-0.001	0.852	0.922
cg18593303	yellow	6	16,746,693	5'UTR	OpenSea	ATXN1	0.712	-0.003	0.649	0.728
cg08072992	yellow	19	14,229,581	TSS1500	S_Shore	PRKACA	0.712	0.000	0.049	0.971
cg12607188	yellow	5	132,209,089	TSS1500	OpenSea	LEAP2	0.712	0.014	0.620	0.100
cg18874394	yellow	19	38,684,237	Body	Island	SIPA1L3	0.712	0.001	0.836	0.842
cg05956608	yellow	1	207,999,258		OpenSea		0.712	0.008	0.737	0.225
cg09848010	yellow	15	63,663,508	Body	OpenSea	CA12	0.712	0.002	0.577	0.754
cg04885881	yellow	1	11,123,118		S_Shelf		0.712	0.003	0.737	0.668
cg04272355	yellow	8	124,656,433		OpenSea		0.712	0.002	0.238	0.835
cg26893231	yellow	11	89,322,707	1stExon	OpenSea	NOX4	0.712	0.008	0.904	0.343
cg09124230	yellow	1	34,115,605	Body	OpenSea	CSMD2	0.712	-0.008	0.664	0.220
cg03856723	yellow	19	14,229,466	TSS1500	S_Shore	PRKACA	0.712	-0.002	0.099	0.529
cg02997851	yellow	3	97,542,295		S_Shore		0.712	0.000	0.856	0.992
cg17903316	yellow	18	44,181,660	Body	OpenSea	LOXHD1	0.712	-0.005	0.517	0.698
cg00244001	yellow	10	126,336,805	Body	OpenSea	FAM53B	0.711	0.005	0.801	0.478
cg02727079	yellow	6	17,986,167	Body	N_Shore	KIF13A	0.711	0.010	0.441	0.193
cg09326702	yellow	11	64,323,448	5'UTR	OpenSea	SLC22A11	0.711	0.002	0.805	0.846
cg13857354	yellow	2	241,519,705		OpenSea		0.711	-0.005	0.664	0.623
cg16849046	yellow	2	224,856,532	Body	OpenSea	SERPINE2	0.711	0.010	0.755	0.282
cg05740775	yellow	17	19,355,986		OpenSea		0.711	-0.002	0.671	0.748
cg04578761	yellow	4	140,006,389	Body	S_Shore	ELF2	0.711	0.032	0.552	0.062
cg00962984	yellow	16	56,150,071	Body	OpenSea	LOC283856	0.711	0.012	0.494	0.280
cg01807313	yellow	12	117,407,970	Body	OpenSea	FBXW8	0.711	0.017	0.701	0.290
cg25658385	yellow	6	35,265,341	TSS1500	OpenSea	DEF6	0.711	-0.002	0.290	0.789
cg07190921	yellow	16	1,845,113	TSS1500	S_Shelf	IGFALS	0.711	0.003	0.920	0.643
cg16129526	yellow	14	69,968,273	Body	OpenSea	FLJ44817	0.711	0.004	0.173	0.543
cg13595415	yellow	9	96,780,753		OpenSea		0.711	0.010	0.529	0.443
cg03000596	yellow	7	73,624,373	5'UTR	OpenSea	LAT2	0.711	0.007	0.725	0.506
cg03152353	yellow	9	139,417,194	Body	Island	NOTCH1	0.711	0.000	0.940	0.971
cg06093152	yellow	1	212,662,017		OpenSea		0.711	-0.004	0.634	0.586
cg14288925	yellow	7	107,223,076	Body	S_Shelf	BCAP29	0.711	-0.006	0.812	0.534
cg08567760	yellow	20	18,794,097	TSS1500	OpenSea	C20orf79	0.711	0.012	0.632	0.124
cg10361281	yellow	22	24,811,256	3'UTR	OpenSea	CYTSA	0.711	-0.001	0.867	0.895
cg27525032	yellow	19	45,664,609	TSS1500	OpenSea	NKPD1	0.711	0.007	0.595	0.350
cg22540040	yellow	12	68,978,235		OpenSea		0.711	-0.002	0.735	0.797
cg25715816	yellow	2	70,529,513	TSS1500	S_Shore	FAM136A	0.711	0.001	0.863	0.937
cg22207672	yellow	7	136,815,227		OpenSea		0.711	-0.002	0.759	0.851
cg06442673	yellow	5	154,194,758	3'UTR	OpenSea	LARP1	0.711	0.008	0.835	0.132
cg11407540	yellow	4	110,833,060	TSS1500	OpenSea	EGF	0.711	0.020	0.823	0.075
cg00318322	yellow	16	67,708,822	3'UTR	OpenSea	GFOD2	0.711	0.008	0.880	0.188
cg22441770	yellow	1	153,929,592	Body	N_Shore	CRTC2	0.711	0.004	0.752	0.613
cg01594685	yellow	16	3,115,053	TSS1500	OpenSea	IL32	0.711	-0.004	0.738	0.504
cg18169971	yellow	5	134,702,492	Body	OpenSea	H2AFY	0.711	0.001	0.937	0.930
cg12591315	yellow	12	10,022,688	TSS1500	OpenSea	CLEC2B	0.711	0.000	0.595	0.987
cg05860190	yellow	20	30,794,065	5'UTR	N_Shore	PLAGL2	0.711	0.015	0.538	0.091
cg24997703	yellow	14	105,969,175		S_Shelf		0.711	-0.003	0.770	0.691
cg03366992	yellow	21	45,140,831	Body	S_Shore	PDXK	0.711	0.001	0.827	0.938
cg27062514	yellow	11	10,800,841	3'UTR	OpenSea	CTR9	0.711	-0.001	0.747	0.966
cg12239580	yellow	3	43,073,058	Body	OpenSea	FAM198A	0.711	0.021	0.679	0.189
cg25306932	yellow	1	151,132,257	3'UTR	OpenSea	LYSMD1	0.711	0.002	0.719	0.867
cg09479818	yellow	19	33,880,790	Body	S_Shore	PEPD	0.711	-0.006	0.913	0.405
cg09071093	yellow	12	57,865,987	3'UTR	N_Shelf	GLI1	0.711	0.015	0.389	0.043
cg09990194	yellow	14	76,289,228	Body	OpenSea	TTL5	0.711	0.009	0.528	0.355
cg26058502	yellow	1	150,946,023	5'UTR	N_Shore	LASS2	0.711	0.000	0.134	0.985
cg03470073	yellow	19	7,741,809	TSS200	N_Shelf	C19orf59	0.711	0.010	0.502	0.167
cg16659510	yellow	16	87,996,870	5'UTR	OpenSea	BANP	0.711	0.001	0.868	0.899
cg07384708	yellow	19	372,718	Body	N_Shelf	THEG	0.711	0.005	0.552	0.519
cg04506601	yellow	1	100,435,212	TSS1500	N_Shore	SLC35A3	0.711	0.009	0.093	0.175
cg20710519	yellow	5	6,775,909		OpenSea		0.711	0.026	0.566	0.112



cg13195486	yellow	1	218,457,882	TSS1500	N_Shore	RRP15	0.711	-0.023	0.554	0.127
cg08869273	yellow	11	413,594	5'UTR	N_Shelf	SIGIRR	0.711	-0.007	0.196	0.116
cg14330460	yellow	6	168,559,427		OpenSea		0.711	-0.002	0.709	0.788
cg03268697	yellow	17	75,160,330	Body	OpenSea	SEC14L1	0.711	-0.008	0.585	0.284
cg03340964	yellow	20	17,552,529	Body	S_Shore	DSTN	0.711	-0.004	0.923	0.541
cg17104149	yellow	4	26,492,421	TSS1500	OpenSea	CCKAR	0.711	0.010	0.168	0.311
cg10400174	yellow	14	101,495,758	TSS1500	OpenSea	MIR494	0.711	0.005	0.874	0.511
cg03268399	yellow	8	141,985,597	5'UTR	OpenSea	PTK2	0.710	0.009	0.683	0.142
cg03550208	yellow	5	6,582,193	TSS1500	N_Shore	LOC255167	0.710	0.001	0.404	0.943
cg01025720	yellow	13	113,346,439	Body	S_Shore	ATP11A	0.710	0.005	0.635	0.443
cg02674465	yellow	7	4,786,986	Body	Island	FOXK1	0.710	-0.007	0.737	0.433
cg05557266	yellow	3	49,057,259	5'UTR	N_Shore	DALRD3	0.710	0.001	0.691	0.834
cg11704012	yellow	12	6,561,007	TSS200	OpenSea	TAPBPL	0.710	0.001	0.065	0.698
cg04080005	yellow	17	1,057,444	Body	OpenSea	ABR	0.710	0.018	0.712	0.042
cg00562430	yellow	8	66,475,106		OpenSea		0.710	0.010	0.474	0.230
cg04846203	yellow	1	167,690,438	TSS1500	N_Shore	MPZL1	0.710	-0.002	0.195	0.801
cg22455271	yellow	7	47,333,085	Body	OpenSea	TNS3	0.710	0.024	0.447	0.138
cg13897241	yellow	1	855,046	TSS1500	S_Shore	FLJ39609	0.710	0.005	0.650	0.639
cg09010699	yellow	3	195,171,693		OpenSea		0.710	0.007	0.494	0.375
cg21807925	yellow	17	74,723,576	5'UTR	S_Shore	C17orf95	0.710	0.012	0.120	0.147
cg13337655	yellow	17	48,335,371		OpenSea		0.710	0.010	0.581	0.202
cg10670501	yellow	3	43,405,871		S_Shore		0.710	0.006	0.763	0.520
cg05091135	yellow	13	51,103,373		OpenSea		0.710	0.006	0.395	0.502
cg09274988	yellow	20	1,309,800	1stExon	S_Shelf	SDCBP2	0.710	0.000	0.534	0.978
cg01231381	yellow	2	180,130,081	TSS1500	S_Shore	SESTD1	0.710	-0.001	0.892	0.946
cg10990993	yellow	3	37,033,632	1stExon	N_Shore	EPM2AIP1	0.710	0.009	0.188	0.451
cg10398217	yellow	19	15,224,914	3'UTR	Island	SYDE1	0.710	0.002	0.807	0.786
cg07356549	yellow	1	212,091,686		OpenSea		0.710	-0.008	0.805	0.385
cg04112058	yellow	16	46,648,124	Body	OpenSea	SHCBP1	0.710	0.012	0.305	0.390
cg11390690	yellow	10	86,120,572	5'UTR	OpenSea	FAM190B	0.710	-0.010	0.653	0.367
cg14983728	yellow	22	35,695,234	TSS1500	N_Shore	TOM1	0.710	0.003	0.382	0.736
cg24345715	yellow	19	13,898,673		OpenSea		0.710	0.003	0.277	0.788
cg06097704	yellow	17	820,939	Body	OpenSea	NXN	0.710	0.003	0.889	0.698
cg06523516	yellow	2	794,646		OpenSea		0.710	-0.006	0.615	0.302
cg14086828	yellow	19	15,944,135	Body	N_Shelf	UCA1	0.710	0.007	0.620	0.458
cg10052840	yellow	19	4,558,119	Body	N_Shore	SEMA6B	0.710	0.013	0.702	0.051
cg22335223	yellow	11	117,698,911	TSS200	OpenSea	FXYD2	0.710	-0.001	0.787	0.928
cg11740570	yellow	11	1,032,135	Body	N_Shore	MUC6	0.710	-0.005	0.675	0.423
cg09318122	yellow	14	94,789,777	TSS200	OpenSea	SERPINA6	0.710	0.009	0.511	0.195
cg26352161	yellow	6	43,071,742	Body	OpenSea	PTK7	0.710	0.003	0.606	0.784
cg27310720	yellow	2	220,506,611	3'UTR	OpenSea	SLC4A3	0.710	-0.008	0.806	0.174
cg19657960	yellow	10	135,030,815	Body	S_Shore	KNDC1	0.710	0.001	0.802	0.866
cg09975715	yellow	17	8,379,050	3'UTR	N_Shore	MYH10	0.710	-0.001	0.841	0.910
cg11589287	yellow	8	1,905,343	Body	OpenSea	ARHGEF10	0.710	0.012	0.624	0.328
cg02486096	yellow	19	57,373,324		N_Shelf		0.710	-0.002	0.693	0.730
cg21411702	yellow	6	32,028,841	Body	OpenSea	TNXB	0.710	0.007	0.801	0.185
cg23586138	yellow	2	27,719,544	TSS1500	S_Shore	FNDC4	0.710	0.002	0.592	0.789
cg20417500	yellow	5	73,109,241	Body	OpenSea	RGNEF	0.710	0.005	0.557	0.402
cg11325273	yellow	13	36,642,977	Body	OpenSea	DCLK1	0.710	-0.011	0.807	0.428
cg05915892	yellow	18	673,911	3'UTR	OpenSea	ENOSF1	0.710	0.005	0.436	0.632
cg18161904	yellow	22	42,978,394	TSS1500	S_Shore	RRP7B	0.710	0.009	0.160	0.156
cg20936348	yellow	3	50,392,556	3'UTR	N_Shelf	TMEM115	0.710	0.004	0.902	0.443
cg24332743	yellow	10	114,610,614	TSS200	OpenSea	LOC143188	0.710	0.001	0.828	0.802
cg08859215	yellow	17	66,573,573	Body	OpenSea	FAM20A	0.710	0.021	0.521	0.304
cg06783955	yellow	7	1,022,213	TSS1500	N_Shore	CYP2W1	0.710	-0.002	0.704	0.735
cg09047361	yellow	12	42,960,142	5'UTR	OpenSea	PRICKLE1	0.710	0.001	0.723	0.799
cg21541159	yellow	2	85,476,431	Body	OpenSea	TCF7L1	0.710	0.016	0.312	0.102
cg14608230	yellow	9	36,382,242	5'UTR	OpenSea	RNF38	0.710	0.008	0.839	0.402
cg24426405	yellow	7	16,844,852	TSS200	OpenSea	AGR2	0.710	-0.001	0.675	0.857
cg07472196	yellow	3	99,801,503	Body	OpenSea	C3orf26	0.710	0.016	0.765	0.174
cg01635821	yellow	8	101,571,111	5'UTR	N_Shore	ANKRD46	0.710	0.011	0.218	0.327
cg22389275	yellow	4	3,309,013		N_Shore		0.710	0.000	0.939	0.931
cg02013527	yellow	5	88,426,579		OpenSea		0.710	-0.014	0.529	0.292
cg11385042	yellow	8	99,938,701		OpenSea		0.710	-0.006	0.563	0.684
cg23598010	yellow	12	88,601,809		OpenSea		0.710	-0.009	0.777	0.256
cg08095452	yellow	17	55,958,800	Body	N_Shelf	CUEDC1	0.709	0.006	0.252	0.447
cg03797504	yellow	16	46,660,546		OpenSea		0.709	0.013	0.583	0.170

cg10708400	yellow	6	30,130,449	TSS1500	OpenSea	TRIM15	0.709	0.011	0.776	0.139
cg25651608	yellow	3	42,073,868		OpenSea		0.709	0.021	0.462	0.059
cg25369262	yellow	1	46,649,132	Body	OpenSea	TSPAN1	0.709	0.012	0.198	0.168
cg03829559	yellow	2	54,681,906		N_Shore		0.709	-0.004	0.782	0.704
cg11508595	yellow	2	192,135,315	5'UTR	OpenSea	MYO1B	0.709	-0.004	0.615	0.650
cg13939311	yellow	9	140,401,437	Body	Island	PNPLA7	0.709	0.010	0.916	0.069
cg04515042	yellow	7	86,791,026	5'UTR	OpenSea	DMTF1	0.709	0.001	0.882	0.929
cg01116321	yellow	20	32,274,911	TSS1500	S_Shore	E2F1	0.709	-0.001	0.459	0.861
cg02855207	yellow	11	73,087,016	TSS1500	N_Shore	RELT	0.709	0.005	0.692	0.400
cg01226748	yellow	12	133,277,966	Body	OpenSea	PXMP2	0.709	0.003	0.673	0.591
cg04420991	yellow	4	77,067,214	Body	N_Shore	NUP54	0.709	0.005	0.816	0.815
cg21545248	yellow	5	149,402,498	Body	OpenSea	HMGXB3	0.709	-0.007	0.631	0.336
cg00264129	yellow	5	139,725,093	Body	N_Shore	HBEGF	0.709	0.001	0.798	0.836
cg00958944	yellow	1	32,577,363	Body	S_Shelf	KPNA6	0.709	0.007	0.766	0.349
cg05503887	yellow	11	34,641,925	TSS1500	OpenSea	EHF	0.709	-0.005	0.716	0.462
cg11597043	yellow	19	15,751,612	TSS200	OpenSea	CYP4F3	0.709	0.019	0.313	0.300
cg19495351	yellow	2	210,675,091	Body	S_Shore	UNC80	0.709	0.005	0.756	0.645
cg04067517	yellow	2	76,017,724		OpenSea		0.709	0.002	0.594	0.710
cg26104196	yellow	1	159,914,191	5'UTR	N_Shore	IGSF9	0.709	0.014	0.510	0.054
cg08452964	yellow	1	28,382,887	Body	OpenSea	EYA3	0.709	0.006	0.565	0.422
cg22496973	yellow	2	75,937,535	Body	N_Shore	C2orf3	0.709	0.016	0.054	0.098
cg02164088	yellow	11	45,928,937	TSS200	OpenSea	C11orf94	0.709	0.008	0.633	0.208
cg24929861	yellow	4	2,942,425	Body	OpenSea	C4orf10	0.709	-0.003	0.820	0.626
cg16178415	yellow	10	82,265,445	Body	OpenSea	TSPAN14	0.709	0.000	0.113	0.993
cg03151529	yellow	12	124,248,926	Body	S_Shore	DNAH10	0.709	0.010	0.852	0.115
cg16077055	yellow	2	106,428,750	5'UTR	OpenSea	NCK2	0.709	-0.004	0.163	0.540
cg02914097	yellow	3	31,118,948		OpenSea		0.709	0.009	0.587	0.410
cg03418847	yellow	3	33,414,474	Body	OpenSea	FBXL2	0.709	0.021	0.361	0.056
cg20776947	yellow	12	133,197,827	Body	S_Shore	P2RX2	0.709	0.017	0.717	0.027
cg05422457	yellow	16	73,266,282		OpenSea		0.709	0.017	0.833	0.042
cg08337366	yellow	19	6,371,622	TSS1500	N_Shore	ALKBH7	0.709	0.007	0.813	0.455
cg08060501	yellow	16	4,389,056	3'UTR	OpenSea	GLIS2	0.709	0.005	0.523	0.415
cg13209298	yellow	3	50,303,807	TSS1500	OpenSea	SEMA3B	0.709	-0.006	0.687	0.318
cg13694343	yellow	17	76,876,206	Body	OpenSea	TIMP2	0.709	0.005	0.455	0.511
cg16469419	yellow	11	62,361,794	Body	S_Shelf	MTA2	0.709	0.011	0.695	0.064
cg18204685	yellow	3	15,641,821	TSS1500	N_Shore	BTD	0.709	-0.006	0.872	0.340
cg07134632	yellow	4	2,925,654	Body	N_Shelf	ADD1	0.709	0.006	0.868	0.423
cg01190974	yellow	2	97,650,711	5'UTR	N_Shore	FAM178B	0.709	0.008	0.387	0.196
cg23249278	yellow	1	119,624,458	Body	OpenSea	WARS2	0.709	-0.006	0.905	0.513
cg01797169	yellow	12	107,711,489	TSS1500	N_Shore	BTBD11	0.709	0.008	0.313	0.296
cg06876892	yellow	16	833,231	TSS1500	S_Shore	MSLNL	0.709	0.008	0.550	0.313
cg21224972	yellow	4	8,308,063	3'UTR	Island	HTRA3	0.709	0.010	0.550	0.297
cg08934228	yellow	10	14,541,266		OpenSea		0.709	-0.002	0.035	0.361
cg00401972	yellow	16	66,400,404	TSS200	OpenSea	CDH5	0.709	0.004	0.564	0.640
cg06081238	yellow	7	142,937,561		OpenSea		0.709	0.000	0.490	0.958
cg18866210	yellow	15	74,343,476		OpenSea		0.709	0.009	0.840	0.249
cg01864825	yellow	5	14,585,625	Body	S_Shelf	FAM105A	0.709	0.002	0.570	0.823
cg04127998	yellow	14	76,518,992	Body	OpenSea	C14orf179	0.709	0.005	0.692	0.721
cg12736037	yellow	6	164,294,790		OpenSea		0.709	-0.001	0.915	0.879
cg12799824	yellow	1	2,155,728		N_Shelf		0.709	0.003	0.890	0.644
cg01758899	yellow	16	66,583,237	Body	Island	TK2	0.709	0.013	0.235	0.356
cg18437792	yellow	14	31,699,236		OpenSea		0.709	0.007	0.196	0.420
cg06512263	yellow	6	20,709,867	Body	OpenSea	CDKAL1	0.709	-0.002	0.579	0.847
cg27345762	yellow	7	30,734,041		OpenSea		0.709	-0.001	0.734	0.896
cg12142865	yellow	12	112,211,993	Body	OpenSea	ALDH2	0.709	0.006	0.221	0.468
cg13330671	yellow	6	44,216,937	Body	S_Shore	HSP90AB1	0.709	-0.006	0.875	0.477
cg22985146	yellow	3	37,219,077	TSS1500	S_Shore	LRRFIP2	0.709	0.030	0.320	0.010
cg27408541	yellow	2	159,948,615	Body	OpenSea	TANC1	0.709	-0.014	0.501	0.171
cg02630218	yellow	17	81,016,294		Island		0.709	0.001	0.741	0.909
cg24838136	yellow	3	124,887,734	Body	OpenSea	SLC12A8	0.709	0.016	0.551	0.098
cg20029153	yellow	17	27,505,257	5'UTR	N_Shore	MYO18A	0.708	-0.008	0.756	0.299
cg18435870	yellow	20	4,230,822	TSS1500	S_Shore	ADRA1D	0.708	0.008	0.783	0.343
cg26496293	yellow	2	237,412,439	Body	N_Shelf	IQCA1	0.708	0.003	0.714	0.688
cg15550572	yellow	1	2,064,441	5'UTR	N_Shore	PRKCZ	0.708	0.001	0.041	0.772
cg13085627	yellow	15	101,597,169	Body	S_Shelf	LRRK1	0.708	0.002	0.897	0.689
cg20250250	yellow	14	100,479,169		OpenSea		0.708	0.013	0.596	0.232
cg18780288	yellow	10	111,659,903	Body	OpenSea	XPNPEP1	0.708	0.017	0.295	0.013

cg07319363	yellow	15	36,863,635	OpenSea		0.708	-0.009	0.857	0.296
cg10225149	yellow	19	15,491,808 Body	S_Shore	AKAP8L	0.708	0.008	0.565	0.404
cg21109025	yellow	17	32,580,869 TSS1500	OpenSea	CCL2	0.708	0.000	0.897	0.954
cg11715092	yellow	21	47,705,294 TSS1500	N_Shore	C21orf57	0.708	-0.015	0.426	0.244
cg18611828	yellow	10	3,284,127	OpenSea		0.708	0.016	0.823	0.013
cg04350520	yellow	7	95,027,158 TSS1500	S_Shore	PON3	0.708	-0.011	0.849	0.311
cg25276752	yellow	19	17,961,566	S_Shelf		0.708	0.005	0.438	0.377
cg15360181	yellow	3	143,567,492 TSS200	OpenSea	SLC9A9	0.708	-0.004	0.558	0.730
cg05035165	yellow	6	113,717,752	OpenSea		0.708	0.004	0.419	0.666
cg14678084	yellow	7	127,627,251 Body	OpenSea	SND1	0.708	0.013	0.442	0.252
cg26064247	yellow	11	33,792,972 Body	N_Shelf	FBXO3	0.708	-0.007	0.885	0.502
cg25378920	yellow	3	13,728,706 Body	OpenSea	LOC285375	0.708	0.016	0.663	0.076
cg01969311	yellow	12	65,350,145	OpenSea		0.708	-0.014	0.895	0.065
cg13119853	yellow	17	48,939,676 1stExon	N_Shelf	TOB1	0.708	-0.001	0.939	0.835
cg18634506	yellow	7	99,007,560 5'UTR	S_Shore	BUD31	0.708	-0.001	0.550	0.921
cg06705925	yellow	11	134,255,295 Body	S_Shore	B3GAT1	0.708	0.009	0.740	0.171
cg27601574	yellow	22	31,498,863 Body	N_Shore	SMTN	0.708	0.007	0.774	0.283
cg05786314	yellow	1	6,452,096 Body	N_Shore	ACOT7	0.708	0.006	0.680	0.458
cg04453352	yellow	12	122,519,951 Body	S_Shelf	MLXIP	0.708	-0.016	0.117	0.008
cg05262877	yellow	1	42,631,835 TSS1500	OpenSea	GUCA2A	0.708	0.007	0.356	0.346
cg27506210	yellow	22	32,150,725 5'UTR	S_Shore	DEPDC5	0.708	-0.007	0.186	0.523
cg08975445	yellow	10	82,402,662 Body	OpenSea	SH2D4B	0.708	0.011	0.803	0.216
cg11018488	yellow	1	32,482,522 Body	S_Shore	KHDRBS1	0.708	-0.012	0.876	0.189
cg14405528	yellow	22	47,372,700 Body	S_Shelf	TBC1D22A	0.708	-0.010	0.686	0.307
cg01178040	yellow	6	32,078,521 TSS1500	OpenSea	TNXB	0.708	0.008	0.666	0.136
cg03304763	yellow	11	112,037,427 TSS1500	OpenSea	TEX12	0.708	0.001	0.677	0.925
cg00409844	yellow	5	68,798,649 5'UTR	OpenSea	OCLN	0.708	-0.002	0.875	0.785
cg25072466	yellow	14	104,799,486	N_Shore		0.708	0.011	0.469	0.209
cg25798413	yellow	2	86,670,630 Body	S_Shore	KDM3A	0.708	-0.008	0.735	0.498
cg19576736	yellow	2	120,240,175 Body	OpenSea	SCTR	0.708	0.004	0.745	0.442
cg24724596	yellow	19	51,892,299 TSS1500	OpenSea	LIM2	0.708	0.011	0.677	0.068
cg05625559	yellow	5	6,775,922	OpenSea		0.708	0.024	0.384	0.149
cg21615663	yellow	16	19,727,911 5'UTR	N_Shore	IQCK	0.708	0.009	0.781	0.193
cg27625491	yellow	7	80,266,930 TSS1500	OpenSea	CD36	0.708	0.002	0.656	0.848
cg12370935	yellow	17	16,976,475 Body	OpenSea	MPRIP	0.708	0.004	0.496	0.440
cg08262002	yellow	4	16,575,323 Body	OpenSea	LDB2	0.708	0.012	0.516	0.114
cg13386217	yellow	8	2,019,935 Body	OpenSea	MYOM2	0.708	0.002	0.646	0.747
cg04071430	yellow	3	72,900,733	S_Shelf		0.708	-0.017	0.340	0.341
cg09941876	yellow	11	126,137,977 TSS1500	N_Shore	FOXRED1	0.708	-0.003	0.154	0.646
cg20663448	yellow	6	76,204,308 TSS1500	OpenSea	FILIP1	0.708	-0.009	0.518	0.610
cg18459040	yellow	14	75,478,802	OpenSea		0.708	0.017	0.802	0.007
cg19864808	yellow	6	31,938,773 TSS200	N_Shore	STK19	0.708	0.016	0.858	0.006
cg17072494	yellow	6	149,401,166	OpenSea		0.708	0.026	0.623	0.067
cg00097450	yellow	17	78,473,077	OpenSea		0.708	0.003	0.675	0.600
cg24668883	yellow	5	17,257,844 5'UTR	OpenSea	BASP1	0.708	0.002	0.947	0.648
cg03990412	yellow	10	9,587,474	OpenSea		0.708	0.002	0.137	0.869
cg15791180	yellow	12	106,513,098 Body	OpenSea	NUAK1	0.708	0.000	0.733	0.976
cg19682367	yellow	3	188,888,486 TSS1500	OpenSea	TPRG1	0.708	-0.013	0.418	0.121
cg15515265	yellow	1	2,828,198	Island		0.708	0.010	0.678	0.474
cg08070200	yellow	4	187,572,960 Body	OpenSea	FAT1	0.708	0.017	0.690	0.055
cg06218186	yellow	7	99,691,644 TSS1500	OpenSea	MIR25	0.708	0.008	0.793	0.184
cg00110769	yellow	1	110,122,089 Body	OpenSea	GNAI3	0.708	0.009	0.562	0.544
cg26394191	yellow	3	123,459,423 Body	OpenSea	MYLK	0.708	-0.006	0.782	0.418
cg21468416	yellow	9	127,019,914 1stExon	N_Shore	NEK6	0.707	-0.002	0.398	0.683
cg03072003	yellow	10	133,767,993 Body	OpenSea	PPP2R2D	0.707	-0.001	0.739	0.874
cg23674602	yellow	10	74,023,752	S_Shelf		0.707	0.002	0.546	0.790
cg15934368	yellow	2	240,044,021 Body	N_Shelf	HDAC4	0.707	-0.009	0.586	0.402
cg24699021	yellow	5	172,305,986 Body	OpenSea	ERGIC1	0.707	-0.001	0.714	0.835
cg08578023	yellow	1	150,738,173 5'UTR	OpenSea	CTSS	0.707	0.019	0.313	0.073
cg07897701	yellow	7	150,549,370 TSS1500	OpenSea	ABP1	0.707	0.007	0.622	0.259
cg10602180	yellow	3	137,729,133 Body	Island	CLDN18	0.707	-0.001	0.584	0.844
cg27324446	yellow	8	145,536,348 Body	OpenSea	HSF1	0.707	0.008	0.781	0.197
cg17386578	yellow	6	99,394,767 5'UTR	N_Shore	FBXL4	0.707	-0.002	0.230	0.752
cg15995251	yellow	15	92,431,545 Body	OpenSea	SLCO3A1	0.707	0.019	0.452	0.108
cg09171111	yellow	1	100,506,730 Body	S_Shelf	HIAT1	0.707	-0.009	0.887	0.248
cg22026389	yellow	6	154,726,217	OpenSea		0.707	0.000	0.894	0.963
cg01047635	yellow	11	16,761,506 Body	S_Shore	C11orf58	0.707	0.012	0.559	0.310

cg02420395	yellow	16	66,731,465	TSS1500	S_Shore	CMTM4	0.707	0.005	0.604	0.561
cg21342586	yellow	17	39,204,882	TSS1500	OpenSea	KRTAP2-1	0.707	0.006	0.778	0.527
cg09142399	yellow	1	75,200,094	TSS1500	OpenSea	CRYZ	0.707	-0.002	0.685	0.858
cg23180841	yellow	2	28,897,312		OpenSea		0.707	0.007	0.548	0.419
cg21972431	yellow	7	17,812,356		OpenSea		0.707	0.008	0.634	0.394
cg04211581	yellow	6	152,011,656	1stExon	OpenSea	ESR1	0.707	0.016	0.538	0.170
cg11301077	yellow	10	48,441,927		S_Shelf		0.707	0.001	0.872	0.931
cg19442900	yellow	11	17,226,015		N_Shelf		0.707	0.009	0.636	0.289
cg20095866	yellow	10	133,951,618	Body	N_Shore	JAKMIP3	0.707	0.004	0.847	0.488
cg21555877	yellow	17	77,128,445	5'UTR	S_Shore	HRNBP3	0.707	0.002	0.828	0.741
cg19223411	yellow	2	219,267,198	Body	S_Shore	CTDSP1	0.707	0.003	0.697	0.606
cg24914219	yellow	18	33,769,346	Body	S_Shore	MOCOS	0.707	0.007	0.810	0.404
cg20019168	yellow	18	54,301,570	Body	N_Shelf	TXNL1	0.707	-0.003	0.929	0.499
cg13942283	yellow	10	112,562,640	Body	OpenSea	RBM20	0.707	-0.016	0.698	0.307
cg20127859	yellow	8	144,656,271	TSS1500	N_Shelf	C8orf73	0.707	0.001	0.830	0.873
cg06153893	yellow	6	25,963,109	5'UTR	OpenSea	TRIM38	0.707	0.003	0.030	0.386
cg00640719	yellow	16	70,426,268	Body	OpenSea	ST3GAL2	0.707	0.004	0.720	0.584
cg06430465	yellow	16	1,014,935	Body	Island	LMF1	0.707	-0.011	0.686	0.164
cg00944580	yellow	1	58,333,307	5'UTR	OpenSea	DAB1	0.707	0.008	0.589	0.263
cg24704510	yellow	17	38,182,512	Body	OpenSea	MED24	0.707	0.010	0.472	0.104
cg19305424	yellow	13	111,217,611		S_Shelf		0.707	-0.001	0.917	0.843
cg16265717	yellow	1	65,993,149	5'UTR	S_Shore	LEPR	0.707	-0.002	0.096	0.903
cg19808620	yellow	1	153,514,442	TSS1500	OpenSea	S100A5	0.707	-0.002	0.196	0.896
cg16400425	yellow	14	35,447,884		N_Shelf		0.707	-0.009	0.951	0.216
cg14592092	yellow	2	223,916,502	TSS1500	N_Shore	KCNE4	0.707	0.004	0.207	0.760
cg09674546	yellow	16	30,721,220	TSS1500	OpenSea	SNORA30	0.707	0.006	0.837	0.243
cg25423416	yellow	22	46,934,860		Island		0.707	0.021	0.123	0.017
cg02491003	yellow	3	57,581,393	Body	N_Shore	ARF4	0.707	0.015	0.850	0.198
cg12136716	yellow	3	57,722,951		OpenSea		0.707	0.002	0.813	0.841
cg14419441	yellow	9	5,760,346	Body	OpenSea	KIAA1432	0.707	0.006	0.917	0.309
cg19914904	yellow	10	102,756,165	TSS1500	N_Shore	LZTS2	0.707	0.003	0.590	0.604
cg08155741	yellow	11	63,994,308	TSS1500	S_Shore	TRPT1	0.707	0.008	0.493	0.176
cg07380200	yellow	15	48,874,903	Body	OpenSea	FBN1	0.707	0.012	0.617	0.233
cg00572266	yellow	11	9,029,940		S_Shelf		0.707	-0.001	0.510	0.808
cg06603561	yellow	11	134,479,413		OpenSea		0.707	0.007	0.909	0.400
cg27346545	yellow	20	1,205,378	TSS1500	N_Shore	RAD21L1	0.707	-0.002	0.766	0.791
cg01487468	yellow	6	14,622,793		OpenSea		0.707	-0.001	0.454	0.935
cg17702388	yellow	19	16,466,480		Island		0.707	-0.003	0.901	0.502
cg22984256	yellow	9	139,238,444	Body	N_Shore	GPSM1	0.707	0.002	0.794	0.691
cg00168942	yellow	10	35,894,430	1stExon	N_Shelf	GJD4	0.707	0.012	0.719	0.062
cg19108747	yellow	2	225,266,263	1stExon	OpenSea	FAM124B	0.707	0.001	0.762	0.891
cg04678713	yellow	3	197,236,889	3'UTR	OpenSea	BDH1	0.707	0.001	0.072	0.866
cg19730092	yellow	10	72,432,797	Body	S_Shore	ADAMTS14	0.707	0.005	0.331	0.395
cg07427438	yellow	16	4,819,304		S_Shore		0.707	0.008	0.775	0.357
cg21915100	yellow	14	74,957,673	Body	N_Shelf	NPC2	0.707	0.000	0.736	0.973
cg03193505	yellow	8	105,474,974	Body	N_Shelf	DPYS	0.707	-0.019	0.784	0.265
cg02569115	yellow	17	76,922,138	TSS1500	S_Shore	TIMP2	0.707	0.012	0.166	0.227
cg15712520	yellow	6	32,049,263	Body	S_Shelf	TNXB	0.707	0.007	0.778	0.479
cg09129067	yellow	8	103,750,904		Island		0.707	0.012	0.793	0.289
cg08288345	yellow	6	31,506,604	Body	N_Shelf	BAT1	0.707	-0.012	0.724	0.268
cg10276016	yellow	7	16,639,517	3'UTR	OpenSea	ANKMY2	0.707	0.002	0.752	0.831
cg09681043	yellow	2	128,293,239	TSS200	OpenSea	MYO7B	0.707	-0.003	0.630	0.722
cg12057242	yellow	2	9,603,687	Body	OpenSea	CPSF3	0.707	-0.003	0.721	0.658
cg18069493	yellow	21	47,649,776	Body	S_Shore	MCM3APAS	0.706	0.006	0.435	0.670
cg17608428	yellow	17	55,038,699	TSS1500	S_Shore	COIL	0.706	0.007	0.423	0.421
cg23674202	yellow	17	80,541,549	Body	Island	FOXK2	0.706	-0.013	0.876	0.208
cg24421094	yellow	2	11,810,597	TSS1500	S_Shore	NTSR2	0.706	-0.007	0.730	0.499
cg06978336	yellow	16	88,967,587	Body	S_Shore	CBFA2T3	0.706	0.004	0.786	0.638
cg03293330	yellow	3	187,385,312		N_Shelf		0.706	0.005	0.643	0.604
cg05235171	yellow	11	117,958,104	Body	OpenSea	TMPRSS4	0.706	0.007	0.512	0.229
cg07906745	yellow	1	109,639,152	3'UTR	N_Shelf	TMEM167B	0.706	0.003	0.767	0.800
cg02884181	yellow	5	158,689,508	TSS1500	N_Shore	UBLCP1	0.706	-0.006	0.771	0.732
cg20975733	yellow	15	87,155,056	Body	OpenSea	AGBL1	0.706	0.004	0.807	0.556
cg15049549	yellow	3	48,732,213	Body	OpenSea	IP6K2	0.706	0.000	0.556	0.995
cg00460457	yellow	22	41,631,801	Body	N_Shore	CHADL	0.706	-0.002	0.876	0.875
cg22656677	yellow	2	214,047,193		OpenSea		0.706	-0.002	0.880	0.752
cg22481405	yellow	8	143,551,331	Body	OpenSea	BAI1	0.706	-0.001	0.457	0.814

cg00754426	yellow	20	37,100,437	TSS1500	N_Shore	RALGAPB	0.706	0.001	0.638	0.896
cg25291311	yellow	4	75,565,771		OpenSea		0.706	0.008	0.785	0.638
cg22030362	yellow	1	43,357,107		S_Shelf		0.706	0.003	0.663	0.688
cg04598292	yellow	7	158,495,856	5'UTR	N_Shore	NCAPG2	0.706	0.013	0.558	0.258
cg10451565	yellow	19	47,840,131	TSS1500	OpenSea	GPR77	0.706	0.007	0.645	0.605
cg14405813	yellow	7	139,414,573	Body	N_Shore	HIPK2	0.706	0.003	0.664	0.575
cg12449682	yellow	5	175,111,543	Body	OpenSea	HRH2	0.706	0.003	0.858	0.674
cg02059080	yellow	19	44,124,666	TSS1500	S_Shore	ZNF428	0.706	0.012	0.641	0.259
cg09866743	yellow	3	35,706,038	5'UTR	OpenSea	ARPP-21	0.706	0.017	0.169	0.206
cg10420150	yellow	10	72,412,875		OpenSea		0.706	0.009	0.643	0.249
cg25518276	yellow	11	64,728,559	TSS1500	OpenSea	C11orf85	0.706	0.016	0.726	0.189
cg22740489	yellow	2	110,706,159	Body	S_Shore	LIMS3-LOC44	0.706	0.010	0.438	0.179
cg03755957	yellow	12	104,363,275	Body	S_Shelf	TDG	0.706	0.004	0.709	0.611
cg02134976	yellow	6	42,110,740	TSS200	S_Shore	C6orf132	0.706	-0.002	0.292	0.858
cg24492119	yellow	6	158,245,646	Body	S_Shore	SNX9	0.706	-0.007	0.257	0.309
cg24062526	yellow	2	86,255,804	Body	OpenSea	POLR1A	0.706	0.000	0.741	0.981
cg10179693	yellow	1	42,618,939	TSS200	OpenSea	GUCA2B	0.706	0.002	0.558	0.645
cg24375627	yellow	1	153,509,284	TSS1500	S_Shore	S100A6	0.706	0.000	0.552	0.952
cg09998278	yellow	16	70,835,403	TSS1500	S_Shore	VAC14	0.706	0.000	0.054	0.949
cg17311587	yellow	7	1,250,088		N_Shore		0.706	-0.004	0.152	0.741
cg14403603	yellow	22	30,079,754	3'UTR	OpenSea	NF2	0.706	-0.002	0.793	0.766
cg16348003	yellow	1	153,589,781	TSS1500	OpenSea	S100A14	0.706	0.015	0.691	0.134
cg16532438	yellow	5	138,861,941	5'UTR	OpenSea	TMEM173	0.706	0.000	0.032	0.956
cg00239915	yellow	7	157,809,596	Body	OpenSea	PTPRN2	0.706	0.010	0.232	0.387
cg26233253	yellow	22	31,032,613	1stExon	S_Shore	SLC35E4	0.706	0.022	0.512	0.017
cg02250044	yellow	14	54,976,234	TSS1500	N_Shore	CGRRF1	0.705	0.003	0.053	0.566
cg18372353	yellow	15	35,838,733	TSS1500	S_Shore	ATPBD4	0.705	-0.003	0.137	0.672
cg09767076	yellow	12	124,199,914	Body	S_Shelf	ATP6V0A2	0.705	0.006	0.866	0.587
cg10794086	yellow	6	30,455,964	TSS1500	N_Shore	HLA-E	0.705	0.016	0.605	0.245
cg02331262	yellow	16	87,988,631	5'UTR	N_Shelf	BANP	0.705	0.011	0.902	0.047
cg07907506	yellow	3	100,210,582	TSS1500	N_Shore	TMEM45A	0.705	0.003	0.487	0.831
cg10673265	yellow	6	33,169,975	Body	S_Shore	SLC39A7	0.705	0.007	0.797	0.202
cg23018448	yellow	19	10,811,855	TSS1500	N_Shore	QTRT1	0.705	0.008	0.769	0.483
cg16567172	yellow	7	75,931,606	TSS1500	N_Shore	HSPB1	0.705	0.006	0.226	0.251
cg20420868	yellow	11	67,442,067	1stExon	OpenSea	ALDH3B2	0.705	0.011	0.723	0.155
cg21921789	yellow	1	16,067,572	TSS1500	N_Shelf	TMEM82	0.705	0.005	0.637	0.385
cg25531341	yellow	6	144,982,324	Body	OpenSea	UTRN	0.705	0.036	0.589	0.023
cg04772968	yellow	19	12,404,112	Body	N_Shore	ZNF44	0.705	0.008	0.744	0.359
cg18568145	yellow	1	155,225,764	TSS1500	S_Shore	FAM189B	0.705	0.000	0.040	0.838
cg06154597	yellow	4	924,812	Body	N_Shore	GAK	0.705	0.005	0.760	0.421
cg12977135	yellow	8	119,036,478	Body	OpenSea	EXT1	0.705	0.006	0.628	0.479
cg01777300	yellow	14	104,837,070		OpenSea		0.705	0.011	0.345	0.102
cg25323497	yellow	6	46,923,451	TSS1500	OpenSea	GPR116	0.705	0.009	0.788	0.327
cg04349178	yellow	1	2,026,224	Body	Island	PRKCZ	0.705	0.002	0.877	0.683
cg17286012	yellow	6	33,157,776	Body	N_Shelf	COL11A2	0.705	-0.001	0.455	0.909
cg19267910	yellow	2	142,948,816		OpenSea		0.705	-0.011	0.854	0.324
cg07627628	yellow	19	10,254,526	Body	S_Shore	DNMT1	0.705	-0.007	0.907	0.447
cg00935043	yellow	2	227,598,603	3'UTR	OpenSea	IRS1	0.705	-0.007	0.796	0.523
cg18967021	yellow	1	229,197,824		OpenSea		0.705	0.000	0.695	0.950
cg14096938	yellow	7	30,885,499	Body	OpenSea	FAM188B	0.705	0.003	0.366	0.677
cg01841306	yellow	17	908,923	3'UTR	N_Shore	ABR	0.705	0.002	0.249	0.883
cg20100049	yellow	11	67,979,188	5'UTR	N_Shore	SUV420H1	0.705	0.000	0.110	0.940
cg15719376	yellow	11	70,976,678		OpenSea		0.705	0.000	0.492	0.954
cg17250770	yellow	8	22,500,401	TSS1500	OpenSea	FLJ14107	0.705	0.004	0.887	0.515
cg23038349	yellow	1	160,765,225	TSS1500	OpenSea	LY9	0.705	0.004	0.780	0.617
cg02147316	yellow	3	38,501,099	Body	S_Shelf	ACVR2B	0.705	0.002	0.964	0.344
cg09258150	yellow	19	10,397,429	TSS1500	N_Shore	ICAM4	0.705	-0.003	0.059	0.683
cg05407489	yellow	10	73,139,576		S_Shelf		0.705	0.003	0.593	0.780
cg13972706	yellow	6	144,671,686	Body	OpenSea	UTRN	0.705	0.002	0.840	0.834
cg09327397	yellow	19	54,687,634	Body	S_Shelf	MBOAT7	0.705	0.003	0.858	0.599
cg21603144	yellow	2	102,608,233	TSS200	OpenSea	IL1R2	0.705	-0.003	0.877	0.755
cg24583987	yellow	1	42,618,041	TSS1500	OpenSea	GUCA2B	0.705	-0.001	0.855	0.867
cg11893127	yellow	12	131,057,342		OpenSea		0.705	0.030	0.405	0.015
cg13342710	yellow	3	123,407,570	Body	OpenSea	MYLK	0.705	0.000	0.940	0.973
cg01775265	yellow	20	31,780,882	TSS1500	OpenSea	BASE	0.705	0.008	0.271	0.235
cg10115564	yellow	13	44,595,666	TSS1500	OpenSea	LOC121838	0.705	0.002	0.703	0.874
cg07221518	yellow	1	54,725,435	Body	S_Shore	SSBP3	0.705	0.004	0.830	0.580

cg23254045	yellow	15	38,226,454	TSS1500	OpenSea	TMCO5A	0.705	0.009	0.844	0.390
cg14240723	yellow	19	2,363,170		S_Shelf		0.705	0.003	0.842	0.674
cg10575089	yellow	17	56,606,542	Body	N_Shelf	4-Sep	0.705	0.011	0.515	0.077
cg12955127	yellow	1	111,990,884	Body	N_Shore	WDR77	0.705	0.012	0.504	0.221
cg18671932	yellow	6	75,381,295		OpenSea		0.705	0.026	0.749	0.163
cg05218882	yellow	3	132,440,131	Body	N_Shore	NPHP3	0.705	-0.001	0.966	0.791
cg09939079	yellow	12	69,753,248	TSS1500	N_Shore	YEATS4	0.705	0.009	0.696	0.322
cg18347442	yellow	6	106,868,843		OpenSea		0.705	0.007	0.798	0.149
cg00714309	yellow	1	52,422,674	Body	OpenSea	RAB3B	0.705	0.006	0.409	0.424
cg06579354	yellow	19	41,618,922	TSS1500	OpenSea	CYP2F1	0.705	0.001	0.624	0.877
cg08179817	yellow	4	4,335,184		OpenSea		0.705	0.010	0.539	0.317
cg02334775	yellow	15	89,182,676	Body	OpenSea	ISG20	0.705	-0.002	0.525	0.856
cg06623668	yellow	19	13,138,816	Body	S_Shelf	NFIX	0.705	-0.006	0.947	0.147
cg11901362	yellow	2	3,507,404	Body	S_Shelf	ADI1	0.705	-0.010	0.939	0.014
cg02053964	yellow	12	124,950,784	Body	Island	NCOR2	0.705	0.005	0.913	0.348
cg02932780	yellow	6	31,762,353	Body	N_Shore	VARS	0.705	0.000	0.426	0.971
cg23641093	yellow	19	16,640,963	Body	N_Shore	CHERP	0.705	0.006	0.859	0.421
cg08317133	yellow	11	63,871,228	Body	OpenSea	MACROD1	0.705	0.013	0.560	0.063
cg07493465	yellow	6	149,301,241	Body	OpenSea	UST	0.705	-0.014	0.885	0.130
cg26038461	yellow	2	25,108,362	Body	OpenSea	ADCY3	0.705	0.003	0.819	0.625
cg19678968	yellow	8	59,185,164		OpenSea		0.705	-0.004	0.640	0.574
cg20054111	yellow	4	140,829,046	Body	OpenSea	MAML3	0.705	-0.004	0.754	0.577
cg07809831	yellow	16	48,428,016		OpenSea		0.704	-0.004	0.598	0.798
cg22166565	yellow	17	901,284	Body	S_Shore	TIMM22	0.704	-0.002	0.172	0.752
cg00028507	yellow	1	2,918,106		N_Shore		0.704	-0.005	0.745	0.415
cg10219783	yellow	16	75,302,381	TSS1500	S_Shelf	BCAR1	0.704	-0.002	0.965	0.590
cg07296841	yellow	12	13,307,263		OpenSea		0.704	-0.020	0.429	0.318
cg23213217	yellow	1	224,370,155	TSS1500	N_Shore	DEGS1	0.704	0.004	0.797	0.621
cg16556633	yellow	14	59,815,883	Body	OpenSea	DAAM1	0.704	0.010	0.426	0.375
cg26848071	yellow	17	4,927,715	3'UTR	OpenSea	KIF1C	0.704	0.005	0.607	0.613
cg20667684	yellow	22	22,901,857	TSS200	S_Shore	PRAME	0.704	-0.008	0.625	0.373
cg09575442	yellow	1	223,888,431	TSS1500	OpenSea	CAPN2	0.704	0.009	0.602	0.161
cg10133100	yellow	11	68,276,883	5'UTR	OpenSea	SAPS3	0.704	0.014	0.674	0.051
cg27178569	yellow	15	49,937,400		OpenSea		0.704	-0.001	0.880	0.947
cg19697042	yellow	15	92,080,308		OpenSea		0.704	0.001	0.177	0.887
cg18560551	yellow	11	34,654,233	5'UTR	OpenSea	EHF	0.704	0.009	0.672	0.306
cg21815220	yellow	1	1,150,410	TSS1500	S_Shore	TNFRSF4	0.704	0.014	0.513	0.126
cg00554948	yellow	12	51,631,858	TSS1500	N_Shore	DAZAP2	0.704	0.003	0.879	0.716
cg27107970	yellow	17	79,520,734	TSS1500	S_Shore	C17orf70	0.704	0.001	0.335	0.872
cg14207114	yellow	13	45,884,877		N_Shore		0.704	0.007	0.444	0.454
cg27392775	yellow	1	202,924,293	5'UTR	N_Shelf	ADIPOR1	0.704	-0.009	0.911	0.206
cg18503728	yellow	17	13,364,556		OpenSea		0.704	0.000	0.957	0.899
cg24681573	yellow	19	39,423,646	3'UTR	S_Shelf	MRPS12	0.704	0.007	0.656	0.319
cg22212250	yellow	5	132,232,586	Body	OpenSea	AFF4	0.704	-0.004	0.930	0.423
cg07329968	yellow	2	242,887,160		OpenSea		0.704	-0.004	0.796	0.547
cg00842076	yellow	14	89,881,835	5'UTR	N_Shore	FOXN3	0.704	0.028	0.322	0.071
cg26923810	yellow	16	20,935,690	3'UTR	OpenSea	LYRM1	0.704	-0.003	0.905	0.617
cg10210510	yellow	1	40,771,135	Body	S_Shore	COL9A2	0.704	0.002	0.889	0.823
cg01933477	yellow	5	2,223,521		OpenSea		0.704	-0.008	0.633	0.395
cg01727419	yellow	10	105,616,523	TSS1500	S_Shore	SH3PXD2A	0.704	0.029	0.672	0.013
cg01093088	yellow	1	153,322,488	TSS1500	OpenSea	PGLYRP4	0.704	0.006	0.709	0.363
cg07185287	yellow	10	79,797,844	Body	S_Shelf	RPS24	0.704	-0.005	0.930	0.288
cg13653802	yellow	10	69,527,422		S_Shelf		0.704	0.000	0.907	0.972
cg10996527	yellow	8	141,994,633	5'UTR	OpenSea	PTK2	0.704	0.010	0.830	0.377
cg17213870	yellow	22	47,054,273	Body	Island	GRAMD4	0.704	0.002	0.745	0.763
cg01268022	yellow	7	30,065,277	Body	N_Shore	FKBP14	0.704	-0.001	0.268	0.929
cg15531433	yellow	10	1,639,090	Body	OpenSea	ADARB2	0.704	0.012	0.686	0.355
cg06638023	yellow	19	59,030,102	5'UTR	N_Shore	ZBTB45	0.704	0.016	0.254	0.215
cg06135285	yellow	17	19,675,785	3'UTR	OpenSea	ULK2	0.704	-0.008	0.691	0.626
cg09001939	yellow	2	11,810,534	TSS1500	S_Shore	NTSR2	0.704	-0.001	0.746	0.949
cg11119596	yellow	3	111,261,010	5'UTR	OpenSea	CD96	0.704	0.014	0.173	0.127
cg19014335	yellow	12	50,099,568	Body	N_Shore	FMNL3	0.704	0.007	0.635	0.413
cg16907527	yellow	6	43,744,388	Body	OpenSea	VEGFA	0.704	-0.004	0.943	0.312
cg08034413	yellow	13	114,115,128	Body	OpenSea	DCUN1D2	0.704	0.006	0.719	0.424
cg03053750	yellow	20	57,046,400	Body	S_Shelf	APCDD1L	0.704	0.011	0.693	0.165
cg16817180	yellow	4	981,485	Body	Island	IDUA	0.704	0.004	0.407	0.510
cg09507215	yellow	13	113,348,391	Body	N_Shelf	ATP11A	0.704	0.002	0.656	0.793

cg11059800	yellow	16	22,217,246	TSS1500	N_Shore	EEF2K	0.704	-0.009	0.177	0.226
cg15324865	yellow	1	246,414,665	Body	N_Shore	SMYD3	0.704	0.019	0.867	0.103
cg04387597	yellow	17	72,443,179	3'UTR	Island	GPRC5C	0.704	0.007	0.852	0.143
cg09361691	yellow	13	47,471,169	TSS200	OpenSea	HTR2A	0.704	0.009	0.130	0.387
cg11818555	yellow	13	30,700,159		OpenSea		0.704	-0.002	0.754	0.809
cg00122347	yellow	10	104,236,741	3'UTR	OpenSea	TMEM180	0.704	0.000	0.387	0.988
cg12525675	yellow	13	62,274,647		OpenSea		0.704	0.002	0.922	0.765
cg16060635	yellow	1	12,588,654		OpenSea		0.704	0.013	0.357	0.190
cg18105361	yellow	5	135,536,668		OpenSea		0.704	0.007	0.604	0.378
cg04421679	yellow	7	131,192,789	Body	OpenSea	PODXL	0.704	0.008	0.156	0.414
cg03857664	yellow	5	171,864,134	Body	OpenSea	SH3PXD2B	0.704	0.017	0.635	0.079
cg19844283	yellow	5	54,448,226	Body	OpenSea	CDC20B	0.704	0.008	0.604	0.418
cg05885668	yellow	19	5,800,634		N_Shore		0.704	0.009	0.790	0.240
cg10313463	yellow	16	30,440,564	Body	N_Shore	DCTPP1	0.704	0.010	0.086	0.097
cg17054900	yellow	3	154,042,577	TSS1500	S_Shore	DHX36	0.704	-0.002	0.261	0.900
cg26514552	yellow	1	207,277,450	TSS200	OpenSea	C4BPA	0.703	-0.004	0.629	0.530
cg10783797	yellow	7	150,930,536	5'UTR	S_Shore	CHPF2	0.703	0.005	0.501	0.369
cg20363192	yellow	15	31,780,722	Body	S_Shelf	OTUD7A	0.703	-0.006	0.885	0.251
cg22442557	yellow	17	79,011,352	Body	S_Shore	BAIAP2	0.703	-0.002	0.691	0.796
cg16402387	yellow	1	182,028,676	5'UTR	S_Shelf	ZNF648	0.703	-0.001	0.667	0.862
cg07424912	yellow	16	58,718,915	TSS1500	S_Shore	SLC38A7	0.703	-0.012	0.772	0.221
cg21853693	yellow	14	21,466,306	TSS1500	OpenSea	SLC39A2	0.703	0.010	0.603	0.079
cg13401301	yellow	9	134,132,080		OpenSea		0.703	0.000	0.423	0.941
cg10646968	yellow	10	111,728,983		OpenSea		0.703	0.006	0.782	0.656
cg06435374	yellow	8	26,474,480	Body	OpenSea	DPYSL2	0.703	0.010	0.941	0.039
cg27158793	yellow	7	69,434,196	Body	OpenSea	AUTS2	0.703	-0.010	0.814	0.332
cg23531488	yellow	7	123,198,305	TSS1500	S_Shore	NDUFA5	0.703	-0.006	0.424	0.533
cg02737619	yellow	1	2,222,440	Body	Island	SKI	0.703	0.002	0.382	0.834
cg01141721	yellow	20	36,010,619	5'UTR	N_Shore	SRC	0.703	-0.009	0.562	0.593
cg20102034	yellow	2	74,653,166	3'UTR	S_Shelf	RTKN	0.703	0.008	0.692	0.211
cg13852822	yellow	9	123,657,221		S_Shore		0.703	0.007	0.308	0.355
cg07359306	yellow	3	52,811,297	TSS1500	OpenSea	ITIH1	0.703	0.010	0.786	0.158
cg16286735	yellow	17	45,371,778	Body	OpenSea	ITGB3	0.703	0.020	0.648	0.096
cg12245245	yellow	12	118,588,929	Body	OpenSea	TAOK3	0.703	0.005	0.745	0.531
cg05817833	yellow	6	113,233,701		OpenSea		0.703	0.017	0.470	0.138
cg01254707	yellow	2	102,953,421	5'UTR	OpenSea	IL1RL1	0.703	-0.012	0.859	0.153
cg08532914	yellow	3	11,763,045	TSS1500	S_Shore	VGLL4	0.703	-0.001	0.606	0.889
cg10012530	yellow	2	129,073,706	Body	N_Shore	HS6ST1	0.703	-0.001	0.577	0.931
cg14268194	yellow	7	144,226,107	Body	OpenSea	TPK1	0.703	0.000	0.845	0.988
cg10454258	yellow	16	27,443,933	Body	OpenSea	IL21R	0.703	0.006	0.525	0.495
cg26712821	yellow	3	15,244,698	Body	N_Shelf	DVWA	0.703	0.000	0.651	0.967
cg25356504	yellow	17	26,707,476	Body	N_Shore	SARM1	0.703	0.010	0.573	0.191
cg09692335	yellow	3	48,507,596	5'UTR	OpenSea	TREX1	0.703	0.005	0.035	0.258
cg03818034	yellow	7	99,746,088	TSS1500	N_Shore	C7orf59	0.703	0.017	0.365	0.109
cg03680291	yellow	16	47,052,148		S_Shelf		0.703	-0.003	0.466	0.778
cg08730131	yellow	17	12,694,843	Body	S_Shore	RICH2	0.703	-0.001	0.948	0.870
cg06417752	yellow	11	118,271,414	TSS1500	N_Shore	ATP5L	0.703	0.004	0.370	0.624
cg19464087	yellow	3	9,442,171	5'UTR	S_Shelf	SETD5	0.703	0.007	0.692	0.630
cg11362622	yellow	12	107,836,508	Body	OpenSea	BTBD11	0.703	0.014	0.297	0.216
cg18455249	yellow	4	56,813,898	TSS1500	N_Shore	CEP135	0.703	-0.001	0.590	0.898
cg23973885	yellow	1	1,294,881	TSS1500	S_Shelf	MXRA8	0.703	0.007	0.650	0.269
cg04837438	yellow	2	95,403,063		S_Shore		0.703	-0.006	0.893	0.563
cg06235224	yellow	22	37,171,278	Body	N_Shore	RABL4	0.703	0.002	0.472	0.784
cg14376618	yellow	12	45,721,125	Body	OpenSea	ANO6	0.703	-0.010	0.806	0.325
cg22261895	yellow	12	14,720,100	Body	N_Shore	PLBD1	0.703	0.011	0.401	0.342
cg04216070	yellow	15	101,712,402		OpenSea		0.703	0.004	0.611	0.759
cg22642477	yellow	17	5,488,162	TSS1500	OpenSea	NLRP1	0.703	-0.001	0.280	0.892
cg22840234	yellow	10	92,213,389		OpenSea		0.703	0.007	0.861	0.323
cg14768087	yellow	3	188,888,497	TSS1500	OpenSea	TPRG1	0.703	-0.008	0.399	0.456
cg09250965	yellow	16	25,708,274	Body	S_Shelf	HS3ST4	0.703	0.007	0.723	0.281
cg18757155	yellow	8	24,151,472	TSS200	OpenSea	ADAM28	0.703	0.011	0.463	0.411
cg09120873	yellow	4	184,686,773		OpenSea		0.703	0.007	0.552	0.368
cg02652344	yellow	9	123,553,595	5'UTR	N_Shore	FBXW2	0.703	-0.009	0.842	0.210
cg27260312	yellow	3	197,236,477		OpenSea		0.703	0.005	0.828	0.477
cg06062821	yellow	5	120,278,165		OpenSea		0.702	-0.011	0.816	0.349
cg24127050	yellow	2	97,530,800	Body	Island	SEMA4C	0.702	0.008	0.784	0.196
cg20845599	yellow	6	14,984,686		OpenSea		0.702	0.005	0.423	0.676

cg24424217	yellow	10	135,123,421	Body	Island	ZNF511	0.702	0.005	0.905	0.307
cg17501906	yellow	1	162,583,287		OpenSea		0.702	0.004	0.762	0.696
cg01008256	yellow	7	100,463,985	Body	Island	SLC12A9	0.702	-0.003	0.837	0.778
cg01058070	yellow	15	51,398,144	TSS1500	OpenSea	TNFAIP8L3	0.702	0.000	0.522	0.972
cg00175901	yellow	12	113,416,290	1stExon	OpenSea	OAS2	0.702	0.010	0.190	0.295
cg14225168	yellow	9	139,403,827	Body	N_Shore	NOTCH1	0.702	0.021	0.706	0.002
cg12569835	yellow	2	239,925,460		OpenSea		0.702	0.012	0.522	0.192
cg16122793	yellow	1	180,981,015	Body	OpenSea	STX6	0.702	0.007	0.767	0.473
cg12584718	yellow	7	100,028,402	1stExon	S_Shore	MEPCE	0.702	0.005	0.158	0.401
cg09641127	yellow	2	10,193,895	3'UTR	OpenSea	KLF11	0.702	-0.006	0.868	0.363
cg02442619	yellow	12	91,572,142	1stExon	OpenSea	DCN	0.702	0.006	0.313	0.506
cg00033773	yellow	19	12,779,366	TSS1500	N_Shore	MORG1	0.702	0.002	0.789	0.813
cg01096617	yellow	16	58,569,180	Body	OpenSea	CNOT1	0.702	0.004	0.913	0.529
cg15689991	yellow	12	65,019,329	Body	OpenSea	RASSF3	0.702	-0.014	0.341	0.448
cg09498007	yellow	2	102,004,370	TSS1500	S_Shore	CREG2	0.702	-0.001	0.270	0.948
cg14924620	yellow	10	50,342,114	TSS200	S_Shore	FAM170B	0.702	0.003	0.832	0.806
cg05903720	yellow	14	104,663,241		OpenSea		0.702	0.016	0.604	0.266
cg17208953	yellow	12	108,054,842		OpenSea		0.702	0.010	0.613	0.462
cg05146536	yellow	4	77,140,678		OpenSea		0.702	-0.015	0.135	0.121
cg11572080	yellow	6	111,925,158	Body	OpenSea	TRAF3IP2	0.702	0.006	0.718	0.395
cg13454226	yellow	10	3,823,758	Body	N_Shore	KLF6	0.702	0.010	0.635	0.185
cg13016528	yellow	6	30,615,944	Body	S_Shore	C6orf136	0.702	0.009	0.556	0.198
cg26620021	yellow	19	40,788,926	TSS1500	N_Shore	MIR641	0.702	-0.001	0.765	0.906
cg00796963	yellow	6	84,936,558	5'UTR	N_Shore	KIAA1009	0.702	0.024	0.220	0.022
cg18888814	yellow	13	100,300,543	Body	OpenSea	CLYBL	0.702	0.003	0.865	0.781
cg06968688	yellow	17	80,228,520	Body	N_Shelf	CSNK1D	0.702	0.009	0.765	0.110
cg16373176	yellow	17	17,700,943	Body	Island	RAI1	0.702	0.005	0.774	0.423
cg10802176	yellow	12	42,299,446		OpenSea		0.702	-0.004	0.929	0.626
cg07467618	yellow	15	68,829,285		OpenSea		0.702	0.004	0.687	0.556
cg02010738	yellow	19	2,095,466	TSS1500	Island	C19orf36	0.702	0.003	0.861	0.627
cg26314750	yellow	15	40,545,794	5'UTR	S_Shore	PAK6	0.702	0.005	0.489	0.499
cg06530725	yellow	1	54,375,643	Body	OpenSea	DIO1	0.702	0.006	0.838	0.571
cg25645310	yellow	10	116,581,305	TSS200	N_Shore	FAM160B1	0.702	0.000	0.054	0.908
cg26982321	yellow	6	137,663,088		OpenSea		0.702	-0.006	0.456	0.688
cg25408314	yellow	17	33,350,043	Body	OpenSea	RFFL	0.702	0.000	0.340	0.988
cg05917419	yellow	5	124,013,536	Body	OpenSea	ZNF608	0.702	0.002	0.193	0.807
cg25017349	yellow	6	131,745,773		OpenSea		0.702	0.010	0.842	0.496
cg27149179	yellow	11	86,451,848		OpenSea		0.702	0.013	0.539	0.194
cg13630239	yellow	10	99,116,547	3'UTR	OpenSea	RRP12	0.702	0.005	0.919	0.287
cg22972858	yellow	12	123,215,248	TSS200	OpenSea	GPR81	0.702	-0.003	0.580	0.773
cg03316570	yellow	6	43,877,657	Body	OpenSea	LOC1001323	0.702	0.004	0.351	0.377
cg19733633	yellow	5	112,824,746	TSS1500	S_Shore	MCC	0.702	0.003	0.366	0.764
cg01607849	yellow	12	6,976,129	TSS1500	N_Shore	TPI1	0.702	-0.005	0.075	0.438
cg23095260	yellow	19	10,381,454	TSS200	Island	ICAM1	0.702	0.000	0.085	0.930
cg18795232	yellow	12	121,890,163	Body	N_Shore	KDM2B	0.702	0.001	0.816	0.849
cg00781795	yellow	18	55,815,677	5'UTR	OpenSea	NEDD4L	0.702	0.010	0.804	0.194
cg26538140	yellow	12	6,996,791		N_Shelf		0.702	0.013	0.527	0.097
cg14539422	yellow	9	116,343,185	Body	N_Shelf	RGS3	0.702	0.005	0.703	0.482
cg08188069	yellow	8	57,309,394	TSS1500	OpenSea	SDR16C6	0.702	-0.001	0.863	0.903
cg13602461	yellow	8	55,066,317		OpenSea		0.702	0.017	0.640	0.098
cg10091408	yellow	17	35,183,637		OpenSea		0.702	0.004	0.390	0.570
cg13097433	yellow	17	42,877,358	3'UTR	OpenSea	GJC1	0.702	0.000	0.927	0.951
cg16424945	yellow	15	52,274,433		OpenSea		0.702	-0.007	0.124	0.560
cg13938785	yellow	9	140,471,399	Body	N_Shore	WDR85	0.702	0.001	0.772	0.901
cg17069473	yellow	11	113,947,359	Body	OpenSea	ZBTB16	0.702	0.003	0.546	0.701
cg06754224	yellow	1	28,585,612	TSS1500	N_Shore	SESN2	0.702	0.006	0.230	0.389
cg03786920	yellow	20	2,113,886	3'UTR	OpenSea	STK35	0.702	0.004	0.943	0.452
cg16853953	yellow	19	42,774,803		S_Shore		0.702	0.023	0.358	0.124
cg24696715	yellow	14	76,446,681	Body	N_Shore	TGFB3	0.702	0.006	0.256	0.371
cg23451678	yellow	3	112,323,619	3'UTR	OpenSea	CCDC80	0.702	-0.019	0.167	0.092
cg20191066	yellow	17	56,413,977		OpenSea		0.701	0.017	0.445	0.053
cg24541550	yellow	11	10,715,360	TSS1500	OpenSea	MRV1	0.701	0.013	0.526	0.092
cg09377980	yellow	3	66,798,910		OpenSea		0.701	-0.002	0.767	0.807
cg18719939	yellow	3	48,545,308		S_Shelf		0.701	0.006	0.419	0.442
cg00409104	yellow	17	8,762,014	5'UTR	OpenSea	PIK3R6	0.701	0.015	0.562	0.022
cg00142482	yellow	10	50,396,833	TSS1500	OpenSea	C10orf128	0.701	0.006	0.704	0.486
cg21531300	yellow	14	75,988,800	5'UTR	OpenSea	BATF	0.701	0.005	0.807	0.439



cg16092390	yellow	22	36,720,207	Body	S_Shore	MYH9	0.701	0.008	0.627	0.259
cg12141623	yellow	8	27,316,418	3'UTR	OpenSea	PTK2B	0.701	-0.001	0.452	0.919
cg20190649	yellow	17	46,255,433	Body	OpenSea	SKAP1	0.701	-0.001	0.875	0.912
cg26779147	yellow	15	33,320,928	Body	OpenSea	FMN1	0.701	-0.008	0.677	0.436
cg05051799	yellow	6	53,808,789		OpenSea		0.701	0.028	0.569	0.136
cg19685976	yellow	19	40,972,228	TSS1500	Island	SPTBN4	0.701	0.002	0.024	0.305
cg10299610	yellow	8	109,292,971		OpenSea		0.701	0.022	0.679	0.264
cg19777396	yellow	14	104,638,520	Body	Island	KIF26A	0.701	-0.002	0.753	0.877
cg03169557	yellow	16	89,598,950	Body	OpenSea	SPG7	0.701	0.000	0.832	0.935
cg16971827	yellow	11	119,177,430	3'UTR	N_Shelf	CBL	0.701	-0.003	0.766	0.585
cg00402516	yellow	19	1,580,504	Body	Island	MBD3	0.701	0.006	0.570	0.350
cg03655142	yellow	1	153,950,843	TSS1500	S_Shore	JTB	0.701	0.011	0.732	0.274
cg07707505	yellow	1	12,185,435	Body	OpenSea	TNFRSF8	0.701	-0.005	0.819	0.353
cg11074192	yellow	13	78,494,442	TSS1500	S_Shore	EDNRB	0.701	-0.007	0.925	0.304
cg17089019	yellow	1	41,343,215		OpenSea		0.701	0.006	0.802	0.333
cg24402880	yellow	4	84,035,837	1stExon	OpenSea	PLAC8	0.701	0.003	0.577	0.734
cg00054774	yellow	21	43,373,079	Body	N_Shore	C2CD2	0.701	-0.006	0.453	0.535
cg07533176	yellow	7	73,870,209	5'UTR	S_Shelf	GTF2IRD1	0.701	0.015	0.716	0.167
cg04845821	yellow	16	89,220,554	Body	S_Shore	ACSF3	0.701	0.010	0.577	0.264
cg05483125	yellow	16	75,554,060		S_Shelf		0.701	0.004	0.665	0.619
cg01465527	yellow	6	29,548,535	TSS1500	OpenSea	SNORD32B	0.701	-0.019	0.841	0.061
cg03706720	yellow	3	184,230,938		N_Shore		0.701	0.004	0.579	0.738
cg13180920	yellow	21	46,896,174	Body	Island	COL18A1	0.701	0.002	0.790	0.827
cg22543602	yellow	8	38,610,736	5'UTR	N_Shelf	TACC1	0.701	-0.009	0.809	0.450
cg02849507	yellow	16	14,051,717		OpenSea		0.701	0.007	0.451	0.502
cg18231898	yellow	11	125,244,765	Body	OpenSea	PKNOX2	0.701	-0.005	0.647	0.577
cg26931526	yellow	1	8,275,693		N_Shore		0.701	0.002	0.257	0.744
cg00694520	yellow	2	223,916,687	TSS200	N_Shore	KCNE4	0.701	0.016	0.328	0.226
cg05176551	yellow	10	32,701,586		OpenSea		0.701	0.012	0.670	0.178
cg08596486	yellow	8	12,938,311		OpenSea		0.701	0.003	0.444	0.542
cg13455960	yellow	15	93,617,134	1stExon	Island	RGMA	0.701	-0.007	0.543	0.410
cg04215950	yellow	1	7,125,137	Body	S_Shelf	CAMTA1	0.701	-0.003	0.774	0.547
cg18759850	yellow	3	27,499,075	TSS1500	OpenSea	SLC4A7	0.701	0.008	0.592	0.597
cg03777575	yellow	11	62,413,296	Body	N_Shore	GANAB	0.701	-0.004	0.083	0.438
cg20320656	yellow	12	51,442,996	Body	S_Shore	LETMD1	0.701	-0.001	0.714	0.906
cg21988813	yellow	11	61,730,880	Body	N_Shelf	BEST1	0.701	0.010	0.887	0.136
cg05656770	yellow	9	139,838,089	Body	Island	FBXW5	0.701	0.004	0.337	0.584
cg26543539	yellow	1	156,907,349	Body	OpenSea	ARHGEF11	0.701	0.009	0.561	0.261
cg26211349	yellow	17	77,404,555	5'UTR	OpenSea	HRNBP3	0.701	-0.003	0.440	0.731
cg11783364	yellow	12	68,800,138		OpenSea		0.701	-0.006	0.083	0.152
cg02593381	yellow	16	68,434,111	5'UTR	OpenSea	SMPD3	0.701	-0.007	0.713	0.210
cg19196806	yellow	7	106,820,309	5'UTR	OpenSea	HBP1	0.701	-0.001	0.844	0.897
cg09481866	yellow	17	75,373,040	5'UTR	S_Shelf	9-Sep	0.701	0.007	0.806	0.218
cg05114898	yellow	20	56,294,175		S_Shore		0.700	0.001	0.530	0.932
cg19937288	yellow	14	101,199,873	Body	N_Shore	DLK1	0.700	0.004	0.613	0.454
cg05019807	yellow	9	139,410,393	Body	N_Shore	NOTCH1	0.700	0.000	0.815	0.967
cg25969122	yellow	11	119,630,362		OpenSea		0.700	0.015	0.691	0.094
cg21786786	yellow	13	113,365,464	Body	OpenSea	ATP11A	0.700	0.001	0.701	0.937
cg18578954	yellow	6	28,887,247	Body	N_Shelf	TRIM27	0.700	-0.003	0.722	0.704
cg03989270	yellow	1	8,412,158		OpenSea		0.700	0.000	0.819	0.994
cg27605208	yellow	3	169,493,411	Body	S_Shelf	MYNN	0.700	-0.003	0.725	0.732
cg15926479	yellow	3	51,813,639	TSS1500	OpenSea	IQCF6	0.700	0.011	0.874	0.127
cg20541961	yellow	2	29,033,199	TSS1500	N_Shore	SPDYA	0.700	0.011	0.098	0.116
cg06649639	yellow	1	154,983,995	5'UTR	OpenSea	ZBTB7B	0.700	0.006	0.601	0.216
cg03654623	yellow	19	15,488,783	Body	N_Shore	AKAP8	0.700	0.009	0.228	0.244
cg11648740	yellow	17	78,411,819	3'UTR	OpenSea	FLJ35220	0.700	0.022	0.671	0.004
cg10191005	yellow	14	102,022,947	TSS1500	N_Shelf	DIO3OS	0.700	0.003	0.579	0.676
cg06399905	yellow	4	80,604,140		OpenSea		0.700	0.021	0.614	0.150
cg02720566	yellow	19	18,230,196	Body	S_Shore	MAST3	0.700	-0.003	0.611	0.609
cg00719668	yellow	20	34,541,013		N_Shore		0.700	0.010	0.193	0.367
cg03114410	yellow	17	8,114,626	TSS1500	S_Shore	AURKB	0.700	0.008	0.579	0.498
cg24662823	yellow	11	128,350,635	Body	OpenSea	ETS1	0.700	-0.006	0.925	0.433
cg09511177	yellow	1	247,737,746	3'UTR	OpenSea	C1orf150	0.700	0.016	0.797	0.122
cg06677321	yellow	17	67,603,831		OpenSea		0.700	0.005	0.735	0.593
cg06301673	yellow	3	193,273,057	TSS1500	OpenSea	ATP13A4	0.700	0.000	0.897	0.979
cg11590932	yellow	5	141,251,615	Body	N_Shelf	PCDH1	0.700	0.015	0.611	0.089
cg26227661	yellow	22	39,543,688	Body	S_Shore	CBX7	0.700	0.011	0.689	0.162

cg00028993	yellow	19	48,247,714	TSS1500	N_Shore	GLTSCR2	0.700	0.001	0.776	0.936
cg08612539	yellow	22	37,257,124	5'UTR	OpenSea	NCF4	0.700	0.008	0.699	0.138
cg15809217	yellow	6	31,607,648	Body	OpenSea	BAT3	0.700	-0.007	0.834	0.447
cg02153497	yellow	12	112,591,144	3'UTR	OpenSea	TRAFD1	0.700	0.012	0.881	0.033
cg06505273	yellow	16	24,850,292		OpenSea		0.700	0.015	0.638	0.074
cg01243072	yellow	2	43,398,171		Island		0.700	0.001	0.944	0.849
cg07673979	yellow	17	45,270,216		S_Shelf		0.700	-0.012	0.615	0.236
cg21576525	yellow	17	80,796,712	Body	OpenSea	TBCD	0.700	0.010	0.801	0.325
cg13487983	yellow	9	137,296,319	Body	N_Shelf	RXRA	0.700	0.014	0.777	0.052
cg14119680	yellow	9	133,762,896	3'UTR	S_Shelf	ABL1	0.700	0.010	0.807	0.270
cg09884851	yellow	12	79,809,356	Body	OpenSea	SYT1	0.700	-0.004	0.736	0.737
cg20608259	yellow	11	73,475,368		S_Shelf		0.700	0.007	0.580	0.384
cg23439280	yellow	7	127,772,290		N_Shelf		0.700	0.006	0.710	0.419
cg14564722	yellow	3	71,251,601	5'UTR	OpenSea	FOXP1	0.700	0.016	0.146	0.162
cg10477854	yellow	21	40,760,975	Body	S_Shore	WRB	0.700	0.004	0.298	0.557
cg04737046	yellow	7	87,109,370		OpenSea		0.700	-0.008	0.635	0.221
cg11325950	yellow	1	3,182,736	Body	N_Shore	PRDM16	0.700	-0.002	0.722	0.889
cg08553467	yellow	3	128,292,922	5'UTR	OpenSea	C3orf27	0.700	0.004	0.404	0.560
cg03417975	yellow	17	44,259,482		OpenSea		0.700	-0.007	0.935	0.244
cg20379593	yellow	11	65,198,023		OpenSea		0.700	-0.005	0.821	0.521
cg03848065	yellow	1	168,212,210		OpenSea		0.700	0.023	0.684	0.034
cg05725263	yellow	11	66,650,560	5'UTR	OpenSea	PC	0.700	0.003	0.484	0.726
cg19368625	yellow	2	1,452,665	Body	OpenSea	TPO	0.700	-0.001	0.770	0.930
cg12428326	yellow	20	39,807,896	3'UTR	OpenSea	ZHX3	0.700	0.008	0.786	0.440
cg10253640	yellow	11	7,535,983	5'UTR	S_Shore	PPFIBP2	0.700	0.026	0.300	0.029
cg00360761	yellow	2	43,398,079		Island		0.700	0.008	0.726	0.196
cg27435103	yellow	17	40,120,035	Body	Island	CNP	0.700	0.010	0.871	0.087
cg02319318	yellow	8	81,639,711	Body	OpenSea	ZNF704	0.700	0.003	0.141	0.724
cg22925840	yellow	2	225,043,045		OpenSea		0.700	0.006	0.068	0.335
cg03518533	yellow	7	1,789,648		S_Shelf		0.700	0.005	0.401	0.520
cg22632947	yellow	17	64,787,784	Body	OpenSea	PRKCA	0.700	0.004	0.819	0.492
cg26124860	yellow	3	42,918,681	TSS1500	N_Shelf	CYP8B1	0.700	-0.008	0.602	0.563
cg26635956	yellow	5	1,194,126		N_Shore		0.700	-0.003	0.653	0.714
cg01970336	yellow	1	51,986,254	TSS1500	S_Shore	EPS15	0.700	0.024	0.641	0.003
cg19554457	yellow	12	93,774,772	Body	S_Shelf	NUDT4	0.699	-0.002	0.278	0.849
cg12095127	yellow	17	1,419,363	TSS1500	N_Shore	LOC1003069	0.699	0.001	0.015	0.603
cg24638828	yellow	7	72,974,572		S_Shelf		0.699	0.009	0.426	0.351
cg26615853	yellow	10	79,347,104	Body	OpenSea	KCNMA1	0.699	0.013	0.542	0.180
cg27585641	yellow	5	73,024,506	Body	OpenSea	RGNEF	0.699	0.002	0.393	0.870
cg27066319	yellow	12	56,392,003	5'UTR	OpenSea	SUOX	0.699	0.001	0.877	0.934
cg15377758	yellow	4	1,052,676		S_Shelf		0.699	0.000	0.661	0.994
cg20608699	yellow	15	43,559,486	TSS1500	OpenSea	TGM5	0.699	-0.003	0.605	0.589
cg03744975	yellow	12	56,212,418	TSS1500	S_Shore	SARNP	0.699	0.004	0.091	0.526
cg06375292	yellow	17	47,786,311	TSS1500	OpenSea	SLC35B1	0.699	-0.003	0.770	0.726
cg04084354	yellow	1	56,721,795		OpenSea		0.699	0.004	0.374	0.570
cg13640423	yellow	3	120,412,084	Body	OpenSea	RABL3	0.699	0.003	0.728	0.798
cg10571837	yellow	7	55,979,742	TSS1500	OpenSea	ZNF713	0.699	0.004	0.891	0.654
cg10596692	yellow	6	10,633,457		OpenSea		0.699	-0.002	0.842	0.795
cg10299214	yellow	4	186,000,492		OpenSea		0.699	0.007	0.791	0.461
cg11621559	yellow	19	51,681,579		N_Shelf		0.699	0.008	0.494	0.327
cg18847904	yellow	5	1,779,178		OpenSea		0.699	0.002	0.829	0.828
cg07180538	yellow	7	4,786,899	Body	Island	FOXK1	0.699	-0.013	0.661	0.209
cg12814335	yellow	17	1,466,713	TSS1500	S_Shore	PITPNA	0.699	0.013	0.817	0.154
cg21292201	yellow	15	34,376,369	3'UTR	OpenSea	C15orf24	0.699	0.008	0.778	0.546
cg13705949	yellow	20	24,895,861		N_Shelf		0.699	0.001	0.712	0.847
cg02360002	yellow	6	170,585,777		S_Shore		0.699	0.004	0.604	0.686
cg26660316	yellow	5	110,077,272	Body	S_Shelf	SLC25A46	0.699	-0.007	0.897	0.351
cg16411361	yellow	2	198,063,653	TSS1500	OpenSea	ANKRD44	0.699	0.000	0.812	0.947
cg03628800	yellow	10	129,702,726		N_Shelf		0.699	0.003	0.552	0.548
cg20188676	yellow	12	70,029,702		OpenSea		0.699	0.019	0.873	0.017
cg15541088	yellow	19	39,692,475	3'UTR	S_Shore	NCCR1	0.699	0.011	0.650	0.264
cg07768107	yellow	4	40,201,943	5'UTR	OpenSea	RHOH	0.699	0.004	0.740	0.514
cg05817996	yellow	11	111,179,338	3'UTR	OpenSea	C11orf93	0.699	0.013	0.523	0.409
cg18256949	yellow	17	41,477,468	Body	Island	ARL4D	0.699	-0.004	0.862	0.537
cg10791406	yellow	19	33,667,036		N_Shore		0.699	0.011	0.655	0.173
cg11530995	yellow	15	68,497,992	1stExon	OpenSea	CALML4	0.699	-0.006	0.392	0.381
cg02878439	yellow	16	87,498,480	Body	OpenSea	ZCCHC14	0.699	-0.004	0.075	0.592

cg24540281	yellow	2	105,912,735	Body	OpenSea	TGFBRAP1	0.699	-0.012	0.786	0.130
cg10251217	yellow	16	71,611,519	TSS1500	OpenSea	TAT	0.699	0.004	0.822	0.677
cg05599106	yellow	19	12,251,511	TSS1500	S_Shore	ZNF20	0.699	0.006	0.387	0.572
cg20725716	yellow	5	176,519,455	Body	N_Shore	FGFR4	0.699	0.005	0.832	0.503
cg09375377	yellow	13	113,390,011	Body	OpenSea	ATP11A	0.699	0.006	0.594	0.574
cg14338590	yellow	11	16,848,924	Body	OpenSea	PLEKHA7	0.699	-0.006	0.692	0.420
cg05778424	yellow	17	55,169,508	5'UTR	OpenSea	AKAP1	0.699	0.005	0.553	0.332
cg11732925	yellow	2	128,293,021	TSS1500	OpenSea	MYO7B	0.699	0.000	0.841	0.981
cg02722808	yellow	10	105,595,043	Body	OpenSea	SH3PXD2A	0.699	0.003	0.189	0.628
cg03420068	yellow	3	112,941,804	5'UTR	OpenSea	BOC	0.699	0.003	0.347	0.689
cg18549882	yellow	14	100,247,918		OpenSea		0.699	0.000	0.407	0.981
cg14194344	yellow	8	26,151,851	Body	S_Shelf	PPP2R2A	0.699	0.000	0.818	0.982
cg05773628	yellow	2	183,903,770	TSS1500	S_Shore	NCKAP1	0.699	0.001	0.043	0.800
cg18868922	yellow	2	54,687,288	5'UTR	S_Shelf	SPTBN1	0.699	0.002	0.775	0.903
cg23803801	yellow	18	11,877,637	Body	N_Shelf	GNAL	0.699	-0.005	0.737	0.367
cg06545490	yellow	2	121,071,092		OpenSea		0.699	0.001	0.040	0.757
cg02382221	yellow	4	86,682,649	Body	OpenSea	ARHGAP24	0.699	0.007	0.682	0.539
cg00943382	yellow	7	156,786,185		OpenSea		0.699	0.017	0.389	0.124
cg00151919	yellow	13	41,363,245	TSS1500	N_Shore	SLC25A15	0.699	-0.001	0.048	0.886
cg25754485	yellow	3	42,708,983	3'UTR	OpenSea	ZBTB47	0.699	0.001	0.535	0.819
cg21201572	yellow	7	16,844,606	5'UTR	OpenSea	AGR2	0.699	0.004	0.800	0.682
cg00176876	yellow	3	148,748,699	3'UTR	OpenSea	HLTF	0.699	-0.003	0.941	0.586
cg11293828	yellow	12	3,598,335		N_Shore		0.699	0.013	0.294	0.055
cg21229655	yellow	4	141,664,540	Body	OpenSea	TBC1D9	0.699	0.016	0.422	0.192
cg18029167	yellow	8	110,693,289	5'UTR	OpenSea	GOLSYN	0.699	-0.003	0.689	0.730
cg24276395	yellow	3	183,419,891	5'UTR	S_Shelf	YEATS2	0.699	-0.002	0.712	0.852
cg12217954	yellow	11	33,474,484		OpenSea		0.699	-0.003	0.906	0.623
cg02692808	yellow	11	121,712,689		OpenSea		0.699	0.004	0.035	0.398
cg11053489	yellow	14	74,484,925	5'UTR	N_Shore	ENTPD5	0.699	-0.003	0.082	0.783
cg16626670	yellow	19	7,797,031	5'UTR	S_Shore	CLEC4G	0.699	0.004	0.551	0.525
cg05808709	yellow	1	160,094,954	Body	OpenSea	ATP1A2	0.699	0.005	0.854	0.451
cg26186665	yellow	11	65,153,760	TSS1500	Island	FRMD8	0.699	0.011	0.377	0.142
cg26359133	yellow	12	111,847,419	5'UTR	S_Shelf	SH2B3	0.699	0.008	0.531	0.241
cg08894663	yellow	5	108,082,762	TSS1500	N_Shore	FER	0.699	0.008	0.641	0.499
cg01558241	yellow	9	99,637,671		N_Shore		0.699	-0.002	0.302	0.812
cg00247269	yellow	16	57,480,410	TSS1500	N_Shore	COQ9	0.699	0.002	0.437	0.855
cg26809868	yellow	16	2,886,233		OpenSea		0.699	0.012	0.466	0.112
cg04470676	yellow	3	142,858,878		OpenSea		0.698	-0.005	0.389	0.392
cg13989999	yellow	20	30,309,717	Body	N_Shore	BCL2L1	0.698	0.017	0.588	0.039
cg23259289	yellow	17	12,888,154	Body	OpenSea	RICH2	0.698	0.011	0.655	0.277
cg10503133	yellow	16	11,766,667	5'UTR	S_Shelf	SNN	0.698	-0.004	0.825	0.595
cg09044458	yellow	11	8,768,101	Body	OpenSea	ST5	0.698	0.010	0.488	0.360
cg18412984	yellow	14	102,604,722	TSS1500	N_Shore	WDR20	0.698	0.016	0.816	0.176
cg11762018	yellow	19	16,394,574		Island		0.698	-0.007	0.066	0.156
cg07720646	yellow	15	42,447,840	Body	OpenSea	PLA2G4F	0.698	-0.006	0.819	0.431
cg25839727	yellow	1	64,263,033	Body	OpenSea	ROR1	0.698	0.011	0.678	0.130
cg07116163	yellow	2	170,589,499	5'UTR	N_Shore	KLHL23	0.698	0.013	0.567	0.114
cg00149213	yellow	1	160,617,124	TSS200	OpenSea	SLAMF1	0.698	-0.002	0.795	0.859
cg11087660	yellow	20	60,975,158	Body	S_Shelf	CABLES2	0.698	0.007	0.821	0.462
cg17684906	yellow	5	172,384,830	Body	N_Shore	LOC1002681	0.698	0.008	0.364	0.172
cg09624923	yellow	10	33,244,211	5'UTR	N_Shelf	ITGB1	0.698	0.001	0.442	0.811
cg17240760	yellow	1	111,417,994	5'UTR	OpenSea	CD53	0.698	0.001	0.656	0.884
cg26078859	yellow	8	852,074		S_Shore		0.698	0.015	0.754	0.084
cg14834391	yellow	1	2,537,342	Body	N_Shore	MMEL1	0.698	0.005	0.754	0.588
cg06599949	yellow	12	6,389,055		S_Shore		0.698	0.004	0.748	0.627
cg24085039	yellow	10	134,211,908	Body	S_Shore	PWWP2B	0.698	0.000	0.418	0.962
cg04935109	yellow	3	187,086,530	Body	OpenSea	RTP4	0.698	0.000	0.860	0.969
cg03117697	yellow	4	148,491,949		OpenSea		0.698	0.011	0.291	0.589
cg10207928	yellow	1	8,963,950		OpenSea		0.698	-0.005	0.795	0.609
cg15673540	yellow	17	40,171,932	TSS200	Island	NKIRAS2	0.698	0.006	0.219	0.392
cg09139471	yellow	5	159,827,503	TSS1500	S_Shore	C5orf54	0.698	0.002	0.862	0.860
cg15756359	yellow	17	74,964,263		N_Shore		0.698	0.008	0.727	0.187
cg01706698	yellow	16	56,995,306	TSS1500	OpenSea	CETP	0.698	0.005	0.740	0.665
cg23716690	yellow	1	10,314,029	Body	OpenSea	KIF1B	0.698	-0.004	0.292	0.601
cg14628108	yellow	12	106,631,875	3'UTR	N_Shore	CKAP4	0.698	-0.010	0.743	0.620
cg09538401	yellow	11	111,171,330	5'UTR	S_Shore	C11orf93	0.698	0.011	0.800	0.331
cg24682159	yellow	14	104,026,912	Body	N_Shore	BAG5	0.698	-0.006	0.884	0.326

cg10523671	yellow	3	121,612,956	TSS1500	OpenSea	SLC15A2	0.698	-0.002	0.892	0.718
cg06174296	yellow	11	123,396,593	1stExon	OpenSea	GRAMD1B	0.698	0.015	0.434	0.058
cg09342225	yellow	11	101,668,461		OpenSea		0.698	0.003	0.769	0.715
cg02642296	yellow	12	55,780,133		OpenSea		0.698	0.011	0.587	0.133
cg17156694	yellow	7	17,138,805		OpenSea		0.698	-0.007	0.859	0.426
cg11721591	yellow	10	3,494,422		OpenSea		0.698	0.001	0.069	0.893
cg12407462	yellow	5	76,112,776		N_Shore		0.698	-0.005	0.774	0.635
cg26850469	yellow	3	53,051,694	5'UTR	OpenSea	SFMBT1	0.698	0.001	0.829	0.922
cg27055366	yellow	14	105,916,228	Body	S_Shore	MTA1	0.698	0.003	0.827	0.643
cg15423315	yellow	10	93,296,554	Body	OpenSea	LOC1001889	0.698	0.008	0.784	0.432
cg25755191	yellow	1	167,013,332		OpenSea		0.698	-0.001	0.388	0.963
cg13584531	yellow	2	99,280,070	TSS200	OpenSea	MGAT4A	0.698	0.006	0.567	0.579
cg07471203	yellow	11	64,880,911	Body	S_Shore	TM7SF2	0.698	0.005	0.553	0.631
cg05056497	yellow	21	35,899,448	5'UTR	OpenSea	RCAN1	0.698	0.003	0.070	0.658
cg06710259	yellow	5	55,775,841		N_Shore		0.698	0.001	0.313	0.879
cg02333960	yellow	7	1,012,935	Body	N_Shore	COX19	0.698	0.002	0.937	0.757
cg08994060	yellow	10	6,214,026	Body	OpenSea	PFKFB3	0.698	0.011	0.896	0.146
cg25610200	yellow	7	142,636,371	TSS1500	OpenSea	C7orf34	0.698	0.013	0.797	0.052
cg22117819	yellow	22	19,556,601		S_Shelf		0.698	0.010	0.631	0.083
cg11945292	yellow	4	24,981,801	TSS200	OpenSea	CCDC149	0.698	0.016	0.386	0.024
cg21582785	yellow	7	3,982,778	Body	OpenSea	SDK1	0.698	0.007	0.571	0.546
cg02285725	yellow	6	125,121,219	Body	OpenSea	NKAIN2	0.698	0.012	0.638	0.186
cg25878830	yellow	10	86,260,687	Body	OpenSea	FAM190B	0.698	0.000	0.946	0.987
cg07495664	yellow	1	150,978,905	5'UTR	N_Shore	FAM63A	0.698	0.004	0.031	0.172
cg15465743	yellow	11	1,413,145	Body	S_Shore	BRSK2	0.698	0.015	0.829	0.118
cg19856701	yellow	17	29,549,474	3'UTR	OpenSea	NF1	0.698	-0.007	0.862	0.393
cg16163168	yellow	2	178,160,898	Body	OpenSea	LOC1001306	0.698	-0.019	0.678	0.373
cg08090557	yellow	17	7,464,088	Body	N_Shore	TNFSF13	0.698	0.009	0.567	0.321
cg17902947	yellow	1	57,040,807	Body	N_Shelf	PPAP2B	0.697	0.004	0.766	0.773
cg25208821	yellow	17	29,926,356		OpenSea		0.697	-0.001	0.541	0.927
cg16519762	yellow	17	7,792,134	Body	S_Shelf	CHD3	0.697	-0.005	0.200	0.623
cg23840053	yellow	4	15,940,541	TSS1500	OpenSea	FGFBP1	0.697	0.001	0.653	0.908
cg00321555	yellow	10	6,779,875		OpenSea		0.697	0.000	0.879	0.978
cg08566449	yellow	6	31,631,706	Body	N_Shore	BAT4	0.697	0.012	0.408	0.263
cg08698796	yellow	11	47,561,199	5'UTR	OpenSea	CUGBP1	0.697	-0.005	0.915	0.472
cg21005369	yellow	13	111,128,054	Body	OpenSea	COL4A2	0.697	-0.005	0.814	0.690
cg21415292	yellow	3	48,467,983	5'UTR	N_Shelf	PLXNB1	0.697	0.003	0.459	0.584
cg01178971	yellow	11	2,464,851	TSS1500	N_Shore	KCNQ1	0.697	-0.003	0.330	0.807
cg12215294	yellow	3	40,350,768	TSS1500	N_Shore	EIF1B	0.697	0.011	0.157	0.189
cg21002528	yellow	11	45,903,754	3'UTR	N_Shelf	CRY2	0.697	0.008	0.748	0.283
cg01935722	yellow	19	45,683,155	Body	Island	BLOC1S3	0.697	0.002	0.178	0.806
cg14393817	yellow	9	138,590,270	Body	N_Shore	SOHLH1	0.697	-0.002	0.664	0.833
cg13536491	yellow	9	139,316,733	Body	N_Shore	PMPCA	0.697	0.001	0.899	0.822
cg00346392	yellow	16	87,680,424	Body	S_Shore	JPH3	0.697	0.007	0.568	0.277
cg06896529	yellow	16	81,678,968	Body	OpenSea	CMIP	0.697	-0.012	0.860	0.350
cg04927537	yellow	17	76,976,091	TSS200	OpenSea	LGALS3BP	0.697	0.004	0.251	0.737
cg02770745	yellow	11	3,926,837	Body	OpenSea	STIM1	0.697	0.000	0.813	0.975
cg18177275	yellow	14	73,040,574		OpenSea		0.697	-0.003	0.464	0.845
cg07181843	yellow	1	1,009,445		N_Shelf		0.697	0.010	0.621	0.162
cg02092885	yellow	17	29,379,458		OpenSea		0.697	0.002	0.632	0.773
cg23725454	yellow	11	67,350,195	TSS1500	N_Shore	GSTP1	0.697	0.016	0.557	0.164
cg12921275	yellow	11	1,969,496	Body	S_Shore	MRPL23	0.697	-0.001	0.311	0.871
cg14774995	yellow	8	128,841,050	Body	OpenSea	PVT1	0.697	0.002	0.910	0.788
cg23790050	yellow	8	143,424,827	Body	OpenSea	TSNARE1	0.697	-0.002	0.897	0.782
cg24427302	yellow	17	73,580,942		N_Shelf		0.697	0.004	0.734	0.469
cg16780847	yellow	17	78,873,699	Body	S_Shelf	RPTOR	0.697	-0.005	0.957	0.280
cg21293216	yellow	1	24,469,768	TSS200	OpenSea	IL22RA1	0.697	0.006	0.463	0.499
cg03515656	yellow	16	1,600,304	Body	S_Shore	IFT140	0.697	0.013	0.517	0.218
cg24500799	yellow	1	228,676,532	Body	S_Shore	RNF187	0.697	0.006	0.664	0.249
cg10769011	yellow	17	26,851,153	Body	OpenSea	FOXN1	0.697	0.007	0.871	0.333
cg24401737	yellow	2	202,047,473	TSS200	OpenSea	CASP10	0.697	0.006	0.717	0.420
cg17463564	yellow	10	384,587	Body	N_Shelf	DIP2C	0.697	0.004	0.585	0.558
cg25468905	yellow	1	4,000,125		OpenSea		0.697	0.012	0.691	0.264
cg13867630	yellow	9	135,364,017	Body	S_Shore	C9orf171	0.697	0.004	0.513	0.611
cg14651919	yellow	17	74,075,189	TSS200	S_Shore	ZACN	0.697	0.016	0.293	0.066
cg05084700	yellow	13	114,058,019		S_Shore		0.697	-0.001	0.715	0.953
cg00642970	yellow	8	125,953,928	TSS1500	OpenSea	LOC157381	0.697	-0.002	0.245	0.846

cg06295784	yellow	6	160,771,074	Body	S_Shore	SLC22A3	0.697	-0.004	0.657	0.749
cg12157941	yellow	7	155,567,841	3'UTR	OpenSea	RBM33	0.697	0.000	0.937	0.994
cg04276084	yellow	16	86,478,190		OpenSea		0.697	0.000	0.077	0.983
cg03258927	yellow	1	114,524,590	3'UTR	OpenSea	OLFML3	0.697	0.008	0.821	0.485
cg18422654	yellow	14	23,905,273	TSS1500	OpenSea	MYH7	0.697	-0.006	0.529	0.345
cg14074117	yellow	16	1,909,714	Body	OpenSea	C16orf73	0.697	0.005	0.656	0.644
cg23058652	yellow	19	11,319,463	Body	Island	DOCK6	0.697	0.006	0.764	0.410
cg02050028	yellow	7	43,156,037	5'UTR	S_Shelf	HECW1	0.697	-0.008	0.662	0.277
cg14270293	yellow	4	152,149,064	TSS1500	OpenSea	SH3D19	0.697	-0.003	0.125	0.769
cg06323052	yellow	4	56,720,686	5'UTR	S_Shore	EXOC1	0.697	0.008	0.483	0.515
cg22502502	yellow	6	25,962,567	TSS1500	OpenSea	TRIM38	0.697	0.008	0.450	0.350
cg04546899	yellow	2	54,196,757	Body	N_Shore	PSME4	0.696	0.003	0.137	0.850
cg13635184	yellow	7	148,903,126	Body	OpenSea	ZNF282	0.696	0.006	0.592	0.462
cg03753670	yellow	1	6,762,231	TSS1500	S_Shore	DNAJC11	0.696	0.011	0.728	0.224
cg09457255	yellow	3	148,933,841	Body	OpenSea	CP	0.696	0.014	0.505	0.335
cg09975397	yellow	11	74,384,522		OpenSea		0.696	0.013	0.680	0.216
cg18313013	yellow	14	105,052,560	5'UTR	N_Shelf	C14orf180	0.696	0.007	0.597	0.304
cg14399183	yellow	9	124,048,308	5'UTR	OpenSea	GSN	0.696	0.011	0.706	0.305
cg06895946	yellow	16	1,367,758	Body	N_Shore	UBE2I	0.696	0.005	0.716	0.478
cg23723835	yellow	10	73,869,442	Body	OpenSea	ASCC1	0.696	-0.001	0.793	0.963
cg13426891	yellow	19	16,646,901	Body	S_Shelf	CHERP	0.696	0.009	0.679	0.212
cg23075968	yellow	19	7,293,270	Body	N_Shore	INSR	0.696	0.005	0.071	0.341
cg08716684	yellow	12	133,337,116	Body	N_Shore	ANKLE2	0.696	0.008	0.669	0.397
cg16294668	yellow	12	32,675,207	5'UTR	OpenSea	FGD4	0.696	0.007	0.681	0.529
cg09350536	yellow	14	23,236,725	Body	S_Shore	OXA1L	0.696	0.004	0.104	0.566
cg06525453	yellow	1	53,661,448	TSS1500	N_Shore	CPT2	0.696	0.003	0.667	0.737
cg07696277	yellow	4	146,097,432	5'UTR	N_Shelf	OTUD4	0.696	-0.001	0.963	0.806
cg15142335	yellow	1	43,938,212		OpenSea		0.696	0.006	0.857	0.651
cg04706667	yellow	19	47,129,637	TSS1500	S_Shelf	PTGIR	0.696	0.015	0.812	0.042
cg04247568	yellow	3	3,805,905		OpenSea		0.696	0.013	0.805	0.268
cg14218844	yellow	18	56,709,536	Body	OpenSea	LOC390858	0.696	0.012	0.225	0.238
cg25123566	yellow	12	47,610,734	5'UTR	OpenSea	FAM113B	0.696	0.011	0.723	0.311
cg13130588	yellow	11	2,294,872		S_Shore		0.696	0.007	0.671	0.715
cg00490203	yellow	11	64,115,989	Body	S_Shelf	CCDC88B	0.696	0.012	0.329	0.231
cg26725076	yellow	12	132,569,963	Body	S_Shore	EP400NL	0.696	0.011	0.666	0.256
cg16710656	yellow	16	89,381,968	Body	OpenSea	ANKRD11	0.696	0.008	0.924	0.160
cg19375539	yellow	2	64,008,069		OpenSea		0.696	0.008	0.300	0.338
cg27035480	yellow	16	3,907,755	Body	OpenSea	CREBBP	0.696	0.010	0.670	0.206
cg06885910	yellow	4	3,472,071	Body	N_Shelf	DOK7	0.696	-0.001	0.588	0.859
cg24220469	yellow	19	1,387,394	Body	N_Shore	NDUFS7	0.696	0.006	0.839	0.301
cg16371080	yellow	4	3,309,069		N_Shore		0.696	-0.005	0.835	0.652
cg10000764	yellow	7	129,494,118	Body	OpenSea	UBE2H	0.696	-0.001	0.642	0.912
cg17125472	yellow	11	69,259,831		S_Shore		0.696	-0.012	0.336	0.373
cg10824259	yellow	6	11,252,262	Body	OpenSea	NEDD9	0.696	0.012	0.651	0.223
cg22794244	yellow	11	123,892,873	TSS1500	OpenSea	OR10G9	0.696	-0.006	0.932	0.359
cg03218479	yellow	8	140,945,782	Body	OpenSea	TRAPPC9	0.696	-0.004	0.851	0.488
cg07557903	yellow	8	144,600,645	Body	N_Shore	ZC3H3	0.696	0.013	0.769	0.101
cg04407063	yellow	11	67,051,977	Body	N_Shore	ADRBK1	0.696	0.015	0.713	0.038
cg15145985	yellow	7	99,051,547	Body	OpenSea	CPSF4	0.696	0.004	0.633	0.631
cg13938187	yellow	15	64,980,038	3'UTR	OpenSea	OAZ2	0.696	0.015	0.366	0.073
cg19103609	yellow	19	14,543,524	TSS1500	N_Shore	PKN1	0.696	0.015	0.695	0.124
cg19182423	yellow	12	12,814,269	Body	OpenSea	GPR19	0.696	0.020	0.586	0.139
cg19459454	yellow	3	32,509,030		N_Shore		0.696	0.005	0.830	0.440
cg11221524	yellow	1	84,969,091	Body	N_Shelf	GNG5	0.696	-0.003	0.912	0.627
cg07529654	yellow	18	3,447,016	5'UTR	N_Shore	TGIF1	0.696	0.015	0.239	0.230
cg13235366	yellow	1	44,032,202	Body	S_Shore	PTPRF	0.696	-0.001	0.940	0.851
cg15279866	yellow	11	72,431,881	5'UTR	OpenSea	ARAP1	0.696	0.007	0.722	0.318
cg13362637	yellow	5	149,790,296	Body	OpenSea	CD74	0.695	0.012	0.188	0.181
cg15647725	yellow	5	1,091,936	Body	N_Shore	SLC12A7	0.695	-0.004	0.655	0.481
cg04878973	yellow	3	49,057,761	TSS200	N_Shore	NDUFAF3	0.695	0.009	0.202	0.159
cg11820824	yellow	1	153,581,535	5'UTR	OpenSea	S100A16	0.695	0.014	0.731	0.133
cg26405020	yellow	15	91,427,363	TSS1500	N_Shore	FES	0.695	0.012	0.172	0.088
cg21602160	yellow	17	41,003,272	1stExon	OpenSea	AOC3	0.695	0.014	0.243	0.110
cg09906458	yellow	20	4,702,581	5'UTR	OpenSea	PRND	0.695	-0.006	0.503	0.502
cg23601468	yellow	22	33,200,307	Body	S_Shelf	SYN3	0.695	0.007	0.681	0.512
cg00740389	yellow	12	53,590,448	Body	N_Shore	ITGB7	0.695	-0.007	0.706	0.502
cg01336162	yellow	1	92,350,133	5'UTR	N_Shore	TGFBR3	0.695	0.011	0.589	0.232

cg25509467	yellow	20	30,622,849	S_Shelf		0.695	0.007	0.581	0.260	
cg00286773	yellow	11	12,207,449	Body	OpenSea	MICAL2	0.695	0.012	0.509	0.182
cg26964875	yellow	3	56,715,187	Body	N_Shore	C3orf63	0.695	-0.005	0.687	0.594
cg06748147	yellow	22	38,714,287	TSS200	S_Shore	CSNK1E	0.695	0.004	0.475	0.650
cg00389446	yellow	4	17,516,739	TSS200	S_Shelf	CLRN2	0.695	0.006	0.763	0.439
cg17328880	yellow	19	17,415,155	TSS1500	N_Shore	MRPL34	0.695	0.015	0.478	0.257
cg11503687	yellow	5	138,205,434	Body	OpenSea	CTNNA1	0.695	0.002	0.878	0.799
cg23976388	yellow	11	61,510,081	Body	N_Shore	DAGLA	0.695	0.001	0.792	0.906
cg16178353	yellow	5	81,630,266		OpenSea		0.695	-0.005	0.839	0.578
cg26557270	yellow	6	116,382,179	TSS1500	OpenSea	FRK	0.695	0.010	0.446	0.455
cg21384021	yellow	17	79,952,367	Body	Island	ASPCR1	0.695	-0.007	0.663	0.389
cg03711802	yellow	2	198,029,885	Body	S_Shore	ANKRD44	0.695	0.007	0.598	0.293
cg12910851	yellow	2	102,615,524	1stExon	OpenSea	IL1R2	0.695	0.001	0.931	0.885
cg20428033	yellow	2	241,562,584		Island		0.695	0.002	0.347	0.909
cg25690202	yellow	19	38,684,328	Body	Island	SIPA1L3	0.695	0.003	0.947	0.619
cg27312979	yellow	10	97,094,453	Body	OpenSea	SORBS1	0.695	-0.001	0.766	0.875
cg09652746	yellow	16	67,225,437	TSS1500	OpenSea	E2F4	0.695	-0.006	0.515	0.335
cg00285343	yellow	7	41,733,356	TSS200	OpenSea	LOC285954	0.695	-0.008	0.705	0.299
cg11671335	yellow	6	32,165,917	Body	S_Shore	NOTCH4	0.695	0.011	0.671	0.311
cg15453278	yellow	11	67,134,607	Body	OpenSea	CLCF1	0.695	0.000	0.328	0.960
cg14025883	yellow	9	5,436,224	5'UTR	N_Shore	C9orf46	0.695	-0.008	0.923	0.031
cg03283990	yellow	15	35,129,641		OpenSea		0.695	0.007	0.689	0.259
cg11573854	yellow	7	1,250,964		Island		0.695	0.008	0.215	0.460
cg21760990	yellow	6	121,656,542	TSS1500	S_Shore	C6orf170	0.695	-0.007	0.905	0.314
cg18976177	yellow	7	75,160,019		S_Shelf		0.695	0.002	0.691	0.791
cg06696874	yellow	6	32,048,632	Body	S_Shore	TNXB	0.695	0.000	0.747	0.969
cg07257747	yellow	5	156,944,020	Body	OpenSea	ADAM19	0.695	0.019	0.330	0.154
cg06740209	yellow	2	210,065,542		OpenSea		0.695	0.016	0.661	0.035
cg03323793	yellow	7	151,548,111	Body	OpenSea	PRKAG2	0.695	0.022	0.585	0.006
cg04873577	yellow	7	121,006,948	Body	OpenSea	FAM3C	0.695	-0.011	0.801	0.277
cg24199463	yellow	13	113,407,479	Body	N_Shelf	ATP11A	0.695	0.004	0.695	0.496
cg18390991	yellow	2	217,672,659		N_Shelf		0.695	0.012	0.502	0.213
cg25674883	yellow	12	107,347,673		N_Shore		0.695	0.003	0.868	0.817
cg24152776	yellow	6	89,200,366		OpenSea		0.695	0.001	0.646	0.925
cg19254118	yellow	19	1,907,972	5'UTR	N_Shore	ADAT3	0.695	0.004	0.892	0.576
cg18789887	yellow	3	16,216,100	TSS200	OpenSea	GALNTL2	0.695	0.003	0.148	0.674
cg16101543	yellow	12	131,162,896		OpenSea		0.695	0.001	0.862	0.897
cg17586154	yellow	3	130,469,275		S_Shelf		0.695	0.014	0.547	0.294
cg08328750	yellow	17	39,675,355	TSS200	OpenSea	KRT15	0.695	0.000	0.448	0.979
cg17729253	yellow	17	72,990,302	Body	OpenSea	CDR2L	0.695	0.001	0.838	0.894
cg21757633	yellow	22	50,847,567	Body	S_Shelf	SAPS2	0.695	0.013	0.493	0.154
cg24473450	yellow	1	156,338,639	TSS1500	N_Shore	RHBG	0.695	0.004	0.764	0.649
cg14593333	yellow	13	113,409,700	Body	N_Shore	ATP11A	0.695	-0.002	0.967	0.411
cg01139586	yellow	14	90,798,784	TSS1500	S_Shore	C14orf102	0.695	0.018	0.701	0.099
cg13072890	yellow	1	2,038,377	5'UTR	N_Shore	PRKCZ	0.695	-0.003	0.525	0.660
cg06874144	yellow	2	231,576,873	TSS1500	N_Shore	CAB39	0.695	0.010	0.629	0.241
cg17961943	yellow	2	28,857,916	Body	OpenSea	PLB1	0.695	0.009	0.692	0.684
cg08871474	yellow	16	8,979,028		OpenSea		0.694	-0.007	0.844	0.349
cg15482893	yellow	1	32,837,667	Body	OpenSea	BSDC1	0.694	0.007	0.863	0.366
cg27233612	yellow	3	25,824,257	Body	N_Shore	NGLY1	0.694	0.000	0.023	0.911
cg07685977	yellow	10	133,036,507	Body	OpenSea	TCERG1L	0.694	-0.011	0.816	0.154
cg14150774	yellow	9	139,138,057	TSS1500	N_Shelf	QSOX2	0.694	0.011	0.400	0.179
cg04956362	yellow	7	866,406	5'UTR	S_Shelf	UNC84A	0.694	-0.005	0.437	0.400
cg21604496	yellow	3	49,060,847	3'UTR	S_Shore	NDUFAF3	0.694	0.000	0.799	0.996
cg00864458	yellow	8	56,985,462	Body	N_Shore	RPS20	0.694	-0.001	0.863	0.942
cg18390495	yellow	20	239,809	Body	OpenSea	DEFB132	0.694	-0.001	0.292	0.893
cg16790374	yellow	8	57,212,793	3'UTR	OpenSea	SDR16C5	0.694	0.007	0.707	0.374
cg20667664	yellow	17	38,254,448	Body	N_Shore	NR1D1	0.694	0.000	0.706	0.955
cg24801023	yellow	13	25,862,438	TSS1500	S_Shore	MTMR6	0.694	-0.001	0.801	0.901
cg26171898	yellow	5	92,544,660		OpenSea		0.694	0.004	0.510	0.673
cg15066489	yellow	3	121,613,396	1stExon	OpenSea	SLC15A2	0.694	0.017	0.185	0.084
cg09287650	yellow	10	29,981,216	3'UTR	OpenSea	SVIL	0.694	0.013	0.814	0.275
cg08656816	yellow	17	34,207,454	TSS200	OpenSea	CCL5	0.694	-0.004	0.816	0.565
cg10025865	yellow	14	94,789,681	5'UTR	OpenSea	SERPINA6	0.694	-0.006	0.601	0.372
cg11228197	yellow	11	708,640	5'UTR	N_Shelf	EPS8L2	0.694	0.003	0.559	0.481
cg06226724	yellow	9	34,651,674	TSS1500	OpenSea	IL11RA	0.694	0.009	0.661	0.307
cg18081863	yellow	19	50,015,527	TSS200	N_Shore	FCGRT	0.694	-0.007	0.281	0.339

cg25580198	yellow	8	144,294,886	TSS200	OpenSea	GPIHBP1	0.694	0.009	0.586	0.117
cg10617739	yellow	6	159,624,611	Body	OpenSea	FNDC1	0.694	0.014	0.460	0.065
cg25243766	yellow	11	123,322,182		OpenSea		0.694	0.017	0.495	0.016
cg06632549	yellow	6	31,529,993		OpenSea		0.694	0.011	0.882	0.104
cg02814525	yellow	14	105,268,604	Body	Island	ZBTB42	0.694	0.003	0.651	0.649
cg09624565	yellow	22	37,256,900	TSS200	OpenSea	NCF4	0.694	-0.002	0.811	0.639
cg24437293	yellow	19	2,065,374		S_Shore		0.694	0.016	0.720	0.062
cg14522298	yellow	7	73,645,783		OpenSea		0.694	0.001	0.754	0.864
cg14241509	yellow	4	6,196,512	5'UTR	OpenSea	JAKMIP1	0.694	0.000	0.499	0.942
cg05064936	yellow	17	45,764,416		OpenSea		0.694	-0.002	0.649	0.842
cg10516998	yellow	7	35,733,890	Body	N_Shore	HERPUD2	0.694	0.012	0.110	0.190
cg05027258	yellow	2	9,459,293	Body	Island	ASAP2	0.694	-0.002	0.839	0.737
cg11961813	yellow	17	40,995,546	3'UTR	OpenSea	PSME3	0.694	-0.005	0.183	0.428
cg03157509	yellow	19	1,313,407		Island		0.694	0.008	0.793	0.299
cg05117982	yellow	7	4,764,845	Body	Island	FOXX1	0.694	0.006	0.341	0.588
cg19139320	yellow	2	1,895,191	Body	N_Shore	MYT1L	0.694	0.014	0.367	0.212
cg16580765	yellow	19	47,216,767	Body	N_Shore	PRKD2	0.694	-0.006	0.807	0.360
cg13224914	yellow	10	12,750,368	Body	OpenSea	CAMK1D	0.694	0.002	0.838	0.810
cg03568859	yellow	2	97,405,048	Body	N_Shore	LMAN2L	0.694	0.013	0.358	0.384
cg01902747	yellow	10	32,734,661	TSS1500	OpenSea	CCDC7	0.694	0.001	0.050	0.875
cg11598353	yellow	19	1,387,609	Body	Island	NDUFS7	0.694	0.004	0.789	0.690
cg19269426	yellow	1	235,500,468	Body	OpenSea	GGPS1	0.694	0.005	0.889	0.497
cg10124445	yellow	1	3,050,837	Body	OpenSea	PRDM16	0.694	-0.002	0.712	0.766
cg11703759	yellow	1	31,403,193		OpenSea		0.694	0.000	0.764	0.968
cg00369142	yellow	3	135,864,939	3'UTR	OpenSea	PPP2R3A	0.694	0.002	0.905	0.740
cg26863842	yellow	6	31,506,723	Body	N_Shelf	BAT1	0.694	-0.005	0.858	0.544
cg08100069	yellow	9	139,014,709		Island		0.694	0.011	0.619	0.072
cg02780029	yellow	10	43,622,663	Body	OpenSea	RET	0.694	-0.001	0.584	0.899
cg04844971	yellow	15	50,979,486	TSS1500	S_Shore	TRPM7	0.694	0.001	0.031	0.730
cg26303870	yellow	14	69,443,683	Body	N_Shore	ACTN1	0.694	0.011	0.720	0.163
cg22077197	yellow	2	240,143,833	Body	OpenSea	HDAC4	0.694	0.024	0.500	0.349
cg16722884	yellow	3	109,735,618		OpenSea		0.694	-0.002	0.787	0.894
cg17711527	yellow	1	203,734,396	1stExon	OpenSea	LAX1	0.694	-0.002	0.596	0.784
cg05629821	yellow	13	113,436,400	Body	N_Shelf	ATP11A	0.694	0.002	0.359	0.900
cg08757628	yellow	11	9,333,358	Body	N_Shelf	TMEM41B	0.694	-0.004	0.850	0.610
cg14898892	yellow	4	77,356,180	TSS200	OpenSea	SHROOM3	0.694	0.009	0.527	0.450
cg09915092	yellow	10	135,187,482	TSS1500	S_Shore	ECHS1	0.694	0.004	0.168	0.757
cg06873980	yellow	8	140,676,074	Body	OpenSea	KCNK9	0.694	0.006	0.592	0.479
cg15609734	yellow	10	17,689,470	Body	S_Shelf	STAM	0.694	0.004	0.811	0.710
cg06849723	yellow	11	3,144,755	Body	S_Shelf	OSBPL5	0.694	0.002	0.915	0.853
cg10295609	yellow	6	143,132,934	5'UTR	OpenSea	HIVEP2	0.694	0.010	0.591	0.171
cg14508021	yellow	15	85,987,419	5'UTR	OpenSea	AKAP13	0.694	0.007	0.255	0.453
cg12116192	yellow	8	27,730,485	Body	OpenSea	SCARA5	0.694	0.003	0.515	0.831
cg12513221	yellow	7	150,744,599	TSS1500	N_Shore	ACCN3	0.693	0.002	0.169	0.760
cg11269254	yellow	2	121,371,842		OpenSea		0.693	0.020	0.344	0.004
cg18058949	yellow	1	229,644,400	TSS1500	S_Shore	NUP133	0.693	0.003	0.053	0.513
cg23630131	yellow	7	65,973,040		S_Shore		0.693	0.009	0.400	0.498
cg23530586	yellow	5	99,931,437		OpenSea		0.693	0.016	0.565	0.141
cg18718410	yellow	19	15,285,943	Body	S_Shore	NOTCH3	0.693	0.001	0.937	0.863
cg23079808	yellow	12	6,493,003	TSS1500	Island	LTBR	0.693	-0.002	0.074	0.840
cg18986967	yellow	7	141,176,264		OpenSea		0.693	0.005	0.465	0.750
cg14481339	yellow	11	128,737,319	TSS200	OpenSea	KCNJ1	0.693	-0.002	0.757	0.832
cg25591260	yellow	19	38,866,635	Body	S_Shore	PSMD8	0.693	0.007	0.551	0.331
cg08572214	yellow	4	73,936,052	TSS1500	S_Shore	COX18	0.693	0.004	0.596	0.725
cg21644578	yellow	1	17,029,831	Body	S_Shore	ESPNP	0.693	-0.006	0.141	0.383
cg22517740	yellow	1	228,870,629	TSS1500	N_Shore	RHO	0.693	0.019	0.141	0.015
cg02179492	yellow	11	69,981,382	Body	OpenSea	ANO1	0.693	0.007	0.473	0.391
cg19700094	yellow	11	65,685,262	TSS1500	Island	DRAP1	0.693	-0.002	0.821	0.716
cg19482885	yellow	18	77,291,035		N_Shore		0.693	-0.001	0.810	0.954
cg03479710	yellow	14	24,634,148	Body	OpenSea	IRF9	0.693	0.006	0.602	0.572
cg26561413	yellow	17	5,488,048	TSS1500	OpenSea	NLRP1	0.693	0.004	0.781	0.576
cg06883868	yellow	18	13,643,516	Body	S_Shore	C18orf1	0.693	0.005	0.373	0.351
cg26292918	yellow	1	151,826,205	TSS200	OpenSea	THEM5	0.693	0.006	0.446	0.406
cg24293507	yellow	1	10,511,793	3'UTR	OpenSea	APITD1	0.693	0.000	0.090	0.977
cg15651928	yellow	20	32,290,811	3'UTR	OpenSea	PXMP4	0.693	0.011	0.645	0.314
cg11742207	yellow	15	88,784,902	Body	OpenSea	NTRK3	0.693	0.003	0.461	0.537
cg14468280	yellow	20	47,862,976	3'UTR	OpenSea	ZNF1	0.693	0.011	0.771	0.185

cg00092551	yellow	7	127,371,565	Body	OpenSea	SND1	0.693	0.001	0.864	0.881
cg01810926	yellow	1	53,663,981	Body	S_Shore	CPT2	0.693	0.002	0.431	0.736
cg01808969	yellow	7	4,786,364	Body	N_Shore	FOXK1	0.693	0.000	0.810	0.997
cg14448116	yellow	1	161,170,110	5'UTR	N_Shore	NDUFS2	0.693	0.006	0.778	0.355
cg26180242	yellow	5	120,115,250		OpenSea		0.693	0.008	0.835	0.590
cg08793208	yellow	16	66,585,449	TSS1500	N_Shore	CKLF	0.693	-0.002	0.224	0.772
cg13778975	yellow	6	25,727,019	TSS1500	S_Shore	HIST1H2AA	0.693	-0.030	0.685	0.078
cg21038819	yellow	17	73,507,788	Body	N_Shelf	CASKIN2	0.693	0.009	0.554	0.354
cg00320608	yellow	2	29,116,256	TSS1500	N_Shore	WDR43	0.693	0.005	0.893	0.566
cg04232935	yellow	5	52,860,031	Body	S_Shelf	NDUFS4	0.693	-0.018	0.842	0.018
cg14157549	yellow	6	168,393,963		S_Shelf		0.693	-0.008	0.698	0.473
cg08852989	yellow	17	8,338,841	TSS1500	N_Shore	NDEL1	0.693	0.003	0.046	0.334
cg24616296	yellow	11	92,597,242	Body	N_Shelf	FAT3	0.693	0.014	0.865	0.149
cg01260366	yellow	20	32,307,172	Body	N_Shore	PXMP4	0.693	0.012	0.615	0.140
cg25299319	yellow	12	57,559,728	Body	OpenSea	LRP1	0.693	-0.005	0.851	0.489
cg03267487	yellow	2	1,668,936	Body	N_Shore	PXDN	0.693	-0.006	0.617	0.601
cg17720056	yellow	6	137,661,985		OpenSea		0.693	0.003	0.911	0.637
cg01369033	yellow	4	3,292,386		N_Shore		0.693	-0.001	0.936	0.875
cg26378518	yellow	12	47,472,317	Body	N_Shore	AMIGO2	0.693	0.007	0.636	0.320
cg07695909	yellow	2	134,083,495	Body	OpenSea	NCKAP5	0.693	0.002	0.529	0.862
cg20330126	yellow	22	36,125,053	3'UTR	OpenSea	APOL5	0.693	-0.002	0.872	0.752
cg26154714	yellow	1	27,318,618		N_Shore		0.693	0.002	0.235	0.836
cg27438128	yellow	10	43,951,555	Body	S_Shore	ZNF487	0.693	0.011	0.790	0.185
cg10056728	yellow	12	56,497,073	TSS1500	N_Shore	PA2G4	0.693	0.002	0.738	0.775
cg19408882	yellow	17	34,101,272	Body	S_Shelf	MMP28	0.693	0.014	0.183	0.048
cg24045875	yellow	20	61,425,320		N_Shore		0.693	-0.002	0.171	0.840
cg07688052	yellow	19	16,637,309	Body	S_Shore	CHERP	0.693	0.003	0.947	0.517
cg09281979	yellow	2	172,289,850	TSS1500	N_Shore	DCAF17	0.693	0.019	0.610	0.196
cg07532782	yellow	6	15,281,223	Body	OpenSea	JARID2	0.693	-0.003	0.939	0.441
cg18954900	yellow	12	96,604,497	5'UTR	OpenSea	ELK3	0.693	-0.004	0.661	0.624
cg09862914	yellow	1	231,472,152	1stExon	N_Shore	EXOC8	0.693	0.002	0.715	0.818
cg08802358	yellow	5	176,524,797	3'UTR	OpenSea	FGFR4	0.693	0.016	0.618	0.096
cg21777166	yellow	3	9,935,346	3'UTR	S_Shelf	JAGN1	0.693	-0.005	0.918	0.472
cg23221723	yellow	8	22,963,367	Body	S_Shelf	TNFRSF10C	0.693	-0.006	0.575	0.463
cg14360917	yellow	17	45,992,122	Body	OpenSea	SP2	0.693	0.002	0.527	0.764
cg03337084	yellow	6	31,646,061	Body	N_Shelf	LY6G5C	0.693	0.005	0.540	0.477
cg14424070	yellow	14	75,988,820	5'UTR	OpenSea	BATF	0.693	0.007	0.908	0.253
cg08251901	yellow	12	15,114,904	TSS1500	OpenSea	ARHGDB1B	0.693	0.000	0.883	0.995
cg03948781	yellow	1	205,179,583	Body	N_Shore	DSTYK	0.693	0.004	0.141	0.672
cg15745273	yellow	6	41,892,347	Body	S_Shelf	BYSL	0.693	0.003	0.818	0.665
cg23999112	yellow	1	834,356		OpenSea		0.693	-0.003	0.920	0.580
cg10487659	yellow	16	4,152,081	Body	OpenSea	ADCY9	0.692	0.004	0.936	0.376
cg04437762	yellow	1	154,380,179	Body	S_Shore	IL6R	0.692	-0.004	0.753	0.579
cg16814978	yellow	20	33,883,804		S_Shelf		0.692	0.006	0.624	0.516
cg21995710	yellow	2	32,514,311	Body	OpenSea	YIPF4	0.692	0.006	0.840	0.591
cg26039867	yellow	7	1,303,218		OpenSea		0.692	0.005	0.625	0.477
cg02136622	yellow	13	95,811,931	Body	OpenSea	ABCC4	0.692	0.006	0.905	0.576
cg15275890	yellow	22	41,216,316	TSS1500	S_Shore	SLC25A17	0.692	-0.001	0.922	0.875
cg03578548	yellow	9	91,267,411	TSS1500	OpenSea	LOC286238	0.692	0.000	0.336	0.969
cg06057528	yellow	5	71,757,960	5'UTR	S_Shore	ZNF366	0.692	0.008	0.680	0.244
cg07893491	yellow	4	38,056,620	Body	OpenSea	TBC1D1	0.692	0.003	0.811	0.680
cg24975342	yellow	5	55,193,659	Body	OpenSea	IL31RA	0.692	0.020	0.665	0.043
cg06899799	yellow	12	56,650,233	Body	N_Shore	ANKRD52	0.692	0.000	0.138	0.931
cg11344744	yellow	2	97,526,122	3'UTR	N_Shore	SEMA4C	0.692	0.008	0.793	0.223
cg14566475	yellow	8	144,295,059	TSS200	OpenSea	GPIHBP1	0.692	0.009	0.587	0.143
cg20258698	yellow	7	47,556,811	5'UTR	OpenSea	TNS3	0.692	0.032	0.705	0.076
cg12927785	yellow	4	123,665,848	3'UTR	OpenSea	BBS12	0.692	-0.004	0.915	0.416
cg23091302	yellow	3	19,389,409	Body	OpenSea	KCNH8	0.692	0.018	0.642	0.240
cg08112313	yellow	19	44,079,105	Body	N_Shore	XRCC1	0.692	0.003	0.396	0.747
cg03651054	yellow	13	50,194,643		OpenSea		0.692	0.009	0.641	0.300
cg06864127	yellow	4	1,088,181	Body	N_Shore	RNF212	0.692	0.002	0.447	0.757
cg03410269	yellow	12	7,077,969	Body	N_Shore	PHB2	0.692	-0.004	0.864	0.467
cg00961415	yellow	14	76,734,850		OpenSea		0.692	-0.001	0.843	0.875
cg05582311	yellow	3	135,969,733	Body	S_Shore	PCCB	0.692	0.000	0.030	0.995
cg25725418	yellow	10	75,639,879		OpenSea		0.692	0.003	0.347	0.693
cg08823182	yellow	1	153,514,482	TSS1500	OpenSea	S100A5	0.692	0.018	0.448	0.082
cg24550525	yellow	2	69,181,420	TSS1500	OpenSea	GKN2	0.692	0.000	0.673	0.987



cg17590083	yellow	1	41,364,730	OpenSea		0.692	-0.004	0.871	0.462
cg12897164	yellow	8	124,529,273 5'UTR	OpenSea	FBXO32	0.692	0.008	0.611	0.315
cg20568402	yellow	13	114,126,476 Body	OpenSea	DCUN1D2	0.692	-0.011	0.899	0.100
cg01033209	yellow	14	90,531,016 Body	S_Shelf	KCNK13	0.692	-0.001	0.871	0.825
cg24360034	yellow	11	124,414,205 TSS1500	OpenSea	OR8B12	0.692	0.002	0.787	0.868
cg25289028	yellow	19	36,428,519 5'UTR	N_Shore	LRFN3	0.692	0.002	0.580	0.857
cg03037030	yellow	6	31,543,300 TSS200	OpenSea	TNF	0.692	0.013	0.684	0.122
cg17257516	yellow	6	4,358,810	OpenSea		0.692	-0.006	0.795	0.364
cg14354895	yellow	22	50,607,824 TSS1500	Island	PANX2	0.692	-0.001	0.064	0.882
cg15059851	yellow	1	152,880,324 TSS1500	OpenSea	IVL	0.692	-0.007	0.837	0.396
cg00134210	yellow	10	14,644,132 Body	N_Shore	FAM107B	0.692	0.005	0.484	0.412
cg19706320	yellow	14	100,204,528	S_Shore		0.692	0.021	0.445	0.027
cg23068939	yellow	1	112,016,586 TSS200	OpenSea	C1orf162	0.692	0.000	0.812	0.984
cg25891069	yellow	18	76,755,898 Body	S_Shore	SALL3	0.692	0.010	0.603	0.162
cg08298794	yellow	2	198,243,396	OpenSea		0.692	-0.001	0.157	0.878
cg01315323	yellow	2	26,569,874 TSS200	S_Shore	GPR113	0.692	0.000	0.030	0.904
cg24232444	yellow	13	99,545,448 Body	OpenSea	DOCK9	0.692	0.008	0.428	0.661
cg09082617	yellow	20	49,201,869 TSS1500	OpenSea	MIR645	0.692	-0.009	0.817	0.425
cg09992387	yellow	1	55,331,285 Body	OpenSea	DHCR24	0.692	0.012	0.718	0.101
cg05151824	yellow	10	43,047,371 Body	N_Shore	ZNF37B	0.692	0.014	0.532	0.118
cg27152190	yellow	16	50,096,867	N_Shelf		0.692	0.001	0.772	0.794
cg02442305	yellow	10	73,975,286 5'UTR	N_Shore	ASCC1	0.692	0.017	0.302	0.323
cg12052789	yellow	1	155,105,676 Body	N_Shelf	EFNA1	0.692	0.004	0.919	0.442
cg02301039	yellow	2	99,951,742 5'UTR	N_Shore	TXNDC9	0.692	0.029	0.363	0.011
cg17059185	yellow	13	79,352,486	OpenSea		0.692	-0.004	0.869	0.645
cg02317832	yellow	2	237,172,964 1stExon	OpenSea	ASB18	0.692	-0.002	0.610	0.805
cg09162537	yellow	11	976,950 Body	Island	AP2A2	0.692	0.009	0.671	0.362
cg09230376	yellow	7	92,090,785	OpenSea		0.691	0.004	0.644	0.698
cg14120703	yellow	9	139,416,102 Body	N_Shore	NOTCH1	0.691	0.001	0.819	0.903
cg03056611	yellow	10	50,314,828 Body	OpenSea	C10orf72	0.691	0.004	0.461	0.712
cg09726703	yellow	2	236,441,769 Body	N_Shelf	AGAP1	0.691	0.020	0.644	0.148
cg04509221	yellow	1	3,155,312 Body	Island	PRDM16	0.691	0.005	0.327	0.600
cg17369406	yellow	21	34,918,578 Body	S_Shelf	SON	0.691	0.003	0.885	0.741
cg22676023	yellow	1	12,289,220 TSS1500	N_Shore	VPS13D	0.691	0.005	0.745	0.558
cg00689010	yellow	1	160,311,893 Body	N_Shore	COPA	0.691	-0.002	0.877	0.810
cg15698299	yellow	3	52,233,019 5'UTR	S_Shore	ALAS1	0.691	0.012	0.530	0.069
cg07617764	yellow	12	58,218,602 Body	OpenSea	CTDSP2	0.691	-0.005	0.912	0.319
cg16219125	yellow	3	174,043,293	OpenSea		0.691	0.009	0.590	0.540
cg10314133	yellow	1	2,125,114 Body	N_Shore	C1orf86	0.691	0.009	0.696	0.188
cg25671716	yellow	12	96,441,714	OpenSea		0.691	-0.008	0.130	0.325
cg11150222	yellow	6	106,207,923	OpenSea		0.691	0.004	0.774	0.698
cg09429735	yellow	3	71,752,026 Body	OpenSea	EIF4E3	0.691	-0.004	0.931	0.570
cg13610333	yellow	8	141,639,345 Body	OpenSea	EIF2C2	0.691	0.001	0.796	0.917
cg23137881	yellow	4	159,857,583 Body	OpenSea	C4orf45	0.691	-0.012	0.885	0.129
cg01148127	yellow	17	1,478,604 3'UTR	Island	SLC43A2	0.691	0.010	0.439	0.137
cg16594468	yellow	8	102,039,579	OpenSea		0.691	0.007	0.515	0.272
cg11677222	yellow	4	829,373	S_Shore		0.691	0.007	0.405	0.364
cg10239319	yellow	4	6,073,656 Body	OpenSea	JAKMIP1	0.691	0.006	0.536	0.284
cg12717729	yellow	1	24,071,253 Body	S_Shore	TCEB3	0.691	-0.002	0.059	0.818
cg06458238	yellow	17	73,506,140 Body	OpenSea	CASKIN2	0.691	0.000	0.731	0.974
cg05901279	yellow	12	42,979,568 5'UTR	N_Shelf	PRICKLE1	0.691	0.004	0.353	0.637
cg04355439	yellow	19	2,065,251	Island		0.691	0.004	0.692	0.537
cg13210558	yellow	9	138,369,918	N_Shore		0.691	0.009	0.948	0.033
cg14203158	yellow	10	13,206,513 Body	S_Shelf	MCM10	0.691	0.004	0.656	0.742
cg08675092	yellow	6	32,811,181 Body	N_Shore	PSMB8	0.691	0.007	0.190	0.303
cg22944803	yellow	20	19,266,250 Body	OpenSea	SLC24A3	0.691	-0.003	0.772	0.758
cg12645236	yellow	1	1,217,159 TSS1500	OpenSea	SCNN1D	0.691	0.000	0.593	0.958
cg06439941	yellow	7	93,550,756 TSS1500	OpenSea	GNG11	0.691	-0.011	0.783	0.099
cg07326413	yellow	15	78,060,295	OpenSea		0.691	0.009	0.275	0.344
cg21154426	yellow	3	53,161,967 Body	N_Shelf	RFT1	0.691	0.001	0.932	0.844
cg00299660	yellow	11	76,382,794 TSS1500	S_Shore	LRRC32	0.691	0.010	0.668	0.085
cg09543635	yellow	3	48,266,468 Body	OpenSea	CAMP	0.691	0.003	0.789	0.667
cg01291381	yellow	22	40,811,960 Body	N_Shelf	MKL1	0.691	-0.009	0.633	0.428
cg20152088	yellow	1	181,616,694 Body	OpenSea	CACNA1E	0.691	-0.004	0.607	0.644
cg25303150	yellow	10	134,211,874 Body	S_Shore	PWWP2B	0.691	0.000	0.386	0.962
cg03196766	yellow	15	39,888,049 3'UTR	OpenSea	THBS1	0.691	0.002	0.774	0.818
cg26269966	yellow	1	213,646,397	OpenSea		0.691	0.002	0.825	0.855

cg00790255	yellow	3	194,032,074	TSS1500	N_Shore	LOC1001315	0.691	0.004	0.702	0.572
cg19317715	yellow	17	40,996,578	TSS200	OpenSea	AOC2	0.691	0.006	0.558	0.589
cg01797043	yellow	16	2,004,686	TSS200	OpenSea	RPL3L	0.691	0.010	0.506	0.150
cg09502149	yellow	1	43,406,792	Body	OpenSea	SLC2A1	0.691	0.008	0.537	0.238
cg25692139	yellow	17	79,258,813	Body	N_Shore	SLC38A10	0.691	0.007	0.853	0.403
cg13726843	yellow	17	54,990,662	Body	N_Shore	TRIM25	0.691	-0.003	0.215	0.665
cg16311302	yellow	11	8,228,147		OpenSea		0.691	0.023	0.356	0.291
cg19216592	yellow	4	101,466,426		OpenSea		0.691	0.014	0.730	0.268
cg10474377	yellow	15	42,131,658	Body	OpenSea	JMJD7-PLA2C	0.691	-0.004	0.868	0.499
cg11525020	yellow	20	17,674,233	TSS200	OpenSea	BANF2	0.691	0.022	0.250	0.075
cg18568843	yellow	6	52,535,550	TSS1500	N_Shore	TMEM14A	0.690	-0.011	0.275	0.068
cg24341515	yellow	13	97,884,379	5'UTR	OpenSea	MBNL2	0.690	0.011	0.581	0.448
cg17892169	yellow	17	7,452,644	Body	Island	TNFSF12	0.690	-0.006	0.268	0.520
cg12910830	yellow	5	162,929,657	TSS1500	N_Shelf	MAT2B	0.690	-0.004	0.847	0.699
cg04254681	yellow	2	9,679,744	Body	OpenSea	ADAM17	0.690	-0.012	0.816	0.473
cg19239783	yellow	1	186,177,165	Body	OpenSea	MIR548F1	0.690	-0.002	0.931	0.703
cg12898694	yellow	1	231,667,709	Body	S_Shelf	TSNAX-DISC1	0.690	-0.002	0.965	0.521
cg06126815	yellow	7	95,065,139	TSS1500	S_Shore	PON2	0.690	-0.009	0.925	0.223
cg06961160	yellow	21	35,900,255	5'UTR	OpenSea	RCAN1	0.690	-0.001	0.977	0.752
cg19161251	yellow	1	87,798,568	Body	S_Shore	LMO4	0.690	0.011	0.452	0.347
cg22880820	yellow	9	35,665,522	TSS1500	S_Shore	C9orf100	0.690	-0.003	0.072	0.493
cg08809408	yellow	16	2,820,942	3'UTR	OpenSea	SRRM2	0.690	0.004	0.728	0.511
cg03388409	yellow	1	224,014,120	Body	OpenSea	TP53BP2	0.690	0.005	0.789	0.373
cg18815018	yellow	14	22,315,066		OpenSea		0.690	-0.002	0.823	0.846
cg26521708	yellow	12	91,573,301	5'UTR	OpenSea	DCN	0.690	0.030	0.598	0.072
cg22155786	yellow	13	110,992,996	Body	OpenSea	COL4A2	0.690	0.002	0.751	0.762
cg21202204	yellow	9	136,398,165	5'UTR	N_Shore	ADAMTSL2	0.690	0.000	0.702	0.978
cg18439833	yellow	1	917,642	TSS200	N_Shelf	C1orf170	0.690	-0.003	0.337	0.593
cg15376996	yellow	22	50,912,555	Body	Island	SBF1	0.690	-0.007	0.054	0.201
cg07366670	yellow	12	111,619,077	Body	OpenSea	CUX2	0.690	0.013	0.223	0.237
cg15795544	yellow	11	62,647,023	Body	N_Shore	SLC3A2	0.690	0.001	0.896	0.916
cg13747899	yellow	6	33,171,911	TSS1500	N_Shore	HSD17B8	0.690	0.007	0.682	0.260
cg02051688	yellow	11	111,568,985	Body	OpenSea	SIK2	0.690	0.008	0.768	0.319
cg24437104	yellow	1	227,951,794	Body	OpenSea	SNAP47	0.690	0.001	0.680	0.861
cg12405258	yellow	13	114,927,641		S_Shore		0.690	-0.019	0.106	0.137
cg27544046	yellow	1	101,186,048	Body	OpenSea	VCAM1	0.690	-0.001	0.538	0.938
cg26248066	yellow	11	70,303,464		OpenSea		0.690	0.012	0.766	0.328
cg25405922	yellow	15	33,006,030		N_Shelf		0.690	-0.007	0.633	0.409
cg16765268	yellow	16	11,229,200	Body	OpenSea	CLEC16A	0.690	0.001	0.844	0.939
cg19723715	yellow	7	1,125,817	TSS1500	N_Shore	GPER	0.690	0.003	0.884	0.609
cg02115117	yellow	2	24,398,668	Body	Island	C2orf84	0.690	0.010	0.551	0.332
cg19590421	yellow	14	51,327,604		OpenSea		0.690	0.003	0.636	0.840
cg17327171	yellow	2	161,156,221	Body	OpenSea	RBMS1	0.690	-0.003	0.683	0.643
cg09074338	yellow	11	70,663,529	Body	N_Shelf	SHANK2	0.690	-0.001	0.815	0.920
cg02044879	yellow	10	74,714,935	TSS1500	OpenSea	PLA2G12B	0.690	-0.005	0.663	0.502
cg02551745	yellow	3	156,809,115		S_Shelf		0.690	0.002	0.686	0.795
cg17504394	yellow	17	70,339,295		OpenSea		0.690	0.005	0.427	0.846
cg08183125	yellow	14	80,678,293	TSS1500	OpenSea	DIO2	0.690	0.011	0.180	0.427
cg01169610	yellow	2	99,135,471	5'UTR	OpenSea	INPP4A	0.690	-0.007	0.877	0.232
cg25525825	yellow	6	28,889,919	Body	N_Shore	TRIM27	0.690	-0.006	0.897	0.365
cg19726128	yellow	14	69,564,942	Body	OpenSea	DCAF5	0.690	0.009	0.730	0.226
cg17276624	yellow	7	70,926,206	Body	OpenSea	WBSCR17	0.690	0.012	0.791	0.152
cg25461508	yellow	5	176,784,715	TSS200	OpenSea	RGS14	0.690	0.008	0.661	0.303
cg07643355	yellow	3	66,139,795	5'UTR	OpenSea	SLC25A26	0.690	0.020	0.229	0.048
cg15736553	yellow	3	11,610,338	Body	Island	VGLL4	0.690	0.001	0.564	0.887
cg22348654	yellow	1	916,058	Body	N_Shelf	C1orf170	0.690	0.003	0.786	0.655
cg18061327	yellow	18	2,916,738		S_Shelf		0.690	0.001	0.501	0.824
cg17380693	yellow	7	23,382,571	Body	OpenSea	IGF2BP3	0.690	0.002	0.921	0.676
cg17616192	yellow	17	80,009,015	TSS1500	Island	GPS1	0.690	-0.001	0.301	0.857
cg19506794	yellow	14	104,979,611		OpenSea		0.690	-0.006	0.746	0.403
cg22624285	yellow	19	46,629,090	TSS1500	OpenSea	IGFL3	0.690	0.009	0.559	0.424
cg11751117	yellow	14	56,663,411	Body	OpenSea	PELI2	0.690	-0.005	0.760	0.653
cg15398497	yellow	2	26,787,764	Body	S_Shore	C2orf70	0.690	0.012	0.628	0.105
cg03873826	yellow	16	68,407,311	5'UTR	S_Shore	SMPD3	0.690	0.002	0.673	0.729
cg00078857	yellow	8	49,426,532		N_Shore		0.690	-0.001	0.699	0.939
cg19839281	yellow	2	238,362,492		OpenSea		0.690	0.006	0.707	0.259
cg27394460	yellow	1	228,394,900	TSS1500	OpenSea	OBSCN	0.690	0.011	0.733	0.104

cg07110008	yellow	16	1,158,991	S_Shelf		0.689	0.010	0.389	0.398	
cg06206628	yellow	10	49,482,826	5'UTR	OpenSea	FRMPD2	0.689	0.004	0.554	0.607
cg02206323	yellow	17	19,249,068	TSS1500	S_Shore	MIR1180	0.689	0.000	0.666	0.962
cg24486540	yellow	1	223,526,402	Body	OpenSea	SUSD4	0.689	0.002	0.495	0.656
cg18805457	yellow	5	145,829,759	Body	S_Shelf	TCERG1	0.689	-0.006	0.936	0.229
cg09461545	yellow	4	25,845,210	Body	OpenSea	SEL1L3	0.689	-0.003	0.774	0.700
cg20418725	yellow	2	202,122,474	5'UTR	OpenSea	CASP8	0.689	0.020	0.607	0.023
cg08126560	yellow	9	92,291,523	Body	Island	LOC1001290	0.689	0.014	0.456	0.076
cg10469297	yellow	11	63,871,243	Body	OpenSea	MACROD1	0.689	0.009	0.651	0.163
cg16001335	yellow	22	50,219,912	TSS1500	N_Shore	BRD1	0.689	-0.001	0.539	0.937
cg03495011	yellow	20	61,757,175		S_Shelf		0.689	0.006	0.554	0.563
cg00989002	yellow	16	52,225,569		OpenSea		0.689	-0.002	0.546	0.846
cg00831735	yellow	8	124,215,033	Body	OpenSea	FAM83A	0.689	0.014	0.574	0.120
cg08980697	yellow	4	82,362,415	Body	OpenSea	RASGEF1B	0.689	-0.009	0.783	0.368
cg14620908	yellow	6	32,078,614	TSS1500	OpenSea	TNXB	0.689	0.026	0.728	0.020
cg09189889	yellow	13	95,132,211	TSS1500	OpenSea	DCT	0.689	-0.004	0.555	0.656
cg03073218	yellow	8	120,106,427	Body	OpenSea	COLEC10	0.689	0.020	0.535	0.130
cg10198749	yellow	1	39,920,707	Body	OpenSea	MACF1	0.689	0.000	0.921	0.975
cg03847675	yellow	15	93,127,379		OpenSea		0.689	-0.014	0.735	0.526
cg21844005	yellow	7	31,096,717	5'UTR	S_Shelf	ADCYAP1R1	0.689	0.003	0.576	0.580
cg06881647	yellow	12	124,893,556	Body	OpenSea	NCOR2	0.689	0.005	0.705	0.536
cg17861863	yellow	10	1,454,387	Body	OpenSea	ADARB2	0.689	-0.007	0.278	0.783
cg05208582	yellow	6	11,216,594	Body	OpenSea	NEDD9	0.689	-0.020	0.879	0.025
cg18546752	yellow	2	173,792,840	Body	OpenSea	RAPGEF4	0.689	-0.010	0.198	0.383
cg00946598	yellow	1	44,117,093	5'UTR	S_Shore	KDM4A	0.689	0.015	0.563	0.130
cg14354671	yellow	9	80,981,815		OpenSea		0.689	0.006	0.838	0.359
cg15660807	yellow	2	220,381,734	Body	S_Shelf	ACCN4	0.689	0.004	0.514	0.517
cg05244013	yellow	15	94,346,066		OpenSea		0.689	0.008	0.696	0.469
cg06713116	yellow	7	154,720,452	Body	OpenSea	LOC1001327	0.689	-0.006	0.244	0.548
cg01808968	yellow	1	53,574,533	Body	OpenSea	SLC1A7	0.689	0.009	0.691	0.342
cg04128499	yellow	1	112,312,243		OpenSea		0.689	0.005	0.070	0.184
cg16269196	yellow	4	141,264,721	5'UTR	OpenSea	SCOC	0.689	-0.004	0.549	0.770
cg14284257	yellow	7	95,060,347	Body	N_Shelf	PON2	0.689	0.009	0.890	0.590
cg07642822	yellow	19	56,608,958	Body	Island	ZNF787	0.689	0.005	0.746	0.562
cg06906435	yellow	14	99,177,777	TSS200	OpenSea	C14orf177	0.689	0.013	0.876	0.093
cg13689831	yellow	1	227,175,077	3'UTR	OpenSea	CABC1	0.689	0.000	0.558	0.952
cg23386330	yellow	11	13,977,556		OpenSea		0.689	0.002	0.206	0.762
cg05707655	yellow	17	908,690	3'UTR	N_Shore	ABR	0.689	0.008	0.695	0.561
cg07905054	yellow	12	102,272,136	Body	S_Shore	DRAM1	0.689	0.004	0.364	0.655
cg21155100	yellow	5	56,147,662	Body	OpenSea	MAP3K1	0.689	-0.005	0.832	0.549
cg17403702	yellow	11	6,499,575	Body	N_Shelf	ARFIP2	0.689	0.004	0.878	0.284
cg22319611	yellow	22	19,840,851	5'UTR	N_Shore	GNB1L	0.689	0.017	0.626	0.014
cg03956042	yellow	3	194,206,497		N_Shore		0.689	-0.004	0.120	0.629
cg17312546	yellow	7	24,561,256		OpenSea		0.689	-0.014	0.634	0.108
cg25256493	yellow	10	72,297,852	Body	OpenSea	KIAA1274	0.689	-0.004	0.643	0.544
cg08163803	yellow	13	22,178,600	TSS1500	S_Shore	EFHA1	0.689	0.005	0.053	0.154
cg20540235	yellow	8	91,683,243		OpenSea		0.689	0.022	0.235	0.096
cg16874347	yellow	2	86,450,216	Body	OpenSea	REEP1	0.689	0.006	0.480	0.422
cg09575312	yellow	19	8,511,155	Body	S_Shore	HNRNPM	0.689	-0.006	0.273	0.663
cg11290265	yellow	4	15,375,866	TSS1500	OpenSea	C1QTNF7	0.688	-0.028	0.688	0.073
cg06228857	yellow	15	35,372,947		OpenSea		0.688	0.003	0.569	0.772
cg20290360	yellow	1	204,956,391	Body	OpenSea	NFASC	0.688	0.007	0.513	0.513
cg01558151	yellow	9	34,048,101	5'UTR	N_Shore	UBAP2	0.688	0.000	0.068	0.957
cg01348594	yellow	3	126,111,668		N_Shore		0.688	0.003	0.590	0.716
cg21787078	yellow	1	34,099,118	Body	Island	CSMD2	0.688	0.003	0.624	0.575
cg02291439	yellow	5	122,370,435	Body	N_Shore	PPIC	0.688	0.005	0.722	0.485
cg17163363	yellow	11	6,192,419	TSS1500	OpenSea	OR52B2	0.688	0.008	0.288	0.426
cg07906484	yellow	20	43,036,036	Body	OpenSea	HNF4A	0.688	-0.005	0.788	0.587
cg14136709	yellow	11	24,013,119		OpenSea		0.688	0.002	0.474	0.875
cg25075459	yellow	2	211,096,859		OpenSea		0.688	-0.003	0.882	0.608
cg05135288	yellow	16	717,707	TSS1500	N_Shore	RHOT2	0.688	0.005	0.719	0.509
cg27205487	yellow	21	17,961,996	Body	OpenSea	C21orf34	0.688	0.009	0.888	0.318
cg15335334	yellow	17	73,642,547	Body	OpenSea	RECQL5	0.688	0.007	0.520	0.296
cg25471234	yellow	6	32,082,643		OpenSea		0.688	0.003	0.724	0.810
cg23510258	yellow	17	80,840,821	Body	OpenSea	TBCD	0.688	-0.007	0.867	0.671
cg08317412	yellow	11	124,481,193	TSS1500	OpenSea	PANX3	0.688	0.005	0.728	0.378
cg06698292	yellow	3	160,113,492	5'UTR	N_Shelf	IFT80	0.688	0.003	0.906	0.715

cg11657018	yellow	5	111,115,809	Body	OpenSea	C5orf13	0.688	0.009	0.043	0.174
cg18113332	yellow	11	368,384	TSS1500	OpenSea	B4GALNT4	0.688	-0.007	0.577	0.499
cg12326965	yellow	17	76,224,587		N_Shelf		0.688	0.023	0.616	0.071
cg25164777	yellow	8	52,722,539	TSS1500	OpenSea	PXDNL	0.688	0.009	0.374	0.356
cg18456481	yellow	14	62,019,963		OpenSea		0.688	0.004	0.492	0.477
cg18725348	yellow	12	131,493,258	Body	OpenSea	GPR133	0.688	0.000	0.883	1.000
cg23924222	yellow	2	24,658,294		OpenSea		0.688	-0.002	0.532	0.775
cg26835683	yellow	1	160,180,434	5'UTR	OpenSea	PEA15	0.688	0.010	0.529	0.274
cg03548512	yellow	10	73,978,697	5'UTR	S_Shelf	C10orf104	0.688	0.000	0.577	0.988
cg18479565	yellow	19	15,901,167		OpenSea		0.688	0.023	0.603	0.006
cg21474062	yellow	3	141,087,363	5'UTR	OpenSea	ZBTB38	0.688	0.019	0.242	0.102
cg27023822	yellow	15	97,413,877		OpenSea		0.688	0.003	0.691	0.744
cg15713729	yellow	1	32,757,367	TSS1500	N_Shore	HDAC1	0.688	-0.001	0.033	0.687
cg17855390	yellow	1	3,693,301		S_Shelf		0.688	0.004	0.682	0.496
cg06362282	yellow	6	33,245,893	1stExon	S_Shore	B3GALT4	0.688	0.013	0.681	0.038
cg00177239	yellow	10	116,581,112	TSS1500	N_Shore	FAM160B1	0.688	0.001	0.619	0.942
cg02943595	yellow	10	114,610,560	TSS200	OpenSea	LOC143188	0.688	0.004	0.690	0.581
cg15733114	yellow	12	14,996,515	TSS200	OpenSea	ART4	0.688	0.002	0.417	0.871
cg01940181	yellow	1	3,135,712	Body	OpenSea	PRDM16	0.688	0.009	0.253	0.414
cg11287292	yellow	4	178,277,261	Body	OpenSea	NEIL3	0.688	-0.003	0.886	0.657
cg24371848	yellow	3	196,599,174	5'UTR	S_Shelf	SENPS5	0.688	0.005	0.890	0.482
cg23968579	yellow	1	5,975,890	Body	OpenSea	NPHP4	0.688	0.004	0.519	0.611
cg01238435	yellow	5	141,595,696		OpenSea		0.688	0.004	0.349	0.740
cg10806586	yellow	14	45,366,116	TSS1500	N_Shore	C14orf28	0.688	0.001	0.717	0.927
cg17714147	yellow	13	113,487,757	Body	S_Shore	ATP11A	0.688	0.007	0.765	0.421
cg19302996	yellow	17	73,780,495	TSS200	N_Shore	UNK	0.688	0.013	0.375	0.299
cg11809668	yellow	4	154,435,522	Body	OpenSea	KIAA0922	0.688	0.017	0.648	0.345
cg14016031	yellow	7	212,881	Body	OpenSea	FAM20C	0.687	0.002	0.959	0.718
cg01190109	yellow	2	208,689,903	3'UTR	OpenSea	PLEKHM3	0.687	0.003	0.693	0.807
cg22691256	yellow	7	70,937,827	Body	OpenSea	WBSCR17	0.687	0.012	0.517	0.445
cg16621749	yellow	3	32,509,212		N_Shore		0.687	0.005	0.415	0.560
cg08166588	yellow	3	49,757,438	TSS1500	S_Shore	AMIGO3	0.687	0.004	0.172	0.672
cg25881553	yellow	1	151,273,636	Body	OpenSea	PI4KB	0.687	0.000	0.023	0.802
cg02058108	yellow	12	26,348,117	TSS200	N_Shore	SSPN	0.687	0.013	0.562	0.214
cg07959747	yellow	10	82,050,672	TSS1500	OpenSea	MAT1A	0.687	0.001	0.605	0.913
cg12472022	yellow	11	61,462,803	5'UTR	OpenSea	DAGLA	0.687	0.007	0.654	0.282
cg23864202	yellow	14	96,722,482	TSS200	OpenSea	BDKRB1	0.687	0.002	0.710	0.897
cg22229039	yellow	1	7,842,159		N_Shore		0.687	-0.006	0.916	0.260
cg04330084	yellow	7	123,175,371	TSS1500	S_Shore	IQUB	0.687	0.000	0.025	0.908
cg22449337	yellow	1	40,943,913	5'UTR	S_Shore	ZNF642	0.687	0.019	0.686	0.080
cg13330050	yellow	5	114,632,793	TSS1500	S_Shore	CCDC112	0.687	0.011	0.719	0.283
cg18651578	yellow	20	5,844,315	3'UTR	OpenSea	C20orf196	0.687	0.001	0.914	0.833
cg07718444	yellow	1	1,094,080		S_Shore		0.687	-0.002	0.514	0.717
cg13392861	yellow	9	37,914,861		OpenSea		0.687	0.010	0.798	0.075
cg16589555	yellow	19	10,683,470	3'UTR	S_Shelf	AP1M2	0.687	0.004	0.456	0.601
cg03561787	yellow	16	810,950	TSS200	OpenSea	MSLN	0.687	0.010	0.827	0.129
cg20699549	yellow	15	42,567,973	Body	S_Shore	GANC	0.687	0.007	0.692	0.491
cg27663200	yellow	15	68,868,569		N_Shelf		0.687	0.011	0.643	0.146
cg08142848	yellow	1	44,171,807	TSS1500	N_Shore	ST3GAL3	0.687	0.014	0.666	0.024
cg24851490	yellow	14	21,423,769	5'UTR	OpenSea	RNASE2	0.687	-0.003	0.431	0.682
cg06188908	yellow	1	43,856,186	Body	S_Shore	C1orf84	0.687	0.002	0.070	0.688
cg01778647	yellow	8	141,473,870		N_Shore		0.687	-0.001	0.076	0.908
cg10586672	yellow	3	14,514,657	Body	OpenSea	SLC6A6	0.687	0.005	0.702	0.471
cg10213821	yellow	7	99,005,134	TSS1500	N_Shore	BUD31	0.687	0.008	0.609	0.519
cg22442732	yellow	2	74,659,711	Body	N_Shelf	RTKN	0.687	0.003	0.714	0.555
cg22809176	yellow	5	31,272,246	Body	OpenSea	CDH6	0.687	0.007	0.672	0.492
cg12134570	yellow	19	13,213,428	5'UTR	N_Shore	LYL1	0.687	-0.002	0.128	0.686
cg15039415	yellow	17	45,690,396	Body	OpenSea	NPEPPS	0.687	0.011	0.775	0.213
cg27485596	yellow	13	111,829,530	Body	OpenSea	ARHGEF7	0.687	0.001	0.308	0.957
cg20635067	yellow	6	30,552,025	Body	OpenSea	ABCF1	0.687	-0.005	0.913	0.359
cg06529818	yellow	1	32,828,847	TSS1500	S_Shore	LOC1001280	0.687	0.005	0.907	0.286
cg03754708	yellow	10	134,604,989		N_Shore		0.687	0.006	0.537	0.365
cg04904276	yellow	16	11,835,562	Body	N_Shore	TXNDC11	0.687	0.008	0.662	0.635
cg15095727	yellow	3	138,311,508	5'UTR	N_Shore	CEP70	0.687	-0.003	0.922	0.593
cg24057775	yellow	1	2,838,930		OpenSea		0.687	0.012	0.635	0.302
cg13296238	yellow	3	127,323,965	Body	Island	MCM2	0.687	0.009	0.669	0.157
cg20545167	yellow	10	4,482,624		OpenSea		0.687	0.001	0.798	0.939

cg24367957	yellow	1	161,931,993	OpenSea		0.687	0.000	0.841	0.986
cg13454846	yellow	1	16,068,375 TSS1500	N_Shelf	TMEM82	0.687	0.002	0.658	0.766
cg01749249	yellow	6	43,252,541 Body	N_Shore	TTBK1	0.687	0.007	0.590	0.250
cg21231776	yellow	2	47,136,690 5'UTR	OpenSea	MCFD2	0.687	-0.009	0.906	0.347
cg07470639	yellow	17	20,839,291	OpenSea		0.687	-0.009	0.480	0.627
cg13197551	yellow	20	60,709,957 3'UTR	OpenSea	LSM14B	0.687	0.004	0.949	0.304
cg20687098	yellow	2	175,480,993 5'UTR	OpenSea	WIPF1	0.687	0.012	0.328	0.270
cg00121562	yellow	3	196,014,011 5'UTR	N_Shore	PCYT1A	0.687	0.000	0.035	0.960
cg19264533	yellow	19	18,451,241 TSS200	N_Shore	PGPEP1	0.687	0.007	0.077	0.187
cg06042954	yellow	15	35,410,954	N_Shelf		0.687	-0.002	0.933	0.789
cg03014634	yellow	16	85,205,030	Island		0.687	0.005	0.478	0.480
cg16449262	yellow	16	49,307,459	N_Shore		0.687	0.015	0.411	0.018
cg06212760	yellow	1	46,664,937 Body	N_Shelf	POMGNT1	0.687	0.008	0.685	0.428
cg02394249	yellow	12	93,140,078 Body	OpenSea	PLEKHG7	0.687	0.015	0.748	0.189
cg17525654	yellow	17	12,625,027 Body	OpenSea	MYOCD	0.686	0.003	0.788	0.477
cg02708758	yellow	15	74,545,009 Body	OpenSea	CCDC33	0.686	0.009	0.830	0.175
cg05106869	yellow	16	31,142,991 3'UTR	OpenSea	PRSS8	0.686	0.007	0.678	0.415
cg09262217	yellow	14	91,819,321 Body	OpenSea	CCDC88C	0.686	0.003	0.677	0.682
cg09347959	yellow	15	33,360,271 TSS200	OpenSea	FMN1	0.686	0.000	0.611	0.990
cg20083900	yellow	7	157,624,841 Body	OpenSea	PTPRN2	0.686	0.013	0.694	0.105
cg17769771	yellow	6	100,952,856	OpenSea		0.686	0.020	0.396	0.054
cg12604331	yellow	1	156,906,485 Body	OpenSea	ARHGEF11	0.686	0.015	0.681	0.040
cg27361227	yellow	5	78,126,647 Body	OpenSea	ARSB	0.686	0.003	0.313	0.847
cg15383087	yellow	19	36,910,144 TSS1500	S_Shore	ZFP82	0.686	0.008	0.435	0.471
cg13315047	yellow	12	131,261,143	OpenSea		0.686	0.006	0.267	0.652
cg16540134	yellow	14	64,681,257 Body	OpenSea	SYNE2	0.686	0.002	0.726	0.765
cg27052073	yellow	19	45,654,213 3'UTR	N_Shore	NKPD1	0.686	0.014	0.508	0.066
cg05177590	yellow	16	86,963,296	N_Shore		0.686	0.012	0.460	0.109
cg00276826	yellow	10	18,940,907 TSS1500	S_Shore	NSUN6	0.686	0.008	0.058	0.149
cg13474998	yellow	3	53,165,031 TSS1500	S_Shore	RFT1	0.686	0.012	0.613	0.236
cg14965639	yellow	2	48,795,994 TSS200	OpenSea	STON1-GTF2.	0.686	0.004	0.875	0.596
cg24290756	yellow	2	242,811,552 TSS1500	N_Shelf	C2orf85	0.686	0.003	0.543	0.674
cg14156149	yellow	13	39,598,340 Body	OpenSea	C13orf23	0.686	0.005	0.647	0.433
cg06683078	yellow	21	46,102,242 TSS200	OpenSea	KRTAP12-1	0.686	-0.013	0.601	0.231
cg22319618	yellow	22	45,562,946 5'UTR	S_Shelf	NUP50	0.686	0.003	0.902	0.713
cg09501687	yellow	5	150,169,781 Body	OpenSea	C5orf62	0.686	-0.013	0.842	0.114
cg02223028	yellow	16	30,536,135 Body	Island	ZNF768	0.686	0.005	0.912	0.347
cg02153339	yellow	12	121,415,499 TSS1500	N_Shore	HNF1A	0.686	0.014	0.796	0.110
cg08177332	yellow	3	98,343,882	OpenSea		0.686	0.013	0.685	0.073
cg22936253	yellow	10	90,752,569 Body	S_Shore	FAS	0.686	0.013	0.898	0.142
cg00580497	yellow	5	1,153,746	N_Shore		0.686	0.000	0.593	0.960
cg20778582	yellow	11	63,753,376 5'UTR	N_Shore	OTUB1	0.686	0.002	0.067	0.734
cg02735762	yellow	9	135,280,262 5'UTR	N_Shore	TTF1	0.686	-0.010	0.706	0.194
cg15425827	yellow	8	124,194,965 1stExon	OpenSea	FAM83A	0.686	0.004	0.588	0.567
cg16277944	yellow	5	169,068,404 Body	S_Shelf	DOCK2	0.686	0.008	0.267	0.514
cg24464525	yellow	4	8,469,051 Body	OpenSea	C4orf23	0.686	-0.007	0.831	0.174
cg12851049	yellow	11	3,184,019 5'UTR	S_Shore	OSBPL5	0.686	0.009	0.720	0.136
cg07657776	yellow	12	109,914,065 TSS1500	N_Shore	UBE3B	0.686	0.019	0.829	0.009
cg04285869	yellow	5	1,225,295 TSS200	N_Shore	SLC6A18	0.686	-0.004	0.561	0.612
cg17790273	yellow	17	49,040,709 3'UTR	OpenSea	SPAG9	0.686	0.017	0.160	0.201
cg16283183	yellow	3	45,718,805 3'UTR	OpenSea	LIMD1	0.686	-0.005	0.900	0.541
cg04034290	yellow	8	119,586,905 Body	OpenSea	SAMD12	0.686	0.030	0.544	0.039
cg01399319	yellow	1	1,326,204 Body	S_Shelf	CCNL2	0.686	0.001	0.876	0.893
cg22999989	yellow	6	31,854,763 Body	N_Shelf	EHMT2	0.686	0.008	0.728	0.269
cg16752389	yellow	3	32,991,685 TSS1500	OpenSea	CCR4	0.686	0.001	0.632	0.861
cg16987556	yellow	4	54,245,040 Body	S_Shore	FIP1L1	0.686	0.002	0.068	0.749
cg07029777	yellow	2	1,658,233 Body	OpenSea	PXDN	0.686	0.007	0.788	0.580
cg10586358	yellow	19	13,029,889 Body	Island	SYCE2	0.686	-0.001	0.325	0.849
cg22999525	yellow	2	24,300,821 Body	S_Shore	TP53I3	0.686	0.004	0.800	0.692
cg25907215	yellow	22	24,178,181 3'UTR	N_Shelf	DERL3	0.686	0.000	0.661	0.985
cg23586659	yellow	1	225,671,990	OpenSea		0.686	0.006	0.737	0.479
cg14541311	yellow	14	23,877,130 5'UTR	OpenSea	MYH6	0.686	0.004	0.770	0.504
cg19006302	yellow	19	54,058,767 5'UTR	S_Shore	ZNF331	0.686	-0.005	0.854	0.454
cg15373592	yellow	6	56,405,167 Body	N_Shelf	DST	0.686	0.001	0.496	0.965
cg15099666	yellow	7	130,626,559	OpenSea		0.686	0.010	0.629	0.232
cg14711145	yellow	5	133,710,015 Body	S_Shelf	UBE2B	0.686	0.005	0.901	0.439
cg18915211	yellow	12	42,721,010 5'UTR	S_Shore	PPHLN1	0.686	0.010	0.156	0.215

cg24590708	yellow	15	52,554,357	Body	OpenSea	MYO5C	0.686	0.024	0.744	0.077
cg21554588	yellow	5	138,720,378	TSS1500	OpenSea	SLC23A1	0.686	-0.001	0.901	0.828
cg27583740	yellow	7	123,556,406		OpenSea		0.686	0.008	0.650	0.387
cg02824980	yellow	19	15,783,725	TSS200	OpenSea	CYP4F12	0.686	0.013	0.239	0.145
cg06119477	yellow	20	418,893	3'UTR	OpenSea	TBC1D20	0.686	0.004	0.845	0.496
cg23901967	yellow	17	36,890,321	3'UTR	S_Shelf	CISD3	0.686	0.004	0.430	0.563
cg08547848	yellow	11	102,339,610		OpenSea		0.686	-0.001	0.831	0.912
cg13292202	yellow	5	112,771,367	TSS1500	OpenSea	TSSK1B	0.686	0.015	0.706	0.236
cg11847442	yellow	15	41,268,170		OpenSea		0.685	0.002	0.924	0.702
cg19009417	yellow	10	86,004,704	TSS200	OpenSea	RGR	0.685	-0.001	0.728	0.932
cg18222865	yellow	11	14,664,689	TSS1500	N_Shore	PDE3B	0.685	0.002	0.480	0.656
cg00008612	yellow	13	60,726,243	Body	OpenSea	DIAPH3	0.685	-0.007	0.931	0.159
cg21960364	yellow	4	185,398,007		S_Shore		0.685	-0.007	0.837	0.147
cg14110920	yellow	12	53,583,359	3'UTR	OpenSea	ZNF740	0.685	0.002	0.722	0.807
cg04686481	yellow	2	178,787,069	Body	OpenSea	PDE11A	0.685	0.003	0.674	0.724
cg19261516	yellow	3	132,274,035		OpenSea		0.685	-0.007	0.658	0.464
cg00420347	yellow	1	65,362,428	5'UTR	OpenSea	JAK1	0.685	-0.001	0.846	0.882
cg04191427	yellow	17	78,833,259	Body	S_Shore	RPTOR	0.685	0.007	0.051	0.464
cg24987170	yellow	14	78,266,229	TSS200	N_Shore	ADCK1	0.685	-0.005	0.059	0.262
cg27285056	yellow	19	50,868,879	5'UTR	OpenSea	NAPSA	0.685	0.006	0.782	0.487
cg13853450	yellow	18	64,271,503	TSS1500	OpenSea	CDH19	0.685	0.009	0.851	0.521
cg26129353	yellow	18	55,316,927	Body	S_Shore	ATP8B1	0.685	-0.003	0.880	0.750
cg14789175	yellow	1	11,534,690		N_Shelf		0.685	0.004	0.693	0.659
cg07144560	yellow	5	148,865,756		OpenSea		0.685	0.010	0.108	0.196
cg08430407	yellow	11	71,709,888	TSS200	OpenSea	IL18BP	0.685	0.010	0.640	0.126
cg15819739	yellow	6	33,362,603	Body	S_Shelf	KIFC1	0.685	-0.001	0.740	0.916
cg27608981	yellow	7	101,544,969	Body	OpenSea	CUX1	0.685	0.011	0.878	0.125
cg05886689	yellow	19	51,051,890	Body	Island	LRRC4B	0.685	0.008	0.537	0.221
cg12751565	yellow	1	207,119,987	TSS200	OpenSea	PIGR	0.685	0.010	0.716	0.088
cg02965092	yellow	12	72,347,052	Body	OpenSea	TPH2	0.685	-0.013	0.846	0.059
cg21613754	yellow	2	219,133,847	Body	N_Shore	AAAMP	0.685	0.008	0.870	0.196
cg19852660	yellow	11	2,846,681	Body	OpenSea	KCNQ1	0.685	0.004	0.552	0.786
cg14742809	yellow	5	60,631,028	Body	S_Shore	ZSWIM6	0.685	0.005	0.086	0.405
cg07531182	yellow	16	17,299,114	Body	OpenSea	XYLT1	0.685	0.004	0.656	0.527
cg19895185	yellow	14	105,802,735	Body	OpenSea	PACSL2	0.685	0.001	0.806	0.808
cg26402169	yellow	7	1,883,139	Body	N_Shore	MAD1L1	0.685	-0.009	0.585	0.315
cg01841839	yellow	20	59,598,577		N_Shore		0.685	0.003	0.708	0.697
cg12102016	yellow	14	89,259,748	TSS1500	S_Shore	EML5	0.685	-0.010	0.792	0.245
cg26971783	yellow	15	77,857,997		OpenSea		0.685	0.017	0.571	0.321
cg01901434	yellow	5	127,835,777	Body	OpenSea	FBN2	0.685	0.003	0.855	0.803
cg02625725	yellow	1	1,264,265	3'UTR	N_Shore	GLTPD1	0.685	-0.001	0.668	0.799
cg22042546	yellow	1	27,050,491	Body	OpenSea	ARID1A	0.685	0.008	0.036	0.179
cg20225915	yellow	11	805,726	TSS1500	S_Shore	LRDD	0.685	-0.001	0.055	0.865
cg03629948	yellow	4	1,804,007	Body	Island	FGFR3	0.685	-0.013	0.602	0.367
cg20662501	yellow	17	80,336,304		S_Shelf		0.685	0.009	0.592	0.186
cg26756396	yellow	19	7,459,296	TSS1500	N_Shore	ARHGEF18	0.685	0.001	0.433	0.959
cg20382622	yellow	14	75,330,790	TSS1500	OpenSea	PROX2	0.685	0.012	0.756	0.208
cg00069432	yellow	8	99,836,388	Body	N_Shore	STK3	0.685	0.000	0.973	0.934
cg17577695	yellow	5	55,395,877	3'UTR	OpenSea	ANKRD55	0.685	0.007	0.907	0.386
cg00978783	yellow	14	100,788,291	TSS1500	OpenSea	C14orf68	0.685	-0.002	0.424	0.715
cg08133848	yellow	1	84,719,678		OpenSea		0.685	0.003	0.593	0.674
cg27343900	yellow	5	172,331,791	Body	OpenSea	ERGIC1	0.685	0.004	0.508	0.449
cg06024930	yellow	12	121,890,328	Body	Island	KDM2B	0.685	-0.013	0.871	0.039
cg11402303	yellow	8	145,651,541	Body	N_Shore	VPS28	0.685	0.001	0.787	0.791
cg26332926	yellow	10	52,835,078	Body	S_Shore	PRKG1	0.685	0.027	0.470	0.008
cg13852486	yellow	1	205,195,627	TSS1500	N_Shore	TMCC2	0.685	0.015	0.440	0.104
cg11299476	yellow	6	169,558,896		OpenSea		0.685	0.009	0.675	0.429
cg11530564	yellow	6	30,856,121	TSS1500	S_Shelf	DDR1	0.685	-0.006	0.441	0.637
cg08319974	yellow	6	164,506,861		OpenSea		0.684	0.002	0.352	0.823
cg01974478	yellow	7	4,779,312	Body	OpenSea	FOXK1	0.684	0.015	0.473	0.231
cg24833277	yellow	8	124,194,361	TSS1500	OpenSea	FAM83A	0.684	0.007	0.666	0.257
cg01295999	yellow	3	174,926,334	Body	OpenSea	NAALADL2	0.684	0.006	0.659	0.412
cg04417773	yellow	10	80,909,901	5'UTR	OpenSea	ZMIZ1	0.684	-0.022	0.275	0.066
cg05831242	yellow	16	834,043	TSS1500	S_Shore	MSLNL	0.684	0.005	0.229	0.439
cg06842913	yellow	7	72,740,762	5'UTR	N_Shore	TRIM50	0.684	-0.003	0.602	0.714
cg21563471	yellow	2	158,184,535	TSS1500	OpenSea	ERMN	0.684	0.011	0.412	0.351
cg10987840	yellow	2	9,319,526		OpenSea		0.684	-0.010	0.344	0.408

cg10587741	yellow	22	38,071,170	TSS1500	N_Shore	LGALS1	0.684	-0.018	0.154	0.243
cg22095041	yellow	15	78,897,050	Body	S_Shelf	CHRNA3	0.684	0.005	0.865	0.466
cg13290254	yellow	12	125,197,730		OpenSea		0.684	-0.001	0.935	0.858
cg20632978	yellow	17	79,167,828	Body	S_Shelf	AZI1	0.684	0.006	0.853	0.344
cg19924948	yellow	2	11,970,722		OpenSea		0.684	0.004	0.027	0.085
cg06846137	yellow	10	131,682,939	Body	N_Shelf	EBF3	0.684	-0.003	0.762	0.681
cg01809854	yellow	13	24,118,951		N_Shelf		0.684	-0.003	0.798	0.623
cg22737473	yellow	2	200,823,609	Body	S_Shelf	C2orf47	0.684	-0.008	0.918	0.148
cg09660810	yellow	12	132,270,673	Body	OpenSea	SFRS8	0.684	0.002	0.839	0.760
cg11285284	yellow	6	30,709,012	Body	N_Shore	FLOT1	0.684	0.007	0.332	0.279
cg18419977	yellow	11	2,920,052	Body	N_Shelf	SLC22A18AS	0.684	0.005	0.635	0.530
cg09267056	yellow	1	90,410,109		OpenSea		0.684	0.006	0.336	0.247
cg09518670	yellow	16	88,150,515		N_Shelf		0.684	0.009	0.545	0.290
cg22945413	yellow	1	65,399,413	5'UTR	OpenSea	JAK1	0.684	0.019	0.792	0.021
cg16601415	yellow	19	10,942,243	3'UTR	OpenSea	DNM2	0.684	0.010	0.761	0.124
cg02334126	yellow	12	121,017,209	Body	N_Shore	POP5	0.684	0.011	0.736	0.437
cg15702949	yellow	2	131,130,836	3'UTR	S_Shore	PTPN18	0.684	0.010	0.805	0.358
cg24105407	yellow	1	6,615,510	1stExon	S_Shore	TAS1R1	0.684	0.014	0.574	0.165
cg07734161	yellow	16	1,593,557	Body	S_Shore	IFT140	0.684	0.008	0.699	0.237
cg15735736	yellow	19	41,854,950	Body	N_Shelf	TGFB1	0.684	0.012	0.648	0.184
cg17020635	yellow	11	67,373,639	TSS1500	N_Shore	NDUFV1	0.684	0.002	0.538	0.795
cg01784220	yellow	8	8,749,278	1stExon	Island	MFHAS1	0.684	0.000	0.305	0.990
cg22335826	yellow	6	7,242,625	Body	OpenSea	RREB1	0.684	0.015	0.344	0.010
cg16000022	yellow	11	68,856,414	3'UTR	OpenSea	TPCN2	0.684	0.005	0.256	0.530
cg10158715	yellow	15	83,382,987		S_Shelf		0.684	0.009	0.603	0.237
cg03008815	yellow	14	75,372,636	3'UTR	OpenSea	RPS6KL1	0.684	0.006	0.427	0.316
cg18919659	yellow	22	43,343,084	TSS200	OpenSea	PACSIN2	0.684	0.009	0.582	0.160
cg07405121	yellow	16	2,083,168	Body	N_Shelf	SLC9A3R2	0.684	0.015	0.745	0.049
cg03820795	yellow	17	4,337,140	TSS200	OpenSea	SPNS3	0.684	0.012	0.568	0.075
cg25064910	yellow	4	39,408,416	TSS200	OpenSea	KLB	0.684	0.020	0.339	0.164
cg24607398	yellow	3	37,033,625	1stExon	N_Shore	EPM2AIP1	0.684	-0.005	0.224	0.711
cg26407544	yellow	1	20,945,355	3'UTR	OpenSea	CDA	0.684	0.004	0.534	0.449
cg24073056	yellow	2	8,781,821		N_Shelf		0.684	0.026	0.866	0.061
cg21771679	yellow	7	131,206,773	Body	OpenSea	PODXL	0.684	-0.001	0.351	0.832
cg21810733	yellow	3	13,520,763	TSS1500	N_Shore	HDAC11	0.684	-0.004	0.784	0.503
cg23157419	yellow	15	75,835,738	Body	OpenSea	PTPN9	0.684	0.001	0.926	0.804
cg04468568	yellow	11	128,776,059	TSS1500	OpenSea	C11orf45	0.684	0.006	0.483	0.411
cg26392232	yellow	14	77,004,471		OpenSea		0.684	-0.001	0.312	0.887
cg00613113	yellow	10	80,720,100	Body	OpenSea	LOC283050	0.684	0.009	0.731	0.194
cg01971130	yellow	14	101,346,372	TSS1500	N_Shelf	MIR431	0.683	0.009	0.877	0.229
cg16047292	yellow	7	99,441,585	Body	OpenSea	CYP3A43	0.683	0.010	0.488	0.408
cg22789769	yellow	10	44,789,589		S_Shore		0.683	-0.003	0.465	0.771
cg19216198	yellow	6	149,970,148		S_Shore		0.683	-0.002	0.160	0.811
cg06937595	yellow	1	1,868,501		OpenSea		0.683	-0.001	0.412	0.815
cg24116317	yellow	5	171,534,716	Body	OpenSea	STK10	0.683	0.007	0.633	0.533
cg06710464	yellow	17	79,047,695	Body	S_Shore	BAIAP2	0.683	0.002	0.919	0.733
cg25560924	yellow	4	72,246,676	Body	OpenSea	SLC4A4	0.683	0.002	0.784	0.796
cg17151560	yellow	1	6,544,511	5'UTR	N_Shore	PLEKHG5	0.683	0.007	0.735	0.314
cg22903457	yellow	2	5,732,815		OpenSea		0.683	0.022	0.584	0.127
cg09417849	yellow	16	331,892	Body	N_Shore	ARHGDIG	0.683	0.006	0.490	0.568
cg04214573	yellow	10	114,135,847	TSS200	OpenSea	ACSL5	0.683	0.007	0.042	0.008
cg14792155	yellow	15	42,289,618	Body	OpenSea	PLA2G4E	0.683	0.001	0.728	0.921
cg07582661	yellow	1	54,514,815	Body	N_Shelf	TMEM59	0.683	0.007	0.799	0.601
cg02621905	yellow	1	116,034,585		OpenSea		0.683	0.001	0.956	0.841
cg17146731	yellow	4	87,517,859	5'UTR	S_Shelf	PTPN13	0.683	0.010	0.712	0.472
cg16341261	yellow	5	68,390,788	Body	S_Shore	SLC30A5	0.683	-0.011	0.256	0.403
cg12140470	yellow	14	95,511,404		OpenSea		0.683	0.007	0.831	0.360
cg10858353	yellow	4	55,945,399	3'UTR	OpenSea	KDR	0.683	0.001	0.846	0.940
cg09636163	yellow	2	111,829,360	Body	OpenSea	ACOXL	0.683	0.008	0.590	0.270
cg02711510	yellow	16	85,220,747		OpenSea		0.683	0.015	0.566	0.270
cg17863681	yellow	1	47,925,867		OpenSea		0.683	0.021	0.236	0.052
cg00978584	yellow	2	202,122,832	5'UTR	OpenSea	CASP8	0.683	0.007	0.031	0.128
cg27333099	yellow	5	180,325,579	TSS1500	OpenSea	BTNL8	0.683	0.000	0.807	0.993
cg05380558	yellow	19	5,905,215	Body	Island	VMAC	0.683	0.001	0.374	0.886
cg01526553	yellow	12	56,554,264	Body	OpenSea	MYL6	0.683	-0.001	0.760	0.901
cg21889054	yellow	14	73,894,532	5'UTR	OpenSea	NUMB	0.683	0.021	0.729	0.122
cg23619936	yellow	2	866,258		S_Shore		0.683	0.006	0.678	0.361

cg13638427	yellow	6	29,617,320	N_Shore		0.683	-0.001	0.743	0.976
cg01574231	yellow	17	73,840,922 TSS200	OpenSea	UNC13D	0.683	-0.004	0.301	0.478
cg18419534	yellow	4	793,009 Body	S_Shelf	CPLX1	0.683	0.006	0.528	0.413
cg13298859	yellow	7	2,551,996 TSS200	OpenSea	LFNG	0.683	0.008	0.734	0.258
cg25245118	yellow	17	8,662,002 TSS200	OpenSea	SPDYE4	0.683	0.005	0.655	0.615
cg05648629	yellow	16	4,162,203 Body	N_Shelf	ADCY9	0.683	-0.001	0.709	0.929
cg22816294	yellow	14	22,458,634	OpenSea		0.683	0.003	0.362	0.786
cg25748441	yellow	2	202,122,587 5'UTR	OpenSea	CASP8	0.683	0.027	0.649	0.053
cg12009436	yellow	19	2,226,100 Body	N_Shore	DOT1L	0.683	0.005	0.806	0.443
cg26882115	yellow	1	153,603,048 Body	N_Shelf	S100A1	0.683	0.001	0.785	0.946
cg10649156	yellow	22	39,688,157	Island		0.683	0.009	0.558	0.239
cg14485643	yellow	9	134,484,581 Body	OpenSea	RAPGEF1	0.683	0.003	0.242	0.672
cg23564243	yellow	22	46,441,127 TSS1500	S_Shore	LOC1002717	0.683	0.001	0.088	0.802
cg11425149	yellow	7	134,463,703 TSS1500	OpenSea	CALD1	0.683	-0.008	0.850	0.359
cg23802307	yellow	13	112,575,212	N_Shore		0.683	0.015	0.609	0.005
cg20012607	yellow	13	100,085,455	OpenSea		0.683	0.004	0.457	0.600
cg19374305	yellow	2	196,933,852 TSS1500	S_Shore	DNAH7	0.683	0.012	0.279	0.213
cg09012734	yellow	21	44,267,619 3'UTR	OpenSea	WDR4	0.683	0.004	0.847	0.512
cg15889424	yellow	21	33,749,529 Body	OpenSea	SNORA80	0.683	0.001	0.630	0.945
cg01769428	yellow	15	100,651,659 Body	OpenSea	ADAMTS17	0.683	0.001	0.566	0.887
cg04078118	yellow	22	40,439,969 TSS1500	N_Shore	TNRC6B	0.683	0.002	0.775	0.753
cg14480249	yellow	4	3,487,164 Body	S_Shore	DOK7	0.683	0.001	0.164	0.879
cg12552835	yellow	19	11,032,057 Body	Island	CARM1	0.683	0.009	0.681	0.194
cg14145762	yellow	11	111,945,650 5'UTR	S_Shore	C11orf57	0.683	0.005	0.045	0.146
cg15874704	yellow	7	123,713,651	OpenSea		0.683	-0.007	0.726	0.575
cg19271753	yellow	7	5,396,704 Body	S_Shore	TNRC18	0.683	0.001	0.515	0.933
cg26307701	yellow	6	133,141,956	OpenSea		0.683	0.014	0.490	0.134
cg10458080	yellow	12	112,178,900 Body	OpenSea	ACAD10	0.683	-0.010	0.854	0.429
cg26496628	yellow	5	82,864,340 Body	OpenSea	VCAN	0.683	0.015	0.890	0.121
cg07170183	yellow	11	36,532,282 TSS1500	S_Shore	TRAF6	0.683	0.002	0.079	0.707
cg22640868	yellow	17	26,661,374 TSS1500	N_Shore	TNFAIP1	0.683	0.010	0.424	0.182
cg10329001	yellow	16	28,986,645 Body	Island	SPNS1	0.683	-0.004	0.104	0.403
cg18763247	yellow	2	12,907,913	OpenSea		0.683	-0.009	0.697	0.495
cg26686147	yellow	4	129,474,397	OpenSea		0.682	0.000	0.060	0.966
cg03488456	yellow	16	29,706,275 Body	Island	QPRT	0.682	0.009	0.862	0.270
cg03607573	yellow	11	93,471,889 Body	N_Shelf	TAF1D	0.682	-0.007	0.598	0.316
cg05507654	yellow	16	88,509,857	N_Shelf		0.682	-0.001	0.233	0.924
cg06894011	yellow	14	103,990,661 TSS1500	S_Shore	CKB	0.682	0.000	0.806	0.986
cg01400040	yellow	15	61,091,220 Body	OpenSea	RORA	0.682	0.008	0.741	0.482
cg12123470	yellow	10	7,215,341 Body	S_Shore	SFMBT2	0.682	0.012	0.828	0.128
cg03360907	yellow	11	62,688,748 5'UTR	N_Shelf	CHRM1	0.682	0.011	0.623	0.098
cg18810947	yellow	19	12,831,659 Body	N_Shore	TNPO2	0.682	0.000	0.217	0.985
cg21028142	yellow	17	79,581,711 Body	OpenSea	NPLOC4	0.682	-0.001	0.900	0.858
cg12009872	yellow	15	51,520,739 Body	OpenSea	CYP19A1	0.682	0.006	0.728	0.390
cg15936999	yellow	17	73,840,853 TSS200	OpenSea	UNC13D	0.682	0.008	0.227	0.244
cg04099562	yellow	1	224,620,034 Body	N_Shore	WDR26	0.682	0.004	0.038	0.122
cg07556018	yellow	11	2,677,341 Body	OpenSea	KCNQ1	0.682	-0.001	0.773	0.917
cg15599668	yellow	5	150,005,953 Body	S_Shore	SYNPO	0.682	-0.001	0.661	0.882
cg22071372	yellow	20	32,584,944 5'UTR	S_Shelf	RALY	0.682	0.000	0.982	0.765
cg02807192	yellow	17	75,524,111	N_Shore		0.682	0.002	0.338	0.781
cg21456320	yellow	3	121,264,201 Body	N_Shore	POLQ	0.682	-0.001	0.047	0.734
cg11258494	yellow	5	1,357,081	OpenSea		0.682	0.010	0.524	0.327
cg06009267	yellow	8	144,948,764 TSS1500	S_Shore	EPPK1	0.682	-0.009	0.393	0.367
cg06769774	yellow	18	2,909,789 Body	N_Shelf	EMILIN2	0.682	-0.001	0.768	0.881
cg24151841	yellow	2	201,332,878 Body	OpenSea	SPATS2L	0.682	0.000	0.950	0.995
cg21527621	yellow	1	55,013,419 TSS1500	OpenSea	ACOT11	0.682	-0.006	0.105	0.549
cg19533977	yellow	17	57,719,682 Body	OpenSea	CLTC	0.682	0.004	0.707	0.549
cg16510099	yellow	11	63,851,177 Body	N_Shore	MACROD1	0.682	-0.005	0.647	0.518
cg00980904	yellow	3	50,373,735 Body	N_Shore	RASSF1	0.682	-0.003	0.905	0.656
cg04934776	yellow	1	154,179,861 TSS1500	OpenSea	C1orf189	0.682	0.004	0.662	0.616
cg13269407	yellow	22	46,450,107 TSS200	Island	C22orf26	0.682	-0.014	0.117	0.107
cg03330678	yellow	17	75,316,233 5'UTR	OpenSea	9-Sep	0.682	-0.005	0.369	0.591
cg04277821	yellow	6	150,572,395	OpenSea		0.682	0.019	0.698	0.118
cg14659606	yellow	2	20,291,806	OpenSea		0.682	0.010	0.372	0.199
cg00540558	yellow	19	40,930,735 5'UTR	N_Shore	SERTAD1	0.682	-0.003	0.102	0.487
cg03728674	yellow	16	88,485,656	OpenSea		0.682	0.002	0.796	0.736
cg25734279	yellow	3	184,055,123 5'UTR	N_Shore	FAM131A	0.682	0.019	0.656	0.034



cg26337868	yellow	2	151,345,498	TSS1500	S_Shelf	RND3	0.682	0.005	0.277	0.391
cg04865976	yellow	1	40,609,565		OpenSea		0.682	-0.003	0.310	0.752
cg15816119	yellow	12	132,855,268	Body	Island	GALNT9	0.682	0.012	0.645	0.039
cg19751098	yellow	19	4,831,974	TSS1500	S_Shore	TICAM1	0.682	0.009	0.068	0.099
cg06643013	yellow	6	134,217,242		Island		0.682	0.017	0.179	0.249
cg06672226	yellow	16	85,611,689		OpenSea		0.682	0.012	0.340	0.047
cg20971407	yellow	3	5,022,392	Body	S_Shore	BHLHE40	0.682	0.014	0.682	0.066
cg08858426	yellow	17	75,273,896		N_Shelf		0.682	0.018	0.622	0.171
cg09326087	yellow	1	227,160,866	Body	N_Shelf	CABC1	0.682	0.003	0.887	0.573
cg07938847	yellow	4	82,126,349	TSS200	OpenSea	PRKG2	0.682	0.004	0.782	0.685
cg07956751	yellow	7	150,211,939	TSS200	OpenSea	GIMAP7	0.682	0.006	0.544	0.493
cg13169491	yellow	7	128,368,940	Body	OpenSea	FAM71F1	0.682	0.012	0.666	0.165
cg14528147	yellow	1	113,001,201	3'UTR	OpenSea	CTTNBP2NL	0.682	0.004	0.928	0.470
cg22697365	yellow	1	110,993,041	TSS1500	OpenSea	PROK1	0.682	0.013	0.572	0.065
cg05744264	yellow	16	85,831,323	Body	N_Shore	COX4NB	0.682	-0.009	0.816	0.350
cg19708848	yellow	2	97,746,622		OpenSea		0.682	0.010	0.735	0.561
cg00535514	yellow	19	44,205,563		S_Shore		0.682	-0.013	0.350	0.235
cg18843062	yellow	12	132,685,606	Body	N_Shelf	GALNT9	0.682	-0.005	0.749	0.460
cg20430807	yellow	20	62,168,955	TSS1500	S_Shore	PTK6	0.682	0.004	0.233	0.684
cg26290155	yellow	14	69,449,994		S_Shelf		0.682	0.010	0.573	0.188
cg09408571	yellow	1	101,003,634	TSS200	N_Shore	GPR88	0.682	0.016	0.308	0.186
cg09028383	yellow	1	150,980,411	5'UTR	N_Shore	FAM63A	0.682	0.001	0.449	0.805
cg25560247	yellow	6	31,832,173	TSS1500	S_Shore	NEU1	0.682	0.002	0.353	0.779
cg25136068	yellow	20	39,861,139	5'UTR	OpenSea	ZHX3	0.682	0.002	0.090	0.734
cg13050802	yellow	3	32,509,039		N_Shore		0.682	0.001	0.917	0.752
cg20765408	yellow	13	25,085,669	5'UTR	N_Shore	PARP4	0.682	0.004	0.952	0.420
cg06890522	yellow	17	6,917,393	Body	N_Shore	RNASEK	0.682	-0.004	0.794	0.650
cg15676542	yellow	6	26,421,231	TSS1500	OpenSea	BTN2A3	0.682	0.005	0.053	0.292
cg03314977	yellow	11	47,927,226		OpenSea		0.682	0.002	0.538	0.794
cg04419856	yellow	6	31,599,955	Body	S_Shore	BAT2	0.682	0.010	0.748	0.080
cg04383058	yellow	11	67,273,507	TSS1500	N_Shore	PITPNM1	0.681	0.004	0.602	0.578
cg08742424	yellow	12	27,932,413	TSS1500	N_Shore	KLHDC5	0.681	0.003	0.112	0.703
cg14195059	yellow	15	43,594,617	TSS200	OpenSea	TGM7	0.681	-0.006	0.594	0.330
cg26818573	yellow	2	46,717,839		OpenSea		0.681	0.003	0.134	0.738
cg03326606	yellow	20	49,345,567		N_Shore		0.681	0.009	0.914	0.122
cg10187559	yellow	19	54,926,277	TSS1500	N_Shore	TTYH1	0.681	0.016	0.736	0.200
cg26449747	yellow	10	13,319,839	3'UTR	OpenSea	PHYH	0.681	0.003	0.886	0.628
cg21075020	yellow	11	488,555	Body	N_Shore	PTDSS2	0.681	0.006	0.750	0.389
cg06721393	yellow	14	22,694,601		OpenSea		0.681	0.013	0.860	0.098
cg12445832	yellow	1	834,295		OpenSea		0.681	0.000	0.521	0.955
cg09538676	yellow	7	105,400,982	Body	OpenSea	ATXN7L1	0.681	0.000	0.854	0.971
cg07708487	yellow	16	89,387,014	5'UTR	OpenSea	ANKRD11	0.681	0.000	0.484	0.974
cg11810998	yellow	1	212,819,593		OpenSea		0.681	-0.002	0.508	0.824
cg18188010	yellow	15	42,187,036	TSS1500	OpenSea	SPTBN5	0.681	0.002	0.583	0.789
cg20240860	yellow	11	44,087,423	TSS1500	N_Shore	ACCS	0.681	0.008	0.072	0.159
cg24297365	yellow	22	46,402,336	TSS200	OpenSea	LOC730668	0.681	0.004	0.165	0.430
cg12367786	yellow	21	39,290,161	TSS1500	S_Shore	KCNJ6	0.681	0.000	0.612	0.967
cg04751032	yellow	16	66,443,287		S_Shelf		0.681	-0.001	0.556	0.969
cg27531832	yellow	2	219,431,648	5'UTR	N_Shore	USP37	0.681	-0.001	0.411	0.945
cg15326452	yellow	2	27,371,820	TSS200	N_Shore	TCF23	0.681	0.017	0.464	0.322
cg21573796	yellow	15	44,394,647	Body	OpenSea	FRMD5	0.681	-0.004	0.831	0.616
cg10767008	yellow	7	157,794,688	Body	OpenSea	PTPRN2	0.681	0.001	0.759	0.907
cg23813865	yellow	1	211,851,667		S_Shelf		0.681	-0.016	0.902	0.231
cg09877117	yellow	19	47,735,882	1stExon	S_Shore	BBC3	0.681	0.005	0.354	0.414
cg10254970	yellow	14	90,168,492		S_Shore		0.681	0.002	0.349	0.812
cg02706273	yellow	16	8,947,967	3'UTR	OpenSea	CARHSP1	0.681	0.008	0.868	0.239
cg05451730	yellow	16	80,358,022		OpenSea		0.681	0.007	0.816	0.566
cg21466315	yellow	3	133,294,854	Body	S_Shore	CDV3	0.681	0.009	0.868	0.349
cg16673904	yellow	17	7,521,996	Body	S_Shelf	SHBG	0.681	0.011	0.617	0.237
cg22471129	yellow	22	30,868,226	TSS200	OpenSea	SEC14L3	0.681	0.005	0.570	0.452
cg10438089	yellow	17	47,818,514	Body	OpenSea	FAM117A	0.681	-0.006	0.858	0.638
cg14494596	yellow	3	48,542,040	TSS1500	S_Shore	SHISA5	0.681	0.003	0.096	0.491
cg17412005	yellow	1	45,806,886	TSS1500	S_Shore	MUTYH	0.681	0.003	0.648	0.641
cg17501569	yellow	16	811,064	TSS200	OpenSea	MSLN	0.681	0.009	0.828	0.262
cg03015758	yellow	16	3,083,902	Body	N_Shore	CCDC64B	0.681	0.009	0.561	0.158
cg14114377	yellow	19	45,756,845	Body	S_Shore	MARK4	0.681	0.000	0.758	0.966
cg14396328	yellow	7	45,761,429	3'UTR	OpenSea	ADCY1	0.681	-0.002	0.913	0.770

cg22286764	yellow	3	37,428,639	OpenSea		0.681	0.006	0.605	0.392
cg10151338	yellow	6	33,216,464	Island		0.681	-0.001	0.019	0.638
cg12449916	yellow	2	207,847,811	OpenSea		0.681	-0.001	0.856	0.856
cg02335376	yellow	16	30,124,880 TSS200	OpenSea	GDPD3	0.681	0.009	0.370	0.130
cg22924796	yellow	9	35,860,158 TSS200	OpenSea	LOC92973	0.681	0.009	0.750	0.350
cg03610280	yellow	10	97,592,418 Body	OpenSea	ENTPD1	0.681	0.024	0.569	0.081
cg20222695	yellow	12	133,323,749 Body	OpenSea	ANKLE2	0.681	0.010	0.736	0.166
cg15420720	yellow	5	172,751,061 Body	N_Shelf	STC2	0.681	-0.003	0.295	0.658
cg06706170	yellow	1	165,912,313	S_Shore		0.681	-0.005	0.753	0.541
cg10138338	yellow	8	142,289,648	OpenSea		0.681	0.016	0.205	0.241
cg22386311	yellow	18	28,898,907 Body	OpenSea	DSG1	0.681	-0.009	0.904	0.253
cg21285773	yellow	1	111,022,652 TSS1500	OpenSea	CYMP	0.681	-0.001	0.644	0.896
cg08317252	yellow	19	1,223,163 Body	N_Shelf	STK11	0.681	0.006	0.415	0.272
cg27593778	yellow	3	182,878,623 Body	N_Shore	LAMP3	0.681	0.003	0.567	0.701
cg24577594	yellow	1	230,240,631 Body	OpenSea	GALNT2	0.681	0.006	0.048	0.282
cg10114555	yellow	1	113,216,774 TSS1500	N_Shore	MOV10	0.681	-0.001	0.033	0.644
cg00863378	yellow	16	56,549,757 Body	N_Shelf	BBS2	0.681	0.004	0.314	0.605
cg17744110	yellow	19	47,107,173 Body	S_Shelf	CALM3	0.681	0.009	0.666	0.159
cg03731647	yellow	16	1,598,953 Body	Island	IFT140	0.681	0.001	0.667	0.875
cg25782440	yellow	19	7,979,022 3'UTR	N_Shore	MAP2K7	0.681	0.008	0.524	0.197
cg01077185	yellow	7	149,562,623 3'UTR	S_Shelf	ZNF862	0.681	-0.006	0.704	0.534
cg03479572	yellow	4	152,017,137	N_Shelf		0.681	0.008	0.509	0.191
cg24850474	yellow	19	19,772,686 Body	N_Shore	ATP13A1	0.681	-0.001	0.730	0.882
cg11431261	yellow	6	32,015,297 Body	OpenSea	TNXB	0.681	0.001	0.545	0.878
cg03607951	yellow	1	79,085,586 TSS1500	OpenSea	IFI44L	0.681	0.010	0.209	0.247
cg23586959	yellow	20	30,073,209 TSS1500	S_Shore	NCRNA00028	0.681	0.006	0.530	0.704
cg24683255	yellow	1	204,951,031 Body	Island	NFASC	0.681	-0.004	0.670	0.516
cg25169706	yellow	11	8,749,064 Body	N_Shelf	ST5	0.681	0.017	0.312	0.062
cg07099000	yellow	17	80,841,134 Body	OpenSea	TBCD	0.681	0.004	0.723	0.582
cg06814851	yellow	17	25,707,968	OpenSea		0.681	-0.001	0.780	0.839
cg24447788	yellow	19	795,310	N_Shore		0.681	0.001	0.816	0.892
cg08885927	yellow	1	18,625,743 Body	OpenSea	IGSF21	0.680	0.004	0.816	0.670
cg23645091	yellow	12	52,914,409 TSS200	OpenSea	KRT5	0.680	0.006	0.720	0.359
cg05670193	yellow	19	45,324,246 3'UTR	OpenSea	BCAM	0.680	0.004	0.253	0.515
cg14923652	yellow	18	12,277,384 3'UTR	OpenSea	CIDEA	0.680	0.012	0.743	0.064
cg25652454	yellow	17	414,740 3'UTR	OpenSea	VP53	0.680	0.001	0.733	0.950
cg23154272	yellow	1	154,966,068 1stExon	OpenSea	LENEP	0.680	0.008	0.475	0.204
cg02259384	yellow	3	58,523,373 TSS1500	OpenSea	ACOX2	0.680	0.005	0.748	0.633
cg05661968	yellow	1	200,808,193 Body	OpenSea	CAMSAP1L1	0.680	-0.003	0.877	0.583
cg01826354	yellow	17	81,006,497 Body	N_Shelf	B3GNTL1	0.680	0.004	0.659	0.661
cg03085549	yellow	16	75,150,819 TSS200	S_Shore	LDHD	0.680	-0.011	0.732	0.367
cg00755751	yellow	14	64,677,007 Body	OpenSea	SYNE2	0.680	0.012	0.742	0.222
cg16378261	yellow	13	37,749,862	OpenSea		0.680	-0.005	0.359	0.714
cg22480558	yellow	5	150,461,211 TSS1500	S_Shore	TNIP1	0.680	0.003	0.105	0.692
cg18158419	yellow	7	100,887,239 Body	N_Shore	FIS1	0.680	0.004	0.636	0.535
cg03763457	yellow	1	158,070,317	OpenSea		0.680	-0.006	0.897	0.442
cg01883843	yellow	3	36,360,652	OpenSea		0.680	0.005	0.635	0.631
cg21386545	yellow	1	4,832,865 Body	S_Shore	AJAP1	0.680	0.006	0.697	0.452
cg02121517	yellow	6	31,624,515 Body	N_Shelf	APOM	0.680	-0.005	0.868	0.348
cg22381395	yellow	1	118,214,574	OpenSea		0.680	0.005	0.848	0.481
cg05852888	yellow	5	141,075,426	S_Shelf		0.680	0.010	0.298	0.376
cg11849327	yellow	10	76,682,695 Body	OpenSea	MYST4	0.680	0.007	0.713	0.264
cg03002735	yellow	8	94,998,325	OpenSea		0.680	0.024	0.748	0.002
cg14144728	yellow	1	1,101,462 TSS1500	S_Shore	MIR200B	0.680	0.011	0.715	0.191
cg17731409	yellow	2	9,397,282 Body	OpenSea	ASAP2	0.680	0.000	0.606	0.975
cg15535174	yellow	20	35,488,454 Body	N_Shelf	C20orf117	0.680	0.014	0.360	0.291
cg25874631	yellow	13	113,382,215 Body	N_Shore	ATP11A	0.680	-0.005	0.962	0.167
cg12917790	yellow	14	93,604,305	OpenSea		0.680	0.005	0.849	0.714
cg24295653	yellow	3	61,237,884 TSS1500	S_Shore	FHIT	0.680	0.014	0.442	0.227
cg08210506	yellow	14	81,456,824 Body	OpenSea	TSHR	0.680	-0.004	0.829	0.587
cg07205154	yellow	1	176,147,105 Body	OpenSea	RFWD2	0.680	-0.001	0.892	0.863
cg15825127	yellow	1	1,957,073 Body	Island	GABRD	0.680	0.003	0.729	0.695
cg25278144	yellow	17	77,962,240 Body	N_Shelf	TBC1D16	0.680	0.014	0.470	0.068
cg10792625	yellow	13	47,742,264	OpenSea		0.680	0.001	0.628	0.952
cg02710163	yellow	1	50,799,676	S_Shore		0.680	0.013	0.650	0.112
cg05598581	yellow	1	48,179,783	S_Shelf		0.680	0.009	0.630	0.251
cg12691330	yellow	6	159,070,656 TSS1500	OpenSea	SYTL3	0.680	-0.002	0.912	0.781

cg05915593	yellow	14	64,361,272	5'UTR	OpenSea	SYNE2	0.680	0.009	0.819	0.333
cg10550506	yellow	11	76,548,907		OpenSea		0.680	0.006	0.833	0.488
cg07537821	yellow	11	122,727,440	Body	OpenSea	CRTAM	0.680	-0.003	0.662	0.676
cg18222240	yellow	10	124,213,527	TSS1500	OpenSea	ARMS2	0.680	-0.002	0.957	0.410
cg00893424	yellow	13	23,919,407	Body	OpenSea	SACS	0.680	0.007	0.838	0.577
cg24088438	yellow	11	63,974,229	1stExon	N_Shore	FERMT3	0.680	0.009	0.615	0.092
cg05375999	yellow	19	42,736,736	Body	OpenSea	GSK3A	0.680	-0.001	0.765	0.923
cg04587581	yellow	16	88,933,182	TSS200	N_Shelf	PABPN1L	0.680	0.002	0.650	0.737
cg09639964	yellow	17	909,300	3'UTR	N_Shore	ABR	0.680	0.020	0.850	0.045
cg06435363	yellow	8	17,206,671	Body	OpenSea	MTMR7	0.680	0.026	0.704	0.033
cg05058809	yellow	16	834,201	TSS1500	S_Shore	MSLNL	0.680	0.011	0.661	0.298
cg09728333	yellow	3	177,329,038		OpenSea		0.680	0.010	0.168	0.190
cg02348119	yellow	17	78,003,528	5'UTR	OpenSea	TBC1D16	0.679	0.005	0.901	0.558
cg26561401	yellow	15	44,955,006	Body	N_Shore	SPG11	0.679	0.017	0.384	0.134
cg27165456	yellow	7	1,782,577	5'UTR	N_Shore	ELFN1	0.679	0.016	0.254	0.090
cg20069688	yellow	6	31,941,049	Body	S_Shore	STK19	0.679	0.012	0.525	0.149
cg25428740	yellow	2	96,981,671		OpenSea		0.679	0.015	0.524	0.027
cg21660130	yellow	1	16,370,243	TSS200	OpenSea	CLCNKB	0.679	-0.004	0.677	0.460
cg17625032	yellow	16	57,054,740	Body	OpenSea	NLRCS	0.679	-0.003	0.647	0.681
cg08375396	yellow	11	8,033,848		OpenSea		0.679	0.016	0.477	0.171
cg12554573	yellow	3	51,976,667	5'UTR	S_Shore	PARP3	0.679	0.000	0.827	0.985
cg22932427	yellow	1	155,615,664		OpenSea		0.679	0.012	0.494	0.143
cg15110296	yellow	12	12,509,705	TSS1500	N_Shore	LOH12CR1	0.679	0.010	0.688	0.295
cg23228218	yellow	19	7,908,919	5'UTR	N_Shelf	EVISL	0.679	0.008	0.684	0.514
cg15707978	yellow	17	41,361,637	Body	N_Shelf	NBR1	0.679	-0.004	0.827	0.628
cg16577208	yellow	7	42,047,167	Body	OpenSea	GLI3	0.679	0.000	0.749	0.996
cg05601844	yellow	22	41,573,176	Body	OpenSea	EP300	0.679	-0.001	0.915	0.912
cg03180486	yellow	11	2,207,455		OpenSea		0.679	0.010	0.724	0.285
cg09672233	yellow	5	169,724,803	1stExon	OpenSea	LCP2	0.679	0.002	0.674	0.755
cg04496104	yellow	3	81,940,766		OpenSea		0.679	0.002	0.906	0.699
cg19454081	yellow	7	152,593,563		S_Shore		0.679	0.007	0.581	0.253
cg01739327	yellow	11	85,955,219	TSS1500	N_Shore	EED	0.679	-0.009	0.147	0.179
cg12046882	yellow	1	66,824,988	Body	OpenSea	PDE4B	0.679	-0.011	0.600	0.487
cg22969397	yellow	22	46,839,068	Body	S_Shelf	CELSR1	0.679	0.007	0.571	0.371
cg02761308	yellow	17	56,071,963		OpenSea		0.679	0.010	0.234	0.201
cg14753355	yellow	19	16,999,668	TSS200	N_Shore	F2RL3	0.679	0.010	0.209	0.384
cg23919549	yellow	19	576,047	Body	N_Shore	BSG	0.679	0.001	0.875	0.833
cg27544673	yellow	10	129,685,902	Body	OpenSea	CLRN3	0.679	0.017	0.573	0.244
cg09854615	yellow	11	69,259,788		S_Shore		0.679	-0.003	0.231	0.757
cg22864519	yellow	8	82,360,736	TSS1500	OpenSea	PMP2	0.679	0.002	0.634	0.789
cg09470758	yellow	7	30,341,585	Body	OpenSea	ZNRF2	0.679	-0.007	0.892	0.340
cg22863590	yellow	12	58,124,918	Body	S_Shelf	AGAP2	0.679	0.010	0.800	0.400
cg15069630	yellow	11	61,319,667	Body	N_Shelf	SYT7	0.679	0.005	0.572	0.507
cg17846122	yellow	17	64,351,144	Body	OpenSea	PRKCA	0.679	-0.003	0.746	0.782
cg26993035	yellow	6	71,995,153		N_Shelf		0.679	0.003	0.878	0.750
cg27131821	yellow	10	6,104,546	TSS1500	OpenSea	IL2RA	0.679	-0.002	0.420	0.717
cg18375236	yellow	19	30,024,706	Body	S_Shelf	VSTM2B	0.679	0.005	0.647	0.524
cg12118371	yellow	14	96,713,122		OpenSea		0.679	0.000	0.927	0.951
cg23665603	yellow	22	30,792,674	TSS1500	N_Shore	SEC14L2	0.679	0.010	0.213	0.140
cg07224469	yellow	4	716,282	5'UTR	Island	PCGF3	0.679	-0.013	0.928	0.008
cg02044895	yellow	11	58,343,318	Body	N_Shelf	LPXN	0.679	0.003	0.804	0.706
cg20285609	yellow	1	41,622,030	5'UTR	OpenSea	SCMH1	0.679	0.001	0.863	0.917
cg26335578	yellow	11	68,722,738		OpenSea		0.679	-0.002	0.305	0.781
cg10413475	yellow	8	119,558,921	Body	OpenSea	SAMD12	0.679	-0.002	0.893	0.825
cg06146977	yellow	13	43,469,464	Body	OpenSea	EPST11	0.679	0.007	0.321	0.475
cg17166288	yellow	11	67,979,344	5'UTR	N_Shore	SUV420H1	0.679	0.006	0.164	0.496
cg16992627	yellow	6	32,081,610		OpenSea		0.679	0.004	0.812	0.507
cg24756966	yellow	6	43,478,692	TSS1500	S_Shore	C6orf154	0.679	0.005	0.837	0.488
cg20435594	yellow	11	733,141		N_Shore		0.679	0.010	0.579	0.254
cg09841666	yellow	20	58,478,713	Body	OpenSea	SYCP2	0.679	0.006	0.807	0.515
cg06857921	yellow	2	217,530,276		OpenSea		0.679	-0.001	0.084	0.857
cg19473989	yellow	4	7,912,384	5'UTR	OpenSea	AFAP1	0.679	0.004	0.499	0.692
cg24470692	yellow	8	6,565,084	TSS1500	N_Shore	AGPAT5	0.679	0.025	0.209	0.062
cg14247287	yellow	2	97,171,218	Body	N_Shelf	NEURL3	0.679	0.001	0.554	0.915
cg10437722	yellow	17	35,087,542		OpenSea		0.679	0.008	0.869	0.213
cg07174177	yellow	17	46,988,726	Body	S_Shelf	UBE2Z	0.679	-0.001	0.871	0.914
cg00660452	yellow	21	37,756,397	TSS1500	N_Shore	CHAF1B	0.679	-0.002	0.907	0.731

cg18480127	yellow	14	99,181,995	5'UTR	OpenSea	C14orf177	0.679	0.004	0.720	0.546
cg22402261	yellow	1	36,026,611	Body	S_Shelf	NCDN	0.679	0.009	0.809	0.223
cg01041367	yellow	8	74,888,080	TSS1500	N_Shore	TMEM70	0.679	0.003	0.065	0.690
cg08442823	yellow	11	45,951,803	3'UTR	OpenSea	PHF21A	0.679	0.004	0.802	0.568
cg15505642	yellow	1	77,836,400	Body	OpenSea	AK5	0.679	-0.010	0.826	0.175
cg17261712	yellow	5	176,049,061	Body	S_Shore	SNCB	0.679	0.014	0.680	0.034
cg26828494	yellow	2	28,986,014	Body	OpenSea	PPP1CB	0.679	-0.002	0.952	0.573
cg21598631	yellow	2	242,154,679	Body	N_Shelf	ANO7	0.678	0.006	0.824	0.406
cg02619478	yellow	8	30,248,018	Body	OpenSea	RBPMS	0.678	0.009	0.774	0.322
cg18399427	yellow	22	50,724,844	Body	N_Shore	PLXNB2	0.678	0.009	0.792	0.161
cg01293740	yellow	19	54,468,790	Body	S_Shelf	CACNG8	0.678	0.002	0.571	0.836
cg05705813	yellow	11	86,383,809	TSS1500	S_Shore	ME3	0.678	0.007	0.293	0.442
cg06070324	yellow	15	75,322,058	Body	OpenSea	PPCDC	0.678	0.019	0.647	0.027
cg17471365	yellow	6	32,711,889	Body	OpenSea	HLA-DQA2	0.678	0.007	0.620	0.565
cg02909809	yellow	16	6,072,012	5'UTR	S_Shore	A2BP1	0.678	-0.007	0.609	0.446
cg25039325	yellow	2	69,002,111	5'UTR	OpenSea	ARHGAP25	0.678	0.004	0.736	0.531
cg01016102	yellow	7	33,146,808	Body	N_Shore	RP9	0.678	0.005	0.849	0.488
cg01188914	yellow	22	22,306,263	5'UTR	N_Shore	PPM1F	0.678	0.009	0.645	0.122
cg08942929	yellow	15	29,825,426	Body	OpenSea	FAM189A1	0.678	0.002	0.820	0.806
cg02886578	yellow	1	153,176,083	5'UTR	OpenSea	LELP1	0.678	-0.004	0.693	0.610
cg03700669	yellow	1	28,284,100	Body	N_Shore	SMPDL3B	0.678	0.006	0.604	0.309
cg20338754	yellow	18	29,677,086	Body	S_Shelf	RNF138	0.678	0.003	0.916	0.623
cg08736088	yellow	4	147,866,520	5'UTR	N_Shore	TTC29	0.678	0.014	0.603	0.225
cg10546888	yellow	22	38,890,734	Body	OpenSea	DDX17	0.678	0.002	0.925	0.668
cg06861560	yellow	3	126,419,473		N_Shelf		0.678	0.002	0.673	0.759
cg10610428	yellow	12	5,884,295	Body	OpenSea	ANO2	0.678	0.011	0.737	0.262
cg14375849	yellow	9	101,737,611	Body	OpenSea	COL15A1	0.678	0.008	0.313	0.257
cg11522905	yellow	1	3,707,176	Body	S_Shelf	LRRC47	0.678	0.004	0.783	0.485
cg10985914	yellow	1	212,769,641	5'UTR	OpenSea	ATF3	0.678	-0.004	0.233	0.756
cg00834922	yellow	5	178,545,514	Body	N_Shore	ADAMTS2	0.678	-0.001	0.684	0.896
cg10059511	yellow	4	156,875,175	TSS200	S_Shore	CTSO	0.678	0.003	0.050	0.565
cg23913941	yellow	8	141,802,121	Body	OpenSea	PTK2	0.678	0.001	0.564	0.921
cg02387380	yellow	10	60,427,946	Body	OpenSea	BICC1	0.678	-0.009	0.853	0.368
cg07970799	yellow	6	6,614,719	Body	OpenSea	LOC285780	0.678	-0.008	0.861	0.300
cg13552373	yellow	9	92,291,269	Body	Island	LOC1001290	0.678	0.011	0.423	0.229
cg13484341	yellow	10	70,232,027	TSS200	S_Shore	DNA2	0.678	-0.002	0.124	0.818
cg10963398	yellow	17	72,932,651	Body	S_Shore	OTOP3	0.678	0.004	0.357	0.532
cg13065504	yellow	15	42,448,234	Body	OpenSea	PLA2G4F	0.678	0.000	0.700	0.948
cg00076555	yellow	3	49,705,435	3'UTR	OpenSea	BSN	0.678	-0.001	0.455	0.820
cg07784293	yellow	3	149,272,904	Body	OpenSea	WWTR1	0.678	-0.007	0.896	0.369
cg01430430	yellow	7	75,914,313	Body	S_Shore	SRRM3	0.678	0.014	0.573	0.072
cg18354594	yellow	1	247,276,647	TSS1500	S_Shore	C1orf229	0.678	0.004	0.847	0.557
cg18979491	yellow	20	36,974,445	TSS1500	OpenSea	LBP	0.678	-0.002	0.661	0.833
cg19035395	yellow	2	151,395,457		OpenSea		0.678	0.028	0.706	0.088
cg10142315	yellow	2	84,930,277	Body	OpenSea	DNAH6	0.678	-0.008	0.867	0.381
cg09227563	yellow	19	54,984,705	TSS1500	S_Shore	CDC42EP5	0.678	-0.003	0.032	0.232
cg10324158	yellow	3	45,067,713	TSS200	OpenSea	CLEC3B	0.678	0.002	0.079	0.701
cg02094337	yellow	17	80,542,118	Body	Island	FOXK2	0.678	-0.009	0.769	0.347
cg12018863	yellow	11	66,277,757	TSS1500	OpenSea	BBS1	0.678	-0.001	0.388	0.896
cg25289457	yellow	6	42,832,508	Body	OpenSea	KIAA0240	0.678	0.010	0.867	0.209
cg07942920	yellow	4	38,013,269	Body	N_Shelf	TBC1D1	0.678	-0.001	0.940	0.802
cg14041069	yellow	19	17,634,108	TSS200	S_Shelf	FAM129C	0.678	0.012	0.544	0.119
cg15212942	yellow	19	15,487,840	Body	N_Shelf	AKAP8	0.678	-0.013	0.823	0.215
cg12074585	yellow	12	7,280,958	Body	OpenSea	RBP5	0.678	-0.010	0.892	0.173
cg00552490	yellow	2	106,746,466	Body	OpenSea	UXS1	0.678	0.004	0.891	0.659
cg07143331	yellow	22	31,322,680	3'UTR	OpenSea	MORC2	0.678	0.011	0.864	0.085
cg10207609	yellow	7	80,267,619	TSS1500	OpenSea	CD36	0.678	-0.001	0.898	0.937
cg05264377	yellow	6	42,194,691	3'UTR	OpenSea	TRERF1	0.678	0.005	0.617	0.597
cg04906816	yellow	14	69,263,302	TSS200	S_Shore	C14orf181	0.678	0.008	0.097	0.196
cg06830692	yellow	17	44,954,192	3'UTR	OpenSea	WNT9B	0.678	0.011	0.867	0.107
cg20698113	yellow	22	50,357,214	3'UTR	Island	PIM3	0.677	0.002	0.830	0.777
cg26129669	yellow	6	29,593,913	Body	N_Shore	GABBR1	0.677	0.012	0.536	0.089
cg19791262	yellow	5	176,327,783	TSS1500	OpenSea	HK3	0.677	0.009	0.416	0.345
cg08250880	yellow	11	86,526,022		OpenSea		0.677	0.020	0.557	0.093
cg06730183	yellow	5	76,005,699		OpenSea		0.677	0.009	0.835	0.461
cg26914334	yellow	11	120,561,236	Body	OpenSea	GRIK4	0.677	0.003	0.764	0.685
cg06994572	yellow	12	122,691,993	3'UTR	S_Shelf	B3GNT4	0.677	-0.003	0.950	0.415

cg09412061	yellow	3	50,357,466	Body	Island	HYAL2	0.677	0.013	0.646	0.113
cg21341822	yellow	13	37,250,195	5'UTR	S_Shore	C13orf36	0.677	-0.001	0.745	0.922
cg12303685	yellow	1	156,218,094	TSS1500	S_Shelf	PAQR6	0.677	0.021	0.536	0.005
cg14663914	yellow	19	827,739	TSS200	OpenSea	AZU1	0.677	0.004	0.525	0.600
cg06041363	yellow	22	46,663,418	TSS1500	N_Shore	TTC38	0.677	0.001	0.202	0.912
cg08937613	yellow	4	881,914	Body	S_Shelf	GAK	0.677	0.012	0.905	0.041
cg16076486	yellow	8	1,443,468		N_Shore		0.677	0.009	0.851	0.158
cg09055978	yellow	12	51,634,059	Body	S_Shore	DAZAP2	0.677	-0.001	0.829	0.918
cg23684855	yellow	2	1,772,075		OpenSea		0.677	-0.005	0.747	0.659
cg10785153	yellow	13	48,011,758		OpenSea		0.677	0.002	0.850	0.875
cg13707560	yellow	5	137,474,700	5'UTR	OpenSea	NME5	0.677	0.003	0.130	0.655
cg07615347	yellow	10	60,278,583	Body	OpenSea	BICC1	0.677	-0.021	0.599	0.265
cg25296938	yellow	7	98,976,900	5'UTR	S_Shelf	ARPC1B	0.677	0.006	0.773	0.541
cg11934771	yellow	6	31,021,796	TSS200	OpenSea	HCG22	0.677	0.003	0.102	0.694
cg10538146	yellow	12	27,932,471	TSS1500	N_Shore	KLHDC5	0.677	0.000	0.263	0.949
cg00678398	yellow	19	16,630,059	Body	Island	CHERP	0.677	0.001	0.851	0.911
cg14839837	yellow	8	1,834,174	Body	S_Shelf	ARHGFE10	0.677	-0.003	0.527	0.674
cg18198461	yellow	8	143,523,293		OpenSea		0.677	-0.003	0.512	0.567
cg16048817	yellow	17	41,001,944	Body	OpenSea	AOC2	0.677	0.005	0.824	0.435
cg08196642	yellow	5	138,515,409	5'UTR	OpenSea	SIL1	0.677	0.000	0.802	0.982
cg22137075	yellow	17	61,046,563		S_Shelf		0.677	-0.004	0.694	0.738
cg26885488	yellow	1	156,462,202	5'UTR	OpenSea	MEF2D	0.677	0.008	0.500	0.083
cg06730942	yellow	7	87,460,135	3'UTR	OpenSea	RUND3B	0.677	-0.003	0.163	0.821
cg27419024	yellow	3	148,360,785		OpenSea		0.677	0.018	0.687	0.236
cg03957687	yellow	16	67,864,024	Body	N_Shelf	CENPT	0.677	0.006	0.813	0.486
cg02344238	yellow	11	65,153,777	TSS1500	Island	FRMD8	0.677	0.001	0.059	0.791
cg10380585	yellow	1	211,500,971	5'UTR	S_Shore	TRAF5	0.677	0.016	0.164	0.124
cg10990997	yellow	6	39,873,526	Body	S_Shelf	MOC51	0.677	0.000	0.464	0.962
cg26266429	yellow	12	49,174,651	Body	N_Shore	ADCY6	0.677	0.001	0.516	0.876
cg11786833	yellow	1	41,884,697		OpenSea		0.677	0.012	0.439	0.033
cg10819493	yellow	11	70,127,580	Body	OpenSea	PPFIA1	0.677	0.007	0.469	0.371
cg21088438	yellow	14	70,264,869	TSS1500	OpenSea	SLC10A1	0.677	-0.007	0.691	0.585
cg13741304	yellow	9	140,501,305	Body	S_Shore	ARRDC1	0.677	0.000	0.689	0.994
cg19442470	yellow	8	27,470,225	TSS1500	N_Shore	CLU	0.677	-0.001	0.592	0.924
cg12596692	yellow	1	57,773,982	5'UTR	OpenSea	DAB1	0.677	-0.012	0.702	0.182
cg12532500	yellow	13	33,859,636	1stExon	OpenSea	STAR13	0.677	-0.002	0.043	0.619
cg16598680	yellow	3	126,277,940	TSS200	OpenSea	C3orf22	0.677	0.013	0.676	0.047
cg04525852	yellow	4	125,632,538	5'UTR	N_Shore	ANKRD50	0.677	-0.002	0.039	0.598
cg09664186	yellow	2	48,097,527	5'UTR	OpenSea	FBXO11	0.677	0.003	0.854	0.785
cg04304779	yellow	4	187,621,799	Body	OpenSea	FAT1	0.677	-0.007	0.743	0.478
cg04498913	yellow	7	1,135,747	Body	Island	C7orf50	0.677	0.005	0.546	0.513
cg16270890	yellow	16	1,875,963	Body	N_Shore	HAGH	0.677	0.009	0.599	0.291
cg18904552	yellow	10	93,624,759	3'UTR	OpenSea	TNKS2	0.677	0.013	0.772	0.182
cg13463203	yellow	9	132,961,972	TSS1500	OpenSea	FREQ	0.677	-0.010	0.080	0.339
cg26231272	yellow	14	104,770,879		OpenSea		0.677	0.019	0.532	0.050
cg05971521	yellow	20	35,584,019		S_Shelf		0.677	0.006	0.662	0.393
cg02978737	yellow	22	37,216,067	TSS1500	S_Shelf	PVALB	0.677	-0.001	0.715	0.909
cg21648401	yellow	1	220,102,361	TSS1500	S_Shore	SLC30A10	0.677	0.005	0.554	0.443
cg06441150	yellow	1	111,990,835	Body	N_Shore	WDR77	0.677	-0.001	0.342	0.953
cg15084433	yellow	7	127,584,444	Body	OpenSea	SND1	0.677	0.044	0.370	0.020
cg14340889	yellow	14	75,072,120	Body	OpenSea	LTBP2	0.677	0.005	0.643	0.507
cg13252226	yellow	6	30,135,162	Body	OpenSea	TRIM15	0.676	0.009	0.748	0.266
cg25526061	yellow	10	135,088,451	Body	N_Shore	ADAM8	0.676	0.004	0.663	0.547
cg00468228	yellow	8	67,092,562		S_Shelf		0.676	-0.004	0.666	0.544
cg20732137	yellow	20	62,251,227	5'UTR	OpenSea	GMEB2	0.676	0.001	0.809	0.867
cg00297600	yellow	8	35,401,670	Body	OpenSea	UNC5D	0.676	0.009	0.499	0.245
cg18343862	yellow	11	10,590,003	1stExon	OpenSea	LYVE1	0.676	-0.013	0.856	0.047
cg10687936	yellow	3	125,085,322	5'UTR	OpenSea	ZNF148	0.676	0.001	0.967	0.665
cg25350065	yellow	8	145,978,427	Body	N_Shelf	ZNF251	0.676	-0.002	0.912	0.817
cg15487725	yellow	14	21,524,938	TSS1500	OpenSea	RNASE8	0.676	-0.006	0.818	0.510
cg11177693	yellow	2	27,604,063	TSS1500	Island	ZNF513	0.676	0.002	0.272	0.848
cg16696727	yellow	14	103,691,932		OpenSea		0.676	0.014	0.481	0.094
cg18028483	yellow	6	109,307,801	3'UTR	OpenSea	SESN1	0.676	0.000	0.824	0.957
cg14244577	yellow	16	70,332,878	TSS200	OpenSea	DDX19B	0.676	0.012	0.277	0.204
cg10377510	yellow	1	9,224,003		OpenSea		0.676	0.004	0.733	0.568
cg12661610	yellow	4	3,412,653	Body	N_Shelf	RGS12	0.676	0.003	0.767	0.510
cg10743378	yellow	10	102,028,800	TSS1500	S_Shore	CWF19L1	0.676	0.007	0.684	0.338

cg03212674	yellow	1	155,243,807	TSS1500	S_Shore	CLK2	0.676	0.015	0.737	0.193
cg07554759	yellow	1	39,724,195	Body	OpenSea	MACF1	0.676	0.004	0.927	0.533
cg27220495	yellow	6	11,575,854	3'UTR	OpenSea	TMEM170B	0.676	-0.002	0.036	0.244
cg13883576	yellow	12	13,152,467	Body	N_Shore	HEBP1	0.676	0.031	0.427	0.007
cg12739119	yellow	1	43,770,523	Body	Island	TIE1	0.676	-0.006	0.895	0.316
cg02251014	yellow	16	67,048,397		Island		0.676	0.003	0.065	0.331
cg11931463	yellow	3	156,807,379		S_Shore		0.676	0.013	0.352	0.147
cg13967977	yellow	1	204,913,384	5'UTR	OpenSea	NFASC	0.676	0.000	0.842	0.980
cg08628580	yellow	11	58,954,091	Body	OpenSea	DTX4	0.676	-0.005	0.889	0.478
cg00344655	yellow	1	21,604,592	Body	OpenSea	ECE1	0.676	0.007	0.545	0.312
cg01166827	yellow	2	101,889,574	TSS200	OpenSea	SNORD89	0.676	0.000	0.773	0.975
cg06804823	yellow	6	31,798,635		S_Shore		0.676	0.012	0.621	0.513
cg20667575	yellow	11	113,258,210	TSS1500	N_Shore	ANKK1	0.676	0.016	0.411	0.048
cg18406556	yellow	19	10,687,903	Body	N_Shelf	AP1M2	0.676	0.000	0.555	0.959
cg07962303	yellow	19	11,253,944		OpenSea		0.676	0.013	0.152	0.381
cg06590946	yellow	3	185,643,307	Body	OpenSea	TRA2B	0.676	0.007	0.796	0.575
cg02060732	yellow	17	77,151,206	5'UTR	OpenSea	HRNBP3	0.676	-0.002	0.611	0.711
cg19782652	yellow	19	52,196,034	TSS1500	OpenSea	MIR125A	0.676	-0.006	0.769	0.250
cg08018572	yellow	16	1,014,592	Body	N_Shore	LMF1	0.676	0.019	0.721	0.023
cg24397007	yellow	2	28,619,094	Body	S_Shelf	FOSL2	0.676	0.010	0.715	0.248
cg23607622	yellow	20	37,211,347	Body	OpenSea	ADIG	0.676	0.000	0.577	0.956
cg04473209	yellow	11	95,029,042		OpenSea		0.676	0.001	0.734	0.817
cg08088525	yellow	4	21,546,029	Body	OpenSea	KCNIP4	0.676	0.005	0.233	0.694
cg23206873	yellow	20	1,303,672	5'UTR	N_Shelf	SDCBP2	0.675	0.007	0.576	0.427
cg12834596	yellow	13	113,408,420	Body	N_Shore	ATP11A	0.675	-0.011	0.785	0.104
cg00620628	yellow	2	238,165,917		OpenSea		0.675	-0.002	0.573	0.837
cg09367092	yellow	22	43,254,168	TSS1500	S_Shore	ARFGAP3	0.675	0.001	0.922	0.817
cg09405635	yellow	8	49,533,444		OpenSea		0.675	0.015	0.731	0.197
cg19194924	yellow	14	90,168,307		Island		0.675	0.002	0.158	0.810
cg19473994	yellow	7	1,163,084	Body	OpenSea	C7orf50	0.675	0.011	0.770	0.131
cg15350840	yellow	11	70,475,709	Body	OpenSea	SHANK2	0.675	0.003	0.776	0.624
cg08833432	yellow	20	60,719,824	TSS1500	S_Shore	PSMA7	0.675	0.007	0.194	0.376
cg00334056	yellow	6	33,755,658	Body	N_Shore	LEMD2	0.675	0.000	0.678	0.964
cg04113348	yellow	1	10,510,054	1stExon	OpenSea	CORT	0.675	0.004	0.882	0.566
cg01784825	yellow	11	61,377,918		OpenSea		0.675	0.000	0.737	0.987
cg26915343	yellow	2	18,902,839		OpenSea		0.675	0.005	0.752	0.778
cg20569893	yellow	17	27,220,101	Body	N_Shelf	FLOT2	0.675	0.003	0.755	0.696
cg26522946	yellow	10	70,847,350	TSS1500	OpenSea	SRGN	0.675	-0.004	0.669	0.791
cg13768360	yellow	20	61,312,704		N_Shore		0.675	0.009	0.736	0.296
cg02253552	yellow	10	38,147,693	TSS1500	S_Shore	ZNF248	0.675	-0.007	0.818	0.517
cg15815016	yellow	7	30,518,667	TSS1500	S_Shore	NOD1	0.675	0.002	0.040	0.642
cg15170942	yellow	22	22,058,203	Body	Island	YPEL1	0.675	0.002	0.840	0.802
cg23421599	yellow	2	9,713,081		OpenSea		0.675	0.000	0.860	0.990
cg18251389	yellow	7	144,104,563		OpenSea		0.675	0.014	0.565	0.066
cg25855565	yellow	3	73,436,384	Body	S_Shelf	PDZRN3	0.675	-0.002	0.901	0.818
cg04508476	yellow	20	34,239,394	5'UTR	OpenSea	CPNE1	0.675	-0.001	0.924	0.927
cg26181727	yellow	3	14,581,959	Body	OpenSea	GRIP2	0.675	0.003	0.419	0.690
cg03021505	yellow	10	65,479,109		OpenSea		0.675	-0.005	0.232	0.562
cg16553051	yellow	20	35,806,496	TSS1500	N_Shore	RPN2	0.675	0.002	0.472	0.886
cg12908107	yellow	22	29,783,861	5'UTR	N_Shore	AP1B1	0.675	0.010	0.357	0.298
cg15129052	yellow	1	55,416,755		OpenSea		0.675	0.005	0.818	0.619
cg18174402	yellow	2	27,441,263	Body	S_Shore	CAD	0.675	0.003	0.723	0.760
cg18259487	yellow	7	2,473,859	3'UTR	S_Shore	CHST12	0.675	0.006	0.755	0.541
cg18638434	yellow	14	74,486,651	Body	S_Shore	C14orf45	0.675	0.003	0.061	0.686
cg16672659	yellow	17	36,098,223	Body	N_Shelf	HNF1B	0.675	0.000	0.809	0.991
cg23250700	yellow	19	13,056,068	TSS1500	N_Shore	RAD23A	0.675	0.007	0.846	0.453
cg06780777	yellow	8	28,246,464		S_Shelf		0.675	0.010	0.750	0.399
cg08178815	yellow	20	60,879,613	Body	S_Shore	ADRM1	0.675	0.008	0.838	0.212
cg23990942	yellow	19	40,946,878	3'UTR	N_Shelf	SERTAD3	0.675	0.008	0.624	0.286
cg11741201	yellow	11	35,638,398	TSS1500	N_Shore	FJX1	0.675	0.012	0.343	0.189
cg14591511	yellow	9	114,375,915		OpenSea		0.675	0.002	0.280	0.876
cg20058848	yellow	2	96,852,116	3'UTR	OpenSea	STARD7	0.675	0.003	0.874	0.568
cg11027707	yellow	3	49,967,669	TSS1500	S_Shore	MON1A	0.675	0.022	0.610	0.046
cg12909925	yellow	1	14,105,607	Body	OpenSea	PRDM2	0.675	-0.005	0.819	0.386
cg16056219	yellow	14	75,043,777	Body	OpenSea	LTBP2	0.675	-0.001	0.603	0.946
cg20352728	yellow	22	25,758,737	TSS1500	S_Shelf	LRP5L	0.675	0.014	0.506	0.044
cg26398341	yellow	6	31,621,418	TSS1500	S_Shore	BAT3	0.675	-0.007	0.475	0.474

cg07983888	yellow	6	30,541,585	Body	S_Shelf	ABCF1	0.675	0.001	0.850	0.798
cg05997059	yellow	7	116,411,780	Body	OpenSea	MET	0.675	0.006	0.851	0.605
cg00584815	yellow	1	47,136,924	TSS1500	S_Shelf	C1orf223	0.675	-0.009	0.862	0.254
cg20065520	yellow	14	102,022,800	TSS1500	N_Shelf	DIO3OS	0.675	0.001	0.807	0.886
cg07392702	yellow	7	158,595,915	Body	N_Shore	ESYT2	0.675	0.020	0.588	0.119
cg21961970	yellow	6	40,999,214	Body	S_Shelf	UNC5CL	0.675	0.004	0.722	0.675
cg23620049	yellow	3	185,270,558	TSS200	OpenSea	LIPH	0.674	0.006	0.884	0.428
cg11932158	yellow	3	155,422,129	TSS200	OpenSea	PLCH1	0.674	0.001	0.852	0.759
cg13794565	yellow	7	48,019,606	TSS1500	S_Shore	HUS1	0.674	0.007	0.772	0.469
cg19205850	yellow	3	128,446,370	5'UTR	S_Shore	RAB7A	0.674	-0.009	0.642	0.387
cg14990643	yellow	10	85,956,936	Body	S_Shore	PCDH21	0.674	0.009	0.566	0.150
cg12736773	yellow	10	131,819,853		OpenSea		0.674	0.001	0.751	0.928
cg13047306	yellow	17	39,190,513	3'UTR	OpenSea	KRTAP1-3	0.674	0.005	0.772	0.444
cg23420541	yellow	2	239,963,167		OpenSea		0.674	0.002	0.697	0.748
cg00440980	yellow	17	74,639,894	TSS200	OpenSea	ST6GALNAC1	0.674	0.017	0.684	0.021
cg06143585	yellow	11	57,826,364	5'UTR	OpenSea	OR9Q1	0.674	0.006	0.835	0.436
cg24813857	yellow	4	16,859,428	Body	OpenSea	LDB2	0.674	0.007	0.688	0.261
cg17795586	yellow	3	151,047,735	Body	OpenSea	MED12L	0.674	-0.005	0.841	0.412
cg26794883	yellow	12	2,376,330	Body	OpenSea	CACNA1C	0.674	0.000	0.734	0.986
cg00666074	yellow	10	1,205,222	TSS1500	N_Shore	NCRNA0020C	0.674	0.011	0.640	0.379
cg26782451	yellow	19	12,779,057	TSS1500	N_Shore	MAN2B1	0.674	0.003	0.772	0.702
cg11309462	yellow	2	25,585,661		OpenSea		0.674	0.005	0.652	0.738
cg13832135	yellow	15	29,442,040	Body	OpenSea	FAM189A1	0.674	-0.005	0.847	0.417
cg14086826	yellow	9	138,757,010	Body	OpenSea	CAMSAP1	0.674	0.003	0.842	0.686
cg00647040	yellow	17	12,634,361	Body	OpenSea	MYOCD	0.674	0.003	0.263	0.537
cg00061635	yellow	17	8,311,836		OpenSea		0.674	0.014	0.757	0.054
cg25918827	yellow	2	62,533,140		OpenSea		0.674	0.011	0.724	0.205
cg11056129	yellow	21	34,543,051	TSS1500	OpenSea	C21orf54	0.674	0.002	0.820	0.765
cg17796593	yellow	5	135,273,913	Body	OpenSea	FBXL21	0.674	0.000	0.691	0.994
cg25938025	yellow	6	167,508,001		S_Shore		0.674	0.000	0.905	0.999
cg10095654	yellow	6	31,847,633	3'UTR	OpenSea	EHMT2	0.674	0.015	0.527	0.010
cg08142858	yellow	1	2,718,742		S_Shore		0.674	0.010	0.458	0.076
cg20708141	yellow	4	1,606,861		OpenSea		0.674	0.014	0.631	0.063
cg22741244	yellow	2	239,052,286	Body	S_Shelf	KLHL30	0.674	0.004	0.638	0.762
cg05740739	yellow	2	240,986,651	TSS1500	OpenSea	OR6B3	0.674	0.006	0.853	0.459
cg13241751	yellow	17	49,009,658		S_Shore		0.674	0.008	0.853	0.190
cg04436971	yellow	16	30,016,811	3'UTR	OpenSea	INO80E	0.674	0.013	0.620	0.060
cg06079347	yellow	1	246,324,811	Body	OpenSea	SMYD3	0.674	0.002	0.779	0.769
cg20668177	yellow	6	134,217,795		S_Shore		0.674	-0.004	0.501	0.629
cg18007957	yellow	6	152,011,666	1stExon	OpenSea	ESR1	0.674	0.010	0.537	0.313
cg16623157	yellow	8	48,385,636	Body	OpenSea	KIAA0146	0.674	0.004	0.714	0.589
cg09434534	yellow	3	118,865,026	1stExon	OpenSea	C3orf30	0.674	-0.011	0.891	0.235
cg25046720	yellow	4	183,801,938		OpenSea		0.674	-0.002	0.492	0.873
cg23681974	yellow	3	126,734,092	Body	S_Shore	PLXNA1	0.674	0.011	0.789	0.147
cg11644370	yellow	17	73,553,911	Body	OpenSea	LLGL2	0.674	0.010	0.645	0.078
cg16046376	yellow	11	66,721,779	5'UTR	N_Shelf	PC	0.674	0.002	0.780	0.792
cg18094404	yellow	19	1,438,017	TSS1500	N_Shore	RPS15	0.674	-0.002	0.489	0.777
cg16587108	yellow	19	10,811,909	TSS1500	N_Shore	QTRT1	0.674	0.000	0.040	0.913
cg06204730	yellow	17	48,785,992	TSS1500	S_Shore	ANKRD40	0.674	0.017	0.159	0.025
cg04743872	yellow	2	230,135,577	5'UTR	N_Shore	PID1	0.674	0.003	0.189	0.789
cg21899942	yellow	14	72,943,540	Body	OpenSea	RGS6	0.674	-0.007	0.746	0.386
cg17261096	yellow	5	151,986,804		OpenSea		0.674	0.004	0.690	0.731
cg18885992	yellow	19	49,108,395	Body	S_Shore	FAM83E	0.674	-0.002	0.599	0.852
cg06690168	yellow	3	196,367,555	5'UTR	S_Shore	LRRC33	0.674	0.008	0.544	0.219
cg20697464	yellow	2	218,793,716	5'UTR	OpenSea	TNS1	0.674	0.002	0.453	0.740
cg05436845	yellow	11	65,378,622	Body	N_Shelf	MAP3K11	0.674	0.005	0.795	0.446
cg13154908	yellow	3	178,869,001	5'UTR	S_Shelf	PIK3CA	0.674	-0.001	0.889	0.880
cg23339720	yellow	3	140,814,055	Body	Island	SPSB4	0.674	0.019	0.575	0.194
cg13931228	yellow	7	24,612,418	TSS1500	OpenSea	MPP6	0.674	0.002	0.046	0.489
cg15020247	yellow	11	130,322,599	Body	S_Shelf	ADAMTS15	0.674	-0.004	0.935	0.471
cg27478879	yellow	9	139,239,957	Body	Island	GPSM1	0.674	0.005	0.606	0.560
cg00044665	yellow	16	66,400,411	TSS200	OpenSea	CDH5	0.674	0.002	0.467	0.801
cg18640444	yellow	4	15,241,582		OpenSea		0.674	0.015	0.591	0.151
cg08279008	yellow	2	86,263,224	Body	OpenSea	POLR1A	0.674	0.004	0.052	0.398
cg19748027	yellow	5	154,892,698		OpenSea		0.674	0.007	0.834	0.493
cg02791417	yellow	17	59,492,932		N_Shore		0.674	0.003	0.791	0.652
cg12874035	yellow	3	49,908,776	TSS1500	S_Shore	CAMKV	0.673	0.003	0.766	0.598

cg20317116	yellow	4	22,694,230	TSS1500	OpenSea	GBA3	0.673	0.006	0.551	0.519
cg23648516	yellow	13	78,467,552		OpenSea		0.673	-0.007	0.922	0.333
cg15061159	yellow	1	22,871,587		OpenSea		0.673	0.008	0.820	0.265
cg13959344	yellow	6	32,901,642		OpenSea		0.673	-0.017	0.147	0.013
cg13532410	yellow	3	54,732,582	Body	OpenSea	CACNA2D3	0.673	0.016	0.540	0.171
cg05485060	yellow	9	111,776,779	TSS1500	S_Shore	CTNNAL1	0.673	0.005	0.117	0.544
cg09210315	yellow	20	61,273,055	TSS1500	N_Shore	SLCO4A1	0.673	0.010	0.671	0.146
cg18890556	yellow	2	225,266,580	5'UTR	OpenSea	FAM124B	0.673	0.019	0.625	0.077
cg06170683	yellow	16	3,740,774	Body	OpenSea	TRAP1	0.673	-0.005	0.251	0.484
cg18486258	yellow	6	42,110,750	TSS200	S_Shore	C6orf132	0.673	0.000	0.334	0.983
cg02935562	yellow	16	19,834,374	Body	OpenSea	IQCK	0.673	-0.005	0.889	0.397
cg23650249	yellow	19	1,284,764	TSS1500	N_Shelf	EFNA2	0.673	0.000	0.592	0.973
cg04375784	yellow	6	133,137,810	Body	S_Shore	RPS12	0.673	-0.006	0.864	0.342
cg12461281	yellow	5	148,288,661		OpenSea		0.673	0.001	0.150	0.952
cg03449379	yellow	15	74,630,237	3'UTR	OpenSea	CYP11A1	0.673	-0.003	0.532	0.538
cg23723818	yellow	1	57,015,477	Body	OpenSea	PPAP2B	0.673	0.021	0.648	0.092
cg11353929	yellow	6	25,874,434	5'UTR	OpenSea	SLC17A3	0.673	0.004	0.958	0.261
cg24645447	yellow	1	243,426,679	Body	OpenSea	SDCCAG8	0.673	-0.002	0.890	0.794
cg22329153	yellow	8	144,984,462		OpenSea		0.673	0.014	0.644	0.182
cg19904352	yellow	11	102,139,781		S_Shore		0.673	0.005	0.258	0.763
cg25134306	yellow	5	138,945,277	5'UTR	S_Shelf	UBE2D2	0.673	0.026	0.711	0.056
cg08909756	yellow	12	105,479,649	TSS1500	S_Shore	ALDH1L2	0.673	0.007	0.882	0.366
cg05890252	yellow	14	105,974,580		OpenSea		0.673	0.017	0.671	0.028
cg14963724	yellow	18	72,166,303	TSS1500	S_Shelf	CNDP2	0.673	-0.004	0.635	0.677
cg08537367	yellow	16	87,469,199	Body	OpenSea	ZCCHC14	0.673	0.003	0.749	0.663
cg13955572	yellow	9	15,422,376	TSS1500	N_Shore	SNAPC3	0.673	0.000	0.069	0.981
cg00325920	yellow	3	61,776,005	Body	OpenSea	PTPRG	0.673	0.001	0.871	0.888
cg08506606	yellow	10	82,295,502		Island		0.673	0.007	0.710	0.685
cg05845531	yellow	5	124,606,359		OpenSea		0.673	0.002	0.926	0.738
cg06740049	yellow	6	3,987,734		OpenSea		0.673	0.007	0.614	0.453
cg23804666	yellow	11	58,710,158	TSS1500	OpenSea	GLYATL1	0.673	-0.002	0.726	0.862
cg08089780	yellow	12	49,426,543	Body	OpenSea	MLL2	0.673	-0.002	0.839	0.745
cg16587518	yellow	7	155,021,692		OpenSea		0.673	-0.006	0.716	0.604
cg19819654	yellow	19	10,370,550	3'UTR	OpenSea	MRPL4	0.673	-0.003	0.804	0.758
cg09370982	yellow	16	2,547,559	Body	S_Shore	TBC1D24	0.673	0.007	0.516	0.506
cg24623694	yellow	19	40,919,760	TSS1500	OpenSea	PRX	0.673	0.014	0.278	0.010
cg04353193	yellow	20	17,971,368	3'UTR	OpenSea	C20orf72	0.673	-0.002	0.715	0.929
cg03374561	yellow	17	19,247,888	TSS200	Island	MIR1180	0.673	-0.014	0.738	0.046
cg01539510	yellow	6	159,650,954	Body	N_Shelf	FNDC1	0.673	0.003	0.582	0.758
cg18544938	yellow	7	16,506,262	TSS1500	OpenSea	SOSTDC1	0.673	-0.008	0.900	0.318
cg06778853	yellow	1	6,672,620	TSS1500	N_Shore	PHF13	0.673	-0.001	0.448	0.875
cg19476647	yellow	12	6,492,948	TSS1500	Island	LTBR	0.673	0.017	0.297	0.262
cg07876223	yellow	6	14,839,147		OpenSea		0.673	0.003	0.830	0.734
cg26620900	yellow	13	44,715,436		N_Shore		0.673	-0.002	0.826	0.791
cg16679007	yellow	5	15,551,384	Body	OpenSea	FBXL7	0.673	0.009	0.735	0.387
cg26708427	yellow	18	3,250,274	5'UTR	S_Shelf	MYL12A	0.673	-0.006	0.950	0.091
cg05147638	yellow	12	54,744,992	3'UTR	OpenSea	COPZ1	0.673	-0.002	0.882	0.759
cg00953256	yellow	11	69,468,875	3'UTR	Island	CCND1	0.673	0.003	0.482	0.647
cg23526298	yellow	12	5,620,971		OpenSea		0.673	0.001	0.044	0.786
cg00241274	yellow	18	44,199,541	Body	OpenSea	LOXHD1	0.673	-0.003	0.810	0.654
cg04774696	yellow	4	183,549,836	Body	OpenSea	ODZ3	0.673	0.012	0.734	0.207
cg05253327	yellow	2	62,420,915		N_Shore		0.672	0.000	0.933	0.959
cg05999010	yellow	3	63,881,712	5'UTR	OpenSea	ATXN7	0.672	0.000	0.855	0.975
cg23648809	yellow	1	2,106,400	Body	OpenSea	PRKCZ	0.672	0.005	0.705	0.572
cg04011668	yellow	2	660,363		N_Shore		0.672	0.007	0.474	0.286
cg12548824	yellow	8	17,554,892	Body	OpenSea	MTUS1	0.672	-0.003	0.775	0.777
cg14360663	yellow	9	130,329,156	Body	N_Shore	FAM129B	0.672	0.007	0.267	0.214
cg13299824	yellow	1	92,414,737	TSS200	Island	BRDT	0.672	-0.001	0.804	0.933
cg14028671	yellow	9	139,937,558	Body	N_Shelf	NPDC1	0.672	0.000	0.729	0.971
cg16408865	yellow	12	69,753,119	TSS1500	N_Shore	YEATS4	0.672	-0.007	0.823	0.377
cg10321119	yellow	14	76,450,724	TSS1500	N_Shore	C14orf179	0.672	0.008	0.718	0.406
cg00849990	yellow	8	86,090,773	Body	S_Shore	EZF5	0.672	0.006	0.457	0.452
cg26794477	yellow	3	50,357,592	Body	Island	HYAL2	0.672	0.001	0.663	0.883
cg03296248	yellow	13	110,918,516	Body	Island	COL4A1	0.672	0.027	0.626	0.033
cg22131452	yellow	12	132,148,467		S_Shore		0.672	0.008	0.705	0.262
cg04656882	yellow	5	14,498,441	Body	OpenSea	TRIO	0.672	0.003	0.810	0.630
cg20118431	yellow	11	134,278,896	5'UTR	N_Shelf	B3GAT1	0.672	0.004	0.666	0.623



cg16194715	yellow	13	37,453,926	5'UTR	OpenSea	SMAD9	0.672	-0.003	0.928	0.604
cg05268155	yellow	13	24,844,880	Body	OpenSea	SPATA13	0.672	0.000	0.030	0.884
cg23251200	yellow	10	125,835,213		OpenSea		0.672	0.014	0.302	0.225
cg11172483	yellow	11	78,900,896	5'UTR	OpenSea	ODZ4	0.672	0.000	0.669	0.992
cg02528908	yellow	10	11,505,056	Body	N_Shore	USP6NL	0.672	-0.001	0.852	0.866
cg00129232	yellow	17	37,814,104	Body	OpenSea	STAR3D3	0.672	0.000	0.945	0.968
cg12729838	yellow	8	27,469,186	1stExon	N_Shelf	CLU	0.672	0.017	0.516	0.027
cg26665764	yellow	8	232,470		OpenSea		0.672	-0.003	0.786	0.810
cg19615295	yellow	20	58,570,200	Body	OpenSea	CDH26	0.672	-0.003	0.973	0.286
cg11093474	yellow	5	5,137,559		N_Shore		0.672	0.005	0.469	0.508
cg14919082	yellow	2	54,901,055		OpenSea		0.672	0.021	0.763	0.069
cg21838115	yellow	6	45,645,436		OpenSea		0.672	0.002	0.064	0.797
cg21785710	yellow	2	63,662,027	Body	OpenSea	C2orf86	0.672	0.000	0.453	0.984
cg04540959	yellow	5	89,687,197		OpenSea		0.672	0.006	0.871	0.489
cg12303610	yellow	22	50,636,559	Body	Island	TRABD	0.672	0.018	0.743	0.003
cg16188379	yellow	2	2,295,586	5'UTR	OpenSea	MYT1L	0.672	0.000	0.612	0.984
cg16624272	yellow	8	142,012,517	TSS1500	S_Shore	PTK2	0.672	0.005	0.231	0.426
cg13355449	yellow	6	46,923,414	TSS1500	OpenSea	GPR116	0.672	0.007	0.908	0.361
cg20675971	yellow	19	1,168,733	5'UTR	Island	SBNO2	0.672	0.003	0.816	0.751
cg26389053	yellow	11	67,815,280	Body	OpenSea	TCIRG1	0.672	0.001	0.583	0.861
cg02965157	yellow	1	40,350,001	TSS1500	S_Shore	TRIT1	0.672	-0.007	0.816	0.273
cg24152251	yellow	2	240,563,218		N_Shelf		0.672	0.013	0.645	0.276
cg11126081	yellow	10	135,141,628	Body	N_Shore	CALY	0.672	0.004	0.517	0.530
cg07915516	yellow	16	377,344	Body	S_Shelf	AXIN1	0.672	-0.002	0.664	0.882
cg00911370	yellow	20	1,472,098	1stExon	OpenSea	SIRPB2	0.672	0.014	0.569	0.027
cg18895088	yellow	5	1,553,134		Island		0.672	0.024	0.201	0.067
cg08903465	yellow	1	234,917,213		OpenSea		0.672	0.002	0.612	0.690
cg14758218	yellow	11	65,193,528	Body	S_Shelf	NEAT1	0.672	0.032	0.655	0.005
cg13578272	yellow	9	33,819,418	Body	S_Shore	UBE2R2	0.672	0.003	0.808	0.777
cg23739525	yellow	7	129,849,144	Body	S_Shelf	C7orf45	0.672	-0.004	0.951	0.219
cg21650861	yellow	3	127,299,468	5'UTR	OpenSea	TPRA1	0.672	0.002	0.727	0.815
cg26831087	yellow	1	1,259,070	TSS1500	N_Shore	GLTPD1	0.672	0.001	0.710	0.911
cg24965791	yellow	13	96,085,241	TSS1500	N_Shore	CLDN10	0.672	0.024	0.794	0.002
cg02566863	yellow	2	85,130,818		N_Shore		0.672	0.006	0.800	0.396
cg16226627	yellow	15	75,307,476	Body	OpenSea	SCAMP5	0.671	-0.004	0.689	0.635
cg04446870	yellow	17	64,440,273	Body	OpenSea	PRKCA	0.671	-0.001	0.682	0.869
cg26796069	yellow	8	145,162,300	3'UTR	N_Shore	MAF1	0.671	0.004	0.679	0.553
cg11784578	yellow	4	185,361,148	5'UTR	OpenSea	IRF2	0.671	0.009	0.487	0.193
cg04755523	yellow	6	31,508,665	5'UTR	N_Shore	BAT1	0.671	0.005	0.357	0.649
cg06551476	yellow	19	35,045,764		OpenSea		0.671	-0.003	0.689	0.705
cg07363112	yellow	3	125,239,413	TSS1500	S_Shore	SNX4	0.671	-0.001	0.027	0.607
cg22242238	yellow	2	25,313,855	Body	OpenSea	EFR3B	0.671	-0.003	0.808	0.699
cg25082710	yellow	1	152,880,108	TSS1500	OpenSea	IVL	0.671	-0.002	0.829	0.842
cg09608652	yellow	16	53,105,688	5'UTR	OpenSea	CHD9	0.671	0.011	0.202	0.094
cg22881262	yellow	20	62,738,358	TSS200	S_Shore	NPBWR2	0.671	-0.007	0.810	0.157
cg08151809	yellow	7	151,480,352	Body	Island	PRKAG2	0.671	-0.002	0.350	0.797
cg27624753	yellow	16	1,673,702	Body	N_Shelf	CRAMP1L	0.671	-0.003	0.756	0.620
cg19863456	yellow	1	9,186,001	Body	N_Shelf	GPR157	0.671	0.011	0.755	0.371
cg07260003	yellow	10	50,321,116	Body	N_Shelf	C10orf72	0.671	-0.003	0.644	0.619
cg01768686	yellow	17	4,337,111	TSS200	OpenSea	SPNS3	0.671	-0.001	0.612	0.872
cg00474889	yellow	11	5,711,068	1stExon	OpenSea	TRIM22	0.671	0.004	0.672	0.786
cg22114489	yellow	7	101,398,177		OpenSea		0.671	0.011	0.141	0.253
cg22992966	yellow	10	43,867,024	TSS200	OpenSea	FXD4	0.671	0.004	0.576	0.531
cg22088368	yellow	22	37,404,888	TSS1500	OpenSea	C22orf33	0.671	0.015	0.759	0.019
cg21748751	yellow	6	35,309,867	TSS1500	N_Shore	PPARD	0.671	0.000	0.596	0.977
cg05769344	yellow	16	28,996,358	Body	OpenSea	LAT	0.671	0.000	0.600	0.987
cg23689579	yellow	2	221,795,858		OpenSea		0.671	-0.005	0.571	0.750
cg02700360	yellow	3	11,874,932	Body	OpenSea	C3orf31	0.671	0.009	0.808	0.254
cg16249827	yellow	19	11,153,168	Body	S_Shore	SMARCA4	0.671	0.000	0.848	0.973
cg07127456	yellow	16	66,583,081	Body	N_Shore	TK2	0.671	0.007	0.720	0.640
cg22882543	yellow	22	22,868,585	Body	OpenSea	ZNF280A	0.671	0.018	0.756	0.059
cg01230207	yellow	19	54,107,821	TSS1500	OpenSea	LOC284379	0.671	-0.006	0.715	0.489
cg12087695	yellow	14	94,757,593	5'UTR	OpenSea	SERPINA10	0.671	-0.006	0.702	0.288
cg08350119	yellow	17	62,499,667	Body	N_Shore	DDX5	0.671	0.003	0.835	0.779
cg19712821	yellow	4	15,965,016	TSS200	OpenSea	FGFBP2	0.671	0.011	0.394	0.120
cg27410837	yellow	2	202,122,372	5'UTR	OpenSea	CASP8	0.671	0.016	0.485	0.072
cg04770195	yellow	16	53,114,571	5'UTR	OpenSea	CHD9	0.671	0.016	0.321	0.256

cg00653041	yellow	7	122,524,465	Body	N_Shore	CADPS2	0.671	0.010	0.781	0.324
cg11823894	yellow	4	12,244,738		OpenSea		0.671	-0.005	0.888	0.532
cg18403548	yellow	4	2,820,786	5'UTR	S_Shore	SH3BP2	0.671	0.012	0.512	0.241
cg14641333	yellow	7	157,546,794	Body	N_Shelf	PTPRN2	0.671	0.010	0.693	0.069
cg07165066	yellow	13	23,952,576	Body	S_Shelf	SACS	0.671	0.013	0.781	0.192
cg23733029	yellow	15	30,110,856	Body	N_Shelf	TJP1	0.671	0.001	0.913	0.847
cg00338529	yellow	2	134,948,022		N_Shore		0.671	0.011	0.867	0.218
cg15586393	yellow	4	1,244,086	TSS1500	Island	CTBP1	0.671	0.008	0.799	0.560
cg13064210	yellow	17	76,425,308	Body	S_Shelf	DNAH17	0.671	0.002	0.647	0.756
cg23697093	yellow	14	95,331,466		S_Shore		0.671	0.004	0.691	0.668
cg22316451	yellow	20	60,645,197		S_Shelf		0.671	-0.004	0.864	0.701
cg23762657	yellow	6	91,600,978		OpenSea		0.671	0.003	0.223	0.674
cg09154850	yellow	17	15,372,112	TSS1500	OpenSea	CDRT4	0.671	0.000	0.844	0.988
cg04533291	yellow	2	96,930,398	TSS1500	N_Shore	CIAO1	0.671	0.008	0.851	0.200
cg16086579	yellow	12	132,562,626	3'UTR	OpenSea	EP400	0.671	-0.002	0.949	0.522
cg21460729	yellow	7	149,431,265	3'UTR	OpenSea	KRBA1	0.671	-0.008	0.811	0.203
cg17278057	yellow	20	62,383,481	Body	Island	ZBTB46	0.671	0.007	0.943	0.297
cg05475702	yellow	1	812,248	TSS200	OpenSea	FAM41C	0.671	0.007	0.559	0.280
cg00547103	yellow	4	159,092,089	Body	OpenSea	FAM198B	0.670	0.003	0.861	0.703
cg15240033	yellow	6	3,623,985		OpenSea		0.670	0.003	0.899	0.570
cg07843882	yellow	16	90,012,025		N_Shelf		0.670	0.001	0.789	0.924
cg00431114	yellow	20	43,104,027	TSS1500	N_Shore	TTPAL	0.670	0.007	0.357	0.234
cg07511317	yellow	14	104,159,997	Body	OpenSea	KLC1	0.670	-0.005	0.949	0.425
cg19980575	yellow	6	30,164,624	Body	OpenSea	TRIM26	0.670	-0.003	0.590	0.675
cg03601836	yellow	3	190,037,695	Body	N_Shelf	CLDN1	0.670	0.006	0.741	0.489
cg19756786	yellow	14	22,939,357		OpenSea		0.670	-0.006	0.797	0.439
cg26286239	yellow	6	157,285,705	Body	OpenSea	ARID1B	0.670	0.002	0.958	0.566
cg15915658	yellow	11	65,262,358		N_Shelf		0.670	0.008	0.604	0.438
cg26340700	yellow	1	231,663,886	TSS1500	N_Shore	TSNAX-DISC1	0.670	0.019	0.403	0.081
cg02482346	yellow	17	42,283,972	3'UTR	N_Shelf	UBTF	0.670	0.006	0.347	0.250
cg25518868	yellow	5	140,984,057	Body	OpenSea	DIAPH1	0.670	0.015	0.723	0.056
cg12681796	yellow	5	132,446,804		OpenSea		0.670	0.009	0.751	0.239
cg03916421	yellow	4	130,013,461	Body	N_Shore	SCLT1	0.670	0.000	0.325	0.945
cg01774835	yellow	13	37,016,876	3'UTR	OpenSea	CCNA1	0.670	0.008	0.666	0.375
cg04339790	yellow	16	10,675,656	TSS1500	S_Shore	EMP2	0.670	-0.003	0.434	0.691
cg15660353	yellow	2	133,378,888	Body	OpenSea	GPR39	0.670	0.027	0.653	0.004
cg00592151	yellow	16	25,702,044	TSS1500	N_Shore	HS3ST4	0.670	0.003	0.056	0.666
cg06585307	yellow	16	1,581,015	Body	N_Shelf	IFT140	0.670	0.009	0.732	0.330
cg16959037	yellow	17	27,225,032	TSS1500	S_Shore	FLOT2	0.670	-0.002	0.057	0.678
cg12813441	yellow	2	55,239,331	Body	OpenSea	RTN4	0.670	-0.025	0.258	0.240
cg23357209	yellow	13	51,117,881		OpenSea		0.670	0.014	0.165	0.101
cg08467643	yellow	3	183,890,761	3'UTR	N_Shore	DVL3	0.670	0.000	0.919	0.989
cg09796602	yellow	16	23,156,203	Body	N_Shelf	USP31	0.670	0.004	0.916	0.365
cg20711030	yellow	7	150,897,624		N_Shelf		0.670	0.004	0.749	0.513
cg25609517	yellow	2	128,565,375	5'UTR	N_Shelf	WDR33	0.670	0.001	0.936	0.904
cg06922599	yellow	12	3,427,727		OpenSea		0.670	0.007	0.843	0.427
cg25165908	yellow	12	111,476,211	Body	S_Shore	CUX2	0.670	-0.012	0.737	0.142
cg07065759	yellow	2	198,017,462	Body	OpenSea	ANKRD44	0.670	-0.010	0.740	0.388
cg01395217	yellow	1	145,100,564	Body	S_Shelf	SEC22B	0.670	-0.011	0.815	0.177
cg13643356	yellow	19	2,202,660	Body	S_Shelf	DOT1L	0.670	0.009	0.813	0.099
cg03457472	yellow	7	3,339,766	TSS1500	N_Shore	SDK1	0.670	0.017	0.300	0.117
cg08856118	yellow	10	27,389,908	TSS1500	S_Shore	ANKRD26	0.670	0.032	0.441	0.013
cg24680248	yellow	19	8,426,630		N_Shelf		0.670	0.012	0.644	0.222
cg06514078	yellow	11	3,190,573		S_Shelf		0.670	-0.004	0.060	0.539
cg08192033	yellow	6	125,476,407	5'UTR	S_Shore	TPD52L1	0.670	-0.005	0.775	0.523
cg05398544	yellow	14	92,953,041	Body	OpenSea	SLC24A4	0.670	0.000	0.877	0.989
cg16824901	yellow	8	11,302,243	5'UTR	OpenSea	FAM167A	0.670	0.006	0.883	0.231
cg05599759	yellow	20	62,460,114		N_Shore		0.670	0.005	0.721	0.500
cg25326319	yellow	7	1,733,132		OpenSea		0.670	0.001	0.593	0.936
cg23017915	yellow	3	149,374,535	Body	N_Shore	WWTR1	0.670	-0.006	0.093	0.528
cg06671387	yellow	4	141,444,896	TSS1500	N_Shore	ELMOD2	0.670	-0.005	0.257	0.640
cg20747462	yellow	7	45,216,802	Body	OpenSea	RAMP3	0.670	0.011	0.655	0.109
cg25493276	yellow	5	3,855,077		S_Shore		0.670	0.007	0.868	0.237
cg24359392	yellow	1	235,270,928		S_Shelf		0.670	0.006	0.585	0.380
cg04280772	yellow	2	235,372,807		OpenSea		0.670	-0.007	0.283	0.411
cg11637005	yellow	10	97,515,753	1stExon	OpenSea	ENTPD1	0.670	0.013	0.291	0.076
cg16239800	yellow	19	57,942,744		N_Shelf		0.670	-0.006	0.904	0.399

cg07082358	yellow	7	102,981,127	Body	N_Shelf	DNAJC2	0.670	0.006	0.899	0.215
cg08647091	yellow	16	4,385,126	Body	OpenSea	GLIS2	0.670	0.005	0.581	0.469
cg27474357	yellow	19	10,710,223		N_Shelf		0.670	0.009	0.601	0.515
cg15381475	yellow	7	6,436,101	Body	OpenSea	RAC1	0.670	0.008	0.898	0.324
cg22166633	yellow	19	54,177,678	TSS1500	OpenSea	MIR520E	0.670	-0.001	0.850	0.883
cg07235218	yellow	11	2,954,824		S_Shelf		0.670	0.013	0.451	0.075
cg08777402	yellow	2	121,013,745	5'UTR	S_Shelf	RALB	0.670	0.016	0.840	0.112
cg26227044	yellow	1	231,471,991	1stExon	N_Shore	EXOC8	0.669	0.001	0.453	0.927
cg16559570	yellow	20	62,321,231	Body	Island	RTEL1	0.669	-0.001	0.838	0.845
cg02021919	yellow	5	86,707,074	Body	N_Shore	CCNH	0.669	0.003	0.919	0.643
cg06881695	yellow	6	30,168,773	5'UTR	OpenSea	TRIM26	0.669	-0.009	0.411	0.282
cg10625575	yellow	12	4,645,224	Body	N_Shelf	C12orf4	0.669	-0.002	0.760	0.815
cg00829091	yellow	2	241,533,694	Body	N_Shore	CAPN10	0.669	0.012	0.603	0.238
cg03779078	yellow	7	45,554,419		OpenSea		0.669	-0.003	0.812	0.742
cg26669397	yellow	1	228,889,628		N_Shore		0.669	0.013	0.306	0.074
cg08114533	yellow	11	67,168,528	Body	N_Shore	PPP1CA	0.669	-0.001	0.155	0.928
cg06920324	yellow	7	149,264,011	Body	OpenSea	ZNF767	0.669	0.001	0.955	0.844
cg06444575	yellow	1	1,369,772	TSS1500	N_Shore	VWA1	0.669	0.000	0.046	0.975
cg20025658	yellow	2	219,031,640	1stExon	OpenSea	CXCR1	0.669	-0.003	0.873	0.580
cg09667289	yellow	15	33,165,563	Body	OpenSea	FMN1	0.669	0.006	0.553	0.696
cg12072178	yellow	1	7,830,855	TSS1500	N_Shore	VAMP3	0.669	0.025	0.475	0.088
cg05576619	yellow	10	17,391,003	Body	OpenSea	ST8SIA6	0.669	0.011	0.099	0.304
cg20916578	yellow	8	55,014,888	TSS1500	S_Shore	LYPLA1	0.669	0.004	0.563	0.650
cg27343992	yellow	6	35,118,177		OpenSea		0.669	0.002	0.869	0.796
cg04153082	yellow	8	48,325,740	Body	OpenSea	KIAA0146	0.669	0.005	0.682	0.530
cg25763716	yellow	1	101,184,304	TSS1500	OpenSea	VCAM1	0.669	0.004	0.524	0.576
cg04119909	yellow	10	79,646,104	Body	OpenSea	DLG5	0.669	0.013	0.571	0.382
cg06730238	yellow	3	27,131,936		OpenSea		0.669	-0.002	0.445	0.857
cg03303515	yellow	2	47,213,998	Body	OpenSea	TTC7A	0.669	0.001	0.503	0.821
cg14951497	yellow	2	191,875,807	5'UTR	N_Shelf	STAT1	0.669	0.007	0.722	0.403
cg19001261	yellow	19	7,797,052	5'UTR	S_Shore	CLEC4G	0.669	0.008	0.520	0.235
cg15555014	yellow	17	76,164,144	TSS1500	N_Shore	SYNGR2	0.669	-0.006	0.597	0.586
cg12821980	yellow	11	74,702,244	Body	S_Shelf	NEU3	0.669	0.005	0.588	0.543
cg08861404	yellow	19	51,670,315	TSS1500	OpenSea	SIGLECP3	0.669	0.000	0.600	0.975
cg16383318	yellow	19	52,784,799	Body	OpenSea	ZNF766	0.669	-0.008	0.887	0.282
cg24283684	yellow	6	136,172,947	1stExon	OpenSea	PDE7B	0.669	0.004	0.075	0.325
cg06679262	yellow	19	46,576,968		N_Shelf		0.669	0.005	0.648	0.502
cg23548612	yellow	4	1,043,540		Island		0.669	0.014	0.502	0.069
cg19938159	yellow	3	50,196,278	5'UTR	S_Shelf	SEMA3F	0.669	0.006	0.780	0.349
cg01471654	yellow	17	26,899,223	TSS1500	S_Shore	PIGS	0.669	0.014	0.300	0.317
cg12290450	yellow	2	113,670,135	TSS1500	OpenSea	IL1F7	0.669	-0.001	0.713	0.922
cg22866937	yellow	20	43,730,241	TSS1500	S_Shore	KCNS1	0.669	0.006	0.690	0.438
cg19977021	yellow	10	15,014,518	Body	OpenSea	MEIG1	0.669	0.002	0.940	0.681
cg06219103	yellow	11	63,990,595	Body	N_Shelf	FERMT3	0.669	0.000	0.928	0.966
cg00716812	yellow	19	1,429,019	Body	Island	DAZAP1	0.669	0.008	0.862	0.218
cg07236146	yellow	10	94,607,939	Body	N_Shore	EXOC6	0.669	0.011	0.095	0.099
cg26959247	yellow	3	11,611,863	Body	S_Shore	VGLL4	0.669	0.001	0.818	0.833
cg05567236	yellow	1	243,420,065	Body	S_Shore	SDCCAG8	0.669	-0.011	0.595	0.279
cg11485823	yellow	6	30,921,592	3'UTR	N_Shore	DPCR1	0.669	-0.002	0.836	0.689
cg04950824	yellow	12	52,692,031		N_Shelf		0.669	0.016	0.551	0.132
cg22437316	yellow	5	177,664,663	3'UTR	OpenSea	COL23A1	0.669	0.012	0.386	0.036
cg10703453	yellow	6	31,589,789	TSS1500	S_Shore	SNORA38	0.669	0.007	0.346	0.381
cg07320496	yellow	5	160,280,697	TSS1500	OpenSea	ATP10B	0.669	-0.005	0.797	0.686
cg00373371	yellow	10	6,275,077	3'UTR	OpenSea	PFKFB3	0.669	0.009	0.892	0.195
cg12416561	yellow	4	81,256,552	TSS1500	N_Shore	C4orf22	0.669	0.001	0.402	0.887
cg09786978	yellow	11	734,704		Island		0.669	-0.001	0.930	0.864
cg11129609	yellow	6	33,247,250	Body	S_Shore	WDR46	0.669	0.003	0.818	0.660
cg16487297	yellow	5	17,488,879		N_Shelf		0.669	-0.001	0.484	0.922
cg02519208	yellow	3	190,105,821	TSS200	OpenSea	CLDN16	0.669	0.008	0.366	0.296
cg18262197	yellow	5	1,553,051		Island		0.668	0.027	0.311	0.013
cg17043722	yellow	1	211,688,462		Island		0.668	-0.004	0.707	0.605
cg18886347	yellow	11	57,792,403	5'UTR	OpenSea	OR9Q1	0.668	0.008	0.355	0.508
cg22542373	yellow	4	38,192,482		OpenSea		0.668	0.001	0.138	0.883
cg26276572	yellow	21	46,421,023	Body	N_Shore	NCRNA00162	0.668	0.010	0.638	0.302
cg20701457	yellow	17	62,084,342	5'UTR	OpenSea	ICAM2	0.668	0.002	0.752	0.792
cg26665667	yellow	10	52,340,628	5'UTR	OpenSea	SGMS1	0.668	-0.013	0.836	0.147
cg15301694	yellow	14	31,496,854	TSS1500	S_Shore	STRN3	0.668	0.000	0.915	0.985

cg16783186	yellow	2	30,516,374	OpenSea		0.668	0.002	0.734	0.839
cg25652701	yellow	7	105,348,517 Body	OpenSea	ATXN7L1	0.668	0.004	0.423	0.756
cg09361958	yellow	3	128,947,790	OpenSea		0.668	0.011	0.383	0.205
cg06640695	yellow	1	16,273,212 Body	S_Shore	ZBTB17	0.668	0.007	0.622	0.187
cg11730661	yellow	19	1,844,074 Body	N_Shelf	REXO1	0.668	-0.001	0.891	0.881
cg23685650	yellow	14	56,045,894 TSS1500	N_Shore	KTN1	0.668	-0.013	0.347	0.385
cg04754605	yellow	11	2,309,287	OpenSea		0.668	0.003	0.930	0.672
cg02971328	yellow	7	6,438,643 Body	N_Shelf	RAC1	0.668	-0.008	0.820	0.433
cg08393937	yellow	5	78,277,492 Body	N_Shelf	ARSB	0.668	-0.008	0.802	0.535
cg21849661	yellow	11	563,860 3'UTR	S_Shelf	RASSF7	0.668	0.004	0.653	0.503
cg08271443	yellow	16	4,845,348 TSS200	OpenSea	LOC440335	0.668	-0.014	0.828	0.052
cg09345397	yellow	10	98,610,861 5'UTR	OpenSea	LCOR	0.668	0.007	0.897	0.292
cg21961766	yellow	19	50,086,378 5'UTR	S_Shelf	PRRG2	0.668	0.004	0.711	0.656
cg23656386	yellow	16	68,003,240 TSS1500	N_Shore	SLC12A4	0.668	-0.002	0.112	0.733
cg03949978	yellow	8	145,747,140 3'UTR	N_Shore	LRRC14	0.668	0.006	0.643	0.318
cg11696165	yellow	12	120,663,824 5'UTR	OpenSea	PXN	0.668	0.009	0.751	0.173
cg04709703	yellow	11	61,449,898 5'UTR	S_Shore	DAGLA	0.668	0.003	0.448	0.595
cg11281396	yellow	17	18,882,010 Body	OpenSea	SLC5A10	0.668	0.000	0.880	0.944
cg14234912	yellow	11	103,677,503	OpenSea		0.668	-0.005	0.901	0.606
cg00074365	yellow	2	64,088,479 Body	OpenSea	UGP2	0.668	-0.021	0.499	0.035
cg06399735	yellow	8	18,836,280 Body	OpenSea	PSD3	0.668	0.003	0.580	0.644
cg12616487	yellow	11	62,379,063 TSS1500	N_Shore	ROM1	0.668	0.002	0.344	0.654
cg04902811	yellow	10	99,478,719 TSS1500	OpenSea	LOC1002707	0.668	0.007	0.209	0.464
cg15557084	yellow	5	115,853,116 5'UTR	OpenSea	SEMA6A	0.668	0.006	0.880	0.524
cg02537838	yellow	20	61,002,595 TSS200	OpenSea	C20orf151	0.668	0.002	0.610	0.737
cg08203210	yellow	6	26,153,217	N_Shelf		0.668	0.014	0.827	0.062
cg04188351	yellow	11	33,744,823 5'UTR	OpenSea	CD59	0.668	-0.001	0.714	0.889
cg00729103	yellow	19	10,194,017	N_Shelf		0.668	0.014	0.907	0.117
cg03392571	yellow	21	46,367,939 Body	N_Shore	C21orf70	0.668	0.019	0.840	0.005
cg16894138	yellow	3	53,270,350 Body	OpenSea	TKT	0.668	0.004	0.211	0.777
cg06268849	yellow	3	194,308,655 3'UTR	S_Shelf	TMEM44	0.668	-0.011	0.776	0.179
cg17179826	yellow	1	204,946,032 3'UTR	OpenSea	NFASC	0.668	0.006	0.757	0.299
cg18282441	yellow	2	235,080,382	OpenSea		0.668	0.005	0.837	0.393
cg14486098	yellow	17	79,267,785 Body	N_Shore	SLC38A10	0.668	-0.011	0.772	0.261
cg13543915	yellow	9	134,293,793	OpenSea		0.668	0.007	0.506	0.348
cg13621701	yellow	17	79,026,930 Body	S_Shore	BAIAP2	0.667	0.012	0.510	0.169
cg16478737	yellow	16	1,442,040	S_Shore		0.667	0.004	0.834	0.561
cg02171771	yellow	7	98,424,445	OpenSea		0.667	0.014	0.408	0.163
cg08596532	yellow	5	5,033,993 TSS1500	OpenSea	LOC340094	0.667	-0.010	0.802	0.231
cg16584662	yellow	15	74,291,835 Body	S_Shore	PML	0.667	-0.008	0.774	0.497
cg03957885	yellow	10	89,855,267	OpenSea		0.667	0.010	0.438	0.464
cg08079694	yellow	19	4,068,106 TSS1500	S_Shore	ZBTB7A	0.667	-0.001	0.034	0.481
cg05334053	yellow	1	3,474,202 Body	OpenSea	MEGF6	0.667	0.001	0.960	0.801
cg03718241	yellow	6	3,623,988	OpenSea		0.667	-0.001	0.861	0.843
cg18813159	yellow	11	353,762	N_Shelf		0.667	0.020	0.520	0.217
cg17839166	yellow	5	53,751,272 TSS200	OpenSea	HSPB3	0.667	0.000	0.669	0.975
cg07122123	yellow	14	46,916,080	OpenSea		0.667	0.004	0.546	0.525
cg20920549	yellow	13	112,837,467	OpenSea		0.667	0.000	0.596	0.962
cg22389121	yellow	15	80,217,380 TSS1500	S_Shore	ST20	0.667	-0.003	0.961	0.462
cg07716032	yellow	17	7,122,846 5'UTR	N_Shore	DLG4	0.667	0.007	0.300	0.295
cg12255061	yellow	17	63,533,152 Body	Island	AXIN2	0.667	0.000	0.727	0.982
cg16252933	yellow	10	61,625,176 Body	OpenSea	CCDC6	0.667	-0.027	0.543	0.126
cg17333291	yellow	7	1,126,326 TSS200	N_Shore	GPER	0.667	0.003	0.568	0.694
cg11860005	yellow	22	32,149,125 TSS1500	N_Shore	DEPDC5	0.667	0.001	0.053	0.774
cg25212053	yellow	11	66,055,683 Body	N_Shore	YIF1A	0.667	0.001	0.500	0.832
cg15943603	yellow	8	117,050,063	OpenSea		0.667	-0.002	0.898	0.768
cg05486924	yellow	3	194,979,565 Body	N_Shore	C3orf21	0.667	-0.001	0.409	0.936
cg15465878	yellow	1	45,183,988 Body	OpenSea	C1orf228	0.667	0.013	0.872	0.037
cg16315334	yellow	8	21,996,639 Body	N_Shelf	REEP4	0.667	0.005	0.453	0.591
cg00790916	yellow	22	42,080,705 Body	N_Shelf	NHP2L1	0.667	0.008	0.887	0.338
cg14356330	yellow	6	110,115,053 Body	OpenSea	FIG4	0.667	0.008	0.507	0.508
cg26597485	yellow	11	36,244,771 Body	OpenSea	LDLRAD3	0.667	0.016	0.391	0.188
cg08187034	yellow	2	38,970,936 3'UTR	OpenSea	SFRS7	0.667	0.002	0.905	0.731
cg10548708	yellow	3	38,175,456 Body	N_Shelf	ACAA1	0.667	0.000	0.926	0.927
cg26910936	yellow	5	173,661,962	OpenSea		0.667	-0.009	0.735	0.172
cg26340147	yellow	1	227,730,820	S_Shore		0.667	0.012	0.642	0.315
cg21214362	yellow	3	183,875,808 Body	S_Shelf	DVL3	0.667	-0.003	0.878	0.785

cg25783515	yellow	2	129,280,616	OpenSea		0.667	-0.013	0.912	0.050
cg19502359	yellow	11	72,912,441	OpenSea		0.667	0.008	0.379	0.161
cg07963033	yellow	7	116,139,322 TSS200	N_Shore	CAV2	0.667	-0.001	0.082	0.883
cg09837298	yellow	14	93,516,702 Body	OpenSea	ITPK1	0.667	-0.009	0.741	0.158
cg22534509	yellow	12	123,215,119 1stExon	OpenSea	GPR81	0.667	-0.001	0.553	0.964
cg18638598	yellow	22	49,934,445	N_Shore		0.667	-0.004	0.830	0.537
cg27261597	yellow	1	209,604,378 Body	OpenSea	LOC642587	0.667	0.011	0.729	0.304
cg27625815	yellow	8	8,195,300 Body	OpenSea	PRAGMIN	0.667	0.005	0.971	0.085
cg15202552	yellow	1	157,671,759 TSS1500	OpenSea	FCRL3	0.667	-0.004	0.797	0.608
cg08959182	yellow	5	87,661,076	OpenSea		0.667	0.012	0.798	0.167
cg18144647	yellow	8	41,113,257	OpenSea		0.667	0.008	0.667	0.195
cg14996985	yellow	5	92,456,475	OpenSea		0.667	-0.009	0.582	0.252
cg16553757	yellow	15	67,007,131 Body	OpenSea	SMAD6	0.667	-0.002	0.485	0.783
cg05592114	yellow	12	7,244,104 Body	OpenSea	C1R	0.667	0.027	0.805	0.007
cg00618626	yellow	17	39,807,901	S_Shelf		0.667	0.014	0.606	0.169
cg02733918	yellow	20	47,801,453 5'UTR	N_Shelf	STAU1	0.667	-0.002	0.379	0.777
cg14626725	yellow	2	238,080,231	OpenSea		0.667	-0.007	0.265	0.497
cg11765312	yellow	2	84,714,510	OpenSea		0.667	0.001	0.295	0.935
cg07518380	yellow	15	90,068,044 TSS1500	OpenSea	LOC283761	0.667	0.016	0.602	0.074
cg04906886	yellow	3	100,755,611	OpenSea		0.667	-0.003	0.758	0.691
cg14561295	yellow	19	35,526,153 Body	S_Shelf	SCN1B	0.667	0.014	0.597	0.125
cg20275558	yellow	11	85,338,473 TSS1500	N_Shore	TMEM126B	0.667	0.001	0.024	0.409
cg01466615	yellow	2	241,756,174 5'UTR	N_Shore	KIF1A	0.667	0.010	0.726	0.124
cg23400056	yellow	5	142,956,188	OpenSea		0.667	0.012	0.422	0.110
cg09712962	yellow	2	48,946,375 Body	OpenSea	GTF2A1L	0.667	-0.005	0.905	0.455
cg13268590	yellow	3	65,940,167 Body	OpenSea	MAGI1	0.667	0.016	0.364	0.352
cg12960696	yellow	5	148,404,114 Body	OpenSea	SH3TC2	0.667	0.005	0.312	0.632
cg07578108	yellow	4	170,897,214	OpenSea		0.667	0.010	0.479	0.205
cg05852824	yellow	15	26,543,817	OpenSea		0.667	-0.004	0.785	0.582
cg23300257	yellow	8	141,540,670	OpenSea		0.667	0.007	0.616	0.354
cg01314574	yellow	21	46,858,801 Body	N_Shore	COL18A1	0.667	0.004	0.621	0.561
cg12526298	yellow	17	17,875,168 Body	Island	TOM1L2	0.667	0.023	0.409	0.041
cg10072319	yellow	4	152,148,822 TSS1500	OpenSea	SH3D19	0.667	0.000	0.657	0.973
cg08036899	yellow	14	94,577,218 5'UTR	OpenSea	IFI27	0.667	-0.007	0.856	0.318
cg09262442	yellow	10	5,728,078 5'UTR	S_Shore	C10orf18	0.667	0.024	0.479	0.089
cg04097131	yellow	6	15,298,461 Body	OpenSea	JARID2	0.666	-0.009	0.931	0.263
cg13005329	yellow	16	732,033 Body	Island	STUB1	0.666	0.002	0.855	0.687
cg03072665	yellow	2	242,501,706 Body	S_Shelf	BOK	0.666	0.011	0.493	0.085
cg02332500	yellow	5	60,459,327 TSS1500	S_Shore	C5orf43	0.666	-0.007	0.857	0.356
cg02746514	yellow	7	4,793,947 Body	N_Shore	FO XK1	0.666	0.008	0.654	0.166
cg14137625	yellow	9	136,776,390 Body	OpenSea	VAV2	0.666	-0.002	0.638	0.823
cg18634709	yellow	4	6,907,396	N_Shelf		0.666	0.000	0.859	0.989
cg07168328	yellow	1	46,871,232 Body	OpenSea	FAAH	0.666	0.014	0.793	0.048
cg12811072	yellow	12	53,849,892 Body	S_Shelf	PCBP2	0.666	-0.010	0.784	0.297
cg20992181	yellow	11	69,706,285	N_Shore		0.666	0.011	0.407	0.446
cg02286008	yellow	16	30,133,247 Body	N_Shore	MAPK3	0.666	0.004	0.758	0.571
cg03046925	yellow	6	30,132,133 Body	OpenSea	TRIM15	0.666	0.006	0.780	0.311
cg04326091	yellow	10	62,438,045	OpenSea		0.666	-0.005	0.954	0.339
cg19204834	yellow	12	6,281,453	OpenSea		0.666	0.013	0.663	0.051
cg15948124	yellow	6	90,021,803 Body	OpenSea	GABRR2	0.666	-0.004	0.146	0.532
cg15894389	yellow	13	47,470,857 1stExon	OpenSea	HTR2A	0.666	-0.001	0.502	0.919
cg25314134	yellow	5	60,759,849 Body	OpenSea	ZSWIM6	0.666	0.000	0.940	0.950
cg18702971	yellow	22	29,920,546 Body	OpenSea	THOC5	0.666	0.008	0.529	0.297
cg20068209	yellow	6	75,988,568 Body	OpenSea	TMEM30A	0.666	-0.002	0.063	0.846
cg18214436	yellow	12	120,565,257 3'UTR	OpenSea	GCN1L1	0.666	0.001	0.852	0.884
cg20475005	yellow	7	123,351,286 Body	OpenSea	WASL	0.666	0.012	0.729	0.441
cg21757951	yellow	11	326,987	N_Shelf		0.666	0.000	0.234	0.991
cg01156876	yellow	11	3,837,911 Body	OpenSea	PGAP2	0.666	0.001	0.972	0.813
cg14886850	yellow	14	75,122,289	OpenSea		0.666	0.010	0.226	0.355
cg01595717	yellow	9	140,586,201 Body	N_Shore	EHMT1	0.666	0.005	0.466	0.522
cg05600126	yellow	17	950,540 Body	N_Shore	ABR	0.666	-0.009	0.278	0.427
cg26515213	yellow	12	94,171,127 Body	OpenSea	CRADD	0.666	0.020	0.561	0.165
cg09599843	yellow	7	4,049,718 Body	OpenSea	SDK1	0.666	-0.001	0.897	0.918
cg11079936	yellow	6	30,124,299 Body	OpenSea	TRIM10	0.666	0.006	0.165	0.526
cg22706106	yellow	1	153,607,701 5'UTR	S_Shore	C1orf77	0.666	0.002	0.581	0.910
cg02767668	yellow	19	12,755,386	S_Shore		0.666	0.003	0.806	0.719
cg21934230	yellow	1	228,202,608 Body	OpenSea	WNT3A	0.666	0.011	0.623	0.182

cg19180698	yellow	4	82,471,371	OpenSea		0.666	0.003	0.486	0.829
cg24413391	yellow	2	27,886,079 TSS1500	N_Shore	SLC4A1AP	0.666	0.003	0.034	0.344
cg10328047	yellow	8	145,024,774 Body	Island	PLEC1	0.666	0.012	0.894	0.106
cg27141751	yellow	10	50,231,850 Body	OpenSea	C10orf72	0.666	-0.002	0.491	0.862
cg18842363	yellow	6	31,629,088 TSS1500	S_Shore	C6orf47	0.666	0.010	0.241	0.406
cg25430878	yellow	10	1,257,999 Body	OpenSea	ADARB2	0.666	0.002	0.803	0.794
cg06264347	yellow	3	51,532,662 5'UTR	N_Shore	VPRBP	0.666	0.000	0.865	0.967
cg18613721	yellow	12	8,861,225 5'UTR	OpenSea	RIMKLB	0.666	-0.004	0.924	0.428
cg02909298	yellow	14	56,207,327	OpenSea		0.666	0.010	0.894	0.296
cg02731390	yellow	10	98,367,715 Body	OpenSea	PIK3AP1	0.666	0.014	0.809	0.094
cg04970744	yellow	6	30,114,886 Body	OpenSea	TRIM40	0.666	0.011	0.757	0.157
cg02357631	yellow	17	40,120,470 Body	Island	CNP	0.666	0.002	0.797	0.770
cg02595114	yellow	7	30,211,726	OpenSea		0.666	-0.006	0.894	0.168
cg05538406	yellow	5	1,509,157 Body	OpenSea	LPCAT1	0.666	0.016	0.711	0.161
cg24386135	yellow	7	32,651,291	OpenSea		0.666	0.005	0.927	0.354
cg18764192	yellow	10	5,936,166 Body	S_Shelf	FBXO18	0.666	0.002	0.941	0.648
cg04791601	yellow	1	204,159,016	N_Shore		0.666	0.007	0.470	0.429
cg19758859	yellow	6	148,869,489 Body	OpenSea	SASH1	0.666	0.008	0.587	0.603
cg08908131	yellow	10	118,706,938 Body	OpenSea	KIAA1598	0.666	0.000	0.676	0.973
cg13266773	yellow	8	104,310,380 TSS1500	N_Shore	FZD6	0.666	-0.002	0.549	0.838
cg11344626	yellow	1	14,026,360 TSS1500	N_Shore	PRDM2	0.666	-0.008	0.265	0.544
cg02708003	yellow	4	152,197,739 TSS1500	OpenSea	PRSS48	0.666	0.003	0.920	0.470
cg22586405	yellow	20	44,861,339 Body	OpenSea	CDH22	0.666	0.006	0.374	0.381
cg23668057	yellow	17	76,164,111 TSS1500	N_Shore	SYNGR2	0.666	0.000	0.752	0.969
cg08989214	yellow	16	87,492,071 Body	OpenSea	ZCCHC14	0.665	-0.002	0.850	0.719
cg07796683	yellow	6	41,413,498	S_Shelf		0.665	-0.010	0.775	0.432
cg26166177	yellow	2	216,260,832 Body	OpenSea	FN1	0.665	-0.015	0.883	0.103
cg26537941	yellow	1	3,297,162 Body	OpenSea	PRDM16	0.665	0.006	0.564	0.338
cg15552238	yellow	19	14,785,749 TSS200	OpenSea	EMR3	0.665	0.005	0.779	0.469
cg12406132	yellow	1	114,471,470 TSS1500	N_Shore	HIPK1	0.665	0.008	0.095	0.263
cg06008511	yellow	15	90,727,886 TSS1500	Island	SEMA4B	0.665	-0.002	0.126	0.736
cg23680451	yellow	10	3,823,790 Body	Island	KLF6	0.665	0.009	0.806	0.198
cg23848712	yellow	20	3,022,992 TSS1500	N_Shelf	GNRH2	0.665	0.000	0.093	0.983
cg26928972	yellow	3	122,043,799 TSS1500	OpenSea	CSTA	0.665	0.001	0.958	0.856
cg25690715	yellow	17	75,315,567 5'UTR	OpenSea	9-Sep	0.665	-0.006	0.281	0.652
cg02169871	yellow	13	53,885,252	OpenSea		0.665	-0.003	0.704	0.807
cg20952652	yellow	2	106,757,367 Body	OpenSea	UXS1	0.665	0.004	0.517	0.685
cg01548249	yellow	19	7,582,188 5'UTR	N_Shore	ZNF358	0.665	0.007	0.671	0.401
cg14108909	yellow	9	138,109,322	OpenSea		0.665	0.013	0.495	0.234
cg08387293	yellow	1	984,383 Body	Island	AGRN	0.665	0.001	0.843	0.871
cg23251279	yellow	7	90,192,617	OpenSea		0.665	-0.007	0.889	0.308
cg07798347	yellow	1	21,917,570	OpenSea		0.665	0.005	0.548	0.538
cg16875235	yellow	4	147,097,886 5'UTR	S_Shore	LSM6	0.665	-0.008	0.880	0.322
cg09960641	yellow	19	35,598,494 TSS1500	OpenSea	LOC1001286	0.665	0.015	0.762	0.221
cg23340345	yellow	2	233,501,672 Body	S_Shore	EFHD1	0.665	0.002	0.856	0.798
cg18150280	yellow	1	192,776,859 TSS1500	N_Shore	RGS2	0.665	0.000	0.064	0.934
cg17869355	yellow	1	207,038,496 TSS1500	OpenSea	IL20	0.665	0.000	0.140	0.953
cg12623088	yellow	15	66,585,521 TSS200	N_Shore	DIS3L	0.665	-0.001	0.030	0.651
cg07399209	yellow	3	151,769,368	OpenSea		0.665	0.006	0.774	0.406
cg01783841	yellow	16	88,628,774	S_Shelf		0.665	0.003	0.539	0.705
cg12506597	yellow	6	31,699,709 Body	S_Shore	CLIC1	0.665	0.025	0.771	0.013
cg00451397	yellow	2	48,843,645 TSS1500	N_Shore	GTF2A1L	0.665	0.009	0.858	0.281
cg27305009	yellow	2	175,471,320 5'UTR	OpenSea	WIPF1	0.665	-0.014	0.119	0.278
cg00623826	yellow	13	60,685,901 Body	OpenSea	DIAPH3	0.665	-0.001	0.981	0.643
cg09408116	yellow	16	58,161,544 Body	N_Shore	C16orf80	0.665	0.004	0.043	0.321
cg01347702	yellow	6	31,845,672 Body	OpenSea	SLC44A4	0.665	0.000	0.641	0.999
cg16575104	yellow	5	10,308,246 TSS200	S_Shore	CMBL	0.665	0.012	0.331	0.152
cg03318937	yellow	18	12,423,766 Body	S_Shelf	SLMO1	0.665	0.002	0.918	0.592
cg17130251	yellow	19	3,945,936	S_Shelf		0.665	0.004	0.521	0.588
cg05883442	yellow	16	67,476,137 Body	OpenSea	ATP6V0D1	0.665	0.012	0.489	0.070
cg04074153	yellow	12	29,568,207	OpenSea		0.665	0.012	0.609	0.459
cg03274800	yellow	8	22,852,120 Body	OpenSea	RHOBTB2	0.665	0.013	0.735	0.099
cg27034225	yellow	14	23,757,845	S_Shelf		0.665	0.003	0.777	0.760
cg04051152	yellow	12	12,418,005 Body	N_Shore	LRP6	0.665	0.001	0.073	0.811
cg17130481	yellow	20	853,509 3'UTR	OpenSea	ANGPT4	0.665	0.004	0.671	0.438
cg02886079	yellow	19	14,192,748	Island		0.665	0.002	0.053	0.667
cg09391405	yellow	2	106,413,010 5'UTR	OpenSea	NCK2	0.665	-0.005	0.811	0.740

cg13008935	yellow	3	9,032,631	Body	S_Shore	SRGAP3	0.665	0.015	0.558	0.158
cg21660826	yellow	7	157,607,787	Body	OpenSea	PTPRN2	0.665	-0.002	0.668	0.725
cg26550194	yellow	17	74,639,928	TSS200	OpenSea	ST6GALNAC1	0.665	0.017	0.504	0.021
cg00326642	yellow	3	140,949,072		N_Shore		0.665	0.010	0.777	0.264
cg26870936	yellow	17	73,631,785	Body	S_Shelf	RECQL5	0.665	0.015	0.518	0.130
cg19515081	yellow	14	105,268,492	Body	Island	ZBTB42	0.664	-0.010	0.938	0.133
cg25694032	yellow	6	164,507,164		OpenSea		0.664	0.001	0.699	0.949
cg23515330	yellow	13	45,883,505		N_Shelf		0.664	-0.002	0.265	0.845
cg03612357	yellow	1	227,162,127	Body	N_Shore	CABC1	0.664	-0.006	0.707	0.570
cg00450695	yellow	19	1,068,487	Body	Island	HMHA1	0.664	0.012	0.599	0.124
cg01042368	yellow	17	36,500,237	TSS1500	OpenSea	GPR179	0.664	0.012	0.688	0.093
cg24818562	yellow	6	31,627,714	1stExon	N_Shore	C6orf47	0.664	0.015	0.398	0.038
cg03844308	yellow	11	65,156,020	Body	S_Shore	FRMD8	0.664	0.002	0.848	0.749
cg25741609	yellow	1	206,898,306	Body	OpenSea	MAPKAPK2	0.664	-0.001	0.951	0.817
cg14498291	yellow	11	94,522,077	Body	OpenSea	AMOTL1	0.664	0.015	0.853	0.061
cg05196905	yellow	21	47,877,665	TSS1500	N_Shore	DIP2A	0.664	0.005	0.329	0.530
cg17702370	yellow	17	79,283,128	TSS200	N_Shore	C17orf55	0.664	-0.003	0.120	0.708
cg16677647	yellow	16	67,750,395	5'UTR	N_Shelf	GFOD2	0.664	0.002	0.682	0.786
cg10151196	yellow	19	7,911,120	5'UTR	N_Shore	EVISL	0.664	0.008	0.620	0.234
cg19734822	yellow	13	78,108,374	TSS1500	OpenSea	SCEL	0.664	-0.006	0.784	0.467
cg02924836	yellow	7	99,691,734	TSS1500	OpenSea	MIR25	0.664	-0.003	0.513	0.737
cg25279586	yellow	18	7,566,258	TSS1500	N_Shore	PTPRM	0.664	0.004	0.562	0.564
cg02397571	yellow	8	28,175,463	5'UTR	OpenSea	PNOC	0.664	0.004	0.574	0.531
cg14118850	yellow	2	10,447,890	5'UTR	S_Shelf	HPCAL1	0.664	0.002	0.471	0.876
cg05860371	yellow	4	152,931,291		OpenSea		0.664	-0.010	0.789	0.317
cg21786808	yellow	1	84,227,630		OpenSea		0.664	0.007	0.433	0.443
cg24332002	yellow	1	22,228,582	Body	OpenSea	HSPG2	0.664	0.010	0.484	0.121
cg10510796	yellow	12	98,893,636		N_Shelf		0.664	-0.014	0.905	0.103
cg18464991	yellow	15	66,880,534		OpenSea		0.664	0.007	0.391	0.190
cg13199127	yellow	6	32,049,196	Body	S_Shelf	TNXB	0.664	0.007	0.596	0.382
cg00052932	yellow	2	190,539,778	TSS1500	S_Shore	ANKAR	0.664	-0.008	0.380	0.602
cg23342691	yellow	20	62,165,721	Body	Island	PTK6	0.664	0.001	0.633	0.944
cg08151470	yellow	1	10,092,299	TSS1500	N_Shore	UBE4B	0.664	0.004	0.443	0.720
cg06105699	yellow	17	79,971,436	Body	OpenSea	ASPCR1	0.664	0.006	0.459	0.665
cg09940677	yellow	14	103,415,458	Body	OpenSea	CDC42BPB	0.664	0.007	0.627	0.234
cg06892815	yellow	16	30,991,727	Body	N_Shore	SETD1A	0.664	0.002	0.903	0.694
cg26853536	yellow	12	125,399,964	TSS1500	S_Shore	UBC	0.664	-0.007	0.386	0.447
cg14523204	yellow	9	116,359,818	3'UTR	OpenSea	RGS3	0.664	0.001	0.754	0.889
cg11327039	yellow	11	65,478,175	TSS1500	N_Shore	KAT5	0.664	0.005	0.802	0.527
cg10985970	yellow	11	130,316,050		N_Shelf		0.664	0.006	0.598	0.373
cg07501506	yellow	1	26,226,649	3'UTR	OpenSea	STMN1	0.664	-0.005	0.863	0.504
cg23108673	yellow	10	99,894,078	TSS1500	N_Shore	C10orf28	0.664	-0.002	0.801	0.865
cg07891953	yellow	18	76,544,456		S_Shelf		0.664	-0.004	0.858	0.516
cg16549994	yellow	22	36,854,045		S_Shelf		0.664	0.006	0.641	0.356
cg14217660	yellow	13	23,721,999		OpenSea		0.664	0.004	0.902	0.449
cg01182697	yellow	1	54,520,432	Body	S_Shore	C1orf83	0.664	-0.004	0.639	0.672
cg07856138	yellow	16	29,673,465	TSS1500	N_Shelf	SPN	0.664	0.011	0.628	0.300
cg20568305	yellow	22	47,070,251	Body	S_Shore	GRAMD4	0.664	-0.001	0.884	0.830
cg13257421	yellow	2	9,987,440	Body	S_Shelf	TAF1B	0.664	0.009	0.875	0.195
cg05616472	yellow	9	140,514,393	Body	S_Shore	EHMT1	0.664	0.001	0.030	0.710
cg26690511	yellow	3	155,422,103	TSS200	OpenSea	PLCH1	0.664	0.008	0.932	0.116
cg05123106	yellow	22	41,212,450	Body	N_Shelf	SLC25A17	0.664	-0.002	0.904	0.767
cg18881641	yellow	6	170,103,498	1stExon	S_Shore	C6orf120	0.664	-0.003	0.733	0.841
cg18100045	yellow	3	8,634,894		OpenSea		0.664	0.005	0.789	0.506
cg09801065	yellow	5	150,949,152	TSS1500	OpenSea	FAT2	0.664	0.006	0.622	0.551
cg21104546	yellow	7	150,110,071		OpenSea		0.664	0.006	0.742	0.311
cg26611500	yellow	5	134,783,229	TSS200	OpenSea	C5orf20	0.664	-0.001	0.695	0.846
cg19692750	yellow	11	64,099,435		OpenSea		0.664	-0.002	0.087	0.694
cg17868307	yellow	7	73,597,649	Body	OpenSea	EIF4H	0.664	-0.002	0.935	0.636
cg10103850	yellow	2	40,658,891	TSS1500	OpenSea	SLC8A1	0.664	0.001	0.908	0.912
cg13656831	yellow	4	682,184	Body	N_Shore	MFSD7	0.664	0.002	0.742	0.776
cg13809270	yellow	4	830,645		S_Shelf		0.664	0.007	0.609	0.365
cg11069276	yellow	1	11,718,175	Body	S_Shelf	FBXO44	0.664	0.011	0.640	0.059
cg13085976	yellow	9	140,171,189	TSS1500	N_Shore	C9orf167	0.664	-0.003	0.587	0.708
cg19719930	yellow	17	70,339,343		OpenSea		0.664	0.005	0.436	0.774
cg09934219	yellow	15	79,254,338	3'UTR	OpenSea	RASGRF1	0.663	0.011	0.692	0.094
cg01125463	yellow	6	42,946,178	1stExon	N_Shore	PEX6	0.663	0.004	0.205	0.633

cg06998282	yellow	8	120,651,398	TSS1500	OpenSea	ENPP2	0.663	0.002	0.017	0.226
cg23026543	yellow	7	70,203,221	Body	OpenSea	AUTS2	0.663	0.021	0.215	0.193
cg01991752	yellow	14	101,014,148	Body	S_Shore	BEGAIN	0.663	0.006	0.666	0.508
cg00231771	yellow	6	35,748,776	TSS200	OpenSea	C6orf127	0.663	0.007	0.654	0.411
cg03249630	yellow	10	90,611,782	TSS200	OpenSea	ANKRD22	0.663	0.005	0.854	0.605
cg19388273	yellow	3	150,064,304		OpenSea		0.663	0.003	0.581	0.905
cg20706495	yellow	1	12,222,054		OpenSea		0.663	-0.001	0.049	0.903
cg11042501	yellow	11	4,870,453	TSS200	OpenSea	OR51S1	0.663	0.017	0.522	0.222
cg27182133	yellow	1	10,658,147	Body	OpenSea	PEX14	0.663	0.012	0.669	0.055
cg23629187	yellow	8	125,576,109	Body	OpenSea	MTSS1	0.663	-0.002	0.614	0.907
cg15626285	yellow	12	7,167,781	TSS200	OpenSea	C1S	0.663	-0.003	0.156	0.713
cg19893750	yellow	5	173,008,109	Body	OpenSea	LOC285593	0.663	0.000	0.886	0.998
cg07195224	yellow	1	159,047,034	TSS1500	OpenSea	AIM2	0.663	0.008	0.768	0.407
cg12567521	yellow	2	55,384,477		OpenSea		0.663	0.003	0.794	0.720
cg08313382	yellow	5	6,822,830		N_Shore		0.663	-0.002	0.715	0.824
cg14319378	yellow	9	131,041,445	Body	S_Shelf	C9orf119	0.663	0.002	0.856	0.803
cg13027937	yellow	7	152,525,220	Body	OpenSea	ACTR3B	0.663	-0.001	0.788	0.831
cg10996111	yellow	6	30,510,459	3'UTR	OpenSea	GNL1	0.663	0.011	0.480	0.035
cg00880984	yellow	6	82,958,011	TSS1500	S_Shore	IBTK	0.663	0.027	0.240	0.045
cg04864755	yellow	22	50,181,290	Body	S_Shelf	BRD1	0.663	0.004	0.938	0.506
cg12219707	yellow	11	77,033,664	3'UTR	OpenSea	PAK1	0.663	0.020	0.585	0.220
cg01548456	yellow	22	50,352,384		N_Shore		0.663	0.015	0.641	0.063
cg03918703	yellow	14	23,888,450	TSS1500	N_Shore	MIR208B	0.663	-0.002	0.699	0.714
cg24968692	yellow	7	131,032,645	Body	OpenSea	MKLN1	0.663	-0.005	0.817	0.628
cg20169913	yellow	3	184,014,083		N_Shelf		0.663	0.001	0.836	0.836
cg25717464	yellow	2	225,265,963	1stExon	OpenSea	FAM124B	0.663	-0.004	0.813	0.392
cg24339574	yellow	1	234,764,068		OpenSea		0.663	0.004	0.692	0.798
cg26138144	yellow	22	38,071,188	TSS1500	N_Shore	LGALS1	0.663	-0.024	0.199	0.176
cg08704536	yellow	17	53,638,566		N_Shore		0.663	0.007	0.589	0.322
cg04028481	yellow	4	77,815,872		N_Shelf		0.663	0.006	0.410	0.692
cg00663739	yellow	1	235,489,969	Body	N_Shore	ARID4B	0.663	0.000	0.026	0.886
cg13410390	yellow	1	155,232,677	TSS1500	S_Shore	SCAMP3	0.663	0.006	0.830	0.347
cg21691717	yellow	1	153,321,907	TSS1500	OpenSea	PGLYRP4	0.663	0.007	0.873	0.237
cg01833923	yellow	17	47,286,719	1stExon	OpenSea	GNGT2	0.663	0.003	0.546	0.675
cg27542224	yellow	6	169,890,357	Body	OpenSea	WDR27	0.663	0.014	0.668	0.163
cg03105091	yellow	1	70,667,229	Body	N_Shelf	LRRC40	0.663	-0.005	0.903	0.319
cg10189441	yellow	5	79,454,678	Body	OpenSea	SERINC5	0.663	-0.005	0.858	0.456
cg27088491	yellow	6	33,362,953	Body	S_Shelf	KIFC1	0.663	0.006	0.834	0.278
cg07624742	yellow	19	5,892,048		N_Shore		0.663	-0.005	0.307	0.641
cg01940657	yellow	11	117,089,445	Body	OpenSea	PCSK7	0.663	0.004	0.647	0.541
cg06730285	yellow	5	139,945,107	TSS1500	S_Shore	APBB3	0.663	0.014	0.537	0.187
cg18011691	yellow	8	26,160,828	Body	OpenSea	PPP2R2A	0.663	-0.002	0.924	0.698
cg23106844	yellow	1	151,371,309	TSS1500	N_Shore	PSMB4	0.663	0.001	0.875	0.931
cg11588584	yellow	1	1,611,937	Body	S_Shelf	CDK11B	0.663	0.009	0.796	0.175
cg15805540	yellow	6	64,286,415	5'UTR	S_Shelf	PTPA41	0.663	-0.002	0.742	0.823
cg19597529	yellow	3	122,399,230	TSS1500	N_Shore	PARP14	0.663	0.023	0.134	0.024
cg07555102	yellow	1	10,696,066		N_Shelf		0.663	-0.006	0.878	0.261
cg02492873	yellow	2	25,193,821	Body	N_Shore	DNAJC27	0.663	0.017	0.697	0.063
cg24495350	yellow	15	72,651,198	Body	OpenSea	HEXA	0.663	0.010	0.837	0.031
cg25408086	yellow	12	49,109,780	Body	N_Shore	CCNT1	0.663	-0.006	0.109	0.506
cg06325088	yellow	10	50,506,748	TSS1500	OpenSea	C10orf71	0.663	-0.005	0.351	0.476
cg12053762	yellow	12	107,167,543	TSS1500	N_Shore	RIC8B	0.663	0.000	0.401	0.989
cg09275408	yellow	10	44,500,491		N_Shore		0.663	-0.002	0.839	0.675
cg22203890	yellow	5	980,708		OpenSea		0.663	0.019	0.762	0.052
cg04166335	yellow	16	29,996,068	Body	N_Shore	TAOK2	0.662	-0.008	0.930	0.199
cg04938830	yellow	12	105,710,210		OpenSea		0.662	0.003	0.605	0.748
cg03751149	yellow	7	135,443,227		OpenSea		0.662	-0.002	0.898	0.769
cg01232717	yellow	8	74,871,056	Body	OpenSea	TCEB1	0.662	-0.002	0.963	0.427
cg10562159	yellow	6	160,199,748	3'UTR	OpenSea	TCP1	0.662	0.005	0.573	0.489
cg21488876	yellow	19	5,250,376	Body	N_Shore	PTPRS	0.662	0.020	0.872	0.010
cg18119961	yellow	17	18,765,492	5'UTR	S_Shelf	PRPSAP2	0.662	0.003	0.946	0.492
cg08894593	yellow	16	88,910,841	Body	S_Shelf	GALNS	0.662	-0.006	0.587	0.567
cg02059509	yellow	10	30,405,144		OpenSea		0.662	0.008	0.117	0.314
cg04158046	yellow	1	63,833,953	5'UTR	S_Shore	ALG6	0.662	0.005	0.110	0.665
cg11265839	yellow	12	96,643,565	Body	S_Shelf	ELK3	0.662	0.008	0.813	0.316
cg11976193	yellow	13	114,257,583	Body	N_Shelf	TFDP1	0.662	-0.006	0.883	0.292
cg02489228	yellow	2	98,409,290	Body	OpenSea	TMEM131	0.662	0.007	0.773	0.358



cg24552015	yellow	11	1,892,038	5'UTR	Island	LSP1	0.662	-0.001	0.626	0.871
cg24657535	yellow	1	47,183,194	Body	N_Shore	KIAA0494	0.662	0.017	0.735	0.120
cg21603806	yellow	14	73,704,007	TSS200	N_Shore	PAPLN	0.662	0.003	0.115	0.406
cg03916630	yellow	10	45,065,415		OpenSea		0.662	0.023	0.710	0.138
cg09456971	yellow	19	11,146,717	Body	S_Shore	SMARCA4	0.662	0.003	0.044	0.276
cg07615493	yellow	19	4,215,043	Body	N_Shelf	ANKRD24	0.662	0.003	0.826	0.731
cg23213327	yellow	2	7,016,509	TSS1500	OpenSea	RSAD2	0.662	-0.003	0.896	0.685
cg22289785	yellow	4	48,496,404	3'UTR	S_Shelf	ZAR1	0.662	0.007	0.714	0.531
cg10249285	yellow	20	22,795,685		OpenSea		0.662	0.005	0.660	0.542
cg02803775	yellow	22	41,937,252	Body	N_Shelf	POLR3H	0.662	0.007	0.629	0.552
cg10906826	yellow	2	240,985,618	TSS200	S_Shelf	OR6B3	0.662	0.003	0.640	0.632
cg13750441	yellow	3	58,318,267	TSS1500	N_Shore	PXK	0.662	0.012	0.237	0.098
cg24615251	yellow	17	32,683,481	1stExon	OpenSea	CCL13	0.662	0.002	0.927	0.610
cg00762678	yellow	16	89,003,235	5'UTR	N_Shelf	CBFA2T3	0.662	0.033	0.554	0.000
cg25240964	yellow	4	79,339,974	Body	OpenSea	FRAS1	0.662	0.009	0.668	0.545
cg09199486	yellow	17	48,259,448		OpenSea		0.662	0.016	0.537	0.008
cg09491944	yellow	2	180,881,175		OpenSea		0.662	0.008	0.808	0.646
cg26230275	yellow	1	151,965,283	5'UTR	N_Shore	S100A10	0.662	-0.017	0.320	0.107
cg04128065	yellow	1	229,733,305	Body	S_Shelf	TAF5L	0.662	0.006	0.834	0.388
cg15323936	yellow	3	194,996,295	3'UTR	S_Shelf	ACAP2	0.662	-0.001	0.883	0.905
cg17001898	yellow	6	45,338,552	Body	OpenSea	RUNX2	0.662	-0.002	0.925	0.722
cg13416889	yellow	15	64,814,395	Body	OpenSea	ZNF609	0.662	-0.005	0.569	0.688
cg00012638	yellow	6	39,280,541	Body	N_Shore	KCNK17	0.662	0.009	0.687	0.233
cg06515328	yellow	6	168,559,503		OpenSea		0.662	0.008	0.501	0.460
cg18738804	yellow	8	86,842,690		S_Shelf		0.662	0.023	0.422	0.038
cg09859240	yellow	10	121,633,447	TSS1500	S_Shore	C10orf119	0.662	-0.001	0.891	0.902
cg26280695	yellow	10	106,072,440	3'UTR	N_Shelf	ITPRIP	0.662	0.006	0.738	0.258
cg02544836	yellow	16	2,737,220	Body	OpenSea	KCTD5	0.662	0.003	0.805	0.618
cg06024557	yellow	5	149,432,002	3'UTR	OpenSea	HMGXB3	0.662	-0.005	0.851	0.379
cg11115143	yellow	2	178,483,956	TSS1500	S_Shore	TTC30A	0.662	0.004	0.044	0.259
cg09814633	yellow	6	5,969,517		OpenSea		0.662	0.002	0.599	0.726
cg01715901	yellow	2	158,297,684	Body	OpenSea	CYTIP	0.662	0.024	0.588	0.046
cg12450391	yellow	11	86,660,015	3'UTR	OpenSea	FZD4	0.662	0.010	0.864	0.077
cg10133462	yellow	4	1,305,113	Body	Island	MAEA	0.662	0.014	0.890	0.020
cg26817935	yellow	5	58,571,800	Body	OpenSea	PDE4D	0.662	0.000	0.155	1.000
cg10791278	yellow	6	39,895,552	Body	OpenSea	MOCS1	0.662	0.002	0.831	0.649
cg15893204	yellow	1	56,247,952		OpenSea		0.662	0.013	0.736	0.174
cg23179379	yellow	19	9,434,523	TSS1500	N_Shore	ZNF559	0.662	0.001	0.205	0.963
cg15549435	yellow	7	14,192,484	Body	OpenSea	DGKB	0.662	-0.006	0.860	0.450
cg13084335	yellow	11	111,782,670	TSS200	OpenSea	CRYAB	0.662	-0.002	0.087	0.688
cg24337225	yellow	20	44,259,589	Body	OpenSea	WFDC10A	0.662	-0.007	0.656	0.412
cg27466999	yellow	16	948,246	Body	N_Shore	LMF1	0.662	0.008	0.850	0.127
cg22355895	yellow	1	93,616,128	Body	OpenSea	TMED5	0.662	0.001	0.853	0.919
cg03940525	yellow	5	61,698,089	Body	N_Shore	DIMT1L	0.662	-0.004	0.922	0.456
cg17941109	yellow	19	17,407,198	Body	S_Shore	ABHD8	0.662	0.004	0.744	0.662
cg04892447	yellow	16	87,429,184	Body	S_Shelf	MAP1LC3B	0.662	0.004	0.537	0.526
cg24335984	yellow	3	50,361,554	TSS1500	S_Shore	HYAL2	0.662	-0.004	0.782	0.423
cg04115878	yellow	12	131,124,403		N_Shore		0.662	-0.005	0.455	0.717
cg17939432	yellow	22	41,743,608	Body	S_Shore	ZC3H7B	0.662	0.004	0.850	0.529
cg12857541	yellow	4	24,583,375	Body	N_Shelf	DHX15	0.662	-0.004	0.953	0.311
cg26800893	yellow	11	67,184,596	5'UTR	S_Shore	ATPGD1	0.662	0.005	0.439	0.455
cg14821257	yellow	15	50,642,820	5'UTR	N_Shelf	GABPB1	0.662	0.004	0.895	0.548
cg02806675	yellow	3	59,627,287		OpenSea		0.662	0.008	0.481	0.555
cg24834751	yellow	10	131,194,447		OpenSea		0.661	0.001	0.607	0.847
cg27116365	yellow	5	137,827,315		N_Shore		0.661	-0.001	0.282	0.918
cg00497219	yellow	4	3,253,559	Body	N_Shore	C4orf44	0.661	-0.001	0.936	0.730
cg03681383	yellow	12	25,801,522	TSS200	OpenSea	IFLTD1	0.661	-0.006	0.156	0.678
cg24575275	yellow	7	1,094,737	Body	N_Shelf	C7orf50	0.661	0.000	0.222	0.985
cg12577320	yellow	3	50,304,179	TSS1500	OpenSea	SEMA3B	0.661	-0.002	0.606	0.689
cg14812313	yellow	6	32,797,268	Body	OpenSea	TAP2	0.661	-0.009	0.774	0.583
cg18447740	yellow	19	54,604,187	TSS200	N_Shore	OSCAR	0.661	0.030	0.408	0.002
cg01483119	yellow	17	80,551,543	Body	N_Shelf	FOXK2	0.661	0.008	0.153	0.480
cg04445851	yellow	5	31,107,126		OpenSea		0.661	0.009	0.539	0.591
cg18515510	yellow	19	7,831,896	Body	OpenSea	CLEC4M	0.661	0.007	0.554	0.497
cg10087556	yellow	7	116,232,819		OpenSea		0.661	-0.004	0.652	0.660
cg06639440	yellow	11	915,170	TSS200	S_Shelf	CHID1	0.661	0.005	0.819	0.326
cg15912031	yellow	10	639,935	Body	OpenSea	DIP2C	0.661	0.011	0.534	0.315

cg18788284	yellow	8	731,697	OpenSea		0.661	0.011	0.550	0.380
cg02891218	yellow	7	99,612,634 TSS1500	N_Shore	ZKSCAN1	0.661	-0.020	0.743	0.145
cg01941619	yellow	18	29,770,081 1stExon	OpenSea	MEP1B	0.661	-0.006	0.911	0.262
cg22097171	yellow	6	157,467,988 Body	OpenSea	ARID1B	0.661	-0.007	0.937	0.258
cg25451120	yellow	17	47,287,444 TSS200	OpenSea	ABI3	0.661	0.006	0.681	0.371
cg01647795	yellow	15	44,969,244 TSS200	OpenSea	PATL2	0.661	0.000	0.578	0.959
cg15084405	yellow	3	178,738,564	OpenSea		0.661	0.011	0.625	0.414
cg05030251	yellow	21	39,038,635 Body	N_Shore	KCNJ6	0.661	-0.001	0.797	0.818
cg08909806	yellow	22	43,548,696 5'UTR	S_Shore	TSPO	0.661	0.007	0.280	0.432
cg03691338	yellow	10	50,344,050	S_Shelf		0.661	-0.013	0.698	0.401
cg26528298	yellow	6	112,375,206 TSS200	OpenSea	WISP3	0.661	0.001	0.799	0.929
cg07355763	yellow	5	127,868,982 Body	N_Shelf	FBN2	0.661	-0.012	0.761	0.136
cg09486642	yellow	7	142,583,715 TSS1500	OpenSea	TRPV6	0.661	0.006	0.581	0.339
cg14651705	yellow	9	136,226,035 Body	S_Shelf	SURF2	0.661	0.003	0.814	0.544
cg26267259	yellow	7	157,407,820 Body	S_Shore	PTPRN2	0.661	0.020	0.422	0.038
cg16261114	yellow	15	99,551,997 TSS1500	OpenSea	LOC145814	0.661	-0.009	0.914	0.165
cg13766589	yellow	9	139,331,009 Body	N_Shore	INPP5E	0.661	0.009	0.748	0.024
cg05256043	yellow	13	95,131,951 TSS200	OpenSea	DCT	0.661	0.008	0.229	0.383
cg09146872	yellow	17	820,881 Body	OpenSea	NXN	0.661	-0.001	0.931	0.890
cg06832677	yellow	2	119,976,764	OpenSea		0.661	0.006	0.780	0.489
cg13511324	yellow	14	104,056,883 3'UTR	OpenSea	C14orf153	0.661	0.004	0.939	0.479
cg17563789	yellow	4	53,237,401	OpenSea		0.661	0.006	0.698	0.371
cg04009441	yellow	5	61,705,333	N_Shelf		0.661	0.020	0.456	0.060
cg08062087	yellow	2	197,673,267 Body	OpenSea	C2orf66	0.661	-0.001	0.459	0.917
cg07253191	yellow	11	34,936,862 TSS1500	N_Shore	PDHX	0.661	0.008	0.209	0.391
cg26204477	yellow	17	36,863,901 Body	S_Shelf	MLLT6	0.661	0.008	0.467	0.179
cg02324547	yellow	15	80,454,089 Body	OpenSea	FAH	0.661	-0.014	0.885	0.075
cg23879743	yellow	4	170,897,284	OpenSea		0.661	0.003	0.472	0.702
cg17760881	yellow	7	93,944,227	OpenSea		0.661	0.018	0.629	0.122
cg19335617	yellow	7	120,716,269 Body	OpenSea	C7orf58	0.661	0.007	0.927	0.232
cg15650298	yellow	8	144,896,694 Body	N_Shore	SCRIB	0.661	0.002	0.235	0.749
cg19468528	yellow	17	73,642,404 TSS1500	OpenSea	LOC1001309	0.661	0.005	0.647	0.432
cg26256154	yellow	1	76,780,549 Body	OpenSea	ST6GALNAC3	0.661	0.009	0.886	0.381
cg11548083	yellow	8	10,208,156 Body	OpenSea	MSRA	0.661	0.019	0.549	0.071
cg09364426	yellow	1	163,201,346	OpenSea		0.661	0.002	0.034	0.408
cg12931707	yellow	4	115,527,443 5'UTR	OpenSea	UGT8	0.661	-0.006	0.735	0.507
cg12154110	yellow	19	49,254,220 Body	Island	FUT1	0.661	0.001	0.762	0.915
cg17589633	yellow	1	203,595,283 TSS1500	N_Shelf	ATP2B4	0.660	0.001	0.493	0.938
cg20414753	yellow	5	55,061,936 TSS1500	OpenSea	DDX4	0.660	0.003	0.936	0.591
cg24940155	yellow	13	93,896,820 Body	OpenSea	GPC6	0.660	0.021	0.650	0.035
cg15152331	yellow	2	160,958,810 Body	OpenSea	ITGB6	0.660	-0.006	0.895	0.437
cg04494136	yellow	10	126,703,576 Body	OpenSea	CTBP2	0.660	-0.008	0.896	0.151
cg08738280	yellow	1	168,197,198 Body	S_Shore	SFT2D2	0.660	0.019	0.416	0.026
cg09380409	yellow	16	66,298,610	OpenSea		0.660	0.003	0.699	0.785
cg06437747	yellow	1	2,890,836	S_Shelf		0.660	0.007	0.686	0.342
cg03177729	yellow	4	83,807,091 5'UTR	OpenSea	SEC31A	0.660	-0.007	0.704	0.576
cg20238105	yellow	7	141,870,429 TSS1500	OpenSea	LOC1001246	0.660	0.014	0.463	0.121
cg13477614	yellow	17	79,396,462 Body	S_Shelf	BAHCC1	0.660	0.018	0.659	0.059
cg19353578	yellow	22	39,634,386 Body	N_Shelf	PDGFB	0.660	0.006	0.764	0.205
cg23514135	yellow	5	1,110,315 Body	N_Shore	SLC12A7	0.660	0.001	0.974	0.589
cg17988320	yellow	7	30,361,459 Body	OpenSea	ZNRF2	0.660	0.000	0.832	0.986
cg05433657	yellow	10	71,006,703 Body	N_Shore	HKDC1	0.660	-0.001	0.845	0.869
cg07067189	yellow	2	60,969,016	OpenSea		0.660	0.016	0.691	0.145
cg06145862	yellow	16	22,338,659 Body	S_Shore	POLR3E	0.660	0.003	0.850	0.514
cg13754665	yellow	9	136,654,631 Body	OpenSea	VAV2	0.660	0.015	0.545	0.053
cg22770294	yellow	4	3,308,933	N_Shore		0.660	-0.007	0.936	0.328
cg25113360	yellow	11	120,530,355 TSS1500	OpenSea	GRIK4	0.660	0.023	0.554	0.013
cg04137405	yellow	14	62,414,451	OpenSea		0.660	0.002	0.638	0.881
cg19674091	yellow	15	90,643,766 Body	N_Shore	IDH2	0.660	0.010	0.653	0.529
cg19265300	yellow	15	69,702,702	N_Shelf		0.660	0.017	0.705	0.078
cg03439719	yellow	6	169,117,867	OpenSea		0.660	-0.001	0.831	0.848
cg04195127	yellow	16	84,328,719 1stExon	Island	WFDC1	0.660	-0.001	0.025	0.704
cg21036936	yellow	15	74,317,780 Body	S_Shelf	PML	0.660	0.007	0.837	0.509
cg27221338	yellow	7	6,525,025 TSS1500	S_Shore	KDEL2	0.660	0.000	0.891	0.983
cg25889427	yellow	12	124,428,253 Body	OpenSea	CCDC92	0.660	-0.004	0.879	0.623
cg18087520	yellow	14	90,862,618 TSS1500	N_Shore	CALM1	0.660	0.008	0.615	0.248
cg03547581	yellow	1	205,684,841 3'UTR	OpenSea	NUCKS1	0.660	0.000	0.480	0.962

cg04905557	yellow	16	833,190	TSS1500	S_Shore	MSLNL	0.660	0.001	0.485	0.902
cg03214303	yellow	19	10,196,590	TSS1500	N_Shore	C19orf66	0.660	0.012	0.489	0.062
cg10625020	yellow	10	10,183,998		OpenSea		0.660	0.017	0.603	0.065
cg06487442	yellow	6	41,757,330	3'UTR	S_Shore	TOMM6	0.660	-0.004	0.855	0.599
cg23685037	yellow	10	91,237,047	5'UTR	OpenSea	SLC16A12	0.660	0.007	0.936	0.198
cg04618219	yellow	8	144,902,581	Body	OpenSea	PUF60	0.660	-0.003	0.918	0.468
cg03124318	yellow	12	109,491,989	Body	S_Shore	USP30	0.660	-0.007	0.954	0.046
cg05758804	yellow	12	57,917,389	5'UTR	S_Shore	MBD6	0.660	0.004	0.191	0.642
cg22143064	yellow	2	162,948,592		OpenSea		0.660	0.015	0.702	0.042
cg16329509	yellow	11	63,871,343	Body	OpenSea	MACROD1	0.660	0.005	0.731	0.530
cg09977703	yellow	19	46,854,563	Body	S_Shelf	PPP5C	0.660	-0.002	0.568	0.717
cg27571769	yellow	4	185,704,063	Body	OpenSea	ACSL1	0.660	0.005	0.527	0.494
cg12920963	yellow	5	1,468,661	Body	S_Shore	LPCAT1	0.660	0.009	0.481	0.199
cg21645089	yellow	6	39,072,458	3'UTR	OpenSea	C6orf64	0.660	0.009	0.460	0.233
cg11429283	yellow	11	85,469,037	1stExon	OpenSea	SYTL2	0.660	-0.010	0.895	0.152
cg23078268	yellow	10	100,109,635		OpenSea		0.660	0.004	0.723	0.784
cg23568324	yellow	7	2,678,248	Body	OpenSea	TTYH3	0.660	0.017	0.720	0.071
cg19954000	yellow	5	142,065,671	5'UTR	OpenSea	FGF1	0.660	0.001	0.451	0.881
cg13116789	yellow	12	111,883,369	Body	OpenSea	SH2B3	0.660	0.004	0.865	0.472
cg08216304	yellow	8	26,483,122	Body	OpenSea	DPYSL2	0.660	-0.003	0.231	0.674
cg13977827	yellow	9	14,307,195	Body	OpenSea	NFIB	0.660	0.016	0.619	0.245
cg00188032	yellow	5	96,141,721	5'UTR	N_Shore	ERAP1	0.660	0.002	0.739	0.830
cg14248981	yellow	6	31,937,066	Body	N_Shelf	SKIV2L	0.659	0.005	0.748	0.446
cg12433084	yellow	10	48,430,289	Body	S_Shore	GDF10	0.659	-0.008	0.426	0.224
cg26672776	yellow	6	30,899,568	Body	OpenSea	SFTA2	0.659	0.009	0.456	0.155
cg21834204	yellow	12	107,381,471	TSS1500	S_Shore	MTERFD3	0.659	0.004	0.477	0.786
cg08375808	yellow	15	90,586,521	5'UTR	OpenSea	ZNF710	0.659	-0.002	0.929	0.586
cg20720326	yellow	6	32,152,335	TSS1500	OpenSea	AGER	0.659	0.007	0.945	0.154
cg14596967	yellow	11	113,956,944	Body	S_Shelf	ZBTB16	0.659	0.000	0.509	0.951
cg03144753	yellow	3	28,286,464	Body	S_Shelf	CMC1	0.659	-0.004	0.740	0.685
cg11269166	yellow	2	172,203,847	Body	OpenSea	METTL8	0.659	0.005	0.751	0.408
cg06436185	yellow	7	151,442,351	Body	OpenSea	PRKAG2	0.659	0.019	0.547	0.151
cg20752695	yellow	11	2,240,999		OpenSea		0.659	0.011	0.728	0.031
cg12376829	yellow	7	1,915,363	Body	S_Shore	MAD1L1	0.659	0.000	0.949	0.990
cg02988826	yellow	3	155,587,661	TSS1500	N_Shore	GMPS	0.659	0.005	0.256	0.511
cg14324502	yellow	9	88,898,587	TSS1500	S_Shore	ISCA1	0.659	-0.003	0.771	0.806
cg04986336	yellow	11	67,418,358	TSS1500	OpenSea	ACY3	0.659	0.006	0.731	0.557
cg06822690	yellow	1	82,040,009		OpenSea		0.659	-0.004	0.822	0.631
cg25049844	yellow	21	46,933,374	3'UTR	S_Shore	COL18A1	0.659	0.004	0.597	0.497
cg16370389	yellow	4	37,962,041	TSS200	OpenSea	PTTG2	0.659	0.000	0.964	0.937
cg18281102	yellow	2	44,065,550	Body	OpenSea	ABCG5	0.659	0.001	0.635	0.870
cg06471254	yellow	6	33,690,276	3'UTR	OpenSea	IP6K3	0.659	0.002	0.830	0.728
cg26488999	yellow	5	141,235,690	Body	S_Shore	PCDH1	0.659	0.011	0.806	0.101
cg07374224	yellow	21	43,809,848	Body	OpenSea	TMPRSS3	0.659	0.006	0.630	0.317
cg23934072	yellow	1	200,941,706	3'UTR	OpenSea	KIF21B	0.659	-0.013	0.691	0.408
cg26818786	yellow	5	40,841,493	1stExon	OpenSea	CARD6	0.659	0.007	0.285	0.512
cg04285177	yellow	9	139,331,410	Body	N_Shore	INPP5E	0.659	-0.001	0.868	0.830
cg08678256	yellow	16	30,196,023	5'UTR	S_Shore	CORO1A	0.659	-0.004	0.405	0.632
cg09142117	yellow	16	2,079,658	Body	S_Shelf	SLC9A3R2	0.659	-0.001	0.915	0.855
cg23992426	yellow	11	47,870,622	TSS1500	S_Shore	NUP160	0.659	0.015	0.163	0.112
cg14583481	yellow	3	118,865,028	1stExon	OpenSea	C3orf30	0.659	-0.003	0.869	0.649
cg22057050	yellow	2	97,304,386	TSS1500	Island	KIAA1310	0.659	-0.005	0.116	0.517
cg07176561	yellow	7	157,624,788	Body	OpenSea	PTPRN2	0.659	0.008	0.780	0.391
cg09290893	yellow	17	54,830,708		OpenSea		0.659	0.007	0.649	0.345
cg18305324	yellow	6	31,590,580	TSS1500	S_Shore	SNORA38	0.659	-0.005	0.537	0.400
cg07026107	yellow	4	48,272,513	TSS1500	S_Shore	TEC	0.659	0.001	0.767	0.918
cg26495839	yellow	19	11,484,842	TSS1500	N_Shore	C19orf39	0.659	0.023	0.542	0.159
cg00059161	yellow	3	164,907,027	Body	OpenSea	SLITRK3	0.659	0.007	0.891	0.061
cg03033176	yellow	11	65,343,929	Body	S_Shore	EHBP1L1	0.659	-0.009	0.264	0.159
cg26871347	yellow	17	55,371,727	Body	OpenSea	MSI2	0.659	0.000	0.743	0.991
cg26878655	yellow	17	38,481,877	5'UTR	OpenSea	RARA	0.659	0.002	0.914	0.764
cg15228441	yellow	17	78,829,930	Body	N_Shore	RPTOR	0.659	0.009	0.714	0.330
cg21715751	yellow	19	33,795,390	Body	S_Shore	LOC80054	0.659	0.000	0.498	0.980
cg16814143	yellow	4	154,216,637	Body	Island	TRIM2	0.659	-0.001	0.915	0.853
cg08834989	yellow	2	98,993,614	Body	OpenSea	CNGA3	0.659	0.026	0.411	0.208
cg12530994	yellow	10	5,136,782	Body	OpenSea	AKR1C3	0.659	-0.010	0.853	0.140
cg23983173	yellow	15	42,564,634	Body	N_Shore	TMEM87A	0.659	-0.002	0.046	0.632

cg25286393	yellow	19	50,869,138	TSS1500	OpenSea	NAPSA	0.659	0.012	0.568	0.212
cg08009275	yellow	17	79,790,191	5'UTR	N_Shore	FAM195B	0.659	0.010	0.389	0.207
cg00415971	yellow	10	86,004,761	TSS200	OpenSea	RGR	0.659	0.018	0.512	0.005
cg10490577	yellow	13	30,009,956	Body	OpenSea	MTUS2	0.659	0.003	0.537	0.837
cg03986574	yellow	11	64,544,080	Body	N_Shore	SF1	0.659	-0.002	0.878	0.832
cg12075498	yellow	1	65,428,216	5'UTR	N_Shelf	JAK1	0.659	0.001	0.881	0.858
cg19145320	yellow	11	75,130,069		OpenSea		0.659	0.005	0.862	0.537
cg17322774	yellow	7	158,224,817	Body	OpenSea	PTPRN2	0.659	0.001	0.403	0.798
cg19927540	yellow	1	41,898,311		OpenSea		0.659	-0.012	0.306	0.141
cg27363091	yellow	9	95,946,148	TSS1500	Island	WNK2	0.659	0.002	0.035	0.380
cg06798288	yellow	1	1,063,186		OpenSea		0.659	0.000	0.757	0.990
cg15574318	yellow	15	64,756,828		S_Shelf		0.659	0.002	0.957	0.602
cg01613817	yellow	21	39,870,397	Body	OpenSea	ERG	0.658	-0.001	0.803	0.842
cg22835851	yellow	10	49,892,302	TSS1500	OpenSea	WDFY4	0.658	0.012	0.632	0.209
cg09782560	yellow	15	92,058,845		OpenSea		0.658	0.000	0.708	0.968
cg10241776	yellow	4	169,137,968	3'UTR	OpenSea	DDX60	0.658	-0.006	0.837	0.408
cg12039970	yellow	5	2,006,146		N_Shore		0.658	0.000	0.481	0.944
cg19867991	yellow	19	13,051,573	Body	S_Shore	CALR	0.658	0.013	0.655	0.038
cg01292299	yellow	11	18,008,039	Body	OpenSea	SERGEF	0.658	0.003	0.587	0.826
cg24477309	yellow	12	109,730,121	Body	S_Shore	FOXN4	0.658	-0.006	0.413	0.378
cg07997737	yellow	19	5,822,630	TSS1500	N_Shore	NRTN	0.658	0.010	0.585	0.409
cg15554023	yellow	1	144,008,937		OpenSea		0.658	0.005	0.470	0.448
cg15597984	yellow	22	42,527,061	TSS200	S_Shore	CYP2D6	0.658	-0.002	0.677	0.864
cg08781584	yellow	21	29,099,379	Body	OpenSea	NCRNA0011:	0.658	0.006	0.638	0.232
cg21850879	yellow	17	29,621,943	Body	OpenSea	NF1	0.658	-0.001	0.965	0.737
cg12265878	yellow	7	41,995,442		OpenSea		0.658	0.014	0.237	0.119
cg07706367	yellow	4	3,342,725	Body	S_Shore	RGS12	0.658	-0.003	0.818	0.581
cg14164262	yellow	9	139,659,038	TSS200	S_Shelf	LCN15	0.658	0.006	0.666	0.217
cg10207553	yellow	15	65,277,977	5'UTR	N_Shelf	SPG21	0.658	-0.003	0.542	0.689
cg11103310	yellow	14	36,693,238		OpenSea		0.658	0.014	0.737	0.235
cg16223546	yellow	5	158,768,976		OpenSea		0.658	0.004	0.039	0.656
cg03518390	yellow	14	105,792,853	Body	N_Shelf	PACS2	0.658	-0.002	0.688	0.747
cg03040581	yellow	1	8,384,718	1stExon	Island	SLC45A1	0.658	-0.005	0.828	0.472
cg23209878	yellow	13	113,739,344	Body	N_Shelf	MCF2L	0.658	-0.002	0.751	0.697
cg14425733	yellow	22	46,451,214	Body	S_Shore	LOC150381	0.658	0.005	0.906	0.466
cg13446110	yellow	12	20,629,927	Body	OpenSea	PDE3A	0.658	0.014	0.598	0.191
cg23846400	yellow	21	33,687,040	3'UTR	OpenSea	URB1	0.658	-0.003	0.813	0.652
cg26569800	yellow	6	29,578,313	Body	OpenSea	GABBR1	0.658	0.003	0.835	0.564
cg06382770	yellow	12	95,624,796	Body	OpenSea	VEZT	0.658	-0.033	0.623	0.038
cg13740187	yellow	1	154,164,699	TSS200	OpenSea	TPM3	0.658	0.010	0.450	0.359
cg27416847	yellow	7	86,778,068		N_Shelf		0.658	0.010	0.555	0.517
cg17643598	yellow	7	150,211,855	TSS200	OpenSea	GIMAP7	0.658	0.005	0.597	0.593
cg00808555	yellow	17	37,323,734	TSS1500	S_Shore	ARL5C	0.658	0.005	0.199	0.421
cg06951565	yellow	5	178,420,527	Body	N_Shore	GRM6	0.658	0.000	0.815	0.952
cg07344468	yellow	11	127,811,816		OpenSea		0.658	0.007	0.737	0.323
cg11777420	yellow	2	120,769,933	TSS1500	N_Shore	EPB41L5	0.658	0.019	0.387	0.060
cg03219838	yellow	5	134,672,054	Body	OpenSea	H2AFY	0.658	0.003	0.775	0.510
cg15497818	yellow	6	31,603,011	Body	S_Shelf	BAT2	0.658	0.001	0.855	0.801
cg10423842	yellow	6	56,200,769		OpenSea		0.658	0.010	0.691	0.418
cg15413271	yellow	14	21,704,611	5'UTR	OpenSea	HNRNPC	0.658	0.011	0.825	0.209
cg19526076	yellow	13	74,713,082		S_Shelf		0.658	0.006	0.683	0.326
cg08586500	yellow	2	223,916,820	TSS200	N_Shore	KCNE4	0.658	0.005	0.064	0.332
cg10255237	yellow	12	90,150,622		OpenSea		0.658	-0.005	0.904	0.537
cg10022165	yellow	17	702,878	3'UTR	OpenSea	NXN	0.658	-0.002	0.842	0.832
cg01536682	yellow	16	23,570,037	TSS1500	S_Shore	EARS2	0.658	0.002	0.853	0.842
cg05798125	yellow	16	28,996,362	Body	OpenSea	LAT	0.658	0.006	0.700	0.348
cg13426637	yellow	19	18,075,251	5'UTR	N_Shelf	KCNN1	0.658	0.013	0.685	0.141
cg16381917	yellow	12	113,797,720	Body	S_Shore	PLBD2	0.658	0.016	0.763	0.046
cg22998028	yellow	17	42,247,910	TSS200	OpenSea	ASB16	0.658	0.024	0.294	0.000
cg27446233	yellow	12	48,516,484	5'UTR	OpenSea	PFKM	0.658	-0.020	0.877	0.023
cg05099288	yellow	6	109,700,555	Body	N_Shelf	CD164	0.658	-0.003	0.784	0.811
cg09216320	yellow	14	59,943,950	Body	OpenSea	C14orf149	0.658	-0.009	0.804	0.320
cg09862440	yellow	7	100,965,709	TSS1500	S_Shore	RABL5	0.658	0.000	0.344	0.975
cg19473653	yellow	13	48,876,866	TSS1500	N_Shore	RB1	0.658	0.002	0.829	0.788
cg20770516	yellow	7	104,681,396	5'UTR	OpenSea	MLL5	0.658	-0.004	0.849	0.645
cg02634816	yellow	20	3,139,616	5'UTR	N_Shore	UBOX5	0.658	0.014	0.222	0.174
cg26799816	yellow	2	207,352,218	Body	OpenSea	ADAM23	0.657	-0.007	0.957	0.140

cg08788540	yellow	4	2,249,988	3'UTR	OpenSea	MXD4	0.657	-0.001	0.627	0.786
cg00085448	yellow	12	113,416,442	1stExon	OpenSea	OAS2	0.657	0.017	0.407	0.073
cg23813257	yellow	16	3,115,286	TSS1500	OpenSea	IL32	0.657	-0.003	0.248	0.715
cg02412345	yellow	8	21,780,678	Body	S_Shelf	XPO7	0.657	0.002	0.878	0.744
cg04246305	yellow	14	75,549,272	3'UTR	OpenSea	NEK9	0.657	0.005	0.786	0.625
cg07199337	yellow	11	20,408,536	TSS1500	N_Shore	PRMT3	0.657	0.010	0.372	0.238
cg04682193	yellow	12	121,867,725	3'UTR	OpenSea	KDM2B	0.657	-0.001	0.860	0.893
cg25790435	yellow	15	75,104,978	TSS1500	OpenSea	LMAN1L	0.657	-0.006	0.565	0.503
cg04843935	yellow	8	110,693,195	5'UTR	OpenSea	GOLSYN	0.657	0.012	0.514	0.289
cg17034959	yellow	12	132,321,329	Body	N_Shelf	MMP17	0.657	0.015	0.706	0.015
cg26127778	yellow	15	93,617,141	1stExon	Island	RGMA	0.657	-0.010	0.498	0.550
cg14945086	yellow	18	2,657,780	Body	S_Shore	SMCHD1	0.657	-0.006	0.928	0.366
cg25377985	yellow	4	147,867,360	TSS1500	S_Shore	TTC29	0.657	0.002	0.020	0.032
cg08404702	yellow	16	2,133,388	Body	N_Shore	TSC2	0.657	0.007	0.714	0.505
cg05298252	yellow	12	123,311,608	3'UTR	OpenSea	CCDC62	0.657	0.031	0.483	0.075
cg20978380	yellow	12	125,001,165	5'UTR	N_Shore	NCOR2	0.657	0.023	0.829	0.022
cg09267773	yellow	16	79,802,467		N_Shore		0.657	0.007	0.431	0.662
cg26459229	yellow	12	105,744,023	Body	OpenSea	C12orf75	0.657	-0.006	0.521	0.399
cg06479434	yellow	7	128,395,929	Body	OpenSea	CALU	0.657	-0.005	0.876	0.642
cg23778363	yellow	6	106,546,038	Body	OpenSea	PRDM1	0.657	0.010	0.185	0.308
cg12842791	yellow	5	86,491,450		OpenSea		0.657	-0.006	0.896	0.445
cg13411789	yellow	6	10,528,492	5'UTR	OpenSea	GCNT2	0.657	0.000	0.410	0.997
cg03010009	yellow	13	80,585,265		OpenSea		0.657	0.009	0.693	0.222
cg17770886	yellow	10	135,121,331	5'UTR	N_Shore	TUBGCP2	0.657	0.004	0.357	0.637
cg26554141	yellow	8	111,342,449		OpenSea		0.657	-0.005	0.711	0.606
cg12226735	yellow	3	98,610,584	Body	OpenSea	DCBLD2	0.657	0.005	0.643	0.413
cg00342530	yellow	9	130,027,020	1stExon	OpenSea	GARNL3	0.657	0.006	0.355	0.472
cg01366985	yellow	6	25,167,695		OpenSea		0.657	0.000	0.765	0.987
cg07502309	yellow	14	89,400,640		OpenSea		0.657	0.022	0.712	0.159
cg04393060	yellow	1	35,919,432	Body	OpenSea	KIAA0319L	0.657	-0.003	0.937	0.603
cg14580228	yellow	15	39,803,814		OpenSea		0.657	-0.010	0.560	0.424
cg00943312	yellow	17	73,875,760	TSS1500	S_Shore	TRIM47	0.657	0.005	0.769	0.723
cg05993589	yellow	3	44,159,455		OpenSea		0.657	-0.002	0.667	0.832
cg17152214	yellow	22	38,840,050	5'UTR	OpenSea	KCNJ4	0.657	-0.005	0.575	0.492
cg04765483	yellow	11	134,288,552		OpenSea		0.657	0.008	0.197	0.380
cg15561986	yellow	14	77,788,381	Body	S_Shore	GSTZ1	0.657	0.001	0.070	0.873
cg06352352	yellow	16	67,181,466	3'UTR	N_Shore	C16orf70	0.657	-0.001	0.926	0.859
cg22141235	yellow	11	3,246,160		OpenSea		0.657	0.009	0.722	0.098
cg23679344	yellow	17	37,560,925	3'UTR	S_Shore	MED1	0.657	0.006	0.904	0.337
cg09826895	yellow	1	111,744,309	TSS1500	N_Shelf	DENND2D	0.657	0.005	0.578	0.550
cg04142010	yellow	11	103,905,296	Body	N_Shelf	PDGFD	0.657	-0.005	0.916	0.572
cg12173651	yellow	17	8,338,822	TSS1500	N_Shore	NDEL1	0.657	0.009	0.071	0.198
cg26232553	yellow	8	101,471,097		OpenSea		0.657	0.038	0.732	0.014
cg11981700	yellow	19	475,035	TSS200	OpenSea	ODF3L2	0.657	0.016	0.694	0.073
cg03233876	yellow	19	575,412	Body	N_Shelf	BSG	0.656	0.017	0.250	0.209
cg15246895	yellow	17	17,672,475	5'UTR	OpenSea	RAI1	0.656	0.011	0.399	0.066
cg00983899	yellow	11	67,290,853	1stExon	S_Shelf	CABP2	0.656	0.011	0.701	0.126
cg09520414	yellow	22	50,493,642	TSS1500	N_Shelf	TTL8	0.656	0.015	0.327	0.288
cg16260349	yellow	10	82,221,597	5'UTR	OpenSea	TSPAN14	0.656	-0.001	0.815	0.938
cg02137215	yellow	16	4,837,760	5'UTR	OpenSea	12-Sep	0.656	0.004	0.727	0.563
cg00907842	yellow	5	39,219,245	5'UTR	OpenSea	FYB	0.656	0.015	0.456	0.136
cg06882842	yellow	1	227,754,452	Body	S_Shelf	ZNF678	0.656	0.006	0.739	0.647
cg25959472	yellow	5	171,384,415	Body	OpenSea	FBXW11	0.656	-0.006	0.383	0.519
cg03097190	yellow	22	32,854,361	TSS1500	OpenSea	BPIL2	0.656	-0.003	0.605	0.583
cg15395971	yellow	1	95,010,070		S_Shelf		0.656	0.011	0.528	0.331
cg12463578	yellow	6	29,644,756	1stExon	OpenSea	ZFP57	0.656	0.015	0.714	0.292
cg01982170	yellow	3	40,301,346	3'UTR	OpenSea	MYRIP	0.656	0.006	0.922	0.382
cg12042834	yellow	1	1,614,009	Body	OpenSea	CDK11B	0.656	0.001	0.837	0.895
cg25220537	yellow	15	81,298,068		S_Shelf		0.656	0.003	0.625	0.816
cg02642178	yellow	22	50,899,694	Body	N_Shore	SBF1	0.656	-0.004	0.965	0.211
cg18755094	yellow	19	35,940,593	TSS200	OpenSea	FFAR2	0.656	0.005	0.724	0.545
cg27070951	yellow	15	92,532,867	Body	OpenSea	SLCO3A1	0.656	0.006	0.789	0.475
cg02457461	yellow	8	9,913,680	Body	S_Shore	MSRA	0.656	0.009	0.798	0.329
cg06626750	yellow	17	56,082,885	3'UTR	N_Shore	SFRS1	0.656	-0.005	0.471	0.719
cg01953399	yellow	13	27,706,214	Body	OpenSea	USP12	0.656	0.001	0.929	0.895
cg09282201	yellow	1	3,155,161	Body	Island	PRDM16	0.656	0.000	0.346	0.983
cg03523189	yellow	1	38,397,927	Body	S_Shore	INPP5B	0.656	0.000	0.060	0.971

cg15531450	yellow	15	26,047,499	Body	OpenSea	ATP10A	0.656	0.017	0.470	0.068
cg16726869	yellow	4	127,454,704		OpenSea		0.656	-0.001	0.581	0.872
cg08284233	yellow	16	20,370,531	3'UTR	OpenSea	PDILT	0.656	0.006	0.653	0.544
cg04433322	yellow	17	42,346,894	TSS1500	OpenSea	SLC4A1	0.656	0.003	0.656	0.704
cg16635777	yellow	6	150,187,977		S_Shelf		0.656	0.014	0.608	0.031
cg23131355	yellow	12	103,980,801	TSS1500	OpenSea	STAB2	0.656	0.010	0.765	0.155
cg17207780	yellow	3	45,734,030	Body	S_Shelf	SACM1L	0.656	0.004	0.963	0.143
cg20300500	yellow	22	48,606,762		S_Shore		0.656	0.004	0.676	0.558
cg02210498	yellow	22	21,275,401	Body	S_Shelf	CRKL	0.656	-0.016	0.424	0.125
cg02153208	yellow	15	57,589,160		OpenSea		0.656	-0.007	0.557	0.442
cg27563952	yellow	1	182,557,982		OpenSea		0.656	0.002	0.030	0.391
cg09565404	yellow	5	108,083,489	TSS200	N_Shore	FER	0.656	0.000	0.034	0.965
cg14186944	yellow	9	98,335,074		OpenSea		0.656	-0.011	0.604	0.312
cg25621991	yellow	5	142,942,670		OpenSea		0.656	0.003	0.576	0.781
cg22507069	yellow	4	166,361,885	Body	OpenSea	CPE	0.656	0.016	0.112	0.415
cg20566840	yellow	12	123,215,288	TSS200	OpenSea	GPR81	0.656	0.008	0.612	0.423
cg22595391	yellow	17	80,407,031	Body	N_Shore	C17orf62	0.656	0.003	0.706	0.646
cg16055514	yellow	1	197,169,700	TSS200	N_Shore	ZBTB41	0.656	-0.001	0.041	0.566
cg20944278	yellow	2	197,674,875	1stExon	OpenSea	C2orf66	0.656	0.003	0.809	0.689
cg09614814	yellow	16	311,149	Body	OpenSea	ITFG3	0.656	0.005	0.832	0.544
cg04304121	yellow	2	29,236,134	Body	OpenSea	FAM179A	0.656	0.004	0.607	0.564
cg21085035	yellow	17	6,555,584	TSS1500	Island	MED31	0.656	0.010	0.363	0.547
cg01756700	yellow	8	101,319,770	5'UTR	N_Shore	RNF19A	0.655	0.001	0.928	0.882
cg24473594	yellow	19	46,714,834	Body	OpenSea	DKFZp434J02	0.655	0.020	0.410	0.011
cg16766382	yellow	10	28,588,024		N_Shelf		0.655	0.000	0.622	0.987
cg10647833	yellow	6	167,047,842	Body	OpenSea	RPS6KA2	0.655	-0.002	0.916	0.576
cg04124526	yellow	17	42,435,351	Body	S_Shelf	FAM171A2	0.655	0.007	0.680	0.306
cg13151006	yellow	15	72,075,835		OpenSea		0.655	0.008	0.498	0.309
cg07589202	yellow	2	10,081,532		OpenSea		0.655	0.008	0.600	0.428
cg08120210	yellow	15	66,682,733	Body	S_Shelf	MAP2K1	0.655	0.003	0.839	0.727
cg17907520	yellow	15	31,680,189		N_Shelf		0.655	0.007	0.148	0.391
cg03008387	yellow	20	62,089,152	Body	N_Shelf	KCNQ2	0.655	0.023	0.849	0.182
cg24870273	yellow	6	31,938,891	TSS200	N_Shore	STK19	0.655	0.017	0.721	0.009
cg13595913	yellow	9	5,786,038	3'UTR	OpenSea	ERMP1	0.655	-0.004	0.767	0.375
cg02666020	yellow	12	124,941,307	Body	N_Shore	NCOR2	0.655	0.000	0.883	0.949
cg17525436	yellow	8	98,552,498		OpenSea		0.655	0.001	0.877	0.897
cg18843739	yellow	2	192,712,530	TSS1500	OpenSea	SDPR	0.655	-0.007	0.330	0.393
cg03891319	yellow	3	52,016,838	TSS1500	N_Shore	ACY1	0.655	0.002	0.031	0.343
cg27033479	yellow	3	194,353,554	Body	N_Shore	TMEM44	0.655	-0.002	0.108	0.849
cg21045164	yellow	18	10,730,118	Body	S_Shelf	FAM38B	0.655	-0.014	0.834	0.187
cg18426860	yellow	6	159,592,134	Body	S_Shore	FNDC1	0.655	0.010	0.535	0.282
cg14792350	yellow	1	149,983,257	TSS1500	S_Shore	OTUD7B	0.655	-0.009	0.236	0.510
cg02844051	yellow	19	36,004,233	1stExon	OpenSea	DMKN	0.655	-0.002	0.750	0.891
cg02647591	yellow	8	144,311,924		Island		0.655	0.000	0.915	0.977
cg21778987	yellow	6	136,915,367	Body	OpenSea	MAP3K5	0.655	0.004	0.609	0.417
cg02459827	yellow	5	108,082,637	TSS1500	N_Shore	FER	0.655	-0.002	0.496	0.876
cg07505433	yellow	19	5,037,219	Body	Island	KDM4B	0.655	-0.008	0.396	0.595
cg14343210	yellow	4	114,328,366		OpenSea		0.655	0.025	0.591	0.101
cg14831622	yellow	17	11,148,761	Body	S_Shelf	SHISA6	0.655	0.014	0.622	0.133
cg16670155	yellow	19	18,557,220	Body	Island	ELL	0.655	-0.003	0.664	0.653
cg03730969	yellow	4	99,916,055	TSS1500	N_Shore	METAP1	0.655	-0.007	0.313	0.548
cg15252243	yellow	4	90,031,538		N_Shore		0.655	0.029	0.346	0.007
cg02158199	yellow	5	111,495,974	TSS1500	N_Shore	NCRNA00215	0.655	-0.006	0.900	0.335
cg15837252	yellow	22	19,138,822	TSS1500	S_Shore	GSC2	0.655	0.002	0.268	0.737
cg20900312	yellow	14	77,670,584	5'UTR	OpenSea	TMEM63C	0.655	0.005	0.727	0.519
cg25427625	yellow	7	1,627,110	Body	OpenSea	KIAA1908	0.655	0.001	0.692	0.849
cg10225408	yellow	8	575,774		OpenSea		0.655	0.002	0.722	0.828
cg06738031	yellow	10	126,806,416	5'UTR	OpenSea	CTBP2	0.655	0.008	0.092	0.380
cg23231163	yellow	10	75,533,350	Body	S_Shore	FUT11	0.655	0.004	0.141	0.604
cg03225787	yellow	1	158,518,363	TSS1500	OpenSea	OR6Y1	0.655	-0.004	0.847	0.655
cg20545694	yellow	8	48,910,778		OpenSea		0.655	0.007	0.556	0.453
cg02364408	yellow	19	16,627,498	Body	N_Shelf	C19orf44	0.655	0.006	0.836	0.382
cg02205181	yellow	10	104,154,811	TSS1500	Island	NFKB2	0.655	-0.018	0.083	0.072
cg05202804	yellow	19	11,484,815	TSS1500	N_Shore	C19orf39	0.655	0.026	0.519	0.027
cg22389209	yellow	7	155,587,335		N_Shore		0.655	-0.002	0.755	0.806
cg06756164	yellow	1	109,490,978	Body	OpenSea	CLCC1	0.655	0.014	0.302	0.189
cg23098693	yellow	1	118,150,813	5'UTR	S_Shore	FAM46C	0.655	-0.007	0.923	0.332

cg26575173	yellow	19	40,884,830	N_Shore		0.655	0.000	0.768	0.952
cg02642891	yellow	10	130,610,350	OpenSea		0.655	-0.002	0.663	0.882
cg25887844	yellow	2	68,961,495 TSS1500	OpenSea	ARHGAP25	0.655	-0.008	0.905	0.222
cg01246982	yellow	6	33,094,339 Body	OpenSea	HLA-DPB2	0.655	-0.008	0.782	0.578
cg08079763	yellow	10	679,171 Body	Island	DIP2C	0.655	0.014	0.857	0.069
cg24082215	yellow	17	56,297,515 TSS1500	S_Shore	MKS1	0.655	0.003	0.901	0.711
cg04612203	yellow	4	1,291,382 Body	OpenSea	MAEA	0.655	0.009	0.733	0.107
cg21855021	yellow	6	131,457,506	S_Shore		0.655	0.014	0.277	0.432
cg01109763	yellow	4	3,387,281 Body	OpenSea	RGS12	0.655	-0.002	0.598	0.747
cg03741862	yellow	17	63,225,392	OpenSea		0.655	0.005	0.093	0.666
cg06421238	yellow	17	5,993,785 Body	OpenSea	WSCD1	0.655	0.007	0.846	0.300
cg26316599	yellow	5	172,456,055 3'UTR	OpenSea	ATP6V0E1	0.655	0.003	0.607	0.723
cg09326832	yellow	6	7,243,643 Body	N_Shelf	RREB1	0.655	-0.011	0.143	0.158
cg03704756	yellow	20	4,666,787 TSS200	N_Shore	PRNP	0.654	0.004	0.048	0.322
cg23102026	yellow	19	35,493,343 Body	S_Shore	GRAMD1A	0.654	0.003	0.773	0.663
cg16312514	yellow	11	70,650,521 Body	OpenSea	SHANK2	0.654	0.003	0.709	0.790
cg06638568	yellow	6	163,730,822 Body	OpenSea	PACRG	0.654	-0.006	0.742	0.656
cg25912611	yellow	20	54,968,626 5'UTR	S_Shore	CSTF1	0.654	-0.003	0.393	0.823
cg10754705	yellow	8	22,085,381 Body	N_Shelf	PHYHIP	0.654	0.006	0.149	0.476
cg13073589	yellow	1	172,517,922 Body	OpenSea	C1orf9	0.654	-0.009	0.927	0.127
cg25955817	yellow	17	3,573,096 TSS1500	S_Shore	TAX1BP3	0.654	0.004	0.423	0.690
cg02370113	yellow	7	42,952,089 TSS1500	S_Shore	C7orf25	0.654	0.013	0.284	0.199
cg16628918	yellow	8	145,580,818 Body	N_Shore	FBXL6	0.654	0.015	0.544	0.026
cg23939096	yellow	5	1,555,791	S_Shelf		0.654	0.010	0.675	0.178
cg11747022	yellow	19	2,813,926	S_Shelf		0.654	-0.004	0.835	0.588
cg10000184	yellow	2	199,884,798	OpenSea		0.654	0.005	0.078	0.365
cg26169783	yellow	13	34,371,837	OpenSea		0.654	0.020	0.786	0.016
cg26529044	yellow	13	43,354,767 TSS1500	OpenSea	C13orf30	0.654	0.013	0.429	0.193
cg25798460	yellow	11	5,990,720 TSS1500	OpenSea	OR56A5	0.654	0.002	0.500	0.805
cg16625218	yellow	8	30,272,502 Body	OpenSea	RBPMS	0.654	0.008	0.596	0.151
cg15773251	yellow	6	32,078,602 TSS1500	OpenSea	TNXB	0.654	-0.004	0.768	0.642
cg03325403	yellow	1	34,100,737 Body	S_Shore	CSMD2	0.654	-0.002	0.510	0.762
cg27529004	yellow	2	237,490,808 3'UTR	OpenSea	CXCR7	0.654	0.012	0.630	0.428
cg26400954	yellow	13	76,291,075 Body	OpenSea	LMO7	0.654	-0.003	0.610	0.758
cg01485797	yellow	11	810,820 TSS1500	S_Shore	SNORA52	0.654	0.000	0.229	0.949
cg05288172	yellow	8	103,751,006	Island		0.654	0.011	0.774	0.250
cg08356614	yellow	12	27,934,708 Body	S_Shore	KLHDC5	0.654	-0.001	0.256	0.901
cg01663407	yellow	2	64,754,308 5'UTR	S_Shelf	AFTPH	0.654	-0.006	0.907	0.345
cg24632920	yellow	8	10,130,047 Body	OpenSea	MSRA	0.654	-0.002	0.964	0.591
cg12802086	yellow	1	29,557,820 TSS1500	S_Shore	MECR	0.654	0.001	0.334	0.911
cg11852149	yellow	1	203,199,833 TSS1500	OpenSea	CHIT1	0.654	0.006	0.879	0.277
cg04414816	yellow	4	8,248,320	OpenSea		0.654	0.002	0.694	0.738
cg21923525	yellow	18	9,474,143 TSS1500	N_Shore	RALBP1	0.654	-0.003	0.732	0.734
cg01063579	yellow	16	86,715,152	Island		0.654	0.003	0.765	0.786
cg14830045	yellow	1	1,173,264	N_Shore		0.654	0.004	0.208	0.707
cg21644914	yellow	2	217,606,111	OpenSea		0.654	-0.005	0.653	0.527
cg16616971	yellow	4	3,876,783	N_Shore		0.654	0.011	0.417	0.099
cg04453371	yellow	10	30,496,461	OpenSea		0.654	-0.006	0.345	0.362
cg01409735	yellow	3	13,521,176 TSS1500	Island	HDAC11	0.654	-0.001	0.075	0.711
cg06665453	yellow	17	73,520,759 3'UTR	N_Shore	TSEN54	0.654	0.003	0.248	0.660
cg09155776	yellow	2	239,984,105 Body	OpenSea	HDAC4	0.654	0.007	0.259	0.358
cg09268313	yellow	19	3,613,573 Body	Island	C19orf29	0.654	0.026	0.684	0.027
cg26549529	yellow	1	85,151,778 5'UTR	N_Shelf	SSX2IP	0.654	0.002	0.856	0.908
cg25428177	yellow	4	1,039,554	N_Shelf		0.654	0.011	0.746	0.438
cg18119485	yellow	1	52,196,776 5'UTR	S_Shore	OSBPL9	0.654	0.003	0.955	0.530
cg14290576	yellow	9	94,181,612 5'UTR	N_Shore	NFIL3	0.654	-0.003	0.924	0.497
cg03130276	yellow	17	78,161,482 Body	N_Shelf	CARD14	0.654	0.007	0.389	0.270
cg08894588	yellow	16	58,027,941	N_Shelf		0.654	-0.005	0.807	0.512
cg05757474	yellow	11	63,894,504 Body	OpenSea	MACROD1	0.654	-0.001	0.909	0.783
cg19364530	yellow	1	247,875,232 1stExon	OpenSea	OR6F1	0.654	-0.002	0.500	0.841
cg26328589	yellow	17	27,036,568 Body	N_Shore	PROCA1	0.654	-0.002	0.972	0.330
cg00475085	yellow	11	60,674,473 TSS1500	S_Shore	PRPF19	0.654	0.012	0.083	0.056
cg10688790	yellow	7	147,591,961 TSS1500	OpenSea	MIR548F3	0.654	0.004	0.765	0.596
cg22869025	yellow	20	25,037,708 Body	Island	ACSS1	0.654	0.002	0.082	0.647
cg00013660	yellow	9	140,068,770	N_Shore		0.654	0.010	0.772	0.073
cg20566970	yellow	3	137,321,245	OpenSea		0.654	0.001	0.867	0.920
cg13898290	yellow	10	121,079,244 Body	OpenSea	GRK5	0.654	0.007	0.856	0.231

cg27015332	yellow	12	89,479,076	OpenSea		0.654	0.000	0.776	0.944
cg01022916	yellow	1	31,196,938 TSS1500	S_Shelf	MATN1	0.654	0.013	0.489	0.091
cg24384816	yellow	20	35,972,312 TSS1500	N_Shore	SRC	0.653	0.008	0.445	0.283
cg18760534	yellow	2	2,964,910	OpenSea		0.653	0.005	0.763	0.768
cg26271876	yellow	2	54,754,922 TSS1500	OpenSea	RPL23AP32	0.653	-0.002	0.922	0.566
cg06478504	yellow	2	240,174,613 Body	OpenSea	HDAC4	0.653	0.011	0.238	0.460
cg03688987	yellow	19	54,761,178 TSS200	OpenSea	LILRB5	0.653	0.005	0.650	0.457
cg14972139	yellow	6	168,559,456	OpenSea		0.653	0.011	0.320	0.536
cg26959655	yellow	8	103,379,529 Body	OpenSea	UBR5	0.653	0.003	0.285	0.603
cg08307171	yellow	19	1,957,775 5'UTR	Island	CSNK1G2	0.653	0.019	0.663	0.105
cg26232945	yellow	2	208,798,601 Body	S_Shelf	PLEKHM3	0.653	0.020	0.480	0.024
cg13201644	yellow	15	74,277,634 Body	OpenSea	STOML1	0.653	0.006	0.954	0.096
cg22884924	yellow	4	125,660,016	OpenSea		0.653	-0.002	0.861	0.858
cg07195057	yellow	1	907,118 Body	S_Shore	PLEKHN1	0.653	0.008	0.808	0.313
cg09755666	yellow	2	163,175,400 TSS1500	OpenSea	IFIH1	0.653	-0.002	0.038	0.475
cg18541234	yellow	11	66,613,657 3'UTR	S_Shelf	RCE1	0.653	0.007	0.822	0.242
cg01068407	yellow	7	150,714,809 Body	N_Shore	ATG9B	0.653	0.005	0.328	0.461
cg15352315	yellow	2	160,655,036 TSS1500	S_Shore	CD302	0.653	0.002	0.021	0.175
cg08065721	yellow	11	111,933,776 3'UTR	OpenSea	DLAT	0.653	0.000	0.931	0.992
cg24637261	yellow	10	75,410,817 Body	S_Shelf	SYNPO2L	0.653	-0.007	0.654	0.483
cg10093739	yellow	17	45,917,418 Body	N_Shore	SCRN2	0.653	0.002	0.357	0.726
cg15033153	yellow	3	128,514,015 5'UTR	OpenSea	RAB7A	0.653	0.010	0.260	0.119
cg24264285	yellow	8	103,740,151	OpenSea		0.653	0.005	0.626	0.389
cg11622330	yellow	19	1,843,747 Body	N_Shelf	REXO1	0.653	0.009	0.664	0.083
cg07442907	yellow	17	5,487,958 TSS200	OpenSea	NLRP1	0.653	0.005	0.667	0.434
cg11591752	yellow	17	74,729,950 3'UTR	N_Shelf	C17orf95	0.653	-0.003	0.817	0.758
cg12949760	yellow	11	2,542,862 Body	OpenSea	KCNQ1	0.653	-0.002	0.587	0.790
cg14195103	yellow	17	73,283,583 5'UTR	N_Shore	SLC25A19	0.653	0.018	0.800	0.050
cg25462669	yellow	13	74,192,469	OpenSea		0.653	0.003	0.823	0.738
cg16409795	yellow	3	150,497,431	Island		0.653	0.001	0.669	0.866
cg17474222	yellow	19	7,680,053 Body	N_Shore	KIAA1543	0.653	0.003	0.766	0.588
cg00752277	yellow	3	47,892,279 3'UTR	S_Shore	MAP4	0.653	-0.006	0.720	0.463
cg06132862	yellow	10	128,152,075 Body	OpenSea	C10orf90	0.653	0.008	0.608	0.148
cg15349474	yellow	11	125,494,878 TSS1500	N_Shore	CHEK1	0.653	0.004	0.660	0.600
cg13128052	yellow	21	43,988,613 Body	N_Shore	SLC37A1	0.653	-0.008	0.795	0.277
cg15344068	yellow	6	45,867,679 3'UTR	OpenSea	CLIC5	0.653	-0.010	0.697	0.318
cg19915762	yellow	11	64,023,086 Body	N_Shelf	PLCB3	0.653	0.002	0.581	0.705
cg27014354	yellow	16	69,222,573 Body	S_Shore	SNTB2	0.653	0.004	0.039	0.353
cg03529261	yellow	4	185,209,641	OpenSea		0.653	0.002	0.818	0.817
cg20319457	yellow	2	20,133,404 Body	OpenSea	WDR35	0.653	0.001	0.678	0.933
cg07533630	yellow	19	18,284,235 TSS1500	N_Shore	IFI30	0.653	0.004	0.279	0.471
cg12237269	yellow	11	107,582,734 5'UTR	OpenSea	SLN	0.653	0.000	0.701	0.970
cg22026450	yellow	1	145,476,687 TSS1500	N_Shore	LIX1L	0.653	0.005	0.457	0.565
cg02851944	yellow	16	53,468,125 TSS1500	N_Shore	RBL2	0.653	-0.002	0.221	0.790
cg19344103	yellow	6	108,583,071 TSS1500	S_Shore	SNX3	0.653	-0.003	0.155	0.775
cg00093433	yellow	16	85,981,310	N_Shore		0.653	0.005	0.783	0.428
cg11528517	yellow	5	154,238,919 5'UTR	S_Shore	CNOT8	0.653	0.000	0.024	0.909
cg00150025	yellow	15	42,448,079 Body	OpenSea	PLA2G4F	0.653	0.004	0.668	0.531
cg04265961	yellow	10	133,484,990	OpenSea		0.653	0.003	0.336	0.715
cg12417815	yellow	5	148,830,633	OpenSea		0.653	0.004	0.817	0.590
cg04384689	yellow	6	44,039,689	N_Shore		0.653	0.018	0.838	0.075
cg17450585	yellow	6	34,059,718 Body	OpenSea	GRM4	0.653	-0.004	0.750	0.573
cg16692439	yellow	22	26,831,446 Body	S_Shore	ASPHD2	0.653	-0.002	0.748	0.799
cg16496462	yellow	12	124,854,282 Body	N_Shelf	NCOR2	0.653	-0.018	0.418	0.075
cg07408456	yellow	19	15,590,532 TSS1500	OpenSea	PGLYRP2	0.653	-0.004	0.377	0.540
cg17495671	yellow	2	216,613,547	OpenSea		0.653	0.000	0.915	0.927
cg23375169	yellow	17	38,708,809	OpenSea		0.653	-0.006	0.810	0.318
cg16883141	yellow	1	29,508,888 TSS1500	S_Shore	SFRS4	0.653	0.003	0.050	0.494
cg10583941	yellow	1	16,770,233 Body	S_Shelf	NECAP2	0.653	0.000	0.900	0.992
cg03283282	yellow	4	40,579,075 5'UTR	OpenSea	RBM47	0.653	0.006	0.306	0.454
cg00043364	yellow	5	133,916,105 3'UTR	OpenSea	PHF15	0.653	0.000	0.808	0.988
cg11355658	yellow	6	132,453,670	OpenSea		0.653	-0.002	0.656	0.826
cg07352859	yellow	16	89,050,672	OpenSea		0.653	-0.006	0.656	0.390
cg12065442	yellow	1	228,596,966 Body	S_Shelf	TRIM17	0.653	0.009	0.649	0.092
cg01631333	yellow	13	110,747,452	OpenSea		0.653	0.020	0.572	0.066
cg19256314	yellow	12	109,227,237 Body	OpenSea	SSH1	0.653	0.001	0.208	0.908
cg09353758	yellow	3	47,820,852 Body	N_Shelf	SMARCC1	0.652	-0.002	0.959	0.608



cg21027124	yellow	4	144,831,061	N_Shelf		0.652	-0.014	0.804	0.135
cg00864012	yellow	17	62,294,665 5'UTR	OpenSea	TEX2	0.652	0.003	0.689	0.763
cg23051926	yellow	3	105,466,016 Body	OpenSea	CBLB	0.652	0.019	0.829	0.357
cg02449103	yellow	6	31,627,711 1stExon	N_Shore	C6orf47	0.652	0.027	0.381	0.005
cg12762680	yellow	6	32,822,346 Body	Island	PSMB9	0.652	0.007	0.062	0.275
cg06881239	yellow	17	10,741,502 TSS200	OpenSea	PIRT	0.652	0.015	0.514	0.039
cg13457741	yellow	10	3,536,731	OpenSea		0.652	-0.004	0.857	0.658
cg17285883	yellow	1	17,896,290 5'UTR	OpenSea	ARHGEF10L	0.652	-0.002	0.185	0.800
cg00292662	yellow	22	38,071,168 TSS1500	N_Shore	LGALS1	0.652	-0.012	0.098	0.177
cg00310588	yellow	3	183,770,589 TSS1500	OpenSea	HTR3C	0.652	0.012	0.584	0.207
cg05552490	yellow	6	43,952,511	OpenSea		0.652	0.015	0.606	0.058
cg07753598	yellow	2	219,267,634 Body	N_Shelf	CTDSP1	0.652	-0.002	0.953	0.537
cg09929879	yellow	10	343,794 Body	N_Shelf	DIP2C	0.652	-0.004	0.815	0.612
cg05387996	yellow	4	6,344,449 Body	OpenSea	PPP2R2C	0.652	0.002	0.546	0.827
cg19004743	yellow	13	32,525,479 Body	N_Shore	EEF1DP3	0.652	-0.013	0.404	0.224
cg05111146	yellow	6	32,935,025 TSS1500	N_Shore	BRD2	0.652	0.003	0.299	0.584
cg06763375	yellow	16	89,025,547 Body	OpenSea	CBFA2T3	0.652	0.008	0.733	0.171
cg19738305	yellow	17	27,716,882 TSS1500	N_Shore	TAOK1	0.652	0.006	0.060	0.308
cg05387996	yellow	15	69,306,309 Body	OpenSea	MIR548H4	0.652	-0.003	0.836	0.795
cg24082526	yellow	19	49,993,125 Body	S_Shore	RPL13AP5	0.652	0.000	0.703	0.999
cg05739476	yellow	15	72,072,813 3'UTR	OpenSea	THSD4	0.652	-0.006	0.130	0.514
cg18141902	yellow	1	2,781,275	S_Shelf		0.652	0.008	0.444	0.203
cg11285834	yellow	4	146,102,486	S_Shore		0.652	0.012	0.202	0.190
cg24872851	yellow	7	4,265,468 Body	OpenSea	SDK1	0.652	0.002	0.752	0.765
cg15583517	yellow	15	52,051,142 5'UTR	OpenSea	TMOD2	0.652	0.003	0.274	0.526
cg22025233	yellow	7	1,022,904 1stExon	N_Shore	CYP2W1	0.652	0.007	0.495	0.317
cg01719433	yellow	20	62,583,564 TSS1500	N_Shelf	UCKL1AS	0.652	0.005	0.886	0.205
cg23847017	yellow	1	28,764,854 1stExon	OpenSea	PHACTR4	0.652	0.013	0.243	0.463
cg25003922	yellow	14	105,318,279	OpenSea		0.652	0.011	0.554	0.336
cg25954705	yellow	14	105,194,980 TSS1500	OpenSea	ADSSL1	0.652	0.009	0.749	0.125
cg00251405	yellow	1	33,219,246 Body	N_Shore	KIAA1522	0.652	0.002	0.229	0.795
cg21792399	yellow	15	80,543,685	N_Shore		0.652	0.003	0.610	0.781
cg01033001	yellow	14	94,637,734	N_Shelf		0.652	0.005	0.416	0.569
cg13466253	yellow	20	3,731,334 Body	N_Shore	HSPA12B	0.652	0.002	0.785	0.735
cg03764274	yellow	17	79,632,335 Body	N_Shore	C17orf90	0.652	0.003	0.714	0.678
cg09882144	yellow	12	125,339,904 Body	OpenSea	SCARB1	0.652	0.008	0.839	0.141
cg11344927	yellow	19	2,739,684 5'UTR	N_Shore	SLC39A3	0.652	0.017	0.266	0.082
cg01565130	yellow	1	167,690,726 TSS1500	N_Shore	MPZL1	0.652	0.001	0.058	0.848
cg13358061	yellow	17	35,640,254 Body	OpenSea	ACACA	0.652	-0.005	0.851	0.529
cg02708705	yellow	17	74,264,300 Body	S_Shelf	FAM100B	0.652	0.014	0.675	0.033
cg13884295	yellow	3	50,618,355 3'UTR	OpenSea	HEMK1	0.652	0.006	0.888	0.244
cg08481967	yellow	6	166,765,599	OpenSea		0.652	0.002	0.060	0.687
cg24020986	yellow	10	102,324,667	S_Shore		0.652	-0.003	0.550	0.675
cg05716726	yellow	6	27,343,671 TSS1500	S_Shore	ZNF204P	0.652	0.005	0.655	0.836
cg20838323	yellow	6	29,549,759 TSS1500	OpenSea	SNORD32B	0.652	0.014	0.763	0.170
cg06588876	yellow	9	139,009,275 5'UTR	N_Shore	C9orf69	0.652	0.008	0.815	0.131
cg25348323	yellow	7	45,131,862	S_Shelf		0.652	0.006	0.512	0.322
cg01652078	yellow	16	81,726,134 Body	OpenSea	CMIP	0.652	-0.001	0.934	0.847
cg20068058	yellow	11	46,317,859 Body	S_Shore	CREB3L1	0.652	0.016	0.365	0.067
cg04144151	yellow	2	242,715,019 TSS1500	S_Shelf	GAL3ST2	0.652	0.009	0.750	0.410
cg13661330	yellow	10	30,317,994 Body	OpenSea	KIAA1462	0.652	0.003	0.833	0.658
cg27119415	yellow	17	38,137,936 Body	S_Shore	PSMD3	0.652	0.006	0.043	0.085
cg02159111	yellow	2	239,361,488	N_Shore		0.652	0.000	0.945	0.917
cg24016626	yellow	11	119,242,685 Body	OpenSea	USP2	0.651	0.013	0.561	0.062
cg04987857	yellow	12	69,863,677 TSS1500	N_Shore	FRS2	0.651	-0.032	0.584	0.029
cg01827633	yellow	2	219,610,103 Body	OpenSea	TTL4	0.651	0.006	0.738	0.557
cg16500916	yellow	16	54,228,169	N_Shore		0.651	0.018	0.671	0.070
cg21545535	yellow	5	176,809,747	OpenSea		0.651	0.007	0.281	0.257
cg01171887	yellow	14	104,600,633	N_Shore		0.651	0.010	0.459	0.083
cg03537810	yellow	8	145,019,067 Body	Island	PLEC1	0.651	0.001	0.782	0.845
cg10559231	yellow	5	14,188,039 Body	OpenSea	TRIO	0.651	0.013	0.547	0.419
cg13476664	yellow	1	208,060,281 3'UTR	OpenSea	CD34	0.651	0.001	0.829	0.836
cg02909176	yellow	13	113,426,343 Body	S_Shore	ATP11A	0.651	0.017	0.633	0.063
cg16749578	yellow	19	17,357,619 TSS1500	S_Shore	NR2F6	0.651	0.001	0.044	0.743
cg16437021	yellow	16	89,510,331 5'UTR	OpenSea	ANKRD11	0.651	0.013	0.468	0.188
cg22601496	yellow	3	45,004,671 5'UTR	OpenSea	ZDHHC3	0.651	0.001	0.897	0.897
cg15510601	yellow	4	2,303,718 Body	N_Shore	ZFYVE28	0.651	-0.005	0.394	0.564

cg12251803	yellow	2	238,639,781	Body	OpenSea	LRRFIP1	0.651	-0.009	0.665	0.342
cg18236571	yellow	4	135,122,410	5'UTR	OpenSea	PABPC4L	0.651	-0.005	0.204	0.647
cg18089146	yellow	5	60,472,989		OpenSea		0.651	0.011	0.832	0.418
cg00067126	yellow	2	122,493,570	Body	N_Shore	MKI67IP	0.651	0.004	0.046	0.141
cg15859390	yellow	4	184,908,510	Body	OpenSea	STOX2	0.651	0.007	0.589	0.357
cg06473941	yellow	16	81,678,907	Body	OpenSea	CMIP	0.651	-0.004	0.772	0.757
cg15828558	yellow	21	34,864,352	TSS1500	S_Shore	DNAJC28	0.651	-0.002	0.097	0.648
cg14219124	yellow	11	129,992,297	Body	N_Shore	APLP2	0.651	0.008	0.862	0.154
cg19584871	yellow	2	11,810,508	TSS200	S_Shore	NTSR2	0.651	-0.007	0.347	0.374
cg22812275	yellow	6	159,240,814	TSS1500	S_Shore	EZR	0.651	0.003	0.276	0.696
cg06850526	yellow	17	79,269,886	TSS1500	S_Shore	SLC38A10	0.651	0.007	0.661	0.425
cg19838154	yellow	3	39,323,202	1stExon	OpenSea	CX3CR1	0.651	0.007	0.375	0.221
cg16801374	yellow	12	102,872,708	Body	OpenSea	IGF1	0.651	0.002	0.277	0.788
cg00230924	yellow	12	52,542,742		N_Shelf		0.651	-0.005	0.825	0.540
cg05364164	yellow	7	150,670,099	Body	N_Shore	KCNH2	0.651	0.001	0.633	0.864
cg18289557	yellow	13	113,426,705	Body	S_Shore	ATP11A	0.651	0.004	0.833	0.670
cg02734883	yellow	2	131,862,402	TSS200	N_Shore	PLEKHB2	0.651	-0.001	0.020	0.441
cg10242279	yellow	4	10,666,415	Body	OpenSea	CLNK	0.651	-0.012	0.799	0.065
cg12998503	yellow	4	184,177,628	Body	OpenSea	WWC2	0.651	0.004	0.630	0.636
cg21037184	yellow	5	90,397,684	Body	OpenSea	GPR98	0.651	0.018	0.236	0.190
cg03953832	yellow	1	101,615,251		OpenSea		0.651	0.003	0.853	0.726
cg27103348	yellow	21	46,321,529	Body	Island	ITGB2	0.651	-0.002	0.395	0.762
cg03157610	yellow	6	33,377,317	TSS1500	N_Shore	PHF1	0.651	-0.006	0.771	0.375
cg23153661	yellow	2	71,101,726		S_Shelf		0.651	0.005	0.645	0.600
cg00772091	yellow	10	124,914,911	Body	S_Shore	BUB3	0.651	0.000	0.217	0.998
cg08292919	yellow	6	29,565,696		OpenSea		0.651	0.016	0.700	0.058
cg10619379	yellow	17	27,252,884	Body	OpenSea	PHF12	0.651	-0.004	0.922	0.491
cg00906908	yellow	7	1,514,623	Body	N_Shore	INTS1	0.651	0.021	0.644	0.064
cg21072457	yellow	5	151,192,481		OpenSea		0.651	-0.010	0.416	0.362
cg13817802	yellow	9	139,587,912		N_Shore		0.651	-0.003	0.717	0.712
cg09361748	yellow	7	71,682,306	Body	OpenSea	CALN1	0.651	0.007	0.802	0.360
cg27407428	yellow	15	94,106,470		OpenSea		0.651	0.013	0.490	0.203
cg13982505	yellow	2	233,642,094	Body	OpenSea	GIGYF2	0.651	-0.001	0.626	0.886
cg05534676	yellow	7	31,378,807	Body	S_Shelf	NEUROD6	0.651	-0.010	0.946	0.100
cg02494781	yellow	22	36,044,540	5'UTR	OpenSea	APOL6	0.651	-0.001	0.061	0.869
cg08044694	yellow	19	15,391,927	TSS1500	OpenSea	BRD4	0.651	0.007	0.061	0.204
cg06297367	yellow	7	4,456,341		OpenSea		0.651	0.017	0.254	0.127
cg06183256	yellow	3	53,124,971	3'UTR	OpenSea	RFT1	0.651	0.007	0.696	0.318
cg07998387	yellow	7	22,767,571	Body	OpenSea	IL6	0.651	-0.005	0.734	0.561
cg03238090	yellow	2	8,666,220		OpenSea		0.651	0.005	0.482	0.328
cg25957300	yellow	11	129,907,095		N_Shelf		0.651	0.002	0.948	0.684
cg08151612	yellow	19	49,055,438	1stExon	OpenSea	SULT2B1	0.651	0.005	0.549	0.449
cg24812167	yellow	9	139,293,358	TSS1500	N_Shore	SNAPC4	0.651	-0.007	0.592	0.242
cg10124548	yellow	13	114,803,738	Body	Island	RASA3	0.650	0.012	0.781	0.106
cg14435720	yellow	9	139,565,087	Body	Island	EGFL7	0.650	0.014	0.675	0.217
cg08421768	yellow	4	123,797,144	Body	OpenSea	FGF2	0.650	0.002	0.765	0.860
cg08535184	yellow	1	27,152,066	TSS1500	N_Shore	ZDHHC18	0.650	0.001	0.717	0.842
cg24686553	yellow	2	23,746,926	5'UTR	N_Shelf	KLHL29	0.650	0.000	0.464	0.978
cg26070383	yellow	6	32,797,241	Body	OpenSea	TAP2	0.650	-0.004	0.698	0.693
cg04033022	yellow	16	89,189,383	Body	S_Shelf	ACSF3	0.650	-0.004	0.897	0.526
cg16409039	yellow	10	101,841,526	1stExon	OpenSea	CPN1	0.650	-0.002	0.726	0.860
cg06142621	yellow	11	124,805,981	5'UTR	OpenSea	HEPACAM	0.650	0.020	0.739	0.034
cg02519879	yellow	3	122,286,677	Body	S_Shelf	DTX3L	0.650	0.009	0.662	0.264
cg02140425	yellow	11	120,972,246	TSS1500	OpenSea	TECTA	0.650	0.018	0.706	0.269
cg09466667	yellow	3	42,140,775	Body	OpenSea	TRAK1	0.650	0.002	0.757	0.787
cg21708692	yellow	2	240,405,767		OpenSea		0.650	0.000	0.913	0.945
cg08042055	yellow	16	811,031	TSS200	OpenSea	MSLN	0.650	0.006	0.745	0.509
cg08614082	yellow	6	158,375,684		OpenSea		0.650	0.010	0.288	0.217
cg23561531	yellow	11	127,328,847		OpenSea		0.650	0.006	0.619	0.332
cg14121282	yellow	9	137,268,074	Body	OpenSea	RXRA	0.650	-0.005	0.509	0.662
cg26158710	yellow	7	157,370,254	Body	S_Shore	PTPRN2	0.650	-0.009	0.786	0.113
cg17691545	yellow	4	87,770,586	TSS200	OpenSea	SLC10A6	0.650	0.010	0.579	0.227
cg25844612	yellow	10	13,510,336	Body	N_Shelf	BEND7	0.650	0.006	0.793	0.461
cg07709210	yellow	6	41,715,593	TSS1500	OpenSea	PGC	0.650	0.013	0.670	0.117
cg13662290	yellow	7	150,264,311	TSS200	OpenSea	GIMAP4	0.650	0.007	0.727	0.282
cg25879745	yellow	20	3,687,824	TSS200	OpenSea	SIGLEC1	0.650	0.011	0.896	0.021
cg04145621	yellow	16	693,166	Body	S_Shore	FAM195A	0.650	0.010	0.762	0.088

cg02850815	yellow	8	144,896,183	Body	N_Shore	SCRIB	0.650	0.001	0.720	0.823
cg01140214	yellow	6	31,110,647	Body	OpenSea	CCHCR1	0.650	0.004	0.594	0.631
cg05913962	yellow	16	27,214,514	TSS1500	N_Shore	JMJD5	0.650	0.005	0.228	0.396
cg06893569	yellow	12	104,907,103	Body	OpenSea	CHST11	0.650	-0.005	0.788	0.471
cg17065712	yellow	10	80,850,605	5'UTR	OpenSea	ZMIZ1	0.650	0.001	0.872	0.888
cg01449563	yellow	6	31,938,372	TSS1500	N_Shore	STK19	0.650	0.017	0.815	0.013
cg13526973	yellow	9	139,319,419		S_Shore		0.650	0.007	0.844	0.189
cg25032991	yellow	2	159,981,152	Body	OpenSea	TANC1	0.650	0.002	0.386	0.840
cg18836485	yellow	14	21,271,018	1stExon	OpenSea	RNASE1	0.650	0.014	0.497	0.232
cg22135566	yellow	12	124,416,315	Body	OpenSea	DNAH10	0.650	-0.004	0.873	0.519
cg24363824	yellow	6	30,713,026	TSS1500	S_Shore	IER3	0.650	0.010	0.788	0.192
cg25752754	yellow	2	20,349,535		OpenSea		0.650	-0.007	0.937	0.209
cg04095776	yellow	6	31,106,941	Body	OpenSea	PSORS1C1	0.650	0.006	0.683	0.459
cg26537568	yellow	20	32,304,371	Body	N_Shelf	PXMP4	0.650	0.000	0.540	0.983
cg26764198	yellow	16	87,469,002	Body	OpenSea	ZCCHC14	0.650	-0.004	0.857	0.455
cg15108553	yellow	3	149,530,133	TSS1500	N_Shore	RNF13	0.650	0.009	0.634	0.216
cg07589064	yellow	11	65,585,931		S_Shore		0.650	0.002	0.068	0.443
cg16201146	yellow	20	19,191,526		N_Shore		0.650	-0.001	0.469	0.947
cg12811617	yellow	14	105,446,698		S_Shore		0.650	0.008	0.807	0.524
cg23529856	yellow	13	30,498,683		OpenSea		0.650	-0.002	0.778	0.896
cg17978425	yellow	3	10,289,658	TSS1500	N_Shore	TATDN2	0.650	-0.006	0.372	0.729
cg01126560	yellow	9	139,886,304	TSS1500	N_Shore	C9orf142	0.650	0.008	0.658	0.346
cg21074347	yellow	11	9,115,009	TSS1500	S_Shore	FLJ46111	0.650	0.014	0.710	0.421
cg15697036	yellow	4	1,808,923	Body	S_Shore	FGFR3	0.649	-0.011	0.639	0.037
cg08903441	yellow	17	80,304,981		S_Shore		0.649	0.010	0.547	0.321
cg26880549	yellow	8	143,834,539	TSS1500	OpenSea	LYPD2	0.649	0.003	0.424	0.531
cg16276199	yellow	2	28,974,102	TSS1500	N_Shore	PPP1CB	0.649	0.000	0.066	0.915
cg23859051	yellow	17	1,478,585	3'UTR	Island	SLC43A2	0.649	0.012	0.603	0.152
cg16490015	yellow	14	104,742,009		OpenSea		0.649	0.011	0.622	0.317
cg08623942	yellow	7	98,633,538	Body	S_Shore	SMURF1	0.649	-0.004	0.678	0.514
cg13586457	yellow	15	42,186,830	TSS1500	OpenSea	SPTBN5	0.649	-0.005	0.757	0.528
cg04293353	yellow	1	2,205,396	Body	OpenSea	SKI	0.649	-0.002	0.816	0.819
cg02788798	yellow	3	103,645,700		OpenSea		0.649	0.002	0.770	0.844
cg19812283	yellow	5	173,021,074		OpenSea		0.649	0.023	0.629	0.103
cg10789050	yellow	3	31,713,847	Body	OpenSea	OSBPL10	0.649	-0.010	0.376	0.556
cg00214171	yellow	17	73,642,991	Body	OpenSea	RECQL5	0.649	0.009	0.582	0.138
cg15281283	yellow	21	42,733,894	TSS200	OpenSea	MX2	0.649	0.023	0.429	0.013
cg22483449	yellow	8	22,241,331	5'UTR	OpenSea	SLC39A14	0.649	0.002	0.293	0.758
cg05165750	yellow	13	112,819,420		S_Shore		0.649	-0.006	0.842	0.426
cg07359518	yellow	12	132,562,495	3'UTR	OpenSea	EP400	0.649	0.002	0.937	0.795
cg05784951	yellow	17	80,968,162	Body	N_Shore	B3GNTL1	0.649	0.003	0.601	0.708
cg15164733	yellow	11	64,827,224	TSS1500	OpenSea	NAALADL1	0.649	0.005	0.642	0.474
cg15656501	yellow	4	38,612,762		OpenSea		0.649	0.014	0.306	0.144
cg20209891	yellow	22	43,806,614	TSS1500	N_Shore	MPPED1	0.649	-0.001	0.513	0.868
cg10146163	yellow	2	65,310,718	3'UTR	OpenSea	CEP68	0.649	-0.009	0.892	0.286
cg14153061	yellow	9	102,669,613	5'UTR	S_Shore	STX17	0.649	0.003	0.214	0.790
cg01736278	yellow	10	931,793	TSS200	OpenSea	LARP4B	0.649	0.007	0.749	0.336
cg27041304	yellow	5	141,693,865	Body	OpenSea	SPRY4	0.649	0.002	0.954	0.660
cg05021636	yellow	17	77,023,266	5'UTR	S_Shelf	C1QTNF1	0.649	-0.002	0.284	0.815
cg24124330	yellow	7	1,914,523	Body	S_Shore	MAD1L1	0.649	-0.005	0.770	0.566
cg14989988	yellow	7	105,319,819	Body	OpenSea	ATXN7L1	0.649	0.015	0.820	0.120
cg09060654	yellow	10	90,985,062	Body	OpenSea	LIPA	0.649	0.001	0.442	0.926
cg20259814	yellow	15	52,361,955		OpenSea		0.649	0.006	0.609	0.259
cg06516476	yellow	6	86,174,584	Body	OpenSea	NTSE	0.649	0.003	0.790	0.572
cg09993699	yellow	19	17,517,008	TSS1500	OpenSea	BST2	0.649	0.012	0.846	0.107
cg06824423	yellow	6	157,505,631	Body	OpenSea	ARID1B	0.649	0.004	0.516	0.493
cg10830616	yellow	12	130,683,639		OpenSea		0.649	-0.002	0.638	0.805
cg10948088	yellow	17	57,445,731	Body	OpenSea	YPEL2	0.649	0.009	0.555	0.341
cg04187814	yellow	15	81,136,522	5'UTR	OpenSea	KIAA1199	0.649	0.011	0.683	0.082
cg18888137	yellow	6	32,945,759	Body	OpenSea	BRD2	0.649	0.007	0.844	0.346
cg13345726	yellow	17	66,708,409		OpenSea		0.649	0.009	0.755	0.526
cg01684579	yellow	5	175,816,834	TSS1500	S_Shore	NOP16	0.649	-0.002	0.642	0.884
cg14279856	yellow	6	30,851,086	TSS1500	N_Shore	DDR1	0.649	0.005	0.883	0.484
cg04002220	yellow	16	89,598,305	Body	OpenSea	SPG7	0.649	0.011	0.738	0.108
cg00161791	yellow	21	45,575,014		N_Shore		0.649	0.010	0.724	0.341
cg27395226	yellow	7	104,994,322	Body	OpenSea	SRPK2	0.649	0.002	0.829	0.788
cg12673978	yellow	6	116,409,276		OpenSea		0.649	-0.004	0.858	0.442

cg24814628	yellow	20	2,543,072	Body	S_Shelf	TMC2	0.649	0.012	0.686	0.195
cg24931092	yellow	19	34,921,884	Body	S_Shore	UBA2	0.649	0.007	0.361	0.288
cg20680669	yellow	22	28,189,870	Body	N_Shelf	MN1	0.649	-0.002	0.951	0.679
cg07666840	yellow	5	142,065,761	5'UTR	OpenSea	FGF1	0.649	0.004	0.179	0.501
cg14830371	yellow	8	25,991,602		OpenSea		0.649	0.023	0.384	0.059
cg13242092	yellow	21	46,271,421	3'UTR	S_Shelf	PTTG1IP	0.649	-0.004	0.686	0.559
cg07366188	yellow	17	76,220,929	3'UTR	OpenSea	BIRC5	0.649	0.000	0.889	0.987
cg19131667	yellow	3	17,236,940	Body	OpenSea	TBC1D5	0.649	0.005	0.466	0.538
cg02096194	yellow	3	51,997,492	5'UTR	OpenSea	PCBP4	0.649	0.007	0.786	0.251
cg05288253	yellow	16	89,552,259	5'UTR	N_Shelf	ANKRD11	0.649	0.004	0.512	0.505
cg04611161	yellow	16	52,641,156		OpenSea		0.649	0.010	0.689	0.174
cg04286719	yellow	14	105,153,426		N_Shelf		0.648	-0.001	0.728	0.777
cg17002645	yellow	5	6,717,799	5'UTR	S_Shelf	POLS	0.648	0.008	0.635	0.154
cg26541780	yellow	1	156,217,981	TSS200	S_Shelf	PAQR6	0.648	0.004	0.482	0.674
cg11860091	yellow	5	10,246,998	Body	N_Shelf	FAM173B	0.648	-0.001	0.813	0.929
cg14185201	yellow	14	79,162,188	Body	OpenSea	NRXN3	0.648	-0.005	0.513	0.429
cg19195712	yellow	6	31,026,215	Body	OpenSea	HCG22	0.648	0.005	0.753	0.706
cg04774043	yellow	10	104,498,430	3'UTR	OpenSea	SFXN2	0.648	0.009	0.869	0.233
cg23738585	yellow	17	9,935,595	Body	OpenSea	GAS7	0.648	0.001	0.267	0.966
cg14167688	yellow	6	30,875,054	TSS1500	N_Shore	GTF2H4	0.648	0.006	0.482	0.444
cg19356022	yellow	1	154,943,932	5'UTR	N_Shelf	SHC1	0.648	0.008	0.456	0.281
cg06481517	yellow	2	49,084,769		OpenSea		0.648	0.007	0.786	0.427
cg14456143	yellow	2	17,938,848	5'UTR	S_Shelf	GEN1	0.648	-0.005	0.823	0.664
cg02460419	yellow	12	124,198,876	Body	S_Shore	ATP6V0A2	0.648	0.011	0.870	0.146
cg04340895	yellow	4	47,463,168	Body	N_Shelf	COMMD8	0.648	-0.009	0.851	0.460
cg13816466	yellow	9	35,909,466	TSS200	OpenSea	LOC158376	0.648	0.007	0.612	0.298
cg04677846	yellow	21	45,560,806	Body	Island	C21orf33	0.648	-0.007	0.663	0.332
cg25094972	yellow	20	61,920,606	3'UTR	S_Shore	ARFGAP1	0.648	0.001	0.746	0.897
cg00950718	yellow	1	159,859,904	Body	OpenSea	CCDC19	0.648	0.009	0.409	0.233
cg14119001	yellow	9	139,324,193	Body	N_Shelf	INPP5E	0.648	0.002	0.876	0.773
cg22809017	yellow	5	169,373,347	5'UTR	OpenSea	FAM196B	0.648	0.002	0.326	0.828
cg23228745	yellow	13	111,945,188	3'UTR	OpenSea	ARHGFE7	0.648	0.003	0.847	0.551
cg05709657	yellow	13	96,206,104	Body	S_Shore	CLDN10	0.648	-0.003	0.285	0.740
cg23351724	yellow	3	151,177,604	TSS1500	N_Shore	IGSF10	0.648	0.022	0.553	0.080
cg02633924	yellow	17	75,315,563	5'UTR	OpenSea	9-Sep	0.648	-0.003	0.133	0.716
cg14989977	yellow	1	71,555,947		OpenSea		0.648	0.000	0.806	0.984
cg07458482	yellow	16	84,974,431		OpenSea		0.648	0.008	0.585	0.559
cg00316485	yellow	16	49,789,549	Body	OpenSea	ZNF423	0.648	-0.015	0.236	0.084
cg07662964	yellow	22	50,173,998	Body	N_Shelf	BRD1	0.648	0.005	0.809	0.408
cg17493193	yellow	1	26,440,896	Body	S_Shore	PDIK1L	0.648	-0.006	0.627	0.417
cg09596707	yellow	12	66,889,730	Body	OpenSea	GRIP1	0.648	-0.002	0.957	0.707
cg03703887	yellow	11	34,273,111	Body	OpenSea	ABTB2	0.648	0.002	0.537	0.846
cg26422762	yellow	22	46,481,785	TSS200	N_Shore	LOC400931	0.648	0.006	0.915	0.438
cg10311173	yellow	16	89,682,931	5'UTR	OpenSea	DPEP1	0.648	0.002	0.619	0.768
cg23946364	yellow	2	235,936,477	5'UTR	OpenSea	SH3BP4	0.648	0.009	0.840	0.292
cg11052535	yellow	11	56,468,348	Body	OpenSea	OR8U8	0.648	-0.011	0.483	0.253
cg00752263	yellow	4	3,486,116	Body	Island	DOK7	0.648	0.001	0.399	0.863
cg20241270	yellow	3	11,058,951	Body	Island	SLC6A1	0.648	-0.002	0.916	0.762
cg13630871	yellow	9	131,583,092	Body	S_Shore	ENDOG	0.648	0.002	0.498	0.687
cg03365937	yellow	11	45,688,659	TSS1500	S_Shore	CHST1	0.648	0.007	0.361	0.207
cg23629722	yellow	17	16,343,399	Body	S_Shore	NCRNA0018	0.648	-0.001	0.145	0.861
cg27661793	yellow	4	187,621,285	Body	OpenSea	FAT1	0.648	0.003	0.885	0.665
cg24456632	yellow	11	77,314,957	Body	OpenSea	AQP11	0.648	0.008	0.552	0.679
cg16811558	yellow	7	50,634,252	TSS1500	OpenSea	DDC	0.648	-0.014	0.869	0.040
cg00785482	yellow	1	208,058,986		OpenSea		0.648	0.002	0.779	0.792
cg06719628	yellow	11	119,040,084	5'UTR	S_Shore	NLRX1	0.648	0.007	0.176	0.308
cg00593298	yellow	10	13,890,043	Body	OpenSea	FRMD4A	0.648	-0.005	0.611	0.601
cg15117891	yellow	5	146,893,482		S_Shelf		0.648	0.006	0.872	0.510
cg12267236	yellow	1	117,527,582	Body	OpenSea	PTGFRN	0.648	0.004	0.441	0.599
cg22834924	yellow	6	140,392,531		OpenSea		0.648	0.003	0.349	0.768
cg06856840	yellow	15	80,446,451	Body	OpenSea	FAH	0.648	0.008	0.642	0.228
cg06521359	yellow	1	203,767,572	5'UTR	S_Shelf	ZC3H11A	0.648	0.003	0.794	0.736
cg22311015	yellow	2	241,630,042	TSS1500	OpenSea	AQP12A	0.648	0.003	0.758	0.703
cg25619717	yellow	5	114,867,569	Body	OpenSea	FEM1C	0.648	-0.002	0.882	0.784
cg11214962	yellow	1	161,280,287	TSS1500	N_Shelf	MPZ	0.648	-0.005	0.827	0.543
cg05638139	yellow	17	79,001,027		OpenSea		0.648	0.009	0.663	0.358
cg12520319	yellow	15	101,740,264	Body	OpenSea	CHSY1	0.648	0.003	0.272	0.777

cg03535099	yellow	17	80,847,270	Body	OpenSea	TBCD	0.648	0.004	0.713	0.613
cg08286551	yellow	19	1,168,841	5'UTR	Island	SBNO2	0.648	0.019	0.712	0.141
cg04836987	yellow	5	95,964,334		OpenSea		0.648	0.007	0.435	0.491
cg13284470	yellow	2	69,001,115	TSS1500	OpenSea	ARHGAP25	0.648	0.015	0.829	0.018
cg24397995	yellow	11	36,311,334	TSS1500	OpenSea	COMMD9	0.648	0.008	0.193	0.444
cg14160911	yellow	9	138,308,135		S_Shelf		0.648	-0.006	0.912	0.422
cg22509679	yellow	12	10,379,548		OpenSea		0.648	-0.004	0.917	0.563
cg01062443	yellow	19	1,609,369	3'UTR	S_Shelf	TCF3	0.647	0.000	0.581	0.982
cg26743132	yellow	13	111,107,905	Body	N_Shore	COL4A2	0.647	0.001	0.617	0.947
cg12960126	yellow	4	187,686,256		OpenSea		0.647	0.003	0.676	0.751
cg16051543	yellow	4	126,012,511		OpenSea		0.647	0.002	0.917	0.829
cg26791665	yellow	1	19,217,189	Body	OpenSea	ALDH4A1	0.647	-0.005	0.939	0.431
cg05580864	yellow	7	158,858,173	Body	S_Shore	VIPR2	0.647	0.004	0.864	0.485
cg25186492	yellow	17	73,978,502	5'UTR	S_Shelf	C17orf106	0.647	0.011	0.932	0.058
cg16264966	yellow	22	41,613,790	Body	OpenSea	L3MBTL2	0.647	0.003	0.232	0.845
cg01341355	yellow	6	31,505,493	Body	OpenSea	BAT1	0.647	-0.008	0.926	0.143
cg04113258	yellow	16	17,527,041	Body	OpenSea	XYLT1	0.647	-0.002	0.702	0.819
cg00796728	yellow	11	94,276,898	TSS200	Island	FUT4	0.647	0.003	0.057	0.398
cg00128951	yellow	1	88,927,170		N_Shore		0.647	-0.005	0.790	0.585
cg10016358	yellow	17	73,055,875	Body	OpenSea	KCTD2	0.647	0.003	0.783	0.649
cg05547260	yellow	6	43,611,905	TSS1500	N_Shore	RSPH9	0.647	0.004	0.719	0.783
cg11469769	yellow	8	144,950,787		N_Shore		0.647	0.001	0.816	0.821
cg24357935	yellow	6	168,573,881		OpenSea		0.647	0.000	0.888	0.964
cg19553158	yellow	3	10,233,247	Body	OpenSea	IRAK2	0.647	0.004	0.742	0.614
cg14666908	yellow	6	31,937,758	TSS1500	N_Shore	STK19	0.647	-0.003	0.863	0.715
cg25136644	yellow	7	150,709,463	3'UTR	N_Shore	ATG9B	0.647	-0.004	0.760	0.411
cg02227217	yellow	8	67,546,638	3'UTR	OpenSea	VCP1P1	0.647	0.004	0.939	0.634
cg21649013	yellow	12	132,381,683	Body	S_Shore	ULK1	0.647	0.011	0.796	0.090
cg19704902	yellow	2	8,445,893		OpenSea		0.647	-0.004	0.858	0.617
cg24965293	yellow	7	19,142,943		N_Shelf		0.647	-0.001	0.782	0.931
cg14579769	yellow	18	8,364,304	Body	N_Shelf	LOC1001924	0.647	-0.007	0.873	0.267
cg10439725	yellow	16	67,431,954	Body	N_Shore	ZDHHC1	0.647	0.015	0.641	0.046
cg05481579	yellow	17	79,030,796	Body	OpenSea	BAIAP2	0.647	-0.001	0.663	0.861
cg13601605	yellow	15	67,057,285	Body	OpenSea	SMAD6	0.647	-0.007	0.913	0.170
cg15893295	yellow	6	14,277,043		OpenSea		0.647	-0.005	0.541	0.473
cg18310639	yellow	1	223,904,225	Body	S_Shelf	CAPN2	0.647	0.018	0.674	0.021
cg05100846	yellow	14	102,647,731	Body	OpenSea	WDR20	0.647	-0.006	0.599	0.386
cg23148838	yellow	5	10,376,991	Body	OpenSea	6-Mar	0.647	0.012	0.777	0.048
cg24258705	yellow	7	116,314,916	5'UTR	S_Shelf	MET	0.647	-0.002	0.825	0.825
cg07701282	yellow	16	67,264,290	Body	S_Shelf	FHOD1	0.647	0.009	0.810	0.135
cg18474153	yellow	19	3,984,323	Body	N_Shore	EEF2	0.647	-0.009	0.398	0.419
cg02525637	yellow	11	2,407,699	Body	S_Shore	CD81	0.647	0.003	0.826	0.648
cg23527920	yellow	6	32,906,857	Body	OpenSea	HLA-DMB	0.647	0.009	0.772	0.354
cg10025830	yellow	12	4,136,722		N_Shelf		0.647	0.010	0.618	0.117
cg27503117	yellow	19	10,434,962	Body	S_Shore	RAVER1	0.647	-0.002	0.792	0.741
cg20406033	yellow	20	48,103,474		S_Shelf		0.647	-0.001	0.574	0.852
cg25133887	yellow	1	156,266,750	TSS1500	OpenSea	C1orf85	0.647	0.002	0.903	0.775
cg03592824	yellow	7	75,666,768	5'UTR	OpenSea	STYXL1	0.647	0.024	0.755	0.031
cg00928795	yellow	16	75,261,098		N_Shelf		0.647	0.021	0.693	0.007
cg23054181	yellow	15	99,048,945	5'UTR	OpenSea	FAM169B	0.647	0.006	0.697	0.542
cg12694124	yellow	13	45,013,657	Body	S_Shelf	TSC22D1	0.647	0.024	0.427	0.101
cg02550151	yellow	22	50,218,448	1stExon	N_Shore	BRD1	0.647	0.003	0.741	0.596
cg14334258	yellow	9	110,595,657		OpenSea		0.647	0.003	0.827	0.735
cg08705329	yellow	17	40,931,588	3'UTR	N_Shore	VPS25	0.646	0.003	0.875	0.632
cg26738987	yellow	11	94,135,029	TSS1500	S_Shore	GPR83	0.646	0.002	0.162	0.861
cg05714496	yellow	10	134,358,685	Body	N_Shore	INPP5A	0.646	0.009	0.876	0.365
cg01397912	yellow	19	55,670,288	3'UTR	N_Shore	C19orf51	0.646	0.005	0.787	0.595
cg01220564	yellow	7	50,633,119	5'UTR	OpenSea	DDC	0.646	0.000	0.318	0.996
cg10152449	yellow	7	2,444,534	5'UTR	S_Shore	CHST12	0.646	0.004	0.825	0.659
cg13072186	yellow	3	176,904,010	5'UTR	OpenSea	TBL1XR1	0.646	0.017	0.635	0.039
cg16556605	yellow	5	180,219,008	Body	Island	MGAT1	0.646	0.001	0.660	0.832
cg20800117	yellow	1	7,308,366	Body	OpenSea	CAMTA1	0.646	-0.001	0.646	0.938
cg27585287	yellow	22	37,963,407	Body	S_Shore	CDC42EP1	0.646	0.004	0.238	0.437
cg05091653	yellow	2	231,281,474	Body	OpenSea	SP100	0.646	-0.004	0.311	0.682
cg23309836	yellow	6	165,341,320		OpenSea		0.646	-0.009	0.348	0.270
cg08240592	yellow	1	210,028,011	3'UTR	OpenSea	C1orf107	0.646	0.004	0.667	0.602
cg00378228	yellow	4	10,122,153		S_Shelf		0.646	-0.011	0.842	0.188

cg17535314	yellow	10	48,435,475	Body	N_Shelf	GDF10	0.646	0.004	0.658	0.697
cg08224888	yellow	19	3,969,522	Body	N_Shore	DAPK3	0.646	0.011	0.339	0.140
cg26682904	yellow	11	101,787,410	TSS200	S_Shore	ANGPTL5	0.646	-0.017	0.850	0.067
cg19761245	yellow	4	41,366,989	Body	S_Shelf	LIMCH1	0.646	0.012	0.887	0.417
cg02381009	yellow	5	1,241,958	Body	N_Shore	SLC6A18	0.646	0.001	0.779	0.947
cg19496158	yellow	5	3,489,600		OpenSea		0.646	0.010	0.737	0.071
cg10309354	yellow	6	170,361,474		OpenSea		0.646	0.040	0.638	0.020
cg13001289	yellow	17	1,415,550	Body	N_Shelf	INPP5K	0.646	0.007	0.364	0.308
cg24067652	yellow	5	139,626,136	Body	OpenSea	PFDN1	0.646	0.006	0.813	0.348
cg02898159	yellow	19	5,346,237		OpenSea		0.646	0.000	0.473	0.947
cg19591003	yellow	14	94,392,757	Body	OpenSea	FAM181A	0.646	0.013	0.609	0.106
cg25765315	yellow	12	92,472,232		OpenSea		0.646	0.011	0.691	0.191
cg23633059	yellow	1	247,570,895		OpenSea		0.646	0.001	0.820	0.846
cg26446070	yellow	19	47,217,768	TSS200	N_Shore	PRKD2	0.646	-0.002	0.031	0.407
cg03477303	yellow	10	134,016,713	Body	S_Shore	DPYSL4	0.646	0.002	0.693	0.720
cg17251609	yellow	3	65,489,574	Body	OpenSea	MAGI1	0.646	-0.010	0.670	0.246
cg20682563	yellow	5	133,460,874	Body	OpenSea	TCF7	0.646	0.005	0.408	0.511
cg20932718	yellow	7	1,184,264		OpenSea		0.646	0.016	0.446	0.133
cg00586275	yellow	17	4,850,024	Body	N_Shore	PFN1	0.646	0.006	0.685	0.466
cg26101942	yellow	8	28,232,176	5'UTR	OpenSea	ZNF395	0.646	0.001	0.940	0.714
cg04774505	yellow	14	24,549,943	3'UTR	N_Shore	NRL	0.646	0.002	0.512	0.773
cg14953730	yellow	10	134,498,830	Body	OpenSea	INPP5A	0.646	0.006	0.687	0.409
cg05796261	yellow	3	47,421,564	TSS1500	N_Shore	PTPN23	0.646	0.024	0.463	0.020
cg23516425	yellow	2	20,186,047	Body	N_Shelf	WDR35	0.646	0.011	0.882	0.050
cg04021663	yellow	1	67,395,547	TSS1500	N_Shore	MIER1	0.646	-0.002	0.137	0.826
cg01569083	yellow	6	31,543,289	TSS200	OpenSea	TNF	0.646	0.007	0.785	0.240
cg12718502	yellow	12	2,999,424	TSS1500	N_Shore	TULP3	0.646	-0.002	0.153	0.737
cg25339815	yellow	1	76,572,603	Body	OpenSea	ST6GALNAC3	0.646	-0.014	0.906	0.201
cg02930866	yellow	3	15,482,580	3'UTR	OpenSea	EAF1	0.646	-0.005	0.859	0.385
cg13932122	yellow	9	138,192,282		N_Shore		0.646	-0.005	0.819	0.412
cg22803549	yellow	14	93,215,468	TSS1500	OpenSea	LGMM	0.646	-0.001	0.837	0.939
cg05224124	yellow	14	35,583,718	Body	OpenSea	PPP2R3C	0.646	0.008	0.928	0.171
cg15789106	yellow	11	563,990	3'UTR	N_Shelf	RASSF7	0.646	0.013	0.446	0.027
cg06168235	yellow	18	39,578,868	Body	OpenSea	PIK3C3	0.646	0.007	0.855	0.498
cg14488288	yellow	6	169,632,788	Body	Island	THBS2	0.646	0.010	0.779	0.279
cg25956106	yellow	10	47,696,803	Body	OpenSea	ANTXR1	0.646	0.010	0.702	0.546
cg17494334	yellow	1	230,469,330	Body	S_Shore	PGBD5	0.645	-0.003	0.839	0.583
cg06071746	yellow	17	57,297,518	TSS1500	N_Shore	GDPD1	0.645	-0.003	0.441	0.814
cg15240990	yellow	19	10,959,157	5'UTR	OpenSea	C19orf38	0.645	0.001	0.212	0.913
cg04119529	yellow	16	2,094,667	Body	N_Shelf	NTHL1	0.645	-0.006	0.731	0.163
cg12165551	yellow	11	8,385,712		OpenSea		0.645	0.002	0.562	0.875
cg18941831	yellow	1	120,272,766	Body	OpenSea	PHGDH	0.645	-0.008	0.905	0.284
cg04804052	yellow	19	11,094,658	TSS200	N_Shelf	SMARCA4	0.645	0.011	0.731	0.186
cg06855666	yellow	4	8,617,839	Body	OpenSea	CPZ	0.645	-0.004	0.811	0.623
cg08416661	yellow	11	65,647,279	TSS200	OpenSea	CTSW	0.645	0.025	0.460	0.128
cg20322193	yellow	7	39,664,614	5'UTR	S_Shore	RALA	0.645	0.007	0.208	0.369
cg14422782	yellow	15	74,312,279	Body	N_Shelf	PML	0.645	0.004	0.746	0.642
cg03027239	yellow	3	42,700,285	Body	Island	ZBTB47	0.645	0.004	0.869	0.417
cg25312054	yellow	13	110,434,467	1stExon	Island	IRS2	0.645	0.004	0.875	0.692
cg24952158	yellow	18	34,338,496	Body	N_Shelf	FHOD3	0.645	-0.004	0.605	0.576
cg19143336	yellow	3	32,148,863	Body	Island	GPD1L	0.645	0.005	0.579	0.564
cg21974766	yellow	7	94,138,743	TSS1500	N_Shore	CASD1	0.645	0.001	0.058	0.683
cg22992266	yellow	4	621,306	Body	S_Shore	PDE6B	0.645	-0.002	0.644	0.777
cg06858584	yellow	2	131,904,854	3'UTR	OpenSea	PLEKH2	0.645	0.003	0.910	0.663
cg19088924	yellow	3	78,233,699		OpenSea		0.645	-0.004	0.890	0.586
cg14039909	yellow	11	76,433,293	TSS1500	OpenSea	GUCY2E	0.645	-0.001	0.286	0.893
cg15203735	yellow	10	48,573,302		OpenSea		0.645	0.010	0.350	0.263
cg03402605	yellow	10	134,257,269	TSS1500	OpenSea	C10orf91	0.645	0.003	0.105	0.790
cg27299047	yellow	7	2,103,248	Body	N_Shelf	MAD1L1	0.645	-0.005	0.713	0.642
cg02839071	yellow	18	10,472,982	Body	S_Shore	APCDD1	0.645	-0.003	0.876	0.678
cg06636526	yellow	4	712,252	5'UTR	N_Shore	PCGF3	0.645	0.015	0.895	0.054
cg23768894	yellow	7	157,140,029	5'UTR	OpenSea	DNAJB6	0.645	-0.009	0.730	0.493
cg06484274	yellow	3	142,164,840	Body	N_Shore	XRN1	0.645	-0.013	0.886	0.047
cg04889688	yellow	10	130,508,795		S_Shore		0.645	0.005	0.672	0.540
cg24054315	yellow	5	17,132,200	Body	OpenSea	LOC285696	0.645	-0.001	0.922	0.864
cg00324562	yellow	21	27,106,440	5'UTR	N_Shore	ATP5J	0.645	0.004	0.043	0.290
cg17239770	yellow	1	2,540,942	Body	S_Shelf	MMEL1	0.645	0.015	0.618	0.095

cg11857514	yellow	12	122,151,762	Body	S_Shore	TMEM120B	0.645	0.014	0.784	0.116
cg13620715	yellow	9	115,910,751		N_Shelf		0.645	-0.004	0.750	0.599
cg03419051	yellow	17	29,814,382	Body	N_Shore	RAB11FIP4	0.645	0.022	0.634	0.011
cg13937817	yellow	9	72,134,749	5'UTR	S_Shelf	APBA1	0.645	0.010	0.750	0.205
cg13807254	yellow	9	129,619,813		N_Shelf		0.645	0.004	0.875	0.679
cg20050194	yellow	10	116,046,732	Body	S_Shore	VWA2	0.645	0.008	0.954	0.049
cg03024791	yellow	11	2,243,261		OpenSea		0.645	-0.003	0.721	0.574
cg01669085	yellow	13	26,051,676	Body	OpenSea	ATP8A2	0.645	-0.001	0.870	0.770
cg07725056	yellow	6	134,085,562		OpenSea		0.645	0.009	0.752	0.482
cg25729687	yellow	7	73,474,235	Body	OpenSea	ELN	0.645	0.010	0.724	0.185
cg12166018	yellow	15	72,564,196	TSS1500	N_Shore	PARP6	0.645	0.001	0.283	0.919
cg09315464	yellow	4	153,895,184	Body	N_Shore	FHDC1	0.645	0.001	0.687	0.944
cg14924160	yellow	13	41,496,235	TSS1500	N_Shore	SUGT1L1	0.645	0.002	0.832	0.823
cg26259865	yellow	16	2,880,359	Body	OpenSea	ZG16B	0.645	0.010	0.840	0.151
cg07023208	yellow	6	32,797,253	Body	OpenSea	TAP2	0.644	0.000	0.816	0.983
cg05265703	yellow	3	137,787,902	Body	OpenSea	DZIP1L	0.644	0.004	0.601	0.697
cg13146040	yellow	12	125,004,853	5'UTR	S_Shore	NCOR2	0.644	0.007	0.734	0.505
cg17491622	yellow	1	1,369,616	TSS1500	N_Shore	VWA1	0.644	-0.003	0.074	0.660
cg08094571	yellow	19	16,682,354	Body	N_Shore	SLC35E1	0.644	0.012	0.479	0.033
cg04492263	yellow	13	113,409,145	Body	N_Shore	ATP11A	0.644	0.006	0.611	0.454
cg09438320	yellow	19	51,053,313	5'UTR	S_Shore	LRRC4B	0.644	0.001	0.790	0.858
cg25587431	yellow	3	177,542,099		OpenSea		0.644	0.003	0.138	0.831
cg18683103	yellow	10	115,015,742		OpenSea		0.644	0.005	0.473	0.657
cg21861151	yellow	2	239,478,365		OpenSea		0.644	0.002	0.524	0.888
cg13938959	yellow	1	834,183		OpenSea		0.644	0.001	0.854	0.882
cg12029281	yellow	6	35,461,818	5'UTR	N_Shelf	TEAD3	0.644	0.011	0.430	0.069
cg02542218	yellow	7	131,630,566		S_Shore		0.644	0.010	0.539	0.090
cg12655269	yellow	7	21,980,230	Body	OpenSea	CDCA7L	0.644	0.001	0.969	0.786
cg04460609	yellow	4	16,532,808	Body	OpenSea	LDB2	0.644	-0.010	0.861	0.126
cg02657438	yellow	14	81,864,899	1stExon	OpenSea	STON2	0.644	-0.005	0.782	0.501
cg10585321	yellow	9	135,995,491	Body	N_Shore	RALGDS	0.644	0.017	0.470	0.060
cg15132165	yellow	17	773,137	Body	OpenSea	NXN	0.644	0.008	0.734	0.508
cg07235599	yellow	6	168,917,224	Body	N_Shore	SMOC2	0.644	-0.010	0.857	0.313
cg09981432	yellow	2	118,614,378		N_Shelf		0.644	0.006	0.310	0.425
cg05724065	yellow	7	56,160,528	1stExon	OpenSea	PHKG1	0.644	-0.001	0.139	0.843
cg04556938	yellow	17	79,001,419		OpenSea		0.644	0.011	0.508	0.175
cg09417547	yellow	3	43,289,436		OpenSea		0.644	0.010	0.829	0.133
cg03403511	yellow	11	62,641,217	Body	OpenSea	SLC3A2	0.644	0.006	0.911	0.334
cg14467464	yellow	17	7,960,406		OpenSea		0.644	0.001	0.702	0.930
cg00326785	yellow	7	22,395,217	5'UTR	N_Shore	RAPGEF5	0.644	0.002	0.829	0.743
cg21306949	yellow	6	164,506,692		OpenSea		0.644	0.012	0.588	0.198
cg23426816	yellow	10	115,934,681	TSS1500	S_Shore	MIR2110	0.644	0.000	0.024	0.855
cg16214693	yellow	10	126,278,299	Body	Island	LHPP	0.644	0.014	0.490	0.094
cg04881321	yellow	14	24,522,036	Body	S_Shore	LRRC16B	0.644	0.007	0.075	0.189
cg02795691	yellow	20	17,514,397	Body	S_Shelf	BFSP1	0.644	0.001	0.527	0.834
cg00912149	yellow	17	74,449,810	5'UTR	S_Shore	AANAT	0.644	0.006	0.290	0.460
cg12010995	yellow	8	59,413,152	TSS1500	OpenSea	CYP7A1	0.644	0.002	0.898	0.780
cg10102384	yellow	6	163,148,018	TSS200	N_Shore	PACRG	0.644	0.012	0.498	0.090
cg23746600	yellow	6	160,403,181	Body	OpenSea	IGF2R	0.644	-0.012	0.581	0.073
cg02953457	yellow	6	30,638,580	Body	N_Shore	DHX16	0.644	0.000	0.728	0.953
cg00037930	yellow	13	113,445,870	Body	OpenSea	ATP11A	0.644	0.007	0.635	0.373
cg20552468	yellow	17	79,259,699	Body	S_Shore	SLC38A10	0.644	0.018	0.451	0.049
cg11404489	yellow	1	228,071,452		N_Shelf		0.644	0.006	0.702	0.271
cg24055178	yellow	10	134,263,487		N_Shelf		0.644	-0.002	0.596	0.735
cg25512791	yellow	11	56,949,074	TSS200	S_Shore	LRRC55	0.644	-0.003	0.207	0.713
cg08178356	yellow	11	64,051,212	TSS1500	N_Shore	GPR137	0.644	0.000	0.718	0.991
cg21785536	yellow	3	69,063,328	TSS1500	S_Shore	C3orf64	0.644	0.019	0.139	0.027
cg15463563	yellow	8	134,224,890	Body	OpenSea	WISP1	0.644	-0.007	0.869	0.467
cg16259747	yellow	22	42,086,821	1stExon	S_Shore	C22orf46	0.644	0.002	0.851	0.736
cg14833337	yellow	1	157,490,546	Body	OpenSea	FCRL5	0.644	0.006	0.855	0.347
cg04610450	yellow	19	18,280,601	3'UTR	S_Shore	PIK3R2	0.644	0.004	0.882	0.441
cg21756765	yellow	22	33,402,998	5'UTR	OpenSea	SYN3	0.644	0.002	0.961	0.712
cg18340059	yellow	14	101,347,194	1stExon	N_Shore	RTL1	0.644	0.009	0.725	0.172
cg24696500	yellow	5	191,492	TSS200	N_Shore	LRRC14B	0.644	0.003	0.370	0.647
cg19244029	yellow	3	156,022,310	Body	OpenSea	KCNAB1	0.644	-0.006	0.703	0.602
cg22304662	yellow	3	42,694,783	TSS1500	N_Shore	ZBTB47	0.644	0.018	0.748	0.006
cg00347746	yellow	19	48,970,082		N_Shelf		0.644	0.006	0.789	0.360

cg16785291	yellow	7	133,974,228	3'UTR	OpenSea	SLC35B4	0.644	-0.007	0.411	0.512
cg07223253	yellow	7	150,147,988	5'UTR	OpenSea	GIMAP8	0.644	0.003	0.552	0.834
cg01157146	yellow	21	42,877,638	Body	N_Shore	TMPRSS2	0.644	0.007	0.582	0.490
cg11185188	yellow	10	100,175,236	TSS1500	OpenSea	PYROXD2	0.644	0.014	0.677	0.039
cg19812706	yellow	11	33,060,549	TSS1500	N_Shore	TCP11L1	0.644	0.002	0.163	0.851
cg22738281	yellow	4	8,248,444		OpenSea		0.644	0.004	0.735	0.585
cg04504001	yellow	16	74,340,046	3'UTR	OpenSea	PSMD7	0.644	-0.005	0.943	0.245
cg10047173	yellow	12	14,996,587	TSS200	OpenSea	ART4	0.643	-0.009	0.731	0.201
cg01242348	yellow	14	23,586,886	Body	OpenSea	CEBPE	0.643	0.004	0.793	0.616
cg04639304	yellow	11	65,302,203	Body	N_Shelf	SCYL1	0.643	0.008	0.599	0.178
cg17344149	yellow	11	3,817,692	5'UTR	N_Shore	NUP98	0.643	0.009	0.277	0.352
cg25463749	yellow	6	119,401,102	5'UTR	S_Shore	FAM184A	0.643	-0.007	0.438	0.661
cg03242666	yellow	17	15,168,570	1stExon	S_Shelf	PMP22	0.643	0.043	0.630	0.001
cg11069071	yellow	14	101,525,465	TSS1500	OpenSea	MIR496	0.643	-0.003	0.822	0.769
cg21965980	yellow	19	35,614,992	3'UTR	N_Shore	FXYD3	0.643	0.012	0.714	0.169
cg04629133	yellow	20	30,791,409	5'UTR	N_Shelf	PLAGL2	0.643	0.010	0.848	0.333
cg06805925	yellow	17	16,233,044		OpenSea		0.643	0.014	0.541	0.384
cg13817395	yellow	6	32,014,926	Body	OpenSea	TNXB	0.643	0.000	0.651	0.985
cg16896205	yellow	1	111,413,643	TSS200	OpenSea	CD53	0.643	0.005	0.446	0.483
cg19023320	yellow	3	13,033,587	Body	N_Shore	IQSEC1	0.643	0.011	0.608	0.103
cg01646665	yellow	1	156,251,436	TSS1500	OpenSea	TMEM79	0.643	-0.002	0.273	0.830
cg20286347	yellow	6	169,717,905		OpenSea		0.643	0.011	0.869	0.172
cg11997708	yellow	13	114,927,854		S_Shore		0.643	0.000	0.031	0.927
cg03211902	yellow	16	58,069,987	Body	N_Shelf	MMP15	0.643	0.009	0.793	0.176
cg04295372	yellow	1	101,184,332	TSS1500	OpenSea	VCAM1	0.643	-0.002	0.812	0.836
cg14549256	yellow	4	2,627,142	TSS200	OpenSea	FAM193A	0.643	0.003	0.537	0.799
cg18929428	yellow	6	30,568,674	3'UTR	OpenSea	PPP1R10	0.643	0.000	0.974	0.913
cg07301829	yellow	8	118,313,044		OpenSea		0.643	-0.009	0.829	0.455
cg24851513	yellow	3	52,099,522	TSS1500	OpenSea	C3orf74	0.643	0.002	0.418	0.636
cg23755074	yellow	11	108,423,325	Body	OpenSea	EXPH5	0.643	0.005	0.730	0.488
cg08548882	yellow	6	150,953,085	5'UTR	OpenSea	PLEKHG1	0.643	0.013	0.669	0.062
cg15810508	yellow	11	119,254,603		S_Shelf		0.643	0.009	0.761	0.075
cg05541640	yellow	3	52,008,740	TSS200	N_Shore	ABHD14B	0.643	0.006	0.287	0.335
cg19835040	yellow	3	46,538,742	TSS1500	OpenSea	RTP3	0.643	0.006	0.622	0.363
cg16066354	yellow	22	39,417,451	1stExon	OpenSea	APOBEC3D	0.643	0.008	0.562	0.369
cg19701014	yellow	6	31,599,292	Body	N_Shore	BAT2	0.643	-0.001	0.905	0.907
cg17031787	yellow	6	32,049,235	Body	S_Shelf	TNXB	0.643	0.008	0.614	0.390
cg09343192	yellow	10	65,132,857	Body	OpenSea	JMJD1C	0.643	-0.004	0.883	0.598
cg13785196	yellow	1	32,646,858	Body	S_Shore	TXLNA	0.643	0.018	0.398	0.100
cg00547484	yellow	1	32,219,777	Body	N_Shelf	BAI2	0.643	0.009	0.429	0.201
cg13958389	yellow	3	11,643,630	Body	OpenSea	VGLL4	0.643	0.026	0.582	0.088
cg19257402	yellow	12	132,356,988		OpenSea		0.643	0.009	0.385	0.109
cg09091752	yellow	15	41,080,358	Body	OpenSea	DNAJC17	0.643	0.001	0.342	0.837
cg04441815	yellow	8	144,448,389		N_Shore		0.643	0.001	0.613	0.967
cg02011124	yellow	1	5,770,367		N_Shore		0.643	0.001	0.504	0.889
cg24617444	yellow	10	111,916,921		OpenSea		0.643	0.001	0.581	0.802
cg24918184	yellow	19	4,323,200	Body	Island	FSD1	0.643	0.002	0.630	0.812
cg05187155	yellow	4	160,280,029	3'UTR	OpenSea	RAPGEF2	0.643	-0.006	0.873	0.365
cg09774854	yellow	17	30,539,553	Body	OpenSea	RHOT1	0.643	-0.009	0.919	0.073
cg11498228	yellow	8	1,895,431	Body	S_Shore	ARHGEF10	0.643	0.027	0.553	0.037
cg24917359	yellow	17	77,044,255	3'UTR	Island	C1QTNF1	0.643	0.012	0.866	0.037
cg00364758	yellow	7	37,964,310	Body	S_Shelf	EPDR1	0.643	-0.012	0.917	0.227
cg08625909	yellow	10	134,358,974	Body	N_Shore	INPP5A	0.643	0.003	0.951	0.611
cg27428520	yellow	1	204,100,192	3'UTR	OpenSea	ETNK2	0.643	0.009	0.428	0.228
cg04391401	yellow	12	114,219,823		OpenSea		0.643	0.006	0.748	0.602
cg17445830	yellow	4	113,218,385	TSS200	OpenSea	ALPK1	0.643	0.000	0.047	0.953
cg13053608	yellow	17	40,345,673	5'UTR	OpenSea	GHDC	0.643	0.008	0.762	0.285
cg24477567	yellow	19	11,495,295	TSS1500	S_Shore	EPOR	0.643	0.004	0.446	0.600
cg12710538	yellow	17	27,490,340	Body	N_Shelf	MYO18A	0.643	0.009	0.546	0.253
cg10100556	yellow	16	89,657,887	Body	N_Shelf	CPNE7	0.643	-0.007	0.843	0.195
cg22272668	yellow	7	148,460,449	Body	OpenSea	CUL1	0.643	-0.017	0.484	0.250
cg05057515	yellow	16	89,024,657	Body	OpenSea	CBFA2T3	0.643	0.002	0.700	0.835
cg13437554	yellow	19	2,272,716	Body	Island	OAZ1	0.643	-0.001	0.839	0.868
cg05749728	yellow	10	126,826,902	5'UTR	OpenSea	CTBP2	0.643	-0.010	0.499	0.167
cg10755077	yellow	17	75,318,882	5'UTR	OpenSea	9-Sep	0.643	0.005	0.608	0.361
cg03943115	yellow	1	153,014,367	TSS1500	OpenSea	SPRR2D	0.643	0.012	0.547	0.292
cg26114961	yellow	6	31,692,295	Body	S_Shore	C6orf25	0.643	0.002	0.889	0.778



cg24221965	yellow	15	81,422,779	N_Shelf		0.643	-0.004	0.869	0.701
cg03824768	yellow	5	5,320,334 3'UTR	OpenSea	ADAMTS16	0.643	0.001	0.832	0.849
cg13036656	yellow	4	660,910 Body	S_Shelf	PDE6B	0.643	0.014	0.792	0.027
cg19438894	yellow	11	62,344,563 Body	S_Shelf	TUT1	0.643	-0.002	0.856	0.760
cg26818489	yellow	11	119,380,820	OpenSea		0.643	0.008	0.536	0.204
cg10706073	yellow	17	46,328,419 Body	OpenSea	SKAP1	0.643	0.004	0.918	0.598
cg02567151	yellow	20	61,915,437 Body	N_Shore	ARFGAP1	0.643	0.003	0.911	0.542
cg12167091	yellow	12	49,246,503 TSS1500	S_Shore	DDX23	0.643	0.015	0.194	0.181
cg02912316	yellow	1	32,527,924	OpenSea		0.643	0.006	0.265	0.218
cg26363579	yellow	8	1,107,269	S_Shore		0.643	0.012	0.765	0.028
cg16111231	yellow	6	160,399,700 Body	OpenSea	IGF2R	0.643	-0.004	0.709	0.588
cg19371652	yellow	12	113,415,883 TSS1500	OpenSea	OAS2	0.642	0.000	0.727	0.978
cg14479709	yellow	8	1,249,007	S_Shelf		0.642	0.004	0.847	0.547
cg06869935	yellow	16	88,125,381	OpenSea		0.642	-0.008	0.276	0.460
cg23999224	yellow	19	39,836,003 5'UTR	S_Shelf	SAMD4B	0.642	0.010	0.928	0.031
cg12308965	yellow	11	67,291,387 TSS1500	S_Shelf	CABP2	0.642	0.005	0.454	0.333
cg19853494	yellow	1	169,680,613 Body	OpenSea	SELL	0.642	0.008	0.585	0.421
cg27584448	yellow	6	33,289,271 Body	N_Shore	DAXX	0.642	0.010	0.533	0.113
cg25701646	yellow	3	57,969,522	OpenSea		0.642	0.003	0.416	0.718
cg05687091	yellow	18	77,218,862 Body	Island	NFATC1	0.642	0.013	0.582	0.063
cg20723705	yellow	11	122,118,676	OpenSea		0.642	-0.002	0.954	0.628
cg03779097	yellow	20	62,727,043 Body	N_Shelf	OPRL1	0.642	0.009	0.546	0.097
cg00408764	yellow	5	106,088	OpenSea		0.642	-0.001	0.864	0.858
cg07630229	yellow	16	87,492,138 Body	OpenSea	ZCCHC14	0.642	0.005	0.794	0.351
cg02712949	yellow	8	87,570,714 3'UTR	OpenSea	CPNE3	0.642	-0.006	0.836	0.526
cg22963777	yellow	20	34,115,350 3'UTR	OpenSea	C2orf173	0.642	0.005	0.587	0.531
cg02086286	yellow	6	30,558,338 Body	OpenSea	ABCF1	0.642	-0.007	0.910	0.210
cg02914800	yellow	7	93,549,968 TSS1500	OpenSea	GNG11	0.642	0.004	0.908	0.589
cg00649515	yellow	1	44,456,953 TSS1500	N_Shore	CCDC24	0.642	-0.001	0.033	0.476
cg04198330	yellow	14	91,007,005 3'UTR	N_Shore	TTC7B	0.642	0.002	0.967	0.598
cg12586050	yellow	5	159,797,922 TSS1500	S_Shore	C1QTNF2	0.642	0.000	0.574	0.971
cg11093142	yellow	13	49,075,016 Body	OpenSea	RCBTB2	0.642	0.025	0.485	0.100
cg16138158	yellow	12	123,727,023 5'UTR	OpenSea	C12orf65	0.642	-0.004	0.143	0.708
cg02108731	yellow	22	50,297,217 3'UTR	OpenSea	ALG12	0.642	0.001	0.925	0.830
cg06682039	yellow	6	170,536,047	OpenSea		0.642	0.011	0.461	0.483
cg07654202	yellow	8	28,924,133	OpenSea		0.642	0.012	0.635	0.049
cg26469895	yellow	2	240,143,798 Body	OpenSea	HDAC4	0.642	-0.003	0.890	0.831
cg24585422	yellow	5	1,866,188	OpenSea		0.642	0.013	0.750	0.081
cg13345380	yellow	17	3,571,037 TSS1500	N_Shore	TMEM93	0.642	0.007	0.079	0.093
cg08896420	yellow	15	89,453,807 Body	N_Shelf	MFGE8	0.642	0.008	0.836	0.334
cg22697825	yellow	1	223,899,853 TSS1500	N_Shore	CAPN2	0.642	0.004	0.398	0.476
cg15348609	yellow	12	132,197,061 Body	S_Shore	SFRS8	0.642	0.015	0.602	0.121
cg23837191	yellow	18	77,335,239	N_Shore		0.642	0.009	0.596	0.288
cg05529039	yellow	17	40,995,583 3'UTR	OpenSea	PSME3	0.642	0.005	0.166	0.454
cg08293777	yellow	16	57,218,991 TSS1500	N_Shore	RSPRY1	0.642	0.018	0.593	0.132
cg00637361	yellow	16	20,493,661 Body	OpenSea	ACSM2A	0.642	0.029	0.612	0.008
cg21181162	yellow	8	72,650,106	OpenSea		0.642	0.003	0.785	0.816
cg04969203	yellow	20	3,232,711 3'UTR	S_Shelf	C2orf194	0.642	0.021	0.672	0.069
cg19661705	yellow	15	31,307,115 Body	OpenSea	TRPM1	0.642	-0.002	0.752	0.837
cg05716556	yellow	17	47,287,410 TSS200	OpenSea	ABI3	0.642	-0.003	0.592	0.637
cg04403868	yellow	21	44,312,851 TSS1500	N_Shore	NDUFV3	0.642	0.003	0.036	0.343
cg13963658	yellow	22	50,697,503 Body	N_Shore	MAPK12	0.642	0.011	0.552	0.184
cg10192641	yellow	7	99,689,591 3'UTR	S_Shelf	COPS6	0.642	0.015	0.728	0.128
cg27621997	yellow	11	60,608,634 TSS1500	N_Shore	CCDC86	0.642	-0.007	0.764	0.553
cg05616095	yellow	16	88,144,249	OpenSea		0.642	-0.009	0.631	0.341
cg09473207	yellow	6	155,079,453 Body	OpenSea	RBM16	0.642	0.006	0.512	0.570
cg21407818	yellow	1	853,925 Body	N_Shore	FLJ39609	0.642	0.008	0.677	0.361
cg11783497	yellow	2	113,875,292 TSS200	OpenSea	IL1RN	0.642	0.028	0.800	0.026
cg00018229	yellow	1	231,113,419 Body	N_Shore	TTC13	0.642	-0.008	0.479	0.220
cg13392022	yellow	1	154,600,693 TSS1500	S_Shore	ADAR	0.642	0.003	0.727	0.841
cg20604286	yellow	2	58,273,438 TSS1500	N_Shore	VRK2	0.642	0.009	0.523	0.469
cg03992323	yellow	1	224,023,297 Body	OpenSea	TP53BP2	0.642	-0.003	0.921	0.636
cg21421270	yellow	1	170,383,965	OpenSea		0.642	0.027	0.737	0.053
cg23916284	yellow	4	26,358,537 Body	N_Shelf	RBPJ	0.642	-0.007	0.866	0.591
cg19667811	yellow	10	30,405,328	OpenSea		0.642	0.013	0.551	0.220
cg10889792	yellow	11	71,258,917 TSS1500	OpenSea	KRTAP5-9	0.641	0.002	0.675	0.765
cg13851641	yellow	6	33,289,007 Body	Island	DAXX	0.641	0.005	0.610	0.417

cg25687874	yellow	17	41,522,193	Body	OpenSea	MIR2117	0.641	0.001	0.606	0.887
cg24860589	yellow	11	129,941,906	Body	S_Shore	APLP2	0.641	0.000	0.894	0.972
cg02807948	yellow	11	2,153,991	Body	N_Shore	INS-IGF2	0.641	0.003	0.393	0.721
cg17278062	yellow	1	17,732,728		N_Shore		0.641	0.001	0.460	0.855
cg16464045	yellow	5	114,937,535	Body	N_Shore	TMED7-TICAI	0.641	0.001	0.024	0.576
cg23924448	yellow	5	123,446,562		OpenSea		0.641	0.009	0.776	0.270
cg19847038	yellow	3	93,747,528	Body	OpenSea	ARL13B	0.641	0.006	0.768	0.539
cg04267184	yellow	20	3,023,418	TSS1500	N_Shelf	GNRH2	0.641	0.013	0.505	0.192
cg06745001	yellow	19	49,471,563	3'UTR	N_Shore	GYS1	0.641	-0.008	0.830	0.264
cg14263972	yellow	13	26,798,109		S_Shore		0.641	0.025	0.647	0.159
cg13650535	yellow	9	126,716,056		OpenSea		0.641	0.002	0.037	0.366
cg16165748	yellow	11	65,030,448	Body	S_Shore	POLA2	0.641	0.005	0.070	0.448
cg22747142	yellow	11	795,582	5'UTR	N_Shelf	SLC25A22	0.641	0.009	0.631	0.322
cg07543830	yellow	20	56,247,611	5'UTR	Island	PMEPA1	0.641	-0.005	0.375	0.675
cg11270806	yellow	4	23,892,515	TSS1500	OpenSea	PPARGC1A	0.641	-0.005	0.073	0.458
cg205668691	yellow	13	99,340,714	Body	OpenSea	SLC15A1	0.641	0.002	0.385	0.940
cg22941668	yellow	5	148,810,180	TSS200	OpenSea	MIR145	0.641	0.000	0.755	0.993
cg27160726	yellow	2	128,587,544		OpenSea		0.641	0.008	0.606	0.412
cg00515954	yellow	12	99,548,504	TSS200	OpenSea	ANKS1B	0.641	-0.004	0.220	0.687
cg06966040	yellow	11	111,895,303	TSS1500	N_Shore	DLAT	0.641	0.004	0.061	0.373
cg11713336	yellow	5	138,940,474	TSS1500	N_Shore	UBE2D2	0.641	0.002	0.039	0.416
cg25214561	yellow	3	11,494,984	Body	OpenSea	ATG7	0.641	0.000	0.682	0.979
cg01611679	yellow	7	99,051,465	Body	OpenSea	CPSF4	0.641	0.001	0.618	0.780
cg19625116	yellow	11	94,276,903	TSS200	Island	FUT4	0.641	0.002	0.065	0.676
cg13292837	yellow	12	25,802,581	TSS1500	OpenSea	IFLTD1	0.641	-0.007	0.908	0.555
cg27607805	yellow	11	64,826,135	TSS200	OpenSea	NAALADL1	0.641	0.013	0.555	0.049
cg04617606	yellow	5	167,770,232	Body	OpenSea	WWC1	0.641	0.000	0.621	0.975
cg15671181	yellow	18	24,443,849	TSS1500	S_Shore	AQP4	0.641	0.019	0.283	0.049
cg05212138	yellow	20	23,063,119	3'UTR	OpenSea	CD93	0.641	0.003	0.650	0.701
cg01723575	yellow	7	16,565,197		N_Shore		0.641	-0.006	0.765	0.667
cg03844154	yellow	7	14,031,414	TSS1500	S_Shore	ETV1	0.641	0.011	0.064	0.104
cg26986062	yellow	13	75,017,602		OpenSea		0.641	0.023	0.599	0.118
cg14698646	yellow	17	46,684,750	3'UTR	N_Shore	HOXB7	0.641	0.003	0.651	0.628
cg07394266	yellow	9	71,155,970	TSS200	OpenSea	C9orf71	0.641	-0.007	0.218	0.584
cg16630572	yellow	16	57,653,917	5'UTR	OpenSea	GPR56	0.641	0.002	0.725	0.748
cg24774812	yellow	14	63,743,552	Body	OpenSea	RHOJ	0.641	-0.004	0.106	0.467
cg26183127	yellow	1	213,561,628		N_Shore		0.641	0.003	0.830	0.508
cg16864063	yellow	2	233,927,348	Body	S_Shelf	INPP5D	0.641	0.000	0.831	0.991
cg01105183	yellow	10	102,731,747	TSS1500	S_Shelf	SEMA4G	0.641	-0.003	0.741	0.566
cg27361847	yellow	5	2,865,179		N_Shore		0.641	0.006	0.581	0.458
cg20503535	yellow	14	91,755,616	Body	S_Shore	CCDC88C	0.641	0.001	0.917	0.831
cg03490881	yellow	7	150,329,449	Body	OpenSea	GIMAP6	0.641	0.002	0.663	0.745
cg04927066	yellow	5	136,833,216	Body	N_Shore	SPOCK1	0.641	0.022	0.645	0.024
cg18546236	yellow	21	37,255,384		N_Shelf		0.641	0.014	0.218	0.064
cg20447301	yellow	7	155,572,037	3'UTR	N_Shore	RBM33	0.641	-0.014	0.756	0.072
cg02272859	yellow	4	25,656,514	TSS1500	N_Shore	SLC34A2	0.641	-0.013	0.518	0.143
cg15534461	yellow	12	118,575,033	Body	S_Shore	PEBP1	0.641	0.003	0.691	0.776
cg04858834	yellow	1	54,231,196	3'UTR	OpenSea	TMEM48	0.641	-0.001	0.900	0.787
cg02886838	yellow	14	64,576,663	Body	OpenSea	SYNE2	0.641	0.002	0.930	0.699
cg20418529	yellow	6	166,260,012		OpenSea		0.641	0.002	0.580	0.854
cg08085827	yellow	17	71,361,857	Body	OpenSea	SDK2	0.641	0.000	0.330	0.998
cg07803375	yellow	7	811,206	Body	N_Shelf	HEATR2	0.641	-0.017	0.115	0.163
cg06792126	yellow	15	90,365,488		OpenSea		0.640	0.005	0.452	0.456
cg25098478	yellow	1	27,464,538	Body	OpenSea	SLC9A1	0.640	0.015	0.475	0.022
cg24408763	yellow	6	43,446,221	5'UTR	OpenSea	TJAP1	0.640	-0.004	0.808	0.651
cg03475172	yellow	10	11,654,177	TSS1500	S_Shore	USP6NL	0.640	0.006	0.227	0.497
cg18427465	yellow	14	55,737,629	TSS1500	N_Shore	FBXO34	0.640	0.018	0.239	0.070
cg17672101	yellow	19	3,825,630	Body	S_Shore	ZFR2	0.640	0.003	0.641	0.735
cg06269035	yellow	16	1,663,677	TSS1500	Island	CRAMP1L	0.640	0.005	0.062	0.498
cg05370555	yellow	14	77,336,584	3'UTR	OpenSea	C14orf166B	0.640	0.007	0.583	0.374
cg13870199	yellow	9	118,676,023	Body	OpenSea	C9orf27	0.640	0.013	0.362	0.242
cg22681190	yellow	1	21,862,932	5'UTR	OpenSea	ALPL	0.640	0.019	0.470	0.052
cg24851858	yellow	13	114,927,579		S_Shore		0.640	-0.003	0.074	0.679
cg06189038	yellow	7	99,767,134	TSS1500	N_Shore	GAL3ST4	0.640	0.005	0.343	0.366
cg19421752	yellow	5	1,225,224	3'UTR	N_Shore	SLC6A19	0.640	-0.002	0.768	0.881
cg13794404	yellow	9	126,816,959		OpenSea		0.640	0.014	0.468	0.080
cg15874258	yellow	14	99,815,095		Island		0.640	0.002	0.823	0.635

cg06010443	yellow	5	178,594,583	Body	Island	ADAMTS2	0.640	0.019	0.499	0.109
cg07690326	yellow	8	145,019,032	Body	Island	PLEC1	0.640	0.008	0.781	0.382
cg23242489	yellow	7	1,084,791	Body	S_Shore	C7orf50	0.640	0.004	0.639	0.422
cg15175581	yellow	15	33,360,262	TSS200	OpenSea	FMN1	0.640	0.000	0.587	0.999
cg13837033	yellow	9	86,930,309	Body	OpenSea	SLC28A3	0.640	0.005	0.137	0.383
cg12377816	yellow	12	58,758,818		OpenSea		0.640	0.007	0.713	0.532
cg03174043	yellow	2	20,548,412		N_Shore		0.640	0.007	0.563	0.550
cg15217044	yellow	6	159,466,054	1stExon	OpenSea	TAGAP	0.640	0.003	0.674	0.847
cg06638451	yellow	3	58,563,269	1stExon	OpenSea	FAM107A	0.640	0.008	0.114	0.415
cg00178661	yellow	1	117,208,338	Body	N_Shore	IGSF3	0.640	0.001	0.969	0.528
cg23548928	yellow	12	14,720,249	Body	Island	PLBD1	0.640	-0.001	0.027	0.643
cg07611531	yellow	2	54,853,149	Body	N_Shelf	SPTBN1	0.640	0.001	0.948	0.889
cg23677272	yellow	8	70,748,063	TSS1500	S_Shore	SLC05A1	0.640	0.011	0.568	0.121
cg09651038	yellow	5	3,311,367		OpenSea		0.640	0.007	0.544	0.486
cg24793124	yellow	6	106,546,074	Body	OpenSea	PRDM1	0.640	0.001	0.355	0.939
cg11658970	yellow	6	159,734,674		N_Shelf		0.640	0.006	0.905	0.283
cg00001364	yellow	1	214,170,376	Body	OpenSea	PROX1	0.640	0.012	0.869	0.296
cg26075423	yellow	3	127,087,154		OpenSea		0.640	0.012	0.241	0.051
cg01485975	yellow	5	156,486,186	TSS1500	OpenSea	HAVCR1	0.640	0.011	0.671	0.151
cg08172575	yellow	12	63,150,899	Body	OpenSea	PPM1H	0.640	0.004	0.904	0.369
cg25499650	yellow	11	7,728,057	TSS200	OpenSea	OVCH2	0.640	0.001	0.737	0.930
cg18343292	yellow	11	60,146,078	5'UTR	OpenSea	MS4A7	0.640	0.026	0.718	0.006
cg05819837	yellow	7	101,647,464	Body	OpenSea	CUX1	0.640	0.005	0.729	0.362
cg03671556	yellow	2	134,004,614	Body	OpenSea	NCKAP5	0.640	0.007	0.367	0.352
cg16637813	yellow	17	41,900,587	Body	OpenSea	MPP3	0.640	0.002	0.750	0.801
cg08161666	yellow	11	13,034,897		S_Shelf		0.640	0.005	0.352	0.497
cg13487859	yellow	6	112,409,181	TSS1500	S_Shore	TUBE1	0.640	0.008	0.048	0.040
cg10279204	yellow	10	71,176,853	TSS200	OpenSea	TACR2	0.640	0.011	0.691	0.205
cg11321092	yellow	5	144,325,284		OpenSea		0.640	-0.004	0.628	0.670
cg02659138	yellow	7	134,003,124	TSS1500	S_Shore	SLC35B4	0.640	0.001	0.799	0.914
cg26804772	yellow	1	68,084,465		OpenSea		0.640	0.010	0.255	0.525
cg08314457	yellow	14	77,507,534		OpenSea		0.640	0.004	0.072	0.390
cg26824326	yellow	1	9,664,366	Body	OpenSea	TMEM201	0.640	0.000	0.718	0.956
cg16024523	yellow	1	3,609,803	Body	S_Shelf	TP73	0.640	0.005	0.550	0.416
cg16814786	yellow	10	51,575,763	5'UTR	S_Shelf	NCOA4	0.640	0.005	0.818	0.519
cg11264863	yellow	20	43,835,661	1stExon	OpenSea	SEMG1	0.640	-0.004	0.560	0.620
cg05094137	yellow	16	53,125,208	5'UTR	OpenSea	CHD9	0.640	0.027	0.383	0.019
cg13116799	yellow	7	75,957,011	3'UTR	N_Shore	YWHAG	0.640	0.014	0.316	0.396
cg00083359	yellow	8	144,676,110	5'UTR	Island	EEF1D	0.640	0.007	0.689	0.556
cg20524636	yellow	12	111,854,869	5'UTR	N_Shore	SH2B3	0.640	-0.001	0.698	0.931
cg00932510	yellow	22	30,782,804	Body	N_Shore	RNF215	0.640	0.003	0.310	0.602
cg14288876	yellow	9	101,017,021	Body	N_Shore	TBC1D2	0.640	0.001	0.508	0.874
cg23497683	yellow	2	100,759,159	TSS200	OpenSea	AFF3	0.640	0.011	0.848	0.129
cg20683445	yellow	10	12,853,879	Body	OpenSea	CAMK1D	0.639	0.001	0.887	0.852
cg23845609	yellow	11	47,609,357	Body	N_Shore	FAM180B	0.639	0.008	0.696	0.205
cg07508649	yellow	6	31,873,772		S_Shelf		0.639	0.008	0.659	0.509
cg26384993	yellow	14	73,279,458	Body	OpenSea	DPF3	0.639	0.024	0.533	0.010
cg25671242	yellow	4	89,667,785	Body	OpenSea	FAM13A	0.639	-0.004	0.893	0.620
cg23098068	yellow	2	172,650,722	Body	OpenSea	SLC25A12	0.639	0.005	0.677	0.661
cg06520081	yellow	5	134,990,562	TSS1500	OpenSea	LOC340074	0.639	0.006	0.377	0.610
cg05501742	yellow	16	126,892	TSS200	N_Shore	MPG	0.639	0.001	0.051	0.759
cg17820065	yellow	12	6,679,571	3'UTR	S_Shore	CHD4	0.639	0.005	0.412	0.321
cg26913669	yellow	1	103,574,958	TSS1500	OpenSea	COL11A1	0.639	0.000	0.419	0.989
cg14807446	yellow	2	43,540,749	Body	OpenSea	THADA	0.639	0.008	0.726	0.377
cg18411043	yellow	1	31,221,135	Body	OpenSea	LAPTMS	0.639	-0.002	0.342	0.788
cg01423845	yellow	10	81,583,959		N_Shore		0.639	0.012	0.818	0.215
cg01232726	yellow	11	113,576,693	Body	OpenSea	TMPRSS5	0.639	-0.006	0.613	0.457
cg20224311	yellow	12	69,978,764	TSS1500	N_Shore	CCT2	0.639	-0.005	0.078	0.507
cg00969153	yellow	22	31,884,264	Body	N_Shore	EIF4ENIF1	0.639	0.004	0.954	0.382
cg13442201	yellow	1	221,908,735	5'UTR	OpenSea	DUSP10	0.639	-0.005	0.778	0.569
cg05290737	yellow	12	123,215,151	TSS200	OpenSea	GPR81	0.639	-0.002	0.437	0.750
cg11065271	yellow	6	159,070,607	TSS1500	OpenSea	SYTL3	0.639	-0.003	0.864	0.726
cg26101277	yellow	17	32,690,412	TSS200	OpenSea	CCL1	0.639	0.012	0.432	0.115
cg05415840	yellow	8	143,694,305	1stExon	N_Shore	ARC	0.639	0.009	0.862	0.200
cg00909232	yellow	12	323,439	TSS1500	OpenSea	SLC6A12	0.639	0.005	0.484	0.534
cg09556700	yellow	1	2,230,668	Body	N_Shore	SKI	0.639	0.000	0.276	0.954
cg15297220	yellow	4	134,589,655		OpenSea		0.639	-0.003	0.577	0.620

cg19852607	yellow	10	96,443,071	TSS200	OpenSea	CYP2C18	0.639	-0.002	0.810	0.801
cg11308170	yellow	11	93,466,719	TSS1500	OpenSea	SNORA1	0.639	-0.002	0.833	0.839
cg10541332	yellow	3	61,237,712	TSS1500	S_Shore	FHIT	0.639	0.006	0.060	0.246
cg15556672	yellow	5	68,513,082	TSS1500	N_Shore	MRPS36	0.639	0.011	0.894	0.217
cg17080371	yellow	4	77,994,145	5'UTR	N_Shelf	CCNI	0.639	0.003	0.488	0.758
cg19244922	yellow	1	19,380,953		OpenSea		0.639	0.002	0.467	0.694
cg02880380	yellow	2	39,821,177		OpenSea		0.639	-0.002	0.110	0.661
cg15188688	yellow	22	19,468,342	Body	S_Shore	CDC45L	0.639	0.005	0.594	0.557
cg09444818	yellow	4	102,097,226	Body	OpenSea	PPP3CA	0.639	-0.011	0.795	0.316
cg22558061	yellow	7	4,265,135	Body	OpenSea	SDK1	0.639	0.004	0.662	0.683
cg13707729	yellow	10	123,326,490	Body	OpenSea	FGFR2	0.639	0.009	0.423	0.223
cg10210094	yellow	1	201,374,614	3'UTR	OpenSea	TNNI1	0.639	0.005	0.645	0.432
cg05682128	yellow	3	149,685,395	Body	N_Shelf	PFN2	0.639	0.009	0.408	0.517
cg13647528	yellow	11	123,396,505	TSS200	OpenSea	GRAMD1B	0.639	0.014	0.408	0.102
cg22296149	yellow	19	2,249,330	5'UTR	N_Shore	AMH	0.639	0.004	0.442	0.525
cg19084629	yellow	12	117,407,879	Body	OpenSea	FBXW8	0.639	0.009	0.693	0.480
cg08548284	yellow	1	14,382,172		OpenSea		0.639	-0.002	0.719	0.820
cg14320852	yellow	9	89,880,707		OpenSea		0.639	-0.009	0.813	0.224
cg11117717	yellow	14	31,560,529	Body	OpenSea	AP4S1	0.639	-0.008	0.827	0.379
cg03084824	yellow	6	30,174,704	5'UTR	OpenSea	TRIM26	0.639	-0.001	0.654	0.948
cg18235635	yellow	8	133,879,162	TSS200	OpenSea	TG	0.639	-0.005	0.823	0.515
cg08037719	yellow	1	41,962,778		S_Shore		0.639	-0.010	0.939	0.121
cg06413794	yellow	12	125,595,651	Body	N_Shelf	AACS	0.639	-0.002	0.783	0.736
cg08871239	yellow	2	95,788,279	TSS1500	S_Shore	MRPS5	0.639	0.005	0.593	0.664
cg04818331	yellow	16	28,996,470	5'UTR	OpenSea	LAT	0.639	0.007	0.709	0.339
cg18891210	yellow	5	148,560,634	Body	OpenSea	ABLIM3	0.639	-0.008	0.907	0.594
cg09520554	yellow	2	15,830,021		OpenSea		0.639	0.008	0.714	0.394
cg10302472	yellow	6	33,165,899	Body	N_Shore	RXR8	0.639	0.000	0.730	0.988
cg02078525	yellow	16	66,400,395	TSS200	OpenSea	CDH5	0.639	0.008	0.464	0.275
cg14604700	yellow	10	29,659,046		OpenSea		0.639	0.001	0.778	0.900
cg19042947	yellow	14	95,027,441	TSS1500	OpenSea	SERPINA4	0.639	0.004	0.701	0.616
cg04897713	yellow	8	11,832,762	TSS1500	OpenSea	DEFB136	0.639	0.006	0.573	0.341
cg11713493	yellow	17	17,110,295	TSS1500	Island	PLD6	0.639	0.008	0.683	0.299
cg21041888	yellow	4	187,622,164	Body	OpenSea	FAT1	0.639	-0.007	0.569	0.489
cg04170948	yellow	16	56,979,519		OpenSea		0.639	0.005	0.720	0.565
cg03085088	yellow	22	44,288,659	TSS1500	S_Shore	PNPLA5	0.638	0.016	0.728	0.051
cg27660388	yellow	10	126,714,382	Body	N_Shore	CTBP2	0.638	0.009	0.660	0.278
cg00953399	yellow	6	116,867,006	5'UTR	OpenSea	FAM26D	0.638	-0.007	0.250	0.589
cg20175418	yellow	19	10,506,883	Body	Island	CDC37	0.638	-0.002	0.927	0.789
cg07534892	yellow	12	123,930,117		OpenSea		0.638	0.029	0.616	0.021
cg27499361	yellow	19	14,258,992	3'UTR	N_Shelf	LPHN1	0.638	-0.004	0.040	0.255
cg00772774	yellow	12	132,704,101	Body	OpenSea	GALNT9	0.638	-0.001	0.569	0.832
cg05034656	yellow	1	18,493,481	Body	OpenSea	IGSF21	0.638	0.010	0.594	0.147
cg06964816	yellow	4	79,472,643	TSS200	N_Shore	ANXA3	0.638	0.027	0.535	0.000
cg19033555	yellow	8	6,736,385	TSS1500	OpenSea	DEFB1	0.638	-0.006	0.824	0.404
cg16446577	yellow	6	36,853,324	TSS1500	N_Shore	C6orf89	0.638	0.012	0.667	0.333
cg13596208	yellow	9	35,603,605		N_Shore		0.638	0.019	0.191	0.051
cg06244240	yellow	17	81,058,949		N_Shore		0.638	-0.003	0.585	0.673
cg09070316	yellow	1	64,944,768	Body	OpenSea	CACHD1	0.638	0.016	0.494	0.050
cg05471509	yellow	13	114,109,420		OpenSea		0.638	0.008	0.688	0.280
cg23724635	yellow	13	99,174,494	Body	OpenSea	STK24	0.638	0.008	0.768	0.300
cg04966191	yellow	8	133,495,394		S_Shore		0.638	-0.008	0.792	0.255
cg20324356	yellow	11	3,077,922	Body	N_Shore	CARS	0.638	0.013	0.262	0.138
cg25484790	yellow	11	119,185,671	Body	N_Shore	MCAM	0.638	0.006	0.739	0.391
cg20780850	yellow	1	169,397,317	TSS1500	S_Shore	C1orf114	0.638	-0.006	0.900	0.423
cg25195210	yellow	3	157,217,842	5'UTR	OpenSea	VEPH1	0.638	0.010	0.237	0.472
cg19702343	yellow	2	231,555,187		OpenSea		0.638	-0.003	0.964	0.444
cg18660409	yellow	3	10,365,848	3'UTR	S_Shelf	ATP2B2	0.638	0.001	0.824	0.858
cg09272746	yellow	11	67,237,123	TSS1500	S_Shore	TMEM134	0.638	0.015	0.328	0.154
cg24581462	yellow	8	38,759,627	5'UTR	S_Shore	PLEKHA2	0.638	0.001	0.047	0.861
cg08112737	yellow	4	57,178,051	Body	N_Shelf	KIAA1211	0.638	0.001	0.598	0.927
cg14344486	yellow	7	55,152,398	Body	OpenSea	EGFR	0.638	0.001	0.796	0.891
cg27625456	yellow	17	25,958,267	Body	OpenSea	LGALS9	0.638	0.030	0.272	0.006
cg13545089	yellow	19	5,915,037	Body	Island	CAPS	0.638	-0.001	0.962	0.811
cg09976893	yellow	8	117,753,093	Body	OpenSea	EIF3H	0.638	-0.006	0.723	0.396
cg16684817	yellow	1	28,202,173	Body	S_Shelf	C1orf38	0.638	0.005	0.938	0.484
cg03401480	yellow	20	57,087,179	Body	N_Shelf	APCDD1L	0.638	0.000	0.739	0.962

cg12916580	yellow	6	4,403,020	OpenSea		0.638	0.004	0.889	0.480
cg19873631	yellow	11	57,509,844 3'UTR	S_Shore	C11orf31	0.638	0.007	0.106	0.177
cg09569989	yellow	4	38,053,419 Body	OpenSea	TBC1D1	0.638	-0.005	0.709	0.510
cg00770372	yellow	8	37,237,473	OpenSea		0.638	0.011	0.385	0.176
cg04096653	yellow	16	85,171,120	Island		0.638	-0.009	0.103	0.198
cg13957126	yellow	7	5,597,849	S_Shore		0.638	0.015	0.711	0.105
cg18945794	yellow	4	3,319,669 Body	S_Shore	RGS12	0.638	-0.001	0.968	0.438
cg12226639	yellow	17	40,347,260 TSS1500	OpenSea	GHDC	0.638	0.011	0.522	0.229
cg19502841	yellow	7	150,763,816 Body	OpenSea	SLC4A2	0.638	0.011	0.762	0.077
cg27373387	yellow	2	10,592,414	S_Shelf		0.638	-0.002	0.955	0.565
cg16010433	yellow	19	588,603 TSS1500	Island	HCN2	0.638	0.003	0.164	0.723
cg21226965	yellow	6	169,852,806	S_Shore		0.638	0.005	0.763	0.719
cg19170991	yellow	10	71,088,038 Body	OpenSea	HK1	0.638	0.038	0.349	0.004
cg18599955	yellow	15	42,451,299 3'UTR	OpenSea	VPS39	0.638	0.007	0.825	0.314
cg21754824	yellow	12	70,129,384	N_Shelf		0.638	-0.006	0.682	0.712
cg11737334	yellow	19	17,862,210 5'UTR	S_Shelf	FCHO1	0.638	0.007	0.764	0.423
cg21132686	yellow	20	22,795,774	OpenSea		0.638	-0.006	0.668	0.415
cg17384769	yellow	6	149,336,332 Body	OpenSea	UST	0.638	0.007	0.435	0.505
cg10313368	yellow	1	8,935,228 5'UTR	N_Shelf	ENO1	0.638	0.010	0.875	0.364
cg01859360	yellow	17	26,990,458 5'UTR	S_Shore	SUPT6H	0.638	0.005	0.535	0.731
cg19679112	yellow	17	30,333,737	N_Shore		0.638	0.006	0.466	0.402
cg00061520	yellow	16	4,070,371 Body	OpenSea	ADCY9	0.638	0.002	0.944	0.712
cg02071463	yellow	20	10,200,617 5'UTR	S_Shore	SNAP25	0.638	0.004	0.276	0.639
cg24993194	yellow	6	25,963,187 5'UTR	OpenSea	TRIM38	0.638	0.001	0.033	0.640
cg09978259	yellow	22	21,352,343 3'UTR	N_Shore	LZTR1	0.638	-0.002	0.646	0.760
cg04896191	yellow	1	19,579,680 Body	S_Shore	MRT04	0.638	0.009	0.639	0.217
cg09137453	yellow	12	7,282,081 TSS1500	OpenSea	CLSTN3	0.638	-0.003	0.419	0.551
cg07233343	yellow	1	17,944,660 Body	OpenSea	ARHGEF10L	0.637	0.006	0.592	0.542
cg12308216	yellow	6	30,853,255 5'UTR	S_Shore	DDR1	0.637	0.005	0.281	0.449
cg23242341	yellow	11	66,113,666 TSS1500	N_Shore	BRMS1	0.637	0.005	0.734	0.467
cg13723011	yellow	3	52,737,693 5'UTR	N_Shore	GLT8D1	0.637	-0.016	0.804	0.155
cg03785652	yellow	10	99,786,488 Body	N_Shelf	CRTAC1	0.637	0.009	0.724	0.119
cg08971063	yellow	12	131,337,435	OpenSea		0.637	0.003	0.459	0.766
cg07526656	yellow	12	7,260,660 Body	OpenSea	C1RL	0.637	0.004	0.082	0.435
cg08067268	yellow	2	26,466,485 TSS1500	N_Shore	HADHB	0.637	0.017	0.060	0.062
cg16430535	yellow	20	61,342,164 Body	S_Shore	NTSR1	0.637	0.011	0.462	0.052
cg09036837	yellow	1	25,392,224	OpenSea		0.637	0.009	0.422	0.201
cg04266607	yellow	7	28,221,667 TSS1500	S_Shore	JAZF1	0.637	0.019	0.751	0.110
cg20170271	yellow	22	38,034,681 TSS1500	N_Shore	SH3BP1	0.637	0.005	0.759	0.462
cg11345918	yellow	11	1,596,165 Body	S_Shore	HCCA2	0.637	0.000	0.062	0.991
cg12279019	yellow	6	43,741,054 Body	S_Shore	VEGFA	0.637	0.009	0.420	0.492
cg08419918	yellow	11	118,993,093 5'UTR	S_Shore	HINFP	0.637	0.008	0.385	0.250
cg23225911	yellow	12	27,514,349 Body	OpenSea	ARNTL2	0.637	-0.014	0.759	0.507
cg13316470	yellow	2	129,657,031	N_Shelf		0.637	0.008	0.790	0.381
cg02611240	yellow	12	72,149,634 Body	S_Shore	RAB21	0.637	0.016	0.075	0.021
cg06191091	yellow	17	30,583,855	OpenSea		0.637	-0.003	0.599	0.718
cg08370787	yellow	5	148,208,041 1stExon	S_Shore	ADRB2	0.637	-0.001	0.822	0.923
cg16667189	yellow	5	141,215,285	OpenSea		0.637	-0.002	0.770	0.756
cg08126118	yellow	13	43,930,918 Body	OpenSea	ENOX1	0.637	-0.006	0.893	0.478
cg03689129	yellow	20	61,053,355	S_Shore		0.637	0.009	0.361	0.429
cg16345311	yellow	16	26,505,221	OpenSea		0.637	0.017	0.703	0.142
cg22021934	yellow	17	1,358,234 Body	N_Shore	CRK	0.637	0.021	0.560	0.017
cg04600092	yellow	7	141,811,315 TSS1500	OpenSea	LOC93432	0.637	-0.013	0.753	0.288
cg13488556	yellow	15	43,532,047 Body	OpenSea	TGM5	0.637	0.000	0.870	0.970
cg27640903	yellow	12	131,945,227	S_Shore		0.637	-0.005	0.705	0.617
cg14931062	yellow	2	227,655,596 3'UTR	N_Shore	IRS1	0.637	0.006	0.483	0.516
cg09615821	yellow	16	70,749,564 Body	OpenSea	VAC14	0.637	-0.002	0.296	0.780
cg24136690	yellow	10	5,580,951	OpenSea		0.637	0.014	0.350	0.093
cg02203380	yellow	7	30,173,809 TSS1500	N_Shore	C7orf41	0.637	0.008	0.171	0.439
cg02254885	yellow	8	11,759,665	N_Shore		0.637	0.008	0.581	0.182
cg12600530	yellow	5	86,687,001 3'UTR	OpenSea	RASA1	0.637	-0.006	0.900	0.501
cg05392495	yellow	13	113,242,739 TSS1500	S_Shore	TUBGCP3	0.637	0.003	0.102	0.692
cg14081251	yellow	9	130,675,438 5'UTR	S_Shore	ST6GALNAC4	0.637	-0.001	0.728	0.883
cg06814944	yellow	3	8,702,782	OpenSea		0.637	-0.003	0.312	0.800
cg18882091	yellow	7	99,058,544 Body	OpenSea	ATP5J2	0.637	0.000	0.874	0.989
cg20608306	yellow	11	116,969,690 TSS1500	S_Shore	SIK3	0.637	0.001	0.165	0.915
cg23867494	yellow	1	1,150,322 TSS1500	S_Shore	TNFRSF4	0.637	0.010	0.733	0.145

cg00951310	yellow	1	11,586,259	Body	N_Shelf	PTCHD2	0.637	-0.001	0.772	0.885
cg25115422	yellow	3	156,894,451		S_Shore		0.637	-0.011	0.885	0.234
cg02390637	yellow	10	106,074,440	Body	N_Shore	ITPRIP	0.637	-0.003	0.601	0.610
cg18866597	yellow	20	43,973,322	Body	N_Shelf	SDC4	0.637	0.006	0.847	0.441
cg24869815	yellow	17	73,642,486	Body	OpenSea	RECQL5	0.637	0.007	0.619	0.353
cg07739604	yellow	12	124,950,990	Body	S_Shore	NCOR2	0.637	0.010	0.723	0.140
cg05797854	yellow	6	155,739,835	Body	OpenSea	NOX3	0.637	0.001	0.689	0.952
cg16481618	yellow	17	64,225,731	TSS200	OpenSea	APOH	0.637	-0.006	0.154	0.661
cg24023258	yellow	8	143,781,297	TSS1500	N_Shore	LY6K	0.637	-0.004	0.520	0.640
cg06945845	yellow	16	84,681,510	TSS1500	N_Shore	KLHL36	0.637	0.019	0.629	0.015
cg06912939	yellow	7	128,852,939	3'UTR	OpenSea	SMO	0.637	0.007	0.850	0.200
cg06000450	yellow	2	174,513,304		OpenSea		0.637	-0.002	0.905	0.805
cg01165043	yellow	2	64,994,401		N_Shore		0.637	0.009	0.244	0.381
cg22701672	yellow	10	124,258,577	Body	OpenSea	HTRA1	0.637	-0.001	0.838	0.892
cg14165660	yellow	10	112,889,349		OpenSea		0.637	0.002	0.607	0.775
cg25656283	yellow	10	50,733,196	Body	OpenSea	ERCC6	0.637	0.004	0.910	0.617
cg05342835	yellow	1	33,160,791	Body	OpenSea	SYNC	0.637	0.003	0.593	0.723
cg03461430	yellow	8	143,201,610		N_Shore		0.637	0.011	0.691	0.077
cg04322298	yellow	2	190,635,899	3'UTR	OpenSea	ORMDL1	0.637	-0.013	0.778	0.091
cg07431973	yellow	14	52,142,383	5'UTR	OpenSea	FRMD6	0.637	0.000	0.679	0.999
cg03449125	yellow	11	76,779,064	5'UTR	S_Shore	CAPN5	0.637	0.001	0.744	0.819
cg04557025	yellow	10	61,112,134	Body	OpenSea	FAM13C	0.637	-0.002	0.836	0.782
cg26169991	yellow	7	155,049,620		OpenSea		0.636	0.004	0.877	0.594
cg22804528	yellow	3	124,780,157		OpenSea		0.636	0.002	0.555	0.822
cg27489373	yellow	16	1,507,959	Body	S_Shore	CLCN7	0.636	-0.007	0.909	0.201
cg04457069	yellow	10	130,338,570		N_Shore		0.636	0.001	0.136	0.936
cg25129097	yellow	10	8,420,138		OpenSea		0.636	-0.011	0.746	0.385
cg13565499	yellow	9	139,592,589		S_Shore		0.636	0.016	0.485	0.097
cg16840547	yellow	17	48,458,462	3'UTR	OpenSea	EME1	0.636	0.001	0.684	0.931
cg26202195	yellow	8	105,379,368		N_Shore		0.636	-0.002	0.683	0.858
cg26640927	yellow	4	120,726,319		OpenSea		0.636	0.029	0.781	0.022
cg02095498	yellow	8	142,368,264	5'UTR	S_Shore	GPR20	0.636	0.007	0.633	0.233
cg08364860	yellow	10	27,827,130	3'UTR	OpenSea	RAB18	0.636	-0.004	0.904	0.625
cg27086672	yellow	11	67,953,814	Body	OpenSea	SUV420H1	0.636	-0.005	0.930	0.471
cg22881033	yellow	22	48,899,279	Body	S_Shelf	FAM19A5	0.636	0.007	0.720	0.401
cg24759654	yellow	17	76,801,065	Body	S_Shelf	USP36	0.636	-0.001	0.806	0.886
cg21996245	yellow	11	368,473	TSS1500	OpenSea	B4GALNT4	0.636	-0.019	0.265	0.153
cg18306747	yellow	15	74,284,008	Body	N_Shore	STOML1	0.636	0.000	0.287	0.979
cg00393373	yellow	4	10,456,597	5'UTR	N_Shore	ZNF518B	0.636	-0.004	0.823	0.687
cg07391089	yellow	17	26,133,152		OpenSea		0.636	0.013	0.120	0.034
cg23164459	yellow	12	6,714,715	Body	N_Shore	CHD4	0.636	0.008	0.059	0.145
cg22851271	yellow	8	67,340,497	TSS1500	N_Shore	RRS1	0.636	0.006	0.170	0.583
cg15892280	yellow	21	40,180,000	5'UTR	S_Shore	ETS2	0.636	0.027	0.276	0.016
cg20950843	yellow	22	43,044,387	TSS1500	N_Shore	CY5R3	0.636	-0.001	0.766	0.905
cg26239233	yellow	16	10,970,801	TSS1500	N_Shore	CIITA	0.636	-0.004	0.529	0.771
cg10761843	yellow	2	172,411,765	3'UTR	OpenSea	CYBRD1	0.636	-0.015	0.931	0.013
cg07907315	yellow	12	24,103,069	5'UTR	OpenSea	SOX5	0.636	0.001	0.020	0.632
cg20446641	yellow	11	66,243,077	Body	Island	PELI3	0.636	-0.002	0.559	0.720
cg22077313	yellow	4	6,691,093		OpenSea		0.636	0.011	0.572	0.127
cg14546466	yellow	2	11,796,974		Island		0.636	0.012	0.463	0.108
cg03141815	yellow	7	101,680,429	Body	OpenSea	CUX1	0.636	0.006	0.923	0.300
cg23208294	yellow	1	186,175,774	Body	OpenSea	MIRS48F1	0.636	0.028	0.602	0.056
cg01204060	yellow	20	4,227,342	Body	N_Shore	ADRA1D	0.636	0.002	0.816	0.727
cg09517106	yellow	1	198,904,195		OpenSea		0.636	0.001	0.024	0.592
cg27236096	yellow	16	2,635,862	Body	S_Shore	PDPK1	0.636	0.003	0.936	0.617
cg08106165	yellow	11	120,383,654		S_Shore		0.636	0.004	0.577	0.678
cg19071544	yellow	7	30,504,941	5'UTR	OpenSea	NOD1	0.636	-0.001	0.855	0.904
cg00073460	yellow	6	149,806,502	TSS1500	OpenSea	ZC3H12D	0.636	-0.006	0.569	0.490
cg12308407	yellow	6	32,081,491		OpenSea		0.636	-0.006	0.770	0.400
cg08803490	yellow	12	80,288,661	Body	OpenSea	PPP1R12A	0.636	-0.001	0.883	0.889
cg15211996	yellow	1	2,936,768	TSS1500	N_Shore	ACTRT2	0.636	0.006	0.869	0.278
cg04983296	yellow	4	79,861,284	TSS1500	S_Shore	PAQR3	0.636	0.014	0.225	0.127
cg13248299	yellow	12	108,688,108	5'UTR	OpenSea	CMKLR1	0.636	-0.004	0.720	0.558
cg09141623	yellow	10	53,143,287	Body	OpenSea	PRKG1	0.636	-0.012	0.859	0.135
cg07217350	yellow	5	162,934,022	Body	S_Shore	MAT2B	0.636	0.018	0.176	0.081
cg14481469	yellow	7	151,297,347	Body	N_Shelf	PRKAG2	0.636	-0.004	0.876	0.706
cg16643558	yellow	15	45,457,620	3'UTR	N_Shore	DUOX1	0.636	0.005	0.850	0.360

cg15489799	yellow	1	1,098,380		Island		0.636	0.002	0.557	0.774
cg24979233	yellow	4	1,800,284	Body	Island	FGFR3	0.636	-0.012	0.718	0.217
cg19736334	yellow	11	16,830,929	Body	OpenSea	PLEKHA7	0.636	0.004	0.808	0.477
cg21048501	yellow	7	43,909,515	TSS1500	S_Shore	MRPS24	0.636	0.006	0.094	0.397
cg18253971	yellow	18	21,900,171	Body	OpenSea	OSBPL1A	0.636	0.003	0.756	0.778
cg27385757	yellow	6	30,656,024	TSS1500	S_Shore	KIAA1949	0.636	0.011	0.360	0.024
cg24251135	yellow	4	144,109,657	Body	S_Shelf	USP38	0.635	-0.002	0.654	0.774
cg03347837	yellow	2	1,426,181	Body	OpenSea	TPO	0.635	0.000	0.782	0.977
cg22221074	yellow	12	3,862,810	TSS1500	S_Shore	EF CAB4B	0.635	0.002	0.594	0.679
cg22685215	yellow	1	178,232,856	Body	OpenSea	RASAL2	0.635	0.020	0.621	0.057
cg13698261	yellow	9	97,841,956	Body	OpenSea	C9orf3	0.635	-0.011	0.812	0.169
cg00976340	yellow	14	102,963,944	Body	OpenSea	TECPR2	0.635	0.008	0.754	0.253
cg15821095	yellow	3	51,428,079	TSS1500	N_Shore	RBM15B	0.635	0.012	0.861	0.031
cg16164923	yellow	2	197,504,013	TSS1500	N_Shore	CCDC150	0.635	0.006	0.634	0.518
cg13965328	yellow	20	2,539,876	Body	Island	TMC2	0.635	0.009	0.178	0.298
cg24514275	yellow	8	42,037,170	Body	OpenSea	PLAT	0.635	0.009	0.706	0.324
cg15149205	yellow	8	126,403,700		OpenSea		0.635	0.002	0.943	0.747
cg05395187	yellow	12	124,913,717	Body	S_Shelf	NCOR2	0.635	0.006	0.566	0.355
cg26865478	yellow	1	1,312,144	TSS1500	S_Shore	AURKAIP1	0.635	0.001	0.873	0.787
cg24937582	yellow	6	33,875,167		OpenSea		0.635	0.001	0.842	0.915
cg23210296	yellow	10	122,562,489		OpenSea		0.635	-0.001	0.719	0.910
cg12470092	yellow	21	37,948,808	1stExon	OpenSea	CLDN14	0.635	-0.001	0.594	0.852
cg25376875	yellow	2	9,459,453	Body	Island	ASAP2	0.635	0.000	0.895	0.941
cg19925512	yellow	22	32,750,881	5'UTR	OpenSea	RFPL3	0.635	-0.005	0.818	0.439
cg03917297	yellow	17	55,053,001		N_Shelf		0.635	0.004	0.798	0.619
cg22377142	yellow	1	156,265,275	Body	S_Shelf	C1orf85	0.635	0.001	0.022	0.532
cg01955745	yellow	11	131,240,413	1stExon	OpenSea	NTM	0.635	0.006	0.114	0.405
cg17551192	yellow	11	65,638,483	Body	N_Shore	EFEMP2	0.635	0.004	0.633	0.493
cg17146950	yellow	8	132,916,069	TSS1500	N_Shore	EFR3A	0.635	0.006	0.082	0.296
cg19419519	yellow	19	39,303,698	5'UTR	OpenSea	LGALS4	0.635	-0.011	0.901	0.130
cg04519177	yellow	16	3,314,928		S_Shore		0.635	0.008	0.115	0.475
cg07478210	yellow	2	11,294,585	TSS1500	N_Shore	PQLC3	0.635	0.003	0.373	0.560
cg13681776	yellow	10	1,549,991	Body	OpenSea	ADARB2	0.635	0.002	0.841	0.803
cg19591902	yellow	4	77,653,343	Body	OpenSea	SHROOM3	0.635	-0.009	0.763	0.339
cg09246924	yellow	13	77,564,706	TSS1500	N_Shore	CLN5	0.635	-0.003	0.772	0.753
cg16324409	yellow	4	3,416,370	Body	S_Shore	RGS12	0.635	0.002	0.435	0.842
cg02987250	yellow	15	28,014,520	Body	N_Shore	OCA2	0.635	-0.006	0.822	0.445
cg26837766	yellow	15	41,078,599	Body	OpenSea	DNAJC17	0.635	0.013	0.863	0.099
cg19901005	yellow	19	50,869,007	TSS200	OpenSea	NAPSA	0.635	0.004	0.677	0.613
cg23919844	yellow	13	111,819,481	Body	OpenSea	ARHGEF7	0.635	0.010	0.798	0.190
cg18519264	yellow	2	169,666,498	5'UTR	OpenSea	NOSTRIN	0.635	-0.001	0.905	0.928
cg03133198	yellow	19	11,319,550	Body	Island	DOCK6	0.635	0.006	0.703	0.445
cg08735550	yellow	16	318,900	3'UTR	Island	RGS11	0.635	-0.006	0.788	0.345
cg04283637	yellow	6	74,405,447	TSS200	N_Shore	CD109	0.635	0.008	0.116	0.261
cg09766556	yellow	8	15,096,879	TSS1500	S_Shore	SGCZ	0.635	-0.007	0.862	0.304
cg06272010	yellow	2	233,924,801	TSS1500	N_Shore	INPP5D	0.635	-0.001	0.726	0.858
cg01739845	yellow	15	77,989,284		OpenSea		0.635	0.004	0.752	0.498
cg27492942	yellow	17	36,885,965	TSS1500	N_Shore	CISD3	0.635	0.003	0.173	0.653
cg26392671	yellow	12	14,968,223	TSS1500	OpenSea	C12orf69	0.635	-0.001	0.946	0.788
cg06631944	yellow	7	158,365,160	Body	S_Shelf	PTPRN2	0.635	0.003	0.055	0.506
cg05157266	yellow	2	183,901,614	Body	N_Shore	NCKAP1	0.635	0.015	0.239	0.153
cg24285858	yellow	11	111,171,337	5'UTR	S_Shore	C11orf93	0.635	0.000	0.730	0.969
cg02018326	yellow	19	51,670,251	TSS1500	OpenSea	SIGLECP3	0.635	-0.001	0.749	0.918
cg05922993	yellow	1	209,604,397	Body	OpenSea	LOC642587	0.635	0.013	0.735	0.255
cg23189044	yellow	11	74,178,114	5'UTR	N_Shore	KCNE3	0.635	0.010	0.279	0.346
cg10626107	yellow	1	2,564,880	TSS1500	S_Shelf	MMEL1	0.635	0.008	0.852	0.290
cg17814814	yellow	1	222,060,676		OpenSea		0.635	0.010	0.542	0.161
cg25202280	yellow	17	79,521,089		S_Shore		0.635	0.004	0.470	0.609
cg12057732	yellow	11	123,609,570	5'UTR	N_Shelf	ZNF202	0.635	-0.005	0.839	0.488
cg12407978	yellow	11	10,590,159	1stExon	OpenSea	LYVE1	0.635	0.002	0.722	0.730
cg11019008	yellow	10	131,425,282	Body	OpenSea	MGMT	0.635	0.003	0.922	0.594
cg04317051	yellow	15	57,599,596	Body	S_Shore	LOC283663	0.634	0.003	0.482	0.767
cg14359531	yellow	9	140,401,382	Body	Island	PNPLA7	0.634	0.006	0.954	0.161
cg14478255	yellow	2	1,425,035	Body	OpenSea	TPO	0.634	-0.002	0.549	0.820
cg09523691	yellow	5	115,178,810	TSS1500	S_Shore	ATG12	0.634	0.003	0.248	0.763
cg08220872	yellow	19	17,613,063	Body	S_Shore	SLC27A1	0.634	-0.005	0.815	0.659
cg19688772	yellow	4	102,160,529	Body	OpenSea	PPP3CA	0.634	0.003	0.485	0.788

cg05979170	yellow	3	131,974,369	OpenSea		0.634	0.001	0.266	0.882
cg13003011	yellow	2	20,425,680 TSS1500	Island	SDC1	0.634	-0.005	0.166	0.268
cg08321684	yellow	6	32,150,404 Body	OpenSea	AGER	0.634	0.005	0.794	0.526
cg23234674	yellow	5	172,447,822 Body	OpenSea	SNORA74B	0.634	0.003	0.787	0.767
cg00039489	yellow	16	24,712,522	OpenSea		0.634	0.020	0.589	0.097
cg06715885	yellow	12	57,595,392 Body	N_Shore	LRP1	0.634	0.008	0.831	0.315
cg11475420	yellow	21	31,663,266 TSS1500	OpenSea	KRTAP25-1	0.634	-0.001	0.800	0.963
cg08377000	yellow	4	90,033,921 TSS200	S_Shore	TIGD2	0.634	-0.004	0.887	0.619
cg13591204	yellow	9	38,064,182 Body	N_Shelf	SHB	0.634	0.002	0.611	0.804
cg26572992	yellow	19	18,876,246 Body	S_Shelf	CRTC1	0.634	-0.015	0.875	0.098
cg05570654	yellow	2	240,259,075 Body	OpenSea	HDAC4	0.634	-0.003	0.759	0.598
cg14518227	yellow	1	196,312,876 Body	OpenSea	KCNT2	0.634	0.000	0.944	0.938
cg15905656	yellow	17	8,584,536	OpenSea		0.634	0.001	0.611	0.962
cg24933157	yellow	2	88,427,637 TSS200	OpenSea	FABP1	0.634	0.001	0.639	0.896
cg21652122	yellow	22	28,837,586 Body	OpenSea	TTC28	0.634	0.005	0.932	0.219
cg13903548	yellow	6	90,024,543 Body	OpenSea	GABRR2	0.634	0.000	0.887	0.991
cg00586317	yellow	12	122,149,765 TSS1500	N_Shore	TMEM120B	0.634	0.022	0.478	0.261
cg12761101	yellow	1	41,562,958 Body	OpenSea	SCMH1	0.634	0.001	0.802	0.952
cg02505676	yellow	16	89,220,516 Body	S_Shore	ACSF3	0.634	0.003	0.561	0.679
cg17485530	yellow	20	36,974,799 TSS200	OpenSea	LBP	0.634	0.008	0.773	0.253
cg21650243	yellow	2	239,330,171	OpenSea		0.634	0.001	0.173	0.890
cg21091547	yellow	6	36,645,500 TSS1500	N_Shore	CDKN1A	0.634	0.013	0.552	0.083
cg12653146	yellow	1	25,919,290	OpenSea		0.634	0.002	0.704	0.837
cg03512076	yellow	8	103,907,077	OpenSea		0.634	0.014	0.497	0.094
cg02226672	yellow	16	68,398,533 Body	OpenSea	SMPD3	0.634	0.007	0.447	0.456
cg25231096	yellow	3	9,774,301 5'UTR	S_Shore	BRPF1	0.634	0.004	0.079	0.306
cg09535963	yellow	6	31,686,784 3'UTR	OpenSea	LY6G6C	0.634	0.011	0.524	0.049
cg22266824	yellow	4	159,918,056 Body	OpenSea	C4orf45	0.634	-0.004	0.765	0.698
cg11781421	yellow	19	19,367,084 3'UTR	N_Shore	HAPLN4	0.634	0.012	0.651	0.162
cg12467090	yellow	1	204,459,139 5'UTR	OpenSea	PIK3C2B	0.634	-0.003	0.794	0.650
cg01843506	yellow	3	32,993,165 1stExon	OpenSea	CCR4	0.634	-0.003	0.885	0.705
cg21904489	yellow	3	119,071,213 Body	OpenSea	CDGAP	0.634	-0.006	0.738	0.278
cg13523125	yellow	11	35,072,710	OpenSea		0.634	-0.010	0.533	0.490
cg16905306	yellow	3	52,574,451 Body	S_Shelf	LOC440957	0.634	-0.005	0.935	0.224
cg25162948	yellow	13	50,070,718 Body	Island	PHF11	0.634	0.007	0.190	0.328
cg16237031	yellow	6	149,657,288 5'UTR	OpenSea	MAP3K7IP2	0.634	0.000	0.816	0.976
cg06356333	yellow	1	54,686,066	OpenSea		0.634	0.000	0.412	0.985
cg14918119	yellow	14	21,982,481	S_Shelf		0.634	-0.026	0.650	0.164
cg05964487	yellow	13	40,747,228	S_Shore		0.634	0.015	0.556	0.154
cg12100791	yellow	16	31,214,417 TSS200	S_Shore	PYCARD	0.634	0.006	0.815	0.536
cg10473059	yellow	7	18,003,093	OpenSea		0.634	-0.003	0.876	0.659
cg16369987	yellow	7	127,804,217	N_Shelf		0.634	-0.001	0.561	0.846
cg18323236	yellow	1	24,743,029 5'UTR	Island	NIPAL3	0.634	0.021	0.491	0.106
cg10363915	yellow	11	57,438,680 5'UTR	S_Shelf	ZDHHC5	0.634	0.005	0.905	0.569
cg22513637	yellow	17	79,283,028 1stExon	N_Shore	C17orf55	0.634	-0.005	0.054	0.214
cg23828593	yellow	11	32,959,933 Body	OpenSea	QSER1	0.634	0.007	0.895	0.292
cg01262667	yellow	19	19,385,393 TSS1500	S_Shore	TM6SF2	0.634	0.009	0.433	0.351
cg15158086	yellow	11	1,221,572	Island		0.634	0.015	0.627	0.116
cg12778178	yellow	20	62,583,555 TSS1500	N_Shelf	UCKL1AS	0.634	0.002	0.791	0.720
cg11064935	yellow	6	34,164,525	Island		0.634	0.000	0.238	0.999
cg09154959	yellow	6	109,198,550 Body	OpenSea	ARMC2	0.634	-0.002	0.163	0.847
cg22021597	yellow	1	226,841,240 Body	OpenSea	ITPKB	0.634	-0.001	0.471	0.921
cg12618987	yellow	11	73,588,430 TSS1500	S_Shore	CHCHD8	0.634	0.006	0.132	0.633
cg26863750	yellow	16	1,350,103	OpenSea		0.634	0.010	0.878	0.259
cg01031251	yellow	1	26,855,423 TSS1500	N_Shore	RPS6KA1	0.634	0.001	0.835	0.877
cg22508782	yellow	3	49,028,594 Body	S_Shore	P4HTM	0.634	0.010	0.186	0.101
cg11113536	yellow	11	115,790,529	OpenSea		0.634	0.004	0.837	0.695
cg26186331	yellow	5	39,415,351 5'UTR	OpenSea	DAB2	0.634	0.015	0.758	0.214
cg01465596	yellow	1	42,381,916 5'UTR	N_Shore	HIVEP3	0.634	-0.023	0.744	0.046
cg13500720	yellow	6	151,679,097 3'UTR	OpenSea	AKAP12	0.633	0.006	0.939	0.204
cg23711554	yellow	1	19,752,176 Body	OpenSea	CAPZB	0.633	0.007	0.892	0.317
cg22056218	yellow	11	63,973,536 TSS1500	N_Shore	FERMT3	0.633	0.008	0.735	0.304
cg17501210	yellow	6	166,970,252 Body	OpenSea	RPS6KA2	0.633	0.003	0.851	0.691
cg15770515	yellow	3	118,864,974 TSS200	OpenSea	C3orf30	0.633	0.003	0.914	0.702
cg10453758	yellow	3	132,380,190 Body	S_Shore	UBA5	0.633	0.010	0.296	0.364
cg21751085	yellow	2	43,935,439 Body	OpenSea	PLEKHH2	0.633	0.022	0.795	0.312
cg00472373	yellow	3	9,833,414 TSS1500	N_Shore	ARPC4	0.633	-0.004	0.622	0.758



cg07532609	yellow	14	104,384,599	Body	N_Shelf	C14orf2	0.633	-0.002	0.869	0.716
cg22768358	yellow	11	113,947,148	Body	OpenSea	ZBTB16	0.633	0.002	0.347	0.747
cg06107104	yellow	17	73,617,762	Body	OpenSea	MYO15B	0.633	0.005	0.783	0.335
cg12570309	yellow	19	13,044,886	TSS1500	S_Shore	FARSA	0.633	0.020	0.523	0.090
cg08185095	yellow	8	74,527,135	Body	OpenSea	STAU2	0.633	-0.004	0.679	0.696
cg21218957	yellow	13	49,976,473	5'UTR	OpenSea	CAB39L	0.633	0.005	0.818	0.516
cg12610169	yellow	1	18,736,258		OpenSea		0.633	-0.003	0.728	0.620
cg27617780	yellow	2	153,399,256	Body	OpenSea	FMNL2	0.633	0.005	0.667	0.589
cg11896104	yellow	19	12,998,435	TSS1500	S_Shore	KLF1	0.633	0.011	0.726	0.236
cg03531810	yellow	8	143,867,304	Body	OpenSea	LY6D	0.633	0.006	0.676	0.469
cg15214172	yellow	7	66,387,240	5'UTR	S_Shore	C7orf42	0.633	0.006	0.137	0.618
cg19882774	yellow	2	27,466,453	3'UTR	OpenSea	CAD	0.633	0.006	0.659	0.364
cg13353879	yellow	19	1,012,098	Body	Island	C19orf6	0.633	0.010	0.836	0.143
cg22515589	yellow	17	79,426,432	Body	N_Shore	BAHCC1	0.633	0.006	0.712	0.299
cg12529228	yellow	1	160,336,994	1stExon	N_Shelf	NHLH1	0.633	0.000	0.767	0.955
cg21551253	yellow	12	131,418,217		Island		0.633	0.011	0.741	0.232
cg02765363	yellow	17	80,200,741		Island		0.633	-0.001	0.715	0.954
cg02261408	yellow	17	61,559,061	Body	S_Shelf	ACE	0.633	0.014	0.819	0.017
cg12587087	yellow	1	155,971,907		OpenSea		0.633	-0.001	0.537	0.831
cg04804814	yellow	6	33,129,024		N_Shore		0.633	-0.007	0.691	0.472
cg20685713	yellow	1	156,066,986		OpenSea		0.633	0.004	0.882	0.402
cg17817047	yellow	5	130,867,903	Body	OpenSea	RAPGEF6	0.633	-0.010	0.369	0.402
cg09791366	yellow	1	228,661,675		S_Shelf		0.633	0.003	0.806	0.665
cg22334880	yellow	6	30,312,818	TSS200	N_Shore	RPP21	0.633	0.001	0.048	0.806
cg07163668	yellow	5	150,541,167		S_Shelf		0.633	0.004	0.614	0.549
cg15132169	yellow	6	149,805,995	5'UTR	OpenSea	ZC3H12D	0.633	0.007	0.550	0.284
cg22831436	yellow	15	83,777,021	Body	S_Shore	TM6SF1	0.633	0.021	0.286	0.054
cg06448332	yellow	16	1,493,343	Body	N_Shore	CCDC154	0.633	0.004	0.699	0.501
cg02904701	yellow	1	94,375,598	TSS1500	S_Shore	GLCM	0.633	0.000	0.320	0.994
cg03788090	yellow	16	233,062		S_Shore		0.633	-0.006	0.777	0.427
cg18929842	yellow	17	39,804,040		N_Shore		0.633	0.005	0.641	0.448
cg13600781	yellow	6	33,256,632	TSS1500	Island	PFDN6	0.633	-0.003	0.068	0.406
cg04482817	yellow	1	43,123,399	TSS1500	N_Shore	PIIH	0.633	0.005	0.612	0.538
cg05046722	yellow	1	240,855,271		OpenSea		0.633	-0.002	0.459	0.766
cg12422844	yellow	4	8,201,125	1stExon	OpenSea	SH3TC1	0.633	-0.012	0.197	0.132
cg01912455	yellow	22	24,128,528	TSS1500	N_Shore	SMARCB1	0.633	-0.014	0.890	0.176
cg09757087	yellow	16	1,585,644	Body	S_Shore	IFT140	0.633	0.013	0.855	0.081
cg09637363	yellow	11	69,458,644	Body	S_Shore	CNCD1	0.633	0.006	0.534	0.339
cg08460875	yellow	1	41,950,362	TSS200	OpenSea	EDN2	0.633	0.002	0.273	0.833
cg00987015	yellow	11	62,688,751	5'UTR	N_Shelf	CHRM1	0.632	0.025	0.411	0.009
cg15195412	yellow	16	57,406,955	Body	OpenSea	CX3CL1	0.632	0.003	0.122	0.628
cg06912420	yellow	12	14,617,656	Body	OpenSea	ATF7IP	0.632	0.001	0.913	0.849
cg24166814	yellow	2	56,067,277		OpenSea		0.632	0.004	0.939	0.248
cg12634245	yellow	6	10,495,364		OpenSea		0.632	0.011	0.804	0.047
cg21200067	yellow	9	35,656,836	TSS1500	N_Shore	CCDC107	0.632	0.005	0.844	0.603
cg08076807	yellow	17	80,255,910		OpenSea		0.632	-0.002	0.050	0.781
cg26302614	yellow	5	16,465,130	Body	N_Shore	ZNF622	0.632	-0.006	0.148	0.419
cg17082549	yellow	3	128,338,853	3'UTR	S_Shore	RPN1	0.632	0.005	0.784	0.428
cg08360771	yellow	11	128,779,655	5'UTR	OpenSea	KCNJ5	0.632	0.009	0.551	0.287
cg10820936	yellow	2	216,871,234	Body	OpenSea	MREG	0.632	0.017	0.501	0.038
cg13432286	yellow	3	49,027,002	TSS1500	N_Shore	P4HTM	0.632	0.003	0.079	0.498
cg24939194	yellow	7	2,563,611	Body	Island	LFNG	0.632	0.010	0.500	0.216
cg22769890	yellow	10	126,717,502	TSS1500	S_Shore	CTBP2	0.632	0.002	0.704	0.889
cg09069499	yellow	8	26,216,910	Body	OpenSea	PPP2R2A	0.632	0.002	0.891	0.865
cg11742189	yellow	7	128,042,891	Body	N_Shelf	IMPDH1	0.632	-0.008	0.865	0.497
cg05813803	yellow	16	89,323,084		N_Shore		0.632	0.002	0.263	0.802
cg14194715	yellow	13	32,651,552	Body	OpenSea	FRY	0.632	0.001	0.835	0.866
cg01351425	yellow	11	2,170,831	Body	OpenSea	INS-IGF2	0.632	0.016	0.683	0.051
cg08613122	yellow	7	597,568	Body	N_Shore	PRKAR1B	0.632	0.009	0.880	0.260
cg12622800	yellow	8	141,057,827	Body	S_Shore	TRAPPC9	0.632	0.003	0.775	0.744
cg03175049	yellow	19	59,062,999	3'UTR	N_Shelf	CHMP2A	0.632	0.008	0.876	0.089
cg15007813	yellow	1	178,061,518	Body	N_Shore	LOC10030241	0.632	-0.006	0.462	0.584
cg21846888	yellow	11	6,415,963	3'UTR	OpenSea	SMPD1	0.632	0.003	0.866	0.446
cg02399831	yellow	3	112,113,161		OpenSea		0.632	0.004	0.799	0.753
cg10692140	yellow	6	30,496,072		OpenSea		0.632	0.014	0.519	0.163
cg10097215	yellow	6	132,834,914	TSS1500	S_Shore	STX7	0.632	-0.001	0.874	0.913
cg01583940	yellow	1	156,218,009	TSS1500	S_Shelf	PAQR6	0.632	0.010	0.333	0.166

cg27327268	yellow	10	118,428,651	5'UTR	N_Shore	C10orf82	0.632	-0.002	0.603	0.800
cg23465465	yellow	6	26,364,728	TSS1500	OpenSea	BTN3A2	0.632	-0.020	0.203	0.277
cg13918631	yellow	3	185,435,472	Body	OpenSea	IGF2BP2	0.632	0.017	0.678	0.012
cg26979299	yellow	16	88,024,061	Body	S_Shore	BANP	0.632	0.002	0.681	0.753
cg23356451	yellow	13	51,866,824		OpenSea		0.632	-0.007	0.469	0.344
cg00451388	yellow	2	11,051,135	TSS1500	N_Shore	KCNF1	0.632	0.000	0.696	0.989
cg15111495	yellow	3	112,951,743	5'UTR	OpenSea	BOC	0.632	0.010	0.625	0.388
cg25422089	yellow	17	72,210,927	TSS1500	S_Shore	MGC16275	0.632	0.007	0.649	0.297
cg05098381	yellow	3	71,301,786	5'UTR	OpenSea	FOXP1	0.632	0.007	0.690	0.287
cg04385765	yellow	7	5,122,887		Island		0.632	0.004	0.959	0.321
cg09554077	yellow	10	44,749,378		OpenSea		0.632	0.003	0.063	0.756
cg13299436	yellow	6	29,140,622	TSS1500	OpenSea	OR2J2	0.632	0.000	0.955	0.912
cg23737208	yellow	6	25,499,464	Body	OpenSea	LRRC16A	0.632	-0.013	0.879	0.111
cg11668794	yellow	6	32,805,877	Body	N_Shore	TAP2	0.632	0.000	0.037	0.981
cg23411036	yellow	13	115,085,339	5'UTR	OpenSea	ZNF828	0.632	0.007	0.419	0.268
cg16988970	yellow	17	42,248,062	TSS200	OpenSea	ASB16	0.632	0.018	0.249	0.004
cg13660174	yellow	9	136,238,392	Body	N_Shelf	SURF4	0.632	0.002	0.785	0.818
cg24254842	yellow	1	42,193,353	5'UTR	OpenSea	HIVEP3	0.632	0.005	0.683	0.430
cg09937642	yellow	1	154,965,419	Body	OpenSea	FLAD1	0.632	-0.005	0.777	0.470
cg12124767	yellow	7	117,299,297	Body	OpenSea	CFTR	0.632	-0.002	0.820	0.737
cg05122213	yellow	13	114,062,198		OpenSea		0.632	0.006	0.597	0.271
cg19816290	yellow	22	19,701,515	TSS1500	Island	5-Sep	0.632	0.000	0.329	0.941
cg20732198	yellow	10	35,894,310	TSS200	N_Shelf	GJD4	0.632	0.022	0.311	0.007
cg13177458	yellow	8	124,732,088	Body	OpenSea	ANXA13	0.632	0.028	0.424	0.201
cg12799265	yellow	1	43,231,483	Body	N_Shore	LEPRE1	0.632	0.001	0.024	0.711
cg06385583	yellow	2	12,596,843		OpenSea		0.632	0.030	0.409	0.217
cg19470841	yellow	17	31,352,187	Body	OpenSea	ACCN1	0.631	0.004	0.273	0.584
cg14089045	yellow	14	91,820,590	Body	OpenSea	CCDC88C	0.631	-0.009	0.844	0.487
cg04977602	yellow	5	35,230,728	1stExon	OpenSea	PRLR	0.631	0.002	0.220	0.775
cg08315613	yellow	19	11,074,303	5'UTR	S_Shore	SMARCA4	0.631	0.007	0.614	0.283
cg19869037	yellow	6	116,732,515	Body	OpenSea	DSE	0.631	-0.011	0.099	0.327
cg05003411	yellow	4	15,428,768	TSS1500	OpenSea	C1QTNF7	0.631	-0.002	0.778	0.833
cg25240172	yellow	2	62,435,157	5'UTR	OpenSea	B3GNT2	0.631	-0.003	0.953	0.489
cg11301254	yellow	5	40,756,440	TSS1500	S_Shore	TTC33	0.631	-0.005	0.545	0.550
cg01296395	yellow	2	36,696,193	Body	OpenSea	CRIM1	0.631	0.011	0.396	0.370
cg13463033	yellow	9	139,360,276	Body	N_Shore	SEC16A	0.631	0.008	0.667	0.128
cg20116935	yellow	3	50,303,757	TSS1500	OpenSea	SEMA3B	0.631	0.006	0.412	0.187
cg12608643	yellow	1	6,847,673	Body	S_Shore	CAMTA1	0.631	0.008	0.881	0.110
cg14155327	yellow	4	87,235,054	5'UTR	OpenSea	MAPK10	0.631	0.010	0.427	0.323
cg03955932	yellow	11	86,383,878	TSS1500	S_Shore	ME3	0.631	0.002	0.802	0.879
cg06180389	yellow	1	111,436,823	Body	OpenSea	CD53	0.631	-0.002	0.441	0.701
cg08507178	yellow	22	50,357,265	3'UTR	S_Shore	PIM3	0.631	-0.001	0.423	0.805
cg25160899	yellow	12	130,819,008		N_Shelf		0.631	0.004	0.608	0.571
cg14424519	yellow	9	93,657,024	Body	OpenSea	SYK	0.631	0.002	0.839	0.830
cg08905753	yellow	6	32,783,347	Body	OpenSea	HLA-DOB	0.631	0.003	0.519	0.771
cg05221664	yellow	10	133,484,920		OpenSea		0.631	0.006	0.324	0.560
cg01379412	yellow	11	111,810,533	Body	S_Shelf	DIXDC1	0.631	0.005	0.385	0.672
cg21183664	yellow	5	178,594,526	Body	Island	ADAMTS2	0.631	0.016	0.264	0.084
cg16935597	yellow	17	76,129,099	Body	S_Shore	TMC8	0.631	0.008	0.759	0.544
cg25640096	yellow	6	1,374,513		N_Shelf		0.631	0.007	0.796	0.385
cg02532672	yellow	7	808,649	Body	Island	HEATR2	0.631	0.012	0.529	0.217
cg24193140	yellow	5	143,581,779	5'UTR	N_Shelf	KCTD16	0.631	0.003	0.386	0.676
cg22017733	yellow	5	162,936,453	Body	S_Shelf	MAT2B	0.631	0.000	0.057	0.962
cg10262891	yellow	19	48,904,928	Body	N_Shelf	GRIN2D	0.631	0.001	0.795	0.874
cg27347220	yellow	3	186,860,524		S_Shelf		0.631	-0.015	0.531	0.331
cg00308767	yellow	1	38,155,539	Body	N_Shore	C1orf109	0.631	0.000	0.071	0.982
cg13429145	yellow	19	49,922,356		N_Shelf		0.631	0.006	0.651	0.388
cg13168187	yellow	2	159,523,681	Body	OpenSea	PKP4	0.631	0.001	0.922	0.884
cg14082422	yellow	9	111,697,324	Body	S_Shore	C9orf6	0.631	0.021	0.242	0.041
cg22143352	yellow	14	75,897,841	5'UTR	S_Shelf	JDP2	0.631	0.012	0.616	0.150
cg01450807	yellow	13	73,715,706		OpenSea		0.631	0.006	0.179	0.489
cg25436766	yellow	2	106,792,426	Body	OpenSea	UXS1	0.631	0.010	0.672	0.073
cg05101821	yellow	7	158,207,371	Body	OpenSea	PTPRN2	0.631	0.020	0.615	0.218
cg25734726	yellow	19	40,948,296	1stExon	N_Shore	SERTAD3	0.631	0.004	0.643	0.654
cg06231581	yellow	13	112,903,693		OpenSea		0.631	0.001	0.820	0.913
cg20808613	yellow	15	89,168,305	5'UTR	S_Shelf	AEN	0.631	0.011	0.403	0.511
cg21684676	yellow	7	4,762,070	Body	N_Shelf	FOXK1	0.631	-0.011	0.827	0.045

cg03743982	yellow	16	75,150,833	TSS200	S_Shore	LDHD	0.631	0.003	0.338	0.781
cg22724765	yellow	5	43,397,572	Body	S_Shore	CCL28	0.631	0.011	0.158	0.368
cg16371538	yellow	1	37,940,813	5'UTR	S_Shore	ZC3H12A	0.631	0.004	0.599	0.625
cg27259633	yellow	16	19,534,852	TSS1500	N_Shore	GDE1	0.631	-0.003	0.918	0.548
cg15427040	yellow	19	39,696,134	TSS1500	S_Shore	SYCN	0.631	-0.022	0.652	0.145
cg05844321	yellow	3	13,663,398	Body	OpenSea	FBLN2	0.631	0.011	0.820	0.065
cg15314382	yellow	8	121,082,582		OpenSea		0.631	0.003	0.907	0.778
cg27251473	yellow	16	89,359,053	Body	OpenSea	ANKRD11	0.631	0.007	0.665	0.360
cg01940336	yellow	19	47,935,484	Body	Island	SLC8A2	0.631	0.005	0.724	0.479
cg09580393	yellow	17	4,869,866	Body	N_Shore	SPAG7	0.631	0.008	0.208	0.409
cg21681320	yellow	1	3,011,044	Body	OpenSea	PRDM16	0.631	0.006	0.855	0.285
cg27018461	yellow	3	135,969,916	Body	S_Shore	PCCB	0.631	-0.003	0.383	0.731
cg08070491	yellow	17	45,976,977	Body	S_Shelf	SP2	0.631	0.000	0.872	0.942
cg13652373	yellow	22	49,581,756		S_Shore		0.631	-0.003	0.626	0.669
cg05571472	yellow	6	31,802,104	TSS1500	N_Shore	C6orf48	0.631	0.001	0.082	0.786
cg00245032	yellow	2	32,502,380	TSS1500	N_Shore	YIPF4	0.631	-0.002	0.902	0.800
cg21814583	yellow	7	2,300,655	Body	S_Shelf	SNX8	0.631	-0.001	0.817	0.895
cg26572165	yellow	1	160,807,694	Body	OpenSea	CD244	0.631	0.016	0.513	0.117
cg12291509	yellow	4	141,444,910	TSS1500	N_Shore	ELMOD2	0.631	0.005	0.075	0.553
cg09614810	yellow	6	74,227,212	3'UTR	N_Shelf	EEF1A1	0.630	0.000	0.968	0.901
cg26213458	yellow	12	5,918,191	Body	OpenSea	ANO2	0.630	0.002	0.876	0.744
cg11599526	yellow	5	150,449,509	5'UTR	OpenSea	TNIP1	0.630	0.002	0.759	0.729
cg18943331	yellow	6	32,179,862	Body	OpenSea	NOTCH4	0.630	0.005	0.951	0.216
cg19894640	yellow	22	39,832,920	3'UTR	OpenSea	MAP3K7IP1	0.630	0.008	0.814	0.195
cg11815473	yellow	7	135,771,715		OpenSea		0.630	0.012	0.951	0.038
cg27647755	yellow	16	85,209,312		OpenSea		0.630	0.015	0.739	0.305
cg10274208	yellow	13	41,351,044		OpenSea		0.630	0.006	0.777	0.415
cg26338867	yellow	12	7,282,186	TSS1500	OpenSea	CLSTN3	0.630	0.007	0.102	0.407
cg00150837	yellow	3	52,721,831	Body	S_Shore	GNL3	0.630	-0.001	0.862	0.836
cg08929791	yellow	1	16,535,904	5'UTR	S_Shore	ARHGEF19	0.630	-0.006	0.781	0.396
cg26158528	yellow	1	28,607,681	3'UTR	OpenSea	SESN2	0.630	-0.003	0.790	0.661
cg03622371	yellow	11	73,000,436	5'UTR	OpenSea	P2RY6	0.630	0.003	0.213	0.703
cg17545933	yellow	7	149,130,816	Body	S_Shore	ZNF777	0.630	-0.006	0.931	0.299
cg26707052	yellow	11	13,250,995		OpenSea		0.630	0.041	0.604	0.009
cg08053846	yellow	7	100,769,605	TSS1500	OpenSea	SERPINE1	0.630	0.032	0.427	0.000
cg05261596	yellow	3	40,220,519	Body	OpenSea	MYRIP	0.630	0.001	0.107	0.846
cg21867468	yellow	5	141,348,342	TSS1500	N_Shore	RNF14	0.630	0.003	0.037	0.281
cg03354108	yellow	8	118,968,448	Body	OpenSea	EXT1	0.630	0.003	0.724	0.731
cg04772818	yellow	1	201,475,805	5'UTR	N_Shore	CSRP1	0.630	0.010	0.161	0.241
cg08305263	yellow	15	38,764,405	Body	OpenSea	FAM98B	0.630	0.006	0.877	0.556
cg26994094	yellow	4	113,668,535		OpenSea		0.630	0.009	0.080	0.173
cg23538718	yellow	3	143,567,031	1stExon	OpenSea	SLC9A9	0.630	-0.007	0.162	0.521
cg26685246	yellow	6	32,805,692	Body	N_Shore	TAP2	0.630	-0.012	0.341	0.199
cg21829336	yellow	1	38,722,785		OpenSea		0.630	-0.001	0.164	0.915
cg22622123	yellow	11	118,902,351	TSS1500	S_Shore	SLC37A4	0.630	0.018	0.632	0.098
cg16484162	yellow	11	8,133,258	Body	OpenSea	RIC3	0.630	0.000	0.448	0.985
cg18347426	yellow	5	126,267,104	5'UTR	OpenSea	3-Mar	0.630	-0.007	0.899	0.301
cg16232674	yellow	22	37,309,658	TSS200	OpenSea	CSF2RB	0.630	0.012	0.390	0.072
cg23237516	yellow	22	44,964,978	TSS1500	OpenSea	NCRNA00207	0.630	0.001	0.964	0.674
cg06665913	yellow	11	113,947,036	Body	OpenSea	ZBTB16	0.630	0.000	0.454	0.974
cg10289055	yellow	13	113,545,569		N_Shelf		0.630	-0.008	0.903	0.174
cg12221642	yellow	13	113,434,887	Body	OpenSea	ATP11A	0.630	-0.007	0.926	0.222
cg14348967	yellow	4	10,160,060		OpenSea		0.630	0.008	0.090	0.518
cg08008105	yellow	2	105,857,955	TSS1500	N_Shore	GPR45	0.630	0.007	0.827	0.403
cg08551619	yellow	3	100,118,960	TSS1500	N_Shore	LNP1	0.630	-0.005	0.149	0.608
cg24838839	yellow	5	61,031,569		OpenSea		0.630	0.007	0.955	0.162
cg10675903	yellow	7	24,765,054	5'UTR	OpenSea	DFNA5	0.630	0.010	0.875	0.241
cg14656043	yellow	10	35,419,996	5'UTR	S_Shelf	CREM	0.630	-0.012	0.665	0.277
cg00463004	yellow	6	107,938,738	Body	OpenSea	SOBP	0.630	-0.010	0.885	0.227
cg13166532	yellow	14	50,418,578		OpenSea		0.630	0.008	0.822	0.347
cg02560408	yellow	10	62,757,486	Body	N_Shelf	RHOBTB1	0.630	-0.011	0.917	0.173
cg04163967	yellow	21	39,870,627	Body	OpenSea	ERG	0.630	0.001	0.803	0.781
cg27007717	yellow	12	94,251,091		OpenSea		0.630	-0.005	0.955	0.425
cg19770944	yellow	2	61,292,607	TSS1500	N_Shore	KIAA1841	0.630	0.011	0.070	0.020
cg02203714	yellow	16	85,226,565		OpenSea		0.630	0.006	0.542	0.449
cg06036239	yellow	1	59,234,929		OpenSea		0.630	0.013	0.330	0.089
cg10806197	yellow	14	27,429,693		OpenSea		0.630	0.004	0.289	0.604

cg04899563	yellow	10	135,034,571	Body	S_Shore	KNDC1	0.630	0.009	0.529	0.272
cg10333278	yellow	22	30,107,178		OpenSea		0.630	0.002	0.604	0.752
cg02850689	yellow	1	2,391,347		S_Shelf		0.630	-0.006	0.290	0.740
cg24292612	yellow	8	6,735,472	5'UTR	OpenSea	DEFB1	0.630	0.006	0.434	0.540
cg12399224	yellow	20	62,383,456	Body	Island	ZBTB46	0.630	-0.004	0.934	0.525
cg23840338	yellow	12	102,078,642	3'UTR	OpenSea	MYBPC1	0.630	0.008	0.833	0.386
cg05780139	yellow	17	37,008,512	Body	N_Shore	RPL23	0.630	0.007	0.297	0.659
cg04600297	yellow	19	42,750,575		S_Shore		0.630	0.005	0.171	0.529
cg23839159	yellow	1	43,281,794	Body	N_Shore	CCDC23	0.630	0.003	0.233	0.748
cg06082598	yellow	1	241,912,510	Body	OpenSea	WDR64	0.630	0.020	0.730	0.172
cg02131853	yellow	4	39,034,637	TSS1500	OpenSea	TMEM156	0.630	0.002	0.925	0.748
cg14130595	yellow	9	139,254,689		N_Shore		0.630	0.003	0.609	0.734
cg11226183	yellow	1	93,251,218	Body	S_Shore	EVI5	0.630	-0.005	0.083	0.537
cg11072723	yellow	12	112,460,573	3'UTR	OpenSea	ERP29	0.630	0.003	0.764	0.613
cg02932321	yellow	8	6,783,521	1stExon	OpenSea	DEFA6	0.630	0.013	0.676	0.103
cg15468095	yellow	16	31,214,401	TSS200	S_Shore	PYCARD	0.629	-0.009	0.324	0.217
cg08029603	yellow	1	854,824	TSS200	Island	FLJ39609	0.629	0.003	0.825	0.750
cg25217772	yellow	11	62,392,592	3'UTR	S_Shelf	GANAB	0.629	-0.001	0.885	0.770
cg08977816	yellow	2	11,863,086		OpenSea		0.629	-0.002	0.702	0.838
cg05248652	yellow	17	81,043,057	Body	Island	METRNL	0.629	-0.010	0.792	0.497
cg24669449	yellow	1	110,175,592		OpenSea		0.629	0.018	0.698	0.018
cg02303933	yellow	4	187,475,669	Body	N_Shore	MTNR1A	0.629	0.002	0.377	0.762
cg18647268	yellow	1	39,735,142	Body	OpenSea	MACF1	0.629	-0.005	0.776	0.398
cg18328334	yellow	2	218,808,652	1stExon	OpenSea	TNS1	0.629	0.014	0.244	0.035
cg06096901	yellow	17	78,894,393	Body	N_Shelf	RPTOR	0.629	0.010	0.783	0.217
cg16140253	yellow	1	110,166,563	Body	S_Shelf	AMPD2	0.629	-0.003	0.510	0.741
cg19389397	yellow	22	42,973,877	Body	S_Shore	RRP7B	0.629	-0.018	0.779	0.177
cg00578304	yellow	7	2,968,627	Body	S_Shore	CARD11	0.629	0.005	0.644	0.443
cg00077877	yellow	8	131,414,474	TSS1500	OpenSea	ASAP1	0.629	-0.013	0.599	0.185
cg26655004	yellow	13	114,302,328		Island		0.629	-0.019	0.890	0.358
cg18322693	yellow	2	217,217,837	Body	OpenSea	4-Mar	0.629	-0.001	0.231	0.840
cg02159996	yellow	6	89,927,233	5'UTR	OpenSea	GABRR1	0.629	0.007	0.651	0.221
cg07093539	yellow	17	79,945,199	Body	Island	ASPSCR1	0.629	0.002	0.944	0.625
cg16396933	yellow	10	104,954,103	TSS1500	S_Shore	NT5C2	0.629	-0.009	0.896	0.372
cg02627875	yellow	10	126,686,891	Body	Island	CTBP2	0.629	0.013	0.868	0.160
cg24227081	yellow	7	149,570,163	5'UTR	N_Shore	ATP6V0E2	0.629	-0.004	0.042	0.307
cg10643550	yellow	19	1,603,857	Body	N_Shore	UQCR	0.629	-0.008	0.755	0.312
cg19719312	yellow	19	12,605,925	5'UTR	N_Shore	ZNF709	0.629	0.016	0.236	0.265
cg25638714	yellow	8	144,602,485	Body	S_Shore	ZC3H3	0.629	0.004	0.611	0.591
cg04588257	yellow	19	45,059,935	Body	OpenSea	FLJ41856	0.629	0.007	0.485	0.533
cg06821774	yellow	3	197,688,168	Body	S_Shore	LMLN	0.629	0.007	0.623	0.726
cg25650256	yellow	5	171,538,557	Body	OpenSea	STK10	0.629	-0.003	0.242	0.655
cg09829176	yellow	22	46,545,347	TSS1500	N_Shore	PPARA	0.629	0.010	0.269	0.178
cg27452691	yellow	10	81,370,291	TSS1500	OpenSea	SFTPA1	0.629	0.003	0.541	0.579
cg00730832	yellow	10	123,353,465	1stExon	N_Shelf	FGFR2	0.629	-0.002	0.749	0.748
cg20206277	yellow	21	43,098,901	TSS1500	OpenSea	NCRNA00111	0.629	0.004	0.582	0.562
cg09125320	yellow	1	173,685,201	Body	S_Shore	KLHL20	0.629	-0.003	0.608	0.831
cg12059540	yellow	8	19,444,419	5'UTR	OpenSea	CSGALNACT1	0.629	0.001	0.585	0.892
cg18158438	yellow	11	64,322,994	TSS200	OpenSea	SLC22A11	0.629	0.013	0.362	0.221
cg25369248	yellow	4	8,617,910	Body	OpenSea	CPZ	0.629	0.006	0.614	0.338
cg27222274	yellow	10	6,962,378		OpenSea		0.629	0.003	0.336	0.825
cg13389508	yellow	8	145,012,644	Body	N_Shelf	PLEC1	0.629	0.001	0.639	0.949
cg11689753	yellow	10	6,821,048		OpenSea		0.629	0.004	0.597	0.633
cg17692702	yellow	6	169,717,942		OpenSea		0.629	0.015	0.738	0.069
cg01373819	yellow	15	91,209,329		S_Shore		0.629	-0.004	0.927	0.477
cg11399546	yellow	1	226,730,561		OpenSea		0.629	-0.007	0.332	0.655
cg12168066	yellow	14	53,464,814		OpenSea		0.629	0.002	0.940	0.691
cg01831454	yellow	5	148,417,172	Body	OpenSea	SH3TC2	0.629	0.013	0.628	0.163
cg19913563	yellow	6	30,720,261		OpenSea		0.629	-0.009	0.380	0.729
cg25436157	yellow	18	21,018,562	TSS1500	S_Shore	C18orf45	0.629	0.009	0.627	0.169
cg26868806	yellow	10	1,206,641	Body	S_Shore	NCRNA0020C	0.629	-0.004	0.805	0.681
cg23075961	yellow	10	99,387,778	5'UTR	OpenSea	MORN4	0.629	0.025	0.850	0.033
cg00383220	yellow	11	118,963,880	Body	N_Shore	HMBS	0.629	0.005	0.288	0.451
cg16975639	yellow	2	233,501,753	Body	S_Shelf	EFHD1	0.629	-0.007	0.567	0.473
cg02722637	yellow	12	4,922,070	3'UTR	S_Shelf	KCNA6	0.629	0.001	0.897	0.865
cg06049177	yellow	8	30,583,924	Body	N_Shore	GSR	0.629	-0.001	0.849	0.904
cg20181887	yellow	12	123,753,272	Body	N_Shore	CDK2AP1	0.628	0.008	0.943	0.211

cg21834063	yellow	6	32,085,541	Body	OpenSea	ATF6B	0.628	0.002	0.745	0.787
cg09837361	yellow	1	28,996,131	5'UTR	OpenSea	GMEB1	0.628	0.000	0.068	0.899
cg14986890	yellow	3	158,427,635	Body	OpenSea	RARRES1	0.628	-0.010	0.898	0.276
cg04511702	yellow	17	46,036,408	TSS1500	OpenSea	PRR15L	0.628	0.010	0.439	0.129
cg11099722	yellow	15	101,442,813	Body	OpenSea	ALDH1A3	0.628	0.010	0.164	0.212
cg25157472	yellow	3	12,996,362	Body	OpenSea	IQSEC1	0.628	0.005	0.871	0.459
cg23588086	yellow	14	20,882,072	TSS1500	S_Shore	TEP1	0.628	0.009	0.068	0.079
cg10538908	yellow	5	72,858,664	Body	N_Shelf	ANKRA2	0.628	-0.004	0.938	0.234
cg07717512	yellow	6	31,026,287	Body	OpenSea	HCG22	0.628	-0.003	0.797	0.818
cg14402224	yellow	7	50,570,049	Body	OpenSea	DDC	0.628	0.023	0.537	0.004
cg16636054	yellow	3	183,862,978	3'UTR	OpenSea	EIF2B5	0.628	-0.001	0.358	0.909
cg09087897	yellow	17	74,714,618	3'UTR	OpenSea	JMJD6	0.628	-0.001	0.953	0.889
cg17935536	yellow	2	60,755,743	Body	OpenSea	BCL11A	0.628	0.019	0.553	0.001
cg18789786	yellow	7	50,444,052	Body	OpenSea	IKZF1	0.628	-0.007	0.879	0.256
cg00772000	yellow	6	18,123,049	TSS200	S_Shore	NHLRC1	0.628	0.010	0.160	0.111
cg19385365	yellow	7	137,263,558	Body	OpenSea	DGKI	0.628	0.001	0.924	0.829
cg01464985	yellow	2	27,805,622	TSS1500	N_Shore	ZNF512	0.628	0.010	0.120	0.068
cg18009575	yellow	2	168,803,242		OpenSea		0.628	-0.004	0.764	0.719
cg05962055	yellow	4	141,566,966	Body	OpenSea	TBC1D9	0.628	0.012	0.478	0.176
cg22125176	yellow	22	38,435,203		Island		0.628	0.006	0.589	0.342
cg04545268	yellow	7	157,653,809	Body	OpenSea	PTPRN2	0.628	0.006	0.873	0.252
cg16956132	yellow	13	45,946,468	Body	OpenSea	LOC1001909	0.628	-0.002	0.561	0.613
cg24530527	yellow	7	1,162,932	Body	OpenSea	C7orf50	0.628	-0.001	0.958	0.784
cg23832497	yellow	6	121,655,383	Body	N_Shore	C6orf170	0.628	0.021	0.510	0.106
cg06473578	yellow	13	47,130,714	Body	S_Shelf	LRCH1	0.628	-0.004	0.802	0.602
cg25614889	yellow	1	27,247,775	TSS1500	N_Shore	NUDC	0.628	0.013	0.227	0.152
cg05506011	yellow	3	118,864,587	TSS1500	OpenSea	C3orf30	0.628	0.010	0.749	0.280
cg27309871	yellow	11	86,224,410	Body	OpenSea	ME3	0.628	-0.003	0.778	0.747
cg08402734	yellow	19	3,982,657	TSS200	N_Shore	SNORD37	0.628	0.000	0.548	0.971
cg23440816	yellow	1	223,948,910	Body	OpenSea	CAPN2	0.628	-0.018	0.113	0.126
cg03742273	yellow	1	2,772,664		Island		0.628	0.020	0.525	0.035
cg13689563	yellow	19	12,277,357	Body	S_Shelf	ZNF136	0.628	-0.006	0.887	0.524
cg00495352	yellow	19	19,304,836	Body	S_Shore	RFXANK	0.628	0.007	0.798	0.309
cg16751451	yellow	7	55,086,091	TSS1500	N_Shore	EGFR	0.628	0.011	0.394	0.085
cg16663142	yellow	16	46,683,727		OpenSea		0.628	0.005	0.745	0.562
cg27408171	yellow	6	2,958,808	Body	OpenSea	SERPINB6	0.628	-0.001	0.833	0.976
cg12236702	yellow	11	123,122,685		OpenSea		0.628	0.009	0.677	0.254
cg09739212	yellow	11	56,891,858		OpenSea		0.628	0.003	0.813	0.628
cg02757609	yellow	17	74,552,994		N_Shore		0.628	0.003	0.916	0.642
cg06787669	yellow	7	45,018,789	TSS200	OpenSea	MYO1G	0.628	0.004	0.879	0.595
cg26282762	yellow	19	1,356,444	Body	S_Shore	MUM1	0.628	0.006	0.543	0.523
cg11087101	yellow	3	195,809,593	TSS1500	S_Shore	TFRC	0.628	0.009	0.462	0.706
cg16444062	yellow	16	2,770,298	1stExon	Island	PRSS27	0.628	0.001	0.719	0.897
cg26328898	yellow	5	10,355,193	Body	S_Shore	6-Mar	0.628	0.009	0.060	0.172
cg09258240	yellow	14	100,613,518	Body	N_Shelf	DEGS2	0.628	-0.020	0.554	0.184
cg06371211	yellow	10	132,976,149	Body	OpenSea	TCERG1L	0.628	0.003	0.444	0.825
cg22244122	yellow	9	136,243,698	Body	S_Shore	C9orf96	0.628	0.004	0.273	0.672
cg26845817	yellow	13	114,874,288	Body	N_Shore	RASA3	0.628	-0.001	0.806	0.890
cg16171137	yellow	6	31,607,634	Body	OpenSea	BAT3	0.628	0.003	0.891	0.667
cg19540316	yellow	13	113,622,750	TSS200	Island	MCF2L	0.628	-0.015	0.180	0.143
cg20923498	yellow	2	99,096,920	5'UTR	OpenSea	INPP4A	0.628	0.005	0.616	0.477
cg19628333	yellow	12	56,914,766	TSS1500	OpenSea	RBMS2	0.627	-0.007	0.937	0.274
cg23276829	yellow	6	166,720,114	3'UTR	N_Shore	PRR18	0.627	0.001	0.648	0.932
cg10023454	yellow	1	180,137,918	Body	OpenSea	QSOX1	0.627	-0.006	0.535	0.605
cg26433494	yellow	7	132,068,972	Body	OpenSea	PLXNA4	0.627	-0.004	0.696	0.630
cg13638983	yellow	3	14,619,577		S_Shelf		0.627	-0.008	0.493	0.239
cg03762242	yellow	17	9,940,004	Body	OpenSea	GAS7	0.627	0.017	0.794	0.161
cg08157292	yellow	2	242,090,620	Body	S_Shore	PPP1R7	0.627	-0.007	0.224	0.579
cg19091291	yellow	1	219,444,794		OpenSea		0.627	0.027	0.754	0.078
cg20513206	yellow	19	40,855,502	5'UTR	S_Shore	PLD3	0.627	0.016	0.773	0.069
cg00355829	yellow	3	128,326,679		N_Shore		0.627	0.008	0.539	0.275
cg16199460	yellow	5	5,087,391		OpenSea		0.627	0.006	0.681	0.515
cg06821107	yellow	9	136,243,548	Body	Island	C9orf96	0.627	0.001	0.079	0.848
cg22722028	yellow	15	91,768,258	5'UTR	OpenSea	SV2B	0.627	0.009	0.252	0.391
cg05143530	yellow	3	197,439,242	Body	OpenSea	KIAA0226	0.627	0.003	0.063	0.553
cg10997785	yellow	9	128,004,697	TSS1500	S_Shore	HSPA5	0.627	-0.002	0.377	0.861
cg03184424	yellow	7	811,786	Body	N_Shore	HEATR2	0.627	-0.002	0.807	0.795

cg09954813	yellow	17	80,753,363	Body	OpenSea	TBCD	0.627	-0.007	0.924	0.244
cg04955791	yellow	6	152,959,047	TSS1500	S_Shore	SYNE1	0.627	-0.004	0.905	0.592
cg03214420	yellow	19	44,257,589	5'UTR	N_Shore	C19orf61	0.627	0.006	0.886	0.317
cg10558598	yellow	1	16,950,871	Body	OpenSea	CROCCL1	0.627	-0.001	0.725	0.860
cg13580834	yellow	9	124,022,933		OpenSea		0.627	0.001	0.803	0.899
cg05310774	yellow	12	58,259,554		S_Shore		0.627	0.001	0.028	0.478
cg09713896	yellow	3	134,090,463	5'UTR	N_Shore	AMOTL2	0.627	-0.010	0.756	0.448
cg05223459	yellow	11	45,928,854	TSS200	OpenSea	C11orf94	0.627	0.003	0.744	0.658
cg10557460	yellow	1	39,339,683	TSS1500	S_Shore	MYCBP	0.627	0.010	0.066	0.084
cg04786391	yellow	11	123,295,670		OpenSea		0.627	0.027	0.556	0.050
cg01870113	yellow	9	140,106,010	Body	N_Shore	NDOR1	0.627	0.006	0.740	0.347
cg15012282	yellow	3	152,059,421	TSS1500	OpenSea	TMEM14E	0.627	0.009	0.346	0.515
cg24375465	yellow	6	121,767,882	5'UTR	OpenSea	GJA1	0.627	0.005	0.919	0.410
cg03055671	yellow	3	172,231,528	Body	OpenSea	TNFSF10	0.627	-0.004	0.615	0.719
cg19822640	yellow	17	66,203,829		S_Shore		0.627	0.007	0.944	0.335
cg16227748	yellow	2	232,186,992	Body	OpenSea	ARMC9	0.627	0.016	0.755	0.055
cg07140792	yellow	5	171,165,686		OpenSea		0.627	0.004	0.909	0.536
cg02969380	yellow	8	6,691,018	Body	N_Shore	XKR5	0.627	-0.008	0.668	0.306
cg20212339	yellow	8	28,908,912	3'UTR	OpenSea	HMBX1	0.627	-0.001	0.918	0.863
cg18011672	yellow	2	190,522,601		N_Shelf		0.627	-0.017	0.790	0.040
cg10901383	yellow	12	57,406,900	Body	OpenSea	TAC3	0.627	0.001	0.340	0.854
cg15716847	yellow	5	133,289,054		OpenSea		0.627	-0.003	0.362	0.628
cg17865265	yellow	12	56,236,845	TSS200	OpenSea	MMP19	0.627	0.019	0.453	0.040
cg27238470	yellow	1	41,950,325	1stExon	OpenSea	EDN2	0.627	0.004	0.389	0.710
cg20518994	yellow	2	25,141,532	1stExon	N_Shore	ADCY3	0.627	-0.004	0.881	0.602
cg10196026	yellow	5	35,003,575	Body	OpenSea	AGXT2	0.627	0.004	0.414	0.676
cg25903122	yellow	19	16,765,692	Body	OpenSea	C19orf42	0.627	0.002	0.909	0.736
cg21016699	yellow	5	131,133,566	TSS1500	S_Shore	FNIP1	0.627	0.003	0.695	0.735
cg14479884	yellow	7	80,267,943	5'UTR	OpenSea	CD36	0.627	-0.002	0.926	0.830
cg10639411	yellow	3	73,150,125		OpenSea		0.627	-0.001	0.267	0.938
cg08513626	yellow	16	67,047,148		N_Shore		0.626	0.026	0.464	0.020
cg03184679	yellow	15	89,600,982		OpenSea		0.626	-0.001	0.024	0.462
cg20114103	yellow	6	2,397,671		OpenSea		0.626	0.006	0.190	0.654
cg24748631	yellow	5	598,724		N_Shelf		0.626	0.009	0.566	0.248
cg22455082	yellow	4	39,702,470	Body	S_Shelf	UBE2K	0.626	-0.006	0.100	0.367
cg13186599	yellow	1	68,643,188	Body	OpenSea	GPR177	0.626	-0.001	0.848	0.836
cg11825249	yellow	17	10,651,577		OpenSea		0.626	0.007	0.927	0.234
cg14786212	yellow	3	192,947,753		OpenSea		0.626	-0.003	0.834	0.732
cg03430605	yellow	6	38,099,768	Body	OpenSea	ZFAND3	0.626	0.026	0.783	0.104
cg17439009	yellow	12	14,518,396	TSS1500	N_Shore	ATF7IP	0.626	-0.001	0.045	0.816
cg13457522	yellow	9	99,615,182	5'UTR	N_Shore	ZNF782	0.626	-0.002	0.947	0.692
cg21565017	yellow	3	63,804,683	TSS1500	OpenSea	C3orf49	0.626	-0.005	0.893	0.470
cg24746444	yellow	20	62,706,765	Body	S_Shore	RGS19	0.626	0.011	0.755	0.067
cg01658277	yellow	8	61,086,176		Island		0.626	0.003	0.868	0.632
cg26806779	yellow	12	9,141,775	TSS1500	OpenSea	KLRG1	0.626	0.003	0.968	0.219
cg10078415	yellow	16	20,775,011	TSS1500	OpenSea	ACSM3	0.626	-0.002	0.417	0.845
cg12416569	yellow	7	45,018,757	TSS200	OpenSea	MYO1G	0.626	0.007	0.639	0.287
cg05335944	yellow	10	13,749,010	Body	OpenSea	FRMD4A	0.626	-0.024	0.523	0.258
cg13013841	yellow	17	18,281,021	TSS200	OpenSea	EVPLL	0.626	0.015	0.692	0.098
cg14355654	yellow	8	117,781,276	Body	S_Shelf	UTP23	0.626	0.002	0.905	0.758
cg05991685	yellow	16	2,818,793	Body	S_Shore	SRRM2	0.626	0.003	0.806	0.657
cg02378335	yellow	5	134,449,269		OpenSea		0.626	-0.003	0.867	0.649
cg12025137	yellow	14	55,263,199		OpenSea		0.626	0.000	0.841	0.986
cg10403728	yellow	2	8,781,774		N_Shelf		0.626	0.025	0.851	0.085
cg23740652	yellow	7	157,561,925	Body	S_Shore	PTPRN2	0.626	0.009	0.514	0.458
cg04951822	yellow	12	113,345,598	Body	OpenSea	OAS1	0.626	0.006	0.653	0.598
cg03817794	yellow	11	1,475,775	Body	OpenSea	BRSK2	0.626	0.003	0.537	0.635
cg00849642	yellow	12	109,106,495	5'UTR	OpenSea	CORO1C	0.626	-0.009	0.867	0.303
cg18135738	yellow	5	141,231,138		S_Shore		0.626	0.002	0.865	0.659
cg26981047	yellow	2	10,535,668	5'UTR	OpenSea	HPCAL1	0.626	-0.010	0.863	0.218
cg08372668	yellow	15	74,221,840	Body	S_Shore	LOXL1	0.626	0.010	0.811	0.246
cg02228160	yellow	5	143,192,067	Body	OpenSea	HMH1	0.626	0.000	0.800	0.993
cg06114334	yellow	7	154,997,361		OpenSea		0.626	-0.002	0.516	0.747
cg19712324	yellow	6	90,596,366		Island		0.626	0.011	0.794	0.289
cg20600850	yellow	12	6,712,515	Body	N_Shelf	CHD4	0.626	0.007	0.232	0.141
cg03559686	yellow	2	198,379,584	TSS1500	N_Shore	MOBK13	0.626	0.012	0.457	0.553
cg21287356	yellow	4	69,819,820		OpenSea		0.626	0.017	0.347	0.161

cg18824330	yellow	19	18,960,246	Body	OpenSea	UPF1	0.626	0.004	0.832	0.690
cg00171154	yellow	12	311,647	Body	N_Shore	SLC6A12	0.626	0.001	0.707	0.953
cg20025677	yellow	6	44,217,736	Body	S_Shelf	HSP90AB1	0.626	-0.001	0.933	0.877
cg04640821	yellow	1	222,638,561		N_Shore		0.626	-0.001	0.168	0.947
cg23663476	yellow	16	28,996,449	5'UTR	OpenSea	LAT	0.626	0.006	0.758	0.428
cg25151688	yellow	15	66,585,534	TSS200	N_Shore	DIS3L	0.626	-0.005	0.167	0.629
cg05120074	yellow	1	65,030,620	Body	OpenSea	CACHD1	0.626	-0.005	0.723	0.484
cg10514714	yellow	1	111,015,299		OpenSea		0.626	-0.009	0.755	0.238
cg03553576	yellow	5	191,296	TSS1500	N_Shore	LRRC14B	0.626	0.000	0.436	0.949
cg06460328	yellow	16	89,003,037	5'UTR	N_Shelf	CBFA2T3	0.626	0.012	0.678	0.197
cg03397609	yellow	6	33,258,184	Body	S_Shore	PFDN6	0.626	0.008	0.534	0.326
cg05007126	yellow	20	1,310,884	TSS1500	OpenSea	SDCBP2	0.626	-0.001	0.897	0.807
cg14409958	yellow	8	120,651,652	TSS1500	OpenSea	ENPP2	0.626	0.012	0.042	0.020
cg19809988	yellow	7	149,569,883	TSS200	N_Shore	ATP6V0E2	0.626	-0.005	0.076	0.398
cg24750887	yellow	4	89,534,723	Body	OpenSea	HERC3	0.626	-0.002	0.596	0.852
cg04942516	yellow	2	106,055,458	TSS1500	OpenSea	FHL2	0.626	0.026	0.583	0.022
cg21929473	yellow	14	51,862,102		OpenSea		0.626	0.011	0.627	0.185
cg00290303	yellow	7	105,946,464		OpenSea		0.626	0.004	0.649	0.623
cg19264170	yellow	1	183,622,470	TSS200	OpenSea	APOBEC4	0.626	-0.004	0.667	0.717
cg15637286	yellow	19	31,845,176		S_Shore		0.626	0.009	0.623	0.380
cg04794268	yellow	8	145,690,383	TSS1500	N_Shore	KIFC2	0.625	0.016	0.365	0.087
cg01026233	yellow	2	206,713,941		OpenSea		0.625	0.008	0.701	0.225
cg10499651	yellow	3	12,465,415	Body	OpenSea	PPARG	0.625	-0.007	0.361	0.634
cg17170190	yellow	1	44,445,979	5'UTR	S_Shore	B4GALT2	0.625	0.013	0.355	0.021
cg14493181	yellow	6	127,037,376		OpenSea		0.625	0.005	0.882	0.572
cg21735115	yellow	12	9,800,259	TSS1500	N_Shore	LOC374443	0.625	0.005	0.029	0.105
cg15932961	yellow	3	195,869,691		OpenSea		0.625	-0.003	0.808	0.698
cg04858553	yellow	17	80,549,621	Body	S_Shelf	FOXK2	0.625	-0.001	0.677	0.827
cg21163415	yellow	20	57,876,201	Body	S_Shore	EDN3	0.625	0.000	0.173	0.957
cg27439292	yellow	17	7,670,719	Body	N_Shore	DNAH2	0.625	-0.013	0.775	0.365
cg12128164	yellow	19	36,426,701	TSS1500	N_Shore	LRFN3	0.625	0.007	0.215	0.472
cg01909024	yellow	1	26,195,345	5'UTR	OpenSea	PAQR7	0.625	0.002	0.969	0.318
cg20674424	yellow	3	186,503,527	TSS1500	S_Shore	MIR1248	0.625	-0.002	0.052	0.669
cg12598524	yellow	2	46,088,325	Body	OpenSea	PRKCE	0.625	0.002	0.037	0.420
cg18464823	yellow	15	34,629,056	TSS200	N_Shore	SLC12A6	0.625	0.005	0.820	0.454
cg00480077	yellow	19	7,827,894	TSS200	OpenSea	CLEC4M	0.625	0.011	0.880	0.145
cg03522150	yellow	11	46,969,673	Body	OpenSea	C11orf49	0.625	0.014	0.731	0.108
cg06773023	yellow	8	132,918,921	Body	S_Shore	EFR3A	0.625	0.002	0.096	0.789
cg07700837	yellow	3	196,367,487	5'UTR	S_Shore	LRRC33	0.625	0.006	0.678	0.194
cg21119293	yellow	14	104,621,601	Body	N_Shore	KIF26A	0.625	0.006	0.710	0.366
cg12478185	yellow	17	10,602,001	5'UTR	S_Shore	C17orf48	0.625	0.006	0.619	0.626
cg07773582	yellow	16	4,845,285	TSS200	OpenSea	LOC440335	0.625	-0.020	0.660	0.010
cg00786685	yellow	2	218,842,585		N_Shore		0.625	0.005	0.494	0.439
cg27105390	yellow	19	23,253,316		Island		0.625	0.010	0.149	0.364
cg01181259	yellow	5	1,856,259		N_Shore		0.625	0.015	0.655	0.089
cg13544027	yellow	11	20,465,288	Body	OpenSea	PRMT3	0.625	0.006	0.793	0.425
cg00791430	yellow	14	104,979,474		OpenSea		0.625	0.013	0.516	0.200
cg18431489	yellow	6	32,048,449	Body	S_Shore	TNXB	0.625	0.007	0.740	0.258
cg25130336	yellow	5	1,772,638		S_Shelf		0.625	0.005	0.752	0.442
cg01585852	yellow	22	24,235,823	TSS1500	N_Shore	MIF	0.625	-0.001	0.684	0.910
cg03227037	yellow	20	62,212,228		S_Shelf		0.625	-0.001	0.721	0.945
cg15984596	yellow	14	104,979,786		OpenSea		0.625	-0.003	0.689	0.751
cg13392302	yellow	8	143,761,697	TSS200	OpenSea	PSCA	0.625	0.012	0.613	0.130
cg27526774	yellow	1	235,099,089		OpenSea		0.625	0.005	0.503	0.543
cg09610644	yellow	3	197,249,274	Body	OpenSea	BDH1	0.625	0.003	0.818	0.561
cg09569569	yellow	2	74,645,769	TSS1500	S_Shore	C2orf81	0.625	0.009	0.482	0.253
cg07326586	yellow	6	29,528,119	TSS1500	OpenSea	UBD	0.625	0.020	0.611	0.083
cg04635635	yellow	15	30,163,726		OpenSea		0.625	0.005	0.849	0.513
cg25055892	yellow	7	123,304,073	3'UTR	OpenSea	LMOD2	0.625	0.003	0.809	0.815
cg00542261	yellow	10	71,121,415	Body	OpenSea	HK1	0.625	0.002	0.899	0.752
cg25043129	yellow	17	79,047,823	Body	S_Shelf	BAIAP2	0.625	0.003	0.900	0.615
cg17430979	yellow	4	6,034,828	Body	OpenSea	JAKMIP1	0.625	0.002	0.854	0.769
cg00231483	yellow	18	70,211,959	TSS1500	S_Shore	CBLN2	0.624	0.001	0.367	0.944
cg15227231	yellow	6	170,467,425		OpenSea		0.624	-0.002	0.737	0.867
cg27012920	yellow	13	26,796,947	TSS1500	S_Shore	RNF6	0.624	0.004	0.097	0.610
cg12962542	yellow	3	169,042,374	Body	OpenSea	MECOM	0.624	-0.013	0.606	0.374
cg09322432	yellow	22	42,527,611	TSS1500	S_Shore	CYP2D6	0.624	0.009	0.759	0.305

cg10280963	yellow	6	18,280,525	S_Shelf		0.624	0.008	0.258	0.491	
cg01838443	yellow	21	15,752,932	Body	N_Shelf	HSPA13	0.624	0.005	0.602	0.678
cg08200404	yellow	15	62,359,539	5'UTR	N_Shore	C2CD4A	0.624	0.008	0.366	0.420
cg21515956	yellow	14	104,608,332	Body	S_Shelf	KIF26A	0.624	-0.004	0.736	0.566
cg06969845	yellow	5	175,084,250	TSS1500	N_Shore	HRH2	0.624	0.002	0.265	0.829
cg23521919	yellow	12	49,444,157	Body	OpenSea	MLL2	0.624	0.004	0.845	0.452
cg15995714	yellow	10	134,222,445	3'UTR	S_Shelf	PWWP2B	0.624	0.003	0.811	0.601
cg02382666	yellow	7	134,463,454	TSS1500	OpenSea	CALD1	0.624	-0.014	0.888	0.012
cg21532801	yellow	20	56,881,949	Body	N_Shelf	PPP4R1L	0.624	-0.002	0.838	0.809
cg05547221	yellow	3	32,534,288	Body	OpenSea	CMTM6	0.624	-0.006	0.449	0.712
cg04472592	yellow	12	52,585,786	TSS200	OpenSea	KRT80	0.624	0.007	0.621	0.297
cg14191360	yellow	7	116,311,773	TSS1500	N_Shore	MET	0.624	0.003	0.062	0.383
cg08081780	yellow	13	97,909,235	5'UTR	OpenSea	MBNL2	0.624	-0.013	0.928	0.085
cg13757194	yellow	15	69,223,774	Body	S_Shore	MIR548H4	0.624	-0.006	0.800	0.544
cg26787199	yellow	16	2,044,042	3'UTR	S_Shore	SYNGR3	0.624	0.003	0.352	0.623
cg15014006	yellow	2	10,574,659		S_Shore		0.624	0.000	0.781	0.968
cg05727573	yellow	17	74,557,104	TSS1500	S_Shelf	SNORD1A	0.624	0.001	0.474	0.751
cg00509610	yellow	3	12,528,629	5'UTR	S_Shelf	TSEN2	0.624	-0.009	0.943	0.013
cg25373438	yellow	6	170,028,109	Body	OpenSea	WDR27	0.624	0.007	0.731	0.331
cg02737458	yellow	16	80,178,491		OpenSea		0.624	-0.002	0.518	0.780
cg01258997	yellow	14	53,419,701		S_Shore		0.624	-0.003	0.812	0.752
cg20772593	yellow	5	56,778,651	TSS200	OpenSea	ACTBL2	0.624	-0.003	0.857	0.612
cg14280580	yellow	9	95,484,823	Body	S_Shelf	BICD2	0.624	0.012	0.752	0.091
cg09597710	yellow	7	1,121,124	Body	S_Shore	C7orf50	0.624	0.018	0.903	0.178
cg01975786	yellow	8	142,428,968		S_Shore		0.624	-0.003	0.905	0.457
cg16358080	yellow	11	377,442	Body	N_Shore	B4GALNT4	0.624	0.005	0.890	0.443
cg07580762	yellow	1	161,171,810	5'UTR	Island	NDUFS2	0.624	0.001	0.094	0.932
cg21276056	yellow	19	9,965,368	Body	Island	OLFM2	0.624	0.003	0.828	0.709
cg03260021	yellow	12	128,170,477		OpenSea		0.624	-0.001	0.886	0.908
cg23445003	yellow	7	101,535,821	Body	OpenSea	CUX1	0.624	-0.015	0.758	0.195
cg13915501	yellow	4	187,426,127		S_Shelf		0.624	0.006	0.923	0.247
cg02255950	yellow	6	30,078,290	Body	OpenSea	TRIM31	0.624	-0.013	0.828	0.197
cg26671848	yellow	16	73,236,532		OpenSea		0.624	0.015	0.524	0.139
cg00504735	yellow	5	7,868,496	TSS1500	N_Shore	MTRR	0.624	-0.001	0.047	0.723
cg07964163	yellow	20	57,413,417	Body	N_Shore	GNASAS	0.624	0.005	0.506	0.372
cg13573245	yellow	19	5,913,990	TSS1500	N_Shore	CAPS	0.624	-0.001	0.978	0.642
cg06339706	yellow	19	49,371,285	5'UTR	OpenSea	PLEKHA4	0.624	0.006	0.333	0.614
cg09368875	yellow	1	110,949,563	Body	N_Shore	HBXIP	0.624	0.003	0.255	0.797
cg18135379	yellow	1	161,981,673	Body	OpenSea	OLFML2B	0.624	0.003	0.481	0.871
cg16755863	yellow	2	130,032,641		OpenSea		0.624	0.001	0.502	0.953
cg14412833	yellow	9	128,021,077		N_Shelf		0.624	0.026	0.817	0.029
cg25332717	yellow	2	106,020,669	5'UTR	OpenSea	FHL2	0.624	0.011	0.742	0.218
cg01759628	yellow	1	235,266,653		N_Shore		0.624	-0.009	0.367	0.302
cg27287305	yellow	4	100,576,985		S_Shelf		0.624	0.008	0.817	0.343
cg05271255	yellow	17	79,821,342		S_Shelf		0.624	0.014	0.656	0.095
cg14507533	yellow	13	114,066,074		N_Shore		0.624	-0.004	0.830	0.616
cg17843887	yellow	1	2,542,359	Body	OpenSea	MMEL1	0.624	0.004	0.477	0.671
cg18789624	yellow	7	30,516,742	5'UTR	N_Shore	NOD1	0.624	-0.012	0.820	0.176
cg26287816	yellow	15	43,024,914	Body	N_Shelf	CDAN1	0.624	-0.005	0.905	0.439
cg21270243	yellow	2	216,176,248	TSS1500	N_Shore	ATIC	0.623	0.002	0.613	0.933
cg01282906	yellow	19	37,566,286		N_Shelf		0.623	0.011	0.536	0.335
cg10984962	yellow	2	236,462,202	Body	OpenSea	AGAP1	0.623	0.004	0.895	0.584
cg08092930	yellow	11	70,117,714	5'UTR	S_Shore	PPFIA1	0.623	-0.001	0.029	0.569
cg21356998	yellow	4	113,971,324	Body	OpenSea	ANK2	0.623	0.009	0.278	0.137
cg27378814	yellow	8	12,941,186	3'UTR	OpenSea	DLC1	0.623	0.001	0.875	0.838
cg17283083	yellow	10	71,151,990	Body	OpenSea	HK1	0.623	0.004	0.718	0.515
cg02057311	yellow	2	237,144,107	Body	N_Shore	ASB18	0.623	-0.002	0.941	0.719
cg08173606	yellow	3	134,087,150	Body	S_Shelf	AMOTL2	0.623	-0.004	0.618	0.542
cg15605307	yellow	11	64,146,487		OpenSea		0.623	0.003	0.559	0.701
cg26857315	yellow	19	932,759	Body	Island	ARID3A	0.623	-0.005	0.667	0.519
cg12407070	yellow	3	149,034,450		OpenSea		0.623	0.006	0.763	0.572
cg21649580	yellow	22	50,682,691	1stExon	N_Shore	TUBGCP6	0.623	0.002	0.032	0.561
cg02952451	yellow	15	101,938,761	Body	Island	PCSK6	0.623	0.009	0.829	0.162
cg16343272	yellow	12	56,694,667	TSS1500	S_Shore	CS	0.623	0.029	0.258	0.009
cg22675447	yellow	1	24,745,395	5'UTR	S_Shelf	NIPAL3	0.623	-0.001	0.879	0.890
cg03875819	yellow	10	4,386,802		OpenSea		0.623	-0.006	0.756	0.715
cg03798603	yellow	6	30,899,145	3'UTR	OpenSea	SFTA2	0.623	0.010	0.705	0.238



cg01573501	yellow	4	108,910,070	TSS1500	N_Shore	HADH	0.623	0.002	0.571	0.846
cg24555286	yellow	5	96,430,437	3'UTR	OpenSea	LIX1	0.623	-0.005	0.685	0.480
cg06480998	yellow	13	44,712,834		N_Shelf		0.623	0.003	0.880	0.703
cg18499941	yellow	6	169,049,825	Body	OpenSea	SMOC2	0.623	0.009	0.429	0.583
cg25310567	yellow	7	151,653,890	5'UTR	OpenSea	GALNTL5	0.623	0.001	0.602	0.903
cg21758773	yellow	6	30,458,730	Body	S_Shore	HLA-E	0.623	0.002	0.930	0.714
cg04333785	yellow	10	31,446,813		OpenSea		0.623	0.004	0.483	0.606
cg13401196	yellow	7	157,502,419	Body	N_Shore	PTPRN2	0.623	0.014	0.663	0.027
cg11419575	yellow	2	153,057,378		OpenSea		0.623	0.012	0.758	0.063
cg14630382	yellow	18	13,824,396	TSS1500	N_Shore	MC5R	0.623	0.006	0.267	0.717
cg03890988	yellow	1	854,951	TSS200	Island	FLJ39609	0.623	0.001	0.580	0.881
cg06923616	yellow	18	66,381,343	TSS1500	N_Shore	CCDC102B	0.623	0.016	0.527	0.049
cg22077553	yellow	1	171,621,732	1stExon	OpenSea	MYOC	0.623	0.010	0.456	0.147
cg00744433	yellow	21	18,884,067	TSS1500	N_Shore	CXADR	0.623	0.000	0.954	0.972
cg22511455	yellow	1	207,096,773	TSS1500	OpenSea	FAIM3	0.623	0.009	0.521	0.253
cg04713352	yellow	19	36,055,013	TSS1500	OpenSea	ATP4A	0.623	0.010	0.568	0.253
cg09080114	yellow	12	6,983,111	TSS1500	S_Shore	SPSB2	0.623	-0.002	0.066	0.647
cg10088320	yellow	6	32,805,759	Body	N_Shore	TAP2	0.623	-0.004	0.143	0.654
cg20996124	yellow	1	1,144,203		N_Shore		0.623	0.012	0.556	0.049
cg17536822	yellow	3	72,226,488		OpenSea		0.623	-0.006	0.315	0.254
cg17204562	yellow	20	48,568,916	3'UTR	OpenSea	RNF114	0.623	0.006	0.739	0.376
cg04080733	yellow	3	184,045,023	Body	Island	EIF4G1	0.623	-0.001	0.958	0.672
cg13399773	yellow	20	34,700,112	TSS1500	OpenSea	EPB41L1	0.623	0.003	0.677	0.733
cg17942763	yellow	1	2,163,472	Body	S_Shelf	SKI	0.623	0.004	0.121	0.458
cg11515215	yellow	10	29,698,152	TSS1500	N_Shore	LOC387647	0.623	0.012	0.454	0.405
cg08250742	yellow	17	47,651,453		N_Shore		0.623	0.008	0.276	0.141
cg12816057	yellow	5	148,034,206	TSS1500	S_Shore	HTR4	0.623	0.007	0.055	0.168
cg17104700	yellow	19	371,698	Body	OpenSea	THEG	0.623	0.008	0.564	0.227
cg24135977	yellow	11	6,767,826		OpenSea		0.623	0.006	0.814	0.579
cg10041232	yellow	6	31,700,237	Body	S_Shore	CLIC1	0.623	0.004	0.960	0.228
cg27496506	yellow	15	43,559,170	TSS200	OpenSea	TGM5	0.623	-0.001	0.867	0.825
cg11247674	yellow	1	55,267,266	TSS1500	S_Shore	TTC22	0.623	0.010	0.334	0.326
cg13510849	yellow	6	164,572,718		OpenSea		0.623	0.020	0.650	0.293
cg18838059	yellow	7	534,834		S_Shore		0.623	-0.011	0.933	0.073
cg03641797	yellow	7	5,396,436	Body	S_Shore	TNRC18	0.623	-0.006	0.896	0.285
cg21842999	yellow	15	45,475,008	Body	OpenSea	SHF	0.623	-0.004	0.906	0.483
cg24407596	yellow	7	98,718,683	Body	OpenSea	SMURF1	0.623	0.004	0.940	0.434
cg06549275	yellow	2	9,471,231	Body	OpenSea	ASAP2	0.623	0.000	0.634	0.946
cg05884768	yellow	6	52,054,186	3'UTR	OpenSea	IL17A	0.623	-0.001	0.912	0.927
cg17199018	yellow	8	28,206,278	Body	OpenSea	ZNF395	0.623	0.025	0.760	0.014
cg22885000	yellow	2	192,223,280	Body	OpenSea	MYO1B	0.623	-0.002	0.752	0.877
cg02245875	yellow	20	17,552,881	Body	S_Shore	DSTN	0.623	-0.001	0.908	0.849
cg26192520	yellow	8	101,960,390	Body	N_Shelf	YWHAZ	0.623	0.002	0.865	0.865
cg09256716	yellow	17	70,451,947		OpenSea		0.623	0.003	0.945	0.551
cg12658925	yellow	9	135,865,263	Body	Island	GF1B	0.622	0.000	0.720	0.972
cg03992022	yellow	16	57,770,483	5'UTR	S_Shore	KATNB1	0.622	0.003	0.045	0.367
cg11307565	yellow	12	120,701,165	Body	N_Shore	PXN	0.622	0.006	0.332	0.466
cg04100124	yellow	10	69,611,755		S_Shelf		0.622	-0.003	0.838	0.675
cg00213177	yellow	12	51,690,687	Body	OpenSea	BIN2	0.622	-0.010	0.900	0.120
cg17060964	yellow	11	55,796,572	TSS1500	OpenSea	OR5AS1	0.622	-0.008	0.750	0.375
cg18159184	yellow	5	153,548,101		OpenSea		0.622	0.021	0.548	0.049
cg24837149	yellow	1	1,333,778	Body	N_Shore	CCNL2	0.622	0.003	0.236	0.679
cg02589949	yellow	12	13,027,685	TSS1500	OpenSea	RPL13AP20	0.622	0.010	0.747	0.343
cg08718031	yellow	8	145,017,243	Body	N_Shore	PLEC1	0.622	-0.008	0.146	0.229
cg26361553	yellow	11	2,871,528		Island		0.622	0.006	0.824	0.265
cg26986236	yellow	19	34,855,715	TSS1500	N_Shore	GPI	0.622	0.002	0.192	0.790
cg04871173	yellow	7	1,883,056	Body	N_Shore	MAD1L1	0.622	-0.003	0.845	0.721
cg06684407	yellow	21	46,356,806	Body	N_Shelf	C21orf67	0.622	0.000	0.668	0.973
cg24149904	yellow	8	6,691,719	Body	N_Shore	XKR5	0.622	0.001	0.276	0.911
cg12904114	yellow	2	96,930,658	TSS1500	N_Shore	CIAO1	0.622	0.006	0.068	0.351
cg08163855	yellow	8	96,443,153		OpenSea		0.622	-0.006	0.226	0.570
cg02495250	yellow	16	82,735,595	Body	OpenSea	CDH13	0.622	0.005	0.781	0.691
cg22048228	yellow	1	3,585,225	5'UTR	OpenSea	TP73	0.622	0.007	0.522	0.280
cg27090988	yellow	3	9,789,110	3'UTR	N_Shelf	BRPF1	0.622	-0.001	0.938	0.884
cg15840079	yellow	11	60,691,621	TSS1500	N_Shore	TMEM132A	0.622	0.010	0.114	0.093
cg14373994	yellow	9	138,021,739		N_Shelf		0.622	-0.001	0.623	0.879
cg01479232	yellow	20	748,992	1stExon	OpenSea	C20orf54	0.622	-0.002	0.706	0.795

cg03442372	yellow	22	50,655,833	3'UTR	N_Shore	SELO	0.622	0.004	0.733	0.646
cg18224729	yellow	11	57,559,066	5'UTR	OpenSea	CTNND1	0.622	0.003	0.978	0.179
cg10201402	yellow	6	31,938,527	TSS1500	N_Shore	STK19	0.622	0.010	0.757	0.050
cg10960681	yellow	22	43,567,465	Body	N_Shelf	TTLL12	0.622	0.000	0.884	0.981
cg13877631	yellow	4	3,124,167	Body	OpenSea	HTT	0.622	-0.006	0.212	0.301
cg10195692	yellow	4	166,128,178	TSS1500	N_Shore	KLHL2	0.622	0.001	0.090	0.773
cg03762237	yellow	2	98,701,516		N_Shore		0.622	-0.012	0.224	0.163
cg06772202	yellow	7	75,678,527	Body	S_Shore	MDH2	0.622	0.000	0.827	0.964
cg05180856	yellow	15	91,428,056	5'UTR	S_Shore	FES	0.622	0.016	0.394	0.216
cg24459227	yellow	15	93,130,164		OpenSea		0.622	-0.002	0.602	0.836
cg04358131	yellow	7	1,572,252	5'UTR	S_Shore	MAFK	0.622	0.017	0.100	0.087
cg14267862	yellow	12	49,952,407	3'UTR	OpenSea	MCRS1	0.622	0.010	0.695	0.395
cg11680908	yellow	5	68,042,226		OpenSea		0.622	-0.001	0.744	0.938
cg10334416	yellow	17	32,504,524		OpenSea		0.622	-0.021	0.623	0.403
cg06647693	yellow	16	88,590,340	Body	Island	ZFPM1	0.622	0.028	0.701	0.060
cg26396815	yellow	4	102,878,132	Body	OpenSea	BANK1	0.622	-0.002	0.835	0.822
cg12079740	yellow	1	240,473,071	Body	OpenSea	FMN2	0.622	-0.001	0.695	0.910
cg08120462	yellow	15	90,118,174	TSS1500	N_Shore	C15orf42	0.622	-0.003	0.047	0.603
cg07005770	yellow	7	1,530,051	Body	N_Shelf	INTS1	0.622	-0.001	0.814	0.906
cg04012082	yellow	12	1,905,096	Body	N_Shore	CACNA2D4	0.622	0.007	0.371	0.413
cg08588180	yellow	6	25,138,905	TSS1500	N_Shore	CMAH	0.622	0.004	0.307	0.651
cg03288653	yellow	19	3,548,338	Body	Island	C19orf28	0.622	0.005	0.649	0.508
cg10668614	yellow	11	915,163	TSS200	S_Shelf	CHID1	0.622	0.009	0.594	0.123
cg04237918	yellow	22	38,435,259		S_Shore		0.622	0.014	0.702	0.044
cg07835154	yellow	12	124,941,315	Body	Island	NCOR2	0.622	0.000	0.932	0.929
cg06398524	yellow	7	138,710,963	3'UTR	OpenSea	ZC3HAV1L	0.622	0.004	0.966	0.057
cg12703333	yellow	10	76,962,548		OpenSea		0.621	0.009	0.845	0.221
cg13455257	yellow	1	151,148,231	5'UTR	OpenSea	TMOD4	0.621	0.007	0.885	0.397
cg14535884	yellow	9	117,349,621	TSS1500	N_Shore	ATP6V1G1	0.621	0.037	0.408	0.045
cg25540816	yellow	5	148,928,885	Body	N_Shore	CSNK1A1	0.621	0.007	0.053	0.213
cg16081426	yellow	15	85,174,859	Body	N_Shore	SCAND2	0.621	0.006	0.047	0.183
cg07549381	yellow	16	88,769,970	Body	N_Shelf	RNF166	0.621	0.005	0.742	0.489
cg16075268	yellow	14	24,779,793	1stExon	N_Shore	LTB4R2	0.621	0.003	0.490	0.784
cg24681438	yellow	2	241,627,226		OpenSea		0.621	0.007	0.870	0.201
cg05450336	yellow	10	729,916	Body	OpenSea	DIP2C	0.621	0.005	0.790	0.503
cg13679778	yellow	6	28,493,019	TSS1500	OpenSea	GPX5	0.621	-0.007	0.245	0.629
cg06708315	yellow	17	73,689,641	Body	OpenSea	SAP30BP	0.621	0.005	0.619	0.826
cg06333725	yellow	10	52,156,632	5'UTR	OpenSea	SGMS1	0.621	0.001	0.801	0.930
cg06703222	yellow	16	69,598,327	TSS1500	N_Shore	NFAT5	0.621	-0.005	0.493	0.624
cg08267250	yellow	10	134,872,255		OpenSea		0.621	0.008	0.468	0.343
cg23644389	yellow	13	47,785,755		OpenSea		0.621	0.010	0.611	0.416
cg11435441	yellow	6	25,027,994		OpenSea		0.621	0.008	0.658	0.337
cg15734764	yellow	10	134,266,555		N_Shore		0.621	-0.006	0.420	0.449
cg22252999	yellow	4	76,996,414	5'UTR	OpenSea	ART3	0.621	0.014	0.773	0.173
cg26073060	yellow	1	32,686,736	TSS1500	N_Shore	EIF3I	0.621	0.010	0.855	0.101
cg24692861	yellow	3	155,524,344	TSS1500	S_Shore	C3orf33	0.621	0.007	0.102	0.296
cg21655444	yellow	18	74,770,402	Body	Island	MBP	0.621	0.008	0.629	0.709
cg11685960	yellow	7	947,479	Body	Island	ADAP1	0.621	0.008	0.596	0.214
cg00546117	yellow	1	8,445,545	5'UTR	OpenSea	RERE	0.621	-0.003	0.527	0.572
cg02461011	yellow	15	90,777,825	5'UTR	S_Shore	C15orf58	0.621	0.005	0.356	0.601
cg09830083	yellow	5	131,561,058	5'UTR	N_Shelf	P4HA2	0.621	-0.003	0.520	0.764
cg23668195	yellow	2	62,805,851		OpenSea		0.621	0.004	0.749	0.746
cg26433445	yellow	16	81,764,289		OpenSea		0.621	-0.002	0.055	0.491
cg10065739	yellow	16	4,258,150	Body	OpenSea	SRL	0.621	0.024	0.904	0.014
cg05938607	yellow	10	60,274,200	Body	S_Shore	BICC1	0.621	-0.009	0.210	0.394
cg02853948	yellow	6	55,105,271	Body	OpenSea	HCRTR2	0.621	-0.002	0.914	0.776
cg19517912	yellow	21	32,874,478	5'UTR	OpenSea	TIAM1	0.621	0.003	0.780	0.666
cg20687940	yellow	11	63,753,228	TSS200	N_Shore	OTUB1	0.621	-0.002	0.529	0.869
cg12084631	yellow	14	35,854,012		OpenSea		0.621	0.012	0.835	0.073
cg06559111	yellow	13	37,495,847	TSS1500	S_Shore	SMAD9	0.621	0.016	0.463	0.078
cg11407989	yellow	7	77,975,491	TSS1500	OpenSea	RPL13AP17	0.621	0.008	0.545	0.269
cg24394990	yellow	1	87,793,364	TSS1500	N_Shore	LMO4	0.621	-0.006	0.790	0.577
cg02079584	yellow	15	74,528,719	1stExon	OpenSea	CCDC33	0.621	-0.001	0.626	0.888
cg05472934	yellow	7	22,766,657	TSS200	OpenSea	IL6	0.621	0.000	0.024	0.899
cg18645002	yellow	7	120,142,732	Body	OpenSea	KCND2	0.621	-0.009	0.886	0.336
cg11057205	yellow	8	134,588,243		S_Shelf		0.621	0.008	0.583	0.577
cg10119342	yellow	1	1,222,184	Body	OpenSea	SCNN1D	0.621	0.009	0.428	0.207

cg11210878	yellow	11	62,689,065	TSS200	N_Shore	CHRM1	0.621	0.001	0.120	0.892
cg00872865	yellow	3	112,770,545		OpenSea		0.621	-0.002	0.214	0.828
cg02795976	yellow	10	120,977,007	Body	OpenSea	GRK5	0.621	-0.011	0.823	0.215
cg12861503	yellow	13	52,734,071	TSS1500	S_Shore	NEK3	0.621	0.017	0.422	0.028
cg06305609	yellow	19	17,634,172	1stExon	S_Shelf	FAM129C	0.621	0.008	0.469	0.347
cg10300728	yellow	13	112,786,133		OpenSea		0.621	0.000	0.886	0.991
cg25998666	yellow	11	64,780,896	TSS1500	N_Shore	ARL2	0.621	-0.006	0.485	0.346
cg14383815	yellow	8	6,282,955	Body	OpenSea	MCPH1	0.621	0.005	0.376	0.360
cg10067304	yellow	20	62,042,490	Body	N_Shore	KCNQ2	0.621	0.015	0.735	0.045
cg14153649	yellow	3	73,768,146		OpenSea		0.621	-0.014	0.872	0.118
cg24314434	yellow	19	5,851,762	TSS1500	OpenSea	FUT3	0.621	0.006	0.863	0.511
cg15123662	yellow	11	12,505,288	Body	OpenSea	PARVA	0.621	0.003	0.707	0.676
cg02585440	yellow	11	41,735,702		OpenSea		0.621	0.016	0.697	0.062
cg17223520	yellow	1	32,739,114	5'UTR	N_Shore	LCK	0.621	-0.013	0.400	0.171
cg21691116	yellow	1	161,171,819	5'UTR	Island	NDUFS2	0.621	0.003	0.117	0.688
cg14401614	yellow	15	74,031,640		OpenSea		0.621	0.007	0.692	0.264
cg00175702	yellow	1	2,109,388	Body	OpenSea	PRKCZ	0.621	0.005	0.867	0.363
cg13418839	yellow	17	37,798,877	5'UTR	OpenSea	STAR3D3	0.621	0.002	0.935	0.601
cg13074795	yellow	12	53,996,158	5'UTR	OpenSea	ATF7	0.621	0.013	0.829	0.113
cg03040821	yellow	1	212,966,209	Body	S_Shore	TATDN3	0.621	0.008	0.632	0.416
cg10264529	yellow	14	24,562,064	TSS1500	N_Shore	PCK2	0.621	0.005	0.881	0.607
cg19435526	yellow	19	7,965,813	3'UTR	S_Shore	LRRCE8E	0.621	0.008	0.637	0.372
cg17467898	yellow	7	2,289,054	Body	OpenSea	NUDT1	0.621	0.011	0.891	0.030
cg15532667	yellow	14	105,939,672	TSS1500	N_Shore	CRIP2	0.621	0.009	0.460	0.240
cg27400956	yellow	16	9,102,416		OpenSea		0.621	0.015	0.626	0.091
cg11145461	yellow	1	201,475,451	5'UTR	N_Shore	CSRP1	0.621	0.014	0.246	0.377
cg18977283	yellow	6	29,579,492	Body	OpenSea	GABBR1	0.621	0.006	0.794	0.576
cg07960461	yellow	7	99,904,850	TSS1500	OpenSea	SPDYE3	0.621	-0.003	0.925	0.566
cg03542031	yellow	1	28,906,210	Body	N_Shore	SNHG12	0.621	0.005	0.792	0.544
cg08106961	yellow	1	37,355,452	Body	OpenSea	GRIK3	0.621	0.016	0.499	0.005
cg04103317	yellow	9	33,240,960	Body	OpenSea	SUGT1P1	0.620	-0.005	0.497	0.608
cg04477962	yellow	12	51,317,375	TSS1500	OpenSea	METTL7A	0.620	0.002	0.971	0.349
cg04664465	yellow	5	31,048,607		OpenSea		0.620	0.017	0.603	0.405
cg02902318	yellow	1	35,258,061	TSS1500	N_Shore	GJA4	0.620	-0.001	0.762	0.823
cg02614525	yellow	16	75,298,977	Body	Island	BCAR1	0.620	-0.001	0.029	0.528
cg10693390	yellow	11	12,411,772	Body	OpenSea	PARVA	0.620	0.008	0.644	0.456
cg03047616	yellow	2	230,281,966	Body	OpenSea	DNER	0.620	0.013	0.499	0.178
cg13544012	yellow	9	135,709,670	Body	OpenSea	C9orf98	0.620	0.001	0.776	0.871
cg04737124	yellow	10	114,344,988	Body	OpenSea	VTI1A	0.620	-0.002	0.702	0.881
cg15439110	yellow	3	183,153,901		OpenSea		0.620	0.011	0.559	0.621
cg13695076	yellow	14	61,225,294	Body	OpenSea	MNAT1	0.620	0.004	0.852	0.459
cg14294077	yellow	13	111,981,135	Body	S_Shelf	C13orf16	0.620	-0.004	0.657	0.618
cg03361776	yellow	13	24,001,967	5'UTR	OpenSea	SACS	0.620	0.023	0.349	0.073
cg26899598	yellow	15	91,429,088	Body	S_Shore	FES	0.620	0.007	0.299	0.418
cg09219721	yellow	1	156,085,037	1stExon	Island	LMNA	0.620	-0.002	0.029	0.580
cg11758127	yellow	1	2,002,884	Body	N_Shelf	PRKCZ	0.620	0.017	0.886	0.018
cg12030550	yellow	11	86,383,713	TSS1500	S_Shore	ME3	0.620	-0.001	0.126	0.940
cg05110837	yellow	4	2,930,306	3'UTR	N_Shelf	ADD1	0.620	0.010	0.697	0.107
cg16622517	yellow	4	63,075,650		OpenSea		0.620	0.006	0.394	0.497
cg14883070	yellow	18	12,646,025	5'UTR	OpenSea	SPIRE1	0.620	0.009	0.619	0.136
cg02486590	yellow	2	203,155,090	TSS1500	OpenSea	SNORD11B	0.620	-0.001	0.944	0.796
cg08393822	yellow	2	210,737,704	Body	OpenSea	UNC80	0.620	0.006	0.776	0.600
cg13079333	yellow	20	61,937,483	Body	Island	COL20A1	0.620	0.002	0.689	0.705
cg16524818	yellow	1	236,162,295	Body	OpenSea	NID1	0.620	-0.001	0.956	0.813
cg05163309	yellow	5	3,536,536		S_Shore		0.620	0.018	0.848	0.122
cg10363202	yellow	9	132,636,787	Body	Island	USP20	0.620	0.005	0.533	0.416
cg26250400	yellow	19	15,921,959		S_Shelf		0.620	-0.003	0.527	0.685
cg05173987	yellow	15	90,455,332	Body	N_Shore	C15orf38	0.620	-0.006	0.652	0.552
cg13896748	yellow	10	30,872,987		OpenSea		0.620	-0.008	0.483	0.480
cg15993345	yellow	17	40,189,318		N_Shelf		0.620	0.013	0.476	0.049
cg16771771	yellow	6	169,243,410		S_Shore		0.620	-0.002	0.764	0.786
cg27407935	yellow	17	17,723,235	Body	N_Shelf	SREBF1	0.620	0.009	0.504	0.132
cg05205351	yellow	20	2,634,775	Body	S_Shore	NOP56	0.620	0.006	0.444	0.576
cg26718599	yellow	19	49,921,708		N_Shelf		0.620	0.002	0.733	0.749
cg25625162	yellow	12	123,373,173	Body	OpenSea	VPS37B	0.620	0.003	0.353	0.641
cg00657460	yellow	18	52,901,961	Body	OpenSea	TCF4	0.620	0.007	0.342	0.250
cg14550426	yellow	2	38,522,325	3'UTR	OpenSea	ATL2	0.620	0.006	0.868	0.470

cg12920094	yellow	17	8,301,118	1stExon	OpenSea	RNF222	0.620	0.006	0.722	0.473
cg18786123	yellow	12	47,787,067		OpenSea		0.620	-0.003	0.078	0.630
cg27304952	yellow	12	52,077,539	Body	OpenSea	SCN8A	0.620	-0.002	0.850	0.795
cg16088380	yellow	13	114,750,991	Body	S_Shelf	RASA3	0.620	-0.016	0.899	0.211
cg08371934	yellow	19	5,979,720	TSS1500	S_Shore	RANBP3	0.620	-0.004	0.827	0.651
cg19489509	yellow	10	133,878,202		N_Shore		0.620	-0.001	0.495	0.933
cg20706315	yellow	17	74,366,578		OpenSea		0.620	-0.005	0.719	0.534
cg24052851	yellow	9	90,795,355		Island		0.620	0.007	0.703	0.380
cg08781738	yellow	8	117,876,328	Body	OpenSea	RAD21	0.620	-0.016	0.878	0.059
cg13709561	yellow	8	27,781,943	Body	S_Shelf	SCARA5	0.620	-0.006	0.611	0.584
cg24349745	yellow	6	32,185,011	Body	OpenSea	NOTCH4	0.620	0.000	0.880	0.994
cg01360119	yellow	7	150,101,760	TSS1500	N_Shore	LOC728743	0.620	-0.003	0.202	0.683
cg01367322	yellow	6	33,283,796	Body	N_Shore	ZBTB22	0.620	0.021	0.731	0.031
cg09772831	yellow	19	12,175,160	TSS1500	N_Shore	ZNF844	0.620	0.016	0.496	0.148
cg16512727	yellow	12	4,649,136	Body	S_Shore	RAD51AP1	0.620	0.002	0.429	0.843
cg04683119	yellow	4	44,679,953	TSS1500	N_Shore	GUF1	0.620	0.004	0.030	0.235
cg15923350	yellow	1	163,038,703	1stExon	OpenSea	RGS4	0.620	0.006	0.257	0.723
cg27160968	yellow	11	64,081,545	Body	N_Shelf	ESRRA	0.620	0.006	0.961	0.079
cg23488414	yellow	4	74,088,730	Body	OpenSea	ANKRD17	0.620	0.000	0.022	0.819
cg14790817	yellow	12	102,936,326		OpenSea		0.620	0.001	0.942	0.813
cg05248742	yellow	16	24,142,386	Body	OpenSea	PRKCB	0.620	0.013	0.708	0.067
cg24207698	yellow	2	166,811,308	TSS1500	S_Shore	TTC21B	0.620	-0.005	0.378	0.675
cg12598054	yellow	4	7,437,156	Body	OpenSea	SORCS2	0.620	0.014	0.496	0.087
cg17953716	yellow	8	1,915,004		OpenSea		0.620	-0.007	0.131	0.486
cg27149567	yellow	21	47,314,725	Body	N_Shelf	PCBP3	0.620	0.019	0.752	0.134
cg23574427	yellow	4	122,746,245	3'UTR	S_Shore	BBS7	0.620	0.005	0.724	0.644
cg04504043	yellow	11	34,534,480	5'UTR	OpenSea	ELF5	0.619	-0.009	0.818	0.191
cg07737182	yellow	1	244,891,843		N_Shore		0.619	0.005	0.780	0.513
cg01956154	yellow	14	94,423,399	5'UTR	OpenSea	ASB2	0.619	0.011	0.415	0.038
cg23667868	yellow	14	105,361,172	Body	S_Shore	KIAA0284	0.619	0.005	0.889	0.369
cg23063900	yellow	19	35,769,802	Body	Island	USF2	0.619	-0.001	0.905	0.850
cg02011953	yellow	9	103,790,013	TSS1500	N_Shore	LPPR1	0.619	0.002	0.481	0.741
cg04278105	yellow	14	105,168,639	Body	S_Shore	INF2	0.619	0.010	0.726	0.168
cg08005208	yellow	1	163,395,211		S_Shelf		0.619	-0.002	0.774	0.850
cg14667273	yellow	1	1,369,934	TSS1500	N_Shore	VWA1	0.619	-0.004	0.056	0.470
cg25085755	yellow	5	139,294,323	Body	OpenSea	NRG2	0.619	0.004	0.397	0.424
cg00517855	yellow	8	146,016,408	Body	N_Shore	RPL8	0.619	0.015	0.484	0.137
cg03303433	yellow	16	30,061,433		N_Shelf		0.619	0.007	0.590	0.260
cg12298222	yellow	15	40,799,212		N_Shore		0.619	0.002	0.045	0.302
cg01476047	yellow	10	73,974,007	5'UTR	N_Shore	ASCC1	0.619	0.000	0.970	0.910
cg00366880	yellow	3	13,244,304		N_Shore		0.619	0.012	0.682	0.157
cg23202913	yellow	8	56,986,114	Body	N_Shore	RPS20	0.619	-0.004	0.560	0.768
cg14826891	yellow	17	32,404,422	Body	OpenSea	ACCN1	0.619	-0.003	0.566	0.753
cg04936009	yellow	2	223,846,845		OpenSea		0.619	0.008	0.632	0.273
cg22565251	yellow	19	45,461,093	Body	S_Shelf	CLPTM1	0.619	-0.005	0.945	0.254
cg11669124	yellow	10	104,774,961	Body	OpenSea	CNNM2	0.619	-0.001	0.960	0.846
cg17132079	yellow	1	1,294,140	TSS1500	S_Shelf	MXRA8	0.619	-0.005	0.196	0.420
cg04426031	yellow	7	1,799,192		OpenSea		0.619	0.003	0.727	0.670
cg24754223	yellow	10	3,133,556	Body	OpenSea	PFKP	0.619	0.013	0.894	0.156
cg07159758	yellow	17	55,474,061	Body	OpenSea	MSI2	0.619	0.003	0.384	0.742
cg05314024	yellow	1	246,952,118	TSS1500	N_Shore	LOC149134	0.619	0.018	0.482	0.089
cg23074762	yellow	15	101,781,259	Body	OpenSea	CHSY1	0.619	0.027	0.854	0.035
cg24202221	yellow	2	38,694,132		OpenSea		0.619	0.007	0.301	0.242
cg03405473	yellow	5	149,680,926	Body	N_Shore	ARSI	0.619	0.006	0.230	0.487
cg01426903	yellow	20	3,667,841	3'UTR	OpenSea	SIGLEC1	0.619	0.023	0.440	0.113
cg03758241	yellow	9	116,929,797	Body	N_Shore	COL27A1	0.619	-0.001	0.872	0.829
cg01021743	yellow	2	222,541,659		OpenSea		0.619	-0.006	0.716	0.496
cg21844956	yellow	6	25,963,442	5'UTR	OpenSea	TRIM38	0.619	0.005	0.020	0.054
cg26562786	yellow	8	56,361,901	Body	Island	XKR4	0.619	-0.003	0.972	0.302
cg15289899	yellow	11	2,397,255	TSS1500	N_Shore	CD81	0.619	0.008	0.691	0.278
cg16929393	yellow	8	94,849,907		OpenSea		0.619	0.002	0.681	0.807
cg14615195	yellow	2	2,335,088	TSS200	OpenSea	MYT1L	0.619	0.004	0.818	0.661
cg08899105	yellow	15	93,450,671	Body	S_Shelf	CHD2	0.619	-0.005	0.830	0.409
cg10244976	yellow	16	1,014,818	Body	Island	LMF1	0.619	-0.003	0.517	0.609
cg27569752	yellow	17	10,452,975	5'UTR	OpenSea	MYH2	0.619	0.012	0.204	0.130
cg06350853	yellow	1	168,890,140		OpenSea		0.619	-0.014	0.452	0.264
cg15327559	yellow	1	180,925,922		S_Shelf		0.619	0.000	0.941	0.918

cg09659300	yellow	12	123,378,142	Body	N_Shelf	VPS37B	0.619	-0.009	0.838	0.396
cg26236329	yellow	11	57,200,325		OpenSea		0.619	0.002	0.631	0.784
cg23562222	yellow	7	5,272,900	3'UTR	OpenSea	WIPI2	0.619	0.003	0.643	0.728
cg01458510	yellow	2	109,752,622	Body	OpenSea	SH3RF3	0.619	0.004	0.685	0.738
cg11808699	yellow	15	81,528,661	Body	OpenSea	IL16	0.619	0.002	0.674	0.844
cg04694744	yellow	20	48,522,966	Body	Island	SPATA2	0.619	-0.002	0.729	0.733
cg20870559	yellow	12	113,416,518	1stExon	OpenSea	OAS2	0.619	0.004	0.435	0.406
cg10277956	yellow	2	230,899,944	3'UTR	OpenSea	SLC16A14	0.619	0.008	0.880	0.370
cg08573435	yellow	7	1,398,116		OpenSea		0.619	-0.008	0.420	0.492
cg12119988	yellow	15	65,214,588	Body	OpenSea	ANKDD1A	0.619	0.015	0.692	0.242
cg01948202	yellow	3	122,400,474	Body	S_Shore	PARP14	0.619	0.010	0.504	0.431
cg03417110	yellow	16	89,120,621		S_Shore		0.619	-0.005	0.639	0.488
cg24536965	yellow	1	8,492,032	Body	OpenSea	RERE	0.619	0.000	0.698	0.996
cg14193653	yellow	9	94,178,868	5'UTR	OpenSea	NFIL3	0.619	0.005	0.933	0.386
cg15572396	yellow	3	58,321,349	Body	S_Shelf	PXK	0.619	-0.014	0.593	0.232
cg19719678	yellow	2	240,972,734		OpenSea		0.619	0.003	0.648	0.630
cg22265458	yellow	19	56,738,933	5'UTR	N_Shore	ZSCAN5A	0.619	-0.014	0.908	0.060
cg10157902	yellow	5	958,969		Island		0.619	0.012	0.570	0.056
cg13928909	yellow	9	140,487,898		S_Shelf		0.619	0.007	0.451	0.304
cg02023043	yellow	7	45,129,337	TSS1500	S_Shore	NACAD	0.619	-0.008	0.196	0.455
cg26228460	yellow	11	120,381,319		N_Shore		0.619	-0.002	0.542	0.806
cg20434239	yellow	17	43,028,046		S_Shelf		0.619	-0.001	0.757	0.918
cg11738486	yellow	19	6,744,898	Body	N_Shore	TRIP10	0.618	0.014	0.285	0.540
cg13464059	yellow	19	2,334,565	Body	Island	SPPL2B	0.618	0.000	0.846	0.998
cg10688799	yellow	13	45,481,164		OpenSea		0.618	0.009	0.178	0.285
cg22887845	yellow	6	41,544,539	Body	OpenSea	FOXP4	0.618	-0.004	0.604	0.521
cg04210566	yellow	3	52,010,381	Body	S_Shore	ABHD14A	0.618	0.005	0.526	0.529
cg22977481	yellow	2	134,523,563		OpenSea		0.618	0.002	0.349	0.823
cg18282393	yellow	2	111,788,355	Body	OpenSea	ACOXL	0.618	-0.012	0.865	0.138
cg11773456	yellow	14	100,055,669	Body	OpenSea	CCDC85C	0.618	0.006	0.885	0.379
cg19857714	yellow	11	986,709	Body	OpenSea	AP2A2	0.618	0.009	0.492	0.186
cg08680007	yellow	15	94,427,008		OpenSea		0.618	-0.010	0.899	0.175
cg13690179	yellow	20	61,919,186	Body	Island	ARFGAP1	0.618	0.004	0.704	0.669
cg17095929	yellow	11	64,883,911	1stExon	N_Shore	ZNHIT2	0.618	0.004	0.600	0.489
cg14245239	yellow	2	182,982,011	Body	OpenSea	PPP1R1C	0.618	0.001	0.961	0.773
cg21620606	yellow	4	1,342,894	Body	S_Shore	KIAA1530	0.618	0.001	0.825	0.937
cg01812400	yellow	14	104,179,095	5'UTR	N_Shelf	XRCC3	0.618	0.007	0.613	0.314
cg13424393	yellow	17	80,569,923		N_Shore		0.618	-0.004	0.784	0.715
cg05201344	yellow	13	114,304,887	Body	S_Shelf	ATP4B	0.618	-0.006	0.946	0.288
cg16509239	yellow	11	62,212,431	Body	S_Shore	AHNAK	0.618	-0.009	0.448	0.669
cg04565008	yellow	11	67,418,140	TSS200	OpenSea	ACY3	0.618	0.025	0.492	0.000
cg17126250	yellow	7	106,759,732	Body	OpenSea	PRKAR2B	0.618	-0.001	0.623	0.922
cg06851000	yellow	1	33,627,109	Body	S_Shore	TRIM62	0.618	0.009	0.071	0.295
cg07330288	yellow	17	19,977,156		OpenSea		0.618	-0.001	0.733	0.954
cg15714227	yellow	5	2,225,482		OpenSea		0.618	0.004	0.771	0.626
cg12098569	yellow	10	1,594,637	Body	N_Shore	ADARB2	0.618	0.011	0.559	0.160
cg19542346	yellow	12	58,145,283	Body	N_Shore	CDK4	0.618	0.002	0.231	0.841
cg00307276	yellow	16	15,689,899	3'UTR	OpenSea	KIAA0430	0.618	0.005	0.855	0.373
cg04347161	yellow	16	57,495,877	TSS1500	N_Shore	POLR2C	0.618	-0.003	0.712	0.732
cg06956052	yellow	1	160,121,201	TSS200	OpenSea	ATP1A4	0.618	0.012	0.665	0.094
cg22940954	yellow	2	218,937,635	Body	OpenSea	RUFY4	0.618	0.005	0.521	0.344
cg03602567	yellow	13	97,642,682	5'UTR	N_Shelf	OXGR1	0.618	0.004	0.633	0.680
cg20977769	yellow	8	49,737,422		OpenSea		0.618	0.000	0.932	0.967
cg24531955	yellow	8	23,154,691	3'UTR	OpenSea	LOXL2	0.618	-0.004	0.872	0.469
cg00385194	yellow	11	57,957,102	TSS1500	OpenSea	OR9Q2	0.618	0.008	0.916	0.326
cg04871778	yellow	1	55,267,125	TSS200	S_Shore	TTC22	0.618	0.003	0.271	0.706
cg17482963	yellow	8	27,591,911	3'UTR	OpenSea	CCDC25	0.618	0.012	0.852	0.355
cg16842717	yellow	11	1,252,271	Body	Island	MUC5B	0.618	0.017	0.770	0.026
cg25962829	yellow	6	32,043,676	Body	N_Shelf	TNXB	0.618	0.008	0.547	0.167
cg13883681	yellow	16	58,768,565	TSS1500	S_Shore	GOT2	0.618	0.013	0.437	0.044
cg08736072	yellow	16	1,471,543	Body	S_Shore	C16orf91	0.618	0.015	0.656	0.241
cg21929831	yellow	4	184,319,646		Island		0.618	-0.006	0.038	0.195
cg05937687	yellow	8	70,101,609		OpenSea		0.618	0.006	0.741	0.457
cg07760161	yellow	17	7,588,378	5'UTR	N_Shore	TP53	0.618	0.007	0.728	0.338
cg10327769	yellow	17	43,340,243	Body	S_Shore	LOC10013391	0.618	0.006	0.555	0.380
cg09196959	yellow	6	30,104,440	TSS200	OpenSea	TRIM40	0.618	-0.004	0.870	0.478
cg19778698	yellow	7	1,570,060	TSS1500	N_Shore	MAFK	0.618	0.000	0.113	0.986

cg11813064	yellow	20	62,003,032	Island		0.618	0.009	0.833	0.082
cg24756227	yellow	5	1,406,177 Body	OpenSea	SLC6A3	0.618	0.004	0.492	0.490
cg23590660	yellow	12	8,205,602 3'UTR	OpenSea	FOXJ2	0.618	0.006	0.798	0.326
cg08962185	yellow	8	143,336,052 Body	S_Shelf	TSNARE1	0.618	0.010	0.512	0.265
cg11340260	yellow	17	4,835,476 TSS200	OpenSea	GP1BA	0.618	-0.001	0.898	0.924
cg01459389	yellow	17	47,923,475 Body	OpenSea	TAC4	0.618	-0.004	0.709	0.526
cg07428782	yellow	17	31,861,540 Body	OpenSea	ACCN1	0.618	0.001	0.491	0.914
cg12627844	yellow	2	64,245,000 5'UTR	N_Shore	VPS54	0.618	-0.002	0.130	0.752
cg19574297	yellow	12	107,039,089 Body	OpenSea	RFX4	0.618	0.003	0.710	0.733
cg22060087	yellow	20	32,892,208 5'UTR	S_Shore	AHCY	0.618	0.002	0.955	0.555
cg03547017	yellow	17	37,031,281 Body	OpenSea	LASP1	0.618	-0.001	0.133	0.940
cg27135510	yellow	11	2,423,571 5'UTR	S_Shore	TSSC4	0.618	0.003	0.801	0.641
cg10413089	yellow	15	22,921,426 5'UTR	OpenSea	CYFIP1	0.618	0.005	0.867	0.516
cg03969182	yellow	6	30,595,190 Body	OpenSea	C6orf134	0.618	0.004	0.758	0.593
cg10533746	yellow	2	74,645,626 TSS1500	Island	C2orf81	0.618	0.010	0.807	0.506
cg09565526	yellow	4	87,812,668 Body	N_Shore	C4orf36	0.618	0.003	0.333	0.793
cg09461792	yellow	7	17,055,230	OpenSea		0.618	-0.018	0.427	0.207
cg03454235	yellow	12	122,658,311 5'UTR	OpenSea	LRRC43	0.618	0.009	0.727	0.303
cg13174306	yellow	1	115,822,971	OpenSea		0.617	0.001	0.617	0.902
cg11650460	yellow	12	120,538,792 Body	S_Shore	RAB35	0.617	0.006	0.379	0.438
cg04338890	yellow	16	57,019,755	N_Shelf		0.617	0.012	0.484	0.050
cg15057046	yellow	6	4,483,078	OpenSea		0.617	-0.002	0.859	0.831
cg00525683	yellow	5	156,948,581 Body	OpenSea	ADAM19	0.617	0.009	0.862	0.156
cg01991687	yellow	19	5,290,521 5'UTR	Island	PTPRS	0.617	0.010	0.786	0.134
cg01309328	yellow	6	32,811,253 Body	N_Shore	PSMB8	0.617	0.002	0.904	0.770
cg14963860	yellow	11	94,706,164 5'UTR	N_Shore	CWC15	0.617	0.002	0.049	0.669
cg01243924	yellow	1	205,038,785 Body	Island	CNTN2	0.617	0.005	0.426	0.297
cg03044096	yellow	1	45,140,869 5'UTR	S_Shore	C1orf228	0.617	0.003	0.317	0.707
cg20618433	yellow	19	11,266,919 TSS1500	S_Shore	SPC24	0.617	-0.006	0.810	0.463
cg18330784	yellow	5	107,106,773	OpenSea		0.617	-0.005	0.909	0.642
cg19419291	yellow	5	95,295,965 Body	N_Shore	ELL2	0.617	0.005	0.414	0.590
cg12443853	yellow	12	111,369,279	OpenSea		0.617	0.007	0.388	0.315
cg05529886	yellow	3	63,329,604 Body	OpenSea	SYNPR	0.617	0.003	0.021	0.222
cg23057232	yellow	1	97,737,509 Body	OpenSea	DPYD	0.617	0.009	0.569	0.502
cg02299946	yellow	10	124,224,470 Body	S_Shelf	HTRA1	0.617	-0.002	0.972	0.503
cg07571282	yellow	16	81,295,095 Body	OpenSea	BCMO1	0.617	-0.009	0.950	0.041
cg09854184	yellow	5	310,135 Body	Island	AHRR	0.617	-0.003	0.880	0.594
cg01460382	yellow	3	12,947,823 Body	N_Shore	IQSEC1	0.617	0.000	0.803	0.990
cg18576604	yellow	6	32,407,515 TSS200	OpenSea	HLA-DRA	0.617	0.019	0.220	0.254
cg00701064	yellow	4	6,280,414 Body	OpenSea	WFS1	0.617	0.033	0.706	0.074
cg10420075	yellow	13	31,556,779	OpenSea		0.617	0.000	0.640	0.966
cg23162479	yellow	12	5,690,131 Body	OpenSea	ANO2	0.617	0.015	0.498	0.142
cg10752676	yellow	7	123,175,466 TSS1500	S_Shore	IQUB	0.617	-0.002	0.861	0.823
cg01644731	yellow	12	58,236,712 Body	N_Shelf	CTDSP2	0.617	-0.008	0.418	0.517
cg09875150	yellow	7	72,849,964 1stExon	Island	FZD9	0.617	0.002	0.829	0.743
cg07042338	yellow	17	26,990,202 5'UTR	S_Shore	SUPT6H	0.617	0.012	0.843	0.288
cg17654107	yellow	7	98,869,768 TSS1500	OpenSea	MYH16	0.617	0.001	0.743	0.848
cg22273555	yellow	6	33,130,034	S_Shore		0.617	-0.001	0.429	0.905
cg10734581	yellow	14	101,520,078 TSS1500	OpenSea	MIR134	0.617	0.009	0.748	0.180
cg14700325	yellow	17	48,274,189 Body	N_Shelf	COL1A1	0.617	0.018	0.807	0.062
cg06946314	yellow	2	236,092,957	OpenSea		0.617	0.011	0.771	0.131
cg01108642	yellow	16	77,103,259	OpenSea		0.617	-0.005	0.905	0.378
cg07921314	yellow	7	129,253,169 5'UTR	S_Shore	NRF1	0.617	-0.002	0.835	0.787
cg19135247	yellow	21	44,843,568 Body	S_Shelf	SIK1	0.617	0.009	0.917	0.205
cg02898499	yellow	16	1,831,468 Body	N_Shore	SPSB3	0.617	0.011	0.738	0.153
cg23246828	yellow	4	114,130,717 Body	OpenSea	ANK2	0.617	0.003	0.708	0.776
cg17212791	yellow	22	49,483,368	N_Shelf		0.617	-0.012	0.367	0.469
cg07417020	yellow	5	6,584,977 Body	S_Shore	LOC255167	0.617	0.003	0.567	0.757
cg16780603	yellow	2	169,659,047 5'UTR	OpenSea	NOSTRIN	0.617	0.007	0.414	0.394
cg19442493	yellow	17	77,375,519 5'UTR	OpenSea	HRNBP3	0.617	0.004	0.653	0.553
cg11795753	yellow	12	133,337,036 Body	N_Shore	ANKLE2	0.617	-0.001	0.461	0.926
cg25854797	yellow	14	105,878,118	Island		0.617	0.002	0.651	0.791
cg13531387	yellow	9	136,078,657	S_Shelf		0.617	0.007	0.435	0.385
cg07861373	yellow	17	73,501,230 Body	S_Shore	CASKIN2	0.617	0.004	0.831	0.419
cg26571814	yellow	12	20,589,672 Body	OpenSea	PDE3A	0.617	-0.012	0.664	0.143
cg02301079	yellow	16	11,591,651	OpenSea		0.617	0.011	0.270	0.345
cg25499537	yellow	3	151,177,940 TSS1500	N_Shore	IGSF10	0.617	0.001	0.328	0.897

cg21552300	yellow	2	175,629,224	TSS200	OpenSea	CHRNA1	0.617	0.004	0.618	0.486
cg06712542	yellow	17	26,552,887	TSS1500	N_Shore	PYY2	0.617	0.000	0.896	0.967
cg12902896	yellow	3	37,987,838	Body	OpenSea	CTDSPL	0.617	0.004	0.041	0.279
cg26274995	yellow	8	11,302,983	5'UTR	OpenSea	FAM167A	0.617	-0.004	0.638	0.535
cg17261125	yellow	10	10,994,495	TSS1500	OpenSea	LOC254312	0.617	-0.002	0.623	0.833
cg20256216	yellow	7	98,927,457	5'UTR	S_Shelf	ARPC1A	0.617	-0.010	0.877	0.307
cg01830463	yellow	12	132,317,128	Body	S_Shore	MMP17	0.617	0.010	0.466	0.286
cg04305228	yellow	22	18,272,333	3'UTR	N_Shelf	MICAL3	0.617	0.014	0.859	0.005
cg09664596	yellow	16	10,782,373	Body	OpenSea	TEKT5	0.617	0.010	0.550	0.201
cg19913626	yellow	8	49,533,357		OpenSea		0.617	0.000	0.573	0.997
cg07644807	yellow	16	88,769,854	Body	N_Shelf	RNF166	0.617	0.005	0.670	0.449
cg19212391	yellow	17	72,432,790	Body	S_Shelf	GPRC5C	0.617	0.003	0.747	0.750
cg00376448	yellow	11	64,659,065	TSS1500	N_Shelf	MIR192	0.617	0.009	0.720	0.219
cg26127799	yellow	10	100,207,525	TSS1500	OpenSea	HPS1	0.617	0.007	0.903	0.143
cg23031939	yellow	11	134,216,076	Body	S_Shelf	GLB1L2	0.616	0.008	0.653	0.223
cg08201604	yellow	8	26,171,697	Body	OpenSea	PPP2R2A	0.616	-0.006	0.807	0.501
cg26104932	yellow	2	219,647,360	Body	S_Shore	CYP27A1	0.616	0.000	0.028	0.959
cg10364905	yellow	3	50,262,408		N_Shore		0.616	0.007	0.607	0.267
cg27563048	yellow	3	52,008,788	TSS200	N_Shore	ABHD14B	0.616	0.001	0.042	0.687
cg17719543	yellow	1	17,594,040	Body	OpenSea	PADI3	0.616	0.000	0.749	0.989
cg14964274	yellow	1	215,796,556	3'UTR	OpenSea	USH2A	0.616	-0.005	0.779	0.599
cg00879667	yellow	19	5,915,215	Body	Island	CAPS	0.616	0.008	0.510	0.126
cg02052726	yellow	11	126,180,465	Body	OpenSea	DCPS	0.616	0.008	0.282	0.194
cg12223502	yellow	10	5,658,492		OpenSea		0.616	-0.002	0.892	0.814
cg16119372	yellow	1	202,321,656	Body	S_Shelf	PPP1R12B	0.616	-0.004	0.927	0.460
cg05466469	yellow	6	157,278,622	Body	OpenSea	ARID1B	0.616	-0.003	0.914	0.530
cg23509272	yellow	17	40,346,296	TSS200	OpenSea	GHDC	0.616	0.023	0.421	0.019
cg12393651	yellow	22	46,518,684		Island		0.616	0.013	0.688	0.250
cg22695351	yellow	12	132,701,390	Body	S_Shelf	GALNT9	0.616	0.008	0.923	0.441
cg14181187	yellow	9	116,137,097	5'UTR	N_Shore	HDHD3	0.616	0.008	0.877	0.214
cg26938014	yellow	5	122,432,628	Body	N_Shore	PRDM6	0.616	0.003	0.604	0.750
cg19621460	yellow	19	14,225,945	TSS1500	N_Shelf	PRKACA	0.616	0.002	0.663	0.850
cg18296189	yellow	14	70,564,650	Body	OpenSea	SLC8A3	0.616	-0.005	0.420	0.446
cg12500956	yellow	2	135,428,796	Body	OpenSea	TMEM163	0.616	0.003	0.559	0.678
cg16671682	yellow	19	13,249,201	Body	Island	NACC1	0.616	0.007	0.650	0.235
cg01191064	yellow	5	121,408,893	Body	N_Shelf	LOX	0.616	0.005	0.878	0.661
cg20716058	yellow	7	151,330,230	Body	OpenSea	PRKAG2	0.616	0.006	0.335	0.426
cg18241308	yellow	7	95,026,502	TSS1500	S_Shore	PON3	0.616	0.005	0.814	0.632
cg03315344	yellow	16	75,512,273	3'UTR	N_Shore	CHST6	0.616	0.023	0.693	0.508
cg24738993	yellow	1	18,167,815		OpenSea		0.616	-0.004	0.577	0.657
cg24507551	yellow	6	30,877,958	Body	N_Shelf	GTF2H4	0.616	0.008	0.783	0.111
cg19607845	yellow	6	52,934,457	Body	S_Shelf	FBXO9	0.616	0.002	0.663	0.863
cg02361803	yellow	1	2,014,371	Body	OpenSea	PRKCZ	0.616	-0.002	0.767	0.770
cg11679149	yellow	18	60,990,309		S_Shelf		0.616	-0.001	0.209	0.805
cg23429047	yellow	2	129,028,542	Body	S_Shelf	HS6ST1	0.616	0.004	0.702	0.612
cg06351520	yellow	2	3,131,276		OpenSea		0.616	0.005	0.839	0.332
cg10127037	yellow	14	104,638,431	Body	Island	KIF26A	0.616	0.017	0.758	0.231
cg11328541	yellow	19	14,910,889	1stExon	OpenSea	OR7C1	0.616	0.003	0.320	0.641
cg14410503	yellow	7	47,343,076	Body	OpenSea	TNS3	0.616	0.003	0.929	0.442
cg03055158	yellow	1	155,917,493	3'UTR	N_Shelf	ARHGEF2	0.616	-0.002	0.787	0.845
cg01347798	yellow	6	52,145,533	Body	N_Shelf	MCM3	0.616	0.004	0.926	0.502
cg25781963	yellow	11	68,097,231	Body	OpenSea	LRP5	0.616	0.013	0.474	0.190
cg27264462	yellow	1	2,106,365	Body	OpenSea	PRKCZ	0.616	0.005	0.491	0.474
cg12097550	yellow	12	54,068,942	Body	N_Shore	ATP5G2	0.616	-0.002	0.727	0.850
cg25734089	yellow	19	46,969,919	3'UTR	OpenSea	PNMAL1	0.616	0.010	0.701	0.543
cg20291222	yellow	12	75,784,541	TSS1500	N_Shore	GLIPIR1L2	0.616	-0.004	0.621	0.769
cg09321684	yellow	8	38,886,323	Body	OpenSea	ADAM9	0.616	-0.008	0.928	0.098
cg26233084	yellow	5	15,510,258	Body	OpenSea	FBXL7	0.616	-0.011	0.913	0.197
cg20810198	yellow	20	56,136,053	TSS200	OpenSea	PCK1	0.616	0.015	0.317	0.131
cg02894896	yellow	8	37,706,721	Body	N_Shore	BRF2	0.616	0.010	0.497	0.259
cg04081218	yellow	1	183,067,225	Body	OpenSea	LAMC1	0.616	0.004	0.864	0.725
cg13651876	yellow	9	37,434,131	Body	OpenSea	GRHPR	0.616	-0.002	0.591	0.906
cg04283926	yellow	1	42,924,245	Body	S_Shore	PPCS	0.616	-0.001	0.818	0.861
cg18218190	yellow	1	201,982,372	Body	OpenSea	ELF3	0.616	0.001	0.832	0.833
cg05703096	yellow	16	66,887,291	Body	OpenSea	CA7	0.616	0.005	0.810	0.294
cg00339415	yellow	9	136,085,771	TSS1500	OpenSea	OBP2B	0.616	0.000	0.550	0.974
cg23510527	yellow	2	234,601,443	TSS200	OpenSea	UGT1A6	0.616	0.007	0.739	0.270

cg12459514	yellow	2	23,914,071	Body	S_Shore	KLHL29	0.616	0.005	0.765	0.431
cg16255804	yellow	6	135,334,527	Body	OpenSea	HBS1L	0.615	-0.005	0.925	0.504
cg02320474	yellow	16	1,758,022	Body	OpenSea	MAPK8IP3	0.615	0.003	0.814	0.788
cg00267274	yellow	7	5,806,497	5'UTR	OpenSea	RNF216	0.615	0.000	0.899	0.962
cg01963374	yellow	11	704,987	TSS1500	N_Shore	EPS8L2	0.615	0.007	0.460	0.226
cg23568538	yellow	8	143,491,714		OpenSea		0.615	0.000	0.656	0.969
cg23496516	yellow	17	76,834,820	5'UTR	N_Shore	USP36	0.615	-0.010	0.725	0.245
cg19904318	yellow	5	73,109,359	Body	OpenSea	RGNEF	0.615	0.000	0.619	0.978
cg01124420	yellow	2	109,605,518	5'UTR	OpenSea	EDAR	0.615	0.001	0.282	0.844
cg26947448	yellow	14	90,091,931		OpenSea		0.615	-0.002	0.252	0.858
cg10586107	yellow	1	20,755,534		OpenSea		0.615	-0.005	0.641	0.536
cg19005168	yellow	13	27,092,836		OpenSea		0.615	0.001	0.078	0.794
cg01465177	yellow	3	182,208,536		OpenSea		0.615	0.001	0.062	0.802
cg09829013	yellow	2	215,572,390		OpenSea		0.615	0.004	0.888	0.625
cg13234275	yellow	11	608,991	Body	N_Shelf	PHRF1	0.615	0.002	0.949	0.553
cg17523687	yellow	5	175,976,402	5'UTR	OpenSea	PCDH24	0.615	0.010	0.842	0.244
cg14574489	yellow	3	143,021,680	Body	OpenSea	SLC9A9	0.615	0.011	0.141	0.548
cg09250458	yellow	16	1,139,916	3'UTR	Island	C1QTNF8	0.615	-0.017	0.206	0.318
cg14613617	yellow	10	115,998,843	TSS200	N_Shore	VWA2	0.615	-0.003	0.052	0.477
cg01946707	yellow	11	2,951,857	TSS1500	S_Shore	PHLDA2	0.615	-0.001	0.023	0.693
cg15651727	yellow	1	18,703,121	Body	N_Shore	IGSF21	0.615	0.011	0.533	0.198
cg12999366	yellow	7	30,499,283	5'UTR	OpenSea	NOD1	0.615	0.004	0.143	0.595
cg03567760	yellow	20	23,341,721		N_Shore		0.615	-0.014	0.939	0.008
cg24741158	yellow	1	2,844,168		N_Shelf		0.615	0.010	0.657	0.325
cg02781268	yellow	4	71,706,646	TSS1500	S_Shore	GRSF1	0.615	-0.001	0.910	0.783
cg10788901	yellow	10	123,353,418	1stExon	N_Shelf	FGFR2	0.615	0.004	0.585	0.553
cg03483464	yellow	3	98,312,971	TSS1500	S_Shore	CPOX	0.615	0.015	0.181	0.115
cg24335981	yellow	7	150,413,120	TSS1500	OpenSea	GIMAP1	0.615	0.011	0.683	0.202
cg13288195	yellow	15	63,889,711	1stExon	N_Shelf	FBXL22	0.615	0.005	0.366	0.552
cg13647079	yellow	10	119,590,101		OpenSea		0.615	0.002	0.832	0.860
cg11256956	yellow	12	3,446,067		OpenSea		0.615	0.004	0.681	0.579
cg23483886	yellow	5	1,476,274	Body	OpenSea	LPCAT1	0.615	0.000	0.981	0.881
cg00289362	yellow	6	170,482,788		OpenSea		0.615	0.000	0.895	0.997
cg09576619	yellow	17	40,265,577	TSS1500	N_Shelf	DHX58	0.615	0.011	0.825	0.088
cg08860443	yellow	6	128,508,152	Body	OpenSea	PTPRK	0.615	-0.004	0.817	0.784
cg26919723	yellow	8	330,109		OpenSea		0.615	0.001	0.651	0.885
cg15251539	yellow	12	6,844,904		OpenSea		0.615	0.002	0.647	0.834
cg24512303	yellow	8	76,452,152	TSS200	OpenSea	HNF4G	0.615	-0.005	0.802	0.530
cg00087425	yellow	7	22,766,829	5'UTR	OpenSea	IL6	0.615	-0.006	0.147	0.584
cg02910574	yellow	16	89,725,401	Body	S_Shore	C16orf55	0.615	0.022	0.757	0.026
cg07957661	yellow	16	88,379,639		OpenSea		0.615	0.011	0.570	0.175
cg11230083	yellow	13	113,481,079	Body	OpenSea	ATP11A	0.615	0.001	0.865	0.841
cg07405362	yellow	20	60,967,344	Body	N_Shore	CABLES2	0.615	0.001	0.691	0.862
cg07378350	yellow	20	34,027,324	TSS1500	OpenSea	GDF5	0.615	0.011	0.613	0.405
cg22365167	yellow	11	62,306,861	5'UTR	OpenSea	AHNAK	0.615	0.006	0.034	0.119
cg27278086	yellow	2	69,001,774	Body	OpenSea	ARHGAP25	0.615	-0.001	0.521	0.951
cg11600991	yellow	7	966,196	Body	Island	ADAP1	0.615	0.003	0.625	0.672
cg09879334	yellow	11	128,481,110		OpenSea		0.615	0.005	0.793	0.465
cg03100024	yellow	19	42,571,402	TSS1500	OpenSea	GRIK5	0.615	-0.006	0.841	0.449
cg14927218	yellow	7	128,771,658		S_Shelf		0.615	0.018	0.462	0.012
cg05991820	yellow	10	11,785,161	Body	S_Shore	ECHDC3	0.615	0.020	0.516	0.263
cg06836849	yellow	12	100,751,051	1stExon	OpenSea	SLC17A8	0.615	0.005	0.157	0.462
cg12923233	yellow	15	25,582,402	3'UTR	OpenSea	UBE3A	0.615	0.003	0.968	0.277
cg09594075	yellow	17	1,358,505	Body	N_Shore	CRK	0.615	0.008	0.139	0.281
cg07994487	yellow	16	1,598,866	Body	N_Shore	IFT140	0.615	-0.001	0.862	0.831
cg25426350	yellow	11	6,462,391	TSS200	OpenSea	HPX	0.615	0.006	0.471	0.330
cg21709322	yellow	2	27,632,821	TSS1500	Island	PPM1G	0.615	0.000	0.090	0.966
cg14761989	yellow	17	79,544,417	Body	OpenSea	NPLOC4	0.615	0.002	0.579	0.746
cg00675160	yellow	16	1,208,531	Body	Island	CACNA1H	0.615	-0.004	0.114	0.676
cg26264032	yellow	17	46,045,115		N_Shelf		0.615	0.019	0.652	0.018
cg16957824	yellow	3	133,962,408	Body	OpenSea	RYK	0.615	0.011	0.798	0.098
cg16597079	yellow	6	42,385,637	5'UTR	OpenSea	TRERF1	0.615	0.013	0.767	0.038
cg00371829	yellow	15	76,304,865	TSS200	OpenSea	NRG4	0.614	0.004	0.043	0.260
cg07325562	yellow	11	65,150,083	1stExon	N_Shelf	SLC25A45	0.614	0.005	0.039	0.114
cg00248856	yellow	11	69,464,272	Body	S_Shelf	CCND1	0.614	0.007	0.734	0.209
cg05148465	yellow	17	7,034,129		OpenSea		0.614	0.006	0.643	0.369
cg14324805	yellow	22	30,902,615	TSS1500	S_Shore	SEC14L4	0.614	0.009	0.685	0.225



cg00225006	yellow	15	83,477,872	TSS200	N_Shore	WHAMM	0.614	0.005	0.862	0.705
cg03142975	yellow	9	125,026,202	TSS1500	N_Shore	MRRF	0.614	0.012	0.528	0.231
cg14086822	yellow	1	2,724,609		OpenSea		0.614	0.015	0.487	0.016
cg01640660	yellow	16	1,297,351		OpenSea		0.614	0.004	0.524	0.612
cg03383268	yellow	2	218,770,237	5'UTR	OpenSea	TNS1	0.614	0.017	0.344	0.027
cg26866325	yellow	4	74,920,559	Body	OpenSea	PPBPL2	0.614	0.004	0.714	0.602
cg02867102	yellow	17	62,398,693		OpenSea		0.614	-0.006	0.083	0.353
cg26169081	yellow	10	12,648,338	Body	OpenSea	CAMK1D	0.614	-0.001	0.882	0.891
cg10872815	yellow	6	136,436,154	Body	OpenSea	PDE7B	0.614	-0.001	0.857	0.831
cg00187244	yellow	22	41,492,007	Body	S_Shelf	EP300	0.614	-0.005	0.731	0.732
cg17996401	yellow	7	47,611,235		OpenSea		0.614	-0.003	0.177	0.790
cg11701367	yellow	5	56,644,736		OpenSea		0.614	0.005	0.582	0.725
cg26413730	yellow	17	75,376,935	5'UTR	OpenSea	9-Sep	0.614	0.004	0.494	0.488
cg24360909	yellow	15	49,189,538	Body	OpenSea	SHC4	0.614	0.003	0.280	0.701
cg27618939	yellow	8	71,581,788	5'UTR	S_Shore	XKR9	0.614	0.020	0.412	0.077
cg11205173	yellow	4	1,775,077		S_Shelf		0.614	0.009	0.606	0.207
cg16527552	yellow	19	42,816,045	TSS1500	N_Shore	TMEM145	0.614	0.017	0.448	0.039
cg17997363	yellow	10	123,353,337	1stExon	N_Shelf	FGFR2	0.614	-0.003	0.700	0.605
cg12281049	yellow	4	186,990,315	1stExon	OpenSea	TLR3	0.614	0.001	0.020	0.557
cg00421032	yellow	4	22,493,281	Body	OpenSea	GPR125	0.614	0.001	0.879	0.909
cg09934977	yellow	17	18,586,148	TSS1500	S_Shore	ZNF286B	0.614	0.010	0.067	0.103
cg11074968	yellow	15	83,241,300	TSS1500	OpenSea	CPEB1	0.614	0.006	0.716	0.388
cg27299616	yellow	14	102,430,437	TSS1500	N_Shore	DYNC1H1	0.614	-0.001	0.304	0.838
cg23790387	yellow	2	241,407,598		S_Shelf		0.614	0.015	0.750	0.075
cg11983942	yellow	11	132,946,934	Body	OpenSea	OPCML	0.614	-0.002	0.735	0.759
cg03461399	yellow	4	71,858,891	TSS1500	N_Shore	DCK	0.614	0.001	0.250	0.950
cg05244762	yellow	16	74,233,200		OpenSea		0.614	0.006	0.612	0.466
cg11405655	yellow	1	999,599		N_Shore		0.614	0.014	0.541	0.066
cg19183252	yellow	4	120,665,941		OpenSea		0.614	0.002	0.852	0.721
cg08274011	yellow	19	17,138,858	TSS1500	OpenSea	CPAMD8	0.614	0.006	0.405	0.415
cg21225227	yellow	12	28,149,882		OpenSea		0.614	0.002	0.973	0.294
cg20403541	yellow	4	3,387,290	Body	OpenSea	RGS12	0.614	-0.005	0.666	0.376
cg02877240	yellow	7	112,089,798	TSS1500	N_Shore	IFRD1	0.614	0.005	0.543	0.702
cg20594286	yellow	12	6,583,523		N_Shelf		0.614	0.014	0.632	0.213
cg00402533	yellow	2	197,458,695	TSS1500	S_Shore	HECW2	0.614	0.008	0.242	0.440
cg25254338	yellow	15	32,158,616		OpenSea		0.614	0.012	0.742	0.100
cg23858706	yellow	20	62,122,039	Body	Island	EEF1A2	0.614	0.018	0.463	0.001
cg06046912	yellow	2	55,747,633	Body	S_Shore	CCDC104	0.614	0.003	0.305	0.774
cg24753988	yellow	14	61,575,689		OpenSea		0.614	0.000	0.474	0.982
cg04129548	yellow	2	227,662,083	1stExon	Island	IRS1	0.614	0.014	0.628	0.236
cg15074047	yellow	2	192,701,514	Body	OpenSea	SDPR	0.614	0.004	0.787	0.630
cg14017460	yellow	19	46,288,989	Body	Island	DMWD	0.614	0.005	0.864	0.351
cg12910107	yellow	2	27,252,514		N_Shelf		0.614	-0.005	0.898	0.458
cg14083146	yellow	20	20,694,136	TSS1500	S_Shore	RALGAPA2	0.614	-0.002	0.799	0.742
cg15813427	yellow	4	1,981,090	3'UTR	S_Shore	WHSC1	0.614	-0.004	0.432	0.487
cg22664250	yellow	17	8,662,011	TSS200	OpenSea	SPDYE4	0.614	-0.003	0.514	0.768
cg27395440	yellow	16	19,300,049	Body	OpenSea	LOC728276	0.613	0.004	0.637	0.653
cg24669946	yellow	4	111,509,769		S_Shore		0.613	0.000	0.963	0.956
cg24707219	yellow	6	31,847,009	TSS200	OpenSea	SLC44A4	0.613	0.010	0.646	0.294
cg19287817	yellow	19	15,391,339	TSS200	OpenSea	BRD4	0.613	0.014	0.507	0.214
cg05279738	yellow	3	141,560,204		OpenSea		0.613	0.004	0.656	0.690
cg18711734	yellow	5	137,831,097		S_Shelf		0.613	-0.006	0.891	0.445
cg05408284	yellow	5	134,240,138	TSS1500	N_Shore	PCBD2	0.613	-0.002	0.099	0.787
cg17781669	yellow	5	149,868,359		S_Shelf		0.613	-0.002	0.235	0.814
cg26056277	yellow	2	166,982,925		OpenSea		0.613	0.012	0.834	0.258
cg17707095	yellow	6	166,993,541	Body	OpenSea	RPS6KA2	0.613	0.007	0.667	0.471
cg13984289	yellow	17	10,220,829	Body	OpenSea	MYH13	0.613	0.012	0.268	0.509
cg03302281	yellow	18	76,549,840		N_Shelf		0.613	0.014	0.829	0.178
cg15451250	yellow	4	6,955,660	Body	OpenSea	TBC1D14	0.613	0.002	0.218	0.853
cg10611444	yellow	2	113,009,863	Body	N_Shelf	ZC3H8	0.613	0.008	0.700	0.336
cg23142004	yellow	14	104,771,009		OpenSea		0.613	0.016	0.342	0.183
cg05648510	yellow	17	943,342	Body	OpenSea	ABR	0.613	0.002	0.816	0.862
cg25686812	yellow	3	42,597,657	Body	OpenSea	SEC22C	0.613	0.002	0.555	0.769
cg11065621	yellow	8	82,606,061	1stExon	OpenSea	SLC10A5	0.613	-0.002	0.764	0.900
cg07124972	yellow	18	8,608,333	TSS1500	N_Shore	RAB12	0.613	0.021	0.534	0.037
cg06324192	yellow	1	903,543	Body	S_Shore	PLEKHN1	0.613	0.008	0.644	0.241
cg01663052	yellow	14	31,923,667	Body	N_Shelf	C14orf126	0.613	-0.001	0.924	0.786

cg16257559	yellow	1	200,864,223	5'UTR	S_Shelf	C1orf106	0.613	0.006	0.664	0.336
cg19276110	yellow	1	20,396,593	TSS200	OpenSea	PLA2G5	0.613	0.001	0.119	0.890
cg17606491	yellow	10	125,806,390	TSS200	S_Shelf	CHST15	0.613	0.007	0.813	0.255
cg22679940	yellow	10	71,097,650	Body	OpenSea	HK1	0.613	0.008	0.466	0.379
cg00359465	yellow	1	2,004,346	TSS1500	N_Shore	PRKCZ	0.613	0.006	0.743	0.356
cg10732871	yellow	19	1,102,675	TSS1500	N_Shore	GPX4	0.613	-0.016	0.492	0.167
cg11076902	yellow	11	78,974,086	5'UTR	OpenSea	ODZ4	0.613	0.002	0.686	0.823
cg27607584	yellow	7	2,196,943	Body	S_Shore	MAD1L1	0.613	-0.004	0.890	0.460
cg07893474	yellow	3	196,242,287	TSS200	OpenSea	C3orf43	0.613	-0.004	0.636	0.653
cg22596049	yellow	17	9,929,867	Body	OpenSea	GAS7	0.613	0.008	0.551	0.248
cg26154999	yellow	2	225,266,346	1stExon	OpenSea	FAM124B	0.613	0.002	0.802	0.772
cg07361956	yellow	5	114,634,981		S_Shelf		0.613	0.000	0.917	0.969
cg05794310	yellow	16	70,783,744	Body	OpenSea	VAC14	0.613	0.008	0.747	0.307
cg16396441	yellow	16	84,590,014		OpenSea		0.613	0.001	0.754	0.951
cg26417427	yellow	11	62,413,284	Body	N_Shore	GANAB	0.613	0.000	0.052	0.914
cg14879645	yellow	22	41,048,474		OpenSea		0.613	0.003	0.902	0.621
cg19251242	yellow	1	28,198,712	TSS1500	N_Shore	C1orf38	0.613	0.000	0.703	0.956
cg09107372	yellow	2	219,534,992	Body	N_Shore	RNF25	0.613	0.001	0.949	0.854
cg02646225	yellow	8	86,020,307	Body	S_Shore	LRRCC1	0.613	-0.003	0.477	0.534
cg14440974	yellow	22	39,074,834		N_Shelf		0.613	0.004	0.657	0.853
cg20495819	yellow	2	30,448,529		OpenSea		0.613	-0.002	0.034	0.397
cg04164584	yellow	17	27,235,821	Body	OpenSea	PHF12	0.613	-0.006	0.916	0.269
cg18887096	yellow	2	219,472,410	TSS1500	OpenSea	PLCD4	0.613	-0.001	0.202	0.838
cg18482690	yellow	5	4,511,582		OpenSea		0.613	0.005	0.719	0.657
cg15828427	yellow	19	12,807,887	TSS1500	S_Shore	FBXW9	0.613	-0.004	0.710	0.634
cg08556511	yellow	11	102,048,882	Body	OpenSea	YAP1	0.613	0.006	0.912	0.477
cg05900140	yellow	12	6,560,162	TSS1500	OpenSea	TAPBPL	0.613	0.001	0.016	0.206
cg08669096	yellow	11	121,229,765		N_Shelf		0.613	0.013	0.738	0.184
cg00107630	yellow	9	120,174,408	Body	N_Shore	ASTN2	0.613	0.002	0.206	0.842
cg03548035	yellow	11	86,663,407	Body	N_Shelf	FZD4	0.613	0.008	0.817	0.343
cg15597662	yellow	17	38,297,856	Body	OpenSea	CASC3	0.613	0.000	0.933	0.981
cg00004667	yellow	1	16,292,746	5'UTR	OpenSea	ZBTB17	0.612	0.005	0.673	0.741
cg04207549	yellow	17	1,841,208	Body	Island	RTN4RL1	0.612	0.008	0.572	0.265
cg21708058	yellow	8	38,585,602	TSS200	OpenSea	TACC1	0.612	0.002	0.347	0.834
cg01165661	yellow	3	49,157,146	5'UTR	N_Shore	USP19	0.612	0.010	0.888	0.098
cg04717211	yellow	6	170,494,406		S_Shore		0.612	0.008	0.506	0.464
cg21875401	yellow	17	12,541,750		OpenSea		0.612	-0.002	0.914	0.793
cg22854223	yellow	11	44,586,505	TSS1500	N_Shore	CD82	0.612	0.000	0.038	0.889
cg01238639	yellow	4	117,624,749		N_Shore		0.612	0.000	0.889	0.986
cg06095115	yellow	16	78,056,626	1stExon	OpenSea	CLEC3A	0.612	0.006	0.359	0.448
cg12253200	yellow	19	49,123,013	TSS1500	S_Shore	RPL18	0.612	-0.004	0.098	0.347
cg08947774	yellow	4	169,644,750	Body	OpenSea	PALLD	0.612	-0.006	0.899	0.350
cg02656609	yellow	17	57,228,618	Body	N_Shelf	SKA2	0.612	-0.002	0.794	0.857
cg20068496	yellow	14	78,108,822		S_Shore		0.612	-0.004	0.363	0.670
cg03123557	yellow	21	35,832,364	5'UTR	Island	KCNE1	0.612	-0.006	0.917	0.459
cg00476653	yellow	13	47,169,346	Body	OpenSea	LRCH1	0.612	0.003	0.958	0.444
cg01670430	yellow	7	2,773,010	Body	N_Shore	GNA12	0.612	-0.003	0.171	0.759
cg15888097	yellow	6	87,646,462	TSS1500	N_Shore	HTR1E	0.612	0.011	0.685	0.122
cg26730050	yellow	13	112,655,007		OpenSea		0.612	0.017	0.528	0.214
cg04860238	yellow	14	102,394,986		Island		0.612	0.003	0.886	0.601
cg13688966	yellow	3	149,192,377	TSS200	OpenSea	TM4SF4	0.612	-0.013	0.567	0.194
cg06581409	yellow	19	41,139,370		S_Shelf		0.612	-0.020	0.653	0.101
cg10534672	yellow	5	159,797,275	Body	N_Shore	C1QTNF2	0.612	0.001	0.121	0.927
cg09290505	yellow	4	1,991,636	Body	N_Shelf	WHSC2	0.612	-0.001	0.901	0.755
cg08114265	yellow	6	112,052,356	5'UTR	OpenSea	FYN	0.612	0.018	0.581	0.055
cg27112370	yellow	7	2,354,484	TSS1500	S_Shore	SNX8	0.612	0.006	0.212	0.417
cg07391141	yellow	21	44,035,034		N_Shelf		0.612	-0.004	0.393	0.627
cg03065612	yellow	16	3,627,730	TSS1500	OpenSea	NLRC3	0.612	0.006	0.640	0.365
cg12909536	yellow	1	1,408,104	Body	S_Shore	ATAD3B	0.612	-0.002	0.060	0.762
cg22833175	yellow	12	14,957,520	TSS1500	S_Shore	WBP11	0.612	0.013	0.708	0.220
cg11435826	yellow	12	2,792,111	Body	S_Shelf	CACNA1C	0.612	0.002	0.535	0.772
cg13600227	yellow	19	54,251,544	TSS1500	OpenSea	MIR521-1	0.612	-0.001	0.877	0.880
cg03437675	yellow	12	110,271,625	TSS1500	S_Shore	TRPV4	0.612	0.015	0.498	0.070
cg20891655	yellow	11	85,630,744	3'UTR	OpenSea	CCDC83	0.612	0.012	0.702	0.290
cg03676578	yellow	10	14,492,026		OpenSea		0.612	0.000	0.474	0.985
cg23840493	yellow	1	154,965,483	Body	OpenSea	FLAD1	0.612	0.007	0.790	0.339
cg27345946	yellow	3	9,835,511	Body	S_Shore	ARPC4	0.612	0.007	0.592	0.361

cg16399368	yellow	16	85,517,462	N_Shore		0.612	-0.005	0.747	0.346
cg15289466	yellow	4	103,740,913 Body	OpenSea	UBE2D3	0.612	-0.007	0.379	0.274
cg14567072	yellow	9	140,343,325 3'UTR	N_Shore	NELF	0.612	0.007	0.882	0.353
cg01426968	yellow	16	15,596,369 Body	OpenSea	C16orf45	0.612	0.011	0.586	0.170
cg24252805	yellow	1	1,266,548 TSS200	N_Shore	TAS1R3	0.612	0.017	0.759	0.041
cg27125965	yellow	19	11,707,246 TSS1500	N_Shore	ZNF627	0.612	0.004	0.837	0.498
cg09657256	yellow	17	42,153,683 Body	OpenSea	G6PC3	0.612	0.007	0.848	0.288
cg14602393	yellow	12	133,343,405	S_Shelf		0.612	0.005	0.352	0.765
cg18354462	yellow	11	118,826,751 TSS1500	OpenSea	UPK2	0.612	0.010	0.507	0.176
cg06549824	yellow	11	65,306,186 3'UTR	Island	LTBP3	0.612	0.008	0.612	0.172
cg26918117	yellow	7	101,603,298 Body	OpenSea	CUX1	0.612	-0.004	0.962	0.301
cg22637865	yellow	22	43,486,524 TSS1500	S_Shore	TTL1	0.612	0.007	0.672	0.473
cg00263146	yellow	5	17,221,971 5'UTR	S_Shelf	BASP1	0.612	0.008	0.678	0.479
cg09659443	yellow	5	133,513,400 TSS1500	S_Shore	SKP1	0.612	0.001	0.028	0.513
cg00449000	yellow	9	132,650,648 3'UTR	N_Shore	FNBP1	0.612	-0.006	0.633	0.450
cg12103547	yellow	6	169,050,956 Body	OpenSea	SMOC2	0.612	-0.003	0.860	0.659
cg19084127	yellow	2	242,841,239	N_Shelf		0.612	0.008	0.586	0.342
cg16708465	yellow	13	95,933,097 Body	OpenSea	ABCC4	0.612	0.009	0.595	0.334
cg02367921	yellow	1	40,504,529	N_Shore		0.612	-0.004	0.891	0.579
cg02711268	yellow	6	106,808,110	N_Shore		0.612	0.005	0.442	0.462
cg04242078	yellow	16	86,527,164	N_Shore		0.612	0.001	0.487	0.922
cg05133323	yellow	12	116,682,493 Body	OpenSea	MED13L	0.611	0.001	0.730	0.859
cg18052123	yellow	19	42,724,001 TSS1500	N_Shore	ZNF526	0.611	0.003	0.048	0.539
cg23768131	yellow	1	8,376,931	N_Shore		0.611	0.009	0.554	0.262
cg20452657	yellow	6	31,634,824 Body	S_Shore	CSNK2B	0.611	-0.002	0.787	0.806
cg06261925	yellow	16	88,786,114 Body	N_Shore	FAM38A	0.611	0.006	0.828	0.292
cg23709172	yellow	14	100,763,736 Body	OpenSea	SLC25A29	0.611	-0.004	0.319	0.437
cg22175624	yellow	17	80,829,261 Body	N_Shore	TBCD	0.611	0.000	0.882	0.977
cg26020161	yellow	1	110,284,423 TSS1500	S_Shore	GSTM3	0.611	0.002	0.642	0.832
cg05029558	yellow	8	71,581,784 5'UTR	S_Shore	XKR9	0.611	0.005	0.366	0.523
cg21814550	yellow	14	53,170,147	N_Shelf		0.611	0.032	0.606	0.017
cg05227773	yellow	16	72,817,808 3'UTR	N_Shelf	ZFH3	0.611	0.004	0.542	0.759
cg03949820	yellow	6	144,506,873 5'UTR	N_Shore	STX11	0.611	0.012	0.635	0.266
cg07782886	yellow	1	27,113,722 TSS1500	N_Shore	PIGV	0.611	-0.002	0.092	0.712
cg06433658	yellow	1	150,979,092 5'UTR	N_Shore	FAM63A	0.611	0.001	0.014	0.235
cg17918488	yellow	13	114,318,591	OpenSea		0.611	0.013	0.888	0.140
cg00133624	yellow	12	3,756,130 Body	OpenSea	EFCAB4B	0.611	0.010	0.470	0.349
cg08586426	yellow	11	33,915,315 TSS1500	OpenSea	LMO2	0.611	-0.006	0.862	0.292
cg12593223	yellow	17	80,255,510	S_Shelf		0.611	0.006	0.744	0.589
cg26144569	yellow	2	38,304,804 TSS1500	S_Shore	CYP1B1	0.611	0.016	0.489	0.126
cg05979597	yellow	8	818,875	OpenSea		0.611	-0.001	0.759	0.934
cg21234265	yellow	9	132,370,351	N_Shore		0.611	0.005	0.675	0.387
cg25681728	yellow	2	233,153,284 Body	OpenSea	DIS3L2	0.611	-0.002	0.972	0.314
cg03678566	yellow	11	68,106,018 Body	OpenSea	LRP5	0.611	0.004	0.625	0.605
cg03726357	yellow	8	29,259,693	OpenSea		0.611	-0.001	0.443	0.841
cg08606497	yellow	8	28,244,769 TSS1500	S_Shore	ZNF395	0.611	0.000	0.126	0.952
cg17818220	yellow	7	28,725,466 Body	OpenSea	CREB5	0.611	0.001	0.020	0.809
cg20443451	yellow	6	31,497,233 Body	OpenSea	MCCD1	0.611	-0.004	0.293	0.594
cg18810310	yellow	14	103,691,834	OpenSea		0.611	0.010	0.332	0.077
cg19847601	yellow	15	99,670,282 Body	OpenSea	SYNM	0.611	-0.003	0.842	0.689
cg07259660	yellow	10	49,517,767	S_Shelf		0.611	-0.002	0.839	0.766
cg06224017	yellow	10	15,126,559 Body	N_Shelf	ACBD7	0.611	0.006	0.220	0.612
cg07805911	yellow	7	818,287 Body	N_Shelf	HEATR2	0.611	0.002	0.825	0.578
cg09942293	yellow	16	66,957,496 Body	N_Shore	RRAD	0.611	0.000	0.680	0.958
cg19865425	yellow	1	68,569,745 Body	OpenSea	GPR177	0.611	0.002	0.633	0.831
cg11710887	yellow	7	158,748,803	N_Shore		0.611	0.002	0.889	0.777
cg12855310	yellow	10	134,215,035 Body	N_Shelf	PWWP2B	0.611	0.016	0.814	0.017
cg24735460	yellow	7	44,621,160 Body	N_Shore	TMED4	0.611	0.007	0.164	0.376
cg14240536	yellow	11	65,783,221	S_Shelf		0.611	-0.010	0.506	0.094
cg04713634	yellow	16	75,283,648 Body	N_Shore	BCAR1	0.611	0.004	0.811	0.543
cg04420723	yellow	6	27,439,931 Body	N_Shore	ZNF184	0.611	0.001	0.020	0.621
cg06599169	yellow	19	17,973,311 Body	S_Shelf	RPL18AP3	0.611	-0.003	0.782	0.653
cg10536955	yellow	2	55,197,220 Body	OpenSea	EML6	0.611	-0.005	0.702	0.476
cg18664856	yellow	14	105,240,263 Body	Island	AKT1	0.611	0.006	0.832	0.607
cg20384545	yellow	15	44,093,429 TSS1500	S_Shore	SERINC4	0.611	0.004	0.042	0.204
cg15763984	yellow	4	1,342,303 Body	S_Shore	KIAA1530	0.611	-0.006	0.885	0.374
cg08626667	yellow	6	46,657,181 1stExon	S_Shore	TDRD6	0.611	0.006	0.864	0.272

cg04672506	yellow	6	33,117,384	OpenSea		0.611	-0.005	0.881	0.492
cg00305585	yellow	16	1,610,898 Body	OpenSea	IFT140	0.611	0.005	0.736	0.346
cg05209330	yellow	5	131,550,942 Body	OpenSea	P4HA2	0.611	-0.003	0.512	0.684
cg02884928	yellow	14	105,251,610 Body	Island	AKT1	0.611	0.017	0.430	0.057
cg25982561	yellow	11	22,696,308 5'UTR	OpenSea	GAS2	0.611	-0.007	0.830	0.398
cg07264904	yellow	13	113,633,855 Body	Island	MCF2L	0.611	-0.001	0.793	0.902
cg22406469	yellow	22	37,882,970 TSS1500	OpenSea	MFNG	0.611	0.004	0.388	0.660
cg08038054	yellow	7	93,550,781 TSS1500	OpenSea	GNG11	0.611	-0.009	0.456	0.290
cg02774129	yellow	1	58,712,062 5'UTR	N_Shelf	DAB1	0.610	0.011	0.431	0.047
cg26416381	yellow	12	116,674,276 Body	OpenSea	MED13L	0.610	0.003	0.081	0.576
cg26741350	yellow	19	33,462,235 Body	N_Shore	CCDC123	0.610	0.012	0.122	0.257
cg09079613	yellow	1	153,934,248 Body	N_Shore	SLC39A1	0.610	0.011	0.610	0.070
cg27083087	yellow	3	11,610,239 Body	Island	VGLL4	0.610	-0.003	0.947	0.354
cg03290418	yellow	19	1,881,872 5'UTR	S_Shore	FAM108A1	0.610	0.005	0.894	0.391
cg05504085	yellow	19	15,575,652 TSS1500	OpenSea	RASAL3	0.610	0.000	0.690	0.982
cg09655329	yellow	12	68,925,128	OpenSea		0.610	0.003	0.949	0.551
cg04706627	yellow	19	55,836,752 TSS200	OpenSea	TMEM150B	0.610	0.007	0.673	0.387
cg14334014	yellow	17	64,226,953 TSS1500	OpenSea	APOH	0.610	-0.005	0.960	0.324
cg10042645	yellow	11	2,308,589	OpenSea		0.610	0.002	0.469	0.799
cg17080283	yellow	8	143,868,856 TSS1500	OpenSea	LY6D	0.610	0.013	0.796	0.065
cg22567473	yellow	15	63,902,661 Body	OpenSea	HERC1	0.610	0.006	0.048	0.272
cg07757094	yellow	16	86,260,847	OpenSea		0.610	0.024	0.773	0.003
cg03924164	yellow	16	88,515,063	S_Shore		0.610	-0.009	0.434	0.395
cg12392557	yellow	1	154,550,863 3'UTR	OpenSea	CHRN2	0.610	0.000	0.395	0.984
cg19859698	yellow	14	61,822,607 Body	OpenSea	PRKCH	0.610	0.002	0.314	0.761
cg02394305	yellow	9	140,097,528	N_Shore		0.610	-0.001	0.931	0.780
cg01499623	yellow	9	33,075,969 Body	N_Shore	SMU1	0.610	0.011	0.404	0.343
cg23173806	yellow	6	30,299,968 Body	OpenSea	TRIM39	0.610	-0.014	0.883	0.056
cg14253035	yellow	1	981,566 Body	N_Shore	AGRN	0.610	0.009	0.693	0.243
cg00852783	yellow	1	26,633,632 5'UTR	S_Shore	UBXN11	0.610	0.008	0.339	0.568
cg02937491	yellow	18	55,888,790 5'UTR	OpenSea	NEDD4L	0.610	-0.001	0.899	0.897
cg04424119	yellow	1	8,403,680 Body	N_Shore	SLC45A1	0.610	-0.006	0.322	0.425
cg05302100	yellow	17	48,276,347 Body	N_Shore	COL1A1	0.610	0.013	0.740	0.334
cg11351908	yellow	17	75,402,473 Body	S_Shelf	9-Sep	0.610	0.001	0.691	0.802
cg20532937	yellow	10	13,748,985 Body	OpenSea	FRMD4A	0.610	-0.029	0.213	0.180
cg17289597	yellow	10	72,433,155 Body	S_Shore	ADAMTS14	0.610	0.001	0.349	0.930
cg10956860	yellow	5	32,175,561 TSS1500	S_Shore	GOLPH3	0.610	0.016	0.622	0.080
cg23656110	yellow	21	45,232,531 TSS200	OpenSea	LOC284837	0.610	0.016	0.199	0.061
cg20642115	yellow	10	134,316,586	N_Shelf		0.610	-0.012	0.786	0.212
cg21376090	yellow	6	106,201,547	OpenSea		0.610	0.027	0.349	0.076
cg16339598	yellow	8	19,709,400 3'UTR	OpenSea	INTS10	0.610	-0.006	0.914	0.363
cg11070172	yellow	14	23,586,812 Body	OpenSea	CEBPE	0.610	0.009	0.801	0.520
cg12329404	yellow	21	47,545,624 Body	Island	COL6A2	0.610	0.009	0.555	0.223
cg01679473	yellow	16	1,414,013 3'UTR	N_Shore	UNKL	0.610	0.009	0.708	0.126
cg09186122	yellow	2	241,080,394 TSS1500	OpenSea	OTOS	0.610	0.011	0.418	0.168
cg05620165	yellow	10	105,583,493 Body	OpenSea	SH3PXD2A	0.610	0.011	0.669	0.136
cg00310523	yellow	12	86,230,176 5'UTR	OpenSea	RASSF9	0.610	0.004	0.039	0.376
cg07041323	yellow	16	28,996,044 TSS200	OpenSea	LAT	0.610	0.012	0.763	0.174
cg04252592	yellow	16	4,387,370 Body	OpenSea	GLIS2	0.610	0.017	0.698	0.006
cg08323540	yellow	5	170,209,581 TSS1500	OpenSea	GABRP	0.610	0.026	0.365	0.231
cg15527230	yellow	8	143,625,967 3'UTR	Island	BAI1	0.610	0.006	0.764	0.428
cg17356181	yellow	14	50,999,707 TSS1500	Island	MAP4K5	0.610	0.002	0.097	0.713
cg18907942	yellow	10	48,485,073	OpenSea		0.610	0.010	0.840	0.385
cg24885556	yellow	12	56,105,991 Body	N_Shelf	ITGA7	0.610	0.018	0.206	0.137
cg01123035	yellow	21	48,079,700 Body	N_Shore	PRMT2	0.610	0.012	0.802	0.165
cg06373377	yellow	1	43,825,745 Body	S_Shore	CDC20	0.610	-0.004	0.588	0.596
cg25252255	yellow	13	113,544,125	S_Shelf		0.610	-0.004	0.902	0.473
cg08407408	yellow	12	123,007,555 5'UTR	N_Shelf	RSRC2	0.610	0.013	0.869	0.188
cg18372548	yellow	4	26,913,852 Body	OpenSea	STIM2	0.610	0.001	0.900	0.888
cg27615067	yellow	10	134,224,821 3'UTR	OpenSea	PWWP2B	0.610	-0.001	0.804	0.890
cg14479139	yellow	13	103,720,052 TSS1500	OpenSea	SLC10A2	0.610	-0.002	0.783	0.801
cg26189983	yellow	1	12,227,700 Body	Island	TNFRSF1B	0.610	0.002	0.301	0.796
cg27562010	yellow	7	6,681,379	S_Shelf		0.610	0.000	0.909	0.918
cg08411886	yellow	16	70,513,830 3'UTR	OpenSea	FUK	0.610	0.002	0.788	0.785
cg15044010	yellow	7	104,897,205 Body	OpenSea	SRPK2	0.610	-0.009	0.940	0.234
cg13405678	yellow	9	140,920,003 Body	S_Shore	CACNA1B	0.610	0.001	0.687	0.898
cg07936585	yellow	2	238,472,405	OpenSea		0.610	0.001	0.491	0.861

cg21708468	yellow	21	43,161,947	Body	Island	RIPK4	0.610	-0.013	0.899	0.031
cg15837830	yellow	8	49,547,108		OpenSea		0.610	0.015	0.803	0.032
cg15987431	yellow	1	231,155,746	TSS200	OpenSea	MIR1182	0.609	-0.011	0.874	0.036
cg25294417	yellow	18	74,328,508		S_Shelf		0.609	0.015	0.816	0.194
cg22403850	yellow	7	43,768,247	5'UTR	N_Shore	C7orf44	0.609	0.012	0.232	0.204
cg05902503	yellow	16	30,133,175	Body	N_Shore	MAPK3	0.609	0.007	0.792	0.326
cg17985972	yellow	5	41,334,593	Body	OpenSea	PLCXD3	0.609	0.006	0.250	0.486
cg13861904	yellow	9	139,428,006	Body	N_Shore	NOTCH1	0.609	0.002	0.700	0.796
cg03572011	yellow	17	43,229,244	1stExon	S_Shore	HEXIM1	0.609	0.000	0.326	0.981
cg07086918	yellow	5	176,784,688	TSS200	OpenSea	RGS14	0.609	-0.004	0.693	0.645
cg04941018	yellow	19	36,342,859	5'UTR	OpenSea	NPHS1	0.609	0.004	0.734	0.566
cg13983692	yellow	19	3,808,649	Body	N_Shelf	ZFR2	0.609	0.002	0.773	0.809
cg06218523	yellow	3	124,284,219	Body	OpenSea	KALRN	0.609	0.009	0.854	0.103
cg02152108	yellow	22	37,641,506	TSS1500	OpenSea	RAC2	0.609	0.005	0.573	0.576
cg17263323	yellow	4	5,238,459	Body	OpenSea	STK32B	0.609	-0.003	0.722	0.804
cg14504291	yellow	5	168,199,864	Body	OpenSea	SLIT3	0.609	-0.004	0.883	0.412
cg06761421	yellow	22	51,043,692	Body	N_Shore	MAPK8IP2	0.609	-0.002	0.801	0.808
cg11819402	yellow	6	7,616,105		OpenSea		0.609	0.009	0.463	0.252
cg05837855	yellow	3	197,295,287	5'UTR	OpenSea	BDH1	0.609	0.000	0.421	0.964
cg22129135	yellow	1	5,951,943	Body	S_Shore	NPHP4	0.609	0.004	0.615	0.524
cg06580879	yellow	17	4,443,121	3'UTR	S_Shelf	SPNS2	0.609	-0.001	0.908	0.832
cg16982199	yellow	2	177,418,664		OpenSea		0.609	-0.007	0.030	0.205
cg00423068	yellow	8	145,101,998	3'UTR	N_Shore	SPATC1	0.609	0.001	0.843	0.812
cg02453828	yellow	19	38,987,924	Body	N_Shelf	RYR1	0.609	0.000	0.847	0.992
cg03891598	yellow	16	83,986,782	TSS200	OpenSea	OSGIN1	0.609	0.000	0.043	0.960
cg20918219	yellow	8	27,493,854	Body	S_Shelf	SCARA3	0.609	0.011	0.459	0.101
cg01056400	yellow	2	208,119,426		OpenSea		0.609	0.001	0.266	0.845
cg05774231	yellow	3	120,320,383	Body	OpenSea	NDUFB4	0.609	-0.006	0.634	0.603
cg11802027	yellow	19	14,049,442	Body	OpenSea	PODNL1	0.609	0.011	0.218	0.118
cg14205820	yellow	7	77,976,422	TSS200	OpenSea	RPL13AP17	0.609	-0.004	0.710	0.672
cg11934819	yellow	20	1,472,078	1stExon	OpenSea	SIRPB2	0.609	0.001	0.671	0.845
cg14724265	yellow	4	76,823,661	1stExon	OpenSea	PPEF2	0.609	-0.002	0.737	0.774
cg18882449	yellow	10	104,885,122	Body	OpenSea	NT5C2	0.609	-0.002	0.941	0.569
cg17112812	yellow	7	112,032,599		S_Shore		0.609	-0.008	0.813	0.466
cg08595782	yellow	16	88,096,995	Body	OpenSea	BANP	0.609	0.025	0.530	0.025
cg04033857	yellow	11	69,382,880		OpenSea		0.609	0.000	0.348	0.934
cg14910684	yellow	2	242,887,053		OpenSea		0.609	0.006	0.865	0.371
cg10777000	yellow	13	45,560,082	Body	N_Shelf	NUFIP1	0.609	-0.002	0.922	0.687
cg09508189	yellow	11	34,161,049	Body	OpenSea	NAT10	0.609	0.003	0.842	0.589
cg00500989	yellow	1	156,253,073	TSS1500	OpenSea	SMG5	0.609	0.000	0.046	0.900
cg02101884	yellow	12	6,692,201	TSS1500	OpenSea	SCARNA11	0.609	0.004	0.802	0.564
cg27244120	yellow	16	70,610,434	3'UTR	OpenSea	SF3B3	0.609	0.012	0.289	0.046
cg05725721	yellow	3	160,823,387	TSS1500	S_Shore	B3GALNT1	0.609	0.008	0.398	0.319
cg16872071	yellow	9	135,997,155	Body	S_Shore	RALGDS	0.609	0.005	0.708	0.496
cg00533827	yellow	2	86,163,827		OpenSea		0.609	-0.010	0.903	0.263
cg07169660	yellow	17	41,467,212	TSS1500	OpenSea	LOC1001305	0.609	-0.010	0.457	0.490
cg23706819	yellow	4	89,152,212		OpenSea		0.609	0.004	0.408	0.786
cg17476320	yellow	22	50,007,440		N_Shore		0.609	-0.002	0.644	0.784
cg06592027	yellow	5	38,445,220	Body	OpenSea	EGFLAM	0.609	-0.010	0.758	0.389
cg07000567	yellow	16	1,479,501	TSS200	N_Shore	C16orf91	0.609	-0.009	0.759	0.452
cg24492778	yellow	15	57,414,740	Body	OpenSea	TCF12	0.609	0.007	0.902	0.415
cg05670717	yellow	21	46,368,052	Body	Island	C21orf70	0.609	0.004	0.843	0.507
cg08115618	yellow	8	134,667,555		OpenSea		0.609	0.007	0.658	0.677
cg07571344	yellow	20	1,472,071	1stExon	OpenSea	SIRPB2	0.609	0.009	0.784	0.206
cg01723252	yellow	7	1,589,295	Body	N_Shore	TMEM184A	0.609	0.000	0.802	0.974
cg10400081	yellow	11	76,299,682		OpenSea		0.609	-0.001	0.779	0.932
cg09936895	yellow	14	102,785,544	TSS1500	N_Shore	ZNF839	0.609	0.001	0.503	0.937
cg14254534	yellow	19	38,883,115	Body	N_Shelf	SPRED3	0.609	0.001	0.483	0.914
cg03579107	yellow	2	867,791		S_Shelf		0.609	0.005	0.788	0.410
cg07958619	yellow	1	151,222,193		OpenSea		0.609	0.004	0.663	0.674
cg10044101	yellow	6	133,084,289	5'UTR	OpenSea	VNN2	0.609	-0.012	0.881	0.107
cg09321363	yellow	2	84,743,263	TSS1500	N_Shore	DNAH6	0.609	0.011	0.248	0.278
cg05895956	yellow	20	42,216,981		N_Shelf		0.609	0.002	0.879	0.865
cg20471241	yellow	18	47,344,134		S_Shelf		0.609	-0.015	0.903	0.064
cg13325066	yellow	7	2,499,932		Island		0.608	0.013	0.737	0.040
cg23572944	yellow	11	60,720,130	TSS1500	S_Shore	SLC15A3	0.608	0.001	0.236	0.842
cg07160748	yellow	11	924,527	TSS1500	N_Shore	AP2A2	0.608	0.012	0.580	0.148

cg20690667	yellow	6	30,652,228	Body	N_Shelf	KIAA1949	0.608	0.007	0.602	0.332
cg14297444	yellow	9	130,978,697	Body	N_Shelf	DNM1	0.608	0.002	0.699	0.783
cg10606730	yellow	1	22,456,024	Body	Island	WNT4	0.608	0.008	0.659	0.224
cg21944219	yellow	1	67,523,185		S_Shelf		0.608	-0.015	0.755	0.225
cg25105316	yellow	3	119,216,299	TSS1500	N_Shore	C3orf1	0.608	-0.006	0.916	0.400
cg06252517	yellow	12	656,423	Body	OpenSea	B4GALNT3	0.608	0.000	0.070	0.958
cg19502936	yellow	17	1,553,591	TSS200	S_Shore	RILP	0.608	0.009	0.710	0.257
cg11680826	yellow	19	37,710,094		S_Shore		0.608	-0.020	0.682	0.081
cg09815356	yellow	13	113,359,631	Body	OpenSea	ATP11A	0.608	0.001	0.725	0.952
cg05009707	yellow	6	29,555,799	1stExon	OpenSea	OR2H2	0.608	-0.005	0.628	0.516
cg14992101	yellow	1	1,307,667		N_Shore		0.608	-0.004	0.151	0.374
cg10094191	yellow	1	160,855,148	TSS200	OpenSea	ITLN1	0.608	0.009	0.700	0.522
cg24107142	yellow	2	75,060,355	1stExon	N_Shore	HK2	0.608	0.005	0.716	0.498
cg01218148	yellow	9	34,523,776	TSS1500	S_Shore	ENHO	0.608	0.016	0.574	0.026
cg19174643	yellow	18	13,136,426		N_Shore		0.608	0.004	0.434	0.720
cg19209355	yellow	4	8,345,155		N_Shelf		0.608	0.016	0.628	0.146
cg06257798	yellow	20	1,871,578		N_Shelf		0.608	0.004	0.431	0.517
cg15653478	yellow	11	92,116,826	Body	OpenSea	FAT3	0.608	0.010	0.464	0.347
cg18587063	yellow	11	122,940,457		OpenSea		0.608	-0.002	0.910	0.776
cg00875849	yellow	10	118,569,527		OpenSea		0.608	0.017	0.553	0.020
cg10162209	yellow	12	7,038,866	5'UTR	S_Shore	ATN1	0.608	0.010	0.297	0.368
cg10943314	yellow	3	127,267,168		S_Shore		0.608	-0.003	0.106	0.320
cg14195318	yellow	12	53,644,994	TSS1500	N_Shore	MFSD5	0.608	-0.002	0.144	0.741
cg16452067	yellow	6	33,156,293	Body	N_Shelf	COL11A2	0.608	0.006	0.523	0.304
cg06926254	yellow	16	29,972,939	TSS1500	N_Shore	TMEM219	0.608	0.001	0.095	0.884
cg01815783	yellow	4	1,047,043		N_Shelf		0.608	0.014	0.512	0.346
cg04835051	yellow	6	31,794,519	TSS1500	N_Shore	HSPA1B	0.608	-0.003	0.039	0.227
cg14542590	yellow	14	89,878,675	Body	N_Shelf	FOXN3	0.608	-0.001	0.836	0.870
cg03435248	yellow	10	134,079,425	Body	OpenSea	STK32C	0.608	0.007	0.354	0.510
cg27189533	yellow	16	87,312,115		OpenSea		0.608	0.004	0.647	0.443
cg17951878	yellow	6	7,698,374		OpenSea		0.608	-0.006	0.225	0.454
cg20903900	yellow	17	56,297,443	TSS1500	S_Shore	MKS1	0.608	0.003	0.592	0.720
cg23713742	yellow	20	34,202,721	TSS1500	N_Shore	SPAG4	0.608	0.008	0.674	0.312
cg18101225	yellow	4	15,964,913	TSS200	OpenSea	FGFBP2	0.608	0.000	0.136	0.965
cg17922283	yellow	14	72,799,938	Body	OpenSea	RGS6	0.608	0.016	0.563	0.098
cg18489475	yellow	19	47,617,233	TSS1500	S_Shore	ZC3H4	0.608	0.001	0.025	0.444
cg03788230	yellow	10	125,816,412		Island		0.608	-0.005	0.835	0.461
cg15996183	yellow	2	239,134,630	Body	OpenSea	LOC151174	0.608	-0.011	0.395	0.163
cg02248763	yellow	11	1,580,098	Body	S_Shore	DUSP8	0.608	0.025	0.750	0.031
cg16661393	yellow	16	981,631	Body	S_Shore	LMF1	0.608	0.014	0.736	0.331
cg21676440	yellow	6	134,493,324	Body	N_Shelf	SGK1	0.608	0.001	0.924	0.805
cg06912964	yellow	19	6,426,385	3'UTR	S_Shore	SLC25A41	0.608	-0.003	0.721	0.690
cg19114310	yellow	19	19,007,545	TSS1500	Island	GDF1	0.608	0.002	0.402	0.768
cg04775631	yellow	19	11,276,691	3'UTR	N_Shelf	KANK2	0.608	0.016	0.867	0.270
cg20642756	yellow	10	45,497,470	5'UTR	S_Shore	ZNF22	0.608	0.028	0.679	0.101
cg11101142	yellow	5	1,162,082		OpenSea		0.608	0.010	0.460	0.330
cg13355542	yellow	2	97,199,248		N_Shelf		0.608	0.008	0.543	0.158
cg23028740	yellow	1	244,545,617	Body	OpenSea	C1orf100	0.608	0.003	0.860	0.737
cg01414403	yellow	22	18,275,680	Body	Island	MICAL3	0.608	0.002	0.878	0.759
cg02225786	yellow	2	224,808,252	Body	N_Shore	WDFY1	0.608	-0.009	0.691	0.153
cg00650309	yellow	15	43,476,352	TSS1500	N_Shore	CCNDBP1	0.608	-0.001	0.954	0.809
cg25708455	yellow	10	134,664,752		OpenSea		0.608	-0.004	0.639	0.569
cg17382841	yellow	5	38,445,614	TSS200	OpenSea	EGFLAM	0.608	0.012	0.572	0.339
cg18678316	yellow	17	42,260,985	5'UTR	N_Shelf	C17orf65	0.608	0.002	0.890	0.811
cg24663521	yellow	1	160,371,744	5'UTR	S_Shore	VANGL2	0.608	-0.004	0.526	0.667
cg24251800	yellow	17	47,675,686		OpenSea		0.608	0.004	0.858	0.572
cg04493169	yellow	7	27,912,112	Body	OpenSea	JAZF1	0.608	0.004	0.470	0.730
cg17419597	yellow	1	156,211,529	TSS1500	N_Shelf	BGLAP	0.608	0.008	0.432	0.161
cg17977250	yellow	3	158,390,778	TSS1500	OpenSea	LXN	0.608	-0.002	0.431	0.789
cg08324090	yellow	17	7,253,189	Body	N_Shore	ACAP1	0.608	0.008	0.287	0.338
cg08409642	yellow	16	56,641,373	TSS1500	N_Shore	MT2A	0.608	0.000	0.206	0.984
cg15868425	yellow	14	105,643,522	Body	N_Shelf	NUDT14	0.608	-0.006	0.742	0.462
cg25558087	yellow	17	80,346,039		N_Shore		0.607	-0.003	0.934	0.411
cg23288078	yellow	8	124,268,173	Body	OpenSea	ZHX1	0.607	-0.001	0.965	0.667
cg07630255	yellow	15	75,185,989	Body	S_Shelf	MPI	0.607	-0.002	0.899	0.660
cg17754782	yellow	17	72,576,122	3'UTR	OpenSea	CD300LD	0.607	0.002	0.790	0.807
cg26085328	yellow	7	157,606,985	Body	OpenSea	PTPRN2	0.607	0.000	0.696	0.990

cg26151999	yellow	19	55,644,082	OpenSea		0.607	0.013	0.470	0.253
cg04686354	yellow	17	73,261,880 Body	S_Shelf	MRPS7	0.607	0.008	0.896	0.209
cg23824845	yellow	1	53,921,414	N_Shelf		0.607	-0.006	0.941	0.171
cg01647936	yellow	11	63,974,772 5'UTR	N_Shore	FERMT3	0.607	0.005	0.665	0.486
cg00890070	yellow	3	177,451,285	OpenSea		0.607	0.001	0.880	0.952
cg18647989	yellow	22	39,260,335 3'UTR	N_Shelf	CBX6	0.607	0.004	0.908	0.442
cg14303017	yellow	9	139,428,880 Body	S_Shore	NOTCH1	0.607	0.005	0.667	0.509
cg19257111	yellow	15	65,843,003 Body	OpenSea	PTPLAD1	0.607	-0.008	0.534	0.589
cg12884814	yellow	2	50,718,584 Body	OpenSea	NRXN1	0.607	0.003	0.447	0.515
cg25954028	yellow	12	124,941,423 Body	Island	NCOR2	0.607	0.003	0.613	0.663
cg16565696	yellow	20	44,834,899 Body	N_Shelf	CDH22	0.607	-0.002	0.569	0.716
cg12461735	yellow	1	246,172,285 Body	OpenSea	SMYD3	0.607	0.005	0.675	0.478
cg12013713	yellow	7	139,760,671 Body	N_Shore	PARP12	0.607	0.001	0.431	0.863
cg09959931	yellow	4	671,550 TSS200	N_Shelf	MYL5	0.607	0.000	0.799	0.931
cg16187635	yellow	3	72,347,919	OpenSea		0.607	-0.001	0.427	0.961
cg24697460	yellow	12	124,908,653 Body	N_Shelf	NCOR2	0.607	-0.002	0.952	0.477
cg14420668	yellow	7	1,054,275 Body	S_Shore	C7orf50	0.607	0.004	0.886	0.411
cg06146466	yellow	3	59,501,481	OpenSea		0.607	-0.005	0.594	0.712
cg09079417	yellow	11	124,455,002	OpenSea		0.607	-0.001	0.763	0.926
cg22669656	yellow	17	76,386,825 Body	OpenSea	PGS1	0.607	0.001	0.672	0.934
cg23345317	yellow	11	65,402,736 Body	Island	PCNXL3	0.607	0.006	0.859	0.333
cg18869709	yellow	22	43,342,938 1stExon	OpenSea	PACSIN2	0.607	0.003	0.919	0.551
cg16384774	yellow	14	89,626,932 3'UTR	N_Shore	FOXN3	0.607	0.003	0.932	0.578
cg07958192	yellow	4	90,033,974 1stExon	S_Shore	TIGD2	0.607	0.000	0.860	0.958
cg21664636	yellow	3	70,432,664	OpenSea		0.607	-0.003	0.876	0.791
cg06850687	yellow	12	56,587,526	S_Shelf		0.607	-0.004	0.922	0.525
cg26675906	yellow	17	27,720,942 5'UTR	S_Shelf	TAOK1	0.607	0.001	0.952	0.768
cg06538345	yellow	19	49,993,186 Body	S_Shore	RPL13AP5	0.607	0.006	0.843	0.717
cg12303623	yellow	10	75,335,352 1stExon	OpenSea	USP54	0.607	-0.001	0.946	0.797
cg12661744	yellow	10	112,507,322 Body	OpenSea	RBM20	0.607	0.011	0.585	0.372
cg21810373	yellow	11	70,917,159 5'UTR	OpenSea	SHANK2	0.607	0.013	0.477	0.138
cg05858860	yellow	14	104,573,636 Body	S_Shelf	ASPG	0.607	0.000	0.595	0.982
cg20544808	yellow	1	1,099,051	Island		0.607	0.001	0.643	0.868
cg26662727	yellow	19	57,947,642 Body	S_Shore	ZNF749	0.607	0.000	0.356	0.956
cg22591964	yellow	10	98,144,438 Body	Island	TLL2	0.607	0.004	0.696	0.440
cg26426080	yellow	1	3,039,210 Body	S_Shore	PRDM16	0.607	0.000	0.641	0.991
cg00964918	yellow	9	134,350,332 Body	N_Shore	BAT2L1	0.607	-0.009	0.856	0.223
cg11751808	yellow	6	75,079,753	OpenSea		0.607	-0.002	0.727	0.844
cg17402294	yellow	10	93,058,376	OpenSea		0.607	0.002	0.075	0.734
cg10158679	yellow	6	30,883,074 Body	S_Shore	VAR52	0.607	0.000	0.694	0.991
cg13914324	yellow	9	79,320,026 Body	OpenSea	PRUNE2	0.607	0.018	0.306	0.059
cg01058360	yellow	7	151,442,371 Body	OpenSea	PRKAG2	0.607	0.020	0.611	0.049
cg08331345	yellow	16	28,995,882 TSS1500	OpenSea	LAT	0.607	0.005	0.815	0.373
cg03721293	yellow	16	90,014,378 TSS1500	Island	DEF8	0.607	-0.006	0.175	0.474
cg20545410	yellow	10	33,232,548 5'UTR	OpenSea	ITGB1	0.607	-0.011	0.770	0.174
cg09365542	yellow	6	31,597,100 Body	N_Shelf	BAT2	0.607	0.001	0.907	0.838
cg05451210	yellow	12	98,812,695	OpenSea		0.607	-0.002	0.138	0.843
cg09589443	yellow	20	35,489,221 Body	N_Shore	C20orf117	0.606	-0.004	0.622	0.630
cg18559483	yellow	12	132,316,232 Body	S_Shore	MMP17	0.606	0.012	0.383	0.151
cg27191606	yellow	11	55,872,995 1stExon	OpenSea	OR8H2	0.606	0.005	0.527	0.654
cg22032706	yellow	7	120,498,729 TSS1500	S_Shore	TSPAN12	0.606	-0.002	0.053	0.677
cg24169315	yellow	2	242,048,359 Body	OpenSea	PASK	0.606	0.000	0.827	0.933
cg21594043	yellow	15	92,491,578 Body	OpenSea	SLCO3A1	0.606	-0.001	0.164	0.878
cg25893679	yellow	7	3,214,289	OpenSea		0.606	-0.004	0.885	0.436
cg17679980	yellow	11	22,696,306 5'UTR	OpenSea	GAS2	0.606	-0.002	0.755	0.826
cg20672549	yellow	12	56,432,144 3'UTR	N_Shelf	IKZF4	0.606	0.009	0.646	0.355
cg00636982	yellow	13	37,986,386	OpenSea		0.606	0.005	0.752	0.623
cg07452625	yellow	16	89,598,568 Body	OpenSea	SPG7	0.606	-0.004	0.832	0.573
cg08106205	yellow	1	2,062,664 5'UTR	N_Shore	PRKCCZ	0.606	0.005	0.903	0.280
cg04531097	yellow	3	133,931,867 Body	OpenSea	RYK	0.606	-0.003	0.264	0.741
cg24508713	yellow	6	31,870,783 TSS1500	S_Shore	ZBTB12	0.606	0.007	0.335	0.425
cg03040489	yellow	11	69,463,323 Body	S_Shore	CCND1	0.606	-0.001	0.837	0.910
cg26435961	yellow	12	133,149,563 Body	S_Shore	FBRSL1	0.606	-0.004	0.864	0.718
cg02515030	yellow	5	171,682,651 Body	Island	UBTD2	0.606	-0.003	0.878	0.682
cg01848457	yellow	12	104,697,983 1stExon	Island	EID3	0.606	0.010	0.396	0.270
cg05521538	yellow	5	1,258,994 Body	S_Shore	TERT	0.606	0.005	0.671	0.338
cg00226923	yellow	6	36,972,027 TSS1500	OpenSea	FGD2	0.606	0.009	0.563	0.171

cg00481739	yellow	19	51,917,918	Body	OpenSea	SIGLEC10	0.606	-0.003	0.712	0.669
cg01643250	yellow	19	15,292,485	Body	Island	NOTCH3	0.606	-0.011	0.882	0.208
cg03399199	yellow	1	32,671,884	Body	Island	IQCC	0.606	0.015	0.155	0.062
cg20234170	yellow	11	34,460,107	TSS1500	N_Shore	CAT	0.606	0.002	0.034	0.621
cg03313752	yellow	15	77,835,568		OpenSea		0.606	0.006	0.264	0.525
cg26097391	yellow	2	54,893,211	Body	OpenSea	SPTBN1	0.606	0.024	0.786	0.032
cg16960112	yellow	11	64,819,126	Body	S_Shelf	NAALADL1	0.606	0.001	0.878	0.859
cg23405351	yellow	7	7,863,142		OpenSea		0.606	0.012	0.829	0.123
cg10451566	yellow	15	41,228,589	Body	Island	DLL4	0.606	0.003	0.870	0.623
cg21808406	yellow	17	7,482,475	TSS1500	N_Shelf	CD68	0.606	0.012	0.357	0.068
cg07528614	yellow	2	219,643,645		N_Shelf		0.606	0.000	0.654	0.999
cg22341513	yellow	18	54,785,289		N_Shelf		0.606	-0.007	0.661	0.281
cg01109256	yellow	20	37,100,986	TSS1500	N_Shore	RALGAPB	0.606	0.008	0.273	0.426
cg13424909	yellow	3	69,436,045	TSS1500	S_Shore	FRMD4B	0.606	0.007	0.637	0.401
cg21172944	yellow	1	8,392,286	Body	S_Shore	SLC45A1	0.606	0.001	0.912	0.787
cg19733740	yellow	11	82,609,924	Body	N_Shelf	PRCP	0.606	-0.006	0.777	0.576
cg13868361	yellow	1	89,357,908	TSS1500	S_Shore	GTF2B	0.606	0.006	0.208	0.675
cg03103611	yellow	1	38,479,228	Body	S_Shore	UTP11L	0.606	0.007	0.842	0.489
cg07807817	yellow	14	74,416,425	TSS1500	N_Shore	COQ6	0.606	0.009	0.134	0.465
cg17452301	yellow	10	134,211,620	Body	S_Shore	PWWP2B	0.606	0.014	0.162	0.106
cg03134230	yellow	2	192,208,955	Body	OpenSea	MYO1B	0.606	0.012	0.439	0.140
cg20436086	yellow	10	71,615,835	Body	OpenSea	COL13A1	0.606	0.008	0.869	0.450
cg16282339	yellow	11	47,927,019		OpenSea		0.606	0.001	0.929	0.887
cg04227141	yellow	13	33,184,404	5'UTR	OpenSea	PDS5B	0.606	-0.003	0.959	0.377
cg11456838	yellow	6	159,278,754	TSS200	OpenSea	OSTCL	0.606	0.007	0.631	0.367
cg21631150	yellow	3	186,292,584	Body	S_Shelf	DNAJB11	0.606	-0.016	0.678	0.241
cg13400591	yellow	10	80,165,798		OpenSea		0.606	0.005	0.873	0.424
cg12828018	yellow	11	59,437,416	TSS1500	S_Shore	PATL1	0.606	0.027	0.260	0.051
cg15505103	yellow	1	168,249,943	TSS1500	OpenSea	TBX19	0.606	-0.007	0.927	0.232
cg14550163	yellow	12	111,758,506	Body	Island	CUX2	0.606	0.011	0.774	0.085
cg25555068	yellow	17	79,304,649	TSS200	OpenSea	TMEM105	0.606	0.012	0.681	0.106
cg14753356	yellow	6	30,720,108		OpenSea		0.606	-0.001	0.414	0.972
cg01480384	yellow	12	54,020,711	TSS1500	S_Shore	ATF7	0.606	0.014	0.446	0.071
cg02939958	yellow	6	33,216,457		Island		0.606	0.002	0.032	0.327
cg16121136	yellow	20	42,984,209	TSS1500	OpenSea	HNF4A	0.606	0.004	0.688	0.520
cg02370644	yellow	19	2,339,509	Body	Island	SPPL2B	0.606	-0.008	0.869	0.304
cg02871925	yellow	3	50,395,650	1stExon	N_Shore	TMEM115	0.606	0.004	0.930	0.278
cg00447769	yellow	3	49,313,334	Body	N_Shore	C3orf62	0.606	-0.003	0.952	0.493
cg21528718	yellow	12	114,073,967		OpenSea		0.606	0.009	0.441	0.286
cg25706135	yellow	1	198,147,677	5'UTR	OpenSea	NEK7	0.606	0.001	0.733	0.861
cg09584711	yellow	16	72,096,944	TSS200	OpenSea	HPR	0.605	0.002	0.703	0.866
cg12163407	yellow	12	7,847,919	Body	OpenSea	GDF3	0.605	-0.018	0.067	0.021
cg11726754	yellow	1	12,290,640	5'UTR	N_Shore	VPS13D	0.605	0.003	0.039	0.368
cg09618904	yellow	20	34,026,478	TSS1500	S_Shelf	GDF5	0.605	0.011	0.183	0.140
cg08548559	yellow	22	31,686,097	Body	N_Shore	PIK3IP1	0.605	-0.004	0.746	0.626
cg15058894	yellow	11	9,685,109	TSS1500	N_Shore	SWAP70	0.605	0.003	0.434	0.743
cg00701890	yellow	16	4,102,293	Body	OpenSea	ADCY9	0.605	-0.003	0.763	0.708
cg18972013	yellow	17	78,078,605	Body	N_Shore	GAA	0.605	-0.005	0.702	0.731
cg25782665	yellow	3	183,778,276	3'UTR	OpenSea	HTR3C	0.605	0.002	0.743	0.765
cg06147210	yellow	7	136,927,099	Body	OpenSea	PTN	0.605	-0.002	0.371	0.764
cg03087897	yellow	19	14,550,846	TSS1500	N_Shore	PKN1	0.605	0.010	0.711	0.237
cg15381828	yellow	2	70,482,945		N_Shelf		0.605	-0.003	0.922	0.565
cg01127320	yellow	3	126,134,977	Body	N_Shore	CCDC37	0.605	-0.003	0.339	0.774
cg08472719	yellow	1	894,108	Body	N_Shore	NOC2L	0.605	0.000	0.020	0.868
cg18729787	yellow	6	33,246,307	1stExon	S_Shore	B3GALT4	0.605	0.001	0.760	0.802
cg14359680	yellow	14	105,532,208	TSS1500	OpenSea	GPR132	0.605	0.000	0.834	0.968
cg18071202	yellow	12	1,609,470	TSS200	OpenSea	LOC10029261	0.605	0.025	0.801	0.044
cg04731861	yellow	2	219,085,781	Body	S_Shelf	ARPC2	0.605	0.003	0.965	0.391
cg11573518	yellow	7	73,721,031	5'UTR	S_Shore	CLIP2	0.605	0.002	0.910	0.699
cg03198733	yellow	12	7,167,584	TSS1500	OpenSea	C1S	0.605	0.006	0.923	0.307
cg07659624	yellow	8	23,425,272	Body	N_Shelf	SLC25A37	0.605	0.005	0.393	0.637
cg26570574	yellow	1	220,415,655	Body	OpenSea	RAB3GAP2	0.605	-0.002	0.897	0.842
cg26432474	yellow	11	94,037,805	TSS1500	OpenSea	FOLR4	0.605	-0.009	0.475	0.401
cg20007622	yellow	11	14,340,592	Body	OpenSea	RRAS2	0.605	0.008	0.688	0.530
cg07538160	yellow	6	30,951,394	TSS200	OpenSea	MUC21	0.605	-0.009	0.882	0.322
cg21759837	yellow	15	70,925,809		OpenSea		0.605	-0.006	0.051	0.150
cg07519259	yellow	2	31,520,167		OpenSea		0.605	0.000	0.835	0.979



cg03071245	yellow	13	37,463,034	5'UTR	OpenSea	SMAD9	0.605	0.012	0.660	0.161
cg00458449	yellow	2	242,605,751	Body	N_Shore	ATG4B	0.605	-0.004	0.844	0.691
cg17735563	yellow	2	33,738,079	5'UTR	OpenSea	RASGRP3	0.605	-0.003	0.731	0.755
cg00764093	yellow	7	2,851,991	Body	OpenSea	GNA12	0.605	0.002	0.939	0.769
cg17910478	yellow	1	228,581,288		N_Shore		0.605	0.016	0.385	0.286
cg05960850	yellow	2	2,192,366	5'UTR	N_Shore	MYT1L	0.605	0.001	0.600	0.791
cg02537310	yellow	15	31,284,617	TSS1500	S_Shore	MTMR10	0.605	0.002	0.516	0.846
cg08772302	yellow	8	37,826,337		S_Shelf		0.605	0.013	0.747	0.088
cg13150785	yellow	15	41,138,160	Body	S_Shore	SPINT1	0.605	0.010	0.736	0.210
cg08468689	yellow	17	40,346,680	TSS200	OpenSea	GHDC	0.605	0.010	0.448	0.254
cg12865252	yellow	5	33,457,705	Body	OpenSea	TARS	0.605	0.012	0.538	0.580
cg00526163	yellow	1	171,454,351	TSS1500	N_Shore	BAT2L2	0.605	0.005	0.041	0.086
cg17153426	yellow	22	24,640,743	5'UTR	OpenSea	GGT5	0.605	0.006	0.514	0.402
cg22399703	yellow	2	19,456,333		OpenSea		0.605	0.003	0.258	0.713
cg02359160	yellow	1	45,189,875	Body	Island	C1orf228	0.605	-0.001	0.680	0.919
cg20094837	yellow	13	35,515,575	TSS1500	OpenSea	NBEA	0.605	-0.002	0.862	0.798
cg02145220	yellow	15	79,223,378	Body	OpenSea	CTSH	0.605	-0.003	0.583	0.794
cg13027183	yellow	6	15,504,872	Body	OpenSea	JARID2	0.605	-0.002	0.263	0.849
cg07833951	yellow	1	234,891,473		OpenSea		0.605	0.003	0.281	0.746
cg08777813	yellow	13	114,916,698		S_Shore		0.605	0.013	0.739	0.131
cg01921382	yellow	5	1,241,848	Body	N_Shore	SLC6A18	0.605	0.001	0.478	0.839
cg25291404	yellow	20	30,252,580	3'UTR	OpenSea	BCL2L1	0.605	0.012	0.390	0.122
cg17088155	yellow	3	130,745,959	5'UTR	S_Shore	NEK11	0.605	0.000	0.096	0.968
cg11134430	yellow	3	193,987,426		Island		0.605	-0.008	0.111	0.285
cg20988589	yellow	2	183,942,982	TSS1500	OpenSea	DUSP19	0.605	0.012	0.601	0.316
cg13561554	yellow	15	78,795,944		N_Shelf		0.605	0.022	0.489	0.094
cg05863862	yellow	6	29,649,807		OpenSea		0.605	0.007	0.693	0.522
cg11323828	yellow	15	41,230,578	3'UTR	S_Shore	DLL4	0.605	0.008	0.671	0.158
cg07855319	yellow	16	69,123,283		OpenSea		0.605	0.010	0.373	0.275
cg07884735	yellow	4	76,911,155	Body	N_Shore	SDAD1	0.605	0.011	0.281	0.271
cg13413792	yellow	9	126,182,794	Body	OpenSea	DENND1A	0.605	0.002	0.634	0.800
cg01279413	yellow	20	62,030,494		N_Shore		0.605	0.002	0.714	0.791
cg12256803	yellow	10	76,859,248	Body	OpenSea	DUSP13	0.605	0.013	0.722	0.034
cg22945467	yellow	1	207,096,833	TSS1500	OpenSea	FAIM3	0.605	0.007	0.483	0.219
cg01092250	yellow	16	556,146	Body	N_Shelf	RAB11FIP3	0.605	0.004	0.754	0.592
cg20916319	yellow	12	133,351,324	Body	S_Shore	GOLGA3	0.605	0.007	0.618	0.282
cg24314879	yellow	1	2,435,236	Body	Island	PLCH2	0.605	0.021	0.523	0.013
cg20833128	yellow	7	135,195,632	TSS1500	S_Shore	CNOT4	0.605	0.007	0.178	0.298
cg20537886	yellow	13	112,903,337		OpenSea		0.605	0.008	0.415	0.515
cg06668829	yellow	8	144,948,781	TSS1500	S_Shore	EPPK1	0.605	-0.013	0.465	0.101
cg06902685	yellow	5	89,702,823	Body	N_Shelf	CETN3	0.605	0.004	0.917	0.542
cg16405960	yellow	8	96,394,047		OpenSea		0.604	0.017	0.620	0.223
cg15777760	yellow	16	29,832,180	3'UTR	S_Shelf	C16orf53	0.604	-0.001	0.799	0.947
cg20170882	yellow	8	38,133,060	3'UTR	OpenSea	WHSC1L1	0.604	0.004	0.724	0.575
cg09379651	yellow	10	88,316,446		OpenSea		0.604	0.010	0.586	0.157
cg23419897	yellow	7	105,254,338	Body	OpenSea	ATXN7L1	0.604	-0.005	0.937	0.474
cg16316344	yellow	11	47,738,494	3'UTR	S_Shore	FNBP4	0.604	-0.001	0.623	0.944
cg25374494	yellow	3	46,778,871		OpenSea		0.604	-0.004	0.786	0.564
cg24624505	yellow	17	69,972,248		OpenSea		0.604	0.031	0.615	0.166
cg13492245	yellow	9	130,566,157	Body	S_Shore	FPGS	0.604	0.008	0.572	0.641
cg04091078	yellow	12	20,848,285	TSS200	OpenSea	SLCO1C1	0.604	0.001	0.486	0.897
cg21772826	yellow	3	189,040,394	3'UTR	OpenSea	TPRG1	0.604	0.017	0.575	0.273
cg11486694	yellow	10	53,367,157	Body	OpenSea	PRKG1	0.604	0.026	0.719	0.015
cg16770549	yellow	12	6,578,523	Body	N_Shore	VAMP1	0.604	0.012	0.692	0.208
cg10765336	yellow	19	359,491		N_Shore		0.604	0.015	0.831	0.008
cg07742374	yellow	12	68,933,067		OpenSea		0.604	0.000	0.034	0.877
cg18862005	yellow	2	177,940,863		OpenSea		0.604	0.003	0.334	0.642
cg18790143	yellow	2	241,080,464	TSS1500	OpenSea	OTOS	0.604	0.010	0.684	0.293
cg07242429	yellow	7	1,141,341	Body	Island	C7orf50	0.604	0.015	0.688	0.214
cg14722162	yellow	5	134,783,186	TSS200	OpenSea	C5orf20	0.604	0.001	0.869	0.861
cg02598756	yellow	7	45,126,148	Body	N_Shore	NACAD	0.604	-0.001	0.905	0.893
cg13341153	yellow	10	120,001,043		OpenSea		0.604	-0.003	0.054	0.385
cg21189611	yellow	9	97,691,844	Body	OpenSea	C9orf3	0.604	0.000	0.805	0.998
cg09367817	yellow	1	163,845,190		OpenSea		0.604	0.006	0.193	0.514
cg23360111	yellow	14	75,828,696		OpenSea		0.604	0.000	0.385	0.952
cg08493581	yellow	2	85,472,279	Body	OpenSea	TCF7L1	0.604	0.005	0.288	0.402
cg09695261	yellow	17	79,304,600	TSS200	OpenSea	TMEM105	0.604	0.006	0.938	0.272

cg14572252	yellow	3	169,309,425	Body	OpenSea	MECOM	0.604	0.003	0.544	0.856
cg16169129	yellow	12	20,847,154	TSS1500	OpenSea	SLCO1C1	0.604	0.011	0.864	0.224
cg09611576	yellow	13	25,707,495		OpenSea		0.604	-0.003	0.589	0.766
cg18173184	yellow	12	6,718,378		S_Shore		0.604	0.019	0.346	0.076
cg01627212	yellow	16	86,715,410		S_Shore		0.604	0.006	0.727	0.513
cg00820740	yellow	10	60,274,755	Body	S_Shore	BICC1	0.604	-0.010	0.950	0.191
cg24502027	yellow	10	556,470	Body	OpenSea	DIP2C	0.604	0.005	0.660	0.627
cg06819357	yellow	14	102,928,437	Body	OpenSea	TECPR2	0.604	-0.001	0.824	0.948
cg03159004	yellow	19	46,445,221	Body	S_Shore	NOVA2	0.604	-0.004	0.764	0.632
cg07946277	yellow	17	76,732,854	Body	OpenSea	CYTH1	0.604	-0.001	0.544	0.895
cg00221658	yellow	7	43,912,425		S_Shelf		0.604	0.013	0.212	0.455
cg10415103	yellow	17	1,952,815		N_Shore		0.604	0.004	0.024	0.015
cg08891989	yellow	7	5,272,846	3'UTR	OpenSea	WIPI2	0.604	0.009	0.776	0.347
cg15638306	yellow	17	47,583,654	Body	Island	NGFR	0.604	0.032	0.715	0.044
cg26721627	yellow	11	1,319,713	Body	S_Shelf	TOLLIP	0.604	-0.002	0.825	0.630
cg24429836	yellow	16	75,150,744	TSS200	S_Shore	LDHD	0.604	-0.002	0.512	0.854
cg13390385	yellow	1	7,113,332	Body	OpenSea	CAMTA1	0.604	0.004	0.700	0.484
cg09532840	yellow	2	181,337,276		OpenSea		0.604	-0.007	0.814	0.704
cg05044173	yellow	12	6,898,500	TSS200	OpenSea	CD4	0.604	0.010	0.709	0.313
cg13930682	yellow	6	26,393,253	3'UTR	OpenSea	BTN2A2	0.604	0.007	0.682	0.401
cg09718037	yellow	12	117,042,854		OpenSea		0.604	0.014	0.547	0.141
cg01649879	yellow	13	112,507,773		OpenSea		0.604	0.011	0.742	0.163
cg27063969	yellow	5	169,133,966	Body	OpenSea	DOCK2	0.604	-0.001	0.636	0.871
cg06712088	yellow	11	7,259,389		OpenSea		0.604	-0.011	0.879	0.131
cg01802953	yellow	1	173,887,360	TSS1500	OpenSea	SERPINC1	0.604	-0.013	0.748	0.124
cg27025722	yellow	2	54,773,290	Body	OpenSea	SPTBN1	0.604	-0.003	0.940	0.511
cg13877423	yellow	7	5,521,770	Body	S_Shore	FBXL18	0.604	0.002	0.824	0.850
cg10299448	yellow	17	10,018,532	Body	OpenSea	GAS7	0.604	-0.001	0.107	0.846
cg16022081	yellow	1	2,564,329	1stExon	S_Shelf	MMEL1	0.603	-0.005	0.745	0.638
cg06388099	yellow	19	50,400,885	TSS1500	OpenSea	IL4I1	0.603	0.006	0.444	0.562
cg19147534	yellow	10	91,377,755	Body	OpenSea	PANK1	0.603	-0.010	0.831	0.336
cg23337845	yellow	4	170,641,374	3'UTR	OpenSea	CLCN3	0.603	0.002	0.800	0.784
cg13598358	yellow	12	111,176,852	Body	N_Shelf	PPP1CC	0.603	0.013	0.257	0.235
cg25671118	yellow	18	39,584,467	Body	OpenSea	PIK3C3	0.603	-0.004	0.880	0.781
cg25208677	yellow	1	67,521,487	TSS1500	S_Shore	SLC35D1	0.603	0.003	0.860	0.700
cg06223834	yellow	16	4,103,161	Body	OpenSea	ADCY9	0.603	0.002	0.212	0.902
cg09440866	yellow	12	114,014,510		OpenSea		0.603	0.025	0.179	0.045
cg12076102	yellow	17	62,084,322	5'UTR	OpenSea	ICAM2	0.603	0.002	0.762	0.646
cg14753691	yellow	22	19,554,706	TSS1500	S_Shore	LOC150185	0.603	0.005	0.682	0.554
cg13701355	yellow	9	137,733,866	Body	N_Shore	COL5A1	0.603	0.006	0.764	0.252
cg23251858	yellow	7	5,510,010		OpenSea		0.603	0.019	0.759	0.021
cg22331200	yellow	17	56,355,362	Body	Island	MPO	0.603	0.004	0.780	0.410
cg19515186	yellow	2	73,478,549	Body	OpenSea	CCT7	0.603	-0.002	0.919	0.653
cg01471232	yellow	11	415,430	5'UTR	N_Shore	SIGIRR	0.603	-0.006	0.807	0.483
cg08246632	yellow	12	132,396,826	Body	S_Shelf	ULK1	0.603	0.004	0.723	0.565
cg20603222	yellow	7	1,096,387	Body	N_Shore	C7orf50	0.603	0.004	0.862	0.642
cg09269891	yellow	16	3,843,415	Body	OpenSea	CREBBP	0.603	0.002	0.744	0.876
cg02858512	yellow	17	1,992,954	Body	OpenSea	SMG6	0.603	-0.002	0.106	0.791
cg02746110	yellow	2	25,552,398	5'UTR	OpenSea	DNMT3A	0.603	0.009	0.382	0.085
cg07180571	yellow	2	122,156,917	Body	OpenSea	CLASP1	0.603	0.004	0.829	0.582
cg02667103	yellow	12	83,125,178	Body	OpenSea	TMTC2	0.603	0.033	0.601	0.034
cg26029577	yellow	11	63,871,231	Body	OpenSea	MACROD1	0.603	0.009	0.605	0.145
cg19564512	yellow	19	51,874,939	3'UTR	S_Shelf	NKG7	0.603	0.007	0.790	0.333
cg20296924	yellow	2	3,654,470	Body	OpenSea	COLEC11	0.603	0.005	0.518	0.592
cg19722706	yellow	15	83,732,977	Body	N_Shelf	BTBD1	0.603	-0.001	0.790	0.903
cg22539706	yellow	10	24,646,727	Body	OpenSea	KIAA1217	0.603	0.009	0.803	0.485
cg10780683	yellow	17	702,934	3'UTR	OpenSea	NXN	0.603	-0.004	0.892	0.602
cg19289072	yellow	2	69,845,618	Body	OpenSea	AAK1	0.603	0.010	0.776	0.353
cg19056004	yellow	12	7,023,262	3'UTR	Island	LRRC23	0.603	-0.005	0.422	0.672
cg10819050	yellow	2	234,883,171	Body	OpenSea	TRPM8	0.603	-0.009	0.780	0.192
cg19407960	yellow	6	33,094,829	Body	OpenSea	HLA-DPB2	0.603	0.000	0.916	0.978
cg21611682	yellow	11	68,138,269	Body	OpenSea	LRP5	0.603	0.005	0.464	0.603
cg05190176	yellow	12	48,290,002	5'UTR	OpenSea	VDR	0.603	0.009	0.763	0.193
cg02862121	yellow	16	1,845,460	TSS1500	S_Shelf	IGFALS	0.603	0.003	0.566	0.707
cg17680088	yellow	9	127,213,319	TSS200	N_Shore	GPR144	0.603	0.006	0.417	0.305
cg25644015	yellow	6	31,848,099	Body	OpenSea	EHMT2	0.603	0.008	0.893	0.165
cg20640862	yellow	12	77,481,302		OpenSea		0.603	0.016	0.622	0.299

cg18526142	yellow	5	41,763,261	Body	OpenSea	OXCT1	0.603	0.016	0.708	0.217
cg18216249	yellow	12	48,100,805	TSS1500	S_Shore	RPAP3	0.603	0.008	0.540	0.562
cg26527344	yellow	1	223,251,813		N_Shelf		0.603	-0.003	0.843	0.634
cg19392175	yellow	17	80,554,772	Body	N_Shore	FOXK2	0.603	-0.007	0.633	0.426
cg02029908	yellow	5	172,195,602	3'UTR	N_Shore	DUSP1	0.603	-0.002	0.792	0.812
cg17810099	yellow	6	31,870,990	TSS1500	S_Shore	ZBTB12	0.603	0.002	0.873	0.725
cg20435463	yellow	8	19,796,533	TSS200	N_Shore	LPL	0.603	0.005	0.067	0.285
cg14719333	yellow	17	33,867,795		OpenSea		0.603	0.006	0.838	0.448
cg21892967	yellow	19	10,306,043	TSS1500	S_Shore	DNMT1	0.603	0.008	0.163	0.345
cg18559568	yellow	21	43,441,670	TSS1500	OpenSea	C21orf121	0.603	0.004	0.770	0.431
cg08455089	yellow	6	37,292,135	Body	OpenSea	TBC1D22B	0.603	-0.003	0.893	0.765
cg25313090	yellow	19	55,998,065	Body	Island	NAT14	0.603	0.006	0.614	0.409
cg14552947	yellow	10	28,657,329		OpenSea		0.603	0.026	0.306	0.071
cg10501360	yellow	10	49,671,665	Body	N_Shelf	ARHGAP22	0.603	0.008	0.310	0.485
cg16698623	yellow	10	131,412,968	Body	OpenSea	MGMT	0.603	0.004	0.617	0.688
cg06352088	yellow	2	101,889,754	TSS1500	OpenSea	SNORD89	0.602	0.010	0.819	0.362
cg01320433	yellow	6	169,630,013	Body	N_Shore	THBS2	0.602	0.030	0.493	0.032
cg01902845	yellow	1	214,170,993	Body	OpenSea	PROX1	0.602	-0.003	0.709	0.842
cg09731306	yellow	10	97,528,707	Body	OpenSea	ENTPD1	0.602	-0.008	0.835	0.295
cg27377749	yellow	7	39,605,536	TSS1500	N_Shore	C7orf36	0.602	0.016	0.141	0.074
cg27215641	yellow	3	51,430,736	1stExon	Island	RBM15B	0.602	0.001	0.908	0.863
cg13680388	yellow	20	57,471,844	Body	OpenSea	GNAS	0.602	-0.001	0.719	0.958
cg18021623	yellow	7	158,225,083	Body	OpenSea	PTPRN2	0.602	0.010	0.347	0.321
cg10009224	yellow	4	742,497	Body	S_Shore	PCGF3	0.602	-0.001	0.942	0.860
cg02624246	yellow	12	7,073,264	Body	OpenSea	MIR141	0.602	-0.003	0.593	0.604
cg15463387	yellow	21	44,870,270	Body	OpenSea	C21orf125	0.602	0.007	0.316	0.237
cg19216894	yellow	17	7,232,119	Body	N_Shore	NEURL4	0.602	0.005	0.077	0.352
cg21141346	yellow	6	31,854,757	Body	N_Shelf	EHMT2	0.602	0.006	0.798	0.256
cg03938060	yellow	16	4,788,451	Body	N_Shelf	C16orf71	0.602	0.011	0.597	0.127
cg21539510	yellow	6	135,819,589	Body	S_Shore	C6orf217	0.602	0.001	0.033	0.586
cg12658374	yellow	17	37,323,563	TSS1500	S_Shore	ARLSC	0.602	0.018	0.675	0.024
cg15616665	yellow	4	3,682,525		N_Shelf		0.602	0.001	0.778	0.920
cg08966889	yellow	6	52,440,429	Body	N_Shore	TRAM2	0.602	0.009	0.380	0.323
cg02881419	yellow	6	52,396,472	Body	OpenSea	TRAM2	0.602	0.010	0.879	0.038
cg04512786	yellow	10	125,652,421	TSS1500	S_Shore	CPXM2	0.602	0.001	0.677	0.901
cg07002447	yellow	19	19,648,890	TSS200	Island	CILP2	0.602	0.003	0.130	0.761
cg05999828	yellow	3	41,620,569	Body	OpenSea	ULK4	0.602	-0.004	0.885	0.574
cg06163904	yellow	17	78,964,779	TSS1500	N_Shore	CHMP6	0.602	0.012	0.605	0.161
cg09924669	yellow	16	1,593,214	Body	S_Shore	IFT140	0.602	0.015	0.743	0.009
cg00732383	yellow	18	46,482,439		S_Shelf		0.602	0.000	0.210	1.000
cg01918043	yellow	15	71,054,667	Body	N_Shore	UACA	0.602	0.004	0.236	0.734
cg14499058	yellow	8	141,129,321	Body	OpenSea	TRAPP9	0.602	-0.009	0.202	0.218
cg14397402	yellow	14	37,257,845	Body	OpenSea	SLC25A21	0.602	0.003	0.700	0.846
cg17352995	yellow	4	8,201,128	1stExon	OpenSea	SH3TC1	0.602	-0.012	0.250	0.122
cg08534342	yellow	3	45,636,060	TSS1500	S_Shore	LIMD1	0.602	0.001	0.035	0.560
cg12123502	yellow	15	29,980,826		OpenSea		0.602	0.007	0.630	0.284
cg21223423	yellow	9	136,472,927		N_Shore		0.602	0.006	0.581	0.399
cg15723784	yellow	15	67,441,067	Body	OpenSea	SMAD3	0.602	0.001	0.937	0.838
cg00577167	yellow	9	104,197,675	5'UTR	OpenSea	ALDOB	0.602	0.006	0.454	0.627
cg06872514	yellow	9	139,746,715	TSS200	S_Shelf	MAMDC4	0.602	-0.003	0.494	0.720
cg02656594	yellow	16	27,412,496	TSS1500	OpenSea	IL21R	0.602	-0.002	0.836	0.842
cg05926186	yellow	15	65,042,209	Body	OpenSea	RBPMS2	0.602	0.004	0.534	0.581
cg21583668	yellow	3	49,967,678	TSS1500	S_Shore	MON1A	0.602	0.010	0.468	0.271
cg01860693	yellow	5	139,557,145	5'UTR	S_Shore	C5orf32	0.602	0.002	0.924	0.811
cg01746503	yellow	14	23,644,717	Body	OpenSea	SLC7A8	0.602	-0.002	0.884	0.666
cg17832674	yellow	19	47,103,718	TSS1500	N_Shore	CALM3	0.602	-0.003	0.181	0.713
cg25694790	yellow	20	17,582,752	Body	OpenSea	DSTN	0.602	0.002	0.635	0.768
cg07739841	yellow	6	159,657,657	Body	S_Shelf	FNDC1	0.602	-0.005	0.829	0.619
cg00773795	yellow	8	64,428,132		OpenSea		0.602	0.002	0.903	0.709
cg26578274	yellow	15	78,832,312	TSS1500	N_Shore	PSMA4	0.602	0.002	0.951	0.653
cg20388732	yellow	17	40,439,433	TSS200	N_Shore	STAT5A	0.602	0.004	0.520	0.715
cg11783050	yellow	7	853,078		Island		0.602	-0.005	0.052	0.063
cg25833001	yellow	8	1,692,726		OpenSea		0.602	-0.004	0.896	0.503
cg09589308	yellow	3	19,307,629	Body	OpenSea	KCNH8	0.602	0.006	0.638	0.278
cg27141915	yellow	19	44,094,007	3'UTR	N_Shelf	IRGQ	0.602	-0.002	0.841	0.818
cg19878479	yellow	19	49,015,582	Body	N_Shore	LMTK3	0.602	-0.006	0.611	0.678
cg01043158	yellow	12	90,908,677		OpenSea		0.602	-0.022	0.806	0.133

cg04480106	yellow	5	72,934,606	5'UTR	OpenSea	RGNEF	0.602	-0.006	0.882	0.622
cg03686952	yellow	12	49,075,221	Body	N_Shore	C12orf41	0.602	-0.001	0.038	0.622
cg04597545	yellow	19	800,229	Body	S_Shore	PTBP1	0.602	0.002	0.294	0.783
cg00321996	yellow	3	177,696,327		OpenSea		0.602	-0.012	0.855	0.276
cg03676485	yellow	7	2,563,816	Body	Island	LFNG	0.602	0.009	0.239	0.300
cg22211507	yellow	3	108,564,871	Body	OpenSea	TRAT1	0.602	-0.015	0.707	0.077
cg23044884	yellow	8	30,245,145	Body	S_Shelf	RBPMS	0.601	0.001	0.298	0.900
cg13316543	yellow	8	1,921,165	TSS1500	N_Shore	KBTBD11	0.601	0.001	0.031	0.689
cg20547295	yellow	2	69,664,869	TSS200	S_Shore	NFU1	0.601	-0.002	0.362	0.772
cg18703238	yellow	13	108,922,361	1stExon	OpenSea	TNFSF13B	0.601	0.007	0.282	0.309
cg19030737	yellow	1	226,927,988	TSS1500	S_Shore	ITPKB	0.601	0.006	0.801	0.612
cg25878744	yellow	1	244,303,505		OpenSea		0.601	0.003	0.965	0.427
cg21221899	yellow	5	72,921,439	TSS1500	N_Shore	RGNEF	0.601	0.011	0.233	0.054
cg04428805	yellow	17	65,239,522	5'UTR	N_Shore	HELZ	0.601	-0.002	0.907	0.772
cg19846154	yellow	8	74,332,112		OpenSea		0.601	0.002	0.538	0.872
cg08884979	yellow	15	52,012,670	3'UTR	OpenSea	SCG3	0.601	-0.003	0.876	0.726
cg25133192	yellow	1	182,808,143	TSS1500	N_Shore	DHX9	0.601	0.003	0.064	0.475
cg00223715	yellow	22	49,063,003	Body	N_Shore	FAM19A5	0.601	0.000	0.561	0.978
cg19122948	yellow	17	80,207,982	Body	N_Shore	CSNK1D	0.601	0.006	0.823	0.280
cg24496563	yellow	1	67,842,041	Body	OpenSea	IL12RB2	0.601	-0.004	0.504	0.588
cg27060355	yellow	2	40,590,871	Body	OpenSea	SLC8A1	0.601	0.002	0.794	0.887
cg15007983	yellow	19	18,699,326	TSS200	N_Shore	C19orf60	0.601	0.014	0.241	0.504
cg03351487	yellow	2	169,003,820	Body	OpenSea	STK39	0.601	-0.004	0.949	0.630
cg02847766	yellow	16	2,470,641	Body	OpenSea	ABCA17P	0.601	0.010	0.537	0.170
cg03127244	yellow	6	33,245,638	1stExon	S_Shore	B3GALT4	0.601	0.012	0.836	0.080
cg20425130	yellow	3	183,273,245	1stExon	OpenSea	KLHL6	0.601	-0.001	0.797	0.884
cg06960024	yellow	10	27,150,529	TSS1500	S_Shore	ABI1	0.601	-0.003	0.466	0.784
cg04791256	yellow	9	126,131,309	Body	N_Shore	CRB2	0.601	0.001	0.726	0.856
cg13677741	yellow	1	236,031,096	TSS1500	S_Shore	LYST	0.601	0.005	0.073	0.461
cg25051805	yellow	7	23,637,943	5'UTR	S_Shore	CCDC126	0.601	0.013	0.350	0.096
cg08125726	yellow	7	5,639,063	Body	N_Shelf	FSCN1	0.601	-0.007	0.728	0.290
cg11979875	yellow	4	122,721,721	TSS1500	N_Shore	EXOSC9	0.601	0.000	0.880	0.997
cg14378348	yellow	4	1,029,410		Island		0.601	0.009	0.675	0.302
cg05186455	yellow	14	95,027,692	TSS200	OpenSea	SERPINA4	0.601	0.001	0.651	0.858
cg12075928	yellow	8	141,801,307	Body	OpenSea	PTK2	0.601	-0.020	0.696	0.135
cg19851526	yellow	4	130,257,063		OpenSea		0.601	0.011	0.739	0.453
cg22989419	yellow	20	9,340,396	Body	OpenSea	PLCB4	0.601	0.001	0.296	0.955
cg05906777	yellow	17	73,268,160	TSS1500	S_Shore	MIF4GD	0.601	0.007	0.392	0.444
cg09161419	yellow	11	119,593,593	Body	OpenSea	PVRL1	0.601	0.006	0.837	0.480
cg05048624	yellow	1	20,441,579	Body	OpenSea	PLA2G2D	0.601	0.006	0.676	0.432
cg18515886	yellow	5	14,665,592	Body	S_Shore	FAM105B	0.601	0.001	0.041	0.677
cg14931118	yellow	2	213,228,956	Body	OpenSea	ERBB4	0.601	0.004	0.560	0.736
cg13648550	yellow	9	27,379,518	Body	OpenSea	MOBK2B	0.601	0.010	0.544	0.273
cg11092157	yellow	14	98,536,125		OpenSea		0.601	0.010	0.385	0.206
cg02981103	yellow	14	24,049,380	TSS1500	S_Shelf	JPH4	0.601	-0.001	0.916	0.855
cg08156120	yellow	14	74,111,075	TSS1500	N_Shore	DNAL1	0.601	-0.015	0.089	0.038
cg23917744	yellow	12	120,317,798		S_Shelf		0.601	-0.006	0.758	0.486
cg04826279	yellow	10	74,386,200	TSS1500	S_Shore	CBARA1	0.601	0.001	0.027	0.629
cg12647574	yellow	2	12,824,729		OpenSea		0.601	0.009	0.124	0.336
cg27350042	yellow	4	140,033,905	Body	N_Shelf	ELF2	0.601	0.000	0.894	0.962
cg12951726	yellow	12	113,773,300	TSS1500	S_Shore	SLC24A6	0.601	0.009	0.212	0.252
cg01563741	yellow	1	245,022,751	Body	N_Shelf	HNRNPU	0.601	-0.002	0.966	0.563
cg05555515	yellow	19	14,170,785	TSS1500	S_Shelf	PALM3	0.601	0.007	0.320	0.275
cg05648988	yellow	6	33,865,492		OpenSea		0.601	-0.006	0.771	0.402
cg00672445	yellow	8	1,616,925	Body	N_Shore	DLGAP2	0.601	0.009	0.897	0.102
cg13556548	yellow	1	226,187,876	TSS1500	S_Shore	C1orf55	0.601	0.012	0.559	0.382
cg09416188	yellow	3	49,538,552	5'UTR	OpenSea	DAG1	0.601	0.006	0.618	0.636
cg05531482	yellow	7	124,430,753		OpenSea		0.601	0.016	0.884	0.135
cg04697946	yellow	2	3,654,582	Body	OpenSea	COLEC11	0.601	0.007	0.402	0.525
cg06911238	yellow	1	46,859,671	TSS1500	N_Shore	FAAH	0.601	0.018	0.838	0.138
cg04033732	yellow	16	67,707,096		OpenSea		0.601	0.015	0.499	0.052
cg19145607	yellow	3	45,983,792	TSS1500	OpenSea	CXCR6	0.601	-0.001	0.384	0.968
cg03709475	yellow	5	55,219,492		OpenSea		0.601	0.001	0.552	0.949
cg00477302	yellow	7	129,411,088	TSS1500	OpenSea	MIR182	0.601	0.002	0.591	0.660
cg16536855	yellow	10	71,038,317	5'UTR	OpenSea	HK1	0.601	0.019	0.122	0.078
cg20964635	yellow	19	5,784,857	TSS1500	N_Shore	PRR22	0.600	0.007	0.758	0.249
cg27086308	yellow	7	154,720,213	TSS200	OpenSea	LOC10013271	0.600	0.055	0.283	0.051

cg25918166	yellow	2	145,701,813	OpenSea		0.600	0.014	0.787	0.152
cg14503796	yellow	3	15,248,442 TSS1500	S_Shore	DVWA	0.600	0.003	0.025	0.067
cg09998251	yellow	15	62,537,048	OpenSea		0.600	0.007	0.474	0.201
cg08772567	yellow	10	79,033,545 Body	OpenSea	KCNMA1	0.600	-0.002	0.541	0.892
cg06768939	yellow	17	79,024,447 Body	N_Shore	BAIAP2	0.600	0.001	0.817	0.916
cg05738470	yellow	16	603,743 3'UTR	N_Shore	SOLH	0.600	0.009	0.859	0.114
cg15526535	yellow	1	12,238,546 Body	OpenSea	TNFRSF1B	0.600	-0.001	0.674	0.948
cg05580141	yellow	12	49,071,788 Body	N_Shelf	C12orf41	0.600	0.001	0.899	0.926
cg18202405	yellow	6	11,185,142 3'UTR	OpenSea	NEDD9	0.600	0.006	0.908	0.396
cg03249047	yellow	17	80,872,472 Body	S_Shore	TBCD	0.600	0.012	0.679	0.320
cg12017558	yellow	7	2,289,097 Body	OpenSea	NUDT1	0.600	0.006	0.785	0.464
cg05279413	yellow	7	1,572,327 5'UTR	S_Shore	MAFK	0.600	0.003	0.064	0.638
cg02984430	yellow	2	10,219,586 Body	N_Shore	CYS1	0.600	-0.001	0.047	0.813
cg12259903	yellow	3	13,249,848	S_Shelf		0.600	0.015	0.707	0.043
cg12657739	yellow	1	114,517,527 3'UTR	OpenSea	HIPK1	0.600	0.002	0.942	0.566
cg26383537	yellow	19	41,817,029 Body	S_Shore	CCDC97	0.600	0.002	0.681	0.901
cg16465129	yellow	5	131,408,149 TSS1500	OpenSea	CSF2	0.600	-0.001	0.853	0.899
cg14213406	yellow	7	149,393,376	S_Shelf		0.600	0.008	0.566	0.254
cg08570574	yellow	6	9,086,309	OpenSea		0.600	0.003	0.632	0.828
cg01059818	yellow	17	26,370,690 Body	S_Shore	NLK	0.600	-0.003	0.901	0.538
cg21074190	yellow	12	56,365,823 3'UTR	N_Shore	CDK2	0.600	0.007	0.867	0.383
cg15699766	yellow	11	58,975,573 3'UTR	OpenSea	DTX4	0.600	-0.001	0.058	0.768
cg11508001	yellow	8	97,399,716	OpenSea		0.600	0.006	0.488	0.623
cg15553418	yellow	1	16,696,547 Body	S_Shelf	C1orf144	0.600	0.002	0.921	0.760
cg22356428	yellow	1	206,687,071 Body	OpenSea	RASSF5	0.600	-0.014	0.423	0.112
cg14964285	yellow	12	4,435,533 Body	S_Shore	C12orf5	0.600	-0.008	0.669	0.498
cg09245003	yellow	17	695,428 3'UTR	OpenSea	RNMTL1	0.600	0.003	0.875	0.628
cg22881265	yellow	3	128,801,132	OpenSea		0.600	-0.005	0.700	0.478
cg08381596	yellow	16	720,883 Body	Island	RHOT2	0.600	0.003	0.855	0.605
cg01824466	yellow	8	95,959,531 5'UTR	N_Shore	TP53INP1	0.600	0.006	0.529	0.639
cg25005739	yellow	1	65,525,795	OpenSea		0.600	-0.004	0.045	0.198
cg20742981	yellow	22	31,644,190 TSS200	OpenSea	LIMK2	0.600	0.003	0.103	0.510
cg11314310	yellow	10	1,120,831 Body	OpenSea	WDR37	0.600	-0.002	0.744	0.863
cg14973995	yellow	4	2,935,692 5'UTR	Island	MFS10	0.600	0.010	0.078	0.231
cg02958843	yellow	1	218,517,419	N_Shore		0.600	-0.008	0.833	0.307
cg02295216	yellow	16	66,585,210 TSS1500	N_Shore	CKLF	0.600	-0.016	0.539	0.303
cg15356660	yellow	7	23,456,368 Body	S_Shore	IGF2BP3	0.600	0.007	0.942	0.214
cg00300637	yellow	5	319,433 Body	N_Shore	AHRR	0.600	0.013	0.615	0.092
cg24557917	yellow	4	165,980,112 TSS200	OpenSea	TRIM75	0.600	0.006	0.560	0.504
cg17273415	yellow	1	247,373,510	N_Shore		0.600	-0.004	0.080	0.480
cg22716368	yellow	1	29,045,698	OpenSea		0.600	0.004	0.744	0.627
cg27266824	yellow	14	94,944,009 TSS1500	OpenSea	SERPINA9	0.600	0.001	0.612	0.897
cg11235259	yellow	19	47,526,657 Body	S_Shore	NPAS1	0.599	0.000	0.231	0.991
cg24079381	yellow	17	77,115,473 5'UTR	OpenSea	HRNBP3	0.599	0.006	0.662	0.325
cg22856972	yellow	6	134,275,178 5'UTR	S_Shore	TBPL1	0.599	0.007	0.062	0.230
cg18817654	yellow	15	39,485,138	OpenSea		0.599	-0.005	0.901	0.470
cg08432075	yellow	6	31,636,301 Body	S_Shelf	CSNK2B	0.599	-0.001	0.856	0.825
cg10204884	yellow	21	47,319,304 Body	S_Shore	PCBP3	0.599	0.001	0.586	0.922
cg00738387	yellow	6	150,066,836 Body	N_Shore	NUP43	0.599	0.008	0.190	0.352
cg03707599	yellow	7	75,956,931 3'UTR	N_Shore	YWHAG	0.599	-0.016	0.523	0.342
cg19256368	yellow	15	83,619,037 Body	N_Shore	HOMER2	0.599	0.002	0.743	0.856
cg12855851	yellow	6	41,715,185 TSS200	OpenSea	PGC	0.599	0.003	0.650	0.569
cg25954512	yellow	6	33,283,021 Body	Island	ZBTB22	0.599	0.013	0.616	0.131
cg27368243	yellow	21	46,955,566 Body	N_Shore	SLC19A1	0.599	0.001	0.827	0.862
cg22137471	yellow	2	46,768,030	N_Shore		0.599	0.005	0.452	0.564
cg19992375	yellow	12	65,067,877 Body	OpenSea	RASSF3	0.599	-0.006	0.788	0.583
cg09938876	yellow	1	7,913,865 TSS1500	OpenSea	UTS2	0.599	-0.019	0.824	0.069
cg07753366	yellow	5	52,598,132	OpenSea		0.599	0.016	0.829	0.389
cg14288464	yellow	20	43,743,301 Body	OpenSea	WFDC5	0.599	0.010	0.661	0.061
cg22128645	yellow	1	93,425,802 Body	N_Shore	FAM69A	0.599	0.002	0.796	0.846
cg21971807	yellow	20	57,471,654 Body	S_Shelf	GNAS	0.599	0.002	0.637	0.912
cg13878136	yellow	1	61,948,305	OpenSea		0.599	0.011	0.812	0.185
cg17969579	yellow	8	9,416,736 Body	S_Shelf	TNKS	0.599	-0.019	0.547	0.120
cg03052182	yellow	6	30,653,530 Body	N_Shore	KIAA1949	0.599	0.008	0.681	0.214
cg05218245	yellow	6	31,683,352 Body	OpenSea	LY6G6D	0.599	0.010	0.794	0.280
cg14171527	yellow	21	44,473,840 3'UTR	Island	CBS	0.599	-0.010	0.754	0.222
cg23044186	yellow	5	141,228,416	N_Shore		0.599	0.010	0.436	0.107

cg17612535	yellow	5	932,900	OpenSea		0.599	0.006	0.469	0.369
cg05292478	yellow	7	98,742,398 TSS1500	S_Shore	SMURF1	0.599	0.012	0.745	0.263
cg15398152	yellow	6	32,016,535 Body	OpenSea	TNXB	0.599	0.011	0.295	0.165
cg23482898	yellow	3	12,858,887 Body	S_Shelf	CAND2	0.599	0.010	0.863	0.086
cg02501166	yellow	12	128,866,698 Body	OpenSea	TMEM132C	0.599	0.020	0.163	0.158
cg01573121	yellow	21	34,863,117 5'UTR	N_Shore	DNAJC28	0.599	0.001	0.927	0.840
cg25090604	yellow	13	113,470,339 Body	N_Shelf	ATP11A	0.599	0.000	0.731	0.959
cg13290149	yellow	20	61,002,739 TSS200	OpenSea	C20orf151	0.599	0.006	0.582	0.324
cg27399481	yellow	17	78,069,245 Body	OpenSea	CCDC40	0.599	-0.005	0.832	0.523
cg00710466	yellow	2	3,290,128 Body	N_Shore	TSSC1	0.599	0.015	0.605	0.006
cg03010018	yellow	11	116,708,299 5'UTR	S_Shore	APOA1	0.599	0.012	0.582	0.139
cg23462687	yellow	2	240,060,883 Body	N_Shore	HDAC4	0.599	0.006	0.939	0.246
cg09274658	yellow	21	45,726,274 Body	N_Shelf	PFKL	0.599	0.003	0.851	0.635
cg06617217	yellow	12	56,708,578 Body	N_Shore	CNPY2	0.599	-0.009	0.878	0.237
cg16984812	yellow	2	43,863,456 TSS1500	N_Shore	PLEKHH2	0.599	-0.016	0.924	0.089
cg21438252	yellow	1	28,904,846 Body	N_Shelf	TRNAU1AP	0.599	0.016	0.791	0.169
cg13580749	yellow	9	102,181,570	OpenSea		0.599	0.006	0.560	0.641
cg11853963	yellow	17	72,890,518 TSS1500	S_Shore	FADS6	0.599	0.012	0.618	0.071
cg22512830	yellow	13	108,110,276 Body	OpenSea	FAM155A	0.599	-0.006	0.198	0.544
cg24760819	yellow	14	91,980,788	S_Shelf		0.599	0.005	0.958	0.125
cg21104971	yellow	4	24,647,197	OpenSea		0.599	-0.003	0.734	0.884
cg17146694	yellow	2	62,734,857 TSS1500	S_Shore	TMEM17	0.599	0.000	0.868	0.988
cg00832457	yellow	12	32,287,236 Body	OpenSea	BICD1	0.599	0.010	0.803	0.268
cg14806752	yellow	7	998,808	OpenSea		0.599	-0.010	0.335	0.269
cg05548425	yellow	17	1,553,415 TSS200	S_Shore	RILP	0.599	-0.008	0.822	0.510
cg15797314	yellow	17	65,437,724 Body	OpenSea	PITPNC1	0.599	0.026	0.611	0.006
cg27248364	yellow	7	800,707 Body	S_Shelf	HEATR2	0.599	0.002	0.936	0.647
cg24446009	yellow	12	124,904,701 Body	S_Shelf	NCOR2	0.599	-0.002	0.855	0.726
cg08247612	yellow	1	160,336,486 TSS1500	OpenSea	NHLH1	0.599	0.008	0.663	0.291
cg24487489	yellow	6	33,384,337 3'UTR	N_Shore	CUTA	0.599	-0.020	0.586	0.046
cg09074223	yellow	1	210,466,472	S_Shore		0.599	0.015	0.352	0.218
cg06255676	yellow	17	76,498,943 Body	Island	DNAH17	0.599	0.001	0.795	0.921
cg14884445	yellow	3	185,306,797 Body	S_Shelf	SEN2P2	0.599	-0.006	0.956	0.034
cg16118803	yellow	6	29,629,716 Body	OpenSea	MOG	0.599	0.006	0.315	0.376
cg00744431	yellow	10	134,226,547 3'UTR	OpenSea	PWWP2B	0.599	0.007	0.673	0.150
cg13547559	yellow	1	85,960,789 5'UTR	OpenSea	DDAH1	0.598	-0.007	0.375	0.521
cg06986263	yellow	1	42,609,124	N_Shelf		0.598	0.005	0.387	0.511
cg26365254	yellow	1	157,952,118	S_Shelf		0.598	-0.005	0.674	0.522
cg21313810	yellow	6	25,061,773	OpenSea		0.598	0.015	0.447	0.100
cg09807875	yellow	7	34,136,112 Body	OpenSea	BMPER	0.598	0.006	0.133	0.523
cg03724728	yellow	17	38,231,199 Body	OpenSea	THRA	0.598	0.000	0.930	0.983
cg12096487	yellow	17	7,381,683 5'UTR	N_Shore	ZBTB4	0.598	0.024	0.622	0.128
cg08772206	yellow	10	82,297,793 5'UTR	S_Shore	SH2D4B	0.598	0.004	0.738	0.586
cg24438423	yellow	17	40,171,937 TSS200	Island	NKIRAS2	0.598	-0.001	0.128	0.827
cg26130533	yellow	4	1,202,700 TSS200	N_Shore	LOC1001308	0.598	-0.010	0.885	0.183
cg25636466	yellow	6	46,652,700	N_Shelf		0.598	0.015	0.750	0.339
cg02658272	yellow	19	18,546,719 Body	Island	ISYNA1	0.598	0.005	0.759	0.427
cg00358213	yellow	2	225,907,631 TSS1500	S_Shore	DOCK10	0.598	0.017	0.085	0.030
cg07224114	yellow	6	146,756,333 3'UTR	S_Shore	GRM1	0.598	0.005	0.649	0.555
cg20176971	yellow	11	111,389,645 Body	S_Shelf	C11orf88	0.598	0.004	0.666	0.532
cg26342181	yellow	5	165,840,284	OpenSea		0.598	-0.002	0.898	0.689
cg25692785	yellow	3	32,023,996 5'UTR	S_Shore	ZNF860	0.598	0.009	0.657	0.289
cg26893134	yellow	6	116,381,904 1stExon	OpenSea	FRK	0.598	0.029	0.432	0.174
cg20203400	yellow	2	103,378,474 TSS200	OpenSea	TMEM182	0.598	0.006	0.851	0.541
cg27508002	yellow	13	37,454,023 5'UTR	OpenSea	SMAD9	0.598	0.001	0.795	0.861
cg22929506	yellow	2	219,137,490 3'UTR	S_Shelf	PNKD	0.598	0.016	0.272	0.177
cg21561492	yellow	2	223,916,861 1stExon	N_Shore	KCNE4	0.598	0.002	0.228	0.850
cg21858961	yellow	6	52,148,119 Body	N_Shore	MCM3	0.598	0.010	0.764	0.334
cg06217504	yellow	4	147,056,211	OpenSea		0.598	0.003	0.782	0.727
cg04006266	yellow	11	66,300,458 3'UTR	OpenSea	BBS1	0.598	0.006	0.554	0.429
cg07297068	yellow	8	6,691,691 Body	N_Shore	XKR5	0.598	0.003	0.670	0.703
cg02528159	yellow	16	3,021,099 Body	S_Shore	PAQR4	0.598	0.009	0.532	0.099
cg15508262	yellow	3	47,327,681 Body	S_Shelf	KLHL18	0.598	0.000	0.847	0.993
cg26091981	yellow	2	136,594,866 TSS200	OpenSea	LCT	0.598	0.000	0.951	0.941
cg05005077	yellow	1	247,276,966 TSS1500	S_Shore	C1orf229	0.598	0.010	0.518	0.353
cg23019565	yellow	1	54,144,343 5'UTR	OpenSea	GLIS1	0.598	0.002	0.521	0.867
cg25594549	yellow	19	16,740,308 TSS1500	S_Shore	MED26	0.598	0.002	0.034	0.408

cg08019798	yellow	2	1,286,216	Body	N_Shore	SNTG2	0.598	0.007	0.621	0.614
cg02773868	yellow	6	30,522,774	Body	N_Shore	GNL1	0.598	0.008	0.641	0.258
cg08762432	yellow	10	21,358,991	Body	OpenSea	NEBL	0.598	-0.003	0.226	0.692
cg19661309	yellow	7	16,677,240	Body	OpenSea	ANKMY2	0.598	-0.012	0.630	0.406
cg08147813	yellow	6	17,102,936		S_Shore		0.598	-0.005	0.734	0.610
cg20618005	yellow	19	47,113,209	3'UTR	OpenSea	CALM3	0.598	0.011	0.889	0.180
cg25623099	yellow	2	216,220,018		OpenSea		0.598	0.012	0.776	0.228
cg01326206	yellow	3	47,845,672	5'UTR	S_Shore	DHX30	0.598	-0.012	0.906	0.063
cg22027399	yellow	19	15,217,635	TSS1500	N_Shore	SYDE1	0.598	0.004	0.102	0.483
cg27657532	yellow	19	2,923,847		N_Shelf		0.598	0.033	0.603	0.008
cg13325904	yellow	5	3,311,313		OpenSea		0.598	0.002	0.629	0.864
cg10522641	yellow	14	22,890,836		OpenSea		0.598	0.006	0.855	0.410
cg20265748	yellow	14	89,017,615	5'UTR	N_Shore	PTPN21	0.598	0.011	0.315	0.254
cg12635463	yellow	6	163,607,896	Body	OpenSea	PACRG	0.598	0.002	0.835	0.759
cg19873496	yellow	3	197,105,397		OpenSea		0.598	0.018	0.657	0.068
cg03230858	yellow	19	751,124	TSS200	S_Shelf	C19orf21	0.598	0.008	0.584	0.248
cg19614811	yellow	3	98,250,723	TSS200	OpenSea	GPR15	0.598	0.010	0.869	0.207
cg08293097	yellow	17	17,682,641	Body	N_Shelf	SMCR5	0.598	0.006	0.628	0.502
cg20826162	yellow	1	3,511,710	Body	Island	MEGF6	0.598	0.010	0.852	0.211
cg11961845	yellow	7	129,008,179	1stExon	OpenSea	AHCYL2	0.598	-0.003	0.200	0.626
cg17357561	yellow	19	807,322	Body	Island	PTBP1	0.598	0.010	0.893	0.152
cg08985766	yellow	4	55,521,379		N_Shelf		0.598	-0.006	0.905	0.346
cg03787603	yellow	7	101,768,610	Body	OpenSea	CUX1	0.598	0.002	0.641	0.836
cg19275133	yellow	11	128,812,913	TSS200	OpenSea	TP53AIP1	0.598	-0.001	0.708	0.956
cg11451801	yellow	16	67,970,768	TSS200	S_Shore	PSMB10	0.598	-0.001	0.028	0.669
cg04554272	yellow	16	1,013,990	Body	N_Shore	LMF1	0.598	0.010	0.617	0.318
cg23083424	yellow	10	75,415,875	TSS200	OpenSea	SYNPO2L	0.598	0.006	0.636	0.265
cg13048903	yellow	13	21,755,056		S_Shelf		0.598	0.005	0.693	0.672
cg25692669	yellow	5	1,318,258	3'UTR	OpenSea	CLPTM1L	0.598	0.006	0.796	0.485
cg09179903	yellow	1	38,441,497	Body	OpenSea	SF3A3	0.597	0.000	0.827	0.950
cg15315056	yellow	3	184,504,579		OpenSea		0.597	0.013	0.462	0.087
cg13521620	yellow	17	57,410,687	5'UTR	S_Shore	YPEL2	0.597	-0.002	0.797	0.812
cg03061960	yellow	9	40,791,476	5'UTR	N_Shore	ZNF658	0.597	0.002	0.123	0.723
cg12465251	yellow	8	29,178,002		OpenSea		0.597	0.004	0.029	0.068
cg15689513	yellow	17	1,634,263	Body	N_Shelf	WDR81	0.597	0.000	0.860	0.980
cg02561726	yellow	2	183,943,938	Body	OpenSea	DUSP19	0.597	0.000	0.206	0.987
cg01433677	yellow	16	30,365,840	Body	N_Shore	CD2BP2	0.597	0.009	0.196	0.077
cg24855045	yellow	10	18,938,449	Body	N_Shelf	NSUN6	0.597	-0.004	0.573	0.585
cg04257752	yellow	21	46,077,454	Body	OpenSea	C21orf29	0.597	0.006	0.495	0.503
cg01812328	yellow	2	211,091,510	TSS1500	S_Shore	ACADL	0.597	0.012	0.835	0.212
cg21011621	yellow	17	48,471,643	Body	N_Shelf	LRRCS9	0.597	0.011	0.885	0.089
cg02675546	yellow	8	29,292,730		OpenSea		0.597	-0.002	0.763	0.811
cg04403049	yellow	14	68,133,392	Body	OpenSea	VTI1B	0.597	-0.001	0.907	0.835
cg24801835	yellow	10	60,217,545		OpenSea		0.597	0.005	0.578	0.694
cg06980460	yellow	11	49,230,548	TSS1500	S_Shore	FOLH1	0.597	-0.004	0.963	0.264
cg26664254	yellow	10	131,589,189		N_Shelf		0.597	0.000	0.704	0.994
cg04125586	yellow	1	201,982,404	Body	OpenSea	ELF3	0.597	0.000	0.895	0.962
cg12252868	yellow	2	112,383,396		OpenSea		0.597	-0.007	0.833	0.417
cg08092050	yellow	15	78,734,858	Body	S_Shelf	IREB2	0.597	-0.005	0.941	0.421
cg23037321	yellow	1	181,003,203	1stExon	OpenSea	MR1	0.597	0.011	0.890	0.190
cg27598017	yellow	4	104,119,803	TSS1500	S_Shore	CENPE	0.597	-0.001	0.113	0.862
cg05575304	yellow	3	11,607,115	Body	N_Shelf	VGLL4	0.597	0.007	0.869	0.211
cg24552844	yellow	11	118,085,281	Body	OpenSea	AMICA1	0.597	-0.006	0.658	0.471
cg12528835	yellow	19	50,001,058	Body	S_Shore	RPS11	0.597	-0.008	0.891	0.314
cg03721175	yellow	5	173,390,427		OpenSea		0.597	0.025	0.531	0.123
cg07201475	yellow	2	151,768,348		OpenSea		0.597	0.016	0.775	0.278
cg23683201	yellow	11	63,137,152	TSS200	OpenSea	SLC22A9	0.597	-0.015	0.801	0.078
cg09500738	yellow	15	87,911,464		OpenSea		0.597	-0.004	0.846	0.568
cg05671636	yellow	5	179,401,436	Body	OpenSea	RNF130	0.597	0.011	0.727	0.170
cg10939004	yellow	3	194,072,233	TSS200	OpenSea	CPN2	0.597	0.017	0.580	0.034
cg03971454	yellow	1	43,770,557	Body	Island	TIE1	0.597	0.008	0.694	0.217
cg23670353	yellow	1	59,833,489	Body	OpenSea	FGGY	0.597	0.008	0.222	0.247
cg01179320	yellow	15	31,428,597		OpenSea		0.597	-0.013	0.667	0.141
cg21416692	yellow	1	33,803,805	5'UTR	OpenSea	PHC2	0.597	0.006	0.350	0.292
cg14553504	yellow	3	169,898,657	Body	N_Shore	PHC3	0.597	0.009	0.086	0.122
cg16908215	yellow	7	150,440,016	Body	OpenSea	GIMAP5	0.597	0.007	0.916	0.260
cg06430102	yellow	19	1,151,960	Body	N_Shore	SBN02	0.597	-0.004	0.842	0.608

cg24341059	yellow	8	121,604,940	Body	OpenSea	SNTB1	0.597	0.006	0.898	0.511
cg15721448	yellow	8	144,239,503	3'UTR	N_Shore	LY6H	0.597	0.012	0.452	0.073
cg13144588	yellow	19	3,969,950	TSS200	N_Shore	DAPK3	0.597	0.002	0.033	0.384
cg09748749	yellow	7	65,540,429	TSS1500	N_Shore	ASL	0.597	0.003	0.706	0.785
cg09950208	yellow	10	130,841,235		OpenSea		0.597	0.006	0.865	0.504
cg17043230	yellow	12	3,427,729		OpenSea		0.597	0.033	0.830	0.002
cg19788754	yellow	17	80,847,662	Body	OpenSea	TBCD	0.597	0.003	0.676	0.658
cg27265617	yellow	3	10,371,553	Body	S_Shore	ATP2B2	0.597	-0.007	0.550	0.145
cg26930408	yellow	10	50,340,100	Body	Island	FAM170B	0.597	0.012	0.827	0.097
cg13176454	yellow	8	134,462,547		OpenSea		0.597	0.009	0.776	0.215
cg14304336	yellow	10	128,152,094	Body	OpenSea	C10orf90	0.597	0.001	0.635	0.883
cg08426891	yellow	11	4,686,966		OpenSea		0.597	0.007	0.873	0.454
cg22013966	yellow	14	95,106,170	TSS1500	OpenSea	SERPINA13	0.597	0.010	0.598	0.108
cg15484406	yellow	14	94,461,913		OpenSea		0.597	0.012	0.309	0.276
cg21566086	yellow	16	28,509,314	Body	Island	APOB48R	0.597	0.009	0.619	0.210
cg20437276	yellow	6	33,129,085		N_Shore		0.597	0.017	0.199	0.158
cg09541834	yellow	4	26,575,624		OpenSea		0.597	0.000	0.959	0.976
cg02109704	yellow	5	1,721,452		N_Shelf		0.596	-0.004	0.815	0.636
cg20809067	yellow	17	4,166,410	Body	N_Shore	ANKFY1	0.596	0.001	0.098	0.781
cg08297393	yellow	2	100,937,505	Body	N_Shore	LONRF2	0.596	0.008	0.627	0.527
cg25636556	yellow	4	3,505,128		Island		0.596	0.001	0.771	0.914
cg18595258	yellow	11	61,128,572	TSS1500	N_Shore	TMEM138	0.596	0.010	0.747	0.345
cg11300147	yellow	12	7,596,703	1stExon	S_Shelf	CD163L1	0.596	-0.004	0.820	0.716
cg16233920	yellow	3	47,621,797	TSS1500	S_Shore	CSPG5	0.596	0.009	0.744	0.421
cg03633120	yellow	19	8,387,262	TSS1500	S_Shore	NDUFA7	0.596	0.008	0.204	0.360
cg14903331	yellow	7	28,943,581		OpenSea		0.596	0.006	0.702	0.694
cg07780377	yellow	11	77,939,490	Body	OpenSea	GAB2	0.596	0.007	0.426	0.348
cg05694290	yellow	12	123,334,513	Body	OpenSea	HIP1R	0.596	0.014	0.765	0.016
cg18920289	yellow	20	447,168		S_Shelf		0.596	-0.006	0.898	0.626
cg26698693	yellow	16	69,168,101	Body	S_Shore	CIRH1A	0.596	0.003	0.705	0.696
cg10911844	yellow	4	1,230,262	Body	N_Shore	CTBP1	0.596	0.004	0.936	0.314
cg05996160	yellow	2	16,124,662		OpenSea		0.596	0.013	0.665	0.162
cg17020895	yellow	12	3,423,790		OpenSea		0.596	0.009	0.244	0.226
cg01921423	yellow	4	39,452,766	3'UTR	S_Shelf	KLB	0.596	-0.007	0.866	0.630
cg27213800	yellow	6	32,976,858	Body	S_Shore	HLA-DOA	0.596	0.008	0.568	0.325
cg15609272	yellow	5	159,894,868		OpenSea		0.596	-0.001	0.417	0.887
cg00789143	yellow	14	98,013,058		OpenSea		0.596	-0.002	0.679	0.751
cg22016859	yellow	22	50,750,549	3'UTR	OpenSea	FAM116B	0.596	0.018	0.526	0.013
cg06098801	yellow	16	19,097,036		N_Shore		0.596	0.005	0.591	0.701
cg08892455	yellow	17	1,231,715		S_Shelf		0.596	0.006	0.701	0.532
cg25131771	yellow	14	104,621,867	Body	Island	KIF26A	0.596	0.001	0.784	0.909
cg17609330	yellow	22	23,503,927	3'UTR	OpenSea	RAB36	0.596	0.005	0.735	0.493
cg27254852	yellow	17	1,421,079	Body	S_Shore	LOC10030691	0.596	0.012	0.798	0.319
cg01223673	yellow	11	15,133,828	TSS200	N_Shelf	INSC	0.596	0.004	0.505	0.665
cg16332493	yellow	17	47,568,480		N_Shelf		0.596	0.007	0.714	0.282
cg10256790	yellow	3	133,618,896		S_Shelf		0.596	-0.002	0.884	0.793
cg17519280	yellow	5	115,175,001	Body	N_Shelf	ATG12	0.596	0.017	0.304	0.260
cg17056607	yellow	17	72,709,096	5'UTR	OpenSea	CD300LF	0.596	-0.002	0.599	0.805
cg01401365	yellow	15	75,314,761	TSS1500	N_Shore	PPCDC	0.596	0.005	0.903	0.370
cg21157923	yellow	9	139,637,747	TSS1500	N_Shelf	LCN10	0.596	0.011	0.647	0.167
cg27589594	yellow	17	18,871,182	Body	N_Shelf	SLC5A10	0.596	0.004	0.614	0.570
cg17446896	yellow	6	27,841,633	TSS1500	S_Shore	HIST1H4L	0.596	0.007	0.046	0.053
cg06538684	yellow	12	12,511,223	TSS1500	S_Shore	LOH12CR2	0.596	0.009	0.530	0.281
cg25530299	yellow	10	71,817,255	5'UTR	S_Shelf	H2AFY2	0.596	0.005	0.655	0.670
cg18244100	yellow	6	31,935,801	Body	N_Shelf	SKIV2L	0.596	0.006	0.819	0.323
cg19877103	yellow	8	143,851,371	TSS200	OpenSea	LYNX1	0.596	-0.002	0.856	0.865
cg02465761	yellow	8	6,735,510	5'UTR	OpenSea	DEFB1	0.596	0.004	0.304	0.647
cg10675725	yellow	8	144,640,310	TSS200	N_Shore	GSDMD	0.596	0.011	0.262	0.105
cg03839714	yellow	10	31,361,534		OpenSea		0.596	0.004	0.807	0.790
cg08384146	yellow	17	77,982,400	Body	N_Shore	TBC1D16	0.596	-0.001	0.151	0.910
cg17777683	yellow	2	201,986,522	5'UTR	S_Shelf	CFLAR	0.596	0.000	0.829	0.980
cg00259367	yellow	1	21,057,579	5'UTR	N_Shore	SH2D5	0.596	0.010	0.586	0.098
cg26132363	yellow	20	58,294,865	TSS1500	OpenSea	PHACTR3	0.596	0.015	0.778	0.202
cg21519654	yellow	12	6,289,847		OpenSea		0.596	-0.011	0.397	0.335
cg05709437	yellow	1	186,426,136	5'UTR	OpenSea	PDC	0.596	-0.001	0.867	0.931
cg18911129	yellow	12	56,470,635		N_Shelf		0.596	0.004	0.893	0.489
cg22499809	yellow	19	5,692,622	Body	N_Shore	LONP1	0.596	0.001	0.804	0.847



cg12019650	yellow	11	45,928,841	TSS200	OpenSea	C11orf94	0.596	0.007	0.849	0.292
cg01792616	yellow	16	4,289,562	Body	OpenSea	SRL	0.596	0.002	0.531	0.801
cg19815634	yellow	12	6,280,998		OpenSea		0.596	0.004	0.833	0.450
cg11614513	yellow	3	48,193,276		OpenSea		0.596	0.002	0.126	0.783
cg16745104	yellow	20	62,550,415	TSS1500	N_Shore	MIR941-1	0.596	0.005	0.912	0.486
cg15346842	yellow	2	59,477,066		OpenSea		0.596	-0.007	0.187	0.446
cg12012886	yellow	7	92,168,191	Body	OpenSea	MGC16142	0.596	0.000	0.806	0.952
cg26068654	yellow	1	109,505,079	5'UTR	N_Shore	CLCC1	0.596	0.004	0.884	0.580
cg00036324	yellow	10	134,693,667		S_Shore		0.596	0.006	0.725	0.406
cg17813670	yellow	1	235,301,919	Body	OpenSea	RBM34	0.596	-0.007	0.810	0.377
cg13912027	yellow	11	72,759,293	Body	OpenSea	FCHSD2	0.595	0.007	0.770	0.392
cg14188862	yellow	9	131,799,655	5'UTR	S_Shore	FAM73B	0.595	0.005	0.295	0.478
cg17418055	yellow	20	30,061,002	TSS200	N_Shore	DEFB124	0.595	0.015	0.343	0.040
cg01044580	yellow	14	21,900,820	TSS1500	OpenSea	CHD8	0.595	0.000	0.872	0.983
cg18229071	yellow	19	2,695,245	5'UTR	OpenSea	GNG7	0.595	0.016	0.507	0.024
cg02560638	yellow	16	80,574,580	TSS1500	N_Shore	DYNLRB2	0.595	0.000	0.033	0.998
cg25928742	yellow	2	96,013,921	Body	S_Shore	KCNIP3	0.595	0.002	0.621	0.714
cg08123045	yellow	1	156,467,188	5'UTR	N_Shelf	MEF2D	0.595	-0.002	0.876	0.773
cg04337651	yellow	2	239,344,738	Body	S_Shore	ASB1	0.595	-0.001	0.863	0.879
cg21222426	yellow	9	20,339,790		OpenSea		0.595	0.004	0.711	0.731
cg07260849	yellow	6	37,621,232	Body	S_Shelf	MDGA1	0.595	0.001	0.309	0.934
cg11729363	yellow	3	183,271,175	Body	OpenSea	KLHL6	0.595	0.003	0.909	0.674
cg03220734	yellow	16	832,841	Body	Island	MSLNL	0.595	-0.004	0.806	0.613
cg01795959	yellow	1	47,486,850		N_Shelf		0.595	0.001	0.917	0.936
cg22953267	yellow	6	30,541,653	Body	S_Shelf	ABCF1	0.595	-0.003	0.826	0.704
cg21100638	yellow	17	4,337,082	TSS200	OpenSea	SPNS3	0.595	0.003	0.641	0.736
cg27660076	yellow	5	138,677,208	TSS1500	N_Shore	PAIP2	0.595	0.005	0.052	0.087
cg17296707	yellow	1	212,684,363		N_Shelf		0.595	-0.001	0.542	0.872
cg13608034	yellow	9	134,762,160	Body	OpenSea	MED27	0.595	0.002	0.837	0.906
cg15538103	yellow	14	81,286,861	Body	OpenSea	C14orf145	0.595	0.001	0.936	0.804
cg04469731	yellow	11	129,992,359	Body	N_Shore	APLP2	0.595	-0.003	0.794	0.665
cg05258294	yellow	16	2,049,878	Body	S_Shore	ZNF598	0.595	0.014	0.777	0.396
cg14410964	yellow	9	139,427,106	Body	N_Shore	NOTCH1	0.595	0.002	0.885	0.767
cg21188652	yellow	2	219,435,559	Body	S_Shore	RQCD1	0.595	0.003	0.195	0.826
cg01382105	yellow	13	113,406,866	Body	N_Shelf	ATP11A	0.595	-0.016	0.741	0.185
cg25737169	yellow	15	86,107,540	Body	OpenSea	AKAP13	0.595	0.003	0.928	0.613
cg01585567	yellow	2	138,975,385		OpenSea		0.595	0.007	0.582	0.612
cg21646082	yellow	1	26,603,970	3'UTR	N_Shelf	CCDC21	0.595	0.002	0.669	0.748
cg17579753	yellow	17	34,079,998	TSS200	OpenSea	GAS2L2	0.595	0.011	0.398	0.193
cg15553391	yellow	6	166,260,456		OpenSea		0.595	0.011	0.663	0.359
cg02198051	yellow	16	30,674,811	TSS1500	S_Shelf	FBR5	0.595	-0.016	0.607	0.230
cg12378449	yellow	11	66,627,382	Body	N_Shore	PC	0.595	0.010	0.749	0.128
cg24490529	yellow	7	4,279,385	Body	OpenSea	SDK1	0.595	0.005	0.730	0.526
cg04870949	yellow	13	114,109,857		OpenSea		0.595	0.007	0.669	0.311
cg18532308	yellow	19	8,642,308	TSS200	OpenSea	MYO1F	0.595	0.003	0.403	0.712
cg05723179	yellow	7	137,671,793	Body	OpenSea	CREB3L2	0.595	0.018	0.562	0.050
cg04999691	yellow	7	150,027,050	5'UTR	OpenSea	C7orf29	0.595	0.016	0.486	0.056
cg27646205	yellow	19	11,545,491	Body	N_Shore	CCDC151	0.595	0.014	0.617	0.131
cg04141948	yellow	7	1,023,156	Body	N_Shore	CYP2W1	0.595	-0.016	0.829	0.253
cg20460366	yellow	20	44,934,032		N_Shore		0.595	-0.009	0.770	0.152
cg06876872	yellow	1	202,110,290	Body	N_Shelf	ARL8A	0.595	-0.002	0.949	0.553
cg00917181	yellow	17	76,925,901		S_Shelf		0.595	-0.002	0.624	0.787
cg21201109	yellow	19	11,307,090	5'UTR	N_Shore	KANK2	0.595	0.014	0.674	0.130
cg03408904	yellow	22	17,956,462	TSS200	OpenSea	CECR2	0.595	-0.013	0.253	0.073
cg07639783	yellow	7	1,610,747	TSS1500	S_Shore	PSMG3	0.595	-0.006	0.888	0.325
cg14537800	yellow	4	15,964,950	TSS200	OpenSea	FGFBP2	0.595	0.000	0.263	0.997
cg20148389	yellow	13	41,053,543	Body	OpenSea	LOC646982	0.595	0.011	0.586	0.065
cg13774987	yellow	2	228,579,338	5'UTR	N_Shelf	SLC19A3	0.595	-0.014	0.619	0.175
cg16811988	yellow	3	42,103,138		OpenSea		0.595	0.030	0.270	0.035
cg08123528	yellow	3	72,438,132	Body	OpenSea	RYBP	0.595	-0.012	0.823	0.143
cg07700843	yellow	1	2,391,317		S_Shelf		0.595	-0.001	0.582	0.971
cg10380221	yellow	16	31,075,618	Body	Island	ZNF668	0.594	0.006	0.776	0.430
cg02238747	yellow	10	99,161,279	TSS200	S_Shore	RRP12	0.594	-0.003	0.179	0.624
cg01379344	yellow	17	70,609,699		OpenSea		0.594	0.007	0.379	0.243
cg03088328	yellow	22	50,874,154	Body	N_Shore	SAPS2	0.594	0.020	0.696	0.005
cg07185854	yellow	16	65,071,589	5'UTR	OpenSea	CDH11	0.594	-0.001	0.492	0.796
cg02503763	yellow	3	127,542,386	TSS1500	S_Shore	MGLL	0.594	0.005	0.726	0.736

cg08442334	yellow	11	66,411,384	Body	Island	RBM4	0.594	0.003	0.701	0.695
cg05114959	yellow	22	50,148,372		S_Shelf		0.594	-0.006	0.566	0.472
cg15448721	yellow	6	30,045,041	TSS1500	S_Shore	RNF39	0.594	0.005	0.538	0.576
cg04592144	yellow	5	172,899,456		OpenSea		0.594	0.020	0.274	0.040
cg10382814	yellow	1	160,312,182	Body	N_Shore	COPA	0.594	0.027	0.197	0.008
cg01792640	yellow	3	195,600,916	Body	Island	TNK2	0.594	-0.012	0.789	0.083
cg00778880	yellow	1	217,803,552	Body	N_Shore	GPATCH2	0.594	0.007	0.574	0.472
cg15837333	yellow	12	64,519,179	Body	OpenSea	SRGAP1	0.594	-0.013	0.929	0.147
cg06615754	yellow	19	58,193,071	TSS1500	N_Shore	ZNF551	0.594	0.011	0.259	0.261
cg08862394	yellow	10	132,896,962	Body	S_Shelf	TCERG1L	0.594	0.009	0.637	0.196
cg15415462	yellow	14	90,092,049		OpenSea		0.594	0.000	0.306	0.994
cg23194776	yellow	5	143,026,910		OpenSea		0.594	0.005	0.825	0.496
cg01985396	yellow	6	39,760,833	1stExon	S_Shore	DAAM2	0.594	0.014	0.206	0.104
cg16824126	yellow	22	41,626,394	Body	OpenSea	CHADL	0.594	0.008	0.674	0.179
cg02572956	yellow	7	150,934,823	Body	Island	CHPF2	0.594	0.002	0.851	0.666
cg16332577	yellow	17	37,886,349	Body	N_Shore	C17orf37	0.594	0.013	0.266	0.156
cg09360912	yellow	12	7,000,722		Island		0.594	0.005	0.082	0.300
cg14593033	yellow	17	56,296,980	TSS200	S_Shore	MKS1	0.594	-0.006	0.515	0.425
cg23731408	yellow	2	202,217,643	5'UTR	OpenSea	ALS2CR12	0.594	0.011	0.656	0.179
cg24899995	yellow	17	73,915,917	Body	S_Shore	FBF1	0.594	0.009	0.730	0.190
cg10422816	yellow	2	190,928,825	TSS1500	OpenSea	MSTN	0.594	0.001	0.893	0.835
cg02528189	yellow	8	140,931,333	Body	OpenSea	TRAPPC9	0.594	0.008	0.657	0.236
cg07422880	yellow	1	150,945,861	5'UTR	N_Shore	LASS2	0.594	0.001	0.305	0.873
cg06334667	yellow	3	9,777,198	Body	S_Shelf	BRPF1	0.594	-0.001	0.951	0.667
cg12794131	yellow	1	55,024,844	Body	OpenSea	ACOT11	0.594	0.003	0.943	0.368
cg26297808	yellow	7	1,372,924		S_Shelf		0.594	-0.001	0.366	0.815
cg01667384	yellow	19	49,977,266	TSS1500	OpenSea	FLT3LG	0.594	-0.001	0.044	0.759
cg23147373	yellow	14	64,954,212	Body	OpenSea	ZBTB25	0.594	0.007	0.790	0.407
cg15032897	yellow	19	16,219,947		N_Shelf		0.594	-0.002	0.780	0.861
cg24632646	yellow	5	506,343	Body	Island	SLC9A3	0.594	0.008	0.576	0.330
cg25247351	yellow	6	32,908,794	1stExon	OpenSea	HLA-DMB	0.594	0.006	0.080	0.383
cg12641024	yellow	17	40,070,691	5'UTR	N_Shelf	ACLY	0.594	-0.006	0.431	0.484
cg09804616	yellow	6	30,644,832	3'UTR	S_Shelf	KIAA1949	0.594	0.018	0.722	0.015
cg14473793	yellow	10	124,030,801	TSS200	OpenSea	BTBD16	0.594	-0.005	0.676	0.600
cg03184357	yellow	3	51,575,119	TSS1500	S_Shore	RAD54L2	0.594	-0.004	0.934	0.443
cg27005749	yellow	8	141,608,646	Body	OpenSea	EIF2C2	0.594	0.003	0.574	0.696
cg21044433	yellow	2	101,872,163	Body	S_Shelf	C2orf29	0.594	0.010	0.894	0.047
cg10132287	yellow	10	131,584,334		OpenSea		0.594	-0.003	0.650	0.861
cg07776931	yellow	3	126,135,051	Body	Island	CCDC37	0.594	0.001	0.496	0.945
cg23711867	yellow	22	24,701,817	Body	OpenSea	CYTA	0.594	-0.004	0.958	0.216
cg09158314	yellow	13	108,922,150	5'UTR	OpenSea	TNFSF13B	0.594	-0.002	0.245	0.715
cg00574278	yellow	16	89,735,878	Body	S_Shore	C16orf55	0.594	0.008	0.773	0.438
cg04159004	yellow	17	77,200,590	5'UTR	OpenSea	HRNBP3	0.594	-0.007	0.841	0.111
cg01457778	yellow	2	109,158,267		OpenSea		0.594	-0.001	0.390	0.948
cg03502215	yellow	3	9,436,950	Body	N_Shore	LOC440944	0.594	0.008	0.789	0.641
cg26405376	yellow	5	175,961,105	5'UTR	N_Shelf	RNF44	0.594	-0.002	0.124	0.793
cg16745596	yellow	19	39,695,801	TSS1500	S_Shore	SYCN	0.594	0.000	0.087	0.986
cg13956452	yellow	9	140,333,362	5'UTR	S_Shore	ENTPD8	0.594	0.001	0.781	0.908
cg23681440	yellow	13	27,498,239		OpenSea		0.594	-0.005	0.089	0.431
cg16123687	yellow	10	12,744,626	Body	OpenSea	CAMK1D	0.593	0.010	0.718	0.240
cg02019508	yellow	12	53,995,154	5'UTR	OpenSea	ATF7	0.593	-0.004	0.851	0.621
cg18814228	yellow	6	31,692,795	Body	S_Shore	C6orf25	0.593	0.007	0.893	0.262
cg11978890	yellow	16	1,048,069		Island		0.593	0.008	0.832	0.352
cg13292607	yellow	10	126,751,950	5'UTR	OpenSea	CTBP2	0.593	0.002	0.936	0.576
cg07465899	yellow	4	696,400		N_Shore		0.593	0.000	0.317	0.998
cg24545964	yellow	1	40,108,561		S_Shelf		0.593	0.007	0.552	0.361
cg01909242	yellow	12	130,498,375		OpenSea		0.593	0.014	0.398	0.055
cg07660494	yellow	2	216,966,036	3'UTR	OpenSea	TMEM169	0.593	0.005	0.869	0.413
cg17533142	yellow	13	48,572,949	Body	N_Shelf	SUCLA2	0.593	-0.006	0.924	0.392
cg17952468	yellow	20	57,874,942	TSS1500	N_Shore	EDN3	0.593	-0.005	0.223	0.318
cg11348653	yellow	5	137,824,182		N_Shelf		0.593	0.004	0.674	0.620
cg09697978	yellow	2	37,501,815	Body	OpenSea	PRKD3	0.593	-0.006	0.911	0.488
cg00436874	yellow	19	8,658,985	Body	S_Shore	ADAMTS10	0.593	0.001	0.742	0.947
cg06000610	yellow	7	157,623,118	Body	S_Shelf	PTPRN2	0.593	0.001	0.814	0.914
cg10966830	yellow	4	115,280,987		OpenSea		0.593	0.001	0.861	0.821
cg05683857	yellow	10	124,030,795	TSS200	OpenSea	BTBD16	0.593	0.004	0.467	0.643
cg03502979	yellow	13	114,103,628	Body	OpenSea	ADPRHL1	0.593	-0.011	0.606	0.230

cg26022010	yellow	8	63,895,823	Body	OpenSea	LOC643763	0.593	0.004	0.617	0.606
cg13534580	yellow	2	238,662,655	Body	OpenSea	LRRFIP1	0.593	-0.002	0.948	0.687
cg11430353	yellow	2	174,881,312		S_Shelf		0.593	0.007	0.859	0.085
cg00008695	yellow	8	960,721		N_Shore		0.593	0.005	0.825	0.529
cg23633330	yellow	1	207,510,679	Body	OpenSea	CD55	0.593	-0.003	0.452	0.673
cg22176143	yellow	4	652,891	Body	Island	PDE6B	0.593	0.011	0.714	0.246
cg08842287	yellow	16	3,747,018	Body	OpenSea	TRAP1	0.593	-0.010	0.883	0.450
cg02402565	yellow	15	57,590,030		OpenSea		0.593	-0.001	0.874	0.859
cg25012577	yellow	1	154,600,682	TSS1500	S_Shore	ADAR	0.593	-0.006	0.143	0.580
cg13685883	yellow	19	47,220,848	TSS1500	S_Shore	PRKD2	0.593	-0.002	0.083	0.690
cg16268473	yellow	17	8,771,003	TSS200	OpenSea	PIK3R6	0.593	0.006	0.531	0.420
cg25215194	yellow	1	3,706,322	Body	S_Shelf	LRRC47	0.593	0.007	0.733	0.310
cg02584267	yellow	10	131,682,251	Body	OpenSea	EBF3	0.593	-0.001	0.553	0.943
cg27426151	yellow	11	68,178,500	Body	N_Shore	LRP5	0.593	0.000	0.625	0.975
cg11887973	yellow	14	104,032,735	Body	S_Shelf	C14orf153	0.593	0.001	0.933	0.764
cg01900832	yellow	20	50,385,371	TSS1500	S_Shore	ATP9A	0.593	0.023	0.283	0.343
cg23943476	yellow	17	26,825,295		OpenSea		0.593	-0.001	0.554	0.858
cg04091555	yellow	4	79,417,584	Body	OpenSea	FRAS1	0.593	0.012	0.875	0.459
cg16137928	yellow	6	30,720,491		OpenSea		0.593	0.005	0.516	0.782
cg00033304	yellow	3	185,302,692	TSS1500	N_Shore	SEN2	0.593	0.013	0.797	0.192
cg02771230	yellow	20	57,569,986	3'UTR	OpenSea	TH1L	0.593	-0.006	0.787	0.320
cg14069287	yellow	4	169,631,613	Body	OpenSea	PALLD	0.593	0.001	0.438	0.889
cg24700929	yellow	12	114,855,417		S_Shelf		0.593	0.006	0.903	0.326
cg25415966	yellow	20	60,964,137	3'UTR	S_Shore	CABLES2	0.593	0.006	0.708	0.386
cg25062951	yellow	7	817,576	Body	S_Shelf	HEATR2	0.593	-0.003	0.844	0.651
cg20643675	yellow	19	54,173,727	TSS1500	OpenSea	MIR1323	0.593	0.010	0.619	0.266
cg05375680	yellow	17	53,521,504		OpenSea		0.593	0.000	0.805	0.958
cg01968002	yellow	15	75,941,357	5'UTR	S_Shore	SNX33	0.593	0.000	0.254	0.988
cg15996950	yellow	13	112,282,703		OpenSea		0.593	-0.003	0.578	0.586
cg26292442	yellow	19	10,693,912	Body	S_Shore	AP1M2	0.593	0.012	0.530	0.163
cg22514682	yellow	19	35,837,636	3'UTR	OpenSea	CD22	0.593	0.025	0.713	0.003
cg11335179	yellow	1	205,906,409	5'UTR	OpenSea	SLC26A9	0.593	0.006	0.706	0.385
cg06626359	yellow	14	94,173,261	3'UTR	OpenSea	KIAA1409	0.593	-0.001	0.542	0.904
cg20251225	yellow	1	1,609,551	Body	S_Shore	CDK11B	0.593	0.006	0.763	0.305
cg01019874	yellow	15	93,588,328	Body	Island	RGMA	0.592	0.008	0.795	0.272
cg19380793	yellow	7	111,079,100	Body	OpenSea	IMMP2L	0.592	0.009	0.502	0.177
cg08162389	yellow	1	53,686,989	TSS1500	S_Shore	C1orf123	0.592	0.002	0.824	0.811
cg08751913	yellow	6	18,387,077	TSS1500	N_Shore	RNF144B	0.592	-0.001	0.405	0.933
cg25897161	yellow	15	64,367,485	3'UTR	OpenSea	FAM96A	0.592	0.000	0.921	0.989
cg20373635	yellow	10	3,466,795		OpenSea		0.592	0.009	0.785	0.131
cg10736337	yellow	19	1,439,980	Body	Island	RPS15	0.592	0.003	0.811	0.633
cg19685398	yellow	12	117,299,508	3'UTR	OpenSea	HRK	0.592	0.014	0.696	0.188
cg20726804	yellow	2	85,553,966	Body	N_Shore	TGOLN2	0.592	-0.007	0.124	0.407
cg15319126	yellow	8	94,457,064		OpenSea		0.592	0.001	0.745	0.975
cg25561291	yellow	19	4,396,942	Body	N_Shelf	SH3GL1	0.592	0.002	0.541	0.805
cg22059438	yellow	8	145,641,882	Body	N_Shore	SLC39A4	0.592	0.009	0.717	0.349
cg01090161	yellow	6	34,032,747	Body	OpenSea	GRM4	0.592	0.007	0.424	0.261
cg07853489	yellow	3	183,411,982		N_Shelf		0.592	0.005	0.450	0.419
cg17771737	yellow	19	20,150,505	TSS1500	S_Shore	ZNF682	0.592	-0.003	0.085	0.794
cg00937359	yellow	6	86,350,540	Body	N_Shore	SYNCRIP	0.592	-0.008	0.142	0.256
cg25759533	yellow	19	6,232,399	Body	S_Shore	MLLT1	0.592	-0.003	0.890	0.550
cg26357820	yellow	6	33,161,849	3'UTR	S_Shore	RXRB	0.592	0.009	0.743	0.287
cg10801607	yellow	2	44,518,930	Body	OpenSea	SLC3A1	0.592	-0.002	0.055	0.710
cg11033617	yellow	5	179,562,118	Body	N_Shore	RASGEF1C	0.592	0.011	0.545	0.109
cg08700190	yellow	5	6,636,046	Body	S_Shore	SRD5A1	0.592	-0.007	0.811	0.595
cg22596860	yellow	3	14,719,326	5'UTR	OpenSea	C3orf20	0.592	0.007	0.772	0.244
cg14389169	yellow	4	130,016,074	TSS1500	S_Shore	SCLT1	0.592	0.001	0.913	0.879
cg04461197	yellow	3	172,635,656	Body	OpenSea	SPATA16	0.592	0.010	0.699	0.288
cg26224173	yellow	13	29,329,153		OpenSea		0.592	0.003	0.845	0.572
cg02399464	yellow	12	50,482,541	Body	S_Shelf	SMARCD1	0.592	-0.003	0.373	0.612
cg03660034	yellow	17	76,040,976	5'UTR	S_Shelf	TNRC6C	0.592	0.002	0.764	0.833
cg08220084	yellow	14	23,426,592	TSS1500	S_Shore	HAUS4	0.592	-0.011	0.136	0.241
cg16792071	yellow	10	134,842,795		N_Shore		0.592	0.004	0.818	0.366
cg11807356	yellow	11	71,736,227	Body	OpenSea	NUMA1	0.592	0.003	0.559	0.698
cg19327213	yellow	19	47,988,783	TSS1500	S_Shore	KPTN	0.592	-0.008	0.924	0.175
cg11034122	yellow	3	124,879,970	Body	OpenSea	SLC12A8	0.592	0.001	0.379	0.906
cg12136514	yellow	8	134,084,545	Body	OpenSea	TG	0.592	0.013	0.430	0.021

cg20060598	yellow	4	1,041,450	N_Shore		0.592	0.012	0.758	0.179
cg25043279	yellow	7	148,287,142 TSS1500	OpenSea	C7orf33	0.592	-0.006	0.894	0.406
cg07021810	yellow	6	28,830,041	N_Shore		0.592	0.000	0.551	0.993
cg12027899	yellow	11	58,385,947 3'UTR	OpenSea	ZFP91	0.592	-0.004	0.718	0.539
cg07136641	yellow	8	57,079,634 Body	OpenSea	PLAG1	0.592	-0.001	0.965	0.754
cg02076826	yellow	15	61,477,299 Body	OpenSea	RORA	0.592	-0.001	0.915	0.882
cg01789980	yellow	5	167,743,144 Body	OpenSea	WWC1	0.592	0.003	0.633	0.702
cg02627966	yellow	7	54,899,537	N_Shore		0.592	0.008	0.922	0.080
cg03200571	yellow	4	186,284,709 3'UTR	OpenSea	SNX25	0.592	-0.011	0.787	0.477
cg01441018	yellow	17	80,870,923 Body	N_Shore	TBCD	0.592	-0.001	0.781	0.817
cg26723132	yellow	16	15,149,090 Body	N_Shore	NTAN1	0.592	0.003	0.041	0.243
cg01185470	yellow	9	134,157,096	N_Shore		0.591	0.005	0.548	0.441
cg26012092	yellow	5	179,040,212	OpenSea		0.591	0.008	0.707	0.286
cg11251135	yellow	17	1,863,911 Body	OpenSea	RTN4RL1	0.591	0.005	0.425	0.472
cg04411661	yellow	19	13,922,943 Body	S_Shelf	ZSWIM4	0.591	0.003	0.866	0.632
cg14286335	yellow	11	68,433,833	N_Shelf		0.591	0.000	0.648	0.999
cg27588083	yellow	16	87,022,565	OpenSea		0.591	0.003	0.699	0.645
cg11700230	yellow	6	33,159,353 Body	N_Shore	COL11A2	0.591	0.003	0.165	0.748
cg11736020	yellow	6	30,651,511 Body	N_Shelf	KIAA1949	0.591	0.002	0.366	0.744
cg05325028	yellow	17	80,208,438 Body	Island	CSNK1D	0.591	-0.001	0.913	0.911
cg14394812	yellow	9	129,985,863	N_Shore		0.591	-0.001	0.777	0.902
cg07280097	yellow	3	128,779,601 TSS200	OpenSea	GP9	0.591	-0.002	0.855	0.767
cg08736918	yellow	1	9,241,615	N_Shore		0.591	0.004	0.094	0.486
cg17923945	yellow	5	159,656,366 Body	OpenSea	FABP6	0.591	0.009	0.643	0.332
cg05215481	yellow	2	2,773,529	Island		0.591	0.009	0.636	0.263
cg16469740	yellow	7	19,018,055 Body	OpenSea	HDAC9	0.591	-0.003	0.764	0.782
cg15847272	yellow	6	31,913,250 3'UTR	OpenSea	C2	0.591	0.015	0.588	0.027
cg17224837	yellow	10	15,148,638 3'UTR	OpenSea	NMT2	0.591	0.005	0.293	0.616
cg14926965	yellow	14	23,318,992	S_Shelf		0.591	0.007	0.525	0.340
cg09420993	yellow	16	2,114,026 Body	Island	TSC2	0.591	0.001	0.745	0.874
cg25306198	yellow	5	150,131,024 Body	OpenSea	DCTN4	0.591	-0.001	0.949	0.835
cg21210630	yellow	3	38,035,098 1stExon	N_Shore	VILL	0.591	0.000	0.638	0.954
cg12524553	yellow	20	32,952,045 5'UTR	S_Shore	ITCH	0.591	0.005	0.338	0.619
cg18260452	yellow	4	13,220,617	OpenSea		0.591	0.016	0.802	0.219
cg17129400	yellow	20	33,413,709 TSS1500	S_Shore	NCOA6	0.591	0.013	0.389	0.124
cg26645468	yellow	5	133,559,272 Body	N_Shore	PPP2CA	0.591	0.018	0.873	0.062
cg00190795	yellow	3	195,599,898 Body	N_Shore	TNK2	0.591	0.000	0.578	0.965
cg12152566	yellow	5	176,981,910 TSS1500	S_Shore	FAM193B	0.591	-0.006	0.428	0.564
cg11444828	yellow	6	32,137,973 Body	S_Shelf	AGPAT1	0.591	0.005	0.823	0.252
cg13661182	yellow	20	52,687,076 1stExon	OpenSea	BCAS1	0.591	0.003	0.460	0.625
cg16559243	yellow	5	38,445,612 TSS200	OpenSea	EGFLAM	0.591	0.000	0.580	0.996
cg16738984	yellow	19	14,519,121 3'UTR	S_Shore	CD97	0.591	0.010	0.831	0.110
cg07330489	yellow	10	47,022,615	OpenSea		0.591	0.002	0.287	0.801
cg05922437	yellow	15	70,874,926	N_Shelf		0.591	0.012	0.491	0.026
cg15172381	yellow	12	133,404,647 5'UTR	N_Shore	GOLGA3	0.591	0.008	0.454	0.458
cg14618116	yellow	9	116,462,942	OpenSea		0.591	0.007	0.883	0.293
cg00607627	yellow	16	28,995,994 TSS200	OpenSea	LAT	0.591	0.009	0.809	0.154
cg19876649	yellow	18	3,220,273 TSS200	OpenSea	MYOM1	0.591	-0.016	0.541	0.242
cg07817892	yellow	1	2,340,342 Body	S_Shore	PEX10	0.591	-0.007	0.868	0.278
cg04581938	yellow	6	31,364,999	N_Shelf		0.591	0.000	0.208	0.971
cg10803218	yellow	5	177,544,994 5'UTR	S_Shelf	N4BP3	0.591	0.012	0.827	0.073
cg18107105	yellow	3	125,094,680 TSS1500	S_Shore	ZNF148	0.591	-0.001	0.046	0.871
cg14188346	yellow	9	98,811,640	OpenSea		0.591	0.001	0.788	0.818
cg16132139	yellow	10	115,438,230 TSS1500	N_Shore	CASP7	0.591	-0.004	0.856	0.696
cg09455881	yellow	3	47,388,736	OpenSea		0.591	0.003	0.824	0.756
cg02920604	yellow	15	59,484,170 Body	OpenSea	MYO1E	0.591	0.025	0.653	0.021
cg26075259	yellow	7	157,408,015 Body	N_Shore	PTPRN2	0.591	0.009	0.803	0.242
cg24166450	yellow	17	74,248,466	OpenSea		0.591	0.012	0.370	0.426
cg20618695	yellow	12	13,251,495 Body	N_Shelf	GSG1	0.591	-0.002	0.042	0.558
cg05897803	yellow	6	39,290,478 TSS200	OpenSea	KCNK16	0.590	0.011	0.652	0.078
cg21091679	yellow	5	95,298,142 TSS1500	S_Shore	ELL2	0.590	-0.002	0.119	0.733
cg21818252	yellow	4	110,354,354 TSS1500	N_Shore	SEC24B	0.590	0.003	0.065	0.592
cg14116129	yellow	5	1,140,748	OpenSea		0.590	-0.011	0.433	0.238
cg06819431	yellow	1	153,605,367 TSS1500	N_Shore	C1orf77	0.590	-0.001	0.932	0.871
cg22042382	yellow	6	131,211,547 Body	OpenSea	EPB41L2	0.590	0.006	0.777	0.670
cg00326908	yellow	8	66,755,120 TSS1500	S_Shore	PDE7A	0.590	-0.005	0.205	0.546
cg15468976	yellow	1	2,106,222 Body	OpenSea	PRKCZ	0.590	0.006	0.378	0.499

cg15855036	yellow	14	20,929,106	Body	N_Shore	TMEM55B	0.590	0.001	0.059	0.892
cg22335801	yellow	1	1,149,091	Body	Island	TNFRSF4	0.590	0.011	0.536	0.111
cg26330928	yellow	1	98,743,612		OpenSea		0.590	0.010	0.838	0.208
cg08062049	yellow	2	121,427,380		OpenSea		0.590	0.000	0.038	0.883
cg14637919	yellow	2	227,288,327		OpenSea		0.590	-0.014	0.354	0.263
cg14444126	yellow	9	91,321,689		OpenSea		0.590	0.008	0.657	0.151
cg04369957	yellow	11	8,754,756	Body	S_Shelf	ST5	0.590	0.007	0.509	0.345
cg17125141	yellow	2	236,417,627	Body	OpenSea	AGAP1	0.590	-0.002	0.893	0.722
cg03762802	yellow	8	1,362,561		N_Shelf		0.590	-0.018	0.790	0.249
cg25537245	yellow	17	56,413,890		OpenSea		0.590	0.007	0.806	0.298
cg05151185	yellow	11	45,827,271	5'UTR	S_Shore	SLC35C1	0.590	0.013	0.255	0.081
cg21474257	yellow	1	43,399,327	Body	OpenSea	SLC2A1	0.590	0.002	0.716	0.805
cg18023842	yellow	1	160,336,475	TSS1500	OpenSea	NHLH1	0.590	0.008	0.604	0.281
cg05580001	yellow	10	102,422,713		S_Shelf		0.590	0.005	0.819	0.408
cg10940545	yellow	12	125,509,938	Body	S_Shore	BRI3BP	0.590	0.008	0.795	0.198
cg06016251	yellow	5	145,824,392		N_Shelf		0.590	-0.005	0.817	0.489
cg04453471	yellow	10	30,726,531	5'UTR	S_Shelf	MAP3K8	0.590	0.006	0.349	0.389
cg17971837	yellow	22	37,215,996	TSS1500	S_Shelf	PVALB	0.590	0.004	0.565	0.558
cg05527650	yellow	5	403,213	Body	OpenSea	AHRR	0.590	0.001	0.606	0.801
cg24126880	yellow	17	19,624,390		N_Shelf		0.590	0.012	0.788	0.022
cg09294739	yellow	16	55,218,782		OpenSea		0.590	-0.005	0.475	0.653
cg26417554	yellow	3	9,886,232	TSS1500	S_Shore	RPUSD3	0.590	0.003	0.866	0.642
cg27478167	yellow	7	817,139	Body	S_Shelf	HEATR2	0.590	-0.001	0.920	0.814
cg25077777	yellow	8	144,676,885	5'UTR	S_Shore	EEF1D	0.590	-0.004	0.822	0.498
cg07433449	yellow	6	31,855,498	Body	N_Shore	EHMT2	0.590	0.006	0.847	0.220
cg19706682	yellow	16	84,179,331	Body	S_Shore	LRRC50	0.590	0.001	0.151	0.877
cg05284276	yellow	10	47,080,824		N_Shelf		0.590	-0.004	0.761	0.596
cg16382584	yellow	4	77,935,993	Body	OpenSea	11-Sep	0.590	-0.002	0.952	0.641
cg08048577	yellow	13	103,250,866	Body	S_Shore	TPP2	0.590	0.031	0.202	0.002
cg00466402	yellow	1	205,423,263		N_Shore		0.590	0.010	0.538	0.150
cg00134415	yellow	22	38,856,689		N_Shore		0.590	0.010	0.519	0.167
cg01359999	yellow	7	151,828,356		Island		0.590	0.000	0.892	0.967
cg15397577	yellow	22	39,910,060	Body	OpenSea	SMCR7L	0.590	-0.010	0.819	0.191
cg07894334	yellow	2	46,925,333	TSS1500	N_Shore	SOCS5	0.590	0.013	0.424	0.468
cg03532331	yellow	16	4,000,474		OpenSea		0.590	0.005	0.035	0.563
cg25912009	yellow	4	7,844,982	Body	OpenSea	AFAP1	0.590	0.011	0.814	0.173
cg26350347	yellow	3	30,936,397	TSS1500	S_Shore	GADL1	0.590	0.000	0.048	0.900
cg11973132	yellow	11	67,052,656	Body	Island	ADRBK1	0.590	0.005	0.706	0.439
cg18000764	yellow	3	12,947,655	Body	N_Shelf	IQSEC1	0.590	0.003	0.832	0.622
cg06395167	yellow	1	1,268,243	Body	Island	TAS1R3	0.590	-0.003	0.660	0.669
cg07586042	yellow	1	3,692,495	3'UTR	S_Shelf	LOC388588	0.590	0.000	0.349	0.964
cg27355501	yellow	6	33,256,078	TSS1500	N_Shore	PFDN6	0.590	-0.002	0.753	0.759
cg05622577	yellow	10	33,710,900		OpenSea		0.590	0.010	0.858	0.291
cg17417573	yellow	11	133,384,356	Body	OpenSea	OPCML	0.590	0.011	0.180	0.166
cg11996741	yellow	22	30,769,389	Body	OpenSea	CCDC157	0.590	0.016	0.671	0.056
cg14691671	yellow	17	73,642,503	Body	OpenSea	RECQL5	0.590	0.010	0.685	0.180
cg12377368	yellow	11	18,128,126	TSS1500	S_Shore	SAAL1	0.590	0.007	0.840	0.416
cg22005336	yellow	5	63,215,684		OpenSea		0.590	-0.005	0.473	0.722
cg22583967	yellow	20	35,580,439	TSS1500	Island	SAMHD1	0.590	-0.001	0.040	0.678
cg16943126	yellow	10	134,311,114		OpenSea		0.590	0.000	0.851	0.945
cg07874386	yellow	5	123,044,161		OpenSea		0.590	0.003	0.288	0.770
cg00313876	yellow	13	45,564,444	TSS1500	S_Shore	NUFIP1	0.589	0.009	0.175	0.340
cg23048036	yellow	3	101,442,954	TSS1500	N_Shore	CEP97	0.589	0.010	0.713	0.610
cg11051022	yellow	22	50,654,277	Body	N_Shore	SELO	0.589	0.002	0.918	0.726
cg01396723	yellow	19	45,146,828	TSS1500	N_Shore	PVR	0.589	0.004	0.210	0.650
cg05471521	yellow	20	54,968,604	5'UTR	S_Shore	CSTF1	0.589	0.006	0.392	0.683
cg14552839	yellow	13	41,885,025	TSS1500	N_Shore	NAA16	0.589	0.008	0.069	0.203
cg12595026	yellow	5	1,565,222		OpenSea		0.589	0.000	0.879	0.974
cg11139878	yellow	1	157,811,790	TSS200	OpenSea	CD5L	0.589	0.005	0.447	0.351
cg04738700	yellow	2	239,367,308		OpenSea		0.589	0.005	0.742	0.675
cg14428225	yellow	9	127,241,878		S_Shore		0.589	0.002	0.649	0.763
cg27534624	yellow	12	7,072,727	TSS1500	OpenSea	MIR141	0.589	0.005	0.713	0.497
cg14106046	yellow	17	81,006,485	Body	N_Shelf	B3GNTL1	0.589	0.000	0.816	0.986
cg09011316	yellow	1	16,544,950		S_Shore		0.589	0.004	0.543	0.699
cg21077300	yellow	3	56,833,821	Body	N_Shore	ARHGEF3	0.589	0.012	0.433	0.395
cg16751778	yellow	15	45,952,725	Body	OpenSea	SQRDL	0.589	0.018	0.671	0.016
cg10364862	yellow	16	11,220,376	Body	OpenSea	CLEC16A	0.589	-0.001	0.583	0.948

cg20978858	yellow	22	41,653,226	Body	OpenSea	RANGAP1	0.589	0.008	0.744	0.227
cg26711732	yellow	8	144,640,378	TSS200	N_Shore	GSDMD	0.589	-0.002	0.073	0.738
cg21205713	yellow	6	36,570,759	3'UTR	OpenSea	SFRS3	0.589	-0.001	0.925	0.879
cg09439599	yellow	16	30,380,794	1stExon	N_Shore	TBC1D10B	0.589	-0.003	0.039	0.199
cg04924334	yellow	16	3,660,939	5'UTR	N_Shore	BTBD12	0.589	0.003	0.034	0.079
cg20649991	yellow	19	54,761,127	5'UTR	OpenSea	LILRB5	0.589	0.007	0.629	0.322
cg09343544	yellow	22	19,131,573	Body	N_Shore	DGCR14	0.589	0.003	0.089	0.648
cg10932907	yellow	11	129,723,947	Body	OpenSea	TMEM45B	0.589	-0.002	0.073	0.821
cg25329685	yellow	8	23,315,749	TSS1500	S_Shore	ENTPD4	0.589	0.004	0.350	0.705
cg14504418	yellow	11	102,187,898	TSS1500	N_Shore	BIRC3	0.589	0.013	0.227	0.345
cg09082192	yellow	7	770,527	Body	S_Shelf	HEATR2	0.589	0.005	0.854	0.320
cg23656300	yellow	10	133,871,212		OpenSea		0.589	-0.006	0.718	0.403
cg02659402	yellow	1	236,925,877	Body	OpenSea	ACTN2	0.589	-0.001	0.964	0.826
cg13506670	yellow	14	56,045,827	TSS1500	N_Shore	KTN1	0.589	-0.005	0.348	0.735
cg00892891	yellow	8	23,423,734	Body	OpenSea	SLC25A37	0.589	-0.003	0.916	0.651
cg27415655	yellow	6	453,381		OpenSea		0.589	0.007	0.442	0.502
cg16007541	yellow	11	18,728,598	Body	S_Shore	IGSF22	0.589	0.003	0.343	0.793
cg16664617	yellow	19	17,607,007	Body	N_Shore	SLC27A1	0.589	0.013	0.740	0.145
cg23947919	yellow	12	132,406,608	3'UTR	OpenSea	ULK1	0.589	0.004	0.760	0.651
cg06101789	yellow	4	949,483	Body	Island	TMEM175	0.589	0.009	0.671	0.182
cg19535004	yellow	11	59,385,576		S_Shelf		0.589	0.009	0.620	0.472
cg11629220	yellow	19	1,084,367	Body	S_Shore	HMHA1	0.589	-0.005	0.963	0.376
cg03642555	yellow	5	34,502,788		OpenSea		0.589	0.008	0.555	0.448
cg17835614	yellow	7	72,409,374	Body	N_Shelf	POM121	0.589	-0.005	0.842	0.381
cg08825200	yellow	3	178,984,841	TSS200	OpenSea	KCNMB3	0.589	0.002	0.795	0.707
cg23422361	yellow	10	135,143,617	5'UTR	S_Shore	CALY	0.589	0.006	0.148	0.321
cg17651887	yellow	2	219,117,224	Body	OpenSea	ARPC2	0.589	0.009	0.815	0.159
cg25261151	yellow	8	141,476,045		S_Shore		0.589	0.023	0.422	0.061
cg22723249	yellow	1	231,490,578		OpenSea		0.589	-0.004	0.917	0.541
cg04957377	yellow	14	21,507,259		OpenSea		0.589	-0.001	0.065	0.910
cg27589058	yellow	20	45,804,311	Body	OpenSea	EYA2	0.589	0.010	0.116	0.512
cg05756754	yellow	13	98,885,809	Body	OpenSea	FARP1	0.589	0.008	0.504	0.346
cg25801113	yellow	15	45,476,975	Body	N_Shelf	SHF	0.589	0.002	0.681	0.861
cg00484083	yellow	2	95,876,354		S_Shelf		0.589	0.003	0.923	0.627
cg15287047	yellow	3	3,890,832		OpenSea		0.589	-0.002	0.699	0.807
cg09272948	yellow	20	39,958,363		OpenSea		0.589	0.009	0.328	0.170
cg13301454	yellow	5	146,000,293	Body	OpenSea	PPP2R2B	0.589	0.001	0.278	0.793
cg00793843	yellow	15	90,777,889	5'UTR	S_Shore	C15orf58	0.588	0.002	0.321	0.888
cg09324113	yellow	17	56,737,118	5'UTR	N_Shore	TEX14	0.588	0.015	0.258	0.232
cg08998212	yellow	2	105,761,644		S_Shore		0.588	0.010	0.400	0.096
cg14187895	yellow	17	37,843,818	TSS1500	N_Shore	ERBB2	0.588	0.007	0.702	0.492
cg09462576	yellow	1	228,297,873	TSS1500	S_Shore	MRPL55	0.588	0.008	0.671	0.638
cg07882302	yellow	16	87,948,277	Body	N_Shore	CA5A	0.588	0.007	0.471	0.278
cg11799480	yellow	7	150,907,018	Body	OpenSea	ABCF2	0.588	0.003	0.588	0.606
cg02289020	yellow	16	83,037,335	Body	OpenSea	CDH13	0.588	0.002	0.769	0.865
cg03391464	yellow	16	7,374,542	Body	OpenSea	A2BP1	0.588	0.008	0.138	0.413
cg15161177	yellow	12	56,843,527	TSS1500	S_Shore	TIMELESS	0.588	0.008	0.058	0.073
cg02878284	yellow	6	32,825,701	Body	S_Shelf	PSMB9	0.588	0.008	0.555	0.247
cg02167613	yellow	22	46,926,912	Body	N_Shelf	CELSR1	0.588	0.008	0.839	0.428
cg02331673	yellow	1	1,102,389	TSS200	S_Shore	MIR200B	0.588	0.012	0.694	0.175
cg11024687	yellow	12	7,248,724	3'UTR	OpenSea	C1RL	0.588	-0.006	0.506	0.526
cg13129046	yellow	10	71,389,696	TSS1500	N_Shore	C10orf35	0.588	0.006	0.348	0.505
cg00537121	yellow	11	67,055,633	TSS1500	N_Shore	ANKRD13D	0.588	0.005	0.589	0.396
cg19763230	yellow	19	49,623,634	5'UTR	Island	PPFIA3	0.588	-0.003	0.156	0.629
cg21627412	yellow	13	96,297,281	TSS1500	S_Shore	DZIP1	0.588	-0.005	0.155	0.589
cg03167953	yellow	17	74,554,844	TSS200	S_Shore	SNORD1C	0.588	0.002	0.039	0.511
cg16795804	yellow	2	37,384,523	TSS1500	S_Shore	EIF2AK2	0.588	0.014	0.259	0.321
cg12871285	yellow	17	76,713,379	Body	OpenSea	CYTH1	0.588	0.001	0.069	0.864
cg03152084	yellow	16	87,352,229		S_Shore		0.588	-0.010	0.554	0.467
cg01901788	yellow	20	33,145,848	TSS1500	N_Shore	MAP1LC3A	0.588	0.036	0.672	0.013
cg24691042	yellow	5	171,708,977	Body	N_Shore	UBTD2	0.588	0.002	0.262	0.853
cg16070743	yellow	4	178,364,207	TSS1500	S_Shore	AGA	0.588	-0.038	0.229	0.020
cg11553308	yellow	2	236,479,382	Body	OpenSea	AGAP1	0.588	-0.014	0.753	0.189
cg23957742	yellow	7	99,054,834	3'UTR	OpenSea	CPSF4	0.588	0.009	0.766	0.108
cg00004072	yellow	19	39,898,015	Body	Island	ZFP36	0.588	0.001	0.031	0.456
cg02902975	yellow	16	67,360,129	TSS1500	OpenSea	LRR36	0.588	0.015	0.547	0.235
cg03100209	yellow	19	49,921,142	3'UTR	OpenSea	CCDC155	0.588	0.010	0.700	0.273

cg13556452	yellow	1	2,391,241	S_Shelf		0.588	0.003	0.637	0.917
cg26347632	yellow	22	37,965,042	3'UTR	S_Shelf CDC42EP1	0.588	0.005	0.543	0.436
cg18409302	yellow	11	2,397,303	TSS1500	N_Shore CD81	0.588	0.002	0.390	0.759
cg24479752	yellow	6	30,005,173	Body	OpenSea NCRNA00171	0.588	0.010	0.231	0.301
cg22083199	yellow	19	7,911,362	5'UTR	N_Shore EVISL	0.588	0.003	0.841	0.761
cg03047995	yellow	14	24,601,588	Body	Island FITM1	0.588	0.003	0.634	0.768
cg24040043	yellow	1	207,224,982	TSS1500	N_Shore YOD1	0.588	0.019	0.820	0.090
cg14405448	yellow	9	126,134,336	Body	N_Shore CRB2	0.588	-0.003	0.835	0.678
cg15177359	yellow	17	73,840,750	5'UTR	OpenSea UNC13D	0.588	0.007	0.349	0.268
cg07630816	yellow	4	23,549,992		OpenSea	0.588	-0.005	0.926	0.396
cg01064903	yellow	19	8,001,477	Body	S_Shelf TIMM44	0.588	0.003	0.919	0.551
cg00938816	yellow	17	8,058,149		N_Shore	0.588	0.003	0.491	0.751
cg25191241	yellow	3	124,448,994	TSS1500	N_Shore UMPS	0.588	0.012	0.201	0.191
cg16063716	yellow	14	105,045,992	TSS200	OpenSea C14orf180	0.588	0.005	0.391	0.636
cg16546882	yellow	7	54,731,606		N_Shore	0.588	0.015	0.489	0.096
cg15279800	yellow	3	127,792,691		N_Shore	0.588	0.011	0.801	0.083
cg17464989	yellow	19	2,255,419	TSS200	S_Shore JSRP1	0.588	0.011	0.685	0.400
cg04245402	yellow	19	751,241	5'UTR	OpenSea C19orf21	0.588	-0.001	0.413	0.910
cg09345786	yellow	17	33,913,985	TSS1500	OpenSea AP2B1	0.588	-0.012	0.370	0.229
cg05279622	yellow	6	29,629,758	Body	OpenSea MOG	0.588	0.013	0.290	0.130
cg08163163	yellow	1	16,415,115		OpenSea	0.588	0.013	0.581	0.073
cg18308535	yellow	19	18,652,534	Body	N_Shore FKBP8	0.588	0.008	0.820	0.209
cg15222329	yellow	5	6,046,441		OpenSea	0.587	0.000	0.577	0.952
cg18287066	yellow	1	240,671,647	5'UTR	OpenSea GREM2	0.587	0.005	0.476	0.680
cg04570669	yellow	4	71,063,474	Body	OpenSea ODAM	0.587	0.004	0.914	0.739
cg02129885	yellow	20	30,218,466		N_Shore	0.587	0.017	0.320	0.059
cg19013753	yellow	15	75,915,192	5'UTR	N_Shelf SNUPN	0.587	0.004	0.911	0.526
cg09169455	yellow	5	16,843,340	Body	OpenSea MYO10	0.587	0.025	0.477	0.003
cg08188471	yellow	6	30,594,113	3'UTR	OpenSea MRPS18B	0.587	0.004	0.653	0.799
cg16563079	yellow	16	67,360,256	TSS1500	OpenSea LRRC36	0.587	0.006	0.452	0.663
cg15142192	yellow	1	36,521,401	3'UTR	OpenSea EIF2C3	0.587	0.000	0.868	0.988
cg23624321	yellow	11	36,532,423	TSS1500	S_Shore TRAF6	0.587	-0.008	0.238	0.513
cg11884546	yellow	16	31,366,377	TSS200	OpenSea ITGAX	0.587	0.011	0.220	0.228
cg00484488	yellow	15	73,076,983	TSS1500	S_Shore ADPGK	0.587	0.007	0.340	0.596
cg05361458	yellow	16	88,953,254	Body	Island CBFA2T3	0.587	-0.001	0.935	0.828
cg25425074	yellow	17	42,218,912	TSS1500	N_Shore C17orf53	0.587	0.006	0.513	0.574
cg13107696	yellow	1	231,685,833	Body	OpenSea TSNAX-DISC1	0.587	-0.003	0.954	0.416
cg11162637	yellow	15	101,818,008	TSS1500	S_Shore SELS	0.587	0.016	0.126	0.072
cg00834223	yellow	2	236,944,951	Body	OpenSea AGAP1	0.587	-0.008	0.943	0.097
cg27506889	yellow	16	67,970,774	TSS200	S_Shore PSMB10	0.587	-0.001	0.029	0.415
cg02768048	yellow	5	95,166,697		N_Shelf	0.587	0.001	0.806	0.891
cg10397070	yellow	11	62,342,227	TSS1500	S_Shore EEF1G	0.587	0.008	0.119	0.298
cg26868514	yellow	5	5,178,224	Body	OpenSea ADAMTS16	0.587	0.009	0.589	0.415
cg02372023	yellow	2	33,825,072	TSS1500	S_Shore FAM98A	0.587	0.005	0.076	0.427
cg25739366	yellow	11	57,004,007	Body	OpenSea APLNR	0.587	-0.003	0.665	0.698
cg06591579	yellow	6	29,461,269		OpenSea	0.587	-0.003	0.816	0.723
cg24000650	yellow	19	3,811,161	Body	Island ZFR2	0.587	0.003	0.696	0.717
cg26394055	yellow	1	161,184,921	TSS200	OpenSea FCER1G	0.587	-0.007	0.934	0.110
cg10535845	yellow	17	37,821,481	TSS200	N_Shelf TCAP	0.587	0.003	0.550	0.685
cg06385087	yellow	20	57,581,903	Body	Island CTSZ	0.587	0.002	0.045	0.532
cg21876145	yellow	2	20,243,393	Body	OpenSea LAPTM4A	0.587	0.000	0.947	0.932
cg18204589	yellow	2	217,939,092		OpenSea	0.587	-0.004	0.950	0.333
cg26266950	yellow	7	19,160,621		S_Shelf	0.587	-0.002	0.151	0.812
cg26767544	yellow	15	64,985,295	Body	OpenSea OAZ2	0.587	0.003	0.905	0.578
cg16705138	yellow	14	94,508,740	Body	OpenSea OTUB2	0.587	0.001	0.500	0.912
cg12647497	yellow	1	110,210,265	TSS1500	N_Shore GSTM2	0.587	0.007	0.536	0.376
cg02736016	yellow	12	1,017,144	Body	OpenSea WNK1	0.587	0.009	0.759	0.144
cg08303253	yellow	22	42,070,666	3'UTR	OpenSea NHP2L1	0.587	-0.003	0.898	0.626
cg19602315	yellow	17	30,669,494	TSS1500	S_Shore C17orf75	0.587	0.015	0.537	0.275
cg01644798	yellow	8	11,617,305	3'UTR	OpenSea GATA4	0.587	-0.002	0.624	0.878
cg11762031	yellow	14	105,864,488		Island	0.587	-0.004	0.153	0.762
cg04446724	yellow	7	157,446,432	Body	N_Shore PTPRN2	0.587	0.008	0.895	0.233
cg05320842	yellow	14	22,039,001	TSS200	OpenSea OR10G3	0.587	0.011	0.386	0.201
cg12197579	yellow	14	101,287,676		N_Shelf	0.587	0.005	0.772	0.576
cg19400316	yellow	1	8,815,225	5'UTR	OpenSea RERE	0.587	-0.004	0.676	0.678
cg19548859	yellow	10	11,239,482	Body	OpenSea CUGBP2	0.587	0.012	0.562	0.226
cg13452588	yellow	7	130,910,546	Body	OpenSea MKLN1	0.587	0.013	0.453	0.030

cg24852713	yellow	19	1,083,423	Body	Island	HMHA1	0.587	0.008	0.681	0.366
cg01300700	yellow	4	8,455,091	TSS1500	OpenSea	C4orf23	0.587	-0.004	0.915	0.504
cg01031983	yellow	3	126,066,447	Body	S_Shelf	KLF15	0.587	0.003	0.521	0.622
cg08915024	yellow	4	99,445,460	Body	OpenSea	TSPAN5	0.587	-0.001	0.922	0.815
cg17436460	yellow	10	17,028,480	Body	OpenSea	CUBN	0.587	0.024	0.542	0.048
cg13582775	yellow	8	1,328,459		S_Shore		0.587	0.013	0.460	0.198
cg06281080	yellow	2	209,040,082	Body	OpenSea	C2orf80	0.587	0.010	0.126	0.427
cg19770723	yellow	1	2,174,895	Body	OpenSea	SKI	0.586	0.018	0.606	0.011
cg04408483	yellow	10	85,920,307		OpenSea		0.586	0.008	0.794	0.144
cg26727372	yellow	18	48,404,491	TSS1500	N_Shore	ME2	0.586	0.016	0.654	0.163
cg17305500	yellow	19	55,769,138	5'UTR	N_Shore	SAPS1	0.586	0.006	0.066	0.070
cg09861476	yellow	1	234,617,742		S_Shelf		0.586	0.001	0.778	0.861
cg18188653	yellow	3	188,296,976	Body	OpenSea	LPP	0.586	0.020	0.612	0.110
cg05057794	yellow	10	130,366,696		OpenSea		0.586	-0.006	0.678	0.638
cg03459809	yellow	1	226,013,010	1stExon	OpenSea	EPHX1	0.586	0.001	0.422	0.897
cg25150878	yellow	3	13,520,921	TSS1500	Island	HDAC11	0.586	-0.003	0.099	0.613
cg06928993	yellow	19	49,313,421	Body	N_Shore	BCAT2	0.586	0.029	0.796	0.006
cg04117530	yellow	1	226,187,852	TSS1500	S_Shore	C1orf55	0.586	0.008	0.619	0.605
cg00394823	yellow	16	20,775,166	TSS200	OpenSea	ACSM3	0.586	-0.011	0.409	0.218
cg27297192	yellow	10	134,578,999	Body	N_Shelf	INPP5A	0.586	0.007	0.657	0.374
cg17776688	yellow	17	31,902,655	Body	OpenSea	ACCN1	0.586	-0.005	0.746	0.561
cg16680167	yellow	7	154,474,156	Body	OpenSea	DPP6	0.586	0.018	0.679	0.052
cg21704793	yellow	6	155,312,540		N_Shelf		0.586	-0.006	0.400	0.422
cg04677942	yellow	12	93,796,936	3'UTR	OpenSea	NUDT4	0.586	0.010	0.711	0.240
cg14057241	yellow	9	132,402,804	Body	N_Shore	ASB6	0.586	0.005	0.548	0.617
cg25661142	yellow	19	15,541,374	Body	N_Shore	WIZ	0.586	-0.001	0.870	0.920
cg22133973	yellow	6	170,789,640		S_Shore		0.586	-0.001	0.064	0.822
cg21102746	yellow	14	105,395,197	Body	N_Shelf	PLD4	0.586	0.008	0.820	0.201
cg27511894	yellow	1	9,470,966		OpenSea		0.586	0.014	0.598	0.156
cg13974761	yellow	1	152,670,598	TSS1500	OpenSea	LCE2A	0.586	0.010	0.601	0.194
cg18812904	yellow	18	77,609,087		Island		0.586	0.013	0.650	0.184
cg18535283	yellow	22	43,044,071	TSS1500	N_Shore	CY5R3	0.586	0.012	0.833	0.199
cg18890417	yellow	8	22,861,942	Body	N_Shelf	RHOBTB2	0.586	0.013	0.781	0.018
cg07099810	yellow	16	88,575,557	Body	S_Shelf	ZFPM1	0.586	0.007	0.656	0.259
cg10654165	yellow	8	105,479,705	TSS1500	S_Shore	DPYS	0.586	-0.007	0.929	0.342
cg16877339	yellow	11	112,151,247		OpenSea		0.586	0.001	0.247	0.914
cg15428479	yellow	19	18,698,825	TSS1500	N_Shore	C19orf60	0.586	0.011	0.613	0.134
cg21335012	yellow	2	30,496,325		OpenSea		0.586	-0.001	0.598	0.908
cg00980410	yellow	17	35,969,926	TSS1500	S_Shore	SYNRG	0.586	0.003	0.033	0.200
cg02851793	yellow	10	70,849,854	Body	OpenSea	SRGN	0.586	0.013	0.716	0.170
cg19364777	yellow	19	40,722,503	Body	N_Shore	TTC9B	0.586	0.011	0.324	0.116
cg05359207	yellow	20	52,196,506	Body	N_Shore	ZNF217	0.586	0.002	0.512	0.762
cg14198101	yellow	19	1,270,276	Body	S_Shore	CIRBP	0.586	0.000	0.031	0.811
cg03106413	yellow	1	6,683,528	3'UTR	N_Shore	PHF13	0.586	-0.002	0.511	0.768
cg00842318	yellow	5	2,642,358		N_Shore		0.586	0.006	0.823	0.274
cg14010852	yellow	4	72,903,914	Body	OpenSea	NPFRR2	0.586	-0.011	0.739	0.319
cg27179353	yellow	4	156,364,125		OpenSea		0.586	-0.002	0.827	0.842
cg25781936	yellow	6	138,750,887	Body	OpenSea	NHSL1	0.586	0.003	0.603	0.723
cg04989278	yellow	1	66,839,134	3'UTR	OpenSea	PDE4B	0.586	0.005	0.842	0.423
cg03752935	yellow	10	128,592,524	TSS1500	N_Shore	DOCK1	0.586	0.006	0.479	0.389
cg11118413	yellow	3	128,292,699	5'UTR	OpenSea	C3orf27	0.586	-0.001	0.315	0.895
cg05156120	yellow	17	41,723,125	Body	N_Shore	MEOX1	0.586	0.005	0.789	0.637
cg21479131	yellow	12	3,053,501		OpenSea		0.586	-0.007	0.581	0.627
cg14971879	yellow	11	119,616,192		S_Shelf		0.586	-0.006	0.809	0.465
cg03617054	yellow	5	159,547,159	TSS1500	S_Shore	PWWP2A	0.586	-0.003	0.418	0.705
cg22416721	yellow	4	88,570,574	TSS1500	OpenSea	DMP1	0.586	0.022	0.568	0.194
cg10871120	yellow	6	39,891,273	Body	OpenSea	MOCS1	0.586	-0.008	0.801	0.690
cg15387123	yellow	9	139,891,058	TSS200	S_Shore	CLIC3	0.586	0.012	0.398	0.191
cg19945263	yellow	6	14,706,041		OpenSea		0.586	-0.001	0.797	0.942
cg16949533	yellow	2	86,789,236	5'UTR	N_Shore	VPS24	0.586	0.001	0.852	0.899
cg18197594	yellow	10	94,334,836	TSS1500	S_Shore	IDE	0.586	0.013	0.671	0.530
cg09144520	yellow	10	134,842,984		N_Shore		0.586	0.005	0.668	0.507
cg26940328	yellow	17	11,148,412	Body	S_Shelf	SHISA6	0.586	-0.013	0.140	0.184
cg14864103	yellow	13	113,622,738	TSS200	Island	MCF2L	0.586	-0.003	0.233	0.764
cg03189075	yellow	6	30,127,997	Body	OpenSea	TRIM10	0.586	-0.002	0.438	0.779
cg02826233	yellow	12	56,365,894	3'UTR	N_Shore	CDK2	0.586	0.006	0.783	0.360
cg25315400	yellow	10	72,433,218	Body	S_Shore	ADAMTS14	0.586	0.011	0.467	0.201



cg00968800	yellow	1	1,335,706	TSS1500	S_Shore	CCNL2	0.586	-0.002	0.231	0.857
cg21840233	yellow	13	113,826,053	Body	OpenSea	PROZ	0.586	0.001	0.867	0.819
cg04173919	yellow	11	118,528,438	3'UTR	OpenSea	PHLDB1	0.586	0.010	0.605	0.190
cg18444689	yellow	3	185,080,423	TSS1500	OpenSea	MAP3K13	0.586	0.007	0.931	0.313
cg20656868	yellow	19	3,177,310	TSS1500	N_Shore	S1PR4	0.586	0.011	0.509	0.403
cg07029002	yellow	1	64,358,899	Body	OpenSea	ROR1	0.586	0.003	0.616	0.768
cg06025774	yellow	5	92,498,282		OpenSea		0.586	0.011	0.693	0.203
cg25027863	yellow	17	907,729	3'UTR	N_Shelf	ABR	0.585	-0.009	0.533	0.220
cg06361793	yellow	6	25,875,671	TSS1500	OpenSea	SLC17A3	0.585	0.004	0.913	0.659
cg27485619	yellow	10	126,749,441	5'UTR	OpenSea	CTBP2	0.585	-0.002	0.729	0.692
cg10781870	yellow	17	28,648,320	Body	OpenSea	TMIGD1	0.585	0.005	0.802	0.527
cg12126990	yellow	2	100,588,044	Body	OpenSea	AFF3	0.585	0.015	0.712	0.201
cg04700814	yellow	17	43,224,180	TSS1500	N_Shore	HEXIM1	0.585	0.006	0.626	0.493
cg22864015	yellow	2	111,438,170		S_Shore		0.585	0.001	0.769	0.919
cg11821637	yellow	12	79,876,086		OpenSea		0.585	0.013	0.372	0.242
cg27088787	yellow	15	101,839,929		S_Shelf		0.585	-0.006	0.929	0.228
cg15151492	yellow	6	48,039,722		S_Shelf		0.585	-0.001	0.818	0.857
cg15154229	yellow	7	130,020,011	TSS1500	N_Shore	CPA1	0.585	-0.002	0.448	0.841
cg05604487	yellow	17	77,386,277	5'UTR	OpenSea	HRNBP3	0.585	0.005	0.795	0.442
cg18546384	yellow	7	2,077,057	Body	OpenSea	MAD1L1	0.585	-0.003	0.635	0.812
cg12761472	yellow	6	119,031,922		OpenSea		0.585	0.006	0.926	0.346
cg04914562	yellow	1	62,207,459	TSS1500	N_Shore	INADL	0.585	0.014	0.439	0.196
cg16107628	yellow	1	159,894,061	5'UTR	N_Shore	TAGLN2	0.585	0.021	0.191	0.220
cg12286154	yellow	6	32,015,215	Body	OpenSea	TNXB	0.585	0.000	0.780	0.975
cg06789550	yellow	10	95,462,915	TSS1500	S_Shore	C10orf4	0.585	0.008	0.120	0.590
cg13457790	yellow	19	1,627,485	Body	S_Shore	TCF3	0.585	0.002	0.832	0.738
cg18061433	yellow	10	21,435,895	TSS1500	OpenSea	C10orf113	0.585	0.002	0.929	0.730
cg11396411	yellow	7	33,679,233		OpenSea		0.585	-0.009	0.800	0.560
cg14684937	yellow	2	242,308,655	5'UTR	OpenSea	FARP2	0.585	-0.006	0.549	0.678
cg19759064	yellow	7	56,160,687	1stExon	OpenSea	PHKG1	0.585	-0.004	0.168	0.697
cg06927775	yellow	17	40,609,423	TSS1500	N_Shore	ATP6V0A1	0.585	0.029	0.405	0.081
cg11562312	yellow	8	144,406,532	Body	S_Shelf	TOP1MT	0.585	0.002	0.868	0.718
cg25114245	yellow	2	74,645,353	TSS1500	N_Shore	C2orf81	0.585	0.006	0.846	0.394
cg00048370	yellow	6	164,506,939		OpenSea		0.585	0.015	0.562	0.113
cg01062113	yellow	11	93,865,443	Body	S_Shelf	PANX1	0.585	-0.003	0.511	0.844
cg22427313	yellow	7	55,098,896	Body	OpenSea	EGFR	0.585	-0.010	0.900	0.203
cg06469895	yellow	16	69,418,206	Body	N_Shore	TERF2	0.585	0.006	0.831	0.297
cg07889827	yellow	10	93,443,413		OpenSea		0.585	0.012	0.593	0.168
cg24211388	yellow	6	31,582,837	TSS1500	OpenSea	AIF1	0.585	0.003	0.669	0.667
cg27449114	yellow	2	241,501,342	3'UTR	S_Shore	DUSP28	0.585	0.006	0.340	0.458
cg25661049	yellow	5	75,410,147	5'UTR	OpenSea	SV2C	0.585	0.000	0.189	0.985
cg06611115	yellow	6	152,011,200	TSS1500	OpenSea	ESR1	0.585	-0.006	0.770	0.434
cg18448898	yellow	2	128,788,611		S_Shelf		0.585	-0.001	0.956	0.749
cg18866281	yellow	1	246,948,597		N_Shelf		0.585	-0.002	0.494	0.892
cg10576245	yellow	1	233,249,267	Body	OpenSea	PCNXL2	0.585	0.004	0.303	0.604
cg04328219	yellow	10	6,263,432	Body	S_Shore	PFKFB3	0.585	0.005	0.806	0.391
cg02159271	yellow	6	35,226,260	TSS1500	N_Shore	ZNF76	0.585	0.012	0.435	0.277
cg03227017	yellow	16	22,336,638	Body	N_Shore	POLR3E	0.585	-0.002	0.917	0.685
cg22561329	yellow	19	57,346,735	5'UTR	N_Shelf	PEG3	0.585	0.006	0.606	0.283
cg05368971	yellow	1	2,321,364	Body	N_Shore	MORN1	0.585	-0.004	0.845	0.476
cg09380135	yellow	19	40,789,866	TSS1500	N_Shore	MIR641	0.585	0.013	0.409	0.228
cg11868621	yellow	19	49,992,293	Body	S_Shore	RPL13AP5	0.585	-0.001	0.060	0.859
cg13858455	yellow	2	87,445,161		OpenSea		0.585	0.006	0.231	0.301
cg27401724	yellow	17	43,213,629	Body	S_Shelf	ACBD4	0.585	0.003	0.800	0.702
cg13899143	yellow	7	11,315,835		OpenSea		0.584	0.000	0.857	0.953
cg11123720	yellow	5	75,701,065	Body	S_Shore	IQGAP2	0.584	0.009	0.688	0.333
cg14201544	yellow	9	140,187,948		N_Shore		0.584	0.005	0.741	0.464
cg17645598	yellow	17	42,288,541	Body	S_Shore	UBTF	0.584	0.006	0.734	0.292
cg18757405	yellow	8	49,183,060		OpenSea		0.584	0.001	0.808	0.836
cg25876227	yellow	8	102,680,096	3'UTR	OpenSea	GRHL2	0.584	0.000	0.674	0.970
cg23464619	yellow	13	95,513,506		OpenSea		0.584	0.007	0.404	0.427
cg01835620	yellow	17	4,807,758	TSS1500	S_Shelf	CHRNE	0.584	0.002	0.747	0.790
cg02879423	yellow	2	224,806,760	Body	N_Shelf	WDFY1	0.584	-0.007	0.845	0.393
cg20064928	yellow	10	70,586,817	TSS1500	N_Shore	STOX1	0.584	0.001	0.233	0.940
cg21085679	yellow	22	48,607,064		S_Shore		0.584	0.003	0.909	0.687
cg08160619	yellow	16	30,195,318	5'UTR	Island	CORO1A	0.584	0.001	0.065	0.844
cg25939853	yellow	12	133,343,428		S_Shelf		0.584	0.012	0.241	0.320

cg16471830	yellow	16	66,400,569	5'UTR	OpenSea	CDH5	0.584	0.008	0.265	0.334
cg14166701	yellow	14	104,574,715	Body	OpenSea	ASPG	0.584	0.027	0.667	0.080
cg10204629	yellow	14	21,558,852	Body	Island	ZNF219	0.584	-0.001	0.804	0.921
cg03006527	yellow	1	155,043,967		S_Shore		0.584	0.006	0.297	0.479
cg00335591	yellow	7	1,596,260	TSS200	OpenSea	TMEM184A	0.584	0.003	0.822	0.747
cg18077304	yellow	12	51,818,049	TSS1500	N_Shore	SLC4A8	0.584	0.003	0.941	0.600
cg13468624	yellow	6	31,146,889	TSS1500	N_Shore	PSORS1C3	0.584	0.002	0.854	0.791
cg27121267	yellow	11	125,544,292	Body	OpenSea	ACRV1	0.584	-0.004	0.805	0.476
cg22989894	yellow	6	168,616,326		S_Shelf		0.584	-0.010	0.869	0.229
cg02311801	yellow	11	73,070,760	Body	N_Shelf	ARHGEF17	0.584	0.008	0.873	0.197
cg07814567	yellow	4	100,736,658	TSS1500	OpenSea	DAPP1	0.584	0.001	0.944	0.720
cg16912129	yellow	6	168,418,398	TSS200	OpenSea	KIF25	0.584	0.015	0.178	0.131
cg21303039	yellow	2	149,793,681	Body	OpenSea	KIF5C	0.584	-0.001	0.834	0.896
cg22103219	yellow	7	101,934,892	Body	N_Shore	SH2B2	0.584	0.000	0.193	0.978
cg04931493	yellow	16	3,246,099		S_Shelf		0.584	0.000	0.452	0.971
cg02192472	yellow	16	69,364,945	TSS1500	S_Shore	PDF	0.584	-0.001	0.043	0.868
cg17819250	yellow	8	36,380,237		OpenSea		0.584	0.003	0.684	0.577
cg06422685	yellow	10	134,923,599	Body	N_Shelf	GPR123	0.584	0.007	0.490	0.389
cg02880877	yellow	6	125,623,484	TSS1500	S_Shore	HDCC2	0.584	0.001	0.853	0.929
cg07733247	yellow	10	134,222,507	3'UTR	S_Shelf	PWWP2B	0.584	-0.001	0.780	0.932
cg15948504	yellow	1	151,285,561	Body	OpenSea	PI4KB	0.584	0.010	0.873	0.072
cg24154333	yellow	6	157,467,822	Body	OpenSea	ARID1B	0.584	-0.005	0.812	0.583
cg25571957	yellow	6	39,902,693	TSS1500	S_Shore	MOCOS1	0.584	0.001	0.916	0.852
cg16702313	yellow	14	74,251,926	5'UTR	N_Shore	C14orf43	0.584	0.014	0.515	0.012
cg23624957	yellow	6	114,257,531	3'UTR	OpenSea	HDAC2	0.584	0.001	0.405	0.896
cg10003766	yellow	11	655,611	Body	OpenSea	DEAF1	0.584	0.010	0.486	0.283
cg12596182	yellow	12	70,082,885	Body	OpenSea	BEST3	0.584	0.005	0.615	0.477
cg20824977	yellow	15	59,978,600	Body	N_Shelf	BNIP2	0.584	0.003	0.969	0.258
cg23029041	yellow	3	57,264,838	Body	S_Shelf	APPL1	0.584	0.001	0.737	0.943
cg01798806	yellow	8	143,318,983	Body	OpenSea	TSNARE1	0.584	0.005	0.738	0.376
cg15887927	yellow	13	29,148,952		OpenSea		0.584	0.000	0.823	0.991
cg05919202	yellow	4	5,914,761		OpenSea		0.583	-0.007	0.490	0.564
cg14012059	yellow	9	130,222,969	Body	OpenSea	LRSAM1	0.583	0.007	0.507	0.336
cg20770175	yellow	2	189,839,474	Body	OpenSea	COL3A1	0.583	-0.007	0.244	0.599
cg13496568	yellow	14	103,374,508		S_Shore		0.583	0.023	0.792	0.012
cg02710090	yellow	1	207,225,128	TSS1500	N_Shore	PFKFB2	0.583	0.004	0.854	0.645
cg03125909	yellow	16	88,725,584	Body	Island	MVD	0.583	0.010	0.785	0.143
cg26478205	yellow	16	25,701,385		N_Shore		0.583	0.007	0.205	0.447
cg03273420	yellow	17	18,166,322	Body	N_Shore	SMCR7	0.583	0.011	0.718	0.112
cg20349812	yellow	7	4,764,941	Body	Island	FOXK1	0.583	-0.012	0.362	0.254
cg25508319	yellow	11	128,778,506	5'UTR	OpenSea	KCNJ5	0.583	0.019	0.733	0.065
cg24382276	yellow	15	82,204,026		OpenSea		0.583	-0.010	0.441	0.294
cg22728186	yellow	1	10,712,967	Body	N_Shore	CASZ1	0.583	0.002	0.684	0.810
cg18392545	yellow	13	113,545,611		N_Shelf		0.583	-0.001	0.876	0.864
cg20605413	yellow	20	56,136,167	1stExon	OpenSea	PCK1	0.583	0.013	0.353	0.113
cg23799375	yellow	6	163,148,022	TSS200	N_Shore	PACRG	0.583	0.004	0.330	0.544
cg06786050	yellow	16	84,401,247	TSS1500	N_Shore	ATP2C2	0.583	0.008	0.510	0.302
cg09869811	yellow	16	67,897,346	5'UTR	OpenSea	NUTF2	0.583	0.006	0.904	0.321
cg26907697	yellow	1	155,979,128	3'UTR	OpenSea	SSR2	0.583	-0.005	0.524	0.624
cg05693530	yellow	2	134,904,350		OpenSea		0.583	0.004	0.858	0.642
cg22704351	yellow	2	241,925,548		S_Shelf		0.583	0.010	0.793	0.146
cg04099767	yellow	13	113,529,660	Body	OpenSea	ATP11A	0.583	0.000	0.781	0.988
cg00936895	yellow	14	35,021,986		N_Shelf		0.583	0.010	0.811	0.293
cg09070415	yellow	1	32,041,052	TSS1500	OpenSea	TINAGL1	0.583	0.002	0.802	0.841
cg03151319	yellow	6	31,637,636	TSS1500	S_Shelf	LY6G5B	0.583	0.004	0.859	0.519
cg08820369	yellow	11	33,643,844	Body	OpenSea	C11orf41	0.583	0.020	0.667	0.178
cg01616349	yellow	11	2,596,468	Body	Island	KCNQ1	0.583	0.003	0.683	0.590
cg12041340	yellow	6	27,125,500		OpenSea		0.583	0.004	0.074	0.566
cg05356778	yellow	7	71,115,920	Body	OpenSea	WBSCR17	0.583	0.012	0.529	0.356
cg16362181	yellow	3	45,390,583		OpenSea		0.583	0.002	0.213	0.840
cg01137065	yellow	17	80,477,010	TSS1500	N_Shore	FOXK2	0.583	-0.001	0.022	0.577
cg01263877	yellow	19	3,721,303		N_Shore		0.583	-0.002	0.616	0.682
cg02210222	yellow	10	134,652,760		OpenSea		0.583	0.013	0.664	0.076
cg21322855	yellow	6	32,812,113	TSS1500	S_Shore	PSMB8	0.583	0.000	0.056	0.985
cg00546666	yellow	20	44,598,621	Body	N_Shore	ZNF335	0.583	-0.001	0.139	0.814
cg01176748	yellow	14	23,426,575	TSS1500	S_Shore	HAUS4	0.583	-0.001	0.033	0.802
cg03180322	yellow	15	81,604,544	3'UTR	OpenSea	IL16	0.583	0.002	0.720	0.720

cg14397799	yellow	7	127,732,246	3'UTR	OpenSea	SND1	0.583	-0.001	0.962	0.825
cg06128161	yellow	12	133,000,497		S_Shore		0.583	0.013	0.468	0.041
cg00052246	yellow	3	71,106,252	Body	OpenSea	FOXP1	0.583	0.001	0.934	0.938
cg03332546	yellow	19	16,553,887	Body	OpenSea	EPS15L1	0.583	0.000	0.462	0.951
cg07966572	yellow	7	149,158,486	TSS1500	S_Shore	ZNF777	0.583	0.007	0.446	0.435
cg02937751	yellow	10	72,358,696	Body	N_Shore	PRF1	0.583	0.003	0.691	0.603
cg09821587	yellow	7	42,001,069	3'UTR	N_Shelf	GLI3	0.583	-0.001	0.967	0.596
cg07066860	yellow	12	11,932,089	Body	OpenSea	ETV6	0.583	0.013	0.862	0.202
cg21763873	yellow	8	1,585,876	Body	OpenSea	DLGAP2	0.583	0.006	0.755	0.392
cg19005390	yellow	13	110,852,582	Body	OpenSea	COL4A1	0.583	0.011	0.789	0.369
cg27474175	yellow	15	80,363,992	5'UTR	OpenSea	ZFAND6	0.583	-0.019	0.683	0.136
cg13611204	yellow	9	139,324,423	Body	N_Shore	INPP5E	0.583	-0.001	0.463	0.894
cg06367459	yellow	19	55,898,325	3'UTR	S_Shore	RPL28	0.582	0.006	0.178	0.352
cg01168584	yellow	18	2,903,245	Body	N_Shelf	EMILIN2	0.582	0.000	0.065	0.948
cg26074100	yellow	8	141,568,712	Body	OpenSea	EIF2C2	0.582	-0.004	0.776	0.687
cg09996777	yellow	2	1,682,068	Body	OpenSea	PXDN	0.582	-0.002	0.453	0.736
cg16148593	yellow	8	22,085,417	Body	N_Shelf	PHYHIP	0.582	-0.003	0.067	0.699
cg22873165	yellow	8	143,459,992	5'UTR	OpenSea	TSNARE1	0.582	0.006	0.676	0.330
cg02980023	yellow	3	52,558,373	3'UTR	N_Shore	STAB1	0.582	0.004	0.719	0.560
cg12123983	yellow	14	62,228,668	TSS1500	N_Shore	SNAPC1	0.582	-0.007	0.343	0.414
cg12036303	yellow	6	30,652,907	Body	N_Shore	KIAA1949	0.582	0.017	0.784	0.024
cg08699512	yellow	16	21,716,300	5'UTR	OpenSea	OTOA	0.582	0.008	0.598	0.167
cg14066471	yellow	17	72,674,297	Body	OpenSea	RAB37	0.582	0.009	0.469	0.376
cg12324353	yellow	5	1,269,197	Body	N_Shore	TERT	0.582	-0.001	0.831	0.848
cg00914146	yellow	1	240,260,050	Body	S_Shelf	FMN2	0.582	-0.016	0.811	0.154
cg03721454	yellow	21	46,961,395	5'UTR	N_Shore	SLC19A1	0.582	0.014	0.567	0.137
cg19524824	yellow	12	50,023,313	5'UTR	OpenSea	PRPF40B	0.582	0.003	0.923	0.602
cg01839639	yellow	16	202,542	TSS1500	N_Shore	HBZ	0.582	0.005	0.472	0.555
cg10624914	yellow	13	114,103,477	Body	OpenSea	ADPRHL1	0.582	0.003	0.643	0.622
cg05159830	yellow	11	69,469,403		S_Shore		0.582	0.003	0.360	0.567
cg07200421	yellow	8	124,693,396	3'UTR	OpenSea	ANXA13	0.582	0.016	0.691	0.129
cg06872172	yellow	1	156,738,798	Body	S_Shore	PRCC	0.582	0.015	0.548	0.097
cg21643295	yellow	12	50,022,845	5'UTR	OpenSea	PRPF40B	0.582	0.003	0.759	0.679
cg16596691	yellow	19	41,260,294	Body	S_Shelf	SNRPA	0.582	0.001	0.904	0.868
cg12716367	yellow	8	17,625,476	5'UTR	OpenSea	MTUS1	0.582	0.019	0.420	0.031
cg21044630	yellow	6	31,710,716	Body	S_Shelf	MSH5	0.582	-0.001	0.857	0.851
cg03178609	yellow	10	71,389,700	TSS1500	N_Shore	C10orf35	0.582	-0.004	0.289	0.649
cg11350833	yellow	17	9,080,989	Body	OpenSea	NTN1	0.582	-0.004	0.799	0.707
cg14594295	yellow	4	3,489,931	Body	S_Shelf	DOK7	0.582	0.006	0.813	0.264
cg00931874	yellow	13	113,274,535		OpenSea		0.582	0.010	0.305	0.461
cg12619504	yellow	5	179,232,533	TSS1500	Island	SQSTM1	0.582	0.001	0.509	0.851
cg21932814	yellow	3	122,044,172	1stExon	OpenSea	CSTA	0.582	0.012	0.790	0.148
cg20900927	yellow	6	3,263,650	Body	S_Shelf	PSMG4	0.582	-0.002	0.815	0.663
cg27065979	yellow	13	52,734,134	TSS1500	S_Shore	NEK3	0.582	0.007	0.680	0.467
cg25513732	yellow	8	13,514,761		OpenSea		0.582	0.006	0.829	0.428
cg06520307	yellow	7	149,417,640	Body	S_Shore	KRBA1	0.582	0.009	0.612	0.145
cg23090046	yellow	14	104,094,619	TSS1500	Island	KLC1	0.582	0.020	0.620	0.023
cg15701281	yellow	7	1,462,569		S_Shore		0.582	-0.006	0.332	0.516
cg20348765	yellow	2	56,415,578	Body	S_Shelf	CCDC85A	0.582	0.011	0.394	0.462
cg01888601	yellow	11	47,736,182	1stExon	N_Shore	AGBL2	0.582	0.006	0.511	0.637
cg17586885	yellow	6	166,259,959		OpenSea		0.582	0.012	0.541	0.122
cg10106561	yellow	2	25,050,913	Body	OpenSea	ADCY3	0.582	0.006	0.881	0.455
cg12554268	yellow	7	27,338,633		OpenSea		0.582	-0.004	0.878	0.468
cg05879505	yellow	17	1,926,210	Body	N_Shore	RTN4RL1	0.582	0.008	0.485	0.221
cg25208291	yellow	3	168,986,579	Body	OpenSea	MECOM	0.582	0.014	0.596	0.184
cg06689372	yellow	3	58,645,085	5'UTR	OpenSea	FAM3D	0.582	0.007	0.472	0.235
cg23902823	yellow	9	95,859,131	Body	Island	C9orf89	0.581	0.000	0.081	0.956
cg08181258	yellow	14	67,710,831	5'UTR	S_Shelf	MPP5	0.581	-0.009	0.931	0.048
cg07111988	yellow	1	24,971,764	Body	S_Shore	SRRM1	0.581	0.000	0.971	0.979
cg16306078	yellow	6	126,000,798		OpenSea		0.581	0.008	0.810	0.480
cg00281132	yellow	10	2,929,067		N_Shelf		0.581	-0.002	0.475	0.750
cg11927345	yellow	5	71,012,177		N_Shelf		0.581	0.001	0.776	0.957
cg11156132	yellow	3	53,233,269		S_Shelf		0.581	0.010	0.437	0.090
cg11266407	yellow	20	44,843,080	Body	S_Shelf	CDH22	0.581	0.005	0.380	0.543
cg26699420	yellow	16	4,938,153	Body	S_Shelf	PPL	0.581	0.002	0.714	0.738
cg02108796	yellow	11	1,535,903	Body	N_Shore	HCCA2	0.581	0.018	0.483	0.023
cg06912623	yellow	1	224,781,135		OpenSea		0.581	-0.003	0.731	0.746

cg24524013	yellow	17	9,929,719	Body	OpenSea	GAS7	0.581	-0.005	0.235	0.507
cg14646977	yellow	6	30,656,667	Body	S_Shore	NRM	0.581	0.009	0.832	0.149
cg19779799	yellow	3	13,520,961	TSS1500	Island	HDAC11	0.581	-0.002	0.068	0.473
cg19258028	yellow	11	123,050,207	Body	OpenSea	ASAM	0.581	0.005	0.818	0.564
cg08266712	yellow	14	104,979,372		OpenSea		0.581	0.004	0.651	0.646
cg20471017	yellow	11	94,037,818	TSS1500	OpenSea	FOLR4	0.581	-0.003	0.409	0.746
cg02152819	yellow	2	232,258,417		N_Shore		0.581	0.005	0.596	0.441
cg20293582	yellow	3	101,485,366	3'UTR	OpenSea	CEP97	0.581	-0.001	0.940	0.878
cg11095099	yellow	3	195,604,374	Body	S_Shelf	TNK2	0.581	0.001	0.826	0.828
cg11767711	yellow	19	36,358,783	TSS1500	N_Shore	APLP1	0.581	0.005	0.873	0.518
cg17907525	yellow	7	2,594,000	Body	N_Shore	C7orf27	0.581	0.005	0.511	0.435
cg08001256	yellow	15	90,611,340	Body	Island	ZNF710	0.581	-0.002	0.922	0.686
cg04687551	yellow	12	129,187,286	Body	N_Shelf	TMEM132C	0.581	0.000	0.757	0.990
cg01947066	yellow	15	74,289,586	Body	N_Shore	PML	0.581	-0.008	0.891	0.249
cg12597839	yellow	1	110,036,141	TSS1500	N_Shore	CYB561D1	0.581	-0.004	0.566	0.597
cg25784359	yellow	6	30,900,299	TSS1500	OpenSea	SFTA2	0.581	0.009	0.635	0.237
cg03448915	yellow	16	66,583,078	Body	N_Shore	TK2	0.581	0.002	0.824	0.897
cg14971269	yellow	17	76,498,808	Body	Island	DNAH17	0.581	0.003	0.831	0.773
cg15090185	yellow	18	51,751,391	TSS1500	S_Shore	MBD2	0.581	0.002	0.341	0.819
cg25116503	yellow	11	117,947,657	TSS200	OpenSea	TMPRSS4	0.581	0.010	0.558	0.118
cg18118490	yellow	14	55,240,252	Body	OpenSea	SAMD4A	0.581	0.003	0.101	0.707
cg01755551	yellow	9	99,615,764	5'UTR	N_Shore	ZNF782	0.581	0.012	0.716	0.151
cg22448090	yellow	1	200,978,598	Body	OpenSea	KIF21B	0.581	0.000	0.684	0.963
cg08881614	yellow	3	51,433,428	3'UTR	S_Shelf	VPRBP	0.581	-0.001	0.943	0.715
cg14811806	yellow	2	70,339,758		OpenSea		0.581	-0.001	0.738	0.943
cg11663144	yellow	21	46,675,770		N_Shore		0.581	-0.002	0.790	0.835
cg08557929	yellow	13	113,487,737	Body	S_Shore	ATP11A	0.581	0.010	0.866	0.290
cg19530885	yellow	5	147,258,132	TSS200	OpenSea	SCGB3A2	0.581	0.000	0.567	0.988
cg15969203	yellow	11	1,030,629	Body	S_Shore	MUC6	0.581	0.012	0.598	0.079
cg20759486	yellow	6	30,951,225	TSS1500	OpenSea	MUC21	0.581	-0.011	0.833	0.132
cg26527984	yellow	17	73,761,562	TSS1500	S_Shore	GALK1	0.581	0.001	0.445	0.864
cg01792902	yellow	3	178,864,926	TSS1500	N_Shore	PIK3CA	0.581	0.004	0.041	0.263
cg19679865	yellow	1	8,467,904	5'UTR	OpenSea	RERE	0.581	-0.003	0.801	0.745
cg03674282	yellow	2	106,048,792	5'UTR	OpenSea	FHL2	0.581	-0.008	0.598	0.458
cg02385230	yellow	17	38,605,309	Body	OpenSea	IGFBP4	0.581	-0.002	0.560	0.691
cg15476994	yellow	6	130,114,801		OpenSea		0.581	0.010	0.770	0.106
cg17142432	yellow	11	70,559,104	Body	OpenSea	SHANK2	0.581	0.002	0.769	0.778
cg00993308	yellow	5	3,325,561		N_Shore		0.581	0.015	0.362	0.035
cg12190413	yellow	19	14,627,564	Body	N_Shore	DNAJB1	0.581	0.006	0.759	0.621
cg03123979	yellow	16	1,041,053		Island		0.581	0.014	0.902	0.067
cg25235205	yellow	7	98,970,792		N_Shore		0.581	0.003	0.632	0.693
cg08402498	yellow	16	3,912,955	Body	OpenSea	CREBBP	0.581	-0.002	0.870	0.824
cg06720949	yellow	19	45,381,937	Body	OpenSea	PVRL2	0.581	0.004	0.661	0.400
cg12036924	yellow	19	5,838,731	1stExon	OpenSea	FUT6	0.581	0.008	0.689	0.440
cg19609315	yellow	19	59,085,246	TSS1500	N_Shore	MZF1	0.581	-0.002	0.130	0.820
cg13049471	yellow	17	74,641,167	TSS1500	OpenSea	ST6GALNAC1	0.580	-0.003	0.838	0.719
cg15983109	yellow	2	68,880,714	Body	N_Shore	PROKR1	0.580	0.008	0.060	0.238
cg26800915	yellow	11	5,324,199	TSS1500	OpenSea	OR51B4	0.580	-0.001	0.921	0.851
cg27176394	yellow	19	2,255,462	TSS200	S_Shore	JSRP1	0.580	0.003	0.810	0.852
cg15905329	yellow	7	134,575,811	TSS1500	OpenSea	CALD1	0.580	0.003	0.264	0.699
cg07852840	yellow	3	140,813,919	Body	Island	SPSB4	0.580	0.004	0.638	0.780
cg01022780	yellow	3	48,598,236		S_Shelf		0.580	0.005	0.153	0.326
cg02361306	yellow	19	35,940,461	TSS200	OpenSea	FFAR2	0.580	0.016	0.686	0.304
cg13324103	yellow	10	29,948,428	5'UTR	OpenSea	SVIL	0.580	-0.006	0.505	0.481
cg23284931	yellow	11	13,983,273	TSS1500	N_Shore	SPON1	0.580	-0.007	0.807	0.374
cg17183836	yellow	8	143,570,814	Body	OpenSea	BAI1	0.580	0.009	0.754	0.195
cg23072629	yellow	2	239,195,537	5'UTR	N_Shore	PER2	0.580	0.011	0.539	0.220
cg03723356	yellow	17	46,047,760	TSS1500	N_Shore	CDK5RAP3	0.580	0.010	0.656	0.241
cg14150907	yellow	8	142,275,722		OpenSea		0.580	-0.004	0.064	0.601
cg03359540	yellow	6	2,750,213	5'UTR	OpenSea	MYLK4	0.580	-0.001	0.483	0.913
cg20796999	yellow	17	75,390,097	5'UTR	OpenSea	9-Sep	0.580	-0.001	0.891	0.888
cg23112425	yellow	7	547,637	Body	N_Shelf	PDGFA	0.580	0.003	0.484	0.734
cg05973028	yellow	8	56,805,707	5'UTR	OpenSea	LYN	0.580	0.017	0.562	0.120
cg08239893	yellow	2	52,221,668		OpenSea		0.580	-0.004	0.874	0.737
cg06743312	yellow	12	6,661,122	Body	N_Shelf	IFFO1	0.580	0.006	0.424	0.324
cg23561606	yellow	2	177,418,561		OpenSea		0.580	-0.020	0.107	0.330
cg18889147	yellow	1	161,693,987	Body	N_Shore	FCRLB	0.580	0.011	0.402	0.126

cg12910641	yellow	20	61,343,222	Body	S_Shelf	NTSR1	0.580	0.016	0.499	0.012
cg16529686	yellow	1	200,175,553		OpenSea		0.580	0.004	0.896	0.534
cg24636969	yellow	8	81,787,111	TSS200	S_Shore	ZNF704	0.580	0.005	0.132	0.628
cg03468671	yellow	14	39,737,849	Body	S_Shore	CTAGE5	0.580	0.010	0.226	0.162
cg00455747	yellow	18	8,659,509		Island		0.580	0.001	0.887	0.813
cg00114132	yellow	18	8,657,945		N_Shore		0.580	-0.004	0.794	0.792
cg01467417	yellow	2	113,874,068	TSS1500	OpenSea	IL1RN	0.580	0.003	0.830	0.615
cg17333242	yellow	2	31,359,928	Body	N_Shore	GALNT14	0.580	-0.002	0.299	0.749
cg09757400	yellow	2	178,976,981	TSS200	N_Shore	RBM45	0.580	-0.005	0.082	0.263
cg00113096	yellow	2	134,119,805	Body	OpenSea	NCKAP5	0.580	0.016	0.542	0.076
cg20239017	yellow	1	41,961,110		N_Shore		0.580	0.001	0.856	0.861
cg08610563	yellow	5	1,476,608	Body	OpenSea	LPCAT1	0.580	0.002	0.831	0.819
cg04792034	yellow	12	58,263,161		S_Shelf		0.580	0.010	0.547	0.210
cg05179501	yellow	11	65,633,553	3'UTR	OpenSea	MUS81	0.580	0.005	0.882	0.419
cg14004678	yellow	17	77,001,516	5'UTR	OpenSea	CANT1	0.580	0.003	0.546	0.813
cg11800608	yellow	20	56,724,999	TSS1500	N_Shore	C2orf85	0.580	-0.009	0.905	0.183
cg09260667	yellow	16	50,679,494		OpenSea		0.580	0.004	0.263	0.489
cg02989257	yellow	1	32,169,274	5'UTR	N_Shore	COL16A1	0.580	0.011	0.486	0.126
cg16151924	yellow	8	65,577,290	Body	OpenSea	CYP7B1	0.580	-0.012	0.721	0.411
cg14153737	yellow	1	166,136,630	TSS1500	S_Shore	FAM78B	0.580	0.005	0.249	0.494
cg03168614	yellow	20	34,253,242	TSS1500	S_Shore	RBM12	0.580	0.008	0.285	0.587
cg17128767	yellow	4	72,686,016		OpenSea		0.580	-0.009	0.746	0.246
cg27038676	yellow	16	88,334,272		OpenSea		0.580	-0.005	0.699	0.445
cg05663643	yellow	6	30,028,250	TSS1500	N_Shore	ZNRD1	0.580	0.008	0.245	0.557
cg14444376	yellow	7	23,286,319	5'UTR	N_Shore	GPNMB	0.580	-0.009	0.853	0.454
cg24333150	yellow	19	43,203,368		S_Shore		0.580	-0.003	0.843	0.660
cg10008571	yellow	17	76,987,812	3'UTR	N_Shore	CANT1	0.580	0.001	0.729	0.927
cg14015015	yellow	6	35,327,915	5'UTR	OpenSea	PPARD	0.580	0.001	0.055	0.813
cg10113526	yellow	8	142,163,737	Body	OpenSea	DENND3	0.580	-0.008	0.436	0.433
cg10588617	yellow	2	43,027,940		OpenSea		0.580	0.005	0.521	0.696
cg19045729	yellow	10	104,252,630	Body	OpenSea	ACTR1A	0.580	-0.002	0.913	0.712
cg27018502	yellow	17	61,516,369	5'UTR	S_Shore	CYB561	0.580	-0.011	0.787	0.148
cg04962480	yellow	8	101,962,118	5'UTR	N_Shore	YWHAZ	0.580	0.014	0.230	0.078
cg21840875	yellow	22	39,910,631	3'UTR	OpenSea	SMCR7L	0.580	-0.001	0.474	0.890
cg01209566	yellow	8	125,954,151	TSS200	OpenSea	LOC157381	0.580	-0.002	0.211	0.834
cg22656940	yellow	11	2,261,658		OpenSea		0.579	0.012	0.877	0.133
cg11496559	yellow	3	132,843,552	5'UTR	OpenSea	TMEM108	0.579	0.003	0.192	0.777
cg00377591	yellow	11	36,527,638	5'UTR	N_Shelf	TRAF6	0.579	-0.002	0.899	0.827
cg01173485	yellow	11	74,302,893	TSS1500	N_Shore	POLD3	0.579	0.005	0.880	0.598
cg06417962	yellow	11	507,970	TSS1500	Island	RNH1	0.579	0.005	0.263	0.553
cg00123128	yellow	4	3,464,702	TSS1500	N_Shore	DOK7	0.579	-0.003	0.390	0.867
cg10175583	yellow	22	36,691,058	Body	OpenSea	MYH9	0.579	0.000	0.776	0.944
cg15395441	yellow	5	114,938,459	Body	S_Shore	TMED7-TICAI	0.579	0.013	0.814	0.385
cg17410313	yellow	7	151,064,498	Body	OpenSea	NUB1	0.579	0.005	0.529	0.614
cg27522573	yellow	16	87,622,478		OpenSea		0.579	-0.003	0.060	0.484
cg05695106	yellow	13	114,780,992	Body	Island	RASA3	0.579	0.012	0.843	0.110
cg01994190	yellow	2	119,768,574		N_Shore		0.579	0.003	0.683	0.679
cg12109170	yellow	8	143,259,104		OpenSea		0.579	0.036	0.699	0.034
cg09321086	yellow	11	120,941,709	Body	OpenSea	TBCEL	0.579	0.006	0.893	0.481
cg00528779	yellow	12	124,926,062	Body	N_Shelf	NCOR2	0.579	-0.004	0.932	0.551
cg01768131	yellow	17	79,869,861	3'UTR	S_Shore	SIRT7	0.579	0.008	0.465	0.395
cg16651347	yellow	1	175,042,297	5'UTR	OpenSea	TNN	0.579	0.007	0.816	0.444
cg18964590	yellow	17	1,521,483	Body	OpenSea	SLC43A2	0.579	-0.007	0.720	0.291
cg26620242	yellow	5	5,340,467		OpenSea		0.579	-0.001	0.549	0.908
cg26644674	yellow	10	3,138,505	Body	OpenSea	PFKP	0.579	0.006	0.931	0.420
cg03720100	yellow	6	30,720,263		OpenSea		0.579	0.004	0.322	0.766
cg10985430	yellow	13	24,607,688		OpenSea		0.579	-0.003	0.884	0.722
cg15174926	yellow	8	144,875,094	Body	S_Shelf	SCRIB	0.579	0.008	0.868	0.061
cg01637548	yellow	20	62,574,518	Body	N_Shore	UCKL1	0.579	0.007	0.797	0.237
cg06759874	yellow	4	186,960,904		OpenSea		0.579	-0.008	0.611	0.429
cg00215182	yellow	1	22,979,495	TSS200	OpenSea	C1QB	0.579	0.006	0.717	0.350
cg00611548	yellow	6	116,601,663	TSS1500	S_Shore	TSPYL1	0.579	-0.005	0.149	0.759
cg03748042	yellow	10	131,505,789	Body	OpenSea	MGMT	0.579	0.006	0.707	0.482
cg01440333	yellow	1	111,770,111	TSS200	OpenSea	CHI3L2	0.579	0.003	0.740	0.651
cg11998049	yellow	6	52,441,068	Body	N_Shore	TRAM2	0.579	-0.014	0.134	0.055
cg10109841	yellow	3	135,969,958	Body	S_Shore	PCCB	0.579	-0.010	0.353	0.302
cg13748794	yellow	6	151,413,946	3'UTR	S_Shore	MTHFD1L	0.579	-0.004	0.957	0.298

cg02303801	yellow	1	3,399,318	OpenSea		0.579	0.001	0.639	0.880
cg20309061	yellow	15	42,693,555 Body	OpenSea	CAPN3	0.579	0.004	0.806	0.436
cg04295322	yellow	17	26,833,208	OpenSea		0.579	0.010	0.436	0.089
cg05908442	yellow	15	77,800,637	OpenSea		0.579	0.009	0.589	0.047
cg20094066	yellow	2	43,299,482	S_Shelf		0.579	0.017	0.524	0.002
cg17877566	yellow	17	46,048,946 Body	S_Shore	CDK5RAP3	0.579	0.009	0.305	0.456
cg04304450	yellow	22	43,525,431 3'UTR	OpenSea	BIK	0.579	0.017	0.404	0.102
cg20306265	yellow	1	118,157,624 5'UTR	OpenSea	FAM46C	0.579	0.001	0.424	0.873
cg02845870	yellow	11	85,524,670	S_Shelf		0.579	-0.008	0.927	0.164
cg09072576	yellow	22	19,838,287 5'UTR	N_Shelf	GNB1L	0.579	0.002	0.647	0.663
cg25122752	yellow	5	114,713,211	OpenSea		0.579	0.007	0.706	0.562
cg21239317	yellow	7	23,640,510 5'UTR	S_Shelf	CCDC126	0.579	0.005	0.645	0.373
cg01717201	yellow	17	48,174,262 Body	S_Shore	PDK2	0.579	0.006	0.588	0.207
cg11690666	yellow	17	80,415,469 TSS1500	N_Shore	NARF	0.579	0.005	0.924	0.462
cg06032021	yellow	10	75,401,380 1stExon	OpenSea	MYOZ1	0.579	0.004	0.521	0.448
cg06073417	yellow	3	119,316,673 TSS200	OpenSea	PLA1A	0.579	0.004	0.267	0.506
cg17728065	yellow	15	61,220,843 Body	OpenSea	RORA	0.579	-0.017	0.910	0.036
cg16276348	yellow	13	30,510,494	OpenSea		0.579	0.002	0.361	0.691
cg13471521	yellow	1	12,244,930 Body	OpenSea	TNFRSF1B	0.579	0.010	0.793	0.231
cg03890680	yellow	1	227,504,721 1stExon	N_Shore	CDC42BPA	0.579	0.005	0.063	0.440
cg01233397	yellow	21	37,754,781	N_Shelf		0.579	0.003	0.937	0.604
cg08220243	yellow	22	50,499,398 3'UTR	S_Shelf	MLC1	0.579	0.007	0.744	0.329
cg16693103	yellow	10	125,343,766	OpenSea		0.579	0.004	0.645	0.690
cg13853198	yellow	1	161,185,092 1stExon	OpenSea	FCER1G	0.579	-0.002	0.751	0.854
cg03840259	yellow	22	40,297,036 TSS200	OpenSea	GRAP2	0.579	0.012	0.856	0.104
cg23663298	yellow	11	61,912,356 Body	OpenSea	INCENP	0.578	0.003	0.800	0.840
cg06465371	yellow	8	144,807,941 3'UTR	N_Shore	FAM83H	0.578	0.001	0.698	0.892
cg23692997	yellow	4	113,554,716 5'UTR	N_Shelf	C4orf21	0.578	0.016	0.524	0.109
cg23086519	yellow	14	75,703,717	OpenSea		0.578	0.012	0.542	0.153
cg26000393	yellow	22	39,378,224 TSS200	OpenSea	APOBEC3B	0.578	-0.002	0.065	0.819
cg23758703	yellow	10	114,610,508 TSS200	OpenSea	LOC143188	0.578	0.004	0.334	0.601
cg21700339	yellow	17	71,204,820 3'UTR	OpenSea	FAM104A	0.578	-0.004	0.968	0.184
cg08136169	yellow	14	23,707,320	OpenSea		0.578	0.001	0.023	0.398
cg23887345	yellow	7	157,453,775 Body	Island	PTPRN2	0.578	-0.002	0.940	0.773
cg08426200	yellow	15	78,802,280 5'UTR	S_Shore	AGPHD1	0.578	0.008	0.491	0.166
cg05341199	yellow	12	131,603,380 Body	N_Shelf	GPR133	0.578	0.002	0.753	0.869
cg03331924	yellow	1	208,038,413	N_Shelf		0.578	0.007	0.779	0.409
cg22109240	yellow	2	201,374,010 5'UTR	N_Shore	KCTD18	0.578	0.006	0.799	0.429
cg22959260	yellow	15	40,382,862 3'UTR	OpenSea	BMF	0.578	0.010	0.609	0.239
cg09418000	yellow	7	39,056,400 Body	OpenSea	POU6F2	0.578	0.005	0.624	0.464
cg24092253	yellow	20	61,848,099 TSS1500	Island	YTHDF1	0.578	-0.004	0.254	0.593
cg15342087	yellow	6	30,720,209	OpenSea		0.578	-0.002	0.541	0.931
cg06239352	yellow	17	36,763,598 TSS1500	S_Shore	SRCIN1	0.578	0.002	0.351	0.740
cg14478422	yellow	2	233,877,932 1stExon	OpenSea	NGEF	0.578	-0.003	0.626	0.746
cg14116908	yellow	9	95,859,189 Body	S_Shore	C9orf89	0.578	-0.003	0.123	0.752
cg00452199	yellow	11	44,088,257 5'UTR	S_Shore	ACCS	0.578	0.004	0.127	0.638
cg11051295	yellow	4	185,876,283	S_Shelf		0.578	-0.004	0.936	0.363
cg18713166	yellow	17	17,106,839 Body	N_Shore	PLD6	0.578	0.000	0.872	0.952
cg10298567	yellow	3	47,292,165 Body	OpenSea	KIF9	0.578	-0.009	0.784	0.487
cg03030419	yellow	2	238,617,524 Body	OpenSea	LRRFIP1	0.578	0.001	0.558	0.860
cg16608593	yellow	14	105,912,068 Body	Island	MTA1	0.578	0.004	0.782	0.552
cg06434738	yellow	16	54,115,019 Body	OpenSea	FTO	0.578	0.007	0.918	0.315
cg01486686	yellow	1	22,918,205 Body	N_Shore	EPHA8	0.578	0.004	0.663	0.562
cg08350509	yellow	19	3,028,220 Body	N_Shore	TLE2	0.578	0.013	0.244	0.343
cg10291119	yellow	14	103,403,760 Body	N_Shelf	CDC42BPB	0.578	0.002	0.838	0.732
cg02329010	yellow	19	4,373,196 Body	S_Shore	SH3GL1	0.578	0.006	0.749	0.388
cg10595421	yellow	6	151,710,284 5'UTR	N_Shore	ZBTB2	0.578	0.008	0.940	0.054
cg02802072	yellow	17	79,229,124 Body	OpenSea	SLC38A10	0.578	0.005	0.037	0.265
cg08675521	yellow	11	18,716,666	N_Shelf		0.578	0.010	0.713	0.313
cg16882373	yellow	7	26,191,458 TSS1500	N_Shore	NFE2L3	0.578	-0.006	0.812	0.361
cg23035449	yellow	15	90,578,555 5'UTR	OpenSea	ZNF710	0.578	0.007	0.649	0.317
cg14021375	yellow	19	16,999,800 TSS200	N_Shore	F2RL3	0.578	-0.006	0.334	0.643
cg01215742	yellow	16	1,069,551	Island		0.578	0.014	0.569	0.321
cg13543473	yellow	9	134,590,445 Body	OpenSea	RAPGEF1	0.578	-0.008	0.805	0.167
cg02313495	yellow	15	40,398,007 Body	N_Shelf	BMF	0.578	0.008	0.691	0.464
cg16206344	yellow	6	166,270,367	S_Shore		0.578	-0.016	0.760	0.104
cg08813325	yellow	4	7,699,611 Body	OpenSea	SORCS2	0.578	0.007	0.758	0.352

cg08528735	yellow	3	184,428,879	1stExon	N_Shore	MAGEF1	0.578	0.007	0.208	0.618
cg05408317	yellow	6	31,765,634	Body	S_Shore	LSM2	0.578	0.012	0.705	0.229
cg17975379	yellow	6	4,893,429	Body	OpenSea	CDYL	0.578	0.002	0.775	0.760
cg19406106	yellow	19	13,045,039	TSS1500	S_Shore	FARSA	0.578	-0.009	0.908	0.167
cg20427198	yellow	22	46,969,267		N_Shelf		0.578	0.003	0.912	0.622
cg21388639	yellow	4	159,740,817	Body	OpenSea	FNIP2	0.578	0.008	0.358	0.319
cg19490598	yellow	2	1,237,302	Body	OpenSea	SNTG2	0.578	0.024	0.391	0.559
cg02063846	yellow	20	25,130,869	TSS1500	S_Shore	LOC284798	0.578	0.012	0.818	0.232
cg00027995	yellow	15	39,888,093	3'UTR	OpenSea	THBS1	0.578	-0.003	0.912	0.684
cg01514075	yellow	1	7,832,357	Body	S_Shore	VAMP3	0.578	0.029	0.573	0.020
cg13563634	yellow	6	32,805,684	Body	N_Shore	TAP2	0.578	-0.004	0.526	0.687
cg13043598	yellow	11	93,464,342	TSS200	OpenSea	SNORA32	0.578	0.002	0.962	0.451
cg26421308	yellow	11	86,663,040	Body	N_Shelf	FZD4	0.578	0.006	0.869	0.376
cg12413346	yellow	15	43,425,285	TSS1500	N_Shore	TMEM62	0.578	0.011	0.377	0.235
cg00267694	yellow	8	34,280,422		OpenSea		0.578	0.019	0.634	0.017
cg10361494	yellow	14	77,593,161		S_Shore		0.578	0.014	0.707	0.047
cg23403099	yellow	17	32,942,254	Body	OpenSea	TMEM132E	0.578	0.000	0.625	0.977
cg06185555	yellow	17	37,884,640	3'UTR	N_Shore	ERBB2	0.578	0.005	0.841	0.290
cg10790526	yellow	11	134,250,892	3'UTR	N_Shelf	B3GAT1	0.578	-0.002	0.679	0.683
cg18414579	yellow	4	102,266,325	Body	N_Shore	PPP3CA	0.577	0.001	0.705	0.930
cg04709900	yellow	2	97,220,393		OpenSea		0.577	0.002	0.280	0.797
cg04065143	yellow	3	2,945,214	Body	OpenSea	CNTN4	0.577	0.019	0.633	0.048
cg14258504	yellow	12	49,189,285		OpenSea		0.577	-0.003	0.907	0.638
cg17276002	yellow	10	75,172,806	5'UTR	N_Shore	ANXA7	0.577	0.021	0.640	0.272
cg03823431	yellow	17	79,229,385	Body	OpenSea	SLC38A10	0.577	0.010	0.257	0.235
cg13254518	yellow	2	180,457,494	Body	OpenSea	ZNF385B	0.577	0.000	0.892	0.971
cg04955914	yellow	2	220,040,571	Body	N_Shore	C2orf24	0.577	0.020	0.726	0.003
cg10956589	yellow	6	30,749,279		OpenSea		0.577	-0.001	0.923	0.854
cg07407499	yellow	11	47,470,791	TSS200	OpenSea	RAPSN	0.577	0.006	0.464	0.275
cg25551545	yellow	17	46,106,286	Body	S_Shelf	COPZ2	0.577	-0.003	0.705	0.587
cg14522767	yellow	9	127,616,124	Body	S_Shore	WDR38	0.577	0.004	0.468	0.539
cg12128696	yellow	14	54,429,756		N_Shore		0.577	-0.009	0.777	0.214
cg15092239	yellow	10	129,678,749	Body	OpenSea	CLRN3	0.577	0.003	0.832	0.605
cg22735190	yellow	15	90,932,384	Body	S_Shore	IQGAP1	0.577	0.003	0.040	0.144
cg04621944	yellow	1	5,080,448		OpenSea		0.577	-0.007	0.853	0.602
cg07703701	yellow	1	144,926,986	Body	OpenSea	PDE4DIP	0.577	-0.002	0.963	0.500
cg27356115	yellow	15	53,422,311		OpenSea		0.577	-0.007	0.539	0.589
cg16527208	yellow	3	135,527,381		OpenSea		0.577	0.007	0.585	0.235
cg00888108	yellow	18	77,149,314		N_Shelf		0.577	0.015	0.717	0.192
cg21980394	yellow	6	161,860,263	Body	OpenSea	PARK2	0.577	0.011	0.559	0.177
cg25634507	yellow	8	59,413,577	TSS1500	OpenSea	CYP7A1	0.577	-0.013	0.713	0.234
cg19147990	yellow	10	62,537,802	TSS1500	N_Shore	CDK1	0.577	0.006	0.136	0.408
cg03946532	yellow	16	79,344,736		OpenSea		0.577	0.033	0.796	0.023
cg23929317	yellow	1	201,123,992	TSS1500	S_Shore	TMEM9	0.577	0.027	0.144	0.027
cg08885179	yellow	8	21,208,790		OpenSea		0.577	-0.005	0.707	0.533
cg16148454	yellow	16	69,385,606	1stExon	OpenSea	TMED6	0.577	0.012	0.638	0.087
cg04837959	yellow	1	29,742,186		OpenSea		0.577	0.003	0.253	0.647
cg05167916	yellow	13	111,061,859	Body	OpenSea	COL4A2	0.577	0.002	0.855	0.752
cg03077712	yellow	17	7,138,739	TSS1500	S_Shore	DVL2	0.577	0.010	0.796	0.229
cg11468085	yellow	11	67,435,577	5'UTR	S_Shelf	ALDH3B2	0.577	0.008	0.464	0.323
cg27028750	yellow	5	1,349,422		S_Shelf		0.577	-0.013	0.383	0.319
cg02193956	yellow	4	103,680,201	Body	N_Shore	MANBA	0.577	0.003	0.948	0.454
cg21238619	yellow	17	78,079,768	Body	Island	GAA	0.577	-0.020	0.174	0.175
cg07720990	yellow	2	70,998,383		S_Shelf		0.577	-0.004	0.657	0.671
cg14124261	yellow	9	116,262,291	TSS1500	OpenSea	RGS3	0.577	0.016	0.777	0.045
cg15689795	yellow	4	2,439,478		OpenSea		0.577	0.016	0.676	0.055
cg07484220	yellow	16	136,809	Body	OpenSea	C16orf35	0.577	0.004	0.725	0.700
cg211072779	yellow	2	70,044,977	Body	OpenSea	ANXA4	0.577	0.007	0.517	0.477
cg07155684	yellow	4	178,364,890	TSS1500	S_Shore	AGA	0.577	-0.011	0.932	0.052
cg10620457	yellow	1	57,432,110	TSS1500	OpenSea	C8B	0.577	0.000	0.873	0.988
cg23676480	yellow	20	25,039,812	TSS200	S_Shore	ACSS1	0.577	-0.002	0.043	0.656
cg07959986	yellow	22	49,068,771	Body	OpenSea	FAM19A5	0.577	0.006	0.812	0.400
cg02748089	yellow	16	78,540,172	Body	OpenSea	WWOX	0.577	0.008	0.251	0.499
cg15254385	yellow	8	15,364,358		OpenSea		0.577	0.002	0.352	0.790
cg04421974	yellow	8	134,224,814	Body	OpenSea	WISP1	0.577	0.020	0.670	0.022
cg12056210	yellow	8	144,330,701	5'UTR	N_Shore	ZFP41	0.577	0.004	0.718	0.648
cg12550399	yellow	17	19,482,275	3'UTR	N_Shore	SLC47A1	0.577	0.012	0.752	0.117

cg14057560	yellow	9	139,519,201	OpenSea		0.577	0.009	0.623	0.207
cg13518625	yellow	8	29,522,838	OpenSea		0.577	0.016	0.499	0.027
cg23222160	yellow	14	94,605,081	OpenSea		0.577	0.004	0.830	0.554
cg24351262	yellow	20	50,108,579 Body	N_Shore	NFATC2	0.576	0.023	0.462	0.114
cg25055477	yellow	6	34,360,916 TSS1500	S_Shore	NUDT3	0.576	0.000	0.176	0.956
cg09852209	yellow	14	93,580,037 Body	N_Shore	ITPK1	0.576	0.012	0.418	0.144
cg18273817	yellow	1	8,936,178 5'UTR	N_Shore	ENO1	0.576	0.011	0.900	0.161
cg04992588	yellow	3	58,563,674 TSS200	OpenSea	FAM107A	0.576	0.000	0.893	0.981
cg18515587	yellow	1	151,344,806 Body	OpenSea	SELENBP1	0.576	0.012	0.398	0.297
cg18229767	yellow	11	67,776,576 TSS1500	OpenSea	ALDH3B1	0.576	0.011	0.716	0.202
cg07524398	yellow	22	39,261,722 3'UTR	N_Shore	CBX6	0.576	0.006	0.457	0.495
cg14349951	yellow	7	6,388,827 TSS1500	S_Shore	C7orf70	0.576	0.006	0.168	0.408
cg20092036	yellow	12	109,914,141 TSS1500	N_Shore	UBE3B	0.576	0.008	0.303	0.359
cg03761141	yellow	12	72,078,615 TSS1500	N_Shore	TMEM19	0.576	0.000	0.966	0.934
cg23963476	yellow	19	11,099,907 Body	S_Shore	SMARCA4	0.576	0.006	0.893	0.415
cg14510299	yellow	1	27,928,494 5'UTR	N_Shore	AHDC1	0.576	0.004	0.038	0.257
cg02257057	yellow	14	75,519,464 TSS1500	S_Shore	MLH3	0.576	0.016	0.537	0.182
cg05927274	yellow	1	153,457,181	OpenSea		0.576	0.006	0.492	0.290
cg06820990	yellow	10	6,162,188	OpenSea		0.576	-0.005	0.886	0.647
cg04205715	yellow	1	35,259,937 Body	S_Shore	GJA4	0.576	-0.016	0.822	0.379
cg10163220	yellow	12	104,776,085	OpenSea		0.576	-0.004	0.509	0.587
cg15321979	yellow	12	3,541,067	OpenSea		0.576	-0.011	0.856	0.190
cg04380939	yellow	16	14,658,873 Body	OpenSea	PARN	0.576	-0.021	0.776	0.097
cg07987148	yellow	20	45,318,890 TSS1500	S_Shore	TP53RK	0.576	0.014	0.194	0.179
cg19686152	yellow	15	52,121,542 TSS1500	N_Shore	TMOD3	0.576	-0.004	0.798	0.550
cg07097026	yellow	6	44,257,942 5'UTR	S_Shelf	TCTE1	0.576	0.001	0.636	0.897
cg22851694	yellow	1	202,075,546	OpenSea		0.576	0.003	0.472	0.605
cg02265721	yellow	12	64,916,007	OpenSea		0.576	0.004	0.876	0.721
cg11547613	yellow	8	38,308,427 Body	OpenSea	FGFR1	0.576	0.007	0.139	0.443
cg02092141	yellow	11	66,411,184 Body	Island	RBM4	0.576	0.004	0.824	0.604
cg05869601	yellow	15	93,587,701 3'UTR	N_Shore	RGMA	0.576	0.001	0.871	0.855
cg05591123	yellow	8	141,357,635 Body	N_Shore	TRAPPC9	0.576	-0.011	0.813	0.239
cg23394673	yellow	1	1,149,211 Body	Island	TNFRSF4	0.576	0.014	0.648	0.047
cg13026754	yellow	14	94,392,718 Body	OpenSea	FAM181A	0.576	0.007	0.607	0.271
cg01116477	yellow	5	34,053,399	OpenSea		0.576	0.004	0.798	0.662
cg18986651	yellow	3	145,860,909 Body	OpenSea	PLOD2	0.576	0.003	0.311	0.655
cg08448479	yellow	4	114,214,185 Body	OpenSea	ANK2	0.576	0.007	0.056	0.345
cg23836737	yellow	4	53,411,703	OpenSea		0.576	-0.003	0.251	0.818
cg07902983	yellow	19	39,694,477 Body	Island	SYCN	0.576	0.015	0.489	0.174
cg21076424	yellow	7	159,020,356	N_Shelf		0.576	0.019	0.500	0.283
cg18493314	yellow	14	21,899,075 Body	OpenSea	CHD8	0.576	0.005	0.866	0.251
cg09001527	yellow	5	177,942,856 Body	N_Shelf	COL23A1	0.576	0.010	0.639	0.201
cg09107438	yellow	12	56,819,060 Body	OpenSea	TIMELESS	0.576	-0.004	0.918	0.536
cg27175491	yellow	12	70,425,656	OpenSea		0.575	0.015	0.729	0.503
cg06614508	yellow	17	911,212 Body	S_Shore	ABR	0.575	0.001	0.851	0.917
cg06975311	yellow	11	65,407,399 TSS200	N_Shore	SIPA1	0.575	0.007	0.573	0.126
cg06024295	yellow	10	101,841,416 1stExon	OpenSea	CPN1	0.575	0.003	0.612	0.768
cg11065458	yellow	1	110,654,514 TSS1500	OpenSea	UBL4B	0.575	0.003	0.645	0.599
cg00108038	yellow	12	1,609,245 TSS1500	OpenSea	LOC1002926	0.575	0.006	0.900	0.440
cg22079077	yellow	15	41,061,384 Body	OpenSea	DNAJC17	0.575	0.007	0.752	0.497
cg07549656	yellow	11	134,025,554 Body	OpenSea	NCAPD3	0.575	-0.003	0.758	0.590
cg00075956	yellow	10	1,726,078 Body	OpenSea	ADARB2	0.575	0.008	0.713	0.379
cg10023178	yellow	13	112,172,440	Island		0.575	-0.005	0.413	0.428
cg05226008	yellow	8	13,372,132 1stExon	OpenSea	DLC1	0.575	-0.001	0.094	0.890
cg26740525	yellow	6	7,217,152 Body	OpenSea	RREB1	0.575	0.011	0.315	0.172
cg18310495	yellow	10	125,615,419 Body	N_Shore	CPXM2	0.575	0.008	0.589	0.249
cg09242541	yellow	1	10,490,025 TSS200	N_Shore	APITD1	0.575	-0.009	0.652	0.511
cg04046364	yellow	12	58,210,661 TSS1500	OpenSea	AVIL	0.575	0.006	0.682	0.322
cg00582663	yellow	17	7,815,834 3'UTR	N_Shelf	CHD3	0.575	0.003	0.622	0.629
cg14082097	yellow	8	28,573,503 5'UTR	N_Shore	EXTL3	0.575	-0.002	0.815	0.854
cg23329411	yellow	10	43,562,813	OpenSea		0.575	0.009	0.650	0.186
cg26895931	yellow	16	85,398,190	S_Shelf		0.575	-0.005	0.868	0.614
cg27190843	yellow	11	6,440,968 TSS1500	S_Shore	APBB1	0.575	0.002	0.044	0.528
cg04458281	yellow	8	41,433,172	N_Shelf		0.575	0.009	0.763	0.468
cg00037856	yellow	3	127,633,627	N_Shore		0.575	-0.001	0.742	0.950
cg19391515	yellow	11	66,626,563 Body	Island	PC	0.575	0.002	0.597	0.756
cg13841099	yellow	9	98,995,607	OpenSea		0.575	0.028	0.622	0.031



cg05814106	yellow	1	2,224,791	Body	S_Shelf	SKI	0.575	-0.005	0.806	0.503
cg18830083	yellow	17	41,221,539	Body	OpenSea	BRCA1	0.575	0.008	0.952	0.076
cg19215541	yellow	16	86,337,686		Island		0.575	0.001	0.515	0.890
cg02032299	yellow	16	87,541,244		OpenSea		0.575	-0.004	0.698	0.772
cg25808809	yellow	13	114,917,199		S_Shelf		0.575	-0.002	0.446	0.842
cg06098215	yellow	10	51,575,702	5'UTR	S_Shelf	NCOA4	0.575	0.001	0.805	0.882
cg02805822	yellow	17	6,916,868	Body	N_Shore	RNASEK	0.575	0.003	0.061	0.581
cg22551065	yellow	5	126,565,698		S_Shore		0.575	0.002	0.470	0.816
cg16063018	yellow	12	3,446,079		OpenSea		0.575	0.011	0.728	0.121
cg27227663	yellow	11	123,626,544	TSS1500	OpenSea	OR6X1	0.575	-0.008	0.924	0.174
cg27196496	yellow	19	8,197,890	Body	N_Shelf	FBN3	0.575	-0.003	0.867	0.712
cg21164050	yellow	13	27,757,411		OpenSea		0.575	-0.007	0.709	0.602
cg16110711	yellow	5	112,042,851	TSS1500	N_Shore	APC	0.575	0.022	0.512	0.012
cg14012538	yellow	7	157,607,823	Body	OpenSea	PTPRN2	0.575	-0.003	0.644	0.684
cg13629753	yellow	1	89,591,719	1stExon	OpenSea	GBP2	0.575	0.010	0.221	0.284
cg23022450	yellow	13	33,728,743	5'UTR	OpenSea	STARD13	0.575	-0.007	0.945	0.162
cg21338225	yellow	7	30,179,748	Body	S_Shelf	C7orf41	0.575	0.001	0.213	0.866
cg17562433	yellow	17	72,270,155	TSS1500	N_Shore	DNAI2	0.575	-0.017	0.348	0.095
cg27179680	yellow	1	205,460,879		OpenSea		0.575	0.011	0.343	0.207
cg05409597	yellow	2	201,390,524	TSS1500	N_Shore	SGOL2	0.575	0.016	0.094	0.146
cg23281340	yellow	19	6,210,918	3'UTR	N_Shore	MLLT1	0.575	-0.008	0.862	0.128
cg08698943	yellow	10	3,509,758		OpenSea		0.575	0.000	0.806	0.967
cg11236515	yellow	2	74,213,762		S_Shore		0.575	0.003	0.944	0.521
cg11270895	yellow	19	2,255,440	TSS200	S_Shore	JSRP1	0.575	0.007	0.772	0.601
cg03990139	yellow	13	42,586,063		OpenSea		0.575	0.008	0.841	0.111
cg23935642	yellow	11	1,084,833	Body	S_Shore	MUC2	0.575	0.000	0.883	0.963
cg14645017	yellow	10	132,977,408	Body	OpenSea	TCERG1L	0.575	-0.002	0.661	0.770
cg07111441	yellow	1	47,130,423	Body	N_Shelf	ATPAF1	0.575	-0.002	0.932	0.790
cg05336997	yellow	11	1,226,873		N_Shore		0.575	0.017	0.467	0.005
cg14259208	yellow	9	101,759,749	Body	OpenSea	COL15A1	0.575	-0.007	0.922	0.315
cg17136011	yellow	10	123,908,897	Body	OpenSea	TACC2	0.574	-0.008	0.164	0.271
cg03029752	yellow	11	119,038,708	TSS1500	N_Shore	NLRX1	0.574	-0.002	0.696	0.817
cg02782630	yellow	4	84,406,624	TSS1500	S_Shore	FAM175A	0.574	0.001	0.083	0.910
cg25591469	yellow	2	238,322,789	5'UTR	OpenSea	COL6A3	0.574	-0.006	0.101	0.493
cg02776119	yellow	7	131,016,452	Body	S_Shelf	MKLN1	0.574	-0.011	0.867	0.194
cg05322822	yellow	2	99,060,584	TSS1500	N_Shore	INPP4A	0.574	-0.003	0.888	0.674
cg04941831	yellow	10	1,491,207	Body	OpenSea	ADARB2	0.574	-0.009	0.761	0.577
cg00420742	yellow	19	54,313,004	Body	OpenSea	NLRP12	0.574	0.001	0.611	0.906
cg18737349	yellow	4	156,660,068		OpenSea		0.574	0.015	0.797	0.121
cg02406092	yellow	19	39,876,337	3'UTR	OpenSea	PAF1	0.574	0.030	0.470	0.008
cg06068039	yellow	6	34,031,208	Body	OpenSea	GRM4	0.574	0.006	0.808	0.364
cg05623727	yellow	3	50,126,028	TSS1500	N_Shore	RBM5	0.574	-0.007	0.858	0.532
cg12895207	yellow	13	112,575,376		N_Shore		0.574	0.008	0.425	0.273
cg01993847	yellow	17	72,244,690	1stExon	OpenSea	TTYH2	0.574	-0.005	0.900	0.484
cg05506979	yellow	5	132,295,375	5'UTR	N_Shelf	AFF4	0.574	-0.009	0.897	0.371
cg14791008	yellow	12	72,332,386	TSS1500	OpenSea	TPH2	0.574	0.012	0.463	0.290
cg13999086	yellow	11	47,608,487	Body	N_Shelf	FAM180B	0.574	0.001	0.944	0.793
cg21582253	yellow	5	16,181,039	TSS1500	S_Shore	11-Mar	0.574	0.010	0.611	0.244
cg05505545	yellow	2	27,312,716	Body	S_Shelf	KHK	0.574	0.007	0.666	0.391
cg18930444	yellow	2	239,974,723	3'UTR	Island	HDAC4	0.574	0.013	0.747	0.053
cg04465154	yellow	8	9,045,558		OpenSea		0.574	-0.008	0.858	0.223
cg16648137	yellow	8	37,798,156	TSS1500	OpenSea	GOT1L1	0.574	0.006	0.891	0.498
cg26282283	yellow	7	2,704,368	3'UTR	S_Shelf	TTYH3	0.574	0.020	0.511	0.069
cg08181642	yellow	11	66,135,624	Body	N_Shelf	SLC29A2	0.574	-0.001	0.699	0.824
cg18207011	yellow	14	68,861,095	Body	OpenSea	RAD51L1	0.574	0.006	0.565	0.515
cg18042043	yellow	19	44,147,545		S_Shelf		0.574	0.007	0.629	0.507
cg08469255	yellow	6	30,851,069	TSS1500	N_Shore	DDR1	0.574	0.009	0.664	0.192
cg15065108	yellow	11	977,562	Body	S_Shore	AP2A2	0.574	0.012	0.730	0.070
cg13418710	yellow	3	11,059,050	Body	Island	SLC6A1	0.574	0.003	0.781	0.693
cg26333454	yellow	14	59,164,891		OpenSea		0.574	0.014	0.438	0.100
cg20931223	yellow	2	101,615,006		N_Shelf		0.574	0.005	0.942	0.303
cg27656459	yellow	12	116,796,562		OpenSea		0.574	0.038	0.577	0.038
cg00235661	yellow	3	20,228,976	TSS1500	S_Shore	SGOL1	0.574	0.000	0.800	0.997
cg00118808	yellow	9	132,097,931		N_Shore		0.574	0.004	0.207	0.514
cg22368507	yellow	3	58,159,978		N_Shelf		0.574	0.008	0.586	0.200
cg24462656	yellow	12	133,156,510	Body	N_Shelf	FBRSL1	0.574	0.007	0.668	0.695
cg11378575	yellow	2	232,265,004	3'UTR	S_Shore	B3GNT7	0.574	0.012	0.665	0.149

cg13572596	yellow	14	104,638,170	Body	Island	KIF26A	0.574	0.009	0.692	0.224
cg12265130	yellow	11	59,437,344	TSS1500	S_Shore	PATL1	0.574	0.011	0.118	0.174
cg06405341	yellow	17	63,535,223	Body	S_Shore	AXIN2	0.574	0.012	0.474	0.231
cg05490233	yellow	3	129,321,847	Body	N_Shelf	PLXND1	0.574	-0.008	0.812	0.153
cg03863486	yellow	6	138,724,410	TSS1500	N_Shore	HEBP2	0.574	0.004	0.343	0.673
cg05133853	yellow	11	5,265,008	TSS200	OpenSea	HBBP1	0.574	-0.007	0.765	0.364
cg08266177	yellow	14	94,432,162		OpenSea		0.574	-0.004	0.947	0.381
cg18316030	yellow	11	65,124,769	3'UTR	S_Shore	TIGD3	0.574	0.001	0.421	0.959
cg10351620	yellow	17	21,183,560		N_Shelf		0.574	0.002	0.035	0.262
cg25666210	yellow	12	71,148,346	1stExon	OpenSea	PTPRR	0.574	0.014	0.642	0.171
cg14976391	yellow	11	119,181,492	Body	Island	MCAM	0.574	0.008	0.589	0.087
cg18105279	yellow	1	169,570,610	Body	OpenSea	SELP	0.574	-0.005	0.203	0.641
cg08691422	yellow	17	7,588,787	5'UTR	N_Shore	TP53	0.574	0.032	0.476	0.044
cg05744888	yellow	8	141,588,118	Body	OpenSea	EIF2C2	0.574	-0.005	0.730	0.603
cg07869023	yellow	20	17,212,376	Body	S_Shelf	PCSK2	0.574	0.003	0.556	0.723
cg16226644	yellow	6	33,246,091	1stExon	S_Shore	B3GALT4	0.574	0.006	0.610	0.361
cg08266202	yellow	1	3,134,162	Body	OpenSea	PRDM16	0.574	0.009	0.401	0.320
cg18670235	yellow	7	100,862,016	Body	S_Shore	ZNHIT1	0.574	0.013	0.165	0.159
cg16142914	yellow	8	143,254,530		OpenSea		0.574	0.003	0.586	0.704
cg10362335	yellow	19	6,670,109	5'UTR	OpenSea	TNFSF14	0.574	-0.004	0.733	0.620
cg09051119	yellow	22	36,721,648	Body	S_Shelf	MYH9	0.574	0.004	0.876	0.392
cg00814918	yellow	17	48,473,941	Body	N_Shore	LRRCS9	0.573	0.003	0.053	0.424
cg16131053	yellow	18	45,459,276		S_Shore		0.573	0.002	0.546	0.778
cg08877521	yellow	6	170,453,256		N_Shore		0.573	0.004	0.758	0.712
cg17462962	yellow	5	154,347,281	3'UTR	OpenSea	MRPL22	0.573	-0.008	0.357	0.308
cg24096415	yellow	17	1,553,484	TSS200	S_Shore	RILP	0.573	0.008	0.439	0.260
cg04089332	yellow	1	31,190,161	Body	N_Shore	MATN1	0.573	0.007	0.669	0.387
cg18354370	yellow	3	50,393,044	Body	N_Shelf	TMEM115	0.573	0.001	0.814	0.885
cg02916147	yellow	16	25,227,102	TSS1500	OpenSea	AQP8	0.573	0.007	0.655	0.415
cg13798825	yellow	7	28,725,358	Body	OpenSea	CREB5	0.573	0.004	0.045	0.391
cg04208434	yellow	3	129,513,427	Body	OpenSea	TMCC1	0.573	0.007	0.433	0.336
cg01115923	yellow	16	57,793,728	Body	N_Shore	KIFC3	0.573	0.007	0.685	0.294
cg04887030	yellow	7	1,022,471	TSS1500	N_Shore	CYP2W1	0.573	0.012	0.619	0.133
cg00966763	yellow	20	60,472,065	Body	S_Shore	CDH4	0.573	0.001	0.755	0.852
cg25332357	yellow	5	180,238,296	TSS1500	S_Shore	MGAT1	0.573	-0.011	0.287	0.261
cg25061289	yellow	15	23,933,620	TSS1500	S_Shore	NDN	0.573	0.004	0.719	0.703
cg04494051	yellow	11	67,142,562	Body	S_Shore	LOC1001309	0.573	0.004	0.559	0.426
cg20881175	yellow	2	218,741,790	Body	OpenSea	TNS1	0.573	0.004	0.882	0.486
cg07177661	yellow	15	101,401,725		OpenSea		0.573	0.002	0.777	0.787
cg21090806	yellow	6	143,829,658	Body	N_Shelf	FUCA2	0.573	-0.008	0.897	0.217
cg12302987	yellow	2	225,276,960		OpenSea		0.573	0.010	0.495	0.252
cg07224221	yellow	3	46,539,013	TSS1500	OpenSea	RTP3	0.573	0.010	0.803	0.159
cg00017931	yellow	6	157,932,180	Body	OpenSea	ZDHHC14	0.573	0.001	0.759	0.818
cg05306107	yellow	8	119,918,483		OpenSea		0.573	0.001	0.805	0.928
cg10759936	yellow	1	147,011,226		OpenSea		0.573	-0.017	0.775	0.007
cg10542172	yellow	2	192,097,254		OpenSea		0.573	0.027	0.623	0.060
cg02674474	yellow	20	9,818,397	5'UTR	N_Shore	PAK7	0.573	-0.001	0.303	0.956
cg15548427	yellow	3	158,520,857	Body	S_Shore	MFSD1	0.573	-0.003	0.908	0.641
cg15245709	yellow	8	48,100,081		N_Shore		0.573	0.014	0.189	0.237
cg19560014	yellow	12	31,799,118	TSS1500	OpenSea	C12orf72	0.573	0.015	0.865	0.160
cg05598595	yellow	10	118,387,518	Body	S_Shore	PNLIPRP2	0.573	0.003	0.630	0.778
cg23669876	yellow	1	36,489,276	Body	OpenSea	EIF2C3	0.573	0.031	0.877	0.087
cg06090362	yellow	3	140,396,963	1stExon	OpenSea	TRIM42	0.573	0.004	0.707	0.457
cg24789682	yellow	4	152,217,416		OpenSea		0.573	-0.031	0.662	0.079
cg24714561	yellow	14	90,001,131	5'UTR	OpenSea	FOXN3	0.573	0.004	0.868	0.667
cg12179380	yellow	8	142,084,624		OpenSea		0.573	-0.003	0.593	0.686
cg06505349	yellow	6	169,106,716		OpenSea		0.573	0.004	0.902	0.658
cg13882345	yellow	10	134,858,189		N_Shelf		0.573	0.008	0.800	0.274
cg19360316	yellow	17	21,029,189	TSS1500	N_Shore	DHRS7B	0.573	0.007	0.665	0.508
cg25021359	yellow	7	123,315,035		OpenSea		0.573	-0.005	0.250	0.738
cg26942169	yellow	6	36,566,714	Body	OpenSea	SFRS3	0.573	-0.004	0.760	0.579
cg25416479	yellow	6	84,080,564	Body	OpenSea	ME1	0.573	0.007	0.788	0.684
cg14624207	yellow	11	68,142,198	Body	OpenSea	LRP5	0.573	0.003	0.184	0.651
cg17278355	yellow	7	1,746,930		OpenSea		0.573	0.009	0.551	0.117
cg14854517	yellow	12	48,152,428	1stExon	N_Shore	RAPGEF3	0.573	0.008	0.362	0.587
cg15442746	yellow	3	159,711,862	Body	OpenSea	IL12A	0.573	-0.005	0.726	0.586
cg14077219	yellow	6	111,303,792	Body	S_Shore	RPF2	0.573	-0.003	0.067	0.644

cg04529538	yellow	19	5,871,276	TSS1500	S_Shelf	FUT5	0.573	0.009	0.923	0.105
cg01586851	yellow	4	1,556,595		N_Shore		0.573	0.016	0.866	0.019
cg22004693	yellow	7	99,632,812	3'UTR	OpenSea	ZKSCAN1	0.573	0.005	0.968	0.139
cg15542639	yellow	11	93,885,254	Body	OpenSea	PANX1	0.573	0.002	0.896	0.772
cg05556717	yellow	7	75,419,304	TSS1500	OpenSea	CCL26	0.573	-0.002	0.413	0.863
cg10154780	yellow	5	166,389,854		OpenSea		0.573	0.013	0.312	0.304
cg01702055	yellow	6	13,303,065		OpenSea		0.573	0.006	0.958	0.084
cg11686154	yellow	13	22,040,483		OpenSea		0.573	-0.003	0.676	0.775
cg13072943	yellow	6	167,011,311	Body	OpenSea	RPS6KA2	0.573	-0.001	0.874	0.855
cg27133493	yellow	16	69,105,306	Body	OpenSea	TMCO7	0.572	0.009	0.922	0.129
cg20971927	yellow	6	28,471,077	3'UTR	OpenSea	GPX6	0.572	-0.006	0.772	0.316
cg08130275	yellow	3	171,773,170	5'UTR	OpenSea	FNDC3B	0.572	0.010	0.772	0.386
cg00745520	yellow	22	31,504,271	TSS1500	S_Shore	SELM	0.572	-0.004	0.816	0.754
cg24876897	yellow	1	20,988,603	TSS1500	S_Shore	DDOST	0.572	0.020	0.584	0.032
cg03351003	yellow	16	75,272,306	Body	S_Shelf	BCAR1	0.572	-0.004	0.328	0.713
cg19759051	yellow	1	2,030,817	Body	OpenSea	PRKCZ	0.572	-0.005	0.821	0.446
cg05308819	yellow	1	155,959,156		OpenSea		0.572	0.007	0.476	0.254
cg02436098	yellow	19	4,640,159	1stExon	S_Shore	TNFAIP8L1	0.572	0.006	0.400	0.314
cg01610494	yellow	15	77,627,965		OpenSea		0.572	0.000	0.844	0.993
cg01932691	yellow	14	25,045,625	TSS200	OpenSea	CTSG	0.572	0.010	0.713	0.270
cg18288168	yellow	6	159,421,528	TSS1500	S_Shore	RSPH3	0.572	0.002	0.096	0.798
cg03928367	yellow	20	34,186,995	Body	N_Shore	FER1L4	0.572	0.000	0.729	0.955
cg14025518	yellow	9	129,973,991	Body	OpenSea	RALGPS1	0.572	0.007	0.711	0.259
cg26784891	yellow	6	30,884,124	Body	S_Shore	VAR52	0.572	0.012	0.606	0.150
cg27296341	yellow	6	154,485,839	Body	OpenSea	IPCEF1	0.572	0.012	0.296	0.326
cg02117364	yellow	2	240,972,338		OpenSea		0.572	-0.001	0.478	0.854
cg08181402	yellow	16	1,479,446	TSS200	N_Shore	C16orf91	0.572	0.007	0.647	0.333
cg23934075	yellow	6	29,933,697		OpenSea		0.572	-0.002	0.051	0.662
cg05963354	yellow	7	525,943		OpenSea		0.572	0.006	0.643	0.406
cg26688936	yellow	16	2,131,718	Body	N_Shelf	TSC2	0.572	0.002	0.722	0.735
cg02973883	yellow	14	73,392,314	TSS1500	N_Shore	DCAF4	0.572	0.015	0.887	0.324
cg26034341	yellow	17	477,314	Body	OpenSea	VPS53	0.572	0.001	0.070	0.944
cg27401846	yellow	11	69,706,527		N_Shore		0.572	0.008	0.632	0.142
cg22651416	yellow	8	10,643,634	Body	OpenSea	PINX1	0.572	-0.014	0.883	0.114
cg23637167	yellow	4	122,302,674	TSS1500	S_Shore	QRFPR	0.572	-0.005	0.905	0.454
cg27476456	yellow	19	14,115,967	5'UTR	N_Shore	RFX1	0.572	0.004	0.930	0.471
cg07262873	yellow	5	54,987,767	Body	OpenSea	SLC38A9	0.572	0.006	0.170	0.516
cg21892295	yellow	12	121,157,589	Body	OpenSea	UNC119B	0.572	0.015	0.740	0.299
cg21838933	yellow	7	148,481,907	Body	S_Shore	CUL1	0.572	0.002	0.896	0.815
cg04354271	yellow	19	49,012,411	Body	N_Shelf	LMTK3	0.572	-0.002	0.848	0.757
cg15134583	yellow	1	224,015,075	Body	OpenSea	TP53BP2	0.572	0.000	0.808	0.992
cg19499985	yellow	9	138,304,683		Island		0.572	0.001	0.036	0.742
cg15778434	yellow	19	54,493,114		N_Shore		0.572	0.008	0.525	0.426
cg22588983	yellow	5	38,783,142		OpenSea		0.572	-0.002	0.133	0.767
cg22691028	yellow	12	124,823,259	Body	S_Shore	NCOR2	0.572	-0.001	0.899	0.857
cg12690996	yellow	1	6,651,517	3'UTR	N_Shore	KLHL21	0.572	0.002	0.834	0.752
cg03377895	yellow	4	156,875,553	TSS1500	S_Shore	CTSO	0.572	-0.005	0.897	0.597
cg02378673	yellow	11	193,044	TSS200	OpenSea	SCGB1C1	0.572	0.003	0.825	0.600
cg12667792	yellow	5	71,774,656	5'UTR	OpenSea	ZNF366	0.572	-0.005	0.812	0.753
cg26158406	yellow	1	17,494,828		OpenSea		0.572	0.005	0.562	0.602
cg16568641	yellow	8	133,688,377	TSS1500	S_Shore	LRRC6	0.572	0.000	0.230	0.990
cg21563219	yellow	12	69,867,411	5'UTR	S_Shelf	FRS2	0.572	0.009	0.774	0.094
cg24542929	yellow	5	170,209,760	TSS1500	OpenSea	GABRP	0.572	0.010	0.760	0.269
cg00018739	yellow	12	124,459,490	5'UTR	S_Shore	ZNF664	0.572	-0.002	0.962	0.596
cg11828741	yellow	11	10,715,767	TSS1500	OpenSea	MRV11	0.572	-0.008	0.950	0.022
cg05385434	yellow	1	225,998,870	5'UTR	S_Shore	EPHX1	0.572	0.002	0.029	0.244
cg21745595	yellow	17	46,878,809	Body	OpenSea	TTLL6	0.572	-0.002	0.707	0.759
cg25404458	yellow	20	60,966,991	Body	N_Shelf	CABLES2	0.572	-0.002	0.847	0.530
cg08378286	yellow	5	177,697,400	Body	OpenSea	COL23A1	0.572	0.003	0.749	0.708
cg16188532	yellow	13	47,471,090	1stExon	OpenSea	HTR2A	0.572	0.001	0.036	0.851
cg08805241	yellow	17	55,110,904		OpenSea		0.572	0.010	0.234	0.267
cg02717454	yellow	16	3,928,799	Body	N_Shore	CREBBP	0.572	0.001	0.028	0.565
cg06310589	yellow	6	126,109,139		N_Shelf		0.572	0.000	0.185	0.956
cg02982745	yellow	8	74,889,068	Body	S_Shore	TMEM70	0.572	0.003	0.039	0.364
cg05727149	yellow	16	75,375,801	Body	OpenSea	CFDP1	0.572	0.000	0.822	0.974
cg13247580	yellow	14	69,263,103	1stExon	S_Shore	C14orf181	0.572	-0.001	0.080	0.746
cg02714666	yellow	3	16,131,767		OpenSea		0.572	-0.005	0.125	0.575

cg19979590	yellow	15	63,011,250	Body	OpenSea	TLN2	0.572	0.002	0.932	0.653
cg06126593	yellow	16	20,910,405	TSS1500	N_Shore	LYRM1	0.572	0.001	0.304	0.913
cg10020546	yellow	13	111,295,081	Body	S_Shore	CARS2	0.572	-0.001	0.580	0.928
cg18852515	yellow	6	169,106,778		OpenSea		0.572	0.013	0.808	0.083
cg24411870	yellow	8	141,908,312	5'UTR	OpenSea	PTK2	0.572	-0.010	0.211	0.415
cg03602777	yellow	2	235,407,903		S_Shore		0.572	-0.003	0.790	0.615
cg01880908	yellow	17	76,101,114	3'UTR	Island	TNRC6C	0.572	-0.002	0.966	0.653
cg02699915	yellow	11	44,116,952	TSS200	N_Shore	EXT2	0.572	-0.001	0.224	0.859
cg12673429	yellow	18	11,150,043	TSS1500	S_Shore	FAM38B	0.572	0.000	0.195	0.978
cg03194442	yellow	10	134,945,099	3'UTR	S_Shore	GPR123	0.571	0.009	0.779	0.200
cg00663986	yellow	17	80,866,232	Body	S_Shelf	TBCD	0.571	0.024	0.627	0.012
cg17206420	yellow	2	27,482,803	Body	N_Shelf	SLC30A3	0.571	0.000	0.409	0.987
cg14567085	yellow	9	133,411,807		N_Shore		0.571	0.020	0.348	0.021
cg08030373	yellow	3	51,574,322	TSS1500	S_Shore	RAD54L2	0.571	0.004	0.932	0.368
cg16552128	yellow	16	2,325,856		OpenSea		0.571	0.013	0.770	0.083
cg22567591	yellow	7	75,614,685	Body	OpenSea	POR	0.571	0.004	0.736	0.581
cg08056629	yellow	1	154,359,587		OpenSea		0.571	0.008	0.528	0.233
cg24018756	yellow	11	300,286	TSS1500	S_Shore	IFITM5	0.571	0.016	0.311	0.367
cg21082782	yellow	7	157,776,507	Body	OpenSea	PTPRN2	0.571	-0.001	0.422	0.925
cg16604801	yellow	17	2,718,310	Body	OpenSea	RAP1GAP2	0.571	0.001	0.414	0.801
cg19979738	yellow	22	37,496,929	Body	S_Shelf	TMPRSS6	0.571	-0.009	0.818	0.331
cg15860732	yellow	14	88,851,247	TSS1500	N_Shore	SPATA7	0.571	0.001	0.042	0.720
cg14449209	yellow	13	30,428,664		S_Shelf		0.571	0.004	0.848	0.758
cg06705879	yellow	16	85,726,181		S_Shelf		0.571	-0.001	0.682	0.905
cg11410080	yellow	17	37,437,852	Body	OpenSea	FBXL20	0.571	-0.009	0.889	0.313
cg01780984	yellow	17	79,058,859	Body	OpenSea	BAIAP2	0.571	0.010	0.565	0.146
cg05892419	yellow	17	29,764,719	Body	OpenSea	RAB11FIP4	0.571	0.007	0.458	0.432
cg19488206	yellow	2	242,435,732	Body	OpenSea	STK25	0.571	0.000	0.743	0.977
cg03257293	yellow	1	226,927,663	TSS1500	S_Shore	ITPKB	0.571	-0.004	0.661	0.710
cg09843049	yellow	1	1,373,316	Body	N_Shore	VWA1	0.571	0.006	0.625	0.474
cg20971623	yellow	2	241,925,550		S_Shelf		0.571	0.011	0.827	0.055
cg13278478	yellow	7	56,160,911	TSS1500	OpenSea	PHKG1	0.571	0.013	0.382	0.137
cg06746009	yellow	7	101,896,452	Body	S_Shelf	CUX1	0.571	0.002	0.640	0.767
cg04923845	yellow	10	114,575,681	3'UTR	OpenSea	VT1A	0.571	-0.001	0.065	0.783
cg03442951	yellow	4	3,824,093		OpenSea		0.571	-0.002	0.637	0.856
cg19318380	yellow	19	51,529,902	Body	OpenSea	KLK11	0.571	0.009	0.767	0.136
cg24180219	yellow	10	105,239,190	TSS200	OpenSea	CALHM3	0.571	0.005	0.526	0.459
cg14245135	yellow	17	47,755,742	TSS1500	Island	SPOP	0.571	0.002	0.039	0.485
cg06905155	yellow	2	240,723,946		OpenSea		0.571	-0.001	0.686	0.827
cg11283983	yellow	5	36,606,293	TSS200	OpenSea	SLC1A3	0.571	0.014	0.298	0.355
cg23172911	yellow	1	165,880,082		OpenSea		0.571	0.002	0.853	0.680
cg01831743	yellow	12	110,352,941	Body	OpenSea	TCHP	0.571	0.003	0.834	0.511
cg06770568	yellow	11	58,912,163	TSS200	S_Shore	FAM111A	0.571	0.000	0.017	0.657
cg01896807	yellow	9	136,472,856		N_Shore		0.571	0.007	0.470	0.301
cg11997734	yellow	21	46,927,484	Body	N_Shore	COL18A1	0.571	0.006	0.854	0.251
cg09109411	yellow	5	149,319,112	Body	OpenSea	PDE6A	0.571	-0.005	0.889	0.452
cg19606096	yellow	12	93,861,141	TSS200	N_Shore	MRPL42	0.571	-0.001	0.069	0.895
cg04243368	yellow	22	32,366,128		N_Shore		0.571	-0.005	0.288	0.631
cg05981379	yellow	10	133,030,722	Body	OpenSea	TCERG1L	0.571	0.004	0.826	0.470
cg22709811	yellow	1	6,762,265	TSS1500	S_Shore	DNAJC11	0.571	0.007	0.724	0.447
cg11789185	yellow	14	23,479,664	TSS1500	S_Shore	C14orf93	0.571	-0.003	0.112	0.607
cg20441048	yellow	5	6,447,257	TSS1500	N_Shore	UBE2QL1	0.571	0.007	0.497	0.219
cg08013274	yellow	20	3,709,877		N_Shelf		0.571	0.003	0.859	0.644
cg10593713	yellow	10	3,789,788		OpenSea		0.571	-0.010	0.580	0.330
cg21514227	yellow	19	15,288,315	Body	Island	NOTCH3	0.571	0.000	0.028	0.887
cg12256550	yellow	11	46,298,946	TSS1500	N_Shore	CREB3L1	0.571	0.005	0.330	0.405
cg13978777	yellow	19	2,491,825		N_Shelf		0.571	0.007	0.569	0.623
cg08080396	yellow	3	11,102,832		OpenSea		0.571	0.008	0.707	0.602
cg09874213	yellow	1	24,968,352	TSS1500	N_Shore	SRRM1	0.571	-0.006	0.195	0.587
cg18045100	yellow	5	3,764,541		OpenSea		0.571	-0.001	0.633	0.966
cg19206437	yellow	22	46,921,967	Body	OpenSea	CELSR1	0.571	-0.005	0.829	0.529
cg19184878	yellow	12	133,345,086		S_Shelf		0.571	0.005	0.106	0.405
cg06387669	yellow	17	1,646,196	1stExon	OpenSea	SERPINF2	0.571	0.008	0.629	0.550
cg07894391	yellow	2	131,085,769		OpenSea		0.571	0.014	0.336	0.095
cg06703803	yellow	12	110,811,045	3'UTR	OpenSea	ANAPC7	0.571	0.016	0.475	0.103
cg06628000	yellow	1	109,756,191	TSS1500	N_Shore	SARS	0.571	0.006	0.389	0.334
cg26720452	yellow	8	57,472,776		OpenSea		0.571	0.017	0.453	0.071

cg25860737	yellow	15	49,462,125	TSS1500	OpenSea	GALK2	0.570	0.006	0.365	0.256
cg20007844	yellow	8	126,374,251	Body	OpenSea	NSMCE2	0.570	0.015	0.704	0.040
cg03566814	yellow	6	169,019,307	Body	OpenSea	SMOC2	0.570	0.000	0.761	0.999
cg07115110	yellow	3	46,250,024	TSS200	OpenSea	CCR1	0.570	0.003	0.236	0.719
cg16438246	yellow	8	145,532,913	Body	OpenSea	HSF1	0.570	0.005	0.884	0.473
cg16670593	yellow	6	170,791,150		S_Shelf		0.570	0.010	0.686	0.551
cg14190534	yellow	14	90,848,416		N_Shore		0.570	0.015	0.545	0.114
cg09328444	yellow	6	169,901,471	Body	OpenSea	WDR27	0.570	-0.002	0.744	0.793
cg20041612	yellow	7	55,146,373	Body	OpenSea	EGFR	0.570	0.005	0.791	0.513
cg13104938	yellow	11	843,956	TSS1500	S_Shore	TSPAN4	0.570	0.003	0.046	0.459
cg11611097	yellow	6	35,173,534		OpenSea		0.570	-0.002	0.698	0.729
cg14617608	yellow	9	33,078,216		S_Shore		0.570	0.003	0.932	0.543
cg05785839	yellow	16	28,848,312	3'UTR	OpenSea	ATXN2L	0.570	0.006	0.779	0.363
cg08685909	yellow	20	57,559,409	Body	S_Shelf	TH1L	0.570	0.004	0.476	0.456
cg26037821	yellow	12	56,109,198	TSS1500	N_Shore	BLOC1S1	0.570	0.034	0.722	0.005
cg13133560	yellow	1	5,896,461		OpenSea		0.570	0.008	0.530	0.310
cg02688118	yellow	13	114,918,456		S_Shelf		0.570	0.016	0.274	0.085
cg08765100	yellow	3	64,211,659	TSS1500	OpenSea	PRICKLE2	0.570	0.003	0.509	0.695
cg18915450	yellow	2	9,960,773		OpenSea		0.570	-0.001	0.946	0.860
cg10249814	yellow	17	55,630,218	Body	OpenSea	MSI2	0.570	-0.016	0.800	0.082
cg09981030	yellow	16	3,179,796		OpenSea		0.570	0.002	0.083	0.797
cg27416489	yellow	2	149,823,115	Body	OpenSea	KIF5C	0.570	-0.005	0.873	0.591
cg23355992	yellow	20	48,998,616		OpenSea		0.570	-0.001	0.291	0.770
cg01034251	yellow	16	88,748,522	Body	S_Shore	MGC23284	0.570	0.004	0.288	0.585
cg00977403	yellow	16	1,585,720	Body	N_Shore	IFT140	0.570	0.004	0.487	0.761
cg08453688	yellow	3	47,323,555	5'UTR	N_Shore	KIF9	0.570	0.012	0.264	0.068
cg11479156	yellow	11	70,672,388	Body	N_Shore	SHANK2	0.570	0.018	0.754	0.098
cg17869161	yellow	8	145,729,373	TSS200	N_Shore	GPT	0.570	0.000	0.384	0.220
cg13823166	yellow	2	47,603,759	Body	OpenSea	EPCAM	0.570	0.000	0.962	0.890
cg00549475	yellow	17	10,632,715	Body	N_Shore	TMEM220	0.570	0.005	0.171	0.724
cg17488500	yellow	1	154,307,007	Body	OpenSea	ATP8B2	0.570	0.010	0.707	0.295
cg02873783	yellow	11	110,225,729		OpenSea		0.570	0.010	0.682	0.613
cg26411299	yellow	11	2,598,653	Body	S_Shelf	KCNQ1	0.570	-0.001	0.794	0.869
cg19324627	yellow	11	116,708,329	1stExon	S_Shore	APOA1	0.570	0.002	0.419	0.787
cg08792416	yellow	6	80,404,639	Body	OpenSea	SH3BGRL2	0.570	0.000	0.904	0.985
cg11581263	yellow	19	11,671,477	TSS1500	S_Shore	ELOF1	0.570	-0.002	0.138	0.881
cg02224133	yellow	2	219,895,417	Body	OpenSea	CCDC108	0.570	0.010	0.552	0.150
cg14375632	yellow	9	97,804,001	Body	N_Shelf	C9orf3	0.570	-0.006	0.747	0.359
cg17520712	yellow	10	75,491,477	TSS1500	N_Shore	BMS1P4	0.570	-0.005	0.789	0.357
cg04453792	yellow	16	23,158,863	Body	N_Shore	USP31	0.570	-0.008	0.650	0.142
cg06860600	yellow	2	242,612,684	3'UTR	OpenSea	ATG4B	0.570	-0.001	0.799	0.874
cg03724759	yellow	1	26,633,534	5'UTR	S_Shore	UBXN11	0.570	0.001	0.062	0.814
cg15299233	yellow	15	75,162,173	Body	N_Shelf	SCAMP2	0.570	0.002	0.939	0.730
cg14030728	yellow	9	35,792,957	1stExon	S_Shore	NPR2	0.570	0.005	0.857	0.517
cg07227033	yellow	7	12,725,802	TSS1500	N_Shore	ARL4A	0.570	-0.032	0.657	0.074
cg25735482	yellow	12	53,440,003	TSS1500	N_Shore	TENC1	0.570	0.021	0.509	0.077
cg12797044	yellow	6	30,922,043		N_Shore		0.570	-0.001	0.693	0.897
cg23729443	yellow	1	156,211,840	TSS200	N_Shelf	BGLAP	0.570	0.007	0.680	0.322
cg16806210	yellow	11	118,398,318	1stExon	N_Shelf	TTC36	0.570	0.011	0.758	0.022
cg09788003	yellow	14	77,941,556	3'UTR	N_Shore	ISM2	0.570	0.012	0.740	0.068
cg25866895	yellow	11	67,350,326	TSS1500	N_Shore	GSTP1	0.570	0.016	0.638	0.010
cg07998554	yellow	19	14,785,776	TSS200	OpenSea	EMR3	0.570	0.008	0.830	0.316
cg12121704	yellow	11	45,927,645	3'UTR	S_Shelf	MAPK8IP1	0.570	0.006	0.843	0.370
cg15339026	yellow	13	106,784,791		OpenSea		0.570	0.010	0.775	0.276
cg16811771	yellow	16	1,482,952		Island		0.570	-0.003	0.942	0.580
cg15024035	yellow	12	120,877,765	Body	S_Shore	COX6A1	0.570	-0.001	0.030	0.540
cg16299813	yellow	17	79,632,380	Body	N_Shore	C17orf90	0.570	0.005	0.815	0.416
cg06728658	yellow	2	238,832,202		OpenSea		0.570	-0.001	0.660	0.955
cg22538505	yellow	6	31,600,453	Body	S_Shore	BAT2	0.570	0.011	0.629	0.137
cg00793273	yellow	22	46,430,842		N_Shore		0.570	0.001	0.963	0.758
cg16596440	yellow	4	140,684,596	Body	OpenSea	MAML3	0.570	-0.002	0.362	0.860
cg10826956	yellow	19	1,098,580		S_Shelf		0.570	0.008	0.613	0.424
cg06219586	yellow	16	410,931		Island		0.570	0.009	0.650	0.227
cg01790464	yellow	14	23,623,935	Body	OpenSea	SLC7A8	0.569	0.002	0.491	0.785
cg13066889	yellow	2	71,695,782	Body	S_Shore	DYSF	0.569	0.003	0.572	0.720
cg13692655	yellow	9	130,713,088	TSS200	OpenSea	FAM102A	0.569	0.011	0.609	0.103
cg00089945	yellow	1	222,816,858	Body	N_Shore	MIA3	0.569	0.018	0.686	0.150

cg15430661	yellow	12	52,403,817	Body	S_Shelf	GRASP	0.569	0.001	0.574	0.923
cg06901147	yellow	13	114,321,473	TSS200	OpenSea	GRK1	0.569	0.009	0.516	0.068
cg07158055	yellow	22	25,758,749	TSS1500	S_Shelf	LRP5L	0.569	0.002	0.896	0.621
cg10281846	yellow	7	26,156,403		OpenSea		0.569	0.005	0.690	0.492
cg22125112	yellow	3	69,402,811	Body	OpenSea	FRMD4B	0.569	-0.005	0.902	0.570
cg01950129	yellow	19	941,919	Body	Island	ARID3A	0.569	0.005	0.588	0.490
cg05912584	yellow	16	3,313,837		N_Shore		0.569	-0.005	0.050	0.386
cg06058576	yellow	5	506,472	Body	Island	SLC9A3	0.569	-0.012	0.836	0.359
cg00398728	yellow	19	40,362,928	Body	Island	FCGBP	0.569	0.010	0.739	0.164
cg25690825	yellow	15	64,458,389	3'UTR	S_Shelf	CSNK1G1	0.569	0.004	0.967	0.108
cg07150473	yellow	8	27,338,183	TSS1500	OpenSea	CHRNA2	0.569	0.010	0.703	0.218
cg11858029	yellow	1	11,324,407		S_Shore		0.569	-0.021	0.672	0.045
cg18167160	yellow	1	23,711,320	Body	OpenSea	TCEA3	0.569	-0.006	0.911	0.360
cg26477613	yellow	9	127,210,826		N_Shore		0.569	0.012	0.806	0.050
cg11736657	yellow	10	5,566,849	TSS200	N_Shore	CALML3	0.569	0.005	0.597	0.368
cg02500691	yellow	17	79,476,186		N_Shelf		0.569	0.007	0.410	0.467
cg08663653	yellow	1	170,904,596	TSS200	OpenSea	C1orf129	0.569	0.001	0.923	0.872
cg15379025	yellow	21	35,552,652	TSS1500	OpenSea	C21orf82	0.569	0.004	0.862	0.807
cg15552895	yellow	1	175,013,352		OpenSea		0.569	0.001	0.533	0.884
cg23490090	yellow	17	78,081,364	Body	Island	GAA	0.569	0.004	0.706	0.592
cg00671823	yellow	16	27,558,770	Body	N_Shelf	GTF3C1	0.569	-0.002	0.943	0.699
cg10671802	yellow	17	27,230,278	TSS200	S_Shore	DHRS13	0.569	0.001	0.053	0.765
cg11229399	yellow	1	228,689,056		OpenSea		0.569	-0.006	0.587	0.471
cg07891044	yellow	8	125,249,973		OpenSea		0.569	-0.004	0.513	0.548
cg04076774	yellow	12	107,954,581	Body	OpenSea	BTBD11	0.569	0.002	0.847	0.832
cg02167201	yellow	10	105,209,452	Body	N_Shelf	CALHM2	0.569	0.010	0.765	0.129
cg00350432	yellow	15	67,065,190	Body	OpenSea	SMAD6	0.569	-0.003	0.533	0.623
cg01366338	yellow	1	19,230,460	TSS1500	S_Shore	ALDH4A1	0.569	0.008	0.574	0.274
cg20300541	yellow	17	15,295,802		OpenSea		0.569	0.012	0.478	0.175
cg04390865	yellow	1	117,214,010	TSS1500	S_Shelf	MIR320B1	0.569	0.004	0.519	0.591
cg16306670	yellow	10	6,645,837		OpenSea		0.569	-0.008	0.588	0.409
cg16306228	yellow	3	46,985,840	Body	OpenSea	CCDC12	0.569	-0.005	0.705	0.637
cg12904737	yellow	7	155,276,516		OpenSea		0.569	-0.016	0.450	0.031
cg05619598	yellow	19	33,569,228		N_Shelf		0.569	-0.001	0.249	0.890
cg10861390	yellow	14	94,442,922		OpenSea		0.569	0.011	0.194	0.163
cg08482080	yellow	19	13,990,960	Body	N_Shore	NANOS3	0.569	-0.004	0.073	0.314
cg05664613	yellow	19	33,209,411	TSS1500	N_Shore	TDRD12	0.569	0.004	0.656	0.629
cg17401106	yellow	20	3,650,493	Body	N_Shelf	ADAM33	0.569	0.003	0.599	0.663
cg04161365	yellow	17	27,230,393	TSS1500	S_Shore	DHRS13	0.569	0.008	0.375	0.293
cg13194045	yellow	1	165,914,462		S_Shelf		0.569	-0.006	0.755	0.573
cg01087239	yellow	19	18,385,502	TSS200	OpenSea	KIAA1683	0.569	0.003	0.873	0.737
cg04002454	yellow	2	231,191,893	5'UTR	OpenSea	SP140L	0.569	0.006	0.196	0.403
cg16871561	yellow	12	98,986,887	TSS1500	N_Shore	SLC25A3	0.569	0.012	0.684	0.501
cg11995437	yellow	19	11,484,869	TSS1500	N_Shore	C19orf39	0.568	-0.005	0.901	0.560
cg15264991	yellow	12	7,066,563	Body	OpenSea	PTPN6	0.568	-0.010	0.768	0.045
cg23976431	yellow	11	102,867,025		OpenSea		0.568	-0.004	0.597	0.542
cg26995656	yellow	14	88,121,644		OpenSea		0.568	0.005	0.915	0.591
cg01392180	yellow	6	5,133,475	3'UTR	N_Shore	LYRM4	0.568	-0.006	0.960	0.134
cg23000950	yellow	15	48,785,738	Body	OpenSea	FBN1	0.568	0.019	0.747	0.179
cg26263239	yellow	6	170,564,839	Body	N_Shore	LOC154449	0.568	0.012	0.664	0.049
cg13077865	yellow	8	105,655,901		OpenSea		0.568	-0.009	0.764	0.343
cg06745511	yellow	4	10,585,774	Body	OpenSea	CLNK	0.568	0.008	0.537	0.738
cg15125994	yellow	17	61,656,234	Body	OpenSea	DCAF7	0.568	0.000	0.935	0.907
cg11225405	yellow	1	117,038,246		OpenSea		0.568	0.010	0.330	0.574
cg23753748	yellow	10	105,212,808	TSS1500	S_Shore	CALHM2	0.568	0.003	0.307	0.692
cg16764362	yellow	16	87,682,674	Body	OpenSea	JPH3	0.568	0.002	0.667	0.753
cg02089916	yellow	3	120,558,040		OpenSea		0.568	0.013	0.611	0.425
cg01812577	yellow	11	62,689,122	TSS200	N_Shore	CHRM1	0.568	0.011	0.127	0.097
cg16321846	yellow	7	4,050,114	Body	OpenSea	SDK1	0.568	0.008	0.457	0.341
cg03610729	yellow	5	168,199,897	Body	OpenSea	SLIT3	0.568	0.001	0.625	0.862
cg18891924	yellow	5	75,381,070	5'UTR	S_Shore	SV2C	0.568	0.005	0.140	0.582
cg05676622	yellow	11	66,410,998	Body	Island	RBM4	0.568	0.000	0.960	0.930
cg11439535	yellow	17	80,203,277	Body	Island	CSNK1D	0.568	0.000	0.693	0.950
cg05473987	yellow	5	10,734,605	Body	OpenSea	DAP	0.568	0.013	0.834	0.190
cg08675743	yellow	5	114,938,439	Body	S_Shore	TMED7-TICAI	0.568	0.015	0.417	0.074
cg26807475	yellow	5	16,671,081	Body	OpenSea	MYO10	0.568	-0.001	0.963	0.847
cg07887168	yellow	16	4,263,893	Body	OpenSea	SRL	0.568	0.000	0.454	0.945

cg15426626	yellow	12	132,984,261	Island		0.568	0.006	0.468	0.338
cg01756756	yellow	19	30,206,951 TSS1500	S_Shore	C19orf12	0.568	0.006	0.085	0.201
cg23080199	yellow	3	13,594,970 5'UTR	S_Shelf	FBLN2	0.568	0.018	0.633	0.158
cg08719095	yellow	7	1,135,190 Body	N_Shore	C7orf50	0.568	0.011	0.817	0.390
cg09820673	yellow	1	156,109,329 3'UTR	S_Shelf	LMNA	0.568	-0.003	0.923	0.731
cg23881697	yellow	11	64,622,239 Body	Island	EHD1	0.568	0.001	0.832	0.907
cg07323145	yellow	16	67,047,620	Island		0.568	0.008	0.154	0.180
cg23392730	yellow	10	75,541,345 TSS1500	N_Shore	CHCHD1	0.568	0.005	0.047	0.200
cg22521151	yellow	1	1,098,900	Island		0.568	0.013	0.669	0.054
cg18784506	yellow	5	53,607,611 TSS1500	S_Shore	ARL15	0.568	0.000	0.032	0.866
cg18309752	yellow	2	203,103,763 TSS1500	S_Shore	SUMO1	0.568	0.005	0.036	0.039
cg13533683	yellow	3	186,211,664	OpenSea		0.568	0.009	0.632	0.282
cg19820705	yellow	19	4,455,316 TSS200	N_Shelf	UBXN6	0.568	-0.002	0.416	0.714
cg01738984	yellow	11	3,240,365 TSS1500	S_Shore	MRGPRG	0.568	-0.003	0.631	0.695
cg09022325	yellow	2	1,796,228 Body	OpenSea	MYT1L	0.568	-0.004	0.246	0.640
cg00881378	yellow	15	101,623,617	N_Shelf		0.568	-0.005	0.495	0.593
cg11356950	yellow	4	1,219,707 Body	Island	CTBP1	0.568	-0.002	0.958	0.560
cg11858516	yellow	4	3,231,709 Body	OpenSea	HTT	0.568	-0.004	0.928	0.391
cg20395773	yellow	3	141,120,919 5'UTR	N_Shore	ZBTB38	0.568	0.001	0.061	0.705
cg19688418	yellow	19	19,316,554	S_Shelf		0.568	0.002	0.572	0.784
cg01944810	yellow	2	240,879,397	S_Shore		0.568	0.008	0.687	0.302
cg18276112	yellow	7	4,755,032 Body	N_Shelf	FO XK1	0.568	0.011	0.180	0.290
cg00948900	yellow	9	137,997,205 Body	N_Shore	OLFM1	0.568	-0.006	0.704	0.298
cg19637113	yellow	15	74,528,522 TSS200	OpenSea	CCDC33	0.567	-0.001	0.571	0.814
cg24644190	yellow	4	7,025,676 Body	N_Shore	TBC1D14	0.567	0.000	0.801	0.942
cg27322071	yellow	16	87,384,763 Body	OpenSea	FBXO31	0.567	0.018	0.551	0.072
cg25863735	yellow	15	43,645,055 3'UTR	OpenSea	ADAL	0.567	0.001	0.917	0.764
cg22994272	yellow	14	104,346,241	OpenSea		0.567	0.002	0.164	0.737
cg19653907	yellow	4	3,309,417	N_Shore		0.567	0.000	0.453	0.995
cg12933431	yellow	15	25,959,239 Body	Island	ATP10A	0.567	0.000	0.575	0.935
cg22105158	yellow	19	3,480,672 TSS200	N_Shore	C19orf77	0.567	0.020	0.348	0.012
cg22510098	yellow	4	1,229,471 Body	Island	CTBP1	0.567	0.013	0.878	0.023
cg08213607	yellow	16	3,627,243 1stExon	OpenSea	NLR3	0.567	0.009	0.654	0.277
cg27476810	yellow	8	53,627,771 TSS1500	S_Shore	RB1CC1	0.567	0.002	0.026	0.340
cg16789995	yellow	12	13,152,456 Body	N_Shore	HEBP1	0.567	0.032	0.367	0.010
cg03578951	yellow	1	44,678,791 TSS1500	N_Shore	DMAP1	0.567	-0.013	0.513	0.358
cg15773893	yellow	2	225,702,600 Body	OpenSea	DOCK10	0.567	-0.002	0.705	0.941
cg16302310	yellow	3	52,260,432 TSS1500	OpenSea	TLR9	0.567	0.007	0.863	0.272
cg23926526	yellow	12	68,726,610 TSS1500	S_Shore	MDM1	0.567	0.011	0.175	0.266
cg23023126	yellow	19	308,808 Body	Island	MIER2	0.567	-0.006	0.944	0.601
cg22784078	yellow	6	111,353,941	OpenSea		0.567	0.013	0.218	0.240
cg11264947	yellow	5	177,980,944 Body	OpenSea	COL23A1	0.567	0.003	0.736	0.601
cg22534374	yellow	1	201,511,610	S_Shelf		0.567	-0.011	0.644	0.378
cg13360002	yellow	4	47,035,074 Body	S_Shore	GABRB1	0.567	0.010	0.468	0.203
cg09069446	yellow	16	4,462,122 Body	N_Shelf	CORO7	0.567	0.028	0.625	0.079
cg00555456	yellow	7	96,745,696 TSS1500	N_Shore	ACN9	0.567	-0.003	0.906	0.696
cg00901980	yellow	22	33,453,022 5'UTR	N_Shore	SYN3	0.567	0.015	0.781	0.101
cg15351009	yellow	5	191,486 TSS200	N_Shore	LRRC14B	0.567	0.000	0.421	0.980
cg19712659	yellow	1	28,906,356 Body	N_Shore	SNHG12	0.567	0.007	0.681	0.259
cg11128212	yellow	12	46,068,618	OpenSea		0.567	-0.004	0.264	0.726
cg05398905	yellow	17	80,847,209 Body	OpenSea	TBCD	0.567	0.002	0.717	0.812
cg15698065	yellow	13	114,127,206 Body	OpenSea	DCUN1D2	0.567	0.005	0.870	0.411
cg12142424	yellow	14	94,759,873 TSS1500	OpenSea	SERPINA10	0.567	-0.006	0.496	0.378
cg21620535	yellow	11	17,297,732 TSS1500	N_Shore	NUCB2	0.567	0.006	0.372	0.340
cg12796135	yellow	1	153,916,764 Body	N_Shore	DENND4B	0.567	0.011	0.768	0.063
cg07278634	yellow	5	1,962,554	OpenSea		0.567	0.010	0.588	0.145
cg18767412	yellow	7	21,167,522	OpenSea		0.567	0.000	0.774	0.981
cg21934504	yellow	19	4,445,085 3'UTR	N_Shore	UBXN6	0.567	0.001	0.779	0.952
cg08488569	yellow	4	1,749,241	OpenSea		0.567	0.002	0.773	0.743
cg13551117	yellow	2	111,979,398	N_Shore		0.567	0.002	0.935	0.738
cg11317254	yellow	12	56,118,524 3'UTR	N_Shelf	RDH5	0.567	0.013	0.202	0.102
cg04260633	yellow	7	2,687,305 Body	Island	TTYH3	0.567	0.007	0.686	0.180
cg24727130	yellow	7	1,775,991 5'UTR	OpenSea	ELFN1	0.567	0.010	0.500	0.212
cg01781850	yellow	22	50,884,509 3'UTR	N_Shore	SBF1	0.567	0.009	0.675	0.158
cg17353177	yellow	6	31,661,178 Body	OpenSea	BAT5	0.567	0.007	0.870	0.148
cg16395205	yellow	16	3,790,988 Body	OpenSea	CREBBP	0.567	0.004	0.904	0.605
cg10185478	yellow	16	15,767,006 Body	OpenSea	NDE1	0.567	0.005	0.403	0.544

cg00006198	yellow	1	154,476,306	5'UTR	S_Shore	TDRD10	0.567	0.002	0.913	0.804
cg23692472	yellow	8	104,319,310	Body	OpenSea	FZD6	0.567	-0.001	0.876	0.943
cg20399720	yellow	7	1,365,766		S_Shelf		0.567	0.004	0.436	0.545
cg21350349	yellow	2	113,933,807	Body	OpenSea	LOC440839	0.567	-0.009	0.425	0.361
cg16896031	yellow	8	26,148,105	TSS1500	N_Shore	PPP2R2A	0.567	0.008	0.929	0.063
cg07239938	yellow	19	852,813	Body	N_Shore	ELANE	0.567	-0.003	0.611	0.667
cg11120865	yellow	14	21,853,037	TSS1500	S_Shore	SUPT16H	0.567	0.009	0.393	0.376
cg10529555	yellow	1	205,254,523		OpenSea		0.567	0.000	0.851	0.993
cg21030424	yellow	11	111,845,646	Body	N_Shelf	DIXDC1	0.567	0.018	0.844	0.012
cg03950371	yellow	22	41,573,046	Body	OpenSea	EP300	0.567	-0.001	0.979	0.588
cg11129439	yellow	14	104,029,859	TSS1500	S_Shore	BAG5	0.567	0.001	0.035	0.521
cg07671055	yellow	16	81,970,608	Body	OpenSea	PLCG2	0.567	0.000	0.765	0.990
cg12942320	yellow	6	44,354,771	TSS1500	N_Shore	CDC5L	0.567	-0.005	0.371	0.737
cg08005872	yellow	17	78,999,347		OpenSea		0.567	-0.003	0.640	0.572
cg08264885	yellow	8	22,103,537	Body	S_Shore	POLR3D	0.567	0.024	0.331	0.024
cg11640208	yellow	17	42,857,157	3'UTR	S_Shore	ADAM11	0.567	-0.011	0.219	0.351
cg11606261	yellow	12	53,775,336	5'UTR	S_Shore	SP1	0.566	-0.002	0.923	0.758
cg00043599	yellow	1	45,274,600	Body	S_Shelf	BTBD19	0.566	0.007	0.341	0.305
cg19383853	yellow	2	132,245,881	Body	N_Shelf	FAM128A	0.566	0.019	0.891	0.001
cg03041029	yellow	2	240,405,158		OpenSea		0.566	-0.003	0.270	0.612
cg22473613	yellow	19	42,734,510	3'UTR	OpenSea	GSK3A	0.566	0.001	0.903	0.860
cg12721952	yellow	1	2,337,711	Body	N_Shelf	PEX10	0.566	0.001	0.850	0.857
cg01685893	yellow	11	112,048,262	5'UTR	OpenSea	BCO2	0.566	0.010	0.916	0.127
cg16871520	yellow	3	52,442,033	Body	N_Shore	BAP1	0.566	0.000	0.929	0.986
cg20015787	yellow	1	21,618,050	TSS1500	S_Shore	ECE1	0.566	-0.001	0.947	0.793
cg00631272	yellow	7	1,654,491	Body	OpenSea	TFAMP1	0.566	-0.002	0.954	0.736
cg03553715	yellow	16	9,052,489	Body	N_Shelf	USP7	0.566	0.010	0.345	0.254
cg03302135	yellow	20	61,040,825	Body	N_Shore	GATA5	0.566	0.002	0.665	0.801
cg00708426	yellow	5	176,055,855	Body	N_Shore	SNCB	0.566	0.007	0.548	0.346
cg04147875	yellow	16	1,587,610	Body	N_Shore	IFT140	0.566	0.002	0.838	0.728
cg00242020	yellow	8	37,797,632	5'UTR	OpenSea	GOT111	0.566	0.002	0.598	0.723
cg14592673	yellow	17	48,768,755	3'UTR	OpenSea	ABCC3	0.566	-0.002	0.609	0.728
cg07185983	yellow	6	139,012,860		N_Shore		0.566	0.012	0.082	0.466
cg04566037	yellow	17	39,165,675	TSS1500	OpenSea	KRTAP3-1	0.566	0.006	0.426	0.544
cg15428653	yellow	9	139,923,402	TSS1500	Island	ABCA2	0.566	-0.006	0.144	0.442
cg23530543	yellow	11	124,788,414	TSS1500	N_Shelf	HEPN1	0.566	-0.003	0.951	0.424
cg04677158	yellow	5	78,279,841	Body	N_Shore	ARSB	0.566	0.008	0.125	0.470
cg02931398	yellow	1	156,637,105		OpenSea		0.566	0.007	0.911	0.180
cg00575896	yellow	3	50,357,171	Body	N_Shore	HYAL2	0.566	0.006	0.592	0.319
cg00092992	yellow	1	33,596,100		S_Shelf		0.566	-0.007	0.495	0.288
cg17742459	yellow	8	38,710,358	3'UTR	OpenSea	TACC1	0.566	-0.004	0.878	0.618
cg23886515	yellow	2	10,561,359	Body	S_Shore	HPCAL1	0.566	0.002	0.895	0.749
cg03445516	yellow	2	95,664,233		Island		0.566	0.002	0.136	0.742
cg06794355	yellow	1	17,014,799		N_Shelf		0.566	0.018	0.415	0.108
cg06515562	yellow	21	31,869,491	TSS200	OpenSea	KRTAP19-4	0.566	0.021	0.628	0.015
cg08174779	yellow	4	183,423,375	Body	OpenSea	ODZ3	0.566	-0.020	0.726	0.024
cg17193551	yellow	8	130,925,897	5'UTR	OpenSea	FAM49B	0.566	-0.002	0.946	0.646
cg01714756	yellow	14	94,780,400	Body	OpenSea	SERPINA6	0.566	0.006	0.761	0.388
cg05959980	yellow	1	182,083,019		OpenSea		0.566	-0.005	0.902	0.209
cg23527974	yellow	15	26,328,941		S_Shore		0.566	0.001	0.888	0.947
cg12878183	yellow	16	2,389,707	TSS1500	Island	ABCA17P	0.566	0.008	0.178	0.403
cg13651224	yellow	17	20,217,823	3'UTR	OpenSea	CYTSB	0.566	0.003	0.828	0.733
cg09397246	yellow	15	91,427,361	TSS1500	N_Shore	FES	0.566	0.000	0.059	0.927
cg26808167	yellow	1	154,192,205	TSS1500	N_Shore	UBAP2L	0.566	0.014	0.160	0.140
cg24901707	yellow	8	11,225,793	TSS200	OpenSea	C8orf12	0.566	0.015	0.794	0.135
cg12929678	yellow	18	67,624,393	TSS200	OpenSea	CD226	0.566	0.023	0.708	0.005
cg03396963	yellow	15	88,932,280		OpenSea		0.566	0.007	0.827	0.560
cg21171704	yellow	9	95,525,381	Body	N_Shore	BICD2	0.566	0.003	0.564	0.674
cg21943268	yellow	1	40,418,380		N_Shelf		0.566	0.009	0.565	0.310
cg06820975	yellow	4	166,129,640	Body	S_Shore	KLHL2	0.566	-0.003	0.090	0.689
cg04589523	yellow	2	207,537,139	Body	OpenSea	DYTN	0.566	0.018	0.551	0.091
cg14899357	yellow	2	85,153,373		OpenSea		0.566	0.003	0.058	0.401
cg12241733	yellow	19	743,394	Body	N_Shelf	PALM	0.566	0.003	0.436	0.801
cg06779253	yellow	1	9,375,627	5'UTR	OpenSea	SPSB1	0.566	-0.005	0.615	0.460
cg10619342	yellow	15	65,369,005	TSS200	N_Shore	LOC390594	0.566	0.000	0.947	0.978
cg02968165	yellow	4	156,169,980		OpenSea		0.566	0.011	0.835	0.301
cg02347002	yellow	5	138,719,090	TSS200	OpenSea	SLC23A1	0.566	0.002	0.223	0.817



cg02914501	yellow	2	63,814,964	Body	N_Shore	C2orf86	0.565	0.004	0.034	0.095
cg11341028	yellow	11	47,601,881	TSS1500	S_Shore	KBTBD4	0.565	0.001	0.770	0.946
cg19911880	yellow	8	131,353,969	Body	OpenSea	ASAP1	0.565	-0.013	0.913	0.057
cg13098855	yellow	1	153,588,927	TSS200	OpenSea	S100A14	0.565	0.005	0.536	0.457
cg17152135	yellow	6	33,381,867	Body	N_Shelf	PHF1	0.565	0.006	0.844	0.369
cg13533935	yellow	8	11,416,365	Body	OpenSea	BLK	0.565	0.014	0.288	0.074
cg24092295	yellow	17	47,650,025		N_Shelf		0.565	0.018	0.506	0.004
cg19815574	yellow	19	47,152,384	Body	Island	DACT3	0.565	-0.001	0.651	0.947
cg23461741	yellow	10	105,527,043	Body	OpenSea	SH3PXD2A	0.565	0.009	0.790	0.470
cg07080808	yellow	21	42,514,430	Body	OpenSea	C21orf130	0.565	0.000	0.407	0.961
cg14365364	yellow	17	77,461,025	5'UTR	S_Shore	HRNBP3	0.565	-0.002	0.604	0.739
cg20568497	yellow	10	133,558,893		OpenSea		0.565	0.004	0.078	0.777
cg11313468	yellow	19	41,782,183	Body	OpenSea	HNRNPUL1	0.565	-0.001	0.920	0.891
cg00409434	yellow	2	46,414,317	3'UTR	OpenSea	PRKCE	0.565	-0.002	0.934	0.739
cg22308970	yellow	7	38,598,910	Body	OpenSea	AMPH	0.565	0.008	0.750	0.376
cg15744108	yellow	6	144,534,514		N_Shelf		0.565	0.000	0.871	0.964
cg00423969	yellow	2	97,359,879	Body	OpenSea	FER1L5	0.565	0.014	0.590	0.069
cg23835453	yellow	12	53,646,929	Body	S_Shore	MFSD5	0.565	0.008	0.899	0.235
cg14351952	yellow	9	5,515,324	5'UTR	OpenSea	PDCD1LG2	0.565	0.013	0.815	0.159
cg01692379	yellow	6	30,044,259	TSS1500	S_Shore	RNF39	0.565	0.001	0.402	0.909
cg01614703	yellow	12	132,278,510	Body	S_Shore	SFRS8	0.565	-0.004	0.727	0.503
cg23704055	yellow	8	126,384,593		OpenSea		0.565	0.002	0.917	0.782
cg02279082	yellow	2	236,417,590	Body	OpenSea	AGAP1	0.565	0.002	0.954	0.541
cg08509427	yellow	6	31,636,913	Body	S_Shelf	CSNK2B	0.565	0.000	0.924	0.985
cg04068914	yellow	16	86,589,886	TSS1500	S_Shore	MTHFSD	0.565	-0.004	0.692	0.602
cg02239453	yellow	11	33,797,523	TSS1500	S_Shore	FBXO3	0.565	-0.009	0.621	0.552
cg14004552	yellow	6	32,167,840	Body	S_Shelf	NOTCH4	0.565	-0.008	0.903	0.293
cg16983730	yellow	10	134,106,591	Body	OpenSea	STK32C	0.565	0.012	0.548	0.088
cg20054309	yellow	2	237,037,176		OpenSea		0.565	0.001	0.456	0.819
cg07118796	yellow	3	126,892,022		OpenSea		0.565	0.000	0.033	0.909
cg00395486	yellow	6	143,997,701	TSS1500	N_Shore	PHACTR2	0.565	-0.013	0.856	0.108
cg09957864	yellow	8	145,728,526	TSS1500	N_Shore	GPT	0.565	0.014	0.729	0.255
cg02536199	yellow	16	70,508,086	Body	S_Shore	FUK	0.565	0.004	0.963	0.149
cg19244312	yellow	3	171,964,315	Body	OpenSea	FNDC3B	0.565	0.003	0.916	0.604
cg14909201	yellow	13	111,748,020		S_Shelf		0.565	-0.009	0.721	0.267
cg18233538	yellow	1	10,509,906	Body	OpenSea	APITD1	0.565	0.008	0.944	0.051
cg24859433	yellow	6	30,720,203		OpenSea		0.565	0.000	0.549	0.990
cg09354294	yellow	1	68,188,118	5'UTR	OpenSea	GNG12	0.565	0.010	0.509	0.052
cg13468759	yellow	9	18,605,667	Body	OpenSea	ADAMTSL1	0.565	0.005	0.907	0.535
cg20564969	yellow	8	4,852,959	TSS1500	S_Shore	CSMD1	0.565	0.011	0.362	0.339
cg00524220	yellow	19	3,098,963	Body	S_Shore	GNA11	0.565	0.011	0.337	0.107
cg16659407	yellow	8	98,653,091		N_Shelf		0.564	0.003	0.928	0.640
cg00409696	yellow	2	106,646,656		OpenSea		0.564	-0.012	0.532	0.442
cg02617919	yellow	10	11,504,898	Body	N_Shore	USP6NL	0.564	-0.002	0.887	0.685
cg10644148	yellow	15	31,471,263		OpenSea		0.564	0.004	0.457	0.645
cg02925222	yellow	11	280,445	Body	Island	NLRP6	0.564	0.000	0.203	0.935
cg09901951	yellow	7	100,738,948		OpenSea		0.564	0.011	0.700	0.170
cg26075417	yellow	7	157,544,211	Body	OpenSea	PTPRN2	0.564	-0.001	0.858	0.873
cg15129506	yellow	2	27,958,712		Island		0.564	0.007	0.237	0.232
cg04895225	yellow	11	85,862,822		OpenSea		0.564	0.001	0.029	0.609
cg25352134	yellow	19	23,942,073	TSS1500	S_Shore	ZNF681	0.564	-0.003	0.915	0.726
cg10449091	yellow	7	1,783,609	5'UTR	N_Shore	ELFN1	0.564	0.002	0.671	0.754
cg21418854	yellow	1	36,771,781	TSS1500	N_Shore	C1orf113	0.564	0.001	0.626	0.890
cg22354724	yellow	19	46,435,631		N_Shelf		0.564	0.004	0.342	0.688
cg14556243	yellow	9	128,107,984	Body	OpenSea	GAPVD1	0.564	-0.008	0.500	0.443
cg05635121	yellow	17	7,154,132	TSS1500	N_Shore	C17orf81	0.564	0.000	0.039	0.951
cg18180339	yellow	1	220,448,523		S_Shelf		0.564	-0.002	0.700	0.695
cg12984086	yellow	3	37,284,287	TSS1500	N_Shore	GOLGA4	0.564	0.020	0.471	0.073
cg04304872	yellow	2	208,273,528		OpenSea		0.564	0.012	0.663	0.474
cg17424602	yellow	5	138,740,101	TSS1500	S_Shore	SPATA24	0.564	0.004	0.156	0.336
cg20874031	yellow	2	69,206,176	Body	OpenSea	GKN1	0.564	-0.005	0.873	0.580
cg20378070	yellow	6	30,641,179	TSS1500	S_Shore	DHX16	0.564	0.026	0.740	0.048
cg23485738	yellow	6	31,936,192	Body	N_Shelf	SKIV2L	0.564	0.010	0.743	0.135
cg20972294	yellow	11	133,005,919	Body	OpenSea	OPCML	0.564	0.007	0.943	0.260
cg03805684	yellow	11	61,561,219	5'UTR	S_Shore	FEN1	0.564	0.006	0.248	0.475
cg10503236	yellow	1	231,470,652	3'UTR	N_Shelf	EXOC8	0.564	0.001	0.901	0.889
cg07515667	yellow	16	751,056	5'UTR	Island	FBXL16	0.564	0.005	0.078	0.356

cg08346627	yellow	16	84,681,584	TSS1500	N_Shore	KLHL36	0.564	0.012	0.233	0.211
cg08240466	yellow	20	32,847,653	TSS1500	OpenSea	ASIP	0.564	-0.013	0.764	0.125
cg20870362	yellow	9	36,169,175	TSS1500	S_Shelf	CCIN	0.564	-0.002	0.584	0.817
cg02538135	yellow	19	2,200,125	Body	Island	DOT1L	0.564	0.000	0.715	0.990
cg14592798	yellow	9	87,257,941		OpenSea		0.564	-0.002	0.766	0.783
cg15585555	yellow	1	206,732,715	Body	S_Shore	RASSF5	0.564	0.020	0.652	0.036
cg06528823	yellow	10	32,303,107	3'UTR	OpenSea	KIF5B	0.564	-0.002	0.968	0.388
cg07552087	yellow	16	2,258,457	Body	S_Shelf	MLST8	0.564	0.005	0.562	0.527
cg10073584	yellow	8	143,880,111		S_Shore		0.564	0.011	0.667	0.113
cg15640503	yellow	8	145,181,395		S_Shore		0.564	-0.008	0.436	0.382
cg08343600	yellow	10	43,894,095	5'UTR	S_Shore	HNRNPF	0.564	-0.004	0.830	0.625
cg08769634	yellow	16	71,657,362		N_Shelf		0.564	0.001	0.974	0.814
cg23520478	yellow	5	148,721,192	3'UTR	N_Shelf	AFAP1L1	0.563	0.001	0.945	0.882
cg07379550	yellow	1	227,204,743	Body	OpenSea	CDC42BPA	0.563	-0.004	0.918	0.744
cg21250061	yellow	9	37,463,344	5'UTR	N_Shore	ZBTB5	0.563	0.008	0.741	0.329
cg19187564	yellow	19	42,133,492	TSS200	OpenSea	CEACAM4	0.563	0.002	0.456	0.798
cg12707833	yellow	6	31,504,659	Body	OpenSea	BAT1	0.563	0.001	0.947	0.815
cg08104960	yellow	17	807,555	Body	OpenSea	NXN	0.563	-0.016	0.623	0.674
cg10916515	yellow	10	1,246,336	Body	OpenSea	ADARB2	0.563	0.000	0.834	0.983
cg01500402	yellow	16	2,256,716	Body	S_Shore	MLST8	0.563	-0.001	0.555	0.877
cg17128308	yellow	4	4,420,864	3'UTR	OpenSea	STX18	0.563	-0.004	0.840	0.390
cg23894219	yellow	1	1,356,565	1stExon	S_Shore	LOC441869	0.563	0.009	0.554	0.205
cg11521797	yellow	20	25,125,784	Body	N_Shelf	LOC284798	0.563	0.018	0.492	0.075
cg13789457	yellow	1	8,439,723	5'UTR	OpenSea	RERE	0.563	0.001	0.942	0.783
cg05235525	yellow	14	102,687,624	Body	OpenSea	WDR20	0.563	0.010	0.544	0.165
cg18661550	yellow	22	29,441,760	Body	N_Shelf	ZNRF3	0.563	-0.001	0.589	0.943
cg20689294	yellow	10	129,846,082	Body	OpenSea	PTPRE	0.563	0.000	0.404	0.989
cg01522412	yellow	17	60,744,202	Body	N_Shore	MRC2	0.563	0.003	0.864	0.601
cg07436208	yellow	14	23,298,774	TSS1500	N_Shore	MRPL52	0.563	0.002	0.957	0.572
cg10337322	yellow	10	104,182,490	Body	S_Shore	FBXL15	0.563	0.000	0.058	0.922
cg11654922	yellow	19	4,639,923	TSS200	S_Shore	TNFAIP8L1	0.563	0.011	0.426	0.348
cg19175822	yellow	13	113,355,060	Body	S_Shelf	ATP11A	0.563	0.001	0.680	0.874
cg01331309	yellow	6	168,619,386		OpenSea		0.563	-0.005	0.922	0.455
cg05498905	yellow	4	6,955,698	Body	OpenSea	TBC1D14	0.563	0.000	0.521	0.997
cg13491490	yellow	3	55,646,231	3'UTR	OpenSea	ERC2	0.563	0.000	0.822	0.977
cg12562132	yellow	11	120,386,165		S_Shelf		0.563	0.003	0.817	0.594
cg15368264	yellow	6	130,182,413	5'UTR	OpenSea	C6orf191	0.563	0.010	0.446	0.312
cg17406359	yellow	21	45,773,189	TSS1500	OpenSea	TRPM2	0.563	0.004	0.412	0.752
cg18173044	yellow	10	114,535,504	Body	OpenSea	VTI1A	0.563	-0.010	0.825	0.402
cg09020649	yellow	8	104,310,606	TSS1500	N_Shore	FZD6	0.563	0.024	0.386	0.067
cg20025963	yellow	17	79,894,795	1stExon	Island	PYCR1	0.563	0.011	0.139	0.171
cg11088682	yellow	3	172,376,821	5'UTR	OpenSea	NCEH1	0.563	0.004	0.592	0.768
cg18002862	yellow	17	2,718,230	Body	OpenSea	RAP1GAP2	0.563	0.013	0.513	0.101
cg01448132	yellow	16	28,996,533	5'UTR	OpenSea	LAT	0.563	0.011	0.803	0.137
cg10820158	yellow	17	53,810,813	TSS1500	OpenSea	TMEM100	0.563	0.011	0.426	0.204
cg04038019	yellow	20	61,508,588		Island		0.563	0.008	0.502	0.407
cg14418944	yellow	9	98,081,437	TSS1500	S_Shore	FANCC	0.563	-0.003	0.937	0.565
cg16294414	yellow	1	17,288,394	Body	S_Shore	CROCC	0.563	-0.019	0.779	0.157
cg12284465	yellow	1	2,766,872		OpenSea		0.563	0.006	0.688	0.314
cg27504582	yellow	12	1,609,490	TSS200	OpenSea	LOC10029261	0.563	0.011	0.492	0.301
cg21517792	yellow	14	105,885,531	TSS1500	S_Shelf	MTA1	0.563	0.007	0.569	0.236
cg23257184	yellow	19	23,942,040	TSS1500	S_Shore	ZNF681	0.563	0.006	0.895	0.489
cg10525372	yellow	6	112,375,333	TSS200	OpenSea	WISP3	0.563	-0.003	0.800	0.609
cg13239041	yellow	11	45,827,695	Body	S_Shore	SLC35C1	0.563	0.010	0.812	0.121
cg15703690	yellow	7	22,766,992	Body	OpenSea	IL6	0.563	-0.006	0.097	0.401
cg15804973	yellow	6	137,114,513	TSS1500	S_Shore	MAP3K5	0.563	0.006	0.156	0.478
cg22898082	yellow	19	11,074,428	5'UTR	S_Shelf	SMARCA4	0.563	0.004	0.560	0.613
cg18357736	yellow	6	35,705,549	Body	OpenSea	C6orf81	0.563	0.000	0.289	0.996
cg00326231	yellow	22	19,278,249	Body	N_Shore	CLTCL1	0.563	0.010	0.654	0.264
cg03732506	yellow	17	73,088,155	5'UTR	S_Shelf	SLC16A5	0.563	0.013	0.778	0.067
cg04540870	yellow	10	131,506,103	Body	OpenSea	MGMT	0.563	0.016	0.714	0.137
cg08248577	yellow	16	19,727,447	TSS1500	N_Shore	IQCK	0.563	0.004	0.605	0.550
cg13531637	yellow	2	240,060,808	Body	N_Shore	HDAC4	0.563	0.005	0.877	0.379
cg11107430	yellow	10	105,230,660		N_Shelf		0.562	0.010	0.712	0.112
cg15027262	yellow	5	122,180,440	TSS1500	N_Shore	SNX24	0.562	0.006	0.056	0.183
cg11229271	yellow	1	182,543,401	3'UTR	OpenSea	RNASEL	0.562	0.006	0.852	0.376
cg18149207	yellow	1	151,805,634	TSS1500	OpenSea	RORC	0.562	-0.002	0.788	0.834

cg20279402	yellow	1	24,742,879	5'UTR	Island	NIPAL3	0.562	0.012	0.115	0.053
cg19478698	yellow	3	195,530,151	Body	OpenSea	MUC4	0.562	0.025	0.656	0.009
cg05861567	yellow	22	50,523,686	5'UTR	OpenSea	MLC1	0.562	0.017	0.612	0.081
cg12691631	yellow	4	23,891,835	TSS200	OpenSea	PPARGC1A	0.562	0.002	0.024	0.251
cg00088042	yellow	10	103,892,309	TSS1500	N_Shore	PPRC1	0.562	0.008	0.078	0.107
cg03249995	yellow	16	85,819,513	Body	OpenSea	COX4NB	0.562	0.006	0.839	0.325
cg18573443	yellow	11	72,534,638	Body	S_Shore	ATG16L2	0.562	0.013	0.802	0.056
cg04285822	yellow	10	93,058,549		OpenSea		0.562	0.000	0.040	0.921
cg14890730	yellow	10	72,032,697		OpenSea		0.562	-0.018	0.290	0.295
cg02659431	yellow	5	141,694,439	Body	OpenSea	SPRY4	0.562	-0.002	0.947	0.670
cg12743388	yellow	1	84,755,291		OpenSea		0.562	0.002	0.953	0.697
cg13752749	yellow	9	126,130,901	Body	S_Shore	CRB2	0.562	0.007	0.739	0.279
cg17756860	yellow	4	110,510,374	Body	OpenSea	CCDC109B	0.562	-0.013	0.924	0.024
cg24576260	yellow	1	1,217,664	5'UTR	OpenSea	SCNN1D	0.562	0.003	0.678	0.676
cg22148986	yellow	4	187,802,093		OpenSea		0.562	0.003	0.831	0.703
cg21203251	yellow	14	65,065,830		N_Shelf		0.562	-0.015	0.817	0.228
cg17499212	yellow	1	6,140,589	Body	OpenSea	KCNAB2	0.562	0.005	0.354	0.559
cg02856716	yellow	1	18,993,307	Body	OpenSea	PAX7	0.562	0.000	0.309	0.960
cg08906030	yellow	16	88,625,292		S_Shore		0.562	0.003	0.551	0.808
cg03772064	yellow	7	3,258,347		OpenSea		0.562	-0.001	0.033	0.584
cg15241236	yellow	8	69,355,417	Body	OpenSea	C8orf34	0.562	0.014	0.697	0.039
cg14150354	yellow	14	99,690,237	Body	OpenSea	BCL11B	0.562	0.001	0.728	0.873
cg14040358	yellow	19	4,369,393	Body	N_Shelf	SH3GL1	0.562	-0.001	0.554	0.871
cg10718914	yellow	3	38,049,067	3'UTR	OpenSea	PLCD1	0.562	0.020	0.687	0.015
cg24621258	yellow	12	133,156,545	Body	N_Shelf	FBRSL1	0.562	0.002	0.731	0.918
cg09444036	yellow	10	658,638	Body	OpenSea	DIP2C	0.562	0.005	0.772	0.521
cg21535580	yellow	1	204,121,899	TSS1500	S_Shore	ETNK2	0.562	0.008	0.570	0.317
cg19947463	yellow	7	1,113,237	Body	OpenSea	C7orf50	0.562	0.003	0.727	0.804
cg08573701	yellow	8	53,603,035	5'UTR	OpenSea	RB1CC1	0.562	-0.003	0.785	0.746
cg24797665	yellow	12	120,124,971	3'UTR	N_Shelf	CIT	0.562	-0.004	0.908	0.475
cg20308335	yellow	7	134,927,207	Body	N_Shelf	STRA8	0.562	-0.004	0.862	0.715
cg04224340	yellow	15	89,420,872	3'UTR	N_Shelf	HAPLN3	0.562	0.009	0.813	0.123
cg03619352	yellow	5	179,219,098		N_Shelf		0.562	0.017	0.396	0.122
cg25198113	yellow	1	5,743,886		OpenSea		0.562	0.011	0.599	0.090
cg14844130	yellow	22	22,598,937	TSS1500	OpenSea	VPREB1	0.562	0.006	0.547	0.541
cg13436417	yellow	10	122,262,925	Body	OpenSea	PPAPDC1A	0.562	0.004	0.820	0.507
cg00835705	yellow	8	92,970,334		OpenSea		0.562	0.000	0.910	0.971
cg10657228	yellow	8	10,386,222	Body	OpenSea	T-SP1	0.562	0.004	0.804	0.669
cg11158729	yellow	2	97,427,027	1stExon	Island	CNNM4	0.562	-0.005	0.145	0.572
cg07499142	yellow	1	9,788,715	3'UTR	N_Shore	PIK3CD	0.562	0.001	0.946	0.831
cg01978236	yellow	6	32,191,479	Body	OpenSea	NOTCH4	0.562	0.017	0.439	0.225
cg01246855	yellow	22	29,952,103	Body	S_Shelf	NIPSNAP1	0.562	0.004	0.870	0.553
cg08258403	yellow	12	15,378,311		S_Shelf		0.562	-0.009	0.554	0.641
cg12513140	yellow	3	150,160,121	Body	OpenSea	TSC22D2	0.562	0.001	0.826	0.948
cg11008003	yellow	7	157,255,264		OpenSea		0.562	0.002	0.740	0.824
cg02573357	yellow	1	203,738,799	Body	OpenSea	LAX1	0.562	0.003	0.047	0.494
cg16408784	yellow	11	116,657,918	Body	N_Shore	ZNF259	0.562	-0.002	0.575	0.849
cg08597733	yellow	20	60,886,158	Body	Island	LAMA5	0.562	0.002	0.808	0.818
cg00974255	yellow	17	35,082,656		S_Shelf		0.562	-0.010	0.900	0.073
cg03202034	yellow	16	88,730,494	Body	S_Shore	MGC23284	0.561	0.020	0.414	0.067
cg19395441	yellow	12	121,454,451	TSS200	S_Shore	C12orf43	0.561	-0.002	0.198	0.766
cg12587382	yellow	1	26,147,817	5'UTR	S_Shore	FAM54B	0.561	0.012	0.308	0.038
cg12397463	yellow	6	33,128,825		N_Shore		0.561	0.017	0.416	0.266
cg11815980	yellow	3	59,787,974	Body	OpenSea	FHIT	0.561	0.007	0.741	0.257
cg06127541	yellow	11	14,331,601	Body	OpenSea	RRAS2	0.561	0.002	0.369	0.756
cg25565132	yellow	2	182,756,132	TSS1500	N_Shore	SSFA2	0.561	0.001	0.039	0.713
cg07128759	yellow	2	68,663,346		OpenSea		0.561	-0.005	0.469	0.650
cg16762386	yellow	1	27,240,514	1stExon	OpenSea	NR0B2	0.561	0.012	0.594	0.156
cg25140571	yellow	3	8,811,437	TSS200	S_Shore	OXTR	0.561	0.011	0.261	0.348
cg07105409	yellow	18	77,502,569	Body	S_Shelf	CTDP1	0.561	0.007	0.925	0.181
cg18729086	yellow	10	101,187,440	Body	N_Shelf	GOT1	0.561	0.006	0.896	0.152
cg09013267	yellow	5	176,762,943	Body	N_Shore	LMAN2	0.561	0.004	0.852	0.371
cg08809223	yellow	6	31,134,812	Body	OpenSea	POU5F1	0.561	0.006	0.905	0.423
cg01943029	yellow	16	31,715,088	Body	S_Shelf	C16orf67	0.561	-0.005	0.903	0.299
cg06901890	yellow	9	132,803,508	Body	N_Shore	FBNP1	0.561	0.004	0.960	0.224
cg20391567	yellow	10	14,447,185		OpenSea		0.561	-0.011	0.324	0.688
cg15493607	yellow	14	88,738,195	TSS1500	OpenSea	KCNK10	0.561	0.008	0.835	0.335

cg14398883	yellow	7	101,398,184	OpenSea		0.561	-0.002	0.306	0.830
cg14436773	yellow	4	72,333,280 Body	OpenSea	SLC4A4	0.561	-0.011	0.805	0.343
cg25454804	yellow	6	126,660,984 TSS1500	N_Shore	C6orf173	0.561	0.012	0.480	0.371
cg18723442	yellow	5	150,727,156 TSS200	OpenSea	SLC36A2	0.561	-0.004	0.671	0.683
cg14641600	yellow	5	133,483,170 3'UTR	OpenSea	TCF7	0.561	0.006	0.547	0.460
cg06748060	yellow	4	174,028,204	OpenSea		0.561	0.012	0.716	0.183
cg15819333	yellow	16	85,832,091 Body	N_Shore	COX4NB	0.561	0.028	0.397	0.089
cg18244508	yellow	6	32,172,871 Body	OpenSea	NOTCH4	0.561	0.016	0.571	0.069
cg07224918	yellow	1	17,944,423 Body	OpenSea	ARHGEF10L	0.561	-0.001	0.883	0.874
cg14048837	yellow	9	109,658,527 Body	OpenSea	MIR548Q	0.561	0.000	0.798	0.955
cg24996979	yellow	14	74,223,355 5'UTR	N_Shelf	C14orf43	0.561	0.016	0.558	0.023
cg17756730	yellow	1	172,608,644	OpenSea		0.561	-0.003	0.877	0.374
cg01845013	yellow	14	80,697,777	OpenSea		0.561	-0.007	0.958	0.264
cg01830053	yellow	13	41,064,545	OpenSea		0.561	0.008	0.578	0.447
cg01982833	yellow	12	27,174,596 TSS1500	N_Shore	MED21	0.561	0.001	0.698	0.928
cg10639425	yellow	5	1,364,079	OpenSea		0.561	0.002	0.544	0.723
cg26987521	yellow	12	64,360,878 Body	OpenSea	SRGAP1	0.561	-0.004	0.884	0.496
cg12749164	yellow	1	8,262,925	OpenSea		0.561	0.006	0.608	0.444
cg07759801	yellow	18	72,162,699 TSS1500	N_Shore	CNDP2	0.561	0.002	0.464	0.912
cg00903250	yellow	22	31,604,155	N_Shelf		0.561	0.005	0.828	0.500
cg20026673	yellow	7	6,389,919 TSS1500	S_Shore	C7orf70	0.561	0.004	0.828	0.774
cg12307314	yellow	5	142,206,724 Body	OpenSea	ARHGAP26	0.561	0.006	0.706	0.601
cg07852557	yellow	17	79,422,586 Body	N_Shelf	BAHCC1	0.561	0.018	0.730	0.003
cg01030476	yellow	1	236,686,564 TSS200	N_Shore	LGALS8	0.561	0.015	0.246	0.153
cg22792785	yellow	8	86,018,936 TSS1500	N_Shore	LRRCC1	0.561	0.001	0.237	0.888
cg05731122	yellow	12	48,100,286 TSS1500	S_Shore	RPAP3	0.561	0.009	0.281	0.584
cg10107466	yellow	11	1,446,247 Body	OpenSea	BRSK2	0.561	0.005	0.828	0.432
cg13368786	yellow	20	33,463,522 Body	N_Shore	ACSS2	0.561	0.005	0.582	0.533
cg12924430	yellow	14	104,644,895 Body	Island	KIF26A	0.561	-0.002	0.478	0.956
cg25468488	yellow	2	219,268,015 Body	N_Shelf	CTDSP1	0.561	0.001	0.849	0.904
cg17245405	yellow	4	653,615 Body	S_Shore	PDE6B	0.561	0.009	0.826	0.158
cg06259050	yellow	4	122,790,713 Body	N_Shore	BBS7	0.561	-0.007	0.476	0.524
cg10232893	yellow	1	230,961,405	OpenSea		0.561	0.011	0.853	0.296
cg11014582	yellow	13	76,333,727 TSS1500	OpenSea	LMO7	0.561	-0.007	0.881	0.414
cg02010829	yellow	16	16,090,604 Body	OpenSea	ABCC1	0.561	0.001	0.407	0.907
cg12495503	yellow	6	33,216,618	Island		0.561	0.006	0.100	0.341
cg24250588	yellow	1	43,203,008 Body	N_Shore	CLDN19	0.561	0.003	0.810	0.701
cg26955996	yellow	19	48,547,989 TSS1500	OpenSea	CABP5	0.561	-0.002	0.842	0.814
cg24650394	yellow	2	43,863,435 TSS1500	N_Shore	PLEKHH2	0.560	-0.012	0.947	0.130
cg12747505	yellow	4	122,854,532 Body	S_Shore	TRPC3	0.560	-0.001	0.896	0.892
cg20700719	yellow	12	116,410,553 Body	OpenSea	MED13L	0.560	0.014	0.728	0.276
cg18790646	yellow	6	32,006,196 5'UTR	OpenSea	CYP21A2	0.560	0.009	0.741	0.463
cg11398743	yellow	6	39,900,183 Body	N_Shore	MOCS1	0.560	-0.006	0.893	0.243
cg14193156	yellow	17	73,056,104 Body	OpenSea	KCTD2	0.560	0.002	0.341	0.796
cg05277881	yellow	11	61,975,710 TSS1500	OpenSea	SCGB2A1	0.560	-0.012	0.810	0.230
cg12789488	yellow	10	133,760,222 Body	OpenSea	PPP2R2D	0.560	0.002	0.953	0.670
cg16874669	yellow	2	189,237,094 5'UTR	OpenSea	GULP1	0.560	0.009	0.926	0.146
cg26859042	yellow	19	41,620,458 5'UTR	OpenSea	CYP2F1	0.560	0.009	0.611	0.426
cg09175485	yellow	11	67,020,555 Body	S_Shelf	KDM2A	0.560	-0.002	0.620	0.765
cg13622546	yellow	9	132,402,607 Body	N_Shore	ASB6	0.560	0.008	0.091	0.254
cg04356381	yellow	6	25,050,788	OpenSea		0.560	-0.002	0.039	0.701
cg25832551	yellow	17	79,658,824 Body	S_Shelf	HGS	0.560	0.002	0.882	0.728
cg14640149	yellow	2	216,546,226	OpenSea		0.560	0.005	0.456	0.788
cg12565636	yellow	8	39,797,497 Body	OpenSea	IDO2	0.560	0.021	0.586	0.452
cg07109332	yellow	1	22,962,640 TSS1500	OpenSea	C1QA	0.560	0.006	0.295	0.459
cg03774957	yellow	5	141,227,950	N_Shore		0.560	-0.002	0.951	0.508
cg05202204	yellow	1	38,460,950	N_Shore		0.560	0.004	0.588	0.747
cg24948962	yellow	18	2,906,032 Body	Island	EMILIN2	0.560	0.006	0.102	0.482
cg00218103	yellow	22	46,465,977	Island		0.560	0.002	0.032	0.532
cg05304366	yellow	15	40,226,905 Body	S_Shore	EIF2AK4	0.560	0.065	0.430	0.005
cg19059861	yellow	20	31,823,761 TSS200	OpenSea	PLUNC	0.560	0.006	0.424	0.442
cg10288525	yellow	13	33,455,187	OpenSea		0.560	0.012	0.668	0.138
cg09134497	yellow	1	155,973,286	OpenSea		0.560	0.015	0.439	0.041
cg15692593	yellow	6	101,993,140 Body	OpenSea	GRIK2	0.560	0.002	0.756	0.842
cg00398048	yellow	4	178,364,342 TSS1500	S_Shore	AGA	0.560	-0.020	0.454	0.205
cg10764492	yellow	12	107,039,017 Body	OpenSea	RFX4	0.560	0.013	0.721	0.171
cg21271945	yellow	1	2,080,081 Body	N_Shelf	PRKCZ	0.560	-0.002	0.860	0.735

cg24815853	yellow	19	51,538,416	TSS1500	S_Shelf	KLK12	0.560	-0.002	0.332	0.738
cg00607051	yellow	5	191,500	TSS200	N_Shore	LRRC14B	0.560	0.002	0.311	0.841
cg11878712	yellow	2	135,018,453	Body	OpenSea	MGAT5	0.560	0.015	0.635	0.144
cg03092551	yellow	2	58,273,420	TSS1500	N_Shore	VRK2	0.560	-0.003	0.579	0.783
cg26726370	yellow	6	31,637,619	TSS1500	S_Shelf	LY6G5B	0.560	0.005	0.784	0.408
cg15888472	yellow	17	79,000,968		OpenSea		0.560	0.009	0.451	0.432
cg17862558	yellow	4	106,137,048	5'UTR	OpenSea	TET2	0.560	0.000	0.820	0.980
cg05379509	yellow	14	65,214,540	3'UTR	N_Shore	SPTB	0.560	0.008	0.904	0.174
cg16703333	yellow	19	42,470,790	3'UTR	OpenSea	ATP1A3	0.560	0.005	0.734	0.549
cg20026737	yellow	12	88,389,682	Body	OpenSea	C12orf50	0.560	0.007	0.097	0.396
cg19757382	yellow	2	241,076,313	TSS1500	S_Shore	MYEOV2	0.560	0.002	0.483	0.851
cg04337270	yellow	4	24,559,830	Body	OpenSea	DHX15	0.560	-0.006	0.889	0.380
cg03560416	yellow	13	28,025,757	TSS1500	S_Shore	MTIF3	0.560	0.002	0.798	0.818
cg14086599	yellow	2	241,536,098	Body	S_Shore	CAPN10	0.560	0.008	0.901	0.255
cg20912066	yellow	11	107,436,729	TSS1500	OpenSea	ALKBH8	0.560	-0.007	0.092	0.265
cg25758167	yellow	1	100,315,090	TSS1500	N_Shore	AGL	0.560	0.009	0.630	0.143
cg00994629	yellow	14	22,694,547		OpenSea		0.560	0.002	0.936	0.758
cg10782277	yellow	7	100,474,621	Body	S_Shore	SRRT	0.560	0.006	0.885	0.497
cg02973156	yellow	12	127,544,951		OpenSea		0.560	-0.008	0.616	0.298
cg06341047	yellow	3	70,048,377		OpenSea		0.560	0.016	0.438	0.055
cg14114267	yellow	2	174,831,503	TSS1500	S_Shore	SP3	0.560	0.007	0.649	0.504
cg18571640	yellow	8	33,210,211		OpenSea		0.560	0.001	0.088	0.918
cg11949874	yellow	1	11,381,935		OpenSea		0.559	-0.001	0.298	0.895
cg18856214	yellow	7	4,264,980	Body	OpenSea	SDK1	0.559	-0.008	0.711	0.417
cg22473616	yellow	5	1,357,161		OpenSea		0.559	0.009	0.806	0.188
cg15980656	yellow	8	97,583,236	Body	OpenSea	SDC2	0.559	-0.002	0.923	0.744
cg24746666	yellow	2	201,342,647	Body	OpenSea	SPATS2L	0.559	-0.005	0.946	0.251
cg15067386	yellow	3	46,787,073	TSS1500	OpenSea	PRSS45	0.559	0.014	0.614	0.053
cg22042908	yellow	20	4,802,684	5'UTR	N_Shore	RASSF2	0.559	0.001	0.897	0.848
cg25791330	yellow	3	58,563,693	TSS1500	OpenSea	FAM107A	0.559	0.009	0.527	0.227
cg26795312	yellow	8	146,231,199	Body	S_Shelf	C8orf77	0.559	0.010	0.392	0.203
cg04762312	yellow	6	157,800,071		N_Shore		0.559	0.027	0.561	0.025
cg08705942	yellow	16	85,989,730		OpenSea		0.559	0.002	0.846	0.800
cg27054887	yellow	16	67,276,940	Body	N_Shelf	FHOD1	0.559	-0.013	0.842	0.384
cg01863964	yellow	14	25,512,111	5'UTR	OpenSea	STXBP6	0.559	-0.020	0.622	0.092
cg18138826	yellow	6	44,354,646	TSS1500	N_Shore	CDC5L	0.559	-0.011	0.781	0.201
cg04625536	yellow	6	42,533,006	Body	S_Shore	UBR2	0.559	0.002	0.014	0.010
cg06685514	yellow	5	176,896,820	Body	S_Shelf	DBN1	0.559	-0.002	0.642	0.768
cg00798876	yellow	7	2,670,978	TSS1500	N_Shore	TTYH3	0.559	0.000	0.610	0.972
cg11868247	yellow	7	7,962,810		OpenSea		0.559	0.009	0.426	0.279
cg00781749	yellow	14	99,532,893		OpenSea		0.559	0.004	0.626	0.532
cg03609102	yellow	11	1,244,533	Body	N_Shelf	MUC5B	0.559	0.019	0.550	0.031
cg06211243	yellow	18	12,907,446		N_Shelf		0.559	0.002	0.328	0.842
cg14496282	yellow	7	544,525	Body	OpenSea	PDGFA	0.559	-0.007	0.580	0.489
cg11921958	yellow	11	67,068,769	Body	N_Shelf	ANKRD13D	0.559	0.014	0.668	0.064
cg14883291	yellow	11	86,383,761	TSS1500	S_Shore	ME3	0.559	0.014	0.132	0.205
cg09242610	yellow	2	9,357,556	Body	OpenSea	ASAP2	0.559	-0.013	0.766	0.362
cg09391284	yellow	3	182,401,187		S_Shore		0.559	-0.004	0.283	0.715
cg16773162	yellow	12	107,039,145	Body	OpenSea	RFX4	0.559	0.002	0.954	0.676
cg00007800	yellow	1	1,838,518		N_Shore		0.559	0.004	0.868	0.472
cg00247334	yellow	3	8,811,543	TSS1500	S_Shore	OXTR	0.559	0.019	0.732	0.050
cg16045223	yellow	1	1,206,372	5'UTR	N_Shelf	UBE2J2	0.559	-0.006	0.873	0.430
cg10024073	yellow	22	50,599,945	3'UTR	OpenSea	MOV10L1	0.559	0.008	0.675	0.224
cg13354934	yellow	1	1,296,093		OpenSea		0.559	0.007	0.110	0.219
cg08352920	yellow	6	114,466,051		OpenSea		0.559	-0.006	0.417	0.423
cg18542639	yellow	15	41,275,117	Body	OpenSea	INO80	0.559	0.004	0.845	0.518
cg26385097	yellow	2	438,095		OpenSea		0.559	0.009	0.360	0.516
cg01257697	yellow	17	6,470,974		OpenSea		0.559	0.004	0.301	0.521
cg27328080	yellow	4	159,577,035		OpenSea		0.559	-0.003	0.901	0.689
cg14909495	yellow	7	150,549,472	TSS200	OpenSea	ABP1	0.559	0.002	0.541	0.764
cg06470804	yellow	5	180,071,930	Body	N_Shelf	FLT4	0.559	0.005	0.715	0.477
cg07297467	yellow	2	101,635,691	3'UTR	OpenSea	RPL31	0.559	0.001	0.971	0.437
cg04639610	yellow	2	74,942,001		N_Shore		0.559	0.010	0.418	0.270
cg21211478	yellow	1	151,825,188	Body	OpenSea	THEM5	0.559	0.009	0.851	0.124
cg17055821	yellow	17	30,669,476	TSS1500	S_Shore	C17orf75	0.559	-0.004	0.146	0.742
cg12636785	yellow	1	242,684,042	5'UTR	N_Shelf	PLD5	0.559	0.003	0.668	0.629
cg04802826	yellow	20	30,865,183	TSS1500	N_Shore	KIF3B	0.559	-0.001	0.071	0.843

cg18992848	yellow	7	144,531,951	Body	N_Shore	TPK1	0.559	0.006	0.558	0.751
cg27281690	yellow	2	7,171,963	Body	N_Shore	RNF144A	0.559	0.001	0.524	0.797
cg01367627	yellow	7	98,477,438	5'UTR	S_Shore	TRRAP	0.559	0.011	0.390	0.037
cg12854855	yellow	17	78,439,812		N_Shelf		0.559	-0.002	0.808	0.790
cg07284190	yellow	12	78,588,454	Body	OpenSea	NAV3	0.559	-0.004	0.498	0.709
cg19824396	yellow	1	203,018,871	TSS1500	OpenSea	PPFIA4	0.559	0.012	0.506	0.372
cg01273384	yellow	20	60,529,758	TSS1500	OpenSea	MIR1257	0.559	0.000	0.591	0.955
cg13791092	yellow	20	1,098,787	5'UTR	N_Shore	PSMF1	0.559	0.011	0.454	0.414
cg14561985	yellow	7	157,669,557	Body	N_Shore	PTPRN2	0.559	0.004	0.893	0.540
cg26581200	yellow	22	30,637,461	3'UTR	N_Shelf	LIF	0.559	0.006	0.453	0.175
cg03275201	yellow	17	80,602,016	Body	N_Shelf	WDR45L	0.558	-0.005	0.853	0.449
cg08367205	yellow	11	13,298,296	TSS1500	N_Shore	ARNTL	0.558	0.001	0.047	0.698
cg04784948	yellow	2	24,148,492	Body	N_Shore	ATAD2B	0.558	0.001	0.020	0.165
cg00157638	yellow	1	10,963,932		OpenSea		0.558	0.006	0.472	0.426
cg04428346	yellow	4	119,651,793	Body	OpenSea	SEC24D	0.558	-0.006	0.903	0.338
cg18204017	yellow	6	35,309,928	TSS1500	N_Shore	PPARD	0.558	0.004	0.809	0.655
cg01053766	yellow	5	10,479,730		OpenSea		0.558	0.002	0.673	0.807
cg11762213	yellow	19	2,308,653	TSS1500	S_Shore	LINGO3	0.558	-0.004	0.623	0.610
cg03263337	yellow	8	62,199,082	TSS1500	OpenSea	CLVS1	0.558	-0.006	0.666	0.648
cg19560287	yellow	5	154,318,093	TSS1500	S_Shore	GEMIN5	0.558	0.002	0.220	0.762
cg08191530	yellow	19	17,927,333	3'UTR	OpenSea	INSL3	0.558	0.010	0.551	0.161
cg22888023	yellow	17	78,820,004	Body	S_Shore	RPTOR	0.558	-0.003	0.850	0.746
cg09268874	yellow	1	85,140,335	5'UTR	OpenSea	SSX2IP	0.558	0.001	0.917	0.862
cg27474534	yellow	11	60,543,615	3'UTR	OpenSea	MS4A15	0.558	0.001	0.751	0.870
cg18019132	yellow	11	65,191,707	Body	S_Shore	NEAT1	0.558	0.029	0.495	0.009
cg11860203	yellow	17	32,582,516	Body	OpenSea	CCL2	0.558	0.004	0.169	0.458
cg24332364	yellow	2	240,308,692	5'UTR	OpenSea	HDAC4	0.558	-0.005	0.862	0.364
cg13159071	yellow	7	134,134,721	Body	OpenSea	AKR1B1	0.558	-0.002	0.640	0.904
cg27211696	yellow	2	191,398,769	Body	N_Shore	TMEM194B	0.558	0.004	0.350	0.824
cg06508005	yellow	19	17,972,675	Body	S_Shore	RPL18AP3	0.558	-0.008	0.845	0.307
cg26032325	yellow	2	128,119,907		OpenSea		0.558	-0.008	0.288	0.440
cg21439672	yellow	12	7,260,546	Body	OpenSea	C1RL	0.558	0.004	0.445	0.630
cg06568506	yellow	16	27,473,774	Body	OpenSea	GTF3C1	0.558	0.003	0.965	0.253
cg10834480	yellow	6	111,928,234	TSS1500	OpenSea	TRAF3IP2	0.558	0.010	0.846	0.094
cg25631489	yellow	3	169,900,020	TSS1500	S_Shore	PHC3	0.558	0.000	0.798	0.945
cg12393108	yellow	11	124,064,793		OpenSea		0.558	0.016	0.489	0.282
cg22639561	yellow	5	153,451,974		OpenSea		0.558	0.004	0.054	0.625
cg19056664	yellow	5	1,335,965	Body	S_Shore	CLPTM1L	0.558	0.001	0.786	0.906
cg00351119	yellow	6	143,836,747		S_Shelf		0.558	0.042	0.619	0.034
cg20093457	yellow	14	100,198,227		S_Shore		0.558	0.014	0.877	0.004
cg19508985	yellow	4	69,771,757		OpenSea		0.558	0.016	0.176	0.336
cg09981407	yellow	17	2,699,505	TSS1500	OpenSea	RAP1GAP2	0.558	0.010	0.637	0.367
cg17382459	yellow	19	56,348,216	1stExon	OpenSea	NLRP4	0.558	-0.003	0.811	0.727
cg02458499	yellow	8	110,280,928	Body	OpenSea	NUDCD1	0.558	-0.014	0.853	0.346
cg02280200	yellow	12	286,620	3'UTR	OpenSea	IQSEC3	0.558	0.005	0.768	0.477
cg04169483	yellow	8	144,965,509		N_Shore		0.558	0.002	0.834	0.730
cg08536838	yellow	17	63,559,901		S_Shore		0.558	0.011	0.861	0.129
cg12784386	yellow	17	79,031,712	Body	OpenSea	BAIAP2	0.558	0.000	0.765	0.969
cg15838173	yellow	10	75,533,400	Body	S_Shore	FUT11	0.558	-0.001	0.031	0.878
cg17617387	yellow	9	130,953,234	5'UTR	N_Shore	CIZ1	0.558	0.001	0.038	0.804
cg12280317	yellow	1	152,008,083	Body	N_Shore	S100A11	0.558	0.002	0.354	0.836
cg08941515	yellow	16	3,585,441	Body	OpenSea	CLUAP1	0.558	0.000	0.845	0.977
cg12076479	yellow	1	28,535,613	Body	OpenSea	DNAJC8	0.558	0.005	0.220	0.251
cg06816054	yellow	8	27,695,695	TSS1500	S_Shore	PBK	0.558	0.006	0.150	0.386
cg21359950	yellow	12	94,083,470	Body	OpenSea	CRADD	0.558	0.025	0.791	0.042
cg27054514	yellow	1	2,252,995	Body	N_Shore	MORN1	0.558	0.011	0.660	0.357
cg05215011	yellow	16	84,181,000	Body	S_Shore	LRRCS0	0.558	0.006	0.901	0.470
cg07508588	yellow	14	103,398,439		S_Shore		0.558	0.000	0.894	0.983
cg23803022	yellow	1	154,908,781	Body	N_Shore	PMVK	0.558	0.001	0.126	0.934
cg23302989	yellow	7	25,174,492	3'UTR	OpenSea	C7orf31	0.558	0.010	0.464	0.363
cg05460289	yellow	10	133,558,389		OpenSea		0.558	-0.004	0.748	0.754
cg08753560	yellow	7	35,615,527		OpenSea		0.558	0.011	0.496	0.168
cg20790030	yellow	1	3,051,130	Body	OpenSea	PRDM16	0.558	0.011	0.562	0.127
cg15172739	yellow	11	62,621,258	TSS200	N_Shelf	SNORD30	0.557	0.004	0.476	0.668
cg22724325	yellow	15	78,421,431	Body	N_Shelf	CIB2	0.557	0.005	0.656	0.453
cg18845277	yellow	7	48,019,713	TSS1500	S_Shore	HUS1	0.557	0.033	0.695	0.161
cg01173794	yellow	19	36,131,225	TSS1500	N_Shelf	ETV2	0.557	-0.005	0.876	0.493

cg01620701	yellow	15	75,953,954	OpenSea		0.557	0.027	0.811	0.156
cg24338411	yellow	21	37,667,810	Island		0.557	0.007	0.581	0.354
cg02179341	yellow	2	2,188,203 5'UTR	N_Shore	MYT1L	0.557	-0.004	0.626	0.620
cg05585947	yellow	13	20,699,452	N_Shelf		0.557	-0.007	0.201	0.528
cg06663644	yellow	19	40,971,204 Body	N_Shore	BLVRB	0.557	0.012	0.482	0.161
cg23921838	yellow	6	151,941,727 3'UTR	OpenSea	C6orf97	0.557	-0.001	0.712	0.909
cg10148419	yellow	10	134,801,678	N_Shelf		0.557	0.013	0.623	0.271
cg18512352	yellow	11	47,633,146	OpenSea		0.557	0.020	0.762	0.095
cg00065570	yellow	8	145,641,991 1stExon	Island	SLC39A4	0.557	0.007	0.433	0.142
cg05029983	yellow	4	2,068,254 3'UTR	S_Shore	NAT8L	0.557	-0.007	0.818	0.357
cg25024442	yellow	2	27,904,586 Body	OpenSea	SLC4A1AP	0.557	0.011	0.689	0.173
cg11220060	yellow	19	12,997,418 Body	S_Shore	KLF1	0.557	0.006	0.221	0.436
cg12352038	yellow	20	62,114,621	S_Shelf		0.557	-0.003	0.048	0.605
cg14189381	yellow	9	125,106,354	N_Shelf		0.557	-0.004	0.873	0.545
cg04265603	yellow	7	158,886,120 Body	N_Shore	VIPR2	0.557	-0.007	0.879	0.359
cg19513232	yellow	5	149,623,972 Body	OpenSea	CAMK2A	0.557	0.009	0.472	0.298
cg01928068	yellow	11	43,941,594 3'UTR	OpenSea	ALKBH3	0.557	0.010	0.683	0.176
cg12785228	yellow	2	121,071,904	OpenSea		0.557	0.003	0.636	0.577
cg01417849	yellow	6	33,781,855	OpenSea		0.557	-0.007	0.553	0.487
cg11779808	yellow	8	2,586,225	OpenSea		0.557	-0.001	0.399	0.946
cg24986615	yellow	7	597,101 Body	N_Shore	PRKAR1B	0.557	-0.002	0.943	0.506
cg05014727	yellow	10	6,214,016 Body	OpenSea	PFKFB3	0.557	0.011	0.911	0.268
cg04264075	yellow	19	51,876,470 TSS1500	OpenSea	NKG7	0.557	0.012	0.689	0.052
cg20274553	yellow	6	169,939,263 Body	OpenSea	WDR27	0.557	-0.002	0.932	0.786
cg18746357	yellow	11	65,429,465 Body	N_Shore	RELA	0.557	0.017	0.585	0.047
cg05018648	yellow	2	794,683	OpenSea		0.557	-0.007	0.610	0.611
cg11691341	yellow	17	20,905,737 3'UTR	OpenSea	USP22	0.557	-0.002	0.934	0.750
cg16353632	yellow	12	52,914,330 TSS200	OpenSea	KRT5	0.557	-0.007	0.561	0.228
cg09461728	yellow	19	33,463,351 5'UTR	S_Shore	C19orf40	0.557	0.003	0.456	0.831
cg10915772	yellow	7	12,610,078 TSS200	N_Shore	SCIN	0.557	0.000	0.019	0.910
cg16710348	yellow	3	121,660,655 3'UTR	OpenSea	SLC15A2	0.557	-0.017	0.748	0.051
cg04528961	yellow	2	32,289,715 Body	S_Shore	SPAST	0.557	0.007	0.179	0.521
cg13998850	yellow	14	24,540,773 1stExon	OpenSea	CPNE6	0.557	0.005	0.593	0.530
cg09410317	yellow	10	3,168,669 Body	OpenSea	PFKP	0.557	-0.024	0.790	0.288
cg23341182	yellow	10	102,046,768 TSS1500	S_Shore	BLOC1S2	0.557	-0.011	0.502	0.236
cg12574576	yellow	10	44,363,776	OpenSea		0.557	-0.001	0.227	0.850
cg25054821	yellow	12	119,216,236	S_Shelf		0.557	0.004	0.828	0.460
cg15236528	yellow	17	79,283,062 TSS200	N_Shore	C17orf55	0.557	-0.012	0.173	0.199
cg09480227	yellow	13	50,600,044 Body	OpenSea	DLEU2	0.557	-0.004	0.900	0.587
cg12630596	yellow	5	112,849,156 TSS1500	N_Shore	YTHDC2	0.557	0.016	0.229	0.156
cg03974026	yellow	6	3,264,071 3'UTR	OpenSea	PSMG4	0.557	-0.002	0.826	0.796
cg07899459	yellow	19	19,755,036 TSS1500	S_Shore	GMIP	0.557	0.005	0.917	0.515
cg01063615	yellow	17	34,138,793 Body	S_Shore	TAF15	0.557	0.002	0.954	0.591
cg15063366	yellow	2	228,683,032	OpenSea		0.556	0.005	0.060	0.396
cg18503758	yellow	14	95,564,636 Body	OpenSea	DICER1	0.556	-0.002	0.792	0.801
cg18474180	yellow	11	67,979,160 5'UTR	N_Shore	SUV420H1	0.556	0.001	0.047	0.617
cg22358121	yellow	11	118,890,977 Body	S_Shore	TRAPPC4	0.556	0.005	0.472	0.558
cg27584762	yellow	5	86,709,126 TSS1500	S_Shore	CCNH	0.556	-0.009	0.353	0.288
cg02275530	yellow	17	59,328,313 Body	OpenSea	BCAS3	0.556	0.003	0.945	0.384
cg12564453	yellow	16	56,995,840 5'UTR	OpenSea	CETP	0.556	0.001	0.455	0.905
cg20173014	yellow	17	80,541,737 Body	Island	FO XK2	0.556	-0.005	0.722	0.607
cg13397939	yellow	9	91,273,538	OpenSea		0.556	0.002	0.065	0.750
cg15770046	yellow	19	35,764,710 Body	S_Shelf	USF2	0.556	-0.007	0.661	0.557
cg25843651	yellow	15	86,329,602 5'UTR	OpenSea	KLHL25	0.556	0.007	0.278	0.238
cg16219182	yellow	2	112,816,903 Body	S_Shelf	TMEM87B	0.556	0.004	0.809	0.307
cg14591667	yellow	17	47,210,822 Body	S_Shore	B4GALNT2	0.556	0.015	0.707	0.305
cg13108141	yellow	7	129,590,607 Body	N_Shore	UBE2H	0.556	0.003	0.066	0.471
cg12001357	yellow	2	233,410,852 3'UTR	OpenSea	CHRNA	0.556	-0.001	0.959	0.845
cg25840545	yellow	10	133,775,473	OpenSea		0.556	0.009	0.690	0.144
cg09400607	yellow	17	76,641,712	OpenSea		0.556	0.008	0.744	0.341
cg06295238	yellow	4	1,205,447 3'UTR	N_Shore	CTBP1	0.556	-0.001	0.951	0.876
cg21719418	yellow	11	105,800,243 Body	OpenSea	GRIA4	0.556	0.014	0.760	0.264
cg14051147	yellow	6	33,539,394	S_Shore		0.556	-0.001	0.265	0.878
cg01358444	yellow	6	56,406,084 Body	N_Shore	DST	0.556	0.021	0.171	0.146
cg11642324	yellow	12	133,348,293 3'UTR	N_Shore	GOLGA3	0.556	0.005	0.834	0.463
cg15619820	yellow	1	3,133,763 Body	OpenSea	PRDM16	0.556	-0.001	0.766	0.918
cg13426775	yellow	1	62,120,040	Island		0.556	0.006	0.884	0.245

cg00443094	yellow	4	1,771,149	N_Shore		0.556	0.003	0.818	0.683
cg02409090	yellow	6	709,725	N_Shore		0.556	0.005	0.953	0.307
cg06366833	yellow	4	183,710,473 Body	OpenSea	ODZ3	0.556	0.006	0.884	0.452
cg13674558	yellow	6	83,775,899 TSS1500	N_Shore	UBE2CBP	0.556	0.019	0.644	0.083
cg04183425	yellow	6	119,221,279 Body	OpenSea	ASF1A	0.556	-0.001	0.687	0.933
cg01433654	yellow	5	53,605,192 Body	N_Shore	ARL15	0.556	0.004	0.103	0.662
cg15458254	yellow	19	46,545,605 TSS1500	OpenSea	IGFL4	0.556	-0.006	0.859	0.536
cg23176538	yellow	14	105,238,924 Body	N_Shore	AKT1	0.556	0.013	0.754	0.101
cg24774271	yellow	12	8,231,169	N_Shelf		0.556	-0.002	0.177	0.826
cg23598480	yellow	2	60,102,800	OpenSea		0.556	-0.009	0.620	0.382
cg00294550	yellow	10	62,144,786 Body	OpenSea	ANK3	0.556	0.003	0.483	0.774
cg01543933	yellow	17	19,989,722 TSS1500	OpenSea	CYTSB	0.556	-0.001	0.745	0.874
cg18084999	yellow	6	130,182,478 TSS200	OpenSea	C6orf191	0.556	0.010	0.794	0.350
cg22630939	yellow	7	1,135,958 Body	Island	C7orf50	0.556	0.006	0.655	0.267
cg03211864	yellow	10	124,060,833 Body	OpenSea	BTBD16	0.556	0.006	0.215	0.395
cg18574274	yellow	14	103,692,015	OpenSea		0.556	0.021	0.299	0.022
cg04553793	yellow	2	25,193,837 Body	N_Shore	DNAJC27	0.556	0.019	0.680	0.072
cg13483196	yellow	9	15,156,120	OpenSea		0.556	0.024	0.368	0.022
cg04583000	yellow	16	11,888,783	N_Shore		0.556	-0.017	0.829	0.203
cg03244974	yellow	12	109,548,681 3'UTR	N_Shore	UNG	0.556	0.006	0.429	0.440
cg03000503	yellow	8	39,171,648 TSS1500	OpenSea	ADAM5P	0.556	0.020	0.650	0.138
cg18808506	yellow	5	142,078,020 TSS1500	OpenSea	FGF1	0.556	0.005	0.560	0.512
cg00577560	yellow	1	15,271,830 Body	OpenSea	KIAA1026	0.556	0.001	0.275	0.943
cg04497752	yellow	11	1,228,946	Island		0.556	0.007	0.816	0.259
cg07967254	yellow	15	82,042,494	OpenSea		0.556	0.001	0.814	0.904
cg22990388	yellow	4	40,704,257	OpenSea		0.556	0.010	0.623	0.290
cg23260573	yellow	19	13,055,829 TSS1500	N_Shore	RAD23A	0.555	0.004	0.969	0.057
cg04998696	yellow	20	36,030,049 Body	N_Shore	SRC	0.555	-0.002	0.812	0.734
cg05359237	yellow	8	27,338,248 TSS1500	OpenSea	CHRNA2	0.555	0.002	0.884	0.760
cg23010507	yellow	5	1,555,887	S_Shelf		0.555	0.006	0.621	0.344
cg01329756	yellow	17	80,346,912	Island		0.555	0.001	0.820	0.844
cg11069470	yellow	7	149,388,394	N_Shore		0.555	0.004	0.291	0.668
cg22966302	yellow	19	13,196,617 Body	N_Shelf	NFIX	0.555	0.003	0.569	0.542
cg08123444	yellow	2	9,833,101	OpenSea		0.555	-0.005	0.849	0.577
cg06425556	yellow	20	33,413,664 TSS1500	S_Shore	NCOA6	0.555	0.001	0.024	0.492
cg10852096	yellow	15	79,043,040	N_Shore		0.555	0.001	0.460	0.948
cg22777668	yellow	12	6,881,303 TSS1500	N_Shore	LAG3	0.555	-0.004	0.293	0.422
cg13818830	yellow	9	116,326,021 Body	OpenSea	RGS3	0.555	0.002	0.784	0.790
cg06414095	yellow	19	1,379,969	S_Shore		0.555	0.013	0.752	0.104
cg16013543	yellow	1	154,300,241 TSS200	N_Shore	ATP8B2	0.555	0.002	0.558	0.778
cg07816439	yellow	5	159,797,845 TSS200	S_Shore	C1QTNF2	0.555	-0.002	0.255	0.773
cg08458630	yellow	6	170,201,673 Body	OpenSea	C6orf208	0.555	0.002	0.633	0.795
cg25773585	yellow	16	30,721,715 TSS200	OpenSea	SNORA30	0.555	0.000	0.945	0.920
cg04462567	yellow	17	6,455,368 Body	N_Shelf	PITPNM3	0.555	-0.002	0.731	0.687
cg14097440	yellow	14	74,251,018 5'UTR	N_Shelf	C14orf43	0.555	-0.001	0.150	0.816
cg24010859	yellow	12	110,868,153	OpenSea		0.555	0.002	0.805	0.826
cg10863036	yellow	11	82,769,278 5'UTR	OpenSea	RAB30	0.555	0.006	0.843	0.493
cg12146829	yellow	5	1,107,855 Body	N_Shore	SLC12A7	0.555	-0.004	0.636	0.675
cg27598956	yellow	8	9,758,788 Body	N_Shore	LOC157627	0.555	0.016	0.668	0.015
cg26954156	yellow	1	22,138,642 TSS200	N_Shelf	LDLRAD2	0.555	0.003	0.449	0.682
cg24570706	yellow	7	157,060,868 3'UTR	OpenSea	UBE3C	0.555	0.008	0.821	0.197
cg23002008	yellow	8	17,600,575 Body	OpenSea	MTUS1	0.555	-0.004	0.918	0.688
cg18026062	yellow	5	167,642,863 Body	OpenSea	ODZ2	0.555	-0.003	0.787	0.696
cg18152535	yellow	22	50,515,323 Body	Island	MLC1	0.555	0.009	0.843	0.227
cg04762890	yellow	16	58,077,795 Body	N_Shore	MMP15	0.555	0.003	0.842	0.587
cg09581649	yellow	16	4,572,735 5'UTR	OpenSea	C16orf5	0.555	0.011	0.496	0.171
cg17402397	yellow	22	31,477,754 5'UTR	S_Shore	SMTN	0.555	0.011	0.091	0.147
cg15485700	yellow	1	117,421,329	OpenSea		0.555	0.000	0.072	0.947
cg06386210	yellow	11	60,282,420 TSS1500	N_Shore	MS4A13	0.555	0.005	0.760	0.524
cg09130091	yellow	6	31,838,613 Body	OpenSea	SLC44A4	0.555	0.007	0.465	0.453
cg06946814	yellow	14	104,194,561 Body	Island	ZFYVE21	0.555	0.002	0.772	0.798
cg13492331	yellow	10	14,779,377 Body	OpenSea	FAM107B	0.555	0.007	0.746	0.388
cg00471000	yellow	20	31,618,468 TSS1500	OpenSea	BPIL3	0.555	-0.001	0.683	0.927
cg10798664	yellow	11	368,440 TSS1500	OpenSea	B4GALNT4	0.555	-0.012	0.094	0.229
cg26643128	yellow	12	3,409,466	OpenSea		0.555	-0.012	0.261	0.182
cg07476617	yellow	2	201,981,834 5'UTR	N_Shore	CFLAR	0.555	0.000	0.030	0.851
cg02304370	yellow	11	587,926 Body	N_Shore	PHRF1	0.555	0.003	0.945	0.548



cg07613333	yellow	11	19,940,827	Body	OpenSea	NAV2	0.555	0.004	0.886	0.684
cg27137887	yellow	11	46,513,635	Body	OpenSea	AMBRA1	0.554	0.008	0.415	0.300
cg03453469	yellow	8	144,821,712		N_Shore		0.554	0.006	0.505	0.354
cg06042826	yellow	3	70,048,672		OpenSea		0.554	0.000	0.903	0.970
cg11438560	yellow	5	148,521,623	5'UTR	S_Shore	ABLIM3	0.554	0.004	0.068	0.460
cg10673833	yellow	7	45,018,849	TSS200	OpenSea	MYO1G	0.554	0.001	0.958	0.808
cg11657849	yellow	11	66,433,821	3'UTR	OpenSea	RBM4B	0.554	0.005	0.928	0.382
cg06753367	yellow	22	24,256,600		S_Shore		0.554	0.009	0.868	0.282
cg24987590	yellow	17	8,191,300	TSS1500	N_Shore	RANGRF	0.554	0.015	0.493	0.103
cg06723057	yellow	16	28,549,923	Body	OpenSea	NUPR1	0.554	0.009	0.726	0.319
cg25619157	yellow	10	88,520,943	5'UTR	S_Shelf	BMPR1A	0.554	-0.025	0.616	0.116
cg01692088	yellow	1	2,476,749		N_Shore		0.554	-0.003	0.646	0.561
cg13779795	yellow	9	139,943,636	Body	Island	ENTPD2	0.554	0.008	0.394	0.269
cg18317788	yellow	4	185,205,197		OpenSea		0.554	-0.010	0.824	0.249
cg06038358	yellow	2	128,176,007	5'UTR	S_Shelf	PROC	0.554	0.002	0.649	0.779
cg01738095	yellow	2	26,101,831	TSS1500	S_Shore	ASXL2	0.554	-0.009	0.501	0.381
cg02493602	yellow	11	86,383,696	TSS1500	S_Shore	ME3	0.554	-0.001	0.128	0.913
cg16656520	yellow	6	31,800,885		N_Shore		0.554	0.008	0.919	0.288
cg02517215	yellow	12	132,639,461		Island		0.554	0.013	0.748	0.156
cg05233373	yellow	2	161,127,261		S_Shore		0.554	0.005	0.067	0.199
cg11399589	yellow	20	36,147,549	Body	N_Shore	BLCAP	0.554	0.002	0.526	0.705
cg11649679	yellow	12	31,812,794	5'UTR	OpenSea	C12orf72	0.554	0.020	0.405	0.170
cg15735240	yellow	6	30,586,360	Body	S_Shore	MRPS18B	0.554	0.012	0.374	0.106
cg14030836	yellow	1	2,992,620	Body	S_Shore	PRDM16	0.554	0.007	0.587	0.296
cg22810684	yellow	17	80,401,665	3'UTR	Island	C17orf62	0.554	0.011	0.787	0.113
cg17125804	yellow	12	111,748,346	Body	Island	CUX2	0.554	0.004	0.844	0.612
cg17987217	yellow	18	51,751,355	TSS200	S_Shore	MBD2	0.554	0.001	0.060	0.814
cg15654897	yellow	19	14,068,178	Body	S_Shore	DCAF15	0.554	-0.001	0.909	0.888
cg12559228	yellow	19	50,191,882	TSS200	N_Shore	C19orf76	0.554	0.005	0.673	0.456
cg07775293	yellow	18	25,572,639	Body	OpenSea	CDH2	0.554	-0.032	0.895	0.158
cg07320140	yellow	16	75,150,611	1stExon	S_Shore	LDHD	0.554	-0.003	0.067	0.502
cg06885175	yellow	6	25,788,879	3'UTR	OpenSea	SLC17A1	0.554	0.007	0.562	0.590
cg19687075	yellow	9	139,428,384	Body	Island	NOTCH1	0.554	0.001	0.790	0.890
cg18427856	yellow	6	30,652,647	Body	N_Shore	KIAA1949	0.554	0.028	0.668	0.003
cg00786939	yellow	1	20,211,659	Body	S_Shelf	OTUD3	0.554	0.002	0.960	0.452
cg05539509	yellow	22	30,663,034	TSS200	OpenSea	OSM	0.554	0.016	0.728	0.012
cg20874044	yellow	12	102,874,832	TSS1500	OpenSea	IGF1	0.554	0.008	0.604	0.246
cg07575193	yellow	8	30,402,570	Body	OpenSea	RBPMS	0.554	-0.024	0.724	0.037
cg09147400	yellow	16	48,269,819	TSS1500	OpenSea	ABCC11	0.554	0.002	0.864	0.693
cg23543481	yellow	14	23,623,684	Body	OpenSea	SLC7A8	0.554	0.005	0.236	0.352
cg25375186	yellow	1	40,149,381	Body	N_Shore	HPCAL4	0.554	0.000	0.198	0.950
cg06422947	yellow	17	41,167,707	3'UTR	OpenSea	VAT1	0.554	0.009	0.865	0.133
cg23484268	yellow	15	74,220,776	Body	S_Shore	LOXL1	0.554	0.010	0.443	0.451
cg01246665	yellow	15	93,258,479		S_Shore		0.554	0.011	0.215	0.428
cg17541142	yellow	7	1,546,826		S_Shelf		0.554	0.008	0.157	0.487
cg16587265	yellow	8	145,728,203	TSS1500	S_Shore	GPT	0.554	0.006	0.524	0.518
cg01872324	yellow	19	17,684,869	Body	N_Shelf	GLT25D1	0.554	0.005	0.829	0.531
cg27275022	yellow	2	74,066,962	Body	OpenSea	STAMBP	0.553	-0.002	0.919	0.701
cg05057352	yellow	16	17,499,310	Body	OpenSea	XYLT1	0.553	0.015	0.618	0.111
cg18289710	yellow	11	103,811,641	Body	OpenSea	PDGFD	0.553	-0.007	0.660	0.426
cg20386818	yellow	1	220,836,705	3'UTR	OpenSea	MARK1	0.553	0.013	0.945	0.057
cg16218254	yellow	7	111,202,755	TSS1500	S_Shore	IMMP2L	0.553	-0.002	0.069	0.476
cg20548013	yellow	6	12,887,210	Body	OpenSea	PHACTR1	0.553	0.010	0.563	0.216
cg10052118	yellow	17	53,499,747	TSS1500	S_Shore	MMD	0.553	0.011	0.308	0.122
cg04213163	yellow	1	226,905,595	Body	OpenSea	ITPKB	0.553	-0.004	0.797	0.556
cg25827255	yellow	10	95,256,759	5'UTR	S_Shore	CEP55	0.553	0.003	0.234	0.799
cg22812604	yellow	8	140,417,841		OpenSea		0.553	0.001	0.510	0.923
cg14666108	yellow	1	3,614,578	Body	OpenSea	TP73	0.553	0.011	0.544	0.229
cg19998151	yellow	11	267,613		OpenSea		0.553	0.011	0.455	0.105
cg20301308	yellow	1	65,534,742		S_Shore		0.553	0.005	0.709	0.734
cg03532253	yellow	12	56,399,235	3'UTR	N_Shore	SUOX	0.553	-0.001	0.955	0.866
cg20038477	yellow	3	128,754,632	Body	OpenSea	CCDC48	0.553	0.000	0.854	0.971
cg01190168	yellow	12	58,218,620	Body	OpenSea	CTDSP2	0.553	0.002	0.818	0.708
cg27267258	yellow	16	89,359,175	Body	OpenSea	ANKRD11	0.553	0.007	0.700	0.369
cg02362984	yellow	17	42,201,844	TSS1500	S_Shore	HDAC5	0.553	0.010	0.438	0.295
cg07283011	yellow	3	133,970,158	TSS1500	S_Shore	RYK	0.553	0.000	0.949	0.934
cg19415736	yellow	3	183,167,772		S_Shelf		0.553	0.010	0.596	0.337

cg03146154	yellow	1	46,216,737	TSS1500	S_Shore	IPP	0.553	0.002	0.016	0.042
cg08299783	yellow	2	48,920,986	Body	OpenSea	GTF2A1L	0.553	-0.002	0.095	0.714
cg26631437	yellow	8	30,691,170	Body	OpenSea	TEX15	0.553	-0.006	0.906	0.415
cg10785373	yellow	7	4,456,119		OpenSea		0.553	0.046	0.245	0.132
cg02789394	yellow	6	112,191,479	5'UTR	N_Shelf	FYN	0.553	-0.005	0.847	0.660
cg00152041	yellow	20	61,274,867	5'UTR	Island	SLCO4A1	0.553	0.004	0.130	0.519
cg02711872	yellow	7	150,652,702	5'UTR	N_Shore	KCNH2	0.553	0.003	0.101	0.604
cg10205925	yellow	5	132,763,967	TSS1500	OpenSea	MIR1289-2	0.553	0.000	0.843	0.970
cg15649702	yellow	11	34,177,094	Body	OpenSea	ABTB2	0.553	-0.001	0.256	0.833
cg14349862	yellow	4	73,178,545	Body	OpenSea	ADAMTS3	0.553	0.001	0.841	0.920
cg24772412	yellow	11	65,201,759		OpenSea		0.553	-0.010	0.739	0.373
cg04628320	yellow	19	36,604,588	TSS1500	Island	TBCB	0.553	0.012	0.518	0.183
cg18636319	yellow	4	26,492,206	TSS200	OpenSea	CCKAR	0.553	0.010	0.393	0.074
cg04803153	yellow	19	37,329,859	TSS1500	S_Shore	ZNF790	0.553	0.003	0.043	0.314
cg12120359	yellow	14	65,006,041	TSS1500	N_Shore	HSPA2	0.553	-0.012	0.720	0.090
cg20207567	yellow	8	11,626,510	TSS1500	N_Shore	NEIL2	0.553	0.004	0.913	0.516
cg12175019	yellow	15	98,968,067		N_Shelf		0.553	-0.008	0.845	0.352
cg10206969	yellow	7	5,518,392	3'UTR	N_Shelf	FBXL18	0.553	0.014	0.701	0.216
cg01021975	yellow	22	43,570,314	Body	Island	TTL12	0.553	0.000	0.887	0.942
cg10342722	yellow	17	55,056,066	Body	S_Shore	SCPEP1	0.553	-0.002	0.076	0.818
cg11700959	yellow	12	7,066,664	Body	OpenSea	PTPN6	0.553	0.009	0.607	0.241
cg06033443	yellow	21	45,658,683	Body	N_Shore	ICOSLG	0.553	-0.008	0.596	0.531
cg07926491	yellow	12	57,489,971	3'UTR	OpenSea	STAT6	0.553	0.006	0.889	0.323
cg17744295	yellow	19	16,178,097	TSS1500	N_Shore	TPM4	0.553	0.003	0.648	0.762
cg25836061	yellow	22	19,939,028	5'UTR	OpenSea	COMT	0.552	0.012	0.724	0.156
cg05710479	yellow	1	7,120,104	Body	N_Shelf	CAMTA1	0.552	-0.001	0.931	0.836
cg15999964	yellow	5	124,065,258	Body	OpenSea	ZNF608	0.552	0.004	0.926	0.541
cg00221096	yellow	17	67,312,052	5'UTR	OpenSea	ABCA5	0.552	-0.001	0.965	0.656
cg16558208	yellow	1	156,270,281	TSS1500	OpenSea	VHLL	0.552	0.029	0.565	0.073
cg11122170	yellow	14	38,455,798		OpenSea		0.552	0.013	0.866	0.160
cg20438915	yellow	2	159,317,294	5'UTR	S_Shelf	PKP4	0.552	-0.005	0.477	0.588
cg12108798	yellow	1	1,173,916		Island		0.552	0.003	0.443	0.690
cg12908916	yellow	11	124,387,060		OpenSea		0.552	-0.003	0.715	0.780
cg07172701	yellow	5	79,438,093	Body	OpenSea	SERINC5	0.552	0.008	0.689	0.304
cg07728507	yellow	16	88,349,782		OpenSea		0.552	0.003	0.741	0.730
cg26118821	yellow	8	18,541,529	Body	OpenSea	PSD3	0.552	-0.008	0.581	0.288
cg18376306	yellow	1	76,254,508	Body	OpenSea	RABGGTB	0.552	-0.006	0.841	0.623
cg25081128	yellow	4	99,449,246	Body	OpenSea	TSPAN5	0.552	0.017	0.912	0.014
cg09352789	yellow	10	111,682,693	Body	N_Shore	XPNPEP1	0.552	0.005	0.234	0.306
cg15938260	yellow	17	80,804,078	Body	OpenSea	TBCD	0.552	0.002	0.804	0.786
cg07129392	yellow	5	167,729,645	Body	OpenSea	WWC1	0.552	0.010	0.519	0.118
cg13176867	yellow	1	855,425	TSS1500	S_Shore	FLJ39609	0.552	-0.004	0.582	0.668
cg26700949	yellow	6	32,820,553	TSS1500	N_Shore	PSMB9	0.552	0.021	0.146	0.045
cg26433444	yellow	6	36,932,349	3'UTR	S_Shelf	PI16	0.552	-0.002	0.464	0.771
cg27543385	yellow	17	71,800,219	Body	OpenSea	C17orf54	0.552	-0.007	0.546	0.275
cg02532700	yellow	22	37,257,404	Body	OpenSea	NCF4	0.552	0.004	0.809	0.510
cg03618211	yellow	4	103,941,300	TSS1500	S_Shore	NHEDC1	0.552	0.016	0.222	0.225
cg09147827	yellow	14	94,789,853	TSS200	OpenSea	SERPINA6	0.552	-0.004	0.624	0.648
cg16378215	yellow	1	149,885,265	Body	OpenSea	SV2A	0.552	0.003	0.822	0.580
cg01373151	yellow	15	72,613,029	TSS1500	S_Shore	BRUNOL6	0.552	0.003	0.036	0.066
cg05556923	yellow	7	544,577	Body	OpenSea	PDGFA	0.552	-0.006	0.742	0.348
cg17210546	yellow	19	3,122,422		Island		0.552	0.010	0.797	0.078
cg25069354	yellow	17	46,872,871	TSS1500	OpenSea	TTL6	0.552	0.011	0.583	0.221
cg09797463	yellow	10	90,995,297	Body	OpenSea	LIPA	0.552	0.004	0.849	0.531
cg18879198	yellow	2	146,888,398		OpenSea		0.552	-0.004	0.843	0.461
cg12252008	yellow	15	72,448,319		OpenSea		0.552	-0.008	0.201	0.555
cg08962271	yellow	11	67,273,496	TSS1500	N_Shore	PITPNM1	0.552	0.003	0.352	0.736
cg14101940	yellow	2	222,761,062		OpenSea		0.552	-0.007	0.547	0.396
cg23624452	yellow	1	6,131,294	Body	N_Shore	KCNAB2	0.552	-0.003	0.857	0.458
cg12754854	yellow	9	131,682,859	TSS1500	OpenSea	PHYHD1	0.552	0.007	0.864	0.382
cg13835670	yellow	7	151,664,190	5'UTR	OpenSea	GALNTL5	0.552	0.005	0.933	0.382
cg21908664	yellow	1	222,987,586		N_Shore		0.552	0.013	0.825	0.429
cg13561518	yellow	14	22,336,334		OpenSea		0.552	-0.004	0.776	0.745
cg14716686	yellow	21	30,452,862	TSS200	OpenSea	C21orf7	0.552	0.001	0.502	0.919
cg22472023	yellow	19	48,389,615	1stExon	OpenSea	SULT2A1	0.552	-0.001	0.154	0.903
cg21690450	yellow	13	102,276,634	Body	OpenSea	ITGBL1	0.552	-0.028	0.551	0.396
cg24125861	yellow	4	6,024,855		OpenSea		0.552	0.005	0.848	0.363

cg12669161	yellow	6	3,170,832	OpenSea		0.552	0.006	0.938	0.258
cg27379887	yellow	20	1,448,498 TSS200	S_Shore	NSFL1C	0.552	0.001	0.550	0.892
cg17016847	yellow	5	180,073,137 Body	N_Shelf	FLT4	0.552	0.006	0.570	0.249
cg06888346	yellow	7	525,853	OpenSea		0.552	0.007	0.677	0.292
cg19082493	yellow	1	33,724,252 5'UTR	S_Shelf	ZNF362	0.552	0.001	0.568	0.856
cg01409985	yellow	3	133,524,160 TSS1500	N_Shore	SRPRB	0.552	-0.006	0.637	0.686
cg02641801	yellow	2	26,213,508	OpenSea		0.552	0.008	0.553	0.293
cg24185130	yellow	19	2,101,362 3'UTR	S_Shelf	AP3D1	0.551	0.000	0.846	0.947
cg06761377	yellow	1	16,062,757 TSS200	OpenSea	SLC25A34	0.551	0.008	0.379	0.171
cg10236261	yellow	12	110,573,183 Body	OpenSea	IFT81	0.551	0.002	0.904	0.771
cg17463527	yellow	20	42,187,837 5'UTR	OpenSea	SGK2	0.551	0.009	0.654	0.205
cg14141741	yellow	7	947,428 Body	Island	ADAP1	0.551	0.003	0.640	0.521
cg24516901	yellow	2	225,266,801 TSS200	OpenSea	FAM124B	0.551	0.027	0.333	0.010
cg13363708	yellow	11	1,650,115 Body	OpenSea	HCCA2	0.551	-0.004	0.228	0.545
cg02012769	yellow	3	123,398,346 Body	OpenSea	MYLK	0.551	0.009	0.894	0.197
cg11724393	yellow	22	39,550,015 TSS1500	S_Shore	CBX7	0.551	-0.005	0.573	0.619
cg27588384	yellow	3	45,674,281 Body	OpenSea	LIMD1	0.551	0.008	0.897	0.164
cg27386529	yellow	3	47,517,807 TSS1500	S_Shore	SCAP	0.551	-0.001	0.656	0.868
cg20495738	yellow	12	2,338,399 Body	N_Shore	CACNA1C	0.551	0.004	0.903	0.502
cg21529477	yellow	11	1,892,092 5'UTR	Island	LSP1	0.551	0.003	0.400	0.730
cg07037750	yellow	14	105,992,115 TSS1500	N_Shore	TMEM121	0.551	0.001	0.640	0.886
cg18542495	yellow	2	43,495,541 Body	OpenSea	THADA	0.551	0.000	0.392	0.970
cg11646762	yellow	5	68,180,149	OpenSea		0.551	0.003	0.848	0.772
cg05974498	yellow	19	52,599,256 TSS1500	S_Shore	ZNF841	0.551	0.007	0.362	0.602
cg02732067	yellow	1	28,844,028 Body	N_Shore	SNHG3-RCC1	0.551	0.007	0.697	0.564
cg19414040	yellow	5	173,472,066 TSS1500	OpenSea	HMP19	0.551	-0.006	0.787	0.504
cg19912283	yellow	6	30,884,590 Body	S_Shelf	VAR52	0.551	0.001	0.894	0.940
cg16324725	yellow	18	44,706,583	S_Shelf		0.551	-0.004	0.827	0.684
cg07496207	yellow	5	172,280,684 Body	OpenSea	ERGIC1	0.551	-0.012	0.890	0.022
cg00275362	yellow	19	20,277,051 TSS1500	OpenSea	ZNF486	0.551	0.023	0.569	0.147
cg21035374	yellow	19	16,830,859 1stExon	OpenSea	NWD1	0.551	0.007	0.837	0.369
cg12602909	yellow	3	4,512,309	S_Shelf		0.551	0.007	0.775	0.480
cg05969018	yellow	21	47,056,933	N_Shore		0.551	0.015	0.580	0.007
cg07017093	yellow	1	118,471,375 TSS1500	N_Shore	WDR3	0.551	0.019	0.176	0.080
cg02846801	yellow	16	67,837,057 Body	N_Shelf	RANBP10	0.551	-0.004	0.669	0.691
cg14644204	yellow	12	123,518,833 Body	OpenSea	PITPNM2	0.551	-0.001	0.827	0.931
cg25976340	yellow	11	18,611,549 TSS1500	S_Shore	UEVLD	0.551	0.005	0.537	0.462
cg08014106	yellow	3	13,629,612 Body	OpenSea	FBLN2	0.551	0.006	0.839	0.245
cg22548485	yellow	6	35,466,777 Body	S_Shore	TULP1	0.551	0.001	0.818	0.904
cg10959672	yellow	1	35,972,127 Body	OpenSea	KIAA0319L	0.551	0.012	0.829	0.111
cg07424295	yellow	10	92,980,030 TSS1500	N_Shore	PCGF5	0.551	0.011	0.266	0.183
cg17724627	yellow	12	50,041,367 Body	OpenSea	FMNL3	0.551	0.006	0.684	0.341
cg01031999	yellow	6	31,941,361 Body	S_Shore	STK19	0.551	0.009	0.766	0.355
cg00859622	yellow	20	36,532,668 Body	S_Shore	VSTM2L	0.551	0.003	0.742	0.806
cg20760920	yellow	15	68,763,004	OpenSea		0.551	0.006	0.576	0.399
cg00792688	yellow	22	43,793,802	OpenSea		0.551	0.002	0.716	0.722
cg14873515	yellow	5	149,887,461 TSS1500	OpenSea	NDST1	0.551	0.001	0.939	0.759
cg06972908	yellow	16	30,488,321 Body	S_Shelf	ITGAL	0.551	-0.008	0.438	0.307
cg02544117	yellow	21	37,757,240 TSS1500	N_Shore	CHAF1B	0.551	0.003	0.923	0.707
cg01262913	yellow	21	38,580,486 TSS1500	OpenSea	DSCR9	0.551	0.005	0.457	0.814
cg04461481	yellow	16	49,526,774 Body	S_Shore	ZNF423	0.551	-0.002	0.663	0.739
cg17940013	yellow	1	9,188,688 Body	Island	GPR157	0.550	-0.009	0.101	0.095
cg03862437	yellow	3	194,353,432 Body	N_Shore	TMEM44	0.550	0.009	0.844	0.322
cg13668450	yellow	19	45,844,596 5'UTR	S_Shore	KLC3	0.550	0.010	0.491	0.241
cg05019479	yellow	4	109,224,652	OpenSea		0.550	0.007	0.920	0.407
cg24701780	yellow	7	157,351,620 Body	N_Shore	PTPRN2	0.550	0.015	0.558	0.032
cg22810049	yellow	5	67,953,707	OpenSea		0.550	0.015	0.582	0.111
cg02247838	yellow	6	31,110,639 Body	OpenSea	CCHCR1	0.550	0.004	0.537	0.614
cg20066188	yellow	22	37,678,791 Body	OpenSea	CYTH4	0.550	0.005	0.692	0.438
cg04466898	yellow	11	65,407,734 5'UTR	N_Shore	SIPA1	0.550	0.012	0.781	0.043
cg00976619	yellow	3	156,876,725 Body	N_Shore	CCNL1	0.550	0.019	0.527	0.068
cg24397241	yellow	3	11,227,410 5'UTR	OpenSea	HRH1	0.550	-0.004	0.470	0.565
cg04224786	yellow	8	144,222,401	OpenSea		0.550	0.011	0.455	0.239
cg13367612	yellow	9	131,683,044 TSS200	OpenSea	PHYHD1	0.550	0.000	0.028	0.960
cg18078958	yellow	14	88,630,771	OpenSea		0.550	-0.001	0.851	0.943
cg10431652	yellow	10	31,901,490	OpenSea		0.550	-0.006	0.768	0.308
cg20271330	yellow	1	204,338,515 Body	OpenSea	LOC127841	0.550	0.011	0.705	0.019

cg20515580	yellow	11	66,800,566	Body	OpenSea	SYT12	0.550	0.007	0.562	0.244
cg16541026	yellow	3	49,026,934	TSS1500	N_Shore	P4HTM	0.550	0.013	0.393	0.186
cg00885918	yellow	20	30,406,997	TSS200	N_Shelf	MYLK2	0.550	0.005	0.127	0.446
cg00460818	yellow	14	105,453,021	1stExon	S_Shore	C14orf79	0.550	0.006	0.855	0.360
cg09241324	yellow	19	11,847,798	Body	N_Shore	ZNF823	0.550	-0.013	0.149	0.158
cg24688942	yellow	11	6,256,787	TSS1500	S_Shore	FAM160A2	0.550	0.009	0.094	0.252
cg07601967	yellow	20	9,590,805	Body	OpenSea	PAK7	0.550	-0.011	0.523	0.185
cg14549524	yellow	6	24,140,822	Body	OpenSea	NRSN1	0.550	0.012	0.450	0.330
cg25125453	yellow	20	12,989,844	5'UTR	OpenSea	SPTLC3	0.550	0.002	0.023	0.221
cg02214783	yellow	1	3,688,257	TSS1500	N_Shore	LOC388588	0.550	0.006	0.423	0.557
cg09922349	yellow	17	18,149,890	Body	N_Shore	FLII	0.550	0.013	0.775	0.119
cg26373179	yellow	19	44,306,615	5'UTR	S_Shelf	LYPD5	0.550	0.015	0.347	0.079
cg24247565	yellow	7	1,690,341		S_Shelf		0.550	0.001	0.833	0.826
cg22798362	yellow	17	30,850,485	Body	S_Shelf	MYO1D	0.550	-0.005	0.906	0.527
cg19274368	yellow	11	70,331,491	Body	N_Shore	SHANK2	0.550	0.014	0.788	0.033
cg10800620	yellow	2	196,398,826		OpenSea		0.550	-0.004	0.876	0.475
cg22805909	yellow	14	96,967,825	TSS1500	N_Shore	PAPOLA	0.550	0.000	0.058	0.971
cg00605777	yellow	2	97,533,635	5'UTR	N_Shore	SEMA4C	0.550	-0.003	0.065	0.630
cg04818594	yellow	11	119,341,250		OpenSea		0.550	0.005	0.612	0.796
cg00252781	yellow	1	179,334,658	TSS1500	N_Shore	C1orf125	0.550	0.002	0.365	0.885
cg21070222	yellow	3	118,963,056		S_Shelf		0.550	-0.002	0.850	0.817
cg08205361	yellow	20	62,489,590		N_Shelf		0.550	-0.006	0.126	0.324
cg17755730	yellow	3	50,285,392	Body	OpenSea	GNAI2	0.550	0.004	0.949	0.307
cg04326808	yellow	15	39,543,043	1stExon	OpenSea	C15orf54	0.550	-0.014	0.564	0.167
cg10015830	yellow	2	228,727,869		OpenSea		0.550	0.007	0.902	0.130
cg12397188	yellow	6	31,144,068	Body	OpenSea	PSORS1C3	0.550	0.004	0.376	0.554
cg09889477	yellow	17	75,881,093	TSS1500	N_Shelf	FLJ45079	0.550	0.003	0.912	0.655
cg22881834	yellow	7	848,370		OpenSea		0.550	-0.005	0.883	0.412
cg25866212	yellow	13	93,901,973	Body	OpenSea	GPC6	0.550	0.000	0.784	0.997
cg08104568	yellow	14	23,623,728	Body	OpenSea	SLC7A8	0.550	0.004	0.141	0.469
cg18244362	yellow	8	21,669,615		OpenSea		0.550	0.007	0.546	0.324
cg13443165	yellow	9	33,130,375	Body	OpenSea	B4GALT1	0.550	0.018	0.570	0.088
cg10331234	yellow	16	81,665,575	Body	OpenSea	CMIP	0.550	0.004	0.831	0.531
cg13026729	yellow	6	159,240,774	TSS1500	Island	EZR	0.549	0.003	0.328	0.638
cg13113737	yellow	1	8,411,074		OpenSea		0.549	0.001	0.708	0.917
cg00299943	yellow	22	41,613,692	Body	OpenSea	L3MBTL2	0.549	0.005	0.310	0.746
cg02992617	yellow	9	127,264,323	Body	N_Shore	NR5A1	0.549	0.010	0.361	0.080
cg20580673	yellow	14	91,735,665		N_Shelf		0.549	0.004	0.572	0.564
cg12806663	yellow	4	182,230,157		OpenSea		0.549	-0.004	0.547	0.657
cg11707796	yellow	13	114,054,955		N_Shore		0.549	0.005	0.856	0.512
cg19404444	yellow	1	2,164,602	Body	S_Shelf	SKI	0.549	-0.001	0.039	0.607
cg00521934	yellow	2	28,114,044	5'UTR	S_Shore	BRE	0.549	0.000	0.036	0.921
cg02506984	yellow	7	151,213,164	Body	N_Shelf	RHEB	0.549	0.004	0.680	0.782
cg23366972	yellow	21	45,759,733	TSS1500	S_Shore	C21orf2	0.549	0.012	0.137	0.155
cg13473894	yellow	10	13,771,383	Body	OpenSea	FRMD4A	0.549	-0.006	0.552	0.327
cg08769189	yellow	15	55,562,403	5'UTR	OpenSea	RAB27A	0.549	-0.004	0.581	0.683
cg05888894	yellow	8	119,107,030	Body	OpenSea	EXT1	0.549	0.000	0.631	0.989
cg11786338	yellow	18	56,809,717	Body	S_Shelf	SEC11C	0.549	-0.002	0.760	0.856
cg07377098	yellow	16	58,230,816	Body	N_Shore	CSNK2A2	0.549	0.000	0.199	0.957
cg14202338	yellow	19	3,586,844	Body	Island	GIPC3	0.549	0.016	0.747	0.059
cg20095398	yellow	4	1,571,649		S_Shore		0.549	0.006	0.784	0.358
cg20923184	yellow	2	177,418,610		OpenSea		0.549	-0.004	0.026	0.173
cg06340118	yellow	6	74,407,227	Body	S_Shore	CD109	0.549	0.001	0.974	0.542
cg21369466	yellow	7	55,437,329	Body	S_Shelf	LANCL2	0.549	-0.004	0.920	0.446
cg27017414	yellow	16	30,788,580		S_Shore		0.549	0.007	0.713	0.265
cg07918080	yellow	6	163,998,574		OpenSea		0.549	0.019	0.471	0.095
cg25378117	yellow	1	161,474,586	TSS1500	OpenSea	FCGR2A	0.549	0.003	0.931	0.524
cg04591534	yellow	6	31,745,137	TSS200	OpenSea	C6orf27	0.549	0.000	0.033	0.905
cg05754973	yellow	3	196,157,488	Body	N_Shore	UBXN7	0.549	0.000	0.892	0.942
cg26003222	yellow	17	75,347,770	5'UTR	OpenSea	9-Sep	0.549	0.023	0.404	0.039
cg11577461	yellow	7	1,636,383		OpenSea		0.549	-0.005	0.665	0.571
cg07911084	yellow	12	3,340,406	Body	OpenSea	TSPAN9	0.549	-0.004	0.822	0.604
cg12646804	yellow	5	2,008,188		Island		0.549	0.010	0.236	0.435
cg24740325	yellow	12	125,589,550	Body	OpenSea	AACS	0.549	0.006	0.841	0.511
cg07435331	yellow	17	21,178,476		N_Shore		0.549	0.021	0.299	0.068
cg12189255	yellow	11	44,134,238	Body	OpenSea	EXT2	0.549	0.002	0.571	0.890
cg00592795	yellow	19	9,969,064	Body	S_Shelf	OLFM2	0.549	0.017	0.781	0.014

cg05991009	yellow	2	102,080,674	Body	OpenSea	RFX8	0.549	-0.003	0.810	0.659
cg11739148	yellow	15	31,622,112	Body	S_Shore	KLF13	0.549	0.007	0.661	0.295
cg27531236	yellow	4	47,854,334	Body	OpenSea	NFXL1	0.549	-0.003	0.877	0.621
cg15442058	yellow	2	231,598,059	5'UTR	OpenSea	CAB39	0.549	0.002	0.680	0.844
cg03160815	yellow	17	79,859,830	TSS1500	Island	NPB	0.549	-0.004	0.119	0.384
cg03514937	yellow	6	32,099,450	TSS1500	S_Shore	FKBPL	0.549	0.005	0.576	0.405
cg13009608	yellow	8	81,034,420	Body	OpenSea	TPD52	0.549	0.008	0.764	0.424
cg14039939	yellow	10	134,146,024	1stExon	Island	LRRC27	0.549	-0.005	0.180	0.716
cg07956000	yellow	1	113,305,309		OpenSea		0.549	0.014	0.271	0.121
cg02332577	yellow	1	157,106,123	Body	N_Shore	ETV3	0.549	0.001	0.315	0.888
cg13159318	yellow	11	117,947,459	TSS1500	OpenSea	TMPRSS4	0.549	0.004	0.780	0.742
cg00301372	yellow	2	139,654,347		OpenSea		0.549	-0.010	0.794	0.423
cg07447870	yellow	4	6,370,956	Body	OpenSea	PPP2R2C	0.549	0.002	0.361	0.809
cg26154534	yellow	2	241,076,355	TSS1500	S_Shore	MYEOV2	0.549	0.013	0.757	0.563
cg19319808	yellow	1	228,870,454	TSS1500	N_Shore	RHOU	0.549	-0.007	0.595	0.644
cg04544908	yellow	5	178,833,490		OpenSea		0.549	0.008	0.771	0.206
cg19742888	yellow	5	176,307,743	3'UTR	S_Shelf	UNC5A	0.549	0.007	0.646	0.241
cg17419049	yellow	2	74,097,688		OpenSea		0.549	0.003	0.940	0.665
cg23893332	yellow	14	94,576,048	TSS1500	OpenSea	IFI27	0.549	0.001	0.459	0.857
cg18289893	yellow	1	27,115,564	5'UTR	S_Shore	PIGV	0.549	-0.004	0.105	0.751
cg05075517	yellow	8	50,875,600	5'UTR	OpenSea	SNTG1	0.548	0.028	0.678	0.019
cg10039500	yellow	13	114,103,578	Body	OpenSea	ADPRHL1	0.548	0.002	0.657	0.859
cg08471173	yellow	2	171,012,543		OpenSea		0.548	-0.004	0.531	0.647
cg06478823	yellow	16	20,774,873	TSS1500	OpenSea	ACSM3	0.548	-0.004	0.433	0.646
cg21647114	yellow	7	101,667,129	Body	OpenSea	CUX1	0.548	0.004	0.845	0.535
cg08375658	yellow	19	51,538,653	TSS1500	S_Shelf	KLK12	0.548	-0.006	0.492	0.513
cg27025384	yellow	5	90,386,331	Body	OpenSea	GPR98	0.548	-0.003	0.868	0.690
cg16858125	yellow	1	43,834,757	TSS1500	S_Shore	ELOVL1	0.548	-0.015	0.285	0.108
cg19771173	yellow	1	204,296,545	5'UTR	OpenSea	PLEKHA6	0.548	0.002	0.483	0.673
cg21846461	yellow	2	26,837,952	Body	OpenSea	CIB4	0.548	0.005	0.460	0.400
cg15983538	yellow	1	156,123,411	5'UTR	OpenSea	SEMA4A	0.548	0.010	0.741	0.190
cg19938567	yellow	1	26,361,475	Body	N_Shore	EXTL1	0.548	-0.001	0.101	0.804
cg03217090	yellow	6	31,600,351	Body	S_Shore	BAT2	0.548	0.004	0.770	0.551
cg13448720	yellow	9	140,052,246	Body	S_Shore	GRIN1	0.548	0.000	0.738	0.961
cg03034696	yellow	2	47,400,023	Body	N_Shelf	CALM2	0.548	0.006	0.240	0.561
cg12905735	yellow	1	5,903,803		OpenSea		0.548	0.005	0.755	0.438
cg23502253	yellow	10	80,809,181	Body	OpenSea	LOC283050	0.548	-0.003	0.871	0.734
cg26804848	yellow	15	43,029,799	TSS1500	S_Shore	CDAN1	0.548	0.004	0.220	0.597
cg17369991	yellow	17	643,676	Body	OpenSea	FAM57A	0.548	-0.001	0.760	0.877
cg04393391	yellow	8	130,952,742	TSS1500	S_Shore	FAM49B	0.548	0.007	0.044	0.038
cg26170930	yellow	17	45,020,358		OpenSea		0.548	0.016	0.624	0.030
cg11846559	yellow	9	55,788,089	Body	N_Shelf	HSPBP1	0.548	0.003	0.871	0.558
cg14235155	yellow	9	124,796,449	Body	OpenSea	TTL11	0.548	-0.005	0.777	0.559
cg13549667	yellow	19	18,284,397	TSS200	N_Shore	IFI30	0.548	0.009	0.209	0.437
cg26924747	yellow	7	127,984,319	TSS1500	S_Shore	RBM28	0.548	0.010	0.247	0.464
cg17740401	yellow	17	46,110,826	Body	N_Shelf	COPZ2	0.548	0.007	0.684	0.438
cg19266671	yellow	10	126,712,482	Body	S_Shore	CTBP2	0.548	0.009	0.484	0.621
cg10206933	yellow	10	133,786,713	Body	OpenSea	BNIP3	0.548	-0.008	0.854	0.163
cg26875655	yellow	12	111,746,046	Body	N_Shelf	CUX2	0.548	0.004	0.725	0.519
cg07599979	yellow	21	38,592,612	Body	N_Shore	DSCR9	0.548	0.007	0.856	0.490
cg18750833	yellow	2	71,358,451	TSS1500	S_Shore	MCEE	0.548	0.007	0.258	0.449
cg08610281	yellow	1	212,212,043	Body	S_Shelf	DTL	0.548	0.002	0.756	0.848
cg01466491	yellow	19	10,523,363		N_Shelf		0.548	0.001	0.940	0.819
cg03606098	yellow	1	1,690,840	Body	N_Shore	NADK	0.548	-0.001	0.916	0.899
cg18513062	yellow	17	763,049	Body	OpenSea	NXN	0.548	0.006	0.583	0.547
cg00849854	yellow	17	17,780,937	Body	OpenSea	TOM1L2	0.548	-0.005	0.152	0.550
cg11904686	yellow	3	52,811,517	TSS1500	OpenSea	ITIH1	0.548	0.006	0.650	0.567
cg10011495	yellow	22	46,516,475		N_Shore		0.548	0.002	0.684	0.868
cg14163776	yellow	3	195,164,580	TSS1500	S_Shore	ACAP2	0.548	-0.007	0.375	0.327
cg08038741	yellow	14	104,061,870		OpenSea		0.548	0.003	0.831	0.796
cg21564128	yellow	7	45,925,242		N_Shelf		0.548	0.003	0.548	0.768
cg24597131	yellow	1	15,354,730	Body	OpenSea	KIAA1026	0.548	0.001	0.776	0.899
cg12613344	yellow	11	47,280,305	5'UTR	OpenSea	NR1H3	0.548	0.001	0.973	0.656
cg15502231	yellow	7	107,235,907	Body	OpenSea	BCAP29	0.548	-0.001	0.822	0.936
cg04685645	yellow	19	1,404,499		N_Shelf		0.548	0.025	0.477	0.077
cg09452728	yellow	11	133,902,108	TSS200	OpenSea	LOC1001282	0.548	0.000	0.663	0.975
cg07716635	yellow	7	41,715,093		OpenSea		0.548	-0.005	0.948	0.223

cg21805791	yellow	7	1,581,258	3'UTR	N_Shelf	MAFK	0.548	0.007	0.798	0.274
cg12249234	yellow	17	25,867,613	5'UTR	OpenSea	KSR1	0.548	0.010	0.157	0.268
cg02146026	yellow	8	143,486,036	TSS1500	S_Shore	TSNARE1	0.548	0.007	0.662	0.336
cg24425149	yellow	13	75,991,251	Body	OpenSea	TBC1D4	0.548	0.000	0.777	0.987
cg22856496	yellow	12	56,106,698	TSS1500	N_Shelf	ITGA7	0.548	0.015	0.381	0.137
cg00624908	yellow	1	3,327,395	Body	N_Shore	PRDM16	0.548	0.004	0.808	0.434
cg18635791	yellow	3	3,111,567	3'UTR	OpenSea	IL5RA	0.548	0.013	0.419	0.166
cg07059052	yellow	16	2,828,302	TSS1500	S_Shore	TCEB2	0.548	0.000	0.294	0.971
cg25894071	yellow	4	101,953,935	Body	OpenSea	PPP3CA	0.548	0.006	0.858	0.766
cg08512365	yellow	7	949,758	Body	S_Shore	ADAP1	0.548	0.000	0.561	0.957
cg13851375	yellow	10	134,937,597	Body	N_Shore	GPR123	0.547	0.006	0.565	0.396
cg25217347	yellow	3	129,129,569	Body	OpenSea	C3orf25	0.547	-0.001	0.681	0.925
cg23865597	yellow	18	46,987,786	TSS1500	S_Shore	DYM	0.547	0.008	0.807	0.454
cg09138865	yellow	10	88,427,435	TSS1500	OpenSea	LDB3	0.547	0.010	0.695	0.301
cg17580614	yellow	17	15,849,512	Body	Island	ADORA2B	0.547	0.001	0.247	0.883
cg02267992	yellow	5	176,982,116	TSS1500	S_Shore	FAM193B	0.547	0.002	0.665	0.878
cg10908953	yellow	11	121,322,456	TSS1500	N_Shore	SORL1	0.547	0.001	0.465	0.863
cg00356981	yellow	13	112,804,728		OpenSea		0.547	-0.012	0.825	0.287
cg22490695	yellow	16	31,271,240	TSS200	OpenSea	ITGAM	0.547	-0.002	0.868	0.742
cg16166230	yellow	17	32,480,663	Body	N_Shelf	ACCN1	0.547	0.002	0.573	0.791
cg25636933	yellow	4	56,816,405	5'UTR	S_Shore	CEP135	0.547	0.002	0.628	0.867
cg07434082	yellow	13	111,839,104	TSS200	OpenSea	ARHGEF7	0.547	0.011	0.776	0.117
cg05081614	yellow	14	31,494,237	Body	N_Shore	STRN3	0.547	0.000	0.041	0.930
cg12279999	yellow	6	151,616,194	Body	OpenSea	AKAP12	0.547	-0.006	0.904	0.387
cg01429391	yellow	14	23,904,930	TSS200	OpenSea	MYH7	0.547	0.004	0.477	0.496
cg13619772	yellow	1	178,480,921	TSS1500	OpenSea	C1orf49	0.547	0.006	0.648	0.398
cg01885559	yellow	2	8,976,797	5'UTR	N_Shore	KIDINS220	0.547	0.013	0.189	0.231
cg04130356	yellow	16	810,643	TSS1500	OpenSea	MSLN	0.547	0.004	0.712	0.637
cg21850448	yellow	4	88,023,169	Body	OpenSea	AFF1	0.547	-0.001	0.977	0.596
cg17884766	yellow	12	50,641,260	Body	OpenSea	LIMA1	0.547	0.018	0.637	0.079
cg16451324	yellow	2	183,291,758	Body	OpenSea	PDE1A	0.547	0.003	0.159	0.665
cg06196801	yellow	12	121,164,025	Body	S_Shore	ACADS	0.547	0.006	0.338	0.536
cg01750375	yellow	20	43,343,365	TSS1500	OpenSea	WISP2	0.547	0.006	0.140	0.499
cg15622805	yellow	3	48,249,410		N_Shelf		0.547	0.003	0.760	0.711
cg20042291	yellow	3	42,700,585	Body	S_Shore	ZBTB47	0.547	0.006	0.711	0.499
cg00599850	yellow	16	88,683,223	Body	OpenSea	ZC3H18	0.547	0.002	0.888	0.801
cg01439568	yellow	3	51,429,919	1stExon	N_Shore	RBM15B	0.547	0.004	0.814	0.791
cg03669292	yellow	16	30,087,955	Body	S_Shore	PPP4C	0.547	0.000	0.048	0.857
cg13036798	yellow	14	70,748,375		OpenSea		0.547	-0.005	0.937	0.344
cg08946844	yellow	12	110,511,112		OpenSea		0.547	0.009	0.140	0.391
cg23617676	yellow	1	24,117,315	TSS1500	N_Shore	LYPLA2	0.547	0.001	0.327	0.946
cg08481002	yellow	11	78,131,601		S_Shelf		0.547	-0.005	0.121	0.628
cg25565683	yellow	2	279,727	3'UTR	OpenSea	FAM150B	0.547	-0.001	0.951	0.895
cg01112674	yellow	11	45,827,327	5'UTR	S_Shore	SLC35C1	0.547	0.003	0.123	0.670
cg00412337	yellow	6	45,982,653	Body	N_Shore	CLIC5	0.547	0.020	0.128	0.103
cg14580859	yellow	9	123,691,850		S_Shore		0.547	0.004	0.850	0.527
cg20752847	yellow	12	124,248,044	Body	S_Shore	DNAH10	0.547	0.019	0.385	0.018
cg25198661	yellow	11	78,884,803	5'UTR	OpenSea	ODZ4	0.547	0.022	0.459	0.022
cg13657092	yellow	22	26,986,419	TSS1500	S_Shore	TPST2	0.547	0.010	0.356	0.657
cg08403419	yellow	1	155,911,238	TSS1500	OpenSea	RXFP4	0.547	0.013	0.505	0.047
cg02517711	yellow	2	26,700,914	TSS200	OpenSea	OTOF	0.547	0.005	0.368	0.674
cg12068280	yellow	19	46,804,528	5'UTR	N_Shelf	HIF3A	0.547	0.004	0.078	0.463
cg09083958	yellow	12	131,516,365	Body	N_Shore	GPR133	0.547	0.011	0.692	0.205
cg13509608	yellow	12	120,631,901	Body	N_Shore	GCN1L1	0.547	0.018	0.120	0.087
cg20252015	yellow	1	64,100,814	Body	OpenSea	PGM1	0.547	-0.004	0.932	0.385
cg05770740	yellow	1	180,157,401	Body	OpenSea	QSOX1	0.547	0.002	0.336	0.804
cg20799268	yellow	8	142,275,649		OpenSea		0.547	0.000	0.054	0.982
cg00148286	yellow	4	1,210,066	Body	Island	CTBP1	0.547	0.007	0.944	0.075
cg03995434	yellow	7	141,395,853	Body	OpenSea	KIAA1147	0.547	0.004	0.360	0.487
cg16676655	yellow	6	33,383,412	Body	N_Shelf	PHF1	0.546	-0.001	0.854	0.912
cg13222081	yellow	14	23,298,926	TSS200	N_Shore	MRPL52	0.546	0.001	0.052	0.839
cg25345422	yellow	19	59,067,160	TSS1500	S_Shore	CHMP2A	0.546	-0.001	0.919	0.860
cg17354476	yellow	10	29,698,255	TSS1500	N_Shore	LOC387647	0.546	0.002	0.709	0.890
cg11585745	yellow	7	100,283,212	Body	N_Shore	GIGYF1	0.546	0.003	0.875	0.644
cg03605773	yellow	1	9,488,706		N_Shore		0.546	0.017	0.340	0.046
cg13361023	yellow	15	26,105,176	Body	N_Shelf	ATP10A	0.546	0.007	0.637	0.286
cg20813370	yellow	20	46,133,250	5'UTR	S_Shelf	NCOA3	0.546	0.016	0.806	0.285

cg26574395	yellow	19	48,390,114	TSS1500	OpenSea	SULT2A1	0.546	0.014	0.738	0.660
cg10493324	yellow	11	118,974,627		N_Shelf		0.546	0.011	0.507	0.359
cg24722348	yellow	1	21,900,987	Body	OpenSea	ALPL	0.546	0.003	0.449	0.718
cg19446790	yellow	12	132,647,700		OpenSea		0.546	0.009	0.625	0.323
cg15737302	yellow	11	118,302,063		N_Shelf		0.546	0.005	0.511	0.540
cg09608765	yellow	3	45,636,137	TSS200	S_Shore	LIMD1	0.546	0.004	0.066	0.473
cg20016023	yellow	10	99,160,130	Body	N_Shore	RRP12	0.546	0.017	0.288	0.062
cg18120979	yellow	6	313,464	Body	OpenSea	DUSP22	0.546	0.009	0.861	0.273
cg10442729	yellow	2	241,585,833		N_Shore		0.546	-0.011	0.751	0.150
cg20916427	yellow	18	44,627,440	3'UTR	OpenSea	KATNAL2	0.546	-0.010	0.922	0.083
cg26135441	yellow	4	6,196,378	5'UTR	OpenSea	JAKMIP1	0.546	0.030	0.696	0.000
cg06218932	yellow	16	3,183,858	TSS1500	N_Shore	ZNF213	0.546	-0.002	0.676	0.895
cg16879574	yellow	6	18,123,047	TSS200	S_Shore	NHLRC1	0.546	0.008	0.280	0.277
cg21437596	yellow	1	44,678,191	TSS1500	N_Shore	DMAP1	0.546	0.000	0.931	0.996
cg15971656	yellow	11	368,366	TSS1500	OpenSea	B4GALNT4	0.546	-0.012	0.291	0.368
cg18396403	yellow	22	38,615,368	3'UTR	OpenSea	TMEM184B	0.546	0.015	0.579	0.011
cg08395748	yellow	16	67,605,701	5'UTR	OpenSea	CTCF	0.546	0.000	0.970	0.961
cg13070573	yellow	20	34,995,363	TSS200	OpenSea	DLGAP4	0.546	0.006	0.519	0.318
cg04571509	yellow	15	51,199,642	TSS1500	N_Shore	AP4E1	0.546	0.021	0.569	0.018
cg10975001	yellow	1	33,627,155	Body	S_Shore	TRIM62	0.546	0.003	0.178	0.724
cg07469838	yellow	2	60,703,084	Body	OpenSea	BCL11A	0.546	-0.004	0.958	0.213
cg18129046	yellow	4	114,897,023	Body	N_Shelf	ARSL	0.546	0.004	0.896	0.600
cg26361757	yellow	1	6,706,713	Body	OpenSea	DNAJC11	0.546	0.000	0.046	0.902
cg01229785	yellow	12	133,072,748	Body	N_Shore	FBRSL1	0.546	0.003	0.606	0.658
cg08423507	yellow	22	51,177,982	Body	OpenSea	ACR	0.546	0.012	0.601	0.234
cg02220125	yellow	17	76,164,117	TSS1500	N_Shore	SYNGR2	0.546	0.011	0.581	0.218
cg22863744	yellow	12	124,942,176	Body	S_Shore	NCOR2	0.546	0.005	0.404	0.463
cg19498147	yellow	6	31,598,777	Body	N_Shore	BAT2	0.546	-0.006	0.881	0.466
cg26834244	yellow	10	115,391,891	Body	OpenSea	NRAP	0.546	-0.022	0.747	0.038
cg03665259	yellow	6	31,021,826	TSS200	OpenSea	HCG22	0.546	0.002	0.045	0.394
cg21725624	yellow	6	17,988,677	TSS1500	S_Shore	KIF13A	0.546	0.002	0.024	0.176
cg22674789	yellow	10	81,740,565		N_Shore		0.546	-0.006	0.700	0.523
cg14699004	yellow	4	84,405,660	Body	N_Shore	FAM175A	0.546	0.005	0.087	0.477
cg26738010	yellow	18	580,188	TSS200	Island	CETN1	0.546	0.008	0.740	0.258
cg24115019	yellow	5	167,899,230	3'UTR	OpenSea	WWC1	0.546	0.003	0.697	0.630
cg04451564	yellow	3	185,764,341	3'UTR	OpenSea	ETV5	0.546	0.000	0.914	0.940
cg24789138	yellow	15	49,675,495	Body	OpenSea	C15orf33	0.546	-0.015	0.797	0.181
cg14160151	yellow	1	155,582,969	Body	S_Shelf	MSTO1	0.546	0.002	0.783	0.704
cg04392133	yellow	4	190,767,168		N_Shore		0.546	0.008	0.906	0.382
cg24116687	yellow	6	106,537,991	Body	S_Shelf	PRDM1	0.546	-0.009	0.732	0.385
cg26638069	yellow	2	218,801,403	5'UTR	OpenSea	TNS1	0.546	0.005	0.795	0.551
cg20207276	yellow	8	23,428,718	Body	N_Shore	SLC25A37	0.546	0.001	0.925	0.738
cg24630825	yellow	4	176,909,979	5'UTR	OpenSea	GPM6A	0.546	0.001	0.934	0.816
cg08407524	yellow	5	108,007,413		OpenSea		0.545	-0.001	0.805	0.862
cg26599871	yellow	16	2,749,429	Body	S_Shelf	KCTD5	0.545	0.002	0.870	0.758
cg15397308	yellow	8	144,900,333	Body	S_Shore	PUF60	0.545	0.006	0.879	0.189
cg26950369	yellow	2	167,816,565	Body	OpenSea	XIRP2	0.545	-0.002	0.892	0.865
cg14110685	yellow	6	17,306,147		OpenSea		0.545	0.021	0.572	0.038
cg20131013	yellow	17	12,692,308	TSS1500	N_Shore	RICH2	0.545	0.020	0.225	0.054
cg18349405	yellow	3	157,158,577	Body	S_Shelf	VEPH1	0.545	0.003	0.910	0.753
cg01924952	yellow	2	8,627,933		OpenSea		0.545	0.006	0.776	0.500
cg14501119	yellow	14	105,779,532		N_Shore		0.545	0.012	0.712	0.124
cg03775123	yellow	15	65,214,075	Body	OpenSea	ANKDD1A	0.545	0.006	0.661	0.285
cg04776860	yellow	7	43,177,046	5'UTR	OpenSea	HECW1	0.545	0.004	0.798	0.644
cg26056166	yellow	1	62,694,587		OpenSea		0.545	0.010	0.443	0.167
cg11479568	yellow	8	41,522,951	TSS200	OpenSea	ANK1	0.545	0.011	0.709	0.115
cg07450214	yellow	10	27,389,879	TSS1500	S_Shore	ANKRD26	0.545	0.019	0.209	0.146
cg21232935	yellow	7	51,113,700	Body	OpenSea	COBL	0.545	0.002	0.544	0.852
cg01642786	yellow	12	120,820,319		OpenSea		0.545	0.002	0.755	0.827
cg07815521	yellow	19	40,789,857	TSS1500	N_Shore	MIR641	0.545	0.004	0.222	0.657
cg07494130	yellow	5	139,132,458		N_Shelf		0.545	0.000	0.170	0.964
cg15666143	yellow	3	130,061,073		N_Shelf		0.545	0.017	0.861	0.089
cg10458446	yellow	2	238,500,325	TSS1500	OpenSea	RAB17	0.545	-0.006	0.586	0.403
cg27259548	yellow	4	708,061	5'UTR	OpenSea	PCGF3	0.545	0.002	0.915	0.679
cg01059047	yellow	17	34,097,545	Body	S_Shore	MMP28	0.545	0.000	0.718	0.942
cg23022809	yellow	1	2,230,923	Body	N_Shore	SKI	0.545	0.000	0.237	0.954
cg15797834	yellow	19	4,338,932	TSS200	OpenSea	STAP2	0.545	0.006	0.436	0.413

cg05828701	yellow	12	127,359,217	OpenSea		0.545	-0.005	0.209	0.339
cg14182254	yellow	1	29,497,954 Body	OpenSea	SFRS4	0.545	0.005	0.888	0.481
cg20711383	yellow	12	62,995,960 3'UTR	N_Shore	C12orf61	0.545	0.009	0.239	0.368
cg06003388	yellow	16	59,363,443	OpenSea		0.545	-0.007	0.926	0.208
cg09042678	yellow	20	18,117,663 TSS1500	N_Shore	PET117	0.545	0.007	0.228	0.551
cg13475333	yellow	9	139,585,616	N_Shore		0.545	-0.002	0.866	0.854
cg01692018	yellow	14	64,014,184	S_Shelf		0.545	0.013	0.613	0.191
cg01749753	yellow	21	38,580,812 TSS200	OpenSea	DSCR9	0.545	-0.005	0.410	0.866
cg02700358	yellow	13	114,840,309 Body	N_Shore	RASA3	0.545	0.001	0.750	0.916
cg08627569	yellow	16	75,345,770 Body	OpenSea	CFDP1	0.545	0.006	0.938	0.303
cg06021865	yellow	10	94,607,948 Body	N_Shore	EXOC6	0.545	0.014	0.166	0.120
cg18670236	yellow	3	126,630,478 Body	OpenSea	CHCHD6	0.545	0.002	0.852	0.720
cg08246316	yellow	16	30,751,261 3'UTR	OpenSea	SRCAP	0.545	0.004	0.340	0.521
cg10941424	yellow	12	5,294,958	OpenSea		0.545	0.003	0.469	0.773
cg24639117	yellow	5	160,186,987 5'UTR	OpenSea	ATP10B	0.545	-0.015	0.524	0.328
cg01179095	yellow	1	11,900,652 3'UTR	S_Shore	CLCN6	0.545	0.012	0.638	0.149
cg15605235	yellow	1	45,189,743 Body	Island	C1orf228	0.545	0.000	0.516	0.946
cg27117476	yellow	14	47,120,795 1stExon	N_Shore	RPL10L	0.545	0.007	0.854	0.213
cg18145961	yellow	6	149,866,213 Body	N_Shore	PPIL4	0.545	0.002	0.038	0.415
cg02887652	yellow	8	145,758,243 Body	N_Shore	KIAA1688	0.545	0.010	0.698	0.110
cg05900955	yellow	13	114,918,509	S_Shelf		0.545	0.016	0.441	0.059
cg00706536	yellow	17	40,609,826 TSS1500	N_Shore	ATP6V0A1	0.545	0.009	0.934	0.114
cg12583184	yellow	12	113,773,298 TSS1500	S_Shore	SLC24A6	0.545	-0.001	0.460	0.955
cg23532828	yellow	19	54,544,119 3'UTR	OpenSea	VSTM1	0.545	0.002	0.910	0.818
cg23539494	yellow	17	65,276,751	OpenSea		0.545	0.000	0.560	0.988
cg23180891	yellow	20	19,995,510	N_Shelf		0.545	0.000	0.289	0.963
cg17238496	yellow	1	145,104,707 Body	OpenSea	SEC22B	0.545	0.009	0.804	0.399
cg27132080	yellow	5	168,729,267 TSS1500	S_Shore	SLIT3	0.545	0.019	0.593	0.014
cg06570967	yellow	10	96,989,650	OpenSea		0.545	0.023	0.619	0.111
cg23954731	yellow	19	55,998,081 Body	Island	NAT14	0.545	0.007	0.779	0.138
cg04714478	yellow	7	33,153,274	S_Shelf		0.545	0.010	0.597	0.133
cg26046136	yellow	20	45,526,613 5'UTR	S_Shelf	EYA2	0.545	0.002	0.653	0.726
cg02240252	yellow	17	47,931,591	S_Shelf		0.545	0.010	0.744	0.168
cg02314308	yellow	1	184,006,972 TSS200	S_Shore	GLT25D2	0.545	0.001	0.068	0.822
cg09633081	yellow	6	7,692,342	OpenSea		0.545	0.003	0.654	0.740
cg19194454	yellow	16	69,760,878 TSS1500	S_Shore	NQO1	0.545	0.008	0.229	0.338
cg20149431	yellow	10	3,168,685 Body	OpenSea	PFKP	0.545	-0.001	0.677	0.939
cg07577136	yellow	6	131,613,706	OpenSea		0.544	-0.003	0.179	0.743
cg12306086	yellow	4	106,117,747 5'UTR	OpenSea	TET2	0.544	0.004	0.917	0.471
cg08638929	yellow	1	46,640,255 TSS1500	OpenSea	TSPAN1	0.544	0.008	0.920	0.128
cg15505276	yellow	1	20,142,706 TSS1500	OpenSea	RNF186	0.544	0.009	0.449	0.352
cg13370852	yellow	1	9,653,338 Body	S_Shelf	TMEM201	0.544	0.016	0.676	0.030
cg26658897	yellow	5	77,843,030 5'UTR	OpenSea	LHFPL2	0.544	-0.006	0.838	0.347
cg18566177	yellow	6	134,491,483 Body	OpenSea	SGK1	0.544	-0.001	0.773	0.804
cg23253739	yellow	12	122,656,878 5'UTR	OpenSea	LRRC43	0.544	-0.002	0.664	0.791
cg19612068	yellow	6	33,130,024	S_Shore		0.544	0.002	0.468	0.734
cg04074404	yellow	10	3,282,585	OpenSea		0.544	0.001	0.896	0.817
cg10993517	yellow	12	4,810,234	OpenSea		0.544	0.007	0.500	0.244
cg10362294	yellow	19	54,177,261 TSS200	OpenSea	MIR498	0.544	0.006	0.939	0.249
cg10583266	yellow	2	207,136,184	N_Shelf		0.544	-0.008	0.418	0.447
cg05889171	yellow	11	123,448,701 Body	S_Shore	GRAMD1B	0.544	-0.003	0.845	0.694
cg10808810	yellow	19	18,429,665 Body	N_Shelf	LSM4	0.544	0.003	0.909	0.678
cg02303258	yellow	5	134,822,635	N_Shore		0.544	0.010	0.719	0.227
cg06147026	yellow	17	80,895,884 Body	N_Shelf	TBCD	0.544	0.002	0.904	0.750
cg04773990	yellow	6	32,820,410 Body	N_Shore	TAP1	0.544	0.013	0.068	0.052
cg13675957	yellow	17	39,672,463 Body	OpenSea	KRT15	0.544	-0.001	0.955	0.758
cg15309361	yellow	7	2,152,625 Body	N_Shelf	MAD1L1	0.544	-0.001	0.783	0.900
cg21189224	yellow	9	92,277,515 Body	OpenSea	LOC1001290	0.544	-0.002	0.606	0.843
cg03750909	yellow	16	1,992,631 Body	N_Shore	SEPX1	0.544	0.005	0.186	0.469
cg07547054	yellow	2	216,577,323	OpenSea		0.544	0.004	0.489	0.679
cg15017496	yellow	11	73,056,771 Body	S_Shelf	ARHGEF17	0.544	0.006	0.844	0.204
cg20017590	yellow	2	54,852,195 Body	N_Shelf	SPTBN1	0.544	0.000	0.215	0.981
cg12756753	yellow	1	154,966,204 1stExon	OpenSea	LENEP	0.544	0.000	0.815	0.978
cg06230513	yellow	13	76,069,242	OpenSea		0.544	-0.001	0.959	0.585
cg26059287	yellow	7	157,468,443 Body	OpenSea	PTPRN2	0.544	0.010	0.765	0.128
cg09476997	yellow	16	2,087,932 Body	N_Shore	SLC9A3R2	0.544	-0.008	0.633	0.305
cg01204058	yellow	16	28,109,836 3'UTR	OpenSea	XPO6	0.544	0.001	0.829	0.854



cg27076608	yellow	17	72,771,909	TSS1500	N_Shore	TMEM104	0.544	-0.003	0.209	0.742
cg08640361	yellow	6	134,494,620	Body	N_Shore	SGK1	0.544	0.003	0.888	0.479
cg07780762	yellow	1	45,193,615		S_Shelf		0.544	-0.001	0.853	0.851
cg16725721	yellow	7	127,233,742	1stExon	OpenSea	FSCN3	0.544	-0.003	0.745	0.772
cg21193639	yellow	11	2,349,510		OpenSea		0.544	0.001	0.886	0.928
cg19185414	yellow	8	49,547,126		OpenSea		0.544	0.001	0.910	0.864
cg19356189	yellow	19	51,524,690	TSS1500	S_Shore	KLK10	0.544	-0.004	0.417	0.582
cg00525931	yellow	16	29,084,744	TSS1500	N_Shore	RRN3P2	0.544	-0.004	0.885	0.575
cg07996391	yellow	19	1,308,161		S_Shore		0.544	0.006	0.730	0.438
cg19007249	yellow	5	114,938,236	Body	S_Shore	TMED7-TICAI	0.544	-0.003	0.061	0.552
cg10328766	yellow	7	107,220,040	TSS1500	N_Shore	BCAP29	0.544	0.004	0.175	0.687
cg07978099	yellow	16	83,986,941	5'UTR	OpenSea	OSGIN1	0.544	-0.011	0.334	0.665
cg15992272	yellow	8	1,444,609		S_Shore		0.544	0.005	0.842	0.462
cg10411146	yellow	11	289,966	Body	Island	ATHL1	0.544	0.001	0.817	0.957
cg08231730	yellow	11	63,753,169	TSS200	N_Shore	OTUB1	0.544	0.001	0.418	0.916
cg01845356	yellow	3	113,898,568	TSS1500	OpenSea	DRD3	0.544	0.004	0.621	0.651
cg02240748	yellow	16	1,057,796		S_Shore		0.544	0.000	0.677	0.954
cg00308665	yellow	13	47,469,654	Body	OpenSea	HTR2A	0.544	0.005	0.704	0.604
cg17256555	yellow	8	117,778,488	TSS1500	Island	UTP23	0.544	-0.002	0.042	0.557
cg06118533	yellow	21	44,480,711	Body	Island	CBS	0.544	0.006	0.736	0.359
cg00968616	yellow	17	55,942,898	3'UTR	S_Shelf	CUEDC1	0.544	-0.002	0.796	0.775
cg25892587	yellow	10	3,666,169		OpenSea		0.544	0.006	0.273	0.454
cg25575532	yellow	4	42,270,717		OpenSea		0.544	0.007	0.866	0.346
cg07016730	yellow	22	50,912,306	Body	N_Shore	SBF1	0.543	0.021	0.796	0.075
cg03599855	yellow	8	119,073,725	Body	OpenSea	EXT1	0.543	0.003	0.351	0.836
cg13614477	yellow	18	34,821,784		N_Shelf		0.543	0.012	0.611	0.108
cg11147309	yellow	8	145,011,888	Body	S_Shelf	PLEC1	0.543	0.011	0.713	0.079
cg01462349	yellow	7	157,664,568	Body	N_Shore	PTPRN2	0.543	0.009	0.813	0.152
cg19115882	yellow	2	26,919,145	Body	S_Shelf	KCNK3	0.543	0.009	0.770	0.154
cg02741698	yellow	11	67,381,142		N_Shelf		0.543	0.001	0.612	0.851
cg13918042	yellow	10	98,596,430	5'UTR	S_Shelf	LCOR	0.543	-0.017	0.829	0.044
cg02257517	yellow	9	136,340,262	Body	Island	SLC2A6	0.543	0.001	0.802	0.920
cg11362074	yellow	19	2,706,834		S_Shelf		0.543	0.003	0.787	0.720
cg12084541	yellow	19	670,566		S_Shelf		0.543	0.008	0.648	0.317
cg13097993	yellow	14	51,026,600	TSS200	N_Shore	ATL1	0.543	0.012	0.237	0.130
cg26148377	yellow	1	153,605,715	TSS1500	N_Shore	C1orf77	0.543	-0.007	0.955	0.063
cg20505375	yellow	8	143,374,469	Body	OpenSea	TSNARE1	0.543	0.007	0.698	0.229
cg22451412	yellow	15	42,227,210	Body	OpenSea	EHD4	0.543	0.004	0.752	0.391
cg10369688	yellow	19	39,898,283	Body	Island	ZFP36	0.543	-0.006	0.307	0.590
cg08827110	yellow	3	49,896,651	3'UTR	S_Shelf	CAMKV	0.543	0.008	0.634	0.300
cg09302355	yellow	11	63,974,131	TSS200	N_Shore	FERMT3	0.543	0.000	0.697	0.966
cg19765450	yellow	1	201,081,382	1stExon	N_Shelf	CACNA1S	0.543	0.001	0.626	0.864
cg27514730	yellow	1	95,027,075		OpenSea		0.543	-0.004	0.807	0.436
cg18017482	yellow	1	47,915,599		N_Shore		0.543	0.002	0.056	0.667
cg24646513	yellow	12	107,380,499	5'UTR	N_Shore	MTERFD3	0.543	-0.001	0.020	0.607
cg15693299	yellow	12	7,916,371	TSS1500	OpenSea	LOC360030	0.543	0.012	0.929	0.058
cg20235117	yellow	3	10,368,030	3'UTR	N_Shelf	ATP2B2	0.543	0.016	0.407	0.211
cg02558684	yellow	9	96,936,826	TSS1500	OpenSea	MIRLET7A1	0.543	0.001	0.303	0.930
cg08684733	yellow	3	197,663,828	Body	OpenSea	IQCG	0.543	0.024	0.738	0.096
cg12872560	yellow	10	50,340,047	Body	Island	FAM170B	0.543	-0.004	0.928	0.477
cg27270116	yellow	4	184,319,589		Island		0.543	-0.002	0.312	0.780
cg04850976	yellow	16	3,782,990	Body	S_Shore	CREBBP	0.543	0.000	0.955	0.990
cg24489015	yellow	17	56,316,162	5'UTR	OpenSea	LPO	0.543	-0.005	0.690	0.516
cg26457248	yellow	18	74,840,216	5'UTR	N_Shelf	MBP	0.543	-0.001	0.927	0.901
cg22512779	yellow	1	1,064,122		OpenSea		0.543	0.004	0.640	0.537
cg17823004	yellow	5	34,804,746	Body	OpenSea	RAI14	0.543	0.006	0.944	0.442
cg05540913	yellow	6	167,530,185	5'UTR	OpenSea	CCR6	0.543	0.018	0.562	0.105
cg11932707	yellow	17	38,366,086		OpenSea		0.543	0.002	0.489	0.789
cg07928191	yellow	4	1,205,359	3'UTR	N_Shore	CTBP1	0.543	0.000	0.960	0.940
cg10921168	yellow	5	1,144,488		OpenSea		0.543	-0.013	0.561	0.150
cg12850099	yellow	17	55,186,659	Body	OpenSea	AKAP1	0.543	-0.004	0.681	0.673
cg03276401	yellow	17	62,225,407	3'UTR	S_Shore	TEX2	0.542	0.016	0.330	0.228
cg07182753	yellow	14	24,776,700	TSS1500	N_Shelf	LTB4R2	0.542	0.008	0.691	0.105
cg24062389	yellow	13	103,478,447	Body	OpenSea	BIVM	0.542	-0.001	0.955	0.881
cg22994830	yellow	7	623,846	Body	OpenSea	PRKAR1B	0.542	0.005	0.826	0.477
cg05209514	yellow	12	69,353,500	5'UTR	OpenSea	CPM	0.542	0.005	0.590	0.548
cg02153490	yellow	6	134,215,661	3'UTR	N_Shore	TCF21	0.542	-0.001	0.346	0.883

cg20408104	yellow	6	157,399,325	Body	OpenSea	ARID1B	0.542	0.007	0.677	0.328
cg23356309	yellow	5	140,344,620	Body	N_Shore	PCDHA7	0.542	0.019	0.570	0.094
cg24463290	yellow	10	114,922,641	Body	N_Shelf	TCF7L2	0.542	0.003	0.799	0.764
cg10909501	yellow	12	74,687,852		OpenSea		0.542	-0.003	0.856	0.555
cg24097814	yellow	12	53,320,632		OpenSea		0.542	0.001	0.969	0.755
cg19903229	yellow	14	57,960,650	TSS200	OpenSea	C14orf105	0.542	0.003	0.222	0.670
cg21241889	yellow	9	123,690,658	TSS1500	N_Shore	TRAF1	0.542	0.000	0.442	0.995
cg26980729	yellow	6	105,379,117		OpenSea		0.542	0.006	0.840	0.678
cg27404351	yellow	11	123,847,741	1stExon	OpenSea	OR10S1	0.542	0.006	0.766	0.246
cg23432368	yellow	2	47,882,601		OpenSea		0.542	0.009	0.514	0.160
cg22966895	yellow	6	33,268,050	3'UTR	S_Shore	TAPBP	0.542	0.003	0.115	0.675
cg11521563	yellow	13	113,700,027	Body	N_Shore	MCF2L	0.542	-0.006	0.710	0.317
cg09325164	yellow	1	32,537,942	TSS1500	N_Shore	TMEM39B	0.542	0.006	0.296	0.206
cg09690989	yellow	17	77,045,769	3'UTR	S_Shore	C1QTNF1	0.542	0.006	0.492	0.246
cg23347323	yellow	19	45,912,637	3'UTR	S_Shelf	ERCC1	0.542	0.007	0.726	0.176
cg13213755	yellow	15	73,926,454	TSS1500	S_Shore	NPTN	0.542	0.004	0.923	0.526
cg08094235	yellow	2	3,463,558	Body	S_Shore	TTC15	0.542	-0.003	0.623	0.623
cg24325215	yellow	18	3,258,800		N_Shelf		0.542	0.000	0.843	0.937
cg11779239	yellow	17	73,762,276	TSS1500	S_Shore	GALK1	0.542	0.008	0.595	0.225
cg18331249	yellow	8	98,862,165	Body	OpenSea	LAPTM4B	0.542	-0.003	0.961	0.815
cg21480264	yellow	4	2,137,264	Body	OpenSea	POLN	0.542	-0.003	0.759	0.589
cg13806356	yellow	9	138,679,950	Body	N_Shore	KCNT1	0.542	0.012	0.473	0.176
cg04006520	yellow	12	2,660,504	Body	OpenSea	CACNA1C	0.542	-0.003	0.237	0.621
cg05685741	yellow	22	50,022,270	Body	N_Shelf	C22orf34	0.542	0.009	0.510	0.193
cg10376161	yellow	1	112,057,879	Body	N_Shore	ADORA3	0.542	0.006	0.816	0.295
cg16733813	yellow	1	228,295,568	Body	Island	MRPL55	0.542	0.003	0.852	0.579
cg13614712	yellow	9	139,994,787	Body	N_Shelf	MAN1B1	0.542	-0.001	0.898	0.886
cg17074989	yellow	15	58,880,752		OpenSea		0.542	0.009	0.640	0.328
cg01806921	yellow	22	28,011,160		S_Shore		0.542	0.002	0.682	0.811
cg26069291	yellow	6	42,716,310		S_Shore		0.542	0.000	0.365	0.974
cg17456304	yellow	4	1,160,842	3'UTR	N_Shore	SPON2	0.542	0.003	0.433	0.611
cg22908581	yellow	12	6,898,975	5'UTR	OpenSea	CD4	0.542	0.015	0.347	0.056
cg06225476	yellow	7	116,169,488	Body	S_Shelf	CAV1	0.542	-0.002	0.826	0.844
cg26332488	yellow	1	2,230,640	Body	N_Shore	SKI	0.542	0.006	0.440	0.567
cg00326902	yellow	6	117,747,649	TSS1500	OpenSea	ROS1	0.542	0.001	0.695	0.964
cg01546919	yellow	14	75,522,151	Body	S_Shelf	ACYP1	0.542	-0.002	0.925	0.657
cg00198594	yellow	3	192,734,341		OpenSea		0.542	0.007	0.139	0.280
cg22957659	yellow	5	176,289,543	Body	OpenSea	UNC5A	0.541	0.000	0.426	0.961
cg04158018	yellow	12	54,696,210	TSS1500	OpenSea	NFE2	0.541	0.006	0.544	0.569
cg12825509	yellow	3	185,648,568	Body	OpenSea	TRA2B	0.541	0.011	0.604	0.135
cg01880949	yellow	6	137,143,296	TSS1500	N_Shore	PEX7	0.541	0.001	0.055	0.831
cg26013357	yellow	11	2,951,060	TSS1500	Island	PHLDA2	0.541	0.004	0.101	0.520
cg01603095	yellow	12	40,500,139	TSS1500	S_Shore	SLC2A13	0.541	-0.001	0.448	0.830
cg24092773	yellow	14	95,327,836		N_Shelf		0.541	0.005	0.505	0.353
cg14077369	yellow	9	34,249,001	Body	OpenSea	UBAP1	0.541	-0.004	0.888	0.496
cg00182994	yellow	16	2,234,571	Body	S_Shore	CASKIN1	0.541	-0.014	0.906	0.080
cg25159159	yellow	8	21,964,427	3'UTR	N_Shelf	NUDT18	0.541	0.009	0.590	0.213
cg19237113	yellow	1	6,803,800		OpenSea		0.541	0.011	0.337	0.319
cg13662530	yellow	13	96,202,378	Body	N_Shelf	CLDN10	0.541	0.018	0.576	0.195
cg10817916	yellow	17	61,511,069	3'UTR	N_Shore	CYB561	0.541	0.012	0.744	0.076
cg09900758	yellow	11	3,236,849		N_Shelf		0.541	0.008	0.749	0.247
cg02046340	yellow	20	48,552,742	TSS200	Island	RNF114	0.541	-0.001	0.060	0.785
cg20396559	yellow	3	65,699,637	Body	OpenSea	MAGI1	0.541	0.026	0.715	0.016
cg07914250	yellow	12	122,434,665	Body	OpenSea	WDR66	0.541	0.014	0.310	0.452
cg07841848	yellow	5	172,676,916		S_Shelf		0.541	0.004	0.618	0.556
cg22455529	yellow	17	73,495,353	Body	N_Shelf	KIAA0195	0.541	0.016	0.896	0.001
cg14901751	yellow	2	72,126,174		OpenSea		0.541	-0.001	0.795	0.873
cg01566584	yellow	22	46,732,778	Body	S_Shore	TRMU	0.541	0.001	0.578	0.926
cg27583104	yellow	2	240,299,910	5'UTR	OpenSea	HDAC4	0.541	-0.001	0.890	0.858
cg04013650	yellow	8	55,471,675		OpenSea		0.541	0.003	0.754	0.762
cg00477287	yellow	19	19,414,441	Body	N_Shelf	SF4	0.541	0.004	0.891	0.549
cg02379724	yellow	16	1,368,007	Body	N_Shore	UBE2I	0.541	0.008	0.966	0.001
cg01043583	yellow	8	10,273,726	Body	OpenSea	MSRA	0.541	0.001	0.786	0.865
cg07830254	yellow	7	142,637,630	Body	OpenSea	C7orf34	0.541	0.001	0.932	0.845
cg17617714	yellow	5	625,069	Body	S_Shore	CEP72	0.541	-0.001	0.685	0.904
cg16630546	yellow	3	137,564,109		OpenSea		0.541	0.009	0.320	0.362
cg18637761	yellow	12	123,468,780	3'UTR	N_Shore	PITPNM2	0.541	0.001	0.181	0.919

cg15583058	yellow	9	139,305,771	TSS1500	Island	SDCCAG3	0.541	0.009	0.279	0.291
cg02696881	yellow	3	129,107,604	Body	OpenSea	RPL32P3	0.541	0.005	0.853	0.546
cg08611376	yellow	8	135,610,198	Body	OpenSea	ZFAT	0.541	0.005	0.912	0.467
cg25629938	yellow	12	70,131,692	TSS1500	N_Shore	RAB3IP	0.541	0.004	0.855	0.755
cg12724221	yellow	10	99,448,480	TSS1500	S_Shore	AVPI1	0.541	0.003	0.719	0.652
cg24866792	yellow	20	31,781,333	TSS200	OpenSea	BASE	0.541	0.008	0.623	0.332
cg15819128	yellow	2	238,604,020	Body	S_Shelf	LRRFIP1	0.541	0.001	0.501	0.892
cg03223959	yellow	16	85,382,654		OpenSea		0.541	0.015	0.743	0.259
cg03168029	yellow	11	1,221,398		N_Shore		0.541	0.003	0.614	0.724
cg17280134	yellow	17	8,960,047	Body	OpenSea	NTN1	0.540	0.003	0.507	0.724
cg23858537	yellow	15	72,039,838	Body	OpenSea	THSD4	0.540	-0.001	0.745	0.942
cg05240178	yellow	6	33,258,423	Body	S_Shore	PFDN6	0.540	0.009	0.598	0.313
cg10163377	yellow	10	99,478,368	TSS1500	S_Shelf	LOC1002707	0.540	0.006	0.470	0.430
cg20147645	yellow	13	28,023,563	5'UTR	N_Shore	MTIF3	0.540	0.016	0.569	0.065
cg04739485	yellow	12	122,611,783	Body	OpenSea	MLXIP	0.540	0.002	0.948	0.712
cg01651169	yellow	7	98,960,493	Body	OpenSea	ARPC1A	0.540	0.006	0.807	0.339
cg07327435	yellow	8	40,072,031		OpenSea		0.540	0.003	0.304	0.713
cg21667998	yellow	11	55,593,465	TSS1500	OpenSea	OR5L2	0.540	0.030	0.379	0.044
cg01109535	yellow	16	24,856,104	TSS1500	OpenSea	SLC5A11	0.540	0.002	0.572	0.720
cg01135648	yellow	4	41,983,611	TSS200	N_Shore	DCAF4L1	0.540	-0.001	0.852	0.913
cg19163058	yellow	10	1,595,785	Body	Island	ADARB2	0.540	-0.003	0.968	0.250
cg08707875	yellow	1	224,575,077	3'UTR	OpenSea	WDR26	0.540	0.001	0.782	0.931
cg04365699	yellow	3	177,320,997		OpenSea		0.540	0.008	0.727	0.282
cg13839957	yellow	1	6,165,483	3'UTR	OpenSea	CHD5	0.540	-0.004	0.708	0.722
cg02473606	yellow	12	132,314,204	Body	Island	MMP17	0.540	0.006	0.217	0.270
cg10717189	yellow	2	114,735,571		N_Shore		0.540	0.001	0.329	0.915
cg03521077	yellow	2	594,380		OpenSea		0.540	0.006	0.782	0.351
cg19963544	yellow	2	106,483,650	Body	OpenSea	NCK2	0.540	0.009	0.427	0.614
cg15294851	yellow	2	71,679,959	TSS1500	N_Shore	DYSF	0.540	0.009	0.216	0.270
cg15130532	yellow	8	73,166,903		S_Shelf		0.540	-0.009	0.875	0.432
cg02642585	yellow	21	32,202,284	TSS1500	OpenSea	KRTAP7-1	0.540	0.007	0.938	0.328
cg26043567	yellow	17	47,007,623	3'UTR	OpenSea	SNF8	0.540	-0.007	0.904	0.357
cg06565975	yellow	8	143,823,917	TSS200	S_Shelf	SLURP1	0.540	0.028	0.831	0.105
cg05214708	yellow	2	207,961,006	Body	OpenSea	KLF7	0.540	-0.010	0.658	0.318
cg09261403	yellow	7	923,516	Body	OpenSea	C7orf20	0.540	0.003	0.789	0.611
cg02650127	yellow	6	74,801,378		OpenSea		0.540	0.012	0.273	0.245
cg20814503	yellow	11	4,390,240	TSS1500	OpenSea	OR52B4	0.540	0.009	0.701	0.200
cg02709181	yellow	11	94,276,895	TSS200	Island	FUT4	0.540	0.000	0.041	0.922
cg26922780	yellow	16	88,769,443	Body	N_Shelf	RNF166	0.540	0.000	0.975	0.977
cg12785993	yellow	2	30,401,636		OpenSea		0.540	-0.003	0.480	0.663
cg04519775	yellow	2	231,849,693		N_Shelf		0.540	0.000	0.720	0.974
cg19632005	yellow	4	55,092,556		N_Shore		0.540	0.004	0.196	0.466
cg03340408	yellow	1	201,656,308	Body	OpenSea	NAV1	0.540	0.009	0.563	0.274
cg09186101	yellow	17	80,197,062	3'UTR	S_Shore	SLC16A3	0.540	0.012	0.677	0.093
cg08484080	yellow	1	1,986,139	Body	S_Shelf	PRKCZ	0.540	0.005	0.704	0.596
cg13929970	yellow	4	15,939,862	5'UTR	OpenSea	FGFBP1	0.540	0.011	0.552	0.176
cg07688613	yellow	1	153,700,021	TSS1500	N_Shore	INTS3	0.540	0.003	0.037	0.253
cg18700744	yellow	12	112,534,559	Body	OpenSea	NAA25	0.540	0.002	0.843	0.844
cg18335290	yellow	2	128,438,947	1stExon	OpenSea	LIMS2	0.540	0.010	0.407	0.189
cg14986386	yellow	5	68,626,145		N_Shelf		0.540	-0.002	0.650	0.695
cg13323866	yellow	19	50,100,052	Body	Island	PRR12	0.540	-0.001	0.929	0.799
cg03866192	yellow	17	2,699,542	TSS200	OpenSea	RAP1GAP2	0.540	0.015	0.553	0.142
cg25179758	yellow	13	36,918,614	5'UTR	N_Shore	SPG20	0.540	-0.017	0.397	0.056
cg11091262	yellow	7	151,653,454	TSS200	OpenSea	GALNTL5	0.540	-0.003	0.755	0.790
cg09643139	yellow	8	59,746,288	Body	OpenSea	TOX	0.540	-0.001	0.752	0.932
cg16083439	yellow	6	108,615,723	TSS1500	N_Shore	LACE1	0.540	0.013	0.259	0.221
cg08622675	yellow	7	6,524,998	TSS1500	S_Shore	KDELR2	0.540	0.007	0.864	0.401
cg06397379	yellow	8	31,496,353	TSS1500	N_Shore	NRG1	0.540	0.002	0.102	0.860
cg26692791	yellow	1	32,593,259	Body	OpenSea	KPNA6	0.540	0.018	0.584	0.060
cg01923337	yellow	16	2,571,449	Body	S_Shore	AMDHD2	0.540	0.002	0.707	0.717
cg01269299	yellow	10	112,287,792		N_Shelf		0.540	0.002	0.871	0.742
cg07698196	yellow	7	150,485,638	Body	OpenSea	LOC1001285	0.540	0.008	0.375	0.311
cg19774973	yellow	8	144,420,279		S_Shelf		0.539	-0.014	0.628	0.412
cg08333011	yellow	17	42,057,236	5'UTR	N_Shelf	PYY	0.539	-0.002	0.635	0.837
cg10830021	yellow	11	3,815,589	5'UTR	N_Shelf	NUP98	0.539	0.004	0.842	0.441
cg05740243	yellow	10	135,160,775	TSS200	OpenSea	PRAP1	0.539	-0.005	0.126	0.642
cg12584450	yellow	19	1,986,191	3'UTR	Island	BTBD2	0.539	0.000	0.826	0.970

cg20335384	yellow	1	17,901,599	5'UTR	OpenSea	ARHGEF10L	0.539	0.004	0.577	0.455
cg07558833	yellow	16	354,911	Body	S_Shore	AXIN1	0.539	-0.004	0.878	0.684
cg04886783	yellow	1	1,852,216	TSS1500	S_Shore	TMEM52	0.539	0.003	0.756	0.700
cg10637292	yellow	12	52,960,529	3'UTR	OpenSea	KRT74	0.539	0.011	0.535	0.088
cg25154630	yellow	1	67,389,698	TSS1500	N_Shore	MIER1	0.539	0.018	0.490	0.171
cg18745279	yellow	15	93,580,022		OpenSea		0.539	0.006	0.909	0.291
cg19979750	yellow	12	123,352,680	Body	S_Shore	VPS37B	0.539	0.005	0.732	0.442
cg00917437	yellow	14	55,879,046	TSS1500	S_Shore	KIAA0831	0.539	0.006	0.532	0.537
cg03946012	yellow	16	58,328,209	5'UTR	OpenSea	KLKBL4	0.539	0.011	0.759	0.210
cg12165022	yellow	19	3,785,573	5'UTR	Island	MATK	0.539	-0.006	0.094	0.367
cg01811100	yellow	1	40,158,476	TSS1500	Island	HPCAL4	0.539	0.006	0.349	0.480
cg13180224	yellow	21	40,684,269	Body	N_Shore	BRWD1	0.539	0.002	0.026	0.324
cg08357125	yellow	2	73,404,999		S_Shore		0.539	0.005	0.321	0.474
cg05527267	yellow	17	1,472,819		OpenSea		0.539	0.006	0.667	0.499
cg06064254	yellow	18	9,959,400	3'UTR	OpenSea	VAPA	0.539	0.024	0.803	0.026
cg11707310	yellow	1	2,537,719	Body	Island	MMEL1	0.539	0.008	0.571	0.728
cg10866062	yellow	17	72,358,370	TSS1500	S_Shelf	BTBD17	0.539	0.004	0.061	0.303
cg01540165	yellow	11	3,239,402	TSS200	Island	C11orf36	0.539	-0.011	0.655	0.167
cg12430062	yellow	17	10,688,489		OpenSea		0.539	0.015	0.519	0.171
cg08263647	yellow	3	158,390,769	TSS1500	OpenSea	LXN	0.539	0.002	0.546	0.764
cg00214395	yellow	3	149,167,242		OpenSea		0.539	-0.001	0.682	0.958
cg17010112	yellow	4	77,227,123	TSS1500	N_Shore	STBD1	0.539	0.005	0.048	0.206
cg16652392	yellow	1	1,826,227		S_Shelf		0.539	0.011	0.312	0.183
cg05146888	yellow	6	33,129,060		N_Shore		0.539	0.013	0.484	0.239
cg04028695	yellow	10	80,008,319		OpenSea		0.539	0.008	0.928	0.284
cg06466900	yellow	13	114,763,268	Body	N_Shore	RASA3	0.539	0.010	0.835	0.304
cg18281842	yellow	11	70,213,523	Body	OpenSea	PPFIA1	0.539	0.001	0.882	0.794
cg14856220	yellow	10	123,353,500	TSS200	N_Shelf	FGFR2	0.539	0.004	0.844	0.714
cg15274684	yellow	21	48,054,897	TSS1500	N_Shore	PRMT2	0.539	0.004	0.131	0.726
cg22505977	yellow	5	150,727,459	TSS1500	OpenSea	SLC36A2	0.539	-0.007	0.410	0.492
cg02321885	yellow	19	11,032,537	3'UTR	S_Shore	CARM1	0.539	0.009	0.730	0.257
cg25668878	yellow	3	46,256,527		OpenSea		0.539	-0.005	0.385	0.548
cg27069188	yellow	16	285,785	5'UTR	S_Shore	ITFG3	0.539	0.007	0.302	0.587
cg15956558	yellow	11	1,360,203		Island		0.539	0.002	0.915	0.843
cg00070052	yellow	9	116,171,972	Body	N_Shore	POLE3	0.539	-0.003	0.424	0.769
cg04035377	yellow	3	48,693,119	Body	Island	CELSR3	0.539	0.017	0.514	0.056
cg04740359	yellow	12	5,603,542	1stExon	N_Shore	NTF3	0.539	0.008	0.592	0.506
cg00447376	yellow	4	3,771,818		N_Shelf		0.539	0.005	0.776	0.381
cg06434864	yellow	11	57,416,254	5'UTR	S_Shore	YPEL4	0.539	0.003	0.114	0.543
cg05696406	yellow	2	27,599,888	3'UTR	N_Shore	SNX17	0.539	0.007	0.885	0.355
cg10699171	yellow	6	24,936,965		OpenSea		0.539	0.003	0.850	0.834
cg13050716	yellow	3	127,416,580	Body	OpenSea	MGLL	0.539	-0.002	0.313	0.765
cg23688111	yellow	2	234,825,859	TSS200	OpenSea	TRPM8	0.538	0.016	0.531	0.351
cg13454770	yellow	17	45,909,295	TSS1500	S_Shore	MRPL10	0.538	0.001	0.053	0.784
cg16365690	yellow	11	6,643,809	Body	OpenSea	DCHS1	0.538	0.015	0.668	0.020
cg05585149	yellow	10	695,844	Body	OpenSea	DIP2C	0.538	0.005	0.336	0.710
cg19175742	yellow	15	83,331,452	Body	OpenSea	AP3B2	0.538	0.004	0.676	0.654
cg17489871	yellow	2	439,337		OpenSea		0.538	0.010	0.705	0.190
cg27450688	yellow	17	80,554,887	Body	Island	FOXP2	0.538	-0.016	0.658	0.083
cg19561076	yellow	2	17,241,353		OpenSea		0.538	0.002	0.752	0.875
cg22149419	yellow	17	27,253,138	Body	OpenSea	PHF12	0.538	-0.005	0.809	0.649
cg19057899	yellow	17	47,093,955	Body	S_Shore	IGF2BP1	0.538	0.003	0.234	0.810
cg19724667	yellow	3	190,204,073		OpenSea		0.538	0.002	0.042	0.565
cg25621184	yellow	12	121,211,555	Body	OpenSea	SPPL3	0.538	-0.009	0.904	0.192
cg16028599	yellow	7	5,400,758	Body	Island	TNRC18	0.538	-0.002	0.843	0.678
cg27307975	yellow	15	58,797,839	Body	OpenSea	LIPC	0.538	0.001	0.890	0.849
cg14256028	yellow	13	110,528,090		OpenSea		0.538	0.007	0.668	0.351
cg05314639	yellow	13	114,109,729		OpenSea		0.538	0.006	0.687	0.458
cg03742642	yellow	12	133,354,143	Body	OpenSea	GOLGA3	0.538	0.010	0.848	0.127
cg21396517	yellow	3	11,655,466	Body	OpenSea	VGLL4	0.538	0.002	0.419	0.855
cg07814974	yellow	16	1,544,179	5'UTR	Island	TELO2	0.538	0.012	0.087	0.068
cg22759096	yellow	6	30,594,296	TSS1500	OpenSea	C6orf134	0.538	0.014	0.381	0.020
cg02083080	yellow	6	169,104,434		OpenSea		0.538	0.004	0.879	0.518
cg21842689	yellow	20	60,879,386	Body	S_Shore	ADRM1	0.538	0.003	0.527	0.734
cg04885037	yellow	17	77,151,243	5'UTR	OpenSea	HRNBP3	0.538	0.002	0.634	0.749
cg09188304	yellow	16	84,852,691	TSS1500	N_Shore	CRISPLD2	0.538	-0.003	0.684	0.784
cg02932854	yellow	7	75,444,115	TSS1500	OpenSea	CCL24	0.538	0.001	0.612	0.849

cg25421566	yellow	21	41,239,488	Body	OpenSea	PCP4	0.538	0.006	0.344	0.393
cg26069093	yellow	12	122,048,642		OpenSea		0.538	0.022	0.481	0.065
cg02997560	yellow	19	3,180,815		S_Shore		0.538	0.009	0.607	0.389
cg27234490	yellow	3	58,174,435		OpenSea		0.538	0.013	0.840	0.018
cg08354835	yellow	2	234,373,030	Body	S_Shelf	DGKD	0.538	-0.011	0.905	0.169
cg23202887	yellow	14	99,691,372	Body	OpenSea	BCL11B	0.538	-0.001	0.794	0.909
cg12315892	yellow	17	25,680,519		N_Shore		0.538	-0.005	0.119	0.509
cg16248926	yellow	7	55,591,518	Body	OpenSea	VOPP1	0.538	-0.010	0.553	0.253
cg25786785	yellow	22	37,500,694	TSS1500	OpenSea	TMPRSS6	0.538	0.001	0.727	0.893
cg24836281	yellow	19	41,100,790	Body	N_Shelf	LTBP4	0.538	0.017	0.420	0.115
cg01564818	yellow	3	9,464,436	5'UTR	OpenSea	SETD5	0.538	0.003	0.024	0.259
cg06825878	yellow	7	75,472,540		OpenSea		0.538	0.015	0.306	0.203
cg26797722	yellow	6	15,432,551	Body	OpenSea	JARID2	0.538	-0.003	0.699	0.613
cg09618197	yellow	6	5,152,468	Body	OpenSea	LYRM4	0.538	0.000	0.928	0.989
cg18315708	yellow	14	21,673,796		OpenSea		0.538	-0.003	0.826	0.705
cg26464796	yellow	5	54,601,060	Body	N_Shelf	DHX29	0.538	-0.012	0.837	0.180
cg16412370	yellow	21	45,079,144	TSS1500	Island	RRP1B	0.538	0.000	0.135	0.984
cg14193550	yellow	6	29,621,467		S_Shelf		0.538	0.000	0.052	0.911
cg25898092	yellow	12	120,033,862	Body	S_Shore	TMEM233	0.538	0.015	0.357	0.109
cg04264002	yellow	14	103,592,734	5'UTR	N_Shore	TNFAIP2	0.538	0.004	0.780	0.603
cg06569861	yellow	17	35,211,226		OpenSea		0.538	0.006	0.554	0.551
cg09812397	yellow	15	30,078,357	Body	OpenSea	TJP1	0.538	-0.005	0.862	0.560
cg01005211	yellow	3	72,338,583		OpenSea		0.538	0.000	0.112	0.984
cg19604703	yellow	4	16,261,642		S_Shelf		0.538	-0.001	0.898	0.844
cg08204790	yellow	2	59,522,360		OpenSea		0.538	-0.002	0.745	0.879
cg16887070	yellow	6	3,324,467	Body	OpenSea	SLC22A23	0.537	-0.002	0.762	0.714
cg22240704	yellow	3	20,202,403	3'UTR	OpenSea	SGOL1	0.537	0.000	0.974	0.938
cg25602692	yellow	12	123,998,085	Body	OpenSea	RILPL1	0.537	0.004	0.552	0.511
cg08670465	yellow	5	169,725,100	TSS1500	OpenSea	LCP2	0.537	0.016	0.509	0.015
cg13734401	yellow	9	138,881,660		N_Shore		0.537	0.004	0.669	0.625
cg07735586	yellow	3	57,945,651		OpenSea		0.537	0.007	0.704	0.421
cg11328127	yellow	11	415,441	5'UTR	N_Shore	SIGIRR	0.537	0.009	0.861	0.326
cg02375506	yellow	22	43,806,801	TSS1500	N_Shore	MPPED1	0.537	0.005	0.712	0.524
cg26122413	yellow	14	105,185,236	3'UTR	N_Shore	INF2	0.537	0.001	0.975	0.442
cg04180462	yellow	11	107,993,298	Body	S_Shore	ACAT1	0.537	-0.003	0.692	0.737
cg27383956	yellow	19	40,732,902	TSS1500	S_Shore	CNTD2	0.537	0.010	0.522	0.146
cg01261013	yellow	21	37,691,747	TSS1500	N_Shore	MORC3	0.537	0.013	0.791	0.209
cg26841040	yellow	1	228,332,263	TSS200	S_Shelf	GUK1	0.537	0.001	0.794	0.827
cg05207465	yellow	5	154,318,039	TSS1500	S_Shore	GEMIN5	0.537	0.010	0.745	0.203
cg13767625	yellow	9	135,848,623		OpenSea		0.537	0.008	0.658	0.363
cg18635670	yellow	6	26,539,327	5'UTR	S_Shore	HMGNA4	0.537	-0.014	0.274	0.141
cg00247361	yellow	4	114,541,072	Body	OpenSea	CAMK2D	0.537	0.017	0.788	0.178
cg00869308	yellow	14	101,360,002	TSS1500	OpenSea	MEG8	0.537	0.000	0.618	0.943
cg06871213	yellow	16	10,971,250	Body	N_Shore	CIITA	0.537	-0.004	0.569	0.561
cg22062007	yellow	5	80,493,886	Body	OpenSea	RASGRF2	0.537	0.004	0.864	0.687
cg19346202	yellow	17	18,226,511	3'UTR	OpenSea	SMCR8	0.537	0.002	0.403	0.775
cg17904739	yellow	12	3,861,567	5'UTR	N_Shore	EFCAB4B	0.537	0.000	0.664	0.267
cg18617091	yellow	22	37,495,019	Body	S_Shore	TMPRSS6	0.537	-0.007	0.889	0.215
cg18876201	yellow	10	132,907,864	Body	OpenSea	TCERG1L	0.537	0.016	0.751	0.079
cg25219333	yellow	11	6,501,594	Body	N_Shore	ARFIP2	0.537	0.004	0.914	0.404
cg21747496	yellow	3	128,445,986	5'UTR	S_Shore	RAB7A	0.537	0.008	0.120	0.515
cg10319073	yellow	12	123,351,548	3'UTR	N_Shore	VPS37B	0.537	0.006	0.834	0.306
cg15578645	yellow	1	6,239,157	Body	N_Shore	CHD5	0.537	0.006	0.071	0.357
cg16252905	yellow	1	1,150,936	TSS1500	N_Shore	TNFRSF4	0.537	0.008	0.724	0.157
cg24574902	yellow	3	47,455,785	Body	N_Shelf	SCAP	0.537	-0.005	0.708	0.463
cg18733925	yellow	7	73,602,823	Body	OpenSea	EIF4H	0.537	0.001	0.970	0.785
cg07100595	yellow	3	56,503,840	TSS1500	S_Shore	ERC2	0.537	-0.002	0.938	0.724
cg25446086	yellow	1	155,829,549	1stExon	N_Shore	SYT11	0.537	0.004	0.272	0.745
cg02760218	yellow	6	31,866,586	TSS1500	N_Shore	EHMT2	0.537	0.002	0.326	0.797
cg04146745	yellow	3	42,947,263	TSS1500	N_Shore	ZNF662	0.537	0.012	0.529	0.141
cg16228359	yellow	11	68,065,710		OpenSea		0.537	-0.011	0.579	0.062
cg02304134	yellow	16	4,516,320	Body	OpenSea	NMRAL1	0.537	0.003	0.821	0.552
cg17744605	yellow	6	111,368,770	TSS200	OpenSea	LOC442245	0.537	0.000	0.976	0.742
cg20168495	yellow	4	148,283,066		OpenSea		0.537	0.003	0.491	0.761
cg07479014	yellow	1	1,534,392		Island		0.537	0.011	0.641	0.090
cg23404877	yellow	2	85,553,759	Body	N_Shore	TGOLN2	0.537	0.020	0.434	0.173
cg24783510	yellow	19	17,862,150	5'UTR	S_Shelf	FCHO1	0.537	-0.003	0.878	0.650

cg27132814	yellow	20	18,794,303	TSS200	OpenSea	C2orf79	0.537	0.005	0.417	0.468
cg05510337	yellow	16	68,268,252	Body	N_Shore	ESRP2	0.537	0.005	0.397	0.463
cg25386151	yellow	1	212,778,862	5'UTR	N_Shore	ATF3	0.536	0.002	0.019	0.032
cg05495790	yellow	10	743,286		Island		0.536	0.002	0.818	0.882
cg20619751	yellow	13	114,092,131	Body	N_Shelf	ADPRHL1	0.536	0.015	0.365	0.189
cg02053092	yellow	6	119,220,428	Body	S_Shelf	ASF1A	0.536	0.000	0.939	0.999
cg03229996	yellow	16	88,491,019		OpenSea		0.536	0.004	0.621	0.615
cg18739791	yellow	5	134,169,007		OpenSea		0.536	0.007	0.843	0.385
cg07243988	yellow	12	122,327,438	Body	S_Shore	PSMD9	0.536	0.001	0.115	0.851
cg09278695	yellow	7	98,438,683		OpenSea		0.536	-0.003	0.719	0.730
cg06654431	yellow	16	1,946,951		OpenSea		0.536	0.004	0.796	0.701
cg15134456	yellow	17	3,293,398		S_Shelf		0.536	0.008	0.894	0.422
cg00813343	yellow	7	109,485,219		OpenSea		0.536	0.004	0.738	0.746
cg17595945	yellow	21	36,097,651	Body	OpenSea	NCRNA0016C	0.536	0.009	0.650	0.305
cg21967368	yellow	2	211,422,328	Body	OpenSea	CPS1	0.536	-0.004	0.191	0.829
cg02233835	yellow	16	89,156,772		N_Shelf		0.536	0.010	0.444	0.234
cg00462849	yellow	2	12,853,027		N_Shelf		0.536	-0.003	0.916	0.421
cg24384882	yellow	13	110,961,824	Body	S_Shore	COL4A2	0.536	0.003	0.868	0.684
cg03005851	yellow	1	11,113,287		OpenSea		0.536	0.003	0.107	0.791
cg10093265	yellow	13	25,643,742		S_Shore		0.536	0.007	0.601	0.425
cg05863023	yellow	2	230,039,073	Body	OpenSea	PID1	0.536	0.014	0.834	0.145
cg08492568	yellow	6	89,759,594		OpenSea		0.536	0.006	0.905	0.413
cg11756029	yellow	12	112,568,357	Body	OpenSea	TRAFD1	0.536	0.009	0.437	0.508
cg13549082	yellow	9	132,369,679		N_Shelf		0.536	-0.004	0.257	0.613
cg17171539	yellow	1	59,398,690		OpenSea		0.536	-0.002	0.550	0.642
cg11795262	yellow	19	19,569,574	5'UTR	OpenSea	GATAD2A	0.536	0.003	0.785	0.626
cg05835265	yellow	6	32,906,923	Body	OpenSea	HLA-DMB	0.536	0.004	0.857	0.601
cg09033641	yellow	16	89,436,838	5'UTR	N_Shore	ANKRD11	0.536	-0.003	0.505	0.673
cg06777352	yellow	16	19,124,984	TSS1500	N_Shore	ITPR1L2	0.536	-0.008	0.103	0.303
cg08839272	yellow	3	42,730,382	Body	S_Shelf	KBTBD5	0.536	0.003	0.420	0.619
cg05613116	yellow	2	27,958,722		Island		0.536	-0.003	0.083	0.581
cg14335159	yellow	9	137,426,436		OpenSea		0.536	0.017	0.513	0.024
cg11068881	yellow	8	40,925,730		OpenSea		0.536	-0.005	0.902	0.476
cg03605365	yellow	1	62,207,325	TSS1500	N_Shore	INADL	0.536	0.017	0.680	0.272
cg27056194	yellow	11	128,737,300	TSS200	OpenSea	KCNJ1	0.536	0.000	0.278	0.995
cg10355965	yellow	14	96,350,608		OpenSea		0.536	-0.001	0.659	0.806
cg13853953	yellow	2	242,557,512	Body	OpenSea	THAP4	0.536	-0.006	0.866	0.274
cg15148064	yellow	7	43,678,082		OpenSea		0.536	-0.005	0.946	0.268
cg17105912	yellow	1	43,352,822		Island		0.536	0.053	0.571	0.012
cg18865419	yellow	19	5,064,019	Body	N_Shore	KDM4B	0.536	0.013	0.869	0.014
cg11781976	yellow	15	73,076,851	TSS1500	S_Shore	ADPGK	0.536	0.002	0.037	0.518
cg10234506	yellow	1	235,291,124	Body	N_Shore	SNORA14B	0.536	0.012	0.078	0.106
cg05058234	yellow	2	241,526,962	Body	S_Shore	CAPN10	0.536	0.010	0.114	0.255
cg18500968	yellow	21	43,816,263	TSS200	OpenSea	TMPRSS3	0.536	-0.016	0.914	0.024
cg26550235	yellow	1	19,277,202	Body	OpenSea	IFFO2	0.536	0.016	0.493	0.277
cg15564207	yellow	3	28,386,748	5'UTR	N_Shelf	AZI2	0.536	-0.002	0.798	0.838
cg24795903	yellow	17	36,999,666		S_Shelf		0.536	0.003	0.783	0.755
cg23978557	yellow	6	109,760,819	Body	N_Shore	PPIL6	0.536	0.007	0.387	0.575
cg08898055	yellow	5	179,597,395	5'UTR	OpenSea	RASGEF1C	0.536	0.009	0.395	0.234
cg02339392	yellow	6	28,234,615	TSS200	N_Shore	ZNF187	0.536	-0.005	0.263	0.709
cg18717423	yellow	3	125,986,716		Island		0.536	0.002	0.161	0.710
cg18709166	yellow	6	30,871,677		N_Shelf		0.536	0.010	0.607	0.287
cg20442289	yellow	5	133,305,704	TSS1500	S_Shore	C5orf15	0.536	0.002	0.608	0.771
cg06034127	yellow	13	24,844,852	Body	OpenSea	SPATA13	0.536	0.000	0.034	0.884
cg00487155	yellow	16	87,740,757	TSS1500	N_Shore	LOC1001296	0.536	0.004	0.596	0.606
cg05184372	yellow	10	118,609,757		S_Shore		0.536	-0.006	0.744	0.379
cg19658046	yellow	5	176,981,888	TSS1500	S_Shore	FAM193B	0.536	0.003	0.480	0.710
cg00486113	yellow	6	31,105,711	Body	OpenSea	PSORS1C1	0.535	0.006	0.332	0.536
cg08509586	yellow	11	16,797,315		OpenSea		0.535	0.000	0.680	1.000
cg11380223	yellow	7	157,447,534	Body	N_Shore	PTPRN2	0.535	-0.001	0.942	0.920
cg15549231	yellow	20	49,415,761	Body	S_Shelf	BCAS4	0.535	0.005	0.771	0.590
cg07883869	yellow	16	49,909,757		N_Shore		0.535	0.004	0.547	0.473
cg26002632	yellow	14	100,625,216	Body	N_Shore	DEGS2	0.535	0.006	0.346	0.479
cg16665765	yellow	3	37,934,293	Body	OpenSea	CTDSPL	0.535	-0.005	0.227	0.552
cg26177041	yellow	4	114,389,632	Body	OpenSea	CAMK2D	0.535	0.005	0.505	0.445
cg02104644	yellow	11	61,347,820	Body	Island	SYT7	0.535	0.011	0.081	0.077
cg24335751	yellow	1	3,182,620	Body	N_Shore	PRDM16	0.535	0.013	0.592	0.129

cg09961254	yellow	10	627,679	Body	N_Shelf	DIP2C	0.535	0.000	0.878	0.965
cg10882599	yellow	3	128,779,586	TSS200	OpenSea	GP9	0.535	0.001	0.792	0.916
cg03564201	yellow	3	42,948,169	5'UTR	Island	ZNF662	0.535	0.004	0.158	0.628
cg22821289	yellow	11	115,581,830		OpenSea		0.535	0.011	0.480	0.626
cg22550229	yellow	18	13,138,034		S_Shore		0.535	-0.007	0.896	0.487
cg18492943	yellow	7	44,203,304	Body	OpenSea	GCK	0.535	-0.020	0.552	0.015
cg05331060	yellow	6	31,459,999		N_Shore		0.535	-0.001	0.170	0.943
cg22560545	yellow	6	144,612,765	TSS200	OpenSea	UTRN	0.535	-0.002	0.905	0.728
cg19126426	yellow	11	47,359,839	Body	N_Shore	MYBPC3	0.535	0.002	0.791	0.780
cg09737019	yellow	5	178,158,086	TSS1500	S_Shore	ZNF354A	0.535	0.009	0.844	0.472
cg11440666	yellow	11	75,115,402	Body	OpenSea	RP53	0.535	-0.007	0.933	0.112
cg10458494	yellow	10	134,977,981	Body	Island	KNDC1	0.535	-0.006	0.850	0.616
cg03830936	yellow	2	220,415,201	3'UTR	N_Shore	TMEM198	0.535	0.013	0.744	0.055
cg21952528	yellow	6	168,721,499	TSS1500	S_Shore	DACT2	0.535	0.006	0.871	0.263
cg08999272	yellow	17	78,921,478	Body	N_Shore	RPTOR	0.535	0.004	0.940	0.406
cg22289643	yellow	4	3,776,495		S_Shelf		0.535	0.001	0.498	0.886
cg17168428	yellow	7	35,844,045	Body	S_Shelf	7-Sep	0.535	0.011	0.877	0.192
cg15018704	yellow	19	1,908,132	5'UTR	Island	ADAT3	0.535	0.000	0.548	0.939
cg22590032	yellow	5	180,050,565	Body	S_Shore	FLT4	0.535	0.006	0.679	0.296
cg18397743	yellow	17	80,860,956	Body	N_Shelf	TBCD	0.535	0.000	0.776	0.998
cg26780138	yellow	16	477,087	Body	S_Shore	RAB11FIP3	0.535	0.001	0.068	0.933
cg06687489	yellow	15	52,587,077	Body	N_Shore	MYO5C	0.535	0.010	0.413	0.185
cg13470155	yellow	11	195,323	TSS1500	OpenSea	ODF3	0.535	0.005	0.756	0.341
cg10937776	yellow	2	242,438,680	Body	OpenSea	STK25	0.535	0.001	0.866	0.903
cg22158068	yellow	3	64,075,186		OpenSea		0.535	0.005	0.336	0.739
cg24096745	yellow	5	180,071,916	Body	N_Shelf	FLT4	0.535	0.002	0.847	0.810
cg09357157	yellow	19	44,116,212	Body	OpenSea	ZNF428	0.535	0.000	0.964	0.973
cg23971160	yellow	8	105,483,324		S_Shelf		0.535	0.008	0.799	0.215
cg14492337	yellow	17	79,813,507	Body	OpenSea	P4HB	0.535	0.003	0.945	0.365
cg21710060	yellow	13	114,321,749	1stExon	OpenSea	GRK1	0.535	0.003	0.779	0.609
cg14333565	yellow	19	5,824,065	5'UTR	N_Shore	NRTN	0.535	0.013	0.771	0.028
cg24220178	yellow	17	80,541,649	Body	Island	FOXK2	0.535	-0.003	0.736	0.793
cg01331992	yellow	9	19,379,118	Body	N_Shore	RPS6	0.535	0.014	0.250	0.332
cg12667002	yellow	13	114,812,302	Body	N_Shore	RASA3	0.535	0.001	0.652	0.944
cg07083941	yellow	21	30,675,125	5'UTR	S_Shelf	BACH1	0.535	-0.003	0.628	0.708
cg13041637	yellow	11	123,626,485	TSS1500	OpenSea	OR6X1	0.535	0.001	0.878	0.880
cg13393327	yellow	8	128,306,948		OpenSea		0.535	-0.002	0.709	0.896
cg21064451	yellow	22	38,071,534	TSS200	N_Shore	LGALS1	0.535	-0.001	0.405	0.954
cg03673684	yellow	4	6,380,983	Body	S_Shore	PPP2R2C	0.535	-0.004	0.627	0.486
cg16586406	yellow	1	154,164,994	TSS1500	OpenSea	TPM3	0.535	0.008	0.628	0.365
cg10589602	yellow	1	30,853,096		OpenSea		0.535	-0.005	0.396	0.540
cg26989103	yellow	8	110,099,582	TSS200	OpenSea	TRHR	0.535	0.002	0.940	0.539
cg02141675	yellow	5	153,569,408	TSS1500	N_Shore	GALNT10	0.535	-0.006	0.066	0.152
cg02451853	yellow	16	67,185,429	TSS1500	S_Shore	B3GNT9	0.535	-0.001	0.344	0.843
cg08470180	yellow	5	134,181,226	TSS200	N_Shore	C5orf24	0.535	0.023	0.547	0.101
cg03416521	yellow	20	19,958,192	Body	S_Shelf	RIN2	0.534	-0.009	0.606	0.304
cg10696445	yellow	11	1,314,859	Body	N_Shore	TOLLIP	0.534	0.004	0.802	0.673
cg10284425	yellow	16	86,457,686		OpenSea		0.534	0.006	0.752	0.507
cg08314408	yellow	16	30,457,493	TSS1500	S_Shore	SEPHS2	0.534	0.006	0.366	0.678
cg21370924	yellow	3	141,087,313	5'UTR	OpenSea	ZBTB38	0.534	0.009	0.123	0.351
cg11835897	yellow	5	2,155,934		OpenSea		0.534	0.000	0.890	0.975
cg13820776	yellow	9	139,859,096		OpenSea		0.534	-0.004	0.752	0.471
cg18034637	yellow	11	111,846,087	Body	N_Shore	DIXDC1	0.534	0.001	0.733	0.968
cg27303735	yellow	6	30,709,605	Body	N_Shore	FLOT1	0.534	0.003	0.505	0.754
cg07411153	yellow	13	45,911,642	Body	N_Shelf	TPT1	0.534	0.002	0.954	0.471
cg14145185	yellow	19	13,948,274	TSS1500	S_Shelf	MIR24-2	0.534	0.001	0.936	0.903
cg25633067	yellow	11	68,037,299	5'UTR	N_Shelf	C11orf24	0.534	-0.004	0.392	0.763
cg20846508	yellow	11	368,351	TSS1500	OpenSea	B4GALNT4	0.534	-0.011	0.276	0.387
cg01659632	yellow	6	144,262,297	3'UTR	OpenSea	PLAGL1	0.534	0.010	0.836	0.270
cg12584865	yellow	1	161,132,159	Body	N_Shelf	USP21	0.534	0.002	0.899	0.742
cg01236299	yellow	17	9,819,556	3'UTR	OpenSea	GAS7	0.534	0.000	0.891	0.996
cg01138020	yellow	17	4,337,094	TSS200	OpenSea	SPNS3	0.534	0.006	0.817	0.483
cg16273909	yellow	7	116,504,769	Body	S_Shore	CAPZA2	0.534	0.001	0.912	0.892
cg09017117	yellow	6	32,904,419	Body	OpenSea	HLA-DMB	0.534	-0.011	0.530	0.463
cg02947253	yellow	1	112,046,700	Body	OpenSea	ADORA3	0.534	0.006	0.890	0.277
cg02709167	yellow	1	31,996,811		OpenSea		0.534	0.000	0.118	0.991
cg27391934	yellow	1	1,369,948	TSS1500	N_Shore	VWA1	0.534	-0.006	0.032	0.228

cg17907003	yellow	1	117,533,414	OpenSea		0.534	0.008	0.902	0.375
cg04798490	yellow	11	70,517,045 Body	OpenSea	SHANK2	0.534	-0.008	0.599	0.231
cg11064524	yellow	8	118,875,129 Body	OpenSea	EXT1	0.534	-0.013	0.599	0.286
cg20728490	yellow	10	98,064,175 5'UTR	OpenSea	DNTT	0.534	-0.011	0.542	0.098
cg08590069	yellow	8	101,118,899 TSS1500	S_Shore	RGS22	0.534	0.006	0.841	0.615
cg08911391	yellow	1	20,988,590 TSS1500	S_Shore	DDOST	0.534	0.008	0.322	0.421
cg15412718	yellow	8	142,517,806 TSS1500	OpenSea	FLJ43860	0.534	0.004	0.667	0.659
cg22624391	yellow	11	1,937,457	OpenSea		0.534	0.008	0.765	0.267
cg21702188	yellow	11	62,574,403 3'UTR	S_Shore	STX5	0.534	0.001	0.509	0.854
cg07954324	yellow	8	143,999,330 TSS200	OpenSea	CYP11B2	0.534	0.006	0.559	0.412
cg17739643	yellow	1	42,630,567 TSS200	OpenSea	GUCA2A	0.534	0.013	0.622	0.054
cg02215357	yellow	13	53,191,046 TSS1500	N_Shore	HNRNPA1L2	0.534	0.011	0.711	0.350
cg07185695	yellow	1	220,959,586 TSS1500	N_Shore	MOSC1	0.534	0.001	0.056	0.695
cg01207684	yellow	16	4,103,167 Body	OpenSea	ADCY9	0.534	0.013	0.276	0.276
cg01499816	yellow	14	92,807,984 Body	OpenSea	SLC24A4	0.534	0.009	0.686	0.178
cg17306740	yellow	20	56,195,434 1stExon	OpenSea	ZBP1	0.534	-0.009	0.424	0.184
cg25067686	yellow	6	32,078,453 TSS1500	OpenSea	TNXB	0.534	-0.002	0.786	0.690
cg05389970	yellow	11	69,682,764	N_Shore		0.534	0.002	0.561	0.843
cg25740640	yellow	13	45,961,680 Body	N_Shelf	LOC1001909	0.534	0.009	0.890	0.299
cg07203024	yellow	1	228,560,604 Body	S_Shore	OBSCN	0.534	0.004	0.579	0.521
cg16257983	yellow	10	90,750,218 TSS200	N_Shore	FAS	0.534	-0.002	0.036	0.337
cg23005057	yellow	2	27,170,308 3'UTR	OpenSea	DPYSL5	0.534	-0.001	0.037	0.775
cg06985664	yellow	7	116,367,599 Body	OpenSea	MET	0.534	-0.002	0.830	0.703
cg14845909	yellow	5	851,183 TSS200	S_Shelf	ZDHHC11	0.534	0.008	0.866	0.249
cg27289463	yellow	11	110,649,234	OpenSea		0.534	-0.006	0.026	0.138
cg20918957	yellow	3	50,275,112 Body	N_Shore	GNAI2	0.534	0.001	0.020	0.354
cg12598870	yellow	11	20,861,490 Body	OpenSea	NELL1	0.534	-0.003	0.385	0.725
cg22584107	yellow	8	144,499,966	N_Shelf		0.534	-0.004	0.675	0.558
cg03700171	yellow	15	78,748,272 Body	OpenSea	IREB2	0.534	0.008	0.755	0.367
cg23799313	yellow	1	26,198,360 TSS1500	N_Shelf	PAQR7	0.534	0.002	0.592	0.811
cg27181496	yellow	3	128,144,404	N_Shore		0.533	0.011	0.661	0.102
cg13222022	yellow	17	59,017,682 Body	OpenSea	BCAS3	0.533	-0.020	0.881	0.082
cg24291974	yellow	19	4,531,638 Body	Island	PLIN5	0.533	0.012	0.589	0.255
cg15861156	yellow	10	91,737,463	OpenSea		0.533	0.006	0.606	0.333
cg01947415	yellow	7	913,107 3'UTR	N_Shelf	UNC84A	0.533	0.001	0.018	0.398
cg12559827	yellow	2	73,316,585 Body	OpenSea	RAB11FIP5	0.533	0.002	0.904	0.790
cg18473335	yellow	14	24,540,174 TSS1500	OpenSea	CPNE6	0.533	0.005	0.604	0.635
cg19975800	yellow	2	234,544,995 TSS200	OpenSea	UGT1A10	0.533	0.008	0.718	0.399
cg23910340	yellow	12	58,287,143	N_Shelf		0.533	0.002	0.897	0.788
cg17737314	yellow	1	44,114,355 TSS1500	N_Shore	KDM4A	0.533	0.000	0.886	0.994
cg18674871	yellow	20	441,051 Body	N_Shore	TBC1D20	0.533	0.011	0.303	0.279
cg04615865	yellow	12	121,678,720 Body	OpenSea	CAMKK2	0.533	-0.002	0.423	0.909
cg19956836	yellow	11	57,241,448 Body	N_Shelf	RTN4RL2	0.533	0.007	0.489	0.419
cg24076083	yellow	19	12,946,093 1stExon	S_Shore	RTBDN	0.533	0.003	0.086	0.693
cg01343936	yellow	13	24,560,026	OpenSea		0.533	0.003	0.749	0.611
cg00983437	yellow	20	592,164 TSS1500	S_Shore	TCF15	0.533	0.003	0.240	0.687
cg20675869	yellow	3	12,750,130	OpenSea		0.533	0.013	0.642	0.165
cg21509100	yellow	20	42,965,115 TSS1500	OpenSea	R3HDML	0.533	0.000	0.344	0.996
cg23867562	yellow	19	12,861,921 TSS1500	N_Shelf	BEST2	0.533	0.013	0.502	0.051
cg13803765	yellow	9	133,760,464 Body	Island	ABL1	0.533	0.002	0.919	0.818
cg00152259	yellow	17	34,957,477 TSS1500	N_Shore	MRM1	0.533	-0.001	0.324	0.788
cg03798045	yellow	10	133,195,086	OpenSea		0.533	0.019	0.331	0.292
cg22610018	yellow	7	155,193,197	OpenSea		0.533	0.011	0.614	0.159
cg13397568	yellow	17	5,983,667 5'UTR	OpenSea	WSCD1	0.533	-0.004	0.870	0.493
cg03147990	yellow	19	37,701,738 TSS1500	OpenSea	ZNF585B	0.533	0.003	0.038	0.235
cg18048405	yellow	17	27,333,617 TSS1500	S_Shore	SEZ6	0.533	0.011	0.351	0.200
cg01944370	yellow	3	50,286,969 Body	OpenSea	GNAI2	0.533	-0.003	0.930	0.588
cg26945780	yellow	6	35,873,998 Body	OpenSea	SRPK1	0.533	0.004	0.789	0.569
cg16674467	yellow	3	46,854,311	S_Shore		0.533	0.005	0.084	0.270
cg08470031	yellow	11	2,423,043 TSS1500	S_Shore	TSSC4	0.533	0.008	0.641	0.366
cg24064506	yellow	11	117,052,397 Body	S_Shelf	SIDT2	0.533	0.002	0.653	0.797
cg13060704	yellow	6	28,890,322 Body	N_Shore	TRIM27	0.533	0.004	0.108	0.530
cg00207921	yellow	1	1,098,992	Island		0.533	0.009	0.658	0.266
cg19432033	yellow	17	7,517,220 Body	N_Shore	FXR2	0.533	0.013	0.328	0.151
cg23327276	yellow	5	138,677,027 TSS1500	N_Shore	PAIP2	0.533	0.034	0.545	0.082
cg06734979	yellow	16	88,457,445	N_Shelf		0.533	0.015	0.781	0.255
cg27600804	yellow	16	89,111,748	N_Shelf		0.533	0.003	0.454	0.723



cg26266528	yellow	14	72,886,537	Body	OpenSea	RGS6	0.533	0.003	0.770	0.712
cg08293930	yellow	16	57,494,706	3'UTR	N_Shore	COQ9	0.533	-0.001	0.856	0.832
cg10533255	yellow	11	46,679,301	Body	OpenSea	KIAA0652	0.533	-0.003	0.892	0.584
cg14761773	yellow	19	31,211,050		S_Shore		0.533	-0.001	0.076	0.914
cg11844965	yellow	19	42,510,093	Body	Island	GRIK5	0.533	0.006	0.834	0.405
cg00849365	yellow	16	5,074,999	3'UTR	OpenSea	NAGPA	0.533	-0.003	0.747	0.746
cg20608990	yellow	2	202,097,607	TSS1500	OpenSea	CASP8	0.533	-0.001	0.954	0.777
cg26540515	yellow	20	896,349	Body	OpenSea	ANGPT4	0.533	0.005	0.589	0.474
cg17093466	yellow	1	45,276,537	Body	N_Shelf	BTBD19	0.533	0.001	0.688	0.914
cg06911873	yellow	19	37,342,585	5'UTR	S_Shore	ZNF345	0.533	0.008	0.336	0.527
cg18504190	yellow	11	1,649,947	Body	OpenSea	HCCA2	0.533	0.011	0.628	0.105
cg10589848	yellow	17	37,559,351	TSS1500	S_Shore	FBXL20	0.533	0.002	0.933	0.756
cg24548817	yellow	21	45,774,294	Body	OpenSea	TRPM2	0.533	0.007	0.740	0.265
cg11881202	yellow	14	73,712,967	Body	S_Shore	PAPLN	0.532	-0.010	0.225	0.404
cg19809157	yellow	1	9,422,438	Body	OpenSea	SPSB1	0.532	0.005	0.496	0.456
cg23409168	yellow	8	117,101,690		OpenSea		0.532	0.008	0.297	0.418
cg04993279	yellow	1	8,940,460		S_Shore		0.532	0.016	0.321	0.143
cg00636145	yellow	19	44,223,072	Body	Island	IRGC	0.532	0.008	0.688	0.252
cg24159636	yellow	6	18,043,467		OpenSea		0.532	0.006	0.491	0.333
cg20810645	yellow	13	96,294,863	5'UTR	N_Shore	DZIP1	0.532	0.008	0.800	0.445
cg22376730	yellow	1	1,715,039		S_Shore		0.532	0.000	0.590	0.983
cg12338537	yellow	4	3,663,974		OpenSea		0.532	0.005	0.554	0.427
cg19697795	yellow	8	1,307,689		N_Shore		0.532	0.005	0.869	0.486
cg15495417	yellow	1	212,800,089	1stExon	OpenSea	FAM71A	0.532	0.007	0.855	0.310
cg03593896	yellow	17	73,499,781	Body	N_Shore	CASKIN2	0.532	0.008	0.867	0.164
cg10520740	yellow	12	1,952,798	Body	OpenSea	CACNA2D4	0.532	0.005	0.381	0.356
cg01026270	yellow	15	29,863,964	TSS1500	S_Shore	FAM189A1	0.532	0.001	0.030	0.766
cg07022477	yellow	19	46,798,869	TSS1500	N_Shore	HIF3A	0.532	-0.001	0.874	0.862
cg01835695	yellow	5	180,230,959	5'UTR	S_Shore	MGAT1	0.532	-0.002	0.664	0.845
cg17264271	yellow	6	152,126,938	5'UTR	N_Shore	ESR1	0.532	0.005	0.208	0.526
cg00280858	yellow	7	157,809,235	Body	OpenSea	PTPRN2	0.532	0.005	0.085	0.572
cg05685643	yellow	4	48,083,394	Body	OpenSea	TXK	0.532	-0.024	0.824	0.163
cg20899190	yellow	2	175,430,595	Body	OpenSea	WIPF1	0.532	-0.004	0.934	0.521
cg06664775	yellow	19	22,033,893		N_Shore		0.532	0.020	0.626	0.074
cg04334243	yellow	2	166,491,680	Body	OpenSea	CSRNP3	0.532	0.009	0.266	0.454
cg25613559	yellow	5	65,088,458	Body	OpenSea	NLN	0.532	0.009	0.869	0.402
cg06805546	yellow	6	159,466,427	TSS1500	OpenSea	TAGAP	0.532	0.006	0.515	0.565
cg12455300	yellow	5	40,712,757	3'UTR	OpenSea	TTC33	0.532	0.004	0.862	0.816
cg25043378	yellow	8	41,522,857	TSS200	OpenSea	ANK1	0.532	0.007	0.395	0.214
cg26581729	yellow	9	139,939,792	Body	Island	NPDC1	0.532	0.015	0.684	0.051
cg24937877	yellow	1	11,444,066		OpenSea		0.532	0.007	0.309	0.260
cg03540329	yellow	3	141,928,789	Body	OpenSea	GK5	0.532	0.003	0.639	0.867
cg19089985	yellow	20	62,127,395	Body	Island	EEF1A2	0.532	-0.001	0.464	0.850
cg14288673	yellow	21	19,258,040	TSS200	OpenSea	NCRNA00157	0.532	0.012	0.355	0.065
cg01941586	yellow	1	40,203,715	TSS1500	N_Shore	PPIE	0.532	0.013	0.497	0.243
cg23325197	yellow	12	58,064,666		N_Shelf		0.532	-0.006	0.918	0.496
cg07101841	yellow	17	75,315,527	5'UTR	OpenSea	9-Sep	0.532	-0.002	0.316	0.869
cg06253072	yellow	6	33,679,850	TSS1500	S_Shore	C6orf125	0.532	0.002	0.242	0.814
cg08644973	yellow	6	31,668,721	Body	N_Shore	BAT5	0.532	-0.006	0.730	0.488
cg13666340	yellow	9	4,666,266	5'UTR	S_Shelf	C9orf68	0.532	-0.005	0.151	0.516
cg17159699	yellow	8	53,081,140	Body	OpenSea	ST18	0.532	0.002	0.777	0.880
cg17017746	yellow	1	19,183,907	Body	S_Shelf	TAS1R2	0.532	-0.001	0.700	0.911
cg02335441	yellow	3	130,745,948	5'UTR	S_Shore	NEK11	0.532	0.005	0.054	0.429
cg16049246	yellow	11	76,464,026		OpenSea		0.532	-0.004	0.170	0.548
cg24591082	yellow	6	56,143,542		OpenSea		0.532	-0.004	0.748	0.744
cg16146849	yellow	5	1,923,003		OpenSea		0.532	-0.002	0.826	0.782
cg21505886	yellow	4	1,724,428	TSS1500	S_Shore	TMEM129	0.532	0.008	0.437	0.301
cg08123100	yellow	4	187,148,430	TSS1500	OpenSea	KLKB1	0.532	0.000	0.940	0.974
cg26004268	yellow	6	41,758,316		S_Shelf		0.532	-0.004	0.895	0.557
cg04160030	yellow	1	24,195,659	TSS1500	S_Shore	FUCA1	0.532	-0.028	0.744	0.231
cg23250750	yellow	2	36,891,490		OpenSea		0.532	0.021	0.457	0.161
cg23228178	yellow	1	17,633,681	TSS1500	OpenSea	PADI4	0.531	-0.003	0.699	0.718
cg14003416	yellow	2	12,557,155		OpenSea		0.531	-0.005	0.403	0.554
cg15986587	yellow	19	56,130,797		N_Shelf		0.531	0.022	0.547	0.112
cg20320283	yellow	1	47,880,440	TSS1500	N_Shore	FOXE3	0.531	-0.005	0.640	0.430
cg21544219	yellow	5	566,410		S_Shore		0.531	-0.042	0.658	0.169
cg11625107	yellow	7	151,195,790	Body	OpenSea	RHEB	0.531	0.003	0.802	0.622

cg16454107	yellow	17	53,799,452	5'UTR	OpenSea	TMEM100	0.531	0.002	0.943	0.742
cg04633058	yellow	17	48,474,099	Body	N_Shore	LRRC59	0.531	0.001	0.018	0.638
cg15251697	yellow	17	4,265,805	Body	N_Shelf	UBE2G1	0.531	0.004	0.951	0.312
cg08975559	yellow	11	597,295	Body	N_Shore	PHRF1	0.531	0.004	0.641	0.523
cg22321671	yellow	6	32,015,226	Body	OpenSea	TNXB	0.531	0.001	0.933	0.799
cg22613968	yellow	1	23,953,556	TSS1500	OpenSea	MDS2	0.531	0.006	0.632	0.531
cg24728949	yellow	5	106,820,169	Body	OpenSea	EFNA5	0.531	0.005	0.494	0.711
cg09085792	yellow	3	189,547,290	Body	OpenSea	TP63	0.531	0.020	0.694	0.099
cg00830621	yellow	16	18,799,106	Body	N_Shelf	RPS15A	0.531	0.001	0.945	0.789
cg05207583	yellow	7	55,167,844	Body	OpenSea	EGFR	0.531	0.000	0.500	0.996
cg17926756	yellow	3	55,217,960		OpenSea		0.531	0.000	0.960	0.979
cg13424923	yellow	2	65,258,738		OpenSea		0.531	0.012	0.585	0.050
cg21139496	yellow	8	124,055,146	TSS1500	S_Shore	DERL1	0.531	0.016	0.571	0.096
cg23297230	yellow	14	100,849,016	Body	OpenSea	WDR25	0.531	0.002	0.801	0.738
cg01131388	yellow	3	157,548,511		OpenSea		0.531	-0.004	0.816	0.707
cg22961292	yellow	12	133,149,594	Body	S_Shore	FBRSL1	0.531	-0.007	0.933	0.339
cg12848614	yellow	14	70,193,496		Island		0.531	0.018	0.428	0.273
cg10209089	yellow	12	5,156,468		S_Shelf		0.531	0.010	0.469	0.103
cg15628518	yellow	8	145,025,059	Body	Island	PLEC1	0.531	-0.005	0.246	0.833
cg24593138	yellow	1	19,687,988	Body	OpenSea	CAPZB	0.531	0.000	0.633	0.974
cg04362886	yellow	14	36,353,105		OpenSea		0.531	0.003	0.179	0.726
cg22804362	yellow	13	40,920,227		OpenSea		0.531	0.005	0.695	0.371
cg13910377	yellow	21	43,111,998	Body	S_Shelf	NCRNA00111	0.531	0.012	0.369	0.218
cg15701317	yellow	2	73,868,919	5'UTR	OpenSea	NAT8	0.531	-0.001	0.616	0.890
cg13551706	yellow	20	46,323,481	Body	OpenSea	SULF2	0.531	0.006	0.834	0.288
cg18087306	yellow	19	2,446,487	Body	S_Shore	LMNB2	0.531	0.012	0.651	0.430
cg26510597	yellow	8	143,278,295	TSS1500	OpenSea	NCRNA00051	0.531	0.006	0.790	0.341
cg25334903	yellow	13	21,069,344	Body	OpenSea	CRYL1	0.531	0.010	0.061	0.095
cg03963219	yellow	2	84,709,147		OpenSea		0.531	0.006	0.402	0.511
cg10656204	yellow	12	127,221,416		OpenSea		0.531	-0.005	0.823	0.449
cg05740262	yellow	16	81,527,360	Body	OpenSea	CMIP	0.531	0.008	0.828	0.128
cg04053485	yellow	2	242,611,942	3'UTR	OpenSea	ATG4B	0.531	0.005	0.833	0.572
cg00908758	yellow	1	84,944,699	TSS1500	N_Shore	RPF1	0.531	-0.005	0.885	0.557
cg00981350	yellow	16	88,718,818	3'UTR	S_Shore	MVD	0.531	0.016	0.789	0.033
cg13576290	yellow	2	29,256,737	Body	OpenSea	FAM179A	0.531	0.011	0.625	0.069
cg07474957	yellow	6	30,650,844	Body	N_Shelf	KIAA1949	0.531	0.006	0.732	0.366
cg23574835	yellow	4	1,902,177	5'UTR	OpenSea	WHSC1	0.531	-0.003	0.943	0.676
cg19727124	yellow	1	6,553,227	Body	S_Shelf	PLEKHG5	0.530	0.005	0.592	0.520
cg13436378	yellow	2	71,832,543	Body	OpenSea	DYSF	0.530	0.006	0.746	0.394
cg14522815	yellow	1	3,327,178	Body	N_Shore	PRDM16	0.530	0.004	0.563	0.543
cg12159314	yellow	14	92,787,905	TSS1500	N_Shore	SLC24A4	0.530	0.019	0.334	0.021
cg12108912	yellow	2	120,435,949	TSS1500	N_Shore	TMEM177	0.530	0.001	0.959	0.838
cg17428519	yellow	19	45,659,496	Body	S_Shelf	NKPD1	0.530	0.013	0.644	0.033
cg01396022	yellow	3	9,811,990	TSS1500	S_Shore	CAMK1	0.530	0.014	0.178	0.111
cg15699050	yellow	1	5,829,340		OpenSea		0.530	0.002	0.932	0.677
cg00350199	yellow	11	67,418,213	TSS200	OpenSea	ACY3	0.530	0.014	0.348	0.061
cg09410380	yellow	19	641,856	Body	N_Shore	FGF22	0.530	0.014	0.872	0.129
cg05240855	yellow	2	113,734,107	TSS1500	OpenSea	IL1F9	0.530	-0.005	0.925	0.230
cg18049045	yellow	5	72,250,516	TSS1500	N_Shore	FCHO2	0.530	0.000	0.976	0.843
cg23386895	yellow	11	65,083,974	5'UTR	S_Shore	CDC42EP2	0.530	0.015	0.478	0.058
cg01100951	yellow	4	15,453,598		OpenSea		0.530	0.012	0.478	0.178
cg02330106	yellow	10	131,264,840	TSS1500	N_Shore	MGMT	0.530	0.004	0.767	0.618
cg14206615	yellow	9	131,680,160	3'UTR	OpenSea	LRRC8A	0.530	0.002	0.944	0.699
cg03712062	yellow	4	62,359,523		OpenSea		0.530	0.005	0.936	0.359
cg26360402	yellow	14	105,973,994		OpenSea		0.530	0.015	0.573	0.048
cg07944936	yellow	6	107,950,685	Body	OpenSea	SOBP	0.530	0.001	0.503	0.960
cg11925263	yellow	5	110,849,104	TSS1500	S_Shore	STAR4	0.530	0.005	0.220	0.612
cg20098251	yellow	3	16,171,343		OpenSea		0.530	0.005	0.803	0.553
cg14372996	yellow	9	140,164,191	Body	N_Shelf	COBRA1	0.530	-0.002	0.837	0.640
cg01297101	yellow	17	37,356,023	TSS1500	N_Shore	RPL19	0.530	-0.001	0.115	0.857
cg18680626	yellow	4	6,052,527	Body	OpenSea	JAKMIP1	0.530	0.016	0.483	0.017
cg07734358	yellow	22	47,370,132	Body	Island	TBC1D22A	0.530	-0.004	0.590	0.836
cg03123289	yellow	19	58,858,635	Body	Island	A1BG	0.530	0.014	0.192	0.160
cg06064212	yellow	6	28,455,048		N_Shelf		0.530	0.005	0.857	0.565
cg18485877	yellow	14	94,402,477	Body	N_Shelf	ASB2	0.530	0.006	0.554	0.445
cg02925594	yellow	16	57,572,900		S_Shelf		0.530	0.003	0.585	0.780
cg25588844	yellow	2	10,037,561	Body	OpenSea	TAF1B	0.530	-0.017	0.714	0.186

cg22379463	yellow	3	45,260,330	OpenSea		0.530	0.010	0.455	0.178
cg11634297	yellow	19	54,479,736 Body	N_Shore	CACNG8	0.530	0.012	0.853	0.065
cg22785170	yellow	4	1,601,242	S_Shore		0.530	0.005	0.692	0.513
cg26644395	yellow	10	5,407,020 1stExon	OpenSea	UCN3	0.530	0.015	0.420	0.128
cg11386376	yellow	1	55,106,106 TSS1500	OpenSea	C1orf175	0.530	-0.004	0.093	0.418
cg27456951	yellow	17	37,351,756 Body	N_Shore	CACNB1	0.530	0.012	0.889	0.210
cg20047055	yellow	12	10,608,067 TSS1500	OpenSea	KLRC1	0.530	0.002	0.613	0.847
cg24508499	yellow	22	22,058,271 Body	Island	YPEL1	0.530	0.005	0.864	0.533
cg07301242	yellow	12	32,517,891 Body	OpenSea	BICD1	0.530	-0.001	0.706	0.884
cg16451872	yellow	15	25,684,818 TSS1500	S_Shore	UBE3A	0.530	-0.001	0.023	0.323
cg16172099	yellow	8	103,750,821	N_Shore		0.530	0.000	0.642	0.954
cg04377061	yellow	17	80,314,567	OpenSea		0.530	0.010	0.742	0.128
cg22249612	yellow	12	56,121,485 Body	N_Shore	CD63	0.530	0.002	0.043	0.459
cg24104608	yellow	6	170,461,816	OpenSea		0.530	0.000	0.809	0.970
cg15630950	yellow	6	32,976,897 Body	S_Shore	HLA-DOA	0.530	0.016	0.617	0.229
cg02011404	yellow	12	57,400,532 TSS1500	S_Shore	ZBTB39	0.530	0.010	0.049	0.009
cg00749118	yellow	7	1,938,791 Body	S_Shore	MAD1L1	0.530	-0.011	0.859	0.510
cg10953003	yellow	1	24,195,469 TSS1500	S_Shore	FUCA1	0.530	-0.015	0.408	0.270
cg12484153	yellow	6	31,634,875 Body	S_Shore	CSNK2B	0.530	0.007	0.847	0.203
cg00317010	yellow	3	52,569,752 TSS1500	N_Shore	NT5DC2	0.530	-0.001	0.917	0.837
cg23555340	yellow	14	105,865,269	Island		0.529	0.006	0.320	0.545
cg11051158	yellow	2	75,938,223 TSS200	S_Shore	C2orf3	0.529	-0.003	0.140	0.659
cg14741143	yellow	3	156,273,315 TSS1500	S_Shore	SSR3	0.529	0.011	0.243	0.425
cg11398517	yellow	20	42,355,625 1stExon	OpenSea	GTSF1L	0.529	0.008	0.532	0.233
cg19091245	yellow	10	133,508,648	S_Shore		0.529	0.024	0.835	0.013
cg04493432	yellow	4	8,202,280 5'UTR	OpenSea	SH3TC1	0.529	0.010	0.347	0.199
cg08584061	yellow	19	22,718,926	S_Shelf		0.529	0.010	0.892	0.202
cg11943058	yellow	21	44,253,516	OpenSea		0.529	-0.003	0.337	0.794
cg16280661	yellow	10	125,319,117	OpenSea		0.529	0.001	0.050	0.781
cg13962286	yellow	11	128,813,183 TSS1500	OpenSea	TP53AIP1	0.529	-0.010	0.840	0.111
cg27210136	yellow	17	45,932,641 5'UTR	S_Shelf	SP6	0.529	0.002	0.859	0.768
cg11086738	yellow	22	39,152,316 TSS1500	Island	UNC84B	0.529	-0.002	0.055	0.535
cg23375968	yellow	7	157,523,356 Body	N_Shore	PTPRN2	0.529	-0.010	0.574	0.381
cg04081637	yellow	10	88,183,346	OpenSea		0.529	0.009	0.772	0.241
cg20820996	yellow	1	33,749,849 Body	S_Shelf	ZNF362	0.529	-0.003	0.906	0.736
cg02073465	yellow	15	59,904,009 1stExon	OpenSea	GCNT3	0.529	0.008	0.504	0.472
cg03294961	yellow	20	31,594,014 TSS1500	OpenSea	BPIL1	0.529	0.000	0.934	0.975
cg19731055	yellow	19	5,892,313	Island		0.529	-0.002	0.375	0.884
cg16692277	yellow	13	51,640,948 TSS1500	OpenSea	GUCY1B2	0.529	0.002	0.629	0.725
cg12002455	yellow	10	121,609,179 Body	OpenSea	C10orf119	0.529	-0.002	0.593	0.884
cg25105633	yellow	14	105,480,568 5'UTR	OpenSea	CDCA4	0.529	0.015	0.751	0.069
cg26566927	yellow	16	1,148,030	S_Shelf		0.529	0.007	0.704	0.407
cg04717045	yellow	11	69,468,789 3'UTR	N_Shore	CCND1	0.529	0.011	0.703	0.136
cg14200631	yellow	14	77,041,210	OpenSea		0.529	0.012	0.646	0.294
cg27101802	yellow	5	172,638,210	OpenSea		0.529	0.011	0.779	0.119
cg06583259	yellow	11	118,758,992 Body	OpenSea	CXCR5	0.529	0.017	0.549	0.026
cg15219811	yellow	10	104,259,328 Body	N_Shelf	ACTR1A	0.529	0.002	0.968	0.282
cg11069748	yellow	10	118,569,479	OpenSea		0.529	0.020	0.489	0.019
cg08425543	yellow	2	50,388,775 Body	OpenSea	NRXN1	0.529	-0.010	0.925	0.302
cg06949933	yellow	2	61,406,491 5'UTR	S_Shore	AHSA2	0.529	0.003	0.652	0.582
cg15497834	yellow	20	48,998,834	OpenSea		0.529	0.012	0.414	0.141
cg23986145	yellow	17	40,171,939 TSS200	Island	NKIRAS2	0.529	0.000	0.041	0.826
cg18736186	yellow	15	49,462,118 TSS1500	OpenSea	GALK2	0.529	0.005	0.408	0.422
cg17472428	yellow	17	1,160,169	N_Shelf		0.529	0.014	0.603	0.092
cg07184627	yellow	18	74,796,580 Body	N_Shelf	MBP	0.529	0.005	0.549	0.575
cg03139228	yellow	18	77,082,448 Body	OpenSea	ATP9B	0.529	-0.004	0.935	0.582
cg13076718	yellow	19	2,945,492 TSS1500	Island	ZNF77	0.529	-0.013	0.330	0.373
cg26596719	yellow	7	142,986,429 Body	S_Shore	CASP2	0.529	0.006	0.169	0.705
cg00741954	yellow	6	1,766,046 Body	OpenSea	GMDS	0.529	0.001	0.822	0.882
cg15343224	yellow	11	134,306,578	OpenSea		0.529	-0.005	0.784	0.464
cg14695497	yellow	12	132,860,966 Body	N_Shore	GALNT9	0.529	0.006	0.557	0.709
cg02215611	yellow	16	67,918,965 Body	S_Shore	NRN1L	0.529	0.008	0.366	0.308
cg11320144	yellow	20	1,975,276 TSS1500	OpenSea	PDYN	0.529	0.009	0.669	0.222
cg12212774	yellow	19	1,615,407 Body	Island	TCF3	0.529	0.001	0.903	0.857
cg22911184	yellow	4	57,485,847	OpenSea		0.529	0.024	0.694	0.037
cg11937797	yellow	17	61,530,777	OpenSea		0.529	0.002	0.450	0.715
cg15337107	yellow	11	41,414,012	OpenSea		0.528	-0.021	0.532	0.138

cg14640865	yellow	7	100,730,578	5'UTR	N_Shore	TRIM56	0.528	0.003	0.731	0.573
cg08968863	yellow	10	43,915,835		OpenSea		0.528	-0.001	0.086	0.763
cg12105077	yellow	11	74,181,785		S_Shelf		0.528	0.005	0.551	0.535
cg27285761	yellow	7	4,815,811	Body	S_Shore	KIAA0415	0.528	0.004	0.095	0.581
cg15105996	yellow	1	855,445	TSS1500	S_Shore	FLJ39609	0.528	-0.003	0.591	0.736
cg08287334	yellow	19	1,854,633	Body	Island	KLF16	0.528	-0.007	0.919	0.420
cg24136318	yellow	17	75,454,130	Body	OpenSea	9-Sep	0.528	0.002	0.544	0.844
cg01835021	yellow	6	31,730,260	Body	OpenSea	MSH5	0.528	0.003	0.537	0.633
cg02741056	yellow	16	84,347,783	Body	S_Shore	WFDC1	0.528	-0.003	0.534	0.674
cg15755348	yellow	7	101,768,874	Body	OpenSea	CUX1	0.528	0.009	0.495	0.392
cg26619624	yellow	7	96,339,434	TSS1500	S_Shore	SHFM1	0.528	-0.001	0.505	0.953
cg20600404	yellow	2	9,960,583		OpenSea		0.528	0.002	0.512	0.792
cg11426800	yellow	2	23,710,000	5'UTR	OpenSea	KLHL29	0.528	0.010	0.465	0.070
cg15701210	yellow	19	55,104,604	TSS1500	OpenSea	LILRA1	0.528	-0.007	0.622	0.292
cg16183015	yellow	19	54,659,433	3'UTR	N_Shelf	LENG1	0.528	-0.004	0.865	0.523
cg00900242	yellow	2	200,929,967		OpenSea		0.528	0.003	0.364	0.579
cg10259231	yellow	16	1,133,172		S_Shelf		0.528	0.008	0.778	0.254
cg27374199	yellow	21	39,493,616	Body	OpenSea	DSCR8	0.528	0.000	0.613	0.982
cg25720625	yellow	12	2,247,784	Body	OpenSea	CACNA1C	0.528	0.002	0.784	0.710
cg25806491	yellow	2	221,320,501		OpenSea		0.528	0.001	0.763	0.941
cg21311067	yellow	19	4,916,983	Body	S_Shore	UHRF1	0.528	0.005	0.909	0.414
cg06073139	yellow	16	58,718,950	TSS1500	S_Shore	SLC38A7	0.528	-0.017	0.433	0.121
cg12583325	yellow	7	75,695,788	3'UTR	OpenSea	MDH2	0.528	0.002	0.941	0.733
cg11209892	yellow	7	128,695,548	Body	N_Shore	LOC286016	0.528	0.010	0.051	0.023
cg06709089	yellow	17	7,466,447	Body	S_Shore	SENTP3	0.528	0.010	0.796	0.184
cg16126747	yellow	1	249,131,957	TSS1500	N_Shore	ZNF672	0.528	-0.001	0.055	0.891
cg14620839	yellow	11	299,503	1stExon	Island	IFITM5	0.528	0.005	0.793	0.708
cg02662495	yellow	12	34,759,279		OpenSea		0.528	0.000	0.588	0.959
cg07381930	yellow	10	99,608,915	TSS1500	N_Shore	GOLGA7B	0.528	0.015	0.577	0.144
cg19666541	yellow	15	31,516,111		OpenSea		0.528	0.015	0.457	0.270
cg00223135	yellow	15	43,799,245	5'UTR	N_Shelf	TP53BP1	0.528	0.013	0.693	0.078
cg06514699	yellow	1	9,677,674		OpenSea		0.528	0.001	0.971	0.569
cg21919719	yellow	11	1,446,802	Body	OpenSea	BRSK2	0.528	-0.003	0.302	0.740
cg08598780	yellow	11	116,660,514	3'UTR	N_Shore	APOA5	0.528	0.007	0.662	0.241
cg12892666	yellow	4	10,299,145		OpenSea		0.528	0.030	0.604	0.082
cg08764465	yellow	8	15,308,417		OpenSea		0.528	0.012	0.636	0.213
cg19727491	yellow	7	4,265,548	Body	OpenSea	SDK1	0.528	0.012	0.912	0.026
cg14982987	yellow	14	102,302,025	Body	OpenSea	PPP2R5C	0.528	-0.001	0.907	0.929
cg01109279	yellow	8	1,920,950	TSS1500	N_Shore	KBTBD11	0.527	0.026	0.456	0.025
cg03197992	yellow	2	113,990,925	Body	N_Shelf	PAX8	0.527	0.010	0.782	0.144
cg08519447	yellow	19	3,769,991	3'UTR	N_Shore	RAX2	0.527	0.010	0.643	0.123
cg07364646	yellow	1	52,025,012		OpenSea		0.527	0.003	0.336	0.681
cg12285605	yellow	15	68,785,674		OpenSea		0.527	0.013	0.286	0.396
cg11638347	yellow	21	38,352,880	5'UTR	Island	HLCS	0.527	0.013	0.316	0.049
cg24796852	yellow	19	39,827,269	TSS1500	OpenSea	GMFG	0.527	0.002	0.366	0.733
cg06633615	yellow	10	131,592,944		S_Shore		0.527	0.002	0.822	0.865
cg02482717	yellow	1	182,368,734	1stExon	OpenSea	TEDDM1	0.527	-0.001	0.874	0.825
cg07875993	yellow	4	79,096,535	Body	OpenSea	FRAS1	0.527	-0.013	0.813	0.304
cg13792714	yellow	3	114,103,345	5'UTR	OpenSea	ZBTB20	0.527	0.001	0.866	0.911
cg16724481	yellow	1	63,464,679		OpenSea		0.527	0.006	0.581	0.662
cg10789601	yellow	5	176,088,586		OpenSea		0.527	0.008	0.853	0.137
cg18181363	yellow	1	2,766,788		OpenSea		0.527	0.010	0.731	0.169
cg10143911	yellow	3	128,506,519	5'UTR	OpenSea	RAB7A	0.527	0.004	0.956	0.235
cg15916350	yellow	5	179,468,715	Body	OpenSea	RNF130	0.527	0.010	0.829	0.037
cg05435212	yellow	3	27,632,180		OpenSea		0.527	-0.007	0.760	0.479
cg14162417	yellow	1	226,315,857		OpenSea		0.527	0.011	0.625	0.148
cg00924265	yellow	8	28,258,117		N_Shore		0.527	0.021	0.530	0.011
cg27232130	yellow	6	163,607,984	Body	OpenSea	PACRG	0.527	0.003	0.762	0.659
cg02281790	yellow	6	144,472,333	5'UTR	S_Shore	STX11	0.527	0.004	0.222	0.638
cg01792666	yellow	16	30,710,912	5'UTR	S_Shore	SRCAP	0.527	0.001	0.132	0.899
cg27029744	yellow	16	832,683	Body	N_Shore	MSLNL	0.527	0.004	0.678	0.655
cg22809826	yellow	19	946,148	Body	N_Shore	ARID3A	0.527	0.001	0.923	0.900
cg13179915	yellow	11	65,362,949	1stExon	N_Shelf	KCNK7	0.527	0.009	0.819	0.137
cg24866700	yellow	19	2,235,103	TSS1500	N_Shore	MIR1227	0.527	0.008	0.301	0.094
cg01310330	yellow	7	1,787,194	3'UTR	S_Shore	ELFN1	0.527	0.006	0.808	0.427
cg10416784	yellow	2	58,797,233		OpenSea		0.527	-0.003	0.641	0.747
cg21659714	yellow	17	79,785,991	5'UTR	S_Shelf	FAM195B	0.527	-0.001	0.637	0.904

cg18331732	yellow	19	6,742,907	Body	S_Shore	TRIP10	0.527	0.005	0.571	0.593
cg20151476	yellow	7	1,607,408	Body	N_Shelf	PSMG3	0.527	0.024	0.815	0.058
cg17417496	yellow	20	34,021,414	3'UTR	N_Shore	GDF5	0.527	0.001	0.831	0.912
cg16389345	yellow	11	46,697,382		OpenSea		0.527	0.014	0.732	0.099
cg21457856	yellow	3	148,367,697		OpenSea		0.527	0.005	0.710	0.591
cg23658739	yellow	21	44,257,296		N_Shore		0.527	0.011	0.638	0.278
cg24791156	yellow	8	22,478,353	3'UTR	OpenSea	BIN3	0.527	0.004	0.702	0.678
cg19230867	yellow	3	42,103,367		OpenSea		0.527	0.003	0.207	0.755
cg00978822	yellow	5	54,467,244	TSS1500	N_Shore	MIR449B	0.526	-0.009	0.800	0.405
cg09546929	yellow	6	25,930,894	TSS200	OpenSea	SLC17A2	0.526	-0.003	0.775	0.647
cg13149442	yellow	18	43,303,777	TSS1500	OpenSea	SLC14A1	0.526	-0.004	0.950	0.337
cg14024889	yellow	19	17,633,905	TSS1500	S_Shore	FAM129C	0.526	0.007	0.859	0.402
cg04186415	yellow	6	170,047,532	Body	OpenSea	WDR27	0.526	-0.003	0.667	0.748
cg03032607	yellow	3	45,882,686	Body	N_Shore	LZTFL1	0.526	0.028	0.446	0.006
cg00456774	yellow	19	40,857,787	5'UTR	S_Shelf	PLD3	0.526	-0.001	0.773	0.938
cg11674130	yellow	22	50,523,689	5'UTR	OpenSea	MLC1	0.526	-0.005	0.539	0.687
cg04721719	yellow	20	3,992,787	5'UTR	N_Shelf	RNF24	0.526	-0.010	0.636	0.443
cg08367223	yellow	19	41,255,304	Body	N_Shore	C19orf54	0.526	0.016	0.658	0.124
cg04415736	yellow	14	100,798,844		S_Shelf		0.526	-0.006	0.710	0.414
cg04400620	yellow	16	30,385,284	TSS1500	N_Shelf	MYLPF	0.526	0.006	0.601	0.424
cg03896269	yellow	1	180,447,588	Body	OpenSea	ACBD6	0.526	-0.009	0.271	0.388
cg09870200	yellow	20	20,087,610	Body	OpenSea	C20orf26	0.526	0.013	0.393	0.152
cg21685427	yellow	20	42,187,356	TSS1500	OpenSea	SGK2	0.526	0.007	0.651	0.296
cg14018231	yellow	4	113,207,355	TSS1500	S_Shore	TIFA	0.526	0.004	0.102	0.511
cg07194984	yellow	11	2,128,771		OpenSea		0.526	0.005	0.874	0.384
cg05989862	yellow	11	67,896,186		S_Shore		0.526	-0.006	0.088	0.398
cg07827717	yellow	6	31,602,599	Body	S_Shelf	BAT2	0.526	0.006	0.662	0.339
cg26523005	yellow	3	42,947,267	TSS1500	N_Shore	ZNF662	0.526	0.003	0.581	0.714
cg23953820	yellow	6	30,851,051	TSS1500	N_Shore	DDR1	0.526	0.001	0.608	0.909
cg19301017	yellow	6	30,884,713	Body	S_Shelf	VAR52	0.526	0.000	0.953	0.927
cg04956382	yellow	5	137,203,640	1stExon	OpenSea	MYOT	0.526	0.001	0.376	0.939
cg13747967	yellow	16	57,392,618	TSS200	OpenSea	CCL22	0.526	0.016	0.523	0.051
cg15893356	yellow	7	138,645,516	Body	OpenSea	KIAA1549	0.526	0.011	0.717	0.340
cg14655843	yellow	9	114,688,737	Body	OpenSea	UGCG	0.526	-0.001	0.911	0.862
cg17158564	yellow	10	5,406,890	TSS200	OpenSea	UCN3	0.526	0.011	0.531	0.140
cg01196234	yellow	22	38,349,066	Body	N_Shore	C22orf23	0.526	-0.003	0.043	0.359
cg14889653	yellow	11	1,297,250	3'UTR	N_Shore	TOLLIP	0.526	0.005	0.696	0.378
cg22376214	yellow	7	4,836,291		S_Shelf		0.526	0.008	0.935	0.202
cg01368900	yellow	3	13,113,959	Body	N_Shore	IQSEC1	0.526	0.017	0.568	0.184
cg13178709	yellow	17	1,422,473	3'UTR	S_Shelf	PITPNA	0.526	0.004	0.761	0.584
cg17429587	yellow	12	124,905,230	Body	S_Shelf	NCOR2	0.526	0.003	0.846	0.672
cg00496026	yellow	10	102,766,610	Body	Island	LZTS2	0.526	0.005	0.638	0.563
cg23370883	yellow	7	44,180,604	Body	OpenSea	MYL7	0.526	0.002	0.536	0.669
cg25664054	yellow	17	36,813,786		OpenSea		0.526	0.001	0.409	0.915
cg14331853	yellow	9	140,054,850	Body	N_Shore	GRIN1	0.526	-0.002	0.372	0.843
cg23896972	yellow	12	122,079,102	Body	OpenSea	ORAI1	0.526	0.011	0.751	0.152
cg23937295	yellow	1	7,762,151	Body	N_Shelf	CAMTA1	0.526	0.009	0.372	0.345
cg13896192	yellow	1	40,149,432	Body	Island	HPCAL4	0.526	0.001	0.169	0.927
cg13679724	yellow	12	8,816,633	TSS1500	OpenSea	MFAP5	0.526	0.000	0.961	0.907
cg19091930	yellow	5	191,127	TSS1500	N_Shore	LRRC14B	0.526	-0.002	0.766	0.846
cg22010065	yellow	19	59,085,427	TSS1500	N_Shore	MZF1	0.526	0.010	0.197	0.257
cg18237548	yellow	8	8,860,050	TSS1500	N_Shore	ERI1	0.526	-0.025	0.644	0.102
cg04730276	yellow	2	228,586,426		S_Shelf		0.526	0.006	0.882	0.458
cg22147898	yellow	8	144,824,078		S_Shore		0.526	-0.007	0.854	0.256
cg03169242	yellow	11	9,638,619		S_Shelf		0.526	-0.002	0.640	0.690
cg07754492	yellow	2	202,047,754	5'UTR	OpenSea	CASP10	0.526	-0.003	0.082	0.735
cg06994589	yellow	1	11,771,376	Body	OpenSea	C1orf187	0.526	0.005	0.425	0.389
cg03490567	yellow	7	43,944,817	5'UTR	N_Shore	URGCP	0.526	-0.001	0.440	0.913
cg07306190	yellow	6	34,760,872	Body	S_Shore	UHRF1BP1	0.526	-0.002	0.025	0.238
cg11156702	yellow	5	9,495,659	5'UTR	OpenSea	SEMA5A	0.526	-0.004	0.708	0.672
cg04999148	yellow	11	65,188,955	TSS1500	N_Shore	NEAT1	0.526	-0.004	0.294	0.587
cg10625247	yellow	2	221,063,983		OpenSea		0.525	-0.003	0.936	0.609
cg27140247	yellow	22	46,450,102	TSS200	Island	C22orf26	0.525	-0.006	0.042	0.077
cg22673999	yellow	6	37,752,301		OpenSea		0.525	-0.003	0.069	0.587
cg02480685	yellow	8	96,163,530	5'UTR	OpenSea	PLEKHF2	0.525	-0.014	0.926	0.043
cg02492207	yellow	1	1,560,894	Body	Island	MIB2	0.525	0.011	0.550	0.179
cg04519421	yellow	11	819,128	5'UTR	Island	PNPLA2	0.525	0.003	0.037	0.386

cg02012159	yellow	1	229,477,078	Body	N_Shore	C1orf96	0.525	-0.001	0.359	0.887
cg07605836	yellow	11	66,055,236	Body	N_Shore	YIF1A	0.525	0.015	0.648	0.026
cg08925720	yellow	11	61,314,936	Body	OpenSea	SYT7	0.525	0.015	0.808	0.273
cg19479744	yellow	6	156,022,315		OpenSea		0.525	0.001	0.520	0.893
cg11967111	yellow	4	24,105,842		OpenSea		0.525	-0.003	0.496	0.770
cg05938624	yellow	8	1,314,612		S_Shelf		0.525	0.006	0.658	0.425
cg15019432	yellow	19	1,964,456	5'UTR	S_Shelf	CSNK1G2	0.525	0.004	0.712	0.586
cg14975798	yellow	3	111,835,839	3'UTR	OpenSea	C3orf52	0.525	-0.002	0.738	0.828
cg15117681	yellow	17	80,202,426	3'UTR	N_Shore	CSNK1D	0.525	0.003	0.458	0.667
cg10435928	yellow	5	114,796,584		OpenSea		0.525	-0.002	0.954	0.789
cg16717191	yellow	14	105,974,435		OpenSea		0.525	0.008	0.637	0.358
cg06572563	yellow	19	1,132,966	Body	OpenSea	SBNO2	0.525	0.012	0.632	0.116
cg24361048	yellow	1	3,652,931	3'UTR	S_Shelf	KIAA0495	0.525	-0.007	0.884	0.156
cg02792333	yellow	11	64,051,402	TSS1500	N_Shore	GPR137	0.525	0.002	0.874	0.754
cg04316941	yellow	1	202,224,262	Body	OpenSea	LGR6	0.525	0.003	0.423	0.623
cg06258593	yellow	16	48,199,609		OpenSea		0.525	-0.003	0.225	0.632
cg00086493	yellow	19	51,535,348	Body	Island	KLK12	0.525	0.009	0.715	0.263
cg10284406	yellow	13	53,643,428		OpenSea		0.525	0.003	0.242	0.807
cg23560546	yellow	2	159,652,019	Body	OpenSea	DAPL1	0.525	0.006	0.298	0.601
cg15796819	yellow	17	19,651,190	5'UTR	S_Shelf	ALDH3A1	0.525	0.005	0.455	0.452
cg09308336	yellow	2	211,090,247	TSS200	S_Shore	ACADL	0.525	0.001	0.023	0.494
cg06513977	yellow	6	33,288,998	Body	Island	DAXX	0.525	0.023	0.748	0.003
cg07148968	yellow	10	26,072,483		OpenSea		0.525	-0.006	0.937	0.205
cg27428856	yellow	6	111,927,480	TSS200	OpenSea	TRAF3IP2	0.525	0.000	0.180	0.965
cg12494774	yellow	2	7,811,924		OpenSea		0.525	0.004	0.888	0.586
cg06917763	yellow	7	130,033,247		OpenSea		0.525	0.018	0.744	0.322
cg00270654	yellow	16	87,735,724	Body	N_Shore	LOC1001296	0.525	0.003	0.874	0.506
cg15286180	yellow	10	134,679,435		N_Shelf		0.525	-0.005	0.757	0.452
cg19653594	yellow	19	40,972,323	TSS1500	Island	SPTBN4	0.525	0.018	0.462	0.183
cg05859441	yellow	16	24,989,662	Body	OpenSea	ARHGAP17	0.525	-0.012	0.744	0.240
cg03101664	yellow	11	64,794,610	TSS1500	N_Shore	SNX15	0.525	0.000	0.307	0.999
cg14286140	yellow	9	93,279,614		OpenSea		0.525	0.005	0.284	0.516
cg04528072	yellow	2	27,371,642	TSS1500	N_Shore	TCF23	0.525	0.001	0.880	0.820
cg06916446	yellow	5	179,105,010		N_Shore		0.525	-0.001	0.020	0.743
cg04882759	yellow	17	12,569,901	Body	S_Shore	MYOCD	0.525	-0.003	0.927	0.500
cg10086720	yellow	6	33,169,259	1stExon	S_Shore	SLC39A7	0.524	0.005	0.184	0.666
cg24476584	yellow	19	58,883,830	5'UTR	S_Shelf	ZNF837	0.524	-0.002	0.639	0.766
cg03251302	yellow	7	64,501,077		S_Shelf		0.524	0.003	0.798	0.759
cg14314729	yellow	5	179,815,975		N_Shore		0.524	0.006	0.337	0.389
cg24656596	yellow	5	9,596,893		OpenSea		0.524	0.017	0.591	0.111
cg01130922	yellow	7	552,776	Body	N_Shelf	PDGFA	0.524	0.002	0.552	0.784
cg23795082	yellow	4	843,318	3'UTR	Island	GAK	0.524	0.013	0.727	0.056
cg03261155	yellow	1	153,413,940	TSS1500	OpenSea	S100A7L2	0.524	-0.012	0.628	0.124
cg08306614	yellow	7	44,423,096	3'UTR	OpenSea	NUDCD3	0.524	0.014	0.881	0.068
cg13403689	yellow	6	32,820,641	TSS1500	N_Shore	PSMB9	0.524	-0.002	0.292	0.845
cg25424279	yellow	11	65,683,543		N_Shore		0.524	0.010	0.901	0.105
cg22446399	yellow	2	27,326,580	Body	OpenSea	CGREF1	0.524	0.006	0.810	0.360
cg15447912	yellow	12	132,857,715	Body	N_Shore	GALNT9	0.524	0.015	0.598	0.087
cg20642413	yellow	20	62,338,338	TSS1500	N_Shore	ZGPAT	0.524	0.000	0.164	0.983
cg19553169	yellow	4	17,234,719		OpenSea		0.524	0.008	0.564	0.414
cg13915538	yellow	19	22,379,264	Body	OpenSea	ZNF676	0.524	0.001	0.789	0.872
cg26366616	yellow	8	22,439,831	Body	S_Shelf	PDLIM2	0.524	0.001	0.614	0.936
cg02527527	yellow	22	38,303,310	Body	S_Shore	MICALL1	0.524	0.000	0.300	0.979
cg21776813	yellow	3	13,314,980		OpenSea		0.524	0.005	0.791	0.536
cg18251187	yellow	5	136,984,731	TSS1500	OpenSea	MIR874	0.524	-0.007	0.623	0.625
cg26543150	yellow	10	91,043,813		OpenSea		0.524	0.003	0.187	0.788
cg26675129	yellow	4	110,971,665	3'UTR	OpenSea	ELOVL6	0.524	-0.005	0.630	0.526
cg13601855	yellow	2	120,190,297	Body	Island	TMEM37	0.524	-0.002	0.066	0.635
cg18862215	yellow	19	35,085,677	TSS200	OpenSea	SCGBL	0.524	0.009	0.356	0.437
cg03525254	yellow	1	110,032,911	Body	N_Shelf	ATXN7L2	0.524	0.003	0.710	0.694
cg15592062	yellow	6	167,189,543	Body	OpenSea	RPS6KA2	0.524	0.005	0.530	0.496
cg19371795	yellow	19	7,295,107	TSS1500	Island	INSR	0.524	-0.003	0.295	0.666
cg12495889	yellow	22	50,873,337	Body	Island	SAPS2	0.524	0.007	0.918	0.271
cg12476754	yellow	7	47,344,750	Body	OpenSea	TNS3	0.524	0.004	0.859	0.582
cg16861031	yellow	12	105,477,526	Body	N_Shore	ALDH1L2	0.524	0.017	0.125	0.092
cg13790576	yellow	9	139,640,661	Body	Island	LCN6	0.524	0.017	0.688	0.018
cg26118131	yellow	11	117,947,214	TSS1500	OpenSea	TMPRSS4	0.524	0.008	0.608	0.255

cg08138586	yellow	2	205,411,786	Body	S_Shore	PARD3B	0.524	0.000	0.630	0.997
cg05558539	yellow	12	124,922,641	Body	OpenSea	NCOR2	0.524	-0.002	0.767	0.759
cg00445232	yellow	15	67,460,571	Body	OpenSea	SMAD3	0.524	0.007	0.434	0.299
cg15872043	yellow	3	183,960,177	3'UTR	S_Shore	ALG3	0.524	0.009	0.834	0.127
cg09738193	yellow	16	67,926,317	TSS1500	N_Shore	PSKH1	0.524	0.010	0.928	0.090
cg17707487	yellow	13	114,261,869	Body	S_Shore	TFDP1	0.524	-0.005	0.856	0.327
cg07468397	yellow	21	48,090,508		S_Shelf		0.524	0.008	0.687	0.199
cg04560767	yellow	22	19,107,491	Body	N_Shore	DGCR2	0.523	-0.008	0.931	0.110
cg05494483	yellow	5	17,001,489		OpenSea		0.523	0.005	0.859	0.599
cg17159058	yellow	8	1,704,075		OpenSea		0.523	-0.005	0.398	0.633
cg26525025	yellow	12	52,521,183		OpenSea		0.523	0.001	0.645	0.838
cg00538298	yellow	11	1,084,334	Body	S_Shore	MUC2	0.523	0.008	0.664	0.327
cg14854503	yellow	8	19,540,272	TSS200	OpenSea	CSGALNACT1	0.523	-0.004	0.873	0.677
cg26683137	yellow	17	33,447,208	TSS1500	S_Shore	FNDC8	0.523	0.001	0.325	0.887
cg22972519	yellow	17	3,438,413	Body	N_Shore	TRPV3	0.523	-0.009	0.549	0.344
cg26928195	yellow	19	1,624,734	Body	N_Shore	TCF3	0.523	0.004	0.670	0.619
cg18137450	yellow	1	224,620,806	Body	N_Shore	WDR26	0.523	0.002	0.166	0.752
cg09035307	yellow	7	102,985,587	TSS1500	S_Shore	DNAJC2	0.523	0.024	0.398	0.078
cg20810222	yellow	2	109,947,649	Body	OpenSea	SH3RF3	0.523	-0.009	0.341	0.386
cg06642219	yellow	1	5,586,147		OpenSea		0.523	0.008	0.389	0.112
cg00530414	yellow	16	18,800,193	Body	N_Shore	RPS15A	0.523	-0.002	0.392	0.846
cg04822621	yellow	5	169,724,656	1stExon	OpenSea	LCP2	0.523	-0.005	0.884	0.534
cg25309041	yellow	5	131,343,261	Body	N_Shelf	ACSL6	0.523	0.000	0.760	0.972
cg25644649	yellow	8	145,097,639	Body	N_Shelf	SPATC1	0.523	0.007	0.603	0.380
cg16411256	yellow	8	27,348,931	Body	S_Shore	EPHX2	0.523	0.001	0.036	0.706
cg01916058	yellow	7	99,016,932	Body	N_Shore	BUD31	0.523	-0.001	0.922	0.931
cg09305503	yellow	17	9,088,206	Body	OpenSea	NTN1	0.523	0.009	0.485	0.364
cg24069262	yellow	19	56,180,134	Body	S_Shelf	U2AF2	0.523	0.009	0.858	0.143
cg07731312	yellow	16	88,887,321	Body	N_Shelf	GALNS	0.523	0.010	0.677	0.291
cg19714489	yellow	3	158,288,680	TSS1500	N_Shore	MLF1	0.523	0.004	0.038	0.236
cg00357971	yellow	20	61,923,848	TSS1500	N_Shelf	COL20A1	0.523	0.010	0.614	0.182
cg13612317	yellow	10	32,345,864	TSS1500	S_Shore	KIF5B	0.523	0.015	0.825	0.105
cg10272968	yellow	19	2,611,105	5'UTR	Island	GN7	0.523	-0.003	0.056	0.200
cg10322499	yellow	1	110,950,903	TSS1500	S_Shore	HBXIP	0.523	0.012	0.158	0.222
cg13656556	yellow	5	179,763,494	Body	OpenSea	GFPT2	0.523	0.003	0.841	0.626
cg19870978	yellow	5	137,673,245	1stExon	N_Shore	FAM53C	0.523	0.007	0.186	0.268
cg03386765	yellow	11	118,763,674	Body	OpenSea	CXCR5	0.523	0.006	0.367	0.358
cg08998192	yellow	6	32,805,570	Body	N_Shore	TAP2	0.523	-0.006	0.526	0.613
cg03084710	yellow	1	150,603,058	TSS1500	S_Shore	ENSA	0.523	0.004	0.963	0.113
cg01238991	yellow	8	99,076,314	TSS1500	N_Shore	C8orf47	0.523	-0.004	0.637	0.695
cg02467024	yellow	12	8,187,972	5'UTR	S_Shelf	FOXJ2	0.523	-0.002	0.669	0.781
cg07318609	yellow	10	128,585,354		OpenSea		0.523	0.017	0.449	0.227
cg18197354	yellow	8	22,476,983	Body	OpenSea	KIAA1967	0.523	0.001	0.842	0.826
cg11313780	yellow	8	103,817,950		N_Shore		0.523	0.007	0.816	0.187
cg02268674	yellow	12	56,524,689	Body	S_Shore	ESYT1	0.523	-0.002	0.478	0.686
cg17325911	yellow	2	216,976,926	Body	S_Shelf	XRCC5	0.523	0.017	0.883	0.019
cg23331961	yellow	15	72,564,179	TSS1500	N_Shore	PARP6	0.523	0.007	0.430	0.549
cg09054960	yellow	19	15,590,328	TSS200	OpenSea	PGLYRP2	0.523	0.004	0.551	0.505
cg02802029	yellow	3	145,879,686	TSS1500	S_Shore	PLOD2	0.523	0.002	0.060	0.743
cg02990033	yellow	20	3,643,863	Body	S_Shore	GFRA4	0.523	0.005	0.680	0.460
cg17968880	yellow	1	235,506,016	Body	OpenSea	GGPS1	0.523	0.001	0.948	0.831
cg23324537	yellow	8	110,656,096	Body	N_Shore	GOLSYN	0.523	0.033	0.293	0.009
cg16087709	yellow	17	9,132,272	Body	OpenSea	NTN1	0.523	0.011	0.611	0.164
cg19709146	yellow	11	47,745,115	Body	OpenSea	FNBP4	0.523	-0.002	0.907	0.778
cg12187098	yellow	12	9,265,053	Body	OpenSea	A2M	0.523	-0.005	0.964	0.395
cg07976816	yellow	4	6,883,843	3'UTR	OpenSea	KIAA0232	0.523	0.002	0.954	0.745
cg14265709	yellow	8	70,740,248	Body	N_Shelf	SLC05A1	0.522	0.005	0.739	0.681
cg06417644	yellow	16	28,081,331		OpenSea		0.522	0.014	0.627	0.068
cg07038822	yellow	11	125,830,798	3'UTR	OpenSea	CDON	0.522	0.012	0.721	0.104
cg05405094	yellow	12	20,141,722		OpenSea		0.522	-0.001	0.179	0.904
cg07911673	yellow	17	8,198,092	1stExon	N_Shore	SLC25A35	0.522	-0.010	0.839	0.140
cg09146813	yellow	5	178,286,626	TSS1500	N_Shore	ZNF354B	0.522	0.003	0.785	0.760
cg17557540	yellow	6	31,166,174	Body	S_Shore	HCG27	0.522	0.015	0.327	0.040
cg04494791	yellow	16	70,196,247		OpenSea		0.522	-0.001	0.700	0.891
cg09936839	yellow	19	4,181,854	Body	N_Shore	SIRT6	0.522	0.011	0.856	0.208
cg11405475	yellow	1	203,830,200	TSS1500	N_Shore	SNRPE	0.522	-0.001	0.694	0.968
cg03134147	yellow	1	20,209,848	Body	S_Shore	OTUD3	0.522	0.001	0.192	0.885

cg16710042	yellow	2	165,760,725	Body	OpenSea	SLC38A11	0.522	0.022	0.716	0.024
cg14667104	yellow	12	120,578,192	Body	OpenSea	GCN1L1	0.522	0.002	0.827	0.783
cg27468419	yellow	8	57,309,109	TSS1500	OpenSea	SDR16C6	0.522	0.010	0.751	0.346
cg05533723	yellow	15	31,441,236		OpenSea		0.522	0.007	0.511	0.230
cg20070768	yellow	15	74,285,128	TSS1500	S_Shore	STOML1	0.522	-0.006	0.912	0.360
cg12739914	yellow	3	195,552,429		OpenSea		0.522	0.002	0.899	0.758
cg13778274	yellow	9	132,478,358	Body	N_Shelf	PRRX2	0.522	0.004	0.874	0.732
cg04663057	yellow	3	46,933,782	Body	Island	PTH1R	0.522	0.000	0.095	0.943
cg23702727	yellow	17	73,642,607	Body	OpenSea	RECQL5	0.522	0.003	0.386	0.602
cg06752698	yellow	7	98,366,427		OpenSea		0.522	0.010	0.770	0.262
cg22739115	yellow	12	124,661,629		OpenSea		0.522	0.001	0.847	0.870
cg23487721	yellow	3	54,226,648	Body	OpenSea	CACNA2D3	0.522	0.002	0.815	0.847
cg07925415	yellow	7	155,191,898		OpenSea		0.522	-0.004	0.560	0.675
cg05914935	yellow	16	10,522,199	TSS1500	OpenSea	ATF7IP2	0.522	0.012	0.865	0.178
cg05573809	yellow	5	14,036,481		OpenSea		0.522	-0.010	0.610	0.647
cg06718763	yellow	1	24,828,586	TSS1500	N_Shore	RCAN3	0.522	0.005	0.161	0.653
cg11553618	yellow	4	185,905,046		OpenSea		0.522	0.010	0.710	0.541
cg05575375	yellow	4	3,692,375		OpenSea		0.522	0.001	0.584	0.872
cg04964669	yellow	12	117,536,182	Body	N_Shore	TESC	0.522	0.012	0.114	0.160
cg21643262	yellow	8	144,646,939		N_Shelf		0.522	0.007	0.732	0.475
cg07687398	yellow	3	53,198,666	5'UTR	S_Shelf	PRKCD	0.522	0.001	0.974	0.422
cg03044444	yellow	13	113,355,356	Body	S_Shelf	ATP11A	0.522	-0.010	0.728	0.309
cg01604601	yellow	2	69,846,936	Body	OpenSea	AAK1	0.522	0.008	0.731	0.295
cg07092212	yellow	11	46,382,544	Body	OpenSea	DGKZ	0.522	0.006	0.873	0.221
cg08462306	yellow	1	45,273,545	TSS1500	S_Shore	BTBD19	0.522	-0.001	0.027	0.140
cg09682213	yellow	15	83,777,082	Body	S_Shore	TM6SF1	0.522	0.000	0.591	0.962
cg18560144	yellow	15	25,230,200	Body	OpenSea	PAR5	0.522	-0.002	0.934	0.777
cg01719223	yellow	7	2,205,727	Body	OpenSea	MAD1L1	0.522	0.007	0.674	0.522
cg24207161	yellow	6	155,464,712	Body	OpenSea	TIAM2	0.522	0.021	0.521	0.097
cg11979846	yellow	1	247,335,702	TSS1500	S_Shore	ZNF124	0.522	0.014	0.308	0.129
cg03347015	yellow	11	62,490,152	Body	N_Shelf	HNRNPUL2	0.522	0.004	0.825	0.577
cg26889552	yellow	5	179,032,532	Body	OpenSea	RUFY1	0.522	-0.002	0.816	0.891
cg15925343	yellow	5	33,895,508		S_Shelf		0.522	0.001	0.964	0.819
cg20805961	yellow	1	91,361,641		S_Shelf		0.522	-0.004	0.945	0.509
cg10407113	yellow	16	71,843,647	TSS1500	S_Shore	AP1G1	0.522	0.012	0.408	0.249
cg23516002	yellow	7	128,099,617		S_Shelf		0.522	0.001	0.271	0.866
cg22833428	yellow	6	1,436,791		OpenSea		0.522	-0.013	0.298	0.293
cg03566291	yellow	21	44,831,040		Island		0.522	0.001	0.848	0.846
cg23247185	yellow	3	14,530,356	3'UTR	OpenSea	SLC6A6	0.522	-0.001	0.754	0.956
cg00072426	yellow	16	86,592,512		S_Shelf		0.522	0.013	0.454	0.062
cg12571055	yellow	17	77,124,424	5'UTR	N_Shelf	HRNBP3	0.522	0.007	0.664	0.264
cg21901928	yellow	7	55,139,847	Body	OpenSea	EGFR	0.522	0.002	0.628	0.924
cg05523897	yellow	1	2,139,175	TSS200	S_Shore	C1orf86	0.522	0.015	0.339	0.218
cg22980079	yellow	4	2,627,118	TSS200	OpenSea	FAM193A	0.521	-0.003	0.676	0.773
cg24743156	yellow	14	39,734,964	TSS1500	N_Shore	CTAGE5	0.521	0.006	0.627	0.651
cg03469456	yellow	15	42,140,715	3'UTR	OpenSea	SPTBN5	0.521	0.003	0.668	0.683
cg17563229	yellow	7	552,323	Body	S_Shore	PDGFA	0.521	0.006	0.743	0.290
cg01510278	yellow	16	11,456,238		OpenSea		0.521	0.006	0.846	0.436
cg11307823	yellow	6	379,514		OpenSea		0.521	-0.005	0.726	0.418
cg06685590	yellow	16	15,818,816	3'UTR	OpenSea	NDE1	0.521	0.000	0.954	0.947
cg01380884	yellow	15	74,923,934	3'UTR	OpenSea	EDC3	0.521	0.010	0.844	0.049
cg20684097	yellow	8	124,054,893	TSS1500	S_Shore	DERL1	0.521	0.002	0.028	0.267
cg26350092	yellow	3	15,137,425	Body	N_Shelf	ZFYVE20	0.521	0.004	0.960	0.191
cg05239360	yellow	19	51,294,877	Body	Island	ACPT	0.521	0.011	0.651	0.203
cg16532606	yellow	17	46,036,419	TSS1500	OpenSea	PRR15L	0.521	0.003	0.597	0.686
cg14321245	yellow	17	34,314,768	TSS1500	OpenSea	CCL14	0.521	0.004	0.752	0.740
cg02766770	yellow	2	30,372,795	5'UTR	S_Shore	YPEL5	0.521	0.001	0.894	0.893
cg00876141	yellow	4	47,837,775	Body	N_Shore	CORIN	0.521	0.004	0.633	0.582
cg22747092	yellow	9	138,987,818	TSS1500	Island	NACC2	0.521	0.006	0.337	0.421
cg19052193	yellow	12	113,660,441	5'UTR	S_Shore	TPCN1	0.521	-0.013	0.206	0.123
cg06761220	yellow	2	239,078,090		OpenSea		0.521	0.008	0.572	0.460
cg19416590	yellow	10	1,592,894	Body	N_Shelf	ADARB2	0.521	0.004	0.715	0.508
cg20468939	yellow	19	14,550,855	TSS1500	N_Shore	PKN1	0.521	0.008	0.673	0.296
cg18376692	yellow	1	48,452,465		S_Shelf		0.521	0.008	0.195	0.227
cg02568531	yellow	11	820,843	Body	S_Shore	PNPLA2	0.521	0.004	0.550	0.485
cg13834112	yellow	15	90,361,639		S_Shelf		0.521	0.024	0.550	0.038
cg19844232	yellow	8	131,075,016	Body	OpenSea	ASAP1	0.521	0.003	0.957	0.222



cg18241877	yellow	12	120,706,015	S_Shelf		0.521	0.015	0.334	0.050
cg15074266	yellow	7	3,962,202 Body	OpenSea	SDK1	0.521	-0.010	0.803	0.436
cg25481833	yellow	6	1,036,080 Body	OpenSea	LOC285768	0.521	0.023	0.610	0.032
cg01309052	yellow	12	88,428,972 TSS1500	N_Shore	C12orf29	0.521	0.003	0.035	0.306
cg24147343	yellow	5	174,221,117	OpenSea		0.521	-0.004	0.224	0.610
cg00370047	yellow	11	1,481,436 Body	Island	BRSK2	0.521	0.009	0.479	0.408
cg03928900	yellow	3	55,693,880 TSS1500	OpenSea	C3orf51	0.521	-0.013	0.753	0.114
cg08457158	yellow	1	41,367,714	OpenSea		0.521	0.006	0.551	0.555
cg08943714	yellow	6	139,470,282 Body	OpenSea	HECA	0.521	0.005	0.175	0.635
cg04560689	yellow	11	75,165,732 Body	OpenSea	GDPD5	0.521	0.004	0.735	0.532
cg20339859	yellow	10	133,811,612	OpenSea		0.521	0.007	0.196	0.326
cg19646538	yellow	11	65,837,255 TSS1500	Island	PACS1	0.521	0.008	0.170	0.232
cg00004883	yellow	16	75,148,460 Body	Island	LDHD	0.521	0.005	0.970	0.191
cg14795268	yellow	1	1,341,852 Body	N_Shore	MRPL20	0.521	-0.004	0.134	0.670
cg15879755	yellow	7	150,755,834 TSS1500	N_Shore	CDK5	0.521	0.001	0.051	0.868
cg22023879	yellow	6	31,767,600 Body	S_Shelf	LSM2	0.521	0.001	0.906	0.883
cg09320690	yellow	19	48,216,502 TSS200	Island	EHD2	0.521	0.003	0.208	0.734
cg08005122	yellow	11	110,779,637	OpenSea		0.521	0.001	0.558	0.934
cg08270567	yellow	1	2,170,956 Body	OpenSea	SKI	0.521	0.001	0.908	0.852
cg11185950	yellow	5	73,482,658	OpenSea		0.521	0.004	0.647	0.716
cg23256343	yellow	15	30,163,825	OpenSea		0.521	0.000	0.894	0.959
cg11805111	yellow	6	26,054,552	N_Shore		0.521	-0.003	0.238	0.841
cg20927119	yellow	7	149,999,961 5'UTR	OpenSea	ACTR3C	0.521	-0.010	0.796	0.242
cg26360695	yellow	6	39,197,537 TSS1500	S_Shore	KCNK5	0.520	0.005	0.083	0.169
cg11731606	yellow	1	43,770,899 Body	S_Shore	TIE1	0.520	0.008	0.901	0.256
cg21905711	yellow	7	92,167,610 TSS200	OpenSea	MGC16142	0.520	0.007	0.848	0.360
cg13220917	yellow	2	242,480,249	N_Shore		0.520	0.038	0.245	0.105
cg16495940	yellow	12	6,802,733	S_Shelf		0.520	0.003	0.642	0.769
cg13375571	yellow	7	906,726 Body	S_Shore	UNC84A	0.520	0.001	0.287	0.869
cg25603587	yellow	19	12,076,549 Body	S_Shore	ZNF763	0.520	0.009	0.098	0.043
cg07379893	yellow	1	159,902,859 Body	S_Shelf	IGSF9	0.520	0.016	0.565	0.137
cg25492364	yellow	17	18,266,219 5'UTR	N_Shore	SHMT1	0.520	0.004	0.097	0.475
cg17709975	yellow	1	1,248,492 Body	Island	CPSF3L	0.520	0.004	0.933	0.385
cg17857094	yellow	6	30,907,280 TSS1500	OpenSea	DPCR1	0.520	0.001	0.561	0.833
cg26975848	yellow	2	104,961,016	OpenSea		0.520	0.006	0.061	0.213
cg19273668	yellow	1	201,199,004	S_Shelf		0.520	0.006	0.397	0.457
cg20997320	yellow	21	47,845,610 Body	Island	PCNT	0.520	0.009	0.769	0.192
cg13642749	yellow	9	35,653,818	N_Shelf		0.520	0.000	0.924	0.948
cg15676988	yellow	11	58,281,496	OpenSea		0.520	0.002	0.156	0.740
cg24441911	yellow	12	7,280,988 Body	OpenSea	RBP5	0.520	0.002	0.859	0.764
cg10556330	yellow	2	173,292,010 TSS1500	N_Shore	ITGA6	0.520	0.005	0.093	0.465
cg05392737	yellow	1	179,784,720 3'UTR	OpenSea	FAM163A	0.520	0.002	0.016	0.272
cg18976418	yellow	14	39,735,496 TSS1500	N_Shore	CTAGE5	0.520	0.022	0.329	0.082
cg02987387	yellow	19	38,974,074 Body	Island	RYR1	0.520	0.006	0.824	0.400
cg24238205	yellow	11	58,912,174 TSS200	S_Shore	FAM111A	0.520	-0.001	0.028	0.395
cg02567751	yellow	6	39,521,911 Body	OpenSea	KIF6	0.520	0.013	0.637	0.077
cg00466249	yellow	17	79,269,884 TSS1500	S_Shore	SLC38A10	0.520	0.003	0.721	0.771
cg21235678	yellow	7	1,130,967 5'UTR	N_Shore	GPER	0.520	0.004	0.822	0.578
cg00686694	yellow	4	2,793,774 TSS1500	N_Shore	SH3BP2	0.520	0.011	0.868	0.051
cg20100545	yellow	19	19,361,158 3'UTR	OpenSea	NCAN	0.520	0.002	0.099	0.831
cg00335892	yellow	22	21,213,899 Body	S_Shore	SNAP29	0.520	0.011	0.313	0.205
cg10099957	yellow	16	87,869,757 Body	OpenSea	SLC7A5	0.520	-0.008	0.797	0.638
cg26326621	yellow	14	77,332,983 Body	OpenSea	C14orf166B	0.520	-0.019	0.761	0.147
cg09643151	yellow	2	201,981,873 5'UTR	N_Shore	CFLAR	0.520	0.001	0.021	0.436
cg16778009	yellow	3	3,056,548 Body	OpenSea	CNTN4	0.520	0.002	0.862	0.819
cg20659941	yellow	18	55,888,395 5'UTR	OpenSea	NEDD4L	0.520	0.011	0.728	0.503
cg24527881	yellow	1	45,187,630 Body	N_Shelf	C1orf228	0.520	0.018	0.439	0.186
cg13557752	yellow	10	125,448,352 3'UTR	OpenSea	GPR26	0.520	-0.001	0.779	0.863
cg05189667	yellow	5	54,742,635 Body	OpenSea	PPAP2A	0.520	-0.009	0.293	0.331
cg23564664	yellow	2	113,997,917 Body	S_Shelf	PAX8	0.520	-0.005	0.233	0.672
cg15193473	yellow	13	103,453,215 5'UTR	Island	BIVM	0.520	-0.002	0.030	0.288
cg16233036	yellow	8	59,571,055 Body	N_Shore	NSMAF	0.519	0.000	0.049	0.880
cg19453794	yellow	4	700,219 5'UTR	S_Shore	PCGF3	0.519	-0.009	0.260	0.308
cg18614779	yellow	19	52,035,179 TSS200	OpenSea	SIGLEC6	0.519	0.008	0.293	0.444
cg27208307	yellow	10	70,847,399 TSS1500	OpenSea	SRGN	0.519	0.000	0.505	0.981
cg01610915	yellow	22	29,950,274 TSS1500	S_Shore	THOC5	0.519	0.018	0.451	0.094
cg04571130	yellow	3	128,967,393 TSS1500	N_Shore	COPG	0.519	-0.001	0.436	0.889

cg07064364	yellow	22	38,009,253	Body	S_Shelf	GGA1	0.519	-0.004	0.941	0.386
cg08906015	yellow	19	47,157,825	Body	OpenSea	DACT3	0.519	0.011	0.320	0.159
cg26280415	yellow	19	54,662,736	Body	N_Shore	LENG1	0.519	0.004	0.020	0.066
cg23083936	yellow	19	41,915,452	Body	OpenSea	BCKDHA	0.519	0.005	0.557	0.463
cg14150751	yellow	6	76,341,733	Body	OpenSea	SENP6	0.519	0.007	0.913	0.232
cg05969306	yellow	13	48,612,661	Body	S_Shore	NUDT15	0.519	0.002	0.533	0.837
cg14559422	yellow	1	26,148,138	5'UTR	S_Shore	FAM54B	0.519	-0.004	0.777	0.552
cg07228402	yellow	5	77,917,917	5'UTR	OpenSea	LHFPL2	0.519	-0.004	0.828	0.655
cg09427605	yellow	4	146,740,968	Body	OpenSea	ZNF827	0.519	0.007	0.814	0.479
cg23491841	yellow	2	242,811,149	TSS1500	N_Shelf	C2orf85	0.519	0.001	0.323	0.931
cg13776095	yellow	13	101,185,965	5'UTR	S_Shore	A2LD1	0.519	0.004	0.489	0.559
cg24331934	yellow	2	233,274,723	3'UTR	S_Shore	ALPL2	0.519	-0.019	0.575	0.107
cg09669411	yellow	16	4,901,503	5'UTR	S_Shelf	UBN1	0.519	-0.001	0.880	0.945
cg18885125	yellow	1	3,396,343	Body	S_Shore	ARHGEF16	0.519	-0.002	0.579	0.789
cg01065960	yellow	17	27,181,503	TSS1500	N_Shore	ERAL1	0.519	-0.002	0.344	0.822
cg02721952	yellow	19	4,182,885	TSS1500	S_Shore	SIRT6	0.519	0.014	0.139	0.257
cg19656633	yellow	5	180,074,582	Body	N_Shore	FLT4	0.519	0.012	0.664	0.046
cg22814740	yellow	1	78,442,554	Body	N_Shore	FUBP1	0.519	0.003	0.373	0.781
cg18239253	yellow	20	238,156	TSS1500	OpenSea	DEFB132	0.519	0.002	0.599	0.761
cg14184130	yellow	9	38,437,270		OpenSea		0.519	0.005	0.677	0.569
cg23909173	yellow	14	94,451,389		OpenSea		0.519	0.000	0.456	0.997
cg03854238	yellow	6	22,071,933	Body	OpenSea	FLJ22536	0.519	0.000	0.073	0.996
cg04865998	yellow	1	906,965	Body	S_Shore	PLEKHN1	0.519	0.003	0.702	0.629
cg12035880	yellow	5	6,447,235	TSS1500	N_Shore	UBE2QL1	0.519	0.005	0.584	0.306
cg03228555	yellow	19	45,174,912	5'UTR	OpenSea	CEACAM19	0.519	-0.003	0.647	0.796
cg12606891	yellow	1	7,913,872	TSS1500	OpenSea	UTS2	0.519	-0.005	0.770	0.634
cg23563866	yellow	8	22,246,575	5'UTR	OpenSea	SLC39A14	0.519	-0.006	0.848	0.410
cg24040155	yellow	11	68,200,735	Body	N_Shore	LRP5	0.519	0.011	0.779	0.120
cg23550060	yellow	12	57,484,316	Body	S_Shore	NAB2	0.519	0.007	0.449	0.508
cg04281159	yellow	1	25,354,366		OpenSea		0.519	0.009	0.618	0.280
cg01417594	yellow	15	72,406,367	TSS1500	N_Shelf	SENP8	0.519	-0.007	0.697	0.417
cg14404842	yellow	14	97,092,096		OpenSea		0.519	-0.005	0.342	0.447
cg21448513	yellow	8	57,103,638	5'UTR	OpenSea	PLAG1	0.519	0.001	0.314	0.853
cg05418915	yellow	2	196,426,178		OpenSea		0.519	0.006	0.844	0.563
cg16427239	yellow	16	6,623,995	5'UTR	OpenSea	A2BP1	0.519	0.000	0.474	0.958
cg13568659	yellow	6	159,438,801		OpenSea		0.519	0.002	0.932	0.715
cg15765380	yellow	3	150,477,722	Body	N_Shelf	SIAH2	0.519	-0.002	0.466	0.822
cg04902669	yellow	17	6,329,050	Body	OpenSea	AIPL1	0.519	-0.004	0.681	0.532
cg04201675	yellow	14	95,403,054		OpenSea		0.519	0.012	0.220	0.311
cg13257129	yellow	3	127,109,560		OpenSea		0.519	-0.003	0.640	0.778
cg14040796	yellow	19	49,403,969	TSS200	S_Shore	NUCB1	0.519	0.007	0.082	0.317
cg25683495	yellow	4	6,563,523		N_Shore		0.519	-0.004	0.633	0.612
cg23375247	yellow	19	2,772,041	5'UTR	N_Shore	SGTA	0.519	0.006	0.889	0.394
cg20486551	yellow	13	29,329,226		OpenSea		0.518	0.007	0.741	0.451
cg14228756	yellow	9	137,609,455	Body	OpenSea	COL5A1	0.518	0.010	0.858	0.160
cg24620418	yellow	15	34,637,638	TSS1500	OpenSea	C15orf55	0.518	0.005	0.945	0.146
cg18266594	yellow	3	24,296,286	5'UTR	OpenSea	THRB	0.518	0.006	0.532	0.527
cg22107710	yellow	2	55,289,198		OpenSea		0.518	-0.003	0.634	0.687
cg04719574	yellow	5	169,758,340	TSS200	OpenSea	LOC257358	0.518	0.006	0.310	0.451
cg06553033	yellow	12	53,270,239		S_Shore		0.518	0.017	0.758	0.130
cg14116025	yellow	9	138,066,924		N_Shore		0.518	0.013	0.789	0.016
cg26317549	yellow	15	48,497,296	TSS1500	OpenSea	SLC12A1	0.518	0.012	0.763	0.151
cg17633683	yellow	5	1,225,331	TSS200	N_Shore	SLC6A18	0.518	0.008	0.815	0.603
cg25598890	yellow	12	117,501,447	Body	OpenSea	TESC	0.518	0.011	0.817	0.100
cg15992730	yellow	12	7,848,093	1stExon	OpenSea	GDF3	0.518	-0.018	0.339	0.209
cg13897348	yellow	1	1,549,699	TSS1500	N_Shore	MIB2	0.518	0.023	0.304	0.266
cg05972216	yellow	4	185,905,015		OpenSea		0.518	0.005	0.572	0.697
cg05398967	yellow	14	62,280,172		S_Shore		0.518	0.011	0.158	0.172
cg24999862	yellow	15	101,552,878	Body	S_Shelf	LRRK1	0.518	0.010	0.583	0.211
cg02575691	yellow	10	133,039,348	Body	OpenSea	TCERG1L	0.518	0.005	0.640	0.479
cg26906217	yellow	11	17,251,956		S_Shore		0.518	0.023	0.682	0.113
cg07168214	yellow	17	7,380,112	5'UTR	N_Shelf	ZBTB4	0.518	0.010	0.891	0.228
cg03755158	yellow	11	612,680	Body	S_Shore	IRF7	0.518	0.004	0.714	0.568
cg18503554	yellow	3	189,839,061	5'UTR	S_Shore	LEPREL1	0.518	0.006	0.585	0.469
cg06423425	yellow	7	2,555,549	Body	N_Shelf	LFNG	0.518	0.004	0.930	0.199
cg27584255	yellow	1	234,963,549		OpenSea		0.518	0.003	0.902	0.624
cg06974034	yellow	2	158,453,600	Body	N_Shore	ACVR1C	0.518	0.013	0.435	0.242

cg10378804	yellow	20	31,261,863	TSS200	OpenSea	LOC284805	0.518	0.007	0.213	0.451
cg04267828	yellow	16	85,741,460	3'UTR	N_Shelf	C16orf74	0.518	0.003	0.663	0.714
cg24971162	yellow	7	158,800,986	TSS200	S_Shore	LOC154822	0.518	0.005	0.895	0.437
cg23057567	yellow	19	47,017,629		S_Shore		0.518	0.006	0.813	0.537
cg10053339	yellow	10	131,844,047		Island		0.518	0.000	0.800	0.945
cg12675996	yellow	20	310,635	1stExon	S_Shelf	SOX12	0.518	-0.004	0.688	0.444
cg02009651	yellow	4	75,480,226	TSS1500	N_Shore	AREG	0.518	0.001	0.368	0.901
cg11215644	yellow	6	12,296,435	3'UTR	OpenSea	EDN1	0.518	-0.001	0.331	0.868
cg09238801	yellow	14	74,179,101	1stExon	N_Shore	PNMA1	0.518	0.010	0.196	0.403
cg24754337	yellow	6	134,245,535		OpenSea		0.518	0.005	0.688	0.694
cg16008327	yellow	19	18,495,567	TSS1500	N_Shore	GDF15	0.518	0.001	0.720	0.895
cg18549547	yellow	19	49,054,908	TSS1500	OpenSea	SULT2B1	0.518	0.007	0.366	0.269
cg22032385	yellow	2	236,721,769	Body	OpenSea	AGAP1	0.518	-0.003	0.763	0.623
cg14603778	yellow	12	132,896,466	Body	Island	GALNT9	0.518	0.002	0.581	0.765
cg01306747	yellow	16	68,681,018	Body	S_Shore	CDH3	0.518	0.006	0.797	0.569
cg25464787	yellow	1	158,904,784	5'UTR	OpenSea	PYHIN1	0.518	-0.002	0.968	0.662
cg17981552	yellow	4	8,643,813		N_Shelf		0.518	0.014	0.552	0.042
cg15203777	yellow	1	159,140,702	TSS1500	N_Shore	CADM3	0.518	0.005	0.742	0.459
cg13443592	yellow	10	43,429,755		S_Shore		0.517	0.004	0.434	0.641
cg24430528	yellow	4	76,599,500	TSS1500	S_Shore	G3BP2	0.517	0.021	0.728	0.145
cg24039149	yellow	1	3,389,106	Body	OpenSea	ARHGEF16	0.517	0.009	0.525	0.157
cg04036898	yellow	1	46,664,598	Body	OpenSea	POMGNT1	0.517	0.009	0.545	0.291
cg17588293	yellow	1	154,986,238	5'UTR	N_Shelf	ZBTB7B	0.517	-0.016	0.293	0.078
cg00143527	yellow	15	81,292,171	TSS1500	N_Shore	MESDC1	0.517	-0.006	0.597	0.411
cg22098742	yellow	6	31,936,565	Body	N_Shelf	SKIV2L	0.517	0.004	0.741	0.572
cg09321307	yellow	16	81,474,764		N_Shelf		0.517	0.011	0.380	0.068
cg20723792	yellow	10	126,360,669	Body	OpenSea	FAM53B	0.517	0.002	0.774	0.775
cg17528189	yellow	11	49,579,457	TSS1500	OpenSea	LOC440040	0.517	0.017	0.385	0.175
cg12975470	yellow	7	1,533,824	Body	N_Shore	INTS1	0.517	0.009	0.800	0.164
cg02124354	yellow	14	24,025,797	5'UTR	S_Shore	THTPA	0.517	0.006	0.090	0.286
cg14255562	yellow	19	6,370,619		N_Shelf		0.517	-0.001	0.897	0.952
cg25750363	yellow	12	133,156,565	Body	N_Shelf	FBRSL1	0.517	0.003	0.923	0.789
cg09621438	yellow	8	23,385,976	TSS1500	N_Shore	SLC25A37	0.517	0.006	0.156	0.298
cg22888752	yellow	2	220,253,668	TSS1500	S_Shore	DNPEP	0.517	0.008	0.484	0.308
cg01382502	yellow	16	22,252,504	Body	OpenSea	EEF2K	0.517	0.003	0.958	0.267
cg05065078	yellow	2	27,307,462	Body	N_Shore	EMILIN1	0.517	0.010	0.771	0.161
cg10550611	yellow	7	55,147,158	Body	OpenSea	EGFR	0.517	0.003	0.884	0.722
cg23489038	yellow	12	111,619,190	Body	OpenSea	CUX2	0.517	0.010	0.328	0.259
cg05780543	yellow	16	46,963,764	3'UTR	OpenSea	GPT2	0.517	0.003	0.139	0.752
cg04195425	yellow	5	2,007,611		Island		0.517	0.010	0.635	0.239
cg05636603	yellow	17	79,949,263	Body	N_Shelf	ASPSCR1	0.517	0.008	0.584	0.464
cg26304948	yellow	2	36,905,302		OpenSea		0.517	0.013	0.762	0.149
cg11462165	yellow	7	126,988,262		S_Shore		0.517	0.003	0.044	0.491
cg20932721	yellow	11	1,283,165	3'UTR	OpenSea	MUC5B	0.517	0.001	0.875	0.902
cg03192737	yellow	3	190,931,199	Body	OpenSea	OSTN	0.517	-0.001	0.783	0.894
cg02556381	yellow	1	247,463,421		N_Shore		0.517	0.012	0.565	0.073
cg10625666	yellow	2	196,521,354	TSS1500	N_Shore	SLC39A10	0.517	0.007	0.570	0.521
cg24950828	yellow	17	31,995,527	Body	OpenSea	ACCN1	0.517	0.004	0.706	0.679
cg18294257	yellow	22	30,867,673	Body	OpenSea	SEC14L3	0.517	0.006	0.436	0.395
cg02011476	yellow	11	68,140,196	Body	OpenSea	LRP5	0.517	-0.005	0.840	0.641
cg12201110	yellow	5	95,321,963		OpenSea		0.517	0.006	0.839	0.423
cg15233131	yellow	19	817,832	Body	N_Shelf	LPPR3	0.517	0.008	0.761	0.291
cg19628739	yellow	22	44,317,517		N_Shelf		0.517	-0.006	0.606	0.414
cg21150675	yellow	3	54,704,963	Body	OpenSea	CACNA2D3	0.517	0.006	0.758	0.478
cg01233025	yellow	11	55,637,839		N_Shelf		0.517	0.007	0.636	0.510
cg02823803	yellow	19	57,019,958	5'UTR	S_Shore	ZNF471	0.517	0.003	0.085	0.644
cg17167303	yellow	17	77,375,711	5'UTR	OpenSea	HRNBP3	0.517	0.003	0.716	0.757
cg18857800	yellow	14	97,055,808		N_Shelf		0.517	0.013	0.606	0.155
cg25496417	yellow	8	144,295,084	5'UTR	OpenSea	GPIHBP1	0.517	0.011	0.669	0.049
cg14849556	yellow	2	24,991,672	3'UTR	OpenSea	NCOA1	0.517	0.003	0.501	0.845
cg01231543	yellow	16	68,741,748		OpenSea		0.517	0.001	0.203	0.928
cg09209669	yellow	17	8,770,954	5'UTR	OpenSea	PIK3R6	0.517	-0.001	0.482	0.861
cg16157895	yellow	14	93,412,666	Body	OpenSea	ITPK1	0.517	0.009	0.925	0.048
cg15623687	yellow	7	112,001,736		OpenSea		0.517	-0.005	0.554	0.454
cg02558476	yellow	16	2,880,326	1stExon	OpenSea	ZG16B	0.517	0.003	0.668	0.790
cg20222562	yellow	6	113,993,995		OpenSea		0.517	0.001	0.240	0.845
cg07814565	yellow	6	29,408,010	1stExon	OpenSea	OR10C1	0.517	-0.004	0.719	0.537

cg10215323	yellow	17	55,087,635	OpenSea		0.517	-0.003	0.110	0.603
cg13929988	yellow	4	88,140,436 5'UTR	N_Shore	KLHL8	0.516	0.012	0.336	0.151
cg18414381	yellow	11	34,642,885 5'UTR	OpenSea	EHF	0.516	-0.011	0.676	0.409
cg09075610	yellow	11	45,923,319 Body	N_Shore	MAPK8IP1	0.516	0.009	0.815	0.066
cg16704834	yellow	11	68,668,311 5'UTR	N_Shelf	MRPL21	0.516	0.007	0.913	0.229
cg00558224	yellow	5	177,591,100	N_Shore		0.516	0.003	0.254	0.769
cg06690609	yellow	19	2,723,314	Island		0.516	0.006	0.452	0.230
cg07026918	yellow	1	58,472,821 5'UTR	OpenSea	DAB1	0.516	0.002	0.416	0.856
cg22729543	yellow	7	98,991,418 Body	S_Shore	ARPC1B	0.516	0.004	0.373	0.384
cg25798782	yellow	2	242,795,282 Body	S_Shore	PDCD1	0.516	0.003	0.700	0.682
cg21978892	yellow	13	78,275,055 5'UTR	S_Shelf	SLAIN1	0.516	0.004	0.892	0.692
cg11357138	yellow	5	1,796,862	N_Shelf		0.516	0.005	0.634	0.495
cg27500983	yellow	20	34,700,201 TSS200	OpenSea	EPB41L1	0.516	0.002	0.635	0.745
cg11251554	yellow	19	54,204,562 TSS1500	OpenSea	MIR518B	0.516	0.014	0.729	0.226
cg10227331	yellow	1	8,181,647	OpenSea		0.516	-0.005	0.410	0.540
cg09782889	yellow	6	31,798,731	S_Shore		0.516	0.016	0.323	0.074
cg12151703	yellow	6	80,024,403	OpenSea		0.516	-0.004	0.621	0.788
cg05951521	yellow	16	19,421,937 TSS200	Island	TMC5	0.516	0.001	0.025	0.650
cg07216976	yellow	10	116,581,248 TSS1500	N_Shore	FAM160B1	0.516	0.012	0.292	0.351
cg04839409	yellow	10	126,700,661 Body	OpenSea	CTBP2	0.516	0.004	0.879	0.437
cg03239422	yellow	13	21,101,018 TSS1500	S_Shore	CRYL1	0.516	-0.008	0.498	0.479
cg15727507	yellow	17	80,981,575 Body	N_Shore	B3GNTL1	0.516	0.005	0.701	0.388
cg07364396	yellow	1	7,122,541 Body	Island	CAMTA1	0.516	0.002	0.968	0.435
cg20406878	yellow	1	199,996,237 TSS1500	OpenSea	NR5A2	0.516	-0.002	0.930	0.742
cg13061767	yellow	1	205,418,410 TSS1500	OpenSea	MIR135B	0.516	0.013	0.803	0.140
cg01619490	yellow	21	40,724,242	S_Shelf		0.516	-0.017	0.650	0.213
cg18764164	yellow	11	5,248,426 TSS200	OpenSea	HBB	0.516	0.001	0.895	0.860
cg13759676	yellow	6	128,799,557 Body	OpenSea	PTPRK	0.516	-0.002	0.910	0.682
cg20276750	yellow	3	52,279,555 TSS1500	N_Shore	PPM1M	0.516	-0.009	0.106	0.152
cg10868873	yellow	13	112,906,664	OpenSea		0.516	0.013	0.785	0.024
cg16585682	yellow	5	180,017,623 Body	Island	SCGB3A1	0.516	-0.007	0.093	0.325
cg13830329	yellow	9	139,040,738	OpenSea		0.516	0.007	0.834	0.248
cg26786974	yellow	6	39,849,807 Body	OpenSea	DAAM2	0.516	0.013	0.479	0.122
cg01475325	yellow	11	76,498,701 5'UTR	S_Shelf	TSKU	0.516	0.010	0.690	0.083
cg01458195	yellow	6	21,942,661 Body	OpenSea	FLJ22536	0.516	-0.005	0.910	0.380
cg27658698	yellow	5	175,955,578 3'UTR	OpenSea	RNF44	0.516	0.013	0.636	0.017
cg00610991	yellow	2	40,677,600 5'UTR	N_Shore	SLC8A1	0.516	0.009	0.326	0.451
cg19475270	yellow	19	2,059,698	N_Shore		0.516	0.003	0.468	0.574
cg03167559	yellow	16	81,347,858 TSS1500	N_Shore	GAN	0.516	0.006	0.093	0.202
cg20811607	yellow	6	109,760,831 Body	N_Shore	PPIL6	0.516	0.015	0.525	0.278
cg26053066	yellow	9	96,080,065 Body	N_Shore	WNK2	0.516	0.010	0.847	0.087
cg03328299	yellow	15	74,281,983 Body	N_Shelf	STOML1	0.516	-0.003	0.788	0.760
cg27195956	yellow	3	32,861,910 Body	N_Shore	TRIM71	0.516	0.004	0.732	0.635
cg00841408	yellow	3	9,811,940 TSS1500	S_Shore	CAMK1	0.516	0.000	0.063	0.979
cg17681729	yellow	19	740,608 Body	Island	PALM	0.516	0.012	0.832	0.100
cg14387743	yellow	6	133,056,278 TSS1500	OpenSea	VNN3	0.516	0.003	0.280	0.770
cg27371091	yellow	19	58,145,084 Body	S_Shore	ZNF211	0.516	0.001	0.035	0.633
cg04585669	yellow	3	11,599,640 3'UTR	OpenSea	VGLL4	0.516	0.002	0.523	0.780
cg14408738	yellow	20	62,268,763	N_Shelf		0.516	0.020	0.535	0.007
cg04108706	yellow	1	180,126,520 Body	S_Shore	QSOX1	0.516	-0.005	0.647	0.444
cg11615634	yellow	4	141,415,372	N_Shelf		0.516	-0.003	0.760	0.657
cg18804680	yellow	14	101,341,278 TSS200	OpenSea	MIR665	0.516	0.010	0.710	0.130
cg01960128	yellow	16	85,730,777	OpenSea		0.516	0.007	0.514	0.325
cg05448032	yellow	11	128,276,612	OpenSea		0.515	-0.012	0.430	0.326
cg16903618	yellow	1	28,111,716 Body	OpenSea	STX12	0.515	0.000	0.778	0.971
cg22304555	yellow	2	110,962,034 Body	N_Shore	NPHP1	0.515	0.004	0.186	0.612
cg10605064	yellow	11	8,290,815	S_Shore		0.515	0.010	0.308	0.399
cg06805323	yellow	6	31,634,821 Body	S_Shore	CSNK2B	0.515	0.001	0.886	0.895
cg21626523	yellow	7	120,628,113 TSS1500	OpenSea	C7orf58	0.515	0.001	0.016	0.257
cg00530805	yellow	20	49,545,062 5'UTR	N_Shelf	ADNP	0.515	0.014	0.452	0.170
cg26762136	yellow	22	37,249,669	N_Shelf		0.515	-0.001	0.207	0.782
cg08681409	yellow	10	134,697,042	N_Shore		0.515	0.000	0.627	0.986
cg13705169	yellow	10	102,775,472	N_Shelf		0.515	0.011	0.551	0.149
cg00407413	yellow	1	2,332,075 Body	N_Shore	RER1	0.515	0.007	0.499	0.198
cg22088594	yellow	13	37,634,133 TSS1500	S_Shore	FAM48A	0.515	-0.008	0.094	0.288
cg22864689	yellow	8	40,270,959	OpenSea		0.515	0.010	0.490	0.237
cg08548748	yellow	1	159,750,361 TSS1500	N_Shore	DUSP23	0.515	0.004	0.046	0.167

cg02423494	yellow	3	51,575,480	TSS200	S_Shelf	RAD54L2	0.515	0.002	0.911	0.763
cg18474239	yellow	6	130,461,938	3'UTR	OpenSea	L3MBTL3	0.515	-0.002	0.924	0.780
cg00563045	yellow	6	30,878,494	Body	N_Shelf	GTF2H4	0.515	0.006	0.871	0.302
cg03562978	yellow	14	101,395,514		OpenSea		0.515	-0.004	0.609	0.504
cg01239922	yellow	5	191,242	TSS1500	N_Shore	LRRC14B	0.515	0.005	0.473	0.570
cg11382133	yellow	3	16,553,855	5'UTR	N_Shore	RFTN1	0.515	-0.007	0.294	0.528
cg14628260	yellow	8	10,449,096		OpenSea		0.515	0.004	0.612	0.418
cg02258387	yellow	12	21,807,177	Body	N_Shelf	LDHB	0.515	0.004	0.956	0.105
cg15351951	yellow	18	2,907,472	Body	S_Shore	EMILIN2	0.515	0.019	0.352	0.023
cg22344841	yellow	2	20,421,656	Body	N_Shore	SDC1	0.515	-0.007	0.695	0.392
cg14860524	yellow	3	158,991,537	TSS200	OpenSea	SCHIP1	0.515	-0.001	0.067	0.711
cg14651183	yellow	8	97,248,129	TSS1500	OpenSea	UQCRB	0.515	0.010	0.230	0.548
cg18218884	yellow	10	103,867,732	3'UTR	OpenSea	LDB1	0.515	-0.001	0.885	0.903
cg08081390	yellow	16	31,195,218	Body	S_Shelf	FUS	0.515	0.004	0.957	0.379
cg15468668	yellow	17	7,082,699	5'UTR	OpenSea	ASGR1	0.515	0.020	0.458	0.001
cg13871843	yellow	1	9,887,984		S_Shelf		0.515	0.009	0.732	0.198
cg24499605	yellow	1	3,142,925	Body	OpenSea	PRDM16	0.515	0.019	0.459	0.051
cg06705997	yellow	8	30,248,467	Body	OpenSea	RBPMS	0.515	0.011	0.705	0.234
cg09228949	yellow	10	50,340,173	Body	Island	FAM170B	0.515	0.011	0.658	0.160
cg22160463	yellow	17	47,755,834	TSS1500	S_Shore	SPOP	0.515	0.029	0.280	0.008
cg06147895	yellow	10	133,791,401	Body	N_Shelf	BNIP3	0.515	0.005	0.650	0.475
cg26139062	yellow	2	175,260,842	TSS1500	OpenSea	CIR1	0.515	0.005	0.038	0.152
cg27057408	yellow	14	55,905,105	Body	N_Shelf	TBPL2	0.515	-0.006	0.899	0.487
cg00374492	yellow	6	42,015,867	5'UTR	N_Shore	CCND3	0.515	-0.003	0.039	0.156
cg13993914	yellow	9	140,165,710	Body	N_Shore	COBRA1	0.515	0.000	0.728	0.945
cg14418802	yellow	1	9,299,979	5'UTR	OpenSea	H6PD	0.515	0.005	0.925	0.331
cg13689342	yellow	21	43,722,761		N_Shelf		0.515	0.002	0.795	0.772
cg00347729	yellow	11	102,651,753	TSS1500	OpenSea	MMP10	0.515	0.019	0.486	0.164
cg05629278	yellow	2	225,874,509	Body	OpenSea	DOCK10	0.515	0.009	0.758	0.273
cg03062865	yellow	16	89,720,506	Body	N_Shelf	CHMP1A	0.515	0.003	0.791	0.654
cg07534961	yellow	19	41,059,598	Body	N_Shore	SPTBN4	0.515	-0.001	0.724	0.830
cg02615157	yellow	19	9,946,560	Body	S_Shore	PIN1	0.515	0.004	0.025	0.033
cg08575708	yellow	11	10,823,259	TSS200	OpenSea	SNORD97	0.515	0.000	0.959	0.956
cg16643473	yellow	11	26,593,881	TSS200	OpenSea	MUC15	0.515	-0.006	0.331	0.553
cg03000305	yellow	6	30,523,072	Body	N_Shore	GNL1	0.515	0.000	0.041	0.864
cg01133779	yellow	3	16,371,295	Body	OpenSea	RFTN1	0.515	0.004	0.392	0.425
cg04790800	yellow	14	102,785,246	TSS1500	N_Shore	ZNF839	0.515	0.006	0.913	0.336
cg14175453	yellow	2	106,701,746		OpenSea		0.515	0.006	0.524	0.470
cg01680674	yellow	16	6,256,201	5'UTR	OpenSea	A2BP1	0.515	0.008	0.534	0.379
cg06866553	yellow	12	131,941,426		N_Shelf		0.515	-0.001	0.342	0.857
cg10109146	yellow	22	42,738,485		S_Shelf		0.515	0.011	0.698	0.081
cg27071525	yellow	6	33,262,775	Body	N_Shelf	RGL2	0.515	-0.002	0.846	0.687
cg05856036	yellow	6	33,397,511	Body	S_Shore	SYNGAP1	0.515	0.011	0.675	0.054
cg07654588	yellow	3	17,782,211	1stExon	N_Shore	TBC1D5	0.515	0.003	0.256	0.744
cg04321126	yellow	6	39,393,690	Body	OpenSea	KIF6	0.515	0.016	0.422	0.047
cg19283806	yellow	18	66,389,420	5'UTR	OpenSea	CCDC102B	0.515	-0.002	0.933	0.646
cg27005118	yellow	17	13,972,210	TSS1500	N_Shore	COX10	0.515	-0.005	0.717	0.705
cg15648896	yellow	15	39,542,877	TSS200	OpenSea	C15orf54	0.514	0.001	0.773	0.855
cg14500300	yellow	9	211,689		N_Shelf		0.514	0.017	0.419	0.146
cg20936107	yellow	17	37,688,455	3'UTR	OpenSea	CDK12	0.514	0.018	0.772	0.134
cg04970434	yellow	17	4,838,096	3'UTR	OpenSea	GP1BA	0.514	0.006	0.862	0.452
cg17809945	yellow	2	192,712,975	TSS1500	OpenSea	SDPR	0.514	-0.009	0.436	0.322
cg26207766	yellow	2	242,763,794		N_Shelf		0.514	0.001	0.947	0.866
cg26912485	yellow	11	134,254,936	Body	S_Shore	B3GAT1	0.514	0.006	0.768	0.365
cg05766136	yellow	6	32,137,210	Body	S_Shelf	AGPAT1	0.514	0.000	0.963	0.937
cg05441107	yellow	10	134,972,886	TSS1500	N_Shore	KNDC1	0.514	-0.004	0.286	0.637
cg00727912	yellow	20	61,583,736	TSS1500	N_Shore	SLC17A9	0.514	-0.004	0.361	0.667
cg06927323	yellow	17	45,809,727	TSS1500	N_Shore	TBX21	0.514	-0.004	0.363	0.678
cg06439603	yellow	10	531,465	Body	S_Shore	DIP2C	0.514	0.012	0.615	0.192
cg12095594	yellow	1	223,306,857	5'UTR	OpenSea	TLR5	0.514	0.007	0.230	0.436
cg08855022	yellow	6	44,235,210		S_Shore		0.514	-0.003	0.685	0.677
cg17956747	yellow	22	37,491,595	Body	N_Shelf	TMPRSS6	0.514	-0.010	0.879	0.219
cg07251887	yellow	17	73,641,809	TSS1500	OpenSea	LOC1001309	0.514	-0.001	0.569	0.888
cg19951105	yellow	5	131,134,354		S_Shore		0.514	0.002	0.819	0.858
cg26312366	yellow	10	116,231,251	Body	OpenSea	ABLIM1	0.514	-0.001	0.053	0.835
cg13801161	yellow	17	20,896,312		OpenSea		0.514	-0.006	0.182	0.288
cg02233750	yellow	22	43,539,658	TSS1500	S_Shore	MCAT	0.514	0.007	0.930	0.213

cg11724984	yellow	12	121,890,864	Body	Island	KDM2B	0.514	0.001	0.755	0.910
cg06902929	yellow	6	32,123,258	Body	S_Shore	PPT2	0.514	0.004	0.641	0.529
cg21498785	yellow	4	686,870		S_Shelf		0.514	-0.003	0.679	0.743
cg12439852	yellow	7	16,627,383		S_Shore		0.514	-0.008	0.530	0.332
cg18939666	yellow	1	32,109,151	Body	N_Shore	PEF1	0.514	0.010	0.567	0.148
cg15810199	yellow	6	28,972,876	5'UTR	OpenSea	ZNF311	0.514	0.008	0.952	0.140
cg19633004	yellow	5	10,704,044	Body	OpenSea	DAP	0.514	-0.004	0.932	0.354
cg13204977	yellow	7	66,144,066		N_Shelf		0.514	0.003	0.571	0.636
cg02249119	yellow	16	85,655,651	5'UTR	N_Shelf	KIAA0182	0.514	0.005	0.605	0.365
cg17677490	yellow	10	118,608,138		N_Shore		0.514	-0.003	0.734	0.753
cg08366845	yellow	17	6,796,745	Body	N_Shore	ALOX12P2	0.514	0.002	0.215	0.803
cg16232698	yellow	8	57,233,635	TSS1500	S_Shore	SDR16C5	0.514	-0.004	0.693	0.548
cg15859496	yellow	12	118,490,276	Body	OpenSea	WSB2	0.514	0.007	0.503	0.564
cg23736754	yellow	8	119,117,303	Body	OpenSea	EXT1	0.514	0.000	0.538	0.996
cg13120814	yellow	7	134,832,770	1stExon	OpenSea	TMEM140	0.514	0.000	0.057	0.994
cg09820318	yellow	22	39,323,648		S_Shore		0.514	0.001	0.115	0.938
cg05516744	yellow	3	194,782,855		N_Shelf		0.514	0.002	0.798	0.770
cg15973234	yellow	15	81,072,152	5'UTR	Island	KIAA1199	0.514	0.004	0.080	0.451
cg00287413	yellow	20	52,788,779	Body	N_Shore	CYP24A1	0.514	0.000	0.828	0.982
cg05962325	yellow	11	107,992,005	TSS1500	Island	ACAT1	0.514	0.002	0.163	0.917
cg06615380	yellow	1	1,072,902		S_Shore		0.514	0.002	0.115	0.744
cg12961607	yellow	2	38,976,250	Body	N_Shore	SFRS7	0.514	0.015	0.782	0.254
cg27055156	yellow	1	151,988,500		OpenSea		0.514	0.000	0.783	0.998
cg14656441	yellow	1	39,500,070	Body	OpenSea	NDUFS5	0.514	-0.002	0.910	0.825
cg12032489	yellow	11	66,443,637	Body	N_Shore	RBM4B	0.514	0.003	0.964	0.239
cg25143162	yellow	7	157,607,581	Body	OpenSea	PTPRN2	0.513	0.008	0.593	0.277
cg25830305	yellow	11	1,859,381	TSS1500	OpenSea	TNNI2	0.513	-0.003	0.433	0.762
cg08396915	yellow	6	33,538,714		N_Shore		0.513	0.003	0.132	0.641
cg00997054	yellow	3	32,904,291	Body	OpenSea	TRIM71	0.513	0.025	0.511	0.027
cg00439261	yellow	16	75,273,413	Body	S_Shelf	BCAR1	0.513	0.005	0.708	0.502
cg17034109	yellow	1	110,036,417	TSS1500	N_Shore	CYB561D1	0.513	0.004	0.234	0.567
cg27130240	yellow	16	88,943,533	Body	Island	CBFA2T3	0.513	-0.002	0.857	0.845
cg04687515	yellow	8	93,655,006		OpenSea		0.513	-0.007	0.955	0.309
cg14010405	yellow	1	89,357,911	TSS1500	S_Shore	GTF2B	0.513	0.006	0.242	0.702
cg01306688	yellow	12	123,215,301	TSS200	OpenSea	GPR81	0.513	0.001	0.430	0.914
cg14065446	yellow	9	133,818,825		S_Shelf		0.513	0.001	0.668	0.891
cg14691499	yellow	2	144,772,786	Body	OpenSea	GTDC1	0.513	-0.008	0.370	0.264
cg05939560	yellow	12	131,003,775	TSS1500	OpenSea	RIMBP2	0.513	0.021	0.583	0.028
cg06424168	yellow	16	18,994,622	TSS1500	N_Shore	TMC7	0.513	0.004	0.918	0.561
cg04809948	yellow	15	40,421,135		OpenSea		0.513	0.011	0.623	0.145
cg16667480	yellow	3	47,628,331	3'UTR	OpenSea	SMARCC1	0.513	-0.001	0.952	0.805
cg09487931	yellow	17	27,230,297	TSS1500	S_Shore	DHRS13	0.513	0.000	0.154	0.967
cg25065518	yellow	1	5,540,135		OpenSea		0.513	-0.001	0.787	0.819
cg08577776	yellow	16	3,225,355		Island		0.513	0.018	0.238	0.119
cg10437224	yellow	4	7,373,451	Body	OpenSea	SORCS2	0.513	-0.002	0.695	0.850
cg16642360	yellow	6	32,172,027	Body	OpenSea	NOTCH4	0.513	0.009	0.772	0.185
cg15978899	yellow	6	30,882,994	Body	S_Shore	VAR52	0.513	-0.003	0.750	0.705
cg19796955	yellow	12	64,895,570	3'UTR	OpenSea	TBK1	0.513	-0.001	0.976	0.714
cg13446584	yellow	7	74,024,953		S_Shelf		0.513	0.019	0.750	0.093
cg02302089	yellow	7	23,401,203	Body	OpenSea	IGF2BP3	0.513	-0.005	0.953	0.130
cg22163199	yellow	1	228,297,864	TSS1500	S_Shore	MRPL55	0.513	0.004	0.292	0.829
cg19734370	yellow	17	78,444,348	3'UTR	N_Shore	NPXT1	0.513	0.001	0.475	0.887
cg22999830	yellow	14	93,532,632	Body	OpenSea	ITPK1	0.513	0.005	0.585	0.488
cg27664687	yellow	5	167,126,705	Body	OpenSea	ODZ2	0.513	0.003	0.221	0.739
cg01071159	yellow	2	129,492,198		N_Shelf		0.513	0.005	0.837	0.415
cg26930078	yellow	17	42,218,924	TSS1500	N_Shore	C17orf53	0.513	-0.006	0.607	0.618
cg03373714	yellow	2	147,632,094		OpenSea		0.513	-0.007	0.908	0.316
cg18944176	yellow	7	27,271,688		N_Shelf		0.513	0.009	0.835	0.450
cg16942681	yellow	18	21,032,779	TSS200	N_Shore	RIOK3	0.513	0.002	0.083	0.793
cg03410065	yellow	11	6,440,922	TSS1500	S_Shore	APBB1	0.513	0.008	0.056	0.063
cg16132469	yellow	11	4,390,263	TSS1500	OpenSea	OR52B4	0.513	0.005	0.767	0.544
cg14714922	yellow	2	235,524,731		OpenSea		0.513	0.015	0.722	0.281
cg16019751	yellow	19	3,641,397	Body	S_Shelf	PIP5K1C	0.513	-0.004	0.904	0.310
cg19790352	yellow	8	818,778		OpenSea		0.513	0.014	0.435	0.193
cg03432225	yellow	1	228,294,401	3'UTR	N_Shore	MRPL55	0.513	0.003	0.595	0.633
cg09424566	yellow	7	128,981,604	Body	OpenSea	AHCYL2	0.513	-0.001	0.744	0.927
cg07940585	yellow	19	42,363,465	TSS1500	N_Shore	RPS19	0.513	0.001	0.232	0.891

cg24311376	yellow	4	3,617,888	OpenSea		0.513	0.011	0.547	0.198
cg13994599	yellow	14	55,222,988 5'UTR	N_Shelf	SAMD4A	0.513	0.012	0.770	0.117
cg11726701	yellow	2	85,998,588 Body	OpenSea	ATOH8	0.513	0.001	0.599	0.868
cg21870145	yellow	5	36,302,644 TSS1500	OpenSea	RANBP3L	0.513	-0.004	0.156	0.593
cg18661868	yellow	15	91,427,965 5'UTR	S_Shore	FES	0.513	0.001	0.036	0.729
cg06069616	yellow	21	33,783,773 TSS1500	N_Shore	C21orf63	0.513	0.006	0.492	0.466
cg23252243	yellow	2	26,987,820 Body	S_Shore	C2orf18	0.513	0.006	0.212	0.182
cg19576801	yellow	21	34,962,102 TSS1500	S_Shore	DONSON	0.513	-0.001	0.962	0.721
cg09926135	yellow	10	111,965,404	N_Shelf		0.512	0.006	0.814	0.300
cg17028814	yellow	1	161,206,502 Body	OpenSea	NR1I3	0.512	-0.009	0.827	0.213
cg24554987	yellow	7	155,943,952	N_Shelf		0.512	-0.017	0.325	0.086
cg22889322	yellow	10	51,468,217 Body	S_Shelf	AGAP7	0.512	0.007	0.222	0.588
cg02298327	yellow	2	69,180,527 TSS1500	OpenSea	GKN2	0.512	-0.002	0.888	0.785
cg25255854	yellow	4	185,396,298 TSS1500	S_Shore	IRF2	0.512	-0.001	0.013	0.273
cg25804044	yellow	6	31,870,970 TSS1500	S_Shore	ZBTB12	0.512	-0.013	0.832	0.142
cg25685510	yellow	19	14,671,512 Body	OpenSea	TECR	0.512	0.005	0.383	0.307
cg00295182	yellow	1	2,456,436 Body	N_Shore	PANK4	0.512	0.005	0.403	0.453
cg26145504	yellow	11	115,801,162	OpenSea		0.512	0.010	0.154	0.070
cg03255601	yellow	12	133,143,874 Body	N_Shelf	FBRSL1	0.512	0.003	0.841	0.742
cg12662931	yellow	2	183,944,048 Body	OpenSea	DUSP19	0.512	-0.002	0.148	0.926
cg06510617	yellow	3	10,378,071 Body	OpenSea	ATP2B2	0.512	0.001	0.654	0.822
cg08287220	yellow	7	99,332,914 TSS200	OpenSea	CYP3A7	0.512	-0.002	0.386	0.831
cg00712409	yellow	1	33,358,057 Body	N_Shore	HPCA	0.512	0.006	0.550	0.546
cg25248662	yellow	19	8,602,182 Body	S_Shore	MYO1F	0.512	-0.008	0.762	0.301
cg18395632	yellow	1	165,345,040	OpenSea		0.512	0.015	0.814	0.136
cg04365102	yellow	2	238,769,342 Body	S_Shore	RAMP1	0.512	0.002	0.499	0.637
cg09848693	yellow	3	65,394,690 Body	OpenSea	MAGI1	0.512	0.002	0.933	0.775
cg04809428	yellow	16	3,725,906 Body	S_Shore	TRAP1	0.512	0.003	0.900	0.706
cg00458454	yellow	10	134,499,528 Body	OpenSea	INPP5A	0.512	0.002	0.657	0.715
cg08095566	yellow	2	161,221,369 Body	OpenSea	RBMS1	0.512	-0.006	0.770	0.670
cg05726195	yellow	7	154,997,174	OpenSea		0.512	0.006	0.390	0.451
cg14664242	yellow	1	17,575,426 TSS200	OpenSea	PADI3	0.512	0.021	0.421	0.001
cg15233074	yellow	4	3,288,101	OpenSea		0.512	0.018	0.573	0.059
cg08047629	yellow	16	30,125,047 TSS200	OpenSea	GDPD3	0.512	0.002	0.674	0.716
cg04452095	yellow	17	75,315,868 5'UTR	OpenSea	9-Sep	0.512	0.000	0.177	0.977
cg11113753	yellow	2	44,065,383 Body	OpenSea	ABCG5	0.512	0.013	0.771	0.044
cg06608166	yellow	6	43,444,964 TSS1500	OpenSea	TJAP1	0.512	0.006	0.101	0.374
cg14554244	yellow	9	139,393,956 Body	N_Shore	NOTCH1	0.512	0.012	0.680	0.052
cg13807056	yellow	9	138,157,475	S_Shore		0.512	0.007	0.537	0.490
cg08938727	yellow	3	134,074,767 3'UTR	OpenSea	AMOTL2	0.512	0.012	0.912	0.033
cg08188779	yellow	15	45,004,577 Body	S_Shore	B2M	0.512	0.003	0.238	0.819
cg19895197	yellow	17	37,887,061 TSS1500	S_Shore	C17orf37	0.512	0.001	0.067	0.893
cg10063663	yellow	17	79,038,712 Body	OpenSea	BAIAP2	0.512	0.020	0.653	0.063
cg04289033	yellow	21	44,254,206	N_Shelf		0.512	-0.001	0.695	0.919
cg04118472	yellow	1	2,125,049 Body	N_Shore	C1orf86	0.512	0.008	0.501	0.190
cg02770843	yellow	19	29,214,454	N_Shelf		0.512	0.013	0.585	0.497
cg07356011	yellow	1	23,750,579 Body	Island	TCEA3	0.512	-0.005	0.043	0.192
cg14173185	yellow	19	48,894,973 TSS200	N_Shore	KDELRL1	0.512	0.008	0.093	0.152
cg13033938	yellow	3	49,824,475 TSS1500	S_Shore	IP6K1	0.511	0.000	0.314	0.990
cg03422651	yellow	16	2,542,324 5'UTR	N_Shelf	TBC1D24	0.511	-0.004	0.911	0.495
cg25326856	yellow	7	4,860,767 Body	S_Shelf	RADIL	0.511	0.008	0.585	0.284
cg03472313	yellow	20	43,149,996 Body	N_Shore	SERINC3	0.511	0.003	0.100	0.751
cg05007495	yellow	1	227,949,789 Body	OpenSea	SNAP47	0.511	0.009	0.638	0.139
cg06209740	yellow	6	35,435,693 TSS1500	N_Shore	RPL10A	0.511	-0.003	0.143	0.674
cg11172423	yellow	1	43,205,623 1stExon	S_Shore	CLDN19	0.511	0.002	0.562	0.695
cg26473301	yellow	21	37,695,738 Body	S_Shelf	MORC3	0.511	-0.006	0.928	0.176
cg10921702	yellow	6	30,716,324	S_Shelf		0.511	0.002	0.488	0.730
cg13505279	yellow	15	55,611,881 Body	S_Shore	PIGB	0.511	0.013	0.630	0.236
cg11219691	yellow	22	19,967,280 Body	Island	ARVCF	0.511	0.002	0.796	0.796
cg11092416	yellow	6	29,617,549	N_Shore		0.511	0.008	0.499	0.395
cg16097124	yellow	14	75,642,688 Body	N_Shore	TMED10	0.511	-0.003	0.075	0.650
cg11139102	yellow	7	100,073,936 Body	N_Shore	TSC22D4	0.511	-0.001	0.070	0.836
cg25110523	yellow	6	31,868,025 Body	N_Shore	ZBTB12	0.511	0.009	0.823	0.191
cg09468231	yellow	7	129,709,893 TSS1500	N_Shore	KLHDC10	0.511	-0.004	0.111	0.495
cg14033585	yellow	15	76,124,287	OpenSea		0.511	0.008	0.603	0.368
cg25696023	yellow	17	8,125,848 Body	N_Shore	C17orf44	0.511	0.002	0.114	0.797
cg01188509	yellow	6	160,509,295 Body	N_Shelf	IGF2R	0.511	-0.003	0.882	0.790

cg20725239	yellow	11	124,805,963	5'UTR	OpenSea	HEPACAM	0.511	0.008	0.749	0.313
cg18918538	yellow	17	36,610,984		S_Shore		0.511	0.010	0.302	0.231
cg19735514	yellow	1	161,762,739	Body	OpenSea	ATF6	0.511	0.006	0.296	0.432
cg09659163	yellow	12	57,584,929	Body	OpenSea	LRP1	0.511	0.007	0.736	0.235
cg21727129	yellow	6	29,793,709	TSS1500	N_Shore	HLA-G	0.511	-0.002	0.709	0.871
cg17985854	yellow	11	65,770,987	Body	S_Shore	BANF1	0.511	0.015	0.676	0.205
cg12487789	yellow	10	130,008,514		N_Shore		0.511	-0.002	0.195	0.807
cg21340230	yellow	15	89,955,105		Island		0.511	0.002	0.425	0.860
cg21533216	yellow	4	89,442,132		N_Shelf		0.511	-0.008	0.875	0.328
cg17292384	yellow	11	63,743,837	3'UTR	S_Shore	COX8A	0.511	0.003	0.750	0.653
cg05752118	yellow	11	2,920,564	Body	N_Shelf	SLC22A18AS	0.511	-0.007	0.674	0.172
cg02769743	yellow	1	9,668,402	Body	N_Shelf	TMEM201	0.511	-0.013	0.769	0.221
cg11822088	yellow	1	243,398,577	5'UTR	OpenSea	CEP170	0.511	0.004	0.907	0.689
cg25045893	yellow	15	83,777,051	Body	S_Shore	TM6SF1	0.511	0.009	0.712	0.328
cg25463943	yellow	19	51,474,126	TSS1500	OpenSea	KLK6	0.511	0.004	0.735	0.735
cg03628000	yellow	16	14,596,062	Body	OpenSea	PARN	0.511	0.007	0.405	0.544
cg27581047	yellow	7	134,002,209	TSS1500	S_Shore	SLC35B4	0.511	-0.002	0.129	0.810
cg14509902	yellow	5	2,140,855		S_Shelf		0.511	0.010	0.688	0.360
cg06119874	yellow	1	207,225,424	TSS1500	N_Shore	PFKFB2	0.511	0.002	0.971	0.474
cg10442549	yellow	1	230,818,260	Body	OpenSea	COG2	0.510	0.009	0.292	0.448
cg12697116	yellow	9	129,453,085	Body	Island	LMX1B	0.510	0.005	0.487	0.511
cg10764388	yellow	10	5,227,312	TSS200	OpenSea	AKR1CL1	0.510	0.009	0.533	0.638
cg02796390	yellow	20	3,726,190	Body	OpenSea	HSPA12B	0.510	0.004	0.764	0.616
cg20449619	yellow	8	10,581,784	3'UTR	N_Shelf	SOX7	0.510	0.004	0.614	0.618
cg11583981	yellow	17	14,209,343	Body	S_Shore	HS3ST3B1	0.510	-0.013	0.874	0.075
cg23433285	yellow	11	47,201,945	Body	S_Shelf	PAC3IN3	0.510	0.004	0.724	0.604
cg23682913	yellow	1	2,080,710	Body	N_Shore	PRKCZ	0.510	0.006	0.835	0.268
cg08032228	yellow	1	2,209,957	Body	N_Shelf	SKI	0.510	0.003	0.815	0.585
cg22626579	yellow	1	2,038,628	5'UTR	Island	PRKCZ	0.510	-0.008	0.703	0.436
cg13032702	yellow	16	19,124,925	TSS1500	N_Shore	ITPR1L2	0.510	-0.005	0.240	0.512
cg06009031	yellow	7	1,160,636	Body	S_Shelf	C7orf50	0.510	0.013	0.738	0.086
cg20518511	yellow	7	5,458,901	Body	Island	TNRC18	0.510	-0.002	0.065	0.701
cg16479674	yellow	1	249,131,947	TSS1500	N_Shore	ZNF672	0.510	0.005	0.061	0.435
cg15601164	yellow	10	130,832,336		OpenSea		0.510	0.004	0.599	0.519
cg13739417	yellow	2	218,990,627	TSS200	OpenSea	CXCR2	0.510	0.007	0.695	0.434
cg22902161	yellow	4	94,683,967	Body	OpenSea	GRID2	0.510	-0.007	0.918	0.165
cg13709639	yellow	12	49,526,040	TSS1500	S_Shore	TUBA1B	0.510	-0.002	0.035	0.208
cg19722847	yellow	12	30,849,114	TSS1500	S_Shore	IPO8	0.510	0.002	0.235	0.805
cg19211880	yellow	3	134,088,357	Body	N_Shelf	AMOTL2	0.510	0.002	0.855	0.852
cg14312114	yellow	17	80,571,580		Island		0.510	0.009	0.839	0.421
cg06544310	yellow	19	41,768,003	TSS1500	N_Shore	HNRNPUL1	0.510	0.000	0.122	0.996
cg26400230	yellow	3	43,807,220		OpenSea		0.510	0.000	0.591	0.986
cg21734175	yellow	12	121,107,042		OpenSea		0.510	0.006	0.059	0.210
cg16822666	yellow	17	35,656,660	5'UTR	OpenSea	ACACA	0.510	0.001	0.127	0.908
cg18890112	yellow	1	18,367,799		OpenSea		0.510	-0.002	0.667	0.893
cg06133722	yellow	11	65,485,453	Body	N_Shelf	KAT5	0.510	-0.005	0.897	0.271
cg09326204	yellow	3	121,953,249	5'UTR	S_Shelf	CASR	0.510	0.002	0.567	0.843
cg04364311	yellow	3	101,231,003	Body	N_Shore	SEN7	0.510	0.005	0.503	0.613
cg00357532	yellow	2	183,903,743	TSS1500	S_Shore	NCKAP1	0.510	-0.001	0.017	0.609
cg10938393	yellow	5	32,171,158	Body	N_Shelf	GOLPH3	0.510	0.002	0.196	0.840
cg15524283	yellow	1	205,350,519	3'UTR	OpenSea	LEMD1	0.510	0.013	0.746	0.127
cg15575641	yellow	2	25,585,619		OpenSea		0.510	0.003	0.505	0.632
cg03724721	yellow	22	19,939,061	5'UTR	OpenSea	COMT	0.510	0.007	0.886	0.587
cg21592158	yellow	11	111,750,640	TSS1500	S_Shore	FDXACB1	0.510	0.008	0.548	0.217
cg04528554	yellow	19	3,632,979	3'UTR	OpenSea	PIP5K1C	0.510	0.006	0.793	0.469
cg17047222	yellow	7	100,277,741	3'UTR	S_Shelf	GIGYF1	0.510	0.003	0.833	0.760
cg17421623	yellow	3	119,187,570	TSS1500	N_Shore	KTELC1	0.510	-0.014	0.221	0.318
cg10927510	yellow	20	62,259,125	TSS1500	Island	GMEB2	0.510	0.031	0.110	0.008
cg03128219	yellow	10	50,366,272	Body	OpenSea	C10orf128	0.510	0.004	0.933	0.514
cg15559737	yellow	22	27,016,806	TSS1500	OpenSea	CRYBA4	0.510	-0.005	0.683	0.585
cg22604013	yellow	3	53,173,997		OpenSea		0.509	0.002	0.600	0.729
cg24373540	yellow	1	176,919,570	Body	OpenSea	ASTN1	0.509	-0.008	0.754	0.474
cg26032392	yellow	7	97,826,745	Body	S_Shelf	LMTK2	0.509	-0.002	0.938	0.549
cg26329618	yellow	5	36,302,704	TSS1500	OpenSea	RANBP3L	0.509	-0.005	0.113	0.599
cg09409484	yellow	1	45,770,648	Body	S_Shore	LOC400752	0.509	0.009	0.700	0.370
cg20033437	yellow	10	133,837,011		OpenSea		0.509	0.001	0.621	0.896
cg03051983	yellow	10	72,044,060		S_Shore		0.509	0.002	0.266	0.793



cg01535726	yellow	8	9,911,482	TSS1500	N_Shore	MSRA	0.509	0.019	0.515	0.101
cg02088166	yellow	5	142,488	Body	OpenSea	PLEKHG4B	0.509	0.002	0.860	0.480
cg08091050	yellow	4	26,208,051		OpenSea		0.509	0.000	0.170	0.975
cg00996377	yellow	16	89,689,757	5'UTR	OpenSea	DPEP1	0.509	0.000	0.933	0.991
cg21431929	yellow	4	8,536,117		OpenSea		0.509	0.005	0.054	0.240
cg04430775	yellow	7	155,369,184		S_Shelf		0.509	0.003	0.501	0.654
cg13940929	yellow	15	40,829,048		OpenSea		0.509	0.005	0.354	0.356
cg10190497	yellow	19	37,664,944	TSS1500	OpenSea	ZNF585A	0.509	0.001	0.980	0.581
cg13187936	yellow	1	212,208,183	Body	N_Shore	INTS7	0.509	0.001	0.035	0.429
cg11034978	yellow	11	64,837,010		OpenSea		0.509	0.005	0.485	0.436
cg26033782	yellow	3	166,783,407		OpenSea		0.509	-0.011	0.774	0.424
cg22257374	yellow	3	15,139,756	5'UTR	N_Shore	ZFYVE20	0.509	0.010	0.456	0.104
cg11330108	yellow	18	60,986,115	5'UTR	N_Shore	BCL2	0.509	0.013	0.067	0.130
cg02450981	yellow	1	32,825,803		N_Shore		0.509	0.002	0.765	0.795
cg02585142	yellow	15	89,434,967	5'UTR	N_Shelf	HAPLN3	0.509	-0.003	0.951	0.424
cg21914362	yellow	4	1,975,518	Body	OpenSea	WHSC1	0.509	0.017	0.646	0.035
cg23095556	yellow	19	18,044,711	5'UTR	S_Shore	CCDC124	0.509	0.008	0.441	0.328
cg17565967	yellow	20	61,002,711	TSS200	OpenSea	C20orf151	0.509	0.004	0.578	0.336
cg12804865	yellow	19	36,239,883	Body	Island	LIN37	0.509	0.002	0.039	0.398
cg08142884	yellow	7	155,369,424		S_Shelf		0.509	0.008	0.663	0.487
cg13939078	yellow	10	179,114	TSS1500	N_Shore	ZMYND11	0.509	0.000	0.855	0.962
cg16563187	yellow	16	85,730,606		OpenSea		0.509	0.008	0.547	0.289
cg06251978	yellow	1	159,507,078	TSS1500	OpenSea	OR10J5	0.509	0.000	0.395	0.994
cg12645858	yellow	2	3,317,469	Body	N_Shore	TSSC1	0.509	-0.001	0.951	0.782
cg11651007	yellow	21	47,813,491	Body	S_Shore	PCNT	0.509	0.007	0.531	0.424
cg10370574	yellow	19	1,840,461	Body	OpenSea	REXO1	0.509	-0.010	0.916	0.047
cg12047425	yellow	1	21,877,576	5'UTR	OpenSea	ALPL	0.509	-0.005	0.738	0.703
cg00306090	yellow	20	2,820,742	TSS1500	Island	VPS16	0.509	0.003	0.075	0.424
cg03525385	yellow	1	112,438,746	Body	OpenSea	KCND3	0.509	0.007	0.594	0.348
cg09755939	yellow	11	15,136,688	Body	S_Shore	INSC	0.509	0.006	0.542	0.311
cg10822352	yellow	10	13,876,378	Body	OpenSea	FRMD4A	0.509	0.001	0.774	0.890
cg25693497	yellow	2	1,566,094		OpenSea		0.509	0.022	0.593	0.200
cg03998066	yellow	16	31,482,846	TSS1500	N_Shore	TGFB11	0.509	0.017	0.859	0.123
cg08290013	yellow	17	27,334,164	TSS1500	S_Shore	SEZ6	0.509	0.025	0.424	0.003
cg03686402	yellow	13	113,355,287	Body	S_Shelf	ATP11A	0.509	0.001	0.493	0.926
cg05577437	yellow	8	1,586,825	Body	N_Shelf	DLGAP2	0.509	0.008	0.842	0.239
cg03139388	yellow	17	79,394,412	Body	S_Shore	BAHCC1	0.509	0.005	0.890	0.404
cg23798387	yellow	17	26,972,805	TSS1500	S_Shore	KIAA0100	0.509	-0.004	0.391	0.847
cg26332052	yellow	17	73,780,035	TSS1500	N_Shore	UNK	0.508	0.003	0.428	0.675
cg27231068	yellow	17	19,620,291	TSS1500	S_Shelf	SLC47A2	0.508	0.003	0.728	0.595
cg09717261	yellow	20	35,579,347	Body	Island	SAMHD1	0.508	0.006	0.037	0.011
cg04643969	yellow	11	63,753,210	TSS200	N_Shore	OTUB1	0.508	-0.005	0.559	0.650
cg04265492	yellow	1	32,220,996	Body	N_Shore	BAI2	0.508	0.018	0.313	0.167
cg14851284	yellow	11	70,713,732	Body	OpenSea	SHANK2	0.508	0.004	0.654	0.485
cg14577366	yellow	1	16,543,684		Island		0.508	-0.001	0.032	0.635
cg02976539	yellow	17	72,757,302	Body	OpenSea	SLC9A3R1	0.508	0.004	0.270	0.450
cg07227743	yellow	7	154,474,113	Body	OpenSea	DPP6	0.508	-0.016	0.793	0.095
cg02864126	yellow	13	112,606,332		OpenSea		0.508	-0.006	0.918	0.429
cg10808414	yellow	14	77,942,302	Body	Island	ISM2	0.508	0.012	0.847	0.094
cg14483935	yellow	12	49,526,778	TSS1500	S_Shore	TUBA1B	0.508	-0.002	0.506	0.868
cg14484793	yellow	9	137,978,463	Body	N_Shore	OLFM1	0.508	0.013	0.342	0.434
cg25662428	yellow	19	2,047,261	Body	S_Shore	MKMK2	0.508	0.006	0.856	0.449
cg11746996	yellow	13	69,459,533		OpenSea		0.508	0.019	0.622	0.031
cg24779921	yellow	5	98,396,620		OpenSea		0.508	-0.001	0.291	0.869
cg03066986	yellow	6	42,752,685		S_Shore		0.508	-0.002	0.121	0.807
cg15006864	yellow	22	18,265,049		N_Shelf		0.508	0.002	0.475	0.732
cg17375396	yellow	11	67,202,808	3'UTR	N_Shore	RPS6KB2	0.508	-0.004	0.915	0.514
cg14655316	yellow	5	138,861,855	5'UTR	OpenSea	TMEM173	0.508	0.001	0.036	0.846
cg12703269	yellow	15	77,286,232	TSS1500	OpenSea	PSTPIP1	0.508	0.004	0.929	0.496
cg03523104	yellow	12	57,399,475	5'UTR	N_Shore	ZBTB39	0.508	-0.006	0.808	0.603
cg22342100	yellow	8	124,666,123	TSS1500	OpenSea	KLHL38	0.508	0.021	0.151	0.014
cg25694480	yellow	20	62,032,881		S_Shore		0.508	0.005	0.805	0.546
cg15826479	yellow	17	78,806,493	Body	OpenSea	RPTOR	0.508	0.004	0.346	0.648
cg07159587	yellow	2	27,371,537	TSS1500	N_Shore	TCF23	0.508	-0.009	0.904	0.068
cg26051750	yellow	1	23,495,997	TSS1500	OpenSea	LUZP1	0.508	0.020	0.543	0.066
cg06445533	yellow	16	2,114,118	Body	Island	TSC2	0.508	0.002	0.946	0.495
cg06469440	yellow	7	1,000,336		OpenSea		0.508	0.012	0.567	0.185

cg04077141	yellow	22	36,782,143	5'UTR	N_Shore	MYH9	0.508	0.009	0.165	0.318
cg25980484	yellow	6	30,653,512	Body	N_Shore	KIAA1949	0.508	0.010	0.603	0.129
cg18861877	yellow	5	85,913,548	TSS1500	OpenSea	COX7C	0.508	-0.003	0.069	0.645
cg14429526	yellow	10	531,562	Body	S_Shore	DIP2C	0.508	0.001	0.787	0.885
cg26808154	yellow	1	2,285,178	Body	OpenSea	MORN1	0.508	-0.001	0.378	0.907
cg17634650	yellow	4	10,966,220		OpenSea		0.508	0.004	0.881	0.590
cg11085296	yellow	10	133,949,683	Body	S_Shore	JAKMIP3	0.508	0.008	0.615	0.241
cg26599989	yellow	11	1,297,087	3'UTR	N_Shore	TOLLIP	0.508	0.013	0.561	0.040
cg19029445	yellow	17	907,732	3'UTR	N_Shelf	ABR	0.508	0.010	0.780	0.135
cg16866941	yellow	22	38,601,325	5'UTR	S_Shelf	MAFF	0.508	0.001	0.284	0.917
cg08152564	yellow	11	107,992,034	TSS1500	Island	ACAT1	0.508	0.003	0.097	0.678
cg19025234	yellow	5	79,378,772	Body	OpenSea	THBS4	0.508	-0.003	0.116	0.769
cg25705091	yellow	7	98,924,071	5'UTR	S_Shore	ARPC1A	0.508	-0.001	0.027	0.666
cg00488692	yellow	2	174,877,566		Island		0.508	0.000	0.277	0.986
cg10729062	yellow	19	14,049,823	Body	OpenSea	PODNL1	0.508	0.009	0.517	0.260
cg08305652	yellow	11	111,469,057		N_Shelf		0.508	-0.015	0.458	0.240
cg11953749	yellow	10	119,590,608		OpenSea		0.508	0.004	0.202	0.610
cg25486039	yellow	6	41,715,166	TSS200	OpenSea	PGC	0.508	0.002	0.653	0.770
cg00329441	yellow	5	178,667,879	Body	OpenSea	ADAMTS2	0.508	0.003	0.822	0.615
cg11361201	yellow	5	156,690,796		N_Shelf		0.508	0.015	0.650	0.488
cg15194251	yellow	11	2,239,813		OpenSea		0.507	0.002	0.660	0.771
cg03262773	yellow	1	46,712,613	TSS1500	OpenSea	RAD54L	0.507	0.002	0.019	0.186
cg02118630	yellow	2	25,552,751	5'UTR	OpenSea	DNMT3A	0.507	-0.004	0.895	0.638
cg08875884	yellow	17	42,218,908	TSS1500	N_Shore	C17orf53	0.507	-0.012	0.354	0.440
cg03089651	yellow	1	161,039,695	1stExon	OpenSea	ARHGAP30	0.507	0.012	0.785	0.045
cg21790991	yellow	3	120,137,480	Body	OpenSea	FSTL1	0.507	0.000	0.865	0.982
cg01240599	yellow	11	67,418,045	5'UTR	OpenSea	ACY3	0.507	0.044	0.480	0.002
cg05434287	yellow	7	2,030,229	Body	S_Shore	MAD1L1	0.507	0.019	0.636	0.185
cg22238882	yellow	10	134,719,935		Island		0.507	0.009	0.727	0.229
cg09167414	yellow	1	16,076,206		S_Shelf		0.507	-0.020	0.359	0.079
cg02127172	yellow	16	3,629,620		OpenSea		0.507	0.003	0.747	0.705
cg21382567	yellow	1	92,263,858	Body	OpenSea	TGFBR3	0.507	-0.003	0.742	0.684
cg26561681	yellow	1	21,376,633	5'UTR	OpenSea	EIF4G3	0.507	0.008	0.220	0.375
cg11805188	yellow	5	1,089,722	Body	S_Shore	SLC12A7	0.507	0.011	0.376	0.238
cg20124600	yellow	3	182,894,517		N_Shelf		0.507	0.004	0.800	0.454
cg06567290	yellow	11	118,900,111	5'UTR	N_Shore	SLC37A4	0.507	0.018	0.604	0.104
cg06398287	yellow	6	31,854,472	Body	N_Shelf	EHMT2	0.507	0.001	0.839	0.825
cg23712462	yellow	8	139,510,166	TSS1500	S_Shore	FAM135B	0.507	0.000	0.312	0.961
cg00738934	yellow	8	78,996,279		OpenSea		0.507	0.015	0.365	0.160
cg09369818	yellow	7	100,225,006	Body	S_Shore	TFR2	0.507	0.011	0.822	0.171
cg07965640	yellow	2	214,149,735	Body	S_Shore	SPAG16	0.507	-0.008	0.120	0.340
cg12799537	yellow	12	56,207,909	Body	N_Shelf	SARNP	0.507	0.003	0.961	0.282
cg09699233	yellow	20	30,579,155	Body	N_Shelf	XKR7	0.507	-0.018	0.559	0.031
cg02602915	yellow	4	171,011,615	TSS1500	S_Shore	AADAT	0.507	0.000	0.041	0.905
cg04572930	yellow	7	4,754,834	Body	N_Shelf	FOXK1	0.507	-0.009	0.687	0.771
cg01928779	yellow	9	34,125,731	Body	N_Shore	DCAF12	0.507	0.002	0.079	0.675
cg22334632	yellow	19	47,552,711	TSS1500	S_Shore	TMEM160	0.507	-0.001	0.413	0.970
cg07850477	yellow	2	31,556,516		OpenSea		0.507	0.007	0.060	0.074
cg05951994	yellow	10	134,150,760	Body	OpenSea	LRRC27	0.507	0.006	0.428	0.439
cg01212373	yellow	14	38,674,559		N_Shelf		0.506	0.001	0.941	0.826
cg23532985	yellow	11	4,626,526	Body	N_Shelf	TRIM68	0.506	-0.003	0.921	0.424
cg25541259	yellow	2	230,576,135	Body	N_Shore	DNER	0.506	-0.006	0.366	0.352
cg24587400	yellow	2	127,811,805	Body	OpenSea	BIN1	0.506	0.009	0.922	0.301
cg04061873	yellow	11	67,237,179	TSS1500	S_Shore	TMEM134	0.506	0.004	0.317	0.554
cg20974196	yellow	19	859,983	Body	N_Shore	CFD	0.506	0.003	0.466	0.718
cg21210409	yellow	7	140,015,868		OpenSea		0.506	0.007	0.216	0.525
cg16008627	yellow	11	86,383,940	TSS1500	S_Shore	ME3	0.506	-0.001	0.899	0.876
cg19026977	yellow	5	172,999,989		OpenSea		0.506	0.004	0.563	0.615
cg21858764	yellow	1	156,123,352	TSS200	OpenSea	SEMA4A	0.506	-0.002	0.626	0.809
cg00398500	yellow	4	10,041,776	1stExon	OpenSea	SLC2A9	0.506	-0.002	0.749	0.778
cg05867154	yellow	10	52,835,002	Body	S_Shore	PRKG1	0.506	0.015	0.357	0.329
cg27214333	yellow	2	239,937,523		OpenSea		0.506	0.006	0.699	0.581
cg07765621	yellow	5	178,018,015	TSS1500	S_Shore	COL23A1	0.506	0.000	0.024	0.733
cg15612257	yellow	2	65,085,598		N_Shore		0.506	0.014	0.541	0.108
cg13838014	yellow	9	130,684,329	Body	Island	PIP5KL1	0.506	0.006	0.123	0.461
cg11724151	yellow	6	38,681,093		N_Shore		0.506	0.001	0.927	0.822
cg05785348	yellow	1	211,555,829	TSS1500	N_Shore	C1orf97	0.506	0.000	0.042	0.978

cg02162421	yellow	1	77,683,411	Body	N_Shore	PIGK	0.506	0.007	0.911	0.366
cg27089675	yellow	10	123,838,499	Body	OpenSea	TACC2	0.506	-0.013	0.299	0.335
cg04003952	yellow	13	99,843,990		OpenSea		0.506	0.003	0.250	0.763
cg16862893	yellow	7	1,685,044		N_Shore		0.506	0.000	0.749	0.988
cg02149446	yellow	19	47,812,519	TSS1500	OpenSea	CSAR1	0.506	-0.009	0.301	0.316
cg27319445	yellow	3	128,225,898	TSS1500	OpenSea	LOC90246	0.506	0.005	0.600	0.407
cg01667493	yellow	7	101,466,750	Body	OpenSea	CUX1	0.506	-0.009	0.921	0.133
cg24164517	yellow	19	5,539,808		S_Shelf		0.506	0.013	0.646	0.136
cg27168573	yellow	12	120,700,929	Body	N_Shelf	PXN	0.506	-0.002	0.602	0.823
cg21240736	yellow	9	132,191,482		OpenSea		0.506	-0.006	0.358	0.386
cg23704627	yellow	22	39,152,758	TSS1500	S_Shore	UNC84B	0.506	0.013	0.329	0.095
cg19590900	yellow	11	71,259,292	TSS200	OpenSea	KRTAP5-9	0.506	0.000	0.837	0.987
cg00094095	yellow	1	203,834,696	Body	S_Shelf	SNRPE	0.506	0.002	0.941	0.770
cg26107642	yellow	5	35,890,578		OpenSea		0.506	0.020	0.688	0.004
cg07618900	yellow	12	70,093,350	TSS200	OpenSea	BEST3	0.506	0.014	0.665	0.160
cg21492882	yellow	5	1,201,639	TSS200	Island	SLC6A19	0.506	-0.003	0.564	0.740
cg14200127	yellow	1	97,604,182	Body	OpenSea	DPYD	0.506	0.014	0.785	0.303
cg17033546	yellow	1	78,145,176	5'UTR	N_Shelf	ZZZ3	0.506	0.009	0.910	0.117
cg02261543	yellow	11	10,800,368	Body	OpenSea	CTR9	0.506	-0.007	0.890	0.377
cg22907258	yellow	17	75,141,096	Body	S_Shelf	SEC14L1	0.506	0.006	0.918	0.427
cg10708955	yellow	17	8,056,950	TSS1500	S_Shore	PER1	0.506	0.004	0.089	0.665
cg17525411	yellow	12	7,341,580	TSS1500	N_Shore	PEX5	0.506	0.018	0.355	0.013
cg02491912	yellow	16	74,809,091	TSS1500	S_Shore	FA2H	0.506	-0.011	0.168	0.060
cg06708331	yellow	22	49,761,906		N_Shelf		0.506	0.020	0.691	0.018
cg22823236	yellow	14	70,652,710	5'UTR	N_Shelf	SLC8A3	0.506	0.012	0.896	0.244
cg15720675	yellow	1	150,293,256	TSS1500	N_Shore	PRPF3	0.506	0.003	0.945	0.533
cg22874802	yellow	1	16,477,614	Body	N_Shelf	EPHA2	0.505	0.006	0.528	0.235
cg06148175	yellow	11	67,418,148	TSS200	OpenSea	ACY3	0.505	0.025	0.578	0.009
cg19024352	yellow	17	58,381,213	Body	OpenSea	USP32	0.505	0.002	0.878	0.839
cg23181133	yellow	19	42,300,812	Body	OpenSea	CEACAM3	0.505	0.023	0.667	0.018
cg06636625	yellow	19	57,923,662	Body	S_Shore	ZNF17	0.505	0.003	0.675	0.711
cg23727813	yellow	12	6,803,244	3'UTR	OpenSea	C12orf53	0.505	0.012	0.609	0.119
cg25677709	yellow	5	149,900,459	5'UTR	OpenSea	NDST1	0.505	0.003	0.818	0.583
cg21011913	yellow	17	7,392,218	Body	S_Shelf	POLR2A	0.505	0.015	0.741	0.385
cg15670620	yellow	17	34,843,101	Body	S_Shore	ZNHIT3	0.505	0.005	0.041	0.102
cg07015886	yellow	1	223,317,465	TSS1500	S_Shore	TLR5	0.505	-0.002	0.368	0.788
cg24251862	yellow	22	43,045,736	TSS1500	S_Shore	CYB5R3	0.505	0.010	0.136	0.335
cg00909094	yellow	3	12,586,368		OpenSea		0.505	-0.002	0.926	0.803
cg01799429	yellow	8	142,733,565		N_Shore		0.505	0.004	0.782	0.581
cg20957164	yellow	3	12,965,323	Body	OpenSea	IQSEC1	0.505	0.003	0.767	0.597
cg01792749	yellow	3	38,835,179	Body	OpenSea	SCN10A	0.505	-0.005	0.747	0.660
cg00290158	yellow	20	5,092,801	5'UTR	N_Shore	C20orf30	0.505	0.023	0.713	0.116
cg27304729	yellow	19	30,205,554	Body	N_Shore	C19orf12	0.505	0.008	0.320	0.209
cg07798605	yellow	19	51,508,927	Body	S_Shelf	KLK9	0.505	0.006	0.847	0.584
cg02491802	yellow	4	170,952,547		S_Shelf		0.505	-0.005	0.660	0.537
cg04847043	yellow	16	85,654,213	5'UTR	OpenSea	KIAA0182	0.505	-0.004	0.930	0.280
cg12037947	yellow	20	23,067,752	TSS1500	OpenSea	CD93	0.505	0.002	0.794	0.713
cg22332076	yellow	8	133,494,940		S_Shore		0.505	-0.005	0.654	0.540
cg02473562	yellow	20	44,875,586	Body	S_Shore	CDH22	0.505	0.019	0.342	0.039
cg15596666	yellow	10	135,160,792	TSS200	OpenSea	PRAP1	0.505	0.012	0.274	0.333
cg17565299	yellow	4	1,717,835	3'UTR	S_Shelf	TMEM129	0.505	0.014	0.745	0.074
cg10881225	yellow	2	9,984,929	Body	S_Shore	TAF1B	0.505	0.003	0.432	0.903
cg00338749	yellow	11	1,036,677	1stExon	Island	MUC6	0.505	0.006	0.567	0.554
cg03176729	yellow	10	124,222,607	Body	S_Shore	HTRA1	0.505	0.001	0.529	0.958
cg05482395	yellow	13	52,582,761	Body	N_Shelf	ATP7B	0.505	0.000	0.390	0.994
cg01082437	yellow	21	33,945,064		S_Shelf		0.505	0.005	0.464	0.426
cg06114605	yellow	7	4,806,755	3'UTR	N_Shore	FOXK1	0.505	0.006	0.888	0.391
cg20932397	yellow	19	1,313,146		Island		0.505	0.005	0.744	0.473
cg15778232	yellow	12	7,081,145	TSS1500	S_Shore	PHB2	0.505	0.005	0.740	0.653
cg16194160	yellow	8	145,057,174	Body	OpenSea	PARP10	0.505	0.012	0.803	0.059
cg24798603	yellow	12	110,010,952	TSS1500	N_Shore	MVK	0.505	-0.003	0.113	0.582
cg24262654	yellow	4	1,148,456		OpenSea		0.505	0.001	0.473	0.907
cg20971546	yellow	5	159,423,149		OpenSea		0.505	0.016	0.672	0.134
cg11703745	yellow	1	205,199,293	Body	S_Shore	TMCC2	0.504	0.001	0.739	0.862
cg09121378	yellow	21	45,883,590		Island		0.504	0.008	0.681	0.356
cg10022788	yellow	19	3,136,019	TSS200	OpenSea	GNA15	0.504	-0.001	0.556	0.932
cg11399508	yellow	21	38,580,484	TSS1500	OpenSea	DSCR9	0.504	0.004	0.401	0.853

cg19217571	yellow	19	48,283,235	Body	S_Shore	SEPW1	0.504	0.002	0.243	0.682
cg21554861	yellow	4	99,851,060	5'UTR	S_Shore	EIF4E	0.504	0.010	0.534	0.469
cg04141008	yellow	16	3,843,232	Body	OpenSea	CREBBP	0.504	-0.007	0.804	0.537
cg19746343	yellow	1	235,290,405	Body	N_Shore	TOMM20	0.504	0.004	0.383	0.697
cg17499358	yellow	1	24,476,861		OpenSea		0.504	-0.002	0.597	0.849
cg03589820	yellow	3	11,585,825	Body	OpenSea	ATG7	0.504	0.003	0.777	0.709
cg06634056	yellow	6	32,820,608	TSS1500	N_Shore	PSMB9	0.504	0.004	0.056	0.365
cg21871151	yellow	1	45,272,637	5'UTR	S_Shore	TCTEX1D4	0.504	0.002	0.946	0.444
cg01021952	yellow	20	42,187,632	TSS200	OpenSea	SGK2	0.504	0.011	0.627	0.094
cg14294859	yellow	9	130,862,556	Body	OpenSea	SLC25A25	0.504	-0.006	0.402	0.608
cg01823958	yellow	1	53,557,455	Body	N_Shore	SLC1A7	0.504	0.005	0.879	0.396
cg14564815	yellow	5	139,752,588	3'UTR	OpenSea	SLC4A9	0.504	-0.005	0.312	0.320
cg00459683	yellow	1	200,182,426	TSS1500	OpenSea	FAM58B	0.504	0.001	0.538	0.968
cg07369094	yellow	5	107,471,174	Body	OpenSea	FBXL17	0.504	-0.001	0.598	0.886
cg08466740	yellow	16	6,534,829	5'UTR	S_Shore	A2BP1	0.504	0.011	0.744	0.410
cg10155026	yellow	12	4,553,029	Body	N_Shore	FGF6	0.504	-0.003	0.633	0.642
cg05115375	yellow	15	33,360,485	TSS1500	OpenSea	FMN1	0.504	0.007	0.390	0.439
cg13553343	yellow	11	66,177,637		S_Shore		0.504	0.003	0.544	0.668
cg25339052	yellow	2	196,399,403		OpenSea		0.504	-0.003	0.967	0.374
cg05673287	yellow	15	77,411,982	Body	OpenSea	SGK269	0.504	0.012	0.742	0.452
cg01278291	yellow	5	176,937,363	1stExon	OpenSea	DOK3	0.504	0.011	0.851	0.052
cg08140412	yellow	12	52,014,778	5'UTR	OpenSea	SCN8A	0.504	0.009	0.550	0.120
cg06096805	yellow	9	130,743,943	TSS1500	S_Shore	FAM102A	0.504	0.002	0.365	0.723
cg04587829	yellow	17	80,692,947	TSS1500	N_Shore	FN3K	0.504	0.015	0.724	0.174
cg14055212	yellow	7	104,445,585	Body	OpenSea	LHFPL3	0.504	0.013	0.652	0.053
cg05054910	yellow	14	101,826,652		OpenSea		0.504	-0.012	0.121	0.135
cg16150381	yellow	20	61,151,446	Body	N_Shore	C20orf166	0.504	0.002	0.460	0.637
cg08872493	yellow	1	23,521,417	TSS200	OpenSea	HTR1D	0.504	0.011	0.463	0.140
cg09607396	yellow	16	14,723,484	5'UTR	N_Shore	PARN	0.504	0.000	0.067	0.986
cg12557626	yellow	13	113,977,332	3'UTR	S_Shore	LAMP1	0.504	0.011	0.591	0.647
cg06315439	yellow	17	47,448,633		OpenSea		0.504	0.018	0.453	0.007
cg08205443	yellow	19	56,608,801	Body	Island	ZNF787	0.504	0.007	0.595	0.313
cg10683055	yellow	21	34,638,126	TSS1500	N_Shore	IL10RB	0.504	0.000	0.112	0.979
cg15655714	yellow	19	51,018,365	TSS1500	N_Shore	ASPDH	0.504	0.006	0.453	0.578
cg07611575	yellow	16	3,593,230	Body	OpenSea	NLRC3	0.504	0.004	0.764	0.416
cg13480898	yellow	19	10,195,914	TSS1500	N_Shore	C19orf66	0.504	0.011	0.484	0.239
cg19956914	yellow	7	56,147,257	Body	OpenSea	SUMF2	0.504	0.000	0.315	0.971
cg24235613	yellow	6	31,765,083	TSS1500	S_Shore	VARS	0.504	0.004	0.929	0.316
cg03761291	yellow	16	3,868,188	Body	OpenSea	CREBBP	0.504	0.002	0.715	0.763
cg05799169	yellow	22	50,721,120	Body	Island	PLXNB2	0.504	0.004	0.530	0.655
cg05584078	yellow	11	60,282,712	TSS200	N_Shore	MS4A13	0.503	-0.008	0.918	0.346
cg11585952	yellow	5	2,103,437		OpenSea		0.503	0.005	0.810	0.525
cg25244980	yellow	22	40,042,606	Body	Island	CACNA1I	0.503	-0.008	0.675	0.273
cg05860566	yellow	16	19,017,211	5'UTR	OpenSea	TMC7	0.503	0.008	0.549	0.166
cg12131620	yellow	19	3,188,985	Body	N_Shore	NCLN	0.503	0.006	0.892	0.353
cg17608706	yellow	7	1,581,683	3'UTR	N_Shelf	MAFK	0.503	0.004	0.850	0.430
cg12044923	yellow	4	5,207,312	Body	OpenSea	STK32B	0.503	0.012	0.579	0.191
cg04961189	yellow	17	26,121,059	Body	S_Shore	NOS2	0.503	0.011	0.218	0.208
cg12977328	yellow	11	45,909,813	Body	S_Shelf	MAPK8IP1	0.503	0.006	0.727	0.396
cg02900034	yellow	8	145,535,640	Body	OpenSea	HSF1	0.503	0.007	0.768	0.229
cg10983752	yellow	13	25,764,592		OpenSea		0.503	0.006	0.572	0.362
cg23801544	yellow	22	25,201,139	TSS1500	N_Shore	SGSM1	0.503	0.009	0.798	0.327
cg14654966	yellow	9	136,326,460	Body	S_Shore	C9orf7	0.503	0.003	0.662	0.593
cg17526887	yellow	2	223,918,000	Body	Island	KCNE4	0.503	0.000	0.455	0.990
cg07180674	yellow	11	102,959,223	Body	N_Shelf	DCUN1D5	0.503	-0.007	0.931	0.251
cg21806832	yellow	17	21,262,831		OpenSea		0.503	-0.007	0.746	0.158
cg13597544	yellow	17	79,365,635		N_Shore		0.503	0.007	0.504	0.243
cg27277403	yellow	1	241,694,934	TSS1500	OpenSea	KMO	0.503	0.001	0.097	0.959
cg08253704	yellow	6	30,653,242	Body	N_Shore	KIAA1949	0.503	0.013	0.427	0.022
cg23785280	yellow	12	27,971,832		OpenSea		0.503	0.016	0.933	0.031
cg10385390	yellow	1	8,022,505	5'UTR	S_Shore	PARK7	0.503	0.006	0.115	0.559
cg15900387	yellow	1	150,738,905	TSS1500	OpenSea	CTSS	0.503	-0.007	0.925	0.292
cg22281505	yellow	17	41,158,783	1stExon	OpenSea	IFI35	0.503	0.001	0.065	0.877
cg15863827	yellow	10	79,363,895	Body	OpenSea	KCNMA1	0.503	-0.005	0.792	0.467
cg04789589	yellow	10	91,061,844	5'UTR	OpenSea	IFIT2	0.503	0.000	0.011	0.902
cg04891053	yellow	1	161,053,558	Body	S_Shelf	PVRL4	0.503	0.006	0.526	0.380
cg12285580	yellow	11	71,277,473	3'UTR	OpenSea	KRTAP5-10	0.503	0.002	0.913	0.761

cg01045946	yellow	1	150,980,214	5'UTR	N_Shore	FAM63A	0.503	0.006	0.719	0.404
cg18296251	yellow	5	175,780,274	Body	OpenSea	KIAA1191	0.503	-0.002	0.971	0.505
cg08264638	yellow	2	55,747,775	Body	S_Shore	CCDC104	0.503	0.021	0.187	0.019
cg09244872	yellow	12	100,867,409	TSS1500	OpenSea	NR1H4	0.503	0.015	0.379	0.079
cg12952190	yellow	6	33,256,441	TSS1500	N_Shore	PFDN6	0.503	-0.008	0.263	0.269
cg21982437	yellow	19	51,670,432	TSS200	OpenSea	SIGLECP3	0.503	0.008	0.505	0.180
cg15998505	yellow	1	153,479,701		OpenSea		0.503	0.001	0.343	0.937
cg27353381	yellow	11	1,221,141		N_Shore		0.503	0.015	0.585	0.098
cg12481266	yellow	1	205,561,806	Body	S_Shore	MFSD4	0.503	-0.004	0.810	0.658
cg03120782	yellow	19	15,487,991	Body	N_Shore	AKAP8	0.503	0.007	0.758	0.504
cg22582875	yellow	17	80,545,272	Body	N_Shore	FOXK2	0.503	0.002	0.932	0.648
cg04322363	yellow	3	159,757,071		S_Shore		0.503	0.008	0.375	0.282
cg07240086	yellow	22	50,606,448		N_Shore		0.503	0.016	0.723	0.026
cg23525360	yellow	13	102,182,112	Body	OpenSea	ITGBL1	0.503	-0.005	0.886	0.589
cg24640182	yellow	6	32,305,068	Body	OpenSea	C6orf10	0.503	-0.009	0.758	0.467
cg00115178	yellow	10	12,648,176	Body	OpenSea	CAMK1D	0.503	-0.005	0.489	0.677
cg00817464	yellow	10	111,662,876	Body	OpenSea	XPNPEP1	0.503	0.007	0.527	0.687
cg21448535	yellow	6	32,076,533	5'UTR	OpenSea	TNXB	0.503	0.006	0.600	0.567
cg04291946	yellow	20	60,791,310	Body	Island	HRH3	0.503	0.006	0.606	0.346
cg22948959	yellow	1	2,509,272		OpenSea		0.502	0.006	0.569	0.264
cg19805223	yellow	22	25,346,191		N_Shore		0.502	0.003	0.324	0.665
cg04140212	yellow	2	85,829,138	5'UTR	N_Shore	TMEM150A	0.502	-0.003	0.119	0.571
cg24796261	yellow	12	7,315,351		OpenSea		0.502	0.005	0.275	0.497
cg27301475	yellow	1	1,472,146	Body	N_Shore	C1orf70	0.502	0.008	0.768	0.375
cg15619125	yellow	9	139,747,228	Body	S_Shelf	MAMDC4	0.502	0.009	0.877	0.138
cg25026456	yellow	1	28,298,962		OpenSea		0.502	0.014	0.923	0.047
cg07304315	yellow	10	134,936,859	Body	N_Shore	GPR123	0.502	0.000	0.565	0.956
cg05930326	yellow	2	3,634,071		OpenSea		0.502	0.015	0.802	0.230
cg09320277	yellow	14	75,859,596		OpenSea		0.502	-0.012	0.946	0.015
cg18484567	yellow	11	129,232,365		N_Shore		0.502	0.001	0.860	0.874
cg26312133	yellow	17	71,428,204	Body	N_Shelf	SDK2	0.502	-0.003	0.834	0.607
cg07197092	yellow	2	79,008,089		OpenSea		0.502	-0.007	0.943	0.403
cg00843416	yellow	17	40,914,631	TSS1500	S_Shore	LOC1001909	0.502	0.005	0.787	0.519
cg26120279	yellow	14	105,911,631	Body	N_Shore	MTA1	0.502	0.015	0.751	0.008
cg06016394	yellow	12	68,383,203		OpenSea		0.502	-0.007	0.293	0.354
cg10241697	yellow	13	99,912,133	TSS1500	OpenSea	GPR18	0.502	-0.009	0.912	0.046
cg13173898	yellow	1	41,469,587	Body	OpenSea	CTPS	0.502	-0.002	0.023	0.147
cg00255099	yellow	5	1,225,525	5'UTR	N_Shore	SLC6A18	0.502	-0.001	0.681	0.916
cg09200921	yellow	13	49,867,061	3'UTR	OpenSea	CDADC1	0.502	0.002	0.019	0.129
cg15498274	yellow	19	47,742,558		N_Shore		0.502	0.000	0.174	0.982
cg03705558	yellow	17	19,167,322	5'UTR	OpenSea	EPN2	0.502	-0.004	0.177	0.571
cg09809567	yellow	12	104,444,136	TSS1500	OpenSea	GLT8D2	0.502	0.003	0.054	0.565
cg21280392	yellow	17	47,304,116	5'UTR	S_Shore	PHOSPHO1	0.502	-0.016	0.529	0.060
cg25163076	yellow	22	18,531,591		S_Shore		0.502	0.009	0.479	0.415
cg27312312	yellow	14	56,046,001	TSS1500	N_Shore	KTN1	0.502	-0.016	0.198	0.257
cg08750280	yellow	16	1,024,642		S_Shelf		0.502	0.009	0.649	0.241
cg07274204	yellow	16	31,100,095	1stExon	OpenSea	POL3S	0.502	0.000	0.739	0.944
cg13242944	yellow	11	78,524,048	Body	OpenSea	ODZ4	0.502	-0.005	0.566	0.674
cg11218768	yellow	19	3,978,159	Body	Island	EEF2	0.502	-0.005	0.950	0.274
cg12663302	yellow	6	30,175,792	5'UTR	OpenSea	TRIM26	0.502	-0.005	0.782	0.700
cg18545424	yellow	12	81,483,984	Body	OpenSea	ACSS3	0.502	-0.001	0.826	0.911
cg01591591	yellow	16	3,921,282	Body	OpenSea	CREBBP	0.502	-0.003	0.654	0.820
cg23096144	yellow	1	226,012,954	TSS200	OpenSea	EPHX1	0.502	0.003	0.500	0.660
cg21578195	yellow	20	62,168,727	TSS200	S_Shore	PTK6	0.502	0.006	0.874	0.273
cg01484686	yellow	6	106,258,629		OpenSea		0.502	0.005	0.116	0.506
cg26122286	yellow	13	101,196,636		OpenSea		0.502	-0.010	0.417	0.686
cg13277939	yellow	14	39,735,211	TSS1500	N_Shore	CTAGE5	0.502	-0.004	0.826	0.723
cg06026545	yellow	17	35,656,860	Body	OpenSea	ACACA	0.502	-0.004	0.166	0.563
cg19048403	yellow	19	7,942,488		S_Shelf		0.502	0.016	0.845	0.013
cg07641643	yellow	12	123,234,584		N_Shelf		0.501	-0.002	0.756	0.752
cg16107470	yellow	5	12,865,512		OpenSea		0.501	-0.007	0.931	0.177
cg10998242	yellow	3	53,530,847	Body	S_Shore	CACNA1D	0.501	-0.015	0.841	0.128
cg21912203	yellow	1	65,003,303	Body	OpenSea	CACHD1	0.501	-0.005	0.699	0.539
cg00069002	yellow	1	33,772,736		Island		0.501	-0.005	0.318	0.524
cg02768671	yellow	6	169,470,822		OpenSea		0.501	0.009	0.679	0.223
cg20583073	yellow	19	3,178,759	TSS200	Island	S1PR4	0.501	-0.001	0.726	0.937
cg06965195	yellow	1	4,390,452		OpenSea		0.501	0.010	0.696	0.158

cg20659485	yellow	5	132,204,398	3'UTR	S_Shore	UQCRQ	0.501	0.000	0.812	0.997
cg04220482	yellow	8	63,952,370	TSS1500	S_Shore	GGH	0.501	0.017	0.544	0.102
cg06996081	yellow	14	65,380,736	TSS1500	N_Shore	CHURC1	0.501	-0.001	0.456	0.976
cg14202099	yellow	8	15,397,211	TSS1500	N_Shore	TUSC3	0.501	0.007	0.818	0.554
cg00974598	yellow	19	44,223,902	Body	Island	IRGC	0.501	0.003	0.779	0.688
cg20309975	yellow	8	1,303,402		Island		0.501	0.008	0.852	0.145
cg03405834	yellow	16	677,895	3'UTR	Island	RAB40C	0.501	0.001	0.650	0.858
cg10914749	yellow	1	45,272,255	Body	Island	TCTEX1D4	0.501	0.009	0.808	0.304
cg06534376	yellow	6	30,708,863	Body	N_Shore	FLOT1	0.501	0.005	0.930	0.377
cg10987788	yellow	11	34,535,377	TSS200	OpenSea	ELF5	0.501	-0.001	0.683	0.848
cg19477921	yellow	6	127,805,476	Body	OpenSea	C6orf174	0.501	-0.017	0.343	0.202
cg10451940	yellow	16	1,480,992		Island		0.501	0.017	0.608	0.042
cg24081819	yellow	8	27,348,940	Body	S_Shore	EPHX2	0.501	0.000	0.025	0.865
cg02832687	yellow	17	47,759,392		S_Shelf		0.501	-0.009	0.842	0.279
cg08203127	yellow	16	331,727	Body	N_Shore	ARHGDIG	0.501	-0.002	0.242	0.793
cg18010085	yellow	6	1,297,024		OpenSea		0.501	-0.006	0.573	0.586
cg13493546	yellow	9	91,390,547		OpenSea		0.501	-0.004	0.732	0.691
cg09506319	yellow	1	2,122,601	Body	S_Shore	C1orf86	0.501	0.014	0.660	0.099
cg01564343	yellow	6	41,121,920	Body	OpenSea	TREML1	0.501	0.010	0.673	0.239
cg16156525	yellow	19	36,210,688	Body	Island	MLL4	0.501	0.004	0.816	0.429
cg17591188	yellow	5	539,530		S_Shelf		0.501	0.010	0.456	0.145
cg23768680	yellow	17	17,184,891	TSS1500	S_Shore	COPS3	0.501	0.003	0.039	0.247
cg15226135	yellow	22	50,900,278	Body	Island	SBF1	0.501	0.006	0.891	0.364
cg11332928	yellow	1	45,273,680	TSS1500	S_Shore	BTBD19	0.501	-0.004	0.036	0.061
cg05279761	yellow	3	132,312,243	Body	OpenSea	ACAD11	0.501	0.006	0.898	0.630
cg02021180	yellow	3	65,996,909	Body	OpenSea	MAGI1	0.501	0.005	0.840	0.429
cg21103316	yellow	7	6,699,526		N_Shelf		0.501	0.000	0.860	0.963
cg14023309	yellow	9	140,188,408		N_Shore		0.500	0.018	0.350	0.098
cg18520696	yellow	17	4,631,822		N_Shelf		0.500	0.005	0.869	0.562
cg02915437	yellow	3	133,142,442	Body	OpenSea	BFSP2	0.500	0.002	0.103	0.772
cg15971518	yellow	11	57,159,174	TSS1500	OpenSea	PRG2	0.500	-0.012	0.844	0.360
cg06038367	yellow	16	30,198,370	Body	S_Shelf	CORO1A	0.500	0.013	0.806	0.117
cg05707788	yellow	21	47,165,437		N_Shore		0.500	0.000	0.634	0.978
cg02021817	yellow	16	53,468,150	TSS200	N_Shore	RBL2	0.500	-0.001	0.021	0.456
cg02099148	yellow	6	4,706,170	TSS1500	OpenSea	CDYL	0.500	0.013	0.716	0.482
cg01673284	yellow	16	4,527,211	5'UTR	S_Shore	HMOX2	0.500	0.013	0.340	0.518
cg20950646	yellow	7	157,083,480		OpenSea		0.500	-0.002	0.648	0.766
cg14571710	yellow	6	30,655,896	TSS1500	S_Shore	KIAA1949	0.500	0.005	0.212	0.366
cg13562816	yellow	12	91,566,283	Body	OpenSea	DCN	0.500	0.016	0.834	0.161
cg05850565	yellow	14	91,949,673	Body	OpenSea	SMEK1	0.500	-0.004	0.947	0.359
cg19861842	yellow	8	22,855,745	Body	N_Shore	RHOBTB2	0.500	0.000	0.939	0.957
cg12616592	yellow	4	647,423	5'UTR	Island	PDE6B	0.500	0.004	0.702	0.602
cg11460364	yellow	2	162,931,397	TSS1500	S_Shore	DPP4	0.500	-0.001	0.663	0.933
cg27250032	yellow	10	5,544,140		S_Shelf		0.500	0.007	0.480	0.638
cg01824652	yellow	8	75,653,980		OpenSea		0.500	-0.001	0.935	0.886
cg18803896	yellow	8	86,251,915	Body	OpenSea	CA1	0.500	-0.007	0.819	0.487
cg13563504	yellow	1	151,778,255	TSS1500	OpenSea	LINGO4	0.500	0.008	0.638	0.284
cg00347775	yellow	22	43,829,831	Body	N_Shore	MPPED1	0.500	0.011	0.807	0.290
cg12824060	yellow	13	53,602,856	TSS200	OpenSea	OLFM4	0.500	0.004	0.390	0.489
cg19928955	yellow	13	34,184,932		OpenSea		0.500	0.006	0.839	0.568
cg16126958	yellow	11	134,122,492	Body	N_Shore	THYN1	0.500	-0.008	0.208	0.293
cg14399018	yellow	7	126,615,786	Body	OpenSea	GRM8	0.500	-0.002	0.921	0.826
cg10878307	yellow	17	46,034,455	5'UTR	OpenSea	PRR15L	0.500	0.005	0.482	0.523
cg06582782	yellow	12	5,621,261		OpenSea		0.500	-0.014	0.149	0.270
cg11323439	yellow	11	46,264,544		N_Shore		0.500	0.002	0.032	0.164
cg06144311	yellow	7	4,814,294	TSS1500	N_Shore	KIAA0415	0.500	0.005	0.667	0.583
cg08822602	yellow	6	168,743,643		OpenSea		0.500	0.006	0.526	0.668
cg27359469	yellow	6	133,116,721	Body	N_Shelf	C6orf192	0.500	0.004	0.750	0.718
cg04510209	yellow	10	134,607,879		Island		0.500	0.001	0.662	0.888
cg15152945	yellow	1	161,283,898	TSS1500	Island	SDHC	0.500	0.020	0.175	0.066
cg21823426	yellow	6	1,001,966	Body	OpenSea	LOC285768	0.500	0.045	0.540	0.005
cg19234495	yellow	1	43,748,663	Body	OpenSea	C1orf210	0.500	0.003	0.879	0.650
cg01387450	yellow	2	23,839,710	Body	OpenSea	KLHL29	0.500	0.012	0.552	0.259
cg21771125	yellow	6	33,149,047	Body	OpenSea	COL11A2	0.500	0.000	0.460	0.943
cg07901253	yellow	1	15,402,504	Body	OpenSea	KIAA1026	0.500	0.012	0.415	0.028
cg09243021	yellow	7	142,985,019	3'UTR	N_Shore	TMEM139	0.500	0.001	0.303	0.901
cg01407235	yellow	2	69,001,799	Body	OpenSea	ARHGAP25	0.500	0.004	0.637	0.726

cg01549525	yellow	1	182,021,796		N_Shelf		0.500	0.006	0.583	0.690
cg26888727	yellow	6	33,135,753	Body	OpenSea	COL11A2	0.500	0.003	0.925	0.554
cg12836643	yellow	22	39,129,370	3'UTR	OpenSea	GTPBP1	0.500	-0.005	0.223	0.280
cg15902874	yellow	14	31,677,716	TSS1500	S_Shore	HECTD1	0.500	0.001	0.079	0.735
cg19074748	yellow	11	76,348,764		OpenSea		0.500	0.002	0.528	0.804
cg02056986	yellow	14	105,104,908		N_Shore		0.500	0.020	0.192	0.017
cg16599983	yellow	6	32,168,969	Body	OpenSea	NOTCH4	0.500	-0.002	0.820	0.744
cg18061395	yellow	5	16,754,384	Body	OpenSea	MYO10	0.500	0.008	0.892	0.362
cg00894757	yellow	3	170,137,240	Body	Island	CLDN11	0.500	0.003	0.059	0.493
cg02475301	yellow	11	3,253,838	TSS1500	Island	MRGPRE	0.500	0.008	0.464	0.398
cg26299044	yellow	17	39,021,588	Body	S_Shore	KRT12	0.500	-0.009	0.828	0.398
cg12515517	yellow	15	68,804,378		OpenSea		0.500	0.009	0.477	0.095
cg12553223	yellow	20	55,044,302	Body	S_Shore	C20orf43	0.500	0.009	0.072	0.240
cg21962204	yellow	1	217,604,232	3'UTR	OpenSea	GPATCH2	0.499	0.008	0.828	0.226
cg22807402	yellow	17	73,269,154	3'UTR	S_Shore	SLC25A19	0.499	0.000	0.937	0.934
cg09682469	yellow	12	119,048,988		OpenSea		0.499	-0.004	0.641	0.562
cg03213860	yellow	11	77,185,670	TSS1500	S_Shore	PAK1	0.499	0.006	0.059	0.460
cg12655781	yellow	6	31,767,750	Body	S_Shelf	LSM2	0.499	0.013	0.913	0.083
cg03211593	yellow	11	44,731,693		OpenSea		0.499	-0.002	0.519	0.817
cg26315457	yellow	2	48,759,821		S_Shelf		0.499	-0.001	0.953	0.610
cg15912390	yellow	3	194,826,514	Body	OpenSea	C3orf21	0.499	0.006	0.602	0.409
cg18633340	yellow	19	39,929,516		S_Shelf		0.499	-0.003	0.505	0.735
cg04207142	yellow	8	86,089,106	TSS1500	N_Shore	E2F5	0.499	0.008	0.293	0.209
cg01023751	yellow	19	36,427,010	TSS1500	N_Shore	LRFN3	0.499	-0.005	0.192	0.475
cg05683227	yellow	7	87,850,031	Body	S_Shore	SRI	0.499	0.001	0.020	0.665
cg25565082	yellow	17	78,156,236	Body	N_Shore	CARD14	0.499	0.005	0.608	0.407
cg26669624	yellow	1	11,761,332	5'UTR	OpenSea	C1orf187	0.499	0.006	0.548	0.468
cg15993458	yellow	6	32,820,691	TSS1500	N_Shore	PSMB9	0.499	0.001	0.159	0.908
cg00350296	yellow	11	66,084,841	TSS1500	S_Shore	CD248	0.499	-0.009	0.123	0.221
cg04474832	yellow	3	52,008,487	1stExon	N_Shore	ABHD14B	0.499	0.010	0.458	0.085
cg06431347	yellow	2	235,935,754	5'UTR	OpenSea	SH3BP4	0.499	0.013	0.465	0.531
cg27404824	yellow	10	1,454,848	Body	OpenSea	ADARB2	0.499	0.001	0.883	0.916
cg04680436	yellow	2	242,842,668		N_Shore		0.499	0.011	0.506	0.452
cg10826688	yellow	17	43,714,992	TSS1500	OpenSea	C17orf69	0.499	0.002	0.769	0.735
cg01933946	yellow	1	38,155,525	Body	N_Shore	C1orf109	0.499	0.002	0.023	0.075
cg11998932	yellow	7	3,901,843	Body	OpenSea	SDK1	0.499	0.011	0.191	0.414
cg00615919	yellow	2	240,043,915	Body	N_Shelf	HDAC4	0.499	-0.002	0.555	0.815
cg05620821	yellow	11	67,777,618	TSS200	OpenSea	ALDH3B1	0.499	0.005	0.198	0.571
cg00168835	yellow	1	212,874,153	TSS1500	S_Shore	BATF3	0.499	0.006	0.098	0.301
cg02666638	yellow	19	40,732,804	TSS1500	S_Shore	CNTD2	0.499	0.005	0.278	0.475
cg12298445	yellow	11	72,438,603	5'UTR	S_Shore	ARAP1	0.499	0.012	0.434	0.052
cg03149749	yellow	22	50,741,674	5'UTR	N_Shelf	PLXNB2	0.499	-0.001	0.821	0.804
cg16736630	yellow	1	779,995	Body	OpenSea	LOC643837	0.499	0.009	0.719	0.368
cg07908160	yellow	17	56,296,982	TSS200	S_Shore	MKS1	0.499	-0.005	0.479	0.557
cg06228763	yellow	7	1,773,169	5'UTR	OpenSea	ELFN1	0.499	0.008	0.643	0.202
cg22455720	yellow	17	80,725,109	Body	OpenSea	TBCD	0.499	-0.006	0.328	0.474
cg02880176	yellow	17	17,109,817	TSS200	N_Shore	PLD6	0.499	-0.006	0.149	0.667
cg00363845	yellow	19	17,446,137	TSS1500	S_Shore	ANO8	0.499	0.018	0.563	0.152
cg09247736	yellow	21	33,958,060	TSS1500	OpenSea	TCP10L	0.499	0.008	0.653	0.303
cg14070503	yellow	2	96,974,307		S_Shelf		0.499	0.003	0.721	0.743
cg05377162	yellow	1	185,286,996	TSS1500	S_Shore	IVNS1ABP	0.499	0.001	0.019	0.494
cg05976571	yellow	21	44,474,732	Body	S_Shore	CBS	0.499	-0.004	0.694	0.650
cg01921818	yellow	13	114,106,344	Body	OpenSea	ADPRHL1	0.499	0.001	0.971	0.724
cg13099117	yellow	6	30,538,539	TSS1500	N_Shore	ABCF1	0.499	0.006	0.058	0.021
cg05332854	yellow	16	54,228,582		S_Shore		0.499	0.019	0.369	0.136
cg07762764	yellow	3	24,565,992		S_Shelf		0.499	-0.010	0.668	0.205
cg26457700	yellow	17	80,289,541	5'UTR	N_Shore	SECTM1	0.499	0.007	0.841	0.193
cg05166028	yellow	7	157,622,138	Body	S_Shelf	PTPRN2	0.499	0.008	0.815	0.491
cg19713429	yellow	1	19,810,690	Body	N_Shore	CAPZB	0.499	0.007	0.249	0.307
cg15854022	yellow	2	91,781,765		S_Shelf		0.499	-0.001	0.632	0.786
cg04947137	yellow	6	136,571,999	TSS1500	S_Shore	FAM54A	0.499	0.004	0.076	0.561
cg23599716	yellow	1	44,686,794	3'UTR	OpenSea	ERI3	0.499	0.008	0.755	0.193
cg24780236	yellow	7	142,918,565	TSS1500	OpenSea	TAS2R40	0.499	0.004	0.835	0.686
cg01678878	yellow	16	81,272,429	5'UTR	OpenSea	BCMO1	0.499	0.001	0.053	0.874
cg15930643	yellow	5	61,001,539	3'UTR	OpenSea	FLJ37543	0.498	0.008	0.219	0.485
cg19526685	yellow	8	126,963,507		OpenSea		0.498	0.006	0.773	0.566
cg13558462	yellow	19	38,572,902	Body	Island	SIPA1L3	0.498	0.001	0.903	0.824

cg27366882	yellow	3	133,540,807	OpenSea		0.498	-0.007	0.534	0.727
cg20730595	yellow	22	41,513,219 Body	OpenSea	EP300	0.498	0.005	0.946	0.377
cg00875013	yellow	19	40,951,060 TSS1500	S_Shore	SERTAD3	0.498	-0.001	0.036	0.709
cg12612687	yellow	12	132,824,835 Body	S_Shore	GALNT9	0.498	0.001	0.917	0.822
cg14580649	yellow	4	1,208,147 Body	N_Shore	CTBP1	0.498	0.002	0.894	0.750
cg15077070	yellow	2	102,803,290 TSS200	N_Shore	IL1RL2	0.498	0.015	0.389	0.116
cg17503995	yellow	13	24,844,938 Body	OpenSea	SPATA13	0.498	0.000	0.016	0.618
cg26869723	yellow	13	114,318,976	OpenSea		0.498	0.001	0.818	0.938
cg08664568	yellow	1	39,598,712 Body	OpenSea	MACF1	0.498	0.010	0.374	0.064
cg23932261	yellow	1	2,876,546	Island		0.498	0.002	0.463	0.816
cg15825970	yellow	19	18,284,232 TSS1500	N_Shore	IFI30	0.498	0.002	0.441	0.781
cg27319188	yellow	11	65,880,175 Body	OpenSea	PACS1	0.498	0.003	0.280	0.843
cg17557870	yellow	3	15,105,323 Body	N_Shore	MRPS25	0.498	0.004	0.829	0.587
cg20875821	yellow	18	61,557,735 5'UTR	OpenSea	SERPINB2	0.498	0.001	0.844	0.831
cg12419522	yellow	3	30,647,670 TSS1500	N_Shore	TGFBR2	0.498	0.001	0.091	0.819
cg25377915	yellow	8	95,127,949	OpenSea		0.498	-0.014	0.396	0.187
cg25928447	yellow	17	72,439,217 Body	N_Shelf	GPRC5C	0.498	0.001	0.418	0.944
cg26064142	yellow	5	152,867,989	OpenSea		0.498	-0.003	0.852	0.770
cg17749033	yellow	17	80,197,412	S_Shore		0.498	0.008	0.608	0.277
cg27563121	yellow	15	52,405,647 TSS1500	S_Shore	BCL2L10	0.498	0.005	0.610	0.656
cg16374457	yellow	17	57,059,840 3'UTR	OpenSea	PPM1E	0.498	-0.003	0.547	0.775
cg02539798	yellow	7	158,272,469 Body	OpenSea	PTPRN2	0.498	-0.005	0.576	0.552
cg09815776	yellow	16	25,240,081 3'UTR	OpenSea	AQP8	0.498	0.007	0.516	0.436
cg20498482	yellow	8	100,334,620 Body	OpenSea	VPS13B	0.498	0.009	0.781	0.449
cg08647730	yellow	7	155,959,710	OpenSea		0.498	0.002	0.791	0.769
cg15058266	yellow	1	228,246,263 Body	N_Shore	WNT3A	0.498	0.013	0.250	0.066
cg10201533	yellow	1	917,661 TSS200	N_Shelf	C1orf170	0.498	0.005	0.533	0.451
cg19843449	yellow	15	27,217,186 Body	S_Shore	GABRG3	0.498	0.014	0.450	0.113
cg11504646	yellow	3	186,913,950 TSS1500	N_Shelf	RTP1	0.498	0.000	0.903	0.964
cg10145941	yellow	1	16,178,152 Body	S_Shelf	SPEN	0.498	0.010	0.913	0.137
cg26573807	yellow	1	19,654,245 Body	OpenSea	PQLC2	0.498	-0.001	0.773	0.824
cg06223162	yellow	1	101,003,688 TSS200	N_Shore	GPR88	0.498	0.006	0.221	0.575
cg20141359	yellow	6	29,325,117 TSS1500	OpenSea	OR5V1	0.498	0.004	0.774	0.743
cg23118549	yellow	7	44,581,105 TSS200	OpenSea	NPC1L1	0.498	0.001	0.544	0.845
cg21565972	yellow	17	80,109,576 Body	OpenSea	CCDC57	0.498	0.002	0.947	0.679
cg24498746	yellow	12	56,679,727 Body	OpenSea	CS	0.498	0.003	0.934	0.520
cg10883375	yellow	14	74,210,186 5'UTR	OpenSea	C14orf43	0.498	0.003	0.524	0.631
cg10907868	yellow	2	175,355,057	S_Shelf		0.498	-0.002	0.922	0.785
cg15114328	yellow	1	182,361,557 TSS1500	Island	GLUL	0.498	-0.001	0.072	0.896
cg12930392	yellow	3	196,481,615 5'UTR	OpenSea	PAK2	0.498	0.011	0.669	0.359
cg13854341	yellow	7	70,595,507	N_Shore		0.498	0.001	0.547	0.919
cg22012981	yellow	3	58,522,689 5'UTR	OpenSea	ACOX2	0.498	0.005	0.387	0.382
cg14493637	yellow	9	124,029,872 TSS1500	OpenSea	GSN	0.498	0.004	0.560	0.556
cg00691598	yellow	8	1,810,526 Body	OpenSea	ARHGEF10	0.498	0.005	0.628	0.578
cg09226596	yellow	14	38,668,541	OpenSea		0.498	0.003	0.591	0.834
cg10680235	yellow	15	85,430,038 5'UTR	OpenSea	SLC28A1	0.498	0.017	0.838	0.013
cg14796655	yellow	7	35,788,852	OpenSea		0.498	-0.013	0.836	0.258
cg11570656	yellow	13	45,149,702 1stExon	N_Shore	TSC22D1	0.498	-0.004	0.405	0.630
cg15875904	yellow	4	3,680,721	OpenSea		0.498	0.002	0.709	0.792
cg10710218	yellow	1	55,012,989 TSS1500	OpenSea	ACOT11	0.498	0.009	0.759	0.215
cg24701369	yellow	8	9,535,308 Body	OpenSea	TNKS	0.498	0.001	0.840	0.909
cg20289412	yellow	14	62,531,354 Body	OpenSea	SYT16	0.498	0.014	0.738	0.149
cg03393889	yellow	16	2,094,700 Body	N_Shelf	NTHL1	0.498	0.000	0.685	0.958
cg18882912	yellow	6	76,459,511 5'UTR	S_Shore	MYO6	0.498	0.002	0.062	0.762
cg19599803	yellow	1	156,722,676 TSS1500	S_Shore	HDGF	0.497	-0.007	0.230	0.530
cg26806835	yellow	4	184,240,083 1stExon	OpenSea	CLDN22	0.497	0.001	0.389	0.873
cg26464586	yellow	6	43,921,712	OpenSea		0.497	0.000	0.490	0.936
cg17714703	yellow	19	4,912,221 Body	S_Shore	UHRF1	0.497	0.004	0.431	0.779
cg21675424	yellow	22	21,987,039 TSS200	S_Shelf	CCDC116	0.497	0.004	0.543	0.523
cg00245890	yellow	3	58,574,042	S_Shore		0.497	-0.010	0.532	0.186
cg07593845	yellow	8	67,951,329	OpenSea		0.497	0.009	0.692	0.498
cg17874670	yellow	5	141,972,831 3'UTR	OpenSea	FGF1	0.497	0.017	0.643	0.259
cg00879541	yellow	14	52,466,952 Body	OpenSea	C14orf166	0.497	-0.006	0.947	0.496
cg06278714	yellow	7	43,287,968 Body	N_Shore	HECW1	0.497	-0.007	0.653	0.244
cg19588016	yellow	2	9,511,523 Body	N_Shelf	ASAP2	0.497	0.030	0.624	0.010
cg26427115	yellow	2	26,785,891 Body	Island	C2orf70	0.497	0.010	0.352	0.099
cg24850139	yellow	12	132,933,950	N_Shore		0.497	0.007	0.799	0.426



cg10055277	yellow	1	15,650,448	Body	OpenSea	FHAD1	0.497	0.002	0.560	0.755
cg12284769	yellow	12	125,259,369		OpenSea		0.497	0.035	0.696	0.098
cg15961920	yellow	6	30,586,293	Body	S_Shore	MRPS18B	0.497	0.013	0.215	0.260
cg09908041	yellow	11	3,190,638		S_Shelf		0.497	0.009	0.052	0.112
cg03039843	yellow	19	49,055,390	TSS200	OpenSea	SULT2B1	0.497	0.011	0.715	0.366
cg01138720	yellow	7	592,465	Body	N_Shore	PRKAR1B	0.497	0.004	0.265	0.598
cg01791104	yellow	1	27,113,753	TSS1500	N_Shore	PIGV	0.497	-0.002	0.060	0.624
cg14321539	yellow	8	53,326,384		OpenSea		0.497	0.012	0.812	0.077
cg06797280	yellow	15	52,311,035	TSS1500	N_Shore	MAPK6	0.497	-0.008	0.179	0.333
cg13892570	yellow	1	159,893,182	5'UTR	N_Shore	TAGLN2	0.497	0.000	0.043	0.950
cg26841910	yellow	10	29,618,550		OpenSea		0.497	0.011	0.527	0.476
cg21511321	yellow	7	1,004,997	3'UTR	N_Shelf	COX19	0.497	0.012	0.812	0.123
cg09374772	yellow	6	30,646,794	Body	OpenSea	KIAA1949	0.497	-0.011	0.460	0.166
cg26789597	yellow	1	21,339,979	5'UTR	OpenSea	EIF4G3	0.497	0.012	0.533	0.258
cg08158976	yellow	1	228,297,975	TSS1500	S_Shore	MRPL55	0.497	0.018	0.265	0.235
cg24217567	yellow	2	208,636,228		S_Shore		0.497	0.005	0.775	0.501
cg24600724	yellow	5	176,289,552	Body	OpenSea	UNC5A	0.497	-0.003	0.482	0.612
cg24715988	yellow	1	244,237,941		OpenSea		0.497	0.024	0.318	0.005
cg19566648	yellow	6	167,047,877	Body	OpenSea	RPS6KA2	0.497	-0.004	0.759	0.594
cg09522456	yellow	19	5,794,209		S_Shelf		0.497	0.000	0.042	0.940
cg01898433	yellow	8	144,819,514		N_Shore		0.497	0.008	0.746	0.144
cg19413066	yellow	17	76,965,347		OpenSea		0.497	0.006	0.685	0.401
cg16724332	yellow	16	75,149,501	Body	S_Shore	LDHD	0.497	0.004	0.779	0.697
cg09610987	yellow	3	49,028,278	Body	Island	P4HTM	0.497	0.010	0.075	0.084
cg22148663	yellow	5	176,962,328	Body	S_Shelf	FAM193B	0.497	0.001	0.957	0.772
cg19846096	yellow	12	133,049,188		N_Shore		0.497	0.004	0.895	0.389
cg08763626	yellow	3	155,838,317	TSS200	OpenSea	KCNAB1	0.497	0.013	0.223	0.227
cg02850273	yellow	6	36,611,140		OpenSea		0.497	0.002	0.495	0.824
cg18493147	yellow	19	474,445	Body	OpenSea	ODF3L2	0.497	0.003	0.875	0.716
cg04194294	yellow	6	32,123,686	Body	S_Shore	PPT2	0.496	0.000	0.896	0.993
cg21372200	yellow	3	50,375,735	TSS1500	S_Shore	RASSF1	0.496	0.005	0.470	0.460
cg24429974	yellow	1	161,195,180	TSS1500	OpenSea	TOMM40L	0.496	-0.001	0.467	0.944
cg16193946	yellow	19	51,174,968	Body	S_Shelf	SHANK1	0.496	0.003	0.646	0.774
cg04087789	yellow	14	61,789,466	Body	Island	PRKCH	0.496	0.014	0.196	0.105
cg08515646	yellow	7	157,394,337	Body	OpenSea	PTPRN2	0.496	0.009	0.407	0.214
cg27582696	yellow	6	13,876,469		S_Shelf		0.496	0.000	0.915	0.961
cg19261426	yellow	1	228,560,439	Body	S_Shore	OBSCN	0.496	0.013	0.503	0.085
cg16758037	yellow	16	19,980,811		OpenSea		0.496	-0.004	0.642	0.600
cg08172221	yellow	2	233,416,078	TSS1500	S_Shore	TIGD1	0.496	0.004	0.048	0.322
cg27634164	yellow	5	116,751,135		OpenSea		0.496	0.003	0.954	0.662
cg05628049	yellow	3	42,113,624		OpenSea		0.496	0.002	0.370	0.701
cg03219831	yellow	4	57,875,130	Body	OpenSea	POLR2B	0.496	0.001	0.909	0.882
cg23202496	yellow	20	35,488,318	Body	N_Shelf	C20orf117	0.496	0.015	0.682	0.171
cg22112832	yellow	2	71,098,542		N_Shore		0.496	0.000	0.480	0.953
cg02173484	yellow	1	147,245,168	5'UTR	OpenSea	GJA5	0.496	0.007	0.314	0.334
cg13014803	yellow	13	112,212,253		Island		0.496	-0.006	0.135	0.211
cg21107767	yellow	1	153,388,944	TSS200	OpenSea	S100A7A	0.496	0.004	0.544	0.579
cg22515987	yellow	2	241,372,277		N_Shelf		0.496	0.007	0.890	0.267
cg11519256	yellow	10	5,708,881	TSS1500	S_Shore	ASB13	0.496	0.004	0.096	0.563
cg17052675	yellow	2	3,827,356		OpenSea		0.496	-0.001	0.138	0.959
cg06639585	yellow	6	36,236,936	TSS1500	OpenSea	PNPLA1	0.496	-0.007	0.715	0.201
cg11412248	yellow	15	78,930,962	Body	N_Shelf	CHRN4	0.496	0.004	0.541	0.700
cg06569947	yellow	13	114,126,889	Body	OpenSea	DCUN1D2	0.496	0.003	0.940	0.437
cg15679098	yellow	11	47,470,674	1stExon	OpenSea	RAPSN	0.496	0.010	0.794	0.175
cg14192130	yellow	6	167,535,764	TSS1500	OpenSea	CCR6	0.496	0.016	0.635	0.010
cg03849279	yellow	16	67,751,821	5'UTR	N_Shore	GFOD2	0.496	0.001	0.847	0.939
cg12953200	yellow	4	2,795,501	5'UTR	S_Shore	SH3BP2	0.496	0.000	0.031	0.793
cg03818307	yellow	1	150,480,534	1stExon	OpenSea	ECM1	0.496	0.009	0.593	0.235
cg22240880	yellow	17	7,466,821	Body	S_Shore	SEN3	0.496	0.002	0.786	0.749
cg12856114	yellow	7	73,242,028		N_Shelf		0.496	0.007	0.106	0.212
cg17015522	yellow	17	77,044,488	3'UTR	Island	C1QTNF1	0.496	0.008	0.594	0.493
cg22327338	yellow	7	2,205,691	Body	OpenSea	MAD1L1	0.496	0.001	0.530	0.964
cg21796167	yellow	5	98,132,111	3'UTR	OpenSea	RGMB	0.496	-0.006	0.114	0.367
cg23180925	yellow	17	80,753,497	Body	OpenSea	TBCD	0.496	0.002	0.874	0.663
cg02916899	yellow	15	90,764,658	Body	OpenSea	SEMA4B	0.496	-0.008	0.338	0.426
cg17928876	yellow	14	76,447,431	1stExon	N_Shore	TGFB3	0.495	0.008	0.254	0.322
cg15756878	yellow	22	50,962,002	3'UTR	N_Shore	SCO2	0.495	0.002	0.811	0.810

cg25261331	yellow	19	51,628,121	TSS200	OpenSea	SIGLEC9	0.495	0.005	0.626	0.415
cg21632964	yellow	6	33,129,033		N_Shore		0.495	0.005	0.501	0.547
cg19048360	yellow	6	33,256,165	TSS1500	N_Shore	PFDN6	0.495	-0.004	0.529	0.460
cg04234232	yellow	17	7,360,681	3'UTR	OpenSea	CHRN81	0.495	0.000	0.975	0.866
cg23963591	yellow	1	6,615,418	TSS200	S_Shore	TAS1R1	0.495	0.018	0.708	0.095
cg11993173	yellow	8	54,857,695	Body	OpenSea	RGS20	0.495	0.027	0.452	0.084
cg12077319	yellow	8	81,787,141	TSS200	S_Shore	ZNF704	0.495	0.000	0.302	0.975
cg11878955	yellow	19	6,663,896		S_Shelf		0.495	-0.003	0.897	0.626
cg05451722	yellow	8	145,065,385	5'UTR	Island	GRINA	0.495	0.002	0.099	0.625
cg27390271	yellow	1	2,799,917		OpenSea		0.495	0.013	0.655	0.143
cg07063912	yellow	2	238,598,832	Body	N_Shore	LRRFIP1	0.495	0.002	0.947	0.693
cg06686180	yellow	19	36,056,027	TSS1500	OpenSea	ATP4A	0.495	0.009	0.869	0.259
cg02533173	yellow	19	15,391,124	1stExon	OpenSea	BRD4	0.495	-0.004	0.156	0.513
cg01181940	yellow	5	478,916	Body	S_Shore	SLC9A3	0.495	0.010	0.614	0.171
cg14104626	yellow	5	156,988,400	Body	OpenSea	ADAM19	0.495	0.001	0.458	0.845
cg02433266	yellow	22	20,226,815		N_Shelf		0.495	-0.003	0.650	0.801
cg12805087	yellow	3	183,889,898	3'UTR	S_Shore	DVL3	0.495	-0.001	0.745	0.819
cg04373106	yellow	17	72,932,992	Body	S_Shore	OTOP3	0.495	-0.004	0.474	0.614
cg07489447	yellow	6	170,398,571		N_Shelf		0.495	0.006	0.719	0.290
cg00921309	yellow	8	48,091,487		OpenSea		0.495	0.036	0.429	0.109
cg21640432	yellow	19	35,939,561	TSS1500	OpenSea	FFAR2	0.495	0.012	0.897	0.028
cg26603629	yellow	7	2,752,217	Body	OpenSea	AMZ1	0.495	0.001	0.805	0.876
cg08626932	yellow	20	62,259,823	TSS1500	S_Shore	GMEB2	0.495	0.039	0.331	0.014
cg04783764	yellow	2	230,845,423	Body	OpenSea	FBXO36	0.495	0.009	0.336	0.344
cg02757100	yellow	12	54,670,786	5'UTR	N_Shelf	CBX5	0.495	0.002	0.948	0.583
cg16317381	yellow	12	59,042,279		OpenSea		0.495	0.001	0.932	0.862
cg02286717	yellow	10	75,415,704	1stExon	OpenSea	SYNPO2L	0.495	0.003	0.900	0.607
cg24335155	yellow	7	149,193,227	Body	N_Shore	ZNF746	0.495	0.016	0.339	0.012
cg04095995	yellow	6	170,449,587		N_Shore		0.495	0.020	0.408	0.022
cg08700893	yellow	2	875,896		OpenSea		0.495	0.000	0.866	0.963
cg03076771	yellow	20	35,233,484	TSS1500	N_Shore	C20orf24	0.495	0.007	0.573	0.291
cg10996463	yellow	6	32,150,739	Body	OpenSea	AGER	0.495	0.004	0.731	0.404
cg20031032	yellow	14	104,979,378		OpenSea		0.495	0.004	0.385	0.673
cg16042099	yellow	5	10,513,925		OpenSea		0.495	0.010	0.451	0.418
cg23206888	yellow	2	242,833,114		Island		0.495	0.011	0.831	0.256
cg04247814	yellow	14	97,090,212		OpenSea		0.495	0.000	0.925	0.997
cg02258201	yellow	9	35,906,148	TSS200	OpenSea	HRCT1	0.495	0.002	0.055	0.771
cg27396824	yellow	7	100,391,799	Body	OpenSea	ZAN	0.495	0.000	0.353	0.987
cg14683125	yellow	8	126,441,383	TSS1500	N_Shore	TRIB1	0.495	0.000	0.080	0.910
cg16515974	yellow	6	31,695,064	Body	N_Shore	DDAH2	0.495	0.002	0.854	0.792
cg17450930	yellow	7	150,065,170	TSS1500	Island	REPIN1	0.495	0.005	0.108	0.371
cg21217221	yellow	14	65,881,787	5'UTR	S_Shore	FUT8	0.495	0.001	0.831	0.931
cg27145740	yellow	22	50,725,817	Body	Island	PLXNB2	0.495	-0.001	0.814	0.839
cg00300794	yellow	16	1,231,723	Body	S_Shore	CACNA1H	0.495	-0.024	0.655	0.088
cg05721376	yellow	21	40,823,279	5'UTR	OpenSea	SH3BGR	0.495	-0.008	0.726	0.598
cg18774170	yellow	5	80,260,554	Body	S_Shelf	RASGRF2	0.495	0.005	0.640	0.696
cg05120085	yellow	1	21,986,286	5'UTR	S_Shore	RAP1GAP	0.495	-0.001	0.089	0.852
cg22879583	yellow	11	111,750,412	TSS1500	S_Shore	FDXACB1	0.495	0.014	0.339	0.099
cg05765804	yellow	16	88,379,433		OpenSea		0.495	0.003	0.866	0.576
cg00032609	yellow	20	57,606,607	Body	N_Shore	ATP5E	0.495	-0.004	0.386	0.630
cg01387771	yellow	16	1,036,944	3'UTR	Island	SOX8	0.495	0.005	0.611	0.534
cg07376134	yellow	16	28,075,289	TSS1500	Island	GSG1L	0.494	-0.005	0.122	0.469
cg12757816	yellow	2	10,669,957		S_Shelf		0.494	0.010	0.800	0.189
cg12086340	yellow	14	94,004,501	Body	OpenSea	KIAA1409	0.494	-0.004	0.716	0.614
cg16485897	yellow	8	128,555,993		OpenSea		0.494	0.010	0.937	0.048
cg22257099	yellow	17	17,139,986	5'UTR	N_Shore	FLCN	0.494	0.000	0.017	0.667
cg09965939	yellow	8	99,306,870	TSS1500	S_Shore	NIPAL2	0.494	0.017	0.559	0.055
cg26487562	yellow	19	14,225,959	TSS1500	N_Shelf	PRKACA	0.494	0.002	0.298	0.763
cg20511797	yellow	9	133,760,878	Body	Island	ABL1	0.494	0.013	0.890	0.100
cg13202952	yellow	8	21,888,398	Body	OpenSea	NPM2	0.494	0.005	0.691	0.780
cg00411411	yellow	10	103,455,165	TSS1500	S_Shore	FBXW4	0.494	-0.006	0.613	0.371
cg04132379	yellow	20	4,801,487	5'UTR	N_Shore	RASSF2	0.494	0.000	0.411	0.990
cg03506452	yellow	12	133,458,949	Body	OpenSea	CHFR	0.494	0.016	0.939	0.001
cg18757077	yellow	3	14,378,619		OpenSea		0.494	0.000	0.948	0.911
cg17340810	yellow	10	72,482,588	Body	OpenSea	ADAMTS14	0.494	-0.001	0.902	0.880
cg24900164	yellow	8	8,563,747		S_Shelf		0.494	-0.004	0.657	0.778
cg04499083	yellow	1	151,168,668		N_Shelf		0.494	0.012	0.771	0.386

cg00350304	yellow	16	85,409,269	S_Shore		0.494	-0.002	0.834	0.725
cg02892367	yellow	7	148,724,141 Body	N_Shore	PDIA4	0.494	0.007	0.829	0.349
cg01485548	yellow	19	18,284,321 TSS1500	N_Shore	IFI30	0.494	0.034	0.263	0.005
cg03517024	yellow	16	2,221,057 Body	OpenSea	TRAF7	0.494	0.010	0.792	0.102
cg06640593	yellow	2	568,321	OpenSea		0.494	0.023	0.609	0.105
cg27172488	yellow	7	157,219,499	S_Shelf		0.494	0.007	0.687	0.174
cg09169682	yellow	12	132,196,975 Body	S_Shore	SFRS8	0.494	0.004	0.792	0.620
cg06553975	yellow	12	133,085,262 Body	OpenSea	FBRSL1	0.494	0.008	0.882	0.183
cg09466190	yellow	4	119,763,191	OpenSea		0.494	-0.002	0.593	0.799
cg20012366	yellow	11	76,813,828 TSS200	N_Shore	OMP	0.494	0.003	0.512	0.622
cg05826458	yellow	2	111,875,031 Body	N_Shore	ACOXL	0.494	0.003	0.153	0.557
cg04913246	yellow	14	99,658,630 Body	OpenSea	BCL11B	0.494	0.010	0.057	0.101
cg14520832	yellow	9	139,530,300	S_Shelf		0.494	0.009	0.890	0.112
cg17564844	yellow	22	23,413,784 Body	S_Shore	RTDR1	0.494	0.009	0.321	0.309
cg22584911	yellow	15	52,176,689 Body	OpenSea	TMOD3	0.494	0.014	0.909	0.198
cg07748854	yellow	19	36,449,875	Island		0.494	0.006	0.324	0.400
cg27115978	yellow	16	88,643,407 5'UTR	OpenSea	ZC3H18	0.494	0.007	0.753	0.362
cg23109897	yellow	8	48,871,883 Body	N_Shore	PRKDC	0.494	0.007	0.397	0.658
cg17087974	yellow	11	65,171,397 Body	N_Shore	FRMD8	0.494	-0.002	0.867	0.789
cg02265619	yellow	16	84,963,674	OpenSea		0.494	0.016	0.647	0.028
cg08864037	yellow	16	68,074,806 Body	OpenSea	DUS2L	0.494	0.002	0.103	0.759
cg01127423	yellow	11	45,742,908	OpenSea		0.494	0.002	0.655	0.822
cg21185283	yellow	9	14,690,531 5'UTR	N_Shelf	ZDHHC21	0.494	-0.004	0.842	0.673
cg23099439	yellow	17	73,937,652 3'UTR	S_Shore	ACOX1	0.494	0.004	0.202	0.614
cg14843143	yellow	8	144,331,931 5'UTR	N_Shore	ZFP41	0.494	0.004	0.798	0.499
cg01715538	yellow	6	170,468,154	OpenSea		0.494	0.008	0.657	0.405
cg11434151	yellow	22	36,691,632 Body	OpenSea	MYH9	0.494	0.001	0.927	0.884
cg09320199	yellow	17	17,255,427	OpenSea		0.494	0.008	0.747	0.246
cg27026202	yellow	2	235,200,560	OpenSea		0.494	0.004	0.229	0.777
cg24334045	yellow	22	49,376,354	N_Shore		0.494	0.003	0.636	0.651
cg02470287	yellow	8	10,823,068 Body	OpenSea	XKR6	0.494	0.005	0.681	0.514
cg11028052	yellow	15	81,154,387 5'UTR	OpenSea	KIAA1199	0.494	0.009	0.483	0.340
cg15795984	yellow	20	4,704,964 5'UTR	OpenSea	PRND	0.494	-0.006	0.335	0.570
cg05390368	yellow	1	205,183,101	S_Shelf		0.494	0.000	0.927	0.976
cg15884713	yellow	12	772,966 TSS1500	OpenSea	NINJ2	0.494	0.009	0.562	0.353
cg09143195	yellow	12	41,085,901 TSS1500	N_Shore	CNTN1	0.494	0.004	0.054	0.330
cg09826923	yellow	1	215,810,601 Body	OpenSea	USH2A	0.494	0.016	0.530	0.138
cg12495731	yellow	17	80,696,071 Body	S_Shelf	FN3K	0.494	-0.005	0.860	0.503
cg14195216	yellow	12	99,548,950 TSS1500	OpenSea	ANKS1B	0.494	0.006	0.409	0.547
cg12596171	yellow	3	113,251,061 TSS200	N_Shore	SIDT1	0.494	0.002	0.023	0.205
cg07568141	yellow	6	43,655,795 TSS1500	S_Shore	MRPS18A	0.494	0.017	0.156	0.106
cg10109943	yellow	17	52,563	N_Shelf		0.494	-0.005	0.860	0.306
cg12113740	yellow	18	52,625,368 TSS200	N_Shore	CCDC68	0.494	-0.007	0.288	0.492
cg21501195	yellow	7	46,464,272	OpenSea		0.493	0.000	0.901	0.979
cg05116719	yellow	11	8,007,597 TSS1500	N_Shore	EIF3F	0.493	0.003	0.960	0.373
cg01588455	yellow	14	104,940,658	S_Shore		0.493	0.006	0.686	0.597
cg19354656	yellow	1	159,916,472 TSS1500	S_Shore	IGSF9	0.493	-0.002	0.909	0.707
cg13247117	yellow	1	41,118,770 5'UTR	N_Shore	RIMS3	0.493	0.008	0.814	0.190
cg23243030	yellow	1	19,147,221	OpenSea		0.493	0.016	0.549	0.013
cg24780479	yellow	19	14,581,142 Body	N_Shore	PKN1	0.493	0.005	0.871	0.369
cg05506147	yellow	5	95,950,118	OpenSea		0.493	0.005	0.531	0.690
cg05228186	yellow	11	83,393,344 1stExon	OpenSea	DLG2	0.493	0.001	0.665	0.877
cg02690797	yellow	19	17,759,636 Body	S_Shore	UNC13A	0.493	0.006	0.705	0.427
cg10777851	yellow	3	112,051,808 TSS200	N_Shore	CD200	0.493	0.001	0.026	0.627
cg14063191	yellow	9	131,486,742 TSS1500	Island	ZDHHC12	0.493	0.000	0.034	0.970
cg18560010	yellow	1	22,690,912	OpenSea		0.493	-0.002	0.546	0.883
cg26382251	yellow	8	1,861,136 Body	OpenSea	ARHGEF10	0.493	-0.001	0.660	0.874
cg23834919	yellow	11	122,078,745	OpenSea		0.493	-0.001	0.243	0.917
cg11887376	yellow	5	1,118,670	OpenSea		0.493	-0.009	0.567	0.256
cg04800788	yellow	11	123,396,571 1stExon	OpenSea	GRAMD1B	0.493	0.006	0.545	0.290
cg10784143	yellow	6	30,123,868 Body	OpenSea	TRIM10	0.493	0.000	0.940	0.933
cg01025800	yellow	19	807,340 Body	Island	PTBP1	0.493	0.002	0.964	0.497
cg07131540	yellow	16	587,568 5'UTR	Island	SOLH	0.493	0.003	0.877	0.551
cg25297146	yellow	10	679,399 Body	Island	DIP2C	0.493	-0.001	0.982	0.630
cg25680014	yellow	17	80,458,576	S_Shelf		0.493	-0.003	0.792	0.751
cg05471169	yellow	17	80,255,419	S_Shelf		0.493	-0.001	0.731	0.901
cg23821340	yellow	1	3,303,053 Body	OpenSea	PRDM16	0.493	0.009	0.825	0.413

cg20981127	yellow	19	17,357,587	TSS1500	S_Shore	NR2F6	0.493	0.000	0.035	0.858
cg03310518	yellow	7	30,954,522	Body	OpenSea	AQP1	0.493	0.002	0.918	0.852
cg03831405	yellow	7	155,588,795		N_Shore		0.493	0.000	0.876	0.950
cg26771097	yellow	16	810,891	TSS1500	OpenSea	MSLN	0.493	0.011	0.661	0.178
cg24295890	yellow	3	61,889,337	Body	OpenSea	PTPRG	0.493	0.001	0.714	0.891
cg12272198	yellow	18	47,808,805	3'UTR	Island	CXXC1	0.493	0.006	0.812	0.365
cg18733567	yellow	4	1,614,142		OpenSea		0.493	-0.015	0.258	0.386
cg01646268	yellow	11	14,367,071	Body	OpenSea	RRAS2	0.493	0.001	0.923	0.882
cg12159215	yellow	11	118,826,779	TSS1500	OpenSea	UPK2	0.493	0.004	0.462	0.468
cg23509098	yellow	7	48,068,665	5'UTR	OpenSea	SUNC1	0.493	0.007	0.807	0.498
cg09001708	yellow	17	72,346,909	Body	N_Shore	KIF19	0.493	0.002	0.519	0.686
cg12281527	yellow	8	142,200,092	Body	OpenSea	DENND3	0.493	0.008	0.782	0.290
cg10857441	yellow	5	6,722,123	5'UTR	OpenSea	POLS	0.493	0.011	0.801	0.445
cg23091057	yellow	5	851,225	TSS200	S_Shelf	ZDHHC11	0.493	0.003	0.481	0.751
cg13863769	yellow	18	60,245,587	3'UTR	OpenSea	ZCCHC2	0.493	-0.029	0.593	0.237
cg17102910	yellow	7	1,126,249	TSS200	N_Shore	GPER	0.493	0.005	0.684	0.492
cg09314421	yellow	8	21,771,252	TSS200	S_Shore	DOK2	0.493	0.011	0.491	0.069
cg12547839	yellow	17	74,416,551	Body	OpenSea	UBE2O	0.493	0.002	0.805	0.744
cg10878312	yellow	5	130,970,361	Body	N_Shore	RAPGEF6	0.493	0.002	0.030	0.356
cg16239184	yellow	6	135,079,577		OpenSea		0.493	0.019	0.296	0.191
cg17864646	yellow	17	80,297,148		OpenSea		0.493	0.000	0.400	0.976
cg09076788	yellow	16	19,124,971	TSS1500	N_Shore	ITPR1L2	0.492	-0.005	0.034	0.172
cg04915300	yellow	2	157,314,925	5'UTR	OpenSea	GPD2	0.492	0.004	0.862	0.498
cg05034471	yellow	16	30,034,801	Body	S_Shore	C16orf92	0.492	0.009	0.679	0.192
cg20324969	yellow	8	144,922,104	5'UTR	N_Shore	NRBP2	0.492	0.007	0.782	0.283
cg16920407	yellow	17	7,605,206	Body	N_Shelf	WRAP53	0.492	0.000	0.822	0.982
cg06335008	yellow	2	99,552,109	5'UTR	N_Shore	C2orf55	0.492	-0.002	0.055	0.489
cg19706795	yellow	7	24,797,839	TSS1500	S_Shore	DFNA5	0.492	-0.001	0.548	0.898
cg11559680	yellow	3	11,966,511		OpenSea		0.492	0.005	0.525	0.483
cg16513326	yellow	8	10,877,312	Body	S_Shelf	XKR6	0.492	-0.002	0.655	0.825
cg00031476	yellow	2	28,114,244	5'UTR	S_Shore	BRE	0.492	-0.001	0.041	0.710
cg01532010	yellow	19	57,107,283	5'UTR	S_Shore	ZNF71	0.492	0.010	0.171	0.195
cg11674763	yellow	2	8,833,332		OpenSea		0.492	0.009	0.587	0.432
cg08465183	yellow	14	21,559,798	Body	Island	ZNF219	0.492	-0.015	0.819	0.072
cg01522592	yellow	11	75,235,311	5'UTR	N_Shore	GDPD5	0.492	0.005	0.782	0.396
cg21274570	yellow	19	8,117,671	TSS1500	S_Shelf	CCL25	0.492	0.010	0.604	0.269
cg14317046	yellow	19	18,234,076	Body	N_Shore	MAST3	0.492	0.001	0.721	0.914
cg25541708	yellow	5	179,817,027		S_Shore		0.492	0.000	0.542	0.979
cg03026939	yellow	3	180,573,421		OpenSea		0.492	0.011	0.261	0.092
cg20875887	yellow	6	40,555,927	TSS1500	Island	LRFN2	0.492	0.004	0.039	0.120
cg19995459	yellow	3	30,647,672	TSS1500	N_Shore	TGFBR2	0.492	0.004	0.076	0.555
cg09179691	yellow	20	35,094,251	Body	OpenSea	DLGAP4	0.492	0.003	0.848	0.617
cg18231690	yellow	15	85,294,586	5'UTR	S_Shelf	ZNF592	0.492	0.007	0.601	0.277
cg13328713	yellow	7	93,520,527	TSS1500	S_Shore	TFPI2	0.492	-0.005	0.331	0.739
cg17001448	yellow	8	144,152,376		N_Shore		0.492	0.044	0.266	0.033
cg04167833	yellow	5	169,724,831	TSS200	OpenSea	LCP2	0.492	0.003	0.253	0.595
cg24163360	yellow	6	25,931,557	TSS1500	OpenSea	SLC17A2	0.492	-0.006	0.906	0.711
cg02283204	yellow	6	40,570,601		S_Shelf		0.492	-0.006	0.519	0.499
cg02782634	yellow	17	57,916,643	Body	OpenSea	TMEM49	0.492	-0.005	0.290	0.822
cg02737379	yellow	3	119,379,530	TSS200	OpenSea	POPDC2	0.492	0.011	0.508	0.262
cg23295754	yellow	20	1,639,250	TSS1500	OpenSea	SIRPG	0.492	0.003	0.875	0.731
cg18253799	yellow	17	78,069,191	Body	OpenSea	CCDC40	0.492	-0.008	0.872	0.283
cg11527279	yellow	9	124,854,846	Body	Island	TTL11	0.492	0.005	0.152	0.496
cg16907514	yellow	14	56,046,098	TSS1500	N_Shore	KTN1	0.492	-0.001	0.041	0.767
cg12615205	yellow	1	3,495,611	Body	OpenSea	MEGF6	0.492	0.014	0.878	0.036
cg04396915	yellow	1	151,370,645	TSS1500	N_Shore	PSMB4	0.492	0.021	0.505	0.120
cg17078369	yellow	12	56,731,790	TSS1500	S_Shelf	IL23A	0.492	0.009	0.822	0.182
cg24307341	yellow	1	21,904,484	3'UTR	OpenSea	ALPL	0.492	0.011	0.573	0.154
cg16721582	yellow	8	133,688,101	TSS1500	S_Shore	LRRC6	0.492	0.000	0.046	0.823
cg01276891	yellow	5	143,550,529	5'UTR	S_Shore	KCTD16	0.492	0.002	0.048	0.625
cg14087413	yellow	9	35,848,330	Body	S_Shore	TMEM8B	0.492	0.005	0.759	0.542
cg02867250	yellow	6	31,107,835	3'UTR	OpenSea	PSORS1C1	0.492	0.014	0.773	0.047
cg10095539	yellow	2	139,258,744	TSS1500	N_Shore	SPOPL	0.492	-0.009	0.512	0.556
cg24728050	yellow	11	3,253,797	TSS200	Island	MRGPRE	0.492	0.009	0.569	0.322
cg21554217	yellow	5	138,897,467		Island		0.492	-0.008	0.175	0.258
cg16785938	yellow	4	10,022,984	1stExon	S_Shore	SLC2A9	0.492	0.006	0.783	0.378
cg05368730	yellow	12	132,657,879		OpenSea		0.491	0.000	0.653	0.979

cg01607369	yellow	11	7,598,673	Body	OpenSea	PPFIBP2	0.491	-0.004	0.156	0.480
cg11562901	yellow	12	56,318,135	Body	N_Shelf	WIBG	0.491	0.005	0.955	0.221
cg26541233	yellow	4	184,941,395		OpenSea		0.491	-0.025	0.767	0.062
cg12137156	yellow	8	49,985,021	1stExon	OpenSea	C8orf22	0.491	0.004	0.618	0.662
cg26639808	yellow	16	89,249,872	Body	S_Shelf	CDH15	0.491	0.011	0.515	0.168
cg13165846	yellow	2	161,328,958	Body	OpenSea	RBMS1	0.491	0.005	0.702	0.682
cg16049367	yellow	22	41,701,763	5'UTR	S_Shelf	ZC3H7B	0.491	0.001	0.865	0.888
cg09452848	yellow	11	125,928,102	5'UTR	N_Shelf	CDON	0.491	0.008	0.570	0.572
cg10583942	yellow	1	1,142,892	TSS1500	S_Shore	TNFRSF18	0.491	0.003	0.710	0.793
cg24255327	yellow	8	1,810,297	Body	OpenSea	ARHGEF10	0.491	0.000	0.909	0.967
cg17296588	yellow	11	35,965,104	TSS1500	N_Shore	LDLRAD3	0.491	0.018	0.160	0.077
cg13852116	yellow	10	122,403,903		OpenSea		0.491	-0.004	0.884	0.606
cg17231373	yellow	17	38,459,110	3'UTR	OpenSea	CDC6	0.491	0.010	0.591	0.355
cg15322932	yellow	11	67,777,682	TSS200	OpenSea	ALDH3B1	0.491	0.001	0.068	0.796
cg01980222	yellow	6	41,130,917	1stExon	OpenSea	TREM2	0.491	0.015	0.529	0.044
cg04590303	yellow	16	1,608,810	Body	S_Shelf	IFT140	0.491	0.006	0.820	0.362
cg07859880	yellow	19	39,323,060	TSS1500	S_Shore	ECH1	0.491	-0.004	0.527	0.720
cg21574271	yellow	4	96,051,461	Body	OpenSea	BMPRI1B	0.491	0.005	0.340	0.644
cg06909630	yellow	1	1,217,130	TSS1500	OpenSea	SCNN1D	0.491	0.006	0.409	0.531
cg02610723	yellow	16	88,850,534	Body	Island	FAM38A	0.491	0.004	0.421	0.452
cg17272126	yellow	11	6,462,828	TSS1500	OpenSea	HPX	0.491	-0.002	0.797	0.823
cg18697632	yellow	5	77,140,985		S_Shore		0.491	-0.004	0.058	0.575
cg09926783	yellow	15	49,716,645	Body	OpenSea	FGF7	0.491	-0.006	0.585	0.632
cg21293933	yellow	20	42,539,946		N_Shelf		0.491	-0.011	0.547	0.248
cg01873637	yellow	6	32,180,305	Body	OpenSea	NOTCH4	0.491	0.010	0.832	0.135
cg14049990	yellow	5	1,514,140	Body	OpenSea	LPCAT1	0.491	0.016	0.517	0.051
cg23975840	yellow	12	117,042,895		OpenSea		0.491	0.013	0.533	0.145
cg26753484	yellow	16	29,917,863	3'UTR	OpenSea	KCTD13	0.491	-0.002	0.898	0.802
cg00197006	yellow	16	84,616,559	Body	OpenSea	COTL1	0.491	-0.007	0.765	0.690
cg18762500	yellow	6	67,658,480		OpenSea		0.491	0.007	0.659	0.495
cg00467592	yellow	6	168,616,391		S_Shelf		0.491	-0.001	0.694	0.863
cg12594581	yellow	3	196,750,426	Body	OpenSea	MF12	0.491	0.007	0.429	0.497
cg02061711	yellow	10	601,759	Body	OpenSea	DIP2C	0.491	-0.016	0.757	0.278
cg09620689	yellow	6	169,351,108		OpenSea		0.491	0.013	0.759	0.308
cg23932378	yellow	20	49,131,298	Body	S_Shelf	PTPN1	0.491	0.004	0.939	0.381
cg01313994	yellow	19	19,416,751	Body	Island	SF4	0.491	0.000	0.867	0.998
cg14956593	yellow	14	24,685,421	TSS200	S_Shelf	MDP1	0.491	0.001	0.066	0.840
cg19563433	yellow	4	6,957,112	Body	OpenSea	TBC1D14	0.491	0.002	0.636	0.815
cg23859313	yellow	4	2,303,860	Body	N_Shore	ZFYVE28	0.491	-0.015	0.378	0.171
cg09164913	yellow	17	78,963,221		N_Shelf		0.491	0.006	0.586	0.664
cg16638092	yellow	17	78,800,774	Body	S_Shore	RPTOR	0.491	0.004	0.939	0.464
cg07143815	yellow	8	66,474,918		OpenSea		0.491	0.007	0.575	0.525
cg26202340	yellow	11	126,152,357	TSS1500	N_Shore	TIRAP	0.491	0.003	0.113	0.651
cg17567838	yellow	6	33,167,488	TSS1500	N_Shore	SLC39A7	0.491	0.016	0.373	0.023
cg02102684	yellow	16	4,421,445	TSS1500	N_Shore	VASN	0.490	0.001	0.216	0.909
cg26011809	yellow	12	107,351,005	5'UTR	S_Shore	C12orf23	0.490	0.005	0.027	0.007
cg23222274	yellow	12	22,696,567	Body	N_Shore	KIAA0528	0.490	-0.008	0.220	0.371
cg02402423	yellow	19	41,255,444	1stExon	N_Shore	C19orf54	0.490	0.006	0.407	0.622
cg26440309	yellow	12	52,403,511	Body	S_Shore	GRASP	0.490	0.011	0.538	0.189
cg20559594	yellow	9	134,703,909		Island		0.490	0.005	0.760	0.572
cg01991180	yellow	11	108,092,276	TSS1500	N_Shore	ATM	0.490	0.000	0.022	0.811
cg21745320	yellow	17	2,207,495	TSS1500	S_Shore	SMG6	0.490	0.000	0.070	0.962
cg16009167	yellow	5	6,587,105	Body	S_Shelf	LOC255167	0.490	0.003	0.800	0.654
cg04138253	yellow	14	102,685,729	Body	OpenSea	WDR20	0.490	0.006	0.895	0.295
cg20815992	yellow	11	10,949,337		N_Shelf		0.490	0.005	0.139	0.570
cg26584120	yellow	7	2,152,705	Body	N_Shore	MAD1L1	0.490	0.003	0.764	0.581
cg01447427	yellow	1	161,128,567	TSS1500	N_Shore	USP21	0.490	-0.009	0.898	0.289
cg20491573	yellow	12	131,194,059		OpenSea		0.490	-0.003	0.918	0.598
cg12245876	yellow	11	65,172,691	Body	S_Shore	FRMD8	0.490	0.008	0.781	0.134
cg02581587	yellow	1	233,765,350	Body	OpenSea	KCNK1	0.490	-0.004	0.810	0.566
cg08591265	yellow	17	56,082,867	3'UTR	N_Shore	SFRS1	0.490	-0.018	0.150	0.133
cg26067096	yellow	7	123,252,579	5'UTR	OpenSea	ASB15	0.490	0.003	0.581	0.779
cg18988889	yellow	7	2,500,004		Island		0.490	0.002	0.862	0.717
cg23281555	yellow	10	98,325,779	Body	OpenSea	TM9SF3	0.490	0.009	0.855	0.419
cg01140985	yellow	16	71,843,559	TSS1500	S_Shore	AP1G1	0.490	0.008	0.250	0.506
cg13098318	yellow	6	34,663,277	Body	N_Shore	C6orf106	0.490	0.000	0.085	0.999
cg01747665	yellow	16	1,843,424	Body	S_Shore	IGFALS	0.490	0.008	0.596	0.217

cg07448742	yellow	6	30,657,984	Body	S_Shelf	NRM	0.490	0.021	0.561	0.023
cg03590492	yellow	9	137,977,757	Body	N_Shore	OLFM1	0.490	0.006	0.441	0.311
cg27081821	yellow	19	8,405,337	5'UTR	N_Shelf	KANK3	0.490	-0.005	0.939	0.363
cg04228428	yellow	1	112,438,690	Body	OpenSea	KCND3	0.490	0.009	0.748	0.277
cg22125214	yellow	7	135,612,081	Body	OpenSea	LUZP6	0.490	0.009	0.790	0.410
cg25024214	yellow	1	157,895,596		OpenSea		0.490	-0.004	0.734	0.551
cg19742492	yellow	11	69,937,541	Body	S_Shelf	ANO1	0.490	-0.015	0.706	0.185
cg18596947	yellow	14	94,393,816	Body	OpenSea	FAM181A	0.490	0.000	0.514	0.982
cg03350366	yellow	11	71,752,919	5'UTR	OpenSea	NUMA1	0.490	0.002	0.034	0.558
cg25612057	yellow	4	5,368,330	Body	OpenSea	STK32B	0.490	0.005	0.845	0.549
cg13498284	yellow	17	3,844,303	Body	Island	ATP2A3	0.490	0.005	0.825	0.444
cg03457485	yellow	11	63,753,251	TSS200	N_Shore	OTUB1	0.490	-0.004	0.651	0.814
cg07189342	yellow	4	89,619,420	Body	OpenSea	HERC3	0.490	0.005	0.782	0.582
cg19749316	yellow	19	56,119,969		S_Shelf		0.490	0.001	0.873	0.801
cg24865110	yellow	17	57,407,818	TSS1500	N_Shore	YPEL2	0.490	-0.002	0.387	0.710
cg02243665	yellow	8	146,013,792	TSS1500	S_Shore	ZNF34	0.490	0.002	0.626	0.760
cg04481888	yellow	5	179,040,265		OpenSea		0.490	0.003	0.895	0.680
cg18313859	yellow	5	33,940,459		S_Shelf		0.490	0.013	0.884	0.179
cg09992300	yellow	11	116,292,824		OpenSea		0.489	0.002	0.784	0.760
cg09797875	yellow	17	80,314,451		OpenSea		0.489	0.005	0.868	0.357
cg08089543	yellow	4	1,607,111		OpenSea		0.489	0.004	0.567	0.558
cg04999036	yellow	15	42,566,375	TSS1500	Island	TMEM87A	0.489	0.006	0.125	0.573
cg00636527	yellow	5	176,859,356	Body	N_Shore	GRK6	0.489	0.014	0.749	0.298
cg06246114	yellow	7	142,748,215	TSS1500	OpenSea	OR6V1	0.489	0.004	0.629	0.714
cg07992484	yellow	2	106,724,161	Body	OpenSea	UXS1	0.489	-0.003	0.593	0.807
cg06312469	yellow	10	101,088,672	TSS200	N_Shore	CNNM1	0.489	0.004	0.440	0.616
cg03022510	yellow	2	192,476,634		OpenSea		0.489	0.004	0.702	0.515
cg23205629	yellow	8	33,421,410	Body	N_Shelf	RNF122	0.489	-0.003	0.501	0.825
cg03576425	yellow	8	145,151,285	Body	S_Shore	CYC1	0.489	0.006	0.764	0.329
cg21659949	yellow	22	22,020,025	TSS1500	N_Shore	PPIL2	0.489	0.011	0.711	0.169
cg19519624	yellow	9	138,881,792		Island		0.489	0.009	0.579	0.414
cg01375262	yellow	16	73,266,785		OpenSea		0.489	-0.006	0.133	0.495
cg20463894	yellow	10	1,067,420	TSS1500	OpenSea	C10orf110	0.489	0.003	0.624	0.687
cg03242344	yellow	11	69,489,380	Body	N_Shore	ORAOV1	0.489	0.016	0.195	0.153
cg03836171	yellow	7	1,095,465	Body	N_Shore	C7orf50	0.489	0.020	0.765	0.084
cg22082015	yellow	17	38,252,123	Body	N_Shelf	NR1D1	0.489	0.000	0.863	0.995
cg07448928	yellow	5	427,755	Body	OpenSea	AHRR	0.489	0.015	0.697	0.082
cg20490900	yellow	1	1,502,606	Body	OpenSea	SSU72	0.489	-0.002	0.955	0.593
cg19088634	yellow	1	35,229,391		S_Shelf		0.489	0.008	0.583	0.203
cg21013745	yellow	4	7,512,425	Body	Island	SORCS2	0.489	-0.008	0.725	0.351
cg18004197	yellow	8	144,895,243	Body	S_Shore	SCRIB	0.489	-0.005	0.808	0.528
cg14833024	yellow	12	106,913,460		OpenSea		0.489	0.019	0.666	0.177
cg09685528	yellow	1	249,131,916	TSS1500	N_Shore	ZNF672	0.489	0.004	0.052	0.317
cg23409699	yellow	11	368,565	TSS1500	OpenSea	B4GALNT4	0.489	-0.007	0.182	0.610
cg02335844	yellow	8	1,439,789		N_Shore		0.489	-0.004	0.936	0.465
cg23448635	yellow	17	79,859,809	TSS1500	Island	NPB	0.489	0.001	0.069	0.829
cg22130834	yellow	1	55,267,046	TSS200	Island	TTC22	0.489	-0.004	0.083	0.514
cg15645309	yellow	14	75,988,747	TSS200	OpenSea	BATF	0.489	-0.002	0.950	0.552
cg14204586	yellow	1	155,931,858	Body	OpenSea	ARHGEF2	0.489	-0.004	0.655	0.629
cg12205230	yellow	1	154,164,951	TSS1500	OpenSea	TPM3	0.489	0.003	0.693	0.804
cg05201708	yellow	16	85,662,012	5'UTR	S_Shelf	KIAA0182	0.489	0.010	0.815	0.112
cg11446693	yellow	19	59,074,994	Body	S_Shore	MZF1	0.489	0.017	0.264	0.204
cg24338094	yellow	3	126,739,855	Body	S_Shelf	PLXNA1	0.489	0.011	0.815	0.126
cg23899424	yellow	20	60,456,296	Body	Island	CDH4	0.489	0.002	0.698	0.806
cg22632756	yellow	8	28,174,192	TSS1500	OpenSea	PNOC	0.489	0.001	0.598	0.870
cg13637871	yellow	9	130,924,728	Body	S_Shore	C9orf16	0.488	0.001	0.927	0.881
cg07905748	yellow	3	100,053,070	TSS1500	N_Shore	NIT2	0.488	0.006	0.367	0.427
cg06354695	yellow	1	212,643,521		OpenSea		0.488	0.004	0.720	0.747
cg27499105	yellow	16	86,337,823		Island		0.488	0.003	0.317	0.821
cg24555906	yellow	10	134,882,170		N_Shelf		0.488	0.002	0.728	0.784
cg25829945	yellow	3	159,706,383	TSS1500	N_Shore	IL12A	0.488	0.000	0.143	0.975
cg13757640	yellow	22	45,148,888	5'UTR	OpenSea	ARHGAP8	0.488	-0.001	0.050	0.816
cg24691904	yellow	12	123,380,870	TSS200	Island	VPS37B	0.488	0.002	0.071	0.750
cg07224310	yellow	22	50,862,956	Body	Island	SAPS2	0.488	0.014	0.773	0.128
cg26618703	yellow	7	922,962	Body	OpenSea	C7orf20	0.488	-0.003	0.325	0.641
cg21262431	yellow	4	9,693,764		S_Shore		0.488	0.000	0.673	0.981
cg14455592	yellow	11	134,216,220	Body	S_Shelf	GLB1L2	0.488	0.007	0.861	0.229

cg02946846	yellow	16	12,632,861	Body	OpenSea	SNX29	0.488	0.004	0.738	0.844
cg09455342	yellow	17	80,346,849		Island		0.488	0.004	0.924	0.508
cg04301614	yellow	4	37,585,993	5'UTR	OpenSea	C4orf19	0.488	0.008	0.745	0.573
cg08353444	yellow	10	60,506,653	Body	OpenSea	BICC1	0.488	0.003	0.625	0.783
cg22663489	yellow	11	64,107,720	1stExon	N_Shelf	CCDC88B	0.488	0.007	0.656	0.433
cg14213992	yellow	19	40,503,358	5'UTR	S_Shore	ZNF546	0.488	0.001	0.058	0.807
cg11207353	yellow	19	18,508,493	TSS200	OpenSea	LRRC25	0.488	-0.003	0.400	0.724
cg03445151	yellow	2	23,516,881		OpenSea		0.488	0.015	0.239	0.398
cg15145965	yellow	22	50,218,605	TSS200	N_Shore	BRD1	0.488	0.004	0.628	0.517
cg09530790	yellow	17	67,322,525	5'UTR	N_Shore	ABCA5	0.488	0.001	0.021	0.200
cg15840005	yellow	1	2,139,905	TSS1500	S_Shelf	C1orf86	0.488	0.000	0.325	0.957
cg02043651	yellow	19	3,556,970	Body	Island	C19orf28	0.488	-0.002	0.056	0.773
cg03172931	yellow	19	8,677,774		S_Shelf		0.488	0.009	0.635	0.264
cg18103756	yellow	14	104,611,591	Body	OpenSea	KIF26A	0.488	-0.007	0.781	0.210
cg21813538	yellow	3	49,967,713	TSS1500	S_Shore	MON1A	0.488	-0.005	0.213	0.404
cg06033764	yellow	18	29,671,448	TSS1500	N_Shore	RNF138	0.488	0.007	0.779	0.555
cg18752412	yellow	19	47,161,689	Body	N_Shelf	DACT3	0.488	0.014	0.322	0.226
cg14336737	yellow	10	74,079,845		Island		0.488	-0.001	0.027	0.621
cg02520707	yellow	1	205,418,278	TSS1500	OpenSea	MIR135B	0.488	0.002	0.697	0.802
cg15285436	yellow	17	59,226,714	Body	OpenSea	BCAS3	0.488	0.012	0.274	0.368
cg19250417	yellow	4	5,888,050	Body	N_Shore	CRMP1	0.488	0.006	0.832	0.453
cg17382294	yellow	5	135,692,034	Body	N_Shore	TRPC7	0.488	0.001	0.725	0.837
cg15483084	yellow	7	956,502	Body	N_Shelf	ADAP1	0.488	-0.006	0.402	0.667
cg16837973	yellow	17	5,138,634	TSS1500	OpenSea	C17orf87	0.488	0.001	0.787	0.907
cg00238818	yellow	5	176,880,261	5'UTR	N_Shore	PRR7	0.488	0.000	0.882	0.949
cg24580071	yellow	1	76,620,271	Body	OpenSea	ST6GALNAC3	0.488	0.005	0.735	0.689
cg06363417	yellow	16	48,351,958	Body	OpenSea	LONP2	0.488	0.002	0.945	0.694
cg08229518	yellow	4	1,320,300	Body	Island	MAEA	0.488	0.007	0.708	0.402
cg14840081	yellow	7	152,551,660	3'UTR	OpenSea	ACTR3B	0.488	0.004	0.938	0.292
cg23791524	yellow	12	5,603,595	1stExon	Island	NTF3	0.488	0.011	0.708	0.283
cg00608548	yellow	19	40,972,521	TSS1500	Island	SPTBN4	0.488	0.027	0.665	0.097
cg12165758	yellow	14	61,789,593	Body	S_Shore	PRKCH	0.488	0.018	0.251	0.075
cg03907575	yellow	12	50,898,411	TSS1500	N_Shore	DIP2B	0.488	0.014	0.672	0.257
cg03329576	yellow	11	114,187,045		OpenSea		0.488	-0.005	0.279	0.616
cg09282500	yellow	20	56,136,078	TSS200	OpenSea	PCK1	0.488	0.006	0.117	0.362
cg09125623	yellow	6	168,197,983	TSS1500	Island	C6orf123	0.488	0.002	0.886	0.826
cg10117884	yellow	1	166,955,898		N_Shelf		0.488	0.000	0.956	0.907
cg14206882	yellow	1	209,602,955	Body	OpenSea	LOC642587	0.487	-0.001	0.812	0.906
cg04286959	yellow	15	67,546,365	TSS1500	N_Shore	IQCH	0.487	0.012	0.205	0.094
cg12755814	yellow	1	44,461,890	3'UTR	OpenSea	CCDC24	0.487	0.006	0.947	0.114
cg18931398	yellow	1	109,127,959	Body	OpenSea	FAM102B	0.487	0.003	0.850	0.692
cg04794532	yellow	1	75,200,562	TSS1500	OpenSea	CRYZ	0.487	-0.005	0.409	0.547
cg02060096	yellow	3	49,978,378	5'UTR	S_Shore	RBM6	0.487	0.004	0.030	0.064
cg20856545	yellow	13	114,917,297		S_Shelf		0.487	0.008	0.769	0.417
cg01023703	yellow	16	1,393,766	Body	Island	BAIAP3	0.487	0.011	0.613	0.341
cg09764780	yellow	1	21,369,118	5'UTR	OpenSea	EIF4G3	0.487	-0.003	0.802	0.871
cg13201172	yellow	8	144,891,810	Body	Island	SCRIB	0.487	0.003	0.889	0.564
cg00135416	yellow	17	78,172,177	Body	Island	CARD14	0.487	0.011	0.411	0.073
cg27608139	yellow	16	2,294,856	Body	OpenSea	DCI	0.487	0.010	0.783	0.167
cg06532880	yellow	5	176,731,545	Body	S_Shore	PRELID1	0.487	0.003	0.077	0.610
cg23645885	yellow	6	3,247,958		OpenSea		0.487	0.002	0.138	0.841
cg21583821	yellow	2	242,062,093	Body	OpenSea	PASK	0.487	-0.005	0.886	0.437
cg08221830	yellow	5	27,472,520		OpenSea		0.487	-0.030	0.769	0.023
cg13014936	yellow	8	48,673,669		N_Shelf		0.487	-0.001	0.949	0.810
cg25560009	yellow	8	144,303,218		OpenSea		0.487	0.012	0.367	0.276
cg03117379	yellow	20	17,943,971	TSS1500	OpenSea	SNORD17	0.487	-0.003	0.554	0.700
cg24465943	yellow	1	161,185,061	TSS200	OpenSea	FCER1G	0.487	-0.007	0.625	0.424
cg14981189	yellow	10	5,113,871		OpenSea		0.487	0.032	0.241	0.177
cg08812266	yellow	12	132,653,105		Island		0.487	0.019	0.836	0.023
cg12942681	yellow	3	127,109,653		OpenSea		0.487	0.005	0.843	0.614
cg08790487	yellow	5	179,135,308	Body	OpenSea	CANX	0.487	0.001	0.931	0.809
cg11697317	yellow	5	1,449,596		S_Shelf		0.487	-0.006	0.864	0.334
cg18637380	yellow	14	64,853,499	TSS1500	N_Shore	MTHFD1	0.487	0.006	0.922	0.404
cg15187276	yellow	11	62,531,608	Body	S_Shelf	POLR2G	0.487	0.000	0.971	0.875
cg11374256	yellow	8	144,888,445	Body	S_Shore	SCRIB	0.487	0.006	0.856	0.335
cg08367318	yellow	6	31,743,952	Body	OpenSea	C6orf27	0.487	0.010	0.791	0.116
cg18498565	yellow	10	3,173,604	Body	OpenSea	PFKP	0.487	0.002	0.868	0.821

cg07300534	yellow	16	81,726,931	Body	OpenSea	CMIP	0.487	0.010	0.569	0.386
cg08879365	yellow	12	106,066,082		OpenSea		0.487	0.009	0.490	0.300
cg18697143	yellow	12	11,827,831	Body	OpenSea	ETV6	0.487	0.002	0.852	0.800
cg24237813	yellow	20	50,385,486	TSS1500	S_Shore	ATP9A	0.487	0.009	0.287	0.060
cg12993916	yellow	6	15,553,155	Body	OpenSea	DTNBP1	0.487	0.001	0.924	0.916
cg15920887	yellow	2	190,928,430	TSS1500	OpenSea	MSTN	0.487	0.004	0.886	0.569
cg03384920	yellow	2	79,587,308		OpenSea		0.487	0.004	0.931	0.564
cg26344619	yellow	14	76,046,018	Body	S_Shore	FLVCR2	0.487	0.009	0.723	0.223
cg09933836	yellow	8	29,595,133	Body	OpenSea	C8orf75	0.486	0.030	0.373	0.034
cg14901243	yellow	19	13,951,845		N_Shore		0.486	0.001	0.789	0.912
cg25417405	yellow	15	50,474,129	TSS1500	N_Shore	SLC27A2	0.486	0.020	0.185	0.060
cg27497900	yellow	1	160,312,163	Body	N_Shore	COPA	0.486	0.001	0.016	0.527
cg24374013	yellow	3	10,453,037	Body	OpenSea	ATP2B2	0.486	0.001	0.508	0.819
cg17220545	yellow	7	157,085,556		OpenSea		0.486	-0.011	0.714	0.292
cg12853521	yellow	18	13,824,359	TSS1500	N_Shore	MC5R	0.486	-0.009	0.425	0.571
cg05842548	yellow	2	127,821,711	Body	S_Shelf	BIN1	0.486	0.017	0.655	0.016
cg06100570	yellow	7	2,078,988	Body	OpenSea	MAD1L1	0.486	0.008	0.751	0.557
cg18452600	yellow	8	9,911,543	TSS1500	N_Shore	MSRA	0.486	0.002	0.033	0.371
cg03317505	yellow	5	138,861,832	5'UTR	OpenSea	TMEM173	0.486	0.000	0.026	0.956
cg13656701	yellow	9	133,790,492	Body	N_Shelf	FIBCD1	0.486	0.015	0.573	0.059
cg00175823	yellow	12	132,977,140		S_Shore		0.486	-0.004	0.284	0.662
cg06744585	yellow	19	13,135,808	Body	Island	NFIX	0.486	-0.001	0.131	0.928
cg08911208	yellow	7	1,025,760	Body	N_Shore	CYP2W1	0.486	-0.001	0.747	0.921
cg21582956	yellow	12	57,422,435	3'UTR	OpenSea	MYO1A	0.486	0.010	0.817	0.147
cg15890332	yellow	12	107,067,104	Body	OpenSea	RFX4	0.486	0.001	0.156	0.954
cg01441698	yellow	1	20,250,186	TSS200	OpenSea	PLA2G2E	0.486	0.014	0.478	0.026
cg16900102	yellow	7	98,283,412		OpenSea		0.486	0.010	0.623	0.146
cg04813119	yellow	17	75,181,254	Body	OpenSea	SEC14L1	0.486	0.014	0.349	0.051
cg26629184	yellow	16	15,149,018	Body	N_Shore	NTAN1	0.486	0.002	0.105	0.833
cg18830118	yellow	20	35,441,192	Body	N_Shelf	C20orf117	0.486	0.001	0.953	0.819
cg25666919	yellow	7	102,074,615	5'UTR	S_Shore	ORAI2	0.486	0.001	0.134	0.919
cg08748308	yellow	5	169,695,483	Body	OpenSea	LCP2	0.486	0.005	0.551	0.626
cg09467902	yellow	11	76,750,413	5'UTR	N_Shore	B3GNT6	0.486	0.007	0.746	0.321
cg05056901	yellow	7	155,202,242		OpenSea		0.486	0.009	0.646	0.273
cg16395953	yellow	10	91,152,122	TSS200	OpenSea	IFIT1	0.486	-0.008	0.040	0.314
cg17788570	yellow	5	122,180,522	TSS1500	N_Shore	SNX24	0.486	0.007	0.077	0.356
cg22549879	yellow	2	217,081,090		OpenSea		0.486	0.001	0.939	0.811
cg21391023	yellow	1	92,545,580	TSS1500	N_Shore	BTBD8	0.486	0.010	0.207	0.493
cg01663825	yellow	7	43,238,739	5'UTR	OpenSea	HECW1	0.486	0.008	0.500	0.139
cg23464319	yellow	4	733,598	Body	S_Shelf	PCGF3	0.486	0.004	0.924	0.326
cg26353448	yellow	1	248,524,236	TSS1500	OpenSea	OR2T4	0.486	-0.028	0.632	0.138
cg01287037	yellow	15	65,594,648		Island		0.486	0.006	0.830	0.437
cg21610839	yellow	3	23,861,312	Body	OpenSea	UBE2E1	0.486	-0.001	0.442	0.898
cg06546183	yellow	21	44,257,072		N_Shore		0.486	0.018	0.562	0.054
cg21625301	yellow	4	3,244,256	3'UTR	OpenSea	HTT	0.486	-0.001	0.904	0.839
cg14758072	yellow	2	47,799,268		S_Shore		0.486	0.013	0.411	0.100
cg12400725	yellow	1	29,240,533	5'UTR	N_Shore	EPB41	0.486	0.009	0.342	0.314
cg04219417	yellow	1	223,317,456	TSS1500	S_Shore	TLR5	0.486	-0.004	0.366	0.642
cg14576347	yellow	9	117,222,091	Body	OpenSea	DFNB31	0.486	-0.003	0.881	0.704
cg00515437	yellow	15	83,422,206		S_Shelf		0.485	0.000	0.946	0.950
cg11581248	yellow	1	9,887,811		S_Shelf		0.485	0.003	0.625	0.709
cg14406859	yellow	17	16,314,182		S_Shelf		0.485	-0.008	0.431	0.649
cg12107189	yellow	8	125,765,152		OpenSea		0.485	-0.013	0.653	0.387
cg13037462	yellow	5	859,700		OpenSea		0.485	0.001	0.510	0.898
cg16700758	yellow	17	32,582,359	5'UTR	OpenSea	CCL2	0.485	-0.001	0.124	0.873
cg06740227	yellow	12	86,229,804	Body	OpenSea	RASSF9	0.485	0.000	0.325	0.972
cg26648024	yellow	3	15,934,691		OpenSea		0.485	-0.001	0.937	0.920
cg22529760	yellow	4	190,283,198		N_Shore		0.485	0.024	0.656	0.086
cg03918288	yellow	8	145,101,324	Body	N_Shore	SPATC1	0.485	0.013	0.540	0.026
cg05707506	yellow	2	220,346,095	Body	N_Shelf	SPEG	0.485	0.005	0.622	0.499
cg24909309	yellow	8	38,387,291	TSS1500	OpenSea	C8orf86	0.485	0.012	0.586	0.284
cg24931561	yellow	6	157,745,382	TSS200	S_Shore	C6orf35	0.485	0.001	0.022	0.416
cg25102216	yellow	12	129,711,001	Body	OpenSea	TMEM132D	0.485	0.004	0.931	0.549
cg22053159	yellow	6	2,478,543		OpenSea		0.485	0.003	0.466	0.726
cg16464328	yellow	17	42,346,923	TSS1500	OpenSea	SLC4A1	0.485	0.002	0.857	0.742
cg25941154	yellow	7	28,208,557	Body	OpenSea	JAZF1	0.485	0.001	0.513	0.917
cg10898212	yellow	17	30,813,178	TSS1500	Island	CDK5R1	0.485	-0.004	0.290	0.753



cg20744654	yellow	13	107,574,622	S_Shelf		0.485	0.006	0.803	0.460
cg15000966	yellow	17	73,128,123 TSS1500	S_Shore	NT5C	0.485	0.002	0.113	0.766
cg19681842	yellow	14	93,672,832 TSS1500	N_Shore	UBR7	0.485	0.033	0.631	0.022
cg06285921	yellow	12	117,535,577 Body	N_Shore	TESC	0.485	0.008	0.475	0.597
cg08817353	yellow	2	185,019,269	OpenSea		0.485	-0.006	0.829	0.514
cg09522018	yellow	6	139,644,871	OpenSea		0.485	-0.001	0.694	0.932
cg14632030	yellow	11	60,144,545 TSS1500	OpenSea	MS4A7	0.485	-0.021	0.866	0.176
cg14981432	yellow	11	61,555,930 3'UTR	N_Shelf	C11orf9	0.485	-0.012	0.423	0.516
cg23972915	yellow	14	104,809,218	OpenSea		0.485	0.009	0.300	0.180
cg00547768	yellow	1	205,713,088 Body	OpenSea	NUCKS1	0.485	0.011	0.854	0.187
cg01702513	yellow	10	131,988,212	Island		0.485	-0.004	0.745	0.593
cg09721961	yellow	4	58,235,517	OpenSea		0.485	-0.010	0.916	0.149
cg12119625	yellow	19	54,106,789 TSS200	OpenSea	LOC284379	0.485	-0.006	0.653	0.613
cg27179111	yellow	16	3,627,489 TSS200	OpenSea	NLRC3	0.485	0.008	0.605	0.162
cg13527921	yellow	9	100,819,928 Body	S_Shore	NANS	0.485	-0.009	0.180	0.640
cg17381426	yellow	7	140,374,125 Body	S_Shore	ADCK2	0.485	0.002	0.843	0.748
cg18862562	yellow	1	160,160,312 1stExon	OpenSea	CASQ1	0.485	0.020	0.661	0.010
cg14253327	yellow	9	103,790,197 TSS1500	N_Shore	LPPR1	0.485	-0.002	0.436	0.824
cg03176996	yellow	5	95,296,096 Body	N_Shore	ELL2	0.485	0.004	0.197	0.712
cg17217017	yellow	7	158,828,449 Body	OpenSea	VIPR2	0.485	0.012	0.489	0.006
cg01678292	yellow	8	41,522,873 TSS200	OpenSea	ANK1	0.485	0.008	0.550	0.206
cg05191313	yellow	5	118,747,345	OpenSea		0.485	0.016	0.183	0.028
cg08157620	yellow	14	67,707,306 TSS1500	N_Shore	MPP5	0.485	0.000	0.023	0.945
cg01774477	yellow	1	21,059,978 TSS1500	S_Shore	SH2D5	0.485	0.010	0.231	0.159
cg25872855	yellow	10	89,998,445	OpenSea		0.485	0.000	0.529	0.990
cg02415020	yellow	1	246,019,678 Body	OpenSea	SMYD3	0.485	0.003	0.603	0.670
cg15458504	yellow	1	24,828,534 TSS1500	N_Shore	RCAN3	0.484	0.009	0.248	0.357
cg02192746	yellow	7	99,971,016 TSS200	OpenSea	PILRA	0.484	0.005	0.261	0.483
cg08521967	yellow	1	228,345,490 Body	Island	GJC2	0.484	-0.005	0.802	0.542
cg10798682	yellow	3	125,820,372 5'UTR	OpenSea	SLC41A3	0.484	0.009	0.808	0.146
cg24340572	yellow	15	69,887,053	OpenSea		0.484	-0.003	0.139	0.800
cg12093180	yellow	20	49,548,626 TSS1500	S_Shore	ADNP	0.484	0.004	0.342	0.576
cg06609004	yellow	6	32,086,425 Body	OpenSea	ATF6B	0.484	0.001	0.601	0.883
cg11386390	yellow	6	33,418,869 Body	N_Shelf	SYNGAP1	0.484	0.003	0.903	0.699
cg18181923	yellow	14	99,682,269 Body	OpenSea	BCL11B	0.484	0.010	0.456	0.240
cg08390172	yellow	2	192,711,905 5'UTR	OpenSea	SDPR	0.484	-0.003	0.056	0.569
cg20676580	yellow	19	44,115,063 TSS1500	OpenSea	SRRM5	0.484	0.003	0.699	0.631
cg08187425	yellow	2	233,470,269 TSS1500	N_Shore	EFHD1	0.484	0.010	0.858	0.243
cg26547898	yellow	12	13,525,681 3'UTR	OpenSea	C12orf36	0.484	0.018	0.584	0.126
cg19048950	yellow	13	30,915,492 Body	OpenSea	LOC1001889	0.484	-0.001	0.374	0.853
cg02660277	yellow	7	157,438,616 Body	N_Shore	PTPRN2	0.484	0.003	0.843	0.669
cg09030685	yellow	16	88,943,641 Body	Island	CBFA2T3	0.484	0.006	0.946	0.196
cg16328271	yellow	16	88,110,532 3'UTR	Island	BANP	0.484	0.005	0.937	0.291
cg15532138	yellow	17	7,836,945 Body	S_Shore	CNTROB	0.484	0.011	0.732	0.405
cg26909602	yellow	2	240,972,927	OpenSea		0.484	0.003	0.403	0.681
cg23504522	yellow	13	112,572,559	N_Shelf		0.484	0.001	0.909	0.823
cg21507078	yellow	5	138,444,145 Body	OpenSea	SIL1	0.484	0.013	0.735	0.329
cg04940251	yellow	16	88,935,765	N_Shore		0.484	0.008	0.787	0.250
cg05363903	yellow	2	237,415,899 1stExon	N_Shore	IQCA1	0.484	-0.004	0.513	0.701
cg09905687	yellow	5	177,031,502 Body	Island	B4GALT7	0.484	0.000	0.802	0.990
cg00308440	yellow	7	14,874,108 Body	OpenSea	DGKB	0.484	-0.007	0.823	0.715
cg14453449	yellow	18	77,124,398 Body	N_Shore	ATP9B	0.484	0.002	0.936	0.755
cg03640151	yellow	4	8,248,912	OpenSea		0.484	0.010	0.553	0.213
cg16363238	yellow	6	159,618,265 Body	OpenSea	FNDC1	0.484	-0.012	0.498	0.509
cg15663074	yellow	5	134,582,868	OpenSea		0.484	0.000	0.210	0.976
cg24965243	yellow	2	212,285	N_Shore		0.484	-0.002	0.821	0.739
cg10133630	yellow	11	10,563,302 TSS1500	S_Shore	RNF141	0.484	0.002	0.566	0.859
cg13270853	yellow	12	133,435,649 Body	OpenSea	CHFR	0.484	0.001	0.965	0.833
cg13231322	yellow	1	32,234,411	N_Shelf		0.484	0.004	0.454	0.444
cg20983876	yellow	11	119,438,953	OpenSea		0.484	0.018	0.674	0.073
cg03467405	yellow	22	44,577,097 5'UTR	OpenSea	PARVG	0.484	0.018	0.837	0.025
cg20073272	yellow	14	59,650,772	N_Shelf		0.484	0.018	0.833	0.032
cg07959104	yellow	15	22,833,149 TSS1500	N_Shore	TUBGCP5	0.483	0.026	0.363	0.070
cg04028010	yellow	22	23,522,474 TSS200	N_Shore	BCR	0.483	-0.002	0.074	0.756
cg00812831	yellow	10	71,488,989	OpenSea		0.483	-0.003	0.730	0.650
cg19756358	yellow	5	1,479,969 Body	N_Shelf	LPCAT1	0.483	0.009	0.268	0.237
cg06441106	yellow	1	151,512,215 TSS1500	N_Shore	TUFT1	0.483	0.001	0.103	0.927

cg18093572	yellow	5	122,598,329	OpenSea		0.483	0.009	0.412	0.417
cg24360197	yellow	15	66,662,775	OpenSea		0.483	0.004	0.166	0.653
cg17078219	yellow	4	3,825,784	OpenSea		0.483	-0.002	0.552	0.819
cg16548254	yellow	2	27,601,342 Body	Island	ZNF513	0.483	0.004	0.717	0.562
cg15932627	yellow	3	139,048,065	OpenSea		0.483	0.000	0.250	0.971
cg23038580	yellow	4	77,184,168 Body	OpenSea	FAM47E	0.483	0.001	0.954	0.712
cg22055511	yellow	11	61,130,246 5'UTR	S_Shore	TMEM138	0.483	0.002	0.031	0.148
cg25737224	yellow	6	72,926,121 TSS1500	OpenSea	RIMS1	0.483	0.008	0.254	0.420
cg07380540	yellow	1	1,825,861	S_Shelf		0.483	0.012	0.408	0.106
cg15362155	yellow	11	62,066,533 5'UTR	OpenSea	SCGB1D4	0.483	-0.003	0.748	0.641
cg09460983	yellow	6	26,440,610 TSS200	OpenSea	BTN3A3	0.483	0.000	0.022	0.978
cg13289755	yellow	2	241,403,540 Body	N_Shore	GPC1	0.483	0.004	0.898	0.487
cg11469540	yellow	17	21,189,254 Body	S_Shore	MAP2K3	0.483	0.000	0.064	0.967
cg22646210	yellow	11	72,380,726 TSS1500	OpenSea	PDE2A	0.483	0.011	0.516	0.278
cg26700277	yellow	16	88,495,352 1stExon	N_Shore	ZNF469	0.483	-0.004	0.562	0.574
cg01447281	yellow	1	8,482,689 5'UTR	N_Shore	RERE	0.483	0.000	0.032	0.852
cg02854536	yellow	11	119,227,876 Body	S_Shore	USP2	0.483	-0.003	0.095	0.475
cg20142501	yellow	17	791,118 Body	OpenSea	NXN	0.483	-0.012	0.864	0.320
cg02259743	yellow	14	58,666,188 TSS1500	N_Shore	ACTR10	0.483	0.001	0.024	0.328
cg17466131	yellow	4	186,578,190 Body	OpenSea	SORBS2	0.483	0.016	0.651	0.005
cg00817377	yellow	7	73,441,057 TSS1500	OpenSea	ELN	0.483	0.015	0.407	0.082
cg24637417	yellow	12	51,636,921 3'UTR	S_Shelf	DAZAP2	0.483	0.004	0.929	0.557
cg04532906	yellow	14	54,903,765 Body	N_Shelf	CNIH	0.483	0.002	0.817	0.780
cg21606527	yellow	11	7,597,983 Body	OpenSea	PPFIBP2	0.483	-0.004	0.509	0.688
cg21376148	yellow	17	10,276,260 5'UTR	OpenSea	MYH13	0.483	-0.001	0.631	0.913
cg03223100	yellow	2	178,137,973	OpenSea		0.483	-0.005	0.935	0.433
cg16922810	yellow	8	143,696,531 TSS1500	S_Shore	ARC	0.483	0.004	0.137	0.399
cg20669414	yellow	17	37,808,629 5'UTR	OpenSea	STAR3	0.483	0.013	0.520	0.207
cg09395969	yellow	16	67,918,001 Body	N_Shore	EDC4	0.483	0.012	0.893	0.041
cg05269080	yellow	10	29,033,980	OpenSea		0.483	-0.003	0.548	0.759
cg07419740	yellow	5	172,410,441 TSS1500	N_Shore	ATP6V0E1	0.483	0.004	0.021	0.211
cg02923485	yellow	1	223,959,609 Body	OpenSea	CAPN2	0.483	0.014	0.425	0.458
cg04303033	yellow	7	157,586,345 Body	N_Shore	PTPRN2	0.483	0.002	0.691	0.810
cg03747309	yellow	16	3,740,662 Body	OpenSea	TRAP1	0.483	0.003	0.032	0.170
cg09782097	yellow	5	140,514,711 TSS200	N_Shore	PCDHB5	0.483	0.004	0.262	0.727
cg26153569	yellow	19	46,414,735	N_Shelf		0.483	0.004	0.661	0.691
cg07506749	yellow	16	54,228,447	Island		0.483	0.017	0.513	0.053
cg09180520	yellow	1	35,355,260 Body	S_Shelf	DLGAP3	0.483	0.000	0.328	0.976
cg24454741	yellow	1	7,845,237 Body	S_Shore	PER3	0.483	0.001	0.822	0.886
cg01414357	yellow	19	48,282,728 Body	S_Shore	SEPW1	0.483	0.013	0.130	0.192
cg00887112	yellow	2	202,644,572 5'UTR	N_Shore	ALS2	0.483	-0.009	0.804	0.293
cg23496571	yellow	20	30,644,728 Body	S_Shelf	HCK	0.483	-0.005	0.706	0.491
cg05900058	yellow	17	7,690,396 Body	Island	DNAH2	0.483	0.010	0.563	0.202
cg15704315	yellow	5	30,558,470	OpenSea		0.483	0.005	0.756	0.704
cg21365364	yellow	20	18,568,287 TSS1500	N_Shore	DTD1	0.482	0.002	0.350	0.834
cg14091497	yellow	9	139,430,748 Body	S_Shelf	NOTCH1	0.482	0.003	0.692	0.616
cg02468728	yellow	19	611,107 Body	N_Shore	HCN2	0.482	0.018	0.373	0.065
cg00175153	yellow	16	2,012,763 TSS1500	N_Shore	SNORA10	0.482	0.003	0.820	0.683
cg12489775	yellow	22	43,544,017	N_Shelf		0.482	0.000	0.809	0.955
cg05447916	yellow	6	31,744,831 5'UTR	OpenSea	C6orf27	0.482	0.013	0.351	0.264
cg25093492	yellow	3	155,394,303 5'UTR	OpenSea	PLCH1	0.482	0.019	0.273	0.142
cg16859931	yellow	7	99,691,812 TSS1500	OpenSea	MIR25	0.482	-0.004	0.933	0.428
cg02289200	yellow	1	156,085,197 Body	S_Shore	LMNA	0.482	0.001	0.029	0.679
cg16029659	yellow	21	46,241,005	S_Shelf		0.482	0.009	0.897	0.248
cg10401733	yellow	15	72,491,892 3'UTR	S_Shore	PKM2	0.482	-0.001	0.620	0.851
cg09160231	yellow	7	1,765,313 5'UTR	OpenSea	ELFN1	0.482	0.012	0.217	0.218
cg15740979	yellow	5	176,958,383 Body	Island	FAM193B	0.482	0.007	0.752	0.277
cg14557390	yellow	15	41,783,457	N_Shelf		0.482	0.001	0.721	0.871
cg02571972	yellow	2	105,857,999 TSS200	N_Shore	GPR45	0.482	-0.006	0.945	0.307
cg15603964	yellow	1	19,410,738 Body	OpenSea	UBR4	0.482	0.005	0.770	0.389
cg00067600	yellow	3	34,109,141	OpenSea		0.482	0.009	0.604	0.138
cg02191909	yellow	6	33,273,716 Body	OpenSea	TAPBP	0.482	0.009	0.820	0.273
cg25958716	yellow	2	191,079,856 Body	OpenSea	HIBCH	0.482	-0.001	0.913	0.895
cg22782105	yellow	10	63,731,624 Body	OpenSea	ARID5B	0.482	0.002	0.672	0.893
cg09981361	yellow	8	109,206,108	OpenSea		0.482	-0.004	0.115	0.639
cg07751764	yellow	11	63,137,125 TSS200	OpenSea	SLC22A9	0.482	-0.011	0.852	0.349
cg00316921	yellow	8	142,984,347	N_Shore		0.482	0.004	0.771	0.523

cg03905094	yellow	5	59,996,421	TSS1500	S_Shore	DEPDC1B	0.482	0.001	0.021	0.728
cg12054851	yellow	19	49,977,286	TSS200	OpenSea	FLT3LG	0.482	0.000	0.020	0.997
cg07807395	yellow	1	4,698,416		OpenSea		0.482	0.005	0.615	0.703
cg01610636	yellow	19	17,463,255	Body	S_Shore	PLVAP	0.482	0.008	0.866	0.290
cg18207201	yellow	4	147,043,810		OpenSea		0.482	0.009	0.786	0.372
cg14636714	yellow	10	135,018,298	Body	N_Shore	KNDC1	0.482	0.001	0.882	0.926
cg09274113	yellow	16	1,875,967	Body	N_Shore	HAGH	0.482	0.012	0.362	0.295
cg00017546	yellow	1	28,659,475	Body	S_Shelf	MED18	0.482	0.005	0.835	0.418
cg24828648	yellow	6	63,947,428		OpenSea		0.482	-0.004	0.921	0.500
cg17085710	yellow	7	98,842,834		OpenSea		0.482	0.006	0.758	0.479
cg23666117	yellow	6	31,629,909	TSS1500	S_Shore	C6orf47	0.482	0.003	0.963	0.274
cg00384707	yellow	19	51,128,576	Body	Island	SYT3	0.482	0.001	0.581	0.889
cg04425614	yellow	14	105,055,026	Body	Island	C14orf180	0.482	-0.015	0.823	0.116
cg00677272	yellow	14	59,213,434		OpenSea		0.482	-0.002	0.912	0.802
cg16363154	yellow	7	127,837,796		N_Shelf		0.482	-0.004	0.900	0.463
cg18968969	yellow	2	3,483,766		OpenSea		0.482	-0.013	0.767	0.070
cg10312476	yellow	1	29,780,268		OpenSea		0.482	0.015	0.072	0.030
cg13697829	yellow	21	30,397,698	5'UTR	S_Shore	USP16	0.482	-0.024	0.141	0.146
cg09951338	yellow	17	36,623,107	Body	S_Shore	ARHGAP23	0.482	0.005	0.661	0.363
cg20737266	yellow	12	56,519,965		N_Shelf		0.482	-0.003	0.066	0.300
cg00948664	yellow	3	48,935,316	Body	N_Shore	SLC25A20	0.482	-0.003	0.713	0.777
cg13363969	yellow	1	37,195,975		OpenSea		0.481	0.001	0.571	0.862
cg22778145	yellow	5	178,054,469	TSS1500	S_Shore	CLK4	0.481	0.002	0.272	0.810
cg12237948	yellow	20	2,085,157	Body	S_Shore	STK35	0.481	0.016	0.566	0.263
cg12423493	yellow	11	64,007,813	TSS1500	N_Shore	FKBP2	0.481	0.009	0.788	0.189
cg22129183	yellow	2	75,783,509	5'UTR	N_Shelf	FAM176A	0.481	0.006	0.319	0.771
cg21653462	yellow	6	42,021,921	Body	S_Shelf	TAF8	0.481	0.008	0.748	0.483
cg19537490	yellow	20	37,057,182	Body	OpenSea	LOC388796	0.481	0.001	0.900	0.842
cg03983398	yellow	1	45,254,530	TSS1500	S_Shelf	BEST4	0.481	0.002	0.834	0.641
cg20373032	yellow	6	30,617,896	Body	S_Shelf	C6orf136	0.481	0.000	0.961	0.959
cg11520030	yellow	17	80,710,877	Body	S_Shore	TBCD	0.481	0.007	0.103	0.460
cg03687994	yellow	6	90,538,873	TSS1500	N_Shore	CASP8AP2	0.481	0.010	0.057	0.107
cg14758525	yellow	18	12,041,672		S_Shelf		0.481	0.008	0.755	0.287
cg13533142	yellow	19	2,255,493	TSS200	S_Shore	JSRP1	0.481	-0.002	0.890	0.810
cg10764762	yellow	13	78,494,272	TSS1500	S_Shore	EDNRB	0.481	0.004	0.380	0.688
cg15110101	yellow	11	61,717,334	TSS200	OpenSea	BEST1	0.481	0.009	0.283	0.735
cg05881698	yellow	19	5,818,763		N_Shelf		0.481	0.002	0.773	0.773
cg22871485	yellow	22	22,901,830	TSS200	S_Shore	PRAME	0.481	-0.010	0.601	0.338
cg17298305	yellow	1	153,911,925	Body	N_Shelf	DENND4B	0.481	0.004	0.788	0.612
cg12461930	yellow	1	228,345,378	5'UTR	Island	GJC2	0.481	0.006	0.588	0.410
cg09042411	yellow	7	100,172,231	TSS1500	Island	SAP25	0.481	0.013	0.607	0.211
cg18920858	yellow	17	64,617,748	Body	OpenSea	PRKCA	0.481	-0.001	0.940	0.713
cg17406023	yellow	19	30,942,040	Body	Island	ZNF536	0.481	0.014	0.655	0.136
cg24308604	yellow	4	174,092,462	Body	S_Shore	GALNT7	0.481	0.007	0.145	0.458
cg03012374	yellow	15	38,998,010		OpenSea		0.481	0.006	0.080	0.400
cg16580197	yellow	8	67,841,925		S_Shelf		0.481	0.003	0.903	0.571
cg20699701	yellow	1	3,089,762	Body	OpenSea	PRDM16	0.481	0.018	0.373	0.018
cg09906402	yellow	11	1,033,236	Body	Island	MUC6	0.481	0.005	0.831	0.475
cg08988951	yellow	16	2,286,370	TSS200	N_Shore	DNASE1L2	0.481	0.009	0.221	0.242
cg08170583	yellow	8	25,269,908	3'UTR	OpenSea	DOCK5	0.481	-0.003	0.931	0.598
cg16559695	yellow	14	105,864,481	3'UTR	Island	PACS2	0.481	-0.001	0.066	0.831
cg00222801	yellow	2	10,829,047	Body	N_Shore	NOL10	0.481	-0.006	0.675	0.545
cg00057603	yellow	20	1,716,270		N_Shore		0.481	0.016	0.812	0.023
cg00410576	yellow	15	52,311,136	TSS1500	N_Shore	MAPK6	0.481	0.001	0.058	0.718
cg06522515	yellow	3	184,090,630	Body	OpenSea	THPO	0.481	0.000	0.933	0.999
cg26229715	yellow	5	134,071,169		N_Shelf		0.481	-0.004	0.854	0.641
cg00125005	yellow	7	2,528,398		OpenSea		0.481	0.007	0.591	0.386
cg09177132	yellow	10	72,142,824	TSS1500	S_Shore	LRRC20	0.481	-0.013	0.099	0.193
cg01656996	yellow	12	49,526,897		S_Shore		0.481	-0.022	0.760	0.180
cg00753492	yellow	1	234,743,830	Body	N_Shore	IRF2BP2	0.481	0.000	0.028	0.892
cg09888297	yellow	1	226,189,878		S_Shelf		0.481	-0.001	0.251	0.910
cg03134653	yellow	6	31,600,558	Body	S_Shore	BAT2	0.481	-0.003	0.939	0.431
cg23542356	yellow	11	119,390,413		OpenSea		0.481	-0.009	0.820	0.336
cg12943082	yellow	7	75,419,311	TSS1500	OpenSea	CCL26	0.481	-0.020	0.503	0.245
cg02385173	yellow	11	76,571,534	TSS1500	N_Shore	ACER3	0.480	-0.005	0.950	0.261
cg24879614	yellow	1	16,409,396		OpenSea		0.480	0.002	0.971	0.498
cg05675249	yellow	4	89,299,791	TSS200	N_Shore	HERC6	0.480	0.009	0.205	0.306

cg05554494	yellow	16	3,306,685	TSS200	S_Shore	MEFV	0.480	0.004	0.855	0.482
cg18764008	yellow	5	151,101,114		OpenSea		0.480	-0.012	0.777	0.429
cg04859102	yellow	6	31,527,893		OpenSea		0.480	0.001	0.756	0.887
cg17041723	yellow	6	169,271,958		OpenSea		0.480	0.005	0.579	0.606
cg03444940	yellow	16	2,133,637	Body	N_Shore	TSC2	0.480	0.014	0.633	0.152
cg24787592	yellow	19	13,273,612		N_Shore		0.480	-0.001	0.049	0.781
cg11859087	yellow	14	100,196,206		N_Shore		0.480	0.002	0.641	0.814
cg17462560	yellow	5	77,814,551	5'UTR	OpenSea	LHFPL2	0.480	0.010	0.518	0.226
cg17119387	yellow	17	2,615,431	TSS1500	Island	KIAA0664	0.480	-0.003	0.126	0.778
cg23237801	yellow	1	16,476,620	Body	S_Shore	EPHA2	0.480	0.008	0.848	0.263
cg02866733	yellow	6	31,621,179	TSS1500	S_Shore	BAT3	0.480	0.009	0.127	0.231
cg14221644	yellow	9	139,146,602		S_Shelf		0.480	-0.008	0.239	0.235
cg22045990	yellow	1	32,828,105	1stExon	S_Shore	TSSK3	0.480	0.004	0.229	0.587
cg15698691	yellow	7	18,079,924		OpenSea		0.480	0.002	0.486	0.826
cg07348311	yellow	2	163,174,896	5'UTR	OpenSea	IFIH1	0.480	-0.004	0.241	0.777
cg17633576	yellow	12	16,726,789	Body	OpenSea	LMO3	0.480	-0.005	0.301	0.598
cg19400926	yellow	6	28,889,996	Body	N_Shore	TRIM27	0.480	0.001	0.491	0.780
cg08648499	yellow	16	31,147,633	TSS1500	OpenSea	PRSS8	0.480	0.002	0.712	0.831
cg04154812	yellow	17	46,908,209	TSS200	N_Shore	CALCOCO2	0.480	0.003	0.135	0.583
cg07502417	yellow	1	230,849,801	5'UTR	OpenSea	AGT	0.480	0.008	0.147	0.435
cg00448578	yellow	1	200,196,840		OpenSea		0.480	0.007	0.910	0.287
cg02449975	yellow	1	165,571,280		S_Shelf		0.480	0.005	0.708	0.557
cg12172720	yellow	5	150,019,603	TSS1500	OpenSea	SYNPO	0.480	-0.002	0.594	0.773
cg03526503	yellow	1	28,198,483	TSS1500	N_Shore	C1orf38	0.480	-0.001	0.920	0.709
cg07466320	yellow	16	2,806,495	Body	Island	SRRM2	0.480	0.008	0.846	0.132
cg01629993	yellow	12	127,545,014		OpenSea		0.480	-0.002	0.645	0.825
cg25501748	yellow	19	39,970,029	TSS1500	N_Shore	TIMM50	0.480	-0.005	0.826	0.568
cg27420005	yellow	2	3,197,996	Body	OpenSea	TSSC1	0.480	0.014	0.530	0.075
cg23333313	yellow	3	52,516,489	Body	OpenSea	NISCH	0.480	0.007	0.918	0.129
cg22530977	yellow	1	29,830,579		OpenSea		0.480	0.000	0.839	0.952
cg09332091	yellow	19	3,180,708		S_Shore		0.480	0.014	0.658	0.127
cg04579263	yellow	14	91,525,979	Body	N_Shore	RPS6KA5	0.480	0.006	0.041	0.033
cg22563937	yellow	13	107,649,044		OpenSea		0.480	0.015	0.617	0.226
cg04276316	yellow	1	2,572,242		N_Shore		0.480	0.008	0.770	0.141
cg17901924	yellow	1	233,124,418	Body	S_Shelf	PCNXL2	0.480	0.006	0.122	0.458
cg20761810	yellow	8	140,723,642		OpenSea		0.480	0.000	0.797	0.982
cg03032798	yellow	2	221,298,903		OpenSea		0.480	-0.002	0.612	0.843
cg11257113	yellow	17	8,062,204		S_Shore		0.480	0.006	0.178	0.373
cg27345534	yellow	12	11,509,583	TSS1500	OpenSea	PRB1	0.480	-0.015	0.821	0.138
cg16843718	yellow	22	50,322,571		Island		0.480	0.001	0.289	0.941
cg17282145	yellow	1	231,005,552	TSS1500	S_Shore	C1orf198	0.480	-0.002	0.239	0.879
cg04088474	yellow	5	38,765,698		OpenSea		0.480	0.002	0.146	0.875
cg10978034	yellow	6	33,129,988		S_Shore		0.480	0.004	0.748	0.739
cg07119001	yellow	2	241,512,404	5'UTR	N_Shore	RNPEPL1	0.480	-0.001	0.503	0.865
cg25792351	yellow	2	43,414,162		OpenSea		0.480	0.011	0.353	0.213
cg25669249	yellow	15	29,442,169	Body	OpenSea	FAM189A1	0.480	0.000	0.856	0.952
cg02253535	yellow	21	45,147,292	Body	N_Shore	PDXK	0.480	0.001	0.673	0.887
cg04370983	yellow	8	117,885,438	5'UTR	N_Shore	RAD21	0.480	0.005	0.099	0.433
cg21348508	yellow	12	132,928,861		N_Shore		0.480	0.005	0.835	0.405
cg18017531	yellow	3	15,105,520	Body	N_Shore	MRPS25	0.480	0.005	0.866	0.505
cg19893585	yellow	8	145,025,064	Body	Island	PLEC1	0.480	0.009	0.348	0.725
cg15085205	yellow	12	71,249,040	Body	OpenSea	PTPRR	0.480	0.009	0.870	0.448
cg22930773	yellow	4	148,413,287	Body	OpenSea	EDNRA	0.480	0.001	0.250	0.886
cg14563196	yellow	1	89,664,582	1stExon	OpenSea	GBP4	0.479	0.028	0.301	0.120
cg05264578	yellow	1	1,886,865	3'UTR	Island	KIAA1751	0.479	0.006	0.895	0.568
cg26422861	yellow	7	56,160,737	TSS200	OpenSea	PHKG1	0.479	-0.005	0.235	0.630
cg19852058	yellow	3	105,293,613	3'UTR	OpenSea	ALCAM	0.479	-0.002	0.836	0.899
cg06179615	yellow	8	145,109,384	Body	N_Shore	OPLAH	0.479	0.005	0.729	0.448
cg22068570	yellow	20	20,002,133	Body	S_Shelf	NAA20	0.479	0.006	0.899	0.225
cg09386054	yellow	14	98,919,898		OpenSea		0.479	-0.023	0.295	0.095
cg03292284	yellow	1	241,804,036	TSS1500	S_Shore	OPN3	0.479	0.019	0.706	0.083
cg13084525	yellow	11	34,642,463	TSS1500	OpenSea	EHF	0.479	0.008	0.319	0.266
cg21806985	yellow	5	112,824,646	TSS200	S_Shore	MCC	0.479	0.009	0.438	0.471
cg17403899	yellow	19	42,893,709	5'UTR	S_Shelf	CNFN	0.479	0.006	0.683	0.402
cg09462575	yellow	20	43,803,485	TSS200	OpenSea	PI3	0.479	0.010	0.715	0.400
cg14165614	yellow	10	71,812,101	TSS1500	N_Shore	H2AFY2	0.479	0.000	0.099	0.965
cg27568360	yellow	10	531,320	Body	S_Shore	DIP2C	0.479	0.003	0.764	0.834

cg07057235	yellow	16	89,033,895	Body	N_Shore	CBFA2T3	0.479	0.013	0.801	0.038
cg27480553	yellow	22	31,317,764	TSS1500	N_Shore	C22orf27	0.479	0.009	0.123	0.323
cg22219494	yellow	1	25,201,805		OpenSea		0.479	0.003	0.586	0.587
cg12330441	yellow	22	30,991,811		S_Shelf		0.479	-0.005	0.718	0.515
cg23009327	yellow	19	1,630,248	Body	N_Shore	TCF3	0.479	0.006	0.889	0.329
cg08043345	yellow	19	1,496,580	Body	Island	REEP6	0.479	0.007	0.547	0.193
cg03347444	yellow	11	32,926,880	5'UTR	OpenSea	QSER1	0.479	-0.005	0.340	0.702
cg23170439	yellow	3	74,662,982		N_Shore		0.479	0.026	0.329	0.128
cg03741275	yellow	7	151,829,585		S_Shore		0.479	0.000	0.919	0.912
cg07229198	yellow	6	30,685,635	TSS200	S_Shore	MDC1	0.479	0.001	0.025	0.859
cg01408476	yellow	16	58,330,382	TSS1500	OpenSea	KLKBL4	0.479	0.017	0.658	0.033
cg05095428	yellow	2	69,239,676	TSS1500	N_Shore	ANTXR1	0.479	0.000	0.643	0.991
cg25426044	yellow	8	95,254,202		OpenSea		0.479	0.012	0.785	0.130
cg06810490	yellow	7	65,449,491		S_Shelf		0.479	0.009	0.759	0.342
cg09089053	yellow	19	40,731,797	Body	N_Shore	CNTD2	0.479	0.005	0.218	0.345
cg13080606	yellow	1	110,999,462	3'UTR	OpenSea	PROK1	0.479	0.006	0.740	0.361
cg11274778	yellow	20	31,781,232	TSS200	OpenSea	BASE	0.479	0.003	0.713	0.759
cg01858712	yellow	16	12,156,525	Body	OpenSea	SNX29	0.479	0.046	0.508	0.009
cg23527366	yellow	3	52,010,415	Body	S_Shore	ABHD14A	0.479	0.013	0.544	0.128
cg04882739	yellow	3	108,855,428		OpenSea		0.479	0.000	0.947	0.911
cg00891995	yellow	1	153,113,262	Body	OpenSea	SPRR2C	0.479	0.009	0.724	0.385
cg22819024	yellow	5	95,562,504		OpenSea		0.479	-0.003	0.861	0.781
cg26438942	yellow	15	77,695,188		OpenSea		0.479	-0.001	0.700	0.962
cg16767867	yellow	4	186,658,932	5'UTR	OpenSea	SORBS2	0.479	0.005	0.522	0.589
cg10670077	yellow	19	7,293,341	Body	Island	INSR	0.479	0.002	0.193	0.768
cg01503184	yellow	16	1,365,052	Body	S_Shore	UBE2I	0.479	0.008	0.900	0.127
cg23346237	yellow	22	46,685,655	Body	Island	TTC38	0.479	0.006	0.843	0.356
cg03046346	yellow	11	61,658,150	Body	N_Shore	FADS3	0.479	0.006	0.266	0.260
cg04165759	yellow	1	150,448,943	3'UTR	OpenSea	RPRD2	0.479	0.018	0.726	0.132
cg25145360	yellow	17	19,651,881	TSS200	S_Shelf	ALDH3A1	0.479	0.012	0.226	0.105
cg23347654	yellow	14	96,727,955	5'UTR	OpenSea	BDKRB1	0.479	-0.008	0.685	0.368
cg11218842	yellow	10	5,406,907	TSS200	OpenSea	UCN3	0.479	0.019	0.428	0.014
cg03779973	yellow	4	151,001,971	Body	S_Shore	DCLK2	0.479	0.008	0.643	0.541
cg12514868	yellow	4	2,491,659	5'UTR	OpenSea	RNF4	0.479	-0.004	0.864	0.573
cg24399430	yellow	19	44,203,583		Island		0.479	-0.007	0.068	0.206
cg15374518	yellow	6	159,067,684		S_Shore		0.479	-0.007	0.813	0.489
cg11808633	yellow	12	6,730,599	5'UTR	S_Shore	LPAR5	0.479	0.014	0.780	0.027
cg25941682	yellow	15	85,568,604	Body	OpenSea	PDE8A	0.479	0.021	0.620	0.133
cg07955064	yellow	16	17,606,673		OpenSea		0.478	-0.014	0.413	0.112
cg26114457	yellow	1	157,895,649		OpenSea		0.478	-0.001	0.876	0.873
cg07768763	yellow	16	81,115,614	3'UTR	OpenSea	GCSH	0.478	0.000	0.949	0.965
cg20929922	yellow	5	43,484,725	TSS1500	S_Shore	C5orf28	0.478	-0.006	0.132	0.304
cg27501686	yellow	12	2,184,874	Body	OpenSea	CACNA1C	0.478	0.003	0.691	0.895
cg19700682	yellow	10	88,734,481	5'UTR	S_Shelf	AGAP11	0.478	0.000	0.434	0.959
cg10740660	yellow	6	31,740,849	Body	OpenSea	C6orf27	0.478	-0.005	0.170	0.355
cg05461841	yellow	16	2,879,944	TSS1500	OpenSea	ZG16B	0.478	0.003	0.464	0.874
cg19333980	yellow	20	5,094,433	TSS1500	S_Shore	C20orf30	0.478	0.017	0.620	0.075
cg02871966	yellow	16	74,716,561	Body	OpenSea	MLKL	0.478	0.005	0.721	0.416
cg17590227	yellow	8	132,201,183		OpenSea		0.478	-0.007	0.839	0.574
cg05298224	yellow	6	32,016,360	Body	OpenSea	TNXB	0.478	0.010	0.552	0.240
cg00219303	yellow	22	38,146,969	Body	S_Shelf	TRIOBP	0.478	0.001	0.728	0.905
cg00675156	yellow	17	46,871,867	Body	OpenSea	TTL6	0.478	0.009	0.716	0.476
cg07046870	yellow	3	122,803,153	Body	OpenSea	PDIA5	0.478	-0.005	0.827	0.539
cg04246957	yellow	7	157,696,589	Body	S_Shore	PTPRN2	0.478	0.014	0.247	0.036
cg27182935	yellow	16	89,790,473	Body	S_Shore	ZNF276	0.478	0.009	0.598	0.114
cg26245261	yellow	5	1,753,350		OpenSea		0.478	-0.001	0.790	0.876
cg16663891	yellow	3	66,575,472		OpenSea		0.478	0.023	0.815	0.025
cg05374956	yellow	19	5,838,735	1stExon	OpenSea	FUT6	0.478	-0.011	0.675	0.374
cg01015008	yellow	6	31,095,845	5'UTR	OpenSea	PSORS1C1	0.478	-0.001	0.825	0.934
cg13387854	yellow	5	2,225,323		OpenSea		0.478	0.008	0.662	0.385
cg13143389	yellow	11	8,680,333	5'UTR	OpenSea	TRIM66	0.478	0.010	0.452	0.344
cg27576968	yellow	4	122,615,133	Body	N_Shelf	ANXA5	0.478	0.002	0.877	0.845
cg23019935	yellow	1	22,416,488	Body	OpenSea	CDC42	0.478	-0.014	0.302	0.109
cg01266985	yellow	5	1,092,066	Body	N_Shore	SLC12A7	0.478	-0.003	0.587	0.759
cg12415569	yellow	12	322,831	5'UTR	OpenSea	SLC6A12	0.478	0.005	0.495	0.534
cg21507807	yellow	13	114,888,458	Body	OpenSea	RASA3	0.478	0.010	0.850	0.309
cg01065586	yellow	5	52,404,911	Body	N_Shore	MOC52	0.478	0.004	0.046	0.124

cg07165029	yellow	3	65,715,359	Body	OpenSea	MAGI1	0.478	-0.004	0.095	0.531
cg11302791	yellow	8	10,635,419	Body	OpenSea	PINX1	0.478	0.000	0.810	0.988
cg22775789	yellow	12	56,694,541	TSS1500	S_Shore	CS	0.478	0.019	0.241	0.089
cg15427004	yellow	3	38,179,858	TSS1500	Island	ACAA1	0.477	0.002	0.088	0.631
cg06791107	yellow	4	17,516,752	TSS200	S_Shelf	CLRN2	0.477	-0.002	0.518	0.835
cg14346895	yellow	9	37,576,819	TSS1500	S_Shore	FBXO10	0.477	0.002	0.643	0.807
cg05337681	yellow	15	58,844,500	Body	OpenSea	LIPC	0.477	0.014	0.243	0.070
cg25705508	yellow	1	203,199,023	TSS200	OpenSea	CHIT1	0.477	0.003	0.727	0.646
cg09243824	yellow	19	48,217,675	5'UTR	S_Shore	EHD2	0.477	0.020	0.814	0.149
cg00595039	yellow	8	143,460,209	5'UTR	OpenSea	TSNARE1	0.477	-0.003	0.947	0.383
cg14684434	yellow	5	53,829,957	Body	OpenSea	SNX18	0.477	-0.001	0.271	0.930
cg13650504	yellow	2	692,026		OpenSea		0.477	0.003	0.647	0.717
cg00037056	yellow	4	956,607	Body	N_Shelf	DGKQ	0.477	0.003	0.891	0.621
cg00620452	yellow	3	32,147,645	TSS1500	N_Shore	GPD1L	0.477	-0.010	0.310	0.221
cg13512032	yellow	10	122,357,368		OpenSea		0.477	0.003	0.788	0.585
cg07287793	yellow	5	6,447,238	TSS1500	N_Shore	UBE2QL1	0.477	0.005	0.535	0.410
cg05756301	yellow	6	128,901,562		Island		0.477	0.003	0.778	0.608
cg20800039	yellow	15	58,891,233	Body	OpenSea	ADAM10	0.477	-0.001	0.941	0.729
cg08251704	yellow	2	234,296,312	Body	OpenSea	DGKD	0.477	-0.008	0.201	0.473
cg07517216	yellow	19	10,541,207	Body	N_Shore	PDE4A	0.477	0.005	0.203	0.668
cg09377572	yellow	19	48,220,075	Body	Island	EHD2	0.477	0.000	0.786	0.984
cg16128155	yellow	1	36,751,234	Body	OpenSea	THRAP3	0.477	0.002	0.095	0.759
cg08894401	yellow	5	1,318,975	Body	OpenSea	CLPTM1L	0.477	0.001	0.953	0.740
cg10317173	yellow	17	73,582,961	TSS1500	N_Shore	MYO15B	0.477	-0.002	0.938	0.740
cg07458516	yellow	1	43,854,839	Body	N_Shore	MED8	0.477	0.009	0.413	0.276
cg18397653	yellow	4	88,571,653	5'UTR	OpenSea	DMP1	0.477	0.001	0.848	0.922
cg15559979	yellow	3	49,049,574	Body	S_Shelf	WDR6	0.477	-0.003	0.901	0.583
cg10065809	yellow	14	24,785,933	3'UTR	S_Shore	LTB4R	0.477	0.004	0.857	0.674
cg08650961	yellow	10	104,748,594	Body	OpenSea	CNNM2	0.477	0.006	0.497	0.637
cg05874549	yellow	8	876,825		OpenSea		0.477	0.003	0.605	0.638
cg16773028	yellow	1	111,148,339	5'UTR	N_Shore	KCNA2	0.477	0.006	0.444	0.441
cg00206463	yellow	6	30,179,435	5'UTR	N_Shore	TRIM26	0.477	0.031	0.477	0.341
cg27401539	yellow	15	41,048,027	TSS1500	S_Shore	FAM82A2	0.477	0.026	0.538	0.152
cg10075819	yellow	2	109,229,337	5'UTR	OpenSea	LIMS1	0.477	0.008	0.548	0.229
cg13644528	yellow	9	36,163,544	3'UTR	N_Shelf	GLIPR2	0.477	-0.003	0.098	0.736
cg16593242	yellow	20	23,334,287	5'UTR	N_Shelf	NXT1	0.477	-0.003	0.702	0.612
cg20959106	yellow	11	125,933,690	TSS1500	S_Shore	CDON	0.477	0.005	0.958	0.132
cg06361127	yellow	1	182,024,689	3'UTR	N_Shore	ZNF648	0.477	-0.002	0.949	0.454
cg25970491	yellow	22	19,279,922	TSS1500	S_Shore	CLTCL1	0.477	0.007	0.450	0.464
cg23470538	yellow	5	4,295,348		OpenSea		0.477	-0.009	0.799	0.305
cg21351647	yellow	6	31,081,905	TSS1500	OpenSea	PSORS1C1	0.477	0.018	0.700	0.118
cg26788737	yellow	1	226,184,782	Body	N_Shelf	C1orf55	0.477	-0.001	0.633	0.906
cg04308589	yellow	10	79,110,881	Body	OpenSea	KCNMA1	0.477	0.004	0.893	0.687
cg01324474	yellow	12	54,758,545	TSS1500	OpenSea	GPR84	0.477	0.006	0.896	0.427
cg13685680	yellow	12	133,144,341	Body	N_Shelf	FBRSL1	0.477	-0.001	0.822	0.924
cg20170110	yellow	4	7,193,885	TSS1500	N_Shore	SORCS2	0.477	0.015	0.291	0.102
cg14202695	yellow	1	166,812,566	Body	S_Shelf	POGK	0.477	-0.007	0.894	0.408
cg09805692	yellow	17	27,188,437	Body	OpenSea	MIR451	0.477	0.005	0.866	0.527
cg09225287	yellow	7	80,549,171	TSS1500	S_Shore	SEMA3C	0.477	0.009	0.665	0.372
cg27460531	yellow	17	78,791,723	Body	S_Shore	RPTOR	0.476	0.000	0.836	0.979
cg10142520	yellow	11	65,344,604	Body	S_Shore	EHBP1L1	0.476	-0.001	0.860	0.847
cg03602938	yellow	7	96,339,495	TSS1500	S_Shore	SHFM1	0.476	0.002	0.073	0.751
cg05285244	yellow	7	149,412,760	5'UTR	S_Shore	KRBA1	0.476	0.002	0.232	0.749
cg09033219	yellow	17	73,714,598		N_Shelf		0.476	-0.004	0.904	0.593
cg14697268	yellow	13	28,430,636		OpenSea		0.476	0.007	0.616	0.333
cg23282441	yellow	10	73,533,927	TSS1500	S_Shore	C10orf54	0.476	0.012	0.725	0.215
cg09863066	yellow	22	37,214,864	5'UTR	S_Shore	PVALB	0.476	0.004	0.590	0.456
cg12865675	yellow	5	179,156,985	3'UTR	N_Shelf	CANX	0.476	0.008	0.865	0.151
cg21467203	yellow	3	49,911,342		S_Shelf		0.476	0.009	0.735	0.155
cg19847945	yellow	17	60,783,784	Body	S_Shore	10-Mar	0.476	0.009	0.616	0.212
cg24649332	yellow	20	45,280,359	5'UTR	S_Shore	SLC13A3	0.476	0.005	0.393	0.391
cg07711566	yellow	6	30,178,514	5'UTR	N_Shelf	TRIM26	0.476	-0.003	0.931	0.691
cg08961072	yellow	6	31,591,771	Body	S_Shelf	BAT2	0.476	0.004	0.921	0.413
cg02272851	yellow	10	3,797,471		OpenSea		0.476	-0.002	0.850	0.812
cg02978139	yellow	4	20,730,493	3'UTR	OpenSea	KCNIP4	0.476	-0.007	0.847	0.527
cg09612463	yellow	2	131,521,400	Body	OpenSea	FAM123C	0.476	-0.002	0.854	0.742
cg14903689	yellow	21	46,875,218	TSS1500	N_Shore	COL18A1	0.476	-0.002	0.383	0.755

cg18643421	yellow	1	152,730,361	TSS200	N_Shelf	KPRP	0.476	0.008	0.563	0.348
cg00294956	yellow	5	13,921,996	Body	OpenSea	DNAH5	0.476	-0.005	0.282	0.497
cg04722675	yellow	16	1,219,510	Body	Island	CACNA1H	0.476	0.009	0.817	0.235
cg25390413	yellow	1	2,390,701		S_Shelf		0.476	0.031	0.590	0.007
cg01813877	yellow	14	103,369,717	Body	OpenSea	TRAF3	0.476	-0.009	0.732	0.266
cg26502852	yellow	17	6,659,199	5'UTR	OpenSea	XAF1	0.476	0.013	0.640	0.436
cg21863334	yellow	20	36,157,405	TSS1500	S_Shore	BLCAP	0.476	-0.001	0.733	0.826
cg04481603	yellow	10	104,182,930		S_Shore		0.476	0.008	0.573	0.231
cg26122710	yellow	5	1,835,623		OpenSea		0.476	0.001	0.651	0.847
cg18708233	yellow	10	74,451,549	TSS1500	N_Shore	CCDC109A	0.476	0.013	0.684	0.344
cg04723534	yellow	21	43,373,136	Body	Island	C2CD2	0.476	0.004	0.241	0.696
cg22940798	yellow	6	32,805,554	Body	N_Shore	TAP2	0.476	-0.010	0.457	0.346
cg14140691	yellow	9	141,012,312	Body	N_Shelf	CACNA1B	0.476	0.012	0.565	0.178
cg00991994	yellow	3	99,639,553	Body	OpenSea	C3orf26	0.476	0.000	0.090	0.987
cg10299746	yellow	16	855,300	TSS200	N_Shelf	PRR25	0.476	0.013	0.752	0.055
cg03469461	yellow	4	99,594,348		OpenSea		0.476	0.008	0.263	0.600
cg04450994	yellow	6	3,318,592	Body	OpenSea	SLC22A23	0.476	0.009	0.698	0.510
cg14082061	yellow	10	4,125,518		OpenSea		0.476	-0.001	0.565	0.923
cg09612099	yellow	11	102,096,840	Body	OpenSea	YAP1	0.476	-0.001	0.313	0.936
cg04821933	yellow	13	29,232,799	TSS1500	N_Shore	POMP	0.476	0.002	0.020	0.184
cg01933416	yellow	12	49,489,337	TSS1500	S_Shore	DHH	0.476	0.009	0.662	0.524
cg03838769	yellow	4	168,156,467	TSS1500	S_Shore	SPOCK3	0.476	0.006	0.731	0.638
cg11118584	yellow	3	189,724,147	5'UTR	OpenSea	LEPREL1	0.476	-0.007	0.947	0.154
cg10000139	yellow	19	3,805,860	3'UTR	Island	ZFR2	0.476	0.006	0.483	0.311
cg25199878	yellow	2	183,903,746	TSS1500	S_Shore	NCKAP1	0.476	0.001	0.054	0.753
cg20821170	yellow	11	57,418,566	TSS1500	S_Shelf	YPEL4	0.476	0.018	0.580	0.297
cg19869035	yellow	7	2,653,955	3'UTR	OpenSea	IQCE	0.476	0.008	0.235	0.256
cg12467404	yellow	1	207,496,045	Body	S_Shore	CD55	0.476	0.011	0.764	0.329
cg02910054	yellow	16	12,241,554	Body	OpenSea	SNX29	0.476	0.003	0.326	0.798
cg14929208	yellow	3	156,273,297	TSS1500	S_Shore	SSR3	0.476	0.023	0.198	0.111
cg10591174	yellow	12	111,358,446	TSS200	OpenSea	MYL2	0.476	0.021	0.795	0.085
cg01941309	yellow	14	106,015,974		S_Shelf		0.476	0.018	0.782	0.005
cg01071346	yellow	1	2,480,431		S_Shelf		0.476	0.016	0.255	0.184
cg09918751	yellow	15	100,517,450	Body	OpenSea	ADAMTS17	0.475	0.034	0.754	0.145
cg04701869	yellow	1	42,628,449	3'UTR	OpenSea	GUCA2A	0.475	-0.004	0.899	0.423
cg13482326	yellow	2	118,700,475	Body	OpenSea	CCDC93	0.475	0.001	0.770	0.833
cg05067156	yellow	16	88,591,451	Body	S_Shore	ZFPM1	0.475	0.013	0.706	0.031
cg24883498	yellow	19	18,264,771	5'UTR	N_Shore	PIK3R2	0.475	0.013	0.188	0.135
cg13569079	yellow	1	11,761,697	5'UTR	OpenSea	C1orf187	0.475	0.012	0.406	0.328
cg09633881	yellow	9	33,002,021	TSS1500	S_Shore	APTX	0.475	0.021	0.228	0.085
cg08527161	yellow	11	126,294,215	3'UTR	OpenSea	KIRREL3	0.475	0.007	0.515	0.307
cg08423851	yellow	3	11,658,043	Body	OpenSea	VGLL4	0.475	0.004	0.472	0.671
cg07459121	yellow	5	1,092,793	Body	N_Shore	SLC12A7	0.475	-0.008	0.864	0.301
cg07499806	yellow	19	56,739,868	TSS1500	S_Shore	ZSCAN5A	0.475	-0.005	0.944	0.242
cg15177195	yellow	2	237,250,671	Body	OpenSea	IQCA1	0.475	0.002	0.825	0.736
cg03529184	yellow	20	30,062,162	TSS1500	N_Shore	DEFB124	0.475	0.000	0.754	0.969
cg16659773	yellow	6	4,352,453		OpenSea		0.475	-0.002	0.325	0.793
cg07498879	yellow	22	30,663,041	TSS1500	OpenSea	OSM	0.475	0.009	0.755	0.212
cg06722282	yellow	10	105,212,680	TSS1500	S_Shore	CALHM2	0.475	0.002	0.259	0.803
cg19784880	yellow	5	178,957,344		N_Shore		0.475	0.006	0.596	0.536
cg12734609	yellow	10	134,607,680		Island		0.475	0.003	0.363	0.651
cg00531628	yellow	2	163,174,891	5'UTR	OpenSea	IFIH1	0.475	0.007	0.115	0.410
cg25446098	yellow	17	47,209,664	TSS1500	N_Shore	B4GALNT2	0.475	-0.008	0.377	0.577
cg22894983	yellow	19	12,998,135	TSS200	S_Shore	KLF1	0.475	0.019	0.313	0.056
cg23711382	yellow	11	120,040,326		S_Shore		0.475	-0.003	0.057	0.462
cg27228210	yellow	2	216,420,018		OpenSea		0.475	0.002	0.894	0.898
cg05488981	yellow	11	487,701	Body	N_Shore	PTDSS2	0.475	0.014	0.785	0.034
cg05178839	yellow	16	87,700,913	Body	N_Shore	JPH3	0.475	0.011	0.621	0.125
cg17556406	yellow	6	129,959,739	Body	OpenSea	ARHGAP18	0.475	0.001	0.159	0.921
cg23314364	yellow	8	29,230,998		OpenSea		0.475	0.004	0.296	0.713
cg08473487	yellow	19	51,504,516	5'UTR	N_Shore	KLK8	0.475	0.008	0.145	0.166
cg26920573	yellow	8	141,541,006		OpenSea		0.475	0.010	0.749	0.084
cg19599407	yellow	15	33,360,214	TSS200	OpenSea	FMN1	0.475	0.001	0.676	0.946
cg19331779	yellow	7	100,892,699		N_Shelf		0.475	0.001	0.970	0.594
cg22412536	yellow	15	61,436,577	Body	OpenSea	RORA	0.475	-0.009	0.874	0.413
cg02740007	yellow	6	164,506,581		OpenSea		0.475	0.000	0.468	0.993
cg14294910	yellow	18	77,616,832		OpenSea		0.475	0.003	0.030	0.161

cg20533553	yellow	11	2,464,822	TSS1500	N_Shore	KCNQ1	0.475	0.003	0.416	0.728
cg00726046	yellow	20	43,161,260	5'UTR	S_Shore	PKIG	0.475	0.007	0.269	0.333
cg25282715	yellow	17	42,848,988	Body	N_Shelf	ADAM11	0.475	0.003	0.536	0.569
cg05877402	yellow	5	35,230,549	1stExon	OpenSea	PRLR	0.475	0.001	0.099	0.939
cg16012690	yellow	11	46,314,809	Body	N_Shelf	CREB3L1	0.474	0.009	0.689	0.103
cg08614370	yellow	17	10,286,377		OpenSea		0.474	0.000	0.743	0.971
cg15495463	yellow	18	74,729,151	TSS200	OpenSea	MBP	0.474	0.005	0.930	0.390
cg27064845	yellow	19	48,252,623	Body	S_Shelf	GLTSCR2	0.474	0.003	0.797	0.731
cg18424072	yellow	20	39,656,880	TSS1500	N_Shore	TOP1	0.474	0.011	0.102	0.254
cg27321913	yellow	6	35,265,379	TSS1500	OpenSea	DEF6	0.474	0.002	0.407	0.840
cg19255608	yellow	1	153,581,655	5'UTR	OpenSea	S100A16	0.474	0.013	0.465	0.034
cg14021478	yellow	6	33,384,537	Body	N_Shore	CUTA	0.474	-0.005	0.443	0.489
cg18612044	yellow	7	923,365	Body	OpenSea	C7orf20	0.474	0.004	0.854	0.556
cg17722747	yellow	20	58,665,675		S_Shelf		0.474	-0.010	0.910	0.151
cg08296969	yellow	16	69,154,282	3'UTR	OpenSea	CHTF8	0.474	0.007	0.918	0.217
cg12089079	yellow	13	47,470,350	5'UTR	OpenSea	HTR2A	0.474	0.005	0.657	0.710
cg07053114	yellow	10	129,794,994	5'UTR	OpenSea	PTPRE	0.474	0.005	0.340	0.465
cg22718031	yellow	11	1,244,229	TSS200	N_Shelf	MUC5B	0.474	0.006	0.244	0.522
cg05383531	yellow	3	49,384,054		OpenSea		0.474	0.003	0.757	0.787
cg03990033	yellow	1	208,084,030	Body	N_Shore	CD34	0.474	-0.021	0.373	0.171
cg21337717	yellow	12	117,308,650	3'UTR	OpenSea	HRK	0.474	0.002	0.649	0.807
cg02562544	yellow	1	53,543,138	Body	N_Shore	PODN	0.474	0.000	0.926	0.973
cg14275281	yellow	17	43,189,622	3'UTR	OpenSea	PLCD3	0.474	0.001	0.682	0.897
cg21157690	yellow	6	152,126,895	5'UTR	N_Shore	ESR1	0.474	0.015	0.324	0.159
cg03149058	yellow	1	18,425,905		OpenSea		0.474	0.010	0.444	0.068
cg15401418	yellow	17	75,316,383	5'UTR	OpenSea	9-Sep	0.474	-0.014	0.619	0.246
cg19427695	yellow	10	132,768,120		OpenSea		0.474	-0.007	0.701	0.584
cg08657247	yellow	17	27,279,763	TSS1500	S_Shore	PHF12	0.474	0.009	0.281	0.234
cg11225090	yellow	4	185,276,573		OpenSea		0.474	0.007	0.027	0.167
cg25181284	yellow	12	50,497,037	TSS1500	OpenSea	GPD1	0.474	-0.004	0.843	0.623
cg21338852	yellow	2	47,143,656	5'UTR	S_Shore	MCFD3	0.474	0.002	0.101	0.755
cg22421766	yellow	1	1,217,658	5'UTR	OpenSea	SCNN1D	0.474	0.010	0.422	0.145
cg07617207	yellow	2	161,920,006		OpenSea		0.474	0.011	0.285	0.169
cg27277978	yellow	16	30,457,458	TSS1500	S_Shore	SEPHS2	0.474	-0.002	0.037	0.669
cg03121136	yellow	7	128,494,512	Body	Island	FLNC	0.474	0.008	0.783	0.132
cg23591853	yellow	2	27,712,996	TSS1500	S_Shore	IFT172	0.474	0.008	0.194	0.365
cg16910846	yellow	12	3,575,270		OpenSea		0.474	0.015	0.887	0.023
cg02441090	yellow	5	41,871,058	TSS1500	S_Shore	OXCT1	0.474	0.015	0.369	0.010
cg03341469	yellow	1	54,355,906	TSS1500	S_Shore	YIPF1	0.474	0.009	0.097	0.539
cg06043315	yellow	8	144,640,306	TSS200	N_Shore	GSDMD	0.474	0.005	0.445	0.563
cg21817179	yellow	7	16,505,094	1stExon	OpenSea	SOSTDC1	0.474	0.009	0.214	0.480
cg11331344	yellow	17	73,629,463	Body	S_Shore	RECQL5	0.474	0.011	0.179	0.065
cg04977858	yellow	1	19,069,653	Body	OpenSea	PAX7	0.474	-0.002	0.703	0.674
cg15730481	yellow	7	1,126,318	TSS200	N_Shore	GPER	0.474	-0.004	0.592	0.730
cg14099345	yellow	9	132,631,088	Body	S_Shore	USP20	0.473	0.008	0.689	0.234
cg26076854	yellow	11	7,505,269	TSS1500	OpenSea	OLFML1	0.473	0.008	0.739	0.286
cg17326313	yellow	2	37,383,568	5'UTR	N_Shore	EIF2AK2	0.473	-0.003	0.030	0.194
cg17697105	yellow	20	5,170,968	3'UTR	OpenSea	CDS2	0.473	0.007	0.786	0.275
cg00194780	yellow	17	8,172,728	3'UTR	OpenSea	PFAS	0.473	0.000	0.948	0.985
cg09183316	yellow	12	58,238,232	Body	N_Shore	CTDSP2	0.473	0.001	0.019	0.445
cg17649671	yellow	10	89,298,596	Body	OpenSea	MINPP1	0.473	0.003	0.396	0.813
cg01768433	yellow	5	90,185,030	Body	OpenSea	GPR98	0.473	-0.003	0.897	0.718
cg07516355	yellow	19	51,073,535		S_Shelf		0.473	0.005	0.592	0.555
cg25278154	yellow	1	14,917,857		OpenSea		0.473	0.000	0.518	0.981
cg08390901	yellow	2	109,747,264	TSS1500	S_Shore	LOC1002872	0.473	0.005	0.923	0.238
cg09933929	yellow	7	154,677,023	Body	OpenSea	DPP6	0.473	-0.011	0.743	0.316
cg13221074	yellow	11	64,051,814	TSS1500	N_Shore	GPR137	0.473	0.002	0.035	0.246
cg17554875	yellow	5	179,520,998		S_Shelf		0.473	0.020	0.724	0.013
cg16270148	yellow	15	59,936,993	Body	OpenSea	GTF2A2	0.473	0.005	0.838	0.439
cg00474854	yellow	18	11,821,776	Body	N_Shore	GNAL	0.473	0.004	0.749	0.630
cg21813376	yellow	1	18,629,561	Body	OpenSea	IGSF21	0.473	-0.013	0.400	0.158
cg18108753	yellow	7	155,367,436		S_Shore		0.473	0.004	0.692	0.538
cg04669407	yellow	5	148,521,450	5'UTR	Island	ABLIM3	0.473	0.006	0.041	0.102
cg07992659	yellow	7	33,961,367	Body	OpenSea	BMPER	0.473	0.005	0.489	0.505
cg05599030	yellow	17	37,356,047	TSS1500	N_Shore	RPL19	0.473	0.002	0.077	0.674
cg22143635	yellow	11	980,567	Body	Island	AP2A2	0.473	0.011	0.835	0.150
cg26406558	yellow	13	99,174,395	Body	OpenSea	STK24	0.473	0.012	0.699	0.089



cg09299592	yellow	22	40,765,943	TSS1500	N_Shore	SGSM3	0.473	0.006	0.695	0.366
cg15545316	yellow	1	42,618,970	TSS200	OpenSea	GUCA2B	0.473	0.002	0.492	0.752
cg19256906	yellow	6	32,187,467	Body	OpenSea	NOTCH4	0.473	0.006	0.671	0.477
cg20712255	yellow	11	116,367,198		N_Shelf		0.473	-0.001	0.917	0.870
cg07134608	yellow	19	49,436,579	TSS1500	N_Shore	DHDH	0.473	-0.001	0.193	0.888
cg14432744	yellow	11	2,172,043	Body	OpenSea	INS-IGF2	0.473	0.004	0.556	0.581
cg16564135	yellow	11	122,628,959	Body	OpenSea	UBASH3B	0.473	0.013	0.559	0.076
cg08560074	yellow	5	169,532,686	TSS1500	N_Shore	FOX11	0.473	0.021	0.625	0.061
cg07129978	yellow	17	39,791,049		OpenSea		0.473	0.004	0.579	0.500
cg15001372	yellow	7	44,229,892	TSS1500	OpenSea	GCK	0.473	0.008	0.774	0.268
cg13896879	yellow	1	150,785,718	Body	OpenSea	ARNT	0.473	0.002	0.072	0.655
cg20826151	yellow	7	100,743,732		OpenSea		0.473	0.009	0.337	0.409
cg11337160	yellow	22	36,014,182	TSS1500	OpenSea	MB	0.473	-0.002	0.924	0.769
cg26223996	yellow	15	74,906,395	TSS1500	N_Shore	CLK3	0.473	0.002	0.951	0.587
cg02609775	yellow	16	430,019	Body	N_Shore	TMEM8A	0.473	0.005	0.911	0.423
cg10106935	yellow	7	4,762,236	Body	N_Shelf	FOXK1	0.473	0.010	0.909	0.066
cg20023712	yellow	2	238,608,636	Body	OpenSea	LRRFIP1	0.473	0.002	0.937	0.688
cg01117549	yellow	5	137,668,198	TSS1500	S_Shore	CDC25C	0.473	0.002	0.424	0.863
cg22509138	yellow	20	44,809,026	Body	S_Shelf	CDH22	0.473	-0.015	0.687	0.219
cg08872425	yellow	10	131,231,406		OpenSea		0.473	-0.009	0.595	0.139
cg17325318	yellow	1	109,659,927	Body	S_Shelf	KIAA1324	0.473	0.033	0.496	0.225
cg00098304	yellow	15	93,579,369		OpenSea		0.473	-0.004	0.375	0.521
cg22220806	yellow	19	57,337,469	TSS1500	OpenSea	PEG3	0.472	-0.014	0.801	0.133
cg23991388	yellow	15	100,654,760	Body	OpenSea	ADAMTS17	0.472	-0.002	0.460	0.824
cg00804803	yellow	1	10,601,595	Body	OpenSea	PEX14	0.472	-0.002	0.845	0.705
cg09005548	yellow	6	33,283,990	Body	N_Shore	ZBTB22	0.472	0.004	0.872	0.640
cg26301489	yellow	17	45,912,037	Body	S_Shelf	LRRC46	0.472	0.008	0.573	0.336
cg03045325	yellow	11	63,871,265	Body	OpenSea	MACROD1	0.472	-0.001	0.688	0.944
cg02352612	yellow	16	4,737,993	3'UTR	OpenSea	MGRN1	0.472	0.003	0.937	0.454
cg00407150	yellow	3	42,743,794	5'UTR	OpenSea	HHATL	0.472	0.001	0.678	0.933
cg08078514	yellow	17	73,017,135	3'UTR	OpenSea	ICT1	0.472	0.003	0.828	0.578
cg23489390	yellow	2	36,712,570	Body	OpenSea	CRIM1	0.472	0.001	0.679	0.934
cg06693575	yellow	16	87,943,373	Body	OpenSea	CA5A	0.472	0.004	0.839	0.491
cg15489196	yellow	2	1,732,347	Body	OpenSea	PXDN	0.472	0.006	0.496	0.334
cg00473916	yellow	2	183,878,531	Body	OpenSea	NCKAP1	0.472	0.010	0.708	0.183
cg07011373	yellow	1	204,183,097	5'UTR	OpenSea	GOLT1A	0.472	0.002	0.077	0.670
cg23835219	yellow	4	1,244,017	TSS1500	Island	CTBP1	0.472	0.008	0.734	0.582
cg00215133	yellow	18	76,616,808		Island		0.472	0.007	0.861	0.465
cg21375017	yellow	3	31,988,082	Body	OpenSea	OSBPL10	0.472	0.001	0.843	0.959
cg03935444	yellow	7	2,754,314	3'UTR	N_Shelf	AMZ1	0.472	-0.022	0.826	0.099
cg11850861	yellow	1	42,273,306	5'UTR	OpenSea	HIVEP3	0.472	0.004	0.521	0.622
cg07929768	yellow	2	232,055,508		OpenSea		0.472	0.002	0.107	0.826
cg15030789	yellow	1	27,438,378	Body	OpenSea	SLC9A1	0.472	-0.003	0.874	0.533
cg06665322	yellow	1	167,059,365	Body	OpenSea	GPA33	0.472	0.024	0.802	0.080
cg16274762	yellow	11	1,481,779	Body	Island	BRSK2	0.472	-0.001	0.072	0.904
cg23720395	yellow	3	59,640,236		OpenSea		0.472	0.010	0.416	0.383
cg04168474	yellow	16	1,128,865	TSS200	Island	LOC146336	0.472	0.003	0.498	0.709
cg14684798	yellow	2	691,862		OpenSea		0.472	0.007	0.651	0.552
cg26216724	yellow	5	1,749,217		S_Shelf		0.472	-0.011	0.600	0.102
cg20775840	yellow	5	151,150,431	TSS1500	Island	G3BP1	0.472	0.003	0.068	0.548
cg00185066	yellow	13	80,910,763	3'UTR	N_Shelf	SPRY2	0.472	0.014	0.597	0.641
cg10251094	yellow	17	76,454,984	Body	Island	DNAH17	0.472	0.014	0.661	0.075
cg06463708	yellow	6	33,181,870		S_Shore		0.472	0.000	0.030	0.869
cg04408162	yellow	8	140,643,009	Body	OpenSea	KCNK9	0.472	0.012	0.368	0.139
cg01669540	yellow	16	67,884,473	5'UTR	S_Shelf	NUTF2	0.472	0.008	0.926	0.242
cg01038640	yellow	5	157,097,845	TSS1500	N_Shore	C5orf52	0.472	0.001	0.121	0.913
cg25385366	yellow	21	43,809,360	Body	OpenSea	TMPRSS3	0.472	0.002	0.187	0.695
cg02731554	yellow	5	141,694,233	Body	OpenSea	SPRY4	0.472	-0.002	0.859	0.775
cg07040244	yellow	1	231,555,522	Body	N_Shore	EGLN1	0.472	0.007	0.123	0.362
cg11909137	yellow	18	46,461,202	Body	OpenSea	SMAD7	0.472	-0.003	0.282	0.746
cg13988448	yellow	1	23,115,536	Body	S_Shelf	EPHB2	0.472	0.005	0.721	0.590
cg16345226	yellow	19	16,771,394	TSS1500	Island	TMEM38A	0.472	0.025	0.428	0.192
cg10968944	yellow	6	25,056,629		OpenSea		0.472	0.000	0.661	0.972
cg08387426	yellow	16	14,042,426	3'UTR	OpenSea	ERCC4	0.472	-0.002	0.581	0.884
cg26313955	yellow	1	117,112,616	Body	N_Shore	CD58	0.472	0.017	0.532	0.353
cg13607179	yellow	20	62,738,314	TSS200	S_Shore	NPBWR2	0.472	0.000	0.459	0.976
cg01987224	yellow	1	201,084,466		Island		0.472	0.003	0.529	0.774

cg00649734	yellow	6	31,750,470	Body	OpenSea	VAR5	0.472	0.006	0.848	0.343
cg14061946	yellow	9	140,188,511		N_Shore		0.472	0.022	0.310	0.074
cg00114710	yellow	1	154,473,340	TSS1500	N_Shore	TDRD10	0.471	0.001	0.934	0.916
cg01415937	yellow	1	10,134,620	Body	OpenSea	UBE4B	0.471	0.006	0.736	0.430
cg20735988	yellow	10	70,062,188	Body	OpenSea	PBLD	0.471	0.001	0.097	0.883
cg12278179	yellow	22	44,577,920	5'UTR	OpenSea	PARVG	0.471	0.005	0.576	0.389
cg20506745	yellow	2	2,581,285		OpenSea		0.471	0.000	0.663	0.967
cg19516825	yellow	19	48,686,777		S_Shore		0.471	0.015	0.921	0.007
cg16207673	yellow	12	108,167,730	TSS1500	N_Shore	ASCL4	0.471	0.016	0.635	0.365
cg21746120	yellow	11	68,142,234	Body	OpenSea	LRP5	0.471	0.011	0.383	0.059
cg16685313	yellow	1	233,036,012		OpenSea		0.471	0.013	0.829	0.267
cg01941313	yellow	13	113,120,234		N_Shore		0.471	0.003	0.877	0.641
cg18982477	yellow	4	37,644,098	Body	OpenSea	RELL1	0.471	0.003	0.760	0.712
cg01791421	yellow	1	19,996,240	Body	S_Shelf	HTR6	0.471	0.003	0.870	0.650
cg03043696	yellow	1	1,820,656	5'UTR	N_Shore	GNB1	0.471	-0.005	0.409	0.461
cg04396998	yellow	19	49,376,722	Body	S_Shore	PPP1R15A	0.471	-0.008	0.206	0.563
cg14264773	yellow	1	226,077,303	TSS1500	S_Shore	LEFTY1	0.471	0.005	0.721	0.689
cg15038811	yellow	3	28,283,857	Body	S_Shore	CMC1	0.471	-0.001	0.220	0.959
cg16655778	yellow	12	132,981,736		N_Shore		0.471	0.014	0.622	0.224
cg06737926	yellow	6	33,363,179	Body	S_Shelf	KIFC1	0.471	0.002	0.747	0.765
cg01754756	yellow	10	88,728,078	TSS200	Island	C10orf116	0.471	0.011	0.141	0.320
cg26001125	yellow	22	24,823,050	TSS1500	S_Shelf	ADORA2A	0.471	0.004	0.842	0.520
cg11813489	yellow	14	105,363,835		S_Shelf		0.471	0.011	0.523	0.313
cg01042948	yellow	2	101,319,752		OpenSea		0.471	-0.031	0.891	0.077
cg20895669	yellow	13	113,622,539	TSS1500	N_Shore	MCF2L	0.471	-0.021	0.812	0.010
cg08698835	yellow	16	56,279,276	Body	OpenSea	GNAO1	0.471	0.003	0.938	0.652
cg17608570	yellow	10	130,228,545		OpenSea		0.471	0.017	0.418	0.038
cg09216442	yellow	4	6,203,560	TSS1500	S_Shore	JAKMIP1	0.471	-0.001	0.745	0.940
cg11223512	yellow	8	143,615,353	Body	S_Shore	BAI1	0.471	0.005	0.579	0.574
cg02091100	yellow	6	42,123,029	TSS200	OpenSea	GUCA1A	0.471	-0.009	0.618	0.358
cg27046460	yellow	1	230,837,380		OpenSea		0.471	0.007	0.562	0.301
cg19652810	yellow	4	772,465		N_Shelf		0.471	0.003	0.957	0.341
cg15612436	yellow	22	43,897,902	Body	OpenSea	MPPED1	0.471	-0.001	0.426	0.858
cg02571857	yellow	16	54,315,551		N_Shore		0.471	0.017	0.580	0.080
cg02356002	yellow	7	5,521,483	Body	Island	FBXL18	0.471	0.007	0.744	0.328
cg04166544	yellow	2	230,580,574	TSS1500	S_Shore	DNER	0.471	0.005	0.634	0.459
cg05013438	yellow	8	125,631,251	Body	OpenSea	MTSS1	0.471	-0.006	0.894	0.493
cg22996308	yellow	3	68,938,451	5'UTR	OpenSea	FAM19A4	0.471	-0.001	0.820	0.881
cg03427298	yellow	3	68,982,098	TSS1500	S_Shore	FAM19A4	0.471	0.011	0.501	0.171
cg11074232	yellow	2	173,037,800		S_Shore		0.471	-0.001	0.246	0.941
cg05951095	yellow	15	40,353,216		OpenSea		0.471	0.001	0.683	0.923
cg01796075	yellow	1	156,878,573	Body	Island	PEAR1	0.471	0.007	0.695	0.425
cg00861646	yellow	4	160,026,608		S_Shore		0.471	-0.003	0.081	0.617
cg18900812	yellow	6	36,646,127	TSS1500	N_Shore	CDKN1A	0.470	-0.003	0.141	0.692
cg12422761	yellow	10	135,208,453	Body	S_Shore	MTG1	0.470	0.002	0.056	0.652
cg15420906	yellow	14	67,688,261	Body	OpenSea	FAM71D	0.470	0.016	0.845	0.408
cg14068788	yellow	9	133,838,188		OpenSea		0.470	0.009	0.331	0.311
cg00207280	yellow	8	126,441,393	TSS1500	N_Shore	TRIB1	0.470	0.000	0.200	0.950
cg03069736	yellow	17	72,542,117	1stExon	OpenSea	CD300C	0.470	0.003	0.699	0.496
cg00208218	yellow	2	71,251,453	Body	OpenSea	OR7E91P	0.470	-0.004	0.941	0.525
cg04862679	yellow	11	59,578,540	TSS200	S_Shore	MRPL16	0.470	-0.001	0.338	0.922
cg24546349	yellow	10	58,346,379		OpenSea		0.470	-0.003	0.554	0.695
cg03597243	yellow	6	31,628,156	5'UTR	N_Shore	C6orf47	0.470	0.004	0.046	0.239
cg07672449	yellow	17	6,916,889	Body	N_Shore	RNASEK	0.470	-0.001	0.056	0.753
cg22077361	yellow	1	24,195,347	TSS1500	S_Shore	FUCA1	0.470	-0.032	0.621	0.099
cg06677013	yellow	6	84,570,388	Body	S_Shore	CYB5R4	0.470	0.039	0.366	0.006
cg22493042	yellow	7	2,205,745	Body	OpenSea	MAD1L1	0.470	0.007	0.691	0.505
cg27604975	yellow	12	110,026,028	Body	OpenSea	MVK	0.470	0.004	0.887	0.693
cg26792576	yellow	3	14,941,947	Body	OpenSea	FGD5	0.470	0.004	0.663	0.458
cg15901722	yellow	5	175,974,973	TSS1500	S_Shelf	PCDH24	0.470	0.010	0.721	0.299
cg25001764	yellow	15	68,480,649		OpenSea		0.470	0.008	0.496	0.332
cg17800396	yellow	6	33,749,443	5'UTR	OpenSea	LEMD2	0.470	-0.002	0.476	0.803
cg04548483	yellow	8	145,597,148	TSS1500	N_Shore	ADCK5	0.470	0.009	0.338	0.419
cg01923514	yellow	20	31,781,277	TSS200	OpenSea	BASE	0.470	0.013	0.524	0.107
cg02509745	yellow	5	178,052,578	5'UTR	N_Shore	CLK4	0.470	0.000	0.026	0.801
cg10831683	yellow	4	140,616,131	Body	N_Shelf	MGST2	0.470	0.001	0.866	0.922
cg14267525	yellow	6	138,742,041		N_Shelf		0.470	0.002	0.889	0.720

cg08486269	yellow	6	154,677,972	TSS200	OpenSea	IPCEF1	0.470	0.004	0.907	0.520
cg06937489	yellow	22	22,581,186		S_Shelf		0.470	-0.012	0.853	0.108
cg10399944	yellow	17	74,449,604	5'UTR	S_Shore	AANAT	0.470	0.001	0.034	0.501
cg25527547	yellow	7	100,862,300	Body	S_Shore	ZNHIT1	0.470	0.012	0.864	0.157
cg20563854	yellow	12	48,152,399	1stExon	N_Shore	RAPGEF3	0.470	0.003	0.096	0.700
cg01591227	yellow	11	62,538,535	TSS1500	N_Shore	TAF6L	0.470	0.000	0.025	0.777
cg10631356	yellow	11	34,517,541	Body	OpenSea	ELF5	0.470	0.017	0.464	0.269
cg02698886	yellow	6	24,360,603		S_Shore		0.470	0.014	0.450	0.125
cg10209087	yellow	4	169,401,183	5'UTR	N_Shore	DDX60L	0.470	0.017	0.206	0.350
cg16299091	yellow	18	11,850,139	TSS1500	N_Shore	CHMP1B	0.470	0.021	0.208	0.074
cg24476497	yellow	10	106,426,071	Body	OpenSea	SORCS3	0.470	0.000	0.576	0.963
cg07957069	yellow	14	101,159,472		OpenSea		0.470	-0.002	0.808	0.812
cg10377921	yellow	19	15,391,946	TSS1500	OpenSea	BRD4	0.470	0.011	0.231	0.164
cg20791593	yellow	2	242,751,796	TSS1500	N_Shelf	NEU4	0.470	0.002	0.649	0.892
cg13876960	yellow	9	9,998,791	5'UTR	OpenSea	PTPRD	0.470	0.001	0.831	0.935
cg05032934	yellow	6	31,789,161		S_Shelf		0.470	0.003	0.057	0.541
cg23101091	yellow	17	38,296,248	TSS1500	OpenSea	CASC3	0.470	0.001	0.015	0.159
cg10799608	yellow	22	44,342,366	3'UTR	OpenSea	PNPLA3	0.470	0.010	0.728	0.342
cg10888281	yellow	2	65,302,557	Body	OpenSea	CEP68	0.470	0.005	0.744	0.704
cg01865609	yellow	18	43,913,346	TSS1500	Island	RNF165	0.470	0.001	0.037	0.726
cg00414093	yellow	16	87,584,426		Island		0.470	0.003	0.741	0.775
cg26129220	yellow	3	57,531,444	TSS1500	OpenSea	DNAH12	0.470	0.002	0.851	0.890
cg21145284	yellow	1	2,279,451	Body	S_Shelf	MORN1	0.470	-0.005	0.664	0.444
cg07138305	yellow	17	72,341,064	Body	OpenSea	KIF19	0.469	0.014	0.578	0.029
cg09040552	yellow	2	216,298,121	Body	N_Shelf	FN1	0.469	0.009	0.950	0.120
cg02856842	yellow	1	249,105,687	3'UTR	N_Shore	SH3BP5L	0.469	0.013	0.554	0.224
cg03551401	yellow	8	132,051,228	Body	N_Shore	ADCY8	0.469	0.008	0.388	0.465
cg21191592	yellow	9	95,181,961	Body	OpenSea	CENPP	0.469	0.002	0.960	0.463
cg08347373	yellow	2	160,653,686	Body	N_Shore	CD302	0.469	0.009	0.079	0.421
cg21193660	yellow	5	1,198,257		N_Shelf		0.469	0.009	0.669	0.150
cg07405810	yellow	5	45,649,048	Body	OpenSea	HCN1	0.469	-0.003	0.307	0.568
cg14916274	yellow	14	105,658,949		Island		0.469	-0.001	0.873	0.920
cg11711114	yellow	2	183,903,761	TSS1500	S_Shore	NCKAP1	0.469	0.004	0.038	0.240
cg10898024	yellow	2	40,266,366		OpenSea		0.469	0.006	0.423	0.585
cg20073007	yellow	8	143,958,385	Body	OpenSea	CYP11B1	0.469	0.001	0.502	0.936
cg19247588	yellow	11	3,817,849	5'UTR	N_Shore	NUP98	0.469	-0.008	0.065	0.169
cg00021855	yellow	8	144,690,956	Body	N_Shore	PYCRL	0.469	0.004	0.682	0.640
cg11254439	yellow	12	57,335,615		OpenSea		0.469	0.014	0.199	0.081
cg18703951	yellow	6	88,856,120	5'UTR	OpenSea	CNR1	0.469	0.002	0.863	0.693
cg18660898	yellow	1	151,030,968	5'UTR	N_Shore	CDC42SE1	0.469	-0.003	0.197	0.763
cg06297023	yellow	16	89,607,162	Body	N_Shore	SPG7	0.469	-0.002	0.907	0.706
cg12593793	yellow	1	156,074,135		OpenSea		0.469	0.005	0.104	0.267
cg22083366	yellow	4	8,348,121		S_Shore		0.469	-0.004	0.882	0.460
cg21211730	yellow	19	45,279,770	TSS1500	N_Shore	CBLC	0.469	0.005	0.551	0.659
cg05228408	yellow	1	11,865,352	TSS1500	N_Shore	CLCN6	0.469	0.014	0.218	0.052
cg01410746	yellow	3	351,003	5'UTR	S_Shore	CHL1	0.469	0.015	0.528	0.211
cg19129842	yellow	3	128,565,090		S_Shore		0.469	-0.003	0.150	0.785
cg10020787	yellow	10	50,626,838		OpenSea		0.469	-0.006	0.764	0.376
cg03657045	yellow	19	29,704,422	TSS1500	S_Shore	UQCRFS1	0.469	-0.003	0.138	0.741
cg15030196	yellow	1	210,474,523		OpenSea		0.469	0.002	0.707	0.634
cg05382282	yellow	1	6,164,735	3'UTR	OpenSea	CHD5	0.469	0.006	0.475	0.410
cg18504632	yellow	3	71,732,622	3'UTR	OpenSea	EIF4E3	0.469	-0.009	0.902	0.212
cg20796556	yellow	18	21,032,774	TSS200	N_Shore	RIOK3	0.469	0.006	0.248	0.636
cg09125779	yellow	4	57,547,999	TSS200	OpenSea	HOPX	0.469	0.000	0.340	0.983
cg27263506	yellow	19	29,455,596	TSS1500	OpenSea	LOC148145	0.469	-0.003	0.482	0.727
cg07313814	yellow	1	1,272,398	Body	Island	DVL1	0.469	0.007	0.839	0.210
cg08617346	yellow	20	1,716,331		Island		0.469	0.003	0.829	0.685
cg09528351	yellow	17	8,816,266	5'UTR	OpenSea	PIK3R5	0.469	0.001	0.837	0.906
cg27514608	yellow	4	23,892,540	TSS1500	OpenSea	PPARGC1A	0.469	-0.001	0.045	0.683
cg05157541	yellow	1	23,004,410		S_Shore		0.469	-0.001	0.896	0.830
cg15507475	yellow	7	75,624,460	TSS1500	S_Shore	TMEM120A	0.469	0.019	0.397	0.207
cg15389440	yellow	4	129,730,137	TSS1500	N_Shore	PHF17	0.469	-0.001	0.941	0.818
cg01693193	yellow	11	2,705,153	Body	OpenSea	KCNQ1	0.468	-0.007	0.483	0.369
cg06242000	yellow	3	183,966,155	Body	N_Shore	ALG3	0.468	0.002	0.033	0.297
cg24488739	yellow	10	112,431,719	Body	N_Shore	RBM20	0.468	0.005	0.277	0.522
cg19870743	yellow	1	2,097,158	Body	OpenSea	PRKCZ	0.468	0.008	0.816	0.115
cg19041593	yellow	19	58,899,370	5'UTR	S_Shore	RPS5	0.468	0.005	0.124	0.615

cg25609301	yellow	14	63,508,497	Body	N_Shelf	KCNH5	0.468	-0.004	0.942	0.432
cg18719170	yellow	2	240,969,975	TSS200	OpenSea	OR6B2	0.468	0.003	0.392	0.631
cg13796936	yellow	1	118,175,205		OpenSea		0.468	0.004	0.700	0.690
cg00961177	yellow	16	84,213,833	Body	N_Shore	TAF1C	0.468	-0.001	0.812	0.825
cg08686879	yellow	5	131,409,634	1stExon	OpenSea	CSF2	0.468	-0.004	0.873	0.436
cg19107511	yellow	12	52,476,217		S_Shelf		0.468	0.007	0.420	0.349
cg11879577	yellow	16	18,813,519	TSS1500	S_Shore	ARL6IP1	0.468	-0.013	0.220	0.138
cg05399785	yellow	1	3,564,031	Body	N_Shelf	WDR8	0.468	0.002	0.946	0.494
cg09071896	yellow	2	235,952,729	Body	S_Shore	SH3BP4	0.468	-0.008	0.711	0.252
cg26679348	yellow	22	37,500,722	TSS1500	OpenSea	TMPRSS6	0.468	-0.003	0.866	0.620
cg04146405	yellow	20	60,953,667		Island		0.468	0.006	0.889	0.356
cg08216808	yellow	2	219,081,385	TSS1500	N_Shore	ARPC2	0.468	-0.001	0.378	0.946
cg21211585	yellow	19	18,496,984	1stExon	N_Shore	GDF15	0.468	0.008	0.353	0.262
cg19995654	yellow	12	66,628,777	Body	OpenSea	IRAK3	0.468	0.016	0.418	0.274
cg23744121	yellow	15	28,247,065	Body	N_Shore	OCA2	0.468	0.001	0.717	0.880
cg20753780	yellow	20	20,692,319	Body	N_Shore	RALGAPA2	0.468	-0.002	0.161	0.613
cg01306183	yellow	11	63,057,478	5'UTR	OpenSea	SLC22A10	0.468	-0.022	0.692	0.034
cg25206096	yellow	10	33,294,599		OpenSea		0.468	0.001	0.038	0.870
cg13565891	yellow	19	7,676,731	Body	Island	KIAA1543	0.468	0.007	0.873	0.204
cg09214551	yellow	17	43,139,717	Body	S_Shore	NMT1	0.468	0.003	0.943	0.548
cg04857792	yellow	3	118,903,257	5'UTR	OpenSea	UPK1B	0.468	0.003	0.824	0.748
cg03599037	yellow	10	82,172,508	5'UTR	S_Shelf	C10orf58	0.468	0.008	0.478	0.169
cg05433490	yellow	16	1,133,247		S_Shelf		0.468	-0.001	0.427	0.903
cg25355635	yellow	12	53,576,509	Body	S_Shore	ZNF740	0.468	0.004	0.876	0.317
cg02355339	yellow	19	35,517,344	3'UTR	N_Shelf	GRAMD1A	0.468	0.001	0.783	0.859
cg02283949	yellow	6	143,544,445	Body	OpenSea	AIG1	0.468	0.003	0.700	0.735
cg03371613	yellow	17	43,043,737	Body	N_Shore	C1QL1	0.468	-0.003	0.085	0.606
cg14215748	yellow	11	14,522,100	TSS1500	OpenSea	COPB1	0.468	-0.007	0.055	0.214
cg12751042	yellow	12	12,874,288	3'UTR	N_Shelf	CDKN1B	0.468	-0.011	0.681	0.419
cg02582520	yellow	19	1,009,172	Body	Island	GRIN3B	0.468	0.026	0.518	0.051
cg09934326	yellow	1	43,832,826	5'UTR	Island	ELOVL1	0.468	0.001	0.053	0.686
cg04529193	yellow	4	649,901	Body	N_Shore	PDE6B	0.468	0.002	0.450	0.850
cg00436219	yellow	3	126,397,072		N_Shore		0.468	0.017	0.679	0.243
cg03581459	yellow	14	105,780,137	TSS1500	N_Shore	PACS2	0.468	0.005	0.143	0.519
cg10557578	yellow	8	37,758,453	TSS1500	S_Shore	RAB11FIP1	0.468	0.008	0.691	0.139
cg23980776	yellow	4	657,074	Body	Island	PDE6B	0.468	0.004	0.527	0.784
cg07576033	yellow	16	611,384	5'UTR	S_Shore	C16orf11	0.468	0.006	0.706	0.428
cg01783554	yellow	8	101,872,421		OpenSea		0.468	0.005	0.454	0.507
cg01413522	yellow	16	86,519,105		OpenSea		0.468	-0.006	0.840	0.336
cg16942327	yellow	3	193,967,745		OpenSea		0.468	-0.001	0.517	0.924
cg00332421	yellow	9	138,590,995	Body	N_Shore	SOHLH1	0.468	0.011	0.753	0.148
cg25685062	yellow	20	1,719,855		S_Shelf		0.467	0.008	0.592	0.655
cg02613937	yellow	19	45,395,297	Body	S_Shore	TOMM40	0.467	0.004	0.186	0.654
cg08343101	yellow	11	44,933,332	Body	OpenSea	TSPAN18	0.467	0.002	0.189	0.795
cg23951190	yellow	3	131,538,721	Body	OpenSea	CPNE4	0.467	0.009	0.729	0.342
cg18449596	yellow	22	25,595,665	TSS200	OpenSea	CRYBB3	0.467	0.010	0.593	0.107
cg14343548	yellow	11	67,038,414	Body	S_Shelf	ADRBK1	0.467	0.009	0.498	0.228
cg07576525	yellow	22	51,146,088	Body	S_Shelf	SHANK3	0.467	0.007	0.843	0.490
cg18200828	yellow	14	22,236,018		OpenSea		0.467	0.026	0.866	0.009
cg11410859	yellow	3	38,687,164	5'UTR	N_Shelf	SCN5A	0.467	0.001	0.470	0.914
cg23344780	yellow	19	48,829,487	5'UTR	N_Shelf	EMP3	0.467	0.026	0.442	0.005
cg14192188	yellow	9	135,586,036		S_Shore		0.467	0.001	0.882	0.922
cg26255314	yellow	11	60,869,910	TSS200	OpenSea	CD5	0.467	-0.003	0.876	0.575
cg19869443	yellow	1	84,766,821	TSS1500	S_Shore	SAMD13	0.467	0.018	0.336	0.013
cg08314176	yellow	8	118,743,243		OpenSea		0.467	0.009	0.458	0.305
cg24133569	yellow	7	134,330,825	TSS1500	OpenSea	BPGM	0.467	-0.004	0.093	0.648
cg18261491	yellow	1	46,859,780	TSS200	Island	FAAH	0.467	-0.011	0.310	0.248
cg10759648	yellow	11	132,374,480	Body	OpenSea	OPCML	0.467	0.008	0.721	0.333
cg18866586	yellow	5	178,803,207		S_Shore		0.467	0.001	0.939	0.881
cg09918599	yellow	19	10,792,631	Body	OpenSea	ILF3	0.467	0.006	0.929	0.245
cg08486507	yellow	16	10,476,488		N_Shelf		0.467	0.003	0.109	0.644
cg10464529	yellow	16	58,030,730	Body	Island	ZNF319	0.467	-0.001	0.977	0.812
cg00098750	yellow	16	23,727,847		S_Shelf		0.467	-0.004	0.920	0.635
cg07138491	yellow	1	43,613,173	TSS1500	N_Shore	FAM183A	0.467	0.011	0.171	0.303
cg07575086	yellow	8	1,790,905	5'UTR	OpenSea	ARHGEF10	0.467	-0.006	0.836	0.477
cg16819051	yellow	2	229,173,235		OpenSea		0.467	0.000	0.951	0.947
cg01887388	yellow	2	81,420,861		N_Shore		0.467	0.008	0.573	0.482

cg01067809	yellow	6	31,939,546	5'UTR	N_Shore	DOM3Z	0.467	0.019	0.196	0.041
cg26365813	yellow	17	1,843,109	Body	S_Shore	RTN4RL1	0.467	0.024	0.664	0.010
cg14843872	yellow	14	90,006,746	5'UTR	OpenSea	FOXN3	0.467	0.006	0.922	0.436
cg00724315	yellow	4	1,941,849	Body	OpenSea	WHSC1	0.467	-0.001	0.964	0.786
cg06713675	yellow	4	122,721,982	TSS1500	N_Shore	EXOSC9	0.467	0.008	0.498	0.691
cg24727480	yellow	12	109,901,083	Body	OpenSea	KCTD10	0.467	0.007	0.022	0.007
cg08190844	yellow	16	2,526,203	5'UTR	S_Shore	TBC1D24	0.467	0.002	0.460	0.736
cg10440835	yellow	17	78,484,142		OpenSea		0.467	0.013	0.756	0.092
cg23304605	yellow	14	91,866,373	Body	OpenSea	CCDC88C	0.467	0.001	0.890	0.822
cg17926016	yellow	8	145,739,374	Body	S_Shore	RECQL4	0.467	0.012	0.778	0.072
cg01749539	yellow	17	75,473,969	Body	OpenSea	9-Sep	0.467	0.010	0.461	0.066
cg11160908	yellow	3	122,712,271	5'UTR	OpenSea	SEMA5B	0.467	0.009	0.303	0.249
cg12806121	yellow	1	10,601,389	Body	OpenSea	PEX14	0.467	0.006	0.651	0.238
cg03585611	yellow	19	7,675,609	Body	N_Shore	KIAA1543	0.467	0.008	0.703	0.313
cg20203041	yellow	17	41,857,647	TSS1500	S_Shore	DUSP3	0.467	0.006	0.417	0.306
cg11143876	yellow	1	3,376,815	5'UTR	OpenSea	ARHGEF16	0.467	0.010	0.566	0.154
cg26955579	yellow	4	3,443,683	TSS200	OpenSea	HGFAC	0.467	0.002	0.559	0.729
cg23469025	yellow	20	2,645,106	TSS1500	S_Shore	IDH3B	0.467	0.010	0.064	0.274
cg04989674	yellow	3	81,811,125	TSS200	S_Shore	GBE1	0.467	0.003	0.056	0.588
cg11683125	yellow	15	51,385,476	Body	N_Shore	TNFAIP8L3	0.467	0.008	0.587	0.368
cg07687354	yellow	16	1,217,857	Body	N_Shore	CACNA1H	0.467	0.016	0.489	0.010
cg24580782	yellow	1	27,240,365	1stExon	OpenSea	NR0B2	0.467	0.009	0.692	0.349
cg20200080	yellow	2	171,830,785		S_Shore		0.467	0.002	0.533	0.740
cg21781157	yellow	20	47,874,111	Body	OpenSea	ZNF1	0.467	0.005	0.937	0.241
cg09335321	yellow	1	153,940,547	1stExon	S_Shore	CREB3L4	0.467	0.004	0.033	0.247
cg10165783	yellow	15	62,599,244		OpenSea		0.467	0.000	0.069	0.930
cg27653901	yellow	12	124,832,755	Body	S_Shore	NCOR2	0.466	-0.003	0.910	0.551
cg18943289	yellow	2	71,919,857		OpenSea		0.466	0.008	0.854	0.195
cg11708358	yellow	6	150,183,516	Body	N_Shore	LRP11	0.466	0.014	0.565	0.158
cg11787218	yellow	6	312,105	Body	OpenSea	DUSP22	0.466	0.021	0.658	0.242
cg03309760	yellow	3	184,430,368	TSS1500	S_Shore	MAGEF1	0.466	0.005	0.121	0.234
cg13861429	yellow	20	1,163,429	Body	N_Shore	C20orf46	0.466	0.000	0.876	0.989
cg24591573	yellow	1	5,561,974		OpenSea		0.466	-0.009	0.843	0.167
cg06485101	yellow	17	78,073,693	3'UTR	N_Shore	CCDC40	0.466	0.010	0.806	0.233
cg19166347	yellow	7	37,955,598	Body	N_Shore	SFRP4	0.466	0.000	0.089	0.935
cg07305776	yellow	6	32,097,549	Body	N_Shore	FKBP1	0.466	-0.003	0.073	0.594
cg02602268	yellow	12	132,488,697	Body	OpenSea	EP400	0.466	-0.001	0.909	0.927
cg03434624	yellow	12	123,380,883	TSS200	Island	VPS37B	0.466	-0.007	0.100	0.539
cg04791060	yellow	6	31,475,183	Body	OpenSea	MICB	0.466	0.006	0.783	0.399
cg26657648	yellow	2	102,769,711	TSS1500	OpenSea	IL1R1	0.466	0.002	0.895	0.724
cg19226358	yellow	2	129,105,529		S_Shore		0.466	0.004	0.283	0.459
cg00960781	yellow	10	63,170,103	Body	OpenSea	TMEM26	0.466	-0.004	0.864	0.634
cg08573355	yellow	6	33,282,624	TSS1500	N_Shore	TAPBP	0.466	0.003	0.062	0.362
cg06640997	yellow	12	32,081,573		OpenSea		0.466	0.019	0.571	0.158
cg08368973	yellow	11	61,519,778	TSS1500	Island	C11orf9	0.466	0.001	0.101	0.859
cg15176413	yellow	7	4,764,443	Body	N_Shore	FOKK1	0.466	0.008	0.429	0.435
cg06917998	yellow	14	73,269,031	Body	OpenSea	DPF3	0.466	0.003	0.583	0.793
cg22202558	yellow	7	101,500,303	Body	OpenSea	CUX1	0.466	0.006	0.339	0.666
cg06199346	yellow	11	14,280,333	Body	N_Shore	SPON1	0.466	-0.028	0.485	0.008
cg19376097	yellow	4	187,765,617		OpenSea		0.466	-0.003	0.182	0.584
cg26971585	yellow	10	72,358,574	Body	N_Shore	PRF1	0.466	-0.004	0.968	0.356
cg14132731	yellow	14	81,999,503	Body	N_Shore	SEL1L	0.466	0.020	0.410	0.258
cg09727148	yellow	21	43,560,719	3'UTR	OpenSea	UMODL1	0.466	0.014	0.772	0.294
cg01989504	yellow	11	1,256,651	Body	N_Shore	MUC5B	0.466	-0.007	0.683	0.259
cg14575355	yellow	22	21,996,116	TSS1500	N_Shore	SDF2L1	0.466	-0.002	0.062	0.547
cg26243376	yellow	12	52,545,884		N_Shore		0.466	0.006	0.443	0.693
cg02291556	yellow	1	47,656,140	TSS1500	OpenSea	PDZK1IP1	0.466	0.006	0.405	0.618
cg20058148	yellow	4	156,298,427	TSS1500	S_Shore	MAP9	0.466	-0.003	0.515	0.798
cg19020666	yellow	1	178,452,552		N_Shelf		0.466	0.000	0.728	0.973
cg10872641	yellow	7	91,510,597	TSS1500	S_Shore	MTERF	0.466	0.018	0.632	0.281
cg23643987	yellow	2	98,993,692	Body	OpenSea	CNGA3	0.466	0.010	0.435	0.438
cg16703312	yellow	1	1,974,698		Island		0.466	-0.001	0.659	0.860
cg11918822	yellow	19	50,479,865	3'UTR	OpenSea	VRK3	0.466	0.019	0.589	0.229
cg21244135	yellow	8	1,914,262		OpenSea		0.466	0.010	0.403	0.328
cg27014783	yellow	2	2,712,909		OpenSea		0.466	0.003	0.467	0.733
cg13474488	yellow	9	26,722,560		OpenSea		0.466	-0.001	0.414	0.922
cg17341370	yellow	6	150,068,017	TSS1500	S_Shore	NUP43	0.466	-0.007	0.640	0.480

cg08825075	yellow	16	3,934,709	S_Shelf		0.466	0.005	0.723	0.510
cg11583392	yellow	7	103,087,458 TSS1500	S_Shore	SLC26A5	0.466	0.001	0.649	0.914
cg10470891	yellow	5	125,338,217	OpenSea		0.466	-0.039	0.091	0.024
cg16430819	yellow	16	4,000,920	OpenSea		0.466	0.009	0.162	0.602
cg09401705	yellow	6	30,950,299 TSS1500	OpenSea	MUC21	0.466	0.038	0.307	0.073
cg03910375	yellow	6	33,284,409 Body	N_Shore	ZBTB22	0.466	0.001	0.736	0.910
cg11792671	yellow	2	240,751,167	OpenSea		0.466	-0.010	0.594	0.496
cg10976623	yellow	17	53,801,558 TSS1500	OpenSea	TMEM100	0.466	0.017	0.916	0.126
cg14560364	yellow	9	34,686,892	OpenSea		0.466	-0.009	0.524	0.446
cg20553982	yellow	14	71,364,830	OpenSea		0.466	0.001	0.809	0.960
cg20945055	yellow	17	836,474 Body	OpenSea	NXN	0.466	-0.010	0.452	0.406
cg07866632	yellow	16	28,584,802 5'UTR	OpenSea	CCDC101	0.466	-0.001	0.305	0.923
cg19601328	yellow	17	43,368,729 5'UTR	OpenSea	MAP3K14	0.465	0.008	0.634	0.499
cg06839377	yellow	10	104,004,326 TSS1500	N_Shore	GBF1	0.465	0.004	0.658	0.714
cg07502444	yellow	19	57,682,795	N_Shore		0.465	-0.015	0.280	0.458
cg26480662	yellow	7	157,778,593 Body	OpenSea	PTPRN2	0.465	-0.010	0.665	0.147
cg01312665	yellow	20	62,111,292	Island		0.465	0.002	0.441	0.792
cg14218861	yellow	10	119,443,973	OpenSea		0.465	-0.010	0.502	0.551
cg00816039	yellow	17	7,461,272 TSS1500	N_Shelf	TNFSF13	0.465	-0.017	0.191	0.205
cg11575131	yellow	21	26,733,563	N_Shore		0.465	0.009	0.558	0.336
cg18538270	yellow	17	80,415,818 TSS1500	N_Shore	NARF	0.465	0.000	0.128	0.997
cg21110576	yellow	4	57,998,425	OpenSea		0.465	-0.003	0.103	0.699
cg10582687	yellow	8	48,091,424	OpenSea		0.465	0.013	0.557	0.288
cg05105080	yellow	3	149,815,049	OpenSea		0.465	0.006	0.407	0.422
cg02396676	yellow	3	45,067,564 TSS200	OpenSea	CLEC3B	0.465	0.005	0.167	0.451
cg01748572	yellow	11	76,432,847 TSS200	OpenSea	GUCY2E	0.465	-0.002	0.060	0.386
cg00576075	yellow	1	85,725,654 TSS1500	S_Shore	C1orf52	0.465	-0.008	0.117	0.292
cg03992976	yellow	22	36,903,496 TSS1500	S_Shore	FOXRED2	0.465	0.018	0.523	0.173
cg20716653	yellow	5	65,124,049	OpenSea		0.465	-0.002	0.126	0.824
cg06724409	yellow	10	3,821,491 Body	N_Shelf	KLF6	0.465	0.001	0.931	0.762
cg03394909	yellow	2	220,305,921 Body	N_Shore	SPEG	0.465	0.001	0.485	0.920
cg01149053	yellow	16	89,342,195 Body	N_Shelf	ANKRD11	0.465	0.010	0.823	0.161
cg19306640	yellow	16	25,228,181 TSS200	OpenSea	AQP8	0.465	0.013	0.538	0.134
cg16354688	yellow	1	16,370,265 1stExon	OpenSea	CLCNKB	0.465	-0.006	0.699	0.359
cg11455642	yellow	10	106,494,954 Body	OpenSea	SORCS3	0.465	0.013	0.165	0.112
cg08557180	yellow	2	33,953,203 Body	S_Shore	MYADML	0.465	-0.002	0.759	0.812
cg14414124	yellow	2	68,465,373 Body	OpenSea	PPP3R1	0.465	0.002	0.243	0.750
cg23280155	yellow	14	72,219,812	OpenSea		0.465	-0.001	0.038	0.692
cg09181500	yellow	1	229,572,706	S_Shelf		0.465	0.012	0.748	0.179
cg03172688	yellow	5	141,254,129 Body	N_Shore	PCDH1	0.465	0.006	0.522	0.260
cg13521124	yellow	11	66,064,082 3'UTR	S_Shore	TMEM151A	0.465	0.006	0.755	0.327
cg00685014	yellow	11	62,212,195 Body	Island	AHNAK	0.465	-0.022	0.410	0.499
cg26232870	yellow	5	79,378,709 Body	OpenSea	THBS4	0.465	-0.002	0.034	0.526
cg24351658	yellow	1	42,126,724 5'UTR	N_Shore	HIVEP3	0.465	0.005	0.399	0.344
cg26334832	yellow	20	42,220,152 5'UTR	S_Shore	IFT52	0.465	-0.004	0.098	0.529
cg19764066	yellow	2	3,819,033	OpenSea		0.464	0.004	0.757	0.603
cg20959403	yellow	12	101,280,484 5'UTR	OpenSea	ANO4	0.464	0.014	0.573	0.342
cg21670003	yellow	11	68,867,965	OpenSea		0.464	0.008	0.652	0.290
cg17869988	yellow	1	1,601,380 Body	N_Shore	LOC728661	0.464	0.001	0.932	0.807
cg10021941	yellow	12	8,841,938	OpenSea		0.464	0.036	0.718	0.131
cg26136776	yellow	19	12,998,426 TSS1500	S_Shore	KLF1	0.464	0.009	0.668	0.271
cg17365525	yellow	17	8,114,504 TSS1500	S_Shore	AURKB	0.464	0.010	0.217	0.323
cg03445800	yellow	3	523,012	OpenSea		0.464	0.011	0.224	0.370
cg00712050	yellow	8	133,205,478 Body	OpenSea	KCNQ3	0.464	0.005	0.646	0.451
cg15774065	yellow	17	79,495,320 TSS200	Island	FSCN2	0.464	0.007	0.314	0.520
cg14561276	yellow	19	36,210,811 Body	Island	MLL4	0.464	0.003	0.884	0.622
cg01569664	yellow	13	110,434,016 Body	N_Shore	IRS2	0.464	-0.001	0.737	0.923
cg09038599	yellow	8	57,233,391 TSS200	S_Shore	SDR16C5	0.464	0.016	0.906	0.053
cg16300838	yellow	10	135,109,211 Body	OpenSea	TUBGCP2	0.464	0.009	0.814	0.157
cg06650379	yellow	4	1,185,915 Body	N_Shelf	LOC1001308	0.464	0.003	0.508	0.668
cg16781502	yellow	10	134,774,214	Island		0.464	0.004	0.870	0.573
cg06639691	yellow	10	118,956,819 TSS200	OpenSea	KCNK18	0.464	-0.002	0.743	0.728
cg06492744	yellow	11	65,406,254 5'UTR	N_Shelf	SIPA1	0.464	-0.006	0.073	0.400
cg06215908	yellow	22	44,965,381 Body	OpenSea	NCRNA00207	0.464	0.000	0.648	0.969
cg16884222	yellow	11	65,191,531 Body	S_Shore	NEAT1	0.464	0.020	0.532	0.114
cg17396707	yellow	19	48,638,824 Body	N_Shore	LIG1	0.464	0.001	0.713	0.917
cg11814446	yellow	12	65,562,996 TSS1500	N_Shore	LEMD3	0.464	-0.014	0.163	0.306

cg17120983	yellow	15	97,322,551	OpenSea		0.464	-0.001	0.920	0.840
cg14305641	yellow	19	1,576,714 3'UTR	N_Shore	MBD3	0.464	-0.002	0.870	0.767
cg11821245	yellow	11	18,433,683 TSS200	OpenSea	LDHC	0.464	0.001	0.295	0.963
cg12068908	yellow	11	14,270,521 Body	OpenSea	SPON1	0.464	0.002	0.937	0.688
cg00685193	yellow	14	88,851,384 TSS1500	N_Shore	SPATA7	0.464	-0.001	0.020	0.511
cg00450617	yellow	2	1,237,239 Body	OpenSea	SNTG2	0.464	0.022	0.710	0.666
cg13724238	yellow	11	2,871,992	S_Shore		0.464	0.005	0.601	0.382
cg05331214	yellow	2	167,343,774 TSS1500	OpenSea	SCN7A	0.464	0.003	0.690	0.812
cg26393964	yellow	11	123,396,299 TSS1500	OpenSea	GRAMD1B	0.464	0.017	0.400	0.111
cg06509140	yellow	17	1,729,975 Body	N_Shelf	SMYD4	0.464	-0.002	0.959	0.504
cg02831419	yellow	2	223,916,622 TSS1500	N_Shore	KCNE4	0.464	0.017	0.551	0.095
cg03529662	yellow	17	3,118,640 TSS1500	OpenSea	OR1A1	0.464	0.008	0.473	0.402
cg13081331	yellow	7	1,308,600	OpenSea		0.464	0.016	0.351	0.378
cg10227142	yellow	22	43,831,153 Body	Island	MPPED1	0.464	-0.002	0.682	0.725
cg26299514	yellow	17	17,849,377 Body	OpenSea	TOM1L2	0.464	-0.005	0.830	0.583
cg06410970	yellow	10	81,921,424 Body	OpenSea	ANXA11	0.464	0.018	0.804	0.036
cg25875702	yellow	17	76,501,582 Body	S_Shelf	DNAH17	0.464	0.003	0.698	0.624
cg21125112	yellow	6	109,243,325 Body	OpenSea	ARMC2	0.464	0.009	0.789	0.088
cg15075267	yellow	19	15,306,332 Body	Island	NOTCH3	0.464	0.001	0.026	0.676
cg10280342	yellow	19	6,376,576 TSS1500	S_Shelf	PSPN	0.464	0.011	0.460	0.093
cg26670789	yellow	19	42,683,835	S_Shelf		0.464	0.001	0.139	0.920
cg14503694	yellow	4	4,996,940	OpenSea		0.464	0.002	0.123	0.732
cg27467552	yellow	22	50,353,597 TSS1500	Island	PIM3	0.464	-0.015	0.224	0.163
cg18028767	yellow	11	859,873 5'UTR	S_Shore	TSPAN4	0.464	0.000	0.064	0.946
cg07667161	yellow	6	42,847,125 TSS1500	OpenSea	RPL7L1	0.464	0.000	0.123	0.975
cg10303967	yellow	8	97,537,718 Body	OpenSea	SDC2	0.464	-0.002	0.778	0.773
cg18900914	yellow	5	12,230,982	OpenSea		0.464	0.012	0.604	0.404
cg09427370	yellow	15	40,633,816 TSS1500	OpenSea	C15orf52	0.464	-0.007	0.862	0.360
cg07788438	yellow	17	30,936,384 Body	OpenSea	MYO1D	0.464	-0.003	0.697	0.606
cg07054804	yellow	11	10,621,492 Body	OpenSea	MRV11	0.463	-0.004	0.793	0.656
cg25783579	yellow	7	87,936,385 TSS200	OpenSea	STEAP4	0.463	-0.005	0.083	0.244
cg02593924	yellow	16	1,844,998 TSS200	S_Shelf	IGFALS	0.463	0.008	0.573	0.570
cg23464360	yellow	8	144,513,980 TSS1500	S_Shore	MAFA	0.463	0.014	0.354	0.043
cg24646359	yellow	10	102,288,877 Body	N_Shore	NDUFB8	0.463	-0.001	0.069	0.865
cg15153394	yellow	19	51,504,823 1stExon	N_Shore	KLK8	0.463	0.012	0.527	0.250
cg21140028	yellow	12	19,388,225 5'UTR	OpenSea	PLEKHA5	0.463	0.001	0.965	0.777
cg26097364	yellow	20	25,657,028 Body	OpenSea	ZNF337	0.463	-0.003	0.953	0.453
cg14640772	yellow	5	188,704 3'UTR	N_Shelf	PLEKHG4B	0.463	0.013	0.260	0.161
cg26823353	yellow	19	17,379,035 5'UTR	OpenSea	C19orf62	0.463	-0.001	0.099	0.865
cg16372520	yellow	14	78,869,751 TSS1500	OpenSea	NRXN3	0.463	-0.002	0.437	0.871
cg07434457	yellow	2	220,222,765	N_Shore		0.463	0.018	0.546	0.142
cg17316750	yellow	15	41,047,892 TSS1500	S_Shore	FAM82A2	0.463	0.005	0.107	0.393
cg05449607	yellow	6	111,279,612 TSS200	N_Shore	GTF3C6	0.463	0.007	0.231	0.528
cg04659473	yellow	10	91,152,113 TSS1500	OpenSea	IFIT1	0.463	-0.009	0.042	0.306
cg07425204	yellow	17	66,511,183 5'UTR	S_Shelf	PRKAR1A	0.463	0.005	0.290	0.602
cg07074166	yellow	10	115,998,881 TSS200	N_Shore	VWA2	0.463	-0.004	0.071	0.528
cg17695682	yellow	11	118,551,771 TSS1500	OpenSea	TREH	0.463	-0.004	0.916	0.413
cg22533317	yellow	17	74,079,782 Body	OpenSea	EXOC7	0.463	0.012	0.585	0.310
cg00637802	yellow	12	113,590,234 Body	N_Shore	CCDC42B	0.463	0.005	0.450	0.305
cg02016467	yellow	16	801,549	S_Shelf		0.463	0.011	0.727	0.138
cg20525763	yellow	10	49,571,897	OpenSea		0.463	0.020	0.138	0.029
cg00916854	yellow	12	123,350,361 3'UTR	N_Shore	VPS37B	0.463	-0.003	0.482	0.556
cg02027735	yellow	20	37,233,764 Body	S_Shelf	C20orf95	0.463	0.014	0.355	0.175
cg14382056	yellow	17	79,462,320	N_Shelf		0.463	-0.012	0.184	0.280
cg17747053	yellow	1	17,633,805 TSS1500	OpenSea	PADI4	0.463	0.006	0.798	0.329
cg22700328	yellow	17	29,885,787 TSS1500	N_Shore	MIR193A	0.463	-0.001	0.051	0.729
cg15827086	yellow	5	133,560,225 Body	N_Shore	PPP2CA	0.463	0.003	0.045	0.437
cg23015219	yellow	22	36,780,890 5'UTR	N_Shelf	MYH9	0.463	0.005	0.244	0.699
cg02980055	yellow	8	47,866,183	N_Shore		0.463	0.006	0.698	0.615
cg09232069	yellow	17	75,143,118 Body	OpenSea	SEC14L1	0.463	0.000	0.438	0.953
cg17557366	yellow	22	18,073,134 3'UTR	OpenSea	SLC25A18	0.463	-0.001	0.771	0.867
cg10637453	yellow	15	93,145,974	OpenSea		0.463	0.001	0.964	0.741
cg11947548	yellow	2	170,336,837 Body	S_Shore	BBS5	0.463	0.023	0.373	0.228
cg06673536	yellow	19	45,213,941 3'UTR	S_Shelf	CEACAM16	0.463	0.004	0.770	0.342
cg15769388	yellow	12	8,974,844 TSS1500	OpenSea	A2ML1	0.463	-0.002	0.751	0.846
cg27423177	yellow	12	8,219,358 TSS1500	OpenSea	C3AR1	0.463	0.018	0.925	0.008
cg03748499	yellow	8	1,981,465	OpenSea		0.463	-0.005	0.483	0.490

cg00950244	yellow	6	97,344,671	Body	N_Shore	NDUFAF4	0.463	0.002	0.643	0.790
cg23335134	yellow	11	2,909,690	Body	S_Shelf	SLC22A18AS	0.463	-0.003	0.058	0.316
cg16402415	yellow	15	57,021,851	5'UTR	N_Shelf	ZNF280D	0.463	-0.003	0.937	0.593
cg06512774	yellow	21	38,456,379	1stExon	OpenSea	TTC3	0.462	-0.004	0.938	0.367
cg25949502	yellow	12	31,879,426	Body	N_Shelf	AMN1	0.462	0.003	0.965	0.378
cg08113187	yellow	16	87,469,329	Body	OpenSea	ZCCHC14	0.462	-0.002	0.871	0.805
cg09135399	yellow	22	39,493,114	TSS200	OpenSea	APOBEC3H	0.462	0.006	0.365	0.145
cg08943393	yellow	2	166,325,622		OpenSea		0.462	0.011	0.396	0.377
cg18553223	yellow	17	2,699,371	TSS1500	OpenSea	RAP1GAP2	0.462	0.014	0.708	0.223
cg13176979	yellow	6	79,944,654	TSS200	S_Shore	HMG3	0.462	0.003	0.528	0.636
cg27331495	yellow	5	118,324,619	TSS1500	S_Shore	DTWD2	0.462	0.015	0.500	0.241
cg27019059	yellow	3	133,852,523		OpenSea		0.462	-0.012	0.786	0.403
cg18751637	yellow	8	143,171,282		OpenSea		0.462	0.013	0.750	0.084
cg03046611	yellow	3	55,340,399		OpenSea		0.462	-0.001	0.525	0.947
cg20085268	yellow	4	909,785	Body	S_Shore	GAK	0.462	-0.004	0.917	0.489
cg24863254	yellow	3	70,901,479		OpenSea		0.462	0.002	0.878	0.773
cg17341366	yellow	2	10,148,966		OpenSea		0.462	0.001	0.910	0.890
cg11696840	yellow	17	66,773,448		OpenSea		0.462	0.001	0.433	0.918
cg24097460	yellow	7	134,671,024	TSS1500	N_Shore	AGBL3	0.462	0.009	0.119	0.230
cg02831294	yellow	10	5,566,862	TSS200	N_Shore	CALML3	0.462	0.004	0.646	0.505
cg02363934	yellow	16	3,030,953	TSS1500	Island	PKMYT1	0.462	-0.001	0.076	0.869
cg20730619	yellow	5	1,094,035	Body	S_Shore	SLC12A7	0.462	0.004	0.886	0.511
cg10900663	yellow	14	74,942,544		OpenSea		0.462	0.010	0.806	0.424
cg03344767	yellow	1	10,475,318	Body	OpenSea	PGD	0.462	-0.006	0.848	0.381
cg08648138	yellow	1	92,247,732	Body	OpenSea	TGFBR3	0.462	0.013	0.636	0.320
cg25032094	yellow	17	73,583,839	TSS1500	Island	MYO15B	0.462	0.001	0.130	0.899
cg03461784	yellow	14	98,604,556		OpenSea		0.462	0.012	0.289	0.338
cg12198841	yellow	5	115,941,397		OpenSea		0.462	0.010	0.376	0.167
cg10399269	yellow	16	1,205,342	Body	N_Shore	CACNA1H	0.462	-0.003	0.696	0.643
cg06815715	yellow	15	49,148,520	Body	OpenSea	SHC4	0.462	0.002	0.411	0.819
cg08982878	yellow	16	712,350	Body	Island	WDR90	0.462	0.009	0.844	0.168
cg17443473	yellow	1	3,703,550	Body	N_Shore	LRR47	0.462	0.016	0.838	0.012
cg00502062	yellow	1	201,578,212		OpenSea		0.462	0.005	0.378	0.553
cg07525682	yellow	11	63,729,080		OpenSea		0.462	0.003	0.285	0.634
cg07959094	yellow	19	15,347,074		N_Shore		0.462	0.018	0.879	0.011
cg26942829	yellow	6	13,408,158	Body	OpenSea	GFOD1	0.462	-0.006	0.669	0.682
cg14300636	yellow	2	74,374,279	Body	N_Shore	BOLA3	0.462	0.000	0.472	0.957
cg06422694	yellow	16	2,954,011		N_Shore		0.462	0.010	0.358	0.360
cg21802682	yellow	11	69,682,593		N_Shore		0.462	0.003	0.727	0.567
cg25104107	yellow	1	152,731,590	5'UTR	N_Shore	KPRP	0.462	0.009	0.842	0.257
cg02716776	yellow	19	3,178,413	TSS1500	N_Shore	S1PR4	0.462	-0.002	0.843	0.891
cg14760176	yellow	2	152,195,702		OpenSea		0.462	-0.007	0.302	0.491
cg08360631	yellow	17	46,184,579	TSS1500	N_Shore	SNX11	0.462	-0.003	0.048	0.434
cg08732418	yellow	15	41,228,676	Body	Island	DLL4	0.462	-0.005	0.807	0.560
cg02297709	yellow	1	160,159,670	TSS1500	OpenSea	CASQ1	0.462	0.001	0.032	0.516
cg15416417	yellow	17	77,404,457	5'UTR	OpenSea	HRNBP3	0.462	-0.007	0.402	0.193
cg23368159	yellow	6	170,768,731		S_Shelf		0.461	-0.002	0.379	0.752
cg25242561	yellow	2	195,086,870		OpenSea		0.461	0.005	0.914	0.479
cg16138690	yellow	2	240,153,337	Body	N_Shore	HDAC4	0.461	-0.004	0.769	0.693
cg27131176	yellow	22	46,450,114	TSS200	Island	C22orf26	0.461	-0.003	0.194	0.599
cg26650480	yellow	20	4,796,176	5'UTR	OpenSea	RASSF2	0.461	0.010	0.830	0.050
cg24704682	yellow	3	25,890,857		OpenSea		0.461	0.007	0.918	0.224
cg22607793	yellow	1	205,000,910		OpenSea		0.461	0.014	0.701	0.039
cg04724319	yellow	17	1,009,219	Body	N_Shelf	ABR	0.461	0.007	0.740	0.447
cg11238542	yellow	2	64,431,470		OpenSea		0.461	0.004	0.067	0.463
cg17624310	yellow	17	28,830,604	Body	OpenSea	GOSR1	0.461	0.005	0.782	0.577
cg13707567	yellow	14	84,720,664		OpenSea		0.461	0.000	0.222	0.996
cg11272616	yellow	19	3,979,389	Body	S_Shore	EEF2	0.461	-0.001	0.939	0.741
cg19707834	yellow	6	25,459,934	Body	OpenSea	LRR46A	0.461	-0.022	0.912	0.020
cg21359793	yellow	12	53,208,752	TSS1500	OpenSea	KRT4	0.461	-0.003	0.717	0.580
cg09076877	yellow	16	89,246,999	Body	S_Shore	CDH15	0.461	-0.006	0.818	0.291
cg18219522	yellow	11	95,870,414	Body	OpenSea	MAML2	0.461	0.004	0.963	0.187
cg09518195	yellow	11	68,134,211	Body	OpenSea	LRP5	0.461	0.012	0.731	0.061
cg15355713	yellow	12	125,431,744	3'UTR	OpenSea	DHX37	0.461	0.005	0.606	0.393
cg09527362	yellow	6	74,162,142	TSS200	S_Shore	C6orf150	0.461	-0.011	0.208	0.247
cg20102336	yellow	12	113,376,681	Body	S_Shore	OAS3	0.461	0.016	0.215	0.497
cg15632936	yellow	5	176,216,372		OpenSea		0.461	0.009	0.451	0.325



cg16831185	yellow	17	29,158,530	TSS1500	N_Shore	ATAD5	0.461	0.015	0.400	0.206
cg05903710	yellow	16	27,375,732	3'UTR	OpenSea	IL4R	0.461	-0.008	0.685	0.324
cg27565899	yellow	1	110,166,664	Body	S_Shelf	AMPD2	0.461	0.005	0.637	0.542
cg06421104	yellow	22	50,903,050	Body	Island	SBF1	0.461	0.004	0.729	0.430
cg13608733	yellow	11	8,228,022		OpenSea		0.461	-0.003	0.324	0.883
cg13159060	yellow	8	145,701,897	TSS200	N_Shore	FOXH1	0.461	0.004	0.702	0.662
cg23411397	yellow	15	62,543,237		OpenSea		0.461	0.001	0.795	0.839
cg23004625	yellow	1	160,002,365	TSS1500	S_Shore	PIGM	0.461	0.005	0.073	0.305
cg10200608	yellow	5	141,302,906	TSS1500	N_Shore	KIAA0141	0.461	0.013	0.347	0.116
cg26643377	yellow	1	11,710,460	Body	Island	FBXO2	0.461	0.000	0.088	0.990
cg11267683	yellow	17	76,501,381	Body	S_Shelf	DNAH17	0.461	0.003	0.666	0.672
cg18940674	yellow	7	47,089,194		N_Shelf		0.461	-0.016	0.911	0.151
cg01599742	yellow	6	39,902,533	TSS1500	S_Shore	MOCS1	0.461	-0.002	0.944	0.719
cg26571870	yellow	16	85,723,150	TSS1500	S_Shore	GINS2	0.461	0.013	0.592	0.412
cg10099209	yellow	4	100,140,474	TSS200	OpenSea	ADH6	0.461	-0.006	0.834	0.494
cg14384283	yellow	9	136,869,371		OpenSea		0.461	0.010	0.823	0.068
cg21607649	yellow	10	134,884,177		N_Shore		0.461	-0.001	0.535	0.880
cg04764584	yellow	5	505,985	Body	N_Shore	SLC9A3	0.461	0.001	0.466	0.923
cg19567740	yellow	7	128,527,122	Body	N_Shelf	KCP	0.461	0.010	0.544	0.069
cg23725734	yellow	13	27,334,109	5'UTR	N_Shore	GPR12	0.461	0.006	0.084	0.200
cg00869996	yellow	3	184,208,856		N_Shore		0.461	0.008	0.419	0.467
cg18105749	yellow	15	79,711,400		OpenSea		0.461	0.021	0.226	0.032
cg15174393	yellow	12	125,259,081		OpenSea		0.461	0.016	0.850	0.393
cg25296374	yellow	6	154,691,940		OpenSea		0.461	0.011	0.112	0.271
cg04614760	yellow	19	40,022,828	3'UTR	N_Shore	EID2B	0.461	-0.002	0.047	0.298
cg07740894	yellow	10	35,698,554	Body	OpenSea	CCNY	0.461	0.012	0.863	0.178
cg18115541	yellow	3	10,544,657	5'UTR	N_Shelf	ATP2B2	0.461	0.011	0.533	0.043
cg15944673	yellow	7	150,776,703	Body	N_Shore	FASTK	0.461	0.006	0.666	0.270
cg17838754	yellow	1	1,281,005	Body	N_Shelf	DVL1	0.461	-0.002	0.906	0.789
cg00191178	yellow	3	74,663,024		N_Shore		0.461	0.006	0.053	0.408
cg01963696	yellow	19	851,650	TSS1500	N_Shore	ELANE	0.461	0.010	0.764	0.292
cg08194009	yellow	17	25,707,428		OpenSea		0.461	0.009	0.076	0.383
cg15953187	yellow	11	1,256,378	Body	N_Shore	MUC5B	0.461	0.011	0.744	0.072
cg07720926	yellow	6	138,882,836	Body	OpenSea	NHSL1	0.461	-0.001	0.956	0.826
cg11083715	yellow	5	482,407	Body	S_Shore	SLC9A3	0.461	0.001	0.834	0.937
cg23091122	yellow	1	110,024,289	3'UTR	N_Shelf	SYPL2	0.461	0.006	0.474	0.446
cg00573124	yellow	9	139,011,777	TSS1500	S_Shore	C9orf69	0.461	0.017	0.316	0.126
cg11288831	yellow	13	114,880,831	Body	S_Shore	RASA3	0.460	0.005	0.823	0.443
cg09184043	yellow	7	5,862,449	TSS1500	N_Shore	ZNF815	0.460	0.001	0.062	0.960
cg16734795	yellow	19	47,839,187	TSS1500	OpenSea	GPR77	0.460	0.000	0.912	0.950
cg21116284	yellow	1	92,216,881	Body	OpenSea	TGFBR3	0.460	0.020	0.569	0.239
cg00574742	yellow	5	2,223,624		OpenSea		0.460	0.006	0.327	0.354
cg27619646	yellow	8	41,583,018	Body	N_Shore	ANK1	0.460	0.005	0.493	0.591
cg15611186	yellow	11	65,363,744	TSS1500	N_Shelf	KCNK7	0.460	0.013	0.826	0.161
cg25756680	yellow	11	67,771,726	TSS200	S_Shore	UNC93B1	0.460	0.002	0.245	0.813
cg12696488	yellow	11	14,128,237	Body	OpenSea	SPON1	0.460	0.014	0.861	0.169
cg11072469	yellow	11	1,083,483	Body	S_Shore	MUC2	0.460	0.002	0.686	0.819
cg11587640	yellow	1	27,959,253	5'UTR	N_Shore	FGR	0.460	-0.002	0.799	0.754
cg12410225	yellow	5	10,442,612	Body	S_Shore	ROPN1L	0.460	0.011	0.356	0.251
cg10773767	yellow	2	70,531,659		S_Shelf		0.460	-0.001	0.576	0.966
cg22672790	yellow	5	161,112,787	1stExon	OpenSea	GABRA6	0.460	0.002	0.499	0.849
cg05256420	yellow	10	133,980,556	3'UTR	OpenSea	JAKMIP3	0.460	0.012	0.642	0.117
cg13541353	yellow	9	32,426,330	Body	OpenSea	ACO1	0.460	0.002	0.352	0.885
cg16430505	yellow	1	23,551,855		OpenSea		0.460	-0.004	0.120	0.595
cg26371501	yellow	3	153,003,079		OpenSea		0.460	0.003	0.787	0.722
cg03973663	yellow	8	56,791,576	TSS1500	N_Shore	LYN	0.460	0.005	0.267	0.560
cg15952060	yellow	3	195,484,815	Body	N_Shelf	MUC4	0.460	0.004	0.398	0.679
cg02504384	yellow	16	2,132,245	Body	N_Shelf	TSC2	0.460	0.004	0.396	0.531
cg03713823	yellow	7	26,119,300		OpenSea		0.460	0.007	0.864	0.434
cg19904057	yellow	20	62,737,818	1stExon	Island	NPBWR2	0.460	0.004	0.801	0.606
cg13765004	yellow	19	46,459,462	Body	S_Shelf	NOVA2	0.460	0.001	0.106	0.873
cg15321363	yellow	17	77,669,181		OpenSea		0.460	0.008	0.894	0.104
cg21238276	yellow	9	80,849,800	TSS1500	N_Shore	CEP78	0.460	0.000	0.965	0.913
cg02654358	yellow	9	74,061,449		N_Shore		0.460	-0.006	0.040	0.260
cg19211186	yellow	10	71,469,745		OpenSea		0.460	0.012	0.788	0.123
cg26782833	yellow	2	128,642,103	5'UTR	N_Shore	AMMECR1L	0.460	0.002	0.231	0.859
cg27281093	yellow	22	18,632,404	TSS1500	N_Shore	USP18	0.460	-0.006	0.261	0.617

cg14870136	yellow	13	113,496,400	Body	N_Shore	ATP11A	0.460	0.007	0.452	0.662
cg10358623	yellow	11	65,244,146		N_Shore		0.460	0.003	0.892	0.700
cg07289018	yellow	12	51,640,971	Body	OpenSea	SMAGP	0.460	0.005	0.212	0.673
cg10743062	yellow	20	33,413,713	TSS1500	S_Shore	NCOA6	0.460	0.008	0.498	0.493
cg14848767	yellow	17	17,991,639	Body	S_Shore	DRG2	0.460	0.004	0.064	0.305
cg23699926	yellow	12	108,170,183	1stExon	S_Shore	ASCL4	0.460	0.003	0.282	0.819
cg01154254	yellow	2	71,205,159	TSS1500	N_Shore	ANKRD53	0.460	0.000	0.070	0.984
cg26469445	yellow	10	3,406,268		OpenSea		0.460	0.009	0.618	0.377
cg26605809	yellow	2	1,452,367	Body	OpenSea	TPO	0.459	0.007	0.446	0.295
cg05942111	yellow	12	65,044,027	Body	OpenSea	RASSF3	0.459	0.001	0.612	0.887
cg27494470	yellow	6	84,172,561		OpenSea		0.459	0.006	0.424	0.508
cg19776072	yellow	10	112,336,155	Body	OpenSea	SMC3	0.459	0.002	0.969	0.357
cg26795248	yellow	1	1,375,967	3'UTR	S_Shore	VWA1	0.459	0.005	0.808	0.600
cg23691223	yellow	1	57,785,036	5'UTR	OpenSea	DAB1	0.459	0.004	0.232	0.755
cg26801278	yellow	5	173,738,161		N_Shore		0.459	-0.006	0.718	0.456
cg10308673	yellow	11	268,976		OpenSea		0.459	0.032	0.421	0.013
cg00864460	yellow	19	39,336,980	5'UTR	N_Shelf	HNRNPL	0.459	-0.004	0.887	0.614
cg24899750	yellow	20	16,710,314	TSS1500	N_Shore	SNRPB2	0.459	-0.002	0.846	0.790
cg23449659	yellow	7	142,583,404	1stExon	OpenSea	TRPV6	0.459	0.002	0.199	0.750
cg13713922	yellow	2	121,625,577	Body	S_Shore	GLI2	0.459	0.002	0.053	0.617
cg17022577	yellow	1	22,448,979	Body	S_Shelf	WNT4	0.459	0.008	0.639	0.197
cg12212198	yellow	13	114,302,021		N_Shore		0.459	0.003	0.093	0.797
cg09308553	yellow	16	56,763,573	TSS1500	N_Shore	NUP93	0.459	0.004	0.295	0.561
cg12034783	yellow	17	74,011,109	Body	Island	EVPL	0.459	-0.002	0.749	0.747
cg04240980	yellow	2	211,096,347		OpenSea		0.459	0.001	0.864	0.905
cg07070138	yellow	11	1,030,200	Body	S_Shore	MUC6	0.459	0.004	0.797	0.470
cg09847882	yellow	11	128,812,978	TSS200	OpenSea	TP53AIP1	0.459	0.000	0.522	0.998
cg03896661	yellow	2	197,036,775	TSS1500	S_Shore	STK17B	0.459	0.004	0.032	0.044
cg15376097	yellow	11	118,135,270	TSS1500	OpenSea	MPZL2	0.459	0.004	0.093	0.503
cg09470010	yellow	10	104,094,152	Body	OpenSea	GBF1	0.459	-0.001	0.574	0.836
cg14092364	yellow	7	1,362,621		N_Shore		0.459	-0.001	0.470	0.960
cg25415265	yellow	15	27,211,165		N_Shore		0.459	0.012	0.910	0.196
cg18027903	yellow	7	15,601,624	1stExon	OpenSea	TMEM195	0.459	0.015	0.249	0.070
cg05400075	yellow	11	36,144,887	Body	OpenSea	LDLRAD3	0.459	0.007	0.879	0.511
cg01263631	yellow	16	88,485,471		OpenSea		0.459	0.003	0.673	0.840
cg19496772	yellow	13	76,444,798		OpenSea		0.459	0.016	0.558	0.088
cg00554068	yellow	5	150,462,395	TSS1500	S_Shore	TNIP1	0.459	0.006	0.925	0.220
cg04956949	yellow	7	73,119,262	Body	S_Shore	STX1A	0.459	0.009	0.735	0.455
cg00330789	yellow	8	99,306,953	TSS1500	S_Shore	NIPAL2	0.459	0.002	0.567	0.827
cg11241541	yellow	8	38,586,066	1stExon	OpenSea	TACC1	0.459	0.001	0.031	0.361
cg20799176	yellow	11	115,477,699		OpenSea		0.459	0.008	0.087	0.284
cg02208529	yellow	5	176,901,781	TSS1500	OpenSea	DBN1	0.459	0.005	0.817	0.453
cg02997796	yellow	11	82,781,482	5'UTR	OpenSea	RAB30	0.459	0.001	0.084	0.868
cg22489883	yellow	1	2,537,547	Body	N_Shore	MMEL1	0.459	0.008	0.558	0.304
cg10683527	yellow	4	178,230,606	TSS1500	N_Shore	NEIL3	0.459	0.006	0.396	0.414
cg23199063	yellow	12	7,023,482	TSS200	Island	ENO2	0.459	-0.002	0.039	0.392
cg00977293	yellow	17	13,994,507	Body	OpenSea	COX10	0.459	-0.002	0.823	0.808
cg07841232	yellow	16	75,593,825		S_Shelf		0.459	0.009	0.872	0.301
cg17971328	yellow	1	156,122,730	TSS1500	OpenSea	SEMA4A	0.458	0.006	0.909	0.387
cg14757311	yellow	16	962,818	Body	Island	LMF1	0.458	0.012	0.639	0.113
cg07833435	yellow	4	585,499		S_Shelf		0.458	0.002	0.965	0.545
cg08697847	yellow	17	8,771,114	TSS200	OpenSea	PIK3R6	0.458	-0.006	0.495	0.350
cg21301258	yellow	21	35,898,717	5'UTR	OpenSea	RCAN1	0.458	-0.005	0.218	0.533
cg02254898	yellow	5	180,074,878	Body	N_Shore	FLT4	0.458	0.006	0.766	0.372
cg04767753	yellow	6	3,258,655	TSS1500	N_Shore	PSMG4	0.458	-0.002	0.577	0.820
cg01727585	yellow	15	86,313,372	5'UTR	S_Shore	KLHL25	0.458	0.014	0.720	0.058
cg21975390	yellow	11	8,703,324	TSS1500	N_Shore	RPL27A	0.458	0.001	0.760	0.915
cg02381192	yellow	7	1,452,425		Island		0.458	0.003	0.047	0.299
cg12210543	yellow	19	12,175,107	TSS1500	N_Shore	ZNF844	0.458	0.010	0.396	0.286
cg07030373	yellow	20	34,699,419	TSS1500	OpenSea	EPB41L1	0.458	0.001	0.937	0.918
cg23506077	yellow	20	34,824,050	TSS1500	N_Shore	C20orf4	0.458	0.006	0.186	0.412
cg10351165	yellow	3	168,919,516	Body	OpenSea	MECOM	0.458	0.015	0.584	0.226
cg00460322	yellow	13	112,980,649		OpenSea		0.458	0.016	0.347	0.032
cg11775634	yellow	17	17,105,857	3'UTR	N_Shelf	PLD6	0.458	0.002	0.959	0.430
cg18313317	yellow	14	76,734,605		OpenSea		0.458	-0.019	0.333	0.281
cg01724917	yellow	16	17,563,028	Body	OpenSea	XYLT1	0.458	0.010	0.259	0.359
cg02764093	yellow	12	120,241,760	Body	N_Shore	CIT	0.458	0.011	0.350	0.128

cg23451221	yellow	10	135,160,726	TSS200	OpenSea	PRAP1	0.458	0.011	0.298	0.326
cg21195491	yellow	9	135,753,121	Body	N_Shore	C9orf98	0.458	0.001	0.405	0.807
cg15780361	yellow	2	202,484,098	TSS200	S_Shore	ALS2CR11	0.458	-0.013	0.140	0.226
cg20520888	yellow	8	145,086,243	TSS1500	OpenSea	SPATC1	0.458	-0.007	0.510	0.331
cg06318624	yellow	2	174,913,188		OpenSea		0.458	0.012	0.732	0.301
cg19930417	yellow	17	80,279,562	3'UTR	Island	SECTM1	0.458	0.005	0.174	0.469
cg05590274	yellow	11	113,262,625	Body	S_Shelf	ANKK1	0.458	0.003	0.572	0.717
cg06036677	yellow	1	1,052,664	TSS1500	S_Shore	C1orf159	0.458	0.016	0.447	0.070
cg05147525	yellow	12	6,717,762	TSS1500	S_Shore	CHD4	0.458	-0.001	0.363	0.825
cg22324696	yellow	7	5,253,987	1stExon	OpenSea	WIPI2	0.458	0.012	0.858	0.121
cg09478591	yellow	6	42,989,096	TSS1500	N_Shore	C6orf153	0.458	0.000	0.272	0.968
cg06476606	yellow	10	91,061,728	5'UTR	OpenSea	IFIT2	0.458	0.001	0.014	0.436
cg16396417	yellow	19	59,085,259	TSS1500	N_Shore	MZF1	0.458	0.005	0.056	0.099
cg23257461	yellow	1	39,407,851	TSS1500	OpenSea	RHBDL2	0.458	0.000	0.833	0.981
cg26870725	yellow	19	12,978,805	Body	S_Shore	MAST1	0.458	-0.007	0.068	0.390
cg04636876	yellow	20	4,702,381	TSS200	OpenSea	PRND	0.458	0.008	0.573	0.417
cg03535793	yellow	12	3,862,594	TSS1500	Island	EFCAB4B	0.458	-0.002	0.351	0.824
cg02931464	yellow	12	121,826,303		OpenSea		0.458	0.006	0.469	0.283
cg18011274	yellow	17	43,213,270	5'UTR	S_Shelf	ACBD4	0.458	-0.005	0.213	0.541
cg20826610	yellow	1	26,235,868		S_Shelf		0.458	0.011	0.617	0.042
cg03987506	yellow	3	8,810,549	5'UTR	Island	OXTR	0.458	0.012	0.074	0.166
cg22841779	yellow	14	105,766,346	Body	N_Shore	BRF1	0.458	0.002	0.070	0.592
cg22492099	yellow	15	43,414,974		OpenSea		0.458	0.030	0.378	0.009
cg05119467	yellow	1	1,765,440	5'UTR	OpenSea	GNB1	0.458	-0.009	0.496	0.412
cg06287395	yellow	16	89,557,956	TSS1500	S_Shore	ANKRD11	0.458	-0.002	0.045	0.529
cg14635415	yellow	7	92,327,079	Body	OpenSea	CDK6	0.458	0.014	0.833	0.235
cg18516898	yellow	10	89,116,779	TSS1500	S_Shore	FAM22D	0.458	0.004	0.924	0.601
cg13420075	yellow	15	74,471,974	3'UTR	OpenSea	STRA6	0.458	0.019	0.486	0.050
cg01827098	yellow	7	150,211,152	TSS1500	OpenSea	GIMAP7	0.458	0.004	0.846	0.473
cg24304338	yellow	1	32,258,091	Body	S_Shelf	SPOCD1	0.458	0.002	0.690	0.738
cg09889479	yellow	16	2,082,689	Body	N_Shelf	SLC9A3R2	0.458	0.008	0.447	0.215
cg05635169	yellow	5	113,589,213		OpenSea		0.458	0.008	0.495	0.310
cg12073779	yellow	2	208,989,469	TSS200	S_Shore	CRYGD	0.457	-0.002	0.362	0.878
cg18437209	yellow	11	35,105,199		OpenSea		0.457	0.000	0.184	0.954
cg14150378	yellow	9	80,335,274	3'UTR	OpenSea	GNAQ	0.457	-0.008	0.338	0.723
cg06966839	yellow	17	55,685,941	Body	OpenSea	MSI2	0.457	0.005	0.762	0.458
cg06284901	yellow	16	71,879,606	TSS1500	N_Shore	ATXN1L	0.457	-0.006	0.197	0.709
cg02498702	yellow	20	60,909,631	Body	N_Shelf	LAMA5	0.457	0.007	0.827	0.251
cg02771619	yellow	1	27,996,061	5'UTR	S_Shore	IFI6	0.457	0.003	0.060	0.273
cg02512902	yellow	17	25,799,447	5'UTR	OpenSea	KSR1	0.457	-0.005	0.952	0.244
cg06716419	yellow	4	188,097,967		OpenSea		0.457	-0.003	0.554	0.763
cg08240860	yellow	21	46,232,829	Body	N_Shelf	SUMO3	0.457	0.003	0.750	0.623
cg14207833	yellow	19	18,945,153	Body	S_Shelf	UPF1	0.457	0.012	0.357	0.086
cg21723903	yellow	12	3,862,575	TSS1500	Island	EFCAB4B	0.457	0.002	0.231	0.793
cg15160748	yellow	19	44,076,586	Body	N_Shelf	XRCC1	0.457	-0.004	0.961	0.151
cg13718870	yellow	9	136,919,144	5'UTR	Island	BRD3	0.457	0.005	0.814	0.702
cg14523723	yellow	18	9,335,432	5'UTR	S_Shore	TWSG1	0.457	0.001	0.024	0.534
cg02357046	yellow	4	1,686,926	TSS1500	S_Shore	FAM53A	0.457	0.011	0.779	0.164
cg02968918	yellow	4	184,908,541	Body	OpenSea	STOX2	0.457	-0.009	0.436	0.245
cg22657659	yellow	4	8,608,361	Body	OpenSea	CPZ	0.457	0.009	0.797	0.170
cg12034871	yellow	14	92,525,005	Body	OpenSea	ATXN3	0.457	0.000	0.819	0.976
cg20551517	yellow	17	47,046,292	TSS1500	OpenSea	GIP	0.457	0.002	0.959	0.666
cg16759932	yellow	10	134,859,885		N_Shore		0.457	-0.007	0.448	0.210
cg07798560	yellow	2	189,734,507		OpenSea		0.457	0.001	0.285	0.840
cg25799879	yellow	8	27,099,930	Body	OpenSea	STMN4	0.457	0.007	0.624	0.454
cg19759502	yellow	13	78,494,067	TSS1500	S_Shore	EDNRB	0.457	-0.010	0.292	0.952
cg03139435	yellow	20	54,966,401	5'UTR	N_Shore	AURKA	0.457	-0.010	0.114	0.131
cg27557796	yellow	6	31,688,702	Body	N_Shelf	LY6G6C	0.457	0.002	0.728	0.799
cg27337894	yellow	2	85,359,745	TSS1500	N_Shore	TCF7L1	0.457	0.001	0.063	0.891
cg08647727	yellow	12	31,812,705	1stExon	OpenSea	C12orf72	0.457	0.003	0.045	0.446
cg23796713	yellow	6	33,286,885	TSS1500	N_Shore	ZBTB22	0.457	-0.003	0.743	0.660
cg17216583	yellow	1	6,258,591	Body	N_Shore	RPL22	0.457	0.001	0.178	0.916
cg23045425	yellow	5	175,959,070	Body	OpenSea	RNF44	0.457	-0.002	0.895	0.685
cg20873801	yellow	11	129,771,917	3'UTR	OpenSea	PRDM10	0.457	-0.001	0.939	0.803
cg22878693	yellow	17	78,755,604	Body	OpenSea	RPTOR	0.457	0.015	0.769	0.425
cg21906976	yellow	18	45,665,950		S_Shelf		0.457	0.002	0.058	0.771
cg27269962	yellow	7	127,540,997	Body	OpenSea	SND1	0.457	0.024	0.542	0.013

cg08641935	yellow	2	173,575,577	OpenSea		0.457	-0.005	0.176	0.632
cg01088579	yellow	2	85,660,497 TSS1500	OpenSea	SH2D6	0.457	0.025	0.594	0.024
cg21721340	yellow	20	62,682,309 TSS1500	S_Shore	SOX18	0.457	0.007	0.542	0.453
cg04839761	yellow	10	93,393,386 TSS1500	S_Shore	PPP1R3C	0.457	0.005	0.154	0.471
cg25610428	yellow	1	152,758,453 TSS1500	OpenSea	LCE1E	0.457	0.023	0.481	0.134
cg13014558	yellow	11	60,738,971 TSS200	OpenSea	CD6	0.457	0.009	0.787	0.156
cg13545633	yellow	17	75,524,350	N_Shore		0.457	-0.004	0.635	0.576
cg04470021	yellow	10	75,173,098 5'UTR	N_Shore	ANXA7	0.457	0.003	0.036	0.466
cg04294563	yellow	19	7,694,202 TSS1500	Island	LOC10013181	0.457	0.000	0.024	0.903
cg02746744	yellow	19	14,380,262	S_Shelf		0.457	0.003	0.685	0.776
cg13033814	yellow	6	31,830,035 Body	N_Shore	NEU1	0.457	0.010	0.148	0.301
cg12509665	yellow	22	47,082,044 3'UTR	Island	CERK	0.456	0.000	0.716	0.982
cg06944351	yellow	2	231,853,962	N_Shore		0.456	0.001	0.749	0.906
cg08615596	yellow	12	68,758,840	OpenSea		0.456	0.005	0.113	0.394
cg12426653	yellow	13	113,120,095	N_Shore		0.456	0.010	0.621	0.348
cg16621633	yellow	16	19,296,418 TSS1500	OpenSea	LOC728276	0.456	0.006	0.588	0.571
cg10871876	yellow	19	53,194,124 TSS1500	S_Shore	ZNF83	0.456	0.013	0.284	0.547
cg06131802	yellow	16	30,661,708 TSS1500	N_Shore	PRR14	0.456	0.004	0.147	0.681
cg17172593	yellow	17	1,530,856 Body	N_Shore	SLC43A2	0.456	0.009	0.566	0.099
cg05361415	yellow	3	11,610,138 Body	Island	VGLL4	0.456	-0.005	0.930	0.251
cg24071177	yellow	20	34,995,350 TSS200	OpenSea	DLGAP4	0.456	0.015	0.591	0.093
cg01428437	yellow	1	1,852,164 TSS1500	S_Shore	TMEM52	0.456	0.002	0.713	0.692
cg03599590	yellow	3	112,282,031 5'UTR	S_Shore	SLC35A5	0.456	0.007	0.283	0.545
cg05578056	yellow	16	962,909 Body	Island	LMF1	0.456	-0.003	0.636	0.620
cg03523740	yellow	1	32,645,027 TSS1500	N_Shore	TXLNA	0.456	0.005	0.248	0.388
cg01745448	yellow	1	155,232,379 TSS200	S_Shore	SCAMP3	0.456	0.005	0.079	0.343
cg25178683	yellow	17	76,976,267 TSS1500	OpenSea	LGALS3BP	0.456	0.005	0.252	0.578
cg20632453	yellow	13	20,771,319	S_Shelf		0.456	-0.001	0.460	0.963
cg03926846	yellow	4	184,678,574	N_Shore		0.456	-0.001	0.877	0.884
cg21330896	yellow	8	28,205,705 3'UTR	OpenSea	ZNF395	0.456	0.013	0.635	0.188
cg05338187	yellow	1	236,686,598 TSS200	N_Shore	LGALS8	0.456	0.026	0.345	0.061
cg00455467	yellow	2	131,593,162	N_Shore		0.456	0.003	0.754	0.512
cg01279538	yellow	11	1,025,794 Body	S_Shore	MUC6	0.456	-0.005	0.397	0.463
cg25544384	yellow	13	44,000,493 5'UTR	OpenSea	ENOX1	0.456	0.019	0.611	0.224
cg01288210	yellow	5	176,958,346 Body	Island	FAM193B	0.456	0.008	0.856	0.168
cg26045043	yellow	18	74,535,969 TSS200	S_Shore	ZNF236	0.456	0.003	0.309	0.653
cg25015585	yellow	11	62,457,334 TSS200	S_Shore	LRRN4CL	0.456	0.002	0.449	0.743
cg13963891	yellow	15	28,343,577 5'UTR	N_Shore	OCA2	0.456	0.021	0.640	0.027
cg03406718	yellow	2	113,782,087 Body	OpenSea	IL1F8	0.456	0.003	0.871	0.646
cg15569292	yellow	11	3,022,005	OpenSea		0.456	0.005	0.363	0.757
cg06439269	yellow	4	2,256,756 Body	OpenSea	MXD4	0.456	0.001	0.871	0.897
cg24986840	yellow	11	112,693,829	OpenSea		0.456	-0.011	0.227	0.247
cg27653103	yellow	8	38,286,874 Body	OpenSea	FGFR1	0.456	0.005	0.817	0.479
cg01784928	yellow	14	77,647,704 TSS1500	N_Shore	TMEM63C	0.456	0.011	0.462	0.151
cg21185109	yellow	17	7,774,912	OpenSea		0.456	0.001	0.915	0.916
cg01511534	yellow	16	3,284,640 5'UTR	Island	ZNF200	0.456	0.005	0.103	0.526
cg26941073	yellow	11	107,883,311 Body	S_Shelf	CUL5	0.456	0.000	0.987	0.659
cg23708211	yellow	18	48,513,899 3'UTR	OpenSea	ELAC1	0.456	-0.001	0.500	0.858
cg00670698	yellow	7	30,544,943 TSS1500	Island	GGCT	0.456	-0.004	0.235	0.781
cg19486271	yellow	11	47,235,900 TSS1500	N_Shore	DDB2	0.456	0.047	0.331	0.049
cg18797823	yellow	8	1,777,766 5'UTR	N_Shore	ARHGEF10	0.456	0.006	0.443	0.548
cg00599163	yellow	2	162,100,495	N_Shore		0.456	0.014	0.849	0.145
cg08412913	yellow	16	85,429,522	OpenSea		0.456	0.005	0.053	0.332
cg26523866	yellow	1	189,722,103	OpenSea		0.456	0.005	0.860	0.657
cg16467656	yellow	18	19,192,099 TSS200	N_Shore	SNRPD1	0.456	0.002	0.073	0.729
cg14535828	yellow	9	71,316,119	N_Shelf		0.456	0.003	0.935	0.558
cg17984267	yellow	4	185,928,894	S_Shelf		0.456	0.011	0.775	0.339
cg11441148	yellow	15	65,824,328 Body	S_Shore	PTPLAD1	0.456	0.002	0.296	0.789
cg21500909	yellow	19	41,870,640 5'UTR	S_Shore	TMEM91	0.456	0.003	0.943	0.526
cg13537237	yellow	2	241,908,681	S_Shelf		0.456	-0.002	0.477	0.926
cg21140160	yellow	13	25,508,351 Body	S_Shelf	LOC646405	0.456	-0.001	0.862	0.939
cg25439883	yellow	6	26,323,563	OpenSea		0.455	0.007	0.625	0.596
cg26529300	yellow	19	570,458 TSS1500	N_Shore	BSG	0.455	-0.003	0.907	0.567
cg12639192	yellow	10	1,166,782 Body	OpenSea	WDR37	0.455	0.006	0.695	0.561
cg00302627	yellow	4	815,098 Body	N_Shelf	CPLX1	0.455	0.013	0.768	0.105
cg12378753	yellow	10	116,527,201	N_Shore		0.455	0.007	0.150	0.261
cg05980785	yellow	2	197,583,891 Body	OpenSea	CCDC150	0.455	0.003	0.309	0.758

cg20851317	yellow	18	47,792,341	Body	N_Shore	CCDC11	0.455	0.023	0.469	0.048
cg04862249	yellow	17	4,982,244	5'UTR	S_Shore	ZFP3	0.455	0.011	0.153	0.234
cg27546012	yellow	17	74,684,504	Body	OpenSea	MXRA7	0.455	-0.003	0.880	0.752
cg03647778	yellow	5	156,934,938	Body	OpenSea	ADAM19	0.455	0.003	0.549	0.782
cg00157439	yellow	6	168,936,684	Body	S_Shore	SMOC2	0.455	-0.005	0.757	0.640
cg09120395	yellow	16	70,745,992	Body	OpenSea	VAC14	0.455	0.011	0.209	0.062
cg02601475	yellow	5	121,518,272		OpenSea		0.455	0.008	0.323	0.570
cg17102042	yellow	7	157,423,211	Body	OpenSea	PTPRN2	0.455	-0.006	0.875	0.387
cg15075580	yellow	3	55,931,466	Body	OpenSea	ERC2	0.455	-0.004	0.931	0.665
cg22223232	yellow	1	117,913,096	Body	S_Shelf	MAN1A2	0.455	-0.002	0.779	0.882
cg20701183	yellow	1	87,799,914	Body	N_Shore	LMO4	0.455	0.012	0.544	0.257
cg17976625	yellow	17	28,705,858	TSS200	Island	CPD	0.455	0.016	0.642	0.256
cg17228698	yellow	7	2,451,914	5'UTR	OpenSea	CHST12	0.455	-0.015	0.341	0.121
cg09235308	yellow	8	145,019,639	Body	S_Shore	PLEC1	0.455	0.005	0.789	0.417
cg01961252	yellow	12	54,955,143	1stExon	OpenSea	PDE1B	0.455	0.009	0.433	0.214
cg06875832	yellow	5	178,980,927	Body	S_Shelf	RUFY1	0.455	0.002	0.952	0.713
cg24864203	yellow	5	61,612,144	Body	OpenSea	KIF2A	0.455	0.010	0.124	0.225
cg13512951	yellow	9	127,029,180	5'UTR	OpenSea	NEK6	0.455	0.003	0.413	0.520
cg08853735	yellow	8	129,139,526		OpenSea		0.455	0.006	0.750	0.705
cg24606273	yellow	7	128,492,991	Body	N_Shore	FLNC	0.455	0.011	0.761	0.075
cg05993265	yellow	4	2,933,802	Body	Island	MFSD10	0.455	0.001	0.622	0.860
cg06961289	yellow	1	156,722,410	TSS200	S_Shore	HDGF	0.455	0.005	0.069	0.562
cg25603409	yellow	19	50,532,834	5'UTR	S_Shelf	ZNF473	0.455	0.002	0.951	0.591
cg19235974	yellow	12	1,063,197		S_Shelf		0.455	0.001	0.858	0.884
cg08835956	yellow	7	39,171,034	Body	OpenSea	POU6F2	0.455	0.021	0.650	0.289
cg25394452	yellow	12	133,140,449	Body	Island	FBRSL1	0.455	-0.007	0.954	0.325
cg26690462	yellow	3	11,602,331	Body	OpenSea	VGLL4	0.455	0.004	0.686	0.561
cg26312935	yellow	15	59,279,406	TSS1500	N_Shore	RNF111	0.455	0.018	0.154	0.126
cg07803377	yellow	7	1,641,886		Island		0.455	0.002	0.605	0.737
cg15985533	yellow	1	75,231,817	3'UTR	OpenSea	TYW3	0.455	0.032	0.689	0.031
cg22104371	yellow	7	1,787,371	3'UTR	S_Shore	ELFN1	0.455	0.015	0.829	0.067
cg15709536	yellow	13	41,345,689	TSS1500	S_Shore	MRPS31	0.455	0.003	0.047	0.502
cg23854008	yellow	11	3,402,774	Body	S_Shelf	LOC650368	0.455	0.016	0.484	0.357
cg22707438	yellow	11	46,364,127	Body	N_Shelf	DGKZ	0.455	0.008	0.364	0.181
cg22730042	yellow	21	44,528,293	TSS1500	S_Shore	U2AF1	0.455	-0.002	0.018	0.128
cg10061138	yellow	3	52,529,085	TSS1500	OpenSea	STAB1	0.454	0.004	0.337	0.482
cg00152708	yellow	1	1,104,316	TSS200	S_Shelf	MIR429	0.454	0.000	0.799	0.994
cg15454698	yellow	3	14,473,580	5'UTR	OpenSea	SLC6A6	0.454	0.010	0.571	0.256
cg02673417	yellow	6	137,105,249	Body	OpenSea	MAP3K5	0.454	0.001	0.942	0.754
cg05149284	yellow	15	73,657,248	Body	N_Shelf	HCN4	0.454	-0.003	0.808	0.717
cg10997335	yellow	10	47,009,028		S_Shore		0.454	0.003	0.951	0.340
cg03109018	yellow	17	3,375,480	TSS1500	S_Shore	SPATA22	0.454	0.001	0.865	0.848
cg04729173	yellow	11	129,613,547		OpenSea		0.454	0.006	0.689	0.518
cg02061130	yellow	17	1,387,922	5'UTR	N_Shore	MYO1C	0.454	-0.005	0.549	0.570
cg00914902	yellow	16	108,114	3'UTR	N_Shelf	RHBDF1	0.454	0.003	0.541	0.668
cg14360448	yellow	9	139,512,327		OpenSea		0.454	0.010	0.748	0.168
cg18842107	yellow	10	114,853,855	Body	OpenSea	TCF7L2	0.454	0.010	0.929	0.110
cg03732007	yellow	1	2,071,316	5'UTR	OpenSea	PRKCZ	0.454	0.005	0.327	0.745
cg01514353	yellow	22	46,259,643		N_Shelf		0.454	0.011	0.509	0.166
cg23198707	yellow	3	112,023,284		OpenSea		0.454	-0.005	0.107	0.564
cg26261431	yellow	8	27,695,615	TSS1500	S_Shore	PBK	0.454	0.006	0.099	0.286
cg14976500	yellow	16	1,210,484	Body	Island	CACNA1H	0.454	0.001	0.187	0.849
cg20894145	yellow	15	66,911,234		N_Shelf		0.454	0.005	0.922	0.279
cg22954171	yellow	11	119,005,287	3'UTR	OpenSea	HINFP	0.454	0.003	0.726	0.691
cg17913347	yellow	2	98,357,103		OpenSea		0.454	0.004	0.510	0.756
cg13468318	yellow	9	133,874,121		OpenSea		0.454	-0.015	0.629	0.294
cg18357696	yellow	2	219,157,111	Body	Island	PNKD	0.454	0.013	0.180	0.402
cg21327483	yellow	8	143,090,421		OpenSea		0.454	0.000	0.891	0.936
cg13732164	yellow	9	134,669,414		OpenSea		0.454	-0.012	0.794	0.178
cg19046959	yellow	1	36,565,856	TSS200	OpenSea	COL8A2	0.454	-0.005	0.074	0.456
cg14296274	yellow	6	166,720,092	3'UTR	N_Shore	PRR18	0.454	0.004	0.463	0.710
cg00499248	yellow	8	143,780,434	TSS1500	N_Shore	LY6K	0.454	0.001	0.726	0.948
cg18780489	yellow	2	28,807,568	Body	OpenSea	PLB1	0.454	-0.002	0.657	0.687
cg01654770	yellow	15	80,543,586		N_Shore		0.454	0.002	0.520	0.807
cg02339083	yellow	22	45,740,309	3'UTR	OpenSea	SMC1B	0.454	0.012	0.557	0.306
cg09786321	yellow	2	3,654,242	Body	OpenSea	COLEC11	0.454	-0.001	0.646	0.932
cg14462040	yellow	9	139,550,969		N_Shore		0.454	0.003	0.818	0.680

cg07213202	yellow	7	1,782,671	5'UTR	N_Shore	ELFN1	0.454	0.001	0.059	0.703
cg06171420	yellow	21	47,058,388		S_Shore		0.454	0.007	0.239	0.384
cg18734330	yellow	14	95,876,455	TSS200	OpenSea	C14orf139	0.453	0.021	0.502	0.076
cg20146506	yellow	4	122,053,520	3'UTR	OpenSea	TNIP3	0.453	0.005	0.899	0.432
cg00396894	yellow	2	27,362,420	TSS200	OpenSea	C2orf53	0.453	0.008	0.641	0.284
cg09125999	yellow	11	117,534,685	Body	OpenSea	DSCAML1	0.453	0.001	0.062	0.746
cg13302785	yellow	3	51,104,051	Body	OpenSea	DOCK3	0.453	0.028	0.613	0.124
cg04773645	yellow	2	242,814,520	Body	N_Shore	C2orf85	0.453	-0.008	0.804	0.239
cg01059398	yellow	3	172,235,808	Body	OpenSea	TNFSF10	0.453	-0.004	0.886	0.439
cg14487271	yellow	8	87,354,422	TSS1500	N_Shore	WWP1	0.453	0.014	0.318	0.143
cg23183568	yellow	17	74,726,642	Body	S_Shelf	C17orf95	0.453	0.002	0.810	0.777
cg16261091	yellow	17	80,375,750	Body	N_Shore	C17orf101	0.453	-0.002	0.950	0.741
cg26951888	yellow	7	112,571,476	Body	OpenSea	C7orf60	0.453	0.008	0.530	0.524
cg09841774	yellow	3	39,233,997	5'UTR	OpenSea	XIRP1	0.453	0.005	0.634	0.658
cg23719877	yellow	7	128,492,916	Body	N_Shore	FLNC	0.453	0.005	0.600	0.567
cg17759224	yellow	1	235,098,018		OpenSea		0.453	0.005	0.320	0.475
cg17272620	yellow	19	4,540,333	TSS1500	N_Shelf	LRG1	0.453	0.007	0.780	0.479
cg05965417	yellow	12	9,102,994	TSS1500	S_Shore	M6PR	0.453	0.002	0.025	0.315
cg17913115	yellow	17	79,680,063	Body	S_Shore	SLC25A10	0.453	-0.008	0.295	0.590
cg21555696	yellow	5	176,225,934		OpenSea		0.453	0.000	0.670	0.994
cg21160062	yellow	6	28,890,518	Body	N_Shore	TRIM27	0.453	0.003	0.039	0.351
cg00196407	yellow	17	959,496	Body	OpenSea	ABR	0.453	-0.002	0.172	0.714
cg22790924	yellow	13	27,333,803	Body	N_Shore	GPR12	0.453	0.013	0.367	0.053
cg27318087	yellow	16	12,896,895	Body	N_Shore	CPPED1	0.453	0.008	0.686	0.343
cg03565720	yellow	7	104,459,130	Body	OpenSea	LHFPL3	0.453	-0.007	0.710	0.610
cg15380836	yellow	17	1,553,341	5'UTR	S_Shore	RILP	0.453	0.008	0.350	0.097
cg25605289	yellow	1	151,974,222		OpenSea		0.453	0.005	0.069	0.301
cg14279361	yellow	19	6,721,955	TSS1500	OpenSea	C3	0.453	0.000	0.784	0.995
cg02492799	yellow	1	110,156,682	TSS1500	OpenSea	GNAT2	0.453	-0.004	0.965	0.303
cg24134342	yellow	15	85,198,444	3'UTR	S_Shore	NMB	0.453	0.014	0.237	0.337
cg18581405	yellow	19	3,180,035	3'UTR	S_Shore	S1PR4	0.453	0.003	0.852	0.739
cg06268478	yellow	15	78,909,917	Body	N_Shelf	CHRNA3	0.453	-0.007	0.733	0.257
cg20462795	yellow	6	10,981,184	3'UTR	OpenSea	ELOVL2	0.453	-0.005	0.943	0.396
cg19975218	yellow	2	173,599,732	Body	N_Shore	LOC91149	0.453	0.010	0.328	0.416
cg01292924	yellow	7	76,257,234	TSS1500	S_Shore	POMZP3	0.453	-0.003	0.070	0.538
cg19466563	yellow	4	88,450,506	1stExon	OpenSea	SPARCL1	0.452	0.003	0.109	0.634
cg14754555	yellow	2	157,292,018	1stExon	N_Shore	GPD2	0.452	0.003	0.172	0.788
cg09331106	yellow	2	10,260,230		N_Shore		0.452	0.004	0.636	0.599
cg21584493	yellow	7	158,342,721	Body	Island	PTPRN2	0.452	0.005	0.552	0.624
cg08919597	yellow	6	138,194,824	Body	OpenSea	TNFAIP3	0.452	0.024	0.263	0.080
cg20697394	yellow	12	132,918,305		N_Shelf		0.452	0.017	0.574	0.053
cg00322262	yellow	4	8,085,866	Body	N_Shore	ABLIM2	0.452	0.010	0.775	0.278
cg21538631	yellow	1	53,391,662	TSS1500	N_Shore	SCP2	0.452	0.001	0.970	0.646
cg26538942	yellow	16	790,218	Body	N_Shore	NARFL	0.452	0.015	0.220	0.128
cg21819782	yellow	2	62,609,317		OpenSea		0.452	0.000	0.415	0.977
cg07439618	yellow	3	38,648,988	Body	OpenSea	SCN5A	0.452	0.013	0.591	0.213
cg08198773	yellow	8	1,697,536		OpenSea		0.452	-0.003	0.564	0.750
cg11720686	yellow	2	40,440,949	Body	OpenSea	SLC8A1	0.452	0.012	0.719	0.452
cg01571928	yellow	22	49,639,725		S_Shore		0.452	0.006	0.809	0.435
cg14576951	yellow	7	1,514,568	Body	Island	INTS1	0.452	0.007	0.721	0.576
cg21609154	yellow	13	113,624,991	Body	S_Shore	MCF2L	0.452	0.008	0.579	0.228
cg19739098	yellow	7	157,467,966	Body	OpenSea	PTPRN2	0.452	0.007	0.865	0.357
cg18170141	yellow	12	105,500,642	TSS1500	N_Shore	KIAA1033	0.452	0.009	0.477	0.411
cg19095568	yellow	15	41,062,113	Body	OpenSea	DNAJC17	0.452	-0.004	0.922	0.650
cg23281480	yellow	8	33,579,916		N_Shore		0.452	0.001	0.917	0.903
cg19478539	yellow	17	39,957,639		OpenSea		0.452	-0.002	0.174	0.827
cg11644627	yellow	7	1,518,699	Body	N_Shore	INTS1	0.452	0.001	0.564	0.877
cg08364410	yellow	19	4,891,420	Body	Island	ARRDC5	0.452	-0.004	0.669	0.480
cg18605031	yellow	3	49,314,155	1stExon	N_Shore	C3orf62	0.452	0.004	0.349	0.819
cg02565147	yellow	9	98,636,898	Body	N_Shore	C9orf130	0.452	0.017	0.620	0.350
cg14235811	yellow	9	37,903,063	5'UTR	N_Shore	MCART1	0.452	0.008	0.135	0.135
cg06614284	yellow	20	30,689,432	3'UTR	OpenSea	HCK	0.452	-0.006	0.643	0.497
cg14973973	yellow	11	1,252,312	Body	Island	MUC5B	0.452	0.001	0.816	0.881
cg12989344	yellow	11	534,232	Body	N_Shore	HRAS	0.452	0.010	0.894	0.085
cg03944099	yellow	6	108,928,210	Body	OpenSea	FOXO3	0.452	-0.003	0.800	0.696
cg11830695	yellow	3	52,007,678	Body	N_Shore	ABHD14B	0.452	-0.009	0.134	0.296
cg19987705	yellow	8	124,054,903	TSS1500	S_Shore	DERL1	0.452	0.000	0.042	0.962

cg08187585	yellow	14	105,393,182	5'UTR	OpenSea	PLD4	0.452	0.000	0.582	0.944
cg25780389	yellow	10	114,134,915	TSS1500	OpenSea	ACSL5	0.452	0.010	0.744	0.309
cg14032244	yellow	19	12,950,151	Body	N_Shore	MAST1	0.452	0.009	0.360	0.123
cg21967789	yellow	8	1,809,425	Body	OpenSea	ARHGEF10	0.452	0.026	0.763	0.011
cg09312407	yellow	8	66,955,031	5'UTR	OpenSea	DNAJC5B	0.452	-0.007	0.538	0.563
cg04134031	yellow	8	143,545,236	TSS200	N_Shore	BAI1	0.452	-0.006	0.280	0.367
cg07441854	yellow	6	32,014,893	Body	OpenSea	TNXB	0.451	0.007	0.691	0.366
cg20116800	yellow	17	74,258,224		N_Shelf		0.451	0.011	0.671	0.102
cg07971716	yellow	1	199,773,294		OpenSea		0.451	-0.020	0.806	0.073
cg06642012	yellow	16	87,736,889	Body	Island	LOC1001296	0.451	-0.002	0.799	0.909
cg10816378	yellow	12	40,868,087		OpenSea		0.451	-0.002	0.100	0.761
cg15599483	yellow	2	190,442,823	Body	N_Shelf	SLC40A1	0.451	0.002	0.591	0.864
cg26754664	yellow	11	124,754,639	3'UTR	OpenSea	ROBO4	0.451	0.012	0.680	0.145
cg27064337	yellow	8	18,925,266		OpenSea		0.451	0.004	0.774	0.550
cg11311053	yellow	12	124,912,049	Body	S_Shore	NCOR2	0.451	-0.001	0.564	0.929
cg08329684	yellow	16	4,932,620	3'UTR	N_Shore	PPL	0.451	0.018	0.713	0.437
cg26816421	yellow	22	32,022,314	5'UTR	N_Shelf	PISD	0.451	0.012	0.445	0.121
cg25389463	yellow	1	235,325,040	TSS1500	S_Shore	RBM34	0.451	0.017	0.183	0.089
cg10468373	yellow	11	64,009,913	Body	Island	FKBP2	0.451	0.000	0.087	0.929
cg16586261	yellow	16	72,128,476	TSS1500	S_Shore	TXNL4B	0.451	0.007	0.055	0.233
cg24508471	yellow	22	30,935,971		N_Shelf		0.451	0.003	0.822	0.569
cg22044892	yellow	19	51,486,901	5'UTR	OpenSea	KLK7	0.451	0.007	0.711	0.507
cg06695812	yellow	16	67,905,614	TSS1500	N_Shore	EDC4	0.451	0.005	0.907	0.390
cg15510911	yellow	20	57,767,535	1stExon	Island	ZNF831	0.451	-0.010	0.773	0.249
cg24426232	yellow	17	71,680,855		OpenSea		0.451	-0.005	0.178	0.521
cg03627989	yellow	2	73,053,289	TSS200	S_Shore	EXOC6B	0.451	-0.002	0.088	0.523
cg10286219	yellow	2	237,412,433	Body	N_Shelf	IQCA1	0.451	0.009	0.669	0.214
cg09123693	yellow	7	157,402,637	Body	N_Shelf	PTPRN2	0.451	0.005	0.943	0.195
cg26659410	yellow	1	212,004,468	TSS1500	S_Shore	LPGAT1	0.451	-0.001	0.029	0.669
cg20253410	yellow	10	134,623,622		N_Shore		0.451	0.007	0.814	0.299
cg12689506	yellow	7	100,607,835		N_Shore		0.451	-0.002	0.574	0.822
cg27539234	yellow	17	7,218,945	TSS1500	Island	GPS2	0.451	0.004	0.139	0.426
cg10662479	yellow	20	44,420,225	5'UTR	N_Shore	WFDC3	0.451	-0.014	0.347	0.605
cg19155599	yellow	1	186,649,153	Body	N_Shore	PTGS2	0.451	0.000	0.039	0.764
cg15950273	yellow	14	103,367,306	Body	OpenSea	TRAF3	0.451	0.017	0.486	0.010
cg11189134	yellow	10	1,531,498	Body	OpenSea	ADARB2	0.451	-0.001	0.845	0.819
cg16606638	yellow	12	89,918,221	Body	N_Shore	WDR51B	0.451	-0.002	0.041	0.220
cg04662836	yellow	15	95,334,933		OpenSea		0.451	-0.002	0.929	0.829
cg21407117	yellow	1	228,548,708	3'UTR	S_Shore	OBSCN	0.451	0.011	0.544	0.036
cg01833675	yellow	2	225,266,876	TSS200	OpenSea	FAM124B	0.451	0.005	0.130	0.590
cg18733757	yellow	10	114,134,878	TSS1500	OpenSea	ACSL5	0.451	0.007	0.651	0.504
cg14033638	yellow	1	39,175,759		S_Shore		0.451	-0.001	0.968	0.801
cg16696476	yellow	17	8,191,344	TSS1500	N_Shore	RANGRF	0.451	0.003	0.234	0.619
cg21370074	yellow	12	54,942,934	TSS1500	OpenSea	PDE1B	0.451	-0.002	0.220	0.817
cg05508296	yellow	5	1,016,460	Body	OpenSea	NKD2	0.451	0.030	0.638	0.019
cg12632315	yellow	3	134,069,894		OpenSea		0.451	-0.002	0.851	0.780
cg19200953	yellow	13	100,470,738	Body	OpenSea	CLYBL	0.451	0.019	0.381	0.399
cg23685969	yellow	10	73,976,821	TSS1500	S_Shore	ASCC1	0.451	0.001	0.701	0.880
cg22836769	yellow	10	134,720,534		N_Shore		0.450	0.000	0.878	0.955
cg27547873	yellow	2	37,424,360		Island		0.450	0.003	0.066	0.569
cg05060607	yellow	12	8,211,391	Body	OpenSea	C3AR1	0.450	0.015	0.360	0.094
cg06889547	yellow	16	67,183,003	3'UTR	N_Shore	B3GNT9	0.450	0.008	0.659	0.335
cg11119313	yellow	17	61,551,779		N_Shelf		0.450	-0.002	0.193	0.821
cg20848979	yellow	20	42,984,338	TSS200	OpenSea	HNF4A	0.450	0.003	0.773	0.638
cg00317626	yellow	1	53,600,741	Body	OpenSea	SLC1A7	0.450	-0.001	0.316	0.865
cg02639608	yellow	1	68,150,326	TSS1500	N_Shore	GADD45A	0.450	0.002	0.044	0.490
cg27515966	yellow	1	246,862,720		OpenSea		0.450	-0.001	0.036	0.689
cg18410460	yellow	13	114,288,471	Body	N_Shore	TFDP1	0.450	-0.008	0.918	0.292
cg09909478	yellow	17	1,085,475	5'UTR	S_Shore	ABR	0.450	0.015	0.499	0.100
cg02935904	yellow	1	55,267,293	TSS1500	S_Shore	TTC22	0.450	0.004	0.502	0.657
cg05339695	yellow	14	62,584,600	Body	S_Shore	FLJ43390	0.450	0.010	0.091	0.242
cg00971332	yellow	11	117,800,571	TSS1500	OpenSea	TMPRSS13	0.450	0.021	0.746	0.121
cg19744173	yellow	2	112,913,178	Body	N_Shelf	FBLN7	0.450	-0.001	0.823	0.795
cg18213443	yellow	1	4,221,388		Island		0.450	0.012	0.656	0.172
cg17244340	yellow	6	36,973,448	5'UTR	OpenSea	FGD2	0.450	-0.001	0.401	0.880
cg06545367	yellow	7	110,731,527	5'UTR	OpenSea	LRRN3	0.450	-0.009	0.391	0.600
cg15976763	yellow	18	24,443,729	TSS1500	S_Shore	AQP4	0.450	0.001	0.145	0.866

cg17613911	yellow	5	146,762,794	Body	OpenSea	STK32A	0.450	-0.004	0.818	0.661
cg05238288	yellow	13	25,087,299	TSS1500	S_Shore	PARP4	0.450	0.000	0.017	0.941
cg05046097	yellow	10	88,717,926	TSS1500	OpenSea	MMRN2	0.450	0.006	0.671	0.297
cg09239064	yellow	16	89,229,439	Body	N_Shelf	C16orf81	0.450	0.007	0.800	0.302
cg09559780	yellow	16	50,727,221		OpenSea		0.450	0.005	0.193	0.458
cg00049502	yellow	12	112,280,971	TSS1500	S_Shore	C12orf47	0.450	0.001	0.014	0.110
cg19917650	yellow	10	125,033,932		OpenSea		0.450	0.011	0.457	0.243
cg23312425	yellow	11	64,120,623	Body	OpenSea	CCDC88B	0.450	0.010	0.644	0.197
cg13619054	yellow	9	129,370,554		N_Shelf		0.450	0.004	0.602	0.651
cg15400671	yellow	7	34,004,484	Body	OpenSea	BMPER	0.450	-0.001	0.431	0.958
cg27265778	yellow	1	158,116,650		N_Shelf		0.450	-0.003	0.870	0.619
cg07963316	yellow	6	170,449,521		N_Shore		0.450	0.020	0.368	0.097
cg26147845	yellow	12	132,433,838	TSS1500	N_Shore	EP400	0.449	0.012	0.841	0.492
cg05171129	yellow	6	166,510,882		OpenSea		0.449	0.002	0.856	0.800
cg25510201	yellow	5	175,980,531	5'UTR	OpenSea	PCDH24	0.449	0.013	0.505	0.060
cg26504440	yellow	12	133,344,446		S_Shelf		0.449	0.009	0.785	0.274
cg02661431	yellow	1	45,010,881	Body	OpenSea	RNF220	0.449	0.007	0.876	0.305
cg08420415	yellow	22	38,477,802	Body	Island	SLC16A8	0.449	-0.001	0.111	0.950
cg19502812	yellow	22	36,803,056		N_Shelf		0.449	0.001	0.852	0.893
cg10904854	yellow	3	185,742,220		OpenSea		0.449	0.027	0.413	0.011
cg20388165	yellow	15	101,748,973	Body	OpenSea	CHSY1	0.449	-0.001	0.837	0.897
cg22579849	yellow	9	34,620,091	Body	N_Shelf	DCTN3	0.449	0.000	0.016	0.988
cg16850945	yellow	3	52,488,229	TSS200	N_Shore	TNNC1	0.449	-0.005	0.435	0.477
cg03733979	yellow	20	61,718,618		N_Shore		0.449	0.011	0.289	0.049
cg04865056	yellow	12	132,896,405	Body	Island	GALNT9	0.449	0.002	0.635	0.771
cg15768265	yellow	19	47,957,654	Body	N_Shelf	SLC8A2	0.449	0.011	0.595	0.133
cg03291835	yellow	13	110,802,745	Body	OpenSea	COL4A1	0.449	0.001	0.932	0.828
cg15120534	yellow	19	8,475,511		N_Shelf		0.449	0.009	0.899	0.296
cg27468830	yellow	7	157,227,072		OpenSea		0.449	0.006	0.690	0.566
cg05656360	yellow	2	220,460,514		N_Shore		0.449	0.007	0.219	0.614
cg16133681	yellow	12	25,801,621	TSS200	OpenSea	IFLTD1	0.449	-0.009	0.204	0.533
cg25232043	yellow	5	154,919,818		OpenSea		0.449	0.026	0.399	0.005
cg23320834	yellow	7	1,007,372	3'UTR	Island	COX19	0.449	-0.001	0.855	0.942
cg13016048	yellow	9	140,054,056	Body	N_Shore	GRIN1	0.449	0.004	0.552	0.626
cg08026464	yellow	2	223,521,683	TSS1500	S_Shore	FARSB	0.449	0.003	0.074	0.485
cg23664774	yellow	22	29,446,636	Body	S_Shore	ZNRF3	0.449	-0.003	0.900	0.477
cg15881238	yellow	4	87,770,744	TSS1500	OpenSea	SLC10A6	0.449	-0.004	0.915	0.446
cg16227251	yellow	10	96,447,464	Body	OpenSea	CYP2C18	0.449	0.009	0.302	0.523
cg24301692	yellow	2	85,696,201		OpenSea		0.449	0.002	0.816	0.940
cg08336234	yellow	5	61,711,946	5'UTR	S_Shelf	IPO11	0.449	-0.001	0.910	0.912
cg05357835	yellow	6	125,871,312		OpenSea		0.449	-0.011	0.913	0.152
cg10112854	yellow	16	80,839,183	TSS1500	OpenSea	CDYL2	0.449	0.007	0.343	0.170
cg07295904	yellow	11	1,257,585	Body	Island	MUC5B	0.449	0.004	0.713	0.631
cg00463485	yellow	17	78,777,557	Body	S_Shore	RPTOR	0.449	0.004	0.629	0.480
cg11060349	yellow	7	158,342,963	Body	Island	PTPRN2	0.449	-0.004	0.859	0.543
cg04681525	yellow	9	132,145,577		Island		0.449	0.010	0.265	0.358
cg11345505	yellow	19	10,714,108	Body	S_Shore	SLC44A2	0.449	0.003	0.079	0.656
cg18546477	yellow	11	368,573	TSS1500	OpenSea	B4GALNT4	0.448	-0.008	0.109	0.430
cg02462812	yellow	5	140,501,535	TSS200	N_Shore	PCDHB4	0.448	0.010	0.669	0.454
cg25306859	yellow	2	219,899,930	Body	OpenSea	CCDC108	0.448	-0.003	0.539	0.753
cg02363766	yellow	5	2,008,270		Island		0.448	0.002	0.228	0.895
cg25527599	yellow	15	78,914,083	TSS1500	S_Shore	CHRNA3	0.448	0.003	0.923	0.655
cg22051925	yellow	13	111,061,133	Body	OpenSea	COL4A2	0.448	0.002	0.903	0.785
cg20043244	yellow	2	242,954,018		S_Shore		0.448	0.011	0.774	0.156
cg12486498	yellow	1	230,975,106	3'UTR	OpenSea	C1orf198	0.448	0.008	0.486	0.556
cg16553024	yellow	7	116,138,462	TSS1500	N_Shore	CAV2	0.448	0.006	0.746	0.485
cg08614290	yellow	7	158,938,491	TSS1500	Island	VIPR2	0.448	0.017	0.261	0.186
cg00890145	yellow	1	145,028,465	Body	OpenSea	PDE4DIP	0.448	0.008	0.568	0.285
cg01598009	yellow	6	30,286,162	Body	OpenSea	HCG18	0.448	-0.007	0.933	0.126
cg05960677	yellow	2	152,117,363	Body	N_Shore	RBM43	0.448	-0.026	0.167	0.085
cg00107667	yellow	12	131,941,518		N_Shelf		0.448	0.013	0.658	0.418
cg12043952	yellow	1	39,254,897		OpenSea		0.448	0.003	0.433	0.598
cg23090270	yellow	13	112,274,865		N_Shore		0.448	-0.004	0.871	0.687
cg10057614	yellow	16	56,841,060	Body	OpenSea	NUP93	0.448	-0.007	0.900	0.251
cg03255417	yellow	13	49,357,650		OpenSea		0.448	-0.013	0.405	0.326
cg03317245	yellow	17	3,600,514	TSS1500	S_Shore	P2RX5	0.448	0.003	0.688	0.784
cg19907137	yellow	4	26,856,901		N_Shore		0.448	0.001	0.912	0.905



cg08062023	yellow	3	111,393,015	TSS1500	N_Shore	PLCXD2	0.448	0.025	0.406	0.004
cg11675165	yellow	8	117,853,304		OpenSea		0.448	-0.002	0.454	0.858
cg00481227	yellow	20	36,322,069	TSS1500	N_Shore	CTNBL1	0.448	0.007	0.248	0.530
cg09429111	yellow	9	96,792,562	TSS1500	N_Shore	PTPDC1	0.448	-0.008	0.169	0.380
cg10665848	yellow	6	29,631,447	Body	OpenSea	MOG	0.448	-0.004	0.729	0.685
cg01614898	yellow	5	3,736,816		OpenSea		0.448	0.007	0.623	0.289
cg26688574	yellow	20	31,989,989	TSS1500	S_Shore	CDK5RAP1	0.448	0.011	0.777	0.276
cg09091273	yellow	4	714,323	5'UTR	N_Shore	PCGF3	0.448	0.000	0.958	0.978
cg11152384	yellow	11	68,934,300		OpenSea		0.448	0.006	0.697	0.493
cg23790434	yellow	2	36,579,318		N_Shelf		0.448	-0.002	0.045	0.451
cg04091914	yellow	2	228,551,538	3'UTR	OpenSea	SLC19A3	0.448	0.006	0.931	0.266
cg09801825	yellow	17	72,771,733	TSS1500	N_Shore	TMEM104	0.448	0.001	0.935	0.788
cg26359510	yellow	1	8,075,137	Body	OpenSea	ERRF1	0.448	0.019	0.118	0.028
cg08695703	yellow	17	73,762,337	TSS1500	S_Shore	GALK1	0.448	-0.002	0.634	0.833
cg08089153	yellow	11	1,956,292	Body	N_Shelf	TNNT3	0.448	0.010	0.718	0.147
cg01189606	yellow	3	48,471,901	TSS1500	S_Shore	PLXNB1	0.448	0.003	0.213	0.641
cg03480346	yellow	2	24,232,603	TSS1500	N_Shore	MFSD2B	0.448	0.001	0.243	0.928
cg19839382	yellow	19	5,036,857	Body	N_Shore	KDM4B	0.448	0.001	0.457	0.919
cg21541565	yellow	5	95,976,631		OpenSea		0.448	-0.009	0.331	0.535
cg12800028	yellow	6	110,300,146	TSS200	Island	GPR6	0.448	0.011	0.254	0.288
cg21402748	yellow	1	2,838,849		OpenSea		0.448	0.013	0.466	0.546
cg13661323	yellow	9	19,657,248	Body	OpenSea	SLC24A2	0.448	0.002	0.916	0.761
cg27431182	yellow	1	245,499,492	Body	S_Shore	KIF26B	0.448	0.001	0.868	0.808
cg07833068	yellow	19	4,195,937	Body	N_Shelf	ANKRD24	0.448	0.000	0.633	0.988
cg03276422	yellow	17	80,655,668	Body	Island	RAB40B	0.448	-0.004	0.065	0.315
cg04988978	yellow	17	56,359,578	TSS1500	S_Shelf	MPO	0.448	0.005	0.631	0.428
cg06078830	yellow	2	26,986,550	TSS1500	N_Shore	C2orf18	0.448	0.003	0.950	0.355
cg14834989	yellow	5	539,998		S_Shelf		0.447	0.001	0.317	0.914
cg10790470	yellow	3	16,592,588		OpenSea		0.447	0.002	0.027	0.171
cg20717798	yellow	7	157,624,958	Body	OpenSea	PTPRN2	0.447	-0.005	0.802	0.620
cg09333522	yellow	2	67,312,514		OpenSea		0.447	0.009	0.732	0.342
cg22742943	yellow	2	96,873,312	Body	N_Shore	STARD7	0.447	0.000	0.019	0.856
cg02771464	yellow	22	19,108,494	Body	N_Shore	DGCR2	0.447	0.009	0.411	0.195
cg15161854	yellow	1	28,836,139	Body	OpenSea	SNHG3-RCC1	0.447	-0.007	0.653	0.470
cg23004466	yellow	7	106,815,478	5'UTR	OpenSea	HBP1	0.447	-0.009	0.753	0.528
cg20697427	yellow	3	195,610,231	Body	N_Shelf	TNK2	0.447	0.002	0.855	0.742
cg09098720	yellow	17	49,412,842		OpenSea		0.447	0.004	0.664	0.494
cg18711369	yellow	17	38,081,186	5'UTR	N_Shelf	ORMDL3	0.447	0.005	0.735	0.694
cg00093099	yellow	18	2,849,071	Body	S_Shore	EMILIN2	0.447	0.016	0.239	0.284
cg22908440	yellow	8	611,363		N_Shelf		0.447	-0.003	0.927	0.500
cg03434384	yellow	12	27,703,097	5'UTR	OpenSea	PPFIBP1	0.447	0.000	0.147	0.989
cg13280741	yellow	5	58,469,876	Body	OpenSea	PDE4D	0.447	-0.009	0.693	0.596
cg26153096	yellow	1	43,748,142	3'UTR	OpenSea	C1orf210	0.447	0.003	0.600	0.413
cg14060519	yellow	10	95,222,867	Body	OpenSea	MYOF	0.447	0.008	0.667	0.556
cg03775372	yellow	10	13,830,045	Body	OpenSea	FRMD4A	0.447	0.000	0.168	0.925
cg24758452	yellow	20	60,514,284		N_Shelf		0.447	-0.002	0.780	0.738
cg25739016	yellow	1	167,638,918	Body	OpenSea	RCS1	0.447	0.010	0.702	0.093
cg12377111	yellow	17	7,808,829	Body	OpenSea	CHD3	0.447	0.008	0.710	0.223
cg26371512	yellow	7	112,430,779	TSS1500	S_Shore	TMEM168	0.447	-0.009	0.187	0.450
cg10494537	yellow	22	17,700,308		OpenSea		0.447	-0.002	0.576	0.809
cg27232482	yellow	1	159,174,001	TSS1500	OpenSea	DARC	0.447	0.005	0.357	0.521
cg17071957	yellow	9	124,029,926	TSS1500	OpenSea	GSN	0.447	0.004	0.346	0.509
cg23637605	yellow	8	31,996,079	Body	OpenSea	NRG1	0.447	-0.001	0.602	0.914
cg24922596	yellow	18	13,915,573	TSS200	OpenSea	MC2R	0.447	-0.019	0.815	0.070
cg11323985	yellow	8	18,541,497	Body	OpenSea	PSD3	0.447	-0.014	0.299	0.308
cg12620461	yellow	2	31,441,312	TSS1500	OpenSea	CAPN14	0.447	0.008	0.714	0.253
cg13804457	yellow	15	60,771,615	TSS1500	S_Shore	NARG2	0.447	-0.001	0.039	0.676
cg08698159	yellow	17	27,294,743	Body	OpenSea	SEZ6	0.447	0.011	0.339	0.227
cg23221013	yellow	7	99,817,027	Body	OpenSea	GATS	0.447	0.004	0.510	0.451
cg24080465	yellow	10	45,718,853		N_Shore		0.447	0.007	0.925	0.139
cg08450941	yellow	5	132,072,371	Body	N_Shore	KIF3A	0.447	0.018	0.606	0.194
cg19994779	yellow	14	105,482,622	5'UTR	N_Shelf	CDCA4	0.447	0.004	0.568	0.369
cg20529645	yellow	4	5,886,898	Body	N_Shelf	CRMP1	0.446	0.002	0.848	0.745
cg20824294	yellow	3	142,316,082	5'UTR	S_Shore	PLS1	0.446	-0.009	0.377	0.396
cg05729588	yellow	17	43,101,525	3'UTR	S_Shore	DCAKD	0.446	0.010	0.813	0.218
cg14303674	yellow	20	31,407,348	TSS1500	N_Shore	MAPRE1	0.446	0.005	0.748	0.745
cg12728958	yellow	8	42,947,797	TSS1500	N_Shore	SGK196	0.446	0.004	0.062	0.662

cg25302646	yellow	1	173,445,043	TSS1500	N_Shore	PRDX6	0.446	0.008	0.552	0.511
cg16838749	yellow	2	241,263,067		S_Shore		0.446	0.001	0.886	0.819
cg26987613	yellow	6	33,219,410	Body	S_Shore	VP552	0.446	0.003	0.856	0.439
cg10168894	yellow	12	72,148,281	TSS1500	N_Shore	RAB21	0.446	0.002	0.247	0.875
cg04353769	yellow	11	59,951,557	TSS1500	OpenSea	MS4A6A	0.446	0.008	0.749	0.201
cg03171419	yellow	8	37,700,802	3'UTR	S_Shore	GPR124	0.446	-0.005	0.532	0.518
cg26474465	yellow	17	4,170,821		S_Shelf		0.446	0.000	0.922	0.991
cg10976318	yellow	22	50,466,533	Body	N_Shore	TTLL8	0.446	-0.009	0.663	0.606
cg26877678	yellow	17	25,856,540	5'UTR	OpenSea	KSR1	0.446	-0.018	0.740	0.115
cg06003958	yellow	6	31,023,257	Body	OpenSea	HCG22	0.446	-0.003	0.800	0.796
cg02587606	yellow	10	77,352,231		OpenSea		0.446	0.006	0.666	0.604
cg16335919	yellow	8	1,379,801		OpenSea		0.446	0.003	0.620	0.806
cg04382077	yellow	7	150,935,054	Body	S_Shore	CHPF2	0.446	0.004	0.842	0.387
cg15861694	yellow	11	2,706,745	Body	OpenSea	KCNQ1	0.446	0.003	0.898	0.601
cg00430036	yellow	9	99,145,401	Body	N_Shore	SLC35D2	0.446	0.000	0.040	0.938
cg08982864	yellow	12	1,945,300	3'UTR	OpenSea	LRTM2	0.446	-0.006	0.704	0.298
cg20679659	yellow	8	71,047,113	Body	OpenSea	NCOA2	0.446	0.004	0.943	0.336
cg05780766	yellow	2	127,942,965	3'UTR	OpenSea	CYP27C1	0.446	-0.003	0.943	0.481
cg00172794	yellow	3	138,648,284		S_Shore		0.446	0.014	0.689	0.104
cg14219787	yellow	7	148,787,290	Body	N_Shore	ZNF786	0.446	0.003	0.164	0.654
cg22946556	yellow	17	61,957,807	3'UTR	OpenSea	GH2	0.446	0.001	0.885	0.905
cg15037663	yellow	7	24,797,835	TSS1500	S_Shore	DFNA5	0.446	0.006	0.452	0.605
cg19169932	yellow	15	62,861,955		OpenSea		0.446	0.012	0.353	0.151
cg27651070	yellow	11	46,391,669	Body	S_Shelf	DGKZ	0.446	-0.002	0.546	0.605
cg09958483	yellow	11	64,527,240	1stExon	OpenSea	PYGM	0.446	0.013	0.542	0.038
cg03505638	yellow	10	72,116,005	Body	OpenSea	LRRC20	0.446	0.001	0.933	0.861
cg02065051	yellow	20	25,674,725	5'UTR	N_Shore	ZNF337	0.446	-0.002	0.915	0.773
cg23954461	yellow	19	12,777,852	TSS1500	N_Shore	MAN2B1	0.446	0.000	0.055	0.936
cg01930746	yellow	2	10,950,511	Body	N_Shore	PDIA6	0.446	0.020	0.252	0.016
cg02016764	yellow	4	38,805,732	5'UTR	OpenSea	TLR1	0.446	0.019	0.776	0.202
cg24677278	yellow	6	28,479,430	Body	OpenSea	GPX6	0.446	-0.002	0.841	0.724
cg05668996	yellow	5	122,431,419	Body	Island	PRDM6	0.446	0.015	0.386	0.132
cg05042492	yellow	15	89,899,729		N_Shelf		0.445	0.005	0.828	0.499
cg08958168	yellow	16	68,001,415	Body	N_Shore	SLC12A4	0.445	-0.002	0.139	0.575
cg05126036	yellow	1	155,920,658	Body	Island	ARHGEF2	0.445	-0.002	0.861	0.726
cg21747876	yellow	5	178,687,984	Body	S_Shelf	ADAMTS2	0.445	-0.001	0.963	0.871
cg24058132	yellow	14	88,459,866	1stExon	S_Shore	GALC	0.445	-0.006	0.373	0.427
cg01208614	yellow	5	141,031,443	TSS1500	S_Shore	FCHSD1	0.445	0.006	0.649	0.448
cg09970481	yellow	19	42,379,744	TSS1500	OpenSea	CD79A	0.445	0.004	0.725	0.743
cg20078206	yellow	1	41,889,625		Island		0.445	0.016	0.736	0.272
cg23878730	yellow	14	95,477,582		OpenSea		0.445	0.001	0.581	0.911
cg00636946	yellow	16	4,898,667	TSS1500	S_Shore	GLYR1	0.445	0.009	0.127	0.411
cg16716189	yellow	1	113,261,711	TSS1500	Island	FAM19A3	0.445	0.009	0.769	0.264
cg09550558	yellow	1	20,208,553	TSS1500	N_Shore	OTUD3	0.445	0.007	0.050	0.062
cg08376020	yellow	4	8,154,317	Body	Island	ABLIM2	0.445	0.007	0.726	0.255
cg21408360	yellow	1	203,493,477		OpenSea		0.445	0.014	0.605	0.041
cg20951266	yellow	1	152,856,288	5'UTR	OpenSea	SMCP	0.445	-0.004	0.737	0.547
cg05770091	yellow	7	100,875,312		N_Shore		0.445	-0.002	0.342	0.751
cg22496729	yellow	17	47,926,025	TSS1500	N_Shelf	TAC4	0.445	0.002	0.537	0.811
cg09236445	yellow	3	73,591,147	Body	OpenSea	PDZRN3	0.445	-0.006	0.850	0.518
cg10531637	yellow	22	51,000,048	5'UTR	N_Shore	C22orf41	0.445	-0.002	0.462	0.703
cg11416102	yellow	8	651,193	Body	Island	ERICH1	0.445	-0.010	0.926	0.279
cg20583930	yellow	3	155,394,109	5'UTR	OpenSea	PLCH1	0.445	0.013	0.319	0.225
cg21756806	yellow	11	46,638,289	TSS1500	N_Shore	KIAA0652	0.445	-0.003	0.033	0.261
cg26425711	yellow	1	3,251,680	Body	OpenSea	PRDM16	0.445	0.000	0.546	0.969
cg14289319	yellow	12	122,079,885	3'UTR	OpenSea	ORAI1	0.445	0.006	0.768	0.477
cg22311230	yellow	11	3,253,769	TSS200	Island	MRGPRE	0.445	0.004	0.342	0.602
cg16535752	yellow	17	57,448,097	Body	OpenSea	YPEL2	0.445	0.004	0.581	0.562
cg15651127	yellow	9	139,301,541	Body	Island	SDCCAG3	0.445	0.009	0.825	0.267
cg13055199	yellow	15	75,136,278	TSS1500	S_Shore	ULK3	0.445	-0.002	0.466	0.827
cg25282072	yellow	4	670,347	TSS1500	S_Shore	MYL5	0.445	0.006	0.572	0.396
cg02736280	yellow	17	1,633,745	Body	N_Shelf	WDR81	0.445	0.002	0.437	0.817
cg25194194	yellow	12	69,143,431	Body	S_Shelf	SLC35E3	0.445	0.001	0.883	0.887
cg01684586	yellow	4	57,910,078	Body	OpenSea	IGFBP7	0.445	0.007	0.372	0.349
cg05693715	yellow	12	12,209,164		OpenSea		0.445	0.001	0.938	0.844
cg05411171	yellow	15	44,041,928	Body	S_Shelf	PDIA3	0.445	0.001	0.973	0.738
cg05053403	yellow	12	133,120,676	Body	OpenSea	FBRSL1	0.445	-0.005	0.665	0.486

cg09636661	yellow	16	69,743,901	3'UTR	OpenSea	NQO1	0.445	0.001	0.912	0.836
cg18145810	yellow	2	79,252,673	TSS200	OpenSea	REG3G	0.445	0.015	0.469	0.381
cg12462499	yellow	3	171,990,831	Body	OpenSea	FNDC3B	0.445	-0.019	0.684	0.478
cg11104712	yellow	17	7,306,613	Body	N_Shore	C17orf61	0.445	0.009	0.435	0.181
cg03841376	yellow	17	79,304,594	TSS200	OpenSea	TMEM105	0.445	-0.004	0.787	0.526
cg12958778	yellow	4	6,912,474	5'UTR	S_Shore	TBC1D14	0.445	-0.002	0.556	0.766
cg13080927	yellow	7	150,905,130	3'UTR	S_Shelf	ABCF2	0.445	0.003	0.451	0.694
cg15412721	yellow	19	39,995,588	Body	S_Shore	DLL3	0.445	0.005	0.525	0.597
cg25473596	yellow	7	141,250,973	TSS200	N_Shore	AGK	0.445	-0.001	0.031	0.619
cg02491905	yellow	2	10,975,305		OpenSea		0.445	-0.005	0.674	0.446
cg07466560	yellow	7	5,712,269	Body	OpenSea	RNF216	0.444	0.007	0.453	0.643
cg15877399	yellow	12	116,625,593	Body	OpenSea	MED13L	0.444	-0.013	0.641	0.246
cg10336193	yellow	1	206,848,389		OpenSea		0.444	-0.005	0.375	0.624
cg11883258	yellow	8	145,160,034	TSS1500	Island	SHARPIN	0.444	0.014	0.129	0.089
cg23055496	yellow	3	6,906,371	Body	S_Shore	GRM7	0.444	0.016	0.290	0.150
cg20459712	yellow	6	56,815,929	Body	N_Shelf	DST	0.444	-0.008	0.831	0.464
cg13644811	yellow	15	90,771,714	Body	OpenSea	SEMA4B	0.444	-0.005	0.861	0.514
cg11544657	yellow	1	9,968,130	5'UTR	N_Shore	CTNNBIP1	0.444	0.000	0.956	0.922
cg12656611	yellow	12	117,630,719		S_Shelf		0.444	0.005	0.901	0.407
cg27652925	yellow	6	31,740,951	Body	OpenSea	C6orf27	0.444	0.007	0.782	0.405
cg04539895	yellow	11	1,219,644		N_Shore		0.444	0.015	0.487	0.043
cg23130957	yellow	5	1,657,346		S_Shelf		0.444	0.008	0.620	0.148
cg05450667	yellow	22	31,318,103	TSS200	N_Shore	C22orf27	0.444	0.013	0.216	0.426
cg25389791	yellow	5	176,307,836	3'UTR	S_Shelf	UNC5A	0.444	0.010	0.847	0.155
cg00399027	yellow	16	85,676,861	5'UTR	S_Shore	KIAA0182	0.444	0.007	0.822	0.260
cg24174608	yellow	15	38,856,094	Body	N_Shore	RASGRP1	0.444	0.001	0.458	0.824
cg14063654	yellow	9	107,587,595	Body	OpenSea	ABCA1	0.444	-0.002	0.940	0.740
cg06328831	yellow	11	278,912	Body	N_Shore	NLRP6	0.444	0.009	0.326	0.200
cg12620035	yellow	7	73,247,613		S_Shore		0.444	0.032	0.743	0.042
cg20100745	yellow	8	134,307,728	5'UTR	N_Shore	NDRG1	0.444	0.009	0.689	0.537
cg00397103	yellow	1	5,540,008		OpenSea		0.444	-0.004	0.928	0.316
cg19587237	yellow	1	54,797,076	Body	OpenSea	SSBP3	0.444	0.003	0.248	0.662
cg11021321	yellow	20	57,471,660	Body	S_Shelf	GNAS	0.444	0.024	0.398	0.142
cg17454857	yellow	20	34,127,524		N_Shelf		0.444	-0.015	0.595	0.491
cg22263591	yellow	17	71,089,168	TSS1500	OpenSea	SLC39A11	0.444	0.019	0.848	0.062
cg11056604	yellow	19	7,797,100	TSS200	S_Shore	CLEC4G	0.444	0.011	0.371	0.214
cg07531663	yellow	8	47,751,494	TSS1500	OpenSea	BEYLA	0.444	0.015	0.366	0.117
cg16712828	yellow	20	3,193,986	Body	S_Shelf	ITPA	0.444	0.005	0.928	0.312
cg20097593	yellow	2	70,781,679	TSS1500	S_Shore	TGFA	0.444	0.010	0.302	0.162
cg07730360	yellow	3	128,845,626		OpenSea		0.444	-0.001	0.531	0.920
cg06990194	yellow	16	2,024,421	Body	N_Shore	TBL3	0.444	-0.003	0.576	0.529
cg02611419	yellow	6	39,282,532	3'UTR	S_Shore	KCNK16	0.444	0.002	0.760	0.824
cg08467687	yellow	22	31,317,914	TSS1500	N_Shore	C22orf27	0.444	0.007	0.211	0.667
cg07034561	yellow	21	43,916,159	Body	N_Shore	RSPH1	0.444	-0.001	0.057	0.841
cg24468890	yellow	1	32,757,294	TSS1500	N_Shore	HDAC1	0.444	-0.006	0.528	0.437
cg01613189	yellow	8	10,875,246	Body	S_Shore	XKR6	0.444	0.007	0.502	0.171
cg05813703	yellow	6	31,621,149	TSS1500	Island	BAT3	0.444	0.002	0.051	0.569
cg12587960	yellow	20	18,033,564	Body	N_Shelf	OVOL2	0.444	0.007	0.889	0.253
cg00078348	yellow	11	113,845,487	TSS1500	OpenSea	HTR3A	0.444	0.004	0.272	0.568
cg21562801	yellow	17	80,011,196	Body	N_Shore	GPS1	0.444	0.003	0.856	0.431
cg21432763	yellow	22	49,487,534		Island		0.443	0.009	0.797	0.161
cg19925124	yellow	19	48,230,645	Body	S_Shore	EHD2	0.443	0.002	0.926	0.727
cg08876943	yellow	5	1,865,843		OpenSea		0.443	0.009	0.425	0.182
cg24895777	yellow	19	18,359,560	TSS1500	OpenSea	PDE4C	0.443	-0.005	0.943	0.383
cg16631199	yellow	10	101,841,253	1stExon	OpenSea	CPN1	0.443	0.003	0.772	0.705
cg14050395	yellow	4	1,570,273		N_Shore		0.443	0.001	0.822	0.784
cg18044111	yellow	2	128,422,307	Body	S_Shore	LIMS2	0.443	0.013	0.645	0.060
cg01798419	yellow	14	94,404,916	Body	N_Shore	ASB2	0.443	-0.004	0.542	0.635
cg18348318	yellow	4	7,736,837	Body	OpenSea	SORCS2	0.443	0.017	0.625	0.084
cg22218316	yellow	12	3,164,855		OpenSea		0.443	0.006	0.275	0.408
cg00752969	yellow	2	70,311,984		N_Shore		0.443	0.001	0.783	0.928
cg13131501	yellow	1	145,508,262	Body	S_Shore	RBM8A	0.443	0.013	0.205	0.074
cg14704714	yellow	19	15,740,395	3'UTR	OpenSea	CYP4F8	0.443	0.001	0.027	0.651
cg14080227	yellow	9	38,363,157		OpenSea		0.443	0.001	0.045	0.755
cg19232929	yellow	12	52,299,524		N_Shore		0.443	0.008	0.468	0.569
cg27013914	yellow	7	97,923,044	Body	OpenSea	BAIAP2L1	0.443	-0.001	0.886	0.848
cg14905613	yellow	6	72,891,967	Body	N_Shore	RIMS1	0.443	-0.013	0.371	0.330

cg24531534	yellow	8	23,162,162	Body	OpenSea	LOXL2	0.443	-0.007	0.545	0.725
cg22707016	yellow	15	41,098,847	TSS1500	N_Shore	ZFYVE19	0.443	0.003	0.746	0.708
cg15602972	yellow	19	47,151,481	3'UTR	N_Shore	DACT3	0.443	0.004	0.744	0.701
cg26921881	yellow	17	1,819,914		OpenSea		0.443	-0.007	0.392	0.557
cg26621513	yellow	12	4,689,446		OpenSea		0.443	0.014	0.470	0.002
cg25417042	yellow	10	112,259,695	Body	S_Shore	DUSP5	0.443	0.002	0.894	0.796
cg14283978	yellow	19	45,809,570		S_Shelf		0.443	0.027	0.706	0.064
cg16904686	yellow	1	47,133,294	Body	N_Shore	ATPAF1	0.443	0.005	0.280	0.599
cg23523019	yellow	7	1,178,254	TSS1500	Island	C7orf50	0.443	0.001	0.023	0.723
cg27120543	yellow	7	15,555,129	Body	OpenSea	TMEM195	0.443	0.004	0.332	0.778
cg01967642	yellow	1	38,229,476	Body	N_Shore	EPHA10	0.443	-0.005	0.624	0.640
cg01217876	yellow	17	74,498,163	TSS1500	S_Shore	RHBDF2	0.443	0.007	0.729	0.423
cg13769548	yellow	19	54,984,708	TSS1500	S_Shore	CDC42EP5	0.443	0.000	0.017	0.938
cg12851401	yellow	5	2,708,678		OpenSea		0.443	0.007	0.637	0.405
cg25539505	yellow	5	95,634,103		OpenSea		0.443	0.013	0.695	0.239
cg17245125	yellow	2	23,843,711	Body	OpenSea	KLHL29	0.443	0.008	0.493	0.309
cg05211480	yellow	14	21,148,814		N_Shelf		0.443	0.003	0.414	0.810
cg21389569	yellow	15	75,118,456	TSS1500	OpenSea	CPLX3	0.443	0.001	0.108	0.745
cg03285073	yellow	10	98,119,841	TSS1500	OpenSea	OPALIN	0.443	0.000	0.816	0.939
cg22493877	yellow	1	9,352,405	TSS1500	OpenSea	SPSB1	0.443	0.000	0.060	0.930
cg11823597	yellow	11	73,091,939	5'UTR	S_Shelf	RELT	0.443	0.001	0.858	0.946
cg25309343	yellow	19	51,226,207	TSS1500	N_Shore	CLEC11A	0.443	0.027	0.426	0.002
cg27389454	yellow	19	55,797,178	Body	N_Shore	BRSK1	0.443	0.017	0.311	0.112
cg14637144	yellow	3	196,750,506	Body	OpenSea	MF12	0.443	-0.010	0.496	0.289
cg14156084	yellow	10	134,303,899		N_Shore		0.443	0.002	0.799	0.838
cg09557747	yellow	1	21,931,657	Body	S_Shore	RAP1GAP	0.443	-0.004	0.867	0.550
cg24729988	yellow	15	64,271,149	Body	OpenSea	DAPK2	0.443	0.001	0.556	0.944
cg02232089	yellow	2	101,440,696	5'UTR	S_Shelf	NPAS2	0.442	-0.001	0.871	0.868
cg00961940	yellow	17	76,876,995	Body	OpenSea	TIMP2	0.442	0.012	0.493	0.239
cg12137450	yellow	8	22,458,046	Body	S_Shore	C8orf58	0.442	0.003	0.197	0.713
cg05158854	yellow	14	96,729,656	5'UTR	OpenSea	BDKRB1	0.442	0.015	0.436	0.309
cg12264949	yellow	10	104,001,946	TSS1500	S_Shore	PITX3	0.442	-0.002	0.044	0.519
cg27503736	yellow	16	66,875,252		N_Shelf		0.442	0.000	0.899	0.976
cg21833841	yellow	3	36,868,879	3'UTR	OpenSea	TRANK1	0.442	0.010	0.474	0.084
cg04050728	yellow	16	776,416	5'UTR	N_Shore	CCDC78	0.442	0.002	0.245	0.790
cg14931884	yellow	10	369,977	Body	S_Shore	DIP2C	0.442	0.013	0.390	0.556
cg26576890	yellow	6	41,374,939		Island		0.442	0.001	0.603	0.875
cg00962903	yellow	3	168,863,028	5'UTR	N_Shore	MECOM	0.442	0.012	0.361	0.254
cg11170041	yellow	2	26,542,163	TSS200	OpenSea	GPR113	0.442	0.011	0.645	0.077
cg11191955	yellow	6	31,849,272	Body	OpenSea	EHMT2	0.442	0.004	0.838	0.486
cg12200124	yellow	5	179,220,820	TSS200	N_Shore	LTC4S	0.442	0.007	0.378	0.288
cg01476739	yellow	2	241,853,884		N_Shore		0.442	-0.002	0.072	0.709
cg08456334	yellow	1	151,298,699	1stExon	N_Shore	PI4KB	0.442	0.006	0.171	0.579
cg08251761	yellow	11	470,197	Body	N_Shore	PTDSS2	0.442	-0.002	0.629	0.822
cg00861945	yellow	19	49,007,025	Body	S_Shelf	LMTK3	0.442	0.014	0.643	0.142
cg04226276	yellow	3	194,406,284	TSS1500	N_Shore	FAM43A	0.442	-0.012	0.221	0.281
cg07956012	yellow	1	156,542,701	TSS1500	S_Shore	IQGAP3	0.442	-0.002	0.755	0.745
cg07179260	yellow	5	173,044,025	TSS1500	S_Shore	BOD1	0.442	-0.008	0.136	0.436
cg26306091	yellow	2	241,076,551	TSS1500	S_Shore	MYEOV2	0.442	-0.005	0.673	0.563
cg24193588	yellow	2	101,736,745	Body	OpenSea	TBC1D8	0.442	0.002	0.950	0.380
cg25701100	yellow	6	29,815,902		N_Shelf		0.442	-0.002	0.068	0.623
cg20485733	yellow	17	2,798,136	Body	OpenSea	RAP1GAP2	0.442	0.019	0.651	0.036
cg10880459	yellow	14	97,686,001		S_Shore		0.442	-0.003	0.143	0.658
cg07570687	yellow	10	102,243,282	3'UTR	S_Shore	WNT8B	0.442	-0.001	0.890	0.820
cg12620893	yellow	7	102,984,348	Body	N_Shore	DNAJC2	0.442	0.001	0.031	0.602
cg16405908	yellow	11	3,253,896	TSS1500	Island	MRGPRE	0.442	0.010	0.552	0.484
cg21092687	yellow	8	145,743,911	TSS1500	N_Shore	RECQL4	0.442	0.003	0.065	0.628
cg17779423	yellow	19	42,879,726	Body	Island	MEGF8	0.442	0.007	0.844	0.277
cg15034962	yellow	7	30,129,938	3'UTR	OpenSea	PLEKHA8	0.442	0.000	0.908	0.954
cg15666071	yellow	7	56,160,717	TSS200	OpenSea	PHKG1	0.442	-0.007	0.110	0.504
cg09970593	yellow	1	29,139,522	Body	S_Shore	OPRD1	0.442	0.008	0.694	0.414
cg05376185	yellow	1	47,082,869	TSS1500	S_Shore	MOBK2C	0.442	0.014	0.264	0.513
cg03095255	yellow	11	71,543,471	TSS1500	OpenSea	DEFB108B	0.442	0.012	0.906	0.334
cg02326224	yellow	15	81,474,451		OpenSea		0.442	0.015	0.620	0.103
cg24395117	yellow	11	70,245,893	5'UTR	S_Shore	CTTN	0.442	-0.005	0.285	0.500
cg13474639	yellow	9	104,160,145	Body	N_Shore	MRPL50	0.442	0.002	0.121	0.862
cg23158483	yellow	5	151,305,528	TSS1500	S_Shore	GLRA1	0.441	-0.025	0.619	0.160

cg19040195	yellow	2	60,687,132	3'UTR	N_Shore	BCL11A	0.441	-0.002	0.368	0.851
cg06903451	yellow	1	1,323,192	Body	S_Shore	CCNL2	0.441	-0.009	0.923	0.033
cg18023455	yellow	7	49,894,664	Body	OpenSea	VWC2	0.441	-0.013	0.869	0.176
cg12683730	yellow	20	44,144,688	TSS1500	OpenSea	SPINT3	0.441	-0.004	0.828	0.451
cg13935928	yellow	18	19,995,469	3'UTR	OpenSea	CTAGE1	0.441	0.000	0.782	0.984
cg19723805	yellow	5	33,147,539		OpenSea		0.441	0.013	0.814	0.204
cg07624008	yellow	19	33,672,378		S_Shelf		0.441	0.006	0.478	0.465
cg13677043	yellow	9	137,253,049	Body	S_Shore	RXRA	0.441	0.003	0.823	0.488
cg23180780	yellow	2	12,260,486		OpenSea		0.441	0.011	0.654	0.266
cg11890639	yellow	3	51,703,814	TSS1500	N_Shore	TEX264	0.441	0.013	0.666	0.098
cg07188009	yellow	1	106,626,446		S_Shelf		0.441	0.000	0.726	0.995
cg18861547	yellow	1	22,196,887	Body	OpenSea	HSPG2	0.441	0.036	0.769	0.004
cg04539240	yellow	16	87,651,957	Body	S_Shelf	JPH3	0.441	0.000	0.641	0.933
cg05634495	yellow	6	122,364,658		OpenSea		0.441	0.000	0.601	0.991
cg26333660	yellow	8	28,625,366	3'UTR	OpenSea	INTS9	0.441	0.006	0.776	0.308
cg07208029	yellow	5	2,704,038		OpenSea		0.441	0.003	0.754	0.799
cg21680327	yellow	1	36,108,225	TSS1500	S_Shore	PSMB2	0.441	0.014	0.687	0.445
cg25153629	yellow	1	3,135,375	Body	OpenSea	PRDM16	0.441	0.005	0.840	0.299
cg16043345	yellow	4	88,571,325	TSS200	OpenSea	DMP1	0.441	0.000	0.851	0.989
cg12776822	yellow	14	102,556,498	Body	S_Shelf	HSP90AA1	0.441	0.000	0.958	0.927
cg25629790	yellow	1	53,527,412	TSS1500	N_Shore	PODN	0.441	-0.002	0.047	0.508
cg27013931	yellow	16	30,674,490	TSS1500	S_Shelf	FBR5	0.441	-0.002	0.925	0.681
cg08881796	yellow	17	618,545	TSS1500	Island	VP53	0.441	0.000	0.113	1.000
cg24170529	yellow	20	48,956,351		N_Shelf		0.441	0.002	0.476	0.798
cg26427827	yellow	1	10,713,944	Body	Island	CASZ1	0.441	0.010	0.785	0.145
cg14949292	yellow	17	78,079,608	Body	Island	GAA	0.441	-0.015	0.403	0.278
cg01806181	yellow	19	1,007,843	Body	Island	GRIN3B	0.441	0.013	0.730	0.130
cg19809636	yellow	10	134,661,640		OpenSea		0.441	-0.006	0.050	0.135
cg08300930	yellow	12	9,265,989	Body	OpenSea	A2M	0.441	0.003	0.660	0.833
cg16049691	yellow	5	434,877	Body	OpenSea	AHRR	0.441	0.005	0.870	0.427
cg20414082	yellow	1	203,002,593		OpenSea		0.441	0.004	0.615	0.540
cg05643373	yellow	19	49,220,422	TSS1500	N_Shelf	MAMSTR	0.441	0.004	0.287	0.519
cg24063199	yellow	2	241,407,269	3'UTR	S_Shelf	GPC1	0.441	0.001	0.834	0.854
cg22841667	yellow	11	8,705,620	Body	S_Shore	RPL27A	0.440	0.007	0.406	0.554
cg21163128	yellow	11	62,477,362	TSS1500	Island	BSCL2	0.440	0.012	0.126	0.106
cg01660613	yellow	20	43,592,012		N_Shelf		0.440	0.013	0.597	0.109
cg18857871	yellow	11	118,064,634	3'UTR	OpenSea	AMICA1	0.440	0.015	0.909	0.211
cg11734401	yellow	14	25,517,974	5'UTR	N_Shore	STXBP6	0.440	-0.010	0.257	0.557
cg13721383	yellow	8	38,578,913		OpenSea		0.440	0.003	0.082	0.439
cg01191985	yellow	22	20,130,190	Body	N_Shore	ZDHC8	0.440	0.001	0.834	0.914
cg05697909	yellow	1	2,462,364	TSS1500	S_Shore	HES5	0.440	-0.003	0.236	0.675
cg00574819	yellow	4	128,981,252	TSS1500	N_Shore	LARP1B	0.440	0.004	0.946	0.455
cg13301676	yellow	5	112,506,160	Body	OpenSea	MCC	0.440	-0.012	0.658	0.482
cg02307681	yellow	16	1,589,378	Body	S_Shore	IFT140	0.440	0.009	0.929	0.046
cg05390555	yellow	2	74,881,012	TSS1500	N_Shore	SEMA4F	0.440	0.010	0.118	0.294
cg21184699	yellow	9	96,277,131	Body	N_Shore	FAM120A	0.440	0.000	0.917	0.999
cg10948827	yellow	1	22,929,080	3'UTR	S_Shore	EPHA8	0.440	0.009	0.636	0.167
cg26080154	yellow	11	1,314,228	Body	N_Shore	TOLLIP	0.440	-0.001	0.742	0.923
cg03768859	yellow	19	1,982,099		S_Shore		0.440	0.007	0.921	0.303
cg00787282	yellow	2	28,788,949	Body	N_Shore	PLB1	0.440	0.003	0.579	0.663
cg06600331	yellow	20	42,187,650	TSS200	OpenSea	SGK2	0.440	0.011	0.606	0.101
cg25793051	yellow	7	149,439,005		OpenSea		0.440	0.027	0.726	0.007
cg10619318	yellow	5	135,470,751	5'UTR	S_Shore	SMAD5	0.440	0.003	0.408	0.626
cg13907324	yellow	12	132,991,277		S_Shore		0.440	0.013	0.634	0.101
cg07202353	yellow	15	42,210,119	Body	N_Shore	EHD4	0.440	0.017	0.784	0.017
cg22793130	yellow	8	144,163,464		N_Shelf		0.440	0.022	0.556	0.010
cg13673290	yellow	9	130,407,144	Body	OpenSea	STXBP1	0.440	0.002	0.911	0.676
cg13203754	yellow	10	126,078,247		S_Shore		0.440	0.000	0.493	0.987
cg05734973	yellow	3	15,139,826	5'UTR	N_Shore	ZFYVE20	0.440	0.020	0.460	0.016
cg09451092	yellow	1	159,869,223	Body	N_Shore	CCDC19	0.440	-0.005	0.848	0.361
cg20325922	yellow	4	184,917,058	Body	OpenSea	STOX2	0.440	0.018	0.890	0.061
cg11503396	yellow	2	25,419,761		OpenSea		0.440	-0.010	0.756	0.415
cg20407365	yellow	12	108,953,539	Body	N_Shore	SART3	0.440	-0.017	0.814	0.161
cg18848419	yellow	18	11,850,153	TSS1500	N_Shore	CHMP1B	0.440	0.026	0.178	0.061
cg25607670	yellow	3	196,750,848	Body	N_Shelf	MF12	0.440	-0.003	0.666	0.829
cg24425175	yellow	19	51,587,945	TSS1500	OpenSea	KLK14	0.440	-0.005	0.771	0.463
cg21220374	yellow	9	100,396,777	TSS1500	S_Shore	TSTD2	0.440	0.004	0.096	0.714

cg13430819	yellow	1	22,349,646	N_Shelf		0.440	0.006	0.166	0.504
cg18536644	yellow	11	2,423,045 TSS1500	S_Shore	TSSC4	0.439	0.018	0.481	0.020
cg19672546	yellow	8	145,025,123 Body	Island	PLEC1	0.439	-0.004	0.199	0.841
cg02992118	yellow	16	88,470,787	OpenSea		0.439	0.011	0.741	0.134
cg16903782	yellow	12	55,378,654 TSS200	OpenSea	KIAA0748	0.439	-0.010	0.592	0.227
cg03719283	yellow	4	156,587,884 1stExon	N_Shore	GUCY1A3	0.439	0.005	0.067	0.489
cg16387254	yellow	1	231,472,287 TSS1500	N_Shore	C1orf124	0.439	0.012	0.320	0.197
cg20516364	yellow	11	873,680 Body	OpenSea	CHID1	0.439	0.014	0.522	0.064
cg10211776	yellow	8	37,744,077 Body	OpenSea	RAB11FIP1	0.439	0.001	0.937	0.815
cg24864399	yellow	5	26,669,610	Island		0.439	0.004	0.876	0.443
cg07292606	yellow	2	71,218,823 Body	N_Shelf	TEX261	0.439	0.001	0.930	0.901
cg11858733	yellow	12	49,488,898 TSS1500	S_Shore	DHH	0.439	0.009	0.651	0.250
cg11592497	yellow	17	40,273,580 TSS200	N_Shore	KAT2A	0.439	0.000	0.050	0.978
cg05915139	yellow	12	123,582,277 5'UTR	OpenSea	PITPNM2	0.439	0.008	0.405	0.114
cg13453139	yellow	17	8,815,262 5'UTR	OpenSea	PIK3R5	0.439	0.008	0.825	0.302
cg17440248	yellow	1	207,842,303 Body	N_Shore	CR1L	0.439	0.000	0.698	0.968
cg05888643	yellow	11	64,140,424	S_Shelf		0.439	-0.002	0.930	0.764
cg07681748	yellow	3	112,053,517 Body	S_Shore	CD200	0.439	0.008	0.335	0.726
cg05800339	yellow	16	75,142,026 3'UTR	OpenSea	ZNRF1	0.439	0.014	0.622	0.123
cg10962754	yellow	1	1,117,625 Body	S_Shore	TLL10	0.439	0.001	0.861	0.829
cg04899681	yellow	16	5,084,545 TSS1500	S_Shore	NAGPA	0.439	0.003	0.575	0.815
cg21825397	yellow	20	61,335,539	OpenSea		0.439	0.017	0.596	0.024
cg26486441	yellow	16	1,255,459 Body	S_Shore	CACNA1H	0.439	0.010	0.752	0.066
cg05973398	yellow	21	36,420,164 Body	OpenSea	RUNX1	0.439	0.020	0.607	0.012
cg07572770	yellow	1	146,713,916 TSS1500	N_Shore	CHD1L	0.439	-0.002	0.367	0.880
cg20940675	yellow	1	229,714,785	OpenSea		0.439	0.006	0.462	0.456
cg15000813	yellow	8	17,454,394 Body	OpenSea	PDGFRL	0.439	0.011	0.622	0.467
cg09966847	yellow	14	77,943,678 Body	S_Shore	ISM2	0.439	-0.003	0.737	0.627
cg22706157	yellow	15	65,055,403 TSS1500	OpenSea	MIR1272	0.439	0.002	0.896	0.799
cg10988628	yellow	10	135,160,697 TSS200	OpenSea	PRAP1	0.439	0.008	0.360	0.401
cg14632941	yellow	4	42,156,182 TSS1500	S_Shore	BEND4	0.439	-0.004	0.170	0.675
cg27542422	yellow	12	122,884,354 5'UTR	OpenSea	CLIP1	0.439	-0.001	0.297	0.917
cg03587042	yellow	10	18,689,035 Body	OpenSea	CACNB2	0.439	0.009	0.919	0.228
cg13609797	yellow	12	132,106,033	OpenSea		0.439	-0.005	0.623	0.589
cg18892096	yellow	1	21,751,349	N_Shelf		0.439	0.003	0.489	0.562
cg16079312	yellow	11	3,016,476	S_Shelf		0.439	0.003	0.915	0.467
cg14962032	yellow	2	202,122,669 5'UTR	OpenSea	CASP8	0.439	0.016	0.265	0.205
cg10890346	yellow	11	2,207,660	OpenSea		0.439	0.008	0.547	0.177
cg02415431	yellow	22	23,923,255 TSS1500	OpenSea	IGLL1	0.438	0.011	0.647	0.062
cg03745493	yellow	18	9,380,358 Body	OpenSea	TWSG1	0.438	0.015	0.475	0.155
cg08806779	yellow	16	86,965,605	S_Shore		0.438	0.006	0.438	0.483
cg13804377	yellow	1	2,561,122 5'UTR	S_Shore	MMEL1	0.438	0.014	0.674	0.115
cg08659707	yellow	2	20,527,677 TSS1500	OpenSea	PUM2	0.438	0.006	0.945	0.172
cg27101602	yellow	12	124,090,996 Body	S_Shelf	DDX55	0.438	-0.003	0.973	0.098
cg03113871	yellow	22	31,317,787 TSS1500	N_Shore	C22orf27	0.438	0.017	0.154	0.199
cg05726002	yellow	12	115,341,178	OpenSea		0.438	-0.005	0.477	0.687
cg22614759	yellow	12	15,113,093 5'UTR	OpenSea	ARHGDI1	0.438	0.001	0.922	0.879
cg06906555	yellow	1	205,011,906 TSS1500	OpenSea	CNTN2	0.438	0.008	0.349	0.194
cg01190484	yellow	6	30,104,593 1stExon	OpenSea	TRIM40	0.438	-0.011	0.643	0.288
cg09973676	yellow	8	82,006,417 5'UTR	OpenSea	PAG1	0.438	-0.001	0.816	0.896
cg09305883	yellow	16	51,684,945	OpenSea		0.438	0.016	0.632	0.144
cg08768472	yellow	16	85,689,701 Body	OpenSea	KIAA0182	0.438	-0.001	0.885	0.844
cg24497912	yellow	6	108,509,675 3'UTR	OpenSea	NR2E1	0.438	-0.012	0.511	0.182
cg05979484	yellow	7	55,432,630 TSS1500	N_Shore	LANCL2	0.438	0.018	0.145	0.327
cg12711755	yellow	15	41,779,622	S_Shore		0.438	0.003	0.717	0.792
cg16325482	yellow	17	76,989,499 3'UTR	N_Shore	CANT1	0.438	0.010	0.189	0.363
cg20140054	yellow	11	62,445,776 Body	N_Shore	UBXN1	0.438	0.009	0.264	0.327
cg01919768	yellow	7	100,239,764 TSS1500	OpenSea	TFR2	0.438	0.006	0.465	0.551
cg25125340	yellow	12	131,172,703	S_Shore		0.438	0.001	0.854	0.855
cg15112536	yellow	2	484,879	OpenSea		0.438	0.000	0.918	0.957
cg24791188	yellow	19	17,877,419 Body	N_Shore	FCHO1	0.438	0.002	0.292	0.815
cg06425868	yellow	20	44,463,228 Body	S_Shore	SNX21	0.438	-0.005	0.195	0.377
cg00162344	yellow	4	8,583,937 Body	S_Shore	GPR78	0.438	0.005	0.407	0.414
cg21431091	yellow	1	201,124,025 TSS1500	S_Shore	TMEM9	0.438	0.017	0.129	0.094
cg06136432	yellow	17	63,530,161 Body	N_Shelf	AXIN2	0.438	-0.002	0.756	0.831
cg12423123	yellow	15	40,545,511 5'UTR	Island	PAK6	0.438	-0.009	0.139	0.229
cg24757978	yellow	3	69,003,455	OpenSea		0.438	0.009	0.205	0.141

cg05304806	yellow	14	89,030,280	5'UTR	S_Shore	ZC3H14	0.438	0.006	0.226	0.643
cg19671694	yellow	20	60,971,696	Body	Island	CABLES2	0.438	-0.005	0.840	0.404
cg26927939	yellow	4	170,679,646	TSS1500	S_Shore	C4orf27	0.438	-0.005	0.589	0.732
cg01586609	yellow	11	113,846,937	Body	OpenSea	HTR3A	0.438	-0.003	0.491	0.782
cg09064061	yellow	1	1,336,592	Body	S_Shore	LOC148413	0.438	0.003	0.686	0.678
cg04910752	yellow	1	1,267,117	Body	Island	TAS1R3	0.438	-0.004	0.688	0.518
cg00089864	yellow	15	65,055,305	TSS1500	OpenSea	MIR1272	0.438	0.000	0.861	0.999
cg25076039	yellow	5	169,128,937	Body	OpenSea	DOCK2	0.438	-0.005	0.162	0.620
cg04513227	yellow	19	33,571,656	TSS200	N_Shore	GPATCH1	0.438	-0.006	0.189	0.475
cg27576694	yellow	7	106,372,161		OpenSea		0.438	-0.003	0.677	0.811
cg17068070	yellow	7	139,227,165	Body	OpenSea	CLEC2L	0.438	-0.002	0.834	0.800
cg17401067	yellow	22	41,840,292	5'UTR	N_Shelf	TOB2	0.438	0.010	0.074	0.065
cg25653165	yellow	5	179,569,548	5'UTR	OpenSea	RASGEF1C	0.438	-0.004	0.500	0.560
cg21731286	yellow	1	19,186,805	TSS1500	OpenSea	TAS1R2	0.438	0.005	0.836	0.480
cg05795924	yellow	2	99,193,553	Body	OpenSea	INPP4A	0.438	-0.001	0.818	0.875
cg08329753	yellow	6	30,876,844	Body	S_Shore	GTF2H4	0.438	0.010	0.455	0.170
cg21776577	yellow	1	180,811,774	Body	OpenSea	XPR1	0.438	0.009	0.327	0.436
cg08926253	yellow	11	614,761	Body	Island	IRF7	0.438	-0.003	0.785	0.836
cg27274382	yellow	11	76,376,064	Body	OpenSea	LRRC32	0.438	-0.007	0.671	0.206
cg17071731	yellow	3	11,127,293		OpenSea		0.438	-0.001	0.648	0.857
cg23520757	yellow	6	24,878,831	5'UTR	OpenSea	FAM65B	0.438	-0.001	0.897	0.957
cg23184226	yellow	7	97,880,563	5'UTR	N_Shore	TECPR1	0.438	0.011	0.491	0.311
cg01882930	yellow	22	39,713,008	Body	N_Shelf	RPL3	0.437	0.005	0.834	0.732
cg19015997	yellow	7	12,611,607	Body	S_Shore	SCIN	0.437	0.006	0.575	0.387
cg07533951	yellow	12	114,879,558		S_Shore		0.437	0.000	0.405	0.984
cg02190742	yellow	17	61,771,264	3'UTR	OpenSea	MAP3K3	0.437	0.005	0.871	0.241
cg19688837	yellow	1	3,644,801	Body	OpenSea	TP73	0.437	0.008	0.560	0.179
cg14880079	yellow	3	194,120,150	TSS200	S_Shore	GP5	0.437	0.003	0.617	0.734
cg04162885	yellow	19	52,848,664	5'UTR	OpenSea	ZNF610	0.437	0.003	0.886	0.787
cg19717150	yellow	20	42,984,878	Body	OpenSea	HNF4A	0.437	-0.004	0.470	0.554
cg11683482	yellow	1	44,678,623	TSS1500	N_Shore	DMAP1	0.437	-0.003	0.758	0.692
cg25498514	yellow	11	3,190,676		S_Shelf		0.437	-0.002	0.048	0.663
cg12210305	yellow	2	85,876,314	3'UTR	OpenSea	USP39	0.437	0.000	0.963	0.900
cg11062848	yellow	6	13,616,537	Body	S_Shore	NOL7	0.437	-0.018	0.515	0.147
cg07886195	yellow	19	11,263,615	Body	N_Shelf	SPC24	0.437	0.021	0.551	0.119
cg14796305	yellow	1	46,632,581		N_Shore		0.437	-0.003	0.118	0.677
cg23675930	yellow	1	26,054,700	Body	OpenSea	MAN1C1	0.437	0.003	0.393	0.613
cg00404394	yellow	1	27,960,150	5'UTR	N_Shore	FGR	0.437	0.009	0.668	0.123
cg20471562	yellow	2	98,993,730	Body	OpenSea	CNGA3	0.437	0.013	0.741	0.459
cg02800747	yellow	17	77,047,094		S_Shelf		0.437	0.007	0.791	0.224
cg21776993	yellow	19	1,449,424	TSS1500	N_Shore	APC2	0.437	0.001	0.509	0.888
cg20653144	yellow	17	72,964,319	Body	N_Shelf	C17orf28	0.437	0.004	0.520	0.573
cg09459581	yellow	2	173,685,275	Body	OpenSea	RAPGEF4	0.437	0.006	0.344	0.500
cg02887254	yellow	13	61,165,504		OpenSea		0.437	-0.012	0.737	0.463
cg17240135	yellow	2	112,898,493	Body	S_Shore	FBLN7	0.437	0.041	0.534	0.006
cg00100804	yellow	9	123,836,087		N_Shore		0.437	-0.003	0.693	0.812
cg21827481	yellow	13	21,440,627	Body	OpenSea	XPO4	0.437	-0.033	0.563	0.086
cg00494710	yellow	2	27,633,183	TSS1500	S_Shore	PPM1G	0.437	0.001	0.908	0.819
cg01989224	yellow	15	23,932,758	TSS1500	S_Shore	NDN	0.437	0.007	0.517	0.458
cg27325224	yellow	16	87,946,544	Body	N_Shore	CA5A	0.437	0.012	0.894	0.087
cg14392031	yellow	9	107,526,202	TSS1500	Island	NIPSNAP3B	0.437	-0.007	0.129	0.586
cg23705979	yellow	7	92,397,161	Body	OpenSea	CDK6	0.437	0.024	0.657	0.098
cg27654966	yellow	7	101,558,400	Body	N_Shore	CUX1	0.437	0.005	0.587	0.515
cg04320760	yellow	10	75,533,139	Body	S_Shore	FUT11	0.437	-0.001	0.064	0.921
cg07443287	yellow	12	1,739,687	5'UTR	Island	WNT5B	0.437	0.004	0.034	0.112
cg27331471	yellow	19	45,809,725	3'UTR	S_Shelf	CKM	0.437	0.013	0.207	0.169
cg04284321	yellow	1	68,141,209		OpenSea		0.437	0.000	0.532	0.963
cg01506917	yellow	6	42,417,086	5'UTR	N_Shelf	TRERF1	0.437	0.002	0.431	0.717
cg12483930	yellow	1	990,341	Body	Island	AGRN	0.437	0.003	0.910	0.548
cg22171607	yellow	1	8,137,564		OpenSea		0.437	0.006	0.491	0.599
cg25745642	yellow	1	155,050,609	TSS1500	N_Shore	EFNA3	0.437	0.010	0.352	0.249
cg01626885	yellow	15	45,937,757	5'UTR	OpenSea	SQRDL	0.437	0.006	0.594	0.353
cg05658811	yellow	11	62,066,606	TSS200	OpenSea	SCGB1D4	0.437	-0.007	0.539	0.398
cg20938708	yellow	17	73,679,983	Body	OpenSea	SAP30BP	0.437	0.000	0.976	0.930
cg19840494	yellow	14	89,606,221		OpenSea		0.437	-0.001	0.706	0.867
cg17052816	yellow	6	71,377,145	TSS1500	N_Shore	SMAP1	0.437	0.000	0.141	0.971
cg20871964	yellow	2	234,844,925	Body	N_Shelf	TRPM8	0.437	-0.002	0.891	0.848

cg10710412	yellow	19	51,876,030	TSS200	OpenSea	NKG7	0.437	0.003	0.113	0.734
cg19848895	yellow	19	36,226,397	Body	N_Shelf	MLL4	0.437	0.005	0.840	0.476
cg11280858	yellow	12	322,214	5'UTR	OpenSea	SLC6A12	0.437	-0.001	0.279	0.768
cg14479136	yellow	9	139,222,701	Body	OpenSea	GPSP1	0.437	-0.004	0.081	0.435
cg11443683	yellow	10	134,106,565	Body	OpenSea	STK32C	0.436	-0.001	0.585	0.953
cg02980127	yellow	14	105,105,198		N_Shore		0.436	0.013	0.630	0.062
cg24355006	yellow	19	1,969,744	5'UTR	Island	CSNK1G2	0.436	0.004	0.885	0.486
cg13187188	yellow	11	67,219,859	1stExon	OpenSea	GPR152	0.436	0.001	0.749	0.811
cg04265326	yellow	6	144,415,493		N_Shore		0.436	0.012	0.867	0.187
cg03038685	yellow	3	197,281,468	5'UTR	N_Shore	BDH1	0.436	-0.001	0.072	0.840
cg22895969	yellow	10	133,144,952		S_Shelf		0.436	-0.001	0.316	0.909
cg07226317	yellow	12	52,976,095		OpenSea		0.436	0.004	0.883	0.638
cg26240939	yellow	16	20,913,414	5'UTR	S_Shore	LYRM1	0.436	0.006	0.502	0.475
cg16560679	yellow	7	100,276,684	3'UTR	S_Shelf	GNB2	0.436	0.000	0.843	0.970
cg17849128	yellow	6	150,362,502		S_Shelf		0.436	0.014	0.622	0.074
cg04205655	yellow	16	67,965,756	5'UTR	N_Shelf	CTRL	0.436	0.013	0.846	0.006
cg02494117	yellow	9	130,965,474	TSS200	Island	DNM1	0.436	0.001	0.097	0.854
cg22373508	yellow	12	133,196,647	Body	S_Shore	P2RX2	0.436	0.004	0.588	0.628
cg13073564	yellow	4	8,508,604		OpenSea		0.436	-0.009	0.250	0.505
cg01069738	yellow	3	139,236,278	3'UTR	OpenSea	RBP1	0.436	-0.001	0.560	0.956
cg07335915	yellow	16	86,528,332		Island		0.436	0.000	0.587	0.946
cg26612418	yellow	1	5,539,958		OpenSea		0.436	0.003	0.816	0.632
cg01221746	yellow	7	5,413,105	Body	N_Shore	TNRC18	0.436	0.004	0.926	0.430
cg15130459	yellow	5	40,834,228	TSS1500	N_Shore	SNORD72	0.436	-0.006	0.290	0.661
cg21048700	yellow	2	189,762,162		OpenSea		0.436	0.019	0.469	0.157
cg02872930	yellow	19	45,649,752		S_Shore		0.436	0.013	0.661	0.239
cg02973993	yellow	20	31,332,994	TSS1500	S_Shore	COMMD7	0.436	0.003	0.608	0.723
cg13027206	yellow	14	91,866,325	Body	OpenSea	CCDC88C	0.436	0.001	0.932	0.909
cg09835085	yellow	2	223,916,592	TSS1500	N_Shore	KCNE4	0.436	0.002	0.346	0.908
cg14557216	yellow	9	34,461,659	Body	S_Shelf	DNAI1	0.436	0.003	0.330	0.639
cg15783064	yellow	12	31,811,887	TSS1500	OpenSea	C12orf72	0.436	0.003	0.031	0.145
cg07525267	yellow	5	1,016,356	Body	OpenSea	NKD2	0.436	0.017	0.684	0.105
cg10769989	yellow	19	54,106,888	TSS200	OpenSea	LOC284379	0.436	0.005	0.872	0.374
cg06574679	yellow	16	85,828,474	Body	N_Shelf	COX4NB	0.436	-0.006	0.890	0.527
cg23644589	yellow	1	228,404,256	Body	Island	OBSCN	0.436	0.009	0.649	0.304
cg00748718	yellow	3	53,283,691	Body	OpenSea	TKT	0.436	0.001	0.434	0.779
cg22689249	yellow	6	10,555,262	TSS1500	OpenSea	GCNT2	0.436	0.004	0.732	0.568
cg22233020	yellow	19	1,926,143		S_Shore		0.436	-0.002	0.847	0.726
cg08160246	yellow	11	2,709,914	Body	OpenSea	KCNQ1	0.436	-0.003	0.662	0.687
cg19817767	yellow	12	117,147,165		OpenSea		0.436	0.000	0.102	0.938
cg09833350	yellow	13	115,050,921	Body	S_Shelf	UPF3A	0.436	0.002	0.955	0.573
cg17423032	yellow	5	31,755,265		OpenSea		0.436	0.005	0.917	0.459
cg22084410	yellow	3	51,987,688		N_Shelf		0.436	0.004	0.411	0.537
cg04849470	yellow	8	145,615,932	Body	N_Shore	ADCK5	0.435	0.005	0.880	0.537
cg03602898	yellow	1	223,255,040		Island		0.435	0.001	0.074	0.785
cg02346442	yellow	3	186,194,046		OpenSea		0.435	0.012	0.328	0.259
cg16567815	yellow	5	1,386,887		S_Shore		0.435	-0.001	0.192	0.941
cg13941235	yellow	9	137,270,186	Body	OpenSea	RXRA	0.435	-0.001	0.644	0.969
cg16555388	yellow	3	172,241,216	5'UTR	OpenSea	TNFSF10	0.435	0.002	0.288	0.814
cg02459936	yellow	16	1,830,075	Body	N_Shore	SPSB3	0.435	0.002	0.880	0.689
cg18351781	yellow	19	4,950,888	Body	Island	UHRF1	0.435	0.006	0.946	0.157
cg15571405	yellow	7	130,796,167	5'UTR	S_Shore	MKLN1	0.435	0.009	0.109	0.309
cg01595746	yellow	6	1,190,953		OpenSea		0.435	-0.010	0.556	0.270
cg13070366	yellow	11	9,386,451		S_Shore		0.435	0.016	0.572	0.516
cg04369903	yellow	2	100,863,404		OpenSea		0.435	0.010	0.166	0.373
cg01462036	yellow	16	2,025,868	Body	S_Shore	TBL3	0.435	0.003	0.849	0.548
cg17217654	yellow	3	49,058,043	5'UTR	N_Shore	DALRD3	0.435	0.001	0.037	0.505
cg22159049	yellow	19	58,519,846		N_Shore		0.435	0.002	0.884	0.769
cg06100166	yellow	3	49,377,028	Body	N_Shore	USP4	0.435	0.014	0.205	0.042
cg11326429	yellow	17	79,827,632	Body	Island	ARHGDI	0.435	-0.018	0.390	0.070
cg22959409	yellow	3	196,383,704	Body	N_Shelf	LRRC33	0.435	0.003	0.692	0.741
cg15009088	yellow	11	77,448,078	Body	S_Shore	RSF1	0.435	0.001	0.976	0.671
cg23617760	yellow	16	84,681,507	TSS1500	N_Shore	KLHL36	0.435	0.006	0.716	0.443
cg25657834	yellow	2	11,810,365	TSS200	Island	NTSR2	0.435	-0.006	0.060	0.183
cg11849703	yellow	5	176,523,356	Body	S_Shelf	FGFR4	0.435	0.009	0.596	0.182
cg04983151	yellow	2	202,483,704	1stExon	Island	ALS2CR11	0.435	-0.005	0.951	0.370
cg16523148	yellow	11	64,901,065	Body	N_Shore	SYVN1	0.435	0.011	0.281	0.377



cg15561305	yellow	15	97,311,973	OpenSea		0.435	0.013	0.550	0.149
cg02400458	yellow	15	80,624,605	OpenSea		0.435	0.007	0.847	0.268
cg26655856	yellow	16	88,977,887 5'UTR	S_Shore	CBFA2T3	0.435	-0.002	0.356	0.620
cg24364723	yellow	1	22,838,414 Body	OpenSea	ZBTB40	0.435	0.006	0.863	0.339
cg20917241	yellow	13	110,852,526 Body	OpenSea	COL4A1	0.435	0.014	0.862	0.596
cg01031312	yellow	3	195,849,513	OpenSea		0.435	0.001	0.981	0.649
cg21536042	yellow	8	101,170,031 TSS1500	N_Shore	SPAG1	0.435	-0.002	0.117	0.771
cg03822754	yellow	15	85,201,913 TSS200	S_Shore	NMB	0.435	-0.002	0.131	0.845
cg12486944	yellow	17	80,159,399 Body	OpenSea	CCDC57	0.435	0.011	0.842	0.523
cg26116937	yellow	10	531,152 Body	S_Shore	DIP2C	0.435	0.005	0.763	0.716
cg01329789	yellow	2	219,157,515 TSS1500	S_Shore	TMBIM1	0.435	-0.004	0.361	0.763
cg23226688	yellow	1	235,256,497	OpenSea		0.435	0.002	0.467	0.702
cg25886719	yellow	11	33,796,235 TSS200	Island	FBXO3	0.435	-0.012	0.089	0.179
cg19969694	yellow	15	41,185,800 TSS1500	N_Shore	VPS18	0.435	-0.001	0.663	0.921
cg11217218	yellow	17	79,521,061	S_Shore		0.435	-0.005	0.547	0.559
cg17205928	yellow	13	25,746,297 TSS1500	S_Shore	FAM123A	0.435	0.008	0.313	0.106
cg04548463	yellow	3	12,837,740 TSS1500	N_Shore	CAND2	0.434	0.005	0.467	0.565
cg17033684	yellow	17	6,588,356 3'UTR	OpenSea	SLC13A5	0.434	-0.002	0.639	0.791
cg09324735	yellow	11	1,327,106 Body	N_Shelf	TOLLIP	0.434	-0.001	0.973	0.463
cg04717699	yellow	1	200,343,899	OpenSea		0.434	-0.005	0.255	0.558
cg05871582	yellow	8	648,014 Body	N_Shelf	ERICH1	0.434	0.003	0.861	0.786
cg07062658	yellow	20	62,290,499 5'UTR	S_Shore	RTTEL1	0.434	-0.003	0.195	0.645
cg03315557	yellow	4	24,471,294	N_Shore		0.434	-0.005	0.152	0.640
cg04115702	yellow	17	77,386,380 5'UTR	OpenSea	HRNBP3	0.434	0.003	0.835	0.688
cg00855466	yellow	17	19,652,056 TSS1500	S_Shelf	ALDH3A1	0.434	0.017	0.327	0.027
cg07972459	yellow	14	66,701,423	OpenSea		0.434	0.004	0.615	0.623
cg03405560	yellow	16	31,884,740 TSS1500	N_Shore	ZNF267	0.434	0.020	0.371	0.320
cg03567148	yellow	19	59,093,025 Body	Island	MGC2752	0.434	0.010	0.777	0.221
cg10762466	yellow	19	45,347,693	N_Shore		0.434	0.003	0.232	0.752
cg07336872	yellow	6	150,393,535	S_Shelf		0.434	0.003	0.590	0.725
cg02085119	yellow	8	120,219,902 TSS1500	N_Shore	MAL2	0.434	0.017	0.548	0.178
cg14245228	yellow	9	135,619,345 Body	OpenSea	C9orf98	0.434	0.011	0.528	0.206
cg26892415	yellow	5	5,155,797 Body	OpenSea	ADAMTS16	0.434	0.002	0.805	0.822
cg00572966	yellow	7	21,410,396	OpenSea		0.434	-0.008	0.588	0.461
cg12931620	yellow	2	237,125,130 Body	S_Shore	ASB18	0.434	0.000	0.655	0.973
cg23309595	yellow	19	306,192 3'UTR	N_Shore	MIER2	0.434	0.001	0.936	0.864
cg09436420	yellow	3	169,684,239 Body	N_Shore	LOC10012811	0.434	0.009	0.161	0.438
cg01983504	yellow	20	3,897,997 Body	OpenSea	PANK2	0.434	0.000	0.891	0.969
cg26461944	yellow	11	368,638 TSS1500	OpenSea	B4GALNT4	0.434	-0.011	0.078	0.096
cg15882566	yellow	15	43,503,034 Body	OpenSea	EPB42	0.434	-0.010	0.679	0.099
cg09799873	yellow	19	8,385,500 Body	N_Shore	NDUFA7	0.434	0.014	0.105	0.212
cg25242004	yellow	8	67,941,077 TSS1500	S_Shore	LRRC67	0.434	0.001	0.030	0.400
cg04536844	yellow	7	155,724,260	OpenSea		0.434	0.007	0.585	0.387
cg05798501	yellow	7	30,492,171 Body	OpenSea	NOD1	0.434	0.001	0.603	0.818
cg23465650	yellow	5	158,522,899 Body	N_Shore	EBF1	0.434	0.001	0.629	0.917
cg10784519	yellow	6	30,737,231	OpenSea		0.434	-0.001	0.386	0.917
cg05878786	yellow	2	192,701,329 Body	OpenSea	SDPR	0.434	-0.008	0.812	0.281
cg22675956	yellow	5	171,882,060 TSS1500	S_Shore	SH3PXD2B	0.434	0.006	0.184	0.440
cg04152616	yellow	16	88,479,315	OpenSea		0.434	0.008	0.563	0.367
cg02594345	yellow	10	133,956,183 Body	S_Shore	JAKMIP3	0.434	-0.001	0.129	0.939
cg13761843	yellow	9	130,578,846 Body	OpenSea	ENG	0.434	0.001	0.342	0.917
cg12941369	yellow	3	33,839,389 TSS1500	N_Shore	PDCD6IP	0.434	0.002	0.239	0.859
cg24362829	yellow	1	178,455,607	N_Shore		0.434	0.004	0.746	0.647
cg13241659	yellow	12	132,105,972	OpenSea		0.434	0.003	0.505	0.743
cg08544453	yellow	1	11,361,900	OpenSea		0.434	0.009	0.688	0.224
cg08603911	yellow	16	66,914,113 TSS1500	N_Shore	PDP2	0.434	0.006	0.107	0.402
cg08398371	yellow	19	41,814,839 TSS1500	N_Shore	CCDC97	0.434	0.004	0.732	0.720
cg17332638	yellow	2	70,529,497 TSS1500	S_Shore	FAM136A	0.433	0.009	0.716	0.286
cg01505275	yellow	11	4,628,823 5'UTR	N_Shore	TRIM68	0.433	0.005	0.198	0.743
cg15726700	yellow	3	196,370,254 5'UTR	S_Shelf	LRRC33	0.433	-0.004	0.887	0.513
cg12069042	yellow	3	48,466,700 5'UTR	N_Shelf	PLXNB1	0.433	0.007	0.361	0.227
cg19149693	yellow	3	114,599,007 5'UTR	OpenSea	ZBTB20	0.433	-0.018	0.339	0.166
cg00095396	yellow	16	87,722,219 Body	N_Shore	JPH3	0.433	0.003	0.835	0.495
cg00475131	yellow	19	41,117,096 Body	N_Shore	LTBP4	0.433	-0.004	0.701	0.616
cg24229707	yellow	19	1,399,166 Body	Island	GAMT	0.433	0.012	0.721	0.053
cg18594674	yellow	6	149,781,248 Body	S_Shelf	ZC3H12D	0.433	-0.006	0.870	0.666
cg21082868	yellow	6	22,828,849	OpenSea		0.433	0.003	0.179	0.735

cg24249248	yellow	7	150,434,541	1stExon	OpenSea	GIMAP5	0.433	0.022	0.399	0.023
cg25006521	yellow	17	72,932,588	Body	Island	OTOP3	0.433	-0.002	0.046	0.555
cg04786889	yellow	7	990,150	Body	N_Shelf	ADAP1	0.433	0.004	0.950	0.327
cg05304507	yellow	6	116,381,966	TSS200	OpenSea	FRK	0.433	0.032	0.318	0.173
cg18121981	yellow	8	49,838,557		S_Shelf		0.433	0.010	0.248	0.310
cg21230503	yellow	5	139,085,173		N_Shelf		0.433	-0.002	0.609	0.823
cg11967592	yellow	7	28,725,406	Body	OpenSea	CREB5	0.433	0.002	0.031	0.218
cg24789335	yellow	8	144,400,067	Body	Island	TOP1MT	0.433	-0.001	0.709	0.880
cg07902673	yellow	1	87,793,396	TSS1500	N_Shore	LMO4	0.433	-0.004	0.398	0.660
cg21831836	yellow	11	107,819,630	Body	OpenSea	RAB39	0.433	0.001	0.979	0.420
cg20410995	yellow	1	89,664,545	1stExon	OpenSea	GBP4	0.433	0.029	0.224	0.096
cg16497413	yellow	12	109,992,779	3'UTR	OpenSea	MMAB	0.433	0.018	0.562	0.019
cg00341522	yellow	2	237,981,972		OpenSea		0.433	0.002	0.768	0.884
cg21863499	yellow	1	27,113,640	TSS1500	N_Shore	PIGV	0.433	0.001	0.016	0.458
cg10191494	yellow	11	119,181,669	Body	Island	MCAM	0.433	0.000	0.638	0.976
cg23076476	yellow	11	26,353,484	TSS200	N_Shore	ANO3	0.433	-0.001	0.103	0.876
cg04116858	yellow	1	159,895,664	TSS1500	S_Shore	TAGLN2	0.433	0.001	0.014	0.236
cg00299767	yellow	14	21,560,917	Body	Island	ZNF219	0.433	0.013	0.241	0.161
cg14189049	yellow	15	89,909,748	TSS1500	N_Shore	MIR9-3	0.433	0.003	0.178	0.807
cg12323265	yellow	5	1,834,415		OpenSea		0.433	0.007	0.815	0.214
cg02354828	yellow	10	73,081,338	Body	S_Shelf	SLC29A3	0.433	-0.001	0.886	0.814
cg18758281	yellow	2	161,808,953		OpenSea		0.433	0.007	0.467	0.518
cg02177648	yellow	6	31,744,918	1stExon	OpenSea	C6orf27	0.433	0.012	0.267	0.317
cg11310716	yellow	6	32,260,812	Body	OpenSea	C6orf10	0.433	0.003	0.954	0.344
cg00761242	yellow	7	5,254,009	1stExon	OpenSea	WIPI2	0.433	0.007	0.903	0.290
cg20582779	yellow	1	222,721,375	1stExon	OpenSea	HHIPL2	0.433	0.006	0.456	0.173
cg25722983	yellow	1	36,840,028	5'UTR	OpenSea	STK40	0.433	0.009	0.589	0.184
cg06787004	yellow	22	19,938,981	5'UTR	OpenSea	COMT	0.433	0.011	0.815	0.370
cg11357862	yellow	2	201,681,735	Body	OpenSea	BZW1	0.433	0.006	0.890	0.485
cg21198586	yellow	11	12,791,832	Body	OpenSea	TEAD1	0.432	-0.002	0.465	0.795
cg27413290	yellow	8	144,552,725	Body	Island	ZC3H3	0.432	-0.002	0.626	0.832
cg22126965	yellow	7	1,015,501	TSS1500	S_Shore	COX19	0.432	-0.005	0.652	0.796
cg04149370	yellow	19	56,122,534		N_Shelf		0.432	-0.003	0.806	0.731
cg24271203	yellow	12	122,658,897	TSS200	OpenSea	IL31	0.432	-0.001	0.785	0.866
cg22313497	yellow	16	730,927	Body	Island	STUB1	0.432	0.000	0.027	0.985
cg26478401	yellow	10	90,749,920	TSS1500	N_Shore	FAS	0.432	0.014	0.342	0.184
cg24707294	yellow	12	4,698,119	TSS1500	OpenSea	DYRK4	0.432	0.002	0.963	0.687
cg08578317	yellow	2	240,724,176		OpenSea		0.432	-0.005	0.530	0.535
cg09359933	yellow	19	4,670,669	TSS1500	S_Shore	C19orf10	0.432	-0.003	0.109	0.637
cg03184588	yellow	12	31,480,300	TSS1500	S_Shore	FAM60A	0.432	0.002	0.161	0.825
cg03178042	yellow	16	68,544,012		Island		0.432	0.000	0.339	0.999
cg19716930	yellow	17	79,826,898	Body	Island	ARHGDI A	0.432	0.009	0.518	0.204
cg24000937	yellow	19	475,139	TSS200	OpenSea	ODF3L2	0.432	0.001	0.842	0.877
cg09185884	yellow	17	73,056,145	Body	OpenSea	KCTD2	0.432	-0.011	0.334	0.279
cg05910443	yellow	7	101,688,675	Body	OpenSea	CUX1	0.432	0.005	0.038	0.209
cg27316369	yellow	17	79,799,376		Island		0.432	0.005	0.718	0.521
cg13951223	yellow	1	6,011,309	Body	OpenSea	NPHP4	0.432	-0.003	0.930	0.562
cg15661473	yellow	19	45,656,123	Body	Island	NKPD1	0.432	-0.002	0.072	0.796
cg22636631	yellow	5	79,334,767	Body	S_Shelf	THBS4	0.432	0.000	0.954	0.957
cg10290868	yellow	22	50,947,305	Body	S_Shore	NCAPH2	0.432	0.002	0.046	0.531
cg26759179	yellow	10	121,125,566	Body	OpenSea	GRK5	0.432	-0.002	0.486	0.783
cg17899476	yellow	19	39,967,276	3'UTR	OpenSea	SUPT5H	0.432	0.011	0.819	0.096
cg11944284	yellow	11	2,904,663	3'UTR	N_Shore	CDKN1C	0.432	0.013	0.400	0.058
cg22753768	yellow	3	52,443,424	Body	N_Shore	BAP1	0.432	0.002	0.215	0.806
cg07088513	yellow	3	48,232,722		S_Shelf		0.432	0.003	0.929	0.606
cg21773820	yellow	8	96,497,618		OpenSea		0.432	-0.003	0.536	0.815
cg13555772	yellow	11	705,748	TSS1500	N_Shore	EPS8L2	0.432	0.004	0.398	0.575
cg04218745	yellow	16	85,878,940		Island		0.432	0.021	0.304	0.104
cg00392156	yellow	4	647,194	5'UTR	Island	PDE6B	0.432	0.011	0.681	0.135
cg14633704	yellow	9	99,065,350	TSS1500	OpenSea	HSD17B3	0.432	0.014	0.675	0.166
cg00793562	yellow	16	89,114,089		N_Shore		0.432	0.001	0.536	0.849
cg13665060	yellow	2	106,959,501		Island		0.432	0.002	0.947	0.563
cg02637512	yellow	5	137,476,322	Body	OpenSea	BRD8	0.432	0.023	0.391	0.006
cg00804043	yellow	17	8,771,331	TSS1500	OpenSea	PIK3R6	0.432	0.001	0.623	0.889
cg22216643	yellow	17	74,704,158	Body	N_Shelf	MXRA7	0.432	0.008	0.434	0.204
cg14437725	yellow	9	137,787,387		OpenSea		0.432	0.002	0.539	0.845
cg16468388	yellow	8	143,055,526		S_Shore		0.432	0.010	0.866	0.175

cg21998840	yellow	7	2,212,030	Body	OpenSea	MAD1L1	0.432	0.007	0.643	0.542
cg03570083	yellow	10	75,932,679	Body	N_Shelf	ADK	0.431	0.000	0.969	0.885
cg10784110	yellow	1	1,173,356		N_Shore		0.431	-0.001	0.269	0.885
cg16772533	yellow	7	76,026,556	Body	N_Shore	SRCRB4D	0.431	0.000	0.827	0.971
cg08682153	yellow	5	139,223,811	3'UTR	N_Shelf	PSD2	0.431	0.011	0.805	0.406
cg01139031	yellow	7	44,622,423	TSS1500	S_Shore	TMED4	0.431	0.001	0.019	0.778
cg23768073	yellow	11	134,812,762		OpenSea		0.431	-0.015	0.240	0.247
cg11084508	yellow	11	66,075,223		N_Shelf		0.431	-0.013	0.818	0.055
cg14189551	yellow	2	131,910,265		OpenSea		0.431	0.007	0.882	0.261
cg05266786	yellow	10	49,742,271	Body	OpenSea	ARHGAP22	0.431	0.012	0.118	0.098
cg09755784	yellow	4	1,047,097		N_Shelf		0.431	0.013	0.287	0.291
cg04290427	yellow	5	137,581,267		S_Shelf		0.431	0.020	0.462	0.052
cg24833027	yellow	8	1,897,969	Body	S_Shelf	ARHGEF10	0.431	0.001	0.910	0.863
cg20925726	yellow	3	41,248,452	5'UTR	OpenSea	CTNNB1	0.431	0.004	0.901	0.705
cg22958104	yellow	20	42,984,347	TSS200	OpenSea	HNF4A	0.431	0.006	0.645	0.316
cg27024922	yellow	9	134,378,058	TSS1500	N_Shore	POMT1	0.431	0.004	0.049	0.283
cg13928102	yellow	5	76,360,050	3'UTR	OpenSea	AGGF1	0.431	0.003	0.934	0.613
cg18727095	yellow	19	11,348,738	Body	OpenSea	DOCK6	0.431	0.002	0.904	0.474
cg17969683	yellow	8	24,151,514	TSS200	OpenSea	ADAM28	0.431	0.012	0.814	0.114
cg00706570	yellow	18	74,692,116	3'UTR	S_Shore	MBP	0.431	0.002	0.820	0.851
cg11784191	yellow	19	56,170,509	Body	Island	U2AF2	0.431	0.002	0.890	0.695
cg20050828	yellow	12	131,303,094	Body	Island	STX2	0.431	0.013	0.720	0.146
cg17576736	yellow	13	112,908,450		OpenSea		0.431	-0.009	0.798	0.126
cg00607194	yellow	12	47,479,795		OpenSea		0.431	0.000	0.885	0.993
cg23230564	yellow	5	31,470,890	Body	OpenSea	RNASEN	0.431	0.013	0.760	0.610
cg02266236	yellow	5	159,418,468		S_Shelf		0.431	0.009	0.565	0.153
cg01874081	yellow	5	142,097,335		OpenSea		0.431	-0.008	0.113	0.444
cg11271593	yellow	19	50,000,860	Body	S_Shore	RPS11	0.431	-0.004	0.827	0.722
cg00666842	yellow	2	88,366,145	TSS1500	OpenSea	SMYD1	0.431	-0.001	0.642	0.906
cg11431126	yellow	1	228,870,709	TSS200	N_Shore	RHOU	0.431	0.000	0.034	0.915
cg21737444	yellow	22	38,071,591	TSS200	N_Shore	LGALS1	0.431	0.010	0.414	0.440
cg02543519	yellow	7	157,545,179	Body	OpenSea	PTPRN2	0.431	0.004	0.828	0.569
cg08694280	yellow	10	79,687,679	Body	S_Shore	LOC1001282	0.431	0.002	0.299	0.733
cg26192309	yellow	1	211,765,568		OpenSea		0.431	-0.008	0.799	0.413
cg26158150	yellow	8	10,448,863		OpenSea		0.431	0.006	0.482	0.297
cg14198472	yellow	1	40,942,646	TSS1500	N_Shore	ZNF642	0.431	0.011	0.083	0.279
cg09199598	yellow	17	3,461,480	TSS200	OpenSea	TRPV3	0.431	0.006	0.853	0.333
cg19498239	yellow	1	3,525,092	Body	N_Shelf	MEGF6	0.431	0.003	0.887	0.537
cg12927753	yellow	3	160,823,392	TSS1500	S_Shore	B3GALNT1	0.431	0.006	0.641	0.585
cg01244043	yellow	20	1,448,437	TSS200	S_Shore	NSFL1C	0.431	0.008	0.777	0.436
cg14009912	yellow	9	91,636,851	Body	OpenSea	SHC3	0.430	0.005	0.243	0.630
cg21665774	yellow	19	34,790,692	5'UTR	OpenSea	KIAA0355	0.430	-0.001	0.890	0.861
cg21441657	yellow	4	3,643,404		N_Shore		0.430	0.001	0.756	0.843
cg06393998	yellow	5	74,531,185	Body	N_Shore	ANKRD31	0.430	-0.002	0.948	0.675
cg13671374	yellow	6	31,106,045	Body	OpenSea	PSORS1C1	0.430	0.013	0.839	0.121
cg03939371	yellow	19	1,880,136	Body	Island	FAM108A1	0.430	0.001	0.864	0.887
cg02333730	yellow	17	12,199,913		OpenSea		0.430	0.000	0.365	0.987
cg18160135	yellow	4	99,851,115	5'UTR	S_Shore	EIF4E	0.430	0.011	0.708	0.442
cg07011538	yellow	2	47,497,026		N_Shelf		0.430	0.003	0.488	0.790
cg16359091	yellow	8	143,916,017	TSS200	N_Shore	GML	0.430	0.008	0.832	0.096
cg25135018	yellow	1	154,435,948	Body	OpenSea	IL6R	0.430	0.011	0.929	0.119
cg15505198	yellow	1	3,003,239	Body	S_Shelf	PRDM16	0.430	-0.003	0.538	0.772
cg21631433	yellow	3	51,704,960	TSS1500	N_Shore	TEX264	0.430	-0.002	0.047	0.242
cg20440595	yellow	11	71,288,514		S_Shore		0.430	0.000	0.789	0.960
cg06021552	yellow	20	30,432,308	3'UTR	N_Shore	FOXS1	0.430	0.009	0.446	0.099
cg03917100	yellow	17	62,016,913	3'UTR	N_Shelf	SCN4A	0.430	0.003	0.755	0.627
cg18133905	yellow	10	102,296,115	Body	OpenSea	HIF1AN	0.430	-0.001	0.177	0.873
cg25959149	yellow	20	17,674,250	TSS200	OpenSea	BANF2	0.430	0.017	0.526	0.111
cg26276947	yellow	22	44,892,394	3'UTR	Island	LDOC1L	0.430	0.001	0.917	0.839
cg15420926	yellow	8	132,929,147	Body	OpenSea	EFR3A	0.430	-0.003	0.322	0.668
cg11186282	yellow	6	168,418,442	TSS200	OpenSea	KIF25	0.430	-0.010	0.288	0.183
cg03728799	yellow	17	74,978,687		OpenSea		0.430	0.005	0.684	0.532
cg25256141	yellow	7	101,503,452	Body	OpenSea	CUX1	0.430	-0.003	0.909	0.611
cg26776806	yellow	16	88,991,518	5'UTR	N_Shelf	CBFA2T3	0.430	0.015	0.630	0.210
cg23197297	yellow	8	125,974,367		OpenSea		0.430	0.005	0.649	0.313
cg16506378	yellow	8	121,881,190		OpenSea		0.430	0.016	0.557	0.376
cg22579828	yellow	20	42,355,656	TSS200	OpenSea	GTSF1L	0.430	0.012	0.561	0.076

cg02155184	yellow	1	110,087,241	3'UTR	N_Shelf	GPR61	0.430	-0.001	0.451	0.835
cg15692229	yellow	7	55,257,946	Body	OpenSea	EGFR	0.430	0.008	0.805	0.265
cg16620809	yellow	19	524,157		Island		0.430	0.009	0.890	0.131
cg04012681	yellow	10	1,511,277	Body	OpenSea	ADARB2	0.430	-0.021	0.698	0.328
cg17825311	yellow	6	29,717,188	TSS1500	S_Shore	LOC285830	0.430	0.012	0.082	0.111
cg00929345	yellow	8	143,622,353	Body	N_Shore	BAI1	0.430	0.004	0.916	0.541
cg27222644	yellow	7	163,293		S_Shelf		0.429	0.007	0.821	0.421
cg04956244	yellow	17	38,511,592	Body	OpenSea	RARA	0.429	0.004	0.609	0.412
cg02960488	yellow	3	178,863,507		N_Shelf		0.429	-0.001	0.903	0.923
cg01195861	yellow	12	121,019,729	TSS1500	S_Shore	POP5	0.429	0.032	0.413	0.056
cg16925177	yellow	8	73,849,114	Body	OpenSea	KCNB2	0.429	0.005	0.894	0.654
cg13828440	yellow	12	10,459,972	TSS1500	OpenSea	KLRD1	0.429	-0.008	0.916	0.242
cg13780207	yellow	9	138,899,186		OpenSea		0.429	0.005	0.824	0.516
cg07412186	yellow	6	16,719,376	5'UTR	OpenSea	ATXN1	0.429	-0.009	0.464	0.388
cg22237401	yellow	19	13,228,070	TSS1500	N_Shore	TRMT1	0.429	0.015	0.170	0.116
cg22193276	yellow	2	11,965,198	3'UTR	OpenSea	LPIN1	0.429	-0.006	0.484	0.307
cg01515543	yellow	9	92,254,510	TSS200	OpenSea	LOC1001290	0.429	0.003	0.417	0.817
cg09503608	yellow	6	31,732,516	3'UTR	OpenSea	C6orf26	0.429	-0.010	0.808	0.290
cg26586952	yellow	5	176,811,131	TSS1500	OpenSea	SLC34A1	0.429	0.003	0.717	0.715
cg15476875	yellow	12	101,347,953	Body	OpenSea	ANO4	0.429	0.003	0.822	0.757
cg06657721	yellow	6	25,027,618		OpenSea		0.429	0.009	0.757	0.318
cg00305071	yellow	1	34,504,017	Body	OpenSea	CSMD2	0.429	0.012	0.260	0.144
cg16929139	yellow	18	29,601,617	Body	S_Shelf	RNF125	0.429	-0.017	0.606	0.355
cg21516044	yellow	4	166,304,596	Body	S_Shelf	CPE	0.429	0.019	0.366	0.213
cg06512128	yellow	1	113,245,695	Body	N_Shelf	RHOC	0.429	0.003	0.670	0.642
cg04622541	yellow	5	179,159,255	TSS1500	N_Shore	MAML1	0.429	0.004	0.231	0.699
cg26306893	yellow	20	37,074,908	TSS1500	N_Shore	SNHG11	0.429	0.020	0.535	0.048
cg09956485	yellow	15	94,899,118	Body	OpenSea	MCTP2	0.429	0.002	0.722	0.843
cg22597665	yellow	2	61,292,624	TSS1500	N_Shore	KIAA1841	0.429	0.002	0.052	0.437
cg05178136	yellow	11	133,584,569		OpenSea		0.429	0.007	0.365	0.211
cg20644425	yellow	19	54,290,913	TSS1500	OpenSea	MIR372	0.429	-0.004	0.676	0.698
cg22332266	yellow	11	89,956,777	TSS1500	S_Shore	CHORDC1	0.429	-0.058	0.164	0.011
cg19456997	yellow	6	31,090,929	5'UTR	OpenSea	PSORS1C1	0.429	-0.007	0.160	0.726
cg21247666	yellow	12	25,394,244	Body	OpenSea	KRAS	0.429	-0.009	0.808	0.398
cg26684601	yellow	16	87,638,542	Body	S_Shore	JPH3	0.429	0.005	0.707	0.491
cg13153834	yellow	7	56,142,246	Body	OpenSea	SUMF2	0.429	0.000	0.050	0.932
cg27260462	yellow	10	131,935,477	Body	S_Shore	GLRX3	0.429	0.000	0.044	0.894
cg01590787	yellow	5	175,813,861	Body	N_Shore	NOP16	0.429	-0.001	0.753	0.749
cg17159187	yellow	8	144,420,118		S_Shelf		0.429	0.000	0.580	0.993
cg04125273	yellow	16	29,790,933	Body	OpenSea	ZG16	0.428	-0.004	0.380	0.697
cg23934071	yellow	10	91,802		N_Shelf		0.428	0.004	0.518	0.463
cg11329129	yellow	11	705,692	TSS1500	N_Shore	EPS8L2	0.428	0.005	0.589	0.567
cg02239258	yellow	8	8,241,752		N_Shore		0.428	0.005	0.536	0.701
cg12300084	yellow	7	2,695,197	Body	N_Shelf	TTYH3	0.428	0.003	0.904	0.629
cg17618939	yellow	5	39,138,071	Body	OpenSea	FYB	0.428	0.003	0.212	0.795
cg06436508	yellow	17	56,619,769	Body	OpenSea	C17orf47	0.428	0.001	0.732	0.928
cg11148581	yellow	12	123,998,115	Body	OpenSea	RILPL1	0.428	0.001	0.627	0.849
cg05556020	yellow	1	204,135,243	Body	OpenSea	REN	0.428	0.015	0.790	0.036
cg15306012	yellow	16	67,224,199	TSS200	OpenSea	EXOC3L	0.428	-0.022	0.403	0.298
cg05349242	yellow	14	77,255,429	3'UTR	OpenSea	ANGEL1	0.428	0.005	0.799	0.474
cg06846752	yellow	1	32,929,715	TSS1500	N_Shore	ZBTB8B	0.428	0.024	0.365	0.074
cg06414816	yellow	5	110,062,837	TSS1500	OpenSea	TMEM232	0.428	0.015	0.620	0.437
cg04122744	yellow	2	242,642,372	Body	Island	ING5	0.428	-0.001	0.024	0.781
cg09253762	yellow	12	58,165,392	TSS1500	N_Shore	FAM119B	0.428	0.006	0.191	0.380
cg00486280	yellow	15	34,988,869		OpenSea		0.428	-0.003	0.645	0.690
cg00724015	yellow	2	119,145,086		OpenSea		0.428	0.005	0.712	0.476
cg08620426	yellow	16	29,607,030		S_Shore		0.428	-0.003	0.338	0.845
cg05838751	yellow	16	942,079	Body	N_Shelf	LMF1	0.428	0.003	0.875	0.648
cg20646544	yellow	8	74,660,193	TSS1500	S_Shore	STAU2	0.428	0.006	0.115	0.522
cg01594125	yellow	4	185,905,070		OpenSea		0.428	0.009	0.514	0.629
cg03985459	yellow	6	37,786,245	TSS1500	N_Shore	ZFAND3	0.428	-0.002	0.072	0.727
cg10317591	yellow	16	199,821		N_Shelf		0.428	-0.011	0.397	0.522
cg10632507	yellow	12	132,317,390	Body	S_Shore	MMP17	0.428	0.014	0.747	0.101
cg07770402	yellow	18	76,160,388		Island		0.428	0.002	0.782	0.854
cg07625430	yellow	19	18,680,126	3'UTR	N_Shelf	C19orf50	0.428	0.002	0.944	0.617
cg10808392	yellow	17	37,604,461	Body	N_Shelf	MED1	0.428	0.001	0.972	0.577
cg13472584	yellow	1	14,056,972	Body	OpenSea	PRDM2	0.428	0.017	0.820	0.025

cg02088366	yellow	1	220,906,720	OpenSea		0.428	0.004	0.192	0.639
cg08883074	yellow	15	42,500,107 Body	N_Shore	VPS39	0.428	0.001	0.048	0.595
cg21736592	yellow	22	37,678,450 TSS200	OpenSea	CYTH4	0.428	-0.003	0.125	0.699
cg23307798	yellow	14	103,986,281 Body	N_Shore	CKB	0.428	0.015	0.598	0.173
cg02762363	yellow	5	126,852,998 TSS1500	N_Shore	PRRC1	0.428	-0.009	0.252	0.456
cg11724511	yellow	11	1,455,468 Body	OpenSea	BRSK2	0.428	-0.009	0.810	0.415
cg04910149	yellow	12	118,502,338 3'UTR	S_Shelf	VSIG10	0.428	0.004	0.906	0.693
cg14977190	yellow	13	82,061,961	OpenSea		0.428	-0.016	0.797	0.174
cg07516450	yellow	6	32,167,900 Body	S_Shelf	NOTCH4	0.428	0.003	0.645	0.793
cg22870710	yellow	4	128,699,484	N_Shelf		0.427	0.004	0.122	0.643
cg09051215	yellow	16	88,994,192 5'UTR	Island	CBFA2T3	0.427	0.007	0.513	0.463
cg27022933	yellow	11	67,418,106 5'UTR	OpenSea	ACY3	0.427	0.039	0.317	0.002
cg06726099	yellow	3	195,940,674	OpenSea		0.427	0.008	0.587	0.414
cg16433844	yellow	14	91,963,127 Body	OpenSea	SMEK1	0.427	0.012	0.926	0.183
cg03637976	yellow	6	33,268,071 3'UTR	S_Shore	TAPBP	0.427	0.014	0.239	0.179
cg05583757	yellow	11	61,447,487 TSS1500	N_Shore	DAGLA	0.427	-0.003	0.043	0.298
cg13593090	yellow	19	9,546,723 TSS1500	S_Shore	ZNF266	0.427	-0.015	0.451	0.501
cg14083421	yellow	1	7,122,639 Body	Island	CAMTA1	0.427	-0.002	0.834	0.821
cg26037026	yellow	7	1,641,922	Island		0.427	-0.001	0.636	0.857
cg23925540	yellow	12	50,962,271 Body	OpenSea	DIP2B	0.427	0.007	0.284	0.138
cg24974509	yellow	14	77,891,531	OpenSea		0.427	-0.006	0.899	0.360
cg27390206	yellow	17	28,585,657 Body	OpenSea	BLMH	0.427	0.001	0.863	0.852
cg19815720	yellow	3	183,770,650 TSS200	OpenSea	HTR3C	0.427	0.001	0.786	0.949
cg03386791	yellow	16	1,267,474 Body	N_Shore	CACNA1H	0.427	0.001	0.626	0.890
cg00942920	yellow	1	203,734,559 Body	OpenSea	LAX1	0.427	0.000	0.513	0.974
cg19630039	yellow	1	1,861,806	S_Shelf		0.427	0.005	0.587	0.526
cg27218548	yellow	6	33,255,639 Body	N_Shore	WDR46	0.427	0.009	0.846	0.202
cg08498585	yellow	19	34,266,019	N_Shelf		0.427	0.007	0.761	0.213
cg25769852	yellow	12	9,914,057 TSS1500	OpenSea	CD69	0.427	0.008	0.855	0.257
cg15169189	yellow	18	7,568,891 Body	S_Shore	PTPRM	0.427	-0.001	0.050	0.888
cg07213119	yellow	4	8,359,269	OpenSea		0.427	0.015	0.852	0.146
cg05525374	yellow	6	32,904,402 Body	OpenSea	HLA-DMB	0.427	-0.002	0.504	0.868
cg05399210	yellow	6	117,082,661 Body	N_Shelf	FAM162B	0.427	0.003	0.822	0.799
cg24540315	yellow	8	141,571,096 Body	OpenSea	EIF2C2	0.427	0.004	0.753	0.554
cg26233218	yellow	7	157,626,309 Body	OpenSea	PTPRN2	0.427	-0.002	0.950	0.466
cg10011746	yellow	16	89,865,162 3'UTR	OpenSea	FANCA	0.427	-0.004	0.894	0.577
cg05696811	yellow	16	87,725,895 Body	S_Shore	JPH3	0.427	-0.001	0.926	0.892
cg08479752	yellow	19	54,567,279 TSS200	OpenSea	VSTM1	0.427	-0.004	0.938	0.504
cg08084737	yellow	7	43,965,691 5'UTR	N_Shore	URGCP	0.427	0.010	0.048	0.114
cg09920268	yellow	11	44,105,489 3'UTR	OpenSea	ACCS	0.427	0.001	0.665	0.912
cg26217441	yellow	16	89,643,414 Body	Island	CPNE7	0.427	0.008	0.468	0.331
cg19041419	yellow	4	55,527,240 Body	S_Shore	KIT	0.427	0.001	0.912	0.828
cg05617307	yellow	10	121,413,182 Body	S_Shore	BAG3	0.427	0.016	0.912	0.046
cg00805619	yellow	10	134,420,623 Body	OpenSea	INPP5A	0.427	0.017	0.302	0.075
cg14446494	yellow	2	131,673,406 TSS1500	N_Shore	ARHGEF4	0.427	0.000	0.870	0.977
cg03817621	yellow	10	52,645,399 5'UTR	OpenSea	A1CF	0.427	0.011	0.858	0.212
cg19097500	yellow	1	61,542,329 TSS1500	N_Shore	NFIA	0.427	-0.001	0.132	0.843
cg23630423	yellow	17	1,903,022 Body	S_Shore	RTN4RL1	0.427	0.000	0.105	0.964
cg08329597	yellow	20	5,485,511 TSS1500	OpenSea	LOC149837	0.427	0.010	0.749	0.461
cg10591801	yellow	4	811,981 Body	N_Shore	CPLX1	0.427	0.006	0.777	0.453
cg05224984	yellow	19	16,296,929 Body	S_Shore	FAM32A	0.427	0.001	0.030	0.431
cg21747271	yellow	11	67,250,052 TSS1500	N_Shore	AIP	0.427	0.010	0.838	0.323
cg03318695	yellow	6	72,130,799 TSS1500	S_Shore	C6orf155	0.427	0.003	0.167	0.824
cg00417059	yellow	7	47,315,129 3'UTR	OpenSea	TNS3	0.427	-0.004	0.686	0.640
cg23901202	yellow	11	118,938,859 Body	S_Shore	VPS11	0.427	0.000	0.016	0.670
cg17767099	yellow	19	1,009,048 Body	Island	GRIN3B	0.426	0.015	0.485	0.130
cg21757440	yellow	16	58,031,050 Body	Island	ZNF319	0.426	0.005	0.882	0.368
cg00334532	yellow	6	32,712,093 Body	OpenSea	HLA-DQA2	0.426	0.007	0.843	0.644
cg16460860	yellow	17	17,744,282	S_Shore		0.426	0.002	0.367	0.815
cg27517652	yellow	1	179,050,673 TSS1500	N_Shore	TOR3A	0.426	0.005	0.186	0.456
cg03310939	yellow	7	101,688,730 Body	OpenSea	CUX1	0.426	0.003	0.044	0.469
cg10493125	yellow	10	71,266,797 3'UTR	OpenSea	TSPAN15	0.426	0.003	0.512	0.693
cg11074834	yellow	2	10,559,952 Body	Island	HPCAL1	0.426	-0.006	0.900	0.269
cg08314996	yellow	20	42,984,099 TSS1500	OpenSea	HNF4A	0.426	0.003	0.852	0.718
cg21822834	yellow	14	105,236,589 3'UTR	N_Shelf	AKT1	0.426	0.013	0.603	0.042
cg16101278	yellow	6	6,648,823 Body	OpenSea	LY86	0.426	0.028	0.470	0.152
cg21648823	yellow	2	242,668,197 3'UTR	S_Shelf	ING5	0.426	-0.001	0.794	0.917

cg06503216	yellow	16	71,879,545	TSS1500	N_Shore	ATXN1L	0.426	-0.004	0.058	0.537
cg16245431	yellow	7	1,005,089	3'UTR	N_Shelf	COX19	0.426	0.007	0.721	0.448
cg15977816	yellow	19	44,285,297	1stExon	OpenSea	KCNN4	0.426	0.001	0.051	0.846
cg17427702	yellow	10	87,252,503		OpenSea		0.426	0.002	0.283	0.797
cg06651530	yellow	12	116,599,557	Body	OpenSea	MED13L	0.426	0.000	0.710	0.955
cg22956060	yellow	3	9,289,747	Body	OpenSea	SRGAP3	0.426	0.005	0.247	0.601
cg02770857	yellow	17	55,533,254	Body	OpenSea	MSI2	0.426	-0.006	0.825	0.371
cg21208029	yellow	14	53,196,377	TSS1500	N_Shore	STYX	0.426	0.009	0.069	0.107
cg13267140	yellow	10	21,691,455		OpenSea		0.426	0.012	0.802	0.096
cg00624976	yellow	20	61,846,766	Body	N_Shore	YTHDF1	0.426	-0.009	0.111	0.176
cg17819831	yellow	1	54,852,813	Body	N_Shelf	SSBP3	0.426	-0.009	0.486	0.409
cg19652416	yellow	10	134,697,862		N_Shore		0.426	0.008	0.759	0.297
cg08895307	yellow	4	187,222,524		S_Shelf		0.426	0.004	0.909	0.540
cg08313638	yellow	10	12,110,577	TSS1500	N_Shore	DHTKD1	0.426	0.011	0.172	0.332
cg21207450	yellow	15	29,570,795	Body	OpenSea	FAM189A1	0.426	0.002	0.610	0.811
cg24882332	yellow	17	37,063,649	Body	OpenSea	LASP1	0.426	0.004	0.854	0.442
cg03409108	yellow	6	34,489,785	5'UTR	OpenSea	PACSN1	0.426	0.010	0.889	0.112
cg02042936	yellow	12	110,483,115	Body	N_Shelf	C12orf76	0.426	0.002	0.916	0.565
cg01152056	yellow	6	166,260,319		OpenSea		0.426	-0.003	0.557	0.791
cg09923671	yellow	20	61,041,341	Body	Island	GATA5	0.426	0.005	0.458	0.455
cg04992757	yellow	1	2,266,138	Body	Island	MORN1	0.426	0.001	0.487	0.808
cg02693870	yellow	16	55,689,324	TSS1500	N_Shore	SLC6A2	0.426	0.004	0.390	0.731
cg02920376	yellow	7	158,748,055		N_Shelf		0.426	0.008	0.641	0.322
cg03146413	yellow	7	156,296,744		OpenSea		0.425	0.002	0.681	0.716
cg13746919	yellow	10	81,837,573	TSS1500	N_Shore	C10orf57	0.425	-0.002	0.552	0.820
cg09476067	yellow	6	30,418,581		N_Shore		0.425	0.015	0.218	0.312
cg08918845	yellow	20	31,595,432	5'UTR	OpenSea	BPIL1	0.425	0.005	0.789	0.445
cg00520717	yellow	19	2,751,543		N_Shelf		0.425	-0.004	0.778	0.497
cg16317516	yellow	11	47,294,196	5'UTR	S_Shelf	MADD	0.425	-0.005	0.758	0.673
cg14102186	yellow	2	85,364,676	Body	S_Shelf	TCF7L1	0.425	0.015	0.541	0.456
cg27520536	yellow	16	54,228,323		Island		0.425	0.016	0.653	0.330
cg03324578	yellow	3	46,887,918		Island		0.425	-0.001	0.024	0.522
cg17436370	yellow	11	120,008,607	1stExon	Island	TRIM29	0.425	0.002	0.676	0.785
cg13245817	yellow	7	47,481,224	5'UTR	OpenSea	TNS3	0.425	0.004	0.926	0.586
cg19012258	yellow	21	43,329,506	Body	S_Shore	C2CD2	0.425	0.000	0.945	0.888
cg10714284	yellow	6	32,908,901	TSS200	OpenSea	HLA-DMB	0.425	0.009	0.344	0.333
cg02739280	yellow	11	20,119,229	Body	OpenSea	NAV2	0.425	-0.001	0.770	0.926
cg19339848	yellow	6	74,170,937	TSS1500	N_Shore	MTO1	0.425	-0.033	0.544	0.163
cg21216100	yellow	2	159,944,700	Body	OpenSea	TANC1	0.425	0.003	0.938	0.557
cg13396318	yellow	20	19,866,974		OpenSea		0.425	0.000	0.189	0.952
cg11751688	yellow	1	246,958,957		OpenSea		0.425	0.019	0.486	0.008
cg18492926	yellow	11	67,442,195	5'UTR	OpenSea	ALDH3B2	0.425	0.001	0.557	0.911
cg11647944	yellow	12	5,603,148	TSS200	N_Shore	NTF3	0.425	-0.002	0.597	0.822
cg11361335	yellow	5	153,653,483	Body	OpenSea	GALNT10	0.425	0.000	0.974	0.974
cg05365385	yellow	17	7,999,745	3'UTR	OpenSea	ALOXE3	0.425	0.009	0.735	0.244
cg00463577	yellow	6	74,161,911	1stExon	Island	C6orf150	0.425	-0.005	0.061	0.348
cg05972889	yellow	16	46,873,954		N_Shelf		0.425	-0.010	0.245	0.342
cg03174963	yellow	16	69,346,037	Body	S_Shore	VPS4A	0.425	0.000	0.066	0.944
cg26565838	yellow	5	153,570,764	Body	S_Shore	GALNT10	0.425	0.005	0.146	0.529
cg01594262	yellow	19	38,806,145	Body	N_Shore	YIF1B	0.425	-0.002	0.151	0.712
cg23278040	yellow	19	266,712		N_Shore		0.425	0.020	0.346	0.199
cg15728779	yellow	1	99,729,504	TSS1500	N_Shore	LPPR4	0.425	0.014	0.318	0.019
cg09203501	yellow	7	5,271,545	3'UTR	S_Shelf	WIPI2	0.425	-0.004	0.721	0.678
cg15645287	yellow	10	34,569,552	Body	OpenSea	PARD3	0.425	-0.004	0.925	0.591
cg01286319	yellow	19	2,695,343	5'UTR	OpenSea	GGG7	0.425	0.008	0.382	0.636
cg02318535	yellow	17	56,832,804	TSS1500	N_Shore	PPM1E	0.425	0.016	0.494	0.081
cg04309911	yellow	6	30,418,647		N_Shore		0.425	0.011	0.062	0.039
cg23919865	yellow	19	587,177		N_Shore		0.425	-0.001	0.627	0.909
cg12404044	yellow	2	26,911,734		N_Shelf		0.425	0.005	0.936	0.414
cg14494421	yellow	9	139,636,616	Body	S_Shelf	LCN10	0.425	0.007	0.185	0.428
cg01545109	yellow	7	151,087,534	Body	OpenSea	WDR86	0.425	0.000	0.959	0.955
cg04864592	yellow	10	98,141,108	Body	N_Shelf	TLL2	0.425	-0.006	0.892	0.285
cg12659606	yellow	6	33,215,807		N_Shore		0.424	0.002	0.128	0.837
cg19341849	yellow	4	1,504,542		N_Shore		0.424	0.004	0.854	0.540
cg14773588	yellow	6	12,910,610	Body	OpenSea	PHACTR1	0.424	0.006	0.920	0.431
cg00220302	yellow	13	28,009,775	3'UTR	OpenSea	MTIF3	0.424	0.003	0.960	0.325
cg03566418	yellow	8	13,424,080	TSS1500	OpenSea	C8orf48	0.424	0.001	0.033	0.561

cg17906105	yellow	7	158,488,980	Body	OpenSea	NCAPG2	0.424	0.005	0.188	0.625
cg05062179	yellow	17	76,987,630		N_Shelf		0.424	0.003	0.881	0.321
cg22821355	yellow	4	10,117,479	Body	N_Shore	WDR1	0.424	0.001	0.382	0.906
cg13922421	yellow	9	138,029,591		OpenSea		0.424	0.006	0.233	0.313
cg11257906	yellow	8	143,743,446	Body	OpenSea	JRK	0.424	-0.002	0.865	0.833
cg03208983	yellow	12	10,767,011	TSS1500	S_Shore	MAGOHB	0.424	-0.005	0.958	0.236
cg06799455	yellow	3	45,882,924	Body	N_Shore	LZTFL1	0.424	0.000	0.044	0.949
cg14702279	yellow	12	132,975,540		N_Shore		0.424	0.009	0.598	0.147
cg20512044	yellow	14	51,230,329	Body	OpenSea	NIN	0.424	-0.003	0.922	0.663
cg05713971	yellow	16	56,965,542	TSS1500	N_Shore	HERPUD1	0.424	-0.005	0.075	0.410
cg26484813	yellow	11	62,311,573	5'UTR	N_Shore	AHNAK	0.424	-0.003	0.269	0.837
cg16573374	yellow	2	97,761,334	TSS1500	S_Shore	FAHD2B	0.424	0.009	0.202	0.396
cg02567879	yellow	1	11,761,416	5'UTR	OpenSea	C1orf187	0.424	0.019	0.767	0.054
cg01395499	yellow	1	204,982,603	Body	OpenSea	NFASC	0.424	-0.003	0.976	0.135
cg14085017	yellow	11	63,775,226	Body	N_Shore	MACROD1	0.424	0.000	0.043	0.948
cg09045655	yellow	12	54,392,988	TSS1500	N_Shore	HOXC9	0.424	0.023	0.193	0.037
cg26405545	yellow	1	1,045,506	5'UTR	N_Shore	C1orf159	0.424	0.008	0.893	0.208
cg01435230	yellow	12	76,742,603	TSS1500	S_Shore	BBS10	0.424	-0.004	0.022	0.090
cg04059188	yellow	22	43,045,723	TSS1500	S_Shore	CYB5R3	0.424	0.002	0.080	0.876
cg24015889	yellow	17	2,951,719		N_Shore		0.424	0.009	0.452	0.452
cg01254505	yellow	19	17,516,470	TSS200	OpenSea	BST2	0.424	-0.004	0.338	0.556
cg02386311	yellow	16	12,073,297	Body	S_Shelf	RUNDC2A	0.424	0.002	0.971	0.518
cg07969668	yellow	8	142,841,913		Island		0.424	-0.010	0.901	0.108
cg05668422	yellow	13	114,026,346		S_Shelf		0.424	-0.001	0.830	0.892
cg04872475	yellow	1	11,159,259	Body	N_Shore	EXOSC10	0.424	0.000	0.030	0.945
cg03330558	yellow	15	31,516,127		OpenSea		0.424	0.001	0.661	0.930
cg13536107	yellow	4	153,437,193	5'UTR	OpenSea	FBXW7	0.424	0.016	0.459	0.032
cg12438037	yellow	9	138,393,570	Body	S_Shore	MRPS2	0.424	0.001	0.454	0.921
cg25016190	yellow	1	88,108,838		OpenSea		0.424	0.012	0.920	0.057
cg06549479	yellow	17	36,885,900	TSS1500	N_Shore	CISD3	0.424	0.017	0.398	0.031
cg21828345	yellow	15	68,724,752	TSS1500	S_Shore	ITGA11	0.424	-0.003	0.107	0.597
cg08806558	yellow	12	102,874,972	TSS1500	OpenSea	IGF1	0.424	-0.006	0.767	0.424
cg27022853	yellow	3	196,377,815	5'UTR	OpenSea	LRRC33	0.424	0.002	0.854	0.831
cg23137039	yellow	13	50,069,509	TSS1500	N_Shore	PHF11	0.424	-0.010	0.113	0.183
cg04132407	yellow	7	130,626,376		OpenSea		0.424	0.005	0.593	0.637
cg18456803	yellow	13	41,593,519	TSS200	OpenSea	ELF1	0.424	-0.002	0.861	0.784
cg14178173	yellow	7	157,495,532	Body	S_Shore	PTPRN2	0.424	-0.001	0.557	0.891
cg01484141	yellow	17	1,624,157	Body	N_Shelf	WDR81	0.423	-0.002	0.084	0.739
cg08548888	yellow	3	38,180,840	Body	S_Shore	MYD88	0.423	-0.009	0.266	0.363
cg03991188	yellow	7	98,870,835	TSS200	OpenSea	MYH16	0.423	0.011	0.466	0.114
cg04679530	yellow	19	57,657,196	TSS1500	OpenSea	ZIM3	0.423	0.033	0.792	0.008
cg16226642	yellow	11	7,847,876	TSS1500	OpenSea	OR5P3	0.423	0.000	0.911	0.963
cg18070079	yellow	14	24,605,782	Body	S_Shore	PSME1	0.423	-0.001	0.026	0.364
cg03157182	yellow	12	132,655,797		S_Shelf		0.423	0.010	0.518	0.184
cg12110801	yellow	19	5,992,284		N_Shelf		0.423	0.001	0.971	0.629
cg02768785	yellow	19	45,912,979	3'UTR	S_Shelf	CD3EAP	0.423	-0.001	0.542	0.939
cg02705910	yellow	16	87,574,693		OpenSea		0.423	0.006	0.572	0.452
cg18964319	yellow	6	36,665,554		OpenSea		0.423	0.017	0.675	0.087
cg09107053	yellow	1	230,985,709	Body	OpenSea	C1orf198	0.423	0.001	0.522	0.888
cg07903144	yellow	6	33,358,872	TSS1500	N_Shore	KIFC1	0.423	0.004	0.928	0.584
cg27413230	yellow	13	113,929,010		OpenSea		0.423	0.003	0.886	0.701
cg06147196	yellow	13	112,507,915		OpenSea		0.423	-0.002	0.492	0.809
cg25740500	yellow	18	71,749,983	Body	OpenSea	FBXO15	0.423	-0.001	0.351	0.908
cg20656830	yellow	17	78,439,562		N_Shelf		0.423	0.009	0.793	0.156
cg21605283	yellow	17	30,615,925	Body	OpenSea	RHBDL3	0.423	0.007	0.810	0.186
cg07015079	yellow	1	145,549,441	Body	OpenSea	ANKRD35	0.423	0.005	0.395	0.474
cg09650907	yellow	17	71,224,983	Body	N_Shelf	FAM104A	0.423	0.013	0.324	0.122
cg13611499	yellow	2	19,547,417		N_Shore		0.423	0.000	0.082	0.935
cg13487334	yellow	22	46,521,927		S_Shelf		0.423	0.002	0.735	0.753
cg00551609	yellow	2	74,214,662		S_Shelf		0.423	0.004	0.057	0.542
cg05760722	yellow	12	52,115,238	Body	N_Shore	SCN8A	0.423	0.005	0.167	0.602
cg03913456	yellow	2	97,000,924	TSS1500	N_Shore	NCAPH	0.423	-0.016	0.212	0.358
cg03349134	yellow	6	25,655,241	Body	S_Shelf	SCGN	0.423	0.005	0.528	0.676
cg14545975	yellow	9	137,297,213	Body	N_Shore	RXRA	0.423	0.003	0.850	0.649
cg25673593	yellow	17	37,778,125		S_Shelf		0.423	0.007	0.307	0.412
cg02200944	yellow	16	968,024	Body	S_Shore	LMF1	0.423	0.011	0.889	0.250
cg24562149	yellow	20	11,870,817	TSS1500	N_Shore	BTBD3	0.423	0.009	0.413	0.209

cg21468939	yellow	17	58,226,730	TSS1500	N_Shore	CA4	0.423	0.016	0.511	0.096
cg19380808	yellow	19	4,529,192	Body	N_Shelf	PLIN5	0.423	0.008	0.896	0.246
cg20335039	yellow	18	11,883,985	3'UTR	S_Shelf	MPPE1	0.423	-0.008	0.890	0.361
cg16678426	yellow	6	32,026,891	Body	OpenSea	TNXB	0.423	0.002	0.576	0.787
cg09013480	yellow	12	133,009,754		Island		0.423	0.019	0.394	0.043
cg14977608	yellow	1	55,506,512	Body	S_Shore	PCSK9	0.423	0.005	0.325	0.790
cg05481881	yellow	3	150,621,326		OpenSea		0.423	0.001	0.317	0.887
cg24082121	yellow	5	672,872	Body	OpenSea	TPPP	0.423	0.001	0.044	0.801
cg20289045	yellow	11	94,270,260		OpenSea		0.422	-0.002	0.423	0.966
cg14194496	yellow	9	34,809,475		N_Shore		0.422	0.012	0.296	0.231
cg07586331	yellow	14	97,263,458	TSS1500	N_Shore	VRK1	0.422	-0.002	0.041	0.625
cg23095010	yellow	10	72,072,551	Body	OpenSea	LRRC20	0.422	0.005	0.900	0.455
cg22934035	yellow	6	31,549,480	Body	S_Shore	LTB	0.422	0.003	0.175	0.724
cg16074473	yellow	14	80,942,314		OpenSea		0.422	-0.011	0.879	0.493
cg05508558	yellow	1	207,627,372	TSS1500	N_Shore	CR2	0.422	0.006	0.241	0.488
cg03829194	yellow	16	875,571		Island		0.422	-0.004	0.382	0.632
cg12805727	yellow	10	93,557,676	TSS1500	N_Shore	TNKS2	0.422	-0.009	0.249	0.767
cg09397359	yellow	3	48,694,673	Body	Island	CELSR3	0.422	0.012	0.766	0.368
cg22226091	yellow	18	43,684,032	5'UTR	N_Shore	ATP5A1	0.422	-0.002	0.107	0.756
cg16366739	yellow	16	16,227,608	Body	OpenSea	ABCC1	0.422	0.005	0.913	0.362
cg02917210	yellow	8	126,103,343	TSS1500	N_Shore	NSMCE2	0.422	0.007	0.072	0.204
cg22988146	yellow	10	3,239,873		OpenSea		0.422	-0.001	0.028	0.597
cg10169194	yellow	22	41,763,253	TSS200	OpenSea	TEF	0.422	0.001	0.014	0.348
cg06600287	yellow	1	53,387,719	TSS1500	S_Shore	ECHDC2	0.422	0.008	0.788	0.488
cg03091668	yellow	22	24,903,402	Body	OpenSea	UPB1	0.422	0.005	0.374	0.484
cg09695187	yellow	16	81,970,170	Body	OpenSea	PLCG2	0.422	0.016	0.776	0.558
cg19674611	yellow	15	84,050,961		S_Shelf		0.422	-0.004	0.917	0.544
cg12163871	yellow	19	47,207,843	Body	Island	PRKD2	0.422	0.001	0.428	0.902
cg01119145	yellow	20	706,882		N_Shore		0.422	0.000	0.644	0.998
cg18883807	yellow	14	96,493,999		OpenSea		0.422	0.005	0.358	0.677
cg04253954	yellow	16	1,148,837		N_Shelf		0.422	0.016	0.316	0.182
cg21780428	yellow	6	37,181,111	3'UTR	OpenSea	TMEM217	0.422	0.001	0.923	0.844
cg21476299	yellow	13	43,148,214	TSS200	N_Shore	TNFSF11	0.422	-0.003	0.062	0.588
cg23522611	yellow	2	28,617,612	Body	S_Shore	FOSL2	0.422	0.001	0.033	0.658
cg18731546	yellow	10	3,023,726		OpenSea		0.422	0.001	0.814	0.840
cg20470945	yellow	6	42,167,188		OpenSea		0.422	-0.002	0.974	0.412
cg11845111	yellow	2	191,398,756	Body	N_Shore	TMEM194B	0.422	-0.022	0.186	0.243
cg11714502	yellow	9	130,640,212	TSS200	S_Shore	AK1	0.422	0.005	0.078	0.305
cg13961124	yellow	9	123,070,127		OpenSea		0.422	0.012	0.856	0.086
cg22396409	yellow	7	55,086,146	TSS1500	Island	EGFR	0.422	-0.005	0.080	0.244
cg19544919	yellow	19	18,451,228	TSS200	N_Shore	PGPEP1	0.421	-0.001	0.146	0.929
cg16391327	yellow	15	38,746,048	TSS1500	N_Shore	FAM98B	0.421	0.011	0.406	0.598
cg16710448	yellow	2	9,573,328	Body	OpenSea	CPSF3	0.421	-0.002	0.524	0.877
cg15664462	yellow	3	151,996,146	5'UTR	OpenSea	MBNL1	0.421	0.006	0.889	0.438
cg01823120	yellow	6	97,752,691	Body	OpenSea	MIR548H3	0.421	-0.005	0.934	0.278
cg03507593	yellow	12	124,939,480	Body	N_Shore	NCOR2	0.421	0.011	0.659	0.060
cg19925231	yellow	10	134,853,344		S_Shore		0.421	0.006	0.552	0.349
cg17981742	yellow	5	131,746,161	TSS1500	N_Shore	C5orf56	0.421	0.001	0.017	0.215
cg06655361	yellow	10	73,533,561	TSS1500	S_Shore	C10orf54	0.421	0.002	0.116	0.756
cg09327894	yellow	17	21,155,019	Body	OpenSea	C17orf103	0.421	-0.002	0.860	0.664
cg18104015	yellow	17	81,031,724		N_Shore		0.421	-0.002	0.727	0.812
cg18429685	yellow	19	59,085,257	TSS1500	N_Shore	MZF1	0.421	0.003	0.045	0.212
cg03596681	yellow	1	244,952,394		OpenSea		0.421	-0.005	0.627	0.611
cg20519577	yellow	12	132,329,360	Body	Island	MMP17	0.421	0.000	0.871	0.975
cg06020537	yellow	10	125,318,917		OpenSea		0.421	0.008	0.223	0.385
cg00993830	yellow	7	129,499,233	Body	OpenSea	UBE2H	0.421	0.010	0.871	0.291
cg21983151	yellow	7	40,175,036	Body	S_Shore	C7orf10	0.421	-0.002	0.066	0.665
cg22335802	yellow	1	159,001,170	Body	OpenSea	IFI16	0.421	0.002	0.852	0.845
cg13732465	yellow	9	139,549,756		N_Shore		0.421	0.000	0.864	0.952
cg00428692	yellow	5	194,530	Body	N_Shore	LRRC14B	0.421	-0.007	0.561	0.414
cg17332708	yellow	4	1,231,840	Body	Island	CTBP1	0.421	0.000	0.933	0.936
cg05974580	yellow	12	69,863,874	TSS1500	N_Shore	FRS2	0.421	-0.006	0.189	0.502
cg17884383	yellow	19	45,848,320	5'UTR	N_Shore	KLC3	0.421	0.002	0.339	0.769
cg01244342	yellow	6	32,709,470	Body	OpenSea	HLA-DQA2	0.421	-0.014	0.900	0.083
cg10915716	yellow	10	134,120,448	Body	Island	STK32C	0.421	0.004	0.461	0.484
cg18534039	yellow	17	43,883,072	Body	OpenSea	CRHR1	0.421	-0.005	0.826	0.565
cg11941929	yellow	18	12,429,120	Body	N_Shelf	SLMO1	0.421	0.015	0.797	0.042



cg13653173	yellow	6	32,844,669	Body	N_Shelf	PPP1R2P1	0.421	-0.008	0.935	0.095
cg15165676	yellow	17	6,926,003	TSS1500	Island	BCL6B	0.421	0.004	0.288	0.717
cg16664496	yellow	16	87,740,413	TSS1500	N_Shore	LOC1001296	0.421	0.003	0.652	0.675
cg00492341	yellow	1	2,526,950	Body	N_Shore	MMEL1	0.421	0.017	0.753	0.012
cg10172318	yellow	11	65,686,003	TSS1500	N_Shore	DRAP1	0.421	0.000	0.031	0.903
cg20238355	yellow	7	100,612,155	TSS1500	S_Shelf	MUC12	0.421	0.003	0.243	0.667
cg02694884	yellow	8	99,411,691		OpenSea		0.421	0.006	0.547	0.532
cg02747280	yellow	16	89,202,817	Body	OpenSea	ACSF3	0.421	0.005	0.713	0.626
cg20190559	yellow	17	30,770,932	TSS1500	N_Shore	PSMD11	0.421	0.005	0.362	0.562
cg08871354	yellow	16	85,723,489	TSS1500	S_Shore	GINS2	0.421	0.010	0.578	0.316
cg12639453	yellow	1	2,035,780	TSS1500	N_Shelf	PRKCZ	0.421	-0.001	0.261	0.970
cg01084693	yellow	20	56,324,074		Island		0.421	0.028	0.149	0.062
cg21707311	yellow	8	67,940,640	5'UTR	N_Shore	LRR67	0.421	0.000	0.018	0.919
cg09828641	yellow	20	1,873,496	TSS1500	N_Shore	SIRPA	0.421	-0.003	0.866	0.790
cg22802994	yellow	19	7,680,089	Body	Island	KIAA1543	0.421	0.005	0.725	0.424
cg17508905	yellow	4	38,121,914	Body	OpenSea	TBC1D1	0.421	-0.002	0.574	0.901
cg13904562	yellow	12	48,690,974		OpenSea		0.421	0.022	0.435	0.116
cg27455578	yellow	7	86,850,357	TSS1500	S_Shore	C7orf23	0.420	0.001	0.086	0.946
cg16190888	yellow	2	69,428,235	Body	OpenSea	ANTXR1	0.420	-0.005	0.772	0.649
cg24653125	yellow	5	61,708,168	TSS1500	N_Shore	IPO11	0.420	0.010	0.126	0.422
cg18410316	yellow	6	31,207,788		OpenSea		0.420	-0.009	0.861	0.240
cg08812692	yellow	5	178,052,235	5'UTR	N_Shore	CLK4	0.420	0.003	0.061	0.525
cg06738867	yellow	6	28,583,655		N_Shore		0.420	-0.012	0.873	0.278
cg14378924	yellow	6	31,832,529	Body	S_Shore	SLC44A4	0.420	0.001	0.578	0.873
cg20018425	yellow	22	50,614,877	Body	N_Shore	PANX2	0.420	0.012	0.656	0.059
cg07451520	yellow	5	157,965,198		OpenSea		0.420	-0.003	0.819	0.799
cg02910910	yellow	12	122,063,967	TSS1500	N_Shore	ORAI1	0.420	0.001	0.055	0.803
cg16396948	yellow	3	111,603,394	Body	OpenSea	PHLDB2	0.420	0.000	0.963	0.913
cg06055392	yellow	11	64,455,673	Body	OpenSea	NRXN2	0.420	0.004	0.499	0.660
cg03086857	yellow	13	78,492,568	1stExon	Island	EDNRB	0.420	0.000	0.019	0.804
cg15843572	yellow	12	133,249,005	Body	N_Shore	POLE	0.420	-0.004	0.909	0.549
cg04864538	yellow	7	158,301,178	Body	N_Shore	PTPRN2	0.420	0.015	0.743	0.157
cg08788930	yellow	8	142,201,685	Body	OpenSea	DENND3	0.420	0.007	0.917	0.158
cg07937270	yellow	1	45,272,633	5'UTR	S_Shore	TCTEX1D4	0.420	0.001	0.971	0.681
cg03068956	yellow	19	46,990,795		N_Shore		0.420	0.004	0.273	0.572
cg15856275	yellow	20	2,539,795	Body	Island	TMC2	0.420	-0.002	0.120	0.737
cg16716883	yellow	10	74,079,772		Island		0.420	0.001	0.045	0.625
cg27109741	yellow	7	6,545,671	Body	S_Shore	GRID2IP	0.420	0.006	0.739	0.517
cg26111575	yellow	10	123,886,914	Body	OpenSea	TACC2	0.420	-0.009	0.145	0.230
cg10936763	yellow	6	36,647,073	5'UTR	Island	CDKN1A	0.420	-0.001	0.062	0.877
cg00521314	yellow	12	95,464,397	5'UTR	N_Shelf	NR2C1	0.420	-0.001	0.938	0.854
cg25618559	yellow	2	241,644,166		S_Shelf		0.420	0.019	0.706	0.047
cg18231848	yellow	1	26,499,103		S_Shelf		0.420	0.001	0.963	0.713
cg00281725	yellow	8	833,048		S_Shore		0.420	0.004	0.567	0.720
cg13017318	yellow	14	21,508,970	TSS1500	OpenSea	RNASE7	0.420	0.010	0.734	0.231
cg11035100	yellow	20	31,870,935	TSS200	OpenSea	C20orf114	0.420	-0.008	0.314	0.244
cg13639189	yellow	17	80,606,880	TSS1500	S_Shore	WDR45L	0.420	-0.001	0.033	0.912
cg23252698	yellow	8	37,621,279	Body	S_Shore	PROSC	0.420	0.006	0.164	0.294
cg19280785	yellow	3	134,340,945	Body	OpenSea	KY	0.420	0.013	0.572	0.310
cg04584700	yellow	20	61,715,878		N_Shore		0.420	0.001	0.406	0.889
cg08484518	yellow	6	31,105,526	Body	OpenSea	PSORS1C1	0.420	-0.008	0.059	0.032
cg18586780	yellow	2	235,953,304	Body	S_Shore	SH3BP4	0.420	-0.001	0.841	0.899
cg10644206	yellow	4	7,209,521	Body	OpenSea	SORCS2	0.420	0.002	0.341	0.843
cg21249829	yellow	9	117,349,316	TSS1500	N_Shore	ATP6V1G1	0.420	0.016	0.763	0.144
cg23793263	yellow	12	132,434,133	TSS1500	N_Shore	EP400	0.420	0.001	0.022	0.112
cg13540981	yellow	6	32,011,506	Body	OpenSea	TNXB	0.420	0.007	0.740	0.308
cg21697134	yellow	17	80,693,839	Body	S_Shore	FN3K	0.420	-0.003	0.160	0.740
cg17887588	yellow	10	50,396,478	TSS200	OpenSea	C10orf128	0.420	0.002	0.135	0.765
cg21931986	yellow	2	36,922,916	TSS1500	OpenSea	VIT	0.420	-0.040	0.614	0.150
cg00695561	yellow	19	17,531,239	Body	Island	FAM125A	0.420	0.001	0.092	0.795
cg17865602	yellow	6	144,328,482	Body	N_Shore	HYMAI	0.420	0.002	0.329	0.882
cg03190876	yellow	19	17,566,550	Body	Island	NXNL1	0.420	0.001	0.083	0.819
cg16447794	yellow	16	331,207	Body	N_Shore	ARHGDI3	0.420	0.012	0.171	0.142
cg26544499	yellow	8	144,458,069	Body	N_Shelf	RHPN1	0.420	0.007	0.838	0.274
cg06958636	yellow	1	245,255,197	Body	OpenSea	EFCAB2	0.420	-0.006	0.284	0.403
cg19577206	yellow	6	31,866,825	TSS1500	N_Shore	EHMT2	0.420	0.003	0.372	0.690
cg25590734	yellow	19	18,044,416	5'UTR	S_Shore	CCDC124	0.420	0.005	0.067	0.408

cg11299459	yellow	4	75,023,219	TSS1500	N_Shore	MTHFD2L	0.420	0.008	0.112	0.324
cg26631454	yellow	13	114,065,669		N_Shore		0.420	0.000	0.928	0.960
cg23463533	yellow	7	154,473,289	Body	OpenSea	DPP6	0.420	-0.019	0.853	0.298
cg13134634	yellow	13	76,207,486	Body	N_Shelf	LMO7	0.420	0.002	0.312	0.869
cg21687563	yellow	22	28,838,019	Body	OpenSea	TTC28	0.419	0.002	0.027	0.268
cg27482328	yellow	11	1,246,276	Body	N_Shore	MUC5B	0.419	0.004	0.749	0.472
cg03583857	yellow	1	208,085,022	TSS1500	S_Shore	CD34	0.419	0.008	0.857	0.192
cg16400350	yellow	21	46,414,569		S_Shelf		0.419	0.021	0.435	0.054
cg03126834	yellow	7	98,632,678	Body	N_Shore	SMURF1	0.419	0.011	0.835	0.042
cg08525145	yellow	1	155,911,361	TSS200	OpenSea	RXFP4	0.419	0.002	0.230	0.735
cg27297851	yellow	19	36,389,833	5'UTR	Island	NFKBID	0.419	0.000	0.015	0.881
cg25413188	yellow	19	36,054,538	1stExon	OpenSea	ATP4A	0.419	0.007	0.865	0.247
cg07533529	yellow	11	62,379,499	TSS1500	N_Shore	ROM1	0.419	-0.003	0.051	0.089
cg04331601	yellow	19	17,633,880	TSS1500	S_Shore	FAM129C	0.419	0.011	0.878	0.120
cg18259348	yellow	5	160,350,644		OpenSea		0.419	0.008	0.591	0.685
cg26984624	yellow	8	41,656,079	TSS1500	S_Shore	ANK1	0.419	0.011	0.518	0.197
cg27510354	yellow	1	112,429,786	Body	OpenSea	KCND3	0.419	0.003	0.499	0.614
cg00570618	yellow	8	81,143,035		OpenSea		0.419	0.012	0.165	0.347
cg03245218	yellow	11	3,666,271	TSS200	S_Shelf	ART1	0.419	0.006	0.877	0.346
cg20003368	yellow	6	44,026,475		OpenSea		0.419	0.012	0.214	0.239
cg24276787	yellow	6	30,045,068	TSS1500	S_Shore	RNF39	0.419	0.002	0.692	0.741
cg25751961	yellow	11	128,711,233	5'UTR	OpenSea	KCNJ1	0.419	-0.002	0.938	0.693
cg13981078	yellow	14	105,885,112	TSS1500	S_Shelf	MTA1	0.419	0.010	0.879	0.083
cg11713274	yellow	12	54,609,870		N_Shore		0.419	0.010	0.055	0.273
cg04671476	yellow	5	180,240,653		S_Shelf		0.419	0.003	0.650	0.624
cg14268780	yellow	21	47,556,798	3'UTR	OpenSea	FTCD	0.419	0.017	0.677	0.052
cg19414302	yellow	1	1,234,354	Body	OpenSea	ACAP3	0.419	0.002	0.864	0.803
cg24057642	yellow	19	17,357,641	TSS1500	S_Shore	NR2F6	0.419	-0.002	0.067	0.612
cg18205787	yellow	11	915,239	TSS200	S_Shelf	CHID1	0.419	0.000	0.825	0.940
cg21611187	yellow	4	38,321,009		OpenSea		0.419	0.001	0.026	0.571
cg05243804	yellow	18	55,254,238	TSS1500	S_Shore	FECH	0.419	-0.001	0.025	0.630
cg20628376	yellow	10	28,758,087		OpenSea		0.419	-0.001	0.567	0.934
cg27039898	yellow	17	79,799,411		Island		0.419	0.006	0.685	0.398
cg16646298	yellow	6	30,698,987	Body	OpenSea	FLOT1	0.419	-0.002	0.645	0.868
cg16750801	yellow	10	129,706,313	5'UTR	S_Shore	PTPRE	0.419	-0.004	0.450	0.717
cg22156128	yellow	3	10,327,453	Body	OpenSea	GHRL	0.419	0.000	0.970	0.917
cg01565985	yellow	1	6,225,887	Body	OpenSea	CHD5	0.419	0.000	0.599	0.983
cg25734939	yellow	13	113,673,511	Body	N_Shelf	MCF2L	0.419	0.008	0.904	0.143
cg24865132	yellow	1	231,376,483	TSS1500	N_Shore	GNPAT	0.419	0.007	0.065	0.259
cg13261938	yellow	17	34,956,742	TSS1500	N_Shore	MRM1	0.419	0.004	0.781	0.524
cg19913291	yellow	6	30,295,432	TSS1500	S_Shore	HCG18	0.419	0.004	0.253	0.660
cg11682724	yellow	6	474,629		OpenSea		0.419	0.022	0.734	0.032
cg25076325	yellow	11	118,135,407	TSS1500	OpenSea	MPZL2	0.419	0.010	0.474	0.350
cg18589874	yellow	11	47,608,310	1stExon	N_Shelf	FAM180B	0.418	0.005	0.492	0.404
cg19985421	yellow	11	77,791,376	TSS200	S_Shore	NDUFC2	0.418	0.025	0.777	0.014
cg11303670	yellow	7	128,784,442	TSS1500	N_Shore	TSPAN33	0.418	-0.006	0.047	0.045
cg27576683	yellow	10	129,948,776		Island		0.418	0.001	0.060	0.854
cg19914919	yellow	2	161,992,878	TSS1500	OpenSea	TANK	0.418	-0.001	0.499	0.931
cg17464815	yellow	13	107,354,273		OpenSea		0.418	0.012	0.725	0.183
cg17444747	yellow	5	177,915,909	Body	OpenSea	COL23A1	0.418	0.014	0.473	0.108
cg08595806	yellow	6	160,512,464	Body	Island	IGF2R	0.418	-0.008	0.899	0.115
cg05715828	yellow	9	131,643,131	TSS1500	N_Shore	LRRC8A	0.418	0.006	0.459	0.588
cg08524514	yellow	10	50,969,659	5'UTR	Island	OGDHL	0.418	0.001	0.162	0.914
cg14386777	yellow	9	14,063,065		OpenSea		0.418	-0.013	0.774	0.280
cg14233050	yellow	12	120,651,871	Body	Island	PXN	0.418	0.000	0.830	0.956
cg04778755	yellow	10	3,235,569		OpenSea		0.418	0.002	0.154	0.834
cg14715327	yellow	11	55,109,885	TSS1500	OpenSea	OR4A16	0.418	0.006	0.142	0.589
cg13550148	yellow	1	247,093,553	Body	N_Shore	AHCTF1	0.418	0.007	0.238	0.417
cg12080882	yellow	1	109,634,248	Body	S_Shore	TMEM167B	0.418	0.006	0.454	0.710
cg01704999	yellow	15	65,931,192	Body	OpenSea	SLC24A1	0.418	0.000	0.216	0.947
cg04065108	yellow	22	50,453,924	Body	Island	TTL8	0.418	0.014	0.157	0.230
cg13393678	yellow	2	55,346,338		OpenSea		0.418	0.005	0.581	0.677
cg22883889	yellow	20	61,583,686	TSS1500	N_Shore	SLC17A9	0.418	0.005	0.580	0.639
cg13580382	yellow	9	140,081,032	Body	N_Shore	ANAPC2	0.418	0.006	0.908	0.164
cg07119616	yellow	9	129,452,879	Body	N_Shore	LMX1B	0.418	-0.009	0.112	0.170
cg03965138	yellow	19	52,134,393	TSS1500	OpenSea	SIGLEC5	0.418	0.006	0.314	0.721
cg17280514	yellow	2	242,755,302	Body	N_Shore	NEU4	0.418	0.011	0.735	0.225

cg20224370	yellow	13	21,808,562	OpenSea		0.418	0.003	0.978	0.125
cg14071588	yellow	19	295,739	S_Shore		0.418	0.015	0.639	0.055
cg16892379	yellow	10	134,271,845	OpenSea		0.418	0.006	0.432	0.347
cg11696576	yellow	6	160,815,734 Body	OpenSea	SLC22A3	0.418	0.006	0.713	0.345
cg15716042	yellow	19	6,325,134 Body	OpenSea	ACER1	0.418	0.007	0.627	0.445
cg06620972	yellow	3	128,226,499 TSS200	OpenSea	LOC90246	0.418	-0.003	0.860	0.695
cg17035539	yellow	1	229,544,326	S_Shore		0.418	-0.001	0.180	0.883
cg25007447	yellow	12	93,521,330	OpenSea		0.418	0.031	0.798	0.044
cg24304518	yellow	2	113,299,015 TSS1500	N_Shore	POLR1B	0.418	0.010	0.783	0.351
cg04605532	yellow	1	234,843,592	OpenSea		0.418	0.013	0.147	0.144
cg02973307	yellow	19	34,302,998 3'UTR	S_Shore	KCTD15	0.418	0.018	0.643	0.117
cg00266592	yellow	6	3,139,627 Body	N_Shore	BPHL	0.417	-0.009	0.493	0.393
cg14156381	yellow	19	8,212,675 TSS1500	N_Shore	FBN3	0.417	0.008	0.363	0.255
cg07794384	yellow	2	131,518,131 5'UTR	S_Shelf	FAM123C	0.417	0.001	0.604	0.908
cg21032395	yellow	3	27,528,777	S_Shelf		0.417	-0.011	0.741	0.338
cg08127462	yellow	1	153,514,264 TSS200	OpenSea	S100A5	0.417	0.011	0.521	0.157
cg02801789	yellow	7	127,989,338	N_Shore		0.417	0.020	0.442	0.033
cg14044120	yellow	9	139,949,577 TSS1500	S_Shore	ENTPD2	0.417	0.010	0.444	0.169
cg03653601	yellow	16	16,156,039 Body	OpenSea	ABCC1	0.417	0.001	0.717	0.912
cg21928760	yellow	3	2,462,534 5'UTR	OpenSea	CNTN4	0.417	-0.020	0.770	0.217
cg20692149	yellow	19	51,835,099 3'UTR	S_Shelf	VSIG10L	0.417	0.009	0.930	0.123
cg03764062	yellow	11	64,008,174 TSS1500	N_Shore	FKBP2	0.417	0.002	0.088	0.641
cg21900069	yellow	3	99,408,767 5'UTR	OpenSea	COL8A1	0.417	0.005	0.692	0.512
cg13730358	yellow	10	134,054,797 Body	OpenSea	STK32C	0.417	0.011	0.824	0.097
cg14791054	yellow	15	101,442,769 Body	OpenSea	ALDH1A3	0.417	0.004	0.032	0.092
cg01753209	yellow	21	43,098,516 TSS1500	OpenSea	NCRNA00111	0.417	0.006	0.517	0.474
cg26660312	yellow	7	5,271,480 3'UTR	S_Shelf	WIPI2	0.417	0.003	0.855	0.768
cg27196940	yellow	4	110,736,273 TSS1500	N_Shore	GAR1	0.417	0.007	0.074	0.347
cg14968388	yellow	19	38,576,668 Body	S_Shelf	SIPA1L3	0.417	-0.006	0.782	0.603
cg09436931	yellow	11	44,026,620	OpenSea		0.417	0.005	0.313	0.684
cg02580250	yellow	10	134,807,902	S_Shore		0.417	0.008	0.320	0.262
cg05411056	yellow	13	112,852,819	S_Shelf		0.417	0.014	0.821	0.075
cg15145767	yellow	3	50,306,428 5'UTR	OpenSea	SEMA3B	0.417	0.009	0.303	0.233
cg12840336	yellow	8	11,422,730	S_Shore		0.417	-0.006	0.448	0.529
cg09450200	yellow	7	148,903,195 Body	OpenSea	ZNF282	0.417	0.000	0.660	0.972
cg10244503	yellow	1	87,691,781	OpenSea		0.417	0.015	0.574	0.150
cg14067233	yellow	9	89,898,047	OpenSea		0.417	-0.009	0.682	0.212
cg22870386	yellow	14	105,246,708 Body	OpenSea	AKT1	0.417	-0.001	0.874	0.868
cg05516619	yellow	3	120,312,459	N_Shelf		0.417	-0.003	0.926	0.598
cg00600477	yellow	8	144,715,010	N_Shelf		0.417	-0.007	0.685	0.497
cg23210424	yellow	10	60,094,570 TSS200	N_Shore	UBE2D1	0.417	-0.002	0.083	0.741
cg06846310	yellow	4	184,826,215 TSS1500	N_Shore	STOX2	0.417	-0.005	0.083	0.360
cg07351267	yellow	19	33,684,846 TSS1500	N_Shore	LRP3	0.417	-0.003	0.532	0.631
cg11619797	yellow	7	90,228,764	S_Shelf		0.417	0.009	0.923	0.158
cg11272349	yellow	2	234,637,253 Body	OpenSea	UGT1A10	0.417	0.003	0.871	0.704
cg18087143	yellow	7	38,209,440	OpenSea		0.417	-0.004	0.073	0.661
cg10641258	yellow	21	43,484,279	OpenSea		0.417	0.011	0.619	0.207
cg23266546	yellow	6	28,190,810	N_Shelf		0.417	0.017	0.548	0.291
cg16425577	yellow	8	142,139,654 5'UTR	S_Shore	DENND3	0.416	-0.008	0.095	0.157
cg19400938	yellow	6	33,256,621 TSS1500	Island	PFDN6	0.416	0.000	0.053	0.952
cg27021327	yellow	7	5,272,697 3'UTR	OpenSea	WIPI2	0.416	0.006	0.548	0.344
cg18712352	yellow	14	64,972,736 5'UTR	S_Shore	ZBTB1	0.416	-0.002	0.058	0.658
cg07499032	yellow	7	102,066,852 3'UTR	OpenSea	PRKRIP1	0.416	0.003	0.927	0.541
cg23786600	yellow	13	113,848,954 Body	OpenSea	PCID2	0.416	0.000	0.949	0.980
cg25643223	yellow	13	24,787,195 5'UTR	OpenSea	SPATA13	0.416	0.003	0.698	0.719
cg25993608	yellow	18	76,621,396	S_Shelf		0.416	0.000	0.389	0.989
cg00948085	yellow	7	25,890,572	N_Shore		0.416	-0.016	0.401	0.111
cg27574980	yellow	6	31,744,636 5'UTR	OpenSea	C6orf27	0.416	0.020	0.456	0.077
cg05096800	yellow	21	47,290,548 Body	S_Shore	PCBP3	0.416	0.003	0.696	0.660
cg19649083	yellow	5	175,295,119 5'UTR	N_Shelf	CPLX2	0.416	-0.005	0.097	0.477
cg15675456	yellow	1	19,239,678 Body	OpenSea	IFFO2	0.416	-0.008	0.080	0.156
cg10748359	yellow	11	100,211,450 Body	OpenSea	CNTN5	0.416	0.006	0.241	0.675
cg02637352	yellow	5	148,961,536 5'UTR	S_Shore	FLJ41603	0.416	0.010	0.204	0.282
cg24013954	yellow	7	140,394,679 3'UTR	N_Shore	ADCK2	0.416	0.004	0.676	0.629
cg06300308	yellow	7	100,728,527 TSS1500	N_Shelf	TRIM56	0.416	0.004	0.167	0.580
cg11714200	yellow	19	1,065,688 TSS1500	N_Shore	HMHA1	0.416	0.009	0.612	0.309
cg06192753	yellow	19	13,068,297 TSS1500	S_Shore	GADD45GIP1	0.416	0.003	0.121	0.792

cg21304163	yellow	19	35,607,221	5'UTR	OpenSea	FXYD3	0.416	0.007	0.658	0.347
cg05393119	yellow	16	30,421,345	Body	S_Shelf	ZNF771	0.416	0.003	0.905	0.689
cg00054692	yellow	7	23,338,750	TSS200	N_Shore	C7orf30	0.416	-0.001	0.032	0.610
cg14971941	yellow	6	31,637,664	TSS1500	S_Shelf	LY6G5B	0.416	0.005	0.820	0.300
cg16541031	yellow	11	615,519	5'UTR	Island	IRF7	0.416	-0.001	0.047	0.828
cg08903069	yellow	2	85,500,887	Body	OpenSea	TCF7L1	0.416	0.007	0.544	0.311
cg03612692	yellow	1	17,586,047	Body	OpenSea	PADI3	0.416	0.007	0.620	0.139
cg03119043	yellow	1	47,915,553		N_Shore		0.416	0.001	0.150	0.922
cg10376337	yellow	16	87,446,508	Body	N_Shore	ZCCHC14	0.415	0.001	0.931	0.824
cg20444990	yellow	4	649,573	Body	N_Shore	PDE6B	0.415	0.007	0.233	0.553
cg14242895	yellow	11	118,393,450	3'UTR	OpenSea	MLL	0.415	0.002	0.710	0.790
cg22313322	yellow	6	160,212,070	TSS1500	S_Shore	TCP1	0.415	0.005	0.040	0.120
cg07323947	yellow	10	103,896,068	Body	S_Shelf	PPRC1	0.415	-0.002	0.750	0.866
cg04189320	yellow	15	31,691,214		S_Shore		0.415	-0.004	0.768	0.464
cg04309480	yellow	1	204,655,678	TSS1500	S_Shore	LRRN2	0.415	0.013	0.804	0.051
cg24027669	yellow	6	118,699,056		OpenSea		0.415	0.009	0.823	0.562
cg05292402	yellow	16	1,071,884		S_Shore		0.415	0.001	0.702	0.916
cg16979981	yellow	2	48,034,654	3'UTR	OpenSea	FBXO11	0.415	0.000	0.937	0.955
cg04540061	yellow	22	41,791,411	Body	N_Shore	TEF	0.415	-0.006	0.909	0.373
cg00017461	yellow	22	30,663,316	TSS1500	OpenSea	OSM	0.415	-0.006	0.656	0.397
cg25719851	yellow	12	7,055,452	TSS1500	S_Shore	PTPN6	0.415	0.005	0.634	0.468
cg12628905	yellow	5	859,540		OpenSea		0.415	0.011	0.850	0.181
cg24032156	yellow	14	93,412,562	Body	OpenSea	ITPK1	0.415	-0.001	0.624	0.943
cg23377607	yellow	17	39,728,362	TSS200	OpenSea	KRT9	0.415	-0.002	0.724	0.840
cg20531169	yellow	4	1,052,560		S_Shelf		0.415	0.002	0.566	0.860
cg24234938	yellow	6	31,790,106		OpenSea		0.415	0.000	0.014	0.793
cg23283614	yellow	14	60,632,532	TSS1500	S_Shore	DHRS7	0.415	0.026	0.270	0.174
cg24555639	yellow	17	80,397,641	Body	Island	HEXDC	0.415	-0.003	0.833	0.633
cg00467553	yellow	9	38,391,432	TSS1500	N_Shore	ALDH1B1	0.415	0.003	0.682	0.645
cg15309457	yellow	5	1,746,469		Island		0.415	0.001	0.882	0.929
cg04737991	yellow	12	105,050,768	Body	OpenSea	CHST11	0.415	-0.001	0.562	0.955
cg06028808	yellow	11	68,637,592		OpenSea		0.415	-0.035	0.242	0.079
cg08660555	yellow	1	178,508,868		N_Shelf		0.415	-0.002	0.883	0.720
cg13361703	yellow	10	95,653,447	TSS1500	N_Shore	TMEM20	0.415	-0.002	0.043	0.601
cg25744957	yellow	4	7,106,195	TSS1500	OpenSea	FLJ36777	0.415	0.013	0.777	0.085
cg14460735	yellow	1	246,728,727	TSS1500	N_Shore	CNST	0.415	0.015	0.587	0.182
cg19912309	yellow	6	170,467,967		OpenSea		0.415	0.017	0.735	0.090
cg08707476	yellow	1	109,099,375		N_Shelf		0.415	0.004	0.535	0.548
cg08826468	yellow	16	30,724,604	Body	OpenSea	SRCAP	0.415	0.004	0.927	0.387
cg21239179	yellow	6	169,272,052		OpenSea		0.415	0.009	0.500	0.222
cg07902884	yellow	10	95,463,124	TSS1500	S_Shore	C10orf4	0.415	0.000	0.017	0.843
cg19426731	yellow	19	49,992,527	Body	S_Shore	RPL13AP5	0.415	0.004	0.096	0.624
cg05599550	yellow	17	48,711,902	TSS1500	N_Shore	ABCC3	0.415	0.002	0.031	0.370
cg00709423	yellow	7	150,816,834	Body	N_Shore	AGAP3	0.415	0.000	0.822	0.980
cg09363892	yellow	1	954,619	TSS1500	N_Shore	AGRN	0.415	0.010	0.390	0.467
cg03188064	yellow	12	122,096,667	Body	OpenSea	MORN3	0.415	-0.009	0.857	0.251
cg19544441	yellow	11	67,211,701	TSS1500	OpenSea	CORO1B	0.415	0.005	0.436	0.672
cg06886374	yellow	16	1,844,152	TSS1500	S_Shore	IGFALS	0.415	0.013	0.720	0.465
cg14280382	yellow	12	96,094,182	Body	OpenSea	NTN4	0.415	0.030	0.622	0.031
cg25021532	yellow	8	107,782,513	TSS200	OpenSea	ABRA	0.415	-0.004	0.553	0.588
cg05785102	yellow	16	2,009,084	TSS1500	N_Shore	NDUFB10	0.415	-0.003	0.827	0.711
cg23758687	yellow	13	112,996,049		N_Shore		0.414	0.010	0.599	0.485
cg10837116	yellow	12	53,069,933	Body	OpenSea	KRT1	0.414	0.007	0.403	0.216
cg23757461	yellow	18	55,924,888	5'UTR	S_Shore	NEDD4L	0.414	0.012	0.607	0.248
cg24430201	yellow	19	2,228,815	Body	N_Shore	DOT1L	0.414	0.001	0.911	0.837
cg01942646	yellow	1	27,240,694	TSS200	OpenSea	NR0B2	0.414	0.004	0.488	0.594
cg23859630	yellow	6	32,160,455	5'UTR	N_Shelf	GPSM3	0.414	-0.002	0.401	0.833
cg19077794	yellow	6	22,658,507		OpenSea		0.414	0.009	0.275	0.377
cg10111759	yellow	1	151,800,000	TSS1500	OpenSea	RORC	0.414	0.004	0.742	0.566
cg24908198	yellow	11	128,812,992	TSS200	OpenSea	TP53AIP1	0.414	0.002	0.671	0.952
cg18795383	yellow	19	1,822,386	Body	Island	REXO1	0.414	-0.010	0.916	0.076
cg24449091	yellow	1	167,773,027		OpenSea		0.414	0.000	0.758	0.949
cg09980626	yellow	16	30,125,305	TSS200	OpenSea	LOC1002718	0.414	0.011	0.764	0.233
cg13158604	yellow	7	101,201,400	3'UTR	OpenSea	EMID2	0.414	0.003	0.802	0.631
cg08207707	yellow	11	124,630,919	Body	N_Shore	ESAM	0.414	-0.002	0.605	0.792
cg04453677	yellow	3	52,489,323	TSS1500	N_Shore	TNNC1	0.414	-0.003	0.041	0.194
cg06012016	yellow	11	67,219,631	1stExon	OpenSea	GPR152	0.414	0.002	0.682	0.733

cg01455766	yellow	16	3,211,341	S_Shore		0.414	0.018	0.552	0.006
cg16268315	yellow	8	103,491,087	OpenSea		0.414	-0.004	0.920	0.394
cg08895056	yellow	17	19,438,253 Body	S_Shore	SLC47A1	0.414	-0.001	0.731	0.887
cg11084629	yellow	1	55,230,770 TSS1500	S_Shore	PARS2	0.414	0.001	0.030	0.611
cg24245601	yellow	11	12,341,664 Body	OpenSea	MICALCL	0.414	-0.001	0.692	0.948
cg05917111	yellow	16	75,568,999 5'UTR	OpenSea	CHST5	0.414	0.012	0.431	0.247
cg12903224	yellow	12	29,470,962 Body	OpenSea	FAR2	0.414	0.013	0.286	0.406
cg26724726	yellow	6	31,549,853 Body	S_Shore	LTB	0.414	0.007	0.565	0.423
cg27258450	yellow	19	56,118,086	S_Shore		0.414	0.013	0.392	0.098
cg17809365	yellow	15	22,833,172 TSS1500	N_Shore	TUBGCP5	0.414	0.039	0.275	0.039
cg06048910	yellow	11	2,925,473 Body	S_Shore	SLC22A18	0.414	-0.005	0.834	0.458
cg11370814	yellow	2	242,927,418	N_Shore		0.414	0.006	0.883	0.384
cg03638479	yellow	3	52,009,768 TSS1500	S_Shore	ABHD14B	0.414	0.005	0.042	0.057
cg20148334	yellow	1	209,815,452 Body	OpenSea	LAMB3	0.414	-0.002	0.217	0.812
cg12693641	yellow	11	61,349,543 TSS1500	S_Shore	SYT7	0.413	0.004	0.425	0.496
cg03088525	yellow	16	19,421,907 TSS200	Island	TMC5	0.413	-0.004	0.085	0.269
cg03173528	yellow	13	40,175,221 Body	N_Shore	LHFP	0.413	-0.008	0.880	0.291
cg26897713	yellow	8	40,851,636	OpenSea		0.413	-0.002	0.059	0.717
cg14430015	yellow	7	8,215,896 Body	OpenSea	ICA1	0.413	-0.001	0.444	0.908
cg15661865	yellow	2	27,632,926 TSS1500	S_Shore	PPM1G	0.413	0.000	0.175	0.987
cg22001211	yellow	2	61,766,532 TSS1500	S_Shore	XPO1	0.413	-0.001	0.107	0.835
cg03773647	yellow	11	57,417,949 TSS1500	S_Shelf	YPEL4	0.413	0.002	0.193	0.867
cg14777341	yellow	17	78,992,323	OpenSea		0.413	-0.003	0.079	0.564
cg21160774	yellow	19	17,611,346 Body	Island	SLC27A1	0.413	-0.004	0.922	0.388
cg16246747	yellow	2	111,491,205 5'UTR	S_Shore	ACOXL	0.413	0.005	0.489	0.702
cg03433699	yellow	17	6,916,926 Body	N_Shore	RNASEK	0.413	0.005	0.300	0.466
cg09618953	yellow	22	23,522,492 TSS200	N_Shore	BCR	0.413	-0.001	0.048	0.805
cg05483875	yellow	7	2,439,960	N_Shelf		0.413	0.001	0.030	0.605
cg13429095	yellow	1	206,913,187	OpenSea		0.413	-0.002	0.799	0.708
cg14631218	yellow	9	139,114,561 Body	OpenSea	QSOX2	0.413	0.001	0.909	0.790
cg06828143	yellow	5	10,490,335	OpenSea		0.413	-0.005	0.719	0.496
cg04736911	yellow	2	71,220,904 Body	N_Shore	TEX261	0.413	0.011	0.723	0.200
cg16908913	yellow	3	49,716,137 Body	S_Shelf	APEH	0.413	-0.004	0.924	0.526
cg16454902	yellow	16	27,414,272 TSS200	OpenSea	IL21R	0.413	0.025	0.489	0.003
cg17602168	yellow	20	61,619,051	N_Shelf		0.413	0.005	0.886	0.492
cg01460481	yellow	11	125,326,162 Body	OpenSea	FEZ1	0.413	0.001	0.805	0.838
cg02001060	yellow	11	108,408,962 Body	OpenSea	EXPH5	0.413	-0.001	0.279	0.885
cg01890676	yellow	5	178,902,790	OpenSea		0.413	0.014	0.583	0.121
cg18333643	yellow	4	1,543,632	S_Shore		0.413	0.011	0.473	0.058
cg03165195	yellow	19	18,331,177 Body	Island	PDE4C	0.413	0.004	0.516	0.678
cg10553596	yellow	2	242,751,847 TSS200	N_Shelf	NEU4	0.413	0.003	0.464	0.842
cg11945895	yellow	13	95,253,670 TSS1500	N_Shore	GPR180	0.413	-0.010	0.379	0.376
cg11032474	yellow	16	67,312,928 TSS1500	Island	PLEKHG4	0.413	0.006	0.114	0.355
cg15044181	yellow	6	160,458,148 Body	OpenSea	IGF2R	0.413	0.010	0.900	0.271
cg12608702	yellow	11	45,392,566	OpenSea		0.413	0.001	0.819	0.904
cg19163814	yellow	4	122,722,220 TSS1500	N_Shore	EXOSC9	0.413	0.001	0.022	0.740
cg13134399	yellow	15	98,716,937	OpenSea		0.413	-0.020	0.311	0.046
cg19296556	yellow	19	1,802,918 Body	S_Shelf	ATP8B3	0.413	0.018	0.456	0.075
cg25255113	yellow	11	985,976 Body	OpenSea	AP2A2	0.413	-0.005	0.589	0.469
cg13185005	yellow	11	268,950	OpenSea		0.413	0.035	0.617	0.038
cg14386691	yellow	14	23,479,657 TSS1500	S_Shore	C14orf93	0.413	0.001	0.128	0.808
cg17360330	yellow	4	4,459,401 Body	OpenSea	STX18	0.413	-0.001	0.899	0.930
cg03510349	yellow	12	3,861,616 5'UTR	N_Shore	EFCAB4B	0.413	0.037	0.505	0.209
cg09404376	yellow	6	134,499,189 TSS200	S_Shore	SGK1	0.412	0.007	0.453	0.372
cg27093871	yellow	16	67,011,242	OpenSea		0.412	0.001	0.580	0.910
cg04237822	yellow	7	157,523,541 Body	N_Shore	PTPRN2	0.412	-0.008	0.734	0.487
cg02841482	yellow	3	157,217,803 5'UTR	OpenSea	VEPH1	0.412	0.001	0.285	0.948
cg18838346	yellow	6	30,615,813 Body	S_Shore	C6orf136	0.412	0.001	0.024	0.416
cg02356702	yellow	13	114,319,334	OpenSea		0.412	-0.001	0.442	0.830
cg08442052	yellow	5	13,745,921 Body	OpenSea	DNAH5	0.412	0.018	0.445	0.048
cg02092466	yellow	2	11,810,631 TSS1500	S_Shore	NTSR2	0.412	0.000	0.646	1.000
cg15125981	yellow	2	121,418,922	OpenSea		0.412	-0.001	0.273	0.857
cg14580737	yellow	19	19,301,780 Body	N_Shore	LOC729991	0.412	0.016	0.846	0.085
cg03034192	yellow	3	50,606,346 TSS1500	Island	HEMK1	0.412	0.000	0.015	0.633
cg05705335	yellow	16	81,520,589 Body	OpenSea	CMIP	0.412	0.006	0.566	0.504
cg12421602	yellow	5	32,475,093	OpenSea		0.412	0.002	0.752	0.856
cg26515084	yellow	12	133,312,243 Body	S_Shore	ANKLE2	0.412	0.003	0.851	0.640

cg15730464	yellow	4	25,087,441		N_Shelf		0.412	0.010	0.491	0.202
cg08905080	yellow	16	89,600,764	Body	N_Shelf	SPG7	0.412	-0.005	0.872	0.497
cg23060047	yellow	12	130,819,504		N_Shelf		0.412	0.006	0.853	0.440
cg12894055	yellow	17	19,437,929	Body	S_Shore	SLC47A1	0.412	0.007	0.212	0.494
cg05844420	yellow	2	171,621,820		OpenSea		0.412	0.013	0.493	0.074
cg19953452	yellow	17	254,590		S_Shore		0.412	0.005	0.834	0.603
cg03081691	yellow	1	226,188,006	TSS1500	S_Shore	C1orf55	0.412	-0.010	0.795	0.627
cg25840354	yellow	4	38,784,158	5'UTR	OpenSea	TLR10	0.412	0.018	0.628	0.218
cg13095627	yellow	19	46,544,662	TSS1500	OpenSea	IGFL4	0.412	-0.011	0.105	0.342
cg18971647	yellow	4	83,956,927	Body	OpenSea	COPS4	0.412	0.001	0.077	0.874
cg03865524	yellow	10	45,360,781		S_Shore		0.412	-0.007	0.502	0.506
cg20205477	yellow	10	74,113,178	Body	N_Shore	DNAJB12	0.412	0.000	0.897	0.981
cg15470658	yellow	12	57,518,141		N_Shelf		0.412	-0.003	0.209	0.719
cg10382620	yellow	16	73,467,352		OpenSea		0.412	0.014	0.496	0.215
cg20964423	yellow	1	165,513,361	Body	OpenSea	LOC400794	0.412	0.007	0.040	0.078
cg02642962	yellow	10	124,610,404	5'UTR	OpenSea	FAM24B	0.412	0.007	0.881	0.471
cg17918285	yellow	14	50,470,503	Body	S_Shore	C14orf182	0.412	-0.002	0.041	0.294
cg02046143	yellow	11	133,797,911	Body	N_Shelf	IGSF9B	0.412	-0.001	0.685	0.931
cg13780616	yellow	1	29,769,702		OpenSea		0.412	-0.004	0.322	0.654
cg13932606	yellow	11	47,664,508	TSS1500	S_Shore	MTCH2	0.412	-0.002	0.033	0.397
cg23785859	yellow	6	11,475,157		OpenSea		0.412	-0.013	0.181	0.332
cg13195526	yellow	12	68,647,498	TSS1500	OpenSea	IL22	0.412	0.015	0.888	0.071
cg02576395	yellow	1	27,884,179	5'UTR	OpenSea	AHDC1	0.412	0.003	0.522	0.435
cg23915792	yellow	22	41,763,255	TSS200	OpenSea	TEF	0.412	0.002	0.022	0.302
cg02641095	yellow	5	157,170,413	TSS1500	N_Shore	LSM11	0.412	-0.002	0.035	0.250
cg23159337	yellow	3	193,272,778	TSS200	OpenSea	ATP13A4	0.411	-0.003	0.087	0.619
cg01438286	yellow	1	249,200,039	TSS1500	N_Shore	PGBD2	0.411	-0.001	0.444	0.922
cg06521357	yellow	4	3,486,380	Body	Island	DOK7	0.411	-0.001	0.313	0.948
cg08965143	yellow	2	24,308,246	TSS1500	S_Shore	TP53I3	0.411	0.001	0.047	0.902
cg06649282	yellow	16	58,054,982	3'UTR	N_Shelf	C16orf57	0.411	0.001	0.428	0.867
cg25568490	yellow	5	148,812,353	Body	OpenSea	LOC728264	0.411	0.001	0.887	0.787
cg22658316	yellow	19	51,669,595	TSS1500	OpenSea	SIGLECP3	0.411	0.001	0.754	0.933
cg08586737	yellow	7	127,225,949	TSS1500	Island	GCC1	0.411	0.000	0.305	0.975
cg26560367	yellow	19	12,406,247	TSS1500	S_Shore	ZNF44	0.411	0.009	0.309	0.267
cg01255513	yellow	19	13,365,923	Body	Island	CACNA1A	0.411	0.002	0.927	0.759
cg11190434	yellow	5	172,106,450	Body	N_Shelf	NEURL1B	0.411	0.024	0.776	0.299
cg24908197	yellow	19	5,714,980	Body	S_Shelf	LONP1	0.411	0.002	0.951	0.718
cg24951593	yellow	11	3,817,820	5'UTR	N_Shore	NUP98	0.411	0.001	0.039	0.784
cg18974921	yellow	11	78,131,895		S_Shelf		0.411	-0.003	0.608	0.804
cg07131210	yellow	7	1,025,825	Body	N_Shore	CYP2W1	0.411	0.005	0.888	0.411
cg15062470	yellow	2	27,718,710	TSS1500	S_Shore	FNDC4	0.411	0.007	0.587	0.459
cg16169675	yellow	13	113,594,722		N_Shelf		0.411	0.041	0.536	0.178
cg22904048	yellow	4	6,665,672		Island		0.411	0.001	0.385	0.927
cg02825412	yellow	9	124,985,756	Body	N_Shore	LHX6	0.411	0.002	0.504	0.790
cg23461714	yellow	11	113,184,990	TSS1500	N_Shore	TTC12	0.411	-0.001	0.033	0.634
cg12232778	yellow	20	56,324,064		Island		0.411	0.035	0.193	0.042
cg13453304	yellow	18	77,493,499	Body	Island	CTDP1	0.411	0.034	0.712	0.020
cg12197752	yellow	5	101,119,766		OpenSea		0.411	0.007	0.513	0.665
cg26097674	yellow	2	242,610,325	Body	S_Shelf	ATG4B	0.411	-0.003	0.900	0.516
cg11350728	yellow	6	30,879,515	Body	N_Shelf	GTF2H4	0.411	0.006	0.843	0.229
cg16797421	yellow	6	147,428,486		OpenSea		0.411	0.010	0.265	0.300
cg27187541	yellow	7	91,012,818		OpenSea		0.411	0.015	0.446	0.032
cg12432980	yellow	20	5,987,794	Body	S_Shore	CRLS1	0.411	-0.003	0.114	0.679
cg16836678	yellow	11	76,836,460	3'UTR	OpenSea	CAPN5	0.411	0.011	0.286	0.603
cg25064352	yellow	4	6,305,036		S_Shore		0.411	0.009	0.834	0.076
cg00619592	yellow	17	79,668,348	Body	N_Shore	HGS	0.411	0.007	0.872	0.184
cg14527333	yellow	2	220,381,808	Body	S_Shelf	ACCN4	0.411	0.016	0.495	0.021
cg18191092	yellow	8	64,331,042		OpenSea		0.411	-0.008	0.491	0.396
cg13576682	yellow	1	35,325,800	TSS1500	S_Shore	C1orf212	0.411	0.016	0.141	0.264
cg23296678	yellow	11	1,099,117	Body	S_Shelf	MUC2	0.411	-0.001	0.823	0.847
cg18713766	yellow	15	28,701,840		N_Shore		0.411	0.002	0.769	0.796
cg05534152	yellow	4	1,340,978	TSS200	Island	KIAA1530	0.411	-0.001	0.123	0.920
cg06190732	yellow	14	95,078,636	TSS200	OpenSea	SERPINA3	0.411	0.003	0.336	0.848
cg14218542	yellow	10	134,853,281		Island		0.411	0.016	0.844	0.147
cg27514538	yellow	16	21,715,860	TSS1500	OpenSea	OTOA	0.411	0.011	0.831	0.093
cg07465864	yellow	5	112,849,162	TSS1500	N_Shore	YTHDC2	0.411	0.020	0.185	0.052
cg22157629	yellow	7	130,354,855	Body	S_Shore	TSGA13	0.410	0.000	0.974	0.983

cg24967096	yellow	6	30,652,237	Body	N_Shelf	KIAA1949	0.410	0.007	0.530	0.227
cg18941614	yellow	17	42,287,715	Body	Island	UBTF	0.410	0.015	0.345	0.070
cg18125846	yellow	3	180,547,422		S_Shore		0.410	0.003	0.906	0.547
cg26546912	yellow	11	134,216,065	Body	S_Shelf	GLB1L2	0.410	0.007	0.809	0.144
cg10039504	yellow	12	3,242,272	5'UTR	OpenSea	TSPAN9	0.410	0.046	0.226	0.023
cg12434986	yellow	4	999,555		N_Shelf		0.410	0.015	0.795	0.029
cg25706012	yellow	7	1,782,755	5'UTR	N_Shore	ELFN1	0.410	0.003	0.073	0.794
cg01583485	yellow	20	3,022,925	TSS1500	N_Shelf	GNRH2	0.410	0.000	0.048	0.975
cg11791526	yellow	11	67,177,042	Body	Island	TBC1D10C	0.410	0.005	0.807	0.458
cg09876992	yellow	22	42,470,868	5'UTR	S_Shore	FAM109B	0.410	0.001	0.242	0.796
cg00294534	yellow	7	1,607,247	3'UTR	N_Shelf	PSMG3	0.410	0.015	0.492	0.204
cg00302160	yellow	8	10,030,945	Body	OpenSea	MSRA	0.410	-0.012	0.490	0.317
cg11435167	yellow	19	1,588,449	Body	N_Shelf	MBD3	0.410	0.000	0.956	0.893
cg20026178	yellow	6	2,768,054	Body	S_Shore	WRNIP1	0.410	0.003	0.719	0.697
cg04574480	yellow	12	5,545,007	Body	S_Shelf	NTF3	0.410	0.008	0.582	0.208
cg11007110	yellow	10	134,796,269		OpenSea		0.410	0.024	0.605	0.194
cg12708287	yellow	1	54,358,446	TSS1500	S_Shelf	DIO1	0.410	0.007	0.868	0.471
cg04886221	yellow	1	27,669,729	5'UTR	OpenSea	SYTL1	0.410	0.001	0.548	0.813
cg18663382	yellow	6	30,418,789		N_Shore		0.410	0.015	0.172	0.198
cg22337744	yellow	6	159,463,893	5'UTR	OpenSea	TAGAP	0.410	0.008	0.090	0.200
cg04943241	yellow	4	5,898,879		S_Shelf		0.410	0.000	0.651	0.934
cg17915125	yellow	10	134,476,336	Body	N_Shore	INPP5A	0.410	0.005	0.851	0.571
cg15353533	yellow	4	1,023,291		S_Shore		0.410	-0.003	0.921	0.656
cg05907835	yellow	16	31,214,346	TSS200	S_Shore	PYCARD	0.410	-0.001	0.326	0.884
cg08530484	yellow	2	220,024,606	5'UTR	N_Shore	NHEJ1	0.410	0.018	0.355	0.140
cg06699195	yellow	2	863,889		N_Shore		0.410	0.008	0.272	0.601
cg01447096	yellow	1	229,546,894		S_Shelf		0.410	0.002	0.077	0.727
cg04154424	yellow	5	17,204,524	Body	OpenSea	LOC285696	0.410	0.006	0.396	0.517
cg00713253	yellow	7	590,098	Body	S_Shore	PRKAR1B	0.410	-0.001	0.747	0.907
cg19589131	yellow	1	39,876,059	1stExon	S_Shore	KIAA0754	0.410	0.000	0.368	0.966
cg11765003	yellow	2	220,024,730	5'UTR	N_Shore	NHEJ1	0.410	0.019	0.228	0.045
cg03477332	yellow	5	16,178,784	Body	N_Shore	11-Mar	0.410	0.027	0.508	0.045
cg04922803	yellow	12	104,444,418	TSS1500	OpenSea	GLT8D2	0.410	0.004	0.338	0.739
cg03267511	yellow	6	169,306,691		N_Shelf		0.409	0.003	0.400	0.801
cg12870014	yellow	12	110,450,643	Body	OpenSea	ANKRD13A	0.409	0.015	0.882	0.416
cg06555093	yellow	21	43,221,380	3'UTR	N_Shore	PRDM15	0.409	0.017	0.663	0.015
cg21885795	yellow	19	1,809,756	Body	N_Shelf	ATP8B3	0.409	0.007	0.744	0.423
cg14519717	yellow	14	90,744,790	Body	OpenSea	C14orf102	0.409	-0.002	0.865	0.797
cg00569418	yellow	19	50,192,100	1stExon	N_Shore	C19orf76	0.409	0.001	0.623	0.920
cg08510456	yellow	3	49,591,008	TSS1500	N_Shore	BSN	0.409	0.006	0.403	0.460
cg02863151	yellow	7	4,824,800	Body	N_Shore	KIAA0415	0.409	0.011	0.877	0.181
cg01450896	yellow	16	1,041,686		S_Shore		0.409	0.016	0.471	0.007
cg22111167	yellow	11	48,026,889	Body	OpenSea	PTPRJ	0.409	0.019	0.574	0.086
cg02003117	yellow	20	48,428,318	TSS1500	N_Shore	SLC9A8	0.409	0.005	0.396	0.414
cg09686308	yellow	19	16,284,242	1stExon	OpenSea	CIB3	0.409	0.007	0.772	0.448
cg12589798	yellow	20	44,839,734	Body	S_Shore	CDH22	0.409	0.012	0.301	0.356
cg21023952	yellow	5	59,783,035	5'UTR	OpenSea	PDE4D	0.409	-0.011	0.499	0.347
cg16291069	yellow	8	27,317,394	3'UTR	N_Shelf	CHRNA2	0.409	0.004	0.345	0.794
cg09262732	yellow	7	100,285,913	5'UTR	S_Shore	GIGYF1	0.409	-0.003	0.918	0.600
cg04549583	yellow	2	12,146,219		OpenSea		0.409	-0.003	0.175	0.750
cg00063006	yellow	6	32,847,530	Body	Island	PPP1R2P1	0.409	-0.009	0.643	0.479
cg00134295	yellow	12	9,269,178	TSS1500	OpenSea	A2M	0.409	0.007	0.596	0.566
cg09141338	yellow	17	7,517,217	Body	N_Shore	FXR2	0.409	0.003	0.036	0.107
cg03646214	yellow	9	139,324,952	Body	N_Shore	INPP5E	0.409	-0.002	0.853	0.703
cg05525021	yellow	11	73,688,562	Body	OpenSea	UCP2	0.409	0.000	0.970	0.914
cg05355142	yellow	1	1,851,372	TSS1500	Island	TMEM52	0.409	0.008	0.281	0.144
cg01492656	yellow	4	40,057,241	TSS1500	N_Shore	N4BP2	0.409	0.000	0.019	0.892
cg03812679	yellow	17	38,170,632	TSS1500	OpenSea	CSF3	0.409	0.000	0.053	0.995
cg10779317	yellow	17	20,947,650	TSS1500	S_Shore	USP22	0.409	0.011	0.599	0.180
cg05537253	yellow	16	23,314,394	5'UTR	S_Shore	SCNN1B	0.409	0.004	0.436	0.564
cg20842915	yellow	7	39,665,132	5'UTR	S_Shore	RALA	0.409	0.003	0.415	0.725
cg26929261	yellow	5	175,792,123	TSS1500	N_Shore	ARL10	0.409	-0.003	0.241	0.647
cg18100564	yellow	11	46,957,977	TSS1500	N_Shore	C11orf49	0.409	0.004	0.918	0.559
cg13858407	yellow	2	235,935,606	5'UTR	OpenSea	SH3BP4	0.409	0.014	0.754	0.237
cg25000555	yellow	10	70,232,188	TSS1500	S_Shore	DNA2	0.409	-0.004	0.762	0.832
cg02695074	yellow	19	52,005,070	TSS200	OpenSea	SIGLEC12	0.409	0.009	0.663	0.313
cg07549208	yellow	1	999,888		Island		0.409	-0.001	0.262	0.951

cg14948448	yellow	4	148,401,661	TSS1500	N_Shore	EDNRA	0.409	0.009	0.884	0.310
cg18837713	yellow	12	77,159,365	Body	S_Shore	ZDHC17	0.409	-0.002	0.485	0.861
cg16900264	yellow	15	69,996,022		OpenSea		0.409	0.012	0.385	0.210
cg22225577	yellow	1	1,221,823	Body	OpenSea	SCNN1D	0.409	0.001	0.661	0.944
cg10123952	yellow	3	100,791,384		OpenSea		0.409	0.004	0.402	0.716
cg23589035	yellow	1	155,484,600	Body	OpenSea	ASH1L	0.409	0.001	0.850	0.909
cg07846400	yellow	4	119,318,892		OpenSea		0.409	0.008	0.481	0.388
cg09010387	yellow	8	28,269,964		Island		0.408	-0.004	0.108	0.651
cg12025436	yellow	17	80,034,445		N_Shelf		0.408	0.007	0.865	0.305
cg03852670	yellow	4	48,484,997	TSS1500	N_Shore	SLC10A4	0.408	0.004	0.054	0.399
cg01963618	yellow	6	1,102,332	TSS1500	OpenSea	LOC285768	0.408	-0.008	0.846	0.194
cg24685134	yellow	1	55,267,152	TSS1500	S_Shore	TTC22	0.408	-0.019	0.352	0.150
cg05916684	yellow	17	49,008,322		N_Shore		0.408	0.001	0.163	0.894
cg13918611	yellow	7	97,841,998	1stExon	Island	BHLHA15	0.408	0.010	0.869	0.101
cg05204123	yellow	17	1,613,017	Body	N_Shore	TLCD2	0.408	0.005	0.067	0.274
cg01584104	yellow	16	89,282,748	TSS1500	N_Shore	ZNF778	0.408	0.003	0.043	0.595
cg13016775	yellow	3	100,053,096	TSS1500	N_Shore	NIT2	0.408	0.012	0.543	0.303
cg27410679	yellow	17	43,866,278	Body	S_Shelf	CRHR1	0.408	0.013	0.698	0.082
cg23251057	yellow	14	69,480,702		OpenSea		0.408	0.005	0.261	0.523
cg00078085	yellow	3	8,810,592	5'UTR	Island	OXTR	0.408	0.031	0.167	0.021
cg06155620	yellow	1	209,527,581		OpenSea		0.408	0.016	0.390	0.223
cg06463142	yellow	8	144,820,826		Island		0.408	0.002	0.586	0.710
cg08641170	yellow	1	35,324,574	5'UTR	N_Shore	C1orf212	0.408	-0.002	0.037	0.294
cg03033543	yellow	20	31,870,884	TSS200	OpenSea	C20orf114	0.408	0.004	0.720	0.630
cg00765522	yellow	14	71,605,994		OpenSea		0.408	0.002	0.026	0.244
cg25852200	yellow	11	1,328,419	Body	N_Shore	TOLLIP	0.408	0.006	0.937	0.245
cg08450280	yellow	7	150,101,933	TSS1500	Island	LOC728743	0.408	-0.001	0.033	0.714
cg12483005	yellow	1	23,474,871	5'UTR	OpenSea	LUZP1	0.408	-0.012	0.864	0.412
cg15179011	yellow	5	1,247,290		S_Shore		0.408	0.007	0.138	0.505
cg00904852	yellow	10	132,001,604		OpenSea		0.408	0.004	0.906	0.475
cg09251362	yellow	12	110,211,325	TSS200	OpenSea	MGC14436	0.408	0.004	0.448	0.673
cg10262662	yellow	16	70,721,696	3'UTR	S_Shore	VAC14	0.408	0.005	0.584	0.432
cg13604445	yellow	9	116,342,046	Body	OpenSea	RGS3	0.408	0.011	0.512	0.159
cg11366788	yellow	12	95,397,732	TSS1500	S_Shore	NDUFA12	0.408	-0.005	0.103	0.610
cg04560810	yellow	5	138,861,847	5'UTR	OpenSea	TMEM173	0.408	-0.001	0.022	0.870
cg19964348	yellow	10	1,781,994		S_Shore		0.408	0.001	0.410	0.906
cg21115430	yellow	6	46,460,003		S_Shore		0.408	0.003	0.173	0.705
cg08354614	yellow	10	80,673,607		OpenSea		0.408	0.003	0.408	0.741
cg15450098	yellow	1	221,057,561	Body	Island	HLX	0.408	0.011	0.565	0.169
cg26145873	yellow	3	181,604,621		OpenSea		0.408	0.011	0.518	0.232
cg16369400	yellow	17	58,041,258	Body	N_Shore	RNFT1	0.408	-0.008	0.537	0.552
cg02357321	yellow	5	140,345,461	Body	N_Shore	PCDHA7	0.408	0.000	0.026	0.812
cg05163057	yellow	19	2,329,403	Body	S_Shore	SPPL2B	0.408	0.006	0.190	0.442
cg03960562	yellow	11	193,021	TSS200	OpenSea	SCGB1C1	0.408	0.007	0.656	0.184
cg09718582	yellow	2	240,751,196		OpenSea		0.408	-0.002	0.670	0.827
cg15126957	yellow	5	179,246,594	5'UTR	N_Shore	SQSTM1	0.408	0.010	0.340	0.085
cg09242008	yellow	3	108,839,099		S_Shelf		0.408	0.001	0.948	0.803
cg06022607	yellow	12	133,412,002		N_Shore		0.408	-0.006	0.846	0.664
cg00303811	yellow	2	27,483,693	Body	N_Shore	SLC30A3	0.408	0.007	0.877	0.279
cg26421140	yellow	14	65,006,053	TSS1500	N_Shore	HSPA2	0.407	-0.008	0.471	0.265
cg01942423	yellow	9	131,935,924		N_Shore		0.407	0.021	0.561	0.202
cg00681513	yellow	16	67,261,425	Body	S_Shore	TMEM208	0.407	0.000	0.038	0.976
cg11104474	yellow	2	220,362,074		Island		0.407	-0.005	0.132	0.427
cg03566174	yellow	2	95,709,308	Body	OpenSea	MAL	0.407	0.002	0.134	0.635
cg09643054	yellow	12	8,211,214	3'UTR	OpenSea	C3AR1	0.407	0.023	0.394	0.030
cg09864990	yellow	20	61,041,274	Body	Island	GATA5	0.407	0.001	0.765	0.954
cg10893908	yellow	11	68,180,584	Body	N_Shore	LRP5	0.407	0.003	0.606	0.632
cg04410516	yellow	19	13,068,293	TSS1500	S_Shore	GADD45GIP1	0.407	-0.001	0.032	0.675
cg26146562	yellow	1	228,136,982	TSS1500	S_Shore	WNT9A	0.407	0.006	0.506	0.370
cg09025393	yellow	1	18,438,784	Body	S_Shore	IGSF21	0.407	0.010	0.484	0.336
cg03679305	yellow	1	9,129,487	Body	N_Shelf	SLC2A5	0.407	0.016	0.226	0.116
cg22147546	yellow	5	122,544,603		OpenSea		0.407	-0.008	0.499	0.440
cg27380819	yellow	2	207,307,490	TSS1500	N_Shore	ADAM23	0.407	0.002	0.030	0.467
cg04095327	yellow	5	1,364,053		OpenSea		0.407	0.002	0.442	0.717
cg27486714	yellow	4	11,425,992	5'UTR	N_Shelf	HS3ST1	0.407	0.009	0.678	0.450
cg23301925	yellow	14	91,294,322		OpenSea		0.407	0.000	0.167	0.949
cg00388391	yellow	1	18,459,578	Body	OpenSea	IGSF21	0.407	0.001	0.312	0.946



cg08099570	yellow	16	57,937,637	Body	Island	CNGB1	0.407	0.000	0.744	0.969
cg01560900	yellow	1	241,804,128	TSS1500	S_Shore	OPN3	0.407	-0.010	0.384	0.433
cg13912196	yellow	15	70,372,127	Body	OpenSea	TLE3	0.407	-0.003	0.649	0.738
cg14189495	yellow	9	140,082,466	Body	Island	ANAPC2	0.407	-0.005	0.102	0.466
cg18791730	yellow	1	119,910,205	TSS1500	OpenSea	HAO2	0.407	0.004	0.215	0.464
cg27095222	yellow	11	88,090,861		OpenSea		0.407	-0.013	0.793	0.221
cg05798126	yellow	6	3,089,496	Body	N_Shore	RIPK1	0.407	0.007	0.599	0.460
cg22705918	yellow	2	25,518,238	Body	OpenSea	DNMT3A	0.407	-0.007	0.288	0.449
cg00694258	yellow	10	32,038,939		OpenSea		0.407	0.001	0.330	0.897
cg15087448	yellow	3	128,720,250	TSS1500	Island	CCDC48	0.407	-0.001	0.072	0.738
cg20946054	yellow	1	11,761,766	5'UTR	OpenSea	C1orf187	0.407	0.002	0.338	0.866
cg12042203	yellow	8	144,222,455		OpenSea		0.407	0.008	0.486	0.181
cg13471791	yellow	9	134,353,399	Body	S_Shore	BAT2L1	0.407	0.008	0.820	0.121
cg18094076	yellow	2	232,756,980	Body	OpenSea	MIR1471	0.407	0.000	0.931	0.963
cg06518831	yellow	6	31,632,541	5'UTR	N_Shore	BAT4	0.407	-0.002	0.049	0.239
cg16663155	yellow	11	61,911,154	Body	OpenSea	INCENP	0.407	0.009	0.873	0.606
cg08759041	yellow	5	112,824,614	TSS200	S_Shore	MCC	0.407	0.023	0.395	0.091
cg23016600	yellow	1	247,698,186	TSS1500	S_Shelf	OR2C3	0.407	0.011	0.640	0.217
cg23609707	yellow	2	217,703,032		OpenSea		0.407	-0.001	0.469	0.940
cg05358025	yellow	19	4,868,071	TSS1500	OpenSea	PLIN3	0.406	0.001	0.042	0.562
cg13578134	yellow	15	75,081,572	5'UTR	OpenSea	CSK	0.406	0.010	0.744	0.326
cg26620176	yellow	19	8,117,047	TSS1500	S_Shore	CCL25	0.406	-0.005	0.823	0.626
cg25218793	yellow	4	3,387,341	Body	OpenSea	RGS12	0.406	0.004	0.641	0.410
cg17444582	yellow	17	9,694,993	TSS1500	OpenSea	DHRS7C	0.406	0.006	0.338	0.464
cg27370229	yellow	16	89,226,999	Body	S_Shore	C16orf81	0.406	0.000	0.554	0.967
cg01256260	yellow	21	43,729,657		S_Shelf		0.406	0.012	0.498	0.053
cg14373727	yellow	10	72,091,514	Body	OpenSea	LRRC20	0.406	0.001	0.113	0.889
cg04378288	yellow	11	45,718,207		OpenSea		0.406	0.003	0.598	0.693
cg06153925	yellow	17	78,755,379	Body	OpenSea	RPTOR	0.406	0.000	0.588	0.983
cg05467676	yellow	3	72,226,965		OpenSea		0.406	-0.009	0.346	0.454
cg17222996	yellow	18	74,240,902	Body	OpenSea	LOC284276	0.406	0.006	0.053	0.114
cg09165893	yellow	13	109,779,749	Body	Island	MYO16	0.406	0.026	0.719	0.423
cg19609912	yellow	15	45,614,704		OpenSea		0.406	0.010	0.741	0.285
cg22526076	yellow	2	99,072,069	5'UTR	OpenSea	INPP4A	0.406	-0.003	0.938	0.573
cg09837116	yellow	17	77,190,359	5'UTR	N_Shelf	HRNBP3	0.406	-0.006	0.620	0.422
cg14660539	yellow	6	3,280,635	Body	OpenSea	SLC22A23	0.406	-0.009	0.916	0.198
cg20776977	yellow	1	2,564,584	TSS200	S_Shelf	MMEL1	0.406	0.008	0.306	0.165
cg25552033	yellow	2	227,971,730	Body	OpenSea	COL4A4	0.406	0.005	0.937	0.256
cg07005905	yellow	17	42,460,313	Body	N_Shore	ITGA2B	0.406	0.005	0.738	0.492
cg15444076	yellow	6	97,346,406	TSS1500	S_Shore	NDUFAF4	0.406	0.001	0.025	0.379
cg24310133	yellow	7	140,098,579	TSS1500	S_Shore	SLC37A3	0.406	0.051	0.646	0.032
cg20477546	yellow	4	126,973,204		OpenSea		0.406	0.001	0.233	0.875
cg08703857	yellow	7	2,653,651	3'UTR	OpenSea	IQCE	0.406	0.002	0.362	0.814
cg25417335	yellow	17	15,313,159		OpenSea		0.406	0.002	0.412	0.758
cg05829224	yellow	12	4,724,708	3'UTR	OpenSea	AKAP3	0.406	0.009	0.924	0.199
cg02359132	yellow	6	111,279,585	TSS200	N_Shore	GTF3C6	0.406	0.001	0.134	0.916
cg11489262	yellow	17	43,973,426	5'UTR	Island	MAPT	0.406	0.001	0.092	0.829
cg04403809	yellow	20	44,686,493	3'UTR	Island	SLC12A5	0.406	-0.004	0.206	0.604
cg04937851	yellow	2	237,993,660	TSS1500	N_Shore	COPS8	0.406	0.010	0.502	0.258
cg22991936	yellow	14	105,255,472	Body	S_Shelf	AKT1	0.406	-0.005	0.670	0.400
cg24158205	yellow	19	589,070	TSS1500	N_Shore	HCN2	0.406	0.017	0.596	0.177
cg13702181	yellow	14	77,791,657	Body	S_Shelf	GSTZ1	0.406	0.004	0.587	0.675
cg09472467	yellow	15	27,114,644	Body	S_Shore	GABRA5	0.406	0.026	0.556	0.019
cg27333706	yellow	1	209,602,002	TSS200	OpenSea	LOC642587	0.406	0.007	0.358	0.208
cg09547909	yellow	16	69,386,191	TSS1500	OpenSea	TMED6	0.406	-0.003	0.810	0.675
cg19594606	yellow	12	7,023,461	TSS200	Island	ENO2	0.406	0.001	0.034	0.493
cg24476826	yellow	15	29,904,571		OpenSea		0.405	0.015	0.425	0.120
cg16986748	yellow	1	154,971,109		N_Shore		0.405	0.008	0.367	0.190
cg19809734	yellow	13	112,772,980		OpenSea		0.405	0.000	0.704	0.955
cg21463799	yellow	19	1,630,888	Body	Island	TCF3	0.405	0.001	0.726	0.895
cg03418137	yellow	11	67,085,976	Body	S_Shore	LOC1001309	0.405	0.000	0.027	0.729
cg17132364	yellow	1	212,619,763		OpenSea		0.405	0.001	0.961	0.614
cg20443314	yellow	17	40,925,245	TSS1500	OpenSea	VPS25	0.405	0.001	0.033	0.676
cg07005640	yellow	10	7,564,470		OpenSea		0.405	0.026	0.826	0.023
cg15656834	yellow	11	116,578,399		Island		0.405	0.005	0.446	0.499
cg19472611	yellow	3	48,885,488	TSS1500	S_Shore	PRKAR2A	0.405	-0.001	0.032	0.515
cg05987698	yellow	3	13,520,959	TSS1500	Island	HDAC11	0.405	-0.002	0.025	0.352

cg26559829	yellow	16	85,206,155	S_Shore		0.405	0.001	0.051	0.714
cg04037707	yellow	7	154,704,915	N_Shore		0.405	-0.007	0.331	0.223
cg23539633	yellow	11	116,228,309	OpenSea		0.405	0.002	0.817	0.820
cg09935440	yellow	7	135,429,446 Body	OpenSea	FAM180A	0.405	0.001	0.665	0.933
cg01636505	yellow	14	94,408,232 Body	S_Shelf	ASB2	0.405	-0.002	0.800	0.770
cg25254170	yellow	6	36,954,695 TSS1500	S_Shore	MTCH1	0.405	-0.003	0.100	0.684
cg18333041	yellow	3	139,918,866 Body	OpenSea	CLSTN2	0.405	-0.002	0.911	0.780
cg26897313	yellow	15	57,903,521 Body	OpenSea	GCOM1	0.405	-0.003	0.929	0.603
cg22627740	yellow	6	33,418,814 Body	N_Shelf	SYNGAP1	0.405	-0.001	0.959	0.746
cg14383054	yellow	1	227,926,803 Body	S_Shelf	SNAP47	0.405	0.002	0.927	0.594
cg01538392	yellow	20	33,291,225 TSS1500	N_Shore	TP53INP2	0.405	0.018	0.374	0.019
cg12902183	yellow	7	45,959,833 Body	N_Shore	IGFBP3	0.405	0.007	0.085	0.403
cg01532487	yellow	1	31,156,665	N_Shore		0.405	-0.001	0.806	0.928
cg07624705	yellow	19	19,626,525 TSS1500	Island	NDUFA13	0.405	0.009	0.482	0.361
cg15672498	yellow	1	6,218,116 Body	OpenSea	CHD5	0.405	0.006	0.165	0.433
cg03500433	yellow	1	2,257,466 Body	N_Shore	MORN1	0.405	-0.001	0.832	0.967
cg21899992	yellow	5	179,306,587 Body	S_Shore	TBC1D9B	0.405	-0.003	0.891	0.459
cg17277896	yellow	1	151,445,541	N_Shore		0.405	0.005	0.515	0.693
cg04700938	yellow	1	45,965,449 5'UTR	N_Shore	CCDC163P	0.405	0.001	0.025	0.288
cg21480725	yellow	15	30,212,981	OpenSea		0.405	0.005	0.366	0.654
cg17696268	yellow	20	14,319,035 TSS1500	OpenSea	FLRT3	0.405	0.003	0.840	0.758
cg01244015	yellow	2	225,266,843 TSS200	OpenSea	FAM124B	0.405	0.020	0.265	0.133
cg14825976	yellow	18	13,611,370 TSS1500	OpenSea	C18orf1	0.405	0.021	0.132	0.069
cg02576440	yellow	8	145,675,712 3'UTR	Island	CYHR1	0.405	0.001	0.956	0.864
cg01597373	yellow	16	760,760	N_Shelf		0.405	0.007	0.592	0.255
cg06727269	yellow	5	180,687,369 1stExon	N_Shore	TRIM52	0.405	0.011	0.063	0.139
cg22203237	yellow	7	68,983,823	OpenSea		0.405	0.020	0.403	0.041
cg02418072	yellow	10	104,611,004	N_Shelf		0.404	0.004	0.827	0.541
cg03440944	yellow	7	45,023,329 Body	N_Shelf	C7orf40	0.404	0.004	0.773	0.663
cg23024102	yellow	13	45,149,706 1stExon	N_Shore	TSC22D1	0.404	-0.005	0.458	0.451
cg11005552	yellow	10	105,648,138 Body	OpenSea	OBFC1	0.404	-0.024	0.082	0.207
cg19679327	yellow	11	112,279,096	OpenSea		0.404	0.021	0.508	0.026
cg14523131	yellow	9	139,334,491 TSS1500	Island	INPP5E	0.404	0.002	0.030	0.163
cg08276138	yellow	15	42,873,451 Body	N_Shore	STARD9	0.404	0.015	0.435	0.160
cg11213717	yellow	18	47,866,551	Island		0.404	-0.006	0.810	0.632
cg23400715	yellow	22	48,900,624 Body	OpenSea	FAM19A5	0.404	-0.005	0.595	0.634
cg18664596	yellow	7	947,151 Body	N_Shore	ADAP1	0.404	0.011	0.455	0.111
cg10967990	yellow	1	17,738,370 Body	S_Shelf	RCC2	0.404	0.004	0.963	0.190
cg01512532	yellow	17	79,495,039 TSS1500	Island	FSCN2	0.404	-0.006	0.505	0.654
cg27200315	yellow	3	182,833,742	OpenSea		0.404	0.015	0.566	0.229
cg14091978	yellow	1	34,652,610 Body	OpenSea	C1orf94	0.404	0.001	0.866	0.854
cg07594531	yellow	1	35,225,326 TSS200	N_Shore	GJB4	0.404	-0.001	0.360	0.845
cg17168630	yellow	19	44,174,930 TSS1500	S_Shore	PLAUR	0.404	0.009	0.493	0.447
cg02394812	yellow	15	44,092,488 TSS1500	N_Shore	SERINC4	0.404	0.008	0.827	0.449
cg08602596	yellow	3	128,327,499	Island		0.404	0.000	0.027	0.795
cg03991309	yellow	1	68,237,761 5'UTR	OpenSea	GNG12	0.404	0.000	0.080	0.974
cg15840891	yellow	2	102,133,972	OpenSea		0.404	-0.007	0.453	0.487
cg26339924	yellow	3	47,029,475 Body	OpenSea	NBEAL2	0.404	0.003	0.256	0.579
cg24950402	yellow	17	40,443,790 Body	S_Shelf	STAT5A	0.404	0.009	0.884	0.163
cg04270347	yellow	19	46,012,688 Body	S_Shore	VASP	0.404	-0.001	0.032	0.722
cg23786576	yellow	1	47,133,596 Body	N_Shore	ATPAF1	0.404	0.000	0.028	0.725
cg02717347	yellow	7	148,995,975	S_Shelf		0.404	-0.002	0.786	0.715
cg22356063	yellow	13	46,159,050 Body	OpenSea	FAM194B	0.404	-0.001	0.880	0.829
cg14129735	yellow	6	30,737,007	OpenSea		0.404	-0.001	0.456	0.874
cg21186235	yellow	9	127,218,781 Body	S_Shelf	GPR144	0.404	0.001	0.371	0.897
cg01414728	yellow	12	131,872,222	OpenSea		0.404	0.001	0.421	0.925
cg19365615	yellow	6	2,999,313 TSS1500	N_Shore	NQO2	0.404	-0.003	0.048	0.610
cg21672292	yellow	8	145,025,128 Body	Island	PLEC1	0.403	-0.003	0.180	0.878
cg10651669	yellow	15	101,807,394	OpenSea		0.403	-0.012	0.887	0.496
cg11791577	yellow	12	4,958,491 3'UTR	OpenSea	KCNA6	0.403	-0.003	0.399	0.843
cg19326543	yellow	2	128,422,715 Body	S_Shore	LIMS2	0.403	0.000	0.945	0.995
cg18038544	yellow	3	14,576,099 Body	OpenSea	GRIP2	0.403	0.016	0.213	0.238
cg04379522	yellow	19	54,290,737 TSS1500	OpenSea	MIR372	0.403	0.000	0.916	0.960
cg01443426	yellow	22	38,201,594 1stExon	Island	H1FO	0.403	-0.003	0.050	0.417
cg09297636	yellow	2	219,923,910 Body	Island	IHH	0.403	0.002	0.032	0.422
cg16958524	yellow	3	119,187,511 TSS1500	N_Shore	KTELC1	0.403	-0.009	0.040	0.117
cg12731430	yellow	1	33,546,417 TSS1500	N_Shore	ADC	0.403	0.016	0.275	0.114

cg22794716	yellow	12	113,149,064	OpenSea		0.403	0.004	0.803	0.721
cg12888861	yellow	2	15,731,646 TSS200	N_Shore	DDX1	0.403	0.019	0.148	0.113
cg11120551	yellow	1	146,713,996 TSS1500	N_Shore	CHD1L	0.403	0.007	0.636	0.587
cg24453664	yellow	11	33,758,413 TSS1500	S_Shore	CD59	0.403	-0.001	0.047	0.823
cg13538517	yellow	7	157,549,542 Body	N_Shore	PTPRN2	0.403	-0.005	0.837	0.647
cg19464780	yellow	17	67,047,539 5'UTR	OpenSea	ABCA9	0.403	-0.002	0.873	0.875
cg16610086	yellow	5	36,606,288 TSS200	OpenSea	SLC1A3	0.403	0.002	0.309	0.912
cg21571060	yellow	5	92,414,263	OpenSea		0.403	0.006	0.214	0.570
cg19019345	yellow	11	8,888,814 5'UTR	N_Shelf	ST5	0.403	-0.004	0.489	0.819
cg11855664	yellow	22	35,482,221 3'UTR	OpenSea	ISX	0.403	0.004	0.406	0.631
cg08155347	yellow	16	88,704,957 TSS200	N_Shore	IL17C	0.403	-0.005	0.328	0.637
cg25355213	yellow	17	73,780,246 TSS1500	N_Shore	UNK	0.403	-0.003	0.376	0.648
cg00816970	yellow	14	105,181,035 Body	Island	INF2	0.403	-0.001	0.853	0.776
cg16523490	yellow	1	42,115,829 5'UTR	OpenSea	HIVEP3	0.403	0.010	0.091	0.221
cg27019278	yellow	4	101,438,804 Body	OpenSea	EMCN	0.403	0.010	0.768	0.196
cg27548752	yellow	19	47,263,614	S_Shelf		0.403	0.008	0.933	0.184
cg23051123	yellow	1	226,132,841	OpenSea		0.403	0.006	0.599	0.292
cg17383272	yellow	19	50,710,013 5'UTR	S_Shore	MYH14	0.403	-0.006	0.698	0.546
cg04340651	yellow	15	93,617,080 1stExon	Island	RGMA	0.403	-0.013	0.422	0.222
cg26450860	yellow	12	125,413,164	Island		0.403	-0.008	0.224	0.627
cg06758672	yellow	5	177,732,295 Body	S_Shelf	COL23A1	0.403	0.001	0.821	0.871
cg14049807	yellow	9	100,983,368 Body	OpenSea	TBC1D2	0.403	-0.001	0.931	0.883
cg26531737	yellow	1	25,572,862 Body	N_Shore	C1orf63	0.403	0.002	0.026	0.323
cg26723524	yellow	7	39,775,803 Body	S_Shelf	LOC349114	0.403	0.000	0.836	0.968
cg25792651	yellow	3	137,728,692 TSS1500	N_Shore	CLDN18	0.403	-0.003	0.491	0.706
cg12106976	yellow	6	152,002,859	OpenSea		0.403	0.024	0.528	0.022
cg17271585	yellow	20	36,153,947 5'UTR	N_Shelf	BLCAP	0.403	0.005	0.527	0.366
cg04508870	yellow	1	8,298,617	OpenSea		0.403	0.021	0.463	0.013
cg02701019	yellow	6	144,472,355 5'UTR	S_Shore	STX11	0.403	0.002	0.042	0.497
cg06774893	yellow	16	68,011,109 Body	N_Shelf	DPEP3	0.403	0.001	0.458	0.936
cg22950223	yellow	7	1,403,628	OpenSea		0.403	0.005	0.661	0.523
cg04102208	yellow	5	16,465,239 1stExon	Island	ZNF622	0.403	0.001	0.133	0.842
cg02605306	yellow	16	1,243,447 Body	N_Shore	CACNA1H	0.402	0.006	0.356	0.220
cg15353612	yellow	4	52,904,965 TSS1500	S_Shore	SGCB	0.402	0.003	0.052	0.490
cg10534490	yellow	2	129,131,537	OpenSea		0.402	-0.006	0.787	0.301
cg25547848	yellow	5	178,266,060	OpenSea		0.402	0.001	0.690	0.952
cg06952384	yellow	5	14,418,170 Body	OpenSea	TRIO	0.402	0.001	0.487	0.802
cg15265102	yellow	17	41,797,729	N_Shore		0.402	0.001	0.650	0.942
cg23517743	yellow	2	238,623,585 Body	OpenSea	LRRFIP1	0.402	0.013	0.707	0.296
cg13063704	yellow	3	48,885,665 TSS1500	S_Shore	PRKAR2A	0.402	-0.001	0.082	0.845
cg03870138	yellow	16	88,717,850 TSS1500	S_Shore	CYBA	0.402	0.013	0.157	0.078
cg14148981	yellow	14	52,708,188	OpenSea		0.402	0.000	0.411	0.990
cg15338449	yellow	15	83,620,910 Body	N_Shore	HOMER2	0.402	0.002	0.026	0.313
cg02562344	yellow	6	28,985,894	S_Shore		0.402	-0.001	0.451	0.951
cg15104126	yellow	12	6,150,167 Body	OpenSea	VWF	0.402	0.018	0.566	0.031
cg25790586	yellow	6	30,164,846 Body	OpenSea	TRIM26	0.402	0.001	0.889	0.901
cg08155325	yellow	5	140,857,813 Body	N_Shore	PCDHGA4	0.402	0.003	0.357	0.675
cg26113278	yellow	1	54,484,669 TSS1500	OpenSea	LDLRAD1	0.402	-0.010	0.564	0.216
cg19862427	yellow	12	111,358,545 TSS200	OpenSea	MYL2	0.402	0.009	0.568	0.247
cg06537005	yellow	16	758,544	S_Shore		0.402	0.014	0.781	0.060
cg26606789	yellow	21	44,253,219	OpenSea		0.402	-0.002	0.346	0.830
cg10331082	yellow	17	6,796,906 Body	N_Shore	ALOX12P2	0.402	0.005	0.147	0.583
cg02768300	yellow	11	65,744,136 Body	Island	SART1	0.402	-0.001	0.773	0.883
cg08996506	yellow	16	16,070,868 Body	OpenSea	ABCC1	0.402	-0.003	0.851	0.777
cg00563845	yellow	3	58,318,305 TSS1500	N_Shore	PXK	0.402	0.003	0.124	0.681
cg08141463	yellow	3	119,310,381	OpenSea		0.402	0.005	0.850	0.443
cg00365692	yellow	19	51,670,423 TSS200	OpenSea	SIGLECP3	0.402	0.002	0.658	0.793
cg13615136	yellow	9	116,362,889	OpenSea		0.402	0.010	0.488	0.114
cg22747516	yellow	19	56,348,889 TSS1500	OpenSea	NLRP11	0.402	-0.001	0.438	0.931
cg13418576	yellow	9	126,105,738	S_Shelf		0.402	-0.001	0.718	0.905
cg24646009	yellow	7	107,221,327 Body	S_Shore	BCAP29	0.402	0.008	0.259	0.602
cg14192029	yellow	4	126,058 Body	S_Shore	ZNF718	0.402	-0.013	0.817	0.584
cg09256201	yellow	2	43,019,484 Body	N_Shore	HAAO	0.402	0.015	0.203	0.214
cg17264240	yellow	4	186,456,976 TSS1500	S_Shore	PDLIM3	0.402	0.003	0.026	0.095
cg09459529	yellow	5	5,492,401	N_Shelf		0.402	0.012	0.387	0.250
cg07168939	yellow	8	143,763,412 Body	OpenSea	PSCA	0.402	0.007	0.702	0.269
cg10105708	yellow	12	130,683,388	OpenSea		0.402	0.012	0.676	0.254

cg15286206	yellow	15	38,233,268	Body	OpenSea	TMC05A	0.401	-0.002	0.176	0.853
cg20163980	yellow	22	17,647,332	TSS1500	OpenSea	CECR5	0.401	0.001	0.761	0.901
cg08924284	yellow	3	13,971,252		N_Shelf		0.401	0.004	0.431	0.538
cg00034755	yellow	22	50,918,361		N_Shore		0.401	-0.005	0.596	0.452
cg05492714	yellow	9	140,042,286	Body	Island	GRIN1	0.401	0.000	0.586	0.953
cg03224418	yellow	20	62,611,858	TSS1500	N_Shore	SAMD10	0.401	0.016	0.675	0.083
cg17969789	yellow	5	1,084,582	Body	Island	SLC12A7	0.401	0.003	0.788	0.759
cg26120902	yellow	11	46,765,391	3'UTR	OpenSea	CKAP5	0.401	0.014	0.722	0.053
cg13803915	yellow	1	10,490,063	TSS200	N_Shore	APITD1	0.401	-0.003	0.391	0.841
cg26916607	yellow	16	56,994,770	TSS1500	OpenSea	CETP	0.401	-0.001	0.903	0.864
cg15120942	yellow	3	38,071,578	TSS1500	Island	PLCD1	0.401	-0.010	0.181	0.195
cg08931456	yellow	3	195,077,618	Body	OpenSea	ACAP2	0.401	0.014	0.901	0.021
cg14553765	yellow	22	19,513,078	TSS1500	S_Shore	CLDN5	0.401	0.006	0.802	0.428
cg17343622	yellow	17	76,704,594	Body	OpenSea	CYTH1	0.401	0.022	0.467	0.239
cg08436104	yellow	5	38,168,076		OpenSea		0.401	-0.005	0.219	0.655
cg26221293	yellow	7	130,354,073	Body	S_Shore	TSGA13	0.401	0.005	0.059	0.375
cg23225748	yellow	10	80,062,665		N_Shore		0.401	0.007	0.104	0.237
cg13156207	yellow	2	28,873,060		OpenSea		0.401	0.000	0.958	0.999
cg27603000	yellow	5	1,834,527		OpenSea		0.401	0.012	0.513	0.114
cg25112747	yellow	20	60,798,751		S_Shelf		0.401	0.008	0.855	0.249
cg06980053	yellow	3	50,375,674	TSS1500	S_Shore	RASSF1	0.401	0.007	0.406	0.308
cg01921066	yellow	1	94,511,166	Body	OpenSea	ABCA4	0.401	0.004	0.195	0.699
cg17478282	yellow	1	156,549,378	TSS200	OpenSea	TTC24	0.401	0.001	0.302	0.791
cg20287434	yellow	17	79,958,592	Body	S_Shore	ASPCR1	0.401	0.006	0.361	0.643
cg06554535	yellow	11	12,399,973	Body	S_Shore	PARVA	0.401	-0.001	0.029	0.730
cg25531478	yellow	6	111,279,493	TSS1500	N_Shore	GTF3C6	0.401	0.007	0.062	0.453
cg13265524	yellow	2	202,484,246	TSS1500	S_Shore	ALS2CR11	0.401	0.004	0.335	0.501
cg00281467	yellow	22	23,522,460	TSS200	N_Shore	BCR	0.401	0.002	0.072	0.794
cg05912499	yellow	16	57,786,813	Body	OpenSea	KATNB1	0.401	0.008	0.774	0.240
cg03045067	yellow	16	72,819,254	3'UTR	N_Shore	ZFH3	0.401	-0.003	0.938	0.649
cg01535453	yellow	12	121,163,887	Body	Island	ACADS	0.401	-0.001	0.046	0.712
cg08110272	yellow	12	108,733,321	TSS1500	OpenSea	CMKLR1	0.401	-0.001	0.044	0.778
cg27297033	yellow	16	2,031,217	TSS200	S_Shore	NOXO1	0.401	0.013	0.475	0.190
cg02395581	yellow	7	95,114,680	TSS1500	OpenSea	ASB4	0.401	0.000	0.804	0.992
cg14135809	yellow	9	140,502,926	Body	S_Shelf	ARRDC1	0.401	0.000	0.681	0.966
cg02946394	yellow	17	8,011,969	Body	N_Shore	ALOXE3	0.401	-0.003	0.792	0.700
cg02672493	yellow	3	136,537,709	TSS200	Island	TMEM22	0.401	0.001	0.072	0.725
cg02133510	yellow	6	32,044,959	Body	N_Shore	TNXB	0.400	0.001	0.910	0.821
cg00748640	yellow	16	19,886,655	5'UTR	OpenSea	GPRC5B	0.400	0.007	0.799	0.415
cg22784836	yellow	11	1,219,516		N_Shelf		0.400	0.012	0.635	0.079
cg01397065	yellow	19	1,908,328	5'UTR	Island	ADAT3	0.400	-0.004	0.893	0.486
cg17298989	yellow	1	45,350,531	Body	OpenSea	EIF2B3	0.400	0.005	0.391	0.568
cg10123642	yellow	1	38,104,517		S_Shelf		0.400	0.008	0.330	0.246
cg05759090	yellow	6	84,743,154	TSS1500	N_Shore	MRAP2	0.400	0.001	0.292	0.864
cg00568555	yellow	19	35,520,846	TSS1500	N_Shore	SCN1B	0.400	0.011	0.200	0.086
cg03296502	yellow	17	81,034,871		N_Shore		0.400	0.006	0.707	0.235
cg07090813	yellow	1	120,254,330	TSS200	N_Shore	PHGDH	0.400	0.007	0.314	0.457
cg13788685	yellow	1	161,283,646	TSS1500	N_Shore	SDHC	0.400	0.006	0.907	0.284
cg22193726	yellow	12	112,857,626	Body	S_Shore	PTPN11	0.400	0.010	0.418	0.317
cg01205267	yellow	13	47,126,300	TSS1500	N_Shore	LRCH1	0.400	0.010	0.609	0.566
cg21167269	yellow	9	98,981,500		Island		0.400	0.008	0.753	0.400
cg02738298	yellow	3	51,749,852	Body	Island	GRM2	0.400	0.013	0.597	0.052
cg14989226	yellow	7	75,897,850	Body	S_Shore	SRRM3	0.400	0.003	0.054	0.474
cg26415787	yellow	12	133,414,334		Island		0.400	0.023	0.756	0.073
cg21831122	yellow	11	2,423,586	5'UTR	S_Shore	TSSC4	0.400	-0.006	0.931	0.238
cg12478331	yellow	10	83,633,430		N_Shore		0.400	-0.009	0.368	0.425
cg03064626	yellow	2	61,778,147		OpenSea		0.400	0.001	0.666	0.905
cg07097098	yellow	19	55,721,638	TSS1500	OpenSea	PTPRH	0.400	0.000	0.146	0.961
cg23880131	yellow	17	79,447,634		N_Shore		0.400	0.012	0.697	0.101
cg17417591	yellow	12	110,485,937	Body	N_Shore	C12orf76	0.400	-0.004	0.051	0.143
cg09622957	yellow	1	150,521,190	TSS1500	N_Shore	ADAMTSL4	0.400	0.001	0.037	0.749
cg20067575	yellow	6	150,437,072		OpenSea		0.400	0.000	0.948	0.973
cg13832604	yellow	6	7,142,024	5'UTR	S_Shore	RREB1	0.400	-0.004	0.665	0.708
cg12522898	yellow	20	33,891,700	3'UTR	OpenSea	UQCC	0.400	-0.001	0.037	0.606
cg09871043	yellow	6	51,952,361	5'UTR	OpenSea	PKHD1	0.400	0.010	0.518	0.212
cg03995486	yellow	17	26,120,985	Body	S_Shore	NOS2	0.400	0.002	0.045	0.350
cg13292636	yellow	8	21,771,258	TSS200	S_Shore	DOK2	0.400	0.014	0.533	0.011

cg27134139	yellow	10	26,681,347	S_Shore		0.400	0.007	0.537	0.436
cg16417118	yellow	1	2,162,931	Body	S_Shore SKI	0.400	0.000	0.145	0.973
cg21153358	yellow	4	86,049,133	OpenSea		0.400	-0.005	0.257	0.580
cg10902909	yellow	12	124,371,801	Body	OpenSea DNAH10	0.400	0.012	0.550	0.053
cg17969560	yellow	11	65,324,768	Body	N_Shore LTBP3	0.400	0.002	0.255	0.766
cg02217367	yellow	17	926,438	Body	Island ABR	0.400	-0.003	0.880	0.754
cg07865607	yellow	19	3,136,076	TSS200	OpenSea GNA15	0.400	-0.006	0.549	0.623
cg17110006	yellow	1	178,007,364	S_Shore		0.400	-0.001	0.045	0.858
cg09323570	yellow	18	74,154,105	Body	Island ZNF516	0.400	0.002	0.883	0.760
cg03167954	yellow	22	29,707,782	3'UTR	Island GAS2L1	0.399	0.017	0.854	0.201
cg06508867	yellow	16	87,814,178	S_Shore		0.399	-0.001	0.863	0.857
cg14312167	yellow	12	133,382,448	Body	S_Shelf GOLGA3	0.399	0.007	0.895	0.279
cg01762738	yellow	12	120,967,237	TSS1500	S_Shore COQ5	0.399	0.001	0.036	0.648
cg02854067	yellow	16	30,619,973	Body	N_Shore ZNF689	0.399	-0.003	0.879	0.664
cg08743751	yellow	5	66,462,471	Body	S_Shelf MAST4	0.399	0.001	0.194	0.950
cg25855592	yellow	4	1,496,293	S_Shore		0.399	0.006	0.933	0.268
cg07889505	yellow	15	42,349,787	OpenSea		0.399	-0.008	0.376	0.692
cg20446404	yellow	19	46,418,029	1stExon	S_Shore NANOS2	0.399	-0.003	0.517	0.768
cg21341520	yellow	7	1,756,269	5'UTR	S_Shelf ELFN1	0.399	0.003	0.595	0.662
cg26510945	yellow	19	39,305,100	TSS1500	OpenSea LGALS4	0.399	0.000	0.916	0.983
cg10128806	yellow	4	78,977,322	TSS1500	N_Shore FRAS1	0.399	0.001	0.152	0.894
cg08832596	yellow	11	76,757,006	N_Shore		0.399	0.021	0.524	0.007
cg23318020	yellow	13	74,805,375	OpenSea		0.399	-0.009	0.834	0.345
cg14066207	yellow	14	73,030,666	3'UTR	OpenSea RGS6	0.399	0.015	0.832	0.153
cg02420069	yellow	11	76,838,749	TSS1500	OpenSea MYO7A	0.399	-0.002	0.080	0.871
cg02954284	yellow	22	21,367,447	Body	N_Shore MGC16703	0.399	0.006	0.785	0.410
cg05580415	yellow	17	80,553,970	Body	N_Shore FOXK2	0.399	-0.020	0.762	0.086
cg09032840	yellow	1	179,851,019	TSS1500	N_Shore TOR1AIP1	0.399	0.000	0.025	0.830
cg14222574	yellow	13	27,894,470	OpenSea		0.399	0.001	0.639	0.860
cg11388228	yellow	1	8,410,102	OpenSea		0.399	-0.013	0.649	0.161
cg01520586	yellow	3	50,280,404	Body	OpenSea GNAI2	0.399	0.005	0.480	0.494
cg17412043	yellow	1	153,608,350	5'UTR	S_Shore C1orf77	0.399	0.001	0.553	0.912
cg20623350	yellow	22	40,289,840	TSS200	OpenSea ENTHD1	0.399	-0.010	0.605	0.131
cg16367976	yellow	22	50,969,678	TSS1500	Island TYMP	0.399	0.008	0.120	0.442
cg23678210	yellow	6	36,391,852	Body	S_Shore PXT1	0.399	0.043	0.444	0.037
cg23351584	yellow	11	86,512,100	5'UTR	S_Shore PRSS23	0.399	0.003	0.039	0.391
cg08797242	yellow	6	100,016,838	TSS200	S_Shore CCNC	0.399	0.001	0.027	0.333
cg05741102	yellow	8	143,636,744	OpenSea		0.399	-0.007	0.573	0.264
cg17670263	yellow	19	54,210,233	TSS1500	OpenSea MIR520C	0.399	-0.006	0.725	0.446
cg03699749	yellow	20	60,869,595	3'UTR	OpenSea OSBPL2	0.399	-0.001	0.964	0.687
cg14909424	yellow	7	2,417,033	Body	N_Shelf EIF3B	0.399	0.007	0.746	0.418
cg01195545	yellow	7	150,253,908	OpenSea		0.399	0.003	0.784	0.681
cg06940614	yellow	19	38,182,773	5'UTR	N_Shore ZNF781	0.399	0.001	0.020	0.582
cg02258614	yellow	19	38,975,245	Body	N_Shore RYR1	0.399	-0.001	0.851	0.894
cg23201907	yellow	14	104,741,786	OpenSea		0.399	0.002	0.196	0.853
cg00668150	yellow	17	2,615,720	TSS1500	S_Shore KIAA0664	0.399	-0.010	0.246	0.517
cg08657671	yellow	5	175,608,441	OpenSea		0.399	-0.007	0.917	0.179
cg06174078	yellow	11	1,325,718	Body	OpenSea TOLLIP	0.399	0.044	0.588	0.012
cg22643110	yellow	10	72,319,345	Body	OpenSea KIAA1274	0.399	0.007	0.325	0.194
cg03734401	yellow	17	71,198,198	Body	OpenSea COG1	0.399	0.004	0.974	0.106
cg05697231	yellow	15	74,286,614	TSS1500	S_Shore PML	0.399	0.006	0.091	0.169
cg03801912	yellow	11	46,411,908	Island		0.398	0.006	0.192	0.400
cg22441157	yellow	1	159,897,056	3'UTR	S_Shore IGSF9	0.398	-0.003	0.704	0.762
cg03198203	yellow	11	17,034,484	Body	N_Shore PLEKHA7	0.398	-0.002	0.713	0.852
cg02829601	yellow	6	159,070,959	TSS200	OpenSea SYTL3	0.398	0.002	0.656	0.850
cg16091995	yellow	2	202,484,320	TSS1500	S_Shore ALS2CR11	0.398	0.007	0.333	0.333
cg24319102	yellow	17	80,554,998	Body	Island FOXK2	0.398	-0.007	0.814	0.090
cg09522854	yellow	21	45,773,400	TSS200	OpenSea TRPM2	0.398	-0.024	0.536	0.772
cg26088561	yellow	6	30,619,080	Body	S_Shelf C6orf136	0.398	-0.008	0.740	0.268
cg14286594	yellow	4	140,245,762	Body	OpenSea NAA15	0.398	0.016	0.624	0.224
cg15403900	yellow	16	85,667,849	5'UTR	Island KIAA0182	0.398	0.003	0.446	0.638
cg18978193	yellow	9	97,021,415	TSS200	N_Shore ZNF169	0.398	-0.006	0.104	0.483
cg23008404	yellow	3	137,728,997	TSS200	Island CLDN18	0.398	0.006	0.589	0.429
cg17827477	yellow	22	49,487,343	Island		0.398	-0.006	0.862	0.332
cg02424103	yellow	3	156,892,029	N_Shore		0.398	-0.001	0.427	0.966
cg26316072	yellow	1	155,277,799	TSS1500	N_Shore FDPS	0.398	0.012	0.850	0.218
cg27449150	yellow	1	118,197,326	OpenSea		0.398	0.005	0.371	0.546

cg12686915	yellow	8	117,768,332	TSS1500	S_Shore	EIF3H	0.398	0.005	0.090	0.684
cg24071064	yellow	16	88,765,233	Body	Island	RNF166	0.398	0.009	0.804	0.112
cg06830724	yellow	14	101,359,903	TSS1500	OpenSea	MEG8	0.398	-0.014	0.936	0.132
cg26036678	yellow	1	215,993,017	Body	OpenSea	USH2A	0.398	-0.006	0.230	0.627
cg16224951	yellow	6	31,528,154		OpenSea		0.398	0.002	0.583	0.815
cg23861655	yellow	4	57,411,219		Island		0.398	-0.002	0.042	0.511
cg19904425	yellow	14	94,984,530	TSS1500	OpenSea	SERPINA12	0.398	0.011	0.772	0.445
cg23494026	yellow	19	36,386,940	Body	N_Shelf	NFKBID	0.398	0.003	0.673	0.659
cg24937306	yellow	11	34,940,794	Body	S_Shelf	PDHX	0.398	0.006	0.876	0.529
cg25097074	yellow	1	6,508,954	Body	Island	ESPN	0.398	0.006	0.022	0.136
cg07260333	yellow	16	89,986,946	1stExon	N_Shore	MC1R	0.398	0.006	0.791	0.393
cg12434134	yellow	7	4,767,406	Body	S_Shelf	FOXK1	0.398	0.005	0.652	0.506
cg18178432	yellow	20	44,517,288	3'UTR	N_Shore	NEURL2	0.398	0.001	0.928	0.786
cg08915038	yellow	1	16,562,923	Body	N_Shore	C1orf89	0.398	0.001	0.118	0.818
cg02144870	yellow	6	99,299,331		S_Shelf		0.398	-0.010	0.922	0.089
cg12593746	yellow	1	98,789,535		OpenSea		0.398	-0.006	0.307	0.376
cg05265849	yellow	7	22,767,390	Body	OpenSea	IL6	0.398	-0.011	0.603	0.461
cg08382963	yellow	6	164,345,307		OpenSea		0.398	0.003	0.700	0.699
cg27241889	yellow	8	833,012		S_Shore		0.398	0.019	0.505	0.196
cg00649632	yellow	16	16,108,802	Body	OpenSea	ABCC1	0.398	0.008	0.707	0.330
cg11140778	yellow	4	2,937,159	TSS1500	S_Shore	MFSD10	0.398	0.000	0.056	0.966
cg27535305	yellow	1	53,392,650	TSS1500	N_Shore	SCP2	0.398	0.006	0.098	0.483
cg17333973	yellow	11	2,847,019	Body	OpenSea	KCNQ1	0.398	0.000	0.294	0.944
cg18971591	yellow	1	220,583,389		OpenSea		0.397	0.004	0.853	0.544
cg01461299	yellow	19	7,586,926	TSS1500	N_Shore	MCOLN1	0.397	-0.001	0.040	0.468
cg01869955	yellow	8	1,011,835		OpenSea		0.397	0.001	0.465	0.920
cg09372449	yellow	16	2,760,410		S_Shelf		0.397	-0.007	0.818	0.241
cg26357885	yellow	14	65,006,204	TSS1500	N_Shore	HSPA2	0.397	-0.012	0.354	0.136
cg24377826	yellow	10	126,376,113	Body	OpenSea	FAM53B	0.397	-0.008	0.893	0.263
cg12091786	yellow	20	61,877,942	Body	Island	NKAIN4	0.397	0.002	0.769	0.831
cg14194983	yellow	1	11,908,298	TSS1500	OpenSea	NPPA	0.397	-0.001	0.232	0.873
cg08605458	yellow	2	26,949,714	Body	N_Shore	KCNK3	0.397	0.006	0.742	0.465
cg24659854	yellow	11	65,222,491		Island		0.397	0.010	0.111	0.264
cg15540749	yellow	6	32,028,831	Body	OpenSea	TNXB	0.397	0.005	0.929	0.372
cg19998573	yellow	2	129,513,081		OpenSea		0.397	0.004	0.115	0.667
cg04777352	yellow	8	20,208,197		OpenSea		0.397	0.000	0.807	0.974
cg02939139	yellow	12	113,574,204	TSS200	S_Shore	RASAL1	0.397	0.004	0.566	0.721
cg01783353	yellow	11	63,994,292	TSS1500	S_Shore	TRPT1	0.397	-0.001	0.160	0.894
cg12368694	yellow	11	70,391,098	Body	OpenSea	SHANK2	0.397	0.004	0.587	0.667
cg07614747	yellow	8	2,418,520		N_Shore		0.397	0.002	0.634	0.856
cg23756442	yellow	6	28,892,465	TSS1500	S_Shore	TRIM27	0.397	0.011	0.479	0.175
cg15894365	yellow	17	15,248,133		S_Shelf		0.397	-0.002	0.531	0.805
cg08743313	yellow	4	188,843,522		OpenSea		0.397	0.003	0.223	0.791
cg00254258	yellow	1	3,105,189	Body	Island	PRDM16	0.397	0.000	0.558	0.971
cg18811158	yellow	19	649,301	Body	Island	RNF126	0.397	0.004	0.776	0.664
cg10665960	yellow	2	149,403,594	Body	S_Shore	EPC2	0.397	-0.002	0.049	0.462
cg26337010	yellow	11	2,176,910	Body	Island	INS-IGF2	0.397	0.009	0.793	0.297
cg11983939	yellow	7	153,574		S_Shelf		0.397	0.004	0.595	0.805
cg19860840	yellow	6	31,798,138		S_Shore		0.397	0.000	0.044	0.942
cg21658291	yellow	19	49,977,318	TSS200	OpenSea	FLT3LG	0.397	-0.004	0.046	0.093
cg04264549	yellow	4	128,543,924		N_Shore		0.397	-0.005	0.138	0.456
cg20867746	yellow	11	4,871,813	TSS1500	OpenSea	OR51S1	0.396	-0.002	0.871	0.826
cg19037555	yellow	13	47,371,605	TSS1500	S_Shore	ESD	0.396	0.005	0.031	0.052
cg14897188	yellow	17	6,917,185	Body	N_Shore	RNASEK	0.396	-0.002	0.699	0.834
cg11649376	yellow	12	81,473,234	Body	S_Shore	ACSS3	0.396	-0.009	0.601	0.279
cg17077288	yellow	1	2,516,516		N_Shore		0.396	0.004	0.200	0.587
cg26108690	yellow	5	3,736,703		OpenSea		0.396	0.005	0.572	0.563
cg21641186	yellow	3	126,200,897	3'UTR	OpenSea	UROC1	0.396	0.008	0.483	0.386
cg18224793	yellow	7	100,222,124	Body	N_Shelf	TFR2	0.396	0.002	0.731	0.875
cg13668490	yellow	17	42,463,640	Body	S_Shore	ITGA2B	0.396	0.005	0.231	0.420
cg13701180	yellow	19	2,513,436	3'UTR	Island	GNG7	0.396	0.001	0.869	0.858
cg13079949	yellow	19	3,763,242	Body	S_Shore	MRPL54	0.396	0.001	0.180	0.925
cg14850945	yellow	11	70,863,736	5'UTR	OpenSea	SHANK2	0.396	0.002	0.467	0.845
cg16929104	yellow	19	18,496,953	TSS200	N_Shore	GDF15	0.396	0.005	0.177	0.584
cg14832908	yellow	1	6,479,424	Body	Island	HES2	0.396	0.000	0.105	0.946
cg04863713	yellow	1	150,521,201	TSS1500	N_Shore	ADAMTSL4	0.396	-0.005	0.114	0.302
cg16328456	yellow	1	205,390,937	5'UTR	OpenSea	LEMD1	0.396	0.006	0.266	0.593

cg22191606	yellow	13	102,060,580	5'UTR	OpenSea	NALCN	0.396	0.000	0.481	0.951
cg14292368	yellow	19	18,793,705	TSS1500	N_Shore	CRTC1	0.396	0.014	0.285	0.228
cg00328210	yellow	1	1,993,016	Body	S_Shore	PRKCZ	0.396	-0.002	0.541	0.782
cg18041642	yellow	17	62,062,565		OpenSea		0.396	0.003	0.626	0.842
cg10384569	yellow	19	50,000,586	Body	S_Shore	RPS11	0.396	-0.003	0.390	0.849
cg17374034	yellow	15	39,000,613		OpenSea		0.396	-0.011	0.781	0.368
cg16161214	yellow	6	52,441,462	Body	Island	TRAM2	0.396	-0.003	0.046	0.289
cg06868622	yellow	20	655,888	Body	Island	SCRT2	0.396	0.004	0.097	0.494
cg20108695	yellow	12	111,598,328	Body	OpenSea	CUX2	0.396	0.003	0.905	0.667
cg06813554	yellow	14	23,066,769	TSS1500	N_Shore	ABHD4	0.396	-0.006	0.437	0.515
cg18189298	yellow	1	223,257,618		S_Shelf		0.396	0.009	0.545	0.358
cg27294164	yellow	1	36,585,141		OpenSea		0.396	0.019	0.391	0.037
cg01752594	yellow	13	50,696,070	Body	N_Shore	DLEU2	0.396	0.001	0.938	0.787
cg19160629	yellow	11	116,742,145	Body	OpenSea	SIK3	0.396	0.000	0.571	0.967
cg05783223	yellow	1	27,961,334	5'UTR	N_Shore	FGR	0.396	-0.008	0.238	0.321
cg13727618	yellow	19	7,145,317	Body	S_Shelf	INSR	0.396	-0.009	0.888	0.433
cg13606422	yellow	18	673,111	3'UTR	OpenSea	TYMS	0.396	0.002	0.941	0.597
cg14145524	yellow	9	132,310,915		N_Shore		0.396	0.004	0.502	0.316
cg08438705	yellow	19	1,152,189	Body	Island	SBNO2	0.396	-0.003	0.771	0.695
cg22081003	yellow	1	55,416,790		OpenSea		0.396	0.001	0.902	0.949
cg00458337	yellow	17	45,972,499	TSS1500	N_Shore	SP2	0.395	0.004	0.273	0.665
cg13885120	yellow	9	137,538,776	Body	OpenSea	COL5A1	0.395	0.006	0.487	0.289
cg14035828	yellow	1	87,291,903		OpenSea		0.395	0.003	0.897	0.657
cg19336497	yellow	11	14,380,999	TSS1500	S_Shore	RRAS2	0.395	0.011	0.441	0.674
cg16780771	yellow	16	81,643,766	Body	OpenSea	CMIP	0.395	0.005	0.605	0.705
cg14791530	yellow	1	85,040,857	TSS1500	S_Shore	CTBS	0.395	0.010	0.637	0.388
cg22109464	yellow	21	34,543,584	TSS1500	OpenSea	C21orf54	0.395	0.009	0.641	0.087
cg09919917	yellow	2	242,834,074		S_Shore		0.395	-0.001	0.839	0.959
cg10156217	yellow	14	50,362,354	3'UTR	S_Shore	ARF6	0.395	0.007	0.193	0.278
cg04772025	yellow	11	68,637,568		OpenSea		0.395	-0.058	0.260	0.046
cg06192883	yellow	15	52,554,171	Body	OpenSea	MYOSC	0.395	0.009	0.172	0.257
cg21141089	yellow	17	46,949,704		OpenSea		0.395	0.011	0.597	0.113
cg14203042	yellow	9	96,330,917		S_Shore		0.395	0.020	0.780	0.007
cg22888902	yellow	4	111,398,042	1stExon	Island	ENPEP	0.395	0.002	0.872	0.826
cg22038124	yellow	15	51,396,175	Body	OpenSea	TNFAIP8L3	0.395	-0.017	0.543	0.091
cg17745234	yellow	22	37,499,649	1stExon	OpenSea	TMPRSS6	0.395	0.002	0.484	0.776
cg21451869	yellow	20	44,636,831	TSS1500	N_Shelf	MMP9	0.395	-0.003	0.328	0.748
cg00112685	yellow	19	11,591,190	Body	Island	ELAVL3	0.395	-0.011	0.175	0.167
cg08723623	yellow	11	68,541,465	Body	OpenSea	CPT1A	0.395	0.008	0.375	0.447
cg00901198	yellow	1	32,208,222	Body	N_Shore	BAI2	0.395	0.016	0.630	0.281
cg23983449	yellow	17	7,146,757	TSS1500	S_Shore	GABARAP	0.395	0.002	0.206	0.750
cg13817545	yellow	13	112,212,266		Island		0.395	-0.012	0.168	0.012
cg20561213	yellow	10	129,082,166	Body	OpenSea	DOCK1	0.395	0.018	0.702	0.198
cg05787952	yellow	16	734,667	TSS1500	Island	JMJD8	0.395	0.013	0.413	0.077
cg14372635	yellow	10	134,971,594		N_Shore		0.395	0.006	0.856	0.396
cg10924776	yellow	5	36,265,810	Body	OpenSea	RANBP3L	0.395	0.005	0.250	0.655
cg12927277	yellow	2	238,509,162		OpenSea		0.395	0.002	0.321	0.715
cg21769969	yellow	6	108,396,498	TSS1500	S_Shore	OSTM1	0.395	0.004	0.214	0.747
cg03861703	yellow	17	70,587,137		N_Shore		0.395	0.008	0.413	0.439
cg08318660	yellow	17	44,122,580	Body	OpenSea	KIAA1267	0.395	0.009	0.754	0.297
cg22376081	yellow	19	57,862,242	TSS1500	N_Shore	ZNF304	0.395	-0.004	0.120	0.602
cg04109655	yellow	7	2,114,887	Body	N_Shore	MAD1L1	0.395	-0.004	0.777	0.579
cg14953762	yellow	4	119,274,837	TSS1500	S_Shore	PRSS12	0.395	0.002	0.397	0.712
cg02023757	yellow	8	2,418,843		N_Shore		0.395	0.008	0.435	0.382
cg06492796	yellow	12	96,883,057		N_Shore		0.395	0.012	0.311	0.360
cg23156371	yellow	8	131,031,752		S_Shelf		0.395	-0.009	0.552	0.412
cg26363759	yellow	1	9,377,984	5'UTR	OpenSea	SPSB1	0.395	0.002	0.928	0.622
cg02531439	yellow	7	98,701,226	Body	OpenSea	SMURF1	0.395	0.012	0.917	0.182
cg11182018	yellow	5	140,474,062	TSS200	N_Shore	PCDHB2	0.395	0.021	0.445	0.066
cg06466479	yellow	5	34,919,428	Body	S_Shelf	BRIX1	0.395	-0.001	0.925	0.822
cg16065922	yellow	7	71,912,239		OpenSea		0.395	0.007	0.111	0.329
cg22698177	yellow	15	49,207,945	Body	OpenSea	SHC4	0.395	0.006	0.454	0.474
cg15642885	yellow	8	56,756,852		OpenSea		0.395	0.011	0.206	0.528
cg11619549	yellow	7	99,097,071	Body	N_Shore	ZNF394	0.394	0.004	0.038	0.146
cg20546518	yellow	14	105,195,480	TSS1500	OpenSea	ADSSL1	0.394	0.009	0.568	0.340
cg26175729	yellow	7	150,726,136	Body	S_Shore	ABCB8	0.394	0.021	0.324	0.064
cg20253700	yellow	16	2,099,508	Body	S_Shore	TSC2	0.394	-0.006	0.931	0.271

cg25815440	yellow	2	42,134,162	OpenSea		0.394	-0.004	0.488	0.699
cg05406381	yellow	4	1,503,917	N_Shore		0.394	0.014	0.680	0.244
cg02550950	yellow	2	197,122,104 Body	OpenSea	HECW2	0.394	0.014	0.705	0.226
cg06393830	yellow	6	31,527,889	OpenSea		0.394	0.003	0.758	0.559
cg06584503	yellow	12	9,800,343 TSS1500	N_Shore	LOC374443	0.394	0.004	0.025	0.147
cg08678925	yellow	15	85,358,595 TSS1500	N_Shore	ALPK3	0.394	0.001	0.951	0.796
cg04458567	yellow	2	113,286,681 3'UTR	OpenSea	TTL	0.394	0.019	0.859	0.043
cg08534147	yellow	3	48,471,771 TSS1500	S_Shore	PLXNB1	0.394	-0.001	0.201	0.858
cg14101500	yellow	11	2,925,594 Body	S_Shore	SLC22A18	0.394	-0.009	0.381	0.204
cg24270542	yellow	13	24,844,846 Body	OpenSea	SPATA13	0.394	-0.001	0.032	0.669
cg09194778	yellow	6	792,749	OpenSea		0.394	-0.011	0.924	0.114
cg25728477	yellow	6	170,574,994	N_Shore		0.394	0.021	0.439	0.099
cg14146966	yellow	2	61,757,674 Body	OpenSea	XPO1	0.394	0.051	0.435	0.121
cg13728439	yellow	9	138,602,680 Body	N_Shelf	KCNT1	0.394	0.000	0.697	0.969
cg14262027	yellow	3	13,396,268 Body	OpenSea	NUP210	0.394	-0.004	0.473	0.402
cg24094538	yellow	6	50,695,479 Body	S_Shelf	TFAP2D	0.394	0.002	0.956	0.559
cg25455659	yellow	2	42,670,937 3'UTR	OpenSea	KCNG3	0.394	0.008	0.714	0.443
cg20297907	yellow	2	27,256,285 Body	S_Shore	TMEM214	0.394	0.000	0.018	0.762
cg09144422	yellow	16	68,056,595 1stExon	Island	DDX28	0.394	0.005	0.072	0.317
cg00833257	yellow	19	51,656,518 3'UTR	OpenSea	SIGLEC7	0.394	-0.006	0.705	0.560
cg11362192	yellow	13	50,069,489 TSS1500	N_Shore	PHF11	0.394	-0.002	0.076	0.740
cg10374248	yellow	10	99,083,645	S_Shelf		0.394	-0.004	0.895	0.535
cg22197830	yellow	5	134,209,784 1stExon	N_Shore	TXNDC15	0.394	0.002	0.769	0.825
cg07298257	yellow	16	28,583,885 5'UTR	OpenSea	CCDC101	0.394	0.005	0.460	0.479
cg05192402	yellow	8	20,676,367	OpenSea		0.394	0.007	0.332	0.456
cg08610982	yellow	6	31,560,871 TSS200	OpenSea	NCR3	0.393	0.004	0.617	0.664
cg05817845	yellow	20	42,816,226 TSS200	OpenSea	JPH2	0.393	0.004	0.240	0.653
cg08542351	yellow	10	77,352,376	OpenSea		0.393	0.001	0.730	0.949
cg17572155	yellow	10	1,782,183	S_Shelf		0.393	0.007	0.519	0.422
cg26216876	yellow	20	57,617,083 Body	N_Shore	SLMO2	0.393	0.005	0.499	0.784
cg11117460	yellow	11	67,982,542	S_Shore		0.393	0.012	0.600	0.179
cg08779649	yellow	13	50,194,554	OpenSea		0.393	0.021	0.733	0.165
cg242211742	yellow	12	132,627,896 Body	Island	DDX51	0.393	0.006	0.075	0.228
cg13684305	yellow	1	223,566,278 TSS1500	N_Shore	C1orf65	0.393	0.003	0.479	0.760
cg13388830	yellow	10	103,910,870 TSS1500	N_Shore	NOLC1	0.393	0.014	0.887	0.057
cg25614726	yellow	1	10,490,058 TSS200	N_Shore	APITD1	0.393	-0.001	0.583	0.905
cg15354666	yellow	2	236,044,927	OpenSea		0.393	0.009	0.228	0.419
cg14779825	yellow	19	43,099,845 TSS1500	OpenSea	CEACAM8	0.393	0.001	0.784	0.913
cg19963839	yellow	10	134,700,254	S_Shore		0.393	0.011	0.419	0.332
cg15143702	yellow	3	115,373,404 Body	N_Shelf	GAP43	0.393	-0.018	0.330	0.479
cg13863668	yellow	1	28,996,561 5'UTR	OpenSea	GMEB1	0.393	-0.006	0.277	0.570
cg12527684	yellow	4	99,851,156 5'UTR	S_Shore	EIF4E	0.393	0.000	0.608	0.992
cg06580014	yellow	4	25,931,115 3'UTR	OpenSea	C4orf52	0.393	0.012	0.537	0.310
cg01377644	yellow	17	7,126,609 Body	S_Shelf	ACADVL	0.393	0.007	0.858	0.349
cg08141395	yellow	11	95,987,382 Body	OpenSea	MAML2	0.393	0.004	0.451	0.738
cg17540499	yellow	7	126,698,451 TSS1500	OpenSea	MIR592	0.393	-0.003	0.924	0.731
cg06625730	yellow	20	18,456,304 Body	OpenSea	POLR3F	0.393	-0.001	0.953	0.660
cg00094063	yellow	16	66,913,816 TSS1500	N_Shore	PDP2	0.393	-0.007	0.518	0.239
cg22693994	yellow	1	11,085,219 3'UTR	OpenSea	TARDBP	0.393	-0.004	0.935	0.478
cg18779601	yellow	5	175,792,176 TSS1500	N_Shore	ARL10	0.393	-0.006	0.044	0.223
cg19132360	yellow	20	16,728,233 TSS1500	OpenSea	OTOR	0.393	0.009	0.437	0.389
cg23560765	yellow	6	20,929,282 Body	OpenSea	CDKAL1	0.393	0.000	0.939	0.964
cg19898108	yellow	12	54,383,692 3'UTR	S_Shelf	HOXC10	0.393	-0.004	0.287	0.718
cg05162032	yellow	7	6,310,773 Body	N_Shore	CYTH3	0.393	0.005	0.049	0.153
cg14047361	yellow	17	80,015,160 3'UTR	S_Shelf	GPS1	0.393	0.001	0.716	0.834
cg01438056	yellow	15	90,773,570 3'UTR	N_Shelf	CIB1	0.393	0.001	0.810	0.933
cg10888811	yellow	2	242,620,306 Body	S_Shelf	DTYMK	0.393	0.000	0.800	0.993
cg06457534	yellow	11	91,536,479	OpenSea		0.393	-0.014	0.785	0.396
cg06309241	yellow	6	31,106,288 Body	OpenSea	PSORS1C1	0.393	0.004	0.945	0.420
cg03758633	yellow	16	51,611,768	OpenSea		0.393	0.022	0.415	0.394
cg10924080	yellow	17	45,919,004 TSS1500	S_Shore	SCRN2	0.393	0.002	0.847	0.719
cg03477252	yellow	6	33,288,180 Body	N_Shore	DAXX	0.393	-0.003	0.950	0.354
cg09548718	yellow	16	17,398,605 Body	OpenSea	XYLT1	0.393	0.007	0.178	0.514
cg15163151	yellow	8	100,906,373 TSS1500	S_Shore	COX6C	0.393	-0.002	0.955	0.627
cg02309355	yellow	16	85,074,359 5'UTR	OpenSea	KIAA0513	0.392	0.000	0.609	0.974
cg05343404	yellow	19	3,608,327 TSS1500	S_Shore	TBXA2R	0.392	0.001	0.630	0.811
cg18380917	yellow	1	145,486,610 Body	OpenSea	LIX1L	0.392	0.002	0.962	0.604



cg17286326	yellow	20	57,796,491	Body	N_Shore	ZNF831	0.392	0.001	0.317	0.972
cg11755372	yellow	3	183,993,080	Body	N_Shore	ECE2	0.392	0.018	0.401	0.018
cg08415137	yellow	5	86,176,688		OpenSea		0.392	-0.006	0.095	0.497
cg13461273	yellow	3	40,547,232	TSS1500	N_Shore	ZNF620	0.392	0.001	0.323	0.937
cg21207741	yellow	9	134,148,648	Body	N_Shelf	FAM78A	0.392	0.003	0.619	0.655
cg23162983	yellow	17	63,119,174		N_Shore		0.392	0.004	0.048	0.265
cg02033669	yellow	17	78,917,019	Body	S_Shore	RPTOR	0.392	0.011	0.771	0.216
cg07042007	yellow	4	2,303,638	Body	N_Shore	ZFYVE28	0.392	-0.003	0.330	0.800
cg03527501	yellow	12	131,917,411		N_Shore		0.392	0.009	0.295	0.436
cg25592910	yellow	10	56,561,124	TSS200	OpenSea	PCDH15	0.392	0.007	0.145	0.431
cg05959989	yellow	11	68,517,164	Body	N_Shore	MTL5	0.392	0.003	0.497	0.800
cg12239218	yellow	12	57,593,337	Body	N_Shelf	LRP1	0.392	0.008	0.898	0.126
cg27393285	yellow	19	57,277,288		S_Shore		0.392	0.043	0.440	0.028
cg05208878	yellow	22	22,901,596	TSS200	Island	PRAME	0.392	-0.016	0.528	0.130
cg22699462	yellow	2	88,510,846		OpenSea		0.392	0.011	0.832	0.271
cg04062087	yellow	19	58,666,832		Island		0.392	0.013	0.220	0.242
cg03179500	yellow	7	42,969,969	Body	N_Shore	PSMA2	0.392	-0.001	0.947	0.896
cg05864433	yellow	7	2,738,728	5'UTR	N_Shore	AMZ1	0.392	0.001	0.219	0.947
cg13807509	yellow	11	65,667,116	Body	Island	FOSL1	0.392	0.001	0.146	0.903
cg10056102	yellow	8	131,280,828	Body	OpenSea	ASAP1	0.392	0.004	0.934	0.462
cg02009648	yellow	6	44,090,983	5'UTR	N_Shelf	MRPL14	0.392	-0.003	0.423	0.811
cg16695548	yellow	7	43,946,651	5'UTR	S_Shore	URGCP	0.392	0.006	0.098	0.414
cg13290154	yellow	6	31,628,056	5'UTR	N_Shore	G6orf47	0.392	-0.001	0.037	0.400
cg09845489	yellow	7	157,667,853	Body	S_Shore	PTPRN2	0.392	-0.010	0.239	0.408
cg07476327	yellow	2	171,730,024		OpenSea		0.392	0.002	0.069	0.552
cg00412775	yellow	7	155,724,270		OpenSea		0.392	0.001	0.326	0.867
cg14263884	yellow	17	46,048,822	Body	Island	CDK5RAP3	0.392	-0.001	0.108	0.956
cg19966212	yellow	5	149,792,783	TSS1500	OpenSea	CD74	0.392	-0.003	0.575	0.753
cg00222656	yellow	10	134,183,785	Body	OpenSea	LRRC27	0.392	0.003	0.696	0.574
cg19322479	yellow	2	241,987,099	Body	N_Shelf	SNED1	0.392	-0.005	0.316	0.645
cg12926529	yellow	11	118,897,188	Body	N_Shelf	SLC37A4	0.392	-0.003	0.871	0.606
cg01867647	yellow	4	1,004,200	TSS1500	Island	FGFRL1	0.392	-0.002	0.028	0.278
cg13598317	yellow	9	139,238,495	Body	N_Shore	GPSM1	0.392	0.003	0.827	0.411
cg12038641	yellow	20	61,162,000	Body	OpenSea	C20orf166	0.392	0.022	0.713	0.005
cg00076797	yellow	1	111,022,914	TSS1500	OpenSea	CYMP	0.392	0.001	0.462	0.872
cg06001277	yellow	16	903,073		N_Shore		0.392	0.000	0.870	0.968
cg09306186	yellow	16	73,081,722	1stExon	Island	ZFH3	0.392	-0.006	0.072	0.121
cg07508446	yellow	16	85,966,197		OpenSea		0.392	0.002	0.780	0.807
cg01567754	yellow	14	102,965,555	3'UTR	OpenSea	TECPR2	0.392	0.002	0.957	0.565
cg03214325	yellow	17	1,850,539	Body	OpenSea	RTN4RL1	0.391	0.001	0.573	0.912
cg06562297	yellow	17	77,785,191		Island		0.391	0.002	0.045	0.522
cg18074165	yellow	3	48,315,011		OpenSea		0.391	-0.026	0.476	0.031
cg01744412	yellow	13	34,736,499		OpenSea		0.391	0.012	0.102	0.323
cg13533069	yellow	6	4,022,895	Body	S_Shore	PRPF4B	0.391	-0.005	0.143	0.500
cg15318311	yellow	4	184,319,743		Island		0.391	-0.001	0.026	0.538
cg09312336	yellow	22	39,884,755	Body	Island	MGAT3	0.391	-0.003	0.920	0.453
cg12654928	yellow	7	74,141,532	Body	OpenSea	GTF2I	0.391	0.004	0.932	0.327
cg14112356	yellow	21	46,348,443	5'UTR	N_Shelf	ITGB2	0.391	0.012	0.468	0.236
cg15814119	yellow	8	145,672,151		S_Shore		0.391	0.001	0.866	0.862
cg01904985	yellow	15	75,117,658	TSS1500	OpenSea	CPLX3	0.391	0.002	0.856	0.751
cg19963120	yellow	13	96,651,633	Body	OpenSea	UGGT2	0.391	0.006	0.941	0.314
cg13375828	yellow	17	3,598,755	Body	N_Shore	P2RX5	0.391	0.013	0.166	0.104
cg23739046	yellow	7	100,305,063	3'UTR	S_Shore	POP7	0.391	0.004	0.897	0.580
cg09328024	yellow	1	206,808,174	TSS1500	N_Shore	DYRK3	0.391	0.003	0.081	0.639
cg00745046	yellow	10	133,449,506		Island		0.391	-0.009	0.826	0.359
cg21670944	yellow	8	144,962,931		N_Shelf		0.391	0.024	0.525	0.087
cg01263942	yellow	10	695,859	Body	OpenSea	DIP2C	0.391	-0.001	0.047	0.780
cg23306542	yellow	8	67,340,541	TSS1500	N_Shore	RRS1	0.391	0.013	0.134	0.341
cg02609144	yellow	8	133,204,331	Body	OpenSea	KCNQ3	0.391	0.006	0.043	0.171
cg04935965	yellow	21	40,822,476	5'UTR	OpenSea	SH3BGR	0.391	0.006	0.623	0.398
cg12194517	yellow	8	140,802,617	Body	OpenSea	TRAPPC9	0.391	0.003	0.931	0.324
cg13320014	yellow	20	62,440,473		Island		0.391	-0.010	0.908	0.539
cg11511096	yellow	12	47,116,635		OpenSea		0.391	0.008	0.407	0.340
cg00463449	yellow	19	58,038,065	TSS1500	N_Shore	ZNF549	0.391	-0.002	0.888	0.775
cg13601254	yellow	22	46,938,278		S_Shelf		0.390	-0.001	0.050	0.593
cg01780943	yellow	1	211,499,648	TSS1500	N_Shore	TRAF5	0.390	0.005	0.551	0.396
cg09355027	yellow	2	2,581,353		OpenSea		0.390	0.017	0.427	0.074

cg18052606	yellow	13	97,876,459	5'UTR	OpenSea	MBNL2	0.390	0.005	0.029	0.142
cg04516203	yellow	16	51,442,575		OpenSea		0.390	-0.002	0.139	0.848
cg02219159	yellow	17	1,182,702	TSS1500	OpenSea	TUSC5	0.390	0.014	0.386	0.067
cg09395033	yellow	2	52,614,831		OpenSea		0.390	0.000	0.589	0.991
cg09459339	yellow	3	111,260,893	TSS200	OpenSea	CD96	0.390	0.005	0.075	0.507
cg27282397	yellow	2	20,793,466		OpenSea		0.390	0.015	0.645	0.227
cg02255004	yellow	4	80,748,660	Body	OpenSea	GDEP	0.390	-0.001	0.868	0.903
cg21066748	yellow	19	46,005,805		N_Shelf		0.390	-0.003	0.617	0.718
cg17536532	yellow	9	138,370,739	TSS1500	Island	KIAA0649	0.390	0.004	0.410	0.527
cg16943934	yellow	11	36,217,199	Body	OpenSea	LDLRAD3	0.390	0.001	0.850	0.934
cg02971470	yellow	1	40,203,623	TSS1500	N_Shore	PPIE	0.390	0.012	0.668	0.274
cg25313698	yellow	12	133,182,638		S_Shelf		0.390	-0.005	0.814	0.480
cg25186332	yellow	12	53,776,149	Body	S_Shore	SP1	0.390	0.001	0.954	0.764
cg15859635	yellow	11	61,519,787	TSS1500	Island	C11orf9	0.390	-0.001	0.285	0.885
cg15852700	yellow	16	30,772,531	TSS1500	Island	RNF40	0.390	-0.004	0.098	0.476
cg03286098	yellow	8	42,271,413		S_Shelf		0.390	0.004	0.922	0.416
cg20078807	yellow	22	45,608,713	Body	OpenSea	C22orf9	0.390	0.007	0.559	0.564
cg02902946	yellow	20	57,617,168	Body	N_Shore	SLMO2	0.390	0.012	0.721	0.412
cg01547809	yellow	3	50,364,686	Body	N_Shore	TUSC2	0.390	0.003	0.836	0.704
cg13084224	yellow	15	84,034,690		OpenSea		0.390	0.006	0.052	0.058
cg01839264	yellow	14	77,110,895		OpenSea		0.390	0.004	0.907	0.442
cg18489195	yellow	5	140,561,961	5'UTR	N_Shore	PCDHB16	0.390	0.003	0.052	0.387
cg01369689	yellow	16	30,786,529	3'UTR	N_Shore	RNF40	0.390	0.016	0.622	0.073
cg14206898	yellow	9	71,627,667	3'UTR	N_Shore	PRKACG	0.390	0.022	0.167	0.035
cg23847700	yellow	11	64,066,766	Body	Island	KCNK4	0.390	-0.002	0.019	0.249
cg26656751	yellow	17	43,910,226	Body	OpenSea	CRHR1	0.390	0.008	0.734	0.329
cg06584237	yellow	15	55,701,181	TSS1500	S_Shore	CCPG1	0.390	0.001	0.034	0.576
cg04174986	yellow	20	30,468,155	Body	S_Shore	TTLL9	0.390	0.000	0.128	0.957
cg00184732	yellow	15	51,633,821	1stExon	Island	GLDN	0.390	-0.006	0.250	0.689
cg08218101	yellow	4	15,704,393	TSS200	N_Shore	BST1	0.390	0.002	0.101	0.798
cg00422638	yellow	10	25,466,027	TSS1500	S_Shore	LOC1001288	0.390	-0.005	0.076	0.451
cg08840913	yellow	2	24,139,933	Body	OpenSea	ATAD2B	0.390	0.006	0.658	0.300
cg20068620	yellow	18	48,085,844	TSS1500	Island	MAPK4	0.390	-0.005	0.076	0.351
cg20655220	yellow	5	102,246,737	Body	OpenSea	PAM	0.390	0.001	0.701	0.912
cg03884543	yellow	1	109,373,104	Body	OpenSea	AKNAD1	0.390	-0.001	0.572	0.819
cg11146971	yellow	14	27,068,354	TSS1500	S_Shore	NOVA1	0.389	0.029	0.082	0.001
cg14170840	yellow	1	38,155,120	Body	N_Shore	C1orf109	0.389	0.004	0.925	0.584
cg16987876	yellow	19	543,909	TSS200	S_Shore	GZMM	0.389	0.005	0.364	0.570
cg05987961	yellow	7	158,059,396	Body	N_Shore	PTPRN2	0.389	-0.002	0.823	0.918
cg09874415	yellow	1	35,989,973	Body	OpenSea	KIAA0319L	0.389	0.014	0.843	0.415
cg16943185	yellow	11	94,503,894	Body	S_Shore	AMOTL1	0.389	0.001	0.310	0.829
cg02174765	yellow	6	166,270,728		S_Shelf		0.389	0.005	0.396	0.667
cg13406746	yellow	11	615,583	5'UTR	Island	IRF7	0.389	0.003	0.257	0.756
cg00164941	yellow	2	73,523,056		S_Shelf		0.389	0.005	0.436	0.708
cg18344513	yellow	17	27,493,709	Body	Island	MYO18A	0.389	0.007	0.822	0.224
cg10608948	yellow	17	6,478,486		OpenSea		0.389	0.002	0.456	0.813
cg03678098	yellow	20	61,054,887		S_Shelf		0.389	-0.007	0.459	0.282
cg07438421	yellow	17	1,675,235	Body	OpenSea	SERPINF1	0.389	0.007	0.815	0.345
cg21027035	yellow	7	152,591,949		S_Shore		0.389	0.006	0.905	0.458
cg06288570	yellow	16	28,550,567	TSS200	OpenSea	NUPR1	0.389	0.005	0.244	0.478
cg26201213	yellow	10	131,265,796	Body	S_Shore	MGMT	0.389	-0.008	0.502	0.577
cg21117808	yellow	1	9,887,936		S_Shelf		0.389	0.005	0.638	0.577
cg15236453	yellow	6	17,043,034		OpenSea		0.389	0.013	0.644	0.573
cg02441982	yellow	17	76,183,641	Body	S_Shore	AFMID	0.389	0.002	0.895	0.827
cg19718309	yellow	14	100,632,904		OpenSea		0.389	0.027	0.317	0.410
cg17453456	yellow	1	156,094,519	Body	OpenSea	LMNA	0.389	-0.002	0.739	0.825
cg19382584	yellow	10	63,666,609	Body	S_Shelf	ARID5B	0.389	-0.004	0.946	0.412
cg14702264	yellow	7	66,385,829	TSS1500	N_Shore	C7orf42	0.388	0.001	0.048	0.749
cg11183136	yellow	7	150,595,671		OpenSea		0.388	0.001	0.015	0.254
cg22525688	yellow	7	74,001,908	Body	OpenSea	GTF2IRD1	0.388	-0.001	0.029	0.551
cg27660248	yellow	4	1,201,315	Body	N_Shore	LOC1001308	0.388	0.007	0.932	0.226
cg24315913	yellow	1	153,631,633	Body	S_Shore	SNAPIN	0.388	0.001	0.076	0.793
cg14054275	yellow	10	99,772,103	Body	OpenSea	CRTAC1	0.388	0.009	0.755	0.176
cg25395505	yellow	7	97,877,765	5'UTR	N_Shelf	TECPR1	0.388	0.001	0.935	0.720
cg11080430	yellow	17	16,557,885	TSS1500	S_Shore	ZNF624	0.388	0.013	0.595	0.445
cg18561976	yellow	2	204,801,508	5'UTR	OpenSea	ICOS	0.388	-0.002	0.443	0.860
cg11884933	yellow	7	2,774,414	Body	N_Shore	GNA12	0.388	0.007	0.793	0.258

cg17560136	yellow	8	21,915,510	5'UTR	S_Shore	EPB49	0.388	0.004	0.332	0.618
cg00076313	yellow	7	1,748,610	TSS200	OpenSea	ELFN1	0.388	0.009	0.908	0.159
cg24503712	yellow	1	151,762,261	5'UTR	N_Shore	TDRKH	0.388	-0.003	0.621	0.853
cg15618646	yellow	7	154,473,202	Body	OpenSea	DPP6	0.388	-0.011	0.524	0.381
cg20546331	yellow	19	36,450,358		Island		0.388	0.004	0.106	0.439
cg11256152	yellow	8	141,359,786	Body	S_Shore	TRAPPC9	0.388	-0.007	0.718	0.783
cg22972248	yellow	2	170,264,540		OpenSea		0.388	-0.004	0.913	0.624
cg09935495	yellow	6	31,690,157	TSS1500	N_Shore	C6orf25	0.388	0.002	0.918	0.736
cg08433538	yellow	9	129,676,714	TSS1500	N_Shore	RALGPS1	0.388	0.007	0.089	0.420
cg20712631	yellow	5	172,074,065	Body	OpenSea	NEURL1B	0.388	0.016	0.328	0.044
cg11319300	yellow	11	131,779,920	TSS1500	N_Shore	NTM	0.388	-0.002	0.821	0.870
cg03340760	yellow	2	121,071,458		OpenSea		0.388	0.003	0.202	0.711
cg01351992	yellow	16	1,210,389	Body	Island	CACNA1H	0.388	0.010	0.286	0.274
cg16410413	yellow	20	704,641		N_Shelf		0.388	-0.005	0.238	0.407
cg14234083	yellow	17	71,731,988		OpenSea		0.388	0.004	0.654	0.552
cg15570293	yellow	19	2,327,692	Body	N_Shore	LSM7	0.388	0.005	0.250	0.588
cg17649385	yellow	8	91,997,985		S_Shore		0.388	-0.004	0.197	0.728
cg08977639	yellow	16	1,047,820		Island		0.388	0.012	0.210	0.418
cg16042943	yellow	14	69,574,378	Body	OpenSea	DCAF5	0.388	-0.001	0.058	0.858
cg07480653	yellow	17	39,868,082	TSS1500	OpenSea	GAST	0.388	0.010	0.769	0.432
cg03880033	yellow	16	55,866,757	Body	Island	CES1	0.388	0.013	0.448	0.417
cg25009327	yellow	7	148,820,504	Body	N_Shelf	ZNF425	0.388	0.018	0.484	0.318
cg08224185	yellow	5	153,873,691		S_Shore		0.387	0.002	0.689	0.856
cg26237512	yellow	15	95,388,002		Island		0.387	-0.001	0.040	0.661
cg04068005	yellow	6	137,162,231	Body	OpenSea	PEX7	0.387	-0.003	0.893	0.652
cg15553946	yellow	1	19,146,909		OpenSea		0.387	-0.001	0.375	0.945
cg24878059	yellow	19	40,732,896	TSS1500	S_Shore	CNTD2	0.387	0.016	0.456	0.007
cg16148696	yellow	6	111,784,159	Body	OpenSea	REV3L	0.387	-0.004	0.915	0.567
cg00741410	yellow	1	6,615,354	TSS200	S_Shore	TAS1R1	0.387	0.014	0.667	0.280
cg25939793	yellow	5	139,421,649	Body	N_Shore	NRG2	0.387	0.002	0.018	0.072
cg02449638	yellow	19	36,607,078	Body	S_Shore	TBCB	0.387	0.003	0.272	0.619
cg15936318	yellow	6	10,722,562	TSS1500	N_Shore	TMEM14C	0.387	-0.006	0.908	0.474
cg08240778	yellow	11	1,643,787	Body	OpenSea	HCCA2	0.387	-0.007	0.411	0.657
cg20325454	yellow	2	74,078,577	Body	OpenSea	STAMPB	0.387	-0.013	0.868	0.073
cg27045264	yellow	16	31,441,954		S_Shelf		0.387	0.011	0.289	0.111
cg05412930	yellow	6	32,820,586	TSS1500	N_Shore	PSMB9	0.387	0.003	0.100	0.673
cg22703113	yellow	4	7,185,164		OpenSea		0.387	0.003	0.747	0.661
cg21625568	yellow	5	173,738,479		N_Shore		0.387	0.004	0.822	0.636
cg26434881	yellow	16	87,669,476	Body	OpenSea	JPH3	0.387	-0.004	0.389	0.774
cg00101104	yellow	19	54,219,607	TSS1500	OpenSea	MIR521-2	0.387	-0.004	0.944	0.326
cg13330363	yellow	15	69,220,397	Body	N_Shelf	MIR548H4	0.387	0.002	0.782	0.800
cg10675058	yellow	11	63,858,880	Body	OpenSea	MACROD1	0.387	-0.007	0.886	0.275
cg26665701	yellow	16	50,616,055	Body	S_Shelf	NKD1	0.387	0.001	0.495	0.931
cg00476944	yellow	7	157,411,142	Body	S_Shore	PTPRN2	0.387	-0.001	0.801	0.884
cg10630880	yellow	3	52,008,682	TSS200	N_Shore	ABHD14B	0.387	-0.005	0.176	0.349
cg19005368	yellow	11	32,851,950	5'UTR	Island	PRRG4	0.387	0.005	0.198	0.505
cg21498062	yellow	6	21,157,865	Body	OpenSea	CDKAL1	0.387	0.012	0.921	0.072
cg06126829	yellow	20	42,984,320	TSS200	OpenSea	HNF4A	0.387	0.004	0.659	0.495
cg25134859	yellow	5	171,340,543	Body	OpenSea	FBXW11	0.387	0.001	0.333	0.909
cg07855639	yellow	22	37,959,465	5'UTR	S_Shore	CDC42EP1	0.387	0.002	0.112	0.725
cg26197117	yellow	6	110,797,233	Body	N_Shore	SLC22A16	0.387	-0.001	0.309	0.949
cg00323014	yellow	10	125,928,304		OpenSea		0.387	-0.003	0.746	0.703
cg04557677	yellow	19	17,959,082	TSS1500	S_Shore	JAK3	0.387	0.001	0.672	0.909
cg21603914	yellow	16	89,070,647		Island		0.387	-0.003	0.028	0.176
cg10757989	yellow	8	61,621,248	5'UTR	OpenSea	CHD7	0.387	-0.009	0.562	0.124
cg21985691	yellow	11	17,849,903	Body	OpenSea	SERGEF	0.387	0.020	0.448	0.030
cg10196459	yellow	17	1,133,631		Island		0.387	-0.009	0.241	0.375
cg02519499	yellow	21	47,335,691	Body	S_Shore	PCBP3	0.387	-0.003	0.812	0.531
cg23041295	yellow	5	15,502,456	Body	S_Shore	FBXL7	0.387	-0.005	0.068	0.352
cg05084793	yellow	14	91,977,571	TSS1500	S_Shore	SMEK1	0.387	0.006	0.195	0.472
cg12989534	yellow	19	55,987,403	TSS1500	N_Shore	ZNF628	0.387	0.007	0.311	0.456
cg18879793	yellow	1	156,468,722	5'UTR	N_Shore	MEF2D	0.386	0.000	0.052	0.949
cg08471846	yellow	19	799,621	Body	S_Shore	PTBP1	0.386	-0.002	0.088	0.724
cg14221550	yellow	8	120,220,050	TSS1500	N_Shore	MAL2	0.386	0.033	0.224	0.008
cg24751551	yellow	21	39,627,840	TSS1500	OpenSea	KCNJ15	0.386	-0.002	0.927	0.769
cg05687563	yellow	16	2,837,658	TSS1500	S_Shore	PRSS33	0.386	0.018	0.278	0.007
cg20130571	yellow	3	35,974,541		OpenSea		0.386	0.002	0.288	0.810

cg25290178	yellow	15	93,591,806	Body	N_Shelf	RGMA	0.386	0.002	0.899	0.714
cg02372702	yellow	12	25,304,568	Body	OpenSea	CASC1	0.386	-0.003	0.042	0.344
cg26130383	yellow	3	121,287,348	5'UTR	OpenSea	ARGFX	0.386	0.012	0.930	0.128
cg27182159	yellow	6	33,241,226	Body	S_Shore	RPS18	0.386	0.013	0.738	0.291
cg27657867	yellow	11	27,818,018		OpenSea		0.386	0.003	0.131	0.547
cg11513884	yellow	2	121,071,625		OpenSea		0.386	0.005	0.321	0.477
cg10162210	yellow	19	7,852,238	TSS200	N_Shore	CLEC4GP1	0.386	-0.001	0.026	0.637
cg21486532	yellow	2	242,735,135	Body	OpenSea	GAL3ST2	0.386	-0.004	0.640	0.745
cg01782523	yellow	1	3,712,278	Body	N_Shore	LRRC47	0.386	0.008	0.095	0.233
cg04062767	yellow	12	130,958,162	Body	OpenSea	RIMBP2	0.386	0.007	0.439	0.447
cg24144883	yellow	22	21,986,985	TSS200	S_Shelf	CCDC116	0.386	0.011	0.519	0.112
cg09511421	yellow	4	116,034,871	1stExon	OpenSea	NDST4	0.386	0.010	0.095	0.141
cg04354805	yellow	1	27,152,792	TSS1500	N_Shore	ZDHHC18	0.386	0.001	0.043	0.528
cg07021288	yellow	20	13,197,399		N_Shelf		0.386	0.006	0.475	0.431
cg01054652	yellow	11	72,246,863		OpenSea		0.386	-0.022	0.872	0.006
cg06764804	yellow	6	159,654,028	Body	Island	FNDC1	0.386	0.008	0.665	0.306
cg23036204	yellow	19	51,684,636		N_Shore		0.386	-0.012	0.864	0.114
cg04425110	yellow	10	102,902,429		N_Shelf		0.386	-0.014	0.261	0.281
cg07148896	yellow	1	11,119,225	Body	Island	SRM	0.386	0.000	0.158	0.960
cg02749784	yellow	8	120,219,927	TSS1500	N_Shore	MAL2	0.386	0.007	0.775	0.608
cg19709414	yellow	15	74,912,408	Body	S_Shelf	CLK3	0.385	0.010	0.882	0.141
cg16689434	yellow	16	90,089,547	Body	S_Shore	GAS8	0.385	0.015	0.179	0.191
cg08091621	yellow	7	2,092,088	Body	S_Shelf	MAD1L1	0.385	-0.005	0.626	0.585
cg08222293	yellow	5	180,628,689	Body	N_Shelf	TRIM7	0.385	-0.002	0.616	0.798
cg19475241	yellow	19	1,773,498	Body	N_Shore	ONECUT3	0.385	0.006	0.460	0.492
cg24427947	yellow	20	4,702,516	TSS200	OpenSea	PRND	0.385	0.000	0.691	0.979
cg06768670	yellow	8	143,182,662		OpenSea		0.385	0.001	0.797	0.909
cg20822028	yellow	15	61,038,077	Body	OpenSea	RORA	0.385	0.007	0.464	0.521
cg02071305	yellow	15	41,185,973	TSS1500	N_Shore	VPS18	0.385	-0.007	0.178	0.367
cg14987309	yellow	2	236,843,038	Body	OpenSea	AGAP1	0.385	0.016	0.659	0.084
cg15655295	yellow	19	30,367,842		S_Shelf		0.385	0.002	0.796	0.733
cg03874539	yellow	12	111,805,149	5'UTR	N_Shore	FAM109A	0.385	0.009	0.672	0.477
cg15718222	yellow	1	6,483,926	TSS1500	N_Shore	ESPN	0.385	-0.002	0.064	0.691
cg19190519	yellow	11	123,175,740		S_Shelf		0.385	0.006	0.609	0.629
cg25884379	yellow	22	39,152,460	TSS1500	Island	UNC84B	0.385	-0.004	0.038	0.025
cg16578825	yellow	13	112,786,727		OpenSea		0.385	0.005	0.862	0.563
cg04524040	yellow	19	4,153,364	TSS1500	OpenSea	CREB3L3	0.385	0.005	0.370	0.726
cg24184684	yellow	17	28,267,386	TSS1500	OpenSea	EFCAB5	0.385	0.008	0.920	0.203
cg23406830	yellow	8	30,012,838	TSS1500	N_Shore	DCTN6	0.385	0.014	0.706	0.082
cg08751438	yellow	16	86,398,455		OpenSea		0.385	-0.002	0.890	0.660
cg21905167	yellow	22	19,949,585	5'UTR	OpenSea	COMT	0.385	0.007	0.893	0.094
cg08387270	yellow	8	145,649,036	3'UTR	N_Shore	VPS28	0.385	0.005	0.872	0.403
cg20689476	yellow	4	6,385,854	Body	OpenSea	PPP2R2C	0.385	0.006	0.334	0.354
cg00764619	yellow	2	242,610,529	Body	S_Shelf	ATG4B	0.385	0.003	0.806	0.668
cg13160221	yellow	8	21,988,809	TSS1500	Island	HR	0.385	0.000	0.036	0.886
cg08655662	yellow	6	41,438,590		Island		0.385	0.001	0.426	0.968
cg06482904	yellow	11	61,537,000	Body	OpenSea	C11orf9	0.385	-0.006	0.585	0.257
cg06373721	yellow	20	62,745,242		OpenSea		0.385	0.002	0.896	0.801
cg20806493	yellow	17	46,832,919		S_Shore		0.385	-0.008	0.198	0.337
cg22288927	yellow	4	144,482,688		S_Shore		0.385	-0.001	0.929	0.855
cg20738719	yellow	3	122,728,088	5'UTR	OpenSea	SEMA5B	0.385	0.009	0.551	0.391
cg15838042	yellow	5	176,022,759	3'UTR	N_Shore	PCDH24	0.385	-0.005	0.927	0.258
cg09998004	yellow	4	88,244,909	TSS1500	OpenSea	HSD17B13	0.385	-0.004	0.962	0.145
cg09750210	yellow	6	52,985,055		OpenSea		0.385	0.016	0.358	0.153
cg27023104	yellow	7	55,323,611		S_Shore		0.385	0.000	0.051	0.937
cg04166385	yellow	19	40,002,801		N_Shelf		0.385	0.030	0.435	0.007
cg17165156	yellow	15	74,838,596	Body	OpenSea	ARID3B	0.385	0.004	0.031	0.135
cg05373438	yellow	16	88,698,776		N_Shore		0.385	0.001	0.891	0.845
cg12535380	yellow	12	109,491,236	Body	S_Shore	USP30	0.384	0.016	0.129	0.115
cg05716242	yellow	17	79,283,138	TSS200	N_Shore	C17orf55	0.384	-0.003	0.032	0.141
cg14752838	yellow	7	76,828,885	1stExon	OpenSea	FGL2	0.384	0.000	0.045	0.952
cg06993761	yellow	8	101,170,141	TSS1500	N_Shore	SPAG1	0.384	-0.004	0.094	0.490
cg02366228	yellow	19	33,667,241		N_Shore		0.384	0.005	0.044	0.151
cg14367396	yellow	9	140,171,097	TSS1500	N_Shore	C9orf167	0.384	0.003	0.897	0.458
cg03953626	yellow	6	30,652,396	Body	N_Shore	KIAA1949	0.384	0.013	0.548	0.135
cg09510085	yellow	16	84,518,355	Body	OpenSea	KIAA1609	0.384	0.010	0.487	0.378
cg25322086	yellow	21	47,575,547	TSS200	OpenSea	FTCD	0.384	0.005	0.577	0.374

cg13356455	yellow	15	25,962,719	Body	S_Shelf	ATP10A	0.384	0.013	0.575	0.274
cg16875629	yellow	19	36,389,575	5'UTR	Island	NFKBID	0.384	-0.007	0.111	0.584
cg25363046	yellow	1	16,074,463	3'UTR	S_Shore	TMEM82	0.384	0.003	0.928	0.558
cg11362820	yellow	15	41,234,614		S_Shore		0.384	0.005	0.396	0.553
cg26036652	yellow	20	33,735,834	TSS1500	S_Shore	EDEM2	0.384	0.002	0.066	0.735
cg15466909	yellow	8	144,842,965		Island		0.384	0.007	0.217	0.444
cg01461211	yellow	16	85,478,908		OpenSea		0.384	0.007	0.614	0.189
cg03568017	yellow	17	75,315,503	5'UTR	OpenSea	9-Sep	0.384	0.001	0.293	0.900
cg18488946	yellow	15	25,230,295	Body	OpenSea	PAR5	0.384	-0.001	0.657	0.953
cg07603744	yellow	2	71,222,525	TSS1500	S_Shore	TEX261	0.384	0.007	0.104	0.295
cg24426208	yellow	6	32,050,947	Body	S_Shelf	TNXB	0.384	0.001	0.716	0.937
cg23448505	yellow	19	37,826,008	5'UTR	S_Shore	HKR1	0.384	0.007	0.192	0.681
cg22168489	yellow	12	122,356,033	TSS1500	N_Shore	WDR66	0.384	0.000	0.629	0.976
cg08700546	yellow	11	47,436,675	Body	OpenSea	SLC39A13	0.384	0.006	0.591	0.228
cg18869485	yellow	5	140,854,797	Body	N_Shore	PCDHGA4	0.384	0.015	0.541	0.096
cg12746016	yellow	22	49,560,550		N_Shelf		0.384	0.007	0.878	0.322
cg09244100	yellow	2	219,697,159	TSS1500	OpenSea	PRKAG3	0.384	0.001	0.937	0.901
cg00199007	yellow	20	61,583,910	TSS200	Island	SLC17A9	0.384	-0.003	0.076	0.838
cg25304754	yellow	1	2,014,547	Body	OpenSea	PRK CZ	0.383	0.004	0.722	0.442
cg12036877	yellow	1	156,211,896	TSS200	N_Shelf	BGLAP	0.383	0.001	0.949	0.771
cg12745325	yellow	12	56,623,942	5'UTR	OpenSea	SLC39A5	0.383	0.001	0.798	0.881
cg10268548	yellow	6	160,184,041	Body	S_Shore	ACAT2	0.383	0.007	0.631	0.455
cg13506559	yellow	9	139,026,313		S_Shore		0.383	0.019	0.482	0.012
cg07318808	yellow	19	1,646,486	Body	Island	TCF3	0.383	0.004	0.902	0.456
cg23029474	yellow	5	115,153,223	TSS1500	S_Shore	CDO1	0.383	-0.004	0.904	0.621
cg25373595	yellow	17	2,699,718	TSS200	OpenSea	RAP1GAP2	0.383	0.010	0.758	0.362
cg13998293	yellow	1	26,394,435	TSS1500	OpenSea	TRIM63	0.383	-0.005	0.933	0.376
cg22058906	yellow	11	73,021,688	1stExon	S_Shore	ARHGFEF17	0.383	0.000	0.753	0.978
cg25321885	yellow	20	61,788,161		Island		0.383	-0.006	0.622	0.446
cg05044291	yellow	1	202,172,867	TSS200	OpenSea	LGR6	0.383	-0.007	0.428	0.366
cg08199133	yellow	19	39,695,034	TSS200	S_Shore	SYCN	0.383	0.005	0.314	0.394
cg19459791	yellow	15	65,363,022		S_Shelf		0.383	0.003	0.703	0.635
cg15494174	yellow	1	10,490,124	TSS200	N_Shore	APITD1	0.383	-0.003	0.039	0.349
cg18310110	yellow	15	66,675,278		N_Shelf		0.383	-0.007	0.867	0.412
cg23714481	yellow	14	105,458,100	Body	OpenSea	C14orf79	0.383	0.001	0.623	0.868
cg08751997	yellow	17	19,741,983	Body	OpenSea	ULK2	0.383	0.007	0.947	0.101
cg01975453	yellow	1	211,304,166	Body	N_Shelf	KCNH1	0.383	0.008	0.926	0.213
cg13837857	yellow	9	38,672,315		OpenSea		0.383	0.004	0.207	0.787
cg05358575	yellow	2	26,764,961	Body	OpenSea	OTOF	0.383	0.009	0.817	0.377
cg13266327	yellow	2	11,485,561	TSS1500	S_Shore	ROCK2	0.383	0.002	0.028	0.237
cg20929568	yellow	11	108,409,365	TSS1500	OpenSea	EXPH5	0.383	0.011	0.599	0.276
cg04165000	yellow	6	53,375,279	Body	OpenSea	GCLC	0.383	0.004	0.908	0.655
cg06121469	yellow	15	44,956,098	TSS1500	S_Shore	SPG11	0.383	-0.002	0.041	0.410
cg23296836	yellow	8	16,870,927		OpenSea		0.383	0.011	0.244	0.511
cg06253352	yellow	12	112,281,915	TSS1500	S_Shore	C12orf47	0.382	0.006	0.953	0.109
cg02307823	yellow	10	89,675,901	Body	OpenSea	PTEN	0.382	0.002	0.927	0.691
cg13861399	yellow	11	66,413,913	3'UTR	S_Shelf	RBM4	0.382	-0.005	0.893	0.415
cg21548220	yellow	19	46,284,048	Body	S_Shore	DMPK	0.382	0.006	0.635	0.551
cg15995695	yellow	1	179,334,675	TSS1500	N_Shore	C1orf125	0.382	-0.008	0.256	0.428
cg12179641	yellow	6	32,188,404	Body	OpenSea	NOTCH4	0.382	0.001	0.663	0.892
cg07924380	yellow	2	239,693,913		OpenSea		0.382	0.000	0.047	0.919
cg02513379	yellow	16	27,414,281	TSS200	OpenSea	IL21R	0.382	0.017	0.529	0.035
cg22022747	yellow	1	209,237,649		OpenSea		0.382	0.004	0.808	0.568
cg25921518	yellow	17	10,113,142		OpenSea		0.382	-0.002	0.712	0.847
cg03593358	yellow	1	12,039,985	TSS1500	N_Shore	MFN2	0.382	0.001	0.036	0.447
cg18233544	yellow	10	134,046,237	Body	OpenSea	STK32C	0.382	-0.001	0.763	0.926
cg13347577	yellow	17	30,243,828		N_Shore		0.382	0.004	0.494	0.745
cg07101029	yellow	16	2,127,004	Body	N_Shore	TSC2	0.382	0.007	0.523	0.223
cg07894883	yellow	10	81,146,877	Body	S_Shore	ZCCHC24	0.382	0.003	0.843	0.650
cg03389720	yellow	16	8,780,048	5'UTR	OpenSea	ABAT	0.382	0.018	0.327	0.021
cg19251326	yellow	6	31,688,080	Body	N_Shelf	LY6G6C	0.382	0.008	0.694	0.318
cg21591807	yellow	19	49,258,851	TSS1500	S_Shelf	FGF21	0.382	-0.005	0.840	0.566
cg12202913	yellow	19	12,846,618	TSS1500	N_Shore	C19orf43	0.382	0.008	0.933	0.082
cg20423409	yellow	6	33,875,174		OpenSea		0.382	0.005	0.630	0.496
cg22246636	yellow	20	61,612,500		Island		0.382	-0.009	0.299	0.397
cg09484559	yellow	17	12,692,246	TSS1500	N_Shore	RICH2	0.382	0.017	0.362	0.044
cg14454798	yellow	5	173,314,559	TSS1500	N_Shore	CPEB4	0.382	-0.003	0.843	0.744

cg26552638	yellow	8	10,875,534	Body	S_Shore	XKR6	0.382	0.001	0.842	0.884
cg00156551	yellow	8	1,780,324	5'UTR	S_Shore	ARHGEF10	0.382	0.014	0.658	0.227
cg25258033	yellow	6	167,368,657	Body	N_Shore	RNASET2	0.382	0.011	0.902	0.060
cg18334681	yellow	6	132,066,129	Body	OpenSea	ENPP3	0.382	-0.001	0.111	0.936
cg19732886	yellow	10	101,872,003		N_Shelf		0.382	0.008	0.703	0.419
cg16663980	yellow	1	158,809,049	5'UTR	OpenSea	MNDA	0.382	-0.006	0.914	0.324
cg17072268	yellow	19	40,853,164	TSS1500	N_Shore	PLD3	0.382	0.001	0.943	0.907
cg08923614	yellow	11	74,303,294	TSS1500	N_Shore	POLD3	0.382	0.000	0.055	0.996
cg06862165	yellow	16	12,434,580	Body	OpenSea	SNX29	0.382	-0.007	0.398	0.235
cg24062767	yellow	16	1,831,722	5'UTR	Island	SPSB3	0.382	-0.003	0.204	0.688
cg06750292	yellow	1	201,857,296	TSS1500	OpenSea	SHISA4	0.382	0.002	0.426	0.859
cg08474651	yellow	2	201,729,683	TSS1500	S_Shore	CLK1	0.381	-0.001	0.026	0.274
cg11335411	yellow	19	58,694,111	TSS1500	N_Shore	ZNF274	0.381	0.009	0.441	0.335
cg26919014	yellow	16	58,061,992	Body	S_Shore	MMP15	0.381	0.005	0.693	0.483
cg23343264	yellow	12	118,454,133	TSS1500	N_Shore	RFC5	0.381	-0.001	0.325	0.921
cg23677833	yellow	19	16,308,345	TSS1500	N_Shore	AP1M1	0.381	0.006	0.138	0.563
cg27484582	yellow	7	2,518,723		OpenSea		0.381	-0.001	0.846	0.939
cg13084994	yellow	13	103,412,085	TSS1500	OpenSea	LOC643677	0.381	-0.002	0.962	0.529
cg16054275	yellow	1	169,556,022	TSS1500	OpenSea	F5	0.381	-0.002	0.408	0.798
cg02423534	yellow	12	49,160,180	3'UTR	OpenSea	ADCY6	0.381	0.001	0.916	0.788
cg01814969	yellow	3	49,141,757	Body	N_Shore	QARS	0.381	0.003	0.054	0.335
cg09664550	yellow	10	33,294,358		OpenSea		0.381	0.001	0.133	0.909
cg27390701	yellow	11	63,936,088		S_Shelf		0.381	0.006	0.865	0.258
cg23291098	yellow	14	68,283,748	TSS1500	OpenSea	ZFYVE26	0.381	-0.003	0.025	0.183
cg18801579	yellow	5	1,003,897		N_Shore		0.381	-0.013	0.811	0.090
cg21663359	yellow	8	143,402,448	Body	S_Shelf	TSNARE1	0.381	-0.004	0.910	0.548
cg20571420	yellow	22	25,160,308	TSS200	S_Shore	TOP1P2	0.381	0.013	0.159	0.189
cg15155360	yellow	8	143,235,183		OpenSea		0.381	0.006	0.827	0.323
cg27130176	yellow	16	3,085,982	TSS1500	N_Shore	CCDC64B	0.381	0.009	0.260	0.305
cg21563737	yellow	11	1,765,224	Body	N_Shelf	HCCA2	0.381	0.014	0.750	0.051
cg15863573	yellow	2	88,491,625		OpenSea		0.381	-0.008	0.774	0.520
cg12417689	yellow	17	259,426	TSS1500	N_Shore	C17orf97	0.381	0.008	0.901	0.206
cg11941630	yellow	20	1,283,388	Body	N_Shelf	SNPH	0.381	-0.015	0.909	0.107
cg01478482	yellow	16	21,168,523	Body	N_Shore	DNAH3	0.381	0.011	0.474	0.340
cg07797372	yellow	1	64,602,654	Body	OpenSea	ROR1	0.381	0.003	0.959	0.520
cg17125837	yellow	11	358,595		S_Shelf		0.381	0.007	0.112	0.731
cg03608093	yellow	11	691,457	Body	N_Shelf	DEAF1	0.381	-0.007	0.926	0.127
cg01617117	yellow	2	37,384,381	TSS200	Island	EIF2AK2	0.381	0.001	0.029	0.787
cg10778249	yellow	19	48,674,746	TSS1500	N_Shore	LIG1	0.381	0.008	0.324	0.408
cg03850198	yellow	1	9,090,070		OpenSea		0.381	0.009	0.273	0.648
cg15123104	yellow	2	131,089,926		OpenSea		0.381	0.013	0.667	0.268
cg03620376	yellow	19	54,984,272	5'UTR	S_Shore	CDC42EP5	0.381	0.000	0.025	0.804
cg21312383	yellow	20	61,737,385		S_Shelf		0.381	0.010	0.800	0.082
cg16046937	yellow	10	133,997,159	3'UTR	N_Shore	JAKMIP3	0.381	0.005	0.759	0.649
cg27160537	yellow	7	608,384	Body	N_Shelf	PRKAR1B	0.381	0.009	0.467	0.124
cg19251280	yellow	8	98,657,731	Body	S_Shore	MTDH	0.381	-0.007	0.059	0.028
cg21952052	yellow	1	37,231,474		OpenSea		0.381	0.021	0.366	0.037
cg07227679	yellow	1	1,861,675		S_Shelf		0.380	-0.003	0.746	0.756
cg20443278	yellow	17	77,962,098	Body	N_Shelf	TBC1D16	0.380	0.008	0.259	0.280
cg05855733	yellow	12	132,973,200		N_Shore		0.380	0.007	0.770	0.601
cg27627803	yellow	17	20,744,682		Island		0.380	-0.002	0.278	0.863
cg13491480	yellow	9	130,880,369		OpenSea		0.380	0.001	0.284	0.911
cg17134770	yellow	1	183,390,353		S_Shelf		0.380	0.001	0.591	0.934
cg09841842	yellow	14	51,974,848	5'UTR	OpenSea	FRMD6	0.380	-0.003	0.199	0.900
cg16780015	yellow	15	79,700,770		OpenSea		0.380	-0.001	0.852	0.952
cg04154697	yellow	19	3,820,207	Body	Island	ZFR2	0.380	0.011	0.917	0.216
cg14914887	yellow	3	180,627,368		N_Shelf		0.380	0.000	0.431	0.999
cg00342358	yellow	1	92,350,112	5'UTR	N_Shore	TGFBR3	0.380	0.010	0.382	0.513
cg01290153	yellow	19	55,987,415	TSS1500	N_Shore	ZNF628	0.380	-0.010	0.743	0.270
cg12537394	yellow	7	155,411,902		OpenSea		0.380	0.000	0.660	0.987
cg14395791	yellow	9	140,166,606	Body	N_Shore	COBRA1	0.380	0.003	0.928	0.523
cg00851394	yellow	19	40,730,425	Body	Island	CNTD2	0.380	0.026	0.762	0.084
cg07144297	yellow	16	89,251,057	Body	OpenSea	CDH15	0.380	0.006	0.606	0.400
cg05645292	yellow	3	59,795,625	Body	OpenSea	FHIT	0.380	-0.002	0.417	0.822
cg17894069	yellow	3	12,885,666		S_Shelf		0.380	-0.002	0.587	0.676
cg25924139	yellow	18	7,680,662	Body	OpenSea	PTPRM	0.380	-0.001	0.903	0.765
cg15552172	yellow	5	154,231,167	TSS1500	OpenSea	C5orf4	0.380	0.001	0.843	0.896

cg02206980	yellow	6	13,574,034	TSS1500	N_Shore	SIRT5	0.380	0.007	0.346	0.695
cg00057663	yellow	2	105,945,629	5'UTR	N_Shore	TGFBRAP1	0.380	0.013	0.240	0.060
cg16172240	yellow	5	151,785,046	TSS1500	OpenSea	NMUR2	0.380	0.006	0.076	0.397
cg02735486	yellow	4	113,970,935	1stExon	OpenSea	ANK2	0.380	-0.001	0.189	0.897
cg24922022	yellow	4	827,675		N_Shore		0.380	-0.006	0.698	0.581
cg03117412	yellow	2	3,605,122	Body	N_Shore	RNASEH1	0.380	0.014	0.159	0.229
cg19696491	yellow	15	78,857,124	TSS1500	N_Shore	CHRNA5	0.380	-0.003	0.537	0.766
cg26981170	yellow	4	2,662,888	Body	OpenSea	FAM193A	0.380	0.011	0.612	0.332
cg11917542	yellow	6	33,283,158	Body	Island	ZBTB22	0.380	0.006	0.284	0.326
cg04252204	yellow	17	80,401,500	3'UTR	N_Shore	C17orf62	0.380	0.003	0.878	0.575
cg15846641	yellow	2	48,541,264	TSS1500	Island	FOXN2	0.380	-0.003	0.047	0.513
cg09394681	yellow	6	4,482,990		OpenSea		0.379	-0.001	0.975	0.674
cg21145245	yellow	5	150,593,684	Body	OpenSea	CCDC69	0.379	0.003	0.411	0.643
cg01230325	yellow	9	96,108,319	5'UTR	N_Shore	C9orf129	0.379	-0.013	0.528	0.301
cg07041428	yellow	4	1,763,019		N_Shore		0.379	-0.001	0.740	0.962
cg16429080	yellow	2	72,431,433	Body	OpenSea	EXOC6B	0.379	0.015	0.517	0.094
cg14174928	yellow	1	245,747,991	Body	OpenSea	KIF26B	0.379	0.001	0.848	0.951
cg19572912	yellow	2	44,264,617		OpenSea		0.379	-0.001	0.413	0.849
cg24850535	yellow	19	47,947,837	Body	N_Shelf	SLC8A2	0.379	0.022	0.115	0.002
cg13055709	yellow	1	234,852,861		OpenSea		0.379	0.014	0.426	0.087
cg00058163	yellow	18	5,891,948	1stExon	S_Shore	TMEM200C	0.379	0.004	0.726	0.640
cg05000761	yellow	18	10,589,150		Island		0.379	0.014	0.825	0.255
cg09682051	yellow	11	128,813,008	TSS200	OpenSea	TP53AIP1	0.379	-0.002	0.692	0.944
cg26622174	yellow	19	687,028	Body	N_Shelf	PRSSL1	0.379	0.005	0.657	0.548
cg02415963	yellow	16	34,979,671		OpenSea		0.379	0.011	0.385	0.440
cg05106269	yellow	19	10,381,393	TSS200	Island	ICAM1	0.379	-0.009	0.272	0.273
cg19556572	yellow	9	117,156,701	TSS200	N_Shelf	AKNA	0.379	0.008	0.914	0.355
cg13856295	yellow	9	139,396,418	Body	Island	NOTCH1	0.379	0.004	0.893	0.619
cg12093662	yellow	2	69,001,870	Body	OpenSea	ARHGAP25	0.379	-0.011	0.513	0.114
cg08567142	yellow	10	71,087,924	Body	OpenSea	HK1	0.379	0.022	0.265	0.034
cg16028117	yellow	3	11,348,436	Body	OpenSea	ATG7	0.379	0.026	0.349	0.210
cg16662768	yellow	16	86,135,313		OpenSea		0.379	-0.009	0.527	0.490
cg12407057	yellow	1	1,366,206		S_Shelf		0.379	0.002	0.162	0.918
cg06630869	yellow	19	55,769,270	5'UTR	Island	SAPS1	0.379	-0.002	0.065	0.551
cg23195373	yellow	19	45,954,891		S_Shore		0.379	-0.001	0.273	0.921
cg03424345	yellow	12	130,411,272		OpenSea		0.379	0.001	0.848	0.928
cg17454234	yellow	7	100,964,669	5'UTR	N_Shore	RABL5	0.379	0.004	0.029	0.070
cg27536791	yellow	1	183,010,618	Body	OpenSea	LAMC1	0.378	0.001	0.975	0.522
cg07602984	yellow	1	36,790,927	TSS1500	S_Shore	FAM176B	0.378	0.001	0.892	0.868
cg01746044	yellow	22	30,234,775	TSS1500	S_Shore	ASCC2	0.378	0.010	0.515	0.451
cg13702222	yellow	3	152,017,240	1stExon	OpenSea	MBNL1	0.378	0.003	0.064	0.648
cg11344950	yellow	1	151,826,167	1stExon	OpenSea	THEM5	0.378	0.004	0.392	0.540
cg04375683	yellow	19	52,692,431	TSS1500	N_Shore	PPP2R1A	0.378	0.006	0.082	0.384
cg25764695	yellow	1	36,692,491	5'UTR	S_Shelf	THRAP3	0.378	-0.003	0.897	0.668
cg06556497	yellow	18	76,828,521	TSS1500	N_Shore	ATP9B	0.378	-0.012	0.639	0.480
cg00238318	yellow	10	94,607,950	Body	N_Shore	EXOC6	0.378	0.004	0.030	0.100
cg04118119	yellow	13	47,371,987	TSS1500	S_Shore	ESD	0.378	0.000	0.488	0.997
cg07794367	yellow	16	13,107,052	Body	OpenSea	SHISA9	0.378	0.001	0.365	0.828
cg03050663	yellow	2	241,507,374	TSS1500	N_Shore	RNPEPL1	0.378	0.013	0.056	0.003
cg02294791	yellow	11	1,855,606	TSS200	OpenSea	SYT8	0.378	0.004	0.678	0.720
cg07101980	yellow	11	77,780,019	3'UTR	OpenSea	NDUFC2	0.378	0.011	0.708	0.158
cg25386845	yellow	5	176,091,428		OpenSea		0.378	-0.006	0.495	0.567
cg13824385	yellow	9	132,584,750	Body	N_Shore	TOR1A	0.378	-0.001	0.917	0.790
cg07776166	yellow	4	175,254,137	3'UTR	OpenSea	KIAA1712	0.378	0.004	0.950	0.516
cg14802684	yellow	19	54,754,294	3'UTR	OpenSea	LILRB5	0.378	-0.016	0.836	0.235
cg14711869	yellow	4	2,716,524	Body	OpenSea	FAM193A	0.378	0.004	0.291	0.699
cg09003917	yellow	19	1,008,388	Body	Island	GRIN3B	0.378	0.001	0.829	0.828
cg08165462	yellow	19	652,493	Body	Island	RNF126	0.378	0.004	0.900	0.484
cg11635857	yellow	22	49,765,054		Island		0.378	-0.004	0.411	0.524
cg09011038	yellow	16	4,385,355	Body	OpenSea	GLIS2	0.378	0.009	0.694	0.287
cg15262515	yellow	18	12,407,139	TSS1500	N_Shore	SLMO1	0.378	0.000	0.941	0.964
cg13778336	yellow	1	13,836,752		N_Shelf		0.378	-0.002	0.462	0.719
cg03366884	yellow	17	8,844,506	5'UTR	OpenSea	PIK3R5	0.378	0.004	0.780	0.491
cg09490880	yellow	4	24,914,970	TSS1500	OpenSea	CCDC149	0.378	-0.008	0.679	0.466
cg26987645	yellow	1	203,320,386	TSS200	OpenSea	FMOD	0.378	-0.008	0.152	0.610
cg05260236	yellow	16	86,552,258		S_Shore		0.378	-0.002	0.706	0.709
cg23163837	yellow	1	208,042,123		Island		0.378	-0.002	0.026	0.270

cg13248200	yellow	17	7,219,025	3'UTR	S_Shore	NEURL4	0.378	0.007	0.193	0.445
cg11093939	yellow	14	100,851,839	Body	OpenSea	WDR25	0.378	-0.026	0.540	0.093
cg06484303	yellow	5	27,387,958		OpenSea		0.378	0.000	0.327	0.984
cg12255818	yellow	2	190,628,473	TSS1500	OpenSea	OSGEPL1	0.378	0.020	0.152	0.103
cg00681363	yellow	8	120,844,660	Body	N_Shore	TAF2	0.378	0.006	0.049	0.252
cg16793525	yellow	11	1,422,319	Body	OpenSea	BRSK2	0.378	0.007	0.837	0.388
cg06759097	yellow	16	1,392,588	Body	Island	BAIAP3	0.378	0.003	0.322	0.713
cg23257225	yellow	1	203,123,144	Body	OpenSea	ADORA1	0.378	-0.007	0.226	0.636
cg07742718	yellow	16	30,064,149	TSS1500	N_Shore	ALDOA	0.378	0.002	0.121	0.837
cg04811945	yellow	4	15,779,709	TSS1500	N_Shore	CD38	0.377	0.007	0.541	0.472
cg16251016	yellow	19	11,643,100		S_Shelf		0.377	0.009	0.726	0.296
cg26495953	yellow	20	43,937,289	TSS1500	S_Shore	MATN4	0.377	0.032	0.578	0.007
cg23199143	yellow	11	65,769,146	TSS1500	N_Shore	BANF1	0.377	0.003	0.025	0.063
cg14519000	yellow	20	61,041,765	Body	S_Shore	GATA5	0.377	0.004	0.856	0.453
cg14771313	yellow	3	71,161,285	Body	OpenSea	FOXP1	0.377	0.013	0.846	0.293
cg01015663	yellow	1	23,729,692	Body	OpenSea	TCEA3	0.377	0.012	0.419	0.180
cg01392017	yellow	3	197,842,485		S_Shore		0.377	-0.002	0.950	0.570
cg27429313	yellow	10	131,514,331	Body	OpenSea	MGMT	0.377	-0.005	0.524	0.718
cg04273299	yellow	8	134,521,130	5'UTR	OpenSea	ST3GAL1	0.377	0.017	0.721	0.056
cg27243623	yellow	2	228,093,069	Body	OpenSea	COL4A3	0.377	0.023	0.785	0.089
cg11419262	yellow	3	193,840,181		OpenSea		0.377	-0.003	0.826	0.752
cg05898102	yellow	5	140,571,959	1stExon	N_Shore	PCDHB10	0.377	0.003	0.073	0.627
cg18102446	yellow	2	218,934,044	5'UTR	OpenSea	RUFY4	0.377	-0.002	0.215	0.837
cg04907218	yellow	12	132,826,672	Body	N_Shore	GALNT9	0.377	0.004	0.834	0.588
cg20091620	yellow	10	95,463,028	TSS1500	S_Shore	C10orf4	0.377	0.001	0.087	0.961
cg04605980	yellow	12	117,471,700		OpenSea		0.377	0.008	0.117	0.512
cg20624886	yellow	19	46,275,613	Body	S_Shore	DMPK	0.377	-0.005	0.881	0.331
cg10781828	yellow	2	198,570,936	1stExon	Island	MARS2	0.377	0.000	0.078	0.949
cg24454579	yellow	19	53,794,794	5'UTR	S_Shore	BIRC8	0.377	0.000	0.889	0.979
cg00936187	yellow	16	88,801,685	Body	N_Shelf	FAM38A	0.377	0.009	0.711	0.149
cg18439339	yellow	7	151,441,268	Body	OpenSea	PRKAG2	0.377	0.002	0.567	0.754
cg04556349	yellow	16	76,349,097	Body	OpenSea	CNTNAP4	0.377	-0.004	0.932	0.631
cg10626515	yellow	7	25,100,428		OpenSea		0.377	0.010	0.275	0.167
cg17617843	yellow	5	34,043,454	TSS200	OpenSea	C1QTNF3	0.377	-0.002	0.146	0.788
cg04366367	yellow	17	80,008,541	TSS1500	Island	GPS1	0.377	0.004	0.871	0.467
cg13884871	yellow	15	43,016,527	3'UTR	OpenSea	CDAN1	0.377	0.005	0.918	0.251
cg21433313	yellow	16	3,507,492	TSS1500	N_Shore	NAT15	0.377	-0.006	0.086	0.632
cg22454370	yellow	19	47,919,510	Body	N_Shelf	MEIS3	0.377	0.005	0.941	0.198
cg04703950	yellow	10	104,211,424	TSS200	S_Shore	C10orf95	0.377	0.009	0.770	0.216
cg22529952	yellow	1	84,813,212	Body	OpenSea	SAMD13	0.377	-0.001	0.481	0.911
cg02596486	yellow	22	25,115,120	3'UTR	OpenSea	PIWIL3	0.377	0.028	0.693	0.022
cg24825722	yellow	17	7,121,848	TSS1500	N_Shore	ACADVL	0.377	0.002	0.426	0.696
cg26661623	yellow	17	7,019,262	TSS1500	OpenSea	ASGR2	0.377	0.014	0.651	0.069
cg24392274	yellow	9	130,921,842	TSS1500	N_Shore	C9orf16	0.377	0.002	0.552	0.826
cg03022368	yellow	16	83,986,702	TSS200	OpenSea	OSGIN1	0.376	0.000	0.020	0.875
cg00284259	yellow	7	75,827,723		N_Shelf		0.376	0.000	0.187	0.997
cg18960324	yellow	17	38,705,895		OpenSea		0.376	0.010	0.267	0.192
cg09967834	yellow	17	58,157,213	TSS1500	S_Shore	HEATR6	0.376	0.000	0.907	0.967
cg13657134	yellow	7	6,198,846	Body	S_Shore	USP42	0.376	0.001	0.618	0.867
cg05246283	yellow	7	73,270,172		Island		0.376	-0.002	0.134	0.652
cg23047415	yellow	5	33,982,208	Body	OpenSea	SLC45A2	0.376	0.000	0.928	0.967
cg07529715	yellow	8	104,383,413	TSS1500	Island	CTHRC1	0.376	-0.005	0.181	0.559
cg14416623	yellow	2	133,561,787	Body	OpenSea	NCKAP5	0.376	0.013	0.552	0.127
cg10320884	yellow	7	98,590,914	Body	OpenSea	TRRAP	0.376	0.001	0.678	0.900
cg06916740	yellow	6	91,188,911		OpenSea		0.376	0.013	0.696	0.093
cg02094827	yellow	10	99,496,515	TSS1500	N_Shore	ZFYVE27	0.376	0.005	0.758	0.625
cg12860156	yellow	6	98,744,658		OpenSea		0.376	-0.004	0.479	0.801
cg00986742	yellow	1	165,513,318	Body	OpenSea	LOC400794	0.376	0.006	0.033	0.177
cg00462362	yellow	19	55,591,148	TSS1500	N_Shore	EPS8L1	0.376	-0.004	0.804	0.587
cg14091920	yellow	9	133,903,136	Body	S_Shore	LAMC3	0.376	-0.002	0.952	0.655
cg22013019	yellow	6	1,558,789		S_Shelf		0.376	0.000	0.467	0.978
cg07129104	yellow	16	2,907,517	Body	N_Shore	PRSS22	0.376	0.000	0.241	0.998
cg14873488	yellow	14	39,735,625	1stExon	N_Shore	CTAGE5	0.376	-0.001	0.069	0.888
cg23861803	yellow	6	31,830,030	Body	N_Shore	NEU1	0.376	0.004	0.026	0.045
cg23101464	yellow	8	144,640,755	5'UTR	Island	GSDMD	0.376	-0.004	0.071	0.369
cg10874314	yellow	10	129,766,623	5'UTR	OpenSea	PTPRE	0.376	-0.005	0.361	0.490
cg25990402	yellow	6	41,302,256	TSS1500	OpenSea	NCR2	0.376	-0.001	0.602	0.917



cg26094139	yellow	10	32,734,680	TSS1500	OpenSea	CCDC7	0.376	0.002	0.045	0.617
cg09259772	yellow	7	12,726,089	TSS1500	N_Shore	ARL4A	0.376	-0.007	0.466	0.382
cg21177396	yellow	9	126,888,124		OpenSea		0.376	0.001	0.124	0.937
cg05396397	yellow	1	11,908,164	TSS1500	OpenSea	NPPA	0.376	0.000	0.407	0.988
cg12766770	yellow	17	77,982,340	Body	N_Shore	TBC1D16	0.376	0.002	0.089	0.602
cg13649309	yellow	9	139,067,247		N_Shelf		0.376	-0.003	0.453	0.589
cg01481690	yellow	21	38,641,087	TSS1500	S_Shore	DSCR3	0.376	0.028	0.430	0.045
cg20103311	yellow	19	51,506,888	Body	S_Shore	KLK9	0.376	-0.002	0.776	0.730
cg02397368	yellow	5	2,564,206		N_Shore		0.376	0.002	0.938	0.658
cg24419198	yellow	11	18,727,321	Body	Island	IGSF22	0.376	-0.010	0.089	0.275
cg05876069	yellow	5	150,020,288	1stExon	OpenSea	SYNPO	0.376	-0.002	0.304	0.769
cg09729030	yellow	4	114,102,786	Body	OpenSea	ANK2	0.376	0.003	0.898	0.634
cg13159566	yellow	12	82,752,887	TSS1500	S_Shore	CCDC59	0.375	-0.004	0.082	0.426
cg02381385	yellow	19	52,005,188	TSS200	OpenSea	SIGLEC12	0.375	0.007	0.648	0.363
cg14372452	yellow	9	138,152,543		S_Shore		0.375	0.005	0.350	0.476
cg20715764	yellow	19	57,702,697	TSS200	Island	ZNF264	0.375	0.000	0.042	0.984
cg27263778	yellow	11	71,201,682	Body	OpenSea	NADSYN1	0.375	0.001	0.934	0.762
cg15465121	yellow	12	132,617,896		N_Shore		0.375	-0.006	0.762	0.456
cg23760732	yellow	8	30,426,227	3'UTR	OpenSea	RBPMS	0.375	0.000	0.659	0.990
cg04140906	yellow	15	78,833,505	5'UTR	S_Shore	PSMA4	0.375	-0.007	0.080	0.509
cg24373369	yellow	15	65,320,737	Body	N_Shore	MTFMT	0.375	0.010	0.567	0.331
cg02128086	yellow	16	86,714,834		N_Shore		0.375	0.009	0.670	0.252
cg15674813	yellow	2	238,608,549	Body	OpenSea	LRRFIP1	0.375	0.016	0.856	0.106
cg15617640	yellow	1	162,368,438	Body	OpenSea	SH2D1B	0.375	0.000	0.050	0.985
cg16375550	yellow	12	132,657,317		OpenSea		0.375	0.005	0.617	0.536
cg06379435	yellow	19	3,344,273		OpenSea		0.375	0.007	0.895	0.471
cg11418177	yellow	4	142,636,072	5'UTR	OpenSea	IL15	0.375	-0.011	0.482	0.142
cg24447775	yellow	1	1,992,534	Body	S_Shore	PRKCZ	0.375	-0.006	0.575	0.421
cg26042300	yellow	1	40,887,988	3'UTR	OpenSea	SMAP2	0.375	0.007	0.137	0.357
cg17346650	yellow	17	80,929,145	Body	Island	B3GNTL1	0.375	0.003	0.827	0.801
cg10202436	yellow	5	138,733,726	Body	S_Shelf	SPATA24	0.375	-0.003	0.394	0.835
cg00567922	yellow	8	73,856,157		OpenSea		0.375	0.002	0.576	0.909
cg24071057	yellow	17	40,873,344	Body	OpenSea	EZH1	0.375	0.005	0.044	0.123
cg26110898	yellow	3	58,419,937	TSS1500	S_Shore	PDHB	0.375	0.004	0.226	0.650
cg06773033	yellow	1	45,810,348	3'UTR	OpenSea	TESK2	0.375	0.001	0.905	0.792
cg05357131	yellow	9	124,535,348	Body	Island	DAB2IP	0.375	-0.004	0.933	0.398
cg02537105	yellow	17	12,692,471	TSS1500	N_Shore	RICH2	0.375	0.000	0.017	0.957
cg01271376	yellow	12	65,562,963	TSS1500	N_Shore	LEMD3	0.375	-0.007	0.057	0.270
cg26008877	yellow	11	115,588,017		OpenSea		0.375	0.016	0.679	0.196
cg05360958	yellow	12	15,038,440	Body	OpenSea	MGP	0.375	0.004	0.401	0.480
cg06186394	yellow	11	129,234,377		S_Shore		0.375	-0.008	0.140	0.492
cg15298875	yellow	11	124,824,789	Body	S_Shore	CCDC15	0.375	0.019	0.588	0.079
cg14074626	yellow	1	63,571,356		OpenSea		0.374	0.007	0.239	0.589
cg06871764	yellow	6	32,376,095	TSS1500	OpenSea	BTNL2	0.374	-0.010	0.689	0.418
cg06541857	yellow	3	134,203,789	5'UTR	N_Shore	ANAPC13	0.374	0.008	0.152	0.247
cg10558063	yellow	1	44,540,412		OpenSea		0.374	0.010	0.158	0.420
cg03355781	yellow	16	31,485,256	Body	N_Shore	TGFB11	0.374	0.003	0.826	0.661
cg18997875	yellow	2	242,673,654	TSS1500	Island	D2HGDH	0.374	0.002	0.140	0.878
cg04911680	yellow	1	27,895,490	5'UTR	Island	AHDC1	0.374	0.002	0.192	0.715
cg12894325	yellow	11	67,418,113	5'UTR	OpenSea	ACY3	0.374	0.034	0.245	0.005
cg12014333	yellow	19	13,228,096	TSS1500	N_Shore	TRMT1	0.374	0.019	0.138	0.080
cg15615793	yellow	7	30,722,643	TSS1500	S_Shore	CRHR2	0.374	-0.006	0.354	0.560
cg04604946	yellow	12	7,023,352	3'UTR	Island	LRRC23	0.374	0.002	0.367	0.758
cg00108454	yellow	1	22,963,614	5'UTR	OpenSea	C1QA	0.374	0.001	0.412	0.870
cg26287309	yellow	22	37,774,499	5'UTR	S_Shelf	ELFN2	0.374	0.010	0.823	0.115
cg01204772	yellow	2	240,738,232		Island		0.374	0.007	0.527	0.425
cg08784091	yellow	6	31,670,005	Body	N_Shore	BAT5	0.374	0.002	0.025	0.367
cg11324259	yellow	8	143,999,374	TSS200	OpenSea	CYP11B2	0.374	-0.002	0.790	0.800
cg11298343	yellow	19	41,306,150	5'UTR	N_Shore	EGLN2	0.374	0.005	0.137	0.375
cg10870165	yellow	8	32,345,448	Body	OpenSea	NRG1	0.374	0.011	0.415	0.122
cg21300361	yellow	8	10,982,332	Body	OpenSea	XKR6	0.374	0.007	0.868	0.279
cg23029597	yellow	12	123,009,494	5'UTR	N_Shore	RSRC2	0.374	0.057	0.631	0.180
cg09155025	yellow	8	145,642,024	1stExon	Island	SLC39A4	0.374	0.003	0.718	0.801
cg01806295	yellow	5	72,921,594	TSS1500	Island	RGNEF	0.374	0.003	0.030	0.095
cg07378309	yellow	3	121,312,164	TSS200	OpenSea	FBXO40	0.374	0.009	0.216	0.367
cg19764418	yellow	1	237,205,098	TSS1500	N_Shore	RYR2	0.374	0.009	0.473	0.357
cg07617759	yellow	2	33,050,475	TSS200	OpenSea	LOC285045	0.374	0.004	0.089	0.622

cg00044289	yellow	12	121,019,603	TSS1500	S_Shore	POP5	0.374	0.001	0.024	0.237
cg17288643	yellow	2	196,943,333		OpenSea		0.374	0.010	0.122	0.325
cg09550293	yellow	1	38,456,531	TSS1500	S_Shore	SF3A3	0.374	-0.005	0.848	0.553
cg15774510	yellow	10	90,749,966	TSS1500	N_Shore	FAS	0.373	0.001	0.025	0.396
cg07708286	yellow	16	86,465,815		OpenSea		0.373	0.009	0.759	0.361
cg24140528	yellow	17	30,158,473		OpenSea		0.373	0.007	0.615	0.497
cg00008665	yellow	3	43,146,780	5'UTR	N_Shore	C3orf39	0.373	0.009	0.598	0.411
cg04804717	yellow	7	1,300,320		OpenSea		0.373	0.023	0.219	0.096
cg08733824	yellow	4	25,161,471	Body	N_Shore	SEPSECS	0.373	-0.001	0.137	0.942
cg19836589	yellow	20	55,925,603	TSS1500	N_Shore	RAE1	0.373	0.001	0.791	0.956
cg02910952	yellow	12	132,569,714	Body	Island	EP400NL	0.373	0.002	0.024	0.285
cg02825723	yellow	10	86,300,295		N_Shore		0.373	-0.001	0.055	0.858
cg23152235	yellow	11	133,837,265		OpenSea		0.373	-0.018	0.103	0.072
cg16721194	yellow	12	111,537,057	Body	OpenSea	CUX2	0.373	0.002	0.699	0.715
cg19031085	yellow	5	135,228,288	Body	OpenSea	IL9	0.373	0.001	0.468	0.932
cg11209957	yellow	21	44,830,921		Island		0.373	-0.001	0.803	0.897
cg00244308	yellow	2	220,253,656	TSS1500	S_Shore	DNPEP	0.373	0.004	0.388	0.590
cg21205031	yellow	2	32,502,699	TSS1500	N_Shore	YIPF4	0.373	0.012	0.325	0.483
cg17961835	yellow	3	126,195,582	TSS1500	S_Shore	ZXDC	0.373	-0.002	0.039	0.409
cg16117166	yellow	20	2,636,520	TSS1500	S_Shelf	SNORD57	0.373	0.006	0.847	0.279
cg07028415	yellow	6	3,285,475	Body	OpenSea	SLC22A23	0.373	0.011	0.732	0.214
cg14871584	yellow	12	6,993,046	TSS200	OpenSea	RPL13P5	0.373	-0.004	0.885	0.532
cg09857324	yellow	16	1,545,151	Body	S_Shore	TELO2	0.373	0.005	0.890	0.235
cg06051753	yellow	17	36,499,751	TSS200	OpenSea	GPR179	0.373	-0.001	0.763	0.937
cg23979954	yellow	12	25,801,601	TSS200	OpenSea	IFLTD1	0.373	-0.005	0.064	0.368
cg05223396	yellow	5	171,830,155	Body	OpenSea	SH3PXD2B	0.373	0.006	0.275	0.481
cg26402422	yellow	3	113,557,462	TSS1500	N_Shore	GRAMD1C	0.373	-0.007	0.220	0.520
cg07171893	yellow	8	144,473,450		OpenSea		0.373	-0.008	0.794	0.420
cg04870732	yellow	11	123,754,732	Body	OpenSea	TMEM225	0.373	0.006	0.938	0.220
cg08234878	yellow	14	73,737,095	Body	OpenSea	PAPLN	0.373	-0.015	0.217	0.240
cg02371363	yellow	15	73,617,541	Body	OpenSea	HCN4	0.373	0.007	0.820	0.229
cg16680159	yellow	1	210,436,103		OpenSea		0.373	0.005	0.096	0.743
cg01409343	yellow	17	57,915,740	Body	OpenSea	TMEM49	0.373	0.018	0.340	0.143
cg20195046	yellow	11	69,466,815	3'UTR	N_Shore	CCND1	0.373	-0.002	0.929	0.744
cg03566107	yellow	18	70,211,962	TSS1500	S_Shore	CBLN2	0.373	-0.002	0.297	0.832
cg15416363	yellow	17	7,323,730	1stExon	S_Shelf	SPEM1	0.372	0.010	0.792	0.121
cg05157791	yellow	12	113,551,036	Body	S_Shore	RASAL1	0.372	-0.003	0.513	0.704
cg15833873	yellow	5	108,083,695	5'UTR	N_Shore	FER	0.372	0.000	0.022	0.665
cg13802736	yellow	1	157,948,536		N_Shore		0.372	0.001	0.144	0.887
cg01031475	yellow	16	30,004,376	3'UTR	N_Shelf	HIRIP3	0.372	0.001	0.932	0.886
cg22182287	yellow	2	3,452,347	Body	Island	TTC15	0.372	-0.011	0.848	0.552
cg04728919	yellow	20	2,516,256	TSS1500	OpenSea	TMC2	0.372	0.001	0.932	0.920
cg26552733	yellow	10	5,542,941	TSS1500	S_Shore	CALML5	0.372	0.015	0.707	0.317
cg11407610	yellow	7	141,437,686	TSS1500	N_Shore	SSBP1	0.372	0.002	0.182	0.943
cg19668951	yellow	11	47,430,812	5'UTR	S_Shore	SLC39A13	0.372	0.012	0.116	0.090
cg24317217	yellow	3	70,231,495		OpenSea		0.372	-0.002	0.246	0.727
cg17033166	yellow	12	52,221,959		OpenSea		0.372	0.001	0.498	0.947
cg10811178	yellow	12	116,977,945		OpenSea		0.372	-0.003	0.047	0.469
cg15251319	yellow	3	194,836,302	Body	OpenSea	C3orf21	0.372	-0.004	0.673	0.434
cg26347162	yellow	8	1,697,408		OpenSea		0.372	0.000	0.727	0.994
cg13581422	yellow	3	130,236,522		S_Shore		0.372	0.009	0.069	0.134
cg03186069	yellow	16	56,994,589	TSS1500	OpenSea	CETP	0.372	0.003	0.719	0.602
cg22931402	yellow	4	113,207,418	TSS1500	S_Shore	TIFA	0.372	0.000	0.230	0.974
cg16284279	yellow	6	77,743,952		OpenSea		0.372	0.015	0.275	0.171
cg07523565	yellow	16	66,784,801	Body	N_Shore	DYNC11L2	0.372	0.000	0.020	0.925
cg14273083	yellow	2	24,306,495	Body	N_Shore	TP53I3	0.372	0.013	0.489	0.278
cg16274890	yellow	3	127,299,325	5'UTR	OpenSea	TPRA1	0.372	0.007	0.684	0.258
cg24156006	yellow	1	147,599,126	Body	OpenSea	NBPF11	0.372	0.008	0.359	0.372
cg24507955	yellow	15	49,339,070	TSS1500	S_Shore	SECISBP2L	0.372	0.006	0.315	0.512
cg08820401	yellow	2	144,501,227	Body	OpenSea	ARHGAP15	0.372	0.003	0.640	0.772
cg21571466	yellow	1	159,895,591	TSS1500	S_Shore	TAGLN2	0.372	-0.001	0.050	0.560
cg21936906	yellow	7	157,565,366	Body	N_Shelf	PTPRN2	0.372	0.013	0.707	0.058
cg06844165	yellow	17	3,768,599	Body	N_Shore	CAMKK1	0.371	0.034	0.774	0.293
cg06634460	yellow	12	123,380,891	TSS200	Island	VPS37B	0.371	0.002	0.270	0.880
cg26081071	yellow	13	20,701,668		N_Shore		0.371	0.011	0.159	0.502
cg01201802	yellow	10	30,349,405	TSS1500	S_Shore	KIAA1462	0.371	0.008	0.406	0.280
cg10862939	yellow	11	65,495,249		OpenSea		0.371	-0.002	0.827	0.689

cg26920905	yellow	18	21,718,735	TSS1500	N_Shore	CABYR	0.371	0.002	0.039	0.514
cg04537185	yellow	21	43,809,567	Body	OpenSea	TMPRSS3	0.371	0.006	0.744	0.483
cg03850811	yellow	2	224,600,855		OpenSea		0.371	0.016	0.510	0.211
cg26064535	yellow	1	29,138,043	TSS1500	N_Shore	OPRD1	0.371	0.000	0.442	0.952
cg04843946	yellow	6	90,348,009	Body	N_Shore	LYRM2	0.371	0.004	0.069	0.434
cg06557580	yellow	16	1,041,216		Island		0.371	0.015	0.839	0.063
cg27000659	yellow	6	31,617,530	Body	N_Shelf	BAT3	0.371	0.001	0.935	0.675
cg26985798	yellow	11	60,524,323	TSS200	OpenSea	MS4A15	0.371	-0.005	0.499	0.661
cg27318774	yellow	5	2,547,310		OpenSea		0.371	0.005	0.771	0.563
cg16457797	yellow	5	176,829,109	TSS1500	N_Shore	PFN3	0.371	0.007	0.525	0.545
cg21047367	yellow	2	11,732,905	Body	Island	GREB1	0.371	0.004	0.810	0.812
cg01119686	yellow	3	13,318,911		OpenSea		0.371	0.002	0.544	0.750
cg00685795	yellow	17	40,713,781	TSS1500	N_Shore	COASY	0.371	-0.003	0.433	0.750
cg10354880	yellow	12	46,737,123		OpenSea		0.371	0.001	0.906	0.802
cg26199631	yellow	2	239,924,551		OpenSea		0.371	-0.013	0.482	0.475
cg06312789	yellow	3	126,374,304		S_Shore		0.371	-0.028	0.208	0.174
cg07512290	yellow	2	121,212,235		OpenSea		0.371	0.008	0.935	0.100
cg23352942	yellow	3	46,931,381	Body	N_Shelf	PTH1R	0.371	-0.012	0.276	0.384
cg27543578	yellow	1	45,248,966		N_Shore		0.371	0.004	0.967	0.284
cg23452458	yellow	17	45,899,388	TSS1500	OpenSea	OSBPL7	0.371	0.002	0.021	0.147
cg19464524	yellow	10	93,870,321	Body	OpenSea	CPEB3	0.370	0.000	0.585	0.954
cg01346748	yellow	16	4,321,202	Body	N_Shore	TFAP4	0.370	0.001	0.067	0.868
cg08794696	yellow	13	114,057,675		S_Shore		0.370	0.012	0.432	0.147
cg24118715	yellow	10	70,232,072	TSS200	S_Shore	DNA2	0.370	-0.005	0.318	0.521
cg12893852	yellow	17	40,893,415	5'UTR	N_Shelf	EZH1	0.370	0.001	0.954	0.680
cg11111139	yellow	7	157,620,685	Body	S_Shore	PTPRN2	0.370	0.002	0.818	0.745
cg06787104	yellow	11	1,457,119	Body	OpenSea	BRSK2	0.370	-0.006	0.110	0.565
cg19153133	yellow	2	219,773,547		Island		0.370	0.003	0.107	0.727
cg25941083	yellow	15	29,861,165	Body	N_Shore	FAM189A1	0.370	0.014	0.461	0.276
cg01674009	yellow	19	45,655,294	Body	Island	NKPD1	0.370	0.010	0.564	0.445
cg14021961	yellow	1	16,348,752	5'UTR	OpenSea	CLCNKA	0.370	0.004	0.661	0.402
cg21516162	yellow	7	2,953,889	Body	OpenSea	CARD11	0.370	-0.003	0.788	0.764
cg19175725	yellow	7	157,690,246	Body	N_Shore	PTPRN2	0.370	0.011	0.724	0.181
cg16162970	yellow	14	105,779,952	TSS1500	N_Shore	PACS2	0.370	0.016	0.339	0.179
cg04314624	yellow	6	28,458,328		S_Shore		0.370	0.003	0.091	0.570
cg07094853	yellow	19	14,017,434	TSS1500	Island	C19orf57	0.370	0.000	0.042	0.969
cg16615842	yellow	12	69,139,703	TSS1500	N_Shore	SLC35E3	0.370	-0.004	0.052	0.166
cg11965365	yellow	14	104,388,185	TSS1500	S_Shore	C14orf2	0.370	0.026	0.255	0.037
cg12775223	yellow	22	18,531,077		N_Shore		0.370	0.018	0.661	0.121
cg16585946	yellow	1	6,831,719		OpenSea		0.370	0.004	0.300	0.606
cg08359099	yellow	17	73,105,631	TSS1500	Island	ARMC7	0.370	-0.001	0.042	0.635
cg20748038	yellow	10	124,713,071	Body	N_Shore	C10orf88	0.370	0.010	0.291	0.312
cg24729498	yellow	4	618,497	TSS1500	N_Shore	PDE6B	0.370	-0.001	0.729	0.838
cg14239494	yellow	20	40,245,598	5'UTR	N_Shore	CHD6	0.370	-0.005	0.787	0.458
cg08713711	yellow	5	1,444,333	5'UTR	Island	SLC6A3	0.370	0.007	0.269	0.236
cg17899889	yellow	1	4,191,180		N_Shore		0.370	0.004	0.883	0.491
cg13411656	yellow	3	141,121,016	5'UTR	Island	ZBTB38	0.370	0.001	0.034	0.401
cg09423836	yellow	4	77,070,069	TSS1500	S_Shore	NUP54	0.370	0.000	0.073	0.994
cg16963373	yellow	10	3,168,776	Body	OpenSea	PFKP	0.369	-0.003	0.671	0.828
cg12979234	yellow	7	44,083,518	TSS1500	N_Shore	DBNL	0.369	0.026	0.631	0.134
cg20761290	yellow	11	60,146,039	5'UTR	OpenSea	MS4A7	0.369	0.016	0.348	0.305
cg07796335	yellow	4	59,167,549		OpenSea		0.369	0.001	0.425	0.839
cg17661300	yellow	8	144,329,544	5'UTR	Island	ZFP41	0.369	0.002	0.031	0.232
cg03828109	yellow	17	3,600,356	TSS1500	S_Shore	P2RX5	0.369	-0.001	0.484	0.847
cg15401968	yellow	17	1,179,554		OpenSea		0.369	-0.004	0.106	0.519
cg09331879	yellow	14	75,053,567	Body	S_Shore	LTBP2	0.369	0.007	0.757	0.288
cg09121623	yellow	6	31,465,344	TSS1500	N_Shore	MICB	0.369	-0.001	0.065	0.762
cg06711560	yellow	9	139,746,365	TSS1500	S_Shore	MAMDC4	0.369	0.006	0.871	0.336
cg09417568	yellow	9	99,328,811	Body	Island	CDC14B	0.369	0.001	0.021	0.182
cg13226597	yellow	7	6,412,718	TSS1500	N_Shore	RAC1	0.369	0.004	0.970	0.128
cg01109017	yellow	9	126,152,971	Body	N_Shore	DENND1A	0.369	0.007	0.497	0.319
cg20531872	yellow	3	196,440,087	Body	S_Shore	PIGX	0.369	0.000	0.049	0.888
cg08044789	yellow	14	65,414,550	3'UTR	OpenSea	RAB15	0.369	0.001	0.532	0.923
cg12400434	yellow	5	1,491,377	Body	S_Shore	LPCAT1	0.369	-0.001	0.962	0.861
cg01150351	yellow	1	4,220,528		N_Shore		0.369	-0.007	0.816	0.374
cg09390137	yellow	2	242,824,270		S_Shore		0.369	0.007	0.109	0.505
cg03907174	yellow	19	50,030,461	TSS1500	N_Shore	RCN3	0.369	0.004	0.906	0.643

cg18851332	yellow	17	54,230,793	TSS200	OpenSea	ANKFN1	0.369	0.017	0.389	0.008
cg08996521	yellow	3	50,649,994	TSS1500	S_Shore	CISH	0.369	0.000	0.021	0.943
cg15210276	yellow	19	19,374,178	TSS1500	S_Shore	HAPLN4	0.369	0.016	0.750	0.139
cg09511815	yellow	13	73,211,779		OpenSea		0.369	0.017	0.439	0.189
cg08013199	yellow	12	52,521,523		OpenSea		0.369	0.003	0.751	0.683
cg20173259	yellow	19	49,520,930	TSS1500	N_Shore	LHB	0.369	0.004	0.044	0.323
cg20379258	yellow	5	180,526,995		N_Shore		0.369	0.016	0.170	0.130
cg07580895	yellow	4	1,043,494		Island		0.369	0.011	0.804	0.087
cg05134325	yellow	13	52,423,122		OpenSea		0.369	0.003	0.669	0.663
cg07220152	yellow	6	30,737,270		OpenSea		0.369	0.001	0.521	0.912
cg10310595	yellow	6	32,908,567	1stExon	OpenSea	HLA-DMB	0.369	0.008	0.377	0.457
cg05833610	yellow	2	236,504,635	Body	N_Shore	AGAP1	0.369	0.005	0.795	0.546
cg12508655	yellow	5	71,800,767	5'UTR	OpenSea	ZNF366	0.368	0.003	0.930	0.594
cg15238694	yellow	12	119,740,840	Body	OpenSea	LOC144742	0.368	0.010	0.234	0.231
cg20845050	yellow	8	146,053,666	5'UTR	S_Shore	ZNF7	0.368	0.001	0.390	0.954
cg01012572	yellow	5	16,785,051	Body	OpenSea	MYO10	0.368	0.007	0.911	0.526
cg03643998	yellow	17	77,042,455	5'UTR	N_Shore	C1QTNF1	0.368	0.002	0.246	0.769
cg05718493	yellow	8	135,470,038		OpenSea		0.368	0.004	0.047	0.217
cg02587673	yellow	7	592,662	Body	Island	PRKAR1B	0.368	-0.015	0.751	0.140
cg03258749	yellow	1	151,040,405	3'UTR	N_Shelf	MLLT11	0.368	0.000	0.877	0.995
cg20566475	yellow	10	126,278,272	Body	N_Shore	LHPP	0.368	0.006	0.313	0.430
cg26276611	yellow	11	674,556	Body	OpenSea	DEAF1	0.368	0.005	0.829	0.330
cg02483128	yellow	17	17,598,503	5'UTR	S_Shore	RAI1	0.368	-0.001	0.048	0.749
cg09321019	yellow	10	98,144,406	Body	Island	TLL2	0.368	-0.003	0.626	0.563
cg21645572	yellow	8	120,931,649	Body	OpenSea	DEPDC6	0.368	0.021	0.721	0.195
cg27444437	yellow	2	242,296,467	5'UTR	S_Shore	FARP2	0.368	0.003	0.062	0.722
cg05982504	yellow	16	1,844,962	TSS200	S_Shelf	IGFALS	0.368	0.004	0.453	0.711
cg07038400	yellow	3	135,684,163	TSS1500	N_Shore	PPP2R3A	0.368	0.002	0.046	0.397
cg18842598	yellow	12	114,273,539	Body	OpenSea	RBM19	0.368	0.001	0.834	0.891
cg06902609	yellow	7	985,719	Body	Island	ADAP1	0.368	0.006	0.906	0.403
cg25459323	yellow	22	42,372,359	TSS1500	N_Shore	3-Sep	0.368	0.002	0.232	0.793
cg01534253	yellow	7	28,447,591	5'UTR	N_Shore	CREB5	0.368	0.015	0.658	0.081
cg14634760	yellow	8	143,561,039	Body	S_Shelf	BAI1	0.368	0.020	0.561	0.048
cg00428638	yellow	19	7,224,713	Body	OpenSea	INSR	0.368	0.027	0.392	0.111
cg00830767	yellow	16	19,098,198		Island		0.368	-0.004	0.136	0.574
cg10374862	yellow	7	91,509,791	5'UTR	N_Shore	MTERF	0.368	0.002	0.034	0.492
cg03036210	yellow	16	89,904,091	Body	S_Shelf	SPIRE2	0.368	0.002	0.531	0.890
cg17184608	yellow	12	132,627,867	Body	Island	DDX51	0.368	0.006	0.490	0.231
cg03456393	yellow	3	193,310,565	TSS1500	N_Shore	OPA1	0.368	0.010	0.501	0.396
cg22262140	yellow	22	21,986,976	TSS200	S_Shelf	CCDC116	0.368	0.005	0.550	0.446
cg24691879	yellow	1	9,885,039	TSS1500	S_Shore	CLSTN1	0.368	0.003	0.315	0.710
cg10743291	yellow	6	155,593,746	5'UTR	OpenSea	CLDN20	0.368	0.026	0.474	0.048
cg26837853	yellow	8	3,970,118	Body	OpenSea	CSMD1	0.368	-0.002	0.902	0.699
cg02995061	yellow	6	30,076,742	Body	OpenSea	TRIM31	0.368	0.023	0.622	0.043
cg08488318	yellow	5	172,337,935	Body	OpenSea	ERGIC1	0.368	-0.002	0.967	0.375
cg09971940	yellow	12	133,372,606	Body	S_Shelf	GOLGA3	0.368	0.001	0.953	0.836
cg09650989	yellow	16	1,843,697	Body	S_Shore	IGFALS	0.368	0.018	0.311	0.045
cg05384967	yellow	6	135,379,599		S_Shelf		0.368	0.001	0.962	0.774
cg24038255	yellow	11	3,240,399	TSS1500	S_Shore	MRGPRG	0.367	0.006	0.596	0.346
cg06238180	yellow	16	34,648,955		OpenSea		0.367	0.000	0.930	0.999
cg24711397	yellow	10	64,572,927	3'UTR	N_Shore	EGR2	0.367	0.013	0.710	0.099
cg20354777	yellow	3	140,814,133	Body	Island	SPSB4	0.367	0.009	0.423	0.427
cg05337607	yellow	16	1,723,984	Body	N_Shelf	CRAMP1L	0.367	0.003	0.754	0.550
cg17200690	yellow	6	33,245,619	1stExon	S_Shore	B3GALT4	0.367	0.015	0.744	0.057
cg26338202	yellow	6	163,768,326		OpenSea		0.367	0.014	0.855	0.157
cg11722581	yellow	10	695,853	Body	OpenSea	DIP2C	0.367	0.001	0.227	0.945
cg00055462	yellow	13	99,023,894	Body	OpenSea	FARP1	0.367	-0.001	0.777	0.943
cg18308516	yellow	11	393,648	TSS1500	N_Shore	PKP3	0.367	0.000	0.480	0.999
cg13763339	yellow	11	70,516,627	Body	OpenSea	SHANK2	0.367	-0.005	0.767	0.304
cg01226742	yellow	8	37,699,923	3'UTR	Island	GPR124	0.367	0.002	0.717	0.691
cg05963604	yellow	3	57,263,543	Body	S_Shore	APPL1	0.367	0.008	0.281	0.500
cg03955409	yellow	16	3,184,277	TSS1500	Island	ZNF213	0.367	0.005	0.032	0.027
cg11582189	yellow	1	95,313,200	Body	OpenSea	SLC44A3	0.367	0.010	0.723	0.091
cg23009441	yellow	11	1,155,707		Island		0.367	0.016	0.723	0.028
cg20773521	yellow	1	93,374,979	Body	OpenSea	FAM69A	0.367	-0.004	0.943	0.235
cg13615402	yellow	15	25,469,586	Body	OpenSea	SNORD115-1	0.367	0.012	0.874	0.183
cg03491459	yellow	15	63,613,976		Island		0.367	-0.005	0.806	0.417

cg14263575	yellow	9	95,530,146	S_Shelf		0.367	0.008	0.875	0.157
cg11106865	yellow	4	185,090,043 Body	S_Shore	ENPP6	0.367	0.002	0.141	0.621
cg10396588	yellow	19	16,630,285 Body	S_Shore	CHERP	0.367	0.003	0.899	0.676
cg00844298	yellow	7	9,826,908	OpenSea		0.367	0.000	0.853	0.990
cg07889869	yellow	7	6,449,156 3'UTR	OpenSea	DAGLB	0.367	-0.002	0.926	0.711
cg04635334	yellow	16	3,210,225	S_Shore		0.367	0.007	0.276	0.712
cg06339003	yellow	10	14,188,049 Body	OpenSea	FRMD4A	0.367	-0.007	0.861	0.578
cg15404019	yellow	12	105,130,282 Body	OpenSea	CHST11	0.367	0.020	0.187	0.246
cg19426827	yellow	14	105,191,118 Body	S_Shore	ADSSL1	0.367	-0.020	0.104	0.352
cg01858173	yellow	11	62,380,679 TSS1500	S_Shore	EML3	0.366	-0.001	0.023	0.298
cg06488842	yellow	22	30,988,475 TSS1500	S_Shore	PES1	0.366	0.020	0.195	0.333
cg17825274	yellow	7	105,245,562 3'UTR	OpenSea	ATXN7L1	0.366	0.004	0.824	0.767
cg11091012	yellow	8	134,249,790 3'UTR	OpenSea	NDRG1	0.366	0.000	0.553	0.992
cg05011258	yellow	16	67,360,300 TSS1500	OpenSea	LRRC36	0.366	0.021	0.259	0.106
cg06466839	yellow	11	129,062,277 TSS200	OpenSea	RICS	0.366	0.009	0.641	0.081
cg07506573	yellow	19	41,593,995 TSS1500	N_Shore	CYP2A13	0.366	0.001	0.905	0.908
cg24416238	yellow	2	20,211,868 Body	N_Shore	MATN3	0.366	-0.001	0.374	0.894
cg01966390	yellow	1	205,428,207	S_Shore		0.366	0.001	0.051	0.549
cg00224312	yellow	12	56,727,386 5'UTR	N_Shore	PAN2	0.366	-0.001	0.021	0.696
cg09387732	yellow	7	98,987,361 Body	N_Shelf	ARPC1B	0.366	0.002	0.927	0.635
cg01620208	yellow	8	142,311,010	OpenSea		0.366	0.001	0.857	0.850
cg08730747	yellow	16	4,385,382 Body	OpenSea	GLIS2	0.366	0.003	0.666	0.611
cg08836861	yellow	16	69,757,867 Body	N_Shelf	NQO1	0.366	0.000	0.649	0.951
cg10043090	yellow	11	1,536,810 Body	Island	HCCA2	0.366	0.024	0.243	0.018
cg26994023	yellow	5	153,418,932 5'UTR	S_Shore	MFAP3	0.366	0.000	0.051	0.885
cg26800883	yellow	7	4,228,948 Body	OpenSea	SDK1	0.366	-0.002	0.531	0.893
cg23553480	yellow	2	233,925,275 1stExon	Island	INPP5D	0.366	0.000	0.758	0.967
cg21754837	yellow	6	166,485,745	OpenSea		0.366	-0.008	0.559	0.466
cg13700073	yellow	17	79,495,324 TSS200	Island	FSCN2	0.366	-0.001	0.110	0.927
cg10117831	yellow	14	89,881,817 5'UTR	N_Shore	FOXN3	0.366	0.028	0.203	0.380
cg24685775	yellow	19	48,771,567	N_Shelf		0.366	0.005	0.938	0.204
cg03202545	yellow	7	139,359,312 Body	OpenSea	HIPK2	0.366	0.001	0.964	0.765
cg08950745	yellow	2	85,582,299 5'UTR	S_Shore	ELMOD3	0.366	0.000	0.053	0.983
cg07423997	yellow	1	29,676,543	OpenSea		0.366	0.008	0.580	0.185
cg07455936	yellow	17	1,381,922 Body	Island	MYO1C	0.366	0.003	0.911	0.568
cg02790260	yellow	10	85,986,565 TSS1500	OpenSea	LRIT2	0.366	0.001	0.866	0.953
cg00702325	yellow	1	17,665,930 Body	OpenSea	PADI4	0.366	0.001	0.969	0.627
cg03054598	yellow	16	84,687,549 Body	N_Shelf	KLHL36	0.366	-0.009	0.870	0.105
cg24033661	yellow	11	2,920,055 Body	N_Shelf	SLC22A18AS	0.366	0.010	0.469	0.398
cg11304212	yellow	6	34,759,018 TSS1500	N_Shore	UHRF1BP1	0.366	0.019	0.250	0.080
cg17837069	yellow	10	30,138,588	OpenSea		0.366	0.005	0.131	0.577
cg10426084	yellow	17	1,640,472 Body	S_Shelf	WDR81	0.366	-0.004	0.740	0.585
cg00950809	yellow	1	47,082,851 TSS1500	S_Shore	MOBKL2C	0.366	0.010	0.194	0.418
cg24375085	yellow	19	49,804,625 Body	OpenSea	SLC6A16	0.366	-0.001	0.051	0.724
cg22510037	yellow	12	113,772,128 5'UTR	N_Shore	SLC24A6	0.366	0.001	0.118	0.788
cg16065270	yellow	6	31,370,798 TSS1500	N_Shore	MICA	0.366	-0.001	0.020	0.711
cg15260978	yellow	1	1,685,832 Body	Island	NADK	0.366	0.004	0.680	0.516
cg18786718	yellow	16	2,868,001 Body	Island	PRSS21	0.366	0.002	0.784	0.881
cg05395679	yellow	11	61,446,832 TSS1500	N_Shore	DAGLA	0.366	0.000	0.311	0.964
cg00770155	yellow	19	14,887,827 5'UTR	OpenSea	EMR2	0.366	0.001	0.015	0.072
cg02760152	yellow	1	57,886,427 5'UTR	N_Shore	DAB1	0.366	-0.003	0.916	0.713
cg17001035	yellow	10	92,980,059 TSS1500	N_Shore	PCGF5	0.365	-0.001	0.138	0.829
cg02878414	yellow	2	71,099,177	S_Shore		0.365	0.013	0.463	0.214
cg00101940	yellow	16	85,479,301	OpenSea		0.365	0.004	0.368	0.563
cg16284178	yellow	7	35,871,324 Body	OpenSea	7-Sep	0.365	0.011	0.532	0.442
cg13828600	yellow	7	23,144,799 TSS1500	N_Shore	KLHL7	0.365	0.007	0.052	0.162
cg21215409	yellow	8	145,514,316 Body	N_Shore	BOP1	0.365	-0.001	0.219	0.909
cg17057719	yellow	3	72,704,701	S_Shore		0.365	-0.012	0.184	0.412
cg12366968	yellow	7	1,883,876 Body	N_Shore	MAD1L1	0.365	0.005	0.590	0.470
cg01907016	yellow	1	1,985,500 Body	S_Shelf	PRKCZ	0.365	-0.014	0.932	0.181
cg03019033	yellow	2	170,220,063 TSS1500	N_Shore	LRP2	0.365	0.002	0.027	0.138
cg19049152	yellow	13	52,769,289 TSS1500	N_Shore	THSD1P	0.365	0.007	0.162	0.632
cg09479694	yellow	8	70,744,954 5'UTR	Island	SLCO5A1	0.365	-0.001	0.248	0.913
cg01428195	yellow	9	139,349,673 Body	Island	SEC16A	0.365	0.001	0.781	0.811
cg09030848	yellow	14	104,194,626 Body	Island	ZFYVE21	0.365	0.011	0.675	0.214
cg05754322	yellow	13	50,019,081 5'UTR	S_Shore	SETDB2	0.365	0.000	0.025	0.925
cg11262462	yellow	15	78,631,196 TSS1500	N_Shore	CRABP1	0.365	0.007	0.593	0.295

cg06806461	yellow	20	61,180,869	S_Shore		0.365	0.000	0.047	0.974
cg26186392	yellow	8	104,605,535 Body	OpenSea	RIMS2	0.365	0.012	0.837	0.284
cg22681246	yellow	12	6,304,747	OpenSea		0.365	0.003	0.808	0.582
cg27360567	yellow	3	49,941,613 TSS1500	S_Shore	MST1R	0.365	0.003	0.331	0.634
cg23178192	yellow	16	28,075,295 TSS1500	Island	GSG1L	0.365	0.010	0.177	0.189
cg01921335	yellow	8	74,660,046 TSS1500	S_Shore	STAU2	0.365	0.001	0.035	0.759
cg04742550	yellow	16	31,366,429 TSS200	OpenSea	ITGAX	0.365	0.009	0.217	0.315
cg08912801	yellow	1	3,399,260	OpenSea		0.365	0.005	0.486	0.669
cg23191801	yellow	10	118,609,728	S_Shore		0.365	-0.005	0.326	0.428
cg15276256	yellow	12	130,590,197	OpenSea		0.365	-0.001	0.373	0.932
cg12797987	yellow	13	42,908,205	OpenSea		0.365	-0.003	0.779	0.824
cg01820777	yellow	7	1,499,734 TSS1500	S_Shore	MICALL2	0.365	-0.014	0.232	0.088
cg13583454	yellow	5	153,038,077 Body	OpenSea	GRIA1	0.365	-0.020	0.720	0.253
cg02784812	yellow	3	52,189,177 TSS1500	S_Shore	WDR51A	0.365	0.005	0.064	0.289
cg07496687	yellow	22	22,236,176	OpenSea		0.365	0.004	0.770	0.539
cg09276978	yellow	20	34,995,517 5'UTR	OpenSea	DLGAP4	0.365	0.008	0.851	0.181
cg22738642	yellow	12	43,137,977	OpenSea		0.365	-0.003	0.940	0.471
cg09955413	yellow	10	133,995,286 3'UTR	N_Shelf	JAKMIP3	0.365	0.028	0.534	0.027
cg27306913	yellow	1	231,115,237 TSS1500	S_Shore	TTC13	0.365	-0.001	0.028	0.598
cg04889061	yellow	16	87,648,673 Body	Island	JPH3	0.365	-0.002	0.711	0.744
cg25200151	yellow	12	112,125,000 5'UTR	S_Shore	ACAD10	0.364	0.001	0.944	0.901
cg08784247	yellow	12	81,329,808 TSS200	N_Shore	MIR618	0.364	0.003	0.269	0.803
cg04555771	yellow	3	50,540,137 Body	N_Shore	CACNA2D2	0.364	0.005	0.279	0.479
cg00811535	yellow	6	31,587,543 TSS1500	N_Shore	BAT2	0.364	0.011	0.194	0.425
cg11461825	yellow	10	134,796,949	OpenSea		0.364	0.023	0.801	0.352
cg24030630	yellow	11	67,806,668 5'UTR	S_Shore	TCIRG1	0.364	0.006	0.069	0.217
cg12039422	yellow	17	12,325,031	OpenSea		0.364	0.009	0.521	0.240
cg26091304	yellow	2	129,183,397	OpenSea		0.364	0.006	0.900	0.450
cg08133496	yellow	11	44,116,911 TSS200	N_Shore	EXT2	0.364	0.004	0.242	0.654
cg03825231	yellow	3	125,898,467 5'UTR	N_Shore	ALDH1L1	0.364	-0.002	0.170	0.865
cg18170071	yellow	7	127,255,970 TSS200	OpenSea	PAX4	0.364	0.011	0.293	0.181
cg05516285	yellow	19	29,704,446 TSS1500	S_Shore	UQCRRF51	0.364	0.010	0.389	0.577
cg01025302	yellow	5	3,213,214	OpenSea		0.364	-0.002	0.671	0.834
cg20000602	yellow	12	124,733,846	OpenSea		0.364	0.007	0.249	0.669
cg27160578	yellow	7	1,250,669	N_Shore		0.364	0.000	0.033	0.815
cg03431165	yellow	1	151,773,258 3'UTR	OpenSea	LINGO4	0.364	0.000	0.773	0.968
cg05197667	yellow	12	64,383,297 Body	OpenSea	SRGAP1	0.364	-0.011	0.221	0.588
cg06193958	yellow	12	54,383,639 3'UTR	S_Shelf	HOXC10	0.364	-0.004	0.069	0.542
cg03702677	yellow	12	130,935,008 Body	N_Shore	RIMBP2	0.364	0.009	0.764	0.313
cg11568791	yellow	5	851,150 TSS200	S_Shelf	ZDHHC11	0.364	0.005	0.527	0.619
cg05364487	yellow	12	125,659,025	OpenSea		0.364	0.004	0.379	0.596
cg26929337	yellow	19	52,511,726 TSS1500	S_Shore	ZNF615	0.364	0.004	0.079	0.532
cg26445794	yellow	16	10,837,274 TSS1500	N_Shore	NUBP1	0.364	0.022	0.418	0.104
cg16202338	yellow	3	164,050,953	OpenSea		0.364	0.026	0.086	0.022
cg09086964	yellow	15	73,689,509	OpenSea		0.364	0.003	0.563	0.681
cg01471006	yellow	10	86,087,566 TSS1500	N_Shore	FAM190B	0.364	0.000	0.912	0.989
cg16557370	yellow	13	27,295,982	OpenSea		0.364	0.007	0.567	0.398
cg09296697	yellow	12	120,833,809	N_Shore		0.364	0.001	0.944	0.898
cg26513576	yellow	12	132,990,937	Island		0.364	-0.050	0.597	0.129
cg03085719	yellow	11	3,860,569 5'UTR	N_Shore	RHOG	0.364	0.008	0.479	0.158
cg04804094	yellow	8	1,879,091 Body	OpenSea	ARHGEF10	0.363	0.003	0.696	0.774
cg22804222	yellow	5	1,924,099	OpenSea		0.363	-0.002	0.880	0.811
cg14254852	yellow	1	55,268,659	S_Shore		0.363	-0.010	0.886	0.242
cg03646096	yellow	8	852,352	S_Shore		0.363	0.000	0.975	0.840
cg17804850	yellow	18	60,052,386 3'UTR	Island	TNFRSF11A	0.363	0.014	0.585	0.389
cg10609174	yellow	3	44,118,759	OpenSea		0.363	0.000	0.476	0.990
cg02463988	yellow	7	22,817,223	OpenSea		0.363	-0.002	0.942	0.697
cg02824888	yellow	12	115,129,011	N_Shore		0.363	0.014	0.386	0.159
cg14647335	yellow	7	55,712,936 TSS1500	OpenSea	LOC442308	0.363	0.011	0.891	0.319
cg15848685	yellow	6	30,882,641 Body	S_Shore	VARS2	0.363	0.009	0.441	0.759
cg02992311	yellow	19	39,523,626 TSS1500	S_Shore	FBXO27	0.363	0.013	0.445	0.167
cg17776833	yellow	17	784,465 Body	OpenSea	NXN	0.363	-0.002	0.969	0.538
cg09063835	yellow	20	58,181,392 Body	S_Shore	PHACTR3	0.363	0.011	0.431	0.127
cg01394339	yellow	6	73,972,288 5'UTR	N_Shore	KHDC1	0.363	-0.007	0.106	0.485
cg01619846	yellow	19	4,911,475 Body	S_Shore	UHRF1	0.363	0.007	0.139	0.424
cg03548224	yellow	3	48,615,932 Body	OpenSea	COL7A1	0.363	0.002	0.832	0.740
cg05374783	yellow	16	88,715,744 Body	N_Shore	CYBA	0.363	0.009	0.846	0.276

cg07383268	yellow	7	44,530,730	TSS1500	S_Shore	NUDCD3	0.363	0.007	0.066	0.335
cg08374890	yellow	16	31,117,067		N_Shore		0.363	0.003	0.113	0.779
cg15125472	yellow	19	36,248,077	TSS200	N_Shore	HSPB6	0.363	-0.003	0.078	0.535
cg23643100	yellow	7	5,012,842	TSS1500	N_Shore	RNF216L	0.363	0.004	0.894	0.639
cg00105400	yellow	19	46,216,179	Body	Island	FBXO46	0.363	-0.009	0.908	0.307
cg04126957	yellow	1	1,479,238	Body	S_Shelf	SSU72	0.363	0.015	0.785	0.392
cg00917003	yellow	7	150,716,366	Body	Island	ATG9B	0.363	-0.002	0.377	0.780
cg01583716	yellow	16	7,855,518		OpenSea		0.363	0.004	0.294	0.757
cg13629388	yellow	6	170,687,780	Body	S_Shore	FAM120B	0.363	0.010	0.686	0.110
cg20052760	yellow	6	10,510,789		OpenSea		0.363	0.016	0.496	0.056
cg00249974	yellow	1	156,254,149	1stExon	OpenSea	TMEM79	0.363	0.004	0.688	0.656
cg21212505	yellow	7	117,228,958	Body	OpenSea	CFTR	0.363	-0.003	0.321	0.842
cg24702069	yellow	13	109,352,806	Body	OpenSea	MYO16	0.363	0.016	0.794	0.280
cg14809332	yellow	8	144,654,887	1stExon	S_Shore	C8orf73	0.363	0.018	0.299	0.261
cg05882315	yellow	19	54,290,905	TSS1500	OpenSea	MIR372	0.363	-0.014	0.738	0.300
cg06027620	yellow	17	36,909,606	Body	S_Shore	PSMB3	0.363	0.018	0.116	0.010
cg12200478	yellow	14	21,466,565	TSS1500	OpenSea	SLC39A2	0.363	0.009	0.413	0.135
cg18644252	yellow	12	9,217,859	Body	S_Shore	LOC144571	0.363	-0.004	0.459	0.795
cg20147326	yellow	11	33,913,538	1stExon	OpenSea	LMO2	0.363	0.013	0.725	0.070
cg00575744	yellow	6	32,908,642	1stExon	OpenSea	HLA-DMB	0.363	0.017	0.453	0.090
cg07857267	yellow	19	13,396,918	Body	N_Shore	CACNA1A	0.363	0.008	0.880	0.289
cg00484396	yellow	16	3,507,460	TSS1500	N_Shore	NAT15	0.363	0.002	0.156	0.886
cg01824603	yellow	8	1,878,323	Body	OpenSea	ARHGEF10	0.362	0.010	0.414	0.275
cg16423811	yellow	17	80,330,719	TSS1500	N_Shore	UTS2R	0.362	0.020	0.318	0.257
cg13440652	yellow	12	133,414,462		Island		0.362	0.024	0.708	0.093
cg12582028	yellow	1	151,736,699	Body	S_Shore	OAZ3	0.362	0.018	0.641	0.185
cg23466001	yellow	17	45,909,410	TSS1500	S_Shore	MRPL10	0.362	-0.001	0.185	0.941
cg10262052	yellow	8	39,770,525	TSS1500	OpenSea	IDO1	0.362	-0.001	0.485	0.904
cg01584103	yellow	7	71,578,347	Body	OpenSea	CALN1	0.362	0.010	0.827	0.237
cg09076720	yellow	2	207,082,565	1stExon	OpenSea	GPR1	0.362	0.002	0.077	0.638
cg14598846	yellow	8	145,008,909	Body	Island	PLEC1	0.362	0.003	0.760	0.817
cg11240043	yellow	1	20,250,501	TSS1500	OpenSea	PLA2G2E	0.362	0.017	0.581	0.028
cg18814314	yellow	8	145,518,788	Body	S_Shelf	HSF1	0.362	-0.019	0.772	0.136
cg12107018	yellow	7	155,276,169		OpenSea		0.362	0.005	0.271	0.470
cg12414070	yellow	12	117,627,133	Body	N_Shore	FBXO21	0.362	0.003	0.127	0.623
cg04127903	yellow	3	186,335,125	Body	OpenSea	AHSG	0.362	-0.001	0.030	0.597
cg18210511	yellow	8	144,601,781	Body	Island	ZC3H3	0.362	0.003	0.714	0.654
cg08368169	yellow	13	25,949,998	Body	S_Shelf	ATP8A2	0.362	0.006	0.091	0.323
cg07928255	yellow	16	11,343,164		N_Shore		0.362	-0.006	0.852	0.268
cg14280330	yellow	10	101,210,107		OpenSea		0.362	-0.010	0.482	0.305
cg16471600	yellow	8	143,879,727		Island		0.362	0.001	0.497	0.805
cg03752203	yellow	8	103,874,399	5'UTR	N_Shore	AZIN1	0.362	0.013	0.403	0.296
cg19471040	yellow	6	34,031,142	Body	OpenSea	GRM4	0.362	-0.002	0.752	0.764
cg13702235	yellow	4	159,689,189	TSS1500	N_Shore	FNIP2	0.362	0.004	0.300	0.588
cg05524144	yellow	10	134,679,383		N_Shelf		0.362	-0.003	0.814	0.524
cg13879411	yellow	7	7,474,236	Body	OpenSea	COL28A1	0.362	0.017	0.463	0.345
cg06473363	yellow	6	31,631,797	Body	N_Shore	BAT4	0.362	-0.008	0.330	0.599
cg14668632	yellow	7	2,872,130	Body	OpenSea	GNA12	0.362	0.000	0.938	0.975
cg02707307	yellow	9	130,370,151		N_Shore		0.362	0.016	0.292	0.093
cg07720105	yellow	19	14,591,345	Body	S_Shore	GIPC1	0.362	0.008	0.622	0.150
cg06551161	yellow	11	57,424,534	TSS1500	N_Shore	CLP1	0.362	0.002	0.614	0.835
cg24799460	yellow	15	102,251,213	Body	OpenSea	TARSL2	0.362	-0.008	0.246	0.553
cg05222604	yellow	16	58,537,227	Body	S_Shore	NDRG4	0.362	-0.005	0.873	0.459
cg23109606	yellow	2	85,661,127	TSS1500	N_Shelf	SH2D6	0.362	-0.006	0.238	0.178
cg03603530	yellow	16	69,365,009	TSS1500	S_Shore	PDF	0.362	-0.007	0.134	0.298
cg15440026	yellow	15	94,022,195		OpenSea		0.362	0.000	0.828	0.999
cg05066096	yellow	7	4,781,872	Body	N_Shelf	FO XK1	0.362	0.008	0.780	0.344
cg00693994	yellow	4	156,586,710	TSS1500	N_Shore	GUCY1A3	0.361	-0.002	0.791	0.882
cg00566982	yellow	11	6,590,092	Body	N_Shore	DNHD1	0.361	-0.001	0.427	0.932
cg00774100	yellow	6	31,465,369	TSS1500	N_Shore	MICB	0.361	0.006	0.129	0.334
cg24127278	yellow	2	27,009,715	Body	S_Shore	CENPA	0.361	-0.003	0.181	0.790
cg20433521	yellow	1	24,882,991	5'UTR	OpenSea	C1orf130	0.361	-0.008	0.202	0.420
cg10143146	yellow	6	33,161,377	TSS1500	S_Shore	COL11A2	0.361	0.008	0.040	0.032
cg12135835	yellow	19	21,324,444	TSS1500	OpenSea	ZNF431	0.361	-0.007	0.840	0.403
cg05009047	yellow	16	4,659,466	3'UTR	Island	FAM100A	0.361	0.009	0.842	0.155
cg20398399	yellow	3	183,273,807	TSS1500	OpenSea	KLHL6	0.361	0.012	0.586	0.136
cg16705281	yellow	13	49,790,604		N_Shelf		0.361	0.001	0.964	0.603

cg14783074	yellow	11	65,652,435	Body	N_Shelf	FIBP	0.361	0.004	0.238	0.559
cg08076266	yellow	2	120,190,202	Body	Island	TMEM37	0.361	0.000	0.050	0.944
cg18165630	yellow	8	43,061,532		S_Shore		0.361	0.003	0.831	0.683
cg05917748	yellow	15	93,139,515		OpenSea		0.361	0.010	0.673	0.473
cg04606773	yellow	10	134,759,693		S_Shelf		0.361	0.004	0.869	0.646
cg06911630	yellow	7	100,234,123	Body	S_Shelf	TFR2	0.361	-0.001	0.823	0.896
cg24938727	yellow	3	42,742,993	Body	OpenSea	HHATL	0.361	0.010	0.192	0.212
cg13167340	yellow	11	65,211,709	TSS1500	OpenSea	MIR612	0.361	-0.007	0.786	0.614
cg08375286	yellow	6	33,291,937	TSS1500	S_Shore	DAXX	0.361	0.009	0.451	0.407
cg25843003	yellow	6	31,431,312	3'UTR	OpenSea	HCP5	0.361	0.006	0.839	0.450
cg14564965	yellow	6	107,942,932	Body	OpenSea	SOBP	0.361	-0.004	0.688	0.638
cg14214257	yellow	9	102,058,671		N_Shore		0.361	0.018	0.346	0.048
cg07371612	yellow	5	149,381,392	5'UTR	S_Shore	HMGXB3	0.361	0.004	0.092	0.473
cg09930615	yellow	6	36,354,988	Body	N_Shore	ETV7	0.361	-0.001	0.036	0.604
cg22069749	yellow	20	62,111,366		Island		0.361	0.004	0.647	0.682
cg15651149	yellow	11	64,273,041		OpenSea		0.361	-0.004	0.596	0.675
cg12864568	yellow	5	101,632,559	TSS1500	S_Shore	SLCO4C1	0.361	-0.001	0.377	0.880
cg19890431	yellow	11	3,659,810	3'UTR	N_Shelf	ART5	0.361	0.004	0.741	0.520
cg09960202	yellow	12	132,969,203		Island		0.361	0.004	0.566	0.671
cg01334159	yellow	20	35,467,535	Body	N_Shore	C20orf117	0.361	0.007	0.844	0.276
cg10492836	yellow	10	134,801,824		N_Shelf		0.361	0.002	0.358	0.901
cg17786206	yellow	1	29,142,254	Body	S_Shelf	OPRD1	0.361	0.006	0.230	0.463
cg05457221	yellow	10	134,272,437		OpenSea		0.361	0.002	0.859	0.770
cg03738656	yellow	21	45,581,008		N_Shore		0.361	0.003	0.688	0.705
cg05091796	yellow	16	4,465,799	Body	N_Shore	CORO7	0.361	-0.002	0.085	0.699
cg25112848	yellow	3	39,470,521		OpenSea		0.361	-0.002	0.636	0.867
cg19783626	yellow	7	98,311,436		OpenSea		0.361	-0.009	0.373	0.254
cg25916172	yellow	10	118,937,897		S_Shelf		0.360	0.005	0.704	0.505
cg24602245	yellow	1	3,706,705	Body	S_Shelf	LRRRC47	0.360	-0.006	0.868	0.318
cg01972009	yellow	11	67,273,431	TSS1500	N_Shore	PITPNM1	0.360	0.007	0.434	0.241
cg13476044	yellow	19	50,886,715	TSS1500	N_Shore	POLD1	0.360	-0.003	0.779	0.714
cg08404725	yellow	5	156,572,785		S_Shelf		0.360	0.003	0.951	0.360
cg05045498	yellow	16	318,213		N_Shore		0.360	0.001	0.920	0.828
cg21327826	yellow	9	140,107,501	Body	Island	NDOR1	0.360	-0.007	0.894	0.257
cg07954706	yellow	1	110,164,547	Body	S_Shore	AMPD2	0.360	0.003	0.572	0.632
cg00074771	yellow	15	44,120,341	Body	S_Shore	WDR76	0.360	0.029	0.604	0.014
cg05302218	yellow	12	125,320,887	Body	N_Shelf	SCARB1	0.360	-0.006	0.665	0.209
cg07249433	yellow	10	134,420,183	Body	OpenSea	INPP5A	0.360	0.012	0.645	0.254
cg02217159	yellow	6	62,996,697	TSS1500	S_Shore	KHDRBS2	0.360	-0.005	0.093	0.477
cg06616055	yellow	11	623,756	Body	N_Shore	MUPCDH	0.360	-0.004	0.572	0.741
cg04717485	yellow	1	9,486,780		N_Shelf		0.360	0.015	0.745	0.067
cg11385094	yellow	1	147,374,847	TSS200	OpenSea	GJA8	0.360	0.008	0.388	0.136
cg09354380	yellow	6	106,258,324		OpenSea		0.360	0.000	0.033	0.907
cg04513912	yellow	7	156,409,788		Island		0.360	0.015	0.191	0.090
cg13690280	yellow	9	112,562,314	Body	OpenSea	PALM2	0.360	-0.008	0.443	0.339
cg08732950	yellow	16	89,023,389	Body	OpenSea	CBFA2T3	0.360	-0.002	0.849	0.839
cg22215728	yellow	3	61,236,652	5'UTR	Island	FHIT	0.360	0.001	0.102	0.919
cg13552742	yellow	14	77,229,061	1stExon	S_Shore	VASH1	0.360	0.027	0.259	0.019
cg15924332	yellow	10	7,710,179	TSS1500	OpenSea	ITIH5	0.360	0.008	0.290	0.343
cg06098276	yellow	17	76,171,208	Body	OpenSea	TK1	0.360	0.004	0.743	0.853
cg02373484	yellow	6	29,631,227	Body	OpenSea	MOG	0.360	-0.002	0.636	0.842
cg04574135	yellow	4	47,915,701	Body	N_Shore	NFXL1	0.360	-0.002	0.055	0.586
cg26112871	yellow	5	171,320,720	Body	OpenSea	FBXW11	0.360	-0.004	0.336	0.819
cg05144814	yellow	11	126,944,154		OpenSea		0.360	-0.007	0.426	0.348
cg02379107	yellow	20	36,889,378	TSS1500	Island	KIAA1755	0.360	0.007	0.052	0.275
cg16593899	yellow	12	212,239	Body	N_Shore	IQSEC3	0.360	-0.004	0.565	0.793
cg10164238	yellow	16	202,368	TSS1500	N_Shore	HBZ	0.360	-0.001	0.924	0.837
cg11522612	yellow	6	31,687,637	Body	N_Shelf	LY6G6C	0.360	0.007	0.820	0.299
cg25404088	yellow	22	38,143,168	Body	S_Shore	TRIOBP	0.360	-0.017	0.156	0.116
cg08462941	yellow	19	5,288,631	5'UTR	N_Shore	PTPRS	0.360	-0.001	0.918	0.795
cg22508957	yellow	16	3,507,546	TSS1500	Island	NAT15	0.359	-0.007	0.055	0.327
cg02633817	yellow	19	35,606,732	5'UTR	OpenSea	FXD3	0.359	0.007	0.687	0.294
cg22567315	yellow	7	119,604,878		OpenSea		0.359	0.009	0.502	0.399
cg06455180	yellow	10	133,461,875		S_Shelf		0.359	0.004	0.137	0.699
cg19650632	yellow	5	133,303,603	Body	N_Shore	C5orf15	0.359	-0.001	0.044	0.710
cg14032959	yellow	9	97,025,960	5'UTR	S_Shelf	ZNF169	0.359	-0.001	0.893	0.908
cg21190361	yellow	9	34,459,060	Body	S_Shore	DNAI1	0.359	0.003	0.092	0.672



cg06762395	yellow	16	75,263,297	3'UTR	N_Shore	BCAR1	0.359	0.003	0.782	0.609
cg16552454	yellow	20	61,583,924	TSS200	Island	SLC17A9	0.359	0.003	0.060	0.787
cg15210526	yellow	1	167,733,310	Body	OpenSea	MPZL1	0.359	-0.002	0.494	0.780
cg19977501	yellow	14	23,233,723		N_Shelf		0.359	0.010	0.678	0.406
cg01883777	yellow	22	38,201,848	1stExon	N_Shore	H1FO	0.359	-0.016	0.211	0.271
cg12793711	yellow	17	79,477,853	Body	N_Shore	ACTG1	0.359	-0.002	0.043	0.555
cg24783785	yellow	17	619,036	TSS1500	S_Shore	VPS53	0.359	-0.005	0.228	0.643
cg22970435	yellow	6	44,310,228	TSS200	OpenSea	SPATS1	0.359	0.004	0.147	0.481
cg01357713	yellow	2	219,696,528	TSS200	OpenSea	PRKAG3	0.359	0.010	0.736	0.309
cg09035101	yellow	1	155,881,569	TSS1500	OpenSea	RIT1	0.359	0.002	0.046	0.581
cg09430586	yellow	19	54,242,124	TSS1500	OpenSea	MIR518A2	0.359	-0.002	0.964	0.494
cg06367321	yellow	16	30,125,232	TSS200	OpenSea	LOC1002718	0.359	0.004	0.768	0.605
cg06495347	yellow	12	56,391,451	5'UTR	OpenSea	SUOX	0.359	0.001	0.119	0.925
cg25985185	yellow	19	4,521,489		N_Shelf		0.359	0.003	0.793	0.608
cg19890739	yellow	16	85,723,539	TSS1500	S_Shore	GINS2	0.359	0.002	0.292	0.808
cg01342926	yellow	4	128,887,246	TSS200	S_Shore	MFSDB	0.359	0.000	0.076	0.951
cg09133363	yellow	2	85,153,928		OpenSea		0.359	0.004	0.363	0.714
cg18379829	yellow	1	244,395,207		OpenSea		0.359	-0.004	0.311	0.675
cg13624833	yellow	5	159,413,877		N_Shore		0.359	0.007	0.601	0.347
cg27464157	yellow	16	88,764,369	Body	N_Shore	RNF166	0.359	-0.004	0.866	0.233
cg03134051	yellow	8	119,059,372	Body	OpenSea	EXT1	0.359	0.035	0.643	0.034
cg05433111	yellow	16	28,943,232	TSS200	OpenSea	CD19	0.359	0.005	0.851	0.433
cg20332679	yellow	8	10,683,188	TSS1500	OpenSea	MIR1322	0.359	-0.006	0.299	0.573
cg13544883	yellow	19	7,852,051	TSS1500	N_Shore	CLEC4G1	0.359	0.006	0.534	0.469
cg06474274	yellow	20	62,204,482	5'UTR	Island	PRIC285	0.359	0.009	0.697	0.141
cg18220560	yellow	2	17,936,424	5'UTR	S_Shore	GEN1	0.359	-0.006	0.052	0.076
cg27370028	yellow	20	62,693,943	TSS200	Island	TCEA2	0.359	0.005	0.435	0.499
cg17857870	yellow	20	62,662,424	Body	S_Shore	PRPF6	0.359	-0.003	0.932	0.480
cg01183595	yellow	11	46,746,236	Body	OpenSea	F2	0.359	0.000	0.815	0.998
cg13057663	yellow	8	37,805,275		OpenSea		0.359	0.008	0.793	0.359
cg06569121	yellow	8	38,459,667	TSS1500	OpenSea	RNF5P1	0.359	0.009	0.246	0.097
cg08221207	yellow	11	125,366,421	TSS1500	S_Shore	FEZ1	0.359	0.000	0.016	0.805
cg05470497	yellow	7	1,521,086	Body	S_Shore	INTS1	0.358	0.002	0.756	0.729
cg03679394	yellow	11	70,516,997	Body	OpenSea	SHANK2	0.358	0.004	0.615	0.602
cg00816177	yellow	16	57,770,390	5'UTR	S_Shore	KATNB1	0.358	0.004	0.050	0.365
cg02998394	yellow	4	99,849,011	Body	N_Shore	EIF4E	0.358	-0.001	0.031	0.368
cg09211850	yellow	12	124,819,453	Body	N_Shore	NCOR2	0.358	-0.003	0.918	0.516
cg02699898	yellow	13	113,424,938	Body	Island	ATP11A	0.358	0.011	0.577	0.067
cg16018995	yellow	11	124,387,366		OpenSea		0.358	0.002	0.598	0.840
cg14496969	yellow	16	30,006,579	TSS1500	Island	INO80E	0.358	-0.001	0.055	0.636
cg07743179	yellow	3	126,278,943	TSS1500	OpenSea	C3orf22	0.358	-0.001	0.918	0.870
cg15809806	yellow	10	33,518,295	Body	OpenSea	NRP1	0.358	-0.006	0.811	0.587
cg06076931	yellow	11	134,231,728	Body	Island	GLB1L2	0.358	0.006	0.740	0.415
cg01457077	yellow	2	239,228,573	TSS1500	N_Shore	TRAF3IP1	0.358	0.012	0.196	0.209
cg04510874	yellow	15	91,427,884	5'UTR	Island	FES	0.358	0.004	0.035	0.386
cg02326386	yellow	19	2,085,286	5'UTR	OpenSea	MOBK2A	0.358	0.001	0.925	0.923
cg01566396	yellow	2	161,126,295		N_Shore		0.358	0.002	0.062	0.757
cg18762505	yellow	1	59,646,049		OpenSea		0.358	-0.003	0.574	0.725
cg02794990	yellow	15	59,659,880	Body	N_Shelf	MYO1E	0.358	0.003	0.487	0.635
cg02011430	yellow	16	85,010,597	Body	OpenSea	ZDHHC7	0.358	0.006	0.380	0.464
cg03736781	yellow	7	158,784,655		N_Shore		0.358	0.006	0.352	0.652
cg03508095	yellow	4	165,878,742	3'UTR	S_Shore	C4orf39	0.358	-0.009	0.367	0.715
cg02382795	yellow	7	73,021,225	Body	N_Shore	MLXIPL	0.358	0.010	0.708	0.505
cg19241279	yellow	2	176,175,002		OpenSea		0.358	-0.003	0.251	0.750
cg12112719	yellow	6	32,035,439	Body	OpenSea	TNXB	0.358	0.009	0.849	0.218
cg24439190	yellow	1	19,741,833	Body	OpenSea	CAPZB	0.358	0.028	0.522	0.056
cg11032188	yellow	15	80,478,622	3'UTR	OpenSea	FAH	0.358	0.002	0.794	0.737
cg25628310	yellow	3	57,543,243	1stExon	Island	PDE12	0.358	0.001	0.026	0.455
cg24521811	yellow	11	33,719,716	3'UTR	N_Shore	C11orf91	0.358	0.004	0.407	0.630
cg05038216	yellow	2	29,339,091	5'UTR	S_Shore	CLIP4	0.358	0.002	0.146	0.786
cg27337124	yellow	10	131,589,141		N_Shelf		0.358	-0.008	0.695	0.527
cg00353953	yellow	12	6,799,541	TSS1500	S_Shore	ZNF384	0.358	0.032	0.348	0.064
cg00749609	yellow	19	2,507,424		N_Shelf		0.358	-0.005	0.085	0.430
cg22040823	yellow	1	2,329,176	Body	OpenSea	RER1	0.358	0.004	0.874	0.422
cg14320530	yellow	10	134,693,097		Island		0.357	0.038	0.234	0.065
cg25147447	yellow	13	112,212,213		Island		0.357	-0.015	0.516	0.034
cg04201285	yellow	19	5,687,733	Body	Island	HSD11B1L	0.357	0.010	0.704	0.344

cg23669118	yellow	16	1,538,347	1stExon	S_Shore	C16orf38	0.357	-0.004	0.844	0.543
cg00338479	yellow	1	38,551,357		OpenSea		0.357	-0.002	0.634	0.655
cg18192155	yellow	21	44,258,298		Island		0.357	0.020	0.891	0.198
cg00157359	yellow	11	66,233,183	TSS1500	N_Shore	PELI3	0.357	0.001	0.246	0.908
cg01199495	yellow	18	31,019,946	1stExon	N_Shore	C18orf34	0.357	0.015	0.635	0.327
cg25535982	yellow	11	74,030,400		OpenSea		0.357	0.006	0.604	0.357
cg08601038	yellow	7	100,895,999		S_Shore		0.357	-0.004	0.194	0.776
cg17385448	yellow	1	15,911,702	TSS200	S_Shore	AGMAT	0.357	0.015	0.348	0.313
cg09938406	yellow	1	2,890,369		S_Shelf		0.357	0.003	0.322	0.515
cg27174862	yellow	11	591,228	Body	S_Shore	PHRF1	0.357	0.000	0.957	0.990
cg09867208	yellow	1	3,351,390	3'UTR	Island	PRDM16	0.357	0.004	0.886	0.464
cg18355562	yellow	7	41,026,197		OpenSea		0.357	-0.008	0.637	0.561
cg22578926	yellow	7	157,437,844	Body	N_Shelf	PTPRN2	0.357	-0.003	0.683	0.916
cg23093580	yellow	1	39,491,322	TSS1500	OpenSea	NDUFS5	0.357	0.004	0.699	0.628
cg10833066	yellow	12	111,807,467	TSS1500	S_Shore	FAM109A	0.357	-0.010	0.516	0.524
cg08476984	yellow	10	5,588,169		OpenSea		0.357	0.005	0.415	0.636
cg08123074	yellow	1	28,764,523	TSS200	OpenSea	PHACTR4	0.357	0.000	0.071	0.982
cg16017889	yellow	8	144,303,111		OpenSea		0.357	0.001	0.517	0.950
cg18380974	yellow	3	178,789,848	TSS1500	S_Shore	ZMAT3	0.357	0.002	0.023	0.253
cg26657018	yellow	5	178,797,893		N_Shelf		0.357	-0.004	0.822	0.475
cg13643138	yellow	19	29,584,196		Island		0.357	0.002	0.899	0.872
cg02002207	yellow	16	89,913,618	Body	N_Shelf	SPIRE2	0.357	0.003	0.773	0.700
cg22232952	yellow	19	10,206,625	Body	Island	ANGPTL6	0.357	0.004	0.238	0.791
cg13923040	yellow	19	59,085,345	TSS1500	N_Shore	MZF1	0.357	0.014	0.134	0.014
cg20473452	yellow	11	1,036,938	TSS1500	S_Shore	MUC6	0.357	0.014	0.523	0.112
cg10213658	yellow	7	26,183,581		OpenSea		0.357	0.022	0.793	0.251
cg14557825	yellow	1	9,551,398		N_Shelf		0.357	0.003	0.074	0.785
cg00093688	yellow	9	140,113,369	3'UTR	N_Shore	NDOR1	0.357	0.005	0.715	0.619
cg21043572	yellow	17	40,264,780	TSS200	OpenSea	DHX58	0.357	0.000	0.026	0.894
cg21304488	yellow	17	27,397,800		OpenSea		0.357	0.012	0.521	0.224
cg11928198	yellow	1	151,137,319	TSS1500	OpenSea	SCNM1	0.357	0.004	0.262	0.558
cg01084215	yellow	17	77,924,269	Body	Island	TBC1D16	0.357	-0.001	0.791	0.912
cg09654796	yellow	3	197,180,978		N_Shelf		0.357	0.019	0.532	0.196
cg24297727	yellow	6	30,538,686	TSS1500	N_Shore	ABCF1	0.357	0.006	0.046	0.016
cg00827210	yellow	8	1,427,491		N_Shelf		0.357	0.014	0.425	0.097
cg15694605	yellow	1	32,238,225		Island		0.357	0.009	0.137	0.363
cg14018471	yellow	9	100,681,080	Body	N_Shelf	C9orf156	0.357	0.001	0.931	0.705
cg24864639	yellow	6	33,156,164	Body	N_Shelf	COL11A2	0.357	0.013	0.695	0.103
cg14958663	yellow	5	140,011,662	Body	Island	CD14	0.357	-0.002	0.103	0.861
cg26645069	yellow	12	6,861,493	Body	N_Shore	MLF2	0.356	0.015	0.368	0.063
cg04863516	yellow	10	75,173,179	5'UTR	N_Shore	ANXA7	0.356	0.004	0.086	0.539
cg06234624	yellow	17	27,181,559	TSS1500	N_Shore	ERAL1	0.356	-0.005	0.073	0.273
cg18107827	yellow	1	26,488,988	3'UTR	N_Shore	GRRP1	0.356	0.016	0.381	0.140
cg06008617	yellow	5	68,513,350	TSS1500	N_Shore	MRPS36	0.356	0.001	0.023	0.729
cg09608949	yellow	11	117,748,189	TSS1500	S_Shore	FXD6	0.356	0.000	0.190	0.997
cg24815529	yellow	19	55,592,342	Body	Island	EPS8L1	0.356	-0.002	0.083	0.745
cg18569070	yellow	19	17,136,562	Body	OpenSea	CPAMD8	0.356	-0.001	0.633	0.971
cg04202338	yellow	3	12,882,335	5'UTR	N_Shore	RPL32	0.356	0.000	0.039	0.976
cg20229788	yellow	2	27,718,498	TSS1500	S_Shore	FNDC4	0.356	0.004	0.121	0.593
cg09155905	yellow	17	33,447,236	TSS1500	S_Shore	FNDC8	0.356	-0.002	0.129	0.760
cg08824350	yellow	8	133,780,924		OpenSea		0.356	-0.005	0.072	0.369
cg04845319	yellow	12	132,855,381	Body	Island	GALNT9	0.356	0.018	0.437	0.023
cg25999267	yellow	3	39,424,992	1stExon	Island	SLC25A38	0.356	0.002	0.023	0.410
cg21888373	yellow	6	3,175,749		OpenSea		0.356	-0.009	0.685	0.461
cg15545878	yellow	11	111,782,607	TSS200	OpenSea	CRYAB	0.356	-0.003	0.250	0.619
cg07079059	yellow	17	33,569,328	TSS1500	Island	SLFN5	0.356	-0.002	0.047	0.690
cg19384697	yellow	7	76,139,922	5'UTR	OpenSea	UPK3B	0.356	0.010	0.147	0.144
cg06643150	yellow	16	3,201,981		S_Shore		0.356	0.011	0.337	0.669
cg00203594	yellow	12	109,531,054	1stExon	N_Shore	ALKBH2	0.356	-0.003	0.127	0.802
cg25822709	yellow	9	19,048,850	TSS1500	N_Shore	RRAGA	0.356	0.003	0.092	0.549
cg12163823	yellow	2	242,673,721	TSS1500	Island	D2HGDH	0.356	0.001	0.066	0.861
cg24776142	yellow	6	16,513,829	5'UTR	OpenSea	ATXN1	0.356	0.005	0.325	0.536
cg21493483	yellow	2	236,044,744		OpenSea		0.356	0.015	0.457	0.127
cg13312702	yellow	7	4,721,531	TSS1500	N_Shore	FOKK1	0.356	0.004	0.115	0.603
cg24436196	yellow	3	56,448,270	Body	OpenSea	ERC2	0.356	-0.020	0.491	0.151
cg20539368	yellow	17	39,922,350	Body	OpenSea	JUP	0.356	0.004	0.955	0.274
cg16864999	yellow	11	117,190,160		S_Shelf		0.356	0.003	0.932	0.622

cg05581415	yellow	16	2,286,492	1stExon	N_Shore	DNASE1L2	0.356	0.008	0.276	0.368
cg12131894	yellow	1	2,257,894	Body	N_Shore	MORN1	0.356	-0.058	0.662	0.009
cg12596505	yellow	1	213,090,240		OpenSea		0.356	0.001	0.052	0.852
cg04304130	yellow	6	11,111,894	Body	OpenSea	LOC221710	0.356	0.004	0.932	0.332
cg22696542	yellow	6	32,820,804	TSS1500	N_Shore	PSMB9	0.356	0.000	0.019	0.828
cg03031613	yellow	18	55,018,587	TSS1500	N_Shore	ST8SIA3	0.356	0.006	0.583	0.591
cg17115921	yellow	6	13,332,247		S_Shelf		0.356	0.015	0.099	0.054
cg12456432	yellow	17	78,982,045		S_Shelf		0.356	0.009	0.381	0.529
cg09180629	yellow	3	49,395,208	Body	Island	GPX1	0.356	0.001	0.039	0.687
cg02062123	yellow	17	26,733,583	TSS1500	S_Shore	SLC46A1	0.356	0.007	0.311	0.245
cg09996076	yellow	16	30,995,933	TSS1500	S_Shelf	HSD3B7	0.356	0.003	0.976	0.195
cg09405517	yellow	19	42,824,200	Body	N_Shelf	TMEM145	0.356	-0.002	0.813	0.763
cg22475693	yellow	12	112,820,488		Island		0.355	0.002	0.105	0.851
cg03020208	yellow	12	50,354,962	TSS1500	Island	AQP5	0.355	-0.002	0.205	0.782
cg12619509	yellow	16	2,286,601	5'UTR	Island	DNASE1L2	0.355	0.004	0.187	0.481
cg02217814	yellow	19	17,530,319	TSS1500	N_Shore	FAM125A	0.355	0.002	0.235	0.848
cg09089118	yellow	7	82,501		Island		0.355	-0.009	0.836	0.445
cg10664754	yellow	9	139,939,662	Body	N_Shore	NPDC1	0.355	0.012	0.639	0.222
cg10285420	yellow	6	33,289,719	5'UTR	N_Shore	DAXX	0.355	0.004	0.232	0.583
cg27363486	yellow	1	228,603,645	5'UTR	N_Shore	TRIM17	0.355	0.005	0.460	0.467
cg00634714	yellow	17	74,497,851	TSS1500	S_Shore	RHBDF2	0.355	0.000	0.121	0.993
cg04225089	yellow	17	73,874,465	1stExon	Island	TRIM47	0.355	0.001	0.045	0.840
cg02339519	yellow	4	140,378,675	Body	S_Shelf	RAB33B	0.355	0.008	0.835	0.515
cg03267254	yellow	21	33,784,232	TSS1500	Island	C21orf63	0.355	0.000	0.042	0.989
cg20285002	yellow	11	68,583,898	5'UTR	OpenSea	CPT1A	0.355	-0.008	0.881	0.345
cg00770443	yellow	12	108,611,845	Body	OpenSea	WSCD2	0.355	0.008	0.547	0.537
cg18376896	yellow	10	5,446,830	TSS200	OpenSea	TUBAL3	0.355	0.006	0.533	0.632
cg11581305	yellow	15	75,095,272	3'UTR	N_Shore	CSK	0.355	0.004	0.951	0.358
cg07519229	yellow	22	41,486,835		N_Shore		0.355	-0.001	0.277	0.898
cg13391313	yellow	17	80,330,415		N_Shore		0.355	0.006	0.373	0.442
cg04308346	yellow	16	89,203,063	Body	OpenSea	ACSF3	0.355	0.010	0.757	0.138
cg26785346	yellow	4	186,732,936	5'UTR	OpenSea	SORBS2	0.355	0.019	0.537	0.083
cg18760876	yellow	5	169,659,627	TSS1500	N_Shore	C5orf58	0.355	-0.001	0.958	0.869
cg02248729	yellow	17	80,555,018	Body	Island	FOXP2	0.355	-0.024	0.698	0.108
cg26266041	yellow	14	88,852,686	Body	S_Shore	SPATA7	0.355	0.005	0.157	0.515
cg18319689	yellow	1	46,016,267	TSS1500	N_Shore	AKR1A1	0.355	0.000	0.041	0.873
cg01206349	yellow	22	49,762,220		N_Shelf		0.355	-0.002	0.845	0.773
cg05948527	yellow	6	30,640,209	Body	N_Shore	DHX16	0.355	0.004	0.029	0.052
cg08589418	yellow	20	61,993,913	TSS1500	S_Shore	CHRNA4	0.355	0.004	0.586	0.513
cg05223487	yellow	16	1,080,540		Island		0.355	0.010	0.179	0.248
cg26340389	yellow	19	36,132,426	TSS1500	N_Shore	ETV2	0.355	0.002	0.263	0.754
cg11935638	yellow	3	184,972,145	TSS1500	S_Shore	EHHADH	0.355	0.000	0.243	0.974
cg13891682	yellow	4	174,415,431		OpenSea		0.355	0.002	0.099	0.685
cg01493563	yellow	6	33,772,366	TSS1500	OpenSea	MLN	0.355	-0.007	0.545	0.429
cg24951864	yellow	20	35,580,555	TSS1500	S_Shore	SAMHD1	0.355	-0.002	0.084	0.747
cg06219408	yellow	8	143,888,878		OpenSea		0.355	0.002	0.626	0.878
cg25423563	yellow	13	95,248,771	TSS1500	S_Shore	TGDS	0.355	-0.007	0.199	0.540
cg10612383	yellow	17	4,459,172	TSS1500	S_Shore	MYBBP1A	0.355	-0.006	0.111	0.319
cg09289148	yellow	16	1,480,869		Island		0.355	0.034	0.455	0.038
cg17523501	yellow	19	3,627,580	TSS1500	S_Shore	C19orf29	0.355	-0.006	0.782	0.607
cg06007271	yellow	4	5,021,203	TSS200	Island	CYTL1	0.355	0.009	0.111	0.431
cg20917348	yellow	17	698,399		OpenSea		0.355	0.002	0.106	0.815
cg02300279	yellow	9	120,507,179		N_Shore		0.355	0.003	0.165	0.476
cg12788666	yellow	7	75,443,246	TSS1500	OpenSea	CCL24	0.355	0.007	0.475	0.464
cg17070064	yellow	13	112,554,681		OpenSea		0.355	0.028	0.737	0.016
cg18151487	yellow	10	104,475,340	5'UTR	S_Shore	SFXN2	0.354	0.010	0.432	0.410
cg05068987	yellow	19	12,978,714	Body	Island	MAST1	0.354	0.003	0.036	0.460
cg07284801	yellow	5	156,736,991	Body	OpenSea	CYFIP2	0.354	-0.012	0.362	0.132
cg17307107	yellow	6	14,316,838		OpenSea		0.354	0.011	0.772	0.299
cg08929327	yellow	11	45,938,923	Body	N_Shore	PEX16	0.354	0.003	0.229	0.643
cg19805953	yellow	19	48,828,412	TSS1500	S_Shelf	EMP3	0.354	0.000	0.050	0.983
cg10842229	yellow	1	165,513,322	Body	OpenSea	LOC400794	0.354	0.006	0.038	0.220
cg06764173	yellow	16	89,632,174		N_Shore		0.354	0.005	0.089	0.535
cg21483092	yellow	4	3,371,520	TSS1500	N_Shelf	RGS12	0.354	0.005	0.353	0.290
cg11858213	yellow	3	33,173,098	Body	OpenSea	CRTAP	0.354	-0.006	0.450	0.597
cg02965250	yellow	17	41,132,138	TSS1500	N_Shore	RUNDC1	0.354	-0.005	0.113	0.619
cg04369350	yellow	7	157,216,599		Island		0.354	0.014	0.866	0.059

cg13413996	yellow	9	136,324,127	Body	N_Shore	ADAMTS13	0.354	0.007	0.638	0.473
cg09980403	yellow	19	12,975,529	Body	N_Shelf	MAST1	0.354	0.009	0.723	0.268
cg03309722	yellow	2	74,681,805	TSS1500	N_Shore	INO80B	0.354	0.017	0.241	0.215
cg04150927	yellow	12	111,369,226		OpenSea		0.354	0.001	0.759	0.929
cg09738881	yellow	10	99,527,219	3'UTR	N_Shelf	SFRP5	0.354	0.001	0.911	0.823
cg00040486	yellow	8	123,790,743		N_Shore		0.354	0.004	0.952	0.203
cg16851282	yellow	11	3,254,011	TSS1500	Island	MRGPRE	0.354	0.020	0.520	0.341
cg13060867	yellow	1	197,768,358		OpenSea		0.354	0.001	0.902	0.916
cg25312970	yellow	19	468,773	Body	Island	ODF3L2	0.354	0.024	0.667	0.224
cg06868486	yellow	3	50,328,104	Body	N_Shore	IFRD2	0.354	0.003	0.906	0.568
cg20562359	yellow	17	41,024,817		OpenSea		0.354	-0.007	0.816	0.510
cg15555095	yellow	13	25,641,307		N_Shore		0.354	0.012	0.590	0.261
cg10879244	yellow	11	64,577,190	Body	N_Shore	MEN1	0.354	0.003	0.255	0.625
cg07594341	yellow	4	24,809,415	3'UTR	OpenSea	CCDC149	0.354	0.001	0.945	0.772
cg03480383	yellow	16	89,930,147	Body	OpenSea	SPIRE2	0.354	0.013	0.724	0.183
cg26032489	yellow	1	40,974,934	5'UTR	S_Shore	DEM1	0.354	0.006	0.040	0.030
cg19363607	yellow	7	98,097,019		N_Shelf		0.354	-0.002	0.456	0.774
cg12421116	yellow	1	64,269,557	Body	OpenSea	ROR1	0.354	0.007	0.475	0.453
cg13380502	yellow	1	27,718,221	TSS1500	N_Shore	GPR3	0.354	0.000	0.043	0.999
cg19598544	yellow	17	72,209,156	TSS1500	N_Shore	TTYH2	0.354	0.000	0.028	0.915
cg17805547	yellow	3	180,710,218		S_Shelf		0.354	-0.001	0.526	0.855
cg01441945	yellow	19	16,643,557	Body	Island	CHERP	0.354	0.007	0.617	0.335
cg00352043	yellow	22	38,863,594	TSS1500	N_Shore	KDELRL3	0.354	-0.002	0.055	0.673
cg20984991	yellow	6	159,421,515	TSS1500	S_Shore	RSPH3	0.354	-0.001	0.022	0.681
cg08092863	yellow	12	53,688,252	TSS1500	N_Shore	PFDN5	0.354	0.000	0.953	0.861
cg05131488	yellow	7	14,031,822	TSS1500	S_Shore	ETV1	0.354	0.035	0.294	0.011
cg24587268	yellow	20	60,813,121	TSS1500	N_Shore	OSBPL2	0.353	-0.002	0.185	0.737
cg13935741	yellow	9	134,146,134	Body	OpenSea	FAM78A	0.353	0.001	0.296	0.813
cg11963912	yellow	17	72,439,044	Body	N_Shelf	GPRC5C	0.353	-0.002	0.430	0.853
cg05252264	yellow	19	55,385,587	1stExon	OpenSea	FCAR	0.353	0.010	0.926	0.193
cg15270687	yellow	6	90,143,634	5'UTR	Island	ANKRD6	0.353	0.001	0.051	0.754
cg18707489	yellow	14	104,690,151		Island		0.353	0.003	0.303	0.702
cg15552461	yellow	19	55,581,114	TSS1500	OpenSea	RDH13	0.353	0.028	0.430	0.150
cg09123721	yellow	1	998,638		N_Shore		0.353	-0.005	0.707	0.630
cg01931792	yellow	2	20,211,771	Body	N_Shore	MATN3	0.353	-0.003	0.484	0.723
cg08371920	yellow	15	78,113,667		S_Shore		0.353	0.000	0.021	0.797
cg13498382	yellow	3	101,039,920	TSS1500	OpenSea	IMPG2	0.353	-0.017	0.851	0.207
cg01694400	yellow	6	127,484,100	Body	OpenSea	RSPO3	0.353	0.006	0.374	0.572
cg06106883	yellow	16	86,794,539		OpenSea		0.353	-0.002	0.594	0.862
cg10107382	yellow	20	277,350	TSS1500	N_Shore	ZCCHC3	0.353	-0.006	0.398	0.728
cg26384602	yellow	19	41,798,386	Body	OpenSea	HNRNPUL1	0.353	-0.002	0.962	0.427
cg22319984	yellow	11	77,791,290	TSS200	S_Shore	NDUF2C	0.353	-0.006	0.060	0.109
cg08011335	yellow	16	84,005,393	Body	S_Shelf	NECAB2	0.353	-0.005	0.796	0.530
cg05165559	yellow	20	62,037,758	3'UTR	N_Shore	KCNQ2	0.353	0.007	0.734	0.314
cg11682319	yellow	15	101,547,756	Body	N_Shore	LRRK1	0.353	0.009	0.483	0.404
cg22289115	yellow	11	625,796	TSS1500	N_Shore	MUPCDH	0.353	0.002	0.463	0.744
cg13277380	yellow	8	101,662,021	TSS200	Island	SNX31	0.353	-0.003	0.132	0.706
cg03196739	yellow	22	48,884,463	TSS1500	N_Shore	FAM19A5	0.353	0.002	0.939	0.718
cg23639374	yellow	1	109,792,925	1stExon	S_Shore	CELSR2	0.353	0.006	0.402	0.255
cg19837815	yellow	7	150,026,909	TSS200	OpenSea	C7orf29	0.353	0.034	0.471	0.000
cg16125989	yellow	1	48,191,880		S_Shore		0.353	-0.003	0.033	0.249
cg27084232	yellow	19	468,830	Body	Island	ODF3L2	0.353	-0.008	0.815	0.529
cg16061012	yellow	7	12,726,157	TSS1500	Island	ARL4A	0.353	-0.004	0.102	0.562
cg05864010	yellow	11	85,376,948	TSS1500	S_Shore	CREBZF	0.353	0.016	0.734	0.113
cg22324358	yellow	7	2,583,541	Body	Island	C7orf27	0.353	0.002	0.734	0.793
cg21365602	yellow	1	89,664,407	Body	OpenSea	GBP4	0.353	0.020	0.335	0.272
cg18166150	yellow	10	3,169,037	Body	OpenSea	PFKP	0.353	-0.003	0.550	0.882
cg01903420	yellow	13	27,295,928		OpenSea		0.353	0.009	0.559	0.293
cg11410404	yellow	21	41,238,940	TSS1500	OpenSea	PCP4	0.353	0.000	0.517	0.957
cg08427717	yellow	19	10,381,383	TSS200	Island	ICAM1	0.353	-0.001	0.323	0.917
cg12364943	yellow	10	134,108,614	Body	OpenSea	STK32C	0.353	-0.001	0.750	0.938
cg16175700	yellow	8	12,829,807	5'UTR	OpenSea	C8orf79	0.353	0.044	0.412	0.085
cg07165851	yellow	6	158,734,300	1stExon	OpenSea	TULP4	0.352	0.013	0.803	0.407
cg25508376	yellow	17	79,094,816	Body	Island	AATK	0.352	0.009	0.887	0.105
cg01750261	yellow	16	10,671,842	5'UTR	N_Shelf	EMP2	0.352	-0.005	0.054	0.128
cg04636672	yellow	16	31,884,761	TSS1500	N_Shore	ZNF267	0.352	0.002	0.953	0.515
cg22707624	yellow	20	61,612,412		Island		0.352	-0.006	0.124	0.598

cg17425818	yellow	10	33,612,892	Body	OpenSea	NRP1	0.352	0.004	0.298	0.691
cg20141118	yellow	9	17,134,569	TSS1500	N_Shore	CNTLN	0.352	-0.011	0.159	0.125
cg22504024	yellow	12	111,710,593	Body	OpenSea	CUX2	0.352	-0.004	0.880	0.555
cg17669009	yellow	19	51,920,885	1stExon	OpenSea	SIGLEC10	0.352	-0.005	0.257	0.556
cg04862097	yellow	4	2,795,456	5'UTR	Island	SH3BP2	0.352	-0.008	0.069	0.026
cg04500084	yellow	10	27,703,547	TSS1500	S_Shore	PTCHD3	0.352	0.022	0.746	0.094
cg04257913	yellow	14	104,644,850	Body	Island	KIF26A	0.352	-0.001	0.801	0.972
cg14524579	yellow	19	1,220,815	Body	Island	STK11	0.352	0.007	0.885	0.321
cg00849853	yellow	21	47,808,878	Body	Island	PCNT	0.352	0.008	0.892	0.196
cg23626763	yellow	22	17,681,439	Body	OpenSea	CECR1	0.352	0.010	0.763	0.472
cg11146821	yellow	1	62,664,360	5'UTR	S_Shelf	L1TD1	0.352	0.000	0.661	0.979
cg20539986	yellow	17	73,108,467	Body	S_Shore	ARMC7	0.352	0.000	0.821	0.986
cg03550233	yellow	17	39,685,482	TSS1500	S_Shore	KRT19	0.352	0.005	0.488	0.476
cg06376238	yellow	6	34,853,620	Body	N_Shore	TAF11	0.352	0.001	0.965	0.769
cg24754956	yellow	19	1,729,851	Body	S_Shelf		0.352	0.025	0.673	0.001
cg07263694	yellow	12	111,748,299	Body	Island	CUX2	0.352	0.010	0.570	0.124
cg11125249	yellow	3	148,737,622	Body	OpenSea	GYG1	0.352	0.003	0.704	0.563
cg27315425	yellow	16	11,000,652	Body	N_Shore	CIITA	0.352	0.003	0.872	0.682
cg16678718	yellow	17	76,497,959	Body	N_Shore	DNAH17	0.351	0.018	0.851	0.202
cg02390447	yellow	17	79,860,873	Body	Island		0.351	0.013	0.492	0.054
cg01959838	yellow	1	108,292,913	Body	OpenSea	VAV3	0.351	0.021	0.371	0.077
cg00097452	yellow	1	211,306,365	Body	N_Shore	KCNH1	0.351	0.014	0.159	0.158
cg19367136	yellow	1	24,195,059	TSS1500	S_Shore	FUCA1	0.351	-0.012	0.086	0.156
cg14886059	yellow	19	58,545,001	TSS1500	N_Shore	ZSCAN1	0.351	0.002	0.041	0.301
cg20944157	yellow	2	10,567,750	Body	S_Shore		0.351	0.002	0.487	0.877
cg18322510	yellow	1	236,686,618	TSS200	N_Shore	LGALS8	0.351	0.005	0.328	0.788
cg10017982	yellow	6	32,155,783	Body	OpenSea	PBX2	0.351	0.004	0.865	0.356
cg05134796	yellow	4	83,352,783	Body	S_Shore	ENOPH1	0.351	0.001	0.303	0.845
cg06889607	yellow	14	67,826,009	TSS1500	N_Shore	EIF2S1	0.351	0.001	0.030	0.591
cg05378690	yellow	3	48,731,511	Body	OpenSea	IP6K2	0.351	0.002	0.799	0.741
cg01290565	yellow	12	111,475,238	Body	Island	CUX2	0.351	0.023	0.671	0.039
cg24251448	yellow	8	141,577,100	Body	OpenSea	EIF2C2	0.351	-0.002	0.978	0.390
cg20039073	yellow	13	53,510,197	Body	OpenSea		0.351	-0.005	0.794	0.528
cg09762252	yellow	7	71,799,220	5'UTR	N_Shore	CALN1	0.351	0.008	0.391	0.375
cg07137934	yellow	5	180,230,911	5'UTR	S_Shore	MGAT1	0.351	-0.006	0.535	0.712
cg18605987	yellow	10	81,203,762	Body	N_Shore	ZCCHC24	0.351	-0.001	0.252	0.871
cg00541479	yellow	1	162,468,226	Body	S_Shore	UHMK1	0.351	0.003	0.034	0.048
cg24842753	yellow	5	173,156,215	Body	OpenSea		0.351	0.008	0.511	0.298
cg17391508	yellow	3	15,143,448	Body	S_Shelf		0.351	0.002	0.635	0.815
cg05473871	yellow	19	1,513,513	TSS1500	Island	ADAMTSL5	0.351	0.020	0.129	0.034
cg23937382	yellow	19	58,549,531	Body	Island	ZSCAN1	0.351	-0.014	0.324	0.528
cg12612410	yellow	17	33,148,462	Body	OpenSea		0.351	-0.012	0.660	0.173
cg03185752	yellow	1	954,631	TSS1500	N_Shore	AGRN	0.351	0.013	0.251	0.197
cg24335793	yellow	7	944,752	Body	S_Shore	ADAP1	0.351	0.014	0.508	0.125
cg00820919	yellow	2	43,863,839	TSS1500	N_Shore	PLEKH2	0.350	-0.010	0.312	0.415
cg23569180	yellow	7	37,955,508	Body	N_Shore	SFRP4	0.350	0.006	0.677	0.631
cg00354437	yellow	16	87,133,690	Body	OpenSea		0.350	-0.007	0.394	0.429
cg09876447	yellow	6	30,950,282	TSS1500	OpenSea	MUC21	0.350	0.011	0.312	0.365
cg11779053	yellow	5	17,491,941	Body	S_Shore		0.350	0.006	0.698	0.403
cg06330618	yellow	15	91,428,456	1stExon	S_Shore	FES	0.350	0.013	0.627	0.172
cg06825383	yellow	7	4,814,713	TSS1500	N_Shore	KIAA0415	0.350	0.001	0.015	0.640
cg09288218	yellow	12	130,554,977	Body	OpenSea		0.350	0.028	0.558	0.018
cg14776763	yellow	19	38,210,932	TSS1500	S_Shore	ZNF607	0.350	-0.002	0.038	0.432
cg22215678	yellow	18	19,191,718	TSS1500	N_Shore	SNRPD1	0.350	0.006	0.503	0.686
cg24025253	yellow	17	76,250,253	Body	Island		0.350	0.004	0.054	0.346
cg16909495	yellow	19	49,940,062	Body	S_Shore	SLC17A7	0.350	0.013	0.132	0.069
cg02220617	yellow	14	102,312,533	Body	OpenSea	PPP2R5C	0.350	0.002	0.551	0.761
cg09851545	yellow	8	72,649,950	Body	OpenSea		0.350	-0.012	0.252	0.592
cg07905627	yellow	16	69,368,764	Body	S_Shelf	COG8	0.350	-0.005	0.876	0.394
cg05386570	yellow	7	99,177,695	Body	N_Shore		0.350	0.000	0.080	0.977
cg27329371	yellow	17	19,651,940	TSS200	S_Shelf	ALDH3A1	0.350	0.012	0.281	0.177
cg17239008	yellow	6	32,202,844	Body	OpenSea		0.350	0.011	0.230	0.345
cg24792360	yellow	1	24,195,143	TSS1500	S_Shore	FUCA1	0.350	-0.043	0.341	0.054
cg15575498	yellow	1	154,971,502	Body	N_Shore		0.350	0.022	0.295	0.064
cg03909800	yellow	6	76,458,005	TSS1500	N_Shore	MYO6	0.350	0.015	0.420	0.058
cg15388196	yellow	19	1,718,453	Body	N_Shore		0.350	0.004	0.088	0.596
cg10375954	yellow	1	6,419,608	Body	OpenSea	ACOT7	0.350	-0.014	0.241	0.254

cg08271745	yellow	19	4,490,433	Body	N_Shelf	HDGF2	0.350	-0.008	0.844	0.517
cg00190355	yellow	5	497,639	Body	N_Shore	SLC9A3	0.350	0.018	0.499	0.080
cg27083740	yellow	16	6,071,073	5'UTR	S_Shore	A2BP1	0.350	0.006	0.572	0.353
cg12082129	yellow	11	117,102,463	TSS1500	N_Shore	RNF214	0.350	-0.002	0.080	0.631
cg20189682	yellow	2	240,112,315	Body	Island	HDAC4	0.350	0.007	0.795	0.469
cg04194664	yellow	17	43,716,617	Body	OpenSea	C17orf69	0.350	0.003	0.951	0.400
cg08155116	yellow	17	79,027,207	Body	S_Shore	BAIAP2	0.349	0.013	0.696	0.311
cg27638057	yellow	18	20,882,779	Body	OpenSea	C18orf45	0.349	-0.002	0.734	0.814
cg20012848	yellow	12	52,435,420		S_Shelf		0.349	0.004	0.802	0.615
cg11414540	yellow	19	19,313,888	5'UTR	N_Shore	NR2C2AP	0.349	-0.005	0.083	0.406
cg22062068	yellow	11	7,110,074	TSS200	N_Shore	RBMXL2	0.349	-0.029	0.722	0.192
cg01425967	yellow	1	161,228,203	TSS1500	N_Shore	PCP4L1	0.349	0.006	0.234	0.369
cg16212298	yellow	19	51,051,954	Body	Island	LRRC4B	0.349	-0.007	0.854	0.309
cg00509187	yellow	13	44,362,093	TSS1500	S_Shore	ENOX1	0.349	0.019	0.478	0.138
cg22861286	yellow	1	54,757,003	Body	OpenSea	SSBP3	0.349	0.016	0.305	0.084
cg16491233	yellow	18	12,794,178	Body	OpenSea	PTPN2	0.349	0.000	0.932	0.964
cg24401641	yellow	2	241,955,149	Body	OpenSea	SNED1	0.349	-0.013	0.832	0.183
cg02275713	yellow	19	49,404,253	Body	S_Shore	NUCB1	0.349	0.008	0.124	0.351
cg03987786	yellow	17	8,264,387	TSS1500	OpenSea	LOC1001282	0.349	0.000	0.160	0.983
cg05019423	yellow	14	105,330,230	TSS1500	N_Shore	KIAA0284	0.349	0.002	0.238	0.803
cg25819879	yellow	2	3,622,620	TSS1500	N_Shore	RPS7	0.349	-0.003	0.225	0.740
cg07998908	yellow	4	5,035,653		OpenSea		0.349	0.012	0.597	0.283
cg08323969	yellow	17	40,770,823		OpenSea		0.349	0.005	0.273	0.502
cg08437570	yellow	10	104,195,699	TSS1500	S_Shelf	MIR146B	0.349	0.003	0.047	0.161
cg15025362	yellow	3	186,256,331	3'UTR	OpenSea	CRYGS	0.349	0.006	0.904	0.296
cg19856520	yellow	1	39,696,676	Body	OpenSea	MACF1	0.349	-0.006	0.274	0.268
cg07862461	yellow	20	1,914,231	Body	N_Shelf	SIRPA	0.349	0.010	0.375	0.263
cg25329844	yellow	11	118,015,865	Body	N_Shore	SCN4B	0.349	0.000	0.214	0.973
cg19091830	yellow	5	180,286,094	5'UTR	N_Shore	ZFP62	0.349	0.007	0.887	0.650
cg10290276	yellow	11	2,291,754	1stExon	Island	ASCL2	0.349	-0.001	0.033	0.638
cg13913666	yellow	7	1,198,122	5'UTR	N_Shore	ZFAND2A	0.349	0.011	0.901	0.193
cg09247695	yellow	7	157,644,273	Body	N_Shelf	PTPRN2	0.349	-0.019	0.462	0.339
cg25838150	yellow	11	77,259,596		OpenSea		0.349	0.008	0.472	0.372
cg08743634	yellow	12	88,428,894	TSS1500	N_Shore	C12orf29	0.349	-0.001	0.477	0.891
cg16712472	yellow	21	35,747,390	TSS1500	Island	FAM165B	0.349	0.005	0.171	0.524
cg23532031	yellow	11	111,956,944	Body	N_Shore	TIMM8B	0.349	0.001	0.024	0.458
cg25178439	yellow	12	41,085,286	TSS1500	N_Shore	CNTN1	0.349	0.010	0.341	0.189
cg19111971	yellow	13	78,494,171	TSS1500	S_Shore	EDNRB	0.349	0.008	0.119	0.323
cg13340126	yellow	5	502,034	Body	Island	SLC9A3	0.348	-0.005	0.496	0.477
cg21883293	yellow	11	32,334,657		OpenSea		0.348	-0.004	0.221	0.718
cg14416269	yellow	4	6,271,139	TSS1500	N_Shore	WFS1	0.348	0.005	0.106	0.427
cg18496662	yellow	10	126,948,482		OpenSea		0.348	0.000	0.867	0.918
cg06748978	yellow	2	25,562,512	5'UTR	N_Shore	DNMT3A	0.348	-0.001	0.440	0.939
cg26457013	yellow	19	55,740,188	5'UTR	OpenSea	TMEM86B	0.348	0.010	0.517	0.097
cg00502444	yellow	7	158,959,916		N_Shelf		0.348	0.000	0.600	0.972
cg18334799	yellow	8	28,165,791		OpenSea		0.348	0.027	0.227	0.124
cg13854747	yellow	2	174,231,941	Body	OpenSea	CDCA7	0.348	0.003	0.923	0.605
cg01146320	yellow	11	120,080,945	TSS1500	N_Shore	OAF	0.348	0.005	0.274	0.468
cg17295489	yellow	12	57,998,192	TSS1500	OpenSea	DTX3	0.348	-0.001	0.056	0.726
cg10001219	yellow	11	112,151,121		OpenSea		0.348	0.017	0.116	0.128
cg04265261	yellow	9	133,815,865	TSS1500	S_Shore	FIBCD1	0.348	0.004	0.180	0.544
cg07936856	yellow	19	40,723,857	Body	Island	TTC9B	0.348	-0.003	0.046	0.519
cg03907454	yellow	1	45,205,136	TSS1500	N_Shore	KIF2C	0.348	-0.017	0.079	0.230
cg26718033	yellow	8	144,467,993		OpenSea		0.348	0.002	0.543	0.810
cg07694404	yellow	10	133,572,173		OpenSea		0.348	0.003	0.939	0.504
cg26405759	yellow	21	45,140,424	Body	S_Shore	PDXK	0.348	0.010	0.897	0.134
cg27522005	yellow	10	99,497,707	5'UTR	S_Shore	ZFYVE27	0.348	-0.001	0.032	0.764
cg26155152	yellow	19	2,943,999	Body	N_Shore	ZNF77	0.348	0.003	0.967	0.286
cg15513708	yellow	14	75,904,643	Body	OpenSea	JDP2	0.348	0.013	0.816	0.185
cg02725269	yellow	19	51,327,177	TSS200	N_Shelf	KLK1	0.348	-0.008	0.659	0.583
cg05382798	yellow	12	7,014,288	5'UTR	OpenSea	LRRC23	0.348	-0.001	0.024	0.532
cg14771240	yellow	6	33,284,168	Body	N_Shore	ZBTB22	0.348	0.001	0.722	0.907
cg06081750	yellow	12	1,018,307	3'UTR	OpenSea	WNK1	0.348	-0.007	0.856	0.355
cg06155229	yellow	7	102,937,535	TSS1500	N_Shore	PMPCB	0.348	-0.017	0.761	0.290
cg16225773	yellow	3	33,002,878		OpenSea		0.348	-0.001	0.417	0.853
cg00066239	yellow	17	78,472,159		OpenSea		0.348	0.005	0.633	0.786
cg10149021	yellow	10	121,484,846	TSS1500	N_Shore	INPP5F	0.348	0.003	0.027	0.208

cg09538682	yellow	2	8,833,314	OpenSea		0.348	0.001	0.708	0.925
cg17775962	yellow	7	1,200,435 TSS1500	S_Shore	ZFAND2A	0.348	-0.008	0.071	0.507
cg24527466	yellow	13	37,244,827	N_Shelf		0.348	-0.006	0.903	0.412
cg23499126	yellow	19	33,168,053 3'UTR	Island	RGS9BP	0.348	-0.015	0.244	0.218
cg01778994	yellow	8	134,511,683 5'UTR	OpenSea	ST3GAL1	0.348	-0.025	0.183	0.073
cg19923532	yellow	1	39,982,450 Body	S_Shore	BMP8A	0.348	0.005	0.652	0.784
cg14613361	yellow	1	109,751,302	OpenSea		0.348	0.017	0.523	0.046
cg19421368	yellow	20	45,280,288 TSS200	S_Shore	SLC13A3	0.348	0.003	0.150	0.644
cg01815626	yellow	12	52,890,212	OpenSea		0.347	0.007	0.604	0.501
cg20333292	yellow	14	105,532,012 TSS1500	OpenSea	GPR132	0.347	-0.005	0.802	0.776
cg03196265	yellow	11	64,937,570 TSS200	OpenSea	SPDYC	0.347	0.022	0.594	0.051
cg25048985	yellow	12	117,801,389	S_Shore		0.347	0.005	0.603	0.567
cg15226275	yellow	6	116,381,976 TSS200	OpenSea	FRK	0.347	0.029	0.202	0.218
cg24565742	yellow	13	21,650,374	OpenSea		0.347	-0.005	0.076	0.416
cg04428290	yellow	16	88,883,363 Body	Island	GALNS	0.347	-0.006	0.837	0.491
cg05058204	yellow	3	173,129,681 5'UTR	OpenSea	NLGN1	0.347	0.001	0.032	0.751
cg24417621	yellow	17	42,923,814 TSS1500	OpenSea	HIGD1B	0.347	-0.003	0.416	0.746
cg18139174	yellow	14	24,605,759 Body	Island	PSME1	0.347	-0.005	0.084	0.434
cg02443483	yellow	17	80,531,895 Body	N_Shore	FOXK2	0.347	0.001	0.967	0.676
cg09690483	yellow	2	202,992,863	OpenSea		0.347	0.023	0.184	0.042
cg20318748	yellow	20	25,605,178 TSS1500	Island	NANP	0.347	-0.001	0.218	0.915
cg24335149	yellow	1	20,397,074 5'UTR	OpenSea	PLA2G5	0.347	0.008	0.629	0.502
cg13351161	yellow	8	27,490,921 TSS1500	N_Shore	SCARA3	0.347	0.000	0.306	0.952
cg00099835	yellow	2	97,427,033 1stExon	Island	CNNM4	0.347	-0.002	0.052	0.728
cg27130630	yellow	12	7,260,666 Body	OpenSea	C1RL	0.347	0.002	0.090	0.755
cg05965490	yellow	8	30,264,627 Body	OpenSea	RBPMS	0.347	0.011	0.668	0.413
cg13491731	yellow	14	76,594,783	N_Shelf		0.347	-0.005	0.574	0.758
cg15446073	yellow	11	62,339,136 Body	N_Shelf	EEF1G	0.347	0.001	0.968	0.717
cg18825419	yellow	10	27,150,407 TSS1500	S_Shore	ABI1	0.347	0.002	0.247	0.856
cg01012242	yellow	7	140,043,078 Body	OpenSea	SLC37A3	0.347	0.005	0.458	0.396
cg27235726	yellow	7	750,819 Body	Island	PRKAR1B	0.347	-0.004	0.800	0.613
cg13399816	yellow	1	68,299,468 TSS1500	S_Shore	GNG12	0.347	0.003	0.079	0.608
cg07814318	yellow	15	31,624,584 Body	S_Shelf	KLF13	0.347	0.009	0.817	0.526
cg07938642	yellow	19	18,338,579 TSS1500	S_Shore	PDE4C	0.347	0.011	0.727	0.164
cg03559942	yellow	11	62,521,055 Body	N_Shore	ZBTB3	0.347	0.012	0.483	0.107
cg19342883	yellow	19	19,384,498 TSS1500	S_Shore	TM6SF2	0.347	0.007	0.445	0.352
cg15798050	yellow	22	47,513,521 Body	Island	TBC1D22A	0.347	0.009	0.926	0.088
cg09179248	yellow	1	2,046,783 5'UTR	Island	PRKCZ	0.347	0.003	0.888	0.819
cg12515638	yellow	7	37,956,018 1stExon	Island	SFRP4	0.347	0.001	0.106	0.855
cg20686176	yellow	1	223,887,946 TSS1500	OpenSea	CAPN2	0.347	0.001	0.777	0.853
cg11122195	yellow	17	40,732,511 3'UTR	S_Shelf	FAM134C	0.347	0.010	0.886	0.185
cg18478850	yellow	5	176,982,070 TSS1500	S_Shore	FAM193B	0.346	0.012	0.770	0.343
cg08239565	yellow	19	54,290,996 TSS200	OpenSea	MIR372	0.346	-0.011	0.893	0.484
cg14447240	yellow	10	134,823,349	S_Shore		0.346	0.009	0.559	0.143
cg15234155	yellow	19	18,319,362 3'UTR	Island	PDE4C	0.346	0.002	0.114	0.824
cg16783204	yellow	16	89,119,371	Island		0.346	0.017	0.494	0.180
cg04256898	yellow	15	93,129,916	OpenSea		0.346	-0.004	0.463	0.434
cg07325168	yellow	7	38,949,140 TSS1500	OpenSea	VPS41	0.346	0.001	0.503	0.953
cg05258214	yellow	6	31,939,584 5'UTR	N_Shore	DOM3Z	0.346	0.002	0.046	0.609
cg19695507	yellow	10	13,526,193 Body	OpenSea	BEND7	0.346	0.011	0.835	0.090
cg11983977	yellow	1	146,714,019 TSS1500	N_Shore	CHD1L	0.346	0.001	0.137	0.927
cg22698028	yellow	5	400,494 Body	OpenSea	AHRR	0.346	-0.003	0.177	0.828
cg11537355	yellow	7	154,473,324 Body	OpenSea	DPP6	0.346	-0.028	0.656	0.141
cg22300320	yellow	17	79,027,117 Body	S_Shore	BAIAP2	0.346	0.032	0.759	0.111
cg08733774	yellow	2	109,335,627 TSS1500	N_Shore	RANBP2	0.346	-0.001	0.031	0.678
cg14881187	yellow	7	86,784,227 5'UTR	S_Shelf	DMTF1	0.346	0.006	0.842	0.529
cg21220214	yellow	8	57,350,948	Island		0.346	-0.010	0.916	0.565
cg21377936	yellow	7	4,767,352 Body	S_Shelf	FOXK1	0.346	-0.002	0.920	0.724
cg00625653	yellow	3	13,921,227 Body	Island	WNT7A	0.346	0.001	0.060	0.831
cg26645082	yellow	11	70,563,264 Body	N_Shore	SHANK2	0.346	0.011	0.884	0.312
cg20359363	yellow	17	77,905,866	S_Shore		0.346	-0.001	0.185	0.882
cg11193462	yellow	1	48,190,581	N_Shore		0.346	0.000	0.125	0.973
cg21387604	yellow	1	218,518,468 TSS1500	N_Shore	TGFB2	0.346	0.002	0.033	0.421
cg12064373	yellow	11	1,457,153 Body	OpenSea	BRSK2	0.346	-0.009	0.053	0.027
cg12410921	yellow	1	39,249,664	OpenSea		0.346	0.017	0.348	0.398
cg12033615	yellow	6	157,041,546	S_Shore		0.346	0.006	0.455	0.405
cg16111980	yellow	19	17,566,613 Body	Island	NXNL1	0.346	0.003	0.119	0.686

cg11085344	yellow	17	695,661	3'UTR	OpenSea	RNMTL1	0.346	0.001	0.514	0.903
cg24800754	yellow	19	6,234,327	Body	S_Shelf	MLLT1	0.346	-0.004	0.524	0.680
cg16603596	yellow	12	8,855,125	5'UTR	S_Shelf	RIMKLB	0.346	-0.005	0.719	0.692
cg10742225	yellow	17	39,662,980	TSS1500	OpenSea	KRT13	0.346	-0.006	0.668	0.490
cg13512394	yellow	12	49,943,606	Body	S_Shore	KCNH3	0.346	0.018	0.639	0.010
cg00383167	yellow	18	77,616,694		OpenSea		0.346	0.009	0.089	0.380
cg22019158	yellow	1	27,926,683	5'UTR	N_Shelf	AHDC1	0.346	0.004	0.361	0.527
cg01914455	yellow	7	77,649,564	Body	S_Shore	MAGI2	0.346	-0.003	0.062	0.532
cg22853516	yellow	2	241,263,049		S_Shore		0.346	0.000	0.957	0.921
cg12061069	yellow	17	2,755,793	Body	N_Shore	RAP1GAP2	0.346	-0.001	0.244	0.848
cg00308984	yellow	4	103,941,189	TSS1500	S_Shore	NHEDC1	0.346	0.001	0.028	0.700
cg18187244	yellow	6	10,881,782	Body	N_Shore	GCM2	0.345	0.015	0.295	0.302
cg04944904	yellow	19	51,845,941	TSS1500	S_Shelf	VSIG10L	0.345	0.002	0.548	0.817
cg12737110	yellow	2	219,861,126		Island		0.345	-0.002	0.056	0.765
cg13949086	yellow	10	50,857,556	Body	OpenSea	CHAT	0.345	-0.005	0.075	0.341
cg16442050	yellow	2	27,294,098	3'UTR	N_Shore	LOC1001287	0.345	0.001	0.015	0.216
cg03611852	yellow	17	43,205,539	Body	N_Shelf	PLCD3	0.345	-0.003	0.257	0.613
cg12689205	yellow	13	110,321,674		OpenSea		0.345	-0.004	0.402	0.448
cg01880463	yellow	20	45,179,413	TSS1500	OpenSea	C20orf123	0.345	0.002	0.490	0.729
cg25947121	yellow	15	40,675,737	Body	S_Shore	C15orf23	0.345	0.003	0.103	0.564
cg09430932	yellow	7	44,154,322	3'UTR	S_Shore	POLD2	0.345	0.000	0.855	0.970
cg06241779	yellow	18	21,718,779	TSS200	N_Shore	CABYR	0.345	0.005	0.094	0.467
cg24315973	yellow	4	106,631,934	TSS200	S_Shore	GSTCD	0.345	0.006	0.649	0.771
cg16987606	yellow	17	72,426,469	TSS1500	N_Shore	GPRC5C	0.345	0.005	0.380	0.429
cg26913833	yellow	2	232,388,288	3'UTR	OpenSea	NMUR1	0.345	0.009	0.534	0.337
cg03839322	yellow	16	57,816,956	Body	OpenSea	KIFC3	0.345	0.007	0.877	0.440
cg00721772	yellow	16	25,122,070	TSS1500	N_Shore	LCMT1	0.345	0.013	0.310	0.253
cg06437417	yellow	11	111,895,279	TSS1500	N_Shore	DLAT	0.345	0.019	0.252	0.082
cg15169940	yellow	19	36,604,614	TSS1500	Island	TBCB	0.345	0.016	0.565	0.101
cg24181911	yellow	11	72,403,078	Body	OpenSea	ARAP1	0.345	-0.001	0.953	0.817
cg12036817	yellow	11	405,846	3'UTR	N_Shore	SIGIRR	0.345	0.018	0.262	0.096
cg09705798	yellow	5	160,048,394	Body	OpenSea	ATP10B	0.345	0.014	0.837	0.072
cg07068956	yellow	7	100,330,872	TSS1500	OpenSea	ZAN	0.345	-0.023	0.704	0.251
cg15168816	yellow	6	17,282,533	TSS1500	S_Shore	RBM24	0.345	0.004	0.171	0.513
cg09900463	yellow	16	3,179,627		OpenSea		0.345	0.000	0.016	0.635
cg00401761	yellow	2	128,381,877	Body	Island	MYO7B	0.345	0.014	0.791	0.020
cg21056992	yellow	19	17,392,414	TSS200	Island	ANKLE1	0.345	-0.004	0.056	0.515
cg08486903	yellow	7	98,739,496	Body	N_Shore	SMURF1	0.344	0.007	0.174	0.395
cg21427017	yellow	4	153,554,923	Body	OpenSea	TMEM154	0.344	-0.003	0.871	0.719
cg18016304	yellow	15	31,287,286		S_Shelf		0.344	-0.002	0.672	0.925
cg04993257	yellow	19	5,568,163	TSS200	S_Shore	PLAC2	0.344	0.003	0.272	0.634
cg14953379	yellow	7	141,285,961	Body	OpenSea	AGK	0.344	0.003	0.927	0.668
cg10394898	yellow	15	69,755,745		OpenSea		0.344	-0.005	0.369	0.702
cg04839314	yellow	2	242,812,631	Body	N_Shelf	C2orf85	0.344	-0.001	0.906	0.922
cg12594253	yellow	17	8,902,590		N_Shelf		0.344	-0.002	0.919	0.784
cg14153321	yellow	22	38,246,051	Body	S_Shore	EIF3L	0.344	0.002	0.034	0.356
cg11961237	yellow	12	111,052,267	Body	S_Shore	TCTN1	0.344	-0.012	0.102	0.172
cg23308184	yellow	10	132,977,221	Body	OpenSea	TCERG1L	0.344	0.003	0.935	0.426
cg05335893	yellow	2	43,690,472	Body	OpenSea	THADA	0.344	0.006	0.097	0.434
cg22635717	yellow	5	137,367,832	5'UTR	N_Shore	FAM13B	0.344	0.000	0.032	0.996
cg03309399	yellow	19	7,619,252	Body	N_Shore	PNPLA6	0.344	-0.011	0.917	0.150
cg03554394	yellow	4	145,111,000		OpenSea		0.344	-0.003	0.897	0.710
cg26523175	yellow	1	47,656,423	TSS1500	OpenSea	PDZK1IP1	0.344	-0.001	0.885	0.908
cg14557554	yellow	9	136,217,171	TSS1500	S_Shore	SNORD36C	0.344	0.001	0.928	0.911
cg00610310	yellow	16	1,128,740	TSS200	Island	LOC146336	0.344	-0.002	0.253	0.811
cg15863598	yellow	10	76,708,663	Body	OpenSea	MYST4	0.344	-0.018	0.721	0.051
cg27226320	yellow	1	175,158,326	5'UTR	N_Shelf	KIAA0040	0.344	0.000	0.563	0.961
cg02567839	yellow	1	242,612,787	5'UTR	OpenSea	PLD5	0.344	0.005	0.100	0.521
cg14578030	yellow	11	69,591,383	TSS1500	S_Shore	FGF4	0.344	-0.001	0.801	0.930
cg01933276	yellow	19	40,004,430	TSS1500	N_Shore	SELV	0.344	-0.003	0.909	0.663
cg10125703	yellow	19	49,228,647	Body	N_Shelf	RASIP1	0.344	-0.002	0.252	0.765
cg07751793	yellow	5	159,797,843	TSS200	S_Shore	C1QTNF2	0.344	-0.002	0.231	0.664
cg03204140	yellow	6	32,045,337	Body	N_Shore	TNXB	0.344	0.008	0.851	0.127
cg11461808	yellow	7	1,126,579	1stExon	Island	GPER	0.343	-0.015	0.106	0.031
cg07880854	yellow	2	112,895,559	TSS1500	N_Shore	FBLN7	0.343	-0.002	0.240	0.847
cg21514857	yellow	8	52,721,802	1stExon	OpenSea	PXDNL	0.343	0.013	0.477	0.218
cg06736000	yellow	2	242,875,903		S_Shore		0.343	0.028	0.343	0.106



cg02264862	yellow	5	153,850,878	N_Shelf		0.343	0.012	0.178	0.176	
cg15624311	yellow	13	109,779,925	Body	Island	MYO16	0.343	0.010	0.690	0.736
cg23340875	yellow	17	48,711,990	TSS1500	N_Shore	ABCC3	0.343	0.001	0.023	0.602
cg10462820	yellow	15	40,566,933	Body	OpenSea	PAK6	0.343	-0.013	0.390	0.127
cg17936236	yellow	1	167,520,305	Body	N_Shelf	CREG1	0.343	0.014	0.570	0.038
cg22821677	yellow	15	21,941,178	TSS1500	OpenSea	LOC646214	0.343	-0.005	0.398	0.730
cg20934799	yellow	11	36,433,850	Body	OpenSea	PRR5L	0.343	0.010	0.858	0.284
cg07581623	yellow	8	26,498,830	Body	OpenSea	DPYSL2	0.343	-0.002	0.571	0.836
cg04350421	yellow	22	39,634,647	Body	N_Shelf	PDGFB	0.343	0.001	0.598	0.811
cg21448927	yellow	6	159,796,527		OpenSea		0.343	-0.002	0.631	0.786
cg17283447	yellow	3	119,298,222	TSS1500	N_Shore	ADPRH	0.343	0.003	0.147	0.671
cg12062995	yellow	4	39,368,212	TSS1500	Island	RFC1	0.343	-0.001	0.045	0.741
cg14005294	yellow	9	130,640,220	TSS200	S_Shore	AK1	0.343	0.002	0.042	0.442
cg07808761	yellow	19	37,329,760	TSS1500	S_Shore	ZNF790	0.343	0.000	0.064	0.968
cg10872774	yellow	14	105,648,224	TSS1500	S_Shore	NUDT14	0.343	0.004	0.785	0.577
cg18946473	yellow	2	97,152,025		OpenSea		0.343	0.001	0.037	0.581
cg19242583	yellow	1	27,056,317	Body	OpenSea	ARID1A	0.343	0.000	0.971	0.960
cg00871560	yellow	3	132,756,721	TSS1500	N_Shore	TMEM108	0.343	-0.004	0.445	0.628
cg21373996	yellow	10	560,669	Body	OpenSea	DIP2C	0.343	0.009	0.656	0.476
cg26843278	yellow	10	131,194,523		OpenSea		0.343	-0.009	0.433	0.427
cg22681001	yellow	11	29,141,663		OpenSea		0.343	-0.004	0.397	0.581
cg06733347	yellow	15	72,453,427	3'UTR	OpenSea	GRAMD2	0.343	0.002	0.891	0.662
cg06150299	yellow	16	30,993,485	Body	S_Shore	SETD1A	0.343	0.000	0.942	0.956
cg13709487	yellow	3	100,322,493		OpenSea		0.343	-0.005	0.181	0.427
cg11266682	yellow	4	10,021,025	Body	Island	SLC2A9	0.342	-0.012	0.153	0.608
cg04796017	yellow	17	21,951,209		N_Shelf		0.342	-0.004	0.599	0.735
cg13617671	yellow	9	80,073,082	Body	OpenSea	GNA14	0.342	0.002	0.027	0.371
cg22118297	yellow	3	64,547,310	Body	OpenSea	ADAMTS9	0.342	0.012	0.625	0.231
cg06048193	yellow	13	81,258,755		OpenSea		0.342	0.004	0.882	0.743
cg02131995	yellow	19	35,772,917	TSS1500	S_Shelf	HAMP	0.342	0.009	0.775	0.252
cg24444655	yellow	3	123,699,293	Body	OpenSea	ROPN1	0.342	-0.002	0.206	0.888
cg17301902	yellow	9	80,263,219	1stExon	Island	GNA14	0.342	0.002	0.026	0.320
cg14204124	yellow	9	37,651,660	5'UTR	S_Shore	FRMPD1	0.342	-0.002	0.114	0.818
cg03431585	yellow	20	44,995,633	3'UTR	S_Shelf	ELMO2	0.342	-0.006	0.801	0.249
cg07284632	yellow	17	39,743,241	TSS200	OpenSea	KRT14	0.342	0.009	0.855	0.372
cg20009332	yellow	8	10,489,118	5'UTR	OpenSea	RP1L1	0.342	0.006	0.232	0.435
cg16624210	yellow	5	671,434	Body	S_Shelf	TPPP	0.342	0.012	0.354	0.409
cg07117700	yellow	17	61,903,327	TSS1500	N_Shore	PSMC5	0.342	-0.004	0.870	0.478
cg20411813	yellow	1	160,162,766	Body	OpenSea	CASQ1	0.342	0.009	0.286	0.430
cg20822990	yellow	1	17,338,766	TSS1500	S_Shore	ATP13A2	0.342	0.005	0.137	0.274
cg02440199	yellow	7	136,691,229	5'UTR	OpenSea	CHRM2	0.342	-0.001	0.262	0.861
cg00365880	yellow	15	64,647,465	5'UTR	N_Shore	CSNK1G1	0.342	0.007	0.074	0.353
cg14634738	yellow	3	50,126,100	TSS1500	N_Shore	RBM5	0.342	0.003	0.199	0.719
cg16778018	yellow	16	4,736,225	Body	S_Shelf	MGRN1	0.342	0.004	0.941	0.228
cg06649540	yellow	16	1,218,496	Body	N_Shore	CACNA1H	0.342	0.003	0.883	0.604
cg19723187	yellow	5	633,995	Body	OpenSea	CEP72	0.342	0.010	0.812	0.163
cg02985541	yellow	2	219,472,218	TSS1500	OpenSea	PLCD4	0.342	0.000	0.249	0.995
cg04165188	yellow	8	840,173		OpenSea		0.342	0.008	0.747	0.271
cg06855137	yellow	16	88,804,971	Body	S_Shore	FAM38A	0.342	0.001	0.788	0.818
cg13141289	yellow	15	49,339,044	TSS1500	S_Shore	SECISBP2L	0.342	0.002	0.055	0.559
cg04893119	yellow	8	75,736,301	TSS1500	OpenSea	PI15	0.342	0.016	0.517	0.120
cg00825734	yellow	1	1,217,511	5'UTR	OpenSea	SCNN1D	0.342	0.018	0.713	0.011
cg13581015	yellow	12	1,769,824		N_Shore		0.342	0.000	0.257	1.000
cg02845204	yellow	11	71,259,439	TSS200	OpenSea	KRTAP5-9	0.342	-0.003	0.541	0.693
cg02346062	yellow	6	24,491,168	TSS1500	N_Shelf	GPLD1	0.342	0.008	0.656	0.262
cg15755568	yellow	19	8,403,922	5'UTR	N_Shelf	KANK3	0.342	0.019	0.405	0.099
cg24579218	yellow	15	68,104,479		OpenSea		0.342	0.006	0.724	0.464
cg04124586	yellow	1	8,585,852	Body	OpenSea	RERE	0.342	0.001	0.021	0.339
cg01515444	yellow	20	56,292,914		N_Shore		0.342	0.008	0.615	0.320
cg06630771	yellow	12	24,913,804		OpenSea		0.342	-0.001	0.445	0.932
cg05377034	yellow	10	81,838,185	TSS1500	N_Shore	C10orf57	0.342	0.003	0.207	0.825
cg10374202	yellow	3	40,499,768	Body	S_Shore	RPL14	0.342	-0.014	0.558	0.267
cg23813012	yellow	1	14,026,482	TSS1500	Island	PRDM2	0.342	-0.002	0.035	0.470
cg04822710	yellow	9	140,065,972	TSS1500	S_Shore	LRRC26	0.342	0.009	0.606	0.381
cg03239580	yellow	6	31,973,051	TSS1500	OpenSea	CYP21A2	0.342	0.004	0.584	0.648
cg03947026	yellow	1	52,832,320	TSS1500	N_Shore	CC2D1B	0.341	0.005	0.186	0.605
cg05129477	yellow	8	21,044,945	TSS1500	S_Shore	KIF17	0.341	0.003	0.320	0.713

cg25161283	yellow	22	20,103,922	Body	Island	TRMT2A	0.341	0.006	0.106	0.305
cg26175846	yellow	6	32,972,492	3'UTR	N_Shelf	HLA-DOA	0.341	-0.005	0.823	0.452
cg24495643	yellow	8	29,230,953		OpenSea		0.341	-0.003	0.092	0.637
cg09047884	yellow	22	43,484,984	Body	N_Shore	TTLL1	0.341	0.001	0.042	0.621
cg13594957	yellow	7	150,884,641	TSS200	OpenSea	ASB10	0.341	0.008	0.658	0.233
cg07826859	yellow	7	45,020,086	TSS1500	OpenSea	MYO1G	0.341	-0.007	0.305	0.244
cg24718970	yellow	11	61,662,947		S_Shelf		0.341	0.004	0.943	0.254
cg22830273	yellow	2	142,889,283	TSS200	S_Shore	LRP1B	0.341	-0.012	0.206	0.360
cg17617491	yellow	19	2,607,726	5'UTR	Island	GNG7	0.341	0.025	0.439	0.041
cg18168249	yellow	7	134,946,296		OpenSea		0.341	0.040	0.447	0.154
cg21220520	yellow	14	57,960,464	1stExon	OpenSea	C14orf105	0.341	0.006	0.544	0.546
cg14622819	yellow	4	76,944,817	TSS200	OpenSea	CXCL10	0.341	0.003	0.764	0.782
cg07200877	yellow	11	55,649,706	TSS1500	OpenSea	SPRYD5	0.341	-0.011	0.504	0.212
cg03030665	yellow	1	38,514,267		S_Shore		0.341	0.007	0.776	0.242
cg19039673	yellow	6	90,887,871	5'UTR	OpenSea	BACH2	0.341	-0.008	0.569	0.477
cg12689055	yellow	1	53,541,670	Body	N_Shelf	PODN	0.341	-0.011	0.259	0.040
cg07707891	yellow	21	35,473,313	Body	OpenSea	MRPS6	0.341	0.000	0.328	0.968
cg15294435	yellow	10	116,391,467	Body	Island	ABLIM1	0.341	0.000	0.101	0.983
cg04499151	yellow	7	100,231,278	Body	Island	TFR2	0.341	0.004	0.021	0.077
cg12096506	yellow	11	134,341,284		OpenSea		0.341	0.020	0.402	0.101
cg26308012	yellow	8	141,359,592	Body	Island	TRAPPC9	0.341	-0.004	0.431	0.676
cg04137171	yellow	15	79,104,232	TSS1500	Island	ADAMTS7	0.341	0.008	0.243	0.240
cg16327891	yellow	13	43,566,633	TSS1500	S_Shore	EPSTI1	0.341	0.000	0.376	0.995
cg04496920	yellow	16	2,032,394	TSS1500	N_Shore	NOXO1	0.341	0.011	0.552	0.291
cg05869750	yellow	5	188,397	3'UTR	N_Shelf	PLEKHG4B	0.341	-0.017	0.392	0.189
cg13747016	yellow	10	43,361,261		N_Shore		0.341	0.000	0.760	0.965
cg04242577	yellow	4	25,657,921	5'UTR	S_Shore	SLC34A2	0.341	0.008	0.479	0.221
cg02401792	yellow	22	46,664,110	Body	Island	TTC38	0.341	-0.002	0.072	0.582
cg12055114	yellow	19	2,457,232	TSS1500	S_Shore	LMNB2	0.341	0.001	0.109	0.916
cg14927745	yellow	2	241,562,485		Island		0.341	-0.013	0.481	0.718
cg15213604	yellow	17	79,890,769	3'UTR	N_Shore	PYCR1	0.341	-0.001	0.568	0.869
cg15776300	yellow	4	527,125	Body	N_Shelf	PIGG	0.341	-0.003	0.845	0.714
cg02650779	yellow	3	197,225,531		N_Shore		0.341	0.002	0.849	0.666
cg18076124	yellow	3	57,204,141		N_Shore		0.341	-0.008	0.227	0.458
cg22988651	yellow	3	15,792,635	Body	OpenSea	ANKRD28	0.341	0.000	0.924	0.945
cg14362370	yellow	9	133,589,654	5'UTR	S_Shore	ABL1	0.341	0.007	0.265	0.227
cg00961640	yellow	1	110,933,767	TSS200	OpenSea	SLC16A4	0.341	0.012	0.329	0.089
cg10082398	yellow	6	155,595,675	5'UTR	OpenSea	CLDN20	0.341	0.034	0.704	0.039
cg07557790	yellow	3	12,837,899	TSS1500	N_Shore	CAND2	0.340	-0.004	0.068	0.196
cg16259043	yellow	4	188,423,066		N_Shelf		0.340	-0.003	0.597	0.842
cg18217048	yellow	8	9,742,024		OpenSea		0.340	0.024	0.634	0.041
cg13847640	yellow	2	87,035,982	TSS1500	N_Shore	CD8A	0.340	0.012	0.259	0.388
cg03321508	yellow	20	25,039,707	TSS200	S_Shore	ACSS1	0.340	0.007	0.125	0.557
cg14316118	yellow	10	61,668,184	TSS1500	S_Shore	CCDC6	0.340	0.000	0.020	0.896
cg02135077	yellow	8	103,820,770		N_Shore		0.340	-0.001	0.026	0.674
cg09348580	yellow	19	14,373,659		N_Shelf		0.340	0.001	0.872	0.929
cg07039975	yellow	2	74,592,036	Body	OpenSea	DCTN1	0.340	0.001	0.950	0.707
cg22879098	yellow	5	672,845	Body	OpenSea	TPPP	0.340	0.001	0.042	0.694
cg18875629	yellow	22	27,834,439		Island		0.340	0.005	0.070	0.610
cg00826767	yellow	10	101,541,852	TSS1500	OpenSea	ABCC2	0.340	-0.001	0.935	0.833
cg00236249	yellow	22	20,789,017	Body	N_Shore	SCARF2	0.340	0.005	0.925	0.284
cg05192538	yellow	10	134,804,447		Island		0.340	0.005	0.790	0.574
cg01749347	yellow	7	100,230,985	Body	Island	TFR2	0.340	0.005	0.026	0.017
cg20764575	yellow	7	24,797,884	TSS1500	S_Shore	DFNA5	0.340	-0.002	0.606	0.846
cg04067066	yellow	2	219,756,890	Body	N_Shore	WNT10A	0.340	0.026	0.314	0.003
cg09503974	yellow	3	158,449,660	Body	N_Shore	RARRES1	0.340	-0.007	0.167	0.593
cg25599521	yellow	14	94,981,685	5'UTR	OpenSea	SERPINA12	0.340	0.005	0.734	0.573
cg09115984	yellow	16	31,214,426	TSS200	S_Shore	PYCARD	0.340	-0.003	0.458	0.740
cg07533533	yellow	8	41,559,593	Body	Island	ANK1	0.340	0.002	0.026	0.564
cg19583655	yellow	17	79,869,752	TSS1500	Island	PCYT2	0.340	0.001	0.243	0.910
cg23987736	yellow	1	22,380,393	5'UTR	S_Shore	CDC42	0.340	0.000	0.041	0.816
cg03379131	yellow	1	155,024,281	Body	Island	ADAM15	0.340	0.003	0.057	0.405
cg14120583	yellow	19	453,860	Body	Island	SHC2	0.340	0.003	0.699	0.880
cg05614657	yellow	8	40,753,096	5'UTR	N_Shelf	ZMAT4	0.340	0.021	0.453	0.122
cg15890754	yellow	2	173,294,093	Body	S_Shore	ITGA6	0.340	0.004	0.091	0.589
cg19204859	yellow	20	24,933,798	Body	OpenSea	CST7	0.340	-0.006	0.943	0.458
cg09008928	yellow	6	24,667,597	Body	S_Shore	ACOT13	0.340	0.002	0.046	0.542

cg18312807	yellow	2	135,809,693	TSS200	OpenSea	RAB3GAP1	0.340	0.002	0.021	0.230
cg10552698	yellow	3	58,418,944	Body	N_Shore	PDHB	0.340	0.000	0.045	0.909
cg26632409	yellow	10	134,886,312		S_Shore		0.340	0.008	0.814	0.321
cg22736483	yellow	2	11,241,377		OpenSea		0.340	0.003	0.836	0.630
cg02586910	yellow	12	6,314,603	Body	OpenSea	CD9	0.340	-0.001	0.026	0.406
cg01756421	yellow	16	67,918,484	TSS1500	N_Shore	NRN1L	0.339	-0.003	0.627	0.569
cg14018648	yellow	17	7,083,015	TSS200	OpenSea	ASGR1	0.339	0.007	0.434	0.353
cg16391973	yellow	5	158,689,566	TSS1500	N_Shore	UBLCP1	0.339	0.007	0.630	0.689
cg23801885	yellow	6	34,458,902	5'UTR	OpenSea	PAC SIN1	0.339	0.015	0.606	0.173
cg04397817	yellow	6	31,591,343	Body	S_Shelf	BAT2	0.339	-0.001	0.967	0.650
cg15141868	yellow	7	37,959,966	TSS200	N_Shore	EPDR1	0.339	-0.004	0.541	0.635
cg17315426	yellow	14	23,527,629	TSS1500	N_Shore	CDH24	0.339	-0.003	0.117	0.626
cg09366677	yellow	14	96,967,798	TSS1500	N_Shore	PAPOLA	0.339	0.007	0.329	0.519
cg23958373	yellow	8	599,963		Island		0.339	0.064	0.732	0.126
cg19006947	yellow	11	64,034,861	Body	Island	PLCB3	0.339	-0.008	0.854	0.576
cg04062715	yellow	5	179,632,567	5'UTR	N_Shelf	RASGEF1C	0.339	0.002	0.631	0.826
cg17349352	yellow	7	45,066,738	Body	OpenSea	CCM2	0.339	-0.001	0.927	0.880
cg04462378	yellow	11	71,749,760	5'UTR	OpenSea	NUMA1	0.339	0.004	0.032	0.073
cg22295925	yellow	15	99,153,795		OpenSea		0.339	-0.012	0.415	0.503
cg24555071	yellow	1	1,358,016	TSS1500	N_Shelf	LOC441869	0.339	0.004	0.459	0.634
cg08339497	yellow	10	131,592,935		S_Shore		0.339	0.002	0.916	0.790
cg04431054	yellow	5	126,853,024	TSS1500	N_Shore	PRRC1	0.339	-0.003	0.252	0.851
cg23297972	yellow	21	32,624,145	Body	Island	TIAM1	0.339	0.003	0.675	0.640
cg10776862	yellow	19	50,313,003	Body	S_Shore	FUZ	0.339	-0.004	0.123	0.454
cg27431877	yellow	12	124,911,924	Body	S_Shore	NCOR2	0.339	-0.005	0.695	0.483
cg11713619	yellow	2	73,514,538		N_Shelf		0.339	0.000	0.454	0.977
cg08786207	yellow	8	41,559,303	Body	Island	ANK1	0.339	0.004	0.031	0.264
cg17386185	yellow	3	52,321,266	TSS1500	N_Shore	GLYCTK	0.339	-0.003	0.189	0.473
cg06655861	yellow	16	87,657,992	Body	OpenSea	JPH3	0.339	0.007	0.532	0.190
cg24067150	yellow	6	30,956,397	3'UTR	OpenSea	MUC21	0.339	0.011	0.735	0.444
cg18437808	yellow	17	80,402,548	Body	Island	C17orf62	0.338	0.003	0.881	0.560
cg25980689	yellow	7	187,339		S_Shore		0.338	-0.002	0.978	0.661
cg23210906	yellow	10	45,938,664	Body	Island	ALOX5	0.338	0.010	0.898	0.144
cg24955743	yellow	1	2,454,705	Body	S_Shore	PANK4	0.338	-0.008	0.665	0.537
cg23505823	yellow	12	123,215,524	TSS1500	OpenSea	GPR81	0.338	-0.006	0.371	0.702
cg02683114	yellow	2	24,398,427	Body	Island	C2orf84	0.338	0.022	0.735	0.308
cg21109485	yellow	1	11,761,296	5'UTR	OpenSea	C1orf187	0.338	0.004	0.535	0.680
cg00513288	yellow	19	2,358,394		N_Shore		0.338	-0.005	0.311	0.546
cg13907255	yellow	5	142,895,549		OpenSea		0.338	0.020	0.564	0.194
cg24543937	yellow	17	71,282,102	Body	Island	CDC42EP4	0.338	0.013	0.646	0.128
cg14195974	yellow	9	131,037,358	TSS1500	N_Shore	C9orf119	0.338	0.026	0.129	0.012
cg03221025	yellow	16	88,955,224	Body	N_Shore	CBFA2T3	0.338	-0.001	0.810	0.899
cg22586569	yellow	7	5,524,963	Body	N_Shore	FBXL18	0.338	-0.001	0.958	0.717
cg09077126	yellow	10	72,015,695	Body	Island	NPFPR1	0.338	-0.004	0.237	0.736
cg08243849	yellow	1	31,539,007	TSS1500	S_Shore	PUM1	0.338	-0.001	0.248	0.875
cg11066033	yellow	2	242,556,858	1stExon	OpenSea	THAP4	0.338	0.011	0.664	0.352
cg02715685	yellow	19	3,867,283	Body	N_Shore	ZFR2	0.338	0.012	0.430	0.177
cg04212338	yellow	11	65,153,918	TSS200	Island	FRMD8	0.338	-0.001	0.015	0.364
cg11833003	yellow	2	131,795,482	Body	N_Shore	ARHGEF4	0.338	-0.004	0.060	0.544
cg14757492	yellow	19	19,029,194	Body	N_Shore	COPE	0.338	-0.002	0.888	0.730
cg26270263	yellow	2	694,639		OpenSea		0.338	-0.007	0.487	0.307
cg10855395	yellow	12	125,413,124		Island		0.338	-0.004	0.290	0.832
cg12950030	yellow	14	104,356,109		OpenSea		0.338	0.003	0.363	0.655
cg17873645	yellow	15	75,869,384	Body	N_Shore	PTPN9	0.338	0.008	0.327	0.392
cg00417424	yellow	5	179,224,563		N_Shore		0.338	-0.002	0.901	0.735
cg15011260	yellow	19	38,747,888	TSS1500	S_Shore	PPP1R14A	0.338	-0.011	0.852	0.266
cg05120987	yellow	16	79,623,900		Island		0.338	-0.005	0.396	0.595
cg05891899	yellow	11	1,326,879	Body	N_Shelf	TOLLIP	0.338	0.013	0.366	0.263
cg24840228	yellow	9	131,037,543	TSS1500	N_Shore	C9orf119	0.338	0.001	0.481	0.897
cg01287730	yellow	2	109,622,531		OpenSea		0.338	0.007	0.846	0.230
cg25193323	yellow	8	125,437,986		OpenSea		0.338	0.004	0.122	0.682
cg21426218	yellow	20	42,350,667		OpenSea		0.338	0.020	0.310	0.016
cg12809031	yellow	1	36,915,704	Body	N_Shore	OSCP1	0.338	0.011	0.368	0.182
cg15986251	yellow	2	65,519,810		OpenSea		0.338	0.007	0.375	0.449
cg07318287	yellow	1	154,377,429	TSS1500	N_Shore	IL6R	0.338	0.003	0.264	0.756
cg23042076	yellow	10	43,571,169	TSS1500	N_Shore	RET	0.338	0.000	0.642	0.991
cg24580146	yellow	17	7,644,241	Body	Island	DNAH2	0.338	0.018	0.620	0.066

cg23939844	yellow	12	1,930,326	5'UTR	OpenSea	LRTM2	0.338	0.018	0.688	0.049
cg11024722	yellow	10	5,406,901	TSS200	OpenSea	UCN3	0.338	0.007	0.376	0.323
cg02272576	yellow	6	43,868,964	Body	OpenSea	LOC1001323:	0.338	0.026	0.681	0.380
cg05497175	yellow	16	88,753,856	TSS1500	S_Shore	SNAI3	0.338	0.005	0.546	0.665
cg15718494	yellow	19	51,845,859	TSS1500	S_Shore	VSIG10L	0.337	0.006	0.434	0.610
cg15667299	yellow	19	420,332	Body	N_Shore	SHC2	0.337	-0.010	0.794	0.275
cg03586820	yellow	1	16,679,780	TSS1500	S_Shore	FBXO42	0.337	0.014	0.753	0.479
cg00972222	yellow	14	34,246,089	Body	OpenSea	NPAS3	0.337	0.004	0.958	0.452
cg23530906	yellow	12	114,708,303		OpenSea		0.337	0.009	0.614	0.556
cg00204532	yellow	3	4,533,398		N_Shore		0.337	0.001	0.889	0.893
cg17129188	yellow	8	134,307,597	5'UTR	N_Shore	NDRG1	0.337	-0.002	0.479	0.816
cg11267114	yellow	19	46,315,883	Body	N_Shelf	RSPH6A	0.337	-0.009	0.921	0.191
cg20054852	yellow	7	126,988,232		Island		0.337	0.004	0.106	0.506
cg19398783	yellow	4	38,784,578	5'UTR	OpenSea	TLR10	0.337	-0.001	0.036	0.533
cg25772185	yellow	10	25,371,488		OpenSea		0.337	-0.005	0.466	0.586
cg13575542	yellow	3	128,326,887		N_Shore		0.337	0.009	0.314	0.365
cg10621924	yellow	7	39,171,070	Body	OpenSea	POU6F2	0.337	0.018	0.600	0.188
cg24492273	yellow	1	1,378,060	3'UTR	S_Shelf	VWA1	0.337	0.008	0.844	0.193
cg02374207	yellow	11	63,852,804	Body	Island	MACROD1	0.337	0.010	0.724	0.160
cg20765580	yellow	12	133,403,215	5'UTR	N_Shore	GOLGA3	0.337	0.000	0.938	0.953
cg07063883	yellow	16	3,079,953	Body	Island	CCDC64B	0.337	0.003	0.322	0.808
cg10240853	yellow	7	100,210,548	Body	Island	MOSPD3	0.337	-0.007	0.070	0.089
cg19415202	yellow	11	133,706,356		S_Shelf		0.337	0.023	0.870	0.018
cg13246856	yellow	1	44,399,776	5'UTR	N_Shore	ARTN	0.337	-0.003	0.254	0.714
cg05751344	yellow	7	153,641,267	Body	OpenSea	DPP6	0.337	0.001	0.553	0.915
cg15617346	yellow	11	122,073,940	TSS200	OpenSea	LOC399959	0.337	-0.001	0.121	0.833
cg20128365	yellow	8	118,532,625	TSS1500	N_Shore	MED30	0.337	0.007	0.229	0.675
cg17974185	yellow	20	36,323,340	Body	S_Shore	CTNNBL1	0.337	-0.011	0.469	0.545
cg00200755	yellow	15	88,945,783		OpenSea		0.337	0.023	0.362	0.015
cg11225330	yellow	1	1,196,747	Body	OpenSea	UBE2J2	0.337	0.006	0.843	0.229
cg06711380	yellow	17	37,123,949	TSS1500	OpenSea	FBXO47	0.337	0.020	0.508	0.178
cg05002800	yellow	20	32,231,392	Body	N_Shore	CBFA2T2	0.336	-0.001	0.858	0.862
cg11015353	yellow	17	73,903,405		S_Shelf		0.336	0.003	0.894	0.661
cg00907549	yellow	1	236,768,366	TSS1500	S_Shore	HEATR1	0.336	0.003	0.107	0.776
cg08701686	yellow	8	35,095,362	Body	S_Shore	UNC5D	0.336	0.002	0.612	0.876
cg24938752	yellow	3	128,294,769	1stExon	OpenSea	C3orf27	0.336	-0.010	0.854	0.140
cg15659713	yellow	8	38,586,183	1stExon	OpenSea	TACC1	0.336	0.016	0.217	0.133
cg19021929	yellow	12	92,997,209		OpenSea		0.336	0.010	0.934	0.077
cg08461097	yellow	19	2,065,102		Island		0.336	0.014	0.542	0.160
cg16267850	yellow	1	46,859,791	TSS200	Island	FAAH	0.336	0.002	0.159	0.811
cg14259717	yellow	11	18,433,732	TSS200	OpenSea	LDHC	0.336	-0.009	0.294	0.666
cg25552937	yellow	1	4,842,472	3'UTR	OpenSea	AJAP1	0.336	0.000	0.904	0.996
cg08827060	yellow	8	102,121,621		OpenSea		0.336	0.002	0.461	0.822
cg12983394	yellow	13	78,493,920	TSS1500	S_Shore	EDNRB	0.336	-0.003	0.053	0.287
cg00318682	yellow	11	2,299,248		OpenSea		0.336	0.004	0.653	0.556
cg23379309	yellow	9	102,057,328		N_Shore		0.336	0.005	0.196	0.494
cg16382077	yellow	7	171,543		OpenSea		0.336	-0.009	0.773	0.260
cg20387392	yellow	3	114,378,420	5'UTR	OpenSea	ZBTB20	0.336	0.009	0.775	0.528
cg19107504	yellow	10	88,467,518	Body	N_Shelf	LDB3	0.336	0.005	0.405	0.485
cg04921315	yellow	16	4,000,587		OpenSea		0.336	0.003	0.041	0.584
cg11438441	yellow	3	58,219,287		N_Shelf		0.336	0.010	0.698	0.289
cg12986021	yellow	1	68,516,627	TSS200	N_Shore	DIRAS3	0.336	0.000	0.514	0.977
cg02566978	yellow	15	75,076,251	5'UTR	S_Shore	CSK	0.336	0.005	0.252	0.354
cg15491432	yellow	4	26,585,218	TSS1500	N_Shore	TBC1D19	0.336	-0.017	0.138	0.209
cg00966077	yellow	16	1,401,335	Body	Island	C16orf42	0.336	-0.002	0.059	0.649
cg16550651	yellow	17	40,268,381	Body	N_Shore	KAT2A	0.336	0.006	0.926	0.241
cg08500128	yellow	12	10,763,670	Body	N_Shelf	MAGOHB	0.336	-0.003	0.938	0.608
cg00204262	yellow	19	39,323,158	TSS1500	S_Shore	ECH1	0.336	-0.002	0.687	0.913
cg09249657	yellow	4	40,518,806	TSS1500	OpenSea	RBM47	0.336	0.009	0.582	0.169
cg21037935	yellow	19	58,911,965		N_Shore		0.336	0.014	0.652	0.358
cg25092989	yellow	8	10,932,494	Body	S_Shelf	XKR6	0.336	0.015	0.747	0.016
cg10278102	yellow	11	20,410,216	5'UTR	S_Shore	PRMT3	0.336	0.016	0.404	0.109
cg02618319	yellow	11	119,247,012	5'UTR	OpenSea	USP2	0.336	-0.005	0.567	0.344
cg01603733	yellow	22	50,529,698	Body	Island	MOV10L1	0.335	0.004	0.882	0.568
cg21514529	yellow	5	168,885,285		OpenSea		0.335	-0.001	0.350	0.933
cg22764193	yellow	11	43,333,145	TSS1500	N_Shore	API5	0.335	-0.002	0.044	0.426
cg07469063	yellow	15	69,755,704		OpenSea		0.335	0.000	0.162	0.971

cg06676049	yellow	2	23,839,842	Body	OpenSea	KLHL29	0.335	0.001	0.641	0.838
cg06169597	yellow	19	619,447	Body	Island	POLRMT	0.335	0.005	0.895	0.524
cg13837335	yellow	9	2,191,798	Body	OpenSea	SMARCA2	0.335	0.010	0.505	0.681
cg00543840	yellow	1	22,213,376	Body	N_Shore	HSPG2	0.335	0.004	0.898	0.615
cg19497082	yellow	2	59,185,274		OpenSea		0.335	0.002	0.066	0.771
cg21233517	yellow	14	74,058,401	TSS200	Island	ACOT4	0.335	-0.004	0.052	0.355
cg07201754	yellow	1	39,491,318	TSS1500	OpenSea	NDUFS5	0.335	0.004	0.863	0.583
cg04049240	yellow	20	61,335,377		OpenSea		0.335	0.000	0.898	0.973
cg11565429	yellow	12	6,717,567	TSS1500	S_Shore	CHD4	0.335	-0.001	0.029	0.326
cg08703818	yellow	7	44,869,342	3'UTR	OpenSea	H2AFV	0.335	0.000	0.951	0.981
cg05396298	yellow	1	2,430,249	Body	N_Shelf	PLCH2	0.335	0.005	0.745	0.492
cg04523603	yellow	1	3,622,085	Body	N_Shore	TP73	0.335	0.012	0.440	0.065
cg05475091	yellow	4	48,644,525	5'UTR	OpenSea	FRYL	0.335	0.012	0.493	0.238
cg26894354	yellow	1	203,311,314	3'UTR	OpenSea	FMOD	0.335	0.016	0.681	0.052
cg08053355	yellow	2	55,458,963	5'UTR	OpenSea	C2orf63	0.335	0.002	0.028	0.326
cg18291238	yellow	14	70,696,523		OpenSea		0.335	0.008	0.928	0.136
cg04944491	yellow	1	245,938,453	Body	OpenSea	SMYD3	0.335	-0.007	0.915	0.244
cg26921612	yellow	22	32,150,828	5'UTR	S_Shore	DEPDC5	0.335	-0.001	0.033	0.728
cg06903103	yellow	15	34,506,071		S_Shelf		0.335	0.007	0.332	0.441
cg25082487	yellow	10	74,091,975		OpenSea		0.335	0.006	0.141	0.713
cg03064940	yellow	2	129,320,987		OpenSea		0.335	0.005	0.465	0.635
cg20319765	yellow	13	25,317,996		N_Shore		0.335	0.003	0.784	0.741
cg13804478	yellow	1	155,158,319	3'UTR	OpenSea	MUC1	0.335	0.021	0.306	0.010
cg11802469	yellow	6	84,743,086	TSS1500	N_Shore	MRAP2	0.335	0.005	0.227	0.607
cg11644161	yellow	8	2,476,682		N_Shelf		0.335	0.000	0.422	0.985
cg27146050	yellow	19	46,801,557	Body	S_Shore	HIF3A	0.335	-0.001	0.048	0.882
cg04926732	yellow	4	619,314	TSS200	N_Shore	PDE6B	0.335	0.029	0.517	0.001
cg12641165	yellow	1	3,051,529	Body	OpenSea	PRDM16	0.335	0.010	0.744	0.115
cg27518898	yellow	21	34,638,397	TSS1500	N_Shore	IL10RB	0.334	-0.013	0.076	0.003
cg21427119	yellow	20	30,132,790	Body	N_Shelf	HM13	0.334	0.036	0.814	0.374
cg03652561	yellow	7	205,900	Body	N_Shore	FAM20C	0.334	0.000	0.811	0.986
cg07898501	yellow	10	132,344,135		OpenSea		0.334	0.006	0.281	0.582
cg19611002	yellow	19	8,810,154	TSS1500	S_Shore	ACTL9	0.334	0.004	0.793	0.691
cg17394237	yellow	4	7,196,466	Body	S_Shore	SORCS2	0.334	-0.003	0.421	0.753
cg16528585	yellow	14	65,464,312	Body	OpenSea	FNTB	0.334	0.011	0.866	0.247
cg25897951	yellow	4	1,244,024	TSS1500	Island	CTBP1	0.334	0.000	0.847	0.986
cg05164540	yellow	5	107,896,573		OpenSea		0.334	0.001	0.869	0.927
cg16024886	yellow	14	102,693,874		N_Shore		0.334	0.024	0.739	0.009
cg04749740	yellow	2	65,935,124		OpenSea		0.334	0.003	0.555	0.824
cg27123859	yellow	6	107,230,619		OpenSea		0.334	0.010	0.071	0.223
cg20356147	yellow	3	127,914,850	Body	OpenSea	EEFSEC	0.334	0.002	0.816	0.882
cg24951335	yellow	12	1,609,463	TSS200	OpenSea	LOC1002926	0.334	0.010	0.749	0.396
cg20234121	yellow	22	18,257,412	TSS200	S_Shore	BID	0.334	-0.001	0.020	0.392
cg13208151	yellow	10	134,683,335		S_Shore		0.334	0.006	0.745	0.354
cg10577257	yellow	12	130,929,193	Body	OpenSea	RIMBP2	0.334	0.000	0.782	0.999
cg13071208	yellow	8	145,686,887	Body	N_Shore	CYHR1	0.334	0.006	0.274	0.140
cg00001446	yellow	1	43,831,041	Body	N_Shore	ELOVL1	0.334	0.005	0.910	0.313
cg10123293	yellow	2	99,228,465	Body	S_Shelf	UNC50	0.334	0.020	0.621	0.231
cg21924447	yellow	2	138,427,803	Body	OpenSea	THSD7B	0.334	-0.007	0.685	0.623
cg22643189	yellow	6	30,539,868	Body	S_Shore	ABCF1	0.334	-0.003	0.055	0.634
cg20955507	yellow	6	30,853,258	5'UTR	S_Shore	DDR1	0.334	-0.002	0.162	0.652
cg03400695	yellow	8	142,162,582	Body	OpenSea	DENND3	0.334	0.002	0.983	0.277
cg03318428	yellow	22	46,971,703		N_Shore		0.334	0.008	0.664	0.375
cg19306864	yellow	1	10,270,515	TSS1500	Island	KIF1B	0.334	-0.001	0.028	0.778
cg00360610	yellow	2	96,970,381	Body	N_Shore	SNRNP200	0.333	0.004	0.923	0.616
cg05325480	yellow	20	62,398,775	Body	Island	ZBTB46	0.333	-0.006	0.813	0.318
cg09169132	yellow	2	171,826,682		N_Shelf		0.333	-0.006	0.489	0.523
cg14911766	yellow	6	14,001,633		OpenSea		0.333	-0.007	0.471	0.282
cg09313734	yellow	7	155,327,245	TSS1500	S_Shore	CNPY1	0.333	-0.009	0.231	0.470
cg21191737	yellow	9	15,306,337	Body	N_Shore	TTC39B	0.333	0.000	0.034	0.888
cg06716283	yellow	19	45,504,390	TSS1500	N_Shore	RELB	0.333	-0.003	0.199	0.671
cg03411791	yellow	6	74,168,192		N_Shelf		0.333	-0.001	0.925	0.896
cg15985470	yellow	12	4,554,756	5'UTR	S_Shore	FGF6	0.333	0.014	0.556	0.070
cg16278996	yellow	6	13,715,593		S_Shelf		0.333	-0.007	0.882	0.418
cg13609505	yellow	10	100,206,860	TSS200	OpenSea	HPS1	0.333	0.003	0.200	0.695
cg08495341	yellow	17	14,248,971	3'UTR	S_Shore	HS3ST3B1	0.333	-0.003	0.967	0.386
cg01058569	yellow	12	132,974,662		Island		0.333	0.003	0.577	0.780

cg00252418	yellow	7	154,540,325	Body	N_Shore	DPP6	0.333	0.009	0.620	0.253
cg12079603	yellow	10	101,091,481	Body	S_Shore	CNNM1	0.333	0.009	0.776	0.323
cg12829142	yellow	7	23,529,999	TSS200	N_Shore	RPS2P32	0.333	-0.017	0.343	0.291
cg16564894	yellow	7	150,884,429	5'UTR	OpenSea	ASB10	0.333	0.002	0.635	0.832
cg19218057	yellow	11	66,688,628	5'UTR	OpenSea	PC	0.333	0.011	0.350	0.133
cg08998953	yellow	11	118,901,842	TSS1500	S_Shore	SLC37A4	0.333	0.004	0.224	0.647
cg12143784	yellow	7	64,541,923		S_Shore		0.333	0.000	0.568	0.984
cg25343280	yellow	2	44,314,198		N_Shore		0.332	-0.014	0.486	0.220
cg20526800	yellow	20	33,880,825	TSS1500	S_Shore	FAM83C	0.332	0.019	0.521	0.132
cg17508850	yellow	19	37,177,866		N_Shore		0.332	0.004	0.029	0.054
cg04289208	yellow	1	202,179,681	Body	N_Shelf	LGR6	0.332	0.005	0.253	0.538
cg09409539	yellow	2	95,664,243		Island		0.332	0.006	0.077	0.269
cg22189386	yellow	3	63,263,752	TSS200	N_Shore	SYNPR	0.332	0.000	0.281	0.951
cg00059399	yellow	5	2,008,272		Island		0.332	-0.002	0.068	0.754
cg02375832	yellow	11	62,437,615	5'UTR	N_Shore	C11orf48	0.332	-0.004	0.710	0.832
cg14710984	yellow	5	138,725,705	TSS200	N_Shelf	MGC29506	0.332	0.005	0.749	0.492
cg13283739	yellow	4	1,765,550		S_Shore		0.332	-0.008	0.096	0.202
cg24003028	yellow	14	104,553,496	Body	S_Shore	ASPG	0.332	-0.006	0.799	0.413
cg14968375	yellow	8	140,624,507		OpenSea		0.332	0.004	0.748	0.588
cg23172828	yellow	15	66,998,998	Body	S_Shelf	SMAD6	0.332	0.028	0.552	0.052
cg22904815	yellow	8	135,843,385		N_Shore		0.332	0.002	0.040	0.445
cg03354414	yellow	19	55,546,118	Body	S_Shore	GP6	0.332	0.050	0.752	0.020
cg04870460	yellow	1	146,644,887	TSS1500	S_Shore	PRKAB2	0.332	0.008	0.322	0.654
cg06024079	yellow	17	61,905,527	TSS1500	S_Shore	FTSJ3	0.332	0.005	0.092	0.432
cg19640007	yellow	4	146,600,771	TSS1500	OpenSea	C4orf51	0.332	0.004	0.343	0.731
cg16117554	yellow	4	3,309,404		N_Shore		0.332	0.003	0.531	0.790
cg01620569	yellow	1	33,502,810	TSS1500	S_Shore	AK2	0.332	0.000	0.032	0.802
cg07622193	yellow	19	42,701,920		N_Shore		0.332	0.000	0.339	0.990
cg04206342	yellow	17	70,636,940		OpenSea		0.332	0.004	0.279	0.803
cg05924254	yellow	4	1,107,720	TSS200	Island	RNF212	0.332	-0.007	0.562	0.648
cg05012239	yellow	3	195,447,691	TSS200	OpenSea	MUC20	0.332	-0.004	0.471	0.678
cg04911821	yellow	12	6,492,579	TSS1500	N_Shore	LTBR	0.332	0.002	0.923	0.746
cg16472735	yellow	3	49,056,273	5'UTR	Island	DALRD3	0.332	0.000	0.029	0.922
cg22082456	yellow	1	53,392,538	TSS1500	N_Shore	SCP2	0.331	-0.003	0.867	0.583
cg02274728	yellow	20	57,414,407	Body	N_Shore	GNASAS	0.331	0.000	0.583	0.978
cg19543968	yellow	22	39,190,571	TSS1500	S_Shore	DNAL4	0.331	0.012	0.161	0.240
cg03244036	yellow	17	1,958,034	TSS1500	Island	HIC1	0.331	0.000	0.083	0.979
cg24114417	yellow	7	157,507,394	Body	S_Shelf	PTPRN2	0.331	0.002	0.772	0.799
cg22985172	yellow	6	151,258,337	Body	OpenSea	MTHFD1L	0.331	0.002	0.409	0.800
cg11115427	yellow	10	13,342,610	TSS1500	N_Shore	PHYH	0.331	-0.001	0.208	0.936
cg03013118	yellow	2	218,375,971	Body	OpenSea	DIRC3	0.331	0.008	0.461	0.304
cg02064368	yellow	4	119,786,577		OpenSea		0.331	0.001	0.093	0.931
cg18287310	yellow	1	58,018,699	5'UTR	OpenSea	DAB1	0.331	0.002	0.710	0.692
cg08491437	yellow	1	78,442,533	Body	N_Shore	FUBP1	0.331	0.002	0.833	0.860
cg08249698	yellow	16	6,610,161	5'UTR	OpenSea	A2BP1	0.331	-0.016	0.856	0.143
cg16125291	yellow	8	19,796,335	TSS1500	N_Shore	LPL	0.331	0.003	0.138	0.807
cg15722977	yellow	1	159,171,213	3'UTR	OpenSea	CADM3	0.331	0.007	0.781	0.369
cg05769153	yellow	19	53,636,398	TSS1500	S_Shore	ZNF415	0.331	-0.001	0.615	0.969
cg04211175	yellow	2	149,895,877	5'UTR	S_Shore	LYPD6B	0.331	0.007	0.137	0.255
cg23093058	yellow	5	1,662,987		N_Shore		0.331	0.000	0.975	0.922
cg10378325	yellow	1	86,895,705	Body	OpenSea	CLCA2	0.331	0.002	0.029	0.256
cg22372131	yellow	6	30,956,603	3'UTR	OpenSea	MUC21	0.331	-0.006	0.574	0.515
cg08484506	yellow	17	71,156,927		N_Shelf		0.331	0.006	0.769	0.367
cg24514600	yellow	8	128,805,414	TSS1500	N_Shore	PVT1	0.331	0.005	0.948	0.390
cg24222504	yellow	15	75,918,608	1stExon	S_Shore	SNUPN	0.331	-0.003	0.056	0.326
cg01234678	yellow	10	44,341,979		OpenSea		0.331	0.000	0.494	0.976
cg19379569	yellow	10	134,079,358	Body	OpenSea	STK32C	0.331	-0.005	0.337	0.568
cg09897604	yellow	10	49,893,549	5'UTR	OpenSea	WDFY4	0.331	0.003	0.787	0.677
cg10336790	yellow	7	112,725,899	5'UTR	OpenSea	GPR85	0.331	0.018	0.673	0.277
cg00680014	yellow	2	113,243,553	Body	S_Shelf	TTL	0.331	0.001	0.979	0.517
cg05654780	yellow	1	156,625,372	Body	N_Shore	BCAN	0.331	0.014	0.338	0.088
cg15826810	yellow	4	124,572,578	TSS1500	OpenSea	LOC285419	0.331	-0.001	0.566	0.896
cg05791862	yellow	6	167,189,213	Body	OpenSea	RPS6KA2	0.331	-0.001	0.296	0.919
cg20319926	yellow	16	685,686	Body	Island	C16orf13	0.330	0.006	0.323	0.449
cg18596139	yellow	1	145,389,393		S_Shelf		0.330	0.002	0.796	0.900
cg20383299	yellow	3	115,503,964		S_Shore		0.330	0.003	0.053	0.162
cg07087779	yellow	16	2,194,837		N_Shelf		0.330	0.004	0.680	0.573

cg21044403	yellow	11	62,417,361	Body	N_Shelf	INTS5	0.330	0.000	0.929	0.981
cg26946114	yellow	8	124,084,456	TSS1500	N_Shore	WDR67	0.330	0.032	0.406	0.059
cg00345344	yellow	16	88,459,714		Island		0.330	0.008	0.833	0.210
cg16534867	yellow	7	42,033,899	Body	OpenSea	GLI3	0.330	0.005	0.456	0.574
cg00620733	yellow	17	41,723,536	Body	Island	MEOX1	0.330	0.002	0.198	0.867
cg04070692	yellow	10	135,120,640	5'UTR	N_Shore	TUBGCP2	0.330	0.001	0.766	0.874
cg06263178	yellow	16	49,686,567	Body	OpenSea	ZNF423	0.330	-0.001	0.637	0.947
cg04843252	yellow	10	118,927,188		Island		0.330	-0.003	0.136	0.593
cg04906283	yellow	14	77,965,859	TSS1500	S_Shore	ISM2	0.330	0.000	0.331	0.973
cg10632837	yellow	10	135,334,559		S_Shore		0.330	0.000	0.716	0.994
cg13740985	yellow	9	80,930,413	Body	OpenSea	PSAT1	0.330	0.004	0.443	0.542
cg01110312	yellow	12	124,116,920	Body	N_Shore	EIF2B1	0.330	0.008	0.402	0.492
cg03064642	yellow	6	160,500,735	Body	OpenSea	IGF2R	0.330	0.002	0.836	0.682
cg21824162	yellow	17	41,132,169	TSS1500	N_Shore	RUNDC1	0.330	-0.008	0.075	0.381
cg22530111	yellow	1	233,241,601	Body	OpenSea	PCNXL2	0.330	-0.001	0.876	0.934
cg20160351	yellow	1	58,555,364	5'UTR	OpenSea	DAB1	0.330	-0.002	0.466	0.873
cg21446102	yellow	12	32,831,969	TSS200	N_Shore	DNM1L	0.330	-0.001	0.038	0.525
cg14319657	yellow	22	48,027,921		S_Shore		0.330	0.003	0.576	0.761
cg06438797	yellow	16	66,876,872	TSS1500	N_Shore	CA7	0.330	0.003	0.480	0.679
cg02476533	yellow	19	48,283,760	Body	S_Shore	SEPW1	0.330	0.005	0.917	0.412
cg09607566	yellow	16	89,367,323	Body	OpenSea	ANKRD11	0.330	0.007	0.772	0.241
cg25142028	yellow	10	134,943,309	3'UTR	N_Shore	GPR123	0.330	0.011	0.474	0.386
cg26004761	yellow	13	112,320,825		N_Shore		0.330	0.015	0.749	0.042
cg12819873	yellow	11	57,157,632	5'UTR	OpenSea	PRG2	0.330	0.006	0.837	0.413
cg22226592	yellow	1	109,439,213	Body	OpenSea	GPSM2	0.330	0.014	0.461	0.058
cg10265690	yellow	5	170,744,027		Island		0.330	0.001	0.152	0.940
cg13928313	yellow	7	2,802,073	Body	N_Shore	GNA12	0.330	0.003	0.920	0.743
cg20129717	yellow	8	146,128,212	TSS1500	S_Shore	ZNF250	0.330	0.017	0.074	0.042
cg14361132	yellow	2	210,288,244	TSS1500	N_Shore	MAP2	0.329	-0.003	0.472	0.802
cg12078211	yellow	15	89,110,499		OpenSea		0.329	-0.002	0.611	0.741
cg02462353	yellow	19	55,549,799	TSS200	OpenSea	GP6	0.329	0.001	0.708	0.923
cg00737556	yellow	14	76,013,302	3'UTR	S_Shore	BATF	0.329	0.002	0.694	0.777
cg18214796	yellow	14	39,902,973	TSS1500	S_Shore	FBXO33	0.329	0.011	0.353	0.368
cg13994232	yellow	14	32,671,882		N_Shore		0.329	-0.001	0.031	0.546
cg00024416	yellow	22	24,240,387		S_Shelf		0.329	0.013	0.281	0.099
cg27612129	yellow	16	57,017,595	3'UTR	OpenSea	CETP	0.329	0.002	0.290	0.722
cg01442531	yellow	3	3,848,115	5'UTR	OpenSea	LRRN1	0.329	-0.006	0.473	0.549
cg00135870	yellow	16	22,203,854		S_Shore		0.329	-0.003	0.124	0.606
cg20299263	yellow	10	129,705,196	TSS200	N_Shore	PTPRE	0.329	0.001	0.066	0.846
cg16824113	yellow	12	132,166,485		OpenSea		0.329	-0.012	0.566	0.485
cg06382930	yellow	11	65,102,417	Body	S_Shore	DPF2	0.329	-0.001	0.042	0.668
cg14211735	yellow	15	78,837,981	Body	OpenSea	PSMA4	0.329	-0.003	0.900	0.656
cg17371911	yellow	8	10,683,139	Body	OpenSea	PINX1	0.329	0.000	0.031	0.985
cg18479082	yellow	7	157,524,158	Body	Island	PTPRN2	0.329	-0.002	0.767	0.871
cg22219089	yellow	4	187,071,162	5'UTR	OpenSea	FAM149A	0.329	0.016	0.667	0.623
cg14597388	yellow	5	54,319,373	TSS1500	OpenSea	GZMK	0.329	0.005	0.950	0.277
cg02874145	yellow	7	73,246,406	3'UTR	S_Shore	CLDN4	0.329	0.053	0.304	0.002
cg23406509	yellow	17	31,479,452	Body	OpenSea	ACCN1	0.329	-0.001	0.795	0.878
cg05101135	yellow	3	179,367,500		N_Shelf		0.329	0.002	0.515	0.742
cg03456220	yellow	7	128,494,696	Body	Island	FLNC	0.329	0.000	0.925	0.905
cg25943066	yellow	13	112,164,965		OpenSea		0.329	0.015	0.608	0.081
cg17365962	yellow	6	30,538,589	TSS1500	N_Shore	ABCF1	0.329	-0.001	0.017	0.519
cg02350677	yellow	19	23,254,381		Island		0.329	-0.005	0.061	0.409
cg12007362	yellow	2	220,039,014	Body	N_Shelf	C2orf24	0.329	0.008	0.911	0.153
cg24052772	yellow	17	35,444,118	3'UTR	OpenSea	ACACA	0.329	0.011	0.664	0.092
cg27484878	yellow	8	13,265,200	Body	OpenSea	DLC1	0.329	0.006	0.325	0.395
cg25663892	yellow	8	10,553,728	Body	OpenSea	C8orf74	0.328	-0.005	0.583	0.438
cg10494860	yellow	20	62,693,951	TSS200	Island	TCEA2	0.328	0.007	0.487	0.474
cg25534953	yellow	2	97,174,206	TSS1500	Island	NEURL3	0.328	-0.008	0.381	0.405
cg27034568	yellow	16	34,760,531		OpenSea		0.328	-0.001	0.793	0.898
cg06646708	yellow	6	18,123,224	TSS1500	S_Shore	NHLRC1	0.328	0.008	0.875	0.280
cg17271223	yellow	7	132,957,775	Body	OpenSea	EXOC4	0.328	-0.003	0.524	0.681
cg16520038	yellow	11	57,408,660	TSS200	OpenSea	MIR130A	0.328	0.005	0.136	0.261
cg01055579	yellow	17	33,469,488	TSS200	S_Shore	NLE1	0.328	0.002	0.072	0.653
cg22566736	yellow	19	1,606,415	TSS1500	S_Shore	UQCR	0.328	0.001	0.057	0.869
cg04171808	yellow	11	35,188,437	Body	OpenSea	CD44	0.328	-0.003	0.952	0.594
cg26924967	yellow	19	3,136,097	TSS200	OpenSea	GNA15	0.328	-0.003	0.422	0.822

cg22693863	yellow	19	14,118,191	TSS1500	S_Shore	RFX1	0.328	0.015	0.781	0.322
cg17304467	yellow	11	61,110,297	Body	S_Shelf	DAK	0.328	0.005	0.704	0.506
cg00025405	yellow	5	2,135,863		N_Shore		0.328	0.000	0.796	0.988
cg14711709	yellow	16	8,891,291	Body	N_Shore	TMEM186	0.328	-0.001	0.032	0.491
cg06702891	yellow	12	132,872,081	Body	N_Shore	GALNT9	0.328	0.007	0.837	0.480
cg01878435	yellow	3	121,774,218	TSS200	OpenSea	CD86	0.328	0.011	0.423	0.113
cg10976478	yellow	2	241,263,838		S_Shore		0.328	0.008	0.585	0.369
cg00406976	yellow	19	638,588	TSS1500	N_Shore	FGF22	0.328	0.007	0.454	0.284
cg11193281	yellow	1	154,547,585	Body	S_Shelf	CHRN2	0.328	0.002	0.161	0.814
cg00000236	yellow	8	42,263,294	3'UTR	OpenSea	VDAC3	0.328	-0.002	0.947	0.487
cg22731637	yellow	11	45,231,545	Body	N_Shelf	PRDM11	0.328	0.003	0.044	0.425
cg27558387	yellow	3	156,966,620		OpenSea		0.328	0.004	0.366	0.768
cg25515941	yellow	17	46,871,708	Body	OpenSea	TTL6	0.328	0.009	0.902	0.190
cg11893811	yellow	19	14,191,858		N_Shore		0.328	-0.001	0.028	0.414
cg23722790	yellow	1	67,467,602	3'UTR	OpenSea	SLC35D1	0.328	0.005	0.585	0.395
cg26243751	yellow	19	11,495,794	TSS1500	S_Shore	EPOR	0.328	-0.004	0.932	0.451
cg10559803	yellow	1	178,693,897	TSS1500	N_Shore	RALGPS2	0.328	-0.004	0.502	0.538
cg06335889	yellow	20	32,077,519	TSS1500	N_Shore	CBFA2T2	0.328	-0.001	0.063	0.851
cg19576806	yellow	13	52,377,730	5'UTR	N_Shore	DHRS12	0.328	0.000	0.042	0.894
cg05627800	yellow	3	139,063,247	Body	S_Shore	MRPS22	0.327	-0.001	0.028	0.500
cg17805072	yellow	5	176,033,790	5'UTR	N_Shelf	GPRIN1	0.327	-0.001	0.423	0.914
cg05606455	yellow	7	43,288,757	Body	Island	HECW1	0.327	-0.008	0.653	0.524
cg22013564	yellow	7	100,743,832		OpenSea		0.327	0.006	0.208	0.712
cg12705735	yellow	6	166,491,929		OpenSea		0.327	0.003	0.173	0.679
cg26303222	yellow	5	175,301,168	5'UTR	S_Shore	CPLX2	0.327	0.024	0.484	0.141
cg08042223	yellow	20	3,074,231		Island		0.327	0.006	0.663	0.581
cg00347198	yellow	17	74,073,419	Body	Island	GALR2	0.327	0.004	0.056	0.658
cg00354484	yellow	2	114,007,283	Body	OpenSea	PAX8	0.327	-0.017	0.868	0.106
cg13475578	yellow	12	99,548,550	TSS200	OpenSea	ANKS1B	0.327	-0.001	0.241	0.932
cg05442719	yellow	3	52,444,710	1stExon	Island	PHF7	0.327	0.000	0.024	0.880
cg12380441	yellow	11	1,403,976		N_Shore		0.327	0.002	0.401	0.869
cg25750408	yellow	19	44,159,698	Body	OpenSea	PLAUR	0.327	0.003	0.813	0.712
cg09216823	yellow	3	193,272,655	5'UTR	OpenSea	ATP13A4	0.327	-0.011	0.388	0.274
cg14253635	yellow	9	132,436,438	Body	N_Shore	PRRX2	0.327	0.015	0.871	0.035
cg01739737	yellow	14	102,479,233	Body	N_Shelf	DYNC1H1	0.327	0.005	0.970	0.076
cg02538783	yellow	10	35,102,505	Body	N_Shore	PAR3	0.327	0.003	0.490	0.706
cg26152923	yellow	19	18,284,120	TSS1500	N_Shore	IFI30	0.327	0.002	0.318	0.692
cg09663203	yellow	17	73,761,474	TSS200	S_Shore	GALK1	0.327	-0.003	0.048	0.157
cg12185873	yellow	14	106,355,821		OpenSea		0.326	0.008	0.928	0.301
cg17473318	yellow	19	19,033,250	Body	S_Shelf	DDX49	0.326	0.004	0.814	0.545
cg26216323	yellow	8	37,722,193	Body	OpenSea	RAB11FIP1	0.326	0.000	0.030	0.934
cg10815203	yellow	6	31,940,771	Body	S_Shore	STK19	0.326	0.009	0.295	0.255
cg14349763	yellow	9	136,287,025	Body	S_Shelf	ADAMTS13	0.326	-0.007	0.379	0.416
cg21156263	yellow	9	19,926,448		OpenSea		0.326	-0.007	0.071	0.293
cg09538633	yellow	3	13,834,894		OpenSea		0.326	0.006	0.649	0.353
cg01726393	yellow	19	19,281,461	Body	Island	LOC729991-1	0.326	-0.004	0.156	0.572
cg00071265	yellow	20	60,717,158	Body	N_Shore	PSMA7	0.326	-0.005	0.082	0.286
cg13217373	yellow	6	167,275,395	Body	N_Shore	RPS6KA2	0.326	-0.003	0.289	0.709
cg06653203	yellow	3	13,860,477	Body	Island	WNT7A	0.326	0.005	0.523	0.497
cg19599529	yellow	19	39,819,001	3'UTR	OpenSea	GMFG	0.326	0.001	0.028	0.659
cg04983276	yellow	22	22,020,076	TSS200	N_Shore	PPI2	0.326	-0.004	0.332	0.647
cg01487981	yellow	6	133,120,407	TSS1500	S_Shore	C6orf192	0.326	0.017	0.100	0.021
cg09654861	yellow	16	70,802,516	Body	OpenSea	VAC14	0.326	0.005	0.585	0.312
cg15817635	yellow	1	1,550,031	TSS1500	N_Shore	MIB2	0.326	0.000	0.042	0.988
cg20435097	yellow	10	126,320,824	Body	OpenSea	FAM53B	0.326	0.003	0.141	0.799
cg24834921	yellow	1	5,779,237		OpenSea		0.326	0.014	0.481	0.046
cg04716996	yellow	14	65,380,577	TSS1500	N_Shore	CHURC1	0.326	0.030	0.450	0.029
cg14929207	yellow	17	27,230,533	TSS1500	S_Shore	DHRS13	0.326	0.005	0.130	0.551
cg16133244	yellow	16	1,400,833	Body	N_Shore	C16orf42	0.326	0.002	0.808	0.746
cg07322064	yellow	6	166,720,433	3'UTR	Island	PRR18	0.326	-0.002	0.222	0.856
cg10616216	yellow	11	128,321,662		Island		0.326	0.006	0.211	0.579
cg13302217	yellow	16	88,601,529	3'UTR	Island	ZFPM1	0.326	0.003	0.482	0.606
cg10484659	yellow	1	6,780,166		OpenSea		0.326	-0.002	0.075	0.698
cg14312323	yellow	17	47,980,310		S_Shore		0.326	0.004	0.817	0.599
cg06582575	yellow	6	163,149,167	5'UTR	S_Shore	PACRG	0.326	0.003	0.066	0.550
cg09147119	yellow	11	61,425,222		OpenSea		0.325	0.005	0.470	0.746
cg23044903	yellow	15	75,118,427	TSS1500	OpenSea	CPLX3	0.325	0.006	0.290	0.323



cg26917754	yellow	1	32,644,779	TSS1500	N_Shore	TXLNA	0.325	0.009	0.655	0.310
cg20256260	yellow	20	43,936,981	TSS200	S_Shore	MATN4	0.325	0.037	0.230	0.004
cg12314566	yellow	2	75,381,186	Body	OpenSea	TACR1	0.325	0.012	0.288	0.512
cg03271093	yellow	6	139,012,618		N_Shore		0.325	0.024	0.668	0.556
cg17473673	yellow	19	15,590,570	TSS1500	OpenSea	PGLYRP2	0.325	-0.004	0.227	0.611
cg03068866	yellow	12	44,152,117	1stExon	N_Shore	PUS7L	0.325	-0.003	0.036	0.450
cg27550984	yellow	1	156,027,790	Body	S_Shelf	ROBLD3	0.325	0.003	0.836	0.608
cg24706839	yellow	5	1,860,542		S_Shelf		0.325	0.006	0.937	0.219
cg14830002	yellow	1	247,616,686	TSS1500	S_Shore	OR2B11	0.325	0.019	0.430	0.449
cg09435415	yellow	8	105,479,383	TSS200	S_Shore	DPYS	0.325	0.008	0.154	0.180
cg14183602	yellow	14	23,367,828		OpenSea		0.325	0.008	0.830	0.245
cg18890561	yellow	10	131,988,419		Island		0.325	-0.002	0.086	0.717
cg25211566	yellow	17	38,808,304		S_Shelf		0.325	0.003	0.512	0.586
cg07689597	yellow	16	87,337,090		OpenSea		0.325	0.005	0.610	0.647
cg00811020	yellow	14	57,858,335	Body	Island	NAA30	0.325	0.001	0.023	0.545
cg04584872	yellow	12	109,126,397	TSS1500	S_Shore	CORO1C	0.325	0.010	0.708	0.354
cg17465569	yellow	1	22,963,605	5'UTR	OpenSea	C1QA	0.325	0.006	0.604	0.394
cg14010578	yellow	17	43,213,141	5'UTR	S_Shelf	ACBD4	0.325	0.005	0.131	0.441
cg18836486	yellow	19	5,070,723	Body	N_Shelf	KDM4B	0.325	0.011	0.722	0.124
cg09272225	yellow	2	101,519,794	5'UTR	OpenSea	NPAS2	0.325	0.023	0.649	0.087
cg09602350	yellow	3	45,347,727		OpenSea		0.324	-0.010	0.234	0.289
cg10029259	yellow	1	244,617,756		S_Shelf		0.324	0.007	0.644	0.610
cg04199609	yellow	12	6,310,100	Body	Island	CD9	0.324	0.005	0.105	0.316
cg15912086	yellow	12	128,318,241		OpenSea		0.324	0.002	0.946	0.500
cg18034299	yellow	5	172,359,680	Body	OpenSea	ERGIC1	0.324	-0.007	0.266	0.252
cg00996315	yellow	17	42,977,550	TSS1500	S_Shore	EFTUD2	0.324	0.008	0.212	0.386
cg12022294	yellow	10	52,834,676	Body	Island	PRKG1	0.324	0.006	0.070	0.430
cg24185429	yellow	11	134,231,621	Body	N_Shore	GLB1L2	0.324	0.001	0.929	0.758
cg19940644	yellow	1	12,112,386		OpenSea		0.324	0.009	0.234	0.347
cg19915997	yellow	3	15,492,725	3'UTR	OpenSea	COLQ	0.324	0.003	0.891	0.700
cg24335310	yellow	4	85,284,492		OpenSea		0.324	-0.005	0.593	0.613
cg24671951	yellow	1	154,301,964	Body	S_Shore	ATP8B2	0.324	0.004	0.738	0.685
cg27330502	yellow	3	49,919,111		OpenSea		0.324	-0.001	0.558	0.874
cg08627212	yellow	12	56,436,440	Body	S_Shore	RPS26	0.324	0.001	0.033	0.675
cg00232831	yellow	2	161,113,856		OpenSea		0.324	0.001	0.862	0.869
cg26408364	yellow	12	53,108,600		S_Shore		0.324	0.004	0.412	0.709
cg17596249	yellow	6	157,493,773	Body	OpenSea	ARID1B	0.324	0.021	0.768	0.081
cg07166800	yellow	2	55,509,719	Body	Island	PRDXDD1P	0.324	-0.004	0.028	0.027
cg17059994	yellow	11	71,958,354		S_Shelf		0.324	0.001	0.426	0.878
cg00040067	yellow	1	33,365,703	Body	N_Shore	TMEM54	0.324	-0.009	0.785	0.284
cg26272125	yellow	1	27,662,075	3'UTR	OpenSea	TMEM222	0.324	0.002	0.913	0.679
cg20716703	yellow	19	13,397,750	Body	S_Shore	CACNA1A	0.324	-0.001	0.947	0.854
cg19757928	yellow	10	76,970,513	TSS200	Island	VDAC2	0.324	-0.001	0.024	0.385
cg08568298	yellow	17	43,922,240	Body	OpenSea	LOC1001289	0.323	0.004	0.812	0.602
cg00603435	yellow	2	142,889,367	TSS200	S_Shore	LRP1B	0.323	-0.018	0.561	0.251
cg15760529	yellow	19	843,307	Body	N_Shore	PRTN3	0.323	0.001	0.256	0.953
cg23643813	yellow	1	1,270,995	3'UTR	N_Shore	DVL1	0.323	-0.006	0.548	0.346
cg13540312	yellow	17	80,560,085	3'UTR	S_Shore	FOXK2	0.323	0.010	0.940	0.017
cg06357561	yellow	17	40,439,501	TSS200	N_Shore	STAT5A	0.323	0.004	0.338	0.731
cg11791039	yellow	11	76,757,138		Island		0.323	0.004	0.057	0.311
cg01601658	yellow	6	168,785,524		OpenSea		0.323	-0.005	0.455	0.661
cg03617850	yellow	3	99,551,998	Body	OpenSea	C3orf26	0.323	-0.009	0.298	0.293
cg05649077	yellow	3	195,273,304		S_Shelf		0.323	-0.012	0.771	0.700
cg17696847	yellow	20	57,414,217	Body	N_Shore	GNASAS	0.323	0.004	0.553	0.624
cg17079757	yellow	6	33,291,947	TSS1500	S_Shore	DAXX	0.323	0.007	0.289	0.455
cg15474407	yellow	12	27,500,572	Body	OpenSea	ARNTL2	0.323	-0.001	0.721	0.929
cg23516310	yellow	7	73,417,197		OpenSea		0.323	0.010	0.653	0.068
cg22511633	yellow	7	72,993,507	TSS1500	S_Shore	TBL2	0.323	-0.004	0.051	0.120
cg15473904	yellow	9	140,446,993	3'UTR	S_Shore	MRPL41	0.323	-0.032	0.258	0.057
cg11525980	yellow	11	66,650,515	5'UTR	OpenSea	PC	0.323	-0.014	0.309	0.379
cg25044514	yellow	2	96,786,040		S_Shelf		0.323	0.019	0.461	0.058
cg13899478	yellow	16	3,221,355		Island		0.323	0.004	0.136	0.672
cg06842637	yellow	9	128,508,188	TSS1500	N_Shore	PBX3	0.323	0.013	0.238	0.252
cg01656717	yellow	16	69,971,126	Body	OpenSea	WWP2	0.323	0.000	0.728	0.976
cg27417316	yellow	9	2,623,684	TSS1500	Island	FLJ35024	0.323	0.001	0.080	0.920
cg16723994	yellow	17	56,401,623	Body	N_Shore	BZRAP1	0.323	0.001	0.288	0.898
cg12990974	yellow	17	75,085,182	TSS1500	S_Shore	SCARNA16	0.323	-0.003	0.019	0.259

cg17508434	yellow	7	97,831,974	Body	N_Shelf	LMTK2	0.323	0.002	0.963	0.542
cg27464657	yellow	12	50,560,469	Body	N_Shore	LASS5	0.323	-0.002	0.039	0.285
cg01785514	yellow	1	212,988,523	3'UTR	OpenSea	TATDN3	0.323	-0.032	0.518	0.047
cg19754462	yellow	14	57,849,030		OpenSea		0.323	0.004	0.961	0.151
cg15235707	yellow	11	131,241,788	Body	OpenSea	NTM	0.323	-0.014	0.261	0.087
cg21451553	yellow	19	46,476,046	Body	OpenSea	NOVA2	0.323	0.007	0.041	0.003
cg24701270	yellow	3	42,947,990	5'UTR	Island	ZNF662	0.323	0.000	0.054	0.964
cg11971077	yellow	10	12,171,397	TSS1500	Island	SEC61A2	0.323	0.002	0.014	0.247
cg05832925	yellow	11	74,026,371		S_Shelf		0.322	-0.001	0.427	0.936
cg00606312	yellow	1	241,695,616	TSS200	OpenSea	KMO	0.322	0.003	0.135	0.649
cg03613353	yellow	19	7,695,641	TSS1500	S_Shore	XAB2	0.322	0.004	0.706	0.801
cg01692110	yellow	13	113,365,389	Body	OpenSea	ATP11A	0.322	-0.014	0.689	0.255
cg24502330	yellow	1	20,914,028	TSS1500	OpenSea	CDA	0.322	0.026	0.613	0.017
cg07234876	yellow	8	600,039		Island		0.322	0.085	0.784	0.121
cg23762779	yellow	3	183,948,800	Body	Island	VWA5B2	0.322	-0.001	0.051	0.849
cg12852800	yellow	6	42,896,394	TSS1500	N_Shore	CNPY3	0.322	-0.007	0.832	0.501
cg26270695	yellow	15	78,640,434	3'UTR	OpenSea	CRABP1	0.322	-0.012	0.604	0.301
cg15803756	yellow	10	13,932,894	Body	N_Shore	FRMD4A	0.322	0.010	0.087	0.237
cg02524346	yellow	8	600,233		Island		0.322	0.032	0.880	0.295
cg04976330	yellow	1	31,480,640	Body	OpenSea	PUM1	0.322	0.020	0.267	0.188
cg07857194	yellow	19	34,662,870	TSS1500	N_Shore	LSM14A	0.322	0.002	0.035	0.402
cg04757168	yellow	6	45,441,433	Body	OpenSea	RUNX2	0.322	0.003	0.458	0.618
cg24847636	yellow	17	41,723,612	Body	Island	MEOX1	0.322	0.013	0.118	0.304
cg19202384	yellow	17	79,894,511	Body	N_Shore	PYCR1	0.322	0.006	0.538	0.487
cg03333286	yellow	13	108,518,237	1stExon	N_Shore	FAM155A	0.322	0.000	0.086	0.944
cg05185021	yellow	17	2,324,794	Body	OpenSea	METT10D	0.322	0.033	0.560	0.252
cg12196847	yellow	14	81,426,577	Body	OpenSea	TSHR	0.322	0.001	0.797	0.901
cg01407900	yellow	16	56,965,658	TSS200	N_Shore	HERPUD1	0.322	-0.002	0.077	0.599
cg26770281	yellow	19	56,109,975	5'UTR	N_Shore	FIZ1	0.322	0.006	0.945	0.105
cg21522295	yellow	19	17,983,747	Body	Island	SLC5A5	0.322	0.005	0.189	0.585
cg14343062	yellow	10	50,746,568	5'UTR	N_Shore	ERCC6	0.322	0.001	0.018	0.625
cg13494348	yellow	6	170,596,856	Body	N_Shore	DLL1	0.322	0.003	0.490	0.721
cg03670835	yellow	19	10,426,826	TSS200	S_Shore	FDX1L	0.322	0.000	0.021	0.819
cg20696173	yellow	13	21,497,272		OpenSea		0.322	0.002	0.923	0.755
cg11553066	yellow	22	44,420,757	Body	Island	PARVB	0.321	-0.010	0.307	0.256
cg02387244	yellow	16	746,132	Body	S_Shore	FBXL16	0.321	0.009	0.376	0.193
cg18680587	yellow	19	15,725,874	TSS200	OpenSea	CYP4F8	0.321	0.003	0.704	0.752
cg07363637	yellow	6	31,846,996	TSS200	OpenSea	SLC44A4	0.321	0.014	0.516	0.100
cg15752292	yellow	19	39,970,821	TSS1500	N_Shore	TIMM50	0.321	0.027	0.320	0.025
cg20630647	yellow	19	41,531,805		Island		0.321	-0.006	0.364	0.726
cg19576556	yellow	17	80,024,177	TSS1500	Island	DUS1L	0.321	0.004	0.839	0.636
cg10900550	yellow	9	100,173,984	TSS1500	N_Shore	TDRD7	0.321	-0.001	0.109	0.814
cg02350320	yellow	1	33,546,151	TSS1500	N_Shore	ADC	0.321	0.006	0.445	0.483
cg04654429	yellow	16	13,445,724		OpenSea		0.321	-0.005	0.317	0.611
cg25062539	yellow	8	79,718,482	TSS1500	S_Shore	IL7	0.321	0.011	0.407	0.197
cg00471696	yellow	2	173,955,214	5'UTR	OpenSea	ZAK	0.321	-0.004	0.177	0.780
cg07823273	yellow	19	39,695,065	TSS200	S_Shore	SYCN	0.321	-0.003	0.392	0.734
cg24757159	yellow	3	99,345,675	Body	OpenSea	MIRS48G	0.321	0.013	0.424	0.342
cg01810111	yellow	6	27,637,395		OpenSea		0.321	0.030	0.131	0.077
cg10095084	yellow	14	104,927,127		N_Shore		0.321	0.019	0.412	0.080
cg06380923	yellow	16	2,273,553	TSS200	Island	E4F1	0.321	-0.002	0.024	0.652
cg27185504	yellow	1	210,466,211		Island		0.321	0.001	0.037	0.540
cg26333638	yellow	5	73,981,611	Body	S_Shore	HEXB	0.321	0.002	0.154	0.789
cg12118465	yellow	2	233,497,649	TSS1500	N_Shore	EFHD1	0.321	0.000	0.064	0.936
cg00306112	yellow	2	219,773,416		N_Shore		0.321	0.024	0.525	0.048
cg25206280	yellow	6	170,425,900		Island		0.321	-0.007	0.795	0.346
cg14067066	yellow	6	29,717,475	TSS1500	S_Shore	LOC285830	0.321	0.006	0.307	0.544
cg11141463	yellow	7	116,019,830		OpenSea		0.321	-0.004	0.640	0.806
cg22157494	yellow	1	3,774,827	TSS1500	N_Shore	KIAA0562	0.321	0.028	0.351	0.085
cg00789347	yellow	16	2,039,030	TSS1500	N_Shore	SYNGR3	0.321	0.007	0.154	0.402
cg25826098	yellow	9	35,665,465	TSS200	S_Shore	C9orf100	0.321	-0.001	0.027	0.754
cg04043919	yellow	16	89,725,091	Body	S_Shore	C16orf55	0.321	0.011	0.129	0.127
cg18953509	yellow	6	31,707,301	TSS1500	N_Shore	MSH5	0.321	0.000	0.210	0.980
cg15504662	yellow	22	31,644,160	TSS200	OpenSea	LIMK2	0.321	0.003	0.044	0.279
cg23004099	yellow	2	206,790,898		S_Shore		0.321	0.003	0.032	0.162
cg27280688	yellow	21	43,823,809	TSS1500	OpenSea	UBASH3A	0.321	0.003	0.834	0.839
cg25247888	yellow	12	34,441,162		OpenSea		0.321	0.015	0.668	0.377

cg14569380	yellow	9	137,036,533	OpenSea		0.321	0.004	0.966	0.130
cg22585927	yellow	3	9,958,613 TSS200	S_Shore	IL17RC	0.321	0.000	0.042	0.874
cg07579404	yellow	6	150,346,721 TSS200	OpenSea	RAET1L	0.320	0.005	0.153	0.711
cg10233104	yellow	16	1,212,809 Body	S_Shore	CACNA1H	0.320	-0.003	0.949	0.389
cg05699739	yellow	13	47,373,579	S_Shelf		0.320	0.006	0.827	0.445
cg26336955	yellow	1	227,751,018 TSS1500	N_Shore	ZNF678	0.320	-0.003	0.956	0.299
cg03188976	yellow	7	134,443,864	OpenSea		0.320	-0.010	0.554	0.180
cg20577663	yellow	17	15,360,645 5'UTR	OpenSea	CDRT4	0.320	-0.002	0.174	0.751
cg24185357	yellow	10	38,069,909	Island		0.320	0.013	0.274	0.384
cg10502571	yellow	5	6,572,919	OpenSea		0.320	0.014	0.812	0.101
cg10598596	yellow	19	51,517,212 3'UTR	N_Shelf	KLK10	0.320	0.001	0.761	0.947
cg25313930	yellow	2	225,266,783 TSS200	OpenSea	FAM124B	0.320	0.016	0.236	0.106
cg26799806	yellow	16	57,437,848 TSS1500	OpenSea	CCL17	0.320	-0.002	0.877	0.698
cg14233374	yellow	21	47,813,461 Body	Island	PCNT	0.320	0.003	0.814	0.743
cg05592808	yellow	7	158,785,836	S_Shore		0.320	0.004	0.338	0.742
cg26143752	yellow	2	27,806,326 Body	S_Shore	ZNF512	0.320	0.001	0.021	0.398
cg17799742	yellow	1	32,057,406	S_Shelf		0.320	0.000	0.873	0.999
cg01595204	yellow	19	1,642,837 Body	N_Shelf	TCF3	0.320	0.001	0.961	0.867
cg23123148	yellow	14	93,689,257 Body	N_Shore	UBR7	0.320	-0.002	0.955	0.548
cg00910067	yellow	19	33,717,545 TSS1500	Island	SLC7A10	0.320	-0.008	0.136	0.216
cg07608370	yellow	11	1,036,865 TSS200	S_Shore	MUC6	0.320	0.011	0.420	0.244
cg21516384	yellow	17	78,233,839 TSS1500	N_Shore	RNF213	0.320	0.007	0.070	0.567
cg04952324	yellow	7	73,727,108 5'UTR	OpenSea	CLIP2	0.320	0.001	0.908	0.888
cg00524900	yellow	5	118,609,965 Body	OpenSea	TNFAIP8	0.320	0.036	0.677	0.096
cg10953436	yellow	14	95,923,976 Body	OpenSea	C14orf49	0.320	0.010	0.814	0.279
cg02837935	yellow	16	1,027,604	N_Shelf		0.320	0.023	0.532	0.012
cg08731559	yellow	7	126,890,973 5'UTR	N_Shore	GRM8	0.320	0.000	0.025	0.995
cg00543991	yellow	22	32,367,038	Island		0.320	-0.023	0.095	0.268
cg23436081	yellow	3	190,594,456 TSS1500	OpenSea	SNAR-I	0.320	-0.003	0.831	0.590
cg07531248	yellow	16	875,410	Island		0.320	-0.007	0.453	0.542
cg27617086	yellow	12	3,702,499 3'UTR	OpenSea	PRMT8	0.319	0.004	0.877	0.568
cg13261623	yellow	17	74,462,685 Body	OpenSea	AANAT	0.319	0.005	0.121	0.259
cg23562473	yellow	19	51,334,972 TSS200	OpenSea	KLK15	0.319	-0.002	0.427	0.738
cg12065799	yellow	1	39,324,622 Body	N_Shore	RRAGC	0.319	-0.002	0.042	0.372
cg00609333	yellow	12	16,505,000 TSS1500	OpenSea	MGST1	0.319	0.006	0.956	0.068
cg16019898	yellow	5	140,700,602 TSS1500	S_Shore	TAF7	0.319	0.001	0.037	0.762
cg10455971	yellow	5	101,119,566	OpenSea		0.319	0.003	0.501	0.837
cg11725581	yellow	7	6,140,990	N_Shelf		0.319	0.013	0.733	0.548
cg15407058	yellow	17	80,175,989	N_Shelf		0.319	0.000	0.632	0.956
cg22976331	yellow	5	140,080,544 Body	OpenSea	ZMAT2	0.319	0.000	0.032	0.881
cg08011245	yellow	19	55,975,827	S_Shelf		0.319	0.011	0.742	0.378
cg03627880	yellow	6	151,815,985 Body	S_Shore	C6orf97	0.319	0.002	0.057	0.638
cg21554723	yellow	19	46,438,944	S_Shore		0.319	0.011	0.492	0.076
cg10247798	yellow	3	52,008,826 TSS200	N_Shore	ABHD14B	0.319	-0.002	0.119	0.521
cg01561092	yellow	16	50,100,815 Body	S_Shore	HEATR3	0.319	-0.006	0.386	0.546
cg09577367	yellow	19	18,197,699 TSS200	OpenSea	IL12RB1	0.319	-0.003	0.612	0.676
cg18856004	yellow	1	20,208,405 TSS1500	N_Shore	OTUD3	0.319	0.003	0.461	0.697
cg11668399	yellow	19	18,716,230 Body	Island	CRLF1	0.319	-0.001	0.110	0.817
cg01307115	yellow	22	21,982,787 Body	Island	YDJC	0.319	0.009	0.880	0.388
cg26638005	yellow	2	131,090,049	OpenSea		0.319	0.022	0.358	0.103
cg11336539	yellow	1	28,994,987 TSS1500	OpenSea	GMEB1	0.319	-0.001	0.060	0.808
cg01051318	yellow	2	27,440,764 Body	Island	CAD	0.319	0.002	0.092	0.837
cg19551199	yellow	19	585,260	Island		0.319	0.004	0.915	0.546
cg06293365	yellow	7	75,624,427 TSS1500	S_Shore	TMEM120A	0.319	0.019	0.321	0.177
cg04853906	yellow	16	56,623,013 TSS1500	N_Shore	MT3	0.319	0.003	0.117	0.714
cg19098768	yellow	11	13,689,411 TSS1500	N_Shore	FAR1	0.319	0.005	0.080	0.589
cg06142442	yellow	16	47,072,354	S_Shore		0.319	0.000	0.118	0.996
cg08749735	yellow	17	16,488,023	S_Shore		0.318	0.002	0.296	0.842
cg22451100	yellow	2	178,107,899 Body	OpenSea	NFE2L2	0.318	0.003	0.963	0.229
cg10667986	yellow	12	53,689,919 Body	S_Shore	PFDN5	0.318	0.005	0.092	0.360
cg24957489	yellow	12	103,200,087	OpenSea		0.318	0.000	0.695	0.965
cg18196063	yellow	1	24,652,248 Body	S_Shelf	GRHL3	0.318	-0.006	0.712	0.295
cg02573524	yellow	19	47,165,142 TSS1500	S_Shore	DACT3	0.318	-0.001	0.017	0.165
cg01535630	yellow	1	3,689,683 5'UTR	Island	LOC388588	0.318	0.002	0.337	0.789
cg02482690	yellow	22	37,449,184 Body	S_Shore	KCTD17	0.318	0.008	0.853	0.156
cg01176433	yellow	15	69,754,714	OpenSea		0.318	-0.010	0.471	0.311
cg27354296	yellow	17	80,798,299 Body	OpenSea	TBCD	0.318	0.001	0.955	0.716

cg02066331	yellow	6	17,282,778	TSS200	S_Shore	RBM24	0.318	0.008	0.192	0.336
cg25812095	yellow	2	144,998,514	5'UTR	OpenSea	GTDC1	0.318	0.007	0.372	0.129
cg05805851	yellow	16	86,861,247		OpenSea		0.318	0.007	0.474	0.227
cg08821909	yellow	21	48,091,011		S_Shelf		0.318	0.005	0.703	0.538
cg20616196	yellow	1	110,995,873	Body	OpenSea	PROK1	0.318	-0.001	0.842	0.922
cg19142399	yellow	11	45,906,499	TSS1500	N_Shore	MAPK8IP1	0.318	0.005	0.583	0.483
cg11737164	yellow	3	87,038,972	Body	N_Shore	VGLL3	0.318	0.003	0.507	0.773
cg00787305	yellow	9	139,378,815	5'UTR	Island	C9orf163	0.318	0.018	0.311	0.069
cg06456717	yellow	18	12,092,942		N_Shore		0.318	0.006	0.794	0.606
cg07044458	yellow	7	4,751,984	Body	OpenSea	FO XK1	0.318	0.025	0.787	0.121
cg18754335	yellow	6	39,290,415	TSS200	OpenSea	KCNK16	0.318	0.004	0.755	0.601
cg18893098	yellow	7	1,136,568	Body	S_Shore	C7orf50	0.318	0.015	0.742	0.120
cg01424901	yellow	1	21,948,680	Body	Island	RAP1GAP	0.318	-0.007	0.152	0.081
cg25555505	yellow	7	4,791,054	Body	N_Shelf	FO XK1	0.318	0.000	0.975	0.792
cg14305659	yellow	9	138,696,500		OpenSea		0.318	0.007	0.522	0.303
cg25234359	yellow	19	18,699,219	TSS1500	N_Shore	C19orf60	0.318	0.013	0.465	0.419
cg10653240	yellow	1	51,810,892	TSS200	S_Shore	TTC39A	0.318	0.002	0.233	0.768
cg05266321	yellow	3	46,401,927	3'UTR	OpenSea	CCR2	0.318	0.020	0.440	0.095
cg04398861	yellow	4	670,694	TSS1500	S_Shore	MYL5	0.318	0.014	0.796	0.035
cg26430597	yellow	1	182,354,699	Body	OpenSea	GLUL	0.318	-0.008	0.895	0.184
cg15274202	yellow	15	35,443,300		OpenSea		0.318	-0.005	0.936	0.559
cg22619412	yellow	19	676,009	TSS1500	S_Shore	FSTL3	0.318	0.002	0.249	0.812
cg00049323	yellow	5	472,564	Body	N_Shore	LOC25845	0.318	0.011	0.107	0.372
cg14263426	yellow	11	61,912,410	Body	OpenSea	INCENP	0.317	0.001	0.967	0.800
cg17273588	yellow	2	100,760,351	TSS1500	OpenSea	AFF3	0.317	-0.008	0.478	0.372
cg18107989	yellow	8	1,861,064	Body	OpenSea	ARHGEF10	0.317	-0.003	0.676	0.597
cg09307264	yellow	17	4,902,281	TSS1500	S_Shore	INCA1	0.317	0.005	0.114	0.370
cg26344867	yellow	4	157,536,266		OpenSea		0.317	0.003	0.216	0.843
cg06358191	yellow	1	1,227,138	3'UTR	N_Shore	SCNN1D	0.317	-0.006	0.895	0.468
cg24847230	yellow	17	46,986,807	Body	S_Shore	UBE2Z	0.317	0.004	0.192	0.466
cg24365042	yellow	1	212,780,517	TSS1500	Island	ATF3	0.317	-0.002	0.063	0.720
cg23823000	yellow	6	168,433,191	Body	N_Shelf	KIF25	0.317	0.024	0.430	0.116
cg11846968	yellow	20	31,823,545	TSS1500	OpenSea	PLUNC	0.317	0.002	0.842	0.868
cg09027255	yellow	1	2,796,193		OpenSea		0.317	0.014	0.677	0.178
cg13321661	yellow	1	62,319,602	Body	OpenSea	INADL	0.317	0.008	0.179	0.373
cg01209642	yellow	6	170,581,355		S_Shore		0.317	0.005	0.853	0.426
cg09420412	yellow	17	14,683,948		OpenSea		0.317	0.007	0.524	0.439
cg26980954	yellow	19	51,955,472	3'UTR	OpenSea	SIGLEC8	0.317	0.006	0.889	0.449
cg18537085	yellow	2	70,120,936	TSS200	OpenSea	SNRNP27	0.317	-0.001	0.021	0.222
cg04834956	yellow	5	146,613,537	TSS1500	N_Shore	STK32A	0.317	0.008	0.845	0.546
cg12413579	yellow	1	36,108,206	TSS1500	S_Shore	PSMB2	0.317	0.022	0.582	0.083
cg08183407	yellow	15	40,804,194		Island		0.317	-0.002	0.049	0.256
cg08689926	yellow	22	50,322,930		Island		0.317	0.005	0.308	0.699
cg23627060	yellow	7	106,807,920		N_Shore		0.317	0.006	0.141	0.549
cg19785773	yellow	8	142,398,412		N_Shelf		0.317	0.000	0.618	0.964
cg12731773	yellow	11	846,055	5'UTR	N_Shelf	TSPAN4	0.317	-0.007	0.300	0.392
cg19893664	yellow	14	105,619,634	Body	N_Shelf	JAG2	0.317	-0.006	0.631	0.517
cg23712401	yellow	10	133,775,551		OpenSea		0.317	0.008	0.876	0.265
cg06040590	yellow	5	180,633,615	TSS1500	S_Shore	TRIM7	0.317	0.000	0.037	0.978
cg19222156	yellow	6	31,085,034	Body	OpenSea	CDSN	0.317	0.004	0.492	0.643
cg11496593	yellow	17	77,960,371	Body	OpenSea	TBC1D16	0.317	-0.006	0.646	0.499
cg10177032	yellow	16	4,103,492	Body	OpenSea	ADCY9	0.317	0.000	0.018	0.893
cg05458220	yellow	18	77,866,647	TSS1500	OpenSea	ADNP2	0.317	-0.011	0.296	0.132
cg08977212	yellow	10	37,090,850		OpenSea		0.317	0.002	0.246	0.874
cg19774425	yellow	19	51,327,477	TSS1500	N_Shelf	KLK1	0.317	-0.004	0.878	0.570
cg18874307	yellow	12	58,027,504	TSS1500	S_Shore	B4GALNT1	0.317	0.007	0.322	0.550
cg14539461	yellow	19	47,973,164	5'UTR	S_Shelf	SLC8A2	0.317	0.004	0.035	0.152
cg07571519	yellow	10	73,472,315	3'UTR	OpenSea	C10orf105	0.317	0.004	0.870	0.514
cg05149617	yellow	16	30,033,242	TSS1500	S_Shore	C16orf92	0.317	0.001	0.027	0.496
cg00000734	yellow	3	128,902,377	5'UTR	Island	CNBP	0.317	-0.001	0.039	0.715
cg17328659	yellow	16	729,498	TSS1500	Island	STUB1	0.316	0.000	0.044	0.913
cg21805950	yellow	8	78,031,864		OpenSea		0.316	0.016	0.627	0.288
cg25026700	yellow	4	159,690,965	Body	S_Shore	FNIP2	0.316	0.003	0.034	0.032
cg12037593	yellow	17	57,700,024	Body	S_Shelf	CLTC	0.316	0.002	0.870	0.861
cg17046322	yellow	11	44,972,791	TSS200	S_Shore	TP53I11	0.316	0.004	0.176	0.373
cg09720573	yellow	12	110,150,261		Island		0.316	-0.005	0.105	0.423
cg21922523	yellow	12	31,156,691		OpenSea		0.316	-0.005	0.882	0.373

cg20154003	yellow	19	51,140,463	Body	N_Shore	SYT3	0.316	-0.005	0.784	0.486
cg04153604	yellow	17	7,099,823	Body	OpenSea	DLG4	0.316	0.006	0.830	0.329
cg00864424	yellow	17	55,054,810	TSS1500	N_Shore	SCPEP1	0.316	0.003	0.378	0.766
cg25373297	yellow	19	9,929,086	Body	N_Shore	FBXL12	0.316	0.000	0.035	0.953
cg16206504	yellow	13	114,917,223		S_Shelf		0.316	0.000	0.448	0.969
cg16845548	yellow	2	39,834,993		OpenSea		0.316	-0.002	0.624	0.831
cg21812369	yellow	12	132,536,997	Body	OpenSea	EP400	0.316	-0.003	0.942	0.521
cg03687532	yellow	16	54,228,358		Island		0.316	0.010	0.512	0.372
cg19510565	yellow	1	31,217,240	Body	OpenSea	LAPTM5	0.316	-0.003	0.739	0.641
cg26123824	yellow	10	120,783,201		OpenSea		0.316	-0.008	0.689	0.296
cg00312474	yellow	1	236,445,864	TSS1500	S_Shore	ERO1LB	0.316	0.001	0.026	0.287
cg11305937	yellow	20	2,188,663		S_Shore		0.316	0.003	0.036	0.325
cg12491966	yellow	21	46,925,242	Body	N_Shelf	COL18A1	0.316	0.009	0.753	0.285
cg04366994	yellow	10	134,361,203	Body	S_Shore	INPP5A	0.316	0.005	0.870	0.284
cg19091257	yellow	12	9,217,907	Body	S_Shore	LOC144571	0.316	0.001	0.441	0.958
cg01835326	yellow	16	65,573,166	Body	OpenSea	LOC283867	0.316	-0.003	0.128	0.688
cg02750065	yellow	12	117,155,382	3'UTR	OpenSea	C12orf49	0.316	0.007	0.475	0.353
cg13327911	yellow	6	55,965,977	Body	OpenSea	COL21A1	0.316	0.034	0.835	0.019
cg21948783	yellow	12	49,372,474	1stExon	Island	WNT1	0.316	-0.002	0.108	0.603
cg06139259	yellow	16	4,526,053	TSS1500	N_Shore	HMOX2	0.316	-0.017	0.181	0.486
cg18187189	yellow	1	11,866,930	Body	S_Shore	CLCN6	0.316	0.005	0.083	0.472
cg13518670	yellow	6	30,433,838		N_Shore		0.316	0.004	0.275	0.721
cg01766737	yellow	22	42,341,948	Body	N_Shore	CENPM	0.316	0.001	0.030	0.463
cg14240304	yellow	11	65,323,116	Body	N_Shore	LTBP3	0.316	0.000	0.770	0.964
cg22297966	yellow	6	33,422,952	Body	S_Shore	ZBTB9	0.316	0.000	0.197	0.996
cg03745160	yellow	19	17,393,902	Body	S_Shore	ANKLE1	0.316	-0.007	0.697	0.599
cg13208438	yellow	15	78,296,041	Body	OpenSea	TBC1D2B	0.316	0.009	0.739	0.096
cg12000760	yellow	6	13,731,564		OpenSea		0.316	0.005	0.663	0.559
cg23886747	yellow	11	130,297,197	Body	N_Shore	ADAMTS8	0.315	0.002	0.097	0.766
cg02086046	yellow	7	150,776,474	Body	N_Shore	FASTK	0.315	-0.001	0.457	0.894
cg07766803	yellow	5	2,746,667	3'UTR	N_Shore	IRX2	0.315	-0.006	0.579	0.716
cg15781819	yellow	6	41,204,958	3'UTR	OpenSea	TREML4	0.315	-0.006	0.888	0.374
cg09506675	yellow	7	112,727,914	TSS1500	OpenSea	GPR85	0.315	0.011	0.424	0.651
cg07702819	yellow	12	322,876	TSS200	OpenSea	SLC6A12	0.315	0.001	0.432	0.713
cg05304361	yellow	19	55,599,320		S_Shore		0.315	0.013	0.479	0.304
cg24107665	yellow	8	144,372,932	TSS1500	Island	ZNF696	0.315	0.011	0.094	0.274
cg01806192	yellow	3	73,010,941	Body	OpenSea	GXYLT2	0.315	0.015	0.664	0.181
cg18796458	yellow	19	2,308,423	TSS1500	S_Shore	LINGO3	0.315	-0.004	0.071	0.567
cg07833554	yellow	16	86,794,611		OpenSea		0.315	-0.004	0.676	0.809
cg23658684	yellow	19	3,126,435		S_Shelf		0.315	0.009	0.565	0.462
cg20557935	yellow	15	52,484,322	TSS1500	OpenSea	GNB5	0.315	0.005	0.848	0.339
cg18813545	yellow	3	9,167,185	Body	OpenSea	SRGAP3	0.315	0.002	0.077	0.817
cg01951617	yellow	2	121,411,889		N_Shore		0.315	-0.001	0.472	0.925
cg08098402	yellow	16	89,557,869	TSS1500	S_Shore	ANKRD11	0.315	0.012	0.056	0.087
cg13002957	yellow	3	137,728,838	TSS200	N_Shore	CLDN18	0.315	0.009	0.750	0.377
cg03604011	yellow	5	400,201	Body	OpenSea	AHRR	0.315	0.001	0.033	0.884
cg20743744	yellow	4	1,243,849	TSS1500	Island	C4orf42	0.315	-0.004	0.365	0.732
cg09619786	yellow	15	75,249,914	TSS200	Island	RPP25	0.315	-0.001	0.022	0.327
cg08699681	yellow	10	135,160,713	TSS200	OpenSea	PRAP1	0.315	-0.004	0.280	0.680
cg18241967	yellow	11	7,098,472		OpenSea		0.314	0.009	0.648	0.448
cg08705382	yellow	1	230,322,024	Body	OpenSea	GALNT2	0.314	0.013	0.512	0.132
cg19673125	yellow	6	150,240,577	Body	N_Shelf	RAET1G	0.314	0.013	0.537	0.088
cg13028834	yellow	11	72,504,617	1stExon	N_Shore	STARD10	0.314	0.000	0.044	0.822
cg05002190	yellow	19	2,926,196		N_Shore		0.314	0.020	0.464	0.241
cg16560209	yellow	1	2,207,859	Body	OpenSea	SKI	0.314	-0.004	0.474	0.534
cg01538305	yellow	14	100,658,948		N_Shore		0.314	-0.014	0.460	0.115
cg06359059	yellow	16	69,760,119	Body	N_Shore	NQO1	0.314	0.002	0.020	0.284
cg18603577	yellow	12	123,900,102	3'UTR	OpenSea	RILPL2	0.314	-0.007	0.744	0.497
cg14604007	yellow	9	138,683,902	Body	Island	KCNT1	0.314	0.002	0.409	0.745
cg22307058	yellow	6	158,438,929	Body	OpenSea	SYNJ2	0.314	0.006	0.765	0.644
cg02841692	yellow	8	145,987,889		OpenSea		0.314	0.015	0.108	0.114
cg22994849	yellow	7	149,578,441		OpenSea		0.314	-0.013	0.311	0.463
cg01495363	yellow	2	109,747,207	TSS1500	S_Shore	LOC1002872	0.314	0.006	0.473	0.440
cg25534226	yellow	10	133,956,112	Body	S_Shore	JAKMIP3	0.314	0.011	0.112	0.389
cg03650550	yellow	4	83,675,797	TSS1500	OpenSea	MIR575	0.314	-0.001	0.223	0.892
cg17786902	yellow	1	19,740,722	Body	OpenSea	CAPZB	0.314	0.002	0.675	0.843
cg23211535	yellow	5	138,852,460		OpenSea		0.314	0.004	0.953	0.240

cg21118819	yellow	1	1,287,259	S_Shore		0.314	0.003	0.604	0.691
cg11808874	yellow	2	70,529,494 TSS1500	S_Shore	FAM136A	0.314	0.013	0.824	0.221
cg24937675	yellow	6	134,639,482 TSS1500	S_Shore	SGK1	0.314	-0.006	0.222	0.596
cg25558663	yellow	20	44,882,514	S_Shelf		0.314	0.004	0.612	0.554
cg04222986	yellow	11	2,210,860	OpenSea		0.314	0.005	0.706	0.416
cg00291213	yellow	21	36,398,056 Body	N_Shore	RUNX1	0.314	0.006	0.917	0.373
cg09315696	yellow	7	157,225,221	OpenSea		0.314	0.005	0.417	0.546
cg13064789	yellow	1	153,762,564	OpenSea		0.314	0.015	0.561	0.179
cg05980782	yellow	3	101,567,801 5'UTR	N_Shore	NFKBIZ	0.314	0.004	0.117	0.281
cg16164619	yellow	12	57,871,855 Body	S_Shore	ARHGAP9	0.314	0.006	0.273	0.264
cg15265116	yellow	4	164,440,990 3'UTR	OpenSea	C4orf43	0.314	0.008	0.901	0.336
cg11008866	yellow	3	121,902,442 TSS200	N_Shore	CASR	0.314	0.007	0.316	0.654
cg02866639	yellow	17	1,808,743	Island		0.314	-0.001	0.171	0.949
cg11754289	yellow	12	54,610,419	N_Shore		0.314	0.005	0.233	0.518
cg05225549	yellow	16	86,588,418 Body	N_Shore	MTHFSD	0.313	0.001	0.017	0.101
cg10249507	yellow	19	17,758,229 Body	Island	UNC13A	0.313	-0.001	0.948	0.816
cg18013419	yellow	17	80,995,372 Body	N_Shore	B3GNTL1	0.313	0.015	0.849	0.020
cg14558942	yellow	11	67,234,346 Body	N_Shore	TMEM134	0.313	0.000	0.946	0.979
cg16535080	yellow	6	30,460,600 3'UTR	S_Shelf	HLA-E	0.313	0.005	0.951	0.172
cg03537872	yellow	12	109,459,024 TSS200	OpenSea	SVOP	0.313	0.003	0.294	0.663
cg11549025	yellow	7	75,994,082	OpenSea		0.313	-0.001	0.098	0.892
cg08092111	yellow	8	55,534,103 Body	S_Shore	RP1	0.313	0.011	0.856	0.071
cg10296410	yellow	22	42,095,368 TSS200	N_Shore	MEI1	0.313	0.002	0.049	0.647
cg11475454	yellow	17	19,648,853 1stExon	S_Shore	ALDH3A1	0.313	0.001	0.432	0.909
cg10704680	yellow	11	2,064,747	OpenSea		0.313	0.011	0.722	0.386
cg00562969	yellow	1	4,815,872 Body	OpenSea	AJAP1	0.313	0.004	0.179	0.666
cg19600871	yellow	5	140,268,005 Body	S_Shelf	PCDHA7	0.313	-0.007	0.805	0.592
cg03157795	yellow	10	134,871,519	OpenSea		0.313	0.004	0.805	0.672
cg26954519	yellow	22	36,014,356 TSS1500	OpenSea	MB	0.313	-0.004	0.323	0.692
cg09958801	yellow	1	154,974,950 TSS200	N_Shore	ZBTB7B	0.313	0.000	0.017	0.822
cg00181432	yellow	3	194,393,818 TSS1500	S_Shore	LSG1	0.313	-0.010	0.241	0.355
cg03457338	yellow	15	78,040,120	OpenSea		0.313	0.024	0.305	0.015
cg25455724	yellow	6	31,623,318 TSS1500	S_Shelf	APOM	0.313	0.016	0.852	0.140
cg00922281	yellow	16	87,715,775 Body	S_Shore	JPH3	0.313	0.018	0.263	0.015
cg05767143	yellow	17	6,385,458 Body	OpenSea	PITPNM3	0.313	0.000	0.631	0.975
cg21817284	yellow	20	54,823,279 TSS1500	N_Shore	MC3R	0.313	-0.008	0.059	0.077
cg19074393	yellow	10	131,682,452 Body	N_Shelf	EBF3	0.313	-0.003	0.423	0.683
cg23552192	yellow	8	59,323,544 TSS1500	N_Shore	UBXN2B	0.312	0.009	0.243	0.448
cg06191357	yellow	1	172,714,273	OpenSea		0.312	-0.002	0.259	0.808
cg24729879	yellow	5	55,288,892 5'UTR	N_Shore	IL6ST	0.312	-0.003	0.055	0.557
cg08339915	yellow	7	157,394,582 Body	OpenSea	PTPRN2	0.312	0.008	0.828	0.380
cg05308639	yellow	19	1,525,316 Body	Island	PLK5P	0.312	0.011	0.253	0.081
cg20612875	yellow	17	1,094,308	OpenSea		0.312	0.006	0.857	0.275
cg03983364	yellow	7	101,272,096 Body	OpenSea	MYL10	0.312	-0.006	0.848	0.509
cg21487950	yellow	14	81,421,770 TSS200	S_Shore	TSHR	0.312	0.002	0.035	0.364
cg21742001	yellow	6	158,966,350 Body	OpenSea	TMEM181	0.312	0.025	0.548	0.016
cg02250787	yellow	13	47,470,989 1stExon	OpenSea	HTR2A	0.312	0.006	0.102	0.486
cg15636295	yellow	5	139,725,250 Body	N_Shore	HBEGF	0.312	0.001	0.253	0.902
cg16427513	yellow	1	230,865,099	OpenSea		0.312	0.005	0.311	0.669
cg16596367	yellow	16	89,070,757	Island		0.312	-0.002	0.039	0.676
cg05259836	yellow	6	74,290,516	OpenSea		0.312	0.002	0.048	0.772
cg05860475	yellow	10	13,425,475	OpenSea		0.312	0.000	0.047	0.865
cg20821314	yellow	2	10,950,732 Body	N_Shore	PDIA6	0.312	0.031	0.325	0.019
cg27529647	yellow	1	151,300,868	S_Shore		0.312	-0.001	0.405	0.912
cg17142950	yellow	1	84,766,782 TSS1500	S_Shore	SAMD13	0.312	0.017	0.190	0.124
cg06357371	yellow	1	40,136,763 Body	N_Shore	NT5C1A	0.312	0.000	0.437	0.995
cg09254318	yellow	1	160,079,657	OpenSea		0.311	0.005	0.236	0.570
cg24589834	yellow	1	15,083,092 Body	OpenSea	KIAA1026	0.311	0.011	0.354	0.110
cg26603656	yellow	10	5,671,107	OpenSea		0.311	-0.006	0.316	0.612
cg20749792	yellow	13	34,185,166	OpenSea		0.311	0.004	0.379	0.576
cg02883147	yellow	12	9,217,769 TSS200	S_Shore	LOC144571	0.311	0.008	0.307	0.559
cg00199753	yellow	12	113,519,288 Body	S_Shelf	DTX1	0.311	-0.014	0.691	0.031
cg15690696	yellow	11	120,217,718 Body	OpenSea	ARHGEF12	0.311	0.010	0.210	0.503
cg10035737	yellow	17	42,840,005 Body	S_Shelf	ADAM11	0.311	-0.002	0.922	0.794
cg14386808	yellow	8	1,292,052	OpenSea		0.311	0.008	0.835	0.237
cg13307782	yellow	5	77,291,146	OpenSea		0.311	-0.011	0.538	0.322
cg16005224	yellow	12	101,603,174 Body	N_Shore	SLC5A8	0.311	0.001	0.399	0.868

cg20366397	yellow	3	59,759,843	Body	OpenSea	FHIT	0.311	0.015	0.603	0.225
cg08615372	yellow	19	18,699,234	TSS1500	N_Shore	C19orf60	0.311	0.006	0.246	0.597
cg02979703	yellow	8	37,558,858		Island		0.311	-0.001	0.781	0.946
cg02518691	yellow	11	130,297,149	Body	N_Shore	ADAMTS8	0.311	0.013	0.160	0.159
cg22628146	yellow	1	45,957,456	TSS1500	S_Shore	TESK2	0.311	-0.004	0.081	0.502
cg14750743	yellow	6	32,137,294	Body	S_Shelf	AGPAT1	0.311	0.004	0.593	0.507
cg17718899	yellow	13	22,773,018		OpenSea		0.311	0.000	0.274	0.994
cg12228611	yellow	22	22,020,169	TSS200	Island	PPIL2	0.311	-0.003	0.040	0.132
cg22965943	yellow	5	68,787,919	TSS200	N_Shore	OCLN	0.311	0.001	0.039	0.811
cg21942572	yellow	13	113,707,517	Body	S_Shore	MCF2L	0.311	0.002	0.604	0.820
cg10060338	yellow	16	20,774,960	TSS1500	OpenSea	ACSM3	0.311	-0.017	0.226	0.203
cg04289624	yellow	3	47,620,963	TSS1500	Island	CSPG5	0.311	-0.003	0.083	0.521
cg15587013	yellow	6	33,394,838	Body	N_Shore	SYNGAP1	0.311	0.001	0.059	0.712
cg14749802	yellow	10	133,195,108		OpenSea		0.311	0.005	0.143	0.738
cg19956155	yellow	5	176,511,416		N_Shelf		0.311	0.001	0.473	0.936
cg00318000	yellow	1	151,128,630	TSS1500	OpenSea	TNFAIP8L2	0.311	0.004	0.072	0.375
cg01448098	yellow	1	3,078,013	Body	N_Shelf	PRDM16	0.311	0.009	0.486	0.233
cg11125037	yellow	8	145,104,669		Island		0.311	-0.011	0.104	0.149
cg13609645	yellow	6	143,555,173	Body	OpenSea	AIG1	0.311	-0.006	0.137	0.658
cg17081027	yellow	1	223,566,447	TSS1500	N_Shore	C1orf65	0.311	0.002	0.496	0.848
cg13216073	yellow	1	12,042,593	5'UTR	S_Shore	MFN2	0.311	0.006	0.967	0.068
cg03029127	yellow	16	57,770,913	5'UTR	S_Shore	KATNB1	0.310	0.002	0.046	0.630
cg18501942	yellow	22	41,414,083		N_Shelf		0.310	0.003	0.960	0.459
cg01963224	yellow	14	71,791,671		S_Shelf		0.310	-0.013	0.864	0.030
cg11268628	yellow	8	132,916,052	TSS1500	N_Shore	EFR3A	0.310	0.001	0.094	0.870
cg11498165	yellow	17	59,503,645		OpenSea		0.310	0.003	0.320	0.592
cg22752052	yellow	19	34,397,682		Island		0.310	-0.002	0.119	0.740
cg18611245	yellow	20	62,338,235	TSS1500	N_Shore	ZGPAT	0.310	-0.001	0.144	0.904
cg04795044	yellow	3	129,344,706		N_Shore		0.310	0.003	0.902	0.556
cg19331988	yellow	2	88,771,031		OpenSea		0.310	-0.007	0.535	0.559
cg01607258	yellow	19	13,865,805	Body	N_Shelf	CCDC130	0.310	-0.001	0.818	0.853
cg08174244	yellow	2	68,548,060	TSS1500	S_Shore	CNRIP1	0.310	0.035	0.820	0.000
cg00033334	yellow	12	123,877,320	Body	S_Shelf	SETD8	0.310	-0.005	0.948	0.188
cg05979320	yellow	12	49,629,187		S_Shore		0.310	0.004	0.113	0.403
cg02277530	yellow	17	75,396,462	5'UTR	N_Shore	9-Sep	0.310	0.005	0.665	0.664
cg02058358	yellow	14	76,819,107		N_Shore		0.310	0.002	0.050	0.626
cg15959921	yellow	4	8,702,279		OpenSea		0.310	0.014	0.292	0.056
cg08712625	yellow	19	920,786	3'UTR	Island	KISS1R	0.310	0.004	0.051	0.192
cg03975447	yellow	5	178,741,374	Body	OpenSea	ADAMTS2	0.310	-0.007	0.503	0.147
cg02537960	yellow	8	28,269,396		Island		0.310	0.001	0.033	0.218
cg27143082	yellow	6	31,744,628	5'UTR	OpenSea	C6orf27	0.310	0.017	0.347	0.151
cg03315662	yellow	16	30,759,178	TSS1500	N_Shore	PHKG2	0.310	0.027	0.234	0.024
cg10334121	yellow	3	137,728,995	TSS200	Island	CLDN18	0.310	-0.006	0.530	0.425
cg14865034	yellow	17	80,267,030		OpenSea		0.310	0.006	0.440	0.492
cg22188571	yellow	6	34,074,955	Body	OpenSea	GRM4	0.310	0.007	0.475	0.256
cg21558912	yellow	11	125,933,590	TSS1500	S_Shore	CDON	0.309	0.002	0.020	0.044
cg24935810	yellow	17	3,433,157	Body	N_Shelf	TRPV3	0.309	0.002	0.888	0.698
cg19628233	yellow	3	127,873,057	Body	S_Shore	EEFSEC	0.309	0.001	0.043	0.647
cg00190319	yellow	3	47,462,780	Body	S_Shelf	SCAP	0.309	-0.001	0.021	0.312
cg00401939	yellow	6	14,397,330		OpenSea		0.309	0.003	0.462	0.775
cg14223966	yellow	9	74,061,323		N_Shore		0.309	-0.012	0.470	0.614
cg20514083	yellow	3	150,800,762		N_Shelf		0.309	0.020	0.130	0.656
cg23192899	yellow	2	55,746,287	TSS1500	N_Shore	CCDC104	0.309	0.012	0.120	0.225
cg21956099	yellow	5	1,278,018	Body	S_Shore	TERT	0.309	0.001	0.912	0.807
cg06832695	yellow	6	1,524,166		Island		0.309	0.008	0.370	0.344
cg07280985	yellow	19	55,549,414	Body	OpenSea	GP6	0.309	0.003	0.913	0.679
cg03406011	yellow	3	128,721,956	Body	N_Shore	CCDC48	0.309	0.010	0.629	0.246
cg07583503	yellow	8	110,988,256	TSS1500	S_Shore	KCNV1	0.309	-0.004	0.145	0.663
cg05540047	yellow	5	162,865,236	5'UTR	S_Shore	CCNG1	0.309	0.001	0.075	0.924
cg03643241	yellow	15	44,487,910	TSS1500	S_Shore	FRMD5	0.309	0.006	0.068	0.114
cg06281235	yellow	15	64,970,399	Body	OpenSea	ZNF609	0.309	0.002	0.875	0.747
cg25778892	yellow	7	1,250,126		N_Shore		0.309	0.003	0.268	0.808
cg23737061	yellow	3	60,226,328	Body	OpenSea	FHIT	0.309	-0.003	0.070	0.655
cg08350488	yellow	6	160,427,501	Body	Island	IGF2R	0.309	0.019	0.429	0.151
cg03067226	yellow	12	6,976,333	TSS1500	N_Shore	TPI1	0.309	0.002	0.022	0.152
cg02219125	yellow	14	89,290,504	TSS1500	N_Shore	TTC8	0.309	0.000	0.015	0.780
cg15705054	yellow	1	154,927,709	5'UTR	OpenSea	PBXIP1	0.309	0.008	0.088	0.192

cg13108304	yellow	13	113,634,805	Body	N_Shore	MCF2L	0.309	0.013	0.818	0.408
cg08759569	yellow	17	77,302,351	5'UTR	OpenSea	HRNBP3	0.308	-0.007	0.349	0.544
cg17282204	yellow	22	18,955,907		N_Shelf		0.308	0.002	0.279	0.890
cg13752254	yellow	19	55,940,813	3'UTR	N_Shelf	SHISA7	0.308	0.007	0.265	0.263
cg03317045	yellow	1	175,161,069	5'UTR	N_Shore	KIAA0040	0.308	0.006	0.292	0.556
cg27441048	yellow	7	72,972,316	TSS1500	S_Shore	BCL7B	0.308	-0.009	0.257	0.279
cg14830485	yellow	20	21,070,832		OpenSea		0.308	0.013	0.324	0.200
cg26080782	yellow	10	101,492,713	TSS1500	S_Shore	COX15	0.308	0.001	0.026	0.392
cg01421309	yellow	13	114,084,041	Body	N_Shore	ADPRHL1	0.308	-0.005	0.444	0.565
cg14860219	yellow	1	151,042,743	TSS1500	N_Shore	GABPB2	0.308	0.000	0.032	0.858
cg06114363	yellow	1	26,699,448	TSS200	OpenSea	ZNF683	0.308	0.001	0.529	0.899
cg08623256	yellow	5	3,858,275		S_Shelf		0.308	-0.007	0.628	0.405
cg02527881	yellow	3	46,936,655	Body	N_Shelf	PTH1R	0.308	-0.046	0.547	0.149
cg17355719	yellow	17	37,893,764	TSS1500	OpenSea	GRB7	0.308	0.002	0.500	0.836
cg03085524	yellow	8	144,852,570		N_Shore		0.308	0.015	0.350	0.235
cg01072968	yellow	22	36,892,419	Body	N_Shore	FOXRED2	0.308	-0.011	0.874	0.174
cg14103106	yellow	19	14,183,792	TSS200	Island	LOC113230	0.308	0.004	0.313	0.642
cg14448145	yellow	20	62,525,650	TSS1500	N_Shore	DNAJC5	0.308	0.004	0.153	0.616
cg09064304	yellow	4	141,419,169		Island		0.308	0.001	0.029	0.791
cg26348995	yellow	17	80,345,367		N_Shore		0.308	-0.004	0.942	0.493
cg18399703	yellow	11	118,134,846	1stExon	OpenSea	MPZL2	0.308	-0.002	0.066	0.666
cg16568571	yellow	13	45,564,352	TSS1500	S_Shore	NUFIP1	0.308	-0.001	0.038	0.761
cg24592972	yellow	10	134,828,571		S_Shore		0.308	0.003	0.880	0.756
cg23954541	yellow	1	16,969,609		N_Shore		0.308	-0.007	0.741	0.264
cg10751811	yellow	1	47,533,976	Body	OpenSea	CYP4Z1	0.308	0.007	0.417	0.528
cg12456825	yellow	3	121,312,127	TSS200	OpenSea	FBXO40	0.308	0.008	0.166	0.482
cg21400170	yellow	17	78,977,614		Island		0.308	-0.001	0.448	0.868
cg08845973	yellow	16	89,592,071	Body	N_Shore	SPG7	0.308	0.001	0.956	0.858
cg01318823	yellow	16	31,454,621	TSS1500	S_Shore	ZNF843	0.308	-0.001	0.029	0.475
cg22533406	yellow	19	49,106,849	Body	N_Shore	FAM83E	0.308	-0.026	0.873	0.122
cg24997231	yellow	1	209,527,535		OpenSea		0.308	0.025	0.348	0.026
cg05163933	yellow	5	1,089,800	Body	S_Shore	SLC12A7	0.308	0.004	0.343	0.596
cg07881065	yellow	8	840,398		OpenSea		0.308	0.017	0.288	0.255
cg18505593	yellow	14	100,059,479	Body	OpenSea	CCDC85C	0.308	-0.006	0.794	0.604
cg19477346	yellow	19	48,699,872		S_Shore		0.307	0.026	0.511	0.063
cg08967814	yellow	12	47,462,266		OpenSea		0.307	-0.004	0.377	0.466
cg00589305	yellow	11	19,367,621		Island		0.307	0.008	0.386	0.671
cg01604138	yellow	11	71,202,794	Body	OpenSea	NADSYN1	0.307	0.001	0.835	0.847
cg16992257	yellow	15	65,283,128	TSS1500	S_Shore	SPG21	0.307	0.013	0.784	0.330
cg24205048	yellow	19	52,133,837	TSS200	OpenSea	SIGLEC5	0.307	0.002	0.450	0.767
cg07519485	yellow	6	33,762,594	3'UTR	OpenSea	MLN	0.307	0.007	0.399	0.181
cg26151675	yellow	1	24,240,069	TSS1500	OpenSea	CNR2	0.307	-0.001	0.810	0.933
cg26799602	yellow	16	89,266,591		N_Shore		0.307	0.003	0.389	0.666
cg19551055	yellow	11	134,601,111		N_Shelf		0.307	-0.002	0.615	0.831
cg08320674	yellow	10	126,279,288	Body	S_Shore	LHPP	0.307	-0.001	0.874	0.780
cg15590912	yellow	1	229,482,062		S_Shelf		0.307	0.005	0.463	0.366
cg02315353	yellow	3	25,825,455	TSS1500	Island	NGLY1	0.307	0.000	0.021	0.998
cg08936817	yellow	1	20,592,916		OpenSea		0.307	0.012	0.734	0.536
cg06277849	yellow	4	186,316,674	TSS1500	N_Shore	ANKRD37	0.307	0.002	0.308	0.896
cg06271850	yellow	16	89,766,423	Body	N_Shore	SPATA2L	0.307	-0.002	0.306	0.755
cg14223444	yellow	9	100,394,496	5'UTR	N_Shore	TSTD2	0.307	0.019	0.289	0.054
cg23958464	yellow	1	30,985,690		OpenSea		0.307	0.009	0.521	0.147
cg27601516	yellow	14	23,452,417	TSS1500	S_Shore	JUB	0.307	-0.006	0.078	0.119
cg26810230	yellow	10	134,948,300		S_Shelf		0.307	-0.008	0.509	0.585
cg10506742	yellow	16	4,605,312	TSS1500	OpenSea	LOC342346	0.307	0.024	0.732	0.192
cg14377922	yellow	2	23,840,537	Body	OpenSea	KLHL29	0.307	-0.007	0.124	0.492
cg19911566	yellow	17	28,164,614	Body	OpenSea	SSH2	0.307	0.003	0.796	0.661
cg25163611	yellow	12	102,875,301	TSS1500	OpenSea	IGF1	0.307	-0.009	0.428	0.302
cg22873661	yellow	14	88,788,597	Body	N_Shore	KCNK10	0.306	0.004	0.078	0.735
cg14851471	yellow	11	61,349,648	TSS1500	S_Shore	SYT7	0.306	0.007	0.714	0.368
cg21857668	yellow	3	111,451,273	TSS200	OpenSea	PHLDB2	0.306	0.007	0.772	0.331
cg05933857	yellow	11	2,422,696	TSS1500	S_Shore	TSSC4	0.306	0.010	0.058	0.122
cg18661237	yellow	19	3,761,197	TSS1500	N_Shore	MRPL54	0.306	0.010	0.094	0.324
cg13698883	yellow	9	38,422,614	Body	N_Shore	IGFBPL1	0.306	0.009	0.543	0.180
cg19190762	yellow	13	44,806,055		OpenSea		0.306	0.011	0.796	0.252
cg05768005	yellow	17	8,094,486	TSS1500	S_Shore	C17orf59	0.306	0.006	0.533	0.626
cg23067466	yellow	3	53,117,551		OpenSea		0.306	0.000	0.742	0.957



cg04060163	yellow	17	75,136,271	TSS1500	N_Shore	SEC14L1	0.306	-0.002	0.299	0.732
cg11136751	yellow	3	46,608,069	5'UTR	S_Shore	LRRC2	0.306	0.000	0.023	0.891
cg16680451	yellow	7	73,121,744	Body	S_Shelf	STX1A	0.306	0.012	0.539	0.155
cg05578865	yellow	17	80,554,007	Body	N_Shore	FOXK2	0.306	-0.031	0.802	0.026
cg27629986	yellow	2	219,585,157	5'UTR	OpenSea	TLL4	0.306	0.023	0.766	0.019
cg11403598	yellow	16	69,374,664	Body	S_Shore	NIP7	0.306	0.002	0.940	0.607
cg05674199	yellow	20	32,891,428	5'UTR	S_Shore	AHCY	0.306	0.005	0.299	0.439
cg27021512	yellow	13	47,371,635	TSS1500	S_Shore	ESD	0.306	0.026	0.287	0.126
cg14302612	yellow	2	128,317,170	5'UTR	OpenSea	MYO7B	0.306	0.008	0.749	0.250
cg15848986	yellow	12	130,527,212	TSS1500	S_Shore	LOC1001909	0.306	0.006	0.247	0.730
cg17435901	yellow	6	33,169,600	Body	S_Shore	SLC39A7	0.306	0.000	0.953	0.877
cg19478951	yellow	10	133,879,084		Island		0.306	0.000	0.099	0.984
cg21845400	yellow	4	160,098,011		OpenSea		0.306	0.015	0.794	0.231
cg11592640	yellow	15	78,637,901	Body	S_Shelf	CRABP1	0.306	-0.002	0.758	0.862
cg17057892	yellow	2	112,918,552	Body	S_Shore	FBLN7	0.306	-0.006	0.654	0.370
cg02622542	yellow	3	184,527,511		N_Shelf		0.306	0.000	0.937	0.985
cg25468274	yellow	1	31,280,338		Island		0.305	-0.001	0.333	0.952
cg01966816	yellow	3	131,246,020		Island		0.305	-0.001	0.071	0.963
cg02645563	yellow	12	54,610,102		N_Shore		0.305	0.023	0.232	0.088
cg21210090	yellow	4	15,704,429	TSS200	N_Shore	BST1	0.305	0.007	0.190	0.356
cg12585005	yellow	6	43,655,766	TSS1500	S_Shore	MRPS18A	0.305	0.001	0.019	0.351
cg26829310	yellow	1	94,345,044	TSS1500	S_Shore	DNTTIP2	0.305	-0.003	0.068	0.733
cg06804705	yellow	21	40,125,580	TSS1500	OpenSea	NCRNA00114	0.305	0.026	0.291	0.076
cg17217879	yellow	1	18,433,733	TSS1500	N_Shore	IGSF21	0.305	0.000	0.145	0.946
cg21150108	yellow	13	34,750,105		OpenSea		0.305	0.011	0.773	0.236
cg26852645	yellow	10	126,278,502	Body	Island	LHPP	0.305	0.011	0.237	0.327
cg26036018	yellow	1	65,641,680	Body	OpenSea	AK3L1	0.305	0.020	0.534	0.152
cg14851685	yellow	19	15,618,559	TSS1500	N_Shore	CYP4F22	0.305	-0.004	0.341	0.555
cg14258107	yellow	1	9,664,334	Body	OpenSea	TMEM201	0.305	0.015	0.730	0.198
cg20893956	yellow	6	152,126,736	5'UTR	N_Shelf	ESR1	0.305	0.002	0.235	0.897
cg26268866	yellow	19	12,893,057		N_Shore		0.305	0.002	0.252	0.843
cg11547273	yellow	4	44,728,844	TSS1500	S_Shore	GNPDA2	0.305	0.004	0.161	0.667
cg03652173	yellow	12	82,753,120	TSS1500	S_Shore	CCDC59	0.305	0.007	0.243	0.606
cg05502645	yellow	19	1,971,281	Body	S_Shore	CSNK1G2	0.305	0.008	0.928	0.162
cg06826975	yellow	2	98,276,287	Body	N_Shelf	ACTR1B	0.305	0.006	0.887	0.286
cg25024993	yellow	5	140,248,610	Body	N_Shore	PCDHA7	0.305	0.013	0.108	0.232
cg04849320	yellow	13	112,756,649		N_Shore		0.305	-0.006	0.169	0.822
cg26149658	yellow	4	2,439,423		OpenSea		0.304	0.007	0.674	0.343
cg23628350	yellow	17	80,561,982	3'UTR	S_Shelf	FOXK2	0.304	0.019	0.575	0.325
cg16495212	yellow	15	83,317,306	TSS1500	Island	CPEB1	0.304	0.004	0.207	0.645
cg12100302	yellow	11	70,265,910	Body	OpenSea	CTTN	0.304	0.002	0.961	0.644
cg10606486	yellow	18	77,608,996		Island		0.304	0.006	0.111	0.352
cg10017843	yellow	16	67,693,452	TSS1500	Island	PARD6A	0.304	0.000	0.097	0.986
cg09020705	yellow	16	30,678,903	Body	OpenSea	FBRS	0.304	0.002	0.936	0.730
cg22257574	yellow	9	135,754,383	1stExon	Island	C9orf9	0.304	-0.005	0.053	0.069
cg03731828	yellow	6	33,129,106		N_Shore		0.304	0.014	0.347	0.339
cg15761233	yellow	2	200,819,070	Body	N_Shore	C2orf60	0.304	0.032	0.828	0.011
cg07254821	yellow	6	86,302,926	Body	N_Shore	SNX14	0.304	0.001	0.013	0.444
cg08163160	yellow	12	7,052,390	TSS1500	N_Shore	C12orf57	0.304	0.008	0.406	0.222
cg07994696	yellow	16	11,680,075	5'UTR	Island	LITAF	0.304	0.004	0.320	0.651
cg23668028	yellow	22	38,479,708	TSS1500	S_Shore	SLC16A8	0.304	-0.001	0.648	0.942
cg21999284	yellow	5	175,200,576		S_Shore		0.304	0.004	0.101	0.619
cg12043019	yellow	22	50,356,277	Body	Island	PIM3	0.304	-0.005	0.045	0.204
cg15419073	yellow	3	14,920,880	Body	OpenSea	FGD5	0.303	0.003	0.274	0.507
cg24278087	yellow	11	65,904,369	Body	OpenSea	PACS1	0.303	0.003	0.958	0.385
cg21473545	yellow	5	178,203,432	TSS200	OpenSea	AACSL	0.303	0.006	0.613	0.331
cg23587980	yellow	12	52,695,568	TSS200	N_Shore	KRT86	0.303	0.006	0.383	0.653
cg05588972	yellow	1	16,563,855	TSS200	S_Shore	C1orf89	0.303	-0.004	0.107	0.288
cg04537229	yellow	3	186,545,622		S_Shore		0.303	0.011	0.712	0.478
cg20127102	yellow	11	57,197,699		S_Shelf		0.303	0.017	0.598	0.061
cg13981787	yellow	19	52,005,176	TSS200	OpenSea	SIGLEC12	0.303	0.012	0.755	0.151
cg16278124	yellow	1	1,334,036	Body	N_Shore	CCNL2	0.303	0.003	0.052	0.229
cg16006415	yellow	7	157,586,294	Body	N_Shore	PTPRN2	0.303	0.003	0.900	0.604
cg00945260	yellow	16	1,104,925		N_Shelf		0.303	0.005	0.133	0.326
cg14396892	yellow	9	96,623,032		N_Shore		0.303	0.039	0.267	0.096
cg11932072	yellow	8	72,518,106		OpenSea		0.303	0.005	0.497	0.675
cg04012535	yellow	1	37,176,647		OpenSea		0.303	0.017	0.371	0.019

cg22161383	yellow	19	18,545,441	3'UTR	Island	ISYNA1	0.303	0.002	0.788	0.732
cg08353606	yellow	19	3,135,364	TSS1500	OpenSea	GNA15	0.303	0.002	0.895	0.793
cg03754250	yellow	10	31,320,338	5'UTR	N_Shore	ZNF438	0.303	0.001	0.054	0.845
cg04338119	yellow	16	88,048,341	Body	N_Shelf	BANP	0.303	0.001	0.491	0.957
cg00727673	yellow	3	53,190,763		Island		0.303	0.000	0.133	0.950
cg03223580	yellow	12	76,742,630	TSS1500	S_Shore	BBS10	0.303	-0.007	0.058	0.157
cg26007189	yellow	5	176,166,980		N_Shelf		0.303	0.000	0.050	0.963
cg06725540	yellow	12	53,181,587		N_Shelf		0.303	0.011	0.620	0.120
cg13865810	yellow	9	101,706,936	Body	S_Shore	COL15A1	0.302	-0.004	0.145	0.607
cg07753203	yellow	9	127,539,056	TSS1500	N_Shore	OLFML2A	0.302	0.008	0.378	0.358
cg09253758	yellow	16	2,005,837	TSS1500	N_Shelf	RPL3L	0.302	0.011	0.912	0.155
cg20208990	yellow	20	56,286,567	TSS1500	S_Shore	PMEPA1	0.302	-0.001	0.850	0.919
cg23158877	yellow	11	86,012,876	TSS1500	OpenSea	C11orf73	0.302	0.013	0.320	0.454
cg27129029	yellow	4	111,720,303		OpenSea		0.302	0.000	0.123	0.992
cg23102014	yellow	15	70,574,295		OpenSea		0.302	-0.003	0.573	0.751
cg13651246	yellow	10	126,278,495	Body	Island	LHPP	0.302	0.020	0.309	0.152
cg01394199	yellow	12	121,416,547	TSS200	Island	HNF1A	0.302	0.004	0.608	0.572
cg11743470	yellow	5	74,327,277	TSS1500	N_Shelf	GCNT4	0.302	-0.001	0.596	0.935
cg06074992	yellow	16	71,598,553		OpenSea		0.302	0.002	0.021	0.390
cg04962541	yellow	7	44,789,111	5'UTR	Island	ZMIZ2	0.302	0.001	0.029	0.637
cg18940843	yellow	6	30,418,773		N_Shore		0.302	0.009	0.185	0.503
cg18293437	yellow	20	3,055,544		S_Shelf		0.302	0.004	0.741	0.778
cg24226087	yellow	19	10,490,782	5'UTR	N_Shore	TYK2	0.302	0.000	0.017	0.714
cg17822955	yellow	1	209,527,491		OpenSea		0.302	0.003	0.311	0.620
cg08633959	yellow	16	50,914,024		OpenSea		0.302	0.027	0.214	0.120
cg01706819	yellow	2	27,487,792		Island		0.302	0.002	0.053	0.458
cg12244463	yellow	6	33,217,552		S_Shore		0.302	0.001	0.027	0.449
cg07869907	yellow	20	44,839,187	Body	Island	CDH22	0.302	0.006	0.463	0.782
cg02778392	yellow	16	88,387,006		OpenSea		0.302	-0.003	0.701	0.772
cg13954090	yellow	10	73,533,106	Body	Island	CDH23	0.302	-0.002	0.028	0.110
cg22876739	yellow	10	70,319,774	TSS1500	N_Shore	TET1	0.302	0.000	0.114	0.981
cg08116711	yellow	7	101,596,218	Body	OpenSea	CUX1	0.302	-0.003	0.931	0.442
cg24757778	yellow	10	60,616,392		OpenSea		0.302	0.006	0.383	0.323
cg08137040	yellow	7	127,033,695	TSS1500	S_Shore	ZNF800	0.302	0.005	0.333	0.676
cg09044981	yellow	16	82,827,677	Body	OpenSea	CDH13	0.302	-0.007	0.818	0.688
cg19434303	yellow	14	100,843,067	TSS1500	S_Shore	WARS	0.301	-0.001	0.058	0.828
cg23651976	yellow	1	23,749,009	Body	N_Shore	TCEA3	0.301	0.000	0.026	0.744
cg00142150	yellow	22	38,071,001	TSS1500	N_Shelf	LGALS1	0.301	-0.013	0.051	0.082
cg06971773	yellow	10	71,169,083	Body	S_Shore	TACR2	0.301	0.005	0.224	0.572
cg02533787	yellow	2	149,895,023	5'UTR	Island	LYPD6B	0.301	-0.002	0.043	0.222
cg07927540	yellow	6	169,049,163	Body	OpenSea	SMOC2	0.301	-0.004	0.111	0.697
cg17158750	yellow	20	61,924,382	TSS200	N_Shelf	COL20A1	0.301	-0.010	0.368	0.403
cg00873953	yellow	12	95,010,048	Body	OpenSea	TMCC3	0.301	0.007	0.360	0.413
cg17131445	yellow	8	47,039,958		OpenSea		0.301	0.017	0.737	0.189
cg16375265	yellow	17	80,554,146	Body	N_Shore	FOXK2	0.301	-0.026	0.907	0.133
cg26675382	yellow	6	150,067,846	TSS200	S_Shore	NUP43	0.301	-0.003	0.068	0.555
cg04883026	yellow	11	66,487,938	Body	OpenSea	SPTBN2	0.301	0.022	0.417	0.153
cg06034459	yellow	3	196,515,643	Body	OpenSea	PAK2	0.301	0.013	0.657	0.270
cg05222958	yellow	19	51,224,527		S_Shore		0.301	0.015	0.527	0.051
cg07910724	yellow	3	117,604,411		OpenSea		0.301	0.006	0.449	0.425
cg23119809	yellow	17	72,839,750	Body	Island	GRIN2C	0.301	-0.005	0.451	0.520
cg09955152	yellow	11	64,845,676	3'UTR	OpenSea	CDC45	0.301	-0.006	0.872	0.501
cg06848801	yellow	16	3,049,877		N_Shelf		0.301	0.004	0.848	0.628
cg04865716	yellow	19	2,290,843	Body	Island	LINGO3	0.301	-0.006	0.150	0.485
cg00064840	yellow	7	4,784,485	Body	N_Shore	FOXK1	0.301	-0.003	0.033	0.113
cg01546378	yellow	2	38,892,901	TSS200	OpenSea	GALM	0.301	-0.004	0.039	0.175
cg00801798	yellow	9	5,628,280	TSS1500	N_Shore	KIAA1432	0.301	-0.004	0.201	0.557
cg27469726	yellow	18	77,394,799		N_Shore		0.301	0.010	0.777	0.180
cg26328951	yellow	1	28,906,514	Body	N_Shore	SNHG12	0.301	0.005	0.949	0.157
cg10190813	yellow	7	48,018,530	Body	N_Shore	HUS1	0.301	0.000	0.029	0.743
cg17234150	yellow	16	24,266,905	1stExon	N_Shore	CACNG3	0.301	-0.005	0.110	0.557
cg12882103	yellow	6	119,672,375	TSS1500	S_Shore	MAN1A1	0.301	0.008	0.079	0.380
cg07298547	yellow	16	85,585,356		N_Shore		0.301	0.011	0.660	0.105
cg15999274	yellow	2	242,688,398	Body	OpenSea	D2HGDH	0.301	0.009	0.849	0.168
cg25066772	yellow	14	93,136,682	Body	OpenSea	RIN3	0.301	0.012	0.442	0.135
cg20253251	yellow	1	155,579,369	TSS1500	N_Shore	MSTO1	0.301	-0.005	0.921	0.499
cg16291276	yellow	1	208,084,071	Body	N_Shore	CD34	0.300	-0.027	0.154	0.074

cg25216704	yellow	4	3,485,393	Body	N_Shore	DOK7	0.300	0.014	0.345	0.129
cg17797815	yellow	10	119,806,972	Body	S_Shore	CASC2	0.300	0.018	0.603	0.086
cg02779761	yellow	19	57,702,660	TSS1500	N_Shore	ZNF264	0.300	-0.001	0.026	0.628
cg16226586	yellow	2	240,007,147	Body	N_Shore	HDAC4	0.300	0.000	0.765	0.968
cg04465784	yellow	11	67,976,953	5'UTR	N_Shelf	SUV420H1	0.300	-0.001	0.185	0.949
cg16344234	yellow	16	5,008,608	5'UTR	OpenSea	SEC14L5	0.300	0.011	0.272	0.376
cg16361168	yellow	14	24,024,913	TSS1500	N_Shore	THTPA	0.300	0.001	0.032	0.429
cg12427317	yellow	5	34,743,138	Body	OpenSea	RAI14	0.300	0.003	0.875	0.630
cg02959939	yellow	21	47,813,025	Body	N_Shore	PCNT	0.300	-0.005	0.794	0.724
cg21829265	yellow	6	56,911,139	TSS1500	N_Shore	KIAA1586	0.300	0.000	0.013	0.691
cg25039081	yellow	22	47,023,757	Body	S_Shore	GRAMD4	0.300	0.002	0.877	0.756
cg18829443	yellow	2	74,227,916		N_Shore		0.300	0.008	0.526	0.387
cg27367871	yellow	2	237,478,030	TSS1500	S_Shore	CXCR7	0.300	0.005	0.072	0.551
cg17278453	yellow	7	45,962,576		S_Shore		0.300	-0.012	0.155	0.046
cg19958024	yellow	6	31,766,138	Body	S_Shelf	LSM2	0.300	0.007	0.888	0.441
cg03215105	yellow	19	58,238,600	Body	Island	ZNF671	0.300	0.001	0.050	0.802
cg18200150	yellow	17	30,822,561	Body	N_Shore	MYO1D	0.300	0.004	0.411	0.627
cg11881835	yellow	19	2,052,483	TSS1500	S_Shore	MKNK2	0.300	-0.006	0.819	0.801
cg14452299	yellow	9	140,770,915	TSS1500	N_Shore	CACNA1B	0.300	0.007	0.818	0.464
cg09550041	yellow	1	165,513,343	Body	OpenSea	LOC400794	0.300	0.008	0.035	0.109
cg21139046	yellow	3	14,339,700		S_Shore		0.300	0.006	0.392	0.552
cg13138329	yellow	6	33,257,788	Body	S_Shore	PFDN6	0.300	0.000	0.028	0.846
cg04588774	yellow	16	3,207,967		Island		0.300	0.006	0.065	0.083
cg12956380	yellow	6	169,568,536		S_Shore		0.300	0.002	0.977	0.626
cg20001070	yellow	7	48,131,586	5'UTR	S_Shore	UPP1	0.300	-0.001	0.392	0.919
cg04907151	yellow	3	135,684,161	TSS1500	N_Shore	PPP2R3A	0.300	0.002	0.030	0.330
cg00720845	yellow	4	774,393		N_Shore		0.300	-0.001	0.127	0.856
cg21181547	yellow	9	140,787,445	Body	OpenSea	CACNA1B	0.300	-0.001	0.924	0.879
cg26716550	yellow	16	1,181,198		S_Shore		0.299	0.007	0.817	0.248
cg00735611	yellow	17	37,895,886	5'UTR	OpenSea	GRB7	0.299	0.011	0.180	0.097
cg17031607	yellow	2	27,632,331	5'UTR	Island	PPM1G	0.299	-0.007	0.032	0.295
cg05370068	yellow	6	35,184,382	Body	S_Shore	SCUBE3	0.299	-0.003	0.944	0.492
cg18172013	yellow	8	55,088,102		OpenSea		0.299	0.003	0.903	0.506
cg08575922	yellow	12	49,488,082	1stExon	Island	DHH	0.299	0.000	0.050	0.935
cg26347851	yellow	20	61,754,869		Island		0.299	0.014	0.835	0.045
cg22957404	yellow	17	7,472,137	Body	N_Shelf	SEN3P3	0.299	0.004	0.924	0.438
cg26685596	yellow	2	210,074,359		S_Shore		0.299	-0.015	0.744	0.472
cg18804206	yellow	17	18,162,315	TSS1500	Island	FLII	0.299	0.005	0.377	0.259
cg23352747	yellow	1	21,835,436	TSS1500	N_Shore	ALPL	0.299	0.001	0.093	0.822
cg14045955	yellow	4	1,022,356		Island		0.299	0.004	0.440	0.621
cg13811936	yellow	9	141,017,001	3'UTR	S_Shelf	CACNA1B	0.299	0.007	0.727	0.581
cg06222062	yellow	1	20,396,690	TSS200	OpenSea	PLA2G5	0.299	0.008	0.262	0.391
cg11056406	yellow	8	144,903,651	Body	OpenSea	PUF60	0.299	-0.010	0.946	0.024
cg15320001	yellow	3	138,066,216	TSS1500	N_Shore	MRAS	0.299	0.000	0.933	0.997
cg19870717	yellow	19	1,472,936	3'UTR	Island	APC2	0.299	0.010	0.251	0.387
cg25030832	yellow	2	242,751,949	TSS200	N_Shelf	NEU4	0.299	0.010	0.432	0.329
cg19257531	yellow	19	2,475,640	TSS1500	Island	GADD45B	0.299	-0.003	0.033	0.105
cg21212076	yellow	9	35,564,052	TSS200	OpenSea	FAM166B	0.299	0.008	0.509	0.563
cg17940162	yellow	13	107,457,102		OpenSea		0.299	0.000	0.544	0.997
cg00806009	yellow	17	80,739,852	Body	N_Shore	TBCD	0.299	-0.013	0.221	0.368
cg27642027	yellow	16	84,029,584	Body	Island	NECAB2	0.299	0.002	0.027	0.251
cg05757376	yellow	13	36,516,069	TSS1500	OpenSea	MIR548F5	0.299	-0.002	0.619	0.917
cg04740665	yellow	1	205,560,997	Body	N_Shore	MFSD4	0.299	0.001	0.062	0.885
cg14792480	yellow	16	66,954,257	TSS1500	N_Shore	CDH16	0.299	-0.001	0.258	0.795
cg08473663	yellow	17	26,695,438	TSS1500	N_Shelf	SEBOX	0.298	0.000	0.562	0.966
cg13905053	yellow	9	139,235,493	Body	N_Shore	GPSM1	0.298	0.019	0.655	0.015
cg26155939	yellow	18	44,337,853	TSS1500	Island	ST8SIA5	0.298	-0.001	0.035	0.578
cg09248655	yellow	19	48,897,955	TSS200	S_Shore	GRIN2D	0.298	0.003	0.084	0.604
cg11393995	yellow	6	2,842,359	TSS1500	S_Shore	SERPINB1	0.298	-0.006	0.231	0.506
cg22409918	yellow	7	140,712,089	5'UTR	N_Shelf	MRPS33	0.298	0.001	0.030	0.506
cg09862711	yellow	8	5,003,384		OpenSea		0.298	0.015	0.738	0.492
cg00498401	yellow	17	74,024,829	TSS1500	OpenSea	EVPL	0.298	0.015	0.596	0.104
cg03851496	yellow	1	150,488,805		S_Shore		0.298	-0.001	0.131	0.891
cg08576226	yellow	8	103,818,861		Island		0.298	0.000	0.027	0.799
cg10538654	yellow	3	49,467,370	TSS1500	S_Shore	NICN1	0.298	0.000	0.033	0.934
cg26028571	yellow	22	38,172,403	3'UTR	OpenSea	TRIOBP	0.298	-0.006	0.803	0.439
cg09020213	yellow	13	114,810,096	Body	N_Shelf	RASA3	0.298	-0.011	0.551	0.621

cg25853020	yellow	1	154,377,621	TSS200	N_Shore	IL6R	0.298	-0.001	0.038	0.439
cg23910392	yellow	6	111,580,173	TSS1500	N_Shore	KIAA1919	0.298	-0.009	0.103	0.287
cg04822495	yellow	12	94,676,688	Body	OpenSea	PLXNC1	0.298	0.005	0.253	0.456
cg05336982	yellow	16	69,564,735		OpenSea		0.298	0.001	0.496	0.888
cg26071135	yellow	11	843,943	TSS1500	S_Shore	TSPAN4	0.298	-0.001	0.025	0.499
cg23260754	yellow	6	6,725,335		OpenSea		0.298	0.000	0.171	0.954
cg08375849	yellow	11	74,110,223	TSS1500	S_Shore	PGM2L1	0.298	-0.001	0.028	0.669
cg06431527	yellow	6	32,158,513	TSS1500	OpenSea	PBX2	0.298	0.007	0.299	0.459
cg20215257	yellow	3	155,394,292	5'UTR	OpenSea	PLCH1	0.298	0.010	0.144	0.216
cg13959241	yellow	9	138,904,715	Body	S_Shore	NACC2	0.298	0.011	0.686	0.156
cg02896250	yellow	16	28,305,533	5'UTR	S_Shore	SBK1	0.298	0.004	0.448	0.516
cg14120667	yellow	9	138,640,726	Body	S_Shelf	KCNT1	0.298	0.001	0.612	0.889
cg22760304	yellow	19	14,607,597	TSS1500	S_Shore	GIPC1	0.298	0.006	0.272	0.548
cg22294773	yellow	19	2,606,054	5'UTR	N_Shore	GGG7	0.298	0.003	0.841	0.747
cg00767069	yellow	16	9,221,944		OpenSea		0.298	-0.001	0.723	0.921
cg18240412	yellow	11	17,717,818		S_Shore		0.297	-0.016	0.237	0.062
cg00698413	yellow	2	225,266,656	5'UTR	OpenSea	FAM124B	0.297	0.026	0.262	0.003
cg23110109	yellow	12	122,092,127	Body	OpenSea	MORN3	0.297	0.012	0.418	0.345
cg03808734	yellow	1	3,772,978	TSS1500	N_Shore	DFFB	0.297	0.001	0.037	0.631
cg10274696	yellow	7	40,260,671	Body	OpenSea	C7orf10	0.297	-0.002	0.957	0.659
cg18665594	yellow	5	101,119,420		OpenSea		0.297	0.014	0.438	0.472
cg06524039	yellow	7	97,912,149	Body	S_Shore	BRI3	0.297	0.008	0.190	0.418
cg07246187	yellow	12	58,217,366	3'UTR	OpenSea	CTDSP2	0.297	-0.002	0.878	0.667
cg12444411	yellow	7	2,802,554	Body	Island	GNA12	0.297	0.046	0.386	0.051
cg02085953	yellow	2	97,202,260	TSS1500	N_Shore	ARID5A	0.297	-0.001	0.496	0.936
cg06260527	yellow	12	51,477,693	TSS1500	S_Shore	CSRNP2	0.297	0.003	0.061	0.605
cg00264133	yellow	17	73,154,796		S_Shelf		0.297	0.007	0.773	0.353
cg02085805	yellow	1	110,527,112	TSS200	N_Shore	AHCYL1	0.297	-0.001	0.034	0.691
cg11827514	yellow	8	143,125,722		OpenSea		0.297	0.016	0.137	0.082
cg22524998	yellow	19	17,877,846	Body	S_Shore	FCHO1	0.297	0.008	0.242	0.508
cg03433612	yellow	11	33,757,074	5'UTR	N_Shore	CD59	0.297	0.000	0.025	0.997
cg05205736	yellow	17	2,305,849		S_Shore		0.297	0.009	0.300	0.160
cg10631373	yellow	1	89,457,642	5'UTR	N_Shore	RBMXL1	0.297	0.009	0.337	0.721
cg14322157	yellow	9	101,136,882	Body	OpenSea	GABBR2	0.297	0.005	0.222	0.708
cg20380214	yellow	12	9,217,688	TSS200	Island	LOC144571	0.297	-0.003	0.166	0.873
cg19187155	yellow	2	232,395,269	TSS200	Island	NMUR1	0.297	0.000	0.041	0.990
cg24700823	yellow	15	26,447,291		OpenSea		0.296	0.003	0.891	0.681
cg12874602	yellow	11	65,329,145		S_Shelf		0.296	0.013	0.896	0.022
cg03668948	yellow	17	2,277,318	Body	S_Shore	SGSM2	0.296	0.002	0.974	0.391
cg09809932	yellow	1	6,515,597	Body	Island	ESPN	0.296	0.011	0.067	0.502
cg13614036	yellow	9	139,096,080	TSS1500	N_Shore	LHX3	0.296	0.001	0.621	0.903
cg13917964	yellow	7	30,635,712	Body	S_Shore	GARS	0.296	0.001	0.021	0.572
cg10672726	yellow	19	47,353,150	Body	N_Shore	AP2S1	0.296	-0.004	0.187	0.664
cg24533864	yellow	22	22,307,684	TSS1500	S_Shore	PPM1F	0.296	-0.003	0.857	0.625
cg00966522	yellow	4	6,734,722		OpenSea		0.296	0.001	0.769	0.910
cg16582803	yellow	2	219,763,642		S_Shore		0.296	-0.014	0.302	0.333
cg08251131	yellow	1	227,915,846	TSS1500	N_Shore	LOC1001300	0.296	0.000	0.155	0.989
cg26242024	yellow	15	101,629,063		N_Shore		0.296	0.001	0.091	0.851
cg10020290	yellow	19	34,111,708	TSS1500	N_Shore	CHST8	0.296	-0.009	0.779	0.206
cg05840612	yellow	3	46,530,275		OpenSea		0.296	0.000	0.023	0.921
cg09773499	yellow	19	7,766,717	5'UTR	OpenSea	FCER2	0.296	0.007	0.388	0.306
cg27504369	yellow	22	39,353,550	1stExon	OpenSea	APOBEC3A	0.296	0.003	0.925	0.604
cg11631610	yellow	19	11,322,739	Body	S_Shelf	DOCK6	0.296	0.005	0.957	0.188
cg20982476	yellow	1	110,950,771	TSS1500	S_Shore	HBXIP	0.296	-0.001	0.044	0.772
cg17192533	yellow	4	160,408,494		OpenSea		0.296	-0.002	0.031	0.271
cg13348905	yellow	19	10,735,578	TSS1500	N_Shore	SLC44A2	0.296	-0.021	0.550	0.100
cg13617904	yellow	14	104,182,945	Body	Island	ZFYVE21	0.296	0.004	0.042	0.183
cg23725986	yellow	2	75,938,438	TSS1500	S_Shore	C2orf3	0.296	-0.003	0.055	0.525
cg13868393	yellow	17	75,136,249	TSS1500	N_Shore	SEC14L1	0.295	-0.008	0.376	0.384
cg08887153	yellow	2	191,492,666		OpenSea		0.295	0.000	0.039	0.988
cg01733133	yellow	6	159,290,283		N_Shore		0.295	0.003	0.253	0.679
cg06407111	yellow	17	73,872,650	Body	N_Shore	TRIM47	0.295	0.003	0.278	0.706
cg10569328	yellow	19	1,848,907	TSS1500	S_Shore	REXO1	0.295	0.000	0.052	0.973
cg15922246	yellow	7	150,778,803	TSS1500	Island	FASTK	0.295	0.001	0.351	0.947
cg16902087	yellow	1	2,220,497	Body	N_Shore	SKI	0.295	-0.011	0.517	0.171
cg09749364	yellow	15	40,384,779	Body	OpenSea	BMF	0.295	-0.007	0.064	0.108
cg08368617	yellow	6	134,217,040		Island		0.295	0.008	0.061	0.462

cg26516954	yellow	17	81,009,758	TSS200	Island	B3GNTL1	0.295	-0.004	0.019	0.215
cg05932702	yellow	12	72,148,251	TSS1500	N_Shore	RAB21	0.295	0.012	0.362	0.279
cg15627108	yellow	6	170,189,864	TSS1500	N_Shore	C6orf208	0.295	-0.001	0.153	0.898
cg07741184	yellow	6	167,504,864		N_Shelf		0.295	-0.001	0.421	0.982
cg06844837	yellow	3	52,262,913	3'UTR	OpenSea	TWF2	0.295	0.005	0.820	0.411
cg10203483	yellow	2	85,646,239		S_Shore		0.295	0.000	0.242	0.984
cg07769790	yellow	15	83,317,281	TSS1500	Island	CPEB1	0.295	0.000	0.143	0.960
cg04262934	yellow	6	33,173,581	Body	N_Shore	HSD17B8	0.295	0.010	0.383	0.122
cg05135942	yellow	12	94,854,469	TSS1500	S_Shore	CCDC41	0.295	0.003	0.056	0.374
cg09560533	yellow	2	241,776,193		S_Shelf		0.295	0.011	0.579	0.300
cg00653312	yellow	16	87,863,785	3'UTR	OpenSea	SLC7A5	0.295	0.004	0.752	0.518
cg18415772	yellow	19	1,503,042		Island		0.295	0.008	0.305	0.317
cg13972124	yellow	9	132,539,744		OpenSea		0.295	0.001	0.257	0.896
cg24858744	yellow	3	177,294,439		OpenSea		0.294	-0.002	0.871	0.747
cg26351451	yellow	4	37,248,861	Body	S_Shore	KIAA1239	0.294	0.010	0.422	0.374
cg21684411	yellow	6	31,431,573	3'UTR	OpenSea	HCP5	0.294	-0.004	0.821	0.649
cg02216731	yellow	16	801,936		S_Shelf		0.294	-0.003	0.465	0.826
cg14468692	yellow	11	504,784	5'UTR	N_Shore	RNH1	0.294	-0.002	0.045	0.616
cg20454158	yellow	14	67,982,430	TSS1500	S_Shore	TMEM229B	0.294	0.006	0.313	0.431
cg20638140	yellow	2	107,469,723	5'UTR	OpenSea	ST6GAL2	0.294	-0.005	0.403	0.639
cg18807466	yellow	14	64,932,715	5'UTR	S_Shore	AKAP5	0.294	0.000	0.013	0.726
cg19434937	yellow	12	7,104,184	Body	OpenSea	LPCAT3	0.294	0.010	0.607	0.286
cg17810360	yellow	3	87,170,332		OpenSea		0.294	-0.006	0.489	0.612
cg01680844	yellow	16	776,501	TSS200	N_Shore	CCDC78	0.294	0.018	0.211	0.004
cg04933954	yellow	1	40,974,057	TSS1500	Island	DEM1	0.294	0.002	0.022	0.288
cg12051956	yellow	12	6,807,082	Body	N_Shelf	C12orf53	0.294	0.009	0.490	0.455
cg07556888	yellow	1	153,940,616	1stExon	S_Shore	CREB3L4	0.294	0.004	0.025	0.055
cg27337397	yellow	16	1,151,175		N_Shore		0.294	-0.001	0.407	0.912
cg13258700	yellow	7	156,433,997	TSS1500	S_Shore	C7orf13	0.293	-0.005	0.097	0.331
cg01793178	yellow	1	111,102,144		S_Shelf		0.293	-0.002	0.754	0.835
cg00103568	yellow	1	6,659,266	Body	Island	KLHL21	0.293	0.009	0.912	0.063
cg04640076	yellow	16	89,151,047		S_Shelf		0.293	0.004	0.543	0.822
cg06706875	yellow	19	495,355	TSS1500	N_Shore	MADCAM1	0.293	-0.002	0.225	0.907
cg24249925	yellow	1	162,702,571	Body	OpenSea	DDR2	0.293	0.015	0.333	0.072
cg04497717	yellow	7	2,414,218	Body	OpenSea	EIF3B	0.293	-0.002	0.899	0.646
cg02210934	yellow	14	105,511,982		N_Shore		0.293	0.002	0.883	0.793
cg10374258	yellow	14	21,099,133		N_Shore		0.293	0.003	0.033	0.124
cg00378292	yellow	9	141,013,537	Body	N_Shore	CACNA1B	0.293	0.014	0.536	0.203
cg06476591	yellow	13	49,795,541	Body	Island	MLNR	0.293	-0.003	0.226	0.774
cg27636330	yellow	10	133,976,763	Body	OpenSea	JAKMIP3	0.293	0.011	0.468	0.424
cg22800273	yellow	3	50,655,332	Body	S_Shore	MAPKAPK3	0.293	0.001	0.196	0.913
cg21143446	yellow	13	108,922,340	1stExon	OpenSea	TNFSF13B	0.293	0.005	0.168	0.497
cg25965499	yellow	19	1,885,691	TSS200	S_Shore	FAM108A1	0.293	0.001	0.067	0.837
cg09597806	yellow	15	28,351,607		Island		0.293	0.013	0.340	0.269
cg20388580	yellow	17	80,345,221		N_Shore		0.293	-0.003	0.547	0.821
cg11131117	yellow	7	1,891,496	Body	S_Shore	MAD1L1	0.293	0.000	0.481	0.968
cg11280964	yellow	17	1,359,946	TSS1500	S_Shore	CRK	0.293	-0.002	0.039	0.686
cg00898350	yellow	17	18,164,434	5'UTR	Island	SMCR7	0.293	0.003	0.089	0.421
cg25956985	yellow	22	39,795,188	TSS1500	N_Shore	MAP3K7IP1	0.293	0.002	0.692	0.880
cg10173649	yellow	6	170,482,915		OpenSea		0.293	0.016	0.596	0.228
cg08428878	yellow	15	101,085,341	TSS1500	S_Shore	LASS3	0.293	0.025	0.445	0.119
cg21211187	yellow	13	114,318,347		OpenSea		0.292	0.011	0.518	0.220
cg10920378	yellow	4	155,702,172	TSS1500	N_Shore	RBM46	0.292	0.021	0.655	0.008
cg13520520	yellow	19	11,616,957	3'UTR	S_Shore	ECSIT	0.292	0.006	0.303	0.581
cg26937550	yellow	19	11,773,757		S_Shore		0.292	0.005	0.912	0.517
cg20271029	yellow	1	46,859,845	TSS200	Island	FAAH	0.292	-0.001	0.023	0.357
cg09903090	yellow	6	41,910,019	5'UTR	S_Shore	CCND3	0.292	-0.001	0.065	0.855
cg13656504	yellow	6	32,030,160	Body	OpenSea	TNXB	0.292	-0.005	0.889	0.477
cg22930859	yellow	14	78,108,189		Island		0.292	0.006	0.188	0.698
cg03753683	yellow	10	134,791,323		N_Shore		0.292	-0.011	0.304	0.213
cg26467774	yellow	3	47,323,578	5'UTR	N_Shore	KIF9	0.292	0.001	0.040	0.673
cg20154287	yellow	19	1,267,350		Island		0.292	0.010	0.216	0.301
cg06235973	yellow	19	14,183,619	TSS1500	Island	LOC113230	0.292	0.007	0.149	0.250
cg06361845	yellow	9	136,074,886		N_Shore		0.292	0.008	0.570	0.502
cg25319449	yellow	12	113,376,135	TSS200	N_Shore	OAS3	0.292	0.000	0.011	0.731
cg09907219	yellow	16	89,313,394		N_Shore		0.292	0.004	0.118	0.563
cg05090127	yellow	16	1,350,789		OpenSea		0.292	0.007	0.093	0.269

cg09904296	yellow	12	133,406,047	TSS1500	S_Shore	GOLGA3	0.292	0.002	0.498	0.839
cg20156953	yellow	2	9,658,660	Body	OpenSea	ADAM17	0.292	-0.001	0.953	0.799
cg17667035	yellow	10	118,569,608		OpenSea		0.292	0.020	0.576	0.066
cg08578568	yellow	16	86,492,943		OpenSea		0.292	0.011	0.455	0.237
cg00330170	yellow	19	42,830,596	Body	Island	MEGF8	0.292	-0.009	0.063	0.058
cg13914486	yellow	10	6,117,324		OpenSea		0.292	0.001	0.964	0.636
cg25102726	yellow	5	6,143,809		OpenSea		0.292	0.003	0.436	0.781
cg22533606	yellow	17	79,360,405		Island		0.292	0.005	0.122	0.236
cg24790297	yellow	19	51,226,357	TSS1500	N_Shore	CLEC11A	0.292	-0.001	0.124	0.912
cg09291824	yellow	11	1,421,113	Body	OpenSea	BRSK2	0.291	0.035	0.412	0.002
cg07514654	yellow	7	157,258,062		N_Shelf		0.291	-0.004	0.229	0.727
cg24936468	yellow	1	25,663,368	TSS1500	N_Shore	TMEM50A	0.291	0.000	0.026	0.871
cg17838516	yellow	11	92,703,536	Body	S_Shore	MTNR1B	0.291	-0.001	0.589	0.921
cg02554564	yellow	12	5,603,131	TSS200	N_Shore	NTF3	0.291	-0.004	0.390	0.553
cg18546037	yellow	3	121,363,104	Body	OpenSea	HCLS1	0.291	-0.005	0.937	0.439
cg25562834	yellow	14	61,789,603	Body	S_Shore	PRKCH	0.291	0.016	0.262	0.097
cg23334660	yellow	4	187,573,046	Body	OpenSea	FAT1	0.291	0.005	0.144	0.638
cg16882684	yellow	9	140,145,618	TSS200	N_Shelf	C9orf173	0.291	0.015	0.349	0.053
cg18646828	yellow	14	101,459,547	TSS200	OpenSea	SNORD114-3	0.291	0.005	0.927	0.487
cg23637791	yellow	15	76,016,262	TSS200	OpenSea	ODF3L1	0.291	0.001	0.028	0.438
cg18777774	yellow	17	1,111,345		S_Shelf		0.291	0.002	0.935	0.710
cg10691282	yellow	17	18,922,175	Body	S_Shelf	SLC5A10	0.291	0.004	0.774	0.524
cg22329555	yellow	20	30,777,558	Body	N_Shore	TSPYL3	0.291	0.001	0.564	0.912
cg17775003	yellow	20	33,562,606	TSS1500	OpenSea	MYH7B	0.290	-0.009	0.591	0.448
cg16241204	yellow	10	112,071,452		OpenSea		0.290	-0.003	0.062	0.548
cg05210338	yellow	20	1,448,480	TSS200	S_Shore	NSFL1C	0.290	0.009	0.480	0.586
cg01424562	yellow	14	69,256,677	Body	Island	ZFP36L1	0.290	-0.007	0.051	0.291
cg08252855	yellow	14	24,550,926	Body	Island	NRL	0.290	0.004	0.045	0.211
cg21041956	yellow	12	57,119,681	TSS1500	S_Shore	NACA	0.290	-0.001	0.283	0.891
cg26679144	yellow	5	176,849,696		N_Shelf		0.290	0.009	0.814	0.194
cg22876153	yellow	19	36,865,766		N_Shelf		0.290	0.021	0.757	0.139
cg04612055	yellow	6	19,692,418		S_Shore		0.290	0.007	0.272	0.432
cg01787285	yellow	1	2,162,682	Body	S_Shore	SKI	0.290	0.000	0.024	0.895
cg13312094	yellow	19	19,321,359	TSS1500	N_Shore	NCAN	0.290	0.010	0.446	0.283
cg14675881	yellow	2	43,396,331		N_Shore		0.290	-0.004	0.872	0.649
cg15445319	yellow	17	72,997,680	Body	N_Shore	CDR2L	0.290	0.002	0.904	0.745
cg05822031	yellow	16	1,980,154		Island		0.290	0.000	0.100	0.959
cg16817070	yellow	1	152,020,284		OpenSea		0.290	0.008	0.241	0.180
cg14435550	yellow	9	93,799,278		OpenSea		0.290	-0.006	0.401	0.573
cg07369606	yellow	17	80,290,169	5'UTR	N_Shore	SECTM1	0.290	0.009	0.745	0.348
cg05493761	yellow	3	49,757,476	TSS1500	S_Shore	AMIGO3	0.290	0.012	0.538	0.561
cg20945261	yellow	3	13,460,618	Body	N_Shore	NUP210	0.290	0.000	0.566	0.958
cg23703303	yellow	8	7,720,259	Body	OpenSea	SPAG11A	0.290	0.005	0.569	0.717
cg00777271	yellow	1	149,908,524	1stExon	OpenSea	MTMR11	0.290	0.004	0.129	0.534
cg08247852	yellow	8	37,605,783	TSS1500	OpenSea	LOC728024	0.290	0.016	0.548	0.173
cg13546736	yellow	17	7,486,858	TSS200	Island	MPDU1	0.290	0.003	0.060	0.535
cg04353758	yellow	19	9,921,247	3'UTR	OpenSea	FBXL12	0.289	-0.001	0.922	0.892
cg01666654	yellow	2	97,523,237	Body	N_Shore	ANKRD39	0.289	-0.001	0.030	0.515
cg22472945	yellow	4	185,936,478		N_Shore		0.289	0.005	0.414	0.712
cg20371401	yellow	6	31,895,493	1stExon	OpenSea	C2	0.289	-0.003	0.483	0.687
cg05156550	yellow	15	45,814,198	Body	N_Shore	SLC30A4	0.289	0.000	0.022	0.769
cg27106959	yellow	12	119,474,851	Body	OpenSea	SRRM4	0.289	0.001	0.297	0.946
cg14584865	yellow	2	128,615,641	1stExon	Island	POLR2D	0.289	0.000	0.017	0.649
cg24350475	yellow	10	30,316,933	Body	OpenSea	KIAA1462	0.289	0.001	0.500	0.942
cg07149296	yellow	20	36,889,389	TSS1500	Island	KIAA1755	0.289	0.004	0.069	0.479
cg00816515	yellow	11	13,986,348	Body	Island	SPON1	0.289	0.003	0.222	0.602
cg18739061	yellow	19	15,121,385	TSS200	N_Shore	CCDC105	0.289	0.004	0.194	0.714
cg22465479	yellow	19	50,306,072	Body	S_Shelf	AP2A1	0.289	-0.006	0.386	0.400
cg00428179	yellow	10	31,322,131	TSS1500	S_Shore	ZNF438	0.289	-0.009	0.912	0.459
cg15733932	yellow	19	57,629,092		N_Shore		0.289	0.000	0.816	0.989
cg10798655	yellow	19	2,217,953	Body	Island	DOT1L	0.289	0.001	0.906	0.854
cg14572307	yellow	13	52,733,860	TSS1500	Island	NEK3	0.289	0.000	0.081	0.928
cg01025836	yellow	20	37,230,326	TSS1500	N_Shore	C20orf95	0.289	0.000	0.086	0.983
cg09258993	yellow	13	52,419,332	TSS200	OpenSea	FLJ37307	0.289	-0.006	0.083	0.288
cg16214267	yellow	5	66,299,592	Body	N_Shore	MAST4	0.289	-0.001	0.060	0.843
cg27060381	yellow	22	30,723,363	TSS1500	S_Shore	TBC1D10A	0.289	-0.002	0.162	0.801
cg09011473	yellow	5	169,350,021	5'UTR	OpenSea	FAM196B	0.289	-0.004	0.962	0.690

cg14426015	yellow	7	116,139,391	TSS200	N_Shore	CAV2	0.288	0.009	0.201	0.145
cg00393247	yellow	1	36,234,276	Body	N_Shore	CLSPN	0.288	0.005	0.521	0.530
cg22062537	yellow	2	241,076,198	TSS1500	S_Shore	MYEOV2	0.288	-0.027	0.280	0.170
cg04660234	yellow	9	37,800,484	TSS1500	N_Shore	DCAF10	0.288	-0.004	0.077	0.471
cg12758090	yellow	15	80,543,408		N_Shore		0.288	-0.006	0.327	0.552
cg01208318	yellow	14	106,329,652		N_Shelf		0.288	0.010	0.760	0.475
cg09019916	yellow	2	109,335,672	TSS1500	N_Shore	RANBP2	0.288	-0.002	0.034	0.484
cg18304704	yellow	19	18,229,454	Body	S_Shore	MAST3	0.288	0.000	0.028	0.863
cg21665744	yellow	7	39,171,113	Body	OpenSea	POU6F2	0.288	0.022	0.520	0.288
cg25219643	yellow	11	86,106,473	Body	OpenSea	CCDC81	0.288	0.003	0.255	0.709
cg27171569	yellow	16	83,987,465	5'UTR	OpenSea	OSGIN1	0.288	-0.008	0.521	0.829
cg14830166	yellow	12	11,821,908	Body	OpenSea	ETV6	0.288	0.019	0.574	0.124
cg10770076	yellow	3	100,210,880	TSS1500	N_Shore	TMEM45A	0.288	0.003	0.029	0.080
cg24500398	yellow	17	5,266,808	Body	OpenSea	RABEP1	0.288	0.005	0.866	0.685
cg17826989	yellow	15	83,654,607	TSS1500	Island	FAM103A1	0.288	-0.002	0.073	0.688
cg19969104	yellow	5	493,746	Body	N_Shore	SLC9A3	0.288	0.006	0.606	0.538
cg17515545	yellow	4	84,257,034	TSS1500	S_Shore	HPSE	0.288	-0.002	0.088	0.711
cg17271561	yellow	19	52,839,334	TSS200	N_Shore	ZNF610	0.288	-0.001	0.025	0.517
cg15212455	yellow	7	39,170,539	Body	OpenSea	POU6F2	0.288	0.046	0.582	0.228
cg26235490	yellow	17	1,047,567	Body	OpenSea	ABR	0.288	0.011	0.570	0.378
cg07024439	yellow	4	168,230,286		OpenSea		0.288	0.005	0.181	0.616
cg16513416	yellow	3	139,655,283	Body	S_Shore	CLSTN2	0.288	-0.013	0.107	0.150
cg16520046	yellow	14	104,606,824	Body	S_Shore	KIF26A	0.288	0.004	0.759	0.568
cg11504634	yellow	17	40,714,731	1stExon	Island	COASY	0.288	0.001	0.034	0.805
cg17490790	yellow	19	10,125,043	Body	S_Shelf	RDH8	0.288	0.004	0.354	0.675
cg08743776	yellow	11	67,572,988	TSS200	Island	LOC645332	0.287	0.002	0.074	0.821
cg12227210	yellow	19	38,970,690	Body	N_Shelf	RYR1	0.287	0.009	0.600	0.415
cg00611751	yellow	3	100,119,298	TSS1500	N_Shore	LNP1	0.287	-0.001	0.023	0.495
cg00891125	yellow	16	53,738,439	Body	S_Shore	FTO	0.287	0.002	0.038	0.623
cg03475190	yellow	7	30,919,932	Body	OpenSea	FAM188B	0.287	0.020	0.401	0.102
cg00732970	yellow	20	57,414,162	Body	N_Shore	GNASAS	0.287	-0.009	0.485	0.133
cg03551243	yellow	19	5,718,912	Body	N_Shore	LONP1	0.287	0.008	0.087	0.219
cg13465995	yellow	9	136,203,387	TSS1500	S_Shore	SURF6	0.287	-0.002	0.103	0.873
cg13925692	yellow	3	350,789	5'UTR	Island	CHL1	0.287	0.037	0.261	0.034
cg22603450	yellow	19	551,536		Island		0.287	0.021	0.498	0.250
cg13979884	yellow	9	74,061,171		N_Shore		0.287	-0.012	0.777	0.653
cg04047146	yellow	3	58,570,898		N_Shore		0.287	0.003	0.037	0.270
cg06793974	yellow	20	61,201,166		Island		0.287	-0.003	0.499	0.624
cg17952114	yellow	19	55,039,730		S_Shore		0.287	-0.009	0.700	0.478
cg17812203	yellow	8	142,500,268	Body	OpenSea	FLJ43860	0.287	-0.006	0.728	0.318
cg03514086	yellow	12	118,313,817	Body	OpenSea	KSR2	0.287	0.001	0.273	0.891
cg13622436	yellow	4	4,341,397		OpenSea		0.287	0.017	0.233	0.254
cg10588377	yellow	10	124,221,799	Body	Island	HTRA1	0.287	0.001	0.038	0.791
cg19178091	yellow	17	704,245	Body	OpenSea	NXN	0.287	0.027	0.618	0.035
cg05942508	yellow	11	113,846,922	Body	OpenSea	HTR3A	0.287	-0.020	0.131	0.094
cg11987231	yellow	1	55,446,054	TSS1500	N_Shore	TMEM61	0.287	-0.006	0.104	0.662
cg07103722	yellow	6	31,370,532	TSS1500	N_Shore	MICA	0.287	0.013	0.502	0.509
cg20161132	yellow	17	79,653,970	Body	N_Shore	HGS	0.287	-0.006	0.888	0.345
cg13428009	yellow	9	139,383,171		S_Shelf		0.287	-0.001	0.099	0.872
cg12471811	yellow	10	49,813,371	TSS1500	S_Shore	ARHGAP22	0.286	0.000	0.037	0.731
cg01291856	yellow	11	1,706,894	Body	OpenSea	HCCA2	0.286	0.008	0.549	0.100
cg26145832	yellow	1	11,994,418	TSS1500	N_Shore	PLOD1	0.286	0.000	0.022	0.765
cg24707404	yellow	12	34,528,313		OpenSea		0.286	0.015	0.284	0.277
cg03929796	yellow	3	52,231,840	TSS1500	N_Shore	ALAS1	0.286	-0.008	0.410	0.430
cg25247692	yellow	10	99,313,390	Body	OpenSea	UBTD1	0.286	0.005	0.031	0.638
cg25348776	yellow	4	7,195,466	Body	Island	SORCS2	0.286	-0.001	0.051	0.859
cg27490916	yellow	17	47,645,754		Island		0.286	-0.014	0.105	0.111
cg22129122	yellow	11	75,143,724		S_Shore		0.286	0.014	0.556	0.142
cg09068447	yellow	15	34,502,498	TSS1500	Island	C15orf29	0.286	0.001	0.069	0.923
cg21027526	yellow	12	15,743,215	Body	OpenSea	PTPRO	0.286	0.011	0.437	0.393
cg05391011	yellow	10	103,986,245	1stExon	Island	ELOVL3	0.286	-0.003	0.089	0.698
cg14013337	yellow	9	34,377,424	TSS1500	Island	KIAA1161	0.286	-0.001	0.104	0.887
cg23934351	yellow	17	72,889,323	Body	N_Shore	FADS6	0.286	0.007	0.251	0.515
cg23314014	yellow	14	100,673,902		OpenSea		0.286	-0.002	0.959	0.652
cg18150908	yellow	1	39,249,425		OpenSea		0.286	0.033	0.165	0.112
cg06518387	yellow	11	76,040,637		OpenSea		0.286	-0.001	0.699	0.823
cg24702360	yellow	13	23,412,622		Island		0.286	0.009	0.305	0.693

cg26674487	yellow	3	9,590,728	Body	N_Shelf	LHFPL4	0.286	-0.008	0.885	0.327
cg03394405	yellow	8	8,652,347	Body	OpenSea	MFHAS1	0.286	0.006	0.828	0.739
cg25634742	yellow	6	146,864,328	TSS1500	N_Shore	RAB32	0.286	0.005	0.456	0.638
cg08979573	yellow	1	44,568,675		N_Shore		0.286	0.004	0.946	0.460
cg12710800	yellow	10	74,008,773		OpenSea		0.286	0.019	0.207	0.013
cg13683361	yellow	9	103,793,011	5'UTR	S_Shore	LPPR1	0.286	0.002	0.134	0.864
cg19357865	yellow	19	13,947,262	Body	S_Shelf	MIR27A	0.286	0.003	0.870	0.603
cg06222114	yellow	4	1,004,783	TSS1500	Island	FGFRL1	0.285	-0.003	0.031	0.242
cg05626644	yellow	16	86,714,721		N_Shore		0.285	0.014	0.871	0.054
cg11961618	yellow	11	2,951,844	TSS1500	S_Shore	PHLDA2	0.285	-0.001	0.031	0.645
cg16622353	yellow	17	48,454,200	Body	S_Shelf	EME1	0.285	0.007	0.762	0.231
cg00775374	yellow	1	22,108,386	Body	N_Shore	USP48	0.285	0.000	0.032	0.888
cg21902817	yellow	12	50,794,088	TSS1500	N_Shore	LARP4	0.285	0.001	0.202	0.964
cg15940128	yellow	11	61,897,512	Body	OpenSea	INCENP	0.285	0.002	0.945	0.612
cg20613151	yellow	17	54,991,064	1stExon	Island	TRIM25	0.285	-0.001	0.028	0.364
cg13066963	yellow	1	6,485,317	Body	Island	ESPN	0.285	0.001	0.361	0.884
cg17619020	yellow	6	3,248,098		OpenSea		0.285	0.006	0.177	0.540
cg03547606	yellow	3	48,723,644	TSS1500	Island	NCKIPSD	0.285	0.005	0.083	0.507
cg26450866	yellow	19	49,576,241	TSS200	S_Shore	KCNA7	0.285	-0.010	0.098	0.126
cg14555682	yellow	12	56,511,647	TSS1500	N_Shore	ZC3H10	0.285	0.002	0.043	0.364
cg13559439	yellow	8	12,989,237	Body	N_Shore	DLC1	0.285	-0.009	0.262	0.394
cg05818515	yellow	1	1,158,081	Body	N_Shore	SDF4	0.285	-0.004	0.912	0.340
cg13808842	yellow	1	155,066,096		OpenSea		0.285	0.002	0.496	0.821
cg04256248	yellow	2	238,187,155		OpenSea		0.285	0.030	0.699	0.077
cg11717880	yellow	6	1,364,642		OpenSea		0.285	0.013	0.434	0.139
cg21309379	yellow	17	44,918,854		OpenSea		0.285	-0.003	0.310	0.683
cg27364244	yellow	12	132,660,955		N_Shelf		0.285	0.007	0.341	0.175
cg12689752	yellow	1	156,495,553	3'UTR	OpenSea	IQGAP3	0.285	0.007	0.962	0.035
cg04005378	yellow	17	9,675,061	Body	Island	DHRS7C	0.285	0.002	0.655	0.804
cg10122877	yellow	4	37,585,361	TSS1500	OpenSea	C4orf19	0.285	0.015	0.453	0.300
cg10632214	yellow	1	42,928,538		N_Shore		0.285	-0.008	0.078	0.087
cg22365906	yellow	12	99,548,546	TSS200	OpenSea	ANKS1B	0.285	0.000	0.178	0.987
cg15576342	yellow	15	93,139,511		OpenSea		0.284	0.008	0.623	0.444
cg24254387	yellow	1	45,273,495	TSS1500	S_Shore	BTBD19	0.284	0.001	0.026	0.543
cg16521040	yellow	19	17,417,442	3'UTR	S_Shore	MRPL34	0.284	-0.001	0.151	0.914
cg04297105	yellow	2	103,235,258	TSS1500	N_Shore	SLC9A2	0.284	-0.006	0.121	0.600
cg14688299	yellow	13	30,728,099		OpenSea		0.284	0.014	0.556	0.062
cg16232327	yellow	3	122,399,411	TSS1500	N_Shore	PARP14	0.284	-0.001	0.021	0.090
cg15676040	yellow	1	155,290,446	TSS200	N_Shore	RUSC1	0.284	0.021	0.147	0.044
cg26450750	yellow	4	87,816,983		S_Shelf		0.284	-0.003	0.088	0.527
cg21756194	yellow	7	93,205,240	TSS1500	S_Shore	CALCR	0.284	-0.003	0.132	0.744
cg11341981	yellow	1	203,096,048	TSS1500	N_Shore	ADORA1	0.284	0.008	0.555	0.307
cg25012185	yellow	2	225,890,792	Body	OpenSea	DOCK10	0.284	0.002	0.880	0.689
cg00365524	yellow	1	19,992,771	1stExon	Island	HTR6	0.284	-0.014	0.241	0.238
cg07840318	yellow	4	2,421,411	TSS1500	S_Shore	ZFYVE28	0.284	0.011	0.283	0.252
cg20524905	yellow	3	159,706,348	TSS1500	N_Shore	IL12A	0.284	-0.002	0.087	0.606
cg07232642	yellow	10	99,822,472		OpenSea		0.284	-0.008	0.513	0.285
cg12612137	yellow	4	187,025,654		N_Shore		0.284	-0.002	0.057	0.379
cg02347487	yellow	11	7,059,103	5'UTR	OpenSea	NLRP14	0.283	0.004	0.266	0.563
cg16179969	yellow	15	89,313,222		S_Shore		0.283	0.004	0.222	0.580
cg15392858	yellow	7	27,780,728	5'UTR	S_Shore	TAX1BP1	0.283	0.001	0.029	0.612
cg26256126	yellow	12	132,951,095		OpenSea		0.283	0.010	0.691	0.233
cg04993883	yellow	19	46,088,448	TSS1500	S_Shore	OPA3	0.283	-0.001	0.051	0.770
cg25399148	yellow	8	141,417,141	Body	OpenSea	TRAPP9	0.283	0.039	0.948	0.118
cg04355222	yellow	11	2,416,708	Body	N_Shore	CD81	0.283	0.001	0.934	0.787
cg26826207	yellow	20	33,880,353	TSS200	S_Shore	FAM83C	0.283	0.008	0.634	0.538
cg15674917	yellow	9	123,836,703		Island		0.283	0.001	0.022	0.347
cg21703222	yellow	7	77,649,542	Body	Island	MAGI2	0.283	-0.001	0.027	0.527
cg13601615	yellow	8	141,461,241	Body	OpenSea	TRAPP9	0.283	-0.002	0.952	0.606
cg26421646	yellow	1	31,885,741	TSS1500	N_Shore	SERINC2	0.283	0.003	0.163	0.672
cg24829292	yellow	11	132,951,838	Body	Island	OPCML	0.283	0.012	0.368	0.231
cg15799605	yellow	17	30,948,425	Body	OpenSea	MYO1D	0.283	-0.009	0.691	0.303
cg05220630	yellow	20	2,451,794	TSS1500	S_Shore	SNRPB	0.283	0.003	0.365	0.808
cg14144229	yellow	14	69,136,587		OpenSea		0.283	0.017	0.679	0.013
cg09278980	yellow	11	64,739,343		Island		0.283	-0.002	0.105	0.804
cg14018079	yellow	3	10,806,175	TSS1500	OpenSea	LOC285370	0.283	0.019	0.479	0.067
cg13663855	yellow	14	21,095,414		S_Shelf		0.283	0.005	0.541	0.767



cg14037036	yellow	1	27,113,573	TSS1500	N_Shore	PIGV	0.283	0.000	0.019	0.593
cg19131313	yellow	8	1,704,013		OpenSea		0.283	-0.002	0.176	0.855
cg22467129	yellow	15	76,604,101	TSS1500	S_Shore	ETFA	0.283	0.011	0.206	0.517
cg18316386	yellow	12	58,335,867	Body	OpenSea	XRCC6BP1	0.283	-0.002	0.083	0.766
cg23906459	yellow	8	143,530,680		Island		0.283	0.000	0.013	0.847
cg25689649	yellow	19	17,336,377	TSS1500	N_Shore	OCEL1	0.283	0.020	0.651	0.111
cg13599613	yellow	9	130,524,902	Body	OpenSea	SH2D3C	0.282	0.014	0.884	0.088
cg25682171	yellow	13	110,885,015	Body	OpenSea	COL4A1	0.282	0.000	0.465	0.984
cg09271661	yellow	1	3,039,059	Body	S_Shore	PRDM16	0.282	0.007	0.724	0.273
cg19884658	yellow	1	6,664,268	TSS1500	S_Shore	KLHL21	0.282	0.004	0.208	0.532
cg07685326	yellow	15	25,380,111	TSS1500	OpenSea	PAR1	0.282	0.021	0.818	0.029
cg26888012	yellow	6	31,091,383	5'UTR	OpenSea	PSORS1C1	0.282	0.005	0.660	0.838
cg10742523	yellow	4	55,650,393		OpenSea		0.282	-0.008	0.298	0.243
cg02888990	yellow	8	142,720,028		OpenSea		0.282	0.000	0.182	0.967
cg20734569	yellow	3	48,348,370	3'UTR	OpenSea	SPINK8	0.282	-0.001	0.483	0.946
cg17749468	yellow	2	202,316,740	5'UTR	Island	STRADB	0.282	-0.009	0.016	0.221
cg03010301	yellow	19	52,195,499	TSS1500	OpenSea	MIR125A	0.282	0.011	0.217	0.193
cg06660057	yellow	7	4,762,371	Body	N_Shelf	FOXK1	0.282	0.002	0.975	0.389
cg22856834	yellow	2	241,173,620		OpenSea		0.282	0.015	0.598	0.116
cg18894440	yellow	8	76,321,233		S_Shore		0.282	0.004	0.513	0.638
cg01288904	yellow	8	80,947,440	3'UTR	OpenSea	TPD52	0.282	-0.002	0.228	0.825
cg10652091	yellow	2	241,938,193	TSS200	Island	SNED1	0.282	-0.002	0.020	0.431
cg23167087	yellow	10	75,118,887	TSS1500	S_Shore	TTC18	0.282	-0.009	0.119	0.462
cg04011940	yellow	4	110,098,978	Body	OpenSea	COL25A1	0.282	0.015	0.459	0.169
cg06899976	yellow	5	140,430,962	TSS200	OpenSea	PCDHB1	0.282	0.010	0.170	0.192
cg06599546	yellow	16	1,360,715	5'UTR	S_Shore	UBE2I	0.282	-0.006	0.083	0.055
cg02489438	yellow	19	3,721,465		Island		0.282	0.004	0.173	0.535
cg14327995	yellow	19	42,894,499	TSS200	S_Shelf	CNFN	0.282	-0.010	0.301	0.331
cg00742098	yellow	16	17,911,664		OpenSea		0.282	-0.018	0.922	0.094
cg16899088	yellow	12	10,827,583	TSS1500	S_Shore	STYK1	0.282	0.001	0.841	0.925
cg26031954	yellow	1	2,139,327	TSS200	S_Shore	C1orf86	0.282	0.006	0.527	0.768
cg04075738	yellow	12	130,571,303		OpenSea		0.282	0.000	0.342	0.993
cg08390696	yellow	13	99,405,102	TSS200	Island	SLC15A1	0.282	0.003	0.198	0.607
cg07739851	yellow	17	72,231,448	Body	OpenSea	TTYH2	0.282	0.015	0.298	0.023
cg07552322	yellow	11	43,580,581	TSS1500	OpenSea	MIR670	0.281	0.017	0.224	0.036
cg06539449	yellow	11	69,461,008	Body	N_Shore	CCND1	0.281	0.016	0.544	0.097
cg14972743	yellow	19	58,609,960	TSS1500	Island	ZSCAN18	0.281	0.003	0.050	0.356
cg20072528	yellow	14	93,156,816		S_Shelf		0.281	-0.013	0.385	0.183
cg24834165	yellow	5	95,060,853		OpenSea		0.281	0.002	0.541	0.818
cg05082311	yellow	17	8,313,457		OpenSea		0.281	-0.001	0.302	0.852
cg04364728	yellow	1	845,810		Island		0.281	0.005	0.081	0.561
cg12086028	yellow	6	33,241,026	TSS1500	S_Shore	VP52	0.281	0.007	0.548	0.686
cg26681975	yellow	6	36,238,123	5'UTR	OpenSea	PNPLA1	0.281	0.013	0.275	0.030
cg18581950	yellow	2	219,124,271	TSS1500	OpenSea	GPBAR1	0.281	0.010	0.577	0.335
cg00202479	yellow	6	31,760,383	Body	N_Shelf	VARS	0.281	0.004	0.868	0.529
cg07745624	yellow	4	21,950,952	TSS1500	S_Shore	KCNIP4	0.281	-0.003	0.099	0.639
cg19548313	yellow	19	1,065,712	TSS1500	N_Shore	HMHA1	0.281	0.006	0.538	0.453
cg07679836	yellow	6	33,548,423	TSS1500	OpenSea	BAK1	0.281	0.003	0.154	0.845
cg15972572	yellow	7	157,467,883	Body	OpenSea	PTPRN2	0.281	-0.003	0.821	0.770
cg03680517	yellow	10	43,632,967	TSS1500	Island	CSGALNACT2	0.281	0.007	0.074	0.273
cg00830393	yellow	3	66,552,063	TSS1500	S_Shore	LRIG1	0.281	0.001	0.017	0.183
cg17651451	yellow	5	178,697,400	Body	OpenSea	ADAMTS2	0.281	-0.006	0.253	0.495
cg00192882	yellow	17	19,291,120	TSS1500	OpenSea	MFAP4	0.281	0.001	0.198	0.844
cg18803384	yellow	11	120,384,039		S_Shore		0.281	0.001	0.826	0.903
cg01753815	yellow	7	157,225,818		OpenSea		0.280	0.039	0.082	0.027
cg17040807	yellow	17	74,533,282	Body	Island	CYGB	0.280	-0.001	0.170	0.896
cg05037210	yellow	17	80,010,528	Body	Island	GPS1	0.280	0.005	0.052	0.234
cg26121730	yellow	1	156,460,453	5'UTR	OpenSea	MEF2D	0.280	-0.004	0.062	0.302
cg19607092	yellow	19	38,904,860	Body	N_Shelf	RASGRP4	0.280	0.004	0.939	0.448
cg03873322	yellow	6	142,409,202	Body	N_Shore	NMBR	0.280	0.038	0.171	0.007
cg16293105	yellow	19	52,034,970	5'UTR	OpenSea	SIGLEC6	0.280	0.017	0.291	0.273
cg22761205	yellow	11	457,256	Body	N_Shore	PTDSS2	0.280	-0.003	0.899	0.585
cg14665690	yellow	1	155,188,904	Body	OpenSea	GBAP1	0.280	0.001	0.098	0.870
cg15834037	yellow	1	226,899,011	Body	OpenSea	ITPKB	0.280	0.006	0.070	0.355
cg01815292	yellow	5	1,725,823		N_Shore		0.280	0.019	0.399	0.190
cg26721708	yellow	16	1,312,459		S_Shore		0.280	-0.008	0.917	0.209
cg16955704	yellow	4	656,994	Body	Island	PDE6B	0.280	-0.003	0.402	0.791

cg08649568	yellow	17	40,687,943	TSS200	N_Shore	NAGLU	0.280	0.000	0.028	0.958
cg04035392	yellow	3	47,866,155	Body	N_Shore	DHX30	0.280	0.010	0.220	0.173
cg02922035	yellow	10	62,493,342		Island		0.280	0.001	0.031	0.755
cg01510990	yellow	6	4,914,643	Body	OpenSea	CDYL	0.280	0.007	0.426	0.544
cg04125208	yellow	11	35,161,229	Body	S_Shore	CD44	0.280	-0.002	0.049	0.466
cg00969823	yellow	9	34,958,499	5'UTR	S_Shore	KIAA1045	0.280	-0.006	0.064	0.124
cg21210690	yellow	11	117,314,243	Body	OpenSea	DSCAML1	0.280	-0.005	0.197	0.420
cg04143626	yellow	10	85,924,004		OpenSea		0.280	0.010	0.646	0.230
cg16715857	yellow	19	7,855,507	Body	S_Shore	CLEC4G1	0.280	0.013	0.756	0.452
cg16635735	yellow	12	132,862,944	Body	Island	GALNT9	0.280	0.000	0.031	0.869
cg21064333	yellow	15	63,613,902		Island		0.279	-0.007	0.885	0.144
cg18240850	yellow	12	122,794,229	Body	OpenSea	CLIP1	0.279	-0.004	0.913	0.512
cg09359810	yellow	14	52,048,421	5'UTR	OpenSea	FRMD6	0.279	-0.006	0.250	0.692
cg05923350	yellow	6	29,810,094		OpenSea		0.279	0.007	0.921	0.440
cg03847279	yellow	4	1,004,213	TSS1500	Island	FGFRL1	0.279	-0.001	0.096	0.931
cg17489908	yellow	10	8,101,566	Body	S_Shore	GATA3	0.279	-0.001	0.464	0.961
cg25410123	yellow	5	131,825,865	5'UTR	Island	IRF1	0.279	-0.001	0.027	0.733
cg24682012	yellow	11	6,411,087	TSS1500	N_Shore	SMPD1	0.279	0.005	0.068	0.444
cg18493677	yellow	17	3,416,525	3'UTR	OpenSea	TRPV3	0.279	0.011	0.578	0.598
cg24712354	yellow	19	42,929,067	Body	S_Shore	LIPE	0.279	0.006	0.603	0.582
cg06503171	yellow	3	134,083,286	Body	S_Shore	AMOTL2	0.279	-0.001	0.030	0.475
cg17628894	yellow	11	804,452	5'UTR	N_Shore	LRDD	0.279	0.024	0.286	0.072
cg19257550	yellow	9	35,673,909	TSS200	N_Shore	CA9	0.279	-0.005	0.380	0.391
cg15611176	yellow	12	120,763,869	Body	OpenSea	PLA2G1B	0.279	0.009	0.092	0.686
cg15032861	yellow	2	2,791,584		OpenSea		0.279	-0.001	0.288	0.895
cg03839717	yellow	6	167,507,762		S_Shore		0.279	0.008	0.544	0.194
cg05985589	yellow	4	5,021,328	TSS200	Island	CYTL1	0.279	0.009	0.154	0.659
cg18286080	yellow	6	30,291,349	Body	N_Shelf	HCG18	0.279	0.004	0.928	0.232
cg01217071	yellow	2	201,450,323	TSS1500	N_Shore	AOX1	0.279	0.013	0.108	0.073
cg14477135	yellow	3	169,684,281	Body	N_Shore	LOC1001281	0.279	0.005	0.080	0.413
cg01437515	yellow	1	1,148,315	Body	N_Shore	TNFRSF4	0.278	0.004	0.632	0.560
cg11748127	yellow	6	38,608,228	TSS1500	S_Shore	BTBD9	0.278	0.000	0.022	0.779
cg26978611	yellow	6	90,271,866	5'UTR	OpenSea	ANKRD6	0.278	0.007	0.453	0.290
cg16626322	yellow	17	78,439,556		N_Shelf		0.278	0.009	0.586	0.230
cg16437134	yellow	13	30,170,844	TSS1500	S_Shore	SLC7A1	0.278	-0.014	0.776	0.343
cg14025149	yellow	9	35,718,033	Body	OpenSea	TLN1	0.278	0.005	0.835	0.450
cg09578086	yellow	6	31,866,778	TSS1500	N_Shore	EHMT2	0.278	0.001	0.925	0.803
cg10173814	yellow	9	128,170,166		Island		0.278	0.011	0.782	0.526
cg00580652	yellow	1	1,951,356	Body	Island	GABRD	0.278	0.003	0.084	0.670
cg09263755	yellow	17	33,288,932	1stExon	S_Shore	ZNF830	0.278	0.000	0.022	0.808
cg11321030	yellow	10	103,326,711		Island		0.278	0.002	0.133	0.883
cg27367878	yellow	19	52,195,291	TSS1500	OpenSea	MIR125A	0.278	0.009	0.244	0.200
cg17765885	yellow	7	128,002,356	TSS1500	S_Shore	PRRT4	0.278	0.003	0.031	0.044
cg18051798	yellow	12	51,453,432	3'UTR	OpenSea	LETMD1	0.278	-0.008	0.803	0.482
cg02333875	yellow	6	29,618,205		S_Shore		0.278	-0.011	0.218	0.322
cg27025856	yellow	3	13,521,023	TSS1500	Island	HDAC11	0.278	-0.001	0.130	0.900
cg05280131	yellow	2	132,248,998	Body	N_Shore	FAM128A	0.278	0.003	0.409	0.672
cg00110688	yellow	12	93,771,303	TSS1500	N_Shore	NUDT4	0.278	0.001	0.024	0.700
cg23922819	yellow	1	27,335,739	Body	N_Shelf	FAM46B	0.278	-0.001	0.832	0.865
cg18392644	yellow	1	1,951,466	Body	Island	GABRD	0.278	0.003	0.199	0.674
cg18238374	yellow	14	89,507,124		OpenSea		0.278	0.001	0.018	0.512
cg08676173	yellow	16	8,941,747	3'UTR	OpenSea	PMM2	0.278	0.008	0.950	0.065
cg11818193	yellow	2	46,503,496		OpenSea		0.278	-0.001	0.447	0.883
cg05525106	yellow	6	74,162,089	TSS200	Island	C6orf150	0.277	-0.001	0.046	0.792
cg00684594	yellow	11	57,519,470	TSS1500	N_Shore	BTBD18	0.277	-0.012	0.126	0.209
cg05750962	yellow	18	45,535,166		S_Shore		0.277	0.002	0.060	0.599
cg16418800	yellow	5	76,476,455		Island		0.277	-0.003	0.067	0.519
cg12154803	yellow	11	27,384,596	1stExon	Island	CCDC34	0.277	0.000	0.022	0.747
cg17021907	yellow	2	119,918,913		S_Shelf		0.277	0.003	0.296	0.573
cg20098710	yellow	19	19,640,075	Body	Island	YJEFN3	0.277	0.024	0.519	0.011
cg14391469	yellow	11	64,051,725	TSS1500	N_Shore	GPR137	0.277	0.000	0.040	0.893
cg20661080	yellow	5	180,111,966		OpenSea		0.277	-0.007	0.908	0.357
cg18891127	yellow	14	65,637,714		OpenSea		0.277	0.011	0.228	0.413
cg19328828	yellow	12	123,215,471	TSS1500	OpenSea	GPR81	0.277	-0.005	0.068	0.371
cg09578794	yellow	14	104,690,040		Island		0.277	-0.004	0.213	0.622
cg24088408	yellow	20	32,274,875	TSS1500	S_Shore	E2F1	0.277	0.009	0.289	0.313
cg11022519	yellow	3	135,967,896	TSS1500	N_Shore	PCCB	0.277	-0.007	0.702	0.436

cg11468953	yellow	11	48,034,953	Body	OpenSea	PTPRJ	0.277	-0.002	0.549	0.772
cg21219903	yellow	1	43,920,090	TSS200	S_Shore	HYI	0.277	0.015	0.377	0.267
cg09165842	yellow	20	17,296,317	Body	Island	PCSK2	0.277	0.015	0.093	0.244
cg18740861	yellow	10	134,998,487	Body	N_Shore	KNDC1	0.276	-0.002	0.975	0.383
cg24472477	yellow	1	203,185,362	3'UTR	OpenSea	CHIT1	0.276	0.008	0.071	0.080
cg03112631	yellow	11	123,511,671	Body	OpenSea	SCN3B	0.276	0.003	0.185	0.781
cg12360123	yellow	10	79,984,532		OpenSea		0.276	-0.003	0.899	0.608
cg18427091	yellow	17	30,115,417		OpenSea		0.276	0.006	0.245	0.649
cg01484716	yellow	6	88,494,538		OpenSea		0.276	-0.005	0.239	0.704
cg08339189	yellow	9	124,260,498	Body	N_Shore	GGTA1	0.276	0.006	0.117	0.445
cg26001655	yellow	4	1,356,770	Body	OpenSea	KIAA1530	0.276	-0.001	0.974	0.551
cg08579721	yellow	8	100,906,308	TSS1500	S_Shore	COX6C	0.276	0.004	0.083	0.606
cg14649865	yellow	1	27,206,058	3'UTR	OpenSea	GPN2	0.276	0.006	0.943	0.126
cg26797676	yellow	6	30,700,534	Body	OpenSea	FLOT1	0.276	0.009	0.941	0.042
cg23230554	yellow	11	66,335,282	Body	N_Shore	CTSF	0.276	0.002	0.950	0.541
cg12987910	yellow	20	3,641,131	Body	Island	GFRA4	0.276	-0.003	0.199	0.762
cg20198684	yellow	19	45,742,032		Island		0.276	0.015	0.612	0.259
cg19014623	yellow	7	100,244,946	Body	OpenSea	ACTL6B	0.276	0.003	0.074	0.392
cg22794078	yellow	15	65,904,012	TSS1500	S_Shore	C15orf44	0.276	-0.002	0.043	0.286
cg11158819	yellow	3	183,817,853	TSS200	OpenSea	HTR3E	0.276	0.001	0.526	0.928
cg13335329	yellow	19	14,582,668	3'UTR	Island	PKN1	0.276	0.004	0.827	0.691
cg06728055	yellow	3	149,294,286	Body	OpenSea	WWTR1	0.275	0.007	0.282	0.288
cg02025583	yellow	17	10,632,861	Body	Island	TMEM220	0.275	0.003	0.109	0.591
cg20704560	yellow	1	10,698,313	3'UTR	Island	CASZ1	0.275	0.014	0.447	0.171
cg20541785	yellow	6	35,772,606	TSS1500	N_Shore	LHFPL5	0.275	-0.001	0.420	0.916
cg20488157	yellow	14	104,394,430	TSS1500	N_Shore	TDRD9	0.275	0.004	0.963	0.519
cg09496634	yellow	16	87,712,353	Body	N_Shelf	JPH3	0.275	0.013	0.307	0.647
cg02069524	yellow	10	1,234,332	Body	S_Shelf	ADARB2	0.275	0.016	0.364	0.105
cg04290586	yellow	12	108,168,987	1stExon	Island	ASCL4	0.275	0.000	0.177	0.957
cg05456789	yellow	11	75,141,967	TSS1500	S_Shore	KLHL35	0.275	-0.016	0.563	0.498
cg02737621	yellow	1	28,585,395	TSS1500	N_Shore	SESN2	0.275	0.000	0.119	0.960
cg08017858	yellow	11	74,022,642	1stExon	Island	P4HA3	0.275	0.061	0.033	0.021
cg13883671	yellow	8	144,965,812		N_Shore		0.275	-0.008	0.863	0.551
cg00071250	yellow	1	172,628,263	1stExon	OpenSea	FASLG	0.275	-0.001	0.670	0.843
cg17215680	yellow	19	51,920,976	1stExon	OpenSea	SIGLEC10	0.275	-0.016	0.328	0.191
cg06475181	yellow	11	8,710,910	3'UTR	S_Shore	RPL27A	0.275	0.002	0.017	0.060
cg22249752	yellow	12	133,186,738		Island		0.275	0.040	0.712	0.015
cg02328221	yellow	19	46,178,388	Body	N_Shore	GIPR	0.275	0.007	0.550	0.349
cg04628369	yellow	20	56,247,426	5'UTR	Island	PMEPA1	0.274	-0.002	0.136	0.861
cg18204145	yellow	6	43,475,846	Body	N_Shore	C6orf154	0.274	0.001	0.565	0.848
cg02540427	yellow	12	58,239,512	Body	Island	CTDSP2	0.274	-0.002	0.027	0.214
cg03552342	yellow	4	8,062,590	Body	OpenSea	ABLIM2	0.274	0.005	0.966	0.393
cg26401390	yellow	11	2,154,638	Body	S_Shore	INS-IGF2	0.274	0.007	0.457	0.243
cg22827806	yellow	12	49,297,569	TSS1500	OpenSea	CCDC65	0.274	0.011	0.410	0.401
cg09796270	yellow	17	17,721,594	Body	OpenSea	SREBF1	0.274	-0.007	0.937	0.374
cg04148720	yellow	16	67,144,419	Body	S_Shore	C16orf70	0.274	0.002	0.062	0.617
cg26673784	yellow	10	80,787,497	Body	OpenSea	LOC283050	0.274	0.010	0.245	0.442
cg25347941	yellow	22	43,486,472	TSS1500	S_Shore	TTL1	0.274	0.007	0.708	0.486
cg00813162	yellow	14	69,443,362	Body	N_Shore	ACTN1	0.274	-0.007	0.444	0.313
cg14218343	yellow	10	44,144,641	TSS1500	Island	ZNF32	0.274	0.001	0.053	0.844
cg19217130	yellow	2	88,427,581	TSS200	OpenSea	FABP1	0.274	0.003	0.537	0.631
cg18855208	yellow	5	177,580,365	Body	N_Shore	NHP2	0.274	0.000	0.050	0.962
cg04598100	yellow	3	57,204,106		N_Shore		0.274	-0.002	0.075	0.617
cg00682653	yellow	14	68,141,442	1stExon	Island	VTI1B	0.274	-0.007	0.020	0.250
cg20947470	yellow	3	50,232,343	Body	Island	GNAT1	0.274	0.014	0.519	0.255
cg03263117	yellow	17	45,798,767		OpenSea		0.274	0.009	0.029	0.042
cg26478297	yellow	19	54,387,435	Body	S_Shore	PRKCG	0.274	0.024	0.458	0.119
cg05333174	yellow	22	43,163,057		N_Shelf		0.274	0.013	0.797	0.153
cg02208657	yellow	5	175,621,409		Island		0.274	0.009	0.068	0.225
cg00119896	yellow	7	3,083,721	TSS200	OpenSea	CARD11	0.274	0.003	0.203	0.656
cg20269554	yellow	1	55,181,235	TSS1500	N_Shore	TTC4	0.273	0.000	0.059	0.937
cg13192688	yellow	4	1,742,950	Body	OpenSea	TACC3	0.273	0.008	0.928	0.024
cg26455175	yellow	16	853,533		N_Shelf		0.273	0.013	0.519	0.062
cg21400896	yellow	17	47,288,569	Body	OpenSea	ABI3	0.273	-0.001	0.538	0.837
cg02524099	yellow	4	1,037,816		OpenSea		0.273	-0.006	0.154	0.456
cg14156441	yellow	8	126,447,096	Body	S_Shelf	TRIB1	0.273	-0.001	0.055	0.749
cg14777574	yellow	17	34,135,736	TSS1500	N_Shore	TAF15	0.273	0.005	0.129	0.516

cg25941354	yellow	2	218,989,983	TSS1500	OpenSea	CXCR2	0.273	0.002	0.438	0.826
cg20849324	yellow	8	20,725,345		OpenSea		0.273	0.006	0.422	0.492
cg02061553	yellow	1	3,370,110	TSS1500	N_Shore	ARHGEF16	0.273	-0.001	0.779	0.928
cg20147335	yellow	22	22,020,155	TSS200	Island	PPIL2	0.273	0.000	0.028	0.869
cg15392029	yellow	11	120,195,717	TSS1500	N_Shore	TMEM136	0.273	0.012	0.123	0.190
cg10503234	yellow	19	676,739	Body	S_Shore	FSTL3	0.273	0.004	0.125	0.554
cg17231293	yellow	4	8,702,397		OpenSea		0.273	0.007	0.083	0.225
cg23457357	yellow	6	31,148,748		S_Shore		0.273	-0.003	0.669	0.849
cg12046723	yellow	16	86,589,512	TSS1500	Island	MTHFSD	0.273	0.014	0.192	0.237
cg02067535	yellow	3	196,366,191	TSS1500	N_Shore	LRRC33	0.273	0.000	0.023	0.988
cg23434122	yellow	3	40,518,435	TSS200	N_Shore	ZNF619	0.273	-0.019	0.399	0.197
cg10708189	yellow	1	58,898,793		OpenSea		0.273	0.002	0.232	0.763
cg18853718	yellow	1	47,854,435		OpenSea		0.273	-0.002	0.081	0.764
cg05254078	yellow	15	34,502,482	TSS200	Island	C15orf29	0.273	-0.003	0.020	0.182
cg10218558	yellow	4	184,644,017		Island		0.273	-0.002	0.026	0.343
cg04530214	yellow	16	30,816,719		N_Shore		0.273	-0.006	0.175	0.551
cg11576590	yellow	1	152,011,357		S_Shelf		0.273	0.017	0.789	0.256
cg24886710	yellow	1	6,232,001	Body	OpenSea	CHD5	0.273	0.005	0.564	0.393
cg20032789	yellow	10	30,336,565	Body	OpenSea	KIAA1462	0.272	0.004	0.979	0.836
cg16792014	yellow	12	64,283,788	Body	OpenSea	SRGAP1	0.272	0.011	0.827	0.323
cg07173972	yellow	20	61,583,979	TSS200	Island	SLC17A9	0.272	-0.001	0.042	0.866
cg07447157	yellow	14	23,756,049	TSS1500	S_Shore	HOMEZ	0.272	-0.001	0.047	0.779
cg05007997	yellow	2	219,246,985	1stExon	OpenSea	SLC11A1	0.272	-0.001	0.913	0.896
cg11615268	yellow	6	35,748,676	TSS200	OpenSea	C6orf127	0.272	0.000	0.875	0.991
cg24691911	yellow	2	150,991,316		OpenSea		0.272	0.011	0.206	0.414
cg12008034	yellow	6	33,996,580	Body	S_Shore	GRM4	0.272	-0.005	0.514	0.492
cg02974085	yellow	1	222,990,921		S_Shelf		0.272	0.007	0.512	0.307
cg03289416	yellow	15	75,166,202	TSS1500	S_Shore	SCAMP2	0.272	-0.001	0.246	0.951
cg16706349	yellow	10	85,836,590		OpenSea		0.272	0.004	0.510	0.601
cg26251865	yellow	19	44,220,214	1stExon	N_Shelf	IRGC	0.272	0.016	0.218	0.021
cg27449360	yellow	4	57,688,308	TSS1500	S_Shore	SPINK2	0.272	0.011	0.159	0.245
cg06760077	yellow	2	119,068,497		OpenSea		0.272	0.007	0.451	0.464
cg10910637	yellow	3	9,833,936	TSS1500	N_Shore	ARPC4	0.272	-0.001	0.051	0.737
cg01785233	yellow	6	7,260,807		N_Shore		0.272	0.000	0.478	0.977
cg12034610	yellow	1	41,300,769	Body	N_Shelf	KCNQ4	0.272	-0.004	0.428	0.464
cg14750269	yellow	19	46,975,180	TSS1500	S_Shore	PNMAL1	0.272	-0.006	0.235	0.566
cg17102963	yellow	1	231,298,758	1stExon	Island	TRIM67	0.272	0.001	0.035	0.783
cg04471151	yellow	10	106,872,886	Body	OpenSea	SORCS3	0.272	0.005	0.198	0.717
cg19479654	yellow	19	18,496,921	TSS200	N_Shore	GDF15	0.272	0.003	0.045	0.559
cg26964989	yellow	9	133,884,294	TSS1500	N_Shore	LAMC3	0.272	-0.003	0.046	0.217
cg18411660	yellow	7	157,579,880	Body	S_Shore	PTPRN2	0.272	-0.001	0.831	0.944
cg16835502	yellow	17	4,710,020	TSS1500	Island	PLD2	0.272	0.001	0.023	0.306
cg16315923	yellow	17	73,453,100	5'UTR	S_Shore	KIAA0195	0.272	0.001	0.016	0.398
cg12609530	yellow	7	62,541,571		OpenSea		0.272	0.018	0.742	0.133
cg20478934	yellow	19	10,120,794	Body	Island	COL5A3	0.271	0.030	0.464	0.048
cg17335741	yellow	6	31,914,265	Body	OpenSea	CFB	0.271	0.017	0.500	0.050
cg08007465	yellow	18	6,415,183	TSS1500	S_Shore	L3MBTL4	0.271	0.001	0.033	0.647
cg10720545	yellow	19	45,504,295	TSS1500	N_Shore	RELB	0.271	0.026	0.719	0.071
cg00505133	yellow	1	95,320,459	Body	OpenSea	SLC44A3	0.271	-0.006	0.107	0.495
cg16410115	yellow	1	24,240,000	TSS200	OpenSea	CNR2	0.271	0.005	0.622	0.547
cg26837570	yellow	2	74,710,667	Body	S_Shore	TTC31	0.271	0.001	0.053	0.805
cg14947666	yellow	19	16,293,592		N_Shelf		0.271	-0.007	0.067	0.241
cg05378452	yellow	17	68,037,743		OpenSea		0.271	0.010	0.376	0.336
cg08969925	yellow	3	33,015,641		OpenSea		0.271	0.000	0.966	0.961
cg12737833	yellow	2	101,500,543	5'UTR	OpenSea	NPAS2	0.271	0.003	0.378	0.867
cg26176014	yellow	17	80,491,645	Body	OpenSea	FOXK2	0.271	0.001	0.981	0.515
cg23859303	yellow	7	158,243,632	Body	OpenSea	PTPRN2	0.271	-0.006	0.358	0.379
cg09930743	yellow	12	132,896,199	Body	N_Shore	GALNT9	0.271	0.013	0.362	0.123
cg25591868	yellow	1	182,573,931	TSS1500	S_Shore	RGS16	0.271	0.016	0.214	0.066
cg16006220	yellow	11	45,868,495	TSS1500	N_Shore	CRY2	0.271	0.003	0.136	0.788
cg17943663	yellow	17	74,001,963	3'UTR	N_Shore	CDK3	0.271	-0.003	0.371	0.654
cg12731838	yellow	11	7,914,544		OpenSea		0.271	0.006	0.231	0.509
cg14371312	yellow	9	115,874,001	TSS200	N_Shore	C9orf110	0.271	-0.008	0.366	0.552
cg20330333	yellow	14	58,337,741		OpenSea		0.271	0.002	0.198	0.776
cg10202994	yellow	2	220,071,050	TSS1500	N_Shore	ZFAND2B	0.271	0.006	0.145	0.465
cg19639533	yellow	8	144,870,260		N_Shore		0.271	0.003	0.862	0.648
cg13453750	yellow	1	205,783,389	TSS1500	S_Shore	SLC41A1	0.271	0.005	0.639	0.627

cg08095700	yellow	3	184,972,153	TSS1500	S_Shore	EHHADH	0.271	-0.004	0.165	0.544
cg26651122	yellow	16	56,641,777	TSS1500	N_Shore	MT2A	0.271	0.010	0.404	0.105
cg20700792	yellow	19	38,042,009	TSS1500	S_Shore	ZNF540	0.271	0.004	0.450	0.752
cg10940997	yellow	11	18,230,494	TSS200	N_Shore	LOC494141	0.271	0.010	0.782	0.293
cg19969873	yellow	2	232,791,083	TSS200	Island	NPPC	0.271	-0.001	0.048	0.648
cg00165394	yellow	15	42,187,649	TSS1500	OpenSea	SPTBN5	0.271	0.002	0.491	0.630
cg20567785	yellow	12	129,456,496	Body	OpenSea	GLT1D1	0.271	0.018	0.412	0.099
cg07617866	yellow	19	45,873,294	Body	N_Shore	ERCC2	0.271	-0.002	0.028	0.375
cg27079023	yellow	19	34,662,830	TSS1500	N_Shore	LSM14A	0.270	-0.001	0.020	0.399
cg07666532	yellow	7	98,249,051	Body	S_Shore	NPTX2	0.270	0.005	0.272	0.424
cg20161996	yellow	1	150,268,816	Body	S_Shelf	MRPS21	0.270	0.003	0.969	0.270
cg00707741	yellow	2	242,294,482	TSS1500	N_Shore	FARP2	0.270	-0.002	0.090	0.728
cg26113488	yellow	1	39,249,433		OpenSea		0.270	0.020	0.128	0.231
cg08466968	yellow	8	117,950,395	TSS200	N_Shore	C8orf85	0.270	0.003	0.059	0.334
cg17647271	yellow	11	76,299,819		OpenSea		0.270	0.008	0.715	0.531
cg23999422	yellow	19	4,173,466		Island		0.270	0.000	0.164	0.989
cg13945148	yellow	10	131,989,387		S_Shore		0.270	0.012	0.474	0.365
cg05871254	yellow	17	14,213,225	Body	S_Shore	HS3ST3B1	0.270	0.000	0.082	0.969
cg07713946	yellow	22	31,675,144	3'UTR	S_Shelf	LIMK2	0.270	-0.006	0.912	0.460
cg17540671	yellow	12	53,734,744		N_Shelf		0.270	0.007	0.888	0.317
cg08275015	yellow	1	48,191,126		S_Shore		0.270	-0.002	0.056	0.600
cg11184109	yellow	3	53,164,962	TSS1500	S_Shore	RFT1	0.270	0.003	0.916	0.651
cg07561747	yellow	1	200,983,313	Body	OpenSea	KIF21B	0.270	-0.002	0.319	0.883
cg00771084	yellow	2	242,598,843	Body	OpenSea	ATG4B	0.270	-0.001	0.047	0.671
cg25786675	yellow	11	2,621,273	Body	OpenSea	KCNQ1	0.270	0.007	0.778	0.380
cg23612072	yellow	17	6,895,413		N_Shelf		0.270	-0.003	0.699	0.800
cg15803614	yellow	19	3,062,955	TSS1500	S_Shore	AES	0.270	0.010	0.318	0.443
cg08983961	yellow	17	79,859,947	TSS200	Island	NPB	0.269	-0.001	0.019	0.595
cg09505233	yellow	10	133,810,087		OpenSea		0.269	0.021	0.844	0.111
cg21582325	yellow	12	121,498,343		OpenSea		0.269	0.008	0.287	0.466
cg25105234	yellow	17	72,919,544	TSS1500	Island	OTOP2	0.269	0.002	0.045	0.428
cg22693638	yellow	1	14,698,418		OpenSea		0.269	0.005	0.197	0.648
cg15339249	yellow	4	36,282,498	TSS1500	OpenSea	DTHD1	0.269	-0.016	0.957	0.131
cg08345082	yellow	10	99,160,200	Body	N_Shore	RRP12	0.269	0.015	0.102	0.129
cg05581469	yellow	12	49,413,435	3'UTR	S_Shore	MLL2	0.269	0.004	0.484	0.534
cg26764200	yellow	6	31,510,407	TSS1500	S_Shore	SNORD84	0.269	0.000	0.031	0.809
cg16814023	yellow	3	53,926,598	TSS1500	S_Shore	SELK	0.269	-0.001	0.336	0.955
cg15050529	yellow	19	12,274,662	Body	S_Shore	ZNF136	0.269	0.007	0.098	0.374
cg07890104	yellow	4	109,684,585	TSS1500	S_Shore	AGXT2L1	0.269	0.014	0.289	0.298
cg03183540	yellow	8	134,931,756		OpenSea		0.269	-0.003	0.311	0.635
cg05826607	yellow	20	54,934,982	Body	S_Shore	C20orf108	0.269	-0.001	0.185	0.849
cg00958204	yellow	22	30,869,361	TSS1500	OpenSea	SEC14L3	0.269	0.008	0.814	0.288
cg14606858	yellow	7	98,871,769	Body	OpenSea	MYH16	0.269	-0.006	0.470	0.419
cg15079885	yellow	1	32,041,940	TSS200	OpenSea	TINAGL1	0.269	0.004	0.282	0.641
cg23746359	yellow	1	113,261,764	TSS1500	Island	FAM19A3	0.269	0.004	0.460	0.670
cg22038059	yellow	19	18,699,342	TSS200	N_Shore	C19orf60	0.269	0.000	0.110	0.954
cg09092280	yellow	8	62,646,214		OpenSea		0.269	-0.004	0.343	0.608
cg14715602	yellow	17	18,088,549	Body	S_Shore	ALKBH5	0.269	0.003	0.060	0.332
cg14923289	yellow	6	52,535,675	TSS1500	N_Shore	TMEM14A	0.269	-0.009	0.145	0.079
cg06624036	yellow	2	117,257,137		OpenSea		0.269	0.009	0.397	0.403
cg09955705	yellow	8	30,253,570	Body	OpenSea	RBPMS	0.269	0.001	0.242	0.905
cg11349187	yellow	12	53,369,938		OpenSea		0.269	0.010	0.368	0.151
cg09324669	yellow	1	234,749,105		S_Shelf		0.269	0.001	0.020	0.362
cg25490585	yellow	15	55,581,420	5'UTR	N_Shore	RAB27A	0.269	-0.001	0.022	0.670
cg25118606	yellow	2	74,124,453	5'UTR	OpenSea	ACTG2	0.268	0.010	0.507	0.216
cg11644817	yellow	17	72,206,742	Body	N_Shore	MGC16275	0.268	-0.005	0.099	0.209
cg07116336	yellow	16	88,337,645		OpenSea		0.268	0.002	0.387	0.771
cg24524379	yellow	3	46,600,244	5'UTR	OpenSea	LRRC2	0.268	0.001	0.503	0.974
cg27659035	yellow	8	42,551,523	TSS1500	OpenSea	CHRNA3	0.268	0.000	0.966	0.919
cg01460430	yellow	8	79,885,164		OpenSea		0.268	0.000	0.299	0.981
cg09697578	yellow	17	80,540,696	Body	N_Shore	FOXK2	0.268	0.006	0.948	0.112
cg24033042	yellow	19	3,286,244	Body	S_Shore	BRUNOL5	0.268	0.007	0.135	0.329
cg23924438	yellow	7	103,014,771	Body	OpenSea	SLC26A5	0.268	0.008	0.799	0.606
cg18801028	yellow	1	29,646,475	Body	OpenSea	PTPRU	0.268	-0.003	0.899	0.690
cg09886946	yellow	13	33,590,048	TSS1500	Island	KL	0.268	0.006	0.164	0.384
cg16510022	yellow	1	102,462,855	TSS200	OpenSea	OLFM3	0.268	0.006	0.323	0.530
cg21478137	yellow	15	51,532,386	Body	OpenSea	CYP19A1	0.268	0.006	0.085	0.351

cg10440196	yellow	8	140,931,443	Body	OpenSea	TRAPPC9	0.268	0.005	0.733	0.526
cg11613450	yellow	19	55,721,792	TSS1500	OpenSea	PTPRH	0.268	0.003	0.469	0.784
cg04739306	yellow	7	100,230,781	Body	Island	TFR2	0.268	0.002	0.019	0.187
cg12711760	yellow	11	20,132,923	Body	OpenSea	NAV2	0.268	0.007	0.587	0.343
cg24749866	yellow	2	235,883,655	5'UTR	OpenSea	SH3BP4	0.268	0.005	0.480	0.391
cg11706366	yellow	22	44,420,666	Body	Island	PARVB	0.268	-0.003	0.086	0.706
cg04353603	yellow	1	95,320,222	Body	OpenSea	SLC44A3	0.268	-0.001	0.033	0.759
cg07379557	yellow	16	725,416	TSS1500	OpenSea	RHBDL1	0.268	0.000	0.105	0.972
cg20288107	yellow	9	79,792,878	TSS200	Island	LOC1002869	0.268	0.002	0.039	0.569
cg04012600	yellow	1	109,850,126	TSS1500	OpenSea	MYBPHL	0.268	0.000	0.460	0.982
cg11804928	yellow	17	38,220,298	5'UTR	S_Shore	THRA	0.267	0.000	0.045	0.963
cg19306307	yellow	2	60,809,307		S_Shore		0.267	0.010	0.277	0.366
cg14002301	yellow	4	24,914,941	TSS1500	OpenSea	CCDC149	0.267	-0.011	0.164	0.180
cg04770751	yellow	19	7,701,662	TSS1500	Island	STXBP2	0.267	0.011	0.538	0.389
cg07824114	yellow	11	113,158,301		OpenSea		0.267	-0.006	0.252	0.380
cg05336956	yellow	1	1,098,001		N_Shore		0.267	0.002	0.176	0.833
cg06826039	yellow	1	204,379,650	1stExon	N_Shore	PPP1R15B	0.267	0.001	0.029	0.313
cg21096966	yellow	14	45,432,458	TSS1500	S_Shore	KLHL28	0.267	0.009	0.174	0.503
cg08125436	yellow	16	7,855,305		OpenSea		0.267	-0.024	0.380	0.287
cg16619049	yellow	1	805,541	Body	Island	FAM41C	0.267	0.014	0.379	0.290
cg01934638	yellow	1	3,720,744		OpenSea		0.267	0.002	0.893	0.890
cg08299259	yellow	4	177,208,068		OpenSea		0.267	-0.003	0.798	0.733
cg17216080	yellow	12	132,854,189	Body	Island	GALNT9	0.267	0.025	0.442	0.038
cg05647720	yellow	2	231,900,986	TSS1500	N_Shore	C2orf72	0.267	0.002	0.509	0.806
cg16362133	yellow	12	51,420,474	TSS1500	S_Shore	SLC11A2	0.267	-0.001	0.044	0.682
cg14199423	yellow	12	6,721,892		OpenSea		0.267	0.004	0.426	0.529
cg12273284	yellow	10	12,490,844	Body	OpenSea	CAMK1D	0.267	0.001	0.677	0.882
cg20142018	yellow	10	98,144,512	Body	Island	TLL2	0.267	0.003	0.452	0.675
cg18217459	yellow	6	152,429,948		OpenSea		0.267	0.006	0.928	0.369
cg11009817	yellow	5	101,632,372	TSS200	Island	SLCO4C1	0.267	-0.002	0.056	0.542
cg26262152	yellow	4	493,729	TSS1500	S_Shore	ZNF721	0.267	0.007	0.167	0.347
cg19114214	yellow	11	67,349,590	TSS1500	N_Shore	GSTP1	0.267	0.019	0.668	0.114
cg20862447	yellow	2	691,064		OpenSea		0.267	0.001	0.959	0.774
cg17610931	yellow	22	31,476,670	TSS1500	N_Shore	SMTN	0.266	-0.003	0.230	0.680
cg04084026	yellow	16	57,832,309	TSS1500	N_Shelf	KIFC3	0.266	-0.004	0.719	0.597
cg06389098	yellow	16	71,424,252	Body	OpenSea	CALB2	0.266	0.013	0.855	0.090
cg22740634	yellow	2	213,770,692		OpenSea		0.266	0.006	0.489	0.410
cg07994435	yellow	17	70,587,467		N_Shore		0.266	0.013	0.269	0.099
cg18850127	yellow	7	39,170,497	Body	OpenSea	POU6F2	0.266	0.036	0.441	0.311
cg14425294	yellow	17	7,905,636	TSS1500	N_Shore	GUCY2D	0.266	0.009	0.207	0.203
cg24234270	yellow	7	2,152,821	Body	N_Shore	MAD1L1	0.266	-0.008	0.760	0.115
cg03893095	yellow	16	67,424,195	Body	N_Shelf	TPPP3	0.266	0.009	0.696	0.490
cg10694833	yellow	22	17,896,561		N_Shore		0.266	0.004	0.758	0.771
cg09070191	yellow	2	12,147,206		OpenSea		0.266	0.002	0.369	0.915
cg02589695	yellow	1	206,730,999	Body	S_Shore	RASSF5	0.266	0.004	0.291	0.504
cg12403889	yellow	1	11,753,338	5'UTR	S_Shore	C1orf187	0.266	0.004	0.350	0.425
cg22874255	yellow	19	1,768,630	Body	S_Shelf	ONECUT3	0.266	0.001	0.400	0.925
cg04488476	yellow	6	33,291,696	TSS1500	S_Shore	DAXX	0.266	0.011	0.334	0.178
cg25029903	yellow	2	44,105,057	3'UTR	OpenSea	ABCG8	0.266	0.003	0.173	0.730
cg06355652	yellow	11	33,725,105	3'UTR	S_Shelf	CD59	0.266	0.007	0.760	0.596
cg08335618	yellow	4	108,910,565	TSS1500	N_Shore	HADH	0.266	0.028	0.063	0.259
cg05530294	yellow	7	73,753,022	Body	Island	CLIP2	0.266	0.004	0.984	0.803
cg08281777	yellow	16	70,679,178	TSS1500	OpenSea	IL34	0.266	0.007	0.651	0.593
cg03196381	yellow	15	101,817,977	TSS1500	S_Shore	SELS	0.266	0.013	0.132	0.203
cg21787568	yellow	14	104,182,951	Body	Island	ZFYVE21	0.266	-0.002	0.160	0.771
cg03861785	yellow	16	1,873,952	Body	N_Shelf	HAGH	0.265	-0.004	0.245	0.645
cg26714230	yellow	13	43,566,642	TSS1500	S_Shore	EPST11	0.265	-0.004	0.503	0.686
cg20896113	yellow	12	107,154,104	Body	OpenSea	RFX4	0.265	0.011	0.170	0.100
cg13747681	yellow	11	66,179,783		S_Shelf		0.265	0.002	0.575	0.810
cg21162356	yellow	1	226,668,457		OpenSea		0.265	0.007	0.863	0.309
cg10046227	yellow	8	1,707,477		N_Shelf		0.265	-0.005	0.492	0.616
cg14575854	yellow	17	37,896,175	5'UTR	OpenSea	GRB7	0.265	0.015	0.176	0.087
cg14008571	yellow	1	3,038,564	Body	S_Shore	PRDM16	0.265	-0.001	0.788	0.865
cg21530915	yellow	6	158,958,825	Body	S_Shore	TMEM181	0.265	-0.004	0.220	0.659
cg18060330	yellow	6	32,376,066	TSS1500	OpenSea	BTNL2	0.265	-0.002	0.765	0.914
cg01877595	yellow	16	2,830,321		S_Shelf		0.264	0.010	0.627	0.449
cg20155837	yellow	17	15,970,327	Body	OpenSea	NCOR1	0.264	-0.001	0.970	0.705

cg14183540	yellow	11	3,175,007	5'UTR	OpenSea	OSBPL5	0.264	-0.005	0.450	0.491
cg03275084	yellow	10	104,617,031	Body	S_Shelf	C10orf32	0.264	-0.013	0.849	0.318
cg16056044	yellow	1	36,705,593	5'UTR	OpenSea	THRAP3	0.264	0.011	0.507	0.383
cg09362366	yellow	3	159,710,706	Body	S_Shelf	IL12A	0.264	-0.011	0.369	0.230
cg27075187	yellow	11	12,696,059	1stExon	Island	TEAD1	0.264	0.001	0.040	0.646
cg02207944	yellow	16	89,603,606	Body	Island	SPG7	0.264	0.013	0.823	0.177
cg15787146	yellow	17	70,107,185		OpenSea		0.264	-0.001	0.336	0.950
cg16456371	yellow	6	41,770,101	Body	N_Shelf	USP49	0.264	0.007	0.977	0.693
cg02371935	yellow	16	87,521,363	Body	OpenSea	ZCCHC14	0.264	0.003	0.462	0.662
cg04919581	yellow	1	55,089,365	Body	OpenSea	ACOT11	0.264	0.013	0.290	0.431
cg08312904	yellow	22	39,951,152		N_Shelf		0.264	0.005	0.956	0.277
cg00540434	yellow	20	61,897,264		N_Shore		0.264	0.000	0.961	0.937
cg24831541	yellow	17	4,613,045	TSS1500	N_Shore	ARRB2	0.264	0.012	0.061	0.146
cg21195914	yellow	17	1,026,539	Body	N_Shelf	ABR	0.264	0.000	0.063	0.977
cg05085585	yellow	16	30,420,623	Body	S_Shore	ZNF771	0.264	-0.003	0.137	0.661
cg01591405	yellow	17	18,024,867	Body	Island	MYO15A	0.264	-0.003	0.521	0.723
cg05026186	yellow	5	148,520,876	TSS200	N_Shore	ABLIM3	0.264	-0.003	0.235	0.802
cg06822304	yellow	5	72,497,734		OpenSea		0.264	0.010	0.121	0.207
cg23375598	yellow	14	104,662,377		OpenSea		0.263	0.003	0.302	0.745
cg21389309	yellow	7	154,002,618	Body	S_Shore	DPP6	0.263	0.011	0.189	0.364
cg13290476	yellow	15	94,010,601		OpenSea		0.263	-0.005	0.311	0.628
cg12424898	yellow	11	1,325,852	Body	OpenSea	TOLLIP	0.263	0.035	0.249	0.015
cg13480738	yellow	2	46,110,087	Body	OpenSea	PRKCE	0.263	0.000	0.326	0.971
cg11283776	yellow	8	53,326,374		OpenSea		0.263	-0.001	0.699	0.896
cg08634082	yellow	1	241,801,700	Body	N_Shore	OPN3	0.263	0.015	0.415	0.141
cg26524353	yellow	1	33,352,589	5'UTR	S_Shore	HPCA	0.263	0.010	0.549	0.382
cg06860371	yellow	12	54,942,782	TSS1500	OpenSea	PDE1B	0.263	0.003	0.330	0.813
cg09051966	yellow	20	60,471,657	Body	S_Shore	CDH4	0.263	0.007	0.319	0.354
cg09115646	yellow	10	2,978,687		OpenSea		0.263	0.005	0.968	0.561
cg06472065	yellow	6	33,394,446	Body	N_Shore	SYNGAP1	0.263	0.004	0.055	0.133
cg04029159	yellow	11	415,080	5'UTR	N_Shore	SIGIRR	0.263	-0.011	0.169	0.260
cg24709531	yellow	1	38,258,709	TSS1500	N_Shore	MANEAL	0.263	0.000	0.544	1.000
cg26989374	yellow	17	33,289,325	1stExon	S_Shore	ZNF830	0.263	0.004	0.128	0.650
cg07237996	yellow	7	97,882,137	TSS1500	S_Shore	TECPR1	0.263	0.002	0.025	0.244
cg00881010	yellow	1	160,336,712	TSS200	N_Shelf	NHLH1	0.263	-0.004	0.220	0.522
cg01842720	yellow	11	7,535,887	5'UTR	S_Shore	PPFIBP2	0.263	0.003	0.258	0.782
cg18525972	yellow	12	52,749,958		OpenSea		0.263	0.025	0.893	0.013
cg14832954	yellow	1	100,731,266	TSS1500	N_Shore	RTCD1	0.262	-0.002	0.028	0.494
cg17715482	yellow	19	3,979,910	Body	S_Shore	EEF2	0.262	-0.004	0.863	0.301
cg07674095	yellow	4	8,702,475		OpenSea		0.262	0.017	0.326	0.147
cg23351738	yellow	6	31,589,926	TSS1500	S_Shore	SNORA38	0.262	0.001	0.051	0.812
cg26645401	yellow	11	9,686,514	Body	S_Shore	SWAP70	0.262	0.000	0.031	0.948
cg25295063	yellow	19	2,475,130	TSS1500	Island	GADD45B	0.262	0.001	0.075	0.929
cg09155774	yellow	9	96,723,033		Island		0.262	0.001	0.043	0.595
cg15612845	yellow	17	26,732,984	1stExon	Island	SLC46A1	0.262	0.001	0.020	0.674
cg15941159	yellow	22	47,075,270	3'UTR	S_Shore	GRAMD4	0.262	0.011	0.574	0.299
cg12069553	yellow	3	49,449,964	TSS1500	Island	RHOA	0.262	0.001	0.016	0.447
cg06638935	yellow	7	1,300,204		OpenSea		0.262	0.005	0.625	0.670
cg04198914	yellow	17	36,106,025	TSS1500	S_Shore	HNF1B	0.262	0.019	0.258	0.084
cg00213714	yellow	9	119,449,370	Body	N_Shore	ASTN2	0.262	0.000	0.022	0.825
cg14024579	yellow	9	139,332,845	Body	Island	INPP5E	0.262	0.007	0.272	0.453
cg24599065	yellow	2	202,093,848	3'UTR	OpenSea	CASP10	0.262	0.022	0.623	0.007
cg26983874	yellow	19	16,736,532	Body	N_Shore	MED26	0.262	-0.001	0.626	0.889
cg07071426	yellow	3	39,470,608		OpenSea		0.262	-0.006	0.808	0.655
cg14601981	yellow	10	79,145,228	Body	OpenSea	KCNMA1	0.262	0.003	0.767	0.745
cg26807590	yellow	11	66,057,400	TSS1500	N_Shore	YIF1A	0.261	0.003	0.602	0.806
cg14655715	yellow	3	127,110,999		OpenSea		0.261	0.009	0.653	0.248
cg02010347	yellow	16	1,663,216	TSS1500	Island	IFT140	0.261	0.002	0.084	0.834
cg05057057	yellow	7	44,613,977	1stExon	S_Shore	DDX56	0.261	-0.003	0.026	0.047
cg06035270	yellow	16	87,312,465		OpenSea		0.261	0.002	0.051	0.489
cg26182406	yellow	14	105,491,309		S_Shelf		0.261	0.003	0.863	0.679
cg02992705	yellow	16	88,599,613	Body	Island	ZFPM1	0.261	-0.011	0.265	0.193
cg19848118	yellow	4	7,268,612	Body	OpenSea	SORCS2	0.261	0.002	0.828	0.755
cg21114177	yellow	19	46,105,073	5'UTR	N_Shore	GPR4	0.261	0.000	0.175	0.936
cg14283454	yellow	18	46,449,389	Body	S_Shore	SMAD7	0.261	-0.008	0.073	0.116
cg03647327	yellow	6	28,891,109	1stExon	Island	TRIM27	0.261	-0.001	0.020	0.512
cg13918811	yellow	4	25,378,308	TSS1500	N_Shore	ANAPC4	0.261	-0.013	0.159	0.216

cg01618245	yellow	20	61,990,279	Body	N_Shore	CHRNA4	0.261	0.002	0.795	0.813
cg16492510	yellow	7	157,561,684	Body	S_Shore	PTPRN2	0.261	-0.004	0.453	0.677
cg27322282	yellow	18	3,411,906	TSS200	OpenSea	TGIF1	0.261	-0.008	0.385	0.460
cg14415066	yellow	14	69,950,574	TSS1500	Island	FLJ44817	0.261	-0.001	0.026	0.460
cg20533982	yellow	7	158,533,927	Body	OpenSea	ESYT2	0.261	-0.015	0.728	0.127
cg16296438	yellow	10	1,416,569	Body	S_Shore	ADARB2	0.261	-0.018	0.904	0.425
cg14872762	yellow	11	133,399,769	Body	OpenSea	OPCML	0.261	-0.008	0.405	0.477
cg18864674	yellow	1	21,058,007	5'UTR	Island	SH2D5	0.261	0.006	0.102	0.272
cg21858113	yellow	11	118,015,340	Body	N_Shore	SCN4B	0.260	0.002	0.540	0.896
cg04804726	yellow	10	31,065,098		OpenSea		0.260	0.010	0.513	0.249
cg20131581	yellow	8	23,787,859		OpenSea		0.260	0.005	0.743	0.528
cg01114088	yellow	4	5,021,111	1stExon	Island	CYTL1	0.260	0.017	0.136	0.483
cg16677162	yellow	22	22,465,502		N_Shelf		0.260	0.001	0.031	0.768
cg04274340	yellow	19	41,271,256	3'UTR	OpenSea	SNRPA	0.260	0.008	0.911	0.087
cg16790291	yellow	4	122,685,675	TSS200	N_Shore	LOC1001923	0.260	-0.002	0.171	0.838
cg21330802	yellow	7	4,299,646	Body	N_Shelf	SDK1	0.260	0.003	0.980	0.806
cg27376024	yellow	11	63,273,565	5'UTR	OpenSea	LGALS12	0.260	0.005	0.318	0.497
cg17288310	yellow	22	38,207,954	Body	S_Shelf	GCAT	0.260	-0.003	0.960	0.356
cg26218411	yellow	15	59,226,409	TSS1500	S_Shore	SLTM	0.260	0.005	0.265	0.299
cg25635251	yellow	11	2,234,043		OpenSea		0.260	0.084	0.659	0.004
cg16174809	yellow	1	26,324,082	5'UTR	N_Shore	PAFAH2	0.260	0.010	0.160	0.307
cg17622246	yellow	13	112,550,380		S_Shelf		0.260	0.025	0.432	0.138
cg11786666	yellow	7	105,173,132	Body	S_Shore	RINT1	0.260	0.003	0.023	0.041
cg09162834	yellow	13	110,768,683		OpenSea		0.260	-0.003	0.185	0.769
cg10136216	yellow	22	39,623,664	Body	N_Shelf	PDGFB	0.260	-0.010	0.513	0.372
cg00639984	yellow	16	839,166	TSS1500	Island	RPUSD1	0.259	0.016	0.269	0.102
cg19933238	yellow	4	113,153,956	Body	S_Shore	AP1AR	0.259	0.014	0.133	0.188
cg16314899	yellow	1	68,516,101	5'UTR	N_Shore	DIRAS3	0.259	-0.001	0.595	0.865
cg16371229	yellow	1	233,248,845	Body	OpenSea	PCNXL2	0.259	0.005	0.076	0.407
cg02842301	yellow	17	1,627,652	TSS200	N_Shore	WDR81	0.259	0.005	0.026	0.079
cg07605834	yellow	16	71,475,926		Island		0.259	-0.010	0.779	0.481
cg16267059	yellow	15	44,117,132	TSS200	N_Shore	MFAP1	0.259	0.002	0.085	0.796
cg24426072	yellow	7	28,997,173	1stExon	Island	TRIL	0.259	-0.001	0.028	0.629
cg10376476	yellow	14	69,952,003	Body	S_Shore	FLJ44817	0.259	-0.001	0.271	0.904
cg06492372	yellow	2	97,573,176	Body	OpenSea	FAM178B	0.259	-0.001	0.240	0.857
cg20826024	yellow	6	31,529,154		OpenSea		0.259	0.001	0.927	0.777
cg17716663	yellow	19	45,978,434	3'UTR	S_Shelf	FOSB	0.259	0.013	0.227	0.225
cg19202325	yellow	7	74,490,736	TSS1500	S_Shore	WBSCR16	0.259	-0.001	0.919	0.918
cg05927830	yellow	2	65,100,670		OpenSea		0.259	-0.002	0.053	0.461
cg04562138	yellow	1	53,966,412		OpenSea		0.259	-0.007	0.178	0.578
cg05701204	yellow	15	43,425,524	TSS200	N_Shore	TMEM62	0.259	0.001	0.023	0.565
cg25400200	yellow	10	127,462,176	Body	N_Shore	MMP21	0.259	0.003	0.809	0.728
cg08228672	yellow	1	228,337,626	5'UTR	OpenSea	GJC2	0.259	0.004	0.454	0.584
cg19845715	yellow	13	20,703,121		Island		0.259	0.006	0.106	0.295
cg01784614	yellow	5	40,841,298	TSS200	OpenSea	CARD6	0.259	0.019	0.394	0.043
cg03494825	yellow	8	832,260		Island		0.258	0.012	0.601	0.349
cg11958495	yellow	1	167,409,198	Body	S_Shore	CD247	0.258	0.005	0.318	0.377
cg27314669	yellow	1	156,822,430	Body	S_Shelf	NTRK1	0.258	0.000	0.114	0.937
cg05517964	yellow	11	65,790,280	Body	S_Shore	CATSPER1	0.258	0.025	0.301	0.030
cg04191954	yellow	22	37,099,064	TSS200	N_Shore	CACNG2	0.258	0.006	0.038	0.044
cg24821307	yellow	3	137,187,558		OpenSea		0.258	-0.005	0.361	0.651
cg00982984	yellow	15	45,493,530	TSS200	S_Shelf	SHF	0.258	0.002	0.163	0.797
cg09762897	yellow	16	30,388,914	Body	N_Shore	MYLPF	0.258	0.003	0.119	0.488
cg04093208	yellow	13	39,891,557		OpenSea		0.258	0.006	0.460	0.437
cg02757516	yellow	10	134,921,759	Body	S_Shelf	GPR123	0.258	0.004	0.858	0.655
cg13525397	yellow	6	31,025,933	Body	OpenSea	HCG22	0.258	0.032	0.493	0.210
cg02883230	yellow	15	72,564,263	TSS1500	N_Shore	PARP6	0.258	-0.001	0.332	0.939
cg03438216	yellow	1	230,517,965		OpenSea		0.258	0.004	0.479	0.569
cg01087129	yellow	7	100,317,741	TSS1500	N_Shore	EPO	0.258	0.018	0.380	0.130
cg05906092	yellow	7	140,098,427	TSS200	Island	SLC37A3	0.258	0.003	0.050	0.302
cg11229273	yellow	3	57,015,101	Body	OpenSea	ARHGFE3	0.258	-0.013	0.521	0.260
cg04431002	yellow	16	84,766,438	Body	OpenSea	USP10	0.258	0.005	0.968	0.748
cg17603988	yellow	7	56,160,766	TSS200	OpenSea	PHKG1	0.258	-0.007	0.218	0.595
cg19042340	yellow	10	14,647,154	Body	S_Shore	FAM107B	0.258	-0.007	0.148	0.430
cg08508431	yellow	17	13,319,838		OpenSea		0.257	-0.001	0.319	0.948
cg08643339	yellow	4	173,759,487	Body	OpenSea	GALNTL6	0.257	-0.004	0.352	0.753
cg26225496	yellow	14	67,879,166	TSS1500	Island	PLEK2	0.257	-0.002	0.080	0.659



cg13588354	yellow	20	54,823,303	TSS1500	N_Shore	MC3R	0.257	-0.015	0.196	0.095
cg13490869	yellow	14	73,392,426	TSS1500	N_Shore	DCAF4	0.257	0.018	0.409	0.180
cg25935697	yellow	3	51,853,898		OpenSea		0.257	-0.008	0.095	0.222
cg03720617	yellow	16	47,527,034	Body	OpenSea	PHKB	0.257	0.012	0.586	0.439
cg23074979	yellow	7	157,239,186		S_Shelf		0.257	0.002	0.484	0.813
cg26525091	yellow	19	496,239	TSS1500	Island	MADCAM1	0.257	-0.004	0.034	0.277
cg15022354	yellow	12	119,211,794		N_Shore		0.257	0.006	0.280	0.664
cg23765701	yellow	4	84,031,513	5'UTR	S_Shore	PLAC8	0.257	-0.002	0.015	0.012
cg19053686	yellow	7	43,479,485	Body	OpenSea	HECW1	0.257	0.002	0.190	0.831
cg11869784	yellow	14	21,738,303	TSS1500	S_Shore	HNRNPC	0.257	0.003	0.190	0.568
cg04370730	yellow	1	35,247,966	1stExon	S_Shore	GJB3	0.256	-0.001	0.159	0.925
cg01928078	yellow	21	34,638,373	TSS1500	N_Shore	IL10RB	0.256	0.005	0.059	0.162
cg00386725	yellow	1	18,617,791	Body	OpenSea	IGSF21	0.256	0.012	0.277	0.080
cg09400316	yellow	6	12,957,697	Body	OpenSea	PHACTR1	0.256	0.003	0.020	0.169
cg15674825	yellow	5	150,052,349	Body	S_Shore	MYOZ3	0.256	-0.002	0.181	0.767
cg18610738	yellow	12	56,075,089	TSS1500	OpenSea	METTL7B	0.256	-0.001	0.091	0.863
cg01524149	yellow	16	71,389,136		N_Shelf		0.256	-0.004	0.487	0.567
cg11726250	yellow	20	61,924,405	TSS200	N_Shelf	COL20A1	0.256	-0.005	0.431	0.591
cg13303365	yellow	2	134,644,557		OpenSea		0.256	0.005	0.041	0.173
cg09298852	yellow	19	1,574,816		N_Shelf		0.256	0.006	0.884	0.355
cg21789280	yellow	1	22,351,425	TSS1500	N_Shore	HSPC157	0.255	0.002	0.043	0.698
cg27631599	yellow	1	1,108,820	TSS1500	N_Shore	TLL10	0.255	0.001	0.671	0.957
cg23594928	yellow	6	168,446,562		N_Shelf		0.255	0.021	0.648	0.025
cg25620430	yellow	15	53,093,405		N_Shelf		0.255	0.015	0.082	0.200
cg13239976	yellow	12	28,344,166		S_Shore		0.255	0.000	0.025	0.973
cg06069310	yellow	3	38,179,874	TSS1500	Island	ACAA1	0.255	0.009	0.091	0.209
cg27117749	yellow	4	17,782,643	Body	Island	FAM184B	0.254	0.001	0.046	0.831
cg18825076	yellow	15	78,729,989	TSS1500	N_Shore	IREB2	0.254	-0.002	0.239	0.893
cg09323728	yellow	8	95,962,352	TSS1500	Island	TP53INP1	0.254	-0.011	0.324	0.389
cg14927855	yellow	7	155,151,427		OpenSea		0.254	0.004	0.592	0.826
cg02364826	yellow	5	114,878,738	Body	N_Shore	FEM1C	0.254	0.010	0.158	0.095
cg24461412	yellow	14	60,632,398	TSS200	S_Shore	DHRS7	0.254	0.001	0.019	0.273
cg02456292	yellow	19	42,817,262	TSS1500	N_Shore	TMEM145	0.254	0.002	0.133	0.642
cg05006092	yellow	17	76,166,303	Body	S_Shore	SYNGR2	0.254	0.006	0.776	0.497
cg17102112	yellow	17	72,666,692	TSS1500	N_Shore	RAB37	0.254	0.009	0.627	0.277
cg22478952	yellow	2	30,371,369	5'UTR	S_Shore	YPEL5	0.254	0.007	0.200	0.426
cg19323289	yellow	11	19,463,903	Body	OpenSea	NAV2	0.254	0.006	0.444	0.645
cg22305209	yellow	22	37,256,352	TSS1500	S_Shelf	NCF4	0.254	0.002	0.667	0.858
cg07845093	yellow	16	89,151,447		OpenSea		0.254	0.016	0.559	0.114
cg06947752	yellow	1	249,133,530	5'UTR	S_Shore	ZNF672	0.254	-0.003	0.100	0.699
cg07433178	yellow	5	149,999,249	Body	OpenSea	SYNPO	0.254	-0.010	0.293	0.039
cg22705386	yellow	7	130,131,797	5'UTR	Island	MEST	0.254	0.010	0.638	0.209
cg18281418	yellow	1	161,193,933	TSS1500	OpenSea	APOA2	0.254	0.009	0.674	0.199
cg09619751	yellow	3	34,429,403		OpenSea		0.254	0.003	0.551	0.806
cg21364723	yellow	22	50,353,623	TSS1500	Island	PIM3	0.254	-0.005	0.066	0.317
cg18921475	yellow	7	66,417,818	Body	OpenSea	C7orf42	0.254	0.006	0.641	0.508
cg02593517	yellow	16	56,486,336	Body	S_Shore	OGFOD1	0.254	0.000	0.027	0.798
cg09944027	yellow	18	60,264,247		Island		0.254	0.003	0.089	0.673
cg03846111	yellow	12	14,547,229	5'UTR	OpenSea	ATF7IP	0.254	0.010	0.667	0.507
cg11019437	yellow	1	221,916,662	TSS1500	Island	DUSP10	0.254	-0.001	0.022	0.689
cg00070042	yellow	9	133,308,594		Island		0.253	-0.003	0.147	0.622
cg19016972	yellow	12	8,012,926	Body	OpenSea	SLC2A14	0.253	-0.007	0.693	0.428
cg06678084	yellow	11	65,600,739	TSS1500	N_Shore	SNX32	0.253	0.001	0.111	0.870
cg16478536	yellow	6	408,730	3'UTR	OpenSea	IRF4	0.253	-0.001	0.278	0.924
cg01157780	yellow	20	34,700,376	1stExon	OpenSea	EPB41L1	0.253	-0.011	0.406	0.147
cg01523027	yellow	19	12,508,210	Body	N_Shelf	ZNF799	0.253	-0.008	0.569	0.487
cg26639710	yellow	16	4,987,613	TSS1500	S_Shore	PPL	0.253	0.009	0.175	0.237
cg01394324	yellow	19	51,015,807	TSS1500	S_Shore	JOSD2	0.253	0.007	0.902	0.182
cg20117153	yellow	6	17,102,081		N_Shore		0.253	0.000	0.087	0.972
cg12500707	yellow	1	170,115,042	TSS200	OpenSea	METTL11B	0.253	0.010	0.166	0.135
cg24334983	yellow	10	81,965,683	TSS1500	N_Shore	ANXA11	0.252	0.010	0.089	0.068
cg18920976	yellow	5	137,877,885	Body	N_Shore	ETF1	0.252	0.000	0.028	0.755
cg01923692	yellow	16	204,949		S_Shore		0.252	0.007	0.069	0.226
cg04550063	yellow	5	150,827,000	TSS200	N_Shore	SLC36A1	0.252	-0.004	0.056	0.163
cg10633210	yellow	19	1,316,695		S_Shore		0.252	0.004	0.773	0.631
cg13369332	yellow	2	112,811,586	TSS1500	N_Shore	TMEM87B	0.252	0.006	0.044	0.088
cg01977413	yellow	3	170,224,495	Body	OpenSea	SLC7A14	0.252	0.013	0.103	0.107

cg19893067	yellow	17	80,732,956	Body	OpenSea	TBCD	0.252	-0.003	0.132	0.752
cg01975505	yellow	19	48,497,828	TSS200	OpenSea	ELSPBP1	0.251	0.005	0.096	0.692
cg24878594	yellow	1	11,708,564	3'UTR	N_Shore	FBXO2	0.251	0.002	0.425	0.832
cg06727521	yellow	19	4,406,719	Body	S_Shelf	CHAF1A	0.251	0.000	0.962	0.942
cg04441847	yellow	2	38,976,288	Body	N_Shore	SFRS7	0.251	-0.003	0.905	0.540
cg09374857	yellow	21	33,651,863	TSS1500	S_Shore	C21orf45	0.251	0.015	0.230	0.093
cg00172803	yellow	16	84,076,941	TSS1500	OpenSea	SLC38A8	0.251	0.008	0.464	0.326
cg14117392	yellow	5	139,017,942		S_Shore		0.251	-0.001	0.099	0.884
cg10148764	yellow	2	101,618,394	TSS1500	Island	RPL31	0.251	0.001	0.021	0.430
cg06556218	yellow	1	39,269,537		N_Shore		0.250	0.002	0.122	0.785
cg10374564	yellow	4	48,656,001	5'UTR	OpenSea	FRYL	0.250	-0.001	0.540	0.929
cg08206308	yellow	17	16,119,439	TSS1500	Island	NCOR1	0.250	-0.004	0.171	0.595
cg19413417	yellow	8	55,294,536		OpenSea		0.250	0.002	0.067	0.668
cg05514909	yellow	12	133,022,853		Island		0.250	0.006	0.620	0.641
cg07572773	yellow	17	39,472,015	TSS200	OpenSea	KRTAP17-1	0.250	0.012	0.608	0.286
cg02973263	yellow	3	169,940,162	TSS200	Island	PRKCI	0.250	0.003	0.058	0.222
cg07633618	yellow	3	185,000,208		N_Shore		0.250	-0.002	0.210	0.883
cg25013058	yellow	6	126,102,409		OpenSea		0.250	0.001	0.021	0.621
cg00309232	yellow	7	155,141,967		N_Shore		0.250	-0.002	0.823	0.872
cg09606973	yellow	2	30,937,003		OpenSea		0.250	-0.001	0.014	0.307
cg03790236	yellow	11	67,057,248	Body	Island	ANKRD13D	0.250	-0.002	0.033	0.228
cg18344740	yellow	6	26,322,291		OpenSea		0.250	0.000	0.438	0.912
cg14598795	yellow	3	57,679,018	TSS1500	S_Shore	FAM116A	0.250	-0.002	0.038	0.313
cg14873958	yellow	12	131,439,301	Body	OpenSea	GPR133	0.250	-0.025	0.471	0.039
cg04398729	yellow	1	118,301,765		OpenSea		0.250	0.003	0.023	0.120
cg08155908	yellow	19	50,717,778	Body	S_Shelf	MYH14	0.250	0.014	0.785	0.102
cg26817416	yellow	6	22,567,578		N_Shelf		0.250	0.018	0.313	0.046
cg15325154	yellow	7	88,425,122	Body	OpenSea	ZNF804B	0.249	0.002	0.900	0.810
cg12538880	yellow	7	5,462,602	5'UTR	Island	TNRC18	0.249	-0.001	0.034	0.420
cg21399717	yellow	8	102,263,157		OpenSea		0.249	0.000	0.149	0.948
cg12695586	yellow	3	8,810,077	5'UTR	Island	OXTR	0.249	0.002	0.035	0.190
cg11256186	yellow	1	42,288,825	5'UTR	OpenSea	HIVEP3	0.249	0.010	0.795	0.291
cg16490823	yellow	6	167,085,508	Body	OpenSea	RPS6KA2	0.249	0.004	0.306	0.589
cg11942971	yellow	5	1,386,742		Island		0.249	-0.003	0.027	0.105
cg02229261	yellow	19	52,222,431	Body	Island	HAS1	0.249	0.013	0.272	0.118
cg01310473	yellow	7	76,829,168	Body	OpenSea	CCDC146	0.249	0.001	0.043	0.665
cg16868167	yellow	4	57,843,880	TSS200	Island	C4orf14	0.249	-0.001	0.019	0.298
cg16313758	yellow	7	2,647,039	Body	S_Shore	IQCE	0.249	0.005	0.760	0.607
cg16322302	yellow	3	49,157,769	5'UTR	Island	USP19	0.249	0.001	0.043	0.609
cg16554020	yellow	19	12,863,295	TSS200	N_Shelf	BEST2	0.249	-0.005	0.910	0.369
cg08265769	yellow	8	50,824,622	5'UTR	S_Shore	SNTG1	0.249	0.007	0.244	0.410
cg11701868	yellow	19	4,912,006	Body	S_Shore	UHRF1	0.249	0.006	0.126	0.521
cg05708497	yellow	16	67,241,345	3'UTR	OpenSea	LRRC29	0.249	0.004	0.375	0.450
cg23315601	yellow	11	120,590,134	Body	OpenSea	GRIK4	0.248	-0.012	0.296	0.223
cg17107893	yellow	19	36,912,880		Island		0.248	0.010	0.083	0.050
cg20399842	yellow	2	21,346,738		OpenSea		0.248	0.001	0.974	0.760
cg02572278	yellow	10	6,244,954	1stExon	Island	PFKFB3	0.248	0.000	0.016	0.651
cg07835650	yellow	19	7,852,214	TSS200	N_Shore	CLEC4GP1	0.248	-0.004	0.119	0.559
cg04362853	yellow	19	56,151,707	TSS1500	Island	ZNF580	0.248	0.030	0.251	0.144
cg21185662	yellow	12	45,662,797	Body	OpenSea	ANO6	0.248	-0.001	0.030	0.410
cg06663251	yellow	6	31,108,541	TSS1500	OpenSea	PSORS1C2	0.248	-0.009	0.677	0.498
cg16906733	yellow	19	9,941,989		N_Shelf		0.248	0.000	0.954	0.996
cg08930878	yellow	13	45,564,262	TSS1500	S_Shore	NUFIP1	0.248	0.004	0.097	0.611
cg11457700	yellow	11	72,353,157	Body	N_Shore	PDE2A	0.248	-0.008	0.183	0.353
cg08540943	yellow	2	232,120,301	Body	N_Shore	ARMC9	0.248	0.002	0.880	0.798
cg25985778	yellow	17	72,199,373	TSS1500	N_Shore	RPL38	0.248	-0.005	0.157	0.564
cg22641902	yellow	2	241,076,601	TSS1500	S_Shore	MYEOV2	0.248	0.008	0.708	0.245
cg01730668	yellow	20	60,493,887	Body	N_Shore	CDH4	0.248	0.006	0.798	0.427
cg16865138	yellow	12	56,732,447	TSS1500	OpenSea	IL23A	0.247	0.001	0.126	0.926
cg18487309	yellow	5	179,333,932	Body	N_Shore	TBC1D9B	0.247	0.005	0.512	0.439
cg24608717	yellow	3	48,678,331	Body	S_Shore	CELSR3	0.247	0.019	0.740	0.131
cg00996588	yellow	8	143,625,200	Body	N_Shore	BAI1	0.247	0.004	0.894	0.446
cg00651087	yellow	10	103,539,519		Island		0.247	0.000	0.023	0.723
cg01929377	yellow	13	37,634,127	TSS1500	S_Shore	FAM48A	0.247	-0.025	0.129	0.009
cg03025061	yellow	8	109,261,275	TSS1500	S_Shore	EIF3E	0.247	0.003	0.092	0.649
cg04255207	yellow	11	45,689,077		S_Shore		0.247	0.007	0.145	0.275
cg04053045	yellow	2	96,810,531	Body	Island	DUSP2	0.247	-0.004	0.038	0.235

cg25268718	yellow	14	24,604,711	TSS1500	N_Shore	PSME1	0.247	0.013	0.362	0.076
cg21368479	yellow	6	149,415,018		OpenSea		0.247	-0.014	0.217	0.208
cg18993334	yellow	1	156,307,348	Body	N_Shore	CCT3	0.247	0.001	0.029	0.470
cg10621374	yellow	19	36,505,899	3'UTR	S_Shore	CLIP3	0.247	0.003	0.534	0.830
cg11992736	yellow	19	18,197,544	Body	OpenSea	IL12RB1	0.247	0.002	0.675	0.883
cg26255560	yellow	14	101,346,180	TSS1500	N_Shelf	MIR431	0.247	0.003	0.810	0.531
cg14849262	yellow	2	238,767,990	TSS200	N_Shore	RAMP1	0.247	0.002	0.066	0.608
cg22189019	yellow	19	640,346	Body	Island	FGF22	0.247	0.007	0.367	0.394
cg22584802	yellow	7	129,007,902	Body	OpenSea	AHCYL2	0.247	-0.001	0.047	0.636
cg17777592	yellow	13	49,975,418	5'UTR	OpenSea	CAB39L	0.247	0.010	0.239	0.173
cg21877005	yellow	1	109,242,103	Body	OpenSea	PRPF38B	0.247	-0.001	0.924	0.611
cg11576123	yellow	14	105,553,575		Island		0.247	-0.002	0.035	0.379
cg02705573	yellow	12	56,728,493	TSS1500	S_Shore	PAN2	0.246	0.007	0.475	0.501
cg09341352	yellow	19	45,459,103	Body	S_Shore	CLPTM1	0.246	0.000	0.080	0.951
cg06380820	yellow	10	134,698,765		Island		0.246	0.009	0.847	0.224
cg19701213	yellow	19	42,817,154	TSS1500	N_Shore	TMEM145	0.246	-0.005	0.166	0.625
cg08834922	yellow	17	41,003,236	1stExon	OpenSea	AOC3	0.246	0.006	0.156	0.395
cg00995253	yellow	10	134,853,181		Island		0.246	0.007	0.369	0.467
cg12908899	yellow	2	242,480,945		Island		0.246	0.000	0.040	0.993
cg15763823	yellow	17	3,576,600	3'UTR	S_Shelf	P2RX5	0.246	0.005	0.934	0.356
cg01185278	yellow	5	131,347,979	TSS1500	S_Shore	ACSL6	0.246	0.003	0.297	0.681
cg27449489	yellow	17	80,316,860	TSS1500	OpenSea	TEX19	0.246	0.002	0.643	0.797
cg11989485	yellow	6	29,815,870		N_Shelf		0.246	0.001	0.022	0.557
cg19230025	yellow	19	35,488,496		N_Shelf		0.245	0.018	0.578	0.005
cg01168339	yellow	12	120,935,726	Body	S_Shore	DYNLL1	0.245	0.004	0.117	0.645
cg02985292	yellow	16	687,604	TSS1500	S_Shore	C16orf13	0.245	-0.004	0.325	0.594
cg00081417	yellow	6	140,400,137		OpenSea		0.245	-0.006	0.222	0.692
cg06295590	yellow	20	62,205,981	TSS1500	S_Shore	PRIC285	0.245	0.002	0.130	0.752
cg14962616	yellow	19	39,437,613	Body	N_Shelf	FBXO17	0.245	0.003	0.915	0.551
cg27422372	yellow	19	2,097,412	Body	Island	C19orf36	0.245	0.001	0.036	0.722
cg01704105	yellow	16	225,666	TSS1500	N_Shore	HBA1	0.245	-0.009	0.122	0.313
cg24210523	yellow	17	35,062,671		S_Shore		0.245	0.007	0.093	0.135
cg10051299	yellow	14	105,780,431	TSS1500	Island	PACS2	0.245	0.000	0.058	0.983
cg20387100	yellow	7	1,216,035		OpenSea		0.245	0.002	0.039	0.644
cg00155063	yellow	1	12,227,825	Body	S_Shore	TNFRSF1B	0.245	-0.008	0.198	0.509
cg06873316	yellow	11	20,690,682	TSS1500	Island	NELL1	0.245	-0.002	0.021	0.313
cg21674010	yellow	15	58,844,583	Body	OpenSea	LIPC	0.245	0.006	0.208	0.245
cg00451054	yellow	8	77,913,321	TSS1500	S_Shore	PXMP3	0.245	-0.009	0.814	0.473
cg19391265	yellow	19	12,273,496	TSS1500	N_Shore	ZNF136	0.245	0.010	0.330	0.435
cg05761902	yellow	16	67,048,678		S_Shore		0.245	0.001	0.317	0.868
cg18994049	yellow	11	69,813,825		S_Shore		0.244	0.002	0.715	0.783
cg11680200	yellow	17	9,804,572	Body	N_Shelf	RCVRN	0.244	0.014	0.390	0.402
cg07179068	yellow	5	176,060,165	5'UTR	S_Shelf	EIF4E1B	0.244	-0.002	0.508	0.876
cg06931676	yellow	19	13,856,175		N_Shelf		0.244	-0.001	0.944	0.879
cg14671011	yellow	5	134,544,423		OpenSea		0.244	-0.004	0.532	0.768
cg16013925	yellow	6	30,483,908		OpenSea		0.244	0.009	0.035	0.070
cg02095290	yellow	11	17,008,895	Body	OpenSea	PLEKHA7	0.244	0.012	0.320	0.268
cg04551092	yellow	16	89,237,573	TSS1500	N_Shore	CDH15	0.244	-0.003	0.058	0.269
cg14929116	yellow	3	39,451,211	Body	S_Shelf	RPSA	0.244	0.001	0.980	0.730
cg18051762	yellow	19	40,388,677	Body	N_Shelf	FCGBP	0.244	-0.008	0.137	0.153
cg18861015	yellow	19	46,285,653	1stExon	N_Shelf	DMPK	0.244	0.009	0.137	0.300
cg07104919	yellow	11	46,958,073	TSS200	N_Shore	C11orf49	0.244	0.007	0.116	0.512
cg16419686	yellow	13	114,903,650		OpenSea		0.244	0.001	0.974	0.860
cg10196558	yellow	1	155,043,921		Island		0.244	-0.010	0.166	0.274
cg04217082	yellow	8	37,889,752	Body	S_Shore	EIF4EBP1	0.244	0.002	0.868	0.815
cg20395789	yellow	11	107,570,881		OpenSea		0.244	0.014	0.428	0.088
cg06466917	yellow	5	17,216,259	Body	N_Shore	LOC285696	0.243	-0.004	0.050	0.365
cg17895018	yellow	10	94,608,332	Body	Island	EXOC6	0.243	-0.001	0.017	0.368
cg21383151	yellow	10	96,162,809	1stExon	Island	TBC1D12	0.243	0.004	0.014	0.212
cg14482068	yellow	15	49,447,245	TSS1500	N_Shore	GALK2	0.243	-0.002	0.014	0.017
cg20497181	yellow	6	131,456,780		Island		0.243	-0.002	0.019	0.355
cg18190847	yellow	3	11,195,751	5'UTR	N_Shore	HRH1	0.243	-0.005	0.066	0.296
cg24810836	yellow	19	12,918,062	Body	S_Shore	RNASEH2A	0.243	-0.006	0.237	0.540
cg06347698	yellow	1	11,618,446		OpenSea		0.243	-0.003	0.211	0.714
cg11353792	yellow	19	54,107,634	TSS1500	OpenSea	LOC284379	0.243	0.003	0.692	0.804
cg05916509	yellow	13	21,140,743	TSS1500	N_Shore	IFT88	0.243	0.001	0.053	0.820
cg24993400	yellow	22	50,645,200	Body	S_Shore	SELO	0.243	-0.003	0.145	0.608

cg22517705	yellow	1	26,645,313	Body	OpenSea	CD52	0.243	0.000	0.928	0.978
cg14829553	yellow	1	35,324,702	TSS200	N_Shore	C1orf212	0.243	0.003	0.031	0.133
cg09449905	yellow	19	49,930,572		N_Shore		0.243	0.017	0.674	0.046
cg18576835	yellow	19	13,944,261		Island		0.242	-0.002	0.047	0.690
cg27379240	yellow	5	112,042,919	TSS1500	N_Shore	APC	0.242	0.000	0.390	0.992
cg26949037	yellow	16	31,003,936	3'UTR	OpenSea	STX1B	0.242	0.010	0.905	0.163
cg15351652	yellow	10	123,781,519	Body	OpenSea	TACC2	0.242	0.001	0.432	0.905
cg04510153	yellow	1	162,660,951	5'UTR	OpenSea	DDR2	0.242	-0.001	0.399	0.907
cg27245577	yellow	17	72,113,372		OpenSea		0.242	0.006	0.375	0.272
cg06613392	yellow	6	29,521,595		Island		0.242	-0.003	0.019	0.254
cg23451876	yellow	7	116,449,640		OpenSea		0.242	-0.005	0.371	0.745
cg00261569	yellow	3	119,216,728	TSS1500	N_Shore	C3orf1	0.242	0.005	0.319	0.703
cg25705836	yellow	15	79,103,718	1stExon	Island	ADAMTS7	0.242	-0.002	0.031	0.467
cg09884225	yellow	8	24,768,802		N_Shelf		0.242	0.014	0.118	0.130
cg09612929	yellow	11	72,353,049	Body	N_Shore	PDE2A	0.242	-0.001	0.025	0.612
cg09987765	yellow	11	62,430,138		N_Shelf		0.242	-0.003	0.947	0.503
cg23860337	yellow	19	42,434,572		N_Shelf		0.241	0.022	0.220	0.339
cg12688240	yellow	12	7,940,852	TSS1500	OpenSea	NANOG	0.241	0.012	0.235	0.264
cg07774251	yellow	11	108,408,981	Body	OpenSea	EXPH5	0.241	-0.022	0.302	0.057
cg07208172	yellow	1	32,818,353		S_Shore		0.241	-0.008	0.925	0.074
cg24513071	yellow	4	15,006,760	Body	Island	CPEB2	0.241	-0.001	0.027	0.312
cg14852267	yellow	1	28,564,498	3'UTR	S_Shore	ATPIF1	0.241	0.004	0.935	0.500
cg19025430	yellow	5	178,487,826	5'UTR	Island	ZNF354C	0.241	-0.003	0.059	0.640
cg26505691	yellow	16	27,461,333	3'UTR	OpenSea	IL21R	0.241	-0.014	0.188	0.212
cg24590353	yellow	6	149,295,148	Body	OpenSea	UST	0.241	0.003	0.164	0.671
cg01040434	yellow	1	86,081,443		N_Shore		0.241	-0.004	0.325	0.732
cg22657780	yellow	2	180,725,907	1stExon	Island	ZNF385B	0.241	-0.003	0.020	0.299
cg10996327	yellow	10	94,180,743		Island		0.241	-0.008	0.177	0.415
cg16656411	yellow	17	6,817,501		OpenSea		0.241	-0.011	0.373	0.508
cg24110768	yellow	12	58,159,478	Body	Island	CYP27B1	0.241	-0.002	0.064	0.548
cg22919728	yellow	3	126,242,490	TSS1500	N_Shore	CHST13	0.241	-0.001	0.561	0.963
cg08153079	yellow	17	45,905,712	Body	N_Shelf	MRPL10	0.241	-0.001	0.979	0.375
cg26851661	yellow	19	16,045,708	TSS200	OpenSea	CYP4F11	0.240	0.005	0.437	0.650
cg23838943	yellow	19	5,049,135	Body	S_Shore	KDM4B	0.240	0.013	0.716	0.058
cg23828467	yellow	13	113,992,858	Body	OpenSea	GRTP1	0.240	-0.008	0.912	0.220
cg13280536	yellow	17	74,879,507	Body	S_Shore	MGAT5B	0.240	0.000	0.894	0.959
cg02610170	yellow	12	132,977,028		Island		0.240	0.000	0.246	0.960
cg00838532	yellow	7	148,989,347	Body	N_Shelf	ZNF783	0.240	-0.005	0.937	0.375
cg21534413	yellow	19	8,643,675	TSS1500	OpenSea	MYO1F	0.240	-0.003	0.035	0.166
cg20663852	yellow	20	50,312,386	Body	OpenSea	ATP9A	0.240	-0.001	0.196	0.961
cg27645345	yellow	6	31,829,840	Body	N_Shore	NEU1	0.240	0.018	0.391	0.041
cg21250232	yellow	8	81,082,895	Body	N_Shore	TPD52	0.240	-0.001	0.979	0.400
cg15842218	yellow	8	141,490,124		OpenSea		0.240	0.001	0.019	0.377
cg11583475	yellow	4	24,914,929	TSS1500	OpenSea	CCDC149	0.240	0.005	0.340	0.640
cg06580884	yellow	3	47,365,911	Body	OpenSea	KLHL18	0.240	-0.001	0.022	0.445
cg25212993	yellow	5	132,113,755	TSS200	S_Shore	8-Sep	0.240	0.000	0.022	0.855
cg03835754	yellow	16	85,844,163		N_Shore		0.239	-0.004	0.762	0.574
cg15921876	yellow	3	133,393,656		Island		0.239	0.004	0.212	0.585
cg22447511	yellow	5	179,085,626		S_Shore		0.239	0.000	0.055	0.977
cg20248421	yellow	1	6,507,979	Body	Island	ESPN	0.239	0.001	0.021	0.286
cg01669161	yellow	7	1,632,265		OpenSea		0.239	0.003	0.803	0.611
cg10256468	yellow	3	148,710,633	Body	S_Shore	GYG1	0.239	0.017	0.442	0.041
cg25018951	yellow	4	25,235,369	TSS1500	N_Shore	PI4K2B	0.239	-0.002	0.162	0.852
cg08237971	yellow	1	27,290,846		S_Shelf		0.238	0.000	0.940	0.972
cg18485946	yellow	7	42,313,500		OpenSea		0.238	0.012	0.775	0.379
cg15153383	yellow	16	57,770,620	5'UTR	S_Shore	KATNB1	0.238	0.001	0.037	0.795
cg24575676	yellow	2	180,726,035	1stExon	Island	ZNF385B	0.238	0.000	0.027	0.812
cg07241660	yellow	11	69,259,336		S_Shore		0.238	-0.025	0.367	0.318
cg24451800	yellow	18	7,568,829	Body	Island	PTPRM	0.238	0.002	0.082	0.689
cg10791260	yellow	9	117,568,588	TSS200	OpenSea	TNFSF15	0.238	0.003	0.112	0.616
cg11808757	yellow	22	50,683,907	3'UTR	S_Shore	HDAC10	0.238	0.001	0.098	0.773
cg11285843	yellow	3	185,217,130	TSS1500	Island	TMEM41A	0.238	0.001	0.213	0.893
cg14431065	yellow	15	26,154,648		OpenSea		0.238	-0.003	0.947	0.444
cg21147147	yellow	1	150,980,384	5'UTR	N_Shore	FAM63A	0.238	0.005	0.186	0.380
cg04663932	yellow	7	73,508,618	Body	OpenSea	LIMK1	0.237	0.003	0.203	0.589
cg07536102	yellow	17	74,073,527	3'UTR	Island	GALR2	0.237	0.009	0.204	0.499
cg00442112	yellow	4	5,021,113	1stExon	Island	CYTL1	0.237	0.016	0.113	0.386

cg25746226	yellow	2	47,629,792	TSS1500	N_Shore	MSH2	0.237	0.001	0.042	0.525
cg20660624	yellow	11	117,307,972	Body	OpenSea	DSCAML1	0.237	0.005	0.627	0.475
cg23262351	yellow	6	79,576,851	TSS1500	N_Shore	IRAK1BP1	0.237	-0.025	0.138	0.030
cg04746197	yellow	11	2,951,300	TSS1500	Island	PHLDA2	0.237	-0.001	0.212	0.944
cg06441398	yellow	11	70,317,455	3'UTR	OpenSea	SHANK2	0.237	0.007	0.491	0.281
cg22730464	yellow	5	94,955,816	TSS200	Island	GPR150	0.237	0.003	0.101	0.709
cg18026772	yellow	1	116,922,084	Body	OpenSea	ATP1A1	0.237	0.005	0.826	0.678
cg08903855	yellow	1	37,056,769		OpenSea		0.237	0.005	0.323	0.514
cg10240725	yellow	12	97,300,803	TSS200	Island	NEDD1	0.236	0.001	0.026	0.485
cg05162320	yellow	17	48,389,080		OpenSea		0.236	-0.004	0.603	0.763
cg00045515	yellow	20	35,723,332	Body	N_Shore	RBL1	0.236	-0.001	0.973	0.717
cg09538651	yellow	11	70,001,896	Body	Island	ANO1	0.236	0.006	0.666	0.529
cg25589001	yellow	10	98,605,052	5'UTR	OpenSea	LCOR	0.236	-0.012	0.623	0.206
cg08859206	yellow	1	53,392,774	TSS200	N_Shore	SCP2	0.236	0.004	0.028	0.138
cg01417553	yellow	2	9,614,528	TSS200	Island	IAH1	0.236	-0.003	0.044	0.434
cg09230667	yellow	1	3,436,115	Body	Island	MEGF6	0.236	0.011	0.738	0.128
cg06816651	yellow	2	95,664,359		S_Shore		0.236	0.002	0.282	0.811
cg22545385	yellow	10	131,989,303		Island		0.236	-0.002	0.369	0.906
cg04048517	yellow	2	202,097,062	TSS1500	OpenSea	CASP8	0.235	0.002	0.031	0.258
cg08881019	yellow	1	156,096,178	Body	OpenSea	LMNA	0.235	-0.003	0.229	0.653
cg06095777	yellow	1	145,714,010	5'UTR	Island	CD160	0.235	-0.008	0.100	0.302
cg14411200	yellow	9	131,571,641	3'UTR	OpenSea	TBC1D13	0.235	-0.005	0.866	0.390
cg04963082	yellow	16	30,043,105	TSS1500	S_Shore	FAM57B	0.235	0.008	0.190	0.133
cg01615339	yellow	16	1,465,116	TSS1500	S_Shore	UNKL	0.235	0.008	0.076	0.069
cg14908994	yellow	19	41,695,752		N_Shelf		0.235	-0.003	0.547	0.754
cg24362016	yellow	19	12,406,154	TSS1500	S_Shore	ZNF44	0.235	0.003	0.277	0.775
cg13240206	yellow	1	160,800,192	3'UTR	OpenSea	CD244	0.235	0.021	0.338	0.039
cg06759845	yellow	1	156,460,474	5'UTR	OpenSea	MEF2D	0.235	-0.003	0.037	0.093
cg19225688	yellow	2	218,990,043	TSS1500	OpenSea	CXCR2	0.235	0.006	0.632	0.726
cg03989020	yellow	13	30,002,334	TSS1500	OpenSea	MTUS2	0.235	0.003	0.203	0.775
cg23749536	yellow	12	123,775,040	3'UTR	OpenSea	SBNO1	0.235	0.000	0.950	0.919
cg14487805	yellow	17	3,433,970	Body	N_Shore	TRPV3	0.234	-0.003	0.430	0.911
cg10395868	yellow	14	69,263,504	TSS1500	S_Shore	C14orf181	0.234	0.008	0.495	0.362
cg02110529	yellow	17	56,769,696	TSS1500	N_Shore	TEX14	0.234	-0.001	0.733	0.903
cg08839858	yellow	10	23,216,843	TSS200	OpenSea	ARMC3	0.234	0.000	0.021	0.857
cg25200182	yellow	1	158,119,395		N_Shore		0.234	-0.004	0.116	0.714
cg14375461	yellow	9	135,458,625	1stExon	S_Shore	BARHL1	0.234	0.012	0.181	0.201
cg07292235	yellow	16	48,844,170		N_Shore		0.234	-0.006	0.397	0.515
cg12631737	yellow	11	94,277,190	5'UTR	Island	FUT4	0.234	0.000	0.019	0.899
cg25711003	yellow	3	111,522,050	5'UTR	OpenSea	PHLDB2	0.234	-0.003	0.110	0.700
cg27169846	yellow	4	8,012,170	Body	OpenSea	ABLIM2	0.234	-0.005	0.442	0.798
cg12027493	yellow	17	780,872	Body	OpenSea	NXN	0.233	0.006	0.893	0.394
cg16135695	yellow	10	1,889,970		OpenSea		0.233	-0.002	0.834	0.910
cg09535119	yellow	7	44,647,081	5'UTR	S_Shore	OGDH	0.233	-0.001	0.045	0.813
cg02631450	yellow	22	32,366,979		Island		0.233	-0.008	0.047	0.102
cg19087971	yellow	7	751,233	5'UTR	Island	PRKAR1B	0.233	-0.019	0.376	0.548
cg09692838	yellow	17	45,177,431		Island		0.233	0.000	0.029	0.995
cg26154268	yellow	14	22,538,783		OpenSea		0.233	0.004	0.039	0.497
cg10014563	yellow	14	59,932,273	TSS1500	S_Shore	GPR135	0.233	-0.004	0.088	0.355
cg17898621	yellow	4	3,244,206	3'UTR	OpenSea	HTT	0.233	0.011	0.621	0.320
cg16517753	yellow	1	175,292,351	3'UTR	OpenSea	TNR	0.233	0.002	0.847	0.760
cg17465827	yellow	4	148,538,229	TSS1500	N_Shore	TMEM184C	0.233	-0.012	0.163	0.226
cg13787758	yellow	19	53,660,062	5'UTR	N_Shore	ZNF347	0.232	-0.007	0.945	0.140
cg27639942	yellow	11	64,739,336		Island		0.232	0.003	0.068	0.619
cg27474957	yellow	11	1,567,578	Body	N_Shore	HCCA2	0.232	0.016	0.104	0.030
cg03214697	yellow	22	30,901,532	Body	Island	SEC14L4	0.232	0.003	0.055	0.656
cg10639395	yellow	11	8,710,044	3'UTR	N_Shore	RPL27A	0.232	0.012	0.205	0.380
cg11821403	yellow	5	57,756,024	TSS200	Island	PLK2	0.232	0.001	0.016	0.601
cg15554219	yellow	3	137,478,371		N_Shore		0.232	0.013	0.112	0.096
cg02568670	yellow	3	141,173,927		OpenSea		0.232	-0.001	0.128	0.895
cg15825065	yellow	8	133,687,344	Body	N_Shore	LRRC6	0.232	0.001	0.051	0.760
cg17855016	yellow	13	113,242,518	TSS200	Island	TUBGCP3	0.232	0.000	0.057	0.898
cg09958560	yellow	10	114,571,695	Body	OpenSea	VTI1A	0.231	0.005	0.169	0.510
cg20307496	yellow	22	37,955,927	TSS1500	N_Shore	CDC42EP1	0.231	0.003	0.446	0.677
cg04112842	yellow	22	32,302,757	3'UTR	OpenSea	DEPDC5	0.231	0.005	0.891	0.437
cg04034891	yellow	16	72,128,225	TSS1500	S_Shore	TXNL4B	0.231	0.002	0.019	0.066
cg19795853	yellow	7	150,118,404		OpenSea		0.231	-0.002	0.038	0.559

cg00301660	yellow	8	49,783,269	Island		0.231	-0.003	0.276	0.773
cg07013258	yellow	16	30,905,875 TSS1500	S_Shore	BCL7C	0.231	-0.003	0.090	0.553
cg03722487	yellow	1	2,415,199 Body	Island	PLCH2	0.231	-0.017	0.909	0.034
cg12911589	yellow	2	242,740,765 Body	N_Shore	GAL3ST2	0.231	0.003	0.930	0.525
cg19515245	yellow	2	97,151,922	OpenSea		0.231	-0.002	0.092	0.763
cg15387943	yellow	5	68,513,219 TSS1500	N_Shore	MRPS36	0.231	0.000	0.077	0.973
cg26684776	yellow	6	90,085,550 Body	OpenSea	RRAGD	0.231	0.012	0.690	0.048
cg23166781	yellow	4	6,107,280 Body	Island	JAKMIP1	0.231	-0.001	0.503	0.909
cg12642815	yellow	5	150,461,195 TSS200	S_Shore	TNIP1	0.230	-0.001	0.020	0.440
cg05290300	yellow	16	80,966,763	S_Shore		0.230	0.002	0.162	0.853
cg07004950	yellow	5	159,508,665 Body	OpenSea	PWWP2A	0.229	0.000	0.315	0.984
cg08193579	yellow	3	169,529,701 Body	N_Shore	LRRC34	0.229	-0.008	0.086	0.620
cg25185585	yellow	2	177,052,687 TSS1500	N_Shore	HOXD1	0.229	-0.003	0.061	0.185
cg17637556	yellow	4	20,701,575 TSS1500	N_Shore	PACRGL	0.229	0.007	0.060	0.197
cg04547433	yellow	16	19,052,983 Body	OpenSea	TMC7	0.229	0.021	0.717	0.221
cg26334154	yellow	3	42,132,310 TSS1500	OpenSea	TRAK1	0.229	0.012	0.575	0.119
cg08470036	yellow	5	64,858,963 TSS200	Island	PPWD1	0.229	0.002	0.017	0.187
cg00036732	yellow	10	102,767,507 3'UTR	S_Shore	LZTS2	0.229	0.002	0.421	0.757
cg26681822	yellow	4	38,858,561 TSS200	OpenSea	TLR6	0.229	-0.032	0.282	0.267
cg16135936	yellow	14	98,629,292	OpenSea		0.228	0.010	0.234	0.463
cg11518839	yellow	5	176,216,711	OpenSea		0.228	0.003	0.328	0.797
cg10918328	yellow	13	95,355,508	S_Shore		0.228	-0.002	0.013	0.109
cg11298627	yellow	5	41,509,849 Body	Island	PLCXD3	0.228	0.000	0.289	0.988
cg20300032	yellow	12	12,186,105	OpenSea		0.228	-0.001	0.025	0.683
cg11904429	yellow	19	6,592,554 TSS1500	S_Shore	CD70	0.228	0.004	0.960	0.410
cg08773226	yellow	6	135,061,398	OpenSea		0.228	0.002	0.856	0.800
cg10562114	yellow	10	120,790,501 3'UTR	OpenSea	NANOS1	0.228	-0.008	0.038	0.025
cg25559313	yellow	22	19,138,267 TSS1500	Island	GSC2	0.228	0.001	0.041	0.647
cg20149840	yellow	2	240,135,077 Body	OpenSea	HDAC4	0.228	-0.020	0.706	0.325
cg25486615	yellow	20	5,591,870 TSS200	Island	RP5-1022P6.	0.228	-0.001	0.038	0.607
cg12756527	yellow	10	11,284,548 Body	OpenSea	CUGBP2	0.228	-0.001	0.528	0.889
cg21642947	yellow	20	62,153,431 3'UTR	S_Shore	PPDPF	0.228	0.005	0.460	0.566
cg16698814	yellow	19	51,524,763 TSS1500	S_Shore	KLK10	0.228	0.011	0.293	0.256
cg08324612	yellow	8	1,030,521	OpenSea		0.228	0.006	0.424	0.442
cg27123423	yellow	17	62,971,335 Body	N_Shore	FLJ32065	0.227	-0.003	0.123	0.701
cg03782043	yellow	6	30,044,206 TSS1500	S_Shore	RNF39	0.227	0.001	0.216	0.881
cg10474712	yellow	22	42,062,693	N_Shore		0.227	-0.010	0.148	0.266
cg04492943	yellow	16	22,200,979	N_Shore		0.227	-0.004	0.119	0.644
cg14839440	yellow	15	43,213,257 TSS1500	Island	TTBK2	0.227	0.003	0.070	0.233
cg00284516	yellow	8	117,778,669 TSS200	Island	UTP23	0.227	-0.002	0.043	0.542
cg03742567	yellow	11	57,424,513 TSS1500	N_Shore	CLP1	0.227	0.002	0.032	0.327
cg27201625	yellow	10	6,622,279 TSS200	Island	PRKCC	0.227	0.010	0.314	0.705
cg25072643	yellow	4	107,238,104 5'UTR	OpenSea	AIIMP1	0.227	0.007	0.034	0.149
cg16184943	yellow	22	22,863,293 1stExon	S_Shore	ZNF280B	0.227	0.002	0.233	0.819
cg14041855	yellow	8	1,068,250	OpenSea		0.227	0.014	0.142	0.170
cg26245086	yellow	4	87,860,957 5'UTR	S_Shelf	AFF1	0.227	-0.011	0.360	0.216
cg12056646	yellow	7	32,982,914 TSS200	S_Shore	RP9P	0.226	-0.001	0.041	0.652
cg14846293	yellow	17	63,557,693 1stExon	Island	AXIN2	0.226	-0.002	0.033	0.221
cg26163319	yellow	4	87,464,191	OpenSea		0.226	-0.018	0.836	0.234
cg17405908	yellow	7	128,784,419 TSS1500	N_Shore	TSPAN33	0.226	-0.001	0.035	0.711
cg00562641	yellow	5	68,789,255 5'UTR	Island	OCLN	0.226	-0.003	0.038	0.044
cg13264672	yellow	7	39,993,440 Body	S_Shore	CDK13	0.226	-0.004	0.185	0.866
cg25669699	yellow	3	149,144,101	OpenSea		0.226	-0.008	0.391	0.414
cg07296387	yellow	20	44,838,981 Body	Island	CDH22	0.226	0.002	0.547	0.919
cg15892964	yellow	6	151,646,540 TSS200	N_Shore	AKAP12	0.225	0.002	0.038	0.653
cg07878171	yellow	8	141,109,731 Body	Island	TRAPP9	0.225	-0.001	0.678	0.835
cg00270764	yellow	16	28,511,362 Body	S_Shore	IL27	0.225	0.008	0.510	0.272
cg21162580	yellow	6	33,167,386 TSS1500	N_Shore	SLC39A7	0.225	-0.005	0.099	0.374
cg03321784	yellow	17	37,729,644	N_Shore		0.225	0.000	0.074	0.919
cg25421389	yellow	5	143,482,366	OpenSea		0.225	0.010	0.640	0.474
cg01142526	yellow	5	177,541,754 5'UTR	S_Shore	N4BP3	0.225	0.007	0.199	0.306
cg14274542	yellow	9	137,693,053 Body	Island	COL5A1	0.225	-0.002	0.456	0.790
cg09744452	yellow	12	130,965,963 5'UTR	OpenSea	RIMBP2	0.225	0.020	0.212	0.013
cg17498272	yellow	19	58,864,929 Body	N_Shelf	NCRNA00181	0.225	-0.001	0.643	0.889
cg24342146	yellow	1	160,682,008 TSS1500	OpenSea	CD48	0.225	0.008	0.442	0.218
cg22336162	yellow	7	120,740	Island		0.225	0.005	0.462	0.584
cg11699826	yellow	1	26,438,425 5'UTR	Island	PDIK1L	0.224	0.001	0.048	0.896

cg16816226	yellow	3	5,228,848	TSS1500	N_Shore	EDEM1	0.224	0.002	0.050	0.639
cg25385733	yellow	2	217,237,043	TSS1500	Island	4-Mar	0.224	0.000	0.060	0.920
cg18777299	yellow	4	26,994,740	Body	OpenSea	STIM2	0.224	0.008	0.263	0.302
cg08233864	yellow	13	113,631,110	Body	N_Shelf	MCF2L	0.224	0.004	0.653	0.480
cg26597727	yellow	19	6,482,062	TSS1500	OpenSea	DENND1C	0.224	0.005	0.231	0.453
cg08589077	yellow	17	58,217,038		Island		0.224	0.003	0.089	0.667
cg06933064	yellow	19	40,895,469	1stExon	Island	HIPK4	0.224	0.001	0.928	0.835
cg17083925	yellow	20	36,793,373	Body	N_Shore	TGM2	0.224	-0.001	0.239	0.924
cg06225154	yellow	22	37,640,364	TSS200	OpenSea	RAC2	0.224	-0.010	0.118	0.197
cg08594207	yellow	17	64,825,662		OpenSea		0.224	0.003	0.097	0.645
cg17367915	yellow	3	128,274,795		Island		0.224	-0.007	0.184	0.316
cg14441153	yellow	9	4,763,200		OpenSea		0.224	-0.007	0.265	0.705
cg22510074	yellow	7	71,803,123	TSS1500	S_Shore	CALN1	0.224	-0.007	0.411	0.401
cg20848216	yellow	6	32,812,033	Body	S_Shore	PSMB8	0.223	0.000	0.033	0.827
cg26132647	yellow	3	50,298,315		S_Shore		0.223	0.004	0.151	0.440
cg11183445	yellow	8	66,545,802	5'UTR	N_Shore	ARMC1	0.223	0.002	0.033	0.391
cg22038207	yellow	4	152,808,142		OpenSea		0.223	0.000	0.481	0.985
cg18710383	yellow	6	111,279,866	1stExon	Island	GTF3C6	0.223	0.001	0.060	0.797
cg02238549	yellow	10	131,927,554		S_Shore		0.223	0.002	0.404	0.894
cg11734588	yellow	19	49,436,260	TSS1500	N_Shore	DHDH	0.222	-0.003	0.595	0.819
cg15660293	yellow	17	41,797,862		Island		0.222	0.003	0.079	0.448
cg25456068	yellow	17	77,800,718		OpenSea		0.222	-0.021	0.466	0.459
cg09629914	yellow	10	106,029,358	5'UTR	S_Shore	GSTO2	0.222	0.012	0.242	0.281
cg14898639	yellow	20	35,423,080	Body	S_Shore	C20orf117	0.222	0.004	0.933	0.327
cg00767222	yellow	19	36,169,244	3'UTR	OpenSea	UPK1A	0.222	0.002	0.759	0.835
cg21560570	yellow	2	218,853,493		OpenSea		0.222	-0.002	0.022	0.141
cg18468235	yellow	11	118,066,105	Body	OpenSea	AMICA1	0.222	0.006	0.060	0.338
cg00200876	yellow	16	68,731,696	Body	N_Shore	CDH3	0.222	0.009	0.856	0.233
cg00897875	yellow	17	43,392,165	5'UTR	N_Shore	MAP3K14	0.222	0.002	0.323	0.718
cg07477282	yellow	15	44,956,107	TSS1500	S_Shore	SPG11	0.221	-0.005	0.091	0.378
cg05437995	yellow	6	29,571,875	Body	OpenSea	GABBR1	0.221	0.009	0.653	0.305
cg16411541	yellow	16	48,190,671		OpenSea		0.221	0.001	0.018	0.377
cg22410743	yellow	15	67,574,897	Body	OpenSea	IQCH	0.221	-0.016	0.779	0.318
cg20169015	yellow	1	85,968,569	5'UTR	OpenSea	DDAH1	0.221	0.005	0.326	0.426
cg02616405	yellow	7	1,250,756		N_Shore		0.221	0.005	0.195	0.517
cg15925325	yellow	10	5,931,821	5'UTR	Island	ANKRD16	0.220	-0.001	0.021	0.217
cg02685016	yellow	6	17,282,333	1stExon	Island	RBM24	0.220	0.001	0.023	0.564
cg03433241	yellow	1	166,853,278		Island		0.220	0.001	0.442	0.873
cg00727112	yellow	4	159,690,372	1stExon	Island	FNIP2	0.220	-0.001	0.026	0.460
cg15740759	yellow	19	45,926,585	1stExon	N_Shore	ERCC1	0.220	0.005	0.260	0.326
cg09132250	yellow	2	131,148,721		Island		0.220	0.000	0.025	0.837
cg22557350	yellow	10	126,432,983	TSS200	Island	FAM53B	0.220	0.000	0.015	0.621
cg20596493	yellow	15	74,045,624		Island		0.220	-0.002	0.030	0.273
cg26035463	yellow	12	117,627,651	Body	Island	FBXO21	0.220	0.000	0.034	0.817
cg19214707	yellow	7	3,157,722		OpenSea		0.219	0.044	0.428	0.286
cg11435466	yellow	11	60,738,032	TSS1500	OpenSea	CD6	0.219	0.004	0.204	0.708
cg26632897	yellow	17	77,030,546	1stExon	OpenSea	C1QTNF1	0.219	0.011	0.464	0.112
cg04839991	yellow	2	237,880,790		OpenSea		0.219	0.002	0.249	0.776
cg02509647	yellow	8	94,712,810	5'UTR	Island	FAM92A1	0.219	-0.002	0.024	0.326
cg05996213	yellow	1	175,712,552	5'UTR	OpenSea	TNR	0.219	-0.004	0.407	0.733
cg26410635	yellow	12	96,350,720	Body	Island	AMDHD1	0.218	0.003	0.356	0.887
cg17066943	yellow	6	34,192,320		S_Shore		0.218	-0.004	0.109	0.381
cg13023014	yellow	4	184,908,794	Body	OpenSea	STOX2	0.218	0.008	0.162	0.413
cg00851377	yellow	7	112,726,089	1stExon	OpenSea	GPR85	0.218	0.028	0.141	0.097
cg16155081	yellow	2	9,983,211	TSS1500	N_Shore	TAF1B	0.218	0.014	0.187	0.439
cg00876127	yellow	16	56,554,313	TSS1500	S_Shore	BBS2	0.218	0.003	0.445	0.847
cg26652022	yellow	2	15,777,016		OpenSea		0.218	0.018	0.521	0.037
cg07935340	yellow	2	232,791,964	TSS1500	Island	NPPC	0.218	0.014	0.354	0.159
cg19655195	yellow	2	196,933,718	TSS200	S_Shore	DNAH7	0.218	0.000	0.020	0.919
cg20322862	yellow	18	3,412,088	5'UTR	OpenSea	TGIF1	0.217	-0.001	0.333	0.930
cg06133910	yellow	13	34,185,230		OpenSea		0.217	0.004	0.481	0.606
cg17189568	yellow	8	53,477,264	Body	N_Shore	FAM150A	0.217	0.010	0.096	0.279
cg00410422	yellow	1	110,951,074	TSS1500	S_Shore	HBXIP	0.217	-0.002	0.614	0.886
cg07074976	yellow	8	37,924,550		OpenSea		0.216	0.014	0.367	0.068
cg00418163	yellow	12	83,476,631	Body	OpenSea	TMTC2	0.216	-0.020	0.199	0.005
cg10308858	yellow	7	2,632,080	Body	N_Shore	IQCE	0.216	-0.008	0.940	0.278
cg08327706	yellow	11	132,953,409	Body	S_Shore	OPCML	0.216	0.002	0.249	0.791

cg26532627	yellow	17	43,339,744	Body	Island	LOC1001339	0.216	-0.002	0.194	0.673
cg21075111	yellow	12	25,404,160	TSS1500	OpenSea	KRAS	0.216	0.000	0.049	0.965
cg23998903	yellow	2	209,048,830	Body	OpenSea	C2orf80	0.216	0.002	0.025	0.270
cg19596110	yellow	5	140,221,364	Body	Island	PCDHA6	0.216	0.012	0.055	0.090
cg21917950	yellow	12	104,459,106	Body	S_Shore	HCFC2	0.216	0.001	0.022	0.676
cg05808226	yellow	1	11,837,939		OpenSea		0.216	0.009	0.634	0.302
cg10149455	yellow	7	206,153	Body	N_Shore	FAM20C	0.216	0.012	0.757	0.532
cg02152578	yellow	1	110,526,899	TSS1500	N_Shore	AHCYL1	0.216	-0.005	0.112	0.195
cg18101367	yellow	5	6,714,190	TSS1500	Island	POLS	0.216	0.002	0.033	0.404
cg23109714	yellow	11	529,028		OpenSea		0.216	-0.001	0.237	0.874
cg02329670	yellow	17	6,921,400	TSS200	N_Shelf	MIR497	0.215	0.001	0.941	0.867
cg20858107	yellow	8	10,823,238	Body	OpenSea	XKR6	0.215	0.004	0.034	0.069
cg09284772	yellow	6	30,709,924	Body	N_Shore	FLOT1	0.215	-0.002	0.024	0.102
cg07865967	yellow	3	5,028,809		Island		0.215	-0.002	0.057	0.462
cg08755224	yellow	20	21,001,116		Island		0.215	-0.015	0.132	0.356
cg07430760	yellow	1	60,392,340	1stExon	Island	CYP2J2	0.215	0.005	0.052	0.242
cg11835619	yellow	12	56,475,064	Body	S_Shore	ERBB3	0.215	0.006	0.364	0.512
cg01403885	yellow	19	45,742,140		Island		0.215	0.013	0.897	0.126
cg16204559	yellow	11	11,472,804	Body	OpenSea	GALNTL4	0.215	0.010	0.372	0.510
cg18690501	yellow	10	43,392,968		N_Shore		0.215	0.016	0.286	0.169
cg00420722	yellow	4	83,205,792		N_Shore		0.215	0.001	0.021	0.540
cg10212847	yellow	19	49,665,940	Body	N_Shelf	TRPM4	0.214	-0.002	0.952	0.566
cg06993715	yellow	16	69,345,386	5'UTR	Island	VPS4A	0.214	-0.001	0.045	0.739
cg01759870	yellow	14	105,936,409	Body	Island	MTA1	0.214	-0.001	0.681	0.890
cg04774239	yellow	4	631,734	Body	OpenSea	PDE6B	0.214	0.017	0.511	0.058
cg04922681	yellow	13	43,149,234	Body	Island	TNFSF11	0.214	0.000	0.022	0.931
cg21415060	yellow	1	159,277,295	Body	OpenSea	FCER1A	0.214	0.009	0.215	0.225
cg07220366	yellow	8	10,405,379		OpenSea		0.214	0.001	0.826	0.908
cg26663590	yellow	16	28,959,310		S_Shore		0.213	0.008	0.827	0.375
cg02771240	yellow	3	193,789,377		S_Shore		0.213	-0.003	0.049	0.397
cg02728101	yellow	11	72,386,540	TSS1500	OpenSea	PDE2A	0.213	0.007	0.289	0.517
cg02610787	yellow	2	3,523,606	TSS1500	Island	ADI1	0.213	0.002	0.020	0.097
cg15988887	yellow	12	111,182,093	TSS1500	S_Shore	PPP1CC	0.213	-0.005	0.508	0.486
cg18025961	yellow	1	2,102,170	Body	OpenSea	PRKCZ	0.213	0.004	0.949	0.156
cg26705688	yellow	19	58,238,435	Body	N_Shore	ZNF671	0.213	0.000	0.021	0.788
cg24813995	yellow	6	30,657,882	Body	S_Shelf	NRM	0.213	0.007	0.241	0.204
cg07213780	yellow	7	158,342,600	Body	N_Shore	PTPRN2	0.212	0.002	0.343	0.801
cg08529654	yellow	19	15,305,938	Body	N_Shore	NOTCH3	0.212	0.003	0.307	0.634
cg12970711	yellow	22	21,984,177	1stExon	Island	YDJC	0.212	0.000	0.034	0.994
cg07832738	yellow	17	11,142,923		N_Shore		0.212	0.004	0.088	0.608
cg18199664	yellow	14	78,869,963	TSS200	OpenSea	NRXN3	0.212	0.015	0.303	0.154
cg04709675	yellow	7	75,541,952		N_Shelf		0.212	0.003	0.668	0.718
cg12685753	yellow	17	6,735,539	TSS1500	OpenSea	TEKT1	0.212	0.023	0.214	0.024
cg22749107	yellow	11	64,494,530	3'UTR	S_Shelf	RASGRP2	0.212	0.006	0.908	0.407
cg20127596	yellow	17	42,924,231	TSS1500	OpenSea	HIGD1B	0.212	0.003	0.929	0.486
cg27480573	yellow	19	13,811,565		N_Shore		0.212	0.005	0.692	0.692
cg25947184	yellow	8	1,697,459		OpenSea		0.212	0.008	0.201	0.550
cg25793430	yellow	19	53,142,146	Body	S_Shore	ZNF83	0.212	0.013	0.201	0.237
cg10508349	yellow	16	68,942,231	Body	OpenSea	TMCO7	0.212	0.015	0.757	0.145
cg23956385	yellow	10	50,323,829	TSS1500	S_Shore	C10orf72	0.212	0.000	0.292	0.993
cg23901592	yellow	14	90,126,322		OpenSea		0.211	-0.010	0.419	0.510
cg15862394	yellow	14	95,403,133		OpenSea		0.211	0.004	0.332	0.594
cg20081244	yellow	17	79,859,945	TSS200	Island	NPB	0.211	-0.010	0.076	0.052
cg00917031	yellow	9	123,477,533	TSS1500	S_Shore	MEGF9	0.211	-0.005	0.202	0.377
cg24685778	yellow	1	26,394,211	TSS200	OpenSea	TRIM63	0.211	0.003	0.694	0.722
cg02002258	yellow	2	26,700,976	TSS200	OpenSea	OTOF	0.211	0.000	0.338	0.960
cg02635623	yellow	16	31,120,357	5'UTR	Island	BCKDK	0.211	-0.005	0.096	0.312
cg19411146	yellow	6	152,128,471	TSS1500	N_Shore	ESR1	0.211	0.004	0.041	0.192
cg24161925	yellow	6	139,116,947		Island		0.210	-0.013	0.208	0.269
cg17330515	yellow	19	13,031,369	TSS1500	S_Shore	SYCE2	0.210	0.011	0.855	0.259
cg13586608	yellow	14	74,724,071	Body	N_Shore	VSX2	0.210	-0.007	0.158	0.348
cg16404074	yellow	15	78,934,580	TSS1500	S_Shore	CHRNB4	0.210	0.000	0.942	0.997
cg02232751	yellow	11	18,415,742	TSS200	N_Shore	LDHA	0.210	0.005	0.248	0.466
cg07253769	yellow	12	113,447,342	3'UTR	OpenSea	OAS2	0.210	-0.006	0.225	0.423
cg10720997	yellow	1	997,858		N_Shore		0.210	-0.001	0.027	0.672
cg21272919	yellow	15	25,014,966		N_Shelf		0.209	0.005	0.511	0.679
cg07537370	yellow	2	27,531,124	5'UTR	Island	UCN	0.209	0.008	0.255	0.324



cg06535993	yellow	10	26,727,261	TSS200	Island	APBB1IP	0.209	-0.003	0.039	0.202
cg25012274	yellow	17	9,130,163	Body	OpenSea	NTN1	0.209	-0.014	0.825	0.344
cg14679668	yellow	8	102,130,344		OpenSea		0.208	0.015	0.804	0.257
cg09091424	yellow	11	67,057,304	Body	S_Shore	ANKRD13D	0.208	0.004	0.125	0.460
cg07712541	yellow	10	88,072,732	Body	OpenSea	GRID1	0.208	0.000	0.330	0.969
cg26452584	yellow	10	91,227,359	5'UTR	OpenSea	SLC16A12	0.208	0.005	0.470	0.666
cg07918341	yellow	17	42,992,709	1stExon	S_Shelf	GFAP	0.208	-0.001	0.685	0.906
cg03024660	yellow	16	84,650,415	Body	N_Shore	COTL1	0.208	0.001	0.014	0.220
cg10509001	yellow	17	7,553,872	TSS1500	N_Shore	ATP1B2	0.208	0.001	0.031	0.452
cg12511929	yellow	12	122,652,175	TSS200	OpenSea	LRRC43	0.208	0.010	0.901	0.222
cg12714007	yellow	11	119,233,234	Body	N_Shore	USP2	0.208	0.005	0.838	0.671
cg12422539	yellow	6	2,515,337		OpenSea		0.208	-0.032	0.271	0.090
cg10170847	yellow	19	41,834,029		N_Shelf		0.207	-0.002	0.940	0.613
cg26432918	yellow	11	74,953,490		Island		0.207	-0.006	0.149	0.545
cg03928887	yellow	17	43,200,129	Body	S_Shore	PLCD3	0.207	0.007	0.797	0.460
cg26233172	yellow	1	4,000,600		OpenSea		0.207	0.004	0.194	0.592
cg22642777	yellow	5	146,256,943	Body	N_Shore	PPP2R2B	0.207	0.016	0.073	0.006
cg06540636	yellow	19	44,174,071	Body	S_Shore	PLAUR	0.207	0.002	0.149	0.723
cg15442728	yellow	14	91,580,280	TSS200	OpenSea	C14orf159	0.207	0.003	0.033	0.054
cg05305046	yellow	5	40,841,315	TSS200	OpenSea	CARD6	0.207	0.016	0.302	0.097
cg27383418	yellow	2	232,055,581		OpenSea		0.207	0.005	0.060	0.474
cg02598335	yellow	7	86,337,918	5'UTR	OpenSea	GRM3	0.207	0.009	0.342	0.298
cg14239655	yellow	12	46,005,115		OpenSea		0.207	0.016	0.245	0.237
cg15700009	yellow	11	18,415,711	TSS1500	N_Shore	LDHA	0.207	0.005	0.083	0.438
cg17568255	yellow	2	9,614,530	TSS200	Island	IAH1	0.206	-0.001	0.018	0.430
cg04143750	yellow	2	233,497,656	TSS1500	N_Shore	EFHD1	0.206	0.003	0.049	0.281
cg00650006	yellow	17	18,218,974	5'UTR	Island	SMCR8	0.206	0.001	0.034	0.454
cg17588003	yellow	17	5,138,696	TSS1500	OpenSea	C17orf87	0.206	0.000	0.870	0.996
cg27552711	yellow	1	27,332,282	3'UTR	N_Shore	FAM46B	0.206	-0.002	0.359	0.871
cg06053347	yellow	8	22,129,506		N_Shelf		0.205	0.004	0.805	0.588
cg00046537	yellow	5	134,210,707	Body	S_Shore	TXNDC15	0.205	0.003	0.062	0.307
cg02174639	yellow	20	25,228,558	TSS200	Island	PYGB	0.205	-0.002	0.042	0.466
cg01215339	yellow	22	50,684,054	Body	S_Shore	HDAC10	0.205	0.003	0.090	0.476
cg00796187	yellow	14	21,341,871		OpenSea		0.205	-0.007	0.091	0.433
cg17165311	yellow	17	1,466,280	TSS200	Island	PITPNA	0.205	-0.001	0.028	0.594
cg21709871	yellow	8	144,923,606	5'UTR	Island	NRBP2	0.204	0.003	0.031	0.402
cg23405218	yellow	19	38,183,456	TSS1500	S_Shore	ZNF781	0.204	-0.007	0.137	0.291
cg03582157	yellow	4	102,340,823		OpenSea		0.204	0.005	0.131	0.637
cg09940311	yellow	1	183,901,666		OpenSea		0.204	-0.007	0.097	0.455
cg03270395	yellow	6	111,888,620	Body	OpenSea	TRAF3IP2	0.204	-0.006	0.082	0.311
cg24838240	yellow	19	14,721,367	3'UTR	OpenSea	CLEC17A	0.204	0.004	0.863	0.668
cg04486568	yellow	21	40,178,431	5'UTR	Island	ETS2	0.204	0.000	0.012	0.830
cg05223591	yellow	2	176,046,632	TSS1500	S_Shore	ATP5G3	0.204	-0.015	0.210	0.042
cg20749916	yellow	13	111,767,003	TSS1500	OpenSea	ARHGEF7	0.204	0.000	0.038	0.765
cg03763769	yellow	1	197,744,884	TSS1500	S_Shore	DENND1B	0.204	0.006	0.123	0.195
cg12707343	yellow	6	168,418,439	TSS200	OpenSea	KIF25	0.204	-0.007	0.191	0.404
cg06956444	yellow	1	8,001,309	TSS1500	N_Shore	TNFRSF9	0.204	-0.001	0.919	0.813
cg21107581	yellow	19	49,258,805	TSS1500	S_Shelf	FGF21	0.203	-0.003	0.651	0.670
cg18761976	yellow	15	91,807,630	Body	OpenSea	SV2B	0.203	-0.011	0.725	0.329
cg11586519	yellow	1	1,509,833	Body	Island	SSU72	0.203	-0.003	0.047	0.427
cg13568106	yellow	17	26,835,115		OpenSea		0.203	0.004	0.078	0.597
cg15047660	yellow	5	172,068,019	TSS1500	N_Shore	NEURL1B	0.203	-0.002	0.026	0.142
cg25139493	yellow	1	39,957,400	1stExon	Island	BMP8A	0.203	0.010	0.063	0.369
cg06794612	yellow	11	65,695,774		OpenSea		0.203	-0.005	0.923	0.454
cg26736400	yellow	11	66,360,499	1stExon	Island	CCDC87	0.203	0.001	0.019	0.586
cg26883251	yellow	1	213,169,046	Body	OpenSea	ANGEL2	0.203	-0.005	0.286	0.623
cg19408140	yellow	5	2,537,657		OpenSea		0.203	0.002	0.590	0.763
cg09354348	yellow	17	1,623,651	Body	S_Shelf	WDR81	0.203	-0.004	0.856	0.625
cg07303450	yellow	16	30,023,400	TSS1500	S_Shore	DOC2A	0.203	0.005	0.148	0.637
cg06506863	yellow	7	150,896,449		OpenSea		0.202	0.006	0.384	0.608
cg06372887	yellow	7	44,795,754	TSS200	OpenSea	ZMIZ2	0.202	-0.004	0.421	0.537
cg04091816	yellow	17	48,179,648	Body	N_Shelf	PDK2	0.202	0.003	0.718	0.660
cg17963461	yellow	5	3,844,117		OpenSea		0.201	0.000	0.186	0.985
cg02643597	yellow	12	133,362,610	Body	N_Shore	GOLGA3	0.201	0.007	0.894	0.215
cg04570228	yellow	13	42,575,823		OpenSea		0.201	-0.001	0.455	0.909
cg08210474	yellow	8	97,657,381	TSS200	Island	PGCP	0.201	0.001	0.020	0.648
cg01785605	yellow	6	901,284		OpenSea		0.201	0.003	0.241	0.739

cg15536230	yellow	21	44,985,092	Body	Island	HSF2BP	0.201	0.001	0.936	0.833
cg03110300	yellow	18	56,976,186	Body	S_Shore	CPLX4	0.201	0.006	0.205	0.595
cg18016181	yellow	9	117,608	1stExon	Island	FOXD4	0.201	0.000	0.037	0.904
cg17422460	yellow	6	31,632,171	Body	N_Shore	BAT4	0.200	-0.002	0.043	0.399
cg08331138	yellow	17	5,001,281		S_Shore		0.200	0.003	0.041	0.283
cg07045089	yellow	1	3,620,218	Body	N_Shelf	TP73	0.200	0.000	0.125	0.969
cg17809471	yellow	22	37,882,605	TSS200	OpenSea	MFNG	0.200	0.003	0.032	0.034
cg10289177	yellow	7	150,748,069	Body	Island	ACCN3	0.200	-0.008	0.273	0.317
cg15472092	yellow	7	150,653,079	TSS200	Island	KCNH2	0.200	-0.002	0.022	0.444
cg08230658	yellow	16	58,033,710	5'UTR	N_Shore	ZNF319	0.200	-0.001	0.042	0.629
cg25427880	yellow	10	102,322,128		Island		0.200	0.015	0.133	0.103
cg22541001	yellow	4	42,402,470	Body	S_Shore	SHISA3	0.200	-0.006	0.426	0.537
cg08885409	yellow	17	55,969,571	5'UTR	OpenSea	CUEDC1	0.199	0.001	0.631	0.895
cg11841239	yellow	1	172,419,269	Body	OpenSea	C1orf105	0.199	0.018	0.205	0.156
cg17279912	yellow	13	111,267,790	TSS1500	Island	CARKD	0.199	-0.003	0.031	0.286
cg26576206	yellow	19	1,064,938	Body	Island	ABCA7	0.199	0.003	0.021	0.195
cg14911204	yellow	22	41,808,989		N_Shore		0.199	-0.002	0.364	0.783
cg07727170	yellow	15	70,458,214		OpenSea		0.199	-0.006	0.256	0.216
cg19083977	yellow	1	1,712,885		N_Shore		0.199	-0.010	0.844	0.199
cg27183726	yellow	19	34,112,306	TSS1500	Island	CHST8	0.199	0.019	0.165	0.056
cg07746943	yellow	3	238,615	TSS200	Island	CHL1	0.199	-0.002	0.016	0.220
cg10257610	yellow	10	104,953,200	TSS200	Island	NT5C2	0.199	-0.003	0.031	0.261
cg10215817	yellow	1	46,806,136	TSS1500	N_Shore	NSUN4	0.198	0.000	0.016	0.793
cg26451769	yellow	17	80,995,546	Body	N_Shore	B3GNTL1	0.198	0.003	0.760	0.755
cg27142059	yellow	6	30,139,996	Body	Island	TRIM15	0.198	0.004	0.102	0.484
cg00110039	yellow	22	17,638,932	TSS1500	N_Shore	CECR4	0.198	0.000	0.933	0.941
cg09053907	yellow	4	75,720,055	TSS200	S_Shore	BTC	0.198	-0.003	0.189	0.817
cg11136562	yellow	5	141,061,285	5'UTR	OpenSea	ARAP3	0.198	-0.001	0.311	0.875
cg27584097	yellow	19	38,979,665	Body	S_Shelf	RYR1	0.197	0.006	0.769	0.407
cg14261309	yellow	1	53,164,287	TSS1500	S_Shore	C1orf163	0.197	-0.009	0.151	0.308
cg22129364	yellow	1	53,067,894	TSS200	Island	GPX7	0.197	-0.006	0.048	0.087
cg11245384	yellow	20	1,974,646	5'UTR	OpenSea	PDYN	0.197	-0.004	0.394	0.492
cg04179940	yellow	20	33,871,836	Body	N_Shore	EIF6	0.197	0.002	0.045	0.591
cg15742515	yellow	8	1,402,185		N_Shelf		0.197	0.015	0.442	0.012
cg07242901	yellow	12	7,047,503	Body	S_Shore	ATN1	0.196	0.004	0.148	0.573
cg17965926	yellow	8	140,716,970		Island		0.196	0.002	0.021	0.232
cg20395892	yellow	12	66,582,780	TSS200	Island	IRAK3	0.196	0.003	0.133	0.538
cg16727519	yellow	1	226,252,141	Body	S_Shore	LOC440926	0.196	-0.006	0.518	0.438
cg24221541	yellow	19	46,974,662	1stExon	Island	PNMAL1	0.196	0.001	0.021	0.269
cg27490993	yellow	6	28,984,269		N_Shore		0.196	0.009	0.209	0.408
cg24855075	yellow	6	35,773,223	1stExon	S_Shore	LHFPL5	0.196	-0.002	0.039	0.278
cg04550697	yellow	2	73,053,339	TSS200	S_Shore	EXOC6B	0.195	-0.001	0.074	0.846
cg22173837	yellow	11	112,831,728	TSS1500	N_Shore	NCAM1	0.195	-0.003	0.174	0.674
cg26038751	yellow	10	82,214,189	5'UTR	Island	TSPAN14	0.195	0.002	0.044	0.542
cg03550508	yellow	22	24,951,766	TSS1500	Island	C22orf13	0.195	0.000	0.018	0.585
cg07581460	yellow	15	56,757,517	TSS200	S_Shore	MNS1	0.195	0.000	0.023	0.867
cg24741299	yellow	15	74,987,869	5'UTR	N_Shore	EDC3	0.195	0.001	0.038	0.684
cg11291745	yellow	15	52,587,354	Body	Island	MYO5C	0.195	0.010	0.074	0.043
cg14538806	yellow	9	130,308,075	Body	OpenSea	FAM129B	0.194	0.000	0.047	0.889
cg16379704	yellow	7	8,302,251	TSS200	Island	ICA1	0.194	0.006	0.212	0.354
cg05132782	yellow	7	150,126,392		OpenSea		0.194	-0.005	0.303	0.452
cg09636313	yellow	16	89,070,025		N_Shore		0.194	0.027	0.781	0.036
cg09558414	yellow	2	153,032,159	1stExon	Island	STAM2	0.194	0.001	0.025	0.703
cg06060835	yellow	6	31,913,809	1stExon	OpenSea	CFB	0.194	0.022	0.409	0.131
cg26160573	yellow	2	131,113,015	TSS1500	N_Shore	PTPN18	0.194	0.008	0.195	0.270
cg10216872	yellow	5	101,552,551		OpenSea		0.194	-0.004	0.566	0.744
cg21146037	yellow	8	126,450,475	3'UTR	OpenSea	TRIB1	0.193	0.003	0.894	0.522
cg17903548	yellow	8	142,401,534		Island		0.193	0.000	0.597	0.984
cg09452293	yellow	16	71,392,838	Body	S_Shore	CALB2	0.193	0.012	0.150	0.062
cg24873508	yellow	2	219,271,892		S_Shore		0.193	-0.001	0.022	0.466
cg05684501	yellow	22	37,415,824	5'UTR	Island	MPST	0.193	0.002	0.017	0.084
cg23020402	yellow	6	24,666,573	TSS1500	Island	ACOT13	0.193	0.001	0.019	0.463
cg21283680	yellow	3	15,384,005	TSS1500	OpenSea	SH3BP5	0.193	0.009	0.315	0.332
cg21908488	yellow	17	17,991,580	Body	Island	DRG2	0.193	-0.003	0.157	0.644
cg21506059	yellow	17	65,242,309	TSS1500	Island	HELZ	0.193	0.001	0.022	0.576
cg20797674	yellow	1	35,656,325	Body	N_Shore	SFPQ	0.192	0.002	0.022	0.136
cg03851591	yellow	2	208,634,204	TSS200	Island	FZD5	0.192	0.000	0.027	0.868

cg22891868	yellow	2	223,536,069	TSS1500	N_Shore	MOGAT1	0.192	-0.002	0.203	0.746
cg08701566	yellow	15	78,911,099	Body	N_Shore	CHRNA3	0.192	0.005	0.176	0.715
cg06639320	yellow	2	106,015,739	TSS200	Island	FHL2	0.192	0.001	0.054	0.773
cg23281711	yellow	19	1,354,468	TSS1500	Island	MUM1	0.192	-0.002	0.098	0.830
cg04279411	yellow	1	230,645,569		OpenSea		0.192	0.010	0.421	0.204
cg05584361	yellow	11	1,481,525	Body	Island	BRSK2	0.192	-0.012	0.509	0.524
cg16689800	yellow	10	122,216,376	TSS200	Island	PPAPDC1A	0.192	0.000	0.027	0.860
cg21799053	yellow	8	22,856,801	Body	Island	RHOBTB2	0.192	0.001	0.088	0.872
cg25147026	yellow	1	186,650,441	TSS1500	S_Shore	PTGS2	0.191	-0.008	0.259	0.490
cg16714752	yellow	4	39,368,184	TSS200	Island	RFC1	0.191	0.005	0.095	0.626
cg05025332	yellow	2	65,165,160		OpenSea		0.191	0.001	0.821	0.888
cg04919596	yellow	1	996,054		S_Shore		0.191	0.014	0.215	0.187
cg08403345	yellow	19	496,425	TSS200	Island	MADCAM1	0.190	-0.003	0.079	0.645
cg01496491	yellow	17	36,508,647	1stExon	Island	SOC57	0.190	-0.001	0.045	0.453
cg19446165	yellow	17	185,756	5'UTR	S_Shore	RPH3AL	0.190	0.007	0.271	0.436
cg07896108	yellow	12	99,037,846	Body	N_Shore	IKBP	0.190	0.002	0.035	0.520
cg17773654	yellow	19	5,136,588	Body	S_Shore	KDM4B	0.189	0.011	0.811	0.180
cg22238707	yellow	1	28,833,064	Body	OpenSea	SNHG3-RCC1	0.189	0.004	0.025	0.132
cg20559385	yellow	6	106,049,591		OpenSea		0.189	0.016	0.448	0.091
cg21446511	yellow	2	179,316,481	TSS1500	Island	PRKRA	0.189	-0.001	0.076	0.890
cg11764966	yellow	20	44,258,197	TSS200	OpenSea	WFDC10A	0.189	-0.005	0.079	0.332
cg20019410	yellow	2	207,939,050		OpenSea		0.188	-0.009	0.247	0.313
cg09246253	yellow	7	5,643,021	Body	Island	FSCN1	0.188	0.017	0.830	0.028
cg24953233	yellow	5	892,707	TSS1500	Island	TRIP13	0.188	0.000	0.013	0.492
cg21062059	yellow	19	54,677,144	3'UTR	OpenSea	MBOAT7	0.188	0.005	0.270	0.600
cg15184495	yellow	20	44,880,525	TSS200	S_Shore	CDH22	0.188	-0.002	0.411	0.821
cg23052220	yellow	17	32,912,081	Body	S_Shelf	TMEM132E	0.188	0.011	0.206	0.167
cg26697065	yellow	16	30,456,379	1stExon	N_Shore	SEPHS2	0.188	0.001	0.972	0.667
cg02683846	yellow	6	36,238,178	5'UTR	OpenSea	PNPLA1	0.188	0.002	0.252	0.668
cg05284873	yellow	19	6,709,822	Body	N_Shore	C3	0.188	0.009	0.216	0.304
cg26983744	yellow	16	89,913,833	Body	N_Shelf	SPIRE2	0.187	0.013	0.505	0.167
cg24417499	yellow	1	33,351,653	TSS1500	N_Shore	HPCA	0.187	0.004	0.227	0.683
cg23478547	yellow	11	69,259,265		S_Shore		0.187	-0.014	0.346	0.687
cg03520683	yellow	13	95,355,814		N_Shore		0.187	-0.004	0.021	0.129
cg02999755	yellow	11	102,963,244	TSS1500	S_Shore	DCUN1D5	0.186	0.001	0.027	0.609
cg04741211	yellow	2	42,399,049	Body	S_Shelf	EML4	0.186	-0.003	0.175	0.802
cg22865562	yellow	11	17,738,031		N_Shelf		0.186	0.009	0.307	0.175
cg02666302	yellow	5	180,469,248	5'UTR	OpenSea	BTNL9	0.186	0.009	0.378	0.392
cg09249404	yellow	3	185,001,026		S_Shore		0.186	0.005	0.061	0.402
cg26736099	yellow	17	61,989,275	TSS1500	OpenSea	CSHL1	0.186	0.002	0.187	0.785
cg20044211	yellow	6	32,185,995	Body	OpenSea	NOTCH4	0.185	0.006	0.647	0.396
cg24848787	yellow	15	58,844,359	Body	OpenSea	LIPC	0.185	0.005	0.187	0.525
cg10090650	yellow	6	24,357,732	1stExon	Island	KAAG1	0.185	0.005	0.337	0.613
cg19836549	yellow	7	51,798,400		OpenSea		0.185	0.003	0.323	0.687
cg23458186	yellow	19	3,935,938	Body	N_Shore	ITGB1BP3	0.185	0.007	0.875	0.411
cg00470192	yellow	16	28,953,867		N_Shelf		0.185	-0.001	0.974	0.630
cg16038738	yellow	1	109,103,731	Body	S_Shore	FAM102B	0.184	0.001	0.043	0.742
cg00713275	yellow	16	30,074,702	TSS1500	N_Shore	ALDOA	0.184	0.004	0.823	0.598
cg01011898	yellow	2	9,283,292		OpenSea		0.184	0.012	0.098	0.297
cg20743708	yellow	11	4,726,105		OpenSea		0.184	-0.006	0.249	0.417
cg14727987	yellow	5	72,485,634		OpenSea		0.183	0.001	0.223	0.905
cg05380503	yellow	7	43,151,986	TSS1500	N_Shore	HECW1	0.183	0.003	0.066	0.549
cg22402007	yellow	9	87,282,823	TSS1500	N_Shore	NTRK2	0.183	-0.002	0.131	0.840
cg01270709	yellow	11	57,519,364	TSS200	N_Shore	BTBD18	0.182	0.008	0.181	0.266
cg16591228	yellow	5	149,792,515	TSS200	OpenSea	CD74	0.182	-0.001	0.055	0.753
cg11363229	yellow	3	196,065,320	TSS200	OpenSea	TM4SF19	0.182	-0.003	0.955	0.448
cg09213574	yellow	7	72,935,225	Body	N_Shore	BAZ1B	0.182	-0.002	0.027	0.250
cg13727629	yellow	1	2,232,469	Body	Island	SKI	0.181	-0.008	0.303	0.541
cg17975245	yellow	1	20,959,890	TSS200	N_Shore	PINK1	0.181	0.002	0.034	0.271
cg01100796	yellow	1	53,662,040	TSS200	N_Shore	CPT2	0.181	0.000	0.045	0.939
cg18396660	yellow	6	68,599,196		OpenSea		0.181	-0.001	0.473	0.828
cg10667201	yellow	13	40,230,022	Body	Island	COG6	0.181	0.004	0.024	0.189
cg11950292	yellow	19	18,447,615		N_Shelf		0.181	0.015	0.734	0.144
cg07064711	yellow	8	117,950,335	TSS200	N_Shore	C8orf85	0.181	0.005	0.058	0.487
cg08688548	yellow	15	83,317,398	TSS1500	Island	CPEB1	0.181	0.026	0.343	0.075
cg18009484	yellow	11	131,630,593	Body	OpenSea	NTM	0.180	0.013	0.119	0.271
cg13254203	yellow	1	35,585,672		N_Shore		0.180	-0.002	0.950	0.578

cg08125503	yellow	17	16,119,344	TSS1500	Island	NCOR1	0.180	-0.005	0.190	0.576
cg06814814	yellow	22	29,730,282	Body	OpenSea	AP1B1	0.179	-0.010	0.897	0.118
cg26069230	yellow	17	29,250,073	Body	S_Shore	ADAP2	0.179	-0.001	0.030	0.727
cg08737296	yellow	20	61,808,691	TSS1500	Island	MIR124-3	0.179	0.001	0.034	0.615
cg16805068	yellow	20	31,410,931	5'UTR	S_Shelf	MAPRE1	0.179	0.003	0.532	0.794
cg10098541	yellow	3	122,785,650	TSS1500	N_Shore	PDIA5	0.179	0.003	0.160	0.676
cg01406341	yellow	2	220,042,724	TSS1500	Island	FAM134A	0.179	0.002	0.035	0.364
cg08846852	yellow	3	49,314,814	3'UTR	Island	USP4	0.178	0.001	0.032	0.812
cg23815825	yellow	11	1,929,483		OpenSea		0.178	-0.006	0.250	0.335
cg26153045	yellow	7	73,441,834	TSS1500	OpenSea	ELN	0.178	0.010	0.254	0.216
cg17780657	yellow	19	45,971,055	TSS200	Island	FOSB	0.178	0.000	0.014	0.719
cg13237923	yellow	3	47,559,074		S_Shelf		0.178	0.001	0.958	0.655
cg23820945	yellow	1	24,646,022	1stExon	N_Shelf	GRHL3	0.178	0.000	0.062	0.955
cg09031790	yellow	16	24,129,948	Body	OpenSea	PRKCB	0.177	0.004	0.257	0.643
cg07161721	yellow	8	72,459,953		Island		0.177	0.000	0.020	0.952
cg14472315	yellow	3	119,813,523	TSS1500	Island	GSK3B	0.177	-0.001	0.024	0.700
cg24660009	yellow	6	28,458,175		S_Shore		0.177	0.002	0.023	0.151
cg01407244	yellow	8	22,961,007	Body	S_Shore	TNFRSF10C	0.177	-0.002	0.045	0.375
cg00971804	yellow	1	55,352,701	1stExon	Island	DHCR24	0.177	-0.001	0.022	0.409
cg15389338	yellow	11	7,535,915	5'UTR	S_Shore	PPFIBP2	0.177	0.009	0.120	0.290
cg24141663	yellow	1	203,095,747	TSS1500	N_Shore	ADORA1	0.177	0.003	0.133	0.562
cg17826986	yellow	1	153,919,374	TSS1500	S_Shore	DENND4B	0.176	-0.009	0.172	0.133
cg03571320	yellow	9	139,582,389	TSS1500	Island	AGPAT2	0.176	0.003	0.090	0.500
cg03825607	yellow	10	65,216,488	Body	OpenSea	JMJD1C	0.176	0.006	0.201	0.387
cg01382110	yellow	18	4,454,189		Island		0.175	-0.002	0.022	0.271
cg15431934	yellow	15	40,759,208	3'UTR	N_Shelf	BAHD1	0.175	-0.002	0.383	0.789
cg10134425	yellow	4	153,934,955		OpenSea		0.175	0.005	0.505	0.508
cg12041100	yellow	17	38,337,188	5'UTR	S_Shelf	RAPGEFL1	0.175	-0.004	0.659	0.811
cg07263984	yellow	5	115,177,777	TSS1500	Island	ATG12	0.174	0.002	0.016	0.149
cg20831777	yellow	4	55,100,918	5'UTR	S_Shore	PDGFRA	0.174	0.007	0.197	0.433
cg07638044	yellow	19	54,137,365	Body	OpenSea	DPRX	0.174	0.002	0.966	0.466
cg14637027	yellow	20	36,033,352	3'UTR	N_Shore	SRC	0.174	-0.005	0.931	0.568
cg12031840	yellow	11	36,311,375	TSS1500	OpenSea	COMMMD9	0.174	-0.005	0.029	0.121
cg18008675	yellow	2	173,832,936	Body	OpenSea	RAPGEF4	0.174	0.003	0.454	0.797
cg05898591	yellow	5	174,805,715		OpenSea		0.173	-0.002	0.151	0.844
cg27079563	yellow	14	65,570,253	TSS1500	S_Shore	MAX	0.173	0.001	0.033	0.658
cg24153763	yellow	6	42,928,144	TSS1500	N_Shore	GNMT	0.173	-0.006	0.094	0.368
cg01681367	yellow	16	29,676,071	Body	Island	SPN	0.172	0.002	0.938	0.699
cg02086310	yellow	20	25,039,719	TSS200	S_Shore	ACSS1	0.172	0.005	0.209	0.719
cg03452168	yellow	11	36,615,847	5'UTR	OpenSea	RAG2	0.172	-0.001	0.044	0.798
cg03529003	yellow	1	11,994,281	TSS1500	N_Shore	PLOD1	0.172	-0.001	0.047	0.847
cg17598259	yellow	10	75,572,405	3'UTR	S_Shore	CAMK2G	0.172	0.000	0.980	0.900
cg24154937	yellow	12	5,153,711	1stExon	Island	KCNA5	0.171	-0.009	0.234	0.281
cg02937873	yellow	19	36,595,986	3'UTR	OpenSea	WDR62	0.171	0.002	0.879	0.763
cg22625220	yellow	17	16,119,441	TSS1500	Island	NCOR1	0.171	-0.002	0.106	0.790
cg05939380	yellow	15	90,030,316	Body	Island	RHCG	0.171	0.013	0.780	0.336
cg24945657	yellow	17	43,044,484	Body	Island	C1QL1	0.171	-0.001	0.018	0.457
cg24606791	yellow	12	43,946,493	TSS1500	S_Shore	ADAMTS20	0.171	-0.001	0.206	0.954
cg10442355	yellow	8	61,326,412		OpenSea		0.170	-0.003	0.180	0.675
cg11868041	yellow	20	55,503,363		S_Shelf		0.170	0.005	0.161	0.646
cg05096637	yellow	2	121,846,490		OpenSea		0.169	0.000	0.247	0.941
cg02593205	yellow	12	26,348,343	5'UTR	Island	SSPN	0.169	-0.002	0.017	0.103
cg24531520	yellow	7	151,217,947	TSS1500	S_Shore	RHEB	0.169	0.001	0.165	0.940
cg00978102	yellow	6	32,375,231	TSS1500	OpenSea	BTNL2	0.169	0.019	0.556	0.228
cg03604763	yellow	1	85,527,490	TSS1500	OpenSea	WDR63	0.168	-0.003	0.267	0.766
cg00697672	yellow	16	89,151,343		OpenSea		0.168	0.009	0.360	0.534
cg03270929	yellow	3	46,735,315	TSS200	Island	ALS2CL	0.168	0.000	0.015	0.788
cg04227985	yellow	8	9,009,105	TSS1500	Island	PPP1R3B	0.168	-0.010	0.048	0.193
cg16175862	yellow	7	6,676,630		Island		0.168	0.000	0.018	0.770
cg21602179	yellow	17	71,189,219	1stExon	Island	COG1	0.168	-0.001	0.017	0.398
cg13086983	yellow	1	21,664,810	Body	OpenSea	ECE1	0.168	0.008	0.348	0.445
cg25500727	yellow	11	66,059,129	TSS1500	N_Shore	TMEM151A	0.168	0.003	0.100	0.638
cg12551983	yellow	1	3,720,588		OpenSea		0.168	0.006	0.962	0.058
cg19704238	yellow	10	85,900,022	5'UTR	S_Shore	GHITM	0.168	0.000	0.102	0.988
cg22368036	yellow	1	37,918,006		OpenSea		0.167	-0.007	0.405	0.404
cg05344101	yellow	1	145,096,236	TSS200	N_Shore	SEC22B	0.167	0.000	0.021	0.660
cg01841651	yellow	7	105,672,016	Body	OpenSea	FLJ23834	0.167	-0.002	0.022	0.072

cg03214052	yellow	1	54,943,488	S_Shelf		0.167	-0.007	0.859	0.369	
cg15135286	yellow	2	33,359,281	Body	OpenSea	LTBP1	0.167	0.001	0.249	0.865
cg12428727	yellow	11	2,234,665		OpenSea		0.166	0.022	0.444	0.008
cg17894293	yellow	20	32,436,418	Body	OpenSea	CHMP4B	0.166	0.005	0.639	0.590
cg16215387	yellow	7	1,407,471		N_Shore		0.165	-0.001	0.050	0.781
cg11833244	yellow	12	51,592,241	Body	OpenSea	POU6F1	0.165	0.003	0.658	0.664
cg09487167	yellow	14	55,518,661	5'UTR	Island	MAPK11P1L	0.165	0.000	0.045	0.974
cg16180920	yellow	11	30,004,666		OpenSea		0.164	0.002	0.900	0.753
cg10806510	yellow	12	56,659,379	TSS1500	N_Shore	COQ10A	0.164	0.000	0.965	0.882
cg16518708	yellow	16	4,385,298	Body	OpenSea	GLIS2	0.164	0.011	0.770	0.246
cg02780787	yellow	17	80,328,607		N_Shore		0.163	0.009	0.217	0.147
cg07444907	yellow	5	158,690,182	5'UTR	Island	UBLCP1	0.163	-0.002	0.020	0.068
cg14274249	yellow	6	150,922,227	5'UTR	S_Shore	PLEKHG1	0.163	0.003	0.062	0.599
cg27214652	yellow	14	64,009,971	1stExon	Island	PPP2R5E	0.162	-0.001	0.037	0.719
cg25017250	yellow	19	45,445,693	Body	OpenSea	APOC4	0.162	0.004	0.819	0.639
cg03357664	yellow	1	29,446,693	3'UTR	N_Shore	TMEM200B	0.161	0.005	0.391	0.662
cg23616741	yellow	7	44,105,434	TSS1500	S_Shore	PGAM2	0.161	0.014	0.177	0.160
cg14499563	yellow	13	37,005,035	TSS1500	N_Shore	CCNA1	0.161	-0.021	0.170	0.102
cg11852212	yellow	19	3,118,058	Body	N_Shelf	GNA11	0.161	-0.008	0.801	0.329
cg11611950	yellow	6	24,667,276	5'UTR	Island	ACOT13	0.160	0.000	0.016	0.801
cg13277179	yellow	16	30,759,310	TSS1500	N_Shore	PHKG2	0.159	-0.002	0.056	0.667
cg06844864	yellow	12	57,850,192	Body	N_Shelf	INHBE	0.159	-0.003	0.126	0.436
cg02671204	yellow	16	84,076,834	TSS1500	OpenSea	SLC38A8	0.158	0.021	0.564	0.044
cg23137597	yellow	2	96,874,816	TSS1500	Island	STARD7	0.158	0.000	0.014	0.712
cg01413790	yellow	19	35,330,180		Island		0.158	0.006	0.225	0.495
cg12243452	yellow	17	29,719,290	Body	Island	RAB11FIP4	0.157	-0.002	0.073	0.670
cg04752812	yellow	16	90,014,316	TSS1500	Island	DEF8	0.157	-0.009	0.379	0.409
cg09036531	yellow	10	96,991,505		OpenSea		0.156	-0.002	0.824	0.891
cg10556682	yellow	19	19,007,505	TSS1500	Island	GDF1	0.156	-0.005	0.046	0.065
cg24087796	yellow	17	46,871,873	Body	OpenSea	TTL6	0.156	0.018	0.530	0.062
cg16546703	yellow	5	149,682,795	TSS1500	S_Shore	ARSI	0.156	-0.008	0.116	0.201
cg03921696	yellow	3	156,848,137		OpenSea		0.156	0.001	0.319	0.931
cg09100017	yellow	11	1,929,491		OpenSea		0.155	-0.002	0.164	0.781
cg03930004	yellow	7	150,778,791	TSS1500	Island	FASTK	0.155	-0.002	0.248	0.830
cg04779161	yellow	19	46,286,064	TSS1500	N_Shelf	DMPK	0.154	0.005	0.353	0.616
cg10888348	yellow	7	4,763,137	Body	N_Shore	FOXK1	0.154	-0.005	0.355	0.601
cg17450815	yellow	12	53,584,001	3'UTR	OpenSea	ZNF740	0.154	0.001	0.186	0.814
cg06110286	yellow	8	145,728,587	TSS1500	N_Shore	GPT	0.154	0.004	0.223	0.607
cg09865476	yellow	5	154,317,886	TSS200	Island	GEMIN5	0.153	0.000	0.026	0.939
cg15905471	yellow	1	27,986,807		Island		0.153	0.005	0.123	0.447
cg11176135	yellow	14	74,705,942	TSS1500	N_Shore	VSX2	0.153	0.000	0.229	0.998
cg20366603	yellow	17	7,218,821	TSS200	Island	GPS2	0.153	0.000	0.035	0.939
cg05906871	yellow	10	97,416,826	TSS1500	S_Shore	ALDH18A1	0.152	0.003	0.035	0.112
cg03536375	yellow	18	18,821,328	TSS1500	N_Shore	GREB1L	0.151	-0.004	0.054	0.166
cg05972000	yellow	8	67,525,501	TSS200	Island	MYBL1	0.151	0.000	0.018	0.860
cg02604939	yellow	3	50,330,083	TSS200	Island	IFRD2	0.151	0.001	0.043	0.865
cg07440507	yellow	16	51,685,042		OpenSea		0.150	0.001	0.366	0.840
cg27563716	yellow	4	184,365,897	1stExon	Island	CDKN2AIP	0.150	-0.004	0.037	0.252
cg07539200	yellow	8	6,263,268	TSS1500	N_Shore	MCPH1	0.149	0.005	0.039	0.176
cg22871604	yellow	1	26,146,196	TSS200	Island	FAM54B	0.149	-0.001	0.049	0.744
cg02585598	yellow	6	27,125,472		OpenSea		0.149	0.000	0.032	0.978
cg04958872	yellow	10	102,241,820	Body	N_Shore	WNT8B	0.149	-0.001	0.060	0.761
cg10700718	yellow	8	1,992,719	TSS1500	OpenSea	MYOM2	0.148	0.001	0.337	0.809
cg01121022	yellow	14	104,338,788		OpenSea		0.148	-0.005	0.393	0.666
cg05299342	yellow	2	225,307,672		S_Shore		0.148	-0.006	0.152	0.315
cg13423759	yellow	1	37,937,403		N_Shelf		0.147	0.001	0.160	0.939
cg15890794	yellow	18	12,258,991	Body	S_Shelf	CIDEA	0.146	0.000	0.415	0.967
cg11807040	yellow	13	51,568,067		OpenSea		0.146	0.011	0.347	0.239
cg26413192	yellow	10	80,076,484		OpenSea		0.146	0.004	0.432	0.631
cg21386647	yellow	3	9,289,893	Body	OpenSea	SRGAP3	0.146	0.006	0.174	0.451
cg10723012	yellow	17	79,995,434	Body	Island	DCXR	0.145	-0.001	0.017	0.458
cg05598363	yellow	5	139,554,307	TSS1500	N_Shore	C5orf32	0.145	0.000	0.115	0.922
cg21289919	yellow	19	36,164,078	Body	Island	UPK1A	0.145	0.000	0.153	0.987
cg19727827	yellow	1	10,701,900	Body	N_Shore	CASZ1	0.145	0.003	0.563	0.585
cg23627301	yellow	14	32,673,368		S_Shore		0.145	0.003	0.062	0.650
cg04221606	yellow	6	151,646,552	TSS200	N_Shore	AKAP12	0.145	0.007	0.058	0.361
cg01068259	yellow	12	121,975,344	Body	Island	KDM2B	0.144	0.001	0.022	0.619

cg25112312	yellow	4	10,459,352	TSS1500	Island	ZNF518B	0.144	0.002	0.081	0.733
cg09072216	yellow	13	36,919,344	5'UTR	N_Shore	SPG20	0.144	-0.010	0.285	0.186
cg09939854	yellow	10	87,993,296	Body	OpenSea	GRID1	0.143	0.008	0.932	0.398
cg27533604	yellow	3	119,013,584	1stExon	Island	CDGAP	0.142	-0.001	0.019	0.383
cg16472210	yellow	3	81,810,621	1stExon	Island	GBE1	0.142	-0.001	0.015	0.237
cg18689295	yellow	12	79,258,855	5'UTR	OpenSea	SYT1	0.142	0.004	0.516	0.620
cg12058391	yellow	8	63,951,472	1stExon	Island	GGH	0.142	0.000	0.014	0.959
cg14444710	yellow	16	2,587,080	TSS1500	N_Shore	PDPK1	0.141	0.001	0.947	0.753
cg17601785	yellow	5	71,475,111	Body	OpenSea	MAP1B	0.141	0.014	0.328	0.109
cg01809281	yellow	2	24,162,256	TSS1500	N_Shore	UBXN2A	0.140	0.002	0.239	0.884
cg27576785	yellow	1	17,476,212		S_Shore		0.140	0.004	0.146	0.672
cg04694619	yellow	2	242,127,759	TSS200	OpenSea	ANO7	0.140	0.006	0.247	0.307
cg07148197	yellow	11	122,855,292		Island		0.140	0.000	0.033	0.836
cg22522066	yellow	19	38,754,726	TSS1500	N_Shore	SPINT2	0.137	0.008	0.124	0.228
cg03388575	yellow	7	1,765,158	5'UTR	OpenSea	ELFN1	0.137	-0.002	0.094	0.711
cg22700854	yellow	17	79,859,932	TSS200	Island	NPB	0.136	-0.001	0.041	0.679
cg14878230	yellow	13	20,437,969	TSS200	Island	ZMYM5	0.133	0.000	0.018	0.961
cg14069214	yellow	12	120,933,194	TSS1500	N_Shore	DYNLL1	0.132	0.013	0.205	0.407
cg21724044	yellow	7	107,302,510	TSS1500	S_Shore	LOC286002	0.132	0.001	0.065	0.880
cg10172107	yellow	3	170,075,243	TSS1500	Island	SKIL	0.132	0.000	0.017	0.561
cg17543112	yellow	5	131,594,335	Body	S_Shore	PDLIM4	0.132	0.004	0.298	0.699
cg19230917	yellow	20	35,234,226	Body	Island	C20orf24	0.132	-0.001	0.024	0.388
cg13873733	yellow	4	83,352,560	Body	S_Shore	ENOPH1	0.131	0.002	0.067	0.466
cg14845880	yellow	13	40,230,217	Body	S_Shore	COG6	0.130	0.004	0.046	0.286
cg10186435	yellow	7	22,492,438	Body	OpenSea	MGC87042	0.128	-0.004	0.190	0.636
cg15820536	yellow	12	132,195,144	TSS1500	Island	SFRS8	0.126	-0.001	0.055	0.808
cg18511526	yellow	14	69,951,495	5'UTR	Island	FLJ44817	0.126	-0.001	0.018	0.472
cg27077985	yellow	19	6,658,310		N_Shore		0.125	0.003	0.953	0.412
cg04717837	yellow	11	3,225,004		Island		0.124	-0.001	0.049	0.819
cg25376310	yellow	6	158,018,910	Body	OpenSea	ZDHC14	0.123	0.001	0.334	0.825
cg27565966	yellow	16	28,943,198	TSS200	OpenSea	CD19	0.123	0.000	0.953	0.988
cg11501976	yellow	4	186,064,568	1stExon	Island	SLC25A4	0.122	-0.003	0.038	0.202
cg00971737	yellow	1	111,098,456		S_Shore		0.121	0.002	0.198	0.720
cg15246706	yellow	16	1,060,558		Island		0.119	0.015	0.379	0.182
cg08901867	yellow	17	46,871,042	Body	OpenSea	TTL6	0.118	-0.004	0.919	0.495
cg20621463	yellow	8	38,854,327	TSS200	Island	ADAM9	0.116	-0.001	0.014	0.173
cg26082757	yellow	14	24,701,981	1stExon	Island	GMPR2	0.115	0.001	0.028	0.333
cg14046043	yellow	2	233,561,679	TSS1500	N_Shore	GIGYF2	0.110	-0.005	0.198	0.574
cg07180219	yellow	12	132,885,389	Body	Island	GALNT9	0.109	0.002	0.371	0.736
cg02481307	yellow	4	1,858,883	TSS1500	Island	LETM1	0.106	0.003	0.110	0.522
cg01807921	yellow	1	28,652,362		N_Shelf		0.105	0.005	0.937	0.393
cg17372941	yellow	17	43,222,115		Island		0.104	0.001	0.183	0.935
cg01346101	yellow	20	32,700,235	TSS200	Island	EIF2S2	0.103	0.000	0.016	0.615
cg14753070	yellow	19	14,163,842	3'UTR	OpenSea	IL27RA	0.102	-0.007	0.878	0.449
cg13331550	yellow	1	151,118,416	5'UTR	Island	SEMA6C	0.100	-0.001	0.011	0.305
cg17135503	yellow	4	154,266,588	Body	S_Shore	MND1	0.100	0.001	0.022	0.287
cg09531019	yellow	5	159,321,157		OpenSea		0.098	-0.014	0.753	0.376
cg25957451	yellow	2	73,512,148		S_Shore		0.094	0.000	0.036	0.905
cg17115172	yellow	6	32,016,172	Body	OpenSea	TNXB	0.092	0.007	0.278	0.247
cg03321912	yellow	13	41,950,907	3'UTR	OpenSea	NAA16	0.092	0.001	0.543	0.954
cg08507571	yellow	7	7,575,543	TSS200	OpenSea	COL28A1	0.088	-0.001	0.126	0.864
cg07162000	yellow	10	1,774,873	Body	N_Shelf	ADARB2	0.087	-0.008	0.237	0.684
cg17404605	yellow	19	7,968,429	TSS1500	Island	MAP2K7	0.086	0.001	0.027	0.559
cg18358754	yellow	5	154,317,884	TSS200	Island	GEMIN5	0.078	0.000	0.013	0.747
cg08310008	yellow	12	52,836,644		OpenSea		0.078	-0.006	0.155	0.247
cg13944099	yellow	19	40,723,232	Body	Island	TTC9B	0.077	0.005	0.240	0.319
cg25584355	yellow	10	101,946,020	TSS1500	S_Shore	ERLIN1	0.075	0.000	0.045	0.866
cg03488097	yellow	2	3,184,399		Island		0.048	0.000	0.852	0.985

**CpGs in the saddlebrown module:**

CGs_FL_COPD	cols_FLall	CHR	MAPINFO	RefGene_Group	Relation_to_Isla	Gene	MM	Methylation_rAveBeta	P.Value	
cg13360866	saddlebrown		1	1,135,492	N_Shore		0.797	0.014	0.496	0.030
cg06444781	saddlebrown		12	121,416,510	Island	HNF1A	0.794	0.019	0.674	0.016
cg07123548	saddlebrown		19	40,896,163	S_Shore	HIPK4	0.785	0.003	0.483	0.695
cg26249503	saddlebrown		11	1,024,747	Island	MUC6	0.784	0.004	0.522	0.508
cg26201535	saddlebrown		11	409,934	S_Shelf	SIGIRR	0.783	0.012	0.632	0.086
cg02042712	saddlebrown		16	57,702,239	OpenSea	GPR97	0.783	0.004	0.578	0.447

cg26639820	saddlebrown	12	53,242,815	TSS200	OpenSea	KRT78	0.762	0.010	0.500	0.047
cg26881677	saddlebrown	8	144,821,641		N_Shore		0.761	0.009	0.601	0.274
cg09851245	saddlebrown	1	155,530,423	TSS1500	N_Shore	LOC645676	0.760	0.011	0.534	0.102
cg24007193	saddlebrown	19	6,467,410	3'UTR	S_Shelf	DENND1C	0.756	0.006	0.532	0.357
cg27586207	saddlebrown	1	153,666,106	3'UTR	S_Shelf	NPR1	0.755	0.004	0.600	0.576
cg12592409	saddlebrown	11	46,400,378	Body	N_Shelf	DGKZ	0.752	0.008	0.601	0.236
cg15623062	saddlebrown	6	31,747,133	Body	OpenSea	VARS	0.749	0.005	0.705	0.441
cg02259914	saddlebrown	20	3,693,221		OpenSea		0.747	0.012	0.675	0.075
cg10516117	saddlebrown	17	1,656,147	Body	N_Shore	SERPINF2	0.745	0.009	0.373	0.144
cg02781105	saddlebrown	17	72,321,276	TSS1500	N_Shore	KIF19	0.743	0.006	0.646	0.401
cg06211255	saddlebrown	11	65,153,842	TSS200	Island	FRMD8	0.742	0.003	0.712	0.707
cg04898719	saddlebrown	1	52,456,918	TSS1500	S_Shore	RAB3B	0.741	0.004	0.398	0.456
cg11210813	saddlebrown	20	35,972,385	TSS1500	N_Shore	SRC	0.738	0.016	0.527	0.062
cg10142668	saddlebrown	2	25,534,203	Body	OpenSea	DNMT3A	0.736	0.005	0.479	0.372
cg13463459	saddlebrown	19	695,549	TSS200	OpenSea	PRSSL1	0.733	0.003	0.683	0.731
cg05865746	saddlebrown	17	2,699,553	TSS200	OpenSea	RAP1GAP2	0.732	0.021	0.634	0.037
cg15213650	saddlebrown	19	4,984,614	5'UTR	N_Shore	KDM4B	0.728	0.013	0.765	0.033
cg14407987	saddlebrown	11	47,470,793	TSS200	OpenSea	RAPSN	0.727	0.012	0.498	0.068
cg05251269	saddlebrown	16	2,083,128	Body	N_Shelf	SLC9A3R2	0.726	0.009	0.582	0.100
cg13535852	saddlebrown	17	79,173,823	Body	N_Shelf	AZ11	0.722	0.000	0.793	0.965
cg07424400	saddlebrown	19	39,786,778	TSS200	OpenSea	IL29	0.721	-0.002	0.492	0.848
cg12462068	saddlebrown	8	144,557,331	Body	OpenSea	ZC3H3	0.720	-0.003	0.670	0.722
cg08814947	saddlebrown	19	51,529,999	Body	OpenSea	KLK11	0.720	0.005	0.567	0.533
cg00862443	saddlebrown	2	233,474,558	Body	S_Shelf	EFHD1	0.719	0.013	0.580	0.070
cg24811740	saddlebrown	8	145,729,537	5'UTR	N_Shore	GPT	0.718	-0.001	0.499	0.889
cg20014974	saddlebrown	1	8,271,918		N_Shore		0.718	0.007	0.540	0.164
cg25449930	saddlebrown	22	40,079,505	Body	N_Shelf	CACNA1I	0.718	0.012	0.538	0.076
cg15378486	saddlebrown	17	79,491,582		N_Shelf		0.717	0.007	0.431	0.292
cg02538891	saddlebrown	9	139,549,426		N_Shore		0.717	0.006	0.611	0.251
cg19975916	saddlebrown	12	123,215,308	TSS200	OpenSea	GPR81	0.715	0.005	0.336	0.507
cg27466709	saddlebrown	17	1,844,037	Body	S_Shelf	RTN4RL1	0.715	0.002	0.417	0.795
cg22207584	saddlebrown	2	85,416,793	Body	OpenSea	TCF7L1	0.715	0.013	0.584	0.091
cg10855531	saddlebrown	2	62,702,472		OpenSea		0.715	0.008	0.563	0.212
cg24764102	saddlebrown	19	1,677,149		S_Shore		0.714	0.004	0.551	0.633
cg13683374	saddlebrown	17	72,364,767	Body	N_Shelf	GPR142	0.713	0.004	0.451	0.559
cg04344476	saddlebrown	19	45,664,763	TSS1500	OpenSea	NKPD1	0.713	0.013	0.551	0.027
cg24143510	saddlebrown	19	685,252		S_Shelf		0.713	0.007	0.813	0.367
cg12261095	saddlebrown	19	7,764,345	Body	OpenSea	FCER2	0.711	0.018	0.298	0.042
cg09663494	saddlebrown	16	67,223,733	5'UTR	OpenSea	EXOC3L	0.706	0.005	0.693	0.628
cg20690737	saddlebrown	19	42,212,594	5'UTR	OpenSea	CEACAM5	0.705	0.003	0.301	0.645
cg24579930	saddlebrown	7	155,275,558		OpenSea		0.703	0.010	0.344	0.138
cg10969412	saddlebrown	12	121,411,269	TSS1500	OpenSea	C12orf27	0.700	0.004	0.405	0.484
cg20725135	saddlebrown	17	7,323,540	TSS200	S_Shelf	SPEM1	0.698	0.007	0.409	0.138
cg19697911	saddlebrown	2	241,080,057	5'UTR	OpenSea	OTOS	0.697	0.008	0.320	0.303
cg04956471	saddlebrown	2	234,328,457	Body	OpenSea	DGKD	0.697	0.018	0.620	0.012
cg08722591	saddlebrown	1	20,725,998		OpenSea		0.692	0.002	0.688	0.721
cg24506237	saddlebrown	20	62,684,484		S_Shelf		0.691	0.010	0.691	0.227
cg27195914	saddlebrown	16	66,907,460		S_Shore		0.691	0.002	0.614	0.757
cg13927135	saddlebrown	19	50,128,923	3'UTR	OpenSea	PRR12	0.691	0.003	0.519	0.640
cg08568649	saddlebrown	5	167,722,997	Body	S_Shelf	WWC1	0.690	0.009	0.391	0.248
cg13905081	saddlebrown	9	140,199,209		S_Shore		0.690	0.000	0.390	0.963
cg18226169	saddlebrown	19	12,998,764	TSS1500	S_Shore	KLF1	0.690	0.019	0.617	0.016
cg25485805	saddlebrown	3	13,246,862		S_Shore		0.690	0.005	0.837	0.257
cg09323847	saddlebrown	16	89,156,675		N_Shelf		0.687	0.008	0.436	0.226
cg05331340	saddlebrown	17	7,083,064	TSS200	OpenSea	ASGR1	0.686	0.002	0.581	0.773
cg02066343	saddlebrown	6	33,590,458	Body	S_Shore	ITPR3	0.686	0.001	0.498	0.896
cg07975680	saddlebrown	10	73,225,789	Body	OpenSea	CDH23	0.685	0.000	0.423	0.961
cg21735384	saddlebrown	17	79,304,613	TSS200	OpenSea	TMEM105	0.684	0.004	0.816	0.565
cg04872947	saddlebrown	1	17,846,815		OpenSea		0.684	-0.002	0.342	0.662
cg15163719	saddlebrown	6	32,052,212	Body	N_Shelf	TNXB	0.684	0.009	0.733	0.130
cg14102807	saddlebrown	16	28,943,677	Body	OpenSea	CD19	0.684	0.008	0.597	0.258
cg26169213	saddlebrown	15	74,704,423	Body	S_Shore	SEMA7A	0.683	-0.001	0.602	0.840
cg14644475	saddlebrown	5	167,792,594	Body	OpenSea	WWC1	0.683	0.000	0.479	0.951
cg14597908	saddlebrown	20	57,414,960	Body	N_Shore	GNASAS	0.683	-0.002	0.521	0.766
cg20665007	saddlebrown	19	10,793,130	Body	OpenSea	ILF3	0.683	0.009	0.713	0.147
cg21240420	saddlebrown	6	33,148,096	Body	OpenSea	COL11A2	0.682	0.004	0.690	0.563
cg05281126	saddlebrown	16	89,072,984		S_Shelf		0.681	0.004	0.754	0.645

cg17453359	saddlebrown	4	3,289,826		N_Shelf		0.680	0.008	0.609	0.253
cg22501942	saddlebrown	1	11,798,278	Body	S_Shelf	AGTRAP	0.680	0.000	0.576	0.938
cg11311352	saddlebrown	19	56,058,710		N_Shelf		0.679	0.005	0.550	0.474
cg15801751	saddlebrown	11	63,640,504	Body	OpenSea	MARK2	0.679	0.002	0.622	0.745
cg11723565	saddlebrown	19	55,990,708	5'UTR	N_Shore	ZNF628	0.677	0.008	0.799	0.145
cg21665747	saddlebrown	11	70,967,143		S_Shelf		0.677	0.011	0.441	0.114
cg24004685	saddlebrown	6	32,096,917	TSS1500	N_Shore	ATF6B	0.677	0.005	0.749	0.406
cg09850012	saddlebrown	1	3,690,494	5'UTR	S_Shore	LOC388588	0.677	0.003	0.684	0.605
cg15860624	saddlebrown	19	3,811,194	Body	Island	ZFR2	0.677	0.007	0.656	0.420
cg01877450	saddlebrown	7	97,915,802	Body	OpenSea	BRI3	0.675	0.018	0.453	0.006
cg13461178	saddlebrown	19	4,583,451		N_Shore		0.674	0.014	0.540	0.113
cg00251125	saddlebrown	1	228,395,450	TSS1500	OpenSea	OBSCN	0.673	-0.006	0.549	0.344
cg14101638	saddlebrown	12	121,416,612	1stExon	Island	HNF1A	0.673	0.008	0.551	0.259
cg01137949	saddlebrown	2	97,489,585	Body	OpenSea	CNNM3	0.673	0.001	0.672	0.907
cg24491369	saddlebrown	8	144,331,910	5'UTR	N_Shore	ZFP41	0.672	0.006	0.775	0.291
cg26014952	saddlebrown	3	196,366,994	5'UTR	S_Shore	LRRC33	0.672	0.003	0.510	0.788
cg26464439	saddlebrown	7	100,173,533	Body	S_Shore	LRCH4	0.671	0.018	0.744	0.005
cg03183004	saddlebrown	13	113,760,286	Body	N_Shore	F7	0.670	0.007	0.367	0.387
cg19760410	saddlebrown	1	154,300,117	TSS200	N_Shore	ATP8B2	0.669	-0.004	0.414	0.362
cg26122963	saddlebrown	7	100,198,944	TSS1500	N_Shelf	PCOLCE	0.668	0.008	0.455	0.196
cg14302224	saddlebrown	10	105,210,980	5'UTR	N_Shore	CALHM2	0.668	0.011	0.461	0.379
cg08229532	saddlebrown	3	133,381,417	TSS1500	S_Shore	TOPBP1	0.667	0.010	0.242	0.556
cg04216117	saddlebrown	11	737,965		S_Shore		0.667	0.005	0.589	0.660
cg24120597	saddlebrown	8	145,019,491	Body	S_Shore	PLEC1	0.667	0.007	0.429	0.234
cg08549216	saddlebrown	16	31,142,523	3'UTR	OpenSea	MYST1	0.666	0.016	0.553	0.016
cg14888908	saddlebrown	17	9,694,619	TSS200	OpenSea	DHRS7C	0.665	0.005	0.451	0.343
cg03758021	saddlebrown	20	62,208,140		N_Shore		0.665	0.007	0.685	0.420
cg03981535	saddlebrown	1	201,951,234	TSS1500	N_Shore	RNPEP	0.664	0.005	0.398	0.644
cg25873974	saddlebrown	10	134,944,901	3'UTR	S_Shore	GPR123	0.664	0.012	0.579	0.161
cg01222316	saddlebrown	17	77,387,915	5'UTR	OpenSea	HRNBP3	0.663	0.001	0.104	0.902
cg01331461	saddlebrown	21	45,345,152	TSS200	OpenSea	AGPAT3	0.663	0.009	0.452	0.079
cg02569108	saddlebrown	1	17,846,746		OpenSea		0.662	0.003	0.538	0.728
cg24654874	saddlebrown	6	31,895,491	1stExon	OpenSea	C2	0.661	0.006	0.362	0.462
cg09557991	saddlebrown	1	12,227,927	Body	S_Shore	TNFRSF1B	0.661	0.002	0.523	0.862
cg23387310	saddlebrown	19	18,093,867	Body	S_Shore	KCNN1	0.661	0.011	0.555	0.149
cg04431254	saddlebrown	22	46,684,772	Body	N_Shore	TTC38	0.661	0.010	0.717	0.118
cg21081369	saddlebrown	20	42,984,579	Body	OpenSea	HNF4A	0.660	0.011	0.600	0.065
cg18343556	saddlebrown	3	50,316,384	TSS200	S_Shore	C3orf45	0.660	0.005	0.462	0.379
cg01713348	saddlebrown	16	1,480,790	TSS1500	N_Shore	C16orf91	0.660	0.017	0.486	0.046
cg04021014	saddlebrown	22	49,502,115		S_Shelf		0.660	0.011	0.617	0.092
cg03499675	saddlebrown	6	31,744,339	Body	OpenSea	C6orf27	0.659	0.017	0.605	0.025
cg21336373	saddlebrown	17	3,807,312	Body	OpenSea	P2RX1	0.659	0.008	0.484	0.322
cg03296935	saddlebrown	3	195,946,851	Body	OpenSea	OSTalpha	0.659	-0.001	0.525	0.878
cg10987503	saddlebrown	7	922,825	Body	OpenSea	C7orf20	0.659	0.005	0.582	0.420
cg12250421	saddlebrown	19	49,054,962	TSS1500	OpenSea	SULT2B1	0.658	0.014	0.632	0.071
cg18702948	saddlebrown	17	77,009,122		S_Shelf		0.657	0.016	0.394	0.127
cg05779272	saddlebrown	9	33,168,018	TSS1500	S_Shore	B4GALT1	0.657	0.008	0.400	0.179
cg00917156	saddlebrown	16	57,831,841	Body	OpenSea	KIFC3	0.657	0.007	0.728	0.245
cg25595834	saddlebrown	15	59,156,878		N_Shore		0.656	0.005	0.579	0.429
cg08900798	saddlebrown	11	1,029,938	Body	S_Shore	MUC6	0.656	0.010	0.505	0.114
cg26134777	saddlebrown	11	65,411,895	Body	N_Shore	SIPA1	0.656	0.013	0.485	0.036
cg19501909	saddlebrown	22	38,001,083		N_Shelf		0.655	0.022	0.534	0.002
cg11426170	saddlebrown	4	186,961,160		OpenSea		0.655	-0.005	0.412	0.509
cg03723148	saddlebrown	17	43,921,863	Body	OpenSea	LOC1001289	0.654	0.006	0.447	0.300
cg05799962	saddlebrown	16	31,404,385	TSS1500	OpenSea	ITGAD	0.654	0.005	0.479	0.466
cg25433648	saddlebrown	1	153,588,782	5'UTR	OpenSea	S100A14	0.653	0.004	0.579	0.499
cg09247175	saddlebrown	1	12,203,571	3'UTR	OpenSea	TNFRSF8	0.652	0.003	0.636	0.650
cg24746594	saddlebrown	7	98,865,213		OpenSea		0.651	0.011	0.581	0.265
cg21222350	saddlebrown	9	127,602,615		OpenSea		0.651	0.006	0.682	0.394
cg22974915	saddlebrown	19	2,306,444	5'UTR	N_Shore	LINGO3	0.651	0.006	0.629	0.502
cg22880933	saddlebrown	19	42,407,471	Body	N_Shore	ARHGEF1	0.648	0.005	0.476	0.528
cg08495185	saddlebrown	20	35,274,655	TSS200	OpenSea	SLA2	0.648	0.008	0.471	0.148
cg17494927	saddlebrown	19	7,953,071	TSS1500	N_Shore	LRRC8E	0.648	0.011	0.414	0.067
cg20426768	saddlebrown	1	1,296,671		OpenSea		0.646	0.008	0.718	0.197
cg11624309	saddlebrown	19	42,381,214	1stExon	OpenSea	CD79A	0.646	0.012	0.507	0.076
cg05460329	saddlebrown	22	19,512,903	TSS200	S_Shore	CLDN5	0.645	-0.003	0.829	0.676
cg16356743	saddlebrown	16	87,253,148		S_Shore		0.645	0.009	0.740	0.154



cg02066681	saddlebrown	21	46,823,800	TSS1500	N_Shore	COL18A1	0.645	0.009	0.609	0.289
cg12485652	saddlebrown	10	54,215,089		OpenSea		0.645	0.011	0.377	0.045
cg10004897	saddlebrown	4	7,054,700	Body	N_Shore	TADA2B	0.645	0.013	0.416	0.101
cg08824961	saddlebrown	11	133,902,371	Body	OpenSea	LOC1001282	0.645	0.009	0.593	0.201
cg10165518	saddlebrown	16	28,510,740	3'UTR	S_Shore	IL27	0.643	0.010	0.709	0.231
cg23585168	saddlebrown	6	32,178,215	Body	OpenSea	NOTCH4	0.643	0.003	0.585	0.619
cg07844518	saddlebrown	16	85,387,556		OpenSea		0.643	0.000	0.631	0.955
cg16569063	saddlebrown	16	1,375,145	3'UTR	OpenSea	UBE2I	0.642	0.008	0.476	0.140
cg16593060	saddlebrown	19	30,363,016		N_Shore		0.642	0.006	0.433	0.320
cg26494542	saddlebrown	16	963,219	Body	Island	LMF1	0.641	0.006	0.485	0.414
cg02036494	saddlebrown	9	130,467,986	TSS1500	OpenSea	C9orf117	0.641	0.011	0.740	0.070
cg03066788	saddlebrown	8	28,175,285	5'UTR	OpenSea	PNOC	0.638	0.009	0.432	0.436
cg05953751	saddlebrown	17	80,054,291	Body	Island	FASN	0.638	0.015	0.566	0.042
cg24922045	saddlebrown	17	34,079,987	TSS200	OpenSea	GAS2L2	0.638	0.005	0.362	0.347
cg06976482	saddlebrown	10	134,913,812	Body	Island	GPR123	0.638	0.008	0.767	0.373
cg23304156	saddlebrown	19	16,466,421		Island		0.637	0.004	0.612	0.486
cg16348358	saddlebrown	1	32,731,477	5'UTR	OpenSea	LCK	0.637	0.000	0.762	0.978
cg02870744	saddlebrown	16	412,727		S_Shore		0.636	0.009	0.617	0.311
cg08207466	saddlebrown	19	42,818,481	Body	S_Shore	TMEM145	0.635	0.006	0.314	0.430
cg09960553	saddlebrown	16	87,840,374		OpenSea		0.635	0.012	0.203	0.096
cg13801193	saddlebrown	17	78,420,093		S_Shelf		0.634	0.013	0.733	0.055
cg12581549	saddlebrown	19	34,264,076	3'UTR	S_Shore	CHST8	0.634	0.001	0.604	0.864
cg16039660	saddlebrown	4	184,686,701		OpenSea		0.633	0.014	0.713	0.048
cg12062900	saddlebrown	19	5,564,075	Body	N_Shelf	PLAC2	0.633	0.012	0.334	0.061
cg15708776	saddlebrown	1	155,270,866	TSS200	OpenSea	PKLR	0.632	0.002	0.803	0.742
cg26804509	saddlebrown	12	131,193,958		OpenSea		0.629	0.006	0.739	0.249
cg11269159	saddlebrown	8	9,788,745		N_Shelf		0.629	0.017	0.451	0.047
cg04662056	saddlebrown	17	73,506,017	Body	OpenSea	CASKIN2	0.629	0.004	0.697	0.485
cg07809166	saddlebrown	16	28,267,346		N_Shelf		0.629	0.012	0.576	0.063
cg02619155	saddlebrown	17	40,341,556	3'UTR	OpenSea	GHDC	0.629	0.006	0.760	0.411
cg26472225	saddlebrown	6	31,832,238	Body	S_Shore	SLC44A4	0.627	0.001	0.448	0.920
cg12422704	saddlebrown	17	1,080,694	Body	N_Shore	ABR	0.627	0.003	0.564	0.708
cg09666532	saddlebrown	1	44,446,600	5'UTR	S_Shore	B4GALT2	0.626	0.006	0.494	0.460
cg26522157	saddlebrown	19	49,003,082	Body	Island	LMTK3	0.626	0.009	0.762	0.509
cg06258207	saddlebrown	10	134,834,224		N_Shore		0.625	0.010	0.843	0.056
cg16755067	saddlebrown	17	72,259,202		OpenSea		0.625	0.010	0.501	0.105
cg03688400	saddlebrown	22	40,061,578	Body	S_Shore	CACNA1I	0.625	0.002	0.526	0.778
cg00714377	saddlebrown	20	35,274,715	TSS200	OpenSea	SLA2	0.624	0.004	0.493	0.524
cg27665571	saddlebrown	16	70,624,354		OpenSea		0.623	0.001	0.343	0.913
cg21445366	saddlebrown	3	52,529,195	TSS200	OpenSea	STAB1	0.623	0.008	0.473	0.207
cg07060864	saddlebrown	16	89,061,522		OpenSea		0.623	0.001	0.403	0.884
cg14674856	saddlebrown	5	179,220,274	TSS1500	N_Shelf	LTC4S	0.623	0.004	0.679	0.560
cg12933521	saddlebrown	19	11,280,913	Body	Island	KANK2	0.623	0.007	0.621	0.374
cg20491785	saddlebrown	14	105,707,692	Body	OpenSea	BRF1	0.622	0.007	0.855	0.290
cg11245145	saddlebrown	6	33,289,280	Body	N_Shore	DAXX	0.622	0.012	0.610	0.106
cg00871055	saddlebrown	19	46,732,220	TSS1500	OpenSea	IGFL1	0.621	0.001	0.618	0.922
cg23073879	saddlebrown	7	70,595,462		N_Shore		0.621	0.007	0.374	0.273
cg10531711	saddlebrown	6	33,541,689	Body	S_Shelf	BAK1	0.621	0.004	0.874	0.434
cg20862097	saddlebrown	6	39,760,776	TSS200	S_Shore	DAAM2	0.621	0.024	0.189	0.082
cg18052778	saddlebrown	17	46,030,312	Body	OpenSea	PRR15L	0.621	0.009	0.483	0.131
cg20082779	saddlebrown	7	127,255,636	5'UTR	OpenSea	PAX4	0.620	0.000	0.587	0.972
cg24790912	saddlebrown	7	66,162,803		OpenSea		0.620	0.004	0.477	0.645
cg02878461	saddlebrown	19	36,524,454	TSS1500	S_Shore	CLIP3	0.619	0.012	0.694	0.150
cg21977766	saddlebrown	11	1,107,580		N_Shore		0.617	0.014	0.745	0.157
cg18810691	saddlebrown	7	151,130,479	Body	S_Shore	CRYGN	0.616	0.016	0.749	0.033
cg01049121	saddlebrown	9	140,055,180	Body	N_Shore	GRIN1	0.616	0.008	0.742	0.328
cg07123481	saddlebrown	1	1,101,431	TSS1500	S_Shore	MIR200B	0.616	0.007	0.588	0.362
cg12471051	saddlebrown	1	17,848,742		OpenSea		0.616	0.002	0.471	0.755
cg23283187	saddlebrown	4	8,593,019	TSS1500	N_Shore	CPZ	0.615	0.011	0.671	0.073
cg21764358	saddlebrown	19	47,508,119	3'UTR	S_Shore	GRLF1	0.615	0.000	0.387	0.946
cg01989857	saddlebrown	2	44,001,018	TSS200	OpenSea	DYNC2L1I	0.614	0.000	0.036	0.904
cg14678744	saddlebrown	13	113,987,030	Body	OpenSea	GRTP1	0.614	-0.002	0.866	0.778
cg11421702	saddlebrown	13	73,301,012	Body	N_Shore	C13orf37	0.613	0.002	0.037	0.509
cg27448161	saddlebrown	12	53,472,792	Body	N_Shore	SPRYD3	0.612	-0.003	0.377	0.753
cg10413945	saddlebrown	8	144,369,051		N_Shelf		0.611	0.011	0.612	0.074
cg12512337	saddlebrown	13	28,381,879		OpenSea		0.611	0.002	0.441	0.787
cg26710963	saddlebrown	21	40,757,899	Body	Island	WRB	0.611	-0.002	0.561	0.784

cg22096916	saddlebrown	20	49,458,824	Body	S_Shore	BCAS4	0.611	-0.002	0.858	0.705
cg18514949	saddlebrown	5	133,563,216	TSS1500	S_Shore	PPP2CA	0.610	0.009	0.350	0.170
cg27219182	saddlebrown	17	70,680,294	Body	OpenSea	SLC39A11	0.610	0.009	0.568	0.232
cg12988118	saddlebrown	6	31,744,524	Body	OpenSea	C6orf27	0.609	0.011	0.550	0.219
cg27651355	saddlebrown	19	14,608,092	TSS1500	S_Shore	GIPC1	0.609	0.014	0.472	0.061
cg18927901	saddlebrown	6	36,238,043	5'UTR	OpenSea	PNPLA1	0.608	0.012	0.656	0.087
cg03403901	saddlebrown	13	114,321,514	TSS200	OpenSea	GRK1	0.608	0.003	0.444	0.713
cg02760555	saddlebrown	12	113,826,879	3'UTR	OpenSea	PLBD2	0.607	0.007	0.719	0.359
cg04128945	saddlebrown	8	144,264,834		N_Shelf		0.607	0.015	0.457	0.011
cg08805037	saddlebrown	22	20,009,275	5'UTR	S_Shore	C22orf25	0.607	0.013	0.330	0.060
cg20199770	saddlebrown	2	70,186,181		N_Shelf		0.606	0.007	0.795	0.246
cg00201760	saddlebrown	16	28,518,385	TSS1500	OpenSea	IL27	0.606	0.005	0.770	0.476
cg09656541	saddlebrown	10	115,932,823	5'UTR	N_Shore	C10orf118	0.606	0.004	0.473	0.745
cg00947319	saddlebrown	17	47,005,597	3'UTR	OpenSea	UBE2Z	0.605	0.000	0.683	0.958
cg19986126	saddlebrown	20	60,529,384	TSS1500	OpenSea	MIR1257	0.604	0.003	0.531	0.689
cg01476842	saddlebrown	7	1,422,820		N_Shore		0.604	-0.003	0.596	0.750
cg01765930	saddlebrown	22	37,881,422	Body	OpenSea	MFNG	0.604	0.006	0.719	0.360
cg23494757	saddlebrown	3	184,010,364	3'UTR	OpenSea	ECE2	0.602	0.007	0.682	0.273
cg11518116	saddlebrown	17	47,144,846		OpenSea		0.600	0.000	0.504	0.937
cg02304156	saddlebrown	16	28,913,517	Body	S_Shore	ATP2A1	0.600	0.002	0.845	0.797
cg00090309	saddlebrown	7	156,832,367		N_Shore		0.600	0.002	0.527	0.693
cg25455865	saddlebrown	8	8,960,015		OpenSea		0.600	-0.003	0.486	0.604
cg27626387	saddlebrown	16	31,083,776	5'UTR	N_Shore	ZNF668	0.600	0.003	0.428	0.786
cg22123156	saddlebrown	11	72,326,830	Body	OpenSea	PDE2A	0.599	0.006	0.485	0.178
cg24084358	saddlebrown	20	42,984,276	TSS200	OpenSea	HNF4A	0.599	0.009	0.688	0.282
cg15844596	saddlebrown	20	35,274,570	TSS200	OpenSea	SLA2	0.598	0.012	0.672	0.098
cg05290274	saddlebrown	17	39,534,096	3'UTR	OpenSea	KRT34	0.598	0.010	0.203	0.146
cg14420108	saddlebrown	9	34,647,483	Body	S_Shore	GALT	0.598	0.007	0.285	0.455
cg01108445	saddlebrown	16	2,509,198	TSS1500	N_Shore	C16orf59	0.598	0.011	0.509	0.289
cg22102996	saddlebrown	2	238,888,645	Body	OpenSea	UBE2F	0.597	0.009	0.706	0.209
cg00351813	saddlebrown	17	29,926,184		OpenSea		0.597	0.004	0.702	0.549
cg07993003	saddlebrown	19	55,454,132	5'UTR	S_Shelf	NLRP7	0.597	-0.006	0.743	0.506
cg25232541	saddlebrown	19	409,888	TSS1500	S_Shore	C2CD4C	0.597	-0.005	0.208	0.594
cg16166559	saddlebrown	22	45,072,588	5'UTR	OpenSea	PRR5	0.597	0.001	0.384	0.850
cg04263702	saddlebrown	7	5,528,266	Body	S_Shore	FBXL18	0.597	0.016	0.490	0.024
cg26574904	saddlebrown	1	6,185,663	Body	N_Shelf	CHD5	0.596	0.001	0.469	0.909
cg05818824	saddlebrown	17	62,051,709	TSS1500	OpenSea	SCN4A	0.596	0.012	0.560	0.083
cg08028026	saddlebrown	19	39,686,583	TSS1500	N_Shore	NCCRP1	0.596	0.005	0.361	0.343
cg23076550	saddlebrown	19	5,843,661	3'UTR	N_Shore	FUT3	0.595	0.011	0.769	0.135
cg07167185	saddlebrown	1	24,120,017	Body	S_Shelf	LYPLA2	0.595	0.015	0.647	0.047
cg00501356	saddlebrown	22	42,093,980	3'UTR	N_Shore	C22orf46	0.594	0.002	0.828	0.770
cg07697465	saddlebrown	16	1,516,049	Body	S_Shore	CLCN7	0.594	0.009	0.675	0.234
cg07211239	saddlebrown	1	1,490,809	Body	S_Shore	SSU72	0.593	0.005	0.634	0.558
cg04257377	saddlebrown	19	3,481,788	TSS1500	Island	C19orf77	0.593	0.001	0.561	0.919
cg06057656	saddlebrown	7	1,388,337		OpenSea		0.592	-0.001	0.739	0.921
cg10529401	saddlebrown	1	53,587,046	Body	OpenSea	SLC1A7	0.592	0.012	0.628	0.046
cg18657389	saddlebrown	17	74,023,630	TSS200	OpenSea	EVPL	0.591	0.018	0.702	0.019
cg22376856	saddlebrown	1	204,643,556	5'UTR	OpenSea	LRRN2	0.591	0.013	0.118	0.070
cg14781394	saddlebrown	19	16,441,457		S_Shelf		0.589	0.009	0.348	0.129
cg13856405	saddlebrown	10	821,395		OpenSea		0.589	-0.003	0.799	0.672
cg21047206	saddlebrown	1	145,076,221	TSS200	S_Shore	PDE4DIP	0.588	0.006	0.408	0.334
cg00496988	saddlebrown	3	48,659,251	TSS200	OpenSea	TMEM89	0.588	0.004	0.831	0.468
cg14095303	saddlebrown	6	33,132,442	Body	S_Shelf	COL11A2	0.588	0.004	0.527	0.546
cg13541788	saddlebrown	20	2,516,592	TSS1500	OpenSea	TMC2	0.586	0.011	0.735	0.170
cg19880185	saddlebrown	21	44,830,846		Island		0.586	0.005	0.508	0.627
cg18778254	saddlebrown	17	37,369,508	Body	S_Shelf	STAC2	0.585	0.011	0.653	0.160
cg04332442	saddlebrown	22	46,770,063	Body	N_Shore	CELSR1	0.585	0.012	0.690	0.283
cg12323347	saddlebrown	10	112,256,517	TSS1500	N_Shore	DUSP5	0.585	0.008	0.286	0.177
cg25132957	saddlebrown	17	3,564,900	3'UTR	OpenSea	CTNS	0.585	0.002	0.512	0.792
cg14396619	saddlebrown	7	98,424,185		OpenSea		0.585	0.015	0.580	0.126
cg04703617	saddlebrown	16	3,158,841		S_Shore		0.584	0.024	0.721	0.028
cg18829521	saddlebrown	10	24,496,598	5'UTR	OpenSea	KIAA1217	0.583	0.003	0.705	0.615
cg02712585	saddlebrown	19	5,142,260	Body	Island	KDM4B	0.582	0.004	0.837	0.496
cg00163549	saddlebrown	6	33,246,185	1stExon	S_Shore	B3GALT4	0.582	0.014	0.469	0.010
cg13699245	saddlebrown	9	137,485,382		S_Shore		0.582	0.022	0.631	0.002
cg11571942	saddlebrown	19	55,610,938	Body	S_Shore	PPP1R12C	0.582	0.013	0.719	0.089
cg18477949	saddlebrown	15	69,760,994		OpenSea		0.580	0.002	0.531	0.793

cg10148841	saddlebrown	11	124,767,455	Body	OpenSea	ROBO4	0.580	0.000	0.809	0.985
cg06964190	saddlebrown	11	61,275,247	TSS1500	N_Shore	LRRC10B	0.580	0.005	0.527	0.578
cg21221377	saddlebrown	20	62,574,092	Body	N_Shore	UCKL1	0.580	0.009	0.417	0.117
cg10583119	saddlebrown	19	54,237,755	TSS1500	OpenSea	MIR518D	0.579	-0.002	0.613	0.894
cg17098850	saddlebrown	15	22,968,689	Body	OpenSea	CYFIP1	0.579	0.007	0.783	0.189
cg25002152	saddlebrown	10	74,036,833		S_Shelf		0.578	-0.003	0.435	0.614
cg11596239	saddlebrown	1	2,350,059		S_Shelf		0.578	0.005	0.495	0.575
cg16699074	saddlebrown	19	42,192,347	TSS1500	OpenSea	CEACAM7	0.578	0.025	0.674	0.007
cg05382497	saddlebrown	11	3,253,789	TSS200	Island	MRGPRE	0.578	0.007	0.456	0.397
cg18861762	saddlebrown	2	242,127,852	TSS200	OpenSea	ANO7	0.578	-0.005	0.319	0.433
cg11070818	saddlebrown	17	400,410		OpenSea		0.578	0.010	0.560	0.034
cg02290617	saddlebrown	22	50,513,520	Body	N_Shore	MLC1	0.577	0.008	0.557	0.308
cg01761729	saddlebrown	2	128,419,650	Body	N_Shelf	LIMS2	0.577	0.011	0.696	0.230
cg14160422	saddlebrown	19	10,735,548	TSS1500	N_Shore	SLC44A2	0.577	0.003	0.594	0.708
cg03992168	saddlebrown	5	574,244		OpenSea		0.577	0.009	0.439	0.155
cg15150034	saddlebrown	1	156,477,835		S_Shelf		0.575	0.007	0.435	0.210
cg05914582	saddlebrown	12	6,588,003		S_Shore		0.574	0.003	0.643	0.567
cg16582889	saddlebrown	8	145,728,438	TSS1500	N_Shore	GPT	0.574	0.008	0.601	0.427
cg15829116	saddlebrown	22	30,901,876	TSS200	S_Shore	SEC14L4	0.573	0.000	0.469	0.987
cg02030219	saddlebrown	16	1,958,654		N_Shelf		0.572	0.004	0.340	0.466
cg23229016	saddlebrown	1	26,872,525	1stExon	OpenSea	RPS6KA1	0.572	0.005	0.869	0.436
cg04990850	saddlebrown	7	142,564,916	Body	OpenSea	EPHB6	0.572	-0.002	0.589	0.638
cg22379862	saddlebrown	12	1,904,502	Body	N_Shore	CACNA2D4	0.572	0.011	0.688	0.264
cg09695948	saddlebrown	3	39,470,478		OpenSea		0.572	0.000	0.621	0.993
cg09873284	saddlebrown	1	16,029,777	Body	OpenSea	PLEKHM2	0.571	0.008	0.592	0.319
cg13629586	saddlebrown	14	103,550,918		Island		0.571	0.006	0.584	0.590
cg14924473	saddlebrown	15	73,667,786		OpenSea		0.571	0.006	0.173	0.579
cg14978637	saddlebrown	1	41,950,817	TSS1500	OpenSea	EDN2	0.571	0.011	0.769	0.096
cg16984981	saddlebrown	18	74,516,049		S_Shore		0.570	0.005	0.230	0.619
cg17748092	saddlebrown	19	8,586,324	3'UTR	OpenSea	MYO1F	0.570	-0.001	0.593	0.869
cg09815769	saddlebrown	1	119,539,738		N_Shelf		0.570	0.002	0.358	0.896
cg18545596	saddlebrown	22	40,322,629	5'UTR	OpenSea	GRAP2	0.570	0.009	0.267	0.286
cg05103623	saddlebrown	6	159,466,458	TSS1500	OpenSea	TAGAP	0.570	0.003	0.100	0.702
cg08274097	saddlebrown	19	38,214,270		S_Shelf		0.570	-0.002	0.654	0.736
cg03492092	saddlebrown	15	101,401,498		OpenSea		0.570	-0.005	0.485	0.439
cg13943980	saddlebrown	4	6,666,711		S_Shore		0.570	0.008	0.789	0.286
cg17128237	saddlebrown	11	64,792,167		N_Shelf		0.570	0.004	0.587	0.620
cg01748573	saddlebrown	20	57,463,530	3'UTR	N_Shore	GNAS	0.569	0.009	0.548	0.526
cg01506341	saddlebrown	6	30,104,709	1stExon	OpenSea	TRIM40	0.569	0.003	0.606	0.625
cg00175403	saddlebrown	1	12,223,543		N_Shelf		0.569	0.004	0.433	0.399
cg02758463	saddlebrown	16	89,982,122		N_Shelf		0.569	0.007	0.524	0.360
cg16274954	saddlebrown	6	30,910,315	Body	OpenSea	DPCR1	0.568	0.007	0.503	0.309
cg26744056	saddlebrown	16	1,258,684	Body	S_Shelf	CACNA1H	0.568	-0.001	0.600	0.859
cg00606841	saddlebrown	21	40,757,691	Body	Island	WRB	0.568	0.000	0.522	0.951
cg05055712	saddlebrown	16	2,880,431	Body	OpenSea	ZG16B	0.567	0.015	0.511	0.121
cg23342755	saddlebrown	7	76,053,013	TSS1500	OpenSea	ZP3	0.567	0.007	0.652	0.453
cg14087401	saddlebrown	9	95,955,533	Body	OpenSea	WNK2	0.567	0.001	0.821	0.835
cg11564239	saddlebrown	2	241,644,188		S_Shelf		0.565	0.009	0.397	0.215
cg00280895	saddlebrown	2	121,100,727		N_Shore		0.564	0.015	0.545	0.111
cg14536881	saddlebrown	9	36,740,105		S_Shore		0.564	0.005	0.621	0.583
cg08746496	saddlebrown	15	89,765,045	TSS200	OpenSea	RLBP1	0.563	0.006	0.460	0.255
cg13856867	saddlebrown	12	53,242,896	TSS200	OpenSea	KRT78	0.563	0.001	0.323	0.841
cg00029284	saddlebrown	12	111,731,203	Body	OpenSea	CUX2	0.563	0.008	0.403	0.146
cg06007201	saddlebrown	16	88,850,218	Body	Island	FAM38A	0.563	0.011	0.583	0.094
cg00609227	saddlebrown	1	226,307,233		N_Shore		0.563	0.004	0.486	0.524
cg12503742	saddlebrown	8	145,642,421	TSS200	S_Shore	SLC39A4	0.563	0.003	0.550	0.732
cg24113496	saddlebrown	5	138,725,830	TSS1500	N_Shore	MGC29506	0.562	0.003	0.661	0.593
cg25061682	saddlebrown	1	171,407,789		OpenSea		0.562	-0.002	0.900	0.820
cg06311934	saddlebrown	20	62,104,476	TSS1500	S_Shore	KCNQ2	0.562	0.011	0.670	0.153
cg09647867	saddlebrown	5	488,527	Body	Island	SLC9A3	0.561	0.009	0.664	0.242
cg20975835	saddlebrown	11	64,107,374	TSS1500	N_Shelf	CCDC88B	0.561	0.004	0.708	0.492
cg23959976	saddlebrown	19	41,187,143	Body	N_Shelf	NUMBL	0.561	-0.002	0.571	0.832
cg00729370	saddlebrown	8	47,527,657		N_Shore		0.561	0.041	0.717	0.092
cg24126851	saddlebrown	11	6,678,143	TSS1500	S_Shore	DCHS1	0.561	0.010	0.432	0.063
cg16400495	saddlebrown	12	54,385,625	Body	N_Shelf	MIR196A2	0.560	0.009	0.174	0.286
cg21200337	saddlebrown	19	7,931,874		N_Shore		0.560	0.016	0.719	0.037
cg13352894	saddlebrown	11	792,205	Body	Island	SLC25A22	0.560	0.011	0.810	0.101

cg05641849	saddlebrown	4	1,748,820	OpenSea		0.559	0.004	0.483	0.667
cg20871826	saddlebrown	17	3,790,402 5'UTR	N_Shore	CAMKK1	0.559	0.000	0.541	0.988
cg20826277	saddlebrown	7	130,130,478 Body	N_Shore	MESTIT1	0.559	0.011	0.403	0.091
cg23040782	saddlebrown	1	6,762,215 TSS1500	S_Shore	DNAJC11	0.559	0.007	0.535	0.564
cg11769400	saddlebrown	8	22,773,857 Body	OpenSea	PEBP4	0.559	0.004	0.227	0.470
cg21546300	saddlebrown	22	47,050,341 Body	N_Shelf	GRAMD4	0.559	0.003	0.875	0.559
cg09565670	saddlebrown	19	39,368,408 5'UTR	OpenSea	RINL	0.558	0.022	0.478	0.013
cg10862848	saddlebrown	6	42,927,986 TSS1500	N_Shore	GNMT	0.558	0.019	0.372	0.099
cg05754122	saddlebrown	22	37,499,741 TSS200	OpenSea	TMPRSS6	0.557	0.001	0.543	0.927
cg17411994	saddlebrown	1	37,914,852	OpenSea		0.556	0.018	0.587	0.038
cg12433575	saddlebrown	6	30,881,464 TSS1500	N_Shore	VAR52	0.556	0.004	0.324	0.742
cg20889394	saddlebrown	19	1,010,236 3'UTR	Island	C19orf6	0.555	0.013	0.484	0.197
cg06124390	saddlebrown	4	2,052,628	S_Shelf		0.555	0.001	0.338	0.905
cg06528773	saddlebrown	11	62,382,998 3'UTR	S_Shelf	B3GAT3	0.555	0.017	0.767	0.008
cg06928634	saddlebrown	5	140,566,710 TSS200	N_Shore	PCDHB9	0.553	0.001	0.133	0.890
cg03822198	saddlebrown	12	116,997,535 5'UTR	OpenSea	MAP1LC3B2	0.553	0.004	0.617	0.546
cg22294063	saddlebrown	8	21,964,567 3'UTR	N_Shore	NUDT18	0.553	-0.001	0.720	0.928
cg15645463	saddlebrown	11	418,251 TSS1500	S_Shore	SIGIRR	0.553	0.016	0.811	0.003
cg21545013	saddlebrown	1	8,407,891	S_Shelf		0.552	0.003	0.568	0.675
cg26499286	saddlebrown	17	39,472,498 TSS1500	OpenSea	KRTAP17-1	0.552	0.007	0.477	0.366
cg16017904	saddlebrown	1	17,698,411 TSS1500	OpenSea	PADI6	0.550	0.007	0.378	0.249
cg12119858	saddlebrown	12	7,023,195 3'UTR	N_Shore	LRRC23	0.549	0.015	0.394	0.025
cg12297642	saddlebrown	15	63,413,538 TSS1500	N_Shore	LACTB	0.549	0.020	0.569	0.047
cg25588852	saddlebrown	2	216,877,276 Body	N_Shore	MREG	0.548	0.004	0.113	0.652
cg08162327	saddlebrown	22	39,642,281 TSS1500	S_Shore	PDGFB	0.547	-0.002	0.752	0.814
cg09595912	saddlebrown	12	130,819,634	N_Shelf		0.546	0.000	0.330	0.960
cg26964704	saddlebrown	12	125,589,647 Body	OpenSea	AACS	0.544	0.006	0.532	0.399
cg15189764	saddlebrown	17	27,282,064 3'UTR	S_Shelf	SEZ6	0.544	0.000	0.828	0.989
cg26761359	saddlebrown	16	90,005,236	S_Shelf		0.544	0.007	0.820	0.382
cg00662400	saddlebrown	16	88,510,783	N_Shore		0.544	0.009	0.634	0.173
cg02464866	saddlebrown	16	86,714,536	N_Shore		0.544	0.016	0.529	0.089
cg08874384	saddlebrown	19	17,725,883 Body	N_Shelf	UNC13A	0.543	-0.003	0.726	0.648
cg22712403	saddlebrown	11	65,384,321 Body	S_Shore	PCNXL3	0.543	0.011	0.718	0.114
cg14255644	saddlebrown	1	228,289,747 Body	Island	C1orf35	0.543	0.017	0.566	0.155
cg25671484	saddlebrown	6	42,927,993 TSS1500	N_Shore	GNMT	0.543	0.010	0.546	0.374
cg16334869	saddlebrown	7	6,698,992	S_Shelf		0.543	0.007	0.398	0.337
cg13653391	saddlebrown	10	134,896,691	Island		0.542	0.017	0.187	0.043
cg00557996	saddlebrown	11	69,945,518 Body	OpenSea	ANO1	0.541	0.012	0.669	0.084
cg19644590	saddlebrown	19	1,937,198	N_Shelf		0.541	0.000	0.760	0.999
cg13420383	saddlebrown	17	73,642,628 Body	OpenSea	RECQL5	0.541	0.013	0.653	0.070
cg16601094	saddlebrown	17	80,633,692 Body	OpenSea	RAB40B	0.541	0.007	0.830	0.369
cg09906857	saddlebrown	16	56,557,397	S_Shelf		0.541	-0.007	0.491	0.344
cg13521739	saddlebrown	19	12,941,257 Body	S_Shore	RTBDN	0.540	0.003	0.430	0.722
cg01336862	saddlebrown	19	8,563,373 Body	N_Shore	PRAM1	0.540	0.012	0.585	0.193
cg07699300	saddlebrown	15	29,392,964 Body	N_Shelf	APBA2	0.540	0.004	0.536	0.561
cg03423138	saddlebrown	16	33,355,024	N_Shore		0.539	0.015	0.313	0.172
cg09443039	saddlebrown	14	65,290,603 TSS1500	OpenSea	SPTB	0.539	0.000	0.513	0.951
cg14719352	saddlebrown	19	49,258,131 TSS1500	S_Shore	FGF21	0.538	-0.001	0.582	0.937
cg04667664	saddlebrown	16	30,094,818 Body	OpenSea	PPP4C	0.537	0.000	0.876	0.967
cg07052568	saddlebrown	19	13,116,804 Body	S_Shelf	NFIX	0.537	0.007	0.467	0.504
cg08328067	saddlebrown	5	179,553,589 Body	N_Shore	RASGEF1C	0.535	-0.002	0.427	0.851
cg20396069	saddlebrown	17	46,908,122 TSS1500	N_Shore	CALCOCO2	0.535	-0.001	0.383	0.848
cg03027241	saddlebrown	20	49,620,453 3'UTR	Island	KCNGL3	0.535	0.025	0.572	0.090
cg06143658	saddlebrown	2	233,878,015 TSS200	OpenSea	NGEF	0.534	-0.002	0.617	0.739
cg16743754	saddlebrown	7	57,328,785	S_Shelf		0.533	0.003	0.444	0.742
cg09369954	saddlebrown	1	32,663,763 3'UTR	N_Shelf	TXLNA	0.533	0.004	0.755	0.532
cg05530317	saddlebrown	5	38,445,774 Body	OpenSea	EGFLAM	0.533	0.013	0.467	0.303
cg04522915	saddlebrown	20	646,942 Body	S_Shore	SCRT2	0.531	0.010	0.586	0.156
cg03164928	saddlebrown	16	89,005,932 5'UTR	N_Shore	CBFA2T3	0.530	0.008	0.517	0.223
cg22483610	saddlebrown	1	37,920,947	OpenSea		0.530	0.006	0.415	0.547
cg12054318	saddlebrown	20	57,414,529 Body	N_Shore	GNASAS	0.530	0.011	0.583	0.109
cg03554221	saddlebrown	8	142,450,231 Body	N_Shelf	FLJ43860	0.530	0.008	0.796	0.250
cg00673724	saddlebrown	19	45,648,483	Island		0.529	0.006	0.901	0.339
cg13339454	saddlebrown	2	242,127,690 TSS1500	OpenSea	ANO7	0.528	-0.004	0.432	0.486
cg01333080	saddlebrown	3	183,994,568 Body	S_Shore	ECE2	0.527	0.011	0.503	0.113
cg15379170	saddlebrown	2	233,476,236 Body	OpenSea	EFHD1	0.526	0.003	0.593	0.709
cg09308580	saddlebrown	2	43,405,947	OpenSea		0.526	0.005	0.466	0.552

cg11300098	saddlebrown	19	38,801,506	Body	OpenSea	YIF1B	0.526	0.000	0.828	0.988
cg22817258	saddlebrown	1	22,195,397	Body	S_Shelf	HSPG2	0.526	-0.005	0.768	0.517
cg25223500	saddlebrown	19	2,286,790		N_Shelf		0.525	0.004	0.713	0.629
cg22513955	saddlebrown	17	1,665,123	TSS200	OpenSea	SERPINF1	0.525	0.004	0.635	0.667
cg00698602	saddlebrown	3	44,481,324	3'UTR	OpenSea	ZNF445	0.524	0.009	0.441	0.211
cg05412906	saddlebrown	14	102,562,780	Body	OpenSea	HSP90AA1	0.523	0.001	0.227	0.841
cg06727703	saddlebrown	17	79,305,710	TSS1500	OpenSea	TMEM105	0.522	0.011	0.492	0.040
cg10191814	saddlebrown	16	89,634,447		S_Shore		0.522	-0.003	0.739	0.575
cg18469270	saddlebrown	3	5,468,035		OpenSea		0.522	0.004	0.182	0.572
cg19569074	saddlebrown	7	4,347,499		N_Shore		0.522	0.011	0.654	0.264
cg09260653	saddlebrown	16	1,486,064	Body	N_Shore	CCDC154	0.522	0.009	0.704	0.177
cg19322788	saddlebrown	12	125,831,167	Body	OpenSea	TMEM132B	0.521	0.021	0.282	0.050
cg15097640	saddlebrown	10	82,401,261	Body	OpenSea	SH2D4B	0.521	0.001	0.480	0.895
cg04406863	saddlebrown	20	62,177,351	Body	N_Shore	SRMS	0.521	-0.009	0.338	0.159
cg07784986	saddlebrown	12	124,272,433	Body	Island	DNAH10	0.521	0.006	0.855	0.470
cg01049674	saddlebrown	19	41,073,425	Body	N_Shore	SPTBN4	0.520	0.009	0.294	0.243
cg18826598	saddlebrown	7	48,150,007		OpenSea		0.520	0.005	0.058	0.124
cg08549573	saddlebrown	7	75,914,927	Body	S_Shelf	SRRM3	0.520	0.006	0.621	0.403
cg15923688	saddlebrown	17	79,623,755	TSS200	OpenSea	PDE6G	0.519	0.013	0.760	0.150
cg19590140	saddlebrown	14	101,012,492	Body	N_Shore	BEGAIN	0.518	-0.001	0.481	0.880
cg13989528	saddlebrown	11	64,888,932	Body	N_Shore	FAU	0.518	0.015	0.136	0.044
cg14108840	saddlebrown	12	54,410,302	TSS1500	N_Shore	HOXC4	0.517	-0.002	0.036	0.334
cg25074066	saddlebrown	11	62,690,043	TSS1500	N_Shore	CHRM1	0.516	0.005	0.579	0.546
cg08262378	saddlebrown	1	991,533		S_Shore		0.516	0.016	0.786	0.001
cg14331316	saddlebrown	9	99,139,396	Body	OpenSea	SLC35D2	0.516	0.009	0.592	0.178
cg12689679	saddlebrown	15	31,516,316		OpenSea		0.516	0.008	0.416	0.470
cg22926842	saddlebrown	22	42,336,869	TSS1500	OpenSea	CENPM	0.516	0.009	0.876	0.182
cg10767045	saddlebrown	10	89,264,128	TSS200	N_Shore	MINPP1	0.515	-0.003	0.284	0.771
cg26149920	saddlebrown	19	7,953,081	TSS1500	N_Shore	LRRC8E	0.513	0.007	0.546	0.323
cg15038110	saddlebrown	5	140,529,627	TSS1500	N_Shore	PCDHB6	0.513	0.003	0.064	0.631
cg11735427	saddlebrown	11	46,224,263		OpenSea		0.512	-0.004	0.653	0.672
cg23682934	saddlebrown	17	42,885,322	5'UTR	OpenSea	GJC1	0.512	0.004	0.482	0.398
cg26404463	saddlebrown	5	32,317,417		S_Shelf		0.512	-0.005	0.791	0.442
cg17522897	saddlebrown	12	108,526,345	5'UTR	S_Shelf	WSCD2	0.511	0.000	0.814	0.983
cg22776597	saddlebrown	6	31,802,097	TSS1500	N_Shore	C6orf48	0.511	0.004	0.081	0.464
cg21432842	saddlebrown	17	38,171,697	1stExon	OpenSea	CSF3	0.510	0.008	0.346	0.163
cg10061384	saddlebrown	1	2,466,275		N_Shore		0.510	0.006	0.399	0.299
cg01066936	saddlebrown	22	41,776,843	Body	N_Shore	TEF	0.510	0.024	0.380	0.096
cg01036779	saddlebrown	19	6,768,251	TSS1500	S_Shore	SH2D3A	0.510	0.002	0.271	0.708
cg07239897	saddlebrown	11	134,373,592		OpenSea		0.510	0.013	0.674	0.089
cg00352576	saddlebrown	9	135,454,197		N_Shore		0.509	0.008	0.482	0.393
cg02892690	saddlebrown	19	47,812,992	TSS200	OpenSea	C5AR1	0.508	-0.003	0.363	0.615
cg23399028	saddlebrown	17	3,572,873	3'UTR	S_Shore	TMEM93	0.508	0.023	0.192	0.062
cg26558799	saddlebrown	17	80,806,435	Body	OpenSea	TBCD	0.507	0.021	0.443	0.110
cg00968890	saddlebrown	1	39,042,981		N_Shore		0.507	0.001	0.260	0.848
cg18390959	saddlebrown	19	51,872,257	TSS200	S_Shore	CLDND2	0.507	0.009	0.605	0.198
cg01851782	saddlebrown	16	49,442,215		S_Shore		0.506	-0.004	0.290	0.696
cg17128312	saddlebrown	19	12,806,824	Body	N_Shore	FBXW9	0.506	0.006	0.634	0.539
cg22367771	saddlebrown	9	133,884,317	TSS200	N_Shore	LAMC3	0.505	-0.002	0.080	0.735
cg00565786	saddlebrown	8	1,012,465		OpenSea		0.504	0.007	0.590	0.370
cg07022343	saddlebrown	1	230,208,170	Body	S_Shelf	GALNT2	0.503	0.004	0.503	0.444
cg07761781	saddlebrown	19	52,035,161	TSS200	OpenSea	SIGLEC6	0.501	0.018	0.230	0.087
cg19290577	saddlebrown	10	119,590,573		OpenSea		0.501	0.013	0.210	0.273
cg07687554	saddlebrown	19	55,587,039	TSS200	OpenSea	EPS8L1	0.501	0.005	0.136	0.717
cg00213668	saddlebrown	7	98,028,207	Body	N_Shore	BAIAP2L1	0.501	0.009	0.633	0.456
cg03353394	saddlebrown	11	77,791,298	TSS200	S_Shore	NDUFC2	0.500	0.001	0.433	0.924
cg17808631	saddlebrown	8	101,662,628	TSS1500	S_Shore	SNX31	0.500	0.008	0.339	0.327
cg22004069	saddlebrown	19	5,585,648		N_Shelf		0.500	0.004	0.451	0.471
cg19172170	saddlebrown	11	20,627,781	Body	OpenSea	SLC6A5	0.499	0.025	0.189	0.089
cg26468891	saddlebrown	11	48,077,221	Body	OpenSea	PTPRJ	0.499	0.001	0.481	0.937
cg06425026	saddlebrown	16	2,577,404	Body	N_Shore	AMDHD2	0.498	0.007	0.643	0.189
cg00273359	saddlebrown	7	3,019,314	5'UTR	OpenSea	CARD11	0.498	0.014	0.523	0.196
cg22146357	saddlebrown	8	143,781,406	TSS200	N_Shore	LY6K	0.497	0.004	0.649	0.775
cg14471244	saddlebrown	14	80,677,608	1stExon	OpenSea	DIO2	0.495	0.004	0.495	0.597
cg13490368	saddlebrown	6	34,108,164		N_Shelf		0.495	0.003	0.676	0.657
cg14950321	saddlebrown	19	4,530,233	Body	N_Shore	PLIN5	0.494	-0.003	0.566	0.771
cg09897131	saddlebrown	12	6,578,606	Body	N_Shore	VAMP1	0.493	-0.006	0.901	0.451

cg05237332	saddlebrown	19	54,168,855	TSS1500	OpenSea	MIR512-1	0.493	0.008	0.792	0.391
cg14343652	saddlebrown	7	130,789,013	Body	N_Shore	FLJ43663	0.493	0.004	0.543	0.680
cg12748639	saddlebrown	2	71,035,898	3'UTR	OpenSea	CLEC4F	0.492	-0.004	0.416	0.533
cg19913551	saddlebrown	19	3,806,615	Body	S_Shore	ZFR2	0.492	0.006	0.448	0.574
cg23606079	saddlebrown	16	84,853,871	5'UTR	S_Shore	CRISPLD2	0.492	0.020	0.479	0.074
cg05712542	saddlebrown	16	22,337,575	Body	Island	POLR3E	0.491	0.005	0.780	0.487
cg00150080	saddlebrown	7	1,447,841		Island		0.490	0.012	0.480	0.178
cg23013139	saddlebrown	7	56,858,795		S_Shelf		0.490	0.025	0.693	0.035
cg04208928	saddlebrown	1	226,498,038	TSS1500	S_Shore	LIN9	0.490	0.019	0.610	0.053
cg06603923	saddlebrown	7	151,217,961	TSS1500	S_Shore	RHEB	0.490	0.012	0.509	0.326
cg06784218	saddlebrown	1	46,089,804	TSS200	S_Shore	CCDC17	0.489	0.002	0.388	0.863
cg12342753	saddlebrown	4	4,329,664		OpenSea		0.489	0.007	0.484	0.573
cg22296808	saddlebrown	11	2,560,641	Body	OpenSea	KCNQ1	0.488	0.011	0.838	0.157
cg27000534	saddlebrown	14	105,126,571		Island		0.488	0.013	0.466	0.219
cg19585797	saddlebrown	17	46,065,327		OpenSea		0.488	0.004	0.542	0.595
cg12724357	saddlebrown	11	66,790,285	TSS1500	N_Shore	SYT12	0.488	0.016	0.214	0.147
cg20985479	saddlebrown	3	192,233,698	Body	S_Shore	FGF12	0.487	0.004	0.072	0.538
cg23715407	saddlebrown	14	95,374,412		OpenSea		0.486	0.026	0.648	0.045
cg23122263	saddlebrown	8	110,656,166	Body	N_Shore	GOLSYN	0.486	0.008	0.097	0.367
cg08949735	saddlebrown	16	89,699,720	Body	OpenSea	DPEP1	0.486	0.009	0.707	0.527
cg12617225	saddlebrown	6	33,983,320		OpenSea		0.485	0.010	0.714	0.291
cg15744240	saddlebrown	13	103,053,761	Body	S_Shore	FGF14	0.484	0.011	0.095	0.227
cg04608582	saddlebrown	1	113,798,121		OpenSea		0.484	0.011	0.217	0.200
cg08091707	saddlebrown	19	859,554	TSS200	N_Shore	CFD	0.482	0.003	0.628	0.768
cg08295639	saddlebrown	5	169,532,758	TSS200	N_Shore	FOX11	0.481	0.009	0.563	0.349
cg19628343	saddlebrown	19	17,873,806	Body	N_Shelf	FCHO1	0.481	0.029	0.717	0.043
cg08097086	saddlebrown	7	75,868,279	Body	S_Shelf	SRRM3	0.481	-0.001	0.488	0.887
cg06683080	saddlebrown	15	40,646,549	Body	N_Shelf	PHGR1	0.481	0.005	0.322	0.490
cg02156776	saddlebrown	6	71,013,139	TSS1500	OpenSea	COL9A1	0.480	0.017	0.534	0.037
cg17880816	saddlebrown	19	3,789,435	5'UTR	S_Shelf	MATK	0.480	0.015	0.523	0.092
cg11243029	saddlebrown	1	85,929,755	Body	N_Shore	DDAH1	0.479	0.004	0.344	0.629
cg27388966	saddlebrown	15	74,006,718	3'UTR	OpenSea	CD276	0.478	0.008	0.581	0.309
cg26685187	saddlebrown	1	22,146,165	Body	N_Shelf	LDLRAD2	0.478	0.000	0.842	0.951
cg19672694	saddlebrown	5	40,688,524	Body	OpenSea	PTGER4	0.477	0.008	0.143	0.361
cg16686185	saddlebrown	17	78,078,845	Body	N_Shore	GAA	0.475	0.006	0.696	0.496
cg05129050	saddlebrown	1	7,178,026	Body	OpenSea	CAMTA1	0.473	0.000	0.155	0.998
cg14933468	saddlebrown	11	62,138,599	Body	N_Shore	ASRGL1	0.472	0.016	0.629	0.254
cg02164442	saddlebrown	16	31,405,101	Body	OpenSea	ITGAD	0.472	0.000	0.390	0.981
cg16007742	saddlebrown	11	62,066,669	TSS200	OpenSea	SCGB1D4	0.471	0.012	0.542	0.207
cg26140240	saddlebrown	7	157,650,160	Body	S_Shelf	PTPRN2	0.470	0.007	0.868	0.341
cg08114410	saddlebrown	7	57,323,862		N_Shore		0.470	-0.006	0.508	0.589
cg00071360	saddlebrown	20	37,350,793		N_Shore		0.469	0.007	0.109	0.430
cg07040723	saddlebrown	14	106,941,205	Body	S_Shelf	LOC10013341	0.469	0.021	0.396	0.297
cg22288798	saddlebrown	8	1,324,411		N_Shelf		0.467	0.036	0.569	0.005
cg10237088	saddlebrown	20	30,794,611	TSS1500	N_Shore	POFUT1	0.466	0.021	0.165	0.010
cg03330516	saddlebrown	20	62,178,744	1stExon	Island	SRMS	0.465	0.022	0.645	0.021
cg17691156	saddlebrown	8	59,572,928	TSS1500	S_Shore	NSMAF	0.463	0.004	0.165	0.706
cg25424299	saddlebrown	3	13,319,638		N_Shelf		0.462	0.010	0.476	0.191
cg16540262	saddlebrown	15	72,883,661		OpenSea		0.462	0.029	0.380	0.171
cg08960987	saddlebrown	6	96,026,116	5'UTR	S_Shore	MANEA	0.462	0.004	0.040	0.232
cg18917378	saddlebrown	20	52,687,007	1stExon	OpenSea	BCAS1	0.462	0.006	0.455	0.438
cg01576142	saddlebrown	14	92,297,260	5'UTR	OpenSea	TC2N	0.461	0.011	0.287	0.271
cg02053678	saddlebrown	6	166,579,057	Body	N_Shore	T	0.459	0.019	0.100	0.021
cg00827895	saddlebrown	6	36,805,384	Body	N_Shore	CPNE5	0.457	0.008	0.597	0.329
cg09327586	saddlebrown	17	56,634,222	3'UTR	OpenSea	TEX14	0.456	0.012	0.545	0.374
cg22337624	saddlebrown	16	72,126,421	5'UTR	N_Shore	TXNL4B	0.456	0.009	0.324	0.313
cg04595200	saddlebrown	12	34,486,507		N_Shelf		0.456	0.001	0.655	0.932
cg27379587	saddlebrown	15	85,201,911	TSS200	S_Shore	NMB	0.454	-0.004	0.210	0.674
cg11294626	saddlebrown	4	129,557,264		OpenSea		0.453	0.006	0.291	0.301
cg24377133	saddlebrown	8	144,170,375		S_Shelf		0.453	-0.007	0.294	0.477
cg07926618	saddlebrown	1	17,247,876	TSS1500	OpenSea	CROCC	0.453	0.012	0.824	0.272
cg09597645	saddlebrown	12	34,471,143		OpenSea		0.451	0.024	0.686	0.035
cg13511777	saddlebrown	11	20,134,160	Body	OpenSea	NAV2	0.451	0.002	0.538	0.925
cg22679014	saddlebrown	8	28,175,021	5'UTR	OpenSea	PNOC	0.450	0.020	0.407	0.080
cg25040562	saddlebrown	14	99,850,049		OpenSea		0.450	0.007	0.649	0.368
cg22865989	saddlebrown	8	1,012,382		OpenSea		0.444	0.006	0.650	0.550
cg00421144	saddlebrown	8	27,336,675	5'UTR	OpenSea	CHRNA2	0.443	-0.001	0.340	0.898

cg04411156	saddlebrown	3	57,543,029	1stExon	Island	PDE12	0.442	0.007	0.062	0.162
cg15756525	saddlebrown	2	16,130,857		OpenSea		0.441	0.017	0.722	0.117
cg11743675	saddlebrown	12	41,221,855	5'UTR	OpenSea	CNTN1	0.438	0.005	0.129	0.546
cg06997259	saddlebrown	2	235,956,326	Body	OpenSea	SH3BP4	0.435	0.003	0.813	0.723
cg24559261	saddlebrown	11	126,177,731	Body	S_Shelf	DCPS	0.435	0.000	0.466	0.982
cg05209518	saddlebrown	2	227,288,518		OpenSea		0.434	0.004	0.292	0.695
cg06532574	saddlebrown	5	95,295,740	Body	N_Shore	ELL2	0.434	0.049	0.349	0.038
cg07257718	saddlebrown	12	132,407,522	3'UTR	OpenSea	ULK1	0.432	-0.001	0.829	0.909
cg18042724	saddlebrown	11	20,627,327	Body	S_Shelf	SLC6A5	0.430	0.026	0.056	0.073
cg00408278	saddlebrown	6	33,422,868	5'UTR	S_Shore	ZBTB9	0.430	0.013	0.247	0.125
cg09538587	saddlebrown	2	152,564,480	Body	OpenSea	NEB	0.429	0.006	0.271	0.378
cg22036538	saddlebrown	12	6,554,051	1stExon	OpenSea	CD27	0.429	0.012	0.429	0.142
cg13792444	saddlebrown	9	119,245,443	Body	OpenSea	ASTN2	0.429	0.004	0.253	0.716
cg05938007	saddlebrown	2	27,994,018	TSS1500	N_Shore	MRPL33	0.427	0.004	0.420	0.695
cg05336056	saddlebrown	2	170,142,388	Body	OpenSea	LRP2	0.427	-0.011	0.112	0.323
cg04132540	saddlebrown	8	56,851,846	5'UTR	OpenSea	LYN	0.426	0.000	0.362	0.980
cg00084347	saddlebrown	12	124,393,913	Body	OpenSea	DNAH10	0.426	-0.013	0.606	0.153
cg09134819	saddlebrown	5	5,497,464		S_Shelf		0.425	0.009	0.064	0.160
cg15027294	saddlebrown	12	1,609,537	TSS200	OpenSea	LOC10029261	0.425	0.014	0.433	0.276
cg14384224	saddlebrown	9	140,031,310		N_Shore		0.424	0.020	0.741	0.156
cg18578263	saddlebrown	19	39,369,067	TSS200	OpenSea	RINL	0.424	0.008	0.570	0.359
cg04982781	saddlebrown	22	39,714,193	Body	N_Shore	RPL3	0.422	0.007	0.424	0.398
cg01667634	saddlebrown	6	31,860,439	Body	S_Shelf	EHMT2	0.422	0.001	0.811	0.914
cg11179816	saddlebrown	1	213,573,219		OpenSea		0.422	0.010	0.414	0.515
cg07611790	saddlebrown	19	49,240,823	Body	N_Shore	RASIP1	0.421	0.037	0.402	0.046
cg27444062	saddlebrown	11	124,546,202	Body	S_Shelf	SPA17	0.421	0.000	0.631	0.974
cg16699354	saddlebrown	2	30,142,063	Body	N_Shore	ALK	0.417	0.006	0.379	0.547
cg00666422	saddlebrown	7	127,881,440	5'UTR	S_Shore	LEP	0.415	0.016	0.533	0.104
cg06928209	saddlebrown	17	4,674,371	TSS1500	OpenSea	TM4SF5	0.415	-0.008	0.610	0.496
cg01418291	saddlebrown	8	133,491,512	Body	N_Shore	KCNQ3	0.413	0.018	0.233	0.085
cg23296572	saddlebrown	7	142,583,836	TSS1500	OpenSea	TRPV6	0.413	0.003	0.618	0.605
cg08299521	saddlebrown	5	179,344,619		OpenSea		0.412	0.008	0.619	0.213
cg00830599	saddlebrown	1	30,398,050		OpenSea		0.412	0.010	0.656	0.217
cg24351694	saddlebrown	8	144,655,447	TSS1500	S_Shore	C8orf73	0.411	0.005	0.350	0.598
cg22622440	saddlebrown	17	18,088,359	Body	Island	ALKBH5	0.411	0.005	0.180	0.287
cg18318142	saddlebrown	11	134,827,686		N_Shelf		0.411	0.006	0.453	0.346
cg00965985	saddlebrown	3	122,232,605	Body	N_Shore	KPNA1	0.410	-0.012	0.146	0.288
cg03888764	saddlebrown	7	57,207,547	5'UTR	OpenSea	ZNF479	0.410	0.012	0.497	0.335
cg07475922	saddlebrown	19	10,122,694	TSS1500	S_Shore	RDH8	0.410	0.002	0.062	0.656
cg06040071	saddlebrown	10	99,293,166	Body	OpenSea	UBTD1	0.409	0.013	0.430	0.059
cg17636986	saddlebrown	4	3,878,079		Island		0.408	0.004	0.461	0.668
cg08569678	saddlebrown	8	143,781,397	TSS200	N_Shore	LY6K	0.404	-0.007	0.680	0.640
cg24863544	saddlebrown	11	67,278,779		S_Shelf		0.403	0.004	0.637	0.782
cg19664013	saddlebrown	6	28,757,366		S_Shelf		0.402	0.030	0.261	0.019
cg21155767	saddlebrown	14	95,374,525		OpenSea		0.401	0.024	0.644	0.008
cg00079551	saddlebrown	2	40,001,222	Body	OpenSea	THUMPD2	0.400	0.006	0.939	0.541
cg02719608	saddlebrown	17	77,776,428		Island		0.400	0.010	0.191	0.227
cg04968806	saddlebrown	11	20,625,992	Body	S_Shelf	SLC6A5	0.400	0.023	0.132	0.201
cg02563137	saddlebrown	5	140,778,546	Body	N_Shore	PCDHGA4	0.400	0.009	0.315	0.413
cg21910709	saddlebrown	5	893,665	TSS1500	S_Shore	BRD9	0.399	0.009	0.195	0.258
cg09175620	saddlebrown	1	54,484,536	TSS1500	OpenSea	LDLRAD1	0.398	0.000	0.739	0.970
cg04589828	saddlebrown	12	34,495,086		Island		0.398	0.027	0.578	0.080
cg00079302	saddlebrown	19	1,439,985	Body	Island	RPS15	0.397	0.000	0.936	0.987
cg00032246	saddlebrown	17	33,913,953	TSS1500	OpenSea	AP2B1	0.397	-0.014	0.141	0.226
cg25107893	saddlebrown	1	911,601	Body	N_Shore	C1orf170	0.395	0.006	0.173	0.686
cg10181281	saddlebrown	2	215,275,973	TSS1500	OpenSea	VWC2L	0.394	0.000	0.154	0.996
cg08240539	saddlebrown	7	2,282,600	TSS1500	S_Shore	FTSJ2	0.394	-0.004	0.132	0.798
cg09890286	saddlebrown	17	77,088,710	Body	OpenSea	HRNBP3	0.393	-0.002	0.506	0.856
cg11645762	saddlebrown	6	31,867,819	Body	Island	ZBTB12	0.393	0.009	0.722	0.199
cg06127294	saddlebrown	10	45,872,735	Body	S_Shelf	ALOX5	0.392	0.001	0.872	0.941
cg02998861	saddlebrown	19	1,491,701	Body	Island	REEP6	0.389	-0.002	0.250	0.781
cg03918304	saddlebrown	2	176,981,654	1stExon	N_Shore	HOXD10	0.389	0.012	0.194	0.466
cg06162589	saddlebrown	12	101,550,467	3'UTR	OpenSea	SLC5A8	0.388	0.012	0.640	0.492
cg06807926	saddlebrown	7	150,773,709	3'UTR	N_Shelf	FASTK	0.385	-0.002	0.451	0.801
cg04114590	saddlebrown	5	112,197,864	Body	S_Shore	SRP19	0.384	0.011	0.448	0.446
cg14129931	saddlebrown	18	74,513,950		N_Shore		0.383	0.008	0.098	0.638
cg25400864	saddlebrown	17	60,005,610	TSS1500	S_Shore	INTS2	0.383	0.037	0.230	0.016

cg04776489	saddlebrown	22	22,597,965	TSS1500	OpenSea	VPREB1	0.383	0.021	0.476	0.044
cg15828364	saddlebrown	11	20,626,786	Body	S_Shelf	SLC6A5	0.382	0.020	0.126	0.151
cg00028184	saddlebrown	1	222,638,644		N_Shore		0.380	-0.005	0.054	0.244
cg25999578	saddlebrown	7	27,205,514	TSS1500	Island	HOXA9	0.379	0.001	0.056	0.881
cg23745839	saddlebrown	11	20,627,025	Body	S_Shelf	SLC6A5	0.378	0.014	0.117	0.361
cg07428491	saddlebrown	11	20,625,538	Body	S_Shelf	SLC6A5	0.378	0.014	0.142	0.386
cg03882612	saddlebrown	17	74,075,100	TSS200	S_Shore	ZACN	0.378	0.007	0.593	0.528
cg02506716	saddlebrown	2	110,370,368	Body	N_Shore		0.376	0.017	0.264	0.136
cg22296585	saddlebrown	2	207,741,102		OpenSea		0.376	0.007	0.301	0.539
cg21074656	saddlebrown	11	134,284,116		S_Shore		0.376	0.003	0.296	0.717
cg09225162	saddlebrown	15	56,757,806	TSS1500	S_Shore	MNS1	0.373	0.027	0.216	0.050
cg27175386	saddlebrown	19	24,155,489		S_Shore		0.373	0.001	0.773	0.938
cg25617028	saddlebrown	22	27,283,541		OpenSea		0.372	0.043	0.258	0.178
cg16051002	saddlebrown	5	140,579,160	TSS200	N_Shore	PCDHB11	0.371	-0.001	0.055	0.787
cg21218093	saddlebrown	20	44,600,160	5'UTR	Island	ZNF335	0.371	0.010	0.073	0.199
cg21957058	saddlebrown	11	20,626,133	Body	S_Shelf	SLC6A5	0.369	0.024	0.073	0.217
cg14370595	saddlebrown	11	66,114,071	TSS1500	Island	BRMS1	0.369	0.006	0.928	0.177
cg22746182	saddlebrown	8	41,749,867	Body	N_Shelf	ANK1	0.366	0.015	0.397	0.028
cg13636952	saddlebrown	7	142,447,956		OpenSea		0.366	0.004	0.451	0.807
cg27227042	saddlebrown	11	93,754,094	TSS1500	OpenSea	HEPHL1	0.366	-0.003	0.517	0.835
cg06189175	saddlebrown	19	11,592,321	TSS1500	Island	ELAVL3	0.360	0.026	0.366	0.085
cg04342483	saddlebrown	1	7,259,290	Body	OpenSea	CAMTA1	0.359	0.016	0.242	0.355
cg22824376	saddlebrown	14	77,648,248	5'UTR	Island	TMEM63C	0.358	0.045	0.086	0.185
cg09972561	saddlebrown	15	62,353,371	TSS1500	S_Shore	VPS13C	0.356	0.015	0.326	0.237
cg14676702	saddlebrown	2	170,550,423	Body	N_Shore	C2orf77	0.355	0.000	0.041	0.893
cg15975890	saddlebrown	5	11,903,145	Body	N_Shore	CTNND2	0.352	-0.012	0.222	0.179
cg09053247	saddlebrown	3	44,802,549	TSS1500	N_Shore	KIF15	0.351	0.006	0.517	0.787
cg04594507	saddlebrown	12	133,120,760	Body	OpenSea	FBRSL1	0.350	-0.001	0.643	0.894
cg20806296	saddlebrown	2	138,582,049		OpenSea		0.350	0.005	0.850	0.671
cg01946340	saddlebrown	12	34,478,388		OpenSea		0.349	0.000	0.515	0.996
cg03975922	saddlebrown	5	140,080,575	Body	OpenSea	ZMAT2	0.348	0.022	0.246	0.030
cg03516318	saddlebrown	14	36,790,242	TSS1500	OpenSea	MBIP	0.348	-0.001	0.198	0.913
cg20948262	saddlebrown	1	100,231,977	TSS1500	OpenSea	FRRS1	0.347	0.002	0.020	0.518
cg15157312	saddlebrown	13	54,740,236		OpenSea		0.347	0.004	0.234	0.651
cg09912988	saddlebrown	12	25,347,752	TSS1500	N_Shore	LYRM5	0.345	0.009	0.055	0.148
cg21115723	saddlebrown	2	235,409,153		S_Shelf		0.341	0.024	0.491	0.009
cg09812406	saddlebrown	12	131,303,993	Body	S_Shore	STX2	0.339	0.004	0.391	0.780
cg04151012	saddlebrown	2	27,806,529	Body	S_Shore	ZNF512	0.339	0.009	0.063	0.147
cg10228162	saddlebrown	9	133,589,493	5'UTR	S_Shore	ABL1	0.336	0.031	0.245	0.027
cg25372693	saddlebrown	3	118,959,985	TSS1500	S_Shore	B4GALT4	0.331	-0.001	0.150	0.939
cg24889914	saddlebrown	19	7,852,204	TSS200	N_Shore	CLEC4GP1	0.328	0.011	0.245	0.410
cg27379715	saddlebrown	2	875,990		OpenSea		0.324	0.000	0.786	0.979
cg25575845	saddlebrown	7	158,771,773		OpenSea		0.324	-0.005	0.770	0.609
cg15899800	saddlebrown	2	69,586,350	Body	OpenSea	GFPT1	0.319	-0.003	0.915	0.757
cg01668653	saddlebrown	6	35,733,710		Island		0.319	-0.003	0.611	0.903
cg10129154	saddlebrown	16	1,093,823		OpenSea		0.319	0.032	0.694	0.125
cg09409749	saddlebrown	3	129,275,358	Body	OpenSea	PLXND1	0.318	0.000	0.808	0.967
cg12072164	saddlebrown	19	44,306,565	1stExon	S_Shelf	LYPD5	0.318	0.024	0.381	0.158
cg18391467	saddlebrown	17	72,376,791		OpenSea		0.315	-0.007	0.738	0.617
cg21151960	saddlebrown	5	444,080	5'UTR	S_Shore	EXOC3	0.314	0.008	0.753	0.501
cg15125762	saddlebrown	1	6,191,870	Body	S_Shelf	CHD5	0.312	-0.001	0.892	0.811
cg00839873	saddlebrown	14	94,421,989	Body	OpenSea	ASB2	0.311	0.013	0.270	0.095
cg05256605	saddlebrown	5	121,412,184	Body	N_Shore	LOX	0.309	0.004	0.503	0.786
cg14707638	saddlebrown	2	242,169,319	Body	OpenSea	HDLBP	0.308	0.003	0.887	0.618
cg13675835	saddlebrown	9	37,030,825	Body	S_Shore	PAX5	0.303	-0.005	0.105	0.513
cg15575356	saddlebrown	11	47,616,757	TSS1500	S_Shore	C1QTNF4	0.303	-0.009	0.360	0.168
cg06676603	saddlebrown	18	74,692,265	3'UTR	S_Shore	MBP	0.302	-0.003	0.937	0.485
cg24637035	saddlebrown	12	120,445,227	Body	OpenSea	CCDC64	0.300	-0.008	0.391	0.486
cg01378182	saddlebrown	7	43,288,635	Body	Island	HECW1	0.299	0.002	0.588	0.871
cg23320056	saddlebrown	1	155,948,742	TSS1500	S_Shore	ARHGEF2	0.299	-0.005	0.116	0.349
cg11366668	saddlebrown	8	691,167		S_Shore		0.295	0.000	0.722	0.973
cg08815352	saddlebrown	17	61,698,753	TSS1500	N_Shore	MAP3K3	0.286	0.015	0.490	0.353
cg00075920	saddlebrown	5	177,026,190	TSS1500	N_Shore	B4GALT7	0.284	0.022	0.370	0.018
cg18100237	saddlebrown	8	139,662,552	Body	OpenSea	COL22A1	0.277	0.019	0.243	0.057
cg13522462	saddlebrown	19	44,576,874	5'UTR	S_Shore	ZNF284	0.276	0.002	0.098	0.765
cg18520517	saddlebrown	22	22,875,038	TSS1500	OpenSea	ZNF280A	0.271	0.005	0.673	0.692
cg21609813	saddlebrown	8	22,004,881	3'UTR	OpenSea	LGI3	0.268	-0.004	0.624	0.580



cg27315958	saddlebrown	8	17,206,819	Body	OpenSea	MTMR7	0.267	0.019	0.523	0.052
cg09461388	saddlebrown	22	46,763,229	Body	S_Shore	CELSR1	0.266	0.001	0.378	0.973
cg08897844	saddlebrown	5	36,606,102	TSS1500	OpenSea	SLC1A3	0.262	0.005	0.705	0.799
cg10544627	saddlebrown	14	97,431,263		OpenSea		0.257	-0.003	0.942	0.491
cg00589161	saddlebrown	20	58,295,996	TSS1500	OpenSea	PHACTR3	0.239	0.007	0.966	0.157
cg06959205	saddlebrown	16	88,991,917	5'UTR	N_Shelf	CBFA2T3	0.234	0.011	0.567	0.566

Suppl. Tab. 10. Significantly enriched Gene Ontology (GO) terms with FDR < 0.05 identified by gene enrichment analysis for exposure-COPD ME34-purple module using gProfiler-R. Highlighted cells are the enriched terms that point towards biological processes or pathways related to cell/tissue/organ development, proliferation, morphogenesis, differentiation, and growth

GO:ID	Description	FOR	Genes
GO:0001012	RNA polymerase II regulatory region DNA binding		PAX6,ETV7,RUNX3,HSF2,TBPL1,BARX2,PHF21B,PRDM1,ROXA,MNT,NFKB2,MEF2C,RFK2,TKB5,TFAP4,ESR1,KZF5,CREM,H2AFY2,XBP1,NFAT5,CTCF,FOXP1,MAZ,DBP,GLI3,ABP1,CREB3,TFAM,SMARCD2,DLX4,ZBTB16,ELK3,CUX2,VDR,RFK4,EZF3,SRF,HAND1,NR3C1,OTX1,CEBPZ,KLF7,PLAGL1,ONECUT2,BCL11A,MXII1,ENGL1,NFYB,TBX2,EGR2,ATF1,RRB1,BARH1,MAX,HOXD9,E2F8,GATAS,NFATC1,NRH12,ARA,THAP1,H3F3B,BHLHE40,MEIS2,NKX2-8,VEZF1,ACTL6A,NRS1A,LMXK18,MYC,TFAP2A,RF4,ESR2,TCF12,ZFHX3,SMAD4,BARHL2,POU2F1,PARP1,NFIB,ZEB1,HMGGA2,POU4F2,KLF10,ETS2,RUNX1,IER2,TALL1,RRBP4,LMX1A,ATF3,CGGBP1,T,TEX20,NFIL3,HNRNP,K,PHOX2A,CDX2,NOS2,1,2NF219,2NF143,ZSCAN21,STAT6,SP2
GO:0009977	RNA polymerase II regulatory region sequence-specific DNA binding		PAX6,ETV7,RUNX3,HSF2,TBPL1,BARX2,PHF21B,PRDM1,ROXA,MNT,NFKB2,MEF2C,RFK2,TKB5,TFAP4,ESR1,KZF5,CREM,H2AFY2,XBP1,NFAT5,CTCF,FOXP1,MAZ,DBP,GLI3,ABP1,CREB3,TFAM,SMARCD2,DLX4,ZBTB16,ELK3,CUX2,VDR,RFK4,EZF3,SRF,HAND1,NR3C1,OTX1,CEBPZ,KLF7,PLAGL1,ONECUT2,BCL11A,MXII1,ENGL1,NFYB,TBX2,EGR2,ATF1,RRB1,BARH1,MAX,HOXD9,E2F8,GATAS,NFATC1,NRH12,ARA,THAP1,H3F3B,BHLHE40,MEIS2,NKX2-8,VEZF1,ACTL6A,NRS1A,LMXK18,MYC,TFAP2A,RF4,ESR2,TCF12,ZFHX3,GATAS,SMAD4,BARHL2,POU2F1,PARP1,NFIB,ZEB1,HMGGA2,POU4F2,KLF10,ETS2,RUNX1,IER2,TALL1,RRBP4,LMX1A,ATF3,CGGBP1,T,TEX20,NFIL3,HNRNP,K,PHOX2A,CDX2,NOS2,1,2NF219,2NF143,ZSCAN21,STAT6,SP2
GO:0060322	head development		CTNS,SIRT2,ROXA,WDR62,PAX2,PCM1,DYNLL1,PHGDH,H2AFY2,BMP7,CRISPLD2,SALL1,CDK6,WNT2,WNT3,YWHAEC12ORF57,UBE3A,WNT5A,ABC6,RRB3GAP1,CHD5,DOCK7,CENPF,MAPKAP1,TGFBR3,CRISPLD1,EGR2,ATXN1,WNT1,BMP4,NKX2-2,SYNGR3,YWHAH,SMO,FOXJ1,PTP11,UTP3,WNT2B,EPHA7,DAAB2IP,SIX3,CTNNA4,TMEM108,SULT2,ECCE2,EPHSA5,TACCL1,NFIB,NTRK2,KIRREL3,HNMT,WNT5A,CA10,SKI,CHRN2B,LMX1A,MSX1,EOMES,PTX2,SHH,DLCL1,FZD6,CXB,DDIT4,PTF1A,SEMA4C,ZDHHC16,CHD7,NEUROD2,PTEN,FOX
GO:0007417	central nervous system development		PAX6,JARID2,ADAM22,CTNS,NCKAP1,SIRT2,ROXA,WDR62,PAX2,PCM1,PSEN1,DYNLL1,PHGDH,H2AFY2,BMP7,SALL1,CDK6,WNT2,POU6F2,WNT3,YWHAEC12ORF57,UBE3A,WNT5A,ABC6,RRB3GAP1,CHD5,DOCK7,CENPF,MAPKAP1,EGFR2,ATXN1,WNT1,BMP4,NKX2-1,CHST8,ATXN1,WNT1,BMP4,NKX2-2,SYNGR3,YWHAH,SMO,FOXJ1,PTP11,UTP3,ELP3,WNT2B,EPHA7,SERPINE2,BIN1,DAAB2IP,TFAP2A,SIX3,FOXNA4,MDOGA2,CTNNA4,TMEM108,SULT2,ECCE2,EPHSA5,TACCL1,NFIB,NTRK2,NOTCH1,KIRREL3,HNMT,WNT5A,EPH81,CA10,SKI,CHRN2B,LMX1A,EOMES,PTX2,TBX20,SHH,DLCL1,CDK5,F
GO:0007420	brain development		CTNS,SIRT2,ROXA,WDR62,PAX2,PCM1,DYNLL1,PHGDH,H2AFY2,BMP7,SALL1,CDK6,WNT2,WNT3,YWHAEC12ORF57,UBE3A,WNT5A,ABC6,RRB3GAP1,CHD5,DOCK7,CENPF,MAPKAP1,EGFR2,ATXN1,WNT1,BMP4,NKX2-2,SYNGR3,YWHAH,SMO,FOXJ1,PTP11,UTP3,WNT2B,EPHA7,DAAB2IP,SIX3,CTNNA4,TMEM108,SULT2,ECCE2,EPHSA5,TACCL1,NFIB,NTRK2,KIRREL3,HNMT,WNT5A,CA10,SKI,CHRN2B,LMX1A,EOMES,PTX2,TBX20,SHH,DLCL1,CDK5,F
GO:0070848	response to growth factor		RUNX3,CD44,ZFYVE16,SIRT2,TGFR83,FGF10,UBE2D1,FGF20,MEF2C,KIF16B,BAMBI,SIRT1,NRP1,POLR2E,PPM1A,HIF1A,BMP7,FLT1,POLR2C,ESRP1,STMN2,ARHGFE18,PCD5,POLR2,TGFB1,CAV1,WNT2,SFRP4,PBLD,MTMR4,RP56K81,SNK25,MAPK14,NR3C1,WNT5A,NCBP2,ACVYR1,GALNT3,STK16,STK11,RAB14,TGFR83,ACVR2A,GIPCL1,RUNX2,WNT1,BMP4,JD1,FGFR11,PN1,PTPN12,TWSG1,CDKN1C,MTSS1L,NF3,NOG,SOX5,PDGFRA,CD63,USP15,TGFBRAP1,DAAB2IP,MYC,SODCIP,MAP2K5,THBS1,DUSP6,GATAG,RFN165,SMAD4,PRDM16,EPHA2,DLX1,TMEM108,S
GO:0009987	proximal promoter sequence-specific DNA binding		TBPL1,PRDM1,PAX2,NFKB2,RFK2,TKB5,TFAP4,ESR1,YY1,ZNF516,NFAT5,CTCF,GLI3,CREB3,TFAM,SMARCD2,DLX4,ELK3,VDR,RFK4,SFR,HAND1,NR3C1,OTX1,CEBPZ,KLF7,ONECUT2,BCL11A,TBX2,EGR2,MAX,E2F8,NRH12,ARA,THAP1,BHLHE40,MEIS2,NKX2-8,ACTL6A,MYC,TFAP2A,RF4,ESR2,TCF12,ZFHX3,SMAD4,NFIB,ZEB1,HMGGA2,POU4F2,KLF10,ETS2,TALL1,RRBP4,HNRNP,K,NZF219,2NF143,ZSCAN21,SP2,RRP1,THAP1,ATOH8,NEUROD2,SMARCC1,NP45A,TGIF1,JUN,NEUROG2,ZBTB2,RFK7,NEUROG1,CREB3L2,MYBL1,RRX1,TEA
GO:0071363	cellular response to growth factor stimulus		CD44,ZFYVE16,SIRT2,TGFR83,FGF10,UBE2D1,FGF20,MEF2C,KIF16B,BAMBI,SIRT1,NRP1,POLR2E,PPM1A,HIF1A,BMP7,FLT1,POLR2C,ESRP1,STMN2,ARHGFE18,PCD5,POLR2,TGFB1,CAV1,WNT2,SFRP4,PBLD,MTMR4,RP56K81,SNK25,MAPK14,NR3C1,WNT5A,NCBP2,ACVYR1,GALNT3,STK16,STK11,RAB14,TGFR83,ACVR2A,GIPCL1,RUNX2,WNT1,BMP4,JD1,FGFR11,PN1,PTPN12,TWSG1,CDKN1C,MTSS1L,NF3,NOG,SOX5,PDGFRA,CD63,USP15,TGFBRAP1,DAAB2IP,MYC,SODCIP,MAP2K5,THBS1,DUSP6,GATAG,RFN165,SMAD4,PRDM16,EPHA2,DLX1,TMEM108,S
GO:0009978	RNA polymerase II proximal promoter sequence-specific DNA binding		TBPL1,PRDM1,NFKB2,RFK2,TKB5,TFAP4,ESR1,NFAT5,CTCF,GLI3,CREB3,TFAM,SMARCD2,DLX4,ELK3,VDR,RFK4,SFR,HAND1,NR3C1,OTX1,CEBPZ,KLF7,ONECUT2,BCL11A,TBX2,EGR2,MAX,E2F8,NRH12,ARA,THAP1,BHLHE40,MEIS2,NKX2-8,ACTL6A,MYC,TFAP2A,RF4,ESR2,TCF12,ZFHX3,SMAD4,NFIB,ZEB1,HMGGA2,POU4F2,KLF10,ETS2,TALL1,RRBP4,HNRNP,K,NZF219,2NF143,ZSCAN21,SP2,RRP1,THAP1,ATOH8,NEUROD2,SMARCC1,NP45A,TGIF1,JUN,NEUROG2,ZBTB2,RFK7,NEUROG1,CREB3L2,ASCL2,MYBL1,RRX1,MT
GO:0048568	embryonic organ development		WNT16,KITLG,TEAD2,PAX2,MEF2,PCSK5,MTHFD1,BMP7,FOXJ1,SALL1,TGFB1,HOXA1,GLI3,SFR,HAND1,WNT5A,ACVYR1,FEFM9P1,JD2,MTHFD1L,TBX2,WDR60,SMO,E2F8,PDGFRA,TFAP2A,SIX3,COL2A1,FOXN4,CCDC40,PLK4,OSR1,NOTCH1,KIT,RFN207,TALL1,IHH,EOMES,CITED2,TBX20,
GO:0001228	transcriptional activator activity, RNA polymerase II transcription regulatory region sequence-specific DNA binding		HSF2,TBPL1,BARX2,ROXA,NFKB2,MEF2C,RFK2,MYC,ENGL1,HIF1A,NFAT5,FOXP1,DBP,HOXA1,GLI3,CREB3,LHX4,TFAM,ELK3,RFK4,EZF3,SFR,NR3C1,OTX1,CEBPZ,RFK7,PLAGL1,ONECUT2,LHX4,EGR2,ATF1,RRB1,BARH1,PLAGL2,IRF5,HOXD13,FOXJ1,FOXJ1,GATAS,NFATC1,NRH12,MEIS2,EGR4,
GO:0007990	embryo development		WNT16,CYP26B1,KITLG,EYA2,CLASP1,TEAD2,PAX2,MEF2C,WNT11,NFIB,TGFB1,PCSK5,PICK1,SIX4,MTHFD1,BMP7,FLT1,TS2,CTCF,FOXP1,SALL1,TGFB1,HOXA1,GLI3,COL2A1,SFR,TBX18,HAND1,WNT5A,ACVYR1,FEFM9P1,JD2,RAB14,TGFR83,DUSP1,MTHFD1L,DUSP4,TBX2,W
GO:0009982	transcription factor activity, RNA polymerase II proximal promoter sequence-specific DNA binding		TBPL1,PRDM1,NFKB2,MEF2C,ESR1,YY1,NFAT5,CTCF,DBP,GLI3,CREB3,TFAM,DLX4,ELK3,RFK4,SFR,HAND1,NR3C1,OTX1,CEBPZ,KLF7,ONECUT2,BCL11A,TBX2,EGR2,MAX,PLAGL2,E2F8,FOXJ1,FOXJ1,NRH12,THAP1,BHLHE40,MEIS2,NKX2-8,MYC,TFAP2A,RF4,TCF12,ZFHX3,MYOCD,SMAD4,NFIB,HMGGA2,POU4F2,KLF10,ETS2,GF1,KLF15,NFIL3,HNRNP,K,NZF219,2NF143,ZSCAN21,SP2,RRP1,THAP1,ONECUT1,CAMTA1,NP45A,SOX11,TGIF1,JUN,ZFPM1,ZBTB2,ASCL2,MYBL1,TEAD1,MITF,SREBF2,ONECUT3,HOXA10
GO:0044772	mitotic cell cycle phase transition		CDK27,PSMB1,ZNF207,ANLN,TPR,SODCAG,PPP1R12A,BCAT1,MCM10,SIRT2,FGF10,MCM2,CLASP1,GTSE1,PPP1R12B,PCM1,CDCA14,PSMC5,DYNLL1,TPA4,ORC6L,CDK6,CDK7,RRK1,CDKN3,CDK3B,CHMP4B,FXR31,MCM4,ERCC2,PPP2R1A,CDK6,CASP2,RPA3,CCNY,PSMD3,RP56K81,PSMD11,YWHAEC,CCND1,C12ORF57,CEP350,CDKN1B,TPO52L1,CEP72,SXP1,NEK11,EFAPG1,ACVYR1,JD2,CNRP,RP42,PLAGL1,NKX6,USP11,JD2,CNRP,MAO2L1B9,MCM8,MAX,PRMT1,TUBA4A,INDB0,EFZ,CHMP2A,LATS1,PSM3,PCN1,JARCE,ESPL1,USP37,PSM87,MYC,HEC2,PHLDA1,R
GO:0072001	renal system development		PROM1,FGF10,PAX2,MEF2C,WNT11,PCSK5,SIX4,BMP7,JAG1,FOXJ1,SALL1,C1GALT1,WFS1,ZBTB16,TBX18,CENPF,EGR1,BMP4,SMO,HOXD11,FOXJ1,TG84,PDGFRA,MYC,TFAP2A,OSR1,SULT2,MYO1E,KLF15,SHH,SOX17,RET,GNF,CD34,CTNNBP1,PTCH1,MAGI2,COL4A1,IFT140,WNT7B
GO:0061448	connective tissue development		3.33E-04 RUNX3,CD44,BARX2,DGAT2,MEF2C,WNT11,SIRT1,XBP1,BMP7,ZNF516,DYRK18,TGFB1,TGFB8,NKX3-2,ZBTB16,WNT5B,TRPV4,FEFM9P1,EGR1,RUNX2,BMP4,WNT2B,SOX5,COL2A1,OSR1,NFIB,HMGGA2,GDF6,RUNK1,GREM1,CD34,ALX1,CREB3L2,WNT7B,BMPR2,CRP1
GO:0048729	tissue morphogenesis		WNT16,PSMB1,CELSR3,CD44,EYA2,MYLK,TGFR83,FGF10,CLASP1,PAX2,MEF2C,RAB10,WNT11,PSMCS,OSP,NRP1,DAAM1,SIX4,MTHFD1,BMP7,TSC2,FOXP1,SALL1,TGFB1,PSMD3,PSMD11,SFR,HAND1,WNT5A,ACVYR1,MTHFD1L,TBX2,RRB1,WNT1,BMP4,SMO,HOXD11,PSM3,EGFR,K
GO:0001655	urogenital system development		PROM1,FGF10,PAX2,MEF2C,WNT11,PCSK5,SIX4,BMP7,JAG1,FOXJ1,SALL1,C1GALT1,WFS1,ZBTB16,TBX18,CENPF,EGR1,BMP4,SMO,HOXD11,FOXJ1,TG84,PDGFRA,MYC,TFAP2A,OSR1,SULT2,MYO1E,KLF15,SHH,SOX17,RET,GNF,CD34,CTNNBP1,EPH83,PTCH1,MAGI2,COL4A1,IFT140,WNT7B,SULF2,NF1,DLL1,BAT3,LHX1,HNF1B
GO:0050767	regulation of neurogenesis		CDK13,PAX6,SEMA3G,CAMK2B,NTN1,SPEN,SYT1,SIRT2,PLXNA2,FGF20,PCM1,PSEN1,MEF2C,SMARCD3,ABL1,NRP1,BMP7,STMN2,CPEB3,WNT3,EPH83,TRPV4,CUX2,SNX3,PTK7,WNT5A,GORASP1,JD2,ARHGFE2,DOCK7,CXCR4,OBSL1,CPNFB,EFNB2,RFN6,YWHAH,CHN1,RTM4P1,OLFM
GO:0097485	neuron projection guidance		RANBP9,SEMA3B,NRXN3,GAB2,NTN1,EPHAB,PLXNA2,USP3,EZR,NRP1,RP56K5,EPH83,WNT5A,SPTNB1,CXCR4,EFNB2,VASP,CHN1,KRAS,TUBB2B,RFN165,CTNNA4,SULT2,EPHSA5,NFIB,NCAM1,FEZ1,POU4F2,GFRA1,EPH81,SHH,RET,MAPK7,KIF5C,GFRA2,GDNF,ALCAM,PIK3CD,NRXN1,S1

GO:0007411	axon guidance	RANBP9,SEMA3B,NRXN3,GAB2,NTN1,EPHA8,PLXNA2,USP33,EZR,NRP1,RP56KAS,EFNB3,WNT5A,SPYBN1,CXCR4,EFNB2,VASP,CHN1,KRAS,TUBB2B,RFNF165,CNTN4,SULT2,EPHAs,NFIB,NCAM1,FEZ1,POU4F2,GFR1A,EPHB1,SHH,RET,MAPK7,KIF5C,GFR2,GDNF,ALCAM,PIK3CD,NRXN1,S1 3.33E-04 AH2,UNC5C,EPH83,SUT3,IRS2,SULT1,DCC,POLIM7,PLXNA4,TUBB3,LHX1
GO:0060485	mesenchyme development	TGFB3,CLASP1,PAK2,MEF2C,WNT11,TBXS,BAMBI,NRP1,SIX4,HIF1A,BMP7,JAG1,FOXF1,TGFB1,E2H2,PBLD,COL1A1,PPP2CA,WNT5A,ACVR1,TGFB3,TBXL2,GIPR2,BMP4,SMO,ELL3,FOXK1,OLFML1,DAB2IP,MYC,SOXB1,SMAD4,ACTA1,OSR1,SFRP2,NOTCH1,HMGA2,TIAM1,NRG1,PDNPE 3.33E-04 OMES,PTX2,CTE2D,TBK20,HEY1,SHH,GREM1,RBP1,GDNF,PTEN,SOX11,ERBB4,ALK1,HNRNPAB,BMPR2
GO:0006470	protein dephosphorylation	PHT1,PPP1R12A,EYA2,PPM1A,PRRD18,TGFB1,PPP2R1A,MTMR4,YWHAE,SAPS3,PTPN5,EY4,PPP2CA,PPP4R4,DUSP1,DUSP4,CRY2,RPAP2,PTPN12,PPP1R1B,PTPR,PPP3CA,DUSP6,SSH2,TIPRL,DUSP10,CTDSP1,PTPRJ,PTPRK,PTPRN2,PPP2R2B,EYA3,PPP1R15B,CALM3,DUSP7,ULCLP1 3.33E-04 DLC1,BTRC,SMPD1,YWHAB,DUSP18,PTEN,CTDSP2,GBA,PGF,CDCA2,PPP1CC,MAGI2,PTPN1,PPP1R11,ITGA1,POXP,DUSP14
GO:0043010	camera-type eye development	WNT16,PROM1,PAK6,PAX2,SMARCD3,NRP1,WNT2,WNT5B,C12ORF57,WNT5A,EFEMP1,RAB3GAP1,TBK2,WNT2B,PDGFRA,ACTL6A,TFAP2A,CYP1B1,SIX3,FOXN4,EPHA2,DLX1,GP66A,CACNA1C,POU4F2,SKI,PTX2,PTF1A,CHD7,SOX11,MAF,COL4A1,ITF140,WNT7B,NF1,DLL1,BMPR2,LH 3.67E-04 X1
GO:0120039	plasma membrane bounded cell projection morphogenesis	CDK1,3,RANBP9,SEMA3G,SEMA3B,NRXN3,CD44,GAB2,DTNBP1,CAMK2B,NTN1,SYT1,EPHA8,PAX2,PLXNA2,USP33,RAB10,EZR,ABL1,NRP1,RP56KAS,BMP7,ARHGGEF7,EFNB3,CUX2,C12ORF57,WNT5A,GORASP1,SPYBN1,DOCK7,CXCR4,OBSL1,CPN5,RRB1,EFNB2,VASP,RFNF6,YWHAH,CH N1,OLFML1,KRAS,NGF,CAPRIN1,DBNL,DAB2IP,TUBB2B,KIF20B,SSH2,RFNF165,CPNE9,CNTN4,GOLGA4,TMEM108,SULT2,EPHAs,NFIB,NTRK2,NCAM1,FEZ1,GP66A,POU4F2,GFR1A,IMPACT,TNIK,EPHB1,NBL1,CHRN2B,PDN,NTNG1,SHH,CDK5,SUTRKS,RET,MAPK7,KIF5C,GFR2,GDNF,SD 3.67E-04 C2,ALCAM,MAP6,PIK3CD,PTEN,FOXK1,CHRNA7,SUTR1,NRXN1,SHAH2,UNC5C,EPH83,SUT3,NTF3,IRS2,MAPT,SULT1,DCC,POLIM7,ZNF335,SYT3,CPNE1,PLXNA4,TUBB3,LHX1,CYFIP1
GO:0051960	regulation of nervous system development	CDK1,3,PAX6,SEMA3G,CAMK2B,NTN1,SPEN,SYT1,SIRT2,PAX2,PLXNA2,FGF20,PCM1,PSEN1,MEF2C,SMARCD3,ABL1,NRP1,BMP7,STMN2,CEB3,WNT3,EFNB3,TRPV4,CUX2,RFX4,SNX3,PTK7,WNT5A,GORASP1,EIF4G1,ID2,ARHGFE2,DOCK7,CXCR4,OBSL1,CPN5,EFNB2,RFNF6,YWHAH,CH N1,RTN4P1,OLFML1,CASZ1,PER2,NGF,CAPRIN1,SERPINE2,BIN1,DAB2IP,TUBB2B,YAP1,SIX3,KIF20B,TCF12,SSH2,DLX1,CPNE9,CNTN4,GOLGA4,SULT2,DYNLT1,NTRK2,NOTCH1,ZEB1,NKX6- 3.67E-04 2,POU4F2,IMPACT,TNIK,WNT3A,EPHB1,TIAM1,SK1,NBL1,CHRN2B,GH11,HMGB2,CDK5,RET,BAG5,ULK4,SDC2,NEUROD2,PTEN,ATHO1,SOX11,SUTR1,CALR,NRXN1,NEUROG1,EPHB3,ASCL2,NTF3,MAPT,SULT1,DCC,MAGI2,NF1,ZNF335,DLL1,RAGE,SYT3,CPNE1,PLXNA4,LHX1
GO:0048858	cell projection morphogenesis	CDK1,3,RANBP9,SEMA3G,SEMA3B,NRXN3,CD44,GAB2,DTNBP1,CAMK2B,NTN1,SYT1,EPHA8,PAX2,PLXNA2,USP33,RAB10,EZR,ABL1,NRP1,RP56KAS,BMP7,ARHGGEF7,EFNB3,CUX2,C12ORF57,WNT5A,GORASP1,SPYBN1,DOCK7,CXCR4,OBSL1,CPN5,RRB1,EFNB2,VASP,RFNF6,YWHAH,CH N1,OLFML1,KRAS,NGF,CAPRIN1,DBNL,DAB2IP,TUBB2B,KIF20B,SSH2,RFNF165,CPNE9,CNTN4,GOLGA4,TMEM108,SULT2,EPHAs,NFIB,NTRK2,NCAM1,FEZ1,GP66A,POU4F2,GFR1A,IMPACT,TNIK,EPHB1,NBL1,CHRN2B,PDN,NTNG1,SHH,CDK5,SUTRKS,RET,MAPK7,KIF5C,GFR2,GDNF,SD 4.68E-04 C2,ALCAM,MAP6,PIK3CD,PTEN,FOXK1,CHRNA7,SUTR1,NRXN1,SHAH2,UNC5C,EPH83,SUT3,NTF3,IRS2,MAPT,SULT1,DCC,POLIM7,ZNF335,SYT3,CPNE1,PLXNA4,TUBB3,LHX1,CYFIP1
GO:0045165	cell fate commitment	WNT16,CYP26B1,FRD1,PAX6,EYA2,RORA,PAX2,MEF2C,RAB10,WNT11,NRP1,JAG1,WNT2,POU6F2,WNT3,WNT5B,WNT5A,ACVR1,ID2,EPAS1,CHD5,ARHGFE2,DOCK7,TBK2,WNT1,BMP4,WNT2B,SOXS,IRF4,DUSP6,FOXN4,MCL1,WNT3A,TALI,PDN,SHH,SOX17,RBP1,GATA2,ZFPM1,PO 4.68E-04 U3F2,WNT7B,DLL1,NOTCH4
GO:0051019	mitogen-activated protein kinase binding	4.68E-04 TPR,SIRT1,ABL1,MAPK14,PRMT3,NFATC1,GCH1,DUSP10,PTPRJ,MAPKAPK2,MAPK7,ATF7,NBR1
GO:0060562	epithelial tube morphogenesis	FGF10,PAX2,MEF2C,WNT11,NRP1,SIX4,MTHFD1,BMP7,TSC2,FOXF1,SALL1,TGFB1,SRF,HAND1,ACVR1,MTHFD1L,TBK2,BMP4,SMO,HOXD11,CCM2,MYC,FOXN4,CCDC40,EPHA2,LMO4,OSR1,SULT2,SFRP2,NOTCH1,SKI,RFNF207,IHH,TBK20,SHH,SOX17,DLCL1,RBP1,GDNF,SEMA4C,SOX11,CT 5.77E-04 NNB1P1,COL4A1,DLL1,NOTCH4,CSNK2B,LHX1
GO:0032990	cell part morphogenesis	CDK1,3,RANBP9,SEMA3G,SEMA3B,NRXN3,CD44,GAB2,DTNBP1,CAMK2B,NTN1,SYT1,EPHA8,PAX2,PLXNA2,USP33,RAB10,EZR,ABL1,NRP1,RP56KAS,BMP7,ARHGGEF7,EFNB3,CUX2,C12ORF57,WNT5A,GORASP1,SPYBN1,DOCK7,CXCR4,OBSL1,CPN5,RRB1,EFNB2,VASP,RFNF6,YWHAH,CH N1,OLFML1,KRAS,NGF,CAPRIN1,DBNL,DAB2IP,TUBB2B,KIF20B,SSH2,RFNF165,CPNE9,CNTN4,GOLGA4,TMEM108,SULT2,EPHAs,NFIB,NTRK2,NCAM1,FEZ1,GP66A,POU4F2,GFR1A,IMPACT,TNIK,EPHB1,NBL1,CHRN2B,PDN,NTNG1,SHH,CDK5,SUTRKS,RET,MAPK7,KIF5C,GFR2, 7.02E-04 GDNF,SDC2,ALCAM,MAP6,PIK3CD,PTEN,FOXK1,CHRNA7,SUTR1,NRXN1,SHAH2,UNC5C,EPH83,SUT3,NTF3,IRS2,MAPT,SULT1,DCC,POLIM7,ZNF335,SYT3,CPNE1,PLXNA4,TUBB3,LHX1,CYFIP1
GO:0048812	neuron projection morphogenesis	CDK1,3,RANBP9,SEMA3G,SEMA3B,NRXN3,GAB2,DTNBP1,CAMK2B,NTN1,SYT1,EPHA8,PAX2,PLXNA2,USP33,RAB10,EZR,ABL1,NRP1,RP56KAS,BMP7,EFNB3,CUX2,C12ORF57,WNT5A,GORASP1,SPYBN1,DOCK7,CXCR4,OBSL1,CPN5,EFNB2,VASP,RFNF6,YWHAH,CHN1,OLFML1,KRAS,NGF,C APRIN1,DBNL,DAB2IP,TUBB2B,KIF20B,SSH2,RFNF165,CPNE9,CNTN4,GOLGA4,TMEM108,SULT2,EPHAs,NFIB,NTRK2,NCAM1,FEZ1,GP66A,POU4F2,GFR1A,IMPACT,TNIK,EPHB1,NBL1,CHRN2B,NTNG1,SHH,CDK5,SUTRKS,RET,MAPK7,KIF5C,GFR2,GDNF,SD,CALCAM,MAP6,PIK3CD,PT 7.28E-04 N,FOXK1,CHRNA7,SUTR1,NRXN1,SHAH2,UNC5C,EPH83,SUT3,NTF3,IRS2,MAPT,SULT1,DCC,POLIM7,ZNF335,SYT3,CPNE1,PLXNA4,TUBB3,LHX1,CYFIP1
GO:0048598	embryonic morphogenesis	WNT16,CYP26B1,EYA2,CLASP1,PAX2,MEF2C,KIF16B,TBXS,SIX4,MTHFD1,BMP7,FLT1,TSC2,FOXF1,SALL1,TGFB1,HOKA1,GU3,COL12A1,SRF,HAND1,WNT5A,ACVR1,EFEMP1,ID2,DUSP1,MTHFD1L,DUSP4,TBK2,BMP4,WDR60,SMO,ITGB4,KDM6B,PDGFRA,TFAP2A,MAP2K5,SIX3,ITGA5,C 8.62E-04 OI2A1,DUSP6,FOXN4,CCDC40,LMO4,OSR1,NOTCH1,HMGA2,CACNA1C,WNT3A,MM14,SKI,RFNF207,MXK1,IHH,EOMES,ITGA2,TBK20,SHH,SOX17,DLCL1,MAPK7,GDNF,SEMA4C,ATOH8,CHD7,SOX11,NEUROG1,PTCH1,WNT7B,MBP,DLL1,BMPR2,LHX1
GO:0003256	regulation of transcription from RNA polymerase II promoter involved in myocardial precursor cell differentiation	8.87E-04 SRF,TBK2,MYOCD,NOTCH1,T,GREM1,RBP1
GO:0001501	skeletal system development	CYP26B1,RUNX3,CD44,BARK2,MEF2C,WNT11,GNAS,DL3,PCSK5,MTHFD1,BMP7,TGFB1,ITGB8,HOKA1,SFRP4,AEBP1,COL1A1,NKX3- 2,ZBTB16,WNT5B,TRPV4,COL12A1,NPR3,WNT5A,EFEMP1,MTHFD1L,RUNX2,WNT1,BMP4,WDR60,HOXD13,WNT2B,SOXS,PDGFRA,TFAP2A,PAF51,COL2A1,CDH11,DYM,OSR1,NFIB,HMGA2,ANKH,KLF10,GDF6,KIT,ETS2,SKI,EXTL1,RUNX1,PTH1R,IHH,PTX2,HHP,INPPL1,GREM1,VKORC 9.61E-04 1,SHOX2,CHOT7,SOX11,ALK1,NEUROG1,CREB3I2,ITF140,WNT7B,SULF2,BMPR2,LHX1
GO:0001227	transcriptional repressor activity, RNA polymerase II transcription regulatory region sequence-specific DNA binding	ZNF263,ETV7,PRDM1,MNT,KZF5,CREM,Y11,CTCF,ZNF174,AEBP1,DLX4,ZBTB16,HAND1,FOXO3,BCL11A,MXII1,TBK2,MAX,HOXD9,E2F8,THAP1,BHLHE40,TFAP2A,ZFHX3,ZEB1,HMGA2,POU4F2,ETS2,GF11,CGGBP1,NFIL3,CDX2,ZNF219,SP2,THAP11,E2F6,ZEB2,ZBTB4,HC1,TGIF1,ZFPM1,Z 9.67E-04 BTB2,ASCL2,MITF,SREBF2,ZNF224
GO:0010002	cardioblast differentiation	1.10E-03 TBXS,SRF,TBK2,MYOCD,ECE2,NOTCH1,WNT3A,NRG1,T,GREM1,RBP1
GO:2001020	regulation of response to DNA damage stimulus	RAD52,DXN11,CD44,BCLAF1,EYA2,TP53BP1,FGF10,WDR76,SIRT1,ABL1,TRIP11,RFN8,EYA4,OGG1,RPAP2,CLU,HELB,PCNA,CASP9,MYC,IER3,PARP9,PMAP1,MLC1,PARP1,ETAA1,SFRP2,EGFR,ATM,HMGA2,EYA3,ANKK1,USP1,MSK1,SPRED1,RFNF165,OTUB1,RFWD3,FEM1B,POLH,TRIAP1, 1.19E-03 BCL2L1,ATR,HC1,UBE2N,MAPT,SPRED2,NUT16
GO:0002009	morphogenesis of an epithelium	WNT16,PSM81,CELS3,CD44,FGF10,CLASP1,PAX2,MEF2C,RAB10,WNT11,PSMCS,NRP1,DAAM1,SIX4,MTHFD1,BMP7,TSC2,FOXF1,SALL1,TGFB1,PSM20,PSM10,SRF,HAND1,WNT5A,ACVR1,MTHFD1L,TBK2,RRB1,WNT1,BMP4,SMO,HOXD11,PSM63,CCM2,TOR1A,PSM87,MYC,TFAP2 A,FOXN4,CCDC40,EPHA2,LMO4,OSR1,TMFEF2,SULT2,SFRP2,NOTCH1,TIAM1,SKI,RFNF207,PDN,IHH,TBK20,SHH,SOX17,DLCL1,ZFDB,ARHGAP12,RBP1,GDNF,SEMA4C,PTEN,PSM10,SOX11,CTNNB1P1,PSM13,MAGI2,COL4A1,WNT7B,XIAP1,DLL1,NOTCH4,CSNK2B,PSM10,UBA52,PSM89 1.28E-03 ,LHX1
GO:0071900	regulation of protein serine/threonine kinase activity	MAP2K3,KARS,FGF10,TRIB2,EDN1,MEF2C,ERP29,TFAP4,CDCE6,SIRT1,ABL1,CRKL,CDKN3,TELO2,BMP7,FLT1,RIK2,TGFB1,PPP2R1A,CAV1,E2H2,GTPBP4,BCCIP,CCNY,CND1,HIPK3,DUSP16,CDKN18,FZD10,TPD52L1,MAPK14,PPP2CA,WNT5A,ROS2,STK11,DUSP1,DUSP4,CXCR4,CDKN2C, CXK2,EDN3,BMP4,LATS1,IRAK2,NGF,APC,DBNL,DAB2IP,MAP2K5,THBS1,HERCS,DUSP6,NTRK3,MYOCD,DUSP10,ETAA1,EGFR,PTPRJ,ADRA2A,NTRK1,NK1,CTDC2C5,CALM3,MAPKAPK2,TGFA,CCNL1,CCD25A,DUSP7,SPRE1,SMPD1,HEXIM2,ADAM9,GPS1,INSR,PTEN,TRIN1,CHRN4,G 1.43E-03 BA,UBE2N,NRXN1,FZK,HGS,MAPK11,NTF3,PTPN1,NF1,SPRED2,DAOX,IP07,CCNL2,UBA52
GO:0007178	transmembrane receptor protein serine/threonine kinase signaling pathway	ZFYVE16,TGFB83,UBE2D1,BAMBI,SIRT1,PPM1A,BMP7,ARHGFE18,TGFB1,CAV1,SFRP4,PBLD,MTMR4,SNX25,ACVR1,SL11,TGFB3,ACVR2A,GIPC1,RUNX2,WNT1,BMP4,ID1,PIN1,TW5G1,CDKN1C,FAST,USP15,TGFB8AP1,SDCBP,THS1,GATA6,RFNF165,SMAD4,PRDM16,DLX1,NOTCH1,BTB 1.53E-03 D11,PTPRK,TLF10,GDF6,RPMS,SKI,NBL1,F1R,ZYX,FTSL1,HPGD,CTD2,SHH,GREM1,RBP1,FNTA,ADAM9,ATOH8,SLC33A1,RC6B,CIDEA,EID2,SOX11,JUN,RGMA,CLDN5,MAGI2,TRIM33,BMPR2,HSPA1A,CSNK2B,UBA52

GO:0008134	transcription factor binding	PAX6,PIAS1,RNF19A,RNF4,SPEN,CDK13,TP53BP1,HDAC4,SIRT2,RORA,HE52,TRIB2,TEAD2,PAX2,BAZZA,MEF2C,SMARCC3,MYST3,PMSC5,ADD1,TBX5,ESR1,CREM,SIRT1,RBK1,HIF1A,NFKBIA,ZNF516,UBE2I,2,NFRSF10A,PP1R13L,LHX3,CCND1,VDR,MAPK14,SRF,APBB3,HAND1,KAT2B,STRM,EPAS1,NFE2L2,ARHGFE2,DR1,RCOR3,CENPF,NEK6,NFYB,EGR2,CHD6,FO58,RNF6,YWHAH,ATF4,GATA5,LATS1,NFATC1,RARA,EZF5,BHLHE40,MEIS2,KCTD1,REERG,MYC,IRF4,YAP1,SIK3,NAAA,RB1,TCF12,NCOA2,MYOCD,BCAS3,GATA6,PRDM16,LMO4,PARP1,HE56,MTDH,PPRC1,HMG1.53E-03_A2,SKI,TALI,EOMES,YEATS2,PITX2,HMG8B,T,TBX20,HEY1,SOX17,DFAF13,GT2A1,NSD1,RRP1,SNR3A,ATF7,CXCR5,TRKB,TRKB1,CD34,NHLH2,JUN,CALR,GATA2,ZFPM1,NRIP1,PURA,RXRA,TEAD1,SUMO2,NCOR2,DLL1,MAFB,DAXX,CSNK2B,GPX3,NUP62,CPNE1
GO:0045445	myoblast differentiation	1.59E-03_IPFD1,MEF2C,JAG1,TGFBI,MAPK14,SRF,EPAS1,TBX2,BMP4,FLOT2,BTG1,RB1,MYOCD,BIOC,IGFBP1,NOTCH1,NRG1,T,GREM1,RPB1,EIF2B2,DDL1
GO:0060284	regulation of cell development	BAD,CDKL3,PAX6,SEMA3G,CAMK2B,NTN1,SPEN,SYT1,SIRT2,PLXNA2,EDN1,FGF20,PCM1,PSEN1,MEF2C,SMARCC3,ADD1,ABL1,NRIP1,CRK1B,TRIOBP,BMP7,ARHGFE7,STMN2,GSK3A,CPFB3,WNT3,EFNB3,TRPV4,CUX2,SNX3,PTK7,WNT5A,GORASP1,JD2,ARHGFE7,DOCK7,CXCR4,OBSL1,CPNE5,RRB1,EFNB2,BMP4,RNF6,YWHAH,CHN1,RTNAP1,OLFM1,CASZ1,PER2,NGF,CAPRIN1,SERPINE2,BIN1,DOB2IP,TUBB2B,YAP1,SIK3,KIF20B,APIA9,TRCF12,SSH2,SMAD4,DLX1,CPNE9,CNTN4,GOLGA4,SLIT2,DYNLT1,DOCK5,NTRK2,NOTCH1,ZEB1,FOU4F2,IMPACT,THIK,WNT3A,TAM11.53E-03_SKI,NBL1,CHRN8B,PDFN,GF11,HMG8B,CDK5,RET,BAG5,ULK4,SDC2,NEUROD2,PTEN,ATOH1,SOX11,SUTR1,CALR,NEUROG1,EPHB3,ASCL2,CLDN5,NTF3,MAPT,DCC,MAGI2,NF1,S100A10,ZNF335,DLL1,RAGE,SYT3,CPNE1,PLXNA4
GO:0072594	establishment of protein localization to organelle	BAD,AGK,SEC63,KPNA6,PEX3,ZFYVE16,TPR,TSpan17,USP36,RPL18,UZAF2,C1BORF55,RAB7A,PSEN1,RAB10,MAVS,DYNNLL1,SIRT1,H2AFY2,SAMM50,PMM1,VT118,RAE1,SLC17A9,CHMP4B,KPNA3,TSYC2,TMM44,PCDC5,TGFB1,GSK3A,GOSR2,PEX12,YWHAH,FBXW7,HSPAB,ELMOD1,RPS13,RPS12,PEX7,OGG1,RAB39A1,RHOUM,MTN2,CLU,RPL5,BMP4,NUP85,PLAGL2,NUP214,YWHAH,RPAIN,TOMM40,RPL27,GLS2,CTT7,ACTL6A,TXN,PSMB8,SIK3,NUP54,CDKL2,OBFC2B,BRCA2,PMAIP1,RPS11,RESE,HSPD11,TERF1,LRSAM1,FAU,HNMT,TTMM8B,BCL2L11,CC7B,NRGL1,POM1.53E-03_12L12,UZAF1,RPL8,RPL29,CHCHD4,COX18,SNIP1,CEP57,RAB8B,RPL27A,YWHAH,SRP68,DTWD2,BCL2,RPS21,RP57,RPL38,SRP72,TOMM5,KPNA2,RUVBL2,HGS,UBE2L3,MAPT,RPL14,UBL5,RPL10A,SREBF2,IPO7,NUP62,DNL2,TSGA13,NCKIP50,PEX26,UBAS2
GO:0050890	cognition	NRXN3,CTNS,PCALM,PSEN1,MEF2C,CHMP2B,GNAS,TUSC3,HOKA1,CPFB3,NRXN2,CUX2,C12ORF57,SOBP,SLC1A4,ATXN1,PP1T,PLK2,EGR,NTRK2,EIF4EBP2,ADCY8,CHRN8B,INSR,CHD7,PTEN,FOXB1,NPASA,CHRNA7,NRXN1,GPR88,NEUROG1,GRIN2A,CLDN5,DRD1,MAPT,NF1,PIA2,RA1.53E-03_GEATXN1L,CYFIP1
GO:0005925	focal adhesion	MRC2,VIM,CD44,PPP1R12A,NCKAP1,RPL18,ACTN1,CLASP1,MCAM,USP33,ACTN2,RAB10,ADD1,EZR,NR1,TRIOBP,ARHGFE7,FLT1,CAV1,YWHAH,HSPAB,RPS13,TRPV4,PTK7,ARHGFE2,DOCK7,RPL5,PLAUI,LRP1,AHNAK,EFNB2,VASP,NUP214,ARHGAP22,PAK4,AKAP12,CAP1,RPL27,PPFIA1,FLOT2,MPRIP,KRAS,TES,TLN1,FLOT1,MDC1,ADAM10,ITGAV,ARMCS,CDH13,RPS11,EPHA2,LPF,EGFR,RSU1,MMP14,ZYX,RPL8,NEXN,ARPC5,CAPN2,NFASC,ITGA2,DLCL1,HNRNP,K,YWHAH,TPM4,SRP68,ADAM9,ALCAM,CDH2,RP57,RPL38,CALR,FLRT2,P4HB,ATP6VOC,PPP1CC,C1BORF35,P1.53E-03_ARVB,PP1A,PDLM17,IGF2R,PCBP2,RPL10A,HSPA1A,ITGA1,SCARF2,CYFIP1,MARKCS
GO:0006275	regulation of DNA replication	1.66E-03_LIG3,MRE11A,KITLG,RF2,WAPAL,FGF10,CDC6,CD7,TGFB1,PPP2R1A,GT7BP4,FBXW7,PPP2CA,TGFB3,WRNIP1,EREG,BMP4,INO80,E2F8,PCNA,PDGFRA,USP37,CDAN1,EGFR,TERF1,RAD17,DOONSON,E2F7,INSR,ATR,CALR,ENP77,NF2
GO:0071559	response to transforming growth factor beta	RUNX3,TGFB3,MEF2C,BAMBI,SIRT1,PPM1A,ARHGFE18,PCDC5,TGFB1,CAV1,WNT2,PRLO,MTMR4,SNX25,NR3C1,WNT5A,ACVR1,STK16,STK11,TGFB3,GIPC1,JD1,PIN1,TWSG1,CDKN1C,SOX5,USP15,TGFBRAP1,SDCBP,THBS1,ZFH33,SMAD4,PRDM16,DLX1,PTPRK,KLF10,SKI,F1R1,ZYX,H1.66E-03_PGD,CITED2,MAPK7,FNTA,ADAM9,CIDEA,ED2,SOX11,JUN,CLDN5,TRIM33,HSPA1A,UBAS2
GO:0030055	cell-substrate junction	MRC2,VIM,CD44,PPP1R12A,NCKAP1,RPL18,ACTN1,CLASP1,MCAM,USP33,ACTN2,RAB10,ADD1,EZR,NR1,TRIOBP,ARHGFE7,FLT1,CAV1,YWHAH,HSPAB,RPS13,TRPV4,PTK7,ARHGFE2,DOCK7,RPL5,PLAUI,LRP1,AHNAK,EFNB2,VASP,NUP214,ARHGAP22,PAK4,AKAP12,CAP1,RPL27,PPFIA1,FLOT2,MPRIP,KRAS,TES,TLN1,FLOT1,MDC1,ADAM10,ITGAV,ARMCS,CDH13,RPS11,EPHA2,LPF,EGFR,RSU1,MMP14,ZYX,RPL8,NEXN,ARPC5,CAPN2,NFASC,ITGA2,DLCL1,HNRNP,K,YWHAH,TPM4,SRP68,ADAM9,ALCAM,CDH2,RP57,RPL38,CALR,FLRT2,P4HB,ATP6VOC,PPP1CC,C1BORF35,P1.66E-03_RF35,PARVB,PP1A,PDLM17,IGF2R,PCBP2,RPL10A,HSPA1A,ITGA1,SCARF2,CYFIP1,MARKCS
GO:0004714	transmembrane receptor protein tyrosine kinase activity	1.66E-03_EPHA8,NRP1,FLT1,PDGFR1,EFNB3,EFEMP1,FGFR1,PDGFRA,EPHA7,EPHA2,EPHA5,EGR,NTRK2,CRIM1,EPHB1,KIT,RET,AXL,INSR,ERBB4,EPHB3,EPHB4,IGF2R
GO:0005924	cell-substrate adherens junction	MRC2,VIM,CD44,PPP1R12A,NCKAP1,RPL18,ACTN1,CLASP1,MCAM,USP33,ACTN2,RAB10,ADD1,EZR,NR1,TRIOBP,ARHGFE7,FLT1,CAV1,YWHAH,HSPAB,RPS13,TRPV4,PTK7,ARHGFE2,DOCK7,RPL5,PLAUI,LRP1,AHNAK,EFNB2,VASP,NUP214,ARHGAP22,PAK4,AKAP12,CAP1,RPL27,PPFIA1,FLOT2,MPRIP,KRAS,TES,TLN1,FLOT1,MDC1,ADAM10,ITGAV,ARMCS,CDH13,RPS11,EPHA2,LPF,EGFR,RSU1,MMP14,ZYX,RPL8,NEXN,ARPC5,CAPN2,NFASC,ITGA2,DLCL1,HNRNP,K,YWHAH,TPM4,SRP68,ADAM9,ALCAM,CDH2,RP57,RPL38,CALR,FLRT2,P4HB,ATP6VOC,PPP1CC,C1BORF35,P1.66E-03_ARVB,PP1A,PDLM17,IGF2R,PCBP2,RPL10A,HSPA1A,ITGA1,SCARF2,CYFIP1,MARKCS
GO:0043009	chordate embryonic development	PAX2,WNT11,PHGDH,PCSK5,SIX4,MTFHD1,BMP7,TSYC2,FOXF1,TGFB1,HOKA1,COL1A1,SRF,HAND1,WNT5A,TGFB3,MTFHD1,BMP4,WDR60,E2F8,NASP,PDGFRA,LMX1B,TFAP2A,ADAM10,COL2A1,PLK4,LMO4,OSR1,SKI,EOMES,HEY1,DLCL1,CDX2,E2F7,RBP1,SEMA4C,CHD7,FOXB1,SOX11.83E-03_ASCL2,PTCH1,WNT7B,SUF2,DDL1,RIIPV2,BMPR2,LHX1
GO:0003007	heart morphogenesis	TGFB3,MEF2C,TBX5,DSP,NR1,BMP7,JAG1,FOXF1,TGFB1,GSK3A,SRF,HAND1,ACVR1,TBX2,BMP4,SMO,OLFM1,FOXN4,GATA6,CCDC40,SMAD4,SFRP2,NOTCH1,WNT3A,NRG1,RNF207,IHH,PITX2,CITED2,T,TBX20,HEY1,SHH,SOX17,DLCL1,RRP1,INSR,CHD7,SOX11,ZFPN1,CLDN5,FLRT2,E1.90E-03_PHB4,DDL1,BMPR2
GO:1901213	regulation of transcription from RNA polymerase II promoter involved in heart development	1.97E-03_SRF,ACVR1,TBX2,BMP4,MYOCD,NOTCH1,T,GREM1,RBP1
GO:0019199	transmembrane receptor protein kinase activity	1.97E-03_TGFB3,EPHA8,NRP1,FLT1,PDGFR1,EFNB3,ACVR1,EFEMP1,ACVR2A,FGFR1,PDGFRA,EPHA7,EPHA2,EPHA5,EGR,NTRK2,CRIM1,EPHB1,KIT,RET,AXL,INSR,ERBB4,EPHB3,EPHB4,IGF2R,BMPR2
HP:0011792	Neoplasm by histology	PAX6,PAX7,MRE11A,KCNQ1,DMRT3,PMS1,HDAC4,GNAS,OMA11,MAP3K1,SEC23B,TSYC2,IRCC2,POU5F2,GLI3,CD1A1,CTSC,CDKN1B,TRIB3,SF3B1,STK11,CDKN1C,EDN3,MAX,CDKN1C,INS-IGF2,KRAS,PDGFRA,ERCC5,APC,PAX3,NKX1,XPA,TFAP2A,BRCA2,RB1,SMAD4,REB1,PRDM16,SOX9,KCNH1,FOXO1,BUB1,XPC,GNADQ,KIT,SKI,RUNX1,PPH1R,SQSTM1,ANTXR2,DLCL1,WRN,NSD1,RET,CEP57,SPRED1,MAPRE2,GDNF,BUB1,POLH,PTEN,FAM20C,CBEB1,PTCH1,NF2,GF3,MI2.16E-03_TF,DCC,TUBB,NF1,NME1,MC1R
GO:0000819	sister chromatid segregation	CDZ7,ZNF207,NCAPD2,AKAP8L,DDX11,MRE11A,NUP160,TPR,WAPAL,CLASP1,CDCL4A,PIBF1,POSSB,CHMP2B,DYNNLL1,CDC6,REC8,CHMP4B,CENPT,CTCF,FBXW7,C11ORF51,CENPA,PHF13,CENPF,NEK6,DUSP1,CENPL,ZWINT,CENPK,NUP85,BECN1,INO80,CHMP2A,LATS1,APC,ESPL1,HE2.22E-03_CW2,RB1,ANAPC11,KIF2C,NUF2,DYNNLL1,CDCA5,CHMP7,ATM,NCAPD3,MUF1IP,SPC25,BUB3,SKA1,PMF1,RAD21,CEP57,CENPA,MIS12,BUB1,PPP1CC,PRCL1,NUP62,KIFC1
GO:0070482	response to oxygen levels	BAD,PSMB1,CHES9A,SIRT2,RORA,UBE2D1,PSMCS,SIRT1,PICK1,RBK1,HIF1A,BMP7,TM6SF4,NARF1,NDK1,CAV1,CAS,PSM03,PSMD11,SRF,EPAS1,TGFB3,EGRI,CXCR4,RWDD3,ITPR2,PSME3,PSM87,MYC,CPFB2,THBS1,TMBIM6,MYOCD,GATA6,SMAD4,PMAIP1,NOTCH1,VEGFR,FOXO1.2.28E-03_DDAH1,FMN2,ATP6V0D1,CHRN8B,CITED2,DDIT4,RBP1,USP19,PSMD1,CD34,CHRNA7,ASCL2,P4HB,PSMD13,NF1,MOM4,PSMB10,CPFB1,UBAS2,PSMB9
GO:0030900	forebrain development	2.28E-03_WDR62,PCM1,SALL1,CDK6,C12ORF57,WNT5A,RAB39A1,CHD5,DOCK7,BMP4,SMO,WNT2B,DAB2IP,SKI3,TMEX108,SLIT2,EPHA5,TACC1,NFIB,NTRK2,KIRREL3,WNT3A,SKI,CHRN8B,PITX2,SHH,DLCL1,ZDHC16,PTEN,FOXB1,ERBB4,EPHB3,DRD1,SLIT1,WNT7B,NF1,CCDC85C,LHX1
GO:0004721	phosphoprotein phosphatase activity	PHPT1,EYA2,PTPN23,CDCL4A,CDKN3,PPM1A,CDZ58,KIAA1274,MTMR4,PTPN5,DUSP16,EYA4,DUSP1,DUSP4,RPA2,PTPN12,PTPRE,PPP3CA,DUSP6,SSH2,DUSP10,CTDSP1,PTPRG,CAMK2G,PTPRK,PTPRN2,PPP2R2B,EYA3,CDZ52,PPM1K,PPM1K,CDZ5A,DUSP7,UBCLP1,DUSP12.28E-03_8,PTEN,CYCS,CTDSP2,PGP,PPP1CC,PTPN1,PDXP,PGAMS
GO:0009792	embryo development ending in birth or egg hatching	PAX2,WNT11,PHGDH,PCSK5,SIX4,MTFHD1,BMP7,TSYC2,FOXF1,TGFB1,HOKA1,COL1A1,SRF,HAND1,WNT5A,TGFB3,MTFHD1,BMP4,WDR60,E2F8,NASP,PDGFRA,LMX1B,TFAP2A,ADAM10,COL2A1,PLK4,LMO4,OSR1,SKI,EOMES,HEY1,DLCL1,CDX2,E2F7,RBP1,SEMA4C,CHD7,FOXB1,SOX11.2.30E-03_ASCL2,PTCH1,WNT7B,SUF2,DDL1,RIIPV2,BMPR2,LHX1



GO:0051216	cartilage development	4.07E-03	RUNX3,CD44,BARX2,MEF2C,WNT11,TGFB1,TGFB8,NKX3-2,ZBTB16,WNT5B,TRPV4,EFEMP1,RUNX2,BMP4,WNT2B,SOX5,COL2A1,OSR1,NFIB,HMGA2,GDF6,RUNX1,GREM1,ALX1,CREB3L2,WNT7B,SULF2,BMPR2
GO:0072073	kidney epithelium development	4.07E-03	PROM1,PAX2,MEF2C,WNT11,SIX4,BMP7,JAG1,SALL1,BMP4,SMD,HOXD11,FOXJ1,MYC,OSR1,SLIT2,MYO1E,KLF15,SHH,GDNF,CD34,CTNNBIP1,MAGI2,WNT7B,LHX1,HNF1B
GO:0001822	kidney development	4.23E-03	PROM1,FGF10,PAX2,MEF2C,WNT11,PCSK5,SIX4,BMP7,JAG1,SALL1,C1GALT1,WFS1,ZBTB16,CENPF,EGRI,BMP4,SMD,HOXD11,FOXJ1,PDGFRA,MYC,TFAP2A,OSR1,SLIT2,MYO1E,KLF15,SHH,RET,GDNF,CD34,CTNNBIP1,MAGI2,WNT7B,SULF2,NF1,DLL1,BAT3,LHX1,HNF1B
GO:0007507	heart development	4.68E-03	ERBB3,TGFB3,EDN1,MEF2C,TEX5,OSP,PCSK5,NRP1,MTHFD1,BMP7,JAG1,TSC2,FOXF1,SALL1,TGFB1,GSK3A,SRF,HAND1,ACVR1,TBX2,OBSL1,EFNB2,BMP4,SMD,OLFM1,KDM6B,PDGFRA,DUSP6,FOXN4,NTRK3,MYOCD,GATA6,CCDC40,SMAD4,OSR1,ECE2,SFRP2,EGFR,NOTCH1,CACNA1C,WNT3A,NRG1,RNF207,NEKN,IHH,PTX2,CITED2,T,TBX20,HEY1,SHH,SOX17,DLX1,SPRED1,GREM1,RBP1,SHOX2,INSK,ZDHHC16,CHD7,PTEN,SOX11,ERBB4,ZFPM1,C3ORF58,CLUN5,FLRT2,FGF3,EPHBA,NF1,DLL1,BMPR2,CRP1
GO:0045926	negative regulation of growth	4.68E-03	CDK13,SEMA3G,DCBLD2,WNT11,GNAS,TEX5,SIRT1,TGFB1,PPP2R1A,GSK3A,CDKN1B,PPP2CA,STK11,NP98,CDKN2C,BMP4,RNF6,PPT1,BTG1,RERG,TCHP,ESR2,SMAD4,DUSP10,SLIT2,SFRP2,NOTCH1,PTPRJ,MSK1,SOX17,SERTAD3,GNMG4,NRP1,PTEN,CCDC85B,SERTAD2,SLIT3,PTCH1,MTI
GO:0140014	mitotic nuclear division	4.74E-03	PLI1,KIF11,KIF20B,HECW2,RB1,ANAPC11,KIF2C,DYNCL11,CCDCAS,CHMP7,ATM,NCAPD3,BUB3,CCDC25,NPM2,TGFA,CEP57,MIS12,BUB1,INSR,PRC1,HSPA1A,NUP62,KIFC1,PDXP
GO:0045664	regulation of neuron differentiation	4.74E-03	CDK13,SEMA3G,CAMK2B,NTN1,SYT1,PLXNA2,FGF20,PSEN1,MEF2C,ABL1,NRP1,BMP7,STMN2,CPEB3,EFNB3,TRPV4,CUX2,SNX3,PTK7,WNT5A,GORASP1,ID2,ARHGFE2,OBSL1,CPNE5,EFNB2,RNF6,YWHAH,CHN1,RTN4IP1,OLFM1,CASZ1,NGF,CAPRN1,BIN1,DAB2IP,TUBB2B,SIX3,TCF12,SSH2,DLX1,CPNE9,CNTN4,GOLGA4,SLIT2,NTNG2,ZEB1,POU4F2,IMPACT,TNKC,WNT3A,TIAM1,NBL1,CHRN2B,GK13,CDK5,RET,BAG5,ULK4,SDCC,NEUROD2,PTEN,ATOH1,SOX11,SUTR1,CAUR,NEUROG1,EPH3B,NTF3,MAPT,DCC,MAGI2,DLL1,SYT3,CPNE1,PLXNA4
GO:0001709	cell fate determination	4.86E-03	CYP26B1,FRD1,PAX2,MEF2C,JAG1,POU6F2,TBX2,MCL1,SOX17,DLL1,NOTCH4
GO:1900034	regulation of cellular response to heat	4.90E-03	NUP160,TPR,CAMK2B,AAAS,SIRT1,RAE1,DNAJB6,RPA3,YWHAH,HSPA8,PTGES3,RPA2,HSPH1,NUP85,NUP214,NUP54,CAMK2G,ATM,MAPKAPK2,BAG5,DNAJC7,CD34,ATR,MAPT,HSPA1A,NUP62,HSBP1
GO:0022604	regulation of cell morphogenesis	5.00E-03	CDK13,SEMA3C,CD44,CAMK2B,NTN1,SYT1,PLXNA2,E2F8,BAMB1,ABL1,CDK7,NRP1,CNKL,TRIOBP,WK1,ARHGFE7,ARHGFE18,EFNB3,CUX2,GORASP1,RHOA,ARAF3,ZMYM2,OBSL1,CPNE5,RRB1,RNF6,YWHAH,MKLN1,CHN1,OLFM1,ZMYM5,WASF3,CSNK1G2,NGF,CAPRN1,TUBB2B,AP1
GO:0071901	negative regulation of protein serine/threonine kinase activity	5.04E-03	TFAP4,SIRT1,ABL1,BMP7,PPP2R1A,CAV1,HIPK3,DUSP16,CDKN1B,PPP2CA,RCG2,DUSP1,DUSP4,BMP4,LATS1,APC,DAB2IP,DUSP6,MYOCD,DUSP10,PTPRJ,DUSP7,SPRED1,SMPD1,HEXIM2,GPS1,PTEN,GBA,PTPN1,NF1,SPRED2,IPO7
GO:0048562	embryonic organ morphogenesis	5.14E-03	WNT16,PAX2,MEF2C,MTHFD1,FOXJ1,SALL1,HOXA1,SRF,HAND1,WNT5A,ACVR1,EFEMP1,ID2,MTHFD1L,TBX2,WDR60,SMD,PDGFRA,TFAP2A,SIX3,COL2A1,FOXN4,CCDC40,OSR1,NOTCH1,RNF207,IHH,TBX20,SHH,SOX17,CHD7,SOX11,NEUROG1,DLL1,LHX1
GO:0007611	learning or memory	5.15E-03	NRXN3,PICALM,PSEN1,MEF2C,CPEB3,NRXN2,CUX2,ATXN1,PPT1,PLK2,EGFR,NTRK2,EIF4EBP2,ADCY8,CHRN2,INSR,PTEN,FOXO1,NPASA4,CHRNA7,NRXN1,GP88B,NEUROG1,GRIN2A,CLDN5,DRD1,MAPT,NF1,PIA2,RAGE,ATXN1
GO:1901214	regulation of neuron death	5.15E-03	ERBB3,PICALM,FGF20,MEF2C,SIX4,HIF1A,CTSZ,CHMP4B,WFS1,TRIM2,FBXW7,E1FAG1,FOXO3,TGFB3,EGRI,CLU,EFNB2,ATF4,PPT1,E1F2S1,NGF,EPHA7,TFAP2A,MCL1,RASA1,NTRK2,BTB010,EPH81,KCNB1,CDK5,DDIT4,GDNF,BCL2,FOXH1,CD34,CHRNA7,GBA,F2R,NTF3,MAPT,DCC,SLC3
GO:0035239	tube morphogenesis	5.18E-03	NRXN3,SDCCAG8,MYLK,RORA,TGFB3,FGF10,JMJD6,VASH1,PAX2,MCAM,MEF2C,WNT11,TEX5,SIRT1,NRP1,XBP1,SIX4,HIF1A,MTHFD1,BMP7,JAG1,FLT1,TSC2,FOXF1,SALL1,TGFB1,CAV1,HOXA1,C1GALT1,SRF,LOX,HAND1,WNT5A,NCL,ACVR1,ID2,F3,TNF,FAIP3,MTHFD1L,NP98,TBX2,LRP1,EFNB2,BMP4,ID1,SMD,HOXD11,E2F8,BTG1,PDGFRA,TMEM2,CCM2,DAB2IP,MYC,MAP2K5,THBS1,CYP11B1,TGAV,FOXN4,SLC12A6,CDH13,BCAS3,GATA6,CCDC40,EPHA2,LMO4,VASH2,OSR1,SLIT2,SFRP2,RASA1,MTHD,NOTCH1,HMGA2,VEGF,PDE3B,EPH15,KIR,RNF207,RUNX1,IHH
GO:0002062	chondrocyte differentiation	5.23E-03	RUNX3,MEF2C,TGFB1,NKX3-2,ZBTB16,WNT5B,EFEMP1,RUNX2,BMP4,WNT2B,SOX5,OSR1,NFIB,HMGA2,GDF6,RUNX1,GREM1,CREB3L2,SULF2,BMPR2
GO:0048863	stem cell differentiation	5.35E-03	PSMB1,JARID2,PAX2,ITCH,MEF2C,PSMCS,TEX5,ABL1,NRP1,JAG1,POU6F2,PSMD3,WNT3,PSMD11,OC1AD1,SRF,TBX2,SOX21,ELL3,PSME3,H3F3B,SOX5,PDGFRA,PSMB7,YAP1,SIX3,TCF12,MYOCD,OSR1,ECE2,NOTCH1,HMGA2,GPM6A,WNT3A,NRG1,KIT,RUNX1,TAL1,PTX2,T,SHH,GREM1,RBP1,GDNF,PSMD1,SOX11,ERBB4,GATA2,PSMD13,HIST1H3I,PSMB10,UBA52,PSMB9
GO:0061351	neural precursor cell proliferation	5.44E-03	SIRT2,RORA,PCMI,SMARCD3,RAB10,WNT2,WNT5A,ID2,ARHGFE2,DOCK7,SOX5,SIX3,WNT3A,EPH81,SHH,MELK,GATA2,NF1,ZNF335,TRNP1,LHX1
GO:0098813	nuclear chromosome segregation	5.44E-03	CDK27,ZNF207,NCAPD2,AKAP8L,DDX11,MRE11A,NUP160,TPR,WAPAL,SIRT2,CLASP1,CDK14A,PIBF1,POSS8,CHMP2B,DYNLL1,CCDC6,REC8,CHMP4B,CENPF,CTCF,FBXW7,C11ORF51,CENPA,PHF13,CENPF,NEK6,DUSP1,CENPL,ZWINT,CENPK,NUP85,BECN1,INO80,CHMP2A,LATS1,APC,ES
GO:0003206	cardiac chamber morphogenesis	5.48E-03	TGFB3,MEF2C,TEX5,OSP,NRP1,BMP7,JAG1,FOXJ1,TGFB1,GSK3A,HAND1,ACVR1,TBX2,BMP4,GATA6,SMAD4,SFRP2,NOTCH1,NRG1,CITED2,TBX20,HEY1,RBP1,SOX11,ZFPM1,BMPR2
GO:0072009	nephron epithelium development	5.48E-03	PROM1,PAX2,MEF2C,WNT11,SIX4,JAG1,SALL1,BMP4,SMD,HOXD11,FOXJ1,MYC,OSR1,MYO1E,KLF15,SHH,GDNF,CD34,CTNNBIP1,MAGI2,WNT7B,LHX1,HNF1B

GO:0030879	mammary gland development	5.48E-03 FGF10,XPB1,CAV1,WNT2,WNT3,JD2,IRF6,TGF83,RREB1,LATS1,BRCA2,EPHA2,NRG1,AGPAT6,FOXB1,ERBB4,WNT7B,NOTCH4
GO:0048736	appendage development	5.48E-03 CYP26B1,TKXS,PCS5,SALL1,GLI3,WNT3,TKX2,BMP4,ZNF141,KREMEN2,ITGB4,TFAP2A,OSR1,CACNA1C,SKI,MSX1,PITX2,SHH,GREM1,CHD7,SOX11,PTCH1,SMOC1
GO:0060373	limb development	5.48E-03 CYP26B1,TKXS,PCS5,SALL1,GLI3,WNT3,TKX2,BMP4,ZNF141,KREMEN2,ITGB4,TFAP2A,OSR1,CACNA1C,SKI,MSX1,PITX2,SHH,GREM1,CHD7,SOX11,PTCH1,SMOC1
GO:0098687	chromosomal region	ZNF207,NCAPD2,MRE11A,NUP160,TPR,PPP1R12A,WAPAL,TPS3BP1,MCM2,CLASP1,PSEN1,POD5B,DYNLL1,TINF2,H2AFY2,TFIP11,CENPT,CTCF,SALL1,MCM4,PPP2R1A,GAR1,PTGES3,RFN8,CENPA,CENPF,PPA2,DCLRE1B,HELLS,CBX3,HNRNPAB2,ZWINT,HUORP,WRNIP1,NUPB5,HAT11 5.48E-03 3F3B,PCNA,APC,S5B,ORF2B,BRCA2,KIF2C,NUF2,PAIR1,DYNC1L1,CDC45,TERF1,ATM,NCAPD3,SPC25,DCLRE1C,RAD17,SYCP2L,BUB3,SKA1,PMF1,RAD21,WRN,MCM7,MIS12,BUB1,ATR,DCTN2,PURA,IKZF1,PPP1CC,XRCC5,HST1H3,DAXX
GO:0004725	protein tyrosine phosphatase activity	5.48E-03 EYA2,PTPN23,CDC14A,CKN3,CDC25C,KIAA1274,MTMR4,PTPN5,EYA4,DUSP1,DUSP4,PTPN12,PTPRE,DUSP6,PTPRG,PTPRJ,PTPRK,PTPRN2,EYA3,CDC25C,DUSP7,DUSP18,PTEN,PCP,PTPN1
GO:0031625	ubiquitin protein ligase binding	GABARAPL2,KCNH2,TK2,SNCAIP,ERBB3,TRIB2,TRAF5,TRIOBP,RBX1,HIF1A,NFKBIA,LAPTM4B,YWHAE,WFS1,FBXW7,HSPA8,TR11,RFN8,FAF2,MFN2,PRDX6,PPA2,NEK6,CLU,CXCR4,RPL5,EGR2,KBTBD4,BECN1,APC,LRPPRC,TMBIM6,RS1,SPOPL,HSPD1,EGFR,ERLIN2,FOXO1,BTBD11,RAA 5.48E-03 GA,SKI,NUF52,SOSTM1,UBXN1,FZD6,K2B,BAG5,ARIH1,OTUB1,RFN34,GPR37,BCL2,TRIB1,JUN,UBE2N,CALR,ASB18,BTBD9,UBE2F,UBE2G,UBE2L3,ATPVOC,SUMO2,MPHOSPH8,TUBB,PCBP2,DAXX,HSPA1A,BAT3,MC1R
KEGG:04110	Cell cycle	5.68E-03 CDC27,MCM2,CDC14A,ORC6,CDC6,ABL1,CDC7,CKC1B,CDC25B,MCM4,TGFB1,CDK6,YWHAE,CCND1,CDKN1B,E2F3,SKP1,TGFB3,CDKN2C,YWHAH,CDKN1C,PCNA,E2F5,ESPL1,MYC,RB1,ANAPC11,SMAD4,CCNA2,ATM,ANAPC1,BUB3,CDC25C,CDC25A,RAD21,MCM7,YWHA8,BUB1,ATR
KEGG:05224	Breast cancer	WNT16,FGF10,NFKB2,FGF20,TCF7,WNT11,DL3,ESR1,JAG1,CDK6,WNT2,WNT3,RP56K1,CCND1,WNT5B,FZD10,E2F3,WNT5A,PIK3R3,WNT1,SHC2,KRAS,WNT2B,APC,MYC,BRCA2,RB1,ESR2,EGFR,NOTCH1,TCF7L1,WNT3A,KIT,FGF19,HEY1,FZD6,FRAT1,PIK3CD,PTEN,JUN,SHCA,FGF3,W 5.68E-03 NT7B,DL11,NOTCH4
KEGG:04360	Axon guidance	SEMA3G,SEMA3B,CAMK2B,GNAI3,NTN1,EPHAB,PLXNA2,SEMA5B,ABL1,NRP1,NFATC2,BMP7,EFNB3,WNT5B,WNT5A,GNA2,PIK3R3,CXCR4,EFNB2,SMO,PAK4,TRPC4,KRAS,EPHA7,PPP3CA,SSH2,EPHA2,BOC,SUIT2,EPHAS,RASA1,CAMK2G,EPHB1,UNC5D,NTNG1,SHH,CDK5,SEMA4C,PIK 5.68E-03 3CD,RHOA,PAR6G,UNC5C,EPHB3,SUIT3,SEMA4B,PTCH1,SUT1,SLIT1,DCC,EPHB4,BMPR2,PLXNA4
KEGG:05166	HTLV-1 infection	WNT16,CDC27,TBPL1,NFKB2,ADCV2,WNT11,MAP3K1,CREM,NRP1,XPB1,NFKBIA,NFATC2,TGFB1,WNT2,POLD2,WNT3,CCND1,WNT5B,FZD10,E2F3,SRF,KAT2B,WNT5A,PIK3R3,TGFB3,EGRI,NFYB,EGR2,CDKN2C,ATF1,WNT1,CANX,ATT4,NFATC1,PCNA,KRAS,WNT2B,IL15RA,PODGRA,APC 5.68E-03 MYC,TLN1,PPP3CA,RB1,ANAPC11,SMAD4,ATM,ANAPC1,WNT3A,BUB3,ADCV8,ETS2,ATF3,MSX1,IL15,FZD6,VDAC2,BCL2L1,PIK3CD,ATR,IKK,CAIR,WNT7B,MAP3K3,HLA-C,HLA-E,CHUK,HLA-B
GO:0006457	protein folding	NUDCD3,ERP44,GNAI3,DNAJA2,LMAN1,GNB1,ERP29,PFN4,PDCC5,DNAJB6,WFS1,HSPA8,DNAJC4,GNAI2,MOG5,HSP61,TBCE,CLU,NP9B,FXBP9,TBCC,HSPA2,CANX,MPOU1,CCT6B,CCT7,TOR1A,FXBP10,PFN2,HSPD1,TXNDC1,CCT8,DFFA,UBXN1,CHCHD4,BAG5,ENGASE,DNAIC7,PI 6.17E-03 H,FUT10,CALR,RUVBL2,P4HB,PP1A,HSPA1A,CSNK2B,DNL2,UBA52,TXNDC3
GO:005114	cell surface receptor signaling pathway involved in cell-cell signaling	WNT16,PSMB1,CELSR3,GNB1,PSEN1,TCF7,MEF2C,WNT11,PSMCS,ANKRD10,ESR1,BAMBI,HMGXB4,RBX1,DAAMI,PPM1A,TSC2,SALL1,AE5,PPP2R1A,GSK3A,CAV1,WNT2,5FRP4,GLI3,CCNY,PSMD3,WNT3,PSMD11,COL1A1,WNT5B,CUX2,FZD10,SNK3,PTK7,TBX18,SKP1,PPP2CA,ARL6,W NT5A,IGFBP2,USP34,STRN,RAB3GAP1,RFN146,BICC1,LRP1,WNT1,BMP4,PIN1,LATS1,NFATC1,PSME3,KREMEN2,NPH4A,CSNK1G2,WNT2B,APC,DAB2IP,PSMB7,MYC,PPP3CA,ATP6V1C2,TMEM108,SFRP2,GLRA1,DIXDC1,TCF7L1,WNT3A,TIAM1,SKI,RUNX1,SOX17,FZD6,FRAT1,BTRC,GRE 6.17E-03 M1,RSPO1,HXB9,PTEN,PSMD1,NPASA4,CHRNA7,HIC1,CTNWBIP1,NRN1,SHAH2,PSMD13,ATPVOC,RFN220,MAGI2,WNT7B,FAM53B,SULF2,DACT3,PSMB10,UBA52,PSMB9
GO:0070997	neuron death	ERBB3,PICALM,FGF20,MEF2C,SIX4,HIF1A,CTSZ,CHMP4B,WFS1,TRIM2,FBXW7,GAPDH,EIF4G1,FOXO3,TGFB3,EGR1,CLU,EFNB2,ATF4,PPI1,EIF2S1,NCF,EPHA7,TFAP2A,MCL1,RASA1,NTRK2,BTBD10,MAGI1,EPHB1,KCNB1,CDK5,BAG5,DDIT4,GDNF,BCL2,FOXB1,CD34,CHRNA7,GBA7R, 6.39E-03 NTF3,MAPT,DCC,SLC30A10,NF1,DAXX
REAC:R-HSA-Diseases of signal transduction		BAD,AGK,PSMB1,GAB2,KITLG,ERBB3,HDAC4,FGF10,MARK3,APBB1P,FGF20,PSEN1,PSMCS,PEBP1,ESR1,POLR2E,RBX1,HDAC1,QJAG1,POLR3C,TSC2,ESRP1,POLR21,TGFB1,PPP2R1A,GSK3A,PSMD1,PSMD11,FBXW7,CDKN1B,SKI,SKP1,PPP2CA,KAT2B,FXR1,NCBP2,PIK3R3,FOXO3,MAPK P1,ZMYM2,EREK,PSME3,KREMEN2,CASP9,CDK8,MPRIP,KRAS,PODGRA,APC,DAB2IP,PSMB7,MYC,TLN1,PPP2R1B,ADAM10,PAPSS1,ESR2,SMAD4,RASA1,EGFR,ERLIN2,NOTCH1,FOXO1,BCL2L1,WNT3A,RASA2,NRG1,KIT,FGF19,IHH,POLR2H,AGGF1,HEY1,SHH,FZD6,SPRED1,YWHA8,RBP 6.69E-03 J,PIK3CD,PSMD1,BTC,CTBP2,ERBB4,MAML2,PSMD13,IRS2,PRRS,FGF3,NCOR2,NF1,MAML3,SNF1,SPRED2,DL11,PSMB10,CHUK,UBA52,PSMB9
GO:0051783	regulation of nuclear division	CDC27,ZNF207,ANLN,TPR,CDK13,SIRT2,EDN1,CDC14A,CHMP2B,CDC6,BMP7,CHMP4B,C11ORF51,CENPF,NEK6,DUSP1,OBSL1,EDN3,MAZD1BP,EREG,BECN1,PIN1,CHMP2A,APC,ESPL1,KIF11,KIF20B,HECW2,RB1,ANAPC11,DYNC1L1,CDC45,ATM,BUB3,CDC25C,NPM2,TGFA,BUB 6.71E-03 1,INR,HSPA1A,NUPB2,POXP
GO:0010001	glial cell differentiation	6.71E-03 ERBB3,SIRT2,FGF10,PAX2,PSEN1,PHGDH,PICK1,CDK6,EIF2B1,EIF2B4,CLU,CXCR4,LRP1,SERPINE2,BIN1,NFIB,NOTCH1,SKI,CDK5,CDH2,PTEN,SOX11,MAPT,NF1,DL11,RAGE
GO:0008156	negative regulation of DNA replication	6.81E-03 LIG3,MRE11A,WAPAL,CDC6,TGFB1,TFBP4,FBXW7,TGFB3,CDAN1,TERF1,RAD17,DONSON,ATR,ENPP7,NF2
GO:0007423	sensory organ development	WNT16,PRODM1,PAM3,KCNQ1,MCM2,PAK2,SMARD3,NRP1,SIX,SALL1,WNT2,H2AFX,GLI3,LHX3,WNT5B,C12ORF57,WNT5A,EFEMP1,RAB3GAP1,TKX2,WNT2B,PODGRA,ACTL6A,TFAP2A,CYP11B,SOX3,FOXN4,EPHA2,OSR1,DLX1,GPM6A,CACNA1C,POU4F2,SKI,PITX2,PTF1A,ZDHHC16,C 6.83E-03 HD7,SOX11,MAF,NEUROG1,LITOMT,CDL4A1,PTF140,WNT7B,BLDC153,NF1,DL11,SMOCL1,MFB,BMPR2,LHX1
GO:0003207	cardiac chamber formation	6.84E-03 MEF2C,TBX5,HAND1,TKX2,NOTCH1,TBX20,SOX11
GO:0000375	RNA splicing, via transesterification reactions	RBMS1,AQR,SNRNP40,U2AF2,SPEN,CDK13,JMID6,CPSF1,SART3,RBM7,GEMIN5,SRR1,PCDD7,HNRNPH3,POLR2E,SNRNP3,DGCR14,TFIP11,NHP211,PHFSA,CSTF1,CRNKL1,DHX35,POLR2C,POLR21,HNRNPU11,DHX15,HSPA8,PRPF40B,SFRS3,PRPF48,NCBP2,SF3B1,PRDX6,SYF2,SMNDC1,PS PCL1,HNRNPAB21,MPHOSPH10,SNRNP,SNRNP82,HNRNPR,RALY,SNRPA1,PRMT7,SRRM1,SYNCRIP,WDR33,SNRPF,DHX38,TXNL4B,WTAP,LUC7L2,RBPMS,U2AF1,CPSF4,SFRS2,MAGOH,RBM15,POLR2H,TRAZA,HNRNPK,SRRM2,HNRNPH1,CD2BFP2,HNRNPF,PPH,CLP1,DOX41,SF3A3,RNPC3 7.16E-03 ,PCBP2,DOX42,UBA5,DXK16,RFN51
GO:1901987	regulation of cell cycle phase transition	PSMB1,ZNF207,ANLN,TPR,SDCCAG8,SIRT2,FGF10,CLASP1,GTSE1,PCN1,CDC14A,PSMCS,DYNLL1,TFAP4,CDK5,CDC7,CKC1B,FXO31,ERCC2,PPP2R1A,CDK6,CASP2,PSMD3,PSMD11,YWHA8,FBXW7,CCND1,C11ORF51,CEP164,CDKN1B,CEP72,SKP1,NEK11,EIF4G1,JD2,CENPF,PPA2,PLAGL1 XERK,DUSP1,MAO2L1BP,PRMT1,TUBA4A,INOB5,E2F8,PSME3,PCNA,APC,ESPL1,PSMB7,SOX3,HECW2,RB1,ANAPC11,PLK4,DYNC1L1,PLK2,EGFR,CDC45,ATM,HMG2,RAD17,BUB3,XPC,CNOT8,CDC25C,NPM2,DONSON,E2F7,CEP57,TUBA1A,RFWD3,BUB1,TRAP1,PTEN,SUFW11,MUS81, 7.67E-03 PSMD1,DCTN2,LSM10,PSMD13,DGUN1D3,TUBB,ZNF655,MDM4,PSMB10,UBA52,PSMB9

GO:0061053	isomite development	7.74E-03	SIX4, MTHFD1, WNT1, SMO, SFRP2, WNT3A, HHH, SHH, CDX2, FOXB1, SOX11, PTCH1, DLL1, RPLP2
GO:0061564	axon development	7.74E-03	CDKL3, RANBP9, SEMA3G, SEMA3B, NRXN3, GAB2, NTN1, EPHA8, PAX2, PLXNA2, USP33, RAB10, E2F, ABL1, NR1P1, RPS5KAS, EFNB3, C12ORF57, WNT5A, SPTBN1, DOCK7, MTR, CXCR4, EFNB2, VASP, RNFG, CHN1, OUFM1, KRAS, NGF, TUBB2B, SSH2, RNF165, CNTN4, GOLGA4, SLIT2, EPHA5, NFIB, NTRK2, NCAM1, FEZ1, POU4F2, GFRA1, EPHB1, CHRN2, NTNG1, SHH, CDK5, SUTRFX3, RET, MAPK7, KIF5C, GFRA2, GDNF, ALCAM, PIK3CD, PTEN, FOXB1, SUTRFX1, NRXN1, SHAN2, UNC5C, EPHB3, SLIT3, IRS2, MAPT, SLIT1, DCC, PDLM7, PLXNA4, TUBB3, LHX1, CYFIP1
GO:0051101	regulation of DNA binding	7.74E-03	WAPAL, SIRT2, PSEN1, TFAP4, NFKBIA, TGFBI, HAND1, HIURP, SMO, HAMP4, PER2, TXN, RB1, ZNF593, CDCAS, HMG2A, POU4F2, SKI, HMG2, HEY1, NSD1, SIN3A, SOX11, JUN, CSNK2B, CPNE1, NME1
GO:0016607	nuclear speck	7.74E-03	C12ORF124, AKAP8L, BCLAF1, USP36, SNRNP40, U2AF2, CDK13, BAZA2, MEF2C, MYST3, MECOM, TTP11, PHF5A, HIF1A, POLR1, DHX15, ZBTB16, FNBPA, CEP164, MAPK14, SFRS3, FBXL4, PRPF4B, NR3C1, OGG1, SF3B1, CHD5, S100BPB, SYF2, CRY2, FYT1D1, ZC3H13, RREB1, SNRPB2, HAMP4, SNRP1, SRR1, SAP130, BMP2K, TCF12, UNCAF5A, INTS7, DUSP10, WTAP, TUT1, DGKZ, POU4F2, CDC25C, UZAF1, CYGB, SFRS2, RBM15, NUAK2, IL15, FNDC1, WRN, EZF7, RNF169, SRRM2, HEXIM2, CD2BP2, PPH, DAZAP2, THAP7, MAPT, MAML3, DDX42, SFMBT2, TAP2, STK19, HSPA1A, GTF2H4
GO:0060041	retina development in camera-type eye	8.25E-03	PROM1, PAX2, SMARCD3, NRP1, PDGFRA, ACTL6A, TFAP2A, CYP1B1, SIX3, FOXN4, DLX1, GPM6A, POU4F2, SKI, PTF1A, CHD7, COL4A1, IFT140, DLL1, BMPR2, LHX1
GO:000377	RNA splicing, via transesterification reactions with bulged adenosine as nucleophile	8.38E-03	2, UBL5, DHX16, RNP51
GO:000398	mRNA splicing, via spliceosome	8.38E-03	2, UBL5, DHX16, RNP51
GO:0001654	eye development	8.54E-03	NF1, DLL1, SMOC1, BMPR2, LHX1
GO:0043405	regulation of MAP kinase activity	8.54E-03	MAP2K3, KAAS, FGF10, TRIB2, EDN1, MEF2C, ERP29, CRKL, BMP7, FLT1, R1PK2, TGFBI, PPP2R1A, CAV1, EZH2, HIPK3, DUSP16, FZD10, TP52L1, MAPK14, PPP2CA, WNT5A, RGS2, DUSP1, DUSP4, CXCR4, EDN3, BMP4, IRAK2, NGF, DBNL, DAB2IP, MAP2K5, THBS1, DUSP6, NTRK3, DUSP10, EGF, PTPRJ4, RARA, CASP9, BHLHE40, FHD01, DAB2IP, XPA, TUN1, MDC1, KIF20B, RB1, NCOA2, MCL1, CCNA2, TERF1, ADAM12, HMG2A, CRIM1, ETS2, SKI, CDC25C, F11R, CALM3, DFFA, PMF1, SOSTM1, CITED2, DLG1, HNRNPK, INPPL1, SCNN1G, YWHAB, CHAF1A, SRP88, SRRM2, FADD, BM11, ADAM9, AFAP12, X, CNAB1, SOCX2, INSR, BCL2L1, BCL2, PTEN, MYO88, SRP72, RAB6A, CTNBP1, GATA2, CADM1, DAZAP2, THAP7, HGS, IKZF1, XRXA, MAPT, ESRIG, MKL1, SLC22A4, SLC22A5, RUFY2, HSPA1A, CSNK2B, NUP62, WBP1, AATF
GO:0001656	metanephros development	9.35E-03	FGF10, PAX2, SIX4, BMP7, SALL1, EGR1, BMP4, SMO, FOXJ1, PDGFRA, MYC, OSR1, SHH, RET, GDNF, CD34, WNT7B, NF1
GO:0060560	developmental growth involved in morphogenesis	9.74E-03	CDKL3, SEMA3G, NTN1, SYT1, FGF10, PLXNA2, ABL1, NRP1, SIX4, SALL1, CPNE5, BMP4, RNF6, OLFM1, CPNE9, GOLGA4, TMEM108, SLIT2, NOTCH1, POU4F2, IMPACT, CDK5, ALCAM, SLIT3, MAPT, SLIT1, DCC, MAGI2, WNT7B, SYT3, CPNE1, PLXNA4, CYFIP1
GO:0019904	protein domain specific binding	9.76E-03	ANGELL1, ADRB1, KCNH2, TNK2, TGFBR3, LLGL2, TEAD2, ACTN2, KCNN2, PSEN1, CHMP2B, MAVS, E2R, IKZF5, SIRT1, ABL1, PICK1, TRIM9, HIF1A, EFS, ARHGAP5, VAPA, UBE2I, R1PK2, CASP2, HSPA8, TRPV4, SCNN1A, GAPDH, SKP1, STRN, NFE2L2, TIP2, GPM2, CBX3, HSPA2, PTPN12, YWHAA, ATF4, CHMP2A, CASP9, BHLHE40, FHD01, DAB2IP, XPA, TUN1, MDC1, KIF20B, RB1, NCOA2, MCL1, CCNA2, TERF1, ADAM12, HMG2A, CRIM1, ETS2, SKI, CDC25C, F11R, CALM3, DFFA, PMF1, SOSTM1, CITED2, DLG1, HNRNPK, INPPL1, SCNN1G, YWHAB, CHAF1A, SRP88, SRRM2, FADD, BM11, ADAM9, AFAP12, X, CNAB1, SOCX2, INSR, BCL2L1, BCL2, PTEN, MYO88, SRP72, RAB6A, CTNBP1, GATA2, CADM1, DAZAP2, THAP7, HGS, IKZF1, XRXA, MAPT, ESRIG, MKL1, SLC22A4, SLC22A5, RUFY2, HSPA1A, CSNK2B, NUP62, WBP1, AATF
GO:0048705	skeletal system morphogenesis	9.89E-03	CYP26B1, BARX2, MEF2C, MTHFD1, HOXA1, SFRP4, TRPV4, MTHFD1L, BMP4, WDR60, PDGFRA, TFAP2A, COL2A1, OSR1, SKI, HHP, INPPL1, GREM1, SOX11, ALX1, NEUROG1, IFT140, BMPR2, LHX1
GO:0048593	camera-type eye morphogenesis	9.89E-03	WNT16, PROM1, PAX6, PAX2, WNT2, C12ORF57, WNT5A, TBX2, WNT2B, TFAP2A, SIX3, FOXN4, EPHA2, SKI, PITX2, PTF1A, SOX11, NF1, DLL1, LHX1
GO:0000070	mitotic sister chromatid segregation	9.89E-03	62, XIFC1
GO:0198738	cell-cell signaling by wnt	9.89E-03	WNT16, PSMB3, CELSR3, PTPN23, GNB1, PSEN1, TCF7, WNT11, PSMC5, ANKRD10, ESR1, BAMBI, HMOXB4, RBX1, DAAAI, PPM1A, TSC2, SALL1, AES, PPP2R1A, GSK3A, CAV1, WNT2, SFRP4, GLL1, CCN1, PSMO3, WNT3, PSMO11, COL1A1, WNT5B, FZD10, SNX3, PTK7, TDK18, SKP1, PPP2CA, ARL6, WNT5A, JGFBP2, USP34, STRN, RNF146, BICC1, LRPI, WNT1, PNL1, LATS2, NFATC1, PSM3, KREMEN2, NHP4, CSNK1G2, WNT2B, APC, DAB2IP, PSN87, MYC, PPP3CA, ATP6V1C2, SFRP2, DDXC1, TCF7L1, WNT3A, TUMI1, SKI, RUNK1, SOX17, FZD6, FRAT1, BTBC, GREM1, JSPO1, HOK9B, PTEN, PSMO3, HIC1, CTN
GO:0003712	transcription coregulator activity	9.89E-03	HSF2, TPB1, PIAS1, ARID1B, PHF21B, RNF4, TP53BP1, MNT, ACTN1, NFKB2, SMARCD3, NFE2L1, MYST3, SIRT1, YY1, CTFY, CRYM, PPP1R13L, AES, DYRK1B, SP4, SMARCD2, CCND1, ELK3, HAND1, KAT2B, ID3, DR1, RCOR3, KLF7, SUPT7L, MXI1, MXD4, MED20, NIKK2, 2, MAX, RALY, E2F8, PSMC3IP, RARA, PER2, MED10, BTG1, BHLHE40, MEIS2, KCTD1, ACTL6A, NR5A1, TFAP2A, YAP1, SIX3, RB1, ESR2, NCOA2, SS18, CBX4, PRDM16, USP21, HESE, ABT1, MTDH, ZEB1, PPRC1, THR8, POU4F2, MED21, WNT3A, RBPMS, NRG1, SKI, PMF1, SFRS2, ATF3, CITED2, NFIL3, GTF2A1, NSD1, EZF7, E2F6, NEUROD2, UTT1, SMARCC1, CTBP2, TGIF1, JUN, ZHX2, CITED4, ALX1, NR1P1, SHH2, SETD3, MAML2, UBE2L3, XRXA, NCOR2, MKL1, ZNF136, MAML3, SNO1, DAXX, MYCBP, HSBP1, LHX1
GO:0000188	inactivation of MAPK activity	1.08E-02	PPP2R1A, CAV1, DUSP16, PPP2CA, DUSP1, DUSP4, DUSP6, DUSP10, SPRED1, GSP1, SPRED2
GO:0048732	gland development	1.12E-02	TGFB3, FGF10, WNT11, XBP1, SALL1, TGFBI, CAV1, WNT2, WNT3, FBXW7, MKI, ID2, IRF6, TGFBI, RREB1, E2F8, LATS1, NKK2-8, SIX3, BRCA2, CCDC40, EPHA2, NRG1, AGPAT6, PITX2, CITED2, SHH, EZF7, FADD, PTF1A, FOXB1, ERBB4, EPHB3, WNT7B, NF1, NOTCH4, CRP1
GO:0021545	cranial nerve development	1.12E-02	ERBB3, PAX2, SIX4, SALL1, HOXA1, TFAP2A, CHRN2, CHD7, NEUROG1, MAFB
GO:0007264	small GTPase mediated signal transduction	1.12E-02	FAM138, TRIO, NCKAP1, TNK2, NTN1, RASSF1, RASGRP2, FGF10, RHOBTB1, GNB1, ABL1, NR1P1, CRKL, SCSM3, ARHGAP5, ARHGEF7, RHOV, ARHGFB18, ARHGFB17, MAPK14, RHOU, ARHGFB2, MFR2, MAPKAP1, ARAP3, ADRA1A, GPM2, RREB1, MCF2L1, CHN1, ARHGAP22, SHC2, PAK4, EPSB1L, KRAS, AV3, KGF, ERG, DBNL, DAB2IP, ARHGAP10, RNF145, RNF1, RNF9, CDKN3, RHO27, RGL1, SLIT2, CCNA2, PLK2, RASA1, ARHGAP26, NOTCH1, ADRA2A, RASGRP3, RASA2, TIAM1, ABR, RALGDS, YAV2, SOSTM1, PDPN, MAPKAPK2, CDC42EP3, ARHGFB3, FZRL1, DLG1, ARHGAP12, CDC42EP3, RHOD, JUN, CDC42EP4, F2R, RANBP2, SHAN2, MAPK11, NF1, RASGEF1A, INP5B, GPR20, ITSN1, NUP62, RGL2, CYFIP1



GO:0071013	catalytic step 2 spliceosome	1.12E-02	AQR,SNRNP40,WDR62,SNRPD3,DGCR14,TFP11,PHF5A,CRNKL1,DHX35,PRPF4B,SF3B1,SF2,DCAF4,HNRNP2B1,SNRPB2,HNRNPR,RALY,SNRPA1,SRRM1,SYNCRIP,SNRPF,DHX38,UZAF1,MAGOH,HNRNPK,SRRM2,HNRNPH1,HNRNPF,DDX41,SF3A3
GO:2001022	positive regulation of response to DNA damage stimulus	1.22E-02	DDX11,BCLAF1,EYA2,FGF10,SIRT1,RNF8,UYA4,PCNA,MYC,PARR9,PMAIP1,PARP1,EGFR,ATM,HMGA2,EYA3,ANKLE1,MSX1,SPRED1,ATR,HIC1,UBE2N,SPRED2,NUDT16
GO:0035148	tube formation	1.25E-02	SDCCAG8,PAX2,SIK4,MTHFD1,BMP7,TSC2,TGFB1,HOXA1,MTHFD1L,BMP4,DAB2IP,BCA3,LMO4,OSR1,NOTCH1,SKI,DLG1,GDNF,SEMA4C,ATOH8,SOX11
GO:0001558	regulation of cell growth	1.25E-02	CDKL3,SEMA3G,DCBLD2,NTN1,KIF26A,SYT1,RASGRP2,PLXNA2,EDN1,ITCH,WNT11,ABL1,NRP1,SGK3,TGFB1,PPP2R1A,GSK3A,TMEM97,CDKN1B,PPP2CA,CISH,EIF4G1,STK11,NRPPB,CDKN2C,CPNE5,RNF6,INO80,OLFM1,PTT1,H3F3B,BTG1,IERG,SDCBP,ADAM10,TCHP,ESR2,SMAD4,CPNE9,GOLGA4,SLIT2,SFRP2,EGFR,PTPR,POU4F2,SUPV3L1,MMP14,MSX1,SOX17,SERTAD3,GNAG,NPR1,BCL2,CCDC85B,SERTAD2,SLIT3,MAPT,DDC,DCUN1D3,DACT3,ENPP1,BMPK2,HSPA1A,SYT3,SIPA1,PLXNA4
GO:0033045	regulation of sister chromatid segregation	1.25E-02	CDC27,ZNF207,DDX11,TPR,WAPAL,CD6,CCTCF,C11ORF51,CENPF,NEK6,DUSP1,BECN1,APC,ESPL1,HECW2,RB1,ANAPC11,DYNC1L1,CDCA5,ATM,BUB3,RAD21,BUB1
GO:0016055	Wnt signaling pathway	1.25E-02	WNT16,PSMB1,CELSRL3,GNL1,PSEN1,TCF7,WNT11,PSMCS,ANKRD10,ESR1,BAMBI,HMGXB4,RBX1,DAAMI,PPM1A,TSC2,SALL1,AE5,PPP2R1A,GSK3A,CAV1,WNT2,SFRP4,GLI3,CCNY,PSMD3,WNT1,PSMD11,COLA1,WNT5B,FZD10,SNX3,PTK7,TBK1,SKP1,PPP2CA,ARL6,WNT5A,IGFBP2,USP14,STRN,RNF146,BICCL1,LRP1,WNT1,PIN1,LATS1,NFATC1,PSME3,KREMEN2,NPH4,CSNK1G2,WNT2B,APC,DAB2IP,PSMB7,MYC,PPP3CA,ATPV1C2,SFRP2,DXDC1,TCF7L1,WNT3A,TIAM1,SKI,RUNK1,SOX17,FZD6,FRAT1,BTRC,GREM1,RSPO1,HOXB9,PTEN,PSMD1,HIC1,CTNNB1,SI
GO:0008285	negative regulation of cell proliferation	1.26E-02	2F7,NELL1,GRM1,ATOH8,RNF139,PTEN,TRIB1,CTBP2,SOX11,WDR6,ERBB4,CTNNB1P1,GATA2,HST1H2AC,F3R,ENVP7,HGS,NF2,MAGI2,NF1,MDM4,DLL1,BMPK2,HSPA1A,CSNK2B,NUPE2,ITGA1,NME1
GO:0043065	positive regulation of apoptotic process	1.27E-02	X1,ARHGEF3,DLCL1,CDK5,MELK,RET,CASP7,YWHAB,FADD,BCL2L1,PIK3CD,BCL2,PTEN,RP57,CYCS,ZNF622,ANOB6,JUN,PXT1,F2R,MAPT,DCUN1D3,NF1,TRIM39,ITSN1,RNPS1,FNIP1,UBA52
KEGG:05165	Human papillomavirus infection	1.27E-02	E,CHUK,ITGA1,HLA-B
GO:0034605	cellular response to heat	1.31E-02	NUP160,TPR,CAMK2B,AAAS,SIRT1,RAE1,DNAI8,PA3,YWHAE,HSPA8,PTGES3,TRPV4,RAA2,HSPH1,NUB85,NUP214,THBS1,NUP54,CAMK2G,ATM,MAPKAPK2,BAG5,DNAIC7,CD34,ATR,MAPT,DAXX,HSPA1A,NUPE2,HSPB1
GO:0040008	regulation of growth	1.34E-02	CDKL3,SEMA3G,DCBLD2,NTN1,KIF26A,SYT1,RASGRP2,TGFB8,PLXNA2,EDN1,ITCH,MEF2C,WNT11,GNAS,TRKS,SYT1,ABL1,NRP1,SGK3,TGFB1,PPP2R1A,GSK3A,TMEM97,WFS1,CDKN1B,PPP2CA,CISH,EIF4G1,STK11,NRPPB,TBK2,CDKN2C,CPNE5,BMP4,RNF6,INO80,OLFM1,LATS1,PTI1,H3F3B,BTG1,IERG,SDCBP,ADAM10,DUSP6,TCHP,ESR2,SMAD4,DUSP10,CPNE9,GOLGA4,SLIT2,SFRP2,EGFR,NOTCH1,PTPR,POU4F2,SUPV3L1,MMP14,MSX1,TBK2,SOX17,SERTAD3,RBPJ,GNM4,NPR1,NSR,BCL2,PTEN,CCDC85B,ERBB4,SERTAD2,SLIT3,PTCH1,MAPT,MTX1,DDC,DC
GO:0007059	chromosome segregation	1.34E-02	CDC27,ZNF207,NCAPD2,AKAP8L,DDX11,MRE11A,NUP160,TPR,WAPAL,SIRT2,CLASP1,CDCL4A,PIBF1,PDSS8,CHMP2B,DYNLL1,CD66,REC8,CHMP4B,CENPT,CTCF,ERCC2,PPP2R1A,FBXW7,C11ORF51,CENPA,PHF13,CENPF,NEK6,DUSP1,CENPLZWINT,CENPK,HURP,NUB85,BECN1,INO80,CHMP2A,LATS1,APC,ESPL1,KIF11,HECW2,RB1,ANAPC11,KIF2C,NUF2,ARL8A,DYNC1L1,CDCA5,CHMP7,ATM,NCAPD3,MFLIP1,SPC25,BUB3,SKA1,FMN2,ANKLE1,PMF1,RAD21,GEM,CEP57,CENPM,MS12,BUB1,MUS81,PPP1CC,PRC1,MSH5,BAT3,NUPE2,KIF1C
GO:0043068	positive regulation of programmed cell death	1.34E-02	BAD,RBM5,BCLAF1,TRIO,SIRT2,PSEN1,MEF2C,DYNLL1,TFAP4,ZNF268,SIRT1,ABL1,BCL2L13,BIK,ARHGEF7,TNFRSF10A,ARHGEF18,AE5,POCD5,GSK3A,CAV1,CASP2,SFRP4,YWHAE,FBXW7,ARHGEF17,GAPDH,TPD52L1,HSP1,ARHGEF2,F3,FOXO3,TGFB3,APAF1,TNFRSF10B,BMP4,MCF2L,YWHAH,ATF4,IRF5,FOXO1,LATS1,CASP9,BTG1,YAV3,NGF,APC,HK2,EPHA7,BINL,DAB2IP,ANP32B,MYC,TFAP2A,PPP2R1B,THBS1,CYP11B,DUSP6,PMAIP1,ADAMTSL4,MCL1,HSPD1,ARL6P5,SLIT2,SFRP2,IGFBP3,ATM,HMGA2,FOXO1,BCL2L11,TIAM1,ABR,YAV2,DEDD2,SQSTM1,ATF3,MS
KEGG:04218	Cellular senescence	1.37E-02	TR,MAPK11,PPP1CC,EIF4EBP1,HLA-C,HLA-E,HLA-B
KEGG:04390	Hippo signaling pathway	1.37E-02	WNT16,RASSF1,LLGL2,TEAD2,TCF7,WNT11,BMP7,TGFB1,PPP2R1A,WNT2,WNT3,YWHAE,CCND1,WNT5B,FZD10,PPP2CA,WNT5A,JD2,TGFB3,WNT1,BMP4,JD1,YWHAH,LATS1,WNT2B,APC,MYC,YAP1,PPP2R1B,FRMD6,SMAD4,TCF7L1,WNT3A,GDF6,PPP2R2B,FZD6,BTRC,YWHAB,PAR6D
GO:0007091	metaphase/anaphase transition of mitotic cell cycle	1.42E-02	CDC27,ZNF207,TPR,CD6,C11ORF51,CENPF,NEK6,DUSP1,APC,ESPL1,HECW2,RB1,ANAPC11,DYNC1L1,ATM,BUB3,BUB1
GO:0000075	cell cycle checkpoint	1.42E-02	ZNF207,MRE11A,TPR,TP53BP1,GTSE1,WDR76,CD66,WAC,FBXO31,NDRG1,TGFB1,CASP2,CCND1,C11ORF51,CDKN1B,NEK11,CENPF,RAA2,NAGL1,DCLE1B,DUSP1,ZWINT,MAD2L1BP,PRMT1,E2F8,PCNA,APC,MDC1,ORF2B,RB1,TIPRL,INTS7,ETAA1,DYNC1L1,PLK2,ATM,HMGA2,RAD1
GO:0051098	regulation of binding	1.42E-02	1.2ZNF593,CDCA5,HMGA2,POU4F2,WNT3A,TIAM1,NRG1,SKIH,MGB2,HEY1,NSD1,SIN3A,BCL2,SOX11,JUN,CTNNB1P1,ZFP91,RUVBL2,CSNK2B,CPNE1,NME1
GO:0038034	signal transduction in absence of ligand	1.42E-02	EYA2,ERBB3,GSK3A,EYA4,CASP9,PPP2R1B,MAP2K5,ITGAV,MCL1,EYA3,RET,MAPK7,GDNF,BCL2L1,BCL2,DDC,HSPA1A
GO:0097192	extrinsic apoptotic signaling pathway in absence of ligand	1.42E-02	EYA2,ERBB3,GSK3A,EYA4,CASP9,PPP2R1B,MAP2K5,ITGAV,MCL1,EYA3,RET,MAPK7,GDNF,BCL2L1,BCL2,DDC,HSPA1A
GO:0051961	negative regulation of nervous system development	1.43E-02	CDKL3,PAX6,SEMA3G,SIRT2,PCM1,BMP7,STMN2,EFNB3,TRPV4,RFK4,WNT5A,GORASP1,JD2,EFNB2,RNF6,YWHAH,SIX3,DLX1,CNTN4,SYL2,INT2L1,NOTCH1,POU4F2,WNT3A,SKI,GF1,BAG5,NEUROD2,PTEN,SOX11,CALA,SLIT1,DCC,NF1,DL1

GO:0030111	regulation of Wnt signaling pathway	PSMB1, PSEN1, WNT1, PSMC5, ANKRD10, ESR1, BAMBI, HMGXB4, RBX1, PPM1A, TSC2, SALL1, AES, PPP2R1A, GSK3A, CAV1, WNT2, SFRP4, GUS3, CCNY, PSD3, PSDM1, COL1A1, SNX3, TBX18, PPP2CA, WNT5A, IGF2, USP34, RNF146, BICC1, LRP1, PIN1, LAT51, NFATC1, PSME3, KREMEN2, NPH4, 1.43E-02 WNT2B, APC, DAB2IP, PSMB7, ATP6V1C2, SFRP2, DIXDC1, TCF7L1, WNT3A, TIAM1, SKI, RUNX1, SOX17, FZD6, BTRC, GREM1, RSP01, PSDM1, HIC1, CTNBP1, SIAH2, PSDM13, ATP6VOC, RNF220, FAMS38, SULF2, DACT3, PSMB10, UBA52, PSMB9
GO:0001823	mesonephros development	1.44E-02 FGF10, PAX2, WNT11, SIX4, BMP7, SALL1, ZBTB16, BMP4, SMO, HOXD11, FOXJ1, MYC, OSR1, SU72, SHH, GDNF, CTNNBP1, LHX1
GO:0007265	Ras protein signal transduction	NCKAP1, MTN1, RASSF1, RASGRP2, FGF10, GNB1, ABL1, NRP1, CRKL, SSGSM3, ARHGAP5, MAPK14, ARHGEF2, MFN2, MAPKAP1, ARAP3, ADRA1A, GPSM2, RREB1, SHC2, PAK4, EPS8L1, KRAS, NGF, DBNL, DAB2IP, RB1, CDH13, CCNA2, PLK2, RASA1, NOTCH1, ADRA2A, RASA2, TIAM1, RALGDS, SQSTM1, PD 1.44E-02 PN, MAPKAP2, CDC42EP3, ARHGEF3, F2RL1, DLCL1, CDC42EP5, RHOD, JUN, CDC42EP4, F2R, RAP2B, MAPK11, NF1, RASGEF1A, GPR20, NUP62, RGL2, CYFIP1
GO:0043407	negative regulation of MAP kinase activity	1.45E-02 BMP7, PPP2R1A, CAV1, HIPK3, DUSP16, PPP2CA, RGS2, DUSP1, DUSP4, BMP4, DAB2IP, DUSP6, DUSP10, PTPRU, DUSP7, SPRED1, SMPD1, GPS1, GBA, FTMN1, NF1, SPRED2
GO:0000988	transcription factor activity, protein binding	1.45E-02 AHRR, SPEN, TEAD2, HIF1A, SUPT6H, NR3C1, CRY2, ATF4, PER2, BHLHE40, PARP9, MYOCD, SMAD4, NOTCH1, HMGA2, EOMES, T, HEY1, JUN, NEUROG1, MYBL1, TEAD1
REAC:R-HSA-	Transcriptional regulation by RUNX3	1.46E-02 PSMB1, RUNX3, HDAC4, TEAD2, TCF7, PSMC5, JAG1, TGFBI, PSDM3, PSDM11, CND1, KAT2B, FOXO3, PSME3, KRAS, PSMB7, MYC, YAP1, ZFH3, SMAD4, NOTCH1, TCF7L1, BCL2L1, RUNX1, RBP1, PSDM1, MAML2, PSDM13, TEAD1, MAML3, BRD2, PSMB10, UBA52, PSMB9
GO:0005681	spliceosomal complex	RBMS, AQR, SNRNP40, U2AF2, WDR62, PDCD7, HNRNPH3, SNRNP3, DGCR14, TTP11, NHP2L1, PHF5A, CRNKL1, DHX35, DHX15, PRPF40B, PRPF4B, SF3B1, IVNS1ABP, SYF2, DCAF4, HNRNPA2B1, SNRPC, SNRPB, HNRNPR, RALY, SNRPA1, SRRM1, SYNCRIP, SNRPF, DHX38, TXNL4B, LUC7L2, UZAF1, MAG 1.51E-02 OH, HNRNPK, SRRM2, HNRNPH1, HNRNPF, PPIH, CDX41, SF3A3, RNPC3, DHX16
GO:0048706	embryonic skeletal system development	1.57E-02 WNT11, PCSK5, MTHFD1, HOKA1, COL1A1, WNT5A, MTHFD1L, WDR60, PDGFRA, TFAP2A, COL2A1, OSR1, SOX11, SULF2, LHX1
GO:0090092	regulation of transmembrane receptor protein serine/threonine kinase signaling pathway	BAMBI, SIRT1, PPM1A, BMP7, TGFBI, CAV1, SFRP4, PBLD, MTRM4, SNX25, ACVR1, STK11, TGFBI3, ACVR2A, GIPCI, WNT1, BMP4, PIN1, TW5G1, CDKN1, C, FST, CDCBP, THBS1, GATA6, RNF165, SMAD4, PRDM16, DLX1, NOTCH1, GDF6, RBPMS, SKI, NBL1, CITED2, SHH, GREM1, RBP1, CIDEA, EID2, SOX11, M 1.60E-02 AG12, TRIM33, BMPR2, HSPA1A, CSNK2B, UBA52
GO:0031400	negative regulation of protein modification process	JARID2, RANBP9, PREX2, U2AF2, SIRT2, TRIB2, JTB, PIBF1, MECOM, TFAP4, TNF2, EZR, SIRT1, ABL1, BMP7, TSC2, TGFBI, PPP2R1A, CAV1, PRKAG2, GTPFB1, PBLD, YWHAE, SUPT6H, SNX25, HIPK3, DUSP16, CDKN1B, PPP2CA, CISH, EIF4G1, TMEM59, RGS2, TNFAIP3, PPP4R4, DUSP1, DUSP4, CRY2, RPL5, BMP4, PIN1, CDKN1, CL, LAT51, PPP1R1B, PIAS3, PER2, APC, DAB2IP, MYC, DUSP6, RB1, NTRK3, MYOCD, SMAD4, TPR, DUSP10, SPOPL, SU72, SFRP2, IGF1BP3, PTPRU, FOXO1, IMPACT, GNAQ, PPP1R15B, CALM3, UBXN1, KLF15, DUSP7, FZRL1, SPRED1, BAG5, SMPD1, TRIM44, YWHAB, GREM1, OTUB1, DDI 1.60E-02 T4, HEMK2, SIN3A, GPS1, SOCS3, SOCS3, PTEN, RPS7, QSOX5, TRIM1, GBA, SOCS3, FURZ2, NTR3, NF2, PTPN1, NF1, ENPP1, SPRED2, HSPA1A, PPP1R11, JPO7
GO:0051052	regulation of DNA metabolic process	RAD52, UIG3, DDX11, MRE11A, KITLG, RFC2, WAPAL, EYA2, TSP3BP1, FGF10, TINF2, CDC6, SIRT1, CDC7, TTP11, TGFBI, PPP2R1A, GTPFB4, SUPT6H, FBXW7, PTGES3, RNF8, EYAA, PPP2CA, OGG1, XRN1, RPA2, TGFBI3, HNRNPA2B1, WRNIP1, EREG, BMP4, HELB, INO80, EZF8, PCNA, PDGFR, CCT7, USP37, 1.64E-02 MYC, PARP9, OBF2C8, CDAN1, NNL, PARP1, EGRF, TERF1, UHRF2, ATM, HMGA2, RAD17, CCT8, EYA3, DONSON, DFFA, USP1, WRN, ERF2, RNF169, GREM1, OTUB1, POU4, INSR, EXOSC10, DCP2, ATR, CIDEA, UBE2N, CALR, ENPP7, KPNA2, NF2, MPHOSPH8, NUDT16, BMPR2
GO:0001518	endothelium development	1.64E-02 ADD1, EZR, NRP1, JAG1, TJP1, ACVR1, TJP2, BMP4, XDM6B, BTG1, CCM2, NOTCH1, ZEB1, NRG1, F11R, PDPN, F2RL1, HEY1, SOX17, RBP1, ATOH8, CD34, CLDN5, WNT7B, DLL1, BMPR2, NOTCH4, CSNK2B
GO:1902126	positive regulation of neuron death	1.68E-02 PICALM, FBXW7, FOXO3, EGR1, CLU, EFNB2, ATF4, EIF2S1, EPHA7, TFAP2A, MCL1, CDK5, DDI4, MAPT, NF1, DAXX
GO:0007179	transforming growth factor beta receptor signaling pathway	TGFBR3, BAMBI, SIRT1, PPM1A, ARHGEF18, TGFBI, CAV1, PBLD, MTRM4, SNX25, ACVR1, STK11, TGFBI3, GIPCI, ID1, PIN1, TW5G1, CDKN1, C, USP15, TGFBRAP1, SDCBP, THBS1, SMAD4, PRDM16, PTPRK, KLF10, SKI, F11R, ZYX, HPGD, CITED2, FNTA, ADAM9, CIDEA, EID2, SOX11, JUN, CLDN5, TRIM33, HSP 1.69E-02 A1A, UBA52
GO:0003205	cardiac chamber development	1.71E-02 TGFBR3, MEF2C, TBX5, DSP, NRP1, BMP7, JAG1, FOXF1, SALL1, TGFBI, GSK3A, HAND1, ACVR1, TBX2, BMP4, GATA6, SMAD4, SFRP2, NOTCH1, NRG1, CITED2, TBX20, HEY1, RBP1, SOX11, ZFPM1, BMPR2
GO:0003231	cardiac ventricle development	1.71E-02 TGFBR3, MEF2C, TBX5, DSP, JAG1, FOXF1, SALL1, TGFBI, GSK3A, HAND1, ACVR1, BMP4, SMAD4, SFRP2, NOTCH1, NRG1, CITED2, TBX20, HEY1, RBP1, SOX11, ZFPM1, BMPR2
GO:0060411	cardiac septum morphogenesis	1.73E-02 TGFBR3, NRP1, BMP7, JAG1, HAND1, ACVR1, TBX2, BMP4, GATA6, SMAD4, NOTCH1, CITED2, TBX20, HEY1, SOX11, ZFPM1, BMPR2
GO:0044784	metaphase/anaphase transition of cell cycle	1.73E-02 CDC27, ZNF207, TPR, CDC6, C11ORF51, CENPF, NEK5, DUSP1, APC, ESPL1, HECW2, RB1, ANAPC11, DYNCL1U1, ATM, BUB3, BUB1
GO:0009266	response to temperature stimulus	NUP160, TRP, CAMK2B, AAAS, SIRT1, NFKBIA, RAE1, DNAJB6, RPA3, YWHAE, HSPA8, PTGES3, TRPV4, EIF2B1, EIF2B4, RPA2, HSP11, NUP85, HSPA2, NUP214, PRDM12, THBS1, NUP54, HSPD1, CAMK2G, ATM, FOXO1, SLC25A27, EPHB1, MAPKAP2, BAG5, DNAJC7, CD34, ATR, MAOX, HSPA1A, NU 1.73E-02 PG2, HSPB1
GO:0000790	nuclear chromatin	PAX6, DDX11, RUNX3, ARID1B, SIRT2, SMARCD3, NUFIP1, ESR1, SIRT1, H2AFY2, HMGXB4, YY1, ACTR5, CENPT, SALL1, CHRCAL1, EZH2, SMARCD2, CENPA, CHD5, CBX3, RUNX2, MAX, HAT1, INO80, NFATC1, RARA, H3F3B, NASP, ACTL6A, SAP130, MYC, RB1, TCF12, CBX8, SMAD4, CDC45, UHRF2, NCPAD3, R 1.76E-02 AD17, INO80, NPM2, DFFA, TALI1, RBBP4, HMG82, CITED2, T, HNRNPK, PHOX2A, CHAF1A, SIN3A, ZEB2, SMARCC1, JUN, NRP1, HIST1H2AC, RUVBL2, SETD3, HIST2H2AB, KIF7, RORA, MPHOSPH8, NRCOR2, HIST1H3I, HIST2H2AA3, DAXX, DPF3, TRNP1, C17ORF49, HIST2H2AA4, HIST1H2AL, HIST1H2A
GO:0061326	renal tubule development	1.77E-02 PROM1, PAX2, MEF2C, WNT11, SIX4, SALL1, BMP4, SMO, HOXD11, MYC, OSR1, SHH, GDNF, CTNNBP1, COL4A1, WNT7B, LHX1, HNF1B

GO:000989 transcription factor activity, transcription factor binding	1.79E-02	AHRHSPEN,TEAD2,HIF1A,NR3C1,CRY2,ATF4,PER2,BHLHE40,PARP9,MYOCD,NOTCH1,HMGA2,EOMES,T,JUN,NEUROG1,MYBL1,TEAD1
GO:0035850 epithelial cell differentiation involved in kidney development	1.84E-02	PROM1,PAX2,MEF2C,JAG1,SALL1,BMP4,SMO,FOXJ1,OSR1,MYO1E,KLF15,CD34,MAGI2,LHX1
GO:0021675 nerve development	1.90E-02	ERBB3,PAX2,NRP1,SIX4,SALL1,HOXA1,TFAP2A,CHRN2B,CHD7,NEUROG1,SULF2,MAFB
GO:0045296 cadherin binding	1.90E-02	PROM1,ANLN,MRE11A,PKNX2,PKPK,PKM2,DHX29,PICALM,PSEN1,BZW1,COBLL1,CHMP2B,RAB10,ADD1,EPB41L1,EZR,TBCL1D2,CRKL,CHMP4B,VAPA,EHD4,TIP1,NDRG1,PPP1R13L,YWHAH,HSPA8,EIF4G1,SPTBN1,PRDX6,TJP2,GIPC1,AHNAK,VASP,PAICS,PAK4,EPS8L1,MPRIP,TRPCA,TME
GO:0072522 purine-containing compound biosynthetic process	1.93E-02	4,PAPSS1,ADCY10,PARP1,ADRA2A,AKS,SLC26A2,ADCY8,ADK,DOCK,ATP5G1,CALM3,GRM2,ATP5C1,GAIR1,ATP5H,ADAL,NPR1,PKFXB3,INSR,DRD1,GRM7,NF1A,PTRT,NUP62,ADSL,ATP5J2,EIF6,MC1R
GO:0051301 cell division	1.96E-02	ANLN,GNAI3,PKN2,SIRT2,CLASP1,CHMP2B,RAB10,ORC6L,CD6C,CD25B,CHMP4B,GNAI2,CENPA,SPTBN1,BIRC6,ARHGFE2,DOCK7,GIPC1,BEEN1,PIN1,E2F8,CHMP2A,RAB11FIP4,SOXS,APC,ESPL1,CKAP2,MYC,KIF13A,KIF20B,BRCA2,PKP4,SFRP2,RASA1,CHMP7,TRIM36,SKA1,FMN2,TAL1
GO:0061005 cell differentiation involved in kidney development	1.99E-02	PROM1,PAX2,MEF2C,JAG1,SALL1,BMP4,SMO,FOXJ1,OSR1,MYO1E,KLF15,SHH,CD34,MAGI2,LHX1
GO:0097191 extrinsic apoptotic signalling pathway	1.99E-02	DCC,BLOC1S2,DAXX,HSPA1A
GO:008135 translation factor activity, RNA binding	2.01E-02	EIF4B,EIF4G3,MTIF2,EIF3,EIF3A,CEPB3,EIF2B1,EIF4G1,EEF1B2,EIF2B4,MTIF3,EIF2S2,EIF2S1,CPEB2,EIF3M,EEF1A1,EIF4A1,EIF1,EIF3F,SOX11,TUFM,CPEB1,EEF1G
KEGG:04010 MAPK signaling pathway	2.01E-02	3,NF1,MAP3K3,DAXX,HSPA1A,CHUK
KEGG:04934 Cushing's syndrome	2.01E-02	GNAQ,CACNA10,FZD6,CREB3L2,WNT7B
KEGG:04910 Melanogenesis	2.01E-02	WNT16,KITLG,CAMK2B,GNAI3,ADCY2,TCF7,WNT11,GNAS,GNA11,TPR3,CDK6,WNT2,CREB3,WNT3,CCND1,WNT5B,CDKN1B,FZD10,E2F3,WNT5A,GNAI2,CDKN2C,ITPR2,WNT1,ATF4,ASH2L,WNT2B,APC,NR5A1,RB1,ARMC5,CREB5,EGFR,CAMK2G,CACNA1C,TCF7L1,WNT3A,ADCY8
KEGG:04350 TGF-beta signaling pathway	2.01E-02	ZFYVE16,BAMBI,RBX1,BMP7,TGF1,PPP2R1A,RP56KB1,SKP1,PPP2CA,ACVR1L,ID2,ID3,TGF13,ACVR2A,BMP4,JD1,E2F5,FST,MYC,PPP2R1B,THBS1,SMAD4,GDF6,NBL1,PTX2,TGIF1,BMP2
KEGG:05205 Proteoglycans in cancer	2.03E-02	IGF2,KRAS,WNT2B,CD63,MYC,THBS1,ITGAV,EGFR,CAMK2G,WNT3A,TIAM1,VAZ2,IHH,ITGA2,SHH,FZD6,SOC2,PIK3CD,ERBB4,MAPK11,PTCH1,PPP1CC,WNT5B
GO:0006397 mRNA processing	2.04E-02	M2,HNRNPH1,CD2BP2,HNRNPF,PPH,CLP1,DDX41,SF3A3,RNFC3,PCBP2,DDX42,UBL5,DHX16,RNPS1,GT23H4,GT23H5
GO:0015651 quaternary ammonium group transmembrane transporter activity	2.04E-02	SLC22A16,SLC22A3,SLC25A20,SLC25A29,SLC22A4,SLC22A5
GO:0032835 glomerulus development	2.05E-02	PROM1,PAX2,MEF2C,BMP7,JAG1,EGR1,BMP4,FOXJ1,PDGFRA,OSR1,MYO1E,KLF15,RET,CD34,MAGI2,SULF2
GO:0030071 regulation of mitotic metaphase/anaphase transition	2.05E-02	ZNF207,TPR,CD63,C11ORF51,CENPF,NEK6,DUSP1,APC,ESPL1,HECW2,RB1,ANAPC211,DYNC1L1,ATM,BUB3,BUB1
GO:0021782 glial cell development	2.05E-02	SIRT2,PSEN1,PHGDH,PICK1,CDK6,EIF2B1,EIF2B4,CLU,LRP1,SKI,PTEN,SOX11,MAPT,NF1,DL11,RAGE
GO:0010720 positive regulation of cell development	2.05E-02	DLX1,CPNE9,GOLGA4,SULT2,DOCK5,NTRK2,NOTCH1,ZEB1,POU4F2,MPACT,NBL1,RET,NEUROD2,ATOH1,SOX11,SUTRKR1,CALR,NEUROG1,CLDN5,MAPT,MAGI2,S100A10,ZNF335,RAGE,SYT3,CPNE1
GO:0009408 response to heat	2.05E-02	NUP160,TPR,CAMK2B,AAAS,SIRT1,RAE1,DNAJB6,RPA3,YWHAH,HSPA8,PTGES3,TRPV4,EIF2B1,EIF2B4,RPA2,HSPH1,NUP85,HSPA2,NUP214,THBS1,NUP54,CAMK2G,ATM,MAPKAPK2,BAG5,DNAIC7,CD34,ATR,MAPT,DAXX,HSPA1A,NUP62,HSPB1

GO:0048193	Golgi vesicle transport	2.10E-02	ARF5,COP27,OSBPPL5,ANK1,GABARAPL2,USE1,KIF26A,LMAN1,KLHL20,DOPEY1,KIF3C,RAB10,SCAMP1,DDHD2,DYNLL1,KIF168,PICK1,KDEL8,VT11B,CTS2,VAPA,STX4,C16ORF62,AP3B2,RAB2A,NAPA,BET1,GOSR2,CTSC,SAPS3,CUX2,ERGC1,GORASP1,NRBP1,SPTBN1,RAB14,SEC22A,ATP8A1,TMEM115,VP513C,KIF3A,ACTR10,TBC1D14,DCTN4,ARF3,COG2,KIF13A,KIF11,AP1A8,SCYL1,KIF2C,CNIH4,DYNC1L1,GOLGA4,MI3A,RAB6B,TGFA,AMN,COG7,STX18,LMAN2,TMED10,RNF139,YIF1A,RAB18,KLC2,DCTN2,RAB6A,MCFD2,PITPNB,COPB2,ANKFY1,SY51,ANKRD28,TAPB2,CDRO7
GO:0010965	regulation of mitotic sister chromatid separation	2.12E-02	CDC27,ZNF207,TPR,CDC6,C11ORF51,CENPF,NEK6,DUSP1,APC,ESPL1,HECW2,RB1,ANAPC11,DYNC1L1,ATM,BUB3,BUB1
KEGG:04137	Mitophagy - animal	2.16E-02	GABARAPL2,RAB7A,BCL2L13,HIF1A,TAX1BP1,MFN2,FOXO3,BECN1,ATF4,KRAS,USP15,CALCOCO2,RHOT2,SQSTM1,CITED2,BCL2L1,JUN,ATG9B,MITF,NBR1,CSNK2B,PGAM5
GO:0042776	regulation of protein catabolic process	2.23E-02	PIAS1,RNF19A,GABARAPL2,HERPUD1,SIRT2,TRIB2,RAB7A,LAMP3,EDEM2,EZR,WAC,RBX1,LAPTM4B,GAZ1,GSX3A,CAV1,FBXW7,CTSC,CDKN1B,USP5,SNX3,UBE3A,WNT5A,NFE2L2,TNFAIP3,CLU,RPL5,GIPCI1,LRP1,PIN1,PSME3,APC,DAB2IP,SDCBP,TMTC3,RFWD2,OLK2,EGF2,ADRA2A,FOXO1,FMN2,EEF1A1,UBXN1,TIPARP,RNF180,NELL1,BAG5,ARH1,ADAM9,RNF139,SOC35,PTEN,RP57,USP19,TRIB1,GBA,DAZZ,UBE2G2,HGS,SUMO2,MDM4,HSPA1A,BAT3,TRIM39
GO:0010769	regulation of cell morphogenesis involved in differentiation	2.39E-02	CDKL3,SEMA3G,CAMK2B,NTN1,PLXNA2,ABL1,NRP1,CRKL,TRIOBP,ARHGFE7,EFNB3,CUX2,GORASP1,OBSL1,RRB1,RNF6,YWHAH,CHN1,LOFLM1,NGF,CAPRIN1,TUBB2B,AP1AR,SSH2,GOLGA4,SLIT2,DOCK5,NTRK2,POU4F2,TNIK,CHRN2,POPN,CDK5,SDC2,PTEN,SUTRK1,CALR,EPHB3,MA
GO:0000079	regulation of cyclin-dependent protein serine/threonine kinase activity	2.39E-02	FGF10,TFAP4,CD63,CDKN3,GTBP8A,BCCIP,CCNY,CCND1,CDKN1B,CDKN2C,CKS2,LATS1,APC,HERC5,MYOCD,EGFR,CDC25C,CCN1,CD25A,HEXIM2,PTEN,JP07,CCNL2
GO:0035035	histone acetyltransferase binding	2.44E-02	PAX6,SIRT2,HIF1A,GLI3,EPAS1,EGR1,PCNA,BCAS3,CITED2,ZBTB7A
KEGG:04728	Dopaminergic synapse	2.54E-02	CAMK2B,GNAI3,GNB1,GNAS,PPP2R3C,ITPR3,PPP2R1A,GSX3A,CREB3,MAPK14,PPP2CA,GNAI2,KCNJ5,ITPR2,ATF4,CALY,PPP1R1B,PPP2R1B,PPP3CA,GNAI,CREB5,CAMK2G,CACNA1C,GNAQ,PPP2R2B,CACNA1D,KCNJ6,CALM3,GNG4,KIF5C,GNG7,CREB3L2,GRIN2A,LRITOM1,DRD1,MAPK11,PPP1CC
GO:0045596	negative regulation of cell differentiation	2.55E-02	CDKL3,PAX6,SEMA3G,TRIO,HDACA,SIRT2,RORA,TRIB2,PCN1,TKXS,SIRT1,XBP1,SIX4,NFKB1A,BMP7,JAG1,STMN2,TGFB1,CEACAM5,GSX3A,CDK6,CAV1,GLI3,PBLD,EFNB3,NKX3-2,ZBTB16,CALCA,TRPV4,PPP2CA,WNT5A,GORASP1,EFEMP1,ID2,EREG,WNT1,EFNB2,BMP4,PRMT1,RNF6,YWHAH,FOXA1,FOXJ1,NR1H2,RARA,MEIS2,DAB2IP,ANP32B,MYC,SIX3,TGAV,AP1AR,MYOCD,SMAD4,OSR1,DLX1,CNTN4,SLIT2,SFRP2,DYNLT1,EGFR,NOTCH1,ZEB1,FOXO1,POU4F2,WNT3A,EPHB1,SKI,ABCG1,GF1,IHH,SHH,BAG5,GREM1,SOC35,PTEN,CDC85B,EID2B,SOX11,CALR,GATA2,ZFPM1,PTCH1,DCC,NBR1,NF1,NFPP1,DLL1,MAFB,NOTCH4
GO:0010948	negative regulation of cell cycle process	2.55E-02	PSMB1,ZNF207,MRE11A,TPR,WAPAL,FGF10,GTSE1,PSMCS,TFAP4,ZNF268,CDC7,RIK1,BMP7,FBXO3,CASP2,E2H2,PSM03,PSMD11,FBXW7,CCND1,C11ORF51,CDKN1B,SKP1,CENPF,RPA2,PLAGL1,DUSP1,EPC1,APAF1,CBX3,BMP4,MAX,PRMT1,E2F8,CHMP2A,PSME3,PCNA,APC,ESPL1,DAB2IP,PSMB7,RB1,DYNC1L1,PLK2,TERF1,ATM,HMGA2,RAD17,BUB3,CNOT9,CDC25C,DONSON,RBBP4,E2F7,RMI1,RPWD3,E2F6,BUB1,TRIAPI1,PTEN,SUFW1,MUS81,PSMD1,MGA,CALR,PSMD13,DCLN103,ZNF655,MDM4,PSMB10,LIBAS2,PSMB9
GO:0045787	positive regulation of cell cycle	2.55E-02	DDX11,TPR,PKN2,SIRT2,FGF10,GTSE1,EDN1,TFAP4,ZNF268,CDC6,CDC7,CDC25B,CASP2,CCNY,RP56KB1,CCND1,CDKN1B,EIF4G1,ID2,PLAGL1,GPSM2,GIPCI1,CKS2,EDN3,EREG,PRMT1,BECN1,INO80,E2F8,FOXA1,RARA,PCNA,MEIS2,ESPL1,DAB2IP,KIF20B,RB1,GATA6,ANAPC11,PLK4,KP
GO:2001239	regulation of extrinsic apoptotic signaling pathway in absence of ligand	2.55E-02	EYA2,EYA4,PPP2R1B,MAP2K5,MCL1,EYA3,RET,MAPK7,GDNF,BCL2L1,BCL2,HSPA1A
GO:0099177	regulation of trans-synaptic signaling	2.55E-02	DTNBP1,CAMK2B,SNCAIP,SYT1,MEF2C,ABL1,PICK1,STX4,CPEB3,USP46,CUX2,RAB3GAP1,ADRA1A,GIPCI1,PNKD,YWHAH,VGF,TOR1A,FLOT1,CNTN4,TMEM108,PLK2,EIF4EBP2,KCNB1,CHRN2,SQSTM1,GRIK3,GRM2,CDK5,GDNF,D45234E,NEUROD2,PTEN,HAP1,NPAS4,CHRNA7,NRXN1,BTB09,DRD1,GRM7,RAGE
GO:0050804	modulation of chemical synaptic transmission	2.55E-02	DTNBP1,CAMK2B,SNCAIP,SYT1,MEF2C,ABL1,PICK1,STX4,CPEB3,USP46,CUX2,RAB3GAP1,ADRA1A,GIPCI1,PNKD,YWHAH,VGF,TOR1A,FLOT1,CNTN4,TMEM108,PLK2,EIF4EBP2,KCNB1,CHRN2,SQSTM1,GRIK3,GRM2,CDK5,GDNF,D45234E,NEUROD2,PTEN,HAP1,NPAS4,CHRNA7,NRXN1,BTB09,DRD1,GRM7,RAGE
GO:0000775	chromosome, centromeric region	2.55E-02	ZNF207,NCAPD2,NUP160,TPR,PPP1R12A,WAPAL,CLASP1,PSEN1,PDS5B,DYNLL1,CENPT,CTCF,PPP2R1A,CENPA,CENPF,HELLS,CBX3,ZWINT,NURP,NUP85,APC,KIF2C,NUF2,DYNC1L1,CDCA5,NCAPD3,SPC25,SYCP2L,BUB3,SKA1,RAO21,MIS12,BUB1,DCTN2,IKZF1,DAXX
GO:0001657	ureteric bud development	2.60E-02	PAX2,WNT11,SIX4,BMP7,SALL1,BMP4,SMO,HOXD11,FOXJ1,MYC,OSR1,SLIT2,SHH,GDNF,CTNNBIP1,LHX1
GO:1902099	regulation of metaphase/anaphase transition of cell cycle	2.60E-02	ZNF207,TPR,CDC6,C11ORF51,CENPF,NEK6,DUSP1,APC,ESPL1,HECW2,RB1,ANAPC11,DYNC1L1,ATM,BUB3,BUB1
GO:0008045	motor neuron axon guidance	2.60E-02	PLXNA2,CHN1,RNF165,SLIT2,SUT1,PLXNA4,LHX1
GO:0003279	cardiac septum development	2.61E-02	TGFBR3,TKXS,NRP1,BMP7,JAG1,SALL1,HAND1,ACVR1,TKX2,BMP4,GATA6,SMAD4,NOTCH1,CITED2,TBX20,HEY1,SOX11,ZFPM1,BMPR2
GO:0003151	outflow tract morphogenesis	2.61E-02	TGFBR3,MEF2C,NRP1,JAG1,TKX2,BMP4,GATA6,SMAD4,SFRP2,PITX2,CITED2,TBX20,SOX17,RBP1,SOX11,ZFPM1,CLDN5,BMPR2
GO:0051306	mitotic sister chromatid separation	2.61E-02	CDC27,ZNF207,TPR,CDC6,C11ORF51,CENPF,NEK6,DUSP1,APC,ESPL1,HECW2,RB1,ANAPC11,DYNC1L1,ATM,BUB3,BUB1

GO:1904029	regulation of cyclin-dependent protein kinase activity	2.61E-02	FGF10,TFAP4,CD6E,CDKN3,GTBPB4,BCOIP,CCNY,CCND1,CDKN1B,CDKN2C,CKS2,CDKN1C,LATS1,APC,HERCS,MYOCD,EGFR,CD25C,CCN1,CD25A,HEXIM2,PTEN,IPD7,CCN2
GO:0045446	endothelial cell differentiation	2.61E-02	ADD1,EZR,NRP1,JAG1,TIP1,ACVR1,TIP2,KDM6B,BTG1,NOTCH1,ZEB1,NRG1,F11R,PDPN,F2RL1,HEY1,SOX17,RBP1,ATOX8,CLDN5,WNT7B,DLL1,BMP2R2,NOTCH4  RANBP9,SH2D2A,GAB3,KITLG,CYFP2,IAMC2,NCKAP1,ERBB3,FGF10,FGF20,ITCH,PSEN1,MEF2C,ESR1,COX3A3,ITPR3,PCSK5,NRP1,POLR2E,CRLK,RPS6KA5,ARHGFE7,FLT1,POLR2C,ESRP1,POLR2L,PPP2R1A,CAV1,TCIRG1,MAPK14,PPP2CA,NCBP2,STAM2,GALNT3,DOCK7,ATP6V0B,PIK3R3, MAPKAP1,DUSP4,TPR2,ATF1,EREG,GGA3,NGFRLL1,PTPN12,SHC2,WASF3,KRAS,VAV3,NGF,PDGFRA,YAP1,PPP2R1B,MAP2K5,THBS1,ADAM10,ITGAV,DUSP6,ADCYAP1,ATP6V1C2,RASA1,EGFR,NTRK2,ADAM12,PTPRJ,VEGFC,TIALL1,PDE3B,PTPRK,TIAM1,NRG1,KIT,THEM4,ATP6V0D1,RAL
REAC:R-HSA-	Signaling by Receptor Tyrosine Kinases	2.63E-02	GDS,VAV2,FGF19,MAPKAPK2,POLR2H,DUSP7,ITGA2,CDK5,SPRED1,MAPK7,STAT6,YWHAB,AXL,HNRNP11,HNRNP7,SOC36,INSR,PRKCE,ETC,ERBB4,FLT2,HGS,MAPK11,NTF3,ATP6V0C,IRS2,PIRS5,FGF3,COL4A1,PTPN1,SPRED2,UBA52,CYFIP1
GO:0002072	optic cup morphogenesis involved in camera-type eye development	2.65E-02	WNT16,PAK2,WNT5A,TFAP2A,SOX11
GO:2000178	negative regulation of neural precursor cell proliferation	2.65E-02	SIRT2,WNT5A,ID2,GATA2,NF1
GO:0003214	cardiac left ventricle morphogenesis	2.65E-02	TBX5,FOXF1,GSK3A,HAND1,SMAD4,SFRP2,NOTCH1,RBP1
GO:0007221	positive regulation of transcription of Notch receptor target	2.65E-02	NOTCH1,RBP1,MAML2,MAML3,NOTCH4
GO:0015697	quaternary ammonium group transport	2.65E-02	SLC22A16,SLC22A3,SLC25A20,SLC22A4,SLC22A5
GO:0048642	negative regulation of skeletal muscle tissue development	2.65E-02	SIX4,TGFBI,MYOCD,EPHB1,USP19
GO:1990668	vesicle fusion with endoplasmic reticulum-Golgi intermediate compartment (ERGIC) membrane	2.65E-02	STX4,TAP1,CAUR,TAP2,TAPBP
GO:0033549	MAP kinase phosphatase activity	2.65E-02	DUSP1,DUSP4,DUSP6,DUSP10,DUSP7
GO:0043024	ribosomal small subunit binding	2.65E-02	EIF4B,DHX29,MTIF2,MTIF3,ERAL1,CPEB2,ABCE1,NME1
GO:0007093	mitotic cell cycle checkpoint	2.70E-02	L1,MUS81,MDM4,UBA52  ZNF207,MRE11A,TPR,GTSE1,FBXO31,TGFB1,CASP2,CCND1,C11ORF51,CDKN1B,NEK11,CENPF,PA2,PLAGL1,DUSP1,ZWINT,MAD2L1BP,PRMT1,E2F8,PCNA,APC,MDC1,OBFC2B,RB1,DYNC1L1,PLK2,ATM,HMG2A,RAD17,BUB3,CNOT8,CD25C,DOONSON,E3F7,RFWD3,BUB1,TRIP1,BCL2
GO:2001236	regulation of extrinsic apoptotic signaling pathway	2.70E-02	EYA2,STX4,TNFRSF10A,CAV1,EYAA,ACVR1,BIRC6,ARHGFE2,TNFAIP3,TNFRSF10B,BMP4,PSME3,PPP2R1B,MAP2K5,THBS1,ITGAV,PMAP1,MCL1,EYA3,DEDD2,ATF3,RET,MAPK7,FADD,GDNF,FEM1B,RNF34,BCL2L1,BCL2,PTEN,SH2,HSFA1A
GO:0016791	phosphatase activity	2.70E-02	YAP3,CD25C,PPM1L,PPM1K,CD25A,DUSP7,UBLCF1,INPP1,DUSP18,NAIP,PTEN,CYCS,CTDSP2,PGP,PPP1CC,PTPN1,NUDT16,INPP5B,SACM1L,PDXP,PGAM5
GO:0021953	central nervous system neuron differentiation	2.77E-02	SALL1,WNT2,WNT3,C12ORF57,WNT5A,CHD5,WNT1,FOXA4,MDGA2,SLIT2,NFIB,NTRK2,WNT3A,EPHB1,CHRN2B,LMX1A,TBX20,PTEN,ERBB4,NRXN1,DRD1,LHX1
GO:0061180	mammary gland epithelium development	2.84E-02	WNT2,WNT3,ID2,IRF6,RREB1,LATS1,BRCA2,EPHA2,FOXO1,ERBB4,WNT7B
GO:0035335	peptidyl-tyrosine dephosphorylation	2.84E-02	DUSP1,DUSP4,PTPN12,DUSP6,DUSP10,PTPRJ,DUSP7,DUSP18,PGP,PTPN1,DUSP14
GO:0016049	cell growth	2.87E-02	MAD4,CPNE9,GOLGA4,TMEM108,SLIT2,SFRP2,EGFR,PTPRJ,POU4F2,IMPACT,SUPV3L1,MMP14,MSX1,SOX17,CDK5,SERTAD3,GNAG,NPR1,ALCAM,SOC5,BCL2,CCDC85B,SERTAD2,SLIT3,MAPT,SLIT1,DDC,DCUN1D3,DACT3,ENPP1,BMP2R2,HSFA1A,SYT3,SIPA1,CPNE1,PLXNA4,CYFIP1  CDK3,SEMA3G,DCBLD2,NTN1,KIF26A,SYT1,RASGRP2,PLXNA2,EDN1,ITCH,WNT11,SIRT1,ABL1,NRP1,SGK3,TGFB1,PPP2R1A,GSK3A,TMEM97,CDKN1B,PPP2CA,CISH,EIF4G1,STK11,NPPB,CDKN2C,CPNE5,RNF6,INOB8,OLFM1,PAK4,PPT1,H3F3B,BTG1,REERG,SDCB,ADAM10,TCHP,ESR2.5
KEGG:04210	Apoptosis	2.91E-02	BAD,TPR3,NFKBIA,CTSZ,TNFRSF10A,CASP2,CTSC,PIK3R3,APAF1,TNFRSF10B,ITPR2,TUBAA4,ATF4,CASP9,KRAS,EIF2S1,NGF,HRK,DAB2IP,CASP6,PMAP1,MCL1,PARP1,ATM,BCL2L11,DFFA,CAPN2,CASP7,ENDOG,TUBA1A,FADD,BCL2L1,PIK3CD,BCL2,CYCS,JUN,DAXX,CHUK
KEGG:04152	AMPK signaling pathway	2.91E-02	TBC1D1,PFKP,RAB10,PPP2R3C,SIRT1,TSC2,RAB2A,GYS1,PPP2R1A,PRKAG2,CREB3,RPS6KB1,CCND1,HMGCR,PPP2CA,PIK3R3,STX11,FOXO3,RAB14,ADRA1A,PPP2R1B,CCNA2,CREB5,FOXO1,PPP2R2B,PFKFB3,INSR,PIK3CD,SLC24A,CREB3L2,RAB11B,IRS2,EIF4EBP1,STRADA

KEGG:05217 Basal cell carcinoma	2.91E-02 WNT16,TCF7,WNT11,WNT2,GLI3,WNT3,WNT58,FZD10,WNT5A,WNT1,BMP4,SMO,WNT2B,APC,TCF7L1,WNT3A,HHP,SHH,FZD6,PTCH1,WNT7B
KEGG:05220 Chronic myeloid leukemia	2.91E-02 BAD,GAB2,MECOM,ABL1,CRKL,NFKB1A,TGFB1,CDK6,CCND1,CDKN1B,E2F3,PIK3R3,TGFB3,SHC2,KRAS,MYC,RB1,SMAD4,RUNX1,BCL2L1,PIK3CD,CTBP2,SHC4,CHUK
GO:0003257 positive regulation of transcription from RNA polymerase II promoter involved in myocardial precursor cell differentiation	2.97E-02 SRF,MYOCD,T,GREM1
GO:0072201 negative regulation of mesenchymal cell proliferation	2.97E-02 WNT5A,BMP4,NFIB,CTNNBIP1
GO:0048853 forebrain morphogenesis	2.97E-02 SMO,PTEN,SLIT1,NF1
GO:0042824 MHC class I peptide loading complex	2.97E-02 TAP1,CALR,TAP2,TAPBP
GO:0048273 mitogen-activated protein kinase p38 binding	2.97E-02 MAPK14,PRMT1,NFATC1,DUSP10
GO:0015226 carnitine transmembrane transporter activity	2.97E-02 SLC22A16,SLC25A20,SLC22A4,SLC22A5
GO:0032182 ubiquitin-like protein binding	2.97E-02 C10RF124,RNF4,SIRT2,RAE1,DCUN1D4,USP5,FAF2,NR3C1,TNFAIP3,CXCR4,CKS2,USPL1,CBX4,TERF1,BUB3,SQSTM1,UBXN1,OTUB1,UBE2N,DCUN1D3,NBR1,DAXX,NUP62,WDR92
GO:0045778 positive regulation of ossification	3.01E-02 MEF2C,C10RF9,BMP7,TGFB1,ZBTB16,WNT5A,ACVR1,TGFB3,ACVR2A,RUNX2,BMP4,TFAP2A,OSR1,NELL1,SOX11,ANO6,CTNNBIP1,WNT7B,BMPR2
GO:0072163 mesonephric epithelium development	3.05E-02 PAX2,WNT11,SIX4,BMP7,SALL1,BMP4,SMO,HOXD11,FOXO1,MYC,OSR1,SLIT2,SHH,GDNF,CTNNBIP1,LHX1
GO:0072164 mesonephric tubule development	3.05E-02 PAX2,WNT11,SIX4,BMP7,SALL1,BMP4,SMO,HOXD11,FOXO1,MYC,OSR1,SLIT2,SHH,GDNF,CTNNBIP1,LHX1
GO:0035107 appendage morphogenesis	3.05E-02 CYP26B1,TBX5,PCSK5,SALL1,GLI3,WNT3,TBX2,ZNF141,TFAP2A,OSR1,CACNA1C,SKI,MSX1,SHH,SOX11,PTCH1
GO:0035108 limb morphogenesis	3.05E-02 CYP26B1,TBX5,PCSK5,SALL1,GLI3,WNT3,TBX2,ZNF141,TFAP2A,OSR1,CACNA1C,SKI,MSX1,SHH,SOX11,PTCH1
GO:0072080 nephron tubule development	3.06E-02 PROM1,PAX2,MEF2C,WNT11,SIX4,SALL1,BMP4,SMO,HOXD11,MYC,OSR1,SHH,GDNF,CTNNBIP1,WNT7B,LHX1,HNF1B
GO:0009896 positive regulation of catabolic process	3.12E-02 BAD,ABHD5,PIAS1,RNF19A,HERPUD1,GNAI3,SIRT2,TRIB2,RAB7A,ITCH,EDEM2,EZR,WAC,SIRT1,RBX1,HIF1A,TSC2,GAZ1,GSK3A,CAV1,CPEB3,FBXW7,CTSC,CDKN1B,USP5,WNT5A,RAB3GAP1,NFE2L2,TMEM59,MFN2,STK11,TNFAIP3,CLU,LRP1,VPS13C,APC,CALCOCO2,DAAB2IP,TMTC3,RF12C1,PDGFRA,TMEM2,CCM2,DAAB2IP,MAP2K5,THBS1,CYP18L1,TGAV,SLC12A6,CDH13,MYOCD,GATA6,EPHA2,VASH2,OSR1,SLIT2,SFRP2,RASA1,MTDH,NOTCH1,HMGA2,YEFGC,POE3B,EPHB1,KIT,RUNX1,POPH,HPGD,AGGF1,ERAP1,TBX20,HEY1,SHH,SOX17,E2F7,SPRED1,GRI1,LRP8,3.12E-02 NDR1,CD34,CHRNA7,GATA2,NRXN1,EPHB3,CCBE1,COL4A1,WNT7B,EPHB4,NF1,DLL1,BMPR2,NOTCH4
KEGG:05225 Hepatocellular carcinoma	3.12E-02 WNT16,ARID1B,ESTD2,TCF7,SMARCD3,WNT11,TGFB1,CDK6,WNT2,WNT3,RPS8K3,SMARCD2,CCND1,WNT58,FZD10,E2F3,WNT5A,NFE2L2,PIK3R3,TGFB3,WNT1,SHC2,INS-IGF2,KRAS,WNT2B,APC,ACTL6A,MYC,RB1,SMAD4,EGFR,TCF7L1,WNT3A,TGFA,FZD6,FRA11,BCL2L1,PIK3CD,PTEN,SMARCC1,SHC4,WNT7B,DPF3
KEGG:05161 Hepatitis B	3.12E-02 BAD,MAVS,MAP3K1,NFKB1A,NFATC2,TGFB1,CDK6,CREB3,CCND1,CDKN1B,E2F3,JFH1,PIK3R3,TGFB3,APAF1,EGFR,ATR4,NFATC1,PCNA,CASP9,KRAS,MYC,RB1,SMAD4,CCNA2,CREB5,STAT6,YWHAB,FADD,STAT2,PIK3CD,BCL2,PTEN,CYC5,MYD88,JUN,CREB3L2,IRF7,CHUK
REAC:R-HSA- Nuclear Events (kinase and transcription factor activation)	3.16E-02 MEF2C,RPS6KAS,PPP2R1A,MAPK14,PPP2CA,DUSP4,ATF1,PPP2R1B,DUSP6,MAPKAPK2,DUSP7,MAPK7,MAPK11
REAC:R-HSA- RUNX3 regulates p14-ARF	3.16E-02 RUNX3,HDAC4,TGFB1,CCND1,KRAS,RUNX1,BRD2

REAC:R-HSA-Toll Like Receptor 10 (TLR10) Cascade	3.16E-02 MAP2K3,NFKB2,MEF2C,MAP3K1,RP56KA5,NFKBIA,RIK2,PPP2R1A,MAPK14,SKP1,PPP2CA,DUSP4,ATF1,IRAK2,PPP2R1B,DUSP6,MAPKAPK2,DUSP7,BTRC,MAPK7,MYD88,JUN,UBE2N,MAPK11,PEL1,NKIRAS1,RAGE,CHUK,UBA52
REAC:R-HSA-Toll Like Receptor 5 (TLR5) Cascade	3.16E-02 MAP2K3,NFKB2,MEF2C,MAP3K1,RP56KA5,NFKBIA,RIK2,PPP2R1A,MAPK14,SKP1,PPP2CA,DUSP4,ATF1,IRAK2,PPP2R1B,DUSP6,MAPKAPK2,DUSP7,BTRC,MAPK7,MYD88,JUN,UBE2N,MAPK11,PEL1,NKIRAS1,RAGE,CHUK,UBA52
REAC:R-HSA-MyD88 cascade initiated on plasma membrane	3.16E-02 MAP2K3,NFKB2,MEF2C,MAP3K1,RP56KA5,NFKBIA,RIK2,PPP2R1A,MAPK14,SKP1,PPP2CA,DUSP4,ATF1,IRAK2,PPP2R1B,DUSP6,MAPKAPK2,DUSP7,BTRC,MAPK7,MYD88,JUN,UBE2N,MAPK11,PEL1,NKIRAS1,RAGE,CHUK,UBA52
GO:0002088 lens development in camera-type eye	3.20E-02 WNT2,WNT5B,WNT5A,WNT2B,SIX3,EPHA2,SKI,SOX11,MAF,WNT7B
GO:0050768 negative regulation of neurogenesis	3.20E-02 CDK1,PAK6,SEMA3G,SIRT2,PCN1,BMP7,STMN2,EFNB3,TRPV4,GORASP1,ID2,EFNB2,RFNF6,YWHAH,SIX3,DLX1,CNTN4,SLIT2,DYNLT1,NOTCH1,POU4F2,WNT3A,SKI,GF11,BAG5,PTEN,SOX11,CALR,DCC,NF1,DLL1
GO:0019901 protein kinase binding	3.20E-02 ED1,BAG5,MAPK7,ADAM9,ATF7,SOCS5,BCL2L1,RP57,QAAS,TRIB1,ZBTB4,CTBP2,DCTN2,SHCA,PPP1CC,NBR1,PTPN1,DACT3,SPRED2,PRCL,PIA2,DAXX
KEGG:01522 Endocrine resistance	3.30E-02 BAD,ADCY2,GNAS,DLX3,ESR1,BIK,JAG1,RP56KB1,CND1,CDKN1B,MAPK14,E2F3,PIK3R3,CDKN2C,SHC2,KRAS,RB1,ESR2,EGFR,NOTCH1,ADCY8,PIK3CD,BCL2,JUN,MAPK11,SHCA,DLX1,NOTCH4
GO:0071453 cellular response to oxygen levels	3.31E-02 MB10,CPEB1,UBA52,PSMB9
GO:0045732 positive regulation of protein catabolic process	3.32E-02 PIAS1,RNF19A,HERPUD1,SIRT2,TRIB2,RAB7A,EDEM2,EZR,RBX1,OA21,GSK3A,CAV1,FBXW7,CTSC,CDKN1B,USP5,WNT5A,NFE2L2,TNFAIP3,CLU,LRP1,APC,DAB2IP,TMTC3,RFWD2,OA23,PLK2,ADRA2A,FOXO1,TIPARP,RNF180,ARIH1,ADAM9,RNF139,SOCS5,PTEN,TRIB1,GBA,OA22,SUMO
KEGG:05169 Epstein-Barr virus infection	3.33E-02 AKAP8,VIM,CD44,TBP1,MAP3K3,HDAC4,NFKB2,TRAF5,PSM3C,POLR2E,NFKBIA,POLR2C,POLR2I,TYK2,PSMD3,PSMD11,YWHAH,HSPA8,CDKN1B,MAPK14,CD58,PIK3R3,TNFAIP3,HSPA2,NUF214,YWHAH,MYC,RB1,CCNA2,GT2F21,POLR2H,YWHAH,ENTPD3,IBP1,POU1F1,PIK3CD,BCL2
REAC:R-HSA-Processing of Capped Intron-Containing Pre-mRNA	3.37E-02 RBM5,AQR,NUP160,TPR,ZCH11A,SNRNP40,UZAF2,CPSF1,SIRT,PCDC2,AAAS,POLR2E,SNRPD3,TFIP11,NHP211,PHF5A,CSTF1,RAE1,CRNKL1,POLR2C,POLR2L,HNRNPU1L,DHX15,HSPA8,SFRS3,NCBP2,SF3B1,SF2,SMNDC1,FYTTD1,HNRNPA2B1,SNRPC,NUP85,SNRPB2,HNRNPR,NUP214
GO:0021537 telencephalon development	3.38E-02 WDR62,SALL1,CDK6,C12ORF57,WNT5A,BMP4,DAB2IP,SIX3,TMEM108,SLIT2,EPHAS,TACC1,NFIB,NTRK2,KIRREL3,SKO,ZDHHC16,PTEN,FOXO1,ERBB4,EPHB3,DRD1,NF1,CCDC85C
GO:0072358 cardiovascular system development	3.54E-02 PAX6,NRXN3,MYLK,RORA,TGFB3,JMJD6,VASH1,MCAM,MEF2C,TBK5,SIRT1,NRP1,XBP1,HIF1A,BMP7,JAG1,FLT1,FOXF1,TGFB1,TGFB8,CAV1,HOXA1,C1GALT1,COL1A1,FBXW7,CALCA,SRF,LOX,HAND1,WNT5A,NCL,CTH,F3,STK11,TNFAIP3,EGR1,NPBB,TBX2,LRP1,EFNB2,BMP4,IDL1,E2F8,BTG1,POGF1A,TM6M2,CCN4,DAB2IP,MAP3K5,THBS1,CYP11B1,TGAG,SLC12A6,CDH13,MUCOD,GATAS,EPHA2,VASH2,OSR1,SLT2,SFRP2,RASA1,MTDH,NOTCH1,HMG2A,VEGFC,PDE3B,EPHB1,KIT,RUNX1,POPH,HPGD,AGGF1,ERAP1,TBX20,HEY1,SHH,SOX17,E2F7,SPRED1,GREM1,RBP1
GO:0001837 epithelial to mesenchymal transition	3.57E-02 TGFB3,CLASP1,TBX5,BAMB1,HIF1A,BMP7,TGFB1,EZH2,PBLD,COL1A1,PPP2CA,WNT5A,ACVR1,TGFB3,GLI3R2,ELL3,FOXA1,OLFML1,DAB2IP,SDCBP,SMAD4,SFRP2,NOTCH1,HMG2A,TIAM1,PDPM,EOMES,HEY1,GREM1,RBP1,PTEN,ALX1,HNRNPAB
GO:0016331 dephosphorylation	3.58E-02 SLC7A14,PHPT1,PPP1R12A,EYA2,MEF2C,PPM1A,RPDR1B,MTMR9,TGFB1,PPP2R1A,MTMR4,YWHAH,SAPS3,PTPN5,DUSP16,EY46,PPP2CA,PPP4R4,DUSP1,DUSP4,CRY2,RPAP2,MPHOSPH10,PTPN12,PPP1R1B,PTPRE,SYTL2,PPP3CA,DUSP6,SSH2,TIPRL,DUSP10,THNSL2,CTDSP1,PTPRJ,T
GO:1903050 regulation of proteolysis involved in cellular protein catabolic process	3.63E-02 PIAS1,RNF19A,GABARAPL2,HERPUD1,SIRT2,TRIB2,LAMP3,EDEM2,WAC,RBX1,CAV1,FBXW7,CTSC,USP5,UBE3A,NFE2L2,CLU,RLP5,GIPC1,LATS1,PSME3,DAB2IP,SDCBP,TMTC3,RFWD2,UBXN1,RNF180,BAG5,ARIH1,RNF139,SOCS5,PTEN,RP57,USP19,TRIB1,GBA,UBE2G2,SUMO2,HSPA1A
GO:0032069 regulation of nuclease activity	3.67E-02 DDX11,SIRT1,PCNA,TMBIM6,TERF1,OFFA,HMG82,ABCE1,HSPA1A
GO:0043392 negative regulation of DNA binding	3.67E-02 PSEN1,TFAP4,NFKBIA,HAND1,SMO,HABP4,PER2,ZNF593,HMG2A,HEY1,SIN3A,SOX11,IJUN,CPNE1
GO:0040007 growth	3.68E-02 CDK1,SEMA3G,DCBLD2,NTN1,KIF26A,SYT1,RASGRP2,TGFB3,FGF10,PXN42,EDN1,ITCH,MEF2C,WNT11,GNAS,TBK5,SIRT1,ABL1,NRP1,SKA,SALL1,SGK3,TGFB1,PPP2R1A,GSK3A,TMEM97,WFS1,CDKN1B,PPP2CA,CISH,EIF4G1,STK11,NPBB,TBX2,CDKN2C,CNNE,EREG,BMP4,RFNF6,INO80,OLFML1,PAKA,LATS1,PTP1,RTTN1,H3F3B,BTG1,REER,SDCBP,ADAM10,DUSP6,TCHP,ESR2,SMAD4,DUSP10,CPNE9,GOLGA4,TMEM108,SLT2,SFRP2,EGFR,NOTCH1,PTPRJ,POU4F2,IMPACT,SUPV3L1,MMMP14,MSX1,TBX20,SOX17,CDK5,SERTAD3,RBP1,GN4,GN4,NRP1,ALCAM,INSR,SOCS5
GO:0016331 morphogenesis of embryonic epithelium	3.69E-02 WNT16,PAX2,SIX4,MTHFD1,BMP7,TSC2,TGFB1,WNT5A,MTHFD1L,TFAP2A,LMO4,OSR1,SKI,DLX1,GDNF,SEMAAC,SOX11,WNT7B
GO:0005793 endoplasmic reticulum-Golgi intermediate compartment	3.69E-02 PROM1,ERP44,LMAN1,SLC35C2,CTSC,BET1,GOSR2,CTSC,ERGIC1,GORASP1,TMED5,SCYL1,CNH4,TGFA,TAP1,LMAN2,TMED10,RGBM,YIF1A,RAB18,CALR,MCFD2,P4HB,TAP2,TAPBP

GO:0035051	cardiocyte differentiation	3.70E-02	TGFBF3,EDN1,MEF2C,TBX5,JAG1,TGFB1,GSK3A,SRF,ACVR1,TBX2,OBSL1,EFNB2,BMP4,KDM6B,PDGFRA,MYOCD,GATA6,SMAD4,ECE2,EGFR,NOTCH1,WNT3A,NRG1,NEKN,PITX2,T,SOX17,GREM1,RBP1
GO:0048634	regulation of muscle organ development	3.71E-02	SIRT2,TGFBF3,EDN1,MEF2C,TBX5,SIX4,TGFB1,GSK3A,CENPF,TBX2,EFNB2,BMP4,FLOT1,MYOCD,SMAD4,NOTCH1,WNT3A,EPHB1,TBX20,SHH,GREM1,RBP1,USP19,ERBB4,NEUROG1,FGF3,DLL1
GO:0061333	renal tubule morphogenesis	3.72E-02	PAX2,MEF2C,WNT11,SIX4,SALL1,BMP4,SMO,HOXD11,MYC,OSR1,SHH,GDNF,CTNBP1,COL4A1,LHX1
GO:0035050	embryonic heart tube development	3.74E-02	MEF2C,SRF,HAND1,ACVR1,TBX2,SMO,FOXN4,CCDC40,NOTCH1,RNF207,IHH,CTED2,TBX20,SHH,SOX17,DLL1
GO:0021602	cranial nerve morphogenesis	3.74E-02	PAX2,HOXA1,TFAP2A,CHRN2,NEUROG1,MAFB
GO:0010225	response to UV-C	3.74E-02	YY1,ERCC5,IMPACT,WRN,POLH,DCUN1D3
GO:0031503	protein-containing complex localization	3.88E-02	AKAP8,NUP160,TPR,ZC3H11A,U2AF2,CPSF1,PCM1,KIF3C,DYNLL1,EZR,AAAS,RAE1,CLUAP1,SUPT6H,SFRS3,CEP72,NCBP2,SSX2IP,FYTTD1,HNRNP2B1,NUP85,WDR60,NUP214,KIF3A,NKT1,SRRM1,WDR33,SSB,NUP54,DHX38,ZNF593,TERF1,ATM,WDR19,U2AF1,CPSF4,SFRS2,MAGO8,IWS1,ABCE1,TTCC1A,DYNLRB2,D4S234E,ATR,NRKN1,JFT140,TTCC30A,RNPS1,NUP62,TCTEX1D2,EIF6
GO:1901861	regulation of muscle tissue development	3.88E-02	SIRT2,TGFBF3,EDN1,MEF2C,TBX5,SIX4,TGFB1,GSK3A,CENPF,TBX2,EFNB2,BMP4,FLOT1,MYOCD,SMAD4,NOTCH1,WNT3A,EPHB1,TBX20,SHH,GREM1,RBP1,USP19,ERBB4,FGF3,DLL1
GO:0010717	regulation of epithelial to mesenchymal transition	3.88E-02	CLASP1,TBX5,BAMBI,TGFB1,EZH2,PBLD,COL1A1,PPP2CA,ACVR1,TGFB3,GLPFR2,ELL3,FOXA1,OLFM1,DAB2IP,SOCBP,SMAD4,SFRP2,NOTCH1,TIAM1,PDPR,GREM1,PTEN,ALX1
GO:0046685	response to arsenic-containing substance	3.88E-02	RNF4,GSTO2,SRR1,MKNK2,ATF4,CPEB2,ATF3,DAXX
GO:0090068	positive regulation of cell cycle process	3.88E-02	DDX11,TPR,PKN2,SIRT2,GTSE1,EDN1,CDC6,CDC7,CDC25B,CASP2,CCND1,CDKN1B,EIF4G1,DD2,PLAGL1,GPSM2,GIPC1,EDN3,EREG,PRMT1,BECN1,INO80,E2F8,PCNA,ESPL1,DAB2IP,KIF20B,RB1,GATA6,ANAPC11,PLK4,PKP4,DYNCL11,PLK2,CDC45,UHRF2,ATM,HMG2A,CNOT8,CDC25C,NPM2,TGFA,RAO21,E2F7,CEP120,TRIAP1,INSR,PRKCE,USP19,LSM10,RXF3,NUDT16,MDM4,NUP62,UBA52
GO:0034976	response to endoplasmic reticulum stress	3.88E-02	POMT2,EXTL3,DDX11,ERP44,SEC33,HERPUD1,UBA5,PSMCS,ADD1,EDEM2,KDEL3,XBP1,GSK3A,CAV1,CREB3,GOSR2,WFS1,FAF2,NFE2L2,CTH,CLU,TNFRSF10B,SSR1,ATF4,UBE4B,EIF2S1,TOR1A,DAB2IP,TLN1,FLOT1,THBS1,TMTC3,TMBIM6,PMAIP1,ERLIN2,TXNDC11,BCL2L11,TATDNZ,EXTL1,PPP1R15B,ATP9VD01,UBXN1,ATF3,UBXN6,RNF139,BCL2,USP19,YIP1A,CTDSP2,JUN,CALR,CREB3L2,UBE2G2,P4HB,PTPN1,HSPA1A,BAT3,TTCC3L,TKND5
GO:0001078	transcriptional repressor activity, RNA polymerase II proximal promoter sequence-specific DNA binding	3.88E-02	PRDM1,YY1,CTCF,DLX4,HAND1,BCL11A,TBX2,MAX,E2F8,THAP1,BHLHE40,TFAP2A,ZFH3,HMG2A,POU4F2,ETS2,GF1,NFIL3,ZNF219,SP2,THAP1,TGIF1,ZFPM1,ZBTB2,ASCL2,SREBF2
GO:0008013	beta-catenin binding	3.88E-02	PSEN1,TCF7,ESR1,SALL1,GLI3,SKP1,FOXO3,PIN1,ASH2L,TRPC4,APC,PTPRJ,FOXO1,TCF7L1,PTPRK,SOX17,BTRC,CDH2,CTNBP1,AJAP1,DACT3
GO:0003714	transcription corepressor activity	3.88E-02	PIAS1,MNT,SIRT1,YY1,CTCF,CRYM,PPP1R13L,AE5,CCND1,ELK3,TBX18,HAND1,DD3,DR1,RCOR3,MX1,MXD4,E2F8,RARA,BHLHE40,MEIS2,KCTD1,YAP1,CBX4,ZEB1,THRB,POU4F2,SKI,SFRS2,ATF3,CITED2,NFIL3,NSD1,E2F7,E2F6,SIN3A,NEUROD2,CTBP2,TGIF1,ZHX2,ALX1,NRIP1,SHAH2,NCOR2,ZNF136,DAXX,HSPA1A,HSPB1,LHX1
GO:0055123	digestive system development	4.04E-02	WNT11,PCSK5,FOXF1,SALL1,GLI3,DD2,TBX2,SMO,GATA5,ITGB4,PDGFRA,GATA6,CCDC40,KIT,SOX17,CDX2,RET,PTF1A,SOX11,EPHB3
KEGG:05226	Gastric cancer	4.05E-02	WNT16,FGF10,FGF20,TCF7,WNT11,TGFB1,WNT2,WNT3,RPS6KB1,CCND1,WNT58,CTN1B,FZD10,E2F3,WNT5A,PIK3R3,TGFB3,WNT1,SHC2,KRAS,WNT2B,APC,MYC,RB1,SMAD4,EGFR,TCF7L1,WNT3A,FGF19,SHH,FZD6,CDX2,FRAT1,PIK3CD,BCL2,SHC4,ROR1,FGF3,WNT7B
KEGG:04921	Oxytocin signaling pathway	4.05E-02	CACNA2D2,CAMK1C,PPP1R12A,CAMK2B,ELCY1B3,GNAI3,MYLK,PPP1R12B,ADCY2,MEF2C,GNAS,ITPR3,NFATC2,PRKAG2,CCND1,GNAI2,RS2,KCNIS,ITPR2,PPP1R12C,NFATC1,KRAS,MAP2K5,PPP3CA,EGFR,CAMK2G,CACNA2D4,CACNA1C,ADCY8,GNAQ,CACNA1D,KCNJ6,CALM3,MAPK7,NR1J1,UNC5B,KCNJ12,PPP1CC,RVR3
GO:0071542	dopaminergic neuron differentiation	4.11E-02	FGF20,WNT2,WNT3,WNT5A,WNT1,FOXA1,LMX1B,WNT3A,TIAM1,LMX1A,SHH,PHOX2A
GO:0006413	translational initiation	4.11E-02	TPR,EIF4B,RPL18,EIF4G3,MTIF2,EIF3I,EIF3A,RPS6KB1,RPS13,EIF2B1,RPS12,NCBP2,EIF4G1,EIF2B4,MTIF3,RPL5,PAIP2B,EIF2S2,ATF4,HABP4,RPL27,EIF2S1,KIAA0427,RPS11,EIF4EBP2,EIF3M,FAU,IMPACT,PPP1R15B,RPL8,EIF4A1,RPL29,ABCE1,RPL24,RPS21,RPS7,RPL38,EIF3I,EIF3F,TYH
GO:1990138	neuron projection extension	4.15E-02	CDKL3,SEMA3G,NTN1,SYT1,PLXNA2,ABL1,NRP1,CPNE5,RNF6,OLFM1,CPNE9,GOLGA4,TMEM108,SLIT2,POU4F2,IMPACT,CDK5,ALCAM,SLIT3,MAPT,SLIT1,SYT3,CPNE1,PLXNA4,CYFIP1



GO:0006890 retrograde vesicle-mediated transport, Golgi to ER	4.15E-02 ARF5,COP22,USE1,KIF26A,KIF3C,PICK1,KDEL3,NAPA,TMEM115,KIF3A,ARF3,KIF11,SCYL1,KIF2C,RAB6B,COG7,STX18,LMAN2,TMED10,RAB18,KLC2,RAB6A,PITPNB,COPB2,TABBP
GO:0048754 branching morphogenesis of an epithelial tube	4.17E-02 FGF10,PAK2,NRP1,SIX4,FOXF1,SALL1,BMP4,SMO,HOXD11,MYC,EPHA2,SLIT2,SFRP2,SHH,GDNF,CTNNBIP1,COL4A1,NOTCH4,LHX1
GO:0048565 digestive tract development	4.17E-02 WNT11,PCSK5,FOXF1,SALL1,GLI3,ID2,TBX2,SMO,GATA5,ITGB4,PDGFRA,GATA6,CCDC40,KIT,SOX17,CDK2,RET,SOX11,EPHB3
REAC:R-HSA-MAPK targets/ Nuclear events mediated by MAP kinases	4.32E-02 MEF2C,RPS6KA5,PPP2R1A,MAPK14,PPP2CA,DUSP4,ATF1,PPP2R1B,DUSP6,MAPKAPK2,DUSP7,MAPK7,JUN,MAPK11
REAC:R-HSA-mRNA Splicing	RBMS1,AQR,SNRNP40,U2AF2,CPF1,SRR1,POC7,POLR2E,SNRPO3,TFIP11,NHP2L1,PHF5A,CSTF1,CRNKL1,POLR2C,POLA2L,HNRNPUL1,DHX15,HSPA8,SFRS3,NCBP2,SF3B1,SFY2,SMNDC1,HNRNP2B1,SNRPC,SNRPB2,HNRNRP,PPIL4,SNRPA1,SRRM1,WDR33,SNRPF,DHX38,UZAF1,PSF4 4.32E-02_SFRS2,MAGOH,POLR2H,HNRNPK,SRM2,HNRNPH1,CD2BP2,HNRNPF,PPH,CLP1,SF3A3,RNCP3,PCBP2,DDX42,DHX16,RNPS1
REAC:R-HSA-mRNA Splicing - Major Pathway	RBMS1,AQR,SNRNP40,U2AF2,CPF1,SRR1,POC7,POLR2E,SNRPO3,TFIP11,NHP2L1,PHF5A,CSTF1,CRNKL1,POLR2C,POLA2L,HNRNPUL1,DHX15,HSPA8,SFRS3,NCBP2,SF3B1,SFY2,SMNDC1,HNRNP2B1,SNRPC,SNRPB2,HNRNRP,PPIL4,SNRPA1,SRRM1,WDR33,SNRPF,DHX38,UZAF1,PSF4,SFRS2, 4.32E-02_MAGOH,POLR2H,HNRNPK,SRM2,HNRNPH1,CD2BP2,HNRNPF,PPH,CLP1,SF3A3,PCBP2,DDX42,DHX16,RNPS1
GO:0072171 mesonephric tubule morphogenesis	4.36E-02 PAX2,WNT11,SIX4,SALL1,BMP4,SMO,HOXD11,MYC,OSR1,SHH,GDNF,CTNNBIP1,LHX1
GO:0045599 negative regulation of fat cell differentiation	4.36E-02 TRIO,SIRT2,RORA,TRIB2,SIRT1,TGFB1,WNT5A,WNT1,FOXO1,CCDC85B,GATA2,ZFPM1,ENPP1
KEGG:04550 Signaling pathways regulating pluripotency of stem cells	4.44E-02 WNT16,PAK6,JARID2,MYST3,WNT11,LHX5,WNT2,WNT3,WNT58,FZD10,MAPK14,HAND1,WNT5A,ACVR1,OTX1,ID2,IG3,PIK3R3,ACVR2A,WNT1,BMP4,IDI1,KRAS,WNT2B,APC,MYC,ZFH3,SMAD4,WNT3A,FZD6,BMI1,ONECUT1,PIK3CD,NEUROG1,MAPK11,WNT7B,BMP2R
KEGG:04261 Adrenergic signalling in cardiomyocytes	CACNA2D2,ADRB1,KCNK1,CAMK2B,GNAI3,ADCY2,GNAS,PPP2R3C,CREM,RPS6KA5,PPP2R1A,CREB3,MAPK14,PPP2CA,GNAI2,ADRA1A,ATF4,ATP1B2,PPP2R1B,TPM3,CREB5,CAMK2G,CACNA2D4,CACNA1C,ADCY8,GNAQ,PPP2R2B,CACNA1D,CALM3,ATP1A1,TPM4,BCL2,SCN4B,CREB3L 4.45E-02_2,CACNB4,MAPK11,PPP1CC,TPM2
GO:1905818 regulation of chromosome separation	4.47E-02 CDC27,ZNF207,TPR,CD6,C11ORF51,CENPF,NEK6,DUSP1,APC,ESPL1,HECW2,RB1,ANAPC11,DYNCL1U1,ATM,BUB3,BUB1
KEGG:04725 Cholinergic synapse	4.50E-02 KCNQ1,CAMK2B,GNAI3,CHAT,ADCY2,GNB1,GNA11,ITPR3,CREB3,GNAI2,PIK3R3,ITPR2,ATF4,KRAS,CREB5,CAMK2G,CACNA1C,ADCY8,GNAQ,CACNA1D,KCNJ6,CHRN2B,GN44,PIK3CD,BCL2,CHRNA7,GN47,CHRM2,CREB3L2,KCNJ12,KCNQ5
GO:0001947 heart looping	4.51E-02 MEF2C,SRF,HAND1,TBX2,SMO,FOXP4,CCDC40,NOTCH1,RNF207,IHH,TBX20,SHH,SOX17,DLL1
GO:0060021 roof of mouth development	4.51E-02 TGFBR3,WNT11,WNT5A,TGFB3,TFAP2A,SMAD4,OSR1,WNT3A,SKI,CHD7,SOX11,NEUROG1,EPHB3,CLDN5
GO:0090287 regulation of cellular response to growth factor stimulus	BAMBI,SIRT1,PPM1A,HIF1A,FLT1,TGFB1,CAV1,SFRP4,PBLD,MTMR4,SNX25,STK11,GIPC1,WNT1,BMP4,PIN1,CDKN1C,CD63,DAB2IP,SDCBP,THBS1,DUSP6,GATA6,RNF165,SMAD4,PRDM16,DLX1,TMEM108,SLIT2,NOTCH1,SKI,NBL1,CITED2,GREM1,RBP1,CIDEA,EID2,SOX11,NRXN1,CBE 4.53E-02_1,TPPN1,SULF2,TRIM33,DLL1,BMP2R,HSPA1A,UBAS2
GO:0003143 embryonic heart tube morphogenesis	4.53E-02 MEF2C,SRF,HAND1,ACVR1,TBX2,SMO,FOXP4,CCDC40,NOTCH1,RNF207,IHH,TBX20,SHH,SOX17,DLL1
GO:0072089 stem cell proliferation	4.53E-02 SMARCD3,RAB10,MECOM,WNT3,WNT5A,ARHGFE2,DOCK7,WNT2B,SOX5,YAP1,SIX3,SFRP2,HMGA2,RUNX1,HMGB2,SHH,CD34,SOX11,WNT7B,NF1,ZNF335
GO:0036294 cellular response to decreased oxygen levels	BAD,PSMB1,SIRT2,RORA,UBE2D1,PSMCS,SIRT1,PICK1,RBX1,HIF1A,BMP7,NDRG1,CA9,PSMD3,PSMD11,EPAS1,RWDD3,PSME3,PSMB7,MYC,CPEB2,TMBIM6,GATA6,PMAIP1,NOTCH1,DDAH1,FMN2,CITED2,RBP1,USP19,PSMD1,CD34,P4HB,PSMD13,MDM4,PSMB10,CPEB1,UBAS2,PSM 4.54E-02_B9
GO:0007050 cell cycle arrest	GAS7,RASSF1,FGF10,GTSE1,CD41A,TFAP4,ZNF268,ABL1,CDKN3,PPM1A,TSC2,TGFB1,CDK6,CASP2,PRKAG2,CCND1,CDKN1B,KAT2B,ID2,IRF6,STK11,PLAGL1,DUSP1,CDKN2C,PRMT1,E2F8,PCNA,APC,TBRG4,BIN1,DAB2IP,MYC,THBS1,KIF20B,RB1,GATA6,PLK2,UHRF2,NOTCH1,ATM,HM 4.55E-02_GA2,CNOT8,RRAGA,CD25C,CDK5,E2F7,TRAP1,RPRM,WDR6,CALR,MAGI2,MDM4,UBAS2,STRADA
GO:0035326 enhancer binding	4.71E-02 XBP1,Y1,RAI1,SMARCD2,ZBTB16,NFYB,ELL3,NFATC1,H3F3B,ACTL6A,NRS1A,FOXN4,TCF12,RBBP4,TIPARP,HMGB2,T,CDX2,SMARCC1,SOX11,JUN,GATA2,RUVBL2
GO:0043021 ribonucleoprotein complex binding	4.78E-02 EIF4B,DHX29,ITCH,GEMINS,MTIF2,ERL1,CPEB3,JFH1,MTIF3,ERAL1,PRMT7,EIF251,CPEB2,ZNF593,NVL,ABCE1,SRP68,CD2BP2,PPH,SRP72,YTHDF3,BAT3,CPEB1,NME1,EIF6

GO:0035966 response to topologically incorrect protein

POMT2,EXTL3,DDX11,ERP44,SEC63,HERPUD1,RNF126,ADD1,EDEM2,KDELRL3,XBP1,GSK3A,CREB3,GOSR2,WFS1,HSPA8,DNAIC4,HSPA1,NFE2L2,CTH,HSPH1,CLU,SSR1,HSPA2,ATF4,EIF251,TOR1A,DA82IP,TLN1,HSPD1,BCL2L11,TATDN2,EXTL1,PPP1R15B,ATP6V0D1,ATF3,YIF1A,CTD5P2,  
4.83E-02 CALR,PTPN1,DAXX,HSPA1A,BAT3

GO:0051962 positive regulation of nervous system development

CDKL3,CAMK2B,NTN1,SPEN,SYT1,PAI2,F,GF20,PSEN1,MEF2C,SMARCD3,NRP1,BMP7,STMN2,CFEB3,CUX2,SNX3,PTK7,WNT5A,ARHGAP2,CXCR4,OBSL1,CPNE5,NGF,CAPRN1,SERPINE2,BIN1,DA82IP,TUBB2B,KIF20B,TCF12,DLX1,CPNE9,GOLGA4,SULT2,NTRK2,NOTCH1,ZEB1,POU4F2,IM,  
4.95E-02 PACT,EPHB1,NBL1,RET,NEUROD2,ATOH1,SOX11,SUTRK1,NRXN1,NEUROG1,EPHB3,MAPT,MAGI2,ZNF335,RAGL,SYT3,CPNE1,LHX1







































**Suppl. Tab. 11. Gene enrichment analysis for exposure-COPD modules: ME90:darkolivegreen, ME100:skyblue and ME46:mediumpurple3 using gProfilerR (sorted FDR < 0.05)**

**Darkolivegreen**

GO.ID	Description	FDR	Genes
GO:0090672	telomerase RNA localization	3.51E-02	CCT4,NAF1,NHP2,CCT3
GO:0090685	RNA localization to nucleus	3.51E-02	CCT4,NAF1,NHP2,CCT3
GO:0090670	RNA localization to Cajal body	3.51E-02	CCT4,NAF1,NHP2,CCT3
GO:0090671	telomerase RNA localization to Cajal body	3.51E-02	CCT4,NAF1,NHP2,CCT3
GO:1904872	regulation of telomerase RNA localization to Cajal body	3.51E-02	CCT4,NAF1,NHP2,CCT3
GO:1904874	positive regulation of telomerase RNA localization to Cajal body	3.51E-02	CCT4,NAF1,NHP2,CCT3

**Skyblue**

GO.ID	Description	FDR	Genes
REAC:R-HSA-1500931	Cell-Cell communication	9.45E-03	CDH1,LAMC2,CDH15,CDH13,DST,CDH12,CLDN22,GRB2,CDH4,MAGI2
REAC:R-HSA-446728	Cell junction organization	1.59E-02	CDH1,LAMC2,CDH15,CDH13,DST,CDH12,CLDN22,CDH4
REAC:R-HSA-418990	Adherens junctions interactions	1.92E-02	CDH1,CDH15,CDH13,CDH12,CDH4
REAC:R-HSA-2022870	Chondroitin sulfate biosynthesis	2.49E-02	CHSY1,CHST9,CHST11,CHST15
REAC:R-HSA-442660	Na <sup>+</sup> /Cl <sup>-</sup> dependent neurotransmitter transporters	2.49E-02	SLC6A13,SLC22A2,SLC6A18,SLC6A19
REAC:R-HSA-421270	Cell-cell junction organization	3.83E-02	CDH1,CDH15,CDH13,CDH12,CLDN22,CDH4
REAC:R-HSA-1236394	Signaling by ERBB4	4.47E-02	YAP1,NRG1,GRB2,ERBB4,WVVOX
REAC:R-HSA-1251985	Nuclear signaling by ERBB4	4.48E-02	YAP1,NRG1,ERBB4,WVVOX

**Mediumpurple3**

GO.ID	Description	FDR	Genes
GO:0016032	viral process	6.58E-07	FYN,CTDP1,PPIE,WWP1,EIF3G,CHMP1A,BICD1,B2M,PPIB,LCK,ZNF502,TRIM31,CHMP1B
GO:0044403	symbiont process	1.80E-06	FYN,CTDP1,PPIE,WWP1,EIF3G,CHMP1A,BICD1,B2M,PPIB,LCK,ZNF502,TRIM31,CHMP1B
GO:0044419	interspecies interaction between organisms	2.82E-06	FYN,CTDP1,PPIE,WWP1,EIF3G,CHMP1A,BICD1,B2M,PPIB,LCK,ZNF502,TRIM31,CHMP1B
GO:0034660	ncRNA metabolic process	3.20E-05	KHSRP,TBP,HARS2,NSUN4,NGDN,DDX56,OBFC2B,ISG20L2,NHP2,TUT1,RPUSD3,RSL1D1
GO:0022613	ribonucleoprotein complex biogenesis	4.09E-05	GEMIN5,RPL24,NSUN4,NGDN,DDX56,ISG20L2,LIMD1,NHP2,BICD1,PRPF18,RSL1D1
GO:0006397	mRNA processing	4.43E-05	ZC3H3,GEMIN5,PPIE,KHSRP,BUD31,SUPT6H,DCPS,SFPQ,TUT1,PRPF18,DHX16
GO:0048193	Golgi vesicle transport	5.27E-04	TRAPPC6A,RAB14,SPTBN4,CNST,KIF15,RNF139,BBS1,COPB2,SYS1
GO:0006281	DNA repair	8.44E-04	C1ORF124,TRIP13,PPIE,RECQL5,SFPQ,MUTYH,RFC3,COP4,OBFC2B,ALKBH2
GO:0032386	regulation of intracellular transport	1.01E-03	FYN,ZC3H3,SPAG5,RAB21,SUPT6H,HTRA2,BCAS3,RNF139
GO:0031331	positive regulation of cellular catabolic process	1.13E-03	KHSRP,SPTLC1,TNRC6B,TSC2,TICAM1,PIP4K2A,SUPV3L1,RNF139
GO:0051129	negative regulation of cellular component organization	1.19E-03	FYN,TRIP13,MUL1,TSC2,SUPT6H,KIAA0319,BCAS3,FBXO43,CCNF,CORO1B
GO:0034470	ncRNA processing	1.19E-03	NSUN4,NGDN,DDX56,ISG20L2,NHP2,TUT1,RPUSD3,RSL1D1
GO:0019058	viral life cycle	1.19E-03	PPIE,WWP1,CHMP1A,PPIB,ZNF502,TRIM31,CHMP1B
GO:0043900	regulation of multi-organism process	1.47E-03	CTDP1,PPIE,MUL1,DDX58,PPIB,RNF26,ZNF502,TRIM31
GO:0000375	RNA splicing, via transesterification reactions	1.61E-03	GEMIN5,PPIE,KHSRP,BUD31,DCPS,SFPQ,PRPF18,DHX16
REAC:R-HSA-1257604	PIP3 activates AKT signaling	1.81E-03	FYN,TNRC6B,PSMD7,TSC2,PPP2CB,PIP4K2A,PSMD6,LCK
GO:0009896	positive regulation of catabolic process	1.88E-03	KHSRP,SPTLC1,TNRC6B,TSC2,TICAM1,PIP4K2A,SUPV3L1,RNF139
REAC:R-HSA-9006925	Intracellular signaling by second messengers	2.09E-03	FYN,TNRC6B,PSMD7,TSC2,PPP2CB,PIP4K2A,PSMD6,LCK
GO:0043161	proteasome-mediated ubiquitin-dependent protein catabolic process	2.24E-03	MAEA,PSMD7,WWP1,RNF185,CCNF,PSMD6,ANAPC10,RNF139
GO:0042254	ribosome biogenesis	2.46E-03	RPL24,NSUN4,NGDN,DDX56,ISG20L2,NHP2,RSL1D1
GO:0006364	rRNA processing	2.68E-03	NSUN4,NGDN,DDX56,ISG20L2,NHP2,RSL1D1
GO:0019941	modification-dependent protein catabolic process	2.68E-03	MAEA,PSMD7,WWP1,RNF185,TGFB1I1,CCNF,PSMD6,ANAPC10,RNF139
GO:0006511	ubiquitin-dependent protein catabolic process	2.68E-03	MAEA,PSMD7,WWP1,RNF185,TGFB1I1,CCNF,PSMD6,ANAPC10,RNF139
GO:0007005	mitochondrion organization	2.68E-03	MUL1,TSC2,CHCHD2,NDUFS7,HTRA2,FAM73B,TIMM8B,SUPV3L1,NDUFAF3
GO:0006605	protein targeting	2.80E-03	CACNG3,FYN,NAGPA,RPL24,HTRA2,SEC61G,TIMM8B,SRP68
GO:0070827	chromatin maintenance	2.96E-03	SUPT6H,SUPV3L1

GO:0043632	modification-dependent macromolecule catabolic process	2.96E-03	MAEA,PSMD7,WWP1,RNF185,TGFB111,CCNF,PSMD6,ANAPC10,RNF139
REAC:R-HSA-162906	HIV Infection	3.19E-03	FYN,CTDP1,PSMD7,TBP,PSMD6,B2M,LCK
GO:1903320	regulation of protein modification by small protein conjugation or removal	3.23E-03	C1ORF124,MUL1,ANAPC10,RNF139,ZYG11A,DAXX
GO:0006310	DNA recombination	3.30E-03	TRIP13,RECQL5,SUPT6H,SFPQ,OBFC2B,SUPV3L1
GO:0010639	negative regulation of organelle organization	3.30E-03	TRIP13,MUL1,TSC2,SUPT6H,FBXO43,CCNF,CORO1B
GO:0008380	RNA splicing	3.36E-03	GEMIN5,PPIE,KHSRP,BUD31,DCPS,SFPQ,PRPF18,DHX16
GO:0010498	proteasomal protein catabolic process	3.56E-03	MAEA,PSMD7,WWP1,RNF185,CCNF,PSMD6,ANAPC10,RNF139
GO:0006402	mRNA catabolic process	4.31E-03	KHSRP,TNRC6B,DCPS,RPL24,SUPV3L1,PRPF18,SAMD4B
REAC:R-HSA-5663205	Infectious disease	4.44E-03	FYN,CTDP1,PSMD7,TBP,RPL24,PSMD6,B2M,LCK
REAC:R-HSA-983169	Class I MHC mediated antigen processing & presentation	4.44E-03	PSMD7,FBXW2,WWP1,SEC61G,CCNF,PSMD6,ANAPC10,B2M
REAC:R-HSA-389513	CTLA4 inhibitory signaling	4.44E-03	FYN,PPP2CB,LCK
REAC:R-HSA-3700989	Transcriptional Regulation by TP53	4.44E-03	CTDP1,TNRC6B,TSC2,PPP2CB,TBP,RFC3,PIP4K2A,DAXX
GO:0016072	rRNA metabolic process	4.60E-03	NSUN4,NGDN,DDX56,ISG20L2,NHP2,RSL1D1
GO:0000398	mRNA splicing, via spliceosome	5.17E-03	GEMIN5,PPIE,BUD31,DCPS,SFPQ,PRPF18,DHX16
GO:0000377	RNA splicing, via transesterification reactions with bulged adenosine as nucleophile	5.17E-03	GEMIN5,PPIE,BUD31,DCPS,SFPQ,PRPF18,DHX16
GO:0007032	endosome organization	5.17E-03	FAM160A2,CHMP1A,RNF26,CHMP1B
GO:0007033	vacuole organization	5.17E-03	FAM160A2,NAGPA,STX12,VPS33A,PIP4K2A
GO:0090169	regulation of spindle assembly	5.17E-03	SPAG5,CHMP1A,CHMP1B
GO:0010793	regulation of mRNA export from nucleus	5.60E-03	ZC3H3,SUPT6H
GO:0043954	cellular component maintenance	5.60E-03	FYN,SUPT6H,SUPV3L1
GO:0050690	regulation of defense response to virus by virus	5.60E-03	FYN,B2M,LCK
GO:0045088	regulation of innate immune response	5.60E-03	FYN,MUL1,DDX58,UNC93B1,SFPQ,TICAM1,MUCL1
GO:0043001	Golgi to plasma membrane protein transport	5.60E-03	CNST,BBS1,SYS1
GO:0006104	succinyl-CoA metabolic process	5.60E-03	OGDH,SUCLA2
GO:0006401	RNA catabolic process	5.61E-03	KHSRP,TNRC6B,DCPS,RPL24,SUPV3L1,PRPF18,SAMD4B
GO:0002218	activation of innate immune response	5.97E-03	FYN,DDX58,UNC93B1,SFPQ,TICAM1,MUCL1
GO:0070507	regulation of microtubule cytoskeleton organization	6.08E-03	SPAG5,CHMP1A,BICD1,CCNF,CHMP1B
GO:0061951	establishment of protein localization to plasma membrane	6.21E-03	CNST,BBS1,SYS1
GO:0048524	positive regulation of viral process	6.21E-03	CTDP1,PPIE,PPIB,ZNF502
GO:2000197	regulation of ribonucleoprotein complex localization	6.33E-03	ZC3H3,SUPT6H
GO:0140014	mitotic nuclear division	6.50E-03	CTDP1,TRIP13,SPAG5,CHMP1A,FBXO43,CHMP1B
REAC:R-HSA-162909	Host Interactions of HIV factors	6.53E-03	FYN,PSMD7,PSMD6,B2M,LCK
GO:0006892	post-Golgi vesicle-mediated transport	6.69E-03	RAB14,CNST,BBS1,SYS1
GO:0072594	establishment of protein localization to organelle	6.87E-03	NAGPA,TSC2,RPL24,HTRA2,SEC61G,OBFC2B,TIMM8B,SRP68
GO:0010508	positive regulation of autophagy	7.06E-03	SPTLC1,TSC2,TICAM1,PIP4K2A
GO:0072657	protein localization to membrane	7.06E-03	FYN,RPL24,MAP7,SPTBN4,CNST,SRP68,BBS1,SYS1
GO:0010824	regulation of centrosome duplication	7.23E-03	CHMP1A,CCNF,CHMP1B
GO:0031396	regulation of protein ubiquitination	7.23E-03	C1ORF124,ANAPC10,RNF139,ZYG11A,DAXX
GO:0016073	snRNA metabolic process	7.23E-03	TBP,OBFC2B,NHP2,TUT1
GO:0043330	response to exogenous dsRNA	7.23E-03	MUL1,DDX58,TICAM1
GO:0090150	establishment of protein localization to membrane	7.23E-03	FYN,RPL24,CNST,SRP68,BBS1,SYS1
GO:0032388	positive regulation of intracellular transport	7.23E-03	FYN,SPAG5,RAB21,HTRA2,BCAS3
GO:0034655	nucleobase-containing compound catabolic process	7.39E-03	KHSRP,TNRC6B,DCPS,RPL24,NT5C,SUPV3L1,PRPF18,SAMD4B
GO:0043312	neutrophil degranulation	7.43E-03	PPIE,PSMD7,RAB14,C1ORF35,STK11IP,PSMD6,B2M,NEU1
GO:0050792	regulation of viral process	7.43E-03	CTDP1,PPIE,PPIB,ZNF502,TRIM31
GO:0002283	neutrophil activation involved in immune response	7.58E-03	PPIE,PSMD7,RAB14,C1ORF35,STK11IP,PSMD6,B2M,NEU1
GO:0033044	regulation of chromosome organization	7.78E-03	TRIP13,SETD1A,SUPT6H,OBFC2B,SPTY2D1,MIER1
GO:0090224	regulation of spindle organization	7.87E-03	SPAG5,CHMP1A,CHMP1B
GO:0032886	regulation of microtubule-based process	7.87E-03	SPAG5,CHMP1A,BICD1,CCNF,CHMP1B
GO:0042119	neutrophil activation	7.87E-03	PPIE,PSMD7,RAB14,C1ORF35,STK11IP,PSMD6,B2M,NEU1

GO:0048285 organelle fission  
 GO:0002446 neutrophil mediated immunity  
 REAC:R-HSA-164952 The role of Nef in HIV-1 replication and disease pathogenesis  
 REAC:R-HSA-2424491 DAP12 signaling  
 GO:0045089 positive regulation of innate immune response  
 GO:0010638 positive regulation of organelle organization  
 GO:0036230 granulocyte activation  
 GO:0030100 regulation of endocytosis  
 GO:0033157 regulation of intracellular protein transport  
 GO:0043903 regulation of symbiosis, encompassing mutualism through parasitism  
 GO:0060627 regulation of vesicle-mediated transport  
 GO:0006893 Golgi to plasma membrane transport  
 GO:1903827 regulation of cellular protein localization  
 GO:0048260 positive regulation of receptor-mediated endocytosis  
 GO:0051493 regulation of cytoskeleton organization  
 GO:0007040 lysosome organization  
 GO:0080171 lytic vacuole organization  
 GO:0006914 autophagy  
 GO:0061919 process utilizing autophagic mechanism  
 GO:0016311 dephosphorylation  
 REAC:R-HSA-1236974 ER-Phagosome pathway  
 GO:0014067 negative regulation of phosphatidylinositol 3-kinase signaling  
 GO:1904903 ESCRT III complex disassembly  
 GO:0000226 microtubule cytoskeleton organization  
 GO:1904896 ESCRT complex disassembly  
 GO:0016239 positive regulation of macroautophagy  
 GO:0006403 RNA localization  
 REAC:R-HSA-6798695 Neutrophil degranulation  
 REAC:R-HSA-5633007 Regulation of TP53 Activity  
 GO:0006417 regulation of translation  
 GO:0072659 protein localization to plasma membrane  
 REAC:R-HSA-164944 Nef and signal transduction  
 REAC:R-HSA-2467813 Separation of Sister Chromatids  
 REAC:R-HSA-6811558 PI5P, PP2A and IER3 Regulate PI3K/AKT Signaling  
 REAC:R-HSA-2172127 DAP12 interactions  
 GO:0044794 positive regulation by host of viral process  
 GO:0008298 intracellular mRNA localization  
 REAC:R-HSA-2555396 Mitotic Metaphase and Anaphase  
 REAC:R-HSA-199418 Negative regulation of the PI3K/AKT network  
 REAC:R-HSA-5683057 MAPK family signaling cascades  
 REAC:R-HSA-1236975 Antigen processing-Cross presentation  
 REAC:R-HSA-68882 Mitotic Anaphase  
 REAC:R-HSA-446203 Asparagine N-linked glycosylation  
 GO:0000956 nuclear-transcribed mRNA catabolic process  
 GO:0022618 ribonucleoprotein complex assembly  
 GO:2001056 positive regulation of cysteine-type endopeptidase activity  
 REAC:R-HSA-69620 Cell Cycle Checkpoints  
 GO:0046831 regulation of RNA export from nucleus  
 GO:0002758 innate immune response-activating signal transduction  
 GO:1902275 regulation of chromatin organization  
 7.87E-03 CTDP1,TRIP13,SPAG5,MUL1,CHMP1A,FBXO43,CHMP1B  
 7.90E-03 PPIE,PSMD7,RAB14,C1ORF35,STK11IP,PSMD6,B2M,NEU1  
 7.99E-03 FYN,B2M,LCK  
 8.00E-03 FYN,B2M,LCK  
 8.19E-03 FYN,DDX58,UNC93B1,SFPQ,TICAM1,MUCL1  
 8.19E-03 SPAG5,MUL1,HTRA2,OBFC2B,BCAS3,PIP4K2A,CORO1B,MIER1  
 8.21E-03 PPIE,PSMD7,RAB14,C1ORF35,STK11IP,PSMD6,B2M,NEU1  
 8.33E-03 RAB21,TSC2,RAB14,BICD1,B2M  
 8.33E-03 FYN,ZC3H3,SUPT6H,HTRA2,BCAS3  
 8.97E-03 CTDP1,PPIE,PPIB,ZNF502,TRIM31  
 8.97E-03 RAB21,TSC2,RAB14,BICD1,CNST,B2M,RNF139  
 8.97E-03 CNST,BBS1,SYS1  
 9.43E-03 FYN,ZC3H3,SUPT6H,HTRA2,BCAS3,BICD1,CNST  
 9.43E-03 RAB21,BICD1,B2M  
 9.43E-03 SPAG5,CHMP1A,BCAS3,BICD1,CCNF,CORO1B,CHMP1B  
 9.71E-03 FAM160A2,NAGPA,VPS33A  
 9.71E-03 FAM160A2,NAGPA,VPS33A  
 1.01E-02 SPTLC1,TSC2,HTRA2,STX12,TICAM1,VPS33A,PIP4K2A  
 1.01E-02 SPTLC1,TSC2,HTRA2,STX12,TICAM1,VPS33A,PIP4K2A  
 1.04E-02 CTDP1,PPP2CB,NT5C,PPEF2,CNST,UBLCP1  
 1.05E-02 PSMD7,SEC61G,PSMD6,B2M  
 1.06E-02 PIK3IP1,TSC2  
 1.06E-02 CHMP1A,CHMP1B  
 1.06E-02 SPAG5,CHMP1A,MAP7,BCAS3,BICD1,CCNF,CHMP1B  
 1.06E-02 CHMP1A,CHMP1B  
 1.08E-02 SPTLC1,TSC2,PIP4K2A  
 1.10E-02 ZC3H3,SUPT6H,NHP2,BICD1,PRPF18  
 1.12E-02 PPIE,PSMD7,RAB14,C1ORF35,STK11IP,PSMD6,B2M,NEU1  
 1.12E-02 PPP2CB,TBP,RFC3,PIP4K2A,DAXX  
 1.14E-02 GEMIN5,EIF2AK1,KHSRP,RPUSD3,RNF139,SAMD4B  
 1.19E-02 MAP7,SPTBN4,CNST,BBS1,SYS1  
 1.19E-02 FYN,LCK  
 1.19E-02 PSMD7,PPP2CB,AHCTF1,PSMD6,ANAPC10  
 1.19E-02 FYN,PPP2CB,PIP4K2A,LCK  
 1.19E-02 FYN,B2M,LCK  
 1.22E-02 PPIB,ZNF502  
 1.22E-02 BICD1,PRPF18  
 1.22E-02 PSMD7,PPP2CB,AHCTF1,PSMD6,ANAPC10  
 1.22E-02 FYN,PPP2CB,PIP4K2A,LCK  
 1.22E-02 FYN,TNRC6B,PSMD7,PPP2CB,SPTBN4,PSMD6  
 1.22E-02 PSMD7,SEC61G,PSMD6,B2M  
 1.22E-02 PSMD7,PPP2CB,AHCTF1,PSMD6,ANAPC10  
 1.24E-02 TRAPPC6A,RNF185,SPTBN4,RNF139,COPB2,NEU1  
 1.27E-02 TNRC6B,DCPS,RPL24,PRPF18,SAMD4B  
 1.27E-02 GEMIN5,RPL24,LIMD1,BICD1,PRPF18  
 1.27E-02 FYN,MUL1,HTRA2,LCK  
 1.27E-02 PSMD7,PPP2CB,RFC3,AHCTF1,PSMD6,ANAPC10  
 1.39E-02 ZC3H3,SUPT6H  
 1.41E-02 FYN,DDX58,UNC93B1,TICAM1,MUCL1  
 1.41E-02 SETD1A,SUPT6H,SPTY2D1,MIER1

GO:1903902	positive regulation of viral life cycle	1.43E-02	PPIE,PIIB,ZNF502
GO:0046605	regulation of centrosome cycle	1.43E-02	CHMP1A,CCNF,CHMP1B
GO:0031023	microtubule organizing center organization	1.47E-02	CHMP1A,BCAS3,CCNF,CHMP1B
GO:0051310	metaphase plate congression	1.49E-02	SPAG5,CHMP1A,CHMP1B
GO:0071826	ribonucleoprotein complex subunit organization	1.51E-02	GEMIN5,RPL24,LIMD1,BICD1,PRPF18
GO:0032239	regulation of nucleobase-containing compound transport	1.51E-02	ZC3H3,SUPT6H
GO:0098876	vesicle-mediated transport to the plasma membrane	1.51E-02	CNST,BBS1,SYS1
GO:1990778	protein localization to cell periphery	1.54E-02	MAP7,SPTBN4,CNST,BBS1,SYS1
GO:0050688	regulation of defense response to virus	1.57E-02	MUL1,DDX58,RNF26
REAC:R-HSA-389359	CD28 dependent Vav1 pathway	1.57E-02	FYN,LCK
REAC:R-HSA-73894	DNA Repair	1.57E-02	C1ORF124,PPIE,MUTYH,RFC3,COPS4,ALKBH2
REAC:R-HSA-210990	PECAM1 interactions	1.57E-02	FYN,LCK
REAC:R-HSA-983168	Antigen processing: Ubiquitination & Proteasome degradation	1.57E-02	PSMD7,FBXW2,WWP1,CCNF,PSMD6,ANAPC10
REAC:R-HSA-69239	Synthesis of DNA	1.57E-02	PSMD7,RFC3,PSMD6,ANAPC10
GO:1903900	regulation of viral life cycle	1.59E-02	PPIE,PIIB,ZNF502,TRIM31
GO:0071360	cellular response to exogenous dsRNA	1.66E-02	MUL1,DDX58
GO:0000280	nuclear division	1.66E-02	CTDP1,TRIP13,SPAG5,CHMP1A,FBXO43,CHMP1B
GO:0000413	protein peptidyl-prolyl isomerization	1.66E-02	PPIE,PIIB
GO:0040029	regulation of gene expression, epigenetic	1.66E-02	TNRC6B,SUPT6H,TBP,LIMD1,ZNF335,MIER1,MIR425
REAC:R-HSA-9007101	Rab regulation of trafficking	1.67E-02	TRAPPC6A,RAB21,TSC2,RAB14
GO:0043902	positive regulation of multi-organism process	1.71E-02	CTDP1,PPIE,PIIB,ZNF502
GO:0051298	centrosome duplication	1.78E-02	CHMP1A,CCNF,CHMP1B
GO:1903201	regulation of oxidative stress-induced cell death	1.78E-02	FYN,HTRA2,SFPQ
GO:0071025	RNA surveillance	1.78E-02	SUPV3L1,PRPF18
GO:1904380	endoplasmic reticulum mannose trimming	1.78E-02	RNF185,RNF139
GO:0031349	positive regulation of defense response	1.78E-02	FYN,DDX58,UNC93B1,SFPQ,TICAM1,MUCL1
GO:0071396	cellular response to lipid	1.78E-02	BUD31,HTRA2,TICAM1,TGFB11,WNT9B,DAXX
GO:0019080	viral gene expression	1.80E-02	CTDP1,EIF3G,TRIM31
GO:0010950	positive regulation of endopeptidase activity	1.83E-02	FYN,MUL1,HTRA2,LCK
GO:0043506	regulation of JUN kinase activity	1.83E-02	MUL1,PPEF2,DAXX
GO:0000070	mitotic sister chromatid segregation	1.83E-02	TRIP13,SPAG5,CHMP1A,CHMP1B
GO:0034248	regulation of cellular amide metabolic process	1.83E-02	GEMIN5,EIF2AK1,KHSRP,RPUSD3,RNF139,SAMD4B
GO:0030521	androgen receptor signaling pathway	1.83E-02	BUD31,TGFB11,DAXX
GO:0016050	vesicle organization	1.83E-02	TRAPPC6A,FAM160A2,STX12,CHMP1A,RNF26,CHMP1B
REAC:R-HSA-69306	DNA Replication	1.87E-02	PSMD7,RFC3,PSMD6,ANAPC10
GO:0051223	regulation of protein transport	1.88E-02	FYN,ZC3H3,DDX58,SUPT6H,HTRA2,BCAS3,CNST
GO:0034138	toll-like receptor 3 signaling pathway	1.89E-02	UNC93B1,TICAM1
GO:0051303	establishment of chromosome localization	1.93E-02	SPAG5,CHMP1A,CHMP1B
REAC:R-HSA-375165	NCAM signaling for neurite out-growth	1.96E-02	FYN,COL9A1,SPTBN4
GO:0048259	regulation of receptor-mediated endocytosis	1.99E-02	RAB21,BICD1,B2M
GO:0050000	chromosome localization	1.99E-02	SPAG5,CHMP1A,CHMP1B
GO:0001522	pseudouridine synthesis	2.01E-02	NHP2,RPUSD3
GO:1900407	regulation of cellular response to oxidative stress	2.01E-02	FYN,HTRA2,SFPQ
GO:0000209	protein polyubiquitination	2.01E-02	FBXW2,CCNF,ANAPC10,RNF139,RNF26
GO:0000920	cell separation after cytokinesis	2.01E-02	CHMP1A,CHMP1B
GO:0007088	regulation of mitotic nuclear division	2.01E-02	TRIP13,CHMP1A,FBXO43,CHMP1B
GO:0010952	positive regulation of peptidase activity	2.01E-02	FYN,MUL1,HTRA2,LCK
GO:0051851	modification by host of symbiont morphology or physiology	2.05E-02	CTDP1,PPIB,ZNF502
GO:0016482	cytosolic transport	2.10E-02	FAM160A2,RAB21,RAB14,SYS1
GO:0042273	ribosomal large subunit biogenesis	2.10E-02	RPL24,NHP2,RSL1D1

GO:0016236	macroautophagy	2.12E-02 SPTLC1,TSC2,STX12,VPS33A,PIP4K2A
GO:1902115	regulation of organelle assembly	2.12E-02 SPAG5,CHMP1A,PIP4K2A,CHMP1B
GO:0090087	regulation of peptide transport	2.12E-02 FYN,ZC3H3,DDX58,SUPT6H,HTRA2,BCAS3,CNST
REAC:R-HSA-8951664	Neddylation	2.14E-02 PSMD7,FBXW2,COPS4,CCNF,PSMD6
REAC:R-HSA-5678895	Defective CFTR causes cystic fibrosis	2.14E-02 PSMD7,RNF185,PSMD6
REAC:R-HSA-5619084	ABC transporter disorders	2.14E-02 PSMD7,RNF185,PSMD6
REAC:R-HSA-5621481	C-type lectin receptors (CLRs)	2.14E-02 FYN,PSMD7,PSMD6,MUCL1
REAC:R-HSA-1433559	Regulation of KIT signaling	2.14E-02 FYN,LCK
REAC:R-HSA-174084	Autodegradation of Cdh1 by Cdh1:APC/C	2.14E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-5673001	RAF/MAP kinase cascade	2.17E-02 FYN,PSMD7,PPP2CB,SPTBN4,PSMD6
GO:0051702	interaction with symbiont	2.20E-02 CTDP1,PPIB,ZNF502
GO:0002888	nuclear-transcribed mRNA catabolic process, deadenylation-dependent decay	2.20E-02 TNRC6B,DCPS,SAMD4B
GO:0017148	negative regulation of translation	2.21E-02 EIF2AK1,KHSRP,RNF139,SAMD4B
GO:0043123	positive regulation of I-kappaB kinase/NF-kappaB signaling	2.21E-02 MUL1,TMEM101,TICAM1,MIER1
REAC:R-HSA-1234176	Oxygen-dependent proline hydroxylation of Hypoxia-inducible Factor Alpha	2.22E-02 PSMD7,LIMD1,PSMD6
REAC:R-HSA-8953897	Cellular responses to external stimuli	2.22E-02 TNRC6B,PSMD7,TSC2,LIMD1,PSMD6,ANAPC10,MTF1
REAC:R-HSA-174154	APC/C:Cdc20 mediated degradation of Securin	2.22E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-5684996	MAPK1/MAPK3 signaling	2.22E-02 FYN,PSMD7,PPP2CB,SPTBN4,PSMD6
GO:0051783	regulation of nuclear division	2.23E-02 TRIP13,CHMP1A,FBXO43,CHMP1B
GO:1903829	positive regulation of cellular protein localization	2.23E-02 FYN,HTRA2,BCAS3,BICD1,CNST
GO:0007059	chromosome segregation	2.23E-02 TRIP13,SPAG5,RECQL5,CHMP1A,CHMP1B
GO:0050687	negative regulation of defense response to virus	2.23E-02 MUL1,RNF26
GO:0070987	error-free translesion synthesis	2.23E-02 C1ORF124,RFC3
GO:1901673	regulation of mitotic spindle assembly	2.23E-02 CHMP1A,CHMP1B
GO:1902882	regulation of response to oxidative stress	2.26E-02 FYN,HTRA2,SFPQ
REAC:R-HSA-5663202	Diseases of signal transduction	2.26E-02 FYN,PSMD7,TSC2,PPP2CB,PSMD6,LCK
GO:0010506	regulation of autophagy	2.27E-02 SPTLC1,TSC2,HTRA2,TICAM1,PIP4K2A
GO:0006283	transcription-coupled nucleotide-excision repair	2.30E-02 PPIE,RFC3,COPS4
GO:0036473	cell death in response to oxidative stress	2.30E-02 FYN,HTRA2,SFPQ
REAC:R-HSA-5619115	Disorders of transmembrane transporters	2.35E-02 PSMD7,RNF185,PSMD6
REAC:R-HSA-174178	APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mito	2.35E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-69017	CDK-mediated phosphorylation and removal of Cdc6	2.35E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-174184	Cdc20:Phospho-APC/C mediated degradation of Cyclin A	2.35E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-388841	Costimulation by the CD28 family	2.35E-02 FYN,PPP2CB,LCK
REAC:R-HSA-110320	Translesion Synthesis by POLH	2.35E-02 C1ORF124,RFC3
REAC:R-HSA-179419	APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkp	2.35E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-8939902	Regulation of RUNX2 expression and activity	2.35E-02 PSMD7,WWP1,PSMD6
GO:0036508	protein alpha-1,2-demannosylation	2.35E-02 RNF185,RNF139
GO:1903427	negative regulation of reactive oxygen species biosynthetic process	2.35E-02 FYN,KHSRP
GO:0036507	protein demannosylation	2.35E-02 RNF185,RNF139
GO:0006895	Golgi to endosome transport	2.35E-02 RAB14,SYS1
GO:0008053	mitochondrial fusion	2.35E-02 MUL1,FAM73B
REAC:R-HSA-164938	Nef-mediates down modulation of cell surface receptors by recruiting them to clathrin adapters	2.38E-02 B2M,LCK
REAC:R-HSA-176814	Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins	2.38E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-69242	S Phase	2.38E-02 PSMD7,RFC3,PSMD6,ANAPC10
REAC:R-HSA-901032	ER Quality Control Compartment (ERQC)	2.38E-02 RNF185,RNF139
REAC:R-HSA-2262749	Cellular response to hypoxia	2.38E-02 PSMD7,LIMD1,PSMD6
REAC:R-HSA-176409	APC/C:Cdc20 mediated degradation of mitotic proteins	2.38E-02 PSMD7,PSMD6,ANAPC10
REAC:R-HSA-1234174	Regulation of Hypoxia-inducible Factor (HIF) by oxygen	2.38E-02 PSMD7,LIMD1,PSMD6
REAC:R-HSA-6781827	Transcription-Coupled Nucleotide Excision Repair (TC-NER)	2.46E-02 PPIE,RFC3,COPS4



REAC:R-HSA-71403	Citric acid cycle (TCA cycle)	2.49E-02	OGDH,SUCLA2
REAC:R-HSA-389357	CD28 dependent PI3K/Akt signaling	2.49E-02	FYN,LCK
REAC:R-HSA-176408	Regulation of APC/C activators between G1/S and early anaphase	2.52E-02	PSMD7,PSMD6,ANAPC10
GO:0000819	sister chromatid segregation	2.53E-02	TRIP13,SPAG5,CHMP1A,CHMP1B
GO:0018208	peptidyl-proline modification	2.53E-02	PPIE,PPIB
GO:0039702	viral budding via host ESCRT complex	2.53E-02	CHMP1A,CHMP1B
GO:0016458	gene silencing	2.57E-02	TNRC6B,SUPT6H,CHMP1A,LIMD1,MIER1,MIR425
REAC:R-HSA-195253	Degradation of beta-catenin by the destruction complex	2.66E-02	PSMD7,PPP2CB,PSMD6
REAC:R-HSA-674695	RNA Polymerase II Pre-transcription Events	2.71E-02	CTDP1,SUPT6H,TBP
GO:0044788	modulation by host of viral process	2.74E-02	PPIB,ZNF502
GO:0034243	regulation of transcription elongation from RNA polymerase II promoter	2.74E-02	RECQL5,SUPT6H
GO:0045862	positive regulation of proteolysis	2.78E-02	FYN,MUL1,HTRA2,RNF139,LCK
GO:0034249	negative regulation of cellular amide metabolic process	2.78E-02	EIF2AK1,KHSRP,RNF139,SAMD4B
REAC:R-HSA-1428517	The citric acid (TCA) cycle and respiratory electron transport	2.78E-02	OGDH,NDUFS7,SUCLA2,NDUFAF3
REAC:R-HSA-450531	Regulation of mRNA stability by proteins that bind AU-rich elements	2.82E-02	KHSRP,PSMD7,PSMD6
REAC:R-HSA-174143	APC/C-mediated degradation of cell cycle proteins	2.82E-02	PSMD7,PSMD6,ANAPC10
REAC:R-HSA-453276	Regulation of mitotic cell cycle	2.82E-02	PSMD7,PSMD6,ANAPC10
GO:0006368	transcription elongation from RNA polymerase II promoter	2.83E-02	CTDP1,RECQL5,SUPT6H
GO:0007041	lysosomal transport	2.83E-02	FAM160A2,NAGPA,VPS33A
GO:0043331	response to dsRNA	2.83E-02	MUL1,DDX58,TICAM1
GO:0000470	maturation of LSU-rRNA	2.85E-02	NHP2,RSL1D1
GO:0014066	regulation of phosphatidylinositol 3-kinase signaling	2.86E-02	PIK3IP1,TSC2,PIP4K2A
REAC:R-HSA-6811442	Intra-Golgi and retrograde Golgi-to-ER traffic	2.91E-02	BICD1,KIF15,COPB2,SYS1
REAC:R-HSA-5687128	MAPK6/MAPK4 signaling	2.91E-02	TNRC6B,PSMD7,PSMD6
REAC:R-HSA-69052	Switching of origins to a post-replicative state	2.91E-02	PSMD7,PSMD6,ANAPC10
REAC:R-HSA-8876198	RAB GEFs exchange GTP for GDP on RABs	2.91E-02	TRAPPC6A,RAB21,RAB14
REAC:R-HSA-72766	Translation	2.91E-02	HARS2,RPL24,EIF3G,SEC61G,SRP68
REAC:R-HSA-428157	Sphingolipid metabolism	2.91E-02	SPTLC1,ESYT3,NEU1
REAC:R-HSA-5621480	Dectin-2 family	2.91E-02	FYN,MUCL1
REAC:R-HSA-901042	Calnexin/calreticulin cycle	2.91E-02	RNF185,RNF139
GO:0051222	positive regulation of protein transport	2.95E-02	FYN,DDX58,HTRA2,BCAS3,CNST
GO:0046755	viral budding	3.01E-02	CHMP1A,CHMP1B
GO:0010469	regulation of signaling receptor activity	3.04E-02	CACNG3,BUD31,BICD1
GO:0060249	anatomical structure homeostasis	3.04E-02	RFC3,OBFC2B,NHP2,B2M,BBS1
GO:0051225	spindle assembly	3.04E-02	SPAG5,CHMP1A,CHMP1B
GO:0010035	response to inorganic substance	3.09E-02	FYN,PPP2CB,B2M,MTF1,DAXX
GO:0006163	purine nucleotide metabolic process	3.09E-02	COASY,OGDH,NDUFS7,NT5C,SUCLA2,GUK1
REAC:R-HSA-2219528	PI3K/AKT Signaling in Cancer	3.11E-02	FYN,TSC2,LCK
GO:0006888	ER to Golgi vesicle-mediated transport	3.23E-02	TRAPPC6A,SPTBN4,RNF139,COPB2
GO:1903146	regulation of autophagy of mitochondrion	3.41E-02	TSC2,HTRA2
GO:0006470	protein dephosphorylation	3.52E-02	CTDP1,PPP2CB,PPEF2,UBLCP1
REAC:R-HSA-202424	Downstream TCR signaling	3.55E-02	PSMD7,PSMD6,LCK
REAC:R-HSA-180786	Extension of Telomeres	3.57E-02	RFC3,NHP2
GO:1902175	regulation of oxidative stress-induced intrinsic apoptotic signaling pathway	3.63E-02	HTRA2,SFPQ
GO:0010256	endomembrane system organization	3.63E-02	FAM160A2,CHMP1A,BCAS3,RNF26,CHMP1B
GO:0006354	DNA-templated transcription, elongation	3.66E-02	CTDP1,RECQL5,SUPT6H
GO:0043122	regulation of I-kappaB kinase/NF-kappaB signaling	3.75E-02	MUL1,TMEM101,TICAM1,MIER1
GO:0010038	response to metal ion	3.78E-02	PPP2CB,B2M,MTF1,DAXX
GO:0014070	response to organic cyclic compound	3.78E-02	MUL1,BUD31,DDX58,TICAM1,TGFB11,DAXX
GO:0071539	protein localization to centrosome	3.79E-02	SPAG5,BICD1

GO:0061912	selective autophagy	3.79E-02	SPTLC1,TSC2
GO:0070979	protein K11-linked ubiquitination	3.79E-02	ANAPC10,RNF26
REAC:R-HSA-449147	Signaling by Interleukins	3.86E-02	FYN,PSMD7,PPP2CB,PSMD6,IL17RA,LCK
REAC:R-HSA-72312	rRNA processing	3.86E-02	RPL24,NSUN4,ISG20L2,NHP2
REAC:R-HSA-195721	Signaling by WNT	3.86E-02	TNRC6B,PSMD7,PPP2CB,WNT9B,PSMD6
REAC:R-HSA-382556	ABC-family proteins mediated transport	3.86E-02	PSMD7,RNF185,PSMD6
GO:0045807	positive regulation of endocytosis	3.88E-02	RAB21,BICD1,B2M
GO:0006997	nucleus organization	3.88E-02	CHMP1A,AHCTF1,CHMP1B
GO:0007257	activation of JUN kinase activity	3.93E-02	MUL1,DAXX
GO:1905508	protein localization to microtubule organizing center	3.93E-02	SPAG5,BICD1
GO:0046825	regulation of protein export from nucleus	3.93E-02	ZC3H3,SUPT6H
GO:0031648	protein destabilization	3.93E-02	MUL1,RNF139
GO:0072521	purine-containing compound metabolic process	3.99E-02	COASY,OGDH,NDUFS7,NT5C,SUCLA2,GUK1
REAC:R-HSA-389356	CD28 co-stimulation	4.01E-02	FYN,LCK
REAC:R-HSA-114604	GPVI-mediated activation cascade	4.01E-02	FYN,LCK
REAC:R-HSA-1483257	Phospholipid metabolism	4.03E-02	RAB14,FAM73B,PIP4K2A,PTDSS2
GO:0051896	regulation of protein kinase B signaling	4.08E-02	FYN,MUL1,TSC2,LCK
GO:0036258	multivesicular body assembly	4.08E-02	CHMP1A,CHMP1B
GO:0007034	vacuolar transport	4.08E-02	FAM160A2,NAGPA,VPS33A
GO:2000116	regulation of cysteine-type endopeptidase activity	4.08E-02	FYN,MUL1,HTRA2,LCK
GO:1902186	regulation of viral release from host cell	4.08E-02	ZNF502,TRIM31
GO:0097190	apoptotic signaling pathway	4.08E-02	MUL1,HTRA2,SFPQ,TICAM1,LCK,DAXX
GO:0043280	positive regulation of cysteine-type endopeptidase activity involved in apoptotic process	4.08E-02	MUL1,HTRA2,LCK
GO:0050691	regulation of defense response to virus by host	4.08E-02	MUL1,DDX58
GO:0051817	modification of morphology or physiology of other organism involved in symbiotic interaction	4.08E-02	CTDP1,PPIB,ZNF502
GO:0045047	protein targeting to ER	4.08E-02	RPL24,SEC61G,SRP68
GO:1904951	positive regulation of establishment of protein localization	4.11E-02	FYN,DDX58,HTRA2,BCAS3,CNST
GO:0006517	protein deglycosylation	4.22E-02	RNF185,RNF139
GO:1902532	negative regulation of intracellular signal transduction	4.22E-02	MUL1,PIK3IP1,TSC2,HTRA2,LIMD1,PPEF2
GO:0000289	nuclear-transcribed mRNA poly(A) tail shortening	4.22E-02	TNRC6B,SAMD4B
GO:0045070	positive regulation of viral genome replication	4.22E-02	PPIE,PPIB
GO:0036257	multivesicular body organization	4.22E-02	CHMP1A,CHMP1B
GO:0002697	regulation of immune effector process	4.25E-02	MUL1,DDX58,SUPT6H,B2M,RNF26
GO:0071103	DNA conformation change	4.28E-02	CHMP1A,SUPV3L1,SPTY2D1,DAXX
GO:0002831	regulation of response to biotic stimulus	4.29E-02	MUL1,DDX58,RNF26
GO:0000724	double-strand break repair via homologous recombination	4.29E-02	RECQL5,SFPQ,OBFC2B
REAC:R-HSA-5696398	Nucleotide Excision Repair	4.30E-02	PPIE,RFC3,COPS4
REAC:R-HSA-532668	N-glycan trimming in the ER and Calnexin/Calreticulin cycle	4.30E-02	RNF185,RNF139
REAC:R-HSA-69618	Mitotic Spindle Checkpoint	4.30E-02	PPP2CB,AHCTF1,ANAPC10
GO:0072599	establishment of protein localization to endoplasmic reticulum	4.37E-02	RPL24,SEC61G,SRP68
GO:0000725	recombinational repair	4.37E-02	RECQL5,SFPQ,OBFC2B
GO:0033993	response to lipid	4.37E-02	BUD31,HTRA2,TICAM1,TGFB111,WNT9B,DAXX
GO:0006302	double-strand break repair	4.49E-02	TRIP13,RECQL5,SFPQ,OBFC2B
REAC:R-HSA-6804757	Regulation of TP53 Degradation	4.49E-02	PPP2CB,DAXX
GO:0000154	rRNA modification	4.52E-02	NSUN4,NHP2
GO:2000378	negative regulation of reactive oxygen species metabolic process	4.52E-02	FYN,KHSRP
GO:1900449	regulation of glutamate receptor signaling pathway	4.52E-02	CACNG3,FYN
GO:0006289	nucleotide-excision repair	4.52E-02	PPIE,RFC3,COPS4
REAC:R-HSA-1799339	SRP-dependent cotranslational protein targeting to membrane	4.53E-02	RPL24,SEC61G,SRP68
GO:1903311	regulation of mRNA metabolic process	4.55E-02	KHSRP,TNRC6B,SUPT6H,SAMD4B

GO:0052126	movement in host environment	4.60E-02 ZNF502,TRIM31
GO:0043491	protein kinase B signaling	4.60E-02 FYN,MUL1,TSC2,LCK
GO:0098813	nuclear chromosome segregation	4.60E-02 TRIP13,SPAG5,CHMP1A,CHMP1B
GO:0071229	cellular response to acid chemical	4.60E-02 FYN,HTRA2,WNT9B
GO:0019076	viral release from host cell	4.60E-02 ZNF502,TRIM31
GO:0035891	exit from host cell	4.60E-02 ZNF502,TRIM31
GO:0052192	movement in environment of other organism involved in symbiotic interaction	4.60E-02 ZNF502,TRIM31
GO:0035890	exit from host	4.60E-02 ZNF502,TRIM31
GO:1903322	positive regulation of protein modification by small protein conjugation or removal	4.60E-02 C1ORF124,MUL1,ANAPC10
REAC:R-HSA-5689880	Ub-specific processing proteases	4.60E-02 MUL1,PSMD7,DDX58,PSMD6
REAC:R-HSA-6806003	Regulation of TP53 Expression and Degradation	4.60E-02 PPP2CB,DAXX
REAC:R-HSA-8856688	Golgi-to-ER retrograde transport	4.60E-02 BICD1,KIF15,COPB2
REAC:R-HSA-73933	Resolution of Abasic Sites (AP sites)	4.68E-02 MUTYH,RFC3
REAC:R-HSA-73884	Base Excision Repair	4.68E-02 MUTYH,RFC3
GO:0014065	phosphatidylinositol 3-kinase signaling	4.75E-02 PIK3IP1,TSC2,PIP4K2A
GO:0061014	positive regulation of mRNA catabolic process	4.75E-02 KHSRP,TNRC6B
GO:0060236	regulation of mitotic spindle organization	4.75E-02 CHMP1A,CHMP1B
GO:0030522	intracellular receptor signaling pathway	4.80E-02 BUD31,DDX58,TGFB111,DAXX
GO:0001817	regulation of cytokine production	4.80E-02 MUL1,DDX58,TICAM1,B2M,RNF26,IL17RA
REAC:R-HSA-202403	TCR signaling	4.85E-02 PSMD7,PSMD6,LCK
REAC:R-HSA-110313	Translesion synthesis by Y family DNA polymerases bypasses lesions on DNA template	4.85E-02 C1ORF124,RFC3
REAC:R-HSA-8878166	Transcriptional regulation by RUNX2	4.91E-02 PSMD7,WWP1,PSMD6
GO:0002832	negative regulation of response to biotic stimulus	4.98E-02 MUL1,RNF26



















Suppl. Tab. 12. Gene enrichment analysis for fetal age-COPD ME79:salmon module using gProfilerR (sorted FDR < 0.05)

GO.ID	Description	FDR	Genes
GO:0009887	animal organ morphogenesis	1.12E-20	WNT16,PROM1,PAX6,TFAP2B,ETV7,DCN,BARX2,FOXC1,MYLK,CTNNA2,FGF10,SEMA3C,KDM2B,TBX5,TGFB2,ABLIM1,BMP7,SALL1,DLX5,CAV1,LFNG,TSPAN12,SFRP4,SLC9A3R1,FGF1,WNT5A,WNT6,ERRF1,TNNT2,TCF21,MTHFD1L,TBX2,TBX4,TWIST1,WNT1,BMP4,SOX9,WNK4,SIX1,HOXD3,FOXJ1,OLFM1,GSC,PDGFRA,PAX3,GATA4,TFAP2A,FOXF2,MYO7A,SMAD6,SIX3,BMPR1B,PRICKLE1,COL2A1,TLE3,NKD1,GATA6,EPHA2,OSR1,SLIT2,SFRP2,KLHL3,ZIC1,MEGF11,SKI,VANGL2,NKX6-1,PRICKLE2,HEYL,PITX2,HAND2,HEY1,DLCL1,OSR2,CDX2,FBN1,GDNF,AXIN2,ROR2,ZFPM2,SIX2,INSR,CHD7,DSCAM,RARG,ZFPM1,ALX1,TMIE,NEUROG1,NKX2-5,TBX1,ALDH1A3,TACSTD2,SIX6,WT1,WWOX,WNT7B,PAX5,EVL,COL13A1,SMURF1,MIR21
GO:0001501	skeletal system development	1.29E-17	SCIN,IGF1,RUNX3,BARX2,ALX4,FOXC1,HYAL2,TGFB2,BMP7,XLTL1,TRPS1,DLX5,SFRP4,SUFU,NKX3-2,ZBTB16,WNT5B,COL12A1,NPR3,WNT5A,FOXP1,MTHFD1L,TBX4,TWIST1,WNT1,BMP4,SOX9,PAX1,SIX1,HOXD3,CHI3L1,LOXL2,SOX5,PDGFRA,TFAP2A,BMPR1B,COL2A1,OSR1,HMGA2,GDF6,SKI,RUNX1,ZNF385A,EN1,PITX2,TNFRSF11B,OSR2,FBN1,AKAP13,CHD7,ALX1,NEUROG1,CREB3L2,EXT1,TMEM119,TBX1,WWOX,WNT7B,SRC,COL13A1,TEAD4,HESS,PAPSS2,GDF2,MIR21
GO:0007423	sensory organ development	1.00E-15	WNT16,PROM1,PAX6,TFAP2B,KCNQ1,FOXC1,SMARCD3,KDM2B,TGFB2,SALL1,TSPAN12,WNT5B,WNT5A,WNT6,ATF6,TLLS,ESRRB,TBX2,TWIST1,SOX9,SIX1,SMARCA4,GSC,PDGFRA,TFAP2A,FOXF2,MYO7A,CYP1B1,SIX3,BMPR1B,NKD1,ADAMTS18,EPHA2,OSR1,DLX1,CACNA1C,ZIC1,MEGF11,SKI,PITX2,OSR2,FBN1,CHD7,DSCAM,RARG,TMIE,NEUROG1,TBX1,ALDH1A3,WT1,ROR1,WNT7B,HESS,SMOC1
GO:0009790	embryo development	1.85E-14	WNT16,IGF1,PHLDB1,RARB,ITGA8,GRHL2,KDM2B,TBX5,TGFB2,BMP7,SALL1,XLTL1,LFNG,RARRES2,COL12A1,TBX18,WNT5A,ITGA4,NR5A2,TCF21,NR4A3,MTHFD1L,TBX2,TWIST1,WNT1,BMP4,SOX9,SIX1,RNF112,HOXD3,GSC,PDGFRA,GATA4,LMX1B,TFAP2A,FOXF2,SMAD6,SIX3,TET1,PRICKLE1,COL2A1,DUSP6,NKD1,OSR1,AFF3,COL8A1,PHLDB2,SFRP2,HMGA2,CACNA1C,ZIC1,SKI,NPM2,VANGL2,HEY1,DLCL1,OSR2,CDX2,OTX2,FBN1,GDNF,ATOX8,SIX2,INSR,CHD7,RARG,STOX2,LIG4,ERBB4,ZFPM1,TMIE,NEUROG1,NKX2-5,TBX1,ALDH1A3,WT1,TEAD1,WNT7B,LAMB3,TEAD4,HESS,MBP
GO:0048880	sensory system development	8.46E-14	WNT16,PROM1,PAX6,TFAP2B,FOXC1,SMARCD3,KDM2B,TGFB2,TSPAN12,WNT5B,WNT5A,WNT6,ATF6,TLLS,TBX2,TWIST1,SOX9,SMARCA4,PDGFRA,TFAP2A,FOXF2,MYO7A,CYP1B1,SIX3,BMPR1B,NKD1,ADAMTS18,EPHA2,DLX1,CACNA1C,POU4F1,MEGF11,SKI,PITX2,OSR2,FBN1,CHD7,DSCAM,RARG,ALDH1A3,WT1,WNT7B,HESS,SMOC1
GO:0150063	visual system development	9.58E-14	WNT16,PROM1,PAX6,TFAP2B,FOXC1,SMARCD3,KDM2B,TGFB2,TSPAN12,WNT5B,WNT5A,WNT6,ATF6,TLLS,TBX2,TWIST1,SOX9,SMARCA4,PDGFRA,TFAP2A,FOXF2,MYO7A,CYP1B1,SIX3,BMPR1B,NKD1,ADAMTS18,EPHA2,DLX1,CACNA1C,MEGF11,SKI,PITX2,OSR2,FBN1,CHD7,DSCAM,RARG,ALDH1A3,WT1,WNT7B,HESS,SMOC1
GO:0001654	eye development	9.58E-14	WNT16,PROM1,PAX6,TFAP2B,FOXC1,SMARCD3,KDM2B,TGFB2,TSPAN12,WNT5B,WNT5A,WNT6,ATF6,TLLS,TBX2,TWIST1,SOX9,SMARCA4,PDGFRA,TFAP2A,FOXF2,MYO7A,CYP1B1,SIX3,BMPR1B,NKD1,ADAMTS18,EPHA2,DLX1,CACNA1C,MEGF11,SKI,PITX2,OSR2,FBN1,CHD7,DSCAM,RARG,ALDH1A3,WT1,WNT7B,HESS,SMOC1

GO:0043010	camera-type eye development	WNT16,PROM1,PAX6,TFAP2B,SMARCD3,KDM2B,TGFB2,TSPAN12,WNT5B,WNT5A,WNT6,TLL5,TBX2,TWIST1,SOX9,SMARCA4,PDGFRA,TFAP2A,FOXF2,CY4.45E-12 P1B1,SIX3,EPHA2,DLX1,CACNA1C,MEGF11,SKI,PITX2,OSR2,FBN1,CHD7,DSCAM,ALDH1A3,WT1,WNT7B,HESS
GO:0090596	sensory organ morphogenesis	WNT16,PROM1,PAX6,TFAP2B,KDM2B,SALL1,TSPAN12,WNT5A,TBX2,TWIST1,SOX9,SIX1,GSC,TFAP2A,FOXF2,MYO7A,SIX3,NKD1,EPHA2,OSR1,ZIC1,MEGF12.65E-11 1,SKI,PITX2,OSR2,FBN1,CHD7,DSCAM,RARG,TMIE,NEUROG1,TBX1,ALDH1A3
GO:0048598	embryonic morphogenesis	WNT16,PHLDB1,ITGA8,GRHL2,KDM2B,TBX5,TGFB2,BMP7,SALL1,COL12A1,WNT5A,ITGA4,TCF21,NR4A3,MTHFD1L,TBX2,TWIST1,BMP4,SOX9,SIX1,HOXD3,GSC,PDGFRA,GATA4,TFAP2A,FOXF2,SIX3,PRICKLE1,COL2A1,DUSP6,OSR1,AFF3,COL8A1,PHLDB2,HMGA2,CACNA1C,ZIC1,SKI,VANGL2,DLCL1,OSR2,OTX2,FB1.90E-10 N1,GDNF,ATOH8,SIX2,CHD7,RARG,TMIE,NEUROG1,NKX2-5,TBX1,ALDH1A3,WNT7B,LAMB3,MBP
GO:0048568	embryonic organ development	WNT16,RARB,KDM2B,TGFB2,BMP7,SALL1,RARRES2,WNT5A,TCF21,MTHFD1L,TBX2,TWIST1,SOX9,SIX1,RNF112,HOXD3,GSC,PDGFRA,GATA4,TFAP2A,FOXF1.92E-10 2,SIX3,COL2A1,OSR1,ZIC1,VANGL2,HEY1,OSR2,FBN1,GDNF,SIX2,CHD7,RARG,ZFPM1,TMIE,NEUROG1,NKX2-5,TBX1,ALDH1A3,TEAD1,WNT7B,TEAD4
GO:0048863	stem cell differentiation	FOXC1,CBFB,SEMA3C,TP73,TBX5,TGFB2,SFRP1,POU6F2,WNT3,ESRRB,TBX2,SOX21,SOX9,GSC,SOX5,PDGFRA,GATA4,SIX3,PRICKLE1,OSR1,HMGA2,RUNX1,3.18E-10 ACE,PITX2,HAND2,GDNF,ERBB4,GATA2,HOXB4,NKX2-5,TBX1,TACSTD2,CYP26C1,HESS5
GO:0060485	mesenchyme development	PHLDB1,FOXC1,SEMA3C,GSK3B,TBX5,TGFB2,BMP7,SFRP1,EZH2,GCNT2,WNT5A,TCF21,TBX2,TWIST1,BMP4,SOX9,SIX1,OLFM1,GSC,LOXL2,GATA4,DAB2IP,3.86E-10 FOXF2,OSR1,PHLDB2,SFRP2,HMGA2,HEY1,PITX2,HAND2,HEY1,SMAD3,VASN,GDNF,AXIN2,SIX2,ERBB4,ALX1,TBX1,WT1,BCL9L,CYP26C1,MIR21
GO:0061448	connective tissue development	SCIN,RUNX3,BARX2,HYAL2,BMP7,TRPS1,NKX3-2,ZBTB16,WNT5B,BMP4,SOX9,HOXD3,CHI3L1,LOXL2,SOX5,BMPR1B,COL2A1,RORC,OSR1,HMGA2,ARID5B,GDF6,RUNX1,OSR2,ALX1,CREB3L2,WT1,WNT7B3.86E-10 ,HESS,GDF2,MIR21
GO:0045596	negative regulation of cell differentiation	CX3CL1,PAX6,IGF1,RUNX3,TRIO,CBFB,HDAC4,FBLN1,GSK3B,GRHL2,TBX5,TGFB2,BMP7,SFRP1,PTPRS,JAK3,MAG,CAV1,HOXA5,SUFU,NKX3-2,ZBTB16,WNT5A,EPHA4,ESRRB,TNFRSF8,TWIST1,WNT1,BMP4,SOX9,FOXJ1,NFATC1,RARA,MEIS2,DAB2IP,SMAD6,SIX3,ZNF365,PRICKLE1,ASCL1,OSR1,MEIS1,DLX1,CNTN4,SLIT2,SFRP2,EGFR,ABCA5,SKI,RUNX1,ABCG1,GFI1,PAQR3,FBN1,SMAD3,VASN,AXIN2,ZFPM2,NR2F1,GAK,GATA2,ZFPM1,NKX2-4.36E-10 5,TBX1,TACSTD2,SOC1,RTN4RL1,HESS,NOTCH4,GPR56,MIR10A,MIR21,MIR137

GO:0051216	cartilage development	SCIN,RUNX3,BARX2,HYAL2,TRPS1,NKX3- 6.12E-10 2,ZBTB16,WNT5B,BMP4,SOX9,HOXD3,CHI3L1,LOXL2,SOX5,BMPR1B,COL2A1,OSR1,HMGA2,GDF6,RUNX1,OSR2,ALX1,CREB3L2,WNT7B,HESS,GDF2,MIR21
GO:0048762	mesenchymal cell differentiation	PHLDB1,FOXC1,SEMA3C,GSK3B,TBX5,TGFB2,BMP7,SFRP1,EZH2,GCNT2,WNT5A,TCF21,TWIST1,SOX9,OLFM1,GSC,LOXL2,DAB2IP,FOXF2,OSR1,PHLDB2,SFR 7.69E-10 P2,HMGA2,HEYL,PITX2,HAND2,HEY1,SMAD3,VASN,GDNF,AXIN2,SIX2,ERBB4,ALX1,TBX1,BCL9L,CYP26C1,MIR21
GO:0001822	kidney development	PROM1,TFAP2B,FOXC1,HYAL2,FGF10,ITGA8,TGFB2,BMP7,SALL1,ZBTB16,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,PDGFRA,TFAP2A,ENPEP,OSR1,AGTR1 8.69E-10 ,SLIT2,KLHL3,ACE,VANGL2,OSR2,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3,PECAM1
GO:0048729	tissue morphogenesis	WNT16,MYLK,FGF10,ITGA8,GRHL2,KDM2B,TGFB2,SH3BP1,BMP7,SALL1,SLC9A3R1,FGF1,WNT5A,FOXP1,TNNT2,TCF21,MTHFD1L,TBX2,WNT1,BMP4,SOX9, WNK4,SIX1,GATA4,TFAP2A,FOXF2,SIX3,PRICKLE1,NKD1,EPHA2,OSR1,RHOB,PHLDB2,SLIT2,SFRP2,KLHL3,HMGA2,SKI,VANGL2,PRICKLE2,HEYL,HEY1,DLC1,A 1.22E-09 RHGAP12,GDNF,ROR2,ZFPM2,SIX2,MTSS1,ZFPM1,NKX2-5,RIPK4,TBX1,TACSTD2,WT1,WNT7B,SMURF1,NOTCH4,GDF2,MIR21
GO:0072001	renal system development	PROM1,TFAP2B,FOXC1,HYAL2,FGF10,ITGA8,TGFB2,BMP7,SALL1,ZBTB16,TBX18,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,PDGFRA,TFAP2A,ENPEP,OSR1, 1.57E-09 AGTR1,SLIT2,KLHL3,ACE,VANGL2,OSR2,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3,PECAM1
GO:0001655	urogenital system development	PROM1,TFAP2B,FOXC1,HYAL2,FGF10,ITGA8,TGFB2,BMP7,SALL1,ZBTB16,TBX18,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,PDGFRA,TFAP2A,ENPEP,OSR1, 2.29E-09 AGTR1,SLIT2,KLHL3,ACE,VANGL2,OSR2,GDNF,SIX2,MTSS1,EPHB3,TACSTD2,WT1,WNT7B,POU3F3,PECAM1
GO:0002009	morphogenesis of an epithelium	WNT16,FGF10,GRHL2,KDM2B,TGFB2,SH3BP1,BMP7,SALL1,SLC9A3R1,FGF1,WNT5A,FOXP1,TCF21,MTHFD1L,TBX2,WNT1,BMP4,SOX9,WNK4,SIX1,GATA4,T FAP2A,FOXF2,PRICKLE1,NKD1,EPHA2,OSR1,RHOB,PHLDB2,SLIT2,SFRP2,KLHL3,SKI,VANGL2,PRICKLE2,DLC1,ARHGAP12,GDNF,ROR2,SIX2,MTSS1,NKX2- 3.53E-09 5,RIPK4,TACSTD2,WT1,WNT7B,SMURF1,NOTCH4,GDF2,MIR21
GO:0048562	embryonic organ morphogenesis	WNT16,KDM2B,SALL1,WNT5A,TCF21,MTHFD1L,TBX2,TWIST1,SOX9,SIX1,HOXD3,GSC,PDGFRA,GATA4,TFAP2A,FOXF2,SIX3,COL2A1,OSR1,ZIC1,VANGL2,OS 9.78E-09 R2,FBN1,SIX2,CHD7,RARG,TMIE,NEUROG1,NKX2-5,TBX1,ALDH1A3

GO:0060562	epithelial tube morphogenesis	FGF10,GRHL2,KDM2B,TGFB2,BMP7,SALL1,FGF1,FOXP1,TCF21,MTHFD1L,TBX2,BMP4,SOX9,WNK4,SIX1,GATA4,PRICKLE1,EPHA2,OSR1,RHOB,SLIT2,SFRP2, 2.12E-08 KLHL3,SKI,VANGL2,DLCL1,GDNF,SIX2,MTSS1,NKX2-5,TACSTD2,WT1,NOTCH4,GDF2,MIR21
GO:0007507	heart development	IGF1,HDAC9,FOXC1,SEMA3C,TP73,TBX5,TGFB2,BMP7,SALL1,TNNT2,TBX2,TWIST1,OBSL1,BMP4,SOX9,OLFM1,PDGFRA,GATA4,SMAD6,EMILIN1,PRICKLE1, DUSP6,GATA6,OSR1,SLIT2,ANK2,SFRP2,EGFR,CACNA1C,POU4F1,SORBS2,SCUBE1,VANGL2,ADAMTS9,HEY1,PITX2,HAND2,HEY1,DLCL1,FBN1,ZFPM2,SGCD,A 2.50E-08 KAP13,INSR,CHD7,ERBB4,ZFPM1,SLC8A1,NKX2-5,TBX1,ADAP2,WT1,RBM20,MIR21
GO:0009792	embryo development ending in birth or egg hatching	IGF1,GRHL2,KDM2B,TGFB2,BMP7,XYLT1,LFNG,RARRES2,WNT5A,NR5A2,MTHFD1L,TWIST1,BMP4,SOX9,SIX1,HOXD3,GSC,PDGFRA,LMX1B,TFAP2A,TET1,PR 2.74E-08 ICKLE1,COL2A1,NKD1,OSR1,SKI,NPM2,VANGL2,HEY1,DLCL1,OSR2,CDX2,CHD7,STOX2,LIG4,NKX2-5,TBX1,WNT7B,HES5
GO:0048705	skeletal system morphogenesis	BARX2,FOXC1,DLX5,SFRP4,MTHFD1L,TBX4,TWIST1,BMP4,SOX9,SIX1,HOXD3,PDGFRA,TFAP2A,BMPR1B,COL2A1,OSR1,SKI,OSR2,ALX1,NEUROG1,TBX1,WW 2.97E-08 OX,COL13A1
GO:0043009	chordate embryonic development	IGF1,GRHL2,KDM2B,TGFB2,BMP7,XYLT1,LFNG,RARRES2,WNT5A,MTHFD1L,TWIST1,BMP4,SOX9,SIX1,HOXD3,GSC,PDGFRA,LMX1B,TFAP2A,TET1,PRICKLE1, 3.28E-08 COL2A1,NKD1,OSR1,SKI,NPM2,VANGL2,HEY1,DLCL1,OSR2,CDX2,CHD7,LIG4,NKX2-5,TBX1,WNT7B,HES5
GO:0072073	kidney epithelium development	PROM1,TFAP2B,FOXC1,BMP7,SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,OSR1,SLIT2,KLHL3,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3,PEC 3.76E-08 AM1
GO:0048592	eye morphogenesis	WNT16,PROM1,PAX6,TFAP2B,KDM2B,TSPAN12,WNT5A,TBX2,TWIST1,SOX9,TFAP2A,FOXF2,MYO7A,SIX3,NKD1,EPHA2,MEGF11,SKI,PITX2,FBN1,DSCAM,R 3.76E-08 ARG,ALDH1A3
GO:2000736	regulation of stem cell differentiation	1.38E-07 FOXC1,CBFB,SEMA3C,TP73,TBX5,TGFB2,ESRRB,SOX9,SOX5,PDGFRA,GATA4,PRICKLE1,RUNX1,GDNF,GATA2,HOXB4,NKX2-5,TACSTD2,HES5

GO:0001823	mesonephros development	1.54E-07	FOXC1,FGF10,BMP7,SALL1,ZBTB16,FGF1,TCF21,BMP4,SOX9,SIX1,FOXJ1,OSR1,SLIT2,OSR2,GDNF,SIX2,TACSTD2,WT1
GO:0072009	nephron epithelium development	1.65E-07	PROM1,TFAP2B,FOXC1,SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,OSR1,KLHL3,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3,PECAM1
GO:0048736	appendage development	2.12E-07	TFAP2B,TBX5,TGFB2,SALL1,WNT3,TBX2,TBX4,TWIST1,BMP4,TFAP2A,BMPR1B,OSR1,AFF3,CACNA1C,SKI,INTU,PITX2,OSR2,CHD7,RARG,SMOC1
GO:0072080	nephron tubule development	2.12E-07	PROM1,TFAP2B,SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,OSR1,KLHL3,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3
GO:0060173	limb development	2.12E-07	TFAP2B,TBX5,TGFB2,SALL1,WNT3,TBX2,TBX4,TWIST1,BMP4,TFAP2A,BMPR1B,OSR1,AFF3,CACNA1C,SKI,INTU,PITX2,OSR2,CHD7,RARG,SMOC1
GO:0072006	nephron development	2.31E-07	PROM1,TFAP2B,FOXC1,BMP7,SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,PDGFRA,ENPEP,OSR1,KLHL3,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3,PECAM1
GO:0061326	renal tubule development	2.95E-07	PROM1,TFAP2B,SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,OSR1,KLHL3,GDNF,SIX2,MTSS1,TACSTD2,WT1,WNT7B,POU3F3
GO:0060348	bone development	8.19E-07	L13A1 IGF1,FOXC1,XYL1,DLX5,SFRP4,FOXP1,TWIST1,WNT1,BMP4,SOX9,TFAP2A,BMPR1B,SKI,ZNF385A,PITX2,OSR2,FBN1,AKAP13,NEUROG1,TMEM119,SRC,CO



GO:2000738	positive regulation of stem cell differentiation	8.87E-07	FOXC1,SEMA3C,TBX5,TGFB2,SOX9,SOX5,GATA4,HOXB4,NKX2-5,TACSTD2
GO:0001837	epithelial to mesenchymal transition	1.12E-06	PHLDB1,FOXC1,GSK3B,TBX5,TGFB2,BMP7,SFRP1,EZH2,GCNT2,WNT5A,TWIST1,SOX9,OLFM1,GSC,LOXL2,DAB2IP,FOXF2,PHLDB2,SFRP2,HMGA2,HEYL,HEY1,SMAD3,VASN,AXIN2,ALX1,BCL9L,MIR21
GO:0007389	pattern specification process	1.24E-06	FGF10,KDM2B,SFRP1,LFNG,MDFI,TBX18,TBX2,WNT1,BMP4,SIX1,HOXD3,FOXJ1,GATA4,LMX1B,SMAD6,SIX3,SHROOM3,DUSP6,ASCL1,NKD1,OSR1,HHEX,ZIC1,SKI,VANGL2,PITX2,CDX2,OTX2,SIX2,ERBB4,NEUROG1,NKX2-5,TBX1,WT1,CYP26C1,WNT7B
GO:0048593	camera-type eye morphogenesis	1.56E-06	WNT16,PROM1,PAX6,TFAP2B,KDM2B,TSPAN12,WNT5A,TBX2,TWIST1,SOX9,TFAP2A,FOXF2,SIX3,EPHA2,MEGF11,SKI,PITX2,DSCAM
GO:0003002	regionalization	1.90E-06	FGF10,KDM2B,SFRP1,LFNG,MDFI,TBX18,BMP4,SIX1,HOXD3,GATA4,LMX1B,SMAD6,SIX3,DUSP6,ASCL1,NKD1,OSR1,HHEX,SKI,PITX2,CDX2,OTX2,SIX2,NEUR1,TBX1,WT1,CYP26C1,WNT7B
GO:0035107	appendage morphogenesis	2.35E-06	TFAP2B,TBX5,TGFB2,SALL1,WNT3,TBX2,TBX4,TWIST1,TFAP2A,BMPR1B,OSR1,AFF3,CACNA1C,SKI,OSR2,RARG
GO:0035108	limb morphogenesis	2.35E-06	TFAP2B,TBX5,TGFB2,SALL1,WNT3,TBX2,TBX4,TWIST1,TFAP2A,BMPR1B,OSR1,AFF3,CACNA1C,SKI,OSR2,RARG
GO:0002062	chondrocyte differentiation	2.65E-06	SCIN,RUNX3,TRPS1,NKX3-2,ZBTB16,WNT5B,BMP4,SOX9,LOXL2,SOX5,BMPR1B,OSR1,HMGA2,GDF6,RUNX1,OSR2,CREB3L2

GO:0048667	cell morphogenesis involved in neuron differentiation	2.66E-06	GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,PTPRS,MAG,CUX2,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,DOCK7,TNFRSF8,OBSL1,PLCG1,LRFN1,OLFM1,NGF,SPTBN5,ZNF365,TBCD,GRB7,CNTN4,GOLGA4,SLIT2,PARD3,NCAM1,ANK3,GFRA1,POU4F1,FARP1,PRKCA,LRFN2,DPYSL5,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,CHRNA7,BAIAP2,EPHB3,EVL,PDLIM7,SRC,CUX1
GO:0001656	metanephros development	3.23E-06	FGF10,BMP7,SALL1,TCF21,BMP4,SOX9,SIX1,FOXP1,PDGFRA,OSR1,OSR2,GDNF,SIX2,WT1,WNT7B,POU3F3
GO:0048048	embryonic eye morphogenesis	4.16E-06	WNT16,KDM2B,WNT5A,TBX2,TWIST1,TFAP2A,FOXF2,SIX3,FBN1,RARG,ALDH1A3
GO:0007178	transmembrane receptor protein serine/threonine kinase signaling pathway	4.47E-06	TFAP2B,LTBP1,LTBP4,TGFB2,BMP7,ZNF423,DLX5,CAV1,SFRP4,GCNT2,FMOD,WNT1,BMP4,GDF1,FST,TGFBRAP1,THBS1,SMAD6,EMILIN1,BMPRI1B,PCSK6,GATA6,PRDM16,GDF7,DLX1,PARD3,BTBD11,PTPRK,GDF6,SKI,BMPER,FBN1,SMAD3,VASN,ADAM9,ATOX8,WFIKKN2,RGMA,BCL9L,SRC,HES5,SMURF1,GDF2,MIR21
GO:0061564	axon development	4.57E-06	GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,STK24,PTPRS,MAG,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,DOCK7,TNFRSF8,PLCG1,LRFN1,OLFM1,NGF,SPTBN5,GRB7,CNTN4,GOLGA4,SLIT2,PARD3,NCAM1,ANK3,GFRA1,POU4F1,PRKCA,LRFN2,DPYSL5,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,BAIAP2,EPHB3,RTN4RL1,EVL,PDLIM7,SRC
GO:0003279	cardiac septum development	4.65E-06	SEMA3C,TBX5,TGFB2,BMP7,SALL1,TBX2,BMP4,GATA4,SMAD6,GATA6,SLIT2,ANK2,HEYL,HEY1,ZFPM2,ZFPM1,NKX2-5,TBX1
GO:0007409	axonogenesis	4.65E-06	GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,PTPRS,MAG,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,DOCK7,TNFRSF8,PLCG1,LRFN1,OLFM1,NGF,SPTBN5,GRB7,CNTN4,GOLGA4,SLIT2,PARD3,NCAM1,ANK3,GFRA1,POU4F1,PRKCA,LRFN2,DPYSL5,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,BAIAP2,EVL,PDLIM7,SRC
GO:0048812	neuron projection morphogenesis	5.00E-06	DTNBP1,GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,BMP7,STK24,PTPRS,MAG,CUX2,UNC5A,WNT5A,PLXNA1,SPTBN1,STK25,EPHA4,DOCK7,TNFRSF8,OBSL1,PLCG1,LRFN1,OLFM1,NGF,DAB2IP,SPTBN5,ZNF365,GRB7,CNTN4,GOLGA4,SLIT2,PARD3,NCAM1,ANK3,GFRA1,POU4F1,FARP1,PRKCA,LRFN2,DPYSL5,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,CHRNA7,BAIAP2,EPHB3,EVL,PDLIM7,SRC,SMURF1,CUX1

GO:0000904	cell morphogenesis involved in differentiation	<p>GPC1,NTN1,CTNNA2,NTN4,SEMA3C,FBLN1,ITGA8,GSK3B,GRHL2,EZR,PTPRS,MAG,CUX2,UNC5A,WNT5A,PLXNA1,ITGA4,SPTBN1,EPHA4,DOCK7,TNFRSF8,OB BSL1,PLCG1,LRFN1,OLFM1,NGF,SPTBN5,ZNF365,TBCD,GRB7,EPHA2,CNTN4,GOLGA4,SLIT2,PAR3,NCAM1,ANK3,GFRA1,POU4F1,FARP1,PRKCA,LRFN2,DP 5.10E-06 YSL5,RADIL,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,CHRNA7,BAIAP2,ZFPM1,EPHB3,TACSTD2,EVL,PDLIM7,SRC,CUX1</p>
GO:0120039	plasma membrane bounded cell projection morphogenesis	<p>DTNBP1,GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,BMP7,STK24,PTPRS,MAG,CUX2,UNC5A,WNT5A,PLXNA1,SPTBN1,STK25,EPHA4,DOCK7,TNFRSF8, OBSL1,PLCG1,VIL1,LRFN1,OLFM1,NGF,DAB2IP,SPTBN5,ZNF365,GRB7,CNTN4,GOLGA4,SLIT2,PAR3,NCAM1,ANK3,GFRA1,POU4F1,FARP1,PRKCA,LRFN2,D 5.88E-06 PYSL5,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,CHRNA7,BAIAP2,EPHB3,EVL,PDLIM7,SRC,SMURF1,CUX1</p>
GO:0016331	morphogenesis of embryonic epithelium	5.93E-06 WNT16,GRHL2,KDM2B,TGFB2,BMP7,WNT5A,MTHFD1L,SOX9,SIX1,TFAP2A,PRICKLE1,OSR1,SKI,VANGL2,DLCL1,GDNF,WNT7B
GO:0001657	ureteric bud development	7.05E-06 FOXC1,BMP7,SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,FOXJ1,OSR1,SLIT2,GDNF,SIX2,TACSTD2,WT1
GO:0048858	cell projection morphogenesis	<p>DTNBP1,GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,BMP7,STK24,PTPRS,MAG,CUX2,UNC5A,WNT5A,PLXNA1,SPTBN1,STK25,EPHA4,DOCK7,TNFRSF8, OBSL1,PLCG1,VIL1,LRFN1,OLFM1,NGF,DAB2IP,SPTBN5,ZNF365,GRB7,CNTN4,GOLGA4,SLIT2,PAR3,NCAM1,ANK3,GFRA1,POU4F1,FARP1,PRKCA,LRFN2,D 7.31E-06 PYSL5,AUTS2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,CHRNA7,BAIAP2,EPHB3,EVL,PDLIM7,SRC,SMURF1,CUX1</p>
GO:0016055	Wnt signaling pathway	<p>WNT16,CDK14,CDH3,CBFB,TNRC6C,GSK3B,ANKRD10,SALL1,SFRP1,CAV1,SFRP4,WNT3,SLC9A3R1,WNT5B,MDF1,TBX18,WNT5A,APC2,WNT6,SFRP5,WNT1, SOX9,SMARCA4,NFATC1,DAB2IP,PLCB2,PRICKLE1,NKD1,RBMS3,SFRP2,EGFR,RSPO2,DIXDC1,TCF7L1,HHEX,NR4A2,APCDD1,SKI,RUNX1,PRICKLE2,NXN,AXIN 8.48E-06 2,ROR2,HOXB9,RARG,HIC1,TBL1XR1,NKX2-5,ZNRF3,WWOX,WNT7B,SMURF1,LGR4</p>
GO:0043583	ear development	9.30E-06 KCNQ1,TGFB2,SALL1,ESRRB,TWIST1,SOX9,SIX1,GSC,TFAP2A,OSR1,ZIC1,OSR2,CHD7,TMIE,NEUROG1,TBX1,ROR1,HESS
GO:0072163	mesonephric epithelium development	9.30E-06 FOXC1,BMP7,SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,FOXJ1,OSR1,SLIT2,GDNF,SIX2,TACSTD2,WT1

GO:0072164	mesonephric tubule development	9.30E-06	FOXC1,BMP7,SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,FOXJ1,OSR1,SLIT2,GDNF,SIX2,TACSTD2,WT1
GO:0198738	cell-cell signaling by wnt	9.40E-06	WNT16,CDK14,CDH3,CBFB,TNRC6C,GSK3B,ANKRD10,SALL1,SFRP1,CAV1,SFRP4,WNT3,SLC9A3R1,WNT5B,MDFI,TBX18,WNT5A,APC2,WNT6,SFRP5,WNT1,SOX9,SMARCA4,NFATC1,DAB2IP,PLCB2,PRICKLE1,NKD1,RBMS3,SFRP2,EGFR,RSPO2,DIXDC1,TCF7L1,HHEX,NR4A2,APCDD1,SKI,RUNX1,PRICKLE2,NXN,AXIN2,ROR2,HOXB9,RARG,HIC1,TBL1XR1,NKX2-5,ZNRF3,WWOX,WNT7B,SMURF1,LGR4
GO:0060284	regulation of cell development	9.40E-06	CX3CL1,PAX6,IGF1,HDAC9,NTN1,SEMA3C,FBLN1,FGF20,SMARCD3,GSK3B,ADD1,BMP7,STK24,PTPRS,MAG,CPEB3,WNT3,CUX2,WNT5A,PLXNA1,EPHA4,DOCK7,TNFRSF8,OBSL1,TCP11,BMP4,SOX9,SIX1,HOXD3,OLFM1,CASZ1,NGF,DAB2IP,SIX3,ZNF365,ASCL1,DLX1,CNTN4,GOLGA4,SLIT2,SKI,GFI1,PAQR3,NKX6-1,HEYL,CSMD3,CDK5,FBN1,ULK4,SGS14,ZNF804A,AKAP13,DSCAM,LIG4,NR2F1,GAK,NEUROG1,EPHB3,CAMK1D,NKX2-5,TACSTD2,RTN4RL1,HES5,SMURF1,GPR56,CUX1,MIR137
GO:0060322	head development	1.18E-05	FOXC1,CTNNA2,GSK3B,GRHL2,KDM2B,H2AFY2,BMP7,CRISPLD2,SALL1,LHX6,WNT3,ENO3,WNT5A,GNB4,VAX2,DOCK7,WNT1,BMP4,FOXJ1,TBR1,DAB2IP,SIX3,ZNF365,ASCL1,DMRTA2,CNTN4,SLIT2,INA,ZIC1,NR4A2,SSBP3,SKI,LMX1A,PITX2,DLX1,OSR2,OTX2,NDRG2,DDIT4,SLC23A1,CHD7,FOXG1,ERBB4,EPHB3,TBX1,WNT7B,HES5,MBP,GPR56
GO:1905114	cell surface receptor signaling pathway involved in cell-cell signaling	1.38E-05	WNT16,CDK14,CDH3,CBFB,TNRC6C,GSK3B,ANKRD10,SALL1,SFRP1,CAV1,SFRP4,WNT3,SLC9A3R1,WNT5B,CUX2,MDFI,TBX18,WNT5A,APC2,WNT6,SFRP5,WNT1,BMP4,SOX9,SMARCA4,NFATC1,DAB2IP,PLCB2,PRICKLE1,NKD1,RBMS3,SFRP2,EGFR,RSPO2,DIXDC1,TCF7L1,HHEX,NR4A2,APCDD1,SKI,RUNX1,PRICKLE2,NXN,AXIN2,ROR2,HOXB9,RARG,CHRNA7,HIC1,TBL1XR1,NKX2-5,ZNRF3,WWOX,WNT7B,SMURF1,LGR4
GO:0097485	neuron projection guidance	1.43E-05	GPC1,NTN1,NTN4,SEMA3C,EZR,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,TNFRSF8,PLCG1,SPTBN5,GRB7,CNTN4,SLIT2,NCAM1,GFRA1,PRKCA,DPYSL5,SHC1,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,EPHB3,EVL,PDLIM7,SRC
GO:0007411	axon guidance	1.43E-05	GPC1,NTN1,NTN4,SEMA3C,EZR,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,TNFRSF8,PLCG1,SPTBN5,GRB7,CNTN4,SLIT2,NCAM1,GFRA1,PRKCA,DPYSL5,SHC1,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,EPHB3,EVL,PDLIM7,SRC
GO:0032990	cell part morphogenesis	1.44E-05	DTNBP1,GPC1,NTN1,CTNNA2,NTN4,SEMA3C,GSK3B,EZR,BMP7,STK24,PTPRS,MAG,CUX2,UNC5A,WNT5A,PLXNA1,SPTBN1,STK25,EPHA4,DOCK7,TNFRSF8,OBSL1,PLCG1,VIL1,LRFN1,OLFM1,NGF,DAB2IP,SPTBN5,ZNF365,GRB7,CNTN4,GOLGA4,SLIT2,PAR3,NCAM1,ANK3,GFRA1,POU4F1,FARP1,PRKCA,LRFN2,DYRK1A,OTX2,SHC1,CDK5,OTX2,GDNF,ALCAM,DSCAM,PIK3CD,CHRNA7,BAIAP2,EPHB3,EVL,PDLIM7,SRC,SMURF1,CUX1

GO:0045165	cell fate commitment	<p>WNT16,PAX6,POU6F2,WNT3,WNT5B,WNT5A,WNT6,EPAS1,DOCK7,TBX2,WNT1,BMP4,SOX9,PPDPF,GSC,SOX5,DUSP6,ASCL1,RORC,POU4F1,SIX2,GATA2,Z</p> <p>1.44E-05 FPM1,TBX1,WT1,WNT7B,HESS,NOTCH4</p>
GO:0060041	retina development in camera-type eye	<p>1.56E-05 PROM1,TFAP2B,SMARCD3,TGFB2,TSPAN12,TLL5,SOX9,SMARCA4,PDGFRA,TFAP2A,CYP1B1,SIX3,DLX1,MEGF11,SKI,CHD7,DSCAM</p>
GO:0061333	renal tubule morphogenesis	<p>2.08E-05 SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,OSR1,KLHL3,GDNF,SIX2,MTSS1,TACSTD2,WT1</p>
GO:0031076	embryonic camera-type eye development	<p>2.39E-05 WNT16,KDM2B,WNT5A,TBX2,TWIST1,TFAP2A,FOXF2,SIX3,ALDH1A3</p>
GO:0048514	blood vessel morphogenesis	<p>TFAP2B,DCN,FLT4,HDAC9,FOXC1,MYLK,TBX5,TGFB2,SFRP1,CAV1,HOXA3,HOXA5,TSPAN12,SMOC2,FGF1,WNT5A,TCF21,HOXB3,TBX2,TWIST1,PLCG1,BMP</p> <p>4,CHI3L1,LOXL2,PDGFRA,ETS1,GATA4,DAB2IP,THBS1,CYP1B1,EMILIN1,ENPEP,GATA6,EPHA2,RHOB,AGTR1,SLIT2,SFRP2,MTDH,HMGA2,HHEX,PRKCA,RUNX</p> <p>1,PLXDC1,PROK2,ADAMTS9,EMCN,BMPER,HEY1,CHRNA7,GATA2,EGR3,EPHB3,NKX2-</p> <p>2.54E-05 5,TBX1,WT1,WNT7B,NOTCH4,GPR56,MIR130A,GDF2,MIR10A,MIR21,MIR137</p>
GO:0035148	tube formation	<p>2.59E-05 GRHL2,KDM2B,TGFB2,BMP7,MTHFD1L,BMP4,SOX9,SIX1,DAB2IP,PRICKLE1,BCAS3,OSR1,SKI,VANGL2,DLX1,GDNF,ATOH8</p>
GO:0051960	regulation of nervous system development	<p>CX3CL1,PAX6,NTN1,FGF20,SMARCD3,GSK3B,BMP7,STK24,PTPRS,MAG,CPEB3,WNT3,CUX2,WNT5A,PLXNA1,EIF4G1,EPHA4,DOCK7,TNFRSF8,OBSL1,SOX9,S</p> <p>IX1,HOXD3,OLFM1,CASZ1,NGF,DAB2IP,SIX3,ZNF365,ASCL1,DLX1,CNTN4,GOLGA4,SLIT2,SNCA,PARD3,SKI,GF1,PAQR3,HEYL,CSMD3,CDK5,ULK4,RGS14,ZNF</p> <p>2.71E-05 804A,DSCAM,LIG4,NR2F1,GAK,NEUROG1,EPHB3,CAMK1D,NKX2-5,RTN4RL1,AGRN,HESS,SMURF1,GPR56,CUX1,MIR137</p>
GO:0001503	ossification	<p>IGF1,RUNX3,FOXC1,TGFB2,BMP7,XYL1,SFRP1,DLX5,SUFU,WNT3,ZBTB16,WNT5A,TWIST1,BMP4,SOX9,RRBP1,TFAP2A,SMAD6,BMPR1B,EPHA2,OSR1,EGF</p> <p>2.75E-05 R,SKI,RUNX1,ALOX15,OSR2,AXIN2,EXT1,SLC8A1,TMEM119,ZBTB40,WNT7B,COL13A1,SMOC1,LGR4,GDF2,MIR21</p>

GO:0060993	kidney morphogenesis	2.87E-05 SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,FOXJ1,OSR1,KLHL3,GDNF,SIX2,TACSTD2,WT1,WNT7B
GO:0050767	regulation of neurogenesis	CX3CL1,PAX6,NTN1,FGF20,SMARCD3,GSK3B,BMP7,STK24,PTPRS,MAG,CPEB3,WNT3,CUX2,WNT5A,PLXNA1,EPHA4,DOCK7,TNFRSF8,OBSL1,SOX9,SIX1,HOXD3,OLFM1,CASZ1,NGF,DAB2IP,SIX3,ZNF365,ASCL1,DLX1,CNTN4,GOLGA4,SLIT2,SKI,GF11,PAQR3,HEYL,CSMD3,CDK5,ULK4,RGS14,ZNF804A,DSCAM,LIG4, NR2F1,GAK,NEUROG1,EPHB3,CAMK1D,NKX2-5,RTN4RL1,HESS,SMURF1,GPR56,CUX1,MIR137 2.97E-05
GO:0042471	ear morphogenesis	3.39E-05 SALL1,TWIST1,SOX9,SIX1,GSC,TFAP2A,OSR1,ZIC1,OSR2,CHD7,TMIE,NEUROG1,TBX1
GO:0007417	central nervous system development	PAX6,FOXC1,CTNNA2,GSK3B,GRHL2,KDM2B,H2AFY2,BMP7,SALL1,POU6F2,LHX6,WNT3,ENO3,ZBTB16,WNT5A,GNB4,VAX2,EPHA4,DOCK7,CHST8,WNT1,BMP4,FOXJ1,TBR1,DAB2IP,TFAP2A,SIX3,ZNF365,ASCL1,DMRTA2,CNTN4,SLIT2,INA,PRDM8,ZIC1,NR4A2,SKI,LMX1A,PITX2,DLX1,CDK5,OTX2,NDRG2,DDIT4,GDNF,SLC23A1,NPAS2,CHD7,LIG4,FOXG1,ERBB4,EPHB3,TBX1,CYP26C1,DNER,WNT7B,SRC,HESS,MBP,POU3F3,GPR56 3.39E-05
GO:0060411	cardiac septum morphogenesis	3.70E-05 SEMA3C,TGFB2,BMP7,TBX2,BMP4,GATA4,SMAD6,GATA6,SLIT2,HEYL,HEY1,ZFPM2,ZFPM1,NKX2-5,TBX1
GO:0071559	response to transforming growth factor beta	RUNX3,LTBP1,HYAL2,LTBP4,TGFB2,SFRP1,CAV1,GCNT2,WNT5A,FMOD,SOX9,SOX5,TGFBRAP1,THBS1,SMAD6,EMILIN1,ZFH3,PRDM16,DLX1,PARD3,PTPRK,SKI,FBN1,SMAD3,VASN,ADAM9,WFIKKN2,WWOX,BCL9L,PDE2A,SRC,SMURF1,MIR21 3.88E-05
GO:0009952	anterior/posterior pattern specification	3.94E-05 KDM2B,LFNG,TBX18,BMP4,HOXD3,GATA4,NKD1,OSR1,HHEX,SKI,CDX2,OTX2,SIX2,NEUROG1,TBX1,WT1,CYP26C1
GO:0072078	nephron tubule morphogenesis	4.59E-05 SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,OSR1,KLHL3,GDNF,SIX2,TACSTD2,WT1

GO:0071772	response to BMP	TFAP2B,TGFB2,BMP7,ZNF423,SFRP1,DLX5,SFRP4,WNT1,BMP4,SOX9,GDF1,SMAD6,BMPR1B,PCSK6,GATA6,GDF7,DLX1,GDF6,SKI,BMPER,FBN1,RGMA,HES 4.96E-05 5,SMURF1,GDF2,MIR21
GO:0071773	cellular response to BMP stimulus	TFAP2B,TGFB2,BMP7,ZNF423,SFRP1,DLX5,SFRP4,WNT1,BMP4,SOX9,GDF1,SMAD6,BMPR1B,PCSK6,GATA6,GDF7,DLX1,GDF6,SKI,BMPER,FBN1,RGMA,HES 4.96E-05 5,SMURF1,GDF2,MIR21
GO:0045664	regulation of neuron differentiation	CX3CL1,NTN1,FGF20,GSK3B,BMP7,STK24,PTPRS,MAG,CPEB3,CUX2,WNT5A,PLXNA1,EPHA4,TNFRSF8,OBSL1,SOX9,SIX1,HOXD3,OLFM1,CASZ1,NGF,DAB2IP, SIX3,ZNF365,ASCL1,DLX1,CNTN4,GOLGA4,SLIT2,GF1,PAQR3,HEYL,CSMD3,CDK5,ULK4,ZNF804A,DSCAM,NR2F1,GAK,NEUROG1,EPHB3,CAMK1D,NKX2- 5.60E-05 5,RTN4RL1,HES5,SMURF1,CUX1,MIR137
GO:0048754	branching morphogenesis of an epithelial tube	5.60E-05 FGF10,SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,EPHA2,SLIT2,SFRP2,GDNF,SIX2,TACSTD2,WT1,NOTCH4,GDF2
GO:0010721	negative regulation of cell development	CX3CL1,PAX6,IGF1,FBLN1,GSK3B,BMP7,PTPRS,MAG,EPHA4,TNFRSF8,SOX9,SIX3,ZNF365,ASCL1,DLX1,CNTN4,SLIT2,SKI,GF1,PAQR3,FBN1,NR2F1,GAK,TACS 6.99E-05 TD2,RTN4RL1,HES5,GPR56,MIR137
GO:0003407	neural retina development	7.73E-05 PROM1,TFAP2B,SMARCD3,TGFB2,TSPAN12,SOX9,SMARCA4,TFAP2A,SIX3,DLX1,MEGF11,DSCAM
GO:0048596	embryonic camera-type eye morphogenesis	7.91E-05 WNT16,KDM2B,WNT5A,TBX2,TWIST1,TFAP2A,FOXF2,SIX3
GO:0072028	nephron morphogenesis	8.34E-05 SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,OSR1,KLHL3,GDNF,SIX2,TACSTD2,WT1

GO:0003179	heart valve morphogenesis	8.34E-05	TGFB2,TWIST1,BMP4,SOX9,OLFM1,GATA4,SMAD6,EMILIN1,SLIT2,ADAMTS9,HEYL,HEY1,ZFPM1
GO:0072088	nephron epithelium morphogenesis	8.34E-05	SALL1,FGF1,TCF21,BMP4,SOX9,WNK4,SIX1,OSR1,KLHL3,GDNF,SIX2,TACSTD2,WT1
GO:0001667	ameboidal-type cell migration	9.64E-05	DCN,FLT4,HDAC9,HYAL2,FGF10,SCARB1,SEMA3C,TGFB2,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,ITGA4,PKN1,PLCG1,BMP4,SOX9,VIL1,LOXL2,ETS1,DAB2IP,T HBS1,CYP1B1,BCAS3,EPHA2,RAB13,RHOB,SLIT2,GNA12,PRKCA,ADAMTS9,PITX2,BMPEP,ADAM9,GDNF,ATOX8,ZEB2,ERBB4,GATA2,EGR3,TBX1,TACSTD2,E VL,SRC,GDF2,MIR10A,MIR21,MIR137
GO:0060349	bone morphogenesis	1.06E-04	FOXC1,DLX5,SFRP4,TWIST1,BMP4,SOX9,TFAP2A,BMPR1B,SKI,OSR2,NEUROG1,COL13A1
GO:0010717	regulation of epithelial to mesenchymal transition	1.10E-04	PHLDB1,FOXC1,TBX5,TGFB2,SFRP1,EZH2,GCNT2,TWIST1,OLFM1,LOXL2,DAB2IP,PHLDB2,SFRP2,SMAD3,VASN,AXIN2,ALX1,BCL9L,MIR21
GO:0050768	negative regulation of neurogenesis	1.37E-04	CX3CL1,PAX6,GSK3B,BMP7,PTPRS,MAG,EPHA4,TNFRSF8,SOX9,SIX3,ZNF365,ASCL1,DLX1,CNTN4,SLIT2,SKI,GF1,PAQR3,NR2F1,GAK,RTN4RL1,HESS,GPR56, MIR137
GO:0007420	brain development	1.37E-04	FOXC1,CTNNA2,GSK3B,GRHL2,KDM2B,H2AFY2,BMP7,SALL1,LHX6,WNT3,ENO3,WNT5A,GNB4,VAX2,DOCK7,WNT1,BMP4,FOXJ1,TBR1,DAB2IP,SIX3,ZNF36 5,ASCL1,DMRTA2,CNTN4,SLIT2,INA,ZIC1,NR4A2,SKI,LMX1A,PITX2,DLX1,OTX2,NDRG2,DDIT4,SLC23A1,FOXP1,ERBB4,EPHB3,WNT7B,HESS,MBP,GPR56
GO:0061138	morphogenesis of a branching epithelium	1.37E-04	FGF10,SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,EPHA2,SLIT2,SFRP2,GDNF,SIX2,TACSTD2,WT1,NOTCH4,GDF2



GO:0071560	cellular response to transforming growth factor beta stimulus	1.37E-04	LTBP1, HYAL2, LTBP4, TGFB2, SFRP1, CAV1, GCNT2, WNT5A, FMOD, SOX9, SOX5, TGFBRAP1, THBS1, SMAD6, EMILIN1, PRDM16, DLX1, PARD3, PTPRK, SKI, FBN1, SMAD3, VASN, ADAM9, WFIKKN2, WWOX, BCL9L, PDE2A, SRC, SMURF1, MIR21
GO:0001763	morphogenesis of a branching structure	1.38E-04	FGF10, SALL1, FGF1, TCF21, BMP4, SOX9, SIX1, EPHA2, SLIT2, SFRP2, GDNF, SIX2, TACSTD2, WT1, COL13A1, NOTCH4, GDF2
GO:0003205	cardiac chamber development	1.38E-04	SEMA3C, TBX5, TGFB2, BMP7, SALL1, TNNT2, TBX2, BMP4, GATA4, SMAD6, GATA6, SLIT2, ANK2, SFRP2, HEYL, HEY1, ZFPM2, ZFPM1, NKX2-5, TBX1
GO:0030326	embryonic limb morphogenesis	1.38E-04	TBX5, TGFB2, SALL1, TBX2, TWIST1, TFAP2A, OSR1, AFF3, CACNA1C, SKI, OSR2, RARG
GO:0035113	embryonic appendage morphogenesis	1.38E-04	TBX5, TGFB2, SALL1, TBX2, TWIST1, TFAP2A, OSR1, AFF3, CACNA1C, SKI, OSR2, RARG
GO:0003170	heart valve development	1.42E-04	TGFB2, TWIST1, BMP4, SOX9, OLFM1, GATA4, SMAD6, EMILIN1, SLIT2, ADAMTS9, HEYL, HEY1, ZFPM1
GO:0090092	regulation of transmembrane receptor protein serine/threonine kinase signaling path	1.46E-04	TFAP2B, LTBP1, LTBP4, TGFB2, BMP7, ZNF423, CAV1, SFRP4, WNT1, BMP4, GDF1, FST, THBS1, SMAD6, EMILIN1, PCSK6, GATA6, PRDM16, GDF7, DLX1, GDF6, SKI, BMPER, FBN1, SMAD3, VASN, WFIKKN2, BCL9L, HES5, SMURF1, GDF2
GO:0090287	regulation of cellular response to growth factor stimulus	1.76E-04	T2, HHHEX, SKI, BMPER, OTX2, FBN1, SMAD3, VASN, WFIKKN2, BCL9L, HES5, SMURF1, MIR10A

GO:0051961	negative regulation of nervous system development	CX3CL1,PAX6,GSK3B,BMP7,PTPRS,MAG,WNT5A,EPHA4,TNFRSF8,SOX9,SIX3,ZNF365,ASCL1,DLX1,CNTN4,SLIT2,SKI,GFI1,PAQR3,NR2F1,GAK,RTN4RL1,HES5 1.85E-04 ,GPR56,MIR137
GO:0001525	angiogenesis	DCN,FLT4,HDAC9,FOXC1,TGFB2,SFRP1,HOXA3,HOXA5,TSPAN12,SMOC2,FGF1,WNT5A,TCF21,HOXB3,TWIST1,PLCG1,BMP4,CHI3L1,LOXL2,PDGFRA,ETS1,G ATA4,DAB2IP,THBS1,CYP1B1,EMILIN1,ENPEP,GATA6,EPHA2,RHOB,AGTR1,SLIT2,SFRP2,MTDH,HMGA2,HHEX,PRKCA,RUNX1,PLXDC1,PROK2,ADAMTS9,EM 1.87E-04 CN,BMPER,HEY1,CHRNA7,GATA2,EGR3,EPHB3,TBX1,NOTCH4,GPR56,MIR130A,GDF2,MIR10A,MIR21,MIR137
GO:0030509	BMP signaling pathway	TFAP2B,TGFB2,BMP7,ZNF423,DLX5,SFRP4,WNT1,BMP4,GDF1,SMAD6,BMPR1B,PCSK6,GATA6,GDF7,DLX1,GDF6,SKI,BMPER,FBN1,RGMA,HES5,SMURF1,G 1.90E-04 DF2,MIR21
GO:0055123	digestive system development	1.97E-04 RARB,TGFB2,SALL1,RARRES2,TCF21,SFRP5,TBX2,PPDPF,BARX1,PDGFRA,GATA4,FOXF2,GATA6,CDX2,SIX2,EPHB3
GO:0060537	muscle tissue development	IGF1,HDAC9,GPC1,MYLK,TP73,TBX5,TGFB2,BMP7,CAV2,CAV1,TNNT2,TCF21,TBX2,OBSL1,BMP4,SIX1,PDGFRA,CHRND,OSR1,SORBS2,SKI,ADAMTS9,ZFPM2, 2.20E-04 SGCD,AKAP13,ERBB4,ZFPM1,SLC8A1,NKX2-5,TBX1,WT1,MKL2
GO:0061035	regulation of cartilage development	2.32E-04 SCIN,TRPS1,NKX3-2,ZBTB16,BMP4,SOX9,LOXL2,SOX5,BMPR1B,GDF6,MIR21
GO:0030111	regulation of Wnt signaling pathway	CDK14,CBFB,GSK3B,ANKRD10,SALL1,SFRP1,CAV1,SFRP4,SLC9A3R1,MDF1,TBX18,WNT5A,APC2,SFRP5,SOX9,SMARCA4,NFATC1,DAB2IP,PRICKLE1,NKD1,RB 2.58E-04 MS3,SFRP2,EGFR,RSPO2,DIXDC1,TCF7L1,HHEX,APCDD1,SKI,RUNX1,NXN,AXIN2,HIC1,TBL1XR1,NKX2-5,ZNRF3,WWOX,LGR4
GO:0003206	cardiac chamber morphogenesis	2.68E-04 SEMA3C,TBX5,TGFB2,BMP7,TNNT2,TBX2,BMP4,GATA4,SMAD6,GATA6,SLIT2,SFRP2,HEY1,HEY1,ZFPM2,ZFPM1,NKX2-5,TBX1

GO:0048706	embryonic skeletal system development	3.31E-04	XYLT1,WNT5A,MTHFD1L,TWIST1,SIX1,HOXD3,PDGFRA,TFAP2A,COL2A1,OSR1,OSR2,TBX1
GO:0043062	extracellular structure organization	3.31E-04	DCN,PHLDB1,SOAT1,SCARB1,ITGA8,NID2,TGFB2,BMP7,ICAM4,SPOCK2,SH3PXD2A,ICAM2,APOC3,VWF,COL12A1,LAMA4,ITGA4,LOXL2,FOXF2,THBS1,CYP1B1,EMILIN1,COL2A1,ADAM15,COL8A1,PHLDB2,AGTR1,SERPINH1,ABCA5,SCUBE1,ABCG1,ADAMTS9,HTRA1,LIPC,FBN1,SMAD3,TNXB,LPL,WT1,AGRN,LAMB3,COL13A1,PECAM1
GO:0072175	epithelial tube formation	3.50E-04	GRHL2,KDM2B,TGFB2,BMP7,MTHFD1L,BMP4,SOX9,SIX1,PRICKLE1,OSR1,SKI,VANGL2,DLC1,GDNF
GO:0048704	embryonic skeletal system morphogenesis	3.95E-04	MTHFD1L,TWIST1,SIX1,HOXD3,PDGFRA,TFAP2A,COL2A1,OSR1,OSR2,TBX1
GO:0061061	muscle structure development	4.29E-04	IGF1,HDAC9,GPC1,MYLK,CTNNA2,HDAC4,TP73,TBX5,NOS1,TGFB2,CAV2,CAV1,EPAS1,TNNT2,TCF21,TBX2,OBSL1,BMP4,SOX9,SIX1,NFATC1,PDGFRA,CHRND,TMOD3,PRICKLE1,BNIP2,NKD1,GATA6,ANK2,OBSCN,SORBS2,SKI,FBXO40,HEY1,VAMP5,ZFPM2,SGCD,AKAP13,ERBB4,EGR3,ZFPM1,NEUROG1,SLC8A1,NKX2-5,TBX1,WT1,MKL2,TEAD4,MYBPHL,MIR21
GO:0072171	mesonephric tubule morphogenesis	4.39E-04	SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,OSR1,GDNF,SIX2,TACSTD2,WT1
GO:0003007	heart morphogenesis	4.65E-04	SEMA3C,TBX5,TGFB2,BMP7,TNNT2,TBX2,BMP4,SOX9,OLFM1,GATA4,SMAD6,GATA6,SLIT2,SFRP2,VANGL2,HEY1,PITX2,HAND2,HEY1,DLC1,ZFPM2,INSR,CHD7,ZFPM1,NKX2-5,TBX1,MIR21
GO:0051890	regulation of cardioblast differentiation	5.02E-04	TBX5,TGFB2,GATA4,PRICKLE1,NKX2-5

GO:0014706	striated muscle tissue development	IGF1,HDAC9,GPC1,TP73,TBX5,TGFB2,BMP7,CAV2,CAV1,TNNT2,TCF21,TBX2,OBSL1,BMP4,SIX1,PDGFRA,CHRND,SORBS2,SKI,ADAMTS9,ZFPM2,SGCD,AKAP 5.05E-04 13,ERBB4,ZFPM1,SLC8A1,NKX2-5,TBX1,WT1,MKL2
GO:0001838	embryonic epithelial tube formation	5.05E-04 GRHL2,KDM2B,TGFB2,BMP7,MTHFD1L,SOX9,SIX1,PRICKLE1,OSR1,SKI,VANGL2,DLC1,GDNF
GO:0048732	gland development	TG,FGF10,TGFB2,SALL1,CAV1,WNT3,SLC9A3R1,TCF21,SOX9,PPDPF,SIX1,HOXD3,SIX3,EPHA2,ARID5B,PITX2,HAND2,ERBB4,EPHB3,NKX2- 5.23E-04 5,TBX1,WT1,WNT7B,NOTCH4
GO:0030178	negative regulation of Wnt signaling pathway	GSK3B,SFRP1,CAV1,SFRP4,SLC9A3R1,MDFI,TBX18,WNT5A,APC,SFRP5,SOX9,NFATC1,DAB2IP,PRICKLE1,NKD1,RBMS3,SFRP2,APCDD1,NXN,AXIN2,HIC1,NK 5.94E-04 X2-5,ZNRF3,WWOX
GO:0003148	outflow tract septum morphogenesis	6.26E-04 SEMA3C,TGFB2,TBX2,BMP4,SMAD6,GATA6,ZFPM2,NKX2-5,TBX1
GO:0032330	regulation of chondrocyte differentiation	6.26E-04 SCIN,TRPS1,NKX3-2,ZBTB16,SOX9,LOXL2,SOX5,BMPR1B,GDF6
GO:0035051	cardiocyte differentiation	6.26E-04 IGF1,SEMA3C,TBX5,TGFB2,TBX2,OBSL1,BMP4,PDGFRA,GATA4,PRICKLE1,GATA6,EGFR,SORBS2,PITX2,HAND2,AKAP13,SLC8A1,NKX2-5,WT1,MIR21
GO:0090132	epithelium migration	DCN,FLT4,HDAC9,FGF10,SCARB1,GRHL2,TGFB2,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,PKN1,PLCG1,BMP4,SOX9,VIL1,LOXL2,ETS1,DAB2IP,THBS1,CYP1B1,B 6.28E-04 CAS3,EPHA2,RAB13,RHOB,SLIT2,PRKCA,ADAMTS9,BMPER,ADAM9,ATOX8,ZEB2,GATA2,EGR3,TACSTD2,EVL,SRC,GDF2,MIR10A,MIR21,MIR137

GO:0003151	outflow tract morphogenesis	6.51E-04	SEMA3C,TGFB2,TBX2,BMP4,SMAD6,GATA6,SFRP2,HEYL,PITX2,HAND2,ZFPM2,ZFPM1,NKX2-5,TBX1
GO:0045444	fat cell differentiation	6.51E-04	TFAP2B,TRIO,SFRP1,RARRES2,ZBTB16,WNT5B,WNT5A,NR4A3,BBS9,WNT1,SMAD6,PRDM16,RORC,SFRP2,HMGA2,NR4A2,GDF6,ZNF385A,SMAD3,ZFPM2,CTBP2,GATA2,ZFPM1,MIR21
GO:0050673	epithelial cell proliferation	7.29E-04	WNT16,IGF1,RUNX3,FLT4,CDH3,FGF10,TGFB2,SFRP1,CAV2,CAV1,WNT5A,ITGA4,NR4A3,PLCG1,BMP4,SOX9,LOXL2,DAB2IP,THBS1,EPHA2,OSR1,AGTR1,SFRP2,EGFR,PTPRK,PRKCA,NKX6-1,BMPER,OSR2,ATOH8,KRT4,MTSS1,GATA2,EGR3,TBX1,MIR130A,GDF2,MIR10A,MIR21
GO:0060021	roof of mouth development	7.45E-04	TGFB2,WNT5A,TCF21,TFAP2A,FOXF2,OSR1,SKI,OSR2,CHD7,EPHB3,TBX1
GO:0090130	tissue migration	8.28E-04	DCN,FLT4,HDAC9,FGF10,SCARB1,GRHL2,TGFB2,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,PKN1,PLCG1,BMP4,SOX9,VIL1,LOXL2,ETS1,DAB2IP,THBS1,CYP1B1,BCAS3,EPHA2,RAB13,RHOB,SLIT2,PRKCA,ADAMTS9,BMPER,ADAM9,ATOH8,ZEB2,GATA2,EGR3,TACSTD2,EVL,SRC,GDF2,MIR10A,MIR21,MIR137
GO:0060428	lung epithelium development	8.31E-04	FGF10,GRHL2,ERRF1,BMP4,FOXJ1,ASCL1,WNT7B
GO:0030278	regulation of ossification	8.32E-04	IGF1,TGFB2,BMP7,SFRP1,SUFU,ZBTB16,WNT5A,TWIST1,BMP4,SOX9,TFAP2A,SMAD6,BMPR1B,OSR1,SKI,OSR2,AXIN2,SLC8A1,TMEM119,WNT7B,SMOC1,MIR21
GO:0086001	cardiac muscle cell action potential	8.46E-04	CACNA1G,KCNQ1,KCNH2,KCNN2,CAV1,KCNJ8,ANK2,CACNA1C,ANK3,CACNA1D,SLMAP,KCND3,KCNE3,SLC8A1,CTNNA3,NOS1AP

GO:0072089	stem cell proliferation	8.46E-04	FBLN1,SMARCD3,MECOM,WNT3,WNT5A,DOCK7,SOX5,SIX3,SFRP2,HMGA2,RUNX1,ACE,SIX2,ZNRF3,WNT7B,MIR137
GO:0003401	axis elongation	8.73E-04	FGF10,FGF1,BMP4,SOX9,SIX1,NKD1
GO:0030856	regulation of epithelial cell differentiation	8.97E-04	PROM1,FOXC1,CBFB,GSK3B,GRHL2,ADD1,H2AFY2,CAV1,SFRP4,ERRF1,BMP4,SOX9,FOXJ1,OSR1,RUNX1,NKX6-1,ATOH8,NOTCH4,MIR10A,MIR21
GO:0045778	positive regulation of ossification	9.34E-04	IGF1,TGFB2,BMP7,ZBTB16,WNT5A,BMP4,TFAP2A,BMPR1B,OSR1,OSR2,SLC8A1,TMEM119,WNT7B,MIR21
GO:0003281	ventricular septum development	9.39E-04	TBX5,TGFB2,SALL1,BMP4,GATA4,SLIT2,HEY1,HEY1,ZFPM2,ZFPM1,NKX2-5
GO:0071542	dopaminergic neuron differentiation	9.44E-04	FGF20,GSK3B,WNT3,WNT5A,WNT1,LMX1B,NR4A2,LMX1A,EN1,OTX2
GO:0001658	branching involved in ureteric bud morphogenesis	9.44E-04	SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,GDNF,SIX2,TACSTD2,WT1
GO:0051891	positive regulation of cardioblast differentiation	1.07E-03	TBX5,TGFB2,GATA4,NKX2-5

GO:0010631	epithelial cell migration	DCN,FLT4,HDAC9,FGF10,SCARB1,TGFB2,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,PKN1,PLCG1,BMP4,SOX9,VIL1,LOXL2,ETS1,DAB2IP,THBS1,CYP1B1,BCAS3,E 1.07E-03 PHA2,RAB13,RHOB,SLIT2,PRKCA,ADAMTS9,BMPER,ADAM9,ATOH8,ZEB2,GATA2,EGR3,TACSTD2,EVL,SRC,GDF2,MIR10A,MIR21,MIR137
GO:0032835	glomerulus development	1.07E-03 PROM1,FOXC1,BMP7,TCF21,BMP4,FOXJ1,PDGFRA,ENPEP,OSR1,MTSS1,WT1,PECAM1
GO:0048839	inner ear development	1.12E-03 KCNQ1,TGFB2,ESRRB,SOX9,SIX1,TFAP2A,ZIC1,CHD7,TMIE,NEUROG1,TBX1,ROR1,HES5
GO:0045665	negative regulation of neuron differentiation	1.19E-03 GSK3B,BMP7,PTPRS,MAG,EPHA4,TNFRSF8,SOX9,SIX3,ZNF365,ASCL1,DLX1,CNTN4,SLIT2,GFI1,PAQR3,NR2F1,GAK,RTN4RL1,HES5
GO:0045995	regulation of embryonic development	1.19E-03 IGF1,PHLDB1,LFNG,TBX18,TBX2,WNT1,SIX1,DUSP6,NKD1,OSR1,PHLDB2,SFRP2,CDX2,OTX2,GDNF,INSR,MBP
GO:1905330	regulation of morphogenesis of an epithelium	1.20E-03 FGF1,WNT5A,FOXP1,TBX2,WNT1,BMP4,SOX9,SIX1,PRICKLE1,NKD1,PHLDB2,PRICKLE2,GDNF,ROR2,SIX2,TACSTD2,SMURF1,MIR21
GO:0045766	positive regulation of angiogenesis	HDAC9,SMOC2,FGF1,WNT5A,TWIST1,PLCG1,CHI3L1,ETS1,GATA4,THBS1,CYP1B1,GATA6,RHOB,AGTR1,SFRP2,MTDH,HMGA2,PRKCA,RUNX1,BMPER,CHRN 1.20E-03 A7,GATA2,MIR130A,GDF2,MIR10A,MIR21
GO:0072012	glomerulus vasculature development	1.30E-03 BMP7,TCF21,BMP4,PDGFRA,OSR1,WT1,PECAM1

GO:0035137	hindlimb morphogenesis	1.30E-03 TFAP2B,OSR1,AFF3,OSR2,RARG
GO:0060602	branch elongation of an epithelium	1.30E-03 FGF10,FGF1,BMP4,SOX9,SIX1
GO:0048565	digestive tract development	1.31E-03 RARB,TGFB2,SALL1,RARRES2,TCF21,SFRP5,TBX2,PDGFRA,GATA4,FOXF2,GATA6,CDX2,SIX2,EPHB3
GO:0010718	positive regulation of epithelial to mesenchymal transition	1.31E-03 FOXC1,TGFB2,EZH2,GCNT2,TWIST1,OLFM1,LOXL2,SMAD3,AXIN2,ALX1,BCL9L,MIR21
GO:0010959	regulation of metal ion transport	1.31E-03 CX3CL1,CD4,KCNQ1,KCNH2,MYLK,GNB5,KCNN2,TESC,NOS1,TF,CAV1,SLC9A3R1,STIM2,P2RX3,PDE4D,FKBP1B,KCNS1,PLCG1,WNK4,UBQLN1,TRPC3,OSR1,S NCA,ANK2,CACNA1C,ANK3,CNKSR3,CACNA1D,SLMAP,P2RY6,KCNE3,KCNIP1,SLC8A1,NKX2-5,KCNIP4,NKAIN2,NOS1AP,MIR21
GO:0060560	developmental growth involved in morphogenesis	1.35E-03 NTN1,FGF10,GSK3B,SALL1,PTPRS,MAG,FGF1,PLXNA1,BMP4,SOX9,SIX1,OLFM1,NKD1,GOLGA4,SLIT2,AUTS2,CDK5,ALCAM,DSCAM,WNT7B,SMURF1
GO:0048589	developmental growth	1.41E-03 IGF1,NTN1,FGF10,TP73,GSK3B,TBX5,TGFB2,SALL1,PTPRS,MAG,FGF1,PLXNA1,TBX2,BMP4,SOX9,SIX1,OLFM1,CHRND,BMPR1B,DUSP6,NKD1,GOLGA4,SLIT2 ,SORBS2,AUTS2,CDK5,ALCAM,INSR,DSCAM,STAT5B,ERBB4,WT1,WNT7B,AGRN,SMURF1
GO:0032332	positive regulation of chondrocyte differentiation	1.56E-03 ZBTB16,SOX9,LOXL2,SOX5,BMPR1B,GDF6



GO:0035136	forelimb morphogenesis	1.56E-03	TFAP2B,TBX5,TFAP2A,OSR1,CACNA1C,OSR2
GO:0060675	ureteric bud morphogenesis	1.59E-03	SALL1,FGF1,TCF21,BMP4,SOX9,SIX1,GDNF,SIX2,TACSTD2,WT1
GO:0030510	regulation of BMP signaling pathway	1.88E-03	TFAP2B,ZNF423,SFRP4,WNT1,BMP4,SMAD6,PCSK6,GATA6,DLX1,SKI,BMPER,FBN1,HES5,SMURF1
GO:0048566	embryonic digestive tract development	1.90E-03	RARB,TGFB2,SALL1,RARRES2,TCF21,PDGFRA,FOXF2,SIX2
GO:0003015	heart process	1.94E-03	CACNA1G,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,TBX2,KCNJ8,ITPR2,EDN3,ANK2,CACNA1C,CACNA1D,ACE,SG CD,AKAP13,KCND3,KCNE3,SLC8A1,NKX2-5,CTNNA3,RNLS,SRC,NOS1AP
GO:0061440	kidney vasculature development	1.98E-03	BMP7,TCF21,BMP4,PDGFRA,OSR1,WT1,PECAM1
GO:0061437	renal system vasculature development	1.98E-03	BMP7,TCF21,BMP4,PDGFRA,OSR1,WT1,PECAM1
GO:0003338	metanephros morphogenesis	1.98E-03	SALL1,BMP4,SOX9,FOXJ1,SIX2,WT1,WNT7B

GO:0010634	positive regulation of epithelial cell migration	2.19E-03	FLT4,HDAC9,FGF10,SCARB1,TGFB2,SMOC2,FGF1,WNT5A,FOXP1,PLCG1,BMP4,SOX9,VIL1,ETS1,THBS1,BCAS3,RHOB,PRKCA,ADAM9,ATOH8,GATA2,SRC,MIR21
GO:2000027	regulation of animal organ morphogenesis	2.42E-03	SEMA3C,TGFB2,WNT5A,WNT6,TBX2,WNT1,BMP4,SOX9,SIX1,TFAP2A,PRICKLE1,NKD1,PRICKLE2,HAND2,GDNF,ROR2,SIX2,TBX1,TACSTD2,WT1,SMURF1
GO:0050808	synapse organization	2.45E-03	CTNNA2,SPOCK2,NRXN2,CUX2,WNT5A,EIF4G1,EPHA4,IGSF21,PDZRN3,DAB2IP,ZNF365,SNCA,ANK3,POU4F1,FARP1,SHANK2,CDK5,INSR,DSCAM,SYNPO,CHRNA7,EPHB3,CNTN2,DNER,WNT7B,AGRN,ELFN1
GO:0043065	positive regulation of apoptotic process	2.74E-03	SCIN,TFAP2B,PLAUR,TRIO,AIFM2,HYAL2,TP73,GSK3B,LOC728392,TGFB2,TRADD,BMF,SFRP1,BNIP3L,CAV1,HOXA5,SFRP4,SLC9A3R1,ARHGEF17,BCL6,ITGA4,ATF6,TNFRSF8,PLCG1,SPDEF,BMP4,NGF,DAB2IP,TFAP2A,THBS1,CYP1B1,DUSP6,RHOB,SLIT2,SNCA,SFRP2,HMGA2,OBSCN,ABR,KALRN,NLRP3,DLC1,CDK5,SMAD3,AKAP13,PIK3CD,RARG,MAP3K11,PXT1,WVVOX,DAPK1,ATG7,FANK1,MIR21,MIR137
GO:0002027	regulation of heart rate	2.74E-03	CACNA1G,KCNQ1,KCNH2,CAV1,PDE4D,FKBP1B,EDN3,ANK2,CACNA1C,CACNA1D,KCND3,KCNE3,SLC8A1,CTNNA3,RNLS,NOS1AP
GO:0034330	cell junction organization	2.74E-03	CDH3,LIMCH1,CBFB,LIMS2,GRHL2,ADD1,TGFB2,SH3BP1,SFRP1,CAV1,CRB3,TLN1,THBS1,KIFC3,BCAS3,TBCD,RAB13,PKP4,PHLDB2,PARD3,PTPRK,PRKCA,RUNX1,ACE,CLDN1,DLC1,GJB2,SMAD3,CADM1,PIP5K1C,LAMB3,SRC
GO:0060070	canonical Wnt signaling pathway	2.74E-03	CDK14,CDH3,GSK3B,ANKRD10,SFRP1,CAV1,SFRP4,WNT3,SLC9A3R1,TBX18,WNT5A,APC2,SFRP5,WNT1,SOX9,DAB2IP,PRICKLE1,NKD1,RBMS3,SFRP2,EGFR,DIXDC1,TCF7L1,NR4A2,AXIN2,HOXB9,RARG,TBL1XR1,NKX2-5,ZNRF3,WNT7B,LGR4
GO:0001933	negative regulation of protein phosphorylation	2.78E-03	DCN,ZMYND11,HYAL2,NCK2,FBLN1,TP73,MECOM,EZR,BMP7,SFRP1,CAV1,PRKAG2,SLC9A3R1,PDE4D,CISH,EIF4G1,ERRF1,SOCS2,TWIST1,CDKN1A,BMP4,PKIB,DAB2IP,SMAD6,EMILIN1,RGS3,DUSP6,SLIT2,SFRP2,PARD3,HHEX,CNKSR3,UCHL1,ZFYVE28,CAMK2N1,PAQR3,DDIT4,RGS14,TRIB1,LRRTM4,SOCS1,RTN4,RL1,SOCS7,MIR21

GO:1905314	semi-lunar valve development	2.78E-03	TGFB2,TWIST1,BMP4,GATA4,SMAD6,EMILIN1,SLIT2,HEYL,HEY1
GO:0010632	regulation of epithelial cell migration	2.89E-03	DCN,FLT4,HDAC9,FGF10,SCARB1,TGFB2,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,PLCG1,BMP4,SOX9,VIL1,ETS1,DAB2IP,THBS1,BCAS3,EPHA2,RHOB,SLIT2,PRKCA,ADAMTS9,BMPER,ADAM9,ATOH8,GATA2,TACSTD2,EVL,SRG,GDF2,MIR10A,MIR21,MIR137
GO:0061036	positive regulation of cartilage development	2.95E-03	ZBTB16,BMP4,SOX9,LOXL2,SOX5,BMPR1B,GDF6
GO:0030036	actin cytoskeleton organization	2.95E-03	CX3CL1,SCIN,DTNBP1,LIMCH1,FGF10,NCK2,EPB41L2,ADD1,EZR,SH3BP1,SFRP1,ARHGEF17,NEDD9,CAP2,IQSEC3,OBSL1,VIL1,FOXJ1,ARPC1B,PDGFRA,MICALL1,SPTBN5,TMOD3,BCAS3,RAB13,IQSEC1,PHLDB2,SLIT2,IQGAP2,ARHGAP26,EP58,OBSCN,FMN2,AUTS2,ALOX15,DLG1,CDK5,ARHGAP12,TNXB,AKAP13,MTSS1,CDC42BPG,SYNPO,SYNPO2,BAIAP2,CDC42EP4,FGD6,TACSTD2,FMNL1,PIP5K1C,EVL,MYO18A,PFN3,SRG,MYBPHL,MIR21
GO:0090288	negative regulation of cellular response to growth factor stimulus	3.28E-03	DCN,LTBP1,GPC1,CAV1,WNT1,DAB2IP,THBS1,SMAD6,EMILIN1,PRDM16,DLX1,SLIT2,HHEX,SKI,BMPER,FBN1,SMAD3,VASN,WFIKKN2,BCL9L,SMURF1
GO:1902532	negative regulation of intracellular signal transduction	3.30E-03	PLAUR,DCN,ZMYND11,HYAL2,BCL3,FBLN1,TP73,SESN1,GSK3B,MECOM,EZR,TGFB2,SH3BP1,BMP7,RASAL3,CAV1,SLC9A3R1,CISH,FHL2,FKBP1B,SFRP5,SOCS2,ADRA1A,TWIST1,BMP4,DYRK2,SEC14L1,DAB2IP,THBS1,EMILIN1,RGS3,DUSP6,NOL3,EPHA2,SLIT2,SFRP2,CNKSR3,UCHL1,ZNF385A,CAMK2N1,NLRP3,PAQR3,DLG1,ARHGAP12,DDIT4,RGS14,LRRTM4,SOCS1,RTN4RL1,RASA3,SRG,SOCS7,MIR21,MIR137
GO:0043269	regulation of ion transport	3.39E-03	CX3CL1,CD4,DTNBP1,KCNQ1,KCNH2,MYLK,GNB5,FGF20,KCNN2,TESC,NOS1,TF,CAV1,SFRP4,SLC9A3R1,STIM2,P2RX3,PDE4D,VAMP8,FKBP1B,KCNS1,PLCG1,WNK4,UBQLN1,THBS1,TRPC3,OSR1,SNCA,ANK2,CACNA1C,ANK3,CNKSR3,CACNA1D,SLMAP,GDNF,TRH,P2RY6,KCNE3,KCNIP1,SLC8A1,NKX2-5,KCNIP4,NKAIN2,DAPK1,NOS1AP,MIR21
GO:0042326	negative regulation of phosphorylation	3.58E-03	DCN,ZMYND11,HYAL2,HDAC4,NCK2,FBLN1,TP73,MECOM,EZR,BMP7,SFRP1,CAV1,PRKAG2,SLC9A3R1,PDE4D,CISH,EIF4G1,ERRF1,SOCS2,TWIST1,CDKN1A,BMP4,PKIB,DAB2IP,SMAD6,EMILIN1,RGS3,DUSP6,SLIT2,SNCA,SFRP2,PARD3,HHEX,CNKSR3,UCHL1,ZFYVE28,CAMK2N1,PAQR3,DDIT4,RGS14,TRIB1,LRRTM4,SOCS1,RTN4RL1,SOCS7,MIR21

GO:0050679	positive regulation of epithelial cell proliferation	IGF1,FLT4,CDH3,FGF10,SFRP1,WNT5A,ITGA4,NR4A3,PLCG1,BMP4,SOX9,OSR1,AGTR1,EGFR,PRKCA,OSR2,GATA2,EGR3,TBX1,MIR130A,GDF2,MIR10A,MIR 3.58E-03 21
GO:0072210	metanephric nephron development	3.58E-03 SALL1,TCF21,BMP4,SOX9,PDGFRA,OSR1,SIX2,WT1
GO:0043068	positive regulation of programmed cell death	SCIN,TFAP2B,PLAUR,TRIO,AIFM2,HYAL2,TP73,GSK3B,LOC728392,TGFB2,TRADD,BMF,SFRP1,BNIP3L,CAV1,HOXA5,SFRP4,SLC9A3R1,ARHGEF17,BCL6,ITGA 4,ATF6,TNFRSF8,PLCG1,SPDEF,BMP4,NGF,DAB2IP,TFAP2A,THBS1,CYP1B1,DUSP6,RHOB,SLIT2,SNCA,SFRP2,HMGA2,OBSCN,ABR,KALRN,NLRP3,DLC1,CDK5, 3.58E-03 SMAD3,AKAP13,PIK3CD,RARG,MAP3K11,PXT1,WWOX,DAPK1,ATG7,FANK1,MIR21,MIR137
GO:0035270	endocrine system development	3.89E-03 PAX6,TG,GSK3B,SALL1,BMP4,SIX1,HOXD3,SIX3,NKX6-1,PITX2,NKX2-5,TBX1,WT1
GO:0060677	ureteric bud elongation	3.89E-03 SALL1,FGF1,BMP4,SIX1
GO:0042474	middle ear morphogenesis	3.89E-03 GSC,OSR1,OSR2,TBX1
GO:0034329	cell junction assembly	LIMCH1,CBFB,LIMS2,GRHL2,SH3BP1,SFRP1,CAV1,CRB3,TLN1,THBS1,BCAS3,TBCD,RAB13,PKP4,PHLDB2,PARD3,PTPRK,PRKCA,RUNX1,ACE,CLDN1,DLC1,GJB 4.10E-03 2,PIPSK1C,LAMB3,SRC
GO:0090183	regulation of kidney development	4.10E-03 PROM1,BMP7,BMP4,SOX9,SIX1,OSR1,GDNF,SIX2,TACSTD2,WT1

GO:0009798	axis specification	4.10E-03	SFRP1,MDFI,WNT1,SMAD6,SIX3,SKI,PITX2,CDX2,OTX2,SIX2,NEUROG1,WT1
GO:0098727	maintenance of cell number	4.10E-03	IGF1,SALL4,SALL1,FOXP1,ESRRB,SOX9,LOXL2,TET1,PRDM14,HMGA2,SKI,SIX2,LIG4,PBX1,HES5
GO:0086091	regulation of heart rate by cardiac conduction	4.10E-03	CACNA1G,KCNQ1,KCNH2,CAV1,ANK2,CACNA1C,CACNA1D,KCND3,KCNE3,CTNNA3
REAC:R-HSA-147	Extracellular matrix organization	4.10E-03	DCN,LTBP1,NTN4,FBLN1,ITGA8,NID2,LTBP4,TGFB2,BMP7,ICAM4,PTPRS,SH3PXD2A,ICAM2,COL12A1,LAMA4,ITGA4,FMOD,BMP4,LOXL1,LOXL2,THBS1,COL2A1,ADAMTS18,ADAM15,COL8A1,SERPINH1,NCAM1,PRKCA,SCUBE1,CAPN2,ADAMTS9,HTRA1,FBN1,TNXB,ADAM9,COL24A1,EFEMP2,AGRN,SPOCK3,LAMB3,COL13A1,CAPN8,PECAM1
REAC:R-HSA-373	Netrin-1 signaling	4.10E-03	TRIO,NTN1,NTN4,EZR,ABLIM1,UNC5A,PLCG1,TRPC4,AGAP2,TRPC3,SLIT2,DSCAM,RGMA,SRC
GO:0061217	regulation of mesonephros development	4.14E-03	BMP4,SOX9,SIX1,GDNF,SIX2,TACSTD2,WT1
GO:0035723	interleukin-15-mediated signaling pathway	4.14E-03	CD4,JAK3,IL15RA,SHC1,IL15,STAT5B
GO:1905331	negative regulation of morphogenesis of an epithelium	4.14E-03	TBX2,BMP4,NKD1,PHLDB2,TACSTD2,MIR21

GO:0071350	cellular response to interleukin-15	4.14E-03	CD4,JAK3,IL15RA,SHC1,IL15,STAT5B
GO:0003012	muscle system process	4.14E-03	CACNA1G,IGF1,KCNQ1,KCNH2,MYLK,HDAC4,KCNN2,NOS1,CAV1,PDE4D,TNNT2,NR4A3,FKBP1B,ADRA1A,KCNJ8,CALD1,OBSL1,EDN3,CNN1,CHRNA2,TLN1,TRPC3,ANK2,C6ORF142,CACNA1C,PRKCA,SORBS2,CACNA1D,PROK2,SLMAP,HAND2,GDNF,ADRA1B,GATM,KCNE3,NEUROG1,SLC8A1,NKX2-5,CTNNA3,NOS1AP,MYBPHL,MIR21
GO:0070672	response to interleukin-15	4.14E-03	CD4,JAK3,IL15RA,SHC1,IL15,STAT5B
GO:0050678	regulation of epithelial cell proliferation	4.20E-03	IGF1,RUNX3,FLT4,CDH3,FGF10,TGFB2,SFRP1,CAV2,CAV1,WNT5A,ITGA4,NR4A3,PLCG1,BMP4,SOX9,DAB2IP,THBS1,OSR1,AGTR1,SFRP2,EGFR,PTPRK,PRKC A,OSR2,ATOH8,KRT4,MTSS1,GATA2,EGR3,TBX1,MIR130A,GDF2,MIR10A,MIR21
GO:0030900	forebrain development	4.22E-03	GSK3B,KDM2B,SALL1,LHX6,WNT5A,VAX2,DOCK7,BMP4,DAB2IP,SIX3,ASCL1,SLIT2,SKI,PITX2,DLC1,OTX2,ERBB4,EPHB3,WNT7B,HES5,GPR56
GO:0030155	regulation of cell adhesion	4.36E-03	CX3CL1,IGF1,RUNX3,LIMCH1,CBFB,NCK2,NUAK1,FBLN1,GSK3B,TESC,TGFB2,BMP7,SFRP1,RASAL3,JAK3,CAV1,CYTH1,ALOX12,GCNT2,BCL6,NR4A3,WNT1,BMP4,FOXJ1,RARA,ETS1,THBS1,CYP1B1,ADAMTS18,BCAS3,TBCD,EPHA2,ADAM15,PKP4,NFKBIZ,PHLDB2,SFRP2,ANK3,CCL28,PRKCA,RUNX1,ALOX15,NLRP3,EMCN,DLC1,ADAM9,DSCAM,EPHB3,TACSTD2,SOCS1,SRC,MBP,GPR56,SIPA1,MIR21
GO:0035019	somatic stem cell population maintenance	4.44E-03	SALL4,SALL1,FOXP1,SOX9,PRDM14,SKI,SIX2,LIG4,PBX1
GO:0042493	response to drug	4.44E-03	SLC25A13,GCLM,DTNBP1,KCNQ1,KCNH2,SEMA3C,ADCY2,FGF20,SLC4A11,NOS1,LOC728392,TGFB2,STK24,SFRP1,MAP4K1,CAV1,P2RX3,CCND1,SLC1A2,SLC22A18,STK25,NR4A3,ADRA1A,SOX9,RNF112,CHRNA2,GATA4,THBS1,CYP1B1,TRPC3,GATA6,ADAM15,OSR1,RHOB,SLIT2,SNCA,HMGA2,EPH8,LARP1,NG2,SLC18A2,ABCA3,ADAM9,GDNF,GPR37L1,CHRNA7,SLC25A42,SLC8A1,PDE2A,AGRN,SRC,MIR21

GO:0040007	growth	IGF1,NTN1,HYAL2,FGF10,TP73,GSK3B,TBX5,LTBP4,TGFB2,SALL1,SGK3,SFRP1,PTPRS,MAG,FGF1,BCL6,PLXNA1,CISH,EIF4G1,SOCS2,TBX2,CDKN1A,BMP4,SOX9,SIX1,SMARCA4,OLFM1,RFTN1,CHRND,BMPR1B,DUSP6,NKD1,ADAM15,GOLGA4,AGTR1,SLIT2,SFRP2,EGFR,SORBS2,AUTS2,CDK5,SMAD3,GNG4,ALCAM,4.55E-03 INSR,DSCAM,STAT5B,ERBB4,WT1,NRG3,WNT7B,AGRN,SMURF1,SIPA1,GDF2
GO:1904888	cranial skeletal system development	4.55E-03 TGFB2,MTHFD1L,TWIST1,SIX1,PDGFRA,TFAP2A,NEUROG1,TBX1
GO:1903522	regulation of blood circulation	CACNA1G,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,TBX2,ITPR2,EDN3,AGTR1,ANK2,CACNA1C,CACNA1D,ACE,AD4.55E-03 RA1B,KCND3,KCNE3,SLC8A1,NKX2-5,CTNNA3,RNLS,NOS1AP,MIR21
GO:1901342	regulation of vasculature development	DCN,HDAC9,FOXC1,TGFB2,BMP7,SFRP1,HOXA5,TSPAN12,SMOC2,FGF1,WNT5A,TWIST1,PLCG1,BMP4,NFATC1,CHI3L1,ETS1,GATA4,DAB2IP,THBS1,CYP1B1,EMILIN1,GATA6,EPHA2,RHOB,AGTR1,SFRP2,MTDH,HMGA2,HHEX,PRKCA,RUNX1,PROK2,ADAMTS9,BMPER,HEY1,CHRNA7,GATA2,WT1,MIR130A,GDF2,M4.56E-03 IR10A,MIR21,MIR137
GO:0010812	negative regulation of cell-substrate adhesion	4.66E-03 CX3CL1,FBLN1,GCNT2,WNT1,THBS1,BCAS3,TBCD,ADAM15,PHLDB2,DL1,TACSTD2,SRC
GO:0045936	negative regulation of phosphate metabolic process	DCN,ZMYND11,RIMBP2,HYAL2,HDAC4,NCK2,FBLN1,TP73,GSK3B,MECOM,EZR,TGFB2,BMP7,SFRP1,CAV1,PRKAG2,SLC9A3R1,PDE4D,CISH,EIF4G1,ERRF1,FKBP1B,SOCS2,TWIST1,CDKN1A,BMP4,PKIB,DAB2IP,SMAD6,EMILIN1,RGS3,DUSP6,SLIT2,SNCA,SFRP2,PAR3,FARP1,HHEX,CNKS3,UCHL1,ZFYVE28,CAMK24.81E-03 N1,PAQR3,DDIT4,RGS14,TRIB1,LRRMT4,SOCS1,RTN4RL1,PPP1R11,ELFN1,SOCS7,MIR21
GO:0030878	thyroid gland development	5.03E-03 TG,SIX1,HOXD3,NKX2-5,TBX1
GO:0010563	negative regulation of phosphorus metabolic process	DCN,ZMYND11,RIMBP2,HYAL2,HDAC4,NCK2,FBLN1,TP73,GSK3B,MECOM,EZR,TGFB2,BMP7,SFRP1,CAV1,PRKAG2,SLC9A3R1,PDE4D,CISH,EIF4G1,ERRF1,FKBP1B,SOCS2,TWIST1,CDKN1A,BMP4,PKIB,DAB2IP,SMAD6,EMILIN1,RGS3,DUSP6,SLIT2,SNCA,SFRP2,PAR3,FARP1,HHEX,CNKS3,UCHL1,ZFYVE28,CAMK25.03E-03 N1,PAQR3,DDIT4,RGS14,TRIB1,LRRMT4,SOCS1,RTN4RL1,PPP1R11,ELFN1,SOCS7,MIR21

GO:0030198	extracellular matrix organization	DCN,PHLDB1,ITGA8,NID2,TGFB2,ICAM4,SPOCK2,SH3PXD2A,ICAM2,VWF,COL12A1,LAMA4,ITGA4,LOXL2,FOXF2,THBS1,CYP1B1,EMILIN1,COL2A1,ADAM15, 5.03E-03 COL8A1,PHLDB2,SERPINH1,SCUBE1,ADAMTS9,HTRA1,FBN1,SMAD3,TNXB,WT1,AGRN,LAMB3,COL13A1,PECAM1
GO:0086002	cardiac muscle cell action potential involved in contraction	5.54E-03 CACNA1G,KCNQ1,KCNH2,KCNN2,CAV1,KCNJ8,ANK2,CACNA1C,CACNA1D,KCNE3,CTNNA3,NOS1AP
GO:0060047	heart contraction	CACNA1G,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,TBX2,KCNJ8,ITPR2,EDN3,ANK2,CACNA1C,CACNA1D,ACE,SG 5.64E-03 CD,KCND3,KCNE3,SLC8A1,NKX2-5,CTNNA3,RNLS,NOS1AP
GO:0045682	regulation of epidermis development	5.89E-03 FOXC1,CDH3,CBFB,GRHL2,TGFB2,H2AFY2,SFRP4,ERRF1,BMP4,FST,RUNX1
GO:1903706	regulation of hemopoiesis	SCIN,CD4,RUNX3,FOXC1,PRDM1,SPI1,CBFB,TNRC6C,TP73,TESC,SFRP1,JAK3,HOXA5,ZBTB16,BCL6,FOXP1,NR4A3,NFE2,BMP4,FOXJ1,RARA,MEIS2,ETS1,THB 5.91E-03 S1,MEIS1,NFKBIZ,POU4F1,PRKCA,RUNX1,ACE,NLRP3,FBN1,STAT5B,GATA2,ZFPM1,SOCS1,HESS,HIST1H3E,MIR21
GO:0061005	cell differentiation involved in kidney development	5.92E-03 PROM1,SALL1,TCF21,BMP4,FOXJ1,OSR1,SIX2,MTSS1,WT1,POU3F3
GO:0010842	retina layer formation	6.18E-03 PROM1,TFAP2B,TSPAN12,TFAP2A,MEGF11,DSCAM
GO:0048701	embryonic cranial skeleton morphogenesis	6.18E-03 MTHFD1L,TWIST1,SIX1,PDGFRA,TFAP2A,TBX1



GO:0060048	cardiac muscle contraction	6.18E-03	CACNA1G,KCNQ1,KCNH2,KCNN2,NOS1,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,KCNJ8,ANK2,CACNA1C,CACNA1D,KCNE3,SLC8A1,NKX2-5,CTNNA3,NOS1AP
GO:0051056	regulation of small GTPase mediated signal transduction	6.89E-03	IGF1,TRIO,FGF10,TGFB2,SH3BP1,RASAL3,ARHGEF17,APOC3,DENND1A,ADRA1A,ARHGAP9,ARHGAP22,NGF,DAB2IP,ARHGAP17,RHOB,SLIT2,ARHGAP26,OBSCN,AUTS2,ABR,KALRN,DLC1,ARHGAP12,AKAP13,ABRA,RASA3,SRGAP1,SRGAP2,SRGAP3,SRGAP4,SRGAP5,SRGAP6,SRGAP7,SRGAP8,SRGAP9,SRGAP10,SRGAP11,SRGAP12,SRGAP13,SRGAP14,SRGAP15,SRGAP16,SRGAP17,SRGAP18,SRGAP19,SRGAP20,SRGAP21,SRGAP22,SRGAP23,SRGAP24,SRGAP25,SRGAP26,SRGAP27,SRGAP28,SRGAP29,SRGAP30,SRGAP31,SRGAP32,SRGAP33,SRGAP34,SRGAP35,SRGAP36,SRGAP37,SRGAP38,SRGAP39,SRGAP40,SRGAP41,SRGAP42,SRGAP43,SRGAP44,SRGAP45,SRGAP46,SRGAP47,SRGAP48,SRGAP49,SRGAP50,SRGAP51,SRGAP52,SRGAP53,SRGAP54,SRGAP55,SRGAP56,SRGAP57,SRGAP58,SRGAP59,SRGAP60,SRGAP61,SRGAP62,SRGAP63,SRGAP64,SRGAP65,SRGAP66,SRGAP67,SRGAP68,SRGAP69,SRGAP70,SRGAP71,SRGAP72,SRGAP73,SRGAP74,SRGAP75,SRGAP76,SRGAP77,SRGAP78,SRGAP79,SRGAP80,SRGAP81,SRGAP82,SRGAP83,SRGAP84,SRGAP85,SRGAP86,SRGAP87,SRGAP88,SRGAP89,SRGAP90,SRGAP91,SRGAP92,SRGAP93,SRGAP94,SRGAP95,SRGAP96,SRGAP97,SRGAP98,SRGAP99,SRGAP100
GO:0086005	ventricular cardiac muscle cell action potential	6.96E-03	KCNQ1,KCNH2,CAV1,KCNJ8,ANK2,CACNA1C,KCNE3,CTNNA3,NOS1AP
GO:0038127	ERBB signaling pathway	7.44E-03	PLAUR,NCK2,PTPN18,ERRFI1,PLCG1,SOX9,VIL1,RHBDF2,DAB2IP,GRB7,EGFR,EPAS1,PRKCA,NRG2,ZFYVE28,SHC1,CUL5,AFAP1L2,ERBB4,SRGAP1,SRGAP2,SRGAP3,SRGAP4,SRGAP5,SRGAP6,SRGAP7,SRGAP8,SRGAP9,SRGAP10,SRGAP11,SRGAP12,SRGAP13,SRGAP14,SRGAP15,SRGAP16,SRGAP17,SRGAP18,SRGAP19,SRGAP20,SRGAP21,SRGAP22,SRGAP23,SRGAP24,SRGAP25,SRGAP26,SRGAP27,SRGAP28,SRGAP29,SRGAP30,SRGAP31,SRGAP32,SRGAP33,SRGAP34,SRGAP35,SRGAP36,SRGAP37,SRGAP38,SRGAP39,SRGAP40,SRGAP41,SRGAP42,SRGAP43,SRGAP44,SRGAP45,SRGAP46,SRGAP47,SRGAP48,SRGAP49,SRGAP50,SRGAP51,SRGAP52,SRGAP53,SRGAP54,SRGAP55,SRGAP56,SRGAP57,SRGAP58,SRGAP59,SRGAP60,SRGAP61,SRGAP62,SRGAP63,SRGAP64,SRGAP65,SRGAP66,SRGAP67,SRGAP68,SRGAP69,SRGAP70,SRGAP71,SRGAP72,SRGAP73,SRGAP74,SRGAP75,SRGAP76,SRGAP77,SRGAP78,SRGAP79,SRGAP80,SRGAP81,SRGAP82,SRGAP83,SRGAP84,SRGAP85,SRGAP86,SRGAP87,SRGAP88,SRGAP89,SRGAP90,SRGAP91,SRGAP92,SRGAP93,SRGAP94,SRGAP95,SRGAP96,SRGAP97,SRGAP98,SRGAP99,SRGAP100
GO:0010975	regulation of neuron projection development	7.86E-03	CX3CL1,NTN1,GSK3B,BMP7,STK24,PTPRS,MAG,CPEB3,CUX2,WNT5A,PLXNA1,EPHA4,TNFRSF8,OBSL1,OLFM1,NGF,DAB2IP,ZNF365,GOLGA4,SLIT2,GF11,PAQR3,CSMD3,CDK5,ULK4,ZNF804A,DSCAM,NR2F1,GAK,EPHB3,CAMK1D,RTN4RL1,SMURF1,CUX1
GO:0061337	cardiac conduction	8.57E-03	CACNA1G,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,CAV1,PDE4D,FKBP1B,ITPR2,ANK2,CACNA1C,CACNA1D,KCND3,KCNE3,SLC8A1,NKX2-5,CTNNA3
GO:0007179	transforming growth factor beta receptor signaling pathway	8.65E-03	LTBP1,LTBP4,TGFB2,CAV1,GCNT2,FMOD,TGFBRAP1,THBS1,SMAD6,EMILIN1,PRDM16,PARD3,PTPRK,SKI,FBN1,SMAD3,VASN,ADAM9,WFIKKN2,BCL9L,SRGAP1,SRGAP2,SRGAP3,SRGAP4,SRGAP5,SRGAP6,SRGAP7,SRGAP8,SRGAP9,SRGAP10,SRGAP11,SRGAP12,SRGAP13,SRGAP14,SRGAP15,SRGAP16,SRGAP17,SRGAP18,SRGAP19,SRGAP20,SRGAP21,SRGAP22,SRGAP23,SRGAP24,SRGAP25,SRGAP26,SRGAP27,SRGAP28,SRGAP29,SRGAP30,SRGAP31,SRGAP32,SRGAP33,SRGAP34,SRGAP35,SRGAP36,SRGAP37,SRGAP38,SRGAP39,SRGAP40,SRGAP41,SRGAP42,SRGAP43,SRGAP44,SRGAP45,SRGAP46,SRGAP47,SRGAP48,SRGAP49,SRGAP50,SRGAP51,SRGAP52,SRGAP53,SRGAP54,SRGAP55,SRGAP56,SRGAP57,SRGAP58,SRGAP59,SRGAP60,SRGAP61,SRGAP62,SRGAP63,SRGAP64,SRGAP65,SRGAP66,SRGAP67,SRGAP68,SRGAP69,SRGAP70,SRGAP71,SRGAP72,SRGAP73,SRGAP74,SRGAP75,SRGAP76,SRGAP77,SRGAP78,SRGAP79,SRGAP80,SRGAP81,SRGAP82,SRGAP83,SRGAP84,SRGAP85,SRGAP86,SRGAP87,SRGAP88,SRGAP89,SRGAP90,SRGAP91,SRGAP92,SRGAP93,SRGAP94,SRGAP95,SRGAP96,SRGAP97,SRGAP98,SRGAP99,SRGAP100
GO:0002244	hematopoietic progenitor cell differentiation	8.65E-03	FOXC1,CBFB,TP73,SFRP1,BMP4,FST,RUNX1,ACE1,LIG4,GATA2,HOXB4,HESS

GO:0032906	transforming growth factor beta2 production	8.65E-03	CDH3,TGFB2,GATA6,SMAD3
GO:0048935	peripheral nervous system neuron development	8.65E-03	RUNX3,POU4F1,RUNX1,ISL2
GO:0072102	glomerulus morphogenesis	8.65E-03	TCF21,BMP4,PDGFRA,MTSS1
GO:0035116	embryonic hindlimb morphogenesis	8.65E-03	OSR1,AFF3,OSR2,RARG
GO:0035115	embryonic forelimb morphogenesis	8.65E-03	TBX5,TFAP2A,OSR1,CACNA1C,OSR2
GO:0048934	peripheral nervous system neuron differentiation	8.65E-03	RUNX3,POU4F1,RUNX1,ISL2
GO:0043376	regulation of CD8-positive, alpha-beta T cell differentiation	8.65E-03	RUNX3,CBFB,RUNX1,SOCS1
GO:0031344	regulation of cell projection organization	8.65E-03	CX3CL1,NTN1,GSK3B,BMP7,STK24,PTPRS,MAG,CAV1,CPEB3,CUX2,WNT5A,PLXNA1,EPHA4,TNFRSF8,OBSL1,WNT1,VIL1,OLFM1,NGF,DAB2IP,ZNF365,BCAS3,EPHA2,GOLGA4,SLIT2,AUTS2,GFI1,PAQR3,CSMD3,CDK5,ULK4,ZNF804A,DSCAM,NR2F1,GAK,CDC42EP4,EPHB3,CAMK1D,TACSTD2,RTN4RL1,AGRN,EVL,SRC,SMURF1,TCTEX1D2,CUX1,MIR21

GO:0043367	CD4-positive, alpha-beta T cell differentiation	8.65E-03	RUNX3,CBFB,JAK3,FOXP1,RARA,RORC,NFKBIZ,RUNX1,NLRP3,ZFPM1,SOCS1,MIR21
GO:0032909	regulation of transforming growth factor beta2 production	8.65E-03	CDH3,TGFB2,GATA6,SMAD3
GO:0021889	olfactory bulb interneuron differentiation	8.65E-03	SALL1,WNT5A,SLIT2,ERBB4
GO:0090189	regulation of branching involved in ureteric bud morphogenesis	8.71E-03	BMP4,SOX9,SIX1,GDNF,SIX2,TACSTD2
GO:0086003	cardiac muscle cell contraction	8.71E-03	CACNA1G,KCNQ1,KCNH2,KCNN2,CAV1,PDE4D,KCNJ8,ANK2,CACNA1C,CACNA1D,KCNE3,CTNNA3,NOS1AP
GO:0070293	renal absorption	8.71E-03	KCNQ1,HYAL2,SLC9A3R1,WNK4,HNF1A,KLHL3
GO:0010002	cardioblast differentiation	8.71E-03	TBX5,TGFB2,TBX2,GATA4,PRICKLE1,NKX2-5
GO:0031214	biomineral tissue development	8.71E-03	IGF1,BMP7,WNT6,TWIST1,BMP4,SOX9,TFAP2A,BMPRI1B,OSR1,ALOX15,OSR2,SLC8A1,TMEM119,TBX1,ZBTB40,LGR4

GO:0090257	regulation of muscle system process	IGF1,KCNQ1,HDAC4,NOS1,CAV1,PDE4D,NR4A3,FKBP1B,ADRA1A,CNN1,TRPC3,ANK2,C6ORF142,CACNA1C,PRKCA,PROK2,HAND2,ADRA1B,KCNE3,NEUROG 8.86E-03 1,SLC8A1,NKX2-5,CTNNA3,NOS1AP,MIR21
GO:0003013	circulatory system process	CACNA1G,GCLM,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,NPR3,PDE4D,TNNT2,FKBP1B,ADRA1A,TBX2,KCNJ8,ITPR2,NFE2,EDN3,ENPEP,AGTR1,SL IT2,ANK2,C9ORF3,CACNA1C,CACNA1D,ACE,PTGDR,ADRA1B,SGCD,AKAP13,KCND3,LVRN,HOXB2,KCNE3,SLC8A1,NKX2- 9.01E-03 5,CTNNA3,RNLS,PDE2A,SRC,NOS1AP,MIR21
GO:2001260	regulation of semaphorin-plexin signaling pathway	9.02E-03 NCAM1,HAND2,GDNF
GO:0090194	negative regulation of glomerulus development	9.02E-03 BMP7,BMP4,WT1
GO:0072125	negative regulation of glomerular mesangial cell proliferation	9.02E-03 BMP7,BMP4,WT1
GO:0030858	positive regulation of epithelial cell differentiation	9.26E-03 PROM1,FOXC1,ADD1,H2AFY2,SFRP4,BMP4,SOX9,FOXJ1,NKX6-1,ATOH8,MIR21
GO:0015672	monovalent inorganic cation transport	KCNQ1,KCNH2,SLC4A4,KCNN2,SLC4A11,TESC,NOS1,KCNN4,CAV1,SLC9A3R1,P2RX3,KCNJ8,KCNS1,WNK4,KCNC1,KCNH3,OSR1,ANK2,KLHL3,ANK3,CNKSR3, 9.26E-03 CACNA1D,KCNJ6,SLMAP,KCNK5,KCNAB3,SLC23A1,KCND3,KCNE3,UCP3,KCNA3,KCNIP1,OTOP3,SLC8A1,NKX2-5,KCNQ5,KCNIP4,NKAIN2,NOS1AP,MIR21
GO:0006935	chemotaxis	CX3CL1,PLAUR,GPC1,NTN1,FGF10,NTN4,SEMA3C,EZR,TGFB2,RARRES2,SMOC2,FGF1,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,TNFRSF8,PLCG1,EDN3,PDGF RA,THBS1,SPTBN5,GRB7,EPHA2,RAB13,CNTN4,AGTR1,SLIT2,NCAM1,CCL28,GFRA1,PRKCA,DPYSL5,SHC1,PROK2,OTX2,GDNF,ALCAM,HOXB9,DSCAM,PIK3C 9.28E-03 D,EGR3,EPHB3,CAMK1D,PIP5K1C,FPR3,EVL,PDIM7,SRC

GO:0042330	taxis	CX3CL1,PLAUR,GPC1,NTN1,FGF10,NTN4,SEMA3C,EZR,TGFB2,RARRES2,SMOC2,FGF1,UNC5A,WNT5A,PLXNA1,SPTBN1,EPHA4,TNFRSF8,PLCG1,EDN3,PDGFR,THBS1,SPTBN5,GRB7,EPHA2,RAB13,CNTN4,AGTR1,SLIT2,NCAM1,CCL28,GFRA1,PRKCA,DPYSL5,SHC1,PROK2,OTX2,GDNF,ALCAM,HOXB9,DSCAM,PIK3CD,EGR3,EPHB3,CAMK1D,PIP5K1C,FPR3,EVL,PDLM7,SRC
GO:0019827	stem cell population maintenance	9.43E-03 SALL4,SALL1,FOXP1,ESRRB,SOX9,LOXL2,TET1,PRDM14,HMGA2,SKI,SIX2,LIG4,PBX1,HES5
GO:1904018	positive regulation of vasculature development	HDAC9,SMOC2,FGF1,WNT5A,TWIST1,PLCG1,CHI3L1,ETS1,GATA4,THBS1,CYP1B1,GATA6,RHOB,AGTR1,SFRP2,MTDH,HMGA2,PRKCA,RUNX1,BMPER,CHRNA7,GATA2,MIR130A,GDF2,MIR10A,MIR21
GO:0051017	actin filament bundle assembly	9.55E-03 CX3CL1,LIMCH1,ADD1,EZR,SFRP1,NEDD9,VIL1,PHLDB2,EPS8,FMN2,DLG1,SYNPO2,SYNPO3,BAIAP2,TACSTD2,EVL,PFN3,SRC,MIR21
GO:0045765	regulation of angiogenesis	DCN,HDAC9,FOXC1,TGFB2,SFRP1,HOXA5,TSPAN12,SMOC2,FGF1,WNT5A,TWIST1,PLCG1,CHI3L1,ETS1,GATA4,DAB2IP,THBS1,CYP1B1,EMILIN1,GATA6,EPHA2,RHOB,AGTR1,SFRP2,MTDH,HMGA2,HHEX,PRKCA,RUNX1,PROK2,ADAMTS9,BMPER,CHRNA7,GATA2,MIR130A,GDF2,MIR10A,MIR21,MIR137
GO:0060541	respiratory system development	9.57E-03 FGF10,GRHL2,ERRF1,TCF21,BMP4,FOXJ1,CHI3L1,ASCL1,SKI,CHD7,WT1,WNT7B
GO:0086012	membrane depolarization during cardiac muscle cell action potential	9.57E-03 CACNA1G,ANK2,CACNA1C,ANK3,CACNA1D,SLMAP,SLC8A1
GO:1903845	negative regulation of cellular response to transforming growth factor beta stimulus	9.57E-03 LTBP1,CAV1,SMAD6,EMILIN1,PRDM16,DLX1,SKI,FBN1,SMAD3,VASN,WFIKKN2,BCL9L,SMURF1

GO:0061614	pri-miRNA transcription by RNA polymerase II	9.81E-03 SPI1,TGFB2,BMP4,SOX9,SMARCA4,ETS1,SMAD3,GATA2,TEAD1
GO:0008016	regulation of heart contraction	CACNA1G,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,TBX2,ITPR2,EDN3,ANK2,CACNA1C,CACNA1D,KCND3,KCNE3, 9.93E-03 SLC8A1,NKX2-5,CTNNA3,RNLS,NOS1AP
GO:0044057	regulation of system process	CACNA1G,IGF1,KCNQ1,KCNH2,HDAC4,FGF10,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,CUX2,PDE4D,TNNT2,NR4A3,FKBP1B,ADRA1A,TBX2,ITPR2,EDN3,CNN1,T RPC3,AGTR1,ANK2,C6ORF142,PAR3,CACNA1C,PRKCA,CACNA1D,ACE,PROK2,UCN,HAND2,ADRA1B,KCND3,CHRNA7,KCNE3,NEUROG1,SLC8A1,NKX2- 1.00E-02 5,CTNNA3,RNLS,NOS1AP,MIR21
GO:0033993	response to lipid	CX3CL1,PIAS1,CBFB,SCARB1,ADCY2,TESC,TGFB2,BMP7,SFRP1,MAP4K1,CAV1,WNT3,WNT5B,WNT5A,FOXP1,WNT6,FHL2,TCF21,SOC2,TNFRSF8,BMP4,SO X9,SMARCA4,RARA,DAB2IP,THBS1,ASCL1,RORC,ADAM15,SLIT2,SNCA,EGFR,MTDH,POU4F1,PRKCA,RUNX1,ABCG1,GFI1,NLRP3,HEYL,TNFRSF11B,PTGDR,A 1.00E-02 DAM9,RARG,TRIB1,STAT5B,TBX1,SIGIRR,TLR5,WNT7B,SRG,MIR21
GO:0061572	actin filament bundle organization	1.03E-02 CX3CL1,LIMCH1,ADD1,EZR,SFRP1,NEED9,VIL1,PHLDB2,EP58,FMN2,DLC1,SYNPO,SYNPO2,BAIAP2,TACSTD2,EVL,PFN3,SRG,MIR21
GO:0120035	regulation of plasma membrane bounded cell projection organization	CX3CL1,NTN1,GSK3B,BMP7,STK24,PTPRS,MAG,CAV1,CPEB3,CUX2,WNT5A,PLXNA1,EPHA4,TNFRSF8,OBSL1,WNT1,VIL1,OLFM1,NGF,DAB2IP,ZNF365,BCAS 3,EPHA2,GOLGA4,SLIT2,AUTS2,GFI1,PAQR3,CSMD3,CDK5,ULK4,ZNF804A,DSCAM,NR2F1,GAK,CDC42EP4,EPHB3,CAMK1D,TACSTD2,RTN4RL1,AGRN,EVL,S 1.03E-02 RC,SMURF1,TCTEX1D2,CUX1
GO:0090090	negative regulation of canonical Wnt signaling pathway	1.04E-02 GSK3B,SFRP1,CAV1,SFRP4,SLC9A3R1,TBX18,WNT5A,APC2,SFRP5,SOX9,DAB2IP,PRICKLE1,NKD1,RBMS3,SFRP2,AXIN2,NKX2-5,ZNRF3
GO:0006367	transcription initiation from RNA polymerase II promoter	CBFB,RARB,TBX5,ERCC2,CCND1,NR2E1,NR5A2,NR4A3,ESRRB,CDKN1A,SOX9,THRA,TAF4,RARA,HNF1A,RORC,NR4A2,RARG,NR2F1,NKX2- 1.06E-02 5,TEAD1,ESRRG,TEAD4,NOTCH4,GTF2H4

GO:0070997	neuron death	CX3CL1,TFAP2B,FGF20,TP73,GSK3B,KDM2B,LOC728392,TGFB2,MAG,TRIM2,WNT5A,EIF4G1,NR4A3,CIT,SIX1,NGF,AGAP2,TFAP2A,SNCA,POU4F1,CDK5,DDI1,0.06E-02 T4,GDNF,LIG4,CHRNA7
GO:0086011	membrane repolarization during action potential	1.14E-02 KCNQ1,KCNH2,KCNN2,CAV1,KCNJ8,KCND3,KCNE3,NOS1AP
GO:1903524	positive regulation of blood circulation	1.14E-02 KCNQ1,TGFB2,CAV1,PDE4D,ADRA1A,EDN3,ADRA1B,NKX2-5,NOS1AP,MIR21
GO:0045216	cell-cell junction organization	1.16E-02 CBFβ,GRHL2,TGFB2,CAV1,CRB3,TLN1,KIFC3,TBCD,RAB13,PKP4,PARD3,PRKCA,RUNX1,ACE,CLDN1,GJB2,SMAD3
GO:0008015	blood circulation	CACNA1G,GCLM,KCNQ1,KCNH2,ATP2A3,KCNN2,NOS1,TGFB2,CAV1,NPR3,PDE4D,TNNT2,FKBP1B,ADRA1A,TBX2,KCNJ8,ITPR2,NFE2,EDN3,ENPEP,AGTR1,SLIT2,ANK2,C9ORF3,CACNA1C,CACNA1D,ACE,PTGDR,ADRA1B,SGCD,KCND3,LVRN,HOXB2,KCNE3,SLC8A1,NKX2-5,CTNNA3,RNLS,PDE2A,SRC,NOS1AP,MIR21
GO:0072202	cell differentiation involved in metanephros development	1.16E-02 SALL1,TCF21,BMP4,OSR1,SIX2,POU3F3
GO:0003184	pulmonary valve morphogenesis	1.16E-02 TGFB2,BMP4,SMAD6,SLIT2,HEYL,HEY1
GO:0060350	endochondral bone morphogenesis	1.16E-02 FOXC1,DLX5,BMP4,SOX9,BMPR1B,COL13A1

GO:0014031	mesenchymal cell development	1.17E-02	FOXC1,SEMA3C,HEYL,PITX2,HAND2,GDNF,ERBB4,TBX1,CYP26C1
GO:0007517	muscle organ development	1.18E-02	IGF1,HDAC9,GPC1,MYLK,TP73,TBX5,TGFB2,CAV2,CAV1,TNNT2,TCF21,TBX2,BMP4,SIX1,CHRND,SKI,VAMP5,ZFPM2,SGCD,ERBB4,EGR3,ZFPM1,NEUROG1,NKX2-5,TBX1,WT1,MKL2,TEAD4
GO:0070371	ERK1 and ERK2 cascade	1.21E-02	CX3CL1,CD4,IGF1,FLT4,FGF10,FBLN1,EZR,AVP,SLC9A3R1,GCNT2,ADRA1A,SOX9,CHI3L1,PDGFRA,DAB2IP,EMILIN1,DUSP6,EPHA2,EGFR,CNKSR3,PRKCA,SHC1,ALOX15,CAMK2N1,HAND2,BMPER,RGS14,PDGFD,P2RY6,CHRNA7,ERBB4,MIR21
GO:0051402	neuron apoptotic process	1.24E-02	CX3CL1,TFAP2B,FGF20,TP73,KDM2B,LOC728392,TGFB2,MAG,TRIM2,CIT,SIX1,NGF,AGAP2,TFAP2A,POU4F1,CDK5,GDNF,LIG4
GO:1901214	regulation of neuron death	1.28E-02	CX3CL1,TFAP2B,FGF20,TP73,GSK3B,KDM2B,TGFB2,MAG,TRIM2,WNT5A,EIF4G1,NR4A3,SIX1,NGF,AGAP2,TFAP2A,SNCA,POU4F1,CDK5,DDIT4,GDNF,LIG4,CHRNA7
GO:0048738	cardiac muscle tissue development	1.28E-02	IGF1,TP73,TBX5,TGFB2,BMP7,TNNT2,TBX2,OBSL1,BMP4,PDGFRA,SORBS2,ADAMTS9,ZFPM2,SGCD,AKAP13,ERBB4,ZFPM1,SLC8A1,NKX2-5,WT1
GO:0090066	regulation of anatomical structure size	1.28E-02	SCIN,GCLM,NTN1,NCK2,GSK3B,ADD1,NOS1,SH3BP1,PTPRS,MAG,CAV1,SLC9A3R1,PLXNA1,ADRA1A,EDN3,VIL1,ARPC1B,OLFM1,RAP1GAP2,GOLGA4,AGTR1,SLIT2,IQGAP2,EPS8,ACE,ALOX15,PTGDR,ADRA1B,DSCAM,RARG,BAIAP2,CDC42EP4,SLC8A1,PFN3,MIR21
GO:0043542	endothelial cell migration	1.32E-02	DCN,FLT4,HDAC9,SCARB1,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,PLCG1,BMP4,LOXL2,ETS1,DAB2IP,THBS1,CYP1B1,BCAS3,EPHA2,RAB13,RHOB,SLIT2,PRKC A,ADAMTS9,BMPER,ATOH8,GATA2,EGR3,GDF2,MIR10A,MIR21,MIR137



GO:0014020	primary neural tube formation	1.36E-02 GRHL2,KDM2B,TGFB2,BMP7,MTHFD1L,PRICKLE1,SKI,VANGL2,DLC1
GO:0045620	negative regulation of lymphocyte differentiation	1.36E-02 RUNX3,CBFB,SFRP1,JAK3,BMP4,FOXI1,RUNX1,SOCS1,MIR21
GO:1901215	negative regulation of neuron death	1.36E-02 CX3CL1,FGF20,TP73,GSK3B,KDM2B,MAG,EIF4G1,NR4A3,SIX1,NGF,AGAP2,SNCA,POU4F1,CDK5,GDNF,LIG4
GO:0055117	regulation of cardiac muscle contraction	1.36E-02 KCNQ1,NOS1,CAV1,PDE4D,FKBP1B,ADRA1A,ANK2,CACNA1C,KCNE3,SLC8A1,NKX2-5,CTNNA3,NOS1AP
GO:0040019	positive regulation of embryonic development	1.36E-02 IGF1,PHLDB1,WNT1,SIX1,OSR1,PHLDB2,OTX2,GDNF
GO:0060412	ventricular septum morphogenesis	1.36E-02 TGFB2,BMP4,SLIT2,HEYL,HEY1,ZFPM2,ZFPM1,NKX2-5
GO:0042472	inner ear morphogenesis	1.36E-02 SOX9,SIX1,TFAP2A,ZIC1,CHD7,TMIE,NEUROG1,TBX1
GO:0070169	positive regulation of biomineral tissue development	1.36E-02 BMP7,WNT6,BMP4,TFAP2A,BMPRI1B,OSR1,OSR2,SLC8A1,TMEM119

GO:0014033	neural crest cell differentiation	1.36E-02	SEMA3C,SOX9,GSC,PITX2,HAND2,GDNF,ERBB4,TBX1,CYP26C1
GO:0099622	cardiac muscle cell membrane repolarization	1.36E-02	KCNQ1,KCNH2,KCNN2,KCNJ8,ANK2,CACNA1D,KCND3,KCNE3,NOS1AP
GO:0031400	negative regulation of protein modification process	1.36E-02	HHATL,DCN,ZMYND11,SPI1,HYAL2,NCK2,FBLN1,TP73,GSK3B,MECOM,DNMT3B,EZR,BMP7,SFRP1,CAV1,PRKAG2,SLC9A3R1,PDE4D,CISH,EIF4G1,ERRF1,FKBP1B,SOCS2,TWIST1,CDKN1A,BMP4,PKIB,DAB2IP,SMAD6,EMILIN1,RGS3,DUSP6,SLIT2,SNCA,SFRP2,PARD3,HHEX,CNKSR3,UCHL1,ZFYVE28,CAMK2N1,PAQR3,NXN,DDIT4,RGS14,TRIB1,LRRTM4,SOCS1,RTN4RL1,PPP1R11,SOCS7,MIR21
GO:0046632	alpha-beta T cell differentiation	1.36E-02	RUNX3,PRDM1,CBFB,JAK3,FOXP1,RARA,RORC,NFKBIZ,RUNX1,NLRP3,ZFPM1,SOCS1,MIR21
GO:0090101	negative regulation of transmembrane receptor protein serine/threonine kinase sign:	1.36E-02	LTBP1,CAV1,WNT1,FST,SMAD6,EMILIN1,PRDM16,DLX1,SKI,BMPER,FBN1,SMAD3,VASN,WFIKKN2,BCL9L,SMURF1
GO:0040008	regulation of growth	1.38E-02	IGF1,NTN1,HYAL2,TP73,GSK3B,TBX5,LTBP4,TGFB2,SGK3,SFRP1,PTPRS,MAG,BCL6,PLXNA1,CISH,EIF4G1,SOCS2,TBX2,CDKN1A,BMP4,SIX1,SMARCA4,OLFM1,RFTN1,DUSP6,NKD1,ADAM15,GOLGA4,AGTR1,SLIT2,SFRP2,EGFR,SMAD3,GNG4,INSR,DSCAM,STAT5B,ERBB4,WT1,NRG3,AGRN,SMURF1,SIPA1,GDF2
GO:0031589	cell-substrate adhesion	1.40E-02	CX3CL1,LIMCH1,FBLN1,ITGA8,GSK3B,SFRP1,VWF,GCNT2,ITGA4,WNT1,HOXD3,THBS1,SMAD6,EMILIN1,BCAS3,TBCD,ADAM15,PHLDB2,CCL28,PTPRK,CD96,RADIL,ALOX15,ADAMTS9,DLC1,ADAM9,EPHB3,TACSTD2,SRC,COL13A1
GO:0001502	cartilage condensation	1.49E-02	BARX2,SOX9,BMPR1B,ALX1

GO:0043374	CD8-positive, alpha-beta T cell differentiation	1.49E-02 RUNX3,CBFB,RUNX1,SOCS1
GO:0030282	bone mineralization	1.49E-02 IGF1,BMP7,TWIST1,BMP4,TFAP2A,BMPR1B,OSR1,ALOX15,OSR2,SLC8A1,TMEM119,ZBTB40,LGR4
GO:2000178	negative regulation of neural precursor cell proliferation	1.49E-02 KDM2B,WNT5A,GATA2,MIR137
GO:1901379	regulation of potassium ion transmembrane transport	1.49E-02 KCNQ1,KCNH2,KCNN2,CAV1,KCNS1,ANK2,ANK3,CACNA1D,KCNE3,KCNIP1,KCNIP4,NOS1AP,MIR21
GO:0003158	endothelium development	1.49E-02 ADD1,EZR,PDE4D,FGF1,FOXP1,BMP4,RHOB,SCUBE1,HEY1,ATOH8,PDE2A,WNT7B,NOTCH4,PECAM1,MIR10A,MIR21
GO:0097623	potassium ion export across plasma membrane	1.49E-02 KCNQ1,KCNH2,KCND3,KCNE3
GO:0048016	inositol phosphate-mediated signaling	1.49E-02 IGF1,INPP5A,GSK3B,FHL2,RCAN3,EDN3,DYRK2,NFATC1,CAMTA1,C10ORF71
GO:0003181	atrioventricular valve morphogenesis	1.50E-02 TGFB2,OLFM1,SMAD6,HEY1,HEY1,ZFPM1

GO:0048384	retinoic acid receptor signaling pathway	1.50E-02	EZH2,RARA,RARG,CTBP2,TBX1,CYP26C1
GO:0032970	regulation of actin filament-based process	1.50E-02	CX3CL1,SCIN,LIMCH1,NCK2,ADD1,SH3BP1,SFRP1,CAV1,PDE4D,VIL1,ARPC1B,PDGFRA,BCAS3,PHLDB2,SLIT2,ANK2,IQGAP2,CACNA1C,EPSS8,ALOX15,DLC1,DK5,AKAP13,SYNPO,SYNPO2,KCNE3,BAIAP2,CDC42EP4,CTNNA3,TACSTD2,EVL,PFN3,NOS1AP,MIR21
GO:0007162	negative regulation of cell adhesion	1.57E-02	CX3CL1,RUNX3,CBFB,FBLN1,JAK3,ALOX12,GCNT2,WNT1,BMP4,FOXJ1,THBS1,CYP1B1,ADAMTS18,BCAS3,TBCD,ADAM15,PHLDB2,CCL28,RUNX1,DLC1,DSCAM,TACSTD2,SOCS1,SRC,MBP,SIPA1,MIR21
GO:0007264	small GTPase mediated signal transduction	1.60E-02	IGF1,TRIO,TKN2,NTN1,FGF10,TGFB2,SH3BP1,RASAL3,ARHGFEF17,APOC3,DENND1A,ADRA1A,ARHGAP9,CDKN1A,ARHGAP22,NGF,DAB2IP,ARHGAP17,KSR1,RHOB,AGTR1,SLIT2,ARHGAP26,GNA12,EPSS8,RASGRP3,OBSCN,AUTS2,ABR,KALRN,SHC1,DLC1,ARHGAP12,AKAP13,ABRA,CDC42EP4,RASA3,SRGAP1,SRC,GP
GO:0062013	positive regulation of small molecule metabolic process	1.60E-02	R56,ARHGAP23
GO:0062013	positive regulation of small molecule metabolic process	1.60E-02	IGF1,NOS1,GCK,FGF1,NR4A3,TWIST1,DYRK2,SNCA,ABCG1,IRS1,PFKFB3,INSR,P2RY6,BEND3,PLIN5
GO:0098760	response to interleukin-7	1.61E-02	JAK3,CISH,SOCS2,SMARCA4,IRS1,STAT5B,SOCS1,HIST1H3E
GO:0098761	cellular response to interleukin-7	1.61E-02	JAK3,CISH,SOCS2,SMARCA4,IRS1,STAT5B,SOCS1,HIST1H3E
GO:0006836	neurotransmitter transport	1.61E-02	SLC25A13,DTNBP1,NOS1,SLC17A6,NRXN2,SLC1A2,SLC38A1,VAMP8,PNKD,SLC44A2,SEC14L1,SYTL1,SNCA,PTPRN2,CDK5,SLC18A2,GDNF,SYT9,TRH,MCTP1,SYN3,PIP5K1C

GO:0060218	hematopoietic stem cell differentiation	1.61E-02	FOXC1,CBFB,TP73,SFRP1,RUNX1,ACE,GATA2,HOXB4
GO:0038111	interleukin-7-mediated signaling pathway	1.61E-02	JAK3,CISH,SOCS2,SMARCA4,IRS1,STAT5B,SOCS1,HIST1H3E
GO:0021772	olfactory bulb development	1.71E-02	SALL1,WNT5A,SLIT2,SKI,ERBB4
GO:0021988	olfactory lobe development	1.71E-02	SALL1,WNT5A,SLIT2,SKI,ERBB4
GO:0060766	negative regulation of androgen receptor signaling pathway	1.71E-02	SFRP1,FOXP1,TCF21,SMARCA4,HEYL
GO:0086009	membrane repolarization	1.71E-02	KCNQ1,KCNH2,KCNN2,CAV1,KCNJ8,ANK2,CACNA1D,KCND3,KCNE3,NOS1AP
GO:0072087	renal vesicle development	1.71E-02	SALL1,BMP4,SOX9,OSR1,SIX2
GO:1903707	negative regulation of hemopoiesis	1.71E-02	RUNX3,CBFB,SFRP1,JAK3,HOXA5,ZBTB16,BMP4,FOXJ1,RARA,MEIS2,MEIS1,RUNX1,FBN1,ZFPM1,SOCS1,HESS,MIR21

GO:0090185	negative regulation of kidney development	1.71E-02 BMP7,BMP4,OSR1,TACSTD2,WT1
GO:0086065	cell communication involved in cardiac conduction	1.74E-02 CACNA1G,KCNQ1,KCNN2,CAV1,PDE4D,FKBP1B,ANK2,CACNA1C,CACNA1D,SLC8A1,CTNNA3
GO:0043405	regulation of MAP kinase activity	IGF1,HYAL2,FGF10,TP73,BMP7,MAP4K1,CAV1,EZH2,FGF1,WNT5A,PKN1,EDN3,BMP4,NGF,DAB2IP,THBS1,RGS3,DUSP6,KSR1,MAP3K6,EGFR,UCHL1,SHC1,P 1.78E-02 AQR3,PROK2,ADAM9,RGS14,PDGFD,INSR,MAP3K11,TRIB1,CHRNA7
GO:0051271	negative regulation of cellular component movement	CX3CL1,DCN,LIMCH1,HYAL2,FBLN1,TBX5,STK24,SFRP1,DAB2IP,THBS1,CYP1B1,EMILIN1,ADAM15,RHOB,PHLDB2,SLIT2,SFRP2,CCL28,PTPRK,ADAMTS9,DLC 1.82E-02 1,TRIB1,MCTP1,KCNE3,TACSTD2,SPOCK3,EVL,SRGAP1,GPR56,GDF2,DACH1,MIR10A,MIR21,MIR137
GO:0010595	positive regulation of endothelial cell migration	1.82E-02 FLT4,HDAC9,SCARB1,SMOC2,FGF1,WNT5A,FOXP1,PLCG1,BMP4,ETS1,THBS1,BCAS3,RHOB,PRKCA,ATOH8,GATA2,MIR10A,MIR21
GO:0071364	cellular response to epidermal growth factor stimulus	1.84E-02 FOXC1,PLCG1,SOX9,VIL1,DAB2IP,EGFR,STAT5B
GO:0001841	neural tube formation	1.86E-02 GRHL2,KDM2B,TGFB2,BMP7,MTHFD1L,PRICKLE1,SKI,VANGL2,DLC1
GO:0007043	cell-cell junction assembly	1.90E-02 CBFβ,GRHL2,CAV1,CRB3,TLN1,TBCD,RAB13,PKP4,PAR3,PRKCA,RUNX1,ACE,CLDN1,GJB2

GO:0019932	second-messenger-mediated signaling	IGF1,INPP5A,ADCY2,GSK3B,NOS1,P2RX3,PDE4D,PEX5L,FHL2,RCAN3,FKBP1B,ADRA1A,PLCG1,EDN3,TCP11,SOX9,DYRK2,NFATC1,THBS1,KSR1,AGTR1,ANK2, 1.90E-02 EGFR,CACNA1C,PRKCA,ADRA1B,AKAP13,P2RY6,CAMTA1,MCTP1,C10ORF71,SLC8A1,PDE2A,NOS1AP
GO:1904062	regulation of cation transmembrane transport	CX3CL1,KCNQ1,KCNH2,GNB5,KCNN2,TESC,NOS1,CAV1,SLC9A3R1,STIM2,PDE4D,FKBP1B,KCNS1,PLCG1,UBQLN1,OSR1,SNCA,ANK2,CACNA1C,ANK3,CACNA 1.90E-02 1D,SLMAP,P2RY6,KCNE3,KCNIP1,SLC8A1,KCNIP4,DAPK1,NOS1AP,MIR21
GO:0001708	cell fate specification	1.90E-02 SOX9,PPDPF,GSC,DUSP6,ASCL1,POU4F1,SIX2,TBX1
GO:0030501	positive regulation of bone mineralization	1.90E-02 BMP7,BMP4,TFAP2A,BMPR1B,OSR1,OSR2,SLC8A1,TMEM119
GO:0038128	ERBB2 signaling pathway	1.90E-02 PTPN18,GRB7,EGFR,PRKCA,NRG2,SHC1,CUL5,ERBB4
GO:0035567	non-canonical Wnt signaling pathway	1.90E-02 TNRC6C,SFRP1,SFRP4,WNT5A,SFRP5,WNT1,NFATC1,PLCB2,PRICKLE1,NKD1,SFRP2,PRICKLE2,ROR2,ZNRF3,SMURF1
GO:0003177	pulmonary valve development	1.91E-02 TGFB2,BMP4,SMAD6,SLIT2,HEYL,HEY1
GO:0021879	forebrain neuron differentiation	1.91E-02 SALL1,LHX6,WNT5A,ASCL1,SLIT2,ERBB4

GO:0003180	aortic valve morphogenesis	1.91E-02	TWIST1,BMP4,GATA4,SMAD6,EMILIN1,SLIT2
GO:0033137	negative regulation of peptidyl-serine phosphorylation	1.91E-02	NCK2,CAV1,PDE4D,CNKS3,PAQR3,DDIT4
GO:0030217	T cell differentiation	1.92E-02	CD4,RUNX3,PRDM1,CBFB,JAK3,LFNG,BCL6,FOXP1,BMP4,FOXJ1,RARA,RORC,NFKBIZ,RUNX1,NLRP3,CHD7,PIK3CD,LIG4,ZFPM1,SOCS1,MIR21
GO:2000146	negative regulation of cell motility	1.94E-02	CX3CL1,DCN,LIMCH1,HYAL2,FBLN1,TBX5,STK24,SFRP1,DAB2IP,THBS1,CYP1B1,EMILIN1,ADAM15,RHOB,PHLDB2,SLIT2,SFRP2,CCL28,PTPRK,ADAMTS9,DLC1,TRIB1,MCTP1,TACSTD2,SPOCK3,EVL,SRGAP1,GPR56,GDF2,DACH1,MIR10A,MIR21,MIR137
GO:0010594	regulation of endothelial cell migration	2.05E-02	DCN,FLT4,HDAC9,SCARB1,SH3BP1,SMOC2,FGF1,WNT5A,FOXP1,PLCG1,BMP4,ETS1,DAB2IP,THBS1,BCAS3,EPHA2,RHOB,SLIT2,PRKCA,ADAMTS9,BMPER,ATOH8,GATA2,GDF2,MIR10A,MIR21,MIR137
GO:0043266	regulation of potassium ion transport	2.06E-02	KCNQ1,KCNH2,KCNN2,NOS1,CAV1,KCNS1,ANK2,ANK3,CACNA1D,KCNE3,KCNIP1,KCNIP4,NOS1AP,MIR21
GO:0006941	striated muscle contraction	2.06E-02	CACNA1G,KCNQ1,KCNH2,KCNN2,NOS1,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,KCNJ8,OBSL1,ANK2,CACNA1C,CACNA1D,KCNE3,SLC8A1,NKX2-5,CTNNA3,NOS1AP,MYBPHL
GO:0043270	positive regulation of ion transport	2.06E-02	CX3CL1,KCNQ1,KCNH2,MYLK,TESC,NOS1,CAV1,STIM2,P2RX3,VAMP8,PLCG1,TRPC3,SNCA,ANK2,ANK3,CNKS3,CACNA1D,GDNF,TRH,P2RY6,NKX2-5,NOS1AP,MIR21



GO:0048638	regulation of developmental growth	2.06E-02	IGF1,NTN1,TP73,GSK3B,TBX5,PTPRS,MAG,PLXNA1,TBX2,BMP4,SIX1,OLFM1,DUSP6,NKD1,GOLGA4,INSR,DSCAM,STAT5B,ERBB4,WT1,AGRN,SMURF1
GO:0035710	CD4-positive, alpha-beta T cell activation	2.11E-02	RUNX3,CBFB,JAK3,FOXP1,RARA,RORC,NFKBIZ,RUNX1,NLRP3,ZFPM1,SOCS1,MIR21
GO:0030512	negative regulation of transforming growth factor beta receptor signaling pathway	2.11E-02	LTBP1,CAV1,SMAD6,EMILIN1,PRDM16,SKI,FBN1,SMAD3,VASN,WFIKKN2,BCL9L,SMURF1
GO:0051058	negative regulation of small GTPase mediated signal transduction	2.11E-02	TGFB2,SH3BP1,RASAL3,ADRA1A,DAB2IP,SLIT2,DLCL1,ARHGAP12,RASA3
GO:0043370	regulation of CD4-positive, alpha-beta T cell differentiation	2.11E-02	RUNX3,CBFB,JAK3,RARA,NFKBIZ,RUNX1,NLRP3,SOCS1,MIR21
GO:0048675	axon extension	2.11E-02	NTN1,GSK3B,PTPRS,MAG,PLXNA1,OLFM1,GOLGA4,SLIT2,AUTS2,CDK5,ALCAM,DSCAM
GO:0006936	muscle contraction	2.14E-02	CACNA1G,KCNQ1,KCNH2,MYLK,KCNN2,NOS1,CAV1,PDE4D,TNNT2,FKBP1B,ADRA1A,KCNJ8,CALD1,OBSL1,EDN3,CNN1,CHRND,TLN1,TMOD3,ANK2,CACNA1C,CACNA1D,PROK2,SLMAP,GDNF,ADRA1B,KCNE3,NEUROG1,SLC8A1,NKX2-5,CTNNA3,NOS1AP,MYBPHL,MIR21
GO:0006813	potassium ion transport	2.15E-02	KCNQ1,KCNH2,KCNN2,NOS1,KCNN4,CAV1,KCNJ8,KCNS1,KCNC1,KCNH3,ANK2,ANK3,CACNA1D,KCNJ6,KCNK5,KCNAB3,KCND3,KCNE3,KCNA3,KCNIP1,KCNIP4,NOS1AP,MIR21

GO:0060042	retina morphogenesis in camera-type eye	2.17E-02 PROM1,TFAP2B,TSPAN12,SOX9,TFAP2A,MEGF11,DSCAM
GO:0035909	aorta morphogenesis	2.17E-02 TFAP2B,MYLK,TGFB2,TBX2,ADAMTS9,HEY1,TBX1
GO:0099625	ventricular cardiac muscle cell membrane repolarization	2.17E-02 KCNQ1,KCNH2,KCNJ8,ANK2,KCND3,KCNE3,NOS1AP
GO:0003231	cardiac ventricle development	2.17E-02 TBX5,TGFB2,SALL1,TNNT2,BMP4,GATA4,SLIT2,SFRP2,HEYL,HEY1,ZFPM2,ZFPM1,NKX2-5
GO:1901654	response to ketone	2.17E-02 ADCY2,TGFB2,SFRP1,MAP4K1,CAV1,THBS1,ADAM15,SLIT2,LARP1,PTGDR,SRC
GO:0086013	membrane repolarization during cardiac muscle cell action potential	2.17E-02 KCNQ1,KCNH2,KCNN2,KCNJ8,KCND3,KCNE3,NOS1AP
GO:0043523	regulation of neuron apoptotic process	2.17E-02 CX3CL1,TFAP2B,FGF20,TP73,KDM2B,TGFB2,MAG,TRIM2,SIX1,NGF,AGAP2,TFAP2A,POU4F1,CDK5,GDNF,LIG4
GO:0002064	epithelial cell development	2.21E-02 PAX6,GSK3B,GRHL2,ADD1,EZR,WNT5B,PDE4D,BMP4,FOXJ1,SIX3,EPHA2,RAB13,NKX6-1,PDE2A,WNT7B

GO:0072273	metanephric nephron morphogenesis	2.24E-02 SALL1,BMP4,SOX9,SIX2,WT1
GO:0072239	metanephric glomerulus vasculature development	2.24E-02 TCF21,PDGFRA,OSR1,WT1
GO:0043378	positive regulation of CD8-positive, alpha-beta T cell differentiation	2.24E-02 RUNX3,CBFB,RUNX1
GO:0001958	endochondral ossification	2.24E-02 FOXC1,DLX5,BMP4,COL13A1
GO:0060681	branch elongation involved in ureteric bud branching	2.24E-02 FGF1,BMP4,SIX1
GO:0098915	membrane repolarization during ventricular cardiac muscle cell action potential	2.24E-02 KCNQ1,KCNH2,KCNJ8,KCNE3,NOS1AP
GO:0072017	distal tubule development	2.24E-02 TFAP2B,WNK4,KLHL3,POU3F3
GO:0072074	kidney mesenchyme development	2.24E-02 TCF21,SIX1,OSR1,SIX2,WT1

GO:0072497	mesenchymal stem cell differentiation	2.24E-02 WNT3,SOX9,SOX5,PDGFRA
GO:0043409	negative regulation of MAPK cascade	2.24E-02 ZMYND11,HYAL2,FBLN1,TP73,MECOM,EZR,BMP7,CAV1,SLC9A3R1,BMP4,DAB2IP,EMILIN1,RGS3,DUSP6,CNKSR3,UCHL1,CAMK2N1,PAQR3,RGS14,MIR21
GO:0045725	positive regulation of glycogen biosynthetic process	2.24E-02 IGF1,GCK,DYRK2,IRS1,INSR
GO:0072103	glomerulus vasculature morphogenesis	2.24E-02 TCF21,BMP4,PDGFRA
GO:0072104	glomerular capillary formation	2.24E-02 TCF21,BMP4,PDGFRA
GO:0042473	outer ear morphogenesis	2.24E-02 SALL1,TWIST1,TBX1
GO:0036075	replacement ossification	2.24E-02 FOXC1,DLX5,BMP4,COL13A1
GO:0098743	cell aggregation	2.24E-02 BARX2,SOX9,BMPR1B,ALX1

GO:0040017	positive regulation of locomotion	IGF1,FLT4,HDAC9,NTN1,MYLK,FGF10,SCARB1,SEMA3C,TGFB2,CAV2,RARRES2,SPOCK2,WNT5B,GCNT2,SMOC2,FGF1,WNT5A,FOXP1,DOCK7,NR4A3,TWIST1,PLCG1,EDN3,BMP4,SOX9,VIL1,PDGFRA,ETS1,DAB2IP,THBS1,BCAS3,GRB7,RHOB,SLIT2,EGFR,PRKCA,ADAM9,ATOH8,ROR2,PDGFD,INSR,DSCAM,PIK3CD,G 2.31E-02 ATA2,CAMK1D,Src,MIR10A,MIR21
GO:0051962	positive regulation of nervous system development	CX3CL1,NTN1,FGF20,SMARCD3,BMP7,CPEB3,CUX2,WNT5A,OBSL1,HOXD3,NGF,DAB2IP,ZNF365,ASCL1,DLX1,GOLGA4,SLIT2,PAR3,HEYL,RGS14,ZNF804A, 2.31E-02 DSCAM,LIG4,NEUROG1,EPHB3,CAMK1D,NKX2-5,AGRN,SMURF1,CUX1,MIR137
GO:0003171	atrioventricular valve development	2.31E-02 TGFB2,OLFM1,SMAD6,HEYL,HEY1,ZFPM1
GO:2000679	positive regulation of transcription regulatory region DNA binding	2.31E-02 IGF1,FOXC1,TWIST1,HMGA2,POU4F1,HAND2
GO:0034762	regulation of transmembrane transport	CX3CL1,IGF1,KCNQ1,KCNH2,GNB5,KCNN2,TESC,NOS1,CAV1,RARRES2,PRKAG2,SLC9A3R1,STIM2,PDE4D,NR4A3,FKBP1B,KCNS1,PLCG1,UBQLN1,THBS1,OS 2.32E-02 R1,SNCA,ANK2,CACNA1C,ANK3,CACNA1D,SLMAP,IRS1,INSR,P2RY6,KCNE3,KCNIP1,SLC8A1,KCNIP4,DAPK1,NOS1AP,MIR21
GO:0071300	cellular response to retinoic acid	2.32E-02 TESC,WNT3,WNT5B,WNT5A,WNT6,SOX9,RARA,TBX1,WNT7B
GO:1903844	regulation of cellular response to transforming growth factor beta stimulus	2.32E-02 LTBP1,LTBP4,CAV1,THBS1,SMAD6,EMILIN1,PRDM16,DLX1,SKI,FBN1,SMAD3,VASN,WFIKKN2,BCL9L,SMURF1
GO:0032526	response to retinoic acid	2.33E-02 TESC,WNT3,WNT5B,WNT5A,WNT6,SOX9,RARA,ASCL1,RARG,TBX1,WNT7B

GO:0051272	positive regulation of cellular component movement	IGF1,FLT4,HDAC9,NTN1,MYLK,FGF10,SCARB1,SEMA3C,TGFB2,RARRES2,SPOCK2,WNT5B,GCNT2,SMOC2,FGF1,WNT5A,FOXP1,DOCK7,NR4A3,TWIST1,PLCG1,EDN3,BMP4,SOX9,VIL1,PDGFRA,ETS1,DAB2IP,THBS1,BCAS3,GRB7,RHOB,EGFR,PRKCA,ADAM9,ATOH8,ROR2,PDGFD,INSR,DSCAM,PIK3CD,GATA2,CAMK1D,SRC,NOS1AP,MIR10A,MIR21
GO:0014066	regulation of phosphatidylinositol 3-kinase signaling	2.33E-02 WNT16,DCN,IGF1,TGFB2,SLC9A3R1,TWIST1,SOX9,PDGFRA,DAB2IP,IER3,EGFR,PDGFD,PIP5K1C,MIR21
GO:0046637	regulation of alpha-beta T cell differentiation	2.36E-02 RUNX3,PRDM1,CBFB,JAK3,RARA,NFKBIZ,RUNX1,NLRP3,SOCS1,MIR21
GO:0110110	positive regulation of animal organ morphogenesis	2.36E-02 SEMA3C,TGFB2,WNT6,BMP4,SOX9,SIX1,TFAP2A,HAND2,GDNF,WT1
GO:0071396	cellular response to lipid	CX3CL1,PIAS1,CBFB,ADCY2,TESC,BMP7,SFRP1,MAP4K1,WNT3,WNT5B,WNT5A,FOXP1,WNT6,FHL2,TCF21,BMP4,SOX9,SMARCA4,RARA,DAB2IP,RORC,ADAM15,EGFR,MTDH,POU4F1,PRKCA,RUNX1,GFI1,NLRP3,HEYL,PTGDR,ADAM9,TRIB1,TBX1,SIGIRR,TLR5,WNT7B,SRC,MIR21
GO:1902106	negative regulation of leukocyte differentiation	2.49E-02 RUNX3,CBFB,SFRP1,JAK3,BMP4,FOXJ1,RARA,RUNX1,FBN1,ZFPM1,SOCS1,MIR21
GO:0003197	endocardial cushion development	2.49E-02 TGFB2,BMP7,TBX2,BMP4,SOX9,GATA4,HEYL,HEY1
GO:0098901	regulation of cardiac muscle cell action potential	2.49E-02 CAV1,ANK2,CACNA1C,ANK3,SLMAP,KCNE3,CTNNA3,NOS1AP

GO:0045581	negative regulation of T cell differentiation	2.49E-02	RUNX3,CBFB,JAK3,BMP4,FOXI1,RUNX1,SOCS1,MIR21
GO:0045823	positive regulation of heart contraction	2.52E-02	KCNQ1,TGFB2,PDE4D,ADRA1A,EDN3,NKX2-5,NOS1AP
GO:0034369	plasma lipoprotein particle remodeling	2.52E-02	SCARB1,APOC3,AGTR1,ABCA5,ABCG1,LIPC,LPL
GO:0034368	protein-lipid complex remodeling	2.52E-02	SCARB1,APOC3,AGTR1,ABCA5,ABCG1,LIPC,LPL
GO:0034367	protein-containing complex remodeling	2.52E-02	SCARB1,APOC3,AGTR1,ABCA5,ABCG1,LIPC,LPL
GO:0040013	negative regulation of locomotion	2.54E-02	CX3CL1,DCN,LIMCH1,HYAL2,FBLN1,TBX5,STK24,SFRP1,DAB2IP,THBS1,CYP1B1,EMILIN1,ADAM15,RHOB,PHLDB2,SLIT2,SFRP2,CCL28,PTPRK,ADAMTS9,DLG1,TRIB1,MCTP1,TACSTD2,SPOCK3,EVL,SRGAP1,GPR56,TRIM26,GDF2,DACH1,MIR10A,MIR21,MIR137
GO:0060395	SMAD protein signal transduction	2.60E-02	TGFB2,BMP7,BMP4,GDF1,GDF7,BTBD11,GDF6,SKI,SMAD3,ATOX1B1,GDF2
GO:0042692	muscle cell differentiation	2.60E-02	IGF1,HDAC9,CTNNA2,HDAC4,NOS1,CAV2,TBX2,OBSL1,BMP4,NFATC1,PDGFRA,TMOD3,BNIP2,GATA6,ANK2,OBSCN,SORBS2,SKI,FBXO40,HEY1,SGCD,AKAP13,SLC8A1,NKX2-5,TBX1,WT1,MKL2,MYBPHL,MIR21

GO:0070372	regulation of ERK1 and ERK2 cascade	<p>CX3CL1,CD4,FLT4,FGF10,FBLN1,EZR,SLC9A3R1,GCNT2,ADRA1A,CHI3L1,PDGFRA,DAB2IP,EMILIN1,DUSP6,EPHA2,EGFR,CNKSRR3,PRKCA,SHC1,ALOX15,CAM  2.76E-02 K2N1,HAND2,BMPER,SGS14,PDGFD,P2RY6,CHRNA7,ERBB4,MIR21</p>
GO:0007369	gastrulation	2.79E-02 PHLDB1,ITGA8,COL12A1,ITGA4,NR4A3,BMP4,GSC,DUSP6,OSR1,COL8A1,PHLDB2,HMGA2,OTX2,ATOH8,SIX2,LAMB3,MBP
GO:0045598	regulation of fat cell differentiation	2.82E-02 TRIO,SFRP1,RARRES2,ZBTB16,WNT5A,WNT1,RORC,SFRP2,ZNF385A,SMAD3,ZFPM2,GATA2,ZFPM1,MIR21
GO:0021537	telencephalon development	2.82E-02 GSK3B,KDM2B,SALL1,LHX6,WNT5A,BMP4,DAB2IP,SIX3,SLIT2,SKI,ERBB4,EPHB3,HESS,GPR56
GO:0043410	positive regulation of MAPK cascade	<p>WNT16,CX3CL1,CD4,IGF1,FLT4,FGF10,TGFB2,MAP4K1,CAV2,EZH2,GCNT2,FGF1,WNT5A,STK25,ADRA1A,PKN1,EDN3,BMP4,CHI3L1,NGF,PDGFRA,DAB2IP,T  HBS1,DUSP6,KSR1,MAP3K6,EGFR,PRKCA,GDF6,SHC1,ALOX15,PROK2,HAND2,BMPER,ADAM9,GPR37L1,ADRA1B,PDGFD,INSR,P2RY6,MAP3K11,CHRNA7,ER  2.82E-02 BB4,TBX1,MIR21</p>
GO:1901889	negative regulation of cell junction assembly	2.88E-02 THBS1,BCAS3,PHLDB2,ACE,DLC1,SRC
GO:0021545	cranial nerve development	2.88E-02 SALL1,TFAP2A,POU4F1,CHD7,NEUROG1,TBX1
GO:0003176	aortic valve development	2.88E-02 TWIST1,BMP4,GATA4,SMAD6,EMILIN1,SLIT2



GO:0005979	regulation of glycogen biosynthetic process	2.88E-02	IGF1,GSK3B,GCK,DYRK2,IRS1,INSR
GO:0010962	regulation of glucan biosynthetic process	2.88E-02	IGF1,GSK3B,GCK,DYRK2,IRS1,INSR
GO:0070875	positive regulation of glycogen metabolic process	2.89E-02	IGF1,GCK,DYRK2,IRS1,INSR
GO:0035850	epithelial cell differentiation involved in kidney development	2.89E-02	PROM1,SALL1,BMP4,FOXJ1,OSR1,SIX2,MTSS1,WT1
GO:0031128	developmental induction	2.89E-02	SALL1,WNT1,BMP4,SOX9,SIX1
GO:0051895	negative regulation of focal adhesion assembly	2.89E-02	THBS1,BCAS3,PHLDB2,DLC1,SRC
GO:0071435	potassium ion export	2.89E-02	KCNQ1,KCNH2,KCND3,KCNE3,MIR21
GO:0030336	negative regulation of cell migration	2.89E-02	CX3CL1,DCN,LIMCH1,HYAL2,TBX5,STK24,SFRP1,DAB2IP,THBS1,CYP1B1,EMILIN1,ADAM15,RHOB,PHLDB2,SLIT2,SFRP2,CCL28,PTPRK,ADAMTS9,DLC1,TRIB1, MCTP1,TACSTD2,EVL,SRGAP1,GPR56,GDF2,DACH1,MIR10A,MIR21,MIR137

GO:0060606	tube closure	2.89E-02 GRHL2,KDM2B,TGFB2,MTHFD1L,PRICKLE1,SKI,VANGL2,DLC1
GO:0072207	metanephric epithelium development	2.89E-02 SOX9,OSR1,WT1,WNT7B,POU3F3
GO:0007422	peripheral nervous system development	2.89E-02 RUNX3,GPC1,PARD3,POU4F1,SKI,RUNX1,ISL2,GDNF
GO:1904948	midbrain dopaminergic neuron differentiation	2.89E-02 WNT3,WNT5A,WNT1,NR4A2,LMX1A
GO:0001843	neural tube closure	2.89E-02 GRHL2,KDM2B,TGFB2,MTHFD1L,PRICKLE1,SKI,VANGL2,DLC1
GO:0034765	regulation of ion transmembrane transport	2.99E-02 CX3CL1,KCNQ1,KCNH2,GNB5,KCNN2,TESC,NOS1,CAV1,SLC9A3R1,STIM2,PDE4D,FKBP1B,KCNS1,PLCG1,UBQLN1,THBS1,OSR1,SNCA,ANK2,CACNA1C,ANK3,CACNA1D,SLMAP,P2RY6,KCNE3,KCNIP1,SLC8A1,KCNIP4,DAPK1,NOS1AP,MIR21
GO:0070849	response to epidermal growth factor	2.99E-02 FOXC1,PLCG1,SOX9,VIL1,DAB2IP,EGFR,STAT5B
GO:0043388	positive regulation of DNA binding	2.99E-02 PLAUR,IGF1,FOXC1,TWIST1,NGF,HMGA2,POU4F1,SKI,HAND2

GO:0010644	cell communication by electrical coupling	2.99E-02	CAV1,PDE4D,FKBP1B,CACNA1C,ANK3,SLC8A1,GJC2
GO:1905207	regulation of cardiocyte differentiation	2.99E-02	IGF1,SEMA3C,TBX5,TGFB2,BMP4,GATA4,PRICKLE1,EGFR,NKX2-5
GO:0070373	negative regulation of ERK1 and ERK2 cascade	2.99E-02	FBLN1,EZR,SLC9A3R1,DAB2IP,EMILIN1,DUSP6,CNKSR3,CAMK2N1,RGS14,MIR21
GO:0048608	reproductive structure development	3.00E-02	TGFB2,BMP7,SALL1,WNT5A,TCF21,SOX9,PDGFRA,GATA4,FOXF2,BMPR1B,GATA6,RAB13,SLIT2,HEY1,CHD7,STOX2,NEUROG1,WT1,TLR5,WNT7B
GO:0061458	reproductive system development	3.00E-02	TGFB2,BMP7,SALL1,WNT5A,TCF21,SOX9,PDGFRA,GATA4,FOXF2,BMPR1B,GATA6,RAB13,SLIT2,HEY1,CHD7,STOX2,NEUROG1,WT1,TLR5,WNT7B
GO:0030098	lymphocyte differentiation	3.04E-02	CD4,RUNX3,HDAC9,PRDM1,CBFB,HDAC4,SFRP1,JAK3,LFNG,BCL6,FOXP1,ITGA4,BMP4,FOXJ1,RARA,HNF1A,RORC,NFKBIZ,HHEX,RUNX1,NLRP3,CHD7,PIK3CD,LIG4,ZFPM1,SOCS1,MIR21
GO:0097190	apoptotic signaling pathway	3.07E-02	CX3CL1,PLAUR,ZMYND11,IGF1,HYAL2,BCL3,TP73,GSK3B,TGFB2,AVP,STK24,TRADD,BMF,SFRP1,BNIP3L,CAV1,SLC9A3R1,STK25,TNFRSF8,CDKN1A,BMP4,DYRK2,NGF,UBQLN1,DAB2IP,THBS1,CYP1B1,NOL3,EPHA2,SFRP2,ZNF385D,POU4F1,NR4A2,PRKCA,ZNF385A,TNFRSF11B,SGPL1,CUL5,SMAD3,DDIT4,GDNF,PELI3,HIC1,WWOX,FHIT,DAPK1,Src,MIR21
GO:0045666	positive regulation of neuron differentiation	3.20E-02	CX3CL1,NTN1,FGF20,BMP7,CPEB3,CUX2,WNT5A,OBSL1,HOXD3,NGF,DAB2IP,ASCL1,DLX1,GOLGA4,SLIT2,HEY1,ZNF804A,DSCAM,NEUROG1,CAMK1D,NKX2-5,SMURF1,CUX1,MIR137

GO:0007601	visual perception	3.22E-02 PAX6,ABLIM1,POU6F2,VAX2,ATF6,SFRP5,OPA3,GUCY2D,MYO7A,CYP1B1,SIX3,COL2A1,KIFC3,ATXN7,CRYGB,TACSTD2,SIX6,ABCA4
GO:1990778	protein localization to cell periphery	TTC7A,EPB41L2,TESE,EZR,CAV1,SLC9A3R1,RAB34,SPTBN1,VAMP8,CRB3,MAP7,EPHA2,RAB13,GOLGA4,ANK2,EGFR,ANK3,SLMAP,CDK5,TTC7B,TUB,RAB31, 3.22E-02 RAB37,GAK,PACS2,KCNIP4,SMURF1
GO:0072079	nephron tubule formation	3.25E-02 SOX9,SIX1,OSR1,GDNF
GO:0060900	embryonic camera-type eye formation	3.25E-02 WNT16,WNT5A,TWIST1,TFAP2A
GO:0050769	positive regulation of neurogenesis	CX3CL1,NTN1,FGF20,SMARCD3,BMP7,CPEB3,CUX2,WNT5A,OBSL1,HOXD3,NGF,DAB2IP,ZNF365,ASCL1,DLX1,GOLGA4,SLIT2,HEYL,RGS14,ZNF804A,DSCAM 3.25E-02 ,LIG4,NEUROG1,CAMK1D,NKX2-5,SMURF1,CUX1,MIR137
GO:0007416	synapse assembly	3.27E-02 SPOCK2,NRXN2,CUX2,WNT5A,EIF4G1,SNCA,POU4F1,FARP1,SHANK2,CDK5,DSCAM,EPHB3,DNER,AGRN
GO:0030901	midbrain development	3.29E-02 KDM2B,WNT3,ENO3,WNT5A,GNB4,WNT1,INA,NR4A2,LMX1A,OTX2,NDRG2,MBP
GO:0033173	calcineurin-NFAT signaling cascade	3.30E-02 IGF1,GSK3B,FHL2,RCAN3,DYRK2,NFATC1,CAMTA1,C10ORF71

GO:0045604	regulation of epidermal cell differentiation	3.30E-02	FOXC1,CBFB,GRHL2,H2AFY2,SFRP4,ERRF1,BMP4,RUNX1
GO:0010522	regulation of calcium ion transport into cytosol	3.30E-02	CX3CL1,NOS1,CAV1,P2RX3,PDE4D,FKBP1B,PLCG1,TRPC3,SNCA,ANK2,CACNA1C,P2RY6,SLC8A1
GO:0046638	positive regulation of alpha-beta T cell differentiation	3.30E-02	RUNX3,CBFB,RARA,NFKBIZ,RUNX1,NLRP3,SOCS1,MIR21
GO:0030166	proteoglycan biosynthetic process	3.33E-02	DCN,IGF1,XYLTI1,DSE,CHST8,HS6ST1,BMPR1B,CHST9,CSPG4,EXT1
GO:1901699	cellular response to nitrogen compound	3.39E-02	IGF1,HDAC9,KCNQ1,ADCY2,GSK3B,EZR,SFRP1,JAK3,CAV2,CAV1,RARRES2,GCK,CPEB3,P2RX3,CISH,EPHA4,NR4A3,IDE,SOCS2,BMP4,SOX9,RAB13,RALB,AGT R1,SLIT2,SNCA,EGFR,NR4A2,LARP1,SHC1,CAPN2,CDK5,SMAD3,RAB31,IRS1,INSR,P2RY6,STAT5B,CHRNA7,BAIAP2,SLC8A1,WT1,SOCS1,PDE2A,LIN28B,AGR N,NCOR2,SRC
GO:0030324	lung development	3.39E-02	FGF10,GRHL2,ERRF1,TCF21,BMP4,FOXJ1,CHI3L1,ASCL1,WNT7B
GO:2000147	positive regulation of cell motility	3.39E-02	IGF1,FLT4,HDAC9,NTN1,MYLK,FGF10,SCARB1,SEMA3C,TGFB2,RARRES2,SPOCK2,WNT5B,GCNT2,SMOC2,FGF1,WNT5A,FOXP1,DOCK7,NR4A3,TWIST1,PLC G1,EDN3,BMP4,SOX9,VIL1,PDGFRA,ETS1,DAB2IP,THBS1,BCAS3,GRB7,RHOB,EGFR,PRKCA,ADAM9,ATOH8,ROR2,PDGFD,INSR,PIK3CD,GATA2,CAMK1D,SRC, MIR10A,MIR21
GO:0048546	digestive tract morphogenesis	3.46E-02	TCF21,SFRP5,PDGFRA,GATA4,SIX2,EPHB3

GO:0070528	protein kinase C signaling	3.46E-02	FLT4,AVP,WNT5A,ADRA1A,ULK4,GPR56
GO:0002088	lens development in camera-type eye	3.46E-02	WNT5B,WNT5A,SIX3,EPHA2,SKI,WNT7B
GO:0035904	aorta development	3.51E-02	TFAP2B,MYLK,TGFB2,TBX2,ADAMTS9,HEY1,TBX1
GO:1902893	regulation of pri-miRNA transcription by RNA polymerase II	3.51E-02	SPI1,TGFB2,BMP4,SOX9,SMARCA4,SMAD3,TEAD1
GO:1905209	positive regulation of cardiocyte differentiation	3.51E-02	IGF1,SEMA3C,TBX5,TGFB2,BMP4,GATA4,NKX2-5
GO:0006939	smooth muscle contraction	3.52E-02	MYLK,CAV1,ADRA1A,EDN3,CNN1,PROK2,GDNF,ADRA1B,NEUROG1,SLC8A1,MIR21
GO:0010720	positive regulation of cell development	3.53E-02	CX3CL1,IGF1,NTN1,SEMA3C,FGF20,SMARCD3,ADD1,BMP7,CPEB3,CUX2,WNT5A,OBSL1,BMP4,HOXD3,NGF,DAB2IP,ZNF365,ASCL1,DLX1,GOLGA4,SLIT2,NKX6-1,HEYL,RGS14,ZNF804A,DSCAM,LIG4,NEUROG1,CAMK1D,NKX2-5,SMURF1,CUX1,MIR137
GO:0030099	myeloid cell differentiation	3.54E-02	SCIN,CD4,SPI1,CBFB,TNRC6C,TESC,JAK3,HOXA5,SH3PXD2A,ZBTB16,FOXP1,NR4A3,NFE2,BMP4,RARA,MEIS2,ETS1,THBS1,EPHA2,DYRK3,MEIS1,POU4F1,PRKCA,RUNX1,ZNF385A,FBN1,PIK3CD,STAT5B,GATA2,ZFPM1,SRGAP3,HIST1H3E

GO:0008406	gonad development	3.60E-02	TGFB2,SALL1,WNT5A,TCF21,SOX9,PDGFRA,GATA4,BMPR1B,GATA6,RAB13,SLIT2,WT1,TLRS
GO:0043467	regulation of generation of precursor metabolites and energy	3.60E-02	IGF1,HDAC4,GSK3B,PRKAG2,GCK,DYRK2,PRDM16,SNCA,IRS1,PFKFB3,INSR,PGAM1
REAC:R-HSA-129f	Potassium Channels	3.60E-02	KCNQ1,KCNH2,KCNN2,KCNN4,KCNJ8,KCNS1,KCNC1,KCNH3,GABBR2,KCNN3,KCNJ6,GNG4,KCNAB3,KCND3,GNG7,KCNA3,KCNQ5,GABBR1
REAC:R-HSA-383:	Nuclear Receptor transcription pathway	3.60E-02	RARB,NR2E1,NR5A2,NR4A3,ESRRB,THRA,RARA,RORC,NR4A2,RARG,NR2F1,ESRRG
REAC:R-HSA-156f	Elastic fibre formation	3.60E-02	LTBP1,FBLN1,ITGA8,LTBP4,TGFB2,BMP7,BMP4,LOXL1,LOXL2,FBN1,EFEMP2
REAC:R-HSA-112:	Neuronal System	3.60E-02	CACNA2D2,KCNQ1,KCNH2,GNB5,ADCY2,EPB41L2,KCNN2,COMT,KCNN4,PTPRS,NRXN2,SLC1A2,PPFIBP1,SLC38A1,GNB4,KCNJ8,KCNS1,LRFN1,GAD1,KCNC1,KCNH3,CHRND,GABBR2,PLCB2,KCNN3,PRKCA,LRFN2,KCNJ6,SHANK2,GRIK2,SLC18A2,HTR3A,GNG4,KCNAB3,SYT9,KCND3,CHRNA7,LRRTM4,GNG7,KCNA3,SYN3,KCNQ5,MYO6,GABBR1,NEFL
REAC:R-HSA-895:	RUNX3 regulates p14-ARF	3.60E-02	RUNX3,CBFB,HDAC4,CCND1,RUNX1
GO:0016358	dendrite development	3.61E-02	CTNNA2,GSK3B,BMP7,PTPRS,CPEB3,CUX2,EPHA4,OBSL1,DAB2IP,ZNF365,FARP1,CSMD3,CDK5,CHRNA7,EPHB3,CAMK1D,CUX1

GO:1903708	positive regulation of hemopoiesis	3.64E-02	SCIN,CD4,RUNX3,FOXC1,CBFB,TESC,HOXA5,BCL6,RARA,ETS1,NFKBIZ,POU4F1,PRKCA,RUNX1,NLRP3,STAT5B,SOCS1,MIR21
GO:0061154	endothelial tube morphogenesis	3.71E-02	FGF1,FOXP1,BMP4,RHOB,MIR21
GO:0060828	regulation of canonical Wnt signaling pathway	3.71E-02	CDK14,GSK3B,ANKRD10,SFRP1,CAV1,SFRP4,SLC9A3R1,TBX18,WNT5A,APC2,SFRP5,SOX9,DAB2IP,PRICKLE1,NKD1,RBMS3,SFRP2,EGFR,DIXDC1,AXIN2,TBL1XR1,NKX2-5,ZNRF3,LGR4
GO:0003283	atrial septum development	3.71E-02	TGFB2,GATA4,ANK2,ZFPM1,NKX2-5
GO:0048538	thymus development	3.71E-02	FGF10,SIX1,HAND2,EPHB3,TBX1
GO:1903392	negative regulation of adherens junction organization	3.71E-02	THBS1,BCAS3,PHLDB2,DLG1,SRC
GO:0003159	morphogenesis of an endothelium	3.71E-02	FGF1,FOXP1,BMP4,RHOB,MIR21
GO:0097435	supramolecular fiber organization	3.75E-02	CX3CL1,SCIN,CCDC88C,LIMCH1,NCK2,ADD1,EZR,TGFB2,SH3BP1,NIN,SFRP1,COL12A1,NEDD9,CAP2,OBSL1,VIL1,ARPC1B,LOXL2,PDGFRA,MICAL1,CYP11B1,EMLIN1,TMOD3,COL2A1,TBCD,PHLDB2,SLIT2,SNCA,IQGAP2,SERPINH1,EP58,OBSCN,FMN2,ALOX15,DLG1,ARHGAP12,TNXB,AKAP13,SYNPO,SYNPO2,CHRN A7,BAIAP2,CDC42EP4,TACSTD2,EVL,PFN3,SRG,MYBPHL,NEFL,MIR21



GO:0016049	cell growth	IGF1,NTN1,HYAL2,GSK3B,LTBP4,TGFB2,SGK3,SFRP1,PTPRS,MAG,BCL6,PLXNA1,CISH,EIF4G1,SOCS2,CDKN1A,SOX9,SMARCA4,OLFM1,ADAM15,GOLGA4,AG 3.79E-02 TR1,SLIT2,SFRP2,EGFR,SORBS2,AUTS2,CDK5,SMAD3,GNG4,ALCAM,DSCAM,WT1,NRG3,SMURF1,SIPA1,GDF2
GO:0007548	sex differentiation	3.79E-02 TGFB2,SALL1,WNT5A,TCF21,SOX9,PDGFRA,GATA4,FOXF2,BMPR1B,GATA6,RAB13,SLIT2,CHD7,NEUROG1,WT1,TLR5
GO:0097720	calcineurin-mediated signaling	3.79E-02 IGF1,GSK3B,FHL2,RCAN3,DYRK2,NFATC1,CAMTA1,C10ORF71
GO:0046631	alpha-beta T cell activation	3.80E-02 RUNX3,PRDM1,CBFB,RASAL3,JAK3,FOXP1,RARA,RORC,NFKBIZ,RUNX1,NLRP3,ZFPM1,SOCS1,MIR21
GO:0046635	positive regulation of alpha-beta T cell activation	3.80E-02 RUNX3,CBFB,RASAL3,RARA,NFKBIZ,RUNX1,NLRP3,SOCS1,MIR21
GO:0071417	cellular response to organonitrogen compound	IGF1,HDAC9,KCNQ1,ADCY2,GSK3B,EZR,SFRP1,JAK3,CAV2,CAV1,RARRES2,GCK,CPEB3,P2RX3,CISH,EPHA4,NR4A3,IDE,SOCS2,SOX9,RAB13,AGTR1,SLIT2,SNC 3.86E-02 A,NR4A2,LARP1,SHC1,CAPN2,CDK5,RAB31,IRS1,INSR,P2RY6,STAT5B,BAIAP2,SLC8A1,WT1,SOCS1,PDE2A,SRC
GO:0045667	regulation of osteoblast differentiation	3.89E-02 IGF1,BMP7,SUFU,TWIST1,BMP4,SMAD6,BMPR1B,SKI,AXIN2,TMEM119,WNT7B,SMOC1,MIR21
GO:0055001	muscle cell development	3.96E-02 IGF1,HDAC9,CAV2,OBSL1,BMP4,PDGFRA,TMOD3,ANK2,OBSCN,SORBS2,SKI,SGCD,AKAP13,SLC8A1,NKX2-5,MYBPHL

GO:2001187	positive regulation of CD8-positive, alpha-beta T cell activation	3.96E-02 RUNX3,CBFB,RUNX1
GO:0014807	regulation of somitogenesis	3.96E-02 LFNG,NKD1,CDX2
GO:0061307	cardiac neural crest cell differentiation involved in heart development	3.96E-02 SEMA3C,PITX2,HAND2
GO:0048865	stem cell fate commitment	3.96E-02 POU6F2,SOX9,GSC
GO:0003190	atrioventricular valve formation	3.96E-02 OLFM1,HEY1,ZFPM1
GO:0060487	lung epithelial cell differentiation	3.96E-02 GRHL2,FOXJ1,ASCL1
GO:0061438	renal system vasculature morphogenesis	3.96E-02 TCF21,BMP4,PDGFRA
GO:0010749	regulation of nitric oxide mediated signal transduction	3.96E-02 THBS1,EGFR,NOS1AP

GO:0086046	membrane depolarization during SA node cell action potential	3.96E-02 CACNA1G,ANK2,CACNA1D
GO:0061309	cardiac neural crest cell development involved in outflow tract morphogenesis	3.96E-02 SEMA3C,PITX2,HAND2
GO:0072172	mesonephric tubule formation	3.96E-02 SIX1,OSR1,GDNF
GO:0071504	cellular response to heparin	3.96E-02 SFRP1,SOX9,SLIT2
GO:0070884	regulation of calcineurin-NFAT signaling cascade	3.96E-02 IGF1,GSK3B,FHL2,RCAN3,DYRK2,CAMTA1,C10ORF71
GO:0106056	regulation of calcineurin-mediated signaling	3.96E-02 IGF1,GSK3B,FHL2,RCAN3,DYRK2,CAMTA1,C10ORF71
GO:0072124	regulation of glomerular mesangial cell proliferation	3.96E-02 BMP7,BMP4,WT1
GO:1901509	regulation of endothelial tube morphogenesis	3.96E-02 FGF1,FOXP1,MIR21

GO:0048486	parasympathetic nervous system development	3.96E-02 TFAP2A,GDNF,TBX1
GO:0061439	kidney vasculature morphogenesis	3.96E-02 TCF21,BMP4,PDGFRA
GO:0060479	lung cell differentiation	3.96E-02 GRHL2,FOXJ1,ASCL1
GO:0061308	cardiac neural crest cell development involved in heart development	3.96E-02 SEMA3C,PITX2,HAND2
GO:0030811	regulation of nucleotide catabolic process	3.96E-02 IGF1,HDAC4,PRKAG2,GCK,PFKFB3,INSR,PGAM1
GO:1901723	negative regulation of cell proliferation involved in kidney development	3.96E-02 BMP7,BMP4,WT1
GO:0006110	regulation of glycolytic process	3.96E-02 IGF1,HDAC4,PRKAG2,GCK,PFKFB3,INSR,PGAM1
GO:0006352	DNA-templated transcription, initiation	CBFB,RARB,TBX5,ERCC2,CCND1,NR2E1,NR5A2,NR4A3,ESRRB,TWIST1,CDKN1A,SOX9,THRA,TAF4,RARA,HNF1A,RORC,NR4A2,RARG,NR2F1,NKX2-3.96E-02 5,TEAD1,ESRRG,TEAD4,NOTCH4,GTF2H4

GO:0001508	action potential	3.98E-02	CACNA1G,KCNQ1,KCNH2,KCNN2,CAV1,ADRA1A,KCNJ8,ANK2,CACNA1C,ANK3,CACNA1D,SLMAP,KCND3,KCNE3,SLC8A1,CTNNA3,NOS1AP
GO:0048144	fibroblast proliferation	3.99E-02	IGF1,SFRP1,WNT5A,CDKN1A,WNT1,PDGFRA,DAB2IP,SKI,LIG4,WNT7B
GO:0021872	forebrain generation of neurons	4.03E-02	SALL1,LHX6,WNT5A,ASCL1,SLIT2,ERBB4
GO:0001558	regulation of cell growth	4.04E-02	IGF1,NTN1,HYAL2,GSK3B,LTBP4,TGFB2,SGK3,SFRP1,PTPRS,MAG,BCL6,PLXNA1,CISH,EIF4G1,SOCS2,CDKN1A,SMARCA4,OLFM1,ADAM15,GOLGA4,AGTR1,S LIT2,SFRP2,EGFR,SMAD3,GNG4,DSCAM,WT1,NRG3,SMURF1,SIPA1,GDF2
GO:0045137	development of primary sexual characteristics	4.11E-02	TGFB2,SALL1,WNT5A,TCF21,SOX9,PDGFRA,GATA4,BMPR1B,GATA6,RAB13,SLIT2,WT1,TLRS
GO:0030323	respiratory tube development	4.17E-02	FGF10,GRHL2,ERRF1,TCF21,BMP4,FOXJ1,CHI3L1,ASCL1,WNT7B
GO:0098900	regulation of action potential	4.17E-02	CAV1,ADRA1A,ANK2,CACNA1C,ANK3,SLMAP,KCNE3,CTNNA3,NOS1AP
GO:2000677	regulation of transcription regulatory region DNA binding	4.19E-02	IGF1,FOXC1,TWIST1,HMGA2,POU4F1,HAND2,HEY1,NSD1

GO:0007173	epidermal growth factor receptor signaling pathway	4.23E-02	PLAUR,NCK2,ERRF1,PLCG1,SOX9,VIL1,RHBDF2,DAB2IP,GRB7,EGFR,EP8,ZFYVE28,SHC1,AFAP1L2,SRC,MIR21
GO:0017015	regulation of transforming growth factor beta receptor signaling pathway	4.35E-02	LTBP1,LTBP4,CAV1,THBS1,SMAD6,EMILIN1,PRDM16,SKI,FBN1,SMAD3,VASN,WFIKKN2,BCL9L,SMURF1
GO:1903530	regulation of secretion by cell	4.38E-02	CX3CL1,CACNA1G,CACNA2D2,TFAP2B,IGF1,DTNBP1,HYAL2,LLGL2,FGF20,RAPGEF4,LOC728392,EZR,TGFB2,SFRP1,GCK,WNT5A,FOXP1,SPTBN1,VAMP8,TWIST1,ITPR2,EDN3,PNKD,RHBDF2,CYP19A1,SYTL1,RALB,AGTR1,SNCA,CACNA1C,PRKCA,CACNA1D,NLRP3,UCN,ADAM9,GDNF,IRS1,SYT9,TRH,CHD7,C1QTNF4,RAB37,LPL,MCTP1,CADM1,MYO18A,MBP,PPP1R11,LGR4
GO:0046321	positive regulation of fatty acid oxidation	4.39E-02	NR4A3,TWIST1,IRS1,PLIN5
GO:0019722	calcium-mediated signaling	4.43E-02	IGF1,GSK3B,NOS1,P2RX3,PDE4D,FHL2,RCAN3,FKBP1B,PLCG1,DYRK2,NFATC1,AGTR1,ANK2,EGFR,CACNA1C,P2RY6,CAMTA1,MCTP1,C10ORF71,SLC8A1
GO:0042476	odontogenesis	4.46E-02	FOXC1,TGFB2,WNT6,BMP4,TFAP2A,OSR1,PITX2,OSR2,AXIN2,TBX1
GO:0021915	neural tube development	4.46E-02	GRHL2,KDM2B,TGFB2,BMP7,MTHFD1L,PRICKLE1,SKI,VANGL2,DLC1,HES5
GO:0051235	maintenance of location	4.51E-02	CX3CL1,SCIN,CD4,LTBP1,SOAT1,BCL3,SCARB1,NOS1,EZR,CAV1,SUFU,MDFI,PDE4D,FKBP1B,ITPR2,PLCG1,TLN1,NOL3,SNCA,ANK2,CACNA1C,ANK3,ABCG1,SLC18A2,FBN1,P2RY6,LPL,SLC8A1,PLIN5

GO:0007015	actin filament organization	CX3CL1,SCIN,LIMCH1,NCK2,ADD1,EZR,SH3BP1,SFRP1,NEDD9,CAP2,OBSL1,VIL1,ARPC1B,MICAL1,TMOD3,PHLDB2,SLIT2,IQGAP2,EPS8,FMN2,ALOX15,DL1 4.54E-02 ,ARHGAP12,SYNPO,SYNPO2,BAIAP2,CDC42EP4,TACSTD2,EVL,PFN3,SRC,MYBPHL,MIR21
GO:0014065	phosphatidylinositol 3-kinase signaling	4.54E-02 WNT16,DCN,IGF1,TGFB2,SLC9A3R1,TWIST1,SOX9,PDGFRA,DAB2IP,IER3,EGFR,IRS1,PDGFD,PIK3CD,PIP5K1C,MIR21
GO:0042733	embryonic digit morphogenesis	4.54E-02 SALL1,TBX2,TWIST1,OSR1,OSR2
GO:0071425	hematopoietic stem cell proliferation	4.54E-02 MECOM,WNT5A,SFRP2,RUNX1,ACE
GO:0043407	negative regulation of MAP kinase activity	4.55E-02 HYAL2,TP73,BMP7,CAV1,BMP4,DAB2IP,RGS3,DUSP6,UCHL1,PAQR3,RGS14
GO:2000514	regulation of CD4-positive, alpha-beta T cell activation	4.71E-02 RUNX3,CBFB,JAK3,RARA,NFKBIZ,RUNX1,NLRP3,SOCS1,MIR21
GO:0110053	regulation of actin filament organization	CX3CL1,SCIN,LIMCH1,NCK2,ADD1,SH3BP1,SFRP1,VIL1,ARPC1B,PHLDB2,SLIT2,IQGAP2,EPS8,ALOX15,DL1,SYNPO,SYNPO2,BAIAP2,CDC42EP4,TACSTD2,EV 4.82E-02 L,PFN3,MIR21
GO:0046578	regulation of Ras protein signal transduction	4.83E-02 IGF1,FGF10,TGFB2,RASAL3,APOC3,DENND1A,ADRA1A,NGF,DAB2IP,AUTS2,DL1,AKAP13,ABRA,RASA3,GPR56

GO:0045684	positive regulation of epidermis development	4.85E-02	FOXC1,TGFB2,H2AFY2,SFRP4,BMP4,FST
GO:0006942	regulation of striated muscle contraction	4.85E-02	KCNQ1,NOS1,CAV1,PDE4D,FKBP1B,ADRA1A,ANK2,CACNA1C,KCNE3,SLC8A1,NKX2-5,CTNNA3,NOS1AP
GO:0070873	regulation of glycogen metabolic process	4.85E-02	IGF1,GSK3B,GCK,DYRK2,IRS1,INSR
GO:0060191	regulation of lipase activity	4.85E-02	APOC3,ADRA1A,PLCG1,PDGFRA,PLCB2,PCSK6,AGTR1,SNCA,EGFR,LIPC,P2RY6,LPL,PLIN5
GO:0048015	phosphatidylinositol-mediated signaling	4.85E-02	WNT16,DCN,IGF1,EZR,TGFB2,SLC9A3R1,TWIST1,SOX9,NGF,PDGFRA,DAB2IP,IER3,EGFR,IRS1,PDGFD,PIK3CD,PIP5K1C,MIR21
REAC:R-HSA-8945	RUNX3 Regulates Immune Response and Cell Migration	4.85E-02	RUNX3,CBFB,ITGA4,RORC
REAC:R-HSA-8866	Negative regulation of activity of TFAP2 (AP-2) family transcription factors	4.85E-02	TFAP2B,TFAP2E,KCTD1,TFAP2A,WWOX



Suppl. Tab. 13. Gene enrichment analysis for fetal age-COPD ME30:black module using gProfilerR (sorted FDR < 0.05)

GO.ID	Description	FDR	Genes
GO:0009887	animal organ morphogenesis	6.45E-28	5,CLDN5,ALDH1A3,TACSTD2,SIX6,SLIT3,WT1,NPY2R,SLIT1,MAGI2,MESP2,LRRK2,PAX5,RYR1,EPHB4,AJAP1,PDGFA,COL13A1,RYR2,RORB,COL5A2,CRIP1,FOXD1,LHX1
GO:0009790	embryo development	1.08E-18	D8,SOX11,FOXE1,ZFPM1,MYADM,EHMT1,NEUROG1,NKX2-5,ASCL2,ALDH1A3,WT1,FOXD3,MESP2,SULF2,PDGFA,HESS,RYR2,COL5A2,TRIM15,TRIM71,ITGB3,LHX1
GO:0048729	tissue morphogenesis	6.52E-16	5,TACSTD2,WT1,MAGI2,COL4A1,MESP2,AJAP1,PDGFA,RYR2,NOTCH4,DDR1,TRIM15,FOXD1,ITGB3,LHX1
GO:0048598	embryonic morphogenesis	1.17E-15	LC1,OSR2,OTX2,MESP1,CTNNB1,GDNF,ATOH8,SOX7,RARG,SOX11,FOXE1,MYADM,NEUROG1,NKX2-5,ALDH1A3,MESP2,RYR2,COL5A2,TRIM15,ITGB3,LHX1
GO:1905114	cell surface receptor signaling pathway involv	1.57E-15	5,RUVBL2,ZNF703,ATP6VOC,GNG2,RNF220,MAGI2,SHISA6,LRRK2,SULF2,CTNND1
GO:0001501	skeletal system development	3.35E-14	ALX1,NEUROG1,HAPLN4,PRELP,RYR1,SULF2,COL13A1,HESS,PAPSS2,COL11A2,GDF10,LHX1

GO:0045596 negative regulation of cell differentiation	<p>CFLAR,SOX8,CX3CL1,PAX6,SEMA3G,LTf,RUNX3,TRIO,HDAC7,NGFR,NGEF,CBFB,HDAC4,RORA,TBX21,FBLN1,HOXA9,RUNX1T1,GRHL2,REST,CETP,MT3,PTHLH,TBX5,CHRD,STX1B,SI X4,NFATC2,BMP7,SMAD7,SFRP1,TGFB1,JAK3,CDK6,CAV1,HOXA5,GLI3,KANK1,GATA3,DKK1,EFNB3,ZBTB16,CALCA,BMP5,HSPA9,DPYSL3,WNT5A,EFEMP1,DLX2,MAD2L2,RAB7L1, TNFSF4,ESRRB,HOXB8,TNN,PTK2B,HOXA7,TWIST1,BHLHE41,EREG,BMP4,SOX9,FOXA2,BMP2,GDF5,FOXI1,LDLR,TRPM4,COL5A1,DNMT1,NFATC1,RARA,PPARG,MEIS2,LRP4,TBX3, DTX1,HEY2,GPR55,EDNRB,DAB2IP,ANP32B,KIAA0319,SMAD6,SIX3,ZNF365,RB1,ARHGDA,WNT9A,OSR1,MEIS1,DLX1,CTNN4,LIMD1,SLIT2,SFRP2,DAAM2,EGFR,NOTCH1,ZEB1,FO XO1,ADAMTS12,POU4F2,ZFP36L2,ABCAS,WNT3A,SKI,RUNX1,ABCG1,LRP5,GFI1,TRIM46,ZC3H12A,MFI2,SHH,ABCA1,ANKRD2,MESP1,SMAD3,AXIN2,NLGN1,LINGO1,WNT10B,ZF PM2,SOSTDC1,HOPX,PTEN,CCDC85B,NR2F1,BDNF,SOX11,RCC2,GATA2,ZFPM1,ZADH2,CAV3,NKX2-</p> <p>1.55E-13 5,TACSTD2,EFNA5,SOC51,ZFP36L1,RTN4R1L,RTN4R2L,DCC,HESS,LDB1,INPP5F,RORB,MAFB,COL5A2,NOTCH4,HLA-G,MIR199B,TWIST2,ITGB3,GDF10,HIST1H4F,HIST1H4D,MIR9-3</p>
GO:0042391 regulation of membrane potential	<p>CFTR,CACNA1G,ATP1A2,MYOC,NEDD4L,KCNQ1,KCNH2,PRKCZ,DRD4,ATP1B3,NEDD4,PTPN3,CACNG4,DLG1,CHRNA3,KCNN2,MEF2C,KCNK2,GNA11,SLC26A4,ABL1,KCNK6,STX1B, KCNK10,TCL1A,CHRNA4,SNTA1,SMAD7,NALCN,CBLN1,KCNN4,MYH14,CAV1,MPP2,CUX2,SLC26A8,FGF12,OPRD1,RIMS3,AKAP7,KCNIP2,KCNJ5,PTK2B,ADRA1A,KCNK15,KDR,ATP 1B2,KCNA5,TRPM4,POPC3,DLG4,DS2,SLC26A10,KCNH3,KCNMB4,HCN4,SCARB2,KCNH5,ARRB2,PMIAIP1,CACNA1A,AKT1,KCNH1,TMEM108,ANK2,GLRA1,CACNA1B,SCN2B,GRI D2,KCNK13,GPD1L,SLC26A2,KCNMA1,RNF207,PINK1,TPCN2,KCNJ3,ATP1A1,CACNB2,SCN3B,CACNB3,KCNK9,NLGN1,CHRN81,SLC26A5,SLC25A33,BCL2,PTEN,JUP,KCNH6,ATP2A2 ,CATSPER1,CHRNA7,KCNE3,BNIP3,SCN4B,NRXN1,CACNB4,KCNK4,CAV3,KCNK12,KCN2D,KCNH7,MAPT,CATSPER4,LRRK2,CACNA1H,SCN8A,BCO2,KCNMB2,CACNA1E,RYR2,NOS1A</p> <p>3.56E-13 P,XYD1</p>
GO:0007423 sensory organ development	<p>WNT16,SOX8,PROM1,PAX6,TFAP2B,KCNQ1,FGFR2,SDK2,MYO3B,PAX2,SMARCD3,KDM2B,MYO3A,SIX4,SMCHD1,SALL1,GLI3,GATA3,PHOX2B,TULP1,WNT5A,EFEMP1,WNT6,DLX 2,ATP6V1B1,HDAC1,MFAP2,ECE1,PROX1,ESRRB,TWIST1,NEUROD4,SOX9,PAX8,BMP2,SIX1,DL4,COL5A1,NESE,EPHB2,GSC,WNT2B,PDGFRA,WNT10A,TFAP2A,FOXF2,CYP1B1,SIX3, BMPR1B,ACVRL1,BBS4,ADAMTS18,UNC45B,WNT9A,OSR1,DLX1,SDK1,GPM6A,POU4F2,ZIC1,MEGF11,SKI,WNT9B,CPAMD8,LRP5,NEUROD1,PITX2,OSR2,SALL2,PTF1A,DSCAM,RA</p> <p>5.80E-13 RG,SH3PX2B,SOX11,MAF,NEUROG1,FOXL2,LRTOMT,ALDH1A3,WT1,ROR1,CO14A1,CRYBA4,HESS5,SMOC1,RORB,MAFB,COL5A2,LHX1</p>
GO:0002009 morphogenesis of an epithelium	<p>WNT16,DVL2,SOX8,AP2B1,CELSR3,HGF,FGFR2,GLI2,CLASP1,PAX2,MEF2C,GRHL2,WNT11,KDM2B,SIX4,BMP7,PARD6A,NDRG4,SALL1,PRKD2,TGFB1,COBL,GATA3,DKK1,SMURF2,S LC9A3R1,BMP5,SRF,HAND1,WNT5A,FOXP1,ACVR1,PROX1,TCF21,PKD2,MTDFD1L,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,DL4,COL5A1,WNT10A,GATA4,TFAP2A ,FOXF2,SULF1,FGF2,ACVRL1,BBS4,ARRB2,CCDC40,ARHGEF19,CYR61,LMO4,OSR1,TMEFF2,SLIT2,SFRP2,RSPO3,NOTCH1,PAK1,ADAMTS12,ADAM17,FZD1,SKI,GRHL3,RNF207,AIRE ,DVL3,PDPN,FZD5,TBX20,SHH,SOX17,DL1C1,FZD6,ARHGAP12,MESP1,NKX3-1,CTNNB1,GDNF,ROR2,MTSS1,MLLT3,PTEN,BRSK2,SOX11,FOXE1,NKX2-</p> <p>5.80E-13 5,TACSTD2,WT1,MAGI2,CO14A1,AJAP1,PDGFA,RYR2,NOTCH4,DDR1,FOXD1,LHX1</p>
REAC:R-HSA- Neuronal System	<p>ABCC8,AP2B1,CACNA2D2,SLC6A13,SYT7,NRXN3,GABRA1,KCNG1,APBA2,KCNQ1,KCNH2,CACNB1,KCNAB2,CHAT,RPS6KA2,PRKACA,KCNQ2,CACNG4,DLG1,SLC1A3,CHRNA3,KCNN 2,DLGAP4,KCNK2,EPB41L1,COMT,KCNK6,KCNK10,CHRNA4,SLC32A1,NCALD,KCNN4,KCNA7,LIN7B,SLC17A7,GRIN2D,KCNN1,STX1A,SLC6A4,GABRA4,HSPA8,NRXN2,SYT10,SLC38A 1,ALDH5A1,GABRG2,BCHE,GNAI2,RPS6KA1,CHRN4,GRIA2,KCNJ5,SUTRK3,KCNS1,PRKCG,GNG11,GNAI1,GAD1,KCNK1,ADCY4,KCNA5,DLG4,SLC38A2,KCNH3,KCNMB4,CHRN4,GA D2,GABBR2,FLOT1,ADCY3,HCN4,KCNH5,NTRK3,CACNA1A,CACNG8,PTPRF,KCNH1,KCNN3,GABBR2,GLRA1,CACNA1B,PLCB3,DLG2,KCNA6,KCNK13,GRIA4,PTPRD,GRIA1,KCNMA1, KCNS2,SYN2,CACNA2D3,EPB41,GJD2,GRIN2C,SHANK2,KCNJ3,GABRB1,GRIK2,ADCY1,KCNV1,SUTRK5,SLC18A2,CACNB2,GABRB3,PRKCB,HTR3A,CACNB3,GNG4,GRM5,KCNK9,CHR NAS,NLGN1,DLGAP1,KCNS3,GRIK1,GNB2,GNG12,KCNH6,HRA5,SLC22A1,CHRNA7,GNG7,SUTRK1,NRXN1,CACNB4,KCNK4,BEGAIN,LRTOMT,KCNJ12,KCN2D,KCNH7,KCNQ5,GNG2,</p> <p>6.37E-13 SLC18A3,KCNMB2,CACNA1E,GABBR1,SHANK3,GRIN2B</p>
GO:0198738 cell-cell signaling by wnt	<p>WNT16,HECW1,DVL2,AP2B1,MARK4,CELSR3,WWTR1,MYOC,DKK3,WNK1,PTPRU,CDH3,TLE2,FGFR2,CBFB,TNRC6C,TCF7,CYLD,WNT11,GNAO1,ESR1,TNRC6B,RSPO4,PARD6A,SAL L1,SFRP1,DKK4,UBRS,CAV1,GRB10,GLI3,KANK1,GATA3,DKK1,CCNY,WNT3,COL1A1,SMURF2,SLC9A3R1,CPE,GLI1,FZD10,OPRM1,MDFI,PTK7,TBX18,WNT5A,IGFBP2,WNT6,HDAC1, MAD2L2,SFRP5,TNN,BICC1,LRP1,SOX9,BMP2,MACF1,TRPM4,NFATC1,KREMEN2,NPHP4,ZBED3,WNT2B,LRP4,APC,MDFIC,WNT10A,DAB2IP,SULF1,ARRB2,CSNK1D,IGFBP4,ARHG E19,WNT9A,LIMD1,SFRP2,NKD2,DAAM2,RSPO3,EGFR,IGFBP1,RSPO2,TCF7L2,PLCB3,DIXD1,TCF7L1,HHEX,LRRK1,WNT3A,APCDD1,DKK2,MOV10,FZD1,SKI,WNT9B,RUNX1,DVL3, LRP5,FRZB,FZD5,SOX17,FZD6,FRAT1,BTRC,ILK,MESP1,NXN,SOST,CTNNB1,AXIN2,ROR2,CTNND2,WNT10B,HOXB9,SOX7,SOSTDC1,MCC,MLLT3,PTEN,RARG,JUP,HIC1,NKX2-</p> <p>1.82E-12 5,RUVBL2,ZNF703,ATP6V0C,GNG2,RNF220,MAGI2,SHISA6,LRRK2,SULF2,CTNND1</p>
GO:0051960 regulation of nervous system development	<p>SARM1,DVL2,SOX8,CX3CL1,PAX6,SEMA3G,TYMP,MUSK,EPHA3,NEDD4L,LTK,NGFR,NTN1,NGEF,NEDD4,PAX2,PLXNA2,FGFR1,FGF20,CHRNA3,MEF2C,SMARCD3,REST,MT3,CHRD, NRCAM,SEMA6A,ABL1,STX1B,BMP7,STK24,NDRG4,COBL,PTPRZ1,LIMK1,KANK1,FREQ,DKK1,WNT3,EFNB3,CUX2,RF4,OPRM1,BMP5,PTK7,DPYSL3,WNT5A,DLX2,MARK1,RAB7L1, PROX1,TNN,PTK2B,CXCR4,OBSL1,PACSLN1,CPNE5,SOX9,BMP2,SIX1,MACF1,HOXD3,CHN1,LDLR,CASZ1,PER2,DLG4,EPHB2,NGF,LRP4,DTX1,SERPINE2,PLXNC1,EDNRB,DAB2IP,KIAA 0319,SIX3,ZNF365,SCARB2,ARHGDA,CSNK1D,AKT1,DLX1,CPNE9,CTNN4,SLIT2,SNCA,TNFRSF21,DAAM2,TTBK1,NOTCH1,ZEB1,LRRK4,PAK1,POU4F2,GRID2,PTPRD,IMPACT,TNKC, WNT3A,C21ORF91,FZD1,SKI,DVL3,GFI1,NEUROD1,TRIM46,PRKCI,HEYL,PLXNB1,HMGB2,CSMD3,CDK5,ISLR2,CTNNB1,RS14,SDC2,NLGN1,LINGO1,ROBO1,ZNF804A,NEUROD2,D SCAM,PTEN,ATOH1,SSH3,LIG4,BRSK2,CLCF1,NR2F1,BDNF,CDK5R1,SOX11,SLITR1,NRXN1,NEUROG1,CAMK1D,NKX2-</p> <p>1.82E-12 5,ASCL2,PRKD1,NTF3,RTN4R1L,MAPT,RTN4R2L,SLIT1,DCC,MAGI2,AGRN,LRRK2,HESS5,NTRK1,INPP5F,CPNE1,PLXNA4,LYN,LHX1,SRCIN1</p>

GO:0016055 Wnt signaling pathway	<p>WNT16,HECW1,DVL2,AP2B1,MARK4,CELSR3,WWTR1,MYOC,DKK3,WNK1,PTPRU,CDH3,TLE2,FGFR2,CBFB,TNRC6C,TCF7,CYLD,WNT11,GNAO1,ESR1,TNRC6B,RSPO4,PAR6A,SAL L1,SFRP1,DKK4,UBR5,CAV1,GRB10,GLI3,KANK1,GATA3,DKK1,CNRY,WNT3,COL1A1,SMURF2,SLC9A3R1,CPE,GLI1,FZD10,MDFI,PTK7,TBX18,WNT5A,IGFBP2,WNT6,HDAC1,MAD2L 2,SFRP5,TNN,BICC1,LRP1,SOX9,BMP2,MACF1,TRPM4,NFATC1,KREMEN2,NPHP4,ZBED3,WNT2B,LRP4,APC,MDFIC,WNT10A,DAB2IP,SULF1,ARRB2,CSNK1D,IGFBP4,ARHGFE19,W NT9A,LIMD1,SFRP2,NKD2,DAAM2,RSPO3,EGFR,IGFBP1,RSPO2,TCF7L2,PLCB3,DXDC1,TCF7L1,HHEX,LRRK1,WNT3A,APCDD1,DKK2,MOV10,FZD1,SKI,WNT9B,RUNX1,DVL3,LRP5,F RZB,FZD5,SOX17,FZD6,FRAT1,BTRC,ILK,MESP1,NXN,SOST,CTNND1,AXIN2,ROR2,CTNND2,WNT10B,HOXB9,SOX7,SOSTDC1,MCC,MLL3,PTEN,RARG,JUP,HIC1,NKX2-</p> <p>2.54E-12 5,RUVBL2,ZNF703,ATP6VOC,GN2,RNF220,MAGI2,SHISA6,LRRK2,SULF2,CTNND1</p>
GO:0048568 embryonic organ development	<p>WNT16,TEAD3,TBC1D23,KITLG,FGFR2,MYO3B,GLI2,PAX2,RARB,MEF2C,KDM2B,MYO3A,BMP7,NDRG4,SALL1,TGFB1,COBL,GLI3,BMP5,SRF,HAND1,WNT5A,ACVR1,EFEMP1,ATP6 V1B1,MFAP2,PROX1,TCF21,PKD2,MTHFD1L,TWIST1,GCM2,SOX9,PAX8,SIX1,KDR,SMO,HOXD3,E2F8,NES,EPHB2,GSC,PDGFRA,HEY2,GATA4,TFAP2A,FOXF2,SIX3,COL2A1,BBS4,CC DC40,OSR1,CRB2,NOTCH1,ZIC1,RNF207,TAL1,NEUROD1,EOMES,TBX20,HEY1,SHH,SOX17,OSR2,E2F7,MESP1,CTNND1,GDNF,RARG,SOX11,FOXO1,ZFPM1,NEUROG1,NKX2-</p> <p>4.18E-12 5,ASCL2,ALDH1A3,PDGFA,RYR2,LHX1</p>
GO:0099537 trans-synaptic signaling	<p>CX3CL1,SYT7,ATP1A2,GABRA1,KIF1B,SNCAIP,CACNB1,PRKCZ,DRD4,CHAT,KCNQ2,DLG1,SLC1A3,CHRNA3,MEF2C,ABL1,STX1B,SYNGR1,SLC8A3,HRH3,NTSR1,CHRNA4,SLC32A1,CB LN1,SLC6A2,LIN7B,GRIN2D,KCNN1,STX1A,SLC6A4,MPP2,PMP22,UNC119,NRXN2,SYT10,CUX2,STX2,OPRM1,PCDH15,GABRG2,TACR1,SLC1A4,OPRD1,RIMS3,CHRN4,PRLHR,KC NIP2,GRIA2,PTK2B,ADRA1A,NPY,GIP1,DBH,SLC12A4,SLC12A5,OPRL1,NPBWR2,PNKD,MCHR1,GALR3,VGF,GAD1,PDLM4,DLG4,SYT11,EPHB2,SYT6,DTNA,HTR1B,KCNMB4,CHRN D,GAD2,GABBR2,FLOT1,SLC12A6,ARRB2,AKT1,SYTL1,SNAP47,CNTN4,TMEM108,SNCA,CRHBP,GABRB2,GLRA1,CACNA1B,HTR7,SCN2B,DLG2,GRID2,PTPRN2,GRIA1,KIF5A,SST,SYN 2,SQSTM1,GRIN2C,SHANK2,NPY1R,GRIK2,FABP5,CDK5,SLC18A2,SLC6A5,CACNB2,GPR176,NETO1,RIC3,MAP1A,CACNB3,GDNF,D4S234E,HTR1E,GRM5,RGS14,PROKR1,CHRNA5,N LGN1,CHRN1,DLGAP1,GRIK1,NPTX1,PDE7B,LPAR3,NEUROD2,PTEN,CHRNA7,GRM8,NRXN1,PENK,CACNB4,GPR19,KCND2,NPY2R,MAPT,SLC18A3,SHISA6,LRRK2,GRM7,SYNGAP1</p> <p>4.59E-12 ,KCNMB2,CACNA1E,GRM3,SYT15,COLQ,SHISA9,GRIN2B,SSTR3</p>
GO:0050767 regulation of neurogenesis	<p>SARM1,DVL2,SOX8,CX3CL1,PAX6,SEMA3G,EPHA3,NEDD4L,LTK,NGFR,NTN1,NGEF,NEDD4,PLXNA2,FGFR1,FGF20,CHRNA3,MEF2C,SMARCD3,REST,MT3,NRCAM,SEMA6A,ABL1,ST X1B,BMP7,STK24,NDRG4,COBL,PTPRZ1,LIMK1,KANK1,FREQ,DKK1,WNT3,EFNB3,CUX2,OPRM1,BMP5,PTK7,DPYSL3,WNT5A,DLX2,MARK1,RAB7L1,PROX1,TNN,PTK2B,CXCR4,OBS L1,PACSLIN1,CPNE5,SOX9,BMP2,SIX1,MACF1,HOXD3,CHN1,LDLR,CASZ1,PER2,DLG4,NGF,LRP4,DTX1,SERPINE2,PLXNC1,EDNRB,DAB2IP,KIAA0319,SIX3,ZNF365,SCARB2,ARHGDI A,CSNK1D,AKT1,DLX1,CPNE9,CNTN4,SLIT2,TNFRSF21,DAAM2,TTBK1,NOTCH1,ZEB1,LRRRC4,PAK1,POU4F2,PTPRD,IMPACT,TNIX,WNT3A,C21ORF91,FZD1,SKI,DVL3,GF11,NEUROD1, TRIM46,PRKCI,HEYL,PLXNB1,HMGB2,CSMD3,CDK5,ISLR2,CTNND1,RGS14,SDC2,NLGN1,LINGO1,ROBO1,ZNF804A,NEUROD2,DSCAM,PTEN,ATOH1,SSH3,LIG4,BRSK2,CLCF1,NR2F1</p> <p>4.59E-12 ,BDNF,CDK5R1,SOX11,SLITR1,NEUROG1,CAMK1D,NKX2-5,ASCL2,PRKD1,NF3,RTN4RL1,MAPT,RTN4RL2,DCC,MAGI2,LRRK2,HES5,NTRK1,INPP5F,CPNE1,PLXNA4,LYN,SRIN1</p>
GO:0099536 synaptic signaling	<p>CX3CL1,SYT7,ATP1A2,GABRA1,KIF1B,SNCAIP,CACNB1,PRKCZ,DRD4,CHAT,KCNQ2,DLG1,SLC1A3,CHRNA3,MEF2C,ABL1,STX1B,SYNGR1,SLC8A3,HRH3,NTSR1,CHRNA4,SLC32A1,CB LN1,SLC6A2,LIN7B,GRIN2D,KCNN1,STX1A,SLC6A4,MPP2,PMP22,UNC119,NRXN2,SYT10,CUX2,STX2,OPRM1,PCDH15,GABRG2,TACR1,SLC1A4,OPRD1,RIMS3,CHRN4,PRLHR,KC NIP2,GRIA2,PTK2B,ADRA1A,NPY,GIP1,DBH,SLC12A4,SLC12A5,OPRL1,NPBWR2,PNKD,MCHR1,GALR3,VGF,GAD1,PDLM4,DLG4,SYT11,EPHB2,SYT6,DTNA,HTR1B,KCNMB4,CHRN D,GAD2,GABBR2,FLOT1,SLC12A6,ARRB2,AKT1,SYTL1,SNAP47,CNTN4,TMEM108,SNCA,CRHBP,GABRB2,GLRA1,CACNA1B,HTR7,SCN2B,DLG2,GRID2,PTPRN2,GRIA1,KIF5A,SST,SYN 2,SQSTM1,GRIN2C,SHANK2,NPY1R,GRIK2,FABP5,CDK5,SLC18A2,SLC6A5,CACNB2,GPR176,NETO1,RIC3,MAP1A,CACNB3,GDNF,D4S234E,HTR1E,GRM5,RGS14,PROKR1,CHRNA5,N LGN1,CHRN1,DLGAP1,GRIK1,NPTX1,PDE7B,LPAR3,NEUROD2,PTEN,CHRNA7,GRM8,NRXN1,PENK,CACNB4,GPR19,KCND2,NPY2R,MAPT,SLC18A3,SHISA6,LRRK2,GRM7,SYNGAP1</p> <p>4.59E-12 ,KCNMB2,CACNA1E,GRM3,SYT15,COLQ,SHISA9,GRIN2B,SSTR3</p>
GO:0060485 mesenchyme development	<p>SOX8,ISL1,WWTR1,PHLDB1,HGF,EPHA3,FGFR2,TGFB3,CLASP1,PAX2,MEF2C,WNT11,TBX5,SIX4,BMP7,FAM83D,SMAD7,SFRP1,TGFB1,FGF8,COL1A1,PHOX2B,GCNT2,BMP5,WNT 5A,ACVR1,MAD2L2,TCF21,PKD2,TGFB3,TWIST1,BMP4,SOX9,FOXA2,BMP2,SIX1,SMO,ELL3,GSC,HEY2,GATA4,DAB2IP,FOXF2,ACVRL1,TGFB11,ACTA1,OSR1,SFRP2,CRB2,NOTCH1, TCF7L2,HMGGA2,NODAL,NRG1,ACTC1,FOXH1,PPDPN,EOMES,HEYL,SPRY1,PITX2,HAND2,TBX20,HEY1,SHH,NOS3,NOLC1,MESP1,SMAD3,CTNND1,GDNF,AXIN2,ROBO1,HAS2,PTEN,S</p> <p>7.10E-12 OX11,ALX1,ZNF703,WT1,BCL9L,CYP26C1,S100A4</p>
GO:0098916 anterograde trans-synaptic signaling	<p>CX3CL1,SYT7,ATP1A2,GABRA1,KIF1B,SNCAIP,CACNB1,PRKCZ,DRD4,CHAT,KCNQ2,DLG1,SLC1A3,CHRNA3,MEF2C,ABL1,STX1B,SYNGR1,SLC8A3,HRH3,NTSR1,CHRNA4,SLC32A1,CB LN1,SLC6A2,LIN7B,GRIN2D,KCNN1,STX1A,SLC6A4,MPP2,PMP22,UNC119,NRXN2,SYT10,CUX2,STX2,OPRM1,PCDH15,GABRG2,TACR1,SLC1A4,OPRD1,RIMS3,CHRN4,PRLHR,KC NIP2,GRIA2,PTK2B,ADRA1A,NPY,GIP1,DBH,SLC12A4,SLC12A5,OPRL1,NPBWR2,PNKD,MCHR1,GALR3,VGF,GAD1,PDLM4,DLG4,SYT11,EPHB2,SYT6,DTNA,HTR1B,KCNMB4,CHRN D,GAD2,GABBR2,FLOT1,SLC12A6,ARRB2,AKT1,SYTL1,SNAP47,CNTN4,TMEM108,SNCA,CRHBP,GABRB2,GLRA1,CACNA1B,HTR7,SCN2B,DLG2,GRID2,PTPRN2,GRIA1,KIF5A,SST,SYN 2,SQSTM1,GRIN2C,SHANK2,NPY1R,GRIK2,CDK5,SLC18A2,SLC6A5,CACNB2,GPR176,NETO1,RIC3,MAP1A,CACNB3,GDNF,D4S234E,HTR1E,GRM5,RGS14,PROKR1,CHRNA5,NLGN1, CHRN1,DLGAP1,GRIK1,NPTX1,PDE7B,LPAR3,NEUROD2,PTEN,CHRNA7,GRM8,NRXN1,PENK,CACNB4,GPR19,KCND2,NPY2R,MAPT,SLC18A3,SHISA6,LRRK2,GRM7,SYNGAP1,KCN</p> <p>7.10E-12 MB2,CACNA1E,GRM3,SYT15,COLQ,SHISA9,GRIN2B,SSTR3</p>

GO:0007268 chemical synaptic transmission	7.10E-12 MB2,CACNA1E,GRM3,SYT15,COLQ,SHISA9,GRIN2B,SSTR3  CX3CL1,SYT7,ATP1A2,GABRA1,KIF1B,SNCAIP,CACNB1,PRKCZ,DRD4,CHAT,KCNQ2,DLG1,SLC1A3,CHRNA3,MEF2C,ABL1,STX1B,SYNGR1,SLC8A3,HRH3,NTSR1,CHRNA4,SLC32A1,CB LN1,SLC6A2,LIN7B,GRIN2D,KCNN1,STX1A,SLC6A4,MPP2,PMP22,UNC119,NRXN2,SYT10,CUX2,STX2,OPRM1,PCDH815,GABRG2,TACR1,SLC1A4,OPRD1,RIMS3,CHRN4,PRLHR,KC NIP2,GRIA2,PTK2B,ADRA1A,NPY,GIP1,DPH,SLC12A4,SLC12A5,OPRL1,NPBWR2,PNKD,MCHR1,GALR3,VGF,GAD1,PDLIM4,DLG4,SYT11,EPHB2,SYT6,DTNA,HTR1B,KCNMB4,CHRN D,GAD2,GABBR2,FLOT1,SLC12A6,ARRB2,AKT1,SYTL1,SNAP47,CNTN4,TMEM108,SNCA,CRHPB,GABRB2,GLRA1,CACNA1B,HTR7,SCN2B,DLG2,GRID2,PTPRN2,GRIA1,KIF5A,SST,SYN 2,SQSTM1,GRIN2C,SHANK2,NPY1R,GRIK2,CDK5,SLC18A2,SLC6A5,CACNB2,GPR176,NETO1,RIC3,MAP1A,CACNB3,GDNF,D4S234E,HTR1E,GRM5,RGS14,PROKR1,CHRNA5,NLGN1, CHRN1,DLGAP1,GRIK1,NPTX1,PDE7B,LPAR3,NEUROD2,PTEN,CHRNA7,GRM8,NRXN1,PENK,CACNB4,GPR19,KCND2,NPY2R,MAPT,SLC18A3,SHISA6,LRRK2,GRM7,SYNGAP1,KCN
GO:0000904 cell morphogenesis involved in differentiation	7.10E-12 ,CYFIP1,SRCN1  SARM1,SEMA3G,ISL1,NRXN3,MYOC,NGFR,NTN1,CTNNA2,NGEF,FGFR2,NEDD4,SPTB,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,FBLN1,CHRNA3,MEF2C,ULK2,GRHL2,MT3,NRCAM,SEM A6,TYRO3,EZR,HSP90A1,ABL1,NEFH,DOK5,GRB10,COBL,LIMK1,KANK1,CXCL12,EFNB3,PHOX2B,CUX2,BVES,WNT5A,ITGA4,TNR,ARTN,PROX1,SLITRK3,CXCR4,OBSL1,PAR6B,M ACF1,CHN1,LAMAS,UNK,DLG4,RAB25,EPHB2,NGF,LRP4,PLXNC1,FAM129B,ZNF365,AFG3L2,ARHGDI2,TBCD,RNF165,GRB7,LHX9,CNTN4,SLIT2,EPHAS,GFRA3,EPHA1,LRRRC4,PAK 1,NCAM1,FEZ1,DOCK1,POU4F2,POU4F1,FARP1,PTPRD,ROBO3,TNIK,KIF5A,RADIL,SPON2,SPTBN4,SHC1,NBEAL2,NTN3,PDPN,NTNG1,TRIM46,MFI2,PLXNB1,SHH,CDK5,CLDN3,SLI TRK5,OTX2,APBB1,ILK,ISLR2,KIF5C,GDNF,ARL13B,SDC2,ANTXR1,RAC3,NLGN1,LINGO1,ROBO1,CTNND2,FEZ2,DSCAM,PTEN,FOXB1,SSH3,DAB1,BRSK2,CHRNA7,BDNF,CDK5R1,SLIT RK1,GP5,RCC2,ZFPM1,MYADM,NRXN1,LRRCS5,TACSTD2,SLIT3,EFNA5,IRS2,MAPT,CKK,SLIT1,DCC,RILPL1,LRRK2,NTNG2,SHAH1,S100A10,NTRK1,DOK6,PLXNA4,EFNA4,ITGB3,LHX1
GO:0007417 central nervous system development	9.47E-12 HX1  SOX8,PAX6,JARID2,ADAM22,ISL1,TBC1D23,VCAN,ZIC2,CTNNA2,FGFR2,RORA,NDE1,GLI2,PAX2,PAFAH1B3,GRHL2,MT3,KDM2B,CHRD,NRCAM,TYRO3,HSP90A1,SLC8A3,BMP7,CL N5,CBLN1,NDRG4,SALL1,GRIN2D,CDK6,PTPRZ1,C7ORF16,LHX6,SH3GL2,WNT3,SLC6A4,PHOX2B,ZBTB16,PITPNM1,RF4,MDGA1,BMP5,ALDH5A1,WNT5A,ABC6,DLX2,VAX2,CHD 5,HPCAL4,PADI2,PROX1,CENPF,PKD2,CLU,CXCR4,NPY,EGR2,LRP1,ADCK4,BMP4,MBOAT7,PAX8,NKX2- 2,BMP2,SYNGR3,FOXP2,SMO,DL4,FOXJ1,LDLR,MNX1,NES,BCAN,DCLK1,EPHB2,WNT2B,YWHAQ,SERPINE2,TBR1,DAB2IP,TFAP2A,SIX3,TACC2,ZNF365,MDGA2,BBS4,HAPLN3,CSN K1D,DMRTA2,CNTN4,TAGLN3,TMEM108,SLIT2,EPHAS,TNFRSF21,DAAM2,TTBK1,TACC1,NOTCH1,KIRREL3,GRID2,PRDM8,ZIC1,WNT3A,C21ORF91,CA10,FZD1,SKI,WNT9B,SPTBN4 ,GRIN2C,LMX1A,NEUROD1,EOMES,PITX2,TBX20,SHH,DLC1,CDK5,FZD6,OTX2,CTNNB1,DDIT4,PTF1A,MFSD2A,GDNF,ARL13B,ROBO1,SLC23A1,GRIK1,NPTX1,NEUROD2,PTEN,FOXB 1,ATOH1,ARNT2,SENTG2,LIG4,CNTNAP2,CLCF1,FOXG1,CDK5R1,SOX11,NHLH2,NRXN1,MAPT,SLIT1,COL4A1,CYP26C1,HAPLN4,LRRK2,HES5,POU3F3,MOG,CCDC85C,LYN,GRIN2L
GO:0060284 regulation of cell development	9.79E-12 5,ASCL2,CLDN5,TACSTD2,PRKD1,EFNA5,NTF3,RTN4R1,MAPT,RTN4R2,DCC,MAGI2,LRRK2,S100A10,HES5,NTRK1,INPP5F,MIR199B,CPNE1,PLXNA4,LYN,S1PR2,SRCN1,MIR19A  SARM1,DVL2,SEMA3G,ISL1,NRXN3,MYOC,EPHA3,HDAC9,NEDD4L,LTN,NGFR,NTN1,NGEF,NEDD4,PLXNA2,FGFR1,FBLN1,FGF20,CHRNA3,MEF2C,SMARCD3,REST,MT3, NRCAM,SEMA6A,ABL1,STX1B,BMP7,STK24,NDRG4,COBL,PTPRZ1,RHEB,LIMK1,KANK1,FRECK,DKK1,WNT3,EFNB3,CUX2,OPRM1,BMP5,PTK7,DYSL3,WNT5A,DLX2,MARK1,RAB7L1 ,PROX1,TNN,PTK2B,CXCR4,OBSL1,PACIN1,CPNE5,BMP4,SOX9,BMP2,SIX1,MACF1,HOXD3,CHN1,LDLR,CASZ1,PER2,DLG4,NGF,LRP4,CLOCK,DTX1,SERPINE2,PLXNC1,EDNRB,FAM 129B,DAB2IP,KIAA0319,SIX3,ZNF365,SCARB2,ARHGDI2,CSNK1D,AKT1,DLX1,CPNE9,CNTN4,SLIT2,TNFRSF21,DAAM2,TTBK1,NOTCH1,ZEB1,LRRRC4,PAK1,DOCK1,POU4F2,PTPRD,I MPACT,TNIK,WNT3A,C21ORF91,FZD1,SKI,DVL3,PDPN,GF11,NEUROD1,TRIM46,PRKCI,NKX6- 1,HEYL,MFI2,PLXNB1,HMGB2,CSMD3,CDK5,ISLR2,CTNNB1,RGS14,SDC2,RAC3,NLGN1,LINGO1,ROBO1,ZNF804A,AKAP13,NEUROD2,DSCAM,PTEN,ATOH1,SSH3,LIG4,BRSK2,CLCF1 ,NR2F1,BDNF,CDK5R1,SOX11,SLITRK1,RCC2,MYADM,NEUROG1,CAV3,CAMK1D,NKX2-
GO:0048812 neuron projection morphogenesis	1.19E-11 NRXN1,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,CKK,SLIT1,DCC,LRRK2,NTNG2,SHAH1,NTRK1,DOK6,CPNE1,PLXNA4,EFNA4,LHX1,CYFIP1,SRCN1  SARM1,DVL2,SEMA3G,ISL1,NRXN3,NEDD4L,NGFR,NTN1,CTNNA2,NGEF,FGFR2,NEDD4,SPTB,MAP4K4,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,CHRNA3,ULK2,MT3,NRCAM,SEMA6A,E ZR,HSP90A1,ABL1,NEFH,DOK5,BMP7,STK24,GRB10,COBL,LIMK1,SH3GL2,CXCL12,EFNB3,PHOX2B,CUX2,WNT5A,STK25,TNR,ARTN,SGK1,SLITRK3,CXCR4,OBSL1,PAR6B,PACIN 1,CPNE5,MACF1,CHN1,MNX1,DLG4,DCLK1,EPHB2,NGF,LRP4,PLXNC1,FAM129B,DAB2IP,ZNF365,AFG3L2,ARHGDI2,RNF165,GRB7,LHX9,CPNE9,CNTN4,TMEM108,SLIT2,EPHAS,GF RA3,LRRRC4,PAK1,NCAM1,FEZ1,GPM6A,POU4F2,POU4F1,FARP1,PTPRD,IMPACT,ROBO3,TNIK,KIF5A,SPON2,SPTBN4,SHC1,DVL3,NTN3,NTNG1,TRIM46,PLXNB1,SHH,CDK5,SLITR K5,OTX2,APBB1,ISLR2,CTNNB1,KIF5C,GDNF,SDC2,NLGN1,LINGO1,ROBO1,CTNND2,FEZ2,DSCAM,PTEN,FOXB1,SSH3,DAB1,CNTNAP2,BRSK2,CHRNA7,BDNF,CDK5R1,SLITRK1,GP5,
GO:0120039 plasma membrane bounded cell projection m	1.41E-11 KSR1,SLITRK1,GP5,NRXN1,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,CKK,SLIT1,DCC,LRRK2,NTNG2,SHAH1,NTRK1,DOK6,CPNE1,PLXNA4,EFNA4,LHX1,CYFIP1,SRCN1  SARM1,DVL2,SEMA3G,ISL1,NRXN3,SNX1,NEDD4L,NGFR,NTN1,CTNNA2,NGEF,FGFR2,NEDD4,SPTB,MAP4K4,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,CHRNA3,ULK2,MT3,NRCAM,SEM A6,EZR,HSP90A1,ABL1,NEFH,DOK5,BMP7,STK24,GRB10,COBL,LIMK1,KANK1,SH3GL2,CXCL12,EFNB3,PHOX2B,CUX2,WNT5A,STK25,TNR,ARTN,SGK1,SLITRK3,CXCR4,OBSL1,PA RD6B,PACIN1,CPNE5,MACF1,CHN1,MNX1,DLG4,DCLK1,EPHB2,NGF,LRP4,PLXNC1,FAM129B,DAB2IP,ZNF365,AFG3L2,ARHGDI2,RNF165,GRB7,LHX9,CPNE9,CNTN4,TMEM108,SL IT2,EPHAS,GFRA3,LRRRC4,PAK1,NCAM1,FEZ1,GPM6A,POU4F2,POU4F1,FARP1,PTPRD,IMPACT,ROBO3,TNIK,KIF5A,SPON2,SPTBN4,SHC1,DVL3,NTN3,PDPN,NTNG1,TRIM46,PLXN B1,SHH,CDK5,SLITRK5,OTX2,APBB1,ISLR2,CTNNB1,KIF5C,GDNF,SDC2,NLGN1,LINGO1,ROBO1,CTNND2,FEZ2,DSCAM,PTEN,FOXB1,SSH3,DAB1,CNTNAP2,BRSK2,CHRNA7,BDNF,CD K5R1,SLITRK1,GP5,NRXN1,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,CKK,SLIT1,DCC,LRRK2,NTNG2,SHAH1,NTRK1,DOK6,CPNE1,PLXNA4,EFNA4,LHX1,CYFIP1,SRCN1
GO:0060070 canonical Wnt signaling pathway	1.79E-11 B1,AXIN2,CTNND2,WNT10B,H0XB9,SOX7,MCC,MLLT3,PTEN,RARG,JUP,NKX2-5,RUVBL2,ZNF703,RNF220,SHISA6,LRRK2,CTNND1  HECW1,DVL2,WWTR1,DKK3,WNK1,PTPRU,CDH3,TLE2,FGFR2,TCF7,CYLD,WNT11,SFRP1,DKK4,UBRS,CAV1,GLI3,KANK1,GATA3,DKK1,CCNY,WNT3,COL1A1,SMURF2,SLC9A3R1,GLI 1,FZD10,PTK7,TBX18,WNT5A,IGFBP2,HDAC1,MAP2K2,SFRP5,TNN,BICC1,SOX9,BMP2,TRPM4,KREMEN2,NPH4,ZBED3,WNT2B,LRP4,APC,WNT10A,DAB2IP,CSNK1D,IGFBP4,WNT 9A,LIMD1,SFRP2,NKD2,DAAM2,EGFR,IGFBP1,TCF7L2,DIXDC1,TCF7L1,LRRK1,WNT3A,DKK2,FZD1,WNT9B,DVL3,LRP5,FRZB,FZD5,SOX17,FZD6,FRAT1,BTRC,ILK,MESP1,SOST,CTNN

GO:0003002 regionalization  
CYP26B1,DVL2,ISL1,FGFR2,GLI2,PAX2,MEF2C,KDM2B,CHRD,SFRP1,COBL,DKK1,RFX4,MDF1,TBX18,CDX1,ACVR1,BMP4,PAX8,FOXA2,BMP2,SIX1,SMO,HOXD3,HOXD11,DLL4,WNT2  
B,LRP4,TBX3,GATA4,LMX1B,SMAD6,SIX3,DUSP6,MTF2,OSR1,CRB2,HHEX,WNT3A,SKI,LRP5,FZD5,PITX2,T,TBX20,SHH,CDX2,OTX2,MESP1,SOST,ARL13B,ROBO1,SOSTDC1,FOXBI,H  
2.04E-11 OXD8,NEUROG1,WT1,CYP26C1,MESP2,FOXD1,LHX1

GO:0048858 cell projection morphogenesis  
SARM1,DVL2,SEMA3G,ISL1,NRXN3,SNX1,NEDD4L,NGFR,NTN1,CTNNA2,NGEF,FGFR2,NEDD4,SPTB,MAP4K4,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,CHRNA3,ULK2,MT3,NRCAM,SEM  
A6A,EZR,HSP90A81,ABL1,NEFH,DOK5,BMP7,STK24,GRB10,COBL,LIMK1,KANK1,SH3GL2,CXCL12,EFNB3,PHOX2B,CUX2,WNT5A,STK25,TNR,ARTN,SGK1,SLITRK3,CXCR4,OBSL1,PA  
RD6B,PACSIN1,CPNE5,MACF1,CHN1,MNX1,DLG4,DCLK1,EPHB2,NGF,LRP4,PLXNC1,FAM129B,DAB2IP,ZNF365,AFG3L2,ARHGDI1,RNF165,GRB7,LHX9,CPNE9,CNTN4,TMEM108,SL  
IT2,EPHA5,GFRA3,LRRC4C,PAK1,NCAM1,FEZ1,GPM6A,POU4F2,POU4F1,FARP1,PTPRD,IMPACT,ROBO3,TNIP,KIF5A,SPON2,SPTBN4,SHC1,DVL3,NTN3,PDPN,NTNG1,TRIM46,PLXN  
B1,SHH,CDK5,SLITRK5,OTX2,APBB1,ISLR2,CTNNB1,KIF5C,GDNF,SDC2,NLGN1,LINGO1,ROBO1,CTNND2,FEZ2,DSCAM,PTEN,FOXBI,SSH3,DAB1,CNTNAP2,BRSK2,CHRNA7,BDNF,CD  
2.38E-11 KSR1,SLITRK1,GP5,NRXN1,LRRC55,SLIT3,EFNA5,NTF3,IRS2,MAPT,CKK,SLIT1,DCC,LRRK2,NTNG2,SHH1,NTRK1,DOK6,CPNE1,PLXNA4,EFNA4,LHX1,CYFIP1,SRICIN1

GO:0043009 chordate embryonic development  
DVL2,SOX8,ISL1,FGFR2,GLI2,PAX2,FGFR1,GRHL2,WNT11,KDM2B,CHRD,SIX4,BMP7,TGFB1,COBL,GATA3,COL1A1,BMP5,SRF,HAND1,CDX1,WNT5A,PROX1,PKD2,TGFB3,MTHFD1L,  
KIAA1217,TWIST1,GCM2,BMP4,SOX9,BMP2,SIX1,HOXD3,ALDH1A2,E2F8,GSC,PDGFRA,HEY2,LMX1B,TFAP2A,SULF1,TET1,COL2A1,BBS4,LMO4,WNT9A,OSR1,CRB2,SKI,GRHL3,DV  
2.53E-11 L3,EOMES,HEY1,DL1,OSR2,CDX2,E2F7,NOLC1,MESP1,CTNNB1,ARL13B,HOPX,FOXBI,ARNT2,LIG4,SOX11,NKX2-5,ASCL2,FOXD3,MESP2,SULF2,HESS,TRIM71,LHX1

GO:0060562 epithelial tube morphogenesis  
DVL2,SOX8,FGFR2,GLI2,PAX2,MEF2C,GRHL2,WNT11,KDM2B,SIX4,BMP7,NDRG4,SALL1,PRKD2,TGFB1,COBL,GATA3,BMP5,SRF,HAND1,FOXP1,ACVR1,PROX1,TCF21,PKD2,MTHFD  
1L,BMP4,SOX9,PAX8,BMP2,SIX1,PODXL,SMO,HOXD11,DLL4,GATA4,FGF2,ACVRL1,BBS4,CCDC40,LMO4,OSR1,SLIT2,SFRP2,NOTCH1,PAK1,ADAMTS12,SKI,GRHL3,RNF207,DVL3,TB  
3.65E-11 X20,SHH,SOX17,DL1,OSR2,CDX2,E2F7,NOLC1,MESP1,NKX3-1,CTNNB1,GDNF,MTSS1,SOX11,NKX2-5,TACSTD2,WT1,COL4A1,RYR2,NOTCH4,FOXD1,LHX1

GO:0045664 regulation of neuron differentiation  
SARM1,DVL2,CX3CL1,SEMA3G,EPHA3,NEDD4L,LTK,NGFR,NTN1,NGEF,NEDD4,PLXNA2,FGFR1,FGF20,CHRNA3,MEF2C,REST,MT3,NRCAM,ABL1,STX1B,BMP7,STK24,NDRG4,COBL,  
LIMK1,KANK1,FREQ,DKK1,EFNB3,CUX2,BMP5,PTK7,DPYSL3,WNT5A,DLX2,MARK1,RAB7L1,PROX1,PTK2B,OBSL1,PACSIN1,CPNE5,SOX9,BMP2,SIX1,MACF1,HOXD3,CHN1,CASZ1,D  
LG4,NGF,LRP4,DTX1,PLXNC1,EDNRB,DAB2IP,KIAA0319,SIX3,ZNF365,SCARB2,ARHGDI1,CSNK1D,AKT1,DLX1,CPNE9,CNTN4,SLIT2,ZEB1,LRRC4C,PAK1,POU4F2,PTPRD,IMPACT,TNIP  
K,WNT3A,C21ORF91,FZD1,DVL3,GF11,NEUROD1,TRIM46,PRKCI,HEYL,PLXNB1,CSMD3,CDK5,ISLR2,SDC2,NLGN1,LINGO1,ROBO1,ZNF804A,NEUROD2,DSCAM,PTEN,ATOH1,SSH3,  
BRSK2,NR2F1,BDNF,CDK5R1,SOX11,SLITRK1,NEUROG1,CAMK1D,NKX2-  
5.02E-11 5,PRKD1,NTF3,RTN4RL1,MAPT,RTN4RL2,DCC,MAGI2,LRRK2,HESS,NTRK1,INPP5F,CPNE1,PLXNA4,LYN,SRICIN1

GO:0048732 gland development  
HGF,TG,DKK3,FGFR2,TGFB3,GLI2,WNT11,AURKA,SALL1,TGFB1,CAV1,COBL,GATA3,WNT3,SLC9A3R1,IRF6,RPS6KA1,PROX1,TCF21,PKD2,TGFB3,GCM2,SOX9,PAX8,BMP2,SIX1,HO  
XD3,E2F8,RIK3,TBX3,WNT10A,NKX2-8,SULF1,SIX3,BRCA2,CCDC40,AKT1,ARID5B,CEBPB,NRG1,AIRE,ELF3,PITX2,HAND2,SHH,E2F7,MESP1,NKX3-  
6.52E-11 1,PTF1A,PCSK9,ROBO1,FOXBI,INSM1,FOXE1,NKX2-5,ZNF703,WT1,PDGFA,PHF2,NOTCH4,CRIP1,GPX1,CEBPA

GO:0003007 heart morphogenesis  
DVL2,ISL1,FGFR2,TGFB3,MEF2C,TBX5,BMP7,MYLK2,SMAD7,NDRG4,TGFB1,GATA3,FGF8,DKK1,CPE,BMP5,SRF,HAND1,ACVR1,PROX1,TNNT2,PKD2,BMP4,SOX9,BMP2,SMO,DLL  
4,HEY2,GATA4,PIM1,SMAD6,ACVRL1,TPM1,BBS4,GATA6,CCDC40,SLIT2,SFRP2,NOTCH1,WNT3A,NRG1,RNF207,ACTC1,HEYL,SPRY1,PITX2,HAND2,NPY1R,T,TBX20,HEY1,SHH,SOX  
6.52E-11 17,DL1,NO53,MESP1,CTNNB1,ROBO1,ZFPM2,HAS2,S1PR1,SOX11,ZFPM1,NKX2-5,CLDN5,SLIT3,NPY2R,MESP2,RYR1,EPHB4,RYR2

SARM1,DVL2,SEMA3G,ISL1,NRXN3,SNX1,NEDD4L,NGFR,NTN1,CTNNA2,NGEF,FGFR2,NEDD4,SPTB,MAP4K4,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,CHRNA3,ULK2,MT3,NRCAM,SEM A6A,EZR,HSP90A81,ABL1,NEFH,DOK5,BMP7,STK24,MYH14,GRB10,COBL,LIMK1,KANK1,SH3GL2,CXCL12,EFNB3,PHOX2B,CUX2,WNT5A,STK25,TNR,ARTN,SGK1,SLITRK3,CXCR4,OB SL1,PAR68,PACIN1,CPNES,MACF1,CHN1,MNX1,DLG4,DCLK1,EPHB2,NGF,LRP4,PLXNC1,FAM129B,DAB2IP,ZNF365,AFG3L2,ARHGDI2,ARHGDI1,RNF165,GRB7,LHX9,CPNE9,CNTN4,TMEM 108,SLIT2,EPHA5,GFRA3,LRR4C4,PAK1,NCAM1,FEZ1,GPM6A,POU4F2,POU4F1,FARP1,PTPRD,IMPACT,ROBO3,TNIF,EIF5A,SPON2,SPTB4,SHC1,DVL3,NTN3,PDPN,NTNG1,TRIM4 6,PLXNB1,SHH,CDK5,SLITRK5,OTX2,APBB1,ISLR2,CTNNA1,KIF5C,GDNF,SDC2,NLGN1,LINGO1,ROBO1,CTNND2,FEZ2,DSCAM,PTEN,FOXB1,SSH3,DAB1,CNTNAP2,BRSK2,CHRNA7,B 7.54E-11 DNF,CDK5R1,SLITRK1,GPS,NRXN1,LRR55,SLIT3,EFNA5,NTF3,IRS2,MAPT,CCK,SLIT1,DCC,LRRK2,NTNG2,SHAH1,NTRK1,DOK6,CPNE1,PLXNA4,EFNA4,LHX1,CYFIP1,SRGIN1

GO:0032990 cell part morphogenesis

SARM1,SEMA3G,ISL1,NRXN3,NGFR,NTN1,CTNNA2,NGEF,FGFR2,NEDD4,SPTB,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,CHRNA3,MEF2C,ULK2,MT3,NRCAM,SEMA6A,EZR,HSP90A81,A BL1,NEFH,DOK5,GRB10,COBL,LIMK1,CXCL12,EFNB3,PHOX2B,CUX2,WNT5A,TNR,ARTN,SLITRK3,CXCR4,OBSL1,PAR68,MACF1,CHN1,UNK,DLG4,EPHB2,NGF,LRP4,PLXNC1,FAM12 9B,ZNF365,AFG3L2,ARHGDI2,ARHGDI1,TBCD,RNF165,GRB7,LHX9,CNTN4,SLIT2,EPHA5,GFRA3,LRR4C4,PAK1,NCAM1,FEZ1,POU4F2,POU4F1,FARP1,PTPRD,ROBO3,TNIF,EIF5A,SPON2,SPTB N4,SHC1,NTN3,NTNG1,TRIM46,PLXNB1,SHH,CDK5,SLITRK5,OTX2,APBB1,ISLR2,KIF5C,GDNF,SDC2,NLGN1,LINGO1,ROBO1,CTNND2,FEZ2,DSCAM,PTEN,FOXB1,SSH3,DAB1,BRSK2, CHRNA7,BDNF,CDK5R1,SLITRK1,GPS,NRXN1,LRR55,SLIT3,EFNA5,IRS2,MAPT,CCK,SLIT1,DCC,LRRK2,NTNG2,SHAH1,NTRK1,DOK6,PLXNA4,EFNA4,LHX1,CYFIP1,SRGIN1

GO:0048667 cell morphogenesis involved in neuron differe

1.86E-10

DVL2,SOX8,ISL1,FGFR2,GLI2,PAX2,FGFR1,GRHL2,WNT11,KDM2B,CHRDL,SIX4,BMP7,TGFB1,COBL,GATA3,COL1A1,BMP5,SRF,HAND1,CDX1,WNT5A,NR5A2,PROX1,PKD2,TGFB3,MT HFD1L,KIAA1217,TWIST1,GCM2,BMP4,SOX9,BMP2,SIX1,HOXD3,ALDH1A2,E2F8,GSC,PDGFRA,HEY2,LMX1B,TFAP2A,SULF1,TET1,COL2A1,BBS4,LMO4,WNT9A,OSR1,CRB2,SKI,GR HL3,DVL3,EOMES,HEY1,DLCL1,OSR2,CDX2,E2F7,NOLC1,MESP1,CTNNA1,FOXJ1,ARL13B,HOPX,FOXB1,ARNT2,LIG4,SOX11,NKX2-5,ASCL2,FOXD3,MESP2,SULF2,HES5,TRIM71,LHX1

GO:0009792 embryo development ending in birth or egg h

2.80E-10

HECW1,DVL2,WVTR1,DKK3,WNK1,TL2,FGFR2,CBFB,CYLD,WNT11,ESR1,RSPO4,SALL1,SFRP1,DKK4,UBR5,CAV1,GRB10,GLI3,KANK1,DKK1,CCNY,COL1A1,SMURF2,SLC9A3R1,GLI 1,MDF1,TBX18,WNT5A,IGFBP2,HDAC1,MAD2L2,SFRP5,TNN,BICC1,LRP1,SOX9,BMP2,MACF1,TRPM4,NFATC1,KREMEN2,NPHP4,ZBED3,WNT2B,LRP4,APC,MDFC,DAB2IP,SULF1,C SNK1D,IGFBP4,LIMD1,SFRP2,NKD2,DAAM2,RSPO3,EGFR,IGFBP1,RSPO2,TCF7L2,DIXDC1,TCF7L1,HHEX,LRRK1,WNT3A,APCDD1,DKK2,SKI,RUNX1,DVL3,LRP5,FRZB,SOX17,FZD6,FR AT1,BTRC,ILK,MESP1,NXN,SOST,AXIN2,CTNND2,SOX7,SOSTDC1,MCC,MLLT3,JUP,HIC1,NKX2-5,RUVBL2,ZNF703,ATP6VOC,RNF220,SHISA6,LRRK2,SULF2,CTNND1

GO:0030111 regulation of Wnt signaling pathway

2.94E-10

WNT16,FGFR2,MYO3B,PAX2,MEF2C,KDM2B,MYO3A,NDRG4,SALL1,SRF,HAND1,WNT5A,ACVRL1,EFEMP1,ATP6V1B1,MFAP2,PROX1,TCF21,PKD2,MTDFD1L,TWIST1,SOX9,PAX8,SI X1,SMO,HOXD3,EPHB2,GSC,PDGFRA,GATA4,TFAP2A,FOXF2,SIX3,COL2A1,BBS4,CCDC40,OSR1,CRB2,NOTCH1,ZIC1,RNF207,NEUROD1,TBX20,SHH,SOX17,OSR2,MESP1,CTNNA1,R ARG,SOX11,FOXE1,NEUROG1,NKX2-5,ALDH1A3,RYR2,LHX1

GO:0048562 embryonic organ morphogenesis

8.73E-10

WNT16,SOX8,PROM1,PAX6,TFAP2B,ISL1,SDK2,PAX2,SMARCD3,KDM2B,PHOX2B,TULP1,WNT5A,EFEMP1,WNT6,DLX2,HDAC1,MFAP2,PROX1,TWIST1,NEUROD4,SOX9,DL4,COL5 A1,NES,WNT2B,PDGFRA,TFAP2A,FOXF2,CYP1B1,SIX3,BMP1R1B,ACVRL1,BBS4,ADAMTS18,UNC45B,WNT9A,DLX1,SDK1,GPM6A,POU4F2,POU4F1,MEGF11,SKI,WNT9B,CPAMDR8,LR P5,NEUROD1,PITX2,OSR2,SALL2,PTF1A,DSCAM,RARG,SH3PXD2B,SOX11,MAF,FOXJ2,ALDH1A3,WT1,COL4A1,CRYBA4,HES5,SMOC1,RORB,COL5A2,LHX1

GO:0048880 sensory system development

9.83E-10

SOX8,JARID2,FGFR2,CBFB,PAX2,TP73,MEF2C,PTPRC,REST,TBX5,ABL1,SETD1A,SFRP1,GATA3,WNT3,PHOX2B,SRF,MYB,ESRRB,EPCAM,SOX21,SOX9,ELL3,GSC,SOX5,PDGFRA,LMO2 ,GATA4,SIX3,DNMT3L,MTF2,OSR1,NOTCH1,HMGA2,GPM6A,ZFP36L2,WNT3A,NRG1,FZD1,RUNX1,TAL1,PITX2,HAND2,T,SHH,NOLC1,LMO1,GDNF,SP7,SOX11,GATA2,HOXB4,NKX 2-5,TACSTD2,CYP26C1,HES5,LDB1

GO:0048863 stem cell differentiation

1.26E-09

GO:0007389 pattern specification process  
1.47E-09 ,FZD5,PITX2,T,TBX20,SHH,SOX17,CDX2,OTX2,MESP1,SOST,ARL13B,ROBO1,SOSTDC1,FOXO1,HOXD8,NEUROG1,NKX2-5,WT1,CYP26C1,MESP2,CCDC151,FOXD1,LHX1  
CYP26B1,DVL2,ISL1,FGFR2,GLI2,PAX2,MEF2C,KDM2B,CHRD,NDRG4,SFRP1,COBL,DKK1,RFK4,MDF1,SRF,TBX18,HAND1,CDX1,ACVR1,PKD2,BMP4,PAX8,FOXA2,BMP2,SIX1,SMO,H  
OXD3,HOXD11,DLL4,FOXJ1,WNT2B,LRP4,TBX3,GATA4,LMX1B,SMAD6,SIX3,DUSP6,BBS4,CCDC40,MTF2,OSR1,CRB2,NOTCH1,HHEX,ZIC1,WNT3A,NODAL,SKI,RNF207,FOXH1,LRP5

GO:0061564 axon development  
1.81E-09 ,DCC,NTNG2,SHAH1,NTRK1,INPP5F,DOK6,PLXNA4,EFNA4,LHX1,CYFIP1  
SEMA3G,ISL1,NRXN3,EPHA3,NGFR,NTN1,CTNNA2,FGFR2,SPTB,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,ULK2,MT3,NRCAM,SEMA6A,EZR,HSP90AB1,ABL1,NEFH,DOK5,STK24,GRB10,  
COBL,LIMK1,CXCL12,EFNB3,PHOX2B,WNT5A,TNR,ARTN,SLITRK3,CXCR4,PAR6B,MACF1,CHN1,EPHB2,NGF,LRP4,PLXNC1,FAM129B,AFG3L2,ARHGDI1,RNF165,GRB7,LHX9,CNTN  
4,SLIT2,EPHA5,GFRA3,LRRC4C,PAK1,NCAM1,FEZ1,POU4F2,POU4F1,ROBO3,KIF5A,SPON2,SPTBN4,SHC1,NTN3,NTNG1,TRIM46,PLXNB1,SHH,CDK5,SLITRK5,OTX2,APBB1,ISLR2,KIF  
5C,GDNF,LINGO1,ROBO1,FEZ2,DSCAM,PTEN,FOXO1,GAP43,SSH3,DAB1,BRSK2,BDNF,CDK5R1,SLITRK1,GP5,NRXN1,LRRC55,SLIT3,EFNA5,RTN4R1,IRS2,MAPT,RTN4R2,CCK,SLIT1

GO:0090596 sensory organ morphogenesis  
3.30E-09 2,LHX1  
WNT16,SOX8,PROM1,PAX6,TFAP2B,FGFR2,SDK2,MYO3B,PAX2,KDM2B,MYO3A,SIX4,SALL1,GLI3,TULP1,WNT5A,EFEMP1,ATP6V1B1,HDAC1,MFAP2,PROX1,TWIST1,SOX9,PAX8,SI  
X1,COL5A1,EPHB2,GSC,WNT2B,TFAP2A,FOXF2,SIX3,BBS4,WNT9A,OSR1,SDK1,ZIC1,MEGF11,SKI,LRP5,PITX2,OSR2,PTF1A,DSCAM,RARG,SOX11,NEUROG1,ALDH1A3,RORB,COL5A

GO:0007507 heart development  
4.29E-09 5,ADAP2,CLDN5,SLIT3,WT1,NPY2R,FGF3,MESP2,RYR1,EPHB4,RYR2,MIR199B,CRIP1,MIR19A  
DVL2,ISL1,HDAC9,ERBB3,FGFR2,TGFB3,GLI2,TP73,MEF2C,REST,TBX5,BMP7,MYLK2,SMAD7,NDRG4,SALL1,TGFB1,GATA3,FGF8,DKK1,CPE,GLI1,BMP5,BVES,SRF,HAND1,FGF12,A  
CVR1,ECE1,PROX1,TNNT2,PKD2,TWIST1,OBSL1,BMP4,SOX9,BMP2,SMO,DL4,KDM6B,APLN,PDGFRA,HEY2,GATA4,PIM1,SMAD6,FGF2,DUSP6,ACVRL1,RB1,TPM1,BBS4,NTRK3,G  
ATA6,CCDC40,OSR1,SLIT2,ANK2,SFRP2,EGFR,NOTCH1,POU4F2,POU4F1,WNT3A,SORBS2,NRG1,RNF207,ACTC1,NEXN,ADAMTS9,HEYL,SPRY1,PITX2,HAND2,NPY1R,T,TBX20,HEY1,  
SHH,SOX17,DL1,NOS3,MESP1,CTNNA1,SHOX2,ROBO1,ZFPM2,AKAP13,HAS2,S1PR1,PTEN,SH3PX2D2B,FOXC2,SOX11,ZFPM1,NKX2-

GO:0007409 axonogenesis  
4.29E-09 4,EFNA4,LHX1,CYFIP1  
SEMA3G,ISL1,NRXN3,NGFR,NTN1,CTNNA2,FGFR2,SPTB,GLI2,NTN4,PAX2,PLXNA2,RAP1GAP,ULK2,MT3,NRCAM,SEMA6A,EZR,HSP90AB1,ABL1,NEFH,DOK5,GRB10,COBL,LIMK1,C  
XCL12,EFNB3,PHOX2B,WNT5A,TNR,ARTN,SLITRK3,CXCR4,PAR6B,MACF1,CHN1,EPHB2,NGF,LRP4,PLXNC1,FAM129B,AFG3L2,ARHGDI1,RNF165,GRB7,LHX9,CNTN4,SLIT2,EPHA5  
,GFRA3,LRRC4C,PAK1,NCAM1,FEZ1,POU4F2,POU4F1,ROBO3,KIF5A,SPON2,SPTBN4,SHC1,NTN3,NTNG1,TRIM46,PLXNB1,SHH,CDK5,SLITRK5,OTX2,APBB1,ISLR2,KIF5C,GDNF,LING  
O1,ROBO1,FEZ2,DSCAM,PTEN,FOXO1,SSH3,DAB1,BRSK2,BDNF,CDK5R1,SLITRK1,GP5,NRXN1,LRRC55,SLIT3,EFNA5,IRS2,MAPT,CCK,SLIT1,DCC,NTNG2,SHAH1,NTRK1,DOK6,PLXNA

GO:0150063 visual system development  
4.65E-09 SR2,SALL2,PTF1A,DSCAM,RARG,SH3PX2D2B,SOX11,MAF,FOXL2,ALDH1A3,WT1,COL4A1,CRYBA4,HESS,SMOC1,RORB,COL5A2,LHX1  
WNT16,SOX8,PROM1,PAX6,TFAP2B,SDK2,PAX2,SMARCD3,KDM2B,TULP1,WNT5A,EFEMP1,WNT6,DLX2,HDAC1,MFAP2,PROX1,TWIST1,NEUROD4,SOX9,DL4,COL5A1,NES,WNT2  
B,PDGFRA,TFAP2A,FOXF2,CYP1B1,SIX3,BMPR1B,ACVRL1,BBS4,ADAMTS18,UNC45B,WNT9A,DLX1,SDK1,GPM6A,POU4F2,MEGF11,SKI,WNT9B,CPAMD8,LRP5,NEUROD1,PITX2,O

GO:0001654 eye development  
4.65E-09 SR2,SALL2,PTF1A,DSCAM,RARG,SH3PX2D2B,SOX11,MAF,FOXL2,ALDH1A3,WT1,COL4A1,CRYBA4,HESS,SMOC1,RORB,COL5A2,LHX1  
WNT16,SOX8,PROM1,PAX6,TFAP2B,SDK2,PAX2,SMARCD3,KDM2B,TULP1,WNT5A,EFEMP1,WNT6,DLX2,HDAC1,MFAP2,PROX1,TWIST1,NEUROD4,SOX9,DL4,COL5A1,NES,WNT2  
B,PDGFRA,TFAP2A,FOXF2,CYP1B1,SIX3,BMPR1B,ACVRL1,BBS4,ADAMTS18,UNC45B,WNT9A,DLX1,SDK1,GPM6A,POU4F2,MEGF11,SKI,WNT9B,CPAMD8,LRP5,NEUROD1,PITX2,O

GO:0061326 renal tubule development	SOX8,PROM1,TFAP2B,PAX2,MEF2C,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,HOXD11,FGF2,OSR1,SHH,CTNNB1,GDNF,MTSS1,TACSTD2,WT 5.66E-09 1,COL4A1,POU3F3,FOXD1,LHX1
GO:0001823 mesonephros development	SOX8,FGFR2,PAX2,WNT11,SIX4,BMP7,SALL1,GATA3,FGF8,ZBTB16,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FOXJ1,FGF2,OSR1,SLIT2,SHH,OSR2,GDNF,TACSTD2, 8.10E-09 WT1,FOXD1,LHX1
GO:0043010 camera-type eye development	WNT16,SOX8,PROM1,PAX6,TFAP2B,SDK2,PAX2,SMARCD3,KDM2B,WNT5A,EFEMP1,WNT6,DLX2,HDAC1,PROX1,TWIST1,NEUROD4,SOX9,DLL4,NES,WNT2B,PDGFRA,TFAP2A,FOX F2,CYP1B1,SIX3,ACVRL1,UNC45B,WNT9A,DLX1,SDK1,GPM6A,POU4F2,MEGF11,SKI,WNT9B,LRP5,NEUROD1,PITX2,OSR2,PTF1A,DSCAM,SOX11,MAF,FOXL2,ALDH1A3,WT1,COL4 1.02E-08 A1,CRYBA4,HES5,RORB,LHX1
GO:0048762 mesenchymal cell differentiation	SOX8,ISL1,WWTR1,PHLDB1,HGF,EPHA3,FGFR2,TGFBR3,CLASP1,PAX2,MEF2C,TBX5,BMP7,FAM83D,SMAD7,SFRP1,TGFB1,FGF8,COL1A1,PHOX2B,GCNT2,BMP5,WNT5A,ACVR1,M AD2L2,TCF21,TGFB3,TWIST1,SOX9,FOXA2,BMP2,ELL3,GSC,HEY2,DAB2IP,FOXF2,TGFB11,OSR1,SFRP2,CRB2,NOTCH1,TCF7L2,HMGA2,NRG1,PDPN,EOMES,HEYL,SPRY1,PITX2,HA 1.09E-08 ND2,HEY1,SHH,NOLC1,SMAD3,CTNNB1,GDNF,AXIN2,HAS2,PTEN,SOX11,ALX1,ZNF703,BCL9L,CYP26C1,S100A4
GO:0072080 nephron tubule development	SOX8,PROM1,TFAP2B,PAX2,MEF2C,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,HOXD11,FGF2,OSR1,SHH,CTNNB1,GDNF,MTSS1,TACSTD2,WT 1.66E-08 1,POU3F3,FOXD1,LHX1
GO:0061448 connective tissue development	SOX8,RUNX3,BARX2,DGAT2,HYAL2,FGF4,MEF2C,WNT11,PTHLH,BMP7,TRPS1,TGFB1,ZBTB16,HYAL1,EFEMP1,RUNX2,BMP4,SOX9,BMP2,GDF5,HOXD3,TRPM4,CHI3L1,WNT2B,SO X5,SULF1,FGF2,BMPR1B,COL2A1,ACVRL1,WNT9A,OSR1,HMGA2,ARID5B,ADAMTS12,GDF6,RUNX1,LRP5,OSR2,BMP1,WNT10B,SH3PXD2B,ALX1,WT1,SULF2,HES5,COL11A2,CRIPI 1.68E-08 ,FOXD1
GO:0061061 muscle structure development	CFLAR,SOX8,ISL1,EHD2,HDAC9,CDON,CTNNA2,FGFR2,HDAC4,RORA,TGFBR3,SPEG,EVC,TP73,MEF2C,REST,MYBPC2,TBX5,ABL1,SIX4,NFATC2,MYLK2,SMAD7,MYEF2,TGFB1,MYH1 4,CAV2,CAV1,FGF8,DKK1,GLI1,BVES,SRF,HAND1,ACVR1,EPAS1,PROX1,CENPF,TNNT2,TCF21,BHLHE41,OBSL1,EREG,BMP4,SOX9,BMP2,SIX1,SGCE,DLL4,SOX15,DNMT1,SYNE1,NFA TC1,KDM6B,SORT1,PDGFRA,TBX3,ITGA7,HEY2,CHRNA,EDNRB,FAM129B,PIM1,FLOT1,FGF2,RB1,TPM1,GATA6,KCNH1,ACTA1,ANK2,JGFBP3,NOTCH1,TCF7L2,ADAM12,MKX,CTF1, UTRN,DISP1,WNT3A,OBSCN,SORBS2,CHODL,NRG1,MMP14,SKI,ACTC1,LEMD2,NEXN,LMOD1,T,TBX20,HEY1,SHH,ANKRD2,MESP1,CTNNB1,ZFPM2,CHRN81,CDH2,AKAP13,S1PR1, SOSTDC1,KRT19,BDNF,TRIM72,EGR3,ZFPM1,NEUROG1,CAV3,NKX2-5,FHL3,FOXL2,WT1,MAPK11,ZFP36L1,FGF3,MAPK12,RYR1,CACNA1H,LAMA2,RYR2,MIR199B,MIR124- 2.04E-08 2,MIR125B1,MIR19A,MIR124-1



GO:0060828 regulation of canonical Wnt signaling pathway 2.04E-08 HECW1,DVL2,WWTR1,DKK3,WNK1,TLE2,FGFR2,CYLD,WNT11,SFRP1,DKK4,UBR5,CAV1,GLI3,KANK1,DKK1,CCNY,COL1A1,SMURF2,SLC9A3R1,GLI1,TBX18,WNT5A,IGFBP2,HDAC1,MAD2L2,SFRP5,TNN,BICC1,SOX9,BMP2,TRPM4,KREMEN2,NPHP4,ZBED3,WNT2B,LRP4,APC,DAB2IP,CSNK1D,IGFBP4,LIMD1,SFRP2,NKD2,DAAM2,EGFR,IGFBP1,TCF7L2,DIXDC1,LRRK1,WNT3A,DKK2,DVL3,LRP5,FRZB,SOX17,FZD6,FRAT1,BTRC,ILK,MESP1,SOST,AXIN2,CTNND2,SOX7,MCC,MLLT3,JUP,NKX2-5,RUVBL2,ZNF703,RNF220,SHISA6,LRRK2,CTNND1

GO:0001655 urogenital system development 2.25E-08 SOX8,PROM1,TFAP2B,FGFR2,HYAL2,GLI2,PAX2,MEF2C,WNT11,SIX4,BMP7,SALL1,GATA3,FGF8,ZBTB16,TBX18,PROX1,CENPF,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,FOXJ1,ITGB4,EPHB2,LRP4,PDGFRA,TFAP2A,SULF1,FGF2,GREB1L,OSR1,AGTR1,SLIT2,ANGPT1,KLF15,SHH,SOX17,OSR2,NKX3-1,CTNNB1,GDNF,PCSK9,MTSS1,HAS2,TACSTD2,WT1,MAGI2,COL4A1,LRRK2,MME,SULF2,PDGFA,POU3F3,CRIP1,FOXD1,LHX1

GO:0060322 head development 2.89E-08 TBC1D23,ZIC2,CTNNA2,FGFR2,RORA,NDE1,GLI2,PAX2,PAFAH1B3,GRHL2,KDM2B,TYRO3,BMP7,CLN5,CBLN1,NDRG4,CRISPLD2,SALL1,GRIN2D,CDK6,LHX6,WNT3,SLC6A4,PHOX2B,PITPNM1,MDGA1,BMP5,WNT5A,ABC6,DLX2,VAX2,CHD5,PADI2,PROX1,CENPF,TGFB3,NPY,EGR2,ADCK4,BMP4,MBOAT7,NKX2-2,BMP2,SYNGR3,FOXP2,SMO,FOXJ1,NES,EPHB2,WNT2B,YWHAQ,TBR1,DAB2IP,IL11RA,SIX3,TACC2,ZNF365,BBS4,CSNK1D,DMRTA2,CNTN4,TMEM108,SLIT2,EPHA5,TTBK1,TACC1,KIRREL3,GRID2,ZIC1,WNT3A,C21ORF91,CA10,SSBP3,FZD1,SKI,WNT9B,GRIN2C,LMX1A,NEUROD1,MSX1,EOMES,PITX2,SHH,DLCL1,OSR2,FZD6,OTX2,ANKRD11,CTNNB1,DDIT4,PTF1A,MFSD2A,ARL13B,ROBO1,SLC23A1,NEUROD2,PTEN,FOXO1,ARNT2,CNTNAP2,FOXG1,CDK5R1,NRXN1,CLDN5,SLIT1,COL4A1,LRRK2,HESS5,CCDC85C,GRIN2B,LHX1

GO:0072001 renal system development 3.04E-08 SOX8,PROM1,TFAP2B,FGFR2,HYAL2,GLI2,PAX2,MEF2C,WNT11,SIX4,BMP7,SALL1,GATA3,FGF8,ZBTB16,TBX18,PROX1,CENPF,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,FOXJ1,ITGB4,LRP4,PDGFRA,TFAP2A,SULF1,FGF2,GREB1L,OSR1,AGTR1,SLIT2,ANGPT1,KLF15,SHH,SOX17,OSR2,CTNNB1,GDNF,PCSK9,MTSS1,HAS2,TACSTD2,WT1,MAGI2,COL4A1,LRRK2,MME,SULF2,PDGFA,POU3F3,FOXD1,LHX1

GO:0001657 ureteric bud development 5.05E-08 SOX8,FGFR2,PAX2,WNT11,SIX4,BMP7,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FOXJ1,FGF2,OSR1,SLIT2,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1

GO:0034762 regulation of transmembrane transport 5.05E-08 CFTR,CX3CL1,CAPN1,ATP1A2,KCNQ1,NEDD4L,KCNQ1,KCNH2,ATP2B4,NGFR,CACNB1,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,CLTCL1,PRKACA,CACNG4,DLG1,KCNN2,MEF2C,JPH4,SNTA1,CA2,JPH1,CLIP3,CACNG7,CAV1,GRB10,TSPAN13,PRKAG2,PPIF,SLC9A3R1,OPRM1,PDE4D,FGF12,THADA,SLC2A1,AKAP7,PKD2,NR4A3,RHOQ,FKBP1B,KCNIP2,CRHR1,PTK2B,KNS1,AHNAK,ATP1B2,KCNA5,DPP6,DIAPH1,PER2,DLG4,EPHB2,APLN,TRPC6,FXD6,HCN4,FGF2,SLC39A8,NOL3,AFG3L2,STAC2,CACNA1A,SLC39A3,CACNG8,KCNH1,SLC39A1,OSR1,SNCA,ANK2,GABRB2,GLRA1,SLC25A37,SLC39A12,SCN2B,KCNA6,KCNK13,GPD1L,UTRN,MCOLN2,SLC26A2,KCNS2,STEAP2,RNF207,CLIC6,GRIN2C,KCNJ3,GABRB1,ATP1A1,KCNV1,TRPV6,CACNB2,GABRB3,SCN3B,NETO1,PHB,STIM1,CACNB3,LETM1,GRM5,PCSK9,KCNK9,SLC26A5,P2RY6,ATP2A2,DPP10,KCNE3,SCN4B,KCNIP1,CACNB4,KCNK4,CAV3,OTOP3,OTOP2,LRRCS5,KCNJ12,KCNK12,KCNK2,CLCNKB,KCNQ5,KCNIP4,ATP6V0C,RYR1,CACNA1H,HTT,RYR2,STK39,NOS1AP,FAM155A,FXD7,FXD1,MIR212

GO:0098660 inorganic ion transmembrane transport 6.66E-08 CFTR,CX3CL1,CACNA1G,SLC11A1,ATP1A2,GABRA1,KCNQ1,ATP6V0A1,NEDD4L,KCNQ1,KCNH2,MCOLN3,ATP2B4,SLC9A3,CACNB1,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,KCNQ2,CACNG4,DLG1,SLC1A3,KCNN2,PTPRC,KCNK2,SLC4A11,JPH4,KCNK10,SLC8A3,TRPC4AP,SNTA1,NALCN,JPH1,SLC39A14,KCNA7,BBC3,GRIN2D,CACNG7,ATP6V0A4,CAV1,TSPAN13,PPIF,SLC9A3R1,UCP1,CLCN3,SLC39A7,GABRG2,PDE4D,FGF12,SLC9A2,THADA,ATP6V1B1,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,KCNJ5,PTK2B,ITPR2,KNS1,KCNK15,AHNAK,SLC25A23,KCNK1,ATP1B2,KCNA5,DPP6,TRPM4,DIAPH1,SLC39A11,APLN,SLC26A10,TRPC6,FXD6,HCN4,FGF2,SLC39A8,NOL3,AFG3L2,STAC2,CACNA1A,SLC39A3,CACNG8,KCNH1,SLC39A1,OSR1,SNCA,ANK2,GABRB2,GLRA1,SLC25A37,SLC39A12,SCN2B,KCNA6,KCNK13,GPD1L,UTRN,MCOLN2,SLC26A2,KCNS2,STEAP2,RNF207,CLIC6,GRIN2C,KCNJ3,GABRB1,ATP1A1,KCNV1,TRPV6,CACNB2,GABRB3,SCN3B,NETO1,PHB,STIM1,CACNB3,LETM1,GRM5,PCSK9,KCNK9,SLC26A5,P2RY6,ATP2A2,DPP10,KCNE3,SCN4B,KCNIP1,CACNB4,KCNK4,CAV3,OTOP3,OTOP2,LRRCS5,KCNJ12,KCNK12,KCNK2,CLCNKB,KCNQ5,KCNIP4,ATP6V0C,RYR1,CACNA1H,HTT,RYR2,STK39,NOS1AP,FAM155A,FXD7,FXD1,MIR212,GRIN2B

GO:0061333 renal tubule morphogenesis	7.31E-08 SOX8,PAX2,MEF2C,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FGF2,OSR1,SHH,GDNF,MTSS1,TACSTD2,WT1,COL4A1,FOXD1,LHX1
GO:0001822 kidney development	SOX8,PROM1,TFAP2B,FGFR2,HYAL2,GLI2,PAX2,MEF2C,WNT11,SIX4,BMP7,SALL1,GATA3,FGF8,ZBTB16,PROX1,CENPF,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,FOXJ1,LRP4,PDGFRA,TFAP2A,SULF1,FGF2,GREB1L,OSR1,AGTR1,SLIT2,ANGPT1,KLF15,SHH,OSR2,CTNNB1,GDNF,PCSK9,MTSS1,HAS2,TACSTD2,WT1,MAGI2,LRRK2,MME, 8.57E-08 SULF2,PDGFA,POU3F3,FOXD1,LHX1
GO:0030178 negative regulation of Wnt signaling pathway	HECW1,DVL2,WWTR1,DKK3,TLE2,CYLD,WNT11,SFRP1,DKK4,CAV1,GRB10,GLI3,DKK1,SLC9A3R1,GLI1,MDFI,TBX18,WNT5A,IGFBP2,HDAC1,MAD2L2,SFRP5,TNN,BICC1,LRP1,SOX9,BMP2,NFATC1,KREMEN2,NPHP4,LRP4,APC,DAB2IP,IGFBP4,LIMD1,SFRP2,NKD2,IGFBP1,TCF7L2,APCDD1,DKK2,DVL3,FRZB,SOX17,FZD6,MESP1,NXN,SOST,AXIN2,SOSTDC1,MCC, 8.57E-08 MLLT3,HIC1,NKX2-5,RUVBL2,SHISA6,CTNND1
GO:0072171 mesonephric tubule morphogenesis	8.63E-08 SOX8,PAX2,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FGF2,OSR1,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1
GO:0034765 regulation of ion transmembrane transport	CFTR,CX3CL1,CAPN1,ATP1A2,KCNQ1,NEDD4L,KCNQ1,KCNH2,ATP2B4,CACNB1,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,CACNG4,DLG1,KCNN2,MEF2C,JPH4,SNTA1,JPH1,CACNG7,CAV1,TSPAN13,PPIF,SLC9A3R1,OPRM1,PDE4D,FGF12,THADA,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,ATP1B2,KCNA5,DPP6,DIAPH1,PER2,DLG4,EPHB2,APLN,TRPC6,FXVD6,THBS1,STAC2,AKT1,CACNG8,CNIH3,OSR1,SNCA,ANK2,CRHBP,SCN2B,GPD1L,UTRN,KCNS2,RNF207,CACNB2,SCN3B,NETO1,STIM1,CACNB3,GRM5,PCSK9,N 9.91E-08 LGN1,P2RY6,CNIH2,DPP10,KCNE3,SCN4B,NRXN1,KCNIP1,CACNB4,CAV3,LRRCS5,KCNIP4,CALHM1,IRS2,DAPK1,HTT,RYR2,STK39,NOS1AP,FXVD7,FXVD1,MIR212
GO:0072163 mesonephric epithelium development	1.00E-07 SOX8,FGFR2,PAX2,WNT11,SIX4,BMP7,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FOXJ1,FGF2,OSR1,SLIT2,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1
GO:0072164 mesonephric tubule development	1.00E-07 SOX8,FGFR2,PAX2,WNT11,SIX4,BMP7,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FOXJ1,FGF2,OSR1,SLIT2,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1

GO:0035148 tube formation 1.00E-07 DVL2,SOX8,SDCCAG8,FGFR2,PAX2,GRHL2,KDM2B,SIX4,BMP7,TGFB1,COBL,GATA3,BMP5,PROX1,MTHFD1L,BMP4,SOX9,PAX8,SIX1,PODXL,DAB2IP,BBS4,BCAS3,LMO4,OSR1,NOT CH1,SKI,GRHL3,DVL3,DLCL1,GDNF,ATOH8,SOX11

GO:0032409 regulation of transporter activity 1.15E-07 CFTR,CAPN1,ATP1A2,KCNJ1,NEDD4L,CACNB1,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,CACNG4,DLG1,MEF2C,JPH4,SGK2,JPH1,CACNG7,CAV1,PP1F,SLC9A3R1,OPRM1,PDE4D,FGF12,THADA,AKAP7,SGK1,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,SYNGR3,ATP1B2,PPARG,DLG4,EPHB2,TRPC6,FXYP6,STAC2,CACNG8,CTTNBP2NL,CNIH3,OSR1,SNCA,ANK2,CRHBP,SCN2B,GPD1L,UTRN,KCNS2,RNF207,CACNB2,SCN3B,NETO1,STIM1,CACNB3,GRM5,PCSK9,NLGN1,P2RY6,BCL2,CNIH2,KCNE3,SCN4B,NRXN1,CACNB4,CAV3,LRRCS5,D

GO:0072073 kidney epithelium development 1.40E-07 SOX8,PROM1,TFAP2B,FGFR2,PAX2,MEF2C,WNT11,SIX4,BMP7,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,FOXJ1,FGF2,OSR1,SLIT2,KLF15,SHH,CTNNB1,GDNF,MTSS1,TACSTD2,WT1,MAGI2,POU3F3,FOXD1,LHX1

GO:0010975 regulation of neuron projection development 1.45E-07 SARM1,DVL2,CX3CL1,SEMA3G,EPHA3,NEDD4L,LTK,NGFR,NTN1,NGEF,NEDD4,PLXNA2,CHRNA3,MEF2C,MT3,NRCAM,ABL1,STX1B,BMP7,STK24,NDRG4,COBL,LIMK1,KANK1,FREQ,EFNB3,CUX2,BMP5,PTK7,DPYSL3,WNT5A,MARK1,RAB7L1,PTK2B,OBSL1,PACSLN1,CPNE5,MACF1,CHN1,DLG4,NGF,LRP4,PLXNC1,DAB2IP,KIAA0319,ZNF365,SCARB2,ARHGDI2,AKT1,CPNE9,SLIT2,LRRRC4C,PAK1,POU4F2,PTPRD,TNFRSF25,WNTR3A,C21ORF91,FZD1,DVL3,GF11,TRIM46,PRKCI,PLXNB1,CSMD3,CDK5,ISLR2,SDC2,NLGN1,LINGO1,ROBO1,ZNF804A,DSAM1,PTEN,SSH3,BRSK2,NR2F1,BDNF,CDK5R1,SLITRK1,CAMK1D,PRKD1,RTN4RL1,MAPT,RTN4RL2,DCC,MAGI2,LRKK2,NTRK1,INPP5F,PLXNA4,LYN,SRICIN1

GO:0090090 negative regulation of canonical Wnt signaling 1.55E-07 HECW1,DVL2,WWTR1,DKK3,TLE2,CYLD,WNT11,SFRP1,DKK4,CAV1,GLI3,DKK1,SLC9A3R1,GLI1,TBX18,WNT5A,IGFBP2,HDAC1,MAD2L2,SFRP5,TNN,BICC1,SOX9,BMP2,KREMEN2,NPH4,LRP4,APC,DAB2IP,IGFBP4,LIMD1,SFRP2,NKD2,IGFBP1,TCF7L2,DKK2,DVL3,FRZB,SOX17,FZD6,MESP1,SOST,AXIN2,MCC,MLLT3,NKX2-5,RUVBL2,SHISA6,CTNND1

GO:0061138 morphogenesis of a branching epithelium 1.70E-07 SOX8,HGF,FGFR2,GLI2,PAX2,SIX4,SALL1,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,DL4,SULF1,FGF2,SLIT2,SFRP2,PAK1,SHH,NKX3-1,CTNNB1,GDNF,TACSTD2,WT1,COL4A1,PDGFA,NOTCH4,FOXD1,LHX1

REAC:R-HSA- Extracellular matrix organization 1.71E-07 CAPN1,MUSK,VCAN,CDH1,COL9A2,COL23A1,LAMA3,LAMC2,COL11A1,P4HA2,NTN4,FBLN1,COL5A3,COL19A1,COL16A1,ADAMTS2,LTBP4,ICAM1,COL9A3,MADCAM1,BMP7,MM P15,TGFB1,ICAM4,PCOLCE,SH3PX2A,COL1A1,COL12A1,COL9A1,LAMA4,LOX,COL7A1,ITGA4,EFEMP1,TNR,MFAP2,CTSD,LTBP2,TGFB3,TNN,COL21A1,BMP4,BMP2,GDF5,KDR,LOXL1,PXDN,COL5A1,LAMAS,ITGB4,BCAN,LRP4,ADAMTS8,ADAM19,ITGA7,THBS1,LOXL4,ADAMTS14,FGF2,COL2A1,ADAMTS18,COL6A1,COL6A2,ITGA9,SCUBE3,ADAM12,NCAM1,P4HA3,ADAM17,DST,ADAMTS5,MMP14,SDC3,CAPN2,ADAMTS9,PCOLCE2,COL1A2,HTRA1,JAM3,MFAP4,TNXB,BMP1,CTRB1,COL22A1,SDC2,COL24A1,LAMB2,EFEMP2,NRXN1,COL18A1,TMPRSS6,COL4A1,COL14A1,AGRN,COL25A1,SPOCK3,LAMA2,COL27A1,CD47,PDGFA,COL13A1,COL11A2,COL5A2,COL15A1,DDR1,ITGB3

GO:0003206 cardiac chamber morphogenesis 2.29E-07 ISL1,FGFR2,TGFBR3,MEF2C,TBX5,BMP7,SMAD7,TGFB1,GATA3,FGF8,CPE,BMP5,HAND1,ACVR1,PROX1,TNNT2,BMP4,DL4,HEY2,GATA4,SMAD6,TPM1,GATA6,SLIT2,SFRP2,NOTC H1,NRG1,HEY1,TBX20,HEY1,MESP1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2-5,SLIT3,NPY2R,RYR2

REAC:R-HSA- Collagen chain trimerization 2.41E-07 COL9A2,COL23A1,COL11A1,COL5A3,COL19A1,COL16A1,COL9A3,COL1A1,COL12A1,COL9A1,COL7A1,COL21A1,COL5A1,COL2A1,COL6A1,COL6A2,COL1A2,COL22A1,COL24A1,COL18A1,COL4A1,COL14A1,COL25A1,COL27A1,COL13A1,COL11A2,COL5A2,COL15A1

GO:0060675 ureteric bud morphogenesis 2.64E-07 SOX8,PAX2,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FGF2,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1

GO:0044057 regulation of system process 2.73E-07 CACNA1G,TBXA2R,ATP1A2,TYMP,ADRB1,KCNQ1,KCNH2,ATP2B4,PRKCZ,HDAC4,PRKACA,ATP2A3,MGLL,ENO1,DLG1,CHRNA3,KCNN2,ITPR3,KCNK6,STX1B,SLC8A3,MYLK2,SNTA1,SMAD7,CBLN1,CAV1,PHOX2B,CUX2,SRF,PDE4D,FGF12,POMC,TACR1, RGS2,ECE1,TNNT2,SGK1,NR4A3,FKBP1B,KCNIP2,CRHR1,KCNJ5,PTK2B,ADRA1A,ITPR2,EDN3,KCNK15,ATP1B2,KCNA5,CNN1,TRPM4,PER2,DLG4,DS2C,KCNMB4,ABCG5,HCN4,TPM1,TMEM108,AGTR1,CORIN,ANK2,CRHBP,GLRA1,TNFRSF21,NOTCH1,ADM,SCN2B,FAM173B,FOXO1,GPD1L,FBXO32,ATP2B2,RNF207,NPR2,PDE9A,SPTBN4,LMNA,KCNJ3,NEUROD1,INHBB,ATP1A1,PROK2,UCN,ZC3H12A,HAND2,F2RL1,GDF9,NOS3,CACNB2,SCN3B,TMEM100,NKX3-1,STIM1,NLGN1,PTEN,JUP,KCNH6,ATP2A2,DES,CHRNA7,KCNE3,SCN4B,NRXN1,NEUROG1,CAV3,NKX2-5,KCNJ12,RNLS,LRRK2,RYR1,ATP2A1,CACNA1H,KCNMB2,AVPR1B,RYR2,NOS1AP,MIR199B,MIR348,FXYP1,ADORA3,MIR19A

GO:0045165 cell fate commitment 2.78E-07 WNT16,CYP26B1,SOX8,PAX6,TEAD3,ISL1,EYA2,FGFR2,RORA,TBX21,GLI2,PAX2,MEF2C,WNT11,GATA3,DKK1,WNT3,IL12B,WNT5A,ACVR1,WNT6,EPAS1,CHD5,PROX1,BMP4,SOX9,FOXA2,BMP2,DL4,MNX1,PPARG,GSC,WNT2B,SOX5,WNT10A,IRF4,FGF2,DUSP6,WNT9A,TCF7L2,POU4F1,WNT3A,WNT9B,TAL1,PDPN,SHH,SOX17,MESP1,WNT10B,GATA2,ZFPM1,POU3F2,WT1,NR2F2,HESS,NOTCH4,TRIM15

GO:0007420 brain development 2.80E-07 TBC1D23,ZIC2,CTNNA2,FGFR2,RORA,NDE1,GLI2,PAX2,PAFAH1B3,GRHL2,KDM2B,TYRO3,BMP7,CLN5,CBLN1,NDRG4,SALL1,GRIN2D,CDK6,LHX6,WNT3,SLC6A4,PHOX2B,PITPNM1,MDGA1,BMP5,WNT5A,ABC86,DLX2,VAX2,CHD5,PADI2,PROX1,CENPF,NPY,EGR2,ADCK4,BMP4,MBOAT7,NKX2-2,BMP2,SYNGR3,FOXP2,SMO,FOXJ1,NES,EPHB2,WNT2B,YWHAQ,TBR1,DAB2IP,SIX3,TACC2,ZNF365,BBS4,CSNK1D,DMRTA2,CNTN4,TMEM108,SLIT2,EPHA5,TTBK1,TACCI,KIRREL3,GRID2,ZIC1,WNT3A,C21ORF91,CA10,FZD1,SKI,WNT9B,GRIN2C,LMX1A,NEUROD1,EOMES,PITX2,SHH,DL1,FZD6,OTX2,CTNNB1,DDIT4,PTF1A,MFSD2A,ARL13B,ROBO1,SLC23A1,NEUROD2,PTEN,FOXB1,ARNT2,CNTNAP2,FOXP1,CDK5R1,NRXN1,SLIT1,COL4A1,LRRK2,HESS,CCDC85C,GRIN2B,LHX1

GO:0072009 nephron epithelium development 3.03E-07 SOX8,PROM1,TFAP2B,PAX2,MEF2C,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,FOXJ1,FGF2,OSR1,KLF15,SHH,CTNNB1,GDNF,MTSS1,TACSTD2,WT1,MAGI2,POU3F3,FOXD1,LHX1

GO:0001763 morphogenesis of a branching structure	SOX8,HGF,FGFR2,GLI2,PAX2,SIX4,SALL1,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,DLL4,SULF1,FGF2,SLIT2,SFRP2,PAK1,SHH,NKX3-3.15E-07 1,CTNNB1,GDNF,TACSTD2,WT1,COL4A1,LRRK2,PDGFA,COL13A1,NOTCH4,FOXD1,LHX1
REAC:R-HSA- Cardiac conduction	CACNA2D2,WWTR1,ATP1A2,KCNQ1,KCNH2,ATP2B4,CACNB1,ATP1B3,PRKACA,ATP2A3,CACNG4,KCNK2,TBX5,ITPR3,KCNK6,KCNK10,SLC8A3,FGF14,CACNG7,FGF12,FKBP1B,KCNIP2,ITPR2,KCNK15,ATP1B2,GATA4,FXD6,CACNG8,CORIN,SCN2B,KCNK13,ATP2B2,CACNA2D3,NPR2,ORAI2,FGF11,ATP1A1,CACNB2,SCN3B,STIM1,CACNB3,KCNK9,ATP2A2,KCNE3 3.73E-07 ,SCN4B,KCNIP1,CACNB4,KCNK4,NKX2-5,KCNJ12,KCNK12,KCND2,KCNIP4,RYR1,ATP2A1,SCN8A,RYR2,FXD7,FXD1
GO:0070997 neuron death	SARM1,CRLF1,CX3CL1,TFAP2B,BID,ISL1,NGFR,ERBB3,FGF20,TP73,MEF2C,MT3,KDM2B,LOC728392,TYRO3,SIX4,CHMP4B,TOX3,BBC3,MEOX2,UNC5B,DKK1,TRIM2,GAPDH,WNT5A,DHCR24,RAB7L1,FOXO3,NR4A3,TGFB3,CLU,PTK2B,CIT,PRKCG,SIX1,NGF,AGAP2,TFAP2A,AKT1,SNCA,TNFRSF21,MAGI1,POU4F1,GRID2,PINK1,PRKCI,CDK5,CTNNB1,DDIT4,GDNF 3.79E-07 ,PCSK9,BCL2,FOXO1,LIG4,CHRNA7,CLCF1,BNIP3,BDNF,CDK5R1,NTF3,MAPT,DCC,RILPL1,LRRK2,SHH1,NTRK1,DAXX,GRIN2B
GO:0022898 regulation of transmembrane transporter acti	CFTR,CAPN1,ATP1A2,KCNG1,NEDD4L,CACNB1,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,CACNG4,DLG1,MEF2C,JPH4,JPH1,CACNG7,CAV1,PIPF,SLC9A3R1,OPRM1,PDE4D,FGF12,THADA,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,ATP1B2,DLG4,EPHB2,TRPC6,FXD6,STAC2,CACNG8,CNIH3,OSR1,SNCA,ANK2,CRHBP,SCN2B,GPD1L,UTRN,KCNS2,RNF207,CACNB2,SCN3B,NETO1,STIM1,CACNB3,GRM5,PCSK9,NLGN1,P2RY6,BCL2,CNIH2,KCNE3,SCN4B,NRXN1,CACNB4,CAV3,LRRCS5,DAPK1,HTT,RYR2,STK39,NOS1AP,FXD7,FXD1,MIR212 4.53E-07
GO:0030278 regulation of ossification	LTF,HGF,HDAC7,FGFR2,PRKACA,MEF2C,CHRD,BMP7,SFRP1,TGFB1,CDK6,DKK1,ZBTB16,CYP27B1,WNT5A,ACVR1,TGFB3,TNN,PTK2B,TWIST1,RUNX2,BMP4,SOX9,BMP2,TRPM4,KREMEN2,LRP4,TFAP2A,SMAD6,BMPR1B,CYR61,OSR1,LIMD1,NOTCH1,BMP6,ANKH,SKI,LRP5,OSR2,NELL1,SOST,AXIN2,S1PR1,SOX11,PRKD1,IFITM1,SMOC1,RORB,TWIST2,GDF10, 4.93E-07 MIR9-3
GO:0001508 action potential	CACNA1G,ATP1A2,NEDD4L,KCNQ1,KCNH2,PTPN3,DLG1,KCNN2,GNA11,CHRNA4,SNTA1,NALCN,MYH14,CAV1,FGF12,AKAP7,KCNIP2,KCNJ5,ADRA1A,KCNA5,TRPM4,DSC2,KCNMB4,HCN4,SCARB2,CACNA1A,ANK2,CACNA1B,SCN2B,GPD1L,RNF207,TPCN2,KCNJ3,ATP1A1,CACNB2,SCN3B,CACNB3,JUP,ATP2A2,CATSPER1,KCNE3,SCN4B,CAV3,KCND2,CATSPER 4.93E-07 4,CACNA1H,SCN8A,KCNMB2,CACNA1E,RYR2,NOS1AP
GO:0051216 cartilage development	RUNX3,BARX2,HYAL2,FGF4,MEF2C,WNT11,PTHLH,TRPS1,TGFB1,ZBTB16,HYAL1,EFEMP1,RUNX2,BMP4,SOX9,BMP2,GDF5,HOXD3,CHI3L1,WNT2B,SOX5,SULF1,FGF2,BMPR1B,CO 5.07E-07 L2A1,ACVRL1,WNT9A,OSR1,HMGA2,ADAMTS12,GDF6,RUNX1,OSR2,BMP1,WNT10B,ALX1,SULF2,HES5,COL11A2

GO:0035270 endocrine system development 6.50E-07 PAX6,TG,DKK3,GLI2,WNT11,SALL1,CDK6,RHEB,BMP5,GCM2,BMP4,PAX8,FOXA2,NKX2-2,BMP2,SIX1,HOXD3,MNX1,CLOCK,SIX3,PDX1,AKT1,FOXO1,BMP6,NEUROD1,NKX6-1,PITX2,INSM1,FOXE1,NKX2-5,WT1

GO:0050769 positive regulation of neurogenesis 6.79E-07 DVL2,SOX8,CX3CL1,EPHA3,NEDD4L,LTK,NGFR,NTN1,FGFR1,FGF20,MEF2C,SMARCD3,NRCAM,SEMA6A,BMP7,NDRG4,COBL,LIMK1,CUX2,OPRM1,BMP5,PTK7,DPYSL3,WNT5A,DLX2,PROX1,PTK2B,CXCR4,OBSL1,PACSIN1,CPNE5,BMP2,MACF1,HOXD3,DLG4,NGF,SERPINE2,PLXNC1,DAB2IP,ZNF365,SCARB2,ARHGDI1,CSNK1D,DLX1,CPNE9,SLIT2,TTBK1,NOTCH1,ZEB1,POU4F2,PTPRD,IMPACT,C21ORF91,FZD1,DVL3,NEUROD1,PRKCI,HEYL,PLXNB1,ISLR2,CTNNB1,SGS14,NLGN1,ROBO1,ZNF804A,NEUROD2,DSCAM,ATOH1,LIG4,CLCF1,BDNF,SOX11,SLITRK1,NEUROG1,CAMK1D,NKX2-5,PRKD1,MAPT,MAGI2,NTRK1,CPNE1,LYN

GO:0120035 regulation of plasma membrane bounded cell 8.36E-07 SARM1,DVL2,CX3CL1,MARK4,SEMA3G,EPHA3,NEDD4L,LTK,NGFR,NTN1,NGEF,NEDD4,PLD1,PLXNA2,RAP1GAP,CAPZB,CHRNA3,MEF2C,CYLD,MT3,NRCAM,ABL1,STX1B,PALM,BMP7,STK24,NDRG4,CAV1,COBL,LIMK1,KANK1,FREQ,EFNB3,CUX2,BMP5,PTK7,DPYSL3,WNT5A,MARK1,RAB7L1,TGFB3,RHOQ,PTK2B,OBSL1,PACSIN1,CPNE5,MACF1,PODXL,CHN1,DLG4,NGF,LRP4,APC,PLXNC1,DAB2IP,KIAA0319,ZNF365,SCARB2,BBS4,BCAS3,ARHGDI1,AKT1,EVI5L,CPNE9,SLIT2,LRRC4C,PAK1,GPM6A,POU4F2,PTPRD,TNIIK,WNT3A,C21ORF91,FZD1,DVL3,PDPN,GF11,CDC42EP3,TRIM46,PRKCI,PLXNB1,F2RL1,CSMD3,CDK5,ISLR2,CDC42EP5,SDC2,NLGN1,LINGO1,ROBO1,ZNF804A,DSCAM,PTEN,GAP43,SSH3,BRSK2,HRA5,NR2F1,BDNF,CDK5R1,EPS8L2,SLITRK1,CDC42EP4,NRXN1,CEP97,CAMK1D,TACSTD2,PRKD1,RTN4RL1,ARAP1,MAPT,RTN4RL2,ESPN,DCC,MAGI2,AGRN,LRK2,HTT,CCDC151,NTRK1,INP5F,MIR196A2,PLXNA4,LYN,GRIN2B,SRCIN1

GO:0001503 ossification 8.47E-07 SOX8,LTF,HGF,RUNX3,MYOC,VCAN,HDAC7,FGFR2,PRKACA,GLI2,MEF2C,PTHLH,CHRD,BMP7,SFRP1,TGFB1,CDK6,DLX5,ATP6V0A4,DKK1,WNT3,ZBTB16,CYP27B1,GLI1,WNT5A,ACVR1,ATP6V1B1,TGFB3,MSX2,TNN,PTK2B,TWIST1,RUNX2,BMP4,SOX9,BMP2,TRPM4,KREMEN2,LRP4,SYNCRIP,TFAP2A,SMAD6,BMPR1B,COL6A1,CYR61,TUFT1,OSR1,LIMD1,EGFR,NOTCH1,BMP6,ANKH,FZD1,CREB3L1,SKI,RUNX1,ALOX15,LRP5,ALPL,PLXNB1,OSR2,NELL1,PHB,TPM4,SOST,AXIN2,SP7,S1PR1,SOX11,PRKD1,IFITM1,RYR1,SND1,COL13A1,SMOC1,RORB,TWIST2,GDF10,MIR9-3

GO:0051402 neuron apoptotic process 8.91E-07 CRLF1,CX3CL1,TFAP2B,BID,ISL1,NGFR,ERBB3,FGF20,TP73,MEF2C,MT3,KDM2B,LOC728392,TYRO3,SIX4,TOX3,BBC3,UNC5B,TRIM2,GAPDH,FOXO3,TGFB3,PTK2B,CIT,PRKCG,SIX1,NGF,AGAP2,TFAP2A,TNFRSF21,POU4F1,GRID2,PINK1,PRKCI,CDK5,CTNNB1,GDNF,PCSK9,BCL2,FOXB1,LIG4,CLCF1,BNIP3,BDNF,CDK5R1,NTF3,SIAH1,NTRK1

GO:0032412 regulation of ion transmembrane transporter 9.26E-07 CFTR,CAPN1,ATP1A2,KCNG1,NEDD4L,CACNB1,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,CACNG4,DLG1,MEF2C,JPH4,JPH1,CACNG7,CAV1,PIIF,SLC9A3R1,OPRM1,PDE4D,FGF12,THADA,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,ATP1B2,DLG4,EPHB2,TRPC6,FXD6,STAC2,CACNG8,CNIH3,OSR1,ANK2,CRHBP,SCN2B,GPD1L,UTRN,KCNS2,RNF207,CACNB2,SCN3B,NETO1,STIM1,CACNB3,GRM5,PCSK9,NLGN1,P2RY6,CNIH2,KCNE3,SCN4B,NRXN1,CACNB4,CAV3,LRRC55,DAPK1,HTT,RVR2,STK39,NOS1AP,FXD7,FXD1,MIR21

GO:1904062 regulation of cation transmembrane transport 9.38E-07 CX3CL1,CAPN1,ATP1A2,KCNG1,NEDD4L,KCNQ1,KCNH2,ATP2B4,CACNB1,KCNA8,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,CACNG4,DLG1,KCNS2,MEF2C,JPH4,SNTA1,JPH1,CACNG7,CAV1,TSPAN13,PIIF,SLC9A3R1,OPRM1,PDE4D,FGF12,THADA,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,ATP1B2,DPP6,DIAPH1,DLG4,EPHB2,APLNR,FXD6,STAC2,CACNG8,CNIH3,OSR1,SIN3A,ANK2,CRHBP,SCN2B,GPD1L,UTRN,KCNS2,RNF207,CACNB2,SCN3B,NETO1,STIM1,CACNB3,PCSK9,NLGN1,P2RY6,CNIH2,DPP10,KCNE3,SCN4B,NRXN1,KCNIP1,CACNB4,CAV3,LRRC55,KCNIP4,DAPK1,HTT,RVR2,STK39,NOS1AP,FXD7,FXD1,MIR212

GO:1905330 regulation of morphogenesis of an epithelium	1.03E-06	DVL2,SOX8,AP2B1,CELSR3,HGF,FGFR2,CLASP1,PAX2,WNT11,SIX4,PARD6A,GATA3,DKK1,SMURF2,WNT5A,FOXP1,BMP4,SOX9,PAX8,SIX1,LIF,SMO,SULF1,ARRB2,ARHGEF19,RSPO3,ADAMTS12,FZD1,RNF207,DVL3,FZD5,FZD6,GDNF,ROR2,MLLT3,PTEN,TACSTD2,MAGI2,AJAP1,PDGFA,LHX1
GO:0098662 inorganic cation transmembrane transport	1.08E-06	CX3CL1,CACNA1G,SLC11A1,ATP1A2,KCNG1,ATP6V0A1,NEDD4L,KCNQ1,KCNH2,MCOLN3,ATP2B4,SLC9A3,CACNB1,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,KCNO2,CACNG4,DLG1,SLC1A3,KCNN2,PTPRC,KCNK2,SLC4A11,JPH4,KCNK10,SLC8A3,TRPC4AP,SNTA1,NALCN,JPH1,SLC39A14,KCNA7,BBC3,GRIN2D,CACNG7,ATP6V0A4,CAV1,TSPAN13,PPIF,SLC9A3R1,UCP1,SLC39A7,PDE4D,FGF12,SLC9A2,THADA,ATP6V1B1,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,KCNJ5,PTK2B,ITPR2,KCNS1,KCNK15,AHNAK,SLC25A23,KCNC1,ATP1B2,KCNA5,DPP6,TRPM4,DIAPH1,SLC39A11,APLN,TRPC6,FXVD6,HCN4,FGF2,SLC39A8,NOL3,AFG3L2,STAC2,CACNA1A,SLC39A3,CACNG8,KCNH1,SLC39A1,OSR1,SNCA,ANK2,SLC25A37,SLC39A12,SCN2B,KCNA6,KCNK13,GPD1L,UTRN,MCOLN2,KCNS2,STEAP2,RNF207,GRIN2C,KCNJ3,ATP1A1,KCNV1,TRPV6,CACNB2,SCN3B,NETO1,PHB,STIM1,CACNB3,IETM1,PCSK9,KCNK9,P2RY6,ATP2A2,DPP10,KCNE3,SCN4B,KCNIP1,CACNB4,KCNK4,CAV3,OTOP3,OTOP2,LRRCS5,KCNJ12,KCNK12,KCND2,KCNQ5,KCNIP4,ATP6V0C,RYR1,CACNA1H,HTT,RYR2,S
GO:0072088 nephron epithelium morphogenesis	1.13E-06	SOX8,PAX2,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,HOXD11,FGF2,OSR1,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1
GO:0072028 nephron morphogenesis	1.13E-06	SOX8,PAX2,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,HOXD11,FGF2,OSR1,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1
GO:0051962 positive regulation of nervous system develop	1.14E-06	DVL2,SOX8,CX3CL1,EPHA3,NEDD4L,LTK,NGFR,NTN1,PAX2,FGFR1,FGF20,MEF2C,SMARCD3,NRCAM,SEMA6A,BMP7,NDRG4,COBL,LIMK1,CUX2,OPRM1,BMP5,PTK7,DPYSL3,WNT5A,DLX2,PROX1,PTK2B,CXCR4,OBSL1,PACSL1,CPNE5,BMP2,MACF1,HOXD3,DLG4,EPHB2,NGF,SERPINE2,PLXNC1,DAB2IP,ZNF365,SCARB2,ARHGDI,CSNK1D,DLX1,CPNE9,SLIT2,TTBK1,NOTCH1,ZEB1,POU4F2,GRID2,PTPRD,IMPACT,C21ORF91,FZD1,DVL3,NEUROD1,PRKCI,HEYL,PLXNB1,ISLR2,CTNNB1,RGS14,NLGN1,ROBO1,ZNF804A,NEUROD2,DSCAM,ATOH1,LIG4,CLCF1,BDNF,SOX11,SLITRK1,NRXN1,NEUROG1,CAMK1D,NKX2-5,PRKD1,MAPT,MAGI2,AGRN,NTRK1,CPNE1,LYN,LHX1
GO:0043269 regulation of ion transport	1.22E-06	CFTR,ABC4,CX3CL1,CAPN1,ATP1A2,KCNG1,NEDD4L,PRSS8,KCNQ1,KCNH2,ATP2B4,WNK1,ABCA7,CACNB1,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,CACNG4,DLG1,FGF20,CHRNA3,KCNN2,MEF2C,JPH4,HRH3,CHRNA4,SNTA1,CA2,JPH1,CACNG7,CAV1,TSPAN13,CXCL12,PPIF,SLC9A3R1,CALCA,OPRM1,PDE4D,FGF12,THADA,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,CRY2,KCNS1,AHNAK,ATP1B2,KCNA5,DPP6,DIAPH1,PER2,DLG4,EPHB2,APLN,CLDN10,HTR1B,TRPC6,FXVD6,THBS1,TMBIM6,TNFRSF11A,STAC2,AKT1,CACNG8,CNIH3,OSR1,SNCA,ANK2,CRHP,SCN2B,GPD1L,UTRN,PLA2R1,KCNS2,RNF207,SPTBN4,ATP1A1,CACNB2,SCN3B,NETO1,STIM1,CACNB3,CTNNB1,GDNF,GRM5,PCSK9,NLGN1,P2RY6,BCL2,IL16,CNIH2,DPP10,KCNE3,SCN4B,NRXN1,KCNIP1,CACNB4,CAV3,NKX2-5,LRRCS5,KCNIP4,CALHM1,NKAIN3,IRS2,GRM7,DAPK1,HTT,RYR2,STK39,NOS1AP,FXVD7,FXVD1,MIR212
REAC:R-HSA- Transmission across Chemical Synapses	1.26E-06	AP2B1,CACNA2D2,SLC6A13,GABRA1,CACNB1,CHAT,RPS6KA2,PRKACA,CACNG4,DLG1,SLC1A3,CHRNA3,EPB41L1,COMT,CHRNA4,SLC32A1,NCALD,LIN7B,SLC17A7,GRIN2D,STX1A,SLC6A4,GABRA4,HSPA8,SLC38A1,ALDH5A1,GABRG2,BCHE,GNAI2,RPS6KA1,CHRNB4,GRIA2,KCNJ5,PRKCG,GNG11,GNAI1,GAD1,ADCY4,DLG4,SLC38A2,CHRND,GAD2,GABBR2,ADCY3,CACNA1A,CACNG8,GABRB2,GLRA1,CACNA1B,PLCB3,GRIA4,GRIA1,SYN2,CACNA2D3,GRIN2C,KCNJ3,GABRB1,GRIK2,ADCY1,SLC18A2,CACNB2,GABRB3,PRKCB,HTR3A,CACNB3,GNG4,CHRNA5,GRIK1,GNB2,GNG12,HRA5,SLC22A1,CHRNA7,GNG7,CACNB4,LRTOMT,KCNJ12,GNG2,SLC18A3,CACNA1E,GABBR1,GRIN2B

REAC:R-HSA- Collagen formation 1.26E-06 COL9A2,COL23A1,LAMA3,LAMC2,COL11A1,P4HA2,COL5A3,COL19A1,COL16A1,ADAMTS2,COL9A3,PCOLCE,COL1A1,COL12A1,COL9A1,LOX,COL7A1,COL21A1,LOXL1,PXDN,COL5A1,ITGB4,LOXL4,ADAMTS14,COL2A1,COL6A1,COL6A2,P4HA3,DST,PCOLCE2,COL1A2,BMP1,COL22A1,COL24A1,COL18A1,COL4A1,COL14A1,COL25A1,COL27A1,COL13A1,COL11A1,ITGB4,LOXL4,ADAMTS14,COL2A1,COL6A1,COL6A2,P4HA3,DST,PCOLCE2,COL1A2,BMP1,COL22A1,COL24A1,COL18A1,COL4A1,COL14A1,COL25A1,COL27A1,COL13A1,COL11A1

REAC:R-HSA- Collagen biosynthesis and modifying enzymes 1.34E-06 COL9A2,COL23A1,COL11A1,P4HA2,COL5A3,COL19A1,COL16A1,ADAMTS2,COL9A3,PCOLCE,COL1A1,COL12A1,COL9A1,COL7A1,COL21A1,COL5A1,ADAMTS14,COL2A1,COL6A1,COL6A2,P4HA3,PCOLCE2,COL1A2,BMP1,COL22A1,COL24A1,COL18A1,COL4A1,COL14A1,COL25A1,COL27A1,COL13A1,COL11A2,COL5A2,COL15A1

GO:0003205 cardiac chamber development 1.46E-06 ISL1,FGFR2,TGFB3,MEF2C,TBX5,BMP7,SMAD7,SALL1,TGFB1,GATA3,FGF8,CPE,BMP5,HAND1,ACVR1,PROX1,TNNT2,BMP4,DL4,HEY2,GATA4,SMAD6,TPM1,GATA6,SLIT2,ANK2,SFRP2,NOTCH1,NRG1,HEY1,TBX20,HEY1,MESP1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2-5,SLIT3,NPY2R,RYR2

GO:0016331 morphogenesis of embryonic epithelium 1.46E-06 WNT16,DVL2,SOX8,FGFR2,PAX2,GRHL2,KDM2B,SIX4,BMP7,TGFB1,COBL,GATA3,BMP5,WNT5A,MTHFD1L,SOX9,PAX8,SIX1,TFAP2A,SULF1,BBS4,LMO4,OSR1,SKI,GRHL3,DVL3,DLX1,GDNF,SOX11

GO:0043062 extracellular structure organization 1.48E-06 PHLDB1,VCAN,CDH1,COL9A2,LAMA3,SOAT1,LAMC2,COL11A1,ABCA7,PRKACA,SCARB1,CLASP1,COL5A3,COL19A1,COL16A1,APOB,CETP,ICAM1,COL9A3,MADCAM1,ZDHHC8,BMP7,MMP15,HAS3,TGFB1,ICAM4,SPOCK2,SH3PXD2A,COL1A1,COL12A1,COL9A1,LAMA4,COL7A1,HYAL1,ITGA4,TNR,MFAP2,TGFB1,LRP1,KDR,PXDN,COL5A1,LAMA5,ITGB4,BCAN,PSTN,ADAM19,ITGA7,FOXF2,FLOT1,SULF1,THBS1,CYP1B1,FGF2,COL2A1,RB1,COL6A1,COL6A2,ITGA9,AGTR1,PLA2G7,SCUBE3,CSGALNACT1,NOTCH1,ADAM12,ABCA5,ADAMTS5,MMP14,CREB3L1,ABCG1,PDPN,ADAMTS9,MFI2,COL1A2,ABCA1,HTRA1,JAM3,MFAP4,SMAD3,TNXB,BMP1,CTR1,HAS2,LAMB2,SH3PXD2B,COL18A1,WT1,TMPRSS6,COL4A1,COL14A1,AGRN,SULF2,LAMA2,CD47,PDGFA,COL13A1,DPP4,COL11A2,COL5A2,DDR1,ITGB3

GO:0048754 branching morphogenesis of an epithelial tube 1.58E-06 SOX8,FGFR2,GLI2,PAX2,SIX4,SALL1,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,DLL4,FGF2,SLIT2,SFRP2,PAK1,SHH,NKX3-1,CTNNA1,GDNF,TACSTD2,WT1,COL4A1,NOTCH4,FOXD1,LHX1

GO:0007610 behavior 1.61E-06 NRXN3,MUSK,USP2,ABCA7,DRD4,CHRNA3,MEF2C,RASD2,SLC8A3,CHRNA4,CALB1,MYH14,PTPRZ1,DKK1,SLC6A4,NRXN2,CUX2,OPRM1,THBS4,LEPR,SGIP1,SGK1,NR4A3,PRLHR,GHSR,NPY,FOXA2,DYNLRB1,MCHR1,GALR3,LDLR,GDF15,C1QL1,NPHP4,DLG4,EPHB2,MRAP2,THBS1,ADCY3,BBS4,ZFH3,CRHBP,TTBK1,EGFR,EPS8,ANKH,SPTBN4,SHANK2,UCN,NPY1R,RNF180,GPR176,NETO1,MAP1A,MTNR1A,GDNF,GRM5,RGS14,PROKR1,CHRNA5,NLGN1,CHRNA1,PTEN,FOXB1,CNTNAP2,LEP,CHRNA7,NRXN1,NEUROG1,GRID1,GPR19,NPW



GO:0072078 nephron tubule morphogenesis 1.61E-06 SOX8,PAX2,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FGF2,OSR1,SHH,GDNF,TACSTD2,WT1,FOXD1,LHX1

FGR,DVL2,MAP3K14,MAP3K9,LTf,SLC11A1,CD74,MAP2K3,ATP2B4,ERBB3,DRD4,PRKACA,TRAF4,FGFR1,CHRNA3,MEF2C,PTPRC,STRADB,NOX4,MT3,TPX2,DOCK3,HSP90A1,ABL1,TCL1A,TELO2,RASSF2,FLT1,TNFRSF10A,MAP4K1,TGFB1,PRKAG2,MAP3K8,DKK1,CCNY,PRKAR1A,UNC119,CCND1,MADD,CD81,CALCA,CAMKK2,FZD10,CCND3,IL12B,WNT5A,MAPKAP3,NEK4,PROX1,PKD2,CCND2,CLU,PTK2B,CXCR4,PKN1,EDN3,EREG,BMP4,BMP2,RIPK3,GADD45G,GDF15,PAK4,DLG4,CH13L1,DSTYK,NGF,PDGFRA,MDFIC,AGAP2,DAB2IP,MAP2K5,THBS1,RPLP1,PAK6,DUSP5,FGF2,DUSP6,NTRK3,TOM1L1,ADCYAP1,RPTOR,TNFRSF11A,AKT1,MAP3K6,CYR61,LMO4,SNCA,TTBK1,EGFR,PAK1,ADAM17,ANGPT1,TNIK,CDK20,FGF18,NRG1,PINK1,SHC1,DVL3,PEA15,PROK2,MST1R,GRM5,ROBO1,PDGFD,ALK,RASGRP1,MAP3K11,LEP,HRAS,TRAF6,CHRNA7,DOK7,BDNF,UBE2N,NRXN1,TNFAIP8L3,PRKD1,

GO:0033674 positive regulation of kinase activity 1.63E-06 MAPK11,NTF3,PRRS,MAPT,PRKAR1B,LRRK2,PDGFA,NTRK1,STK39,DAXX,ITGB3,S1PR2,PIK3R6,SRICIN1

DVL2,CX3CL1,EPHA3,NEDD4L,LTk,NGFR,NTN1,FGFR1,FGF20,MEF2C,NRCAM,BMP7,NDRG4,COBL,LIMK1,CUX2,BMP5,PTK7,DPYSL3,WNT5A,DLX2,PROX1,PTK2B,OBSL1,PACSIN1,CPNE5,BMP2,MACF1,HOXD3,DLG4,NGF,PLXNC1,DAB2IP,SCARB2,ARHGDI1,CSNK1D,DLX1,CPNE9,SLIT2,ZEB1,POU4F2,PTPRD,IMPACT,C21ORF91,FZD1,DVL3,NEUROD1,PRKCI,HEYL,PLXNB1,ISLR2,NLGN1,ROBO1,ZNF804A,NEUROD2,DSCAM,ATOH1,BDNF,SOX11,SLITRK1,NEUROG1,CAMK1D,NKX2-5,PRKD1,MAPT,MAGI2,NTRK1,CPNE1,LYN

GO:0045666 positive regulation of neuron differentiation 1.66E-06

DVL2,SOX8,AP2B1,CELSR3,HGF,FGFR2,PAX2,WNT11,SIX4,PARD6A,GATA3,DKK1,SMURF2,WNT5A,ACVR1,WNT6,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,PIM1,TFAP2A,SULF1,ARRB2,ARHGEF19,RSP03,NOTCH1,WNT3A,FZD1,RNF207,DVL3,FZD5,HAND2,SHH,FZD6,MESP1,CTNNB1,GDNF,ROR2,ROBO1,MLLT3,TACSTD2,WT1,MAGI2,AJAP1,PDGFA,LHX1

GO:2000027 regulation of animal organ morphogenesis 1.73E-06

WWTR1,PHLDB1,HGF,EPHA3,TGFB3,CLASP1,TBX5,BMP7,FAM83D,SMAD7,SFRP1,TGFB1,FGF8,COL1A1,GCNT2,BMP5,WNT5A,ACVR1,MAD2L2,TGFB3,TWIST1,SOX9,FOXA2,BMP2,ELL3,GSC,HEY2,DAB2IP,FOXF2,TGFB11,SFRP2,CRB2,NOTCH1,TCF7L2,HMGA2,PDPN,EOMES,HEYL,SPRY1,HEY1,NOLC1,SMAD3,CTNNB1,AXIN2,HAS2,PTEN,ALX1,ZNF703,BCL9L,

GO:0001837 epithelial to mesenchymal transition 1.73E-06 S100A4

WNT16,SOX8,PROM1,PAX6,TFAP2B,SDK2,PAX2,KDM2B,TULP1,WNT5A,EFEMP1,MFAP2,PROX1,TWIST1,SOX9,COL5A1,WNT2B,TFAP2A,FOXF2,SIX3,BBS4,WNT9A,SDK1,MEGF11,

GO:0048592 eye morphogenesis 1.73E-06 SKI,LRP5,PITX2,PTF1A,DSCAM,RARG,SOX11,ALDH1A3,RORB,COL5A2,LHX1

SARM1,DVL2,CX3CL1,MARK4,SEMA3G,EPHA3,NEDD4L,LTk,NGFR,NTN1,NGEF,NEDD4,PLD1,PLXNA2,RAP1GAP,CAPZB,CHRNA3,MEF2C,CYLD,MT3,NRCAM,ABL1,STX1B,PALM,BMP7,STK24,NDRG4,CAV1,COBL,LIMK1,KANK1,FREQ,EFNB3,CUX2,BMP5,PTK7,DPYSL3,WNT5A,MARK1,RAB7L1,TGFB3,RHOQ,PTK2B,OBSL1,PACSIN1,CPNE5,MACF1,PODXL,CHN1,DLG4,NGF,LRP4,APC,PLXNC1,DAB2IP,KIAA0319,ZNF365,SCARB2,BBS4,BCAS3,ARHGDI1,AKT1,EVI5L,CPNE9,SLIT2,LRRC4C,PAK1,GPM6A,POU4F2,PTPRD,TNIK,WNT3A,C21ORF91,FZD1,DVL3,PDPN,GF11,CDC42EP3,TRIM46,PRKCI,PLXNB1,F2RL1,CSMD3,CDK5,ISLR2,CDC42EP5,SDC2,NLGN1,LINGO1,ROBO1,ZNF804A,DSCAM,PTEN,GAP43,SSH3,BRSK2,HRAS,NR2F1,BDNF,CDK5R1,EP58L2,SLITRK1,CDC42EP4,NRXN1,CEP97,CAMK1D,TACSTD2,PRKD1,RTN4RL1,ARAP1,MAPT,RTN4RL2,ESPN,DCC,MAGI2,AGRN,LRRK2,HTT,CCDC151,NTRK1,INP

GO:0031344 regulation of cell projection organization 1.86E-06 P5F,MIR196A2,PLXNA4,LYN,GRIN2B,SRICIN1

GO:0045444 fat cell differentiation 1.97E-06 SOX8,TFAP2B,TRIO,RORA,RUNX1T1,SFRP1,CLIP3,TGFB1,GATA3,UCP1,ZBTB16,FAM120B,WNT5A,NR4A3,EGR2,NR4A1,BMP2,NR1D1,TRPM4,PPARG,PER2,SMAD6,BBS4,FTO,AKT1,PRDM16,SFRP2,TCF7L2,HMGA2,FOXO1,ZFP36L2,GDF6,NAPEPLD,ZNF385A,LRP5,FRZB,INHBB,ZC3H12A,SMAD3,WNT10B,ZFPM2,VSTM2A,CMKLR1,LEP,CTBP2,CCDC85B,METRNL,ALOXE3,GATA2,ZFPM1,ZADH2,ZFP36L1,TMEM120B,CEBPA

GO:0003013 circulatory system process 2.06E-06 CACNA1G,TBXA2R,ATP1A2,ADRB1,NEDD4L,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,DLG1,KCNN2,NOX4,PTGS1,ITPR3,KCNK6,HMOX1,SLC8A3,MYLK2,SNTA1,SMAD7,TGFB1,CAV1,MEOX2,CXCL12,CALCA,PDE4D,FGF12,POMC,RGS2,ECE1,TNNT2,SGK1,FKBP1B,KCNIP2,KCNJ5,ADRA1A,ITPR2,EDN3,KCNK15,DLL4,ATP1B2,KCNA5,TRPM4,PPARG,PER2,DSC2,KCNMB4,EDNRB,MYOF,HCN4,ACVRL1,TPM1,AGTR1,SLIT2,CORIN,ANK2,C9ORF3,HTR7,ADM,SERPING1,SCN2B,PLCB3,EDNRA,GPD1L,ANGPT1,ATP2B2,RNF207,ACTC1,NPR2,SPTBN4,LRP5,KCNJ3,ATP1A1,ZC3H12A,NPY1R,F2RL1,COL1A2,NOS3,CACNB2,SCN3B,ANPEP,STIM1,PTGDR,PROKR1,AKAP13,PDE3A,LVRN,JUP,KCNH6,HOXB2,ATP2A2,DES,KCNE3,MTHFR,SCN4B,CAV3,NKX2-5,KCNJ12,RNLS,PDE2A,ADRB3,RYR1,ATP2A1,MME,CACNA1H,KCNMB2,AVPR1B,RYR2,NOS1AP,TBC1D8,GPX1,FXRD1,ADORA3,MIR19A

GO:0072175 epithelial tube formation 2.11E-06 DVL2,SOX8,FGFR2,PAX2,GRHL2,KDM2B,SIX4,BMP7,TGFB1,COBL,GATA3,BMP5,PROX1,MTHFD1L,BMP4,SOX9,PAX8,SIX1,PODXL,BBS4,LMO4,OSR1,SKI,GRHL3,DVL3,DLC1,GDNF,SOX11

GO:0072006 nephron development 2.20E-06 SOX8,PROM1,TFAP2B,PAX2,MEF2C,WNT11,SIX4,BMP7,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,PODXL,SMO,HOXD11,FOXJ1,PDGFRA,SULF1,FGF2,OSR1,ANGPT1,KLF15,SHH,CTNNB1,GDNF,MTSS1,TACSTD2,WT1,MAGI2,SULF2,POU3F3,FOXO1,LHX1

GO:0001658 branching involved in ureteric bud morphogen 2.22E-06 SOX8,PAX2,SIX4,SALL1,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,SMO,HOXD11,FGF2,SHH,GDNF,TACSTD2,WT1,FOXO1,LHX1

GO:0060537 muscle tissue development 2.37E-06 CFLAR,ISL1,HDAC9,FGFR2,TGFB3,TP73,MEF2C,TBX5,SIX4,BMP7,MYLK2,SMAD7,NDRG4,TGFB1,MYH14,CAV2,CAV1,FGF8,DKK1,GLI1,BMP5,BVES,HAND1,ACVR1,PROX1,CENPF,TNNT2,TCF21,PKD2,OBSL1,BMP4,BMP2,SIX1,DLL4,SOX15,KDM6B,PDGFRA,HEY2,CHRND,FAM129B,PIM1,FLOT1,FGF2,TPM1,ACTA1,OSR1,NOTCH1,WNT3A,SORBS2,NRG1,SKI,ACTC1,LEMD2,NEXN,ADAMTS9,TBX20,SHH,ANKRD2,MESP1,ZFPM2,AKAP13,S1PR1,ZFPM1,NKX2-5,FOXL2,WT1,FGF3,RYR1,RYR2,MIR199B,MIR19A

REAC:R-HSA- Potassium Channels 2.46E-06 ABCB8,KCNQ1,KCNQ1,KCNH2,KCNAB2,KCNQ2,KCNN2,KCNK2,KCNK6,KCNK10,KCNN4,KCNA7,KCNN1,KCNJ5,KCNS1,KCNC1,KCNA5,KCNH3,KCNMB4,GABBR2,HCN4,KCNH5,KCNH1,KCNN3,KCNA6,KCNK13,KCNMA1,KCNS2,KCNJ3,KCNV1,GNG4,KCNK9,KCNS3,GNB2,GNG12,KCNH6,GNG7,KCNK4,KCNJ12,KCND2,KCNH7,KCNQ5,GNG2,KCNMB2,GABBR1

GO:0003231 cardiac ventricle development 2.56E-06 ISL1,FGFR2,TGFBR3,MEF2C,TBX5,SMAD7,SALL1,TGFB1,GATA3,CPE,HAND1,ACVR1,PROX1,TNNT2,BMP4,DLL4,HEY2,GATA4,TPM1,SLIT2,SFRP2,NOTCH1,NRG1,HEYL,TBX20,HEY1,MESP1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2-5,SLIT3,NPY2R,RYR2

GO:0030198 extracellular matrix organization 2.61E-06 PHLDB1,VCAN,CDH1,COL9A2,LAMA3,LAMC2,COL11A1,CLASP1,COL5A3,COL19A1,COL16A1,ICAM1,COL9A3,MADCAM1,MMP15,HAS3,TGFB1,ICAM4,SPOCK2,SH3PXD2A,COL1A1,COL12A1,COL9A1,LAMA4,COL7A1,ITGA4,TNR,MFAP2,TGFB1,LRP1,KDR,PXDN,COL5A1,LAMAS,ITGB4,BCAN,POSTN,ADAM19,ITGA7,FOXF2,FLOT1,SULF1,THBS1,CYP1B1,FGF2,COL2A1,RB1,COL6A1,COL6A2,ITGA9,SCUBE3,CSGALNACT1,NOTCH1,ADAM12,ADAMTS5,MMP14,CREB3L1,PDPN,ADAMTS9,MFI2,COL1A2,HTRA1,JAM3,MFAP4,SMAD3,TNXB,BMP1,CTRB1,HAS2,LAMB2,SH3PXD2B,COL18A1,WT1,TMPRSS6,COL4A1,COL14A1,AGRN,SULF2,LAMA2,CD47,PDGFA,COL13A1,DPP4,COL11A2,COL5A2,DDR1,ITGB3

GO:1903522 regulation of blood circulation 2.74E-06 CACNA1G,TBXA2R,ATP1A2,ADRB1,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,DLG1,KCNN2,ITPR3,KCNK6,SLC8A3,SNTA1,SMAD7,CAV1,PDE4D,RGS2,ECE1,TNNT2,FKBP1B,KCNIP2,KCNJ5,ADRA1A,ITPR2,EDN3,KCNK15,ATP1B2,KCNA5,TRPM4,PER2,DSC2,KCNMB4,HCN4,TPM1,AGTR1,CORIN,ANK2,ADM,SCN2B,GPD1L,ATP2B2,RNF207,NPR2,SPTBN4,KCNJ3,ATP1A1,ZC3H12A,F2RL1,CACNB2,SCN3B,STIM1,JUP,KCNH6,ATP2A2,DES,KCNE3,SCN4B,CAV3,NKX2-5,KCNJ12,RNLS,RYR1,ATP2A1,CACNA1H,KCNMB2,AVPR1B,RYR2,NOS1AP,FXYP1,ADORA3,MIR19A

GO:0014706 striated muscle tissue development 2.87E-06 CFLAR,ISL1,HDAC9,FGFR2,TGFBR3,TP73,MEF2C,TBX5,SIX4,BMP7,MYLK2,SMAD7,NDRG4,TGFB1,MYH14,CAV2,CAV1,FGF8,DKK1,GLI1,BMP5,BVES,HAND1,ACVR1,PROX1,CENPE,TNNT2,TCF21,OBSL1,BMP4,BMP2,SIX1,DL4,SOX15,KDM6B,PDGFRA,HEY2,CHRD,FAM129B,PIM1,FLOT1,FGF2,TPM1,ACTA1,NOTCH1,WNT3A,SORBS2,NRG1,SKI,ACTC1,LEMD2,NEXN,ADAMTS9,TBX20,ANKRD2,MESP1,ZFPM2,AKAP13,S1PR1,ZFPM1,NKX2-5,FOXL2,WT1,FGF3,RYR1,RYR2,MIR199B,MIR19A

GO:0090287 regulation of cellular response to growth factc 3.13E-06 TFAP2B,DKK3,FGFR2,NEDD4,FGF4,FGFR1,MT3,LTBP4,CHRD,SEMA6A,HSP90AB1,DOK5,SMAD7,FLT1,ZNF423,PRKD2,TGFB1,CAV1,GRB10,GATA3,MTMR4,SMURF2,GIPC1,BMP4,GDF5,WFIKKN1,SNX6,CDKN1C,DSTYK,FAM129B,DAB2IP,SULF1,THBS1,SMAD6,FGF2,DUSP6,ACVRL1,TGFB11,GATA6,RNF165,PRDM16,CYR61,DLX1,TMEM108,SLIT2,CRB2,NOTCH1,ADAMTS12,ADAM17,HHEX,FGF18,RNF111,CREB3L1,SKI,LEMD2,OTX2,PRKCB,SMAD3,SOST,HTRA4,ROBO1,HTRA3,SOSTDC1,WFIKKN2,SOX11,NRXN1,CAV3,CCBE1,ZNF703,BCL9L,SULF2,HESS,PEG10,FOXD1,ITGB3

GO:0008015 blood circulation 3.15E-06 CACNA1G,TBXA2R,ATP1A2,ADRB1,NEDD4L,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,DLG1,KCNN2,PTGS1,ITPR3,KCNK6,HMOX1,SLC8A3,MYLK2,SNTA1,SMAD7,TGFB1,CAV1,MEOX2,CXCL12,CALCA,PDE4D,FGF12,POMC,RGS2,ECE1,TNNT2,SGK1,FKBP1B,KCNIP2,KCNJ5,ADRA1A,ITPR2,EDN3,KCNK15,DL4,ATP1B2,KCNA5,TRPM4,PPARG,PER2,DSC2,KCNMB4,EDNRB,MYOF,HCN4,ACVRL1,TPM1,AGTR1,SLIT2,CORIN,ANK2,C9ORF3,HTR7,ADM,SERPING1,SCN2B,PLCB3,EDNRG,GPD1L,ANGPT1,ATP2B2,RNF207,ACTC1,NPR2,SPTBN4,LRP5,KCNJ3,ATP1A1,ZC3H12A,NPY1R,F2RL1,COL1A2,NOS3,CACNB2,SCN3B,ANPEP,STIM1,PTGDR,PROKR1,PDE3A,LVRN,JUP,KCNH6,HOXB2,ATP2A2,DES,KCNE3,MTHFR,SCN4B,CAV3,NKX2-5,KCNJ12,RNLS,PDE2A,ADRB3,RYR1,ATP2A1,MME,CACNA1H,KCNMB2,AVPR1B,RYR2,NOS1AP,TBC1D8,GPX1,FXYP1,ADORA3,MIR19A

GO:0003407 neural retina development 3.22E-06 SOX8,PROM1,TFAP2B,SDK2,SMARCD3,DLX2,NEUROD4,SOX9,DL4,TFAP2A,SIX3,DLX1,SDK1,GPM6A,POU4F2,MEGF11,NEUROD1,PTF1A,DSCAM,RORB,LHX1

GO:2000736 regulation of stem cell differentiation 3.43E-06 CBF8,TP73,REST,TBX5,ABL1,SETD1A,GATA3,MYB,ESRRB,SOX9,SOX5,PDGFRA,LMO2,GATA4,NOTCH1,ZFP36L2,WNT3A,RUNX1,TAL1,LMO1,GDNF,SP7,GATA2,HOXB4,NKX2-5,TACSTD2,HESS5,LDB1

GO:0008016 regulation of heart contraction 3.43E-06 CACNA1G,ATP1A2,ADRB1,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,DLG1,KCNN2,ITPR3,KCNK6,SLC8A3,SNTA1,SMAD7,CAV1,PDE4D,RGS2,TNNT2,FKBP1B,KCNIP2,KCNJ5,ADRA1A,ITPR2,EDN3,KCNK15,ATP1B2,KCNA5,TRPM4,DSC2,HCN4,TPM1,CORIN,ANK2,ADM,SCN2B,GPD1L,ATP2B2,RNF207,NPR2,SPTBN4,KCNJ3,ATP1A1,ZC3H12A,CACNB2,SCN3B,STIM1,JUP,KCNH6,ATP2A2,DES,KCNE3,SCN4B,CAV3,NKX2-5,KCNJ12,RNLS,RYR1,ATP2A1,CACNA1H,RYR2,NOS1AP,FXVD1,ADORA3,MIR19A

GO:0007517 muscle organ development 3.53E-06 CFLAR,ISL1,HDAC9,FGFR2,TGFB3,SPEG,EVC,TP73,MEF2C,TBX5,SIX4,MYLK2,SMAD7,TGFB1,MYH14,CAV2,CAV1,FGF8,DKK1,GLI1,BVES,HAND1,PROX1,CENPF,TNNT2,TCF21,BMP4,BMP2,SIX1,SGCE,DL4,SOX15,ITGA7,HEY2,CHRD,FAM129B,PIM1,FLOT1,FGF2,TPM1,ACTA1,NOTCH1,MKX,CTF1,UTRN,DISP1,WNT3A,CHODL,NRG1,SKI,ACTC1,LEMD2,TBX20,SHH,ANKRD2,ZFPM2,S1PR1,TRIM72,EGR3,ZFPM1,NEUROG1,CAV3,NKX2-5,FHL3,FOXL2,WT1,FGF3,MAPK12,RYR1,CACNA1H,LAMA2,RYR2,MIR199B,MIR19A

GO:0045860 positive regulation of protein kinase activity 3.63E-06 DVL2,MAP3K14,MAP3K9,ITF,SLC11A1,MAP2K3,ATP2B4,ERBB3,DRD4,PRKACA,TRAF4,FGFR1,CHRNA3,MEF2C,PTPRC,STRADB,NOX4,MT3,TPX2,DOCK3,HSP90AB1,ABL1,TCL1A,TELO2,RASSF2,FLT1,TNFRSF10A,MAP4K1,TGFB1,PRKAG2,MAP3K8,DKK1,CNRY,PRKAR1A,UNC119,CCND1,MADD,CD81,CALCA,CAMKK2,FZD10,CCND3,IL12B,WNT5A,MAPKAPK3,NEK4,PROX1,PKD2,CCND2,CLU,PTK2B,CXCR4,PKN1,EDN3,EREG,BMP4,BMP2,RIPK3,GADD45G,GDF15,PAK4,DLG4,CHI3L1,NGF,MDFIC,DAB2IP,MAP2K5,THBS1,RPLP1,PAK6,DUSP5,FGF2,DUSP6,NTRK3,TOM1L1,ADCYAP1,RPTOR,TNFRSF11A,AKT1,MAP3K6,CYR61,SNCA,TTBK1,EGFR,PAK1,ADAM17,ANGPT1,TNIP,CDK20,FGF18,NRG1,PINK1,SHC1,DVL3,PEA15,PROK2,MST1R,GRM5,ROBO1,PDGFR,ALK,RASGRP1,MAP3K11,LEP,HRAS,TRAF6,CHRNA7,DOK7,BDNF,UBE2N,NRXN1,MAPK11,NTF3,PRR5,PRKAR1B,LRRK2,PDGFA,NTRK1,STK39,DXK1,ITGB3,S1PR2,PIK3R6,SRICN1

GO:0003279 cardiac septum development 3.75E-06 ISL1,FGFR2,TGFB3,TBX5,BMP7,SMAD7,SALL1,GATA3,FGF8,BMP5,HAND1,ACVR1,PROX1,BMP4,HEY2,GATA4,SMAD6,GATA6,SLIT2,ANK2,NOTCH1,HEYL,TBX20,HEY1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2-5,SLIT3

GO:0003015 heart process 3.77E-06 CACNA1G,ATP1A2,ADRB1,NEDD4L,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,DLG1,KCNN2,NOX4,ITPR3,KCNK6,SLC8A3,MYLK2,SNTA1,SMAD7,CAV1,PDE4D,FGF12,RGS2,TNNT2,FKBP1B,KCNIP2,KCNJ5,ADRA1A,ITPR2,EDN3,KCNK15,ATP1B2,KCNA5,TRPM4,DSC2,HCN4,TPM1,CORIN,ANK2,ADM,SCN2B,GPD1L,ATP2B2,RNF207,ACTC1,NPR2,SPTBN4,KCNJ3,ATP1A1,ZC3H12A,CACNB2,SCN3B,STIM1,AKAP13,JUP,KCNH6,ATP2A2,DES,KCNE3,SCN4B,CAV3,NKX2-5,KCNJ12,RNLS,RYR1,ATP2A1,CACNA1H,RYR2,NOS1AP,GPX1,FXVD1,ADORA3,MIR19A

GO:0035637 multicellular organismal signaling 4.25E-06 CACNA1G,ATP1A2,TYMP,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,CACNG4,KCNN2,ITPR3,KCNK6,SLC8A3,MYH14,CACNG7,CAV1,PDE4D,FGF12,FKBP1B,KCNJ5,ITPR2,KCNK15,ATP1B2,KCNA5,TRPM4,DSC2,KCNMB4,HCN4,CACNG8,CORIN,ANK2,GLRA1,SCN2B,ATP2B2,RNF207,NPR2,SPTBN4,KCNJ3,ATP1A1,CACNB2,SCN3B,STIM1,JUP,KCNH6,ATP2A2,CNTNA2,SCN8A,KCNMB2,RYR2,MIR19A

GO:0060993 kidney morphogenesis

4.73E-06 SOX8,PAX2,WNT11,SIX4,SALL1,GATA3,TCF21,PKD2,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,HOXD11,FOXJ1,FGF2,OSR1,SHH,GDNF,TACSTD2,WT1,LRKK2,FOXD1,LHX1

DVL2,SOX8,CX3CL1,MYOC,EPHA3,NEDD4L,LTK,NGFR,NTN1,FGFR1,FGF20,MEF2C,SMARCD3,NRCAM,SEMA6A,ABL1,BMP7,NDRG4,COBL,LIMK1,CUX2,OPRM1,BMP5,PTK7,DPYSL3,WNT5A,DLX2,PROX1,PTK2B,CXCR4,OBSL1,PACSIN1,CPNE5,BMP4,BMP2,MACF1,HOXD3,DLG4,NGF,SERPINE2,PLXNC1,FAM129B,DAB2IP,ZNF365,SCARB2,ARHGDI1,CSNK1D,DLX1,CPNE9,SLIT2,TTBK1,NOTCH1,ZEB1,DOCK1,POU4F2,PTPRD,IMPACT,C21ORF91,FZD1,DVL3,NEUROD1,PRKCJ,NKX6-1,HEYL,PLXNB1,ISLR2,CTNNB1,RGS14,RAC3,NLGN1,ROBO1,ZNF804A,NEUROD2,DSCAM,ATOH1,LIG4,CLCF1,BDNF,SOX11,SLITRK1,MYADM,NEUROG1,CAMK1D,NKX2-

GO:0010720 positive regulation of cell development

5.39E-06 5,CLDN5,PRKD1,MAPT,MAGI2,S100A10,NTRK1,CPNE1,LYN,S1PR2,MIR19A

GO:0003208 cardiac ventricle morphogenesis

ISL1,FGFR2,TGFBF3,MEF2C,TBX5,SMAD7,TGFB1,GATA3,CPE,HAND1,PROX1,TNNT2,DLL4,HEY2,GATA4,TPM1,SFRP2,NOTCH1,NRG1,HEYL,TBX20,HEY1,MESP1,ZFPM2,SOX11,NKX2-5,NPY2R,RYR2

GO:0060047 heart contraction

CACNA1G,ATP1A2,ADRB1,NEDD4L,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,DLG1,KCNN2,ITPR3,KCNK6,SLC8A3,MYLK2,SNTA1,SMAD7,CAV1,PDE4D,FGF12,RGS2,TNNT2,FKBP1B,KCNIP2,KCNJ5,ADRA1A,ITPR2,EDN3,KCNK15,ATP1B2,KCNA5,TRPM4,DSC2,HCN4,TPM1,CORIN,ANK2,ADM,SCN2B,GPD1L,ATP2B2,RNF207,ACTC1,NPR2,SPTBN4,KCNJ3,ATP1A1,ZC3H12A,CACNB2,SCN3B,STIM1,JUP,KCNH6,ATP2A2,DES,KCNE3,SCN4B,CAV3,NKX2-5,KCNJ12,RNLS,RYR1,ATP2A1,CACNA1H,RYR2,NOS1AP,GPX1,FXD1,ADORA3,MIR19A

GO:0003012 muscle system process

CFLAR,CACNA1G,ATP1A2,MYOC,NEDD4L,KCNQ1,KCNH2,ATP2B4,HDAC4,PRKACA,ENO1,DLG1,CHRNA3,KCNN2,MYBPC2,GNAO1,PXN,P2RX6,HMOX1,SLC8A3,MYLK2,SNTA1,MYL12A,SMAD7,MYH14,CAV1,CRYAB,SRF,PDE4D,FGF12,TACR1,RGS2,TNNT2,NR4A3,FKBP1B,KCNIP2,KCNJ5,SORBS3,ADRA1A,CALD1,SSPN,OBSL1,EDN3,SGCE,KCNA5,CNN1,TRPM4,DISC2,DTNA,DYSF,CHRND,EDNRB,SULF1,MYOF,HCN4,TPM1,ACTA1,ANK2,GLRA1,NOTCH1,SCN2B,ALDOA,FOXO1,EDNRA,GPD1L,UTRN,SORBS2,KCNMA1,FBXO32,RNF207,ACTC1,PDE9A,LMNA,TPCN2,KCNJ3,ATP1A1,PROK2,LMOD1,ZC3H12A,HAND2,NOS3,ANKRD2,CACNB2,SCN3B,TPM4,GDNF,CHRN1,JUP,ATP2A2,DES,KCNE3,SCN4B,TRIM72,NEUROG1,CAV3,NKX2-5,KCNJ12,RYR1,ATP2A1,CACNA1H,SULF2,RYR2,RCSD1,INPP5F,NOS1AP,MIR199B,MIR34B,FXD1,MIR19A

GO:0006813 potassium ion transport

ABCC8,ATP1A2,KCNQ1,NEDD4L,KCNQ1,KCNH2,SLC9A3,KCNAB2,ATP1B3,NEDD4,KCNQ2,DLG1,SLC1A3,KCNN2,KCNK2,KCNK6,KCNK10,NALCN,KCNN4,KCNA7,KCNN1,CAV1,SLC9A2,AKAP7,PKD2,KCNIP2,KCNJ5,PTK2B,KCNS1,KCNK15,KCNC1,ATP1B2,KCNA5,DPPE6,KCNH3,KCNMB4,HCN4,KCNH1,ANK2,KCNA6,KCNK13,KCNMA1,KCNS2,RNF207,KCNJ3,ATP1A1,KCNV1,NETO1,KCNK9,KCNS3,DPP10,KCNE3,KCNIP1,KCNK4,CAV3,LRRC55,KCNJ12,KCNK12,KCND2,KCNQ5,KCNIP4,KCNMB2,STK39,NOS1AP,MIR212

GO:0097485 neuron projection guidance

NRXN3,NGFR,NTN1,SPTB,GLI2,NTN4,PLXNA2,RAP1GAP,SEMA6A,EZR,DOK5,GRB10,CXCL12,EFNB3,WNT5A,TNR,ARTN,CXCR4,CHN1,EPHB2,FAM129B,RNF165,GRB7,LHX9,CNTN4,SLIT2,EPHA5,GFRA3,NCAM1,FEZ1,POU4F2,ROBO3,KIF5A,SPON2,SPTBN4,SHC1,NTN3,SHH,OTX2,KIF5C,GDNF,ROBO1,FEZ2,DSCAM,DAB1,BDNF,CDK5R1,NRXN1,SLIT3,EFNA5,IRS2,SLIT1,DCC,SIAH1,DOK6,PLXNA4,EFNA4,LHX1

GO:0007411 axon guidance	NRXN3,NGFR,NTN1,SPTB,GLI2,NTN4,PLXNA2,RAP1GAP,SEMA6A,EZR,DOK5,GRB10,CXCL12,EFNB3,WNT5A,TNR,ARTN,CXCR4,CHN1,EPHB2,FAM129B,RNF165,GRB7,LHX9,CNTN4,SLIT2,EPHA5,GFRA3,NCAM1,FEZ1,POU4F2,ROBO3,KIF5A,SPON2,SPTBN4,SHC1,NTN3,SHH,OTX2,KIF5C,GDNF,ROBO1,FEZ2,DSCAM,DAB1,BDNF,CDK5R1,NRXN1,SLIT3,EFNA5,IRS 6.80E-06 2,SLIT1,DCC,SLAH1,DOK6,PLXNA4,EFNA4,LHX1
GO:0001656 metanephros development	7.06E-06 SOX8,PAX2,SIX4,BMP7,SALL1,GATA3,FGF8,TCF21,PKD2,BMP4,SOX9,PAX8,SIX1,LIF,SMO,FOXJ1,PDGFRA,OSR1,SHH,OSR2,GDNF,WT1,PDGFA,POU3F3,FOXD1
GO:0060411 cardiac septum morphogenesis	ISL1,FGFR2,TGFBR3,BMP7,SMAD7,FGF8,BMP5,HAND1,ACVR1,PROX1,BMP4,HEY2,GATA4,SMAD6,GATA6,SLIT2,NOTCH1,HEYL,TBX20,HEY1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2- 7.76E-06 5,SLIT3
GO:0060041 retina development in camera-type eye	SOX8,PROM1,TFAP2B,SDK2,PAX2,SMARCD3,DLX2,PROX1,NEUROD4,SOX9,DLL4,PDGFRA,TFAP2A,CYP1B1,SIX3,ACVRL1,DLX1,SDK1,GPM6A,POU4F2,MEGF11,SKI,LRP5,NEUROD1 8.94E-06 ,PTF1A,DSCAM,COL4A1,RORB,LHX1
GO:0048608 reproductive structure development	SOX8,KITLG,PTPRN,FGFR2,TFAP2C,SIX4,BMP7,SALL1,GATA3,FGF8,CYP27B1,BMP5,WNT5A,TCF21,PKD2,GHSR,GCM2,EREG,SOX9,E2F8,SOX15,PPARG,WNT2B,PDGFRA,ADAM19,T 9.98E-06 1,KLHL26,LEP,ZFP42,NEUROG1,ASCL2,FOXL2,SLIT3,WT1,TLR5,CRIP1,LHX1
GO:0061458 reproductive system development	SOX8,KITLG,PTPRN,FGFR2,TFAP2C,SIX4,BMP7,SALL1,GATA3,FGF8,CYP27B1,BMP5,WNT5A,TCF21,PKD2,GHSR,GCM2,EREG,SOX9,E2F8,SOX15,PPARG,WNT2B,PDGFRA,ADAM19,T 9.98E-06 1,KLHL26,LEP,ZFP42,NEUROG1,ASCL2,FOXL2,SLIT3,WT1,TLR5,CRIP1,LHX1
GO:0071804 cellular potassium ion transport	ATP1A2,KCNG1,NEDD4L,KCNQ1,KCNH2,SLC9A3,KCNAB2,ATP1B3,NEDD4,KCNQ2,DLG1,SLC1A3,KCNN2,KCNK2,KCNK10,NALCN,KCNA7,CAV1,SLC9A2,AKAP7,PKD2,KCNIP2,KCNJ5, KCN51,KCNK15,KCNC1,ATP1B2,KCNA5,DPPP6,HCN4,KCNH1,ANK2,KCNA6,KCNK13,KCN52,RNF207,KCNJ3,ATP1A1,KCNV1,NETO1,KCNK9,DPP10,KCNE3,KCNIP1,KCNK4,CAV3,LRRC 9.98E-06 55,KCNJ12,KCNK12,KCND2,KCNQ5,KCNIP4,STK39,NOS1AP,MIR212

GO:0071805 potassium ion transmembrane transport 9.98E-06 ATP1A2,KCNG1,NEDD4L,KCNQ1,KCNH2,SLC9A3,KCNAB2,ATP1B3,NEDD4,KCNQ2,DLG1,SLC1A3,KCNN2,KCNK2,KCNK10,NALCN,KCNA7,CAV1,SLC9A2,AKAP7,PKD2,KCNIP2,KCNJ5,KCNS1,KCNK15,KCNC1,ATP1B2,KCNA5,DPP6,HCN4,KCNH1,ANK2,KCNA6,KCNK13,KCNS2,RNF207,KCNJ3,ATP1A1,KCNV1,NETO1,KCNK9,DPP10,KCNE3,KCNIP1,KCNK4,CAV3,LRRC9,9.98E-06 55,KCNJ12,KCNK12,KCND2,KCNQ5,KCNIP4,STK39,NOS1AP,MIR212

GO:0061337 cardiac conduction 9.98E-06 CACNA1G,ATP1A2,KCNQ1,KCNH2,ATP2B4,PRKACA,ATP2A3,KCNN2,ITPR3,KCNK6,SLC8A3,CAV1,PDE4D,FKBP1B,KCNJ5,ITPR2,KCNK15,ATP1B2,KCNA5,TRPM4,DSC2,HCN4,CORIN,ANK2,SCN2B,ATP2B2,RNF207,NPR2,SPTBN4,KCNJ3,ATP1A1,CACNB2,SCN3B,STIM1,JUP,KCNH6,ATP2A2,KCNE3,SCN4B,NKX2-5,RYR1,ATP2A1,RYR2,MIR19A

REAC:R-HSA- Muscle contraction 1.04E-05 CACNA2D2,WWTR1,ATP1A2,KCNQ1,KCNH2,ATP2B4,CACNB1,ATP1B3,PRKACA,ATP2A3,CACNG4,KCNK2,MYBPC2,PXN,TBX5,ITPR3,KCNK6,KCNK10,SLC8A3,MYL12A,FGF14,CACNG7,FGF12,TNNT2,FKBP1B,KCNIP2,SORBS3,CALD1,ITPR2,KCNK15,ATP1B2,DYSF,GATA4,FXVD6,TPM1,CACNG8,CORIN,PAK1,SCN2B,KCNK13,ATP2B2,CACNA2D3,NPR2,ORAI2,FGF11,ATP1A1,LMOD1,CACNB2,SCN3B,STIM1,TPM4,CACNB3,KCNK9,ATP2A2,DES,KCNE3,SCN4B,TRIM72,KCNIP1,CACNB4,KCNK4,CAV3,NKX2-5,KCNJ12,KCNK12,KCND2,KCNIP4,RYR1,ATP2A1,SCN8A,RYR2,FXVD7,FXVD1

GO:0048645 animal organ formation 1.28E-05 ISL1,FGFR2,PAX2,MEF2C,DKK1,BMP4,PAX8,BMP2,SIX1,PIM1,SULF1,WNT3A,HAND2,SOX17,MESP1,ROBO1,WT1

GO:0086002 cardiac muscle cell action potential involved in 1.34E-05 CACNA1G,NEDD4L,KCNQ1,KCNH2,DLG1,KCNN2,SNTA1,CAV1,FGF12,KCNJ5,KCNA5,TRPM4,DSC2,ANK2,SCN2B,GPD1L,RNF207,KCNJ3,ATP1A1,CACNB2,SCN3B,JUP,KCNE3,SCN4B,CAV3,RYR2,NOS1AP

GO:0071396 cellular response to lipid 1.54E-05 CFTR,TFPI,ABC4,CX3CL1,MED24,LTf,CD6,ISL1,ATP1A2,EPHA3,DGAT2,LTk,RNF4,CBFB,RORA,NEDD4,PAX2,MEF2C,REST,WNT11,ESR1,MLC1,BMP7,SFRP1,UBR5,MAP4K1,CCNE1,TGFB1,MAPK8,WNT3,UCP1,CYP27B1,FZD10,PTK7,NR3C1,WNT5A,FOXP1,WNT6,HDAC1,PADI2,TNFSF4,TNFAIP3,TCF21,CLU,PTK2B,CRY2,BMP4,PTGER2,SOX9,NR1D1,GNAI1,SMO,RARA,PTPN22,CLOCK,DAB2IP,PIM1,ADCY3,SCARB2,RB1,SSTR1,ESR2,TGFB11,ARRB2,WNT9A,RQCD1,CRHBP,EGFR,NR6A1,PAK1,POU4F2,POU4F1,ZFP36L2,BMP6,WNT3A,NODAL,WNT9B,RUNX1,SAFB,FOXH1,GF11,NLRP3,ATP1A1,ZC3H12A,HEYL,HMGB2,ADCY1,NKX3-1,PHB,AXL,CTNNB1,PTGDR,TNIP2,WNT10B,PTGER4,TRAF6,KCNK4,RUVBL2,ZNF703,ZFP36L1,GN2,TLR5,KANK2,RORB,DAXX,NFKB1L1,LYN

GO:0048736 appendage development 2.04E-05 CYP26B1,TFAP2B,FGFR2,TBX5,RSPO4,SALL1,GLI3,DKK1,WNT3,HDAC1,ECE1,TBX4,TWIST1,BMP4,KREMEN2,ITGB4,LRP4,TBX3,TFAP2A,BMPR1B,OSR1,SKI,MSX1,INTU,PITX2,SHH,OSR2,CTNNB1,RARG,SOX11,SMOC1

GO:0060173 limb development	CYP26B1,TFAP2B,FGFR2,TBX5,RSPO4,SALL1,GLI3,DKK1,WNT3,HDAC1,ECE1,TBX4,TWIST1,BMP4,KREMEN2,ITGB4,LRP4,TBX3,TFAP2A,BMPR1B,OSR1,SKI,MSX1,INTU,PITX2,SHH, 2.04E-05 OSR2,CTNNB1,RARG,SOX11,SMOC1
GO:0002062 chondrocyte differentiation	RUNX3,MEF2C,PTHLH,TRPS1,TGFB1,ZBTB16,EFEMP1,RUNX2,BMP4,SOX9,BMP2,GDF5,WNT2B,SOX5,SULF1,BMPR1B,ACVRL1,WNT9A,OSR1,HMGA2,ADAMTS12,GDF6,RUNX1,OS 2.08E-05 R2,WNT10B,SULF2
GO:0003281 ventricular septum development	2.15E-05 FGFR2,TGFB3,TBX5,SMAD7,SALL1,GATA3,ACVR1,PROX1,BMP4,HEY2,GATA4,SLIT2,NOTCH1,HEYL,HEY1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2-5,SLIT3
GO:0090183 regulation of kidney development	2.15E-05 SOX8,PROM1,PAX2,SIX4,BMP7,GATA3,BMP4,SOX9,PAX8,SIX1,LIF,SMO,OSR1,SHH,CTNNB1,GDNF,TACSTD2,WT1,PDGFA,FOXD1,LHX1
GO:0034330 cell junction organization	MYOC,CDH1,EPHA3,LAMA3,LAMC2,CDH3,LIIMCH1,CBFB,SDK2,TESK2,PRKACA,LIMS2,PVR,CLASP1,DLG1,CDH7,GRHL2,COL16A1,TRIP6,ABL1,SMAD7,PAR6A,TJP1,SFRP1,TGFB1,C AV1,PERP,CDH9,CDH6,TGFB3,PAR6B,MACF1,KDR,FLNC,CRB3,LAMA5,NPHP4,ITGB4,APC,FLOT1,THBS1,ACVRL1,CDH24,KIFC3,CDH13,BCAS3,TBCD,PIP5K1A,SDK1,MARVELD2,RU NX1,FBLIM1,PRKCI,F2RL1,DLC1,CLDN3,ILK,PLEKHA7,SMAD3,CTNNB1,CDH2,PTEN,RHOD,JUP,CADM2,RCC2,GJD3,ZNF703,ACTG1,CLDN5,EFNA5,PKP3,S100A10,OCLN,CTNND1,LD 2.18E-05 B1
GO:0072079 nephron tubule formation	2.47E-05 SOX8,PAX2,SIX4,GATA3,SOX9,PAX8,SIX1,OSR1,GDNF
GO:0003179 heart valve morphogenesis	2.47E-05 MEF2C,TGFB1,GATA3,ACVR1,TWIST1,BMP4,SOX9,BMP2,HEY2,GATA4,SMAD6,RB1,SLIT2,NOTCH1,ADAMTS9,HEYL,TBX20,HEY1,NOS3,ROBO1,ZFPM1,SLIT3



GO:0071773 cellular response to BMP stimulus 2.47E-05 TFAP2B,TGFBR3,CHRD,BMP7,SMAD7,ZNF423,SFRP1,TGFB1,DLX5,SMURF2,PHOX2B,BMP5,ACVR1,TGFB3,RUNX2,BMP4,SOX9,BMP2,GDF5,GDF1,GDF15,SULF1,SMAD6,BMPR1B,ACVRL1,GATA6,RNF165,CYR61,GDF7,DLX1,CRB2,NOTCH1,ADAMTS12,BMP6,GDF6,NODAL,SKI,LEMD2,GDF9,TMEM100,SOST,VSTM2A,HTRA3,SOSTDC1,RGMB,SOX11,RGMA,HES5,FOXD1,GDF10

GO:0071772 response to BMP 2.47E-05 TFAP2B,TGFBR3,CHRD,BMP7,SMAD7,ZNF423,SFRP1,TGFB1,DLX5,SMURF2,PHOX2B,BMP5,ACVR1,TGFB3,RUNX2,BMP4,SOX9,BMP2,GDF5,GDF1,GDF15,SULF1,SMAD6,BMPR1B,ACVRL1,GATA6,RNF165,CYR61,GDF7,DLX1,CRB2,NOTCH1,ADAMTS12,BMP6,GDF6,NODAL,SKI,LEMD2,GDF9,TMEM100,SOST,VSTM2A,HTRA3,SOSTDC1,RGMB,SOX11,RGMA,HES5,FOXD1,GDF10

GO:0032870 cellular response to hormone stimulus 2.57E-05 TFPI,BAIAP2L1,MED24,ISL1,ATP1A2,ATP6V0A1,HDAC9,RNF4,NGFR,PRKCZ,CBFB,NEDD4,PRKACA,CHRNA3,MEF2C,REST,MT3,GNA11,PXN,ESR1,BMP7,CA2,SFRP1,UBR5,CCNE1,JA K3,ATP6V0A4,CAV2,CAV1,GRB10,KANK1,PRKAR1A,UCP1,NR3C1,FOXP1,GRB14,ATP6V1B1,HDAC1,LEPR,NR5A2,PADI2,TNFSF4,TCF21,NR4A3,RHOQ,CRHR1,CRY2,GHSR,NR4A1,B MP4,PTGER2,PAX8,THRA,STAT5A,BAIAP2L2,ADCY4,GDF15,PPARG,CLOCK,APC,LMO2,NR5A1,ADCY3,LHCGR,RB1,SSTR1,ESR2,NCOA2,IGF1R,BBS4,TGFB11,ARRB2,AKT1,RQCD1,A GTR1,SLIT2,CRHBP,EGFR,NR6A1,NOTCH1,RGS10,PAK1,FOXO1,POU4F2,POU4F1,ZFP36L2,NODAL,SST,NCK1,RUNX1,SAFB,SHC1,FOXH1,SH2B2,INHBB,ATP1A1,PRKCI,HEYL,ADCY1, VWA2,PRKCB,NKX3-1,PHB,SOST,CTNNB1,PTGDR,PCSK9,PTGER4,SLC25A33,STAT5B,LEP,CHRNA7,FOXC2,CDK5R1,RUVBL2,ZNF703,SLIT3,WT1,SQCS1,ZFP36L1,ATP6V0C,IRS2,GNG2,AKR1C1,AGRN,PRK AR1B,CACNA1H,KANK2,MYO5A,AVPR1B,DAXX,ATP6V1E2,LYN,SSTR3

GO:1901214 regulation of neuron death 2.68E-05 SARM1,CRLF1,CX3CL1,TFAP2B,ISL1,ERBB3,FGF20,TP73,MEF2C,MT3,KDM2B,TYRO3,SIX4,CHMP4B,TOX3,BBC3,UNC5B,DKK1,TRIM2,WNT5A,DHCR24,RAB7L1,FOXO3,NR4A3,TGFB 3,CLU,PTK2B,PRKCG,SIX1,NGF,AGAP2,TFAP2A,AKT1,SNCA,POU4F1,GRID2,PINK1,PRKCI,CDK5,CTNNB1,DDIT4,GDNF,PCSK9,BCL2,FOXB1,UG4,CHRNA7,CLCF1,BDNF,CDK5R1,NTF3 ,MAPT,DCC,RILPL1,LRRK2,NTRK1,DAXX,GRIN2B

GO:0007369 gastrulation 2.74E-05 PHLDB1,LAMA3,COL11A1,EYA2,CLASP1,PAX2,MMP15,FGF8,DKK1,COL12A1,COL7A1,ITGA4,NR4A3,DUSP1,BMP4,FOXA2,COL5A1,ITGB4,KDM6B,GSC,ITGA7,MAP2K5,DUSP5,DUS P6,COL6A1,OSR1,CRB2,HMGA2,WNT3A,NODAL,MMP14,EOMES,T,TBX20,SOX17,OTX2,MESP1,ATOH8,SOX7,MYADM,MESP2,COL5A2,TRIM15,ITGB3,LHX1

GO:0086003 cardiac muscle cell contraction 3.02E-05 CACNA1G,NEDD4L,KCNQ1,KCNH2,DLG1,KCNN2,SNTA1,CAV1,PDE4D,FGF12,KCNJ5,KCNA5,TRPM4,DSC2,HCN4,ANK2,SCN2B,GPD1L,RNF207,KCNJ3,ATP1A1,CACNB2,SCN3B,JUP, ATP2A2,KCNE3,SCN4B,CAV3,RYR2,NOS1AP

GO:0110110 positive regulation of animal organ morphoge 3.09E-05 SOX8,FGFR2,PAX2,SIX4,GATA3,DKK1,ACVR1,WNT6,BMP4,SOX9,PAX8,BMP2,SIX1,LIF,SMO,PIM1,TFAP2A,NOTCH1,WNT3A,HAND2,MESP1,GDNF,ROBO1,WT1,LHX1

GO:0048593 camera-type eye morphogenesis	WNT16,SOX8,PROM1,PAX6,TFAP2B,SDK2,PAX2,KDM2B,WNT5A,PROX1,TWIST1,SOX9,WNT2B,TFAP2A,FOXF2,SIX3,WNT9A,SDK1,MEGF11,SKI,LRP5,PITX2,PTF1A,DSCAM,SOX11, 3.17E-05 RORB,LHX1
GO:0003151 outflow tract morphogenesis	DVL2,ISL1,FGFR2,TGFBR3,MEF2C,FGF8,BMP4,HEY2,SMAD6,GATA6,SFRP2,NOTCH1,HEYL,PITX2,HAND2,NPY1R,TBX20,SOX17,CTNNB1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2- 3.17E-05 S,CLDN5,NPY2R,RYR1
GO:009092 regulation of transmembrane receptor protein	TFAP2B,WWTR1,DKK3,LTBP4,CHRD,HSP90AB1,BMP7,SMAD7,ZNF423,TGFB1,CAV1,DKK1,MTMR4,SMURF2,BMP5,TTK,ACVR1,TGFB3,GIPC1,BMP4,BMP2,GDF5,WFIKKN1,SNX6,C DKN1C,GDF1,GDF15,SULF1,THBS1,SMAD6,ACVRL1,TGFB1I1,GATA6,RNF165,PRDM16,CYR61,GDF7,DLX1,CRB2,NOTCH1,ADAM17,BMP6,GDF6,NODAL,RNF111,SKI,LEMD2,INHBB 3.19E-05 ,GDF9,SHH,SMAD3,SOST,HTRA4,HTRA3,SOSTDC1,WFIKKN2,SOX11,ZNF703,BCL9L,MAGI2,HES5,PEG10,FOXD1,GDF10
GO:0010769 regulation of cell morphogenesis involved in d	SARM1,SEMA3G,MYOC,NGFR,NTN1,NGEF,NEDD4,PLXNA2,FBLN1,CHRNA3,MT3,NRCAM,ABL1,LIMK1,KANK1,EFNB3,CUX2,OBSL1,MACF1,CHN1,NGF,LRP4,PLXNC1,ARHGDI1,SLIT 2,LRR4C,PAK1,DOCK1,POU4F2,PTPRD,TNIP,PDPN,TRIM46,MFI2,PLXNB1,CDK5,ISLR2,SDC2,RAC3,NLGN1,LINGO1,ROBO1,DSCAM,PTEN,SSH3,BRSK2,BDNF,CDK5R1,SLITRK1,RCC 3.51E-05 2,MYADM,TACSTD2,EFNA5,MAPT,DCC,LRRK2,S100A10,PLXNA4,SRIN1
REAC:R-HSA- Nuclear Receptor transcription pathway	RORA,RARB,ESR1,NR2E1,NR3C1,NR5A2,NR4A3,ESRRB,NR4A1,THRA,NR1D1,RARA,PPARG,NR5A1,ESR2,NR6A1,THRB,NR3C2,NR2F6,RARG,ESRRA,NR2F1,NR2C2,NR2C2AP,ESRRG, 3.62E-05 RORB,RXRB
GO:0021953 central nervous system neuron differentiation	ISL1,FGFR2,GLI2,HSP90AB1,CBLN1,SALL1,LHX6,WNT3,PHOX2B,MDGA1,WNT5A,CHD5,PROX1,NPY,DLL4,MNX1,MDGA2,CSNK1D,SLIT2,GRID2,WNT3A,C21ORF91,FZD1,WNT9B,SP 3.63E-05 TBN4,LMX1A,TBX20,CTNNB1,ROBO1,PTEN,NRXN1,MAPT,LHX1
GO:0060688 regulation of morphogenesis of a branching st	3.78E-05 SOX8,HGF,FGFR2,PAX2,SIX4,BMP4,SOX9,PAX8,SIX1,SMO,SULF1,GDNF,TACSTD2,LRRK2,PDGFA,LHX1

JARID2,MLXIPL,HHATL,GPRC5A,WWTR1,ATP2B4,SPI1,PRKCZ,HYAL2,NCK2,DLG1,FBLN1,TP73,PTPRC,MECOM,DNAJA1,DNMT3B,SEMA6A,EZR,ABL1,SMARCB1,BMP7,RASSF2,SNTA1,SMAD7,SFRP1,UBRS,TGFB1,CDK6,CAV1,HSPB1,PRKAG2,LIMK1,DKK1,PRKAR1A,SLC9A3R1,CDKN1B,BAG2,PHF1,PDE4D,H2AFY,USP4,MAD2L2,RGS2,SGS4,TNFAIP3,FKBP1B,DU SP1,CRY2,TWIST1,NCKAP1L,BMP4,RPL23,PRKCG,CDKN2D,SNX6,CDKN1C,DNMT1,SH3BP5,PPP1R1B,PER2,ZBED3,EPHB2,DUSP26,PTPN22,APC,PRRS1,USP44,DAB2IP,SMAD6,DUSP6,TARBP2,RB1,IGF1R,NTRK3,ARRB2,AKT1,CBL,MTF2,SLIT2,DGKQ,SNCA,SFRP2,IGFBP3,EPHA1,MFHAS1,LRRRC4C,FOXO1,GPD1L,HHEX,CDYL,IMPACT,UCHL1,NCK1,PINK1,ZFYVE28,LRP5,PRKAA2,CAMK2N1,ZC3H12A,KLF15,SPRY1,MAD2L1,F2RL1,LRTM2,TRIM44,PLK1,PHB,NXN,CTNNB1,DDIT4,PKIG,RGS14,SOCS6,PTEN,LRRRC15,INSM1,PODN,MYADM,CAV3,SOCS1,NR2F2,NTF3,RTN4RL1,MAPT,RTN4RL2,PRKAR1B,LRRK2,SPRED2,INPP5F,MIR124-2,DBNDD2,CEBPA,LYN,FXVD1,SRGIN1,MIR124-1

GO:0031400 negative regulation of protein modification pr 3.80E-05

CFTR,TFPI,ABC4,CX3CL1,MED24,LTf,CD6,ISL1,SLC11A1,ATP1A2,SOX3,EPHA3,REL, DGAT2, LTK, RNF4, NGFR, TMEM161A, CFBF, RORA, TGFB3, NEDD4, SCARB1, PAX2, MEF2C, REST, WNT11, ESR1, MLC1, BMP7, SFRP1, UBRS, TNFRSF10A, MAP4K1, CCNE1, TGFB1, CAV1, MAPK8, WNT3, UCP1, CYP27B1, FZD10, PTK7, NR3C1, WNT5A, MAPKAPK3, FOXF1, WNT6, HDAC1, PADI2, TNFSF4, TNFAIP3, TCF21, TGFB3, CLU, PTK2B, CRY2, BMP4, PTGER2, SOX9, NR1D1, GNAI1, SMO, CDKN2D, RARA, PPARG, PTPN22, CLOCK, DAB2IP, PIM1, THBS1, PAQR5, ADCY3, SCARB2, RB1, SSTR1, ESR2, TGFB11, ARRB2, TNFRSF11A, WNT9A, RQCD1, SLIT2, SNCA, CRHBP, TNFRSF21, EGFR, NR6A1, PAK1, POU4F2, ADAM17, POU4F1, ZFP36L2, BMP6, WNT3A, NODAL, WNT9B, RUNX1, ABCG1, SAFB, FOXH1, ALPL, GFI1, NLRP3, ATP1A1, CXCL1, ZC3H12A, HEYL, HMGB2, ADCY1, NKX3-

GO:0033993 response to lipid 3.90E-05 1,PHB,AXL,SRR,CTNNB1,PTGDR,TNIP2,WNT10B,PTGER4,RARG,TNFRSF10D,STAT5B,TRAF6,KCNK4,RUVBL2,ZNF703,SLIT3,ZFP36L1,GN2,TLR5,KANK2,RORB,DAXX,NFKBIL1,LYN

HSP90AB1,BMP7,ZNF423,TGFB1,BMP5,TTK,ACVR1,TGFB3,GIP1,BMP4,BMP2,GDF5,CDKN1C,GDF1,GDF15,SULF1,THBS1,ACVRL1,TGFB11,GATA6,RNF165,CYR61,GDF7,CRB2,NO TCH1,ADAM17,BMP6,GDF6,NODAL,RNF111,INHBB,GDF9,SOX11,HESS,FOXD1,GDF10

GO:0090100 positive regulation of transmembrane recepto 3.90E-05

CX3CL1,PAX6,SEMA3G,NGFR,NGEF,REST,MT3,CHRD,STX1B,BMP7,KANK1,EFNB3,RFX4,DPYSL3,WNT5A,DLX2,RAB7L1,TNN,SOX9,LDLR,LRP4,DTX1,EDNRB,KIAA0319,SIX3,ZNF365, ARHGDI1,DLX1,CNTN4,SLIT2,TNFRSF21,DAAM2,NOTCH1,POU4F2,WNT3A,SKI,GFI1,TRIM46,NLGN1,LINGO1,NEUROD2,PTEN,NR2F1,SOX11,RTN4RL1,RTN4RL2,SLIT1,DCC,HESS,I NPP5F

GO:0051961 negative regulation of nervous system develo 3.90E-05

CACNA1G,ATP1A2,NEDD4L,KCNQ1,KCNH2,PRKACA,ENO1,DLG1,CHRNA3,KCN22,MYBPC2,GNAO1,PXN,P2RX6,SLC8A3,MYLK2,SNTA1,MYL12A,SMAD7,MYH14,CAV1,CRYAB,SRF,P DE4D,FGF12,TACR1,RGS2,TNNT2,FKBP1B,KCNIP2,KCNJ5,SORBS3,ADRA1A,CALD1,SSPN,OBSL1,EDN3,KCNAS,CNN1,TRPM4,DSC2,DTNA,DYSF,CHRNA,EDNRB,SULF1,MYOF,HCN4,T PM1,ACTA1,ANK2,GLRA1,SCN2B,ALDOA,EDNRA,GPD1L,UTRN,KCNMA1,RNF207,ACTC1,TPCN2,KCNJ3,ATP1A1,PROK2,LMOD1,ZC3H12A,ANKRD2,CACNB2,SCN3B,TPM4,GDNF,CH RNB1,JUP,ATP2A2,DES,KCNE3,SCN4B,TRIM72,NEUROG1,CAV3,NKX2-5,KCNJ12,RYR1,ATP2A1,CACNA1H,SULF2,RYR2,RCSD1,NOS1AP,FXVD1

GO:0006936 muscle contraction 4.49E-05

DVL2,SOX8,PAX2,GRHL2,KDM2B,SIX4,BMP7,TGFB1,COBL,GATA3,BMP5,MTHFD1L,SOX9,PAX8,SIX1,BBS4,LMO4,OSR1,SKI,GRHL3,DVL3,DLC1,GDNF,SOX11

GO:0001838 embryonic epithelial tube formation 4.62E-05

FGFR2,NDE1,GLI2,KDM2B,TYRO3,SALL1,CDK6,LHX6,WNT5A,VAX2,CHD5,PROX1,NPY,BMP4,MBOAT7,BMP2,FOXP2,SMO,EPHB2,WNT2B,DAB2IP,SIX3,TACC2,BBS4,TMEM108,SLIT 2,EPHAS,TACC1,KIRREL3,WNT3A,C21ORF91,SKI,NEUROD1,PITX2,SHH,DLCL1,OTX2,MFSD2A,ARL13B,ROBO1,PTEN,FOXO1,CNTNAP2,SLIT1,LRRK2,HESS,CCDC85C,LHX1

GO:0030900 forebrain development 5.09E-05

GO:0071407 cellular response to organic cyclic compound	5.11E-05	<p>CFTR,TFPI,ABCB4,MED24,ISL1,ATP1A2,CDH1,RAD51,KCNQ1,ATP2B4,RNF4,CBFB,RORA,NEDD4,PRKACA,MEF2C,REST,ESR1,EZR,ABL1,MLC1,BMP7,SFRP1,UBR5,CCNE1,TGFB1,CAV1,CYP27B1,OPRM1,GABRG2,NR3C1,FOXP1,IGFBP5,HDAC1,PADI2,AKAP7,TCF21,PKD2,NR4A3,CLU,CRY2,BMP4,GNAI1,SMO,AANAT,DIAPH1,MYCN,CLOCK,PIM1,FLOT1,ADCY3,CYP1B1,HCN4,TARBP2,RB1,SSTR1,ESR2,TGFB11,ARRB2,RQCD1,SNCA,CRHBP,GABRB2,EGFR,NR6A1,PAK1,POU4F2,POU4F1,ZFP36L2,IMPACT,LARP1,NODAL,COLEC12,RUNX1,SAFB,FOXH1,GABRB1,ATP1A1,TIPARP,ZC3H12A,SNIP1,HEYL,ADCY1,GABRB3,SMAD3,NKX3-</p> <p>1,PHB,CTNNB1,P2RY6,PDE3A,JUP,PDE12,P2RY2,RUVBL2,ZNF703,WT1,ZFP36L1,GNNG2,PDE2A,LIN28B,LRRK2,RYR1,NCOR2,KANK2,RYR2,DAXX,TRIM71</p>
GO:0001649 osteoblast differentiation	5.19E-05	<p>SOX8,LTF,HGF,MYOC,VCAN,HDAC7,FGFR2,PRKACA,GLI2,MEF2C,PTHLH,CHRD,BMP7,SFRP1,CDK6,DLX5,WNT3,GLI1,ACVR1,MSX2,TNN,TWIST1,RUNX2,BMP4,BMP2,TRPM4,SYNCRIP,SMAD6,BMPR1B,COL6A1,CYR61,LIMD1,NOTCH1,BMP6,FZD1,CREB3L1,SKI,LRP5,ALPL,NELL1,PHB,TPM4,AXIN2,SP7,SOX11,PRKD1,IFITM1,SDN1,SMOC1,RORB,TWIST2,GDF10</p> <p>,MIR9-3</p>
GO:0002028 regulation of sodium ion transport	5.86E-05	<p>ATP1A2,NEDD4L,PRSS8,ATP2B4,WNK1,DRD4,ATP1B3,NEDD4,PTPN3,DLG1,SNTA1,SLC9A3R1,FGF12,ATP1B2,FXVD6,OSR1,SCN2B,GPD1L,UTRN,SPTBN4,ATP1A1,SCN3B,NETO1,PKSK9,SCN4B,CAV3,NKX2-5,NKAIN3,STK39,FXVD7,FXVD1</p>
GO:0007264 small GTPase mediated signal transduction	5.86E-05	<p>MYOC,TRIO,USP28,GDI2,NGFR,NTN1,NGEF,RASGRP2,RASAL2,PLD1,GMIP,ABL1,SYDE2,MYO9B,RASL10A,RHOV,RASAL3,SYDE1,CHN2,LIMK1,KANK1,DNMBP,RUNDC3A,MADD,RTKN,STMN1,RHOQ,ADRA1A,DEPDC7,ARHGAP9,RAB38,MCF2L,CHN1,ARHGAP22,CGNL1,PLD2,PAK4,DNMT1,EPHB2,NGF,RERG,GPR55,ARHGEF4,RAPGEF5,DAB2IP,PAK6,ARHGAP29,ARHGAP24,FAM13A,FGF2,RB1,RHOF,CDH13,ARHGDI3,ARHGEF19,AGTR1,SLIT2,ARHGAP26,G3BP1,GNA12,NOTCH1,PAK1,DOCK1,EP58,RASGRP3,OBSCN,ABR,KALRN,RALGDS,SHC1,SOSTM1,PDPN,CDC42EP3,ARHGEF3,F2RL1,COL1A2,DLCL1,ABCA1,ARHGAP12,RRAD,CDC42EP5,RAC3,ROBO1,AKAP13,PLEKHG5,RGS19,RASGRP4,RASGRP1,RHOD,HRAS,EP58L</p> <p>2,CDC42EP4,PRKD1,RASA3,ARAP1,BCR,SRGAP3,ARHGEF12,SYNGAP1,STMN3,NTRK1,RASGEF1A,INPP5B,RGL2,ARHGAP8,CYFIP1,ARHGAP23</p>
REAC:R-HSA- Assembly of collagen fibrils and other multimer	5.88E-05	<p>COL9A2,LAMA3,LAMC2,COL11A1,COL5A3,COL9A3,PCOLCE,COL1A1,COL9A1,LOX,COL7A1,LOXL1,PXDN,COL5A1,ITGB4,LOXL4,COL2A1,COL6A1,COL6A2,DST,COL1A2,BMP1,COL4A1,COL18A1,COL4A1,COL27A1,COL11A2,COL5A2,COL15A1</p>
GO:0015672 monovalent inorganic cation transport	6.05E-05	<p>ABCC8,ATP1A2,KCNG1,ATP6V0A1,NEDD4L,PRSS8,KCNQ1,KCNH2,ATP2B4,WNK1,SLC9A3,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,KCNQ2,DLG1,SLC1A3,KCNN2,KCNK2,SLC4A11,KCNK6,KCNK10,SLC8A3,SNTA1,NALCN,KCNN4,KCNA7,KCNN1,ATP6V0A4,CAV1,PIIF,SLC9A3R1,UCP1,FGF12,SLC9A2,ATP6V1B1,AKAP7,SGK1,PKD2,KCNIP2,KCNJ5,PTK2B,KCNS1,KCNK15,KCNC1,ATP1B2,KCNA5,DPP6,TRPM4,KCNH3,KCNMB4,FXVD6,HCN4,KCNH1,OSR1,ANK2,SCN2B,KCNA6,KCNK13,GPD1L,UTRN,SLCSA10,KCNMA1,KCNS2,RNF207,SPTBN4,KCNJ3,ATP1A1,KCNV1,SCN3B,NETO1,PCSK9,KCNK9,SLC23A1,KCNS3,DPP10,KCNE3,SCN4B,KCNIP1,KCNK4,CAV3,OTOP3,OTOP2,NKX2-</p> <p>5,LRRCS5,KCNJ12,KCNK12,KCND2,KCNQ5,KCNIP4,ATP6V0C,NKAIN3,SCN8A,KCNMB2,STK39,NOS1AP,FXVD7,FXVD1,MIR212</p>
GO:0061005 cell differentiation involved in kidney development	6.18E-05	<p>PROM1,PAX2,MEF2C,SALL1,GATA3,TCF21,BMP4,PAX8,LIF,PODXL,SMO,FOXJ1,OSR1,KLF15,SHH,CTNNB1,MTSS1,WT1,MAGI2,POU3F3,LHX1</p>

GO:0003170 heart valve development

6.75E-05 MEF2C,TGFB1,GATA3,ACVR1,TWIST1,BMP4,SOX9,BMP2,HEY2,GATA4,SMAD6,RB1,SLIT2,NOTCH1,ADAMTS9,HEYL,TBX20,HEY1,NOS3,ROBO1,ZFPM1,SLIT3

CFLAR,TFPI,TNFRSF12A,PAX6,SYT7,SLC11A1,EHD2,F7,DGKG,HMG20B,DGKA,ERBB3,ARFGEF1,PRKACA,SCARB1,CLASP1,CAPZB,FBLN1,CD59,AURKA,GNA11,DOCK9,RCOR1,PABPC4,TYRO3,CBX5,EPB41L4B,ITPR3,P2RX6,HMOX1,PROCR,MYL12A,STK24,DGKH,PLAT,TGFB1,CAV1,HSPB1,KANK1,GATA3,COL1A1,ALOX12,PRKAR1A,SRF,DPYSL3,WNT5A,HDAC1,F3,TNFAIP3,CTGF,PLAU,ITPR2,F13A1,EREG,FOXA2,PRKCG,MACF1,SOX15,COL5A1,ITGB4,SYT11,PDGFRA,TEC,SERPINE2,DGKB,GATA4,TRPC6,THBS1,MYOF,FGF2,ACVRL1,TPM1,ADAMTS18,GATA6,ARRB2,CYR61,TMEFF2,DGKQ,GNA12,ADM,DGK2,SERPING1,PAK1,DOCK1,ADAM17,DST,ZFP36L2,NRG1,PAFAH2,CSR1,HOXB13,SH2B2,ALOX15,PDPN,INHBB,FZRL1,COL1A2,NOS3,ILK,PRKCB,SMAD3,ZFPM2,PDGFD,MORN4,PTEN,GAP43,FUT10,HRAS,FOXC2,TRIM72,THBD,GP5,GATA2,ZFPM1,ACTG1,PROS1,MAFF,PRKG1,ZFP36L1,RTN4RL1,G

GO:0009611 response to wounding

6.95E-05 NG2,RTN4RL2,TMPRSS6,PRKAR1B,AJAP1,MAFG,HIST1H3D,PDGFA,INPP5F,DDR1,MIR199B,LYN,ITGB3,PIK3R6,ADORA3

GO:0050808 synapse organization

MUSK,CTNNA2,NGEF,CACNB1,SDK2,MEF2C,NRCAM,ABL1,SPOCK2,DKK1,NRXN2,CUX2,PCDH15,WNT5A,RAB7L1,PCDH17,PDZRN3,DLG4,EPHB2,LRP4,DAB2IP,ZNF365,IGF1R,TMEM108,SNCA,SDK1,LRRRC4,KIRREL3,GPM6A,POU4F1,GRID2,FARP1,PTPRD,WNT3A,FZD1,SHANK2,NTNG1,FZD5,CDK5,CACNB2,CACNB3,GRM5,NLGN1,CTNND2,CHRN1,NEUROD1,SCAM,PTEN,CHRNA7,BDNF,CDK5R1,SLITRK1,NRXN1,CACNB4,MAPT,SLIT1,AGRN,SHISA6,LRRK2,GRIN2B,SCN1A

GO:1902305 regulation of sodium ion transmembrane tran

ATP1A2,NEDD4L,ATP2B4,DRD4,ATP1B3,NEDD4,PTPN3,DLG1,SNTA1,SLC9A3R1,FGF12,ATP1B2,FXVD6,OSR1,SCN2B,GPD1L,UTRN,SCN3B,NETO1,PCSK9,SCN4B,CAV3,STK39,FXVD7

GO:0043523 regulation of neuron apoptotic process

CRLF1,CX3CL1,TFAP2B,ISL1,ERBB3,FGF20,TP73,MEF2C,MT3,KDM2B,TYRO3,SIX4,TOX3,BBC3,UNC5B,TRIM2,FOXO3,TGFB3,PTK2B,PRKCG,SIX1,NGF,AGAP2,TFAP2A,POU4F1,GRID2,PINK1,PRKCI,CDK5,CTNNB1,GDNF,PCSK9,BCL2,FOXB1,LIG4,CLCF1,BDNF,CDK5R1,NTF3,NTRK1

GO:0045667 regulation of osteoblast differentiation

LTF,HGF,HDAC7,FGFR2,PRKACA,MEF2C,CHRD,BMP7,CDK6,ACVR1,TNN,TWIST1,RUNX2,BMP4,BMP2,TRPM4,SMAD6,BMP1B,CYR61,LIMD1,NOTCH1,BMP6,SKI,LRP5,NELL1,AXIN2,SOX11,PRKD1,IFITM1,SMOC1,RORB,TWIST2,GDF10,MIR9-3

GO:0051899 membrane depolarization

CACNA1G,ATP1A2,MYOC,NEDD4L,KCNH2,PTPN3,CACNG4,ABL1,CHRNA4,SMAD7,NALCN,CAV1,KDR,TRPM4,HCN4,CACNA1A,ANK2,CACNA1B,SCN2B,GPD1L,TPCN2,CACNB2,SCN3B,CACNB3,BCL2,CATSPER1,SCN4B,CACNB4,CAV3,CATSPER4,LRRK2,CACNA1H,SCN8A,CACNA1E

GO:0061217 regulation of mesonephros development	9.40E-05 SOX8,PAX2,SIX4,GATA3,BMP4,SOX9,PAX8,SIX1,SMO,GDNF,TACSTD2,WT1,LHX1
REAC:R-HSA- Signaling by Receptor Tyrosine Kinases	<p>AP2B1,MATK,HGF,SH2D2A,ATP6V0A1,COL9A2,KITLG,LAMA3,LAMC2,PTPRU,ERBB3,FGFR2,PRKCZ,NEDD4,PTPN3,NCK2,RPS6KA2,PRKACA,FGF4,PAG1,FGFR1,FGF20,MKNK1,MEF2C,EPS15,DOCK3,PXN,ESR1,COL9A3,ITPR3,FLT1,ESRP2,PLAT,ESRP1,ATP6V0A4,CAV1,GRB10,HSPB1,DNM1,SH3GL2,SHB,CXCL12,FGF8,FGF6,COL9A1,LAMA4,THBS4,MAPKAPK3,STAM2,ATP6V1B1,RPS6KA1,PGF,PTK2B,ITPR2,NCKAP1L,EREG,STAT5A,KDR,LAMA5,DIAPH1,TNS4,WASF3,NGF,PDGFRA,TEC,MAP2K5,THBS1,FGF5,FGF2,DUSP6,IGF1R,ADCYAP1,GRB7,COL6A1,COL6A2,AKT1,EGFR,ADAM12,PAK1,DOCK1,ADAM17,FGF18,NRG1,NCK1,NRG2,RALGDS,SHC1,SH2B2,FGF19,POLR2H,SPRY1,MST1R,NOS3,CDK5,CUL5,PRKCB,AXL,SPIRNT2,CTNNB1,HNRNP1,SOC56,PDGFD,LAMB2,STAT5B,JUP,HRAS,BDNF,CDK5R1,SOC51,MAPK11,NTF3,NRG3,ATP6V0C,IRS2,THBS2,PRR5,FGF3,COL4A1,MAPK12,LAMA2,PDGFA,S</p> <p>9.46E-05 PRED2,NTRK1,CTNND1,ATP6V1E2,LYN,ITGB3,GRIN2B,CYFIP1</p>
GO:0090184 positive regulation of kidney development	1.02E-04 SOX8,PROM1,PAX2,SIX4,GATA3,BMP4,SOX9,PAX8,SIX1,LIF,SMO,SHH,GDNF,WT1,PDGFA,FOXD1,LHX1
GO:0086009 membrane repolarization	1.11E-04 ATP1A2,NEDD4L,KCNQ1,KCNH2,ATP1B3,DLG1,KCNN2,SNTA1,CAV1,AKAP7,KCNIP2,KCNJ5,ATP1B2,KCNA5,ANK2,RNF207,KCNJ3,ATP1A1,CACNB3,KCNE3,SCN4B,CAV3,NOS1AP
GO:0048705 skeletal system morphogenesis	<p>CYP26B1,LTF,BARX2,FGFR2,FGFR1,MEF2C,DLX5,MSX2,MTHFD1L,TBX4,TWIST1,BMP4,SOX9,SIX1,HOXD3,PDGFRA,TFAP2A,BMPR1B,COL2A1,OSR1,SKI,LRP5,OSR2,ANKRD11,CTN</p> <p>1.14E-04 NB1,BMP1,SOX11,ALX1,NEUROG1,COL13A1,LHX1</p>
GO:0086001 cardiac muscle cell action potential	<p>CACNA1G,ATP1A2,NEDD4L,KCNQ1,KCNH2,DLG1,KCNN2,SNTA1,CAV1,FGF12,KCNIP2,KCNJ5,KCNA5,TRPM4,DSC2,HCN4,ANK2,SCN2B,GPD1L,RNF207,KCNJ3,ATP1A1,CACNB2,SC</p> <p>1.14E-04 N3B,JUP,ATP2A2,KCNE3,SCN4B,CAV3,RYR2,NOS1AP</p>
GO:0010092 specification of animal organ identity	1.21E-04 ISL1,FGFR2,PAX2,MEF2C,DKK1,BMP4,PAX8,BMP2,SIX1,WNT3A,MESP1,ROBO1

GO:0031076 embryonic camera-type eye development 1.21E-04 WNT16,PAX2,KDM2B,WNT5A,PROX1,TWIST1,NES,TFAP2A,FOXF2,SIX3,SOX11,ALDH1A3

TFAP2B,WWTR1,DKK3,PRKCZ,TGFBR3,PXN,LTBP4,CHR1,HSP90AB1,BMP7,SMAD7,ZNF423,PAR6A,TGFB1,DLX5,CAV1,DKK1,MTMR4,SMURF2,GCNT2,BMP5,TTK,ACVR1,LTBP2,TGFB3,GIPC1,RUNX2,BMP4,BMP2,GDF5,WFIKKN1,SNX6,CDKN1C,GDF1,GDF15,SULF1,THBS1,SMAD6,BMPR1B,ACVRL1,TGFB11,GATA6,ARRB2,RNF165,PRDM16,CYR61,GDF7,DLX1,CRB2,NOTCH1,BTBD11,ADAM17,BMP6,GDF6,NODAL,RNF111,SKI,FOXH1,LEMD2,INHBB,GDF9,SHH,COL1A2,TMEM100,SMAD3,SOST,ATOH8,HTRA4,HTRA3,SOSTDC1,WFIKKN2

GO:0007178 transmembrane receptor protein serine/threoc 1.21E-04 ,RGM8,SOX11,RGMA,ZNF703,CLDN5,BCL9L,MAGI2,HE55,PEG10,FOX11,GDF10,MIR212

CRL1,CX3CL1,ISL1,ERBB3,FGF20,TP73,MEF2C,MT3,KDM2B,TYRO3,SIX4,TOX3,UNC5B,TGFB3,PTK2B,PRKCG,SIX1,NGF,AGAP2,POU4F1,PINK1,PRKCI,GDNF,BCL2,FOX11,LIG4,CLCF

GO:0043524 negative regulation of neuron apoptotic proce 1.22E-04 1,BDNF,NTF3,NTRK1

ISL1,FGFR2,TGFBR3,TP73,MEF2C,TBX5,BMP7,MYLK2,SMAD7,NDRG4,TGFB1,FGF8,DKK1,GLI1,BMP5,HAND1,ACVR1,PROX1,TNNT2,OBSL1,BMP4,BMP2,DL4,KDM6B,PDGFRA,HE

GO:0048738 cardiac muscle tissue development 1.26E-04 Y2,PIM1,FGF2,TPM1,NOTCH1,WNT3A,SORBS2,NRG1,ACTC1,NEXN,ADAMTS9,TBX20,MESP1,ZFPM2,AKAP13,S1PR1,ZFPM1,NKX2-5,WT1,FGF3,RYR2,MIR199B,MIR19A

HSPB6,TBXA2R,TFAP2B,ISL1,NRXN3,SARS,HDAC9,HDAC7,NGFR,FGFR2,RORA,TGFBR3,TBX5,NRCAM,SEMA6A,HMOX1,ANGPT4,SMAD7,FLT1,SFRP1,PRKD2,TGFB1,CAV1,HOXA3,H

GO:0048514 blood vessel morphogenesis 1.27E-04 5,CCBE1,PRKD1,WT1,THBS2,TMPRSS6,COL4A1,EPHB4,PDGFA,NOTCH4,MIR199B,MIR193A,MIR34B,MIR196A2,MIR125B1,MIR125A,ITGB3,ITF21,MIR212,PIK3R6,MIR19A

CFLAR,CX3CL1,BAIAP2L1,MYOC,EPHA3,LIMA1,LIMCH1,ARFGEF1,TESK2,NCK2,FRY,CLASP1,DLG1,CAP2B,WNT11,MYBPC2,EPB41L1,PXN,EZR,EPB41L4B,ABL1,SIX4,CORO2B,SFRP1,ARHGEF10,MYH14,COBL,FSCN3,LIMK1,KANK1,CXCL12,FZD10,NEDD9,PHACTR1,PTK7,DYSL3,WIPF1,MAD2L2,STMN1,PROX1,CTGF,TGFB3,RHOQ,IQSEC3,SORBS3,PTK2B,GHSR,N

GO:0030036 actin cytoskeleton organization 1.27E-04 RAS,CDC42EP4,MYADM,FGD6,CAV3,TACSTD2,EFNA5,FMNL1,PRKG1,NTF3,ARAP1,ESPN,MYO18A,PDGFA,S100A10,CDC42BPB,SPIRE2,CORO7,S1PR2,CYFIP1

CX3CL1,SYT7,ATP1A2,SNCAIP,PRKCZ,DRD4,CHRNA3,MEF2C,ABL1,STX1B,SYNGR1,SLC8A3,CBLN1,GRIN2D,MPP2,CUX2,RIMS3,CHRNA4,PTK2B,ADRA1A,GIPC1,PNKD,VGF,DLG4,SYT11,EPHB2,KCNMB4,FLOT1,CNTN4,TMEM108,SNCA,GRID2,SQSTM1,GRIN2C,SHANK2,GRIK2,FABP5,CDK5,NETO1,MAP1A,GDNF,D4S234E,GRM5,SGS14,NLGN1,GRIK1,NEUROD2,

GO:0099177 regulation of trans-synaptic signaling 1.38E-04 PTEN,CHRNA7,GRM8,NRXN1,MAPT,SHISA6,LRRK2,GRM7,SYNGAP1,GRM3,SHISA9,GRIN2B

GO:0043583 ear development 1.40E-04 KCNQ1,FGFR2,MYO3B,PAX2,MYO3A,SALL1,GATA3,PHOX2B,ATP6V1B1,ECE1,PROX1,ESRRB,TWIST1,SOX9,PAX8,BMP2,SIX1,EPHB2,GSC,TFAP2A,OSR1,ZIC1,NEUROD1,OSR2,NEUR  
OG1,LRTOMT,ROR1,HESS

GO:0031128 developmental induction 1.46E-04 SOX8,SALL1,DKK1,BMP4,SOX9,BMP2,SIX1,WNT3A,FZD5,MESP1,ROBO1

GO:0009953 dorsal/ventral pattern formation 1.54E-04 GLI2,CHRD,SFRP1,RFX4,MDFI,ACVR1,HOXD11,DLL4,LRP4,LMX1B,SMAD6,SIX3,DUSP6,LRP5,FZD5,TBX20,SHH,SOST,SOSTDC1,LHX1

GO:0007492 endoderm development 1.55E-04 LAMA3,COL11A1,MMP15,DKK1,COL12A1,COL7A1,ITGA4,DUSP1,HOXC11,COL5A1,ITGA7,GATA4,DUSP5,DUSP6,COL6A1,HMGA2,NODAL,MMP14,EOMES,TBX20,SOX17,MESP1,S  
OX7,ZFP36L1,COL5A2,LHX1

GO:0048048 embryonic eye morphogenesis 1.55E-04 WNT16,PAX2,KDM2B,WNT5A,EFEMP1,MFAP2,PROX1,TWIST1,TFAP2A,FOXF2,SIX3,RARG,SOX11,ALDH1A3

GO:0072160 nephron tubule epithelial cell differentiation 1.59E-04 PROM1,PAX2,MEF2C,GATA3,PAX8,LIF,OSR1,CTNNB1,MTSS1,LHX1

GO:0030155 regulation of cell adhesion 1.59E-04 CX3CL1,ADAM22,CD6,RUNX3,MYOC,CDH1,EPHA3,LIMCH1,ERBB3,PRKCZ,CBFB,NCK2,TBX21,GLI2,CLASP1,NUAK1,PAG1,FBLN1,PTPRC,COL16A1,CHRD,SEMA6A,EPB41L4B,ABL1,B  
MP7,SMAD7,CD276,SFRP1,RASAL3,PRKD2,TGFB1,JAK3,CDK6,CAV1,GLI3,KANK1,GATA3,CXCL12,MAP3K8,ZMIZ1,CYTH1,ALOX12,PRKAR1A,GCNT2,VNN1,IL12B,HYAL1,ZAP70,IGFB  
P2,MAD2L2,TNFSF4,MYB,NR4A3,EPCAM,TGFB1,PTK2B,HOXA7,PLAU,NCKAP1L,BMP4,FOXA2,BMP2,MACF1,KDR,PODXL,FOXJ1,ASS1,RARA,DUSP26,PTPN22,ETS1,ADAM19,SERPI  
NE2,PLXNC1,FLOT1,MAP2K5,THBS1,CYP1B1,ACVRL1,TPM1,ADAMTS18,CDH13,BCAS3,ARHGDI2,TBCD,AKT1,SFRP2,TNFRSF21,EPHA1,NOTCH1,PAK1,DOCK1,CCL28,UTRN,ANGPT  
1,NODAL,NCK1,RUNX1,ALOX15,PDPN,NLRP3,ZC3H12A,MFI2,PLXNB1,SHH,DLC1,SPINT2,RAC3,HAS2,DSCAM,PTEN,RHOD,JUP,LEP,FOXC2,RCC2,MYADM,ZNF703,TACSTD2,EFNA5,  
SOCS1,PRKG1,AJAP1,CD47,DPP4,S100A10,CARD11,LDB1,TGM2,HLA-G,MIR141,SIPA1,HLA-DPB1,LYN,MIR9-3



GO:0072087 renal vesicle development

1.59E-04 SOX8,PAX2,SALL1,BMP4,SOX9,PAX8,LIF,SMO,OSR1,LHX1

GO:0031016 pancreas development

1.59E-04 PAX6,ISL1,CDK6,RHEB,BMP5,PROX1,BMP4,FOXA2,NKX2-2,MNX1,CLOCK,PDX1,CCDC40,AKT1,TCF7L2,FOXO1,BMP6,NEUROD1,NKX6-1,PTF1A,INSM1

GO:0035567 non-canonical Wnt signaling pathway

DVL2,AP2B1,CELSR3,MYOC,TNRC6C,WNT11,GNAO1,TNRC6B,PARD6A,SFRP1,DKK1,SMURF2,FZD10,WNT5A,SFRP5,NFATC1,ARRB2,CSNK1D,ARHGFEF19,SFRP2,DAAM2,RSPO3,TCF7L2,PLCB3,MOV10,FZD1,WNT9B,DVL3,FRZB,FZD5,FZD6,CTNNB1,ROR2,MLLT3,GN2,MAGI2

GO:0097435 supramolecular fiber organization

CFLAR,CX3CL1,BAIAP2L1,CCDC88C,STMN4,B4GALT7,MYOC,LIMA1,COL11A1,LIMCH1,ARHGFEF1,NCK2,NDE1,FRY,CLASP1,DLG1,CAPZB,COL5A3,PKP1,WNT11,MYBPC2,PXN,EZR,HOK2,HSP90AB1,ABL1,NEFH,SIX4,SPEF1,SFRP1,NEFM,ARHGFEF10,FSD1,CLIP3,DNAJB6,COBL,FSCN3,LIMK1,KANK1,CXCL12,COL1A1,CRYAB,HSPA8,COL12A1,NEDD9,PHACTR1,DPYSL3,WIPF1,MAD2L2,STMN1,PROX1,CTGF,LTBP2,TGFB3,CLU,SORBS3,PTK2B,GHSR,NCKAP1L,OBSL1,EML2,BAIAP2L2,MYO1B,CGNL1,RIPK3,LDLR,COL5A1,WASF3,SPIRE1,HOOK1,PDGFRA,APC,FHOD1,ARPC5L,CYP1B1,TRIM54,COL2A1,RB1,RHOF,TPM1,CSNK1D,TBCD,HAX1,ACTA1,TMEFF2,ESPNL,SLIT2,SNCA,EPHA1,PAK1,ALDOA,EP8,OBSCN,FMN2,DYRK1A,NCK1,ACTC1,ALOX15,CDC42EP3,LMOD1,F2RL1,COL1A2,DL1,ARHGAP12,SYNPO2L,MFAP4,TPM4,CDC42EP5,TNXB,AKAP13,KRT19,PTGER4,SSH3,RHOD,DES,CHRNA7,CDK5R1,CDC42EP4,MYADM,CAV3,TACSTD2,KIF18B,ARAP1,MAPT,ESPN,COL14A1,KIF19,STMN3,S100A10,COL11A2,COL5A2,SPIRE2,GPX1,CCDC13,CORO7,CYFIP1

GO:0002027 regulation of heart rate

CACNA1G,ADRB1,KCNQ1,KCNH2,PRKACA,SNTA1,CAV1,PDE4D,FKBP1B,KCNJ5,EDN3,KCNAS,TRPM4,DSC2,HCN4,TPM1,ANK2,ADM,SCN2B,GPD1L,SPTBN4,KCNJ3,CACNB2,SCN3B,1.71E-04 JUP,KCNH6,ATP2A2,KCNE3,SCN4B,CAV3,RNLS,RYR2,NOS1AP

GO:0007162 negative regulation of cell adhesion

CX3CL1,ADAM22,RUNX3,MYOC,CDH1,ERBB3,CBFB,TBX21,PAG1,FBLN1,PTPRC,SEMA6A,SMAD7,TGFB1,JAK3,GLI3,KANK1,CXCL12,ALOX12,PRKAR1A,GCNT2,MAD2L2,TNFSF4,EPCAM,TGFB1,HOXA7,BMP4,BMP2,PODXL,FOXJ1,ASS1,PTPN22,SERPINE2,PLXNC1,MAP2K5,THBS1,CYP1B1,ACVRL1,ADAMTS18,CDH13,BCAS3,ARHGDI1,TBCD,TNFRSF21,NOTCH1,CCL28,ANGPT1,RUNX1,ZC3H12A,MFI2,PLXNB1,DL1,SPINT2,DSCAM,PTEN,RCC2,MYADM,ZNF703,TACSTD2,EFNA5,SOC1,PRKG1,AJAP1,HLA-G,MIR141,SIPA1,MIR9-3

GO:0048589 developmental growth

CFLAR,SEMA3G,MUSK,NEDD4L,NTN1,FGFR2,TGFB3,EVC,GLI2,PLXNA2,TP73,MEF2C,ULK2,MT3,TBX5,NRCAM,HSP90AB1,ABL1,SIX4,NDRG4,SALL1,COBL,LIMK1,SH3GL2,SLC6A4,GLI1,WWC1,LEPR,PROX1,GHSR,CPNE5,EREG,BMP4,SOX9,STAT5A,SIX1,MACF1,SOX15,GDF15,LRP4,TEC,CHRND,PIM1,FGF2,BMPR1B,DUSP6,CPNE9,TMEM108,SLIT2,NOTCH1,POU4F2,IMPACT,SORBS2,TRIM46,PLXNB1,TBX20,CDK5,MESP1,ISLR2,CTNNB1,S1PR1,DSCAM,PTEN,STAT5B,LEP,BDNF,SLIT3,WT1,MAPT,SLIT1,DCC,MAGI2,AGRN,MIR199B,CPNE1,P1.77E-04 LXNA4,CYFIP1,MIR19A

GO:0060412 ventricular septum morphogenesis 1.77E-04 FGFR2,TGFBR3,SMAD7,ACVR1,PROX1,BMP4,HEY2,SLIT2,NOTCH1,HEYL,HEY1,ROBO1,ZFPM2,SOX11,ZFPM1,NKX2-5,SLIT3

MAD11L,CFLAR,JARID2,SEMA3G,HGF,MYOC,CLEC16A,EPHA3,LIMA1,NGFR,NGEF,SPI1,ARFGEF1,PRKCZ,CLASP1,RAP1GAP,CAPZB,FBLN1,MT3,DNMT3B,STX1B,SMARCB1,BMP7,SP  
EF1,CHMP4B,UBR5,ANKRD27,CLIP3,TGFB1,CAV1,DNAJB6,KANK1,DKK1,PIPF,EFNB3,UNC119,CRYAB,HSPA8,C11ORF51,PHF1,TTK,H2AFY,DPYSL3,OPRD1,MAD2L2,RAB7L1,STMN1,  
CENPF,DUSP1,CLU,PAPDS,TWIST1,KIF25,BMP4,EML2,THRA,HSPA2,LDLR,DNMT1,DLG4,LRP4,APC,HEY2,USP44,DMRT1,KIAA0319,THBS1,SMAD6,TRIM54,ZNF365,TET1,PEX5,ACV  
RL1,PIF1,NOL3,TOM1L1,BCAS3,ARHGDI1,TBCD,AKT1,EVI5L,PEX14,MTF2,TMEFF2,SLIT2,SNCA,NOTCH1,FEZ1,EPS8,SACS,IMPACT,WNT3A,BUB3,DYRK1A,PINK1,GF11,TRIM46,LRPA  
P1,MFI2,MAD2L1,DL1,PLK1,TMC8,SOST,PCSK9,NLGN1,LINGO1,FEZ2,PTGER4,NEUROD2,PTEN,ERCC4,NR2F1,BNIP3,RCC2,MYADM,NRXN1,CEP97,CAV3,TACSTD2,PRKD1,EFNA5,

GO:0051129 negative regulation of cellular component org. 1.82E-04 RTN4RL1,ARAP1,MAPT,RTN4RL2,ESPN,SLIT1,DCC,LRRK2,DPP4,PHF2,INPP5F,MIR196A2,SIAH3,GPX1,GRIN2B

MYOC,CDH1,EPHA3,CDH3,LIMCH1,TESK2,PVR,CLASP1,CDH7,COL16A1,TRIP6,ABL1,SMAD7,SFRP1,CDH9,CDH6,MACF1,KDR,LAMA5,THBS1,ACVRL1,CDH24,KIFC3,CDH13,BCAS3,T  
BCD,PIPSK1A,DL1,PLEKHA7,CTNNB1,CDH2,PTEN,RHOD,JUP,CADM2,RCC2,ZNF703,EFNA5,S100A10,CTNND1,LDB1

GO:0034332 adherens junction organization 1.93E-04

LAMA3,COL11A1,EYA2,PAX2,MMP15,DKK1,COL12A1,COL7A1,ITGA4,DUSP1,BMP4,COL5A1,ITGB4,KDM6B,ITGA7,DUSP5,DUSP6,COL6A1,CRB2,HMGA2,WNT3A,NODAL,MMP14,  
EOMES,TBX20,SOX17,MESP1,ATOH8,SOX7,MESP2,COL5A2,TRIM15,ITGB3,LHX1

GO:0001704 formation of primary germ layer 2.04E-04

CX3CL1,SYT7,ATP1A2,SNCAIP,PRKCZ,DRD4,CHRNA3,MEF2C,ABL1,STX1B,SYNGR1,SLC8A3,CBLN1,GRIN2D,MPP2,CUX2,RIMS3,CHRNA4,PTK2B,ADRA1A,GIP1,PNKD,VGF,DLG4,SY  
T11,EPHB2,KCNMB4,FLOT1,CNTN4,TMEM108,SNCA,GRID2,SQSTM1,GRIN2C,SHANK2,GRIK2,CDK5,NETO1,MAP1A,GDNF,D4S234E,GRM5,RGS14,NLGN1,GRIK1,NEUROD2,PTEN,  
CHRNA7,GRM8,NRXN1,MAPT,SHISA6,LRRK2,GRM7,SYNGAP1,GRM3,SHISA9,GRIN2B

GO:0050804 modulation of chemical synaptic transmission 2.25E-04

SEMA3G,NEDD4L,NTN1,FGFR2,PLXNA2,ULK2,MT3,NRCAM,HSP90AB1,ABL1,SIX4,SALL1,COBL,LIMK1,SH3GL2,CPNE5,BMP4,SOX9,SIX1,MACF1,CPNE9,TMEM108,SLIT2,NOTCH1,P  
OU4F2,IMPACT,TRIM46,PLXNB1,CDK5,MESP1,ISLR2,CTNNB1,S1PR1,DSCAM,BDNF,SLIT3,MAPT,SLIT1,DCC,MAGI2,CPNE1,PLXNA4,CYFIP1

GO:0060560 developmental growth involved in morphog. 2.41E-04

FGFR2,WNT11,COL1A1,WNT5A,MTHFD1L,KIAA1217,TWIST1,SIX1,HOXD3,PDGFRA,TFAP2A,SULF1,COL2A1,WNT9A,OSR1,OSR2,CTNNB1,SOX11,SULF2,LHX1

GO:0048706 embryonic skeletal system development 2.41E-04

GO:0014070 response to organic cyclic compound	<p>CFTR,TFPI,ABCB4,MED24,ISL1,ATP1A2,CDH1,SOX30,RAD51,KCNQ1,ATP2B4,RNF4,CBFB,RORA,DRD4,NEDD4,PRKACA,MEF2C,REST,ESR1,EZR,ABL1,MLC1,BMP7,SFRP1,UBR5,CCN E1,TGFB1,CAV1,CYP27B1,OPRM1,GABRG2,NR3C1,FOXP1,IGFBP5,HDAC1,PADI2,AKAP7,TCF21,PKD2,NR4A3,TGFB3,CLU,CRY2,BMP4,PRKCG,GNAI1,VGF,SMO,CDKN2D,AANAT,DIAPH1,MYCN,CLOCK,PIM1,FLOT1,THBS1,PAQR5,DUOX1,ADCY3,CYP1B1,HCN4,TARBP2,RB1,SSTR1,ESR2,DUOX2,TGFB11,ARRB2,PMAIP1,RQCD1,SLIT2,DGKQ,SNCA,CRHBP,GABRB2,EGFR,NR6A1,PAK1,POU4F2,POU4F1,ZFP36L2,IMPACT,LARP1,NODAL,COLEC12,RUNX1,HLCS,SAFB,FOXH1,ALPL,GABRB1,ATP1A1,TIPARP,ZC3H12A,SNIP1,HEYL,ADCY1,GABRB3,SMAD3,NKX3-</p> <p>2.44E-04 1,PHB,TP53I13,CTNNB1,P2RY6,PDE3A,STAT5B,JUP,PDE12,P2RY2,RUVBL2,ZNF703,SLIT3,WT1,ZFP36L1,GNNG2,PDE2A,LIN28B,LRRK2,RYR1,NCOR2,KANK2,RYR2,DAXX,TRIM71</p>
GO:0007215 glutamate receptor signaling pathway	<p>CX3CL1,CAPN1,CACNG4,MEF2C,CACNG7,OPRM1,GRIA2,PTK2B,DLG4,EPHB2,CACNG8,CNIH3,CRHBP,GRID2,GRIA4,GRIN2C,GRIK2,NETO1,GRM5,NLGN1,GRIK1,CNIH2,CDK5R1,GRM8,NRXN1,GRM7,DAPK1,GRM3,GRIN2B</p> <p>2.45E-04 M8,NRXN1,GRM7,DAPK1,GRM3,GRIN2B</p>
GO:0007498 mesoderm development	<p>MATK,EYA2,PAX2,MEST,DKK1,BMP4,TCF15,SMO,ITGB4,KDM6B,TBX3,SECTM1,CRB2,HMGA2,WNT3A,NODAL,FOXH1,IKZF3,EOMES,T,TBX20,SHH,MESP1,FOXC2,ZFP36L1,IKZF1,MESP2,TRIM15,ITGB3</p> <p>2.45E-04 ESP2,TRIM15,ITGB3</p>
GO:0060078 regulation of postsynaptic membrane potenti	<p>PRKCZ,DRD4,CHRNA3,MEF2C,STX1B,CHRNA4,CBLN1,MPP2,CUX2,PTK2B,DLG4,ARRB2,AKT1,TMEM108,GLRA1,GRID2,NLGN1,PTEN,CHRNA7,NRXN1,LRRK2</p> <p>2.45E-04 PRKCZ,DRD4,CHRNA3,MEF2C,STX1B,CHRNA4,CBLN1,MPP2,CUX2,PTK2B,DLG4,ARRB2,AKT1,TMEM108,GLRA1,GRID2,NLGN1,PTEN,CHRNA7,NRXN1,LRRK2</p>
GO:0099565 chemical synaptic transmission, postsynaptic	<p>PRKCZ,DRD4,CHRNA3,MEF2C,STX1B,CHRNA4,CBLN1,MPP2,CUX2,PTK2B,DLG4,ARRB2,AKT1,TMEM108,GLRA1,GRID2,NLGN1,PTEN,CHRNA7,NRXN1,LRRK2</p> <p>2.45E-04 PRKCZ,DRD4,CHRNA3,MEF2C,STX1B,CHRNA4,CBLN1,MPP2,CUX2,PTK2B,DLG4,ARRB2,AKT1,TMEM108,GLRA1,GRID2,NLGN1,PTEN,CHRNA7,NRXN1,LRRK2</p>
GO:0035107 appendage morphogenesis	<p>CYP26B1,TFAP2B,FGFR2,TBX5,SALL1,GLI3,WNT3,HDAC1,ECE1,TBX4,TWIST1,TBX3,TFAP2A,BMPR1B,OSR1,SKI,MSX1,SHH,OSR2,CTNNB1,RARG,SOX11</p> <p>2.45E-04 CYP26B1,TFAP2B,FGFR2,TBX5,SALL1,GLI3,WNT3,HDAC1,ECE1,TBX4,TWIST1,TBX3,TFAP2A,BMPR1B,OSR1,SKI,MSX1,SHH,OSR2,CTNNB1,RARG,SOX11</p>
GO:0035108 limb morphogenesis	<p>CYP26B1,TFAP2B,FGFR2,TBX5,SALL1,GLI3,WNT3,HDAC1,ECE1,TBX4,TWIST1,TBX3,TFAP2A,BMPR1B,OSR1,SKI,MSX1,SHH,OSR2,CTNNB1,RARG,SOX11</p> <p>2.45E-04 CYP26B1,TFAP2B,FGFR2,TBX5,SALL1,GLI3,WNT3,HDAC1,ECE1,TBX4,TWIST1,TBX3,TFAP2A,BMPR1B,OSR1,SKI,MSX1,SHH,OSR2,CTNNB1,RARG,SOX11</p>

DVL2,MAP3K9,ITF,MAP2K3,ATP2B4,HYAL2,DRD4,FGFR1,TP73,MEF2C,DNAJA1,ABL1,TCL1A,TELO2,BMP7,FLT1,MAP4K1,TGFB1,CDK6,CAV1,DKK1,CCNY,PRKAR1A,CCND1,MADD,CD81,CDKN1B,FZD10,CCND3,H2AFY,WNT5A,MAPKAPK3,SGS2,SGS4,PROX1,PKD2,CCND2,DUSP1,CXCR4,PKN1,EDN3,BMP4,BMP2,CDKN2D,GADD45G,GDF15,EPHB2,PTPN22,NGF,APC,MDFIC,DAB2IP,MAP2K5,THBS1,DUSP5,FGF2,DUSP6,IGF1R,NTRK3,RPTOR,TNFRSF11A,AKT1,CBL,MAP3K6,SNCA,EGFR,PAK1,ADAM17,HHEX,UCHL1,TNFK,FGF18,NRG1,SHC1,DVL3,LRP5,PEA15,PROK2,MST1R,PLK1,PKIG,SGS14,ROBO1,PDGFD,ALK,PTEN,RASGRP1,MAP3K11,HRAS,TRAF6,CHRNA7,CDK5R1,UBE2N,NRXN1,CAV3,MAPK11,NR2F2,NTF3,PR

GO:0071900 regulation of protein serine/threonine kinase : 2.62E-04 KAR1B,LRRK2,HTT,PDGFA,SPRED2,NTRK1,STK39,DAXX,CEBPA,LYN,S1PR2,PIK3R6

GO:0031018 endocrine pancreas development 2.63E-04 PAX6,CDK6,RHEB,BMP5,BMP4,FOXA2,NKX2-2,MNX1,CLOCK,PDX1,AKT1,FOXO1,BMP6,NEUROD1,NKX6-1,INSM1

CX3CL1,PAX6,SEMA3G,ITF,NGFR,NGEF,FBLN1,REST,MT3,STX1B,BMP7,KANK1,EFNB3,DPYSL3,DLX2,RAB7L1,TNN,SOX9,LDLR,LRP4,DTX1,EDNRB,KIAA0319,SIX3,ZNF365,ARHGDI1,DLX1,CNTN4,SLIT2,DAAM2,NOTCH1,POU4F2,WNT3A,SKI,GFI1,TRIM46,MFIZ,NLGN1,LINGO1,PTEN,NR2F1,SOX11,RCC2,CAV3,TACSTD2,EFNA5,RTN4RL1,RTN4RL2,DCC,HESS,INP

GO:0010721 negative regulation of cell development 3.00E-04 P5F,MIR199B

DVL2,PHLDB1,CLASP1,SIX4,GATA3,DKK1,TBX18,CDX1,RBM19,FOXA2,SIX1,COL5A1,FAM129B,SULF1,MAP2K5,DUSP6,OSR1,SFRP2,CRB2,WNT3A,RNF207,DVL3,SHH,SOX17,CDX2,

GO:0045995 regulation of embryonic development 3.03E-04 OTX2,MESP1,CTNNB1,GDNF,MYADM,EHMT1,COL5A2,LHX1

GO:0071542 dopaminergic neuron differentiation 3.09E-04 FGF20,FGF8,DKK1,WNT3,PHOX2B,WNT5A,FOXA2,LMX1B,CSNK1D,WNT3A,FZD1,WNT9B,LMX1A,EN1,SHH,OTX2,CTNNB1

GO:0021915 neural tube development 3.32E-04 DVL2,GLI2,PAX2,GRHL2,KDM2B,CHRD,BMP7,TGFB1,COBL,BMP5,PROX1,PKD2,MTHFD1L,ALDH1A2,BBS4,LMO4,SKI,GRHL3,DVL3,DLC1,ARL13B,FOXB1,SOX11,HESS,TRIM71

CAPN1,KCNG1,CACNB1,DRD4,PRKACA,CACNG4,DLG1,MEF2C,JPH4,JPH1,CACNG7,CAV1,OPRM1,PDE4D,FGF12,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,DLG4,

GO:2001257 regulation of cation channel activity 3.32E-04 EPHB2,STAC2,CACNG8,CNIH3,ANK2,CRHBP,KCNS2,RNF207,CACNB2,NETO1,STIM1,CACNB3,NLGN1,P2RY6,CNIH2,KCNE3,NRXN1,CACNB4,LRRCS5,DAPK1,HTT,NOS1AP,MIR212

GO:0030279 negative regulation of ossification 3.49E-04 HDAC7,MEF2C,CHRD,SFRP1,CDK6,DKK1,TNN,PTK2B,TWIST1,SOX9,TRPM4,KREMEN2,LRP4,SMAD6,LIMD1,NOTCH1,SKI,LRP5,SOST,AXIN2,RORB,TWIST2,GDF10,MIR9-3

CFTR,CYP26B1,SOX8,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,DKK3,PTPRN,CHRNA3,REST,LTBP4,CYP26A1,ITPR3,SFRP1,DKKL1,STX1A,TFR2,GATA3,CPE,CYP27B1,GLP1R,BMP5,STC2,POMC,PASK,ECE1,SLC2A1,CRHR1,LRAT,GHSR,ITPR2,EDN3,PAX8,FOXA2,BMP2,NR1D1,SRD5A3,LIF,ALDH1A2,AAAT,KCNA5,TRPM4,STARD3,PER2,NGF,CLOCK,TBX3,FAM129B,DUOX1,CYP1B1,PDX1,DUOX2,ADCYAP1,CACNA1A,ALDH9A1,AGTR1,DGKQ,EPHA5,CORIN,CRHBP,STAR,C9ORF3,TCF7L2,ADM,BMP6,CHST9,PTPRN2,LRP5,DHRS3,GF11,NEUROD1,INHBB,UCN,GDF9,SHH,SCG5,NKX3-

GO:0010817 regulation of hormone levels 3.49E-04 1,MIDN,KCNS3,BRSK2,PCSK1,SOX11,FOXO1,MAFA,ALDH1A3,EFNA5,IRS2,AKR1C1,CYP26C1,MME,CACNA1H,DIO3,BCO2,DPP4,CACNA1E,PIM3,HSD17B8,COLQ

TFAP2B,TGFBR3,CHRD,BMP7,SMAD7,ZNF423,TGFB1,DLX5,SMURF2,BMP5,ACVR1,TGFB3,RUNX2,BMP4,BMP2,GDF5,GDF1,GDF15,SULF1,SMAD6,BMPR1B,ACVRL1,GATA6,RNF16

GO:0030509 BMP signaling pathway 3.55E-04 5,CYR61,GDF7,DLX1,CRB2,NOTCH1,BMP6,GDF6,NODAL,SKI,LEMD2,GDF9,TMEM100,SOST,HTRA3,SOSTDC1,RGMB,SOX11,RGMA,HESS,FOXD1,GDF10

TRIO,RORA,RUNX1T1,SFRP1,TGFB1,GATA3,ZBTB16,WNT5A,BMP2,NR1D1,TRPM4,PPARG,FTO,AKT1,SFRP2,FOXO1,ZFP36L2,NAPEPLD,ZNF385A,LRP5,FRZB,ZC3H12A,SMAD3,WN

GO:0045598 regulation of fat cell differentiation 3.55E-04 T10B,ZFPM2,VSTM2A,CMKLR1,LEP,CCDC85B,METRNL,GATA2,ZFPM1,ZADH2,ZFP36L1

FGR,CRLF1,MATK,GPRC5A,CD74,HGF,EPHA3,ERBB3,FGFR2,PRKCZ,HYAL2,NCK2,FGFR1,NOX4,DOCK3,ABL1,ANGPT4,FLT1,SFRP1,TGFB1,JAK3,CAV1,UNC119,CD81,THBS4,IL12B,ZAP70,EFEMP1,PTK2B,EREG,KDR,LIF,SNX6,SH3BP5,DLG4,EPHB2,PDGFRA,TEC,IGF1R,CBLC,HAX1,DGKQ,SFRP2,TSLP,TTBK1,EGFR,EPHA1,CTF1,ADAM17,ANGPT1,DYRK1A,ZFYVE28,S

GO:0018108 peptidyl-tyrosine phosphorylation 3.60E-04 HC1,IL15,GRM5,CSPG4,TNK1,LEP,CLCF1,DOK7,BDNF,STAP2,EFNA5,SOCS1,NTF3,PDGFA,HESS,NTRK1,INPP5F,DDR1,LYN,ITGB3,SRGIN1,MIR19A

GO:0061213 positive regulation of mesonephros developm 3.74E-04 SOX8,PAX2,SIX4,GATA3,SOX9,PAX8,SIX1,SMO,GDNF,WT1,LHX1

GO:0003156 regulation of animal organ formation 3.74E-04 DKK1,BMP4,BMP2,SIX1,PIM1,SULF1,WNT3A,HAND2,MESP1,ROBO1,WT1

GO:0090189 regulation of branching involved in ureteric bud morphogenesis 3.74E-04 SOX8,PAX2,SIX4,BMP4,SOX9,PAX8,SIX1,SMO,GDNF,TACSTD2,LHX1

FGR,SARM1,DVL2,SEMA3G,MYOC,NEDD4L,NGFR,NTN1,NGEF,NEDD4,DLG1,PLXNA2,CAP2B,FBLN1,CHRNA3,MT3,NRCAM,EZR,ABL1,LIMK1,KANK1,EFNB3,SLC9A3R1,CUX2,BVES,WNT5A,PTK2B,OBSL1,CPNE5,MACF1,KDR,MKLN1,CHN1,DIAPH1,DLG4,WASF3,NGF,LRP4,PLXNC1,TPM1,ARHGDI1,CSNK1D,CPNE9,LIMD1,SLIT2,TTBK1,LRRRC4,PAK1,ALDOA,DOC K1,EP58,POU4F2,PTPRD,TNFK,EPB41,DVL3,PDPN,CDC42EP3,TRIM46,MFI2,PLXNB1,DL1,CDK5,ISLR2,CDC42EP5,SDC2,RAC3,NLGN1,LINGO1,ROBO1,DSK1,PTEN,SSH3,BRSK2,B  
GO:0022604 regulation of cell morphogenesis 3.81E-04 DNF,CDKSR1,SLITRK1,RCC2,CDC42EP4,MYADM,FGD6,TACSTD2,EFNA5,FMNL1,BCL9L,ARAP1,MAPT,DCC,LRRK2,S100A10,PLXNA4,SRIC1

WNT16,DVL2,CX3CL1,MAP3K9,CD74,MAP2K3,ABCA7,FGFR2,PRKCZ,DRD4,FGF4,TRAF4,FGFR1,MEF2C,MT3,ICAM1,RASSF2,FLT1,NDRG4,MAP4K1,PRKD2,TGFB1,DFNA5,CAV2,DK K1,MADD,CD81,FZD10,GCNT2,OPRM1,WWC1,WNT5A,MAPKAPK3,STK25,CTGF,PTK2B,ADRA1A,MAPK8IP1,CXCR4,PKN1,EDN3,UNC5CL,BMP4,BMP2,TNFRSF19,KDR,LIF,GADD45 G,GDF15,CHI3L1,DSTYK,PTPN22,NGF,PDGFRA,MDFIC,GPR55,DAB2IP,MAP2K5,THBS1,DUSP5,FGF2,DUSP6,PELI2,NTRK3,ADCYAP1,ARRB2,TNFRSF11A,MAP3K6,EGFR,MFHAS1,NO TCH1,PAK1,ANGPT1,TNFK,FGF18,GDF6,NODAL,NRG1,SHC1,DVL3,ALOX15,FGF19,PEA15,PROK2,ZC3H12A,MST1R,HAND2,F2RL1,PHB,ROBO1,GPR37L1,PDGFD,ALK,KSR2,P2RY6,R ASGRP1,SH3RF3,MAP3K11,LEP,HRA5,TRAF6,CHRNA7,UBE2N,ALOX12B,NRXN1,TNFAIP8L3,MAPK11,NTF3,ADRB3,LRRK2,PDGFA,NTRK1,STK39,DAXX,MIR181D,ARHGAP8,S1PR2,P  
GO:0043410 positive regulation of MAPK cascade 3.85E-04 IK3R6

GO:0009952 anterior/posterior pattern specification 3.98E-04 KDM2B,COBL,TBX18,CDX1,BMP4,FOXA2,BMP2,HOXD3,TBX3,GATA4,OSR1,CRB2,HHEX,SKI,FZD5,T,SHH,CDX2,OTX2,MESP1,FOXO1,HOXD8,NEUROG1,WT1,CYP26C1,MESP2,LHX1

CX3CL1,PAX6,SEMA3G,NGFR,NGEF,REST,MT3,STX1B,BMP7,KANK1,EFNB3,DPYSL3,DLX2,RAB7L1,TNN,SOX9,LDLR,LRP4,DTX1,EDNRB,KIAA0319,SIX3,ZNF365,ARHGDI1,DLX1,CNT N4,SLIT2,DAAM2,NOTCH1,POU4F2,WNT3A,SKI,GF11,TRIM46,NLGN1,LINGO1,PTEN,NR2F1,SOX11,RTN4R1,RTN4R2,DCC,HES5,INPP5F  
GO:0050768 negative regulation of neurogenesis 4.00E-04

CX3CL1,BAIAP2L1,MYOC,EPHA3,LIMA1,LIMCH1,CNN2,ARFGF1,NCK2,CLASP1,DLG1,CAP2B,WNT11,PXN,ABL1,MYLK2,SFRP1,ARHGFE10,CAV1,LIMK1,KANK1,CXCL12,FZD10,PDE4 D,STMN1,PROX1,CTGF,TGFB3,RHOQ,SORBS3,PTK2B,NCKAP1L,LRP1,BAIAP2L2,TRPM4,DSC2,PDGFRA,FHOD1,ARPC5L,HCN4,TPM1,NTRK3,BCAS3,ARHGDI1,ARHGFE19,HAX1,TME FF2,SLIT2,EPHA5,ANK2,EPHA1,PAK1,EP58,GRHL3,NCK1,RNF207,ALOX15,PDPN,CDC42EP3,LMOD1,F2RL1,DL1,CDK5,SYNPO2L,CDC42EP5,AKAP13,PTGER4,SSH3,JUP,ATP2A2,HR AS,KCNE3,CDC42EP4,MYADM,CAV3,TACSTD2,EFNA5,NTF3,ARAP1,PDGFA,S100A10,RYR2,NOS1AP,CYFIP1  
GO:0032970 regulation of actin filament-based process 4.06E-04

MLXIPL,GPRC5A,WWTR1,PRKCZ,HYAL2,HDAC4,NCK2,DLG1,FBLN1,TP73,PTPRC,MECOM,DNAJA1,SEMA6A,EZR,ABL1,BMP7,RASSF2,SMAD7,SFRP1,TGFB1,CDK6,CAV1,HSPB1,PRK AG2,DKK1,PP1F,PRKAR1A,SLC9A3R1,CDKN1B,PDE4D,H2AFY,SGS2,SGS4,DUSP1,TWIST1,BMP4,FOXA2,CDKN2D,SNX6,CDKN1C,CBFA2T3,SH3BP5,ZBED3,EPHB2,DUSP26,PTPN22,A PC,PRR5L,DAB2IP,SMAD6,DUSP6,TARBP2,RB1,IGF1R,NTRK3,AKT1,CBL,SLIT2,DGKQ,SNCA,SFRP2,IGFBP3,EPHA1,LRRRC4,FOXO1,GPD1L,HHEX,IMPACT,UCL1,NCK1,PINK1,ZFYVE 28,LRP5,CAMK2N1,ZC3H12A,SPRY1,F2RL1,LRTM2,PLK1,PHB,MIDN,DDIT4,PKIG,SGS14,SOC6,PTEN,LRRRC15,INSM1,PODN,PDE12,MYADM,CAV3,SOC1,NR2F2,NTF3,RTN4R1,IR S2,MAPT,RTN4R2,PRKAR1B,LRRK2,SPRED2,INPP5F,DBNDD2,CEBPA,LYN,SRIC1  
GO:0042326 negative regulation of phosphorylation 4.25E-04

GO:0072273 metanephric nephron morphogenesis	4.76E-04 SOX8,PAX2,SALL1,PKD2,BMP4,SOX9,PAX8,LIF,SMO,WT1
GO:0001708 cell fate specification	5.22E-04 ISL1,EYA2,GLI2,PAX2,DKK1,SOX9,FOXA2,MNX1,GSC,FGF2,DUSP6,POU4F1,WNT3A,SHH,SOX17,MESP1,POU3F2
GO:0001706 endoderm formation	LAMA3,COL11A1,MMP15,DKK1,COL12A1,COL7A1,ITGA4,DUSP1,COL5A1,ITGA7,DUSP5,DUSP6,COL6A1,HMGA2,NODAL,MMP14,EOMES,TBX20,SOX17,MESP1,SOX7,COL5A2,LHX 5.29E-04 1
GO:0035850 epithelial cell differentiation involved in kidney	5.52E-04 PROM1,PAX2,MEF2C,SALL1,GATA3,BMP4,PAX8,LIF,PODXL,SMO,FOXJ1,OSR1,KLF15,CTNNB1,MTSS1,WT1,MAGI2,LHX1
GO:0018212 peptidyl-tyrosine modification	FGR,CRLF1,MATK,GPRC5A,CD74,HGF,EPHA3,ERBB3,FGFR2,PRKCZ,HYAL2,NCK2,FGFR1,NOX4,DOCK3,ABL1,ANGPT4,FLT1,SFRP1,TGFB1,JAK3,CAV1,UNC119,CD81,THBS4,IL12B,ZAP70,EFEMP1,PTK2B,EREG,KDR,LIF,SNX6,SH3BP5,DLG4,EPHB2,PDGFRA,TEC,JGF1R,CBLC,HAX1,DGKQ,SFRP2,TSLP,TTBK1,EGFR,EPHA1,CTF1,ADAM17,ANGPT1,DYRK1A,ZFYVE28,S 5.52E-04 HC1,IL15,GRM5,CSPG4,TNK1,LEP,CLCF1,DOK7,BDNF,STAP2,EFNA5,SOCS1,NTF3,PDGFA,HES5,NTRK1,INPP5F,DDR1,LYN,ITGB3,SRGIN1,MIR19A
GO:0072077 renal vesicle morphogenesis	5.52E-04 SOX8,PAX2,SALL1,BMP4,SOX9,PAX8,LIF,SMO,LHX1
GO:2000677 regulation of transcription regulatory region D	5.69E-04 TGFB1,GATA3,HAND1,MAD2L2,MSX2,TWIST1,PER2,HEY2,FAM129B,RB1,HMGA2,POU4F2,POU4F1,NEUROD1,HAND2,HEY1,CTNNB1,TRAF6,SOX11

GO:1901215 negative regulation of neuron death 5.95E-04 CRLF1,CX3CL1,ISL1,ERBB3,FGF20,TP73,MEF2C,MT3,KDM2B,TYRO3,SIX4,CHMP4B,TOX3,UNC5B,NR4A3,TGFB3,PTK2B,PRKCG,SIX1,NGF,AGAP2,AKT1,SNCA,POU4F1,PINK1,PRKCI,CDK5,GDNF,BCL2,FOXB1,LIG4,CLCF1,BDNF,NTF3,LRRK2,NTRK1

GO:0007416 synapse assembly 5.96E-04 MUSK,SDK2,MEF2C,NRCAM,SPOCK2,NRXN2,CUX2,PCDHB15,WNT5A,RAB7L1,PCDH17,EPHB2,LRP4,SNCA,SDK1,KIRREL3,GPM6A,POU4F1,GRID2,FARP1,PTPRD,WNT3A,FZD1,SHANK2,FZD5,CDKS,NLGN1,DSGAM,PTEN,BDNF,SLITRK1,NRXN1,SLIT1,AGRN

GO:0060048 cardiac muscle contraction 6.09E-04 CACNA1G,ATP1A2,NEDD4L,KCNQ1,KCNH2,PRKACA,DLG1,KCNN2,MYLK2,SNTA1,SMAD7,CAV1,PDE4D,FGF12,RGS2,TNNT2,FKBP1B,KCNJ5,ADRA1A,KCNA5,TRPM4,DSC2,HCN4,TPM1,ANK2,SCN2B,GPD1L,RNF207,KCNJ3,ATP1A1,ZC3H12A,CACNB2,SCN3B,JUP,ATP2A2,KCNE3,SCN4B,CAV3,NKX2-5,RYR2,NOS1AP

GO:0010959 regulation of metal ion transport 6.09E-04 CX3CL1,ATP1A2,KCNG1,NEDD4L,PRSS8,KCNQ1,KCNH2,ATP2B4,WNK1,CACNB1,KCNAB2,DRD4,ATP1B3,NEDD4,PTPN3,PRKACA,DLG1,KCNN2,JPH4,SNTA1,JPH1,CAV1,TSPAN13,CXCL12,SLC9A3R1,CALCA,PDE4D,FGF12,THADA,AKAP7,PKD2,FKBP1B,KCNIP2,CRHR1,PTK2B,KCNS1,AHNAK,ATP1B2,KCNA5,DPP6,DIAPH1,APLNR,TRPC6,FXVD6,TMBIM6,STAC2,OSR1,SNCA,ANK2,SCN2B,GPD1L,UTRN,KCNS2,RNF207,SPTBN4,ATP1A1,CACNB2,SCN3B,NETO1,STIM1,CACNB3,CTNNA1,PCSK9,P2RY6,BCL2,IL16,DPP10,KCNE3,SCN4B,KCNIP1,CACNB4,CAV3,NKX2-5,LRRCS5,KCNIP4,NKAIN3,HTT,RYR2,STK39,NOS1AP,FXVD7,FXVD1,MIR212

GO:0003180 aortic valve morphogenesis 6.23E-04 GATA3,TWIST1,BMP4,GATA4,SMAD6,RB1,SLIT2,NOTCH1,TBX20,NOS3,ROBO1,SLIT3

REAC:R-HSA- Presynaptic depolarization and calcium chann 6.35E-04 CACNA2D2,CACNB1,CACNG4,CACNA1A,CACNA1B,CACNA2D3,CACNB2,CACNB3,CACNB4,CACNA1E

GO:0023061 signal release 6.92E-04 CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,PTPRN,SNCAIP,CHAT,CHRNA3,MEF2C,REST,LTBP4,ITPR3,STX1B,HRH3,SLC32A1,SFRP1,LIN7B,STX1A,TFR2,NRXN2,SYT10,STX2,OPRM1,GLP1R,POMC,PASK,RIMS3,SLC2A1,CHRNA4,CRHR1,GHSR,ITPR2,EDN3,PAX8,FOXA2,NR1D1,PNKD,LIF,KCNA5,TRPM4,PER2,SYT11,SYT6,CLOCK,TBX3,KCNMB4,FAM129B,PDX1,ADCYAP1,CACNA1A,SYTL1,SNAP47,AGTR1,EPHA5,CRHBP,TCF7L2,PTPRN2,SYN2,LRP5,NEUROD1,INHBB,UCN,GDF9,CDK5,SLC18A2,SCG5,NKX3-1,MIDN,NLGN1,KCNS3,BRSK2,SOX11,NRXN1,MAFA,EFNA5,IRS2,SLC18A3,LRRK2,DPP4,CACNA1E,PIM3,SYT15



GO:0045823 positive regulation of heart contraction	7.00E-04 ADRB1,KCNQ1,PDE4D, RGS2,ADRA1A,EDN3,TRPM4,TPM1,ADM,RNF207,SCN3B,ATP2A2,NKX2-5,RYR2,NOS1AP
GO:0010717 regulation of epithelial to mesenchymal transi	7.66E-04 WWTR1,PHLDB1,EPHA3,CLASP1,TBX5,SMAD7,SFRP1,TGFB1,COL1A1,GCNT2,BMP5,ACVR1,MAD2L2,TGFB3,TWIST1,FOXA2,BMP2,ELL3,DAB2IP,TGFB11,SFRP2,CRB2,NOTCH1,TCF7L2,PDPN,SMAD3,CTNBN1,AXIN2,PTEN,ALX1,ZNF703,BCL9L
GO:0045137 development of primary sexual characteristics	7.66E-04 SOX8,KITLG,PTPRN,TFAP2C,SIX4,SALL1,GATA3,FGF8,WNT5A,TCF21,EREG,SOX9,SOX15,WNT2B,PDGFRA,GATA4,NR5A1,DMRT1,LHCGR,BMPR1B,GATA6,SLIT2,LHFPL2,INHBB,GDF9,KLHL26,CBX2,ZFP42,FOXJ2,SLIT3,WT1,TLRS
GO:0042060 wound healing	8.32E-04 CFLAR,TFPI,TNFRSF12A,SYT7,SLC11A1,EHD2,F7,DGKG,HMG20B,DGKA,ERBB3,ARFGEF1,PRKACA,SCARB1,CLASP1,CAPZB,FBLN1,CD59,GNA11,DOCK9,RCOR1,PABPC4,TYRO3,CBX5,EPB41L4B,ITPR3,P2RX6,HMOX1,PROCR,MYL12A,DGKH,PLAT,TGFB1,CAV1,HSPB1,KANK1,GATA3,COL1A1,ALOX12,PRKAR1A,SRF,WNT5A,HDAC1,F3,TNFAIP3,PLAU,ITPR2,F13A1,EREG,FOXA2,PRKCG,MACF1,SOX15,COL5A1,SYT11,PDGFRA,TEC,SERPINE2,DGKB,GATA4,TRPC6,THBS1,MYOF,FGF2,ACVRL1,TPM1,ADAMTS18,GATA6,ARRB2,CYR61,TMEFF2,DGKQ,GNA12,DGKZ,SERPING1,PAK1,DOCK1,ADAM17,NRG1,PAFAH2,CSRP1,SH2B2,ALOX15,PDPN,F2RL1,COL1A2,NOS3,ILK,PRKCB,SMAD3,ZFPM2,PDGFD,PTEN,FUT10,HRAS,FOXC2,TRIM72,THBD,GP5,GATA2,ZFPM1,ACTG1,PROS1,MAFF,PRKG1,GNNG2,TMPRSS6,PRKAR1B,AJAP1,MAFG,HIST1H3D,PDGFA,DDR1,MIR199B,LYN,ITGB3,PIK3R6
GO:0055008 cardiac muscle tissue morphogenesis	8.45E-04 ISL1,FGFR2,TGFB3,MYLK2,SMAD7,TGFB1,HAND1,PROX1,TNNT2,BMP2,DLL4,TPM1,NOTCH1,NRG1,ACTC1,TBX20,ZFPM2,S1PR1,ZFPM1,NKX2-5,RYR2
GO:0035282 segmentation	8.49E-04 DVL2,COBL,CDX1,BMP4,TBX3,MTF2,OSR1,CRB2,FZD5,T,CDX2,MESP1,FOXB1,HOXD8,NEUROG1,WT1,MESP2
GO:0086005 ventricular cardiac muscle cell action potentia	8.49E-04 NEDD4L,KCNQ1,KCNH2,DLG1,SNTA1,CAV1,TRPM4,DSC2,ANK2,GPD1L,RNF207,SCN3B,JUP,KCNE3,CAV3,RYR2,NOS1AP

GO:2000649 regulation of sodium ion transmembrane tran	8.64E-04 ATP1A2,NEDD4L,DRD4,NEDD4,PTPN3,SLC9A3R1,FGF12,FXYD6,OSR1,SCN2B,GPD1L,UTRN,SCN3B,NETO1,PCSK9,SCN4B,CAV3,STK39,FXYD7,FXYD1
GO:0010001 glial cell differentiation	SOX8,MYOC,ERBB3,PAX2,MT3,SLC8A3,ARHGFE10,CDK6,PTPRZ1,PHOX2B,CLU,CXCR4,LRP1,BMP2,LDLR,SERPINE2,ZNF365,TNFRSF21,DAAM2,TTBK1,NOTCH1,PRDM8,SKI,CDK5,C 8.64E-04 DH2,PTEN,CLCF1,SOX11,GPR157,MAPT,HES5
GO:0002067 glandular epithelial cell differentiation	8.64E-04 PAX6,FGFR2,CDK6,RHEB,BMP5,BMP4,BMP2,CLOCK,PDX1,BMP6,NEUROD1,NKX6-1,INSM1
GO:0021537 telencephalon development	NDE1,KDM2B,SALL1,CDK6,LHX6,WNT5A,PROX1,NPY,BMP4,MBOAT7,BMP2,FOXP2,EPHB2,DAB2IP,SIX3,TACC2,BBS4,TMEM108,SLIT2,EPHA5,TACC1,KIRREL3,SKI,NEUROD1,MFSD 8.69E-04 2A,ARL13B,ROBO1,PTEN,FOXB1,CNTNAP2,LRRK2,HES5,CCDC85C
GO:0003338 metanephros morphogenesis	8.73E-04 SOX8,PAX2,SALL1,PKD2,BMP4,SOX9,PAX8,LIF,SMO,FOXJ1,WT1
GO:0060914 heart formation	8.73E-04 ISL1,MEF2C,DKK1,BMP4,BMP2,PIM1,WNT3A,HAND2,SOX17,MESP1,ROBO1
GO:0030048 actin filament-based movement	CACNA1G,NEDD4L,KCNQ1,SYNE2,KCNH2,DLG1,KCNN2,MYBPC2,MYO9B,MYLK2,SNTA1,MYH14,CAV1,PDE4D,FGF12,TTNNT2,KCNJ5,MYO1B,KCNA5,TRPM4,DSC2,HCN4,TPM1,ACT 9.11E-04 A1,ANK2,SCN2B,GPD1L,RNF207,ACTC1,PDPN,KCNJ3,ATP1A1,CACNB2,SCN3B,TPM4,JUP,ATP2A2,DES,KCNE3,SCN4B,CAV3,MYO5A,RYR2,NOS1AP

GO:0040007 growth	<p>CFLAR,SEMA3G,MUSK,NEDD4L,NTN1,FGFR2,HYAL2,IP6K2,RASGRP2,TGFBR3,EVC,GLI2,ENO1,PLXNA2,TP73,MEF2C,ULK2,WNT11,MT3,TBX5,LTBP4,NRCAM,HSP90A1,ABL1,SIX4,SGK2,NDRG4,WFDC1,SALL1,SFRP1,BBC3,TGFB1,COBL,LIMK1,SH3GL2,SLC6A4,CYP27B1,GLI1,CDKN1B,CHPT1,WWC1,HYAL1,MAD2L2,LEPR,RPS6KA1,PROX1,SGK1,GHSR,CPNE5,EREG,BMP4,SOX9,STAT5A,SIX1,MACF1,SOX15,CDKN2D,GDF15,PAK4,RERG,LRP4,TEC,CHNRD,PIM1,LHCGR,FGF2,BMPR1B,DUSP6,ACVRL1,ESR2,RPTOR,AKT1,CPNE9,TMEM108,AGTR1,SLIT2,SFRP2,EGFR,LRP12,EBAG9,NOTCH1,POU4F2,ADAM17,IMPACT,SORBS2,MMP14,FRZB,MSX1,TRIM46,APBB2,PLXNB1,TBX20,SOX17,OSGIN2,CDK5,APBB1,MESP1,SMAD3,PHB,ISLR2,SERTAD3,TM6C,CTNBB1,GNG4,S1PR1,DSCAM,SLC25A33,BCL2,PTEN,STAT5B,LEP,CCDC85B,BDNF,SLIT3,WT1,NRG3,MAPT,SLIT1,MT1X,DCC,MAGI2,AGRN,MUC12,MT1H,MT1M,MIR199B,SIPA1,CPNE1,PLXNA4,CYFIP1,MIR19A</p>
GO:0043405 regulation of MAP kinase activity	<p>DVL2,MAP3K9,MAP2K3,HYAL2,DRD4,FGFR1,TP73,MEF2C,DNAJA1,BMP7,FLT1,MAP4K1,TGFB1,CAV1,DKK1,MADD,CD81,FZD10,WNT5A,MAPKAPK3,SGS2,SGS4,DUSP1,CXCR4,PKN1,EDN3,BMP4,BMP2,GADD45G,GDF15,EPHB2,PTPN22,NGF,MDFIC,DAB2IP,MAP2K5,THBS1,DUSP5,FGF2,DUSP6,IGF1R,NTRK3,TNFRSF11A,CBLC,MAP3K6,EGFR,PAK1,UCHL1,TNIK,FGF18,NRG1,SHC1,DVL3,PEA15,PROK2,MST1R,SGS14,ROBO1,PDGFD,ALK,RASGRP1,MAP3K11,HRAS,TRAF6,CHRNA7,UBE2N,CAV3,MAPK11,NTF3,LRRK2,PDGFA,SPRED2,NTRK1,STK39,DAXX,LYN,S1PR2,PIK3R6</p>
GO:0045936 negative regulation of phosphate metabolic p	<p>MLXIPL,SLC7A14,GPRC5A,WWTR1,WNK1,PRKCZ,HYAL2,HDAC4,NCK2,DLG1,FBLN1,TP73,PTPRC,MECOM,DNAJA1,SEMA6A,EZR,ABL1,BMP7,RASSF2,SMAD7,SFRP1,SH2D4A,TGFB1,CDK6,CAV1,HSPB1,PRKAG2,DKK1,PIIF,PRKAR1A,SLC9A3R1,CDKN1B,PDE4D,H2AFY,SGS2,SGS4,FKBP15,FKBP1B,DUSP1,CRY2,TWIST1,NCKAP1L,BMP4,FOXA2,CDKN2D,SNX6,CDKN1C,CBFA2T3,SH3BP5,PPP1R1B,ZBED3,EPHB2,DUSP26,PTPN22,SPOCD1,APC,PRR5L,DAB2IP,SYTL2,SMAD6,DUSP6,TARBP2,RB1,IGF1R,NTRK3,AKT1,LMTK3,CBLC,SLIT2,DGKQ,SNCA,SFRP2,IGFBP3,EPHA1,MFHAS1,LRRRC4,DLG2,FOXO1,TMEM132D,GPD1L,FARP1,HHEX,IMPACT,UCHL1,NCK1,PINK1,ZFYVE28,LRP5,CAMK2N1,ZC3H12A,SPRY1,F2RL1,LRTM2,PLK1,PHB,MIDN,DDIT4,PKIG,SGS14,SOCS6,PTEN,LRRRC15,INSM1,PODN,PDE12,MYADM,CAV3,SOCS1,NR2F2,NTF3,RTN4RL1,IRS2,MAPT,RTN4RL2,PRKAR1B,LRRK2,PDGFA,SPRED2</p>
GO:0042476 odontogenesis	<p>9.72E-04 FGFR2,GLI2,FGF8,COL1A1,WNT6,HDAC1,TGFB3,BMP4,BMP2,ITGB4,WNT10A,TFAP2A,SLC24A4,TUFT1,OSR1,AQP5,MSX1,PITX2,SHH,COL1A2,OSR2,STIM1,ANKRD11,AXIN2</p>
GO:0070252 actin-mediated cell contraction	<p>CACNA1G,NEDD4L,KCNQ1,KCNH2,DLG1,KCNN2,MYBPC2,MYLK2,SNTA1,CAV1,PDE4D,FGF12,TNNT2,KCNJ5,KCNA5,TRPM4,DSC2,HCN4,TPM1,ACTA1,ANK2,SCN2B,GPD1L,RNF207,ACTC1,PDPN,KCNJ3,ATP1A1,CACNB2,SCN3B,TPM4,JUP,ATP2A2,DES,KCNE3,SCN4B,CAV3,RYR2,NOS1AP</p>
GO:0010563 negative regulation of phosphorus metabolic p	<p>MLXIPL,SLC7A14,GPRC5A,WWTR1,WNK1,PRKCZ,HYAL2,HDAC4,NCK2,DLG1,FBLN1,TP73,PTPRC,MECOM,DNAJA1,SEMA6A,EZR,ABL1,BMP7,RASSF2,SMAD7,SFRP1,SH2D4A,TGFB1,CDK6,CAV1,HSPB1,PRKAG2,DKK1,PIIF,PRKAR1A,SLC9A3R1,CDKN1B,PDE4D,H2AFY,SGS2,SGS4,FKBP15,FKBP1B,DUSP1,CRY2,TWIST1,NCKAP1L,BMP4,FOXA2,CDKN2D,SNX6,CDKN1C,CBFA2T3,SH3BP5,PPP1R1B,ZBED3,EPHB2,DUSP26,PTPN22,SPOCD1,APC,PRR5L,DAB2IP,SYTL2,SMAD6,DUSP6,TARBP2,RB1,IGF1R,NTRK3,AKT1,LMTK3,CBLC,SLIT2,DGKQ,SNCA,SFRP2,IGFBP3,EPHA1,MFHAS1,LRRRC4,DLG2,FOXO1,TMEM132D,GPD1L,FARP1,HHEX,IMPACT,UCHL1,NCK1,PINK1,ZFYVE28,LRP5,CAMK2N1,ZC3H12A,SPRY1,F2RL1,LRTM2,PLK1,PHB,MIDN,DDIT4,PKIG,SGS14,SOCS6,PTEN,LRRRC15,INSM1,PODN,PDE12,MYADM,CAV3,SOCS1,NR2F2,NTF3,RTN4RL1,IRS2,MAPT,RTN4RL2,PRKAR1B,LRRK2,PDGFA,SPRED2</p>
GO:0071559 response to transforming growth factor beta	<p>RUNX3,DKK3,PRKCZ,HYAL2,TGFBR3,MEF2C,PXN,LTBP4,HSP90A1,SMAD7,PARDA6,SFRP1,TGFB1,CAV1,MTMR4,SMURF2,GCNT2,NR3C1,WNT5A,ACVRL1,LTBP2,TGFB3,GIPCI1,SOX9,GDF5,WFIKKN1,SNX6,CDKN1C,GDF15,SOX5,WNT10A,THBS1,SMAD6,ACVRL1,TGFB11,ZFH3,ARRB2,PRDM16,DLX1,ADAM17,ZFP36L2,RNF111,SKI,FOXH1,GDF9,COL1A2,SMA</p>

GO:0071902 positive regulation of protein serine/threonine	1.08E-03	TK39,DAXX,S1PR2,PIK3R6  DVL2,MAP3K9,LTF,MAP2K3,ATP2B4,DRD4,FGFR1,MEF2C,TCL1A,TELO2,FLT1,MAP4K1,TGFB1,DKK1,CCNY,CCND1,MADD,CD81,FZD10,CCND3,WNT5A,MAPKAPK3,PROX1,PKD2,CND2,CXCR4,PKN1,EDN3,BMP4,BMP2,GADD45G,GDF15,NGF,MDFIC,DAB2IP,MAP2K5,THBS1,DUSP5,FGF2,DUSP6,NTRK3,RPTOR,TNFRSF11A,AKT1,MAP3K6,SNCA,EGFR,PAK1,ADAM17,TNIK,FGF18,NRG1,SHC1,DVL3,PEA15,PROK2,MST1R,ROBO1,PDGFD,ALK,RASGRP1,MAP3K11,HRAS,TRAF6,CHRNA7,UBE2N,NRXN1,MAPK11,NTF3,LRRK2,PDGFA,NTRK1,S
GO:0042692 muscle cell differentiation	1.10E-03	2,MIR125B1,MIR19A,MIR124-1  CFLAR,EHD2,HDAC9,CDON,CTNNA2,FGFR2,HDAC4,RORA,MEF2C,MYBPC2,ABL1,SIX4,NFATC2,MYEF2,TGFB1,CAV2,DKK1,SRF,ACVR1,PROX1,BHLHE41,OBSL1,EREG,BMP4,BMP2,DNMT1,SYNE1,NFATC1,KDM6B,SORT1,PDGFRA,HEY2,EDNRB,FAM129B,FLOT1,TPM1,GATA6,KCNH1,ACTA1,ANK2,NOTCH1,ADAM12,WNT3A,OBSCN,SORBS2,NRG1,MMP14,SKI,ACTC1,NECN,LMOD1,HEY1,SHH,MESP1,CTNNA1,CHRNA1,CDH2,AKAP13,KRT19,BDNF,CAV3,NKX2-5,WT1,MAPK11,MAPK12,RYR1,CACNA1H,MIR199B,MIR124-
GO:0035725 sodium ion transmembrane transport	1.10E-03	TRN,ATP1A1,SCN3B,NETO1,PCSK9,SCN4B,CAV3,STK39,FXYP7,FXYP1  ATP1A2,NEDD4L,ATP2B4,SLC9A3,DRD4,ATP1B3,NEDD4,PTPN3,DLG1,SLC8A3,SNTA1,NALCN,SLC9A3R1,FGF12,SLC9A2,PKD2,ATP1B2,TRPM4,FXYP6,HCN4,OSR1,SCN2B,GPD1L,U
REAC:R-HSA- Netrin-1 signaling	1.14E-03	TRIO,NTN1,NTN4,EZR,ABLIM1,MAPK8,UNC5B,AGAP2,TRPC6,SLIT2,PAK1,DOCK1,NCK1,ABLIM2,ROBO1,DSCAM,RGBM,RGMA,SLIT3,MAPK11,SLIT1,DCC,MAPK12,SHAH1
GO:0010976 positive regulation of neuron projection devel	1.14E-03	LYN  DVL2,CX3CL1,EPHA3,NEDD4L,LTK,NGFR,NTN1,BMP7,NDRG4,COBL,LIMK1,CUX2,BMP5,PTK7,DPYSL3,WNT5A,PTK2B,OBSL1,PACSIN1,CPNE5,MACF1,DLG4,NGF,PLXNC1,DAB2IP,S,CARB2,ARHGDI1,CPNE9,SLIT2,POU4F2,PTPRD,C21ORF91,FZD1,DVL3,PRKCI,PLXNB1,ISLR2,NLGN1,ROBO1,ZNF804A,DSCAM,BDNF,SLITRK1,CAMK1D,PRKD1,MAPT,MAGI2,NTRK1,
GO:0034329 cell junction assembly	1.16E-03	,CLDN5,EFNA5,PKP3,S100A10,OCLN,LDB1  MYOC,EPHA3,LAMA3,LAMC2,LIMCH1,CBFB,TESK2,PRKACA,LIMS2,CLASP1,DLG1,GRHL2,COL16A1,TRIP6,ABL1,SMAD7,PAR6A,TJP1,SFRP1,CAV1,PAR6B,MACF1,KDR,FLNC,CRB3,LAMA5,NPHP4,ITGB4,APC,FLOT1,THBS1,ACVRL1,BCAS3,TBCD,PIP5K1A,MARVELD2,RUNX1,FBLIM1,PRKCI,DLCL1,CLDN3,ILK,CTNNA1,PTEN,RHOD,JUP,RCC2,GJD3,ZNF703,ACTG1
GO:0048596 embryonic camera-type eye morphogenesis	1.18E-03	WNT16,PAX2,KDM2B,WNT5A,PROX1,TWIST1,TFAP2A,FOXF2,SIX3,SOX11

GO:2000310 regulation of NMDA receptor activity	1.18E-03 CAPN1,MEF2C,OPRM1,PTK2B,DLG4,EPHB2,CRHBP,NLGN1,NRXN1,DAPK1
GO:0045665 negative regulation of neuron differentiation	1.18E-03 SEMA3G,NGFR,NGEF,REST,MT3,STX1B,BMP7,KANK1,EFNB3,DPYSL3,DLX2,RAB7L1,SOX9,LRP4,DTX1,EDNRB,KIAA0319,SIX3,ZNF365,ARHGDI1,DLX1,CNTN4,SLIT2,POU4F2,WNT3 A,GFI1,TRIM46,NLGN1,LINGO1,PTEN,NR2F1,RTN4RL1,RTN4RL2,DCC,HES5,INPP5F
GO:0030534 adult behavior	1.19E-03 NRXN3,DRD4,CHRNA3,CHRNA4,NRXN2,OPRM1,GHSR,NPY,FOXA2,BBS4,CRHBP,EPSS,SPTBN4,SHANK2,RNF180,GDNF,CHRNA5,CHRN1,CNTNAP2,LEP,NRXN1
GO:1901379 regulation of potassium ion transmembrane tr	1.19E-03 KCNG1,NEDD4L,KCNQ1,KCNH2,KCNAB2,ATP1B3,NEDD4,DLG1,KCNN2,CAV1,AKAP7,KCNIP2,KCNS1,ATP1B2,DPP6,ANK2,KCNS2,RNF207,NETO1,DPP10,KCNE3,KCNIP1,CAV3,LRRC 55,KCNIP4,STK39,NOS1AP,MIR212
GO:0003006 developmental process involved in reproducti	1.20E-03 CFTR,SOX8,KITLG,PTPRN,DMRT3,FGFR2,PRKACA,MOV10L1,SPAG6,TFAP2C,RF2,SRPK1,SIX4,BMP7,SALL1,GATA3,FGF8,CYP27B1,ACRBP,RNF8,BMP5,WNT5A,DNAH1,CHD5,TCF2 1,PKD2,GHSR,GCM2,EREG,SOX9,HSPA2,CCDC136,E2F8,SOX15,PPARG,WNT2B,PDGFRA,ADAM19,TBX3,HEY2,GATA4,NR5A1,DMRT1,FOXF2,SULF1,LHCGR,BMPR1B,BBS4,GATA6,R HBDD1,RQCD1,SLIT2,LHFPL2,CDYL,CABYR,FMN2,NODAL,INHBB,EOMES,GDF9,HEY1,SHH,E2F7,NKX3- 1,KLHL26,CBX2,LEP,C14ORF39,ZFP42,NEUROG1,ASCL2,FOXL2,SLIT3,WT1,TLR5,CRIP1,LHX1
GO:0007548 sex differentiation	1.21E-03 SOX8,KITLG,PTPRN,DMRT3,TFAP2C,SIX4,SALL1,GATA3,FGF8,WNT5A,TCF21,EREG,SOX9,SOX15,WNT2B,PDGFRA,TBX3,GATA4,NR5A1,DMRT1,FOXF2,LHCGR,BMPR1B,GATA6,RQC D1,SLIT2,LHFPL2,INHBB,GDF9,SHH,KLHL26,CBX2,ZFP42,NEUROG1,FOXL2,SLIT3,WT1,TLR5,LHX1
GO:2000679 positive regulation of transcription regulatory	1.24E-03 TGFBI,GATA3,TWIST1,FAM129B,RB1,HMGA2,POU4F2,POU4F1,NEUROD1,HAND2,CTNBN1,TRAF6

GO:0099601 regulation of neurotransmitter receptor activation 1.30E-03 CAPN1,CACNG4,MEF2C,CACNG7,OPRM1,PTK2B,DLG4,EPHB2,CACNG8,CNIH3,CRHBP,NETO1,NLGN1,CNIH2,NRXN1,LYNX1,DAPK1

GO:1900449 regulation of glutamate receptor signaling pathway 1.30E-03 CX3CL1,CAPN1,CACNG4,MEF2C,CACNG7,OPRM1,PTK2B,DLG4,EPHB2,CACNG8,CNIH3,CRHBP,NETO1,NLGN1,CNIH2,NRXN1,DAPK1

GO:0001666 response to hypoxia

1.30E-03 1,DDIT4,ARNT2,CHRNA7,BNIP3,HIGD1A,ASCL2,KCND2,ZFP36L1,RYR1,DPP4,RYR2,MIR124-2,MIR124-1  
RORA,ENO1,MT3,HMOX1,SLC8A3,BMP7,CHRNA4,ANGPT4,HMOX2,SFRP1,BBC3,CAV1,CHCHD2,CA9,SRF,EPAS1,OPRD1,PGF,TGFB3,CXCR4,TWIST1,ITPR2,HIF3A,BMP2,CBFA2T3,THBS1,TMBIM6,NOL3,GATA6,PMAIP1,LIUMD1,NOTCH1,ADAM17,FMN2,KCNMA1,PINK1,LMNA,CLDN3,PRKCB,SMAD3,NKX3-

GO:0042471 ear morphogenesis

1.30E-03 FGFR2,MYO3B,PAX2,MYO3A,SALL1,ATP6V1B1,PROX1,TWIST1,SOX9,PAX8,SIX1,EPHB2,GSC,TFAP2A,OSR1,ZIC1,OSR2,NEUROG1

GO:0086091 regulation of heart rate by cardiac conduction

1.30E-03 CACNA1G,KCNQ1,KCNH2,CAV1,KCNJ5,KCNA5,TRPM4,DSC2,HCN4,ANK2,SCN2B,KCNJ3,CACNB2,SCN3B,JUP,KCNH6,KCNE3,SCN4B

GO:0006820 anion transport

1.31E-03 XYD1  
CFTR,ABCB4,SLC6A7,SLC11A1,ATP1A2,OSBP1,GABRA1,SLC12A2,ABCA7,ATP11A,DRD4,SCARB1,CA12,SLC1A3,CETP,SLC4A11,SLC23A2,SLC26A4,SLC25A1,SLC16A8,HRH3,SLC32A1,SLC7A5,CA2,SLC17A7,SLC1A5,CA9,SLC9A3R1,CLCN3,CPT1A,PITPNM1,SLC38A1,SLC26A8,SLC16A10,SLC4A9,GABRG2,SLC27A6,SLC4A3,SLC1A4,CA14,ATP10B,CRY2,FABP3,GIPC1,SLC36A1,LDLR,SLC6A6,PPARG,PER2,SLC38A2,SLC26A10,TTYH3,SLC05A1,THBS1,SLC38A4,SLC27A2,NCOA2,SLC16A3,TNFRSF11A,AKT1,OSR1,SLC10A4,GABRB2,GLRA1,ANO7,SLC43A1,ACSL1,PLA2R1,PITPNC1,SLC26A2,SLC38A10,CLIC6,ABCG1,ANO10,GABRB1,SLC6A20,SLC6A18,CA3,ABCA1,SLC16A9,SLC6A5,GABRB3,CA4,SLC43A2,MFSD2A,GRM5,SLC38A11,SLC16A5,SLC23A1,SLC26A5,LRRRC8,LRRRC8D,SLC16A11,SLC6A19,LEP,SLC25A42,TNFAIP8L3,CLCNKB,CA13,CALHM1,IRS2,AKR1C1,SLC38A3,GRM7,LRRRC8B,STK39,ABCA4,CPT1B,F

GO:0071560 cellular response to transforming growth factor

1.38E-03 A3,PDE3A,WFIKKN2,SOX11,ZNF703,CLDN5,ZFP36L1,BCL9L,PDE2A,PEG10,GDF10,MIR212  
DDK3,PRKCZ,HYAL2,TGFB3,MEF2C,PXN,LTBP4,HSP90AB1,SMAD7,PARD6A,SFRP1,TGFB1,CAV1,MTMR4,SMURF2,GCNT2,NR3C1,WNT5A,ACVR1,LTBP2,TGFB3,GIPC1,SOX9,GDF5,WFIKKN1,SNX6,CDKN1C,GDF15,SOX5,WNT10A,THBS1,SMAD6,ACVRL1,TGFB11,ARRB2,PRDM16,DLX1,ADAM17,ZFP36L2,RNF111,SKI,FOXH1,GDF9,COL1A2,SMAD3,HTRA4,HTR

REAC:R-HSA- Class B/2 (Secretin family receptors) 1.48E-03 WNT16,WNT11,PTHLH,VIPR2,CRHR2,WNT3,CALCA,FZD10,GLP1R,WNT5A,WNT6,CRHR1,GNNG11,SMO,RAMP1,WNT2B,WNT10A,DHH,ADCYAP1,WNT9A,PTH2R,CRHBP,ADM,WNT3A,FZD1,WNT9B,PTH1R,FZD5,UCN,SHH,FZD6,GNNG4,WNT10B,GNB2,GNNG12,GNNG7,GNNG2

REAC:R-HSA- Cell junction organization 1.48E-03 CLDN11,CDH1,LAMA3,LAMC2,CDH3,SDK2,LIMS2,PVR,CDH7,PCXN,PAR6A,CDH9,CDH6,PAR6B,FLNC,CRB3,ITGB4,CLDN10,CDH24,CDH13,SDK1,DST,FBLIM1,PRKCI,CLDN3,ILK,CTNNB1,CDH2,JUP,CAOM2,CLDN7,CLDN5,CLDN6,CTNND1,CLDN9

REAC:R-HSA- Negative regulation of TCF-dependent signaling 1.48E-03 SFRP1,DKK4,DKK1,WNT5A,KREMEN2,WNT9A,SFRP2,WNT3A,DKK2,LRP5,SOST

GO:0001933 negative regulation of protein phosphorylation 1.50E-03 MLXIPL,GPRC5A,WWTR1,PRKCZ,HYAL2,NCK2,DLG1,FBLN1,TP73,PTPRC,MECOM,DNAJA1,SEMA6A,EZR,ABL1,BMP7,RASSF2,SMAD7,SFRP1,TGFB1,CDK6,CAV1,HSPB1,PRKAG2,DKK1,PRKAR1A,SLC9A3R1,CDKN1B,PDE4D,H2AFY,SGS2,SGS4,DUSP1,TWIST1,BMP4,CDKN2D,SNX6,CDKN1C,SH3BP5,ZBED3,EPHB2,DUSP26,PTPN22,APC,PRRS1,DAB2IP,SMAD6,DUO2,ARBP2,RB1,IGF1R,NTRK3,AKT1,CBL,SLIT2,DGKQ,SFRP2,IGFBP3,EPHA1,LRRK4,FOXO1,GPD1L,HHEX,IMPACT,UCLH1,NCK1,PINK1,ZFYVE28,LRP5,CAMK2N1,ZC3H12A,SPRY1,FZRL1,LRTM2,PLK1,PHB,DDIT4,PKIG,SGS14,SOC6,PTEN,LRRK15,INSM1,PODN,MYADM,CAV3,SOC5,NR2F2,NTF3,RTN4RL1,RTN4RL2,PRKAR1B,LRRK2,SPRED2,INPP5F,DBND1

GO:1901615 organic hydroxy compound metabolic process 1.53E-03 CYP51A1,CYP26B1,GDE1,ALDH3B1,OSBPL5,DKK3,AKR7A2,SOAT1,CDH3,SPHK2,SNCAIP,NFYC,INPP5A,IP6K2,DRD4,SREBF1,ACER3,MOXD1,REST,APOB,ITPKC,CETP,MT3,COMT,CYP26A1,SCD,DKKL1,PRKAG2,GATA3,ALOX12,INPP4B,CYP27B1,TPI1,BMP5,SCAP,PLCD4,DHCR24,PROX1,OSBPL9,NFYB,PTK2B,LBAT,DBH,PAX8,PANK2,BMP2,NR1D1,SRD5A3,CLN6,ACLY,STARD3,PER2,DDC,CYP27A1,TPPA,DUOX1,LHCGR,CYP11B1,CH25H,FGF2,DUOX2,SLC27A2,MBTPS1,PNMT,ITPKB,LBR,DGKQ,SNCA,CBR4,STAR,PLCB3,TM7SF2,INPP1,GGPS1,BMP6,ABCG1,PTH1R,ALOX15,FGF19,DHRS3,GF11,SGPP2,HAND2,RNF180,STARD4,ABCA1,CNBP,P2RY6,PTEN,INSM1,FOXO1,CYP8B1,D2HGDH,LRTOMT,PGP,INPP5J,PLCD1,AKR1C1

GO:0090185 negative regulation of kidney development 1.53E-03 PAX2,BMP7,GATA3,BMP4,PAX8,OSR1,SHH,TACSTD2,WT1

GO:0090190 positive regulation of branching involved in ur 1.53E-03 SOX8,PAX2,SIX4,SOX9,PAX8,SIX1,SMO,GDNF,LHX1

GO:0008038 neuron recognition 1.54E-03 EPHA3,NRCAM,PCDH12,TNN,EPHB2,CNTN4,ROBO3,ROBO1,DSCAM,CNTNAP2,CDK5R1,NTM,OPCML

GO:0030513 positive regulation of BMP signaling pathway 1.54E-03 ZNF423,BMP4,GDF5,SULF1,ACVRL1,GATA6,RNF165,CYR61,CRB2,NOTCH1,SOX11,HES5,FOXD1

HSPB6,TBXA2R,ISL1,NRXN3,SARS,HDAC9,HDAC7,NGFR,FGFR2,RORA,NRCAM,SEMA6A,HMOX1,ANGPT4,FLT1,SFRP1,PRKD2,HOXA3,HOXAS,HSPB1,MEOX2,SRF,HAND1,THBS4,WNT5A,HYAL1,NCL,LEPR,F3,TNFAIP3,TCF21,PGF,HOXB3,TGFB1,PTK2B,HOXA7,TWIST1,NR4A1,BMP4,KDR,DLL4,E2F8,PAK4,LAMA5,PPARG,RAMP1,CHI3L1,EPHB2,APLN,PDGFRA,ET S1,GATA4,FAM129B,DAB2IP,SULF1,MAP2K5,THBS1,CYP1B1,FGF2,ACVRL1,SLC12A6,CDH13,GATA6,AGTR1,SLIT2,SFRP2,RSPO3,EPHA1,NOTCH1,ADAM12,HMGA2,HHEX,ANGPT1,FGF18,NODAL,CREB3L1,HOXB13,RUNX1,PLXDC1,PROK2,ADAMTS9,ZC3H12A,HEY1,SHH,SOX17,NOS3,E2F7,JAM3,PRKCB,STIM1,CTNNB1,ROBO1,JUP,LEP,CHRNA7,FOXC2,GATA2,  
GO:0001525 angiogenesis 1.54E-03 EGR3,NRXN1,CCBE1,PRKD1,THBS2,TMPRSS6,COL4A1,EPHB4,PDGFA,NOTCH4,MIR199B,MIR193A,MIR34B,MIR196A2,MIR125B1,MIR125A,ITGB3,GF2I,MIR212,PIK3R6,MIR19A

GO:0060415 muscle tissue morphogenesis 1.55E-03 ISL1,FGFR2,TGFB3,MYLK2,SMAD7,TGFB1,HAND1,PROX1,TNNT2,BMP2,DLL4,HEY2,TPM1,NOTCH1,NRG1,ACTC1,TBX20,ZFPM2,S1PR1,ZFPM1,NKX2-5,RYR2

GO:0048644 muscle organ morphogenesis 1.55E-03 ISL1,FGFR2,TGFB3,MYLK2,SMAD7,TGFB1,HAND1,PROX1,TNNT2,BMP2,DLL4,HEY2,TPM1,NOTCH1,NRG1,ACTC1,TBX20,ZFPM2,S1PR1,ZFPM1,NKX2-5,RYR2

SLC6A7,ATP1A2,SLC1A3,HRH3,SLC32A1,SLC7A5,SLC17A7,SLC1A5,SLC38A1,SLC16A10,SLC1A4,GIPC1,SLC36A1,SLC6A6,PER2,SLC38A2,SLC38A4,OSR1,SLC43A1,SLC38A10,SLC6A20  
GO:0006865 amino acid transport 1.57E-03 ,SLC6A18,SLC6A5,SLC43A2,SLC38A11,LRR8D,SLC6A19,SLC38A3,GRM7,STK39

CYP26B1,LTF,MYOC,FGFR2,MEF2C,PTPRC,DLX5,FGF8,FOXP1,MSX2,TWIST1,BMP4,SOX9,BMP2,TFAP2A,SULF1,BMPRI1B,SKI,ZNF385A,LRP5,PLXNB1,PITX2,OSR2,AKAP13,PTGER4,  
GO:0060348 bone development 1.57E-03 SH3PXD2B,NEUROG1,RYR1,SULF2,COL13A1



GO:0006941 striated muscle contraction	<p>CACNA1G,ATP1A2,NEDD4L,KCNQ1,KCNH2,PRKACA,DLG1,KCNN2,MYBPC2,SLC8A3,MYLK2,SNTA1,SMAD7,MYH14,CAV1,PDE4D,FGF12,RGS2,TTNNT2,FKBP1B,KCNJ5,ADRA1A,OBSL1,KCNA5,TRPM4,DSC2,DTNA,HCN4,TPM1,ANK2,SCN2B,ALDOA,GPD1L,RNF207,KCNJ3,ATP1A1,ZC3H12A,CACNB2,SCN3B,JUP,ATP2A2,KCNE3,SCN4B,CAV3,NKX2-5,ATP2A1,RYR2,RCSD1,NOS1AP</p> <p>1.58E-03</p>
GO:0061074 regulation of neural retina development	<p>1.58E-03 DLX2,DLL4,SIX3,DLX1,POU4F2,PTF1A</p>
GO:1902866 regulation of retina development in camera-ty	<p>1.58E-03 DLX2,DLL4,SIX3,DLX1,POU4F2,PTF1A</p>
GO:0043406 positive regulation of MAP kinase activity	<p>DVL2,MAP3K9,MAP2K3,DRD4,FGFR1,MEF2C,FLT1,MAP4K1,TGFB1,DKK1,MADD,CD81,FZD10,WNT5A,MAPKAPK3,CXCR4,PKN1,EDN3,BMP4,BMP2,GADD45G,GDF15,NGF,MDFIC,DAB2IP,MAP2K5,THBS1,DUSP5,FGF2,DUSP6,NTRK3,TNFRSF11A,MAP3K6,EGFR,PAK1,TNIK,FGF18,NRG1,SHC1,DVL3,PEA15,PROK2,MST1R,ROBO1,PDGFD,ALK,RASGRP1,MAP3K11,HRAS,TRAF6,CHRNA7,UBE2N,MAPK11,NTF3,LRRK2,PDGFA,NTRK1,STK39,DAXX,S1PR2,PIK3R6</p> <p>1.61E-03</p>
GO:0051017 actin filament bundle assembly	<p>CX3CL1,BAIAP2L1,MYOC,LIMA1,LIMCH1,CLASP1,WNT11,PXN,EZR,ABL1,SFRP1,ARHGEF10,FSCN3,LIMK1,NEDD9,PHACTR1,DPYSL3,STMN1,CTGF,TGFB3,SORBS3,BAIAP2L2,MYO1B,SPIRE1,FHOD1,TPM1,TMEFF2,ESPNL,EPHA1,PAK1,EP58,FMN2,DLG1,SYNPO2L,PTGER4,RHOD,TACSTD2,ARAP1,ESPN,S100A10,SPIRE2</p> <p>1.64E-03</p>
GO:0003158 endothelium development	<p>ICAM1,EZR,TJP1,PRKD2,PDE4D,FOXP1,ACVR1,PROX1,TJP2,BMP4,KDR,LAMA5,KDM6B,HEY2,ACVRL1,NOTCH1,ZEB1,ADAMTS12,MARVELD2,NRG1,PDPN,F2RL1,HEY1,SOX17,TME100,MESP1,CTNNB1,ATOH8,MYADM,CLDN5,NR2F2,PDE2A,NOTCH4,MIR199B,S1PR2</p> <p>1.64E-03</p>
GO:0002065 columnar/cuboidal epithelial cell differentiat	<p>1.64E-03 PAX6,FGFR2,WNT11,CDK6,RHEB,FGF8,BMP5,BMP4,BMP2,CLOCK,GATA4,PDX1,GATA6,BMP6,NEUROD1,NKX6-1,CDX2,INSM1,SOX11,LRTOMT,HESS</p>

GO:0043068 positive regulation of programmed cell death	<p data-bbox="577 235 1627 341">TNFRSF12A,MARK4,TFAP2B,BID,TRIO,LYK,NGFR,NGEF,HYAL2,IP6K2,RPS6KA2,TP73,MEF2C,CYLD,REST,DNAJA1,PPP1R13B,ZNF268,LOC728392,ABL1,RASSF2,BMF,SFRP1,TNFRSF10A,DKK1,CLIP3,BBC3,DFNA5,CAV1,HOXA5,MAPK8,PI3F,SLC9A3R1,GAPDH,DAP,IL12B,ITGA4,F3,FOXO3,TGFB3,TCTN3,APAF1,EEF1E1,BMP4,BMP2,MCF2L,IRF5,RIPK3,GADD45G,PPARG,NGF,YWHAQ,APC,HRK,ARHGEF4,DAB2IP,ANP32B,TFAP2A,THBS1,BCL2L10,CYP1B1,DUSP6,PM2IP1,ARHGEF19,SUT2,SNCA,SFRP2,TNFAIP8,IGFBP3,ST18,NOTCH1,NACC2,HMGA2,FOXO1,POU4F2,OBSCN,KCNMA1,NODAL,NCK1,PINK1,ABR,KALRN,DEDD2,SQSTM1,NLRP3,NEUROD1,FRZB,MSX1,PRKCI,RYBP,ZC3H12A,ARHGEF3,DLC1,CDK5,APBB1,SMAD3,NKX3-1,CTNNB1,PCSK9,ROBO1,WNT10B,AKAP13,SOX7,PLEKHG5,BCL2,PTEN,KLF11,RARG,MAP3K11,KHLDA3,TRAF6,BNIP3,CDK5R1,PNMA1,PXT1,FOXL2,MAPT,LRRK2,SIAH1,DAPK1,ARHGAP12,HTT,ATG7,NTRK1,TGM2,MIR125A,PNMA2,LYN</p>
GO:1901699 cellular response to nitrogen compound	<p data-bbox="577 430 1627 519">CFTR,BAIAP2L1,ATP6V0A1,CDH1,HDAC9,RAD51,KCNQ1,ATP2B4,NGFR,CACNB1,PRKCZ,PRKACA,CHRNA3,MEF2C,MT3,GNA11,PXN,ESR1,EZR,ABL1,CA2,SFRP1,TGFB1,JAK3,ATP6V0A4,CAV2,CAV1,GRB10,KANK1,PRKAR1A,OPRM1,GABRG2,GRB14,IGFBP5,ATP6V1B1,AKAP7,PKD2,NR4A3,RHOQ,CRHR1,NR4A1,LRP1,BMP4,SOX9,RPL23,STAT5A,BAIAP2L2,ADCY4,AANAT,GDF15,DIAPH1,PPARG,PTPN22,MYCN,APC,HTR1B,FLOT1,ADCY3,LHCGR,HCN4,TARBP2,IGF1R,RPTOR,CACNA1A,AKT1,AGTR1,SUT2,SNCA,CRHBP,GABRB2,GLRA1,EGFR,RGS10,FOXO1,IMPACT,LARP1,NCK1,COLEC12,SHC1,SH2B2,CAPN2,INHBB,GABRB1,PRKCI,ZC3H12A,SNIP1,ADCY1,CDK5,VWA2,GABRB3,PRKCB,SMAD3,CTNNB1,GRM5,PCSK9,SLC25A3,P2RY6,PDE3A,STAT5B,JUP,PDE12,CHRNA7,P2RY2,FOXO2,CDK5R1,WT1,SOC1,2FP36L1,ATP6V0C,IRS2,GNNG2,PDE2A,LIN28B,AGRN,PRKAR1B,LRRK2,RYR1,NCOR2,MYO5A,RYR2,DAXX,TRIM71,ATP6V1E2,LYN</p>
GO:0050770 regulation of axonogenesis	<p data-bbox="577 682 1627 698">SEMA3G,NGFR,NTN1,PLXNA2,MT3,NRCAM,ABL1,LIMK1,EFNB3,MACF1,CHN1,NGF,LRP4,PLXNC1,ARHGDI2,SUT2,LRRC4C,PAK1,POU4F2,TRIM46,PLXNB1,ISLR2,LINGO1,ROBO1,DSCAM,PTEN,SSH3,BRSK2,BDNF,SUTRK1,MAPT,DCC,PLXNA4</p>
GO:0060042 retina morphogenesis in camera-type eye	<p data-bbox="577 876 1627 893">SOX8,PROM1,TFAP2B,SDK2,PROX1,SOX9,TFAP2A,SDK1,MEGF11,LRP5,PTF1A,DSCAM,RORB,LHX1</p>
GO:1901617 organic hydroxy compound biosynthetic process	<p data-bbox="577 1015 1627 1055">CYP51A1,DKK3,CDH3,SPHK2,NFYC,SREBF1,ACER3,MOXD1,REST,SCD,DKK1,PRKAG2,GATA3,ALOX12,CYP27B1,BMP5,SCAP,DHCR24,PROX1,OSBPL9,NFYB,PTK2B,DBH,BMP2,NR1D1,ACLY,PER2,DDC,CYP27A1,LHCGR,CH25H,FGF2,SLC27A2,MBTPS1,PNMT,LBR,DGKQ,SNCA,STAR,TM7SF2,GGPS1,BMP6,ABCG1,PTH1R,ALOX15,FGF19,GF11,HAND2,STARD4,CNBP,P2RY6,INSM1,CYP8B1,PGP,CACNA1H,SREBF2</p>
GO:0072182 regulation of nephron tubule epithelial cell differentiation	<p data-bbox="577 1234 1627 1250">PROM1,PAX2,GATA3,PAX8,LIF,OSR1,CTNNB1,LHX1</p>
GO:0070838 divalent metal ion transport	<p data-bbox="577 1339 1627 1412">CX3CL1,CACNA1G,SLC11A1,ATP1A2,MCOLN3,ATP2B4,CACNB1,DRD4,PRKACA,ATP2A3,CACNG4,PTPRC,MT3,JPH4,ITPR3,SLC8A3,TRPC4AP,CHRNA4,NALCN,NIPAL2,JPH1,SLC39A14,KCNCN4,BBC3,GRIN2D,CACNG7,CAV1,TSPAN13,CXCL12,CALCA,CYP27B1,SLC39A7,PDE4D,THADA,PKD2,FKBP1B,CRHR1,PTK2B,ADRA1A,NPY,ITPR2,AHNAK,SLC25A23,TRPM4,DIAPH1,RAMP1,SLC39A11,APLN,TRPC6,FGF2,SLC39A8,TMBIM6,NOL3,AFG3L2,STAC2,CACNA1A,SLC39A3,CACNG8,SLC39A1,SNCA,ANK2,SLC39A12,MCOLN2,ATP2B2,ORAI2,GRIN2C,NIPAL1,TRPV6,SLC39A2,CACNB2,PRKCB,PHB,STIM1,CACNB3,CTNNB1,LETM1,P2RY6,BCL2,IL16,NIPAL4,ATP2A2,CHRNA7,CACNB4,CAV3,CATSPER4,RYR1,ATP2A1,CACNA1H,HTT,T,RYR2,NOS1AP,FAM155A,GRIN2B</p>

GO:0072511 divalent inorganic cation transport	<p>CX3CL1, CACNA1G, SLC11A1, ATP1A2, MCOLN3, ATP2B4, CACNB1, DRD4, PRKACA, ATP2A3, CACNG4, PTPRC, MT3, JPH4, ITPR3, SLC8A3, TRPC4AP, CHRNA4, NALCN, NIPAL2, JPH1, SLC39A14, KCNN4, BBC3, GRIN2D, CACNG7, CAV1, TSPAN13, CXCL12, CALCA, CYP27B1, SLC39A7, PDE4D, THADA, PKD2, FKBP1B, CRHR1, PTK2B, ADRA1A, NPY, ITPR2, AHNAK, SLC25A23, TRPM4, DIAPH1, RAMP1, SLC39A11, APLNR, TRPC6, FGF2, SLC39A8, TMBIM6, NOL3, AFG3L2, STAC2, CACNA1A, SLC39A3, CACNG8, SLC39A1, SNCA, ANK2, SLC39A12, MCOLN2, ATP2B2, ORAI2, GRIN2C, NIPAL1, TRPV6, SLC39A2, CACNB2, PRKCB, PHB, STIM1, CACNB3, CTNBN1, LETM1, P2RY6, BCL2, IL16, NIPAL4, ATP2A2, CHRNA7, CACNB4, CAV3, CATSPER4, RYR1, ATP2A1, CACNA1H, HT</p> <p>1.83E-03 T, RYR2, NOS1AP, FAM155A, GRIN2B</p>
GO:0021510 spinal cord development	<p>1.83E-03 ISL1, GLI2, CHRDL, RFX4, MDGA1, PROX1, PKD2, DLL4, MNX1, MDGA2, DAAM2, TBX20, GDNF, SOX11, LHX1</p>
GO:1905314 semi-lunar valve development	<p>1.83E-03 GATA3, TWIST1, BMP4, HEY2, GATA4, SMAD6, RB1, SLIT2, NOTCH1, HEYL, TBX20, HEY1, NOS3, ROBO1, SLIT3</p>
GO:0060079 excitatory postsynaptic potential	<p>1.87E-03 PRKCZ, CHRNA3, MEFC2, STX1B, CBLN1, MPP2, CUX2, PTK2B, DLG4, ARRB2, AKT1, TMEM108, GRID2, NLGN1, PTEN, CHRNA7, NRXN1, LRRK2</p>
GO:0001889 liver development	<p>1.89E-03 TGFBR3, AURKA, COBL, RPS6KA1, PROX1, PKD2, E2F8, NKX2-8, CCDC40, ARID5B, CEBPG, E2F7, MESP1, PCSK9, PHF2, CEBPA</p>
GO:0061035 regulation of cartilage development	<p>1.89E-03 WNT11, PTHLH, TRPS1, ZBTB16, EFEMP1, BMP4, SOX9, BMP2, GDF5, SOXS, BMPR1B, ACVRL1, WNT9A, ADAMTS12, GDF6, BMP1</p>
GO:0086065 cell communication involved in cardiac conduc	<p>1.89E-03 CACNA1G, ATP1A2, KCNQ1, PRKACA, KCNN2, CAV1, PDE4D, FKBP1B, KCNJ5, ATP1B2, KCNA5, TRPM4, DSC2, HCN4, ANK2, RNF207, KCNJ3, ATP1A1, CACNB2, SCN3B, JUP, SCN4B, RYR2</p>

GO:0048017 inositol lipid-mediated signaling  
1.91E-03 FGR,WNT16,HGF,MYOC,LTKE,ERBB3,NEDD4,FGFR1,PPP2R5C,TYRO3,EZR,FLT1,PIP5K1B,GATA3,UNC5B,SLC9A3R1,TWIST1,SOX9,KDR,NGF,PDGFRA,DAB2IP,IER3,IGF1R,AKT1,PIP5K1A,KCNH1,HAX1,EGFR,PIK3AP1,PLXNB1,F2RL1,PIP4K2C,NKX3-1,PDGFD,PTEN,LEP,TNFAIP8L3,ZFP36L1,IRS2,PDGFA,NTRK1,INPP5F,PIK3R6,PIP4K2B

GO:0050678 regulation of epithelial cell proliferation  
1.93E-03 RUNX3,PTPRN,CDH3,NGFR,FGFR2,TGFBR3,PAX2,FGFR1,MEF2C,HMOX1,SIX4,FLT1,SFRP1,PRKD2,TGFB1,CDK6,CAV2,CAV1,GATA3,BMP5,THBS4,WNT5A,HYAL1,ITGA4,F3,PROX1,NR4A3,PGF,NR4A1,EREG,BMP4,SOX9,BMP2,GDF5,NR1D1,STAT5A,KDR,DLL4,CDKN1C,PPARG,APLN, DAB2IP,SULF1,THBS1,FGF2,ACVRL1,BRCA2,CDH13,AKT1,OSR1,AGTR1,SFRP2,EGFR,ADAM17,BMP6,NODAL,HMGB2,OSR2,NKX3-1,ATOH8,ROBO1,MTSS1,MCC,LEP,HRAS,SOX11,GATA2,EGR3,ZNF703,PRKD1,NR2F2,ZFP36L1,MIR193A,GPX1,ITGB3

GO:0061572 actin filament bundle organization  
1.93E-03 CX3CL1,BAIAP2L1,MYOC,LIMA1,LIMCH1,CLASP1,WNT11,PXN,EZR,ABL1,SFRP1,ARHGEF10,FSCN3,LIMK1,NEDD9,PHACTR1,DPYSL3,STMN1,CTGF,TGFB3,SORBS3,BAIAP2L2,MYO1B,SPIRE1,FHOD1,TPM1,TMEFF2,ESPNL,EPHA1,PAK1,EP58,FMN2,DLCL1,SYNPO2L,PTGER4,RHOD,TACSTD2,ARAP1,ESPN,S100A10,SPIRE2

GO:0035881 amacrine cell differentiation  
1.93E-03 DLX2,NEUROD4,DLX1,POU4F2,NEUROD1,PTF1A,RORB

GO:0030177 positive regulation of Wnt signaling pathway  
1.98E-03 WNK1,FGFR2,RSPO4,SALL1,SFRP1,UBR5,CAV1,KANK1,DKK1,COL1A1,SMURF2,BMP2,MACF1,TRPM4,ZBED3,WNT2B,SULF1,CSNK1D,SFRP2,DAAM2,RSPO3,EGFR,RSPO2,DIXDC1,HEX,LRRK1,WNT3A,DKK2,SKI,FRAT1,ILK,AXIN2,MLLT3,JUP,ATP6VOC,RNF220,LRRK2,SULF2

GO:0036293 response to decreased oxygen levels  
1.98E-03 RORA,ENO1,MT3,HMOX1,SLC8A3,BMP7,CHRNA4,ANGPT4,HMOX2,SFRP1,BBC3,CAV1,CHCHD2,CA9,SRF,EPAS1,OPRD1,PGF,TGFB3,CXCR4,TWIST1,ITPR2,HIF3A,BMP2,CBFA2T3,THBS1,TMBIM6,NOL3,GATA6,PMAIP1,LIMD1,NOTCH1,ADAM17,FMN2,KCNMA1,PINK1,LMNA,CLDN3,PRKCB,SMAD3,NKX3-1,DDIT4,ARNT,CHRNA7,BNIP3,HIGD1A,ASCL2,KCND2,ZFP36L1,RYR1,DPP4,RYR2,MIR124-2,MIR124-1

GO:0009798 axis specification  
2.05E-03 SFRP1,COBL,MDFI,CDX1,FOXA2,LRP4,TBX3,SMAD6,SIX3,SKI,LRP5,FZD5,PITX2,T,SHH,CDX2,OTX2,SOST,HOXD8,NEUROG1,WT1,LHX1

GO:0035051 cardiocyte differentiation	ISL1,TGFBR3,MEF2C,REST,TBX5,TGFB1,DKK1,SRF,ACVR1,PROX1,OBSL1,BMP4,BMP2,KDM6B,PDGFRA,HEY2,GATA4,GATA6,EGFR,NOTCH1,WNT3A,SORBS2,NRG1,ACTC1,NEXN,SP 2.13E-03 RY1,PITX2,HAND2,T,SOX17,MESP1,AKAP13,NKX2-5,WT1,MIR199B,MIR19A
GO:1905332 positive regulation of morphogenesis of an ep	2.18E-03 SOX8,PAX2,SIX4,GATA3,BMP4,SOX9,PAX8,SIX1,LIF,SMO,GDNF,LHX1
GO:0003176 aortic valve development	2.18E-03 GATA3,TWIST1,BMP4,GATA4,SMAD6,RB1,SLIT2,NOTCH1,TBX20,NOS3,ROBO1,SLIT3
GO:0086010 membrane depolarization during action poten	2.22E-03 CACNA1G,ATP1A2,KCNH2,PTPN3,NALCN,TRPM4,HCN4,CACNA1A,ANK2,CACNA1B,SCN2B,TPCN2,CACNB2,SCN3B,CATSPER1,SCN4B,CAV3,CATSPER4,CACNA1H,SCN8A,CACNA1E
GO:0035418 protein localization to synapse	2.43E-03 MPP4,HSPB1,NRXN2,WNT5A,DLG4,DLG2,MAP1A,NLGN1,NRXN1,MAPT
GO:0008406 gonad development	SOX8,KITLG,PTPRN,TFAP2C,SIX4,SALL1,GATA3,FGF8,WNT5A,TCF21,ERE,SOX9,SOX15,WNT2B,PDGFRA,GATA4,NR5A1,DMRT1,LHCGR,BMPR1B,GATA6,SLIT2,INHBB,GDF9,KLHL2 2.45E-03 6,ZFP42,FOXL2,SLIT3,WT1,TLRS
GO:0061311 cell surface receptor signaling pathway involv	2.53E-03 TGFB1,DKK1,ACVR1,BMP4,BMP2,DLL4,HEY2,NOTCH1,WNT3A,HAND2,HEY1,MESP1,CTNNB1

GO:0072210 metanephric nephron development	2.53E-03 SOX8,PAX2,SALL1,TCF21,PKD2,BMP4,SOX9,PAX8,LIF,SMO,PDGFRA,OSR1,WT1
GO:0048167 regulation of synaptic plasticity	CX3CL1,SYT7,PRKCZ,MEF2C,ABL1,SYNGR1,SLC8A3,CBLN1,GRIN2D,MPP2,PTK2B,GIPC1,VGF,DLG4,EPHB2,CNTN4,GRID2,SQSTM1,GRIN2C,SHANK2,GRIK2,CDK5,NETO1,MAP1A,D4 2.60E-03 S234E,RGS14,NEUROD2,CHRNA7,MAPT,SHISA6,SYNGAP1,SHISA9,GRIN2B
GO:0014066 regulation of phosphatidylinositol 3-kinase sig	FGR,WNT16,HGF,MYOC,ERBB3,NEDD4,FGFR1,PPP2R5C,FLT1,PIPSK1B,UNC5B,SLC9A3R1,TWIST1,SOX9,KDR,PDGFRA,DAB2IP,IER3,PIPSK1A,HAX1,EGFR,PIK3AP1,PLXNB1,F2RL1,PI 2.74E-03 P4K2C,NKX3-1,PDGFD,PTEN,LEP,PDGFA,PIP4K2B
GO:0007187 G-protein coupled receptor signaling pathway	ADRB1,ATP2B4,DRD4,GNAO1,PTHLH,GNA11,HRH3,CRHR2,CALCA,OPRM1,GLP1R,PDE4D,GNAI2,OPRD1,RGS2,CNR1,CRHR1,ADRA1A,NPY,PTGER2,OPRL1,NPBWR2,GNAI1,MCHR 1,GALR3,ADCY4,AKAP12,RAMP1,HTR1B,MRAP2,ADCY3,LHCGR,SSTR1,ADCYAP1,GNA12,HTR7,ADM,HTR5A,PTH1R,NPY1R,ADCY1,ABCA1,MTNR1A,HTR1E,GRM5,GPR37L1,AKAP1 2.76E-03 3,LPAR3,PTGER4,GRM8,GPR3,TSKU,NPY2R,NGG2,PDE2A,ADRB3,GRM7,GRK5,GABBR1,SSTR3
GO:0034333 adherens junction assembly	MYOC,EPHA3,LIMCH1,TESK2,CLASP1,COL16A1,TRIP6,ABL1,SMAD7,SFRP1,MACF1,KDR,LAMA5,THBS1,ACVRL1,BCAS3,TBCD,PIPSK1A,DLC1,CTNNB1,PTEN,RHOD,RCC2,ZNF703,EF 2.81E-03 NA5,S100A10,LDB1
GO:0060021 roof of mouth development	2.81E-03 TGFBR3,WNT11,WNT5A,TCF21,TGFB3,EPHB2,TFAP2A,FOXF2,OSR1,WNT3A,SKI,OSR2,GABRB3,SOX11,FOXE1,CLDN5,COL11A2
GO:0072132 mesenchyme morphogenesis	2.81E-03 ISL1,BMP7,FGF8,BMP5,ACVR1,SOX9,BMP2,ACVRL1,ACTA1,OSR1,NOTCH1,ACTC1,HEYL,TBX20,HEY1,NOS3,ROBO1

GO:0061008 hepaticobiliary system development 2.87E-03 TGFBR3,AURKA,COBL,RPS6KA1,PROX1,PKD2,E2F8,NKX2-8,CCDC40,ARID5B,CEBPG,E2F7,MESP1,PCSK9,PHF2,CEBPA

WNT16,RUNX3,PTPRN,CDH3,NGFR,FGFR2,TGFBR3,DLG1,PAX2,FGFR1,MEF2C,HMOX1,SIX4,FLT1,SFRP1,PRKD2,TGFB1,CDK6,CAV2,CAV1,GATA3,CALCA,BMP5,THBS4,WNT5A,HYA L1,ITGA4,F3,RPS6KA1,PROX1,NR4A3,PGF,NR4A1,EREG,BMP4,SOX9,BMP2,GDF5,NR1D1,STAT5A,KDR,DLL4,CDKN1C,PPARG,APLN,R,DAB2IP,SULF1,THBS1,FGF2,ACVRL1,BRCA2,CD H13,AKT1,OSR1,AGTR1,SFRP2,EGFR,ADAM17,BMP6,NODAL,NKX6-1,HMGB2,OSR2,NKX3-

GO:0050673 epithelial cell proliferation 2.87E-03 1,ATOH8,ROBO1,MTSS1,MCC,LEP,HRA5,SOX11,GATA2,EGR3,ZNF703,PRKD1,NR2F2,ZFP36L1,MIR193A,GPX1,ITGB3

CFTR,ABCB4,SLC6A7,ATP1A2,OSBP5,ABCA7,ATP11A,DRD4,SCARB1,CA12,SLC1A3,CETP,SLC4A11,SLC23A2,SLC26A4,SLC25A1,SLC16A8,HRH3,SLC32A1,SLC7A5,CA2,SLC17A7,SLC 1A5,CA9,SLC9A3R1,CPT1A,PITPNM1,SLC38A1,SLC26A8,SLC16A10,SLC4A9,SLC27A6,SLC4A3,SLC1A4,CA14,ATP10B,FABP3,GIPC1,SLC36A1,LDLR,SLC6A6,PPARG,PER2,SLC38A2,SLC 26A10,SLC05A1,THBS1,SLC38A4,SLC27A2,NCOA2,SLC16A3,TNFRSF11A,AKT1,OSR1,SLC10A4,SLC43A1,ACSL1,PLA2R1,PITPNC1,SLC26A2,SLC38A10,ABCG1,SLC6A20,SLC6A18,CA3 ,ABCA1,SLC16A9,SLC6A5,CA4,SLC43A2,MFSD2A,SLC38A11,SLC16A5,SLC23A1,SLC26A5,LRRCD8,SLC16A11,SLC6A19,LEP,SLC25A42,TNFAIP8L3,CA13,CALHM1,IRS2,AKR1C1,SLC38

GO:0015711 organic anion transport 2.93E-03 A3,GRM7,STK39,ABCA4,CPT1B

ATP1A2,NEDD4L,PRSS8,ATP2B4,WNK1,SLC9A3,DRD4,ATP1B3,NEDD4,PTPN3,DLG1,SLC4A11,SLC8A3,SNTA1,NALCN,SLC9A3R1,FGF12,SLC9A2,SGK1,PKD2,ATP1B2,TRPM4,FXYP6,

GO:0006814 sodium ion transport 3.01E-03 HCN4,OSR1,SCN2B,GPD1L,UTRN,SLC5A10,SPTBN4,ATP1A1,SCN3B,NETO1,PCSK9,SLC23A1,SCN4B,CAV3,NKX2-5,NKAIN3,SCN8A,STK39,FXYP7,FXYP1

LTF,CD74,RUNX3,SPI1,PRKCZ,CBFB,TBX21,GLI2,HOXA9,TNRC6C,TP73,MEF2C,ABL1,SETD1A,TNRC6B,ACIN1,NFATC2,SMAD7,SFRP1,JAK3,CDK6,HOXA5,GLI3,GATA3,ZMIZ1,ZBTB16 ,CALCA,VNN1,HSPA9,IL12B,FOXP1,ZAP70,HDAC1,TNFSF4,MYB,FOXO3,NR4A3,HOXB8,PTK2B,HOXA7,NCKAP1L,BMP4,LIF,FOXJ1,RARA,MEIS2,ETS1,LMO2,GPR55,IRF4,THBS1,LHC GR,HAX1,MEIS1,NOTCH1,POU4F2,POU4F1,ZFP36L2,MOV10,MMMP14,RUNX1,IKZF3,TAL1,NLRP3,DPY30,ZC3H12A,HMGB2,SHH,LMO1,PRKCB,AXL,STAT5B,TRAF6,GATA2,ZFPM1,S

GO:1903706 regulation of hemopoiesis 3.07E-03 OCS1,IRF7,ZFP36L1,HIST1H3D,HESS,LDB1,PRMT6,CR1,MAFB,HLA-G,LYN,HIST1H4F,HIST1H4D

FGR,WNT16,HGF,MYOC,LYN,ERBB3,NEDD4,FGFR1,PPP2R5C,TYRO3,EZR,FLT1,PIP5K1B,GATA3,UNC5B,SLC9A3R1,TWIST1,SOX9,KDR,NGF,PDGFRA,DAB2IP,IER3,IGF1R,AKT1,PIP5K

GO:0048015 phosphatidylinositol-mediated signaling 3.11E-03 1A,KCNH1,HAX1,EGFR,PIK3AP1,PLXNB1,F2RL1,PIP4K2C,NKX3-1,PDGFD,PTEN,LEP,ZFP36L1,IRS2,PDGFA,NTRK1,INPP5F,PIK3R6,PIP4K2B

RORA,ENO1,MT3,HMOX1,SLC8A3,BMP7,CHRNA4,ANGPT4,HMOX2,SFRP1,BBC3,CAV1,CHCHD2,CA9,SRF,EPAS1,OPRD1,PGF,TGFB3,CXCR4,TWIST1,ITPR2,HIF3A,BMP2,CBFA2T3,T HBS1,TMBIM6,NOL3,GATA6,PMAIP1,LIMD1,NOTCH1,FOXO1,ADAM17,FMN2,KCNMA1,PINK1,LMNA,CLDN3,PRKCB,SMAD3,NKX3-

GO:0070482 response to oxygen levels 3.15E-03 1,DDIT4,ARNT2,CHRNA7,BNIP3,HIGD1A,ASCL2,KCND2,ZFP36L1,RYR1,ATG7,DPP4,RYR2,MIR124-2,MIR124-1

GO:0016358 dendrite development 3.23E-03 SARM1,CTNNA2,NGEF,NEDD4,CHRNA3,MEF2C,BMP7,COBL,CUX2,TULP1,BMP5,MARK1,OBSL1,SLC12A5,PACIN1,DLG4,EPHB2,LRP4,DAB2IP,KIAA0319,ZNF365,BBS4,KLHL1,FARP1,PTPRD,TNIK,C21ORF91,CSMD3,CDK5,SDC2,NLGN1,CTNND2,PTEN,CHRNA7,CDK5R1,CAMK1D,DCC,LRRK2,LST1,SRIN1

GO:0035883 enteroendocrine cell differentiation 3.24E-03 PAX6,CDK6,RHEB,BMP5,BMP4,CLOCK,PDX1,BMP6,NEUROD1,NKX6-1,INSM1

REAC:R-HSA- Neurotransmitter receptors and postsynaptic 3.32E-03 AP2B1,GABRA1,RPS6KA2,PRKACA,CACNG4,DLG1,CHRNA3,EPB41L1,CHRNA4,NCALD,GRIN2D,GABRA4,GABRG2,GNAI2,RPS6KA1,CHRN4,GRIA2,KCNJ5,PRKCG,GNG11,GNAI1,ADCY4,DLG4,CHRND,GABBR2,ADCY3,CACNG8,GABBR2,GLRA1,PLCB3,GRIA4,GRIA1,GRIN2C,KCNJ3,GABRB1,GRIK2,ADCY1,GABRB3,PRKCB,HTR3A,GNG4,CHRNA5,GRIK1,GNB2,GNG12,HRAS,CHRNA7,GNG7,KCNJ12,GNG2,GABBR1,GRIN2B

GO:1903524 positive regulation of blood circulation 3.67E-03 TBXA2R,ADRB1,KCNQ1,CAV1,PDE4D,RGS2,ADRA1A,EDN3,TRPM4,TPM1,ADM,RNF207,F2RL1,SCN3B,ATP2A2,NKX2-5,AVPR1B,RYR2,NOS1AP

GO:0043266 regulation of potassium ion transport 3.97E-03 KCNG1,NEDD4L,KCNQ1,KCNH2,KCNAB2,ATP1B3,NEDD4,DLG1,KCNN2,CAV1,AKAP7,KCNIP2,PTK2B,KCNS1,ATP1B2,KCNA5,DPP6,ANK2,KCNS2,RNF207,NETO1,DPP10,KCNE3,KCNIP1,CAV3,LRRCS5,KCNIP4,STK39,NOS1AP,MIR212

GO:0031346 positive regulation of cell projection organization 3.97E-03 DVL2,CX3CL1,MARK4,EPHA3,NEDD4L,LTN,NGFR,NTN1,PALM,BMP7,NDRG4,COBL,LIMK1,CUX2,BMP5,PTK7,DPYSL3,WNT5A,TGFB3,RHOQ,PTK2B,OBSL1,PACIN1,CPNE5,MACF1,DLG4,NGF,APC,PLXNC1,DAB2IP,SCARB2,BBS4,BCAS3,ARHGDI1,CPNE9,SLIT2,GPM6A,POU4F2,PTPRD,C21ORF91,FZD1,DVL3,CDC42EP3,PRKCI,PLXNB1,F2RL1,ISLR2,CDC42EP5,NLGN1,ROBO1,ZNF804A,DSCAM,HRAS,BDNF,EPS8L2,SLITRK1,CD42EP4,CAMK1D,PRKDI,ARAP1,MAPT,ESPN,MAGI2,AGRN,HTT,NTRK1,LYN

GO:0006935 chemotaxis 4.01E-03 CX3CL1,SEMA3G,CD74,HGF,NRXN3,F7,NGFR,NTN1,SPTB,GLI2,NTN4,FGF4,PLD1,PLXNA2,RAP1GAP,FGFR1,SEMA5B,SEMA6A,EZR,DOK5,FLT1,PRKD2,TGFB1,GRB10,HSPB1,CXCL12,EFNB3,CALCA,THBS4,WNT5A,TNR,PADI2,ARTN,F3,PGF,PTK2B,CXCR4,PLAU,NCKAP1L,NR4A1,EDN3,KDR,CHN1,TRPM4,EPHB2,PDGFRA,EDNRB,FAM129B,THBS1,CH25H,FGF2,NTKR3,CDH13,ARRB2,RNF165,TNFRSF11A,GRB7,LHX9,PIP5K1A,CNTN4,AGTR1,SLIT2,EPHA5,GFRA3,PLA2G7,NOTCH1,NCAM1,FEZ1,POU4F2,ADAM17,CCL28,ROBO3,ANGPT1,KIF5A,FGF18,SPON2,SPTBN4,SHC1,NTN3,PROK2,CXCL1,HMGB2,F2RL1,SHH,OTX2,JAM3,KIF5C,GDNF,ROBO1,HOXB9,S1PR1,FEZ2,DSCAM,PLEKHG5,DAB1,CMKLR1,HRAS,FOSL1,BDNF,CDK5R1,EGR3,NRXN1,CAMK1D,PRKDI,SLIT3,EFNA5,NTF3,IRS2,SLIT1,DCC,SLIT1,PDGFA,DOK6,PLXNA4,EFNA4,LYN,ITGB3,LHX1



GO:0042330 taxis	<p>CX3CL1,SEMA3G,CD74,HGF,NRXN3,F7,NGFR,NTN1,SPTB,GLI2,NTN4,FGF4,PLD1,PLXNA2,RAP1GAP,FGFR1,SEMA5B,SEMA6A,EZR,DOK5,FLT1,PRKD2,TGFB1,GRB10,HSPB1,CXCL12,EFNB3,CALCA,THBS4,WNT5A,TNR,PADI2,ARTN,F3,PGF,PTK2B,CXCR4,PLAU,NCKAP1L,NR4A1,EDN3,KDR,CHN1,TRPM4,EPHB2,PDGFRA,EDNRB,FAM129B,THBS1,CH25H,FGF2,NTRK3,CDH13,ARRB2,RNF165,TNFRSF11A,GRB7,LHX9,PIP5K1A,CNTN4,AGTR1,SLIT2,EPHA5,GFRA3,PLA2G7,NOTCH1,NCAM1,FEZ1,POU4F2,ADAM17,CCL28,ROBO3,ANGPT1,KIF5A,FGF18,SPON2,SPTBN4,SHC1,NTN3,PROK2,CXCL1,HMGB2,F2RL1,SHH,OTX2,JAM3,KIF5C,GDNF,ROBO1,HOXB9,S1PR1,FEZ2,DSCAM,PLEKHG5,DAB1,CMKLR1,HRAS,FOSL1,BDNF,C</p> <p>4.01E-03 DK5R1,EGR3,NRXN1,CAMK1D,PRKD1,SLIT3,EFNA5,NTF3,IRS2,SLIT1,DCC,SIAH1,PDGFA,DOK6,PLXNA4,EFNA4,LYN,ITGB3,LHX1</p>
GO:0071417 cellular response to organonitrogen compoun	<p>CFTR,BAIAP2L1,ATP6V0A1,CDH1,HDAC9,RAD51,KCNQ1,ATP2B4,NGFR,CACNB1,PRKCZ,PRKACA,MEF2C,PXN,EZR,ABL1,CA2,SFRP1,JAK3,ATP6V0A4,CAV2,CAV1,GRB10,KANK1,PRKAR1A,OPRM1,GABRG2,GRB14,IGFBP5,ATP6V1B1,AKAP7,PKD2,NR4A3,RHOQ,CRHR1,NR4A1,LRP1,SOX9,RPL23,STAT5A,BAIAP2L2,ADCY4,AANAT,GDF15,DIAPH1,PPARG,PTPN22,APC,HTR1B,ADCY3,LHCGR,HCN4,IGF1R,RPTOR,CACNA1A,AKT1,AGTR1,SLIT2,SNCA,CRHBP,GABRB2,GLRA1,FOXO1,IMPACT,LARP1,NCK1,SHC1,SH2B2,CAPN2,INHBB,GABRB1,PRKCI,ADCY1,CDK5,VWA2,GABRB3,PRKCB,CTNNB1,GRM5,PCSK9,SLC25A33,P2RY6,PDE3A,STAT5B,JUP,P2RY2,FOXC2,WT1,SOCS1,ZFP36L1,ATP6VOC,IRS2,GNNG2,PDE2A,PRKAR1B,LR</p> <p>4.13E-03 RK2,RYR1,MYO5A,RYR2,ATP6V1E2,LYN</p>
GO:0045785 positive regulation of cell adhesion	<p>CX3CL1,CD6,RUNX3,MYOC,PRKCZ,CBFB,NCK2,GLI2,PTPRC,COL16A1,CHRD,EPB41L4B,ABL1,BMP7,SMAD7,CD276,SFRP1,RASAL3,PRKD2,JAK3,CDK6,CAV1,GLI3,GATA3,CXCL12,MAP3K8,ZMIZ1,GCNT2,VN1,IL12B,HYAL1,ZAP70,IGFBP2,TNFSF4,MYB,NR4A3,PTK2B,NCKAP1L,FOXA2,KDR,PODXL,RARA,DUSP26,ETS1,ADAM19,FLOT1,TPM1,CDH13,AKT1,SFRP2,EPHA1,PAK1,DOCK1,CCL28,UTRN,NODAL,NCK1,RUNX1,ALOX15,PDPN,NLRP3,SHH,RAC3,HAS2,RHOD,JUP,LEP,FOXC2,MYADM,SOCS1,CD47,DPP4,S100A10,CARD11,TGM2,HLA-</p> <p>4.24E-03 G,HLA-DPB1,LYN</p>
GO:0003197 endocardial cushion development	<p>4.35E-03 ISL1,BMP7,FGF8,BMP5,ACVR1,BMP4,SOX9,BMP2,GATA4,ACVRL1,NOTCH1,HEYL,TBX20,HEY1,NOS3,ROBO1</p>
GO:0014065 phosphatidylinositol 3-kinase signaling	<p>FGR,WNT16,HGF,MYOC,ITK,ERBB3,NEDD4,FGFR1,PPP2R5C,TYRO3,FLT1,PIP5K1B,GATA3,UNC5B,SLC9A3R1,TWIST1,SOX9,KDR,PDGFRA,DAB2IP,IER3,IGF1R,AKT1,PIP5K1A,HAX1,</p> <p>4.35E-03 EGFR,PIK3AP1,PLXNB1,F2RL1,PIP4K2C,NKX3-1,PDGFD,PTEN,LEP,ZFP36L1,PDGFA,PIK3R6,PIP4K2B</p>
GO:0003203 endocardial cushion morphogenesis	<p>4.42E-03 ISL1,BMP7,FGF8,BMP5,ACVR1,SOX9,BMP2,ACVRL1,NOTCH1,HEYL,TBX20,HEY1,NOS3,ROBO1</p>
GO:0060218 hematopoietic stem cell differentiation	<p>4.43E-03 CBFB,TP73,ABL1,SETD1A,SFRP1,GATA3,MYB,LMO2,RUNX1,TAL1,LMO1,SP7,GATA2,HOXB4,LDB1</p>

REAC:R-HSA- Cell-Cell communication 4.49E-03 SKAP2,TYROBP,CLDN11,CDH1,LAMA3,LAMC2,CDH3,SDK2,NCK2,LIMS2,PVR,CDH7,PXN,PARD6A,CDH9,CDH6,PTK2B,PARD6B,FLNC,CRB3,ITGB4,CLDN10,CDH24,CDH13,SDK1,KIRR  
4.49E-03 EL3,DST,NCK1,FBLIM1,PRKCI,CLDN3,ILK,CTNNB1,CDH2,JUP,CADM2,CLDN7,CLDN5,CLDN6,MAGI2,CD47,CTNND1,CLDN9

REAC:R-HSA- Amino acid transport across the plasma mem 4.49E-03 SLC7A5,SLC1A5,SLC38A1,SLC16A10,SLC1A4,SLC36A1,SLC6A6,SLC38A2,SLC38A4,SLC43A1,SLC7A11,SLC7A7,SLC6A20,SLC6A18,SLC43A2,SLC6A19,SLC38A3

REAC:R-HSA- Platelet homeostasis 4.49E-03 FGR,ATP2B4,MRV1,ATP2A3,PPP2R5C,APOB,ITPR3,P2RX6,SLC8A3,PDE10A,ITPR2,GNG11,PDE11A,KCNMB4,TRPC6,GUCY1A2,KCNMA1,ATP2B2,PAFAH2,PDE9A,ORAI2,NOS3,STIM  
4.49E-03 1,GNG4,GNB2,GNG12,PDE3A,ATP2A2,GNG7,PRKG1,GNG2,PDE2A,ATP2A1,KCNMB2

REAC:R-HSA- Na+/Cl- dependent neurotransmitter transpor 4.49E-03 SLC6A13,SLC6A7,SLC18A1,SLC6A2,SLC6A6,SLC6A20,SLC6A18,SLC18A2,SLC6A5,SLC6A19,SLC22A1,SLC6A9

REAC:R-HSA- Regulation of beta-cell development 4.49E-03 PAX6,NRSA2,FOXA2,NKX2-2,HNF1A,PDX1,AKT1,NOTCH1,FOXO1,NEUROD1,NKX6-1,PTF1A,ONECUT1,FOXA3,INSM1,MAFA,ONECUT3

GO:0098656 anion transmembrane transport 4.52E-03 CFTR,ATP1A2,GABRA1,SLC1A3,SLC23A2,SLC25A1,SLC32A1,CLCN3,CPT1A,SLC38A1,GABRG2,SLC6A6,PER2,SLC38A2,SLC26A10,THBS1,SLC38A4,AKT1,OSR1,GABRB2,GLRA1,SLC26  
4.52E-03 A2,SLC38A10,CLIC6,GABRB1,SLC6A5,GABRB3,GRM5,SLC38A11,SLC23A1,SLC26A5,LRRRC8,LRRRC8D,SLC25A42,CLCNKB,IRS2,LRRRC8B,STK39,CPT1B

GO:0060541 respiratory system development 4.54E-03 FGFR2,GLI2,GRHL2,WNT11,SIX4,SMCHD1,GLI3,PHOX2B,PROX1,TCF21,TGFB3,BMP4,FOXJ1,CHI3L1,CCDC40,DISP1,SKI,PDPN,SHH,SOX11,WT1,PDGFA,CEBPA

GO:0045778 positive regulation of ossification	4.54E-03 LTF,HGF,MEF2C,BMP7,TGFB1,ZBTB16,WNT5A,ACVR1,TGFB3,RUNX2,BMP4,BMP2,TFAP2A,BMPR1B,CYR61,OSR1,BMP6,LRP5,OSR2,NELL1,SOX11,PRKD1,IFITM1
GO:1901888 regulation of cell junction assembly	MYOC,EPHA3,LIMCH1,CBFB,PRKACA,CLASP1,COL16A1,ABL1,TJP1,SFRP1,CAV1,MACF1,KDR,NPHP4,FLOT1,THBS1,ACVRL1,BCAS3,RUNX1,DLC1,PTEN,RCC2,CLDN5,EFNA5,S100A1 4.64E-03 O,OCLN,LDB1
GO:0030902 hindbrain development	4.64E-03 CTNNA2,RORA,GLI2,KDM2B,BMP7,CBLN1,PHOX2B,BMP5,PROX1,ADCK4,ZNF365,GRID2,NEUROD1,SHH,DLC1,PTF1A,ARL13B,NEUROD2,NRXN1,LHX1
GO:0072234 metanephric nephron tubule development	4.67E-03 SOX8,PAX2,PKD2,SOX9,PAX8,LIF,OSR1,POU3F3
GO:0003128 heart field specification	4.67E-03 ISL1,MEF2C,DKK1,BMP4,BMP2,WNT3A,MESP1,ROBO1
GO:0072170 metanephric tubule development	4.67E-03 SOX8,PAX2,PKD2,SOX9,PAX8,LIF,OSR1,POU3F3
GO:0051493 regulation of cytoskeleton organization	CX3CL1,BAIAP2L1,MARK4,STMN4,PHLDB1,MYOC,EPHA3,LIMA1,RNF4,LIMCH1,ARHGEF1,NCK2,CLASP1,CAP2B,CYLD,WNT11,AURKA,TPX2,NSFL1C,PXN,ABL1,SPEF1,CHMP4B,SFRP1,ARHGEF10,SYDE1,FSD1,CLIP3,LIMK1,KANK1,CXCL12,FZD10,STMN1,PROX1,CTGF,TGFB3,RHOQ,SORBS3,PTK2B,NCKAP1L,LRP1,KIF25,EML2,GNAI1,BAIAP2L2,DIAPH1,NES,PDGFR,APC,FHOD1,ARPC5L,TRIM54,TPM1,NTRK3,BCAS3,ARHGDI1,TBCD,ARHGEF19,HAX1,TMEFF2,SLIT2,EPHA5,SNCA,EPHA1,PAK1,EP58,TRIM36,SKA1,DYRK1A,GRHL3,NCK1,ALOX15,PRKAA2,NEXN,CAPN2,CDC42EP3,LIMOD1,PLXNB1,F2RL1,DLC1,CDK5,SYNPO2L,PLK1,CDC42EP5,CDK2AP2,CTNNB1,AKAP13,PTGER4,SSH3,HRAS,CDK5R1,CDC42EP4,MYADM,CE 4.69E-03 P97,CAV3,SKA2,TACSTD2,EFNA5,NTF3,ARAP1,MAPT,ESPN,STMN3,PDGFA,S100A10,CYFIP1

GO:0006024 glycosaminoglycan biosynthetic process HS3ST1,ST3GAL1,XYL2,B4GALT7,VCAN,ST3GAL6,B4GALT1,HAS3,TGFB1,DSE,GCNT2,UST,HYAL1,B4GALT6,HS3ST2,CHPF,HS3ST3B1,ST3GAL3,BCAN,HS6ST1,CSGALNACT1,CHST9,  
4.73E-03 ANGPT1,B3GNT7,ST3GAL2,SDC3,CHST14,SDC2,HAS2,CHST11,CSPG4,CHST1,GPC5,GPC6,AGRN,PRELP

GO:0015849 organic acid transport ABCB4,SLC6A7,ATP1A2,DRD4,SLC1A3,SLC23A2,SLC25A1,SLC16A8,HRH3,SLC32A1,SLC7A5,SLC17A7,SLC1A5,SLC9A3R1,CPT1A,SLC38A1,SLC26A8,SLC16A10,SLC27A6,SLC1A4,FABP  
3,GIPC1,SLC36A1,SLC6A6,PPARG,PER2,SLC38A2,THBS1,SLC38A4,SLC27A2,NCOA2,SLC16A3,TNFRSF11A,AKT1,OSR1,SLC10A4,SLC43A1,ACSL1,PLA2R1,SLC38A10,SLC6A20,SLC6A1  
4.73E-03 8,SLC16A9,SLC6A5,SLC43A2,MFSD2A,SLC38A11,SLC16A5,SLC23A1,LRRRC8,SLC16A11,SLC6A19,LEP,IRS2,AKR1C1,SLC38A3,GRM7,STK39,CPT1B

GO:0046942 carboxylic acid transport ABCB4,SLC6A7,ATP1A2,DRD4,SLC1A3,SLC23A2,SLC25A1,SLC16A8,HRH3,SLC32A1,SLC7A5,SLC17A7,SLC1A5,SLC9A3R1,CPT1A,SLC38A1,SLC26A8,SLC16A10,SLC27A6,SLC1A4,FABP  
3,GIPC1,SLC36A1,SLC6A6,PPARG,PER2,SLC38A2,THBS1,SLC38A4,SLC27A2,NCOA2,SLC16A3,TNFRSF11A,AKT1,OSR1,SLC10A4,SLC43A1,ACSL1,PLA2R1,SLC38A10,SLC6A20,SLC6A1  
4.73E-03 8,SLC16A9,SLC6A5,SLC43A2,MFSD2A,SLC38A11,SLC16A5,SLC23A1,LRRRC8,SLC16A11,SLC6A19,LEP,IRS2,AKR1C1,SLC38A3,GRM7,STK39,CPT1B

GO:0010038 response to metal ion CDH1,NEDD4L,RASGRP2,NEDD4,MEF2C,MT3,ITPR3,CAV1,TFR2,MAPK8,PI3K,CDKN1B,WNT5A,SLC30A3,TNNT2,PKD2,KCNIP2,ACO1,ATP7B,DLG4,KCNMB4,TFAP2A,THBS1,AKT1,K  
CNH1,ITPKB,SNCA,CRHBP,GLRA1,EGFR,DLG2,BMP6,KCNMA1,SLC30A2,ALOX15,PRKAA2,ADCY1,TRPV6,CHP2,STIM1,NLGN1,NEUROD2,BCL2,BNIP3,NRXN1,D2HGDH,MAPT,MT1X,  
4.75E-03 LRRK2,RYR1,CACNA1H,KCNMB2,RYR2,DAXX,MT1H,MT1M,CRIP1,CPNE1

GO:0042733 embryonic digit morphogenesis 4.76E-03 SALL1,GLI3,HDAC1,ECE1,TWIST1,TBX3,OSR1,MSX1,SHH,OSR2

GO:0010460 positive regulation of heart rate 4.76E-03 ADRB1,KCNQ1,PDE4D,EDN3,TRPM4,TPM1,ADM,SCN3B,ATP2A2,RYR2

GO:0003184 pulmonary valve morphogenesis 4.76E-03 BMP4,HEY2,SMAD6,SLIT2,NOTCH1,HEVL,TBX20,HEY1,NOS3,ROBO1

GO:0032147 activation of protein kinase activity	<p>MAP3K14,MAP3K9,SLC11A1,MAP2K3,DRD4,PRKACA,CHRNA3,STRADB,MT3,TPX2,ABL1,TNFRSF10A,MAP4K1,MAP3K8,PRKAR1A,MADD,CD81,CALCA,IL12B,WNT5A,MAPKAPK3,N  EK4,PTK2B,CXCR4,PKN1,BMP4,BMP2,RIPK3,GADD45G,GDF15,PAK4,CHI3L1,NGF,MDFIC,DAB2IP,MAP2K5,THBS1,PAK6,DUSP5,FGF2,DUSP6,NTRK3,TOM1L1,AKT1,MAP3K6,PAK1,  4.80E-03 ANGPT1,TNIK,NRG1,PINK1,SHC1,PEA15,PROK2,ALK,MAP3K11,LEP,TRAF6,CHRNA7,UBE2N,MAPK11,NTF3,PRR5,PRKAR1B,LRRK2,NTRK1,STK39,DAXX,ITGB3,S1PR2</p>
GO:0071695 anatomical structure maturation	<p>5.01E-03 CX3CL1,LTf,MYOC,CDH3,ANKS1A,PAX2,NRCAM,CLN5,KCNIP2,EREG,BMP2,EDNRB,SIX3,ACVRL1,SPTBN4,NKX6-1,PLXNB1,S1PR1,CNTNAP2,AGRN,LRRK2,RYR1</p>
GO:0043491 protein kinase B signaling	<p>CX3CL1,HGF,MYOC,KITLG,F7,ERBB3,FGFR2,HYAL2,FGF4,PAX2,FGFR1,FGF20,PHLPP1,MT3,ESR1,TYRO3,HSP90AB1,RASD2,TGFB1,GATA3,FGF8,SLC9A3R1,FGF6,GCNT2,F3,SFRP5,E  REG,KDR,GDF15,CHI3L1,PDGFRA,THBS1,FGF5,FGF2,ARRB2,AKT1,HAX1,EGFR,MFHAS1,TCF7L2,ANGPT1,PIK3AP1,FGF18,NRG1,NRG2,PINK1,FGF19,MST1R,NKX3-  5.19E-03 1,PTEN,PHLDA3,LEP,NRXN1,TSPYL5,TNFAIP8L3,ZFP36L1,IRS2,FGF3,MAGI2,PDGFA,MIR199B,MIR34B,CPNE1</p>
GO:0007224 smoothened signaling pathway	<p>5.19E-03 FGFR2,RORA,EVC,GLI2,CHRD,SFRP1,GLI3,RAB34,GLI1,RFX4,TCTN3,BMP4,DYRK2,SMO,DISP2,ZIC1,DISP1,INTU,SHH,OTX2,BTRC,KIF7,TCTN2,ARL13B,EVC2,HESS</p>
GO:0030510 regulation of BMP signaling pathway	<p>5.19E-03 TFAP2B,CHRD,SMAD7,ZNF423,SMURF2,BMP4,GDF5,SULF1,SMAD6,ACVRL1,GATA6,RNF165,CYR61,DLX1,CRB2,NOTCH1,SKI,LEMD2,SOST,HTRA3,SOSTDC1,SOX11,HESS,FOXD1</p>
GO:0010469 regulation of signaling receptor activity	<p>GPRC5A,CAPN1,NCK2,CACNG4,MEF2C,CACNG7,OPRM1,PDE4D,PTK2B,PLAU,EREG,SNX6,DLG4,EPHB2,CBLC,CACNG8,CNIH3,CRHBP,ADAM17,ZFYVE28,SHC1,FOXH1,HEYL,NETO1,  5.19E-03 PCSK9,NLGN1,CNIH2,NRXN1,LYNX1,CAV3,DAPK1</p>
GO:0071300 cellular response to retinoic acid	<p>5.42E-03 EPHA3,LTK,PAX2,WNT11,WNT3,FZD10,PTK7,WNT5A,WNT6,PTK2B,SOX9,RARA,WNT9A,WNT3A,WNT9B,WNT10B,RORB,LYN</p>

GO:0007188 adenylate cyclase-modulating G-protein coupl 5.48E-03 ADRB1,ATP2B4,DRD4,GNAO1,PTHLH,GNA11,CRHR2,CALCA,GLP1R,PDE4D,GNAI2,RGS2,CNR1,CRHR1,ADRA1A,PTGER2,OPRL1,GNAI1,MCHR1,GALR3,ADCY4,AKAP12,RAMP1,HTR1B,MRAP2,ADCY3,LHCGR,ADCYAP1,GNA12,HTR7,ADM,HTR5A,PTH1R,NPY1R,ADCY1,ABCA1,MTNR1A,HTR1E,GRM5,GPR37L1,AKAP13,PTGER4,GRM8,GPR3,TSKU,NPY2R,GNG2,PDE2A,ADRB3,GRM7,GRK5,GABBR1

GO:0048839 inner ear development 5.58E-03 KCNQ1,FGFR2,MYO3B,PAX2,MYO3A,PHOX2B,ATP6V1B1,PROX1,ESRRB,SOX9,PAX8,BMP2,SIX1,EPHB2,TFAP2A,ZIC1,NEUROD1,NEUROG1,LRTOMT,ROR1,HESS5

GO:0006023 aminoglycan biosynthetic process 5.67E-03 HS3ST1,ST3GAL1,XYL2,B4GALT7,VCAN,ST3GAL6,B4GALT1,HAS3,TGFB1,DSE,GCNT2,UST,HYAL1,B4GALT6,HS3ST2,CHPF,HS3ST3B1,ST3GAL3,BCAN,HS6ST1,CSGALNACT1,CHST9,ANGPT1,B3GNT7,ST3GAL2,SDC3,CHST14,SDC2,HAS2,CHST11,CSPG4,CHST1,GPC5,GPC6,AGRN,PRELP

GO:0031098 stress-activated protein kinase signaling casca 5.68E-03 WNT16,DVL2,MAP3K14,MAP3K9,CCDC88C,MAP2K3,MAP4K4,DLG1,TRAF4,TP73,PHLPP1,STRADB,MECOM,DNAJA1,EZR,SH2D3C,RASSF2,STK24,MAP4K1,MAPK8,MAP3K8,DKK1,FZD10,WNT5A,NEK4,STK25,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,SH2D3A,BMP2,TNFRSF19,GADD45G,PAK4,PTPN22,MDFC,DAB2IP,MAP2K5,PAK6,MAP3K12,IGF1R,TNFRSF11A,MAP3K6,EGFR,MFHAS1,PAK1,FOXO1,TNIK,GDF6,PINK1,DVL3,FGF19,ZC3H12A,HAND2,F2RL1,BTRC,TNIP2,PTGER4,RASGRP1,SH3RF3,MAP3K11,LEP,HRAS,TRAF6,UBE2N,MAPK11,ZFP36L1,STK39,DAXX,MIR181D,LYN

GO:0086014 atrial cardiac muscle cell action potential 5.69E-03 KCNQ1,KCNN2,KCNJ5,KCNA5,TRPM4,ANK2,RNF207,KCNJ3,CACNB2,SCN3B,RYR2

GO:0003209 cardiac atrium morphogenesis 5.69E-03 ISL1,ACVR1,PROX1,DLL4,HEY2,GATA4,NOTCH1,TBX20,MESP1,ZFPM1,NKX2-5

GO:0086066 atrial cardiac muscle cell to AV node cell com 5.69E-03 KCNQ1,KCNN2,KCNJ5,KCNA5,TRPM4,ANK2,RNF207,KCNJ3,CACNB2,SCN3B,RYR2

GO:0086026 atrial cardiac muscle cell to AV node cell signa 5.69E-03 KCNQ1,KCNN2,KCNJ5,KCNA5,TRPM4,ANK2,RNF207,KCNJ3,CACNB2,SCN3B,RYR2

GO:0042551 neuron maturation 5.69E-03 CX3CL1,MYOC,ANKS1A,NRCAM,CLN5,KCNIP2,EDNRB,SPTBN4,CNTNAP2,AGRN,LRRK2

GO:0003207 cardiac chamber formation 5.93E-03 MEF2C,TBX5,HAND1,NOTCH1,TBX20,MESP1,SOX11

GO:0060900 embryonic camera-type eye formation 5.93E-03 WNT16,PAX2,WNT5A,PROX1,TWIST1,TFAP2A,SOX11

GO:0032353 negative regulation of hormone biosynthetic p 5.93E-03 DKK3,REST,DKK1,CYP27B1,BMP5,BMP2,GF11

GO:0001759 organ induction 5.93E-03 DKK1,BMP4,BMP2,SIX1,WNT3A,MESP1,ROBO1

GO:0043065 positive regulation of apoptotic process 5.97E-03 2,HTT,ATG7,TGM2,MIR125A,PNMA2,LYN  
TNFRSF12A,TFAP2B,BID,TRIO,LYN,NGFR,NGEF,HYAL2,IP6K2,RPS6KA2,TP73,MEF2C,CYLD,REST,DNAJA1,PPP1R13B,ZNF268,LOC728392,ABL1,RASSF2,BMF,SFRP1,TNFRSF10A,DKK1,CLIP3,BBC3,DFNA5,CAV1,HOXA5,MAPK8,PI3K,SLC9A3R1,GAPDH,DAP,IL12B,ITGA4,F3,FOXO3,TGFB3,TCTN3,APAF1,EEF1E1,BMP4,BMP2,MCF2L,IRF5,GADD45G,PPARG,NGF,YWHAQ,APC,HRK,ARHGEF4,DAB2IP,ANP32B,TFAP2A,THBS1,BCL2L10,CYP1B1,DUSP6,PMAIP1,ARHGEF19,SLIT2,SNCA,SFRP2,TNFAIP8,IGFBP3,ST18,NOTCH1,NACC2,HMGA2,FOXO1,OBSCN,KCNMA1,NODAL,NCK1,PINK1,ABR,KALRN,DEDD2,SQSTM1,NLRP3,NEUROD1,FRZB,MSX1,PRKCI,RYBP,ZC3H12A,ARHGEF3,DL1,CDK5,APBB1,SMAD3,NKX3-1,CTNNB1,PCSK9,ROBO1,WNT10B,AKAP13,SOX7,PLEKHG5,BCL2,PTEN,KLF11,RARG,MAP3K11,PHLDA3,TRAF6,BNIP3,CDK5R1,PNMA1,PXT1,FOXL2,MAPT,SHAH1,DAPK1,ARHGEF1

GO:0060349 bone morphogenesis 5.99E-03 CYP26B1, LTF, FGFR2, MEF2C, DLX5, MSX2, TWIST1, BMP4, SOX9, TFAP2A, BMPR1B, SKI, LRP5, OSR2, NEUROG1, COL13A1

GO:0072172 mesonephric tubule formation 5.99E-03 SIX4, GATA3, SIX1, OSR1, GDNF

GO:1903224 regulation of endodermal cell differentiation 5.99E-03 DKK1, COL5A1, DUSP6, MESP1, COL5A2

GO:0072050 S-shaped body morphogenesis 5.99E-03 PKD2, BMP4, PAX8, WT1, LHX1

GO:0045647 negative regulation of erythrocyte differentiat 5.99E-03 HOXA5, HSPA9, ZFP36L1, LDB1, MAFB

GO:0061469 regulation of type B pancreatic cell proliferatic 5.99E-03 PTPRN, SFRP1, NR4A3, NR4A1, NR1D1

GO:0045668 negative regulation of osteoblast differentiat 5.99E-03 HDAC7, CHR1, CDK6, TNN, TWIST1, TRPM4, SMAD6, LIMD1, NOTCH1, SKI, LRP5, AXIN2, RORB, TWIST2, GDF10, MIR9-3



GO:0060512 prostate gland morphogenesis	5.99E-03 FGFR2,SOX9,SULF1,NKX3-1,CRIP1
GO:0072048 renal system pattern specification	5.99E-03 PAX2,BMP4,PAX8,OSR1,FOXD1
GO:0061004 pattern specification involved in kidney develc	5.99E-03 PAX2,BMP4,PAX8,OSR1,FOXD1
GO:0007422 peripheral nervous system development	5.99E-03 SOX8,ISL1,RUNX3,MYOC,ERBB3,ARHGEF10,PMP22,EGR2,GFRA3,POU4F1,SKI,RUNX1,ISL2,NFASC,GDNF,SCN8A
GO:0051146 striated muscle cell differentiation	CFLAR,EHD2,HDAC9,HDAC4,MEF2C,MYBPC2,SIX4,MYEF2,TGFB1,CAV2,DKK1,ACVR1,PROX1,BHLHE41,OBSL1,BMP4,BMP2,KDM6B,SORT1,PDGFRA,HEY2,FAM129B,FLOT1,TPM1, KCNH1,ACTA1,NOTCH1,ADAM12,WNT3A,OBSCN,SORBS2,NRG1,MMP14,SKI,ACTC1,NEXN,LMOD1,MESP1,CHRN1,AKAP13,KRT19,BDNF,CAV3,NKX2- 6.05E-03 5,WT1,RYR1,CACNA1H,MIR199B,MIR19A
GO:0051056 regulation of small GTPase mediated signal tra	MYOC,TRIO,GDI2,NGEF,RASAL2,GMIP,ABL1,SYDE2,MYO9B,RHOV,RASAL3,SYDE1,CHN2,KANK1,MADD,STMN1,RHOQ,ADRA1A,DEPDC7,ARHGAP9,MCF2L,CHN1,ARHGAP22,CGNL 1,EPHB2,NGF,GPR55,ARHGEF4,DAB2IP,ARHGAP29,ARHGAP24,FAM13A,RHOF,ARHGDI1,ARHGEF19,SLIT2,ARHGAP26,NOTCH1,OBSCN,ABR,KALRN,SQSTM1,ARHGEF3,F2RL1,DL 1,ABCA1,ARHGAP12,RAC3,ROBO1,AKAP13,PLEKHG5,RASGRP4,RASGRP1,RHOD,EPH2,EPH3,EPH4,EPH5,EPH6,EPH7,EPH8,EPH9,EPH10,EPH11,EPH12,EPH13,EPH14,EPH15, 6.06E-03 GAP8,ARHGAP23
GO:0034405 response to fluid shear stress	6.11E-03 MEF2C,SMAD7,PKD2,ASS1,MAP2K5,SMAD6,AKT1,NOS3,ABCA1,MTSS1,HAS2,SREBF2

GO:0051348 negative regulation of transferase activity  
GPRC5A,WWTR1,HYAL2,TP73,PTPRC,DNAJA1,ABL1,BMP7,SMAD7,CDK6,CAV1,HSPB1,PRKAG2,LIMK1,PRKAR1A,CDKN1B,BAG2,H2AFY,MAD2L2,RGS2,SGS4,DUSP1,BMP4,RPL23,FOXA2,CDKN2D,SNX6,CDKN1C,SH3BP5,EPHB2,DUSP26,PTPN22,APC,USP44,DAB2IP,DUSP6,TARBP2,RB1,IGF1R,PIF1,AKT1,CBLC,EPHA1,LRRRC4C,HHEX,UCHL1,ZFYVE28,LRP5,CAM6.25E-03 K2N1,MAD2L1,LRTM2,PLK1,MIDN,PKIG,SGS4,SOCS6,PTEN,LRRRC15,PODN,CAV3,NR2F2,RTN4RL1,JRS2,MAPT,RTN4RL2,PRKAR1B,SPRED2,DBNDD2,CEBPA,CHCHD10,LYN,SRGN1

GO:2000177 regulation of neural precursor cell proliferation  
6.39E-03 SMARCD3,KDM2B,PTPRZ1,WNT5A,PROX1,DLL4,NES,SIX3,CTNNB1,INSM1,GATA2,LRRK2,TRIM71,LHX1

GO:0022612 gland morphogenesis  
6.39E-03 HGF,FGFR2,TGFB1,CAV1,SLC9A3R1,RP56KA1,TGFB3,SOX9,SULF1,ELF3,NKX3-1,PDGFA,CRIP1

GO:0086011 membrane repolarization during action potential  
6.39E-03 KCNQ1,KCNH2,DLG1,KCNN2,CAV1,KCNIP2,KCNJ5,KCNA5,RNF207,KCNJ3,ATP1A1,CACNB3,KCNE3,NOS1AP

REAC:R-HSA- Voltage gated Potassium channels  
6.40E-03 KCNG1,KCNQ1,KCNH2,KCNAB2,KCNQ2,KCNA7,KCNS1,KCNC1,KCNA5,KCNH3,KCNH5,KCNH1,KCNA6,KCNS2,KCNV1,KCNS3,KCNH6,KCND2,KCNH7,KCNQ5

GO:1903707 negative regulation of hemopoiesis  
LTF,RUNX3,CBFB,TBX21,HOXA9,SMAD7,SFRP1,JAK3,CDK6,HOXA5,GLI3,ZBTB16,CALCA,HSPA9,TNFSF4,HOXB8,PTK2B,HOXA7,BMP4,FOXJ1,RARA,MEIS2,GPR55,MEIS1,NOTCH1,R6.57E-03 UNX1,ZC3H12A,ZFPM1,SOCS1,ZFP36L1,HESS,LDB1,MAFB,HLA-G,HIST1H4F,HIST1H4D

GO:0010718 positive regulation of epithelial to mesenchymal transition  
6.59E-03 WWTR1,TGFB1,COL1A1,GCNT2,ACVR1,TGFB3,TWIST1,BMP2,TGFB1I1,CRB2,NOTCH1,TCF7L2,PDPN,SMAD3,CTNNB1,AXIN2,ALX1,ZNF703,BCL9L

GO:0045446 endothelial cell differentiation	ICAM1,EZR,TJP1,PDE4D,ACVR1,PROX1,TJP2,LAMA5,KDM6B,HEY2,ACVRL1,NOTCH1,ZEB1,MARVELD2,NRG1,PDPN,F2RL1,HEY1,SOX17,TMEM100,MESP1,ATOH8,MYADM,CLDN5, 6.61E-03 NR2F2,PDE2A,NOTCH4,MIR199B,S1PR2
GO:0072207 metanephric epithelium development	6.66E-03 SOX8,PAX2,PKD2,SOX9,PAX8,LIF,OSR1,WT1,POU3F3
GO:0007214 gamma-aminobutyric acid signaling pathway	6.66E-03 GABRA1,GABRA4,GABRG2,GNAI2,GABBR2,GABRB2,GABRB1,GABRB3,GABBR1
GO:0010842 retina layer formation	6.66E-03 PROM1,TFAP2B,SDK2,TFAP2A,SDK1,MEGF11,PTF1A,DSCAM,LHX1
GO:0043374 CD8-positive, alpha-beta T cell differentiation	6.66E-03 RUNX3,CBFB,NCKAP1L,RUNX1,EOMES,SOCS1
GO:0090030 regulation of steroid hormone biosynthetic pr	6.66E-03 DKK3,REST,BMP5,BMP2,DGKQ,BMP6
GO:0061303 cornea development in camera-type eye	6.66E-03 PAX6,WNT6,WNT2B,WNT9A,WNT9B,SOX11

GO:0006022 aminoglycan metabolic process  
6.71E-03 HS3ST1,ST3GAL1,XYL2,B4GALT7,VCAN,ST3GAL6,HYAL2,B4GALT1,HAS3,TGFB1,NAGLU,B3GAT1,DSE,GCNT2,UST,HYAL1,CTBS,B4GALT6,HS3ST2,CHPF,HS3ST3B1,ST3GAL3,CLN6,BCAN,HS6ST1,FGF2,GALNS,CSGALNACT1,CHST9,ANGPT1,B3GNT7,ST3GAL2,SDC3,CHST14,SDC2,HAS2,CHST11,HPSE2,CSPG4,GAL3ST3,CHST1,GPC5,GPC6,AGRN,PRELP

GO:0030003 cellular cation homeostasis  
6.85E-03 CFTR,TAC1,CX3CL1,LTF,SLC11A1,ATP1A2,ATP6V0A1,NEDD4L,ATP2B4,SLC9A3,DRD4,ATP1B3,CYBRD1,PRKACA,SCGN,PTPRC,MT3,SLC4A11,SLC26A4,ESR1,JPH4,ITPR3,ABL1,HMOX1,SLC8A3,CLN5,HMOX2,CA2,CALB1,JPH1,SLC39A14,BBC3,GRIN2D,ATP6V0A4,CAV1,TFR2,CXCL12,CLCN3,CALCA,SLC26A8,GLP1R,SLC39A7,SLC4A9,PDE4D,SLC4A3,SLC30A3,TACR1,SLC9A2,ABC6,THADA,PKD2,ABCG2,FKBP1B,PTK2B,ADRA1A,CXCR4,ACO1,ITPR2,ATP7B,RAB38,GCM2,OPRL1,MCHR1,CLN6,ATP1B2,TRPM4,DIAPH1,DLG4,APLNR,PDGFRA,SLC26A10,GPR55,TRPC6,FGF2,SLC39A8,TMBIM6,RAB20,SLC24A4,NOL3,AFG3L2,ADCYAP1,CACNA1A,AGTR1,SNCA,ANK2,SLC39A12,EDNRA,BMP6,SLC26A2,KCNMA1,ATP2B2,SLC30A2,GRIN2C,TPCN2,ATP1A1,PROK2,F2RL1,TRPV6,PRKCB,SMAD3,STIM1,CACNB3,LETM1,CD52,SLC26A5,LPAR3,P2RY6,BCL2,PRND,ATP2A2,CHRNA7,ATOX1,GPR157,CAV3,ATP6VOC,TMPRSS6,LRRK2,RYR1,ATP2A1,HTT,AVPR1B,RYR2,TGM2,FAM155A,GRIN2B

GO:0018210 peptidyl-threonine modification  
7.12E-03 CAMK1G,WNK1,BMP7,MYLK2,SMAD7,PRKD2,TGFB1,PRKAG2,MAPK8,CAMKK2,ACVR1,PKN1,STK33,CHI3L1,DCLK1,MAP3K12,RPTOR,AKT1,GALNT2,OSR1,GALNT13,DGKQ,TTBK1,TNKS1BP1,DYRK1A,CAMKV,CDK5,PRKCB,PLK1,DDIT4,GALNTL6,CDK5R1,CAMK1D,PRKD1,SBK1,LRRK2,SPRED2,STK39,S1PR2

GO:0003143 embryonic heart tube morphogenesis  
7.15E-03 MEF2C,NDRG4,SRF,HAND1,ACVR1,PKD2,SMO,GATA4,BBS4,CCDC40,NOTCH1,RNF207,TBX20,SHH,SOX17,MESP1,NKX2-5,RYR2

REAC:R-HSA- Cell-cell junction organization  
7.20E-03 CLDN11,CDH1,CDH3,SDK2,PVR,CDH7,PAR6A,CDH9,CDH6,PAR6B,CRB3,CLDN10,CDH24,CDH13,SDK1,PRKCI,CLDN3,CTNNB1,CDH2,IUP,CADM2,CLDN7,CLDN5,CLDN6,CTNND1,CLDN9

GO:0006873 cellular ion homeostasis  
7.56E-03 CFTR,TAC1,CX3CL1,LTF,SLC11A1,ATP1A2,ATP6V0A1,NEDD4L,ATP2B4,SLC9A3,DRD4,ATP1B3,CYBRD1,PRKACA,SCGN,PTPRC,MT3,SLC4A11,SLC26A4,ESR1,JPH4,ITPR3,ABL1,HMOX1,SLC8A3,CLN5,HMOX2,CA2,CALB1,JPH1,SLC39A14,BBC3,GRIN2D,ATP6V0A4,CAV1,TFR2,CXCL12,CLCN3,CALCA,SLC26A8,GLP1R,SLC39A7,SLC4A9,PDE4D,SLC4A3,SLC30A3,TACR1,SLC9A2,ABC6,THADA,PKD2,ABCG2,FKBP1B,PTK2B,ADRA1A,CXCR4,ACO1,ITPR2,ATP7B,RAB38,SLC12A5,GCM2,OPRL1,MCHR1,CLN6,ATP1B2,TRPM4,DIAPH1,DLG4,APLNR,PDGFRA,SLC26A10,GPR55,TRPC6,FGF2,SLC39A8,TMBIM6,RAB20,SLC24A4,NOL3,AFG3L2,ADCYAP1,CACNA1A,AGTR1,SNCA,ANK2,SLC39A12,EDNRA,BMP6,SLC26A2,KCNMA1,ATP2B2,SLC30A2,GRIN2C,TPCN2,ATP1A1,PROK2,F2RL1,TRPV6,PRKCB,SMAD3,STIM1,CACNB3,LETM1,CD52,SLC26A5,LPAR3,P2RY6,BCL2,PRND,ATP2A2,CHRNA7,P2RY2,ATOX1,GPR157,CAV3,ATP6VOC,TMPRSS6,LRRK2,RYR1,ATP2A1,HTT,AVPR1B,RYR2,TGM2,FAM155A,GRIN2B

GO:0030203 glycosaminoglycan metabolic process  
7.70E-03 HS3ST1,ST3GAL1,XYL2,B4GALT7,VCAN,ST3GAL6,HYAL2,B4GALT1,HAS3,TGFB1,NAGLU,B3GAT1,DSE,GCNT2,UST,HYAL1,B4GALT6,HS3ST2,CHPF,HS3ST3B1,ST3GAL3,CLN6,BCAN,HS6ST1,FGF2,GALNS,CSGALNACT1,CHST9,ANGPT1,B3GNT7,ST3GAL2,SDC3,CHST14,SDC2,HAS2,CHST11,HPSE2,CSPG4,CHST1,GPC5,GPC6,AGRN,PRELP

GO:0030217 T cell differentiation	CD74,RUNX3,PRKCZ,CBFB,RORA,TBX21,GLI2,PTPRC,ABL1,NFATC2,SMAD7,JAK3,GLI3,GATA3,ZMIZ1,VNN1,IL12B,FOXP1,ZAP70,LEPR,TNFSF4,MYB,NCKAP1L,BMP4,DLL4,RIPK3,FO7.93E-03 XJ1,RARA,PTPN22,IRF4,ADAM17,ZFP36L2,CD8A,RUNX1,NLRP3,EOMES,ZC3H12A,SHH,PTGER4,LIG4,LEP,ZFPM1,SOCS1,ZFP36L1,CR1,HLA-G
GO:1901654 response to ketone	8.23E-03 CFTR,ABCB4,TGFBR3,SFRP1,MAP4K1,TGFB1,CAV1,NR3C1,TNFSF4,TGFB3,PTGER2,GNAI1,THBS1,ADCY3,SLIT2,LARP1,ADCY1,NKX3-1,PTGDR,PTGER4,SLIT3,GNZ2
GO:0002244 hematopoietic progenitor cell differentiation	8.23E-03 CBFB,TP73,PTPRC,ABL1,SETD1A,SFRP1,TGFB1,GATA3,MYB,BMP4,LMO2,NOTCH1,RUNX1,TAL1,SHH,LMO1,SP7,LIG4,GATA2,HOXB4,HESS,LDB1
GO:0140115 export across plasma membrane	8.30E-03 ATP1A2,KCNQ1,KCNH2,ATP1B3,DLG1,KCNIP2,ATP1B2,ATP1A1,KCNE3,FXD1
GO:0061036 positive regulation of cartilage development	8.30E-03 ZBTB16,BMP4,SOX9,BMP2,GDF5,SOX5,BMPR1B,ACVRL1,GDF6,BMP1
GO:0030326 embryonic limb morphogenesis	8.42E-03 CYP26B1,TBX5,SALL1,GLI3,HDAC1,ECE1,TWIST1,TBX3,TFAP2A,OSR1,SKI,MSX1,SHH,OSR2,CTNNB1,RARG
GO:0035113 embryonic appendage morphogenesis	8.42E-03 CYP26B1,TBX5,SALL1,GLI3,HDAC1,ECE1,TWIST1,TBX3,TFAP2A,OSR1,SKI,MSX1,SHH,OSR2,CTNNB1,RARG

GO:0031589 cell-substrate adhesion  
CX3CL1,MYOC,EPHA3,LIMCH1,TESK2,CLASP1,FBLN1,COL16A1,TRIP6,TYRO3,ABL1,MADCAM1,SFRP1,CDK6,KANK1,GCNT2,BVES,ITGA4,PTK2B,HOXA7,PLAU,LYPD3,MACF1,SGCE,KDR,MKLN1,HOXD3,LAMA5,ITGB4,ITGA7,THBS1,SMAD6,ACVRL1,CDH13,BCAS3,TBCD,PIP5K1A,EPHA1,NOTCH1,DOCK1,ADAMTS12,CCL28,UTRN,RADIL,ALOX15,PDPN,ADAMTS9,  
8.48E-03 MFI2,DLC1,ILK,ANTXR1,RAC3,PTEN,RHOD,JUP,RCC2,MYADM,TACSTD2,EFNA5,BCAM,AJAP1,COL13A1,S100A10,LDB1,DDR1,ITGB3,SRCIN1

GO:0046879 hormone secretion  
CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,PTPRN,CHRNA3,REST,LTBP4,ITPR3,SFRP1,STX1A,TFR2,GLP1R,POMC,PASK,SLC2A1,CRHR1,GHSR,ITPR2,EDN3,PAX8,FOXA2,NR1D1,LIF,KCNA5,TRPM4,PER2,CLOCK,TBX3,FAM129B,PDX1,ADCYAP1,CACNA1A,AGTR1,EPHA5,CRHBP,TCF7L2,PTPRN2,LRP5,NEUROD1,INHBB,UCN,GDF9,SCG5,NKX3-  
8.74E-03 1,MIDN,KCNS3,BRSK2,SOX11,MAFA,EFNA5,IRS2,DPP4,CACNA1E,PIM3

GO:0010771 negative regulation of cell morphogenesis invc  
8.80E-03 SEMA3G,NGFR,NGEF,FBLN1,MT3,KANK1,EFNB3,LRP4,ARHGDI2,SLIT2,TRIM46,MFI2,NLGN1,LINGO1,PTEN,RCC2,TACSTD2,EFNA5,DCC

GO:0097306 cellular response to alcohol  
8.80E-03 CFTR,CDH1,RAD51,MLC1,SFRP1,MAP4K1,TNFSF4,PTGER2,GNAI1,SMO,ADCY3,GLRA1,LARP1,ADCY1,CTNNB1,PTGDR,PTGER4,JUP,GNG2

GO:0050890 cognition  
NRXN3,MUSK,ABCA7,DGCR2,MEF2C,SLC8A3,HRH3,CHRNA4,CALB1,PTPRZ1,DKK1,NRXN2,CUX2,SOBP,SLC1A4,SGK1,GALR3,LDLR,DLG4,EPHB2,ADCY3,LHCGR,BBS4,CRHBP,TTBK1,  
8.96E-03 EGFR,SHANK2,GPR155,NETO1,MAP1A,GRM5,RGS14,PTEN,FOXB1,CNTNAP2,CHRNA7,NRXN1,NEUROG1,CLDN5,MAPT,HTT,GRIN2B,CYFIP1

GO:0008625 extrinsic apoptotic signaling pathway via deatl  
CFLAR,BID,KIAA0141,ICAM1,HMOX1,SFRP1,TNFRSF10A,MADD,BMP5,TNFAIP3,SORT1,NGF,DAB2IP,THBS1,PMAIP1,DEDD2,PEA15,NOS3,TMC8,FEM1B,BCL2,PTEN,DAXX,SCRT2,G  
9.06E-03 PX1

GO:0042063 gliogenesis  
SOX8,CX3CL1,MYOC,ERBB3,PAX2,MT3,SLC8A3,ARHGFE10,CDK6,PTPRZ1,PHOX2B,CLU,CXCR4,LRP1,GCM2,MBOAT7,BMP2,LDLR,SERPINE2,DAB2IP,ZNF365,TNFRSF21,DAAM2,TT  
9.19E-03 BK1,NOTCH1,PRDM8,SKI,PRKCI,CDK5,CDH2,PTEN,CLCF1,SOX11,GPR157,MAPT,HES5

GO:0010463 mesenchymal cell proliferation	9.19E-03 FGFR2,FGF4,CHRD,WNT5A,BMP4,SOX9,BMP2,OSR1,LRP5,SHH,PDGFA
GO:0021543 pallium development	9.19E-03 NDE1,CDK6,LHX6,PROX1,NPY,MBOAT7,FOXP2,DAB2IP,TACC2,BBS4,TMEM108,SLIT2,EPHA5,TACC1,KIRREL3,NEUROD1,MFSD2A,ROBO1,PTEN,CNTNAP2,CCDC85C
GO:0040019 positive regulation of embryonic development	9.35E-03 PHLDB1,CLASP1,SIX4,GATA3,RBM19,FOXA2,SIX1,FAM129B,OSR1,WNT3A,SHH,OTX2,GDNF,LHX1
GO:2000696 regulation of epithelial cell differentiation invc	9.47E-03 PROM1,PAX2,GATA3,PAX8,LIF,OSR1,CTNNB1,LHX1
GO:0032891 negative regulation of organic acid transport	9.47E-03 HRH3,THBS1,AKT1,OSR1,PLA2R1,IRS2,GRM7,STK39
GO:0003230 cardiac atrium development	9.47E-03 ISL1,ACVR1,PROX1,DLL4,HEY2,GATA4,ANK2,NOTCH1,TBX20,MESP1,ZFPM1,NKX2-5
GO:0032330 regulation of chondrocyte differentiation	9.47E-03 PTHLH,TRPS1,ZBTB16,EFEMP1,SOX9,GDF5,SOX5,BMPR1B,ACVRL1,WNT9A,ADAMTS12,GDF6

GO:0060766 negative regulation of androgen receptor sign 9.47E-03 SFRP1,FOXP1,HDAC1,TCF21,NODAL,FOXH1,HEYL,PHB

GO:0060039 pericardium development 9.47E-03 TBX5,BMP7,BMP5,BMP2,DLL4,NOTCH1,TBX20,WT1

GO:0003215 cardiac right ventricle morphogenesis 9.47E-03 ISL1,GATA3,HAND1,HEY2,GATA4,TBX20,ZFPM2,NKX2-5

GO:0072075 metanephric mesenchyme development 9.47E-03 PAX2,SIX4,TCF21,PKD2,SIX1,OSR1,SHH,WT1

GO:0051259 protein complex oligomerization 9.55E-03 AASS,MGST1,WIZ,CCDC88C,BID,CD74,RAD51,OAT,TP53BP1,B4GALT1,ITPR3,SH3GLB1,P2RX6,HMOX1,MLC1,TCL1A,HM13,CHMP4B,DGKH,BMF,TRPS1,FSD1,BBC3,CAV1,SLC6A4,MPP2,CRYAB,PRMT8,STX2,CPSF6,ALDH5A1,DPYSL3,FARS8,OPRD1,TNFAIP3,PKD2,ATL2,CLU,IKZF4,AHNAK,CLYBL,KIF25,KCNC1,RIPK3,TRPM4,SYT11,IGHMBP2,LRP4,APC,HRK,FLOT1,PEX5,IGF1R,NOL3,PMAIP1,COL6A1,COL6A2,PEX14,ILDR1,CBR4,SCUBE3,DPYS,ALAD,NACC2,ALDOA,DISP1,OXAL1,SKI,COLEC12,NLRP3,ZC3H12A,CLDN3,VWA2,SRR,TMC8,MAT2A,LETM1,NLGN1,LRRRC8,RASGRP1,TRIM72,KCNJ12,ALDH1A3,IKZF1,CALHM1,MAPT,AKR1C1,MAGI2,TMEM120B,RYR1,HIST1H3D,S100A10,CD247,HSD17B8,LY6GSC,GPX3,IKBK

GO:0072089 stem cell proliferation 9.69E-03 TEAD3,FGFR2,FBLN1,PTPRC,SMARCD3,MECOM,WNT3,WNT5A,ARTN,EPCAM,NES,WNT2B,SOX5,SIX3,FGF2,SFRP2,HMGA2,RUNX1,HMGB2,SHH,CTNNB1,WNT10B,SOX11,ZFP36L1,LRRK2,TRIM71

GO:0031532 actin cytoskeleton reorganization 9.70E-03 BAIAP2L1,FRY,EZR,ABL1,PHACTR1,PTK7,PTK2B,BAIAP2L2,MKLN1,PDLIM4,PDGFRA,NTRK3,BCAS3,ARHGDI1,PIP5K1A,HAX1,PAK1,EP58,TNIK,CDK5,ANTXR1,S1PR1,CDC42BPB,BRSK2,HRAS,NTF3,ARAP1,CDC42BPB,S1PR2



GO:0007611 learning or memory  
1.01E-02 NRXN3,MUSK,ABCA7,MEF2C,SLC8A3,CALB1,PTPRZ1,DKK1,NRXN2,CUX2,SGK1,GALR3,LDLR,DLG4,EPHB2,ADCY3,CRHBP,TTBK1,EGFR,SHANK2,NETO1,MAP1A,GRM5,RGS14,PTEN,FOX B1,CNTNAP2,CHRNA7,NRXN1,NEUROG1,CLDN5,MAPT,HTT,GRIN2B

GO:0032956 regulation of actin cytoskeleton organization  
1.02E-02 CX3CL1,BAIAP2L1,MYOC,EPHA3,LIMA1,LIMCH1,ARFGEF1,NCK2,CLASP1,CAPZB,WNT11,PXN,ABL1,SFRP1,ARHGEF10,LIMK1,KANK1,CXCL12,FZD10,STMN1,PROX1,CTGF,TGFB3,RH OQ,SORBS3,PTK2B,NCKAP1L,LRP1,BAIAP2L2,PDGFRA, FHOD1,ARPC5L,TPM1,NTRK3,BCAS3,ARHGDI A,ARHGEF19,HAX1,TMEFF2,SLIT2,EPHA5,EPHA1,PAK1,EPS8,GRHL3,NCK1,ALO X15,CDC42EP3,LMOD1,F2RL1,DLCL1,CDK5,SYNPO2L,CDC42EP5,AKAP13,PTGER4,SSH3,HRAS,CDC42EP4,MYADM,CAV3,TACSTD2,EFNA5,NTF3,ARAP1,PDGFA,S100A10,CYFIP1

GO:0032526 response to retinoic acid  
1.03E-02 EPHA3,LTK,TMEM161A,PAX2,WNT11,WNT3,FZD10,PTK7,WNT5A,WNT6,PTK2B,SOX9,CDKN2D,RARA,PPARG,WNT9A,WNT3A,WNT9B,WNT10B,RARG,RORB,LYN

GO:0001701 in utero embryonic development  
1.03E-02 SOX8,FGFR2,BMP7,BMP5,SRF,HAND1,PKD2,TGFB3,GCM2,BMP2,E2F8,HEY2,LMX1B,TET1,EOMES,HEY1,E2F7,HOPX,ARNT2,LIG4,ASCL2,FOXD3

GO:0048511 rhythmic process  
1.03E-02 USP2,PTPRN,NGFR,RORA,DRD4,SREBF1,GNA11,TYRO3,CRTC1,MAPK8,RAI1,CPT1A,HDAC1,PROX1,TGFB3,CRY2,EREG,NR1D1,PRKCG,AANAT,ASS1,PPARG,PER2,CLOCK,PDGFRA,L HCGR,BMPR1B,NCOA2,ZFH3,CSNK1D,TNFRSF11A,SLIT2,HTR7,DYRK1A,PRKAA2,PROK2,GDF9,ADCY1,GPR176,BTRC,MTNR1A,PROKR1,NLGN1,PTEN,EGR3,SLIT3,PPP1CC,RORB

GO:0001505 regulation of neurotransmitter levels  
1.03E-02 SYT7,ATP1A2,ATP2B4,SNCAIP,DRD4,CHAT,SLC1A3,MOXD1,CHRNA3,MEF2C,HSP90AB1,STX1B,HRH3,SLC32A1,LIN7B,CAV1,STX1A,SLC6A4,NRXN2,SYT10,SLC38A1,STX2,ALDH5A1, RIMS3,CHRNB4,PKD2,CLU,DBH,PNKD,ASS1,PER2,SYT11,SYT6,KCNMB4,CYP1B1,AKT1,SYTL1,ALDH9A1,SNAP47,SNCA,BHMT,PTPRN2,SYN2,ZC3H12A,RNF180,ENPP6,NOS3,CDK5,S LC18A2,SLC6A5,SMAD3,GDNF,NLGN1,NRXN1,TLR5,SLC18A3,LRRK2,NOS1AP,SYT15,COLQ,DDAH2

GO:0046661 male sex differentiation  
1.03E-02 SOX8,KITLG,TFAP2C,SIX4,GATA3,WNT5A,TCF21,SOX9,SOX15,WNT2B,TBX3,GATA4,NR5A1,DMRT1,LHCGR,GATA6,LHFPL2,SHH,KLHL26,ZFP42,WT1,TLR5

GO:0050773 regulation of dendrite development	SARM1,NGEF,NEDD4,CHRNA3,MEF2C,BMP7,COBL,CUX2,BMP5,MARK1,OBSL1,PACIN1,DAB2IP,KIAA0319,PTPRD,TNIIK,C21ORF91,CSMD3,CDK5,SDC2,NLGN1,PTEN,CDK5R1,CA 1.04E-02 MK1D,DCC,LRRK2,SRIN1
GO:0040008 regulation of growth	SEMA3G,MUSK,NEDD4L,NTN1,FGFR2,HYAL2,IP6K2,RASGRP2,TGFBR3,ENO1,PLXNA2,TP73,MEF2C,WNT11,MT3,TBX5,LTBP4,NRCAM,ABL1,SIX4,SGK2,WFDC1,SFRP1,BBC3,TGFB1, LIMK1,SLC6A4,CYP27B1,GLI1,CDKN1B,CHPT1,WWC1,HYAL1,MAD2L2,RPS6KA1,PROX1,SGK1,GHSR,CPNE5,BMP4,STAT5A,SIX1,MACF1,SOX15,CDKN2D,GDF15,PAK4,REGG,PIM1,F GF2,DUSP6,ACVRL1,ESR2,RPTOR,AKT1,CPNE9,AGTR1,SLIT2,SFRP2,EGFR,LRP12,EBAG9,NOTCH1,POU4F2,ADAM17,MMP14,FRZB,MSX1,TRIM46,APBB2,TBX20,SOX17,OSGIN2,AP BB1,SMAD3,PHB,ISLR2,SERTAD3,TMC8,GNB4,DSCAM,SLC25A33,BCL2,PTEN,STAT5B,LEP,CCDC85B,BDNF,SLIT3,WT1,NRG3,MAPT,MT1X,DCC,AGRN,MUC12,MT1H,MT1M,MIR19 1.06E-02 9B,SIPA1,PLXNA4,MIR19A
GO:0051098 regulation of binding	ISL1,HDAC4,PRKACA,TRAF4,MEF2C,AURKA,ABL1,CLN5,EIF3E,TGFB1,CAV1,GATA3,MAPK8,DKK1,PRMT8,BAG2,MDFI,HAND1,ITGA4,MAD2L2,STMN1,MSX2,TWIST1,LRP1,BMP4,B MP2,SMO,RARA,PPARG,PER2,PRMT7,NES,NGF,HEY2,FAM129B,DAB2IP,FLOT1,TMBIM6,RB1,ARRB2,AKT1,PEX14,PTPRF,TTBK1,TCF7L2,HMGA2,POU4F2,POU4F1,CEBPG,WNT3A, 1.10E-02 NRG1,SKI,EPB41,GPSM1,NEUROD1,LRPAP1,HMGB2,HAND2,HEY1,PLK1,NKX3-1,TMCC8,CTNNB1,PCSK9,BCL2,TRAF6,ERCC4,BDNF,SOX11,ZFPM1,RUVBL2,LRRK2,MIR148A,CPNE1
GO:0006029 proteoglycan metabolic process	XYLT2,B4GALT7,VCAN,B3GAT1,DSE,UST,HYAL1,CHPF,HS3ST3B1,BCAN,HS6ST1,SULF1,BMPR1B,CSGALNACT1,TCF7L2,ADAMTS12,CHST9,CTNNB1,CHST14,CANT1,CHST11,CSPG4, 1.11E-02 GAL3ST3,HS6ST3,SULF2
GO:1990778 protein localization to cell periphery	EHD2,CDH1,EPHA3,ATP1B3,DLG1,STX7,TMED2,EZR,LIN7B,CLIP3,TGFB1,CAV1,SLC9A3R1,RAB34,TULP1,RAB7L1,RHOQ,FAM126A,LRP1,PACIN1,MACF1,GNAI1,DPPP6,CRB3,RAMP 1,EPHB2,MRAP2,MAP7,FLOT1,RAB40B,STAC2,AKT1,PIPSK1A,ANK2,NKD2,EGFR,TNIIK,EPB41,SPTBN4,SQSTM1,PRKCI,LZTFL1,CDK5,CACNB2,SCN3B,CACNB3,RAB26,TMEM150A,ST 1.12E-02 X8,LRRCL15,RAB37,JUP,DPP10,ZDHHC22,PACS2,MYADM,NRXN1,CAV3,PKP3,KCNIP4,RILPL1,MYO5A,S100A10
GO:0048332 mesoderm morphogenesis	1.14E-02 EYA2,PAX2,DKK1,BMP4,ITGB4,KDM6B,TBX3,CRB2,HMGA2,WNT3A,EOMES,TBX20,MESP1,MESP2,TRIM15,ITGB3
GO:0003229 ventricular cardiac muscle tissue development	1.14E-02 ISL1,FGFR2,TGFBR3,SMAD7,TGFB1,HAND1,PROX1,TNNT2,DLL4,TPM1,NOTCH1,NRG1,ADAMTS9,ZFPM2,NKX2-5,RYR2

GO:0099622 cardiac muscle cell membrane repolarization 1.14E-02 KCNQ1,KCNH2,DLG1,KCNN2,SNTA1,KCNIP2,KCNJ5,KCNA5,ANK2,RNF207,KCNJ3,ATP1A1,KCNE3,SCN4B,CAV3,NOS1AP

GO:0048638 regulation of developmental growth 1.18E-02 SEMA3G,MUSK,NEDD4L,NTN1,FGFR2,TGFB3,PLXNA2,TP73,MEF2C,MT3,TBX5,NRCAM,ABL1,SIX4,LIMK1,SLC6A4,GLI1,WWC1,PROX1,GHSR,CPNE5,BMP4,STAT5A,SIX1,MACF1,S  
OX15,GDF15,PIM1,FGF2,DUSP6,CPNE9,NOTCH1,POU4F2,TRIM46,TBX20,ISLR2,DSCAM,PTEN,STAT5B,LEP,BDNF,WT1,MAPT,DCC,AGRN,MIR199B,PLXNA4,MIR19A

GO:0051897 positive regulation of protein kinase B signalin 1.18E-02 CX3CL1,HGF,MYOC,KITLG,F7,ERBB3,FGFR2,FGF4,FGFR1,FGF20,ESR1,HSP90AB1,RASD2,TGFB1,GATA3,FGF8,FGF6,GCNT2,F3,EREG,GDF15,CHI3L1,PDGFRA,THBS1,FGF5,FGF2,HAX  
1,EGFR,MFHAS1,TCF7L2,ANGPT1,PIK3AP1,FGF18,NRG1,NRG2,PINK1,FGF19,MST1R,LEP,NRXN1,TSPYL5,TNFAIP8L3,IRS2,FGF3,PDGFA,MIR199B,CPNE1

GO:0030004 cellular monovalent inorganic cation homeost 1.18E-02 CFTR,SLC11A1,ATP1A2,ATP6V0A1,NEDD4L,SLC9A3,ATP1B3,SLC4A11,SLC26A4,CLN5,CA2,ATP6V0A4,CLCN3,SLC26A8,SLC4A9,SLC4A3,SLC9A2,RAB38,CLN6,ATP1B2,SLC26A10,RA  
B20,SLC26A2,KCNMA1,ATP1A1,SLC26A5,BCL2,ATP6VOC,LRRK2

GO:0050810 regulation of steroid biosynthetic process 1.20E-02 CYP51A1,DKK3,NFYC,SREBF1,REST,SCD,DKK1,CYP27B1,BMP5,SCAP,PROX1,NFYB,BMP2,NR1D1,NR5A1,M8TPS1,DGKQ,STAR,TM7SF2,GGPS1,BMP6,ABCG1,FGF19,GF1,STARD4,  
SREBF2

GO:0010002 cardioblast differentiation 1.21E-02 REST,TBX5,SRF,GATA4,NOTCH1,WNT3A,NRG1,T,NKX2-5

GO:0051272 positive regulation of cellular component mov 1.23E-02 FGR,CD74,HGF,MAP2K3,MYOC,HDAC9,SYNE2,F7,LAMC2,HDAC7,NTN1,SCARB1,CLASP1,FGFR1,PTPRC,WNT11,TRIP6,ICAM1,ZNF268,SEMA6A,EPB41L4B,ABL1,MADCAM1,HMOX  
1,ANGPT4,FLT1,SYDE1,PRKD2,TGFB1,HSPB1,GATA3,CXCL12,SPOCK2,COL1A1,SMURF2,GCNT2,PTP4A1,THBS4,WNT5A,HYAL1,FOXP1,ACVR1,TACR1,IGFBP5,F3,PROX1,NR4A3,PGF  
,PTK2B,TWIST1,PLAU,NCKAP1L,EDN3,BMP4,SOX9,BMP2,STAT5A,KDR,PODXL,TRPM4,RAB25,PDGFRA,ETS1,APC,DAB2IP,THBS1,FGF2,IGF1R,NTRK3,CDH13,BCAS3,GRB7,AKT1,CYR  
61,PLA2G7,EGFR,EPHA1,NOTCH1,PAK1,DOCK1,ADAM17,ANGPT1,FGF18,MMP14,RNF207,PDPN,TRIM46,CXCL1,ZC3H12A,F2RL1,NOS3,ATOH8,ROR2,HAS2,PDGFD,DSCAM,LRRC1  
5,RHOD,CMKLR1,HRAS,FOXC2,GATA2,MYADM,CAMK1D,ZNF703,PRKD1,NTF3,PDGFA,NOS1AP,MIR181D,TWIST2,LYN,ITGB3

GO:0045599 negative regulation of fat cell differentiation 1.24E-02 TRIO,RORA,RUNX1T1,TGFB1,GATA3,WNT5A,FOXO1,ZFP36L2,SMAD3,WNT10B,ZFPM2,CCDC85B,GATA2,ZFPM1,ZADH2

GO:1902930 regulation of alcohol biosynthetic process 1.27E-02 CYP51A1,DKK3,NFYC,SREBF1,REST,SCD,CYP27B1,BMP5,SCAP,NFYB,PTK2B,BMP2,LHCGR,MBTPS1,DGKQ,SNCA,TM7SF2,GGP51,BMP6,ABCG1,PTH1R,GFI1,P2RY6,SREBF2

GO:0070167 regulation of biomineral tissue development 1.27E-02 LTF,MEF2C,BMP7,TGFB1,CYP27B1,ACVR1,WNT6,TGFB3,PTK2B,TWIST1,BMP4,SOX9,BMP2,TRPM4,TFAP2A,BMPR1B,OSR1,NOTCH1,BMP6,ANKH,NOS3,OSR2,NELL1,S1PR1

GO:0046777 protein autophosphorylation 1.29E-02 FGR,MAP3K9,MATK,MUSK,FGFR2,FGFR1,MKNK1,ULK2,AURKA,TYRO3,MYO3A,ABL1,MKNK2,RASSF2,MYLK2,STK24,FLT1,MAP4K1,PRKD2,JAK3,CAV1,CAMKK2,MAPKAPK3,ZAP70,PASK,STK25,AAK1,PTK2B,KDR,RIPK3,STK33,PDGFRA,TEC,PIM1,MAP3K12,IGF1R,TOM1L1,AKT1,EGFR,EPHA1,TNKS1BP1,PAK1,IMPACT,TNIK,DYRK1A,PINK1,PDGFD,ALK,MAP3K11,1.29E-02 TNK1,PRKD1,LRRK2,EPHB4,DAPK1,PDGFA,PIM3,NTRK1,STK39,GRK5,DDR1,LYN

GO:0018105 peptidyl-serine phosphorylation 1.30E-02 KE  
CAMK1G,MLXIPL,ATP2B4,PRKCZ,MAST4,NCK2,PRKACA,MKNK1,HSP90AB1,MKNK2,TCL1A,SGK2,RASSF2,MYLK2,SMAD7,MAP4K1,PRKD2,TGFB1,CAV1,MAPK8,DKK1,CAMKK2,PDE4D,MAPKAPK3,MARK1,OPRD1,MAD2L2,SGK1,PKN1,PRKCG,LIF,STK33,DCLK1,MAP3K12,NTRK3,CSNK1D,RPTOR,AKT1,HAX1,RQCD1,DGKQ,SNCA,SFRP2,TTBK1,EGFR,TNKS1BP1,PAK1,HMGA2,GPD1L,WNT3A,DYRK1A,NCK1,PINK1,SPTBN4,PRKAA2,PRKCI,CAMKV,CDK5,PRKCB,PLK1,DDIT4,CDK5R1,NRXN1,CAMK1D,PRKD1,NTF3,MAPK12,SBK1,LRRK2,STK39,IKB

GO:1902105 regulation of leukocyte differentiation 1.30E-02 LTF,CD74,RUNX3,PRKCZ,CBFB,TBX21,GLI2,ABL1,ACIN1,NFATC2,SMAD7,SFRP1,JAK3,CDK6,GLI3,GATA3,ZMIZ1,CALCA,VNN1,IL12B,FOXP1,ZAP70,TNFSF4,MYB,HOXA7,NCKAP1L,BMP4,LIF,FOXJ1,RARA,GPR55,IRF4,LHCGR,HAX1,POU4F2,POU4F1,ZFP36L2,MMP14,RUNX1,IKZF3,NLRP3,ZC3H12A,SHH,AXL,TRAF6,ZFPM1,SOCS1,IRF7,ZFP36L1,CR1,MAFB,HLA-G

GO:0060395 SMAD protein signal transduction 1.31E-02 WWTR1,BMP7,TGFB1,BMP5,TGFB3,BMP4,BMP2,GDF5,GDF1,GDF15,GDF7,BTBD11,BMP6,GDF6,NODAL,SKI,INHBB,GDF9,SMAD3,ATOH8,MAGI2,GDF10

GO:1903779 regulation of cardiac conduction 1.31E-02 ATP2B4,PRKACA,ATP2A3,ITPR3,SLC8A3,CAV1,PDE4D,FKBP1B,ITPR2,TRPM4,CORIN,ANK2,ATP2B2,RNF207,NPR2,STIM1,ATP2A2,NKX2-5,RYR1,ATP2A1,RYR2,MIR19A

GO:0046546 development of primary male sexual characte 1.32E-02 SOX8,KITLG,TFAP2C,SIX4,GATA3,WNT5A,TCF21,SOX9,SOX15,WNT2B,GATA4,NR5A1,DMRT1,LHCGR,GATA6,LHFPL2,KLHL26,ZFP42,WT1,TLR5

GO:0086019 cell-cell signaling involved in cardiac conductic 1.32E-02 CACNA1G,KCNQ1,KCNN2,KCNJ5,KCNA5,TRPM4,HCN4,ANK2,RNF207,KCNJ3,CACNB2,SCN3B,SCN4B,RYR2

GO:0060911 cardiac cell fate commitment 1.32E-02 ISL1,DKK1,ACVR1,WNT3A,SOX17,MESP1,WT1

GO:0008045 motor neuron axon guidance 1.32E-02 PLXNA2,CHN1,RNF165,SUIT2,SLIT1,PLXNA4,LHX1

GO:0009950 dorsal/ventral axis specification 1.32E-02 SFRP1,MDFI,LRP4,SMAD6,LRP5,FZD5,SOST

GO:0032351 negative regulation of hormone metabolic prc 1.32E-02 DKK3,REST,DKK1,CYP27B1,BMP5,BMP2,GF11

GO:0072176 nephric duct development

1.32E-02 PAX2,WNT11,GATA3,PKD2,BMP4,OSR1,LHX1

GO:0061053 somite development

1.32E-02 SIX4,COBL,MEOX2,CDX1,SMO,SFRP2,CRB2,WNT3A,SHH,CDX2,MESP1,FOXB1,SOX11,MESP2

GO:0042698 ovulation cycle

1.35E-02 PTPRN,TYRO3,TGFB3,EREG,PDGFRA,LHCGR,BMPR1B,SLIT2,GDF9,SLIT3

GO:0003177 pulmonary valve development

1.35E-02 BMP4,HEY2,SMAD6,SLIT2,NOTCH1,HEYL,TBX20,HEY1,NOS3,ROBO1

GO:0033137 negative regulation of peptidyl-serine phospho

1.35E-02 MLXIPL,NCK2,RASSF2,SMAD7,CAV1,DKK1,PDE4D,GPD1L,NCK1,DDIT4

GO:0002521 leukocyte differentiation

TYROBP,ITF,CD74,RUNX3,HDAC9,PRKCZ,CBFB,HDAC4,RORA,TBX21,GLI2,TPD52,PTPRC,ABL1,ACIN1,NFATC2,SMAD7,SFRP1,JAK3,CDK6,GLI3,GATA3,SH3PXD2A,ZMIZ1,CALCA,VN  
N1,IL12B,FOXP1,ZAP70,ITGA4,LEPR,TNFSF4,MYB,PTK2B,HOXA7,NCKAP1L,BATF3,BMP4,LIF,DL4,RIPK3,FOXO1,CBFA2T3,RARA,PPARG,PTPN22,HNF1A,GPR55,IRF4,LHCGR,TNFRSF  
11A,HAX1,POU4F2,ADAM17,POU4F1,ZFP36L2,HHEX,CD8A,CEBPG,MMP14,RUNX1,IKZF3,TAL1,NLRP3,EOMES,ZC3H12A,F2RL1,SHH,AXL,PTGER4,LIG4,LEP,TRAF6,CLCF1,GATA2,ZF  
1.36E-02 PM1,SOCS1,IRF7,ZFP36L1,IKZF1,CR1,MAFB,HLA-G,NFAM1,EFNA4,CEBPA,LYN

GO:0048709 oligodendrocyte differentiation

1.37E-02 SOX8,SLC8A3,PTPRZ1,CLU,CXCR4,ZNF365,TNFRSF21,DAAM2,NOTCH1,PRDM8,CDK5,PTEN,HESS

GO:0044091 membrane biogenesis 1.37E-02 CLIP3,CAV2,CAV1,NRXN2,STX2,LRP4,FLOT1,PTPRD,NLGN1,PTEN,NRXN1,CAV3,S100A10

GO:0048704 embryonic skeletal system morphogenesis 1.37E-02 FGFR2,MTHFD1L,TWIST1,SIX1,HOXD3,PDGFRA,TFAP2A,COL2A1,OSR1,OSR2,CTNNB1,SOX11,LHX1

GO:0030099 myeloid cell differentiation 1.38E-02 NA4,CEBPA,LYN,HIST1H4F,HIST1H4D  
TYROBP, LTF, CD74, SPI1, CBFβ, TGFβR3, HOXA9, TNRC6C, MEF2C, SETD1A, TNRC6B, ACIN1, KLF1, JAK3, CDK6, HOXA5, SH3PXD2A, ZBTB16, CALCA, HSPA9, IL12B, FOXP1, HDAC1, FOXO3, NR4A3, HOXB8, PTK2B, HOXA7, NCKAP1L, BATF3, BMP4, LIF, CBFA2T3, RARA, PPARG, MEIS2, ETS1, GPR55, THBS1, LHCGR, TNFRSF11A, HAX1, MEIS1, MFHAS1, POU4F2, POU4F1, CEBPG, MOV10, RUNX1, NBEAL2, ZNF385A, TAL1, DPY30, SNRK, HMGB2, F2RL1, RPS14, PRKCB, TET2, RASGRP4, STASB, TRAF6, GATA2, ZFPM1, IRF7, ZFP36L1, IKZF1, HIST1H3D, LDB1, PRMT6, MAFB, EF

GO:0071709 membrane assembly 1.40E-02 CAV2,CAV1,NRXN2,STX2,LRP4,FLOT1,PTPRD,NLGN1,PTEN,NRXN1,CAV3,S100A10

GO:0098815 modulation of excitatory postsynaptic potenti 1.40E-02 PRKCZ,STX1B,CBLN1,CUX2,PTK2B,DLG4,TMEM108,NLGN1,PTEN,CHRNA7,NRXN1,LRRK2

GO:1902036 regulation of hematopoietic stem cell differen 1.40E-02 CBFβ,TP73,ABL1,SETD1A,GATA3,MYB,LMO2,RUNX1,TAL1,LMO1,GATA2,LDB1

GO:0048333 mesodermal cell differentiation 1.40E-02 EYA2,PAX2,DKK1,BMP4,ITGB4,KDM6B,HMGA2,WNT3A,MESP1,TRIM15,ITGB3

GO:0006352 DNA-templated transcription, initiation	<p>TEAD3,MED24,WWTR1,CBFB,RORA,NOTCH3,RARB,RRN3,TBX5,NAT14,ESR1,POLRMT,MED15,CCND1,NR2E1,SRF,NR3C1,NR5A2,CTGF,NR4A3,ESRRB,TWIST1,NR4A1,RUNX2,SOX9,THRA,NR1D1,RARA,PPARG,CDK8,HNF1A,HEY2,NR5A1,POLR1E,ESR2,TAF4B,BDP1,NR6A1,NOTCH1,THRB,NR3C2,SMARCA5,PAXIP1,NR2F6,POLR2H,CTNNB1,RARG,ESRRB,FOSL1, NR2F1,NR2C2,NKX2-5,NR2C2AP,BRF1,ESRRG,MAML3,RORB,RXR,NOTCH4,GT2H4,GT2I</p> <p>1.40E-02</p>
GO:0048041 focal adhesion assembly	<p>1.41E-02 MYOC,EPHA3,LIMCH1,TESK2,CLASP1,COL16A1,TRIP6,ABL1,SFRP1,MACF1,KDR,LAMA5,THBS1,ACVRL1,BCAS3,PIP5K1A,DLC1,PTEN,RHOD,RCC2,EFNA5,S100A10,LDB1</p>
GO:0007045 cell-substrate adherens junction assembly	<p>1.41E-02 MYOC,EPHA3,LIMCH1,TESK2,CLASP1,COL16A1,TRIP6,ABL1,SFRP1,MACF1,KDR,LAMA5,THBS1,ACVRL1,BCAS3,PIP5K1A,DLC1,PTEN,RHOD,RCC2,EFNA5,S100A10,LDB1</p>
GO:0050730 regulation of peptidyl-tyrosine phosphorylation	<p>CRLF1,GPRC5A,CD74,HGF,ERBB3,PRKCZ,HYAL2,NCK2,NOX4,DOCK3,ABL1,ANGPT4,SFRP1,TGFB1,CAV1,UNC119,CD81,THBS4,IL12B,PTK2B,EREG,LIF,SNX6,SH3BP5,DLG4,TEC,CBL, HAX1,DGKQ,SFRP2,TSLP,EGFR,CTF1,ADAM17,ANGPT1,ZFYVE28,SHC1,GRM5,CSPG4,CLCF1,DOK7,BDNF,STAP2,EFNA5,SOCS1,NTF3,PDGFA,HES5,INPP5F,LYN,ITGB3,SRIN1,MIR1</p> <p>1.41E-02 9A</p>
GO:0007044 cell-substrate junction assembly	<p>MYOC,EPHA3,LAMA3,LAMC2,LIMCH1,TESK2,CLASP1,COL16A1,TRIP6,ABL1,SFRP1,MACF1,KDR,LAMA5,ITGB4,THBS1,ACVRL1,BCAS3,PIP5K1A,DLC1,PTEN,RHOD,RCC2,EFNA5,S100A10,LDB1</p> <p>1.43E-02</p>
GO:0018107 peptidyl-threonine phosphorylation	<p>CAMK1G,WNK1,BMP7,MYLK2,SMAD7,PRKD2,TGFB1,PRKAG2,MAPK8,CAMKK2,ACVR1,PKN1,STK33,CHI3L1,DCLK1,MAP3K12,RPTOR,AKT1,OSR1,DGKQ,TTBK1,TNKS1BP1,DYRK1A, CAMKV,CDK5,PRKCB,PLK1,DDIT4,CDK5R1,CAMK1D,PRKD1,SBK1,LRRK2,SPRED2,STK39,S1PR2</p> <p>1.43E-02</p>
GO:0010862 positive regulation of pathway-restricted SMA	<p>1.44E-02 BMP7,TGFB1,BMP5,TTK,ACVR1,TGFB3,BMP4,BMP2,GDF5,GDF1,GDF15,ACVRL1,GDF7,BMP6,GDF6,NODAL,INHBB,GDF9,GDF10</p>



GO:0006816 calcium ion transport	<p>CX3CL1,CACNA1G,ATP1A2,MCOLN3,ATP2B4,CACNB1,DRD4,PRKACA,ATP2A3,CACNG4,PTPRC,JPH4,ITPR3,SLC8A3,TRPC4AP,CHRNA4,NALCN,JPH1,KCNN4,BBC3,GRIN2D,CACNG7,CAV1,TSPAN13,CXCL12,CALCA,CYP27B1,PDE4D,THADA,PKD2,FKBP1B,CRHR1,PTK2B,ADRA1A,NPY,ITPR2,AHNAK,SLC25A23,TRPM4,DIAPH1,RAMP1,APLNR,TRPC6,FGF2,TMBIM6,NOL3,AFG3L2,STAC2,CACNA1A,CACNG8,SNCA,ANK2,MCOLN2,ATP2B2,ORAI2,GRIN2C,TRPV6,CACNB2,PRKCB,PHB,STIM1,CACNB3,CTNNB1,LETM1,P2RY6,BCL2,IL16,ATP2A2,CHR</p> <p>1.49E-02 NA7,CACNB4,CAV3,CATSPER4,RYR1,ATP2A1,CACNA1H,HTT,RYR2,NOS1AP,FAM155A,GRIN2B</p>
GO:0009914 hormone transport	<p>CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,PTPRN,CHRNA3,REST,LTBP4,ITPR3,SFRP1,STX1A,TFR2,GLP1R,POMC,PASK,SLC2A1,CRHR1,GHSR,ITPR2,EDN3,PAX8,FOXA2,NR1D1,LIF,KCNA5,TRPM4,PER2,CLOCK,TBX3,FAM129B,PDX1,ADCYAP1,CACNA1A,AGTR1,EPHA5,CRHBP,TCF7L2,PTPRN2,LRP5,NEUROD1,INHBB,UCN,GDF9,SCG5,NKX3-</p> <p>1.50E-02 1,MIDN,KCNS3,BRSK2,SOX11,MAFA,EFNA5,IRS2,DPP4,CACNA1E,PIM3</p>
GO:0042493 response to drug	<p>CFTR,CD38,ABCB4,ABCC8,ATP1A2,HGF,CDH1,RAD51,KCNQ1,KCNH2,DRD4,PAX2,FGF20,SLC1A3,CHRNA3,MEF2C,REST,MT3,GNA11,SLC4A11,LOC728392,ABL1,SLC25A1,HMOX1,NFATC2,CHRNA4,STK24,SFRP1,MAP4K1,TGFB1,CAV1,PIPF,SLC6A4,CCND1,SLC22A18,OPRM1,NR3C1,STK25,CENPF,CHRN4,TNFAIP3,ABCG2,NR4A3,TGFB3,ADRA1A,NCKAP1L,SLC36A1,SOX9,PRKCG,GNAI1,KDR,IRF5,PER2,PTPN22,HTR1B,CHRND,GATA4,THBS1,ADCY3,CYP1B1,ABCG5,TMBIM6,GATA6,OSR1,SLIT2,DGKQ,SNCA,CRHBP,GLRA1,SGS10,HMGA2,FOXO1,EPS8,ADAM17,IMPACT,LARP1,KCNMA1,FZD1,PINK1,HLCS,AQP5,SLC6A20,ZC3H12A,HMGB2,GDF9,ADCY1,SLC18A2,SLC6A5,NKX3-1,TP53I13,CTNNB1,GDNF,CHRNA5,GPR37L1,CHRN1,BCL2,JUP,SLC22A1,CHRNA7,P2RY2,CDK5R1,SLC25A42,SLC35F3,SLIT3,CALHM1,PDE2A,AGRN,LRRK2,RYR1,MB,RYR2,STK39,</p> <p>1.51E-02 DAXX,GPX1,GRIN2B</p>
GO:0051147 regulation of muscle cell differentiation	<p>CFLAR,EHD2,HDAC9,CDON,CTNNA2,FGFR2,HDAC4,MEF2C,ABL1,NFATC2,TGFB1,DKK1,SRF,PROX1,BHLHE41,EREG,BMP4,BMP2,DNMT1,NFATC1,HEY2,FAM129B,FLOT1,NOTCH1,</p> <p>1.51E-02 WNT3A,NRG1,MMP14,SHH,MESP1,CTNNB1,CDH2,AKAP13,BDNF,CAV3,NKX2-5,MAPK11,MAPK12,MIR199B,MIR124-2,MIR125B1,MIR19A,MIR124-1</p>
GO:0001947 heart looping	<p>1.51E-02 MEF2C,NDRG4,SRF,HAND1,PKD2,SMO,GATA4,BBS4,CCDC40,NOTCH1,RNF207,TBX20,SHH,SOX17,MESP1,NKX2-5</p>
GO:0034101 erythrocyte homeostasis	<p>1.53E-02 SPI1,TGFB3,HMOX1,ACIN1,KLF1,JAK3,CDK6,HOXA5,HSPA9,FOXO3,NCKAP1L,ETS1,MFHAS1,CEBPG,TAL1,HMGB2,RPS14,STAT5B,ZFPM1,ZFP36L1,IKZF1,LDB1,MAFB,LYN</p>
REAC:R-HSA- Defective B3GALT1 causes Peters-plus syndror	<p>1.57E-02 THSD7A,SEMA5B,ADAMTS2,ADAMTS8,THBS1,ADAMTS14,ADAMTS18,ADAMTS19,ADAMTS12,ADAMTS5,SPON2,ADAMTS9,ADAMTS20,ADAMTSL1,THBS2,THSD4,SPON1</p>

GO:0097305 response to alcohol	<p>CFTR,CDH1,RAD51,DRD4,TGFB3,MLC1,SFRP1,MAP4K1,TGFB1,OPRM1,TNFSF4,PTGER2,GNAI1,SMO,ADCY3,SLIT2,CRHBP,GLRA1,EP58,LARP1,ADCY1,CTNNB1,PTGDR,PTGER4,JU</p> <p>1.60E-02 P,SLIT3,GNNG2,GRIN2B</p>
GO:0048565 digestive tract development	<p>1.61E-02 FGFR2,GLI2,RARB,WNT11,SALL1,COBL,GLI3,GLI1,TCF21,SFRP5,SMO,ITGB4,PDGFRA,EDNRB,GATA4,FOXF2,GATA6,CCDC40,SOX17,CDX2,SOX11,FOXE1</p>
GO:1905039 carboxylic acid transmembrane transport	<p>ATP1A2,SLC1A3,SLC23A2,SLC25A1,SLC32A1,CPT1A,SLC38A1,SLC6A6,PER2,SLC38A2,THBS1,SLC38A4,AKT1,OSR1,SLC38A10,SLC6A5,SLC38A11,SLC23A1,LRRRC8D,IRS2,STK39,CPT1</p> <p>1.61E-02 B</p>
GO:1903825 organic acid transmembrane transport	<p>ATP1A2,SLC1A3,SLC23A2,SLC25A1,SLC32A1,CPT1A,SLC38A1,SLC6A6,PER2,SLC38A2,THBS1,SLC38A4,AKT1,OSR1,SLC38A10,SLC6A5,SLC38A11,SLC23A1,LRRRC8D,IRS2,STK39,CPT1</p> <p>1.61E-02 B</p>
GO:0055067 monovalent inorganic cation homeostasis	<p>CFTR,TFAP2B,SLC11A1,ATP1A2,ATP6V0A1,NEDD4L,KCNH2,SLC9A3,ATP1B3,SLC4A11,SLC26A4,CLN5,CA2,ATP6V0A4,CLCN3,SLC26A8,SLC4A9,SLC4A3,SLC9A2,ATP6V1B1,RA838,C</p> <p>1.63E-02 LN6,ATP1B2,SLC26A10,RAB20,AGTR1,CORIN,SLC26A2,KCNMA1,ATP1A1,SLC26A5,BCL2,ATP6V0C,LRRK2</p>
GO:0030500 regulation of bone mineralization	<p>1.65E-02 LTF,MEF2C,BMP7,TGFB1,CYP27B1,ACVR1,TGFB3,PTK2B,TWIST1,BMP4,BMP2,TRPM4,TFAP2A,BMPR1B,OSR1,BMP6,ANKH,OSR2,NELL1,S1PR1</p>
GO:0030166 proteoglycan biosynthetic process	<p>1.65E-02 XYL2,VCAN,B3GAT1,DSE,UST,CHPF,HS3ST3B1,BCAN,HS6ST1,BMPR1B,CSGALNACT1,TCF7L2,CHST9,CTNNB1,CHST14,CANT1,CHST11,CSPG4,GAL3ST3,HS6ST3</p>

GO:0060306 regulation of membrane repolarization	1.66E-02 NEDD4L,KCNQ1,KCNH2,DLG1,SNTA1,CAV1,AKAP7,KCNA5,ANK2,RNF207,CACNB3,KCNE3,SCN4B,CAV3,NOS1AP
GO:0001952 regulation of cell-matrix adhesion	CX3CL1,MYOC,EPHA3,LIMCH1,CLASP1,COL16A1,ABL1,SFRP1,CDK6,PTK2B,HOXA7,PLAU,MACF1,KDR,THBS1,ACVRL1,CDH13,BCAS3,EPHA1,CCL28,UTRN,DLC1,PTEN,JUP,RCC2,EF 1.66E-02 NAS,AJAP1,S100A10,LDB1
GO:0051101 regulation of DNA binding	TGFB1,GATA3,MAPK8,MDF1,HAND1,MAD2L2,MSX2,TWIST1,SMO,PPARG,PER2,NGF,HEY2,FAM129B,RB1,HMGA2,POU4F2,POU4F1,CEBPG,SKI,NEUROD1,HMGB2,HAND2,HEY1,C 1.66E-02 TNNB1,TRAF6,ERCC4,SOX11,CPNE1
GO:0045646 regulation of erythrocyte differentiation	1.66E-02 SPI1,CDK6,HOXA5,HSPA9,FOXO3,NCKAP1L,ETS1,TAL1,HMGB2,STAT5B,ZFPM1,ZFP36L1,LDB1,MAFB,LYN
GO:0055010 ventricular cardiac muscle tissue morphogene	1.66E-02 ISL1,FGFR2,TGFB3,SMAD7,TGFB1,HAND1,PROX1,TNNT2,DLL4,TPM1,NOTCH1,NRG1,ZFPM2,NKX2-5,RYR2
GO:0010035 response to inorganic substance	HGF,CDH1,NEDD4L,ATP2B4,RASGRP2,NEDD4,PAX2,MEF2C,MT3,ITPR3,ABL1,HMOX1,BMP7,STK24,CAV1,TFR2,MAPK8,PI3K,CDKN1B,WNT5A,SLC30A3,STK25,TNFSF4,TNNT2,TNF AIP3,PKD2,NR4A3,KCNIP2,ACO1,ATP7B,KDR,DLG4,KCNMB4,TFAP2A,THBS1,CYP11B1,AKT1,KCNH1,ITPKB,SNCA,CRHBP,GLRA1,EGFR,DLG2,FOXO1,BMP6,IMPACT,KCNMA1,SLC30A 2,PINK1,ALOX15,PRKAA2,ZC3H12A,ADCY1,NOS3,TRPV6,CHP2,STIM1,NLGN1,GPR37L1,NEUROD2,BCL2,BNIP3,NRXN1,D2HGDH,MAPT,MT1X,LRRK2,RYR1,CACNA1H,KCNMB2,TX 1.66E-02 NRD1,RYR2,DAXX,MT1H,MT1M,CRIP1,CPNE1,GPX1
GO:0030072 peptide hormone secretion	CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,PTPRN,REST,LTBP4,ITPR3,SFRP1,STX1A,TFR2,GLP1R,PASK,SLC2A1,CRHR1,GHSR,ITPR2,EDN3,PAX8,FOXA2,NR1D1,KCNA5,TRPM4,PER2 1.69E-02 ,CLOCK,PDX1,ADCYAP1,CACNA1A,EPHA5,CRHBP,TCF7L2,PTPRN2,LRP5,NEUROD1,INHBB,UCN,MIDN,KCNS3,BRSK2,MAFA,EFNA5,IRS2,DPPP4,CACNA1E,PIM3

GO:0071248 cellular response to metal ion 1.69E-02 CDH1,RASGRP2,MEF2C,MT3,TFR2,MAPK8,PPIF,CDKN1B,WNT5A,PKD2,DLG4,TFAP2A,AKT1,KCNH1,ITPKB,SNCA,CRHBP,GLRA1,EGFR,DLG2,BMP6,ALOX15,PRKAA2,ADCY1,CHP2,N LGN1,NEUROD2,BNIP3,NRXN1,MT1X,LRRK2,RYR1,CACNA1H,DAXX,MT1H,MT1M,CPNE1

GO:0021700 developmental maturation 1.69E-02 CFTR,CX3CL1,LTF,MYOC,PTPRN,CDH3,ANKS1A,PRKACA,PAX2,NRCAM,CLN5,LHX6,ACRBP,KCNIP2,RAB38,EREG,BMP2,PPARG,DLG4,EDNRB,DAB2IP,SIX3,ACVRL1,CABYR,SPTBN4,N KXG-1,PLXNB1,AXL,S1PR1,NEUROD2,PTEN,CNTNAP2,NRXN1,AGRN,LRRK2,RYR1,HESS

GO:0030218 erythrocyte differentiation 1.71E-02 SPI1,TGFBR3,ACIN1,KLF1,JAK3,CDK6,HOXAS,HSPA9,FOXO3,NCKAP1L,ETS1,MFHAS1,CEBPG,TAL1,HMGB2,RPS14,STAT5B,ZFPM1,ZFP36L1,IKZF1,LDB1,MAFB,LYN

GO:0048854 brain morphogenesis 1.71E-02 CTNNA2,PAX2,SLC6A4,SMO,BBS4,FZD6,PTEN,SLIT1

GO:0045662 negative regulation of myoblast differentiatior 1.71E-02 SOX8,TGFB1,BMP4,SOX9,TBX3,NOTCH1,ANKRD2,SOSTDC1

GO:0055123 digestive system development 1.71E-02 FGFR2,GLI2,RARB,WNT11,SALL1,COBL,GLI3,GLI1,TCF21,SFRP5,SMO,ITGB4,PDGFRA,EDNRB,GATA4,FOXF2,GATA6,CCDC40,SOX17,CDX2,PTF1A,SOX11,FOXE1

GO:1905276 regulation of epithelial tube formation 1.71E-02 DVL2,SIX4,GATA3,SIX1,DVL3,GDNF

GO:0070304 positive regulation of stress-activated protein 1.71E-02 WNT16,DVL2,MAP3K9,TRAF4,RASSF2,MAP4K1,DKK1,FZD10,WNT5A,STK25,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,BMP2,TNFRSF19,GADD45G,MDFIC,DAB2IP,TNFRSF11A,MAP3K6,MFHAS1,PAK1,TNIK,GDF6,DVL3,FGF19,ZC3H12A,HAND2,F2RL1,RASGRP1,SH3RF3,MAP3K11,LEP,HRAS,TRAF6,DAXX,MIR181D,LYN

GO:0003129 heart induction 1.71E-02 DKK1,BMP4,BMP2,WNT3A,MESP1,ROBO1

GO:0086015 SA node cell action potential 1.71E-02 CACNA1G,KCNA5,HCN4,ANK2,SCN3B,RYR2

GO:0097120 receptor localization to synapse 1.71E-02 DLG1,STX7,DLG4,DLG2,NLGN1,NRXN1

GO:0042415 norepinephrine metabolic process 1.71E-02 MOXD1,GATA3,DBH,HAND2,RNF180,INSM1

GO:0003337 mesenchymal to epithelial transition involved 1.71E-02 PAX2,SALL1,BMP4,PAX8,LIF,SMO

GO:0072074 kidney mesenchyme development 1.71E-02 PAX2,SIX4,TCF21,PKD2,SIX1,OSR1,SHH,WT1

GO:0045830 positive regulation of isotype switching 1.71E-02 TP53BP1,TGFB1,MAD2L2,TNFSF4,FAM35A,PAXIP1,C20ORF196,CLCF1

GO:0072497 mesenchymal stem cell differentiation 1.71E-02 REST,WNT3,SOX9,SOX5,PDGFRA,FZD1

GO:0021515 cell differentiation in spinal cord 1.71E-02 ISL1,GLI2,MDGA1,DLL4,MNX1,MDGA2,TBX20,LHX1

GO:0086018 SA node cell to atrial cardiac muscle cell signal 1.71E-02 CACNA1G,KCNA5,HCN4,ANK2,SCN3B,RYR2

GO:0072243 metanephric nephron epithelium developmen 1.71E-02 SOX8,PAX2,PKD2,SOX9,PAX8,LIF,OSR1,POU3F3

GO:0007435 salivary gland morphogenesis 1.71E-02 HGF,FGFR2,TGFB1,TGFB3,NKX3-1,PDGFA

GO:0072283 metanephric renal vesicle morphogenesis 1.71E-02 PAX2,SALL1,BMP4,PAX8,LIF,SMO

GO:2000650 negative regulation of sodium ion transmembrane transport 1.71E-02 ATP1A2,NEDD4L,NEDD4,OSR1,PCSK9,STK39

GO:0060231 mesenchymal to epithelial transition 1.71E-02 PAX2,SALL1,GATA3,BMP4,PAX8,LIF,SMO,WT1

GO:0030501 positive regulation of bone mineralization 1.75E-02 LTF,MEF2C,BMP7,TGFB1,ACVR1,TGFB3,BMP4,BMP2,TFAP2A,BMP1B,OSR1,BMP6,OSR2,NELL1

GO:0035987 endodermal cell differentiation 1.76E-02 LAMA3,COL11A1,MMP15,DKK1,COL12A1,COL7A1,ITGA4,COL5A1,ITGA7,DUSP6,COL6A1,HMGA2,NODAL,MMP14,SOX17,MESP1,COL5A2

REAC:R-HSA- Transport of inorganic cations/anions and amino acids 1.79E-02 SLC12A2,SLC9A3,SLC1A3,SLC15A1,SLC26A4,SLC17A6,SLC8A3,SLC32A1,SLC7A5,SLC17A7,SLC1A5,SLC38A1,SLC16A10,SLC4A9,SLC4A3,SLC9A2,SLC1A4,SLC36A1,SLC12A4,SLC12A5,SLC6A6,SLC38A2,SLC38A4,SLC15A4,SLC24A4,SLC12A6,SLC43A1,SLC7A11,SLC7A7,SLC26A2,AHCYL2,SLC6A20,SLC6A18,SLC43A2,SLC6A19,SLC17A8,SLC38A3

REAC:R-HSA- Ca2+ activated K+ channels 1.80E-02 KCNN2,KCNN4,KCNN1,KCNMB4,KCNN3,KCNMA1,KCNMB2

REAC:R-HSA- RUNX3 regulates p14-ARF 1.80E-02 RUNX3,CBFB,HDAC4,TGFB1,CCND1,RUNX1,BRD2

REAC:R-HSA- Protein-protein interactions at synapses 1.80E-02 SYT7,NRXN3,APBA2,DLG1,DLGAP4,EPB41L1,LIN7B,GRIN2D,STX1A,NRXN2,SYT10,SLITRK3,DLG4,FLOT1,NTRK3,PTPRF,DLG2,GRIA4,PTPRD,GRIA1,EPB41,GRIN2C,SHANK2,SLITRK5,GRM5,NLGN1,DLGAP1,SLITRK1,NRXN1,BEGAIN,SHANK3,GRIN2B

REAC:R-HSA- RUNX1 regulates expression of components of 1.80E-02 CBFβ,TJP1,RUNX1,CLDN5,OCLN

GO:0051896 regulation of protein kinase B signaling 1.82E-02 CX3CL1,HGF,MYOC,KITLG,F7,ERBB3,FGFR2,HYAL2,FGF4,FGFR1,FGF20,PHLPP1,ESR1,HSP90AB1,RASD2,TGFB1,GATA3,FGF8,SLC9A3R1,FGF6,GCNT2,F3,SFRP5,EREG,GDF15,CHI3L1,PDGFRA,THBS1,FGF5,FGF2,ARRB2,AKT1,HAX1,EGFR,MFHAS1,TCF7L2,ANGPT1,PIK3AP1,FGF18,NRG1,NRG2,PINK1,FGF19,MST1R,PTEN,PHLDA3,LEP,NRXN1,TSPYL5,TNFAIP8L3,IRS2,FGF3,MAGI2,PDGFA,MIR199B,MIR34B,CPNE1

GO:0007160 cell-matrix adhesion 1.83E-02 B3 CX3CL1,MYOC,EPHA3,LIMCH1,TESK2,CLASP1,COL16A1,TRIP6,ABL1,MADCAM1,SFRP1,CDK6,ITGA4,PTK2B,HOXA7,PLAU,LYPD3,MACF1,SGCE,KDR,MKLN1,HOXD3,LAMA5,ITGB4,ITGA7,THBS1,ACVRL1,CDH13,BCAS3,PIP5K1A,EPHA1,ADAMTS12,CCL28,UTRN,ADAMTS9,DLCL1,ILK,PTEN,RHOD,JUP,RCC2,EFNA5,BCAM,AJAP1,COL13A1,S100A10,LDB1,DDR1,ITG

GO:0021675 nerve development 1.87E-02 ISL1,ERBB3,PAX2,SIX4,SALL1,PHOX2B,TFAP2A,SULF1,POU4F1,NEUROG1,SULF2,NTRK1,MAFB

GO:0001667 ameboidal-type cell migration 1.87E-02 SOX8,TBXA2R,MAP2K3,HDAC9,HDAC7,HYAL2,SCARB1,CLASP1,FGF4,FGFR1,MEF2C,PNX,EPB41L4B,ABL1,HMOX1,ANGPT4,SYDE1,PRKD2,TGFB1,HSPB1,MEOX2,GATA3,SMURF2,HOXB2,CALCA,SRF,WNT5A,HYAL1,FOXP1,ITGA4,PROX1,PTK2B,PKN1,GIPCI,NR4A1,BMP4,SOX9,STAT5A,MACF1,KDR,DLL4,PPARG,RAB25,ETS1,PRR5L,DAB2IP,MAP2K5,THBS1,CYP1B1,FGF2,ACVRL1,CDH13,BCAS3,AKT1,PTPRG,SUIT2,GNA12,CRB2,NOTCH1,DOCK1,ADAM17,ANGPT1,FGF18,NODAL,ADAMTS9,ZC3H12A,PITX2,SHH,NOS3,CENPV,GDNF,ATOH8,ROBO1,MCC,PLEKHG5,PTEN,JUP,FOXC2,GATA2,EGR3,TACSTD2,PRKD1,PTP4A3,NR2F2,EPHB4,DPP4,MIR193A,MIR124-2,MIR196A2,ITGB3,MIR212,MIR124-1

GO:0071229 cellular response to acid chemical 1.87E-02 ABCB4,EPHA3,DGAT2,LTK,PAX2,WNT11,SFRP1,WNT3,UCP1,FZD10,PTK7,WNT5A,WNT6,TNFSF4,PKD2,PTK2B,PTGER2,SOX9,KDR,RARA,RPTOR,WNT9A,GLRA1,WNT3A,WNT9B,CYPN2,ZC3H12A,PTGDR,WNT10B,PTGER4,KCNK4,GNG2,AKR1C1,RORB,LYN



GO:2000826 regulation of heart morphogenesis	1.87E-02 DKK1,ACVR1,BMP4,BMP2,SMO,PIM1,NOTCH1,WNT3A,RNF207,HAND2,MESP1,CTNNB1,ROBO1
GO:0051260 protein homooligomerization	MGST1,CCDC88C,BID,RAD51,TP53BP1,B4GALT1,ITPR3,P2RX6,HMOX1,TCL1A,HM13,CHMP4B,BMF,FSD1,BBC3,CAV1,MPP2,CRYAB,PRMT8,ALDH5A1,DPYSL3,PKD2,ATL2,CLU,IKZF4,CLYBL,KIF25,RIPK3,TRPM4,SYT11,IGHMBP2,APC,HRK,FLOT1,PEX5,PEX14,ILDR1,CBR4,SCUBE3,DPYS,ALAD,NACC2,ALDOA,DISP1,SKI,COLEC12,CLDN3,VWA2,SRR,LETM1,NLGN1, 1.87E-02 TRIM72,KCNJ12,ALDH1A3,CALHM1,AKR1C1,RYR1,CD247,LY6G5C,GPX3,IKBKE
GO:0032350 regulation of hormone metabolic process	1.87E-02 DKK3,REST,DKKL1,GATA3,CYP27B1,BMP5,STC2,PAX8,BMP2,DGKQ,TCF7L2,BMP6,GFI1
GO:0033144 negative regulation of intracellular steroid hor	1.87E-02 ISL1,SFRP1,FOXP1,HDAC1,TCF21,CRY2,CLOCK,RQCD1,NODAL,FOXH1,HEYL,PHB,KANK2
GO:0009948 anterior/posterior axis specification	1.87E-02 CDX1,FOXA2,TBX3,SKI,FZD5,T,SHH,CDX2,OTX2,HOXD8,NEUROG1,WT1,LHX1
GO:0006836 neurotransmitter transport	SYT7,ATP1A2,SLC18A1,SNCAIP,DRD4,CHAT,SLC1A3,CHRNA3,MEF2C,SLC17A6,STX1B,HRH3,SLC32A1,LIN7B,STX1A,SLC6A4,NRXN2,SYT10,SLC38A1,STX2,RIMS3,CHRNA4,SLC36A1, 1.87E-02 PNKD,SEC14L1,PER2,SYT11,SYT6,HTR1B,KCNMB4,SYTL1,SNAP47,SNCA,PTPRN2,SYN2,SLC6A20,CDK5,SLC18A2,SLC6A5,GDNF,NLGN1,SLC22A1,NRXN1,SLC18A3,LRRK2,SYT15
REAC:R-HSA- NCAM1 interactions	1.92E-02 CACNA1G,COL9A2,CACNB1,COL9A3,COL9A1,ARTN,ST8SIA2,COL6A1,COL6A2,NCAM1,CACNB2,CACNB3,GDNF,CACNB4,COL4A1,AGRN,CACNA1H

GO:0030322 stabilization of membrane potential	1.94E-02 KCNK2,KCNK6,KCNK10,KCNN4,KCNK15,KCNK13,KCNK9,KCNK4,KCNK12
GO:0022602 ovulation cycle process	1.94E-02 PTPRN,TGFB3,EREG,PDGFRA,LHCGR,BMPR1B,SLIT2,GDF9,SLIT3
GO:0003309 type B pancreatic cell differentiation	1.94E-02 CDK6,RHEB,BMP5,BMP4,CLOCK,PDX1,BMP6,NKX6-1,INSM1
GO:0072202 cell differentiation involved in metanephros di	1.94E-02 PAX2,SALL1,TCF21,BMP4,PAX8,LIF,SMO,OSR1,POU3F3
GO:0050927 positive regulation of positive chemotaxis	1.94E-02 F7,CXCL12,F3,PGF,KDR,NTRK3,CDH13,F2RL1,NTF3
GO:0001841 neural tube formation	1.94E-02 DVL2,PAX2,GRHL2,KDM2B,BMP7,TGFB1,COBL,BMP5,MTHFD1L,BBS4,LMO4,SKI,GRHL3,DVL3,DLC1,SOX11
GO:0050772 positive regulation of axonogenesis	1.94E-02 NGFR,NTN1,LIMK1,MACF1,NGF,PLXNC1,ARHGDI2,SLIT2,POU4F2,PLXNB1,ISLR2,ROBO1,DSCAM,BDNF,SLITRK1,MAPT

GO:0099625 ventricular cardiac muscle cell membrane repa 1.96E-02 KCNQ1,KCNH2,DLG1,SNTA1,KCNJ5,ANK2,RNF207,KCNJ3,KCNE3,SCN4B,CAV3,NOS1AP

GO:0021761 limbic system development 1.96E-02 FGFR2,CDK6,PROX1,BBS4,TMEM108,EPHA5,KIRREL3,NEUROD1,MFSD2A,PTEN,FOXB1,CNTNAP2

GO:0070588 calcium ion transmembrane transport 1.96E-02 CX3CL1,CACNA1G,ATP1A2,MCOLN3,ATP2B4,CACNB1,DRD4,PRKACA,CACNG4,PTPRC,JPH4,SLC8A3,TRPC4AP,NALCN,JPH1,BBC3,GRIN2D,CACNG7,TSPAN13,PDE4D,THADA,PKD2,FKBP1B,CRHR1,PTK2B,ITPR2,AHNAK,SLC25A23,TRPM4,DIAPH1,APLNR,TRPC6,FGF2,NOL3,AFG3L2,STAC2,CACNA1A,CACNG8,SNCA,ANK2,MCOLN2,GRIN2C,TRPV6,CACNB2,PHB,S  
1.96E-02 TIM1,CACNB3,LETM1,P2RY6,ATP2A2,CACNB4,CAV3,RYR1,HTT,RYR2,NOS1AP,FAM155A,GRIN2B

GO:0086013 membrane repolarization during cardiac musc 1.96E-02 KCNQ1,KCNH2,DLG1,KCNN2,KCNIP2,KCNJ5,KCNA5,RNF207,KCNJ3,ATP1A1,KCNE3,NOS1AP

GO:0051403 stress-activated MAPK cascade 1.96E-02 WNT16,DVL2,MAP3K9,MAP2K3,MAP4K4,DLG1,TRAF4,TP73,PHLPP1,MECOM,DNAJA1,EZR,SH2D3C,RASSF2,MAP4K1,MAPK8,MAP3K8,DKK1,FZD10,WNT5A,STK25,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,SH2D3A,BMP2,TNFRSF19,GADD45G,PTPN22,MDFIC,DAB2IP,MAP3K12,IGF1R,TNFRSF11A,MAP3K6,EGFR,MFHAS1,PAK1,FOXO1,TNIK,GDF6,PINK1,DVL  
1.96E-02 3,FGF19,ZC3H12A,HAND2,F2RL1,BTRC,TNIP2,PTGER4,RASGRP1,SH3RF3,MAP3K11,LEP,HRAS,TRAF6,UBE2N,MAPK11,ZFP36L1,DAXX,MIR181D

GO:0033673 negative regulation of kinase activity 1.96E-02 GPRC5A,WWTR1,HYAL2,TP73,PTPRC,DNAJA1,ABL1,BMP7,CDK6,CAV1,HSPB1,PRKAG2,PRKAR1A,CDKN1B,H2AFY,RGS2,RGS4,DUSP1,BMP4,FOXA2,CDKN2D,SNX6,CDKN1C,SH3BP5,EPHB2,DUSP26,PTPN22,APC,DAB2IP,DUSP6,TARBP2,RB1,IGF1R,AKT1,CBLC,EPHA1,LRR4C,HHEX,UCLH1,ZFYVE28,LRP5,CAMK2N1,LRTM2,PLK1,MIDN,PKIG,RGS14,SOCS6,PTE  
1.96E-02 N,LRRCL15,PODN,CAV3,NR2F2,RTN4RL1,IRS2,MAPT,RTN4RL2,PRKAR1B,SPRED2,DBNDD2,CEBPA,LYN,SRGIN1

GO:0035050 embryonic heart tube development 2.01E-02 MEF2C,NDRG4,SRF,HAND1,ACVR1,PKD2,SMO,GATA4,BBS4,CCDC40,NOTCH1,RNF207,TBX20,SHH,SOX17,MESP1,NKX2-5,RYR2

GO:0046639 negative regulation of alpha-beta T cell differe 2.02E-02 RUNX3,CBFB,TBX21,SMAD7,JAK3,GLI3,TNFSF4,RUNX1,ZC3H12A,SOCS1

GO:0003171 atrioventricular valve development 2.02E-02 ACVR1,BMP2,HEY2,SMAD6,NOTCH1,HEYL,TBX20,HEY1,ZFPM1,SLIT3

GO:0010894 negative regulation of steroid biosynthetic prc 2.02E-02 DKK3,REST,DKKL1,CYP27B1,BMP5,SCAP,PROX1,BMP2,FGF19,GF11

GO:0001892 embryonic placenta development 2.02E-02 FGFR2,BMP7,BMP5,PKD2,GCM2,E2F8,HEY2,EOMES,HEY1,E2F7,ASCL2

GO:0007015 actin filament organization 2.03E-02 CX3CL1,BAIAP2L1,MYOC,LIMA1,LIMCH1,ARFGEF1,NCK2,FRY,CLASP1,DLG1,CAPZB,WNT11,MYBPC2,PXN,EZR,ABL1,SFRP1,ARHGEF10,COBL,FSCN3,LIMK1,KANK1,CXCL12,NEDD9,PHACTR1,DPYSL3,WIPF1,MAD2L2,STMN1,PROX1,CTGF,TGFEB3,SORBS3,PTK2B,GHSR,NCKAP1L,OBSL1,BAIAP2L2,MYO1B,CGNL1,WASF3,SPIRE1,FHOD1,ARPC5L,RHOF,TPM1,HAX1,ACTA1,TMEFF2,ESPNL,SLIT2,EPHA1,PAK1,ALDOA,EPS8,FMN2,NCK1,ACTC1,ALOX15,CDC42EP3,LMOD1,F2RL1,DLCL1,ARHGAP12,SYNPO2L,TPM4,CDC42EP5,PTGER4,SSH3,RHOD,2.03E-02 CDC42EP4,MYADM,TACSTD2,ARAP1,ESPN,S100A10,SPIRE2,CORO7,CYFIP1

GO:0031946 regulation of glucocorticoid biosynthetic proce 2.03E-02 DKK3,REST,BMP5,BMP2,DGKQ

GO:0060740 prostate gland epithelium morphogenesis 2.03E-02 FGFR2,SOX9,SULF1,NKX3-1

GO:0090032 negative regulation of steroid hormone biosynthesis 2.03E-02 DKK3,REST,BMP5,BMP2

GO:0021542 dentate gyrus development 2.03E-02 CDK6,PROX1,TMEM108,NEUROD1,PTEN

GO:0048934 peripheral nervous system neuron differentiation 2.03E-02 ISL1,RUNX3,POU4F1,RUNX1,ISL2

GO:0032345 negative regulation of aldosterone metabolic process 2.03E-02 DKK3,REST,BMP5,BMP2

GO:1905278 positive regulation of epithelial tube formation 2.03E-02 SIX4,GATA3,SIX1,GDNF

GO:0060676 ureteric bud formation 2.03E-02 SIX4,GATA3,SIX1,GDNF

GO:0031947 negative regulation of glucocorticoid biosynthesis 2.03E-02 DKK3,REST,BMP5,BMP2

GO:0060571 morphogenesis of an epithelial fold	2.03E-02 FGFR2,BMP7,BMP5,SULF1
GO:0021516 dorsal spinal cord development	2.03E-02 MDGA1,PROX1,DAAM2,GDNF,LHX1
GO:0048935 peripheral nervous system neuron developme	2.03E-02 ISL1,RUNX3,POU4F1,RUNX1,ISL2
GO:2000065 negative regulation of cortisol biosynthetic pr	2.03E-02 DKK3,REST,BMP5,BMP2
GO:1903867 extraembryonic membrane development	2.03E-02 BMP7,BMP5,E2F8,E2F7
GO:0031944 negative regulation of glucocorticoid metaboli	2.03E-02 DKK3,REST,BMP5,BMP2
GO:0072174 metanephric tubule formation	2.03E-02 SOX8,PAX2,SOX9,PAX8

GO:0072033 renal vesicle formation	2.03E-02 SOX8,SALL1,SOX9,SMO
GO:0070365 hepatocyte differentiation	2.03E-02 PROX1,E2F8,E2F7,MESP1
GO:0031345 negative regulation of cell projection organiza	SEMA3G,NGFR,NGEF,RAP1GAP,CAPZB,MT3,STX18,KANK1,EFNB3,DPYSL3,RAB7L1,LRP4,KIAA0319,ZNF365,ARHGDI1,EVI5L,SLIT2,WNT3A,GFI1,TRIM46,NLGN1,LINGO1,PTEN,NR2 2.03E-02 F1,NRXN1,CEP97,TACSTD2,RTN4RL1,RTN4RL2,DCC,INPP5F,MIR196A2,GRIN2B
GO:0001778 plasma membrane repair	2.03E-02 SYT7,SYT11,MYOF,TRIM72
GO:0072102 glomerulus morphogenesis	2.03E-02 MEF2C,TCF21,BMP4,PDGFRA,MTSS1
GO:0002072 optic cup morphogenesis involved in camera-t	2.03E-02 WNT16,PAX2,WNT5A,TFAP2A,SOX11
GO:0072106 regulation of ureteric bud formation	2.03E-02 SIX4,GATA3,SIX1,GDNF

GO:0032347 regulation of aldosterone biosynthetic proces: 2.03E-02 DKK3,REST,BMP5,BMP2,BMP6

GO:0070100 negative regulation of chemokine-mediated si 2.03E-02 PADI2,SLIT2,ROBO1,SLIT3

GO:0072107 positive regulation of ureteric bud formation 2.03E-02 SIX4,GATA3,SIX1,GDNF

GO:0007185 transmembrane receptor protein tyrosine phc 2.03E-02 TRIO,PTPRU,PTN,PTPRF,PTPRD

GO:0003211 cardiac ventricle formation 2.03E-02 MEF2C,TBX5,HAND1,MESP1,SOX11

GO:0018209 peptidyl-serine modification 2.03E-02 K1,LRRK2,STK39,IKBKE  
CAMK1G,MLXIPL,ATP2B4,PRKCZ,MAST4,NCK2,PRKACA,MKNK1,HSP90AB1,MKNK2,TCL1A,SGK2,RASSF2,MYLK2,SMAD7,MAP4K1,PRKD2,TGFB1,CAV1,MAPK8,DKK1,CAMKK2,PDE  
4D,MAPKAPK3,MARK1,OPRD1,MAD2L2,SGK1,PKN1,PRKCG,LIF,STK33,DCLK1,MAP3K12,NTRK3,CSNK1D,RPTOR,AKT1,HAX1,GALNT2,GALNT13,RQCD1,DGKQ,SNCA,SFRP2,TTBK1,  
EGFR,TNKS1BP1,PAK1,HMGA2,GPD1L,WNT3A,DYRK1A,NCK1,PINK1,SPTBN4,PRKAA2,PRKCI,CAMKV,CDK5,PRKCB,PLK1,DDIT4,CDK5R1,NRXN1,CAMK1D,PRKD1,NTF3,MAPK12,SB

GO:0048872 homeostasis of number of cells 2.03E-02 SPI1,TGFBR3,MEF2C,HMOX1,ACIN1,KLF1,JAK3,CDK6,HOXA5,HSPA9,TNFAIP3,FOXO3,NCKAP1L,SOX9,RIPK3,ETS1,PMAIP1,AKT1,MFHAS1,ADAM17,CEBPG,TAL1,HMGB2,RPS14,N  
OS3,TSC22D4,STAT5B,ZFPM1,ZFP36L1,JKZF1,LDB1,MAFB,LYN



GO:0072284 metanephric S-shaped body morphogenesis 2.03E-02 PKD2,BMP4,PAX8,WT1

GO:0072289 metanephric nephron tubule formation 2.03E-02 SOX8,PAX2,SOX9,PAX8

GO:0042421 norepinephrine biosynthetic process 2.03E-02 MOXD1,GATA3,DBH,HAND2,INSM1

GO:0032348 negative regulation of aldosterone biosynthet 2.03E-02 DKK3,REST,BMP5,BMP2

GO:0042659 regulation of cell fate specification 2.03E-02 DKK1,FGF2,DUSP6,WNT3A,MESP1

GO:2000064 regulation of cortisol biosynthetic process 2.03E-02 DKK3,REST,BMP5,BMP2,DGKQ

GO:0045162 clustering of voltage-gated sodium channels 2.03E-02 MYOC,NRCAM,SPTBN4,AGRN

GO:0032344 regulation of aldosterone metabolic process 2.03E-02 DKK3,REST,BMP5,BMP2,BMP6

GO:0043376 regulation of CD8-positive, alpha-beta T cell di 2.03E-02 RUNX3,CBFB,NCKAP1L,RUNX1,SOCS1

GO:0043378 positive regulation of CD8-positive, alpha-beta 2.03E-02 RUNX3,CBFB,NCKAP1L,RUNX1

GO:0001707 mesoderm formation 2.04E-02 EYA2,PAX2,DKK1,BMP4,ITGB4,KDM6B,CRB2,HMGA2,WNT3A,EOMES,TBX20,MESP1,MESP2,TRIM15,ITGB3

GO:0010470 regulation of gastrulation 2.04E-02 PHLDB1,CLASP1,DKK1,FOXA2,COL5A1,MAP2K5,DUSP6,OSR1,CRB2,WNT3A,OTX2,MESP1,MYADM,COL5A2,LHX1

REAC:R-HSA- RUNX2 regulates bone development 2.05E-02 WWTR1,CBFB,HDAC4,GLI2,ABL1,GLI3,COL1A1,SATB2,RUNX2,HEY2,SMAD6,RB1,HEY1,SP7,MAF

GO:0010810 regulation of cell-substrate adhesion 2.07E-02 DOCK1,CCL28,UTRN,ALOX15,PDPN,MFI2,DLC1,RAC3,PTEN,JUP,RCC2,MYADM,TACSTD2,EFNA5,AJAP1,S100A10,LDB1  
CX3CL1,MYOC,EPHA3,LIMCH1,CLASP1,FBLN1,COL16A1,ABL1,SFRP1,CDK6,KANK1,GCNT2,PTK2B,HOXA7,PLAU,MACF1,KDR,THBS1,ACVRL1,CDH13,BCAS3,TBCD,EPHA1,NOTCH1,

GO:0070302 regulation of stress-activated protein kinase si	2.07E-02	3K11,LEP,HRAS,TRAF6,DAXX,MIR181D,LYN  WNT16,DVL2,MAP3K9,MAP4K4,DLG1,TRAF4,TP73,PHLPP1,MECOM,DNAJA1,EZR,RASSF2,MAP4K1,DKK1,FZD10,WNT5A,STK25,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,BMP2,TNF RSF19,GADD45G,PTPN22,MDFIC,DAB2IP,IGF1R,TNFRSF11A,MAP3K6,EGFR,MFHAS1,PAK1,FOXO1,TNFK, GDF6,PINK1,DVL3,FGF19,ZC3H12A,HAND2,F2RL1,RASGRP1,SH3RF3,MAP
GO:0051090 regulation of DNA-binding transcription factor	2.08E-02	TRK1,NFKBIL1,TRIM15,TRIM26,NFAM1,ADORA3  CFLAR,DVL2,CX3CL1,ITF,ZIC2,TP53BP1,PRKCZ,HDAC4,ERC1,CYLD,ESR1,SMARCB1,HMOX1,BMP7,SMAD7,PRKD2,CRTC1,MDFI,SRF,DAP,HAND1,WNT5A,OPRD1,MAD2L2,TNFSF4, PROX1,TNFAIP3,SGK1,PKD2,MXI1,SFRP5,CLU,FOXA2,NKX2- 2,SMO,RIPK3,FOXJ1,PPARG,CLOCK,DAB2IP,PIM1,CREBZF,MAP2K5,CYP11B1,RB1,ESR2,ARRB2,TNFRSF11A,AKT1,PEX14,EPHA5,TCF7L2,ARID5B,POU4F2,POU4F1,CEBPG,NODAL,FZ D1,FOXH1,GF11,NLRP3,NEUROD1,RNF25,PRKCI,NKX6- 1,ZC3H12A,HEYL,SHH,FZD6,BTRC,PRKCB,SMAD3,CTNNB1,ALK,NEUROD2,PTEN,JUP,CMKLR1,TRAF6,NHLH2,UBE2N,C14ORF39,NEUROG1,CAMK1D,PRKD1,ROR1,USP7,CARD11,N
REAC:R-HSA- Diseases of glycosylation	2.09E-02	0,CSPG4,ADAMTSL1,GPC5,GPC6,THBS2,THSD4,AGRN,PRELP,NOTCH4,MUC12,SPON1  THSD7A,VCAN,NOTCH3,SEMA5B,ADAMTS2,BCAN,ADAMTS8,THBS1,ADAMTS14,ADAMTS18,ADAMTS19,NOTCH1,ADAMTS12,ADAMTS5,SPON2,SDC3,ADAMTS9,SDC2,ADAMTS2
GO:0002683 negative regulation of immune system proces:	2.14E-02	HLA-DOA,LST1,NFKBIL1,HLA-G,LILRA4,LYN,HIST1H4F,HIST1H4D  SARM1,CX3CL1,ITF,RUNX3,CBFB,TBX21,PAG1,HOXA9,PTPRC,TYRO3,EZR,HMOX1,SMAD7,RNF125,SFRP1,TGFB1,JAK3,CDK6,HOXA5,GLI3,CXCL12,PRKAR1A,ZBTB16,CALCA,BMP5, HSPA9,PADI2,TNFSF4,TNFAIP3,TGFB3,HOXB8,PTK2B,HOXA7,BMP4,SOX9,NR1D1,FOXJ1,SEC14L1,LDLR,RARA,PPARG,MEIS2,PTPN22,GPR55,DAB2IP,THBS1,PPM1B,TARBP2,ARRB 2,MEIS1,SLIT2,TNFRSF21,MFHAS1,NOTCH1,SERPING1,CCL28,RUNX1,ALOX15,ZC3H12A,F2RL1,TSC22D4,PTGER4,SOX11,ZFPM1,FAM19A3,SOCS1,ZFP36L1,HESS,LDB1,CR1,MAFB,
GO:0030098 lymphocyte differentiation	2.14E-02	4,LIG4,LEP,CLCF1,ZFPM1,SOCS1,ZFP36L1,IKZF1,CR1,HLA-G,NFAM1  CD74,RUNX3,HDAC9,PRKCZ,CBFB,HDAC4,RORA,TBX21,GLI2,TPD52,PTPRC,ABL1,NFATC2,SMAD7,SFRP1,JAK3,GLI3,GATA3,ZMIZ1,VNN1,IL12B,FOXP1,ZAP70,ITGA4,LEPR,TNFSF4, MYB,PTK2B,NCKAP1L,BMP4,DL4,RIPK3,FOXJ1,RARA,PTPN22,HNF1A,IRF4,ADAM17,ZFP36L2,HHEX,CD8A,CEBPG,MMP14,RUNX1,IKZF3,NLRP3,EOMES,ZC3H12A,SHH,AXL,PTGER
GO:0008584 male gonad development	2.14E-02	SOX8,KITLG,TFAP2C,SIX4,GATA3,WNT5A,TCF21,SOX9,SOX15,WNT2B,GATA4,NR5A1,DMRT1,LHCGR,GATA6,KLHL26,ZFP42,WT1,TLR5
GO:0043388 positive regulation of DNA binding	2.14E-02	TGFB1,GATA3,TWIST1,PPARG,NGF,FAM129B,RB1,HMGA2,POU4F1,POU4F1,CEBPG,SKI,NEUROD1,HMGB2,HAND2,CTNNB1,TRAF6

GO:0002064 epithelial cell development	SOX8,PAX6,GRHL2,ICAM1,EZR,TJP1,CDK6,RHEB,BMP5,PDE4D,PROX1,TJP2,BMP4,PODXL,FOXJ1,RAB25,CLOCK,SIX3,MARVELD2,BMP6,NKX6-2.19E-02 1,F2RL1,CLDN3,MYADM,CLDN5,LRTOMT,PDE2A,MAGI2,RILPL1,S1PR2
GO:1990138 neuron projection extension	SEMA3G,NEDD4L,NTN1,PLXNA2,ULK2,MT3,NRCAM,HSP90AB1,ABL1,LIMK1,SH3GL2,CPNE5,MACF1,CPNE9,TMEM108,SLIT2,POU4F2,IMPACT,TRIM46,PLXNB1,CDK5,ISLR2,CTNN2.19E-02 B1,DSCAM,SLIT3,MAPT,SLIT1,CPNE1,PLXNA4,CYFIP1
GO:0006469 negative regulation of protein kinase activity	GPRC5A,WWTR1,HYAL2,TP73,PTPRC,DNAJA1,ABL1,BMP7,CDK6,CAV1,HSPB1,PRKAG2,PRKAR1A,CDKN1B,H2AFY,SGS2,SGS4,DUSP1,BMP4,CDKN2D,SNX6,CDKN1C,SH3BP5,EPHB2,DUSP26,PTPN22,APC,DAB2IP,DUSP6,TARBP2,RB1,JGF1R,AKT1,CBLC,EPHA1,LRRCC4C,HHEX,UCHL1,ZFYVE28,LRP5,CAMK2N1,LRTM2,PLK1,PKIG,SGS14,SOCS6,PTEN,LRRCL15,POD2.24E-02 N,CAV3,NR2F2,RTN4RL1,RTN4RL2,PRKAR1B,SPRED2,DBNDD2,CEBPA,LYN,SRGIN1
GO:1902476 chloride transmembrane transport	2.24E-02 CFTR,GABRA1,SLC1A3,CLCN3,GABRG2,SLC26A10,GABRB2,GLRA1,SLC26A2,CLIC6,GABRB1,GABRB3,SLC26A5,CLCNKB
GO:0014902 myotube differentiation	2.24E-02 CFLAR,EHD2,HDAC9,HDAC4,MEF2C,SIX4,MYEF2,CAV2,BHLHE41,SORT1,FAM129B,FLOT1,KCNH1,ACTA1,NOTCH1,ADAM12,MMP14,SKI,BDNF,NKX2-5,RYR1,CACNA1H
GO:0062012 regulation of small molecule metabolic proces	CYP51A1,MLXIPL,DKK3,ATP2B4,NFYC,HDAC4,RORA,SREBF1,ENO1,REST,SCD,DKKL1,TGFB1,CAV1,PRKAG2,PP1F,CYP27B1,BMP5,PFKFB4,SCAP,PASK,ODC1,PROX1,NR4A3,NFYB,PTK2B,FABP3,TWIST1,LPGAT1,CLYBL,PANK2,FOXA2,BMP2,NR1D1,DYRK2,CBFA2T3,LHCGR,MBTPS1,PMAIP1,AKT1,DGKQ,SNCA,BHMT,STAR,TM7SF2,GGPS1,BMP6,AZIN1,SLC7A7,PI2.26E-02 NK1,ABCG1,PTH1R,FGF19,PRKAA2,GF11,STARD4,NOS3,PDP1,MIDN,PFKFB3,SLC25A33,P2RY6,PDE12,PGP,IRS2,NCOR2,SREBF2
GO:0110020 regulation of actomyosin structure organizatic	MYOC,LIMCH1,CLASP1,WNT11,PXN,ABL1,SFRP1,ARHGEF10,LIMK1,STMN1,PROX1,CTGF,TGFB3,SORBS3,FHOD1,TPM1,TMEFF2,EPHA1,PAK1,DLC1,AKAP13,PTGER4,CAV3,TACSTD2.29E-02 2,ARAP1,S100A10

GO:0001101 response to acid chemical	<p>ABCB4,EPHA3,ATP2B4,DGAT2,LTKE,TMEM161A,TGFBR3,PAX2,WNT11,SFRP1,WNT3,UCP1,FZD10,PTK7,WNT5A,WNT6,TNFSF4,PKD2,PTK2B,PTGER2,SOX9,KDR,CDKN2D,RARA,PP2.32E-02 ARG,TMBIM6,RPTOR,WNT9A,GLRA1,WNT3A,WNT9B,HLCS,CAPN2,ZC3H12A,PTGDR,WNT10B,PTGER4,RARG,KCNK4,GNG2,AKR1C1,RORB,LYN</p>
GO:0046165 alcohol biosynthetic process	<p>CYP51A1,DKK3,SPHK2,NFYC,SREBF1,ACER3,MOXD1,REST,SCD,CYP27B1,BMP5,SCAP,DHCR24,NFYB,PTK2B,DBH,BMP2,ACLY,LHCGR,FGF2,MBTPS1,LBR,DGKQ,SNCA,TM7SF2,GGP2.34E-02 S1,BMP6,ABCG1,PTH1R,GF11,CNBP,P2RY6,PGP,CACNA1H,SREBF2</p>
GO:0060413 atrial septum morphogenesis	2.34E-02 ISL1,ACVR1,HEY2,GATA4,TBX20,ZFPM1,NKX2-5
GO:0006367 transcription initiation from RNA polymerase I	<p>TEAD3,MED24,WWTR1,CBFB,RORA,NOTCH3,RARB,TBX5,ESR1,MED15,CCND1,NR2E1,SRF,NR3C1,NR5A2,CTGF,NR4A3,ESRRB,NR4A1,RUNX2,SOX9,THRA,NR1D1,RARA,PPARG,CDK8,HNF1A,HEY2,NR5A1,ESR2,TAF4B,NR6A1,NOTCH1,THRB,NR3C2,PAXIP1,NR2F6,POLR2H,RARG,ESRRB,NR2F1,NR2C2,NKX2-2.34E-02 5,NR2C2AP,ESRRG,MAML3,RORB,RXR,NOTCH4,GTF2H4,GTF2I</p>
GO:0045619 regulation of lymphocyte differentiation	<p>RUNX3,PRKCZ,CBFB,TBX21,GLI2,ABL1,NFATC2,SMAD7,SFRP1,JAK3,GLI3,GATA3,ZMIZ1,VNN1,IL12B,ZAP70,TNFSF4,MYB,NCKAP1L,BMP4,FOXJ1,RARA,IRF4,ZFP36L2,MMP14,RUN2.34E-02 X1,IKZF3,NLRP3,ZC3H12A,SHH,AXL,SOCS1,ZFP36L1,CR1,HLA-G</p>
GO:0055075 potassium ion homeostasis	2.34E-02 TFAP2B,ATP1A2,KCNH2,ATP1B3,ATP1B2,KCNMA1,ATP1A1
GO:0034309 primary alcohol biosynthetic process	2.34E-02 DKK3,REST,BMP5,BMP2,DGKQ,BMP6,CACNA1H

GO:0031061 negative regulation of histone methylation 2.34E-02 JARID2, DNMT3B, SMARCB1, PHF1, H2AFY, DNMT1, MTF2

GO:0010566 regulation of ketone biosynthetic process 2.34E-02 DKK3, REST, DKKL1, BMP5, BMP2, DGKQ, BMP6

GO:0032332 positive regulation of chondrocyte differentiat 2.34E-02 ZBTB16, SOX9, GDF5, SOX5, BMPR1B, ACVRL1, GDF6

GO:0001736 establishment of planar polarity 2.34E-02 DVL2, AP2B1, CELSR3, WNT11, PARD6A, DKK1, SMURF2, WNT5A, FOXF2, ARRB2, ARHGEF19, RSPO3, FZD1, DVL3, FZD5, FZD6, ROR2, MLLT3, BRSK2, MAGI2

GO:0048588 developmental cell growth 2.34E-02 SEMA3G, NEDD4L, NTN1, PLXNA2, ULK2, MT3, NRCAM, HSP90AB1, ABL1, COBL, LIMK1, SH3GL2, CPNE5, SOX9, MACF1, CPNE9, TMEM108, SLIT2, POU4F2, IMPACT, SORBS2, TRIM46, PLXNB1, CDK5, ISLR2, CTNNB1, DSCAM, BDNF, SLIT3, MAPT, SLIT1, DCC, MIR199B, CPNE1, PLXNA4, CYFIP1, MIR19A

GO:0007265 Ras protein signal transduction 2.34E-02 MYOC, USP28, NGFR, NTN1, RASGRP2, RASAL2, PLD1, ABL1, MYO9B, RASAL3, LIMK1, KANK1, MADD, RTKN, STMN1, ADRA1A, PAK4, DNMT1, EPHB2, NGF, GPR55, DAB2IP, PAK6, ARHGAP29, FGF2, RB1, CDH13, ARHGDI3, AGTR1, G3BP1, GNA12, NOTCH1, PAK1, EPS8, RALGDS, SHC1, SQSTM1, PDPN, CDC42EP3, ARHGEF3, F2RL1, COL1A2, DLC1, ABCA1, CDC42EP5, ROBO1, AKAP1, RASGRP4, RASGRP1, RHOD, HRAS, EPS8L2, CDC42EP4, PRKD1, RASA3, SYNGAP1, STMN3, NTRK1, RASGEF1A, RGL2, CYFIP1

GO:0007164 establishment of tissue polarity 2.34E-02 DVL2, AP2B1, CELSR3, WNT11, PARD6A, DKK1, SMURF2, WNT5A, FOXF2, ARRB2, ARHGEF19, RSPO3, FZD1, DVL3, FZD5, FZD6, ROR2, MLLT3, BRSK2, MAGI2

GO:0032874 positive regulation of stress-activated MAPK c 2.34E-02 WNT16,DVL2,MAP3K9,TRAF4,RASSF2,MAP4K1,DKK1,FZD10,WNT5A,STK25,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,BMP2,TNFRSF19,GADD45G,MDFIC,DAB2IP,TNFRSF11A,MAP3 K6,MFHAS1,PAK1,TNIK,GDF6,DVL3,FGF19,ZC3H12A,HAND2,F2RL1,RASGRP1,SH3RF3,MAP3K11,LEP,HRAS,TRAF6,DAXX,MIR181D

GO:0040017 positive regulation of locomotion 2.35E-02 FGR,CD74,HGF,MAP2K3,MYOC,HDAC9,SYNE2,F7,LAMC2,HDAC7,NTN1,SCARB1,CLASP1,FGFR1,PTPRC,WNT11,TRIP6,ICAM1,ZNF268,SEMA6A,EPB41L4B,ABL1,MADCAM1,HMOX 1,ANGPT4,CHMP4B,FLT1,SYDE1,PRKD2,TGFB1,CAV2,HSPB1,GATA3,CXCL12,SPOCK2,COL1A1,SMURF2,GCNT2,PTP4A1,BVES,THBS4,WNT5A,HYAL1,FOXP1,ACVR1,TACR1,IGFBP5, F3,PROX1,NR4A3,PGF,PTK2B,TWIST1,PLAU,NCKAP1L,EDN3,BMP4,SOX9,BMP2,STAT5A,KDR,PODXL,RAB25,PDGFRA,ETS1,APC,DAB2IP,THBS1,FGF2,IGF1R,NTRK3,CDH13,BCAS3,G RB7,AKT1,CYR61,SLIT2,PLA2G7,EGFR,EPHA1,NOTCH1,PAK1,DOCK1,ADAM17,ANGPT1,FGF18,MMP14,PDPN,CXCL1,ZC3H12A,F2RL1,NOS3,ATOX8,ROR2,HAS2,PDGFD,DSCAM,LR RC15,RHOD,PC,CMKLR1,HRAS,FOXC2,GATA2,MYADM,CAMK1D,ZNF703,PRKD1,NTF3,PDGFA,MIR181D,TWIST2,ITGB3

GO:0060389 pathway-restricted SMAD protein phosphoryli 2.35E-02 TGFBR3,BMP7,SMAD7,TGFB1,DKK1,BMP5,TTK,ACVR1,TGFB3,BMP4,BMP2,GDF5,GDF1,GDF15,SMAD6,ACVRL1,GDF7,BMP6,GDF6,NODAL,INHBB,GDF9,GDF10

GO:0060538 skeletal muscle organ development 2.35E-02 CFLAR,HDAC9,MEF2C,SIX4,MYLK2,TGFB1,MYH14,CAV2,CAV1,BVES,TCF21,SIX1,CHNRD,FAM129B,FLOT1,ACTA1,DISP1,SKI,LEMD2,ANKRD2,FOXL2,WT1,RYR1

GO:0097190 apoptotic signaling pathway 2.35E-02 CFLAR,CD38,CX3CL1,TNFRSF12A,BID,CD74,HGF,USP28,RELT,NGFR,TMEM161A,EYA2,ERBB3,HYAL2,ENO1,TP73,KIAA0141,CYLD,DNAJA1,PPP1R13B,ICAM1,ABL1,HMOX1,STK24,B MF,SFRP1,TNFRSF10A,BBC3,TGFB1,DFNA5,CAV1,HSPB1,CXCL12,MAPK8,UNC5B,PIIF,SLC9A3R1,MADD,BMP5,VNN1,EYA4,DAP,ACVR1,STK25,TNFAIP3,APAF1,CLU,BMP4,DYRK2, CHAC1,CDKN2D,RIPK3,BCL2L2,SORT1,NGF,YWHAQ,HRK,DAB2IP,MAP2K5,THBS1,BCL2L10,CYP1B1,TMBIM6,NOL3,TNFRSF11A,PMAIP1,AKT1,ZNF385B,SFRP2,TNFRSF21,ST18,NA CC2,TCF7L2,POU4F2,ZNF385D,POU4F1,SST,CREB3L1,NCK1,PINK1,DEDD2,ZNF385A,PEA15,MSX1,ADORA1,SHH,NOS3,FASTK,SGPL1,CUL5,SMAD3,NKX3- 1,TMC8,DDIT4,GDNF,FEM1B,BCL2,PTEN,TNFRSF10D,PHLDA3,BRSK2,BNIP3,HIC1,DCC,LRRK2,ATP2A1,SLAH1,DAPK1,HTT,DAXX,CRIP1,SCRT2,GPX1,IKBKE,SSSTR3

GO:0045669 positive regulation of osteoblast differentiatio 2.36E-02 LTF,HGF,MEF2C,BMP7,ACVR1,RUNX2,BMP4,BMP2,BMPR1B,CYR61,BMP6,LRP5,NELL1,SOX11,PRKD1,IFITM1

GO:0043370 regulation of CD4-positive, alpha-beta T cell di 2.36E-02 RUNX3,PRKCC,CBFB,TBX21,SMAD7,JAK3,IL12B,TNFSF4,MYB,NCKAP1L,RARA,IRF4,RUNX1,NLRP3,ZC3H12A,SOCS1

GO:0046883 regulation of hormone secretion	CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,CHRNA3,REST,ITPR3,SFRP1,STX1A,TFR2,GLP1R,POMC,PASK,SLC2A1,CRHR1,ITPR2,EDN3,PAX8,FOXA2,NR1D1,LIF,KCNA5,TRPM4,PER2, 2.38E-02 CLOCK,ADCYAP1,CACNA1A,AGTR1,EPHA5,CRHBP,TCF7L2,LRP5,NEUROD1,INHBB,UCN,GDF9,SCG5,NKX3-1,MIDN,KCNS3,BRSK2,SOX11,EFNA5,IRS2,DPP4,CACNA1E,PIM3
GO:0051893 regulation of focal adhesion assembly	2.38E-02 MYOC,EPHA3,LIMCH1,CLASP1,COL16A1,ABL1,SFRP1,MACF1,KDR,THBS1,ACVRL1,BCAS3,DLC1,PTEN,RCC2,EFNA5,S100A10,LDB1
GO:0060071 Wnt signaling pathway, planar cell polarity pat	2.38E-02 DVL2,AP2B1,CELSR3,WNT11,PARD6A,DKK1,SMURF2,WNT5A,ARRB2,ARHGEF19,RSPO3,FZD1,DVL3,FZD5,FZD6,ROR2,MLLT3,MAGI2
GO:0090109 regulation of cell-substrate junction assembly	2.38E-02 MYOC,EPHA3,LIMCH1,CLASP1,COL16A1,ABL1,SFRP1,MACF1,KDR,THBS1,ACVRL1,BCAS3,DLC1,PTEN,RCC2,EFNA5,S100A10,LDB1
GO:0042472 inner ear morphogenesis	2.39E-02 FGFR2,MYO3B,PAX2,MYO3A,ATP6V1B1,PROX1,SOX9,PAX8,SIX1,EPHB2,TFAP2A,ZIC1,NEUROG1
GO:1902903 regulation of supramolecular fiber organizatio	CX3CL1,BAIAP2L1,MYOC,LIMA1,LIMCH1,ARFGEF1,NCK2,CLASP1,CAPZB,WNT11,PXN,ABL1,SPEF1,SFRP1,ARHGEF10,CLIP3,LIMK1,KANK1,CXCL12,CRYAB,HSPA8,STMN1,PROX1,CTGF,TGFB3,CLU,SORBS3,PTK2B,NCKAP1L,EML2,BAIAP2L2,LDLR,APC,FHOD1,ARPC5L,TRIM54,RB1,TPM1,TBCD,HAX1,TMEFF2,SLIT2,SNCA,EPHA1,PAK1,EP58,DYRK1A,NCK1,ALOX15 2.54E-02 ,CDC42EP3,LMOD1,F2RL1,DLC1,SYNPO2L,CDC42EP5,AKAP13,PTGER4,SSH3,CHRNA7,CDK5R1,CDC42EP4,MYADM,CAV3,TACSTD2,ARAP1,MAPT,S100A10,GPX1,CYFIP1
REAC:R-HSA- O-glycosylation of TSR domain-containing prot	2.58E-02 THSD7A,SEMA5B,ADAMTS2,ADAMTS8,THBS1,ADAMTS14,ADAMTS18,ADAMTS19,ADAMTS12,ADAMTS5,SPON2,ADAMTS9,ADAMTS20,ADAMTSL1,THSD4,SPON1



GO:0019827 stem cell population maintenance	2.60E-02 PAX2,SALL4,SALL1,FOXP1,PROX1,ESRRB,SOX9,PAX8,TET1,FGF2,MTF2,DIS3L2,EPHA1,PRDM14,NOTCH1,HMGA2,ZFP36L2,NODAL,SKI,WNT9B,CTNNB1,CDH2,LIG4,FOXD3,HES5
GO:0072659 protein localization to plasma membrane	EHD2,CDH1,EPHA3,ATP1B3,DLG1,STX7,TMED2,EZR,CLIP3,TGFB1,SLC9A3R1,RAB34,RHOQ,FAM126A,LRP1,PACSI1,MACF1,DPP6,CRB3,RAMP1,EPHB2,MRAP2,MAP7,FLOT1,RAB40B,STAC2,AKT1,PIPK1A,ANK2,NKD2,EGFR,TNIK,SPTBN4,SQSTM1,PRKCI,CDK5,CACNB2,SCN3B,CACNB3,RAB26,TMEM150A,STX8,LRRC15,RAB37,JUP,DPP10,ZDHC2,PACS2,M 2.61E-02 YADM,NRXN1,CAV3,PKP3,KCNIP4,RILPL1,MYOSA,S100A10
GO:0048545 response to steroid hormone	TFPI,MED24,ISL1,ATP1A2,SOX30,RNF4,CBFB,NEDD4,REST,ESR1,BMP7,SFRP1,UBR5,CCNE1,TGFB1,CAV1,NR3C1,FOXP1,HDAC1,PADI2,TCF21,TGFB3,CRY2,BMP4,CLOCK,THBS1,PA40B,QR5,RB1,ESR2,TGFB11,ARRB2,RQCD1,SLIT2,NR6A1,PAK1,POU4F2,ZFP36L2,NODAL,RUNX1,SAFB,FOXH1,ATP1A1,HEYL,NKX3-1,PHB,CTNNB1,SLIT3,ZFP36L1,KANK2,DAXX 2.64E-02
GO:0033135 regulation of peptidyl-serine phosphorylation	MLXIPL,ATP2B4,NCK2,HSP90A1,TCL1A,RASSF2,SMAD7,PRKD2,TGFB1,CAV1,DKK1,PDE4D,OPRD1,MAD2L2,LIF,NTRK3,RPTOR,AKT1,HAX1,RQCD1,SNCA,SFRP2,EGFR,TKNS1BP1,P 2.66E-02 AK1,GPD1L,WNT3A,NCK1,PINK1,SPTBN4,DDIT4,NRXN1,PRKD1,NTF3
GO:0014020 primary neural tube formation	2.66E-02 DVL2,PAX2,GRHL2,KDM2B,BMP7,TGFB1,COBL,BMP5,MTHFD1L,BBS4,LMO4,SKI,GRHL3,DVL3,DLC1
GO:0071901 negative regulation of protein serine/threonine	HYAL2,TP73,DNAJA1,ABL1,BMP7,CDK6,CAV1,PRKAR1A,CDKN1B,H2AFY,RGS2,RGS4,DUSP1,BMP4,CDKN2D,PTPN22,APC,DAB2IP,DUSP6,AKT1,CBLC,HHEX,UCLH1,LRP5,PLK1,PKIG 2.66E-02 ,RGS14,PTEN,CAV3,NR2F2,PRKAR1B,SPRED2,CEBPA,LYN
GO:0070169 positive regulation of biomineral tissue develc	2.66E-02 LTF,MEF2C,BMP7,TGFB1,ACVR1,WNT6,TGFB3,BMP4,BMP2,TFAP2A,BMPR1B,OSR1,BMP6,OSR2,NELL1

GO:2001236 regulation of extrinsic apoptotic signaling path	2.67E-02	CFLAR,TNFRSF12A,BID,EYA2,HYAL2,CYLD,ICAM1,HMOX1,SFRP1,TNFRSF10A,CAV1,UNC5B,MADD,BMP5,EYA4,ACVR1,TNFAIP3,BMP4,MAP2K5,THBS1,NOL3,PMAIP1,AKT1,TCF7L2,DEDD2,PEA15,NOS3,TMC8,GDNF,FEM1B,BCL2,PTEN,HTT,SCRT2,GPX1
GO:0003214 cardiac left ventricle morphogenesis	2.69E-02	TBX5,CPE,HAND1,HEY2,SFRP2,NOTCH1,NPY2R,RYR2
GO:0035272 exocrine system development	2.69E-02	HGF,FGFR2,TGFB1,TGFB3,NKX3-1,RAB26,PTF1A,PDGFA
GO:1904948 midbrain dopaminergic neuron differentiation	2.69E-02	WNT3,WNT5A,CSNK1D,WNT3A,FZD1,WNT9B,LMX1A,CTNNB1
GO:0009713 catechol-containing compound biosynthetic pi	2.69E-02	MOXD1,GATA3,DBH,DDC,PNMT,SNCA,HAND2,INSM1
GO:0002068 glandular epithelial cell development	2.69E-02	PAX6,CDK6,RHEB,BMP5,BMP4,CLOCK,BMP6,NKX6-1
GO:0060393 regulation of pathway-restricted SMAD protei	2.69E-02	BMP7,SMAD7,TGFB1,DKK1,BMP5,TTK,ACVR1,TGFB3,BMP4,BMP2,GDF5,GDF1,GDF15,SMAD6,ACVRL1,GDF7,BMP6,GDF6,NODAL,INHBB,GDF9,GDF10

GO:0042423 catecholamine biosynthetic process	2.69E-02 MOXD1,GATA3,DBH,DDC,PNMT,SNCA,HAND2,INSM1
GO:0010878 cholesterol storage	2.69E-02 SOAT1,SCARB1,APOB,PPARG,ABCG1,STARD4,ABCA1,SREBF2
GO:0032835 glomerulus development	2.69E-02 PROM1,PAX2,MEF2C,BMP7,TCF21,BMP4,PODXL,FOXJ1,PDGFRA,SULF1,OSR1,ANGPT1,KLF15,MTSS1,WT1,MAGI2,SULF2
GO:0016571 histone methylation	JARID2,DNMT3B,SMARCB1,PRDM4,PRMT8,PHF1,H2AFY,CHD5,MYB,PHF19,PRDM12,DNMT1,PRMT7,TET1,PRDM5,SETD1B,MTF2,PAXIP1,DPY30,CTNNB1,TET2,MTHFR,EHMT1,S 2.77E-02 ETD3,FBLL1,PRMT6,EHMT2
GO:0042445 hormone metabolic process	CYP26B1,DKK1,REST,CYP26A1,DKK1,GATA3,CPE,CYP27B1,BMP5,STC2,ECE1,LRAT,PAX8,BMP2,SRD5A3,ALDH1A2,AANAT,STARD3,NGF,DUOX1,CYP1B1,DUOX2,ALDH9A1,DGKQ, 2.79E-02 CORIN,STAR,C9ORF3,TCF7L2,ADM,BMP6,CHST9,DHRS3,GF1,SHH,SCG5,PCSK1,FOXE1,ALDH1A3,AKR1C1,CYP26C1,MME,CACNA1H,DIO3,BCO2,HSD17B8,COLQ
GO:0021545 cranial nerve development	2.82E-02 ISL1,ERBB3,PAX2,SIX4,SALL1,PHOX2B,TFAP2A,POU4F1,NEUROG1,MAFB
GO:0070371 ERK1 and ERK2 cascade	CX3CL1,CD74,ABCA7,FGFR2,PRKCZ,FGF4,DLG1,FBLN1,MT3,ICAM1,SEMA6A,EZR,FAM83D,NDRG4,PRKD2,TGFB1,SLC9A3R1,GCNT2,OPRM1,CTGF,PTK2B,ADRA1A,SOX9,BMP2,KD R,CHI3L1,DSTYK,EPHB2,DUSP26,PTPN22,PDGFRA,GPR55,DAB2IP,FGF2,DUSP6,ADCYAP1,ARRB2,TNFRSF11A,CYR61,EGFR,MFHAS1,NOTCH1,ZFP36L2,ANGPT1,NODAL,SHC1,ALOX 2.82E-02 15,FGF19,CAMK2N1,SPRY1,HAND2,F2RL1,PHB,RGS14,PDGFD,PTGER4,P2RY6,PTEN,RASGRP1,HRAS,CHRNA7,NRXN1,TNFAIP8L3,ZFP36L1,PDGFA,NTRK1,ARHGAP8,LYN

GO:1902644 tertiary alcohol metabolic process 2.82E-02 DKK3,AKR7A2,REST,BMP5,BMP2,DGKQ,CBR4,AKR1C1,CACNA1H

GO:0032107 regulation of response to nutrient levels 2.82E-02 MT3,CYP27B1,NENF,GHSR,NPY,PRKCG,BBS4,LEP,KANK2

GO:0050926 regulation of positive chemotaxis 2.82E-02 F7,CXCL12,F3,PGF,KDR,NTRK3,CDH13,F2RL1,NTF3

GO:0097009 energy homeostasis 2.82E-02 MLXIPL,PASK,AMPD2,LEPR,SGIP1,NR4A3,MRAP2,FOXO1,PRKAA2,METRNL

GO:0007179 transforming growth factor beta receptor sign 2.82E-02 DKK3,PRK CZ,TGFBR3,PXN,LTBP4,HSP90AB1,SMAD7,PARD6A,TGFB1,CAV1,MTMR4,SMURF2,GCNT2,ACVR1,LTBP2,TGFB3,GIPIC1,GDF5,WFIKKN1,SNX6,CDKN1C,GDF15,THBS1,SMAD6,ACVRL1,TGFB11,ARRB2,PRDM16,ADAM17,RNF111,SKI,FOXH1,GDF9,COL1A2,SMAD3,HTRA4,HTRA3,WFIKKN2,SOX11,ZNF703,CLDN5,BCL9L,PEG10,GDF10,MIR212

GO:0003181 atrioventricular valve morphogenesis 2.82E-02 ACVR1,BMP2,HEY2,SMAD6,NOTCH1,HEYL,HEY1,ZFPM1,SLIT3

GO:0032104 regulation of response to extracellular stimuli 2.82E-02 MT3,CYP27B1,NENF,GHSR,NPY,PRKCG,BBS4,LEP,KANK2

GO:2000463 positive regulation of excitatory postsynaptic | 2.82E-02 PRKCZ,STX1B,CUX2,PTK2B,DLG4,NLGN1,PTEN,CHRNA7,NRXN1

GO:0032872 regulation of stress-activated MAPK cascade 2.84E-02 3K11,LEP,HRAS,TRAF6,DAXX,MIR181D  
WNT16,DVL2,MAP3K9,MAP4K4,DLG1,TRAF4,TP73,PHLPP1,MECOM,DNAJA1,EZR,RASSF2,MAP4K1,DKK1,FZD10,WNT5A,STK25,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,BMP2,TNF  
RSF19,GADD45G,PTPN22,MDFIC,DAB2IP,IGF1R,TNFRSF11A,MAP3K6,EGFR,MFHAS1,PAK1,FOXO1,TNIK,GDF6,PINK1,DVL3,FGF19,ZC3H12A,HAND2,F2RL1,RASGRP1,SH3RF3,MAP

GO:0014068 positive regulation of phosphatidylinositol 3-k 2.84E-02 FGR,WNT16,HGF,MYOC,ERBB3,NEDD4,FGFR1,FLT1,UNC5B,SOX9,KDR,PDGFRA,HAX1,PIK3AP1,PLXNB1,F2RL1,NKX3-1,PDGFD,LEP,PDGFA

GO:0031214 biomineral tissue development 2.87E-02 NOS3,OSR2,NELL1,STIM1,S1PR1  
LTF,FGFR2,MEF2C,BMP7,TGFB1,COL1A1,CYP27B1,ACVR1,WNT6,TGFB3,PTK2B,TWIST1,BMP4,SOX9,BMP2,TRPM4,TFAP2A,BMPR1B,TUFT1,OSR1,NOTCH1,BMP6,ANKH,ALOX15,

GO:0003333 amino acid transmembrane transport 2.91E-02 ATP1A2,SLC1A3,SLC32A1,SLC38A1,SLC6A6,PER2,SLC38A2,SLC38A4,OSR1,SLC38A10,SLC6A5,SLC38A11,LRRRC8D,STK39

GO:0046545 development of primary female sexual charac 2.91E-02 PTPRN,EREG,PDGFRA,NR5A1,LHCGR,BMPR1B,SLIT2,LHFPL2,INHBB,GDF9,ZFP42,FOXL2,SLIT3,WT1

GO:1901532 regulation of hematopoietic progenitor cell dii 2.91E-02 CBFβ,TP73,ABL1,SETD1A,GATA3,MYB,LMO2,NOTCH1,RUNX1,TAL1,LMO1,GATA2,HESS,LDB1

GO:1902107 positive regulation of leukocyte differentiator 2.91E-02 CD74,RUNX3,PRKCZ,CBFB,GLI2,ACIN1,GLI3,GATA3,ZMIZ1,CALCA,VNN1,IL12B,ZAP70,TNFSF4,MYB,NCKAP1L,LIF,RARA,HAX1,POU4F2,POU4F1,MMP14,RUNX1,NLRP3,SHH,AXL,TRAF6,SOCS1,ZFP36L1,HLA-G

GO:0007605 sensory perception of sound 2.91E-02 KCNQ1,COL11A1,MYO3B,SLC26A4,MYO3A,MYH14,DFNA5,ATP6V0A4,COL1A1,ATP6V1B1,GJB6,SERPINB6,EML2,DIAPH1,PAX3,TFAP2A,COL2A1,ESPNL,TIMM8B,CCDC50,MARVELD2,ATP2B2,SPTBN4,LOXHD1,SLC26A5,EPS8L2,LRTOMT,ROR1,GRM7,COL11A2

GO:0090175 regulation of establishment of planar polarity 2.98E-02 DVL2,AP2B1,CELSR3,WNT11,PARD6A,DKK1,SMURF2,WNT5A,ARRB2,ARHGAP19,RSPO3,FZD1,DVL3,FZD5,FZD6,ROR2,MLL3,MAGI2

GO:2000147 positive regulation of cell motility 2.98E-02 FGR,CD74,HGF,MAP2K3,MYOC,HDAC9,SYNE2,F7,LAMC2,HDAC7,NTN1,SCARB1,CLASP1,FGFR1,PTPRC,WNT11,TRIP6,ICAM1,ZNF268,SEMA6A,EPB41L4B,ABL1,MADCAM1,HMOX1,ANGPT4,FLT1,SYDE1,PRKD2,TGFB1,HSPB1,GATA3,CXCL12,SPOCK2,COL1A1,SMURF2,GCNT2,PTP4A1,THBS4,WNT5A,HYAL1,FOXP1,ACVR1,TACR1,IGFBP5,F3,PROX1,NR4A3,PGF,PTK2B,TWIST1,PLAU,NCKAP1L,EDN3,BMP4,SOX9,BMP2,STAT5A,KDR,PODXL,RAB25,PDGFRA,ETS1,APC,DAB2IP,THBS1,FGF2,IGF1R,NTRK3,CDH13,BCAS3,GRB7,AKT1,CYR61,PLA2G7,EGFR,EPHA1,NOTCH1,PAK1,DOCK1,ADAM17,ANGPT1,FGF18,MMP14,PDPN,CXCL1,ZC3H12A,F2RL1,NOS3,ATOH8,ROR2,HAS2,PDGFD,LRRC15,RHOD,CMKLR1,HRAS,FOXC2,GATA2,MYADM,CAMK1D,ZNF703,PRKD1,NTF3,PDGFA,MIR181D,TWIST2,ITGB3

GO:0030073 insulin secretion 3.00E-02 CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,PTPRN,REST,ITPR3,SFRP1,STX1A,GLP1R,SLC2A1,ITPR2,FOXA2,NR1D1,KCNA5,TRPM4,PER2,CLOCK,PDX1,ADCYAP1,CACNA1A,EPHA5,TF7L2,PTPRN2,LRP5,NEUROD1,INHBB,MIDN,KCNS3,BRSK2,MAFA,EFNA5,IRS2,DPP4,CACNA1E,PIM3

GO:0000187 activation of MAPK activity 3.02E-02 MAP3K9,MAP2K3,DRD4,MAP4K1,MADD,CD81,WNT5A,MAPKAPK3,CXCR4,PKN1,BMP2,GDF15,MDFIC,DAB2IP,MAP2K5,THBS1,DUSP5,FGF2,DUSP6,NTRK3,MAP3K6,NRG1,SHC1,PEA15,PROK2,ALK,MAP3K11,TRAF6,CHRNA7,UBE2N,MAPK11,NTF3,LRRK2,STK39,DAXX,S1PR2

GO:0046660 female sex differentiation 3.02E-02 PTPRN,EREG,PDGFRA,TBX3,NR5A1,LHCGR,BMPR1B,SLIT2,LHFPL2,INHBB,GDF9,ZFP42,FOXL2,SLIT3,WT1,LHX1

GO:1903115 regulation of actin filament-based movement 3.02E-02 DLG1,MYLK2,CAV1,PDE4D,TRPM4,DSC2,HCN4,ANK2,RNF207,PDPN,JUP,ATP2A2,KCNE3,CAV3,RYR2,NOS1AP

GO:0010977 negative regulation of neuron projection deve 3.04E-02 SEMA3G,NGFR,NGEF,MT3,STX1B,KANK1,EFNB3,DPYSL3,RAB7L1,LRP4,KIAA0319,ZNF365,ARHGDI1,SLIT2,WNT3A,GFI1,TRIM46,NLGN1,LINGO1,PTEN,NR2F1,RTN4RL1,RTN4RL2,DCC,INPP5F

GO:0098727 maintenance of cell number 3.04E-02 PAX2,SALL4,SALL1,FOXP1,PROX1,ESRRB,SOX9,PAX8,TET1,FGF2,MTF2,DIS3L2,EPHA1,PRDM14,NOTCH1,HMGA2,ZFP36L2,NODAL,SKI,WNT9B,CTNNB1,CDH2,LIG4,FOXD3,HES5

GO:0061351 neural precursor cell proliferation 3.04E-02 TEAD3,FGFR2,RORA,SMARCD3,KDM2B,PTPRZ1,WNT5A,ARTN,PROX1,DLL4,NES,SOX5,SIX3,WNT3A,SHH,CTNNB1,INSM1,GATA2,LRRK2,TRIM71,LHX1

GO:0006821 chloride transport 3.04E-02 CFTR,GABRA1,SLC12A2,SLC1A3,CLCN3,SLC26A8,GABRG2,SLC26A10,TTYH3,GABRB2,GLRA1,ANO7,SLC26A2,CLIC6,ANO10,GABRB1,GABRB3,GRM5,SLC26A5,CLCNKB,FXD1

GO:0007519 skeletal muscle tissue development 3.04E-02 CFLAR,HDAC9,MEF2C,SIX4,MYLK2,TGFB1,MYH14,CAV2,CAV1,BVES,TCF21,SIX1,CHRND,FAM129B,FLOT1,ACTA1,SKI,LEMD2,ANKRD2,FOXL2,RYR1

GO:0010517 regulation of phospholipase activity 3.04E-02 FGFR2,FGFR1,ESR1,ABL1,FLT1,SGS2,ADRA1A,LRP1,PDGFRA,GPR55,FGF2,AGTR1,SNCA,EGFR,EDNRA,PLA2R1,P2RY6,RASGRP4,HRAS,BDNF,AVPR1B

REAC:R-HSA- Non-integrin membrane-ECM interactions	3.07E-02 LAMA3,LAMC2,NTN4,TGFB1,LAMA4,LAMA5,ITGB4,THBS1,FGF2,SDC3,SDC2,LAMB2,NRXN1,AGRN,LAMA2,PDGFA,DDR1,ITGB3
REAC:R-HSA- Ion homeostasis	3.07E-02 ATP1A2,ATP2B4,ATP1B3,PRKACA,ATP2A3,ITPR3,SLC8A3,FKBP1B,ITPR2,ATP1B2,FXD6,ATP2B2,ORAI2,ATP1A1,STIM1,ATP2A2,RYR1,ATP2A1,RYR2,FXD7,FXD1
REAC:R-HSA- Negative regulation of the PI3K/AKT network	HGF,KITLG,ERBB3,FGFR2,FGF4,FGFR1,PPP2R5C,FGF20,PHLPP1,ESR1,PIP5K1B,FGF8,FGF6,EREG,PDGFRA,IER3,FGF5,FGF2,ESR2,AKT1,PIP5K1A,EGFR,PIK3AP1,FGF18,NRG1,NRG2,F 3.07E-02 GF19,PIP4K2C,PTEN,TRAF6,NRG3,IRS2,FGF3,PDGFA,PIP4K2B
REAC:R-HSA- Ca2+ pathway	3.07E-02 TNRC6C,TCF7,WNT11,GNAO1,ITPR3,TNRC6B,WNT5A,ITPR2,GNG11,NFATC1,TCF7L2,PLCB3,TCF7L1,MOV10,FZD5,FZD6,CTNNB1,GNG4,GNB2,GNG12,GNG7,PRKG1,GNG2
REAC:R-HSA- Glycosaminoglycan metabolism	HS3ST1,ST3GAL1,XYL2,B4GALT7,VCAN,ST3GAL6,HYAL2,B4GALT1,HAS3,NAGLU,B3GAT1,DSE,UST,HYAL1,B4GALT6,HS3ST2,CHPF,HS3ST3B1,ST3GAL3,BCAN,HS6ST1,CSGALNACT 3.07E-02 1,CHST9,SLC26A2,B3GNT7,ST3GAL2,SDC3,CHST14,SDC2,HAS2,CHST11,HPSE2,CSPG4,CHST1,GPC5,GPC6,HS6ST3,AGRN,PRELP,PAPSS2
GO:0035019 somatic stem cell population maintenance	3.22E-02 PAX2,SALL4,SALL1,FOXP1,SOX9,PAX8,FGF2,EPHA1,PRDM14,ZFP36L2,SKI,LIG4,FOXD3
GO:0031644 regulation of neurological system process	3.25E-02 TYMP,PRKCZ,MGLL,STX1B,CBLN1,CUX2,FGF12,PTK2B,DLG4,TMEM108,GLRA1,TNFRSF21,FAM173B,TMEM100,NLGN1,PTEN,CHRNA7,NRXN1,LRRK2



GO:0001710 mesodermal cell fate commitment	3.25E-02 EYA2,PAX2,DKK1,WNT3A,MESP1,TRIM15
GO:0034650 cortisol metabolic process	3.25E-02 DKK3,REST,BMP5,BMP2,DGKQ,CACNA1H
GO:0030878 thyroid gland development	3.25E-02 TG,PAX8,SIX1,HOXD3,FOXE1,NKX2-5
GO:0034651 cortisol biosynthetic process	3.25E-02 DKK3,REST,BMP5,BMP2,DGKQ,CACNA1H
GO:1904861 excitatory synapse assembly	3.25E-02 NRXN2,WNT5A,GRID2,NLGN1,PTEN,NRXN1
GO:0071380 cellular response to prostaglandin E stimulus	3.25E-02 SFRP1,TNFSF4,PTGER2,PTGDR,PTGER4,GNG2
GO:0007431 salivary gland development	3.25E-02 HGF,FGFR2,TGFB1,TGFB3,NKX3-1,PDGFA

GO:1901016 regulation of potassium ion transmembrane tr	3.25E-02 KCNG1, NEDD4L, ATP1B3, NEDD4, DLG1, CAV1, AKAP7, KCNS1, ATP1B2, ANK2, KCNS2, RNF207, NETO1, KCNE3, CAV3, LRRC55, STK39, NOS1AP, MIR212
GO:0032342 aldosterone biosynthetic process	3.25E-02 DKK3, REST, BMP5, BMP2, BMP6, CACNA1H
GO:1902306 negative regulation of sodium ion transmemb	3.25E-02 ATP1A2, NEDD4L, NEDD4, OSR1, PCSK9, STK39
GO:0060850 regulation of transcription involved in cell fate	3.25E-02 RORA, CHD5, PROX1, PPARG, SOX17, NR2F2
GO:0050679 positive regulation of epithelial cell proliferati	PTPRN, CDH3, FGFR2, PAX2, FGFR1, HMOX1, SFRP1, PRKD2, BMP5, THBS4, WNT5A, HYAL1, ITGA4, F3, PROX1, NR4A3, PGF, NR4A1, BMP4, SOX9, BMP2, STAT5A, KDR, APLNR, FGF2, CDH13, A 3.25E-02 KT1, OSR1, AGTR1, EGFR, ADAM17, BMP6, NODAL, HMGB2, OSR2, HRAS, SOX11, GATA2, EGR3, ZNF703, PRKD1, ITGB3
GO:0045161 neuronal ion channel clustering	3.25E-02 MYOC, NRCAM, KCNIP2, SPTBN4, CNTNAP2, AGRN
GO:0010944 negative regulation of transcription by compe	3.25E-02 SMAD7, MAD2L2, BHLHE41, TFAP2A, HHEX, PHB

GO:1902645 tertiary alcohol biosynthetic process	3.25E-02 DKK3,REST,BMP5,BMP2,DGKQ,CACNA1H
GO:0032341 aldosterone metabolic process	3.25E-02 DKK3,REST,BMP5,BMP2,BMP6,CACNA1H
GO:0044342 type B pancreatic cell proliferation	3.25E-02 PTPRN,SFRP1,NR4A3,NR4A1,NR1D1,NKX6-1
GO:0032736 positive regulation of interleukin-13 productio	3.25E-02 PRKCZ,GATA3,TNFSF4,RARA,IRF4,TSLP
GO:0060219 camera-type eye photoreceptor cell differenti	3.25E-02 SOX8,PROM1,SDK2,SOX9,DSCAM,RORB
REAC:R-HSA- ECM proteoglycans	3.25E-02 MUSK,VCAN,COL9A2,LAMA3,COL9A3,TGFB1,COL9A1,LAMA4,TNR,TGFB3,TNN,LAMAS,BCAN,LRP4,ITGA7,ITGA9,NCAM1,TNXB,LAMB2,AGRN,LAMA2,ITGB3
REAC:R-HSA- PI5P, PP2A and IER3 Regulate PI3K/AKT Signali	HGF,KITLG,ERBB3,FGFR2,FGF4,FGFR1,PPP2R5C,FGF20,ESR1,PIP5K1B,FGF8,FGF6,EREG,PDGFRA,IER3,FGF5,FGF2,ESR2,AKT1,PIP5K1A,EGFR,PIK3AP1,FGF18,NRG1,NRG2,FGF19,PI 3.25E-02 P4K2C,TRAF6,NRG3,IRS2,FGF3,PDGFA,PIP4K2B

GO:0051492 regulation of stress fiber assembly	3.33E-02 MYOC,LIMCH1,CLASP1,WNT11,PXN,ABL1,SFRP1,ARHGEF10,LIMK1,STMN1,CTGF,TGFB3,SORBS3,FHOD1,TPM1,TMEFF2,EPHA1,PAK1,DLCL1,PTGER4,TACSTD2,ARAP1,S100A10
GO:0070830 bicellular tight junction assembly	3.33E-02 CBF3,PRKACA,DLG1,GRHL2,PARD6A,TJP1,PARD6B,CRB3,NPHP4,APC,TBCD,MARVELD2,RUNX1,PRKCI,CLDN3,CLDN5,OCLN
GO:0001890 placenta development	3.33E-02 FGFR2,BMP7,CYP27B1,BMP5,PKD2,GHSR,GCM2,E2F8,PPARG,ADAM19,HEY2,NODAL,EOMES,HEY1,E2F7,LEP,ASCL2
GO:0045926 negative regulation of growth	SEMA3G,HYAL2,IP6K2,ENO1,TP73,WNT11,MT3,TBX5,WFDC1,SFRP1,BBC3,TGFB1,SLC6A4,CYP27B1,CDKN1B,WWC1,HYAL1,BMP4,CDKN2D,GDF15,RERG,ACVRL1,ESR2,SLIT2,SFR 3.34E-02 P2,NOTCH1,FRZB,MSX1,TRIM46,APBB2,SOX17,OSGIN2,APBB1,SMAD3,PHB,SERTAD3,GNG4,PTEN,CCDC85B,SLIT3,WT1,MT1X,DCC,MT1H,MT1M,MIR199B,SIPA1
GO:0035249 synaptic transmission, glutamatergic	3.34E-02 ATP1A2,MEF2C,SLC1A4,GRIA2,PTK2B,GRID2,CDK5,GRM5,NLGN1,GRIK1,GRM8,NRXN1,LRRK2,GRM7,GRM3
GO:0050954 sensory perception of mechanical stimulus	KCNQ1,COL11A1,MYO3B,SLC26A4,MYO3A,MYH14,DFNA5,ATP6V0A4,COL1A1,ATP6V1B1,GJB6,SERPINB6,EML2,DIAPH1,PAX3,TFAP2A,COL2A1,ESPNL,TIMM8B,CCDC50,MARVEL 3.36E-02 D2,ATP2B2,SPTBN4,LOXHD1,SLC26A5,EPSS8L2,KCNK4,LRTOMT,ROR1,GRM7,COL11A2
GO:0022407 regulation of cell-cell adhesion	CX3CL1,CD6,RUNX3,CDH1,PRKCZ,CBF3,NCK2,TBX21,GLI2,PAG1,PTPRC,BMP7,SMAD7,CD276,RASAL3,TGFB1,JAK3,CAV1,GLI3,GATA3,CXCL12,MAP3K8,ZMIZ1,ALOX12,PRKAR1A,G CNT2,VNN1,IL12B,ZAP70,IGFBP2,MAD2L2,TNFSF4,MYB,NR4A3,EPCAM,NCKAP1L,BMP4,FOXA2,BMP2,PODXL,FOXJ1,ASS1,RARA,PTPN22,ETS1,ADAM19,SERPINE2,FLOT1,MAP2K 5,ADAMTS18,AKT1,TNFRSF21,PAK1,CCL28,NODAL,NCK1,RUNX1,PDPN,NLRP3,ZC3H12A,SHH,SPINT2,HAS2,LEP,MYADM,ZNF703,EFNA5,SOCS1,PRKG1,CD47,DPP4,CARD11,HLA- 3.36E-02 G,MIR141,HLA-DPB1,LYN

GO:0007266 Rho protein signal transduction	3.38E-02 MYOC,NGFR,NTN1,ABL1,MYO9B,LIMK1,KANK1,RTKN,STMN1,ADRA1A,PAK4,GPR55,PAK6,ARHGAP29,CDH13,ARHGDI1,AGTR1,GNA12,PAK1,PDPN,CDC42EP3,ARHGEF3,F2RL1,COL1A2,DLC1,ABCA1,CDC42EP5,ROBO1,AKAP13,RHOD,EP58L2,CDC42EP4
GO:0043367 CD4-positive, alpha-beta T cell differentiation	3.42E-02 RUNX3,PRK2C,CBFB,RORA,TBX21,SMAD7,JAK3,IL12B,FOXP1,TNFSF4,MYB,NCKAP1L,RARA,IRF4,RUNX1,NLRP3,ZC3H12A,PTGER4,ZFPM1,SOCS1
GO:0045445 myoblast differentiation	3.42E-02 SOX8,MEF2C,REST,TGFB1,SRF,EPAS1,BMP4,SOX9,SOX15,TBX3,RB1,IGFBP3,NOTCH1,TCF7L2,NRG1,T,ANKRD2,SOSTDC1,ZFP36L1,MAPK12
GO:0030335 positive regulation of cell migration	3.55E-02 FGR,CD74,HGF,MAP2K3,MYOC,HDAC9,SYNE2,F7,LAMC2,HDAC7,SCARB1,CLASP1,FGFR1,PTPRC,WNT11,TRIP6,ICAM1,ZNF268,SEMA6A,EPB41L4B,ABL1,MADCAM1,HMOX1,ANGPT4,FLT1,SYDE1,PRKD2,TGFB1,HSPB1,GATA3,CXCL12,COL1A1,SMURF2,GCNT2,PTP4A1,THBS4,WNT5A,HYAL1,FOXP1,ACVR1,IGFBP5,F3,PROX1,NR4A3,PGF,PTK2B,PLAU,NCKAP1L,EDN3,BMP4,SOX9,BMP2,STAT5A,KDR,PODXL,RAB25,PDGFRA,ETS1,APC,DAB2IP,THBS1,FGF2,IGF1R,NTRK3,CDH13,BCAS3,GRB7,AKT1,CYR61,PLA2G7,EGFR,EPHA1,NOTCH1,PAK1,DOCK1,ADAM17,ANGPT1,FGF18,MMMP14,PDPN,CXCL1,ZC3H12A,F2RL1,NOS3,ATOH8,ROR2,HAS2,PDGFD,LRRC15,RHOD,CMKLR1,HRAS,FOXC2,GATA2,MYADM,CAMK1D,ZNF703,PRKD1,NTF3,PDGFA,MIR181D,TWIST2,ITGB3
REAC:R-HSA- Regulation of commissural axon pathfinding b	3.56E-02 NTN1,SLIT2,ROBO3,ROBO1,SLIT3,SLIT1,DCC
REAC:R-HSA- Pre-NOTCH Processing in Golgi	3.56E-02 ST3GAL6,NOTCH3,ATP2A3,B4GALT1,TMED2,ST3GAL3,NOTCH1,ATP2A2,ATP2A1,NOTCH4
REAC:R-HSA- Nitric oxide stimulates guanylate cyclase	3.56E-02 MRVI1,PDE10A,PDE11A,KCNMB4,GUCY1A2,KCNMA1,PDE9A,NOS3,PDE3A,PRKG1,PDE2A,KCNMB2

REAC:R-HSA- cGMP effects	3.56E-02 MRV1,PDE10A,PDE11A,KCNMB4,KCNMA1,PDE9A,PDE3A,PRKG1,PDE2A,KCNMB2
REAC:R-HSA- Neurexins and neuroligins	3.56E-02 SYT7,NRXN3,APBA2,DLGAP4,EPB41L1,LIN7B,GRIN2D,STX1A,NRXN2,SYT10,DLG4,DLG2,EPB41,GRIN2C,SHANK2,GRM5,NLGN1,DLGAP1,NRXN1,BEGAIN,SHANK3,GRIN2B
REAC:R-HSA- Regulation of gene expression in beta cells	3.56E-02 PAX6,FOXA2,NKX2-2,HNF1A,PDX1,AKT1,FOXO1,NEUROD1,NKX6-1,FOXA3,MAFA
REAC:R-HSA- RUNX2 regulates osteoblast differentiation	3.56E-02 WWTR1,CBFB,ABL1,GLI3,COL1A1,SATB2,RUNX2,HEY2,RB1,HEY1,SP7,MAF
REAC:R-HSA- Molecules associated with elastic fibres	3.56E-02 FBLN1,LTBP4,BMP7,TGFB1,EFEMP1,MFAP2,LTBP2,TGFB3,BMP4,BMP2,GDF5,MFAP4,EFEMP2,ITGB3
GO:0002262 myeloid cell homeostasis	SPI1,TGFB3,HMOX1,ACIN1,KLF1,JAK3,CDK6,HOXA5,HSPA9,FOXO3,NCKAP1L,ETS1,MFHAS1,ADAM17,CEBPG,TAL1,HMGB2,RPS14,STAT5B,ZFPM1,ZFP36L1,IKZF1,LDB1,MAFB,LY 3.57E-02 N
REAC:R-HSA- Collagen degradation	3.61E-02 COL9A2,COL23A1,COL19A1,COL16A1,COL9A3,MMP15,COL12A1,COL9A1,CTSD,ADAM17,MMP14,COL18A1,TMPRSS6,COL14A1,COL25A1,COL13A1,COL15A1

GO:0045637 regulation of myeloid cell differentiation 3.66E-02 LTF,CD74,SPI1,CBFB,HOXA9,TNRC6C,MEF2C,SETD1A,TNRC6B,ACIN1,CDK6,HOXA5,ZBTB16,CALCA,HSPA9,IL12B,FOXP1,HDAC1,FOXO3,NR4A3,HOXB8,PTK2B,HOXA7,NCKAP1L,LIF,  
 ,RARA,MEIS2,ETS1,GPR55,THBS1,LHCGR,HAX1,MEIS1,POU4F2,POU4F1,MOV10,RUNX1,TAL1,DPY30,HMGB2,PRKCB,STAT5B,TRAF6,ZFPM1,IRF7,ZFP36L1,HIST1H3D,LDB1,PRMT6  
 ,MAFB,LYN,HIST1H4F,HIST1H4D

GO:0046637 regulation of alpha-beta T cell differentiation 3.67E-02 RUNX3,PRKCB,CBFB,TBX21,SMAD7,JAK3,GLI3,IL12B,TNFSF4,MYB,NCKAP1L,RARA,IRF4,RUNX1,NLRP3,ZC3H12A,SHH,SOCS1

REAC:R-HSA- Constitutive Signaling by Aberrant PI3K in Cani 3.68E-02 HGF,KITLG,ERBB3,FGFR2,FGF4,FGFR1,FGF20,ESR1,FGF8,FGF6,EREG,PDGFRA,FGF5,FGF2,ESR2,EGFR,PIK3AP1,FGF18,NRG1,NRG2,FGF19,NRG3,IRS2,FGF3,PDGFA

GO:0070372 regulation of ERK1 and ERK2 cascade 3.68E-02 CX3CL1,CD74,ABCA7,FGFR2,PRKCB,FGF4,DLG1,FBLN1,MT3,ICAM1,SEMA6A,EZR,FAM83D,NDRG4,PRKD2,TGFB1,SLC9A3R1,GCNT2,OPRM1,CTGF,PTK2B,ADRA1A,BMP2,KDR,CHI3  
 L1,DSTYK,EPHB2,DUSP26,PTPN22,PDGFRA,GPR55,DAB2IP,FGF2,DUSP6,ADCYAP1,ARRB2,TNFRSF11A,CYR61,EGFR,MFHAS1,NOTCH1,ANGPT1,NODAL,SHC1,ALOX15,FGF19,CAM  
 K2N1,SPRY1,HAND2,F2RL1,PHB,RGS14,PDGFD,P2RY6,PTEN,RASGRP1,HRAS,CHRNA7,NRXN1,TNFAIP8L3,PDGFA,NTRK1,ARHGAP8,LYN

GO:0046328 regulation of JNK cascade 3.68E-02 WNT16,DVL2,MAP3K9,MAP4K4,TRAF4,TP73,PHLPP1,MECOM,DNAJA1,RASSF2,MAP4K1,DKK1,FZD10,WNT5A,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,TNFRSF19,GADD45G,PTPN2  
 2,MDFIC,DAB2IP,IGF1R,TNFRSF11A,MAP3K6,EGFR,MFHAS1,PAK1,TNIK,PINK1,DVL3,FGF19,F2RL1,RASGRP1,SH3RF3,MAP3K11,HRAS,TRAF6,DAXX

GO:0007223 Wnt signaling pathway, calcium modulating pi 3.78E-02 TNRC6C,WNT11,GNAO1,TNRC6B,DKK1,WNT5A,NFATC1,TCF7L2,PLCB3,MOV10,FZD5,FZD6,CTNNB1,GNG2

GO:0045685 regulation of glial cell differentiation 3.78E-02 CXCR4,BMP2,LDLR,SERPINE2,ZNF365,TNFRSF21,DAAM2,TTBK1,NOTCH1,CLCF1,HESS

GO:0001954 positive regulation of cell-matrix adhesion 3.78E-02 CX3CL1,MYOC,COL16A1,ABL1,SFRP1,CDK6,PTK2B,KDR,CDH13,EPHA1,CCL28,UTRN,JUP,S100A10

GO:0048483 autonomic nervous system development 3.78E-02 SOX8,TFAP2B,GATA3,PHOX2B,EDNRB,TFAP2A,CTNNA1,GDNF,INSM1,SOX11,NTRK1

GO:0033687 osteoblast proliferation 3.78E-02 SOX8,LTF,FGFR2,SFRP1,TNN,BMP2,CYR61,PLXNB1,OSR2,NELL1,MIR9-3

GO:0061371 determination of heart left/right asymmetry 3.79E-02 MEF2C,NDRG4,SRF,HAND1,PKD2,SMO,GATA4,BBS4,CCDC40,NOTCH1,RNF207,TBX20,SHH,SOX17,MESP1,NKX2-5

GO:0002011 morphogenesis of an epithelial sheet 3.79E-02 CLASP1,BMP7,BMP5,DLL4,COL5A1,ACVRL1,CYR61,TMEFF2,NOTCH1,ADAM17,PDPN,TBX20,ARHGAP12,PTEN,SOX11,DDR1

GO:0051496 positive regulation of stress fiber assembly 3.79E-02 MYOC,LIMCH1,WNT11,PXN,ABL1,SFRP1,ARHGEF10,LIMK1,CTGF,TGFB3,SORBS3,FHOD1,TPM1,EPHA1,PAK1,S100A10

GO:2000146 negative regulation of cell motility 3.79E-02 2,MIR196A2,MIR212,ADORA3,MIR124-1  
CX3CL1,TBXA2R,PTPRU,LIMCH1,HYAL2,CLASP1,FBLN1,MEF2C,WNT11,TBX5,CHRD,HMOX1,ZMYND8,ANGPT4,SMAD7,STK24,NDRG4,SFRP1,TGFB1,MEOX2,KANK1,GATA3,CXCL12  
,BMP5,DPYSL3,JGFBP5,PADI2,TNN,HOXA7,LRP1,DLI4,PPARG,DA82IP,SULF1,MAP2K5,THBS1,CYP11B1,FGF2,ACVRL1,TPM1,TMEFF2,PTPRG,SLIT2,SFRP2,JGFBP3,EPHA1,NOTCH1,C  
CL28,NODAL,ADAMTS9,SHH,DLC1,SPINT2,ROBO1,MCC,PTGER4,PTEN,JUP,PODN,TACSTD2,PRKG1,NR2F2,IFITM1,MAGI2,SPOCK3,SRGAP3,MIR193A,MIR124-



GO:0048675 axon extension	3.83E-02	SEMA3G,NTN1,PLXNA2,ULK2,MT3,NRCAM,HSP90A1,ABL1,LIMK1,MACF1,SLIT2,POU4F2,TRIM46,PLXNB1,CDK5,ISLR2,DSCAM,SLIT3,MAPT,SLIT1,PLXNA4,CYFIP1
GO:0071774 response to fibroblast growth factor	3.86E-02	FGFR2,HYAL2,FGF4,FGFR1,FGF20,ESRP2,SFRP1,ESRP1,PRKD2,GATA3,FGF8,FGF6,HYAL1,NR4A1,DLL4,DSTYK,SULF1,THBS1,FGF5,FGF2,DUSP6,ZFP36L2,FGF18,CREB3L1,IER2,FGF19,POLR2H,OTX2,HNRNP1,EGFR3,NRXN1,ZFP36L1,FGF3,SULF2,SPRED2,TRIM71
GO:0010565 regulation of cellular ketone metabolic proces	3.88E-02	MLXIPL,DKK3,ATP2B4,REST,DKKL1,CAV1,PRKAG2,BMP5,ODC1,PROX1,NR4A3,FABP3,TWIST1,LPGAT1,PANK2,BMP2,NR1D1,AKT1,DKKQ,BHMT,STAR,BMP6,AZIN1,SLC7A7,FGF19,PRKAA2,STARD4,PDP1,IRS2,NCOR2
GO:0051271 negative regulation of cellular component mo	3.88E-02	CX3CL1,TBXA2R,PTPRU,LIMCH1,HYAL2,TGFBR3,CLASP1,FBLN1,MEF2C,WNT11,TBX5,CHRD,HMOX1,ZMYND8,ANGPT4,SMAD7,STK24,NDRG4,SFRP1,TGFB1,MEOX2,KANK1,GATA3,CXCL12,BMP5,DPYSL3,IGFBP5,PADI2,TNN,HOXA7,LRP1,DLL4,PPARG,DAB2IP,SULF1,MAP2K5,THBS1,CYP1B1,FGF2,ACVRL1,TPM1,TMEFF2,PTPRG,SLIT2,SFRP2,IGFBP3,EPHA1,NOTCH1,CCL28,NODAL,ADAMTS9,SHH,DLC1,SPINT2,ROBO1,MCC,PTGER4,PTEN,JUP,PODN,KCNE3,TACSTD2,PRKG1,NR2F2,IFITM1,MAGI2,SPOCK3,SRGAP3,MIR193A,MIR124-2,MIR196A2,MIR212,ADORA3,MIR124-1
REAC:R-HSA- Binding of TCF/LEF:CTNNB1 to target gene pro	3.94E-02	RUNX3,TCF7,TCF7L2,TCF7L1,CTNNB1,AXIN2
REAC:R-HSA- Regulation of gene expression in early pancre	3.94E-02	NR5A2,PDX1,NKX6-1,PTF1A,ONECUT1,ONECUT3
REAC:R-HSA- RUNX3 regulates WNT signaling	3.94E-02	RUNX3,TCF7,CCND1,TCF7L2,TCF7L1,CTNNB1

GO:0044321 response to leptin

3.94E-02 MT3,CCND1,LEPR,NR4A3,NR1D1,BBS4,LEP

GO:1904953 Wnt signaling pathway involved in midbrain development

3.94E-02 WNT3,WNT5A,CSNK1D,WNT3A,FZD1,WNT9B,CTNNB1

GO:0045989 positive regulation of striated muscle contraction

3.94E-02 KCNQ1,RGS2,ADRA1A,TRPM4,RNF207,ATP2A1,NOS1AP

GO:0016049 cell growth

SEMA3G,NEDD4L,NTN1,HYAL2,IP6K2,RASGRP2,ENO1,PLXNA2,ULK2,WNT11,MT3,LTBP4,NRCAM,HSP90AB1,ABL1,SGK2,NDRG4,WFDC1,SFRP1,TGFB1,COBL,LIMK1,SH3GL2,CYP27B1,CDKN1B,CHPT1,HYAL1,MAD2L2,RP56KA1,SGK1,CPNE5,SOX9,MACF1,CDKN2D,PAK4,RECG,ACVRL1,ESR2,RPTOR,AKT1,CPNE9,TMEM108,AGTR1,SLIT2,SFRP2,EGFR,EBAG9,POU4F2,ADAM17,IMPACT,SORBS2,MMP14,FRZB,MSX1,TRIM46,APBB2,PLXNB1,SOX17,OSGIN2,CDK5,APBB1,SMAD3,PHB,ISLR2,SERTAD3,TMC8,CTNNB1,GNG4,DSCAM,SLC25A33,  
3.95E-02 BCL2,CCDC85B,BDNF,SLIT3,WT1,NRG3,MAPT,SLIT1,DCC,MUC12,MIR199B,SIPA1,CPNE1,PLXNA4,CYFIP1,MIR19A

GO:0055117 regulation of cardiac muscle contraction

3.96E-02 ATP1A2,KCNQ1,PRKACA,DLG1,SMAD7,CAV1,PDE4D,RGS2,FKBP1B,ADRA1A,TRPM4,DSC2,HCN4,ANK2,RNF207,ZC3H12A,JUP,ATP2A2,KCNE3,CAV3,NKX2-5,RYR2,NOS1AP

GO:0051668 localization within membrane

3.96E-02 MUSK,DLG1,STX7,MADCAM1,PLLP,NRXN2,ITGA4,TBC1D20,DLG4,LRP4,CDH13,MALL,MAL2,DLG2,MARVELD1,RFTN2,D4S234E,NLGN1,NRXN1,MAGI2,RILPL1,AGRN,SHISA6

GO:0046632 alpha-beta T cell differentiation

3.96E-02 RUNX3,PRKCC,CBFB,RORA,TBX21,SMAD7,JAK3,GLI3,IL12B,FOXP1,TNFSF4,MYB,NCKAP1L,RARA,IRF4,RUNX1,NLRP3,EOMES,ZC3H12A,SHH,PTGER4,ZFPM1,SOCS1

REAC:R-HSA- FGFR2c ligand binding and activation	3.96E-02 FGFR2,FGF4,FGF20,FGF8,FGF6,FGF5,FGF2,FGF18
GO:0060307 regulation of ventricular cardiac muscle cell m	3.98E-02 KCNQ1,KCNH2,DLG1,SNTA1,ANK2,RNF207,KCNE3,SCN4B,CAV3,NOS1AP
GO:0086012 membrane depolarization during cardiac musc	3.98E-02 CACNA1G,ATP1A2,TRPM4,HCN4,ANK2,SCN2B,CACNB2,SCN3B,SCN4B,CAV3
GO:0045939 negative regulation of steroid metabolic proce	3.98E-02 DKK3,REST,DKKL1,CYP27B1,BMP5,SCAP,PROX1,BMP2,FGF19,GF1
GO:0031579 membrane raft organization	3.98E-02 PLLP,CAV2,CAV1,FLOT1,MALL,MAL2,MARVELD1,MYADM,CAV3,S100A10
GO:0048546 digestive tract morphogenesis	3.98E-02 FGFR2,GLI2,WNT11,GLI1,TCF21,SFRP5,PDGFRA,GATA4,SOX17,SOX11
GO:0099172 presynapse organization	4.13E-02 WNT5A,LRP4,SNCA,PTPRD,WNT3A,FZD1,NLGN1,PTEN,NRXN1

GO:0098900 regulation of action potential	4.13E-02 PTPN3,DLG1,CAV1,FGF12,ADRA1A,TRPM4,DSC2,HCN4,ANK2,RNF207,CACNB3,JUP,ATP2A2,KCNE3,CAV3,RYR2,NOS1AP
GO:2000738 positive regulation of stem cell differentiation	4.13E-02 TBX5,SOX9,SOX5,GATA4,SP7,HOXB4,NKX2-5,TACSTD2
GO:0030879 mammary gland development	4.13E-02 FGFR2,GLI2,CAV1,GATA3,WNT3,IRF6,TGFB3,TBX3,BRCA2,AKT1,NRG1,ELF3,ROBO1,FOXB1,ZNF703,NOTCH4,GPX1
GO:1902041 regulation of extrinsic apoptotic signaling path	4.13E-02 CFLAR,ICAM1,HMOX1,SFRP1,TNFRSF10A,MADD,BMP5,TNFAIP3,THBS1,PMAIP1,PEA15,NOS3,TMC8,FEM1B,PTEN,SCRT2,GPX1
GO:0043113 receptor clustering	4.13E-02 MUSK,DLG1,MADCAM1,NRXN2,ITGA4,DLG4,LRP4,DLG2,NLGN1,NRXN1,MAGI2,AGRN,SHISA6
GO:0010544 negative regulation of platelet activation	4.13E-02 ALOX12,PDGFRA,SERPINE2,ADAMTS18,NOS3,THBD,PRKG1,PDGFA
GO:0003283 atrial septum development	4.13E-02 ISL1,ACVR1,HEY2,GATA4,ANK2,TBX20,ZFPM1,NKX2-5

GO:0051444 negative regulation of ubiquitin-protein transf 4.13E-02 ABL1,SMAD7,LIMK1,BAG2,MAD2L2,RPL23,USP44,MAD2L1

GO:0007050 cell cycle arrest 4.13E-02 D1,APBB2,CDK5,E2F7,CUL5,APBB1,SMAD3,NKX3-1,SLC25A33,INSM1,HRAS,RPRM,MAGI2,MAPK12  
GAS7,MLXIPL,PRR11,PRKACA,TP73,CDC14A,STRADB,AURKA,ZNF268,HSP90AB1,ABL1,CAB39L,TGFB1,CDK6,RHEB,PRKAG2,PHOX2B,CCND1,CDKN1B,IL12B,DHCR24,IRF6,PLAGL1,PKD2,DUSP1,RPL23,E2F8,CDKN2D,APC,DAB2IP,BTG4,THBS1,RB1,GATA6,RPTOR,RQCD1,MCPH1,NOTCH1,TCF7L2,TNKS1BP1,HMGA2,CDC123,POU4F1,ZNF385A,PRKAA2,NEURO

GO:0045992 negative regulation of embryonic developmen 4.13E-02 GATA3,DKK1,COL5A1,SULF1,SFRP2,MESP1,CTNNB1,COL5A2

GO:0035767 endothelial cell chemotaxis 4.13E-02 FGF4,FGFR1,PRKD2,HSPB1,NR4A1,KDR,THBS1,FGF2,NOTCH1,FGF18,PLEKHG5,EGR3,PRKD1

GO:2000251 positive regulation of actin cytoskeleton reorg 4.13E-02 BAIAP2L1,ABL1,BAIAP2L2,NTRK3,BCAS3,HAX1,CDK5,HRAS,NTF3

GO:0043371 negative regulation of CD4-positive, alpha-bet 4.13E-02 RUNX3,CBFB,TBX21,SMAD7,JAK3,TNFSF4,RUNX1,ZC3H12A

GO:0099054 presynapse assembly 4.13E-02 WNT5A,LRP4,SNCA,PTPRD,WNT3A,FZD1,NLGN1,PTEN,NRXN1

GO:0019932 second-messenger-mediated signaling	<p>ATP1A2,ADRB1,ATP2B4,INPP5A,PRKACA,PTHLH,JPH4,RASD2,JPH1,CALCA,CAMKK2,GLP1R,PDE4D,RCAN3,PKD2,FKBP1B,CRHR1,ADRA1A,CXCR4,EDN3,PTGER2,SOX9,DYRK2,GNAI1,KDR,ADCY4,TRPM4,NFATC1,RAMP1,APLNR,MRAP2,EDNRB,THBS1,ADCY3,LHCGR,PDX1,CDH13,ADCYAP1,AGTR1,DGKQ,EPHA5,ANK2,EGFR,ADM,PTH1R,TPCN2,NEUROD1,ADCY1,NOS3,ABCA1,CHP2,GRM5,AKAP13,KSR2,NEUROD2,P2RY6,CAMTA1,PDE3A,CMKLR1,C10ORF71,GPR62,GPR3,MAFA,GN2,PDE2A,MAPT,ADRB3,LRRK2,HTT,RYR2,NOS1AP,MI</p> <p>4.13E-02 R124-2,DDAH2,MIR124-1</p>
GO:0072507 divalent inorganic cation homeostasis	<p>TAC1,CX3CL1,TFAP2B,SLC11A1,ATP1A2,ATP2B4,DRD4,PRKACA,SCGN,PTPRC,MT3,ESR1,JPH4,ITPR3,ABL1,SLC8A3,CALB1,JPH1,SLC39A14,BBC3,GRIN2D,CAV1,CXCL12,CALCA,CYP27B1,GLP1R,SLC39A7,PDE4D,SLC30A3,TACR1,THADA,ATP6V1B1,PKD2,FKBP1B,PTK2B,ADRA1A,CXCR4,ITPR2,ATP7B,GCM2,OPRL1,MCHR1,TRPM4,DIAPH1,DLG4,APLNR,PDGFRA,GPR55,TRPC6,FGF2,SLC39A8,TMBIM6,SLC24A4,NOL3,AFG3L2,ADCYAP1,CACNA1A,AGTR1,SNCA,ANK2,SLC39A12,EDNRA,ATP2B2,SLC30A2,GRIN2C,TPCN2,PROK2,F2RL1,TRPV6,P</p> <p>4.13E-02 RKCB,SMAD3,STIM1,CACNB3,TMC8,LETM1,CD52,LPAR3,P2RY6,BCL2,ATP2A2,CHRNA7,GPR157,CAV3,RYR1,ATP2A1,HTT,AVPR1B,RYR2,TGM2,FAM155A,GRIN2B</p>
GO:0021766 hippocampus development	<p>4.13E-02 CDK6,PROX1,BBS4,TMEM108,EPHA5,KIRREL3,NEUROD1,MFSD2A,PTEN</p>
GO:0010464 regulation of mesenchymal cell proliferation	<p>4.13E-02 FGFR2,CHRD,WNT5A,BMP4,SOX9,LRP5,SHH,PDGFA</p>
GO:0007599 hemostasis	<p>TFPI,EHD2,F7,DGKG,HMG20B,DGKA,PRKACA,CAP2B,FBLN1,CD59,GNA11,DOCK9,RCOR1,PABPC4,TYRO3,CBX5,ITPR3,P2RX6,PROCR,MYL12A,DGKH,PLAT,CAV1,HSPB1,GATA3,COL1A1,ALOX12,PRKAR1A,HDAC1,F3,PLAU,ITPR2,F13A1,FOXA2,PRKCG,PDGFRA,TEC,SERPINE2,DGKB,GATA4,TRPC6,THBS1,ADAMTS18,GATA6,ARRB2,DGKQ,GNA12,DGKZ,SERPING1,DOCK1,FL1,PAFAH2,CSR1,SH2B2,PDPN,F2RL1,COL1A2,NOS3,ILK,PRKCB,ZFPM2,PDGFD,THBD,GP5,GATA2,ZFPM1,ACTG1,PROS1,MAFF,PRKG1,GN2,TMPRSS6,PRKAR1B,MAF</p> <p>4.13E-02 G,HIST1H3D,PDGFA,LYN,ITGB3,PIK3R6</p>
GO:0097191 extrinsic apoptotic signaling pathway	<p>CFLAR,TNFRSF12A,BID,EYA2,ERBB3,HYAL2,KIAA0141,CYLD,ICAM1,HMOX1,SFRP1,TNFRSF10A,TGFB1,CAV1,UNC5B,MADD,BMP5,EYA4,ACVR1,TNFAIP3,BMP4,BCL2L2,SORT1,NGF,DAB2IP,MAP2K5,THBS1,BCL2L10,NOL3,PMAIP1,AKT1,TCF7L2,DEDD2,PEA15,NOS3,SMAD3,TMC8,GDNF,FEM1B,BCL2,PTEN,DCC,HTT,DAXX,SCRT2,GPX1</p> <p>4.14E-02</p>
GO:0060401 cytosolic calcium ion transport	<p>CX3CL1,ATP1A2,ATP2B4,PRKACA,PTPRC,JPH4,ITPR3,JPH1,BBC3,GRIN2D,CAV1,CALCA,PDE4D,PKD2,FKBP1B,PTK2B,ADRA1A,ITPR2,SLC25A23,DIAPH1,APLNR,FGF2,TMBIM6,NOL3,AFG3L2,SNCA,ANK2,GRIN2C,TRPV6,CACNB3,LETM1,P2RY6,ATP2A2,RYR1,HTT,RYR2,FAM155A,GRIN2B</p> <p>4.21E-02</p>

GO:0035265 organ growth 4.21E-02 A FGFR2,TGFBR3,EVC,TP73,MEF2C,TBX5,NDRG4,SLC6A4,GLI1,WWC1,LEPR,PROX1,SOX9,PIM1,FGF2,DUSP6,NOTCH1,SORBS2,TBX20,MESP1,S1PR1,PTEN,LEP,WT1,MIR199B,MIR19

REAC:R-HSA- Signaling by NOTCH 4.26E-02 R,CNTN1,HDAC9,HDAC7,ST3GAL6,TLE2,HDAC4,NOTCH3,ATP2A3,TNRC6C,B4GALT1,TMED2,TNRC6B,TLE4,DTX4,CCND1,WWC1,HDAC1,ST3GAL3,DLL4,CDK8,DTX1,HEY2,ARRB2,EGF

GO:0007596 blood coagulation 4.27E-02 T1H3D,PDGFA,LYN,ITGB3,PIK3R6 TFPI,EHD2,F7,DGKG,HMG20B,DGKA,PRKACA,CAPZB,FBLN1,CD59,GNA11,DOCK9,RCOR1,PABPC4,TYRO3,CBX5,ITPR3,P2RX6,PROCR,MYL12A,DGKH,PLAT,CAV1,HSPB1,GATA3,COL1A1,ALOX12,PRKAR1A,HDAC1,F3,PLAU,ITPR2,F13A1,FOXA2,PRKCG,PDGFRA,TEC,SERPINE2,DGKB,GATA4,TRPC6,THBS1,ADAMTS18,GATA6,ARRB2,DGKQ,GNA12,DGKZ,SERPING1,DOCK1,PAFAH2,CSR1,SH2B2,PDPN,F2RL1,COL1A2,NOS3,ILK,PRKCB,ZFPM2,PDGFD,THBD,GP5,GATA2,ZFPM1,ACTG1,PROS1,MAFF,PRKG1,GNG2,TMPRSS6,PRKAR1B,MAFG,HIS

GO:0019218 regulation of steroid metabolic process 4.39E-02 CYP51A1,DKK3,NFYC,RORA,SREBF1,REST,SCD,DKK1,CYP27B1,BMP5,SCAP,PROX1,NFYB,PANK2,BMP2,NR1D1,NR5A1,MBTPS1,AGTR1,DGKQ,STAR,TM7SF2,GGPS1,BMP6,ABCG1,FGF19,GFI1,STARD4,SREBF2

GO:0046330 positive regulation of JNK cascade 4.41E-02 AK1,TNIK,DVL3,FGF19,F2RL1,RASGRP1,SH3RF3,MAP3K11,HRAS,TRAF6,DAXX WNT16,DVL2,MAP3K9,TRAF4,RASSF2,MAP4K1,DKK1,FZD10,WNT5A,CTGF,PTK2B,MAPK8IP1,PKN1,UNC5CL,TNFRSF19,GADD45G,MDFIC,DAB2IP,TNFRSF11A,MAP3K6,MFHAS1,P

REAC:R-HSA- Elastic fibre formation 4.42E-02 FBLN1,LTBP4,BMP7,TGFB1,LOX,EFEMP1,MFAP2,LTBP2,TGFB3,BMP4,BMP2,GDF5,LOXL1,LOXL4,MFAP4,EFEMP2,ITGB3

GO:1903391 regulation of adherens junction organization 4.45E-02 MYOC,EPHA3,LIMCH1,CLASP1,COL16A1,ABL1,SFRP1,MACF1,KDR,THBS1,ACVRL1,BCAS3,DLC1,PTEN,RCC2,EFNA5,S100A10,LDB1

GO:0007631 feeding behavior	4.45E-02 LEPR,SGIP1,NR4A3,PRLHR,GHSR,NPY,MCHR1,GALR3,GDF15,MRAP2,UCN,NPY1R,PROKR1,LEP,GPR19,NPW,NPY2R,CCK
GO:0032233 positive regulation of actin filament bundle as	4.45E-02 CX3CL1,MYOC,LIMCH1,WNT11,PXN,ABL1,SFRP1,ARHGEF10,LIMK1,CTGF,TGFB3,SORBS3,FHOD1,TPM1,EPHA1,PAK1,SYNPO2L,S100A10
GO:0097623 potassium ion export across plasma membran	4.49E-02 KCNQ1,KCNH2,DLG1,KCNIP2,KCNE3
GO:0072498 embryonic skeletal joint development	4.49E-02 COL2A1,WNT9A,OSR1,OSR2,CTNNB1
GO:0006107 oxaloacetate metabolic process	4.49E-02 NIT2,STAT5A,ACLY,MDH1B,STAT5B
GO:2000698 positive regulation of epithelial cell differentia	4.49E-02 PROM1,PAX2,PAX8,LIF,LHX1
GO:0060602 branch elongation of an epithelium	4.49E-02 FGFR2,SIX4,BMP4,SOX9,SIX1



GO:0032754 positive regulation of interleukin-5 production 4.49E-02 PRKCZ,GATA3,PDE4D,RARA,TSLP

GO:0031943 regulation of glucocorticoid metabolic process 4.49E-02 DKK3,REST,BMP5,BMP2,DGKQ

GO:0072178 nephric duct morphogenesis 4.49E-02 PAX2,GATA3,BMP4,OSR1,LHX1

GO:0007501 mesodermal cell fate specification 4.49E-02 EYA2,PAX2,DKK1,WNT3A,MESP1

GO:0001502 cartilage condensation 4.49E-02 BARX2,SOX9,BMP1B,BMP1,ALX1

GO:0003344 pericardium morphogenesis 4.49E-02 BMP7,BMP5,DLL4,NOTCH1,TBX20

GO:0008300 isoprenoid catabolic process 4.49E-02 CYP26B1,CYP26A1,SRD5A3,CYP26C1,BCO2

GO:0098976 excitatory chemical synaptic transmission	4.49E-02 GRIN2D,PDLIM4,GRIN2C,SHISA6,GRIN2B
GO:0071420 cellular response to histamine	4.49E-02 GABRG2,DIAPH1,GABRB2,GABRB1,GABRB3
GO:0003157 endocardium development	4.49E-02 ACVR1,PROX1,NOTCH1,NRG1,SOX17
GO:0072189 ureter development	4.49E-02 SOX8,PAX2,BMP4,OSR1,SHH
GO:0001738 morphogenesis of a polarized epithelium	4.49E-02 DVL2,AP2B1,CELSR3,WNT11,PARD6A,DKK1,SMURF2,SLC9A3R1,WNT5A,FOXF2,ARRB2,ARHGEF19,RSPO3,FZD1,DVL3,FZD5,FZD6,ROR2,MLLT3,BRSK2,MAGI2,AJAP1
GO:0009214 cyclic nucleotide catabolic process	4.49E-02 PDE4A,PDE4D,PDE9A,PDE3A,PDE2A
GO:0044332 Wnt signaling pathway involved in dorsal/vent	4.49E-02 SFRP1,LRP4,LRP5,FZD5,SOST

GO:0034139 regulation of toll-like receptor 3 signaling path 4.49E-02 CAV1,TNFAIP3,PTPN22,FLOT1,F2RL1

GO:0001702 gastrulation with mouth forming second 4.49E-02 FOXA2,CRB2,T,OTX2,LHX1

GO:0060384 innervation 4.49E-02 ISL1,SULF1,POU4F1,SULF2,NTRK1

GO:0055065 metal ion homeostasis 4.49E-02 TMC8,LETM1,CD52,LPAR3,P2RY6,BCL2,PRND,ATP2A2,CHRNA7,ATOX1,GPR157,CAV3,TMPRSS6,RYR1,ATP2A1,HTT,AVPR1B,RYR2,TGM2,FAM155A,GRIN2B  
TAC1,CX3CL1,TFAP2B,LTf,SLC11A1,ATP1A2,NEDD4L,KCNH2,ATP2B4,DRD4,ATP1B3,CYBRD1,PRKACA,SCGN,PTPRC,MT3,ESR1,JPH4,ITPR3,ABL1,HMOX1,SLC8A3,HMOX2,CALB1,JP  
H1,SLC39A14,BBC3,GRIN2D,CAV1,TFR2,CXCL12,CALCA,CYP27B1,GLP1R,SLC39A7,PDE4D,SLC30A3,TACR1,ABCB6,THADA,ATP6V1B1,PKD2,ABCG2,FKBP1B,PTK2B,ADRA1A,CXCR4,  
ACO1,ITPR2,ATP7B,GCM2,OPRL1,MCHR1,ATP1B2,TRPM4,DIAPH1,DLG4,APLNr,PdGFRA,GPR55,TRPC6,FGF2,SLC39A8,TMBIM6,SLC24A4,NOL3,AFG3L2,ADCYAP1,CACNA1A,AGT  
R1,CORIN,SNCA,ANK2,SLC25A37,SLC39A12,EDNRA,BMP6,KCNMA1,ATP2B2,SLC30A2,CNNM4,GRIN2C,TPCN2,ATP1A1,PROK2,BDH2,F2RL1,TRPV6,PRKCB,SMAD3,STIM1,CACNB3,

GO:0098914 membrane repolarization during atrial cardiac 4.49E-02 KCNQ1,KCNN2,KCNJ5,KCNA5,KCNJ3

GO:0033077 T cell differentiation in thymus 4.53E-02 GLI2,GLI3,VNN1,ZAP70,BMP4,RIPK3,FOXJ1,ADAM17,ZFP36L2,SHH,LIG4,ZFP36L1

REAC:R-HSA- GABA receptor activation 4.54E-02 GABRA1,GABRA4,GABRG2,GNAI2,KCNJ5,GNAI1,ADCY4,GABBR2,ADCY3,GABRB2,KCNJ3,GABRB1,ADCY1,GABRB3,GNG4,GNB2,GNG12,GNG7,KCNJ12,GNG2,GABBR1

GO:0099173 postsynapse organization 4.57E-02 MUSK,NGEF,NRXN2,CUX2,WNT5A,DLG4,EPHB2,LRP4,ZNF365,IGF1R,TMEM108,CDK5,NLGN1,CTNND2,CHRN1,PTEN,CHRNA7,CDK5R1,NRXN1,SHISA6,LRRK2,GRIN2B,SRIN1

GO:0030282 bone mineralization 4.57E-02 LTF,FGFR2,MEF2C,BMP7,TGFB1,CYP27B1,ACVR1,TGFB3,PTK2B,TWIST1,BMP4,BMP2,TRPM4,TFAP2A,BMPR1B,TUFT1,OSR1,BMP6,ANKH,ALOX15,OSR2,NELL1,S1PR1

GO:0006066 alcohol metabolic process 4.59E-02 CYP51A1,GDE1,ALDH3B1,OSBPL5,DKK3,AKR7A2,SOAT1,SPHK2,NFYC,INPP5A,IP6K2,SREBF1,ACER3,MOXD1,REST,APOB,ITPKC,CETP,MT3,SCD,INPP4B,CYP27B1,TPI1,BMP5,SCAP,PLCD4,DHCR24,NFYB,PTK2B,LRAT,DBH,BMP2,SRD5A3,CLN6,ACLY,STARD3,LHCGR,CYP1B1,CH25H,FGF2,M8TP51,ITPKB,LBR,DGKQ,SNCA,CBR4,PLCB3,TM7SF2,INPP1,GGPS1,BMP  
4.59E-02 6,ABCG1,PTH1R,DHRS3,GF11,SGPP2,ABCA1,CNBP,P2RY6,PTEN,PGP,INPP5J,PLCD1,AKR1C1,CACNA1H,SREBF2,INPP5B

GO:0090276 regulation of peptide hormone secretion 4.61E-02 CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,REST,ITPR3,SFRP1,STX1A,TFR2,GLP1R,PASK,SLC2A1,ITPR2,PAX8,FOXA2,NR1D1,KCNA5,TRPM4,PER2,CLOCK,ADCYAP1,CACNA1A,EPHA  
4.61E-02 5,CRHBP,TCF7L2,LRP5,NEUROD1,INHBB,UCN,MIDN,KCNS3,BRSK2,EFNA5,IRS2,DPP4,CACNA1E,PIM3

GO:0051591 response to cAMP 4.61E-02 CFTR,KCNQ1,EZR,IGFBP5,AKAP7,PKD2,VGF,AANAT,DUOX1,HCN4,DUOX2,DGKQ,CRHBP,WT1,ZFP36L1,PDE2A

GO:1901216 positive regulation of neuron death 4.61E-02 TFAP2B,BBC3,DKK1,WNT5A,FOXO3,CLU,TFAP2A,SNCA,CDK5,CTNNB1,DDIT4,PCSK9,CDK5R1,MAPT,DAXX,GRIN2B

REAC:R-HSA- Misspliced LRP5 mutants have enhanced beta- 4.65E-02 DKK4,DKK1,KREMEN2,DKK2,LRP5

GO:0032231 regulation of actin filament bundle assembly 4.79E-02 CX3CL1,MYOC,LIMCH1,CLASP1,WNT11,PXN,ABL1,SFRP1,ARHGEF10,LIMK1,STMN1,CTGF,TGFB3,SORBS3,FHOD1,TPM1,TMEFF2,EPHA1,PAK1,DLCL1,SYNPO2L,PTGER4,TACSTD2,A  
RAP1,S100A10

GO:0031032 actomyosin structure organization 4.83E-02 CFLAR,MYOC,LIMCH1,CLASP1,WNT11,MYBPC2,EPB41L1,PXN,EPB41L4B,ABL1,SIX4,SFRP1,ARHGEF10,MYH14,LIMK1,PHACTR1,STMN1,PROX1,CTGF,TGFB3,SORBS3,OBSL1,PDGFR  
A,FHOD1,TPM1,ACTA1,TMEFF2,EPHA1,PAK1,OBSCN,EPB41,ACTC1,LMOD1,DLCL1,AKAP13,KRT19,PTGER4,CAV3,TACSTD2,ARAP1,MYO18A,S100A10,CDC42BPB

GO:0044344 cellular response to fibroblast growth factor st 4.84E-02 FGFR2,HYAL2,FGF4,FGFR1,FGF20,ESRP2,SFRP1,ESRP1,PRKD2,GATA3,FGF8,FGF6,HYAL1,NR4A1,DLL4,DSTYK,SULF1,THBS1,FGF5,FGF2,DUSP6,ZFP36L2,FGF18,CREB3L1,FGF19,POL  
R2H,OTX2,HNRNPH1,EGR3,NRXN1,ZFP36L1,FGF3,SULF2,SPRED2,TRIM71

GO:0030301 cholesterol transport 4.86E-02 ABCB4,SYT7,OSBPL5,SOAT1,ABCA7,SCARB1,APOB,CETP,CAV1,ABCG2,CLU,LRP1,LDLR,STARD3,PPARG,ABCG5,ABCA5,ABCG1,STARD4,SHH,ABCA1,PCSK9,AKR1C1,SREBF2,MIR148  
A,MIR130B

GO:0006875 cellular metal ion homeostasis 4.90E-02 TAC1,CX3CL1,LTF,SLC11A1,ATP1A2,NEDD4L,ATP2B4,DRD4,ATP1B3,CYBRD1,PRKACA,SCGN,PTPRC,MT3,ESR1,JPH4,ITPR3,ABL1,HMOX1,SLC8A3,HMOX2,CALB1,JPH1,SLC39A14,B  
BC3,GRIN2D,CAV1,TFR2,CXCL12,CALCA,GLP1R,SLC39A7,PDE4D,SLC30A3,TACR1,ABCB6,THADA,PKD2,ABCG2,FKBP1B,PTK2B,ADRA1A,CXCR4,ACO1,ITPR2,ATP7B,GCM2,OPRL1,M  
CHR1,ATP1B2,TRPM4,DIAPH1,DLG4,APLN,PDGFRA,GPR55,TRPC6,FGF2,SLC39A8,TMBIM6,SLC24A4,NOL3,AFG3L2,ADCYAP1,CACNA1A,AGTR1,SNCA,ANK2,SLC39A12,EDNRA,B  
MP6,KCNMA1,ATP2B2,SLC30A2,GRIN2C,TPCN2,ATP1A1,PROK2,F2RL1,TRPV6,PRKCB,SMAD3,STIM1,CACNB3,LETM1,CDS2,LPAR3,P2RY6,BCL2,PRND,ATP2A2,CHRNA7,ATOX1,GP  
R157,CAV3,TMPRSS6,RYR1,ATP2A1,HTT,AVPR1B,RYR2,TGM2,FAM155A,GRIN2B

GO:0050796 regulation of insulin secretion 4.92E-02 CFTR,ABCC8,CACNA2D2,TFAP2B,SYT7,ISL1,REST,ITPR3,SFRP1,STX1A,GLP1R,SLC2A1,ITPR2,FOXA2,NR1D1,KCNA5,TRPM4,PER2,CLOCK,CACNA1A,EPHA5,TCF7L2,LRP5,NEUROD1,I  
NHBB,MIDN,KCNS3,BRSK2,EFNA5,IRS2,DPP4,CACNA1E,PIM3

Suppl. Tab. 14. Gene enrichment analysis for fetal age-COPD ME4:yellow module using gProfilerR (sorted FDR < 0.05)

GO.ID	Description	p.Val	FDR	Genes
				CFLAR, CX3CL1, RALA, BAIAP2L1, CCL26, FARP2, SCIN, MYOC, MYOM2, DTNBP1, LIMA1, BCAR1, TTC17, PHPT1, NCKAP1, LIMCH1, ATXN3, RHOA, MEF2A, PFN2, TESK2, CDC42, NCK2, WDR1, ACTN1, FRY, CLASP1, ARHGFE10L, ADD2, FRYL, FSCN1, ACTN2, CAPZB, NEBL, EDN1, RAPGEF3, EPB41L2, ITGB5, FAT1, SSH1, CTTN, WNT11, ADD1, EPB41L1, PXN, SLC9A1, CAPN3, EZR, EPB41L4B, SORBS1, ABL1, NRP1, PPM1F, SH3BP1, TRIOBP, PACSIN2, MYH9, HCK, MYOM1, CORO1A, PYCARD, SFRP1, ARHGFE10, ARHGFE18, MYH14, MET, COBL, CCL24, WASL, FSCN3, LIMK1, CORO2A, TESK1, CSF3, PFN1, TNFAIP1, ODAM, GAB1, BST1, ARHGFE17, CORO1C, TRPV4, MYL2, ARHGDIB, NEDD9, PHACTR1, CAP2, PTK7, SEMA5A, DPYSL3, DBN1, ACTR3, EPB41L5, CCD88A, WIPF1, RND3, ARHGFE2, STMN1, PROX1, APOA1, MAPKAP1, TGFEB3, RHOQ, IQSEC3, PLS1, PTK2B, LRP1, OBSL1, RAP2A, TRIP10, VASP, DSTN, CCR7, RHOJ, FGD3, CDC42EP1, RAC2, MKLN1, MYO1B, CGNL1, TMOD2, BST2, ARPC1B, PAK4, HIP1R, PDLIM4, PPFIA1, NPH4, ARFIP2, INPP5K, VPS4A, ARHGFE11, MYH10, MICAL2, SPIRE1, ROCK2, DOCK2, MYBPC3, PDGFRA, MICAL1, FHOD1, LCP1, RAC1, ERMN, BIN1, ABI1, TMOD1, FCHSD2, ARRB1, PAK6, SPTBN5, TMOD3, FGD4, FRMD6, FGF7, TPM1, NTRK3, MYLK3, PDPK1, SSH2, BCAS3, ARHGDI, TRPM2, CAPN10, ARHGFE19, MYOM3, CASQ1, PIP5K1A, RAB13, TPM3, ARF1, CDC42BP4, NPHP1, IQSEC1, PHLD2, SLIT2, IQGAP2, RASA1, ARHGAP26, FGD2, ARHGAP18, EPHA1, BIN3, GSN, MSRB2, PAK1, CDC42EP2, ALDOA, TAOK2, FER, EPS8, PLEKHH2, TNIK, OBSCN, CXADR, FGD5, RHOC, FMN2, WHAMM, GHRL, KIT, FMNL2, GRHL3, MRAS, WASF2, AUTS2, EPB41, ZYX, TAOK1, SHANK1, ARPC5, TMOD4, ARHGAP25, ARPC2, CLASP2, PRKCD, ARFIP1, MYOZ3, DLCL1, MICAL2, CDK5, ARHGAP12, CFL2, ARF6, TSC1, SYNPO2L, CRK, TPM4, CDC42EP5, DAPK3, SERPINF2, MLST8, TNXB, ANTXR1, PDCD6IP, SEMA3E, AKAP13, LMOD2, MTSS1, PLA2G1B, S1PR1, PRKCE, CDC42BP6, KRT19, FRMD5, SYNPO, SYNPO2, CORO1B, RHOD, TCAP, BRSK2, HRA5, KCTD13, PPM1E, BAIAP2, RHOG, MYOZ1, IGSF22, CDC42EP4, FGD6, HCLS1, PAK2, FES, EFNA5, CDK10, PARK2, PRKG1, NTF3, PIP5K1C, NF2, ARAP1, FSCN2, ESPN, PARVB, MYBPC1, PTPN1, MYO18A, PFN3, NF1, SRC, PDGFA, MYH6, S100A10, FCHSD1, CD2AP, LPAR1, SDAD1, CDC42BP8, MTOR, PHACTR4, AIF1, TRIM27, SPIRE2, EMP2, MYBPHL, TNF, AQP1, ARPC4, ARPC1
GO:0030036	actin cytoskeleton organization	1.43E-12	1.43E-12	A, MICAL3, TWF2, CORO7, CYFIP1, MIR145, MIR12
				KRIT1, ALS2, FARP2, RHOBTB2, IGF1, RALBP1, FAM13B, MYOC, DEPDC1B, TRIO, GDI2, RASGRF1, NCKAP1, TNK2, NGFR, NTN1, NGEF, RHOA, RASSF1, RASGRP2, CDC42, ARHGAP10, RHOBTB1, RASAL2, PLD1, ARHGAP15, ARHGFE11, GNB1, RAPGEF3, MAPKAPK5, BRAP, GMIP, TGFEB2, ABL1, RAB18, NRP1, CRKL, SH3BP1, GRAP2, SGM3, SOS2, ARHGFE7, ARHGFE18, RASAL3, SYDE1, PIK3R2, MET, LIMK1, RAPGEF1, RANGRF, TNFAIP1, RAPGEF2, ARHGFE17, MADD, RASAL1, ARHGDIB, RASGRF2, RTKN, PARK7, RHOJ, ARHGFE2, MFN2, RRACG, STMN1, APOA1, KIF14, CTNNA1, MAPKAP1, DENND1A, RHOQ, GNA13, ARAP3, ADRA1A, GPSM2, ARHGAP9, CDK2, STAMBP, CDKN1A, RREB1, GPR18, RAP2A, TRIP10, MCF2L, RHOJ, RHOT1, FGD3, RAP1B, F2RL3, CDC42EP1, RAC2, CHN1, ARHGAP22, CGNL1, PLD2, SHC2, EPO, PAK4, ARHGFE16, DNMT1, EPS8L1, ZNF304, ARFIP2, RIN2, ARHGFE11, STARD13, EPHB2, KRAS, VAV3, ARHGFE4, RAPGEF5, RAC1, DBNL, RALGPS1, DAB2IP, ARRB1, PAK6, PLCE1, ARHGAP24, FAM13A, FGF2, G3BP2, FGD4, RB1, ARHGAP17, CDH13, RHOT2, KSR1, TP53, ARHGDI, ARHGFE19, RGL1, SEPTD1, RIT1, AGTR1, SLIT2, PLK2, RASA1, ARHGAP26, G3BP1, FGD2, ARHGAP18, TIAM2, GNA12, SHC3, NOTCH1, PAK1, CDC42EP2, DOCK1, EPS8, RASGRP3, OBSCN, FLCN, RHOC, TIAM1, MRAS, AUTS2, RAPGEF6, ABR, KALRN, RALGDS, VAV2, SHC1, SQSTM1, DIRAS3, ARHGAP25, ARHGFE3, TAGAP, COL1A2, DLCL1, ABCA1, ARHGAP12, ARF6, RRAD, CDC42EP5, RHOC, COL3A1, ROBO1, AKAP13, PLEKHG5, RGS19, RASGRP4, RASGRP1, RHOD, NET1, ABRA, HRAS, KCTD13, A2M, RHOG, EPS8L2, GPR4, GRB2, CDC42EP4, PAK2, SIAH2, RASA3, ARHGAP30, ARAP1, BCR, SRGAP3, NF1, ARHGFE12, SRGAP1, SRC, SYNGAP1, CD2AP, LPAR1, NTRK1, DENND4B, INPP5B, PHACTR4, AIF1, GPR20, GPR56, LAT, TAX1BP3, RGL2, ARHGAP8, ARHGDI, SRGAP2, CY
GO:0007264	small GTPase mediated signal transduction	9.43E-09	9.43E-09	FIP1, ARHGAP23
				ITGA3, MARK4, FYN, AKAP8L, ZC3H3, BID, IGF1, PRKCH, CENPO, GOPC, NEDD4L, USP36, CROCC, CASP8, NGFR, PPP2R5A, SP100, HYAL2, POLR1A, KCNAB2, CSNK2A2, SREBF1, TP63, PICALM, ACTN2, MAP2, TP73, RAPGEF3, EPB41L2, STX7, HSP90AA1, GSK3B, XPO1, RBM22, EDEM2, NSF11C, EZR, SORBS1, TREM2, HSP90AB1, DERL3, HPS4, RANGAP1, GZMB, VTI1B, E2F1, PAR6A, NECAB2, CSK, UBR5, OAZ1, AKT2, CLIP3, BBC3, TGFBI, PIK3R2, GSK3A, AGR2, DVL1, GBF1, SUFU, CDK5RAP3, YWHAE, RANGRF, SUPT6H, UBE2D3, FBXW7, RAB23, TMEM30A, CEP72, H2AFY, SPTBN1, RTN4, CCD88A, TMEM59, PARK7, RHOJ, VAMP8, TRIM67, RHOQ, TCP1, PLS1, GPSM2, RAMP3, LRP1, ACSL3, IL1B, PIN1, RAC2, LIF, TTBK2, ARHGFE16, SESN2, ATP1F1, PPFIA1, PRKAA1, INPP5K, VPS4A, SYT11, XPO4, EPHB2, NUMB, CAMK1, EDEM1, YWHAQ, ROCK2, APC, MRAP2, PRR5L, CCT7, RAB11FIP5, TMBIM1, LCP1, NMT1, TOR1A, NUMA1, SORL1, EGF, RB1, PDPK1, GAS8, NPEPPS, CLTC, BCAS3, WRAP53, TP53, ERBB2, AKT1, EPHA2, TP53BP2, RALB, NKD2, PIK3R1, EGFR, CDCAS, MFHAS1, TERF1, GSN, TCF7L2, B3GAT3, ITGB1, ANK3, BICD1, BAG3, PTPN14, UHMK1, GPD1L, DAB2, PID1, FLCN, CCT8, APPL1, PINK1, EPB41, ATP13A2, UBE2J2, ITGB2, PCNT, VPS11, VPS28, SQSTM1, DVL3, CNST, PKDCC, IWS1, FZD5, TRIM4, CCT3, PRKCI, PYHIN1, LZTFL1, DTX3L, ZC3H12A, BAP1, PRKCD, GNL3, TERT, MICAL2, CDK5, YWHAE, ARF6, CCT2, NDEL1, STX3, SMAD3, CDT1, CTNNB1, PTPN9, ITGAM, YWHAG, CDK1, KIF5B, PRKCE, TRIM8, BCL2L1, HDAC3, BCL2, PRNP, EIF2AK3, COMMD1, ABLIM3, SNX33, JUP, BRSK2, HRAS, PARL, RHOG, ARIH2, DMAP1, AKAP5, NRXN1, F2, OAZ2, HCLS1, KCNE1, ADIPOQ, SETD2, TMEM173, CIB1, RAB11B, PARK2, UBL4B, PDE2A, MAPT, MCRS1, SHISA7, FZD9, SHISA6, PTPN1, MYO1C, TFDP1, TRIM40, CSNK1E, TAX1BP3, FIS1, UBXN2B, SIAH3, TNF, PINX1
GO:1903827	regulation of cellular protein localization	4.44E-08	4.44E-08	OTUD7B
				CX3CL1, BAIAP2L1, CCL26, SCIN, MYOC, MYOM2, LIMA1, BCAR1, TTC17, NCKAP1, LIMCH1, RHOA, PFN2, CDC42, NCK2, WDR1, ACTN1, FRY, CLASP1, ARHGFE10L, ADD2, FRYL, FSCN1, ACTN2, CAPZB, NEBL, RAPGEF3, ITGB5, FAT1, SSH1, CTTN, WNT11, ADD1, PXN, SLC9A1, EZR, SORBS1, ABL1, NRP1, PPM1F, SH3BP1, TRIOBP, HCK, MYOM1, CORO1A, PYCARD, SFRP1, ARHGFE10, MET, COBL, CCL24, WASL, FSCN3, LIMK1, TESK1, CSF3, PFN1, TNFAIP1, TRPV4, NEDD9, PHACTR1, CAP2, SEMA5A, DPYSL3, DBN1, ACTR3, WIPF1, ARHGFE2, STMN1, PROX1, APOA1, TGFEB3, PLS1, PTK2B, OBSL1, VASP, DSTN, CCR7, CDC42EP1, RAC2, MYO1B, CGNL1, TMOD2, ARPC1B, HIP1R, PPFIA1, ARFIP2, INPP5K, MICAL2, SPIRE1, ROCK2, MYBPC3, MICAL1, FHOD1, LCP1, RAC1, ERMN, BIN1, ABI1, TMOD1, FCHSD2, ARRB1, TMOD3, TPM1, SSH2, MYOM3, TPM3, ARF1, PHLD2, SLIT2, IQGAP2, RASA1, ARHGAP18, EPHA1, BIN3, GSN, MSRB2, PAK1, CDC42EP2, ALDOA, FER, EPS8, PLEKHH2, RHOC, FMN2, WHAMM, GHRL, WASF2, ZYX, SHANK1, ARPC5, TMOD4, ARHGAP25, ARPC2, CLASP2, PRKCD, ARFIP1, DLCL1, MICAL2, ARHGAP12, CFL2, ARF6, TSC1, SYNPO2L, TPM4, CDC42EP5, SERPINF2, LMOD2, PLA2G1B, PRKCE, SYNPO, SYNPO2, CORO1B, RHOD, TCAP, KCTD13, PPM1E, BAIAP2, IGSF22, CDC42EP4, HCLS1, PARK2, NF
GO:0007015	actin filament organization	2.86E-07	2.86E-07	2, ARAP1, FSCN2, ESPN, MYBPC1, PFN3, SRC, S100A10, FCHSD1, CD2AP, LPAR1, AIF1, TRIM27, SPIRE2, EMP2, MYBPHL, ARPC4, ARPC1A, MICAL3, TWF2, CORO7, CYFIP1

GO:0038127 ERBB signaling pathway	3.45E-07	3.45E-07 PIGR,TGFA,SPRY1,CUL5,RBPJ,AFAP1L2,PTK2,NRG4,SOC55,BTC,PTPN2,CHMP6,GRB2,ERBB4,PTPN11,FES,HGS,ARAP1,SLC30A10,ZGPAT,SRC  MATK,RHBDP1,PIK3C2A,PLAUR,MVP,MYOC,BCAR1,STYK1,EPN1,ERBB3,RNF126,CDC42,NCK2,PTPN18,RAB7A,DKGK,HSP90AA1,CPNE3,EPS15,LGMN,RPS6KA5,MMP9,PTK6,A RHGEF7,STUB1,TGFB1,CDC37,AGR2,AREG,GAB1,FBXW7,CBL,HBEFG,CBLB,STAM2,RTN4,ERRF1,PTK2B,PIK3CA,PLCG1,EPS15L1,HIP1,RHBDP2,HIP1R,VPS25,AGT,SPRY2,STAM, DAB2IP,PLCE1,EGF,IQGAP1,CDH13,PDPK1,ERBB2,GRB7,AKT1,CBLC,RQCD1,PIK3R1,EGFR,FAM83A,SHC3,PTPRJ,FER,EP58,ADAM17,PTPRR,PRKCA,NRG1,NRG2,ZFYVE28,SHC1,
GO:0031589 cell-substrate adhesion	4.96E-07	4.96E-07 ,DDR1,ARL2,EMP2,ITGB3,SRGAP2,SRCIN1,MIR29C  ITGAL,ITGA3,CX3CL1,CD44,MYOC,VAMP3,LIMCH1,COL17A1,ATXN3,RHOA,TESK2,CDC42,ACTN1,FERMT2,CLASP1,ACTN2,GSK3B,ITGB5,COL16A1,CTTN,SIGLEC1,SLC9A1,ITGA 6,SORBS1,ABL1,NRP1,MADCAM1,CRKL,PPM1F,TRIOBP,ARHGEF7,OLFM4,MSLN,CORO1A,SFRP1,CDK6,SERPINE1,AGR2,BST1,VWVF,CORO1C,GCNT2,BVES,VEGFA,FN1,APOA1,K IF14,PTK2B,RREB1,WNT1,CCR7,MACF1,KDR,RAC2,MKLN1,ACTN4,LAMAS,CCL25,PPFIA1,ITGB4,LVYE1,ROCK2,CD36,CD63,ITGA7,LAMC1,RAC1,TMEM8B,THBS1,ITGA11,SMAD 6,EMILIN1,AP1AR,PARVG,ITGB7,CDH13,BCAS3,TBCD,PIP5K1A,ADAM15,PHLDB2,RASA1,EPHA1,DOCK5,NOTCH1,PTPRJ,FERMT3,TAOK2,ITGB1,DOCK1,ADAMTS12,FER,PTPRO, CCL28,SPOCK1,UTRN,PTPRK,CD96,EPHB1,OTOA,WHAMM,TIAM1,RADIL,ZYX,LYPD5,ITGB2,ADAMTS13,MSLN,VCAM1,CLASP2,ADAMTS9,MF12,DL1,MICALL2,TSC1,CRK,DAP K3,COL3A1,ADAM9,EFNA1,PTK2,ANTXR1,LIMS1,SEMA3E,FGA,PTEN,HPSE,RHOD,JUP,CD34,FZD4,RCC2,CALR,EFNA5,CIB1,NF2,BCAM,AJAP1,NF1,SRC,COL13A1,S100A10,LDB1
GO:0010638 positive regulation of organelle organization	6.67E-07	6.67E-07 B,TNF,ARPC4,ARPC1A,RTEL1,CYFIP1,PI4K2B,MIR1-2  CX3CL1,BAIAP2L1,CCL26,PAF1,SCIN,MARK4,JARID2,FUZ,AKAP8L,PLAUR,DCN,BRCA1,ERCC1,BID,IGF1,MRE11A,BAK1,RANBP3,MYOC,USP36,CROCC,NCKAP1,CASP8,LIMCH1,P RKCO,RHOA,NAV3,SIRT2,PFN2,CSNK2A2,CD42,NCK2,WDR1,TP63,CLASP1,ARHGEF10L,FSCN1,SART3,MAP2K7,SIRT6,ACTN2,EDN1,TP73,XRCC5,RAPGEF3,GSK3B,MAP3K4,CT TN,WNT11,DNM1L,AURKA,NSFL1C,MAPKAPK5,PXN,NOS1,ABL1,NRP1,SMARCB1,PPM1F,HPS4,BIK,PDGFB,KCTD17,GZMB,RPS6KA5,MMP9,HCK,MAPRE1,E2F1,CORO1A,MAP K3,PYCARD,RNF40,BMF,SFRP1,ARHGEF10,AKAP8,AKT2,PRKD2,BBC3,GSK3A,MET,CCL24,LIMK1,TESK1,TNKS2,CSF3,PFN1,YWHAE,UBE2D3,FBXW7,PPARGC1A,CAMKK2,TRPV4 ,PHF1,VEGFA,SEMA5A,CNOT6,H2AFY,FAM162A,ACTR3,CCDC88A,RAB3GAP1,SDC1,PARK7,KIAA1324,RHOJ,MFN2,PROX1,APOA1,MYB,RAB3GAP2,PHF19,TGFB3,TCF1,PTK2B, TNFSF10,GPSM2,ZNF205,SDCA,EDN3,CNOT1,IL1B,VASP,CCR7,KDR,CDC42EP1,RAC2,LIF,POT1,ARPC1B,ATPIF1,CLIP1,HIP1R,DNMT1,ZNF304,ARFIP2,WBP2,C15ORF29,YWHAQ, ROCK2,HRK,PKIB,CCT7,FHOD1,LCP1,RAC1,CALCOCCO2,NMT1,BIN1,CDK5RAP2,ARRB1,NUMA1,TET1,EGF,RB1,TPM1,PML,NTRK3,PARN,MYLK3,KATNB1,NPEPPS,BCAS3,TP53,P FDN2,SETDB1,TP53BP2,ARF1,ANKRD53,RALB,IQGAP2,CDCA5,EPHA1,HMBOX1,TERF1,GSN,SURF4,LRAM1,PAK1,RPS3,ATM,CDC42EP2,NEK7,FER,DRD3,BCL2L11,HNRNP,RA NBP2,RHO,WHAMM,CCT8,NSMCE2,AUTS2,NPM2,PINK1,HK2,CTBP1,UBE2J2,ZBTB7B,VPS11,LRP5,ARPC5,TGFA,FZD5,ARPC2,CCT3,BAP1,GNL3,ARFIP1,RANBP3L,CSF2,RAD21 ,MICALL2,CDK5,YWHAZ,CFL2,ARF6,CCT2,SYNPO2L,CDT1,CD42EP5,SERPINF2,CTNNB1,FEN1,STX18,ADRB2,YWHAQ,PDCC6IP,SDR16C5,LMOD2,INSR,PRKCE,BCL2,SYNPO,SYN PO2,CORO1B,TADA2B,ABLIM3,TNKS,HRAS,CEP135,DHX36,PPM1E,BAIAP2,BNIP3,BOK,CDK5R1,SMCR8,ARIH2,UBE2N,AURKB,PLD6,CDC42EP4,HCLS1,FES,ANXA2,ATL3,PARK2, MUC1,NTF3,UBL48,NF2,MAPT,PFN3,DYNC1H1,HTT,S100A10,LPAR1,MIER1,TFDP1,UVRAG,C6ORF89,CTR9,HSPA1B,PPP1R10,TRIM27,DCTN1,MLLT11,ARL2,FIS1,PHB2,UBXN2
GO:0030155 regulation of cell adhesion	7.15E-07	7.15E-07 G,GRP56,MIR308,MIR141,SIPA1,ARL2,PPP1C8,EMP2,HLA-DPB1,TNF,ARHGDI3,HLA-DMB,LYN,CCL5,MIR29C,MIR-3  PLXND1,CX3CL1,CD9,FYN,CD6,IGF1,CD44,MYOC,PPP1R12A,LIMCH1,AP3D1,ERBB3,PRKCQ,ATXN3,RHOA,PRKCZ,FSTL3,CDC42,EPHA8,NCK2,TFR,FBX21,GLI2,CLASP1,NUAK1, PTPN23,PAG1,GSK3B,COL16A1,TESE,SIRPG,SLC9A1,SEMA6A,TGFB2,EPB41L4B,IL12RB1,ABL1,NRP1,CRKL,PPM1F,TRIOBP,XBP1,GRAP2,SMAD7,ARHGEF7,OLFM4,PYCARD,CSK ,SFRP1,IL7,RASAL3,PRKD2,TGFB1,PPP2R1A,JAK3,CDK6,CBL1,CAV1,SERPINE1,AGR2,GLI3,GATA3,MAP3K8,ZMIZ1,CYTH1,CCL2,AOX12,DUSP3,PRKAR1A,BST1,LPXN,CORO1C,I L23A,TRPV4,ARHGDI3,PTPBG,GCNT2,VEGFA,SEMA5A,IL4,PPP2CA,CD86,HYAL1,ZAP70,CYTP,FN1,ZP4,APOA1,KIF14,MYB,EPCAM,CD274,TNFSF11,TGFB1,PTK2B,CCR2,PIK3CA, LAX1,SDCA,BTN2A2,RREB1,WNT1,EFNB2,IRF1,IL1B,CCR7,ZBTB1,MACF1,KDR,RAC2,PODXL,TWVG1,ACTN4,ASS1,CCL25,RARA,FLOT2,SFTPD,PTPN22,VTCN1,ROCK2,IL6ST,ETS1, ADAM19,HAVCR2,CD36,CD164,SERPINE2,PLXNC1,GPNMB,RAC1,IL6,IL1RN,FLOT1,THBS1,ADAM10,CYP1B1,AP1AR,TPM1,CDH13,PDPK1,BCAS3,ARHGDI3,TBCD,ERBB2,AKT1,E PHA2,CELSR2,DUSP10,ADAM15,ZC3H8,PKP4,NFKBIZ,PHLDB2,PIK3R1,RASA1,TNFRSF21,EPHA1,DOCK5,NOTCH1,PTPRJ,PAK1,RPS3,FERMT3,DOCK1,IL18,ANK3,DLG5,PTPRO,A DAM8,CCL28,PDE3B,SPOCK1,UTRN,FAM49B,PRKCA,MIA3,FLCN,CXCL13,RUNX1,ICOSLG,ZBTB7B,VCAM1,NLRP3,TNFAIP8L2,IHH,TGFB2,CLASP2,ICOS,ZC3H12A,PRKCD,MF12, EMCN,PLXNB1,DACT2,DL1,SYK,TSC1,RET,STX3,B4GALNT2,CRK,NOD2,NFKBID,SPINT2,DAPK3,SERPINF2,CCDC88B,ADAM9,IL12A,LGALS9,EFNA1,PTK2,LIMS1,SEMA3E,SOCSS, FGA,PTEN,PRNP,FRMDS,MALTI1,AZU1,RHOD,JUP,C1QTNF1,FZD4,GLMN,PTPN2,SART1,GRB2,RCC2,CALR,PTPN11,PAK2,ADIPOQ,FES,LCK,EFNA5,CIB1,MUC1,PRKG1,NF2,TNFR SF18,PPARA,SEMA4D,PDCC1,CD55,PLXNB2,AJAP1,NF1,SRC,SPN,DPP4,PDCC1LG2,S100A10,MBP,CARD11,DLL1,LDB1,PNP,TGM2,AGER,AIF1,MUC21,HLA-

GO:0097435 supramolecular fiber organization	1.58E-06	1.58E-06 COR07,CYFIP1,TUBGCP5,MIR1-2  CFLAR,CX3CL1,BAIAP2L1,CCL26,SCIN,CCDC88C,STMN4,B4GALT7,MYOC,MYOM2,LIMA1,BCAR1,TTC17,COL11A1,NCKAP1,LIMCH1,RHOA,NAV3,MFE2A,KIF2A,PFN2,CDC42,NC K2,WDR1,ACTN1,NDE1,FRY,CLASP1,ARHGEF10L,ADD2,FRYL,FSCN1,ACTN2,CAP2B,MAP2,NEBL,EDN1,RAPGEF3,COL5A3,ITGB5,FAT1,SSH1,CTTN,WNT11,ADD1,FKBP1A,PXN,SL C9A1,CAPN3,EZR,TGFB2,HOOK2,SORBS1,HSP90AB1,ABL1,NRP1,PPM1F,SH3BP1,TRIOBP,CHADL,NIN,HCK,MAPRE1,MYOM1,CORO1A,AXIN1,MYCARD,SFRP1,ARHGEF10,FSD1, CLIP3,MET,DNAJB6,COBL,CCL24,WASL,FSCN3,LIMK1,TESK1,CSF3,PFN1,COL11A1,RANGRF,TNFAIP1,CRYAB,TRPV4,MYL2,NEDD9,PHACTR1,CAP2,SEMA5A,DPYSL3,DBN1,ACTR3 ,CCDC88A,WIPF1,PARK7,ARHGEF2,STMN1,PROX1,APOA1,LTBP2,TGFB3,PLS1,CLU,PTK2B,OBSL1,VASP,DSTN,TUBGCP6,CCR7,TUBGCP6,CDC42EP1,RAC2,MYO1B,CGNL1,TMO D2,TTBK2,ARPC1B,CAMSAP1,COL5A1,TUBGCP2,CLIP1,HIP1R,GFAP,PPFIA1,ARFIP2,INPP5K,MICAL2,LOXL2,SPIRE1,ROCK2,MYBPC3,PDGFRA,APC,CD36,MICAL1,FHOD1,LCP1,R AC1,ERMN,BIN1,ABI1,TMOD1,CDK5RAP2,RIPK1,FCHSD2,ARRB1,NUMA1,CYP1B1,EMILIN1,TMOD3,LUM,KRT71,RB1,TPM1,MYLK3,KATNB1,SSH2,CSNK1D,TBCD,MYOM3,KIF2 C,DPT,CASQ1,TPM3,ARF1,ANKRD53,PHLDB2,SLIT2,IQGAP2,RASA1,ARHGAP18,EPHA1,BIN3,GSN,MSRB2,SERPINH1,PAK1,RPS3,CDC42EP2,ALDOA,FER,EP58,PLEKH2,OBSCN, RHOC,FMN2,ADAMTS3,WHAMM,GRHL,WASF2,ZYX,TAOK1,SHANK1,ARPC5,DDR2,TMOD4,ARHGAP25,ARPC2,CLASP2,PRKCD,ARFIP1,MYO23,COL1A2,DLC1,MICAL2,ARHGAP 12,CFL2,ARF6,TSC1,SYNPO2L,MFAP4,NDEL1,TPM4,CDC42EP5,SERPINF2,CCDC88B,TNX8,COL3A1,AKAP13,LMOD2,PLA2G1B,PRKCE,KRT19,TPPP,KRT9,SYNPO,SYNPO2,CORO1 B,RHOD,TCAP,KCTD13,PPM1E,CKAP5,BAIAP2,CDK5R1,MYOZ1,IGSF22,CDC42EP4,HCLS1,FES,CIB1,PARK2,NF2,ARAP1,FSCN2,KRT14,MAPT,ESPN,MYBPC1,KIF19,PFN3,NF1,DY NC1H1,SRC,MYH6,S100A10,FCHSD1,CD2AP,LPAR1,COL11A2,HSPA1B,AIF1,TRIM27,DCTN1,SPIRE2,ARL2,EMP2,MYBPHL,GPX1,ARPC4,ARPC1A,MICAL3,CCDC13,TWF2,EPPK1,
GO:0034329 cell junction assembly	1.73E-06	1.73E-06 CD9,PRKCH,MYOC,CTNNA1,LIMCH1,COL17A1,RHOA,TESK2,CDC42,WDR1,PRKACA,ACTN1,LIMS2,MPP5,FERMT2,CLASP1,FSCN1,ACTN2,GRHL2,COL16A1,CTTN,SLC9A1,ITGA6, SORBS1,ABL1,NRP1,PPM1F,SH3BP1,SMAD7,ARHGEF7,PAR6A,TJP1,SFRP1,LIM2,CAV1,RAPGEF1,RAPGEF2,CORO1C,TRPV4,VEGFA,CAPZA1,VASP,RAP1B,MACF1,KDR,FLNC,L AMAS,NPHP4,ITGB4,ROCK2,DSG1,APC,AGT,LAMC1,RAC1,TLN1,FLOT1,THBS1,BCAS3,TBCD,PIPSK1A,RAB13,NPHP1,PKP4,PHLDB2,PAR3,PTPRJ,TAOK2,PTPRO,GJA1,PTPRK,P RKCA,FLCN,RHOC,WHAMM,RUNX1,ACE,FBLIM1,CLDN1,CLASP2,PRKCI,DLC1,MICAL2,TSC1,DAPK3,CTNNB1,PTK2,LIMS1,PDCC6IP,FRMPD2,PTEN,TLN2,RHOD,JUP,RC2,CDH5 G,IC1,ACTG1,CLDN5,EFNA5,PKP3,KRT5,PIPSK1C,KRT14,GJA4,FBF1,LAMB3,SRC,S100A10,OCLN,MYO1C,LDB1,ARL2,TNF,GJA5
GO:0043062 extracellular structure organization	3.97E-06	3.97E-06 OL18A1,DGAT1,P4HB,TMPRSS6,COL4A1,AGRN,NOXO1,SULF2,MMP1,NF1,LAMB3,PDGFA,COL13A1,ELANE,MFAP5,DPP4,COL11A2,APOM,DDR1,TNF,ITGB3,APOC4  MPO,ITGAL,ITGA3,ITGA2B,DCN,PHLDB1,CD44,TNFRSF1B,TIMP2,VCAN,COL9A2,ELN,LAMC3,COL11A1,ABCA7,PRKACA,SCARB1,CLASP1,FSCN1,FAP,COL5A3,COL4A4,ITGB5,ITG AE,COL16A1,CETP,NID2,KIF9,ICAM1,ITGA6,TGFB2,TLL2,MADCAM1,ZDHC8,PDGFB,CHADL,CTSG,MMP9,LIPG,LAMA1,MMP15,HAS3,TGFB1,ICAM4,HAS1,SERPINE1,SH3PXD2 A,ICAM2,COL1A1,APOA5,VWF,SPARC,COL7A1,HYAL1,ITGB6,FN1,SDC1,TNR,EXOC8,NID1,APOA1,TTR,TGFB1,TEX14,MMP19,LRP1,ACSL3,SDC4,MATN4,PLAGL2,KDR,NCAN,PXD N,COL5A1,LAMAS,MATN3,ITGB4,BCAN,LOXL2,COL4A2,ADAM19,ITGA7,AGT,LAMC1,LCP1,STAM,FLOT1,MMP7,MMP13,THBS1,ITGA11,ADAM10,CYP1B1,EMILIN1,FGF2,FBN2 ,LUM,ITGB7,RE1,FURIN,ITGAX,COL6A1,COL6A2,HSPG2,DPT,ADAM15,COL8A1,PHLBD2,AGTR1,SCUBE3,CSGALNACT1,NOTCH1,ADAM12,SERPINH1,ITGB1,ADAM8,DMP1,ABC A5,ADAMTS3,MMP14,MYO1E,CREB3L1,APOA2,ABCG2,ITGB2,FGFR4,NPHS1,MATN1,DDR2,CTSS,COL6A3,CLASP2,ALB,ADAMTS9,MFI2,KLKB1,COL1A2,ABCA1,PRKAC G,HTRA1,LIPC,JAM3,FBN1,MFAP4,MMP10,SMAD3,SERPINF2,KLK2,TNXB,COL3A1,CTR2,COL4A3,KLK7,ITGAM,PDCC6IP,FGA,COL8A2,BSG,DAG1,CD34,SH3PXD2B,LPL,A2M,C
GO:0051493 regulation of cytoskeleton organization	4.01E-06	4.01E-06 MP1B,CYFIP1,MIR1-2  CX3CL1,BAIAP2L1,CCL26,SCIN,MARK4,BRCA1,TACC3,STMN4,PHLDB1,RANBP3,MYOC,PARP3,LIMA1,PHPT1,NCKAP1,RNF4,LIMCH1,RHOA,NAV3,PFN2,CDC42,NCK2,WDR1,MA RK2,CLASP1,ARHGEF10L,ADD2,FSCN1,ACTN2,CAP2B,MAP2,EDN1,RAPGEF3,GSK3B,CHMP2B,SSH1,CTTN,WNT11,ADD1,AURKA,NSFL1C,PXN,SLC9A1,ABL1,NRP1,PPM1F,SH3B P1,TRIOBP,RAE1,HCK,MAPRE1,CHMP4B,CORO1A,MAPK3,MYCARD,SFRP1,ARHGEF10,SYDE1,FSD1,CLIP3,MET,CCL24,LIMK1,TESK1,SMC3,CSF3,PFN1,KAT2A,RANGRF,ODAM,B ST1,TRPV4,ARHGDI8,MDM1,SENP6,SEMASA,KAT2B,ACTR3,CCDC88A,ARHGEF2,STMN1,PROX1,STAG1,APOA1,TGFB3,RHOQ,PTK2B,GPSM2,LRP1,KIF25,VASP,XRCC3,CCR7,CD C42EP1,TTBK2,BST2,ARPC1B,CAMSAP1,CHMP2A,CLIP1,HIP1R,CHMP1A,DIAPH1,PPFIA1,ARFIP2,PRKAA1,INPP5K,C15ORF29,ROCK2,PDGFRA,APC,FHOD1,RAC1,BIN1,CDK5RAP 2,FCHSD2,NUMA1,TPM1,NTRK3,MYLK3,KATNB1,SSH2,CLTC,BCAS3,ARHGDI8,TBCD,TRPM2,ARHGEF19,PFN2,S100A8,ARF1,ANKRD53,PHLDB2,SLIT2,PLK2,IQGAP2,RASA1,AR HGAP18,EPHA1,GSN,PAK1,RPS3,CHEK1,CDC42EP2,TAOK2,FER,EP58,BICD1,PLEKH2,HNRNPJ,RANBP2,RHOC,WHAMM,GRHL3,WASF2,FBXW5,TAOK1,SHANK1,ARPC5,CAPN 2,S100A9,ARPC2,CLASP2,PRKCD,PLXNB1,MAP9,ARFIP1,RANBP3L,CHMP4C,DLC1,CDK5,CFL2,ARF6,TSC1,SYNPO2L,CRK,CDC42EP5,DAPK3,SERPINF2,MLST8,CTNNB1,PTK2,PTC D6IP,SEMA3E,AKAP13,LMOD2,PKHD1,PRKCE,SYNPO,SYNPO2,CORO1B,HRA5,PPM1E,BAIAP2,CDK5R1,GEN1,CDC42EP4,HCLS1,CEP97,FES,SKA2,EFNA5,CIB1,CDK10,PARK2,N F3,BICD2,NF2,ARAP13,MAPT,ESPN,PFN3,DYNC1H1,PDGFA,S100A10,FCHSD1,LPAR1,MTOR,TRAF3IP1,HSPA1B,TRIM27,DCTN1,ARL2,UBXN2B,RBM14,ARPC4,ARPC1A,TWF2,CH



GO:0034330 cell junction organization	4.09E-06	4.09E-06 CD9,PRKCH,MYOC,CTNNA1,CDH3,LIMCH1,COL17A1,RHOA,SDK2,TESK2,CDC42,WDR1,PRKACA,ACTN1,LIMS2,MPP5,PVR,FERMT2,CLASP1,FSCN1,PTPN23,ACTN2,CDH17,GRH L2,COL16A1,CTTN,ADD1,SLC9A1,ITGA6,TGFB2,SORBS1,ABL1,NRP1,PPM1F,SH3BP1,SMAD7,ARHGFE7,PARD6A,CSK,TJP1,SFRP1,TGFB1,LIM2,CAV1,RAPGEF1,RAPGEF2,CORO1 C,TRPV4,VEGFA,CDH6,CAPZA1,TGFB3,VASP,RAP1B,MACF1,KDR,FLNC,CDH15,LAMA5,NPH4,ITGB4,ROCK2,DSG1,APC,AGT,LAMC1,RAC1,TLN1,FLOT1,THBS1,CDH24,KIFC3,CD H11,CDH13,BCAS3,TBCD,PIP5K1A,RAB13,NPHP1,PKP4,PHLDB2,CDH18,SDK1,PARD3,PTPRJ,TAOK2,PTPRO,GJA1,PTPRK,PRKCA,CXADR,FLCN,RHOC,WHAMM,RUNX1,ACE,FBLL M1,CADM3,CLDN1,CLASP2,PRKCI,DLCL1,MICALL2,TSC1,RAB8B,PLEKHA7,SMAD3,DAPK3,CTNND1,PTK2,LIMS1,PDCC6IP,FRMPD2,CDH2,PTEN,TLN2,RHOD,JUP,RCC2,CDH4,CD H5,GJC1,CADM1,ACTG1,CLDN5,EFNA5,PKP3,KRT5,PIP5K1C,KRT14,GJA4,FBF1,PRTN3,LAMB3,SRC,S100A10,OCLN,MYO1C,CTNND1,LDB1,ARL2,TNF,GJA5
REAC:R-HSA- Signaling by Receptor Tyrosine Kinases	7.36E-06	7.36E-06 ITGA3,AP2B1,RALA,MATK,FYN,PTBP1,IGF1,GAB2,ATP6V0A1,FLT4,AP2S1,CTNNA1,POLR2B,COL9A2,LAMC3,BCAR1,CYBA,CYFIP2,PTPRU,NCKAP1,ELMO2,EPN1,ERBB3,FGFR2,R HOA,PRKCZ,FGFR3,MEF2A,FGF22,CDC42,NCK2,RPS6KA2,PRKACA,PTPN18,FGF4,PAG1,FGFR1,PIK3C3,ADCYAP1R1,ITCH,DNM2,HSP90AA1,COL4A4,MEF2C,PGR,EP515,DOCK3, PXN,ESR1,ITPR3,NRP1,HNRNPM,CRKL,DNAL4,PDGFB,GRAP2,NCF4,RPS6KAS,MMP9,PTK6,LAMA1,ARHGFE7,MAPK3,POLR2C,ESRP2,STUB1,CSK,PLAT,ESRP1,VRK3,AKT2,CDK3 7,PPP2R1A,PIK3R2,CAV1,MET,HSPB1,DNM1,RAPGEF1,SHB,DUSP3,GAB1,HGFAC,CBL,TCIRG1,FGF6,SH2B3,PTPN6,MAPK14,VEGFA,HBEGF,THBS4,PPP2CA,FGF1,ATP6V0E1,MA PKAPK3,STAM2,STAT1,PIK3R3,RPS6KA1,NRP2,MAPKAP1,PTK2B,PIK3CA,WWP1,PLCG1,GGG3,FLRT3,STATSA,RAP1B,FGFRL1,EP515L1,KDR,ADORA2A,SHC2,LAMA5,GFAP,DIAP H1,KL,KRAS,VAV3,KIDINS220,ROCK2,PDGFRA,COL4A2,KLB,TEC,LAMC1,SPRY2,TNS3,RAC1,STAM,ABI1,ATP6V1G1,FGFBP1,FGFBP2,YAP1,PPP2R1B,THBS1,ADAM10,FGF2,EGF, FGF7,IGF1R,PCSK6,FURIN,PDPK1,NCOR1,RANBP10,CLTC,ERBB2,GRB7,SH3GL1,COL6A1,COL6A2,AKT1,RIT1,RALB,POLR2D,LRIG1,PDGFC,PIK3R1,RASA1,EGFR,NTRK2,SHC3,ADA M12,PTPRJ,PAK1,CHEK1,ITGB1,DOCK1,UBC,FER,ADAM17,TIAL1,PDE3B,PTPRK,PRKCA,TIAM1,NRG1,KIT,WASF2,NRG2,ATP6V0D1,RALGDS,VAV2,SHC1,FGFR4,SH2B2,NCSTN, MAPKAPK2,COL6A3,PRKCD,SPRY1,MST1R,DUSP7,CDK5,PRKACG,ARF6,SPRED1,SPINT1,FRS2,CUL5,PRKCB,STAT6,CRK,SPINT2,MLST8,POLR2G,CTNND1,STAT3,AHLY1,COL4A3 ,HNRNPH1,IRS1,PTK2,NRG4,HNRNPF,PDGFD,INSR,ATP6V0E2,PRKCE,VEGFB,STAT5B,JUP,HRA5,BTC,PTPN2,BAIAP2,CDK5R1,MUC20,GRB2,ERBB4,PTPN11,CDH5,PAK2,POLR2A ,RNF41,FES,LCK,AP2A2,ATP6V0A2,HGS,NTF3,NRG3,ATP6V0C,IRS2,WWOX,THBS2,COL4A1,MAPK12,PTPN1,LAMB3,AP2A1,SRC,PDGFA,SPRED2,NTRK1,CTNND1,CALM1,MTOR
GO:0022604 regulation of cell morphogenesis	9.31E-06	9.31E-06 FGR,SARM1,PLXND1,DVL2,SEMA3G,FYN,CD44,VRK2,MYOC,NEDD4L,NGFR,NTN1,NGEF,RHOA,SYT1, CDC42,MARK2,ARHGAP15,PLXNA2,CAP2B,MAP2,DNM2,RIMS1,CHRNA3, GSK3B,SSH1,CTTN,MT3,EZR,ABL1,CDC7,NRP1,CRKL,TRIOBP,MYH9,VRK1,CPNE6,HCK,ARHGFE7,OLFM4,ARHGFE18,VRK3,PTPRS,MEGF8,MAG,CCL24,LIMK1,DVL1,CCL2,SLC9A3 R1,SH3D19,RAPGEF2,CORO1C,CUX2,RASAL1,BVES,VEGFA,SEMASA,SPARC,CSNK1A1,PLXNA1,RTN4,RHOU,APOA1,ARAP3,PTK2B,OBSL1,CPNE5,RREB1,RAP2A,FGD3,MACF1,R NF6,KDR,CDC42EP1,MKLN1,CHN1,TTBK2,ACTN4,UNC13A,OLFM1,CAMSAP1,DIAPH1,DLG4,ZMYM5,CSNK1G2,PLXNC1,RAC1,ERMN,ENPP2,AP1AR,FGD4,TPM1,SSH2,ARHGDI A,CSNK1D,SYT2,CPNE9,GOLGA4,LIMD1,SLIT2,MYO10,RASA1,FGD2,TTBK1,ARHGAP18,DOCK5,NTRK2,PAK1,CDC42EP2,ALDOA,TAOK2,DOCK1,PTPRO,EP58,PTPRD,TNIK,FGD5, ZFYVE27,GRIP1,KIT,FMNL2,EPB41,C21ORF2,ITGB2,BSK1,CHRN2,DVL3,FMNL3,LARP4,TRIM46,MFI2,PLXNB1,DLCL1,CDK5,CRK,CDC42EP5,CSNK1G1,EFNA1,PTK2,SDC2,LIMS1 ,NLGN1,ROBO1,SEMA3E,FGA,KNDC1,PTEN,CORO1B,DAG1,BSRK2,FZD4,FBXW8,BAIAP2,RIMS2,CDK5R1,RCC2,CALR,CDC42EP4,FGD6,CCL13,FES,EFNA5,CIB1,BRWD1,BCL9L,A RAP1,MAPT,SEMA4D,PARVB,OSTN,PRPF40A,PLXNB2,SRC,S100A10,LPAR1,QRICH1,ARC,SMURF1,ATP10A,SYT3,CSNK1E,PLXNA4,TWF2,CUX1,SRCIN1
GO:0046777 protein autophosphorylation	9.97E-06	9.97E-06 FGR,MATK,FYN,MVP,MRE11A,VRK2,DAPK2,FLT4,EIF2AK2,STYK1,TNK2,FGFR2,FGFR3,CAMK2A,EPHA8,MARK2,STK10,MAP3K13,TXK,FGFR1,STK17B,GSK3B,ULK2,CAD,AURKA, MAPKAPK5,ABL1,MKNK2,PDGFB,GRAP2,VRK1,PTK6,RASSF2,MYLK2,HCK,STK24,MAPK3,EEF2K,CSK,PRKD2,TYK2,JAK3,CAV1,ENG,TESK1,CAMKK2,FRK,VEGFA,MAPKAPK3,ZAP7 0,PASK,STK25,AAK1,ERRF1,STK11,NEK6,PTK2B,RAP2A,KDR,EIF2AK4,PDGFRA,TAOK3,ACVR1B,TEC,GNPMB,BLK,RIPK1,IGF1R,ULK3,PDPK1,ERBB2,SIK1,AKT1,NLRP12,CALM2,C AMK2D,PDGFC,EGFR,EPHA1,NTRK2,CAMK2G,PAK1,ATM,TAOK2,FER,UHMK1,TNIK,EPHB1,KIT,PINK1,ATP13A2,ACE,CALM3,TAOK1,FGFR4,JAK1,DDR2,MAPKAPK2,LMTK2,SYK, WNK2,CDK12,DAPK3,PTK2,SIK2,PDGFD,INSR,EIF2AK3,MAP3K11,TNK1,CLK2,ULK1,GRB2,ERBB4,AURKB,PAK2,ADIPOQ,FES,LCK,GRK1,EPHB4,DAPK1,SRC,PDGFA,ENPP1,PIM3, NTRK1,STK39,CALM1,MTOR,GRK5,MAP3K3,DDR1,LYN

GO:0031532 actin cytoskeleton reorganization 9.97E-06 9.97E-06 RALA,BAIAP2L1,FARP2,DTNBP1,PHPT1,RHOA,CDC42,FRY,FRYL,RAPGEF3,CTTN,EZR,ABL1,NRP1,MYH9,HCK,CSF3,GAB1,TRPV4,ARHGDI1B,PHACTR1,PTK7,PTK2B,RAP2A,MKLN1,PDLM4,PDGFRA,FGF7,NTRK3,BCAS3,ARHGDI1A,TRPM2,CAPN10,PIP5K1A,CDC42BPA,GSN,PAK1,FER,EPH2,TNIK,CXADR,WHAMM,KIT,AUTS2,MICALL2,CDK5,DAPK3,ANTXR1,S

GO:0032990 cell part morphogenesis 9.97E-06 9.97E-06 SEMA3F,ALS2,SARM1,PLXND1,DVL2,MAPK8IP2,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,CD44,GAB2,DTNBP1,NEDD4L,GPC1,NGFR,NTN1,PRKCO,CTNNA2,NGEF,FGFR2,RHOA,SYT1,MEF2A,SPTB,CDC42,EPHA8,MAP4K4,MARK2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNM2,RIMS1,CHRNA3,HSP90AAA1,LRP2,GSK3B,ULK2,SSH1,CTTN,MT3,DNM1L,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,PACSIN2,DICER1,RPS6KA5,CPNE6,STK24,ARHGEF7,MAPK3,MYH14,PTPRS,MEGF8,MAG,SCN1B,COBL,WASL,LIMK1,DVL1,GAB1,RAPGEF2,CORO1C,CUX2,RASAL1,C12ORF57,VEGFA,SEMA5A,COL4A3BP,UNC5A,PLXNA1,SPTBN1,RTN4,STK25,TNR,ARTN,NRP2,SGK1,TNFRSF8,SLITRK3,PIK3CA,OBSL1,PLCG1,PACSIN1,CPNE5,RREB1,RAP2A,EFNB2,PSPN,VASP,FLRT3,GFRA4,LRFN3,MACF1,RNF6,CHN1,EIF2AK4,KLK8,UNC13A,MAP1S,OLFM1,MAP1B,DLG4,BTBD3,DCLK1,EPHB2,SEMA4F,DOCK10,PLXNC1,DBNL,FAM129B,DAB2IP,STXBP1,ENPP2,SPTBN5,ZNF365,IQGAP1,SSH2,ARHGDI1A,RNF165,GRB7,CELSR2,EFNA3,SYT2,CPNE9,CNTN4,GOLGA4,TMEM108,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PAR3,PAK1,NCAM1,FEZ1,TAOK2,GPM6A,ANK3,NUBPL,PTPRO,FARP1,PTPRD,PID1,PRKCA,TNIK,ENAH,WNT7A,EPHB1,ZFYVE27,GRIP1,LRFN2,DPYSL5,AUTS2,SPON2,SPTBN4,BRSK1,SHC1,CHRN2,DVL3,SHANK1,NTN3,NTNG1,TRIM46,RYK,PLXNB1,CDK5,RET,FRS2,APBB1,CTNNA1,KIF5C,EFNA1,PTK2,SDC2,NLGN1,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,MAP6,PIK3CD,KNDCC1,PTEN,CORO1B,DAB1,PTPRM,SPTBN2,CNTNAP2,BRSK2,FZD4,FBXW8,BAIAP2,RIMS2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,PTPN11,NRXN1,MAP6D1,SHAH2,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,SLIT1,SEMA4D,OSTN,PLXNB2,PDLM7,SRC,S100A6,ZNF335,NTRK1,ATL1,ARC,SMURF1,SYT3

GO:0048812 neuron projection morphogenesis 1.04E-05 1.04E-05 SEMA3F,ALS2,SARM1,PLXND1,DVL2,MAPK8IP2,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,DTNBP1,NEDD4L,GPC1,NGFR,NTN1,PRKCO,CTNNA2,NGEF,FGFR2,RHOA,SYT1,MEF2A,SPTB,CDC42,EPHA8,MAP4K4,MARK2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNM2,RIMS1,CHRNA3,HSP90AAA1,LRP2,GSK3B,ULK2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,DICER1,RPS6KA5,CPNE6,STK24,MAPK3,PTPRS,MEGF8,MAG,SCN1B,COBL,WASL,LIMK1,DVL1,GAB1,RAPGEF2,CUX2,RASAL1,C12ORF57,VEGFA,SEMA5A,UNC5A,PLXNA1,SPTBN1,RTN4,STK25,TNR,ARTN,NRP2,SGK1,TNFRSF8,SLITRK3,PIK3CA,OBSL1,PLCG1,PACSIN1,CPNE5,RAP2A,EFNB2,PSPN,VASP,FLRT3,GFRA4,LRFN3,MACF1,RNF6,CHN1,EIF2AK4,KLK8,UNC13A,MAP1S,OLFM1,MAP1B,DLG4,BTBD3,DCLK1,EPHB2,SEMA4F,DOCK10,PLXNC1,DBNL,FAM129B,DAB2IP,STXBP1,SPTBN5,ZNF365,IQGAP1,SSH2,ARHGDI1A,RNF165,GRB7,CELSR2,EFNA3,SYT2,CPNE9,CNTN4,GOLGA4,TMEM108,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PAR3,PAK1,NCAM1,FEZ1,TAOK2,GPM6A,ANK3,PTPRO,FARP1,PTPRD,PRKCA,TNIK,ENAH,WNT7A,EPHB1,ZFYVE27,GRIP1,LRFN2,DPYSL5,AUTS2,SPON2,SPTBN4,BRSK1,SHC1,CHRN2,DVL3,SHANK1,NTN3,NTNG1,TRIM46,RYK,PLXNB1,CDK5,RET,FRS2,APBB1,CTNNA1,KIF5C,EFNA1,PTK2,SDC2,NLGN1,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,MAP6,PIK3CD,KNDCC1,PTEN,DAB1,PTPRM,SPTBN2,CNTNAP2,BRSK2,FZD4,FBXW8,BAIAP2,RIMS2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,PTPN11,NRXN1,MAP6D1,SHAH2,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,SLIT1,SEMA4D,OSTN,PLXNB2,PDLM7,SRC,S100A6,ZNF335,NTRK1,ATL1,ARC,SMURF1,SYT3,LINGO4,CPNE1,PLXNA4,TLR9,TWF2,CUX1,SRGAP2,CYFIP1,SRICIN1

GO:0120039 plasma membrane bounded cell projection m 1.12E-05 1.12E-05 SEMA3F,ALS2,SARM1,PLXND1,DVL2,MAPK8IP2,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,CD44,GAB2,DTNBP1,NEDD4L,GPC1,NGFR,NTN1,PRKCO,CTNNA2,NGEF,FGFR2,RHOA,SYT1,MEF2A,SPTB,CDC42,EPHA8,MAP4K4,MARK2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNM2,RIMS1,CHRNA3,HSP90AAA1,LRP2,GSK3B,ULK2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,DICER1,RPS6KA5,CPNE6,STK24,ARHGEF7,MAPK3,PTPRS,MEGF8,MAG,SCN1B,COBL,WASL,LIMK1,DVL1,GAB1,RAPGEF2,CORO1C,CUX2,RASAL1,C12ORF57,VEGFA,SEMA5A,UNC5A,PLXNA1,SPTBN1,RTN4,STK25,TNR,ARTN,NRP2,SGK1,TNFRSF8,SLITRK3,PIK3CA,OBSL1,PLCG1,PACSIN1,CPNE5,RREB1,RAP2A,EFNB2,PSPN,VASP,FLRT3,GFRA4,LRFN3,MACF1,RNF6,CHN1,EIF2AK4,KLK8,UNC13A,MAP1S,OLFM1,MAP1B,DLG4,BTBD3,DCLK1,EPHB2,SEMA4F,DOCK10,PLXNC1,DBNL,FAM129B,DAB2IP,STXBP1,ENPP2,SPTBN5,ZNF365,IQGAP1,SSH2,ARHGDI1A,RNF165,GRB7,CELSR2,EFNA3,SYT2,CPNE9,CNTN4,GOLGA4,TMEM108,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PAR3,PAK1,NCAM1,FEZ1,TAOK2,GPM6A,ANK3,PTPRO,FARP1,PTPRD,PRKCA,TNIK,ENAH,WNT7A,EPHB1,ZFYVE27,GRIP1,LRFN2,DPYSL5,AUTS2,SPON2,SPTBN4,BRSK1,SHC1,CHRN2,DVL3,SHANK1,NTN3,NTNG1,TRIM46,RYK,PLXNB1,CDK5,RET,FRS2,APBB1,CTNNA1,KIF5C,EFNA1,PTK2,SDC2,NLGN1,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,MAP6,PIK3CD,KNDCC1,PTEN,CORO1B,DAB1,PTPRM,SPTBN2,CNTNAP2,BRSK2,FZD4,FBXW8,BAIAP2,RIMS2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,PTPN11,NRXN1,MAP6D1,SHAH2,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,SLIT1,SEMA4D,OSTN,PLXNB2,PDLM7,SRC,S100A6,ZNF335,NTRK1,ATL1,ARC,SMURF1,SYT3,LINGO4,CPNE1,PLXNA4,TLR9,TWF2,CUX1,SRGAP2,CYFIP1,SRICIN1

			SEMA3F,SARM1,PLXND1,MAPK8IP2,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,MYOC,VAMP3,GPC1,NGFR,NTN1,PRKCQ,CTNNA2,NGEF,FGFR2,RHOA,MEF2A,SPTB,CDC42,EPHA8,ACTN1,MARK2,FERMT2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNM2,CHRNA3,HSP90AA1,MEF2C,GSK3B,ULK2,GRHL2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,CRKL,TRIOBP,MYH9,RP56KA5,ARHGEF7,OLFM4,MAPK3,PTPRS,MEGF8,MAG,SCN1B,SIPA1L3,MET,COBL,WASL,LIMK1,DVL1,GAB1,RAPGEF2,CORO1C,CUX2,C12ORF57,BVES,VEGFA,CLIC5,SEMA5A,UNC5A,PLXNA1,SPTBN1,RTN4,FN1,TNR,ARTN,PROX1,APOA1,KIF14,NRP2,PROX2,TNFRSF8,SLITRK3,PIK3CA,OBSL1,PLCG1,RREB1,RAP2A,EFNB2,PSPN,VASP,GFRA4,LRFN3,MACF1,RNF6,CHN1,ACTN4,OLFM1,LAMA5,MAP1B,UNK,DLG4,BTBD3,EPHB2,SEMA4F,LAMC1,DOCK10,PLXNC1,RAC1,FAM129B,STXB P1,SPTBNS,ZNF365,AP1AR,ITGB7,SSH2,ARHGDI2,TBCD,RNF165,GRB7,EPHA2,CELSR2,EFNA3,CNTN4,GOLGA4,SLIT2,PIK3R1,EPHA1,DOK2,DOCK5,NFIB,NTRK2,SHC3,PARD3,PAK1,NCAM1,FEZ1,FERMT3,TAOK2,DOCK1,RILPL2,ANK3,FER,PTPRO,FARP1,PTPRD,PRKCA,TNIK,ENAH,WNT7A,EPHB1,ZFYVE27,LRFN2,DPYSL5,RADIL,AUTS2,STC1,SPON2,SPTB N4,BRSK1,SHC1,CHRN2,NBEAL2,SHANK1,NTN3,NTNG1,TRIM46,RYK,MFI2,PLXNB1,DACT2,MICALL2,CDK5,RET,FRS2,APBB1,CRK,KIF5C,EFNA1,ARL13B,PTK2,SDC2,ANTXR1,LIMS1,NLGN1,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,MAP6,FGA,PIK3CD,KND1,PTEN,DAB1,PTPRM,SPTBN2,BRSK2,FBXW8,BAIAP2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,RCC2,CALR,PTPN11,ZFPM1,NRXN1,MAP6D1,SHAH2,LRRCS5,SLIT3,EFNA5,CIB1,IRS2,MAPT,SLIT1,SEMA4D,RILPL1,PLXNB2,PDLIM7,SRC,S100A10,S100A6,NTRK1,ATL1,ARC,C6ORF2
GO:000904 cell morphogenesis involved in differentiation	1.26E-05	1.26E-05	5,LINGO4,PLXNA4,TLR9,TWF2,CUX1,ITGB3,SRGAP2,CYFIP1,SRGIN1
			SEMA3F,ALS2,SARM1,PLXND1,DVL2,MAPK8IP2,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,CD44,GAB2,DTNBP1,NEDD4L,GPC1,NGFR,NTN1,PRKCQ,CTNNA2,NGEF,FGFR2,RHOA,SYT1,MEF2A,SPTB,CDC42,EPHA8,MAP4K4,MARK2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNM2,RIMS1,CHRNA3,HSP90AA1,LRP2,GSK3B,ULK2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,PACIN2,DICER1,RP56KA5,CPNE6,STK24,ARHGEF7,MAPK3,PTPRS,MEGF8,MAG,SCN1B,COBL,WASL,LIMK1,DVL1,GAB1,RAPGEF2,CORO1C,CUX2,RASAL1,C12ORF57,VEGFA,SEMA5A,UNC5A,PLXNA1,SPTBN1,RTN4,STK25,TNR,ARTN,NRP2,SGK1,TNFRSF8,SLITRK3,PIK3CA,OBSL1,PLCG1,PACIN1,CPNE5,RREB1,RAP2A,EFNB2,PSPN,VASP,FLRT3,GFRA4,LRFN3,MACF1,RNF6,CHN1,EIF2AK4,KLK8,UNC13A,MAP1S,OLFM1,MAP1B,DLG4,BTBD3,DCLK1,EPHB2,SEMA4F,DOCK10,PLXNC1,DBNL,FAM129B,DAB2IP,STXB P1,ENPP2,SPTBNS,ZNF365,IQGAP1,SSH2,ARHGDI2,RNF165,GRB7,CELSR2,EFNA3,SYT2,CPNE9,CNTN4,GOLGA4,TMEM108,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PARD3,PAK1,NCAM1,FEZ1,TAOK2,GPM6A,ANK3,PTPRO,FARP1,PTPRD,PRKCA,TNIK,ENAH,WNT7A,EPHB1,ZFYVE27,GRIP1,LRFN2,DPYSL5,AUTS2,SPON2,SPTBN4,BRSK1,SHC1,CHRN2,DVL3,SHANK1,NTN3,NTNG1,TRIM46,RYK,PLXNB1,CDK5,RET,FRS2,APBB1,CTNNA1,KIF5C,EFNA1,PTK2,SDC2,NLGN1,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,MAP6,PIK3CD,KND1,PTEN,CORO1B,DAB1,PTPRM,SPTBN2,CNTNAP2,BRSK2,FZD4,FBXW8,BAIAP2,RIMS2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,PTPN11,NRXN1,MAP6D1,SHAH2,LRRCS5,SLIT3,EFNA5,NTF3,IRS2,MAPT,SLIT1,SEMA4D,OSTN,PLXNB2,PDLIM7,SRC,S100A6,ZNF335,NTRK1,ATL1,ARC,SMURF1,SYT3,LINGO4,CPNE1,PLXNA4,TLR9,TWF2,C
GO:0048858 cell projection morphogenesis	1.44E-05	1.44E-05	UX1,SRGAP2,CYFIP1,SRGIN1
			CX3CL1,BAIAP2L1,CCL26,SCIN,MYOC,LIMA1,PHPT1,NCKAP1,LIMCH1,RHOA,PFN2,CDC42,NCK2,WDR1,CLASP1,ARHGEF10L,SRI,ADD2,FSCN1,ACTN2,CAPZB,EDN1,RAPGEF3,SSH1,CTTN,WNT11,ADD1,PXN,SLC9A1,ABL1,NRP1,PPM1F,SH3BP1,TRIOBP,MYH9,MYLK2,HCK,CORO1A,PYCARD,SFRP1,ARHGEF10,CAV1,MET,CCL24,LIMK1,TESK1,CSF3,PFN1,RANGRF,ODAM,BST1,ARHGDI2,SEMA5A,PDE4D,TNCC1,ACTR3,CCDC88A,STMN1,PROX1,APOA1,TGFB3,RHOQ,PTK2B,LRP1,VASP,CCR7,CDC42EP1,BST2,ARPC1B,TRPM4,HIP1R,PPFIA1,ARFIP2,INPP5K,ROCK2,MYBPC3,PDGFRA,FHOD1,RAC1,BIN1,FCHSD2,HCN4,TPM1,NTRK3,MYLK3,SSH2,BCAS3,ARHGDI2,TRPM2,ARHGEF19,ARF1,PHLDB2,SLIT2,CAMK2D,ANK2,IQGAP2,RASA1,ARHGAP18,EPHA1,GSN,PAK1,CDC42EP2,TAOK2,CACNA1C,FER,EPS8,PLEKHH2,RHOC,WHAMM,GRHL3,WASF2,STC1,TAOK1,SHANK1,ARPC5,ARPC2,CLASP2,PRKCD,ARFIP1,DLCL1,CDK5,CFL2,ARF6,TSC1,SYNPO2L,CRK,CDC42EP5,DAPK3,SERPINF2,MLST8,SEMA3E,AKAP13,LMOD2,PRKCE,SYNPO,SYNPO2,CORO1B,JUP,HRAS,PPM1E,KCNE3,BAIAP2,CDC42EP4,HCLS1,FES,CTNNA3,SCN5A,EFNA5,PDE4B,CDK10,PARK2,NTF3,NF2,ARAP1,PFN3,PDGFA,S100A10,FCHSD1,LPAR1,RYR2,MTOR,TRIM27,ARPC
GO:0032970 regulation of actin filament-based process	1.57E-05	1.57E-05	4,ARPC1A,TWF2,GJAS,CYFIP1,MIR1-2
			ITGAL,ITGA3,CX3CL1,CD44,MYOC,LIMCH1,COL17A1,RHOA,TESK2,ACTN1,FERMT2,CLASP1,ACTN2,GSK3B,ITGB5,COL16A1,CTTN,SIGLEC1,SLC9A1,SORBS1,ABL1,NRP1,MADCAM1,PPM1F,ARHGEF7,MSLN,SFRP1,CDK6,SERPINE1,BST1,CORO1C,VEGFA,PTK2B,CCR7,MACF1,KDR,MKLN1,LAMA5,CCL25,PPFIA1,ITGB4,LYVE1,ROCK2,CD36,CD63,ITGA7,RAC1,TMEM8B,THBS1,ITGA11,EMILIN1,PARVG,ITGB7,CDH13,BCAS3,PIPSK1A,ADAM15,PHLDB2,RASA1,EPHA1,PTPRJ,TAOK2,ITGB1,ADAMTS12,CCL28,UTRN,PTPRK,CD96,OTOA,WHAMM,TIAM1,ZYX,LYPD5,ITGB2,ADAMTS13,MSLN,VCAM1,CLASP2,ADAMTS9,DLCL1,TSC1,DAPK3,COL3A1,ADAM9,PTK2,LIMS1,SEMA3E,FGA,PTEN,HPSE,RHOD,JUP,CD34,
GO:0007160 cell-matrix adhesion	1.63E-05	1.63E-05	RCC2,EFNA5,CIB1,NF2,BCAM,AJAP1,NF1,SRC,COL13A1,S100A10,LDB1,DDR1,EMP2,ITGB3,MIR29C

			<p>CX3CL1, RALA, BAIAP2L1, CCL26, SCIN, MARK4, FUZ, ERCC1, BID, PHLD81, BCLAF1, MYOC, FNIP2, CROCC, NCKAP1, LIMCH1, RHOA, NAV3, PFN2, CDC42, NCK2, CLASP1, ARHGFEF10L, FSC N1, RAB7A, SIRT6, EDN1, CDH17, RAPGEF3, HSP90AA1, GSK3B, COL16A1, CTTN, WNT11, PSMC5, PXN, ESR1, ABL1, NRP1, PALM, PPM1F, BIK, KCTD17, HCK, MAPRE1, CORO1A, HAS3, SMPD3, STUB1, PYCARD, BMF, SFRP1, ARHGFEF10, ERCC2, BBC3, TGFB1, CAV1, MET, CCL24, WASL, LIMK1, TESK1, CSF3, PFN1, CUX2, GTF2H3, VEGFA, CNOT6, DPYSL3, HYAL1, EIF4G1, ACTR3, CCDC88A, RAB3GAP1, SDC1, SUMO1, KIAA1324, PROX1, APOA1, RAB3GAP2, HEATR1, TGFB3, RHOQ, FAM98A, IDE, CLU, PTK2B, GPM2, SDC4, WNT1, CNOT1, VASP, CCR7, KDR, CDC42EP1, RAC2, SNX9, ARPC1B, CHMP2A, CLIP1, EPS8L1, LRRC4B, NPHP4, CHD1L, ARFIP2, RPA1, VPS4A, EPHB2, ROCK2, DDB2, APC, HNF1A, HRK, CD36, FHOD1, AGT, LCP1, RAC1, BIN1, STAM, CDK5RAP2, FLOT1, NUMA1, FNBP1L, GTF2B, CUL4A, WARS, TPM1, MYLK3, DEF8, BCAS3, TP53, ARF1, ANKRD53, NPHP1, RALB, PHLD82, IQGAP2, TTBK1, EPHA1, TERF1, GSN, LRSAM1, PT PRJ, PAK1, RPS3, ATM, CDC42EP2, GPM6A, DLG5, FER, GRID2, BCL2L11, PTPRD, PRKCA, WNT7A, EPHB1, RHOC, WHAMM, CXCL13, GHRL, WASF2, AUTS2, PINK1, SNF8, ATP13A2, ARPC5, ARPC2, CLASP2, AIM2, WDR43, ARFIP1, CSF2, ARF6, TSC1, SYNPO2L, NDEL1, SMAD3, CDT1, CDC42EP5, SERPINF2, CTNNB1, STX18, LIM51, NLGN1, PDCD6IP, LMOD2, PRKCE, TPPP, SYNPO, SYNPO2, CORO1B, DAG1, TLR6, HRAS, CEP135, PPM1E, FOSL1, ERCC4, BAIAP2, CDK5R1, EPS8L2, CDC42EP4, NRXN1, FES, FAF1, HGS, NF2, ARAP1, MAPT, ESPN, MITF, AGRN, IL1RAP, PF N3, MMP1, DYNC1H1, SRC, HTT, S100A10, LPAR1, HSPA1B, TRIM27, DCTN1, ARL2, GTF2H4, FNIP1, TNF, ARPC4, ARPC1A, TWLF2, CYFIP1, HNF1B, PIP4K2B, MIR1-2</p>
GO:0044089	positive regulation of cellular component bioj	1.64E-05	1.64E-05
			<p>ANKIB1, HECW1, RNF216, NUB1, RNF14, UBR2, RANBP3, UBA6, RNF19A, HSPA5, NEDD4L, HERPUD1, ANAPC4, CUL1, RNF4, HIPK2, BTBD1, ATXN3, SIRT2, UFD1L, RNF126, CSNK2A2, SEL1L, UBE2D1, CHFR, FBXW11, TBX21, PTPN23, KLHL20, DNAI1, UBE2K, PPP2R5C, ITCH, TOLLIP, KEAP1, CNOT4, GSK3B, PSMC5, KLHDC5, AURKA, EDEM2, NSF1C, ANAPC5, MAEA, RFFL, WAC, HSP90A1, PSMD8, DERL3, XBP1, FOXRED2, KCTD17, TRPC4AP, RNF24, SMAD7, RNF125, N4BP1, PSMD7, AXIN1, FBXO31, STUB1, UBE2I, RNF40, UBR5, SGTA, GSK3A, CAV1, UBE2R2, DVL1, ERLIN1, FBXW4, FBXL15, PSMD3, PSMD11, SMURF2, TNFAIP1, UBE2D3, WFS1, FBXW7, CBL, PSMD9, KCTD10, FBXO9, FBXL4, SKP1, CSNK1A1, CRBN, UBE3A, SUMO1, NFE2L2, P ARK7, EDEM3, FBXO2, CDC20, KIF14, TNFAIP3, UBE2B, CLU, PTK2B, TRIM25, SPOP, RBBP6, RNF11, WWP1, GIPC1, KBTBD4, RNF114, RPL23, PSMF1, UBR4, RNF6, CBF2A23, CDC16, ADRM1, UBE4B, VPS25, UBE2D2, UBE2G1, VPS4A, BTBD3, BTBD2, HSPBP1, AGAP3, ARNTL, RNF122, EDEM1, RNF138, UBQLN1, FBXO21, DERL1, RNF38, RNF144B, ARRB1, FBXO11, HECW2, BB S7, PRICKLE1, CUL4A, PML, TGFB11, COPS3, ARRB2, CSNK1D, RNF165, FBXO15, CBL, RPL11, DTL, SPOP, KLHL8, NIKD2, RNF145, KLHL3, RNF44, GNA12, ERLIN2, FBXO10, UBC, BTBD11, R NNF144A, C18ORF25, DAB2, RANBP2, FBXL2, LONRF1, BUB3, BUB1B, NTAN1, RNF111, UBXN11, ZFAND2B, RNF166, PINK1, FBXW5, SNF8, UBE2J2, VPS28, SQSTM1, UBXN1, SYVN1, DCST1, STT3B, PYHIN1, RYBP, DTX3L, ANAPC10, RANBP3L, UBAP1, APTB2, BTRC, BAG5, ARIH1, C10ORF104, WDR81, KCTD5, RNF187, TMEM129, PTK2, OTUD7A, UBE2E1, CDK1, LONRF2, SOC S5, PTEN, RPS7, USP19, KATS, COMMD1, TRIB1, RNF213, UBXN2A, GLMN, KCTD13, ANAPC2, MAN1B1, MAGEF1, ARIH2, TBL1XR1, AURKB, RAD23A, SHARPIN, ZNRF2, YOD1, KCTD2, SIA H2, UBA7, NPLOC4, TTC3, MTA1, ZNRF3, FBXL7, KLHL25, BTBD9, FAF1, PARK2, ZNRF1, UBE2H, USP7, NHLRC1, C17ORF97, RNF222, FHIT, ANAPC7, ARDDC1, PCBP2, PSMD12, FBXL22, TOP</p>
GO:0006511	ubiquitin-dependent protein catabolic proces	2.13E-05	2.13E-05
			<p>ORS, STYX, WWP2, SMURF1, RNF5, TRIM39, UBD, CSNK1E, UBXN2B, RNF103, OTUD7B, UHRF1</p>
			<p>FGR, CRLF1, MATK, FYN, MVP, IGF1, CD74, CD44, FLT4, STYK1, TNK2, ERBB3, FGFR2, PRKCK, HYAL2, FGFR3, NCK2, TXK, FGFR1, NOX4, DOCK3, TREM2, ABL1, NRP1, OSM, PDGFB, GRAP2, PT K6, ANPT4, HCK, MAPK3, ARL2BP, CSK, SFRP1, TGFB1, TYK2, PPP2R1A, JAK3, CAV1, CSF3, FBXW7, BST1, CBL, CD81, IL23A, PTPN6, FRK, VEGFA, GHR, THBS4, PRLR, PPP2CA, CBLB, TTL, ZAP 70, ERFF1, ARHGFEF2, PTK2B, KDR, TPST2, LIF, EPO, SH3BP5, VPS25, DLG4, EPHB2, IL6ST, PDGFRA, TEC, AGT, IL6, BLK, ABI1, ENPP2, EGF, FGF7, IGF1R, TP53, CBL, DGKG, TTBK1, EGFR, EPH A1, NTRK2, IL18, FER, ADAM17, BANK1, KIT, ACE, ZFYVE28, ITGB2, SHC1, IL6R, FGFR4, JAK1, DDR2, PKDCC, IL20, TGFA, PRKCD, IL15, CSF2, IL31RA, SYK, GPRC5B, STAT3, IL12A, GRM5, EFNA1, PTK2, TPST1, INSR, SOCS5, PRNP, PARG, PAK1, SH3BP5L, PTPN2, CLCF1, DOK7, CHMP6, GRB2, STAP2, ERBB4, HCLS1, PAK2, FES, LCK, EFNA5, NTF3, NF2, TNFRSF18, SEMA4D, PTPN1, Z</p>
GO:0018212	peptidyl-tyrosine modification	2.28E-05	2.28E-05
			<p>GPAT, SRC, PDGFA, HESS, NTRK1, INPP5F, DDR1, MIF, LYN, ITGB3, CCL5, SRCIN1</p>
			<p>CX3CL1, BAIAP2L1, CCL26, SCIN, MYOC, NCKAP1, LIMCH1, RHOA, NAV3, PFN2, CDC42, NCK2, WDR1, CLASP1, ARHGFEF10L, ACTN2, EDN1, RAPGEF3, CTTN, WNT11, PXN, ABL1, NRP1, PP M1F, HCK, MAPRE1, CORO1A, PYCARD, SFRP1, ARHGFEF10, MET, CCL24, LIMK1, TESK1, CSF3, PFN1, TRPV4, SEMASA, ACTR3, PROX1, APOA1, TGFB3, CLU, PTK2B, VASP, CCR7, CDC42EP1, ARPC1B, CLIP1, ARFIP2, ROCK2, FHOD1, RAC1, BIN1, CDK5RAP2, NUMA1, RB1, TPM1, MYLK3, KATNB1, ARF1, ANKRD53, IQGAP2, EPHA1, GSN, PAK1, RPS3, CDC42EP2, FER, RHOC, WHA MM, ARPC5, ARPC2, ARFIP1, CFL2, ARF6, SYNPO2L, CDC42EP5, SERPINF2, LMOD2, PRKCE, SYNPO, SYNPO2, CORO1B, PPM1E, BAIAP2, CDK5R1, CDC42EP4, FES, NF2, MAPT, PFN3, S100A</p>
GO:1902905	positive regulation of supramolecular fiber or	2.28E-05	2.28E-05
			<p>10, LPAR1, HSPA1B, TRIM27, DCTN1, ARL2, GPX1, ARPC4, ARPC1A, CYFIP1, MIR1-2</p>

			<p>CX3CL1,BAIAP2L1,CCL26,SCIN,MYOC,LIMA1,PHPT1,NCKAP1,LIMCH1,RHOA,PFN2,CDC42,NCK2,WDR1,CLASP1,ARHGEF10L,ADD2,FSCN1,ACTN2,CAPZB,EDN1,RAPGEF3,SSH1,CTTN,WNT11,ADD1,PXN,SLC9A1,ABL1,NRP1,PPM1F,SH3BP1,TRIOBP,HCK,CORO1A,PYCARD,SFRP1,ARHGEF10,MET,CCL24,LIMK1,TESK1,CSF3,PFN1,ODAM,BST1,ARHGDI8,SEMA5A,ACTR3,CCDC88A,STMN1,PROX1,APOA1,TGFB3,RHOQ,PTK2B,LRP1,VASP,CCR7,CDC42EP1,BST2,ARPC1B,HIP1R,PPF1A,ARFIP2,INPP5K,ROCK2,PDGFRA, FHOD1,RAC1,BIN1,FCHSD2,TPM1,NTRK3,MYLK3,SSH2,BCAS3,ARHGDI8,TRPM2,ARHGEF19,ARF1,PHLDB2,SLIT2,IQGAP2,RASA1,ARHGAP18,EPHA1,GSN,PAK1,CDC42EP2,TAOK2,FER,EP58,PLEKHH2,RHOC,WHAMM,GRHL3,WASF2,TAOK1,SHANK1,ARPC5,ARPC2,CLASP2,PRKCD,ARFIP1,DLCL1,CDK5,CFL2,ARF6,TSC1,SYNPO2L,CRK,CDC42EP5,DAPK3,SERPINF2,MLST8,SEMA3E,AKAP13,LMOD2,PRKCE,SYNPO,SYNPO2,CORO1B,HRAS,PPM1E,BAIAP2,CDC42EP4,HCLS1,FES,EFNA5,CDK10,PARK2,NTF3,NF2,ARAP1,PFN3,PDGFA,S100A10,FCHSD1</p>	
GO:0032956	regulation of actin cytoskeleton organization	2.28E-05	2.28E-05	,LPAR1,MTOR,TRIM27,ARPC4,ARPC1A,TWF2,CYFIP1,MIR1-2
			<p>FGR,ALS2,CAMKK1,DVL2,PRKAR2B,MAP3K14,SPAG9,CD4,FYN,MAP4K5,IGF1,SLC11A1,CD74,MRE11A,CD44,MAP2K3,LCP2,EIF2AK2,ATP2B4,ERBB3,RHOA,FGFR3,EPHA8,PRKACA,MARK2,STK10,MAP3K13,TRAF4,MAP2K7,FGFR1,EDN1,XRCC5,CHRNA3,HSP90AA1,MEF2C,STRADB,MAP3K4,NOX4,MT3,DOCK3,ERP29,CLSPN,TGFB2,MAP3K1,HSP90AB1,ABL1,GADD45B,CRKL,PDGFB,MAP3K7IP1,TELO2,EEF1A2,RASSF2,MAPK3,AXIN1,TGFB1,NOD1,PRKAG2,RAPGEF1,MAP3K8,CCNY,PRKAR1A,MMMD,FBXW7,RAPGEF2,CCND1,AMBRA1,MADD,CD81,CAMKK2,IL23A,TPD52L1,SASH1,MAPK14,CCNC,CCND3,VEGFA,GHR,PRLR,PPP2CA,FGF1,PRKAR2A,MAPKAPK3,CCDC88A,PARK7,GADD45A,PROX1,STK11,KIF14,CCND2,MAPKAP1,TNFSF11,CLU,PTK2B,PKN1,EDN3,GRM4,CDKN1A,IL1B,CCR7,TRAF2,CCNT1,SNX9,GDF15,PAK4,TRAF7,PRKAA1,DLG4,DSTYK,IRAK2,CAMK1,KIDINS220,C CNH,PDGFRA,TAOK3,AGAP2,AGT,CAB39,DBNL,DAB2IP,RIPK1,THBS1,PAK6,DUSP5,PLCE1,FGF2,CENPE,EGF,MAPK8IP3,NTRK3,IQGAP1,PDPK1,PIK3R5,CARD14,RPTOR,TNFRSF11A,ERBB2,AKT1,CYR61,LMO4,PROK1,ITB,CALM2,RALB,PDGFC,TTBK1,EGFR,NTRK2,PAK1,RPS3,TAOK2,TIRAP,IL18,UBC,ADAM8,ADAM17,TNIK,GHRL,NRG1,KIT,PINK1,ACE,CA LM3,TAOK1,SHC1,DVL3,DDR2,PEA15,MAPKAPK2,DUSP19,TGFA,TGFB2,CCNL1,SPDYA,PRKCD,MST1R,DUSP7,TLR3,PRKACG,STOX1,RET,FRS2,NAB2,GPRCSB,CRK,NOD2,MLST8,MAP4K2,ADAM9,GRM5,MAP2K1,IRS1,EFNA1,ADRB2,PTK2,ROBO1,CDK1,ADORA2B,PLA2G1B,PDGFD,INSR,PRNP,MALT1,AZU1,RASGRP1,OXSR1,MAP3K11,ZNF622,TLR6,HRAS,TRAF6,DOK7,MUC20,UBE2N,NRXN1,F2,ADIPOQ,TNFSF15,TNFAIP8L3,CIB1,NTF3,ZFP91,MAPT,PRKAR1B,CXCL17,PTPN1,SRC,C5AR1,MAP3K5,PDGFA,ELANE,NTRK1,COP58,</p>	
GO:0033674	positive regulation of kinase activity	2.28E-05	2.28E-05	STK39,CALM1,MTOR,MAP3K3,DAXX,LAT,EMP2,CCNL2,TNF,TLR9,UBE2V1,ITGB3,CCL5,PIK3R6,SRCIN1
			<p>CFLAR,MYOC,MYOM2,LIMCH1,RHOA,MEF2A,PFN2,CDC42,WDR1,CLASP1,ARHGEF10L,ACTN2,NEBL,EDN1,RAPGEF3,EPB41L2,ITGB5,WNT11,EPB41L1,PXN,SLC9A1,CAPN3,EPB41L4B,SORBS1,ABL1,NRP1,PPM1F,MYH9,MYOM1,SFRP1,ARHGEF10,MYH14,MET,LIMK1,TESK1,PFN1,TNFAIP1,MYL2,PHACTR1,EPB41L5,STMN1,PROX1,APOA1,TGFB3,OBSL1,TMOD2,PPF1A1,INPP5K,VPS4A,MYH10,ROCK2,MYBPC3,PDGFRA, FHOD1,RAC1,BIN1,CDK5RAP2,NUMA1,TPM1,NTRK3,MYLK3,KATNB1,BCAS3,PFND2,ARF1,ANKRD53,IQGAP2,EPHA1,PAK1,OBSN,RHOC,WASF2,EPB41,ZYX,TMOD4,CLASP2,MYOZ3,DLCL1,TSC1,SERPINF2,PDCD6IP,AKAP13,LMOD2,KRT19,FRMD5,TCAP,KCTD13,PPM1E,MYOZ1,IGSF22,NF2,ARAP1</p>	
GO:0031032	actomyosin structure organization	2.42E-05	2.42E-05	,MYBPC1,MYO18A,SRC,MYH6,S100A10,LPAR1,CD42BPB,MYBPHL,MIR1-2
			<p>CX3CL1,BAIAP2L1,CCL26,SCIN,RANBP3,MYOC,NCKAP1,LIMCH1,RHOA,NAV3,PFN2,CDC42,NCK2,WDR1,CLASP1,ARHGEF10L,ACTN2,EDN1,RAPGEF3,CTTN,WNT11,NSFL1C,PXN,ABL1,NRP1,PPM1F,HCK,MAPRE1,CORO1A,PYCARD,SFRP1,ARHGEF10,MET,CCL24,LIMK1,TESK1,CSF3,PFN1,TRPV4,SEMA5A,ACTR3,PROX1,APOA1,TGFB3,PTK2B,GPSM2,VASP,CCR7,CDC42EP1,ARPC1B,CLIP1,ARFIP2,C15ORF29,ROCK2, FHOD1,RAC1,BIN1,CDK5RAP2,NUMA1,TPM1,NTRK3,MYLK3,KATNB1,BCAS3,PFND2,ARF1,ANKRD53,IQGAP2,EPHA1,GSN,PAK1,RPS3,CDC42EP2,FER,RANBP2,RHOC,WHAMM,ARPC5,ARPC2,ARFIP1,RANBP3L,CDK5,CFL2,ARF6,SYNPO2L,CDC42EP5,SERPINF2,LMOD2,PRKCE,SYNPO,SYNPO2,CORO1B,HRAS,PPM1E,BAIAP2,CDK5R1,CD42EP4,HCLS1,FES,NTF3,NF2,MAPT,PFN3,DYNC1H1,S100A10,LPAR1,HSPA1B,TRIM27,DCTN1,ARL2,UBXN2B,ARPC4,ARPC1A,CYFI</p>	
GO:0051495	positive regulation of cytoskeleton organization	2.42E-05	2.42E-05	P1,MIR1-2

<p>ANKIB1,HECW1,RNF216,NUB1,RNF14,UBR2,RANBP3,UBA6,RNF19A,HSPA5,NEDD4L,HERPUD1,ANAPC4,CUL1,RNF4,HIPK2,BTBD1,ATXN3,SIRT2,UFD1L,RNF126,CSNK2A2,SEL1L,UBE2D1,CHFR,FBXW11,TBX21,PTPN23,KLHL20,DNAJC10,UBE2K,PPP2R5C,ITCH,TOLLIP,KEAP1,CNOT4,GSK3B,PSMCS,KLHDC5,AURKA,EDEM2,NSFL1C,ANAPC5,MAEA,RFFL,WAC,HSP90A81,PSMD8,DERL3,XBP1,FOXRED2,KCTD17,TRPC4AP,RNF24,SMAD7,RNF125,N4BP1,PSMD7,AXIN1,FBXO31,STUB1,UBE21,RNF40,UBR5,SGTA,GSK3A,CAV1,UBE2R2,DVL1,ERLIN1,FBXW4,FBXL15,PSMD3,PSMD11,SMURF2,TNFAIP1,UBE2D3,WFS1,FBXW7,CBL,PSMD9,KCTD10,FBXO9,FBXL4,SKP1,CSNK1A1,CRBN,UBE3A,SUMO1,NFE2L2,PARK7,EDEM3,FBXO2,CDC20,KIF14,TNFAIP3,UBE2B,CLU,PTK2B,TRIM25,SPOP,RBBP6,RNF11,WWP1,GIPC1,KBTBD4,RNF114,RPL23,PSMF1,UBR4,RNF6,CBFA2T3,CDC16,ADRM1,UBE4B,VPS25,UBE2D2,UBE2G1,VPS4A,BTBD3,BTBD2,HSPBP1,AGAP3,ARNTL,RNF122,EDEM1,RNF138,UBQLN1,FBXO21,DERL1,RNF38,RNF144B,ARRB1,FBXO11,HECW2,BBS7,PRICKLE1,CUL4A,PML,TGFB11,COPS3,ARRB2,CSNK1D,RNF165,FBXO15,CBLC,RPL11,DTL,SPDPL,KLHL8,NKD2,RNF145,KLHL3,RNF44,GNA12,ERLIN2,FBXO10,UBC,BTBD11,RNF144A,C18ORF25,DAB2,RANBP2,FBXL2,LONRF1,BUB3,BUB1B,NTAN1,RNF111,UBXN11,ZFAND2B,RNF166,PINK1,FBXW5,SNF8,UBE2J,VPS28,SOSTM1,UBXN1,SYVN1,DCST1,STT3B,PYHIN1,RYBP,DTX3L,ANAPC10,RANBP3L,UBAP1,ABTB2,BTRC,BAG5,ARIH1,C10ORF104,WDR81,KCTD5,RNF187,TMEM129,PTK2,OTUD7A,UBE2E1,CDK1,LONRF2,SOCS5,PTEN,RPS7,USP19,KATS,COMMD1,TRIB1,RNF213,UBXN2A,GLMN,KCTD13,ANAPC2,MAN1B1,MAGEF1,ARIH2,TBL1XR1,AURKB,RAD23A,SHARPIN,ZNRF2,YOD1,KCTD2,SIAH2,UBA7,NPLOC4,TTCC,MTA1,ZNRF3,FBXL7,KLHL25,BTBD9,FAF1,PARK2,ZNRF1,UBE2H,USP7,NHLRC1,C17ORF97,RNF222,FHIT,LONP1,ANAPC7,ARRDC1,PCBP2,PSMD12,FBX</p>	<p>2.42E-05</p>	<p>2.42E-05 L22, TOPORS, STX, WWP2, SMURF1, RNF5, TRIM39, UBD, CSNK1E, UBXN2B, RNF103, OTUD7B, UHRF1</p>
<p>GO:0019941 modification-dependent protein catabolic proc</p>	<p>2.42E-05</p>	<p>L22, TOPORS, STX, WWP2, SMURF1, RNF5, TRIM39, UBD, CSNK1E, UBXN2B, RNF103, OTUD7B, UHRF1</p>
<p>GO:0007265 Ras protein signal transduction</p>	<p>2.55E-05</p>	<p>2.55E-05 P1</p>
<p>GO:0042330 taxis</p>	<p>2.67E-05</p>	<p>2.67E-05 .LTBR2,CCL27,CKLF,PLXNA4,MIF,LYN,ITGB3,CCL5,CCL23,CCL14,MIR34A</p>
<p>GO:0035567 non-canonical Wnt signaling pathway</p>	<p>2.67E-05</p>	<p>2.67E-05 3,WNT4,FZD5,PRICKLE2,RYK,FZD6,CTNBB1,VANGL1,RNF213,FZD4,AP2A2,ZNRF3,MAGI2,FZD9,AP2A1,CALM1,SMURF1,CSNK1E,PPP3R1</p>

GO:0006935 chemotaxis	2.67E-05	<p>SEMA3F,CX3CL1,RALA,CCL26,SEMA3G,FYN,LYPLA2,PLAUR,SEMA3B,RALBP1,CD74,NRXN3,GAB2,DAPK2,BCAR1,F7,STYK1,ELMO2,GPC1,NGFR,NTN1,PRKCQ,RHOA,SPTB,EPHA8,GLI2,NTN4,SEMA3C,FGF4,PLD1,PLXNA2,RAP1GAP,FGFR1,SEMA5B,SEMA6A,EZR,TGF2,SEMA4G,NRP1,HSD3B7,EFNA2,PPM1F,PDGFB,LGMN,RPS6KA5,CORO1A,MAPK3,CC L22,CCL17,TSC2,ABCC1,PRKD2,TGFB1,RPS19,MEGF8,SCN1B,MET,CCL24,HSPB1,SERPINE1,GBF1,CCL2,CCL1,GAB1,BST1,MAPK14,CCR6,SMOC2,VEGFA,SEMASA,HBEGF,THBS4, FGF1,UNC5A,PLXNA1,SPTBN1,TNR,ARTN,APOA1,NRP2,TNFSF11,PTK2B,TNFRSF8,CCR2,CCR2,PIK3CA,NR4A1,PLCG1,EDN3,EFNB2,PSPN,VASP,GFRA4,FFAR2,CCR7,EDN2,KDR, RAC2,CHN1,TRPM4,ARHGEF16,CCL25,EPHB2,SFTPD,PDGFRA,SEMA4F,EDNRB,GPNMB,RAC1,IL6,FAM129B,ENPP2,THBS1,ADAM10,SPTBN5,FGF2,FGF7,NTRK3,CDH13,ARRB2, RNF165,TNFRSF11A,GRB7,TRPM2,EPHA2,PIP5K1A,RAB13,S100A8,EFNA3,LYST,CNTN4,CCBP2,AGTR1,SLIT2,PIK3R1,DOK2,NFIB,SHC3,NOTCH1,PTPRJ,NCAM1,FEZ1,TIRAP,FER, PTPRO,ADAM8,ADAM17,CCL28,PRKCA,ENAH,CXADR,EPHB1,CXCL13,KIT,DYSL5,FCER1G,SPON2,ITGB2,SPTBN4,SHC1,IL6R,NTN3,S100A9,CXCR1,RYK,CCR1,PRKC2,AIMP1,DE FB1,SYK,RET,JAM3,FRS2,STX3,KIF5C,CX3CR1,SEMA4C,IL12A,LGALS9,MAP2K1,EFNA1,CXCL10,RNASE2,PTK2,ROBO1,ALCAM,SEMA3E,KIF5B,PLA2G1B,S1PR1,FEZ2,NRTN,PIK3C D,PLEKHG5,C3AR1,SCG2,AZU1,CORO1B,CYP7B1,DAB1,PTPRM,VEGFB,SPTBN2,CMKLR1,HRAS,PTPN2,FOSL1,CDK5R1,RHOG,ANO6,GRB2,CALR,PTPN11,NRXN1,CXCR2,SCRIB,C CL13,SHAH2,FES,CAMK1D,CCR4,SLIT3,EFNA5,PDE4B,NTF3,JRS2,PIP5K1C,SLIT1,SEMA4D,S100A14,CXCL17,SEMA4A,PDLLIM7,SRC,C5AR1,PDGFA,SPN,ELANE,LPAR1,AIF1,ZNF580</p> <p>.LTB4R2,CCL27,CKLF,PLXNA4,MIF,LYN,ITGB3,CCL5,CCL23,CCL14,MIR34A</p>
GO:0043632 modification-dependent macromolecule cata	2.88E-05	<p>ANKIB1,HECW1,RNF216,NUB1,RNF14,UBR2,RANBP3,UBA6,RNF19A,HSPA5,NEDD4L,HERPUD1,ANAPC4,CUL1,RNF4,HIPK2,BTBD1,ATXN3,SIRT2,UFD1L,RNF126,CSNK2A2,SEL 1L,UBE2D1,CHFR,FBXW11,TBX21,EXOSC7,PTPN23,KLHL20,DNAJC10,UBE2K,PPP2R5C,ITCH,TOLLIP,KEAP1,CNOT4,GSK3B,PSMC5,KLHDC5,AURKA,EDEM2,NSFL1C,ANAPC5,MA EA,RFFL,WAC,HSP90A1,PSMD8,DERL3,XBP1,FOXRED2,KCTD17,TRPC4AP,RNF24,SMAD7,RNF125,N4BP1,PSMD7,AXIN1,FBXO31,STUB1,UBE2I,RNF40,UBR5,SGTA,GSK3A,CA V1,UBE2R2,DVL1,ERLIN1,FBXW4,FBXL15,PSMD3,PSMD11,SMURF2,TNFAIP1,UBE2D3,WFS1,FBXW7,CBL,PSMD9,KCTD10,FBXO9,FBXL4,SKP1,CSNK1A1,CRBN,UBE3A,SUMO1, NFE2L2,PARK7,EDEM3,FBXO2,CDC20,KIF14,TNFAIP3,UBE2B,CLU,PTK2B,TRIM25,SPOP,PAPDS,RBBP6,RNF11,WWP1,GIPCI,KBTBD4,EXOSC9,RNF114,RPL23,PSMF1,UBR4,RNF 6,CBFA2T3,CDC16,ADRM1,UBE4B,VPS25,UBE2D2,UBE2G1,VPS4A,BTBD3,BTBD2,HSPBP1,AGAP3,ARNTL,RNF122,EDEM1,RNF138,UBQLN1,FBXO21,DERL1,RNF38,RNF144B,A RRB1,FBXO11,HECW2,BBS7,PRICKLE1,CUL4A,PML,TGFB11,COP3,ARRB2,CSNK1D,RNF165,FBXO15,CBLC,RPL11,DTL,SPOP,DIS3L2,KLHL8,NKD2,RNF145,KLHL3,RNF44,GNA1 2,ERLIN2,FBXO10,UBC,BTBD11,RNF144A,C18ORF25,DAB2,RANBP2,FBXL2,LONRF1,BUB3,BUB1B,NTAN1,RNF111,UBXN11,ZFAND2B,RNF166,PINK1,FBXW5,SNF8,UBE2I2,VPS 28,SQSTM1,UBXN1,SYVN1,DCST1,STT3B,PYHIN1,RYBP,DTX3L,ANAPC10,RANBP3L,UBAP1,ABTB2,BTRC,BAG5,ARIH1,C10ORF104,WDR81,KCTD5,RNF187,TMEM129,PTK2,OT UD7A,UBE2E1,CDK1,LONRF2,SOC5,EXOSC10,PTEN,RPS7,USP19,KAT5,COMMD1,TRIB1,RNF213,UBXN2A,GLMN,KCTD13,ANAPC2,MAN1B1,MAGEF1,ARIH2,TBL1XR1,AURKB, RAD23A,SHARPIN,ZNRF2,YOD1,KCTD2,SHAH2,UBA7,NLPOC4,TTCC3,MTA1,ZNRF3,FBXL7,KLHL25,BTBD9,FAF1,PARK2,ZNRF1,UBE2H,USP7,NHLRC1,C17ORF97,RNF222,FHIT,LO NP1,ANAPC7,ARRDC1,PCBP2,PSMD12,FBXL22,TOPORES,STYX,WWP2,SMURF1,RNF5,TRIM39,UBD,CSNK1E,UBXN2B,RNF103,OTUD7B,UHRF1</p>
GO:0071900 regulation of protein serine/threonine kinase	2.92E-05	<p>DVL2,PRKAR2B,SPAG9,MAP4K5,IGF1,MNAT1,MAP2K3,EIF2AK2,ATP2B4,RHOA,HYAL2,LRP6,MAP3K13,MAP2K7,FGFR1,EDN1,TP73,MEF2C,GSTP1,MAP3K4,ERP29,IRAK3,TFAP 4,CDC6,ABL1,GADD45B,CRKL,PDGFB,MAP3K7IP1,TELO2,CDK5RAP1,MAPK3,AXIN1,PYCARD,TGF1,CDC37,PPP2R1A,CDK6,CAV1,NOD1,TESK1,RAPGEF1,CCNY,CDK5RAP3,DUS P3,PRKAR1A,RAPGEF2,CCND1,HIPK3,MADD,CD81,DUSP16,CDKN1B,TPD52L1,SASH1,MAPK14,CCNC,CCND3,DUSP22,VEGFA,GHR,CCNG1,PPP2CA,FGF1,H2AFY,PRKAR2A,MAP KAPK3,GADD45A,RGS2,RGS4,PROX1,STK11,CCND2,DUSP1,TNFSF11,LAX1,PKN1,EDN3,GRM4,CDKN1A,IL1B,TRAF2,PKMYT1,CCNT1,GDF15,TRAF7,PRKAA1,INPP5K,GPS2,EPHB 2,MEN1,IRAK2,CAMK1,PTPN22,KIDINS220,CCNH,APC,TAOK3,CDK4,PKIB,CAB39,DBNL,DAB2IP,RIPK1,SORL1,THBS1,DUSP5,PLCE1,FGF2,EGF,MAPK8IP3,RGS3,IGF1R,NTRK3,M YOCD,KSR1,PIK3R5,RPTOR,TNFRSF11A,ERBB2,AKT1,CBLC,PROK1,DUSP10,CALM2,RALB,PDGFC,EGFR,PTPRJ,PAK1,RPS3,TAOK2,UBC,ADAM8,ADAM17,TNIK,PPPE2,GHRL,NRG 1,KIT,DUSP2,CDC25C,CALM3,TAOK1,SHC1,DVL3,LRP5,DIRAS3,PEA15,MAPKAPK2,DUSP19,TGFA,PAQR3,CCNL1,PRKC2,MST1R,DUSP7,RET,SPRED1,FRS2,SMPD1,CRK,NOD2,C DK12,MAP4K2,ADAM9,PKIG,MAP2K1,RGS14,ADRB2,GPS1,ROBO1,CDK1,ADORA2B,PLA2G1B,PDGFD,INSR,PTEN,RASGRP1,MAP3K11,TRIB1,TLR6,HRAS,TRAF6,CDK5R1,MUC2 0,UBE2N,NRXN1,ADIPOQ,DUSP8,CIB1,HGS,NTF3,AIDA,HEXIM1,PRKAR1B,CXCL17,INCA1,PTPN11,NF1,SERTAD1,SRC,HTT,C5AR1,MAP3K5,PDGFA,ELANE,SPRED2,UVRAG,NTRK</p> <p>1,STK39,CALM1,DAXX,CCNL2,TNF,TLR9,UBE2V1,LYN,PIK3R6,MIR24-2</p>
GO:0051017 actin filament bundle assembly	3.07E-05	<p>CX3CL1,BAIAP2L1,MYOC,LIMA1,LIMCH1,RHOA,PFN2,CDC42,CLASP1,ARHGEF10L,ADD2,FSCN1,RAPGEF3,ITGB5,WNT11,ADD1,PXN,SLC9A1,EZR,SORBS1,ABL1,NRP1,PPM1F,S FRP1,ARHGEF10,MET,FSCN3,LIMK1,TESK1,PFN1,TNFAIP1,NEDD9,PHACTR1,DYSL3,STMN1,APOA1,TGF3,PLS1,MYO18,PPFIA1,INPP5K,SPIRE1,ROCK2,FHOD1,LCP1,RAC1,AR RB1,TPM1,PHLDB2,EPHA1,PAK1,EP8,RHOC,FMN2,WASF2,ZYX,SHANK1,CLASP2,DLCL1,TSC1,SYNPO2L,SERPINF2,SYNPO,SYNPO2,CORO1B,RHOD,KCTD13,PPM1E,BAIAP2,PAR 2,KNF2,ARAP1,FSCN2,ESPN,PFN3,SRC,S100A10,LPAR1,AIF1,SPIRE2</p>

GO:0051056 regulation of small GTPase mediated signal tr	4.06E-05	4.06E-05	<p>ALS2,RHOBTB2,IGF1,RALBP1,FAM13B,MYOC,DEPDC1B,TRIO,GDI2,RASGRF1,NGEF,RHOA,CDC42,ARHGAP10,RHOBTB1,RASAL2,ARHGAP15,ARHGEF1,GMIP,TGFB2,ABL1,NRP1,SH3BP1,SGSM3,SOS2,ARHGEF7,ARHGEF18,RASAL3,SYDE1,PIK3R2,MET,TNFAIP1,ARHGEF17,MADD,RASAL1,ARHGDI1,RASGRF2,RHOA,ARHGEF2,MFN2,STMN1,APOA1,KIF14,MAPKAP1,DENND1A,RHOQ,GNA13,ARAP3,ADRA1A,ARHGAP9,STAMBP,GPR18,TRIP10,MCF2L,RHOJ,RHOT1,FGD3,F2RL3,RAC2,CHN1,ARHGAP22,CGNL1,EPO,ARHGEF16,EP58L1,ARHGEF11,STARD13,EPHB2,VAV3,ARHGEF4,RAC1,RALGAP5,DAB2IP,ARRB1,PLCE1,ARHGAP24,FAM13A,FGD4,ARHGAP17,RHOT2,ARHGDI1,ARHGEF19,SLIT2,RASA1,ARHGAP26,FGD2,ARHGAP18,TIAM2,NOTCH1,OBSCN,FLCN,RHOC,TIAM1,AUTS2,ABR,KALRN,VAV2,SQSTM1,ARHGAP25,ARHGEF3,TAGAP,DL1,ABCA1,ARHGAP12,ARF6,RHOH,COL3A1,ROBO1,AKAP13,PLEKHG5,RASGRP4,RASGRP1,RHOD,NET1,ABRA,KCTD13,A2M,RHOG,EP58L2,GPR4,RASA3,ARHGAP30,ARAP1,BCR,SRGAP3,NF1,ARHGEF12,SRGAP1,SRC,SYNGAP1,CD2AP,LPAR1,NTRK1,DENND4B,INPP5B,GPR20,GPR56,ARHGAP8,ARHGDI2,SRGAP2,ARHGAP23</p>
GO:0045860 positive regulation of protein kinase activity	4.15E-05	4.15E-05	<p>ALS2,CAMKK1,DVL2,PRKAR2B,MAP3K14,SPAG9,CD4,FYN,MAP4K5,IGF1,SLC11A1,MAP2K3,LCP2,EIF2AK2,ATP2B4,ERBB3,RHOA,PRKACA,MARK2,STK10,MAP3K13,TRAF4,MAP2K7,FGFR1,EDN1,XRCC5,CHRNA3,HSP90AA1,MEF2C,STRADB,MAP3K4,NOX4,MT3,DOCK3,ERP29,CLSPN,TGFB2,MAP3K1,HSP90AB1,ABL1,GADD45B,CRKL,PDGFB,MAP3K7IP1,TELO2,RASSF2,MAPK3,AXIN1,TGFB1,NOD1,PRKAG2,RAPGEF1,MAP3K8,CCNY,PRKAR1A,MMD,FBXW7,RAPGEF2,CCND1,MADD,CD81,CAMKK2,IL23A,TPD52L1,SASH1,MAPK14,CCNC,CCND3,VEGFA,GHR,PRLR,PPP2CA,FGF1,PRKAR2A,MAPKAP3,CCDC88A,PARK7,GADD45A,PROX1,STK11,KIF14,CCND2,MAPKAP1,TNFSF11,CLU,PTK2B,PKN1,EDN3,GRM4,CDKN1A,IL1B,CCR7,TRAF2,CCNT1,SNX9,GDF15,PAK4,TRAF7,PRKAA1,DLG4,IRAK2,CAMK1,KIDINS220,CCNH,TAOK3,AGT,CAB39,DBNL,DAB2IP,RIPK1,THBS1,PAK6,DUSP5,PLCE1,FGF2,CENPE,EGF,MAPK8IP3,NTRK3,IQGAP1,PDPK1,PIK3R5,CARD14,RPTOR,TNFRSF11A,ERBB2,AKT1,CYR61,PROK1,ITB,CALM2,RALB,PDGFC,TTBK1,EGFR,NTRK2,PAK1,RPS3,TAOK2,TIRAP,IL18,UBC,ADAM8,ADAM17,TNIK,GHRL,NRG1,KIT,PINK1,ACE,CALM3,TAOK1,SHC1,DVL3,DDR2,PEA15,MAPKAP2,DUSP19,TGFA,TGFB2,CCNL1,SPDYA,PRKCD,MST1R,DUSP7,TLR3,PRKACG,STOX1,RET,FRS2,NAB2,GPRC5B,CRK,NOD2,MLST8,MAP4K2,ADAM9,GRM5,MAP2K1,EFNA1,ADRB2,PTK2,ROBO1,CDK1,ADORA2B,PLA2G1B,PDGFD,INSR,PRNP,MALT1,AZU1,RASGRP1,OXSR1,MAP3K11,TLR6,HRAS,TRAF6,DOK7,MUC20,UBE2N,NRXN1,ADIPOQ,TNFSF15,CIB1,NTF3,ZFP91,PRKAR1B,CXCL17,PTPN1,SCSAR1,MAP3K5,PDGFA,ELANE,NTRK1,COP58,STK39,CALM1,MTOR,MAP3K3,DAXX,LAT,EMP2,CCNL2,TNF,TLR9,UBE2V1,ITGB3,CCL5,PIK3R6,SRICIN1</p>
GO:0051345 positive regulation of hydrolase activity	4.24E-05	4.24E-05	<p>ALS2,CX3CL1,CCL26,SELE,FYN,RALBP1,NR1H3,FAS,BAK1,GABARAPL2,TBC1D22A,CYFIP2,PPP1R12A,RASGRF1,GNA15,CASP8,NGFR,TBC1D22B,TBC1D1,FGFR2,EVIS,RHOA,FGFR3,RASGRP2,GNB5,PFN2,SNX13,PICALM,TXK,GRAMD4,RAP1GAP,DNAJC10,DYNC1I2,FGFR1,RAPGEF3,MEF2C,GSK3B,WNT11,PPP1R15A,GNAS,DOCK9,DYNLL1,DNAJB11,ITGA6,APOH,NLRP1,ESR1,PSME1,MSH2,TBC1D2,HSP90AB1,BCL2L13,TBC1D10A,PPM1F,SH3BP1,DNAL4,SGSM3,RANGAP1,LGMN,HTR2A,ARHGEF7,CCL22,CCL17,MEFV,PYCARD,C TSH,SFRP1,ARHGEF10,SYDE1,PRKD2,BBC3,CAV2,SSBP1,NOD1,CCL24,TBC1D13,RAPGEF1,TBC1D12,PFN1,CCL2,CCL1,ODAM,TBC1D9,RAPGEF2,APOA5,CORO1C,GPLD1,VEGFA,DAP,FAM162A,APC2,HSPE1,RAB3GAP1,FASLG,APOA1,GNA13,ADRA1A,TNFSF10,ACVRC1,PLCG1,SEMG1,TBC1D20,S1PR4,CCR7,TRAF2,PIN1,PLA2G5,HIP1,POT1,ATP1B2,SNX9,ARHGEF16,HIP1R,CCL25,TBC1D5,DNAJB1,PPARG,TBC1D14,MTSSL1,NMUR2,ROCK2,MYBPC3,PDGFRA,DHX9,DOCK10,TBC1D4,TANK,ALDOB,RIPK1,MTCH1,BCL2L10,FGF2,GRTP1,TPM1,NTRK3,PDPK1,SGSM2,BCAS3,ERBB2,AKT1,NLRP12,EVISL,EPHA2,RG516,TOR1AIP1,PIP5K1A,S100A8,EFNA3,CALM2,PKP4,ARL6IP5,AGTR1,TTBK1,EGFR,EPHA1,ST18,NTRK2,GSN,USP6NL,RPS3,ITGB1,AKAP6,EDNRA,RABGAP1L,HNRNPUL,ADPRHL1,RHOC,GNAQ,CXCL13,TIAM1,KIT,XDH,DYNC1I1,PINK1,RAPGEF6,ABR,CALM3,MYL3,FCRL3,DVL3,NLRP3,S100A9,IFI16,AIM2,PRKCD,PLXNB1,DL1,TSC1,NDEL1,SMAD3,SGSM1,TBC1D2B,TBC1D16,ARF4,FNTA,STAT3,LGALS9,COL4A3,TBC1D10B,PRELID1,EFNA1,LIMS1,ROBO1,SETMAR,RALGAPB,PLA2G1B,SOX7,NMUR1,P2RY6,RASGRP4,EIF2AK3,RASGRP1,NET1,HRAS,TBC1D10C,BOK,GRIN1,RHOG,SNX18,SCRIB,CCL13,TNFSF15,SGS6,LCK,NTF3,N DUF113,ARAP1,BCR,MAPT,MAGI2,SEMA4D,MAPK12,AGRN,RALGAP2,PRTN3,NF1,DAPK1,TBC1D9B,C5AR1,MAP3K5,S100A10,MBP,LPAR1,ASPH,NTRK1,RYR2,C6ORF89,CAL</p>
GO:0018108 peptidyl-tyrosine phosphorylation	4.44E-05	4.44E-05	<p>FGR,CRLF1,MATK,FYN,MVP,IGF1,CD74,CD44,FLT4,STYK1,TNK2,ERBB3,FGFR2,PRKCZ,HYAL2,FGFR3,NCK2,TXK,FGFR1,NOX4,DOCK3,TREM2,ABL1,NRP1,OSM,PDGFB,GRAP2,PTK6,ANGPT4,HCK,MAPK3,ARL2BP,CSK,SFRP1,TGFB1,TYK2,PPP2R1A,JAK3,CAV1,CSF3,FBXW7,BST1,CBL,CD81,IL23A,PTPN6,FRK,VEGFA,GHR,THBS4,PRLR,PPP2CA,CBLB,ZAP70,ERRF1,ARHGEF2,PTK2B,KDR,LIF,EPO,SH3BP5,VPS25,DLG4,EPHB2,IL6ST,PDGFRA,TEC,AGT,IL6,BLK,ABI1,ENPP2,EGF,FGF7,IGF1R,TP53,CBLC,DGKQ,TTBK1,EGFR,EPHA1,NTRK2,IL18,FER,ADAM17,BANK1,KIT,ACE,ZFYVE28,ITGB2,SHC1,IL6R,FGFR4,JAK1,DDR2,PKDC,IL20,TGFA,PRKCD,IL15,CSF2,IL131RA,SYK,GPRC5B,STAT3,IL12A,GRM5,EFNA1,PTK2,INSR,SOCS5,PRNP,PARP14,TNK1,SH3BP5L,PTPN2,CCLF1,DOK7,CHMP6,GRB2,STAP2,ERBB4,HCL51,PAK2,FES,LCK,EFNA5,NTF3,NF2,TNFRSF18,SEMA4D,PTPN1,ZGAP2,SRC,PDGFA</p>



GO:0043405 regulation of MAP kinase activity	4.84E-05	<p>DVL2, SPAG9, MAP4K5, IGF1, MAP2K3, EIF2AK2, HYAL2, MAP3K13, MAP2K7, FGFR1, EDN1, TP73, MEF2C, GSTP1, MAP3K4, ERP29, IRAK3, GADD45B, CRKL, PDGFB, MAP3K7IP1, MAPK3, AXIN1, TGFBI, PPP2R1A, CAV1, NOD1, RAPGEF1, CDK5RAP3, DUSP3, HIPK3, MADD, CD81, DUSP16, TPDS2L1, SASH1, MAPK14, DUSP22, VEGFA, GHR, PPP2CA, FGF1, MAPKAPK3, GADD45A, RGS2, RGS4, DUSP1, TNFSF11, LAX1, PKN1, EDN3, GRM4, IL1B, TRAF2, GDF15, TRAF7, PRKAA1, INPP5K, GPS2, EPHB2, IRAK2, PTPN22, KIDINS220, TAOK3, DBNL, DAB2IP, RIPK1, SORL1, THBS1, DUSP5, PLCE1, FGF2, EGF, MAPK8IP3, RGS3, IGF1R, NTRK3, KSR1, PIK3R5, TNFSF11A, ERBB2, CBL, PROK1, DUSP10, PDGFC, EGFR, PTPRJ, PAK1, RPS3, TAOK2, UBC, ADAM8, TNIK, PPEF2, GHRL, NRG1, KIT, DUSP2, TAOK1, SHC1, DVL3, PEA15, MAPKAPK2, DUSP19, TGFA, PAQR3, PRKCD, MST1R, DUSP7, RET, SPRED1, FRS2, SIMPD1, CRK, NOD2, CDK12, MAP4K2, ADAM9, MAP2K1, RGS14, GPS1, ROBO1, CDK1, ADORA2B, PLA2G1B, PDGFD, INSR, RASGRP1, MAP3K11, TRIB1, TLR6, HRAS, TRAF6, MUC20, UBE2N, ADIPOQ, DUSP8, HGS, NTF3, AIDA, CXCL17, PTPN1, NF1, CSAR1, MAP3K5, PDGFA, ELANE, SPRED2, NTRK1, STK39, DAXX, TNF, TLR9, UBE2V1, LYN, PIK3R6</p>
GO:0061572 actin filament bundle organization	4.84E-05	<p>CX3CL1, BAIAP2L1, MYOC, LIMA1, LIMCH1, RHOA, PFN2, CDC42, CLASP1, ARHGEF10L, ADD2, FSCN1, RAPGEF3, ITGB5, WNT11, ADD1, PXN, SLC9A1, EZR, SORBS1, ABL1, NRP1, PPM1F, SFRP1, ARHGEF10, MET, FSCN3, LIMK1, TESK1, PFN1, TNFAIP1, NEDD9, PHACTR1, DPYSL3, STMN1, APOA1, TGFB3, PLS1, MYO1B, PPFIA1, INPP5K, SPIRE1, ROCK2, FHOD1, LCP1, RAC1, ARRB1, TPM1, PHLDDB2, EPHA1, PAK1, EPS8, RHOC, FMN2, WASF2, ZYX, SHANK1, CLASP2, DLCL1, TSC1, SYNPO2L, SERPINF2, SYNPO, SYNPO2, CORO1B, RHOD, KCTD13, PPM1E, BAIAP2, PARK2, NF2, ARAP1, FSCN2, ESPN, PFN3, SRC, S100A10, LPAR1, AIF1, SPIRE2</p>
GO:0072659 protein localization to plasma membrane	4.97E-05	<p>ITGA3, EHD2, PRKCH, ANK1, GOPC, PPP2R5A, TTC7A, LRP6, PICALM, ACTN2, STX7, EFR3B, TESC, EZR, SORBS1, TREM2, TSPAN15, PPIL2, VTI1B, CSK, CLIP3, TGFB1, AGR2, TSPAN14, RANGRF, SLC9A3R1, RAB34, RAPGEF2, GOLPH3, KCNIP3, SPTBN1, TMEM59, VAMP8, RHOQ, PLS1, RAMP3, LRP1, ACSL3, PACSIN1, BBS2, RAP2A, MACF1, DPP6, ARHGEF16, PPFIA1, EFR3A, RAM P1, INPP5K, FLOT2, VPS4A, EPHB2, NUMB, ROCK2, MRAP2, TMBIM1, STXBP1, KIF13A, FLOT1, PDPK1, CLTC, RAB40B, AKT1, EPHA2, PIP5K1A, RAB13, GOLGA4, ANK2, NKD2, PIK3R1, EGFR, ITGB1, RILPL2, ANK3, DAB2, PID1, TNIK, ZFYVE27, GOLGA7B, FCHO2, APPL1, TSPAN33, RAPGEF6, SPTBN4, SQSTM1, WNT4, CNST, PKDCC, CLASP2, PRKCI, CDK5, ARF6, TTC7B, CACNB2, RAB8B, SCN3B, STX3, TSPAN5, TMEM150A, PTPN9, KIF5B, PRKCE, BCL2L1, BSG, RAB37, JUP, BBS1, PACS1, RHOG, GAK, PACS2, AKAP5, NRXN1, ADIPOQ, KCNB2, PKP3, CIB1, KCNIP4, RILPL1, RAB40C, S100A10, SMURF1, SYS1, EMP2, TNF</p>
GO:0031349 positive regulation of defense response	5.53E-05	<p>SARM1, CREBBP, CX3CL1, FYN, NR1H4, POLR3B, CD6, MATR3, BIRC3, NR1H3, TNIP3, CYBA, PUM2, CREB3L3, CASP8, HYAL2, UFD1L, PRKACA, PVR, PTGS2, TXK, UBE2K, PIK3C3, ITCH, XRCC5, MEF2C, WDFY1, MGST2, IRAK3, MAP3K1, PGC, OSM, MAP3K7IP1, EP300, RPS6KA5, NFKBIA, HCK, RNF125, RIOK3, PYCARD, RELB, RPS19, PTPRS, CAV1, NOD1, SERPINE1, ICAM2, DHX58, CRTAM, UNC93B1, IL23A, SNX4, MAPKAPK3, IFIH1, PARK7, SFPO, MUC5B, TNFAIP3, VAMP8, TNFSF11, CCR2, SFTPA1, IRF1, IL1B, FFAR2, CCR7, NR1D1, IRF3, TICAM1, SEC14L1, LBP, SMDL3B, F12, TRAF3, RFTN1, ANKRD17, CLEC10A, GPS2, POLR3F, SFTPD, KRAS, IRAK2, PTPN22, RSAD2, IL6ST, PUM1, ETS1, CD36, AGT, DHX9, IL6, TANK, DAB2IP, CNPY3, RIPK1, FLOT1, DDX60, NLRC5, PDPK1, TNFSF11A, NLRP12, S100A8, REG3G, AGTR1, MUC4, TNIP1, TTBK1, MFHAS1, LRSAM1, PAK1, TIRAP, CD226, IL18, UBC, ADAM8, PIK3AP1, FCER1G, ITGB2, S100A11, FCLR3, LRRCL4, NAPEPLD, SLAMF6, MAPKAPK2, CTSS, S100A9, IFI16, AIM2, PRKCD, IL15, OTUD4, TLR3, KLB1, SYK, PRKACG, CLEC4D, AP1G1, GPRC5B, NOD2, POLR3D, IL12A, KLK7, MUC15, ITGAM, CD14, PRKCE, FGA, MALT1, IL17D, RASGRP1, MYD88, REL, TLR10, TLR1, TLR6, HRAS, TRAF6, LPL, MUC20, UBE2N, PAK2, NPLOC4, CADM1, TBK1, TMEM173, FAM19A3, MUC6, MUC1, IRF7, LAMP1, FFAR3, CD300LF, PDE2A, HEXIM1, TLR5, TREML4, S100A14, SRC, PLCG2, IRAK4, CARD11, SH2D1B, RAET1G, AGER, HSPA1B, NCR3, NFKBIL1, MUC21, TRIM15, LGR4, MUC12, TNF, RBM14, TLR9, UBE2V1, PRKDC, LYN, TRIL, IKKBE, CCL5</p>

GO:0009896 positive regulation of catabolic process	5.80E-05	5.80E-05 ANKIB1,UPF1,OSBPL7,MLXIPL,DCN,NUB1,RNF14,IGF1,TNFRSF1B,RNF19A,HERPUD1,GNAI3,ATXN3,SIRT2,PABPC1,RAB7A,TNRC6C,ITCH,KEAP1,HSP90AA1,LRP2,GSK3B,KHSRP,EDEM2,EZR,WAC,GTPBP1,TNRC6B,SPTLC2,HIF1A,SMAD7,RNF125,AXIN1,TSC2,STUB1,MEFV,OAZ1,SGTA,AKT2,GSK3A,CAV1,DVL1,CPEB3,FBXW7,SH3D19,APOA5,CD81,CAMKK2,CDKN1B,RBM24,GPLD1,CSNK1A1,RAB3GAP1,SUMO1,NFE2L2,TMEM59,PARK7,KIAA1324,MFN2,STK11,APOA1,TNFAIP3,RAB3GAP2,IDE,CLU,LRP1,PFKFB2,C4BP4,RNF114,CNOT1,IL1B,TICAM1,KDR,EIF2AK4,CBFA2T3,SH3BP4,SNX9,SESN2,ATPIF1,TRIM22,PRKAA1,HSPBP1,EDEM1,PUM1,RNF138,APC,UBQLN1,PRRS1,CALCOCO2,DAB2IP,RNF144B,SORL1,BBS7,PRICKLE1,FURIN,NKD1,TOB1,CSNK1D,ARNT,OAZ3,DTL,RALB,METTL14,NKD2,PLK2,MTDH,LRSAM1,ADAM8,RNF144A,DAB2,SCOC,LONRF1,FLCN,LARP1,CNOT8,PHKG2,RNF166,PINK1,APOA2,SNF8,HK2,GPSM1,VPS11,VPS28,STX5,PYHIN1,TIPARP,DTX3L,ZC3H12A,PRKCD,TP53INP1,PACSN3,ARIH1,RILP,POLR2G,ADAM9,IRS1,PCSK9,ADRB2,PTK2,LONRF2,PFKFB3,INSR,SOC55,TRIM8,PTEN,TRIB1,SNX33,BNIP3,SMCR8,MAGEF1,ARIH2,PNPLA2,ZC3H12D,RAD23A,OAZ2,MEX3D,RNF41,PTTG1P,TBK1,FAF1,PARK2,ZFP36L1,IRS2,NDUFA13,TPCN1,PPARA,ENTPD5,NANOS3,NANOS2,NANOS1,SUPT5H,PTPN1,DAPK1,HTT,ATG7,UVRAG,SMURF1,GIGYF2,DOM3Z,TRIM71,CSNK1E,PLIN5,TNF,T
GO:1901653 cellular response to peptide	5.80E-05	5.80E-05 PRKAR2B,PKD2,BAIAP2L1,PIK3C2A,IGF1,ATP6V0A1,HDAC9,BCAR1,NGFR,PRKCQ,CACNB1,PKM2,PRKCZ,NUCKS1,CAMK2A,PRKACA,ACTN2,GSK3B,GNAS,PXN,SORBS1,XBP1,LGMN,TSC2,AKT2,ATP1A3,JAK3,PIK3R2,GSK3A,CAV2,CAV1,NOD1,GCK,HDAC5,PRKAR1A,GAB1,TCIRG1,TIMELESS,GPLD1,GHR,PRLR,ATP6V0E1,KAT2B,PRKAR2A,CISH,ARHGFE2,P1K3R3,RHOQ,IDE,GOT1,CRHR1,SOC52,ADCY7,PIK3CA,NR4A1,LRP1,IL1B,RPL23,STAT5A,GDF15,PPARG,PTPRE,INPP5K,PTPN22,ROCK2,APC,CD36,TBC1D4,GH2,ATP6V1G1,CPEB2,ADCY3,IGF1R,PDPK1,TP53,CACNA1A,AKT1,CAPN10,RAB13,AGTR1,AHSG,PIK3R1,FER,PDE3B,PID1,ADCY8,GHRL,APPL1,ATP6V0D1,ZBTB7B,SHC1,SH2B2,ADCY9,INHBB,PRKCI,PRKCD,ADCY1,CDK5,PRKACG,TSHR,TSC1,VWA2,PRKCB,NOD2,STAT3,AHCYL1,GRM5,IRS1,PCSK9,ADRB2,PTK2,SIK2,PLA2G1B,INSR,ATP6V0E2,SLC25A33,PRNP,RELA,ADCY5,STAT5B,TLR6,ADCV6,PTPN2,BAIAP2,GRB2,PTPN11,ADIPQ,ATP6V0A2,ZFP36L1,ATP6V0C,FFAR3,IRS2,PRKAR1B,PTPN1,SLC30A10,CASP4,SRC,ENPP1,AGER,CPEB1,ATP6V1E2,PR
GO:0030198 extracellular matrix organization	5.85E-05	5.85E-05 ITGA6,ITGA3,ITGA2B,DCN,PHLDB1,CD44,TNFRSF1B,TIMP2,VCAN,COL9A2,ELN,LAMC3,COL11A1,CLASP1,FSCN1,FAP,COL5A3,COL4A4,ITGB5,ITGAE,COL16A1,NID2,KIF9,ICAM1,ITGA6,TGFB2,TLL2,MADCAM1,PDGFB,CHADL,CTSG,MMP9,LAMA1,MMP15,HAS3,TGFB1,ICAM4,HAS1,SERPINE1,SH3PD2A,ICAM2,COL1A1,VWF,SPARC,COL7A1,ITGB6,FN1,TNR,EXOC8,NID1,TTR,TGFB1,MMP19,LRP1,MATN4,KDR,NCAN,PXDN,COL5A1,LAMA5,MATN3,ITGB4,BCAN,LOXL2,COL4A2,ADAM19,ITGA7,AGT,LAMC1,LCP1,FLOT1,MMP7,MMP13,THBS1,ITGA11,ADAM10,CYP1B1,EMILIN1,FGF2,FBN2,LUM,ITGB7,RB1,FURIN,ITGAX,COL6A1,COL6A2,HSPG2,DPT,ADAM15,COL8A1,PHLDB2,SCUBE3,CSGALNACT1,NOTCH1,ADAM12,SERPINH1,ITGB1,ADAM8,DMP1,ADAMTS3,MMP14,MYO1E,CREB3L1,ITGB2,FGFR4,NPHS1,MATN1,VCAM1,DDR2,CTSS,COL6A3,CLASP2,ADAMTS9,MFI2,KLK1,COL1A2,HTRA1,JAM3,FBN1,MFAP4,MMP10,SMAD3,SERPINF2,KLK2,TNXB,COL3A1,CTR82,COL4A3,KLK7,ITGAM,FGA,COL8A2,BSG,DAG1,SH3PD2B,A2M,COL18A1,TMPR
GO:1901699 cellular response to nitrogen compound	5.85E-05	5.85E-05 CFTR,PRKAR2B,PKD2,BAIAP2L1,FYN,PIK3C2A,BCRA1,NR1H4,DPEP1,IGF1,CPS1,UBR2,RRAGD,ATP6V0A1,CTNNA1,HDAC9,BCAR1,KCNQ1,PUM2,ATP2B4,GNA15,NGFR,PRKCQ,CACNB1,PKM2,PRKCZ,SIRT2,NUCKS1,CAMK2A,PRKACA,ACTN2,GNB1,RAPGEF3,CHRNA3,MEF2C,CACNA1S,GSK3B,SSH1,SRRT,MT3,GNAS,GNA11,PXN,SLC9A1,ESR1,EZR,SORBS1,ABL1,HCN2,XBP1,ZC3H7B,LGMN,DICER1,RIOK3,MAPK3,TSC2,AQP8,AQP9,SFRP1,AKT2,APLP1,TGFB1,ATP1A3,JAK3,SLCSA5,PIK3R2,GSK3A,CAV2,CAV1,NOD1,GCK,RAPGEF1,CPEB3,DDX5,HDAC5,PRKAR1A,GAB1,RAPGEF2,FOLR1,TCIRG1,TIMELESS,GPLD1,GHR,PRLR,ATP6V0E1,CPEB4,KAT2B,PRKAR2A,CISH,JIFIH1,ARHGFE2,RRAGC,PIK3R3,RHOQ,IDE,GOT1,CRHR1,SOC52,ADCY7,PIK3CA,ZC3H7A,NR4A1,CDK2,LRP1,IL1B,RPL23,STAT5A,RAP1B,ATF4,AAAT,SH3BP4,GDF15,SESN2,DIAPH1,PPARG,PTPRE,INPP5K,PTPN22,ROCK2,PUM1,APC,CD36,ZC3H10,DHX9,TBC1D4,CIB2,GH2,ATP6V1G1,FLOT1,CPEB2,ADCY3,HCN4,CASP6,TARBP2,IGF1R,PDPK1,NCOR1,TP53,RPTOR,CACNA1A,TRPM2,AKT1,CAPN10,RAB13,RALB,AGTR1,SLIT2,AHSG,PIK3R1,GLRA1,EGFR,AKAP6,FER,PDE3B,PID1,LARP1,RRAGA,ADCY8,GNAQ,GHRL,APPL1,ATP6V0D1,ZBTB7B,SHC1,ADAR,CHRN2,SH2B2,ADCY9,CAPN2,INHBB,GABRB1,PRKCI,ZC3H12A,PRKCD,TERT,HCN1,ADCY1,CDK5,PRKACG,TSHR,TSC1,CASP7,VWA2,PRKCB,SMAD3,NOD2,CTNNA1,CHRM1,STAT3,AHCYL1,GRM5,MAP2K1,IRS1,PCSK9,ADRB2,PTK2,SIK2,SMAD1,PLA2G1B,INSR,ATP6V0E2,SLC25A33,P2RY6,PRNP,PDE3A,ADRBK1,RELA,ADCY5,STAT5B,JUP,TLR6,ADCV6,PDE12,PTPN2,BAIAP2,CDK5R1,SHMT1,SLC38A9,GRB2,PTPN11,PRKRA,KCNE1,CHRM2,ADIPQ,SLC8A1,TMEM173,PDE4B,HSF1,ATP6V0A2,PARK2,ZFP36L1,IFIT1,ATP6V0C,FFAR3,IRS2,PDE2A,AGRN,PRKAR1B,RYR1,PTPN1,NCOR2,HRH1,SLC30A10,CASP4,SRC,ENPP1,RYR2,MTOR,DAXX,AGER,TRIM71,GSTM2,CPEB1,AQP1,ATP6V1E2,PRKDC,LYN,MIR145

GO:1903829 positive regulation of cellular protein localizat	5.92E-05	5.92E-05 ITGA3,MARK4,FYN,BID,IGF1,PRKCH,CENPQ,USP36,CROCC,CASP8,NGFR,HYAL2,CSNK2A2,TP63,TP73,RAPGEF3,EPB41L2,GSK3B,RBM22,EDEM2,EZR,SORBS1,TREM2,HSP90A8 1,HPS4,GZMB,E2F1,PAR6A,NECAB2,UBR5,OA21,AKT2,CLIP3,BBC3,TGFB1,PIK3R2,GSK3A,AGR2,CDK5RAP3,YWHAE,RANGRF,UBE2D3,FBXW7,TMEM30A,SPTBN1,RTN4,CCDC 88A,PARK7,RHO,TCP1,PLS1,GPSM2,RAMP3,LRP1,ACSL3,IL1B,RAC2,LIF,ARHGFE16,SESN2,PRKAA1,SYT11,XPO4,EPHB2,CAMK1,EDEM1,YWHAQ,ROCK2,APC,PRRS1,CCT7,NM T1,NUMA1,SORL1,PDPK1,GAS8,NPEPPS,BCAS3,WRAP53,TP53,ERBB2,AKT1,EPHA2,TP53BP2,NKD2,PIK3R1,EGFR,TCF7L2,B3GAT3,ITGB1,ANK3,BICD1,BAG3,GPD1L,CCT8,PINK 1,EPB41,UBE2J2,ITGB2,PCNT,VPS11,VPS28,SQSTM1,CNST,FZD5,CCT3,PRKCI,PHYHIN1,DTX3L,ZC3H12A,BAP1,PRKCD,GNL3,TERT,MICALL2,YWHAZ,ARF6,CCT2,STX3,SMAD3,CD T1,PTPN9,ITGAM,YWHAQ,CDK1,KIF5B,PRKCE,TRIM8,HDAC3,BCL2,PRNP,EIF2AK3,ABLIM3,SNX33,JUP,HRA5,RHOG,ARH2,DMAP1,AKAP5,NRXN1,F2,OA22,HCLS1,TMEM173,C
GO:0071417 cellular response to organonitrogen compour	7.95E-05	7.95E-05 CFTR,PRKAR2B,PKK2,BAIAP2L1,FYN,PIK3C2A,BRCA1,NR1H4,IGF1,UBR2,RRAGD,ATP6V0A1,CTNNA1,HDAC9,BCAR1,KCNQ1,ATP2B4,NGFR,PRKCO,CACNB1,PKM2,PRKCZ,SIRT2 ,NUCKS1,CAMK2A,PRKACA,ACTN2,GNB1,RAPGEF3,MEF2C,CACNA1S,GSK3B,SSH1,GNAS,PXN,SLC9A1,EZR,SORBS1,ABL1,HCN2,XBP1,LGMN,MAPK3,TSC2,AQP8,AQP9,SFRP1, AKT2,APLP1,ATP1A3,JAK3,SLC5A5,PIK3R2,GSK3A,CAV2,CAV1,NOD1,GCK,RAPGEF1,CPEB3,HDAC5,PRKAR1A,GAB1,RAPGEF2,FOLR1,TCIRG1,TIMELESS,GPLD1,GHR,PRLR,ATP6 V0E1,CPEB4,KAT2B,PRKAR2A,CISH,ARHGFE2,RRAGC,PIK3R3,RHOQ,IDE,GOT1,CRHR1,SOC2,ADCY7,PIK3CA,NR4A1,LRP1,IL1B,RPL23,STAT5A,RAP1B,ATF4,AAAT,SH3BP4,GD F15,SESN2,DIAPH1,PPARG,PTPRE,INPP5K,PTPN22,ROCK2,APC,CD36,TBC1D4,CIB2,GH2,ATP6V1G1,CPEB2,ADCY3,HCN4,CASP6,IGF1R,PDPK1,TP53,RPTOR,CACNA1A,TRPM2,A KT1,CAPN10,RAB13,AGTR1,SLIT2,AHSG,PIK3R1,GLRA1,AKAP6,FER,PDE3B,PID1,LARP1,RRAGA,ADCY8,GHRL,APPL1,ATP6V0D1,ZBTB7B,SHC1,SH2B2,ADCY9,CAPN2,INHBB,GA BRB1,PRKCI,PRKCD,HCN1,ADCY1,CDK5,PRKACG,TSHR,TSC1,CASP7,VWA2,PRKCB,NOD2,CTNNA1,STAT3,AHCLY1,GRM5,IRS1,PCSK9,ADR2B,PTK2,SIK2,PLA2G1B,INSR,ATP6V0E 2,SLC25A33,P2RY6,PRNP,PDE3A,RELA,ADCY5,STAT5B,JUP,TLR6,ADCY6,PTPN22,BAIAP2,SHMT1,SLC38A9,GRB2,PTPN11,KCNE1,ADIPOQ,SLC8A1,PDE4B,ATP6V0A2,PARK2,ZFP3
GO:0060627 regulation of vesicle-mediated transport	1.10E-04	1.10E-04 FGR,CFTR,RALA,VPS41,BAIAP3,SELE,SYT7,SLC11A1,EHD2,NR1H3,GAB2,AP2S1,C12ORF4,GOPC,NEDD4L,CYBA,TBC1D22A,STYK1,TKN2,ABCA7,TBC1D22B,TBC1D1,CD84,EVIS,5 YT1,RAB27A,SCARB1,LLGL2,PICALM,CLASP1,RAB7A,PTPN23,STXB2,ACTN2,MAP2,RIMS1,RAB21,MTMR2,EZR,UNC13D,TBC1D2,ABL1,NRP1,STX18,TBC1D10A,PACSIN2,CACN A11,SGSM3,HCK,MAPK3,SMPD3,NECAB2,TSC2,PYCARD,CSK,VPS18,AKT2,CLIP3,CBL1,CAV1,STX1A,WASL,TFR2,SERPINE1,SFRP4,TBC1D13,TBC1D12,GOSR1,CCL2,TBC1D9,EH D1,APOA5,CBL,EXPH5,TULP1,SNX3,VEGFA,SNX4,SNX17,RAB3GAP1,SDC1,AAK1,RIMS3,TSPAN1,VAMP8,CLU,CCR2,LRP1,C4BPA,ACSL3,SDC4,PACSIN1,RAB17,IL1B,C3,TBC1D20 ,HIP1,CALY,CHMP2A,HIP1R,TBC1D5,TBC1D14,DLG4,VPS4A,SFTPD,DOCK2,RINT1,CD63,TBC1D4,RAC1,STAM,TOR1A,STXB1,FLOT1,ARRB1,SORL1,PREB,EGF,GRTP1,RAB15,ST ON2,CDH13,SGSM2,ARRB2,EVISL,SYTL1,ARF1,SYT2,RALB,AHSG,CPLX2,LRSAM1,USP6NL,SYTB,DOC2A,FER,BICD1,RABGAP1L,DAB2,ADPRHL1,WNT3A,PROM2,PINK1,FCER1G,S NF8,ATP13A2,ITGB2,VPS11,VPS28,CNST,PKDCC,CLASP2,LRPAP1,STXB5,SYTL3,SYK,TRPV6,ARF6,PACSIN3,RAB8B,C2,B2M,AP1G1,SGSM1,TBC1D2B,TBC1D16,STX18,STXB6,L GALS9,CPLX1,MAP2K1,PCSK9,TBC1D10B,LMAN2,NLGN1,ITGAM,PDCE6IP,FGA,RAB33B,AZU1,RAB37,SYT12,SNX33,TBC1D10C,MCTP1,RIMS2,RUFY1,ANO6,CALR,ADIPOQ,FES, ANXA2,CAMK1D,RAB11B,PARK2,HGS,NTF3,ANKFY1,LAMP1,CD300LF,HYAL3,MAGI2,PTPN1,PRTN3,MYO18A,CACNA1H,SRCE,TBC1D9B,UVRAG,DLL1,SCAMP5,INPP5F,RUNDC1,
GO:0018107 peptidyl-threonine phosphorylation	1.10E-04	1.10E-04 CAMKK1,DAPK2,WNK1,HIPK2,SIRT2,CAMK2A,MARK2,UBE2K,GSK3B,CAD,NLK,VRK1,MYLK2,SMAD7,AXIN1,PRKD2,TGFB1,GSK3A,PRKAG2,HIPK3,CAMKK2,EIF4G1,STK11,PKN1 ,INPP5K,DCLK1,CAMK1,ROCK2,ACVR1B,CAB39,SPRY2,EGF,MYLK3,PDPK1,RPTOR,AKT1,CALM2,DGKQ,CAMK2D,MYLK4,TTBK1,PAR3,CAMK2G,CHEK1,PRKCA,PPEF2,PHKG2,P SKH1,CALML3,TGFB2,PRKCD,CAMKV,LMTK2,PHKG1,CDK5,STOX1,SPRED1,PRKCB,DAPK3,MAP2K1,CDK1,DCLK2,AZU1,OXSR1,TKNS,CDK5R1,ULK1,CAMK1D,TBK1,CDK10,SBK1

GO:0097190 apoptotic signaling pathway	1.10E-04	1.10E-04 HTT,MAP3K5, TOPORS,TFDP1,OPA1,SGMS1,DAXX,HSPA1B,TRIM39,MLLT11,FIS1,SCRT2,TNF,GPX1,TNFSF12,MIF,IKBKE CASP10,CFLAR,CD38,PKK2,CX3CL1,GGCT,MAPK8IP2,PLAUR,BRCA1,ZMYND11,BID,IGF1,CD74,FAS,CD44,TNFRSF1B,BCLAF1,BAK1,DAPK2,TNFRSF9,HERPUD1,FNIP2,RELT,CUL1,TRAF1,CASP8,NGFR,HIPK2,EYA2,ERBB3,SP100,HYAL2,FGFR3,CSNK2A2,TP63,ENO1,DNAJC10,TP73,KIAA0141,GSK3B,GSTP1,PPP1R15A,DNM1L,ICAM1,ITGA6,RFFL,TGFB2,MSH2,TMEM14A,ABL1,PRODH,PPM1F,XBP1,BIK,HMOX1,EP300,GZMB,HIF1A,MMP9,E2F1,STK24,PYCARD,CTSH,BMF,SFRP1,TIMM50,BBC3,TGFB1,GSK3A,DFNA5,CAV1,CASP2,HSPB1,SERPINE1,DDX5,YWHAE,SLC9A3R1,FBXW7,MADD,LTBR,TPD52L1,PPARD,SOD2,DAP,NME5,ZNF346,FAM162A,STK25,BIRC6,NFE2L2,PARK7,SFPQ,ARHGEF2,FASLG,STK11,TNFAIP3,CLU,TNFRSF8,TNFSF10,ZNF205,SRGN,CDKN1A,IL1B,CD70,TRAP1,IFI6,RHOT1,TRAF2,TICAM1,HIP1,STYXL1,ATF4,EPO,HIP1R,UBE4B,PSME3,TRAF7,MYBBP1A,TPT1,LGALS12,DPF2,YWHAQ,FBXO18,UBQLN1,HRK,ACVR1B,AGT,TMBIM1,NMT1,DAB2IP,RIPK1,PPP2R1B,THBS1,BCL2L10,CYP1B1,CUL4A,PML,RHOT2,PDPK1,TP53,TNFRSF11A,AKT1,EPHA2,MCL1,TP53BP2,S100A8,ZNF385B,ARL6IP5,TNFRSF21,ST18,GSN,NACC2,TCF7L2,RPS3,BAG3,BCL2L11,PRKCA,SH3RF1,APPL1,CREB3L1,EYA3,PINK1,DEDD2,IL6R,ZNF385A,SYVN1,PEA15,ATF3,S100A9,DAPL1,HIPK1,ADORA1,IFI16,PRKCD,TLR3,TERT,CSF2,FASTK,YWHAZ,ZMAT4,RET,BAG5,SGPL1,CUL5,SMAD3,TMC8,CX3CR1,IL12A,LGALS9,FEM1B,PRELID1,PDILT,CRADD,YWHAG,GABARAP,CD14,BCL2L1,FGA,BCL2,PTEN,RPS7,SCG2,QARS,EIF2AK3,KRCC1,ZMAT3,RELA,TNFRSF10C,ZNF622,PHLDA3,PELI3,BRSK2,BNIP3,BOK,HIC1,PAK2,AEN,SIAH2,RNF41,LCK,PTTG1P,SIVA1,CIB1,PARK2,MUC1,P4HB,LAMP1,NDUFA13,WVVOX,TNFRSF4,TNFRSF18,FZD9,NOC2L,FHIT,BLOC1S2,DAPK1,CASP4,SRC
GO:0007173 epidermal growth factor receptor signaling p:	1.61E-04	1.61E-04 RHBDF1,PIK3C2A,PLAUR,BCAR1,STYK1,EPN1,RNF126,CDC42,NCK2,RAB7A,DGKD,EP515,RPS6KA5,MMP9,PTK6,ARHGEF7,TGFB1,AGR2,AREG,GAB1,FBXW7,CBL,HBEFG,CBLB,SAM2,ERRFI1,PTK2B,PIK3CA,PLCG1,EP515L1,HIP1,RHBDF2,HIP1R,VPS25,AGT,SPRY2,STAM,DAB2IP,PLCE1,EGF,IQGAP1,CDH13,PDPK1,GRB7,AKT1,CBL,RQCD1,PIK3R1,EGFR,FAM83A,SHC3,PTPRJ,FER,EP58,ADAM17,ZFYVE28,SHC1,PIGR,TGFA,SPRY1,AFAP1L2,PTK2,SOC5,BTC,PTPN2,CHMP6,GRB2,PTPN11,FES,HGS,ARAP1,SLC30A10,ZGPAT,SRC
GO:0060606 tube closure	1.88E-04	1.88E-04 DVL2,FUZ,LRP6,CELSR1,LRP2,GRHL2,KDM2B,TGFB2,MTHFD1,TSC2,TGFB1,COBL,DVL1,FOLR1,NPHP3,MTHFD1L,PRICKLE1,LMO4,SKI,GRHL3,DVL3,VANGL2,DLC1,SEMA4C,RPS7,DEAF1,SCRIB,PLXNB2,PHACTR4
GO:0038128 ERBB2 signaling pathway	1.88E-04	1.88E-04 RB2,ERBB4 MATK,MYOC,ERBB3,PTPN18,HSP90AA1,CPNE3,PTK6,STUB1,CDC37,GAB1,HBEGF,PIK3CA,EGF,ERBB2,GRB7,PIK3R1,EGFR,PTPRR,PRKCA,NRG1,NRG2,SHC1,CUL5,NRG4,BTC,G

GO:0001843 neural tube closure	1.88E-04	1.88E-04	DVL2,FUZ,LRP6,CELSR1,LRP2,GRHL2,KDM2B,TGFB2,MTHFD1,TSC2,TGFB1,COBL,DVL1,FOLR1,NPHP3,MTHFD1L,PRICKLE1,LMO4,SKI,GRHL3,DVL3,VANGL2,DL1,SEMA4C,RPS
GO:0034332 adherens junction organization	2.06E-04	2.06E-04	MYOC,CTNNA1,CDH3,LIMCH1,RHOA,TESK2,ACTN1,PVR,FERMT2,CLASP1,PTPN23,ACTN2,CDH17,COL16A1,CTTN,ADD1,SLC9A1,SORBS1,ABL1,NRP1,PPM1F,SMAD7,ARHGEF7,CSK,SFRP1,CORO1C,VEGFA,CDH6,MACF1,KDR,CDH15,LAMA5,ROCK2,RAC1,THBS1,CDH24,KIFC3,CDH11,CDH13,BCAS3,TBCD,PIP5K1A,PHLDB2,CDH18,PTPRJ,TAOK2,PTPRK,WHAMM,CADM3,CLASP2,DL1,TS1,RAB8B,PLEKHA7,DAPK3,CTNNA1,PTK2,LIMS1,CDH2,PTEN,RHOD,JUP,RCC2,CDH4,CDH5,CADM1,EFNA5,PIPSK1C,SRC,S100A10,CTNND1,LD
GO:1904375 regulation of protein localization to cell peripl	2.06E-04	2.06E-04	ITGA3,PRKCH,GOPC,PPP2R5A,PICALM,EPB41L2,STX7,SORBS1,TREM2,VTI1B,CSK,CLIP3,TGFB1,AGR2,RANGRF,SPTBN1,TMEM59,VAMP8,RHOQ,PLS1,GPSM2,RAMP3,LRP1,ACSL3,ARHGEF16,PPFIA1,VPS4A,EPHB2,NUMB,MRAP2,TMBIM1,NUMA1,PDPK1,CLTC,AKT1,EPHA2,NKD2,PIK3R1,EGFR,ITGB1,DAB2,PID1,APPL1,EPB41,SQSTM1,CNST,PKDCC,P
GO:0045785 positive regulation of cell adhesion	2.06E-04	2.06E-04	CX3CL1,FYN,CD6,IGF1,CD44,MYOC,AP3D1,PRKCQ,PRKCZ,FSTL3,CDC42,NCK2,TFRC,GLI2,PTPN23,GSK3B,COL16A1,SIRPG,TGFB2,EPB41L4B,IL12RB1,ABL1,NRP1,CRKL,PPM1F,TRIOBP,XBP1,GRAP2,SMAD7,ARHGEF7,OLFM4,PYCARD,CSK,SFRP1,IL7,RASAL3,PRKD2,JAK3,CDK6,CAV1,AGR2,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,IL23A,PTPN6,GCNT2,VEGFA,IL4,CD86,HYAL1,ZAP70,FN1,ZP4,APOA1,MYB,CD274,TNFSF11,PTK2B,CCR2,PIK3CA,RREB1,EFNB2,IL1B,CCR7,ZBTB1,KDR,PODXL,CCL25,RARA,FLOT2,IL6ST,ETS1,ADAM19,CD36,RAC1,IL6,FLOT1,TPM1,CDH13,PDPK1,ERBB2,AKT1,DUSP10,NFKBIZ,PIK3R1,EPHA1,DOCK5,PTPRJ,PAK1,RPS3,DOCK1,IL18,ANK3,ADAM8,CCL28,UTRN,FAM49B,PRKCA,FLCN,CXCL13,RUNX1,ICOSLG,ZBTB7B,VCAM1,NLRP3,JHH,TGFBR2,ICOS,SYK,TSC1,RET,STX3,CRK,NOD2,NFKBID,SERPINF2,CCDC88B,ADAM9,IL12A,LGALS9,LIMS1,SOC5,FGA,FRMDS,MALT1,AZU1,RHOD,JUP,SART1,GRB2,CALR,PTPN11,PAK2,LCK,CIB1,TNFRSF18,PDCD1,CD55,SRC,DPP4,PDCD1LG2,S100A10,CARD11,PNP,TGM2,AGER,AIF1,HLA-G,GPR56,MIR30B,ARL2,EMP2,HLA-DPB1,TNF,HLA-DMB,LYN,CCL5

GO:1990778 protein localization to cell periphery	2.31E-04	2.31E-04 ITGA3,EHD2,PRKCH,ANK1,GOPC,PPP2R5A,TTC7A,LRP6,PICALM,ACTN2,TULP3,EPB41L2,STX7,EFR3B,TESE,EZR,SORBS1,TREM2,TSPAN15,PPIL2,VTI1B,CSK,CLIP3,TGFB1,CAV1,AGR2,TSPAN14,RANGRF,SLC9A3R1,RAB34,RAPGEF2,TULP1,GOLPH3,KCNIP3,SPTBN1,TMEM59,VAMP8,RHOQ,PLS1,GPSM2,RAMP3,LRP1,ACSL3,PACSN1,BBS2,RAP2A,MACF1,DPP6,ARHGEF16,PPFIA1,EFR3A,RAMP1,INPP5K,FLOT2,VPS4A,EPHB2,NUMB,ROCK2,MRAP2,TMBIM1,STXBP1,KIF13A,FLOT1,NUMA1,PDPK1,CLTC,RAB40B,AKT1,EPHA2,PIP5K1A,RAB13,GOLGA4,ANK2,NKD2,PIK3R1,EGFR,ITGB1,RILPL2,ANK3,DAB2,PID1,TNIK,ZFYVE27,GOLGA7B,FCHO2,APPL1,TSPAN33,RAPGEF6,EPB41,SPTBN4,SQSTM1,WNT4,CNST,PKDCC,CLASP2,PRKCI,LZTLF1,CDK5,ARF6,TTCT7B,CACNB2,RAB8B,SCN3B,STX3,TSPAN5,TMEM150A,PTPN9,KIF5B,PRKCE,BCL2L1,BSG,RAB37,JUP,BBS1,PACSI1,RHOG,GAK,PACS2,AKAP5,NRXN1,ADIPOQ,KCNB2,PKP3,CIB1,KCNIP4,RILPL1,RAB40C,S100A10,SMURF1,SY51,EMP2,TNF
GO:0001817 regulation of cytokine production	2.36E-04	2.36E-04 FGR,CREBBP,CX3CL1,NOS2,CD4,RNF216,BRCA1,NR1H4,POLR3B,CD6,SLC11A1,CD74,MRE11A,BIRC3,SARS,FLT4,CYBA,EIF2AK2,PUM2,HDAC7,CDH3,PRKCO,ASB1,CD84,PRKCZ,NAV3,HYAL2,RORA,UFD1L,PTGS2,IGF2BP2,TBX21,TKX,NFKB2,ITCH,XRCC5,IL12RB2,C1QTNF3,GSTP1,IRAK3,NLRP1,EZR,TGFB2,HSP90AB1,IL12RB1,XBP1,HMOX1,EP300,HIF1A,RPS6KA5,SMAD7,RNF125,RIOK3,MEFV,PYCARD,CSK,HOMER2,LAPTM4B,IL7,GSDMD,RELB,PRKD2,TGFB1,PTPRS,JAK3,TAX1BP1,HSPB1,SERPINE1,GATA3,DHX58,CRAM,DTX4,PANX1,IL23A,MAPK14,IL17A,PDE4D,IL4,CD86,FOXPI1,IFIH1,SPTBN1,FN1,STAT1,IL1R1,PARK7,ARHGEF2,CD58,SLAMF1,APOA1,TNFAIP3,TGFB3,CD274,CLU,TNFRSF8,TRIM25,ADCY7,CCR2,CD244,LY9,SRGN,ZBP1,BTN2A2,LRRFIP1,IRF1,IL1B,C3,FFAR2,CCR7,IRF3,TRAF2,PIN1,TICAM1,ATF4,TWSG1,SEC14L1,LBP,BST2,TRPM4,TRAF3,RARA,ANKRD17,POLR3F,SYT11,SFTPD,CHIA,PTPN22,ROCK2,RSAD2,IL6ST,PUM1,HAVCR2,AGT,DHX9,IGF2BP3,GNPMB,RAC1,IL6,GATA4,IRF4,RIPK1,FLOT1,ARRB1,DDX60,THBS1,MAPKB1,CYP11B1,FURIN,NLRCS,NLRP12,ARNT,IL9,TNFRSF21,RPS3,TIRAP,IL18,ADAM8,ADAM17,FAM49B,GHRL,MMHB1,FCER1G,APOA2,RUNX1,IGF2BP1,NLRP4,NLRX1,IL6R,NLRP3,SLAMF6,MAPKAPK2,INHBB,FZD5,IFI16,AIM2,ZC3H12A,IL15,TLR3,CSF2,SYK,B2M,STAT6,SMAD3,GPRC5B,NOD2,SERPINF2,NLR3,CTNNA1,CCDC888,CX3CR1,POLR3D,IL12A,LGALS9,AFAP1L2,AGPAT2,TRIM56,CD14,PRNP,EIF2AK3,MALT1,AZU1,IL17D,RASGRP1,MYD88,KATS,RELA,HPSE,CD34,TLR1,TLR6,CMKLR1,GLMN,DHX36,TRAF6,LPL,CIDEA,CHID1,PER1,ZFP M1,F2,ADIPOQ,SETD2,UBA7,NPLOC4,CADM1,TBK1,TMEM173,PDE4B,SIGIRR,IRF7,FFAR3,PRG2,TLR5,CXCL17,SULF2,ANXA4,PCBP2,IL27,SPN,ELANE,PDCD1LG2,MBP,CARD11,DLL1,SCAMP5,RAET1G,TRAF3IP1,AGER,AGPAT1,HSPA1B,NFKBIL1,TRIM15,HLA-G,TRIM27,LGR4,ZNF580,TREX1,HLA-DPB1,GLTPD1,LTB,TNF,TLR9,MIF,PRKDC,LYN,TRIL,MC1R,IKBKE,OTUD7B
GO:0002446 neutrophil mediated immunity	2.36E-04	2.36E-04 FGR,FUCA2,MPO,ITGAL,ALDH3B1,MGST1,PGLYRP1,MMP25,PRSS3,PLAUR,ALOX5,MVP,ACPP,SLC11A1,SERPINB1,RNASET2,CD44,TNFRSF1B,GRN,ATP6V0A1,TIMP2,AGA,HEX B,CYBA,HEBP2,GDI2,ACAA1,CTSA,CDK13,PKM2,RHOA,ATP11A,KCNAB2,RAB27A,STK10,AP1M1,PLD1,RAB7A,STXBP2,TOLLIP,XRCC5,PGM1,HSP90AA1,PPIE,GSTP1,CD59,CPNE3,B4GALT1,DYNLL1,CMTM6,SNAP23,UNC13D,HSP90AB1,RAB18,SNAP29,CYB5R3,TOM1,CTSG,MMMP9,PYGB,DNAJCS,CTSZ,SIRPB1,VAPA,OLFM4,PSMD7,COTL1,CRISPLD2,CPED1,HMOX2,PYCARD,C16ORF62,CTSH,ATP8B4,GSDMD,ASAH1,MAN2B1,GPI,SIGLECS,PDAP1,IMPDPH1,PSMA2,TSPAN14,PSMD3,P2RX1,PSMD11,VAT1,MANBA,BST1,COMMD9,TCIRG1,PTPN6,FRK,MAPK14,TMEM30A,ARSB,NIT2,ARMC8,ACTR1B,QSOX1,CD58,PRDX6,CHRN4,TTR,VAMP8,STBD1,NPC2,YPEL5,A1BG,CAT,CD97,ARHGAP9,SLPI,CEACAM8,SERPINB6,C3,CD93,RAP1B,UBR4,FGL2,COPB1,CD68,SLC44A2,SIGLEC9,BST2,GMFG,ACLY,DIAPH1,ACTR10,SNAP25,CHIT1,AMPD3,DOCK2,DSG1,OSTF1,CD36,CD63,TMBIM1,CAB39,CKAP4,RAC1,IL6,DBNL,PRCP,GGH,ADAM10,ANXA3,GPR84,SLC27A2,SRP14,IQGAP1,ITGAX,GALNS,PFKL,TRPM2,SLC2A5,CD53,CREG1,FCGR2A,S100A8,DEGS1,ARL8A,AHSG,PLAC8,IQGAP2,DOK3,GSN,SURF4,LCN2,PTPRJ,ALDOA,NDUFC2,ADAM8,ADAM17,LPCAT1,PTPRN2,CCT8,EEF1A1,CDA,FCER1G,ACE,ATAD3B,PDXK,ITGB2,NBEAL2,HK3,AGL,ARPC5,NCSTN,PIGR,CTSS,S100A11,S100A9,CXCR1,NFASC,MNDA,DNASE1L3,GYG1,PRKCD,S100P,APEH,BRI3,SYK,CCT2,CLEC4D,B2M,ANPEP,EEF2,KRT1,GHDC,FTH1,RAB24,RNASE2,AGPAT2,ITGAM,CD14,PA2G4,PLA2G1B,OSCAR,CEACAM3,LRG1,GAA,CANT1,C3AR1,ORMDL3,AZU1,RAB37,HPSE,JUP,SLCO4C1,TBC1D10C,RHOG,ANO6,CALML5,FUCA1,F2,CXCR2,ANXA2,AP2A2,TMEM173,DGAT1,C6ORF120,METTL7A,ATP6VOC,LAMP1,FCAR,PRG2,SELL,SERPINA3,TMEM63A,TUBB,CD55,PRTN3,MME,IGF2R,DYNC1H1,PSMD1
GO:0045089 positive regulation of innate immune respons	2.44E-04	2.44E-04 SARM1,CREBBP,FYN,NR1H4,POLR3B,MATR3,BIRC3,NR1H3,TNIP3,CYBA,PUM2,CASP8,UFD1L,PRKACA,PVR,TKX,UBE2K,PIK3C3,ITCH,XRCC5,WDFY1,IRAK3,MAP3K1,MAP3K7IP1,EP300,RPS6KA5,HCK,RNF125,RIOK3,PYCARD,RELB,RPS19,PTPRS,CAV1,NOD1,ICAM2,DHX58,CRAM,UNC93B1,MAPKAPK3,IFIH1,SFPQ,MUC5B,TNFAIP3,SFTPA1,IRF1,FFAR2,NR1D1,IRF3,TICAM1,SEC14L1,LBP,SMPDL3B,TRAF3,RFTN1,ANKRD17,CLEC10A,GPS2,POLR3F,SFTPD,KRAS,IRAK2,PTPN22,RSAD2,PUM1,CD36,DHX9,TANK,DAB2IP,CNPY3,RIPK1,FLOT1,DDX60,NLRCS,PDPK1,S100A8,REG3G,MUC4,TNIP1,MFHAS1,PAK1,TIRAP,CD226,UBC,ADAM8,PIK3AP1,FCER1G,ITGB2,S100A1,FCRL3,LRRC14,SLAMF6,MAPKAPK2,C TSS,S100A9,IFI16,AIM2,PRKCD,OTUD4,TLR3,SYK,PRKACG,CLEC4D,AP1G1,NOD2,POLR3D,IL12A,MUC15,ITGAM,CD14,PRKCE,FGA,MALT1,RASGRP1,MYD88,RELA,TLR10,TLR1,TLR6,HRAS,TRAF6,MUC20,UBE2N,PAK2,NPLOC4,CADM1,TBK1,TMEM173,MUC6,MUC1,IRF7,LAMP1,CD300LF,HEXIM1,TLR5,TREML4,S100A14,SRP,PLCG2,IRAK4,CARD11,SH

GO:0000209 protein polyubiquitination	2.44E-04	2.44E-04	<p>ANKIB1,UBE3C,RNF216,BRCA1,RNF14,UBR2,RNF19A,NEDD4L,ANAPC4,CUL1,UNKL,RNF4,RNF126,UBE2D1,CHFR,FBXW11,KLHL20,UBE2K,ITCH,KLHDC5,ANAPC5,RFFL,PPIL2,RNF24,RNF125,FBXO31,STUB1,UBRS,UBE2R2,FBXW4,TNKS2,FBXL15,FBXL20,BLMH,SMURF2,UBE2D3,FBXW7,PRPF19,SASH1,FBXO9,FBXL4,SKP1,UBE3A,FBXO2,TNFAIP3,UBE2B,FBXW2,RBBP6,RNF114,TRAF2,FBXL12,FBXL16,RNF6,ANAPC13,CDC16,UBE4B,UBE2D2,FBXW9,UBE2G1,GPS2,FBXO44,MKRN1,RNF122,PTPN22,DDB2,RNF138,PPP2,FBXO21,LMO7,RNF144B,FBXO11,HERC6,PELI2,NPEPPS,RNF165,FBXO15,DTL,RNF145,KLHL3,FBXO10,LRSAM1,UBC,RNF144A,C18ORF25,LONRF1,FBXL18,FBXO32,RNF111,RNF166,FBXW5,UBE2J2,RUSC1,FBXO27,SYVN1,FBXO41,FBXO40,DTX3L,ANAPC10,RNF183,BTRC,ARIH1,TRIM44,NOD2,OTUB1,RNF187,TMEM129,TRIM56,UBE2E3,UBE2E1,LONRF2,SPS B1,BCL2,THOP1,TNKS,RNF213,PELI3,FBXW8,TRAF6,UBE20,ANAPC2,ARIH2,UBE2N,PARP10,SHARPIN,ZNRF2,SHAH2,RNF41,TTTC3,FBXL7,UBOX5,PARK2,ZNRF1,UBE2H,ZFP91,N</p> <p>HLCR1,ANAPC7,FBXL22,MIB2,TOPORS,WWP2,SMURF1,RNF5,TRIM27,UBE2V1,FBXO17</p>
GO:0003012 muscle system process	2.59E-04	2.59E-04	<p>CFLAR,MYH13,SCN4A,PIK3C2A,IGF1,ATP1A2,VIM,MYOC,MYOM2,UTS2,NEDD4L,CYBA,KCNQ1,KCNH2,ATP2B4,MYLK,HDAC4,MEF2A,LMCD1,PRKACA,ENO1,TACR2,SRI,PPP1R12B,ACTN2,EDN1,CHRNA3,CACNA1S,ITGB5,CTTN,GNAO1,PXN,NOS1,SLC9A1,MYH7,MYL6,SORBS1,HMOX1,SLC8A3,MYLK2,MYOM1,MYL12A,SMAD7,DMPK,MYH14,SCN1B,GSK3A,CAV1,MYL10,MYL7,ACTA2,GLRX3,CAMTA2,CHRNE,RANGRF,CRYAB,MYL2,C12ORF57,COL4A3BP,PDE4D,TNNC1,TACR1,RGS2,KCNIP2,KCNJ5,MYOT,ADRA1A,PIK3CA,CALD1,SSPN,OBSL1,EDN3,MYH2,IL1B,EDN2,TMOD2,GAMT,KCNA5,TRPM4,TNNT3,TNNI2,ARHGFE11,NMUR2,ROCK2,IL6ST,MYBPC3,DTNA,DYSF,AGT,EDNRB,SCN7A,BIN1,TMOD1,TLN1,MYOF,PLCE1,CHRNA1,TMOD3,HCN4,TRPC3,TPM1,MYOCD,MYOM3,CASQ1,TPM3,CALM2,CAMK2D,ANK2,GLRA1,DOCK5,GSN,NOTCH1,CAMK2G,GSTO1,ALDOA,CACNA1C,AKAP6,EDNRA,GPD1L,GJA1,UTRN,PRKCA,SORBS2,KCNMA1,FBXO32,CACNA1D,TRIM63,STC1,TNNI1,CALM3,PDE9A,CHRN2,LMNA,MYL3,CCDC78,TPCN2,ACTG2,TMOD4,ATP1A1,ZC3H12A,PGAM2,CACNB2,SCN3B,TPM4,JSRP1,DAPK3,CHRM1,ADRB2,CHRN1,SLN,LMOD2,GAA,NMUR1,ADRA1D,SNTB1,ADRBK1,JUP,TCAP,NPPA,KCNE3,SCN4B,IGSF22,HTR1D,MYLPF,KCNE1,OXTR,CHRM2,KCNB2,GALR2,GJC1,SLC8A1,CTNNA3,SCN5A,SMTN,PDE4B,SCN10A,MYBPC1,RYR1,CACNA1H,SULF2,CHNRG,MYH6,ASPH,RYR2,CAL</p> <p>M1,RCSD1,INPP5F,MIR25,GSTM2,LTB4R,MYL5,MIR208B,MYBPHL,GJA5,MIR145,MIR195,MIR24-2,MIR1-2</p>
GO:1903076 regulation of protein localization to plasma m	2.71E-04	2.71E-04	<p>ITGA3,PRKCH,GOPC,PPP2R5A,PICALM,STX7,SORBS1,TREM2,VTI1B,CSK,CLIP3,TGFB1,AGR2,RANGRF,SPTBN1,TMEM59,VAMP8,RHOQ,PLS1,RAMP3,LRP1,ACSL3,ARHGFE16,PPFIA1,VPS4A,EPHB2,NUMB,MRAP2,TMBIM1,PDPK1,CLTC,AKT1,EPHA2,NKD2,PIK3R1,EGFR,ITGB1,DAB2,PID1,APPL1,SQSTM1,CNST,PKDCC,PRKCI,CDK5,ARF6,STX3,PTPN9,KIF5</p> <p>B,PRKCE,BCL2L1,RHOQ,AKAP5,NRXN1,CIB1</p>
GO:0006936 muscle contraction	2.76E-04	2.76E-04	<p>MYH13,SCN4A,PIK3C2A,ATP1A2,VIM,MYOM2,UTS2,NEDD4L,KCNQ1,KCNH2,MYLK,PRKACA,ENO1,TACR2,SRI,PPP1R12B,ACTN2,EDN1,CHRNA3,CACNA1S,ITGB5,CTTN,GNAO1,PXN,NOS1,SLC9A1,MYH7,MYL6,SORBS1,SLC8A3,MYLK2,MYOM1,MYL12A,SMAD7,DMPK,MYH14,SCN1B,CAV1,MYL10,MYL7,ACTA2,CHRNE,RANGRF,CRYAB,MYL2,C12ORF57,COL4A3BP,PDE4D,TNNC1,TACR1,RGS2,KCNIP2,KCNJ5,MYOT,ADRA1A,PIK3CA,CALD1,SSPN,OBSL1,EDN3,MYH2,EDN2,TMOD2,GAMT,KCNA5,TRPM4,TNNT3,TNNI2,ARHGFE11,NMUR2,ROCK2,MYBPC3,DTNA,DYSF,EDNRB,SCN7A,BIN1,TMOD1,TLN1,MYOF,PLCE1,CHRNA1,TMOD3,HCN4,TPM1,MYOCD,MYOM3,CASQ1,TPM3,CALM2,CAMK2D,ANK2,GLRA1,DOCK5,GSTO1,ALDOA,CACNA1C,EDNRA,GPD1L,GJA1,UTRN,KCNMA1,CACNA1D,STC1,TNNI1,CALM3,CHRN2,MYL3,CCDC78,TPCN2,ACTG2,TMOD4,ATP1A1,ZC3H12A,PGAM2,CACNB2,SCN3B,TPM4,JSRP1,DAPK3,CHRM1,ADRB2,CHRN1,LMOD2,GAA,NMUR1,ADRA1D,SNTB1,ADRBK1,JUP,TCAP,NPPA,KCNE3,SCN4B,IGSF22,HTR1D,MYLPF,KCNE1,OXTR,CHRM2,KCNB2,GALR2,GJC1,SLC8A1,CTNNA3,SCN5A,SMTN,PDE4B,SCN10A,MYBPC1,RYR1,CACNA1H,SULF2,CHNRG,MYH6,ASPH,RYR2,CALM1,RCSD1,GSTM2,LTB</p> <p>4R,MYL5,MYBPHL,GJA5,MIR145,MIR1-2</p>

GO:0010498 proteasomal protein catabolic process	2.84E-04	2.84E-04	ANKIB1,HECW1,OSBPL7,RHBD1,POMT2,RNF216,NUB1,RNF14,UBR2,RNF19A,GABARAPL2,HSPA5,NEDD4L,HERPUD1,ANAPC4,CUL1,RNF4,BTBD1,ATXN3,PSME4,SIRT2,UFD1L,RNF126,SEL1L,PRKACA,UBE2D1,FBXW11,TBX21,KLHL20,DNAJC10,LAMP3,UBE2K,PPP2R5C,ITCH,KEAP1,GSK3B,PSMCS,KLHDC5,AURKA,EDEM2,NSFL1C,ANAPCS,MAEA,PSME1,RFFL,WAC,HSP90AB1,PSMD8,DERL3,FOXRED2,KCTD17,RNF24,HM13,SMAD7,RNF125,UGGT2,N4BP1,PSMD7,FBXO31,STUB1,SGTA,GSK3A,CAV1,UBE2R2,DVL1,ERLIN1,FBXW4,FBXL15,TNFAIP1,UBE2D3,WFS1,FBXW7,PRPF19,KCTD10,FBXO9,SKP1,CSNK1A1,CRBN,SUMO1,NFE2L2,PARK7,EDEM3,FBXO2,CDC20,KIF14,UBE2B,CLU,TRIM25,SPOP,RNF11,WWP1,GIPC1,KBTD4,RNF114,PSMF1,NR1D1,PRKCG,RNF6,SDF2L1,CBFA2T3,CDC16,POMT1,UBE4B,PSME3,BTBD3,FBXO44,BTBD2,HSPBP1,AGAP3,ARNTL,RNF122,EDEM1,RNF138,UBQLN1,NUDT15,TOR1A,DAB2IP,DERL1,RNF38,RNF144B,ARRB1,HECW2,BBS7,PRICKLE1,CUL4A,PML,ARRB2,CSNK1D,RNF165,FBXO15,RPL11,SPOP1,NKD2,RNF145,RNF44,GNA12,ERLIN2,DNAJB12,UBC,BTBD11,RNF144A,C18ORF25,DAB2,FBXL2,LONRF1,BUB3,BUB1B,RNF111,UBXN11,ZFAND2B,RNF166,PINK1,FBXW5,UBE2J2,UBXN1,SYYN1,STT3B,RYBP,ANAPC10,ABTB2,BTRC,BAG5,ARIH1,C10ORF104,UBXN6,KCTD5,RNF187,TMEM129,UBE2E1,CDK1,LONRF2,SOC55,ENC1,USP19,KAT5,COMMD1,TRIB1,UBXN2A,BRSK2,GLMN,KCTD13,ANAPC2,MAN1B1,ARIH2,TBL1XR1,AURKB,RAD23A,SHARPIN,ZNRF2,YOD1,KCTD2,RNF41,NPLOC4,MTA1,FBXL7,BTBD9,FAF1,PARK2,ZNRF1,USP7,NHLH1,RNF222,FHIT,ANAPC7,PCBP2,PSMD12,FBXL22,TOPORS,STYX,WWP2,SMURF1,RNF5,CSNK1E,UBXN2B,GPX1,RNF103
GO:0007044 cell-substrate junction assembly	2.84E-04	2.84E-04	MYOC,LIMCH1,COL17A1,RHOA,TESK2,ACTN1,FERMT2,CLASP1,ACTN2,COL16A1,CTTN,SLC9A1,ITGA6,SORBS1,ABL1,NRP1,PPM1F,ARHGEF7,SFRP1,CORO1C,VEGFA,MACF1,KDR,LAMA5,ITGB4,ROCK2,LAMC1,RAC1,THBS1,BCAS3,PIP5K1A,PHLDB2,PTPRJ,TAOK2,PTPRK,WHAMM,CLASP2,DLC1,TSC1,DAPK3,PTK2,LIMS1,PTEN,RHOD,RCC2,EFNA5,KRT5,KRT14,LAMB3,SRC,S100A10,LDB1
GO:0002699 positive regulation of immune effector process	2.89E-04	2.89E-04	FGR,CD74,GAB2,C12ORF4,PUM2,STYK1,CD84,TP53BP1,PRKCZ,TFRC,PVR,STXB2,STX7,UNC13D,PGC,IL12RB1,XBP1,GPI,TGFB1,RPS19,DHX58,CRTAM,IL23A,IL4,CD86,SNX4,IL1R1,MYB,VAMP8,CCR2,CD244,IL1B,FFAR2,ZBTB1,TRAF2,LBP,RARA,ANKRD17,RSAD2,PUM1,IL6,DDX60,NFKBIZ,CD226,IL18,FER,FAM49B,ENPP3,ITGB2,TNFSF13,NLRP3,SLAMF6,FZD5,SYK,B2M,AP1G1,GPRCSB,NFKBID,IL12A,LGALS9,KLK7,ITGAM,SOC55,C20ORF196,MALT1,RASGRP1,TRAF6,CLCF1,FES,CADM1,LAMP1,FFAR3,TNFRSF4,C17ORF99,MYO18A,SH2D1B,RAET1G,NCR3,TRIM15,TLR9,HLA-DMB,LYN
GO:0008360 regulation of cell shape	2.89E-04	2.89E-04	FGR,PLXND1,FYN,VRK2,MARK2,ARHGAP15,EZR,CDC7,MYH9,VRK1,HCK,ARHGEF18,VRK3,CCL24,CCL2,SLC9A3R1,BVES,VEGFA,CSNK1A1,RHOU,ARAP3,PTK2B,FGD3,KDR,CDC42EP1,MKLN1,TTBK2,DIAPH1,CSNK1G2,PLXNC1,ERMN,FGD4,TPM1,CSNK1D,LIMD1,MYO10,RASA1,FGD2,TTBK1,ARHGAP18,CDC42EP2,ALDOA,TAOK2,EPS8,FGD5,KIT,EPB41,C21ORF2,ITGB2,FMNL3,PLXNB1,DLC1,CRK,CDC42EP5,CSNK1G1,PTK2,SEMA3E,DAG1,BAIAP2,CDC42EP4,FGD6,CCL13,FES,BRWD1,ARAP1,SEMA4D,PARVB,PRPF40A,PLXNB2,LPAR1,ATP10A,CSNK1E



GO:0007268 chemical synaptic transmission	2.97E-04	2.97E-04	<p>CX3CL1,BAIAP3,MAPK8IP2,SYT7,ATP1A2,DTNBP1,UTS2,KIF1B,RASGRF1,ATXN3,CACNB1,PRKCZ,SYT1,LRP6,CHAT,CAMK2A,SLC24A1,KCNQ2,TACR2,AMPH,SLC1A3,RIMS1,CHRNA3,MEF2C,PCDH84,GSK3B,MTMR2,SNAP23,ABL1,STX1B,SNAP29,LGMN,SLC8A3,CPNE6,DNAJC5,HRH3,NTSR1,CHRNA4,SNPH,PDYN,HTR2A,SLC6A2,SPG11,GRIN2D,KCNN1,SCN1B,GSK3A,STX1A,NPTX2,APBA1,DVL1,CPEB3,CHRNE,KAT2A,MPP2,PMP22,RAPGEF2,NRXN2,SLC1A2,CUX2,STX2,GABRR2,PCDH2,PCDH85,GRM6,SLC12A7,DBN1,OTOF,TA CR1,RAB3GAP1,OPRD1,RIMS3,CD20,CHRNB4,SLC8A2,KCNIP2,PCDH10,PTK2B,CHRNA2,ADRA1A,HCRTR1,GIP1,SLC12A4,SLC12A5,GRM4,OPRL1,NPBWR2,IL1B,PNKD,EIF2AK4,UNC13A,PDLIM4,EXOC4,DLG4,SNAP25,SYT11,EPHB2,MTNR1B,DTNA,STX11,TOR1A,STXB1P,GABBR2,HCRTR2,FLOT1,FCHSD2,CHRNA1,NOVA1,SLC12A6,ARRB2,AKT1,SLC6A3,SYTL1,SNAPIN,SNAP47,ARF1,SYT2,CNTN4,TMEM108,PLK2,GLRA1,CPLX2,GABRR1,CHRN3,CHRNA6,CACNA1B,EIF4EBP2,SYT8,GRIK4,DOC2A,DLG2,DRD3,GRID2,GRM1,CNTNAP4,WNT7A,PTPRN2,GRIA1,SLC24A2,NPTN,SLC6A1,HTR6,MPZ,BRSK1,CHRN2,SQSTM1,GRIN2C,SHANK1,SHANK2,GRIK3,BSN,GRM2,GRIK2,SYTL3,CDK5,RAPSN,CACNB2,RIC3,STX3,PNOC,PXK,CX3CR1,CHRM1,D4S234E,HTR1E,GRM5,CPLX1,RAB3B,RGS14,PROKR1,CHRNA5,NLGN1,YWHAG,CHRN1,GABARAP,DLGAP1,KCNMB3,GRIK1,NPTX1,KCNK3,PDE7B,LPAR3,PCDH81,PTEN,SYT12,CNP,KCTD13,MCTP1,ANAPC2,RIMS2,GRIN1,PPFIA3,HTR1D,GRM8,AKAP5,NRXN1,SCRIB,NQO1,CHRM2,ADIPOQ,GPR88,GPR19,GPR1,BTBD9,KCNQ3,KCND2,PARK2,SYN3,PIP5K1C,MAPT,SHISA7,OR56A5,SHISA6,GRM7,HRH1,CHRNQ,SYNGAP1,FCHSD1,MBP,DLGAP2,CACNA1E,ARC,GRM3,SYT15,AGER,COLQ,SY</p> <p>T3,SHISA9,CORT,OMP,PCDH16</p>
GO:0098916 anterograde trans-synaptic signaling	2.97E-04	2.97E-04	<p>CX3CL1,BAIAP3,MAPK8IP2,SYT7,ATP1A2,DTNBP1,UTS2,KIF1B,RASGRF1,ATXN3,CACNB1,PRKCZ,SYT1,LRP6,CHAT,CAMK2A,SLC24A1,KCNQ2,TACR2,AMPH,SLC1A3,RIMS1,CHRNA3,MEF2C,PCDH84,GSK3B,MTMR2,SNAP23,ABL1,STX1B,SNAP29,LGMN,SLC8A3,CPNE6,DNAJC5,HRH3,NTSR1,CHRNA4,SNPH,PDYN,HTR2A,SLC6A2,SPG11,GRIN2D,KCNN1,SCN1B,GSK3A,STX1A,NPTX2,APBA1,DVL1,CPEB3,CHRNE,KAT2A,MPP2,PMP22,RAPGEF2,NRXN2,SLC1A2,CUX2,STX2,GABRR2,PCDH2,PCDH85,GRM6,SLC12A7,DBN1,OTOF,TA CR1,RAB3GAP1,OPRD1,RIMS3,CD20,CHRNB4,SLC8A2,KCNIP2,PCDH10,PTK2B,CHRNA2,ADRA1A,HCRTR1,GIP1,SLC12A4,SLC12A5,GRM4,OPRL1,NPBWR2,IL1B,PNKD,EIF2AK4,UNC13A,PDLIM4,EXOC4,DLG4,SNAP25,SYT11,EPHB2,MTNR1B,DTNA,STX11,TOR1A,STXB1P,GABBR2,HCRTR2,FLOT1,FCHSD2,CHRNA1,NOVA1,SLC12A6,ARRB2,AKT1,SLC6A3,SYTL1,SNAPIN,SNAP47,ARF1,SYT2,CNTN4,TMEM108,PLK2,GLRA1,CPLX2,GABRR1,CHRN3,CHRNA6,CACNA1B,EIF4EBP2,SYT8,GRIK4,DOC2A,DLG2,DRD3,GRID2,GRM1,CNTNAP4,WNT7A,PTPRN2,GRIA1,SLC24A2,NPTN,SLC6A1,HTR6,MPZ,BRSK1,CHRN2,SQSTM1,GRIN2C,SHANK1,SHANK2,GRIK3,BSN,GRM2,GRIK2,SYTL3,CDK5,RAPSN,CACNB2,RIC3,STX3,PNOC,PXK,CX3CR1,CHRM1,D4S234E,HTR1E,GRM5,CPLX1,RAB3B,RGS14,PROKR1,CHRNA5,NLGN1,YWHAG,CHRN1,GABARAP,DLGAP1,KCNMB3,GRIK1,NPTX1,KCNK3,PDE7B,LPAR3,PCDH81,PTEN,SYT12,CNP,KCTD13,MCTP1,ANAPC2,RIMS2,GRIN1,PPFIA3,HTR1D,GRM8,AKAP5,NRXN1,SCRIB,NQO1,CHRM2,ADIPOQ,GPR88,GPR19,GPR1,BTBD9,KCNQ3,KCND2,PARK2,SYN3,PIP5K1C,MAPT,SHISA7,OR56A5,SHISA6,GRM7,HRH1,CHRNQ,SYNGAP1,FCHSD1,MBP,DLGAP2,CACNA1E,ARC,GRM3,SYT15,AGER,COLQ,SY</p> <p>T3,SHISA9,CORT,OMP,PCDH16</p>
GO:0001933 negative regulation of protein phosphorylation	3.04E-04	3.04E-04	<p>PRKAR2B,IBTK,MLXIPL,DCN,MVP,ZMYND11,WWTR1,STRAP,LMO3,PRKCZ,HYAL2,SIRT2,LRP6,NCK2,DNAJC10,ITCH,TP73,GSTP1,MECOM,C14ORF166,IRAK3,TFAP4,SEMA6A,EZR,ABL1,CRKL,PPM1F,PTK6,RASSF2,CDK5RAP1,SMAD7,TSC2,PYCARD,SFRP1,TGFB1,PPP2R1A,PIK3R2,FKBP8,CDK6,CAV1,HSPB1,PRKAG2,ENG,TESK1,DVL1,PBLD,CDK5RAP3,DU SP3,PRKAR1A,SLC9A3R1,SNX25,CBL,HIPK3,CORO1C,DUSP16,CDKN1B,PTPN6,DUSP22,PDE4D,PPP2CA,H2AFY,PRKAR2A,CBLB,CISH,EIF4G1,ERRF1,PARK7,RGS2,RGS4,DUSP1,SCS2,TARDBP,LAX1,PMPEA1,CDKN1A,IL1B,FLRT3,PIN1,PRKRIP1,LRRC4,CDKN1C,SH3BP5,LRRC4B,VP525,PODNL1,INPP5K,GPS2,EPHB2,MEN1,PTPN22,APC,TAOK3,PRR5L,CDK4,PKIB,SPRY2,DAB2IP,SORL1,SMAD6,EMILIN1,RGS3,TARBP2,RB1,WARS,IGF1R,NTRK3,PDPK1,NCOR1,MYOCD,PRDM15,AKT1,CBL,C,RLRP12,DUSP10,CALM2,SLIT2,DGKQ,TNIP1,IGFBP3,EPHA1,PAR3,PTPRJ,PPP1R1C,GPD1L,PTPRR,PID1,FLCN,GNAQ,PP2F2,DUSP2,XDH,PPP1R15B,PINK1,ZFYVE28,CALM3,ADAR,LRP5,DUSP19,PAQR3,C3H12A,PRKCD,SPRY1,DUSP7,WNK2,SPRED1,LRTM2,SMPD1,PSCA,PKIG,RGS14,GPS1,YWHAG,SOC5,HDAC3,PTEN,PRNP,QARS,PARP14,TRIB1,DAG1,PODN,C3ORF33,SH3BP5L,PPM1E,PTPN2,CHMP6,SMCR8,TA7,PER1,PAK2,ADIPOQ,DUSP8,CIB1,GP1BA,PARK2,NTF3,RTN4RL1,AIDA,NF2,HEXIM1,RTN4RL2,SEMA4D,PRKAR1B,INCA1,PTPN1,NF1,ZGPAT,ENPP1,SPRED</p> <p>2,CALM1,INPP5F,TRAF3IP1,AKT1S1,TRIM27,PRKDC,LYN,SOCS7,SRIN1,MIR24-2</p>
GO:0051348 negative regulation of transferase activity	3.06E-04	3.06E-04	<p>PRKAR2B,DCN,MVP,WWTR1,PARP3,PHPT1,PPP2R5A,HYAL2,LRP6,TP73,GSK3B,GSTP1,C14ORF166,IRAK3,TFAP4,ABL1,PPM1F,PK3IP1,PTK6,CDK5RAP1,SMAD7,TSC2,PYCARD,PPP2R1A,GSK3A,CDK6,CAV1,HSPB1,PRKAG2,LIMK1,TESK1,DVL1,CDK5RAP3,DUSP3,PRKAR1A,CBL,HIPK3,CORO1C,DUSP16,CDKN1B,DUSP22,PPP2CA,H2AFY,PRKAR2A,CBLB,CISH,ERRF1,PARK7,RGS2,RGS4,DUSP1,SOCS2,LAX1,CDKN1A,IL1B,RPL23,FLRT3,POT1,PRKRIP1,LRRC4,CDKN1C,SH3BP5,LRRC4B,VP525,PODNL1,INPP5K,GPS2,EPHB2,MEN1,PTPN22,APC,CDK4,PKIB,DAB2IP,SORL1,RGS3,TARBP2,RB1,WARS,IGF1R,PDPK1,MYOCD,TP53,AKT1,CBLC,RPL11,DUSP10,EPHA1,TERF1,PTPRJ,PPP1R1C,HNRNPJ,GNAQ,DUSP2,ZFYVE28,ADAR,LRP5,DUSP19,PAQR3,DTX3L,PRKCD,DUSP7,PRDX3,SPRED1,LRTM2,BAG5,SMPD1,MIDN,PKIG,RGS14,GPS1,YWHAG,SOC5,PTEN,RPS7,QARS,TRIB1,PODN,SH3BPSL,PPM1E,CHMP6,SMCR8,TA7,PAK2,ADIPOQ,DUSP8,GP1BA,PARK2,RTN4RL1,IRS2,AIDA,HEXIM1,MAPT,RTN4RL2,PRKAR1B,INCA1,PTPN1,NF1,ZGPAT,SRP,SPRED2,AKT1S1,</p> <p>TRIM27,LYN,PINX1,SOCS7,SRIN1,MIR24-2</p>

		<p>FGR,FUCA2,MPO,ITGAL,ALDH3B1,MGST1,PGLYRP1,MMP25,PRSS3,PLAUR,ALOX5,MVP,ACPP,SLC11A1,SERPINB1,RNASET2,CD44,TNFRSF1B,GRN,ATP6V0A1,TIMP2,AGA,HEX B,CYBA,HEBP2,GDI2,ACAA1,CTSA,CDK13,PKM2,RHOA,ATP11A,KCNAB2,RAB27A,STK10,AP1M1,PLD1,RAB7A,STXBP2,TOLLIP,XRCC5,PGM1,HSP90AA1,PP1E,GSTP1,CD59,CPNE 3,B4GALT1,DYNLL1,CMTM6,SNAP23,UNC13D,HSP90A1,RAB18,SNAP29,CY5BR3,TOM1,CTSG,MMP9,PYGB,DNAJC5,CTSZ,SIRPB1,VAPA,OLFM4,PSMD7,COTL1,CRISPLD2,CPPE D1,HMOX2,PYCARD,C16ORF62,CTSH,ATP8B4,GSDMD,ASAHI,MAN2B1,GPI,SIGLECS,PDAP1,IMPDPH1,PSMA2,TSPAN14,PSMD3,P2RX1,PSMD11,VAT1,MANBA,BST1,COMMD 9,TCIRG1,PTPN6,FRK,MAPK14,TMEM30A,ARSB,NIT2,ARMC8,ACTR1B,QSOX1,CD58,PRDX6,CHRN4,TTR,VAMP8,STBD1,NPC2,YPEL5,A1BG,CAT,CD97,ARHGAP9,SLPI,CEACAM 8,SERPINB6,C3,CD93,RAP1B,UBR4,FGL2,COPB1,CD68,SLC44A2,SIGLEC9,BST2,GMFG,ACLY,DIAPH1,ACTR10,SNAP25,CHIT1,AMPD3,DOCK2,DSG1,OSTF1,CD36,CD63,TMBIM1, CAB39,CKAP4,RAC1,DBNL,PRCP,GGH,ADAM10,ANXA3,GPR84,SLC27A2,SRP14,IQGAP1,ITGAX,GALNS,PFKL,TRPM2,SLC2A5,CD53,CREG1,FCGR2A,S100A8,DEGS1,ARL8A,AHSG ,PLAC8,IQGAP2,DOK3,GSN,SURF4,LCN2,PTPRJ,ALDOA,NDUFC2,ADAM8,LPCAT1,PTPRN2,CCT8,EEF1A1,CDA,FCER1G,ATAD3B,PDXK,ITGB2,NBEAL2,HK3,AGL,ARPC5,NCSTN,PI GR,CTSS,S100A11,S100A9,CXCR1,NFASC,MNDA,GYG1,PRKCD,S100P,APEH,BRI3,SYK,CCT2,CLEC4D,B2M,ANPEP,EEF2,KRT1,GHDC,FTH1,RAB24,RNASE2,AGPAT2,ITGAM,CD14, PA2G4,OSCAR,CEACAM3,LRG1,GAA,CANT1,C3AR1,ORMDL3,AZU1,RAB37,HPSE,JUP,SLCO4C1,TBC1D10C,RHOG,ANO6,CALML5,FUCA1,CXCR2,ANXA2,AP2A2,TMEM173,DGA T1,C6ORF120,METTL7A,ATP6VOC,LAMP1,FCAR,PRG2,SELL,SERPINA3,TMEM63A,TUBB,CD55,PRTN3,MME,IGF2R,DYNC1H1,PSMD12,SERPINA1,C5AR1,ATG7,ELANE,CFD,SIRP</p>
GO:0043312 neutrophil degranulation	3.06E-04	3.06E-04 A,PNP,NEU1,HSPA1B,CSNK2B,CPNE1,MIF,DDOST,HHB,CYFIP1
		<p>PRKAR2B,IBTK,MLXIPL,DCN,MVP,ZMYND11,WWTR1,STRAP,LMO3,PPP2R5A,PRKCZ,HYAL2,HDAC4,SIRT2,LRP6,NCK2,DNAJC10,ITCH,TP73,GSTP1,MECOM,C14ORF166,DYNLL 1,IRAK3,TFAP4,SEMA6A,EZR,ABL1,CRKL,PPM1F,PIK3IP1,PTK6,RASSF2,CDK5RAP1,SMAD7,TSC2,PYCARD,SFRP1,TGFB1,PPP2R1A,PIK3R2,FKBP8,CDK6,CAV1,HSPB1,PRKAG2,EN G,TESK1,DVL1,PBLD,CDK5RAP3,DUSP3,PRKAR1A,SLC9A3R1,SNX25,CBL,HIPK3,CORO1C,DUSP16,CDKN1B,PTPN6,DUSP22,PDE4D,PPP2CA,H2AFY,PRKAR2A,CBLB,CISH,EIF4G1, ERRF1,PARK7,SGS2,SGS4,DUSP1,SOCS2,TARDBP,LAX1,PMEP1,CDKN1A,IL1B,FLRT3,PIN1,PRKRIP1,LRRC4,CDKN1C,CBFA2T3,SH3BP5,LRRC4B,VPS25,PODNL1,INPP5K,GPS2,E PHB2,MEN1,PTPN22,APC,TAOK3,PRR5L,CDK4,PKIB,SPRY2,DAB2IP,SORL1,SMAD6,EMILIN1,SGS3,TARBP2,RB1,WARS,IGF1R,NTRK3,PDPK1,NCOR1,MYOCD,PRDM15,AKT1,CBL C,NLRP12,DUSP10,CALM2,SUIT2,DGKQ,TNIP1,IGFBP3,EPHA1,PARD3,PTPRJ,PPP1R1C,GPD1L,HNRNPJ,PTPRR,PID1,FLCN,GNAQ,PPEF2,DUSP2,XDH,PPP1R15B,PINK1,ZFYVE28, CALM3,ADAR,LRP5,DUSP19,PAQR3,ZC3H12A,PRKCD,SPRY1,DUSP7,WNK2,PRDX3,SPRED1,LRMT2,SMPD1,MIDN,PSCA,PKIG,SGS14,GPS1,YWHAG,SOCS5,HDAC3,PTEN,PRNP, QARS,PARP14,TRIB1,DAG1,PODN,PDE12,C3ORF33,SH3BP5L,PPM1E,PTPN2,CHMP6,ANKLE2,SMCR8,TAZF,PER1,PAK2,ADIPQ,DUSP8,CIB1,GP1BA,PARK2,NTF3,RTN4RL1,IRS 2,AIDA,NF1,HEXIM1,MAPT,RTN4RL2,PPARA,SEMA4D,PRKAR1B,INCA1,PTPN1,NF1,ZGAP2,ENPP1,SPRED2,CALM1,INPP5F,TRAF3IP1,AKT1S1,TRIM27,PRKDC,LYN,SOCS7,SRGN</p>
GO:0042326 negative regulation of phosphorylation	3.24E-04	3.24E-04 1,MIR24-2
GO:1905475 regulation of protein localization to membran	3.24E-04	<p>ITGA3,FYN,BID,PRKCH,GOPC,CASP8,PPP2R5A,TP63,PICALM,TP73,STX7,SORBS1,TREM2,GZMB,VTI1B,E2F1,NECAB2,CSK,AKT2,CLIP3,BBC3,TGFB1,AGR2,YWHAE,RANGRF,SPTB N1,TMEM59,VAMP8,RHOQ,PLS1,RAMP3,LRP1,ACSL3,ARHGFE16,PPFIA1,INPP5K,VPS4A,EPHB2,NUMB,YWHAQ,MRAP2,TMBIM1,NMT1,PDPK1,CLTC,TP53,ERBB2,AKT1,EPHA 2,TP53BP2,NKD2,PIK3R1,EGFR,GSN,ITGB1,ANK3,DAB2,PID1,APPL1,ITGB2,SQSTM1,CNST,PKOCC,PRKCI,LZTFL1,CDK5,YWHAZ,ARF6,STX3,PTPN9,ITGAM,YWHAQ,KIF5B,PRKCE, BCL2L1,BCL2,PRNP,HRAS,RHOG,AKAP5,NRXN1,KCNE1,CIB1,PARK2,SHISA7,FZD9,SHISA6,MYO1C,TFDP1,FIS1</p>
GO:0099536 synaptic signaling	3.48E-04	<p>CX3CL1,BAIAP3,MAPK8IP2,SYT7,ATP1A2,DTNBP1,UTS2,KIF1B,RASGRF1,ATXN3,CACNB1,PRKCZ,SYT1,LRP6,CHAT,CAMK2A,SLC24A1,KCNQ2,TACR2,AMPH,SLC1A3,RIMS1,CHR NA3,MEF2C,PCDH8A,GSK3B,MTMR2,SNAP23,ABL1,STX1B,SNAP29,LGMN,SLC8A3,CPNE6,DNAJC5,HRH3,NTSR1,CHRNA4,SNPH,PDYN,HTR2A,SLC6A2,SPG11,GRIN2D,KCNN1,S CN1B,GSK3A,STX1A,NPTX2,APBA1,DVL1,CPEB3,CHRNE,KAT2A,MPP2,PMP22,RAPGEF2,NRXN2,SLC1A2,CUX2,STX2,GABRR2,PCDH2,PCDH5,GRM6,SLC12A7,DBN1,OTOF,TA CR1,RAB3GAP1,OPRD1,RIMS3,CD20,CHRN4,SLC8A2,KCNIIP2,PCDH10,PTK2B,CHRNA2,ADRA1A,HCRTR1,GIPCI,SLC12A4,SLC12A5,GRM4,OPRL1,NPBWR2,IL1B,PNKD,EIF2 AK4,UNC13A,PDLIM4,EXOC4,DLG4,SNAP25,SYT11,EPHB2,MTNR1B,DTNA,STX11,TOR1A,STXBP1,GABBR2,HCRTR2,FLOT1,FCHSD2,CHRNA1,NOVA1,SLC12A6,ARRB2,AKT1,SLC 6A3,SYTL1,SNAPIN,SNAP47,ARF1,SYT2,CNTN4,TMEM108,PLK2,GLRA1,CPLX2,GABRR1,CHRN3,CHRNA6,CACNA1B,EIF4EBP2,SYT8,GRIK4,DOC2A,DLG2,DRD3,GRID2,GRM1,C NTNAP4,WNT7A,PTPRN2,GRIA1,SLC24A2,NPTN,SLC6A1,HTR6,MPZ,BRSK1,CHRN2,SQSTM1,GRIN2C,SHANK1,SHANK2,GRIK3,BSN,GRM2,GRIK2,SYTL3,CDK5,RAPSN,CACNB2, RIC3,STX3,PNOC,PXK,CX3CR1,CHRM1,D4S234E,HTR1E,GRM5,CPLX1,RAB3B,SGS14,PROKRI,CHRNA5,NLGN1,YWHAQ,CHRN3,GABARAP,DLGAP1,KCNMB3,GRIK1,NPTX1,KC NK3,PDE7B,LPAR3,PCDH1,PTEN,SYT12,CNP,KCTD13,MCTP1,ANAPC2,RIMS2,GRIN1,PPFIA3,HTR1D,GRM8,AKAP5,NRXN1,SCRIB,NQO1,CHRM2,ADIPQ,GPR88,GPR19,GPR1, BTBD9,KCNQ3,KCND2,PARK2,SYN3,PIPSK1C,MAPT,SHISA7,OR56A5,SHISA6,GRM7,HRH1,CHRN9,SYNGAP1,FCHSD1,MBP,DLGAP2,CACNA1E,ARC,GRM3,SYT15,AGER,COLQ,SY</p>
GO:0099536 synaptic signaling	3.48E-04	3.48E-04 T3,SHISA9,CORT,OMP,PCDH16

			<p> CX3CL1,BAIAP3,MAPK8IP2,SYT7,ATP1A2,DTNBP1,UTS2,KIF1B,RASGRF1,ATXN3,CACNB1,PRKCZ,SYT1,LRP6,CHAT,CAMK2A,SLC24A1,KCNQ2,TACR2,AMPH,SLC1A3,RIMS1,CHR  NA3,MEF2C,PCDH84,GSK3B,MTMR2,SNAP23,ABL1,STX1B,SNAP29,LGMN,SLC8A3,CPNE6,DNAJC5,HRH3,NTSR1,CHRNA4,SNPH,PDYN,HTR2A,SLC6A2,SPG11,GRIN2D,KCNN1,S  CN1B,GSK3A,STX1A,NPTX2,APBA1,DVL1,CPEB3,CHRNE,KAT2A,MPP2,PMP22,RAPGEF2,NRXN2,SLC1A2,CUX2,STX2,GABRR2,PCDH2,PCDH85,GRM6,SLC12A7,DBN1,OTOF,TA  CR1,RAB3GAP1,OPRD1,RIMS3,CD20,CHRN4,SLC8A2,KCNIP2,PCDH10,PTK2B,CHRNA2,ADRA1A,HCRTR1,GIPC1,SLC12A4,SLC12A5,GRM4,OPRL1,NPBWR2,IL1B,PNKD,EIF2  AK4,UNC13A,PDLIM4,EXOC4,DLG4,SNAP25,SYT11,EPHB2,MTNR1B,DTNA,STX11,TOR1A,STXB1P,GABBR2,HCRTR2,FLOT1,FCHSD2,CHRNA1,NOVA1,SLC12A6,ARRB2,AKT1,SLC  6A3,SYTL1,SNAPIN,SNAP47,ARF1,SYT2,CNTN4,TMEM108,PLK2,GLRA1,CPLX2,GABRR1,CHRN3,CHRNA6,CACNA1B,EIF4EBP2,SYT8,GRIK4,DOC2A,DLG2,DRD3,GRID2,GRM1,C  NTNAP4,WNT7A,PTPRN2,GRIA1,SLC24A2,NPTN,SLC6A1,HTR6,MPZ,BRSK1,CHRN2,SQSTM1,GRIN2C,SHANK1,SHANK2,GRIK3,BSN,GRM2,GRIK2,SYTL3,CDK5,RAPSN,CACNB2,  RIC3,STX3,PNOC,PXK,CX3CR1,CHRM1,D4S234E,HTR1E,GRM5,CPLX1,RAB3B,RGS14,PROKR1,CHRNA5,NLGN1,YWHAG,CHRN1,GABARAP,DLGAP1,KCNMB3,GRIK1,NPTX1,KC  NK3,PDE7B,LPAR3,PCDH81,PTEN,SYT12,CNP,KCTD13,MCTP1,ANAPC2,RIMS2,GRIN1,PPFIA3,HTR1D,GRM8,AKAP5,NRXN1,SCRIB,NQO1,CHRM2,ADIPOQ,GPR88,GPR19,GPR1,  BTBD9,KCNQ3,KCND2,PARK2,SYN3,PIP5K1C,MAPT,SHISA7,OR56A5,SHISA6,GRM7,HRH1,CHNRG,SYNGAP1,FCHSD1,MBP,DLGAP2,CACNA1E,ARC,GRM3,SYT15,AGER,COLQ,SY </p>
GO:0099537 trans-synaptic signaling	3.48E-04	3.48E-04	<p> T3,SHISA9,CORT,OMP,PCDH16 </p>
			<p> FGR,FUCA2,MPO,ITGAL,ALDH3B1,MGST1,PGLYRP1,MMP25,PRSS3,PLAUR,ALOX5,MVP,ACPP,SLC11A1,SERPINB1,RNASET2,CD44,TFNRSF1B,GRN,ATP6V0A1,TIMP2,AGA,HEX  B,CYBA,HEBP2,GDI2,ACAA1,CTSA,CDK13,PKM2,RHOA,ATP11A,KCNAB2,RAB27A,STY10,AP1M1,PLD1,RAB7A,STXB2,TOLLIP,XRCC5,PGM1,HSP90AA1,PIIE,GSTP1,CD59,CPNE  3,B4GALT1,DYNLL1,CMTM6,SNAP23,UNC13D,HSP90AB1,RAB18,SNAP29,CYB5R3,TOM1,CTSG,MMMP9,PYGB,DNAJC5,CTSZ,SIRPB1,VAPA,OLFM4,PSMD7,COTL1,CRISPLD2,CP  ED1,HMOX2,PYCARD,C16ORF62,CTSH,ATP8B4,GSDMD,ASAHI,MAN2B1,GPI,SIGLEC5,PDAP1,IMPDI1,PSMA2,TSPAN14,PSMD3,P2RX1,PSMD11,VAT1,MANBA,BST1,COMMD  9,TCIRG1,PTPN6,FRK,MAPK14,TMEM30A,ARSB,NIT2,ARMC8,ACTR1B,QSOX1,CD58,PRDX6,CHRN4,TTR,VAMP8,STBD1,NPC2,YPEL5,A1BG,CAT,CD97,ARHGAP9,SLPI,CEACAM  8,SERPINB6,C3,CD93,RAP1B,UBR4,FGL2,COPB1,CD68,SLC44A2,SIGLEC9,BST2,GMFG,ACLY,DIAPH1,ACTR10,SNAP25,CHIT1,AMPD3,DOCK2,DSG1,OSTF1,CD36,CD63,TMBIM1,  CAB39,CKAP4,RAC1,DBNL,PRCP,GGH,ADAM10,ANXA3,GPR84,SLC27A2,SRP14,IQGAP1,ITGAX,GALNS,PFKL,TRPM2,SLC2A5,CD53,CREG1,FCGR2A,S100A8,DEGSI,ARL8A,AHSG  ,PLAC8,IQGAP2,DOK3,GSN,SURF4,LCN2,PTPRJ,ALDOA,NDUFC2,ADAM8,LPCAT1,PTPRN2,CCT8,EEF1A1,CDA,FCER1G,ATAD3B,PDXK,ITGB2,NBEAL2,HK3,AGL,ARPC5,NCSTN,PI  GR,CTSS,S100A11,S100A9,CXCR1,NFASC,MNDA,DNASE1L3,GGY1,PRKCD,S100P,APEH,BRI3,SYK,CCT2,CLEC4D,B2M,ANPEP,EEF2,KRT1,GHDC,FTH1,RAB24,RNASE2,AGPAT2,IT  GAM,CD14,PA2G4,OSCAR,CEACAM3,LRG1,GAA,CANT1,C3AR1,ORMDL3,AZU1,RAB37,HPSE,JUP,SLCO4C1,TBC1D10C,RHOG,ANO6,CALML5,FUCA1,CXCR2,ANXA2,AP2A2,TME  M173,DGAT1,C6ORF120,METTL7A,ATP6V0C,LAMP1,FCAR,PRG2,SELL,SERPINA3,TMEM63A,TUBB,CD55,PRTN3,MME,IGF2R,DYNC1H1,PSMD12,SERPINA1,CSAR1,ATG7,ELAN </p>
GO:0002283 neutrophil activation involved in immune res	3.56E-04	3.56E-04	<p> E,CFD,SIRPA,PNP,NEU1,HSPA1B,CSNK2B,CNPE1,MIF,DDOST,HBB,CYFIP1 </p>
			<p> CFLAR,TFPI,PRKAR2B,CD9,FYN,SYT7,PLAUR,IGF1,SLC11A1,EHD2,CD44,PRKCH,LCP2,DCBLD2,F7,GNA15,ERBB3,MYLK,PRKCQ,RHOA,TRPC7,CDC42,VASH1,PRKACA,SCARB1,CLA  SP1,SCARF1,TXK,MCAM,DGKD,CAP2B,FAP,GNB1,EDN1,P2RX5,CD59,GNAS,AURKA,GP6,GNA11,DOCK9,RCOR1,PABPC4,APOH,CAPN3,TGFB2,CBX5,EPB41L4B,ITPR3,XBP1,HM  OX1,PDGFB,MYH9,ITPK1,HIF1A,HNF4A,MYL12A,STK24,MAPK3,PGCP,PLAT,TGFB1,PTPRS,CAV1,HSPB1,SERPINE1,GATA3,P2RX1,AKAP10,COL1A1,ALOX12,PRKAR1A,ODAM,EH  D1,FOLR1,APOA5,VWF,SH2B3,PTPN6,SMOC2,HBEFG,DPYSL3,PRKAR2A,FN1,PROC,HDAC1,CAP2A1,MFN2,SERPINC1,TNFAIP3,GNA13,AKAP1,CCR2,PIK3CA,NFE2,RREB1,WNT1  ,IRF1,FLRT3,PROZ,PRKCG,F2RL3,MACF1,ADORA2A,KLK8,DOCK6,COL5A1,GATA5,F12,ZFYVE20,ITGB4,H3F3B,SYT11,LYPE1,VAV3,PDGFRA,CD36,PHF21A,MICAL1,TEC,SERPINE2  ,RAC1,IL6,DGKB,GATA4,TOR1A,STXB1P,TLN1,ARRB1,PRCP,THBS1,MYOF,ENTPD1,FGF2,TRPC3,FGF7,TPM1,PDPK1,ARRB2,PIK3R5,ERBB2,SIGLEC10,CYR61,DUSP10,REG3G,PHL  DB2,DGKQ,PDGFC,PIK3R1,GNA12,DGK2,PAK1,FERMT3,DOCK1,ADAM17,DST,PRKCA,MIA3,WNT7A,RHOC,GNA14,GNAQ,CD109,NRG1,DGKI,PAFAH2,FCER1G,CSRP1,TF3,TF  2,VAV2,ADAMTS13,SH2B2,INHBB,CLASP2,CCR1,PRKCD,AIMP1,METAP1,KLKB1,COL1A2,YWHAZ,SYK,PRKACG,PRKCB,SMAD3,CRK,SERPINF2,KLK6,KRT1,IRF2,CX3CR1,COL3A1,  GP9,ZFPM2,PDGFD,PRKCE,MORN4,FGA,PIK3CD,PTEN,CYP4F11,JMJD1C,GAP43,FIBP,CORO1B,HPSE,C1QTNF1,CD34,SELP,HRAS,A2M,ANO6,ERBB4,GP5,PTPN11,ZFPM1,F2,LC  K,ACTG1,MAFF,GP1BA,PRKG1,ZFP36L1,RTN4RL1,RTN4RL2,TMPRSS6,P2RX2,PRKAR1B,FZD9,BLOC1S3,PRTN3,NACA,AJAP1,HDAC2,NF1,SRG,PDGFA,SERPINE2,PLCG2,MAFK,C6 </p>
GO:0009611 response to wounding	3.56E-04	3.56E-04	<p> ORF89,F5,MTOR,INPP5F,CAP2A,AGER,C6ORF25,POU5F1,DDR1,KRT6A,CUIC1,HBB,INSL3,LYN,ITGB3,EPPK1,PIK3R6,ADORA3,MIR34A </p>
			<p> PRKAR2B,PKD2,BAIAP2L1,FYN,PIK3C2A,IGF1,ATP6V0A1,HDAC9,BCAR1,NPFFR2,NGFR,PRKCQ,CACNB1,PKM2,PRKCZ,NUCKS1,TGFB3,EIF2B3,CAMK2A,PRKACA,ACTN2,GSK3B  ,GNAS,PXN,NLRP1,SORBS1,XBP1,LGMN,TSC2,AKT2,ATP1A3,JAK3,PIK3R2,GSK3A,CAV2,CAV1,NOD1,GCK,HDACS,PRKAR1A,GAB1,TCIRG1,EIF2B1,TIMELESS,GPLD1,GHR,PRLR,A  TP6VOE1,KAT2B,PRKAR2A,CISH,STAT1,ARHGFE2,PIK3R3,RHOQ,IDE,GOT1,CRHR1,SOCS2,ADCY7,HCRTR1,PIK3CA,NR4A1,LRP1,PCK1,IL1B,RPL23,STAT5A,GDF15,PPARG,PTPRE,  INPP5K,PTPN22,ROCK2,APC,CD36,TBC1D4,GH2,ATP6V1G1,HCRTR2,CPEB2,ADCY3,IGF1R,PDPK1,TP53,CACNA1A,AKT1,CAPN10,RAB13,AGTR1,EIF2B5,AHSG,PIK3R1,NPFFR1,F  ER,PDE3B,PID1,ADCY8,GHRL,APPL1,ATP6V0D1,ZBTB7B,SHC1,SH2B2,ADCY9,INHBB,CCKAR,PRKCI,PRKCD,ADCY1,CDK5,PRKACG,TSHR,TSC1,VWA2,PRKCB,NOD2,STAT3,AHCL  1,GRM5,IRS1,PCSK9,ADRB2,PTK2,SIK2,PLA2G1B,INSR,ATP6V0E2,SLC25A33,PRNP,RELA,ADCY5,STAT5B,TLR6,ADCY6,PTPN2,BAIAP2,GRB2,PTPN11,OXTR,ADIPOQ,ATP6V0A2,Z  </p>
GO:1901652 response to peptide	3.68E-04	3.68E-04	<p> FP36L1,ATP6V0C,FFAR3,IRS2,QRFPR,PRKAR1B,PTPN1,SLC30A10,CASP4,SRG,ENPP1,AGER,CPEB1,EIF6,ATP6V1E2,PRKDC,LYN,MIR145 </p>

			ANKIB1,UPF1,OSBPL7,MLXIPL,DCN,NUB1,RNF14,IGF1,TNFRSF1B,RNF19A,HERPUD1,GNAI3,ATXN3,SIRT2,PABPC1,TNRC6C,ITCH,KEAP1,HSP90AA1,LRP2,GSK3B,KHSRP,EDEM2,EZR,WAC,GTPBP1,TNRC6B,SPTLC2,HIF1A,SMAD7,RNF125,AXIN1,TSC2,STUB1,MEFV,SGTA,AKT2,GSK3A,CAV1,DVL1,CPEB3,FBXW7,SH3D19,APOA5,CD81,CAMKK2,RBM24,GPLD1,CSNK1A1,RAB3GAP1,SUMO1,NFE2L2,TMEM59,PARK7,KIAA1324,MFN2,STK11,APOA1,RAB3GAP2,CLU,LRP1,PFKFB2,RNF114,CNOT1,IL1B,TICAM1,KDR,EIF2AK4,CBFA2T3,SH3BP4,SNX9,SESN2,ATPIF1,TRIM22,PRKAA1,HSPBP1,EDEM1,PUM1,RNF138,UBQLN1,PRR5L,CALCOCO2,DAB2IP,RNF144B,BBS7,PRICKLE1,FURIN,TOB1,CSNK1D,ARNT,RALB,METTL14,NKD2,PLK2,MTDH,LRSAM1,ADAM8,RNF144A,DAB2,SCOC,LONRF1,FLCN,LARP1,CNOT8,PHKG2,RNF166,PINK1,HK2,GPSM1,VPS11,PYHIN1,DTX3L,ZC3H12A,PRKCD,TP53INP1,PACSIN3,ARIH1,POLR2G,ADAM9,IRS1,PCSK9,ADRB2,PTK2,LONRF2,PFKFB3,INSR,SOC55,TRIM8,PTEN,TRIB1,SNX33,BNIP3,SMCR8,MAGEF1,ARIH2,PNPLA2,ZC3H12D,RAD23A,MEX3D,PTTG1IP,TBK1,FAF1,PARK2,ZFP36L1,IRS2,TPCN1,PPARA,ENTPD5,NANOS3,NANOS2,NANOS1,SUPT5H,PTPN1,DAPK1,HTT,UVRAG,SMURF1,GIGYF2,DOM3
GO:0031331 positive regulation of cellular catabolic process:	3.92E-04	3.92E-04	Z,TRIM71,CSNK1E,PLIN5,TNF,PIP4K2B
			DVL2,AP2B1,CELSR3,AP2S1,RHOA,CDC42,CELSR1,WNT11,DAAM1,PAR6A,DVL1,PFN1,SMURF2,NPHP3,WNT1,RAC1,PRICKLE1,NKD1,CLTC,ARRB2,ARHGEF19,CELSR2,RSPO3,
GO:0060071 Wnt signaling pathway, planar cell polarity pa	3.92E-04	3.92E-04	DAB2,TIAM1,DVL3,FZD5,PRICKLE2,RYK,FZD6,VANGL1,FZD4,AP2A2,MAGI2,AP2A1,SMURF1
			DVL2,SOX8,ITGA3,AP2B1,CELSR3,FUZ,CD44,AP2S1,EYA2,MYLK,FGFR2,RHOA,TGFB3,LRP6,CDC42,MPP5,GLI2,CLASP1,CELSR1,SIRT6,MEF2C,LRP2,GRHL2,WNT11,FKBP1A,KDM2B,MYH7,TGFB2,NRP1,SH3BP1,DAAM1,MTHFD1,MYLK2,SMAD7,PAR6A,NDRG4,AXIN1,TSC2,CTSH,PRKD2,TGFB1,MEGF8,RASIP1,MET,COBL,ENG,DVL1,GATA3,BMPRI1A,ACTA2,PFN1,SMURF2,SLC9A3R1,FOLR1,MYL2,TIMELESS,VEGFA,FGF1,NPHP3,TNNC1,FOXP1,STAT1,PROX1,TCF21,MTHFD1L,RREB1,WNT1,EFNB2,PAX8,TGM3,FLRT3,LIF,PODXL,SMO,DLL4,KLK14,COL5A1,GATA5,ITGB4,STARD13,MICAL2,MYBPC3,HEY2,AGT,WNT10A,SETDB2,RAC1,CCM2,GATA4,TOR1A,FGF2,BBS7,PRICKLE1,FOXN4,KRT71,TPM1,NKD1,CLTC,ARRB2,CCDC40,EPHA2,ARHGEF19,CYR61,LMO4,CELSR2,PHLDB2,SLIT2,KLHL3,RSPO3,CRB2,NOTCH1,PAK1,HMGA2,ITGB1,ADAMTS12,ADAM17,DAB2,WNT3A,WNT7A,RHOC,TIAM1,NRG1,SKI,GRHL3,STC1,BRSK1,MYL3,DVL3,VANGL2,ACTG2,BBS5,FZD5,IHH,TGFB2,CLASP2,PRICKLE2,RYK,DL1,FZD6,ARHGAP12,RET,DCHS1,CTNNB1,RBPJ,SEMA4C,CXCL10,ROBO1,ZFPM2,SEMA3E,MTSS1,S1PR1,PTEN,RPS7,VANGL1,TCAP,BRSK2,FZD4,DEAF1,CTNNBIP1,ZFPM1,SCRIB,AP2A2,RIPK4,MAGI2,COL4A1,WNT7B,PLXNB2,AJAP
GO:0048729 tissue morphogenesis	4.07E-04	4.07E-04	1,AP2A1,PDGFA,MYH6,RYR2,DLL1,SMURF1,MTOR,SOX18,TRAF3IP1,PHACTR4,BMPR2,NOTCH4,CSNK2B,DDR1,TRIM15,KRT6A,TNF,ITGB3,MIR145,MIR195,MIR1-2
			CAMKK1,DAPK2,WNK1,HIPK2,SIRT2,CAMK2A,MARK2,UBE2K,GSK3B,CAD,NLK,VRK1,MYLK2,SMAD7,AXIN1,PRKD2,TGFB1,GSK3A,PRKAG2,HIPK3,CAMKK2,EIF4G1,STK11,PKN1,INPP5K,DCLK1,CAMK1,ROCK2,ACVR1B,CAB39,SPRY2,EGF,MYLK3,PDPK1,RPTOR,AKT1,GALNT2,CALM2,DGKQ,CAMK2D,MYLK4,TTBK1,PAR3,CAMK2G,CHEK1,PRKCA,PPEF2,PHKG2,PSKH1,CALM3,TGFB2,PRKCD,CAMKV,LMTK2,PHKG1,CDK5,STOX1,SPRED1,PRKCB,DAPK3,MAP2K1,CDK1,DCLK2,AZU1,OXSR1,TNKS,GALNTL6,CDK5R1,ULK1,CAMK1D
GO:0018210 peptidyl-threonine modification	4.07E-04	4.07E-04	,TBK1,CDK10,SBK1,SPRED2,STK39,CALM1,CSNK2B

GO:0031400 negative regulation of protein modification pi	4.12E-04	<p>4.12E-04 3,TNF,PRKDC,LYN,PINX1,SOC57,SRICIN1,MIR24-2</p> <p>PRKAR2B,IBTK,JARID2,MLXIPL,HHATL,DCN,BRCA1,MVP,ZMYND11,WWTR1,STRAP,LMO3,ATP2B4,U2AF2,PRKCZ,HYAL2,SIRT2,LRP6,NCK2,XRCC1,DNAJC10,ITCH,TP73,GSK3B,GSTP1,MECOM,PPP1R15A,C14ORF166,FKBP1A,IRAK3,TFAP4,SEMA6A,CAPN3,EZR,ABL1,CRKL,SMARCB1,PPM1F,PTK6,RASSF2,CDK5RAP1,SMAD7,N4BP1,TSC2,PYCARD,SFRP1,UBRS5,TGFB1,PPP2R1A,PIK3R2,FKBP8,CDK6,CAV1,HSPB1,PRKAG2,LIMK1,ENG,TESK1,DVL1,PBLD,CDK5RAP3,DUSP3,PRKAR1A,YWHAE,SLC9A3R1,SUPTGH,SNX25,CBL,HIPK3,CORO1C,DUSP16,CDKN1B,PTPN6,ZNF451,PHF1,DUSP22,PDE4D,PPP2CA,H2AFY,PRKAR2A,USP4,CBLB,CISH,EIF4G1,TMEM59,ERRF1,PARK7,IVNS1ABP,SGS2,SGS4,TNFAIP3,DUSP1,SOCS2,TARDBP,CRY2,LAX1,PMPEA1,CDKN1A,IL1B,RPL23,FLRT3,PRKCG,PIN1,STYXL1,PRKRIP1,LRRCA4,CDKN1C,DNMT1,SH3BP5,LRRCA4B,VPS25,PODNL1,PER2,PRKAA1,INP5K,GPS2,EPHB2,MEN1,PTPN22,ROCK2,APC,TAOK3,PRR5L,CDK4,PKIB,SPRY2,DAB2IP,ARRB1,SORL1,SMAD6,EMILIN1,SGS3,TARBP2,RB1,WARS,IGF1R,NTRK3,PDPK1,NCOR1,MYOCD,ARRB2,PRDM15,AKT1,CBLC,NLRP12,RPL11,ENSA,DUSP10,CALM2,SPOPL,SLIT2,DGKQ,TNIP1,BOD1,IGFBP3,EPHA1,MFHAS1,PAR3,PTPRJ,RPS3,PPP1R1C,GPD1L,CDYL,PTPRR,PID1,FLCN,GNAQ,PEPF2,DUSP2,XDH,PPP1R15B,PINK1,CTBP1,ZFYVE28,CALM3,ADAR,VPS28,UBXN1,LRP5,DUSP19,PAQR3,DTX3L,ZC3H12A,KLF15,SENP2,PRKCD,SPRY1,DUSP7,WNK2,SPRED1,LRTM2,BAG5,SMPD1,TRIM44,PSCA,NXN,OTUB1,CTNNB1,PKIG,RGS14,GPS1,YWHAG,CRTAP,SDR16C5,SOC55,HDAC3,PTEN,RP57,PRNP,QARS,PARP14,TRIB1,DAG1,PODN,C3ORF33,SH3BP5L,PPM1E,PTPN2,CHMP6,SMCR8,PARP10,TAFA7,PER1,PAK2,ADIPOQ,DUSP8,CIB1,PRMT3,GP1BA,PARK2,NTF3,RTN4RL1,AIDA,NF2,HEXIM1,MAPT,RTN4RL2,SEMA4D,PRKAR1B,NOC2L,RNF222,INCA1,PTPN1,NF1,ZGPAT,ENPP1,SPRED2,CALM1,INPP5F,TRAF3IP1,HSPA1B,AKT1S1,TRIM27,MIR124-</p>
GO:0051186 cofactor metabolic process	4.12E-04	<p>4.12E-04 EEF1G,HMB5,SLC5A8,THPTA,ACACA</p> <p>GCLC,CD38,ACSM3,MPO,CROT,PKD2,GGCT,COX10,NADK,MLXIPL,PRSS3,FYN,COX15,DPEP1,IGF1,ALAS1,GCLM,MAT2B,CYBA,HAGH,FAR2,GSTO2,ME1,ELOVL1,FECH,PFKP,PKM2,HDAC4,COASY,KCNAB2,PTGS2,ENO1,ACAT1,MOCOS,SLC46A1,ACACB,PGM1,CPOX,HSP90AA1,ME2,GSTP1,AKR1B1,MGST2,COQ9,SLC23A2,BLVRB,DL2,VNNA3,FMO2,ACOT7,TECR,GGT5,GGT1,CYB5R3,HMOX1,TSPO,GSTZ1,HIF1A,MTHFD1,GSS,AHIC,ABCC1,NARF1,NUBP1,HMOX2,QPRT,GDAP1,GPI,NAMPT,OGDH,PRKAG2,GCK,PHYH,CUBN,GLRX3,AADAT,BST1,PDHX,COQ5,MVK,TPI1,ENO2,VNNA2,ACOT13,GHR,NNT,PCCB,TP53I3,GPD2,PARK7,KMO,SLC2A1,ACOT2,ELOVL3,GOT1,MTHFD1L,CAT,LIAS,ZNF205,SLC25A16,PKFB2,ACSL3,MTRR,MCEE,MOC51,GNMT,GOT2,CLYBL,PANK2,STAT5A,PPCS,RAC2,CBFA2T3,GAMT,PXDNL,ATPIF1,ACLY,PRKAA1,MMACHC,CNDP2,GSTM3,LDHA,PSAT1,ISCA1,NT5E,COQ10A,ISCU,ALDH1L2,SUCLA2,RA1,ALDOB,FPGS,BAAT,GGH,DUOX1,PPDCD,PRK2,MMAB,NCOR1,PFKL,AKT1,PGD,ARNT,CIAO1,NAT8,SLC25A38,ALDH1L1,SCD5,CBR4,PXDNL,ADHFE1,GSTO1,HSD17B12,ALDOA,MAT1A,ACSL1,PFKM,GPD1L,PANK1,ACMSD,ACSS1,MMS19,HKDC1,HK1,AHCYL2,HLC5,ADPGK,HK2,PDXK,FTCD,FLAD1,HK3,ACOT11,HAPO,CABC1,PMVK,MTHFD2L,NMNAT3,TKT,MOC52,ACSL6,PGAM2,PGM2L1,PRDX3,GPT2,CYB5A,NMNT,MVD,LMBRD1,PDHB,AHCYL1,GSTM4,CTRB2,NFU1,BTD,SLC23A1,ELOVL6,PFKFB3,INSR,CYP4F11,BPGM,SUCLG2,PDP2,NADSYN1,DCAKD,COQ2,PC,SLC19A1,STAT5B,PCCA,ACSF3,TYMS,SHMT1,ACOT4,PARP10,OPLAH,PIPOX,D2HGDH,HDH2,A,CSM5,ACSM2A,RNLS,DGAT1,PPARA,ENTPD5,AKR1C3,THEM5,NOXO1,TPK1,ACSL5,FAR1,ELOVL2,AKR1B10,TAT,CALM1,PNP,HBA1,GPX3,GSTM2,PPT2,ACBD6,GPX1,EIF6,HBB,</p>
GO:0010563 negative regulation of phosphorus metabolic	4.12E-04	<p>4.12E-04 B,INCA1,PTPN1,NF1,ZGPAT,PDGFA,ENPP1,SF1,SPRED2,CALM1,INPP5F,TRAF3IP1,TMEM225,AKT1S1,TRIM27,MIR124-3,ELFN1,TNF,PRKDC,LYN,SOC57,SRICIN1,MIR24-2</p> <p>PRKAR2B,IBTK,MLXIPL,DCN,SLC7A14,MVP,ZMYND11,WWTR1,STRAP,LMO3,WNK1,RIMBP2,PPP2R5A,PRKCZ,HYAL2,HDAC4,SIRT2,LRP6,NCK2,DNAJC10,ITCH,TP73,GSK3B,GSTP1,MECOM,PPP1R15A,C14ORF166,FKBP1A,DYNLL1,IRAK3,TFAP4,SEMA6A,EZR,TGFB2,GPATCH2,ABL1,CRKL,PPM1F,PIK3IP1,PDGFB,PTK6,RASSF2,CDK5RAP1,SMAD7,TSC2,PYCARD,SFRP1,SH2D4A,TGFB1,PPP2R1A,PIK3R2,ELL,FKBP8,GSK3A,CDK6,CAV1,HSPB1,PRKAG2,ENG,TESK1,DVL1,PBLD,CDK5RAP3,DUSP3,PRKAR1A,YWHAE,SLC9A3R1,SNX25,CBL,HIPK3,CORO1C,CSRNP2,DUSP16,CDKN1B,PTPN6,DUSP22,PDE4D,PPP2CA,H2AFY,PRKAR2A,CBLB,CISH,EIF4G1,ERRF1,PARK7,SGS2,SGS4,DUSP1,SOCS2,TARDBP,CRY2,LAX1,PMPEA1,CDKN1A,IL1B,FLRT3,PIN1,PKMYT1,STYXL1,PRKRIP1,LRRCA4,CDKN1C,CBFA2T3,SLC27A1,SH3BP5,LRRCA4B,VPS25,PODNL1,INPP5K,GPS2,EPHB2,MEN1,PTPN22,ROCK2,SPOCD1,APC,TAOK3,PRR5L,CDK4,PKIB,SPRY2,DAB2IP,SYTL2,SORL1,SMAD6,EMILIN1,SGS3,TARBP2,RB1,WARS,IGF1R,NTRK3,PDPK1,NCOR1,MYOCD,PRDM15,AKT1,LMTK3,CBLC,NLRP12,ENSA,DUSP10,CALM2,SLIT2,DGKQ,TNIP1,BOD1,IGFBP3,EPHA1,MFHAS1,PAR3,PTPRJ,DLG2,PPP1R1C,TMEM132D,GPD1L,FARP1,HNRNP1U,PTPRR,PID1,FLCN,GNAQ,PEPF2,DUSP2,XDH,PPP1R15B,CDA,PINK1,ZFYVE28,CALM3,RRP1B,ADAR,LRP5,CNST,DUSP19,PAQR3,ZC3H12A,PRKCD,SPRY1,DUSP7,WNK2,PRDX3,SPRED1,LRTM2,SMPD1,ELFN2,MIDN,PSCA,WDR81,PKIG,CD2BP2,RGS14,GPS1,YWHAG,SOC55,HDAC3,PTEN,PRNP,QARS,PARP14,TRIB1,DAG1,PODN,PDE12,C3ORF33,SH3BP5L,PPM1E,PTPN2,CHMP6,MYO1D,ANKLE2,SMCR8,CSRNP3,TAFA7,PER1,PAK2,ADIPOQ,DUSP8,CIB1,GP1BA,PARK2,NTF3,RTN4RL1,IRS2,AIDA,NF2,HEXIM1,MAPT,RTN4RL2,PPARA,SEMA4D,PRKAR1B,INCA1,PTPN1,NF1,ZGPAT,PDGFA,ENPP1,SF1,SPRED2,CALM1,INPP5F,TRAF3IP1,TMEM225,AKT1S1,TRIM27,MIR124-3,ELFN1,TNF,PRKDC,LYN,SOC57,SRICIN1,MIR24-2</p>
GO:0048667 cell morphogenesis involved in neuron differ	4.12E-04	<p>4.12E-04 ,TWTF2,CUX1,CYFIP1,SRICIN1</p> <p>SEMA3F,SARM1,PLXND1,MAPK8IP2,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,GPC1,NGFR,NTN1,PRKCO,CTNNA2,NGEF,FGFR2,RHOA,MEF2A,SPTB,CDC42,EPHA8,MARK2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNMT2,CHRNA3,HSP90AA1,MEF2C,GSK3B,ULK2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AA1,ABL1,NRP1,EFNA2,RPS6KA5,MAPK3,PTPRS,MEGF8,MAG,SCN1B,COBL,WASL,LIMK1,DVL1,GAB1,RAPGEF2,CUX2,C12ORF57,VEGFA,CLIC5,SEMA5A,UNC5A,PLXNA1,SPTBN1,RTN4,TNR,ARTN,NRP2,TNFRSF8,SLITR3,PIK3CA,OBSL1,PLCG1,RAP2A,EFNB2,PSPN,VASP,GFRA4,LRFN3,MACF1,RNF6,CHN1,OLFM1,MAP1B,UNK,DLG4,BTBD3,EPHB2,SEMA4F,DOCK10,PLXNC1,FAM129B,STXBP1,SPTBN5,ZNF365,SSH2,ARHGDI1,TBCD,RNF165,GRB7,CELSR2,EFNA3,CNTN4,GOLGA4,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PAR3,PAK1,NCAM1,FEZ1,TAOK2,ANK3,PTPRO,FRS2,APBB1,KIF5C,EFNA1,PTK2,SDC2,NLGN1,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,MAP6,PIK3CD,KND1,PTEN,DAB1,PTPRM,SPTBN2,BRSK2,FBXW8,BAIAP2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,PTPN11,NRXN1,MAP6D1,SHAH2,LRRCC5,SLIT3,EFNA5,IRS2,MAPT,SLIT1,SEMA4D,PLXNB2,PDLM7,SRC,S100A6,NTRK1,ATL1,ARC,LINGOA,PLXNA4,TLR9</p>

GO:0007045 cell-substrate adherens junction assembly	4.14E-04	4.14E-04	2,RAC1,THBS1,BCAS3,PIP5K1A,PHLDB2,PTPRJ,TAOK2,PTPRK,WHAMM,CLASP2,DLCL1,TSC1,DAPK3,PTK2,LIMS1,PTEN,RHOD,RCC2,EFNA5,SRC,S100A10,LDB1
GO:0048041 focal adhesion assembly	4.14E-04	4.14E-04	2,RAC1,THBS1,BCAS3,PIP5K1A,PHLDB2,PTPRJ,TAOK2,PTPRK,WHAMM,CLASP2,DLCL1,TSC1,DAPK3,PTK2,LIMS1,PTEN,RHOD,RCC2,EFNA5,SRC,S100A10,LDB1
GO:0030168 platelet activation	4.35E-04	4.35E-04	OC1S3,SRC,PDGFA,PLCG2,C6ORF25,CLIC1,HBB,LYN,ITGB3,PIK3R6
GO:0034333 adherens junction assembly	4.74E-04	4.74E-04	100A10,LDB1

GO:0002218	activation of innate immune response	4.85E-04	4.85E-04	<p>SARM1, CREBBP, FYN, NR1H4, MATR3, BIRC3, NR1H3, TNIP3, CYBA, PUM2, CASP8, UFD1L, PRKACA, PIK3C3, ITCH, XRCC5, WDFY1, IRAK3, MAP3K1, MAP3K7IP1, EP300, RPS6KA5, HCK, RNF125, RIOK3, PYCARD, RELB, PTPRS, CAV1, NOD1, ICAM2, DHX58, UNC93B1, MAPKAPK3, IFIH1, SFPQ, MUC5B, TNFAIP3, SFTPA1, IRF1, FFAR2, NR1D1, IRF3, TICAM1, SEC14L1, LBP, SMPDL3B, TRAF3, RFTN1, ANKRD17, CLEC10A, GPS2, SFTPD, KRAS, IRAK2, PTPN22, RSAD2, PUM1, CD36, TANK, DAB2IP, CNPY3, RIPK1, FLOT1, DDX60, PDPK1, S100A8, REG3G, MUC4, TNIP1, MFHAS1, PAK1, TIRAP, UBC, PIK3AP1, FCER1G, ITGB2, S100A1, FCRL3, LRRC14, MAPKAPK2, CTSS, S100A9, IFI16, AIM2, PRKCD, OTUD4, TLR3, SYK, PRKACG, CLEC4D, NOD2, MUC15, ITGAM, CD14, PRKCE, FGA, MALT1, MYD88, RELA, TLR10, TLR1, TLR6, HRAS, TRAF6, MUC20, UBE2N, PAK2, NPLOC4, TBK1, TMEM173, MUC6, MUC1, IRF7, CD300LF, HEXIM1, TLR5, TREML4, S100A14, SRC, PLCG2, IRAK4, CARD11, HSPA1B, NFKB1L1, MUC21, TRIM15, LGR4, MUC12, RBM14, TLR9, UBE2V1, PRKDC, LYN, TRIL, IKBKE</p>
GO:0045936	negative regulation of phosphate metabolic p	4.85E-04	4.85E-04	<p>PRKAR2B, IBTK, MLXIPL, DCN, SLC7A14, MVP, ZMYND11, WWTR1, STRAP, LMO3, WNK1, RIMBP2, PPP2R5A, PRKCZ, HYAL2, HDAC4, SIRT2, LRP6, NCK2, DNAJC10, ITCH, TP73, GSK3B, GSTP1, MECOM, PPP1R15A, C14ORF166, FKBP1A, DYNLL1, IRAK3, TFAP4, SEMA6A, EZR, TGFβ2, GPATCH2, ABL1, CRKL, PPM1F, PIK3IP1, PDGFB, PTK6, RASSF2, CDK5RAP1, SMAD7, TSC2, PYCARD, SFRP1, SH2D4A, TGFβ1, PPP2R1A, PIK3R2, ELL, FKBP8, CDK6, CAV1, HSPB1, PRKAG2, ENG, TESK1, DVL1, PBLD, CDK5RAP3, DUSP3, PRKAR1A, YWHAE, SLC9A3R1, SNX25, CBL, HIPK3, CORO1C, CSRNP2, DUSP16, CDKN1B, PTPN6, DUSP22, PDE4D, PPP2CA, H2AFY, PRKAR2A, CBLB, CISH, EIF4G1, ERF1, PARK7, RGS2, RGS4, DUSP1, SOCS2, TARDBP, CRY2, LAX1, PMPED1, CDKN1A, IL1B, FLRT3, PIN1, PKMYT1, STYXL1, PRKRIP1, LRRC4, CDKN1C, CBFA2T3, SLC27A1, SH3BP5, LRRC4B, VPS25, PODNL1, INPP5K, GPS2, EPHB2, MEN1, PTPN22, ROCK2, SPOC1, APC, TAOK3, PRR5L, CDK4, PKIB, SPRY2, DAB2IP, SYTL2, SORL1, SMAD6, EMILIN1, RGS3, TARBP2, RB1, WARS, IGF1R, NTRK3, PDPK1, NCOR1, MYOCD, PRDM15, AKT1, LMTK3, CBL, NLRP12, ENSA, DUSP10, CALM2, SLIT2, DGKQ, TNIP1, BOD1, IGF1R, EPHA1, MFHAS1, PARD3, PTPRJ, DLG2, PPP1R1C, TMEM132D, GPD1L, FARP1, HNRNP, PTPRR, PID1, FLCN, GNAQ, PPEF2, DUSP2, XDH, PPP1R15B, CDA, PINK1, ZFYVE28, CALM3, RRP1B, ADAR, LRP5, CNST, DUSP19, PAQR3, ZC3H12A, PRKCD, SPRY1, DUSP7, WNK2, PRDX3, SPRED1, LRTM2, SMPD1, ELFN2, MIDN, PSCA, WDR81, PKIG, CD2BP2, RGS14, GPS1, YWHAG, SOCS5, HDAC3, PTEN, PRNP, QARS, PARP14, TRIB1, DAG1, PODN, PDE12, C3ORF33, SH3BP5L, PPM1E, PTPN2, CHMP6, MYO1D, ANKLE2, SMC8, CSRNP3, TAF7, PER1, PAK2, ADIPOQ, DUSP8, CIB1, GP1BA, PARK2, NTF3, RTN4RL1, IRS2, AIDA, NF2, HEXIM1, MAPT, RTN4RL2, PPARA, SEMA4D, PRKAR1B, INCA1, PTPN1, NF1, ZGPAT, PDGFA, ENPP1, SFI1, SPRED2, CALM1, INPP5F, TRAF3IP1, TMEM225, AKT1S1, TRIM27, MIR124-3, ELFN1, TNF, PRKDC, LYN, SOCS7, SRCIN1, MIR24-2</p>
GO:0002758	innate immune response-activating signal tra	4.96E-04	4.96E-04	<p>SARM1, CREBBP, FYN, NR1H4, BIRC3, NR1H3, TNIP3, CYBA, PUM2, CASP8, UFD1L, PRKACA, PIK3C3, ITCH, WDFY1, IRAK3, MAP3K1, MAP3K7IP1, EP300, RPS6KA5, HCK, RNF125, RIOK3, RELB, PTPRS, CAV1, NOD1, ICAM2, DHX58, UNC93B1, MAPKAPK3, IFIH1, MUC5B, TNFAIP3, SFTPA1, IRF1, FFAR2, NR1D1, IRF3, TICAM1, SEC14L1, LBP, SMPDL3B, TRAF3, RFTN1, ANKRD17, CLEC10A, GPS2, SFTPD, KRAS, IRAK2, PTPN22, RSAD2, PUM1, CD36, TANK, DAB2IP, CNPY3, RIPK1, FLOT1, DDX60, PDPK1, S100A8, REG3G, MUC4, TNIP1, MFHAS1, PAK1, TIRAP, UBC, PIK3AP1, FCER1G, ITGB2, S100A1, FCRL3, LRRC14, MAPKAPK2, CTSS, S100A9, PRKCD, OTUD4, TLR3, SYK, PRKACG, CLEC4D, NOD2, MUC15, ITGAM, CD14, PRKCE, FGA, MALT1, MYD88, RELA, TLR10, TLR1, TLR6, HRAS, TRAF6, MUC20, UBE2N, PAK2, NPLOC4, TBK1, MUC6, MUC1, IRF7, CD300LF, TLR5, TREML4, S100A14, SRC, PLCG2, IRAK4, CARD11, HSPA1B, NFKB1L1, MUC21, TRIM15, LGR4, MUC12, TLR9, UBE2V1, LYN, TRIL, IKBKE</p>
GO:0001736	establishment of planar polarity	5.14E-04	5.14E-04	<p>DVL2, AP2B1, CELSR3, FUZ, AP2S1, RHOA, CDC42, CELSR1, WNT11, DAAM1, PARD6A, DVL1, PFN1, SMURF2, NPHP3, WNT1, RAC1, PRICKLE1, NKD1, CLTC, ARR2, ARHGAP19, CELSR2, RSPO3, DAB2, TIAM1, BRSK1, DVL3, VANGL2, FZD5, PRICKLE2, RYK, FZD6, VANGL1, BRSK2, FZD4, AP2A2, MAGI2, AP2A1, SMURF1</p>

GO:0007164 establishment of tissue polarity	5.14E-04	<p>DVL2,AP2B1,CELSR3,FUZ,AP2S1,RHOA,CDC42,CELSR1,WNT11,DAAM1,PAR6A,DVL1,PFN1,SMURF2,NPH3,WNT1,RAC1,PRICKLE1,NKD1,CLTC,ARRB2,ARHGGEF19,CELSR2,RSPO3,DAB2,TIAM1,BRSK1,DVL3,VANGL2,FZD5,PRICKLE2,RYK,FZD6,VANGL1,BRSK2,FZD4,AP2A2,MAGI2,AP2A1,SMURF1</p>
GO:0022411 cellular component disassembly	5.76E-04	<p>DVL2,UPF1,SCIN,AKAP8L,STMN4,SPAST,RB1CC1,CD44,GABARAPL2,TIMP2,CLEC16A,LIMA1,USP36,MRPL43,MRPS24,SMARCD1,NAV3,KIF2A,LRP6,WIP1,CSNK2A2,WDR1,SREBF1,MARK2,CLASP1,WNT8B,ADD2,FSCN1,ACTN2,CAPZB,FAP,MRPL22,GSK3B,CHMP2B,OGFOD1,ADD1,DNM1L,KIF9,MRPS33,IRAK3,SUPT16H,TLL2,MRPS18A,SNAP29,CECR2,SMARCB1,SH3BP1,TRIOBP,CTSG,DICER1,VRK1,ACIN1,MMP9,MAP1LC3A,MRPS31,MMP15,AXIN1,TSC2,TGFB1,MRPL4,GSK3A,CAV1,DVL1,GBF1,CDK5RAP3,SMARCD2,FBXW7,AMBRA1,CAMKK2,TRPV4,SEMA5A,MRPS27,CSNK1A1,PARK7,ARHGFE2,MFN2,EXOC8,STMN1,ARID1A,VAMP8,NEK6,NEK9,TGFB3,MTRF1,ETF1,MTIF3,MRPS2,MMP19,LRP1,NFE2,ACVR1C,WNT1,MRPS7,RPL23,DSTN,KLC1,SMARCA4,MRPS12,TTBK2,MRPL34,MAP1S,CHMP2A,ATPIF1,C12ORF65,CHMP1A,MRPS25,PTCD3,ERAL1,VPS4A,MICAL2,MRPS36,LPIN1,APC,UBQLN1,USP30,SNX14,MICAL1,LAMC1,MRPL44,LCP1,CALCOCO2,STX17,MRPL50,FLOT1,MMP7,MMP13,ADAM10,SMARCC2,DENR,IGF1R,FURIN,KATNB1,MAP1LC3B,WDR45L,CAPN10,PEX14,KIF2C,MRPL24,DYRK3,ADAM15,MRPS5,LIX1,ATG12,SCUBE3,MRPS28,GSN,MRRF,EP58,ADAM8,PLEKHH2,PRKCA,WNT3A,OXAL1,MMP14,WIP12,PINK1,MRPL10,ATP13A2,HK2,TAOK1,DEDD2,FGFR4,SQSTM1,DVL3,STX5,DDR2,MRPL55,CTSS,FZD5,MRPS18C,CLASP2,DNASE1L3,MFI2,APEH,KLKB1,CFL2,HTRA1,PRKCB,BLCA P,MMP10,MRPL16,ENDOG,KLK2,CTNNB1,ATG4B,CTRB2,KLK7,ADRB2,DFFB,SLN,GABARAP,CDK1,KIF5B,INSR,BSG,PPP1CA,CHCHD1,MRPL52,SMARCC1,SH3PXD2B,MRPS22,CKAP5,AURKAIP1,A2M,BNIP3,CIDEA,BOK,SMCR8,GAK,GADD45GIP1,MRPL14,MRPS23,ATG9B,MRPL41,MRPL54,CIB1,PARK2,TMPRSS6,H1FO,KIF19,NOXO1,MMP1,MRPL21,HTT</p>
GO:0110053 regulation of actin filament organization	5.76E-04	<p>CX3CL1,BAIAP2L1,CCL26,SCIN,MYOC,LIMA1,NCKAP1,LIMCH1,RHOA,PFN2,CDC42,NCK2,WDR1,CLASP1,ARHGFEF10L,ADD2,ACTN2,CAPZB,RAPGEF3,SSH1,CTTN,WNT11,ADD1,PXN,SLC9A1,ABL1,NRP1,PPM1F,SH3BP1,TRIOBP,HCK,CORO1A,PYCARD,SFRP1,ARHGFEF10,MET,CCL24,LIMK1,TESK1,CSF3,PFN1,SEMA5A,ACTR3,STMN1,APOA1,TGFB3,PTK2B,VASP,CCR7,CDC42EP1,ARPC1B,HIP1R,PPFIA1,ARFIP2,INPP5K,ROCK2,FHOD1,RAC1,BIN1,FCHSD2,TPM1,SSH2,ARF1,PHLDB2,SLIT2,IQGAP2,RASA1,ARHGAP18,EPHA1,GSN,PAK1,CDC42EP2,FER,EP58,PLEKHH2,RHOC,WHAMM,WASF2,SHANK1,ARPC5,ARPC2,CLASP2,PRKCD,ARFIP1,DLCL1,CFL2,ARF6,TSC1,SYNPO2L,CDC42EP5,SERPINF2,LMOD2,PRKCE,SYNPO,SYNPO2,CORO1B,PPM1E,BAIAP2,CDC42EP4,HCLS1,PARK2,NF2,ARAP1,PFN3,S100A10,FCHSD1,LPAR1,TRIM27,ARPC4,ARPC1A,TWF2,CYFIP1</p>
GO:1902903 regulation of supramolecular fiber organization	6.00E-04	<p>CX3CL1,BAIAP2L1,CCL26,SCIN,MYOC,LIMA1,NCKAP1,LIMCH1,RHOA,NAV3,PFN2,CDC42,NCK2,WDR1,CLASP1,ARHGFEF10L,ADD2,ACTN2,CAPZB,MAP2,EDN1,RAPGEF3,SSH1,CTTN,WNT11,ADD1,PXN,SLC9A1,ABL1,NRP1,PPM1F,SH3BP1,TRIOBP,CHADL,HCK,MAPRE1,CORO1A,PYCARD,SFRP1,ARHGFEF10,CLIP3,MET,CCL24,LIMK1,TESK1,CSF3,PFN1,RANGRF,CRYAB,TRPV4,SEMA5A,ACTR3,PARK7,ARHGFE2,STMN1,PROX1,APOA1,TGFB3,CLU,PTK2B,VASP,CCR7,CDC42EP1,TTBK2,ARPC1B,CAMSAP1,CLIP1,HIP1R,PPFIA1,ARFIP2,INPP5K,ROCK2,APC,FHOD1,RAC1,BIN1,CDK5RAP2,FCHSD2,NUMA1,RB1,TPM1,MYLK3,KATNB1,SSH2,TBCD,ARF1,ANKRD53,PHLDB2,SLIT2,IQGAP2,RASA1,ARHGAP18,EPHA1,GSN,PAK1,RPS3,CDC42EP2,FER,EP58,PLEKHH2,RHOC,WHAMM,WASF2,TAOK1,SHANK1,ARPC5,ARPC2,CLASP2,PRKCD,ARFIP1,DLCL1,CFL2,ARF6,TSC1,SYNPO2L,CDC42EP5,SERPINF2,AKAP13,LMOD2,PRKCE,SYNPO,SYNPO2,CORO1B,PPM1E,BAIAP2,CDK5RAP2,CDC42EP4,HCLS1,FES,CIB1,PARK2,NF2,ARAP1,MAPT,PFN3,S100A10,FCHSD1,LPAR1,HSPA1B,TRIM27,DCTN1,ARL2,GPX1,ARPC4,ARPC1A,TWF2,CYFIP1,MIR1-2</p>



GO:0002009 morphogenesis of an epithelium	6.08E-04	6.08E-04 P1,PHACTR4,NOTCH4,CSNK2B,DDR1,KRT6A,TNF DVL2,SOX8,AP2B1,CELSR3,FUZ,CD44,AP2S1,FGFR2,RHOA,LRP6,CDC42,MPP5,GLI2,CLASP1,CELSR1,SIRT6,MEF2C,LRP2,GRHL2,WNT11,KDM2B,TGFB2,NRP1,SH3BP1,DAAM1, MTHFD1,PAR6A,NDRG4,TSC2,CTSH,PRKD2,TGFB1,MEGF8,RASIP1,MET,COBL,ENG,DVL1,GATA3,PFN1,SMURF2,SLC9A3R1,FOLR1,TIMELESS,VEGFA,FGF1,NPHP3,FOX1,STA T1,PROX1,TCF21,MTHFD1L,RREB1,WNT1,EFNB2,PAX8,TGM3,FLRT3,LIF,PODXL,SMO,DL4,KLK14,COL5A1,STARD13,MICAL2,AGT,WNT10A,SETDB2,RAC1,CCM2,GATA4,TOR1 A,FGF2,BBS7,PRICKLE1,FOXN4,KRT71,NKD1,CLTC,ARRB2,CCDC40,EPHA2,ARHGFE19,CYR61,LMO4,CELSR2,PHLDB2,SLIT2,KLHL3,RSPO3,NOTCH1,PAK1,ADAMTS12,ADAM17,D AB2,WNT7A,RHOC,TIAM1,SKI,GRHL3,BRSK1,DVL3,VANGL2,BBS5,FZD5,IHH,TGFBR2,CLASP2,PRICKLE2,RYK,DL1,FZD6,ARHGAP12,CTNNB1,RBPJ,SEMA4C,CXCL10,SEMA3E,M TSS1,PTEN,RP57,VANGL1,BRSK2,FZD4,DEAF1,CTNNBIP1,SCRIB,AP2A2,RIK4,MAGI2,COL4A1,WNT7B,PLXNB2,AJAP1,AP2A1,PDGFA,RYR2,DL1,SMURF1,MTOR,SOX18,TRAF3I
GO:0044282 small molecule catabolic process	6.18E-04	6.18E-04 ARA,ENTPD5,DPYD,IDO2,ENTPD8,AKR1C3,FUT4,ENTPD4,ENTPD7,AKR1B10,SULT1C4,HIBCH,TAT,PNP,DDO,HEXA,DDAH2,NUDT19,PLIN5,ACAD11,BCKDHA,NUDT3,NUDT18 PON1,CROT,UPP2,NOS2,CYP24A1,TYMP,CD44,FUT8,HEXB,ENTPD2,ATP2B4,ACAA1,PFKP,PKM2,HYAL2,INPP5A,ALDH3A2,ACADVL,SCARF1,ENO1,ACAT1,PGM1,OXCT1,HAL,AC OX3,MT3,NOS1,SLC9A1,ECHDC1,UPB1,PRODH,MCAT,SLC25A17,GSTZ1,HAO1,LPIN2,CDADC1,LONP2,QPRT,BCKDK,FAH,DHDH,IL4I1,GPI,AKT2,TGFB1,SULT2A1,BCAT2,GSK3A, PON3,NUDT1,GCK,PHYH,ASPA,GALK1,BLMH,AADAT,CPT1A,ACAD10,TPI1,ENO2,PPARD,AGXT2,EH4ADH,HGD,PCCB,HYAL1,SNX17,ACADL,SCP2,MECR,HAO2,NTSC1A,KMO,AK R1A1,FAAH,GOT1,ACAT2,ECHDC2,NT5C3,ACADS,SARDH,MTRR,NAGK,MCEE,TRERF1,GOT2,NT5C,IDUA,ECHS1,SRD5A3,MPST,VD,CDO1,FUT5,IDO1,INPP5K,LYVE1,LPIN1,NT5 E,GLUL,STAB2,NUDT15,ALDOB,HADHB,KHK,ENTPD1,FGF2,HADH,AMDHD1,SLC27A2,ETFA,GCSH,IMPA2,PFKL,AKT1,GALM,ALDH1L1,AIG1,ADHFE1,DPYS,ALDOA,MAT1A,PFKM ,ACMSD,ACOXL,DDAH1,FUT6,HK1,TYSND1,CDA,ADPGK,PADI4,HK2,ALDH4A1,UROC1,CBS,FTCD,HK3,BDH1,ACOX1,AMDHD2,LRP5,HAAO,PEX13,PGAM2,PGM2L1,CRYL1,ASPG ,CYP7A1,GLYCK,ACOX2,ADAL,IRS1,DCXR,PTEN,CYP4F11,BPGM,FUT1,ACSF3,FUT2,SHMT1,ACOT4,PIPOX,ADIPOQ,ADO,SLC25A21,ABAT,AFMID,UPP1,IRS2,CYP4F12,HYAL3,PP
GO:0043161 proteasome-mediated ubiquitin-dependent p	7.32E-04	7.32E-04 22,TPORS,STYX,WWP2,SMURF1,RNF5,CSNK1E,UBXN2B,RNF103 ANKIB1,HECW1,RNF216,NUB1,RNF14,UBR2,RNF19A,HSPA5,NEDD4L,HERPUD1,ANAPC4,CUL1,RNF4,BTBD1,ATXN3,SIRT2,RNF126,SEL1L,UBE2D1,FBXW11,TBX21,KLHL20,DN AIC10,UBE2K,PPP2R5C,ITCH,KEAP1,GSK3B,PSMCS,KLHDC5,AURKA,EDEM2,NSFL1C,ANAPC5,MAEA,RFFL,WAC,HSP90A1,PSMD8,DERL3,FOXRED2,KCTD17,RNF24,SMAD7,RN F125,N4BP1,PSMD7,FBXO31,STUB1,SGTA,GSK3A,CAV1,UBE2R2,DVL1,ERLIN1,FBXW4,FBXL15,TNFAIP1,UBE2D3,WFS1,FBXW7,KCTD10,FBXO9,SKP1,CSNK1A1,CRBN,SUMO1, NFE2L2,PARK7,EDEM3,FBXO2,CDC20,KIF14,UBE2B,CLU,TRIM25,SPOP,RNF11,WWP1,GIPC1,KBTD4,RNF114,RNF6,CBFA2T3,CDC16,UBE4B,BTBD3,BTBD2,HSPBP1,AGAP3,AR NTL,RNF122,EDEM1,RNF138,UBQLN1,DERL1,RNF38,RNF144B,ARRB1,HECW2,BBS7,PRICKLE1,CUL4A,PML,ARRB2,CSNK1D,RNF165,FBXO15,RPL11,SPOPL,NKD2,RNF145,RNF 44,GNA12,ERLIN2,UBC,BTBD11,RNF144A,C18ORF25,DAB2,FBXL2,LONRF1,BUB3,BUB1B,RNF111,UBXN11,ZFAND2B,RNF166,FBXW5,UBE2J2,UBXN1,SYVN1,STT3B,RYBP,ANA PC10,ABTB2,BTRC,BAG5,ARIH1,C10ORF104,KCTD5,RNF187,TMEM129,UBE2E1,CDK1,LONRF2,SOCSS,USP19,KAT5,COMMD1,TRIB1,UBXN2A,GLMN,KCTD13,ANAPC2,MAN1B 1,ARIH2,TBL1XR1,AURKB,RAD23A,SHARPIN,ZNRF2,YOD1,KCTD2,NPLOC4,MTA1,FBXL7,BTBD9,FAF1,PARK2,ZNRF1,USP7,NHLRC1,RNF222,FHIT,ANAPC7,PCBP2,PSMD12,FBXL
GO:0071375 cellular response to peptide hormone stimuli	7.78E-04	7.78E-04 ATP6V1E2,PRKDC,LYN,MIR145 PRKAR2B,PKD2,BAIAP2L1,PIK3C2A,ATP6V0A1,HDAC9,BCAR1,NGFR,PRKCO,PKM2,PRKCZ,NUCKS1,CAMK2A,PRKACA,ACTN2,GNAS,PXN,SORBS1,XBP1,TSC2,AKT2,JAK3,PIK3R2 ,GSK3A,CAV2,CAV1,GCK,HDACS,PRKAR1A,GAB1,TCIRG1,GPLD1,GHR,PRLR,ATP6V0E1,KAT2B,PRKAR2A,CISH,PIK3R3,RHOQ,IDE,GOT1,CRHR1,SOC52,ADCY7,PIK3CA,NR4A1,IL1 B,STAT5A,GDF15,PPARG,PTPRE,INPP5K,ROCK2,APC,TBC1D4,GH2,ATP6V1G1,CPEB2,ADCY3,IGF1R,PDPK1,AKT1,CAPN10,RAB13,AGTR1,AHSG,PIK3R1,FER,PDE3B,PID1,ADCY8, GHRL,APPL1,ATP6V0D1,ZBTB7B,SHC1,SH2B2,ADCY9,INHBB,PRKCI,PRKCD,ADCY1,PRKACG,TSHR,TSC1,VWA2,PRKCB,STAT3,AHCYL1,IRS1,PCSK9,PTK2,SIK2,PLA2G1B,INSR,ATP 6V0E2,SLC25A33,RELA,ADCY5,STAT5B,ADCY6,PTPN2,BAIAP2,GRB2,PTPN11,ADIPOQ,ATP6V0A2,ZFP36L1,ATP6VOC,FFAR3,IRS2,PRKAR1B,PTPN1,SLC30A10,SRC,ENPP1,CPEB1

GO:0090175 regulation of establishment of planar polarity	7.78E-04	7.78E-04	DVL2,AP2B1,CELSR3,AP2S1,RHOA,CDC42,CELSR1,WNT11,DAAM1,PAR6A,DVL1,PFN1,SMURF2,NPHP3,WNT1,RAC1,PRICKLE1,NKD1,CLTC,ARRB2,ARHGEF19,CELSR2,RSPO3, DAB2,TIAM1,DVL3,FZD5,PRICKLE2,RYK,FZD6,VANGL1,FZD4,AP2A2,MAGI2,AP2A1,SMURF1
GO:1990138 neuron projection extension	7.95E-04	7.95E-04	SEMA3F,SEMA3G,NEDD4L,NTN1,SYT1,PLXNA2,MAP2,DNM2,RIMS1,HSP90AA1,GSK3B,ULK2,CTTN,MT3,HSP90AB1,ABL1,NRP1,CPNE6,PTPRS,MEGF8,MAG,LIMK1,RASAL1,VE GFA,SEMA5A,PLXNA1,RTN4,NRP2,CPNE5,FLRT3,MACF1,RNF6,EIF2AK4,UNC13A,OLFM1,MAP1B,IQGAP1,SYT2,CPNE9,GOLGA4,TMEM108,SLIT2,ZFYVE27,AUTS2,TRIM46,PLX NB1,CDK5,CTNNB1,ALCAM,RIMS2,ULK1,SLIT3,MAPT,SLIT1,OSTN,SMURF1,SYT3,CPNE1,PLXNA4,TWF2,CYFIP1
GO:2001235 positive regulation of apoptotic signaling patt	8.43E-04	8.43E-04	PLAUR,BID,FAS,BCLAF1,BAK1,CASP8,HYAL2,TP63,TP73,GSK3B,DNM1L,BIK,GZMB,MMP9,E2F1,PCYCARD,CTSH,BMF,SFRP1,BBC3,GSK3A,DFNA5,CAV1,YWHAE,SLC9A3R1,FBXW 7,LTBR,TPD52L1,FAM162A,SFPQ,TNFSF10,ZNF205,TRAF2,STYXL1,HIP1R,TRAF7,YWHAQ,FBXO18,HRK,AGT,NMT1,DAB2IP,RIPK1,PPP2R1B,THBS1,PML,TP53,MCL1,TP53BP2,S 100A8,ST18,GSN,NACC2,RPS3,BCL2L11,PINK1,DEDD2,ATF3,S100A9,YWHAZ,RET,LGALS9,YWHAG,BCL2L1,BCL2,PTEN,RPS7,BNIP3,BOK,PAK2,LCK,WVVOX,TFDP1,TRIM39,MLLT 11,FIS1,TNFSF12
GO:0045088 regulation of innate immune response	8.71E-04	8.71E-04	FGR,SARM1,CREBBP,FYN,NR1H4,POLR3B,MATR3,BIRC3,NR1H3,TNIP3,CYBA,PUM2,CASP8,UFD1L,PRKACA,PVR,TXK,UBE2K,PIK3C3,ITCH,XRCC5,WDFY1,IRAK3,MAP3K1,HSP90 AB1,MAP3K7IP1,EP300,RPS6KA5,HCK,SAMHD1,RNF125,RIOK3,PCYCARD,RELB,RPS19,CDC37,PTPRS,CAV1,NOD1,ICAM2,DHX58,CRTAM,UNC93B1,PTPN6,MAPKAPK3,IFIH1,ST AT1,SUMO1,SFPQ,MUC5B,TNFAIP3,SFTPA1,IRF1,FFAR2,NR1D1,IRF3,TICAM1,SEC14L1,LBP,SMPDL3B,TRAF3,RFTN1,PPARG,ANKRD17,CLEC10A,GPS2,POLR3F,SFTPD,KRAS,IRA K2,PTPN22,RSAD2,PUM1,TRAFD1,CD36,RNASEL,DHX9,TANK,DAB2IP,CNPY3,RIPK1,FLOT1,DDX60,NLRC5,PDPK1,ARRB2,S100A8,REG3G,MUC4,TNIP1,MFHAS1,PAK1,TIRAP,CD 226,UBC,ADAM8,PIK3AP1,FCER1G,ITGB2,S100A1,FCRL3,LRRC14,JAK1,SLAMF6,MAPKAPK2,CTSS,S100A9,DCST1,IFI16,AIM2,PRKCD,OTUD4,ERAP1,TLR3,SYK,PRKACG,CLEC4D, AP1G1,NOD2,NLRC3,POLR3D,IL12A,LGALS9,MUC15,ITGAM,OTUD7A,CD14,PRKCE,FGA,MALT1,RASGRP1,MYD88,RELA,PARP14,TLR10,TLR1,TLR6,HRAS,TRAF6,PTPN2,A2M,M UC20,UBE2N,PTPN11,PAK2,NPLOC4,CADM1,TBK1,TMEM173,MUC6,USP18,MUC1,IRF7,IAMP1,CD300LF,HEXIM1,TLR5,TREML4,S100A14,PTPN1,SRC,PLCG2,IRAK4,CARD11,S H2D1B,RAET1G,HSPA1B,NCR3,NFKBIL1,MUC21,TRIM15,LGR4,MUC12,RBM14,TLR9,UBE2V1,PRKDC,LYN,TRIL,IKBKE,CCL5,PIK3R6

<p>GO:0042119 neutrophil activation</p>	<p>9.40E-04</p>	<p>FGR,FUCA2,MPO,ITGAL,ALDH3B1,MGST1,PGLYRP1,MMP25,PRSS3,PLAUR,ALOX5,MVP,ACPP,SLC11A1,SERPINB1,RNASET2,CD44,TNFRSF1B,GRN,ATP6V0A1,TIMP2,AGA,HEX B,CYBA,HEBP2,GDI2,ACAA1,CTSA,CDK13,PKM2,RHOA,ATP11A,KCNAB2,RAB27A,STK10,AP1M1,PLD1,RAB7A,STXBP2,TOLLIP,XRCC5,PGM1,HSP90AA1,PP1E,GSTP1,CD59,CPNE 3,B4GALT1,DYNLL1,CMTM6,SNAP23,UNC13D,HSP90AB1,RAB18,SNAP29,CYB5R3,TOM1,CTSG,MMP9,PYGB,DNAJC5,CTSZ,SIRPB1,VAPA,OLFM4,PSMD7,COTL1,CRISPLD2,CPPE1,HMOX2,PYCARD,C16ORF62,CTSH,ATP8B4,GSDMD,ASAHI,MAN2B1,GPI,SIGLECS,PDAP1,IMPDH1,PSMA2,TSPAN14,PSMD3,P2RX1,PSMD11,VAT1,MANBA,BST1,COMMD 9,TCIRG1,PTPN6,FRK,MAPK14,TMEM30A,ARSB,NIT2,ARMC8,ACTR1B,QSOX1,CD58,PRDX6,CHRN4,TTR,VAMP8,STBD1,NPC2,YPEL5,A1BG,CAT,CD97,ARHGAP9,SLPI,CEACAM 8,SERPINB6,C3,CD93,RAP1B,UBR4,FGL2,COPB1,CD68,SLC44A2,SIGLEC9,BST2,GMFG,ACLY,DIAPH1,ACTR10,SNAP25,CHIT1,AMPD3,DOCK2,DSG1,OSTF1,CD36,CD63,TMBIM1,CAB39,CKAP4,RAC1,DBNL,PRCP,GGH,ADAM10,ANXA3,GPR84,SLC27A2,SRP14,IQGAP1,ITGAX,GALNS,PFKL,TRPM2,SLC2A5,CD53,CREG1,FCGR2A,S100A8,DEGS1,ARL8A,AHSG,PLAC8,IQGAP2,DOK3,GSN,SURF4,LCN2,PTPRJ,ALDOA,NDUFC2,ADAM8,LPCAT1,PTPRN2,CCT8,EEF1A1,CDA,FCER1G,ATAD3B,PDXK,ITGB2,NBEAL2,HK3,AGL,ARPCS,NCTSN,PIGR,CTSS,S100A11,S100A9,CXCR1,NFASC,MNDA,DNASE1L3,GYG1,PRKCD,S100P,APEH,BRI3,SYK,CCT2,CLEC4D,B2M,ANPEP,EEF2,KRT1,GHDC,FTH1,RAB24,RNASE2,AGPAT2,ITGAM,CD14,PA2G4,OSCAR,CEACAM3,LRG1,GAA,CANT1,C3AR1,ORMDL3,AZU1,RAB37,HPSE,JUP,SLC04C1,TBC1D10C,RHOG,ANO6,CALML5,FUCA1,CXCR2,ANXA2,AP2A2,TME M173,DGAT1,C6ORF120,METTL7A,ATP6VOC,LAMP1,FCAR,PRG2,SELL,SERPINA3,TMEM63A,TUBB,CD55,PRTN3,MME,IGF2R,DYNC1H1,PSMD12,SERPINA1,C5AR1,ATG7,ELAN E_CFD,SIRPA,PNP,NEU1,HSPA1B,CSNK2B,CPNE1,MIF,DDOST,HBB,CCL5,CYFIP1</p>
<p>GO:0007159 leukocyte cell-cell adhesion</p>	<p>9.52E-04</p>	<p>ITGAL,SELE,FYN,CD6,IGF1,CD44,AP3D1,PRKCO,PRKC2,CDC42,NCK2,TFRC,TBX21,GLI2,ADD2,PAG1,SIRPG,ICAM1,EZR,IL12RB1,MADCAM1,XBP1,GRAP2,SMAD7,PYCARD,CSK,IL 7,CLEC4M,RASAL3,JAK3,CAV1,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,DUSP3,PRKAR1A,SELPLG,IL23A,PTPN6,GOLPH3,IL4,CD86,PODXL2,ZAP70,ZP4,MYB,CD274,TNFSF11,CCR2,PIK 3CA,LAX1,SDC4,BTN2A2,EFNB2,IRF1,IL1B,CCR7,ZBTB1,RAC2,TWSG1,ASS1,CCL25,RARA,FLOT2,SFTPD,PTPN22,VTCN1,IL6ST,ETS1,HAVCR2,NTSE,GPNMB,RAC1,IL6,ITGB7,PDP K1,AKT1,DUSP10,S100A8,ZC3H8,NFKBIZ,PIK3R1,TNIP1,TNFRSF21,PAK1,RPS3,FERMT3,ITGB1,IL18,DLG5,ADAM8,CCL28,FAM49B,RUNX1,ICOSLG,ITGB2,ZBTB7B,VCAM1,NLRP 3,TNFAIP8L2,S100A9,IHH,TGFBR2,ICOS,ZC3H12A,SYK,NOD2,NFKBID,CCDC88B,CX3CR1,IL12A,LGALS9,SOCSS,PRNP,MALTI,SELP,GLMN,PTPN2,SART1,GRB2,PTPN11,PAK2,LCK</p>
<p>GO:0014020 primary neural tube formation</p>	<p>9.55E-04</p>	<p>DVL2,FUZ,LRP6,CELSR1,LRP2,GRHL2,KDM2B,TGFB2,MTHFD1,TSC2,TGFB1,COBL,DVL1,FOLR1,NPHP3,MTHFD1L,PRICKLE1,LMO4,SKI,GRHL3,DVL3,VANGL2,DLCL1,SEMA4C,RPS 7,DEAF1,SCRIB,PLXNB2,PHACTR4</p>
<p>GO:0033673 negative regulation of kinase activity</p>	<p>9.55E-04</p>	<p>PRKAR2B,DCN,MVP,WWTR1,PPP2R5A,HYAL2,LRP6,TP73,GSTP1,C14ORF166,IRAK3,TFAP4,ABL1,PPM1F,PIK3IP1,PTK6,CDK5RAP1,TSC2,PYCARD,PPP2R1A,CDK6,CAV1,HSPB1,PRKAG2,TESK1,DVL1,CDK5RAP3,DUSP3,PRKAR1A,CBL,HIPK3,CORO1C,DUSP16,CDKN1B,DUSP22,PPP2CA,H2AFY,PRKAR2A,CBLB,CISH,ERRF1,PARK7,RGS2,RGS4,DUSP1,SOCS 2,LAX1,CDKN1A,IL1B,FLRT3,PRKRIP1,LRRC4,CDKN1C,SH3BP5,LRRC4B,VPS25,PODNL1,INPP5K,GPS2,EPHB2,MEN1,PTPN22,APC,CDK4,PKIB,DAB2IP,SORL1,RGS3,TARBP2,RB1,WARS,IGF1R,PDPK1,MYOCD,AKT1,CBLC,DUSP10,EPHA1,PTPRJ,PPP1R1C,HNRNPJ,GNAO1,DUSP2,ZFYVE28,ADAR,LRP5,DUSP19,PAQR3,PRKCD,DUSP7,PRDX3,SPRED1,LRTM2, SMPD1,MIDN,PKIG,RGS14,GPS1,YWHAG,SOCSS,PTEN,QARS,TRB1,PODNL,SH3BP5L,PPM1E,CHMP6,SMCR8,TAF7,PAK2,ADIPQ,DUSP8,GP1BA,PARK2,RTN4RL1,IRS2,AIDA,HE XIM1,MAPT,RTN4RL2,PRKAR1B,INCA1,PTPN1,NF1,ZGPAT,SPRED2,AKT1S1,TRIM27,LYN,SOCS7,SRIN1,MIR24-2</p>

GO:0038083	peptidyl-tyrosine autophosphorylation	9.61E-04	9.61E-04	FGR,MATK,FYN,STYK1,TNK2,TKX,ABL1,GRAP2,PTK6,HCK,MAPK3,CSK,TYK2,JAK3,CAV1,FRK,VEGFA,ZAP70,PTK2B,KDR,TEC,BLK,IGF1R,EGFR,FER,ACE,JAK1,SYK,PTK2,TNK1,GRB2,FES,LCK,SRC,NTRK1,DDR1,LYN
GO:0120035	regulation of plasma membrane bounded cell	9.65E-04	9.65E-04	SARM1,PLXND1,DVL2,CX3CL1,RALA,MARK4,SEMA3G,FUZ,FYN,CD44,IFT88,MAP4,NEDD4L,CROCC,NCKAP1,NGFR,NTN1,NGEF,RHOA,SYT1,NAV3,PFN2,CDC42,MARK2,CRMP1,SCARF1,FSCN1,PLD1,PLXNA2,RAP1GAP,CAP2B,MAP2,CBFA2T2,DNM2,RIMS1,CHRNA3,MEF2C,ATP8B1,GSK3B,SSH1,CTTN,MT3,ABL1,NRP1,STX1B,PALM,KCTD17,CPNE6,PTK6,STK24,ARHGEF7,NDRG4,PTPRS,MEGF8,MAG,SCN1B,CAV1,COBL,WASL,LIMK1,FREQ,RAPGEF1,DVL1,CPEB3,PFN1,RAPGEF2,CORO1C,TRPV4,CUX2,RASAL1,SNX3,PTK7,VEGFA,SEMA5A,ARSB,DPYSL3,DBN1,PLXNA1,RTN4,CCDC88A,MARK1,TGFB3,RHOQ,FAM98A,PTK2B,TNFRSF8,OBSL1,PACSIN1,CPNE5,RREB1,RAB17,WNT1,RAP2A,EFNB2,CCR7,MACF1,RNF6,STYXL1,CDC42EP1,RAC2,PODXL,CHN1,KLK8,UNC13A,OLFM1,EP581,DLG4,CAMK1,KIDINS220,APC,AVIL,PLXNC1,RAC1,DAB2IP,ENPP2,FNBP1L,ZNF365,SCARB2,TCHP,DEF8,SSH2,BCAS3,ARHGDI1,TRPM2,AKT1,EVI5L,EPHA2,SYT2,CPNE9,GOLGA4,SLIT2,MYO10,NTRK2,PAK1,CDC42EP2,GPM6A,DLG5,FER,PTPRO,SPOCK1,PTPRD,TNIK,WNT3A,ZFYVE27,GRIP1,NPTN,WASF2,AUTS2,BRSK1,CHRN2,DVL3,SHANK1,S100A9,PAQR3,TRIM46,ARPC2,SERPINI1,PRKCI,PRKCD,PLXNB1,CDK5,ARF6,RET,BAG5,NDEL1,CDC42EP5,ULK4,EFNA1,PTPN9,SDC2,NLGN1,ROBO1,KNDC1,PTEN,PRNP,GAP43,CORO1B,ADCY6,BRSK2,HRAS,CEP135,FZD4,FBXW8,RIMS2,CDK5R1,EP582,GAK,CDC42EP4,NRXN1,CEP97,FES,CAMK1D,DENND5A,CIB1,CDK10,RTN4R1L,ARAP1,MAPT,RTN4R2L,ESPN,MAGI2,IFT140,SEMA4D,AGRN,OSTN,PLXNB2,HDAC2,SRC,HTT,CCDC151,LPAR1,NTRK1,ARC,SMURF1,INPP5F,SYT3,PLXNA4,TWF2,LYN,CUX1,SRCIN1
GO:0031344	regulation of cell projection organization	9.65E-04	9.65E-04	SARM1,PLXND1,DVL2,CX3CL1,RALA,MARK4,SEMA3G,FUZ,FYN,CD44,IFT88,MAP4,NEDD4L,CROCC,NCKAP1,NGFR,NTN1,NGEF,RHOA,SYT1,NAV3,PFN2,CDC42,MARK2,CRMP1,SCARF1,FSCN1,PLD1,PLXNA2,RAP1GAP,CAP2B,MAP2,CBFA2T2,DNM2,RIMS1,CHRNA3,MEF2C,ATP8B1,GSK3B,SSH1,CTTN,MT3,ABL1,NRP1,STX1B,PALM,KCTD17,CPNE6,PTK6,STK24,ARHGEF7,NDRG4,PTPRS,MEGF8,MAG,SCN1B,CAV1,COBL,WASL,LIMK1,FREQ,RAPGEF1,DVL1,CPEB3,PFN1,RAPGEF2,CORO1C,TRPV4,CUX2,RASAL1,SNX3,PTK7,VEGFA,SEMA5A,ARSB,DPYSL3,DBN1,PLXNA1,RTN4,CCDC88A,MARK1,TGFB3,RHOQ,FAM98A,PTK2B,TNFRSF8,OBSL1,PACSIN1,CPNE5,RREB1,RAB17,WNT1,RAP2A,EFNB2,CCR7,MACF1,RNF6,STYXL1,CDC42EP1,RAC2,PODXL,CHN1,KLK8,UNC13A,OLFM1,EP581,DLG4,CAMK1,KIDINS220,APC,AVIL,PLXNC1,SPRY2,RAC1,ERMN,DAB2IP,ENPP2,FNBP1L,ZNF365,SCARB2,TCHP,DEF8,SSH2,BCAS3,ARHGDI1,TRPM2,AKT1,EVI5L,EPHA2,SYT2,CPNE9,GOLGA4,SLIT2,MYO10,NTRK2,PAK1,CDC42EP2,GPM6A,DLG5,FER,PTPRO,SPOCK1,PTPRD,TNIK,WNT3A,PROM2,ZFYVE27,GRIP1,NPTN,WASF2,AUTS2,BRSK1,CHRN2,DVL3,SHANK1,S100A9,PAQR3,TRIM46,ARPC2,SERPINI1,PRKCI,PRKCD,PLXNB1,CDK5,ARF6,RET,BAAG5,NDEL1,CDC42EP5,ULK4,EFNA1,PTPN9,SDC2,NLGN1,ROBO1,KNDC1,PTEN,PRNP,GAP43,CORO1B,ADCY6,BRSK2,HRAS,CEP135,FZD4,FBXW8,RIMS2,CDK5R1,EP582,GAK,CDC42EP4,NRXN1,CEP97,FES,CAMK1D,DENND5A,CIB1,CDK10,RTN4R1L,ARAP1,MAPT,RTN4R2L,ESPN,MAGI2,IFT140,SEMA4D,AGRN,OSTN,PLXNB2,HDAC2,SRC,HTT,CCDC151,LPAR1,NTRK1,ARC,SMURF1,INPP5F,SYT3,PLXNA4,TWF2,LYN,CUX1,SRCIN1
GO:0001819	positive regulation of cytokine production	1.03E-03	1.03E-03	ZNF580,HLA-DPB1,LTB,TNF,TLR9,MIF,PRKDC,FGR,CREBBP,CD4,BRCA1,POLR3B,CD6,SLC11A1,CD74,MRE11A,BIRC3,FLT4,CYBA,EIF2AK2,PUM2,PRKCO,PRKCC,HYAL2,RORA,UFD1L,PTGS2,TKX,NFKB2,XRCC5,IL12RB2,C1QT,NF3,NLRP1,IL12RB1,XBP1,HMOX1,EP300,HIF1A,RNF125,RIOK3,PYCARD,IL7,GSDMD,PRK2,TGFB1,HSPB1,SERPINE1,GATA3,DHX58,CRTAM,PANX1,IL23A,MAPK14,IL17A,PDE4D,IL4,CD86,IFIH1,SPTBN1,STAT1,IL1R1,PARK7,ARHGEF2,CD58,CD274,CLU,TNFRSF8,CCR2,CD244,LY9,ZBP1,LRRFIP1,IRF1,IL1B,C3,FFAR2,CCR7,IRF3,TRAF2,TICAM1,ATF4,SEC14L1,LBP,RARA,ANKRD17,POLR3F,CHIA,PTPN22,ROCK2,RSAD2,IL6ST,PUM1,HAVCR2,AGT,DHX9,IL6,GATA4,IRF4,RIPK1,FLOT1,DDX60,THBS1,CYP1B1,NLRP12,ARNT,IL9,RPS3,TIRAP,IL18,ADAM8,ADAM17,FAM49B,HMHB1,FCER1G,APOA2,RUNX1,IL6R,NLRP3,SLAMF6,FZD5,IFI16,AIM2,IL15,TLR3,CSF2,SYK,B2M,STAT6,GPRC5B,NOD2,SERPINF2,CTNNA1,CCDC88B,POLR3D,IL12A,LGALS9,AFAP1L2,AGPAT2,CD14,EIF2AK3,MALT1,AZU1,IL17D,RASGRP1,MYD88,RELA,HPSE,CD34,TLR1,TLR6,GLMN,DHX36,TRAF6,LPL,ZFPM1,ADIPOQ,SETD2,NPLOC4,CADM1,TBK1,TMEM173,PDE4B,IRF7,FFAR3,TLR5,CXCL17,SULF2,IL27,SPN,ELANE,MBP,CARD11,SCAMP5,RAET1G,AGER,AGPAT1,HSPA1B,TRIM15,HLA-

GO:0006469 negative regulation of protein kinase activity	1.04E-03	1.04E-03	<p>PRKAR2B,DCN,MVP,WWTR1,HYAL2,LRP6,TP73,GSTP1,C14ORF166,IRAK3,TFAP4,ABL1,PPM1F,PTK6,CDK5RAP1,TSC2,PYCARD,PPP2R1A,CDK6,CAV1,HSPB1,PRKAG2,TESK1,DV L1,CDK5RAP3,DUSP3,PRKAR1A,CBL,HIPK3,CORO1C,DUSP16,CDKN1B,DUSP22,PPP2CA,H2AFY,PRKAR2A,CBLB,CISH,ERRF1,PARK7,SGS2,SGS4,DUSP1,SOCS2,LAX1,CDKN1A,IL 1B,FLRT3,PRKRIP1,LRRCA,CDKN1C,SH3BP5,LRRCA4,VPS25,PODNL1,INPP5K,GP52,EPHB2,MEN1,PTPN22,APC,CDK4,PKIB,DAB2IP,SORL1,SGS3,TARBP2,RB1,WARS,IGF1R,PDPK 1,MYOCD,AKT1,CBLC,DUSP10,EPHA1,PTPRJ,PPP1R1C,GNAQ,DUSP2,ZFYVE28,ADAR,LRP5,DUSP19,PAQR3,PRKCD,DUSP7,SPRED1,LRTM2,SMPD1,PKIG,SGS14,GP51,YWHAG,S OCS5,PTEN,QARS,TRIB1,PODN,SH3BP5L,PPM1E,CHMP6,SMCR8,TAZF7,PAK2,ADIPOQ,DUSP8,GP1BA,RTN4R1L,AIDA,HEXIM1,RTN4R2L,PRKAR1B,INCA1,PTPN1,NF1,ZGPAT,SPR ED2,AKT1S1,TRIM27,LYN,SOCS7,SRIN1,MIR24-2</p>
GO:0010975 regulation of neuron projection development	1.27E-03	1.27E-03	<p>SARM1,PLXND1,DVL2,CX3CL1,SEMA3G,NEDD4L,NGFR,NTN1,NGEF,RHOA,SYT1,MARK2,CRMP1,SCARF1,PLXNA2,MAP2,CBFA2T2,DNM2,RIMS1,CHRNA3,MEF2C,GSK3B,SSH1, CTTN,MT3,ABL1,NRP1,STX1B,CPNE6,PTK6,STK24,NDRG4,PTPRS,MEGF8,MAG,SCN1B,COBL,LIMK1,FREQ,RAPGEF1,DVL1,CPEB3,RAPGEF2,TRPV4,CUX2,RASAL1,SNX3,PTK7,VE GFA,SEMA5A,ARSB,DPYSL3,DBN1,PLXNA1,RTN4,CCDC88A,MARK1,PTK2B,TNFRSF8,OBSL1,PACIN1,CPNE5,RAB17,RAP2A,EFNB2,MACF1,RNF6,STYXL1,CHN1,CLK8,UNC13A,O LFM1,DLG4,CAMK1,KIDINS220,AVIL,PLXNC1,DAB2IP,ZNF365,SCARB2,SSH2,ARHGDI1,AKT1,SYT2,CPNE9,GOLGA4,SLIT2,NTRK2,PAK1,DLG5,PTPRO,SPOCK1,PTPRD,TNIK,WNT 3A,ZFYVE27,GRIPI1,NPTN,BRSK1,CHRN2,DVL3,SHANK1,S100A9,PAQR3,TRIM46,SERPINI1,PRKCI,PLXNB1,CDK5,ARF6,RET,BAG5,NDEL1,ULK4,EFNA1,PTPN9,SDC2,NLGN1,RO BO1,KNDC1,PTEN,ADCY6,BRSK2,FZD4,FBXW8,RIMS2,CDK5R1,GAK,FES,CAMK1D,DEND5A,CIB1,RTN4R1L,MAPT,RTN4R2L,MAGI2,SEMA4D,OSTN,PLXNB2,HDAC2,LPAR1,NTR K1,ARC,SMURF1,INPP5F,SYT3,PLXNA4,TWF2,LYN,CUX1,SRIN1</p>
GO:0036230 granulocyte activation	1.27E-03	1.27E-03	<p>FGR,FUCA2,MPO,ITGAL,ALDH3B1,MGST1,PGLYRP1,MMP25,PRSS3,PLAUR,ALOX5,MVP,ACPP,SLC11A1,SERPINB1,RNASET2,CD44,TNFRSF1B,GRN,ATP6V0A1,TIMP2,AGA,HEX B,CYBA,HEBP2,GDI2,ACAA1,CTSA,CDK13,PKM2,RHOA,ATP11A,KCNAB2,RAB27A,STK10,AP1M1,PLD1,RAB7A,STXB2,TOLLIP,XRCC5,PGM1,HSP90AA1,PPIE,GSTP1,CD59,CPNE 3,B4GALT1,DYNLL1,CMTM6,SNAP23,UNC13D,HSP90AB1,RAB18,SNAP29,CYB5R3,TOM1,CTSG,MMMP9,PYGB,DNAJC5,CTSZ,SIRPB1,VAPA,OLFM4,PSMD7,COTL1,CRISPLD2,CPP ED1,HMOX2,PYCARD,C16ORF62,CTSH,ATP8B4,GSDMD,ASAH1,MAN2B1,GPI,SIGLEC5,PDAP1,IMPDPH1,PSMA2,TSPAN14,PSMD3,P2RX1,PSMD11,VAT1,MANBA,BST1,COMMD 9,TCIRG1,PTPN6,FRK,MAPK14,TMEM30A,ARSB,NIT2,ARMC8,ACTR1B,QSOX1,CD58,PRDX6,CHRN4,TTR,VAMP8,STBD1,NPC2,YPEL5,A1BG,CAT,CCR2,CD97,ARHGAP9,SLPI,CE ACAM8,SERPINB6,C3,CD93,RAP1B,UBR4,FGL2,COPB1,CD68,SLC44A2,SIGLEC9,BST2,GMFG,ACLY,DIAPH1,ACTR10,SNAP25,CHIT1,AMPD3,DOCK2,DSG1,OSTF1,CD36,CD63,TM BIM1,CAB39,CKAP4,RAC1,DBNL,PRCP,GGH,ADAM10,ANXA3,GPR84,SLC27A2,SRP14,IQGAP1,ITGAX,GALNS,PFKL,TRPM2,SLC2A5,CD53,CREG1,FCGR2A,S100A8,DEGS1,ARL8A, AHSG,PLAC8,IQGAP2,DOK3,G5N,SURF4,LCN2,PTPRJ,ALDOA,NDUFC2,ADAM8,LPCAT1,ENPP3,PTPRN2,CCT8,EEF1A1,CD4,FCER1G,ATAD3B,PDXK,ITGB2,NBEAL2,HK3,AGL,ARP C5,NCSTN,PIGR,CTSS,S100A11,S100A9,CXCR1,NFASC,MNDA,DNASE1L3,GYG1,PRKCD,S100P,APEH,BRI3,SVK,CCT2,CLEC4D,B2M,ANPEP,EEF2,KRT1,GHDC,FTH1,RAB24,RNASE 2,AGPAT2,ITGAM,CD14,PA2G4,OSCAR,CEACAM3,LRG1,GAA,CANT1,C3AR1,ORMDL3,AZU1,RAB37,HPSE,JUP,SLCO4C1,TBC1D10C,RHOG,ANO6,CALML5,FUCA1,CXCR2,ANXA2 ,AP2A2,TMEM173,DGAT1,C6ORF120,METTL7A,ATP6V0C,LAMP1,FCAR,PRG2,SELL,SERPINA3,TMEM63A,TUBB,CD55,PRTN3,MME,IGF2R,DYNC1H1,PSMD12,SERPINA1,C5AR1 ,ATG7,ELANE,CFD,SIRPA,PNP,NEU1,HSPA1B,CSNK2B,CPNE1,MIF,DDOST,HBB,CCL5,CYFIP1</p>
GO:0006470 protein dephosphorylation	1.31E-03	1.31E-03	<p>MTMR7,PTBP1,PPP5C,PHPT1,PPP1R12A,CTDP1,PTPRU,EYA2,PPP2R5A,DAPP1,PTPN21,PTPN18,FBXW11,PPP2R3A,PPP2R2C,NUAK1,DUSP13,PTPRH,CDC14B,GSK3B,SSH1,MT MR2,PPP1R15A,FKBP1A,HSP90AB1,PPM1F,SBF1,MTMR3,TIMM50,TGFB1,PTPRS,PPP2R1A,LHPP,DUSP3,YWHAE,SAPS3,PTPN5,PTPN6,DUSP22,PPP2CA,PPM1G,PPP1R7,DUSP 1,CRY2,SYMPK,PIN1,STYXL1,PTPRE,PTPN22,ROCK2,DUSP5,PPP3CA,MTMR6,SSH2,PTPRF,CTTNBP2NL,ENSA,DUSP10,CALM2,CTDSP1,BOD1,MFHAS1,PTPRJ,AKAP6,PTPRO,PTP N14,PTPRK,PTPRR,PTPRD,PTPRN2,PPEF2,PPP2R2B,SPPL3,DUSP2,EYA3,PPP1R15B,CALM3,SSU72,FCRL3,PTPN13,PRKCD,DUSP7,PPM1M,UBLCP1,DLCL1,TSC1,BTRC,SMPD1,PTP N9,CAMTA1,PTEN,PPP1CA,PTPRM,PPM1E,CTDSP2,PTPN2,PPP2R2D,ANKLE2,PTPN11,PGP,PPP1CC,MAGI2,DUSP28,PTPN1,HTT,CALM1,MTOR,MIR124- 3,PPP1CB,PPP2R2A,TNF</p>

GO:1901888 regulation of cell junction assembly	1.33E-03	1.33E-03 PRKCH,MYOC,LIMCH1,RHOA,PRKACA,CLASP1,COL16A1,SLC9A1,ABL1,NRP1,PPM1F,TJP1,SFRP1,CAV1,RAPGEF1,RAPGEF2,CORO1C,VEGFA,RAP1B,MACF1,KDR,NPHP4,ROCK2, AGT,RAC1,FLOT1,THBS1,BCAS3,NPHP1,PHLDB2,PTPRJ,RUNX1,ACE,CLASP2,DLCL1,TSC1,DAPK3,PTK2,LIMS1,PTEN,RCC2,CLDN5,EFNA5,SRC,S100A10,OCLN,MYO1C,LDB1,TNF
REAC:R-HSA- Diseases of signal transduction	1.35E-03	1.35E-03 CREBBP,ITGA2B,AGK,FYN,CLCN6,GAB2,PSMA4,POLR2B,HDAC9,CUL1,HDAC7,ERBB3,PPP2R5A,FGFR2,HDAC4,FGFR3,PSME4,LRP6,FGF22,SEL1L,FGF4,RASAL2,APBB1P,FGFR1, PPP2R5C,HSP90AA1,GSK3B,PSMC5,FKBP1A,PEBP1,BRAP,ESR1,PSME1,PSMD8,PDGFB,EP300,HDAC10,PSMA7,MAPK3,POLR2C,PSMD7,AXIN1,TSC2,CSK,ESRP1,RASAL3,AKT2,T GFB1,CDC37,PPP2R1A,PIK3R2,GSK3A,MET,PSMA2,TNKS2,PSMD3,PSMD11,KAT2A,HDAC5,GAB1,FBXW7,CBL,VWF,PSMD9,FGF6,CDKN1B,RASAL1,CCNC,HBEFG,SKP1,PPP2CA, FGF1,CSNK1A1,CD86,RBP1,KAT2B,FN1,STAT1,HDAC1,PIK3R3,TTR,FOXO3,MAPKAP1,PIK3CA,KIAA1549,TRIM24,NR4A1,PLCG1,CDKN1A,LRRFIP1,PSMF1,PSMB2,STAT5A,RAP1 B,SJF1,DL4,PSMA1,PSME3,MPRIP,KL,KRAS,PDGFRA,CLB,APC,HEY2,DA82IP,TLN1,ARRB1,PPP2R1B,ADAM10,STRA6,FGF2,EGF,DHH,FGF7,RLBP1,IQGAP1,PDPK1,NCOR1,KS R1,ARRB2,ERBB2,AKT1,POLR2D,PIK3R1,RASA1,EGFR,ERLIN2,NOTCH1,TCF7L2,UBC,ADAM17,BCL2L11,PPP2R5E,WNT3A,PIK3AP1,NRG1,KIT,NRG2,PSMB4,CTBP1,FAM131B,SH C1,LMNA,FGFR4,MAM11,NAPEPLD,SYVN1,LRP5,NCSTN,FZD5,IHH,TGFBR2,HDAC11,TRAT1,ICOS,AGGF1,FZD6,SPRED1,FRS2,SMAD3,MLST8,POLR2G,CTNNB1,RBP1,STAT3,MA P2K1,IRS1,NRG4,KSR2,FGA,PIK3CD,HDAC3,TNKS,MAP3K11,STAT5B,HRAS,FZD4,BTC,CTBP2,RPS6KB2,CD19,TBL1XR1,AGTRAP,GRB2,ERBB4,PTPN11,POLR2A,TRAK1,LCK,MAM L2,JAG2,NRG3,IRS2,RASA3,BCR,SPRED3,NCOR2,MYO18A,HDAC2,NF1,MAM1C,SRC,SND1,PSMD12,SYNGAP1,PDGFA,MI2,ATG7,HESS,SPRED2,DL1L,MTOR,PSMB8,AKT1S1,PS
GO:0042060 wound healing	1.38E-03	1.38E-03 CFLAR,TFPI,PRKAR2B,CD9,FYN,SYT7,PLAUR,IGF1,SLC11A1,EHD2,CD44,PRKCH,LCP2,DCBLD2,F7,GNA15,ERBB3,MYLK,PRKCQ,RHOA,TRPC7,CDC42,PRKACA,SCARB1,CLASP1,TK K,MCAM,DGKD,CAPZB,FAP,GNB1,EDN1,P2RX5,CD59,GNAS,GP6,GNA11,DOCK9,RCOR1,PABPC4,APOH,CAPN3,TGFB2,CBX5,EPB41L4B,ITPR3,XBP1,HMOX1,PDGFB,MYH9,ITPK 1,HIF1A,HNF4A,MYL12A,MAPK3,PGCP,PLAT,TGFB1,CAV1,HSPB1,SERPINE1,GATA3,P2RX1,AKAP10,COL1A1,AOX12,PRKAR1A,ODAM,EHD1,APOA5,VWF,SH2B3,PTPN6,SMOC 2,HBEFG,PRKAR2A,PROC,HDAC1,CAPZA1,MFN2,SERPINC1,TNFAIP3,GNA13,AKAP1,PIK3CA,NFE2,RREB1,IRF1,PROZ,PRKCG,F2RL3,MACF1,ADORA2A,DOCK6,COL5A1,GATA5,F 12,ZFYVE20,H3F3B,SYT11,VAV3,PDGFRA,CD36,PHF21A,MICAL1,TEC,SERPINE2,RAC1,IL6,DGKB,GATA4,TOR1A,STXB1,TLN1,ARRB1,PRCP,THBS1,MYOF,ENTPD1,FGF2,TRPC3, TPM1,PDPK1,ARRB2,PIK3R5,ERBB2,CYR61,DUSP10,REG3G,PHLDB2,DGKQ,PDGFC,PIK3R1,GNA12,DGKZ,PAK1,FERMT3,DOCK1,ADAM17,PRKCA,MI3,WNT7A,RHOC,GNA14,G NAQ,CD109,NRG1,DGKI,PAFAH2,FCER1G,CSR1,TF3,TF2,VAV2,ADAMTS13,SH2B2,CLASP2,PRKCD,METAP1,KLKB1,COL1A2,YWHAZ,SYK,PRKACG,PRKCB,SMAD3,CRK,SERP1 NF2,KLK6,KRT1,IRF2,COL3A1,GP9,ZFPM2,PDGFD,PRKCE,FGA,PIK3CD,PTEN,CYP4F11,JMJD1C,FIBP,CORO1B,HPSE,C1QTNF1,CD34,SELP,HRAS,A2M,ANO6,ERBB4,GP5,PTPN11, ZFPM1,F2,LCK,ACTG1,MAFF,GP1BA,PRKG1,TMPRSS6,P2RX2,PRKAR1B,FZD9,BLOC1S3,PRTN3,NACA,AJAP1,HDAC2,NF1,SRC,PDGFA,SERPIN2,PLCG2,MAFK,C6ORF89,F5,MTO
GO:0043087 regulation of GTPase activity	1.43E-03	1.43E-03 ALS2,PLXND1,CX3CL1,CCL26,RALBP1,TBC1D22A,RASGRF1,TBC1D22B,TBC1D1,NGEF,EVI5,RASGRP2,GNB5,SNX13,PICALM,RAP1GAP,RAPGEF3,GSK3B,WNT11,GNAS,DOCK9,G MIP,ITGA6,TBC1D2,TBC1D10A,SH3BP1,SGSM3,RANGAP1,ARHGEF7,CCL22,CCL17,SFRP1,ARHGEF10,SYDE1,RASIP1,ADAP1,CAV2,CCL24,TBC1D13,RAPGEF1,TBC1D12,CCL2,CC L1,ODAM,TBC1D9,RAPGEF2,CORO1C,BVES,APC2,RAB3GAP1,RAB3GAP2,TBC1D20,CCR7,FGD3,PIN1,CHN1,SH3BP4,SNX9,ARHGEF16,CCL25,TBC1D5,TBC1D14,MTSS1L,VAV3, DOCK10,PLXNC1,TBC1D4,LRCH1,DAB2IP,CPEB2,FGD4,GTRP1,NTRK3,SGSM2,BCAS3,ERBB2,EVISL,EPHA2,RGS16,PIPSK1A,PKP4,FGD2,EPHA1,NTRK2,USP6NL,ITGB1,RABGAP1L ,ADPRHL1,FGD5,PROM2,CXCL13,TIAM1,RAPGEF6,ABR,RRP1B,VAV2,GPSM1,DVL3,PLXNB1,TSC1,NDEL1,SGSM1,CRK,TBC1D2B,TBC1D16,TBC1D10B,PTK2,LIMS1,RALGAPB,RA SGRP1,NET1,HRAS,TBC1D10C,RHOG,SNX18,RCC2,FGD6,SCRIB,CCL13,RGS6,EFNA5,PRKG1,NTF3,ARAP1,BCR,SEMA4D,AGRN,RALGAP2,PRTN3,PLXNB2,NF1,TBC1D9B,S100A1

GO:0018105 peptidyl-serine phosphorylation	1.49E-03	<p>CAMKK1,CALCR,MLXIPL,CD44,PRKCH,VRK2,DAPK2,FNIP2,ATP2B4,HIPK2,PRKCO,PRKCZ,MAST4,PFN2,CSNK2A2,CAMK2A,NCK2,PRKACA,MARK2,RAPGEF3,HSP90AA1,GSK3B,NLK,MAPKAPK5,CLSPN,HSP90AB1,CDC7,MAST3,MKNK2,OSM,PPM1F,PDGFB,VRK1,RPS6KA5,SGK2,RASSF2,MYLK2,SMAD7,AXIN1,DMPK,VRK3,AKT2,PRKD2,TGFB1,MAST1,CAV1,CSF3,HIPK3,CAMKK2,CREBL2,MAPK14,VEGFA,PD4D,CSNK1A1,MAPKAPK3,EIF4G1,MARK1,PARK7,OPRD1,STK11,SGK1,NEK6,RAMP3,PKN1,CDK2,PRKCG,LIF,TTBK2,INPP5K,DCLK1,CSNK1G2,CAMK1,ROCK2,CAB39,SPRY2,IL6,RIPK1,NTRK3,MYLK3,PDPK1,CSNK1D,RPTOR,AKT1,RQCD1,DGKQ,CAMK2D,PLK2,MYLK4,TTBK1,EGFR,CAMK2G,PAK1,ATM,HMGA2,UHMK1,GPD1L,STK32B,PRKCA,WNT3A,PHKG2,PINK1,MORC3,PSKH1,SPTBN4,MAPKAPK2,PAQR3,TGFB2,PRKCI,PRKCD,CAMKV,LMTK2,PHKG1,CDK5,STOX1,STK32C,PRKCB,DAPK3,CSNK1G1,STK32A,CDK1,DCLK2,PRKCE,EIF2AK3,ADRBK1,TKNS,CDK5R1,ULK1,AURKB,NRXN1,HCLS1,PAK2,CAMK1D,TBK1,NTF3,MAPK12,SBK1,STK39,MTOR,TO</p> <p>1.49E-03 P1,STK38L,CSNK1E,FNIP1,TNF,MIF,PRKDC,IKBKE</p>
GO:1905330 regulation of morphogenesis of an epitheliu	1.56E-03	<p>DVL2,SOX8,AP2B1,CELSR3,AP2S1,FGFR2,RHOA,CDC42,CLASP1,CELSR1,SIRT6,WNT11,DAAM1,PAR6A,DVL1,GATA3,PFN1,SMURF2,VEGFA,FGF1,NPHP3,FOXP1,STAT1,RREB1,WNT1,PAX8,LIF,SMO,AGT,RAC1,PRICKLE1,NKD1,CLTC,ARRB2,ARHGEF19,CELSR2,PHLDB2,RSP03,ADAMTS12,DAB2,TIAM1,DVL3,FZD5,CLASP2,PRICKLE2,RYK,FZD6,CXCL10,PTEN,VANGL1,FZD4,AP2A2,MAGI2,AIAP1,AP2A1,PDGFA,SMURF1,MTOR,TNF</p>
GO:0043065 positive regulation of apoptotic process	1.56E-03	<p>RBMS5,SCIN,PLAUR,BID,FAS,TNFRSF1B,BCLAF1,BAK1,TRIO,AIFM2,CASP8,NGFR,NGEF,HYAL2,IP6K2,SIRT2,CAMK2A,RPS6KA2,TP63,GRAMD4,ARHGEF1,FAP,TP73,DNM2,MEF2C,STK17B,GSK3B,DDN1,TFAP4,ITGA6,NLRP1,TGFB2,ABL1,GADD45B,BCL2L13,PPM1F,BIK,GZMB,SOS2,MMP9,RASSF2,E2F1,ARHGEF7,PCYCARD,CTSH,BMF,SFRP1,STK3,ARHGAP18,AES,CLIP3,BBC3,GSK3A,DFNA5,CAV1,NOD1,CASP2,SFRP4,CCL2,YWHAE,SLC9A3R1,FBXW7,RAPGEF2,MTCH2,ARHGEF17,LTBR,TPD52L1,SOD2,E2F3,GPLD1,DAP,RASGRF2,FAM162A,HSPE1,SFPQ,ARHGEF2,MFN2,GADD45A,FASLG,ATF6,FOXO3,TGFB3,IFIT2,GNA13,CD274,TNFRSF8,TNFSF10,ZNF205,ACVR1C,PLCG1,SPDEF,MCF2L,FGD3,TRAF2,HIP1,STYXL1,ATF4,ARHGEF16,HIP1R,IDO1,TRAF7,PPARG,MYBBP1A,ARHGEF11,CTNNB1L1,VAV3,YWHAQ,FBXO18,APC,HRK,SRPK2,AGT,ARHGEF4,IL6,NMT1,BIN1,DAB2IP,RPS6,RIPK1,MTCH1,PPP2R1B,THBS1,BCL2L10,CYP1B1,FGD4,PML,TP53,SIK1,NLRP12,ARHGEF19,ADAMTSL4,MCL1,TP53BP2,S100A8,ZC3H8,ARL6IP5,SLIT2,CAMK2D,TNFAIP8,FGD2,TIAM2,IGFBP3,ST18,GSN,NOTCH1,NACC2,RPS3,ATM,HMGA2,ITGB1,UBC,ADAM8,BCL2L11,OBSCN,FLCN,KCNMA1,TIAM1,XDH,PINK1,UBE2Z,ABR,KALRN,RRP1B,VAV2,PRMT2,DEDD2,SQSTM1,NLRP3,ATF3,S100A9,PRKCI,MNDA,RYBP,ZC3H12A,ARHGEF3,DLG1,CDK5,YWHAZ,RET,APBB1,SMAD3,DAPK3,CTNNB1,ING5,IL12A,LGALS9,COL4A3,PCSK9,PRELI1,D1,CRADD,ROBO1,YWHAG,AKAP13,SOX7,BCL2L1,PIK3CD,PLEKHG5,BCL2,PTEN,RPS7,PRNP,KLF11,EIF2AK3,MAP3K11,ZNF622,NET1,PHLDA3,BRMS1,TRAF6,BNIP3,BOK,CDK5R1,PNMA1,ANO6,CSRNP3,PXT1,PAK2,SCRIB,ADIPOQ,TNFSF15,LCK,FAF1,NDUFA13,WWOX,MAPT,PDCD1,FZD9,AKR1C3,NF1,DAPK1,ARHGEF12,HTT,MAP3K5,ATG7,TFDP1,TG</p> <p>1.56E-03 M2,TRIM39,RNPS1,MIR200B,MIR518B,MIR125A,MLLT11,UBD,FIS1,FNIP1,TNF,TNFSF12,LYN,CCL5,MIR195,MIR29C,MIR34A,MIR24-2,MIR1-2</p>
GO:0043254 regulation of protein complex assembly	1.63E-03	<p>BAIAP2L1,CCL26,FARP2,VPS41,SCIN,ERCC1,BID,BCLAF1,FNIP2,EIF2AK2,NCKAP1,RNF4,PRKCZ,NAV3,PFN2,CDC42,NCK2,CLASP1,ADD2,FSCN1,CAP2B,MAP2,CDH17,HSP90AA1,GSK3B,CTTN,PSMCS,ADD1,DDN1L,KIF9,ESR1,ABL1,STX1B,TRIOBP,BIK,EP300,HCK,MAPRE1,RIOK3,CORO1A,STUB1,MEFV,PCYCARD,BMF,VPS18,ERCC2,CLIP3,BBC3,TGFB1,MET,CCL24,CSF3,PFN1,RANGRF,CRYAB,GT2H3,ZNF451,SENP6,VEGFA,CNOT6,EIF4G1,ACTR3,SUMO1,PARK7,OPRD1,STMN1,KIF14,IDE,CLU,PTK2B,PMEPAL1,CNOT1,VASP,NCLN,T,HRA,CCR7,STYXL1,CD42EP1,SNX9,ARPC1B,CAMSAP1,CLIP1,HIP1R,GFAP,CHD1L,ARFIP2,RPA1,DDDB2,HNF1A,HRK,CD36,HEY2,LCP1,RAC1,BIN1,DAB2IP,STXBP1,CDK5RAP2,FC HSD2,NUMA1,SORL1,SMAD6,GT2B2,PREB,PEXS,RB1,CUL4A,WARS,TP53,TBCD,PEX14,ARF1,ANKRD53,RALB,SLIT2,IQGAP2,RASA1,TTBK1,ARHGAP18,TERF1,GSN,PAK1,RPS3,ATM,CD42EP2,FER,EP58,BCL2L11,RHOC,WHAMM,CXCL13,PINK1,VPS11,FBLIM1,ARPC5,ARPC2,AIM2,PRKCD,ARFIP1,ANKRA2,CSF2,ABCA1,ARF6,CDT1,CD42EP5,TMC8,NLRC3,CTNNB1,ATXN2L,STXBP6,LMOD2,PRKCE,TPPP,ATF7IP,CORO1B,TLR6,SELP,FOSL1,ERCC4,BAIAP2,CDK5R1,ULK1,TA7,PTPN11,CD42EP4,BBS10,HCLS1,FES,FAF1,MAPT,MITF</p> <p>1.63E-03 ,PFN3,MMP1,SRC,FCHSD1,TRAF3IP1,HSPA1B,TRIM27,ATXN2,DCTN1,LCMT1,ARL2,GT2H4,VPS16,FNIP1,GLTPD1,TNF,ARPC4,ARPC1A,TWF2,CYFIP1,HNF1B</p>

GO:0006820 anion transport	1.66E-03	1.66E-03	<p>CFTR,SLC4A1,NOS2,SLC13A2,CLCN6,NR1H4,SLC11A1,ATP1A2,OSBPL5,SLC4A7,PQLC2,GOPC,SLC4A8,ATP9A,ABCA7,CYB5R4,SYT1,ATP11A,SCARB1,CA12,ANO8,SLC46A1,ACACB,SLC1A3,SLC4A4,LRP2,ATP8B1,SLC27A5,SLCO1A2,NCOA1,CETP,SLC23A2,FXVD3,SLC7A8,SLC16A8,TSPO,SLC25A17,SLC10A1,HRH3,SLCO4A1,SLC17A9,SLC25A15,SLC38A7,ABCC1,SLC7A5,AQP9,SLC17A7,AKT2,SLC5A5,SFRP4,CA9,ABCC3,SLC9A3R1,CLCN3,MFSD10,CPT1A,FOLR1,APOA5,SLC1A2,PITPNM1,SLC6A12,SLC38A1,PPARD,TMEM30A,CLIC5,SLC4A9,SLC4A3,RAB3GAP1,SLC25A12,SCP2,SLC35A3,APOA1,ATP10B,NPC2,SLC17A5,TNFRSF11,ABCC11,CRY2,GIPC1,SLC36A1,ACSL3,SLC17A3,SLC17A1,GOT2,SLC10A2,ABCC4,SLC25A19,IL1B,SLC27A1,SLC7A10,SLC34A1,SLC6A6,ANO1,PPARG,PER2,NMUR2,CA1,CD36,TTYH3,LRRC8A,RIPK1,SLCO5A1,THBS1,SLC3A1,SLCO1C1,SLC7A1,SLC27A2,NCOA2,NCOR1,SLC13A5,SLC16A3,TNFRSF11A,AKT1,XPR1,ABCG8,ARL6IP5,ATP10D,SLC10A4,GLRA1,ANO7,SLC26A7,SLC43A1,SLC22A8,SLC22A9,THRSP,ANO4,DRD3,ACSL1,SLC25A4,PITPNC1,SLC16A1,SLC6A1,CPT2,SLC35B2,SLC38A10,SLC34A2,SLC13A3,APOA2,STC1,ACE,ABCG1,SLC37A1,ANO10,SLC1A7,SLC16A14,GABRR1,PRKCD,SLC6A18,SLC4A2,SYK,ABC A1,VDAC2,ATP9B,SLC38A8,CA4,TTYH1,SLC43A2,BEST1,SLC3A2,SLC22A11,SLC16A4,CA7,GRM5,PRELID1,SLC38A11,CLIC3,SLC16A5,SLC23A1,ARL6IP1,SLC26A5,PLA2G1B,LRRC8E,NMUR1,PRNP,STARD5,SLC19A1,SLCO4C1,PITPNA,SLC6A19,SLC26A9,SLCO2A1,CA5A,SLCO3A1,SLC38A9,ANO6,SLC25A22,SLC25A20,SLC25A42,SLC25A21,SLC25A10,TNFAIP8L3,CLCNKB,LCN12,SLC22A10,RAB11B,IRS2,SLC36A2,RXRA,CLCNKA,PPARA,GRM7,SLC25A29,ENPP1,STK39,ABCA4,SLC44A4,SLC35B4,HBA1,ATP10A,VDAC1,CLIC1,GLTPD1,A</p>
GO:0007229 integrin-mediated signaling pathway	1.68E-03	1.68E-03	<p>FGR,ITGA2B,BCAR1,CD42,ADAM11,FERMT2,TXK,CDH17,ITGB5,COL16A1,ABL1,NRP1,MADCAM1,MYH9,HCK,BST1,NEDD9,APOA1,PTK2B,LAMA5,ZNF304,CD63,TEC,CCM2,ITGA11,ADAM10,ITGB7,ADAM15,FERMT3,ITGB1,DOCK1,DST,ADAMTS1,ZYX,ITGB2,ADAMTS13,SYK,COL3A1,ADAM9,PTK2,RCC2,SRC,PHACTR4,C6ORF25,LAT,EMP2,ITGB3</p>
GO:1901136 carbohydrate derivative catabolic process	1.77E-03	1.77E-03	<p>FUCA2,UPP2,DCN,TYMP,CD44,VCAN,HEXB,GALC,GPC1,NTHL1,PDE4A,HYAL2,ACAT1,UNG,EDEM2,SLC9A1,ACOT7,UPB1,SAMHD1,CDADC1,TGFB1,GSK3A,NUDT1,NAGLU,ARSB,PDE4D,GNPDA1,HYAL1,CSPG5,SDC1,EDEM3,FBXO2,NT5C1A,CTBS,FMOD,NTSC3,PDE1B,SDC4,NAGK,NT5C,IDUA,NCAN,BCAN,CHIT1,LYVE1,AMPD3,EDEM1,CHIA,NTSE,STAB2,NUDT15,FGF2,PDE5A,LUM,TDG,GALNS,HSPG2,DPYS,NGLY1,ADAMTS12,NEIL2,CDA,PDE9A,AMDHD2,NEU3,GNPDA2,STT3B,ADAMTS9,PRKCD,ADAL,SDC2,PDE3A,HPSE,NUDT4,MAN1B1,CHID1,FUCA1,DCTPP1,GPC6,UPP1,PDE2A,HYAL3,AGRN,DPYD,ENTPD4,MGEA5,PNP,NEU4,NEU1,HEXA,PNLIPRP2,NUDT3,NUDT18</p>
GO:0016051 carbohydrate biosynthetic process	1.77E-03	1.77E-03	<p>PDK2,GLT8D1,IGF1,FUT8,NDST1,ENO1,PGM1,C1QTNF3,GSK3B,AKR1B1,B4GALT1,SORBS1,PDGFB,PCK2,HAS3,GYS1,GPI,AKT2,TGFB1,HAS1,ISYNA1,GSK3A,GCK,SLC25A11,PPARGC1A,TPI1,ENO2,GBE1,PASK,SLC25A12,SLC2A1,PPP1R3C,GOT1,GLT8D2,PTK2B,CD244,PCK1,GOT2,NR1D1,ATF4,MPDU1,FBP2,PER2,INPP5K,ALDOB,EGF,G6PC3,CLTC,SIK1,AKT1,DGKQ,MDH2,CSGALNACT1,ST8SIA6,ALDOA,EXT2,ST3GAL2,CRCT2,PTH1R,GYG1,TKT,PGAM2,PGM2L1,IRS1,UGP2,CSGALNACT2,B3GNT2,INSR,FUT3,P2RY6,BPGM,PC,PTP N2,B3GNT4,CLK2,ADIPOQ,CHST15,EXT1,SLC25A10,PGP,IRS2,NHLRC1,HRH1,AP2A1,ENPP1</p>



GO:0007623 circadian rhythm	1.77E-03	<p>HEBP1,NR1H3,ARNTL2,USP2,PER3,THRAP3,OPN3,NGFR,RORA,SREBF1,FBXW11,GSK3B,GNA11,EP300,RELB,CRTC1,NAMPT,SERPINE1,RAI1,MAPK10,PPARGC1A,CPT1A,TIMEL  ESS,UBE3A,HDAC1,SFPQ,PROX1,KLF9,CRY2,HCRT1R1,MC3R,NR1D1,PRKCG,ATF4,AANAT,ASS1,PPARG,PER2,PRKAA1,MYBBP1A,ARNTL,BHLHE40,ROCK2,MTNR1B,HCRT2,NCO  A2,PML,ZFXH3,NCOR1,TP53,CSNK1D,TNFRSF11A,SIK1,PROK1,RORC,DRD3,HNRNPU,KLF10,GNAQ,GHRL,CHRN2,ADCY1,NFIL3,BTRC,MTNR1A,PROKR1,NLGN1,NPAS2,HDAC3  ,PTEN,PPP1CA,RBM4B,RBM4,PER1,MTA1,BTBD9,PPP1CC,PPARA,HDAC2,TOP1,RORB,LGR4,PPP1CB,CSNK1E,PRKDC</p>
GO:0005976 polysaccharide metabolic process	1.86E-03	<p>GLT8D1,IGF1,RB1CC1,PYGM,NDST1,PGM1,GSK3B,SORBS1,PDGFB,PYGB,PHKB,HAS3,GYS1,AKT2,TGFB1,HAS1,GSK3A,PRKAG2,GCK,GBE1,PASK,STBD1,PPP1R3C,GLT8D2,NR1D  1,PER2,INPP5K,CHIA,EGF,CLTC,AKT1,CSGALNACT1,EXT2,PHKG2,AGL,GYG1,PHKG1,PGM2L1,IRS1,UGP2,CSGALNACT2,B3GNT2,INSR,GAA,PPP1R3B,CHST1,B3GNT4,EXT1,IRS2,  NHLRC1,AP2A1,ENPP1</p>
GO:0048013 ephrin receptor signaling pathway	1.86E-03	<p>AP2B1,FYN,AP2S1,ANKS1A,NGEF,RHOA,CDC42,EPHA8,NCK2,EFNA2,MMP9,ARHGEF7,WASL,DNM1,ACTR3,EFNB2,CHN1,ARPC1B,EPHB2,VAV3,ROCK2,RAC1,EPHA2,EFNA3,RA  SA1,EPHA1,PAK1,EPHB1,TIAM1,KALRN,VAV2,ARPC5,ARPC2,CRK,RBPJ,EFNA1,PTK2,SDC2,HRAS,CDK5R1,GRIN1,PTPN11,AP2A2,EPHA10,ACTG1,EFNA5,EPHB4,AP2A1,SRC,ARP  C4,ARPC1A,LYN</p>
GO:0060560 developmental growth involved in morphoge	1.90E-03	<p>SEMA3F,SEMA3G,NEDD4L,NTN1,FGFR2,SYT1,LRP6,PLXNA2,MAP2,DNM2,RIMS1,HSP90AA1,GSK3B,ULK2,CTTN,MT3,HSP90AB1,ABL1,NRP1,CPNE6,PTPRS,MEGF8,MAG,COBL,  LIMK1,RASAL1,VEGFA,SEMA5A,FGF1,PLXNA1,RTN4,NRP2,CPNE5,FLRT3,MACF1,RNF6,EIF2AK4,UNC13A,OLFM1,MAP1B,IQGAP1,NKD1,SYT2,CPNE9,GOLGA4,TMEM108,SLIT2  ,BIN3,NOTCH1,ZFYVE27,AUTS2,TRIM46,PLXNB1,CDK5,CTNNB1,ALCAM,S1PR1,RIMS2,ULK1,SLIT3,MAPT,SLIT1,MAGI2,SEMA4D,WNT7B,OSTN,SMURF1,SYT3,CPNE1,PLXNA4,T  WF2,CYFIP1,MIR195</p>

GO:0046434 organophosphate catabolic process	2.07E-03	<p>2.07E-03 PON1,GDE1,MLXIPL,IGF1,PNPLA6,NTHL1,PDE4A,PFKP,PKM2,HDAC4,INPP5A,SCARB1,ENO1,ACAT1,UNG,NT5C2,PGM1,ACOT7,HIF1A,SAMHD1,LIPG,SMPD3,GPI,PLA2G4C,NUDT1,PRKAG2,GCK,TPI1,ENO2,PDE4D,NT5C1A,PRDX6,PDE1B,PKFB2,NT5C,ITPA,CBFA2T3,PRKAA1,INPP5K,AMPD3,LDHA,NT5E,NUDT15,ALDOB,ENPP2,PDE5A,TDG,NCOR1,MPA2,PFKL,ARNT,ALDOA,PFKM,ENPP3,NEIL2,HKDC1,HK1,XDH,APOA2,ADPGK,PLA2G4D,HK2,PDE9A,HK3,PRKCD,ENPP6,PGAM2,PGM2L1,LIPC,SMPD1,PFKFB3,INSR,PTEN,BPG</p>
GO:0007409 axonogenesis	2.07E-03	<p>2.07E-03 SEMA3F,PLXND1,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,GPC1,NGFR,NTN1,PRKCO,CTNNA2,FGFR2,RHOA,SPTB,EPHA8,MARK2,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,MAP2,DNM2,HSP90AA1,GSK3B,ULK2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,RPS6KA5,MAPK3,PTPRS,MEGF8,MAG,SCN1B,COBL,LIMK1,GAB1,C12ORF57,VEGFA,SEMASA,UNC5A,PLXNA1,SPTBN1,RTN4,TNR,ARTN,NRP2,TNFRSF8,SLITRK3,PIK3CA,PLCG1,EFNB2,PSPN,VASP,GFRA4,LRFN3,MACF1,RNF6,CHN1,OLFM1,MAP1B,EPHB2,SEMA4F,PLXNC1,FAM129B,STXBP1,SPTBN5,SSH2,ARHGDI1,RNF165,GRB7,EFNA3,CTNNA4,GOLGA4,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PARD3,PAK1,NCAM1,FEZ1,TAOK2,ANK3,PTPRO,PRKCA,ENAH,WNT7A,EPHB1,ZFYVE27,LRFN2,DPYSL5,AUTS2,SPON2,SPTBN4,BRSK1,SHC1,CHRN2,NTN3,NTNG1,TRIM46,RYK,PLXNB1,CDK5,RET,FRS2,APBB1,KIF5C,EFNA1,PTK2,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NRTN,PIK3CD,PTEN,DAB1,PTPRM,SPTBN2,BRSK2,BAIAP2,CDK5R1,DSCAML1,ULK1,GRB2,GP5,PTPN11,NRXN1,SHAH2,LR</p>
GO:0043068 positive regulation of programmed cell death	2.09E-03	<p>2.09E-03 RBM5,SCIN,MARK4,PLAUR,BID,FAS,TNFRSF1B,BCLAF1,BAK1,TRIO,AIFM2,CASP8,NGFR,NGEF,HYAL2,IP6K2,SIRT2,CAMK2A,RPS6KA2,TP63,GRAMD4,ARHGEF1,FAP,TP73,DNM2,MEF2C,STK17B,GSK3B,DNM1L,TFAP4,ITGA6,NLRP1,TGFB2,ABL1,GADD45B,BCL2L13,PPM1F,BIK,GZMB,SOS2,MMP9,RASSF2,E2F1,ARHGEF7,PYCARD,CTSH,BMF,SFRP1,STK3,ARHGEF18,AES,CLIP3,BBC3,GSK3A,DFNA5,CAV1,NOD1,CASP2,SFRP4,CCL2,YWHAZ,SLC9A3R1,FBXW7,RAPGEF2,MTCH2,ARHGEF17,LTBR,TPD52L1,SOD2,E2F3,GPLD1,DAP,ASGRF2,FAM162A,HSP1,SFPQ,ARHGEF2,MFN2,GADD45A,FASLG,ATF6,FOXO3,TGFB3,IFIT2,GNA13,CD274,TNFRSF8,TNFSF10,ZNF205,ACVR1C,PLCG1,SPDEF,MCF2L,FGD3,RAF2,HIP1,STYX1,ATF4,ARHGEF16,HIP1R,IDO1,TRAF7,PPARG,MYBBP1A,ARHGEF11,CTNNB1,VAV3,YWHAQ,FBXO18,APC,HRK,SRPK2,AGT,ARHGEF4,IL6,NMT1,BIN1,DAB2IP,RPS6,RIPK1,MTCH1,PPP2R1B,THBS1,BCL2L10,CYP1B1,FGD4,PML,TP53,SIK1,NLRP12,ARHGEF19,ADAMTSL4,MCL1,TP53BP2,S100A8,ZC3H8,ARL6IP5,SLIT2,CAMK2D,TNFAIP8,FGD2,TIAM2,IGFBP3,ST18,GSN,NOTCH1,NACC2,RPS3,ATM,HMGA2,ITGB1,UBC,ADAM8,BCL2L11,OBSCN,FLCN,KCNMA1,TIAM1,XDH,PINK1,UBE2Z,ABR,KALRN,RRP1B,VAV2,PRMT2,DEDD2,SQSTM1,NLRP3,ATF3,S100A9,PRKCI,MNDA,RYBP,ZC3H12A,ARHGEF3,DLCL1,CDK5,YWHAZ,RET,APBB1,SMAD3,DAPK3,CTNNB1,ING5,IL12A,LGALS9,COL4A3,PCSK9,PRELID1,CRADDD,ROBO1,YWHAG,AKAP13,SOX7,BCL2L1,PIK3CD,PLEKHG5,BCL2,PTEN,RPS7,PRNP,KLF11,EIF2AK3,MAP3K11,ZNF622,NET1,PHLDA3,BRMS1,TRAF6,BNIP3,BOK,CDK5R1,PNMA1,ANO6,CSRNP3,PXT1,PAK2,SCRIB,ADIPOQ,TNFSF15,LCK,FAF1,NDUFA13,WWOX,MAPT,PDCC1,FZD9,AKR1C3,NF1,DAPK1,ARHGEF12,HTT,MAP3K5,ATG7,T</p>
GO:0043122 regulation of I-kappaB kinase/NF-kappaB sign	2.25E-03	<p>2.25E-03 CASP10,CFLAR,MAP3K14,CX3CL1,CD4,PPP5C,NR1H4,ZMYND11,CD74,BIRC3,TNIP3,TRAF3IP2,CASP8,RHOA,RORA,TRAF5,GSTP1,ZFAND6,FKBP1A,ESR1,TMEM101,CAPN3,LGALS1,HMOX1,VAPA,RIOK3,USP10,PYCARD,EEF1D,NOD1,HSPB1,LTBR,TRIM38,STAT1,TRIM62,FASLG,TNFAIP3,NEK6,TRIM25,TNFSF10,UNC5CL,IL1B,CCR7,TICAM1,APOL3,SLC44A2,BST2,TRIM22,ANKRD17,EDAR,TANK,DAB2IP,RIPK1,MAPKB1,PELI2,PDPK1,SECTM1,BRD4,AKT1,NLRP12,ECM1,PLK2,TNIP1,MTDH,TIRAP,GJA1,RHOC,SLC35B2,TMED4,PINK1,SQSTM1,ZC3H12A,SHISA5,C9ORF89,PRKCB,GPRC5B,NOD2,NLR3,CX3CR1,RHOH,LGALS9,OTUD7A,AKAP13,TRIM8,CANT1,PLEKHG5,MALT1,MYD88,RELA,TLR6,TRAF6,UBE</p>

GO:0002504 antigen processing and presentation of peptid	2.25E-03	2.25E-03 1G1,RILP,SPTBN2,CTSF,SEC24C,AP2A2,AP2A1,DYNC1H1,CAPZA2,HLA-DOA,HLA-DRA,DCTN1,IFI30,HLA-DPB1,HLA-DQA2,HLA-DOB,HLA-DMB,DYNLL2
		AP2B1,CD74,AP2S1,KIF26A,KIF2A,AP1M1,RAB7A,DYNC1I2,CAPZB,KIF22,DNM2,DYNLL1,LAG3,TREM2,AP1B1,LGMN,KIF3B,PYCARD,DCTN6,AP1S1,SEC24A,ACTR1B,CAPZA1,KLC1,CANX,AP1M2,KIF3A,ACTR10,DCTN4,DYNC1LI2,DCTN3,THBS1,ACTR1A,SEC31A,CENPE,SEC24B,CLTC,OSBPL1A,KIF2C,ARF1,SEC24D,SAR1B,SEC13,DYNC1I1,FCER1G,CTSS,AP
		CX3CL1,BAIAP3,MAPK8IP2,SYT7,ATP1A2,DTNBP1,RASGRF1,PRKCZ,SYT1,CAMK2A,SLC24A1,RIMS1,CHRNA3,MEF2C,MTMR2,ABL1,STX1B,LGMN,SLC8A3,GRIN2D,CPEB3,KAT2A,MPP2,RAPGEF2,CUX2,GRM6,DBN1,RAB3GAP1,RIMS3,CDC20,CHRN84,SLC8A2,PTK2B,ADRA1A,GIPC1,GRM4,IL1B,PNKD,EIF2AK4,UNC13A,DLG4,SYT11,EPHB2,TOR1A,STXB P1,FLOT1,ARF1,CNTN4,TMEM108,PLK2,CPLX2,EIF4EBP2,DRD3,GRID2,GRM1,CNTNAP4,WNT7A,SLC24A2,NPTN,BRSK1,CHRN2,SQSTM1,GRIN2C,SHANK1,SHANK2,GRIK3,GRM2,GRIK2,CDK5,PXK,CX3CR1,D4S234E,GRM5,RAB3B,SGS14,NLGN1,YWHAG,GRIK1,PTEN,KCTD13,MCTP1,ANAPC2,RIMS2,GRIN1,PPFIA3,GRM8,NRXN1,ADIPOQ,BTBD9,PARK
GO:0050804 modulation of chemical synaptic transmissio	2.31E-03	2.31E-03 2,SYN3,MAPT,SHISA7,OR56A5,SHISA6,GRM7,HRH1,SYNGAP1,ARC,GRM3,AGER,SHISA9
		SEMA3F,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,GPC1,NGFR,NTN1,PRKCQ,SPTB,EPHA8,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,SEMA6A,EZR,NRP1,EFNA2,SP56KA5,MAPK3,MEG F8,SCN1B,GAB1,VEGFA,SEMA5A,UNC5A,PLXNA1,SPTBN1,TNR,ARTN,NRP2,TNFRSF8,PIK3CA,PLCG1,EFNB2,PSPN,VASP,GFRA4,CHN1,EPHB2,SEMA4F,FAM129B,SPTBN5,RNF165,GRB7,EFNA3,CNTN4,SLIT2,PIK3R1,DOK2,NFIB,SHC3,NCAM1,FEZ1,PTPRO,PRKCA,ENAH,EPHB1,DPYSL5,SPON2,SPTBN4,SHC1,NTN3,RYK,RET,FRS2,KIF5C,EFNA1,PTK2,ROBO
GO:0097485 neuron projection guidance	2.32E-03	2.32E-03 1,ALCAM,KIF5B,FEZ2,NRTN,PIK3CD,DAB1,PTPRM,SPTBN2,CDK5R1,GRB2,PTPN11,NRXN1,SHAH,SLIT3,EFNA5,IRS2,SLIT1,PDLM7,SRC,PLXNA4
		ITGA3,WWTR1,STRAP,LTBP1,DKK3,HIPK2,RHOA,PRKCZ,TGFB3,FSTL3,UBE2D1,FERMT2,LRP2,ITGB5,NLK,FKBP1A,PXN,LTBP4,TGFB2,HSP90AB1,SMAD7,MAPK3,NUP93,ZNF423,PAR6A,STUB1,ARHGAP18,AMH,TGFB1,MEGF8,CAV1,SFRP4,ENG,BMPR1A,FBXL15,PBLD,DDX5,SMURF2,UBE2D3,SNX25,FOLR1,CBL,GCNT2,ZNF451,DUSP22,SMAD5,ACV R2B,BMP8B,STK11,LTBP2,TGFB3,SMAD9,FMOD,GIPC1,ACVR1C,PMEDA1,RUNX2,WNT1,OVOL2,GDF5,PIN1,TWISG1,CDKN1C,GDF1,GDF15,MEN1,ACVR1B,TGFBAP1,SKIL,NUMA1,THBS1,SMAD6,EMILIN1,MSTN,BMPR1B,FBN2,INHBE,SLC39A5,PCSK6,FURIN,TGFB1I1,PDPK1,TOB1,ARRB2,RNF165,PRDM16,CYR61,LEFTY2,CRB2,NOTCH1,PAR3,UBCB TBD1,ADAM17,BMP3,PTPRK,DAB2,FLCN,KLF10,CD109,RBPMS,RNF111,SKI,ZYX,FOXH1,LEMD2,INHBB,FSTL1,TGFB2,DACT2,BMPER,COL1A2,FBN1,TMEM100,RBPMS2,SMA D3,VASN,RBPJ,HFE2,FNTA,COL3A1,ADAM9,ATO8,PTK2,SMAD1,HTRA3,SOSTDC1,LEMD3,RGMB,UBE2O,CIDEA,FAM89B,CDH5,GREM2,RGMA,BMP8A,CLDN5,GDF3,BCL9L,M
GO:0007178 transmembrane receptor protein serine/thre	2.32E-03	2.32E-03 AG2,VWC2,SRC,ADAMTSL2,HESS,SMURF1,BMPR2,CSNK2B,MIR30B,LEFTY1,GDF10

GO:0007411 axon guidance	2.32E-03	2.32E-03 1,ALCAM,KIF5B,FEZ2,NRTN,PIK3CD,DAB1,PTPRM,SPTBN2,CDK5R1,GRB2,PTPN11,NRXN1,SH3BP1,SLIT3,EFNA5,IRS2,SLIT1,PDLM7,SRC,PLXNA4 SEMA3F,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,GPC1,NGFR,NTN1,PRKCO,SPTB,EPHA8,GLI2,NTN4,SEMA3C,PLXNA2,RAP1GAP,SEMA6A,EZR,NRP1,EFNA2,RPS6KA5,MAPK3,MEG F8,SCN1B,GAB1,VEGFA,SEMA5A,UNC5A,PLXNA1,SPTBN1,TNR,ARTN,NRP2,TNFRSF8,PIK3CA,PLCG1,EFNB2,PSPN,VASP,GFRA4,CHN1,EPHB2,SEMA4F,FAM129B,SPTBN5,RNF1 65,GRB7,EFNA3,CNTN4,SLIT2,PIK3R1,DOK2,NFIB,SHC3,NCAM1,FEZ1,PTPRO,PRKCA,ENAH,EPHB1,DPYSL5,SPON2,SPTBN4,SHC1,NTN3,RYK,RET,FRS2,KIF5C,EFNA1,PTK2,ROBO
GO:0001954 positive regulation of cell-matrix adhesion	2.38E-03	2.38E-03 0,EMP2 CX3CL1,MYOC,GSK3B,COL16A1,ABL1,NRP1,PPM1F,SFRP1,CDK6,VEGFA,PTK2B,CCR7,KDR,CCL25,CD36,RAC1,CDH13,EPHA1,PTPRJ,CCL28,UTRN,TSC1,LIMS1,JUP,CIB1,S100A1
GO:0072657 protein localization to membrane	2.43E-03	2.43E-03 40C,RPS26,S100A10,MYO1C,TFDP1,RPL23A,RTP2,SMURF1,RPL10A,SY51,EMP2,FIS1,RPS18,TNF ITGAL,ITGA3,AGK,RPS20,FYN,BID,EHD2,PRKCH,ANK1,GOPC,SEC61A1,RPL18,CASP8,AP3D1,TRAM2,PPP2R5A,REEP1,TTC7A,LRP6,FRMPD1,RPL31,TP63,FERMT2,PICALM,ACTN 2,TULP3,TP73,STX7,HSP90AA1,RPS5,EFR3B,TESC,CAPN3,EZR,SORBS1,TREM2,TSPAN15,MADCAM1,PPIL2,MICALL1,RPL3,GZMB,VTI1B,E2F1,CHMP4B,NECAB2,CSK,BMF,SGTA, AKT2,CLIP3,BBC3,TGFB1,RPS19,CAV1,AGR2,DVL1,RPL28,TSPAN14,RPL19,YWHAE,RANGRF,SLC9A3R1,RAB34,CPE,RAPGEF2,NRXN2,TULP1,RPS12,GOLPH3,KCNI3P,RPS15,SPT BN1,RAB3GAP1,GRIN3B,TMEM59,RPL22,RAB32,VAMP8,RAB3GAP2,RHOQ,PLS1,PEX16,RAMP3,LRP1,ACSL3,PACSLIN1,BBS2,RAP2A,RPL23,RAB3IP,MACF1,DPP6,ARHGAP16,RF TN1,EXOC4,PPFIA1,EFR3A,RAMP1,INPP5K,DLG4,FLOT2,VPS4A,EPHB2,NUMB,YWHAQ,ROCK2,RPS15A,TIMM10,MRAP2,TMBIM1,NMT1,RTP4,STXB1P,RPS6,KIF13A,FLOT1,RPS 24,NUP54,PEX5,ITGB7,SRP14,PDPK1,CLTC,TP53,RAB40B,ERBB2,AKT1,RPS11,EPHA2,RPL11,PIP5K1A,TP53BP2,RAB13,GOLGA4,RPL32,ANK2,NKD2,PIK3R1,EGFR,GSN,PARD3,R PS3,TAOK2,ITGB1,DLG2,RILPL2,ANK3,DAB2,BCL2L11,PID1,TNIK,ZFYVE27,GOLGA7B,FCHO2,APPL1,TSPAN33,ZFAND2B,RAPGEF6,ITGB2,SPTBN4,SQSTM1,RPL8,RPL29,WNT4,P EX19,CNST,PKDCC,PIGR,RFTN2,SSR2,CLASP2,PRKCI,COX18,LZTFL1,RTP3,CDK5,YWHAZ,ARF6,TTC7B,CACNB2,ARL5B,RAB8B,SCN3B,RPL27A,STX3,RPL13,RPSA,ATG4B,TSPAN5, TMEM150A,PTPN9,NLGN1,ITGAM,YWHAG,ARL6IP1,KIF5B,RPS9,PRKCE,BCL2L1,BCL2,RPS7,PRNP,BSG,RAB37,RPL38,JUP,RPL4,BBS1,SH3PX2B,RPL15,HRAS,RTP1,PACSL1,RHO G,TIMM22,GAK,PACS2,AKAP5,NRXN1,KCNE1,SCRIB,ADIPOQ,KCNB2,PKP3,CIB1,RAB11B,PARK2,HGS,KCNIP4,NDUFA13,MAGI2,SHISA7,RILPL1,AGRN,FZD9,SHISA6,RPL14,RAB
REAC:R-HSA- Intracellular signaling by second messengers	2.56E-03	2.56E-03 1,MTOR,PSMB8,CSNK2B,AKT1S1,TRIM27,PSMB10,PSMB9,PIP4K2B,PSMB3 PRKAR2B,SCMH1,FYN,RRAGD,PSMA4,MTA3,HDAC7,ERBB3,PPP2R5A,FGFR2,FGFR3,PSME4,FGF22,CSNK2A2,MBD3,PRKACA,EED,FGF4,FGFR1,PPP2R5C,TNRC6C,GSK3B,MECO M,PSMCS,RCOR1,TNRC6A,ESR1,PSME1,ITPR3,PSMD8,PDGFB,TNRC6B,PSMA7,MAPK3,PSMD7,TSC2,STUB1,AKT2,PPP2R1A,PIK3R2,GSK3A,MET,PSMA2,RHEB,TNKS2,PSMD3,P SMD11,HDAC5,PRKAR1A,GAB1,PSMD9,FGF6,CDKN1B,CHD4,ATN1,FRK,NR2E1,HBEGF,PPP2CA,FGF1,CD86,PRKAR2A,PDE1A,IL1RL1,HDAC1,RRAGC,PIK3R3,FOXO3,MAPKAP1, ADCY7,RNF2,PIK3CA,NR4A1,PDE1B,PLCG1,CDKN1A,PSMF1,PSMB2,PRKCG,SHFM1,PSMA1,PSME3,PPARG,KL,MKRN1,PHC2,PDGFRA,CLB,IER3,PPP2R1B,ADCY3,FGF2,EGF,FGF 7,PML,PDPK1,TP53,RPTOR,ERBB2,AKT1,PIP5K1A,GATAD2B,PIK3R1,EGFR,MTA2,UBC,PPP2R5E,PRKCA,MOV10,PIK3AP1,RRAGA,ADCY8,NRG1,KIT,NRG2,PSMB4,FGFR4,ADCY9, TRAT1,ICOS,PRKCD,ADCY1,PRKACG,FRS2,GATAD2A,MLST8,AHCYL1,IRS1,NRG4,OTUD3,CHD3,INSR,PRKCE,PIK3CD,HDAC3,PTEN,MYD88,ADRBK1,ADCY5,TNKS,PHC3,ADCY6,B TC,TRAF6,RPS6KB2,SLC38A9,CD19,GRB2,ERBB4,PTPN11,MAF1,LCK,MTA1,CBX6,NRG3,IRS2,PIPSK1C,USP7,PRKAR1B,IL1RAP,HDAC2,SRC,PSMD12,PDGFA,IRAK4,WWP2,CALM

			ITGA2B,FYN,PPP5C,PSMA4,RASGRF1,ERBB3,PPP2R5A,FGFR2,FGFR3,PSME4,MAPK6,SPTB,FGF22,CAMK2A,CDC42,PRKACA,FGF4,RASAL2,APBB1IP,ACTN2,FGFR1,PPP2R5C,TNRC6C,CDC14B,XPO1,PSMC5,MAPKAPK5,PEBP1,BRAP,TNRC6A,IL5RA,PSME1,PSMD8,PDGFB,TNRC6B,CSF2RB,PSMA7,MAPK3,PSMD7,CSK,RASAL3,TYK2,GRIN2D,PPP2R1A,JAK3,MET,HSPB1,PSMA2,PSMD3,PSMD11,RAPGEF2,VWF,PSMD9,FGF6,DUSP16,RASAL1,CCND3,HBEGF,RASGRF2,PPP2CA,FGF1,SPTBN1,FN1,ARTN,FOXO3,DUSP1,NCOA3,PSPN,PSMF1,GFRA4,PSMB2,RAP1B,SHFM1,PSMA1,SHC2,PSME3,DNAJB1,DLG4,KL,KRAS,IL6ST,IL2RA,PDGFRA,KLB,RAC1,IL6,DAB2IP,TLN1,ARRB1,PPP2R1B,SPTBN5,DUSP5,FGF2,EGF,FGF7,IQGAP1,KSR1,ARRB2,MAPK4,ERBB2,DUSP10,IL17RD,CAMK2D,RASA1,EGFR,SHC3,CAMK2G,PAK1,NCAM1,CDC42EP2,UBC,RASGRP3,PPP2R5E,MOV10,NRG1,KIT,DUSP2,NRG2,IGF2BP1,PSMB4,KALRN,SPTBN4,SHC1,IL6R,FGFR4,GRIN2C,JAK1,PEA15,PAQR3,DUSP7,CSF2,PRKACG,RET,SPRED1,FRS2,CDC42EP5,MAP2K1,IRS1,PTK2,NRG4,CDK1,NRTN,KSR2,FGA,RASGRP4,RASGRP1,MAP3K11,SPTBN2,HRS,BTC,RAG2,GRIN1,GRB2,ERBB4,PTPN11,PAK2,DUSP8,NRG3,IRS2,RASA3,SPRED3,NF1,Src,PSMD12,SYNGAP1,PDG
REAC:R-HSA- MAPK family signaling cascades	2.56E-03	2.56E-03	FA,SPRED2,CALM1,PSMB8,PSMB10,LAT,PSMB9,ITGB3,PSMB3
			MYOC,LIMCH1,RHOA,PFN2,CDC42,CLASP1,ARHGEF10L,RAPGEF3,ITGB5,WNT11,PXN,SLC9A1,SORBS1,ABL1,NRP1,PPM1F,SFRP1,ARHGEF10,MET,LIMK1,TESK1,PFN1,TNFAIP1,PHACTR1,STMN1,APOA1,TGFB3,PPFIA1,INPP5K,ROCK2,FHOD1,RAC1,ARRB1,TPM1,PHLDB2,EPHA1,PAK1,RHOC,WASF2,ZYX,CLASP2,DLC1,TSC1,SERPINF2,KCTD13,PPM1E,NF
GO:0030038 contractile actin filament bundle assembly	2.58E-03	2.58E-03	2,ARAP1,Src,S100A10,LPAR1
			MYOC,LIMCH1,RHOA,PFN2,CDC42,CLASP1,ARHGEF10L,RAPGEF3,ITGB5,WNT11,PXN,SLC9A1,SORBS1,ABL1,NRP1,PPM1F,SFRP1,ARHGEF10,MET,LIMK1,TESK1,PFN1,TNFAIP1,PHACTR1,STMN1,APOA1,TGFB3,PPFIA1,INPP5K,ROCK2,FHOD1,RAC1,ARRB1,TPM1,PHLDB2,EPHA1,PAK1,RHOC,WASF2,ZYX,CLASP2,DLC1,TSC1,SERPINF2,KCTD13,PPM1E,NF
GO:0043149 stress fiber assembly	2.58E-03	2.58E-03	2,ARAP1,Src,S100A10,LPAR1
			CFLAR,BRCA1,ZMYND11,BID,IGF1,FAS,BAK1,TRAF1,CASP8,EYA2,ERBB3,SP100,HYAL2,FGFR3,KIAA0141,GSK3B,GSTP1,ICAM1,ITGA6,RFFL,TGFB2,HMOX1,PYCARD,SFRP1,TGFB1,GSK3A,CAV1,SERPINE1,MADD,LTBR,BIRC6,PARK7,ARHGEF2,FASLG,TNFAIP3,TNFSF10,IL1B,CD70,IFI6,TRAF2,PSME3,ACVR1B,AGT,TMBIM1,DAB2IP,RIPK1,PPP2R1B,THBS1,BCL2L10,PML,PDPK1,AKT1,MCL1,TCF7L2,BAG3,SH3RF1,APPL1,EYA3,DEDD2,IL6R,PEA15,ATF3,HIPK1,TLR3,TERT,CSF2,RET,SMAD3,TMTC8,IL12A,FEM1B,CRADD,GABARAP,BCL2L
GO:0097191 extrinsic apoptotic signaling pathway	2.61E-03	2.61E-03	1,FGA,BCL2,PTEN,SCG2,RELA,PELI3,BOK,PAK2,SIAH2,RNF41,SIVA1,CIB1,WWOX,BLOC1S2,Src,HTT,DAXX,HSPA1B,MLLT11,SCR2,TNF,GPX1,TNFSF12

GO:0032233 positive regulation of actin filament bundle a:	2.61E-03	2.61E-03	CX3CL1,MYOC,LIMCH1,RHOA,PFN2,CDC42,ARHGEF10L,RAPGEF3,WNT11,PXN,ABL1,NRP1,PPM1F,SFRP1,ARHGEF10,LIMK1,TESK1,PFN1,APOA1,TGFB3,ROCK2, FHOD1,RAC1,T PM1,EPAH1,PAK1,RHOC,SYNPO2L,SERPINF2,SYNPO,SYNPO2,PPM1E,NF2,PFN3,S100A10,LPAR1
GO:2000379 positive regulation of reactive oxygen species	2.62E-03	2.62E-03	CYBA,RAB27A,PTGS2,EDN1,HSP90AA1,GSTP1,HSP90AB1,PDGFB,TGFB1,MAPK14,AGXT2,PARK7,GADD45A,CLU,ZNF205,CDKN1A,IL1B,ASS1,CD36,AGT,RIPK1,THBS1,TP53,AKT 1,AGTR1,PID1,DDAH1,XDH,ITGB2,TGFB2,ZC3H12A,PRKCD,SMAD3,ITGAM,INSR,TLR6,GRIN1,GRB2,F2,RNF41,MAPT,TLR5,AKR1C3,DDAH2,TNF,HBB,MIR24-2
GO:0032456 endocytic recycling	2.73E-03	2.73E-03	EHD2,PTPN23,ACTN2,EPS15,RAB11FIP3,CMTM6,MICALL1,EHD4,EHD1,RAB35,SNX4,DENND1A,RAB17,STX6,SORL1,VP53,RAB13,SNF8,LMTK2,MICALL2,ARF6,RAB11B,INPP5 F,DENND1B,VP52
GO:0032273 positive regulation of protein polymerization	2.76E-03	2.76E-03	BAIAP2L1,CCL26,SCIN,NCKAP1,NAV3,PFN2,NCK2,CLASP1,HSP90AA1,CTTN,HCK,MAPRE1,CORO1A,PYCARD,MET,CCL24,CSF3,PFN1,ACTR3,PTK2B,VASP,CCR7,CDC42EP1,ARPC 1B,CLIP1,ARFIP2,RAC1,BIN1,CDK5RAP2,NUMA1,ARF1,ANKRD53,IQGAP2,TTBK1,GSN,PAK1,RPS3,CDC42EP2,FER,WHAMM,PINK1,ARPC5,ARPC2,ARFIP1,ARF6,CDC42EP5,LMO D2,PRKCE,TPPP,CORO1B,BAIAP2,CDK5R1,CDC42EP4,FES,MAPT,HSPA1B,TRIM27,DCTN1,ARL2,ARPC4,ARPC1A,CYFIP1

GO:0048002 antigen processing and presentation of peptid	2.79E-03	<p>AP2B1,SLC11A1,CD74,AP2S1,VAMP3,KIF26A,KIF2A,AP1M1,RAB7A,DYNC1I2,CAPZB,KIF22,DNM2,ITGB5,DYNLL1,LAG3,SNAP23,TREM2,AP1B1,LGMN,KIF3B,PYCARD,DCTN6,CLEC4M,AP1S1,SEC24A,ACTR1B,CD207,CAPZA1,VAMP8,KLC1,CANX,AP1M2,KIF3A,ACTR10,DCTN4,CD36,DYNC1LI2,DCTN3,ACTR1A,SEC31A,CENPE,SEC24B,TAPBPL,CLTC,OSBP1L1A,KIF2C,ARF1,SEC24D,SAR1B,SEC13,DYNC1I1,FCER1G,ACE,CTSS,ERAP1,B2M,AP1G1,PDIA3,RILP,TAP1,SPTBN2,CTSF,SEC24C,CALR,AP2A2,AP2A1,DYNC1H1,CAPZA2,HLA-DOA,TAP2,HLA-DRA,HLA-G,DCTN1,IFI30,HLA-DPB1,TAPBP,HLA-DQA2,HLA-DOB,HLA-DMB,DYNLL2,SEC22B</p>
GO:0007249 I-kappaB kinase/NF-kappaB signaling	2.80E-03	<p>CASP10,CFLAR,MAP3K14,CX3CL1,CD4,PPP5C,NR1H4,ZMYND11,CD74,BIRC3,TNIP3,TRAF3IP2,CASP8,RHOA,RORA,NFKB2,TRAF5,ERC1,GSTP1,ZFAND6,FKBP1A,ESR1,TMEM101,CAPN3,LGALS1,HMOX1,MAP3K7IP1,NFKBIA,VAPA,RIOK3,USP10,PYCARD,EEF1D,RELB,NOD1,HSPB1,LTBR,TRIM38,STAT1,TRIM62,FASLG,TNFAIP3,NEK6,TRIM25,TNFSF10,UNC5CL1,IL1B,CCR7,TRAF2,TICAM1,APOL3,SLC44A2,BST2,TRIM22,ANKRD17,IRAK2,ROCK2,EDAR,TANK,DAB2IP,RIPK1,MAPKBP1,PELI2,PDPK1,SECTM1,BRD4,AKT1,NLRP12,ECM1,PLK2,TNIP1,IRAK1BP1,MTDH,TIRAP,UBC,GJA1,RHOC,SLC35B2,TMED4,PINK1,SQSTM1,ZC3H12A,SHISA5,TLR3,C9ORF89,PRKCB,GPRC5B,NOD2,NLRC3,NKIRAS2,CX3CR1,RHOH,LGALS9,OTUD7A,CD14,AKAP13,TRIM8,CANT1,PLEKHG5,MALT1,MYD88,RELA,TLR6,TRAF6,UBE2N,PER1,SHARPIN,ADIPOQ,TBK1,PARK2,ROR1,ZDHHC17,LITAF,MIB2,IRAK4,LPAR1,MIER1,CARD11,MAP3K3,NFKBIL1,UBD,CPNE1,TIAF1,TNF,TLR9,UBE2V1,IKBKE,OTUD7B</p>
GO:0055065 metal ion homeostasis	2.82E-03	<p>CALCR,IBTK,CX3CL1,FYN,SLC11A1,ATP1A2,BAK1,CASR,CP,NEDD4L,LETMD1,HERPUD1,KCNH2,CUL1,ATP2B4,GNA15,AP3D1,NEO1,TRPC7,ATP2B1,CYBRD1,PRKACA,TFRC,PICALM,SLC24A1,SRI,SLC46A1,EDN1,SCGN,P2RX5,CHERP,MT3,FKBP1A,NOS1,SLC9A1,ESR1,JPH4,SLC7A8,SLC22A17,CAPN3,ITPR3,ABL1,HMOX1,KCTD17,SLC8A3,BDKRB1,HTR2A,NUBP1,HMOX2,SLC30A4,SLC39A14,DMPK,BBC3,ATP1A3,GRIN2D,HAMP,ATP13A1,CAV1,TFR2,CDH23,CCL1,FAM20A,YWHAE,WFS1,STIM2,HPX,SLC11A2,CYP27B1,TRPV4,SCNN1A,SLC39A7,CCR6,PDE4D,SKP1,CLDN16,SLC30A3,TACR1,THADA,FASLG,SLC8A2,PTK2B,ADRA1A,EPHX2,HCRTR1,CCR2,RAMP3,ACO1,ATP7B,PLCG1,GCM2,MT2A,GPR18,OPRL1,S1PR4,CCR7,EDN2,ATP13A4,F2RL3,ATP1B2,EPO,TRPM4,DIAPH1,C19ORF12,DLG4,NMUR2,PDE6A,SLC41A1,TPT1,PDE6B,TRPM1,APLNR,TMEM165,PDGFRA,CD36,AGT,ISCU,IREB2,CIB2,SCN7A,ATP6V1G1,HCRTR2,PLCE1,SLC40A1,FGF2,TRPC3,PLCZ1,SLC39A5,SLC24A4,PML,PDPK1,CACNA1A,TRPM2,CASQ1,S100A8,ARF1,CALM2,AGTR1,CORIN,CAMK2D,ANK2,SLC30A5,SLC25A37,SLC39A4,LCN2,GSTO1,CNNM2,JPH2,CACNA1C,ANK3,AKAP6,DRD3,EDNRA,GRM1,JPH3,SLC24A2,KCNMA1,CXCL13,NPTN,GHRL,ATP2B2,SPPL3,CNNM4,STC1,ATP13A2,ATP6V0D1,CALM3,TMPRSS3,GRIN2C,TPCN2,S100A9,ATP1A1,CCR1,TRPV6,EPHA1,SLC39A13,PRKCB,B2M,SMAD3,STIM1,JSRFP1,TM8C,FTH1,SCARA5,SCNN1B,HFE2,LETM1,CXCL10,CD52,PLA2G1B,PKHD1,LPAR3,P2RY6,BCL2,C3AR1,PRND,PRNP,ADRA1D,CALB2,COMMD1,ADCY5,C1QTNF1,TAC4,GRIN1,GPR4,ATOX1,TMTC2,CYP11B2,CALR,F2,GPR157,CCL13,GALR2,LCK,SLC8A1,CCR4,SLC24A3,ATP6V0A2,PARK2,CYP4F12,TMPRSS6,P2RX2,SLC24A5,OR56A5,FZD9,S100A14,RYR1,CD55,SLC30A10,SLC39A10,HTT,CSAR1,ELANE,PLCG2,LPAR1,RYR2,CALM1,TGM2,FAM155A,GPR20,GSTM2,FIS1,COX19,CCL5,CCL23,CCL14,MIR1-2</p>
GO:0099177 regulation of trans-synaptic signaling	2.89E-03	<p>CX3CL1,BAIAP3,MAPK8IP2,SYT7,ATP1A2,DTNBP1,RASGRF1,PRKCZ,SYT1,CAMK2A,SLC24A1,RIMS1,CHRNA3,MEF2C,MTMR2,ABL1,STX1B,LGMN,SLC8A3,GRIN2D,CPEB3,KAT2A,MPP2,RAPGEF2,CUX2,GRM6,DBN1,RAB3GAP1,RIMS3,CDC20,CHRN4,SLC8A2,PTK2B,ADRA1A,GIPC1,GRM4,IL1B,PNKD,EIF2AK4,UNC13A,DLG4,SYT11,EPHB2,TOR1A,STXBP1,FLOT1,ARF1,CNTN4,TMEM108,PLK2,CPLX2,EIF4EBP2,DRD3,GRID2,GRM1,CNTNAP4,WNT7A,SLC24A2,NPTN,BRSK1,CHRN2,SQSTM1,GRIN2C,SHANK1,SHANK2,GRIK3,GRM2,GRIK2,CDK5,PXK,CX3CR1,D4S234E,GRM5,RAB3B,RGS14,NLGN1,YWHAG,GRIK1,PTEN,KCTD13,MCTP1,ANAPC2,RIMS2,GRIN1,PPFIA3,GRM8,NRXN1,ADIPOQ,BTBD9,PARK2,SYN3,MAPT,SHISA7,OR56A5,SHISA6,GRM7,HRH1,SYNGAP1,ARC,GRM3,AGER,SHISA9</p>

GO:0050863 regulation of T cell activation	2.89E-03	<p>CD4,FYN,CD6,IGF1,PRDM1,AP3D1,PRKQC,PRKCZ,CDC42,NCK2,TFRC,TBX21,GLI2,PAG1,SIRPG,IL12RB1,ABL1,XBP1,GRAP2,NFATC2,SMAD7,PYCARD,CSK,IL7,CLPTM1,RASAL3,AK3,CAV1,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,KAT2A,DUSP3,PRKAR1A,IL23A,PTPN6,IL4,CD86,ZAP70,ZP4,MYB,CD274,TNFSF11,MAPK8IP1,CCR2,PIK3CA,LAX1,SDC4,BTN2A2,E, FNB2,IRF1,IL1B,CCR7,ZBTB1,TWGS1,RARA,FLOT2,SFTPD,PTPN22,VTGN1,IL6ST,IL2RA,HAVCR2,GNMNB,RAC1,IL6,IRF4,PDPK1,AKT1,DUSP10,ZC3H8,NFKBIZ,PIK3R1,TNFRSF21, GSN,PAK1,RPS3,IL18,DLGS,ADAM8,FAM49B,SH3RF1,RUNX1,ICOSLG,ZBTB7B,VCAM1,NLRP3,TNFAIP8L2,IHH,TGFBR2,ICOS,ZC3H12A,SYK,NOD2,NFKBID,CCDC88B,IL12A,LGAL S9,PRELID1,SOCSS5,PRNP,MALT1,GLMN,PTPN2,SART1,ZNF683,GRB2,PTPN11,PAK2,LCK,TNFRSF18,PDCC1,CD55,SR,IL27,SPN,DPP4,PDCC1LG2,CARD11,PNP,AGER,AIF1,HLA-</p> <p>G,MIR30B,LAT,HLA-DPB1,HLA-DMB,LYN,CCL5</p>
GO:0002495 antigen processing and presentation of peptid	2.90E-03	<p>AP2B1,CD74,AP2S1,KIF26A,KIF2A,AP1M1,RAB7A,DYNC1I2,CAP2B,KIF22,DNM2,DYNLL1,LAG3,TREM2,AP1B1,LGMN,KIF3B,PYCARD,DCTN6,AP1S1,SEC24A,ACTR1B,CAPZA1,KL C1,CANX,AP1M2,KIF3A,ACTR10,DCTN4,DYNC1L1,DCTN3,ACTR1A,SEC31A,CENPE,SEC24B,CLTC,OSBPL1A,KIF2C,ARF1,SEC24D,SAR1B,SEC13,DYNC1I1,FCER1G,CTS5,AP1G1,RI</p> <p>LP,SPTBN2,CTSF,SEC24C,AP2A2,AP2A1,DYNC1H1,CAPZA2,HLA-DOA,HLA-DRA,DCTN1,JF130,HLA-DPB1,HLA-DQA2,HLA-DOB,HLA-DMB,DYNLL2</p>
GO:0042391 regulation of membrane potential	2.90E-03	<p>CFTR,SCN4A,MAPK8IP2,DCN,ATP1A2,BAK1,MYOC,BEST2,NEDD4L,HEBP2,KCNQ1,KCNH2,PRKCZ,CNGB1,SRI,ACTN2,RIMS1,CHRNA3,MEF2C,CACNA1S,GSK3B,MTMR2,GNA11, SLC9A1,KCNK16,ABL1,STX1B,HCN2,CACNA1I,KCNK10,CHRNA4,SMAD7,NALCN,KCNN4,AKT2,MYH14,ATP1A3,SCN1B,GSK3A,CAV1,MPP2,YWHAE,RANGRF,CUX2,RAB3GAP1,S UMO1,PARK7,OPRD1,RIMS3,KCNIP2,KCNJ5,PTK2B,ADRA1A,KCNK15,KCNK17,JF16,KDR,ATP1B2,KCNAS,TRPM4,ATPIF1,DLG4,SPG20,KCNH3,KCNK1,SCN7A,BIN1,CHRNA1,HCN 4,SCARB2,KCNH5,ARRB2,CACNA1A,AKT1,KCNH1,CNGA3,ARL6IP5,TMEM108,CAMK2D,ANK2,GLRA1,SLC26A7,CACNA1B,CACNA1C,ANK3,AKAP6,GRID2,KCNK13,GPD1L,GJA1, PID1,CXADR,WNT7A,GNAQ,KCNMA1,CACNA1D,PINK1,CHRN2B,SHANK1,TPCN2,ATP1A1,GRIK3,HCN1,KCNK5,PRDX3,STOX1,CACNB2,SCN3B,CACNG2,PRELID1,KCNK9,NLGN1, CHRN1,SLC26A5,KIF5B,KCNMB3,KCNK3,KCND3,BCL2L1,SLC25A33,BCL2,PTEN,KCNK7,JUP,SLC26A9,NPPA,CATSPER1,KCNE3,BNIP3,RIMS2,GRIN1,SCN4B,KCNA2,NRXN1,KCN E1,KCNK4,GJC1,PYCR1,SLC8A1,CTNNA3,SCNSA,KCNH8,KCND2,SCN10A,KCNK18,TPCN1,MAPT,FZD9,CACNA1H,SCN8A,SR,BCO2,CACNA1E,WWP2,RVR2,MLLT11,GJA5,MIR1-</p>
GO:0006732 coenzyme metabolic process	3.00E-03	<p>CD38,ACSM3,CROT,PKD2,NADK,MLXIPL,IGF1,MAT2B,FAR2,GSTO2,ME1,ELOVL1,PFKP,PKM2,HDAC4,COASY,KCNAB2,PTGS2,ENO1,ACAT1,MOCOS,SLC46A1,ACACB,PGM1,ME 2,COQ9,SLC23A2,DLB,VNNA3,FMO2,ACOT7,TECR,CYB5R3,GSTZ1,HIF1A,MTHFD1,AHCV,QPRT,GPI,NAMPT,OGDH,PRKAG2,GCK,BST1,PDHX,COQ5,MVK,TPI1,ENO2,VNNA2,ACOT 13,NNT,PCCB,TP53I3,GPD2,KMO,SLC2A1,ACOT2,ELOVL3,MTHFD1L,LIAS,SLC25A16,PFKFB2,ACSL3,MTRR,MCEE,MOCS1,GNMT,PANK2,PPCS,CBFA2T3,GAMT,ACLY,PRKAA1,LD HA,NT5E,COQ10A,ALDH1L2,SUCLA2,ALDOB,PPGS,BAAT,GGH,PPCDC,NCOR1,PFKL,PGD,ARNT,ALDH1L1,SCD5,GSTO1,HSD17B12,ALDOA,MAT1A,ACSL1,PFKM,GPD1L,PANK1,A CMSD,ACSS1,HKDC1,HK1,AHCYL2,HLCS,ADPGK,HK2,PDXX,FTCD,FLAD1,HK3,ACOT11,HAO,CABC1,PMVK,MTHFD2L,NMNAT3,TKT,MOCSS2,ACSL6,PGAM2,PGM2L1,CYB5A,NN MT,MVD,PDHB,AHCYL1,BTD,SLC23A1,ELOVL6,PFKFB3,INSR,CYP4F11,BPGM,SUCLG2,PD2P,NADSYN1,DCAKD,COQ2,PC,SLC19A1,PCCA,ACSF3,TYMS,SHMT1,ACOT4,PARP10,PI</p> <p>POX,ACSM5,ACSM2A,RNLS,DGAT1,PPARA,ENTPD5,THEM5,TPK1,ACSL5,FAR1,ELOVL2,PNP,PPT2,ACBD6,EIF6,SLC5A8,THTPA,ACACA</p>



GO:0061564 axon development	3.03E-03	3.03E-03 9,TWF2,CYFIP1	SEMA3F,PLXND1,SEMA3G,FYN,LYPLA2,SEMA3B,NRXN3,GAB2,GPC1,NGFR,NTN1,PRKCO,CTNNA2,FGFR2,RHOA,SPTB,EPHA8,MARK2,GLI2,NTN4,SCARF1,SEMA3C,PLXNA2,RA P1GAP,MAP2,DNM2,HSP90AA1,GSK3B,ULK2,SSH1,CTTN,MT3,SEMA6A,EZR,HSP90AB1,ABL1,NRP1,EFNA2,RPS6KA5,STK24,MAPK3,PTPRS,MEGF8,MAG,SCN1B,COBL,LIMK1,G AB1,FOLR1,C12ORF57,VEGFA,SEMA5A,UNC5A,PLXNA1,SPTBN1,RTN4,TNR,ARTN,NRP2,TNFRSF8,SLITRK3,PIK3CA,PLCG1,EFNB2,PSPN,VASP,GFRA4,LRFN3,MACF1,RNF6,CHN 1,KLK8,OLFM1,MAP1B,EPHB2,SEMA4F,PLXNC1,FAM129B,STXBP1,SPTBN5,SSH2,ARHGDI1,RNF165,GRB7,EFNA3,CNTN4,GOLGA4,SLIT2,PIK3R1,DOK2,NFIB,NTRK2,SHC3,PAR D3,PAK1,NCAM1,FEZ1,TAOK2,ANK3,PTPRO,PRKCA,ENAH,WNT7A,EPHB1,ZFYVE27,LRFN2,DPYSL5,AUTS2,SPON2,SPTBN4,BRSK1,SHC1,CHRN2,NTN3,NTNG1,TRIM46,RYK,PL XNB1,CDK5,RET,FRS2,APBB1,KIF5C,EFNA1,PTK2,ROBO1,ALCAM,LRRN2,KIF5B,FEZ2,NR1N1,PIK3CD,PTEN,GAP43,DAB1,PTPRM,SPTBN2,BRSK2,BAIAP2,CDK5R1,DSCAM1,ULK1 ,GRB2,GPS,PTPN11,NRXN1,SHAH2,LRRCS5,SLIT3,EFNA5,RTN4RL1,IRS2,MAPT,RTN4RL2,SLIT1,SEMA4D,PLXNB2,PDLIM7,SRC,S100A6,NTRK1,ATL1,INPP5F,LINGOA,PLXNA4,TLR
GO:0006914 autophagy	3.03E-03	3.03E-03 ATG7,VPS13A,UVRAG,SMURF1,MTOR,TECPR1,VDAC1,FIS1,UBXN2B,VPS16,GLTPD1,ATP6V1E2,DYNLL2,SEC22B,LIX1L,PIP4K2B	OSBP17,DCN,RB1CC1,RRAGD,IFT88,ATP6V0A1,GABARAPL2,DAPK2,CLEC16A,USP36,CTSA,GNAI3,KDM4A,SIRT2,WIP1,CSNK2A2,PRKACA,SREBF1,MARK2,RAB7A,LAMP3,PIK3 C3,TP53INP2,HSP90AA1,ULK2,CHMP2B,MT3,DNM1L,NSFL1C,DYNLL1,SNX5,EXOC1,WAC,PGC,ABL1,SNAP29,DEPDC5,MTMR3,EP300,SPTLC2,EEF1A2,CHMP4B,MAP1LC3A,US P10,TSC2,MEFV,BMF,RASIP1,PIK3R2,GSK3A,MET,HSPB1,RHEB,PRKAG2,TBC1D12,FBXW7,AMBRA1,TCIRG1,CAMKK2,PRKAB1,RAB23,DAP,ATP6V0E1,EIF4G1,STAM2,PRKAG3, RAB3GAP1,TMEM59,QSOX1,PARK7,KIAA1324,LEPR,MFN2,EXOC8,RRAGC,LGALS8,STX12,STK11,VAMP8,STBD1,RAB3GAP2,CLU,PIK3CA,KIF25,TICAM1,KDR,EIF2AK4,SH3BP4, MAP15,CHMP2A,SES2,ATPIF1,GFAP,TBC1D5,NAPSA,VPS25,EXOC4,PRKAB2,C19ORF12,TRIM22,PRKAA1,TBC1D14,ITGB4,VPS4A,PTPN22,UBQLN1,USP30,SNX14,DRAM1,CAL COCO2,STAM,STX17,ATP6V1G1,RAB1A,ANXA7,VPS37B,ULK3,MAP1LC3B,TP53,RPTOR,WDR45L,AKT1,MCL1,S100A8,RALB,PLK2,LIX1,ATG12,MTDH,LRSAM1,ATM,FEZ1,VTI1A, SCOC,FBXL2,FLCN,LARP1,RRAGA,EEF1A1,WIP1,PINK1,SNF8,ATP13A2,HK2,ATP6VOD1,GPSM1,VPS28,SQSTM1,TPCNC2,TRIM17,S100A9,FZD5,DAPL1,IFI16,WDFY3,ZC3H12A,C HMP4C,CDK5,TP53INP1,TSC1,VPS39,DAPK3,UBXN6,WDR81,MLST8,ATG16L2,ATG4B,ADRB2,GABARAP,FEZ2,ATP6V0E2,TRIM8,BCL2,RAB33B,SNX32,UBXN2A,CHMP6,BNIP3,B OK,CDK5R1,SMCR8,SLC38A9,ULK1,WDR6,PACS2,YOD1,ATG9B,EXOC7,TBK1,NRBP2,ATP6V0A2,PARK2,HGS,ATP6VOC,TPCNC1,MAPT,NBR1,SUPT5H,DAPK1,C6ORF106,SRC,HTT,
GO:0061919 process utilizing autophagic mechanism	3.03E-03	3.03E-03 ATG7,VPS13A,UVRAG,SMURF1,MTOR,TECPR1,VDAC1,FIS1,UBXN2B,VPS16,GLTPD1,ATP6V1E2,DYNLL2,SEC22B,LIX1L,PIP4K2B	OSBP17,DCN,RB1CC1,RRAGD,IFT88,ATP6V0A1,GABARAPL2,DAPK2,CLEC16A,USP36,CTSA,GNAI3,KDM4A,SIRT2,WIP1,CSNK2A2,PRKACA,SREBF1,MARK2,RAB7A,LAMP3,PIK3 C3,TP53INP2,HSP90AA1,ULK2,CHMP2B,MT3,DNM1L,NSFL1C,DYNLL1,SNX5,EXOC1,WAC,PGC,ABL1,SNAP29,DEPDC5,MTMR3,EP300,SPTLC2,EEF1A2,CHMP4B,MAP1LC3A,US P10,TSC2,MEFV,BMF,RASIP1,PIK3R2,GSK3A,MET,HSPB1,RHEB,PRKAG2,TBC1D12,FBXW7,AMBRA1,TCIRG1,CAMKK2,PRKAB1,RAB23,DAP,ATP6V0E1,EIF4G1,STAM2,PRKAG3, RAB3GAP1,TMEM59,QSOX1,PARK7,KIAA1324,LEPR,MFN2,EXOC8,RRAGC,LGALS8,STX12,STK11,VAMP8,STBD1,RAB3GAP2,CLU,PIK3CA,KIF25,TICAM1,KDR,EIF2AK4,SH3BP4, MAP15,CHMP2A,SES2,ATPIF1,GFAP,TBC1D5,NAPSA,VPS25,EXOC4,PRKAB2,C19ORF12,TRIM22,PRKAA1,TBC1D14,ITGB4,VPS4A,PTPN22,UBQLN1,USP30,SNX14,DRAM1,CAL COCO2,STAM,STX17,ATP6V1G1,RAB1A,ANXA7,VPS37B,ULK3,MAP1LC3B,TP53,RPTOR,WDR45L,AKT1,MCL1,S100A8,RALB,PLK2,LIX1,ATG12,MTDH,LRSAM1,ATM,FEZ1,VTI1A, SCOC,FBXL2,FLCN,LARP1,RRAGA,EEF1A1,WIP1,PINK1,SNF8,ATP13A2,HK2,ATP6VOD1,GPSM1,VPS28,SQSTM1,TPCNC2,TRIM17,S100A9,FZD5,DAPL1,IFI16,WDFY3,ZC3H12A,C HMP4C,CDK5,TP53INP1,TSC1,VPS39,DAPK3,UBXN6,WDR81,MLST8,ATG16L2,ATG4B,ADRB2,GABARAP,FEZ2,ATP6V0E2,TRIM8,BCL2,RAB33B,SNX32,UBXN2A,CHMP6,BNIP3,B OK,CDK5R1,SMCR8,SLC38A9,ULK1,WDR6,PACS2,YOD1,ATG9B,EXOC7,TBK1,NRBP2,ATP6V0A2,PARK2,HGS,ATP6VOC,TPCNC1,MAPT,NBR1,SUPT5H,DAPK1,C6ORF106,SRC,HTT,
GO:0050767 regulation of neurogenesis	3.03E-03	3.03E-03 PLXNA4,TWF2,LYN,CUX1,SRGAP2,SRIC1	SARM1,PLXND1,DVL2,SOX8,CX3CL1,SEMA3G,PRKCH,NEED4L,NGFR,NTN1,SPEN,NGEF,RHOA,SYT1,SIRT2,TCF3,MARK2,CRMP1,SCARF1,PLXNA2,FGFR1,MAP2,CBFA2T2,DNM2 ,RIMS1,CHRNA3,MEF2C,LRP2,GSK3B,SSH1,CTTN,MT3,SEMA6A,ABL1,NRP1,STX1B,CRKL,DICER1,CPNE6,PTK6,CDK5RAP1,STK24,NDRG4,PTPRS,MEGF8,MAG,SCN1B,COBL,LIM K1,FREQ,RAPGEF1,DVLL1,CPEB3,CDK5RAP3,MMD,RAPGEF2,TRPV4,CUX2,RASAL1,SNX3,PTK7,VEGFA,SEMA5A,ARSB,DPYSL3,DBN1,PLXNA1,RTN4,CCDC88A,MARK1,ARHGEF2, PROX1,TNN,PTK2B,TNFRSF8,CCR2,OBSL1,PACIN1,CPNE5,RAB17,RAP2A,EFNB2,MED1,MACF1,RNF6,STYXL1,CHN1,EIF2AK4,KLK8,UNC13A,OLFM1,CASZ1,PER2,SERPINF1,DL G4,ARNTL,NUMB,CAMK1,KIDINS220,DTX1,AVIL,SERPINE2,PLXNC1,EDNRB,BIN1,DAB2IP,CDK5RAP2,SORL1,YAP1,ZNF365,SCARB2,TCF12,SSH2,ARHGDI1,CSNK1D,AKT1,SYT2,C PNE9,CNTN4,GOLGA4,SLIT2,TNFRSF21,DAAM2,TTBK1,NTRK2,NOTCH1,PAK1,DLG5,PTPRO,DRD3,SPOCK1,IGSF10,PTPRD,TNFK, WNT3A,WNT7A,ZFYVE27,GRIP1,TIAM1,NPTN,S KI,BRSK1,CHRN2,DVL3,SHANK1,S100A9,PAQR3,TRIM46,SERPINI1,PRKCI,PLXNB1,CDK5,ARF6,RET,BAG5,NDEL1,GPRC5B,CTNNA1,ULK4,CX3CR1,COL3A1,RGS14,EFNA1,PTPN 9,SDC2,NLGN1,ROBO1,YWHAG,CDK1,KNDC1,PTEN,ADCY6,BRSK2,FZD4,FBXW8,CLCF1,RIMS2,CDK5R1,GAK,CALR,F2,ZNF609,FES,PCP4,CAMK1D,ASCL2,DENND5A,CIB1,NTF3, RTN4RL1,MAPT,RTN4RL2,MAGI2,SEMA4D,OSTN,VWCC2,PLXNB2,HDACC2,TCF4,NF1,HESS,ZNF335,LPAR1,NTRK1,ARC,DLL1,SMURF1,INPP5F,AGER,GPR56,SYT3,CSNK1E,CPNE1,

GO:0046328 regulation of JNK cascade	3.05E-03	3.05E-03	<p>DVL2, SPAG9, MAPK8IP2, MAP4K5, ZMYND11, FLT4, HIPK2, MAP4K4, TRAF4, MAP2K7, EDN1, ITCH, TP73, GSTP1, MECOM, MAP3K4, GADD45B, RASSF2, AXIN1, PYCARD, DUSP3, HIPK3, LTBR, TPDS2L1, SASH1, DUSP22, GADD45A, SLAMF1, PTK2B, COP55, MAPK8IP1, PKN1, UNC5CL, RAP2A, IL1B, CCR7, TRAF2, GPS2, MEN1, PTPN22, TAOK3, ANKRD6, EDAR, DBNL, DAB2IP, RIPK1, MAPK8IP3, IGF1R, NCOR1, TNFRSF11A, DUSP10, EGFR, MFHAS1, PAK1, RPS3, TAOK2, TIRAP, TNIK, SH3RF1, EPHB1, PPEF2, PINK1, TAOK1, DVL3, DUSP19, NOD2, SERPINF2, ULK4, MAP4K2, HDAC3, RASGRP1, SH3RF3, MAP3K11, ZNF622, TLR6, HRAS, TRAF6, PER1, PARK2, AIDA, MAP3K5, DAXX, AGER, TNF, TLR9</p>
GO:0043393 regulation of protein binding	3.11E-03	3.11E-03	<p>BAK1, HSPA5, HIPK2, BTBD1, HDAC4, PRKACA, MARK2, CRMP1, ADD2, TRAF4, MAP2, MEF2C, GSK3B, ADD1, AURKA, FKBP1A, ABL1, NRP1, PDGFB, MMP9, CTSZ, STK3, AES, CAV1, MET, DVL1, CSF3, HDAC5, RAPGEF2, PRMT8, PPP2CA, PARK7, STMN1, IFIT2, LRP1, SLPI, SYMPK, TRAF2, PIN1, TTBK2, HIP1R, PRMT7, MEN1, CAMK1, CD36, DAB2IP, DERL1, FLOT1, SORL1, GAS8, ARRB2, AKT1, PEX14, RPL11, PTPRF, ADAM15, SNAPIN, RALB, TTBK1, TCF7L2, TIRAP, DAB2, WNT3A, TIAM1, NRG1, SPPL3, EPB41, GPSM1, DTX3L, PRKCD, LRPAP1, TERT, B2M, AKTIP, CRK, TMC8, XIRP1, PCSK9, ADRB2, BCL2, PPP1CA, CTNNBIP1, AURKB, ZFPM1, GREM2, ADIPOQ, ANXA2, TMEM173, HSF1, PARK2, IFIT1, AIDA, STYX, CSNK1E, CCL23</p>
GO:0051960 regulation of nervous system development	3.38E-03	3.38E-03	<p>SARM1, PLXND1, DVL2, SOX8, CX3CL1, SEMA3G, TYMP, PRKCH, NEDD4L, NGFR, NTN1, SPEN, NGEF, RHOA, SYT1, SIRT2, TCF3, MARK2, CRMP1, SCARF1, PLXNA2, FGFR1, MAP2, CBFA2T2, DNM2, RIMS1, CHRNA3, MEF2C, LRP2, GSK3B, SSH1, CTTN, MT3, SEMA6A, ABL1, NRP1, STX1B, CRKL, DICER1, CPNE6, PTK6, CDK5RAP1, STK24, NDRG4, PTPRS, MEGF8, MAG, SCN1B, COBL, LIMK1, FREQ, RAPGEF1, DVL1, CPEB3, CDK5RAP3, MMD, RAPGEF2, TRPV4, CUX2, RASAL1, RFX4, SNX3, PTK7, VEGFA, SEMA5A, ARSB, DPYSL3, DBN1, NPHP3, PLXNA1, EIF4G1, RTN4, CDC88A, MARK1, ARHGFE2, CDC20, PROX1, KIF14, TNN, PTK2B, TNFRSF8, CCR2, OBSL1, PACSIN1, CPNE5, RAB17, RAP2A, EFNB2, MED1, MACF1, RNF6, STYXL1, CHN1, EIF2AK4, KLK8, UNC13A, OLFML1, CASZ1, LRRC4B, PER2, SERPINF1, DLG4, EPHB2, ARNTL, NUMB, CAMK1, KIDINS220, DTX1, AVIL, SERPINE2, PLXNC1, EDNRB, BIN1, DAB2IP, CDK5RAP2, SORL1, YAP1, ZNF365, SCARB2, TCF12, SSH2, ARHGDI, CSNK1D, AKT1, GPR161, SYT2, CPNE9, CNTN4, GOLGA4, SLIT2, TNFRSF21, DAAM2, TTBK1, NTRK2, NOTCH1, PARD3, PAK1, DLG5, PTPRO, DRD3, GRID2, SPOCK1, IGSF10, PTPRD, TNIK, WNT3A, WNT7A, EPHB1, ZFYVE27, GRIP1, TIAM1, NPTN, GHRL, SKI, BRSK1, CHRN2, DVL3, SHANK1, S100A9, PAQR3, TRIM46, SERPINI1, PRKCI, PLXNB1, CDK5, ARF6, RET, BAG5, NDEL1, GPRC5B, CTNNB1, ULK4, CX3CR1, COL3A1, RGS14, EFNA1, PTPN9, SDCC2, NLGN1, ROBO1, YWHAG, CDK1, KNDC1, PTEN, EIF2AK3, ADCY6, BRSK2, FZD4, FBXW8, CLCF1, ANAPC2, RIMS2, CDK5R1, GAK, CALR, NRXN1, F2, ZNF609, FES, PCP4, CAMK1D, ASCL2, DENND5A, CIB1, NTF3, RTN4RL1, MAPT, RTN4RL2, SLIT1, MAGI2, SEMA4D, AGRN, OSTN, VWC2, IL1RAP, PLXNB2, HDAC2, TCF4, NF1, HES5, ZNF335, LPAR1, NTRK1, ARC, DLL1, SMURF1, INPP5F, AGER, GPR56, SYT3, CSNK1E, CPNE1, PLXNA4, TWF2, LYN, CUX1, SRGAP2, S</p>
GO:0043434 response to peptide hormone	3.50E-03	3.50E-03	<p>PRKAR2B, PDK2, BAIAP2L1, PIK3C2A, ATP6V0A1, HDAC9, BCAR1, NGFR, PRKCO, PKM2, PRKCZ, NUCKS1, TGFB3, EIF2B3, CAMK2A, PRKACA, ACTN2, GNAS, PXN, SORBS1, XBP1, TSC2, AKT2, JAK3, PIK3R2, GSK3A, CAV2, CAV1, GSK, HDAC5, PRKAR1A, GAB1, TCIRG1, EIF2B1, GPLD1, GHR, PRLR, ATP6V0E1, KAT2B, PRKAR2A, CISH, STAT1, PIK3R3, RHOQ, IDE, GOT1, CRHR1, SOCS2, ADCY7, PIK3CA, NR4A1, PCK1, IL1B, STAT5A, GDF15, PPARG, PTPRE, INPP5K, ROCK2, APC, TBC1D4, GH2, ATP6V1G1, CPEB2, ADCY3, IGF1R, PDPK1, AKT1, CAPN10, RAB13, AGTR1, EIF2B5, AHSF, PIK3R1, FER, PDE3B, PID1, ADCY8, GHRL, APPL1, ATP6VOD1, ZBTB7B, SHC1, SH2B2, ADCY9, INHBB, PRKCI, PRKCD, ADCY1, PRKACG, TSHR, TSC1, VWA2, PRKCB, STAT3, AHCVL1, IRS1, PCSK9, PTK2, SIK2, PLA2G1B, INSR, ATP6V0E2, SLC25A33, RELA, ADCY5, STAT5B, ADCY6, PTPN2, BAIAP2, GRB2, PTPN11, ADIPOQ, ATP6V0A2, ZFP36L1, ATP6VOC, FFAR3, IRS2, PRKAR1B, PTPN1, SLC30A10, SRC, ENPP1, CPEB1, EIF6, ATP6V1E2, PRKDC, LYN, MIR145</p>

GO:2001233 regulation of apoptotic signaling pathway	3.54E-03	3.54E-03	CFLAR,CX3CL1,MAPK8IP2,PLAUR,BRCA1,ZMYND11,BID,IGF1,CD74,FAS,CD44,BCLAF1,BAK1,DAPK2,HERPUD1,TRAF1,CASP8,EYA2,SP100,HYAL2,CSNK2A2,TP63,ENO1,TP73,GSK3B,GSTP1,DNM11,ICAM1,ITGA6,RFFL,TMEM14A,XBP1,BIK,HMOX1,GZMB,HIF1A,MMMP9,E2F1,PYCARD,CTSH,BMF,SFRP1,BBC3,GSK3A,DFNA5,CAV1,HSPB1,SERPINE1,YWHA E,SLC9A3R1,FBXW7,MADD,LTBR,TPD52L1,SOD2,NME5,FAM162A,BIRC6,NFE2L2,PARK7,SFPQ,ARHGFE2,FASLG,TNFAIP3,CLU,TNFSF10,ZNF205,IL1B,TRAP1,IFI6,TRAF2,STYXL1,EPO,HIP1R,PSME3,TRAF7,TPT1,YWHAQ,FBXO18,UBQLN1,HRK,AGT,TMBIM1,NMT1,DAB2IP,RIPK1,PPP2R1B,THBS1,BCL2L10,PML,TP53,AKT1,MCL1,TP53BP2,S100A8,ST18,GSN,NACCC2,TCF7L2,RPS3,BCL2L11,SH3RF1,CREB3L1,EYA3,PINK1,DEDD2,ZNF385A,SYVN1,PEA15,ATF3,S100A9,TERT,CSF2,YWHAZ,RET,BAG5,TMCM8,CX3CR1,LGALS9,FEM1B,PRELID1,PDILT,YWHAQ,BCL2L1,FGA,BCL2,PTEN,RPS7,SCG2,QARS,EIF2AK3,RELA,PELI3,BNIP3,BOA,PAK2,SHAH2,LCK,PTTG1P,PARK2,MUC1,P4HB,NDUFA13,WWOX,FZD9,NOC2L
GO:1905114 cell surface receptor signaling pathway involv	3.61E-03	3.61E-03	45,MR665,MIR1-2
GO:0043124 negative regulation of I-kappaB kinase/NF-kaj	3.61E-03	3.61E-03	NR1H4,ZMYND11,TNIP3,CASP8,RORA,GSTP1,ESR1,RIOK3,USP10,PYCARD,STAT1,TNFAIP3,TANK,DAB2IP,RIPK1,MAPKB1,NLRP12,TNIP1,ZC3H12A,C9ORF89,NLRC3,RHOH,OTUD7B
GO:0010256 endomembrane system organization	3.63E-03	3.63E-03	ALS2,BAIAP3,AKAP8L,SYT7,SPAST,EHD2,PI4K2B,FAM160A2,SEC61A1,SPAG4,AP3D1,TRAM2,REEP1,RAB27A,CDC42,CLASP1,RAB7A,DNM2,ATP8B1,CHMP2B,RF2,NSFL1C,TGF B2,HOOK2,RAB18,MICALL1,UNC84B,PACSIN2,VRK1,CHMP4B,ARHGFE7,MAPK3,NUP93,COG4,ATP8B4,VPS18,LAPT4B,DMPK,SGTA,CAV2,CAV1,WASL,DNM1,GBF1,SYNGR2,CLCN3,STX2,SNX3,COL4A3BP,GOLPH3,CSNK1A1,PLSCR4,STAM2,SPTBN1,RTN4,STK25,GORASP2,RAB3GAP1,PLEKHM2,EXOC8,TMED5,RAB3GAP2,NEK6,NEK9,ATL2,CLU,TARD BP,SRGN,OBSL1,PACSIN1,TBC1D20,F2RL3,ATP8B3,SNX9,COL5A1,CHMP2A,SYNE1,CHMP1A,ZFYVE20,VPS25,VPS4A,SYT11,LPIN1,BLOC1S1,COG2,STX6,BIN1,STAM,TOR1A,STX17,FLOT1,RAB30,SPTBN5,FBP1L,RAB1A,MYOF,SCARB2,VPS37B,BCAS3,CSNK1D,DYM,ATP8B2,LYST,ANK2,GSN,SURF4,SEC16A,USP6N,ANK3,VTI1A,PRKCA,ZFYVE27,WHAM M,XKR8,SNF8,ANKLE1,VPS11,LMNA,VPS28,SQSTM1,LEMD2,STX5,CLASP2,PRKCD,CHMP4C,YWHAZ,ABCA1,PACSIN3,BAG5,PRKCB,COG1,AKTIP,RILP,REEP4,STX18,MAP2K1,PD CD6IP,CDK1,ARL6IP1,PTEN,RAB33B,EIF2AK3,TMCC1,SNX3,UBXN2A,LEMD3,FBXW8,BANF1,CHMP6,ANKLE2,FAM109B,ANO6,DNAJC28,ALS2CL,PDE4DIP,GAK,NPLOC4,ATL3

GO:0061337 cardiac conduction	3.63E-03	3.63E-03	<p>ATP1A2,KCNQ1,KCNH2,ATP2B4,MEF2A,ATP2B1,PRKACA,ATP2A3,SRI,NOS1,SLC9A1,ITPR3,SLC8A3,DMPK,ATP1A3,SCN1B,CAV1,YWHAE,RANGRF,PDE4D,SLC8A2,KCNJ5,KCNK15,ATP1B2,KCNA5,TRPM4,AGT,KCNK1,BIN1,HCN4,CASQ1,CALM2,CORIN,CAMK2D,ANK2,CACNA1C,GJA1,CXADR,ATP2B2,CACNA1D,NPR2,CALM3,SPTBN4,NPPC,ATP1A1,CACNB2,SCN3B,STIM1,AHCLY1,KCNK3,KCND3,JUP,NPPA,KCNE3,SCN4B,KCNE1,GIC1,SLC8A1,CTNNA3,SCN5A,SCN10A,RYR1,ASPH,RYR2,CALM1,GJA5,MIR1-2</p>
GO:0019886 antigen processing and presentation of exoge	3.63E-03	3.63E-03	<p>AP2B1,CD74,AP2S1,KIF26A,KIF2A,AP1M1,RAB7A,DYNC1I2,CAPZB,KIF22,DNM2,DYNLL1,LAG3,AP1B1,LGMN,KIF3B,DCTN6,AP1S1,SEC24A,ACTR1B,CAPZA1,KLC1,CANX,AP1M2,KIF3A,ACTR10,DCTN4,DYNC1L12,DCTN3,ACTR1A,SEC31A,CENPE,SEC24B,CLTC,OSBPL1A,KIF2C,ARF1,SEC24D,SAR1B,SEC13,DYNC1I1,FCER1G,CTSS,AP1G1,RILP,SPTBN2,CTSF,SEC24C,AP2A2,AP2A1,DYNC1H1,CAPZA2,HLA-DOA,HLA-DRA,DCTN1,IFI30,HLA-DPB1,HLA-DQA2,HLA-DOB,HLA-DMB,DYNLL2</p>
GO:0048193 Golgi vesicle transport	3.64E-03	3.64E-03	<p>COPZ2,CYTH3,SPAST,OSBPL5,ANK1,GABARAPL2,GOPC,TRAPPC3,ATP9A,F7,KIF26A,KIF2A,SPTB,WIPI1,BCAP29,KLHL20,DYNC1I2,CAPZB,SAR1A,KIF22,CD59,DDHD2,EPS15,DYNLL1,GOLGA3,EXOC1,SNAP23,SEC22C,KDEL3,CNIH,VT1B,CTSZ,ARFGAP1,KIF3B,VAPA,COG4,C16ORF62,CSK,AP3B2,DCTN6,KDEL1,COPE,SNX8,GBF1,GOSR1,RANGRF,RAB34,AREG,SAPS3,FOLR1,CUX2,COPZ1,GOLPH3,SEC24A,ERGIC1,COL7A1,LMAN2L,SPTBN1,PROC,CAPZA1,SCAMP3,COPA,ACSL3,BBS2,CCDC93,TBC1D20,TMEM115,KLC1,PROZ,MACF1,MYO1B,COPB1,KIF1C,ZFYVE20,KIF3A,EXOC4,ACTR10,TBC1D14,DCTN4,COG6,ARF3,RINT1,DYNC1L12,COG2,KDEL2,STX17,DCTN3,KIF13A,SORL1,SPTBN5,RAB1A,PRES,ACTR1A,AP1AR,SEC31A,CENPE,SEC24B,SCAMP2,SGSM2,CSNK1D,SCYL1,KIF2C,VPS54,TEX261,GOLGA4,ANK2,NKD2,SURF4,SEC16A,ARFGAP2,CTAGE5,SEC24D,ANK3,VT11A,NBAS,TGOLN2,SAR1B,MIA3,MPPE1,GRIA1,WHAMM,SEC13,RER1,DYNC1I1,SPTBN4,STX5,PEF1,CNST,PKDCC,TGFA,ATP9B,COG1,AP1G1,TRAPPC9,YIF1B,ARF4,STX18,STXBP6,LMAN2,TMED10,RAB33B,COMMD1,SPTBN2,BBS1,GOLT1A,YIF1A,SEC24C,DNAJC28,GAK,F2,MCFD2,COPB2,NRBP2,ANKFY1,LAMP1,BICD2,CD55,MYO18A,TRAPPC4,AP2A1,DYNC1H1,SERPINA1,HTT,VPS13A,UVRAG,F5,CAPZA2,SY1,DCTN1,ANKRD28,VPS52,TAPBP,ARFGAP3,BGLAP,CUX1,CORO7,DYNLL2,SEC22B,COG8</p>
GO:0010810 regulation of cell-substrate adhesion	3.64E-03	3.64E-03	<p>CX3CL1,MYOC,LIMCH1,ATXN3,RHOA,CDC42,CLASP1,GSK3B,COL16A1,SLC9A1,ABL1,NRP1,CRKL,PPM1F,TRIOBP,ARHGEF7,OLFM4,SFRP1,CDK6,SERPINE1,AGR2,BST1,CORO1C,GCNT2,VEGFA,FN1,APOA1,PTK2B,RREB1,WNT1,CCR7,MACF1,KDR,RAC2,ACTN4,CCL25,ROCK2,CD36,RAC1,THBS1,AP1AR,CDH13,BCAS3,TBCD,ADAM15,PHLDB2,RASA1,EPHA1,DOCK5,NOTCH1,PTPRJ,DOCK1,PTPRO,CCL28,SPOCK1,UTRN,CLASP2,MFI2,DL1,TSC1,CRK,DAPK3,PTK2,LIMS1,SEMA3E,FGA,PTEN,JUP,FZD4,RCC2,CALR,EFNA5,CIB1,NF2,AJAP1,NF1,SRC,S100A10,LDB1,ARL2,EMP2,MIR29C</p>

GO:0016050 vesicle organization	3.64E-03	<p>3.64E-03 VRAG, F5, RUNCDC1, SYT15, TAP2, TBC1D8, SAMD9, ANKRD28, SYT3, VPS16, TAPBP, CHMP1B, SEC22B</p> <p>SNX11, ALS2, VPS41, BAIAP3, SYT7, PI4K2B, DTNBP1, VAMP3, FAM160A2, TRAPPC3, TBC1D22A, AP3D1, TBC1D22B, TBC1D1, EVI5, SYT1, RAB27A, AP1M1, PICALM, RAB7A, SAR1A, STX7, CHMP2B, CD59, EPS15, RFX2, SNX5, SNAP23, SEC22C, HOOK2, TBC1D2, STX1B, SNAP29, TBC1D10A, HPS4, SGSM3, CNIH, VTI1B, CTSZ, CHMP4B, VAPA, CORO1A, VPS18, LAPTM4B, AKT2, CAV2, CAV1, STX1A, SNX8, WASL, DNM1, TBC1D13, HPS1, GBF1, TBC1D12, GOSR1, RAB34, AREG, TBC1D9, CLCN3, SAPS3, FOLR1, STX2, SNX3, GOLPH3, SEC24A, COL7A1, SNX4, STAM2, SDC1, EXOC8, STX12, RAB32, VAMP8, SRGN, SDC4, TBC1D20, F2RL3, CHMP2A, CHMP1A, TBC1D5, ZFYVE20, VPS25, TBC1D14, DLG4, VPS4A, SNAP25, SYT11, BLOC1S1, STX11, STX6, TGFBRAP1, TBC1D4, STAM, STXBP1, STX17, KIF13A, SYTL2, FNBP1L, RAB1A, PREB, SEC31A, SCARB2, SEC24B, VAMP1, VPS37B, GRTP1, SYT16, SGSM2, CSNK1D, EVI5L, SYTL1, SNAPIN, LYST, SNAP47, SYT2, NKD2, SEC16A, USP6NL, SYT8, DOC2A, SEC24D, VTI1A, RABGAP1L, SAR1B, ADPRHL1, MIA3, GRIA1, SEC13, SNF8, VPS11, VPS28, SQSTM1, STX5, PEF1, TGFA, SYTL3, CHMP4C, ABCA1, AP1G1, VPS39, STX3, AKTIP, SGSM1, TBC1D2B, TBC1D16, TRAPPC9, RILP, TAP1, VAMP5, STXBP6, TBC1D10B, PDCD6IP, TMED10, TSNARE1, SNX32, SYT12, SNX33, CD34, TBC1D10C, CHMP6, SEC24C, FAM109B, SAMD9L, ALS2CL, CALR, MCFD2, ANXA2, PARK2, HGS, ANKFY1, BLOC1S3, BLOC1S2, MYO18A, TRAPPC4, TBC1D9B, SERPINA1, S100A10, FAM109A, U</p>
GO:0002478 antigen processing and presentation of exopeptides	3.78E-03	<p>3.78E-03 DPB1, TAPBP, HLA-DQA2, HLA-DOB, HLA-DMB, DYNLL2, SEC22B</p> <p>AP2B1, CD74, AP2S1, VAMP3, KIF26A, KIF2A, AP1M1, RAB7A, DYNC112, CAPZB, KIF22, DNM2, ITGB5, DYNLL1, LAG3, SNAP23, AP1B1, LGMN, KIF3B, DCTN6, AP1S1, SEC24A, ACTR1B, CD207, CAPZA1, VAMP8, KLC1, CANX, AP1M2, KIF3A, ACTR10, DCTN4, CD36, DYNC1L1, DCTN3, ACTR1A, SEC31A, CENPE, SEC24B, CLTC, OSBPL1A, KIF2C, ARF1, SEC24D, SAR1B, SEC13, DYNC1H1, FCER1G, CTSS, B2M, AP1G1, PDIA3, RILP, TAP1, SPTBN2, CTSF, SEC24C, CALR, AP2A2, AP2A1, DYNC1H1, CAPZA2, HLA-DOA, TAP2, HLA-DRA, HLA-G, DCTN1, IFI30, HLA-</p>
GO:0001841 neural tube formation	3.83E-03	<p>3.83E-03 7, DEAF1, SCRIB, PLXNB2, PHACTR4</p> <p>DVL2, FUZ, LRP6, CELSR1, LRP2, GRHL2, KDM2B, TGFB2, MTHFD1, TSC2, TGFB1, COBL, DVL1, FOLR1, NPHP3, MTHFD1L, PRICKLE1, LMO4, SKI, GRHL3, DVL3, VANGL2, DLG1, SEMA4C, RPS</p>
GO:0000271 polysaccharide biosynthetic process	4.00E-03	<p>4.00E-03 1, EXT2, GYG1, PGM2L1, IRS1, UGP2, CSGALNACT2, B3GNT2, INSR, B3GNT4, EXT1, IRS2, NHLRC1, AP2A1, ENPP1</p> <p>GLT8D1, IGF1, NDST1, PGM1, GSK3B, SORBS1, PDGFB, HAS3, GYS1, AKT2, TGFB1, HAS1, GSK3A, GSK, GBE1, PASK, PPP1R3C, GLT8D2, NR1D1, PER2, INPP5K, EGF, CLTC, AKT1, CSGALNACT</p>

GO:0034404	nucleobase-containing small molecule biosyn	4.03E-03	4.03E-03	<p>UPP2,MLXIPL,IGF1,TYMP,NTHL1,PDE4A,PFKP,PKM2,HDAC4,ENO1,ACAT1,UNG,NT5C2,PGM1,CAD,ACOT7,HIF1A,SAMHD1,GPI,NUDT1,IMPDPH1,PRKAG2,GCK,TPI1,ENO2,PDE4D,UMPS,TXNDC9,PDC,NT5C1A,PDE1B,PFKFB2,NT5C,ITPA,CBFA2T3,PRKAA1,AMPD3,LDHA,NT5E,NUDT15,ALDOB,PDE5A,TDG,NCOR1,PFKL,ARNT,ALDOA,PFKM,ENPP3,NEIL2,ADK,DCK,HKDC1,HK1,XDH,CDA,ADPGK,HK2,PDE9A,HK3,PDCL2,GMPS,PGAM2,PGM2L1,TK2,TK1,ADAL,PFKFB3,INSR,BPGM,PDE3A,NUDT4,DCTPP1,UPP1,PDE2A,PPARA,ENTP</p>
GO:0031346	positive regulation of cell projection organiza	4.30E-03	4.30E-03	<p>PLXND1,DVL2,CX3CL1,RALA,MARK4,FUZ,NEDD4L,CROCC,NCKAP1,NGFR,NTN1,RHOA,SYT1,NAV3,CDC42,MARK2,SCARF1,FSCN1,CBFA2T2,RIMS1,NRP1,PALM,KCTD17,CPNE6,PTK6,ARHGGEF7,NDRG4,MEGF8,SCN1B,COBL,WASL,LIMK1,RAPGEF1,DVL1,CPEB3,PFN1,RAPGEF2,CORO1C,CUX2,RASAL1,SNX3,PTK7,VEGFA,SEMA5A,ARSB,DPYSL3,CCDC88A,TGFB3,RHOQ,FAM98A,PTK2B,OBSL1,PACIN1,CPNE5,RREB1,WNT1,CCR7,MACF1,STYXL1,CDC42EP1,RAC2,UNC13A,EP58L1,DLG4,CAMK1,KIDINS220,APC,AVIL,PLXNC1,RAC1,DAB2IP,ENPP2,FNBP1L,SCARB2,DEF8,BCAS3,ARHGDI1,SYT2,CPNE9,GOLGA4,SLIT2,NTRK2,CDC42EP2,GPM6A,DLG5,PTPRD,PROM2,ZFYVE27,GRIP1,NPTN,WASF2,AUTS2,DVL3,SHANK1,S100A9,ARPC2,SERPINI1,PRKCI,PLXNB1,RET,NDEL1,CDC42EP5,NLGN1,ROBO1,CORO1B,HRAS,CEP135,FZD4,FBXW8,RIMS2,EP58L2,CDC42EP4,FES,CAMK1D,ARAP1</p>
GO:0001738	morphogenesis of a polarized epithelium	4.57E-03	4.57E-03	<p>DVL2,AP2B1,CELSR3,FUZ,AP2S1,RHOA,CDC42,CELSR1,WNT11,SH3BP1,DAAM1,PAR6A,DVL1,PFN1,SMURF2,SLC9A3R1,NPHP3,WNT1,RAC1,PRICKLE1,NKD1,CLTC,ARRB2,ARHGFE19,CELSR2,RSP03,DAB2,TIAM1,BRSK1,DVL3,VANGL2,FZD5,PRICKLE2,RYK,FZD6,VANGL1,BRSK2,FZD4,AP2A2,MAGI2,AJAP1,AP2A1,SMURF1,TRAF3IP1</p>
GO:0034655	nucleobase-containing compound catabolic p	4.76E-03	4.76E-03	<p>UPF1,UPP2,RPS20,MLXIPL,IGF1,SLC11A1,SAMD4A,RNH1,TYMP,VIM,RNASET2,EDC4,MRT04,THRAP3,ENTPD2,PUM2,RPL18,NTHL1,PDE4A,PFKP,PKM2,HDAC4,SMG6,PABPC1,RPL31,IGF2BP2,ENO1,ACAT1,EXOSC7,UNG,NT5C2,TNRC6C,PGM1,CNOT4,XPO1,TNPO1,RP55,KHSRP,PCBP4,PABPC4,HNRNPC,ACOT7,CIRBP,CECR2,UPB1,GTPBP1,RPL3,TNRC6B,HIF1A,DICER1,ZC3H14,APEX1,SAMHD1,E2F1,CDADC1,EIF3E,RNASEH2A,GPI,RPS19,PPP2R1A,GSK3A,HSPB1,NUDT1,LSM5,PRKAG2,GCK,CPEB3,RPL28,RPL19,CASC3,DDX5,DCPS,DDX6,MAGOHB,TPI1,ENO2,MAPK14,RBM24,RPS12,HBS1L,CNOT6,PDE4D,PPP2CA,XRN1,EIF4G1,RPS15,RPL22,NT5C1A,ETF1,TARDBP,PAPD5,NT5C3,PDE1B,EXOSC9,PFKFB2,CNOT1,NT5C,RPL23,ITPA,PCID2,CBFA2T3,LSM7,LSM4,PRKAA1,AMPD3,LDHA,RPS15A,FBXO18,PUM1,SYNCRIP,NT5E,PRR5L,PAN2,DHX9,RNASEH2B,NUDT15,IGF2BP3,ALDOB,RPS6,ENTPD1,RPS24,DNAZ,PDE5A,TDG,ANP32A,PARN,NCOR1,TOB1,PFKL,AKT1,RPS11,RPL11,ARNT,POLR2D,DIS3L2,RQCD1,RPL32,METTL14,PNRC1,DPYS,RPS3,ATM,SIF1,DT2,ALDOA,TIRAP,UBC,NBAS,PFKM,CARHSP1,HNRNPU,PRKCA,ENPP3,NEIL2,LARP1,CNOT8,HKDC1,HK1,TATDN2,XDH,CDA,IGF2BP1,ADPGK,HK2,PDE9A,DEDD2,HK3,RPL8,TNFSF13,RPL29,MAPKAPK2,DNASE1L3,ZC3H12A,PRKCD,LSM6,PGAM2,YWHAZ,PGM2L1,RPL27A,PATL1,DIS3L,ENDOG,RPL13,POLR2G,RPSA,FEN1,AXIN2,ADAL,UPF3A,RNASE2,DFFB,SETMAR,PFKFB3,RPS9,INSR,EXOSC10,RPS7,RNASEH1,ISG20,BPGM,PDE3A,MUS81,RPL38,MYD88,NUDT4,RPL4,ANGEL2,RPL15,PDE12,DHX36,CIDEA,ZC3H12D,SAMD4B,EDC3,DCTPP1,MEX3D,CNOT10,FAM46C,UPP1,PKP3,ZFP36L1,PDE2A,PPARA,ENTPD5,NANOS3,NANOS2,NANOS1,DPYD,ENTPD8,RPL14,HIF0,SND1,ENTPD4,ENPP1,RPS26,ENTP</p>

GO:0050870 positive regulation of T cell activation	4.81E-03	4.81E-03	FYN,CD6,IGF1,AP3D1,PRKCQ,PRKCZ,CD42,NCK2,TFRC,GLI2,SIRPG,IL12RB1,XBP1,GRAP2,PYCARD,CSK,IL7,RASAL3,JAK3,CAV1,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,IL23A,PTPN6,IL4,CD86,ZAP70,ZP4,MYB,CD274,TNFSF11,CCR2,PIK3CA,EFNB2,IL1B,CCR7,ZBTB1,RARA,FLOT2,IL6ST,RAC1,IL6,PDPK1,AKT1,DUSP10,NFKBIZ,PIK3R1,PAK1,RPS3,IL18,ADAM8,FAM49B,RUNX1,ICOSLG,ZBTB7B,VCAM1,NLRP3,IHH,TGFBR2,ICOS,SYK,NOD2,NFKBID,CCDC88B,IL12A,LGALS9,SOCSS,MALT1,SART1,GRB2,PTPN11,PAK2,LCK,PDCD1,CD55,SR
GO:0050730 regulation of peptidyl-tyrosine phosphorylati	5.02E-03	5.02E-03	CRLF1,FYN,MVP,IGF1,CD74,CD44,TKN2,ERBB3,PRKCZ,HYAL2,FGFR3,NCK2,NOX4,DOCK3,TREM2,ABL1,NRP1,OSM,PDGFB,PTK6,ANGPT4,ARL2BP,SFRP1,TGFB1,PPP2R1A,CAV1,CSF3,FBXW7,BST1,CBL,CD81,IL23A,PTPN6,VEGFA,GHR,THBS4,PPP2CA,CBLB,ERF1,ARHGFE2,PTK2B,LIF,EPO,SH3BP5,VPS25,DLG4,IL6ST,TEC,AGT,IL6,ENPP2,EGF,FGF7,TP53,CBLC,DGKQ,EGFR,NTRK2,IL18,ADAM17,BANK1,KIT,ACE,ZFYVE28,ITGB2,SHC1,IL6R,IL20,TGFA,PRKCD,CSF2,IL31RA,GPRC5B,STAT3,IL12A,GRM5,EFNA1,SOCSS,PRNP,PARP1,S
GO:0051188 cofactor biosynthetic process	5.02E-03	5.02E-03	GCLC,PKD2,GGCT,COX10,MLXIPL,FYN,COX15,IGF1,ALAS1,GCLM,MAT2B,CYBA,HAGH,ME1,ELOVL1,FECH,PFKP,PKM2,HDAC4,COASY,PTGS2,ENO1,ACAT1,MOCOS,PGM1,CPOX,MGST2,COQ9,DLG,ACOT7,TECR,GGT1,TSPO,GSTZ1,HIF1A,MTHFD1,GSS,QPRT,GPI,NAMPT,PRKAG2,GCK,PDHX,COQ5,TPI1,ENO2,ELOVL3,MTHFD1L,LIAS,ZNF205,SLC25A16,PKFB2,ACSL3,MOCOS1,PANK2,PPCS,CBFA2T3,ATPIF1,ACLY,PRKAA1,MMACHC,CNDP2,LDHA,PSAT1,COQ10A,SUCLA2,ALDOB,FPGS,DUOX1,PPCDC,NCOR1,PFKL,ARNT,SLC25A38,SCD5,HSD17B12,ALDOA,MAT1A,ACSL1,PFKM,PANK1,ACMSD,ACSS1,HKDC1,HK1,ADPGK,HK2,PDXK,FLAD1,HK3,HAO,CABC1,NMNAT3,MOCOS2,ACSL6,PGAM2,PGM2L1,NN
GO:0071560 cellular response to transforming growth fact	5.06E-03	5.06E-03	ITGA3,STRAP,LTBP1,DKK3,HIPK2,RHOA,PRKCZ,HYAL2,TGFBR3,FERMT2,MEF2C,ITGB5,NLK,PNX,LTBP4,TGFB2,HSP90A1,CRKL,SMAD7,PAR6A,STUB1,SFRP1,ARHGFE18,TGFB1,CAV1,ENG,BMPR1A,PBLD,SMURF2,SNX25,FOLR1,CBL,GCNT2,ZNF451,DUSP22,SMAD5,STK11,LTBP2,TGFB3,FMOD,GIPC1,PMEPA1,OVOL2,GDF5,PIN1,TWSG1,CDKN1C,GDF15,MEN1,SOX5,WNT10A,TGFBRAP1,SKIL,THBS1,SMAD6,EMILIN1,FBN2,FURIN,TGFB11,PDPK1,ARRB2,PRDM16,LEFTY2,PAR3,UBC,ADAM17,PTPRK,DAB2,WNT7A,FLCN,KLF10,CD109,RNF111,SKI,ZYX,FOXH1,WNT4,TGFBR2,CLEC3B,COL1A2,FBN1,SMAD3,VASN,FNTA,COL3A1,ADAM9,PTK2,LIMS1,SMAD1,HTRA3,PDE3A,LEMD3,CIDEA,FAM89B,CDH

GO:1903035 negative regulation of response to wounding	5.06E-03	5.06E-03	TFPI,CD9,PLAUR,CLASP1,FAP,EDN1,APOH,PDGFB,PLAT,PTPRS,SERPINE1,ALOX12,PROC,PROZ,CLK8,F12,PDGFRA,SERPINE2,THBS1,FGF2,SIGLEC10,DUSP10,PHLDB2,CD109,CLASP2,PRKCD,CLKB1,CRK,SERPINF2,KRT1,FGA,PTEN,C1QTNF1,CD34,F2,GP1BA,PRKG1,RTN4RL1,TMPRSS6,AJAP1,PDGFA,SERPINB2,INPP5F,EPPK1,MIR34A
GO:1904377 positive regulation of protein localization to c	5.06E-03	5.06E-03	ITGA3,PRKCH,EPB41L2,SORBS1,TREM2,CLIP3,AGR2,RANGRF,SPTBN1,PLS1,GPSM2,RAMP3,LRP1,ACSL3,ARHGGEF16,EPHB2,NUMA1,PDPK1,AKT1,EPHA2,NKD2,PIK3R1,EGFR,ITGB1,EPB41,SQSTM1,CNST,PRKCI,ARF6,STX3,PTPN9,KIF5B,PRKCE,RHOG,AKAP5,NRXN1,CIB1
GO:0001952 regulation of cell-matrix adhesion	5.12E-03	5.12E-03	CX3CL1,MYOC,LIMCH1,RHOA,CLASP1,GSK3B,COL16A1,SLC9A1,ABL1,NRP1,PPM1F,SFRP1,CDK6,SERPINE1,BST1,CORO1C,VEGFA,PTK2B,CCR7,MACF1,KDR,CCL25,ROCK2,CD36,RAC1,THBS1,CDH13,BCAS3,ADAM15,PHLDB2,RASA1,EPHA1,PTPRJ,CCL28,UTRN,CLASP2,DLG1,TSC1,DAPK3,PTK2,LIMS1,SEMA3E,PTEN,IUP,RCC2,EFNA5,CIB1,NF2,AJAP1,NF1,SRC,S100A10,LDB1,EMP2,MIR29C
GO:0035148 tube formation	5.13E-03	5.13E-03	DVL2,SOX8,FUZ,SDCCAG8,FGFR2,LRP6,CELSR1,LRP2,GRHL2,KDM2B,TGFB2,MTHFD1,TSC2,TGFB1,COBL,DVL1,GATA3,FOLR1,VEGFA,NPHP3,PROX1,MTHFD1L,PAX8,PODXL,DAAM1,B2IP,PRICKLE1,BCAS3,LMO4,NOTCH1,SKI,GRHL3,DVL3,VANGL2,DLG1,SEMA4C,ATOX1B,RPS7,DEAF1,SCRIB,PLXNB2,PHACTR4



GO:0060284	regulation of cell development	5.16E-03	5.16E-03	RCIN1,MIR1-2	SARM1,PLXND1,DVL2,SOX8,CX3CL1,SEMA3G,IGF1,PRKCH,MYOC,HDAC9,NEDD4L,NGFR,NTN1,SPEN,NGEF,RHOA,SYT1,SIRT2,CDC42,TCF3,MARK2,CRMP1,SCARF1,SEMA3C,P LXNA2,FGFR1,MAP2,EDN1,CBFA2T2,DNM2,RIMS1,CHRNA3,MEF2C,LRP2,GSK3B,SSH1,CTTN,MT3,ADD1,SEMA6A,ABL1,NRP1,STX1B,CRKL,TRIOBP,DICER1,CPNE6,PTK6,CDK5R AP1,STK24,ARHGFEF7,OLFM4,NDRG4,RPS19,PTPRS,MEGF8,MAG,SCN1B,GSK3A,COBL,RHEB,LIMK1,FREQ,RAPGEF1,DVL1,CPEB3,CDK5RAP3,MMD,FBXW7,RAPGEF2,CORO1C,T RPV4,CUX2,RASAL1,SNX3,PTK7,VEGFA,SEMA5A,ARSB,DPYSL3,DBN1,PLXNA1,RTN4,CCDC88A,PROC,MARK1,ARHGFEF2,PROX1,APOA1,TNN,PTK2B,TNFRSF8,CCR2,OBSL1,PACSI N1,CPNE5,RREB1,RAB17,RAP2A,EFNB2,IL1B,MED1,MACF1,RNF6,STYXL1,CHN1,EIF2AK4,KLK8,ACTN4,UNC13A,OLFM1,CASZ1,PER2,SERPINF1,DLG4,ARNTL,NUMB,CAMK1,KID INS220,ROCK2,DTX1,AVIL,SERPINE2,PLXNC1,EDNRB,RAC1,BIN1,FAM129B,DAB2IP,CDK5RAP2,SORL1,YAP1,ZNF365,AP1AR,SCARB2,TCF12,MYLK3,SSH2,ARHGDI,CSNK1D,AK T1,SYT2,CPNE9,CNTN4,GOLGA4,SLIT2,TNFRSF21,DAAM2,TTBK1,DOCK5,NTRK2,NOTCH1,PAK1,DOCK1,DLG5,AKAP6,PTPRO,DRD3,SPOCK1,JGSF10,PTPRD,TNIK,WNT3A,WNT7 A,ZFYVE27,GRIP1,TIAM1,NPTN,SKI,BRSK1,CHRN2,DVL3,SHANK1,S100A9,NPPC,PAQR3,TRIM46,SERPINI1,PRKCI,MFI2,PLXNB1,CDK5,ARF6,RET,FBN1,BAG5,NDEL1,GPRC5B,C RK,CTNNB1,ULK4,CX3CR1,COL3A1,RGS14,EFNA1,PTK2,PTPN9,SDC2,LIMS1,NLGN1,ROBO1,YWHAG,CDK1,AKAP13,FGA,KNDC1,PTEN,ADCY6,BRSK2,FZD4,FBXW8,CLCF1,RIMS 2,CDK5R1,GA,K,RCC2,CALR,CDH5,F2,ZNF609,ADIPQO,FES,PCP4,CAMK1D,ASCL2,DENND5A,CLDN5,EFNA5,CIB1,NTF3,RTN4RL1,MAPT,RTN4RL2,MAGI2,SEMA4D,OSTN,VWC2, NACA,PLXNB2,HDAC2,TCF4,NF1,S100A10,HES5,ZNF335,LPAR1,NTRK1,ARC,DLL1,SMURF1,INPP5F,AGER,GPR56,SYT3,CSNK1E,CPNE1,PLXNA4,TNF,TWF2,LYN,CUX1,SRGAP2,S
GO:0002221	pattern recognition receptor signaling pathw:	5.21E-03	5.21E-03	E,FGA,MYD88,RELA,TLR10,TLR1,TLR6,TRAF6,UBE2N,NPLOC4,TK1,IRF7,CD300LF,TLR5,TREML4,S100A14,IRAK4,HSPA1B,NFKBIL1,TRIM15,LGR4,TLR9,UBE2V1,LYN,TRIL,IKBKE	SARM1,NR1H4,BIRC3,NR1H3,TNIP3,CYBA,PUM2,CASP8,UFD1L,PIK3C3,ITCH,WDFY1,IRAK3,MAP3K1,MAP3K7IP1,RNF125,RIOK3,PTPRS,CAV1,NOD1,DHX58,UNC93B1,MAPKA PK3,IFIH1,TNFAIP3,SFTPA1,IRF1,FFAR2,NR1D1,IRF3,TICAM1,SEC14L1,LBP,SMPDL3B,TRAF3,RFTN1,ANKRD17,GPS2,SFTPD,IRAK2,PTPN22,RSAD2,PUM1,CD36,TANK,DAB2IP,C NPY3,RIPK1,FLOT1,DDX60,S100A8,REG3G,TNIP1,MFHAS1,TIRAP,UBC,PIK3AP1,ITGB2,S100A1,FCRL3,LRRC14,MAPKAPK2,CTS5,S100A9,OTUD4,TLR3,NOD2,ITGAM,CD14,PRKC
GO:0071559	response to transforming growth factor beta	5.22E-03	5.22E-03	3,CIDEA,FAM89B,CDH5,CLDN5,ZFP36L1,WWOX,BCL9L,PDE2A,SRC,ADAMTSL2,SMURF1,MIR308,LEFTY1,GDF10	ITGA3,STRAP,LTBP1,DKK3,HIPK2,RHOA,PRKCZ,HYAL2,TGFBR3,FERMT2,MEF2C,ITGB5,NLK,PXN,LTBP4,TGFB2,HSP90A1,CRKL,SMAD7,PARD6A,STUB1,SFRP1,ARHGFE18,TGFB 1,CAV1,ENG,BMPR1A,PBLD,SMURF2,SNX25,FOLR1,CBL,GCNT2,ZNF451,DUSP22,SMAD5,FNDC4,STK11,LTBP2,TGFB3,FMOD,GIPC1,PMEP A1,OVOL2,GDF5,PIN1,TW5G1,CDKN 1C,GDF15,MEN1,ROCK2,SOX5,WNT10A,TGFBRAP1,SKIL,THBS1,SMAD6,EMILIN1,FBN2,FURIN,TGFB11,ZFH3,PDPK1,ARRB2,PRDM16,LEFTY2,PARD3,UBC,ADAM17,PTPRK,D AB2,WNT7A,FLCN,KLF10,CD109,RNF111,SKI,ZYX,FOXH1,WNT4,TGFBR2,CLEC3B,COL1A2,FBN1,SMAD3,VASN,FNTA,COL3A1,ADAM9,PTK2,LIMS1,SMAD1,HTRA3,PDE3A,LEMD
GO:0044242	cellular lipid catabolic process	5.28E-03	5.28E-03	AD11,PNLIIPR2	CROT,GDE1,CP51,PNPLA6,GALC,ACAA1,SIRT2,ALDH3A2,ACADVL,SCARB1,MGLL,ACAT1,MGST2,ACOX3,MT3,ECHDC1,MCAT,PNPLA5,PNPLA3,SLC25A17,HAO1,LPIN2,LIPG,LO NP2,SMPD3,AKT2,PLA2G4C,PHYH,CPT1A,APOA5,ACAD10,PPARD,GPLD1,EHHADH,PCCB,ACADL,SCP2,MECR,HAO2,FAAH,PRDX6,APOA1,ACAT2,ECHDC2,ACADS,MCEE,ECHS1, SRD5A3,IVD,SMPDL3B,LPIN1,DAGLA,ENPP2,HADHB,CYP1B1,HADH,SLC27A2,ETFA,ABHD2,AKT1,AIG1,ACOXL,TSYND1,APOA2,PLA2G4D,ACOX1,NEU3,PEX13,FABP1,PRKCD,EN PP6,LIPC,SGL1,SMPD1,ACER1,ACOX2,IRS1,FABP6,LPL,PNPLA2,FUCA1,PNPLA1,ADIPQO,IRS2,CYP4F12,PPARA,AKR1C3,BCO2,AKR1B10,INPP5F,NEU4,NEU1,NUDT19,PLIN5,AC

GO:0019882 antigen processing and presentation	5.28E-03	5.28E-03 DOB,HLA-DMB,DYNLL2,SEC22B AP2B1,SLC11A1,CD74,AP2S1,VAMP3,AP3D1,KIF26A,KIF2A,RAB27A,AP1M1,RAB7A,DYNC1I2,CAPZB,KIF22,DNM2,ITGB5,DYNLL1,LAG3,SNAP23,TREM2,AP1B1,LGMN,KIF3B,PYCARD,CTSH,DCTN6,CLEC4M,NOD1,AP1S1,RAB34,RAB35,SEC24A,ACTR1B,CD207,CAPZA1,RAB32,VAMP8,KLC1,CCR7,CANX,AP1M2,RFTN1,KIF3A,ACTR10,DCTN4,CD36,DYNC1L2,DCTN3,THBS1,ACTR1A,SEC31A,CENPE,SEC24B,TAPBP,CLTC,OSBP1A,KIF2C,ARF1,SEC24D,SAR1B,CD8A,SEC13,DYNC1I1,FCER1G,ACE,CTSS,ERAP1,RAB8B,B2M,AP1G1,PDI A3,NOD2,RILP,TAP1,RAB3B,SPTBN2,CTSF,SEC24C,CALR,AP2A2,AP2A1,DYNC1H1,CAPZA2,HLA-DOA,TAP2,HLA-DRA,HLA-G,DCTN1,IFI30,HLA-DPB1,TAPBP,HLA-DQA2,HLA-
GO:0043547 positive regulation of GTPase activity	5.46E-03	5.46E-03 GAP2,CCL5,CCL23,ARHGAP23,CCL14 ALS2,CX3CL1,CCL26,RALBP1,TBC1D22A,RASGRF1,TBC1D22B,TBC1D1,EVI5,RASGRP2,GNB5,SNX13,PICALM,RAP1GAP,RAPGEF3,GSK3B,WNT11,GNAS,DOCK9,ITGA6,TBC1D2,TBC1D10A,SH3BP1,SGSM3,RANGAP1,ARHGEF7,CCL22,CCL17,SFRP1,ARHGEF10,SYDE1,CAV2,CCL24,TBC1D13,RAPGEF1,TBC1D12,CCL2,CCL1,ODAM,TBC1D9,RAPGEF2,CORO1C,APC2,RAB3GAP1,TBC1D20,CCR7,PIN1,SNX9,ARHGEF16,CCL25,TBC1D5,TBC1D14,MTSS1L,DOCK10,TBC1D4,GRTP1,NTRK3,SGSM2,BCAS3,ERBB2,EVI5L,EPHA2,RGS16,PIP5K1A,PKP4,EPHA1,USP6NL,ITGB1,RABGAP1L,ADPRHL1,CXCL13,TIAM1,RAPGEF6,ABR,DVL3,PLXNB1,TSC1,NDEL1,SGSM1,TBC1D2B,TBC1D16,TBC1D10B,LIMS1,RALGAPB,RASGRP1,NET1,HRAS,TBC1D10C,RHOG,SNX18,SCRIB,CCL13,RGS6,NTF3,ARAP1,BCR,SEMA4D,AGRN,RALGAPA2,PRTN3,NF1,TBC1D9B,S100A10,NTRK1,RUNDC1,TBC1D8,TAX1BP3,SR
GO:0042752 regulation of circadian rhythm	5.54E-03	5.54E-03 A,RORB,PPP1CB,CSNK1E,PRKDC NR1H3,ARNTL2,USP2,PER3,THRAP3,OPN3,RORA,FBXW11,GNA11,CRTC1,MAPK10,PPARGC1A,TIMELESS,UBE3A,SFPQ,PROX1,CRY2,HCRTR1,NR1D1,PRKCG,PPARG,PER2,PRKA A1,ARNTL,BHLHE40,ROCK2,HCRTR2,PML,ZFH3,TP53,CSNK1D,SIK1,RORC,KLF10,GNAQ,GHRL,CHRN2,ADCY1,BTRC,NLGN1,PPP1CA,RBM4B,RBM4,PER1,MTA1,PPP1CC,PPAR
GO:0043269 regulation of ion transport	5.87E-03	5.87E-03 OR56A5,GRM7,SLC30A10,DAPK1,HTT,WWP2,RYR2,STK39,CALM1,TRIM27,GSTM2,TLR9,CCL5,ORAI1,MIR34A,MIR1-2 CFTR,CALCR,CACNG3,CX3CL1,MAPK8IP2,CD4,FYN,ATP1A2,DTNBP1,GOPC,NEDD4L,PRSS8,KCNQ1,KCNH2,ATP2B4,WNK1,ABCA7,MYLK,CD84,CACNB1,KCNAB2,GNB5,CAMK2A,PRKACA,SRI,ACTN2,CHRNA3,MFE2C,P2RX5,FKBP1A,TESC,NOS1,FXD3,SLC9A1,JPH4,CAPN3,PDGFB,MMP9,HRH3,NKAIN4,CHRNA4,AKT2,HAMP,SCN1B,CAV1,SFRP4,CCL2,YWHAE,RANGRF,SLC9A3R1,WFS1,STIM2,GRM6,PDE4D,SNX4,KCNIP3,RAB3GAP1,THADA,SUMO1,GRIN3B,VAMP8,KCNIP2,CRHR1,TNFSF11,PTK2B,CRY2,HPCA,RAMP3,KCNS1,PLCG1,SEMG1,AHNAK,IL1B,F2RL3,ATP1B2,KCNAS,DPP6,ACTN4,EPO,DIAPH1,PER2,INPP5K,DLG4,EPHB2,APLNR,CLDN10,UBQLN1,CD63,CAB39,BIN1,TOR1A,RIPK1,FXD6,FXD2,THBS1,TRPC3,EGF,PML,PDPK1,NCOR1,TNFRSF11A,SIK1,AKT1,CACNG8,CASQ1,CALM2,ARL6IP5,CAMK2D,ANK2,SLC30A5,CAMK2G,GSTO1,JPH2,FXD4,CACNA1C,ANK3,AKA P6,DRD3,GPD1L,UTRN,JPH3,CACNA1D,STC1,CALM3,SPTBN4,CHRN2,FCRL3,SHANK1,CTSS,ATP1A1,CCR1,PRKCD,SYK,WNK2,PACSN3,CACNB2,SCN3B,B2M,CACNG2,STIM1,JSRP1,CTNNB1,CHRM1,AHCYL1,GRM5,PCKS9,RAB3B,PRELID1,CXCL10,ADRB2,KCNAB1,NLGN1,SLN,ARL6IP1,KIF5B,PLA2G1B,PRKCE,P2RY6,BCL2,PRNP,IL16,COMMD1,NPPA,KCNE3,GRIN1,SCN4B,ANO6,KCNA2,PER1,NRXN1,F2,KCNE1,KCNIP1,GALR2,SLC8A1,SCN5A,LRRCS5,PDE4B,LRRCS6,RAB11B,SCN10A,PARK2,KCNIP4,IRS2,SESTD1,P2RX2,NKAIN2,

GO:0043687 post-translational protein modification	5.95E-03	5.95E-03 FUCA2,ASB4,TMEM132A,NUB1,VCAN,PSMA4,CP,LTBP1,RCN1,CUL1,BTBD1,ASB1,PSME4,FSTL3,MGAT4A,FBXW11,ANO8,KLHL20,KEAP1,APLP2,FOLH1,PSMC5,KLHDC5,PSME1,PSMD8,LGALS1,ASB2,HIF1A,RABGGTA,PSMA7,MSLN,PSMD7,FBXO31,SCG3,NUCB1,PSMA2,FBXW4,FBXL15,FBXL20,PSMD3,PSMD11,KLHL2,WFS1,FBXW7,KLHL5,ZBTB16,APOA5,PSMD9,SPSB2,FBXO9,FBXL4,GPLD1,SKP1,STC2,CISH,TTL,FN1,PROC,DCAF17,EPAS1,QSOX1,FBXO2,RBBP5,SERPINC1,APOA1,FBXW2,DCAF4,SOC5,COP55,DCAF10,OBSL1,NEURL2,HIF3A,C3,PSMF1,PSMB2,KTN1,FBXL12,FBXL16,SHFM1,CALU,PSMA1,SUMF2,TULP4,PSME3,FBXW9,MATN3,LRR41,DCAF8,FBXO44,MEN1,DD82,FBXO21,LAMC1,CKAP4,LMO7,IL6,DCAF7,ADAM10,RABGGTB,RAB1A,FBXO11,COP54,CUL4A,DCAF5,SERPINA10,MFGE8,COP53,FBXO15,IGFBP4,CYR61,DCAF6,DTL,RAB13,PDI6,AHSG,FEM1C,ATG12,KLHL3,IGFBP3,ASB15,ASB10,FBXO10,ASB6,PRSS23,TGOLN2,SPARCL1,DMP1,MIA3,TCEB1,FBXL18,FBXO32,APOA2,FBXW5,PSMB4,FBXO27,ASB16,SPSB3,KLHL21,MXR8,FBXO41,FSTL1,IGFBP7,STT3B,ALB,FBXO40,UBXN7,MFI2,SHISA5,KBTBD6,FBN1,BTRC,SENP8,CUL5,FN3K,COP56,ATG4B,FEM1B,PCSK9,SDC2,GPS1,CRTAP,CDH2,SOC55,FGA,SPSB1,SCG2,COMMD1,FBXW8,SPSB4,WSB2,PNPLA2,FAM20C,VWA1,ASB18,FBXL7,KLHL25,PTP4A2,RAB11B,P4HB,WDR5,ASB13,PSMD12,SERPINA1,FBXL22,ATG7,COP58,F5,PSMB8,B8,PSMB10,LCMT1,UBD,ASB14,PSMB9,GAN,FBXO17,AGBL1,PSMB3
GO:1901184 regulation of ERBB signaling pathway	6.02E-03	6.02E-03 RHBDF1,PLAUR,EPN1,RNF126,CD42,NCK2,PTPN18,RAB7A,EPS15,LGMN,MMP9,PTK6,ARHGEF7,AGR2,FBXW7,CBL,CBLB,STAM2,RTN4,ERRFI1,EPS15L1,HIP1,RHBDF2,HIP1R,VP525,AGT,SPRY2,STAM,DAB2IP,EGF,CDH13,ERBB2,AKT1,CBL,RQC1,EGFR,PTPRJ,FER,ADAM17,ZFYVE28,SHC1,TGFA,SPRY1,RBPJ,AFAP1L2,SOC55,PTPN2,CHMP6,GRB2,HG S,ARAP1,ZGPAT
GO:0001667 ameoboid-type cell migration	6.04E-03	6.04E-03 KRIT1,PLXND1,SOX8,TBXA2R,PRSS3,PIK3C2A,DCN,STRAP,MAP2K3,FLT4,HDAC9,BCAR1,HDAC7,SP100,RHOA,HYAL2,PFN2,VASH1,SCARB1,PTGS2,CLASP1,SEMA3C,FGF4,PTPN23,FGFR1,FAP,EDN1,MEF2C,FAT2,PXN,APOH,RFLL,TGFB2,EPB41L4B,ABL1,NRP1,PPM1F,SH3BP1,HMOX1,PDGFB,MYH9,LGMN,HIF1A,MMP9,ANGPT4,ARHGEF7,NUP93,CTSH,SYDE1,GPI,PRKD2,TGFB1,MEGF8,HAS1,MET,HSPB1,GATA3,PBLD,PFN1,HDAC5,SMURF2,FOLR1,CORO1C,ARHGDI3,SASH1,GPLD1,SMOC2,VEGFA,SEMA5A,SPARC,ARSB,IL4,FGF1,HYAL1,FOXP1,RTN4,FN1,LGALS8,PROX1,NRP2,PTK2B,PIK3CA,GLIPR2,PKN1,GIPC1,NR4A1,ACVR1C,PLCG1,RREB1,EFNB2,STAT5A,RHOJ,MACF1,AAMP,KDR,DLL4,PPARG,STARD13,LOXL2,ROCK2,ETS1,PRRS1,ACVR1B,AGT,DAB2IP,ENPP2,FGFBP1,PRCP,THBS1,CYP1B1,FGF2,ANXA3,ITGB7,FGF7,CDH13,PDPK1,BCAS3,AKT1,EPHA2,DUSP10,RAB13,PTPRG,SLIT2,GNA12,DOCK5,CRB2,NOTCH1,DOCK1,ADAM17,PTPRR,PRKCA,CXCL13,KIT,STC1,ADIPOR1,DDR2,CLASP2,ADAMTS9,ZC3H12A,S100P,BMPEP,ADAM9,ATOH8,PTK2,ROBO1,NRTN,PRKCE,MCC,PLEKHG5,PTEN,SCG2,CORO1B,KRT2,MMRN2,PTPRM,JUP,ERBB4,CALR,CIB1,SP1,NANOS1,MIR494,EPHB4,NF1,S100A2,SRC,DPP4,MTOR,MAP3K3,MIR135B,MIR146B,SOX18,PHACTR4,BMPR2,CSNK2B,MIR124-
GO:0043902 positive regulation of multi-organism process	6.06E-03	6.06E-03 NOS2,PGLYRP1,CD4,CD74,YTHDC2,RSF1,CYBA,PUM2,CTDP1,TAF11,SIRT2,NUCKS1,PABPC1,RAB7A,CHMP2B,PPIE,TFAP4,SRPK1,PGC,SMARCB1,LGALS1,EP300,CHMP4B,VAPA,FCER2,SYDE1,CAV2,SMC3,DHXS8,SMURF2,OSBP,SASH1,TRIM38,LY86,NRSA2,ZP4,STAU1,TBC1D20,SMARCA4,CCNT1,CHMP2A,ANKRD17,VPS4A,PUM1,SRPK2,ACVR1B,DHX9,DDX6,GT2B,TARBP2,VPS37B,LHFPL2,GLRA1,POMZP3,LRSAM1,PRKCA,TRIM11,LARP1,RRP1B,ADAR,INHBB,PGLYRP4,CHMP4C,LGALS9,KLK7,PPIH,FAM170B,PC,PDE12,RAD23A,PRF1,TMPRSS2,CIB1,SP1,P4HB,IFIT1,HYAL3,CACNA1H,TRIM15,CCL5

GO:0015711 organic anion transport	6.10E-03	6.10E-03 ABCA4,SLC44A4,SLC35B4,HBA1,ATP10A,GLTPD1,AQP1,HBB,ACACA CFTR,SLC4A1,NOS2,NR1H4,ATP1A2,OSBPL5,SLC4A7,PQLC2,SLC4A8,ATP9A,ABCA7,CY5BR4,SYT1,ATP11A,SCARB1,CA12,SLC46A1,ACACB,SLC1A3,SLC4A4,LRP2,ATP8B1,SLC27A5,SLCO1A2,NCOA1,CETP,SLC23A2,SLC7A8,SLC16A8,SLC25A17,SLC10A1,HRH3,SLCO4A1,SLC25A15,SLC38A7,ABCC1,SLC7A5,AQP9,SLC17A7,AKT2,CA9,ABCC3,SLC9A3R1,MFS D10,CPT1A,FOLR1,APOA5,SLC1A2,PITPNM1,SLC6A12,SLC38A1,PPARD,TMEM30A,SLC4A9,SLC4A3,RAB3GAP1,SLC25A12,SCP2,SLC35A3,APOA1,ATP10B,NPC2,SLC17A5,TNFSF11,ABCC11,GIPC1,SLC36A1,ACSL3,SLC17A3,SLC17A1,GOT2,SLC10A2,ABCC4,SLC25A19,IL1B,SLC27A1,SLC7A10,SLC6A6,PPARG,PER2,NMUR2,CA1,CD36,SLCO5A1,THBS1,SLC3A1,SLCO1C1,SLC7A1,SLC27A2,NCOA2,NCOR1,SLC13A5,SLC16A3,TNFRSF11A,AKT1,ABCG8,ARL6IP5,ATP10D,SLC10A4,SLC26A7,SLC43A1,SLC22A8,SLC22A9,THRSP,DRD3,ACSL1,SLC25A4,PITPNC1,SLC16A1,SLC6A1,CPT2,SLC35B2,SLC38A10,SLC13A3,APOA2,ACE,ABCG1,SLC37A1,SLC1A7,SLC16A14,PRKCD,SLC6A18,SLC4A2,SYK,ABCA1,ATP9B,SLC38A8,CA4,SLC43A2,SLC3A2,SLC22A11,SLC16A4,CA7,PRELID1,SLC38A11,SLC16A5,SLC23A1,ARL6IP1,SLC26A5,PLA2G1B,LRRK8E,STARD5,SLC19A1,SLCO4C1,PITPNA,SLC6A19,SLC26A9,SLCO2A1,CA5A,SLCO3A1,SLC38A9,SLC25A22,SLC25A20,SLC25A42,SLC25A21,SLC25A10,TNFAIP8L3,LCN12,SLC22A10,IRS2,SLC36A2,RXRA,PPARA,GRM7,SLC25A29,STK39,
GO:0051260 protein homooligomerization	6.13E-03	6.13E-03 1,ITLN1,PRF1,ADIPOQ,ALDH1A3,ATL3,HSF1,RXRA,P2RX2,TMEM120A,RYR1,LONP1,SRC,ATL1,ARC,CD247,LY6G6C,LY6G5C,GPX3,FIS1,LY6G5B,MIF,LY6G6D,IKBKE,ACACA MGST1,ACPP,CCDC88C,BID,SPAST,GOPC,POLQ,TP53BP1,SYT1,TP63,ACACB,DGKD,ACTN2,B4GALT1,DNM1L,MCOLN1,ITPR3,BIK,HMOX1,HM13,SAMHD1,CHMP4B,RIOK3,OLF M4,EHD4,BMF,GSDMD,FSD1,BBC3,CD79A,CAV1,MPP2,CRYAB,EHD1,SLC1A2,VWF,PRMT8,SOD2,ACOT13,DPYSL3,CRYZ,ATL2,IDE,CLU,CAT,IKZF4,GNMT,CLYBL,KIF25,ZBTB1,TRAF2,FGFRL1,TRPM4,CHMP2A,ATPIF1,SYT11,APC,HRK,TOR1A,DERL1,RIPK1,FLOT1,SPTBN5,EMILIN1,PEXS,TP53,PEX14,ILDR1,CBR4,SCUBE3,DPYS,NACC2,ALDOA,MAT1A,BCL2L11,RHOC,USP16,TYSND1,SKI,CDA,FCER1G,NACC1,CLDN1,HCN1,VWAA2,TK1,SCARA5,MLKL,LETM1,DFFB,DCXR,NLGN1,PCDC6IP,PRNP,EIF2AK3,TMCC1,RNF213,MUC20,SHMT
GO:0007179 transforming growth factor beta receptor sig	6.13E-03	6.13E-03 MAD3,VASN,FNTA,COL3A1,ADAM9,PTK2,SMAD1,HTRA3,LEMD3,CIDEA,FAM89B,CDH5,CLDN5,BCL9L,SRC,ADAMTSL2,SMURF1,MIR30B,LEFTY1,GDF10 ITGA3,STRAP,LTBP1,DKK3,HIPK2,RHOA,PRKCZ,TGFBR3,FERMT2,ITGB5,NLK,PXN,LTBP4,TGFB2,HSP90AB1,SMAD7,PAR6A,STUB1,ARHGEF18,TGFB1,CAV1,ENG,BMPR1A,PBLD,SMURF2,SNX25,FOLR1,CBL,GCNT2,ZNF451,DUSP22,SMAD5,STK11,LTBP2,TGFB3,FMOD,GIPC1,PMPEA1,GDF5,PIN1,TWSG1,CDKN1C,GDF15,MEN1,TGFBRAP1,SKIL,THBS1,S
GO:0045444 fat cell differentiation	6.18E-03	6.18E-03 S12,ADIPOQ,ADIG,GDF3,ZFP36L1,TMEM120B,TMEM120A,ENPP1,PSMB8,C9ORF129,TNF SOX8,TRIO,LMO3,SIRT2,RORA,PTGS2,SDF4,C1QTNF3,XBP1,EP300,E2F1,ZNF516,AXIN1,SFRP1,AKT2,CLIP3,TGFB1,GATA3,ANKRD26,PPARGC1A,ZBTB16,WNT5B,CREBL2,PPARD,FAM120B,EGR2,NR4A1,WNT1,BBS2,MED1,FFAR2,NR1D1,STEAP4,TRPM4,PPARG,PER2,GPS2,ARNTL,IL6,TAF8,SMAD6,BBS7,WDFY2,FTO,AKT1,CARM1,PRDM16,RORC,ASXL2,TCF7L2,HMGA2,HNRNPJ,CTBP1,ZBTB7B,NAPEPLD,ZNF385A,LRP5,INHBB,ZC3H12A,SENP2,ERAP1,SMAD3,BCL2,ZFPM2,ASXL1,CMKLR1,CTBP2,METRNL,ALOXE3,ZFPM1,BB

GO:0006888 ER to Golgi vesicle-mediated transport	6.18E-03	6.18E-03 COPZ2, SPAST, ANK1, GOPC, TRAPPC3, F7, SPTB, BCAP29, DYNC112, CAPZB, SAR1A, CD59, DDHD2, DYNLL1, SEC22C, CNIH, VTI1B, CTSZ, ARFGAP1, VAPA, COG4, DCTN6, KDELR1, COPE, GBF1, GOSR1, RANGRF, AREG, SAPS3, FOLR1, COPZ1, SEC24A, ERGIC1, COL7A1, LMAN2L, SPTBN1, PROC, CAPZA1, COPA, TBC1D20, TMEM115, PROZ, COPB1, ACTR10, DCTN4, COG6, RINT1, DYNC1L12, COG2, STX17, DCTN3, SORL1, SPTBN5, RAB1A, PREB, ACTR1A, SEC31A, SEC24B, CSNK1D, TEX261, ANK2, SEC16A, ARFGAP2, CTAGE5, SEC24D, ANK3, VTI1A, SAR1B, MIA3, MPPE1, GRIA1, WHAMM, SEC13, DYNC111, SPTBN4, STX5, PEF1, TGFA, COG1, TRAPPC9, YIF1B, ARF4, STX18, TMED10, SPTBN2, GOLT1A, YIF1A, SEC24C, F2, MCFD2, COPB2, NRBP2, CDS5, TRAPPC4, DYNC1H1, SERPINA1, F5, CAPZA2, DCTN1, ANKRD28, ARFGAP3, BGLAP, DYNLL2, SEC22B, COG8
GO:0034637 cellular carbohydrate biosynthetic process	6.45E-03	6.45E-03 IGF1, NDST1, PGM1, GSK3B, B4GALT1, SORBS1, HAS3, GYS1, AKT2, HAS1, JSYNA1, GSK3A, GCK, GBE1, PASK, SLC2A1, PPP1R3C, GOT1, PCK1, NR1D1, FBP2, PER2, INPP5K, AKT1, CSGALNA CT1, EXT2, GYG1, PGM2L1, IRS1, UGP2, CSGALNACT2, B3GNT2, INSR, B3GNT4, EXT1, PGP, IRS2, NHLRC1, ENPP1
GO:1903039 positive regulation of leukocyte cell-cell adhesion	6.53E-03	6.53E-03 FYN, CD6, IGF1, CD44, AP3D1, PRKQC, PRKCZ, CDC42, NCK2, TFRC, GLI2, SIRPG, IL12RB1, XBP1, GRAP2, PYCARD, CSK, IL7, RASAL3, JAK3, CAV1, GLI3, GATA3, MAP3K8, ZMIZ1, CCL2, IL23A, PTPN6, IL4, CD86, ZAP70, ZP4, MYB, CD274, TNFSF11, CCR2, PIK3CA, EFN2, IL1B, CCR7, ZBTB1, RARA, FLOT2, IL6ST, ETS1, RAC1, IL6, PDK1, AKT1, DUSP10, NFKBIZ, PIK3R1, PAK1, RPS3, IL18, ADAM8, FAM49B, RUNX1, ICOSLG, ZBTB7B, VCAM1, NLRP3, IHH, TGFBR2, ICOS, SYK, NOD2, NFKBID, CCDC88B, IL12A, LGALS9, SOCS5, MALT1, SART1, GRB2, PTPN11, PAK2, LCK, PDC D1, CD55, SRC, DPP4, PDCD1LG2, CARD11, PNP, AGER, AIF1, HLA-G, MIR30B, HLA-DPB1, TNF, HLA-DMB, LYN, CCL5
GO:0032787 monocarboxylic acid metabolic process	6.66E-03	6.66E-03 ACSM3, PON1, CROT, PDK2, OSBPL7, MLXIPL, DCN, BRCA1, NR1H4, ALOX5, IGF1, CD74, NR1H3, VCAN, TBXAS1, ACAA1, HAGH, ME1, ELOVL1, PFKP, PKM2, HDAC4, ALDH3A2, ACADVL, CYP2W1, PTGS2, MGLL, ENO1, ACAT1, EDN1, PGM1, ME2, SLC27A5, GSTP1, ACOX3, DLD, VNN3, ECHDC1, ACOT7, HSD3B7, TECR, GGT5, GGT1, SLC16A8, CYP2D6, XBP1, MCAT, PNPLA3, SLC25A17, GSTZ1, HIF1A, HAO1, LPIN2, LONP2, FA2H, GPI, AKT2, PLA2G4C, PON3, PON2, CAV1, PRKAG2, GCK, PHYH, ERLIN1, CYP2C18, ALOX12, PPARGC1A, OSBP, CPT1A, APOA5, PDHX, ACAD10, TPI1, ENO2, LDHB, DSE, IJST, PPARD, VNN2, GHR, AGXT2, EHHADH, NIT2, PCCB, CSPG5, ACADL, SCP2, PARK7, MECP, HAO2, AKR1A1, FAAH, PROX1, OSBP1, APOA1, ACOT2, ELOVL3, MTHFD1L, ACAT2, EPHX2, SCPEP1, ECHDC2, LIAS, ACADS, LPGAT1, PFKFB2, PCK1, MCEE, GOT2, ALKBH7, PANK2, NR1D1, STAT5A, EDN2, IDUA, ECHS1, IVD, CBFA2T3, NCAN, OSBPL2, ACLY, PRKAB2, PER2, PRKAA1, BCAN, LPIN1, LDHA, CYP2J2, DAGLA, CYP27A1, CHST12, ALDOB, BAAT, GRHPR, HADHB, CYP11B1, SCARB2, HADH, PTGR2, SLC27A2, ETF, NCOR1, OSBPL1A, SLC16A3, PFKL, AKT1, ARNT, DEGS1, SCD5, CBR4, AIG1, ERLIN2, PTGES, ALDOA, ME3, ACSL1, PFKM, ACMSD, ACOXL, SLC16A1, HKDC1, HK1, TYSND1, HLCS, ADPGK, ADIPOR1, HK2, ALDH4A1, FGFR4, HK3, ACOX1, ACOT11, PEX13, STARD4, DAGLB, PGAM2, PGM2L1, CRYL1, LIPC, ASFG, SGPL1, LDHC, UGT1A6, GPX4, CYP7A1, PDHB, ACOX2, GSTM4, IRS1, DCXR, BTBD, ELOVL6, PFKFB3, PLA2G1B, INSR, PRKCE, UGT2B7, CYP4F11, BSG, BPGM, CYP7B1, PDP2, PC, STASB, PCCA, LPL, ACSF3, ACOT4, ALOXE3, ALOX12B, CYP8B1, D2HGDH, ADIPOQ, ABAT, ACSM5, ACSM2A, ALDH1A3, IRS2, CYP4F12, CYP4F8, CYP27C1, PPARA, ENTPD5, AKR1C3, CYP2F1, BCO2, CYP2A13, ELOVL2, CES1, HSD17B8, LTC4S, GSTM2, NUDT19, PLIN5, FADS3, GPX1, ACAD11, MIF, EIF6, UGT1A10, ACACA

GO:0050878 regulation of body fluid levels	6.69E-03	6.69E-03 ,SRC,PDGFA,SERPINB2,PLCG2,MAFK,F5,CAPZA2,C6ORF25,CLIC1,EMP2,AQP1,HBB,LYN,ITGB3,PIK3R6
GO:0071901 negative regulation of protein serine/threonin	6.87E-03	PRKAR2B,HYAL2,LRP6,TP73,GSTP1,IRAK3,TFAP4,ABL1,CDK5RAP1,PYCARD,PPP2R1A,CDK6,CAV1,TESK1,CDK5RAP3,DUSP3,PRKAR1A,HIPK3,DUSP16,CDKN1B,DUSP22,PPP2CA,H2AFY,PRKAR2A,RGS2,RGS4,DUSP1,LAX1,IL1B,INPP5K,GPS2,MEN1,PTPN22,APC,CDK4,PKIB,DAB2IP,SORL1,RGS3,MYOCD,AKT1,CBL,CDUSP10,PTPRJ,DUSP2,LRP5,DUSP19,P
GO:0071902 positive regulation of protein serine/threonin	6.91E-03	DVL2,SPAG9,MAP4K5,JGF1,MAP2K3,EIF2AK2,ATP2B4,RHOA,MAP3K13,MAP2K7,FGFR1,EDN1,MEF2C,MAP3K4,ERP29,GADD45B,CRKL,PDGFB,MAP3K7IP1,TELO2,MAPK3,AXIN1,TGFB1,NOD1,RAPGEF1,CCNY,RAPGEF2,CCND1,MADD,CD81,TPD52L1,SASH1,MAPK14,CCNC,CCND3,VEGFA,GHR,PPP2CA,FGF1,MAPKAPK3,GADD45A,PROX1,STK11,CCND2,TNFRSF11,PKN1,EDN3,GRM4,IL1B,TRAF2,CCNT1,GDF15,TRAF7,PRKAA1,IRAK2,CAMK1,KIDINS220,CCNH,TAOK3,CAB39,DBNL,DAB2IP,RIPK1,THBS1,DUSP5,PLCE1,FGF2,EGF,MAPK8IP3,NTRK3,PIK3R5,RPTOR,TNFRSF11A,ERBB2,AKT1,PROK1,CALM2,RALB,PDGFC,EGFR,PAK1,RPS3,TAOK2,UBC,ADAM8,ADAM17,TNIIK,GHRL,NRG1,KIT,CALM3,TAOK1,SHC1,DVL3,PEA15,MAPKAPK2,DUSP19,TGFA,CCNL1,MST1R,DUSP7,RET,FRS2,CRK,NOD2,MAP4K2,ADAM9,MAP2K1,ADRB2,ROBO1,CDK1,ADORA2B,PLA2G1B,PDGFD,INSR,RASGRP1,MAP3K11,TLR6,HRAS,TRAF6,MUC20,UBE2N,NRXN1,ADIPQO,CIB1,NTRF3,CXCL17,SRC,C5AR1,MAP3K5,PDGFA,ELANE,NTRK1,STK39,CALM1,DAXX,CCNL2,TNF,TLR9,UBE
GO:0051090 regulation of DNA-binding transcription facto	6.97E-03	CFLAR,DVL2,CX3CL1,PRKCH,EIF2AK2,TRAF1,HIPK2,PRKCO,SP100,TP53BP1,PRKCZ,HDAC4,LRP6,CAMK2A,TCF3,MAP3K13,NFKB2,EDN1,ITCH,KEAP1,TRAF5,ERC1,IRAK3,ESR1,CAPN3,SMARCB1,HMOX1,MAP3K7IP1,EP300,RPS6KA5,NFKBIA,HCK,SMAD7,MAPK3,PYCARD,STK3,PRKD2,CRTC1,TAX1BP1,NOD1,BUD31,SFRP4,SUFU,CSF3,CDK5RAP3,HDACS,WF51,PPARGC1A,TRIM38,VEGFA,DAP,SUMO1,PARK7,OPRD1,TRIM62,ARHGFE2,PROX1,TNFAIP3,SGK1,MXI1,SFRP5,TAI12,TNFSF11,CLU,COPPS,TRIM25,RNF2,WNT1,IL1B,GLIS2,TRAF2,SMARCA4,SMO,EIF2AK4,TRAF3,NR0B2,PPARG,TRIM22,MEN1,IRAK2,BHLHE40,HAVCR2,CD36,AGT,EGLN1,DHX9,IL6,DAB2IP,RIPK1,ARRB1,CREBZF,CYP11B1,G3BP2,ANXA3,RB1,GTFA2,CRTC3,NLRC5,MYOCD,ARRB2,CARD14,TNFRSF11A,SIK1,AKT1,NLRP12,PEX14,S100A8,MTDH,TCF7L2,PPRC1,RPS3,COMMD7,ARID5B,TIRAP,IL18,UBC,FER,ADAM8,KIT,PRMT2,CRTC2,LRR14,FOXH1,NLRP3,DDR2,S100A9,RNF25,PRKCI,AIM2,ZC3H12A,FZD6,SYK,PRDX3,BTRC,PRKCB,SMAD3,NOD2,NLRC3,CTNNB1,CX3CR1,LGALS9,PLA2G1B,PKHD1,TRIM8,PTEN,PRNP,MALTI1,MYD88,RELA,COMMD1,TRIB1,JUP,TLR6,ABRA,CMKLR1,BRMS1,FZD4,C3ORF33,TRAF6,UBE2N,CTNNBIP1,PARP10,FOXSI,HCLSI,CAK1D,RIK4,TRIM52,TMEM173,CIB1,FAF1,SIGIRR,ROR1,TNFRSF4,USP7,HDAC2,ZNF431,ANXA4,IRAK4,CARD11,WWP2,NTRK1,AGER,HSPA1B,NFKBIL1,TRIM15,TRIM40,TRIM31,TRIM27,PHB2,TNF,TRIM26,TLR9,UBE2V1,ADORA3,MIR1-2

GO:0061045 negative regulation of wound healing	7.23E-03	7.23E-03 TFPI,CD9,PLAUR,CLASP1,FAP,EDN1,APOH,PDGFB,PLAT,SERPINE1,ALOX12,PROC,PROZ,F12,PDGFRA,SERPINE2,THBS1,FGF2,DUSP10,PHLDB2,CD109,CLASP2,PRKCD,KLKB1,CRK,SERPINF2,KRT1,FGA,PTEN,C1QTNF1,CD34,F2,GP1BA,PRKG1,TMPRSS6,AJAP1,PDGFA,SERPINB2,EPPK1,MIR34A
GO:0007599 hemostasis	7.25E-03	7.25E-03 TFPI,PRKAR2B,CD9,FYN,PLAUR,EHD2,PRKCH,LCP2,F7,GNA15,PRKCO,TRPC7,CDC42,PRKACA,TKX,DGKD,CAPZB,FAP,GNB1,EDN1,P2RX5,CD59,GNAS,GP6,GNA11,DOCK9,RCOR1,PABPC4,APOH,CBX5,ITPR3,HPS4,PDGFB,MYH9,ITPK1,HNF4A,MYL12A,MAPK3,PLAT,GPI,CAV1,HSPB1,SERPINE1,GATA3,P2RX1,AKAP10,COL1A1,ALOX12,PRKAR1A,EHD1,VWF,SH2B3,PTPN6,PRKAR2A,PROC,HDAC1,CAPZA1,MFN2,SERPINC1,GNA13,AKAP1,PIK3CA,NFE2,IRF1,PROZ,PRKCG,F2RL3,ADORA2A,DOCK6,GATAS,F12,ZFYVE20,H3F3B,VAV3,PDGFRA,CD36,PHF21A,MICAL1,TEC,SERPINE2,RAC1,IL6,DGKB,GATA4,STXBP1,TLN1,ARRB1,PRCP,THBS1,ENTPD1,TRPC3,PDPK1,ARRB2,PIK3R5,DGKQ,PDGFC,PIK3R1,GNA12,DGKZ,FERMT3,DOCK1,FLI1,PRKCA,GNA14,GNAQ,DGKI,PAFAH2,FCER1G,CSRP1,VAV2,ADAMTS13,SH2B2,PRKCD,METAP1,KLKB1,COL1A2,YWHAZ,SYK,PRKACG,PRKCB,SERPINF2,KRT1,IRF2,COL3A1,GP9,ZFPM2,PDGFD,PRKCE,FGA,PIK3CD,CYP4F11,JMJD1C,FIBP,HPSE,C1QTNF1,CD34,SELP,A2M,ANO6,GP5,PTPN11,ZFPM1,F2,LCK,ACTG1,MAFF,GP18A,PRKG1,TMPRSS6,P2RX2,PRKAR1B,BLOC1S3,PRTN3,HDAC2,SRC,PDGFA,SERPINB2,PLCG2,MAFK,F5,CAPZA2,C6ORF25,CLIC1,HBB,LYN,ITGB3,PIK3R6
GO:0048010 vascular endothelial growth factor receptor si	7.27E-03	7.27E-03 FYN,FLT4,BCAR1,CYBA,CYFIP2,NCKAP1,ELMO2,RHOA,CDC42,NCK2,EPN2,HSP90AA1,MT3,PNX,NRP1,NC4,HIF1A,PRKD2,PIK3R2,HSPB1,SHB,MAPK14,VEGFA,MAPKAPK3,NRP2,PTK2B,PIK3CA,IL1B,KDR,SHC2,VAV3,ROCK2,RAC1,ABI1,FAM129B,DAB2IP,EMILIN1,ARNT,PIK3R1,DOCK1,WASF2,VAV2,MAPKAPK2,PRKCB,CRK,PTK2,MMRN2,VEGFB,BAIAP2,PAK2,HGS,PTPN1,SRC,ITGB3,CYFIP1
GO:0043410 positive regulation of MAPK cascade	7.29E-03	7.29E-03 CALCR,DVL2,CX3CL1,CCL26,SPAG9,CD4,MAP4K5,IGF1,CD74,CD44,MAP2K3,FLT4,EIF2AK2,HIPK2,ABCA7,FGFR2,PRKCG,FGFR3,EPHA8,PDE8A,MAP3K13,FGF4,TRAF4,MAP2K7,FGFR1,EDN1,MEF2C,MAP3K4,MT3,ERP29,ICAM1,THPO,TGFB2,TREM2,NRP1,GADD45B,CRKL,OSM,PDGFB,MAP3K7IP1,RASSF2,HTR2A,MAPK3,CCL22,CCL17,NDRG4,AXIN1,N,E,CAB2,PYCARD,PRKD2,TGFB1,FGF21,DFNA5,CAV2,NOD1,CCL24,RAPGEF1,CCL2,CCL1,FBXW7,RAPGEF2,MADD,CD81,LTBR,GCNT2,TPD52L1,SASH1,MAPK14,DUSP22,VEGFA,GHR,FGF1,WWC1,MAPKAPK3,STK25,GADD45A,SLAMF1,TNFSF11,PTK2B,ADRA1A,MAPK8IP1,RAMP3,GLIPR2,PKN1,EDN3,GRM4,UNC5C,IL1B,CCR7,TRAF2,PLA2G5,KDR,LIF,GD,F15,CCL25,TRAF7,PRKAA1,DSTYK,IRAK2,PTPN22,KIDINS220,ROCK2,PDGFRA,TAOK3,CD36,ANKRD6,EDAR,SPRY2,GPNMB,IL6,DBNL,DAB2IP,RIPK1,ARRB1,THBS1,DUSP5,PLCE1,FGF2,EGF,MAPK8IP3,PELI2,NTRK3,KSR1,ARRB2,PIK3R5,TNFRSF11A,ERBB2,PROK1,ARL6IP5,PDGFC,EGFR,MFHAS1,NTRK2,NOTCH1,PAK1,RPS3,TAOK2,TIRAP,UBC,ADAM8,PRKCA,TNIK,SH3RF1,GHRL,NRG1,KIT,XDH,TAOK1,SHC1,FCRL3,FGFR4,DVL3,PEA15,MAPKAPK2,DUSP19,TGFA,RYK,CCR1,ZC3H12A,MST1R,DUSP7,BMPER,RET,FRS2,CRK,NOD2,SERPINF2,MAP4K2,ADAM9,SEMA4C,LGALS9,MAP2K1,ADRB2,ROBO1,GPR37L1,CDK1,ADORA2B,PLA2G1B,PDGFD,INSR,KSR2,FGA,P2RY6,RASGRP1,SH3RF3,MAP3K11,ZNF622,TLR6,HRA5,TRAF6,MUC20,UBE2N,ERBB4,PTPN11,ALOX12B,NRXN1,CCL13,TNFAIP8L3,C1B1,NTF3,CXCL17,SLC30A10,CSAR1,MAP3K5,PDGFA,ELANE,LPAR1,NTRK1,STK39,DAXX,AGER,MIR27A,PHB2,TNF,TLR9,MIF,ARHGAP8,UBE2V1,CCL5,CCL23,PIK3R6,CCL14,MIR24-2

GO:0032535 regulation of cellular component size	7.29E-03	7.29E-03	<p>PC4,ARPC1A,TWF2,CYFIP1</p> <p>ALS2,BAIAP2L1,CCL26,SCIN,SEMA3G,CLCN6,LIMA1,NCKAP1,NTN1,RHOA,PFN2,NCK2,WDR1,PICALM,ADD2,PLXNA2,ACTN2,CAPZB,MAP2,EDN1,DNM2,GSK3B,SSH1,CTTN,PPP1R15A,MT3,ADD1,ABL1,NRP1,SH3BP1,TRIOBP,HCK,CORO1A,PYCARD,PEX11G,PTPRS,MEGF8,MAG,CCL24,LIMK1,CSF3,PFN1,SLC9A3R1,CLCN3,TRPV4,VEGFA,SEMA5A,PLXNA1,ACTR3,RTN4,PTK2B,SLC12A4,VASP,CCR7,HP1BP3,MACF1,RNF6,CDC42EP1,ARPC1B,OLFM1,HIP1R,ARFIP2,RAP1GAP2,VAV3,RAC1,BIN1,LRRC8A,FCHSD2,SSH2,RPTOR,ARF1,GOLGA4,SLIT2,IQGAP2,RASA1,ARHGAP18,GSN,CDC42EP2,FER,EPS8,PLEKHH2,ZFYVE27,KCNMA1,WHAMM,SNF8,ATP13A2,VAV2,ARPC5,TRIM46,ARPC2,PRKCD,ARFIP1,CFL2,ARF6,CDC42EP5,RILP,RAB3B,LMOD2,PRKCE,PTEN,PPP1CA,CORO1B,BAIAP2,ANO6,CDC42EP4,HCLS1,MAPT,SEMA4D,PFN3,FCHSD1,MTOR,AKT1S1,TRIM27,PLXNA4,AQP1,AR</p>
GO:0048284 organelle fusion	7.47E-03	7.47E-03	<p>B,UVRAG,OPA1,RUNDC1,SYT15,TAP2,TBC1D8,SAMD9,SYT3,FIS1,VPS16,TAPBP,SEC22B</p> <p>VPS41,SYT7,VAMP3,TBC1D22A,TBC1D22B,TBC1D1,EVI5,SYT1,RAB7A,STX7,CHMP2B,SNAP23,SEC22C,TBC1D2,STX1B,SNAP29,TBC1D10A,SGSM3,VTI1B,VPS18,GDAP1,AKT2,C</p> <p>AV2,STX1A,TBC1D13,TBC1D12,GOSR1,VAT1,RAB34,TBC1D9,STX2,MFN2,STX12,VAMP8,TBC1D5,ZFYVE20,TBC1D14,VPS4A,SNAP25,SYT11,USP30,STX11,STX6,TGFBRAP1,TBC1D4,STXBP1,STX17,SYTL2,VAMP1,GRTP1,SYT16,SGSM2,EVI5L,SYTL1,SNAP47,SYT2,NKD2,FAM73B,USP6NL,SYT8,DOC2A,VTI1A,RABGAP1L,ADPRHL1,PID1,VPS11,STX5,OMA1,SYTL3,VPS39,STX3,SGSM1,TBC1D2B,TBC1D16,TAP1,VAMP5,STXBP6,TBC1D10B,CDK1,TSNARE1,SYT12,TBC1D10C,BNIP3,SAMD9L,CALR,PLD6,ANXA2,PARK2,ANKFY1,TBC1D9</p>
GO:1903037 regulation of leukocyte cell-cell adhesion	7.50E-03	7.50E-03	<p>.PTPN11,PAK2,LCK,PPARA,PDCD1,CD55,SRC,SPN,PPP4,PCDC1LG2,CARD11,PNP,AGER,AIF1,HLA-G,MIR30B,MIR141,HLA-DPB1,TNF,HLA-DMB,LYN,CCL5</p> <p>FYN,CD6,IGF1,CD44,AP3D1,PRKCQ,PRKCZ,CDC42,NCK2,TFRC,TBX21,GLI2,PAG1,SIRPG,IL12RB1,XBP1,GRAP2,SMAD7,PYCARD,CSK,IL7,RASAL3,JAK3,CAV1,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,DUSP3,PRKAR1A,IL23A,PTPN6,IL4,CD86,ZAP70,ZP4,MYB,CD274,TNFSF11,CCR2,PIK3CA,LAX1,SDC4,BTN2A2,EFNB2,IRF1,IL1B,CCR7,ZBTB1,TWSG1,ASS1,CCL25,RARA,FLOT2,SFTPD,PTPN22,VTCN1,IL6ST,ETS1,HAVCR2,GPNMB,RAC1,IL6,PDPK1,AKT1,DUSP10,ZC3H8,NFKBIZ,PIK3R1,TNFRSF21,PAK1,RPS3,IL18,DLG5,ADAM8,CCL28,FAM49B,RUNX1,ICOSLG,ZBTB7B,VCAM1,NLRP3,TNFAIP8L2,IHH,TGFBR2,ICOS,ZC3H12A,SYK,NOD2,NFKBID,CCDC88B,IL12A,LGALS9,SOC5,PRNP,MALT1,GLMN,PTPN2,SART1,GRB2</p>
GO:0032231 regulation of actin filament bundle assembly	7.50E-03	7.50E-03	<p>RAP1,PFN3,S100A10,LPAR1</p> <p>CX3CL1,MYOC,LIMCH1,RHOA,PFN2,CDC42,CLASP1,ARHGEF10L,RAPGEF3,WNT11,PXN,SLC9A1,ABL1,NRP1,PPM1F,SFRP1,ARHGEF10,MET,LIMK1,TESK1,PFN1,STMN1,APOA1,TGFB3,PFIA1,INPP5K,ROCK2,FHOD1,RAC1,TPM1,PHLDB2,EPHA1,PAK1,RHOC,WASF2,SHANK1,CLASP2,DLC1,TSC1,SYNPO2L,SERPINF2,SYNPO,SYNPO2,PPM1E,PARK2,NF2,A</p>



GO:0006029 proteoglycan metabolic process	7.50E-03	7.50E-03 DCN,EXTL3,IGF1,B4GALT7,CHPF2,VCAN,HEXB,GPC1,NDST1,XYLTI,B3GAT1,DSE,UST,B3GAT2,ARSB,HYAL1,CSPG5,CHST3,CHST8,HS3ST3B1,IDUA,NCAN,CHSY1,BCAN,CHST12,HS6ST1,BMPR1B,CSGALNACT1,TCF7L2,B3GAT3,EXT2,ADAMTS12,CTNNB1,CSGALNACT2,CANT1,CHST11,HPSE,CHST13,CHST15,EXT1,HS3ST4,SULF2,GAL3ST4,BMPR2,HEXA
GO:0005975 carbohydrate metabolic process	7.79E-03	7.79E-03 FUCA2,PKD2,ST3GAL1,MLXIPL,GLT8D1,IGF1,RB1CC1,FUT8,CS,ST3GAL6,GSTO2,ME1,PFKP,PKM2,HDAC4,INPP5A,PYGM,RORA,ST6GALNAC1,NDST1,ENO1,PGM1,C1QTNF3,GS K3B,AKR1B1,B4GALT1,SLC23A2,OAS1,SORBS1,CYB5R3,PDGFB,PMM1,HIF1A,PCK2,PYGB,ST8SIA5,PHKB,HAS3,NAGPA,MAN2B1,DHDH,GYS1,GPI,AKT2,TGFB1,HAS1,ISYNA1,GS K3A,PRKAG2,GCK,GALK1,SLC25A11,MANBA,GALNT7,PPARGC1A,B3GAT1,ALDH2,TPH1,ENO2,ST8SIA1,PPARD,GPLD1,B3GAT2,GBE1,ST3GAL5,PASK,SLC25A12,SLC2A1,AKR1A1,TREH,STBD1,PPP1R3C,GOT1,GLT8D2,PTK2B,CD244,PFKFB2,PCK1,GOT2,C20ORF173,ST3GAL3,NR1D1,IDUA,CASD1,ATF4,MPOU1,CBFA2T3,FUT5,POMT1,FBP2,MGAT1,ENOSF 1,PER2,PRKAA1,INPP5K,CHIA,LDHA,B4GALNT1,ST6GALNAC4,ALDOB,ALDH1B1,KHK,EGF,GCNT3,PMM2,NCOR1,G6PC3,CLTC,IMPA2,PFKL,ATHL1,SIK1,AKT1,SLC2A5,RORC,ARN T,GALM,ST6GAL2,DGKQ,MDH2,CSGALNACT1,ST8SIA6,GSTO1,B3GAT3,ALDOA,EXT2,PFKM,FUT6,HKDC1,HK1,PHKG2,GALK2,GHRL,ST3GAL2,ADPGK,ADIPOR1,HK2,CRTC2,PTH 1R,HK3,NEU3,LRP5,OMA1,AGL,GYG1,TKT,PGAM2,PHKG1,PGM2L1,CRYL1,CYB5A,UGT1A6,MIDN,GLYCTK,IRS1,DCXR,UGP2,CSGALNACT2,B3GNT2,SLC23A1,PFKFB3,INSR,FUT3 ,PRKCE,UGT2B7,GAA,P2RY6,PTEN,BPGM,FGGY,COQ2,PPP1R3B,PC,FUT1,GK5,CHST1,PTPN2,MLXIP,B3GNT4,CLK2,FUT2,GCNT4,MAN1B1,ST8SIA3,FUCA1,ADIPOQ,CHST15,IDH 2,EXT1,SLC25A10,ST6GALNAC3,PGP,PARK2,IRS2,PPARA,ENTPD5,NHLRC1,FUT4,HRH1,AP2A1,GAL3ST4,ENPP1,NEU4,NEU1,EIF6,UGT1A10
GO:1903078 positive regulation of protein localization to p	7.87E-03	7.87E-03 ITGA3,PRKCH,SORBS1,TREM2,CLIP3,AGR2,RANGRF,SPTBN1,PLS1,RAMP3,LRP1,ACSL3,ARHGEF16,EPHB2,PDPK1,AKT1,EPHA2,NKD2,PIK3R1,EGFR,ITGB1,SQSTM1,CNST,PRKCI,ARF6,STX3,PTPN9,KIF5B,PRKCE,RHOG,AKAP5,NRXN1,CIB1
REAC:R-HSA- Extracellular matrix organization	7.87E-03	7.87E-03 ITGAL,ITGA3,ITGA2B,MMP25,DCN,CD44,TIMP2,MFAP3,VCAN,COL9A2,LTBP1,ELN,LAMC3,COL23A1,COL11A1,COL17A1,ACTN1,P4HA2,NTN4,COL5A3,COL4A4,ITGB5,PLOD1,I TGAE,COL16A1,ADAMTS2,NID2,LTBP4,ICAM1,ITGA6,CAPN3,TGFB2,TL2,MADCAM1,PDGFB,CTSG,MMP9,COL20A1,LAMA1,MMP15,TGFB1,ICAM4,PTPRS,SERPINE1,SH3PXD2 A,ICAM2,COL1A1,LOX,SPARC,COL7A1,ITGB6,FN1,SDC1,TNR,NID1,TTR,LTBP2,TGFB3,TNN,FMOD,P4HA1,MMP19,SDC4,MATN4,CEACAM8,COL21A1,GDF5,KDR,LOXL1,NCAN,P XDN,COL5A1,LAMA5,MATN3,ITGB4,BCAN,LOXL2,COL4A2,ADAMTS8,ADAM19,ITGA7,CAPN9,LAMC1,MMP7,MMP13,THBS1,ITGA11,ADAM10,ADAMTS14,FGF2,FBN2,LUM,IT GB7,MFAP1,FURIN,ITGAX,COL6A1,COL6A2,CAPN10,FBN3,HSPG2,ADAM15,COL8A1,ADAMTS16,SCUBE3,ADAM12,SERPINH1,CAPN5,NCAM1,P4HA3,ITGB1,ADAM8,ADAM17, DST,DMP1,PLOD2,PRKCA,ADAMTS1,ADAMTS3,MMP14,ITGB2,MATN1,VCAM1,DDR2,NCSTN,CAPN2,CTSS,COL6A3,FBLN2,ADAMTS9,KLKB1,COL1A2,HTRA1,JAM3,FBN1,MFA P4,MMP10,KLK2,LTBP3,TNXB,COL3A1,ADAM9,CTRB2,COL4A3,KLK7,COL22A1,SDC2,ITGAM,CRTP,FGA,COL8A2,BSG,EFEMP2,DAG1,A2M,NRXN1,COL18A1,P4HB,TMPRSS6,C OL4A1,AGRN,COL25A1,SPOCK3,MMP1,TRAPPC4,COL27A1,LAMB3,PDGFA,COL13A1,ELANE,MFAP5,MMP17,COL11A2,COL15A1,DDR1,CAPN14,COL28A1,ITGB3

GO:0048511 rhythmic process	7.98E-03	7.98E-03 TNR1A,PRKCR1,NLGN1,NPAS2,HDAC3,PTEN,PPP1CA,RBM4B,RBM4,PER1,MTA1,BTBD9,SLIT3,PPP1CC,PPARA,HDAC2,ZNF830,TOP1,RORB,LGR4,PPP1CB,CSNK1E,PRKDC
		HEBP1,NR1H3,ARNTL2,USP2,PER3,THRAP3,OPN3,NGFR,RORA,SREBF1,FBXW11,GSK3B,GNA11,TGFB2,EP300,RELB,CRTC1,NAMPT,SERPINE1,RAI1,MAPK10,PPARGC1A,CPT1A,TIMELESS,UBE3A,HDAC1,SFPQ,PROX1,KLF9,TGFB3,CRY2,HCRTR1,MC3R,NR1D1,PRKCG,ATF4,AANAT,ASS1,PPARG,PER2,PRKAA1,MYBBP1A,ARNTL,BHLHE40,ROCK2,MTNR1B,PDGFRA,HCRTR2,BMPR1B,NCOA2,PML,ZFXH3,NCOR1,TP53,CSNK1D,TNFRSF11A,SIK1,PROK1,RORC,SLIT2,DRD3,HNRNPU,KLF10,GNAQ,GHRL,CHRN2,ADCY1,NFIL3,BTRC,M
		ITGA2B,TBXA2R,CD9,FYN,IGF1,PRKCH,LCP2,HSPA5,BCAR1,GNA15,GNAI3,PRKCQ,RHOA,PRKCZ,RASGRP2,TRPC7,GNB5,CDC42,WDR1,ACTN1,MGLL,STXB2,DGKD,APBB1P,ACTN2,GNB1,RAPGEF3,APLP2,GP6,GNA11,THPO,RAPGEF4,APOH,TGFB2,BRPF3,ITPR3,PDGFB,VTI1B,SERPINA4,MAPK3,CSK,SCG3,TGFB1,PIK3R2,SERPINE1,PFN1,LGALS3BP,VWF,PTPN6,MAPK14,PHACTR2,VEGFA,SPARC,GNAI2,FN1,QSOX1,PIK3R3,APOA1,TGFB3,GNA13,CLU,A1BG,PIK3CA,SRGN,ABCC4,PRKCG,RAP1B,F2RL3,GNG11,RAC2,CALU,ACTN4,VAV3,DAGLA,CD36,CD63,RAC1,DGKB,TLN1,ARRB1,THBS1,TRPC3,EGF,PDPK1,ARRB2,PIK3R5,AKT1,ECM1,SCCPDH,LEFTY2,AHSG,DGKQ,PIK3R1,LHFPL2,GNA12,DGKZ,FERMT3,ALDOA,FAM49B,PRKCA,GNA14,GNAQ,CD109,DGKI,TAGLN2,FCER1G,VAV2,SHC1,ALB,CLEC3B,PRKCD,TEX264,ANXA5,DAGLB,YWHAZ,SYK,PRKCB,GNGT2,CRK,SERPINF2,PTK2,GP9,PRKCE,FGA,GNB2,GNG12,GTBP2,CTSW,RASGRP1,VEGFB,GNG5,SELP,A2M,GNG7,RHOG,CHID1,GRB2,GP5,PTPN11,F2,LCK,GP18A,SERPINA3,PTPN1,FAM3C,SRC,SERPIN
REAC:R-HSA- Platelet activation, signaling and aggregation	8.06E-03	8.06E-03 A1,PDGFA,CFD,PLCG2,CALM1,F5,C6ORF25,LAT,LYN,ITGB3,PIK3R6
		CACNG3,SCN4A,CACNA2D2,WWTR1,ATP1A2,VIM,KCNQ1,KCNH2,ATP2B4,HIPK2,MYLK,CACNB1,ABCC9,CAMK2A,ATP2B1,PRKACA,ATP2A3,SRI,ACTN2,CACNA15,ITGB5,PXN,TBX5,NOS1,FXYD3,MYL6,SORBS1,KCNK16,ITPR3,KCNK10,SLC8A3,MYL12A,DMPK,ATP1A3,SCN1B,MYL10,MYL7,ACTA2,RANGRF,MYL2,KAT2B,TNNC1,KCNIP3,SLC8A2,KCNIP2,CALD1,KCNK15,KCNK17,TMOD2,ATP1B2,TNNT3,TNNI2,ATP1A4,MYBPC3,DYSF,KCNK1,SCN7A,GATA4,TMOD1,TLN1,FXYD6,FXYD2,TMOD3,TPM1,CACNG8,TPM3,CORIN,CAMK2D,CAMK2G,PAK1,FXYD4,CACNA2D4,CACNA1C,KCNE4,KCNK13,ATP2B2,CACNA1D,CACNA2D3,TNNI1,NPR2,MYL3,ORAI2,ACTG2,TMOD4,NPPC,HIPK1,ATP1A1,KCNK5,CACNB2,SCN3B,CACNG2,STIM1,TPM4,KCNJ4,AHCYL1,KCNK9,SLN,KCNK3,KCND3,KCNK7,TCAP,NPPA,KCNE3,SCN4B,MYLPP,PAK2,KCNE1,KCNIP1,KCNK4,ANXA2,SLC8A1,SCN5A,KCND
REAC:R-HSA- Muscle contraction	8.06E-03	8.06E-03 2,SCN10A,KCNIP4,KCNK18,MYBPC1,RYR1,SCN8A,MYH6,ASPH,RYR2,CALM1,MYL5,ORAI1
		FGR,MAD1L1,STARD3NL,SYT7,SPAST,CENPQ,GAB2,DTNBP1,C12ORF4,MAP4,TRAPPC3,SYNE2,STYK1,CDH3,AP3D1,CD84,SYT1,RAB27A,WIPI1,CDC42,NDE1,CLASP1,STXB2,MAP2,KIF22,DNM2,RIMS1,XPO1,CHMP2B,CD59,NSFL1C,SNAP23,EZR,UNC13D,STX1B,SNAP29,UNC84B,CNIH,HIF1A,DNAJC5,CTSZ,SNPH,KIF3B,CHMP4B,AP3B2,SPG11,STX1A,WASL,GBF1,GOSR1,SLC9A3R1,AREG,SAPS3,FOLR1,STX2,SEC24A,COL7A1,SNX4,TTL,OTOF,CENPA,RPS15,MLPH,STK25,RAB3GAP1,MARK1,RIMS3,KIF14,VAMP8,GPSM2,RAB17,BBS2,KIF25,TBC1D20,RHOT1,KIF1C,AP1M2,KIF1A,ACTN4,UNC13A,MAP1S,CHMP2A,CHMP1A,KIF3A,EXOC4,STARD3,VPS4A,SNAP25,SYT11,DCTN4,SPIRE1,BLOC1S1,LTV1,STX11,TOR1A,STXBP1,CDK5RAP2,KIF13A,NUMA1,FNBP1L,RAB1A,PREB,AP1AR,SEC31A,BBS7,CENPE,SEC24B,RHOT2,CSNK1D,PEX14,ZNF593,SYTL1,KIF2C,SNAPIN,SNAP47,SYT2,ANKRD53,BOD1,CDC45,SEC16A,SYT8,DOC2A,SEC24D,FER,BICD1,SAR1B,HNRNPU,GRIA1,FMN2,SEC13,KIT,DYNC1I1,PINK1,ANKLE1,LEMD2,STX5,PEF1,BBS5,TGFA,TRIM46,CLASP2,SYTL3,CHMP4C,CDK5,YWHAZ,GEM,SYK,NDEL1,STX3,CDT1,TRAPPC9,LGALS9,NLGN1,MYRIP,TMED10,KIF5B,PIK3CD,SYT12,LEMD3,CHMP6,RIMS2,SEC24C,RRS1,MCDF2,FES,RAB11B,PARK2,LAMP1,BICD2,PIP5K1C,MAPT,BLOC1S3,BLOC1S2,TRAPPC4,DYNC1H1,SERPINA1,HTT,F5,OPA1,SYT15,DCTN1,SPIRE2,ANKRD28,SYT3,UBXN2B,KIFC1,EIF6,LYN,PI
GO:0051656 establishment of organelle localization	8.15E-03	8.15E-03 NX1,CHMP1B,SEC22B

REAC:R-HSA- MAPK1/MAPK3 signaling	8.28E-03	8.28E-03 10,LAT,PSMB9,ITGB3,PSMB3 ITGA2B,FYN,PPP5C,PSMA4,RASGRF1,ERBB3,PPP2R5A,FGFR2,FGFR3,PSME4,SPTB,FGF22,CAMK2A,FGF4,RASAL2,APBB1IP,ACTN2,FGFR1,PPP2R5C,PSMC5,PEBP1,BRAP,IL5RA,PSME1,PSMD8,PDGFB,CSF2RB,PSMA7,MAPK3,PSMD7,CSK,RASAL3,TYK2,GRIN2D,PPP2R1A,AK3,MET,PSMA2,PSMD3,PSMD11,RAPGEF2,VWF,PSMD9,FGF6,DUSP16,RASAL1,HBEGF,RASGRF2,PPP2CA,FGF1,SPTBN1,FN1,ARTN,DUSP1,PSPN,PSMF1,GFRA4,PSMB2,RAP1B,SHFM1,PSMA1,SHC2,PSME3,DLG4,KL,KRAS,IL6ST,IL2RA,PDGFRA,KLB,IL6,DAB2IP,TLN1,ARRB1,PPP2R1B,SPTBN5,DUSP5,FGF2,EGF,FGF7,IQGAP1,KSR1,ARRB2,ERBB2,DUSP10,IL17RD,CAMK2D,RASA1,EGFR,SHC3,CAMK2G,NCAM1,UBC,RASGRP3,PPP2R5E,NRG1,KIT,DUSP2,NRG2,PSMB4,SPTBN4,SHC1,IL6R,FGFR4,GRIN2C,JAK1,PEA15,PAQR3,DUSP7,CSF2,RET,SPRED1,FRS2,MAP2K1,IRS1,PTK2,NRG4,CDK1,NRTN,KSR2,FGA,RASGRP4,RASGRP1,MAP3K11,SPTBN2,HRAS,BTC,GRIN1,GRB2,ERBB4,PTPN11,DUSP8,NRG3,IRS2,RASA3,SPRED3,NF1,SRC,PSMD12,SYNGAP1,PDGFA,SPRED2,CALM1,PSMB8,PSMB
REAC:R-HSA- Circadian Clock	8.28E-03	8.28E-03 ,RXRB,PPP1CB,CSNK1E CREBBP,NR1H3,ARNTL2,CUL1,F7,RORA,SREBF1,MEF2C,NCOA1,CREM,EP300,HIF1A,CRTC1,NAMPT,SERPINE1,RAI1,PPARGC1A,CPT1A,SKP1,MEF2D,CRY2,MED1,NR1D1,PER2,ARNTL,BHLHE40,NCOA2,CRTC3,NCOR1,CSNK1D,SIK1,CARM1,UBC,CRTC2,KLF15,NFIL3,BTRC,NPAS2,HDAC3,PPP1CA,RBM4,CHD9,TBL1XR1,PER1,PPP1CC,RXRA,PPARA,NCOA6
REAC:R-HSA- PI5P, PP2A and IER3 Regulate PI3K/AKT Signal	8.28E-03	8.28E-03 8,BTC,TRAF6,CD19,GRB2,ERBB4,PTPN11,LCK,NRG3,IRS2,PIP5K1C,IL1RAP,SRC,PDGFA,IRAK4,PIP4K2B FYN,ERBB3,PPP2R5A,FGFR2,FGFR3,FGF22,FGF4,FGFR1,PPP2R5C,ESR1,PDGFB,MAPK3,PPP2R1A,PIK3R2,MET,GAB1,FGF6,HBEGF,PPP2CA,FGF1,CD86,IL1RL1,PIK3R3,PIK3CA,KL,PDGFRA,KLB,IER3,PPP2R1B,FGF2,EGF,FGF7,ERBB2,AKT1,PIP5K1A,PIK3R1,EGFR,PPP2R5E,PIK3AP1,NRG1,KIT,NRG2,FGFR4,TRAT1,ICOS,FRS2,IRS1,NRG4,INSR,PIK3CD,MYD8
GO:0032623 interleukin-2 production	8.39E-03	8.39E-03 MN,TRAF6,PDE4B,PNP,TRIM27 CD4,SLC11A1,HDAC7,NAV3,TBX21,EZR,HOMER2,PRKD2,PDE4D,CD86,SPTBN1,TNFAIP3,CCR2,IL1B,TRAF2,SFTPD,HAVCR2,IRF4,RPS3,IL18,RUNX1,PRNP,MALT1,KATS,CD34,GL

GO:0016042 lipid catabolic process	8.39E-03	8.39E-03 PLA2, FUCA1, PNPLA1, ADIPOQ, IRS2, CYP4F12, PPARA, AKR1C3, BCO2, AKR1B10, INPP5F, NEU4, NEU1, NUDT19, PLIN5, TNF, ACAD11, PNLI, PRP2, CROT, GDE1, CYP24A1, CPS1, HSD17B6, PNPLA6, GALT, ACAA1, SIRT2, ALDH3A2, ACADVL, SCARB1, MGLL, SCARF1, ACAT1, LIPE, MGST2, ACOX3, MT3, ECHDC1, MCAT, PNPLA5, PNPLA3, SLC25A17, HAO1, LPIN2, LIPG, LONP2, SMPD3, AKT2, PLA2G4C, PHYH, CPT1A, APOA5, ACAD10, PPARD, GPLD1, EHHADH, PCCB, SNX17, ACADL, SCP2, MECR, HAO2, FAAH, PRDX6, APOA1, ACAT2, ECHDC2, ACADS, MCEE, TRERF1, IL1B, ECHS1, SRD5A3, JVD, SMPDL3B, PRKAA1, LPIN1, DAGLA, ENPP2, CYP19A1, HADHB, CYP1B1, HADH, SLC27A2, ETFA, ABHD2, AKT1, AIG1, PDE3B, ACOXL, TYSND1, APOA2, PLA2G4D, ACOX1, NEU3, PEX13, FABP1, LIPH, PRKCD, ENPP6, LIPC, SGPL1, SMPD1, ACER1, CYP7A1, BSCL2, ACOX2, IRS1, FABP6, PLA2G1B, LPL, CIDEA, PN
GO:0006875 cellular metal ion homeostasis	8.39E-03	8.39E-03 1, ELANE, PLCG2, LPAR1, RYR2, CALM1, TGM2, FAM155A, GPR20, GSTM2, FIS1, COX19, CCL5, CCL23, CCL14, MIR1-2, CALCR, IBTK, CX3CL1, FYN, SLC11A1, ATP1A2, BAK1, CASR, CP, NEDD4L, LETMD1, HERPUD1, CUL1, ATP2B4, GNA15, AP3D1, TRPC7, ATP2B1, CYBRD1, PRKACA, TFRC, SLC24A1, SRI, SLC46A1, EDN1, SCGN, P2RX5, CHERP, MT3, FKBP1A, NOS1, SLC9A1, ESR1, JPH4, SLC22A17, CAPN3, JTPR3, ABL1, HMOX1, KCTD17, SLC8A3, BDKRB1, HTR2A, NUBP1, HMOX2, SLC30A4, SLC39A14, DMPK, BBC3, ATP1A3, GRIN2D, HAMP, ATP13A1, CAV1, TFR2, CDH23, CCL1, YWHAE, WFS1, STIM2, HPX, SLC11A2, TRPV4, SLC39A7, CCR6, PDE4D, SKP1, CLDN16, SLC30A3, TACR1, TADA, FASLG, SLC8A2, PTK2B, ADRA1A, EPHX2, HCRTR1, CCR2, RAMP3, ACO1, ATP7B, PLCG1, GCM2, MT2A, GPR18, OPR1, S1PR4, CCR7, EDN2, ATP13A4, F2RL3, ATP1B2, EPO, TRPM4, DIAPH1, C19ORF12, DLG4, NMUR2, PDE6A, SLC41A1, TPT1, PDE6B, TRPM1, APLNR, TMEM165, PDGFRA, CD36, ISCU, IREB2, CIB2, ATP6V1G1, HCRTR2, PLCE1, SLC40A1, FGF2, TRPC3, PLCZ1, SLC39A5, SLC24A4, PML, PDPK1, CACNA1A, TRPM2, CASQ1, S100A8, ARF1, CALM2, AGTR1, CAMK2D, ANK2, SLC30A5, SLC39A4, LCN2, GSTO1, JPH2, CACNA1C, AKAP6, DRD3, EDNR A, GRM1, JPH3, SLC24A2, KCNMA1, CXCL13, NPTN, GHRL, ATP2B2, SPPL3, STC1, ATP13A2, ATP6V0D1, CALM3, TMPRSS3, GRIN2C, TPCN2, S100A9, ATP1A1, CCR1, TRPV6, EFHA1, SLC39A13, PRKCB, SMAD3, STIM1, JSRP1, FTH1, SCAR5, HFE2, LETM1, CXCL10, CD52, PLA2G1B, PKHD1, LPAR3, P2RY6, BCL2, C3AR1, PRND, PRNP, ADRA1D, CALB2, ADCY5, C1QTNF1, TAC4, GRIN1, GPR4, ATOX1, CALR, F2, GPR157, CCL13, GALR2, LCK, SLC8A1, CCR4, SLC24A3, ATP6V0A2, TMPRSS6, P2RX2, SLC24A5, OR56A5, FZD9, RYR1, CD55, SLC30A10, SLC39A10, HTT, C5AR
GO:0051496 positive regulation of stress fiber assembly	8.39E-03	8.39E-03 MYOC, LIMCH1, RHOA, PFN2, CDC42, ARHGEF10L, RAPGEF3, WNT11, PXN, ABL1, NRP1, PPM1F, SFRP1, ARHGEF10, LIMK1, TESK1, APOA1, TGFB3, ROCK2, FHOD1, RAC1, TPM1, EPHA1, PAK1, RHOC, SERPINF2, PPM1E, NF2, S100A10, LPAR1
GO:0042176 regulation of protein catabolic process	8.50E-03	8.50E-03 NXA2, PTTG1P, FAF1, PARK2, HGS, NDUFA13, USP7, SFB3, FHIT, ATG7, STYX, SMURF1, TRIM39, TRIM40, CSNK1E, TNF, GPX1, TNFSF12, SEC22B, EGLN2, ANKIB1, OSBPL7, RHBDF1, NUB1, RNF14, TNFRSF1B, RNF19A, GABARAPL2, TIMP2, NEDD4L, HERPUD1, HIPK2, CTSA, ATXN3, SIRT2, CSNK2A2, PRKACA, RAB7A, LAMP3, KEAP1, HSP90A A1, LRP2, GSK3B, EDEM2, IRAK3, PSME1, EZR, WAC, HSP90AB1, DERL3, EEF1A2, SMAD7, RNF125, N4BP1, AXIN1, STUB1, LAPTM4B, OAZ1, SGTA, GSK3A, WDR91, CAV1, DVL1, CDKSRAP3, FBXW7, SH3D19, CD81, CDKN1B, GPLD1, SNX3, CSNK1A1, UBE3A, ODC1, SUMO1, NFE2L2, PARK7, TNFAIP3, IDE, CLU, PTK2B, GIPC1, LRP1, C4BPA, RNF114, IL1B, RPL23, PSMF1, PRKCG, PIN1, CBFA2T3, SNX9, ATP1F1, GFAP, PSME3, HSPBP1, EDEM1, RNF138, APC, UBQLN1, AGAP2, NUDT15, DAB2IP, RNF144B, SORL1, BBS7, PRICKLE1, PML, FURIN, NKD1, CSNK1D, RPL11, OAZ3, DTL, NKD2, PLK2, GNA12, EGFR, ADAM8, RNF144A, DAB2, LONRF1, AZIN1, FMN2, EEF1A1, RNF166, PINK1, SNF8, ATP13A2, VPS11, VPS28, UBXN1, STX5, PYHIN1, RYBP, TIPARP, PACSIN3, NELL1, BAG5, ARIH1, RILP, ADAM9, PCSK9, EFNA1, PTK2, LONRF2, SOCS5, PTEN, RPS7, USP19, COMMD1, TRIB1, SNX33, BRSK2, GLMN, MAGEF1, ARIH2, RAD23A, OAZ2, RNF41, A

REAC:R-HSA- Signaling by ERBB2	8.61E-03	8.61E-03	MATK,FYN,ERBB3,RHOA,PTPN18,HSP90AAA1,PTK6,STUB1,AKT2,CDC37,GAB1,HBEGF,PIK3CA,PLCG1,DIAPH1,KRAS,EGF,ERBB2,GRB7,AKT1,PIK3R1,EGFR,UBC,PRKCA,NRG1,NR
			G2,SHC1,PRKCD,CUL5,NRG4,PRKCE,HRAS,BTC,GRB2,ERBB4,RNF41,NRG3,SRC
REAC:R-HSA- VEGFA-VEGFR2 Pathway	8.61E-03	8.61E-03	FYN,CTNNA1,BCAR1,CYBA,CYFIP2,NCKAP1,ELMO2,RHOA,PRKCZ,CDC42,NCK2,PRKACA,HSP90AAA1,PNX,ITPR3,NCF4,AKT2,PIK3R2,CAV1,HSPB1,SHB,MAPK14,VEGFA,MAPKAP
			K3,MAPKAP1,PTK2B,PIK3CA,PLCG1,KDR,SHC2,KRAS,VAV3,ROCK2,RAC1,ABI1,PDPK1,AKT1,PIK3R1,RASA1,PAK1,DOCK1,PRKCA,WASF2,VAV2,MAPKAPK2,PRKCD,PRKACG,PRK
			CB,CRK,MLST8,CTNNB1,AHCYL1,PTK2,JIU,HRAS,BAIAP2,CDH5,PAK2,MAPK12,SRC,CTNND1,CALM1,MTOR,ITGB3,CYFIP1
GO:0032870 cellular response to hormone stimulus	8.61E-03	8.61E-03	TFPI,PRKAR2B,PDK2,BAIAP2L1,MED24,PIK3C2A,BRCA1,RNF14,ATP1A2,ABCC2,ATP6V0A1,HDAC9,LMO3,BCAR1,THRAP3,NPFFR2,GNA15,RNF4,NGFR,PRKCO,PPAP2A,PKM2,P
			RKCZ,NUCKS1,CAMK2A,PRKACA,ACTN2,GNB1,CHRNA3,MEF2C,UBA5,NCOA1,MT3,GNAS,GNA11,PNX,ESR1,SORBS1,DDX17,XBP1,EP300,AXIN1,TSC2,CTSH,SFRP1,UBR5,LHB,A
			KT2,ATP1A3,JAK3,SLC5A5,PIK3R2,GSK3A,CAV2,CAV1,BUD31,GCK,DDX5,HDAC5,PRKAR1A,GAB1,PPARGC1A,TCIRG1,GPLD1,GHR,PRLR,ATP6V0E1,UBE3A,KAT2B,PRKAR2A,CIS
			H,FOXPI1,KDM3A,FHL2,PARK7,HDAC1,LEPR,NR5A2,PIK3R3,ARID1A,TCF21,KLF9,RHOQ,IDE,GOT1,CRHR1,SOCS2,ADCY7,CRY2,HCRTR1,PIK3CA,RAMP3,NR4A1,NCOA3,PMPEA1
			,SCGB2A1,CNOT1,BBS2,IL1B,PAX8,MED1,THRA,STAT5A,SMARCA4,RNF6,Safb2,GDF15,CCDC62,PPARG,PTPRE,INPP5K,LANCL2,WBP2,ARNTL,ROCK2,APC,LMO2,TBC1D4,GH2,
			ATP6V1G1,NR5A1,HCRTR2,CPEB2,YAP1,ADCY3,RB1,NCOA2,IGF1R,ABHD2,TGFB111,PDPK1,ARRB2,SIK1,AKT1,CAPN10,CARM1,RAB13,RQCD1,AGTR1,SLIT2,AHSG,PIK3R1,EGF
			R,NOTCH1,NPFFR1,PAK1,FER,PDE3B,DAB2,BCL2L11,HNRNPJ,PID1,ADCY8,GRIP1,GNAQ,GHRL,APPL1,RUNX1,ADIPOR1,ATP6V0D1,PRMT2,ZBTB7B,SHC1,CHRN2,CYP11B1,F
			OXH1,SH2B2,ADCY9,INHBB,CTSS,CKAR,ATP1A1,PRKCI,PRKCD,ADCY1,MED30,PRKACG,TSHR,TSC1,VWA2,PRKCB,TRIM68,CTNNB1,CHRM1,STAT3,AHCYL1,IRS1,PCSK9,PTK2,SI
			K2,PLA2G1B,INSR,ATP6V0E2,SLC25A33,KATS,ADRBK1,RELA,ADCY5,STAT5B,ADCY6,PTPN2,BAIAP2,CDK5R1,GRB2,ZNF366,UCN3,PER1,CYP11B2,CALR,PTPN11,OXTR,CHRM2,A
			DIPOQ,SLIT3,GAS2L1,ATP6V0A2,ZFP36L1,ATP6V0C,FFAR3,IRS2,QRFPR,AGRN,PRKAR1B,AKR1C3,PTPN1,CACNA1H,SLC30A10,STRN3,SRK,KANK2,ENPP1,NCOA6,DAXX,CSNK2B
			,CPEB1,RBM14,AQP1,ATP6V1E2,PRKCD,LYN,NCOA4,EGLN2,MIR145
GO:0044403 symbiont process	8.68E-03	8.68E-03	FUCA2,AP2B1,CD4,FYN,PTBP1,CD74,NUP160,AP2S1,YTHDC2,RSF1,NEDD4L,EIF2AK2,CTDP1,CASP8,HIPK2,TAF11,HYAL2,NUP133,NUCKS1,PABPC1,CDC42,AP1M1,SCARB1,RA
			B7A,LAMP3,ITCH,XRCC5,XPO1,ULK2,CHMP2B,PIIE,EPS15,OAS1,ICAM1,TFAP4,NUP50,SRPK1,HSP90AB1,SMARCB1,LGALS1,EIF3L,AP1B1,THOC5,APOBEC3H,EP300,CTSG,RAE
			1,HCK,CHMP4B,VAPA,NUP93,PARDA6,CLEC4M,TGFB1,USF2,CBLL1,CAV2,CAV1,MET,EIF3B,AP1S1,SMC3,CCL2,CCL1,OSBP,DDX6,CBL,CD81,NUP98,OAS3,HCFC2,SNX3,TRIM38,
			FN1,STAT1,HDAC1,TRIM62,NR5A2,PROX1,VAMP8,NUP43,TARDBP,TRIM25,WWP1,SLPI,STAU1,TBC1D20,SMARCA4,APOBEC3A,EIF2AK4,CCNT1,ILF3,AP1M2,BST2,CHMP2A,EI
			F3G,C19ORF66,CHMP1A,NUP210,INPP5K,VPS4A,SFTPD,ROCK2,RSAD2,DOCK2,OASL,SRPK2,RNASEL,DHX9,RAC1,CALCOCO2,ETF2B,RAB1A,NUP54,TARBP2,VPS37B,DENR,PM
			L,FURIN,TP53,ARF1,CALM2,TNIP1,GSN,LRSAM1,USP6NL,HMGA2,TIRAP,UBC,BICD1,NMT2,RANBP2,FBXL2,GPR15,TRIM11,LARP1,RRAGA,MX1,SNF8,CTBP1,CALM3,RRP1B,AD
			AR,CPSF4,VPS28,NFIA,IFI16,ALB,ZC3H12A,CHMP4C,UBAP1,B2M,AP1G1,FAM111A,SMAD3,ATG16L2,CTNNB1,LGALS9,PDCC6IP,INSR,TRIM8,BCL2L1,PPIH,ISG20,CXCR6,AZU1,
			ADRBK1,DAG1,PC,PDE12,CTBP2,PACS1,BANF1,EIF3F,CHMP6,ULK1,GRB2,PARP10,RAD23A,F2,PAK2,EXOC7,ANXA2,LCK,AP2A2,TMPRSS2,PARK2,IRF7,SP1,P4HB,IFT1,XRRA,PO
			M121,AP2A1,PCBP2,SRG,ATG7,ELANE,WWP2,CTNND1,CALM1,CD247,BTBD17,TRIM15,TRIM31,TRIM27,KRT6A,TNF,TRIM26,AQP1,APOBEC3D,CHMP1B,ITGB3,CCL5

GO:0032271 regulation of protein polymerization	8.68E-03	8.68E-03 R1,CDC42EP4,HCLS1,FES,MAPT,PFN3,FCHSD1,HSPA1B,TRIM27,DCTN1,ARL2,ARPC4,ARPC1A,TWF2,CYFIP1 BAIAP2L1,CCL26,SCIN,NCKAP1,NAV3,PFN2,NCK2,CLASP1,ADD2,CAPZB,MAP2,HSP90AA1,CTTN,ADD1,ABL1,TRIOBP,HCK,MAPRE1,CORO1A,PYCARD,CLIP3,MET,CCL24,CSF3,PFN1,RANGRF,ACTR3,STMN1,PTK2B,VASP,CCR7,CDC42EP1,ARPC1B,CAMSAP1,CLIP1,HIP1R,ARFIP2,RAC1,BIN1,CDK5RAP2,FCHSD2,NUMA1,TBCD,ARF1,ANKRD53,SLIT2,IQGAP2,RASA1,TTBK1,ARHGAP18,GSN,PAK1,RPS3,CDC42EP2,FER,EP8,WHAMM,PINK1,ARPC5,ARPC2,PRKCD,ARFIP1,ARF6,CDC42EP5,LMOD2,PRKCE,TPPP,CORO1B,BAIAP2,CDK5
GO:0009166 nucleotide catabolic process	8.83E-03	8.83E-03 M2L1,PFKFB3,INSR,BPGM,PDE3A,NUDT4,DCTPP1,PDE2A,PPARA,ENTPD5,ENTPD4,PNP,GPX1,EIF6,NUDT3,NUDT18 MLXIPL,IGF1,NTHL1,PDE4A,PFKP,PKM2,HDAC4,ENO1,ACAT1,UNG,NT5C2,PGM1,ACOT7,HIF1A,SAMHD1,GPI,NUDT1,PRKAG2,GCK,TPI1,ENO2,PDE4D,NT5C1A,PDE1B,PFKFB2,NT5C,ITPA,CBFA2T3,PRKAA1,AMPD3,LDHA,NT5E,NUDT15,ALDOB,PDESA,TDG,NCOR1,PFKL,ARNT,ALDOA,PFKM,NEIL2,HKDC1,HK1,XDH,ADPGK,HK2,PDE9A,HK3,PGAM2,PG
GO:0002224 toll-like receptor signaling pathway	8.97E-03	8.97E-03 R4,TLR9,LYN,TRIL,IKBKE SARM1,NR1H4,BIRC3,NR1H3,TNIP3,CYBA,CASP8,PIK3C3,WDFY1,IRAK3,MAP3K1,MAP3K7IP1,PTPRS,CAV1,UNC93B1,MAPKAPK3,TNFAIP3,SFTPA1,IRF1,NR1D1,IRF3,TICAM1,LBP,SMPDL3B,TRAF3,RFTN1,GPS2,SFTPD,IRAK2,PTPN22,RSAD2,CD36,TANK,DAB2IP,CNPY3,RIPK1,FLOT1,S100A8,REG3G,TNIP1,MFHAS1,TIRAP,UBC,PIK3AP1,ITGB2,S100A1,F CRL3,LRRRC14,MAPKAPK2,CTSS,S100A9,OTUD4,TLR3,ITGAM,CD14,PRKCE,FGA,MYD88,TLR10,TLR1,TLR6,TRAF6,TBK1,IRF7,CD300LF,TLR5,TREML4,S100A14,IRAK4,NFKBIL1,LG
GO:0043491 protein kinase B signaling	8.97E-03	8.97E-03 CK,TNFAIP8L3,CIB1,ZFP36L1,IRS2,MAGI2,AKR1C3,SRG,PDGFA,CPNE1,TNF,MC1R,CCL5,MIR145,MIR29C,MIR34A CALCR,CX3CL1,FYN,IGF1,MYOC,F7,ERBB3,FGFR2,HYAL2,FGFR3,SIRT2,FGF2,FGF4,FGFR1,HSP90AA1,MT3,THPO,ESR1,HSP90AB1,PDGFB,TSC2,TGFB1,PIK3R2,MET,ENG,GATA3,CSF3,CCL2,SLC9A3R1,GAB1,FGF6,GCNT2,SEMA5A,HBEGF,FGF1,CD86,RTN4,PARK7,SFRP5,PIK3CA,RAMP3,IL18,CCR7,HIP1,KDR,GDF15,INPP5K,KL,PDGFRA,KLB,SPRY2,THBS1,MSTN,FGF2,EGF,FGF7,ARRB2,PIK3R5,ERBB2,AKT1,EPHA2,PIK3R1,EGFR,MFHAS1,MTDH,TCF7L2,PTPRJ,ITGB1,IL18,DRD3,ADAM8,FLCN,PIK3AP1,NRG1,KIT,XDH,NRG2,PINK1,GFRA4,TRAT1,ICOS,MST1R,RET,FRS2,CX3CR1,IRS1,PTK2,NRG4,OTUD3,PKHD1,INSR,PIK3CD,PTEN,HPSE,DAG1,PHLDA3,BTC,CD19,GRB2,ERBB4,PTPN11,NRXN1,HCLS1,RNF41,L

REAC:R-HSA- GPVI-mediated activation cascade	9.32E-03	FYN,LCP2,RHOA,PRKCZ,CDC42,GP6,PIK3R2,PTPN6,PIK3R3,PIK3CA,RAC2,VAV3,RAC1,PDPK1,PIK3R5,PIK3R1,FCER1G,VAV2,SYK,RHOG,PTPN11,LCK,PLCG2,C6ORF25,LAT,LYN,PIK3R6
REAC:R-HSA- Integrin alphaIIb beta3 signaling	9.32E-03	9.32E-03 ITGA2B,BCAR1,RASGRP2,APBB1IP,RAPGEF3,RAPGEF4,CSK,VWF,FN1,RAP1B,TLN1,PDPK1,AKT1,SHC1,SYK,CRK,PTK2,FGA,RASGRP1,GRB2,PTPN1,SRC,ITGB3
REAC:R-HSA- Integrin signaling	9.32E-03	9.32E-03 ITGA2B,BCAR1,RASGRP2,APBB1IP,RAPGEF3,RAPGEF4,CSK,VWF,FN1,RAP1B,TLN1,PDPK1,AKT1,SHC1,SYK,CRK,PTK2,FGA,RASGRP1,GRB2,PTPN1,SRC,ITGB3
GO:0009649 entrainment of circadian clock	9.39E-03	9.39E-03 ARNTL2,USP2,GNA11,CRTC1,CRY2,BHLHE40,PML,TP53,SIK1,GNAQ,PPP1CA,RBM4B,RBM4,PER1,MTA1,PPP1CC,PPP1CB

GO:0006906 vesicle fusion	9.43E-03	<p>9.43E-03 5,STXBP6,TBC1D10B,TSNARE1,SYT12,TBC1D10C,SAMD9L,CALR,ANXA2,ANKFY1,TBC1D9B,UVRAG,RUNDC1,SYT15,TAP2,TBC1D8,SAMD9,SYT3,VPS16,TAPBP,SEC22B</p> <p>VPS41,SYT7,VAMP3,TBC1D22A,TBC1D22B,TBC1D1,EVI5,SYT1,RAB7A,STX7,SNAP23,SEC22C,TBC1D2,STX1B,SNAP29,TBC1D10A,SGSM3,VTI1B,VPS18,AKT2,CAV2,STX1A,TBC1D13,TBC1D12,GOSR1,RAB34,TBC1D9,STX2,STX12,VAMP8,TBC1D5,ZFYVE20,TBC1D14,VPS4A,SNAP25,SYT11,STX11,STX6,TGFBRAP1,TBC1D4,STXBP1,STX17,SYTL2,VAMP1,GRTP1,SYT16,SGSM2,EVI5L,SYTL1,SNAP47,SYT2,NKD2,USP6NL,SYT8,DOC2A,VTI1A,RABGAP1L,ADPRHL1,VPS11,STX5,SYTL3,VPS39,STX3,SGSM1,TBC1D2B,TBC1D16,TAP1,VAMP</p>
GO:0009615 response to virus	9.43E-03	<p>9.43E-03 ,HYAL3,PCBP2,ATG7,TRAF3IP1,8TBD17,MICB,TRIM15,TNF,APOBEC3D,EEF1G,CCL5</p> <p>FGR,MAP3K14,RNF216,ZMYND11,BIRC3,EIF2AK2,PUM2,TRAF3IP2,HYAL2,ABCC9,UFD1L,TBX21,ENO1,ITCH,OAS1,IRAK3,IL12RB1,APOBEC3H,SAMHD1,RNF125,RIOK3,CCL22,PYCARD,CCDC130,HNRNPUL1,CDK6,DFNA5,HSPB1,AP1S1,PSMA2,GATA3,ACTA2,GBF1,DHX58,IL23A,OAS3,OAS2,MAPK14,HYAL1,IFIH1,STAT1,ODC1,CD207,IVNS1ABP,LGALS8,STMN1,TNFAIP3,NPC2,IFIT3,IFIT2,CLU,NT5C3,BATF3,IRF1,IRF3,APOBEC3A,EIF2AK4,SEC14L1,BST2,C19ORF66,TRAF3,TRIM22,ANKRD17,SERINC3,DCLK1,TPT1,RSAD2,RPS15A,PUM1,OASL,RNASEL,DHX9,IL6,RTP4,CREBZF,DDX60,IFI44L,TARBP2,NLRC5,LYST,ARF1,HMGA2,MX1,RRP1B,ADAR,IFI16,AIM2,DTX3L,ZC3H12A,MST1R,SERINC5,TLR3,TRIM44,IRF2,IL12A,LGALS9,RNASE2,TRIM56,BCL2,ISG20,AZU1,RELA,BANF1,FOSL1,BNIP3,ELMOD2,APOBEC3B,PRKRA,PRF1,CHRM2,SETD2,NPLOC4,MX2,TBK1,TMEM173,IRF7,IFIT1</p>
GO:0010821 regulation of mitochondrion organization	9.43E-03	<p>9.43E-03 OK,ARIH2,PLD6,PARK2,UBL4B,MAPT,FZD9,HTT,TFDP1,OPA1,INF2,MLLT11,VDAC1,FIS1,SIAH3,GPX1</p> <p>LIG3,PLAUR,DCN,BID,IGF1,BAK1,USP36,CASP8,CSNK2A2,SREBF1,TP63,TP73,GSK3B,DNM1L,TMEM14A,HPS4,BIK,GZMB,MMP9,E2F1,TSC2,PYCARD,BMF,BBC3,GSK3A,VAT1,YWHAE,UBE2D3,FBXW7,PPARGC1A,CAMKK2,GOLPH3,FAM162A,PARK7,RHO,MFN2,CLU,TNFSF10,ZNF205,KDR,RAC2,ATPIF1,HIP1R,YWHAQ,HRK,NMT1,NPEPPS,TP53,AKT1,TP53BP2,BCL2L11,PID1,FLCN,PINK1,ATP13A2,HK2,UBE2J2,VPS11,SQSTM1,OMA1,FZD5,BAP1,MICALL2,YWHAZ,STOX1,PRELID1,YWHAQ,BCL2L1,BCL2,ABLIM3,PARL,BNIP3,B</p>
GO:1901292 nucleoside phosphate catabolic process	9.51E-03	<p>9.51E-03 M2,PGM2L1,PFKFB3,INSR,BPGM,PDE3A,NUDT4,DCTPP1,PDE2A,PPARA,ENTPD5,ENTPD4,ENPP1,PNP,GPX1,EIF6,NUDT3,NUDT18</p> <p>MLXIPL,IGF1,NTHL1,PDE4A,PFKP,PKM2,HDAC4,ENO1,ACAT1,UNG,NT5C2,PGM1,ACOT7,HIF1A,SAMHD1,GPI,NUDT1,PRKAG2,GCK,TPI1,ENO2,PDE4D,NT5C1A,PDE1B,PFKFB2,NT5C,ITPA,CBFA2T3,PRKAA1,AMPD3,LDHA,NT5E,NUDT15,ALDOB,PDE5A,TDG,NCOR1,PFKL,ARNT,ALDOA,PFKM,ENPP3,NEIL2,HKDC1,HK1,XDH,ADPGK,HK2,PDE9A,HK3,PGA</p>



GO:0019722 calcium-mediated signaling	9.58E-03	9.58E-03 SELE,PTBP1,IGF1,ATP1A2,ATP2B4,LMCD1,PRKACA,SRI,EDN1,GSK3B,P2RX5,CHERP,LAT2,FKBP1A,NOS1,SLC9A1,JPH4,TREM2,HOMER2,DMPK,BST1,CAMKK2,CCR6,PDE4D,FHL2,RCAN3,TNFSF11,PLCG1,EDN2,KDR,TRPM4,NFATC1,PRKAA1,NMUR2,EDNRB,PLCE1,PPP3CA,MCTP2,CDH13,PDPK1,TRPM2,CASQ1,CALM2,AGTR1,CAMK2D,ANK2,EGFR,GSTO1,JPH2,CACNA1C,AKAP6,JPH3,TMBIM4,SPPL3,RCAN1,CALM3,TPCN2,VCAM1,TRAT1,DEFB1,JSRP1,GRM5,KSR2,NMUR1,P2RY6,CAMTA1,PRNP,EIF2AK3,AZU1,NUDT4,SELP,CACNG3,SCN4A,CACNA2D2,WWTR1,ATP1A2,KCNQ1,KCNH2,ATP2B4,HIPK2,CACNB1,ABCC9,CAMK2A,ATP2B1,PRKACA,ATP2A3,SRI,CACNA1S,TBX5,NOS1,FXD3,KCNK16,ITPR3,KCNK10,SLC8A3,DMPK,ATP1A3,SCN1B,RANGRF,KAT2B,KCNIP3,SLC8A2,KCNIP2,KCNK15,KCNK17,ATP1B2,ATP1A4,KCNK1,SCN7A,GATA4,FXD6,FXD2,CACNG8,CORIN,CAMK2D,CAMK2G,FXD4,CACNA2D4,CACNA1C,KCNE4,KCNK13,ATP2B2,CACNA1D,CACNA2D3,NPR2,ORAI2,NPPC,HIPK1,ATP1A1,KCNK5,CACNB2,SCN3B,CACNG2,STIM1,KCNJ4,AHCL1,KCNK9,SLN,KCNK3,KCND3,KCNK7,NPPA,KCNE3,SCN4B,KCNE1,KCNIP1,KCNK4,SLC8A1,SCN5A,KCND2,SCN10A,KCNIP4,KCNK18,RYR1,SCN8A,ASPH,RYR2,CALM1,ORAI
REAC:R-HSA- Cardiac conduction	9.64E-03	9.64E-03 1
REAC:R-HSA- Asparagine N-linked glycosylation	9.64E-03	9.64E-03 COPZ2,ST3GAL1,PGM3,ANK1,FUT8,TRAPPC3,ST3GAL6,CTSA,SPTB,ST6GALNAC1,MGAT4A,SEL1L,DYNC1I2,CAPZB,CD59,B4GALT1,ALG6,EDEM2,DYNLL1,GANAB,SEC22C,NANS,KDEL3,PMM1,CNIH,CTSZ,ARFGAP1,ST8SIA5,UGGT2,COG4,DCTN6,TUSC3,LHB,KDEL1,COPE,GBF1,GOSR1,AREG,SAPS3,FOLR1,COPZ1,CMAS,ST8SIA1,MAN1A1,GMDS,SEC24A,COL7A1,LMAN2L,SPTBN1,ST3GAL5,EDEM3,CAPZA1,UAP1,B4GALT2,MAN1C1,RPN2,SLC17A5,B4GALT4,COPA,CHST8,NAGK,TBC1D20,TMEM115,ST3GAL3,CANX,SRD5A3,MGAT3,COPB1,MPDU1,MGAT1,GFPT2,ACTR10,DCTN4,COG6,EDEM1,ARF3,DYNC1L12,COG2,KDEL2,ST6GALNAC4,STX17,DPM2,DERL1,DCTN3,SPTBN5,RAB1A,PRESB,ACTR1A,SEC31A,SEC24B,LMAN1L,PMM2,ASGR1,CSNK1D,ARF1,ST6GAL2,ANK2,SEC16A,ST8SIA6,ARFGAP2,CTAGE5,SEC24D,UBC,NGLY1,ANK3,MGAT5,SAR1B,MIA3,GRIA1,SEC13,ST3GAL2,FUK,B4GALT5,DYNC1I1,SPTBN4,ASGR2,AMDHD2,NEU3,UBXN1,STX5,SYVN1,TGFA,RPN1,RFT1,COG1,PDIA3,B4GALNT2,ENGASE,MVD,TRAPPC9,ARF4,LMAN2,NANP,TME10,FUT3,ALG14,MANEA,GMPPB,SPTBN2,SEC24C,MAN1B1,ST8SIA3,MPI,FUCA1,CALR,MCFD2,SLC35C1,ALG12,NUDT14,ST6GALNAC3,COPB2,CD55,TRAPPC4,DYNC1H1,SERPINA1,MAN1A2,F5,CAPZA2,NEU4,RNF5,NEU1,DCTN1,ANKRD28,ALG3,RNF103,ARFGAP3,DDOST,DYNLL2,SEC22B,COG8
REAC:R-HSA- PI3K/AKT Signaling in Cancer	9.64E-03	9.64E-03 FYN,ERBB3,FGFR2,FGFR3,FGF22,FGF4,FGFR1,GSK3B,ESR1,PDGFB,TSC2,AKT2,PIK3R2,GSK3A,MET,GAB1,FGF6,CDKN1B,HBEGF,FGF1,CD86,PIK3R3,FOXO3,MAPKAP1,PIK3CA,NR4A1,CDKN1A,KL,PDGFRA,KLB,FGF2,EGF,FGF7,PDPK1,ERBB2,AKT1,PIK3R1,EGFR,PIK3AP1,NRG1,KIT,NRG2,FGFR4,TRAT1,ICOS,FRS2,MLST8,IRS1,NRG4,PIK3CD,BTC,RPS6KB2,CD19,GRB2,ERBB4,PTPN11,LCK,NRG3,IRS2,SRC,PDGFA,MTOR,AKT1S1

REAC:R-HSA- Signaling by VEGF	9.64E-03	9.64E-03	<p>FYN,FLT4,CTNNA1,BCAR1,CYBA,CYFIP2,NCKAP1,ELMO2,RHOA,PRKCZ,CDC42,NCK2,PRKACA,HSP90AA1,PXN,ITPR3,NRP1,NCF4,AKT2,PIK3R2,CAV1,HSPB1,SHB,MAPK14,VEGF A,MAPKAPK3,NRP2,MAPKAP1,PTK2B,PIK3CA,PLCG1,KDR,SHC2,KRAS,VAV3,ROCK2,RAC1,ABI1,PDPK1,AKT1,PIK3R1,RASA1,PAK1,DOCK1,PRKCA,WASF2,VAV2,MAPKAPK2,PRK CD,PRKACG,PRKCB,CRK,MLST8,CTNNA1,AHCYL1,PTK2,VEGFB,JUP,HRAS,BAIP2,CDH5,PAK2,MAPK12,SRC,CTNND1,CALM1,MTOR,ITGB3,CYFIP1</p>
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REAC:R-HSA- Signaling by Non-Receptor Tyrosine Kinases	9.64E-03	9.64E-03	<p>BCAR1,ELMO2,ERBB3,RHOA,PXN,HIF1A,PTK6,CCND1,CBL,CDKN1B,KHDRBS2,HBEFG,EPAS1,SFPO,KHDRBS1,CDK2,KRAS,CDK4,GPNMB,RAC1,EGF,PELP1,ERBB2,AKT1,RASA1,E GFR,DOCK1,UBC,NRG1,NRG2,CRK,STAT3,NRG4,HRAS,BTC,STAP2,ERBB4,NRG3,ARAP1,PTPN1</p>
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REAC:R-HSA- Signaling by PTK6	9.64E-03	9.64E-03	<p>BCAR1,ELMO2,ERBB3,RHOA,PXN,HIF1A,PTK6,CCND1,CBL,CDKN1B,KHDRBS2,HBEFG,EPAS1,SFPO,KHDRBS1,CDK2,KRAS,CDK4,GPNMB,RAC1,EGF,PELP1,ERBB2,AKT1,RASA1,E GFR,DOCK1,UBC,NRG1,NRG2,CRK,STAT3,NRG4,HRAS,BTC,STAP2,ERBB4,NRG3,ARAP1,PTPN1</p>
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GO:0045664 regulation of neuron differentiation	9.76E-03	9.76E-03	<p>SARM1,PLXND1,DVL2,CX3CL1,SEMA3G,NEDD4L,NGFR,NTN1,NGEF,RHOA,SYT1,TCF3,MARK2,CRMP1,SCARF1,PLXNA2,FGFR1,MAP2,CBFA2T2,DNM2,RIMS1,CHRNA3,MEF2C, GSK3B,SSH1,CTTN,MT3,ABL1,NRP1,STX1B,CPNE6,PTK6,CDK5RAP1,STK24,NDRG4,PTPRS,MEGF8,MAG,SCN1B,COBL,LIMK1,FREQ,RAPGEF1,DVL1,CPEB3,CDK5RAP3,MMD,RAP GEF2,TRPV4,CUX2,RASAL1,SNX3,PTK7,VEGFA,SEMA5A,ARSB,DPYSL3,DBN1,PLXNA1,RTN4,CCDC88A,MARK1,ARHGFE2,PROX1,PTK2B,TNFRSF8,OBSL1,PACSIN1,CPNE5,RAB17 ,RAP2A,EFNB2,MED1,MACF1,RNF6,STYXL1,CHN1,EIF2AK4,KLK8,UNC13A,OLFM1,CASZ1,DLG4,CAMK1,KIDINS220,DTX1,AVIL,PLXNC1,EDNRB,BIN1,DAB2IP,CDK5RAP2,ZNF365 ,SCARB2,TCF12,SSH2,ARHGDI,CSNK1D,AKT1,SYT2,CPNE9,CNTN4,GOLGA4,SLIT2,NTRK2,PAK1,DLG5,PTPRO,SPOCK1,PTPRD,TNIK,WNT3A,ZFYVE27,GRIP1,TIAM1,NPTN,BRSK 1,CHRN2,DVL3,SHANK1,S100A9,PAQR3,TRIM46,SERPINI1,PRKCI,PLXNB1,CDK5,ARF6,RET,BAG5,NDEL1,GPRC5B,ULK4,EFNA1,PTPN9,SDC2,NLGN1,ROBO1,YWHAG,KND1,P TEN,ADCY6,BRSK2,FZD4,FBXW8,RIMS2,CDK5R1,GAK,CALR,FES,PCP4,CAMK1D,DENND5A,CIB1,NTF3,RTN4RL1,MAPT,RTN4RL2,MAGI2,SEMA4D,OSTN,VWC2,PLXNB2,HDAC2, TCF4,HESS1,LPAR1,NTRK1,ARC,DLL1,SMURF1,INPP5F,SYT3,CSNK1E,CPNE1,PLXNA4,TWF2,LYN,CUX1,SRGIN1</p>
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<p>GO:0016053 organic acid biosynthetic process</p>	<p>9.82E-03</p>	<p>9.82E-03 1,ELOVL2,HSD17B8,LTC4S,FADS3,MIF,EIF6,ACACA  ACSM3,OSBPL7,MLXIPL,DCN,BRCA1,NR1H4,ALOX5,IGF1,CD74,CPS1,NR1H3,VCAN,ATP2B4,TBXAS1,ALDH18A1,OAT,ELOVL1,PFKP,PKM2,HDAC4,ACADVL,PTGS2,ENO1,EDN1,PGM1,PLOD1,SLC27A5,CAD,MGST2,FOLH1,PHGDH,ACOT7,HSD3B7,TECR,GGT5,GGT1,CYP2D6,XBP1,MCAT,PDGFB,HIF1A,MTHFD1,HAS3,GPI,TGFB1,HAS1,BCAT2,PRKAG2,GCK,ERLIN1,ASPA,ALOX12,OSBP,APOA5,TPI1,ENO2,DSE,UST,AGXT2,HYAL1,CSPG5,ACADL,SCP2,PARK7,SLC35D1,PROX1,OSBPL9,APOA1,ELOVL3,GOT1,MTHFD1L,EPHX2,LIAS,LP,GAT1,PFKFB2,MTRR,GOT2,IL1B,NR1D1,ASL,EDN2,CDO1,CBFA2T3,GAMT,NCAN,OSBPL2,ASS1,ACLY,PRKAB2,PER2,PRKAA1,BCAN,SERINC3,LDHA,PSAT1,GLUL,CYP27A1,SUCLA2,CHST12,ALDOB,FPGS,BAAT,EGF,SLC27A2,NCOR1,CLTC,OSBPL1A,PFKL,ARNT,DEGS1,GADL1,SCD5,ENOPH1,CBR4,ERLIN2,PTGES,ALDOA,PFKM,PLOD2,ACMSD,HKDC1,HK1,ADPGK,ADIPOR1,HK2,CBS,FGFR4,HK3,HAAO,STARD4,SERINC5,PGAM2,PGM2L1,LIPC,GPT2,ASPG,RIMKLB,GPX4,GPT,GGT6,CYP7A1,ACOX2,GSTM4,GOT1L1,UGP2,NANP,ELOVL6,PFKFB3,PLA2G1B,INSR,BPGM,CYP7B1,LPL,ACSF3,ALOXE3,ALOX12B,SEPHS2,CYP8B1,ADIPOQ,ADI1,PYCR1,ACSM5,ACSM2A,ALDH1A3,NAT8L,PPARA,ENTPD5,AKR1C3,AP2A</p>
<p>GO:0046394 carboxylic acid biosynthetic process</p>	<p>9.82E-03</p>	<p>9.82E-03 1,ELOVL2,HSD17B8,LTC4S,FADS3,MIF,EIF6,ACACA  ACSM3,OSBPL7,MLXIPL,DCN,BRCA1,NR1H4,ALOX5,IGF1,CD74,CPS1,NR1H3,VCAN,ATP2B4,TBXAS1,ALDH18A1,OAT,ELOVL1,PFKP,PKM2,HDAC4,ACADVL,PTGS2,ENO1,EDN1,PGM1,PLOD1,SLC27A5,CAD,MGST2,FOLH1,PHGDH,ACOT7,HSD3B7,TECR,GGT5,GGT1,CYP2D6,XBP1,MCAT,PDGFB,HIF1A,MTHFD1,HAS3,GPI,TGFB1,HAS1,BCAT2,PRKAG2,GCK,ERLIN1,ASPA,ALOX12,OSBP,APOA5,TPI1,ENO2,DSE,UST,AGXT2,HYAL1,CSPG5,ACADL,SCP2,PARK7,SLC35D1,PROX1,OSBPL9,APOA1,ELOVL3,GOT1,MTHFD1L,EPHX2,LIAS,LP,GAT1,PFKFB2,MTRR,GOT2,IL1B,NR1D1,ASL,EDN2,CDO1,CBFA2T3,GAMT,NCAN,OSBPL2,ASS1,ACLY,PRKAB2,PER2,PRKAA1,BCAN,SERINC3,LDHA,PSAT1,GLUL,CYP27A1,SUCLA2,CHST12,ALDOB,FPGS,BAAT,EGF,SLC27A2,NCOR1,CLTC,OSBPL1A,PFKL,ARNT,DEGS1,GADL1,SCD5,ENOPH1,CBR4,ERLIN2,PTGES,ALDOA,PFKM,PLOD2,ACMSD,HKDC1,HK1,ADPGK,ADIPOR1,HK2,CBS,FGFR4,HK3,HAAO,STARD4,SERINC5,PGAM2,PGM2L1,LIPC,GPT2,ASPG,RIMKLB,GPX4,GPT,GGT6,CYP7A1,ACOX2,GSTM4,GOT1L1,UGP2,NANP,ELOVL6,PFKFB3,PLA2G1B,INSR,BPGM,CYP7B1,LPL,ACSF3,ALOXE3,ALOX12B,SEPHS2,CYP8B1,ADIPOQ,ADI1,PYCR1,ACSM5,ACSM2A,ALDH1A3,NAT8L,PPARA,ENTPD5,AKR1C3,AP2A</p>
<p>GO:0042110 T cell activation</p>	<p>9.84E-03</p>	<p>9.84E-03 9.84E-03 FP36L1,TNFRSF4,TNFRSF18,NHEJ1,PDCC1,CD55,SRC,IL27,SPN,DPP4,PDCC1LG2,CARD11,PNP,AGER,AIF1,MICB,HLA-G,MIR30B,LAT,HLA-DPB1,HLA-DMB,DDOST,LYN,CCL5  ITGAL,CD4,FYN,CD6,IGF1,SLC11A1,CD74,BTN3A1,PRDM1,CASP8,AP3D1,PRKCQ,PRKCZ,RORA,CDC42,NCK2,TFRC,TBX21,GLI2,PAG1,FKBP1A,SIRPG,ICAM1,IL12RB1,ABL1,XBP1,GRAP2,NFATC2,SMAD7,PYCARD,CSK,IL7,CLPTM1,RASAL3,JAK3,CAV1,LFNG,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,KAT2A,DUSP3,PRKAR1A,IL23A,PTPN6,CCR6,PRLR,IL4,CD86,FOX1,ZAP70,LEPR,ZP4,MYB,CD274,TNFSF11,MAPK8IP1,CCR2,PIK3CA,LAX1,LY9,SDC4,BTN2A2,GPR18,EFNB2,IRF1,IL1B,TNFSF14,CCR7,ZBTB1,TWSG1,EIF2AK4,DLL4,RARA,FLOT2,SFTPD,PTPN22,VTCN1,RSAD2,IL6ST,IL2RA,HAVCR2,LCP1,GPNMB,RAC1,IL6,IRF4,PPP3CA,PDPK1,AKT1,RORC,DUSP10,ZC3H8,NFKBIZ,PIK3R1,TNFRSF21,GSN,PAK1,RP53,IL18,DLG5,ADAM8,ADAM17,FAM49B,CD8A,SH3RF1,CXADR,BATF,KIT,FCER1G,RUNX1,ICOSLG,ZBTB7B,VCAM1,NLRP3,SLAMF6,TNFAIP8L2,IHH,TGFBR2,ICOS,ZC3H12A,SYK,NOD2,NFKBID,NLR3,CCDC88B,RHOH,STAT3,IL12A,LGALS9,PRELID1,SOC5,CHD7,PIK3CD,PRNP,MALT1,GLMN,RAG2,PTPN2,SART1,ZNF683,GRB2,PTPN11,ZFPM1,PAK2,LCK,JAG2,Z</p>
<p>GO:0007596 blood coagulation</p>	<p>9.94E-03</p>	<p>9.94E-03 S6,P2RX2,PRKAR1B,BLOC1S3,PRTN3,HDAC2,SRP,PDGFA,SERPINB2,PLCG2,MAFK,F5,CAPZ2,C6ORF25,CLIC1,HBB,LYN,ITGB3,PIK3R6  TFPI,PRKAR2B,CD9,FYN,PLAUR,EHD2,PRKCH,LCP2,F7,GNA15,PRKCQ,TRPC7,CDC42,PRKCA,TXK,DGKD,CAPZB,FAP,GNB1,EDN1,P2RX5,CD59,GNAS,GP6,GNA11,DOCK9,RCOR1,PABPC4,APOH,CBX5,ITPR3,PDGFB,MYH9,ITPK1,HNF4A,MYL12A,MAPK3,PLAT,CAV1,HSPB1,SERPINE1,GATA3,P2RX1,AKAP10,COL1A1,AOX12,PRKAR1A,EHD1,VWF,SH2B3,PTPN6,PRKAR2A,PROC,HDAC1,CAPZA1,MFN2,SERPINC1,GNA13,AKAP1,PIK3CA,NFE2,IRF1,PROZ,PRKCG,F2RL3,ADORA2A,DOCK6,GATA5,F12,ZFYVE20,H3F3B,VA3,PDGFRA,CD36,PHF21A,MICAL1,TEC,SERPINE2,RAC1,IL6,DGKB,GATA4,STXB1,TLN1,ARRB1,PRCP,THBS1,ENTPD1,TRPC3,PDPK1,ARRB2,PIK3R5,DGKQ,PDGFC,PIK3R1,GNA12,DGKZ,FERMT3,DOCK1,PRKCA,GNA14,GNAQ,DGKI,PAFAH2,FCER1G,CSR1,VAV2,ADAMTS13,SH2B2,PRKCD,METAP1,CLKB1,COL1A2,YWHAZ,SYK,PRKACG,PRKCB,SERPINF2,KRT1,IRF2,COL3A1,GP9,ZFPM2,PDGFD,PRKCE,FGA,PIK3CD,CYP4F11,JMJD1C,FIBP,HPSE,C1QTNF1,CD34,SELP,A2M,ANO6,GP5,PTPN11,ZFPM1,F2,LCK,ACTG1,MAFF,GP1BA,PRKG1,TMPRS</p>

GO:0019932 second-messenger-mediated signaling	9.95E-03	<p>9.95E-03 CALCR,NOS2,SELE,PTBP1,IGF1,ATP1A2,ATP2B4,INPP5A,LMCD1,PRKACA,SRI,DGKD,GNB1,EDN1,RAPGEF3,GSK3B,P2RX5,CHERP,LAT2,GNAS,FKBP1A,NOS1,SLC9A1,JPH4,TREM2,MGRN1,HOMER2,DMPK,APLP1,PPP2R1A,GSK3A,BST1,RAPGEF2,CAMKK2,CCR6,PDE4D,PPP2CA,FHL2,RCAN3,UBE2B,UNA13,CRHR1,TNFSF11,ADRA1A,ADCY7,RAMP3,MC3R,PLCG1,EDN3,EDN2,KDR,ADORA2A,TRPM4,NFATC1,RAMP1,PRKAA1,NMUR2,APLNR,CD36,MRAP2,AGT,EDNRB,THBS1,ADCY3,PLCE1,PPP3CA,MCTP2,CDH13,PDFK1,KSR1,GNAL,TRPM2,GPR161,CASQ1,CALM2,AGTR1,DGKQ,CAMK2D,ANK2,EGFR,GSTO1,JPH2,CACNA1C,AKAP6,DRD3,PDE3B,DDAH1,JPH3,PRKCA,GPR26,GPR78,ADCY8,TMBIM4,UNA1,Q,GPR61,SPPL3,RCAN1,PTGIR,CALM3,PTH1R,ADCY9,TPCN2,VCAM1,TRAT1,NDUFS4,ADCY1,DEFB1,ABCA1,TSHR,JSRP1,GRM5,CXCL10,ADRB2,AKAP13,KSR2,NMUR1,P2RY6,CAMTA1,PRNP,ADRA1D,EIF2AK3,AZU1,PDE3A,ADCY5,NUDT4,SELP,ADCY6,CMKLR1,MCTP1,MC5R,RIMS2,C10ORF71,UCN3,GPR3,MAFA,SLC8A1,CIB1,MC2R,PDE2A,MAPT,P2RX2,HRH1,HTT,PLCG2,RYR2,CALM1,MIR124-3,GSTM2,LAT,DDAH2,FIS1,PPP3R1,TNF,MC1R,MIR1-2</p>
GO:0009887 animal organ morphogenesis	1.00E-02	<p>1.00E-02 DVL2,SOX8,AP2B1,PROM1,CELSR3,ETV7,FUZ,DCN,AP2S1,ELN,MYLK,TLE2,CTNNA2,FGFR2,RHOA,FGFR3,SDK2,TGFBR3,LRP6,DGCR2,CDC42,GLI2,SEMA3C,CELSR1,FGFR1,MEF2C,LRP2,WNT11,FKBP1A,KDM2B,TBX5,ITGA6,MYH7,SEMA6A,TGFB2,ABLIM1,NRP1,XBP1,DAAM1,MTHFD1,MYLK2,SMAD7,PAR6A,NDRG4,AXIN1,CTSH,RP1,IL7,AES,APLP1,TGFB1,MEGF8,GSK3A,CAV1,LFNG,TSPAN12,PAX4,SERPINE1,SFRP4,GLI3,ENG,LHX3,DVL1,GATA3,BMPR1A,ACTA2,PITX3,PFN1,CCL2,COL1A1,SMURF2,FAM20A,SLC9A3R1,FOXN1,ODAM,CPE,FBXW7,FOLR1,TRPV4,MYL2,MGP,STX2,C12ORF57,TULP1,RAB23,VEGFA,CLIC5,COL4A3BP,FGF1,NPH3,TNNC1,STAT1,ERRF1,HDAC1,KCNQ4,RPS6KA1,PROX1,NRP2,TCF21,PROX2,TGFB3,MTHFD1L,WNT1,BBS2,EFNB2,PAX8,WDR60,LIF,SMO,DLL4,OLFM1,COL5A1,GATA5,ITGB4,EPHB2,MICAL2,MYBPC3,PDGFRA,HEY2,AGT,WNT10A,SETDB2,RAC1,GATA4,MYO7A,MMPL13,SMAD6,STRA6,FGF2,BBS7,BMPR1B,EGF,FBN2,PRICKLE1,FOXN4,SLC24A4,FGF7,TLE3,TPM1,ITGAX,NKD1,CLTC,ARRB2,CCDC40,EPHA2,ARHGEF19,CELSR2,TUFT1,WNT9A,SLIT2,KLHL3,RSP03,SDK1,NFIB,CRB2,NOTCH1,FLI1,DAB2,WNT3A,WNT7A,TIAM1,NRG1,MEGF11,SKI,STC1,MYL3,DVL3,AQP5,LRP5,VANGL2,ACTG2,BBS5,FZD5,NPPC,ELF3,IHH,TGFB2,PRICKLE2,RYK,SPRY1,COL1A2,DLC1,FZD6,FREM1,SYK,ZNF22,FBN1,DCHS1,RBPM52,STIM1,ANKRD11,CTNNB1,RBPJ,STAT3,AXIN2,SFTPB,EFNA1,PTK2,ROBO1,ZFPM2,S1PR1,INSR,CHD7,PTEN,RAB33B,VANGL1,PTPRM,TCAP,CD34,HRAS,FZD4,BASPI1,LY6H,DSCAML1,CTNNBIP1,ZFPM1,SCRIB,COL18A1,AP2A2,SCN5A,CLDN5,ALDH1A3,SLIT3,WWOX,FOXO3,SLIT1,MAGI2,IFT140,WNT7B,TDRD7,RYR1,EPHB4,NACA,AJAP1,HDAC2,NF1,AP2A1,PDGFA,COL13A1,TOPORS,MYH6,RYR2,DLL1,SMURF1,RORB,SOX18,PHACTR4,BMPR2,SLC44A4,IFITM5,TNF,AQP1,LEFTY1,GJA5,HNF1B,MIR145,MIR195,MIR1-2</p>
GO:0043406 positive regulation of MAP kinase activity	1.01E-02	<p>1.01E-02 DVL2,SPAG9,MAP4K5,IGF1,MAP2K3,EIF2AK2,MAP3K13,MAP2K7,FGFR1,EDN1,MEF2C,MAP3K4,ERP29,GADD45B,CRKL,PDGFB,MAP3K7IP1,MAPK3,AXIN1,TGFB1,NOD1,RAPGEF1,MADD,CD81,TPD52L1,SASH1,MAPK14,VEGFA,GHR,FGF1,MAPKAPK3,GADD45A,TNFSF11,PKN1,EDN3,GRM4,IL1B,TRAF2,GDF15,TRAF7,PRKAA1,IRAK2,KIDINS220,TAOK3,DBNL,DAB2IP,RIPK1,THBS1,DUSP5,PLCE1,FGF2,EGF,MAPK8IP3,NTRK3,PIK3R5,TNFRSF11A,ERBB2,PROK1,PDGFC,EGFR,PAK1,RPS3,TAOK2,UBC,ADAM8,TNIK,GHRL,NRG1,KIT,TAOK1,SHC1,DVL3,PEA15,MAPKAPK2,DUSP19,TGFA,MST1R,DUSP7,RET,FRS2,CRK,NOD2,MAP4K2,ADAM9,MAP2K1,ROBO1,CDK1,ADORA2B,PLA2G1B,PDGFD,INSR,RASGRP1</p>
GO:0061061 muscle structure development	1.03E-02	<p>1.03E-02 CFLAR,SOX8,IFRD1,SPAG9,PTBP1,IGF1,EHD2,MYOM2,CTNNA1,HDAC9,GPC1,CDON,MYLK,CTNNA2,FGFR2,HDAC4,MEF2A,SIRT2,RORA,TGFB3,CDC42,WDR1,TCF3,SPEG,NFATC3,SRI,ACTN2,NEBL,EDN1,TP73,MEF2C,LRP2,FKBP1A,TBX5,NOS1,MYH7,CAPN3,MYL6,TGFB2,ABL1,DDX17,XBP1,PDGFB,NFATC2,MYLK2,MYOM1,SMAD7,AXIN1,DMPK,OLFML2,TGFB1,MYH14,GSK3A,CAV2,CAV1,AEBP1,ENG,BMPR1A,DDX5,HDAC5,SUPT6H,EHD1,GLI1,MYL2,MAPK14,SOD2,RBM24,BVES,VEGFA,HBEGF,TNNC1,SMYD1,SDC1,EPAS1,MEF2D,PROX1,TCF21,PROX2,OBSL1,EFNB2,TMOD2,DLL4,CDH15,DNMT1,SYNE1,NFATC1,FLOT2,ARNTL,CAMK1,MYBPC3,PDGFRA,ITGA7,HEY2,EDNRB,BIN1,FAM129B,TMOD1,FLOT1,ITGA11,STRA6,MSTN,CHRNA1,TMOD3,FGF2,PRICKLE1,RB1,TCF12,BNIP2,TPM1,MYLK3,NKD1,MYOCD,SIK1,MYOM3,CD53,CASQ1,KCNH1,BOC,ANK2,IGFBP3,NOTCH1,TCF7L2,ADAM12,MXK,AKAP6,MBNL1,UTRN,WNT3A,OBSCN,SORBS2,CXADR,EPHB1,NRG1,MMP14,KIT,SKI,MRAS,MYL3,MAML1,LEMD2,SGCB,TMOD4,COL6A3,FBXO40,SFMBT1,RANBP3L,MYOZ3,HIF1AN,FRS2,RBPM52,CTNNB1,RBPJ,SEMA4C,VAMP5,CXCL10,ZFPM2,CHRN1,CDH2,AKAP13,LMOD2,S1PR1,SOSTDC1,KRT19,USP19,HINFP,CHD2,RBM4,TCAP,GLMN,EID2B,BASPI1,MYOZ1,PLEKHM3,ERBB4,IGSF22,ZFPM1,ZBTB42,MYLFP,BHLHA15,SLC8A1,FHL3,SMTN,SGCZ,ZFP36L1,MAPK12,MYBPC1,RYR1,NACA,CACNA1H</p>

REAC:R-HSA- Signaling by EGFR	1.05E-02	1.05E-02	EPN1,CDC42,PAG1,EPS15,PXN,ARHGEF7,CSK,GAB1,CBL,STAM2,PIK3CA,PLCG1,EPS15L1,KRAS,SPRY2,STAM,ADAM10,EGF,SH3GL1,LRIG1,PIK3R1,EGFR,ADAM12,UBC,ADAM17,PTPRK,SHC1,SPRY1,HRAS,GRB2,PTPN11,HGS,Src
GO:0048008 platelet-derived growth factor receptor signa	1.05E-02	1.05E-02	PIK3C2A,BCAR1,F7,ABL1,NRP1,PDGFB,NDRG4,SLC9A3R1,VEGFA,LRP1,HIP1,HIP1R,PDGFRA,PDGFC,PTPRJ,FER,PTGIR,SGS14,PDGFD,PTPN2,ADIPOQ,HGS,PTPN1,Src,PDGFA
REAC:R-HSA- Downstream signal transduction	1.06E-02	1.06E-02	BCAR1,NCK2,CRKL,PDGFB,PIK3R2,RAPGEF1,STAT1,PIK3CA,PLCG1,STAT5A,KRAS,PDGFRA,GRB7,PIK3R1,RASA1,STAT6,CRK,STAT3,STAT5B,HRAS,GRB2,PTPN11,Src,PDGFA
GO:0048588 developmental cell growth	1.07E-02	1.07E-02	1,MIR195,MIR24-2 SEMA3F,SEMA3G,IGF1,NEDD4L,NTN1,SYT1,PLXNA2,MAP2,EDN1,DNM2,RIMS1,HSP90AA1,GSK3B,ULK2,CTTN,MT3,HSP90AB1,ABL1,NRP1,CPNE6,PTPRS,MEGF8,MAG,GSK3A,COBL,LIMK1,RASAL1,VEGFA,SEMA5A,PLXNA1,RTN4,NRP2,CPNE5,FLRT3,MACF1,RNF6,EIF2AK4,UNC13A,OLFM1,MAP1B,IQGAP1,SYT2,CPNE9,GOLGA4,TMEM108,SLIT2,AKA P6,SORBS2,ZFYVE27,AUTS2,PRMT2,TRIM46,PLXNB1,CDK5,CTNNB1,ALCAM,RIMS2,ULK1,ARIH2,SLIT3,MAPT,SLIT1,SEMA4D,OSTN,SMURF1,SYT3,CPNE1,PLXNA4,TWf2,CYFIP

REAC:R-HSA- Signaling by PDGF	1.09E-02	1.09E-02	COL9A2,BCAR1,NCK2,COL4A4,CRKL,PDGFB,PLAT,PIK3R2,RAPGEF1,THBS4,STAT1,PIK3CA,PLCG1,STAT5A,KRAS,PDGFRA,COL4A2,THBS1,FURIN,GRB7,COL6A1,COL6A2,PDGFC,PIK3R1,RASA1,COL6A3,STAT6,CRK,STAT3,COL4A3,PDGFD,STAT5B,HRAS,GRB2,PTPN11,THBS2,COL4A1,SRC,PDGFA
REAC:R-HSA- PI3K events in ERBB2 signaling	1.09E-02	1.09E-02	ERBB3,GAB1,HBEGF,PIK3CA,EGF,ERBB2,PIK3R1,EGFR,NRG1,NRG2,NRG4,BTC,GRB2,ERBB4,NRG3
REAC:R-HSA- Constitutive Signaling by Aberrant PI3K in Car	1.09E-02	1.09E-02	FYN,ERBB3,FGFR2,FGFR3,FGF22,FGF4,FGFR1,ESR1,PDGFB,PIK3R2,MET,GAB1,FGF6,HBEGF,FGF1,CD86,PIK3R3,PIK3CA,KL,PDGFRA,KLB,FGF2,EGF,FGF7,ERBB2,PIK3R1,EGFR,PIK3R1,NRG1,KIT,NRG2,FGFR4,TRAT1,ICOS,FRS2,IRS1,NRG4,PIK3CD,BTC,CD19,GRB2,ERBB4,PTPN11,LCK,NRG3,IRS2,SRC,PDGFA
GO:0007254 JNK cascade	1.10E-02	1.10E-02	DVL2,SPAG9,MAPK8IP2,MAP4K5,ZMYND11,FLT4,HIPK2,MAP4K4,MAP3K13,TRAF4,MAP2K7,EDN1,ITCH,TP73,GSTP1,MECOM,MAP3K4,SH2D3C,GADD45B,CRKL,MAP3K7IP1,RASSF2,AXIN1,PYCARD,NOD1,DUSP3,MAPK10,HIPK3,LTBR,TPD52L1,SASH1,DUSP22,GADD45A,SLAMF1,PTK2B,COP5,MAPK8IP1,PKN1,UNC5CL,RAP2A,IL1B,CCR7,TRAF2,GP S2,MEN1,IRAK2,PTPN22,TAOK3,ANKRD6,EDAR,DBNL,DAB2IP,RIPK1,MAPK8IP3,IGF1R,NCOR1,TNFRSF11A,DUSP10,EGFR,MFHAS1,PAK1,RPS3,TAOK2,TIRAP,UBC,TNIK,SH3RF1,EPHB1,PPEF2,PINK1,TAOK1,DVL3,DUSP19,NOD2,SERPINF2,ULK4,MAP4K2,GPS1,ADORA2B,HDAC3,RASGRP1,SH3RF3,MAP3K11,TRIB1,ZNF622,TLR6,HRAS,TRAF6,UBE2N,PER 1,PARK2,AIDA,MAP3K5,DAXX,AGER,TNF,TLR9,UBE2V1

GO:0045732 positive regulation of protein catabolic process:	1.10E-02	1.10E-02 ANKIB1, OSBP1, NUB1, RNF14, TNFRSF1B, RNF19A, HERPUD1, ATXN3, SIRT2, RAB7A, KEAP1, HSP90AA1, LRP2, GSK3B, EDEM2, EZR, SMAD7, RNF125, AXIN1, STUB1, OAZ1, SGTA, GSK3A, CAV1, DVL1, FBXW7, SH3D19, CD81, CDKN1B, GPLD1, CSNK1A1, SUMO1, NFE2L2, TNFAIP3, IDE, CLU, LRP1, C4BPA, RNF114, IL1B, CBFA2T3, SNX9, ATP1F1, HSPBP1, EDEM1, RNF138, APC, UBQLN1, DAB2IP, RNF144B, SORL1, BBS7, PRICKLE1, FURIN, NKD1, CSNK1D, OAZ3, DTL, NKD2, PLK2, ADAM8, RNF144A, DAB2, LONRF1, RNF166, SNF8, VPS11, VPS28, STX5, PYHIN1, TIPARP, PACSIN3, ARIH1, RILP, ADAM9, PCSK9, PTX2, LONRF2, SOCS5, PTEN, TRIB1, SNX33, MAGEF1, ARIH2, RAD23A, OAZ2, RNF41, PTTG1IP, FAF1, PARK2, NDUFA13, ATG7, SMURF1, C
GO:0032103 positive regulation of response to external sti	1.13E-02	1.13E-02 CX3CL1, CCL26, CD6, CD74, DAPK2, CYBA, PUM2, F7, CREB3L3, HYAL2, PTGS2, SCARF1, FGFR1, MGST2, APOH, PGC, NRP1, OSM, PPM1F, PDGFB, LGMN, NFKBIA, PRKD2, TGFB1, RPS19, MEGF8, MET, HSPB1, SERPINE1, CCL1, DHX58, IL23A, CYP27B1, SASH1, SMOC2, VEGFALY86, SEMA5A, THBS4, SNX4, PARK7, VAMP8, TNFSF11, PTK2B, CCR2, EDN3, IL1B, FFAR2, CCR7, EDN2, TICAM1, KDR, RAC2, LBP, F12, ANKRD17, IL6ST, PUM1, ETS1, AGT, DHX9, RAC1, IL6, DDX60, THBS1, ADAM10, FGF2, NTRK3, CDH13, TNFRSF11A, NLRP12, S100A8, AGTR1, SLIT2, TNIP1, TTBK1, LRSAM1, TIRAP, IL18, ADAM8, ADAM17, PRKCA, CXCL13, GHRL, ITGB2, IL6R, NAPEPLD, S100A9, CCR1, IL15, TLR3, KLKB1, STX3, GPRC5B, NOD2, SERPINF2, IL12A, LGALS9, KLK7, CXCL10, ITGAM, SCG2, AZU1, IL17D, MYD88, VEGFB, TLR6, CMKLR1, LPL, ANO6, CALR, F2, CAMK1D, FAM19A3, NTF3, FFAR3, PDE2A, S100A14, CXCL17, AGER, AIF1, TRIM15, ZNF580, TNF
GO:0051899 membrane depolarization	1.14E-02	1.14E-02 SCN4A, DCN, ATP1A2, MYOC, BEST2, NEDD4L, KCNH2, CACNA1S, ABL1, HCN2, CACNA1I, CHRNA4, SMAD7, NALCN, SCN1B, CAV1, RANGRF, IFI6, KDR, TRPM4, ATP1F1, SCN7A, HCN4, CACNA1A, CAMK2D, ANK2, CACNA1B, CACNA1C, ANK3, GPD1L, CACNA1D, CHRNB2, TPCN2, CACNB2, SCN3B, CACNG2, BCL2, CATSPER1, SCN4B, SLC8A1, SCN5A, SCN10A, TPCN1, FZD9, CA
GO:0030100 regulation of endocytosis	1.14E-02	1.14E-02 FGR, SELE, SYT7, SLC11A1, NR1H3, AP2S1, NEDD4L, CYBA, TNK2, ABCA7, RAB27A, SCARB1, PICALM, RAB21, MTMR2, ABL1, STX1B, PACSIN2, HCK, NECAB2, TSC2, PYCARD, CLIP3, CBLL1, CAV1, WASL, TFR2, SERPINE1, SFRP4, CCL2, APOA5, CBL, TULP1, SNX3, VEGFA, SNX17, AAK1, TSPAN1, CLU, LRP1, C4BPA, PACSIN1, RAB17, IL1B, C3, HIP1, CALY, HIP1R, TBC1D5, DLG4, SFTPD, DOCK2, CD63, RAC1, TOR1A, FLOT1, ARRB1, EGF, STON2, CDH13, ARRB2, ARF1, AHSG, LRSAM1, BICD1, DAB2, WNT3A, PROM2, FCER1G, VPS28, LRPAP1, SYK, ARF6, PACSIN3, C2, B2M, PCSK9, LMAN2, NLGN1, AZU1, SNX33, MCTP1, RUFY1, ANO6, CALR, ADIPOQ, ANXA2, CAMK1D, NTF3, ANKFY1, CD300LF, MAGI2, PTPN1, PRTN3, MYO18A, SRC, DLL1, SCAMP5, RUFY2, A

AP2B1,RALA,FYN,AP2S1,RHOA,MEF2A,RPS6KA2,ADCYAP1R1,DNM2,MEF2C,DOCK3,CRKL,DNAL4,RPS6KA5,MAPK3,VRK3,PPP2R1A,PIK3R2,DNM1,RAPGEF1,DUSP3,GAB1,MA  
PK14,PPP2CA,MAPKAPK3,RPS6KA1,PIK3CA,PLCG1,ADORA2A,SHC2,KRAS,KIDINS220,RAC1,PPP2R1B,PCSK6,FURIN,CLTC,RIT1,RALB,PIK3R1,NTRK2,SHC3,TIAM1,RALGDS,SHC1,  
1.14E-02 1.14E-02 MAPKAPK2,DUSP7,CDK5,FRS2,CRK,STAT3,IRS1,HRAS,CDK5R1,GRB2,PTPN11,AP2A2,NTF3,IRS2,MAPK12,AP2A1,SRC,NTRK1

REAC:R-HSA- Signaling by NTRKs

ITGA2B,FYN,PPP5C,PSMA4,RASGRF1,ERBB3,PPP2R5A,FGFR2,FGFR3,PSME4,SPTB,FGF22,CAMK2A,FGF4,RASAL2,APBB1IP,ACTN2,FGFR1,PPP2R5C,PSMC5,PEBP1,BRAP,ILSRA,  
PSME1,PSMD8,PDGFB,CSF2RB,PSMA7,MAPK3,PSMD7,CSK,RASAL3,GRIN2D,PPP2R1A,JAK3,MET,PSMA2,PSMD3,PSMD11,RAPGEF2,VWF,PSMD9,FGF6,DUSP16,RASAL1,HBEG  
F,RASGRF2,PPP2CA,FGF1,SPTBN1,FN1,ARTN,DUSP1,PSPN,PSMF1,GFRA4,PSMB2,RAP1B,SHFM1,PSMA1,SHC2,PSME3,DLG4,KL,KRAS,IL2RA,PDGFRA,KLB,DAB2IP,TLN1,ARRB1,  
PPP2R1B,SPTBN5,DUSP5,FGF2,EGF,FGF7,IQGAP1,KSR1,ARRB2,ERBB2,DUSP10,IL17RD,CAMK2D,RASA1,EGFR,SHC3,CAMK2G,NCAM1,UBC,RASGRP3,PPP2R5E,NRG1,KIT,DUSP  
2,NRG2,PSMB4,SPTBN4,SHC1,FGFR4,GRIN2C,JAK1,PEA15,PAQR3,DUSP7,CSF2,RET,SPRED1,FRS2,MAP2K1,IRS1,PTK2,NRG4,NRTN,KSR2,FGA,RASGRP4,RASGRP1,MAP3K11,SP  
1.14E-02 1.14E-02 TBN2,HRAS,BTC,GRIN1,GRB2,ERBB4,DUSP8,NRG3,IRS2,RASA3,SPRED3,NF1,SRC,PSMD12,SYNGAP1,PDGFA,SPRED2,CALM1,PSMB8,PSMB10,LAT,PSMB9,ITGB3,PSMB3

REAC:R-HSA- RAF/MAP kinase cascade

FYN,TRIO,NTN1,PRKCQ,NEO1,TRPC7,CDC42,NTN4,EZR,ABLIM1,WASL,MAPK14,UNC5A,PLCG1,AGAP2,RAC1,TRPC3,SLIT2,MYO10,PAK1,DOCK1,UNC5D,ABLIM2,HFE2,PTK2,R  
1.14E-02 1.14E-02 OBO1,ABLIM3,RGMB,PITPNA,DSCAML1,PTPN11,SHAH2,RGMA,SLIT3,SLIT1,MAPK12,SRC

REAC:R-HSA- Netrin-1 signaling

CAMKK1,CACNG3,AP2B1,CACNA2D2,SYT7,NRXN3,APBA2,AP2S1,KCNQ1,KCNH2,RASGRF1,GNAI3,CACNB1,SYT1,KCNAB2,ABCC9,GNB5,CHAT,CAMK2A,RPS6KA2,PRKACA,PAN  
X2,KCNQ2,ACTN2,GNB1,SLC1A3,EPB41L2,RIMS1,CHRNA3,DLGAP4,EPB41L1,COMT,KCNK16,HCN2,KCNK10,DNAJC5,CHRNA4,HOMER2,NCALD,KCNA7,SLC17A7,PTPRS  
,GRIN2D,KCNN1,GRIK5,STX1A,APBA1,CHRNE,NRXN2,PANX1,SLC1A2,PPFIBP1,SLC6A12,ALDH2,SLC38A1,GABRR2,RASGRF2,GNAI2,EPB41L5,DLGAP3,KCNQ4,RPS6KA1,CHRN  
4,KCNJ5,CHRNA2,ADCY7,SLITRK3,KCNS1,KCNK17,LRFN3,PRKCG,GNG11,KCNC1,KCNA5,LRRCA4B,PPFIA4,DLG4,FLOT2,SNAP25,KCNH3,KCNK1,GLUL,DBNL,STXBP1,GABBR2,FLO  
T1,ADCY3,CHRNA1,HCN4,KCNH5,NTRK3,PDPK1,GNAL,CACNA1A,SLC6A3,CACNG8,PTPRF,KCNA10,KCNH1,PPFIA4,SYT2,GRIP2,ARL6IP5,CAMK2D,GABRA6,GLRA1,GABRR1,CHR  
NB3,CHRNA6,CACNA1B,CAMK2G,GRIK4,PLCB3,DLG2,KCNA6,KCNJ1,KCNK13,GRIA4,GRM1,PTPRD,PRKCA,GRIA1,ADCY8,GRIP1,KCNMA1,LRFN2,NPTN,SLC6A1,CACNA2D3,KCN  
J6,KCNJ15,EPB41,CHRN2,GRIN2C,SHANK1,ADCY9,SHANK2,SLC1A7,KCNJ9,KCNF1,GABRR1,GRIK3,GRIK2,HCN1,ADCY1,KCNV1,PRKACG,CACNB2,PPFIBP2,PRKCB,HTR3A,CACN  
G2,GNGT2,KCNJ4,KCNV2,KCNG4,GRM5,CPLX1,KCNAB1,KCNK9,CHRNA5,NLGN1,DLGAP1,KCNMB3,KCNG3,GRIK1,KCNK3,KCND3,GNB2,GNG12,ADCY5,SYT12,KCNK7,GNG5,AD  
CY6,HRAS,GNG7,GRIN1,KCNA2,PPFIA3,HTR3C,SHARPIN,AKAP5,NRXN1,GABRG3,KCNK4,KCNB2,GJC1,AP2A2,ABAT,BEGAIN,KCNH8,LRTOMT,KCNQ3,KCND2,SYN3,KCNQ5,HTR  
1.14E-02 1.14E-02 3E,GABRA5,KCNK18,IL1RAP,MYO6,CHRN,AP2A1,DLGAP2,CACNA1E,CALM1,GABBR1,SHANK3

REAC:R-HSA- Neuronal System



REAC:R-HSA- Negative regulation of the PI3K/AKT network	1.14E-02	1.14E-02	<p>FYN,ERBB3,PPP2R5A,FGFR2,FGFR3,FGF22,FGF4,FGFR1,PPP2R5C,ESR1,PDGFB,MAPK3,AKT2,PPP2R1A,PIK3R2,MET,GAB1,FGF6,HBEGF,PPP2CA,FGF1,CD86,IL1RL1,PIK3R3,PIK3CA,KL,PDGFRA,KLB,IER3,PPP2R1B,FGF2,EGF,FGF7,ERBB2,AKT1,PIP5K1A,PIK3R1,EGFR,PPP2R5E,PIK3AP1,NRG1,KIT,NRG2,FGFR4,TRAT1,ICOS,FRS2,IRS1,NRG4,INSR,PIK3CD,PTEN,MYD88,BTC,TRAF6,CD19,GRB2,ERBB4,PTPN11,LCK,NRG3,IRS2,PIP5K1C,IL1RAP,SRC,PDGFA,IRAK4,PIP4K2B</p>
REAC:R-HSA- PIP3 activates AKT signaling	1.14E-02	1.14E-02	<p>SCMH1,FYN,RRAGD,PSMA4,MTA3,HDAC7,ERBB3,PPP2R5A,FGFR2,FGFR3,PSME4,FGF22,CSNK2A2,MBD3,EED,FGF4,FGFR1,PPP2R5C,TNRC6C,GSK3B,MECOM,PSMCS,RCOR1,TNRC6A,ESR1,PSME1,PSMD8,PDGFB,TNRC6B,PSMA7,MAPK3,PSMD7,TSC2,STUB1,AKT2,PPP2R1A,PIK3R2,GSK3A,MET,PSMA2,RHEB,TKNS2,PSMD3,PSMD11,HDACS,GAB1,PSMD9,FGF6,CDKN1B,CHD4,ATN1,FRK,NR2E1,HBEGF,PPP2CA,FGF1,CD86,IL1RL1,HDAC1,RRAGC,PIK3R3,FOXO3,MAPKAP1,RNF2,PIK3CA,NR4A1,CDKN1A,PSMF1,PSMB2,SHFM1,PSMA1,PSME3,PPARG,KL,MKRN1,PHC2,PDGFRA,KLB,IER3,PPP2R1B,FGF2,EGF,FGF7,PML,PDPK1,TP53,RPTOR,ERBB2,AKT1,PIP5K1A,GATAD2B,PIK3R1,EGFR,MTA2,UBC,PP2R5E,MOV10,PIK3AP1,RRAGA,NRG1,KIT,NRG2,PSMB4,FGFR4,TRAT1,ICOS,FRS2,GATAD2A,MLST8,IRS1,NRG4,OTUD3,CHD3,INSR,PIK3CD,HDAC3,PTEN,MYD88,TKNS,PHC3,BTC,TRAF6,RPS6KB2,SLC38A9,CD19,GRB2,ERBB4,PTPN11,MAF1,LCK,MTA1,CBX6,NRG3,IRS2,PIP5K1C,USP7,IL1RAP,HDAC2,SRC,PSMD12,PDGFA,IRAK4,WWP2,MTOR,PSMB8,CS</p>
GO:0051129 negative regulation of cellular component org	1.15E-02	1.15E-02	<p>MAD1L1,CFLAR,LIG3,SCIN,JARID2,SEMA3G,FYN,BRCA1,ERCC1,IGF1,NR1H3,TNFRSF1B,MYOC,CLEC16A,MAP4,LIMA1,NGFR,NGEF,RHOA,PRKCZ,NAV3,PFN2,SMG6,CDC42,TRIP13,CRMP1,PICALM,CLASP1,ADD2,RAB7A,RAP1GAP,CAPZB,MAP2,FAP,CBFA2T2,XRCC5,RAPGEF3,DNM2,GSK3B,MTMR2,MT3,ADD1,IRAK3,HNRNPC,MSH2,TMEM14A,STX1B,SMARCB1,TRIOBP,EP300,CHADL,MAPRE1,CHMP4B,RIOK3,CORO1A,NECAB2,TSC2,MEFV,UBR5,CLIP3,TGFB1,PTPRS,MAG,CAV1,MET,DNAJB6,WASL,TKNS2,PFN1,KAT2A,VAT1,SUPT6H,RAPGEF2,CRYAB,CORO1C,TRPV4,MDM1,ASF1A,ZNF451,SNX3,PHF1,SEMA5A,RAD1,H2AFY,DYSL3,XRN1,KAT2B,RTN4,PARK7,OPRD1,ARHGFE2,STMN1,APOA1,KIF14,ATAD2B,DUSP1,CLU,TNFRSF8,TEX14,PAPD5,PMEP1,EFNB2,KIF25,XRCC3,PCID2,THRA,HSPA2,RNF6,STYX1,POT1,TTBK2,KLK8,ACTN4,CHMP2A,HIP1R,DNMT1,PPFIA1,DNAJB1,INPP5K,DLG4,TERF2,ROCK2,APC,NAT10,HEY2,SPRY2,RAC1,CDK5RAP2,SORL1,THBS1,SMAD6,ZNF365,TET1,AP1AR,PEX5,TCHP,KATNB1,BCAS3,ARHGDI1,TBCD,AKT1,EVIS1,PEX14,PHLDB2,SLIT2,TERF1,GSN,LRSAM1,NOTCH1,ATM,CHEK1,FEZ1,PTPRO,EPS8,SACS,SPOCK1,PLEKHH2,HNRNPU,WNT3A,BUB3,FLCN,PROM2,BUB1B,WASF2,PINK1,APOA2,ACE,CTBP1,TAOK1,SHANK1,OMA1,PAQR3,TRIM46,CLASP2,PRKCD,LRPAP1,MFI2,DLCL1,ARF6,PACSN3,BAG5,CDT1,OTUB1,TMC8,NLRC3,PCSK9,PRELID1,EFNA1,PTPN9,BUB1,NLGN1,SLN,SETMAR,SDR16C5,FEZ2,BCL2L1,EXOSC10,PTEN,PRNP,CORO1B,TKNS,SNX3,ADCY6,MCTP1,ERCC4,TOM1L2,AURKAIP1,BNIP3,SMCR8,ULK1,GEN1,TAIF7,GAK,RCC2,DNAJB8,NRXN1,ADIPOQ,CEP97,DENND5A,EFNA5,CIB1,CDK10,PARK2,RTN4RL1,CD300LF,ARAP1,MAPT,RTN4RL2,ESPN,SLIT1,NANOS2,OSTN,FZD9,NOC2L,PRTN3,HDAC2,SR</p>
GO:0006790 sulfur compound metabolic process	1.16E-02	1.16E-02	<p>GCLC,ACSM3,PKD2,GGCT,MGST1,ST3GAL1,DCN,ACPP,DPEP1,CPS1,GCLM,CHPF2,MAT2B,VCAN,HEXB,HAGH,ST3GAL6,FAR2,GSTO2,ELOVL1,ACAT1,ACACB,GSTP1,MGST2,B4GALT1,NOX4,SULT2B1,DLG,ACOT7,TECR,GGT5,GGT1,GSTZ1,MTHFD1,GSS,AHCY,NARFL,NUBP1,GDAP1,SULT2A1,OGDH,GLRX3,BLMH,B3GAT1,PDHX,MVK,DSE,UST,ACOT13,B3GAT2,GHR,ARSB,PCCB,HYAL1,CSPG5,ABHD14B,PARK7,B4GALT2,AKR1A1,ACOT2,ELOVL3,B4GALT4,LIAS,FMOD,CHST3,ACSL3,MTRR,CHST8,MCEE,GNMT,SLC25A19,ST3GAL3,SAT5A,DUAA,TPST2,MPST,CDO1,GAMT,NCAN,SLC35D2,ACLY,CHSY1,BCAN,MMACHC,CNDP2,MICAL2,GSTM3,ISCA1,MICAL1,CHST5,SLC19A3,ISCU,SUCLA2,CHST12,BAAT,LUM,SUOX,ESD,GALNS,CIAO1,NAT8,SCD5,ENOPH1,CSGALNACT1,GSTO1,HSD17B12,B3GAT3,MAT1A,ACSL1,ACSS1,MMS19,B3GNT7,ST3GAL2,SLC35B2,AHCYL2,B4GALT5,HLCS,CB,S,ACOT11,PMVK,ACSL6,MVD,GGT6,PDHB,AHCYL1,GSTM4,NFU1,BTD,CSGALNACT2,TPST1,B3GNT2,ELOVL6,CHST11,SUCLG2,PDP2,PC,STAT5B,PCCA,CHST1,MSRA,B3GNT4,ACSF3,ACOT4,OPLAH,PIPOX,CHST13,ADO,CHST15,ADI1,SLC25A10,CHST6,ACSM5,ACSM2A,DGAT1,SP1,THEM5,TPK1,GAL3ST4,ACSL5,GSTK1,ENPP1,FAR1,ELOVL2,SULT1C4,GST</p>

GO:0010631 epithelial cell migration	1.16E-02	1.16E-02 ,MTOR,MAP3K3,MIR135B,MIR146B,SOX18,BMP2,CSNK2B,MIR193A,MIR200B,MIR27A,ZNF580,EMP2,TNFSF12,INSL3,ITGB3,EPPK1,MIR497,MIR29C,MIR24-2
GO:0090132 epithelium migration	1.16E-02	KRT1,PLXND1,TBXA2R,PRSS3,PIK3C2A,DCN,STRAP,MAP2K3,FLT4,HDAC9,BCAR1,HDAC7,SP100,RHOA,PFN2,VASH1,SCARB1,PTGS2,CLASP1,FGF4,PTPN23,FGFR1,FAP,EDN1,MEF2C,FAT2,PXN,APOH,TGFB2,EPB41L4B,ABL1,NRP1,PPM1F,SH3BP1,HMOX1,PDGFB,MYH9,LGMN,HIF1A,MMP9,ANGPT4,NUP93,CTSH,GPI,PRKD2,TGFB1,MET,HSPB1,GATA3,PBLD,PFN1,HDACS,CORO1C,SASH1,GPLD1,SMOC2,VEGFA,SEMA5A,SPARC,ARSB,IL4,FGF1,HYAL1,FOXP1,RTN4,LGALS8,PROX1,NRP2,PTK2B,PIK3CA,GLIPR2,PKN1,GIP1,NR4A1,PLCG1,RREB1,EFNB2,STAT5A,RHOJ,MACF1,AAMP,KDR,DL4,PPARG,STARD13,LOXL2,ROCK2,ETS1,AGT,DAB2IP,ENPP2,FGFBP1,PRCP,THBS1,CYP1B1,FGF2,ANXA3,FGF7,CDH13,PDPK1,BCAS3,AKT1,EPHA2,DUSP10,RAB13,PTPRG,SLIT2,DOCK5,NOTCH1,DOCK1,ADAM17,PTPRR,PRKCA,CXCL13,KIT,STC1,ADIPOR1,CLASP2,ADAMTS9,ZC3H12A,S100P,BMPER,ADAM9,ATOH8,PTK2,ROBO1,PRKCE,MCC,PLEKHG5,PTEN,SCG2,CORO1B,KRT2,MMRN2,PTPRM,JUP,CALR,CIB1,SP1,NANOS1,MIR494,EPHB4,NF1,S100A2,SR
GO:0090130 tissue migration	1.16E-02	KRT1,PLXND1,TBXA2R,PRSS3,PIK3C2A,DCN,STRAP,MAP2K3,FLT4,HDAC9,BCAR1,HDAC7,SP100,RHOA,PFN2,VASH1,SCARB1,PTGS2,CLASP1,FGF4,PTPN23,FGFR1,FAP,EDN1,MEF2C,GRHL2,FAT2,PXN,APOH,TGFB2,EPB41L4B,ABL1,NRP1,PPM1F,SH3BP1,HMOX1,PDGFB,MYH9,LGMN,HIF1A,MMP9,ANGPT4,NUP93,CTSH,GPI,PRKD2,TGFB1,MET,HSPB1,GATA3,ACTA2,PBLD,PFN1,HDACS,CORO1C,SASH1,GPLD1,SMOC2,VEGFA,SEMA5A,SPARC,ARSB,IL4,FGF1,HYAL1,FOXP1,RTN4,LGALS8,PROX1,NRP2,PTK2B,PIK3CA,GLIPR2,PKN1,GIP1,NR4A1,PLCG1,RREB1,EFNB2,STAT5A,RHOJ,MACF1,AAMP,KDR,DL4,PPARG,STARD13,LOXL2,ROCK2,ETS1,AGT,DAB2IP,ENPP2,FGFBP1,PRCP,THBS1,CYP1B1,FGF2,ANXA3,FGF7,CDH13,PDPK1,BCAS3,AKT1,EPHA2,DUSP10,RAB13,PTPRG,SLIT2,DOCK5,NOTCH1,DOCK1,ADAM17,PTPRR,PRKCA,CXCL13,KIT,STC1,ADIPOR1,ACTG2,CLASP2,ADAMTS9,ZC3H12A,S100P,BMPER,ADAM9,ATOH8,PTK2,ROBO1,PRKCE,MCC,PLEKHG5,PTEN,SCG2,CORO1B,KRT2,MMRN2,PTPRM,JUP,CALR,CIB1,SP1,NANOS1,MIR494,EPHB4,NF1,S100A2,SR,MTOR,MAP3K3,MIR135B,MIR146B,SOX18,BMP2,CSNK2B,MIR193A,MIR200B,MIR27A,ZNF580,EMP2,TNFSF12,INSL3,ITGB3,EPPK1,MIR497,MIR29C,MIR24-2
GO:0050919 negative chemotaxis	1.17E-02	1.17E-02 SEMA3G,SEMA3B,RHOA,SEMA3C,SEMA5B,SEMA4G,SEMA5A,APOA1,SEMA4F,SLIT2,RYK,SEMA4C,ROBO1,SEMA3E,SLIT3,SLIT1,SEMA4D,SEMA4A,PDGFA,ITGB3

GO:0019884 antigen processing and presentation of exoge	1.17E-02	1.17E-02 DPB1,TAPBP,HLA-DQA2,HLA-DOB,HLA-DMB,DYNLL2,SEC22B AP2B1,CD74,AP2S1,VAMP3,AP3D1,KIF26A,KIF2A,AP1M1,RAB7A,DYNC1I2,CAPZB,KIF22,DNM2,ITGB5,DYNLL1,LAG3,SNAP23,AP1B1,LGMN,KIF3B,DCTN6,AP1S1,SEC24A,ACTR1B,CD207,CAPZA1,VAMP8,KLC1,CANX,AP1M2,KIF3A,ACTR10,DCTN4,CD36,DYNC1L12,DCTN3,ACTR1A,SEC31A,CENPE,SEC24B,CLTC,OSBPL1A,KIF2C,ARF1,SEC24D,SAR1B,SEC13,DYNC111,FCER1G,CTSS,B2M,AP1G1,PDIA3,RILP,TAP1,SPTBN2,CTSF,SEC24C,CALR,AP2A2,AP2A1,DYNC1H1,CAPZA2,HLA-DOA,TAP2,HLA-DRA,HLA-G,DCTN11,IFI30,HLA-
GO:2001236 regulation of extrinsic apoptotic signaling pati	1.24E-02	EM1B,BCL2L1,FGA,BCL2,PTEN,SCG2,RELA,PELI3,PAK2,SHAH2,WWOX,SRC,HTT,HSPA1B,SCRT2,TNF,GPX1,TNFSF12 CFLAR,BRCA1,ZMYND11,BID,IGF1,FAS,TRAF1,CASP8,EYA2,SP100,HYAL2,GSTP1,ICAM1,ITGA6,RFFL,HMOX1,PYCARD,SFRP1,CAV1,SERPINE1,MADD,LTBR,BIRC6,PARK7,ARHG2,FASLG,TNFAIP3,TNFSF10,IL1B,IFI6,TRAF2,PSME3,AGT,TMBIM1,RIPK1,PPP2R1B,THBS1,PML,AKT1,MCL1,TCF7L2,SH3RF1,EYA3,DEDD2,PEA15,ATF3,TERT,CSF2,RET,TMC8,F
GO:0198738 cell-cell signaling by wnt	1.25E-02	RK,MIR145,MIR665,MIR1-2 HECW1,DVL2,ITGA3,AP2B1,MARK4,CELSR3,FUZ,WWTR1,MYOC,DEPDC1B,AP2S1,DKK3,CUL1,WNK1,PTPRU,CDH3,TLE2,FGFR2,RHOA,LRP6,CAMK2A,CDC42,FERMT2,CELSR1,WNT8B,PTPN23,GNB1,TNRC6C,TCF7,GSK3B,WNT11,NLK,GNAO1,TNRC6A,ESR1,TNRC6B,DAAM1,CHD8,PAR6A,AXIN1,TSC2,SFRP1,STK3,UBR5,AES,PPP2R1A,GSK3A,CAV1,SFRP4,GLI3,SPIN1,DVL1,GATA3,TNKS2,CCNY,PFN1,COL1A1,SMURF2,SLC9A3R1,CPE,FOLR1,GLI1,WNT5B,SNX3,PTK7,SEMA5A,SKP1,PPP2CA,CSNK1A1,NPHP3,APC2,USP34,HDA C1,UBE2B,SFRP5,TNN,BICC1,PFND5,LRP1,WNT1,PIN1,MACF1,SMARCA4,TRPM4,NFATC1,NPHP4,LGR6,CSNK1G2,ARNTL,GNAT2,APC,ANKRD6,WNT10A,SEEL,RAC1,DAB2IP,EGF,PPP3CA,PRICKLE1,NKD1,CLTC,ARRB2,CSNK1D,IGFBP4,PRDM15,ARHGEF19,CELSR2,WNT9A,RBMS3,LIMD1,NKD2,DAAM2,RSPO3,EGFR,TCF7L2,PLCB3,DIXDC1,UBC,PTPRO,T CF7L1,DAB2,LRRK1,WNT3A,WNT7A,APCDD1,MOV10,GNAQ,TIAM1,SKI,WNT9B,RUNX1,DVL3,LRP5,WNT4,BIRC8,FZD5,PRICKLE2,RYK,SENP2,TERT,DACT2,FZD6,WNK2,BTRC,G PRC5B,DAPK3,NXN,CTNNB1,AXIN2,CSNK1G1,SOX7,SOSTDC1,MCC,PTEN,PPP1CA,VANGL1,TNKS,JUP,RNF213,FZD4,HIC1,TBL1XR1,CTNNBIP1,SHAH2,AP2A2,ZNRF3,PARK2,ATP 6VOC,WWOX,RNF220,MAGI2,WNT7B,TMEM198,FZD9,SHISA6,FAM53B,SULF2,AP2A1,DACT3,PLCG2,CTNND1,CALM1,SMURF1,LGR4,TMEM170B,CSNK1E,TAX1BP3,PPP3R1,J
GO:0016055 Wnt signaling pathway	1.25E-02	45,MIR665,MIR1-2 HECW1,DVL2,ITGA3,AP2B1,MARK4,CELSR3,FUZ,WWTR1,MYOC,DEPDC1B,AP2S1,DKK3,CUL1,WNK1,PTPRU,CDH3,TLE2,FGFR2,RHOA,LRP6,CAMK2A,CDC42,FERMT2,CELSR1,WNT8B,GNB1,TNRC6C,TCF7,GSK3B,WNT11,NLK,GNAO1,TNRC6A,ESR1,TNRC6B,DAAM1,CHD8,PAR6A,AXIN1,TSC2,SFRP1,STK3,UBR5,AES,PPP2R1A,GSK3A,CAV1,SFRP4,GLI 3,SPIN1,DVL1,GATA3,TNKS2,CCNY,PFN1,COL1A1,SMURF2,SLC9A3R1,CPE,FOLR1,GLI1,WNT5B,SNX3,PTK7,SEMA5A,SKP1,PPP2CA,CSNK1A1,NPHP3,APC2,USP34,HDAC1,UBE2 B,SFRP5,TNN,BICC1,PFND5,LRP1,WNT1,PIN1,MACF1,SMARCA4,TRPM4,NFATC1,NPHP4,LGR6,CSNK1G2,ARNTL,GNAT2,APC,ANKRD6,WNT10A,SEEL,RAC1,DAB2IP,EGF,PPP3C A,PRICKLE1,NKD1,CLTC,ARRB2,CSNK1D,IGFBP4,PRDM15,ARHGEF19,CELSR2,WNT9A,RBMS3,LIMD1,NKD2,DAAM2,RSPO3,EGFR,TCF7L2,PLCB3,DIXDC1,UBC,PTPRO,TCF7L1,D AB2,LRRK1,WNT3A,WNT7A,APCDD1,MOV10,GNAQ,TIAM1,SKI,WNT9B,RUNX1,DVL3,LRP5,WNT4,BIRC8,FZD5,PRICKLE2,RYK,SENP2,TERT,DACT2,FZD6,WNK2,BTRC,GPRCSB,D APK3,NXN,CTNNB1,AXIN2,CSNK1G1,SOX7,SOSTDC1,MCC,PTEN,PPP1CA,VANGL1,TNKS,JUP,RNF213,FZD4,HIC1,TBL1XR1,CTNNBIP1,SHAH2,AP2A2,ZNRF3,PARK2,ATP6VOC,W WOX,RNF220,MAGI2,WNT7B,TMEM198,FZD9,SHISA6,FAM53B,SULF2,AP2A1,DACT3,PLCG2,CTNND1,CALM1,SMURF1,LGR4,TMEM170B,CSNK1E,TAX1BP3,PPP3R1,IRK,MIR1

GO:0051258 protein polymerization	1.25E-02	<p>BAIAP2L1,CCL26,SCIN,TTC17,NCKAP1,NAV3,PFN2,NCK2,NDE1,CLASP1,ADD2,CAPZB,MAP2,UBE2K,DNM2,HSP90AA1,CTTN,ADD1,DNM1L,ABL1,TRIOBP,NIN,HCK,MAPRE1,CO RO1A,PYCARD,CLIP3,MET,COBL,CCL24,DNM1,CSF3,PFN1,RANGRF,TRPV4,ACTR3,STMN1,PTK2B,VASP,TUBGCP3,CCR7,TUBGCP6,CDC42EP1,ARPC1B,CAMSAP1,TUBGCP2,CH MP2A,CLIP1,HIP1R,ARFIP2,RAC1,BIN1,CDK5RAP2,FCHSD2,NUMA1,CSNK1D,TBCD,CASQ1,ARF1,ANKRD53,SLIT2,IQGAP2,RASA1,TTBK1,ARHGAP18,GSN,MSRB2,PAK1,RPS3,CD C42EP2,FER,EP58,WHAMM,MX1,PINK1,ARPC5,ARPC2,CLASP2,PRKCD,ARFIP1,MICALL2,ARF6,NDEL1,GPX4,CDC42EP5,LMOD2,PRKCE,TPPP,FGA,CORO1B,CKAP5,BAIAP2,CDK5 R1,CDC42EP4,HCLS1,FES,MX2,PARK2,MAPT,PFN3,FCHSD1,OPA1,HSPA1B,AIF1,TRIM27,DCTN1,ARL2,ARPC4,ARPC1A,TWF2,CORO7,CYFIP1,TUBGCP5</p>
GO:0003015 heart process	1.26E-02	<p>FYN,ATP1A2,NEDD4L,KCNQ1,KCNH2,ATP2B4,MEF2A,ATP2B1,PRKACA,ATP2A3,SRI,EDN1,NOX4,NOS1,SLC9A1,MYH7,TGFB2,ITPR3,SLC8A3,MYLK2,SMAD7,DMPK,ATP1A3,SCN 1B,GSK3A,CAV1,GLRX3,YWHAE,RANGRF,MYL2,PDE4D,TNNC1,RGS2,SLC8A2,KCNIP2,KCNJ5,ADRA1A,POPCD2,PIK3CA,RAMP3,EDN3,KCNK15,EDN2,ATP1B2,KCNA5,TRPM4,TN NI2,MYBPC3,CYP2J2,AGT,KCNK1,BIN1,HCN4,FOXN4,TPM1,CASQ1,CALM2,CORIN,CAMK2D,ANK2,GSTO1,CACNA1C,GPD1L,GJA1,CXADR,ATP2B2,CACNA1D,STC1,TNNI1,ACE,N PR2,CALM3,SPTBN4,S100A1,MYL3,NPPC,ATP1A1,ZC3H12A,CACNB2,SCN3B,STIM1,AHCYL1,AKAP13,CAA,KCNK3,KCND3,ADRBK1,JUP,TCAP,NPPA,KCNE3,SCN4B,KCNE1,CHR M2,GIC1,SLC8A1,CTNNA3,SCN5A,PDE4B,RNLS,SGCZ,SCN10A,RYR1,CACNA1H,SRC,MYH6,ASPH,RYR2,CALM1,GSTM2,GPX1,GJA5,ADORA3,MIR1-2</p>
GO:2000249 regulation of actin cytoskeleton reorganizatio	1.26E-02	<p>BAIAP2L1,PHPT1,CDC42,RAPGEF3,ABL1,NRP1,HCK,CSF3,ARHGDI1B,PTK2B,PDGFRA,NTRK3,BCAS3,ARHGDI1A,TRPM2,CDK5,DAPK3,SEMA3E,HRAS,BAIAP2,HCLS1,FES,NTF3</p>
GO:0048675 axon extension	1.27E-02	<p>SEMA3F,SEMA3G,NTN1,PLXNA2,MAP2,DNM2,HSP90AA1,GSK3B,ULK2,CTTN,MT3,HSP90A1,ABL1,NRP1,PTPRS,MEGF8,MAG,LIMK1,VEGFA,SEMA5A,PLXNA1,RTN4,NRP2,M ACF1,RNF6,OLFM1,MAP1B,GOLGA4,SLIT2,ZFYVE27,AUTS2,TRIM46,PLXNB1,CDK5,ALCAM,ULK1,SLIT3,MAPT,SLIT1,PLXNA4,TWF2,CYFIP1</p>

GO:0010811 positive regulation of cell-substrate adhesion	1.27E-02	1.27E-02	CX3CL1,MYOC,CDC42,GSK3B,COL16A1,ABL1,NRP1,CRKL,PPM1F,TRIOBP,ARHGEF7,OLFM4,SFRP1,CDK6,AGR2,VEGFA,FN1,APOA1,PTK2B,RREB1,CCR7,KDR,CCL25,CD36,RAC1,CDH13,EPHA1,DOCK5,PTPRJ,DOCK1,CCL28,UTRN,TSC1,CRK,LIMS1,FGA,JUP,CALR,CIB1,S100A10,ARL2,EMP2
GO:0043407 negative regulation of MAP kinase activity	1.27E-02	1.27E-02	HYAL2,TP73,GSTP1,IRAK3,PPP2R1A,CAV1,CDK5RAP3,DUSP3,HIPK3,DUSP16,DUSP22,PPP2CA,RGS2,RGS4,DUSP1,LAX1,IL1B,INPP5K,GPS2,PTPN22,DAB2IP,SORL1,RGS3,CBLC,DUSP10,PTPRJ,DUSP2,DUSP19,PAQR3,PRKCD,DUSP7,SPRED1,SMPD1,RGS14,GPS1,ADIPOQ,DUSP8,AIDA,PTPN1,NF1,SPRED2,LYN
GO:1905477 positive regulation of protein localization to n	1.30E-02	1.30E-02	ITGA3,FYN,BID,PRKCH,CASP8,TP63,TP73,SORBS1,TREM2,GZMB,E2F1,NECAB2,AKT2,CLIP3,BBC3,AGR2,YWHAE,RANGRF,SPTBN1,PLS1,RAMP3,LRP1,ACSL3,ARHGEF16,EPHB2,YWHAQ,NMT1,PDPK1,TP53,ERBB2,AKT1,EPHA2,TP53BP2,NKD2,PIK3R1,EGFR,ITGB1,ANK3,ITGB2,SQSTM1,CNST,PRKCI,YWHAZ,ARF6,STX3,PTPN9,ITGAM,YWHAQ,KIF5B,PRKCE,BCL2,PRNP,HRAS,RHOG,AKAP5,NRXN1,CIB1,PARK2,MYO1C,TFDP1,FIS1
GO:0048871 multicellular organismal homeostasis	1.31E-02	1.31E-02	CFTR,PRKAR2B,PROM1,MLXIPL,SLC11A1,STRAP,SPATA7,USH2A,CDH3,HYAL2,CNGB1,PRKACA,ACADVL,TP63,PTGS2,GNAS,CHMP4B,CTSH,RP1,IL7,HAMP,MET,HSPB1,CUBN,CDH23,PBLD,ALOX12,PRKAR1A,WFS1,PPARGC1A,SLC11A2,TRPV4,PRR4,SCNN1A,GCNT2,TULP1,VEGFA,NPHP3,PRKAR2A,EIF4G1,ACADL,PASK,AMPD2,LEPR,STMN1,TNFAIP3,TNFSF11,PTK2B,ADCY7,BBS2,IL1B,NR1D1,NAPSA,PRKAA1,INPP5K,SFTPD,CD36,MRAP2,IL6,CIB2,IL1RN,ADCY3,SLC40A1,WDR51B,DEF8,TNFRSF11A,TRPM2,MUC4,PCDH15,ADAM8,PRKCA,CXADR,FLCN,ADCY8,NAPEPLD,ZG16B,ADCY9,OMA1,PIGR,CLDN1,TMEM79,ALB,GPR98,ADCY1,SYK,PRKACG,B2M,NOD2,KRT1,SCNN1B,STAT3,S1PR1,AQP4,ADCY5,CD34,ADCY6,BBS1,CIDEA,METRN1,CYP11B2,ALOXE3,ALOX12B,BBS10,RP1L1,BMP8A,ACTG1,MUC6,CYP4F12,PRKAR1B,CLDN4,SERPINA3,NF1,SRC,STK39,DL1,TNF,TLR9,AQP1,BGLAP,ARMS2,ITGB3

			<p>COP22, ANK1, FUT8, TRAPPC3, SPTB, MGAT4A, DYNC1I2, CAPZB, CD59, B4GALT1, DYNLL1, SEC22C, KDELR3, CNIH, CTSZ, ARFGAP1, COG4, DCTN6, LHB, KDELR1, COPE, GBF1, GOSR1, AREG, SAPS3, FOLR1, COP21, MAN1A1, SEC24A, COL7A1, LMAN2L, SPTBN1, CAPZA1, B4GALT2, MAN1C1, B4GALT4, COPA, CHST8, TBC1D20, TMEM115, MGAT3, COPB1, MGAT1, ACTR10, DCTN4, COG6, ARF3, DYNC1L12, COG2, KDELR2, STX17, DCTN3, SPTBN5, RAB1A, PREB, ACTR1A, SEC31A, SEC24B, LMAN1L, CSNK1D, ARF1, ANK2, SEC16A, ST8SIA6, ARFGAP2, CTAGE5, SEC24D, ANK3, MGAT5, SAR1B, MIA3, GRIA1, SEC13, B4GALT5, DYNC1I1, SPTBN4, STX5, TGFA, COG1, TRAPPC9, ARF4, LMAN2, TMED10, FUT3, MANEA, SPTBN2, SEC24C, ST8SIA3, FUCA1</p>
REAC:R-HSA- Transport to the Golgi and subsequent modifi	1.31E-02	1.31E-02	,MCFD2,COPB2,CD55,TRAPPC4,DYNC1H1,SERPINA1,MAN1A2,F5,CAPZA2,DCTN1,ANKRD28,ARFGAP3,DYNLL2,SEC22B,COG8
			<p>AP2B1, SELE, CD9, NR1H3, AP2S1, VAMP3, TFRC, PICALM, EDN1, ITC, DNMT2, MTMR2, LGMN, HIF1A, NECAB2, TGFBI, FGF21, CAV1, SFRP4, SNX25, CD81, BVES, VEGFA, SCAP, HDAC1, ECE1, RAMP3, LRP1, GRK4, NR1D1, TBC1D5, PPARG, RAMP1, DLG4, CD36, CD63, FLOT1, ARRB1, AP1AR, EGF, FURIN, CLTC, ARRB2, ARF1, ITGB1, DRD3, WNT3A, FCER1G, ITGB2, CXCR1, TRAT1, DTX3L, LRPAP1, LMTK2, SYK, TBC1D16, D4S234E, PCSK9, ADRBK1, FAM109B, GRB2, CXCR2, SCRIB, ADIPOQ, ANXA2, AP2A2, ZNRF3, RAB11B, NTF3, PPARA, MAGI2, PTPN1, HDAC2, AP</p>
GO:0043112 receptor metabolic process	1.34E-02	1.34E-02	2A1, FAM109A, UVRAG, SMURF1, INPP5F, ATXN2, TNF, CNPY2, ITGB3
			<p>FUCA2, CX3CL1, NOS2, PGLYRP1, CD4, RNF216, IGF1, CD74, BIRC3, YTHDC2, RSF1, CYBA, EIF2AK2, PUM2, TRAF3IP2, CTDP1, TAF11, SIRT2, NUCKS1, UFD1L, PABPC1, RAB7A, LAMP3, ITC, CHMP2B, PPIE, OAS1, TFAP4, SRPK1, PGC, IL12RB1, SMARCB1, LGALS1, APOBEC3H, EP300, CHMP4B, VAPA, RNF125, R1OK3, FCER2, SYDE1, CAV2, CAV1, SMC3, DHX58, SMURF2, OSBP, IL23A, OAS3, ARHGDI3, SASH1, SNX3, TRIM38, LY86, FOXP1, STAT1, HDAC1, TRIM62, NR5A2, ZP4, PROX1, TNFAIP3, TARDBP, TRIM25, ACVR1C, SLP1, STAU1, TBC1D20, SMARCA4, SPINK2, APOBEC3A, EIF2AK4, CCNT1, ILF3, SEC14L1, BST2, CHMP2A, C19ORF66, TRAF3, INPP5K, ANKRD17, VPS4A, SFTPD, RSAD2, PUM1, OASL, SRPK2, ACVR1B, RNASEL, DHX9, DDX60, MAPKB P1, GTF2B, SCARB2, TARBP2, VPS37B, PML, LHFPL2, GLRA1, TNIP1, POMZP3, GSN, LRSAM1, HMG2A, TIRAP, FBXL2, PRKCA, TRIM11, LARP1, MX1, SNF8, RRP1B, ADAR, INHBB, PGLYRP4, NPPC, IFI16, AIM2, DTX3L, ZC3H12A, CHMP4C, TRIM44, FAM111A, LGALS9, KLK7, TRIM8, PPIH, ISG20, FAM170B, TRIB1, PC, PDE12, BANF1, PARP10, CALR, RAD23A, ELMOD2, PRF1, NPLO C4, EXOC7, ANXA2, TMPRSS2, TMEM173, CIB1, SIGIRR, PARK2, SP1, P4HB, IFIT1, HYAL3, CD55, CACNA1H, PCBP2, TRAF3IP1, BTBD17, NFKBIL1, MICB, TRIM15, TRIM31, TRIM27, KRT6A, S</p>
GO:0043900 regulation of multi-organism process	1.34E-02	1.34E-02	PINK8, TNF, TRIM26, APOBEC3D, CCL5
			<p>PRKAR2B, MAP3K14, SPAG9, MAP4K5, IGF1, SLC11A1, MAP2K3, EIF2AK2, PRKACA, MARK2, STK10, MAP3K13, MAP2K7, CHRNA3, STRADB, MAP3K4, MT3, ERP29, CLSPN, TGFBI2, MAP3K1, ABL1, GADD45B, CRKL, PDGFB, MAP3K7IP1, MAPK3, AXIN1, NOD1, RAPGEF1, MAP3K8, PRKAR1A, MADD, CD81, IL23A, MAPK14, VEGFA, GHR, PRLR, FGF1, PRKAR2A, MAPKAP3, CCDC88A, PARK7, GADD45A, KIF14, MAPKAP1, PTK2B, PKN1, GRM4, IL1B, TRAF2, GDF15, PAK4, TRAF7, PRKAA1, IRAK2, KIDINS220, AGT, DBNL, DAB2IP, RIPK1, THBS1, PAK6, DUSP5, PLCE1, FGF2, MAPK8IP3, NTRK3, PDPK1, CARD14, AKT1, PROK1, PAK1, TAOK2, TIRAP, IL18, UBC, TNIK, GHRL, NRG1, KIT, PINK1, TAOK1, SHC1, PEA15, MAPKAPK2, TGFA, TGFB2, PRKCD, DUSP7, TLR3, PRKACG, RET, FRS2, CRK, NOD2, MLST8, MAP4K2, ADAM9, MAP2K1, ADRB2, CDK1, ADORA2B, PLA2G1B, INSR, MALTI, OXSR1, MAP3K11, TLR6, TRAF6, MUC20, UBE2N, TNFSF15,</p>
GO:0032147 activation of protein kinase activity	1.35E-02	1.35E-02	NTF3, ZFP91, PRKAR1B, CXCL17, C5AR1, MAP3K5, NTRK1, COPS8, STK39, MTOR, MAP3K3, DAXX, EMP2, TNF, UBE2V1, ITGB3, CCL5

GO:0022407 regulation of cell-cell adhesion	1.36E-02	<p>CX3CL1,CD9,FYN,CD6,IGF1,CD44,AP3D1,PRKCQ,PRKCZ,FSTL3,CDC42,NCK2,TFRC,TBX21,GLI2,PTPN23,PAG1,SIRPG,IL12RB1,XBP1,GRAP2,SMAD7,PYCARD,CSK,IL7,RASAL3,TGFB1,JAK3,CAV1,GLI3,GATA3,MAP3K8,ZMIZ1,CCL2,ALOX12,DUSP3,PRKAR1A,IL23A,TRPV4,PTPN6,GCNT2,IL4,CD86,ZAP70,ZP4,APOA1,MYB,EPCAM,CD274,TNFSF11,CCR2,PIK3CA,LAX1,SDC4,BTN2A2,WNT1,EFNB2,IRF1,IL1B,CCR7,ZBTB1,PODXL,TWSG1,ASS1,CCL25,RARA,FLOT2,SFTPD,PTPN22,VTCN1,IL6ST,ETS1,ADAM19,HAVCR2,SERPINE2,GPNMB,RAC1,IL6,IL1RN,FLOT1,PDPK1,AKT1,CELSR2,DUSP10,ZC3H8,NFKBIZ,PIK3R1,TNFRSF21,PAK1,RPS3,FERMT3,IL18,ANK3,DLG5,ADAM8,CCL28,FAM49B,PRKCA,CXCL13,RUNX1,ICOSL,ZBTB7B,VCAM1,NLRP3,TNFAIP8L2,IHH,TGFB2,ICOS,ZC3H12A,PRKCD,SYK,B4GALNT2,NOD2,NFKBID,SPINT2,SERPINF2,CCDC88B,IL12A,LGALS9,PTK2,SOCSS5,FGA,PRNP,MALT1,C1QTNF1,GLMN,PTPN2,SART1,GRB2,PTPN11,PAK2,ADIPOQ,LCK,EFNA5,PRKG1,NF2,PPARA,PDCC1,CD55,SRC,SPN,DPP4,PDCC1LG2,MBP,CARD11,PNP,AGER,AIF1,MU</p>
GO:0032386 regulation of intracellular transport	1.36E-02	<p>FGR,FYN,AKAP8L,ZC3H3,IGF1,EHD2,GAB2,C12ORF4,USP36,STYK1,CDH3,CD84,SP100,HYAL2,CSNK2A2,SREBF1,PTPN23,STXB2,ACTN2,MAP2,RAPGEF3,RIMS1,RAB21,GSK3B,XPO1,RBM22,MTMR2,EDEM2,EZR,UNC13D,STX1B,DERL3,HPS4,RANGAP1,MLC1,MYLK2,MAPK3,UBR5,OAZ1,AKT2,TGFB1,PIK3R2,GSK3A,ABCA2,SUFU,YWHA,SUPT6H,UBE2D3,FBXW7,CRYAB,EHD1,RAB23,SNX3,TMEM30A,WWC1,SNX4,TNNC1,RAB3GAP1,SCP2,PARK7,RHO,RIMS3,VAMP8,KHDRBS1,IL1B,TBC1D20,RAC2,ATPIF1,INPP5K,XPO4,CA MK1,EDEM1,MYBPC3,RINT1,PRR5L,DHX9,LCP1,STXBP1,NUMA1,SORL1,PREB,NPEPPS,BCAS3,TP53,ERBB2,CAPN10,PIK3R1,TCF7L2,B3GAT3,ANK3,FER,BAG3,PTPN13,UHMK1,DAB2,PINK1,ATP13A2,UBE2J2,ITGB2,PCNT,VPS11,IWS1,FZD5,TRIM46,ZC3H12A,BAP1,PRKCD,MICALL2,SYK,NDEL1,SMAD3,STX18,LGALS9,MAP2K1,PCSK9,NLGN1,ITGAM,HDAC3,PRNP,ABLIM3,JUP,RBM4,BRSK2,HRAS,PARL,RIMS2,ARIH2,DMAP1,OAZ2,HCLS1,KCNE1,ADIPOQ,SETD2,FES,ANXA2,MX2,TMEM173,CIB1,RAB11B,PARK2,LAMP1,UBL4B,P</p>
GO:0018209 peptidyl-serine modification	1.36E-02	<p>CAMKK1,CALCR,MLXIPL,CD44,PRKCH,VRK2,DAPK2,FNIP2,ATP2B4,HIPK2,PRKCQ,PRKCZ,MAST4,PFN2,CSNK2A2,CAMK2A,NCK2,PRKACA,MARK2,RAPGEF3,HSP90AA1,GSK3B,NLK,MAPKAPK5,CLSPN,HSP90AB1,CDC7,MAST3,MKNK2,OSM,PPM1F,PDGFB,VRK1,RPS6KA5,SGK2,RASSF2,MYLK2,SMAD7,AXIN1,DMPK,VRK3,AKT2,PRKD2,TGFB1,MAST1,CAV1,CSF3,HIPK3,CAMKK2,CREBL2,MAPK14,VEGFA,PDE4D,CSNK1A1,MAPKAPK3,EIF4G1,MARK1,PARK7,OPRD1,STK11,SGK1,NEK6,RAMP3,PKN1,CDK2,PRKCG,LIF,TTBK2,INPP5K,DCLK1,CSNK1G2,CAMK1,ROCK2,CAB39,SPRY2,IL6,RIPK1,NTRK3,MYLK3,PDPK1,CSNK1D,RPTOR,AKT1,GALNT2,RQCD1,DGKQ,CAMK2D,PLK2,MYLK4,TTBK1,EGFR,CAMK2G,P AK1,ATM,HMGA2,UHMK1,GPD1L,STK32B,PRKCA,WNT3A,PHKG2,PINK1,MORC3,PSKH1,SPTBN4,MAPKAPK2,PAQR3,TGFB2,PRKI,PRKCD,CAMKV,LMTK2,PHKG1,CDK5,STOX1,STK32C,PRKCB,DAPK3,CSNK1G1,STK32A,CDK1,DCLK2,PRKCE,EIF2AK3,ADR8K1,TKNS,CDK5R1,ULK1,AURKB,NRXN1,HCLS1,PAK2,CAMK1D,TBK1,NTF3,MAPK12,SBK1,STK39,</p>
GO:0016311 dephosphorylation	1.36E-02	<p>MTMR7,PTBP1,PPP5C,SLC7A14,ACPP,PHPT1,PPP1R12A,CTDP1,WNK1,PTPRU,RIMBP2,EYA2,PPP2R5A,PPAP2A,INPP5A,DAPP1,SMG6,PTPN21,PTPN18,FBXW11,PPP2R3A,PPP2R2C,NUAK1,DUSP13,PTPRH,MEF2C,CDC14B,GSK3B,SSH1,MTMR2,PPP1R15A,FKBP1A,TGFB2,GPATCH2,HSP90AB1,PPM1F,SBF1,MTMR3,APEX1,SH2D4A,TIMM50,TGFB1,PTPRS,PPP2R1A,ELL,LHPP,CDK5RAP3,DUSP3,YWHA,SAPS3,PTPN5,CSRNP2,DUSP16,PTPN6,GPLD1,DUSP22,PPP2CA,PPM1G,PPP1R7,DUSP1,EPHX2,CRY2,NTSC,SYMPK,PIN1,PKMYT1,STYX1L,PTPRE,INPP5K,PTPN22,ROCK2,SPOCD1,SYTL2,DUSP5,PPP3CA,MTMR6,SSH2,IMPA2,LMTK3,PTPRF,CTTNBP2NL,ENSA,DUSP10,CALM2,CTDSP1,BOD1,MFHAS1,PTPRJ,DLG2,AKAP6,PTPRO,TMEM132D,PTPN14,FARP1,PTPRK,PTPRR,PTPRD,PTPRN2,PPEF2,PPP2R2B,SPPL3,DUSP2,EYA3,PPP1R15B,DUSP23,CALM3,SSU72,RRP1B,FCRL3,CNST,PTPN13,PRKCD,DUSP7,PPM1M,UBLCP1,DLCL1,TSC1,SPRED1,BTRC,SMPD1,ELFN2,WDR81,CD2BP2,PTPN9,CAMTA1,PTEN,PPP1CA,PTPRM,PPM1E,CTDSP2,PTPN2,PPP2R2D,MYO1D,ANKLE2,CSRNP3,PTPN11,PGP,DUSP8,PPP1CC,MAGI2,SEMA4D,DUSP28,PTPN1,HTT,SFI1,CALM1,MTOR,INPP5F,SMG5,INPP5B,TMEM225,MIR124-</p>

GO:0044264 cellular polysaccharide metabolic process	1.36E-02	<p data-bbox="667 438 1709 454">IGF1, RB1CC1, PYGM, NDST1, PGM1, GSK3B, SORBS1, PYGB, PHKB, HAS3, GYS1, AKT2, HAS1, GSK3A, PRKAG2, GCK, GBE1, PASK, STBD1, PPP1R3C, NR1D1, PER2, INPP5K, AKT1, CSGALNA</p> <p data-bbox="604 462 1470 479">1.36E-02 CT1, EXT2, PHKG2, AGL, GYG1, PHKG1, PGM2L1, IRS1, UGP2, CSGALNACT2, B3GNT2, INSR, GAA, PPP1R3B, B3GNT4, EXT1, IRS2, NHLRC1, ENPP1</p>
GO:0045862 positive regulation of proteolysis	1.36E-02	<p data-bbox="667 641 1709 747">ANKIB1, OSBPL7, FYN, NUB1, RNF14, FAS, TNFRSF18, BAK1, RNF19A, HERPUD1, CYFIP2, CASP8, NGFR, ATXN3, SIRT2, FBXW11, PICALM, ENO1, GRAMD4, SART3, KEAP1, GSK3B, EDEM2, NLRP1, PSME1, CAPN3, BCL2L13, TBC1D10A, PPM1F, MYH9, LGMN, SMAD7, RNF125, AXIN1, STUB1, MEV, PYCARD, CTSH, SGT4, BBC3, GSK3A, CAV1, NOD1, DVL1, FBXW7, SH3D19, GPD1, DAP, CSNK1A1, FAM162A, HSPE1, SUMO1, NFE2L2, FASLG, CLU, TNFSF10, ACVR1C, RNF114, SEMG1, IL1B, TRAF2, HIP1, CBFA2T3, SNX9, ATP1F1, HIP1R, F12, PPARG, HSPBP1, EDEM1, ROCK2, RNF138, UBQLN1, TANK, DAB2IP, RIPK1, RNF144B, MTCH1, BCL2L10, BBS7, PRICKLE1, FURIN, CSNK1D, NLRP12, S100A8, EFNA3, ARL6IP5, NKD2, TNIP1, TTBK1, ST18, GSN, RPS3, ADAM8, RNF144A, DAB2, LONRF1, XDH, RNF166, PINK1, FGFR4, NLRP3, S100A9, PYHIN1, IFI16, AIM2, CLEC3B, ZC3H12A, MFI2, KLKB1, DLC1, PACSIN3, BTRC, ARIH1, SMAD3, STAT3, ADAM9, LGALS9, COL4A3, PRELID1, EFNA1, PTK2, ROBO1, LONRF2, SOX7, SOCS5, PTEN, EIF2AK3, TRIB1, SNX33, AURKAIP1, BOK, GRIN1, MAGEF1, ARIH2, RAD23A, TNFSF15, LCK, PARK2,</p> <p data-bbox="604 755 1218 771">1.36E-02 NDUFA13, MAPT, MAPK12, HDAC2, DAPK1, MAP3K5, MBP, ASPH, SMURF1, CSNK1E, FIS1, TNF, LYN</p>
GO:1903391 regulation of adherens junction organization	1.39E-02	<p data-bbox="667 1023 1709 1039">MYOC, LIMCH1, RHOA, CLASP1, PTPN23, COL16A1, ADD1, SLC9A1, ABL1, NRP1, PPM1F, SFRP1, CORO1C, VEGFA, MACF1, KDR, ROCK2, RAC1, THBS1, BCAS3, PHLDB2, PTPRI, CLASP2, DL</p> <p data-bbox="604 1047 1071 1063">1.39E-02 C1, TSC1, DAPK3, PTK2, LIMS1, PTEN, RCC2, EFNA5, SRC, S100A10, LDB1</p>
GO:0030032 lamellipodium assembly	1.39E-02	<p data-bbox="667 1307 1709 1323">NCKAP1, CDC42, FSCN1, CAPZB, SSH1, ABLIM1, ARHGEF7, GOLPH3, CCDC88A, WNT1, RAC2, ARFIP2, ARHGEF4, RAC1, CDH13, SSH2, EPHA2, SLIT2, ITGB1, FER, PTPRO, WHAMM, KIT, WA</p> <p data-bbox="604 1331 1155 1347">1.39E-02 SF2, AUTS2, ARPC2, S1PR1, RHOD, ABLIM3, SPATA13, PARVB, TWRF2, SRGAP2, CYFIP1</p>



GO:0005977 glycogen metabolic process	1.39E-02	1.39E-02 IGF1, RB1CC1, PYGM, PGM1, GSK3B, SORBS1, PYGB, PHKB, GYS1, AKT2, GSK3A, PRKAG2, GCK, GBE1, PASK, STBD1, PPP1R3C, NR1D1, PER2, INPP5K, AKT1, PHKG2, AGL, GYG1, PHKG1, PG M2L1, IRS1, UGP2, INSR, GAA, PPP1R3B, IRS2, NHLRC1, ENPP1
GO:0003013 circulatory system process	1.40E-02	1.40E-02 GCLC, ACSM3, TBXA2R, NOS2, FYN, PIK3C2A, ATP1A2, CPS1, GCLM, UTS2, ELN, NEDD4L, KCNQ1, KCNH2, ATP2B4, MEF2A, ATP2B1, PRKACA, PTGS2, ATP2A3, SRI, EDN1, NOX4, NOS1, SLC 9A1, MYH7, TGFB2, JTPR3, CYB5R3, HMOX1, PDGFB, CTSB, SLC8A3, CTSZ, MYLK2, SMAD7, DMPK, TGFB1, ATP1A3, SCN1B, GSK3A, CAV1, GLRX3, YWHAE, RANGRF, TRPV4, MYL2, SOD2, P DE4D, TNNC1, STAT1, RGS2, ECE1, SLC8A2, SGK1, KCNIP2, KCNJ5, ADRA1A, EPHX2, SCPEP1, POPDC2, PIK3CA, RAMP3, NFE2, EDN3, KCNK15, EDN2, ADORA2A, DLL4, ATP1B2, KCNA5, EP O, TRPM4, TNNI2, PPARG, PER2, MYBPC3, CYP2J2, AGT, KCNK1, EDNRB, BIN1, PRCP, MYOF, HCN4, ENPEP, FOXN4, TPM1, MYLK3, SLC2A5, CASQ1, REN, CALM2, AGTR1, SLIT2, CORIN, CA MK2D, ANK2, DOCK5, C9ORF3, GSTO1, PTPRJ, PLCB3, CACNA1C, PTPRO, DRD3, EDNRA, GPD1L, GJA1, DDAH1, CXADR, ATP2B2, CACNA1D, STC1, TNNI1, RCAN1, ACE, NPR2, CALM3, SPTB N4, S100A1, MYL3, CYP11B1, LRP5, NPPC, ATP1A1, ZC3H12A, ERAP1, COL1A2, CACNB2, SCN3B, ANPEP, STIM1, SERPINF2, CHRMI1, AHCYL1, COL4A3, CXCL10, ADRB2, PROKR1, AKAP13, GAA, KCNK3, KCND3, FGA, C3AR1, ADRA1D, AZU1, PDE3A, LVRN, ADRBK1, JUP, TCAP, CD34, ADCY6, NPPA, KCNE3, SCN4B, CTNNBIP1, CYP11B2, KCNE1, OXTR, CHRM2, ADIPOQ, UTS2R, GJC1, SLC8A1, CTNNA3, SCN5A, PDE4B, RNLS, SGCZ, SCN10A, FFAR3, CYP4F12, PDE2A, RYR1, MME, CACNA1H, HHR1, SRC, MYH6, ASPH, RYR2, CALM1, DLL1, BMPR2, TBC1D8, GSTM2, E MP2, GPX1, GJA5, ADORA3, MIR1-2
GO:0072507 divalent inorganic cation homeostasis	1.42E-02	1.42E-02 CALCR, IBTK, CX3CL1, FYN, SLC11A1, ATP1A2, BAK1, CASR, HERPUD1, ATP2B4, GNA15, AP3D1, TRPC7, ATP2B1, PRKACA, SLC24A1, SRI, EDN1, SCGN, P2RX5, CHERP, MT3, FKBP1A, NOS1, ESR1, JPH4, CAPN3, JTPR3, ABL1, KCTD17, SLC8A3, BDKRB1, HTR2A, SLC30A4, SLC39A14, DMPK, BBC3, GRIN2D, ATP13A1, CAV1, CDH23, CCL1, FAM20A, YWHAE, WFS1, STIM2, CYP27B 1, TRPV4, SLC39A7, CCR6, PDE4D, SLC30A3, TACR1, THADA, FASLG, SLC8A2, PTK2B, ADRA1A, EPHX2, HCRTR1, CCR2, RAMP3, ATP7B, PLCG1, GCM2, GPR18, OPR1, S1PR4, CCR7, EDN2, A TP13A4, F2RL3, EPO, TRPM4, DIAPH1, C19ORF12, DLG4, NMUR2, PDE6A, SLC41A1, TPT1, PDE6B, TRPM1, APLNR, TMEM165, PDGFRA, CD36, CIB2, HCRTR2, PLCE1, FGF2, TRPC3, PLCZ1, SLC39A5, SLC24A4, PML, PDPK1, CACNA1A, TRPM2, CASQ1, S100A8, CALM2, AGTR1, CAMK2D, ANK2, SLC30A5, SLC39A4, GSTO1, CNNM2, JPH2, CACNA1C, ANK3, AKAP6, DRD3, EDNR A, GRM1, JPH3, SLC24A2, CXCL13, NPTN, GHRL, ATP2B2, SPPL3, STC1, ATP13A2, CALM3, GRIN2C, TPCN2, S100A9, CCR1, TRPV6, EFHA1, SLC39A13, PRKCB, SMAD3, STIM1, JSRP1, TMC8, LETM1, CXCL10, CD52, PLA2G1B, PKHD1, LPAR3, P2RY6, BCL2, C3AR1, PRNP, ADRA1D, CALB2, ADCY5, C1QTNF1, TAC4, GRIN1, GPR4, TMTC2, CALR, F2, GPR157, CCL13, GALR2, LCK, SLC8 A1, CCR4, SLC24A3, PARK2, P2RX2, SLC24A5, OR56A5, FZD9, S100A14, RYR1, CD55, SLC30A10, SLC39A10, HTT, CSAR1, ELANE, PLCG2, LPAR1, RYR2, CALM1, TGM2, FAM155A, GPR20, GS TM2, FIS1, CCL5, CCL23, CCL14, MIR1-2
GO:0022409 positive regulation of cell-cell adhesion	1.43E-02	1.43E-02 CX3CL1, FYN, CD6, IGF1, CD44, AP3D1, PRKCO, PRKCZ, FSTL3, CDC42, NCK2, TFR3, GLI2, PTPN23, SIRPB, IL12RB1, XBP1, GRAP2, SMAD7, PYCARD, CSK, IL7, RASAL3, JAK3, CAV1, GLI3, GAT A3, MAP3K8, ZMIZ1, CCL2, IL23A, PTPN6, GCNT2, IL4, CD86, ZAP70, ZP4, MYB, CD274, TNFSF11, CCR2, PIK3CA, EFN2, IL1B, CCR7, ZBTB1, PODXL, RARA, FLOT2, IL6ST, ETS1, ADAM19, RAC 1, IL6, FLOT1, PDPK1, AKT1, DUSP10, NFKBIZ, PIK3R1, PAK1, RPS3, IL18, ANK3, ADAM8, FAM49B, CXCL13, RUNX1, ICOSLG, ZBTB7B, VCAM1, NLRP3, IHH, TGFB2, ICOS, SYK, NOD2, NFKBI D, SERPINF2, CCD88B, IL12A, LGALS9, SOCS5, FGA, MALT1, SART1, GRB2, PTPN11, PAK2, LCK, PDCD1, CD55, SRC, DPP4, PDCD1LG2, CARD11, PNP, AGER, AIF1, HLA-G, MIR30B, HLA- DPB1, TNF, HLA-DMB, LYN, CCL5

GO:0060562 epithelial tube morphogenesis	1.43E-02	1.43E-02 1,RPS7,DEAF1,CTNNBIP1,SCRIB,COL4A1,PLXNB2,RYR2,DLL1,SOX18,PHACTR4,NOTCH4,CSNK2B,TNF DVL2,SOX8,FUZ,FGFR2,RHOA,LRP6,GLI2,CELSR1,SIRT6,MEF2C,LRP2,GRHL2,WNT11,KDM2B,TGFB2,NRP1,MTHFD1,NDRG4,TSC2,CTSH,PRKD2,TGFB1,MEGF8,RASIP1,MET,CO BL,ENG,DVL1,GATA3,FOLR1,VEGFA,FGF1,NPHP3,FOXP1,PROX1,TCF21,MTHFD1L,EFNB2,PAX8,PODXL,SMO,DLL4,STARD13,MICAL2,AGT,SETDB2,CCM2,GATA4,FGF2,BBS7,PRI CKLE1,FOXP4,CCDC40,EPHA2,LMO4,SLIT2,KLHL3,NOTCH1,PAK1,ADAMTS12,SKI,GRHL3,DVL3,VANGL2,BBS5,JHH,TGFB2,DLC1,CTNNB1,RBPJ,SEMA4C,CXCL10,SEMA3E,MTSS
GO:0002705 positive regulation of leukocyte mediated imr	1.45E-02	1.45E-02 LAMF6,FZD5,SYK,B2M,AP1G1,IL12A,ITGAM,C20ORF196,MALT1,RASGRP1,TRAF6,CLCF1,CADM1,LAMP1,C17ORF99,SH2D1B,RAET1G,NCR3 FGR,GAB2,TP53BP1,PRKCZ,TFRC,PVR,STX7,IL12RB1,TGFB1,CRTAM,IL23A,IL4,SNX4,IL1R1,VAMP8,IL1B,ZBTB1,TRAF2,RSAD2,IL6,CD226,IL18,FAM49B,ITGB2,TNFSF13,NLRP3,S
GO:0051668 localization within membrane	1.45E-02	1.45E-02 EC24D,RILPL2,MIA3,SEC13,ITGB2,PIGR,RFTN2,ZDHHC3,D4S234E,NLGN1,MAL,SEC24C,NRXN1,SCRIB,MAGI2,SHISA7,RILPL1,AGRN,FZD9,SHISA6 ITGAL,RALA,AP3D1,NUP133,SAR1A,STX7,MADCAM1,DVL1,NRXN2,SEC24A,TBC1D20,HIP1,RFTN1,DLG4,RAC1,RAB1A,SEC31A,SEC24B,ITGB7,CDH13,MALL,MAL2,GSN,DLG2,S
GO:0006112 energy reserve metabolic process	1.46E-02	1.46E-02 1,PHKG2,AGL,GYG1,PHKG1,PGM2L1,IRS1,UGP2,INSR,GAA,PPP1R3B,IRS2,NHLRC1,ENPP1 IGF1,RB1CC1,PYGM,PGM1,GSK3B,MT3,SORBS1,PYGB,PHKB,GYS1,AKT2,GSK3A,PRKAG2,GCK,GBE1,PASK,LEPR,STBD1,PPP1R3C,NR1D1,GFPT2,PER2,INPP5K,MRAP2,AKT1,PID

GO:0007274 neuromuscular synaptic transmission 1.46E-02 1.46E-02 KIF1B,CHRNA3,CHRNA4,CHRNE,CHRNB4,CHRNA2,DTNA,FCHSD2,CHRNA1,CHRNB3,CHRNA6,CHRN2,CHRNA5,CHRN1,CHRN6,FCHSD1

GO:0051897 positive regulation of protein kinase B signalir 1.46E-02 1.46E-02 NRXN1,HCLS1,LCK,TNFAIP8L3,IRS2,AKR1C3,SRG,PDGFA,CPNE1,TNF,MC1R  
CALCR,CX3CL1,FYN,MYOC,F7,ERBB3,FGFR2,FGFR3,FGF22,FGF4,FGFR1,HSP90AA1,THPO,ESR1,HSP90AB1,PDGFB,TGFB1,PIK3R2,MET,ENG,GATA3,CSF3,GAB1,FGF6,GCNT2,SE  
MA5A,HBEGF,FGF1,CD86,RTN4,PARK7,PIK3CA,RAMP3,CCR7,HIP1,GDF15,KL,PDGFRA,KLB,SPRY2,THBS1,FGF2,EGF,FGF7,PIK3R5,ERBB2,PIK3R1,EGFR,MFHAS1,MTDH,TCF7L2,  
PTPRJ,ITGB1,IL18,ADAM8,PIK3AP1,NRG1,KIT,NRG2,PINK1,FGFR4,TRAT1,ICOS,MST1R,RET,FRS2,CX3CR1,IRS1,PTK2,NRG4,INSR,PIK3CD,HPSE,BTC,CD19,GRB2,ERBB4,PTPN11,

GO:0032663 regulation of interleukin-2 production 1.46E-02 1.46E-02 CD4,HDAC7,NAV3,TBX21,EZR,HOMER2,PRKD2,PDE4D,CD86,SPTBN1,TNFAIP3,CCR2,IL1B,TRAF2,SFTPD,HAVCR2,IRF4,RPS3,RUNX1,PRNP,MALT1,KATS,CD34,GLMN,TRAF6,PD  
E4B,TRIM27

GO:1903510 mucopolysaccharide metabolic process 1.46E-02 1.46E-02 LNACT2,B3GNT2,CHST11,CHST1,B3GNT4,CHST13,CHST15,CHST6,HYAL3,AP2A1,HEXA  
ST3GAL1,DCN,CD44,CHPF2,VCAN,HEXB,ST3GAL6,HYAL2,B4GALT1,SLC9A1,PDGFB,HAS3,TGFB1,HAS1,B3GAT1,DSE,UST,B3GAT2,ARSB,HYAL1,CSPG5,B4GALT2,B4GALT4,FMO  
D,CHST3,IL1B,ST3GAL3,JDUA,NCAN,SLC35D2,CHSY1,BCAN,LYVE1,CHST5,STAB2,CHST12,FGF2,EGF,LUM,GALNS,CLTC,CSGALNACT1,B3GAT3,B3GNT7,ST3GAL2,B4GALT5,CSGA

GO:0051896 regulation of protein kinase B signaling 1.48E-02 1.48E-02 2,AKR1C3,Src,PDGFA,CPN1,TNF,MC1R,MIR145,MIR29C,MIR34A

CALCR,CX3CL1,FYN,MYOC,F7,ERBB3,FGFR2,HYAL2,FGFR3,FGF22,FGF4,FGFR1,HSP90AA1,THPO,ESR1,HSP90AB1,PDGFB,TSC2,TGFB1,PIK3R2,MET,ENG,GATA3,CSF3,SLC9A3R1,GAB1,FGF6,GCNT2,SEMA5A,HBEFG,FGF1,CD86,RTN4,PARK7,SFRP5,PIK3CA,RAMP3,CCR7,HIP1,GDF15,INPP5K,KL,PDGFRA,CLB,SPRY2,THBS1,MSTN,FGF2,EGF,FGF7,ARRB2,PIK3R5,ERBB2,AKT1,EPHA2,PIK3R1,EGFR,MFHAS1,MTDH,TCF7L2,PTPRJ,ITGB1,IL18,DRD3,ADAM8,FLCN,PIK3AP1,NRG1,KIT,XDH,NRG2,PINK1,FGFR4,TRAT1,ICOS,MST1R,RET,FRS2,CX3CR1,IRS1,PTK2,NRG4,OTUD3,PKHD1,INSR,PIK3CD,PTEN,HPSE,DAG1,PHLDA3,BTC,CD19,GRB2,ERBB4,PTPN11,NRXN1,HCLS1,RNF41,LCK,TNFAIP8L3,CIB1,IRS2,MAGI

GO:0070838 divalent metal ion transport 1.49E-02 1.49E-02 RYR1,CACNA1H,SLC30A10,SLC39A10,HTT,SPG7,PLCG2,RYR2,CALM1,FAM155A,TRIM27,GSTM2,PHB2,TLR9,CCL5,ORAI1,MIR34A,MIR1-2

NIPAL3,CALCR,IBTK,CACNG3,CX3CL1,CD4,FYN,SLC11A1,ATP1A2,CASR,ATP2B4,MYLK,CD84,CACNB1,TRPC7,GNB5,CAMK2A,ATP2B1,PRKACA,ATP2A3,SLC24A1,SRI,CACNA1S,TRPM3,P2RX5,CHERP,MT3,FKBP1A,NOS1,SLC9A1,MCOLN1,JPH4,TRPM7,CAPN3,ITPR3,PDGFB,SLC8A3,TRPC4AP,CHRNA4,NALCN,HTR2A,NIPAL2,SLC39A14,TUSC3,KCNN4,BBC3,GRIN2D,PMPCB,CAV1,CDH23,CCL2,YWHAE,WFS1,STIM2,PANX1,SLC11A2,CYP27B1,TRPV4,SLC39A7,GRM6,PDE4D,THADA,GRIN3B,FASLG,SLC8A2,CRHR1,PTK2B,ADRA1A,HPCA,RAMP3,PLCG1,SEMG1,AHNAK,CCR7,F2RL3,EPO,TRPM4,DIAPH1,RAMP1,INPP5K,NMUR2,SLC41A1,TPT1,SLC39A11,TRPM1,APLNR,TMEM165,UBQLN1,BIN1,SLC40A1,FGF2,TRPC3,EGF,SLC39A5,PML,PDPK1,CACNA1A,SLC39A3,TRPM2,CACNG8,CASQ1,SLC39A1,CALM2,TRPM8,CAMK2D,ANK2,SLC30A5,SLC39A4,CAMK2G,GSTO1,JPH2,CACNA2D4,CACNA1C,AKAP6,MCOLN2,JPH3,ATP2B2,CACNA1D,STC1,CALM3,CHRN2,FCRL3,ORAI2,GRIN2C,CCR1,TRPV6,EFHA1,PMPCA,SLC39A2,PACSN3,SLC39A13,CACNB2,PRKCB,CA CNG2,STIM1,JSRP1,TRPV3,SLC3A2,CTNNB1,LETM1,CXCL10,SLN,PLA2G1B,NMUR1,P2RY6,BCL2,PRNP,IL16,NPPA,GRIN1,ANO6,F2,LCK,SLC8A1,PDE4B,SESTD1,P2RX2,OR56A5,

GO:0072511 divalent inorganic cation transport 1.49E-02 1.49E-02 RYR1,CACNA1H,SLC30A10,SLC39A10,HTT,SPG7,PLCG2,RYR2,CALM1,FAM155A,TRIM27,GSTM2,PHB2,TLR9,CCL5,ORAI1,MIR34A,MIR1-2

NIPAL3,CALCR,IBTK,CACNG3,CX3CL1,CD4,FYN,SLC11A1,ATP1A2,CASR,ATP2B4,MYLK,CD84,CACNB1,TRPC7,GNB5,CAMK2A,ATP2B1,PRKACA,ATP2A3,SLC24A1,SRI,CACNA1S,TRPM3,P2RX5,CHERP,MT3,FKBP1A,NOS1,SLC9A1,MCOLN1,JPH4,TRPM7,CAPN3,ITPR3,PDGFB,SLC8A3,TRPC4AP,CHRNA4,NALCN,HTR2A,NIPAL2,SLC39A14,TUSC3,KCNN4,BBC3,GRIN2D,PMPCB,CAV1,CDH23,CCL2,YWHAE,WFS1,STIM2,PANX1,SLC11A2,CYP27B1,TRPV4,SLC39A7,GRM6,PDE4D,THADA,GRIN3B,FASLG,SLC8A2,CRHR1,PTK2B,ADRA1A,HPCA,RAMP3,PLCG1,SEMG1,AHNAK,CCR7,F2RL3,EPO,TRPM4,DIAPH1,RAMP1,INPP5K,NMUR2,SLC41A1,TPT1,SLC39A11,TRPM1,APLNR,TMEM165,UBQLN1,BIN1,SLC40A1,FGF2,TRPC3,EGF,SLC39A5,PML,PDPK1,CACNA1A,SLC39A3,TRPM2,CACNG8,CASQ1,SLC39A1,CALM2,TRPM8,CAMK2D,ANK2,SLC30A5,SLC39A4,CAMK2G,GSTO1,JPH2,CACNA2D4,CACNA1C,AKAP6,MCOLN2,JPH3,ATP2B2,CACNA1D,STC1,CALM3,CHRN2,FCRL3,ORAI2,GRIN2C,CCR1,TRPV6,EFHA1,PMPCA,SLC39A2,PACSN3,SLC39A13,CACNB2,PRKCB,CA CNG2,STIM1,JSRP1,TRPV3,SLC3A2,CTNNB1,LETM1,CXCL10,SLN,PLA2G1B,NMUR1,P2RY6,BCL2,PRNP,IL16,NPPA,GRIN1,ANO6,F2,LCK,SLC8A1,PDE4B,SESTD1,P2RX2,OR56A5,

GO:0002521 leukocyte differentiation 1.49E-02 1.49E-02 2,LCK,JAG2,IRF7,ZFP36L1,IKZF1,TNFRSF18,NHEJ1,C17ORF99,PRTN3,SRCL,I27L2,SPN,PLCG2,DL11,MTOR,PNP,AGER,HLA-G,MIR30B,UBD,FNIP1,TNF,TLR9,BGLAP,LYN

FARP2,CD4,CD74,GAB2,HDAC9,PRDM1,CASP8,AP3D1,KLF6,PRKCD,HDAC4,RORA,FSTL3,CDC42,TCF3,TBX21,GLI2,TPD52,TESC,PPP2R3C,CEBPE,MSH2,BLNK,TREM2,IL12RB1,A BL1,EFNA2,MFNG,XBP1,THOC5,MYH9,ACIN1,DHRS2,MMP9,NFATC2,SMAD7,SFRP1,IL7,CLPTM1,RELB,LYL1,CD79A,JAK3,CDK6,LFNG,GLI3,GATA3,SH3PXD2A,ZMIZ1,CSF3,KAT 2A,HDAC5,FBXW7,IL23A,MAPK14,IL17A,CCR6,VEGFA,IL4,CD86,FOXP1,ZAP70,LEPR,CR2,MYB,TNFSF11,PTK2B,LY9,PDE1B,BATF3,GPR18,IRF1,CCR7,ZBTB1,LIF,LRRIC17,DL4,CB FA2T3,RARA,PPARG,GPS2,PTPN22,RSAD2,IL2RA,HNF1A,DOCK10,IL6,LRRIC8A,IRF4,RIPK1,TNFRSF11A,TRPM2,EPHA2,RORC,DUSP10,ZC3H8,NFKBIZ,ATM,ITGB1,IL18,ADAM8,A DAM17,CD8A,PRKCA,SH3RF1,BATF,MMP14,IL34,KIT,FCER1G,RUNX1,ZBTB7B,FCRL3,VCAM1,NLRP3,SLAMF6,JHH,TGFB2,IFI16,CCR1,ZC3H12A,TLR3,CSF2,IL31RA,SYK,FBN1,N FKBD,IRF2BP2,RHOH,STAT3,LGALS9,PRELID1,OSCAR,JAGN1,SOC5,CHD7,PIK3CD,MALT1,RAG2,TRAF6,PTPN2,SART1,CLCF1,ZNF683,CTNNBIP1,ZFPM1,HCLS1,ADIPOQ,ANXA

REAC:R-HSA- Semaphorin interactions	1.52E-02	1.52E-02 A4	PLXND1,FARP2,FYN,RHOA,CRMP1,PLXNA2,HSP90AA1,GSK3B,SEMA6A,MYL6,DPYSL2,TREM2,HSP90AB1,NRP1,MYH9,MYH14,MET,LIMK1,SEMA5A,DPYSL3,PLXNA1,ARHGEF1,MYH10,ROCK2,PLXNC1,RAC1,TLN1,ERBB2,PAK1,ITGB1,DPYSL4,RHOC,DPYSL5,PLXNB1,CDK5,SEMA3E,CDK5R1,PAK2,FES,LIMK2,PIP5K1C,SEMA4D,SEMA4A,ARHGEF12,PLXN
GO:0072175 epithelial tube formation	1.53E-02	1.53E-02	DVL2,SOX8,FUZ,FGFR2,LRP6,CELSR1,LRP2,GRHL2,KDM2B,TGFB2,MTHFD1,TSC2,TGFB1,COBL,DVL1,GATA3,FOLR1,NPHP3,PROX1,MTHFD1L,PAX8,PODXL,PRICKLE1,LMO4,SKI,GRHL3,DVL3,VANGL2,DLIC1,SEMAAC,RPS7,DEAF1,SCRIB,PLXNB2,PHACTR4
GO:0050817 coagulation	1.53E-02	1.53E-02	TFPI,PRKAR2B,CD9,FYN,PLAUR,EHD2,PRKCH,LCP2,F7,GNA15,PRKCQ,TRPC7,CDC42,PRKACA,TXK,DGKD,CAPZB,FAP,GNB1,EDN1,P2RX5,CD59,GNAS,GP6,GNA11,DOCK9,RCOR1,PABPC4,APOH,CBX5,ITPR3,PDGFB,MYH9,ITPK1,HNF4A,MYL12A,MAPK3,PLAT,CAV1,HSPB1,SERPINE1,GATA3,P2RX1,AKAP10,COL1A1,ALOX12,PRKAR1A,EHD1,VWF,SH2B3,PTPN6,PRKAR2A,PROC,HDAC1,CAPZA1,MFN2,SERPINC1,GNA13,AKAP1,PIK3CA,NFE2,SEMG1,IRF1,PROZ,PRKCG,F2RL3,ADORA2A,DOCK6,GATA5,F12,ZFYVE20,H3F3B,VAV3,PDGFRB,CD36,PHF21A,MICAL1,TEC,SERPINE2,RAC1,IL6,DGKB,GATA4,STXBP1,TLN1,ARRB1,PRCP,THBS1,ENTPD1,TRPC3,PDPK1,ARRB2,PIK3R5,DGKQ,PDGFC,PIK3R1,GNA12,DGKZ,FERMT3,DOCK1,PRKCA,GNA14,GNAQ,DGKI,PAFAH2,FCER1G,CSRP1,VAV2,ADAMTS13,SH2B2,PRKCD,METAP1,KLKB1,COL1A2,YWHAZ,SYK,PRKACG,PRKCB,SERPINF2,KRT1,IRF2,COL3A1,GP9,ZFPM2,PDGFD,PRKCE,FGA,PIK3CD,CYP4F11,JMID1C,FIBP,HPSE,C1QTNF1,CD34,SELP,A2M,ANO6,GP5,PTPN11,ZFPM1,F2,LCK,ACTG1,MAFF,GP1BA,PRKG
GO:0070372 regulation of ERK1 and ERK2 cascade	1.58E-02	1.58E-02	CALCR,CX3CL1,CCL26,CD4,CD74,CD44,FLT4,ROSI,LMO3,ABCA7,FGFR2,PRKCZ,FGFR3,PDE8A,FGF4,GSTP1,MT3,ICAM1,THPO,SEMA6A,EZR,TREM2,NRP1,CRKL,PDGFB,HTR2A,MAPK3,CCL22,CCL17,NDRG4,NECAB2,PYCARD,PRKD2,TGFB1,FGF21,CCL24,CCL2,CCL1,DUSP3,SLC9A3R1,FBXW7,RAPGEF2,PTPN6,GCNT2,FN1,SLAMF1,TNFSF11,PTK2B,ADRA1A,RAMP3,GLIPR2,IL1B,CCR7,PIN1,PLA2G5,KDR,CCL25,DSTYK,EPHB2,PTPN22,PDGFRA,CD36,SPRY2,GNPMB,DAB2IP,ARRB1,EMILIN1,FGF2,ARRB2,TNFRSF11A,ERBB2,EPHA2,CYR61,DUSP10,PDGFC,TNIP1,EGFR,MFHAS1,NOTCH1,TIRAP,PTPRR,PRKCA,FLCN,EPHB1,SHC1,FGFR4,CCR1,SPRY1,BMPER,SYK,WNK2,NOD2,PSCA,SERPINF2,LGALS9,MAP2K1, RGS14,PKHD1,PDGFD,FGA,P2RY6,PTEN,RASGRP1,HRAS,C3ORF33,PTPN2,ERBB4,PTPN11,NRXN1,ADIPOQ,CCL13,TNFAIP8L3,CIB1,PTPN1,SLC30A10,C5AR1,PDGFA,STYX,NTRK1,AGER,MIR27A,PHB2,TNF,MIF,ARHGAP8,LYN,CCL5,CCL23,MIR145,CCL14,MIR24-2

GO:0045807 positive regulation of endocytosis	1.58E-02	<p>SELE,SLC11A1,NEDD4L,CYBA,ABCA7,RAB27A,PICALM,RAB21,PYCARD,CLIP3,CBLL1,WASL,TFR2,SERPINE1,SFRP4,CCL2,APOA5,CBL,TULP1,VEGFA,TSPAN1,CLU,LRP1,IL1B,C3,HI P1,CALY,TBC1D5,SFTPD,DOCK2,CD63,TOR1A,FLOT1,ARRB1,EGF,ARRB2,AHSG,BICD1,DAB2,WNT3A,FCER1G,VPS28,C2,B2M,PCSK9,LMAN2,NLGN1,AZU1,ANO6,CALR,ANXA2,C AMK1D,NTF3,ANKFY1,CD300LF,MAGI2,MYO18A,DL1L1,TNF</p>
GO:0051235 maintenance of location	1.59E-02	<p>IBTK,CX3CL1,SCIN,CD4,ATP1A2,NR1H3,HSPA5,GOPC,LTBP1,SYNE2,SPAG4,AP3D1,SP100,PRKACA,SCARB1,SRI,KEAP1,CHERP,FKBP1A,NOS1,JPH4,CAPN3,EZR,UNC84B,RANGA P1,NFKBIA,HTR2A,ARL2BP,SLC30A4,BBC3,CAV1,SUFU,FBXW7,EHD1,GOLPH3,PDE4D,SKP1,SLC30A3,PARK7,FASLG,MXI1,PTK2B,GPSM2,SRGN,ATP7B,PLCG1,IL1B,ALKBH7,C3,F FAR2,CCR7,F2RL3,SYNE1,DIAPH1,PPARG,APLN,CD36,IL6,TLN1,TAF8,SORL1,FGF2,G3BP2,FBN2,FITM1,PML,FTO,PDPK1,TRPM2,AKT1,CASQ1,S100A8,CALM2,CAMK2D,ANK2, SLC30A5,GSN,GSTO1,JPH2,CACNA1C,ANK3,AKAP6,HNRNPU,JPH3,HK1,PINK1,MORC3,HK2,CALM3,ABCG1,SPTBN4,SHANK1,S100A9,ALB,ZC3H12A,STARD4,ABCA1,FBN1,JSRP 1,FTH1,BSCL2,LETM1,CXCL10,GAA,P2RY6,DAG1,JUP,PTPN2,LPL,CIDEA,PNPLA2,CALR,F2,LCK,SLC8A1,DGAT1,FAF1,PPARA,RYR1,SLC30A10,HTT,TOPORS,ENPP1,PLCG2,UVRAG, RYR2,CALM1,NFKBIL1,GSTM2,ARL2,PLIN3,TNF,TWF2,ITGB3,IKBKE,APOC4,MIR1-2</p>
GO:0051098 regulation of binding	1.59E-02	<p>PON1,PLAUR,IGF1,BAK1,HSPA5,RSF1,HIPK2,BTBD1,SP100,HDAC4,SIRT2,NUCKS1,PRKACA,MARK2,CRMP1,ADD2,TRAF4,MAP2,MEF2C,GSK3B,ADD1,AURKA,FKBP1A,TFAP4,AB L1,NRP1,CYP2D6,PDGFB,NFKBIA,MMP9,CTSZ,E2F1,ARHGEF7,CLN5,STK3,EIF3E,DOT1L,AES,TGFB1,CAV1,MET,DVL1,GATA3,CSF3,HDACS,RAPGEF2,PRMT8,PPP2CA,CSNK1A1,E IF4G1,SUMO1,PARK7,STMN1,IFIT2,LRP1,SLPI,SYMPK,TRAF2,PIN1,SMO,TTBK2,HIP1R,RARA,ZNF304,PPARG,PER2,PRMT7,MEN1,CAMK1,CD36,HEY2,DHX9,FAM129B,DAB2IP, DERL1,FLOT1,SORL1,GTf2B,EGF,RB1,GAS8,ARRB2,AKT1,PEX14,RPL11,ZNF593,PTPRF,ADAM15,SNAPIN,RALB,TTBK1,CDC45,HMBOX1,TCF7L2,HMGA2,TIRAP,DAB2,WNT3A,TI AM1,NRG1,SPPL3,SKI,EPB41,GPSM1,PEX19,PYHIN1,IFI16,DTX3L,PRKCD,LRPAP1,TERT,LARP6,B2M,AKTIP,CRK,CDT1,TMC8,CTNNB1,XIRP1,PCSK9,ADRB2,SLN,BCL2,PPP1CA,TN KS,TRAF6,ERCC4,CTNNBIP1,AURKB,ZFPM1,GREM2,ADIPQO,ANXA2,TMEM173,SUMO3,HSF1,PARK2,IFIT1,AIDA,STYX,CSNK2B,CSNK1E,CPNE1,PINX1,CCL23</p>
GO:0016032 viral process	1.67E-02	<p>AP2B1,CD4,FYN,PTBP1,CD74,NUP160,AP2S1,YTHDC2,RSF1,NEDD4L,EIF2AK2,CTDP1,CASP8,HIPK2,TAF11,HYAL2,NUP133,NUCKS1,PABPC1,CDC42,AP1M1,RAB7A,LAMP3,ITC H,XRCC5,XPO1,CHMP2B,PIIE,EP515,OAS1,ICAM1,TFAP4,NUP50,SRPK1,HSP90AB1,SMARCB1,LGALS1,EIF3L,AP1B1,APOBEC3H,EP300,RAE1,HCK,CHMP4B,VAPA,NUP93,PARD 6A,CLEC4M,TGFB1,USF2,CAV2,CAV1,EIF3B,AP1S1,SMC3,CCL2,CCL1,DDX6,CD81,NUP98,OAS3,HCFC2,SNX3,TRIM38,STAT1,HDAC1,TRIM62,NR5A2,PROX1,VAMP8,NUP43,TAR DBP,TRIM25,WWP1,SLPI,STAU1,TBC1D20,SMARCA4,APOBEC3A,EIF2AK4,CCNT1,ILF3,AP1M2,BST2,CHMP2A,EIF3G,C19ORF66,CHMP1A,NUP210,INPP5K,VPS4A,ROCK2,RSAD 2,DOCK2,OASL,SRPK2,RNASEL,DHX9,RAC1,CALCOCO2,GTf2B,RAB1A,NUP54,TARBP2,VPS37B,DENR,PML,FURIN,TP53,ARF1,TNIP1,GSN,LRSAM1,USP6NL,HMGA2,UBC,BICD1, NMT2,RANBP2,FBXL2,GPR15,TRIM11,LARP1,RRAGA,MX1,SNF8,CTBP1,RRP1B,ADAR,CPSF4,VPS28,NFIA,IFI16,ZC3H12A,CHMP4C,UBAP1,B2M,AP1G1,FAM111A,SMAD3,ATG1 6L2,LGALS9,PDCC6IP,INSR,TRIM8,BCL2L1,PPIH,ISG20,CXCR6,ADRBK1,DAG1,PC,PDE12,CTBP2,PACS1,BANF1,EIF3F,CHMP6,PARP10,RAD23A,PAK2,LCK,AP2A2,TMPRSS2,PARK 2,IRF7,SP1,P4HB,IFIT1,RRXA,POM121,AP2A1,PCBP2,ATG7,WWP2,CD247,BTBD17,TRIM15,TRIM31,TRIM27,TNF,TRIM26,APOBEC3D,CHMP1B,ITGB3,CCL5</p>

GO:0097581 lamellipodium organization	1.71E-02	1.71E-02 CD44,NCKAP1,CDC42,FSCN1,CAPZB,SSH1,CTTN,ABLIM1,ARHGEF7,CORO1C,GOLPH3,CCDC88A,RREB1,WNT1,RAC2,ARFIP2,ARHGEF4,RAC1,ENPP2,CDH13,SSH2,EPHA2,SLIT2,I TGB1,FER,PTPRO,WHAMM,KIT,WASF2,AUTS2,ARPC2,S1PR1,CORO1B,RHOD,ABLIM3,SPATA13,PARVB,SRC,TWF2,SRGAP2,CYFIP1
GO:0051058 negative regulation of small GTPase mediatec	1.71E-02	1.71E-02 MYOC,RASAL2,TGFB2,SH3BP1,RASAL3,MET,TNFAIP1,RASAL1,MFN2,STMN1,MAPKAP1,ARAP3,ADRA1A,STAMBP,CGNL1,EPHB2,DAB2IP,SLIT2,RASA1,FLCN,ARHGAP25,DLC1, ARHGAP12,KCTD13,RASA3,NF1,SYNGAP1,CD2AP
GO:0016049 cell growth	1.71E-02	1.71E-02 SEMA3F,SEMA3G,IGF1,ROS1,NEDD4L,BCAR1,NOP58,DCBLD2,NTN1,PRKCQ,KIF26A,SYT1,HYAL2,IP6K2,RASGRP2,CDC42,ENO1,PLXNA2,DGKD,MAP2,EDN1,ITCH,DNM2,RIMS1 ,SMARCA2,HSP90AA1,GSK3B,ULK2,CTTN,WNT11,MT3,LTBP4,TGFB2,HSP90AB1,ABL1,NRP1,CPNE6,SGK2,HNF4A,NDRG3,ADNP2,NDRG4,WFDC1,NUBP1,SFRP1,TGFB1,PTPRS, MEGF8,PPP2R1A,MAG,GSK3A,COBL,LIMK1,DDX5,CYP27B1,MYL2,CDKN1B,RASAL1,VEGFA,SEMA5A,PPP2CA,HYAL1,PLXNA1,CISH,EIF4G1,RTN4,RRAGC,RPS6KA1,STK11,KIF14, NRP2,SGK1,SOC52,EXOSC9,CDKN1A,CPNE5,FLRT3,MACF1,SMARCA4,RNF6,EIF2AK4,INO80,SH3BP4,BST2,UNC13A,OLFM1,PAK4,SESN2,MAP1B,H3F3B,ARHGEF11,ACVR1B,AG T,ADAM10,PLCE1,TCHP,PML,IQGAP1,OSGIN1,TP53,RPTOR,ERBB2,AKT1,ADAM15,S100A8,SYT2,CPNE9,GOLGA4,TMEM108,AGTR1,SLIT2,CAMK2D,EGFR,BIN3,PTPRJ,TAOK2,A KAP6,ADAM17,SPOCK1,GJA1,SORBS2,FLCN,ZFYVE27,MMP14,AUTS2,CDA,PRMT2,SCGB3A1,S100A9,TRIM46,APBB2,BAP1,PLXNB1,CDK5,APBB1,SMAD3,SERTAD3,TMCM8,SLC3 A2,CTNNB1,FAM107A,CDKN2AIP,ALCAM,SOC55,SLC25A33,BCL2,NET1,CRLF3,RIMS2,Ulk1,ARIH2,SERTAD2,SLIT3,CIB1,NRG3,NDUFA13,MAPT,SLIT1,SEMA4D,OSTN,SERTAD1, DACT3,ENPP1,SMURF1,MTOR,BMPR2,SLC44A4,HSPA1B,MUC12,SYT3,SIPA1,CPNE1,PLXNA4,TWF2,CDK11B,EGLN2,CYFIP1,MIR195,MIR24-2
REAC:R-HSA- GAB1 signalosome	1.71E-02	1.71E-02 PAG1,PXN,CSK,GAB1,PIK3CA,EGF,PIK3R1,EGFR,GRB2,PTPN11,SRC

GO:0035637 multicellular organismal signaling	1.71E-02	CACNG3,SCN4A,ATP1A2,TYMP,KCNQ1,KCNH2,ATP2B4,MEF2A,ATP2B1,PRKACA,ATP2A3,SRI,NOS1,SLC9A1,ITPR3,CACNA1I,SLC8A3,DMPK,MYH14,ATP1A3,SCN1B,CAV1,YWHAE,RANGRF,PDE4D,SLC8A2,KCNJ5,KCNK15,ATP1B2,KCNA5,TRPM4,AGT,KCNK1,SCN7A,BIN1,CHRNA1,HCN4,CACNG8,CASQ1,CALM2,CORIN,CAMK2D,ANK2,GLRA1,CACNA1C,ANK3,GJA1,CXADR,OTOA,ATP2B2,CACNA1D,NPR2,CALM3,SPTBN4,NPPC,ATP1A1,CACNB2,SCN3B,CACNG2,STIM1,AHCYL1,KCNMB3,KCNK3,KCND3,JUP,CNTNAP2,NPPA,KCNE3,SCN4B,KCNA2,KCNE1,GJC1,SLC8A1,CTNNA3,SCN5A,SCN10A,RYR1,CACNA1H,SCN8A,ASPH,RYR2,CALM1,GJA5,MIR1-2
GO:0001838 embryonic epithelial tube formation	1.73E-02	DVL2,SOX8,FUZ,LRP6,CELSR1,LRP2,GRHL2,KDM2B,TGFB2,MTHFD1,TSC2,TGFB1,COBL,DVL1,GATA3,FOLR1,NPHP3,MTHFD1L,PAX8,PRICKLE1,LMO4,SKI,GRHL3,DVL3,VANGL2,DLC1,SEMA4C,RPS7,DEAF1,SCRIB,PLXNB2,PHACTR4
GO:0051893 regulation of focal adhesion assembly	1.73E-02	MYOC,LIMCH1,RHOA,CLASP1,COL16A1,SLC9A1,ABL1,NRP1,PPM1F,SFRP1,CORO1C,VEGFA,MACF1,KDR,ROCK2,RAC1,THBS1,BCAS3,PHLDB2,PTPRJ,CLASP2,DLC1,TSC1,DAPK3,PTK2,LIMS1,PTEN,RCC2,EFNA5,SRC,S100A10,LDB1
GO:0042058 regulation of epidermal growth factor recept	1.73E-02	RHBDF1,PLAUR,EPN1,RNF126,CDC42,NCK2,RAB7A,EP515,MMMP9,PTK6,ARHGEF7,AGR2,FBXW7,CBL,CBLB,STAM2,ERRFI1,EP515L1,HIP1,RHBDF2,HIP1R,VPS25,AGT,SPRY2,STAM2,DAB2IP,EGF,CDH13,AKT1,CBL,RQCD1,EGFR,PTPRJ,FER,ADAM17,ZFYVE28,SHC1,TGFA,SPRY1,AFAP1L2,SOC5,PTPN2,CHMP6,GRB2,HGS,ARAP1,ZGPAT



GO:0090109 regulation of cell-substrate junction assembly	1.73E-02	1.73E-02	MYOC,LIMCH1,RHOA,CLASP1,COL16A1,SLC9A1,ABL1,NRP1,PPM1F,SFRP1,CORO1C,VEGFA,MACF1,KDR,ROCK2,RAC1,THBS1,BCAS3,PHLDB2,PTPRJ,CLASP2,DLCL1,TSC1,DAPK3,PTK2,LIMS1,PTEN,RCC2,EFNA5,SRGAP1,S100A10,LDB1
GO:0010822 positive regulation of mitochondrion organizz	1.81E-02	1.81E-02	PLAUR,DCN,BID,BAK1,USP36,CASP8,CSNK2A2,TP63,TP73,GSK3B,DNM1L,HPS4,BIK,GZMB,MMP9,E2F1,PCYCARD,BMF,BBC3,GSK3A,YWHAE,UBE2D3,FBXW7,PPARGC1A,CAMK2,K2,FAM162A,PARK7,RHOJ,MFN2,TNFSF10,ZNF205,KDR,RAC2,ATPIF1,HIP1R,YWHAQ,HRK,NMT1,NPEPPS,TP53,TP53BP2,BCL2L11,PINK1,HK2,UBE2J2,VPS11,FZD5,BAP1,MICALL2,YWHAZ,YWHAG,BCL2,ABLIM3,BNIP3,BOK,ARIH2,PLD6,PARK2,UBL4B,HTT,TFDP1,MLLT11,FIS1
GO:0090174 organelle membrane fusion	1.83E-02	1.83E-02	VPS41,SYT7,VAMP3,TBC1D22A,TBC1D22B,TBC1D1,EVI5,SYT1,RAB7A,STX7,CHMP2B,SNAP23,SEC22C,TBC1D2,STX1B,SNAP29,TBC1D10A,SGSM3,VTI1B,VPS18,AKT2,CAV2,STX1A,TBC1D13,TBC1D12,GOSR1,RAB34,TBC1D9,STX2,STX12,VAMP8,TBC1D5,ZFYVE20,TBC1D14,VPS4A,SNAP25,SYT11,STX11,STX6,TGFBRAP1,TBC1D4,STXBP1,STX17,SYTL2,VAMP1,GRTP1,SYT16,SGSM2,EVI5L,SYTL1,SNAP47,SYT2,NKD2,USP6NL,SYT8,DOC2A,VTI1A,RABGAP1L,ADPRHL1,VPS11,STX5,SYTL3,VPS39,STX3,SGSM1,TBC1D2B,TBC1D16,TAAP1,VAMP5,STXBP6,TBC1D10B,TSNARE1,SYT12,TBC1D10C,SAMD9L,CALR,ANXA2,ANKFY1,TBC1D9B,UVRAG,RUNDC1,SYT15,TAP2,TBC1D8,SAMD9,SYT3,VPS16,TAPBP,SEC22B
GO:0110020 regulation of actomyosin structure organizati	1.83E-02	1.83E-02	MYOC,LIMCH1,RHOA,PFN2,CDC42,CLASP1,ARHGEF10,EDN1,RAPGEF3,WNT11,PXN,SLC9A1,ABL1,NRP1,PPM1F,SFRP1,ARHGEF10,MET,LIMK1,TESK1,PFN1,STMN1,PROX1,APOA1,TGFB3,PPFIA1,INPP5K,ROCK2,FHOD1,RAC1,TPM1,MYLK3,PHLDB2,EPHA1,PAK1,RHOC,WASF2,CLASP2,DLCL1,TSC1,SERPINF2,AKAP13,PPM1E,NF2,ARAP1,S100A10,LPAR1,MIR1-2

GO:0002708 positive regulation of lymphocyte mediated ir	1.84E-02	1.84E-02	TP53BP1,PRKCZ,TFRC,PVR,STX7,IL12RB1,TGFB1,CRTAM,IL23A,IL4,IL1R1,IL1B,ZBTB1,TRAF2,RSAD2,IL6,CD226,IL18,FAM49B,TNFSF13,NLRP3,SLAMF6,FZD5,B2M,AP1G1,IL12A,C20ORF196,MALT1,RASGRP1,TRAF6,CLCF1,CADM1,LAMP1,C17ORF99,SH2D1B,RAET1G,NCR3
GO:0090066 regulation of anatomical structure size	1.84E-02	1.84E-02	GCLC,ALS2,BAIAP2L1,CCL26,TBXA2R,SCIN,NOS2,SEMA3G,CLCN6,PIK3C2A,CPS1,GCLM,LIMA1,NCKAP1,NTN1,RHOA,PFN2,NCK2,WDR1,PICALM,ADD2,PLXNA2,ACTN2,CAPZB,MAP2,EDN1,DNM2,GSK3B,SSH1,CTTN,PPP1R15A,MT3,ADD1,NOS1,ABL1,NRP1,SH3BP1,TRIOBP,HMOX1,HCK,CORO1A,PYCARD,PEX11G,PTPRS,MEGF8,MAG,CAV1,CCL24,LIMK1,CSF3,PFN1,SLC9A3R1,CLCN3,TRPV4,SOD2,VEGFA,SEMA5A,PLXNA1,ACTR3,RTN4,ECE1,PTK2B,ADRA1A,EPHX2,SCPEP1,SLC12A4,EDN3,VASP,CCR7,EDN2,HP1BP3,MACF1,RNF6,CDC42EP1,ARPC1B,TRPM4,OLFM1,HIP1R,ARFIP2,PER2,RAP1GAP2,VAV3,AGT,EDNRB,RAC1,BIN1,LRRCA8,FCHSD2,SSH2,RPTOR,ARF1,GOLGA4,AGTR1,SLIT2,IQGAP2,RASA1,ARHGAP18,DOCK5,GSN,CDC42EP2,FER,EPH2,EDNRA,PLEKHH2,ZFYVE27,KCNMA1,WHAMM,SNF8,ATP13A2,ACE,VAV2,ARPC5,TRIM46,ARPC2,PRKCD,ARFIP1,CFL2,ARF6,CDC42EP5,RILP,SERPINF2,CHRM1,RAB3B,ADRB2,LMOD2,PRKCE,FGA,PTEN,ADRA1D,PPP1CA,CORO1B,ADCY6,BAIAP2,ANO6,CDC42EP4,HCLS1,OXTR,SLC8A1,MAPT,SEMA4D,PFN3,HRH1,FCHSD1,MTOR,BMP2R,AKT1S1,TRIM27,PLXNA4,AQP1,ARPC4,ARPC1A,TWF2,CYFIP1,HNF1B
GO:0010573 vascular endothelial growth factor productio	1.87E-02	1.87E-02	BRCA1,SARS,FLT4,RORA,PTGS2,HIF1A,TGFB1,CCR2,IL1B,C3,ATF4,IL6ST,IL6,GATA4,CYP1B1,ARNT,ADAMTS3,EIF2AK3,HPSE,CXCL17,SULF2,GPR56
GO:0002064 epithelial cell development	1.91E-02	1.91E-02	SOX8,SLC4A7,ROS1,RAPGEF3,GSK3B,GRHL2,ADD1,ICAM1,EZR,PDGFB,NUP93,TJP1,GSK3A,SIPA1L3,CDK6,MET,RHEB,ENG,RAPGEF1,ACTA2,RAPGEF2,EXPH5,WNT5B,CLIC5,PD E4D,PROC,PROX1,TJP2,PROX2,IL1B,RAP1B,PODXL,ARNTL,GSTM3,ROCK2,IQGAP1,EPHA2,RAB13,RILPL2,WNT7A,MYO1E,STC1,NPHS1,TMEM79,DACT2,CDH5,ADIPOQ,CLDN5,LRTOMT,PDE2A,MAGI2,RILPL1,WNT7B,DL1,SOX18,TNF

GO:0051492 regulation of stress fiber assembly	1.96E-02	<p>1.96E-02 MYOC,LIMCH1,RHOA,PFN2,CD42,CLASP1,ARHGEF10L,RAPGEF3,WNT11,PXN,SLC9A1,ABL1,NRP1,PPM1F,SFRP1,ARHGEF10,MET,LIMK1,TESK1,PFN1,STMN1,APOA1,TGFB3,PFIA1,INPP5K,ROCK2, FHOD1,RAC1,TPM1,PHLDB2,EPHA1,PAK1,RHOC,WASF2,CLASP2,DLC1,TSC1,SERPINF2,PPM1E,NF2,ARAP1,S100A10,LPAR1</p>
REAC:R-HSA- Signaling by NOTCH	1.96E-02	<p>1.96E-02 PLXND1,CREBBP,TACC3,CNTN1,HDAC9,CUL1,HDAC7,ST3GAL6,TLE2,HDAC4,SEL1L,NOTCH3,ATP2A3,TNRC6C,ITCH,B4GALT1,TNRC6A,MFNG,TNRC6B,EP300,HDAC10,GZMB,HIF1A,E2F1,FCER2,LFNG,KAT2A,HDAC5,FBXW7,DTX4,CCND1,CCNC,E2F3,SKP1,WWC1,KAT2B,STAT1,HDAC1,ST3GAL3,DLL4,NUMB,DTX1,HEY2,ARRB1,ADAM10,EGF,TLE3,FURIN,NCOR1,ARRB2,TP53,EGFR,NOTCH1,UBC,ADAM17,MOV10,MAML1,NCSTN,ELF3,HDAC11,PRKCI,RBPJ,HDAC3,TBL1XR1,MAML2,JAG2,DLK1,PBX1,IKZF1,DNER,NCOR2,HDAC2,MAML3,MIB2,HES5,TFDP1,WWP2,DLL1,NOTCH4,NEURL1B</p>
GO:1902532 negative regulation of intracellular signal tran	2.04E-02	<p>2.04E-02 PLAUR,DCN,NR1H4,ZMYND11,CD74,UBR2,CD44,MYOC,LMO3,TNIP3,HERPUD1,ATP2B4,HDAC7,CASP8,HYAL2,RORA,UFD1L,ENO1,SRI,RASAL2,ITCH,TP73,SESN1,C1QTNF3,GSK3B,GSTP1,MECOM,MAPKAPK5,IRAK3,ESR1,SEMA6A,EZR,RFFL,TGFB2,SH3BP1,PIK3IP1,DEPDC5,XBP1,HIF1A,MMP9,RNF125,RIOK3,MGRN1,USP10,TSC2,PYCARD,HOMER2,RASAL3,APLP1,PPP2R1A,PIK3R2,GSK3A,CAV1,MET,HSPB1,CDK5RAP3,DHX58,DUSP3,SLC9A3R1,TNFAIP1,HIPK3,DUSP16,RASAL1,SOD2,DUSP22,NME5,PPP2CA,WWC1,CISH,STAT1,FHL2,NFE2L2,PARK7,ARHGEF2,MFN2,RGS2,RGS4,STMN1,STK11,KPTN,TNFAIP3,UBE2B,MAPKAP1,SFRP5,DUSP1,ARAP3,SOCS2,CLU,ADRA1A,LAX1,STAMBP,IL1B,FLRT3,TRAP1,PIN1,LRRCA,CGNL1,SEC14L1,SH3BP4,EPO,SESN2,LRRCA4,PODNL1,PRKAA1,INPP5K,GPS2,TPT1,EPHB2,ARNTL,MEN1,PTPN22,APLNR,TAOK3,MRAP2,SPRY2,TANK,DAB2IP,RIPK1,SORL1,THBS1,MAPKB1,BCL2L10,EMILIN1,MSTN,RGS3,IGF1R,NCOR1,ARRB2,PRDM15,AKT1,CBL,NLRP12,EPHA2,MCL1,DUSP10,CALM2,LIMD1,SLIT2,RASA1,TNIP1,GSTO1,PTPRJ,ATM,DLG5,DRD3,WWC2,PDE3B,GPD1L,PTPRR,FLCN,PPEF2,CREB3L1,DUSP2,XDH,PINK1,RCAN1,ADIPOR1,CALM3,ZNF385A,SYVN1,NLRP3,DUSP19,ARHGAP25,PAQR3,ZC3H12A,PRKCD,SPRY1,DUSP7,DLC1,C9ORF89,WNK2,ARHGAP12,TSC1,SPRED1,LRTM2,BAG5,SMPD1,PSCA,NLRC3,RHOH,RGS14,GPS1,OTUD3,OTUD7A,PKHD1,SOCS5,BCL2L1,HDAC3,BCL2,PTEN,PRNP,QARS,RELA,PARP14,DAG1,PHLDA3,PODN,C3ORF33,KCTD13,PTPN2,PER1,ADIPOQ,NPLOC4,PTTG1P,DUSP8,CIB1,GP1BA,PARK2,HGS,TNFAIP8L1,MUC1,RTN4RL1,RASA3,NDUFA13,AIDA,NF2,RTN4RL2,MAGI2,NOC2L,PTPN1,NF1,SRC,SYNGAP1,CD2AP,SPRED2,CALM1,INPP5F,OPA1,TRIM40,AKT1S1,MIR124-3,STM2,CPNE1,FNIP1,MIF,LYN,OTUD7B,SOCS7,MIR145,MIR29C,MIR34A</p>
GO:0007043 cell-cell junction assembly	2.05E-02	<p>2.05E-02 CD9,PRKCH,CTNNA1,RHOA,WDR1,PRKACA,MPP5,FSCN1,GRHL2,PARD6A,TJP1,LIM2,CAV1,TRPV4,NPHP4,ROCK2,DSG1,APC,AGT,TLN1,TBCD,RAB13,NPHP1,PKP4,PARD3,PTPRG,OJA1,PRKCA,FLCN,RHOC,RUNX1,ACE,CLDN1,PRKCI,MICALL2,PDCC6IP,FRMPD2,TLN2,JUP,CDH5,GJC1,CLDN5,PKP3,GJA4,FBF1,OCLN,MYO1C,ARL2,TNF,GJA5</p>

REAC:R-HSA- Signaling by SCF-KIT	2.10E-02	FYN,GAB2,PTPRU,GRAP2,MMP9,PIK3R2,CBL,SH2B3,PTPN6,STAT1,PIK3R3,PIK3CA,STAT5A,KRAS,TEC,RAC1,GRB7,PIK3R1,CHEK1,FER,PRKCA,KIT,SH2B2,STAT3,STAT5B,HRAS,G RB2,PTPN11,FES,LCK,SRC,LYN
GO:0000188 inactivation of MAPK activity	2.11E-02	2.11E-02 PPP2R1A,CAV1,DUSP3,DUSP16,DUSP22,PPP2CA,RGs4,DUSP1,LAX1,GPS2,RGs3,DUSP10,DUSP2,SPRED1,GPS1,DUSP8,SPRED2
GO:0006022 aminoglycan metabolic process	2.12E-02	HS3ST1,ST3GAL1,DCN,CD44,B4GALT7,CHPF2,VCAN,HEXB,GPC1,ST3GAL6,HYAL2,NDST1,B4GALT1,SLC9A1,PDGFB,HAS3,XVLT1,TGFB1,HAS1,NAGLU,B3GAT1,DSE,GCNT2,UST, B3GAT2,ARSB,HYAL1,CSPG5,SDC1,CTBS,B4GALT2,B4GALT4,FMOD,CHST3,SDC4,HS3ST3B1,IL1B,ST3GAL3,JDUA,NCAN,SLC35D2,CHSY1,BCAN,CHIT1,LYVE1,CHIA,CHST5,STAB2 ,CHST12,GALNT5,HS6ST1,FGF2,EGF,LUM,GALNS,CLTC,HSPG2,CSGALNACT1,B3GAT3,EXT2,HS2ST1,B3GNT7,ST3GAL2,B4GALT5,SDC2,CSGALNACT2,B3GNT2,CHST11,HPSE,CH ST1,B3GNT4,CHID1,FUCA1,CHST13,CHST15,EXT1,GPC6,CHST6,HYAL3,AGRN,AP2A1,HEXA
GO:0044773 mitotic DNA damage checkpoint	2.14E-02	MRE11A,FOXN3,TP63,TP73,CNOT4,AURKA,PCBP4,CLSPN,MSH2,EP300,E2F1,FBXO31,RBL2,GML,CASP2,CDK5RAP3,CCND1,CDKN1B,CNOT6,NEK11,ARID3A,GADD45A,PLAGL1, CDK2,CDKN1A,CNOT1,E2F8,TAOK3,RINT1,HUS1,MDC1,PML,TP53,CARM1,RQCD1,PLK2,ATM,ORAQV1,TAOK2,HMGA2,EME1,CNOT8,CDC25C,DONSON,BRSK1,TAOK1,ZNF385 A,TOPBP1,RFWD3,CRADD,CDK1,RAD9A,MUS81,CNOT10,MUC1,TFDP1,PPP1R10,E2F4,PRKDC

GO:0010038 response to metal ion	2.14E-02	<p>2.14E-02 SF1,PARK2,MAPT,ZACN,SF3B3,AKR1C3,RYR1,CACNA1H,SLC30A10,RYR2,CALM1,DAXX,CPNE1,PHB2,AQP1,ZNF658</p> <p>PPP5C,DPEP1,CASR,GUCA1A,NEDD4L,RHOA,SYT1,MEF2A,RASGRP2,SNCB,MEF2C,CPNE3,MT3,ADD1,MCOLN1,CAPN3,ITPR3,LGMN,HIF1A,MMP9,MAPK3,AQP9,SLC30A4,NDRG1,HAMP,CAV1,TFR2,SERPINE1,SLC11A2,CDKN1B,GPLD1,PPP2CA,SLC30A3,RTN4,SLC25A12,SUMO1,PARK7,ARID1A,KCNIP2,ADCY7,HPCA,ANXA11,ACO1,ATP7B,MT2A,SLC34A1,PRKAA1,DLG4,SLC41A1,LOXL2,THBS1,SEC31A,TRPC3,PPP3CA,IQGAP1,TRPM2,AKT1,KCNH1,ITPKB,CALM2,CAMK2D,SLC30A5,GLRA1,EGFR,DLG2,ANK3,KCNMA1,ATP13A2,CALM3,CYP11B1,PEF1,HAAO,ADCY1,TRPV6,B2M,STIM1,ACER1,ADAM9,AHCYL1,NLGN1,KCNMB3,FGA,BCL2,PRNP,PPP1CA,BNIP3,CPNE7,CYP11B2,NRXN1,D2HGDH,SCN5A,H</p>
GO:0044042 glucan metabolic process	2.14E-02	<p>2.14E-02 M2L1,IRS1,UGP2,INSR,GAA,PPP1R3B,IRS2,NHLRC1,ENPP1</p> <p>IGF1,RB1CC1,PYGM,PGM1,GSK3B,SORBS1,PYGB,PHKB,GYS1,AKT2,GSK3A,PRKAG2,GCK,GBE1,PASK,STBD1,PPP1R3C,NR1D1,PER2,INPP5K,AKT1,PHKG2,AGL,GYG1,PHKG1,PG</p>
GO:0006073 cellular glucan metabolic process	2.14E-02	<p>2.14E-02 M2L1,IRS1,UGP2,INSR,GAA,PPP1R3B,IRS2,NHLRC1,ENPP1</p> <p>IGF1,RB1CC1,PYGM,PGM1,GSK3B,SORBS1,PYGB,PHKB,GYS1,AKT2,GSK3A,PRKAG2,GCK,GBE1,PASK,STBD1,PPP1R3C,NR1D1,PER2,INPP5K,AKT1,PHKG2,AGL,GYG1,PHKG1,PG</p>
GO:0008015 blood circulation	2.16E-02	<p>2.16E-02 2</p> <p>GCLC,ACSM3,TBXA2R,NOS2,PIK3C2A,ATP1A2,CPS1,GCLM,UTS2,ELN,NEDD4L,KCNQ1,KCNH2,ATP2B4,MEF2A,ATP2B1,PRKACA,PTGS2,ATP2A3,SRI,EDN1,NOS1,SLC9A1,MYH7,TGFB2,ITPR3,CYB5R3,HMOX1,PDGFB,CTSG,SLC8A3,CTSZ,MYLK2,SMAD7,DMPK,TGFB1,ATP1A3,SCN1B,GSK3A,CAV1,GLRX3,YWHAE,RANGRF,TRPV4,MYL2,SOD2,PDE4D,TNNC1,STAT1,RGS2,ECE1,SLC8A2,SGK1,KCNIP2,KCNJ5,ADRA1A,EPHX2,SCPEP1,POPDCC,PIK3CA,NFE2,EDN3,KCNK15,EDN2,ADORA2A,DLL4,ATP1B2,KCNA5,EPO,TRPM4,TNNI2,PPARG,PER2,MYBPC3,CYP2J2,AGT,KCNK1,EDNRB,BIN1,PRCP,MYOF,HCN4,ENPEP,FOXN4,TPM1,MYLK3,SLC2A5,CASQ1,REN,CALM2,AGTR1,SLIT2,CORIN,CAMK2D,ANK2,DOCK5,C9ORF3,GSTO1,PTPRJ,PLCB3,CACNA1C,PTPRO,DRD3,EDNRA,GPD1L,GJA1,DDAH1,CXADR,ATP2B2,CACNA1D,STC1,TNNI1,RCAN1,ACE,NPR2,CALM3,SPTBN4,S100A1,MYL3,CYP11B1,LRP5,NPPC,ATP1A1,ZC3H12A,ERAP1,COL1A2,CACNB2,SCN3B,ANPEP,STIM1,SERPINF2,CHRM1,AHCYL1,COL4A3,CXCL10,ADRB2,PROKR1,GAA,KCNK3,KCND3,FGA,C3AR1,ADRA1D,AZU1,PDE3A,LVRN,ADRBK1,JUP,TCAP,CD34,ADCY6,NPPA,KCNE3,SCN4B,CTNNBIP1,CYP11B2,KCNE1,OXTR,CHRM2,ADIPOQ,UTS2R,GJC1,SLC8A1,CTNNA3,SCN5A,PDE4B,RNLS,SGCZ,SCN10A,FFAR3,CYP4F12,PDE2A,RYR1,MME,CACNA1H,HRH1,SRC,MYH6,ASPH,RYR2,CALM1,DLL1,BMPR2,TBC1D8,GSTM2,EMP2,GPX1,GJAS,ADORA3,MIR1-</p>

GO:0022617 extracellular matrix disassembly	2.18E-02	<p>CD44,TIMP2,CLASP1,FSCN1,FAP,KIF9,TLL2,CTSG,MMP9,MMP15,TGFB1,EXOC8,MMP19,LRP1,LAMC1,LCP1,FLOT1,MMP7,MMP13,ADAM10,FURIN,ADAM15,SCUBE3,ADAM8,  2.18E-02 MMP14,FGFR4,DDR2,CTSS,CLASP2,MFI2,KLKB1,HTRA1,MMP10,KLK2,CTRB2,KLK7,BSG,SH3PXD2B,A2M,TMPRSS6,NOXO1,MMP1,ELANE,DPP4,DDR1</p>
GO:0006941 striated muscle contraction	2.18E-02	<p>ATP1A2,MYOM2,NEDD4L,KCNQ1,KCNH2,PRKACA,SRI,NOS1,SLC9A1,MYH7,SLC8A3,MYLK2,MYOM1,SMAD7,DMPK,MYH14,SCN1B,CAV1,RANGRF,MYL2,C12ORF57,PDE4D,TN  NC1,RGS2,KCNJ5,ADRA1A,PIK3CA,OBSL1,KCNAS,TRPM4,TNNT3,TNNI2,ARHGFEF11,MYBPC3,DTNA,BIN1,CHRNA1,HCN4,TPM1,MYOM3,CASQ1,CALM2,CAMK2D,ANK2,GSTO1,  ALDOA,CACNA1C,GPD1L,GJA1,CACNA1D,STC1,TNNI1,CALM3,MYL3,CCDC78,ATP1A1,ZC3H12A,PGAM2,CACNB2,SCN3B,JSRP1,GAA,ADRBK1,JUP,TCAP,NPPA,KCNE3,SCN4B,IG  2.18E-02 SF22,KCNE1,GJC1,SLC8A1,CTNNA3,SCN5A,PDE4B,SCN10A,MYBPC1,MYH6,RYR2,CALM1,RCSO1,GSTM2,MYBPHL,GJA5,MIR1-2</p>
GO:0055114 oxidation-reduction process	2.18E-02	<p>MPO,CROT,ALDH3B1,COX10,NOS2,CYB561,MGST1,IYD,COX15,IGF1,CYP24A1,RB1CC1,CYBA,ACAA1,CS,PDIA5,NDUFB4,CYB5R4,GSTO2,PFKP,PKM2,PYGM,KCNAB2,ALDH3A2,  ACADVL,ENO1,ACAT1,FMO4,PGM1,ME2,GSK3B,PLOD1,AKR1B1,NOX4,ACOX3,MT3,ALKBH5,ECHDC1,FMO2,SORBS1,CYP2D6,HMOX1,MCAT,NCF4,SLC25A17,DHRS2,PYGB,HA  O1,PHKB,LONP2,HMOX2,GYS1,GPI,AKT2,GSK3A,PMPCB,OGDH,PRKAG2,GCK,PHYH,SH3PXD2A,ALDH3A1,ALOX12,NDUFC1,PPARGC1A,CPT1A,NDUFS8,ACAD10,ALDH2,TPI1,E  NO2,COX6A1,PPARD,NNT,EHHADH,GBE1,GPD2,NDUFS7,ACADL,PASK,SLC25A12,DHCR24,SCP2,PARK7,MECR,LEPR,HAO2,FAM54B,APOA1,STBD1,PPP1R3C,ACAT2,ECHDC2,A  CADS,MTRR,NQO2,CHCHD5,NR1D1,TRAP1,COX7C,ECHS1,POR,NDUFA5,IJD,LOXL1,CDO1,CBFA2T3,PXDN,ACSS2,GFPT2,PER2,INPP5K,MMACHC,MICAL2,LOXL2,MRAP2,BLOC  1S1,COQ10A,MICAL1,ALDOB,GRHR,ALDH1B1,ALKBH8,DUOX1,HADHB,CYP11B1,AOX1,HADH,TDG,SUOX,SLC27A2,ETFA,FTO,NDUFB10,PFKL,AKT1,PRDM16,PGD,SDHC,CBR4,  MDH2,PXDNL,ALDOA,NDUFC2,ME3,PFKM,ACOXL,PID1,ACSS1,OXA1L,UQCRB,HK1,TYSND1,PHKG2,DHRS4,PINK1,NDUFS2,APOA2,ADPGK,ADIPOR1,HK2,NDUFV3,FLAD1,HK3,  ACOX1,AGL,PEX13,CHCHD4,GYG1,NDUFS4,UQCRQ,PGAM2,PHKG1,PGM2L1,PRDX3,HIF1AN,NDUFB8,ALKBH3,GPX4,NDUFV1,PDHB,ACOX2,NDUFS5,IRS1,PRELID1,KCNAB1,D  CXR,UGP2,CDK1,INSR,GAA,CYP4F11,BPGM,ADH6,PPP1R3B,SH3PXD2B,COX8A,CYC1,ALOX12B,PIPOX,D2HGDH,ADIPOQ,DHTKD1,HEPHL1,ADO,LDH2,SLC25A10,RNLS,NDUFA1  2.18E-02 2,IRS2,WVVOX,CYP4F12,PPARA,NHLRC1,NDOR1,ALKBH2,AKR1C3,NOXO1,OGDHL,BCO2,ENPP1,FAM36A,HSD17B8,PLIN5,COX19,ACAD11,MICAL3,NDUFA7,SCO2</p>
GO:1901185 negative regulation of ERBB signaling pathwa	2.18E-02	<p>EPN1,RNF126,CDC42,PTPN18,RAB7A,EPS15,LGMN,ARHGFEF7,CBL,CBLB,STAM2,ERRFI1,EPS15L1,VPS25,SPRY2,STAM,DAB2IP,EGF,ERBB2,CBLC,EGFR,PTPRJ,ZFYVE28,SPRY1,SO  2.18E-02 CS5,PTPN2,CHMP6,GRB2,HGS,ZGPAT</p>

GO:0009416 response to light stimulus	2.18E-02	<p>CREBBP,C1ORF124,ERCC1,BAK1,USP2,GUCA1A,OPN3,POLD1,FECH,HYAL2,CNGB1,RAD18,TP63,SLC24A1,MAP2K7,GNB1,SDF4,TP73,MAP3K4,GNA11,MSH2,CIRBP,EP300,ACTR5,N4BP1,BMF,RP1,ERCC2,CRTC1,MAPK10,CCND1,PITPNM1,METAP2,TULP1,GRM6,GNAT1,HYAL1,REEP6,PDC,STK11,UBE2B,CRY2,CAT,ZRANB3,POLK,CDKN1A,GRK4,ZBTB1,ATF4,EIF2AK4,INO80,AANAT,UBE4B,NPHP4,GUCY2D,PDE6A,PDE6B,MEN1,EIF2S1,BHLHE40,TRPM1,GNAT2,DDDB2,NMT1,TRPC3,PML,COP3,TP53,SIK1,AKT1,DTL,NPHP1,EGFR,CHEK1,CACNA2D4,DRD3,NMT2,PTPRK,GNAQ,BRSK1,CHRN2,IVL,CDS1,METAP1,MFAP4,GNMT,SCARA3,FEN1,IL12A,RGS14,PPP1CA,RELA,RBM4B,RBM4,ERCC4,GRIN1,AURKB,PER1,MTA1,GRK1,PPP1CC,HYAL3,NOC2L,MME,NF1,ELANE,CALM1,ABCA4,PPP1CB,ERCC6,GPX1,AQP1,MC1R,NR2E3</p>
GO:0016236 macroautophagy	2.22E-02	<p>DCN,RB1CC1,RRAGD,IFT88,ATP6V0A1,GABARAPL2,CLEC16A,USP36,GNAI3,WIPI1,PRKACA,RAB7A,PIK3C3,TP53INP2,CHMP2B,NSFL1C,DYNLL1,SNX5,EXOC1,WAC,SNAP29,MTMR3,SPTLC2,CHMP4B,MAP1LC3A,TSC2,RHEB,PRKAG2,TBC1D12,AMBRA1,TCIRG1,PRKAB1,RAB23,ATP6V0E1,STAM2,PRKAG3,RAB3GAP1,QSOX1,KIAA1324,MFN2,EXOC8,RRAGC,LGALS8,STX12,VAMP8,STBD1,RAB3GAP2,PIK3CA,KDR,CHMP2A,SESN2,TBC1D5,VPS25,EXOC4,PRKAB2,PRKAA1,TBC1D14,VPS4A,UBQLN1,SNX14,CALCOCO2,STAM,STX17,ATP6V1G1,RAB1A,VPS37B,MAP1LC3B,RPTOR,WDR45L,AKT1,RALB,LIX1,ATG12,LRSAM1,FEZ1,SCOC,LARP1,RRAGA,WIPI2,PINK1,SNF8,ATP13A2,ATP6V0D1,GPSM1,VPS28,SQSTM1,WDFY3,CHMP4C,CDK5,TP53INP1,TSC1,UBXN6,WDR81,MLST8,ATG16L2,ATG4B,ADRB2,GABARAP,FEZ2,ATP6V0E2,RAB33B,SNX32,UBXN2A,CHMP6,BNIP3,CDK5R1,SMCR8,SLC38A9,ULK1,PACS2,YOD1,ATG9B,EXOC7,TBK1,NRBP2,ATP6V0A2,PARK2,HGS,ATP6V0C,NBR1,SUPTSH,C6ORF106,SRG,HTT,ATG7,UVRAG,SMURF1,MTOR,TECPR1,VDAC1,UBXN2B,VPS16,ATP6V1E2,DYNLL2,SEC22B,LIX1L,PIP4K2B</p>
GO:0050806 positive regulation of synaptic transmission	2.31E-02	<p>BAIAP3,DTNBP1,PRKCZ,SYT1,SLC24A1,RIMS1,ABL1,STX1B,LGMN,SLC8A3,MPP2,CUX2,RAB3GAP1,SLC8A2,PTK2B,ADRA1A,EIF2AK4,DLG4,EPHB2,FLOT1,PLK2,WNT7A,SLC24A2,NPTN,SQSTM1,SHANK1,SHANK2,GRIK2,D4S234E,RAB3B,RGS14,NLGN1,PTEN,KCTD13,RIMS2,GRIN1,NRXN1,SHISA7,ARC,AGER</p>
GO:0060193 positive regulation of lipase activity	2.31E-02	<p>SELE,NR1H3,GNA15,FGFR2,RHOA,FGFR3,TKX,FGFR1,APOH,ESR1,HTR2A,APOA5,APOA1,GNA13,ADRA1A,PLCG1,S1PR4,PLA2G5,NMUR2,PDGFRA,FGF2,PDPK1,AGTR1,EGFR,NTRK2,EDNRA,RHOC,GNAQ,KIT,ARF4,PLA2G1B,NMUR1,P2RY6,RASGRP4,HRAS,C5AR1,LPAR1,PLIN5,CCL5,GPIHBP1</p>

GO:0032922 circadian regulation of gene expression	2.33E-02	USP2,NGFR,RORA,RELB,NAMPT,RAI1,PPARGC1A,HDAC1,CRY2,MC3R,NR1D1,ATF4,PER2,MYBBP1A,ARNTL,BHLHE40,NCOA2,PML,ZFH3,CSNK1D,RORC,DRD3,HNRNP,NPAS 2.33E-02 2,PPP1CA,RBM4B,PER1,MTA1,PPP1CC,PPARA,HDAC2,TOP1,LGR4,PPP1CB,CSNK1E
GO:0033006 regulation of mast cell activation involved in i	2.37E-02	2.37E-02 FGR,GAB2,C12ORF4,STYK1,CD84,STXB2,UNC13D,SNX4,VAMP8,FER,ENPP3,SYK,LGALS9,FES,LYN
GO:1903900 regulation of viral life cycle	2.38E-02	CD4,CD74,YTHDC2,EIF2AK2,NUCKS1,PABPC1,LAMP3,CHMP2B,PIIE,OAS1,SRPK1,LGALS1,APOBEC3H,CHMP4B,VAPA,CAV2,SMC3,OAS3,SNX3,TRIM38,TRIM62,NR5A2,PROX1, TRIM25,SLPI,STAU1,TBC1D20,APOBEC3A,EIF2AK4,ILF3,BST2,CHMP2A,C19ORF66,INPP5K,VPS4A,RSAD2,OASL,SRPK2,RNASEL,TARBP2,VPS37B,PML,TNIP1,GSN,HMGA2,FBXL 2,TRIM11,LARP1,MX1,SNF8,ADAR,IFI16,ZC3H12A,CHMP4C,FAM111A,LGALS9,TRIM8,PIIH,ISG20,PC,PDE12,BANF1,PARP10,RAD23A,TMPRSS2,PARK2,P4HB,JFIT1,BTBD17,TRI 2.38E-02 M15,TRIM31,TNF,TRIM26,APOBEC3D,CCL5
GO:0009108 coenzyme biosynthetic process	2.43E-02	PDK2,MLXIPL,IGF1,MAT2B,ME1,ELOVL1,PFKP,PKM2,HDAC4,COASY,PTGS2,ENO1,ACAT1,PGM1,COQ9,DLD,ACOT7,TECR,GSTZ1,HIF1A,MTHFD1,QPRT,GPI,NAMPT,PRKAG2,GC K,PDHX,COQ5,TPI1,ENO2,ELOVL3,MTHFD1L,LIAS,SLC25A16,PFKFB2,ACSL3,MOCS1,PANK2,PPCS,CBFA2T3,ACLY,PRKAA1,LDHA,COQ10A,ALDOB,FPGS,PPCDC,NCOR1,PFKL,AR NT,SCD5,HSD17B12,ALDOA,MAT1A,ACSL1,PFKM,PANK1,ACMSD,ACSS1,HKDC1,HK1,ADPGK,HK2,PDXK,FLAD1,HK3,HAAO,CABC1,NMNAT3,MOCS2,ACSL6,PGAM2,PGM2L1,N 2.43E-02 NMT,PDHB,ELOVL6,PFKFB3,INSR,BPGM,PDP2,NADSYN1,DCAKD,COQ2,ACSF3,PARP10,RNLS,PPARA,ENTPD5,TPK1,ACSL5,ELOVL2,PNP,PPT2,EIF6,SLC5A8,ACACA



GO:0042059 negative regulation of epidermal growth fact	2.46E-02	2.46E-02	EPN1,RNF126,CDC42,RAB7A,EP515,ARHGEF7,CBL,CBLB,STAM2,ERRF1,EP515L1,VPS25,SPRY2,STAM,DAB2IP,EGF,CBLC,EGFR,PTPRJ,ZFYVE28,SPRY1,SOCS5,PTPN2,CHMP6,GRB2,HGS,ZGPAT
GO:0030203 glycosaminoglycan metabolic process	2.50E-02	2.50E-02	HS3ST1,ST3GAL1,DCN,CD44,B4GALT7,CHPF2,VCAN,HEXB,GPC1,ST3GAL6,HYAL2,NDST1,B4GALT1,SLC9A1,PDGFB,HAS3,XYLT1,TGFB1,HAS1,NAGLU,B3GAT1,DSE,GCNT2,UST, B3GAT2,AR5B,HYAL1,CSPG5,SDC1,B4GALT2,B4GALT4,FMOD,CHST3,SDC4,HS3ST3B1,IL1B,ST3GAL3,IDUA,NCAN,SLC35D2,CHSY1,BCAN,LYVE1,CHST5,STAB2,CHST12,GALNT5, HS6ST1,FGF2,EGF,LUM,GALNS,CLTC,HSPG2,CSGALNACT1,B3GAT3,EXT2,HS2ST1,B3GNT7,ST3GAL2,B4GALT5,SDC2,CSGALNACT2,B3GNT2,CHST11,HPSE,CHST1,B3GNT4,FUCA
GO:0016197 endosomal transport	2.51E-02	2.51E-02	BAIAP3,SPAG9,EHD2,VAMP3,AP3D1,EVIS,CLTCL1,RNF126,PICALM,RAB7A,PTPN23,ACTN2,ERC1,CHMP2B,EP515,SNX5,RAB11FIP3,CMTM6,TBC1D10A,MICALL1,TOM1,VTI1B, ZFYVE21,CHMP4B,CLN5,EHD4,TMEM87A,LAPTM4B,SNX8,GBF1,GOSR1,EHD1,RAB35,SNX4,STAM2,SNX17,DENND1A,RAB17,SNX9,CALY,CHMP2A,TBC1D5,ZFYVE20,VPS25,TB C1D14,VPS4A,DCLK1,BLOC1S1,STX6,STAM,SORL1,VPS37B,VPS53,SGSM2,CLTC,TINAGL1,SNX27,RAB13,LYST,VPS54,DENND2A,UBC,ANKRD50,VTI1A,TMEM87B,SNF8,VPS28,S QSTM1,STX5,RHOBTB3,CHMP4C,LMTK2,MICALL2,UBAP1,ABCA1,ARF6,SDCCAG3,VPS39,UBXN6,RILP,D4S234E,TBC1D10B,SNX33,SNX31,TBC1D10C,UBE2O,CHMP6,FAM109B
GO:0032570 response to progesterone	2.51E-02	2.51E-02	NR1H3,TGFB2,TGFB1,CAV1,UBE3A,TGFB3,WBP2,YAP1,THBS1,ABHD2,SRGAP3

GO:0021915 neural tube development	2.52E-02	2.52E-02 2, DLC1, SEMA4C, ARL13B, RPS7, DEAF1, SCRIB, PLXNB2, HESS, ZNF358, PHACTR4, TRIM71  DVL2, FUZ, LRP6, GLI2, CELSR1, LRP2, GRHL2, KDM2B, TGFB2, MTHFD1, TSC2, TGFB1, COBL, DVL1, FOLR1, NPHP3, PROX1, MTHFD1L, PRICKLE1, LMO4, GPR161, SKI, GRHL3, DVL3, VANGL1
GO:0010959 regulation of metal ion transport	2.54E-02	2.54E-02 M27, GSTM2, TLR9, CCL5, ORAI1, MIR34A, MIR1-2  CALCR, CX3CL1, CD4, FYN, ATP1A2, NEDD4L, PRSS8, KCNQ1, KCNH2, ATP2B4, WNK1, MYLK, CD84, CACNB1, KCNAB2, GNB5, CAMK2A, PRKACA, SRI, ACTN2, P2RX5, FKBP1A, TESC, NOS1, FXYD3, SLC9A1, JPH4, CAPN3, PDGFB, NKAIN4, HAMP, SCN1B, CAV1, CCL2, YWHAE, RANGRF, SLC9A3R1, WFS1, STIM2, GRM6, PDE4D, KCNIP3, THADA, SUMO1, GRIN3B, KCNIP2, CRHR1, PTK2B, HPCA, RAMP3, KCNS1, PLCG1, SEMG1, AHNAK, F2RL3, ATP1B2, KCNA5, DPP6, ACTN4, EPO, DIAPH1, INPP5K, APLNR, UBQLN1, CD63, CAB39, BIN1, FXYD6, FXYD2, TRPC3, EGF, PML, PDPK1, SIK1, CASQ1, CALM2, CAMK2D, ANK2, CAMK2G, GSTO1, JPH2, FXYD4, CACNA1C, ANK3, AKAP6, GPD1L, UTRN, JPH3, CACNA1D, STC1, CALM3, SPTBN4, FCRL3, ATP1A1, CCR1, WNK2, PACSIN3, CACNB2, SCN3B, B2M, STIM1, JSRP1, CTNNB1, AHCYL1, PCSK9, CXCL10, KCNAB1, SLN, KIF5B, PLA2G1B, PRKCE, P2RY6, BCL2, PRNP, IL16, COMMD1, NPPA, KCNE3, GRIN1, SCN4B, ANO6, PER1, F2, KCNE1, KCNIP1, GALR2, SLC8A1, SCN5A, LRRC55, PDE4B, LRRC26, KCNIP4, SESTD1, P2RX2, NKAIN2, OR56A5, SLC30A10, HTT, WWP2, RYR2, STK39, CALM1, TRI
GO:0072503 cellular divalent inorganic cation homeostasis	2.54E-02	2.54E-02 RYR1, CD55, SLC30A10, SLC39A10, HTT, CSAR1, ELANE, PLCG2, LPAR1, RYR2, CALM1, TGM2, FAM155A, GPR20, GSTM2, FIS1, CCL5, CCL23, CCL14, MIR1-2  CALCR, IBTK, CX3CL1, FYN, SLC11A1, ATP1A2, BAK1, CASR, HERPUD1, ATP2B4, GNA15, AP3D1, TRPC7, ATP2B1, PRKACA, SLC24A1, SRI, EDN1, SCGN, P2RX5, CHERP, MT3, FKBP1A, NOS1, ESR1, JPH4, CAPN3, ITPR3, ABL1, KCTD17, SLC8A3, BDKRB1, HTR2A, SLC30A4, SLC39A14, DMPK, BBC3, GRIN2D, ATP13A1, CAV1, CDH23, CCL1, YWHAE, WFS1, STIM2, TRPV4, SLC39A7, CCR6, PDE4D, SLC30A3, TACR1, THADA, FASLG, SLC8A2, PTK2B, ADRA1A, EPHX2, HCRTR1, CCR2, RAMP3, ATP7B, PLCG1, GCM2, GPR18, OPR1, S1PR4, CCR7, EDN2, ATP13A4, F2RL3, EPO, TRPM4, DIAPH1, C19ORF12, DLG4, NMUR2, PDE6A, SLC41A1, TPT1, PDE6B, TRPM1, APLNR, TMEM165, PDGFRA, CD36, CIB2, HCRTR2, PLCE1, FGF2, TRPC3, PLCZ1, SLC39A5, SLC24A4, PML, PDPK1, CACNA1A, TRPM2, CASQ1, S100A8, CALM2, AGTR1, CAMK2D, ANK2, SLC30A5, SLC39A4, GSTO1, JPH2, CACNA1C, AKAP6, DRD3, EDNRA, GRM1, JPH3, SLC24A2, CXCL13, NP TN, GHRL, ATP2B2, SPPL3, STC1, ATP13A2, CALM3, GRIN2C, TPCN2, S100A9, CCR1, TRPV6, EFHA1, SLC39A13, PRKCB, SMAD3, STIM1, JSRP1, LETM1, CXCL10, CD52, PLA2G1B, PKHD1, LPAR3, P2RY6, BCL2, C3AR1, PRNP, ADRA1D, CALB2, ADCY5, C1QTNF1, TAC4, GRIN1, GPR4, CALR, F2, GPR157, CCL13, GALR2, LCK, SLC8A1, CCR4, SLC24A3, P2RX2, SLC24A5, OR56A5, FZD9,
GO:0010801 negative regulation of peptidyl-threonine phc	2.55E-02	2.55E-02 SIRT2, SMAD7, EIF4G1, INPP5K, SPRY2, CALM2, DGKQ, PARD3, PPEF2, CALM3, SPRED1, SPRED2, CALM1

GO:0010876 lipid localization	2.60E-02	<p>PON1,NOS2,SYT7,NR1H4,NPC1L1,OSBPL5,NR1H3,ATP9A,ABCA7,ATP11A,LRP6,SCARB1,ACACB,ATP8B1,SLC27A5,SLCO1A2,NCOA1,CETP,APOH,TSPO,SLC25A17,SLC10A1,NFKBIA,LIPG,ABCC1,AKT2,CAV1,PLEKHA8,ABCA2,ABCC3,FBXW7,EHD1,OSBP,CPT1A,APOA5,PITPNM1,CHKA,PPARD,TMEM30A,COL4A3BP,SCP2,STX12,APOA1,ATP10B,NPC2,CRHR1,TNFSF11,CLU,LRP1,ACSL3,GOT2,SLC10A2,ABCC4,IL1B,ALKBH7,C3,FFAR2,LBP,SLC27A1,STARD3,PPARG,GPS2,VPS4A,NMUR2,CD36,AGT,IL6,THBS1,STRA6,CYP19A1,ABCG5,FITM1,SLC27A2,NCOA2,FTO,NCOR1,ABCA8,TNFRSF11A,AKT1,ABCG8,AGTR1,ATP10D,SLC10A4,SLC22A9,THRSP,DRD3,ACSL1,PITPNC1,ABCA9,ABCA5,GHRL,CPT2,APOA2,ACE,ABCG1,ZC3H12A,PRKCD,RFT1,STARD4,SYK,ABCA1,ILPC,ATP9B,BSCL2,PCSK9,PRELID1,PLA2G1B,STARD5,C1QTNF1,PITPNA,SLCO2A1,PTPN2,LPL,CIDEA,SLCO3A1,PNPLA2,SLC25A20,ADIPOQ,ANXA2,TNFAIP8L3,LCN12,DGAT1,PARK2,IRS2,RXRA,PPARA,ENPP1,ABCA4,CES1,APOM,MFSD2B,ATP10A,MIR128-</p> <p>1,PLIN5,GLTPD1,TNF,ITGB3,IKBKE,APOC4,ACACA</p>
GO:0051648 vesicle localization	2.62E-02	<p>STARD3NL,SYT7,DTNBP1,TRAPPC3,CDH3,AP3D1,SYT1,RAB27A,WIPI1,NDE1,CLASP1,MAP2,DNM2,RIMS1,CD59,SNAP23,STX1B,SNAP29,CNIH,DNAJC5,CTS2,SNPH,KIF3B,AP3B2,SPG11,STX1A,WASL,GBF1,GOSR1,AREG,SAPS3,FOLR1,STX2,SEC24A,COL7A1,OTOF,MLPH,RAB3GAP1,RIMS3,RAB17,BBS2,TBC1D20,KIF1C,AP1M2,KIF1A,ACTN4,UNC13A,KIF3A,EXOC4,STARD3,SNAP25,SYT11,BLOC1S1,STX11,TOR1A,STXBP1,KIF13A,FNBP1L,RAB1A,PRES,AP1AR,SEC31A,BBS7,SEC24B,CSNK1D,SYTL1,SNAPIN,SNAP47,SYT2,SEC16A,SYT8,DOC2A,SEC24D,SAR1B,GRIA1,SEC13,DYNC1I1,PINK1,BRSK1,STX5,PEF1,BBS5,TGFA,TRIM46,CLASP2,SYTL3,CDK5,NDEL1,MYO1A,STX3,TRAPPC9,NLGN1,MYRIP,TMED10,KIF5B,PTEN,SYT12,BRSK2,RIMS2,SEC24C,NRXN1,MCFD2,RAB11B,PARK2,PIPSK1C,BLOC1S3,BLOC1S2,TRAPPC4,DYNC1H1,SERPINA1,HTT,F5,SYT15,ANKRD28,SYT3,SEC22B</p>
GO:0090287 regulation of cellular response to growth fact	2.62E-02	<p>ITGA3,FUZ,DCN,STRAP,LTBP1,DKK3,GPC1,HIPK2,FGFR2,FSTL3,EPN2,FGF4,FGFR1,LRP2,MT3,LTBP4,SEMA6A,HSP90A1,HIF1A,SMAD7,ZNF423,STUB1,PRKD2,TGFB1,CAV1,SFRP4,ENG,GATA3,FBXL15,PBLD,SMURF2,SNX25,FOLR1,ZNF451,SMOC2,VEGFA,FGF1,STK11,GIPC1,PMEPA1,WNT1,IL1B,GDF5,PIN1,CDKN1C,DSTYK,MEN1,CD63,AGT,SPRY2,SKIL,FAM129B,DAB2IP,NUMA1,THBS1,SMAD6,EMILIN1,FGF2,FBN2,PCSK6,TGFB11,PDPK1,RNF165,FBN3,PRDM16,CYR61,ARNT,TMEM108,SLIT2,CRB2,NOTCH1,UBC,ADAMTS12,ADAM17,DAB2,FLCN,ADAMTS3,CXCL13,CD109,NPTN,RNF111,CREB3L1,SKI,XDH,LEMD2,TGFB2,BMPER,FBN1,PRKCB,RBPMS2,SMAD3,VASN,RBP1,ROBO1,HTRA3,SOSTDC1</p> <p>,MMRN2,LEMD3,UBE2O,CIDEA,FAM89B,NRXN1,GDF3,HGS,BCL9L,VWC2,PTPN1,SULF2,ADAMTSL2,MYO1C,HES5,DL1,SMURF1,BMPR2,MIR30B,ITGB3,MIR1-2</p>
GO:0051091 positive regulation of DNA-binding transcripti	2.63E-02	<p>CFLAR,DVL2,CX3CL1,PRKCH,EIF2AK2,TRAF1,HIPK2,PRKCC,TP53BP1,PRKCZ,HDAC4,LRP6,CAMK2A,TCF3,MAP3K13,NFKB2,EDN1,TRAF5,ERCI,IRAK3,ESR1,CAPN3,SMARCB1,MAP3K7IP1,EP300,RPS6KA5,PYCARD,STK3,PRKD2,CRTC1,NOD1,BUD31,CSF3,HDACS,PPARGC1A,TRIM38,VEGFA,PARK7,OPRD1,TRIM62,ARHGFE2,TAF12,TNFSF11,CLU,COP55,TRIM25,WNT1,IL1B,TRAF2,SMARCA4,SMO,PPARG,TRIM22,IRAK2,CD36,AGT,DHX9,IL6,RIPK1,ANXA3,GF2A2,CRTC3,MYOCD,CARD14,TNFRSF11A,AKT1,S100A8,MTDH,PPRC1,RPS3,ARID5B,TIRAP,IL18,UBC,FER,ADAM8,KIT,CRTC2,NLRP3,DDR2,S100A9,RNF25,PRKCI,AIM2,PRDX3,PRKCB,SMAD3,NOD2,CTNNB1,CX3CR1,LGALS9,PLA2G1B,TRIM8,PTEN,MALT1,MYD88,RELA,JUP,TLR6,ABRA,FZD4,TRAF6,UBE2N,HCLS1,CAMK1D,RIPK4,TRIM52,TMEM173,CIB1,ROR1,IRAK4,CARD11,NTRK1,AGER,HSPA1B,TRIM15,TRIM31,TRIM27,PHB2,TNF,TRIM26,TLR9,UBE2V1</p>

GO:0032869	cellular response to insulin stimulus	2.64E-02	<p>PDK2,BAIAP2L1,PIK3C2A,ATP6V0A1,HDAC9,BCAR1,NGFR,PRKCQ,PKM2,PRKCZ,NUCKS1,SORBS1,XBP1,TSC2,AKT2,PIK3R2,GSK3A,CAV2,GCK,HDAC5,GAB1,TCIRG1,GPLD1,ATP6V0E1,KAT2B,CISH,PIK3R3,RHOQ,IDE,GOT1,SOCS2,PIK3CA,IL1B,PPARG,PTPRE,INPP5K,APC,TBC1D4,ATP6V1G1,CPEB2,IGF1R,PDPK1,AKT1,CAPN10,RAB13,AHSG,PIK3R1,FER,PDE3B,PID1,APPL1,ATP6V0D1,ZBTB7B,SHC1,SH2B2,INHBB,PRKCI,PRKCD,TSC1,VWAZ,PRKCB,IRS1,PCSK9,SIK2,PLA2G1B,INSR,ATP6V0E2,SLC25A33,PTPN2,BAIAP2,GRB2,PTPN11,ADIPOQ,ATP6V0A2,ZFP36L1,ATP6V0C,FFAR3,IRS2,PTPN1,ENPP1,CPEB1,ATP6V1E2,PRKDC</p>
GO:0033692	cellular polysaccharide biosynthetic process	2.69E-02	<p>IGF1,NDST1,PGM1,GSK3B,SORBS1,HAS3,GYS1,AKT2,HAS1,GSK3A,GCK,GBE1,PASK,PPP1R3C,NR1D1,PER2,INPP5K,AKT1,CSGALNACT1,EXT2,GYG1,PGM2L1,IRS1,UGP2,CSGALNACT2,B3GNT2,INSR,B3GNT4,EXT1,IRS2,NHLRC1,ENPP1</p>
GO:0034121	regulation of toll-like receptor signaling pathw	2.71E-02	<p>SARM1,BIRC3,NR1H3,CYBA,WDFY1,IRAK3,PTPRS,CAV1,TNFAIP3,IRF1,NR1D1,TICAM1,LBP,SMPDL3B,GPS2,PTPN2,RSAD2,CD36,DAB2IP,FLOT1,MFHAS1,TIRAP,FCRL3,LRRC14,OTUD4,TLR3,CD14,TLR1,TLR6,IRF7,CD300LF,TLR5,TREML4,NFKBIL1,LGR4,TLR9,LYN</p>
GO:1901890	positive regulation of cell junction assembly	2.74E-02	<p>MYOC,COL16A1,ABL1,NRP1,PPM1F,SFRP1,CAV1,VEGFA,KDR,NPHP4,AGT,RAC1,FLOT1,NPHP1,PTPRJ,TSC1,LIMS1,S100A10</p>

GO:0086064 cell communication by electrical coupling inv 2.74E-02 2.74E-02 ATP1A2,PRKACA,SRI,ATP1A3,CAV1,PDE4D,ATP1B2,CALM2,CAMK2D,CACNA1C,GJA1,CALM3,ATP1A1,GJC1,SLC8A1,RYR2,CALM1,GJA5

FUCA2,AP2B1,NOS2,PGLYRP1,CD4,FYN,PTBP1,CD74,NUP160,AP2S1,YTHDC2,RSF1,NEDD4L,EIF2AK2,CTDP1,CASP8,HIPK2,TAF11,HYAL2,NUP133,NUCKS1,PABPC1,CDC42,AP1M1,SCARB1,RAB7A,LAMP3,ITCH,XRCC5,XPO1,ULK2,CHMP2B,PPIE,EPS15,OAS1,ICAM1,TFAP4,NUP50,SRPK1,HSP90AB1,SMARCB1,LGALS1,EIF3L,AP1B1,THOC5,APOBEC3H,EP300,CTSG,RAE1,HCK,CHMP4B,VAPA,NUP93,PARD6A,GSDMD,FCER2,CLEC4M,TGFB1,RPS19,USF2,CBLL1,CAV2,CAV1,MET,EIF3B,AP1S1,SMC3,CCL2,CCL1,OSBP,DDX6,CBL,CD81,NUP98,OAS3,HCFC2,SNX3,TRIM38,FN1,STAT1,HDAC1,TRIM62,NR5A2,PROX1,VAMP8,NUP43,TARDBP,TRIM25,WWP1,SLPI,STAU1,SEMG1,TBC1D20,SMARCA4,APOBEC3A,EIF2AK4,CCNT1,ILF3,AP1M2,BST2,CHMP2A,EIF3G,C19ORF66,CHMP1A,NUP210,INPP5K,VPS4A,SFTPD,ROCK2,RSAD2,DOCK2,OASL,SRPK2,RNASEL,DHX9,RAC1,CALCOCO2,GT F2B,RAB1A,NUP54,TARBP2,VPS37B,DENR,PML,FURIN,TP53,ARF1,CALM2,REG3G,TNIP1,TMEM181,GSN,LRSAM1,USP6NL,HMGA2,TIRAP,UBC,BICD1,NMT2,RANBP2,FBXL2,GPR15,TRIM11,LARP1,RRAGA,MX1,SNF8,CTBP1,CALM3,RRP1B,ADAR,CPSF4,VPS28,NFIA,PGLYRP4,S100A9,IFI16,ALB,ZC3H12A,CHMP4C,UBAP1,RNASE7,B2M,AP1G1,FAM111A,SMAD3,ATG16L2,CTNNB1,LGALS9,PDCD6IP,INSR,TRIM8,BCL2L1,PPIH,ISG20,CXCR6,AZU1,ADRBK1,DAG1,PC,PDE12,CTBP2,PACCS1,BANF1,EIF3F,CHMP6,ULK1,GRB2,PARP10,RAD23A,F2,PAK2,PRF1,CCL13,EXOC7,ANXA2,LCK,AP2A2,TMPRSS2,PARK2,IRF7,SP1,P4HB,IFIT1,RXRA,DEFB132,POM121,AP2A1,PCBP2,SRG,ATG7,ELANE,WWP2,CTNND1,CA

GO:0044419 interspecies interaction between organisms

2.75E-02

2.75E-02 LM1,CD247,HMGN2,BTBD17,TRIM15,TRIM31,TRIM27,KRT6A,TNF,TRIM26,AQP1,APOBEC3D,CHMP1B,ITGB3,CCL5

GO:0050732 negative regulation of peptidyl-tyrosine phos 2.75E-02 2.75E-02 MVP,PRKCZ,HYAL2,PTK6,SFRP1,PPP2R1A,CAV1,CBL,PTPN6,PPP2CA,CBLB,ERRFI1,SH3BP5,VPS25,CBLC,ZFYVE28,PRKCD,SOCSS5,PARP14,SH3BP5L,PTPN2,CHMP6,NTF3,NF2,SEMA4D,ZGPAT,INPP5F,SRCIN1

GO:0050690 regulation of defense response to virus by vir 2.78E-02 2.78E-02 AP2B1,CD4,FYN,AP2S1,EIF2AK2,AP1M1,AP1B1,HCK,AP1S1,AP1M2,DOCK2,RAC1,ARF1,B2M,AP1G1,PACCS1,PAK2,LCK,AP2A2,AP2A1,CD247

GO:0032388 positive regulation of intracellular transport	2.84E-02	2.84E-02 FGR,FYN,IGF1,EHD2,GAB2,USP36,CDH3,HYAL2,CSNK2A2,PTPN23,ACTN2,MAP2,RAPGEF3,RAB21,GSK3B,RBM22,MTMR2,EDEM2,EZR,HPS4,MLC1,UBR5,OAZ1,AKT2,TGFB1,PIK3R2,GSK3A,YWHAE,UBE2D3,FBXW7,EHD1,TMEM30A,SNX4,SCP2,RHOA,VAMP8,KHDRBS1,IL1B,TBC1D20,RAC2,XPO4,CAMK1,EDEM1,PRR5L,DHX9,NUMA1,SORL1,NPEPPS,BCAS3,TP53,ERBB2,CAPN10,PIK3R1,TCF7L2,B3GAT3,ANK3,BAG3,DAB2,PINK1,UBE2J2,ITGB2,PCNT,VPS11,FZD5,TRIM46,ZC3H12A,BAP1,PRKCD,MICALL2,SYK,SMAD3,STX18,NLGN1,ITGAM,HDAC3,PRNP,ABLIM3,JUP,HRAS,ARIH2,DMAP1,OAZ2,HCLS1,ANXA2,TMEM173,CIB1,PARK2,UBL4B,DYNC1H1,MYO1C,FIS1
GO:0006873 cellular ion homeostasis	2.88E-02	2.88E-02 CFTR,SLC4A1,CALCR,IBTK,CX3CL1,FYN,SLC11A1,ATP1A2,BAK1,ATP6V0A1,SLC4A7,CASR,CP,NEDD4L,LETMD1,SLC4A8,HERPUD1,CUL1,ATP2B4,GNA15,AP3D1,SLC9A3,TRPC7,ATP2B1,CYBRD1,PRKACA,TFRC,SLC24A1,SRI,RAB7A,SLC46A1,EDN1,SCGN,SLC4A4,P2RX5,CHERP,MT3,FKBP1A,NOS1,SLC9A1,ESR1,JPH4,SLC22A17,CAPN3,ITPR3,ABL1,HMOX1,KCTD17,SLC8A3,BDKRB1,HTR2A,CLN5,NUBP1,HMOX2,SLC30A4,SLC39A14,DMPK,BBC3,ATP1A3,GRIN2D,HAMP,ATP13A1,CAV1,TFR2,CDH23,CCL1,YWHAE,WFS1,CLCN3,STIM2,HPX,TCIRG1,SLC11A2,TRPV4,SLC39A7,CCR6,SLC4A9,PDE4D,SKP1,ATP6V0E1,CLDN16,SLC4A3,SLC30A3,TACR1,SLC9A2,THADA,FASLG,SLC8A2,PTK2B,ADRA1A,EPHX2,HCRT1,CCR2,RAMP3,ACO1,ATP7B,SLC12A5,PLCG1,GCM2,MT2A,GPR18,OPRL1,S1PR4,CCR7,EDN2,ATP13A4,F2RL3,ATP1B2,EPO,TRPM4,SLC34A1,DIAPH1,C19ORF12,DLG4,ATP1A4,NMUR2,PDE6A,SLC41A1,TPT1,PDE6B,TRPM1,APLN,TEMEM165,PDGFRA,CD36,ISCU,JREB2,CIB2,ATP6V1G1,HCRT2,PLCE1,SLC40A1,FGF2,TRPC3,PLCZ1,SLC39A5,SLC24A4,PML,RHCG,PDPK1,CACNA1A,TRPM2,CASQ1,XPR1,S100A8,ARF1,CALM2,AGTR1,CAMK2D,ANK2,SLC30A5,SLC26A7,SLC39A4,LCN2,GSTO1,JPH2,CACNA1C,AKAP6,DRD3,EDNRA,GRM1,JPH3,SLC24A2,KCNMA1,CXCL13,NPTN,GHRL,ATP2B2,SLC34A2,SPPL3,STC1,ATP13A2,ATP6V0D1,CALM3,TMPRSS3,GRIN2C,TPCN2,S100A9,ATP1A1,CCR1,SLC4A2,TRPV6,EFHA1,SLC39A13,PRKCB,SMAD3,STIM1,JSRP1,FBXO7,SCARA5,HFE2,LETM1,CXCL10,CD52,SLC26A5,PLA2G1B,PKHD1,ATP6V0E2,LPAR3,P2RY6,BCL2,C3AR1,PRND,PRNP,ADRA1D,CALB2,ADCY5,C1QTNF1,SLC26A9,TAC4,GRIN1,GPR4,ATOX1,CALR,F2,GPR157,CCL13,SLC9A9,GALR2,LCK,SLC8A1,CCR4,SLC24A3,ATP6V0A2,ATP6V0C,TMPRSS6,P2RX2,SLC24A5,OR56A5,FZD9,RYR1,CD55,SLC30A10,SLC39A10,HTT,C5AR1,ELANE,ENPP1,SLC9A8,PLCG2,LPAR1,RYR2,CALM1,TGM2,FAM155A,GPR20,GSTM2,FIS1,COX19,CCL5,CCL23
GO:2000377 regulation of reactive oxygen species metabo	2.88E-02	2.88E-02 FYN,BRCA1,CYBA,ATP2B4,SIRT2,RAB27A,PTGS2,EDN1,HSP90AA1,GSTP1,MT3,KHSRP,HSP90AB1,PDGFR,TGFB1,CAV1,BST1,MAPK14,AGXT2,PARK7,GADD45A,CLU,ZNF205,SIRT5,CDKN1A,IL1B,TRAP1,RAC2,ASS1,CD36,AGT,RAC1,RIPK1,THBS1,CYP1B1,TP53,AKT1,AGTR1,PID1,DDAH1,XDH,PINK1,ITGB2,TGFB2,ZC3H12A,PRKCD,SYK,SMAD3,CX3CR1,ARF4,ITGAM,INSR,SLC25A33,CD34,TLR6,PARL,GRIN1,GRB2,F2,RNF41,PARK2,MAPT,TLR5,AKR1C3,NOXO1,SLC30A10,BCO2,DDAH2,PLIN5,TNF,EIF6,HBB,MIR24-2
GO:0034446 substrate adhesion-dependent cell spreading	2.88E-02	2.88E-02 MYOC,VAMP3,CDC42,FERMT2,ABL1,NRP1,CRKL,TRIOBP,ARHGEF7,OLFM4,CORO1C,BVES,FN1,APOA1,KIF14,RREB1,ACTN4,LAMAS,LAMC1,RAC1,AP1AR,ITGB7,EPHA1,DOCK5,FERMT3,DOCK1,FER,RADIL,MF12,MICALL2,CRK,EFNA1,PTK2,ANTXR1,LIMS1,FGA,RCC2,CALR,EFNA5,CIB1,S100A10,ITGB3,SRGAP2,SRCIN1

GO:1903825 organic acid transmembrane transport	2.88E-02	2.88E-02	ATP1A2,SLC46A1,ACACB,SLC1A3,LRP2,SLC23A2,SLC25A15,AKT2,CPT1A,SLC1A2,SLC38A1,SLC25A12,SLC6A6,PER2,THBS1,SLC13A5,AKT1,ARL6IP5,THRSP,SLC16A1,CPT2,SLC38A10,SLC38A8,SLC3A2,SLC38A11,SLC23A1,ARL6IP1,LRRC8E,SLC19A1,SLC38A9,SLC25A22,SLC25A20,SLC25A10,IRS2,SLC36A2,SLC25A29,STK39,ACACA
GO:1905039 carboxylic acid transmembrane transport	2.88E-02	2.88E-02	ATP1A2,SLC46A1,ACACB,SLC1A3,LRP2,SLC23A2,SLC25A15,AKT2,CPT1A,SLC1A2,SLC38A1,SLC25A12,SLC6A6,PER2,THBS1,SLC13A5,AKT1,ARL6IP5,THRSP,SLC16A1,CPT2,SLC38A10,SLC38A8,SLC3A2,SLC38A11,SLC23A1,ARL6IP1,LRRC8E,SLC19A1,SLC38A9,SLC25A22,SLC25A20,SLC25A10,IRS2,SLC36A2,SLC25A29,STK39,ACACA
GO:0046578 regulation of Ras protein signal transduction	2.91E-02	2.91E-02	ALS2,IGF1,MYOC,RASGRF1,RASAL2,TGFB2,ABL1,NRP1,SGSM3,RASAL3,MET,TNFAIP1,MADD,RASAL1,ARHGDIB,ARHGEF2,MFN2,STMN1,APOA1,KIF14,MAPKAP1,DENND1A,ARAP3,ADRA1A,STAMBP,GPR18,F2RL3,EPO,EPSS8L1,EPHB2,RAC1,RALGPS1,DAB2IP,ARRB1,PLCE1,ARHGDIA,RASA1,NOTCH1,FLCN,AUTS2,SQSTM1,DLCL1,ABCA1,ARF6,COL3A1,ROBO1,AKAP13,RASGRP4,RASGRP1,ABRA,KCTD13,EPSS8L2,GPR4,RASA3,NF1,SYNGAP1,LPAR1,NTRK1,DENND4B,GPR20,GPR56
REAC:R-HSA- Platelet Aggregation (Plug Formation)	2.97E-02	2.97E-02	ITGA2B,BCAR1,RASGRP2,APBB1IP,RAPGEF3,THPO,RAPGEF4,CSK,VWF,FN1,RAP1B,TLN1,PDPK1,AKT1,SHC1,SYK,CRK,PTK2,GP9,FGA,RASGRP1,GRB2,GP5,F2,GP1BA,PTPN1,SR,C,ITGB3

GO:0006024 glycosaminoglycan biosynthetic process	2.99E-02	<p>HS3ST1,ST3GAL1,DCN,B4GALT7,CHPF2,VCAN,GPC1,ST3GAL6,NDST1,B4GALT1,PDGFB,HAS3,XYL1,TGFB1,HAS1,DSE,GCNT2,UST,HYAL1,CSPG5,SDC1,B4GALT2,B4GALT4,FMO D,CHST3,SDC4,HS3ST3B1,IL1B,ST3GAL3,NCAN,SLC35D2,CHSY1,BCAN,CHST5,CHST12,GALNT5,HS6ST1,EGF,LUM,CLTC,HSPG2,CSGALNACT1,B3GAT3,EXT2,HS2ST1,B3GNT7,ST 3GAL2,B4GALT5,SDC2,CSGALNACT2,B3GNT2,CHST11,CHST1,B3GNT4,CHST13,CHST15,EXT1,GPC6,CHST6,AGRN,AP2A1,HEXA</p>
GO:0070371 ERK1 and ERK2 cascade	3.05E-02	<p>CALCR,CX3CL1,CCL26,CD4,IGF1,CD74,CD44,FLT4,ROS1,LMO3,ABCA7,FGFR2,PRKCZ,FGFR3,PDE8A,FGF4,GSTP1,MT3,ICAM1,THPO,SEMA6A,EZR,TREM2,NRP1,CRKL,PDGFB,HT R2A,MAPK3,CCL22,CCL17,NDRG4,NECAB2,PYCARD,CTSH,PRKD2,TGFB1,FGF21,CCL24,CCL2,CCL1,DUSP3,SLC9A3R1,FBXW7,RAPGEF2,PTPN6,GCNT2,FN1,SLAMF1,TNFSF11,PT K2B,ADRA1A,RAMP3,GLIPR2,IL1B,MED1,CCR7,PIN1,PLA2G5,KDR,CCL25,DSTYK,EPHB2,PTPN22,PDGFRA,CD36,SPRY2,GPNMB,DAB2IP,ARRB1,EMILIN1,FGF2,EGF,ARRB2,TNFR SF11A,ERBB2,EPHA2,CYR61,DUSP10,PDGFC,TNIP1,EGFR,MFHAS1,NOTCH1,TIRAP,PTPRR,PRKCA,FLCN,EPHB1,SHC1,FGFR4,CCR1,SPRY1,BMPEP,SYK,WNK2,NOD2,PSCA,SERP1 NF2,LGALS9,MAP2K1,SGS14,PKHD1,PDGFD,FGA,P2RY6,PTEN,RASGRP1,HRAS,C3ORF33,PTPN2,ERBB4,PTPN11,NRXN1,ADIPOQ,CCL13,TNFAIP8L3,CIB1,ZFP36L1,PTPN1,SLC30 A10,C5AR1,PDGFA,STYX,NTRK1,AGER,MIR27A,PHB2,TNF,MIF,ARHGAP8,LYN,CCL5,CCL23,MIR145,CCL14,MIR24-2</p>
GO:0060047 heart contraction	3.07E-02	<p>ATP1A2,NEDD4L,KCNQ1,KCNH2,ATP2B4,MEF2A,ATP2B1,PRKACA,ATP2A3,SRI,EDN1,NOS1,SLC9A1,MYH7,TGFB2,ITPR3,SLC8A3,MYLK2,SMAD7,DMPK,ATP1A3,SCN1B,GSK3A, CAV1,GLRX3,YWHAE,RANGRF,MYL2,PDE4D,TNNC1,RGS2,SLC8A2,KCNIP2,KCNJ5,ADRA1A,POPDC2,PIK3CA,EDN3,KCNK15,EDN2,ATP1B2,KCNA5,TRPM4,TNNI2,MYBPC3,CYP2 J2,AGT,KCNK1,BIN1,HCN4,FOXN4,TPM1,CASQ1,CALM2,CORIN,CAMK2D,ANK2,GSTO1,CACNA1C,GPD1L,GJA1,CXADR,ATP2B2,CACNA1D,STC1,TNNI1,ACE,NPR2,CALM3,SPTB N4,S100A1,MYL3,NPPC,ATP1A1,ZC3H12A,CACNB2,SCN3B,STIM1,AHCYL1,GAA,KCNK3,KCND3,ADRBK1,JUP,TCAP,NPPA,KCNE3,SCN4B,KCNE1,CHRM2,GIC1,SLC8A1,CTNNA3, SCN5A,PDE4B,RNLS,SGCZ,SCN10A,RYR1,CACNA1H,MYH6,ASPH,RYR2,CALM1,GSTM2,GPX1,GJA5,ADORA3,MIR1-2</p>
GO:0002821 positive regulation of adaptive immune respo	3.08E-02	<p>SLC11A1,PRKCO,TP53BP1,PRKCZ,TFRC,PVR,STX7,IL12RB1,PYCARD,TGFB1,IL23A,IL4,IL1R1,CD274,CCR2,IL1B,ZBTB1,TRAF2,EIF2AK4,RSAD2,IL6ST,IL6,NFKBIZ,CD226,IL18,FAM4 9B,TNFSF13,NLRP3,FZD5,B2M,NFKBID,IL12A,SOC5,C20ORF196,MALTI1,TRAF6,CLCF1,C17ORF99,NCR3</p>



GO:0051607 defense response to virus	3.13E-02	<p>MAP3K14,RNF216,ZMYND11,BIRC3,PUM2,TRAF3IP2,ABCC9,UFD1L,ITCH,IL12RB1,APOBEC3H,SAMHD1,RNF125,RIOK3,PYCARD,DHX58,IL23A,OAS3,OAS2,IFIH1,STAT1,CD207,  TNFAIP3,IFIT3,IFIT2,NTSC3,IRF1,IRF3,APOBEC3A,EIF2AK4,SEC14L1,BST2,C19ORF66,TRAF3,ANKRD17,SERINC3,RSAD2,PUM1,OASL,RNASEL,DHX9,IL6,RTP4,DDX60,IFI44L,TAR  BP2,NLRCS,LYST,MX1,IFI16,AIM2,DTX3L,ZC3H12A,SERINC5,TLR3,TRIM44,IRF2,RNASE2,TRIM56,BCL2,ISG20,AZU1,RELA,BNIP3,ELMOD2,APOBEC3B,PRF1,SETD2,NPLOC4,MX2  3.13E-02 ,TMEM173,IRF7,IFIT1,PCBP2,ATG7,TRAF3IP1,MIC8,TRIM15,APOBEC3D</p>
GO:0030166 proteoglycan biosynthetic process	3.18E-02	<p>DCN,EXTL3,IGF1,CHPF2,VCAN,NDST1,XYL1,B3GAT1,DSE,UST,B3GAT2,CSPG5,CHST3,CHST8,HS3ST3B1,NCAN,CHSY1,BCAN,CHST12,HS6ST1,BMPR1B,CSGALNACT1,TCF7L2,B  3GAT3,EXT2,CTNNB1,CSGALNACT2,CANT1,CHST11,CHST13,CHST15,EXT1,GAL3ST4,BMPR2</p>
GO:1903077 negative regulation of protein localization to	3.27E-02	<p>3.27E-02 GOPC,PPP2R5A,PICALM,CSK,TGFB1,TMEM59,RHOQ,PPFIA1,NUMB,MRAP2,TMBIM1,CLTC,DAB2,PID1,PKDCC,BCL2L1</p>
GO:0030521 androgen receptor signaling pathway	3.27E-02	<p>MED24,BRCA1,RNF14,THRAP3,RNF4,PPAP2A,NCOA1,DDX17,EP300,SFRP1,BUD31,DDX5,PPARGC1A,FOXP1,KDM3A,FHL2,PARK7,HDAC1,ARID1A,TCF21,NCOA3,PMEP1,SCG  B2A1,MED1,SMARCA4,RNF6,SAFB2,RB1,TGFB1I1,ARRB2,DAB2,GRIP1,PRMT2,FOXH1,MED30,TRIM68,CTNNB1,KATS,DAXX,NCOA4</p>

GO:0030204 chondroitin sulfate metabolic process	3.34E-02	3.34E-02 DCN,CHPF2,VCAN,HEXB,B3GAT1,B3GAT2,ARSB,HYAL1,CSPG5,CHST3,IDUA,NCAN,CHSY1,BCAN,CHST12,CSGALNACT1,B3GAT3,CSGALNACT2,CHST11,CHST13,CHST15,HEXA
REAC:R-HSA- ER to Golgi Anterograde Transport	3.37E-02	<p data-bbox="667 695 1715 743">COPZ2,ANK1,TRAPPC3,SPTB,DYNC112,CAPZB,CD59,DYNLL1,SEC22C,KDELR3,CNIH,CTSZ,ARFGAP1,COG4,DCTN6,KDELR1,COPE,GBF1,GOSR1,AREG,SAPS3,FOLR1,COPZ1,SEC24A,COL7A1,LMAN2L,SPTBN1,CAPZA1,COPA,TBC1D20,TMEM115,COPB1,ACTR10,DCTN4,COG6,ARF3,DYNC1L1,COG2,KDELR2,STX17,DCTN3,SPTBN5,RAB1A,PRES,ACTR1A,SEC31A,SEC24B,LMAN1L,CSNK1D,ARF1,ANK2,SEC16A,ARFGAP2,CTAGES,SEC24D,ANK3,SAR1B,MIA3,GRIA1,SEC13,DYNC111,SPTBN4,STX5,TGFA,COG1,TRAPPC9,ARF4,LMAN2,T</p> <p data-bbox="604 748 1507 771">3.37E-02 MED10,SPTBN2,SEC24C,MCFD2,COPB2,CD55,TRAPPC4,DYNC1H1,SERPINA1,F5,CAPZA2,DCTN1,ANKRD28,ARFGAP3,DYNLL2,SEC22B,COG8</p>
REAC:R-HSA- Signaling by NTRK1 (TRKA)	3.37E-02	<p data-bbox="667 1003 1715 1052">AP2B1,RALA,AP2S1,RHOA,MEF2A,RPS6KA2,ADCYAP1R1,DNM2,MEF2C,CRKL,DNAL4,RPS6KA5,MAPK3,VRK3,PPP2R1A,PIK3R2,DNM1,RAPGEF1,DUSP3,MAPK14,PPP2CA,MAPKAPK3,RPS6KA1,PIK3CA,PLCG1,ADORA2A,SHC2,KRAS,KIDINS220,PPP2R1B,CLTC,RIT1,RALB,PIK3R1,NTRK2,SHC3,RALGDS,SHC1,MAPKAPK2,DUSP7,FRS2,CRK,STAT3,IRS1,HRA</p> <p data-bbox="604 1040 961 1063">3.37E-02 S,GRB2,AP2A2,IRS2,MAPK12,AP2A1,SRC,NTRK1</p>
REAC:R-HSA- Clathrin-mediated endocytosis	3.37E-02	<p data-bbox="667 1274 1715 1323">CFTR,M6PR,DVL2,AP2B1,CD4,PIK3C2A,AP2S1,VAMP3,EPN1,SYT1,CLTCL1,EPN2,TFRC,PICALM,AMPH,SYNJ2,DNM2,LRP2,CTTN,EPH2,PACSIN2,ARFGAP1,WASL,DNM1,CBL,ACTR3,STAM2,TACR1,AAK1,VAMP8,COP5,PACSIN1,TRIP10,EPH2,SNX9,FCHO1,HIP1R,SYT11,UBQLN1,BIN1,STAM,TOR1A,ARRB1,FNBP1L,COPS4,SCARB2,EGF,STON2,COPS3,CLTC,ARRB2,SH3GL1,SYT2,AGTR1,EGFR,SYT8,UBC,TGOLN2,DAB2,FCHO2,NECAP2,ARPC5,ARPC2,GAPVD1,ARF6,PACSIN3,COP5,ADRB2,GPS1,ADRBK1,FZD4,GRB2,GA</p> <p data-bbox="604 1328 1150 1351">3.37E-02 SNX18,CHRM2,AP2A2,HGS,PIP5K1C,FNBP1,AP2A1,IGF2R,COP58,ARPC4,ARPC1A</p>

REAC:R-HSA- Phospholipid metabolism	3.37E-02	<p data-bbox="667 365 1713 479">           MTMR7,GDE1,AGK,PIK3C2A,OSBPL5,AGPAT4,PNPLA6,PI4K2B,INPP4A,PLEKHA5,CHAT,CSNK2A2,MGLL,PLD1,PIK3C3,SYNJ2,STARD7,CPNE3,DDHD2,MTMR2,PGS1,LPCAT2,CRLS1,PITPNM2,PITPNM3,SBF1,MTMR3,PNPLA3,ABHD4,CPNE6,CDS2,LPIN2,GDPD3,VAC14,PLD3,PLA2G4C,PLEKHA4,PIK3R2,PLEKHA8,PITPNM1,CHKA,LPCAT3,FIG4,GPD2,GNPAT,PLA2G2D,PIK3R3,PLBD1,PIK3CA,LPGAT1,MBOAT7,PLA2G5,PLD2,SLC44A2,PNPLA7,INPP5K,PEMT,PIK3C2B,HRASLS2,ARF3,LPIN1,HADHB,MTMR6,PIK3R5,SLC44A3,PI4KB,PIP5K1A,ARF1,ETNK2,PLEKHA6,OSBPL10,PLA1A,PIK3R1,TNFAIP8,FAM73B,INPP5E,MTMR12,GPD1L,LPCAT1,GDPD1,AGPAT5,GDPD5,PLA2G4D,PCYT1A,TNFAIP8L2,CDS1,PTPN13,PLB1,LIPH,ENPP6,PLD4,MTMR10,GPD1,HRASLS5,PLA2G4F,INPP5D,AGPAT2,PLA2G1B,PIK3CD,PTEN,PHOSPHO1,PTDSS2,RUFY1,PNPLA2,CPNE7,PLD6,TMEM86B,TNFAIP8L3,DGAT1,TNFAIP8L1,PCYT2,PIP5K1C,PLA2G4E,PLA2G2E,INPP5F,AGPAT1,SLC44A4,CSNK2B,SACM1L,CPNE1,STARD10,PISD,PIK3R6,PIP4K2B         </p>
GO:0048016 inositol phosphate-mediated signaling	3.43E-02	<p data-bbox="667 730 1713 771">           PTBP1,IGF1,ATP2B4,INPP5A,LMCD1,EDN1,GSK3B,CHERP,SLC9A1,HOMER2,FHL2,RCAN3,EDN3,EDN2,NFATC1,NMUR2,PLCE1,PPP3CA,AKAP6,SPPL3,RCAN1,NMUR1,CAMTA1,PRNP,C10ORF71,CIB1,HRH1,MIR124-3,PPP3R1,TNF         </p>
GO:0007093 mitotic cell cycle checkpoint	3.43E-02	<p data-bbox="667 982 1713 1063">           MAD1L1,MRE11A,FOXN3,TRIP13,CHFR,TP63,TP73,CNOT4,AURKA,PCBP4,CLSPN,MSH2,EP300,E2F1,FBXO31,RBL2,GML,TGFB1,CASP2,CDK5RAP3,CCND1,CDKN1B,CNOT6,NEK11,ARID3A,GADD45A,PLAGL1,DUSP1,TEX14,CDK2,MAD2L1BP,CDKN1A,CNOT1,XRCC3,PCID2,E2F8,VPS4A,APC,TAOK3,RINT1,HUS1,CDK5RAP2,MDC1,RB1,PML,TP53,CARM1,PRCC,INTS3,WNT9A,RQCD1,PLK2,ATM,ORAOV1,TAOK2,HMGA2,BUB3,EME1,CNOT8,BUB1B,CDK25C,DONSON,BRSK1,TAOK1,ZNF385A,TOBP1,CHMP4C,ZFYVE19,CDT1,RFW         </p>
GO:1903902 positive regulation of viral life cycle	3.44E-02	<p data-bbox="667 1307 1713 1347">           CD4,CD74,YTHDC2,NUCKS1,PABPC1,CHMP2B,PPIE,SRPK1,LGALS1,CHMP4B,VAPA,CAV2,SMC3,TRIM38,NR5A2,STAU1,TBC1D20,CHMP2A,VPS4A,SRPK2,TARBP2,VPS37B,TRI         </p>

GO:0048144 fibroblast proliferation 3.44E-02 3.44E-02 IGF1,CD74,B4GALT7,GSTP1,PDGFB,E2F1,SFRP1,CDK6,FN1,CDKN1A,WNT1,PDGFRA,CDK4,AGT,DHX9,DAB2IP,TP53,PDGFC,SKI,MORC3,DDR2,NDUFS4,NLRC3,FTH1,CTNBN1,PLA2G1B,PARP10,WNT7B,MIR494,NF1,PDGFA,S100A6,MIR124-3,AQP1,MIF

GO:0086065 cell communication involved in cardiac condu 3.44E-02 3.44E-02 ATP1A2,KCNQ1,PRKACA,SRI,ATP1A3,SCN1B,CAV1,RANGRF,PDE4D,KCNJ5,ATP1B2,KCNA5,TRPM4,HCN4,CALM2,CAMK2D,ANK2,CACNA1C,GJA1,CXADR,CACNA1D,CALM3,ATP1A1,CACNB2,SCN3B,JUP,SCN4B,GIC1,SLC8A1,CTNNA3,SCN5A,SCN10A,RYR2,CALM1,GJA5

GO:0046598 positive regulation of viral entry into host cell 3.51E-02 3.51E-02 CD4,CD74,LGALS1,TRIM38,TRIM11,LGALS9,TMPRSS2,P4HB

GO:0034762 regulation of transmembrane transport 3.59E-02 3.59E-02 CFTR,CALCR,CACNG3,CX3CL1,MAPK8IP2,FYN,IGF1,ATP1A2,GOPC,NEDD4L,KCNQ1,KCNH2,ATP2B4,NGFR,CACNB1,KCNAB2,GNB5,CLTCL1,PRKACA,SRI,ACTN2,MEF2C,FKBP1A,TE5C,NOS1,FXD3,SLC9A1,JPH4,CAPN3,SORBS1,MMP9,AKT2,CLIP3,FGF21,PIK3R2,HAMP,SCN1B,GSK3A,CAV1,PRKAG2,YWHAE,RANGRF,SLC9A3R1,STIM2,CREBL2,PDE4D,KCNIP3,THADA,SUMO1,SLC2A1,PIK3R3,RHOQ,KCNIP2,CRHR1,PTK2B,HPCA,RAMP3,KCNS1,PLCG1,AHNAK,IL1B,C3,F2RL3,ATP1B2,KCNA5,DPP6,ACTN4,EPO,DIAPH1,PER2,INPP5K,DLG4,EPHB2,APLNR,UBQLN1,CD63,CAB39,BIN1,RIPK1,FXD6,FXD2,THBS1,PDPK1,AKT1,CAPN10,CACNG8,CTTNBP2NL,CASQ1,OAZ3,CALM2,ARL6IP5,CAMK2D,ANK2,PIK3R1,SLC30A5,GSTO1,JPH2,FXD4,CACNA1C,ANK3,AKAP6,GPD1L,UTRN,PID1,JPH3,AZIN1,CACNA1D,APPL1,CALM3,SHANK1,PEA15,CTSS,PRKCI,WNK2,CACNB2,SCN3B,PRKCB,CACNG2,STIM1,JSRP1,AHCYL1,GRM5,IRS1,PCSK9,CXCL10,ADRB2,KCNAB1,NLGN1,SLN,ARL6IP1,PLA2G1B,INSR,PRKCE,P2RY6,BCL2,PRNP,COMMD1,NPPA,KCNE3,SCN4B,ANO6,PTPN11,ITLN1,NRXN1,F2,KCNE1,ADIPOQ,KCNIP1,GALR2,SLC8A1,SCN5A,LRRCS5,PDE4B,LRRC26,SCN10A,KCNIP4,FFAR3,IRS2,SESTD1,ORS56A5,DAPK1,HTT,ENPP1,WWP2,RYR2,STK39,CALM1,GSTM2,TLR9,MIR1-2

GO:0031098 stress-activated protein kinase signaling casca	3.59E-02	3.59E-02 YN	<p>DVL2,MAP3K14,SPAG9,MAPK8IP2,MAP4K5,CCDC88C,ZMYND11,FAS,MAP2K3,FLT4,CUL1,EIF2AK2,HIPK2,MAP4K4,STK10,FBXW11,MAP3K13,TRAF4,MAP2K7,EDN1,ITCH,TP73,STRADB,GSTP1,MECOM,MAP3K4,EZR,TGFB2,MAP3K1,SH2D3C,GADD45B,CRKL,MAP3K7IP1,RASSF2,STK24,MAPK3,AXIN1,PYCARD,STK3,NOD1,MAP3K8,DUSP3,MAPK10,HIPK3,LTBR,TPD52L1,SASH1,MAPK14,DUSP22,VEGFA,SKP1,STK25,GADD45A,SLAMF1,MAPKAP1,PTK2B,COP55,MAPK8IP1,PKN1,UNC5CL,RAP2A,IL1B,CCR7,TRAF2,PAK4,GPS2,MEN1,IRAK2,PTPN22,TAOK3,ANKRD6,EDAR,DBNL,CCM2,DAB2IP,RIPK1,PAK6,MAPK8IP3,IGF1R,NCOR1,TNFRSF11A,DUSP10,ARL6IP5,EGFR,MFHAS1,PAK1,RPS3,TAOK2,TIRAP,UBC,TNIK,SH3RF1,EPHB1,PPEF2,XDH,PINK1,TAOK1,DVL3,DUSP19,ZC3H12A,BTRC,NOD2,SERPINF2,ULK4,MAP4K2,SEMA4C,LGALS9,MAP2K1,GPS1,ADORA2B,HDAC3,QARS,RASGRP1,OXSR1,SH3RF3,MAP3K11,TRIB1,ZNF622,TLR6,HRAS,TRAF6,UBE2N,PER1,PAK2,PARK2,ZFP36L1,AIDA,NBR1,MAP3K5,STK39,MAP3K3,DAXX,AGER,TNF,TLR9,UBE2V1,L</p>
REAC:R-HSA- Cell-Cell communication	3.62E-02	3.62E-02	<p>FYN,CLDN11,CTNNA1,CDH3,COL17A1,CLDN18,SDK2,NCK2,ACTN1,LIMS2,MPP5,PVR,FERMT2,ACTN2,CDH17,SIRPG,PCN,ITGA6,SIRPB1,PARD6A,PIK3R2,WASL,TESK1,PTPN6,CDH6,CLDN16,SPTBN1,PTK2B,PIK3CA,VASP,FLNC,CDH15,ACTN4,ITGB4,CLDN10,CDH24,IQGAP1,CDH11,CDH13,CDH18,PIK3R1,SDK1,PARD3,KIRREL3,ITGB1,DST,CLDN8,CLDN14,NPHS1,FBLIM1,CADM3,CLDN1,PRKCI,CLDN19,CTNNA1,PTK2,LIMS1,CDH2,CLDN20,JUP,CLDN22,GRB2,CDH4,PTPN11,CDH5,CLDN7,CADM1,CLDN5,MAGI2,PARVB,CLDN4,LA</p>
GO:0070302 regulation of stress-activated protein kinase s	3.64E-02	3.64E-02	<p>DVL2,SPAG9,MAPK8IP2,MAP4K5,ZMYND11,FAS,FLT4,EIF2AK2,HIPK2,MAP4K4,TRAF4,MAP2K7,EDN1,ITCH,TP73,GSTP1,MECOM,MAP3K4,EZR,TGFB2,GADD45B,RASSF2,MAPK3,AXIN1,PYCARD,DUSP3,HIPK3,LTBR,TPD52L1,SASH1,DUSP22,VEGFA,STK25,GADD45A,SLAMF1,PTK2B,COP55,MAPK8IP1,PKN1,UNC5CL,RAP2A,IL1B,CCR7,TRAF2,GPS2,ME N1,PTPN22,TAOK3,ANKRD6,EDAR,DBNL,DAB2IP,RIPK1,MAPK8IP3,IGF1R,NCOR1,TNFRSF11A,DUSP10,ARL6IP5,EGFR,MFHAS1,PAK1,RPS3,TAOK2,TIRAP,TNIK,SH3RF1,EPHB1,PPEF2,XDH,PINK1,TAOK1,DVL3,DUSP19,ZC3H12A,NOD2,SERPINF2,ULK4,MAP4K2,SEMA4C,MAP2K1,HDAC3,QARS,RASGRP1,SH3RF3,MAP3K11,ZNF622,TLR6,HRAS,TRAF6,PE</p>
GO:0043903 regulation of symbiosis, encompassing mutua	3.64E-02	3.64E-02	<p>FUCA2,CD4,CD74,YTHDC2,RSF1,EIF2AK2,CTDP1,TAF11,NUCKS1,PABPC1,RAB7A,LAMP3,CHMP2B,PIIE,OAS1,TFAP4,SRPK1,SMARCB1,LGALS1,APOBEC3H,EP300,CHMP4B,VA PA,CAV2,CAV1,SMC3,OSBP,OAS3,SNX3,TRIM38,STAT1,HDAC1,TRIM62,NR5A2,PROX1,TARDBP,TRIM25,SLPI,STAU1,TBC1D20,SMARCA4,APOBEC3A,EIF2AK4,CCNT1,ILF3,BST 2,CHMP2A,C19ORF66,INPP5K,VPS4A,SFTPD,RSAD2,OASL,SRPK2,RNASEL,DHX9,GTTF2,TARBP2,VPS37B,PML,TNIP1,GSN,HMGA2,TIRAP,FBXL2,TRIM11,LARP1,MX1,SNF8,RRP 1B,ADAR,IFI16,ZC3H12A,CHMP4C,FAM111A,LGALS9,TRIM8,PIIH,ISG20,PC,PDE12,BANF1,PARP10,RAD23A,EXOC7,ANXA2,TMPRSS2,PARK2,SP1,P4HB,IFIT1,BTBD17,TRIM15,</p>

GO:0032606 type I interferon production	3.64E-02	<p>CREBBP,RNF216,POLR3B,MRE11A,UFD1L,NFKB2,ITCH,XRCC5,EP300,RNF125,RIOK3,PYCARD,RELB,PTPRS,TAX1BP1,DHX58,DTX4,IFIH1,STAT1,TNFAIP3,TRIM25,ZBP1,LRRFIP1,IRF1,IRF3,PIN1,TRAF3,POLR3F,PTPN22,HAVCR2,DHX9,FLOT1,NLRC5,TIRAP,NLRP4,NLRX1,IFI16,TLR3,STAT6,NLRC3,CTNNB1,POLR3D,TRIM56,MYD88,RELA,DHX36,SETD2,UBA</p> <p>7,NPLOC4,TBK1,TMEM173,IRF7,PCBP2,TRAF3IP1,TRIM15,TREX1,TLR9,PRKDC,IKBKE</p>
GO:0032479 regulation of type I interferon production	3.64E-02	<p>CREBBP,RNF216,POLR3B,MRE11A,UFD1L,NFKB2,ITCH,XRCC5,EP300,RNF125,RIOK3,PYCARD,RELB,PTPRS,TAX1BP1,DHX58,DTX4,IFIH1,STAT1,TNFAIP3,TRIM25,ZBP1,LRRFIP1,IRF1,IRF3,PIN1,TRAF3,POLR3F,PTPN22,HAVCR2,DHX9,FLOT1,NLRC5,TIRAP,NLRP4,NLRX1,IFI16,TLR3,STAT6,NLRC3,CTNNB1,POLR3D,TRIM56,MYD88,RELA,DHX36,SETD2,UBA</p> <p>7,NPLOC4,TBK1,TMEM173,IRF7,PCBP2,TRAF3IP1,TRIM15,TREX1,TLR9,PRKDC,IKBKE</p>
GO:0031334 positive regulation of protein complex assembl	3.69E-02	<p>BAIAP2L1,CCL26,SCIN,ERCC1,BID,BCLAF1,FNIP2,NCKAP1,NAV3,PFN2,NCK2,CLASP1,FSCN1,CDH17,HSP90AA1,GSK3B,CTTN,PSMCS,ESR1,BIK,HCK,MAPRE1,CORO1A,STUB1,PYCARD,BMF,ERCC2,BBC3,TGFB1,MET,CCL24,CSF3,PFN1,GTF2H3,VEGFA,CNOT6,EIF4G1,ACTR3,SUMO1,IDE,CLU,PTK2B,CNOT1,VASP,CCR7,CDC42EP1,SNX9,ARPC1B,CLIP1,CHD1L,ARFIP2,RPA1,DDDB2,HNF1A,HRK,CD36,LCP1,RAC1,BIN1,CDKSRAP2,NUMA1,GTf2B,CUL4A,WARS,TP53,ARF1,ANKRD53,IQGAP2,TTBK1,TERF1,GSN,PAK1,RPS3,ATM,CDC42EP2,FER,BCL2L11,RHOC,WHAMM,CXCL13,PINK1,ARPC5,ARPC2,AIM2,ARFIP1,CSF2,ARF6,CDT1,CDC42EP5,CTNNB1,LMOD2,PRKCE,TPPP,CORO1B,TLR6,FOSL1,ERCC4,BAIAP2,C</p> <p>DK5R1,CDC42EP4,FES,FAF1,MAPT,MITF,MMP1,SRC,HSPA1B,TRIM27,DCTN1,ARL2,GTf2H4,FNIP1,TNF,ARPC4,ARPC1A,CYFIP1,HNF1B</p>
GO:0007162 negative regulation of cell adhesion	3.69E-02	<p>PLXND1,CX3CL1,CD9,MYOC,ERBB3,RHOA,TBX21,PAG1,SEMA6A,SMAD7,TGFB1,JAK3,CBLL1,SERPINE1,GLI3,ALOX12,DUSP3,PRKAR1A,LPXN,CORO1C,TRPV4,ARHGDI8,GCNT2,SEMA5A,APOA1,EPCAM,CD274,TGFB1,LAX1,SDC4,BTN2A2,WNT1,IRF1,PODXL,TWSG1,ACTN4,ASS1,CCL25,SFTPD,PTPN22,VTCN1,HAVCR2,CD164,SERPINE2,PLXNC1,GPNMB,I</p> <p>L1RN,THBS1,ADAM10,CYP1B1,AP1AR,CDH13,BCAS3,ARHGDI8,TBCD,ADAM15,ZC3H8,PHLDB2,RASA1,TNFRSF21,NOTCH1,DLG5,PTPRO,CCL28,PDE3B,SPOCK1,MIA3,RUNX1,ZBTB7B,TNFAIP8L2,IHH,CLASP2,ZC3H12A,PRKCD,MFI2,PLXNB1,DACT2,DLCL1,B4GALNT2,SPINT2,LGALS9,PTK2,SEMA3E,SOCSS,PTEN,PRNP,C1QTNF1,FZD4,GLMN,PTPN2,RCC2,</p> <p>ADIPOQ,EFNAS,MUC1,PRKG1,NF2,PPARA,SEMA4D,PLXNB2,AJAP1,SRC,SPN,PDCC1LG2,MBP,MUC21,HLA-G,MIR30B,MIR141,SIPA1,ARHGDI8,MIR29C,MIR9-3</p>

GO:0051650 establishment of vesicle localization	3.69E-02	3.69E-02 STARD3NL,SYT7,DTNBP1,TRAPPC3,CDH3,AP3D1,SYT1,RAB27A,WIP1,NDE1,CLASP1,MAP2,DNM2,RIMS1,CD59,SNAP23,STX1B,SNAP29,CNIH,DNAJCS,CTSZ,SNPH,KIF3B,AP3B2,SPG11,STX1A,WASL,GBF1,GOSR1,AREG,SAPS3,FOLR1,STX2,SEC24A,COL7A1,OTOF,MLPH,RAB3GAP1,RIMS3,RAB17,BBS2,TBC1D20,KIF1C,AP1M2,KIF1A,ACTN4,UNC13A,KIF3A,EXOC4,STARD3,SNAP25,SYT11,BLOC1S1,STX11,TOR1A,STXBP1,KIF13A,FNBP1L,RAB1A,PRES,AP1AR,SEC31A,BBS7,SEC24B,CSNK1D,SYTL1,SNAPIN,SNAP47,SYT2,SEC16A,SYT8,DOC2A,SEC24D,SAR1B,GRIA1,SEC13,DYNC1I1,PINK1,STX5,PEF1,BBS5,TGFA,TRIM46,CLASP2,SYTL3,CDK5,NDEL1,STX3,TRAPPC9,NLGN1,MYRIP,TMED10,KIF5B,SYT12,RIM
GO:0045216 cell-cell junction organization	3.70E-02	3.70E-02 CD9,PRKCH,CTNNA1,RHOA,SDK2,WDR1,PRKACA,MPP5,FSCN1,GRHL2,TGFB2,PAR6A,TJP1,TGFB1,LIM2,CAV1,TRPV4,TGFB3,NPH4,ROCK2,DSG1,APC,AGT,TLN1,KIFC3,TBCD,RAB13,NPHP1,PKP4,SDK1,PAR3,PTPRO,GJA1,PRKCA,CXADR,FLCN,RHOC,RUNX1,ACE,CLDN1,PRKCI,MICALL2,PLEKHA7,SMAD3,PDCD6IP,FRMPD2,TLN2,JUP,CDH5,GJC1,CLD
GO:0007163 establishment or maintenance of cell polarity	3.76E-02	3.76E-02 KRIT1,CYTH3,ANK1,MAP4,SDCCAG8,RHOA,PRKCZ,CDC42,WDR1,MARK2,NDE1,LLGL2,CLASP1,FSCN1,HSP90AA1,GSK3B,FAT1,NSFL1C,SLC9A1,HSP90AB1,SH3BP1,SIPA1L3,FSCN3,GBF1,CYTH1,SLC9A3R1,CAP2,GOLPH3,WWC1,CENPA,STK11,MAPKAP1,SFRP5,PTK2B,GPSM2,KIF25,CCR7,RAP1B,DLG4,FLOT2,ARHGEF11,ROCK2,CDK5RAP2,NUMA1,BCAS3,KIF2C,SNX27,GSN,CRB2,PAR3,DLG5,DST,EPHB1,BRSK1,LMNA,CLASP2,PRKCI,NDEL1,PTK2,PDCD6IP,BRSK2,CKAP5,FAM89B,CDH5,SCRIB,FSCN2,WNT7B,PARVB,FBF1,MYO1
GO:0030003 cellular cation homeostasis	3.76E-02	3.76E-02 CFTR,SLC4A1,CALCR,IBTK,CX3CL1,FYN,SLC11A1,ATP1A2,BAK1,ATP6V0A1,SLC4A7,CASR,CP,NEDD4L,LETMD1,SLC4A8,HERPUD1,CUL1,ATP2B4,GNA15,AP3D1,SLC9A3,TRPC7,A TP2B1,CYBRD1,PRKACA,TFR,SLC24A1,SRI,RAB7A,SLC46A1,EDN1,SCGN,SLC4A4,P2RX5,CHERP,MT3,FKBP1A,NOS1,SLC9A1,ESR1,JPH4,SLC22A17,CAPN3,ITPR3,ABL1,HMOX1,KCTD17,SLC8A3,BDKRB1,HTR2A,CLN5,NUBP1,HMOX2,SLC30A4,SLC39A14,DMPK,BBC3,ATP1A3,GRIN2D,HAMP,ATP13A1,CAV1,TFR2,CDH23,CCL1,YWHAE,WFS1,CLCN3,STIM2,HFX,TCIRG1,SLC11A2,TRPV4,SLC39A7,CCR6,SLC4A9,PDE4D,SKP1,ATP6V0E1,CLDN16,SLC4A3,SLC30A3,TACR1,SLC9A2,THADA,FASLG,SLC8A2,PTK2B,ADRA1A,EPHX2,HCRTR1,CCR2,RAMP3,ACO1,ATP7B,PLCG1,GCM2,MTZA,GPR18,OPRL1,S1PR4,CCR7,EDN2,ATP13A4,FZRL3,ATP1B2,EPO,TRPM4,DIAPH1,C19ORF12,DLG4,ATP1A4,NMUR2,PDE6A,SLC41A1,TPST1,PDE6B,TRPM1,APLN,TMEM165,PDGFRA,CD36,ISCU,IREB2,CIB2,ATP6V1G1,HCRTR2,PLCE1,SLC40A1,FGF2,TRPC3,PLCZ1,SLC39A5,SLC24A4,PML,PDPK1,CACNA1A,TRPM2,CASQ1,S100A8,ARF1,CALM2,AGTR1,CAMK2D,ANK2,SLC30A5,SLC26A7,SLC39A4,LCN2,GSTO1,JPH2,CACNA1C,AKAP6,DRD3,EDNRA,GRM1,JPH3,SLC24A2,KCNMA1,CXCL13,NPTN,GHRL,ATP2B2,SPPL3,STC1,ATP13A2,ATP6V0D1,CALM3,TMPRSS3,GRIN2C,TPCN2,S100A9,ATP1A1,CCR1,SLC4A2,TRPV6,EFHA1,SLC39A13,PRKCB,SMAD3,STIM1,JSRP1,FTH1,SCARA5,HFE2,LETM1,CXCL10,CD52,SLC26A5,PLA2G1B,PKHD1,ATP6V0E2,LPAR3,P2RY6,BCL2,C3AR1,PRND,PRNP,ADRA1D,CALB2,ADCY5,C1QTNF1,SLC26A9,TAC4,GRIN1,GPR4,ATOX1,CALR,F2,GPR157,CCL13,SLC9A9,GALR2,LCK,SLC8A1,CCR4,SLC24A3,ATP6V0A2,ATP6V0C,TMPRSS6,P2RX2,SLC24A5,OR56A5,FZD9,RYR1,CD55,SLC30A1

GO:0050731 positive regulation of peptidyl-tyrosine phosph	3.76E-02	3.76E-02	CRLF1,FYN,IGF1,CD74,CD44,TNK2,ERBB3,FGFR3,NOX4,DOCK3,TREM2,ABL1,NRP1,OSM,PDGFB,PTK6,ANGPT4,ARL2BP,TGFB1,CSF3,FBXW7,CD81,IL23A,VEGFA,GHR,THBS4,ARRHGFE2,PTK2B,LIF,EPO,DLG4,IL6ST,TEC,AGT,IL6,ENPP2,EGF,FGF7,TP53,DGKQ,NTRK2,IL18,ADAM17,BANK1,KIT,ACE,IL6R,IL20,TGFA,CSF2,IL31RA,GPRC5B,STAT3,IL12A,GRM5,EFNA1,PRNP,PARP14,CLCF1,DOK7,STAP2,ERBB4,HCLS1,PAK2,EFNA5,NTF3,TNFRSF18,SEMA4D,PTPN1,SRC,HES5,MIF,LYN,ITGB3,CCL5,SrcIN1
GO:0043153 entrainment of circadian clock by photoperio	3.76E-02	3.76E-02	USP2,CRTC1,CRY2,BHLHE40,PML,TP53,SIK1,PPP1CA,RBM4B,RBM4,PER1,MTA1,PPP1CC,PPP1CB
GO:0043304 regulation of mast cell degranulation	3.76E-02	3.76E-02	FGR,GAB2,C12ORF4,STYK1,CD84,STXB2,UNC13D,SNX4,VAMP8,FER,SYK,LGALS9,FES,LYN
GO:0007221 positive regulation of transcription of Notch r	3.76E-02	3.76E-02	PLXND1,CREBBP,NOTCH3,EP300,WWC1,KAT2B,STAT1,NOTCH1,MAML1,RBPJ,MAML2,PBX1,MAML3,NOTCH4



GO:0035459 cargo loading into vesicle 3.76E-02 3.76E-02 PICALM,SAR1A,SEC24A,TBC1D20,KIF13A,RAB1A,SEC31A,SEC24B,CTAGE5,SEC24D,MIA3,SEC13,TMED10,SEC24C

GO:0090630 activation of GTPase activity 3.80E-02 3.80E-02 B,RALGAPB,RASGRP1,TBC1D10C,RHOG,SCRIB,NTF3,RALGAPA2,TBC1D9B,RUNDC1,TBC1D8,TAX1BP3  
TBC1D22A,RASGRF1,TBC1D22B,TBC1D1,EVI5,TBC1D2,TBC1D10A,SGSM3,RANGAP1,ARHGEF10,SYDE1,TBC1D13,TBC1D12,TBC1D9,CORO1C,APC2,CCR7,ARHGEF16,TBC1D5,TBC1D14,MTSS1L,TBC1D4,GRTP1,NTRK3,SGSM2,BCAS3,EVI5L,EPHA2,PIP5K1A,EPHA1,USP6NL,RABGAP1L,ADPRHL1,CXCL13,TIAM1,TSC1,SGSM1,TBC1D2B,TBC1D16,TBC1D10

GO:0006023 aminoglycan biosynthetic process 3.85E-02 3.85E-02 3GAL2,B4GALT5,SDC2,CSGALNACT2,B3GNT2,CHST11,CHST1,B3GNT4,CHST13,CHST15,EXT1,GPC6,CHST6,AGRN,AP2A1,HEXA  
HS3ST1,ST3GAL1,DCN,B4GALT7,CHPF2,VCAN,GPC1,ST3GAL6,NDST1,B4GALT1,PDGFB,HAS3,XYL1,TGFB1,HAS1,DSE,GCNT2,UST,HYAL1,CSPG5,SDC1,B4GALT2,B4GALT4,FMO D,CHST3,SDC4,HS3ST3B1,IL1B,ST3GAL3,NCAN,SLC35D2,CHSY1,BCAN,CHST5,CHST12,GALNT5,HS6ST1,EGF,LUM,CLTC,HSPG2,CSGALNACT1,B3GAT3,EXT2,HS2ST1,B3GNT7,ST

GO:0008154 actin polymerization or depolymerization 3.96E-02 3.96E-02 1,PFN3,FCHSD1,AIF1,TRIM27,ARPC4,ARPC1A,MICAL3,TWF2,CORO7,CYFIP1  
BAIAP2L1,CCL26,SCIN,LIMA1,TTC17,NCKAP1,PFN2,NCK2,WDR1,ADD2,ACTN2,CAPZB,SSH1,CTTN,ADD1,SH3BP1,TRIOBP,HCK,CORO1A,PYCARD,COBL,CCL24,WASL,CSF3,PFN1,CAP2,SEMA5A,ACTR3,WIPF1,PTK2B,VASP,DSTN,CCR7,CDC42EP1,ARPC1B,HIP1R,ARFIP2,MICAL2,MICAL1,RAC1,BIN1,ABI1,FCHSD2,SSH2,ARF1,SLIT2,IQGAP2,RASA1,ARHGAP18,GSN,MSRB2,CDC42EP2,FER,EPS8,PLEKHH2,WHAMM,GHRL,ARPCS,ARPC2,PRKCD,ARFIP1,MICALL2,CFL2,ARF6,CDC42EP5,LMOD2,PRKCE,CORO1B,BAIAP2,CDC42EP4,HCLS

REAC:R-HSA- Diseases associated with O-glycosylation of pi	3.98E-02	3.98E-02	<p>NOTCH3,SEMA5B,ADAMTS2,SEMA5A,MUC5B,ADAMTS8,THSD1,ADAMTS7,THBS1,ADAMTS14,ADAMTS17,ADAMTS10,ADAMTS14,THSD7B,MUC4,ADAMTS16,NOTCH1,ADAMTS12,ADAMTS1,ADAMTS3,SPON2,ADAMTS13,ADAMTS9,ADAMTS15,MUC15,ADAMTS20,DAG1,MUC20,ADAMTSL1,MUC6,MUC1,THBS2,THSD4,SSPO,ADAMTSL2,NOTCH4,MUC21,MUC12,SPON1</p>
REAC:R-HSA- Defective B3GALTL causes Peters-plus syndro	3.99E-02	3.99E-02	<p>SEMA5B,ADAMTS2,SEMA5A,ADAMTS8,THSD1,ADAMTS7,THBS1,ADAMTS14,ADAMTS17,ADAMTS10,ADAMTSL4,THSD7B,ADAMTS16,ADAMTS12,ADAMTS1,ADAMTS3,SPON2,ADAMTS13,ADAMTS9,ADAMTS15,ADAMTS20,ADAMTSL1,THBS2,THSD4,SSPO,ADAMTSL2,SPON1</p>
REAC:R-HSA- Signaling by Interleukins	3.99E-02	3.99E-02	<p>CRLF1,RALA,NOS2,IL32,CD4,FYN,ALOX5,VIM,TNFRSF1B,GAB2,MAP2K3,PSMA4,CUL1,MEF2A,PSME4,RORA,CDC42,RPS6KA2,PRKACA,PTPN18,FBXW11,PTGS2,FSCN1,PTPN23,STXBP2,MAP2K7,NFKB2,IL4R,TOLLIP,HSP90AAA1,MEF2C,IL12RB2,TXLNA,PSMCS,BIRC5,ICAM1,IRAK3,FLT3LG,IL5RA,PSME1,BLNK,IL12RB1,PSMD8,CRKL,OSM,HMOX1,MAP3K7IP1,CSF2RB,SOS2,HIF1A,RPS6KA5,NFKBIA,MMP9,PSMA7,HCK,MAPK3,CCL22,PSMD7,IL21R,IL7,FCER2,IL27RA,VRK3,TGFB1,TYK2,PPP2R1A,JAK3,PIK3R2,STX1A,NOD1,PSMA2,RAPGEF1,GATA3,MAP3K8,CSF3,PSMD3,PSMD11,CCL2,DUSP3,MAPK10,CCND1,CBL,AIP,PTPN5,PSMD9,IL23A,PTPN6,NANOG,MAPK14,SOD2,IL17A,VEGFA,IL4,SKP1,PPP2CA,LI FR,CD86,CISH,MAPKAPK3,FN1,STAT1,IL1R2,IL1R1,IL1RL2,IL1RL1,SDC1,OPRD1,CAPZA1,RHOU,PIK3R3,FASLG,RPS6KA1,FOXO3,CSF3R,TCP1,SOC52,PTK2B,CCR2,PIK3CA,IL17C,CDKN1A,IL1B,PSMF1,PSMB2,STAT5A,CANX,RAP1B,IL22,SMARCA4,SHFM1,LIF,PSMA1,LBP,LAMA5,PSME3,SNAP25,CA1,IRAK2,IL6ST,IL2RA,HAVCR2,CD36,TEC,DHX9,LCP1,IL6,IL1RN,IL11RA,IRF4,IL18BP,PPP2R1B,FGF2,PELI2,ITGAX,TP53,AKT1,IL19,IL22RA1,RORC,MCL1,ARF1,PIK3R1,IL9,LCN2,GSTO1,ITGB1,IL18,UBC,PTPN14,HNRPD,IL134,PSMB4,ITGB2,SHC1,IL6R,SQSTM1,JAK1,VCAM1,MAPKAPK2,IL20,PTPN13,IL17RE,IL17RC,CCR1,DUSP7,IL15,CSF2,IL31RA,COL1A2,YWHAZ,SYK,BTRC,STAT6,STX3,SMAD3,CRK,NOD2,NKIRAS2,STAT3,IL12A,INPP5D,LGALS9,MAP2K1,IRS1,CXCL10,PTPN9,HNRNP,ITGAM,S1PR1,SOC5,BCL2L1,PIK3CD,BCL2,IL16,MYD88,RELA,STAT5B,PITPNA,PELI3,RAG2,TRAF6,PTPN2,CLCF1,GRB2,UBE2N,PTPN11,PAK2,NDN,ANXA2,LCK,TBK1,SIGIRR,MUC1,P4HB,BRWD1,IRS2,IL1RAP,PRTN3,MMP1,PSMD12,IL27,SERPINB2,IRAK4,MAP3K3,PSMB8,AGER,IL31,PSMB10,TNF,PSMB9,MIF,IL10RB,UBE2V1,LYN,CCL5,PSMB3</p>
GO:0010634 positive regulation of epithelial cell migration	4.03E-02	4.03E-02	<p>PIK3C2A,MAP2K3,FLT4,HDAC9,BCAR1,HDAC7,SCARB1,PTGS2,CLASP1,FGFR1,EDN1,TGFB2,EPB41L4B,ABL1,NRP1,PPM1F,HMOX1,PDGFB,LGMN,HIF1A,MMP9,ANGPT4,CTSH,GPI,PRKD2,TGFB1,MET,HSPB1,GATA3,PFN1,SASH1,GPLD1,SMOC2,VEGFA,SEMA5A,SPARC,FGF1,HYAL1,FOXP1,RTN4,PROX1,NRP2,PTK2B,GLIPR2,PLCG1,RREB1,STAT5A,RHOJ,AAMP,KDR,ROCK2,ETS1,AGT,ENPP2,FGFBP1,THBS1,FGF2,ANXA3,FGF7,PDPK1,BCAS3,AKT1,DOCK5,DOCK1,ADAM17,PRKCA,CLASP2,ZC3H12A,ADAM9,ATOH8,PRKCE,CALR,CIB1,SP1,SRC,MTOR,MAP3K3,MIR135B,BMPR2,MIR27A,ZNF580,INSL3,ITGB3</p>

GO:0070507 regulation of microtubule cytoskeleton organ	4.03E-02	4.03E-02 N1, CEP97, FES, SKA2, EFNA5, CIB1, BICD2, MAPT, DYNC1H1, TRAF3IP1, HSPA1B, DCTN1, ARL2, UBXN2B, RBM14, CHMP1B
GO:0030217 T cell differentiation	4.03E-02	4.03E-02 FRSF18, NHEJ1, IL27, SPN, PNP, HLA-G, MIR30B  CD4, CD74, PRDM1, AP3D1, PRKC2, RORA, TBX21, GLI2, IL12RB1, ABL1, XBP1, NFATC2, SMAD7, IL7, CLPTM1, JAK3, LFNG, GLI3, GATA3, ZMIZ1, KAT2A, IL23A, CCR6, IL4, CD86, FOXP1, ZAP70, LEPR, MYB, LY9, GPR18, IRF1, ZBTB1, DLL4, RARA, PTPN22, RSAD2, IL2RA, IL6, IRF4, RORC, DUSP10, ZC3H8, NFKBIZ, IL18, ADAM8, ADAM17, CD8A, SH3RF1, BATF, KIT, FCER1G, RUNX1, ZBTB7B, NLRP3, SLAMF6, IHH, TGFBR2, ZC3H12A, NFKBID, RHOH, STAT3, LGALS9, PRELID1, SOCS5, CHD7, PIK3CD, MALT1, RAG2, PTPN2, SART1, ZNF683, ZFPM1, LCK, JAG2, ZFP36L1, TN
GO:0006090 pyruvate metabolic process	4.06E-02	4.06E-02 5, EIF6  PDK2, MLXIPL, IGF1, HAGH, ME1, PFKP, PKM2, HDAC4, ENO1, PGM1, ME2, DLD, SLC16A8, GSTZ1, HIF1A, GPI, PRKAG2, GCK, PDHX, TPI1, ENO2, LDHB, PFKFB2, PCK1, CBFA2T3, PRKAA1, LDHA, ALDOB, NCOR1, SLC16A3, PFKL, ARNT, ALDOA, ME3, PFKM, SLC16A1, HKDC1, HK1, ADPGK, HK2, HK3, PGAM2, PGM2L1, LDHC, PDHB, PFKFB3, INSR, BSG, BPGM, PDP2, PPARA, ENTPD
REAC:R-HSA- Neutrophil degranulation	4.15E-02	4.15E-02 B, CSNK2B, CPNE1, MIF, DDOST, HBB, CYFIP1  FGR, FUCA2, MPO, ITGAL, ALDH3B1, MGST1, PGLYRP1, MMP25, PRSS3, PLAUR, ALOX5, MVP, ACPP, SLC11A1, SERPINB1, RNASET2, CD44, TNFRSF1B, GRN, ATP6V0A1, TIMP2, AGA, HEXB, CYBA, HEBP2, GDI2, ACAA1, CTSA, CDK13, PKM2, RHOA, ATP11A, KCNAB2, RAB27A, STK10, AP1M1, PLD1, RAB7A, TOLLIP, XRCC5, PGM1, HSP90AA1, PPIE, GSTP1, CD59, CPNE3, B4GAL T1, DYNLL1, CMTM6, SNAP23, UNC13D, HSP90AB1, RAB18, SNAP29, CYB5R3, TOM1, CTSG, MMP9, PYGB, DNAJC5, CTSS, SIRPB1, VAPA, OLFM4, PSMD7, COTL1, CRISPLD2, CPPED1, HM OX2, PYCARD, C16ORF62, CTSH, ATP8B4, GSDMD, ASAH1, MAN2B1, GPI, SIGLEC5, PDAP1, IMPDH1, PSMA2, TSPAN14, PSMD3, P2RX1, PSMD11, VAT1, MANBA, BST1, COMMMD9, TCIRG1, PTPN6, FRK, MAPK14, TMEM30A, ARSB, NIT2, ARMC8, ACTR1B, QSOX1, CD58, PRDX6, CHRNB4, TTR, VAMP8, STBD1, NPC2, YPEL5, A1BG, CAT, CD97, ARHGAP9, SLPI, CEACAM8, SERP1 NB6, C3, CD93, RAP1B, UBR4, FGL2, COPB1, CD68, SLC44A2, SIGLEC9, BST2, GMFG, AGLY, DIAPH1, ACTR10, SNAP25, CHIT1, AMPD3, DOCK2, DSG1, OSTF1, CD36, CD63, TM6IM1, CAB39, CKAP4, RAC1, DBNL, PRCP, GGH, ADAM10, GPR84, SLC27A2, SRP14, IQGAP1, ITGAX, GALNS, PFKL, TRPM2, SLC2A5, CD53, CREG1, FCGR2A, S100A8, DEGS1, ARL8A, AHSJ, PLAC8, IQGAP2, DOK3, GSN, SURF4, LCN2, PTPRJ, ALDOA, NDUFC2, ADAM8, LPCAT1, PTPRN2, CCT8, EEF1A1, CDA, FCER1G, ATAD3B, PDXX, ITGB2, NBEAL2, HK3, AGL, ARPC5, NCSTN, PI3R, CTSS, S100A11, S100A9, CXCR1, NFASC, MINDA, GYG1, PRKCD, S100P, APEH, BRI3, CCT2, CLEC4D, B2M, ANPEP, EEF2, KRT1, GHDC, FTH1, RAB24, RNASE2, AGPAT2, ITGAM, CD14, PA2G4, OSCAR, CEA CAM3, LRG1, GAA, CANT1, C3AR1, ORM DL3, AZU1, RAB37, HPSE, JUP, SLC04C1, TBC1D10C, RHOG, ANO6, CALML5, FUCA1, CXCR2, ANXA2, AP2A2, TMEM173, DGAT1, C6ORF120, METT L7A, ATP6VOC, LAMP1, FCAR, PRG2, SELL, SERPINA3, TMEM63A, TUBB, CD55, PRTN3, MME, IGF2R, DYNC1H1, PSMD12, SERPINA1, C5AR1, ATG7, ELANE, CFD, SIRPA, PNP, NEU1, HSPA1

GO:0030890 positive regulation of B cell proliferation 4.17E-02 4.17E-02 CD38,CD74,TFRC,MEF2C,NFATC2,TNFSF13B,IL7,BST1,CD81,IL4,VAV3,TIRAP,CHRN2,FCRL3,BCL2,CLCF1,IRS2,TNFRSF4,TLR9,MIF

GO:0010574 regulation of vascular endothelial growth fact 4.17E-02 4.17E-02 BRCA1,SARS,FLT4,RORA,PTGS2,HIF1A,TGFB1,CCR2,IL1B,C3,ATF4,IL6ST,IL6,GATA4,CYP1B1,ARNT,EIF2AK3,HPSE,CXCL17,SULF2

GO:0010644 cell communication by electrical coupling 4.17E-02 4.17E-02 ATP1A2,PRKACA,SRI,ATP1A3,CAV1,PDE4D,ATP1B2,CALM2,CAMK2D,CACNA1C,ANK3,GJA1,CALM3,ATP1A1,GJC1,SLC8A1,RYR2,CALM1,GJC2,GJA5

GO:0016052 carbohydrate catabolic process 4.20E-02 4.20E-02 1,CRYL1,GLYCTK,DCXR,PFKFB3,INSR,GAA,BPGM,PPP1R3B,FUT1,FUT2,PPARA,ENTPD5,FUT4,NEU4,NEU1,EIF6  
MLXIPL,IGF1,RB1CC1,FUT8,PFKP,PKM2,HDAC4,PYGM,ENO1,PGM1,HIF1A,PYGB,MAN2B1,DHDH,GPI,GSK3A,PRKAG2,GCK,GALK1,MANBA,TPI1,ENO2,AKR1A1,TREH,STBD1,PFKFB2,CBFA2T3,FUT5,ENOSF1,PRKAA1,LDHA,ALDOB,KHK,NCOR1,PFKL,ARNT,GALM,ALDOA,PFKM,FUT6,HKDC1,HK1,PHKG2,ADPGK,HK2,HK3,NEU3,LRP5,AGL,PGAM2,PGM2L

GO:0036010 protein localization to endosome 4.20E-02 4.20E-02 TOLLIP,EZR,NRP1,MICALL1,PACSIN2,RAB35,TMEM30A,ACAP2,ROCK2,SORL1,DTX3L,ARF6

GO:1904376 negative regulation of protein localization to 4.20E-02 4.20E-02 GOPC,PPP2R5A,PICALM,CSK,TGFB1,TMEM59,RHOQ,PPF1A1,NUMB,MRAP2,TMBIM1,CLTC,DAB2,PID1,PKDCC,LZTFL1,BCL2L1

GO:0071800 podosome assembly 4.20E-02 4.20E-02 FARP2,FSCN1,KIF9,HCK,SH3PXD2A,LCP1,DBNL,GSN,CSF2,SH3PXD2B,SRC,TNF

GO:0048589 developmental growth 4.20E-02 4.20E-02 SEMA3F,CFLAR,SEMA3G,IGF1,NEDD4L,NTN1,FGFR2,SYT1,FGFR3,TGFBR3,LRP6,GLI2,TXK,PLXNA2,MAP2,EDN1,TP73,DNM2,RIMS1,HSP90AA1,MEF2C,GSK3B,ULK2,CTTN,MT3,GNAS,TBX5,CAPN3,TGFB2,HSP90AB1,ABL1,NRP1,CPNE6,NDRG4,PGCP,PTPRS,MEGF8,MAG,GSK3A,COBL,AGR2,LIMK1,BMPR1A,APOA5,GLI1,RASAL1,VEGFA,SEMA5A,GHR,FGF1,WWC1,PLXNA1,RTN4,LEPR,PROX1,NRP2,CPNE5,BBS2,FLRT3,STAT5A,MACF1,RNF6,EIF2AK4,UNC13A,GDF15,OLFM1,MAP1B,TEC,STRA6,MSTN,CHRNA1,FGF2,BMPR1B,FGF7,IQGAP1,NKD1,DUSP10,SYT2,CPNE9,GOLGA4,TMEM108,SLIT2,BIN3,NOTCH1,AKAP6,WWC2,SORBS2,ZFYVE27,GHRL,AUTS2,STC1,PRMT2,DDR2,NPPC,TRIM46,PLXNB1,CDK5,KLK6,CTNNA1,RBPJ,ALCAM,S1PR1,INSR,PTEN,STAT5B,RIMS2,BASP1,ULK1,ARIH2,ERBB4,SLIT3,MAPT,SLIT1,MAGI2,SEMA4D,WNT7B,AGRN,OSTN,FZD9,NACA,DLL1,SMURF1,MIR25,MIR200B,SYT3,CPNE1,PLXNA4,TWF2,EPPK1,CYFIP1,MIR195,MIR24-2,MIR1-2

GO:0019318 hexose metabolic process	4.20E-02	<p>FUCA2,PKK2,IGF1,FUT8,PFKP,PKM2,RORA,ENO1,PGM1,C1QTNF3,GSK3B,AKR1B1,OAS1,SORBS1,PMM1,PCK2,MAN2B1,GPI,AKT2,GSK3A,GCK,GALK1,SLC25A11,PPARGC1A,TP11,ENO2,PPARD,GPLD1,PASK,SLC25A12,AKR1A1,GOT1,PFKFB2,PCK1,GOT2,NR1D1,ATF4,FUT5,FBP2,PER2,INPP5K,ALDOB,KHK,PMM2,G6PC3,PFKL,SIK1,AKT1,RORC,GALM,DGKQ,MDH2,ALDOA,PFKM,FUT6,HK1,PHKG2,GHRL,ADPGK,ADIPOR1,HK2,CRTC2,HK3,LRP5,OMA1,PGAM2,PGM2L1,MIDN,GLYCTK,IRS1,DCXR,INSR,GAA,BPGM,PPP1R3B,PC,FUT4,ENPP1</p>
REAC:R-HSA- Interleukin-4 and 13 signaling	4.26E-02	<p>NOS2,ALOX5,VIM,TNFRSF1B,RORA,PTGS2,FSCN1,IL4R,HSP90AA1,BIRC5,ICAM1,OSM,HMOX1,HIF1A,MMP9,CCL22,FCER2,TGFB1,TYK2,JAK3,GATA3,CCL2,CCND1,IL23A,NANO G,IL17A,VEGFA,IL4,FN1,STAT1,OPRD1,RHOU,FASLG,FOXO3,CDKN1A,IL1B,LIF,LBP,LAMA5,CD36,IL6,IRF4,FGF2,ITGAX,TP53,AKT1,RORC,MCL1,PIK3R1,LCN2,ITGB1,IL18,BATF,ITGB2,IL6R,IAK1,VCAM1,COL1A2,STAT6,STAT3,IL12A,ITGAM,S1PR1,SOC5,BCCL2L1,BCCL2,NDN,MUC1,MMP1,TNF</p>
REAC:R-HSA- ERBB2 Activates PTK6 Signaling	4.26E-02	4.26E-02 ERBB3,PTK6,HBEGF,EGF,ERBB2,EGFR,NRG1,NRG2,NRG4,BTC,ERBB4,NRG3
GO:0046395 carboxylic acid catabolic process	4.27E-02	<p>PON1,CROT,NOS2,CD44,HEXB,ATP2B4,ACAA1,HYAL2,ALDH3A2,ACADVL,ACAT1,HAL,ACOX3,NOS1,SLC9A1,ECHDC1,PRODH,MCAT,SLC25A17,GSTZ1,HAO1,LPIN2,LONP2,QPRT,BCKDK,FAH,IL4I1,AKT2,TGFB1,BCAT2,PON3,PHYH,ASPA,BLMH,AADAT,CPT1A,ACAD10,PPARD,AGXT2,EHHADH,HGD,PCCB,HYAL1,ACADL,SCP2,MECR,HAO2,KMO,AKR1A1,FAAH,GOT1,ACAT2,ECHDC2,ACADS,SARDH,MTRR,NAGK,MCEE,GOT2,DUUA,ECHS1,MPST,IVD,CDO1,IDO1,LYVE1,LPIN1,GLUL,STAB2,HADHB,FGF2,HADH,AMDHD1,SLC27A2,ETFA,GCSH,AKT1,ALDH1L1,AIG1,ADHFE1,MAT1A,ACMSD,ACOXL,DDAH1,TYSND1,PADI4,ALDH4A1,UROC1,CBS,FTCD,ACOX1,AMDHD2,HAO,PEX13,CRYL1,ASPG,ACOX2,IRS1,DCXR,ACSF3,SHMT1,ACOT4,PIPOX,ADIPOQ,ADO,SLC25A21,ABAT,AFMID,IRS2,CYP4F12,HYAL3,PPARA,IDO2,HIBCH,TAT,DDO,HEXA,DDAH2,NUDT19,PLIN5,ACAD11,BCKDHA</p>

GO:0086067 AV node cell to bundle of His cell communication process 4.27E-02 4.27E-02 TRPM4,CACNA1C,CXADR,CACNB2,SCN4B,GJC1,SCN5A,SCN10A,RYR2,GJA5

DVL2,SPAG9,MAPK8IP2,MAP4K5,ZMYND11,FAS,MAP2K3,FLT4,CUL1,EIF2AK2,HIPK2,MAP4K4,FBXW11,MAP3K13,TRAF4,MAP2K7,EDN1,ITCH,TP73,GSTP1,MECOM,MAP3K4,EZR,TGFB2,SH2D3C,GADD45B,CRKL,MAP3K7IP1,RASSF2,MAPK3,AXIN1,PYCARD,NOD1,MAP3K8,DUSP3,MAPK10,HIPK3,LTBR,TPD52L1,SASH1,MAPK14,DUSP22,VEGFA,SKP1,STK25,GADD45A,SLAMF1,PTK2B,COP55,MAPK8IP1,PKN1,UNC5CL,RAP2A,IL1B,CCR7,TRAF2,GPS2,MEN1,IRAK2,PTPN22,TAOK3,ANKRD6,EDAR,DBNL,CCM2,DAB2IP,RIPK1,MAPK8IP3,JGF1R,NCOR1,TNFRSF11A,DUSP10,ARL6IP5,EGFR,MFHAS1,PAK1,RPS3,TAOK2,THRAP,UBC,TNIK,SH3RF1,EPHB1,PPEF2,XDH,PINK1,TAOK1,DVL3,DUSP19,ZC3H12A,BTRC,NOD2,SERPINF2,ULK4,MAP4K2,SEMA4C,LGALS9,MAP2K1,GPS1,ADORA2B,HDAC3,QARS,RASGRP1,SH3RF3,MAP3K11,TRIB1,ZNF622,TLR6,HRAS,TRAF6,UBE2N,PER1,PARK2

GO:0051403 stress-activated MAPK cascade 4.27E-02 4.27E-02 ,ZFP36L1,AIDA,NBR1,MAP3K5,DAXX,AGER,TNF,TLR9,UBE2V1

GO:0070234 positive regulation of T cell apoptotic process 4.27E-02 4.27E-02 BBC3,CD274,IDO1,TP53,ZC3H8,ADAM8,LGALS9,PRELID1,PDCC1,CCL5

GO:0070306 lens fiber cell differentiation 4.27E-02 4.27E-02 WNT5B,PROX1,CRYGD,PROX2,EPHA2,WNT7A,MAF,FOXO3,WNT7B,TDRD7

GO:0016054 organic acid catabolic process	4.27E-02	<p>PON1,CROT,NOS2,CD44,HEXB,ATP2B4,ACAA1,HYAL2,ALDH3A2,ACADVL,ACAT1,HAL,ACOX3,NOS1,SLC9A1,ECHDC1,PRODH,MCAT,SLC25A17,GSTZ1,HAO1,LPIN2,LONP2,QPR T,BCKDK,FAH,IL4I1,AKT2,TGFB1,BCAT2,PON3,PHYH,ASPA,BLMH,AADAT,CPT1A,ACAD10,PPARD,AGXT2,EHHADH,HGD,PCCB,HYAL1,ACADL,SCP2,MECR,HAO2,KMO,AKR1A1,F AAH,GOT1,ACAT2,ECHDC2,ACADS,SARDH,MTRR,NAGK,MCEE,GOT2,JDUA,ECHS1,MPST,IVD,CDO1,IDO1,LYVE1,LPIN1,GLUL,STAB2,HADHB,FGF2,HADH,AMDHD1,SLC27A2,ET FA,GCSH,AKT1,ALDH1L1,AIG1,ADHFE1,MAT1A,ACMSD,ACOXL,DDAH1,TYSND1,PADI4,ALDH4A1,UROCI,CBS,FTCD,ACOX1,AMDHD2,HAAO,PEX13,CRYL1,ASPG,ACOX2,IRS1,D CXR,ACSF3,SHMT1,ACOT4,PIPOX,ADIPOQ,ADO,SLC25A21,ABAT,AFMID,IRS2,CYP4F12,HYAL3,PPARA,IDO2,HIBCH,TAT,DDO,HEXA,DDAH2,NUDT19,PLIN5,ACAD11,BCKDHA</p>
GO:0032872 regulation of stress-activated MAPK cascade	4.28E-02	<p>DVL2,SPAG9,MAPK8IP2,MAP4K5,ZMYND11,FAS,FLT4,EIF2AK2,HIPK2,MAP4K4,TRAF4,MAP2K7,EDN1,ITCH,TP73,GSTP1,MECOM,MAP3K4,EZR,TGFB2,GADD45B,RASSF2,MAP K3,AXIN1,PYCARD,DUSP3,HIPK3,LTBR,TPD52L1,SASH1,DUSP22,VEGFA,STK25,GADD45A,SLAMF1,PTK2B,COP55,MAPK8IP1,PKN1,UNC5CL,RAP2A,IL1B,CCR7,TRAF2,GPS2,ME N1,PTPN22,TAOK3,ANKRD6,EDAR,DBNL,DAB2IP,RIPK1,MAPK8IP3,IGF1R,NCOR1,TNFRSF11A,DUSP10,ARL6IP5,EGFR,MFHAS1,PAK1,RPS3,TAOK2,TIRAP,TNIK,SH3RF1,EPHB1, PPEF2,XDH,PINK1,TAOK1,DVL3,DUSP19,ZC3H12A,NOD2,SERPINF2,ULK4,MAP4K2,SEMA4C,MAP2K1,HDAC3,QARS,RASGRP1,SH3RF3,MAP3K11,ZNF622,TLR6,HRAS,TRAF6,PE R1,PARK2,AIDA,NBR1,MAP3K5,DAXX,AGER,TNF,TLR9</p>
GO:0072330 monocarboxylic acid biosynthetic process	4.28E-02	<p>ACSM3,OSBPL7,MLXIPL,DCN,BCRA1,NR1H4,ALOX5,IGF1,CD74,NR1H3,VCAN,TBXAS1,ELOVL1,PFKP,PKM2,HDAC4,ACADVL,PTGS2,ENO1,EDN1,PGM1,SLC27A5,ACOT7,HSD3B 7,TECR,CYP2D6,XBP1,MCAT,HIF1A,GPI,PRKAG2,GCK,ERLIN1,ALOX12,OSBP,APOA5,TPI1,ENO2,DSE,UST,CSPG5,ACADL,SCP2,PARK7,PROX1,OSBPL9,APOA1,ELOVL3,EPHX2,LIA S,LPGAT1,PFKFB2,NR1D1,EDN2,CBFA2T3,NCAN,OSBPL2,ACLY,PRKAB2,PER2,PRKAA1,BCAN,LDHA,CYP27A1,CHST12,ALDOB,BAAT,SLC27A2,NCOR1,OSBPL1A,PFKL,ARNT,DEG S1,SCD5,CBR4,ERLIN2,PTGES,ALDOA,PFKM,ACMSD,HKDC1,HK1,ADPGK,ADIPOP1,HK2,FGFR4,HK3,STARD4,PGAM2,PGM2L1,LIPC,GPX4,CYP7A1,ACOX2,GSTM4,ELOVL6,PFKF B3,PLA2G1B,INSR,BPGM,CYP7B1,LPL,ACSF3,ALOXE3,ALOX12B,CYP8B1,ADIPOQ,ACSM5,ACSM2A,ALDH1A3,PPARA,ENTPD5,AKR1C3,ELOVL2,HSD17B8,LTC4S,FADS3,MIF,EIF6 ,ACACA</p>
GO:0043255 regulation of carbohydrate biosynthetic process	4.28E-02	<p>PDK2,IGF1,C1QTNF3,GSK3B,SORBS1,PDGFB,AKT2,TGFB1,GSK3A,GCK,PPARGC1A,PASK,PTK2B,CD244,NR1D1,INPP5K,EGF,CLTC,SIK1,AKT1,DGKQ,PTH1R,IRS1,INSR,P2RY6,PTP N2,CLK2,ADIPOQ,PGP,IRS2,HRH1,AP2A1,ENPP1</p>



GO:0072593 reactive oxygen species metabolic process	4.28E-02	4.28E-02	MPO,NOS2,FYN,BRCA1,CPS1,CYBA,ATP2B4,CYB5R4,SIRT2,RAB27A,PTGS2,EDN1,SESN1,HSP90AA1,GSTP1,NOX4,MT3,KHSRP,NOS1,HSP90AB1,PDGFB,TGFB1,CAV1,GBF1,SH3PXD2A,ALOX12,BST1,MAPK14,SOD2,NNT,AGXT2,PARK7,GADD45A,CLU,EPHX2,CAT,ZNF205,SIRT5,CDKN1A,IL1B,TRAP1,RAC2,PXDN,ASS1,SESN2,SFTPD,CD36,AGT,RAC1,RIPK1,THBS1,DUOX1,CYP1B1,TP53,AKT1,AGTR1,PXDNL,PID1,DDAH1,XDH,PINK1,ITGB2,TGFB2,ZC3H12A,PRKCD,NDUFS4,SYK,PRDX3,SMAD3,CX3CR1,ARF4,ITGAM,INSR,SLC25A33,CD34,TLR6,SH3PXD2B,PARL,BNIP3,GRIN1,GRB2,F2,NQO1,RNF41,PARK2,NDUFA13,MAPT,TLR5,AKR1C3,NOXO1,SLC30A10,BCO2,HBA1,GPX3,DDAH2,PLIN5,TNF,GPX1,EIF6,HBB,MIR24-2
GO:0006352 DNA-templated transcription, initiation	4.28E-02	4.28E-02	CREBBP,TEAD3,E2F2,MED24,NR1H4,WWTR1,MNAT1,NR1H3,BCLAF1,POLR2B,RSF1,THRAP3,TA2,TA2,TA2,ZNRD1,POLR1A,RORA,NOTCH3,GTFC3,PGR,PSMCS,TBX5,NAT14,SR1,POLRMT,MED15,POLR3H,HNF4A,MAPK3,POLR2C,TA2,ERCC2,MED26,UBTF,MED31,PPARGC1A,CCND1,GT2H3,VDR,PPARD,ZNF451,CCNC,E2F3,NR2E1,KAT2B,TA2,TA2,NR5A2,CD3EAP,TA2,TA2,NR2C1,NR4A1,MED20,CDKN1A,RUNX2,POLR1B,MED1,THRA,NR1D1,RARA,NR0B2,PPARG,CCNH,HNF1A,CDK4,HEY2,NR5A1,POLR1E,YAP1,GT2B,GT2A2,TP53,NR1I3,RORC,POLR2D,NOTCH1,THR8,NR3C2,SMARCA5,MED8,NR2F6,MED27,MAML1,HNF4G,MED30,TA2,TA2,POLR2G,CTNNB1,RBP1,ATF7IP,ESRRA,SNAPC5,NPPA,FOA2,SL1,NR2C2,TA2,TA2,POLR2A,NR2C2AP,MAML2,BRF1,RXRA,PPARA,TEAD1,MTF,ESRRG,TCF4,MAML3,GT2E2,NCOA6,RORB,RXR8,NOTCH4,GT2H4,GT2I,TA2,TA2,HNF1B,NR2E3
GO:0015849 organic acid transport	4.28E-02	4.28E-02	NOS2,NR1H4,ATP1A2,PQLC2,SYT1,SLC46A1,ACACB,SLC1A3,LRP2,ATP8B1,SLC27A5,SLCO1A2,NCOA1,SLC23A2,SLC7A8,SLC16A8,SLC25A17,SLC10A1,HRH3,SLC25A15,SLC38A7,SLC7A5,AQP9,SLC17A7,AKT2,ABCC3,SLC9A3R1,CPT1A,FOLR1,SLC1A2,SLC6A12,SLC38A1,PPARD,RAB3GAP1,SLC25A12,SLC17A5,TNFSF11,GIPC1,SLC36A1,ACSL3,GOT2,SLC10A2,ABCC4,IL1B,SLC27A1,SLC7A10,SLC6A6,PPARG,PER2,NMUR2,CD36,THBS1,SLC3A1,SLC7A1,SLC27A2,NCOA2,NCOR1,SLC13A5,SLC16A3,TNFRSF11A,AKT1,ARL6IP5,SLC10A4,SLC26A7,SLC43A1,SLC22A9,THRSP,DRD3,ACSL1,SLC16A1,SLC6A1,CPT2,SLC38A10,SLC13A3,ACE,SLC1A7,SLC16A14,SLC6A18,SYK,SLC38A8,SLC43A2,SLC3A2,SLC16A4,SLC38A11,SLC16A5,SLC23A1,ARL6IP1,PLA2G1B,LRR8E,STARD5,SLC19A1,SLC6A19,SLCO3A1,SLC38A9,SLC25A22,SLC25A20,SLC25A21,SLC25A10,LCN12,IRS2,SLC36A2,RXRA,PPARA,G
GO:0046942 carboxylic acid transport	4.28E-02	4.28E-02	NOS2,NR1H4,ATP1A2,PQLC2,SYT1,SLC46A1,ACACB,SLC1A3,LRP2,ATP8B1,SLC27A5,SLCO1A2,NCOA1,SLC23A2,SLC7A8,SLC16A8,SLC25A17,SLC10A1,HRH3,SLC25A15,SLC38A7,SLC7A5,AQP9,SLC17A7,AKT2,ABCC3,SLC9A3R1,CPT1A,FOLR1,SLC1A2,SLC6A12,SLC38A1,PPARD,RAB3GAP1,SLC25A12,SLC17A5,TNFSF11,GIPC1,SLC36A1,ACSL3,GOT2,SLC10A2,ABCC4,IL1B,SLC27A1,SLC7A10,SLC6A6,PPARG,PER2,NMUR2,CD36,THBS1,SLC3A1,SLC7A1,SLC27A2,NCOA2,NCOR1,SLC13A5,SLC16A3,TNFRSF11A,AKT1,ARL6IP5,SLC10A4,SLC26A7,SLC43A1,SLC22A9,THRSP,DRD3,ACSL1,SLC16A1,SLC6A1,CPT2,SLC38A10,SLC13A3,ACE,SLC1A7,SLC16A14,SLC6A18,SYK,SLC38A8,SLC43A2,SLC3A2,SLC16A4,SLC38A11,SLC16A5,SLC23A1,ARL6IP1,PLA2G1B,LRR8E,STARD5,SLC19A1,SLC6A19,SLCO3A1,SLC38A9,SLC25A22,SLC25A20,SLC25A21,SLC25A10,LCN12,IRS2,SLC36A2,RXRA,PPARA,G

GO:0019058 viral life cycle	4.28E-02	<p>4.28E-02 DRBK1,PC,PDE12,CTBP2,BANF1,CHMP6,PARP10,RAD23A,TMPRSS2,PARK2,P4HB,IFIT1,PCBP2,WWP2,BTBD17,TRIM15,TRIM31,TNF,TRIM26,APOBEC3D,CHMP1B,ITGB3,CCL5</p> <p>CD4,CD74,YTHDC2,NEDD4L,EIF2AK2,HYAL2,NUCKS1,PABPC1,CDC42,RAB7A,LAMP3,ITCH,XPO1,CHMP2B,PPIE,EP515,OAS1,ICAM1,SRPK1,HSP90A1,SMARCB1,LGALS1,APOB EC3H,CHMP4B,VAPA,CLEC4M,CAV2,CAV1,SMC3,CCL2,DDX6,CD81,OAS3,SNX3,TRIM38,TRIM62,NR5A2,PROX1,VAMP8,TRIM25,WWP1,SLPI,STAU1,TBC1D20,APOBEC3A,EIF2 AK4,ILF3,BST2,CHMP2A,C19ORF66,CHMP1A,INPP5K,VPS4A,ROCK2,RSAD2,OASL,SRPK2,RNASEL,RAB1A,TARBP2,VPS37B,PML,FURIN,TNIP1,GSN,LRSAM1,USP6NL,HMGA2,UB C,NMT2,FBXL2,GPR15,TRIM11,LARP1,MX1,SNF8,CTBP1,ADAR,VPS28,NFIA,IFI16,ZC3H12A,CHMP4C,UBAP1,FAM111A,ATG16L2,LGALS9,PDCC6IP,TRIM8,PIIH,ISG20,CXCR6,A</p>
GO:0051592 response to calcium ion	4.28E-02	<p>4.28E-02 B3,FGA,CPNE7,NRXN1,SCN5A,SF3B3,AKR1C3,RYR1,RYR2,CALM1,CPNE1,PHB2</p> <p>DPEP1,CASR,GUCA1A,RHOA,SYT1,MEF2A,RASGRP2,MEF2C,CPNE3,ADD1,MCOLN1,CAPN3,ITPR3,LGMN,CAV1,SERPINE1,GPLD1,RTN4,SLC25A12,ARID1A,KCNP12,HPCA,ANXA 11,PRKAA1,THBS1,SEC31A,TRPC3,PPP3CA,IQGAP1,TRPM2,KCNH1,ITPKB,CALM2,CAMK2D,KCNMA1,CALM3,PEF1,ADCY1,TRPV6,STIM1,ACER1,ADAM9,AHCYL1,NLGN1,KCNB</p>
GO:0006816 calcium ion transport	4.30E-02	<p>4.30E-02 X2,OR56A5,RYR1,CACNA1H,HTT,SPG7,PLCG2,RYR2,CALM1,FAM155A,TRIM27,GSTM2,PHB2,TLR9,CCL5,ORAI1,MIR34A,MIR1-2</p> <p>CALCR,IBTK,CACNG3,CX3CL1,CD4,FYN,ATP1A2,CASR,ATP2B4,MYLK,CD84,CACNB1,TRPC7,GNB5,CAMK2A,ATP2B1,PRKACA,ATP2A3,SLC24A1,SRI,CACNA1S,TRPM3,P2RX5,CH ERP,FKBP1A,NOS1,SLC9A1,MCOLN1,JPH4,TRPM7,CAPN3,ITPR3,PDGFB,SLC8A3,TRPC4AP,CHRNA4,NALCN,HTR2A,KCNN4,BBC3,GRIN2D,PMPCB,CAV1,CDH23,CCL2,YWHAH,W FS1,STIM2,PANX1,CYP27B1,TRPV4,GRM6,PDE4D,THADA,GRIN3B,FASLG,SLC8A2,CRHR1,PTK2B,ADRA1A,HPCA,RAMP3,PLCG1,SEMG1,AHNAK,CCR7,F2RL3,EPO,TRPM4,DIAPH 1,RAMP1,INPP5K,NMUR2,TPT1,TRPM1,APLN,TEM165,UBQLN1,BIN1,FGF2,TRPC3,EGF,PML,PDPK1,CACNA1A,TRPM2,CACNG8,CASQ1,CALM2,TRPM8,CAMK2D,ANK2,CA MK2G,GSTO1,JPH2,CACNA2D4,CACNA1C,AKAP6,MCOLN2,JPH3,ATP2B2,CACNA1D,STC1,CALM3,CHRN2,FCRL3,ORAI2,GRIN2C,CCR1,TRPV6,EFHA1,PMPCA,PACSIN3,CACNB 2,PRKCB,CACNG2,STIM1,JSRP1,TRPV3,SLC3A2,CTNNA1,LETM1,CXCL10,SLN,PLA2G1B,NMUR1,P2RY6,BCL2,PRNP,IL16,NPPA,GRIN1,ANO6,F2,LCK,SLC8A1,PDE4B,SESTD1,P2R</p>
GO:0006195 purine nucleotide catabolic process	4.32E-02	<p>4.32E-02 8</p> <p>PDE4A,ACAT1,NT5C2,ACOT7,SAMHD1,NUDT1,PDE4D,NT5C1A,PDE1B,NT5C,ITPA,AMPD3,NT5E,NUDT15,PDE5A,XDH,PDE9A,PDE3A,NUDT4,PDE2A,PNP,GPX1,NUDT3,NUDT1</p>

GO:0006006 glucose metabolic process	4.41E-02	<p>PDK2,IGF1,PFKP,PKM2,RORA,ENO1,PGM1,C1QTNF3,GSK3B,OAS1,SORBS1,PCK2,GPI,AKT2,GSK3A,GCK,SLC25A11,PPARGC1A,TPI1,ENO2,PPARD,GPLD1,PASK,SLC25A12,AKR1A1,GOT1,PCK1,GOT2,NR1D1,ATF4,FBP2,PER2,INPP5K,ALDOB,G6PC3,PFKL,SIK1,AKT1,RORC,GALM,DGKQ,MDH2,ALDOA,PFKM,HK1,PHKG2,GHRL,ADPGK,ADIPOR1,HK2,CRTC2,HK3,LRP5,OMA1,PGAM2,PGM2L1,MIDN,IRS1,DCXR,INSR,GAA,BPGM,PPP1R3B,PC,PTPN2,CLK2,ADIPOQ,SLC25A10,PGP,PARK2,IRS2,ENPP1</p>
GO:0048145 regulation of fibroblast proliferation	4.58E-02	<p>IGF1,CD74,B4GALT7,GSTP1,PDGFB,E2F1,SFRP1,CDK6,FN1,CDKN1A,WNT1,PDGFRA,CDK4,AGT,DHX9,DAB2IP,TP53,PDGFC,SKI,MORC3,DDR2,NDUFS4,NLRC3,FTH1,CTNNB1,PLA2G1B,PARP10,MIR494,NF1,PDGFA,S100A6,MIR124-3,AQP1,MIF</p>
GO:0046847 filopodium assembly	4.58E-02	<p>RALA,CDC42,FSCN1,CAPZB,EZR,NRP1,PALM,WASL,DPYSL3,TGFB3,RHOQ,RAB17,CCR7,FGD3,ARHGEF4,PNBP1L,FGD4,BCAS3,TRPM2,MYO10,FGD2,GPM6A,FGD5,PRKCD,ARF6,NLGN1,GAP43,NRXN1,FGD6,SPATA13,ARAP1,ESPN,AGRN,SRGAP2</p>
GO:0048017 inositol lipid-mediated signaling	4.62E-02	<p>FGR,PIK3C2A,DCN,IGF1,GAB2,MYOC,ERBB3,RHOA,SIRT2,FGFR1,PIK3C3,PPP2R5C,EDN1,PITPNM2,EXOC1,EZR,TGFB2,PIK3IP1,PDGFB,HTR2A,MAPK3,TSC2,PIK3R2,GATA3,CSF3,SLC9A3R1,CBL,PTPN6,PLCH1,PIK3CA,STAMBP,KDR,PIK3C2B,PDGFRA,AGT,DAB2IP,IER3,IGF1R,PIK3R5,ERBB2,AKT1,PI4KB,PIPSK1A,KCNH1,PDGFC,PIK3R1,EGFR,NTRK2,IL18,FBXL2,PIK3AP1,KIT,PTPN13,PLXNB1,NLRC3,IRS1,PTK2,PDGFD,PIK3CD,PTEN,SELP,HCLS1,TNFAIP8L3,ZFP36L1,IRS2,PIP5K1C,ENTPD5,SEMA4D,NF1,PDGFA,NTRK1,INPP5F,TNF,CCL5,PIK3R6,PIP4K2B</p>

REAC:R-HSA- SHC1 events in ERBB2 signaling 4.68E-02 4.68E-02 ERBB3,HBEGF,KRAS,EGF,ERBB2,EGFR,PRKCA,NRG1,NRG2,SHC1,PRKCD,NRG4,PRKCE,HRAS,BTC,GRB2,ERBB4,NRG3

MTMR7,PON1,GDE1,AGK,PIK3C2A,NR1H4,OSBPL5,AGPAT4,PNPLA6,PI4K2B,INPP4A,PIGV,IP6K2,PIGB,CHAT,SCARB1,PLD1,SYNJ2,STARD7,EFR3B,CPNE3,MTMR2,PIGS,PGS1,CEP350,PCAT2,CRLS1,PITPNM2,PITPNM3,SBF1,PDGFB,MTMR3,PNPLA3,ABHD4,ZFYVE21,CPNE6,CDS2,LPIN2,HTR2A,VAC14,PLA2G4C,PLEKHA4,PIK3R2,PLEKHA8,PIGL,APOA5,PIPTPNM1,CHKA,LPCAT3,GPLD1,FIG4,GNPAT,PLA2G2D,PRDX6,APOA1,PLBD1,PIK3CA,LPGAT1,ACSL3,MBOAT7,PLA2G5,PLD2,SLC44A2,SLC27A1,EFR3A,INPP5K,PEMT,HRASLS2,ARF3,LPIN1,AGAP2,DPM2,ENPP2,FGF2,MTMR6,PIGK,SLC44A3,PI4KB,PIP5K1A,ARF1,ETNK2,OSBPL10,PLA1A,DGKQ,PIK3R1,INPP5E,PGAP2,MTMR12,GPD1L,LPCAT1,MPPE1,AGPAT5,APOA2,PLA2G4D,NAPEPLD,PCYT1A,PGAP3,IP6K3,CDS1,PTPN13,PLB1,LIPH,SERINC5,ENPP6,TTC7B,LIPC,GPD1,HRASLS5,TMEM150A,PLA2G4F,INPP5D,AGPAT2,PLA2G1B,PTEN,PHOSPHO1,PIGG,PTDSS2,IP6K1,RUFY1,CPNE7,PLD6,TMEM86B,PGP,PCYT2,PIP5K1C,PLA2G4E,PLA2G2E,THEM5,PDGFA,FAR1,PLCG2,INPP5F,INPP5B,AGPAT1,SLC44A4

GO:0006650 glycerophospholipid metabolic process 4.70E-02 4.70E-02 SACM1L,CPNE1,STARD10,PIGY,PIP4K2B

POMT2,EXTL3,BAK1,HSPA5,HERPUD1,CREB3L3,TM7SF3,PDIA5,ATXN3,UFD1L,RNF126,WIP1,ACADVL,PPP1R15A,ADD1,EDEM2,DNAJB11,DERL3,KDELRL3,XBP1,EP300,ARFGAP1,UGGT2,STUB1,BBC3,GSK3A,FKBP14,AGR2,TBL2,CDK5RAP3,CCL2,WFS1,PACRG,NFE2L2,EDEM3,ZBTB17,ATF6,COP5,SDF2L1,ATF4,POMT1,EIF2S1,EDEM1,TOR1A,DAB2IP,D ERL1,TLN1,PRES,SEC31A,HDGF,PDIA6,SRPRB,PIK3R1,DNAJB12,BCL2L11,CXCC1,TATDN2,CREB3L1,EXTL1,PPP1R15B,ATP6V0D1,SHC1,LMNA,SYVN1,ATF3,EIF2AK3,YIF1A,CTDS

GO:0035967 cellular response to topologically incorrect pr 4.76E-02 4.76E-02 P2,BOK,CALR,BHLHA15,YOD1,HSF1,PARK2,PTPN1,DAXX,RNF5,DCTN1,ATF6B

REAC:R-HSA- CRMPs in Sema3A signaling 4.79E-02 4.79E-02 FYN,CRMP1,PLXNA2,GSK3B,DPYSL2,NRP1,DPYSL3,PLXNA1,DPYSL4,DPYSL5,CDK5,CDK5R1,FES,PLXNA4

GO:0044774 mitotic DNA integrity checkpoint	4.81E-02	<p>MRE11A,FOXN3,TP63,TP73,CNOT4,AURKA,PCBP4,CLSPN,MSH2,EP300,E2F1,FBXO31,RBL2,GML,CASP2,CDK5RAP3,CCND1,CDKN1B,CNOT6,NEK11,ARID3A,GADD45A,PLAGL1,CDK2,CDKN1A,CNOT1,E2F8,TAOK3,RINT1,HUS1,MDC1,PML,TP53,CARM1,RQCD1,PLK2,ATM,ORAOV1,TAOK2,HMGA2,EME1,CNOT8,CDC25C,DONSON,BRSK1,TAOK1,ZNF385</p> <p>4.81E-02 A, TOPBP1,RFWD3,CRADD,CDK1,SETMAR,RAD9A,MUS81,CNOT10,MUC1,TFDP1,ZNF830,PPP1R10,E2F4,PRKDC</p>
GO:0046825 regulation of protein export from nucleus	4.85E-02	4.85E-02 AKAP8L,ZC3H3,SP100,RAPGEF3,GSK3B,XPO1,RBM22,RANGAP1,YWHAE,SUPT6H,PARK7,IL1B,XPO4,CAMK1,TP53,TCF7L2,BAG3,PTPN14,UHMK1,JWS1,SETD2
GO:0060191 regulation of lipase activity	4.86E-02	<p>SELE,NR1H3,GNA15,FGFR2,RHOA,FGFR3,TKX,FGFR1,APOH,ESR1,ABL1,HTR2A,LMF1,APOA5,RGS2,APOA1,GNA13,ADRA1A,LRP1,PLCG1,S1PR4,PLA2G5,NMUR2,PDGFRA,FGF2</p> <p>4.86E-02 ,PCSK6,FURIN,PDPK1,AGTR1,EGFR,NTRK2,EDNRA,BICD1,RHOC,GNAQ,KIT,APOA2,LIPC,ARF4,PLA2G1B,NMUR1,P2RY6,RASGRP4,HRAS,LPL,C5AR1,LPAR1,PLIN5,CCL5,GPIHBP1</p>
GO:0060333 interferon-gamma-mediated signaling pathw:	4.86E-02	<p>NR1H3,CD44,SP100,CAMK2A,TKX,OAS1,ICAM1,HSP90AB1,HCK,CDC37,OAS3,OAS2,TRIM38,STAT1,SUMO1,TRIM62,IRF6,TRIM25,MT2A,IRF1,IRF3,PPARG,TRIM22,OASL,IRF4,PML,NLRCS,CAMK2D,CAMK2G,NCAM1,JAK1,GBP2,VCAM1,PRKCD,B2M,TRIM68,IRF2,TRIM8,PARP14,PTPN2,CIITA,IRF7,HLA-DRA,TRIM31,HLA-G,IRF9,IFI30,HLA-</p> <p>4.86E-02 DPB1,TRIM26,HLA-DQA2</p>

GO:0009062 fatty acid catabolic process	4.86E-02	4.86E-02	CROT,ACAA1,ALDH3A2,ACADVL,ACAT1,ACOX3,ECHDC1,MCAT,SLC25A17,HAO1,LPIN2,LONP2,AKT2,PHYH,CPT1A,ACAD10,PPARD,EHHADH,PCCB,ACADL,SCP2,MECR,HAO2,FAAH,ACAT2,ECHDC2,ACADS,MCEE,ECHS1,JVD,LPIN1,HADHB,HADH,SLC27A2,ETFA,AKT1,AIG1,ACOXL,TYSND1,ACOX1,PEX13,ACOX2,IRS1,ADIPOQ,IRS2,CYP4F12,PPARA,NUD
REAC:R-HSA- Highly calcium permeable nicotinic acetylcholin	4.95E-02	4.95E-02	CHRNA3,CHRNA4,CHRN4,CHRNA2,CHRNA1,CHRN3,CHRNA6,CHRN2,CHRNA5
GO:0032868 response to insulin	4.95E-02	4.95E-02	PDK2,BAIAP2L1,PIK3C2A,ATP6V0A1,HDAC9,BCAR1,NGFR,PRKCQ,PKM2,PRKCZ,NUCKS1,SORBS1,XBP1,TSC2,AKT2,PIK3R2,GSK3A,CAV2,GCK,HDAC5,GAB1,TCIRG1,GPLD1,ATP6V0E1,KAT2B,CISH,PIK3R3,RHOQ,IDE,GOT1,SOCS2,PIK3CA,PCK1,IL1B,PPARG,PTPRE,INPP5K,APC,TBC1D4,ATP6V1G1,CPEB2,IGF1R,PDPK1,AKT1,CAPN10,RAB13,AHSG,PIK3R1,FER,PDE3B,PID1,APPL1,ATP6V0D1,ZBTB7B,SHC1,SH2B2,INHBB,PRKCI,PRKCD,TSC1,VWA2,PRKCB,IRS1,PCSK9,SIK2,PLA2G1B,INSR,ATP6V0E2,SLC25A33,PTPN2,BAIAP2,GRB2,
GO:0044057 regulation of system process	4.97E-02	4.97E-02	TBXA2R,ACPP,IGF1,ATP1A2,NR1H3,TYMP,KCNQ1,KCNH2,ATP2B4,PRKCZ,HDAC4,MEF2A,ATP2B1,LMCD1,PRKACA,ATP2A3,MGLL,ENO1,TACR2,SRI,PPP1R12B,EDN1,RIMS1,CHRNA3,C1QTNF3,CTTN,MTMR2,NOS1,SLC9A1,RAB11FIP3,MYH7,TGFB2,ITPR3,STX1B,PDGFB,SLC8A3,DICER1,MYLK2,SMAD7,DMPK,ATP1A3,HAMP,SCN1B,GSK3A,CAV1,GLRX3,YWHAE,RANGRF,APOA5,MYL2,CUX2,C12ORF57,PDE4D,TNNC1,TACR1,SGS2,ECE1,APOA1,SLC8A2,SGK1,KCNIP2,CRHR1,KCNJ5,PTK2B,ADRA1A,POPC2,EDN3,KCNK15,IL1B,EDN2,ATP1B2,KLK8,KCNA5,TRPM4,TNNT3,PER2,INPP5K,DLG4,NMUR2,ROCK2,IL6ST,MYBPC3,CYP2J2,RAB11FIP5,AGT,KCNK1,BIN1,ABCG5,PLCE1,HCN4,TRPC3,FOXN4,TPM1,MYOCD,CASQ1,ABCG8,CALM2,TMEM108,AGTR1,CORIN,CAMK2D,ANK2,GLRA1,TNFRSF21,DOCK5,NOTCH1,PARD3,CAMK2G,MTG1,GSTO1,FAM173B,CACNA1C,AKAP6,PTPR,O,GPD1L,GJA1,PRKCA,CXADR,WNT7A,RAB11FIP1,FBXO32,GHRL,ATP2B2,CACNA1D,TRIM63,STC1,TNNI1,ACE,NPR2,CALM3,PDE9A,SPTBN4,S100A1,LMNA,MYL3,SHANK1,INHBB,NPPC,ATP1A1,UCN,ZC3H12A,CACNB2,SCN3B,TMEM100,STIM1,DAPK3,CHRM1,AHLYL1,ADRB2,NLGN1,SLN,KCNK3,KCND3,FGA,PTEN,ADRA1D,EIF2AK3,ADRBK1,JUP,C1QTNF1,NPPA,KCNE3,RIMS2,GRIN1,SCN4B,NRXN1,KCNE1,OXTR,CHRM2,ADIPOQ,KCNB2,GIC1,SLC8A1,CTNNA3,SCN5A,PDE4B,RNLS,SCN10A,RYR1,CACNA1H,HRH1,MYH6,ASPH,

GO:0043620 regulation of DNA-templated transcription in 4.97E-02 4.97E-02 1,NOTCH1,CHEK1,UBC,BAG3,TCEB1,BACH1,CREB3L1,ATF3,STOX1,HIF1AN,RBPJ,RGS14,RELA,HSF1,MUC1,ATF6B,EGLN2 CREBBP,BCLAF1,HSPA5,CREB3L3,SIRT2,MT3,HMOX1,EP300,HIF1A,CA9,VEGFA,EPAS1,NFE2L2,RPS6KA1,ATF6,CHD6,HIF3A,ATF4,EPO,SESN2,DNAJB1,EGLN1,TP53,ARNT,LIMD

Suppl. Tab. 15. Gene enrichment analysis for fetal age-COPD ME13:orange module using gProfilerR (sorted FDR < 0.05)

GO.ID	Description	FDR	Genes
GO:2000739	regulation of mesenchymal stem cell differentiation	9.26E-03	REST,SOX5,PDGFRA,LTBP3
GO:0051897	positive regulation of protein kinase B signaling	9.26E-03	FGFR1,ESR1,GCNT2,FGF1,HIP1,KL,PDGFRA,THBS1,EGF,PIK3R1,MFHAS1,NRG1,FGFR4,IRS1,FAM110C
GO:0007264	small GTPase mediated signal transduction	1.15E-02	6,ABR,VAV2,ARHGFEF3,DLG1,RASA3,ITSN1,SRGAP2
REAC:R-HSA- Diseases of signal transduction		1.21E-02	2,MAML3,ATG7,CUX1
REAC:R-HSA- Signaling by Receptor Tyrosine Kinases		1.21E-02	G1,VAV2,FGFR4,IRS1,PRR5,COL4A1,COL6A6
REAC:R-HSA- Constitutive Signaling by Aberrant PI3K in Cancer		1.21E-02	FGFR1,ESR1,FGF1,KL,PDGFRA,EGF,PIK3R1,NRG1,FGFR4,IRS1
REAC:R-HSA- PI3K/AKT Signaling in Cancer		1.21E-02	FGFR1,ESR1,FGF1,KL,PDGFRA,EGF,PIK3R1,NRG1,FGFR4,IRS1,PRR5
REAC:R-HSA- PI5P, PP2A and IER3 Regulate PI3K/AKT Signaling		1.21E-02	PPP2R5A,FGFR1,ESR1,FGF1,KL,PDGFRA,EGF,PIK3R1,NRG1,FGFR4,IRS1
REAC:R-HSA- PIP3 activates AKT signaling		1.21E-02	PPP2R5A,FGFR1,TNRC6C,REST,ESR1,NR2E1,FGF1,HDAC1,KL,PDGFRA,EGF,RPTOR,CBX4,PIK3R1,NRG1,FGFR4,PSMD6,IRS1,PRR5
REAC:R-HSA- Intracellular signaling by second messengers		1.41E-02	PPP2R5A,FGFR1,TNRC6C,REST,ESR1,NR2E1,FGF1,HDAC1,KL,PDGFRA,EGF,RPTOR,CBX4,PIK3R1,NRG1,FGFR4,PSMD6,ADCY1,IRS1,PRR5
REAC:R-HSA- Negative regulation of the PI3K/AKT network		1.41E-02	PPP2R5A,FGFR1,ESR1,FGF1,KL,PDGFRA,EGF,PIK3R1,NRG1,FGFR4,IRS1
GO:0072497	mesenchymal stem cell differentiation	1.41E-02	REST,SOX5,PDGFRA,LTBP3
GO:1905114	cell surface receptor signaling pathway involved in cell-cell sign	1.43E-02	1,WNT4,DISC1,FZD6,MESP1,AXIN2,MAGI2,NRARP
GO:0031532	actin cytoskeleton reorganization	1.58E-02	FRY,FRYL,MYH9,PDGFRA,BCAS3,FER,F11R,ANTXR1,BRSK2,CDC42BPB
GO:0051896	regulation of protein kinase B signaling	1.60E-02	FGFR1,ESR1,GCNT2,FGF1,HIP1,KL,PDGFRA,THBS1,EGF,PIK3R1,MFHAS1,NRG1,FGFR4,IRS1,FAM110C,MAGI2
GO:0016055	Wnt signaling pathway	1.60E-02	FZD6,MESP1,AXIN2,MAGI2,NRARP
GO:0198738	cell-cell signaling by wnt	1.61E-02	FZD6,MESP1,AXIN2,MAGI2,NRARP
REAC:R-HSA- NCAM signaling for neurite out-growth		1.73E-02	FGFR1,SPTBN1,PTPRA,COL4A2,CACNA1C,COL4A1,CACNA1H,COL6A6
GO:0030111	regulation of Wnt signaling pathway	2.62E-02	ESR1,SALL1,STK3,HDAC1,SMARCA4,NFATC1,ANKRD6,EGF,PRICKLE1,CSNK1G2,ANKRD6,EGF,PRICKLE1,CSNK1D,LRRK1,RUNX1,WNT4,DISC1,FZD6,MESP1,AXIN2,NRARP
GO:0044057	regulation of system process	2.83E-02	NK3,CHRM2,SLC8A1,KCNJ12,CACNA1H,NOS1AP



GO:0043491 protein kinase B signaling	2.83E-02 FGFR1,ESR1,GCNT2,FGF1,HIP1,KL,PDGFRA,THBS1,EGF,PIK3R1,MFHAS1,NRG1,FGFR4,IRS1,FAM110C,MAGI2
GO:0019216 regulation of lipid metabolic process	2.83E-02 ,TXNRD1 PDK4,NSMAF,PPP2R5A,FDFT1,REST,CPT1A,AMBRA1,FGF1,TWIST1,PDGFRA,AGAP2,RGL1,AGTR1,PIK3R1,FGFR4,WNT4,IRS1,NCOR2,FITM2
GO:0030036 actin cytoskeleton organization	3.10E-02 CORO6,TNXB,ANTXR1,FRMD3,BRSK2,FGD6,CDC42BPB,MICAL3 TESK2,FRY,FRYL,MYH9,CORO1C,CAP2,CDC42EP1,MYBPC3,PDGFRA,FLNB,BCAS3,ARF1,ARHGAP26,FER,FMN2,ELMO1,F11R,SHANK1,DLC1,
REAC:R-HSA- MAPK1/MAPK3 signaling	3.73E-02 CAMK2B,PPP2R5A,FGFR1,FGF1,SPTBN1,PTPRA,KL,PDGFRA,DUSP5,EGF,KSR1,NRG1,FGFR4,PSMD6,IRS1,CDK1,RASA3
REAC:R-HSA- Transcriptional regulation by RUNX2	3.73E-02 CUL1,HDAC4,ESR1,TWIST1,WWP1,HIVEP3,LGALS3,RUNX1,PSMD6,CDK1,MAF
GO:0009887 animal organ morphogenesis	4.04E-02 NRG1,MYL3,DLC1,OSR2,FZD6,MESP1,AXIN2,MAGI2,PAX5 FGFR1,ABLIM1,DAAM1,SMAD7,SALL1,HPN,BMPR1A,FGF1,HDAC1,MTHFD1L,TBX4,TWIST1,MYBPC3,PDGFRA,EGF,PRICKLE1,COL2A1,SDK1,
REAC:R-HSA- Signaling by PDGF	4.34E-02 PDGFRA,COL4A2,THBS1,PDGFC,PIK3R1,COL4A1,COL6A6
GO:1903522 regulation of blood circulation	4.84E-02 KCNQ1,KCNH2,ATP2A3,SMAD7,CYP2J2,AGTR1,CACNA1C,MYL3,ADRA1B,KCNK3,CHRM2,SLC8A1,KCNJ12,CACNA1H,NOS1AP

**Suppl. Tab. 16. Gene enrichment analysis for fetal age-COPD ME18:saddlebrown module using gProfilerR (sorted FDR < 0.05)**

GO.ID	Description	FDR	Genes
GO:0038083	peptidyl-tyrosine autophosphorylation	8.46E-03	MATK,ABL1,GRAP2,SLA2,SRMS,LCK,SRC,LYN
REAC:R-HSA-	L1CAM interactions	1.19E-02	AP2B1,SCN4A,LYPLA2,CNTN1,ANK1,SPTB,KCNQ2,RPS6KA1,SPTBN4,KCNQ3,SRC
GO:0046777	protein autophosphorylation	1.48E-02	MATK,MARK2,ABL1,PDGFB,GRAP2,SLA2,SRMS,WNK2,ALK,ULK1,LCK,GRK1,SRC,MAP3K3,LYN
REAC:R-HSA-	Interaction between L1 and Ankyrins	1.50E-02	SCN4A,ANK1,SPTB,KCNQ2,SPTBN4,KCNQ3
GO:0007268	chemical synaptic transmission	1.82E-02	KCNQ2,SLC1A3,ABL1,KCNN1,CUX2,STX2,PCDHB6,CHRNA2,GIPC1,UNC13A,PTPRN2,RAPSN,SLC6A5,PNOC,C
GO:0099537	trans-synaptic signaling	1.82E-02	KCNQ2,SLC1A3,ABL1,KCNN1,CUX2,STX2,PCDHB6,CHRNA2,GIPC1,UNC13A,PTPRN2,RAPSN,SLC6A5,PNOC,C
GO:0099536	synaptic signaling	1.82E-02	HRM1,RAB3B,SYT12,GRIN1,PCDHB9,KCNQ3,PCDHB11,MBP
GO:0098916	anterograde trans-synaptic signaling	1.82E-02	KCNQ2,SLC1A3,ABL1,KCNN1,CUX2,STX2,PCDHB6,CHRNA2,GIPC1,UNC13A,PTPRN2,RAPSN,SLC6A5,PNOC,C
GO:0043114	regulation of vascular permeability	2.09E-02	PTPRJ,DDAH1,NPR1,PDE2A,SRC
GO:0016339	calcium-dependent cell-cell adhesion via pla	2.76E-02	CDH23,PCDHB6,DCHS1,PCDHB9,PCDHB11
GO:0015800	acidic amino acid transport	3.99E-02	SLC1A3,GIPC1,SLC1A7,LRR8E,SLC25A22
GO:0006835	dicarboxylic acid transport	3.99E-02	SLC1A3,LRP2,GIPC1,SLC1A7,LRR8E,SLC25A22
GO:0048812	neuron projection morphogenesis	4.43E-02	PLXND1,LYPLA2,NGEF,SPTB,MARK2,HSP90AA1,LRP2,ABL1,CUX2,TNFRSF8,CPNE5,UNC13A,SEMA7A,SPTBN
GO:1904526	regulation of microtubule binding	4.43E-02	4,CTNND2,LRRN2,ULK1,SRC,ZNF335,CYFIP1
			MARK2,ABL1,PPP2CA

**Suppl. Tab. 17. Preservation between COPD (reference) and fetal lung (test) datasets.  
Zsummary.pres (sorted in increasing order) is the permuted score for preservation**

	<b>ME#</b>	<b>Zsummary.pres</b>	<b>Zdensity.pres</b>	<b>Zconnectivity.pres</b>
turquoise	ME50	40.07	58.42	21.72
salmon	ME13	37.50	65.91	9.10
royalblue	ME23	35.08	34.73	35.42
black	ME7	32.87	44.42	21.32
pink	ME8	29.70	34.30	25.10
greenyellow	ME11	29.62	36.07	23.18
red	ME6	26.25	35.36	17.15
grey	ME0	25.64	11.56	39.71
yellow	ME18	22.02	17.46	26.58
lightcyan	ME16	21.09	20.45	21.72
lightyellow	ME19	20.87	31.74	10.00
skyblue	ME28	19.42	19.97	18.87
steelblue	ME30	16.50	21.51	11.49
violet	ME32	13.51	13.75	13.27
darkturquoise	ME20	13.43	21.87	4.99
salmon4	ME52	12.79	21.59	3.99
sienna3	ME35	12.08	19.82	4.34
cyan	ME14	11.82	16.46	7.19
lightgreen	ME4	10.95	7.37	14.54
darkred	ME10	10.90	18.50	3.31
blue	ME2	10.23	16.03	4.43
darkgrey	ME15	10.21	12.51	7.91
darkmagenta	ME5	9.68	11.24	8.13
darkgreen	ME22	9.13	12.56	5.70
white	ME27	8.97	14.88	3.05
midnightblue	ME24	8.95	11.45	6.44
darkolivegreen	ME33	8.45	8.31	8.60
green	ME34	8.16	5.77	10.56
saddlebrown	ME29	7.13	9.32	4.94
tan	ME38	6.97	6.37	7.57
orange	ME43	6.80	11.86	1.74
skyblue3	ME37	6.67	10.39	2.95
darkorange	ME26	6.66	6.69	6.64
magenta	ME9	6.59	5.71	7.47
mediumpurple3	ME40	6.55	10.49	2.61
orangered4	ME39	5.94	11.29	0.59
brown4	ME46	5.40	7.48	3.32
paleturquoise	ME31	5.35	7.88	2.81

darkorange2	ME45	5.28	5.13	5.43
lightsteelblue1	ME41	5.24	10.18	0.31
yellowgreen	ME36	5.06	6.94	3.18
palevioletred3	ME53	4.58	9.25	-0.10
darkslateblue	ME48	4.54	10.30	-1.21
plum1	ME12	4.37	4.88	3.87
brown	ME3	3.65	-0.21	7.52
floralwhite	ME44	3.64	5.48	1.80
lightcyan1	ME42	3.62	5.08	2.16
bisque4	ME47	3.36	6.68	0.05
purple	ME21	3.35	5.11	1.60
navajowhite2	ME54	3.21	6.37	0.05
grey60	ME17	2.84	-0.71	6.38
thistle1	ME51	2.73	4.81	0.65
thistle2	ME1	2.40	4.25	0.54
plum2	ME49	1.70	3.91	-0.51
ivory	ME25	1.38	2.66	0.10

Suppl. Tab. 18. Integration of high module membership genes (MM $\geq$ 0.70) with LT-COPD differential expression and previously published COPD-GWAS associations. The gene-CpG site pair with the highest module membership among the overlapping associations for GWAS and differential expression is highlighted in bold along with the associated MM

Modules	Total CpGs at MM $\geq$ 0.70	Unique annotated genes	Overlap with previously reported COPD GWAS loci;		Overlap with differentially expressed LT-COPD genes (FDR 5%);	
			Number	Genes	Number	Genes
<b>mediumpurple3 (ME46)</b>	11	11	0	0	1	<b>PIIB (0.71)</b>
<b>darkolivegreen (ME90)</b>	19	12	0	0	0	0
<b>skyblue (ME100)</b>	140	71	0	0	0	0
<b>purple (ME34)</b>	1049	837	5	<b>IER3 (cg26376168, MM=0.79)</b> , ITGA1, CITED2, SLMAP, SNRPF	9	<b>SYF2 (cg17245337, MM=0.83)</b> , BUB3, EEF1B2, BCL2, IRX6, OAZ1, ZNF143, E2F6, ACTA1
<b>salmon (ME79)</b>	951	452	9	<b>NR4A2 (cg21226516, MM=0.90)</b> , TGFB2, MECOM, RBMS3, THRA, ASAP2, C1orf87, THSD4, IER3	4	<b>GAS2 (cg12575928, MM=0.85)</b> , PYGM, VDAC1, CXXC5
<b>black (ME30)</b>	2299	1169	9	<b>ASAP2 (cg22190705, MM=0.84)</b> , MECOM, THRA, SNRPF, SOX9, GLIS3, FAM13A, COL15A1, IER3	12	<b>CXXC5 (cg02084046, MM=0.88)</b> , UBASH3B, SYNE1, BHLHE22, BCL11A, DLG2, SERPINE2, DUSP26, GAD1, CIT, CA3, DNAJB14
<b>orange (ME13)</b>	301	207	3	<b>TESK2 (cg02657611, MM=0.83)</b> , MFHAS1, CFDP1	2	<b>CXXC5 (cg01008405, MM=0.84)</b> , RBMS1
<b>yellow (ME4)</b>	9419	4567	27	<b>ZBTB38 (cg09025210, MM=0.91)</b> , RIN3, CFDP1, ARMC2, ZKSCAN1, SFTPD, MFHAS1, THSD4, TNS1, RBMS3, AGER, ASAP2, ADAM19, THRA, PABPC4, MICAL3, ADCY5, ARNTL, DENND2D, TNPO1, TGFB2, EEFSEC, BTC, FAM13A, GLIS3, HTR4, VGLL4	45	<b>EDNRB (cg07495027, MM=0.92)</b> , CDC42, TAGLN2, SMOC2, EMP2, RBM33, BCL2, TPM3, BCLAF1, ZNF143, AKAP2, C6orf62, EXOC8, RBMS1, EIF4ENIF1, CNTNAP2, FNTA, ABL1, CIT, VDAC1, ANP32A, EEF1B2, BBS5, RAC1, NNT, CLEC2D, EIF3F, ACOT2, CLIC1, C11orf58, KIAA1267, TOP1, PDPK1, RAP1B, CXCR5, LIMS1, E2F6, SELT, UBASH3B, FBXW7, UBQLN1, ODF3L1, SENP6, SERPINE2, VEGFA
<b>saddlebrown (ME18)</b>	47	38	0	0	0	0

