SUPPLEMENTARY METHODS

Cell lines and culture conditions. The human ovarian adenocarcinoma cell lines ALST, OVCA432 and OVCA433 were cultured in Roswell Park Memorial Institute 1640 medium supplemented with 10% fetal bovine serum. All cell lines were tested for mycoplasma contamination and authenticated using a microsatellite panel. NOF151 ovarian fibroblasts and primary CAFs derived from the primary tumor tissues of HGSOC patients were cultured in MCDB 105/199 medium (1:1) supplemented with 10% fetal bovine serum and 1 ng/mL epidermal growth factor.

Microdissection and microarray analysis of tissue samples. RNA was extracted from microdissected frozen ovarian tissue samples, which included 6 normal ovarian surface epithelia samples and 8 normal stromal fibroblasts samples from normal ovaries, and tumor epithelial components and stromal CAFs from 70 HGSOC patients. Patient samples were collected from the Ovarian Cancer Repository under protocols approved by The University of Texas MD Anderson Cancer Center Institutional Review Board. All tumor tissue samples were resected from the primary tumor site of previously untreated HGSOC patients with grade 3, stage 3 and 4 diseases. Microdissection was performed on tissue sections fixed in 70% ethanol. The sections were stained with 1% methyl green to visualize histologic features. During laser microdissection, areas of interest in the sections were carefully outlined. Areas with immune cell and blood vessel infiltration were excluded to minimize contamination [6]. 100ng of purified RNA samples were amplified using the Ambion MessageAmp™ Premier RNA amplification kit. Fragmented cRNA was labeled using the Affymetrix GeneChip IVT labeling kit, and hybridized onto GeneChip Human Genome U133 Plus 2.0 microarrays (Affymetrix) according to the manufacturer’s protocol. After hybridization, arrays were washed and stained using a GeneChip Fluidics Station 450 and then
scanned using a GeneChip Scanner 3000 7G (Affymetrix). The quality of microarray data was assessed by spike-in controls, perfect match expression and relative log expression during data summarization and normalization. In addition, area under the curve (AUC) was calculated based on a list of tissue specific reference genes designated by the Affymetrix Expression Console software program. Only samples with an ACU greater than the threshold of 0.7 will be further analyzed. In brief, transcriptome data generated from each individual Affymetrix Human Genome U133 Plus 2.0 microarray array was analyzed with the MAS 5.0 algorithm using the Affymetrix Expression Console software program to obtain a report regarding the performance of the array and to identify any obvious problems prior to multichip analysis. The MAS 5.0 algorithm uses the Tukey’s biweight estimator to provide a robust mean signal value and the Wilcoxon’s rank test to calculate a significance and Detection call for each probe set. Background estimation is provided by a weighted average of the lowest 2% of the feature intensities. Mismatch probes are utilized to adjust the perfect match intensity. Subsequently, using the Genespring GX Bioinformatics Suite (Version 14.9; Agilent Technologies), the quality of the microarray data was further evaluated. To evaluate the efficiency of the cDNA synthesis reaction, with built-in control probesets on the microarray that recognized the 3’, middle and 5’ regions of the same gene, the ratio of signal intensity for 3’ probesets to that from 5’ probesets was calculated. In addition, using the software, the hybridization control plots for each of the samples were evaluated for the linearity of the assay, and the quality of the hybridization and washing process based on the signal intensities of spike-in controls prepared in staggered concentrations.
Hierarchical Clustering and silhouette analysis. Hierarchical Clustering based on Euclidean distance and Wards linkage was performed for the clustering analysis of hMSCs and microdissected CAF samples. Silhouette analysis was performed to determine the separation distance between the resulting clusters for the interpretation and validation of consistency within clusters of data. The silhouette displays a measure of how close each point in one cluster is to points in the neighboring clusters and thus provides a way to assess parameters like number of clusters. This measure has a range of [-1, 1]. Silhouette coefficients near 1 indicate that the sample is far away from the neighboring clusters. A value of 0 indicates that the sample is on or very close to the decision boundary between two neighboring clusters and negative values indicate that those samples might have been assigned to the wrong cluster. After calculating the average silhouette coefficients across all samples for clustering number k=3 through 10.

Two computational modules of the CCCExplorer platform used for data analysis. First, the Activated Transcriptional Factor discovery module was developed on the basis of target genes such as those from transcriptional factor (TF)–target interaction data from the Transcriptional Regulatory Element Database (TRED) [26] and KEGG signaling pathways [27]. In total, 2,618 TF-target interactions, between 192 TFs and 649 target genes, were collected. The computational module deploys the Fisher exact test [28] to identify the activated TFs as follows. Give a TF x, let T_x_relative expressed and T_x_relative silent denote expressed and non-expressed target genes of x, respectively, and T_all_relative expressed and T_all_relative silent denote expressed and non-expressed target genes of all TFs, respectively. Let \( a = |T_{x\_relative \text{ expressed}}|, c = |T_{x\_relative \text{ silent}}|, b = |T_{all\_relative \text{ expressed}}| - a, d = |T_{all\_relative \text{ silent}}| - c, \) and \( n = a + b + c + d. \) Then, the p value of the Fisher test was calculated.
Finally, activated TFs were identified with a p value threshold of 0.05. Second, the Activated Ligand-Receptor interaction discovery module archived the ligand-receptor interaction data from KEGG and the Database of Ligand-Receptor Partners (DLRP) [29], and collected proteins that were annotated as “extracellular” or “secreted” in Human Protein Reference Database (HPRD) [30] as ligands, with the corresponding receptors of these ligands were identified by using the STRING [31] database. In total, 1,419 ligand-receptor interactions, between 431 ligands and 316 receptors, were collected in the Activated Ligand-Receptor interaction discovery module database. Consequently, the activated ligand-receptor interactions were identified by the following calculations: (1) determination of whether the ligand genes are upregulated and the corresponding receptor genes are expressed, (2) determination of whether the receptor genes are upregulated and the corresponding ligand genes are expressed, or (3) crosstalk signaling reconstruction by linking activated ligand–receptor–TF–target gene on the KEGG signaling pathways. In total, 256 KEGG signaling pathways were obtained from the KEGG database, and then the shortest path analysis in the “igraph” package in R was employed for each individual KEGG signaling pathway to reconstruct the crosstalk signaling pathways by linking the activated ligand-receptor pairs to the activated TFs and their expressed target genes. To predict potentially activated signaling pathways, we used Fisher Exact Test to evaluate the probability that one pathway was enriched in differentially expressed genes. Pathways that had p-values smaller than 0.05 indicated that there was a 95% probability that the proportion of differentially expressed genes in these pathways was higher than randomly selected gene sets. Thus, these pathways were not likely to be over-represented by chance.
**Robustness assessment of CCCExplorer.** Three approaches were used to assess the robustness of the CCCExplorer software program in predicting activation of crosstalk signaling pathways mediated by differentially expressed secretory ligands from cancer cells and in predicting pathways mediated by differentially expressed receptors in CAFs. For each approach, one thousand permutation tests were performed. First, to evaluate if CCCExplorer predicts activated crosstalk signaling pathways with statistical significance based on randomly generated data sets, input data sets of secretory ligands, receptors, transcription factors and differentially expressed genes were generated by randomly selecting candidates among all known protein coding genes represented by the Affymatrix Human Genome U133 Plus 2.0 microarray. The number of genes in each list is the same as our data set generated by comparing the transcriptome profiles between patients with CAF-C and CAF-N gene signatures. Second, to evaluate the effects of feeding unimportant genes to CCCExplorer on crosstalk signaling pathway prediction, randomly selected genes were added to each of our list of ligands, receptors, transcription factors, and differentially expressed genes. Ten percent of genes in the resulting lists were selected randomly. Finally, to evaluate the impact of deleting important genes from the data sets on signaling pathway prediction by CCCExplorer, ten percent of genes were randomly selected and removed from each of the list of ligands, receptors, transcription factors and differentially expressed genes.

**qRT-PCR analysis.** The relative expression level of each target gene was determined using the $2^{-\Delta\Delta CT}$ method [32]. Predesigned human MFAP5, VCAN, COMP, VDR and cyclophilin A TaqMan gene expression assays (Life Technologies) were used in qRT-PCR analyses.
Co-culture of ovarian cancer cells and fibroblasts. To evaluate the roles of Smad signaling pathway activation in CAFs on the motility of cancer cells, co-culture of the two cell types were performed using Boyden chambers in a 12-well plate: $1 \times 10^5$ ovarian cancer cells were seeded onto each 8-$\mu$m porous cell culture insert (BD Biosciences). In the lower chamber, $2 \times 10^5$ fibroblasts were plated. After a 4-hour incubation period, cancer cells were stained with calcein AM (Life Technologies). Non-migrated cells in the cell culture inserts were removed, and cancer cells that migrated through the pores were quantified by obtaining images of the stained cells in nine random fields of view per membrane using fluorescent microscopy and the Image-Pro Plus software program (version 7.0).

Western blot analysis. Protein lysates from CAFs were separated on NuPAGE gels (Life Technologies) under denaturing conditions and transferred onto nitrocellulose membranes using the iBlot Western blotting system (Life Technologies). Anti-human Smad3 and phospho-Smad3 antibodies were purchased from Cell Signaling Technology. Protein bands were detected using an Odyssey infrared imaging system (LI-COR Biosciences). Protein expression levels normalized to the corresponding GAPDH controls were calculated on the basis of the band intensity values measured using the ImageJ software program (National Institutes of Health).

Repositioned drug identification. First, the names of FDA-approved drugs were obtained from the DrugMap Central database [33, 34] which included 2,202 FDA-approved drugs (1,991 FDA-approved small-molecule drugs and 211 FDA-approved protein/peptide drugs) from DrugBank. Then, drug prediction based on the Smad signaling gene signature was performed by extracting Smad signaling pathway information from the KEGG signaling pathway database and then using 23 upregulated genes
and nine downregulated genes modulated by Smad signaling in CAFs to rank drug candidates via the “query” function of the LINCScloud Web site (https://clue.io/). GSEA scores [35, 36] for the upregulated and downregulated gene sets were calculated for all LINCS compounds in the different cell lines. GSEA considered experiments with genome-wide expression profiles from samples belonging to two classes, labeled 1 or 2. Genes were ranked based on the correlation between their expression and the class distinction by using any suitable metric. Given an a priori defined set of genes S, the goal of GSEA was to determine whether the members of S were randomly distributed throughout L or primarily found at the top or bottom. In our drug repositioning module, S denoted up/down regulated genes modulated by Smad signaling in CAFs. L denoted the list of genes in the drug treatment experiments from LINCScloud ranked by their fold changes in gene expression before/after treatment. We calculated an enrichment score (ES) that reflected the degree to which a set S is overrepresented at the extremes (top or bottom) of the entire ranked list L. The score was calculated by walking down the list L, increasing a running-sum statistic when we encountered a gene in S and decreasing it when we encountered genes not in S. The magnitude of the increment depended on the correlation of the gene with the phenotype. The enrichment score was the maximum deviation from zero encountered in the random walk; it corresponded to a weighted Kolmogorov–Smirnov-like statistic. The ES scores were then normalized to [-100, 100] averaged across all cell lines with [0,100] meaning positive correlation and [-100,0] meaning reverse correlation between drug signature and Smad signaling signature. The mean GSEA scores of nine cell lines (PC3, VCAP, A375, A549, HA1E, HCC515, HT29, MCF7 and HEPG2) were used to select drugs potentially effective for Smad signaling suppression. Finally, noisy drug filtering was performed by drug clustering analysis. Since the prediction results from LINCScloud could be noisy, a drug clustering approach was developed to refine the drug prediction
results. Specifically, the drug-drug similarity data were collected from an independent database, STITCH [37]. The top predicted drugs were then clustered using the affinity propagation clustering approach [38]. The drug clusters with fewer drugs were removed as noise, while bigger drug clusters were kept as potential drug candidates. Representative drugs were selected from individual drug clusters for further experimental evaluation.

**Effects of calcitriol treatment on in vivo tumor growth and animal survival.** To evaluate the effects of calcitriol treatment on ovarian tumor progression in vivo, 2x10^6 OVCA432 human ovarian cancer cells and 2x10^6 primary ovarian CAFs were mixed, resuspended in sterile PBS, and co-injected subcutaneously into female nude mice at the age of 6 weeks over both the left and right flank. Tumors were allowed to develop for 5 days prior to calcitriol treatment and a total of 20 subcutaneous tumor nodules were established in 10 mice. On day 5, animals were randomized, and the control animal group received intratumoral injection of sterile PBS, while the treatment group received calcitriol treatment at the dosage of 60 μg/kg. All animals were treated twice weekly for a total of 3 weeks. At the experimental endpoint, small animal imaging was performed to quantify the luciferase signal given by labeled ovarian cancer cells. Subsequently, all mice were euthanized and subcutaneous tumor nodules were harvested, weighed and fixed in formalin for further histological analysis. On the other hand, to investigate the effects of calcitriol treatment on the survival of ovarian tumor-bearing transgenic animals, the Amhr2-Cre–driven Dicer/PTEN double-knockout genetically engineered mouse model was used. At the age of 4 months, female transgenic animals were treated with either 60 μg/kg of calcitriol (N=9) or sterile PBS (N=11) twice per week via intraperitoneal injections until the animals became moribund. The survival duration for each animal was recorded and Kaplan-Meier survival analysis was
performed. Animal studies were performed under the protocol approved by the MD Anderson Institutional Animal Use and Care Committee (IACUC).
Supplementary Figure 1. Immunostaining of phosphorylated Smad2/3 were performed on FFPE tissue sections from HGSOC patients with CAF-C and CAF-N gene expression subtypes. (mean ± SD; N=10 per group; two-tailed Mann-Whitney U test; bar=50 μm).
**Supplementary Figure 2.** Silencing of VDR expression in CAF863389 by VDR-targeting siRNAs was validated by qRT-PCR. (mean ± SD of three independent experiments; two-tailed Student t-test)
Supplementary Figure 3. The prognostic significance of the expression levels of TGF-β/Smad signaling downstream genes COMP, MFAP5, and VCAN in CAFs was evaluated by Kaplan-Meier analysis and log-rank tests.
Supplementary Figure 4. A summary figure showing the activation of TGF-β-dependent and TGF-β-independent Smad signaling in ovarian CAFs. Cancer cell-derived INHBA and TGF-β from the ovarian tumor microenvironment promote the formation of the Smad transcription complex and the subsequent transcription of Smad-regulated genes in CAFs. Secretion of stromal factors including COMP, MFAP5 and VCAN by CAFs could promote the aggressive phenotypes of ovarian cancer cells. Smad signaling activation in CAFs can be attenuated by calcitriol. Calcitriol-VDR complex inhibits the binding of Smad transcription complex to genomic DNA and Smad protein will be dephosphorylated.
**Supplementary Table 1.** Results of silhouette analysis on hierarchical clustering of transcriptome profiles.

| Number of clusters | Silhouette coefficient (k means clustering) | Silhouette coefficient (Hierarchical clustering with Wards linkage) |
|--------------------|---------------------------------------------|---------------------------------------------------------------|
| 3                  | 0.520779                                    | 0.506461                                                     |
| 4                  | 0.440330                                    | 0.459211                                                     |
| 5                  | 0.212553                                    | 0.327744                                                     |
| 6                  | 0.288765                                    | 0.303304                                                     |
| 7                  | 0.253932                                    | 0.248601                                                     |
| 8                  | 0.271511                                    | 0.231292                                                     |
| 9                  | 0.276265                                    | 0.213131                                                     |
| 10                 | 0.257753                                    | 0.216640                                                     |
Supplementary Table 2. Differentially expressed genes in CAF-C when compared with CAF-N

Upregulated genes (Fold change>5; Two-tailed Moderated t-test with Benjamini-Hochberg multiple testing adjusted \( P<0.05 \))

| Gene symbol | Probe set ID     | Fold change | P-value     |
|-------------|------------------|-------------|-------------|
| COL6A2      | 209156_s_at      | 23.59       | 1.86E-22    |
| VIM         | 201426_s_at      | 19.35       | 2.52E-24    |
| DCN         | 211896_s_at      | 17.73       | 2.03E-17    |
| PPIB        | 200967_at        | 17.55       | 4.09E-25    |
| RAN         | 200750_s_at      | 16.20       | 1.97E-23    |
| NACA        | 208635_x_at      | 15.75       | 2.32E-20    |
| TAGLN       | 205547_s_at      | 15.68       | 1.41E-19    |
| FTL         | 213187_x_at      | 15.43       | 1.03E-20    |
| B2M         | 216231_s_at      | 15.12       | 1.11E-20    |
| OAZ1        | 215952_s_at      | 15.02       | 4.07E-25    |
| RPS16       | 201258_at        | 14.85       | 5.11E-19    |
| HNRNPA2B1   | 205292_s_at      | 14.59       | 4.43E-19    |
| COL3A1      | 201852_x_at      | 14.56       | 1.83E-13    |
| GNAS        | 200780_x_at      | 14.54       | 2.95E-22    |
| RPLP0       | 214167_s_at      | 14.14       | 2.98E-20    |
| PSMB1       | 200876_s_at      | 13.86       | 5.54E-25    |
| GN2B2L1     | 200651_at        | 13.85       | 1.36E-22    |
| FTH1        | 200748_s_at      | 13.69       | 4.36E-23    |
| EEF2        | 204102_s_at      | 13.66       | 7.30E-21    |
| COL1A1      | 202310_s_at      | 13.51       | 1.82E-17    |
| RNU86       | 211666_x_at      | 13.39       | 3.00E-21    |
| PRDX5       | 1560587_s_at     | 13.13       | 6.06E-22    |
| LAMP1       | 201552_at        | 13.06       | 3.00E-18    |
| SLC25A6     | 212085_at        | 12.88       | 2.77E-18    |
| RPL8        | 200936_at        | 12.88       | 2.31E-21    |
| TPT1        | 216520_s_at      | 12.77       | 3.54E-18    |
| RPS9        | 217747_s_at      | 12.66       | 1.57E-20    |
| ACTG1       | 211995_x_at      | 12.60       | 1.31E-23    |
| ARPC2       | 208679_s_at      | 12.44       | 1.71E-25    |
| HNRNPM      | 1555844_s_at     | 12.27       | 1.84E-19    |
| HLA-B       | 209140_x_at      | 12.18       | 4.48E-18    |
| ACTR2       | 200728_at        | 11.89       | 6.90E-23    |
| ATP5C1      | 213366_x_at      | 11.75       | 3.85E-21    |
| ANXA1       | 201012_at        | 11.69       | 1.76E-21    |
| HSP90AB1    | 200064_at        | 11.68       | 1.34E-23    |
| SSBP1       | 202591_s_at      | 11.67       | 2.91E-23    |
| Gene  | GeneID   | Description | Fold Change | p-value |
|-------|----------|-------------|-------------|---------|
| RPL10A | 200036_s_at | 11.63 | 6.88E-20 |
| RPL15  | 221476_s_at | 11.51 | 4.03E-20 |
| P4HB   | 200654_at | 11.46 | 7.90E-25 |
| LTBP3  | 219922_s_at | 11.39 | 4.06E-19 |
| HSPA8  | 208687_x_at | 11.39 | 1.99E-24 |
| DDX5   | 200033_at | 11.32 | 3.20E-18 |
| SPCS1  | 217927_at | 11.32 | 1.14E-22 |
| RPS3   | 208692_at | 11.27 | 1.02E-20 |
| CCNI   | 208655_at | 11.19 | 1.44E-19 |
| EIF3C  | 210949_s_at | 11.07 | 1.79E-24 |
| KLF6   | 224606_at | 11.07 | 5.26E-18 |
| RPL4   | 211710_x_at | 11.01 | 5.22E-21 |
| CCT3   | 200910_at | 10.98 | 2.80E-22 |
| SLC25A3 | 200030_s_at | 10.92 | 2.20E-25 |
| RPL11  | 200010_at | 10.80 | 4.85E-23 |
| HNRNPDL | 209067_s_at | 10.80 | 1.52E-23 |
| SPARC  | 200665_s_at | 10.79 | 1.32E-12 |
| CALM1  | 200655_s_at | 10.74 | 9.83E-21 |
| RPL29  | 200823_x_at | 10.72 | 2.39E-20 |
| NAP1L1 | 213864_s_at | 10.71 | 6.34E-20 |
| ATP5O  | 200818_at | 10.68 | 8.10E-23 |
| HLA-C  | 214459_x_at | 10.67 | 4.27E-19 |
| RPL6   | 200034_s_at | 10.58 | 4.31E-21 |
| BTF3   | 208517_x_at | 10.56 | 9.09E-23 |
| RPL28  | 200003_s_at | 10.52 | 9.57E-18 |
| GAPDH  | 213453_x_at | 10.51 | 7.88E-25 |
| GORASP2 | 207812_s_at | 10.50 | 7.12E-24 |
| PALLD  | 200907_s_at | 10.48 | 2.12E-21 |
| H2AFZ  | 200853_at | 10.41 | 5.48E-21 |
| ATP5F1 | 211755_s_at | 10.40 | 1.67E-21 |
| HNRNPD | 209330_s_at | 10.28 | 3.70E-19 |
| MMADHC | 217883_at | 10.27 | 1.12E-18 |
| PABPC1 | 215157_x_at | 10.23 | 4.56E-24 |
| EEF1D  | 203113_s_at | 10.22 | 5.09E-18 |
| HSP90B1 | 200598_s_at | 10.14 | 2.42E-24 |
| PPP2CB | 201375_s_at | 10.08 | 8.62E-17 |
| SOX4   | 201417_at | 10.08 | 3.55E-15 |
| CNBP   | 206158_s_at | 10.02 | 9.56E-22 |
| RPLP2  | 200909_s_at | 10.01 | 2.59E-21 |
| HSP90AA1 | 210211_s_at | 9.98 | 6.49E-22 |
| YBX1   | 208628_s_at | 9.87 | 9.65E-23 |
| Gene      | Accession   | Log2 Fold Change | p-Value     |
|-----------|-------------|------------------|-------------|
| RHOA      | 200059_s_at | 9.81             | 4.07E-27    |
| C14orf166 | 217768_at   | 9.80             | 1.39E-20    |
| RPL14     | 200074_s_at | 9.79             | 5.65E-22    |
| HSPB1     | 201841_s_at | 9.73             | 4.45E-24    |
| RPL35     | 200002_at   | 9.72             | 4.83E-19    |
| TIMP1     | 201666_at   | 9.67             | 3.38E-19    |
| CTSB      | 200838_at   | 9.65             | 2.74E-21    |
| AP2M1     | 200613_at   | 9.59             | 1.95E-23    |
| YWHAQ     | 200693_at   | 9.58             | 5.15E-27    |
| SLIRP     | 221434_s_at | 9.55             | 7.64E-23    |
| LGALS1    | 201105_at   | 9.49             | 7.51E-24    |
| PGK1      | 200738_s_at | 9.47             | 6.34E-20    |
| MRPL3     | 208787_at   | 9.45             | 1.70E-15    |
| PNN       | 1567214_a_at| 9.43             | 1.05E-16    |
| RPL18     | 200022_at   | 9.41             | 2.60E-20    |
| ATP5A1    | 213738_s_at | 9.37             | 1.02E-20    |
| GPX1      | 200736_s_at | 9.37             | 1.71E-20    |
| SH3BGRL   | 201312_s_at | 9.36             | 4.01E-15    |
| RPL5      | 200937_s_at | 9.34             | 1.27E-19    |
| PSMA2     | 201317_s_at | 9.32             | 2.58E-19    |
| EIF4A1    | 211787_s_at | 9.30             | 2.64E-25    |
| COL4A1    | 211980_at   | 9.24             | 1.18E-12    |
| LAPTM4B   | 208029_s_at | 9.23             | 2.36E-15    |
| CTGF      | 209101_at   | 9.22             | 3.72E-16    |
| BCLAF1    | 201084_s_at | 9.17             | 5.00E-18    |
| COL5A2    | 221730_at   | 9.16             | 9.18E-12    |
| RPL13     | 212191_x_at | 9.15             | 6.01E-18    |
| YWHAZ     | 200640_at   | 9.15             | 1.32E-24    |
| CSDE1     | 222975_s_at | 9.12             | 1.14E-25    |
| MDH2      | 209036_s_at | 9.10             | 3.38E-24    |
| ACTR3     | 200996_at   | 9.05             | 7.55E-19    |
| GALNT1    | 1568618_a_at| 9.02             | 2.91E-17    |
| MTDH      | 212251_at   | 8.99             | 6.08E-25    |
| OSTC      | 223001_at   | 8.99             | 8.30E-22    |
| MATR3     | 200626_s_at | 8.98             | 1.25E-19    |
| RPL36AL   | 207585_s_at | 8.89             | 3.48E-20    |
| UX51      | 225583_at   | 8.88             | 5.13E-23    |
| PTPLAD1   | 222404_x_at | 8.85             | 8.54E-21    |
| SERBP1    | 209669_s_at | 8.84             | 4.27E-19    |
| ITM2B     | 217732_s_at | 8.83             | 1.64E-19    |
| PRDX4     | 201923_at   | 8.82             | 6.49E-18    |
| Gene    | Probe     | Log2FC | p-Value     |
|---------|-----------|--------|-------------|
| UBC     | 211296_x_at | 8.76   | 3.65E-23    |
| RAC1    | 208640_at  | 8.76   | 2.68E-19    |
| CYR61   | 201289_at  | 8.74   | 4.94E-14    |
| CKAP4   | 200998_s_at| 8.73   | 1.14E-25    |
| TPM2    | 204083_s_at| 8.73   | 4.50E-18    |
| GTF3A   | 215091_s_at| 8.69   | 3.49E-19    |
| SERINC1 | 208671_at  | 8.67   | 4.79E-20    |
| RAC1    | 208662_s_at| 8.66   | 8.08E-23    |
| CCT8    | 200873_s_at| 8.60   | 1.66E-23    |
| SPATS2L | 222154_s_at| 8.58   | 9.63E-19    |
| TPI1    | 213011_s_at| 8.57   | 3.34E-22    |
| CLTA    | 216295_s_at| 8.56   | 6.91E-27    |
| RNASEK  | 224573_at  | 8.56   | 2.69E-20    |
| NGRN    | 217722_s_at| 8.55   | 4.25E-20    |
| EIF3H   | 201592_at  | 8.54   | 1.67E-17    |
| UBE2Q2  | 224747_at  | 8.53   | 3.42E-20    |
| NBR1    | 201384_s_at| 8.50   | 3.44E-27    |
| SOD1    | 200642_at  | 8.45   | 6.09E-23    |
| CCT2    | 201947_s_at| 8.44   | 1.80E-20    |
| RPL10   | 200725_x_at| 8.43   | 4.80E-22    |
| MYL9    | 201058_s_at| 8.42   | 2.40E-22    |
| UFC1    | 217797_at  | 8.42   | 2.23E-18    |
| IMPDH2  | 201892_s_at| 8.40   | 2.01E-20    |
| CAPN2   | 208683_at  | 8.34   | 2.32E-27    |
| EMC7    | 217898_at  | 8.33   | 1.03E-22    |
| IFITM2  | 201315_x_at| 8.31   | 3.10E-09    |
| FOS     | 209189_at  | 8.30   | 2.44E-26    |
| PDIA3   | 208612_at  | 8.17   | 1.98E-22    |
| RTN4    | 210968_s_at| 8.16   | 1.19E-20    |
| GLT8D1  | 218147_s_at| 8.14   | 6.92E-23    |
| B4GALT5 | 221485_at  | 8.14   | 1.52E-20    |
| UBE2H   | 222420_s_at| 8.09   | 9.29E-22    |
| LGALS3BP| 200923_at  | 8.09   | 3.24E-20    |
| MSRB2   | 218773_s_at| 8.07   | 3.54E-25    |
| LDHB    | 213564_x_at| 8.02   | 1.04E-19    |
| PERP    | 222392_x_at| 8.02   | 3.72E-17    |
| EIF3D   | 200005_at  | 8.00   | 1.98E-22    |
| TUBB6   | 209191_at  | 8.00   | 1.85E-28    |
| EEF1A1  | 204892_x_at| 7.99   | 1.36E-20    |
| HTRA1   | 201185_at  | 7.98   | 1.22E-18    |
| CLU     | 208792_s_at| 7.98   | 1.24E-10    |
| Gene      | Description     | Log2 Fold Change | P-Value   |
|-----------|-----------------|-----------------|-----------|
| STAU1     |                 | 7.97            | 3.03E-23  |
| GABARAP   |                 | 7.97            | 6.73E-27  |
| EIF1      |                 | 7.96            | 1.37E-24  |
| COL12A1   |                 | 7.94            | 4.94E-10  |
| TIMP2     |                 | 7.94            | 3.81E-18  |
| MYL6      |                 | 7.93            | 9.26E-20  |
| KDELR2    |                 | 7.93            | 6.69E-22  |
| EIF1      |                 | 7.92            | 1.14E-25  |
| GABARAP   |                 | 7.92            | 8.92E-22  |
| CNPY2     |                 | 7.90            | 3.43E-22  |
| SET       |                 | 7.89            | 3.50E-20  |
| PARK7     |                 | 7.88            | 6.28E-21  |
| RPS19     |                 | 7.88            | 2.59E-21  |
| HDAC1     |                 | 7.88            | 2.22E-21  |
| COX2      |                 | 7.86            | 6.25E-18  |
| PAPOLA    |                 | 7.86            | 6.95E-21  |
| RPL13A    |                 | 7.83            | 9.11E-20  |
| LRRC47    |                 | 7.83            | 4.19E-23  |
| PCBP2     |                 | 7.80            | 7.84E-27  |
| YWHAB     |                 | 7.79            | 4.11E-26  |
| PRDX2     |                 | 7.79            | 2.11E-18  |
| SCARB2    |                 | 7.77            | 3.17E-24  |
| RPS8      |                 | 7.77            | 8.62E-20  |
| LDHA      |                 | 7.77            | 1.69E-21  |
| EIF4G2    |                 | 7.76            | 2.91E-19  |
| RPS14     |                 | 7.73            | 3.51E-20  |
| EDF1      |                 | 7.73            | 1.61E-22  |
| PSMA4     |                 | 7.72            | 2.00E-23  |
| CUL3      |                 | 7.72            | 5.87E-23  |
| PTGES3    |                 | 7.69            | 5.89E-24  |
| ATP6V1G2  |                 | 7.68            | 5.07E-20  |
| HSPA1A//HSPA1B |            | 7.68            | 1.04E-17  |
| RPS7      |                 | 7.67            | 5.98E-28  |
| DAD1      |                 | 7.66            | 2.82E-23  |
| UQCR8     |                 | 7.65            | 5.16E-21  |
| ATP5G3    |                 | 7.63            | 1.53E-24  |
| ATRAID    |                 | 7.63            | 5.16E-23  |
| MIF       |                 | 7.63            | 1.70E-18  |
| TMEM14B   |                 | 7.62            | 4.70E-22  |
| HLA-E     |                 | 7.61            | 1.12E-19  |
| RPS12     |                 | 7.59            | 4.80E-22  |
| Gene Name      | ProbeID   | Log2FC | P-Value |
|---------------|-----------|--------|---------|
| P2RX5-TAX1BP3 | 209154_at | 7.59   | 1.56E-15|
| TUG1          | 212725_s_at | 7.59 | 7.34E-20 |
| HLA-G         | 211529_x_at | 7.59 | 2.00E-18 |
| PHB2          | 201600_at | 7.56 | 4.19E-23 |
| EEF1G         | 200689_x_at | 7.56 | 7.23E-21 |
| FSTL1         | 208782_at | 7.55 | 5.08E-23 |
| TALDO1        | 201463_s_at | 7.55 | 3.12E-25 |
| SUMO3         | 200740_s_at | 7.55 | 3.02E-15 |
| RNF7          | 218286_s_at | 7.55 | 1.66E-23 |
| MDH1          | 200978_at | 7.53 | 7.84E-27 |
| NPC2          | 200701_at | 7.52 | 2.35E-22 |
| RPL7A         | 224930_x_at | 7.51 | 1.49E-22 |
| TUBA1C        | 211750_x_at | 7.51 | 3.76E-27 |
| NHP2          | 209104_s_at | 7.50 | 1.01E-22 |
| BTG1          | 200920_s_at | 7.47 | 1.03E-22 |
| CMTM6         | 223047_at | 7.46 | 1.41E-17 |
| H3F3A         | 209069_s_at | 7.46 | 1.27E-25 |
| CD47          | 211075_s_at | 7.46 | 2.17E-21 |
| SNX7          | 205573_s_at | 7.44 | 1.27E-15 |
| CST3          | 201360_at | 7.40 | 2.03E-24 |
| GOLM1         | 217771_at | 7.37 | 6.68E-18 |
| ANTXR2        | 225524_at | 7.36 | 4.72E-19 |
| TUBB          | 211714_x_at | 7.35 | 2.32E-29 |
| FKBP9         | 212169_at | 7.32 | 3.17E-23 |
| UQCRH         | 202233_s_at | 7.32 | 8.20E-22 |
| JTB           | 200048_s_at | 7.31 | 2.18E-19 |
| C12orf57      | 224719_s_at | 7.31 | 3.00E-21 |
| RPS15         | 200819_s_at | 7.27 | 5.76E-19 |
| RPS6          | 200081_s_at | 7.26 | 9.54E-22 |
| APMAP         | 206656_s_at | 7.25 | 1.49E-24 |
| SERPINF1      | 202283_at | 7.24 | 5.09E-14 |
| KRT19         | 201650_at | 7.24 | 1.05E-10 |
| OBSL1         | 212775_at | 7.24 | 4.88E-16 |
| HEBP1         | 218450_at | 7.23 | 4.20E-19 |
| HLA-A         | 215313_x_at | 7.23 | 4.25E-18 |
| VAMP3         | 201336_at | 7.21 | 2.79E-26 |
| MYL12A        | 201318_s_at | 7.19 | 3.23E-20 |
| LAP3          | 217933_s_at | 7.19 | 1.93E-16 |
| DPM1          | 202673_at | 7.18 | 3.97E-15 |
| POSTN         | 210809_s_at | 7.18 | 2.43E-06 |
| EIF2S2        | 208726_s_at | 7.18 | 2.04E-25 |
| Gene     | Accession     | Log2FC | P-value     |
|----------|---------------|--------|-------------|
| DSTN     | 201021_s_at   | 7.17   | 4.34E-22    |
| DBI      | 202428_x_at   | 7.15   | 1.62E-27    |
| YTHDF2   | 222430_s_at   | 7.15   | 3.95E-23    |
| MIR636   | 200754_x_at   | 7.14   | 1.52E-26    |
| CSNK1A1  | 208865_at     | 7.13   | 3.42E-20    |
| TXN      | 208864_s_at   | 7.13   | 1.62E-27    |
| NOL7     | 202882_x_at   | 7.12   | 2.23E-21    |
| ENO1     | 201231_s_at   | 7.11   | 6.76E-23    |
| ACTA2    | 200974_at     | 7.10   | 3.04E-12    |
| TGFB2    | 208944_at     | 7.09   | 1.35E-16    |
| UQCRFS1  | 208909_at     | 7.07   | 6.91E-27    |
| GUK1     | 200075_s_at   | 7.07   | 5.81E-27    |
| PCOLCE   | 202465_at     | 7.05   | 4.00E-23    |
| COL4A2   | 211964_at     | 7.05   | 1.61E-16    |
| PSMC2    | 201068_s_at   | 7.03   | 3.54E-24    |
| RPN2     | 213399_x_at   | 7.00   | 5.41E-19    |
| ARPC3    | 208736_at     | 7.00   | 3.01E-25    |
| CCT6A    | 201327_s_at   | 7.00   | 2.06E-25    |
| TM2D3    | 221702_s_at   | 6.99   | 5.82E-18    |
| RPS2     | 212433_x_at   | 6.99   | 1.90E-22    |
| EIF3M    | 202232_s_at   | 6.97   | 2.52E-24    |
| LSM14A   | 212131_at     | 6.96   | 3.88E-18    |
| EIF3K    | 212716_s_at   | 6.96   | 3.50E-21    |
| CD9      | 201005_at     | 6.94   | 2.59E-14    |
| RPL19    | 200029_at     | 6.94   | 7.10E-22    |
| KPNB1    | 208974_x_at   | 6.93   | 2.45E-18    |
| JAK1     | 201648_at     | 6.93   | 3.05E-21    |
| CCT4     | 200877_at     | 6.92   | 7.20E-18    |
| OLFML3   | 218162_at     | 6.91   | 1.59E-19    |
| PGM1     | 201968_s_at   | 6.90   | 6.09E-16    |
| CAP1     | 200625_s_at   | 6.88   | 1.22E-26    |
| MINOS1   | 224867_at     | 6.88   | 3.92E-22    |
| COL6A3   | 201438_at     | 6.88   | 2.12E-21    |
| KARS     | 200079_s_at   | 6.87   | 1.35E-24    |
| GNB1     | 200745_s_at   | 6.87   | 1.78E-21    |
| DPYSL3   | 201431_s_at   | 6.87   | 6.01E-18    |
| TIMP3    | 201150_s_at   | 6.85   | 1.43E-08    |
| COX1     | 1553538_s_at  | 6.85   | 1.74E-13    |
| CD63     | 200663_at     | 6.85   | 4.03E-25    |
| NDUFA13  | 220864_s_at   | 6.83   | 8.82E-30    |
| PPIA     | 211765_x_at   | 6.83   | 6.39E-25    |
| Gene       | Accession    | log2FC | p-value  |
|------------|--------------|--------|----------|
| CD59       | 200985_s_at  | 6.83   | 3.87E-28 |
| SRI        | 208921_s_at  | 6.82   | 4.34E-22 |
| BLOC1S5-TXND5 | 221253_s_at | 6.82   | 6.09E-20 |
| RPS5       | 200024_at    | 6.82   | 2.36E-18 |
| TCEB2      | 200085_s_at  | 6.80   | 6.72E-25 |
| LOC101060363 | 212661_x_at | 6.80   | 4.44E-24 |
| SRI        | 208921_s_at  | 6.82   | 4.34E-22 |
| BLOC1S5-TXND5 | 221253_s_at | 6.82   | 6.09E-20 |
| RPS5       | 200024_at    | 6.82   | 2.36E-18 |
| TCEB2      | 200085_s_at  | 6.80   | 6.72E-25 |
| LOC101060363 | 212661_x_at | 6.80   | 4.44E-24 |
| SRI        | 208921_s_at  | 6.82   | 4.34E-22 |
| BLOC1S5-TXND5 | 221253_s_at | 6.82   | 6.09E-20 |
| RPS5       | 200024_at    | 6.82   | 2.36E-18 |
| TCEB2      | 200085_s_at  | 6.80   | 6.72E-25 |
| LOC101060363 | 212661_x_at | 6.80   | 4.44E-24 |
| SRI        | 208921_s_at  | 6.82   | 4.34E-22 |
| BLOC1S5-TXND5 | 221253_s_at | 6.82   | 6.09E-20 |
| RPS5       | 200024_at    | 6.82   | 2.36E-18 |
| TCEB2      | 200085_s_at  | 6.80   | 6.72E-25 |
| LOC101060363 | 212661_x_at | 6.80   | 4.44E-24 |
| Gene Symbol | Gene ID | log2FoldChange | P.Value |
|------------|---------|----------------|---------|
| TPM1       | 210987_x_at | 6.56 | 6.14E-23 |
| PPP1CC     | 200726_at | 6.55 | 6.71E-15 |
| PDIA6      | 207668_x_at | 6.55 | 5.15E-27 |
| SURF4      | 222978_at | 6.54 | 2.55E-26 |
| CD99       | 201029_s_at | 6.54 | 6.34E-20 |
| FIS1       | 218034_at | 6.54 | 3.65E-27 |
| C1QBP      | 214214_s_at | 6.54 | 2.50E-17 |
| TUFM       | 201113_at | 6.53 | 6.12E-29 |
| FBXL5      | 209004_s_at | 6.53 | 2.59E-13 |
| VPS28      | 218679_s_at | 6.53 | 1.47E-21 |
| RCN1       | 201063_at | 6.52 | 2.28E-23 |
| SAMM50     | 201569_s_at | 6.52 | 1.27E-23 |
| RPL27A     | 203034_s_at | 6.50 | 3.90E-19 |
| COL5A1     | 212488_at | 6.50 | 4.92E-12 |
| COPB1      | 201359_at | 6.49 | 2.34E-23 |
| GNS        | 212334_at | 6.49 | 7.15E-17 |
| SS8        | 201139_s_at | 6.48 | 2.93E-20 |
| LOC101060555 | 223269_at | 6.48 | 1.49E-20 |
| CLPTM1L    | 223020_at | 6.47 | 4.56E-24 |
| RPL35A     | 213687_s_at | 6.47 | 5.69E-20 |
| TCEA1      | 216241_s_at | 6.47 | 6.95E-25 |
| CORO1C     | 222409_at | 6.46 | 2.05E-26 |
| EID1       | 208669_s_at | 6.46 | 4.30E-17 |
| DESI2      | 212371_at | 6.46 | 7.84E-27 |
| CCT7       | 200812_at | 6.46 | 2.84E-24 |
| SRP9       | 201273_s_at | 6.44 | 8.89E-16 |
| CAB39      | 217873_at | 6.43 | 9.96E-16 |
| GTF2I      | 201065_s_at | 6.43 | 2.36E-22 |
| NARR       | 224710_at | 6.42 | 1.26E-24 |
| ARID4B     | 212591_at | 6.41 | 1.98E-23 |
| PMEPA1     | 222449_at | 6.41 | 6.75E-16 |
| TMEM258    | 218213_s_at | 6.40 | 9.23E-20 |
| HINT1      | 200093_s_at | 6.38 | 7.65E-23 |
| SCP2       | 201339_s_at | 6.37 | 1.79E-23 |
| COP55      | 201652_at | 6.36 | 6.69E-23 |
| GLTSCR2    | 234339_s_at | 6.35 | 1.13E-14 |
| ERGIC2     | 218135_at | 6.35 | 2.45E-28 |
| TPM3       | 222976_s_at | 6.34 | 3.69E-24 |
| TIMMDC1    | 223004_s_at | 6.34 | 1.77E-21 |
| EIF3E      | 208697_s_at | 6.33 | 2.71E-18 |
| RPS4X      | 200933_x_at | 6.33 | 5.88E-18 |
| Gene  | Gene Symbol | Expression | Log2 Fold Change |
|-------|-------------|------------|-----------------|
| SCOC  | 224786_at   | 6.33       | 2.15E-13        |
| CD81  | 200675_at   | 6.33       | 3.59E-22        |
| TMED10| 212352_s_at | 6.31       | 3.42E-21        |
| USMG5 | 225413_at   | 6.30       | 1.38E-21        |
| PRRC1 | 224643_at   | 6.28       | 3.09E-14        |
| SLC39A10| 225295_at  | 6.28       | 1.77E-11        |
| CAV1  | 212097_at   | 6.27       | 3.49E-19        |
| ATP5J | 202325_s_at | 6.26       | 8.10E-23        |
| GXYLT2| 235371_at   | 6.26       | 5.12E-12        |
| TMED10| 226896_at   | 6.26       | 9.03E-22        |
| GAS6  | 202177_at   | 6.25       | 1.72E-20        |
| IFI16 | 208966_x_at | 6.25       | 7.35E-13        |
| SERPINH1| 207714_s_at| 6.25       | 2.53E-25        |
| CALD1 | 201616_s_at | 6.25       | 1.71E-25        |
| ALDOA | 214687_x_at | 6.24       | 1.69E-22        |
| S100A6| 217728_at   | 6.24       | 8.98E-29        |
| EIF4E2| 213571_s_at | 6.24       | 5.85E-15        |
| FBN1  | 202766_s_at | 6.23       | 3.72E-14        |
| SYCP1 | 209024_s_at | 6.23       | 2.00E-23        |
| COX4I1| 202698_x_at | 6.23       | 3.74E-20        |
| TRIP6 | 209129_at   | 6.23       | 6.72E-22        |
| KHLHC2| 217906_at   | 6.22       | 1.94E-22        |
| PSEN1 | 203460_s_at | 6.22       | 3.20E-21        |
| DNAJA1| 200881_s_at | 6.22       | 1.27E-23        |
| PAPSS1| 209043_at   | 6.22       | 2.50E-27        |
| ANXA5 | 200782_at   | 6.21       | 2.37E-21        |
| ARPC5L| 226914_at   | 6.20       | 1.16E-17        |
| TMSB10| 217733_s_at | 6.19       | 4.89E-19        |
| PDLIM5| 203243_s_at | 6.19       | 1.22E-12        |
| ANXA4 | 201301_s_at | 6.18       | 6.89E-20        |
| TMEM30A| 217743_s_at| 6.18       | 5.67E-15        |
| MMP2  | 201069_at   | 6.18       | 1.42E-19        |
| HNRNPH2| 201132_at  | 6.18       | 1.78E-16        |
| CSTB  | 201201_at   | 6.17       | 1.50E-21        |
| MIR21 | 220990_s_at | 6.16       | 1.90E-13        |
| BUD31 | 205690_s_at | 6.16       | 3.49E-24        |
| LAMTOR5| 202300_at  | 6.16       | 7.65E-27        |
| SRP72 | 208095_s_at | 6.16       | 1.91E-21        |
| HEG1  | 213069_at   | 6.15       | 1.17E-16        |
| PIGY  | 224660_at   | 6.15       | 7.65E-20        |
| ANXA2 | 201590_x_at | 6.14       | 2.31E-20        |
| Gene Symbol | Description | Log2 Fold Change | p-value |
|-------------|-------------|-----------------|---------|
| MIR4691     |             | 6.14            | 1.07E-21|
| SLC39A6     |             | 6.12            | 2.98E-12|
| PABPC4      |             | 6.12            | 6.91E-27|
| NCOR2       |             | 6.11            | 6.53E-23|
| ITGB1       |             | 6.11            | 3.75E-24|
| APEX1       |             | 6.11            | 2.47E-23|
| RPL30       |             | 6.10            | 4.48E-20|
| PXDN        |             | 6.09            | 1.38E-22|
| PSMD6       |             | 6.09            | 1.14E-31|
| XRCC6       |             | 6.09            | 5.32E-26|
| COX6B1      |             | 6.09            | 1.49E-22|
| SF3B1       |             | 6.08            | 2.03E-19|
| DDX1        |             | 6.08            | 5.67E-25|
| RPS3A       |             | 6.08            | 1.58E-17|
| RPL17       |             | 6.08            | 2.58E-20|
| DYNLT1      |             | 6.07            | 5.19E-21|
| ST13        |             | 6.07            | 5.23E-19|
| RECQL       |             | 6.06            | 1.19E-11|
| ECHS1       |             | 6.06            | 1.61E-24|
| GPNMB       |             | 6.06            | 4.11E-09|
| SEPW1       |             | 6.04            | 4.80E-27|
| HSPA5       |             | 6.03            | 5.76E-28|
| CLIC1       |             | 6.02            | 6.83E-24|
| ATP6V0E1    |             | 6.02            | 4.50E-28|
| RRM1        |             | 6.01            | 2.72E-25|
| NDUFC2      |             | 6.01            | 1.02E-20|
| GPI         |             | 6.01            | 5.65E-28|
| HEXB        |             | 6.01            | 6.89E-20|
| HNRNPR      |             | 6.01            | 3.82E-16|
| NUP153      |             | 6.00            | 5.07E-17|
| FUS         |             | 6.00            | 6.66E-17|
| PQLC3       |             | 6.00            | 2.21E-16|
| TMEM14C     |             | 6.00            | 1.49E-18|
| NUCB2       |             | 5.99            | 1.18E-22|
| SDF4        |             | 5.99            | 3.94E-28|
| TUBB2A      |             | 5.99            | 4.80E-14|
| RNF145      |             | 5.99            | 3.46E-22|
| MIR4745     |             | 5.98            | 2.40E-33|
| TMED3       |             | 5.98            | 1.93E-25|
| COX6A1      |             | 5.97            | 6.99E-24|
| UBA1        |             | 5.96            | 4.09E-25|
| Gene Symbol | Probe ID       | Log2 Fold Change | P-Value       |
|-------------|---------------|-----------------|---------------|
| MALSU1      | 226385_s_at   | 5.96            | 4.33E-15      |
| MESDC2      | 224675_at     | 5.96            | 2.05E-16      |
| ANAPC13     | 209001_s_at   | 5.95            | 2.33E-21      |
| SULF2       | 224724_at     | 5.95            | 1.28E-14      |
| RAB31       | 217763_s_at   | 5.94            | 5.11E-14      |
| FERMT2      | 209210_s_at   | 5.93            | 6.94E-13      |
| NREP        | 201310_s_at   | 5.93            | 5.11E-20      |
| GATC        | 201698_s_at   | 5.93            | 2.73E-22      |
| MESDC2      | 224675_at     | 5.96            | 2.05E-16      |
| ANAPC13     | 209001_s_at   | 5.95            | 2.33E-21      |
| SULF2       | 224724_at     | 5.95            | 1.28E-14      |
| RAB31       | 217763_s_at   | 5.94            | 5.11E-14      |
| FERMT2      | 209210_s_at   | 5.93            | 6.94E-13      |
| NREP        | 201310_s_at   | 5.93            | 5.11E-20      |
| GATC        | 201698_s_at   | 5.93            | 2.73E-22      |
| TGFBI       | 201506_at     | 5.93            | 2.25E-18      |
| PAIP2       | 222984_at     | 5.92            | 7.14E-18      |
| PHPT1       | 223207_x_at   | 5.92            | 1.13E-25      |
| LEPROT      | 202378_s_at   | 5.91            | 1.32E-20      |
| TRA2B       | 200893_at     | 5.91            | 3.23E-13      |
| SLC38A2     | 220924_s_at   | 5.90            | 2.16E-26      |
| HERPUD1     | 217168_s_at   | 5.90            | 1.45E-18      |
| RABAC1      | 203136_at     | 5.90            | 2.93E-25      |
| RHEB        | 213404_s_at   | 5.90            | 7.85E-14      |
| FAM114A1    | 213455_at     | 5.90            | 2.07E-21      |
| RPL7        | 212042_x_at   | 5.89            | 1.63E-16      |
| RPLP1       | 200763_s_at   | 5.89            | 4.15E-20      |
| C1orf43     | 223034_s_at   | 5.89            | 4.38E-24      |
| KMT2E       | 223190_s_at   | 5.89            | 2.42E-14      |
| LITAF       | 200704_at     | 5.89            | 7.82E-16      |
| PDGFC       | 218718_at     | 5.88            | 1.85E-11      |
| CDH11       | 207173_x_at   | 5.88            | 2.92E-09      |
| HMGN4       | 209786_at     | 5.87            | 1.86E-10      |
| DKK3        | 214247_s_at   | 5.87            | 1.07E-09      |
| DUT         | 208956_x_at   | 5.87            | 1.56E-17      |
| COL1A2      | 202403_s_at   | 5.86            | 1.51E-15      |
| DYNLL1      | 200703_at     | 5.85            | 1.58E-25      |
| IFITM1      | 201601_x_at   | 5.85            | 3.13E-21      |
| RPL24       | 200013_at     | 5.85            | 8.74E-20      |
| ILF3        | 211375_s_at   | 5.85            | 1.63E-22      |
| TIMM23      | 225535_s_at   | 5.84            | 1.49E-18      |
| HSPA4       | 208815_x_at   | 5.84            | 2.46E-23      |
| HSD17B4     | 201413_at     | 5.84            | 6.24E-21      |
| PABPC3      | 208113_x_at   | 5.83            | 8.53E-20      |
| CBX1        | 201518_at     | 5.83            | 7.30E-20      |
| DNAJC3      | 225284_at     | 5.82            | 6.51E-20      |
| EIF3F       | 200023_s_at   | 5.82            | 7.60E-22      |
| FNDC3B      | 218618_s_at   | 5.81            | 4.14E-17      |
| Gene Symbol | Probe ID       | Log2 Fold Change | p-Value       |
|-------------|----------------|-----------------|--------------|
| C10orf99    | 224373_s_at    | 5.81            | 2.92E-15     |
| PSMB7       | 200786_at      | 5.81            | 1.27E-24     |
| ATP5B       | 201322_at      | 5.81            | 1.32E-26     |
| FAM162A     | 223193_x_at    | 5.81            | 3.42E-21     |
| ZFP36L2     | 201368_at      | 5.80            | 3.61E-14     |
| DENR        | 231896_s_at    | 5.80            | 5.31E-24     |
| BRI3        | 223376_s_at    | 5.80            | 2.06E-22     |
| CNH         | 201653_at      | 5.79            | 1.08E-09     |
| PPA1        | 217848_s_at    | 5.79            | 1.72E-15     |
| GJA1        | 201667_at      | 5.79            | 6.10E-11     |
| EDEEM3      | 223243_s_at    | 5.79            | 3.15E-16     |
| C11orf58    | 201784_s_at    | 5.78            | 8.20E-20     |
| MYADM       | 225673_at      | 5.78            | 1.69E-20     |
| SGCE        | 204688_at      | 5.78            | 1.54E-15     |
| PAFAH1B1    | 200816_s_at    | 5.78            | 1.08E-17     |
| DCAF13      | 225676_s_at    | 5.78            | 1.55E-21     |
| TOR1AIP1    | 212408_at      | 5.77            | 4.36E-18     |
| MORF4L1     | 224561_s_at    | 5.77            | 4.00E-20     |
| TMEM230     | 224584_at      | 5.77            | 1.47E-16     |
| NDUFB2      | 218200_s_at    | 5.76            | 7.38E-17     |
| TSPAN3      | 200972_at      | 5.76            | 8.42E-26     |
| RHOBTB3     | 225202_at      | 5.75            | 4.73E-13     |
| YME1L1      | 201351_s_at    | 5.75            | 2.11E-23     |
| ODC1        | 200790_at      | 5.75            | 7.23E-23     |
| IFI44       | 214453_s_at    | 5.75            | 2.21E-11     |
| RAB7A       | 211961_s_at    | 5.74            | 2.22E-21     |
| MRPS24      | 224948_at      | 5.74            | 8.65E-27     |
| CSNK2B      | 201390_s_at    | 5.73            | 4.79E-23     |
| ARID5B      | 212614_at      | 5.73            | 1.20E-20     |
| CTR9        | 202060_at      | 5.73            | 1.62E-17     |
| DAZAP2      | 200794_x_at    | 5.72            | 6.21E-22     |
| RAB11A      | 200863_s_at    | 5.72            | 6.42E-22     |
| ITGB1BP1    | 203336_s_at    | 5.71            | 1.86E-22     |
| CLTC        | 200614_at      | 5.71            | 5.46E-19     |
| TAPBP       | 208829_at      | 5.71            | 1.01E-18     |
| PSMC6       | 201699_at      | 5.71            | 1.92E-13     |
| SQSTM1      | 201471_s_at    | 5.71            | 3.48E-24     |
| GARS        | 208693_s_at    | 5.71            | 5.14E-31     |
| GGCT        | 215380_s_at    | 5.70            | 2.77E-18     |
| GLB1        | 201576_s_at    | 5.70            | 1.58E-25     |
| DPYS1L2     | 200762_at      | 5.70            | 4.29E-16     |
| Gene   | Accession | Log2FoldChange | p-Value       |
|--------|-----------|----------------|---------------|
| EGLN1  | 223046_at | 5.70           | 1.56E-17      |
| WDR61  | 221532_s_at | 5.70         | 9.05E-20      |
| CUTA   | 221488_s_at | 5.70         | 1.18E-21      |
| COL6A1 | 213428_s_at | 5.70         | 2.89E-18      |
| PWP1   | 201606_s_at | 5.69         | 8.56E-24      |
| STAT3  | 208991_at | 5.69           | 7.98E-20      |
| HNRNPK | 200097_s_at | 5.69         | 1.25E-18      |
| EAPP   | 202623_at | 5.69           | 1.07E-19      |
| KIF5B  | 201991_s_at | 5.69         | 1.29E-15      |
| GDI2   | 200009_at | 5.69           | 8.49E-25      |
| RCN2   | 201485_s_at | 5.68         | 8.15E-24      |
| SLC25A36| 201917_s_at | 5.67         | 4.87E-15      |
| GNB4   | 225710_at | 5.67           | 6.60E-10      |
| RCN3   | 61734_at  | 5.67           | 5.67E-22      |
| PSMA1  | 211746_x_at | 5.66         | 7.55E-22      |
| PRSS23 | 202458_at | 5.65           | 8.65E-13      |
| CAPZB  | 37012_at  | 5.65           | 1.08E-21      |
| C1R    | 212067_s_at | 5.64         | 4.44E-16      |
| ERRFI1 | 224657_at | 5.64           | 1.60E-11      |
| CMPK1  | 217870_s_at | 5.64         | 2.45E-16      |
| QARS   | 217846_at | 5.64           | 5.26E-22      |
| MSN    | 200600_at | 5.64           | 1.32E-26      |
| S100A11| 200660_at | 5.62           | 7.96E-24      |
| NDUFS5 | 201757_at | 5.62           | 1.88E-26      |
| FHL2   | 202949_s_at | 5.62         | 2.41E-18      |
| C16orf80| 217957_at | 5.62           | 2.66E-26      |
| SFT2D1 | 225849_s_at | 5.62         | 9.28E-16      |
| SPSC2  | 201240_s_at | 5.61         | 9.24E-14      |
| TBL1XR1| 222633_at | 5.61           | 2.20E-20      |
| FBL    | 211623_s_at | 5.60         | 8.87E-19      |
| GNG5   | 207157_s_at | 5.59         | 4.84E-23      |
| PNMA1  | 218224_at | 5.59           | 5.31E-20      |
| TM9SF2 | 201078_at | 5.58           | 4.19E-23      |
| RAB2A  | 208734_x_at | 5.58         | 1.58E-22      |
| NPEPPS | 201454_s_at | 5.58         | 1.04E-20      |
| UBE2E1 | 212519_at | 5.57           | 3.66E-16      |
| ZFAND5 | 210275_s_at | 5.57         | 2.15E-19      |
| OST4   | 224637_at | 5.57           | 3.86E-31      |
| HNRNPA0| 201054_at | 5.57           | 2.45E-16      |
| PRPF8  | 200000_s_at | 5.56         | 2.34E-21      |
| CREG1  | 201200_at | 5.56           | 4.50E-15      |
| Gene   | Accession   | Fold Change | Log2 Fold Change |
|--------|-------------|-------------|------------------|
| CARKD  | 217940_s_at | 5.56        | 1.12E-15         |
| UBE2D3 | 200667_at   | 5.56        | 3.63E-14         |
| BUB3   | 209974_s_at | 5.56        | 6.42E-16         |
| CDIPT  | 201253_s_at | 5.55        | 4.35E-17         |
| SLC38A1| 224579_at   | 5.55        | 3.48E-17         |
| LIPA   | 201847_at   | 5.54        | 3.38E-15         |
| SSPN   | 226932_at   | 5.54        | 4.45E-14         |
| REXO2  | 218194_at   | 5.54        | 1.78E-20         |
| GPX4   | 201106_at   | 5.53        | 9.54E-22         |
| HSPA1A | 202581_at   | 5.53        | 1.44E-13         |
| NNMT   | 202238_s_at | 5.53        | 1.30E-11         |
| RAD23B | 201222_s_at | 5.53        | 2.40E-33         |
| NDUFA12| 223244_s_at | 5.53        | 5.91E-17         |
| HARS   | 202042_at   | 5.52        | 1.76E-29         |
| IGFBP2 | 202718_at   | 5.52        | 5.90E-17         |
| VCAN   | 221731_x_at | 5.51        | 4.29E-07         |
| SKP1   | 200718_s_at | 5.51        | 3.40E-15         |
| HSPE1  | 205133_s_at | 5.51        | 9.06E-23         |
| TAF7   | 201023_at   | 5.51        | 5.26E-23         |
| SUMF1  | 226850_at   | 5.49        | 1.48E-17         |
| TMEM54 | 202090_s_at | 5.48        | 9.25E-17         |
| RPA1   | 201528_at   | 5.48        | 3.95E-17         |
| PAM    | 212958_x_at | 5.48        | 7.81E-15         |
| ATP5G2 | 208764_s_at | 5.48        | 2.41E-26         |
| MAEA   | 207922_s_at | 5.47        | 6.51E-21         |
| TCEAL4 | 202371_at   | 5.47        | 8.64E-11         |
| TARDBP | 200020_at   | 5.47        | 5.47E-21         |
| LOC100996253 | 200610_s_at | 5.47 | 2.67E-25 |
| RND3   | 212724_at   | 5.46        | 3.49E-24         |
| RWDD1  | 219598_s_at | 5.46        | 3.04E-18         |
| AKAP2  | 202760_s_at | 5.45        | 1.23E-16         |
| TFRC   | 208691_at   | 5.45        | 2.74E-12         |
| H1FX   | 204805_s_at | 5.45        | 3.88E-19         |
| PSMC5  | 209503_s_at | 5.44        | 2.16E-26         |
| PRDX1  | 208680_at   | 5.44        | 4.06E-26         |
| TROVE2 | 210438_x_at | 5.44        | 4.06E-25         |
| TMBIM6 | 200804_at   | 5.43        | 2.00E-23         |
| RBM39  | 207941_s_at | 5.43        | 9.39E-16         |
| C20orf24 | 223880_x_at | 5.43 | 6.33E-23 |
| ENSA   | 202596_at   | 5.43        | 6.17E-20         |
| UBE2E3 | 210024_s_at | 5.43        | 2.74E-23         |
| Gene   | Accession         | Log2 Fold Change | P-value |
|--------|-------------------|-----------------|---------|
| UHRF2  | 225610_at         | 5.42            | 5.39E-19|
| DDX47  | 220890_s_at       | 5.42            | 3.17E-21|
| ARF1   | 200065_s_at       | 5.42            | 2.90E-28|
| HSPA9  | 200691_s_at       | 5.42            | 6.39E-25|
| PTP4A2 | 216988_s_at       | 5.42            | 2.27E-32|
| VBP1   | 201472_at         | 5.41            | 2.80E-22|
| CCNY   | 224651_at         | 5.41            | 3.88E-19|
| GOLGA5 | 218241_at         | 5.41            | 5.18E-22|
| MIR1292| 200875_s_at       | 5.40            | 1.81E-19|
| GALNT2 | 217788_s_at       | 5.40            | 2.05E-22|
| DDAH1  | 209094_at         | 5.40            | 1.01E-20|
| ASH1L  | 222667_s_at       | 5.40            | 1.41E-16|
| CDC42BPA| 214464_at        | 5.39            | 1.21E-13|
| TSPAN6 | 209108_at         | 5.39            | 5.63E-11|
| EMC2   | 203584_at         | 5.39            | 2.21E-19|
| NFU1   | 218946_at         | 5.38            | 5.84E-25|
| FAM101B| 226905_at         | 5.38            | 4.01E-12|
| SEC61G | 203484_at         | 5.38            | 2.12E-32|
| ATG3   | 221492_s_at       | 5.38            | 2.04E-19|
| CHMP3  | 222437_s_at       | 5.38            | 4.00E-25|
| C12orf23| 224759_s_at      | 5.37            | 5.27E-14|
| PLOD2  | 202619_s_at       | 5.37            | 6.03E-23|
| TSPYL1 | 221493_at         | 5.36            | 2.02E-11|
| ATP1B3 | 208836_at         | 5.36            | 2.06E-16|
| LOC101060281 | 208091_s_at     | 5.36            | 1.38E-18|
| UQRC2  | 212600_s_at       | 5.36            | 3.58E-19|
| YPEL5  | 217783_s_at       | 5.36            | 4.00E-17|
| CAPZA1 | 208374_s_at       | 5.36            | 1.56E-17|
| MGAT4B | 224598_at         | 5.36            | 1.29E-14|
| VPS26A | 201807_at         | 5.36            | 2.21E-12|
| TPM4   | 1567107_s_at      | 5.36            | 1.04E-12|
| CD2AP  | 203593_at         | 5.36            | 3.04E-17|
| NDUFB9 | 222992_s_at       | 5.36            | 9.23E-20|
| TEAD1  | 224955_at         | 5.35            | 1.84E-25|
| ASNSD1 | 217987_at         | 5.35            | 5.23E-19|
| MFSD1  | 218109_s_at       | 5.35            | 3.08E-15|
| UAP1   | 209340_at         | 5.34            | 3.27E-26|
| FXR1   | 201637_s_at       | 5.34            | 4.68E-25|
| SEC16A | 215696_s_at       | 5.33            | 2.12E-20|
| ZNF330 | 209814_at         | 5.33            | 5.96E-15|
| PTTG1IP| 200677_at         | 5.33            | 4.01E-17|
| Gene      | Probe ID     | Log2 FC | p-value   |
|-----------|--------------|---------|-----------|
| PCNA      | 201202_at    | 5.33    | 9.77E-17  |
| CBFB      | 202370_s_at  | 5.32    | 6.26E-17  |
| GLG1      | 207966_s_at  | 5.32    | 1.19E-20  |
| SARNP     | 224914_s_at  | 5.32    | 1.33E-26  |
| RBM14-RBM4| 200997_at    | 5.32    | 3.88E-22  |
| FAM120A   | 200774_at    | 5.32    | 7.48E-19  |
| AHCYL1    | 200850_s_at  | 5.32    | 1.34E-25  |
| CDC5L     | 209056_s_at  | 5.31    | 2.02E-17  |
| PRKAR1A   | 200605_s_at  | 5.31    | 1.10E-21  |
| RAB1A     | 208724_s_at  | 5.30    | 2.49E-20  |
| AZIN1     | 212461_at    | 5.30    | 9.25E-15  |
| WDR1      | 200609_s_at  | 5.30    | 2.92E-21  |
| VIMP      | 223209_s_at  | 5.30    | 6.31E-26  |
| KPNA2     | 201088_at    | 5.29    | 4.26E-11  |
| PRPF31    | 202408_s_at  | 5.29    | 5.03E-22  |
| SNW1      | 201575_at    | 5.29    | 6.66E-20  |
| BZW1      | 200777_s_at  | 5.28    | 2.39E-16  |
| SRPRB     | 218140_x_at  | 5.28    | 2.13E-18  |
| EMP1      | 201324_at    | 5.28    | 9.71E-11  |
| SGCB      | 205120_s_at  | 5.27    | 4.60E-22  |
| CXXC5     | 224516_s_at  | 5.27    | 1.31E-19  |
| RPS24     | 200061_s_at  | 5.27    | 4.59E-21  |
| SERP1     | 200971_s_at  | 5.27    | 7.93E-20  |
| GHITM     | 209248_at    | 5.27    | 3.46E-18  |
| NME1      | 201268_at    | 5.27    | 5.58E-21  |
| NARS      | 200027_at    | 5.26    | 1.56E-14  |
| SQLE      | 209218_at    | 5.26    | 3.05E-27  |
| LPRPC     | 211615_s_at  | 5.26    | 1.29E-18  |
| SRRM2     | 208610_s_at  | 5.26    | 3.21E-10  |
| MYLK      | 202555_s_at  | 5.25    | 4.95E-14  |
| LBH       | 221011_s_at  | 5.25    | 6.90E-17  |
| WDR45     | 209216_at    | 5.25    | 6.07E-24  |
| TMEM200A  | 234994_at    | 5.25    | 6.39E-10  |
| GOLGA7    | 217819_at    | 5.25    | 2.58E-19  |
| FDPS      | 201275_at    | 5.24    | 4.92E-22  |
| DDX3X     | 201210_at    | 5.24    | 3.74E-16  |
| MRPL9     | 209609_s_at  | 5.24    | 2.44E-19  |
| FGFR1OP2  | 233898_s_at  | 5.23    | 3.75E-13  |
| NGFRAP1   | 217963_s_at  | 5.22    | 8.91E-15  |
| MRFAP1L1  | 212199_at    | 5.22    | 9.86E-26  |
| RBBP7     | 201092_at    | 5.22    | 2.41E-15  |
| Gene    | Feature   | Log2 Fold Change | p-value   |
|---------|-----------|-----------------|-----------|
| SRSF6   | 208804_s_at| 5.22            | 8.72E-19  |
| PPT1    | 200975_at | 5.22            | 5.23E-14  |
| CAPNS1  | 200001_at | 5.22            | 7.55E-30  |
| WBPS    | 217975_at | 5.22            | 7.40E-12  |
| EMC4    | 223043_at | 5.22            | 4.41E-24  |
| COX6C   | 201754_at | 5.22            | 4.11E-20  |
| ANKIB1  | 224687_at | 5.22            | 2.56E-22  |
| RPL36A  | 201406_at | 5.22            | 1.15E-26  |
| VDAC1   | 212038_s_at| 5.22            | 1.11E-25  |
| SEC61B  | 203133_at | 5.21            | 1.92E-20  |
| MCL1    | 200797_s_at| 5.20            | 4.51E-17  |
| PGAM1   | 200886_s_at| 5.19            | 3.43E-19  |
| TMED9   | 205812_s_at| 5.19            | 6.27E-17  |
| RPL36   | 219762_s_at| 5.19            | 3.14E-22  |
| TM2D2   | 224413_s_at| 5.19            | 4.68E-22  |
| PEBP1   | 205353_s_at| 5.18            | 7.98E-29  |
| ATP6AP2 | 201443_s_at| 5.18            | 5.08E-12  |
| IL13RA1 | 201887_at | 5.17            | 5.02E-19  |
| PSMA3   | 201532_at | 5.17            | 8.29E-29  |
| ACTN1   | 208637_x_at| 5.17            | 9.89E-30  |
| PSMG2   | 218467_at | 5.17            | 7.05E-24  |
| LOC100506710 | 225640_at | 5.17 | 3.28E-18 |
| C17orf49| 224574_at | 5.17            | 3.75E-24  |
| ARL8B   | 217852_s_at| 5.16            | 2.09E-15  |
| EFEMP2  | 209356_x_at| 5.15            | 6.56E-23  |
| YWHAE   | 210996_s_at| 5.15            | 1.61E-28  |
| SDC2    | 212158_at | 5.15            | 9.55E-15  |
| SNHG16  | 224603_at | 5.15            | 2.85E-25  |
| ADI1    | 217761_at | 5.15            | 1.87E-16  |
| PAICS   | 201013_s_at| 5.15            | 2.71E-18  |
| STAG2   | 209022_at | 5.14            | 5.00E-19  |
| SNX3    | 210648_x_at| 5.14            | 1.03E-16  |
| LAMB2   | 216264_s_at| 5.14            | 9.76E-21  |
| NID2    | 204114_at | 5.14            | 2.51E-08  |
| TOMM5   | 225036_at | 5.13            | 7.32E-12  |
| FKBP11  | 219117_s_at| 5.13            | 2.11E-09  |
| BCAP31  | 200837_at | 5.13            | 1.99E-24  |
| TMEM50A | 222401_s_at| 5.13            | 1.15E-21  |
| UXT     | 218495_at | 5.13            | 3.34E-22  |
| PLXNA1  | 221538_s_at| 5.12            | 1.26E-16  |
| NDUVF1  | 208714_at | 5.12            | 1.02E-18  |
| Gene Symbol | Probe ID       | Log2 Fold Change | P-Value     |
|-------------|---------------|-----------------|-------------|
| TMEM14A     | 218477_at     | 5.12            | 8.02E-14    |
| PSMD4       | 210460_s_at   | 5.11            | 3.85E-24    |
| MIR1304     | 222728_s_at   | 5.11            | 4.40E-15    |
| EMILIN1     | 204163_at     | 5.11            | 3.74E-15    |
| EIF5        | 208706_s_at   | 5.11            | 6.12E-19    |
| FUNDC2      | 223042_s_at   | 5.11            | 1.88E-21    |
| EIF3G       | 208887_at     | 5.11            | 4.12E-18    |
| GPX3        | 201348_at     | 5.11            | 6.54E-08    |
| MAP4        | 212566_at     | 5.10            | 7.39E-20    |
| PSMB8       | 209040_s_at   | 5.10            | 1.36E-17    |
| PSAP        | 200871_s_at   | 5.10            | 6.44E-19    |
| NDUFS6      | 203606_at     | 5.10            | 3.74E-21    |
| TUBA1A      | 209118_s_at   | 5.10            | 5.79E-15    |
| G3BP1       | 201503_at     | 5.10            | 1.59E-21    |
| EIF3B       | 203462_x_at   | 5.10            | 2.20E-25    |
| PPP2R5C     | 201877_s_at   | 5.09            | 6.44E-17    |
| STAT1       | 200887_s_at   | 5.09            | 1.15E-10    |
| LMNA        | 203411_s_at   | 5.09            | 9.73E-35    |
| NDUFB5      | 203621_at     | 5.09            | 1.20E-14    |
| EBNA1BP2    | 201323_at     | 5.09            | 3.42E-20    |
| HNRNPA3     | 211931_s_at   | 5.09            | 5.22E-16    |
| ATP6V1G1    | 208737_at     | 5.09            | 4.92E-21    |
| RBFOX2      | 212104_s_at   | 5.09            | 1.95E-18    |
| BHLHE40     | 201170_s_at   | 5.08            | 4.72E-15    |
| ARL6IP5     | 200760_s_at   | 5.08            | 2.49E-25    |
| ERLIN1      | 202441_at     | 5.08            | 2.52E-23    |
| TMEM59      | 200620_at     | 5.08            | 1.11E-23    |
| PDHB        | 211023_at     | 5.08            | 3.95E-19    |
| CDK2AP1     | 201938_at     | 5.08            | 2.15E-16    |
| LAMP2       | 203042_at     | 5.08            | 5.71E-14    |
| CCDC6       | 225010_at     | 5.08            | 4.52E-13    |
| TMBIM4      | 223892_s_at   | 5.08            | 2.13E-21    |
| ARCN1       | 201176_s_at   | 5.07            | 4.19E-21    |
| KIAA1191    | 224502_s_at   | 5.07            | 4.43E-19    |
| AIDA        | 226801_s_at   | 5.07            | 2.22E-19    |
| SUCLG1      | 217874_at     | 5.07            | 2.65E-22    |
| BTBD3       | 202946_s_at   | 5.07            | 6.88E-14    |
| LAPTMM4A    | 200673_at     | 5.07            | 4.15E-16    |
| HMGN2       | 208668_x_at   | 5.07            | 2.57E-23    |
| CEBPB       | 212501_at     | 5.07            | 2.20E-12    |
| RPS18       | 201049_s_at   | 5.06            | 8.08E-20    |
| Gene symbol | Probe set ID   | Fold change | P-value          |
|-------------|---------------|-------------|------------------|
| CFDP1       | 203166_at     | 5.06        | 6.66E-22         |
| METAP2      | 209861_s_at   | 5.05        | 4.03E-25         |
| SLC44A1     | 224596_at     | 5.05        | 6.15E-10         |
| STUB1       | 227625_s_at   | 5.05        | 7.95E-24         |
| BECN1       | 208946_s_at   | 5.05        | 9.24E-18         |
| LYPLA1      | 203007_x_at   | 5.05        | 6.91E-17         |
| USP1        | 202413_s_at   | 5.05        | 5.19E-13         |
| VPS51       | 217969_at     | 5.05        | 1.36E-17         |
| TIMM17A     | 215171_s_at   | 5.05        | 1.71E-11         |
| CDC142      | 225523_at     | 5.05        | 1.68E-18         |
| PKD2        | 203688_at     | 5.05        | 3.92E-21         |
| METTL23     | 225808_at     | 5.05        | 5.70E-26         |
| ARL3        | 202641_at     | 5.04        | 1.31E-19         |
| SUB1        | 224587_at     | 5.04        | 1.78E-10         |
| ARMCX3      | 217858_s_at   | 5.04        | 2.15E-19         |
| MIR4784     | 213166_x_at   | 5.03        | 1.78E-17         |
| CAMTA1      | 225693_s_at   | 5.03        | 4.46E-21         |
| ISLR        | 207191_s_at   | 5.03        | 1.80E-12         |
| RBM3        | 208319_s_at   | 5.02        | 1.53E-24         |
| ANXA11      | 206200_s_at   | 5.02        | 1.25E-17         |
| SNRPD3      | 202567_at     | 5.02        | 4.20E-19         |
| SENP6       | 202318_s_at   | 5.01        | 5.20E-18         |
| AHCY        | 200903_s_at   | 5.01        | 5.78E-24         |
| POMP        | 217769_s_at   | 5.01        | 4.85E-27         |
| PLK2        | 201939_at     | 5.01        | 1.08E-14         |
| CCDC80      | 225242_s_at   | 5.01        | 7.62E-11         |
| GPX8        | 227628_at     | 5.01        | 2.55E-18         |
| MINOS1-NBL1 | 37005_at      | 5.00        | 1.81E-14         |

Downregulated genes (Fold change>5; Two-tailed Moderated t-test with Benjamini-Hochberg multiple testing adjusted P<0.05)

| Gene symbol | Probe set ID   | Fold change | P-value          |
|-------------|---------------|-------------|------------------|
| ZNF548      | 1553718_at    | -7.50       | 4.12E-20         |
| TCTE3       | 1554400_at    | -6.44       | 3.51E-25         |
| LRRC25      | 1559502_s_at  | -5.86       | 3.78E-20         |
| ASB12       | 236033_at     | -5.12       | 6.18E-18         |

P-values were calculated by Moderated t-tests with Benjamini-Hochberg multiple testing adjustment. All statistical tests were two-sided.
### Supplementary Table 3. Differentially expressed genes in MSCs when compared with CAF-N

**Upregulated genes (Fold change>5; Two-tailed Moderated t-test with Benjamini-Hochberg multiple testing adjusted P<0.05)**

| Gene symbol | Probe set ID | Fold change | P-value |
|-------------|--------------|-------------|---------|
| EIF5A       | 201123_s_at  | 350.49      | < 2.90E-44 |
| PENK        | 213791_at    | 341.76      | < 2.90E-44 |
| TPM1        | 206116_s_at  | 327.92      | 7.74E-32  |
| PFN1        | 200634_at    | 302.22      | 1.16E-40  |
| SRGN        | 201858_s_at  | 243.16      | 3.50E-34  |
| RHOA        | 1555814_a_at | 236.03      | < 2.90E-44 |
| PTX3        | 206157_at    | 228.43      | 2.92E-37  |
| PPAP2B      | 209355_s_at  | 212.07      | 1.21E-33  |
| ENO1        | 217294_s_at  | 197.73      | < 2.90E-44 |
| ARPC2       | 208679_s_at  | 192.74      | 5.48E-26  |
| OAZ1        | 215952_s_at  | 188.85      | 1.50E-25  |
| TUBB3       | 213476_x_at  | 178.93      | 3.01E-39  |
| ITGB1       | 1553678_a_at | 177.31      | 1.70E-24  |
| IGFBP3      | 212143_s_at  | 173.75      | 1.66E-39  |
| CFL1        | 1555730_a_at | 169.59      | < 2.90E-44 |
| HSPA8       | 210338_s_at  | 164.22      | 1.91E-28  |
| TUBB        | 211714_x_at  | 160.33      | 2.27E-30  |
| NQO1        | 210519_s_at  | 155.84      | 4.71E-40  |
| LOX         | 204298_s_at  | 150.32      | 1.23E-26  |
| COL6A2      | 209156_s_at  | 148.82      | 1.11E-22  |
| YBX1        | 208627_s_at  | 147.10      | 3.65E-34  |
| COTL1       | 224583_at    | 146.85      | 3.77E-37  |
| TAGLN       | 1555724_s_at | 145.55      | 1.01E-42  |
| PLD2        | 202619_s_at  | 144.42      | 3.36E-23  |
| PTP4A2      | 216988_s_at  | 138.39      | 1.11E-33  |
| CD59        | 200983_x_at  | 137.28      | 1.08E-35  |
| YWHA1       | 217717_s_at  | 135.12      | 4.33E-36  |
| ACTN1       | 208637_x_at  | 133.81      | 8.21E-31  |
| DKK1        | 204602_at    | 131.48      | < 2.90E-44 |
| SH3BGRL3    | 221269_s_at  | 130.96      | 2.10E-39  |
| CSDE1       | 219939_s_at  | 122.51      | 1.40E-37  |
| PGK1        | 217356_s_at  | 118.89      | 1.63E-26  |
| YWHAZ       | 200638_s_at  | 116.85      | 7.26E-27  |
| CTSZ        | 210042_s_at  | 116.40      | 6.56E-34  |
| LMNA        | 1554600_s_at | 115.37      | 2.72E-43  |
| VIM         | 201426_s_at  | 114.53      | 1.08E-24  |
| Symbol  | Description       | Accession | Value 1 | Value 2 |
|---------|-------------------|-----------|---------|---------|
| CYR61   |                   | 210764_s_at | 110.03  | 1.71E-22 |
| CORO1C  |                   | 222409_at  | 109.64  | 4.87E-27 |
| LIMA1   |                   | 222457_s_at| 109.58  | 4.09E-29 |
| RPL18A  |                   | 200869_at  | 108.07  | 1.99E-31 |
| TIMP3   |                   | 201149_s_at| 107.11  | 1.26E-24 |
| ATP5G3  |                   | 207507_s_at| 106.16  | 2.40E-34 |
| FTH1    |                   | 200748_s_at| 105.44  | 4.87E-27 |
| PPIB    |                   | 200968_s_at| 105.40  | 2.98E-26 |
| SKP1    |                   | 207974_s_at| 104.29  | 8.31E-29 |
| C1QBP   |                   | 208910_s_at| 100.94  | 9.19E-36 |
| UCHL1   |                   | 201387_s_at| 100.94  | 9.19E-36 |
| IGFBP4  |                   | 201508_at  | 99.46   | 4.80E-35 |
| HSPB1   |                   | 201841_s_at| 98.62   | 2.06E-24 |
| UBE2S   |                   | 202779_s_at| 97.77   | < 2.90E-44 |
| ERGIC1  |                   | 224576_at  | 96.62   | 9.86E-36 |
| GN82L1  |                   | 200651_at  | 96.22   | 7.97E-23 |
| FOXD1   |                   | 206307_s_at| 95.17   | < 2.90E-44 |
| KRTAP1-5|                   | 233533_at  | 94.58   | < 2.90E-44 |
| AXL     |                   | 202686_s_at| 94.02   | 8.25E-26 |
| TXN     |                   | 208864_s_at| 93.69   | 2.43E-28 |
| RNU86   |                   | 211666_x_at| 92.21   | 2.16E-21 |
| RPS7    |                   | 200082_s_at| 91.88   | 8.51E-29 |
| SEC61G  |                   | 203484_at  | 90.39   | 8.97E-34 |
| PSMD6   |                   | 202753_at  | 90.03   | 5.97E-33 |
| RAN     |                   | 200750_s_at| 89.07   | 9.93E-24 |
| DDOST   |                   | 208675_s_at| 87.21   | 9.45E-32 |
| NNMT    |                   | 202238_s_at| 85.50   | 1.30E-11 |
| CAV1    |                   | 203065_s_at| 82.58   | 2.40E-29 |
| RNASEK  |                   | 224573_at  | 82.52   | 1.37E-27 |
| PALLD   |                   | 200906_s_at| 82.47   | 1.42E-23 |
| PSMA3   |                   | 201532_at  | 82.15   | 9.08E-30 |
| TMEM165 |                   | 226825_s_at| 81.94   | 2.90E-44 |
| MRPS12  |                   | 204331_s_at| 81.38   | 2.90E-44 |
| SUMO2   |                   | 208739_x_at| 80.97   | 1.81E-31 |
| GAPDH   |                   | 217398_x_at| 80.78   | 1.68E-27 |
| ALYREF  |                   | 226319_s_at| 79.77   | 5.70E-44 |
| ID1     |                   | 208937_s_at| 78.67   | 7.11E-39 |
| PSMB4   |                   | 202243_s_at| 78.34   | 1.41E-30 |
| TRAM1   |                   | 201399_s_at| 77.51   | 1.88E-33 |
| RAD23B  |                   | 201222_s_at| 76.20   | 6.11E-35 |
| SELT    |                   | 217811_at  | 74.77   | < 2.90E-44 |
| Gene  | Probe   | Value 1 | Value 2 |
|-------|---------|---------|---------|
| RPLP0 | 214167_s_at | 74.52   | 2.37E-20 |
| FRMD6 | 225464_at  | 74.24   | 1.53E-22 |
| MARCKS| 201670_s_at | 73.47   | 3.73E-25 |
| CTBP1 | 203392_s_at | 73.32   | 3.65E-27 |
| CALU  | 214845_s_at | 73.13   | < 2.90E-44 |
| SELM  | 226051_at   | 72.81   | 5.20E-29 |
| CLTA  | 204050_s_at | 72.19   | 8.75E-29 |
| OST4  | 224637_at   | 71.69   | 2.16E-32 |
| SET   | 213047_x_at | 71.66   | 6.68E-25 |
| TMED2 | 204427_s_at | 71.55   | < 2.90E-44 |
| ATP5H | 210149_s_at | 70.08   | 2.15E-39 |
| HSP90B1| 200598_s_at | 69.17   | 1.03E-24 |
| FTL   | 213187_x_at | 67.95   | 7.83E-21 |
| LGALS1| 201105_at   | 67.65   | 3.65E-24 |
| KDELR3| 207265_s_at | 67.28   | 1.09E-37 |
| EMP3  | 203729_at   | 66.47   | 4.32E-34 |
| PSMB3 | 201400_at   | 65.68   | 4.94E-31 |
| TPM4  | 209344_at   | 65.67   | 6.43E-29 |
| RER1  | 202296_s_at | 65.49   | 5.26E-36 |
| OSTC  | 223001_at   | 65.46   | 5.58E-22 |
| POLR2L| 211730_s_at | 65.34   | 1.13E-35 |
| GREM1 | 218468_s_at | 65.14   | 6.23E-15 |
| C12orf75| 225105_at  | 65.01   | 3.72E-24 |
| S100A6| 217728_at   | 64.74   | 1.02E-29 |
| EIF4A1| 201530_x_at | 64.58   | 8.00E-29 |
| VDAC1 | 212038_s_at | 64.17   | 3.22E-26 |
| CNN3  | 201445_at   | 63.76   | 6.16E-22 |
| SH3GLB1| 209091_s_at | 63.65   | 6.17E-25 |
| PDIA6 | 216640_s_at | 63.53   | 1.05E-24 |
| CAPNS1| 200001_at   | 62.86   | 5.20E-31 |
| GARS  | 208693_s_at | 62.83   | 3.14E-32 |
| MEST  | 202016_at   | 62.51   | 3.29E-21 |
| GLIPR1| 226136_at   | 61.84   | 2.99E-31 |
| GPI   | 208308_s_at | 61.67   | 7.46E-29 |
| NACA  | 208635_s_at | 61.57   | 1.83E-20 |
| TIMP1 | 201666_at   | 61.34   | 2.92E-19 |
| ARF4  | 201096_s_at | 61.25   | 2.33E-23 |
| MGST1 | 231736_x_at | 60.97   | 4.54E-41 |
| ARMCX2| 203404_at   | 60.90   | 5.67E-30 |
| FUT5  | 225304_s_at | 60.76   | 1.33E-29 |
| B2M   | 216231_s_at | 60.58   | 8.49E-21 |
| Gene     | Entrez_ID   | P.Val   | Log2FC |
|----------|-------------|---------|--------|
| LOXL2    | 202998_s_at | 59.95   | 4.76E-23 |
| GSPT1    | 201912_s_at | 59.94   | 3.05E-32 |
| SFT2D1   | 225850_at   | 59.39   | 6.19E-34 |
| TPI1     | 213011_s_at | 59.30   | 1.19E-28 |
| P4HB     | 200656_s_at | 59.10   | 3.43E-28 |
| HSPD1    | 200806_s_at | 58.96   | 1.41E-38 |
| SERPINH1 | 207714_s_at | 58.82   | 8.53E-26 |
| HSP90AB1 | 214359_s_at | 58.81   | 2.32E-26 |
| POLR2E   | 213887_s_at | 58.60   | < 2.90E-44 |
| ARF1     | 203570_s_at | 58.25   | 5.31E-35 |
| LOXL1    | 203570_s_at | 58.25   | 8.72E-21 |
| NDUFA13  | 220864_s_at | 58.10   | 6.49E-31 |
| CD47     | 211075_s_at | 58.07   | 1.52E-21 |
| PDIA3    | 208612_at   | 57.95   | 6.04E-27 |
| CKAP4    | 200998_s_at | 57.83   | 3.45E-26 |
| RBMS1    | 209868_s_at | 57.70   | 3.76E-39 |
| TKT      | 208699_x_at | 57.51   | < 2.90E-44 |
| GSTO1    | 1557915_s_at| 57.30   | 2.27E-32 |
| PLIN3    | 202122_s_at | 57.20   | 8.84E-35 |
| PSAP     | 200866_s_at | 56.79   | 1.58E-28 |
| IL2F     | 200052_s_at | 56.73   | 1.18E-28 |
| CALD1    | 201616_s_at | 56.50   | 5.44E-26 |
| AP2S1    | 208074_s_at | 56.41   | 5.12E-29 |
| EIF3C    | 210949_s_at | 56.34   | 7.51E-25 |
| RPL11    | 200010_at   | 56.15   | 2.67E-23 |
| IGFBP6   | 203851_at   | 56.04   | 7.81E-29 |
| CLPTM1L  | 223020_at   | 56.02   | 2.13E-24 |
| SQLE     | 209218_at   | 56.01   | 4.86E-28 |
| PRR16    | 220014_at   | 55.94   | 2.90E-44 |
| NDUFB10  | 223112_s_at | 55.75   | 2.23E-32 |
| HSPA5    | 211936_at   | 55.48   | 7.86E-29 |
| TSPO     | 202096_s_at | 55.25   | 5.82E-32 |
| MDH1     | 200978_at   | 55.23   | 1.65E-27 |
| COPA     | 208684_at   | 55.20   | 1.60E-35 |
| TUBA1C   | 211750_x_at | 54.53   | 6.28E-28 |
| GNAS     | 214548_x_at | 54.52   | 4.54E-24 |
| PDGFC    | 222719_s_at | 54.32   | 5.70E-44 |
| CD99     | 201028_s_at | 54.22   | 2.09E-21 |
| PSMB1    | 200876_s_at | 53.88   | 2.11E-25 |
| CFL2     | 224663_s_at | 53.72   | 5.80E-28 |
| PON2     | 210830_s_at | 53.67   | 4.96E-32 |
| Gene   | ProbeID   | Log2FC  | Adj.P   |
|--------|-----------|---------|---------|
| PRMT1  | 206445_s_at | 53.45   | 6.35E-36 |
| RPL36A | 201406_at  | 53.39   | 2.54E-27 |
| THBS1  | 201109_s_at | 53.23   | 1.86E-15 |
| OLFML3 | 218162_at  | 53.14   | 1.35E-19 |
| EIF2S2 | 208726_s_at | 52.86   | 6.66E-26 |
| PCBP2  | 204031_s_at | 52.82   | 1.67E-27 |
| YWHAH  | 201020_at  | 52.73   | <2.90E-44 |
| C4orf3 | 224602_at  | 52.72   | 8.24E-29 |
| SERPINE2| 212190_at  | 52.65   | 9.03E-14 |
| EIF5   | 208290_s_at | 52.62   | 5.19E-26 |
| RPN2   | 208689_s_at | 52.61   | 3.68E-25 |
| HAPLN1 | 230204_at  | 52.61   | 5.04E-28 |
| APLP2  | 208703_s_at | 52.44   | 4.16E-24 |
| DENR   | 231896_s_at | 52.43   | 2.48E-24 |
| GLRX3  | 209080_x_at | 52.21   | 9.20E-38 |
| ENG    | 201809_s_at | 52.13   | 2.08E-25 |
| PTRF   | 208790_s_at | 51.91   | 1.05E-31 |
| HMOX1  | 203665_at  | 51.85   | 3.00E-36 |
| SLC16A3| 202856_s_at | 51.82   | 1.73E-24 |
| SLC38A2| 220924_s_at | 51.76   | 5.20E-27 |
| SEC11A | 216274_s_at | 51.54   | 7.59E-29 |
| CHIC2  | 219492_at  | 51.44   | <2.90E-44 |
| DDR2   | 225442_at  | 51.14   | 1.41E-24 |
| PABPC1 | 215157_x_at | 51.07   | 2.12E-24 |
| BNIP3L | 221479_s_at | 51.06   | 8.92E-29 |
| TUSC3  | 213423_x_at | 50.87   | 9.83E-35 |
| SDF4   | 221972_s_at | 50.86   | 1.42E-30 |
| GRSF1  | 201520_s_at | 50.70   | 7.22E-34 |
| TUBB6  | 209191_at  | 50.65   | 2.16E-29 |
| NPR3   | 219789_at  | 50.58   | 5.22E-25 |
| TUBA1B | 212639_x_at | 50.46   | 3.42E-26 |
| CTGF   | 209101_at  | 50.40   | 3.61E-16 |
| ADD3   | 201752_s_at | 49.39   | 1.68E-34 |
| CNPY2  | 209796_s_at | 49.11   | 5.45E-32 |
| ENPP2  | 210839_s_at | 48.82   | 3.42E-28 |
| ITFG1  | 221449_s_at | 48.81   | 2.77E-30 |
| TNPO1  | 209226_s_at | 48.73   | 4.19E-33 |
| PFDN5  | 210908_s_at | 48.59   | 1.91E-30 |
| ROMO1  | 224972_at  | 48.58   | 7.35E-27 |
| PSDMD1 | 201198_s_at | 48.55   | 4.02E-36 |
| CALM1  | 200653_s_at | 48.52   | 1.58E-26 |
| Gene          | Description      | Value 1 | Value 2  |
|--------------|------------------|---------|----------|
| CITED2       |                  | 48.15   | 2.58E-32 |
| CTSB         |                  | 48.14   | 1.00E-23 |
| RPS4Y1       |                  | 48.07   | 1.19E-30 |
| TSPAN4       |                  | 47.83   | <2.90E-44|
| ACTR2        |                  | 46.50   | 3.95E-23 |
| UAP1         |                  | 46.46   | 8.47E-27 |
| DYNLRB1      |                  | 46.44   | 7.95E-40 |
| RPS4Y1       |                  | 46.44   | 3.13E-22 |
| SERPINE1     |                  | 45.51   | 1.62E-20 |
| SET///SETP4   |                  | 45.53   | 1.06E-25 |
| SLC25A6      |                  | 45.51   | 2.49E-18 |
| SCD          |                  | 45.40   | 3.77E-24 |
| UBA1         |                  | 44.89   | 1.53E-25 |
| RPS9         |                  | 44.82   | 1.22E-20 |
| ANXA1        |                  | 44.64   | 1.21E-21 |
| PEBP1        |                  | 44.56   | 1.71E-29 |
| ATP5O        |                  | 44.30   | 4.73E-23 |
| TTC3         |                  | 44.05   | 1.39E-20 |
| TALDO1       |                  | 44.01   | 1.11E-25 |
| RABAC1       |                  | 43.92   | 1.03E-25 |
| GLRX         |                  | 43.73   | <2.90E-44|
| ALDOA        |                  | 43.70   | 3.21E-26 |
| C17orf76-AS1 |                  | 43.53   | 1.24E-31 |
| S100A11      |                  | 43.37   | 3.89E-24 |
| TNFRSF11B    |                  | 43.30   | 2.90E-44 |
| PTGR1        |                  | 43.27   | <2.90E-44|
| UGP2         |                  | 42.83   | 2.04E-21 |
| SNX2         |                  | 42.79   | 1.80E-29 |
| MMP2         |                  | 42.78   | 1.21E-19 |
| YIPF5        |                  | 42.74   | <2.90E-44|
| DNAJC15      |                  | 42.58   | 3.83E-25 |
| ESD          |                  | 42.55   | 1.77E-29 |
| ECI2         |                  | 42.51   | 1.27E-29 |
| NME1         |                  | 42.36   | 7.88E-26 |
| UQCRFS1      |                  | 42.35   | 1.40E-27 |
| ERGIC2       |                  | 41.55   | 2.91E-29 |
| AP2M1        |                  | 41.37   | 9.82E-24 |
| UFD1L        |                  | 41.36   | 5.81E-34 |
| DSTN         |                  | 41.25   | 2.80E-22 |
| WIP1         |                  | 41.17   | 1.36E-28 |
| Gene Symbol | Probe ID | Expression | Log2 Fold Change |
|-------------|----------|------------|-----------------|
| VT1B        | 209452_s_at | 40.94 | 4.19E-31 |
| COL1A1      | 202310_s_at | 40.78 | 1.70E-17 |
| CCNB1       | 214710_s_at | 40.76 | 1.17E-23 |
| CA12        | 204508_s_at | 40.73 | 2.12E-36 |
| ARL6IP5     | 200760_s_at | 40.71 | 8.35E-26 |
| CRTAP       | 1554464_a_at | 40.57 | 1.48E-36 |
| ASNS        | 205047_s_at | 40.47 | 1.57E-24 |
| SNORA29     | 208778_s_at | 40.45 | 2.51E-27 |
| C20orf24    | 224376_s_at | 40.45 | 1.46E-31 |
| RNH1        | 206050_s_at | 40.30 | 1.08E-31 |
| CCT2        | 201946_s_at | 40.16 | 2.93E-40 |
| PRKAR1A     | 200605_s_at | 40.10 | 7.49E-22 |
| APP         | 214953_s_at | 39.92 | 5.78E-25 |
| DAD1        | 200046_at   | 39.78 | 1.50E-23 |
| ZFAS1       | 226835_s_at | 39.75 | 3.51E-27 |
| PKM         | 201251_at   | 39.68 | 7.68E-28 |
| PRDX5       | 1560587_s_at | 39.65 | 4.01E-22 |
| ANXA7       | 209860_s_at | 39.63 | 8.26E-26 |
| ENAH        | 222433_at   | 39.49 | 1.49E-20 |
| HDDC2       | 203259_s_at | 39.47 | 2.75E-28 |
| SYNC        | 221276_s_at | 39.46 | 5.45E-25 |
| SDC2        | 212154_at   | 39.31 | 1.13E-30 |
| PSMD8       | 200820_at   | 39.22 | 9.92E-35 |
| DBI         | 211070_x_at | 39.20 | 6.83E-32 |
| CHMP2A      | 202121_s_at | 39.18 | 8.54E-31 |
| EPDR1       | 223253_at   | 39.09 | 5.05E-25 |
| FERMT2      | 209209_s_at | 39.07 | 1.40E-43 |
| PAPSS1      | 209043_at   | 39.05 | 3.84E-28 |
| CST3        | 201360_at   | 39.01 | 8.66E-25 |
| TMEM167A    | 226276_at   | 38.72 | 7.57E-19 |
| LARP6       | 236565_s_at | 38.70 | 6.13E-29 |
| TM9SF2      | 201078_at   | 38.67 | 2.29E-23 |
| AK1         | 202587_s_at | 38.66 | 2.84E-32 |
| PRDX3       | 201619_at   | 38.47 | 2.51E-27 |
| GHITM       | 209249_s_at | 38.26 | 4.43E-28 |
| ATP6V1D     | 208899_x_at | 38.24 | 4.96E-29 |
| ACTG1       | 211995_x_at | 38.18 | 6.47E-24 |
| TRAM2       | 202369_s_at | 38.05 | 3.96E-30 |
| NARR        | 1555630_a_at | 38.02 | 3.04E-29 |
| UQCRC1      | 201903_at   | 37.85 | 1.38E-29 |
| METAP2      | 209861_s_at | 37.76 | 1.47E-25 |
| Gene     | Probe    | Expr. | Log2FC |
|----------|----------|-------|--------|
| PAWR     | 204004_at| 37.53 | 1.88E-28 |
| GABARAP  | 200645_at| 37.38 | 1.28E-27 |
| PPP1R3C  | 204284_at| 37.30 | 5.33E-23 |
| OCIAD1   | 223010_s_at| 37.28 | 1.78E-38 |
| RAB9A    | 221808_at| 37.26 | 5.93E-32 |
| FHL2     | 202949_s_at| 37.19 | 2.16E-18 |
| ARL1     | 201659_s_at| 37.16 | 1.63E-26 |
| LRRC59   | 222231_s_at| 37.14 | 2.75E-25 |
| TGFB1    | 201506_at| 36.95 | 2.01E-18 |
| SNRPA2   | 200826_at| 36.90 | 5.03E-27 |
| DHX15    | 201386_s_at| 36.77 | 8.16E-25 |
| RABEP1   | 225092_at| 36.76 | 6.57E-26 |
| PSMC3    | 201267_s_at| 36.72 | 1.63E-30 |
| SPCS2    | 201239_s_at| 36.71 | 6.46E-23 |
| RRAGA    | 201628_s_at| 36.71 | 3.31E-33 |
| PPP1R7   | 213465_s_at| 36.69 | 5.73E-28 |
| ATP5F1   | 211755_s_at| 36.67 | 1.15E-21 |
| CSTB     | 201201_at| 36.67 | 1.02E+21 |
| SLC25A3  | 200030_s_at| 36.58 | 7.27E-26 |
| GATC     | 201698_s_at| 36.49 | 1.69E-22 |
| CNOT7    | 218250_s_at| 36.35 | 1.88E-32 |
| MIR612   | 224566_at| 36.35 | 3.68E-23 |
| SULF1    | 212344_at| 36.35 | 5.55E-18 |
| CRIM1    | 202551_s_at| 36.31 | 4.56E-30 |
| TSPAN3   | 200973_s_at| 36.30 | 5.80E-31 |
| COX2     | 1553699_at| 36.29 | 5.75E-18 |
| CSNK2B   | 201390_s_at| 36.29 | 2.62E-23 |
| PPP2CA   | 208652_at| 36.15 | 1.31E-29 |
| TFPI2    | 209278_s_at| 36.11 | 6.98E-18 |
| RHOB     | 212099_at| 35.90 | 1.09E-26 |
| GANAB    | 211934_x_at| 35.86 | 2.90E-44 |
| TCEB2    | 200085_s_at| 35.85 | 2.63E-25 |
| CPNE3    | 202119_s_at| 35.75 | 7.87E-25 |
| YWHAQ    | 200693_at| 35.64 | 9.35E-28 |
| TMEM126B | 221622_s_at| 35.61 | 8.86E-30 |
| PPP6C    | 206174_s_at| 35.50 | 3.64E-41 |
| EFEMP1   | 201842_s_at| 35.49 | 2.36E-08 |
| RPL29    | 200823_x_at| 35.45 | 1.89E-20 |
| HINT1    | 207721_x_at| 35.44 | 6.76E-28 |
| SLC25A46 | 212833_at| 35.44 | 1.57E-27 |
| COL5A2   | 221730_at| 35.42 | 9.19E-12 |
| Gene   | Accession | Gene Exp  | Log_{10} P Value |
|--------|-----------|-----------|------------------|
| IPO7   | 200993_at | 35.39     | 4.53E-29         |
| RHOC   | 200885_at | 35.38     | 3.44E-30         |
| ATP5G2 | 208764_s_at| 35.37     | 5.89E-27         |
| FIS1   | 218034_at | 35.27     | 5.98E-28         |
| EIF3M  | 202232_s_at| 35.21     | 1.09E-24         |
| CHF1   | 214665_s_at| 35.18     | 3.87E-35         |
| MSN    | 200600_at | 35.14     | 3.01E-27         |
| GALNT1 | 1568618_a_at| 35.07     | 2.72E-17         |
| RHOC   | 200885_at | 35.38     | 3.44E-30         |
| ATP5G2 | 208764_s_at| 35.37     | 5.89E-27         |
| FIS1   | 218034_at | 35.27     | 5.98E-28         |
| EIF3M  | 202232_s_at| 35.21     | 1.09E-24         |
| CHF1   | 214665_s_at| 35.18     | 3.87E-35         |
| MSN    | 200600_at | 35.14     | 3.01E-27         |
| GALNT1 | 1568618_a_at| 35.07     | 2.72E-17         |
| RHOC   | 200885_at | 35.38     | 3.44E-30         |
| ATP5G2 | 208764_s_at| 35.37     | 5.89E-27         |
| FIS1   | 218034_at | 35.27     | 5.98E-28         |
| EIF3M  | 202232_s_at| 35.21     | 1.09E-24         |
| CHF1   | 214665_s_at| 35.18     | 3.87E-35         |
| MSN    | 200600_at | 35.14     | 3.01E-27         |
| GALNT1 | 1568618_a_at| 35.07     | 2.72E-17         |
| RHOC   | 200885_at | 35.38     | 3.44E-30         |
| ATP5G2 | 208764_s_at| 35.37     | 5.89E-27         |
| FIS1   | 218034_at | 35.27     | 5.98E-28         |
| EIF3M  | 202232_s_at| 35.21     | 1.09E-24         |
| CHF1   | 214665_s_at| 35.18     | 3.87E-35         |
| MSN    | 200600_at | 35.14     | 3.01E-27         |
| GALNT1 | 1568618_a_at| 35.07     | 2.72E-17         |
| Gene Symbol | Probe Set ID | Log2 Ratio | p-Value |
|-------------|--------------|------------|---------|
| ARPC1A      | 200950_at    | 32.96      | 3.83E-25|
| KDELR2      | 200700_s_at  | 32.95      | 1.55E-20|
| WDR26       | 218107_at    | 32.89      | 1.20E-28|
| FLNA        | 213746_s_at  | 32.81      | 3.40E-27|
| LSM7        | 204559_s_at  | 32.68      | 4.72E-27|
| VIMP        | 223209_s_at  | 32.68      | 1.73E-26|
| RANBP9      | 202583_s_at  | 32.64      | < 2.90E-44|
| RGMB        | 226989_at    | 32.56      | 1.22E-29|
| GALNT10     | 212256_at    | 32.55      | 1.03E-20|
| PGD         | 201118_at    | 32.49      | 2.88E-41|
| PDCD6       | 203415_at    | 32.47      | 5.61E-29|
| PLP2        | 201136_at    | 32.45      | 1.50E-30|
| BNIP3       | 201848_s_at  | 32.39      | 6.39E-35|
| RPL28       | 200003_s_at  | 32.36      | 8.80E-18|
| CRNDE       | 238022_at    | 32.26      | < 2.90E-44|
| SBDS        | 1554089_s_at | 32.23      | 4.34E-30|
| FAM50A      | 203262_s_at  | 32.17      | 1.33E-31|
| CCDC80      | 225241_at    | 32.08      | 1.17E-15|
| PRDX4       | 201923_at    | 32.04      | 5.98E-18|
| SURF4       | 222978_at    | 32.03      | 6.36E-27|
| C14orf119   | 223060_at    | 31.96      | 8.20E-29|
| AMFR        | 202203_s_at  | 31.95      | 1.11E-42|
| ATP6AP2     | 201444_s_at  | 31.95      | 6.82E-39|
| BLOC1S6     | 222826_at    | 31.89      | 6.75E-22|
| HNRNPC      | 200751_s_at  | 31.87      | 2.00E-39|
| COX6A1      | 200925_at    | 31.86      | 3.36E-24|
| RHOBTB3     | 202975_s_at  | 31.83      | 4.88E-31|
| CLIC1       | 208659_at    | 31.81      | 3.26E-24|
| RCAN1       | 208370_s_at  | 31.80      | 3.13E-14|
| GAS6        | 202177_at    | 31.72      | 1.34E-20|
| IARS        | 204744_s_at  | 31.62      | 1.09E-28|
| KDELR1      | 200922_at    | 31.61      | < 2.90E-44|
| PSMB7       | 200786_at    | 31.59      | 5.16E-25|
| SYNJ2       | 212828_at    | 31.49      | 2.90E-28|
| SPCS1       | 217927_at    | 31.37      | 6.73E-23|
| TUBB4B      | 208977_x_at  | 31.31      | 4.71E-27|
| FST         | 204948_s_at  | 31.28      | 7.20E-24|
| AKAP2       | 202759_s_at  | 31.22      | 1.17E-33|
| JAK1        | 201648_at    | 31.13      | 2.20E-21|
| HNRNPD1     | 209067_s_at  | 31.12      | 7.54E-24|
| ANXA6       | 200982_s_at  | 31.11      | 2.29E-30|
| Gene       | Description | Fold Change | p-value    |
|------------|-------------|-------------|------------|
| HDGFRP3    |             | 30.98       | 2.44E-35   |
| ANXA2      |             | 30.98       | 1.53E-20   |
| NDUVF2     |             | 30.85       | 1.20E-37   |
| ETFA       |             | 30.76       | 1.15E-20   |
| FKBP7      |             | 30.76       | 7.34E-26   |
| TXNRD1     |             | 30.75       | 5.55E-26   |
| STT3A      |             | 30.74       | 1.73E-35   |
| PRMT2      |             | 30.65       | 3.18E-35   |
| SLIRP      |             | 30.52       | 4.41E-23   |
| RBM3       |             | 30.47       | 6.40E-25   |
| AKR1B1     |             | 30.47       | 8.85E-35   |
| DAB2       |             | 30.44       | 5.49E-34   |
| ZC3H15     |             | 30.41       | 6.81E-28   |
| PRDX1      |             | 30.40       | 1.05E-26   |
| EMC7       |             | 30.40       | 3.51E-28   |
| NT5DC2     |             | 30.39       | 5.40E-33   |
| FBN1       |             | 30.36       | 3.14E-30   |
| BAX        |             | 30.35       | <2.90E-44  |
| SRM        |             | 30.33       | 5.63E-34   |
| CDK4       |             | 30.31       | 5.92E-27   |
| KIAA0368   |             | 30.26       | 8.24E-30   |
| ANXA5      |             | 30.20       | 1.68E-21   |
| KLC1       |             | 30.16       | 5.11E-35   |
| RPL4       |             | 30.14       | 3.87E-21   |
| SRI        |             | 30.11       | 2.81E-22   |
| MSRB2      |             | 30.11       | 1.28E-25   |
| MORF4L1    |             | 30.00       | 3.97E-24   |
| NDUFS8     |             | 29.98       | 7.28E-22   |
| PDLIM4     |             | 29.97       | 8.89E-29   |
| RRM2       |             | 29.97       | 1.02E-15   |
| SCP2       |             | 29.94       | 8.97E-24   |
| PFKP       |             | 29.94       | 2.98E-28   |
| COPE       |             | 29.84       | 2.98E-28   |
| SAR1A      |             | 29.84       | 5.44E-28   |
| HEBP2      |             | 29.84       | 2.87E-32   |
| DYNLL1     |             | 29.81       | 7.47E-25   |
| ATP5C1     |             | 29.78       | 5.00E-26   |
| GUK1       |             | 29.76       | 1.09E-22   |
| BUB3       |             | 29.76       | 8.57E-26   |
| VAMP7      |             | 29.71       | 2.21E-18   |
| APEX1      |             | 29.67       | 1.30E-23   |
| Gene | Accession | Value   | Log2 Fold Change |
|------|-----------|---------|-----------------|
| GLB1 | 201576_s_at | 29.65   | 4.99E-26        |
| TNC  | 201645_at | 29.57   | 8.91E-13        |
| SSB  | 201138_s_at | 29.53   | 6.11E-41        |
| HAT1 | 203138_at | 29.51   | 6.97E-25        |
| ESYT2| 224699_s_at | 29.46   | 6.96E-30        |
| EMC4 | 223043_at | 29.45   | 2.03E-24        |
| DDAH1| 209094_at | 29.45   | 7.61E-26        |
| TNC  | 201645_at | 29.57   | 8.91E-13        |
| SSB  | 201138_s_at | 29.53   | 6.11E-41        |
| HAT1 | 203138_at | 29.51   | 6.97E-25        |
| ESYT2| 224699_s_at | 29.46   | 6.96E-30        |
| EMC4 | 223043_at | 29.45   | 2.03E-24        |
| DDAH1| 209094_at | 29.45   | 7.61E-26        |
| Gene   | Accession   | Expression | Log2 Fold Change |
|--------|-------------|------------|-----------------|
| ADAMTS1| 222162_s_at | 28.42      | 8.89E-16        |
| LAMTOR5| 202300_at   | 28.41      | 1.56E-27        |
| RPLP2  | 200909_s_at | 28.38      | 1.84E-21        |
| ADK    | 204119_s_at | 28.35      | 2.57E-37        |
| CRK    | 202224_at   | 28.33      | 2.81E-33        |
| ATP2A2 | 209186_at   | 28.29      | 1.98E-31        |
| EXT1   | 201995_at   | 28.28      | 5.60E-24        |
| VKORC1 | 217949_s_at | 28.27      | 1.41E-24        |
| RPLP2  | 200909_s_at | 28.27      | 2.72E-27        |
| CNBP   | 206158_s_at | 28.26      | 6.49E-22        |
| GNA11  | 204248_at   | 28.24      | 2.90E-44        |
| ADIRF  | 203571_s_at | 28.23      | 5.36E-29        |
| ATP6V0B| 200078_s_at | 28.21      | 1.22E-35        |
| BAG2   | 209406_at   | 28.18      | 1.81E-28        |
| RBPJ   | 207785_s_at | 28.17      | 1.79E-34        |
| TMEM189| 201002_s_at | 28.16      | 6.87E-35        |
| DARS   | 201623_s_at | 28.13      | 3.24E-29        |
| MAP4K4 | 206571_s_at | 28.11      | 1.54E-23        |
| GADD45GIP1 | 212891_s_at | 27.96      | 2.38E-39        |
| TMCO3  | 226050_at   | 27.76      | 2.35E-21        |
| RPL14  | 200074_s_at | 27.75      | 3.73E-22        |
| LAMC1  | 200770_s_at | 27.74      | 5.31E-34        |
| RCN2   | 201485_s_at | 27.65      | 4.00E-24        |
| MICAL2 | 212472_at   | 27.62      | 1.77E-19        |
| DNAJB11| 223054_at   | 27.61      | 1.77E-26        |
| C19orf70 | 225823_at  | 27.61      | 5.82E-33        |
| MRPL17 | 222216_s_at | 27.60      | 2.19E-28        |
| LSM4   | 202736_s_at | 27.50      | < 2.90E-44      |
| CYP1B1 | 202436_s_at | 27.47      | 3.90E-08        |
| PTGES  | 210367_s_at | 27.46      | 5.02E-36        |
| FKBP10 | 219249_s_at | 27.44      | < 2.90E-44      |
| SGCB   | 205120_s_at | 27.43      | 2.97E-22        |
| KPNA2  | 211762_s_at | 27.40      | 3.50E-21        |
| PARVA  | 222454_s_at | 27.38      | 3.30E-33        |
| WDR1   | 200611_s_at | 27.36      | 4.62E-23        |
| PGLS   | 218388_at   | 27.34      | 5.60E-25        |
| BCL2L2 | 201544_x_at | 27.33      | 4.13E-22        |
| AKR7A2 | 202139_at   | 27.26      | 3.32E-26        |
| ACA2   | 202003_s_at | 27.23      | 2.61E-27        |
| PDIA5  | 203857_s_at | 27.20      | 4.59E-24        |
| ACLY   | 210337_s_at | 27.18      | < 2.90E-44      |
| Gene     | Feature | Log2 Fold Change | p-value         |
|----------|---------|------------------|-----------------|
| BTG1     | 200920_s_at | 27.16             | 6.05E-23        |
| NEDD8    | 201840_at  | 27.16             | 9.06E-36        |
| ITGAE    | 205055_at  | 27.16             | 1.88E-26        |
| LINC00152| 225799_at  | 27.16             | 5.89E-17        |
| FLII     | 222065_s_at| 27.15             | 3.09E-31        |
| NEDD8    | 201840_at  | 27.12             | 2.61E-24        |
| CCND1    | 208711_s_at| 27.05             | 3.01E-20        |
| NUPR1    | 209230_s_at| 27.05             | 6.13E-37        |
| ZNF207   | 200828_s_at| 27.04             | 3.50E-32        |
| PTP4A1   | 200730_s_at| 27.01             | < 2.90E-44      |
| TPT1     | 216520_s_at| 26.95             | 3.20E-18        |
| TCEA1    | 216241_s_at| 26.95             | 2.75E-25        |
| MALSU1   | 226386_at  | 26.93             | 1.35E-29        |
| TM9SF3   | 222399_s_at| 26.92             | 5.98E-21        |
| RRAGC    | 222514_at  | 26.85             | 1.59E-30        |
| DESI2    | 212371_at  | 26.83             | 1.69E-27        |
| LEPR     | 211354_s_at| 26.82             | < 2.90E-44      |
| ORMDL2   | 218556_at  | 26.82             | 1.19E-26        |
| TTC37    | 203048_s_at| 26.82             | 4.67E-36        |
| SDHB     | 202675_at  | 26.82             | 6.10E-33        |
| PCOLCE   | 202465_at  | 26.81             | 2.16E-23        |
| SAE1     | 217946_s_at| 26.81             | 2.22E-35        |
| COPG1    | 217749_at  | 26.76             | 6.11E-38        |
| H2AFZ    | 200853_at  | 26.72             | 4.08E-21        |
| TP53I3   | 210609_s_at| 26.72             | 2.81E-28        |
| DLD      | 209095_at  | 26.67             | 1.64E-21        |
| TGOLN2   | 212040_at  | 26.67             | 2.61E-26        |
| ACTR3    | 200996_at  | 26.64             | 6.72E-19        |
| TFRC     | 207332_s_at| 26.56             | 5.66E-18        |
| SUB1     | 214512_s_at| 26.54             | 3.90E-32        |
| MAPK1    | 212271_at  | 26.44             | 3.37E-33        |
| DDX1     | 201241_at  | 26.38             | 2.17E-25        |
| ATP6VOE1 | 200096_s_at| 26.38             | 5.41E-29        |
| RPL10A   | 200036_s_at| 26.34             | 5.65E-20        |
| DPH3     | 225200_at  | 26.29             | 6.66E-23        |
| PSMA1    | 210759_s_at| 26.26             | 2.45E-25        |
| ELOVL1   | 218028_at  | 26.25             | < 2.90E-44      |
| RANBP1   | 202483_s_at| 26.15             | 2.42E-28        |
| RRAS     | 212647_at  | 26.10             | 9.17E-29        |
| MYOF     | 211864_s_at| 26.04             | 1.96E-23        |
| MIR3656  | 217959_s_at| 26.03             | 5.73E-25        |
| Gene       | Gene ID  | Fold Change | p-Value |
|------------|----------|-------------|---------|
| COPZ2      | 219561_at| 26.01       | 7.16E-21|
| CCDC53     | 218628_at| 26.00       | 1.55E-37|
| PABPC4     | 201064_s_at| 25.97     | 1.35E-27|
| NT5E       | 203939_at| 25.95       | 3.93E-18|
| UBE2M      | 203109_at| 25.92       | 2.02E-37|
| MTX2       | 203517_at| 25.89       | 1.05E-29|
| TGFB1      | 203085_s_at| 25.87     | < 2.90E-44|
| CD44       | 212063_at| 25.84       | 8.70E-44|
| SLC25A1    | 210010_s_at| 25.84     | 8.70E-44|
| EXT2       | 202012_s_at| 25.80     | 7.40E-34|
| XRCC5      | 208643_s_at| 25.78     | 1.49E-23|
| CHMP3      | 222437_s_at| 25.78     | 1.45E-25|
| FXYD5      | 218084_x_at| 25.76     | 1.29E-28|
| NRG1       | 206343_s_at| 25.75     | < 2.90E-44|
| SESTD1     | 226763_at| 25.72       | 1.73E-32|
| SUMO1      | 208761_s_at| 25.59     | 5.83E-22|
| GDI2       | 200008_s_at| 25.59     | 2.90E-44|
| FGF7       | 205782_at| 25.57       | 5.81E-40|
| ZNF281     | 218401_s_at| 25.55     | 3.53E-30|
| PHB2       | 201600_at| 25.54       | 2.27E-23|
| YME1L1     | 201351_s_at| 25.53     | 1.09E-23|
| RAB1A      | 207791_s_at| 25.50     | 5.96E-22|
| RPL36      | 219762_s_at| 25.47     | 1.99E-22|
| SNX9       | 223028_s_at| 25.45     | 2.47E-31|
| TIMM23     | 218119_at| 25.43       | < 2.90E-44|
| PCBP1      | 208620_at| 25.39       | 6.35E-25|
| TOMM20     | 212773_s_at| 25.37     | 1.49E-24|
| NDUFB4     | 218226_s_at| 25.34     | 4.79E-30|
| SRSF1      | 208863_s_at| 25.33     | 5.57E-29|
| DLC1       | 224822_at| 25.31       | 2.89E-25|
| TPM2       | 204083_s_at| 25.31     | 4.09E-18|
| TAGLN2     | 210978_s_at| 25.28     | < 2.90E-44|
| POLR2K     | 202635_s_at| 25.27     | 3.77E-23|
| SEC63      | 201914_s_at| 25.21     | 1.78E-25|
| SNX3       | 208781_x_at| 25.19     | 8.22E-27|
| PCYOX1     | 203803_at| 25.18       | 8.08E-28|
| SIX1       | 228347_at| 25.17       | 1.89E-41|
| EIF3D      | 200005_at| 25.16       | 1.19E-22|
| FOXC1      | 1553613_s_at| 25.16     | 2.18E-19|
| SSH1       | 221752_at| 25.10       | 1.28E-27|
| TPD52L2    | 201379_s_at| 25.09     | 1.13E-32|
| Gene Symbol | Probe ID       | Log2 Fold Change | P-Value     |
|-------------|---------------|-----------------|-------------|
| PSMB6       | 208827_at     | 25.05           | 1.01E-27    |
| COPS7A      | 209029_at     | 25.04           | 3.97E-35    |
| PSMD12      | 202352_s_at   | 25.01           | 1.46E-29    |
| APMAP       | 206656_s_at   | 24.99           | 6.15E-25    |
| VBP1        | 201472_at     | 24.96           | 1.75E-22    |
| C7orf73     | 224752_at     | 24.95           | 5.57E-29    |
| UBE2L3      | 200682_s_at   | 24.94           | 8.77E-27    |
| PDIA4       | 211048_s_at   | 24.90           | 6.89E-25    |
| CXCL12      | 209687_at     | 24.90           | 9.90E-10    |
| NQO2        | 203814_s_at   | 24.90           | 1.25E-35    |
| ATIC        | 208758_at     | 24.89           | 5.56E-30    |
| INSIG1      | 201627_s_at   | 24.89           | < 2.90E-44  |
| TRMT112     | 217774_s_at   | 24.89           | 4.09E-26    |
| ENDOD1      | 212573_at     | 24.87           | 8.01E-23    |
| TMBIM6      | 200803_s_at   | 24.86           | 1.92E-27    |
| RTCA        | 203594_at     | 24.85           | 1.11E-25    |
| VCAN        | 211571_s_at   | 24.79           | 3.12E-23    |
| RND3        | 212724_at     | 24.73           | 1.55E-24    |
| MCT51       | 218163_at     | 24.69           | 5.92E-19    |
| SHMT2       | 214437_s_at   | 24.65           | 2.04E-31    |
| H3F3A       | 209069_s_at   | 24.65           | 3.91E-26    |
| GALNT2      | 217788_s_at   | 24.65           | 1.24E-22    |
| KRTAP1-1    | 220976_s_at   | 24.61           | < 2.90E-44  |
| FTSJ1       | 205324_s_at   | 24.57           | 1.92E-37    |
| CSE1L       | 201112_s_at   | 24.50           | 6.11E-21    |
| GNAI3       | 201180_s_at   | 24.42           | 1.77E-21    |
| CDK7        | 211297_s_at   | 24.39           | 1.17E-23    |
| SyncRIP     | 217832_at     | 24.39           | 4.45E-27    |
| TEAD1       | 224955_at     | 24.35           | 5.94E-26    |
| ACOT13      | 204565_at     | 24.35           | < 2.90E-44  |
| MIR21       | 224917_at     | 24.31           | 4.62E-18    |
| TRIM16      | 204341_at     | 24.27           | 2.68E-39    |
| MTCH2       | 217772_s_at   | 24.26           | 2.26E-27    |
| GYG1        | 201554_x_at   | 24.24           | 6.67E-27    |
| MED21       | 209362_at     | 24.24           | 4.83E-21    |
| INO80C      | 229582_at     | 24.20           | 3.63E-32    |
| POLR1D      | 218258_at     | 24.19           | 1.80E-25    |
| FIBP        | 202041_s_at   | 24.18           | 1.69E-32    |
| ZNHIT3      | 212544_at     | 24.18           | 2.47E-27    |
| RPL18       | 200022_at     | 24.15           | 2.06E-20    |
| LOC101060541| 222443_s_at   | 24.12           | 1.77E-30    |
| Gene     | Accession      | Log2 FC | Log10 P-value |
|----------|----------------|---------|---------------|
| SSBP1    | 202591_s_at    | 24.11   | 1.55E-23      |
| USP14    | 201671_x_at    | 24.08   | 1.17E-35      |
| TPM3     | 222976_s_at    | 24.06   | 1.66E-24      |
| CRIP1    | 205081_at      | 23.96   | 2.18E-15      |
| KRT7     | 209016_s_at    | 23.95   | 6.59E-13      |
| COL12A1  | 231879_at      | 23.94   | 1.35E-24      |
| USP14    | 206382_s_at    | 23.88   | 1.49E-34      |
| PAPPA    | 224942_at      | 23.88   | < 2.90E-44    |
| GPX8     | 227628_at      | 23.87   | 2.29E-18      |
| COP58    | 202143_s_at    | 23.78   | 8.04E-41      |
| TGFB2    | 208944_at      | 23.78   | 1.29E-16      |
| ITGBL1   | 1557080_s_at   | 23.78   | 2.62E-09      |
| PSMD11   | 208777_s_at    | 23.77   | 2.83E-34      |
| PITRM1   | 205273_s_at    | 23.77   | 4.28E-29      |
| ZYX      | 200808_s_at    | 23.75   | 2.58E-27      |
| EIF3F    | 200023_s_at    | 23.75   | 5.09E-22      |
| C1orf43  | 223034_s_at    | 23.71   | 2.01E-24      |
| CDC42EP3 | 209286_at      | 23.67   | 2.33E-29      |
| H2AFX    | 205436_s_at    | 23.61   | 1.49E-22      |
| PSMB2    | 200039_s_at    | 23.59   | 1.88E-25      |
| MAP1B    | 226084_at      | 23.58   | 3.89E-18      |
| ATP6V1G2 | 200041_s_at    | 23.57   | 4.12E-20      |
| ZDHHC4   | 220261_s_at    | 23.54   | 2.04E-35      |
| CXJC5    | 224516_s_at    | 23.47   | 1.12E-19      |
| HN1      | 217755_at      | 23.46   | 7.64E-31      |
| TMEM59   | 200620_at      | 23.46   | 5.47E-24      |
| MYL6B    | 204173_at      | 23.45   | 4.01E-31      |
| LAPTM4B  | 1554679_a_at   | 23.44   | < 2.90E-44    |
| RBX1     | 218117_at      | 23.42   | 2.47E-32      |
| ALKBH7   | 223318_s_at    | 23.38   | 1.53E-28      |
| ADAMTS2  | 226311_at      | 23.37   | 8.15E-13      |
| GTF2H5   | 213357_at      | 23.33   | 2.58E-28      |
| RASA1    | 210621_s_at    | 23.32   | 5.33E-27      |
| VDAC3    | 208846_s_at    | 23.30   | 4.83E-25      |
| METTL2A  | 225253_s_at    | 23.30   | 1.46E-31      |
| HSPA4    | 211015_s_at    | 23.30   | 1.22E-37      |
| H2AFV    | 202487_s_at    | 23.27   | 5.09E-26      |
| LEPROT   | 202377_at      | 23.25   | 4.05E-20      |
| TMEM70   | 219449_s_at    | 23.22   | 1.42E-23      |
| SPOP     | 204640_s_at    | 23.16   | 1.13E-32      |
| ATP6V1B2 | 201089_at      | 23.15   | 1.12E-30      |
| Symbol  | Description   | Log2FoldChange | p-value    |
|---------|---------------|----------------|------------|
| MRPS24  |               | 23.12          | 1.89E-27   |
| SMAD7   |               | 23.12          | 2.28E-26   |
| TMEM14B |               | 23.12          | 3.05E-22   |
| ATP5L   |               | 23.11          | 2.72E-24   |
| MRPL15  |               | 23.11          | 7.10E-23   |
| TMEM230 |               | 23.11          | 3.56E-38   |
| RTFDC1  |               | 23.08          | 2.30E-29   |
| RNPEP   |               | 23.07          | 4.21E-28   |
| VTA1    |               | 23.05          | < 2.90E-44 |
| AHRR    |               | 23.00          | 3.08E-34   |
| FBXO7   |               | 22.94          | 5.98E-30   |
| VCL     |               | 22.85          | 2.03E-24   |
| YWHAE   |               | 22.83          | 1.82E-29   |
| HARS    |               | 22.81          | 1.66E-30   |
| WNTSA   |               | 22.76          | 3.09E-12   |
| PHPT1   |               | 22.76          | 3.32E-26   |
| ACAT1   |               | 22.75          | 1.45E-25   |
| COX16   |               | 22.75          | 3.70E-31   |
| VAMP3   |               | 22.67          | 7.12E-27   |
| HSP90AA1|               | 22.63          | 9.55E-22   |
| CCT5    |               | 22.60          | 1.54E-30   |
| SHC1    |               | 22.60          | 2.36E-26   |
| SNX7    |               | 22.50          | 1.24E-15   |
| PSMD10  |               | 22.48          | 3.80E-19   |
| PSMB5   |               | 22.47          | 5.23E-29   |
| DCTN6   |               | 22.46          | 1.44E-27   |
| MRPS10  |               | 22.41          | 1.14E-43   |
| CCT3    |               | 22.41          | 1.75E-22   |
| HNRNPM  |               | 22.41          | 2.55E-24   |
| CD63    |               | 22.40          | 1.47E-25   |
| PHLDA1  |               | 22.36          | 8.71E-17   |
| MRPL13  |               | 22.29          | 8.53E-23   |
| PPP1R14B|               | 22.29          | 1.55E-28   |
| ERH     |               | 22.24          | 6.37E-31   |
| EDF1    |               | 22.24          | 9.52E-23   |
| SERINC3 |               | 22.23          | 7.95E-28   |
| KPNA3   |               | 22.23          | 1.47E-39   |
| GORASP2 |               | 22.19          | 3.45E-24   |
| GPC4    |               | 22.14          | 7.11E-39   |
| LOC100996724|         | 22.13          | < 2.90E-44 |
| Gene   | Accession    | log2FC | P-value         |
|--------|--------------|--------|-----------------|
| RPL13A | 200716_x_at  | 22.13  | 1.86E-20        |
| PBK    | 219148_at    | 22.13  | 1.03E-24        |
| LAMB1  | 211651_s_at  | 22.08  | 7.10E-19        |
| CTSD   | 200766_at    | 22.04  | 1.40E-24        |
| SPOCK1 | 202363_at    | 22.03  | 7.33E-13        |
| NELFCD | 220607_x_at  | 22.02  | 1.38E-30        |
| LSS    | 202245_at    | 22.01  | 1.39E-29        |
| ID2    | 201565_s_at  | 22.01  | 2.63E-21        |
| RPS6KA2| 212912_at    | 22.00  | 3.10E-24        |
| VPS35  | 222387_s_at  | 21.98  | <2.90E-44       |
| GINM1  | 225576_at    | 21.97  | 6.20E-32        |
| FZD2   | 210220_at    | 21.97  | 5.37E-26        |
| HIST2H2AA3 | 214290_s_at | 21.96  | 6.32E-23        |
| ALCAM  | 201951_at    | 21.94  | 1.22E-25        |
| CEBPG  | 204203_at    | 21.93  | 5.97E-28        |
| SLC39A7| 202667_s_at  | 21.89  | 6.05E-32        |
| PAIP2  | 222983_s_at  | 21.85  | 1.02E-25        |
| SDAD1  | 228408_s_at  | 21.84  | 4.92E-33        |
| OTUB1  | 201245_s_at  | 21.83  | 2.16E-35        |
| SNRPB  | 208821_at    | 21.81  | 1.11E-23        |
| RNF181 | 223064_at    | 21.81  | 2.55E-36        |
| SUPT4H1| 201483_s_at  | 21.77  | 4.81E-34        |
| PSMD14 | 212296_at    | 21.74  | 4.28E-23        |
| KHDRBS1| 201488_x_at  | 21.71  | 3.92E-31        |
| SEC13  | 207707_s_at  | 21.71  | 1.30E-28        |
| SLC7A5 | 201195_s_at  | 21.70  | 2.08E-35        |
| CANX   | 208852_s_at  | 21.68  | 7.08E-22        |
| PPP3R1 | 204506_s_at  | 21.65  | 2.90E-44        |
| PRICKLE4| 223516_s_at | 21.62  | 4.30E-21        |
| FKBP14 | 219390_at    | 21.61  | 1.82E-18        |
| KIAA1199| 212942_s_at | 21.59  | 7.31E-09        |
| TMED3  | 208837_at    | 21.58  | 6.26E-26        |
| RCHY1  | 212749_s_at  | 21.53  | 3.32E-22        |
| NEGR1  | 243357_at    | 21.53  | 1.50E-34        |
| SNHG16 | 224603_at    | 21.52  | 1.00E-25        |
| LSM3   | 202209_at    | 21.51  | 2.37E-31        |
| JKAMP  | 223215_s_at  | 21.45  | 9.48E-25        |
| RAB18  | 224787_s_at  | 21.44  | 2.06E-23        |
| LDLR   | 202068_s_at  | 21.44  | 1.64E-20        |
| POMP   | 217769_s_at  | 21.44  | 8.49E-28        |
| PSMD4  | 210460_s_at  | 21.44  | 1.75E-24        |
| Gene       | Accession     | Log2 Fold Change | p-value     |
|------------|---------------|-----------------|-------------|
| CCT6A      | 201327_s_at   | 21.43           | 6.76E-26    |
| DPY30      | 224129_s_at   | 21.39           | 1.75E-23    |
| CAMK2D     | 224994_at     | 21.36           | 3.94E-41    |
| SCFD1      | 215548_s_at   | 21.31           | 2.47E-30    |
| KCNK2      | 210261_at     | 21.30           | < 2.90E-44  |
| ATP5A1     | 213738_s_at   | 21.27           | 7.68E-21    |
| SH3BP4     | 222258_s_at   | 21.26           | 1.20E-23    |
| ARPC4      | 211672_s_at   | 21.25           | < 2.90E-44  |
| ETF1       | 201574_at     | 21.25           | 1.25E-29    |
| SLC1A1     | 213664_at     | 21.21           | 4.14E-21    |
| UBE2G2     | 209042_s_at   | 21.20           | 4.43E-27    |
| KARS       | 200079_s_at   | 21.17           | 5.54E-25    |
| CIB1       | 201953_at     | 21.16           | 2.80E-27    |
| RRM1       | 201477_s_at   | 21.15           | 9.47E-26    |
| FAM96B     | 218074_at     | 21.14           | 5.81E-29    |
| TRIOBP     | 210276_s_at   | 21.09           | 6.08E-28    |
| C12orf57   | 224719_s_at   | 21.07           | 2.16E-21    |
| SF3B5      | 221263_s_at   | 21.06           | 8.07E-26    |
| ATOX1      | 203454_s_at   | 21.04           | 7.49E-33    |
| ATP1A1     | 220948_s_at   | 20.99           | 7.07E-26    |
| ODC1       | 200790_at     | 20.96           | 4.17E-23    |
| ARPC1B     | 201954_at     | 20.94           | 2.25E-23    |
| NUCB2      | 203675_at     | 20.93           | 6.93E-23    |
| GLUD1      | 200946_x_at   | 20.91           | 3.03E-30    |
| BASP1      | 202391_at     | 20.90           | 2.80E-21    |
| SSR3       | 222412_s_at   | 20.89           | 4.83E-26    |
| SMAD2      | 203076_s_at   | 20.87           | 1.51E-25    |
| CTSA       | 200661_at     | 20.86           | 2.59E-27    |
| DCN        | 211896_s_at   | 20.86           | 1.90E-17    |
| COPB1      | 201359_at     | 20.83           | 1.22E-23    |
| RTN3       | 219549_s_at   | 20.82           | 3.22E-31    |
| RPS16      | 201258_at     | 20.82           | 4.51E-19    |
| PGRMC1     | 201120_s_at   | 20.82           | 1.46E-40    |
| UBE2R2     | 223014_at     | 20.81           | 6.24E-28    |
| RAB2A      | 208734_x_at   | 20.81           | 9.31E-23    |
| MRPL40     | 203152_at     | 20.81           | 1.02E-31    |
| SLC39A6    | 202089_s_at   | 20.80           | 1.89E-28    |
| COL3A1     | 201852_x_at   | 20.78           | 1.82E-13    |
| ENO2       | 201313_at     | 20.75           | 8.86E-22    |
| ADH5       | 208848_at     | 20.75           | 7.09E-17    |
| TMSB4X     | 216438_s_at   | 20.73           | 7.64E-21    |
| Gene   | Accession       | log2 Fold | p-value    |
|--------|----------------|-----------|------------|
| AMZ2   | 218167_at      | 20.73     | 9.62E-22   |
| YTHDF2 | 222430_s_at    | 20.70     | 2.13E-23   |
| GDE1   | 202593_s_at    | 20.69     | < 2.90E-44 |
| P4HA1  | 207543_s_at    | 20.68     | 5.56E-17   |
| AP2B1  | 200615_s_at    | 20.67     | 9.97E-29   |
| IMPDH2 | 201892_s_at    | 20.64     | 1.99E-18   |
| NPEPPS | 201455_s_at    | 20.64     | 1.69E-29   |
| MAP1LC3B| 208786_s_at   | 20.64     | 4.31E-23   |
| EMC1   | 212396_s_at    | 20.63     | 4.76E-38   |
| SLC20A1| 201920_at      | 20.60     | 3.13E-19   |
| TARS   | 201263_at      | 20.57     | 3.32E-27   |
| DCBLD2 | 224911_s_at    | 20.52     | 2.33E-16   |
| COP5S  | 201652_at      | 20.50     | 3.80E-23   |
| UBE2E3 | 210024_s_at    | 20.48     | 1.45E-23   |
| TIMM17A| 201821_s_at    | 20.47     | 2.50E-31   |
| COPZ1  | 222386_s_at    | 20.46     | 9.27E-25   |
| HNRNPL | 202072_at      | 20.45     | < 2.90E-44 |
| RAB27B | 228708_at      | 20.44     | 9.87E-17   |
| CUL3   | 201371_s_at    | 20.43     | 3.27E-23   |
| SATB2  | 213435_at      | 20.42     | 2.52E-40   |
| PRPS1  | 208447_s_at    | 20.42     | < 2.90E-44 |
| HRAS   | 212983_at      | 20.40     | 6.90E-30   |
| PPIC   | 204518_s_at    | 20.37     | 4.18E-20   |
| NPC2   | 200701_at      | 20.35     | 1.44E-22   |
| MLF2   | 200948_at      | 20.33     | 5.50E-28   |
| COPB2  | 201098_at      | 20.33     | 2.81E-23   |
| MFAP5  | 209758_s_at    | 20.30     | 5.14E-07   |
| MGAT4B | 220189_s_at    | 20.30     | 6.60E-41   |
| WDR61  | 221532_s_at    | 20.29     | 7.58E-20   |
| SNF8   | 218391_at      | 20.27     | 6.27E-29   |
| NDUFS1 | 203039_s_at    | 20.25     | 3.35E-34   |
| BUD31  | 205690_s_at    | 20.25     | 1.55E-24   |
| EXT1   | 209537_at      | 20.23     | 2.32E-30   |
| LDHB   | 213564_x_at    | 20.23     | 8.80E-20   |
| RIT1   | 209882_at      | 20.14     | 9.15E-34   |
| MPRIP  | 214771_x_at    | 20.14     | 3.41E-28   |
| PSMC5  | 209503_s_at    | 20.12     | 5.26E-27   |
| ZSWIM7 | 229119_s_at    | 20.12     | 1.49E-27   |
| RPS6   | 200081_s_at    | 20.11     | 6.46E-22   |
| ACOT9  | 221641_s_at    | 20.10     | 1.68E-29   |
| RPL19  | 200029_at      | 20.10     | 4.75E-22   |
| Gene Symbol | Probe Set ID | logFC | Log10(p-value) |
|-------------|--------------|-------|----------------|
| LOC100288911 | 236656_s_at  | 20.08 | 6.02E-26       |
| EIF6        | 210213_s_at  | 20.07 | 5.77E-28       |
| IRX3        | 229638_at    | 20.06 | 1.08E-11       |
| ZNF423      | 214761_at    | 20.06 | 6.91E-20       |
| MRPS23      | 223156_at    | 20.06 | 1.43E-23       |
| CSRP1       | 200621_at    | 20.05 | 1.45E-21       |
| FOSL2       | 218880_at    | 20.02 | 1.75E-19       |
| MRPL18      | 217907_at    | 20.00 | 4.87E-29       |
| TRAPPC2L    | 218354_at    | 19.99 | 1.96E-39       |
| COP56       | 201405_s_at  | 19.98 | 6.01E-23       |
| HIRA        | 217427_s_at  | 19.95 | 2.06E-31       |
| GNG5        | 207157_s_at  | 19.91 | 2.66E-23       |
| PBDC1       | 223294_at    | 19.90 | 1.92E-25       |
| WAC         | 217742_s_at  | 19.90 | 5.81E-24       |
| YY1         | 201901_s_at  | 19.88 | 1.75E-29       |
| AHCYL1      | 200850_s_at  | 19.88 | 4.22E-26       |
| XRCC6       | 200792_at    | 19.88 | 1.41E-26       |
| P2RX5       | 215464_s_at  | 19.82 | 4.43E-29       |
| ARID4B      | 212591_at    | 19.81 | 1.01E-23       |
| LTBP3       | 219922_s_at  | 19.80 | 3.54E-19       |
| TAF10       | 200055_at    | 19.80 | 3.47E-28       |
| PPP1CA      | 200846_s_at  | 19.80 | 3.58E-31       |
| EIF4G1      | 208625_s_at  | 19.78 | 2.93E-29       |
| GPX4        | 201106_at    | 19.78 | 6.45E-22       |
| RNF130      | 217865_at    | 19.76 | 1.02E-25       |
| VPS29       | 223026_at    | 19.72 | 1.92E-27       |
| ATP5J2      | 202961_s_at  | 19.69 | 4.15E-24       |
| PWP1        | 201606_s_at  | 19.68 | 4.20E-24       |
| MMADHC      | 217883_at    | 19.67 | 1.00E-18       |
| RPA1        | 201529_s_at  | 19.66 | 1.89E-24       |
| ACOT7       | 208002_s_at  | 19.64 | 1.54E-33       |
| NSF         | 202395_at    | 19.63 | 9.64E-29       |
| HMGCR       | 202539_s_at  | 19.61 | 4.22E-21       |
| FAM127A     | 201828_x_at  | 19.61 | 5.45E-26       |
| SYPL1       | 201259_s_at  | 19.60 | 8.11E-43       |
| TRIP12      | 201546_at    | 19.60 | 2.59E-26       |
| MAP7D1      | 217943_s_at  | 19.59 | 4.67E-31       |
| MYL12A      | 201318_s_at  | 19.59 | 2.57E-20       |
| LAMP2       | 203041_s_at  | 19.58 | 2.99E-21       |
| RPL36AL     | 207585_s_at  | 19.53 | 2.78E-20       |
| SLBP        | 206052_s_at  | 19.53 | 2.16E-22       |
| Gene   | Accession   | Mean | p-value  |
|--------|-------------|------|----------|
| EMC3   | 217882_at   | 19.51| 2.77E-29 |
| SAMM50 | 201569_s_at | 19.50| 6.29E-24 |
| STUB1  | 233049_x_at | 19.50| 7.54E-28 |
| PCMT1  | 210156_s_at | 19.49| 5.74E-31 |
| SRSF7  | 214141_x_at | 19.48| 1.84E-23 |
| FAM98A | 212333_at   | 19.47| 2.95E-21 |
| RARS   | 201330_at   | 19.46| 6.78E-25 |
| MAP1A  | 203151_at   | 19.43| 5.38E-37 |
| MRPL47 | 223480_s_at | 19.41| 9.94E-22 |
| RPL8   | 200936_at   | 19.40| 1.63E-21 |
| MAGED1 | 209014_at   | 19.38| 1.85E-25 |
| RTN4   | 210968_s_at | 19.36| 9.09E-21 |
| YBX3   | 201161_s_at | 19.35| 1.05E-26 |
| LOC100505828 | 201403_s_at | 19.34| 7.76E-31 |
| TSR1   | 218156_s_at | 19.33| <2.90E-44|
| DHCR24 | 200862_at   | 19.33| 2.87E-15 |
| ATP6V0D1 | 212041_at | 19.30| 3.85E-27 |
| VPS28  | 218679_s_at | 19.30| 1.01E-21 |
| AKR1C1 | 204151_x_at | 19.26| 1.58E-21 |
| DDX3X  | 212515_s_at | 19.26| 1.39E-24 |
| AHCY   | 200903_s_at | 19.26| 2.72E-24 |
| TUBG1  | 201714_at   | 19.24| 2.57E-28 |
| EBPL   | 223306_at   | 19.22| 4.54E-21 |
| NDUFS5 | 201757_at   | 19.19| 4.41E-27 |
| CD9    | 201005_at   | 19.15| 2.56E-14 |
| BAG6   | 213318_s_at | 19.13| 2.76E-28 |
| FBLN1  | 202995_s_at | 19.12| 1.42E-14 |
| FKBP1A | 200709_at   | 19.08| 3.35E-23 |
| TOP2A  | 201291_s_at | 19.08| 9.45E-15 |
| PSENE4 | 218302_at   | 19.07| 4.02E-30 |
| LRRFIP1| 201862_s_at | 19.06| 8.81E-19 |
| RNASE4 | 205158_at   | 19.04| 3.28E-35 |
| EMP1   | 201325_s_at | 19.02| 7.12E-21 |
| POLE4  | 225844_at   | 19.01| 1.96E-30 |
| DDAH2  | 215537_x_at | 18.99| 7.08E-29 |
| PRPF40A| 213729_at   | 18.96| 1.66E-27 |
| LMO4   | 209205_s_at | 18.95| 5.17E-39 |
| FSCN1  | 201564_s_at | 18.95| 8.54E-31 |
| ORAI2  | 217529_at   | 18.94| 6.74E-35 |
| CHCHD2 | 217720_at   | 18.94| 2.21E-25 |
| RBPMS  | 209488_s_at | 18.93| 6.20E-23 |
| Gene      | Value   | p-Value   |
|-----------|---------|-----------|
| CDC26     | 225422_at | 18.93 | 1.96E-29 |
| YIF1A     | 202418_at | 18.91 | 4.83E-26 |
| UBE2I     | 213535_s_at | 18.91 | 1.42E-30 |
| IRX5      | 210239_at | 18.90 | < 2.90E-44 |
| KLF6      | 208961_s_at | 18.90 | 3.38E-20 |
| UBE2K     | 202347_s_at | 18.89 | 3.13E-24 |
| HSBI      | 200942_s_at | 18.88 | 8.77E-32 |
| EIF4E2    | 209393_s_at | 18.88 | 6.75E-21 |
| SF3B14    | 223416_at | 18.88 | 4.99E-25 |
| WARS      | 200628_s_at | 18.84 | 4.65E-37 |
| EIF5B     | 201027_s_at | 18.82 | 6.66E-32 |
| ACTN4     | 200601_at | 18.81 | 2.00E-26 |
| PLRG1     | 225194_at | 18.80 | 1.19E-28 |
| UBC       | 211296_x_at | 18.80 | 1.96E-23 |
| ZNF706    | 218059_at | 18.79 | 1.47E-27 |
| MRFAP1L1  | 212199_at | 18.76 | 2.80E-26 |
| C11orf58  | 201784_s_at | 18.76 | 6.85E-20 |
| IFITM2    | 201315_x_at | 18.74 | 6.07E-23 |
| GNG12     | 212294_at | 18.73 | 4.10E-22 |
| DDT       | 202929_s_at | 18.72 | 7.74E-30 |
| ADAM12    | 213790_at | 18.71 | 2.33E-10 |
| TMED10    | 200929_at | 18.70 | 5.90E-27 |
| TAF7      | 201023_at | 18.69 | 2.93E-23 |
| FAP       | 209955_s_at | 18.69 | 8.80E-11 |
| SARBP1    | 224914_s_at | 18.68 | 3.08E-27 |
| SSR4      | 201004_at | 18.65 | 1.53E-19 |
| C17orf49  | 224574_at | 18.63 | 1.70E-24 |
| YKT6      | 217785_s_at | 18.62 | < 2.90E-44 |
| IPO5      | 211954_s_at | 18.62 | 6.10E-34 |
| NUS1      | 225070_at | 18.60 | 2.49E-41 |
| SDC4      | 202071_at | 18.58 | 2.33E-20 |
| SMIM19    | 225534_at | 18.55 | 9.10E-19 |
| KIAA1279  | 212453_at | 18.55 | 3.04E-34 |
| GPX1      | 200736_s_at | 18.53 | 1.32E-20 |
| NACC2     | 212993_at | 18.53 | 1.78E-22 |
| DPAGT1    | 209509_s_at | 18.52 | 4.41E-39 |
| MRPS2     | 218001_at | 18.52 | 1.72E-29 |
| UQCRH     | 202233_s_at | 18.50 | 5.50E-22 |
| COL4A1    | 211981_at | 18.48 | 1.47E-16 |
| LOC100653217 | 227566_at | 18.42 | 9.70E-07 |
| TYMS      | 1554696_s_at | 18.41 | < 2.90E-44 |
| Gene   | Probe      | Fold Change | p-Value   |
|--------|------------|-------------|-----------|
| MYADM  | 225673_at  | 18.41       | 1.31E-20  |
| TRAPPC5| 225870_s_at| 18.40       | 2.89E-31  |
| NUP37  | 218622_at  | 18.37       | 6.79E-24  |
| KIAA0391| 208805_at  | 18.37       | 1.81E-23  |
| NRP1   | 212298_at  | 18.36       | 1.15E-17  |
| CTNNA1 | 210844_x_at| 18.36       | 4.07E-26  |
| VMA21  | 225556_at  | 18.35       | 6.84E-30  |
| DCTN1  | 201082_s_at| 18.31       | 2.16E-41  |
| GABARAPL2| 209046_s_at| 18.31       | 2.07E-20  |
| TXNDC17| 224511_s_at| 18.28       | 3.52E-28  |
| CM2    | 218447_at  | 18.26       | 6.08E-26  |
| PPA2   | 1556285_s_at| 18.26      | 7.60E-31  |
| CLU    | 208791_at  | 18.24       | 3.14E-13  |
| CNOT8  | 202164_s_at| 18.23       | 2.00E-36  |
| AP1S1  | 205195_at  | 18.23       | < 2.90E-44|
| PTPRK  | 203038_at  | 18.22       | 2.05E-18  |
| ME1    | 204059_s_at| 18.19       | 2.90E-20  |
| COA3   | 218026_at  | 18.18       | 9.15E-29  |
| NAP1L1 | 208752_x_at| 18.18       | 1.36E-22  |
| PPD    | 204186_s_at| 18.17       | 3.72E-29  |
| CCZ1   | 208310_s_at| 18.16       | 9.26E-32  |
| COMMD1 | 226024_at  | 18.14       | 1.20E-31  |
| DCTD   | 210137_s_at| 18.11       | 5.53E-23  |
| FADS3  | 216080_s_at| 18.09       | 1.49E-42  |
| SQSTM1 | 201471_s_at| 18.08       | 1.53E-24  |
| G6PD   | 202275_at  | 18.07       | 5.69E-41  |
| TIMM50 | 224913_s_at| 18.05       | 1.14E-32  |
| IARS2  | 217900_at  | 18.05       | 4.60E-22  |
| HRSP12 | 203790_s_at| 18.05       | 3.85E-27  |
| ZMAT3  | 228315_at  | 18.05       | 2.04E-18  |
| MBNL1  | 201152_s_at| 18.03       | 3.29E-26  |
| EPS8   | 202609_at  | 17.99       | 4.42E-13  |
| TRIP6  | 209129_at  | 17.98       | 4.49E-22  |
| PFDN2  | 218336_at  | 17.96       | 3.55E-29  |
| DNAJA1 | 200881_s_at| 17.96       | 6.29E-24  |
| TMEM50A| 217766_s_at| 17.96       | 6.39E-29  |
| MIF    | 217871_s_at| 17.93       | 1.52E-18  |
| SNW1   | 215424_s_at| 17.92       | 1.44E-40  |
| GSE1   | 212057_at  | 17.92       | 2.60E-41  |
| FSTL1  | 208782_at  | 17.92       | 2.80E-23  |
| NPC1   | 202679_at  | 17.91       | 1.22E-37  |
| Gene   | Symbol   | Value  |
|--------|----------|--------|
| WSB2   | 201760_s_at | 17.89  |
| AP2A2  | 212159_x_at | 17.88  |
| NDUFA1 | 202298_at   | 17.86  |
| CMTM6  | 223047_at   | 17.83  |
| POLR2C | 208996_s_at | 17.83  |
| MLLT11 | 211071_s_at | 17.82  |
| CDC37L1| 219343_at   | 17.80  |
| FN1    | 214702_at   | 17.79  |
| SCCPDH | 201825_s_at | 17.78  |
| DDIT4  | 202887_s_at | 17.78  |
| PDZD11 | 223037_at   | 17.77  |
| CCNI   | 208656_s_at | 17.76  |
| TIMP2  | 224560_at   | 17.75  |
| IGF2R  | 201393_s_at | 17.74  |
| GRPEL1 | 212432_at   | 17.74  |
| CYB5R1 | 202263_at   | 17.73  |
| CCDC85B| 204610_s_at | 17.73  |
| SLC30A5| 232432_s_at | 17.69  |
| PUM1   | 201164_s_at | 17.64  |
| NAA35  | 220925_at   | 17.64  |
| LOC100996657 | 210178_x_at | 17.64  |
| DAP    | 201095_at   | 17.63  |
| SSR2   | 200652_at   | 17.63  |
| MRPL16 | 217980_s_at | 17.61  |
| IFITM10| 227863_at   | 17.60  |
| ELAVL1 | 201726_at   | 17.60  |
| RAPH1  | 225189_s_at | 17.60  |
| SERINC1| 208671_at   | 17.59  |
| HNRNPAB| 201277_s_at | 17.58  |
| ANKMY2 | 212798_s_at | 17.58  |
| EIF3I  | 208756_at   | 17.58  |
| TROVE2 | 210438_x_at | 17.57  |
| PSMA2  | 201317_s_at | 17.57  |
| UBE2G1 | 209142_s_at | 17.55  |
| SPG21  | 217827_s_at | 17.53  |
| GLS    | 203159_at   | 17.52  |
| RNF141 | 219104_at   | 17.51  |
| BAMBI  | 203304_at   | 17.51  |
| LYRM4  | 218561_s_at | 17.50  |
| RPS27L | 218007_s_at | 17.49  |
| UTP3   | 209486_at   | 17.49  |
| Gene   | Affymetrix Probe ID | Log2 Ratio | p-value     |
|--------|---------------------|------------|-------------|
| SLC14A1| 229151_at           | 17.47      | 0           |
| SNAPC1 | 205443_at           | 17.47      | 4.50E-24    |
| ATP6AP1| 207809_s_at         | 17.46      | 1.41E-27    |
| KIAA0100| 201729_s_at       | 17.45      | 1.14E-32    |
| TBC1D19| 220260_at           | 17.43      | 1.17E-30    |
| RHOQ   | 212117_at           | 17.42      | 1.80E-24    |
| ARPC5  | 211963_s_at         | 17.38      | 1.03E-19    |
| RPL35  | 200002_at           | 17.38      | 4.25E-19    |
| TECR   | 208336_s_at         | 17.38      | 9.22E-26    |
| PPP2R3C| 218852_at           | 17.37      | 1.90E-26    |
| NTMT1  | 223369_at           | 17.36      | 3.94E-39    |
| GOLGA5 | 218241_at           | 17.34      | 3.41E-22    |
| AKR1C2 | 211653_x_at         | 17.33      | 3.04E-34    |
| PIEZO1 | 202771_at           | 17.33      | 6.19E-23    |
| EIF4G3 | 201935_s_at         | 17.30      | 1.42E-25    |
| NAGK   | 218231_at           | 17.30      | 1.33E-22    |
| CLCN3  | 201735_s_at         | 17.27      | 4.19E-28    |
| CLTB   | 206284_x_at         | 17.26      | 2.80E-28    |
| CAPN2  | 208638_at           | 17.23      | 1.58E-20    |
| RPL15  | 221476_s_at         | 17.20      | 3.24E-20    |
| LMBRD1 | 218191_s_at         | 17.19      | 4.02E-22    |
| SLC35B1| 202433_at           | 17.18      | 2.67E-28    |
| RPS6KC1| 218909_at           | 17.16      | 5.51E-30    |
| EPRS   | 200842_s_at         | 17.15      | 3.46E-26    |
| SLC16A1| 202236_s_at         | 17.15      | 3.01E-38    |
| MRPL27 | 224330_s_at         | 17.13      | 4.45E-34    |
| NAA15  | 222837_s_at         | 17.13      | < 2.90E-44  |
| CLTC   | 200614_at           | 17.12      | 4.85E-19    |
| ITGA5  | 201389_at           | 17.10      | 1.04E-21    |
| B4GALT1| 201883_s_at         | 17.07      | 1.72E-28    |
| RPS5   | 200024_at           | 17.06      | 2.11E-18    |
| EFEMP2 | 209356_x_at         | 17.06      | 3.71E-23    |
| COX7B  | 202110_at           | 17.05      | 1.38E-25    |
| PRPF4  | 209162_s_at         | 17.05      | < 2.90E-44  |
| ZBTB1  | 213376_s_at         | 17.00      | 2.86E-23    |
| NDUFS4 | 209303_at           | 17.00      | 8.62E-30    |
| POLE3  | 208828_at           | 16.99      | 3.60E-27    |
| PSMA7  | 216088_s_at         | 16.98      | 7.12E-23    |
| RAF1   | 201244_s_at         | 16.97      | 4.10E-29    |
| MAP2K2 | 202424_at           | 16.94      | 1.38E-27    |
| ACSL3  | 201662_s_at         | 16.94      | 1.35E-21    |
| Gene   | Probe Set ID | Log2 Fold Change | p-Value       |
|--------|--------------|------------------|---------------|
| NFU1   | 218946_at    | 16.94            | 2.24E-25      |
| SLC25A11 | 207088_s_at   | 16.92            | 5.84E-36      |
| TRAPPC1| 225294_s_at   | 16.91            | 6.00E-32      |
| SLC25A5| 200657_at     | 16.91            | 4.55E-23      |
| DNAJC7 | 202416_at     | 16.91            | 1.05E-32      |
| EXOC5  | 225084_at     | 16.90            | 1.08E-28      |
| VARS   | 201797_s_at   | 16.89            | 9.54E-31      |
| XPNPEP1| 208453_s_at   | 16.88            | <2.90E-44     |
| RPS2   | 212433_x_at   | 16.88            | 1.14E-22      |
| RPF1   | 218462_at     | 16.87            | 8.06E-22      |
| RPL23  | 200888_s_at   | 16.87            | 1.03E-14      |
| DHR57  | 210788_s_at   | 16.86            | 6.12E-33      |
| COL6A1 | 212091_s_at   | 16.85            | 1.42E-26      |
| AP3D1  | 208710_s_at   | 16.83            | 1.07E-13      |
| ARID5B | 212614_at     | 16.82            | 9.17E-21      |
| FAM114A1| 213455_at     | 16.80            | 1.44E-21      |
| EBF3   | 227242_s_at   | 16.77            | <2.90E-44     |
| ADAM9  | 1555326_s_at  | 16.77            | <2.90E-44     |
| ACP1   | 201629_s_at   | 16.77            | 7.06E-25      |
| COX6B1 | 201441_at     | 16.75            | 8.78E-23      |
| TRA2B  | 200892_s_at   | 16.75            | 2.88E-26      |
| HSPE1  | 205133_s_at   | 16.75            | 5.30E-23      |
| MRPS28 | 219819_s_at   | 16.74            | 1.30E-29      |
| ANKH   | 223092_at     | 16.74            | 9.69E-15      |
| SLC4A4 | 203908_at     | 16.71            | 1.67E-16      |
| MT1X   | 208581_x_at   | 16.71            | 1.09E-15      |
| GAP43  | 204471_at     | 16.69            | 3.31E-28      |
| CDC20  | 202870_s_at   | 16.66            | 1.44E-18      |
| PPP2R5E| 229322_at     | 16.66            | 4.29E-23      |
| SMRT1  | 225795_at     | 16.64            | 4.82E-19      |
| TES    | 202719_s_at   | 16.63            | 1.09E-21      |
| PDCD6IP| 217746_s_at   | 16.63            | 8.37E-25      |
| CALCOCO2| 210817_s_at   | 16.58            | 2.88E-30      |
| BOK    | 223349_s_at   | 16.58            | 4.22E-28      |
| MATR3  | 200626_s_at   | 16.58            | 1.06E-19      |
| CHMP4B | 225498_at     | 16.56            | 1.10E-24      |
| SSR1   | 201894_s_at   | 16.56            | 3.20E-18      |
| PCDHGA1| 211066_x_at   | 16.54            | 4.39E-30      |
| RBFOX2 | 213901_x_at   | 16.53            | 4.34E-37      |
| PSPH   | 205048_s_at   | 16.52            | 1.83E-16      |
| DKC1   | 201478_s_at   | 16.50            | 5.25E-29      |
| Gene  | Accession | Log2 FC | p-value |
|-------|-----------|---------|---------|
| UBXN4 | 212007_at | 16.50   | 2.20E-19|
| ASPH  | 210896_s_at | 16.50 | 1.20E-24|
| GYS1  | 201673_s_at | 16.49 | 6.58E-37|
| CORO1B | 64486_at | 16.48 | 2.34E-31|
| CDC16 | 202717_s_at | 16.46 | 3.66E-26|
| P4HA2 | 202733_at | 16.44 | 1.53E-14|
| TBPL1 | 208398_s_at | 16.44 | 2.56E-27|
| SPG7  | 202104_s_at | 16.43 | 2.17E-26|
| LURAP1L | 227443_at | 16.41 | 1.50E-29|
| RHEB  | 1555780_a_at | 16.40 | 5.40E-30|
| ATG5  | 202511_s_at | 16.40 | 6.64E-31|
| AK4   | 204348_s_at | 16.37 | 3.72E-21|
| RPL35A | 213687_s_at | 16.37 | 4.64E-20|
| UFC1  | 217797_at | 16.37 | 1.48E-22|
| GSTP1 | 200824_at | 16.36 | 8.94E-25|
| ARF5  | 201526_at | 16.36 | 2.73E-42|
| RAP2C | 218669_at | 16.33 | 5.22E-21|
| QDPR  | 209123_at | 16.33 | 3.50E-31|
| MT1F  | 217165_x_at | 16.32 | 1.65E-16|
| TUG1  | 212725_s_at | 16.31 | 6.08E-20|
| UBE2D3 | 200669_s_at | 16.31 | 5.43E-34|
| EIF3B | 211501_s_at | 16.30 | 2.58E-27|
| FHL1  | 210299_s_at | 16.30 | 1.20E-32|
| ATP6V1H | 221504_s_at | 16.30 | 9.76E-28|
| GNB2  | 200852_x_at | 16.29 | 1.50E-25|
| RPN1  | 201011_at | 16.29 | 1.82E-25|
| PDLIM2 | 219165_at | 16.28 | 2.96E-22|
| TMEM47 | 209656_s_at | 16.26 | 2.94E-12|
| NOP10 | 217962_at | 16.26 | 4.30E-26|
| FADS1 | 208962_s_at | 16.24 | 1.61E-25|
| H2AFY | 214500_at | 16.24 | 3.86E-38|
| PPP2R2A | 202313_at | 16.20 | 2.21E-32|
| COL4A2 | 211966_at | 16.18 | 2.42E-16|
| PCDH18 | 225975_at | 16.18 | 2.94E-13|
| ANKRD1 | 206029_at | 16.17 | <2.90E-44|
| DDA1  | 218260_at | 16.15 | <2.90E-44|
| DACT1 | 219179_at | 16.14 | 3.02E-15|
| ILF3  | 208931_s_at | 16.14 | <2.90E-44|
| THYN1 | 218491_s_at | 16.13 | 1.57E-21|
| ZKSCAN1 | 1557953_at | 16.12 | 1.20E-21|
| EIF3K | 212716_s_at | 16.12 | 2.55E-21|
| Gene       | Description     | Log2 Fold Change | Adj. P Value |
|------------|-----------------|------------------|--------------|
| SCARB2     | 224983_at       | 16.12            | 1.39E-24     |
| SERPINB6   | 211474_s_at     | 16.11            | 5.43E-25     |
| BANF1      | 210125_s_at     | 16.10            | 1.01E-24     |
| ALKBH5     | 1553101_a_at    | 16.10            | <2.90E-44    |
| HADHA      | 208631_s_at     | 16.09            | 2.26E-25     |
| FEZ1       | 203562_at       | 16.09            | 1.60E-26     |
| IDH3A      | 202069_s_at     | 16.09            | 1.25E-25     |
| ASNA1      | 202042_at       | 16.06            | 2.89E-24     |
| BANF1      | 211474_s_at     | 16.11            | 5.43E-25     |
| SERPINB6   | 224983_at       | 16.12            | 1.39E-24     |
| HADHA      | 208631_s_at     | 16.09            | 2.26E-25     |
| FEZ1       | 203562_at       | 16.09            | 1.60E-26     |
| IDH3A      | 202069_s_at     | 16.09            | 1.25E-25     |
| ASNA1      | 202042_at       | 16.06            | 2.89E-24     |
| LTBP2      | 223690_at       | 16.06            | 1.33E-16     |
| MFGE8      | 210605_s_at     | 16.06            | 9.34E-40     |
| ERP29      | 201216_at       | 16.04            | 3.14E-24     |
| SRFS2      | 200754_x_at     | 16.03            | 3.54E-27     |
| MTFR1      | 203207_s_at     | 16.03            | 1.09E-36     |
| SEC31A     | 210616_s_at     | 16.02            | 1.31E-22     |
| COX6C      | 201754_at       | 16.02            | 3.32E-20     |
| CNIH4      | 223993_s_at     | 16.01            | 3.32E-20     |
| RAD1       | 204460_s_at     | 16.01            | 2.56E-42     |
| ARM10      | 223328_at       | 16.01            | 5.82E-27     |
| C5orf51    | 226159_at       | 15.99            | 1.16E-21     |
| MRPL42     | 217919_s_at     | 15.98            | 3.40E-28     |
| M6PR       | 200900_s_at     | 15.96            | 2.25E-25     |
| CDKN3      | 1555758_a_at    | 15.96            | <2.90E-44    |
| LRRRC42    | 215084_s_at     | 15.94            | 1.57E-38     |
| PHB        | 200658_s_at     | 15.93            | 1.75E-22     |
| MCM7       | 210983_s_at     | 15.93            | 1.15E-28     |
| VCP        | 208649_s_at     | 15.91            | 3.92E-29     |
| MPV17      | 203466_at       | 15.89            | 5.39E-26     |
| HNRNPD     | 209330_s_at     | 15.88            | 3.22E-19     |
| TM9SF1     | 209150_s_at     | 15.88            | 5.83E-23     |
| POLR2I     | 212955_s_at     | 15.88            | 1.86E-24     |
| RABGAP1    | 213313_at       | 15.88            | 3.18E-24     |
| IL13RA1    | 210904_s_at     | 15.87            | <2.90E-44    |
| TMEM43     | 217795_s_at     | 15.83            | 2.23E-26     |
| MINOS1     | 224867_at       | 15.83            | 2.52E-22     |
| CERS2      | 222212_s_at     | 15.82            | 6.23E-30     |
| LRP10      | 201412_at       | 15.82            | 9.31E-25     |
| UXT        | 218495_at       | 15.81            | 2.13E-22     |
| RNF14      | 201823_s_at     | 15.81            | 8.24E-37     |
| SEPW1      | 201194_at       | 15.81            | 8.26E-28     |
| HNRNPA2B1  | 205292_s_at     | 15.80            | 3.89E-19     |
| EID1       | 208669_s_at     | 15.77            | 4.05E-17     |
| Gene      | ProbeID      | Log2FC | p-value       |
|-----------|--------------|--------|---------------|
| FUCA2     | 223120_at    | 15.76  | 2.21E-31      |
| BRD4      | 202102_s_at  | 15.74  | 2.64E-19      |
| MFF       | 223354_x_at  | 15.74  | 3.84E-35      |
| SCRG1     | 205475_at    | 15.72  | 1.44E-33      |
| NEMF      | 1557950_at   | 15.71  | < 2.90E-44    |
| ATXN10    | 208833_s_at  | 15.71  | 4.27E-24      |
| HOXC10    | 218959_at    | 15.66  | 5.70E-44      |
| MFF       | 223354_x_at  | 15.66  | 3.23E-30      |
| TMEM30A   | 232591_s_at  | 15.66  | 1.51E-35      |
| CD81      | 200675_at    | 15.64  | 2.30E-22      |
| EZR       | 217234_s_at  | 15.62  | 2.52E-27      |
| PLEKHO1   | 218223_s_at  | 15.60  | 2.81E-26      |
| TAF9      | 202168_at    | 15.60  | 4.87E-28      |
| CCNA2     | 203418_at    | 15.60  | < 2.90E-44    |
| MAPRE1    | 200713_s_at  | 15.57  | 9.68E-25      |
| NGRN      | 224281_s_at  | 15.57  | 2.66E-38      |
| ARL2BP    | 202092_s_at  | 15.56  | 4.82E-31      |
| GNPAT1    | 225853_at    | 15.55  | 9.98E-30      |
| EEF1A1    | 204892_x_at  | 15.54  | 1.05E-20      |
| SS18      | 202817_s_at  | 15.53  | < 2.90E-44    |
| TGM2      | 201042_at    | 15.52  | 4.63E-21      |
| SLC35B4   | 225881_at    | 15.51  | 1.67E-28      |
| PIGY      | 224660_at    | 15.48  | 6.35E-20      |
| NDUF4A4   | 217773_s_at  | 15.48  | 1.65E-17      |
| RNF7      | 218286_s_at  | 15.48  | 8.26E-24      |
| APCDD1L   | 235548_at    | 15.46  | 5.78E-42      |
| HNRNPK    | 200097_s_at  | 15.46  | 1.11E-18      |
| ATP5J     | 202325_s_at  | 15.45  | 4.74E-23      |
| PPP4C     | 208932_at    | 15.44  | 5.66E-26      |
| EIF3A     | 200596_s_at  | 15.43  | 8.30E-20      |
| ANXA4     | 201301_s_at  | 15.41  | 5.68E-20      |
| PDLIM5    | 216804_s_at  | 15.41  | 3.31E-18      |
| RBM39     | 208720_s_at  | 15.40  | 3.79E-26      |
| MRPS33    | 218654_s_at  | 15.40  | 9.12E-26      |
| SNHG8     | 225220_at    | 15.39  | 3.19E-17      |
| GRHPR     | 201347_x_at  | 15.39  | 7.91E-24      |
| LAMTOR3   | 217971_at    | 15.38  | 1.87E-23      |
| POLR2J    | 212782_x_at  | 15.38  | 1.11E-26      |
| PPAP2A    | 209147_s_at  | 15.38  | 8.66E-28      |
| NHP2      | 209104_s_at  | 15.38  | 5.93E-23      |
| Gene       | ProbeID          | Log2FoldChange | Log10PValue |
|------------|------------------|----------------|-------------|
| SYT11      | 209198_s_at      | 15.38          | 4.21E-28    |
| AREL1      | 202128_at        | 15.37          | 4.14E-38    |
| MANBAL     | 224689_at        | 15.37          | 6.74E-24    |
| MRPS18B    | 208907_s_at      | 15.36          | 4.76E-40    |
| HNRNPU     | 200594_x_at      | 15.35          | 1.48E-25    |
| PAFAH1B1   | 200815_s_at      | 15.35          | 1.89E-29    |
| PSMD3      | 201388_at        | 15.34          | 7.41E-39    |
| HSPA1A     | 202581_at        | 15.34          | 1.43E-13    |
| GTPBP4     | 218238_at        | 15.34          | 8.70E-26    |
| C6orf120   | 221786_at        | 15.34          | 8.61E-17    |
| DCUN1D5    | 223151_at        | 15.33          | 1.26E-19    |
| C1orf85    | 1558693_s_at     | 15.33          | 1.17E-27    |
| USP16      | 218386_x_at      | 15.32          | 5.78E-24    |
| INHBA      | 210511_s_at      | 15.32          | 4.93E-06    |
| STAU1      | 208948_s_at      | 15.32          | 1.62E-23    |
| SCUBE3     | 228407_at        | 15.32          | 8.23E-35    |
| C12orf5    | 219099_at        | 15.31          | 1.05E-24    |
| TBL1XR1    | 221428_s_at      | 15.31          | 8.40E-42    |
| KCTD15     | 222668_at        | 15.28          | 6.39E-19    |
| GRAMD3     | 218706_s_at      | 15.25          | 7.31E-25    |
| SH3PXD2B   | 231823_s_at      | 15.25          | 1.19E-23    |
| HMGB1      | 200679_x_at      | 15.22          | 1.78E-19    |
| ID3        | 207826_s_at      | 15.22          | 3.96E-19    |
| DRAP1      | 203258_at        | 15.21          | 4.82E-35    |
| TADA3      | 215273_s_at      | 15.21          | 5.93E-27    |
| GOLGA7     | 1554167_a_at     | 15.21          | 3.36E-40    |
| BLOC1S5    | 221253_s_at      | 15.19          | 4.97E-20    |
| PDLIM7     | 214121_x_at      | 15.18          | 1.02E-36    |
| MBD4       | 209580_s_at      | 15.18          | 6.24E-24    |
| PSMC2      | 201068_s_at      | 15.18          | 1.59E-24    |
| EIF4H      | 206621_s_at      | 15.16          | 9.11E-22    |
| ANAPC13    | 209001_s_at      | 15.16          | 1.65E-21    |
| RARS2      | 232902_s_at      | 15.16          | 2.13E-23    |
| PSMG2      | 218467_at        | 15.15          | 3.41E-24    |
| SEC23B     | 201583_s_at      | 15.15          | 4.43E-30    |
| BRI3       | 223376_s_at      | 15.14          | 1.25E-22    |
| ZFYVE21    | 219929_s_at      | 15.14          | < 2.90E-44  |
| RAB11A     | 200863_s_at      | 15.13          | 4.25E-22    |
| THUMPD3    | 225730_s_at      | 15.13          | 1.26E-35    |
| FAM115A    | 212979_s_at      | 15.12          | 5.09E-24    |
| PAPOLA     | 222035_s_at      | 15.12          | 5.19E-21    |
| Gene Symbol | Description | Log2 FC | p Value |
|-------------|-------------|---------|---------|
| PRMT5       |             | 15.11   | 2.18E-25|
| MPC2        |             | 15.09   | 2.54E-29|
| RAB8A       |             | 15.09   | 4.46E-22|
| GLIPR2      |             | 15.08   | 5.30E-26|
| AP1M1       |             | 15.07   | 8.51E-25|
| QSOX1       |             | 15.06   | 9.21E-27|
| OAZ2        |             | 15.05   | 6.37E-33|
| PRUNE2      |             | 15.03   | 1.93E-19|
| TOMM22      |             | 15.03   | < 2.90E-44|
| H2AFJ       |             | 15.02   | 8.76E-23|
| ZFP91       |             | 15.02   | 1.45E-22|
| SPRED2      |             | 14.99   | 4.46E-27|
| ABL1        |             | 14.99   | 2.01E-26|
| PDXK        |             | 14.99   | 6.02E-22|
| LOC128322   |             | 14.98   | 3.60E-31|
| GPNMB       |             | 14.97   | 4.14E-09|
| SMAGP       |             | 14.96   | 2.84E-39|
| TSG101      |             | 14.96   | 4.83E-26|
| TOR1AIP1    |             | 14.95   | 3.96E-18|
| MT2A        |             | 14.94   | 6.08E-16|
| SPPL2A      |             | 14.92   | 9.91E-22|
| DNAJB6      |             | 14.90   | 6.42E-27|
| RPL7A       |             | 14.90   | 8.79E-23|
| SNRPD1      |             | 14.90   | 6.05E-25|
| ERLIN2      |             | 14.90   | < 2.90E-44|
| UBE2A       |             | 14.88   | 1.18E-33|
| PTPN11      |             | 14.87   | 5.75E-28|
| PPP1R12A    |             | 14.86   | 5.91E-33|
| PXK         |             | 14.85   | < 2.90E-44|
| ATP2B1      |             | 14.85   | 4.34E-26|
| LYRM2       |             | 14.85   | < 2.90E-44|
| MDH2        |             | 14.85   | 1.48E-24|
| MAP3K13     |             | 14.84   | 5.80E-23|
| VASN        |             | 14.84   | 1.84E-28|
| SERPINF1    |             | 14.83   | 5.06E-14|
| PGM3        |             | 14.83   | 8.80E-21|
| GTF2A2      |             | 14.82   | 6.20E-34|
| RAC1        |             | 14.81   | 2.57E-26|
| PLAC9       |             | 14.81   | 1.67E-43|
| TPGS2       |             | 14.78   | 4.79E-34|
| AMOTL2      |             | 14.78   | 8.08E-23|
| Gene     | ProbeID         | log2FC | Adj. p-Value |
|----------|-----------------|--------|--------------|
| PSAT1    | 223062_s_at     | 14.77  | 1.30E-11     |
| MARS     | 201475_x_at     | 14.76  | 5.35E-31     |
| RDX      | 212397_at       | 14.75  | 1.77E-17     |
| SPTLC2   | 216202_s_at     | 14.75  | 1.14E-43     |
| BRD2     | 208686_s_at     | 14.74  | < 2.90E-44   |
| MAD1L1   | 204857_at       | 14.74  | 7.71E-39     |
| BBX      | 226331_at       | 14.73  | 1.32E-24     |
| ADI1     | 222400_s_at     | 14.73  | 1.27E-29     |
| IKBIP    | 227295_at       | 14.72  | 4.24E-14     |
| RPL13    | 212191_x_at     | 14.72  | 5.53E-18     |
| EIF4EBP1 | 221539_at       | 14.71  | 1.27E-29     |
| WDR45    | 209216_at       | 14.68  | 2.89E-24     |
| SLC1A4   | 209610_s_at     | 14.68  | 1.47E-27     |
| C11orf73 | 219979_s_at     | 14.66  | 2.04E-29     |
| APOA1BP  | 225427_s_at     | 14.65  | 2.93E-26     |
| TMEM248  | 218008_at       | 14.65  | 7.42E-23     |
| PAICS    | 201013_s_at     | 14.64  | 2.44E-18     |
| RAB10    | 222981_s_at     | 14.64  | 6.36E-17     |
| DPCD     | 1553976_a_at    | 14.62  | 1.88E-20     |
| ANLN     | 222608_s_at     | 14.61  | 1.07E-15     |
| UQCRB    | 209066_x_at     | 14.60  | 3.12E-24     |
| GLRX2    | 219933_at       | 14.59  | 3.54E-32     |
| SRPX     | 204955_at       | 14.59  | 2.71E-15     |
| LIPA     | 201847_at       | 14.59  | 3.31E-15     |
| LAMTOR2  | 218291_at       | 14.58  | 3.34E-35     |
| GFPT1    | 202721_s_at     | 14.58  | 2.19E-31     |
| STAT3    | 208991_at       | 14.57  | 6.64E-20     |
| CHPT1    | 221675_s_at     | 14.53  | 1.36E-21     |
| TMEM41B  | 212623_at       | 14.52  | 3.17E-23     |
| TIMMDC1  | 223004_s_at     | 14.52  | 1.22E-21     |
| CDC42BPB | 217849_s_at     | 14.52  | < 2.90E-44   |
| PCNA     | 201202_at       | 14.49  | 9.29E-17     |
| MRPS36   | 224302_s_at     | 14.49  | 3.66E-31     |
| ESYT1    | 208858_s_at     | 14.49  | 5.38E-32     |
| COL8A1   | 214587_at       | 14.48  | 4.45E-30     |
| TMEM9B   | 222507_s_at     | 14.48  | < 2.90E-44   |
| SRP14    | 200007_at       | 14.47  | 7.37E-26     |
| SCOC     | 223341_s_at     | 14.46  | < 2.90E-44   |
| LRRRC41  | 1555831_s_at    | 14.44  | 2.26E-42     |
| GNAI2    | 201040_at       | 14.43  | 3.40E-23     |
| EHD2     | 45297_at        | 14.43  | 1.05E-28     |
| Gene       | Description | Fold Change | P-Value |
|------------|-------------|-------------|---------|
| GLUD2      |             | 14.42       | 2.47E-39 |
| AKIRIN1    |             | 14.42       | <2.90E-44|
| MFAP2      |             | 14.42       | 1.37E-14 |
| ERLEC1     |             | 14.42       | 7.42E-23 |
| TMX1       |             | 14.41       | 5.70E-44 |
| TERF2IP    |             | 14.38       | 1.84E-24 |
| TMEM87A    |             | 14.37       | 2.11E-14 |
| ERLEC1     |             | 14.36       | 2.49E-21 |
| MFAP2      |             | 14.35       | 7.63E-21 |
| DYNLT1     |             | 14.35       | 3.84E-21 |
| ARL8B      |             | 14.34       | 9.10E-26 |
| MMGT1      |             | 14.33       | 6.76E-21 |
| CCT8       |             | 14.32       | 8.27E-24 |
| NAA20      |             | 14.32       | 4.53E-23 |
| IGFBP7     |             | 14.31       | 6.00E-22 |
| UPF3A      |             | 14.31       | 9.18E-19 |
| PEF1       |             | 14.29       | 2.48E-31 |
| ARL4C      |             | 14.27       | 1.12E-18 |
| HSD17B12   |             | 14.27       | 8.22E-26 |
| AP3M1      |             | 14.26       | 8.76E-17 |
| ANKIB1     |             | 14.25       | 1.58E-22 |
| MRPL36     |             | 14.24       | 1.04E-23 |
| SMIM15     |             | 14.24       | 9.47E-16 |
| SETD5      |             | 14.23       | 2.50E-25 |
| IPO9       |             | 14.23       | 8.74E-30 |
| USMG5      |             | 14.23       | 9.41E-22 |
| GPS1       |             | 14.23       | 3.58E-39 |
| WASF2      |             | 14.22       | 1.14E-43 |
| KPNAb      |             | 14.22       | 2.60E-31 |
| GALNT5     |             | 14.22       | 3.75E-17 |
| IDH3G      |             | 14.19       | 3.83E-25 |
| CHCHD5     |             | 14.18       | 3.17E-36 |
| TMEM181     |            | 14.17       | 5.87E-20 |
| SRP5A      |             | 14.17       | 9.20E-23 |
| DNAJC21    |             | 14.17       | 1.62E-35 |
| RNF139     |             | 14.13       | 1.12E-22 |
| OXSR1      |             | 14.12       | 6.77E-21 |
| FAM21C     |             | 14.11       | 1.56E-28 |
| FAM171A1   |             | 14.09       | 1.56E-24 |
| NDUFS3     |             | 14.08       | 7.29E-26 |
| PPP2CB     |             | 14.08       | 8.20E-17 |
| Gene ID     | Description | log2 Fold Change | P-value   |
|-------------|-------------|------------------|-----------|
| NDUFA10     |             | 14.06            | 9.85E-22  |
| WNT5B       |             | 14.06            | 1.60E-28  |
| C1orf166    |             | 14.06            | 1.07E-20  |
| ITGB1BP1    |             | 14.06            | 1.11E-22  |
| SURF1       |             | 14.05            | 6.33E-29  |
| LOC101060373|             | 14.04            | 5.93E-27  |
| ASAH1       |             | 14.04            | 2.01E-25  |
| ACTR10      |             | 14.03            | 1.62E-17  |
| HLA-B       |             | 14.02            | 2.91E-17  |
| PLAA        |             | 14.01            | 1.37E-33  |
| SMURF2      |             | 14.00            | 1.69E-18  |
| SPDL1       |             | 13.99            | 7.53E-31  |
| HMGN4       |             | 13.99            | 3.06E-26  |
| RRBP1       |             | 13.99            | 2.93E-22  |
| CBFB        |             | 13.98            | 5.92E-17  |
| SWI5        |             | 13.97            | 1.52E-31  |
| CKS2        |             | 13.96            | 5.71E-13  |
| RPL26L1     |             | 13.95            | 3.85E-27  |
| MSANTD3     |             | 13.94            | 9.13E-37  |
| AURKAIP1    |             | 13.94            | 2.10E-20  |
| MRPS15      |             | 13.94            | 3.43E-28  |
| CLIC4       |             | 13.93            | 8.04E-32  |
| RPL17       |             | 13.93            | 2.04E-20  |
| EIF3E       |             | 13.93            | 2.43E-18  |
| MYC         |             | 13.93            | 4.50E-21  |
| GLG1        |             | 13.91            | 2.80E-20  |
| BICC1       |             | 13.90            | 3.51E-14  |
| RAB5C       |             | 13.90            | < 2.90E-44|
| PDHA1       |             | 13.90            | 3.15E-24  |
| KIF13A      |             | 13.90            | 3.43E-16  |
| TFB2M       |             | 13.89            | 1.92E-24  |
| IQGAP1      |             | 13.88            | 4.61E-19  |
| KRT34       |             | 13.86            | 6.98E-35  |
| FNTA        |             | 13.85            | 2.79E-22  |
| SMIM7       |             | 13.85            | 3.77E-24  |
| PSMA5       |             | 13.84            | 9.95E-25  |
| GPR176      |             | 13.82            | 6.76E-24  |
| IRF2BP2     |             | 13.82            | 3.17E-18  |
| PPP2R5C     |             | 13.81            | < 2.90E-44|
| FKBP3       |             | 13.80            | 2.45E-25  |
| MGAT2       |             | 13.78            | 1.57E-16  |
| Gene       | Description     | Value  | p-value  |
|------------|-----------------|--------|----------|
| TM2D2      |                 | 13.77  | 3.03E-22 |
| CMPK1      |                 | 13.75  | 2.37E-16 |
| HEBP1      |                 | 13.75  | 3.67E-19 |
| DERL1      |                 | 13.74  | 2.72E-24 |
| TTL        |                 | 13.73  | 2.41E-27 |
| KLF13      |                 | 13.73  | 6.73E-22 |
| REXO2      |                 | 13.72  | 1.20E-27 |
| AIDA       |                 | 13.71  | 5.23E-21 |
| HMGN2      |                 | 13.71  | 1.36E-23 |
| RBM14      |                 | 13.70  | 2.49E-22 |
| C6orf89    |                 | 13.69  | 4.49E-25 |
| CETN2      |                 | 13.68  | 1.03E-21 |
| PEX3       |                 | 13.67  | 1.41E-38 |
| FAM171B    |                 | 13.67  | 1.15E-17 |
| EMC8       |                 | 13.67  | 5.83E-36 |
| SOX9       |                 | 13.67  | 3.24E-26 |
| ALAS1      |                 | 13.65  | 2.90E-25 |
| CIRH1A     |                 | 13.65  | 3.73E-31 |
| ABCF2      |                 | 13.64  | 1.48E-40 |
| DCAF10     |                 | 13.63  | 1.08E-30 |
| MEX3D      |                 | 13.62  | < 2.90E-44 |
| TCTN3      |                 | 13.61  | 2.56E-25 |
| ASL        |                 | 13.61  | 7.21E-28 |
| LOC101060478 |             | 13.59  | 3.93E-33 |
| ETHE1      |                 | 13.59  | 7.61E-31 |
| UTP11L     |                 | 13.59  | 1.27E-40 |
| PRRX1      |                 | 13.58  | 1.29E-07 |
| MBD2       |                 | 13.57  | 4.14E-20 |
| NONO       |                 | 13.57  | 1.74E-24 |
| ST13       |                 | 13.56  | 4.62E-19 |
| S100A11P1  |                 | 13.52  | 2.66E-36 |
| ITM2B      |                 | 13.52  | 1.39E-19 |
| NSA2       |                 | 13.52  | 2.15E-19 |
| UBE2T      |                 | 13.51  | 1.33E-37 |
| TRIB2      |                 | 13.51  | 1.44E-17 |
| ADSL       |                 | 13.51  | 4.90E-21 |
| ADAM10     |                 | 13.50  | 1.72E-41 |
| RPS20      |                 | 13.50  | 4.69E-24 |
| DSP        |                 | 13.49  | 2.42E-13 |
| RPRD1A     |                 | 13.49  | 5.33E-27 |
| PTS        |                 | 13.48  | 3.61E-21 |
|            |                 |        |          |
| Gene   | Probe  | Log2FC | p-value  |
|--------|--------|--------|----------|
| AK3    | 224655_at | 13.48  | 9.57E-19 |
| MFSD5  | 212861_at | 13.46  | 1.44E-33 |
| LARP1  | 212137_at | 13.46  | 2.75E-25 |
| VPS25  | 224608_s_at | 13.46 | 3.15E-33 |
| EXOSC3 | 223490_s_at | 13.44 | 3.43E-40 |
| RPL24  | 200013_at | 13.43  | 7.32E-20 |
| RSPRY1 | 225774_at | 13.42  | 2.45E-30 |
| CD151  | 212137_at | 13.41  | 1.57E-26 |
| TM4SF1 | 215034_s_at | 13.41 | 9.56E-13 |
| MED28  | 218438_s_at | 13.38 | 4.22E-24 |
| FKBP9  | 212169_at | 13.38  | 1.70E-23 |
| HK1    | 200697_at | 13.38  | 1.20E-28 |
| SEC23A | 204344_s_at | 13.37  | <2.90E-44 |
| PAPSS2 | 203058_s_at | 13.37  | 7.90E-18 |
| ANTXR1 | 220092_s_at | 13.36  | 2.71E-28 |
| KCTD20 | 223176_at | 13.36  | 1.52E-22 |
| BABAM1 | 221711_s_at | 13.36  | 3.59E-29 |
| PCNP   | 1554868_s_at | 13.35  | 1.19E-32 |
| NFE2L2 | 201146_at | 13.35  | 3.70E-18 |
| NME7   | 219553_at | 13.33  | 5.45E-17 |
| SRPRB  | 218140_x_at | 13.33  | 1.90E-18 |
| TDP2   | 202266_at | 13.33  | 4.04E-16 |
| ALDH18A1 | 217791_s_at | 13.31  | 1.67E-26 |
| NMT2   | 205005_s_at | 13.31  | 7.25E-24 |
| PPP3CA | 202429_s_at | 13.31  | 3.05E-15 |
| CD5    | 204247_s_at | 13.30  | 8.46E-33 |
| MAGED4 | 223313_s_at | 13.30  | 9.72E-19 |
| RAB23  | 220955_x_at | 13.29  | <2.90E-44 |
| NDUFB11 | 218320_s_at | 13.28  | 8.16E-25 |
| GLOD4  | 209092_s_at | 13.26  | 3.20E-22 |
| KRCC1  | 222585_x_at | 13.26  | 7.08E-33 |
| COX8A  | 201119_s_at | 13.26  | 5.61E-26 |
| NUDT3  | 221579_s_at | 13.25  | <2.90E-44 |
| GOLM1  | 217771_at | 13.24  | 6.15E-18 |
| C7orf50 | 224478_s_at | 13.24  | 9.76E-28 |
| PPP1R2 | 202166_s_at | 13.23  | 1.20E-18 |
| LSM2   | 209449_at | 13.23  | 1.21E-27 |
| FLG    | 215704_at | 13.22  | 1.27E-20 |
| SMAD3  | 218284_at | 13.22  | 1.65E-26 |
| C7orf10 | 219655_at | 13.22  | 1.23E-11 |
| UGCG   | 224967_at | 13.20  | 2.57E-12 |
| Gene       | Accession   | Log2FC | Adj. P-value |
|------------|-------------|--------|--------------|
| PKP4       | 201929_s_at | 13.19  | < 2.90E-44   |
| CRKL       | 212180_at   | 13.17  | 5.01E-21     |
| PURA       | 204021_s_at | 13.17  | 3.10E-18     |
| MRPL41     | 227186_s_at | 13.15  | 7.02E-20     |
| SMTN       | 209427_at   | 13.14  | 5.48E-30     |
| HIP1       | 205425_at   | 13.13  | < 2.90E-44   |
| NUFIP2     | 224956_at   | 13.13  | 6.50E-27     |
| NUDCD2     | 226642_s_at | 13.12  | 3.65E-19     |
| LOC100506538 | 235509_at | 13.10  | 1.50E-19     |
| DNM1L      | 203105_s_at | 13.10  | 1.48E-30     |
| DOCK7      | 225384_at   | 13.09  | 6.84E-19     |
| MRPL4      | 223743_s_at | 13.08  | < 2.90E-44   |
| ARIH2      | 201229_s_at | 13.07  | 1.72E-40     |
| CSN1A1     | 213860_x_at | 13.07  | 1.10E-21     |
| RPS10      | 211542_x_at | 13.06  | 4.29E-22     |
| TMEM219    | 224981_at   | 13.05  | 1.20E-26     |
| PIGG       | 218652_s_at | 13.04  | 5.28E-24     |
| ARCN1      | 201176_s_at | 13.02  | 3.06E-21     |
| SELO       | 233167_at   | 13.02  | 9.39E-34     |
| LGALS3     | 208949_s_at | 13.02  | 3.59E-19     |
| PERP       | 222392_x_at | 13.02  | 3.49E-17     |
| ERLIN1     | 202441_at   | 13.01  | 1.33E-23     |
| MED31      | 222867_s_at | 13.00  | 4.48E-33     |
| TCF25      | 221495_s_at | 13.00  | 1.58E-25     |
| BZW1       | 200776_s_at | 12.99  | 8.38E-25     |
| DLST       | 215210_s_at | 12.97  | 1.71E-36     |
| C19orf10   | 216483_s_at | 12.97  | 3.03E-22     |
| BHLHE40    | 201170_s_at | 12.96  | 4.64E-15     |
| FAS        | 215719_x_at | 12.95  | < 2.90E-44   |
| NDFIP1     | 217800_s_at | 12.94  | 1.02E-19     |
| GATAD1     | 208503_s_at | 12.92  | 2.85E-35     |
| DVL3       | 201908_at   | 12.92  | 1.55E-25     |
| CLPTM1     | 211136_s_at | 12.90  | < 2.90E-44   |
| LSMD1      | 224512_s_at | 12.90  | 2.59E-24     |
| PELO       | 218472_s_at | 12.90  | 2.59E-27     |
| MID1       | 203636_at   | 12.89  | 4.14E-19     |
| PRCP       | 201494_at   | 12.89  | 5.31E-27     |
| TMEM258    | 218213_s_at | 12.89  | 7.75E-20     |
| TMED5      | 202194_at   | 12.89  | 2.01E-14     |
| DCTN3      | 204246_s_at | 12.88  | 4.53E-20     |
| CAT        | 201432_at   | 12.87  | 4.60E-26     |
| Gene   | Symbol   | Log2 FC | p-value |
|--------|----------|---------|---------|
| LARS   | 222427_s_at | 12.87   | 7.42E-25 |
| SOX4   | 201417_at  | 12.86   | 3.48E-15 |
| KPNB1  | 213803_at  | 12.85   | 4.28E-23 |
| INSIG2 | 209566_at  | 12.85   | 2.77E-20 |
| AKR1C3 | 209160_at  | 12.85   | 1.58E-13 |
| PAR-SN | 206042_x_at| 12.84   | 2.70E-34 |
| ENCG   | 201341_at  | 12.82   | 1.54E-12 |
| MRP52  | 226241_s_at| 12.81   | 8.22E-25 |
| PPP1R11| 1566303_s_at| 12.79  | 4.86E-29 |
| ERP44  | 208959_s_at| 12.78   | 2.24E-21 |
| PRKRA  | 209139_s_at| 12.78   | 8.58E-26 |
| WSB1   | 210561_s_at| 12.78   | 3.80E-24 |
| NUCKS1 | 224582_s_at| 12.77   | 2.90E-44 |
| UBFD1  | 224878_at  | 12.76   | 4.75E-27 |
| COMMD6 | 225312_at  | 12.76   | 1.45E-22 |
| SMIM14 | 224990_at  | 12.76   | 1.26E-25 |
| ARF3   | 200734_s_at| 12.76   | 3.14E-17 |
| OAT    | 201599_at  | 12.76   | 8.45E-17 |
| SRA1   | 224130_s_at| 12.75   | 1.94E-29 |
| CYB5R3 | 1554574_a_at| 12.75  | < 2.90E-44 |
| RGS4   | 204337_at  | 12.75   | 7.12E-11 |
| MIOS   | 206860_s_at| 12.74   | 4.09E-25 |
| SNRNP25| 218493_at  | 12.73   | 7.12E-25 |
| PRDX2  | 39729_at   | 12.72   | 1.88E-18 |
| S100A16| 227998_at  | 12.72   | 9.64E-27 |
| LTA4H  | 208771_s_at| 12.71   | 3.13E-19 |
| PYGL   | 202990_at  | 12.71   | 1.82E-17 |
| GNS    | 212335_at  | 12.71   | 7.39E-19 |
| OGFOD1 | 225106_s_at| 12.71   | 2.28E-41 |
| UBE2H  | 222420_s_at| 12.70   | 6.27E-22 |
| DNPH1  | 204238_s_at| 12.69   | 3.90E-25 |
| PPIL3  | 224364_s_at| 12.68   | 1.79E-18 |
| PLD3   | 201050_at  | 12.68   | 2.94E-22 |
| KLHDC2 | 217906_at  | 12.65   | 1.17E-22 |
| CTDSPL2| 223271_s_at| 12.65   | 1.33E-33 |
| HAUS1  | 225297_at  | 12.64   | 3.42E-29 |
| ATP6V1C1| 202874_s_at| 12.64   | 7.01E-35 |
| SLC7A1 | 212295_s_at| 12.64   | 5.08E-20 |
| CUL4B  | 202213_s_at| 12.62   | 2.18E-30 |
| BCAP31 | 200837_at  | 12.62   | 8.44E-25 |
| Gene     | ProbeID            | Log2 Fold | Log10 P-value |
|----------|--------------------|-----------|---------------|
| PIGK     | 227639_at          | 12.62     | 5.33E-16      |
| NAP1L5   | 228062_at          | 12.61     | 2.66E-20      |
| C15orf61 | 229742_at          | 12.60     | 1.13E-19      |
| ADD1     | 214736_s_at        | 12.59     | 1.44E-24      |
| HSPH1    | 208744_x_at        | 12.59     | 3.08E-34      |
| FBXO21   | 212229_s_at        | 12.58     | 7.45E-15      |
| NAP1L5   | 228062_at          | 12.61     | 2.66E-20      |
| C15orf61 | 229742_at          | 12.60     | 1.13E-19      |
| ADD1     | 214736_s_at        | 12.59     | 1.44E-24      |
| HSPH1    | 208744_x_at        | 12.59     | 3.08E-34      |
| FBXO21   | 212229_s_at        | 12.58     | 7.45E-15      |
| NAP1L5   | 228062_at          | 12.61     | 2.66E-20      |
| C15orf61 | 229742_at          | 12.60     | 1.13E-19      |
| ADD1     | 214736_s_at        | 12.59     | 1.44E-24      |
| HSPH1    | 208744_x_at        | 12.59     | 3.08E-34      |
| FBXO21   | 212229_s_at        | 12.58     | 7.45E-15      |
| NAP1L5   | 228062_at          | 12.61     | 2.66E-20      |
| C15orf61 | 229742_at          | 12.60     | 1.13E-19      |
| ADD1     | 214736_s_at        | 12.59     | 1.44E-24      |
| HSPH1    | 208744_x_at        | 12.59     | 3.08E-34      |
| FBXO21   | 212229_s_at        | 12.58     | 7.45E-15      |
| Gene Symbol | Probe ID | Log2 Fold Change | Log10 Fold Change |
|-------------|----------|-----------------|------------------|
| SPATS2L     | 222154_s_at | 12.41           | 8.57E-19         |
| CACYBP      | 210691_s_at | 12.39           | 1.03E-31         |
| SAP30       | 204900_x_at | 12.39           | 3.39E-28         |
| LGALS8      | 208933_s_at | 12.38           | 6.42E-22         |
| SLC44A1     | 224595_at  | 12.38           | 3.97E-16         |
| TRIM8       | 223132_s_at | 12.37           | 4.40E-24         |
| SNX5        | 222417_s_at | 12.37           | 5.49E-20         |
| EIF2S3      | 205321_at  | 12.37           | 4.34E-38         |
| FBXW2       | 218941_at  | 12.36           | 9.14E-34         |
| XYL1        | 213725_x_at | 12.36           | 4.41E-13         |
| CDC123      | 201725_at  | 12.35           | 3.62E-24         |
| DENND5A     | 212561_at  | 12.34           | 1.76E-25         |
| OSTF1       | 204479_at  | 12.34           | 1.05E-23         |
| TACC1       | 1554690_a_at | 12.34         | 4.03E-34         |
| LOC100996496| 201586_s_at | 12.33           | 1.93E-18         |
| SEC61A1     | 217716_s_at | 12.33           | 6.09E-25         |
| FASTKD2     | 216996_s_at | 12.32           | 3.95E-33         |
| RSU1        | 201980_s_at | 12.32           | 4.11E-17         |
| ARMC1       | 218185_s_at | 12.32           | 7.96E-24         |
| UQCR10      | 218190_s_at | 12.31           | 2.69E-23         |
| DR1         | 207654_x_at | 12.31           | 1.32E-32         |
| DNAJA2      | 209157_at  | 12.31           | 6.65E-23         |
| NDUFB9      | 222992_s_at | 12.30           | 7.77E-20         |
| PI4K2A      | 209345_s_at | 12.30           | 1.66E-34         |
| HYOU1       | 200825_s_at | 12.30           | 5.00E-31         |
| TPX2        | 210052_s_at | 12.30           | 1.72E-27         |
| MEGF6       | 226869_at  | 12.29           | 2.22E-27         |
| YIPF3       | 216338_s_at | 12.27           | 8.45E-29         |
| NSF1C       | 220248_x_at | 12.27           | 1.17E-29         |
| PEX2        | 210296_s_at | 12.27           | 8.88E-16         |
| CCDC132     | 226031_at  | 12.27           | 6.37E-32         |
| NPM1        | 221691_x_at | 12.26           | 1.11E-17         |
| TXL1A       | 212300_at  | 12.24           | 6.88E-31         |
| URI1        | 211563_s_at | 12.24           | 5.55E-28         |
| MBTPS1      | 201620_at  | 12.23           | 3.72E-24         |
| BCC1P       | 227322_s_at | 12.23           | 1.63E-25         |
| ASPM        | 219918_s_at | 12.23           | 1.18E-23         |
| LTBP1       | 202728_s_at | 12.22           | 1.12E-26         |
| RSL1D1      | 212018_s_at | 12.22           | 5.46E-23         |
| TRAPPC4     | 217958_at  | 12.21           | 1.06E-22         |
| SIX2        | 206510_at  | 12.21           | < 2.90E-44       |
| Gene  | Probe ID     | Log2 FC | P-value       |
|-------|--------------|---------|---------------|
| SDHC  | 210131_x_at  | 12.21   | 1.66E-26      |
| DONSON| 221677_s_at  | 12.20   | 6.41E-37      |
| MED17 | 221517_s_at  | 12.19   | 2.44E-23      |
| CAMTA1| 225693_s_at  | 12.19   | 3.28E-21      |
| TMEM9 | 222987_s_at  | 12.18   | 2.84E-34      |
| ATRAID| 219329_s_at  | 12.18   | 2.87E-23      |
| RNF145| 226077_at    | 12.16   | 2.22E-22      |
| UXS1  | 225583_at    | 12.15   | 2.84E-23      |
| TUB   | 228882_at    | 12.15   | 1.64E-29      |
| C3orf38| 226524_at   | 12.14   | 3.21E-31      |
| ATP2B4| 212136_at   | 12.14   | 1.66E-18      |
| YPEL5 | 222408_s_at  | 12.13   | 1.05E-26      |
| RIOK2 | 218535_s_at  | 12.13   | 5.34E-27      |
| HLTFT | 202983_at    | 12.11   | 5.19E-21      |
| TCEA2 | 203919_at    | 12.10   | 3.97E-24      |
| SNTB1 | 226438_at    | 12.10   | 3.62E-27      |
| CUL1  | 207614_s_at  | 12.10   | 8.14E-29      |
| SAP18 | 208742_s_at  | 12.10   | 1.55E-29      |
| GEMIN7| 222821_s_at  | 12.09   | 7.94E-42      |
| ANAPC5| 208722_s_at  | 12.09   | 1.52E-26      |
| HTRA1 | 201185_at    | 12.09   | 1.09E-18      |
| CHCHD1| 226896_at    | 12.09   | 6.08E-22      |
| ASF1A | 203428_s_at  | 12.08   | 3.09E-22      |
| MNF1  | 224448_s_at  | 12.08   | 2.05E-24      |
| PRRC1 | 224643_at    | 12.07   | 3.06E-14      |
| LOC100996747| 217753_s_at | 12.07   | 4.01E-15      |
| RPS24 | 200061_s_at  | 12.07   | 3.38E-21      |
| UBE2B | 211763_s_at  | 12.06   | 1.39E-19      |
| NDUFA3| 218563_at    | 12.04   | 1.68E-21      |
| POGK  | 218229_s_at  | 12.03   | 1.39E-29      |
| FOXC2 | 239058_at    | 12.02   | 6.22E-36      |
| ITGA11| 222899_at    | 12.02   | 4.66E-11      |
| NF2   | 218915_at    | 12.02   | 6.14E-34      |
| MED30 | 227787_s_at  | 12.01   | 1.28E-23      |
| EIF3H | 201592_at    | 12.01   | 3.43E-20      |
| LEPROT1| 202595_s_at | 12.00   | 5.35E-27      |
| TAF12 | 209463_s_at  | 11.99   | 2.19E-43      |
| OSMR  | 226621_at    | 11.97   | 6.49E-19      |
| FUNDC2| 223042_s_at  | 11.97   | 1.31E-21      |
| MLEC  | 200616_s_at  | 11.96   | 5.93E-20      |
| EPAS1 | 200878_at    | 11.96   | 2.10E-13      |
| Gene  | Description | Log2FoldChange | p-value |
|-------|-------------|----------------|---------|
| RAB3B |             | 11.96          | < 2.90E-44 |
| RPA3  |             | 11.96          | 1.44E-30   |
| KIFAP3|             | 11.95          | 7.19E-21   |
| PSIP1 |             | 11.93          | 7.27E-19   |
| JMJD6 |             | 11.93          | 7.51E-26   |
| DERL2 |             | 11.93          | 4.71E-26   |
| E2F7  |             | 11.93          | 1.92E-24   |
| UBXAC1|             | 11.93          | 4.67E-28   |
| CLNS1A|             | 11.93          | 1.07E-20   |
| FAM69A|             | 11.92          | 5.01E-11   |
| APPL2 |             | 11.92          | 2.23E-41   |
| PLA2G4A|            | 11.91          | 1.81E-27   |
| FZD7  |             | 11.90          | 6.12E-14   |
| RRP36 |             | 11.90          | 1.25E-23   |
| SMAD4 |             | 11.88          | 3.63E-21   |
| STEAP1|             | 11.88          | 1.25E-11   |
| POP4  |             | 11.87          | 1.47E-25   |
| CCDC50|             | 11.87          | 1.65E-19   |
| NASP  |             | 11.86          | 1.61E-19   |
| DTD1  |             | 11.86          | 1.28E-26   |
| SNX1  |             | 11.86          | 3.64E-28   |
| KIAA0101|           | 11.86          | 6.20E-09   |
| MSH6  |             | 11.85          | < 2.90E-44 |
| SSSCA1|             | 11.84          | 3.06E-29   |
| CGGBP1|             | 11.84          | 4.80E-38   |
| BCAP29|             | 11.84          | 2.63E-29   |
| DLX1  |             | 11.83          | < 2.90E-44 |
| CCDC142|            | 11.83          | 1.50E-18   |
| GMPR2 |             | 11.83          | 2.81E-17   |
| NDUFA2|             | 11.83          | 5.05E-21   |
| ZNHIT1|             | 11.82          | 4.86E-27   |
| C16orf80|            | 11.82          | 6.70E-27   |
| BCAT1 |             | 11.82          | 1.59E-13   |
| DPF2  |             | 11.81          | 2.59E-20   |
| RBM7  |             | 11.81          | 2.63E-23   |
| KPNA1 |             | 11.79          | 7.57E-25   |
| HIBADH|             | 11.79          | 4.17E-24   |
| MAD2L1|             | 11.77          | < 2.90E-44 |
| C11orf70|            | 11.77          | 2.06E-27   |
| TMEM138|            | 11.77          | 2.06E-29   |
| FBL   |             | 11.76          | 7.89E-19   |
| Gene Symbol | probe set ID | log2 Fold Change | P-value |
|-------------|--------------|------------------|---------|
| C19orf53    | 217926_at    | 11.76            | 1.43E-22|
| MMP14       | 160020_at    | 11.75            | 6.05E-36|
| UBE2D2      | 201345_s_at  | 11.75            | 1.53E-25|
| METTL23     | 225808_at    | 11.73            | 1.53E-26|
| ACBD6       | 225317_at    | 11.73            | 7.68E-26|
| NCOR2       | 207760_s_at  | 11.73            | 3.68E-23|
| ASNSD1      | 217987_at    | 11.73            | 4.62E-19|
| CCDC6       | 225010_at    | 11.71            | 4.51E-13|
| PNMA1       | 218224_at    | 11.71            | 4.32E-20|
| CCT4        | 200877_at    | 11.70            | 6.63E-18|
| C14orf1     | 217188_s_at  | 11.70            | <2.90E-44|
| PSMA4       | 203396_at    | 11.69            | 1.03E-23|
| PRKDC       | 208694_at    | 11.69            | 2.78E-18|
| SERAC1      | 232183_at    | 11.68            | 8.61E-35|
| HNRNPLL     | 225386_s_at  | 11.68            | 1.26E-24|
| CD164       | 208654_s_at  | 11.68            | 4.41E-15|
| SRR         | 219204_s_at  | 11.68            | 7.89E-42|
| IDH1        | 1555037_a_at | 11.67            | 1.45E-17|
| MBNL1-AS1   | 232298_at    | 11.67            | 4.38E-31|
| LMAN1       | 224629_at    | 11.66            | 1.12E-19|
| BTG3        | 205548_s_at  | 11.66            | 3.84E-23|
| MRPS30      | 218398_at    | 11.66            | 1.83E-26|
| GUCD1       | 223039_at    | 11.66            | 1.39E-24|
| MOB3A       | 225530_at    | 11.66            | 1.12E-27|
| CLIP3       | 212358_at    | 11.66            | 8.65E-31|
| TM2D1       | 211703_s_at  | 11.66            | 5.18E-24|
| ZFAND2A     | 226650_at    | 11.65            | 3.88E-25|
| TBC1D7      | 223461_at    | 11.62            | 3.77E-24|
| PKD2        | 203688_at    | 11.62            | 2.87E-21|
| HDAC1       | 201209_at    | 11.62            | 1.55E-21|
| TWIST1      | 213943_at    | 11.62            | 7.47E-11|
| DYNC1H1     | 211928_at    | 11.62            | 6.41E-26|
| PDE1C       | 239218_at    | 11.62            | 2.15E-26|
| DHCR7       | 201790_at    | 11.62            | 1.65E-35|
| PSMC4       | 201252_at    | 11.61            | 6.47E-27|
| CD109       | 226545_at    | 11.61            | 1.70E-10|
| COX7C       | 213846_at    | 11.60            | 1.44E-24|
| CREB3L2     | 212345_s_at  | 11.58            | 1.97E-26|
| PTK7        | 207011_s_at  | 11.55            | 5.00E-36|
| C14orf2     | 210532_s_at  | 11.54            | 1.51E-24|
| CCDC22      | 206016_at    | 11.54            | 2.60E-39|
| Gene  | Accession | Expression | Log2 Fold Change |
|-------|------------|------------|-----------------|
| CBLB  | 209682_at  | 11.53      | 1.17E-19         |
| IFITM3| 212203_x_at| 11.52      | 2.79E-25         |
| DGUOK | 203816_at  | 11.50      | 4.39E-36         |
| SRP72 | 208800_at  | 11.50      | 2.64E-24         |
| NAV1  | 224773_at  | 11.48      | 4.96E-30         |
| FOXO3 | 204132_s_at| 11.48      | 7.54E-42         |
| JAZF1 | 225798_at  | 11.47      | 2.11E-20         |
| SRRM1 | 201225_s_at| 11.47      | 2.21E-18         |
| MRPL54| 225797_at  | 11.46      | 1.85E-29         |
| DNLZ  | 228272_at  | 11.46      | 1.60E-31         |
| PHF20L1| 227523_s_at| 11.46      | 6.79E-23         |
| KRIT1 | 34031_i_at | 11.46      | < 2.90E-44       |
| STAG2 | 207983_s_at| 11.46      | 3.65E-26         |
| CLEC3B| 205200_at  | 11.45      | 5.30E-25         |
| IFITM1| 201601_x_at| 11.44      | 2.26E-21         |
| RPL6  | 200034_s_at| 11.43      | 3.17E-21         |
| SLC2A10| 221024_s_at| 11.42      | 2.99E-17         |
| TMEM119| 227300_at  | 11.42      | 1.70E-24         |
| CDK2AP1| 201938_at  | 11.41      | 2.07E-16         |
| CHTOP | 202560_s_at| 11.41      | 8.37E-22         |
| RPS14 | 208645_s_at| 11.41      | 2.82E-20         |
| HMOX2 | 218120_s_at| 11.41      | 8.97E-35         |
| NDUFAF1| 204125_at  | 11.41      | 1.58E-26         |
| DUSP14| 203367_at  | 11.39      | 1.82E-30         |
| STIP1 | 213330_s_at| 11.39      | 1.01E-40         |
| CERCAM| 224794_s_at| 11.38      | 1.25E-19         |
| DLGAP5| 203764_at  | 11.36      | 7.93E-18         |
| SMARCA4| 215714_s_at| 11.35      | 5.16E-25         |
| CISD1 | 218597_s_at| 11.35      | 1.84E-27         |
| MRPS16| 218046_s_at| 11.35      | 5.49E-29         |
| HEXB  | 201944_at  | 11.34      | 5.67E-20         |
| PSEN1 | 203460_s_at| 11.34      | 2.32E-21         |
| SLC38A1| 224579_at  | 11.34      | 3.26E-17         |
| RAB32 | 204214_s_at| 11.33      | 1.36E-22         |
| IRF9  | 203882_at  | 11.33      | 7.83E-27         |
| MT1H  | 206461_x_at| 11.31      | 8.65E-13         |
| AVEN  | 219366_at  | 11.29      | 1.82E-20         |
| SKIV2L2| 212896_at  | 11.28      | 1.71E-31         |
| RUVBL2| 201459_at  | 11.26      | 8.46E-27         |
| ALG9  | 219374_s_at| 11.26      | 2.77E-42         |
| ATL3  | 224893_at  | 11.25      | 1.62E-18         |
| Gene  | Accession  | Log2Fold | Log10P  |
|-------|------------|----------|---------|
| MORC4 | 219038_at  | 11.25    | 7.96E-26|
| GLO1  | 200681_at  | 11.25    | 5.91E-22|
| HSPB7 | 218934_s_at| 11.24    | 7.10E-40|
| NFATC3| 210555_s_at| 11.23    | 1.67E-43|
| RYK   | 216976_s_at| 11.23    | 1.44E-35|
| NMD3  | 218036_x_at| 11.22    | 2.01E-39|
| MOB1A | 201298_s_at| 11.22    | 5.73E-21|
| UBQLN1| 222990_at  | 11.20    | 1.91E-19|
| SLC25A39| 223649_s_at| 11.19    | 9.92E-35|
| CNOT11| 224695_at  | 11.18    | 2.24E-38|
| SLC25A32| 221020_s_at| 11.18    | 3.62E-22|
| FAM21A| 212370_x_at| 11.17    | 7.82E-26|
| NSMCE4A| 211376_s_at| 11.17    | 3.38E-31|
| LOC100996253| 200610_s_at| 11.17    | 9.26E-26|
| BCLAF1| 201084_s_at| 11.16    | 4.56E-18|
| C10orf99| 224373_s_at| 11.16    | 2.86E-15|
| USP11 | 208723_at  | 11.16    | 2.50E-21|
| DYNC1I2| 211684_s_at| 11.15    | 2.23E-20|
| EPHX1 | 202017_at  | 11.15    | 1.42E-24|
| LUZP6 | 224656_s_at| 11.15    | 2.44E-24|
| RPL10 | 200725_x_at| 11.14    | 1.41E-20|
| CDKN1A| 202284_s_at| 11.13    | 1.67E-16|
| RDH11 | 217775_s_at| 11.12    | 7.00E-34|
| NME4  | 212739_s_at| 11.11    | 1.45E-29|
| EMG1  | 209233_at  | 11.11    | 2.47E-23|
| WDR83OS| 217780_at  | 11.10    | 5.76E-27|
| TMEM183A| 212165_at  | 11.10    | 2.04E-32|
| PTDS1 | 201433_s_at| 11.09    | 3.26E-21|
| LASP1 | 200618_at  | 11.09    | 7.48E-22|
| FKBP11| 219118_at  | 11.08    | 1.89E-16|
| CBS   | 212816_s_at| 11.08    | 2.15E-32|
| LOC100996732| 228158_at| 11.08    | 1.56E-24|
| NEK6  | 223158_s_at| 11.08    | 6.60E-25|
| HMG20B| 210719_s_at| 11.08    | 4.91E-23|
| SMARCC1| 201075_s_at| 11.07    | 4.47E-40|
| PSMD13| 201232_s_at| 11.07    | 1.35E-23|
| DCAF13| 225676_s_at| 11.06    | 1.07E-21|
| CNPY3 | 1552977_a_at| 11.05    | 1.19E-36|
| DGCR6 | 208024_s_at| 11.04    | 1.89E-26|
| SRPR  | 200918_s_at| 11.03    | 1.84E-23|
| ATP6V0C| 200954_at  | 11.03    | 2.15E-32|
| Gene       | VS号          | 比值  | P值               |
|------------|---------------|-------|-------------------|
| PHACTR2    | 204048_s_at   | 11.03 | 7.60E-16          |
| CS         | 208660_at     | 11.03 | 2.03E-31          |
| PPIE       | 210502_s_at   | 11.03 | 1.70E-24          |
| NDUFA12    | 223244_s_at   | 11.02 | 5.58E-17          |
| CCT7       | 200812_at     | 11.02 | 1.24E-24          |
| EIF2B1     | 201632_at     | 11.00 | 3.55E-24          |
| HNRNPH3    | 210588_x_at   | 11.00 | 4.34E-22          |
| NDUFC1     | 203478_at     | 11.00 | 1.02E-18          |
| VAMP5      | 204929_s_at   | 11.00 | 5.00E-22          |
| CYBRD1     | 217889_s_at   | 10.99 | 5.49E-23          |
| SRSF4      | 201696_at     | 10.99 | 5.86E-24          |
| MOR2       | 226790_at     | 10.99 | 3.00E-38          |
| FZD8       | 224325_at     | 10.98 | 7.51E-23          |
| S100A10    | 200872_at     | 10.98 | 6.17E-17          |
| STOML2     | 215416_s_at   | 10.97 | 2.94E-20          |
| SNAI2      | 213139_at     | 10.97 | 5.33E-16          |
| SCR1       | 201462_at     | 10.97 | 3.57E-20          |
| PET100     | 226006_at     | 10.97 | 1.09E-26          |
| MED1       | 225456_at     | 10.96 | 5.13E-37          |
| PCOLCE2    | 219295_s_at   | 10.96 | 7.13E-19          |
| KDSR       | 202419_at     | 10.95 | 1.15E-26          |
| NDUFS7     | 211752_s_at   | 10.95 | 5.50E-27          |
| BCL2L13    | 217955_at     | 10.95 | 3.32E-18          |
| FXR1       | 201637_s_at   | 10.94 | 1.76E-25          |
| DNAJC9     | 213088_s_at   | 10.94 | 2.56E-25          |
| ALDH7A1    | 208950_s_at   | 10.94 | 4.77E-21          |
| KIRREL     | 225303_at     | 10.94 | 3.66E-22          |
| KCTD5      | 218474_s_at   | 10.94 | 1.14E-34          |
| MYL6       | 212082_s_at   | 10.92 | 7.81E-20          |
| C11orf87   | 236532_at     | 10.92 | < 2.90E-44        |
| ZHX1       | 223214_s_at   | 10.90 | 3.64E-24          |
| SPARC      | 200665_s_at   | 10.90 | 1.32E-12          |
| HECTD1     | 224481_s_at   | 10.89 | 5.61E-23          |
| RPS15      | 200819_s_at   | 10.89 | 5.13E-19          |
| LOC100131262 | 1558152_at  | 10.88 | 6.38E-39          |
| PTOV1      | 212032_s_at   | 10.88 | 5.71E-22          |
| NOL7       | 202882_x_at   | 10.88 | 1.57E-21          |
| CAPG       | 201850_at     | 10.87 | 1.09E-14          |
| LPAR1      | 204037_at     | 10.87 | 3.27E-17          |
| EGFR       | 201983_s_at   | 10.87 | 5.18E-26          |
| CD99L2     | 223041_at     | 10.86 | 4.97E-37          |
| Gene     | ProbeID       | Log2 Fold Change | P-Value   |
|----------|---------------|------------------|-----------|
| COX14    | 225772_s_at   | 10.86            | 3.60E-30  |
| SQRDL    | 217995_at     | 10.85            | 2.84E-14  |
| NFIX     | 227400_at     | 10.85            | < 2.90E-44|
| SLC39A14 | 212110_at     | 10.85            | 2.12E-14  |
| TRMT5    | 221952_x_at   | 10.84            | 1.71E-24  |
| UBE3C    | 201817_at     | 10.84            | 1.55E-19  |
| MID1P1   | 218251_at     | 10.84            | 2.90E-44  |
| MRPL34   | 221692_s_at   | 10.83            | 1.84E-30  |
| SQRDL    | 217995_at     | 10.82            | 7.92E-29  |
| LACTB    | 1552485_at    | 10.81            | 1.58E-33  |
| RSRC2    | 20302_s.at    | 10.80            | 5.96E-21  |
| ERCC1    | 203719_at     | 10.79            | 2.74E-26  |
| DKK3     | 202196_s_at   | 10.78            | 1.02E-18  |
| BTN3A2   | 209846_s_at   | 10.77            | 4.10E-22  |
| HAX1     | 201145_at     | 10.76            | 7.92E-29  |
| LACTB2   | 222714_s_at   | 10.75            | 3.80E-23  |
| MAGED2   | 208682_s_at   | 10.75            | 2.57E-20  |
| PSME3    | 200987_x_at   | 10.74            | 5.46E-30  |
| LOC100996792 | 215498_s_at | 10.73            | 7.06E-22  |
| CRELD2   | 218358_at     | 10.73            | 2.71E-25  |
| NREP     | 201310_s_at   | 10.73            | 4.15E-20  |
| GNL3     | 217850_at     | 10.72            | 4.30E-26  |
| SGCE     | 204688_at     | 10.72            | 1.50E-15  |
| MCMBP    | 222464_s_at   | 10.72            | 5.60E-24  |
| PLOD3    | 202185_at     | 10.72            | 2.44E-26  |
| EGLN1    | 223046_at     | 10.72            | 1.44E-17  |
| RBMS2    | 225776_at     | 10.72            | 2.91E-28  |
| ALG5     | 218203_at     | 10.71            | 4.51E-19  |
| TMEM251  | 213246_at     | 10.71            | 2.16E-22  |
| COX5B    | 202343_x_at   | 10.71            | 1.39E-23  |
| LOC101060567 | 202658_at | 10.70            | 3.02E-24  |
| DEC1     | 202447_at     | 10.70            | 6.15E-23  |
| GCNT1    | 239761_at     | 10.70            | 4.72E-34  |
| TNFRSF19 | 227812_at     | 10.70            | 2.56E-13  |
| FAF1     | 224217_s_at   | 10.71            | 1.13E-21  |
| RPS12    | 213377_x_at   | 10.69            | 3.13E-22  |
| C18orf32 | 224957_at     | 10.68            | 5.66E-18  |
| HSD17B4  | 201413_at     | 10.67            | 4.66E-21  |
| ST6GALNAC4 | 220937_s_at | 10.67            | 1.90E-40  |
| EPG5     | 227638_at     | 10.66            | 4.25E-30  |
| HPRT1    | 202854_at     | 10.66            | 2.60E-20  |
| Gene   | Accession   | log2FoldChange | P.Value  |
|--------|-------------|----------------|---------|
| MYBL1  | 213906_at   | 10.66          | 9.58E-26|
| GTF2H1 | 202453_s_at | 10.66          | 9.68E-41|
| ANTXR2 | 225524_at   | 10.65          | 4.14E-19|
| TXNL4A | 202836_s_at | 10.65          | 8.30E-21|
| RBM25  | 212030_at   | 10.65          | 1.47E-22|
| SMO1   | 222783_s_at | 10.65          | < 2.90E-44|
| PIK3C2A| 226094_at   | 10.64          | < 2.90E-44|
| SPTN4  | 244533_at   | 10.63          | 9.43E-26|
| IFRD2  | 209100_at   | 10.63          | 2.07E-31|
| SMO1   | 222783_s_at | 10.62          | 3.28E-25|
| TMEM208| 221597_s_at | 10.62          | 1.36E-25|
| EEF1E1 | 204905_s_at | 10.61          | 1.32E-15|
| SLC25A37|222528_s_at | 10.61          | 7.58E-41|
| FARP1  | 201911_s_at | 10.61          | 6.84E-19|
| SASH1  | 213236_at   | 10.60          | 1.82E-33|
| FAM120A| 200774_at   | 10.59          | 6.65E-19|
| POLR3K | 218866_s_at | 10.59          | 3.87E-40|
| SOCS5  | 209647_s_at | 10.58          | 2.47E-22|
| BRD7   | 221776_s_at | 10.58          | 5.04E-28|
| CAST   | 208908_s_at | 10.57          | 6.72E-27|
| BFAR   | 218056_at   | 10.56          | 4.38E-32|
| NIPA2  | 212129_at   | 10.56          | 1.20E-22|
| PPIF   | 201490_s_at | 10.56          | < 2.90E-44|
| HAS1   | 207316_at   | 10.56          | 3.60E-17|
| CAV2   | 203323_at   | 10.55          | 7.40E-13|
| MFSD1  | 218109_s_at | 10.55          | 3.02E-15|
| PIGF   | 205078_at   | 10.55          | 6.90E-26|
| MRPS9  | 226749_at   | 10.54          | 8.62E-23|
| RAB31  | 217763_s_at | 10.53          | 5.08E-14|
| MPZL1  | 210087_s_at | 10.53          | 1.49E-29|
| PNPLA8 | 223309_x_at | 10.52          | 6.40E-26|
| PLEKHB2| 201410_at   | 10.52          | 1.72E-24|
| PREPL  | 212216_at   | 10.52          | 1.00E-30|
| SLC35E1| 222263_at   | 10.51          | < 2.90E-44|
| SPIN1  | 222431_at   | 10.50          | 1.42E-19|
| ROCK2  | 202762_at   | 10.50          | 5.63E-16|
| HERPUD1| 217168_s_at | 10.49          | 1.29E-18|
| DNAJC10| 221781_s_at | 10.49          | 1.13E-30|
| UAP1L1 | 214755_at   | 10.48          | 0        |
| IDH3B  | 210418_s_at | 10.46          | 5.59E-22|
| FAM57A | 218898_at   | 10.46          | 4.06E-32|
| Gene       | Accession     | Log2 Fold Change | p-value       |
|------------|---------------|-----------------|---------------|
| COPS3      | 202078_at     | 10.46           | 1.71E-26      |
| TM7SF3     | 222477_s_at   | 10.45           | 1.81E-20      |
| LOC100509484 | 209122_at   | 10.45           | 3.79E-12      |
| LINC00116  | 228614_at     | 10.45           | 1.39E-40      |
| LRR1       | 235113_at     | 10.44           | 4.81E-34      |
| NCOA4      | 210774_s_at   | 10.44           | 1.61E-16      |
| MICU1      | 216903_s_at   | 10.43           | 7.99E-28      |
| SH3BGRL    | 201311_s_at   | 10.43           | 1.08E-28      |
| ATP6V1A    | 201971_s_at   | 10.43           | < 2.90E-44    |
| COPS4      | 218042_at     | 10.43           | 1.99E-18      |
| DDX41      | 217840_at     | 10.43           | 3.51E-19      |
| RPS8       | 200858_s_at   | 10.42           | 7.21E-20      |
| WTAP       | 210285_x_at   | 10.42           | 1.23E-36      |
| MED29      | 225708_at     | 10.41           | 1.30E-31      |
| AGPS       | 225113_at     | 10.41           | 5.46E-23      |
| GLT8D1     | 218147_s_at   | 10.40           | 3.98E-23      |
| NETO2      | 218888_s_at   | 10.40           | 5.78E-21      |
| RPL7L1     | 224738_x_at   | 10.40           | 3.09E-25      |
| KDM5B      | 201549_x_at   | 10.39           | 1.05E-24      |
| C11orf24   | 52164_at      | 10.39           | 3.39E-19      |
| PPP1R8     | 207830_s_at   | 10.39           | 1.12E-30      |
| ZNF654     | 219239_s_at   | 10.38           | 8.11E-43      |
| IMP3       | 221688_s_at   | 10.37           | 5.57E-40      |
| RABGGTB    | 209180_at     | 10.37           | 1.02E-18      |
| STK17A     | 202695_s_at   | 10.37           | 1.37E-38      |
| PRSS23     | 202458_at     | 10.36           | 8.63E-13      |
| SLC39A9    | 222445_at     | 10.36           | 4.43E-26      |
| YES1       | 202932_at     | 10.36           | 3.06E-18      |
| CHCHD7     | 222701_s_at   | 10.36           | 7.37E-19      |
| HMGN1      | 200943_at     | 10.36           | 4.71E-18      |
| C7orf55    | 226781_at     | 10.35           | 3.12E-27      |
| EIF2AK1    | 217736_s_at   | 10.34           | 9.87E-20      |
| SNX17      | 200991_s_at   | 10.34           | 3.04E-24      |
| TCEAL8     | 224819_at     | 10.34           | 1.93E-18      |
| RIOK3      | 202129_s_at   | 10.32           | 4.64E-41      |
| IMMT       | 200955_at     | 10.32           | 5.46E-26      |
| LOXL3      | 228253_at     | 10.32           | 7.22E-32      |
| LAMB2      | 216264_s_at   | 10.31           | 7.32E-21      |
| EIF2B2     | 202461_at     | 10.31           | 8.19E-26      |
| MRPS17     | 218982_s_at   | 10.31           | 3.56E-22      |
| ENY2       | 218482_at     | 10.31           | 2.61E-28      |
| Gene   | ProbeID   | Log2FC  | p-value   |
|--------|-----------|---------|-----------|
| SCFD2  | 226923_at | 10.30   | 2.24E-32  |
| TST    | 209605_at | 10.30   | 5.19E-21  |
| CSNK1G3| 220768_s_at| 10.29   | 2.46E-17  |
| ZWILCH | 222606_at | 10.29   | 1.39E-18  |
| TRIAP1 | 218403_at | 10.29   | 7.52E-21  |
| NEU1   | 208926_at | 10.29   | 4.64E-28  |
| KIAA1644| 52837_at| 10.28   | 1.54E-33  |
| NRAS   | 202647_s_at| 10.28   | <2.90E-44 |
| ABCC1  | 202805_s_at| 10.28   | 7.41E-28  |
| BLOC1S1| 202592_at| 10.26   | 1.51E-31  |
| DNJAB1 | 200666_s_at| 10.26   | 7.94E-31  |
| UBE2J1 | 222435_s_at| 10.26   | 4.32E-19  |
| EBP    | 213787_s_at| 10.26   | 4.50E-29  |
| ZNF664 | 224593_at| 10.25   | 2.59E-18  |
| FYN    | 216033_s_at| 10.25   | 1.15E-27  |
| BICD2  | 212702_s_at| 10.24   | 3.40E-26  |
| SPATA20| 218164_at| 10.24   | 2.18E-18  |
| PHLDA2 | 209803_s_at| 10.24   | 6.71E-10  |
| PPP2R1A| 200695_at| 10.23   | 1.10E-27  |
| DLX2   | 207147_at| 10.23   | <2.90E-44 |
| RNASEH1| 218497_s_at| 10.23   | 2.74E-18  |
| CD248  | 219025_at| 10.22   | 4.05E-20  |
| PEA15  | 200787_s_at| 10.21   | 1.06E-25  |
| AURKA  | 204092_s_at| 10.21   | 1.43E-21  |
| MAPK14 | 202530_at| 10.21   | 5.10E-21  |
| ARHGAP35| 229394__at| 10.20   | 5.28E-21  |
| SPOCD1 | 235417_at| 10.20   | 2.47E-29  |
| WIPI2  | 204710_s_at| 10.19   | 1.02E-21  |
| EMILIN1| 204163_at| 10.19   | 3.66E-15  |
| GN5    | 207124_s_at| 10.19   | 5.27E-36  |
| MAEA   | 207922_s_at| 10.19   | 4.87E-21  |
| MAPK1P1L| 212644_s_at| 10.19   | 2.02E-28  |
| PPP3CB | 209817_at| 10.18   | 1.38E-19  |
| THY1   | 208850_s_at| 10.17   | 1.25E-13  |
| ARPP19 | 221483__at| 10.17   | 3.82E-19  |
| FOXM1  | 202580_x_at| 10.16   | 5.55E-28  |
| MRPL44 | 222555_s_at| 10.16   | 1.39E-41  |
| HGS    | 210428_s_at| 10.15   | 2.63E-27  |
| AAED1  | 227534_at| 10.15   | 1.55E-35  |
| NAPA   | 206491_s_at| 10.13   | 1.03E-28  |
| TNRC6A | 234734_s_at| 10.13   | 2.13E-31  |
| Gene   | Accession | log2FoldChange | -log10(p-value) |
|--------|-----------|----------------|-----------------|
| MTFR1L | 224280_s_at | 10.12          | 9.35E-28        |
| PDHB   | 208911_s_at | 10.11          | 5.22E-28        |
| MBTPS2 | 226760_at  | 10.11          | 4.41E-14        |
| MSH2   | 209421_at  | 10.10          | 5.00E-20        |
| CUL4A  | 201423_s_at | 10.09          | 1.69E-29        |
| CUL2   | 203079_s_at | 10.09          | 1.91E-24        |
| NDUFA8 | 218160_at  | 10.09          | 1.01E-22        |
| PDHB   | 208911_s_at | 10.09          | <2.90E-44       |
| MSMO1  | 209146_at  | 10.06          | 3.89E-14        |
| GMDS   | 204875_s_at | 10.06          | 1.68E-23        |
| MIR4647| 224716_at  | 10.06          | 7.37E-28        |
| LEO1   | 235096_at  | 10.06          | 5.92E-26        |
| PRKCA  | 213093_at  | 10.04          | 5.09E-20        |
| ACSL1  | 207275_s_at | 10.03          | 5.36E-24        |
| EMP2   | 204975_at  | 10.03          | 1.79E-19        |
| TNFRSF12A | 218368_s_at | 10.02          | 4.53E-14        |
| DHX30  | 204355_at  | 10.01          | 3.86E-23        |
| UBE2F  | 225787_at  | 10.01          | 1.09E-18        |
| PANX1  | 204715_at  | 10.01          | 1.20E-25        |
| OBSL1  | 212776_s_at | 10.01          | 7.15E-17        |
| DNA5E1L1| 203912_s_at | 10.01          | 1.49E-26        |
| PLCB4  | 203895_at  | 9.99           | 1.56E-23        |
| MVB12A | 227864_s_at | 9.99           | 3.04E-26        |
| DHX29  | 212648_at  | 9.98           | 4.27E-20        |
| CYP51A1| 216607_s_at | 9.98           | 2.82E-34        |
| ERCC6  | 232287_at  | 9.98           | 1.07E-41        |
| SSBP3  | 222482_at  | 9.98           | 1.09E-20        |
| RPL22L1| 225541_at  | 9.97           | 2.20E-16        |
| FEZ2   | 202305_s_at | 9.97           | 2.61E-18        |
| CPSF6  | 202469_s_at | 9.97           | 8.32E-18        |
| TPD52L1| 210372_s_at | 9.96           | <2.90E-44       |
| CCNK   | 225824_at  | 9.96           | 5.07E-28        |
| ADPRM  | 220606_s_at | 9.96           | <2.90E-44       |
| EHD4   | 209536_s_at | 9.95           | 3.86E-20        |
| TMEM242| 222638_s_at | 9.95           | 4.48E-32        |
| LOC101060439 | 200833_s_at | 9.94         | 1.01E-18        |
| NFIC   | 226895_at  | 9.94           | 3.08E-15        |
| NAE1   | 202268_s_at | 9.94           | 1.39E-13        |
| OTTHUMG00000031646 | 216505_x_at | 9.94       | 6.91E-21        |
| NPDC1  | 218086_at  | 9.94           | 4.28E-24        |
| CYLD   | 221903_s_at | 9.92           | 6.96E-24        |
| Gene    | Gene ID          | Z Score | Log2 Fold Change |
|---------|------------------|---------|-----------------|
| DHX36   | 223139_s_at      | 9.91    | 1.21E-21        |
| FBXO9   | 1566509_s_at     | 9.91    | 1.31E-19        |
| SLC10A3 | 204928_s_at      | 9.91    | 2.25E-23        |
| UBE2Q1  | 217978_s_at      | 9.90    | 1.06E-21        |
| PROSC   | 209385_s_at      | 9.90    | 9.21E-21        |
| NUP62   | 207740_s_at      | 9.90    | <2.90E-44       |
| NMT1    | 201158_at        | 9.90    | 7.99E-33        |
| KDM3A   | 212689_s_at      | 9.90    | 1.14E-22        |
| MZT2A   | 212995_x_at      | 9.90    | 9.89E-21        |
| TOR1A   | 202348_s_at      | 9.89    | 5.72E-32        |
| ZSCAN18 | 218312_s_at      | 9.89    | 1.62E-20        |
| MRPS11  | 211595_s_at      | 9.89    | 3.98E-34        |
| PRKD1   | 205880_at        | 9.87    | 2.58E-15        |
| BECN1   | 208946_s_at      | 9.87    | 8.49E-18        |
| MAP4K5  | 203553_s_at      | 9.86    | 2.22E-25        |
| SHOC2   | 202777_at        | 9.86    | 5.77E-19        |
| TTC19   | 217964_at        | 9.86    | 1.13E-18        |
| PTPRG   | 204944_at        | 9.85    | 8.13E-15        |
| RPS3    | 208692_at        | 9.85    | 7.74E-21        |
| LOC100505573 | 225567_at | 9.84    | 1.31E-21        |
| MRPL10  | 224671_at        | 9.84    | 9.51E-25        |
| MCM3AP  | 212269_s_at      | 9.83    | 5.21E-20        |
| TNFAIP1 | 201207_at        | 9.82    | 6.75E-25        |
| POLR2J2 | 216242_x_at      | 9.82    | 2.98E-39        |
| CUTA    | 221488_s_at      | 9.82    | 8.02E-22        |
| KIF4A   | 218355_at        | 9.82    | 1.51E-23        |
| PMM1    | 203467_at        | 9.81    | 1.58E-29        |
| ACO1    | 207071_s_at      | 9.80    | 1.04E-27        |
| TMEM97  | 212281_s_at      | 9.80    | 2.34E-10        |
| ACOX1   | 209600_s_at      | 9.79    | 5.43E-28        |
| COL5A1  | 212488_at        | 9.79    | 4.91E-12        |
| SHFM1   | 202276_at        | 9.79    | 2.92E-26        |
| ABI1    | 209027_s_at      | 9.78    | 1.58E-19        |
| CALR    | 214315_x_at      | 9.78    | 1.40E-13        |
| RAB7A   | 211961_s_at      | 9.78    | 1.56E-21        |
| SNRPA1  | 216977_x_at      | 9.78    | 1.28E-28        |
| LOC100505633 | 239370_at | 9.78    | 1.00E-29        |
| SLIT3   | 203813_s_at      | 9.78    | 2.52E-17        |
| POPDC3  | 219926_at        | 9.78    | <2.90E-44       |
| ZBTB8OS | 228970_at        | 9.77    | 3.41E-27        |
| IL11RA  | 204773_at        | 9.77    | 1.28E-28        |
| Gene Symbol | Probe ID       | Log2 Fold Change | p-Value       |
|-------------|----------------|-----------------|---------------|
| ORM DL1     | 223187_s_at    | 9.77            | 4.64E-23      |
| HMG X4      | 212596_s_at    | 9.77            | 4.29E-21      |
| RAP1 GDS1   | 209444_at      | 9.77            | 1.83E-24      |
| AK TIP      | 223894_s_at    | 9.77            | 3.14E-32      |
| TRAPPC11    | 233558_s_at    | 9.76            | 1.22E-35      |
| SWAP 70     | 209307_at      | 9.76            | 4.22E-20      |
| TRIM 28     | 200990_at      | 9.76            | 2.59E-19      |
| FABP 5      | 202345_s_at    | 9.76            | 9.23E-16      |
| SWAP 70     | 209307_at      | 9.76            | 4.22E-20      |
| TRIM 28     | 200990_at      | 9.76            | 2.59E-19      |
| FABP 5      | 202345_s_at    | 9.76            | 9.23E-16      |
| SWAP 70     | 209307_at      | 9.76            | 4.22E-20      |
| TRIM 28     | 200990_at      | 9.76            | 2.59E-19      |
| FABP 5      | 202345_s_at    | 9.76            | 9.23E-16      |
| SWAP 70     | 209307_at      | 9.76            | 4.22E-20      |
| TRIM 28     | 200990_at      | 9.76            | 2.59E-19      |
| FABP 5      | 202345_s_at    | 9.76            | 9.23E-16      |
| Gene      | probeset ID   | fold change | p-value         |
|-----------|---------------|-------------|----------------|
| HNRNPA3   | 206809_s_at   | 9.66        | 6.10E-27       |
| UTP6      | 218715_at     | 9.66        | 5.15E-27       |
| SCO1      | 223221_at     | 9.65        | 4.13E-31       |
| MMP24-AS1 | 49679_s_at    | 9.65        | < 2.90E-44     |
| CCNY      | 224651_at     | 9.64        | 3.37E-19       |
| SIPA1L1   | 202254_at     | 9.64        | 9.63E-39       |
| FDPS      | 201275_at     | 9.64        | 3.22E-22       |
| UQCRQ     | 201568_at     | 9.64        | 5.85E-22       |
| ECHS1     | 201135_at     | 9.63        | 6.79E-25       |
| DPP3      | 232510_s_at   | 9.63        | 1.44E-27       |
| C1orf86   | 229113_s_at   | 9.62        | 1.65E-30       |
| ACO2      | 200793_s_at   | 9.62        | 1.15E-19       |
| QARS      | 217846_at     | 9.62        | 3.47E-22       |
| LAMTOR1   | 223009_at     | 9.62        | 1.80E-32       |
| MTHFD1    | 202309_at     | 9.62        | 1.18E-28       |
| ZWINT     | 204026_s_at   | 9.61        | 3.30E-10       |
| UBE2N     | 201523_x_at   | 9.61        | 6.22E-36       |
| C1orf174  | 238010_at     | 9.60        | < 2.90E-44     |
| PSMD9     | 207805_s_at   | 9.60        | 1.00E-23       |
| BPTF      | 207186_s_at   | 9.60        | 3.43E-20       |
| TLDC1     | 221843_s_at   | 9.59        | 5.18E-32       |
| TSN       | 201515_s_at   | 9.59        | 3.66E-21       |
| AK2       | 208967_s_at   | 9.59        | 4.60E-21       |
| ULBP2     | 238542_at     | 9.58        | 1.49E-35       |
| TLN1      | 203254_s_at   | 9.57        | 1.75E-39       |
| PRKAG1    | 201805_at     | 9.57        | 1.70E-33       |
| FBLN5     | 203088_at     | 9.57        | 1.19E-20       |
| CORO2B    | 209789_at     | 9.56        | < 2.90E-44     |
| TMX2      | 201175_at     | 9.56        | 5.36E-29       |
| CKAP5     | 1555278_a_at  | 9.54        | 5.70E-44       |
| RALA      | 214435_x_at   | 9.54        | 3.43E-18       |
| C12orf44  | 218214_at     | 9.54        | 3.68E-21       |
| GSKIP     | 223239_at     | 9.53        | 1.13E-13       |
| LAMTOR4   | 224890_s_at   | 9.53        | 1.45E-21       |
| ANP32A    | 201051_at     | 9.53        | 2.66E-20       |
| UBE2C     | 202954_at     | 9.53        | 4.67E-18       |
| BPGM      | 203502_at     | 9.53        | 2.92E-22       |
| SUCLG2    | 215772_x_at   | 9.52        | 7.68E-13       |
| GREM2     | 220794_at     | 9.52        | 2.46E-39       |
| SF3B2     | 200619_at     | 9.52        | 1.89E-28       |
| SRP68     | 224607_s_at   | 9.52        | 9.30E-26       |
| Gene    | RefSeq/Entrez | Log2 Fold Change | P-value       |
|---------|---------------|------------------|---------------|
| IMPACT  | 222698_s_at   | 9.52             | 5.03E-28      |
| DEF8    | 219646_at     | 9.52             | 7.18E-26      |
| CNN2    | 201605_x_at   | 9.52             | 2.13E-24      |
| IAH1    | 225908_at     | 9.50             | 5.07E-25      |
| ACTB    | 200801_x_at   | 9.50             | 1.57E-18      |
| TPRG1L  | 224871_at     | 9.50             | 1.28E-23      |
| AKT1    | 207163_s_at   | 9.49             | 1.08E-32      |
| CDK6    | 224851_at     | 9.49             | 2.19E-17      |
| SEC14L1 | 202082_s_at   | 9.49             | 3.90E-19      |
| DOCK5   | 230263_s_at   | 9.48             | 1.01E-13      |
| LOC100289097 | 215160_x_at | 9.48             | 4.17E-27      |
| SLC35A2 | 209326_at     | 9.47             | 3.68E-18      |
| COL1A2  | 202403_s_at   | 9.46             | 1.48E-15      |
| SNRPF   | 203832_at     | 9.46             | 2.47E-29      |
| DYNC1L1 | 224614_at     | 9.46             | 8.73E-29      |
| CARHSP1 | 218384_at     | 9.45             | 2.07E-34      |
| NUP85   | 218014_at     | 9.45             | 2.52E-24      |
| LBH     | 221011_s_at   | 9.44             | 6.55E-17      |
| LIX1L   | 225793_at     | 9.44             | 6.24E-18      |
| CHST3   | 209834_at     | 9.44             | 6.83E-30      |
| TTF1    | 204772_s_at   | 9.43             | < 2.90E-44    |
| QKI     | 212263_at     | 9.43             | 4.84E-20      |
| GSN     | 200696_s_at   | 9.43             | 1.42E-15      |
| RIC8A   | 221647_s_at   | 9.42             | 6.43E-30      |
| MRPL22  | 218339_at     | 9.42             | 1.56E-28      |
| EML4    | 228674_s_at   | 9.41             | 2.37E-24      |
| CDC6    | 203968_s_at   | 9.41             | < 2.90E-44    |
| IFRD1   | 202147_s_at   | 9.41             | 1.10E-22      |
| TMEM120A| 223482_at     | 9.41             | 7.59E-27      |
| PQBP1   | 214527_s_at   | 9.40             | 3.48E-25      |
| HPS5    | 204544_at     | 9.40             | 2.17E-26      |
| MRPL9   | 209609_s_at   | 9.40             | 2.10E-19      |
| IL6ST   | 211000_s_at   | 9.39             | 6.40E-17      |
| NDUFB6  | 203613_s_at   | 9.39             | 2.14E-19      |
| RBM12   | 212168_at     | 9.39             | 1.28E-25      |
| COPRS   | 225096_at     | 9.39             | 5.85E-29      |
| ALKBH3  | 226127_at     | 9.39             | 3.44E-37      |
| USP38   | 223289_s_at   | 9.38             | 5.55E-37      |
| C16orf13| 1554466_s_at  | 9.38             | 1.16E-40      |
| NTAN1   | 213061_s_at   | 9.37             | 2.40E-24      |
| BGN     | 201262_s_at   | 9.37             | < 2.90E-44    |
| Gene       | Accession    | Log2FC | p.Value  |
|-----------|--------------|--------|----------|
| PNN       | 210183_x_at  | 9.37   | 8.22E-22 |
| MZT1      | 225578_at    | 9.36   | 4.61E-22 |
| GDF15     | 221577_x_at  | 9.36   | 1.52E-30 |
| LOC100996643 | 225520_at   | 9.36   | 8.10E-15 |
| PHF23     | 1555789_s_at | 9.36   | < 2.90E-44 |
| CYB561    | 209164_s_at  | 9.36   | 4.93E-18 |
| BMPR2     | 209920_at    | 9.35   | 1.23E-39 |
| EPB41L4A-AS1 | 225698_at   | 9.35   | 7.43E-13 |
| BSDC1     | 218004_at    | 9.34   | 1.48E-23 |
| CAND1     | 207483_s_at  | 9.34   | 4.14E-22 |
| CBX1      | 201518_at    | 9.33   | 6.02E-20 |
| CCBE1     | 229641_at    | 9.33   | 1.28E-24 |
| RPL30     | 200062_s_at  | 9.32   | 3.62E-20 |
| BAG5      | 202985_s_at  | 9.32   | 1.01E-22 |
| KRT19     | 201650_at    | 9.32   | 1.05E-10 |
| BOP1      | 212563_at    | 9.32   | 2.86E-21 |
| MEA1      | 218061_at    | 9.31   | 1.50E-25 |
| SERTAD2   | 202657_s_at  | 9.30   | 2.39E-18 |
| MTA1      | 211783_s_at  | 9.30   | 2.67E-26 |
| MKi67IP   | 224714_at    | 9.29   | 4.95E-24 |
| NDUFV1    | 208714_at    | 9.28   | 9.08E-19 |
| HM13      | 224615_x_at  | 9.28   | 2.86E-26 |
| MCM6      | 201930_at    | 9.27   | 2.73E-18 |
| GGPS1     | 202322_s_at  | 9.27   | 1.35E-27 |
| PSMD5     | 203447_at    | 9.27   | 7.30E-24 |
| IMP4      | 212411_at    | 9.27   | 1.25E-23 |
| SLC52A2   | 222155_s_at  | 9.27   | 2.06E-21 |
| WLS       | 228950_s_at  | 9.26   | 1.75E-21 |
| LAP3      | 217933_s_at  | 9.23   | 1.86E-16 |
| DFNA5     | 203695_s_at  | 9.23   | 8.50E-22 |
| PPA1      | 217848_s_at  | 9.23   | 1.69E-15 |
| NUCB1     | 200646_s_at  | 9.22   | < 2.90E-44 |
| GSTK1     | 217751_at    | 9.22   | 1.71E-22 |
| RABL2A    | 219151_s_at  | 9.22   | 5.65E-30 |
| PEX13     | 205246_at    | 9.22   | 1.74E-39 |
| RMDN1     | 218549_s_at  | 9.21   | 1.88E-16 |
| TRAPPC12  | 203122_at    | 9.21   | 4.15E-21 |
| NDUFB7    | 202839_s_at  | 9.20   | 9.81E-23 |
| TSEN15    | 225399_at    | 9.20   | 9.54E-21 |
| COQ5      | 223114_at    | 9.20   | 6.90E-23 |
| GPD1L     | 212510_at    | 9.20   | 6.58E-22 |
| Gene  | Description | log2FoldChange | padj  |
|-------|-------------|----------------|-------|
| MT1P3 |             | 9.20           | 1.13E-15 |
| UBE2Z |             | 9.19           | 3.99E-21 |
| PRDX6 |             | 9.19           | 1.31E-21 |
| MSL2  |             | 9.19           | 2.84E-42 |
| PRKCSH|             | 9.19           | 7.79E-21 |
| MTPAP |             | 9.18           | 4.45E-37 |
| CIAPI1|             | 9.18           | 2.41E-27 |
| NUDT21|             | 9.17           | 1.44E-24 |
| NAV3  |             | 9.17           | < 2.90E-44 |
| CRYBB2|             | 9.17           | 4.07E-30 |
| CDK1  |             | 9.17           | 1.80E-25 |
| LYPLAL1|            | 9.16           | 6.47E-11 |
| PCM1  |             | 9.16           | 1.72E-17 |
| TMEM203|            | 9.15           | 2.38E-21 |
| GCSH/ |             | 9.15           | 5.06E-20 |
| EXOSC9|             | 9.14           | 2.54E-28 |
| RPS11 |             | 9.14           | 8.11E-18 |
| EIF4E |             | 9.14           | 2.93E-25 |
| MMS19 |             | 9.14           | 7.10E-29 |
| PFDN6 |             | 9.14           | 2.51E-29 |
| CLPP  |             | 9.14           | 8.44E-28 |
| RCN1  |             | 9.14           | 1.19E-23 |
| PQLC3 |             | 9.13           | 2.14E-16 |
| ANK2  |             | 9.13           | 1.41E-10 |
| CLMP  |             | 9.12           | 7.01E-31 |
| HEATR1|             | 9.12           | 1.89E-18 |
| LMO7  |             | 9.11           | 6.90E-17 |
| EIF3G |             | 9.11           | 3.73E-18 |
| CENPV |             | 9.11           | 1.32E-39 |
| CCNYL1|             | 9.10           | 1.04E-33 |
| RAB4A |             | 9.10           | 2.21E-32 |
| NDUFB8|             | 9.09           | 2.86E-23 |
| TBL2  |             | 9.08           | 5.46E-28 |
| DANCR |             | 9.08           | 1.16E-19 |
| GOLGA3|             | 9.07           | 9.32E-22 |
| TSSC1 |             | 9.07           | 1.93E-32 |
| KITLG |             | 9.06           | 8.01E-10 |
| RAD23A|             | 9.06           | 1.78E-20 |
| TIMM10|             | 9.06           | 1.22E-19 |
| LEPREL1|            | 9.06           | 2.35E-08 |
| LOC100129034|       | 9.05           | 9.07E-29 |
| Gene Symbol | probe_expr | log2_ratio | p_value |
|-------------|------------|------------|---------|
| TMCO1       | 208716_s_at| 9.05       | 2.98E-16|
| PRRC2C      | 211944_at  | 9.04       | 1.42E-23|
| HEATR2      | 218460_at  | 9.04       | 9.47E-25|
| PRPF18      | 221547_at  | 9.03       | 1.54E-23|
| TIMM44      | 203093_s_at| 9.03       | 9.15E-36|
| ERO1L       | 225750_at  | 9.03       | 3.51E-18|
| ALS2        | 226291_at  | 9.02       | 4.21E-38|
| SORBS2      | 204288_s_at| 9.02       | 1.01E-21|
| GNAQ        | 224863_at  | 9.01       | < 2.90E-44|
| MYH9        | 211926_s_at| 9.01       | 2.58E-19|
| ANAPC16     | 224665_at  | 9.01       | 2.49E-24|
| SGPP1       | 221268_s_at| 9.00       | < 2.90E-44|
| GRINA       | 212090_at  | 9.00       | 3.24E-43|
| COMMD10     | 218439_s_at| 8.99       | 1.96E-31|
| MRGPRF      | 227727_at  | 8.99       | 7.74E-17|
| SPHK1       | 219257_s_at| 8.99       | 4.47E-13|
| PPP1R3B     | 222662_at  | 8.99       | 6.74E-20|
| VAPA        | 208780_x_at| 8.99       | 2.54E-22|
| FNDC3B      | 218618_s_at| 8.99       | 3.89E-17|
| GTF2H4      | 203577_at  | 8.98       | 3.15E-36|
| ACAN        | 207692_s_at| 8.98       | 3.28E-32|
| GNPDA2      | 227022_at  | 8.98       | 6.02E-26|
| MRPL21      | 225315_at  | 8.97       | 1.60E-27|
| SC5D        | 211423_s_at| 8.97       | 6.13E-19|
| SORD        | 201563_at  | 8.96       | 1.51E-21|
| TMEM147     | 202475_at  | 8.96       | 1.84E-24|
| ZSWIM8      | 212359_s_at| 8.95       | 1.99E-27|
| NNT         | 202784_s_at| 8.95       | 2.64E-39|
| TNFAIP8     | 210260_s_at| 8.94       | 1.06E-08|
| DAP3        | 208822_s_at| 8.94       | 3.49E-24|
| SRXN1       | 225252_at  | 8.94       | 8.58E-30|
| TGFB1I1     | 209651_at  | 8.94       | 2.71E-12|
| GSPT2       | 205541_s_at| 8.94       | 1.54E-19|
| RYBP        | 201846_s_at| 8.93       | 3.01E-20|
| LIMCH1      | 212327_at  | 8.93       | 5.96E-19|
| TRIM25      | 224806_at  | 8.92       | 8.17E-24|
| CDC27       | 217879_at  | 8.92       | 2.30E-23|
| VPS26A      | 201807_at  | 8.92       | 2.21E-12|
| WWP1        | 212638_s_at| 8.92       | 4.97E-22|
| UROD        | 208971_at  | 8.91       | 4.49E-32|
| EXOSC1      | 222609_s_at| 8.91       | 4.46E-27|
| Gene Symbol | Gene ID    | log2FoldChange | p-value  |
|------------|-----------|----------------|----------|
| PTMA       | 200773_x_at | 8.90           | 2.03E-23 |
| XPOT       | 227117_at  | 8.90           | 4.17E-22 |
| RAB6A      | 201047_x_at| 8.89           | 4.83E-26 |
| POP5       | 204839_at  | 8.89           | 4.26E-29 |
| SPTLC1     | 202277_at  | 8.88           | 1.25E-13 |
| NDUVF3     | 226616_s_at| 8.88           | 1.82E-27 |
| ATP6V1E1   | 208678_at  | 8.88           | 3.69E-25 |
| LTBR       | 203005_at  | 8.88           | 1.35E-27 |
| ZBED1      | 1554821_a_at| 8.88         | 1.05E-27 |
| ANKRD27    | 221522_at  | 8.88           | 2.33E-18 |
| SZRD1      | 212005_at  | 8.87           | 3.46E-29 |
| ISLR       | 207191_s_at| 8.87           | 1.80E-12 |
| GOLT1B     | 218193_s_at| 8.87           | 3.36E-12 |
| DNAJB14    | 222850_s_at| 8.87           | 1.38E-21 |
| MPG        | 203686_at  | 8.87           | 4.15E-34 |
| NR2C1      | 204791_at  | 8.87           | 1.74E-24 |
| ID1        | 208881_x_at| 8.87           | 8.57E-20 |
| TMEM55B    | 225287_s_at| 8.86           | 3.61E-25 |
| CYC1       | 201066_at  | 8.85           | 1.04E-17 |
| UBA52      | 221700_s_at| 8.85           | 1.41E-20 |
| CHD1L      | 212539_at  | 8.84           | 9.80E-22 |
| CTTNBP2NL  | 226000_at  | 8.83           | 3.41E-17 |
| MRPL35     | 218890_x_at| 8.83           | 3.22E-29 |
| ZMPSTE24   | 202939_at  | 8.83           | 8.57E-17 |
| MCUR1      | 220094_s_at| 8.83           | 2.06E-20 |
| SDC3       | 202898_at  | 8.82           | 3.56E-30 |
| ARMCX6     | 214749_s_at| 8.81           | 3.10E-18 |
| SDF2L1     | 218681_s_at| 8.81           | 1.51E-22 |
| DDX46      | 202462_s_at| 8.81           | 6.22E-21 |
| NCLN       | 222206_s_at| 8.80           | 1.93E-39 |
| STK25      | 201314_at  | 8.80           | 2.77E-29 |
| NFIL3      | 203574_at  | 8.80           | 2.68E-11 |
| KLHL7      | 223250_at  | 8.80           | 1.97E-15 |
| LDOC1      | 204454_at  | 8.79           | 1.42E-26 |
| GGCX       | 205351_at  | 8.79           | 1.20E-30 |
| ATP5D      | 213041_s_at| 8.79           | 8.10E-24 |
| PAK2       | 208875_s_at| 8.78           | 4.60E-24 |
| BIRC5      | 202094_at  | 8.77           | 4.38E-30 |
| STX12      | 212112_s_at| 8.77           | 4.00E-18 |
| TPP1       | 200742_s_at| 8.76           | 6.33E-14 |
| LONP1      | 209017_s_at| 8.76           | 1.90E-22 |
| Gene   | Accession   | Log2 Fold Change | p-value          |
|--------|-------------|------------------|------------------|
| ATG3   | 221492_s_at | 8.74             | 1.75E-19         |
| BOLA3  | 227291_s_at | 8.73             | 2.49E-16         |
| CDR2L  | 213230_at   | 8.73             | 1.02E-28         |
| MICALL1| 55081_at    | 8.73             | 2.98E-22         |
| GOT2   | 200708_at   | 8.72             | 1.45E-21         |
| IKBKAP | 202491_s_at | 8.72             | 4.09E-23         |
| RFWD2  | 1552617_a_at| 8.72             | 3.75E-26         |
| PTEN   | 217492_s_at | 8.72             | 2.12E-17         |
| OR7E37P| 217499_x_at | 8.72             | 5.90E-28         |
| PNP    | 201695_s_at | 8.70             | 1.13E-18         |
| RGS10  | 204319_s_at | 8.70             | 1.90E-29         |
| BET1   | 202710_at   | 8.68             | 9.03E-17         |
| GGNBP2 | 218079_s_at | 8.68             | 2.20E-19         |
| POFUT2 | 209578_s_at | 8.68             | 3.24E-29         |
| WISP2  | 205792_at   | 8.67             | 7.27E-18         |
| TMED4  | 224676_at   | 8.67             | 6.23E-19         |
| C1GALT1C1 | 219283_at | 8.67             | 3.22E-20         |
| SDF2   | 203090_at   | 8.67             | 4.95E-27         |
| ANKHD1 | 208772_at   | 8.66             | 3.05E-20         |
| BEX1   | 218332_at   | 8.66             | 2.11E-07         |
| DMAP1  | 224163_s_at | 8.66             | 1.87E-29         |
| SCAND1 | 218206_x_at | 8.65             | 4.39E-18         |
| TMEM131| 212507_at   | 8.65             | 4.89E-17         |
| NUSAP1 | 218039_at   | 8.65             | 5.14E-10         |
| C2orf68| 238768_at   | 8.64             | 5.58E-27         |
| MCEE   | 226238_at   | 8.64             | 2.80E-25         |
| COMMD4 | 209132_s_at | 8.62             | 1.15E-24         |
| PIGX   | 1563111_a_at| 8.62             | < 2.90E-44       |
| DDX21  | 208152_s_at | 8.62             | 1.92E-19         |
| XG     | 1554062_at  | 8.61             | 1.80E-13         |
| LSM12  | 212532_s_at | 8.60             | 7.34E-20         |
| MSL1   | 212708_at   | 8.60             | 8.45E-25         |
| FAM63B | 222111_at   | 8.59             | 2.17E-16         |
| FAIM   | 220643_s_at | 8.59             | 3.47E-16         |
| LOC101060353 | 205872_x_at | 8.59             | 5.56E-30         |
| FBXO45 | 225099_at   | 8.59             | 2.47E-19         |
| HDLBP  | 225012_at   | 8.58             | 2.77E-20         |
| FLOT1  | 208749_x_at | 8.58             | 1.90E-21         |
| SLC35E2| 217122_s_at | 8.58             | 3.09E-18         |
| MT1E   | 212859_x_at | 8.58             | 6.56E-15         |
| Gene   | Accession   | Log2FoldChange | p-Value   |
|--------|-------------|----------------|-----------|
| CANT1  | 46323_at    | 8.57           | 1.91E-25  |
| MKKS   | 222530_s_at | 8.57           | 4.29E-16  |
| LRPPRC | 211615_s_at | 8.57           | 1.15E-18  |
| TMEM237| 1553956_at  | 8.57           | 9.81E-23  |
| GTF2F1 | 202356_s_at | 8.57           | 5.70E-44  |
| SEL1L  | 202061_s_at | 8.57           | 8.35E-16  |
| ADRM1  | 201281_at   | 8.56           | 1.06E-22  |
| MAPKAPK5| 212871_at   | 8.56           | 1.26E-36  |
| DPY19L1| 212792_at   | 8.56           | 6.26E-18  |
| LINC00968| 243813_at  | 8.56           | 8.68E-34  |
| MAP3K7 | 211537_x_at | 8.55           | < 2.90E-44|
| SNRPE  | 203316_s_at | 8.55           | 3.16E-19  |
| ARL6IP4| 218216_x_at | 8.55           | 1.97E-23  |
| FAM20A | 226804_at   | 8.55           | 2.30E-14  |
| CTNNAL1| 202468_s_at | 8.55           | 3.07E-09  |
| PTN    | 211737_x_at | 8.55           | 2.73E-12  |
| AZIN1  | 201772_at   | 8.54           | 7.67E-17  |
| TMEM245| 223005_s_at | 8.54           | < 2.90E-44|
| MACF1  | 208633_s_at | 8.53           | 3.56E-31  |
| PLXND1 | 212235_at   | 8.53           | 8.77E-19  |
| FLJ39739| 1568609_s_at| 8.53           | 5.70E-18  |
| RNF13  | 201779_s_at | 8.53           | 4.54E-21  |
| DDX19A | 202578_s_at | 8.52           | 1.15E-36  |
| CHURC1 | 226736_at   | 8.52           | 1.95E-07  |
| SEH1L  | 221931_s_at | 8.51           | 4.92E-17  |
| RAB12  | 235059_at   | 8.51           | 1.67E-43  |
| OSER1  | 209020_at   | 8.51           | 2.34E-33  |
| DNTTIP1| 234942_s_at | 8.51           | 3.33E-32  |
| BLOC1S2| 225049_at   | 8.51           | 1.01E-17  |
| SRP19  | 205335_s_at | 8.51           | 5.16E-19  |
| COQ9   | 212228_s_at | 8.50           | 8.02E-23  |
| MAN2B2 | 214703_s_at | 8.50           | 5.31E-23  |
| RPL27A | 203034_s_at | 8.50           | 3.40E-19  |
| C9orf16| 204480_s_at | 8.50           | 3.40E-22  |
| NDN    | 209550_at   | 8.50           | 2.06E-20  |
| LPCAT4 | 40472_at    | 8.49           | 1.71E-29  |
| MCM5   | 216237_s_at | 8.49           | 2.26E-23  |
| SMAD1  | 210993_s_at | 8.49           | 3.79E-23  |
| PPP4R1 | 201594_s_at | 8.49           | 4.99E-18  |
| BAZ1B  | 208445_s_at | 8.49           | 2.20E-24  |
| BZW2   | 217809_at   | 8.49           | 1.53E-17  |
| Gene      | Description | Log2 Fold Change | p-value          |
|-----------|-------------|-----------------|-----------------|
| ATF7      |             | 8.48            | 6.05E-31        |
| C6orf62   |             | 8.48            | 1.84E-35        |
| PICALM    |             | 8.47            | < 2.90E-44      |
| PPAPDC1B  |             | 8.47            | 3.60E-31        |
| VEGFA     |             | 8.47            | 7.28E-24        |
| C3orf14   |             | 8.47            | 1.42E-16        |
| NUDT5     |             | 8.47            | 4.05E-19        |
| RTF1      |             | 8.46            | 2.86E-24        |
| ANKRD13C  |             | 8.46            | 1.02E-32        |
| STXBP1    |             | 8.45            | 1.14E-19        |
| SPAG9     |             | 8.45            | 1.30E-12        |
| AURKAPS1  |             | 8.44            | 2.30E-29        |
| SMAP1     |             | 8.44            | 4.76E-17        |
| PHKB      |             | 8.44            | 7.90E-21        |
| C21orf59  |             | 8.44            | 5.53E-23        |
| ATP6V1G1  |             | 8.44            | 3.63E-21        |
| RB1CC1    |             | 8.43            | 7.50E-21        |
| ORC3      |             | 8.43            | 7.90E-24        |
| EEF1B2    |             | 8.43            | 8.87E-17        |
| FGF2      |             | 8.43            | 1.63E-36        |
| HOMER3    |             | 8.43            | 4.38E-32        |
| UBE2V2    |             | 8.43            | 1.48E-17        |
| ZC3H7A    |             | 8.43            | 1.17E-39        |
| ASAP1     |             | 8.43            | < 2.90E-44      |
| KCTD6     |             | 8.42            | 9.55E-24        |
| SYNE1     |             | 8.42            | 2.14E-41        |
| PCK2      |             | 8.42            | 1.29E-20        |
| BSG       |             | 8.41            | 3.50E-25        |
| PARK7     |             | 8.41            | 4.70E-21        |
| EXOSC7    |             | 8.41            | 2.15E-24        |
| MIR3658   |             | 8.40            | 8.25E-29        |
| GTF2E2    |             | 8.40            | 5.49E-26        |
| DUSP10    |             | 8.40            | 5.48E-17        |
| FAM220A   |             | 8.39            | 4.94E-20        |
| DCLK1     |             | 8.39            | 2.60E-09        |
| HNRNP68   |             | 8.38            | 1.70E-16        |
| STEAP3    |             | 8.36            | 3.43E-27        |
| BAD       |             | 8.36            | 2.09E-31        |
| CTNNB1    |             | 8.36            | < 2.90E-44      |
| SLC2A6    |             | 8.36            | 2.83E-39        |
| NPLOC4    |             | 8.36            | 1.05E-29        |
| Gene | ID     | log2 FC | Adj P  |
|------|--------|---------|--------|
| USP22| 200083_at | 8.35   | 6.69E-22 |
| CDC25B| 201853_s_at | 8.35   | 1.45E-21 |
| ILK  | 201234_at  | 8.35   | 6.46E-22 |
| CRAT | 209522_s_at | 8.35   | 5.60E-26 |
| MRPL51| 224334_s_at | 8.35   | 8.62E-35 |
| SLC7A11| 217678_at  | 8.35   | 1.69E-34 |
| PRCC | 208938_at  | 8.33   | 2.73E-39 |
| LMNB2| 216952_s_at | 8.33   | 4.63E-27 |
| ASCC2| 215684_s_at | 8.33   | 4.51E-33 |
| HUWE1| 208598_s_at | 8.33   | 3.17E-18 |
| SMC4 | 201663_s_at | 8.32   | 2.86E-16 |
| C16orf72| 1568954_s_at | 8.32   | 2.63E-37 |
| SMPD1| 209420_s_at | 8.31   | 1.73E-29 |
| TWIST2| 229404_at  | 8.31   | 1.15E-20 |
| SEC22B| 209207_s_at | 8.30   | 3.85E-27 |
| OSTM1| 235197_s_at | 8.30   | 3.80E-29 |
| ARL16| 234972_at  | 8.30   | 2.69E-38 |
| MRPL43| 230027_s_at | 8.30   | 1.92E-26 |
| CLNND1| 208925_at  | 8.30   | 6.67E-24 |
| ABHD10| 222697_s_at | 8.30   | 3.49E-43 |
| ALG13| 219015_s_at | 8.29   | <2.90E-44 |
| FH   | 214170_x_at | 8.29   | 1.15E-20 |
| HADHB| 201007_at  | 8.29   | 1.53E-19 |
| CASP2| 226032_at  | 8.28   | 7.23E-23 |
| FAM229B| 225812_at  | 8.28   | 3.95E-26 |
| MYEOV2| 226845_s_at | 8.28   | 1.83E-18 |
| CCDC71L| 229521_at  | 8.28   | 1.15E-19 |
| TTK  | 204822_at  | 8.27   | 2.72E-21 |
| METTL22| 218945_at  | 8.26   | 1.01E-28 |
| XRN2 | 223002_s_at | 8.26   | 1.18E-23 |
| PIR  | 207469_s_at | 8.25   | 1.58E-17 |
| L3HYPDH| 227699_at  | 8.25   | 1.41E-24 |
| TRIP4| 203732_at  | 8.25   | 1.17E-22 |
| GCN1L1| 216232_at  | 8.24   | 5.15E-35 |
| GPATCH4| 224632_at  | 8.24   | 4.24E-30 |
| MAP2K4| 203266_s_at | 8.24   | 5.35E-28 |
| ARIH1| 201881_s_at | 8.24   | 1.05E-26 |
| SRSF6| 206108_s_at | 8.24   | 6.68E-39 |
| PLXNA1| 221538_s_at | 8.24   | 1.21E-16 |
| DYM  | 223171_at  | 8.24   | 8.36E-21 |
| AP1G1| 225771_at  | 8.23   | 1.25E-33 |
| Gene     | Gene ID      | Log2 Fold Change | p-value       |
|----------|--------------|------------------|---------------|
| PEPD     | 202108_at    | 8.23             | 1.19E-28      |
| LOC101060433 | 212053_at  | 8.23             | 1.72E-24      |
| NIT2     | 218557_at    | 8.23             | 3.56E-22      |
| ARHGDIA  | 213606_s_at  | 8.22             | <2.90E-44     |
| ANKRD11  | 234701_at    | 8.22             | 9.28E-33      |
| ZNF106   | 217781_s_at  | 8.22             | 1.03E-19      |
| OXA1L    | 208717_at    | 8.21             | 3.38E-22      |
| SKAP2    | 216899_s_at  | 8.21             | <2.90E-44     |
| ARPC5L   | 220966_x_at  | 8.21             | 2.02E-19      |
| UBLCP1   | 227413_at    | 8.20             | 1.00E-18      |
| SF1      | 208313_s_at  | 8.20             | 2.90E-24      |
| SERPINB1 | 212268_at    | 8.20             | 2.73E-21      |
| SPCS3    | 218817_at    | 8.19             | 2.81E-15      |
| LOC101060315 | 227067_x_at | 8.19             | 3.39E-18      |
| TMEM14A  | 218477_at    | 8.19             | 7.99E-14      |
| RPLP1    | 200763_s_at  | 8.19             | 3.35E-20      |
| EWSR1    | 210011_s_at  | 8.19             | 7.54E-28      |
| FAM65A   | 218029_at    | 8.18             | 7.97E-29      |
| HMG4A2   | 208025_s_at  | 8.18             | 6.34E-13      |
| TNFRSF10D| 227345_at    | 8.18             | 4.95E-22      |
| TAO1K1   | 224769_at    | 8.18             | 1.42E-18      |
| CEP55    | 218542_at    | 8.18             | 1.41E-17      |
| DPH5     | 224060_s_at  | 8.17             | 8.51E-25      |
| CAPZA1   | 208374_s_at  | 8.17             | 1.45E-17      |
| CRYZL1   | 226151_x_at  | 8.16             | 2.88E-23      |
| TPST1    | 204140_at    | 8.15             | 4.00E-27      |
| DHRS7B   | 220690_s_at  | 8.15             | 4.19E-24      |
| NCAPG2   | 219588_s_at  | 8.15             | 3.32E-36      |
| HEG1     | 213069_at    | 8.15             | 1.12E-16      |
| GJA1     | 201667_at    | 8.14             | 6.11E-11      |
| SNX12    | 224684_at    | 8.14             | 2.42E-22      |
| NDUFA6   | 202001_s_at  | 8.14             | 3.12E-15      |
| POLR2F   | 209511_at    | 8.14             | 2.62E-24      |
| STAMBPL1 | 227606_s_at  | 8.14             | 1.09E-41      |
| TUBGCP2  | 202477_s_at  | 8.13             | 1.06E-26      |
| DUSP12   | 218576_s_at  | 8.13             | 6.43E-27      |
| BLMH     | 202179_at    | 8.13             | 4.01E-24      |
| EDIL3    | 225275_at    | 8.12             | 2.46E-08      |
| LMAN2    | 200805_at    | 8.12             | 3.50E-25      |
| CREB1    | 204313_s_at  | 8.12             | 2.53E-20      |
| NDUFA8B1 | 202077_at    | 8.11             | 2.28E-20      |
| Gene   | ProbeID       | Log2 Fold Change | p-value     |
|--------|---------------|-----------------|-------------|
| NUFIP1 | 205135_s_at   | 8.11            | 1.13E-35    |
| ZDHHCC7| 218606_at     | 8.11            | 1.54E-22    |
| USP1   | 202413_s_at   | 8.11            | 5.18E-13    |
| MED8   | 213696_s_at   | 8.10            | 3.34E-21    |
| CHPF2  | 221799_at     | 8.10            | 4.92E-20    |
| PAFAH1B2| 224777_s_at  | 8.10            | 1.15E-22    |
| CBX5   | 209715_at     | 8.09            | 2.65E-15    |
| LOC100506248| 200772_x_at| 8.09            | 4.81E-15    |
| PCGF5  | 229194_at     | 8.08            | 9.95E-17    |
| OXR1   | 223879_s_at   | 8.07            | 3.43E-40    |
| CDK2AP2| 203252_at     | 8.07            | 2.98E-30    |
| SAV1   | 218276_s_at   | 8.06            | 6.67E-33    |
| FAM98B | 1564637_a_at  | 8.06            | 6.89E-28    |
| TRAK2  | 202124_s_at   | 8.06            | 3.39E-19    |
| GFM1   | 225161_at     | 8.06            | 3.57E-26    |
| ZNF512 | 225050_at     | 8.06            | 6.04E-20    |
| CLIC3  | 219529_at     | 8.06            | 1.38E-20    |
| COX4I1 | 202698_x_at   | 8.06            | 3.00E-20    |
| GGH    | 203560_at     | 8.05            | 6.10E-09    |
| TRPV2  | 219282_s_at   | 8.05            | 7.67E-23    |
| STRAP  | 200870_at     | 8.05            | 1.91E-17    |
| HAS3   | 223541_at     | 8.04            | 1.75E-34    |
| GMPPA  | 218070_s_at   | 8.03            | 6.55E-20    |
| ARL3   | 202641_at     | 8.03            | 1.12E-19    |
| ZMYM6  | 213698_at     | 8.03            | 3.41E-19    |
| WASF3  | 204042_at     | 8.03            | 3.33E-12    |
| TCEB1  | 202824_s_at   | 8.02            | 1.07E-17    |
| RABL3  | 226089_at     | 8.01            | 1.67E-43    |
| NRB1   | 217765_at     | 8.01            | 1.37E-30    |
| LPLA1  | 203007_x_at   | 8.00            | 6.57E-17    |
| ARMMA3 | 217858_s_at   | 8.00            | 1.85E-19    |
| CXorf40A| 213315_x_at  | 8.00            | 4.98E-23    |
| CXorf40B| 212961_x_at  | 8.00            | 4.91E-24    |
| SLC35G2| 219569_s_at   | 7.99            | 1.55E-30    |
| DIABLO | 219350_s_at   | 7.98            | 4.02E-25    |
| POLR2G | 202306_at     | 7.97            | 2.04E-26    |
| NSDHL  | 209279_s_at   | 7.97            | 3.24E-38    |
| IMPAD1 | 224744_at     | 7.97            | 7.60E-19    |
| DCBLD1 | 226609_at     | 7.96            | 4.05E-12    |
| CTS1   | 202087_s_at   | 7.96            | 6.02E-21    |
| NOL8   | 218244_at     | 7.96            | 6.24E-28    |
| Gene   | Name     | Description | E-value |
|--------|----------|-------------|---------|
| SRPK2  | 1558254_s_at | 7.95  | 1.51E-27 |
| PACRGL | 235260_s_at  | 7.94  | 4.30E-36 |
| SEC23IP| 216392_s_at  | 7.94  | 7.18E-32 |
| SRSF5  | 212266_s_at  | 7.94  | 3.52E-16 |
| CBR1   | 209213_at   | 7.93  | 2.63E-29 |
| SUCLG1 | 217874_at   | 7.93  | 1.64E-22 |
| PACR2  | 235246_s_at  | 7.94  | 4.30E-36 |
| SEC23IP| 216392_s_at  | 7.94  | 7.18E-32 |
| SRSF5  | 212266_s_at  | 7.94  | 3.52E-16 |
| CBR1   | 209213_at   | 7.93  | 2.63E-29 |
| SUCLG1 | 217874_at   | 7.93  | 1.64E-22 |
| PACR2  | 235246_s_at  | 7.94  | 4.30E-36 |
| SEC23IP| 216392_s_at  | 7.94  | 7.18E-32 |
| SRSF5  | 212266_s_at  | 7.94  | 3.52E-16 |
| CBR1   | 209213_at   | 7.93  | 2.63E-29 |
| SUCLG1 | 217874_at   | 7.93  | 1.64E-22 |
| PACR2  | 235246_s_at  | 7.94  | 4.30E-36 |
| SEC23IP| 216392_s_at  | 7.94  | 7.18E-32 |
| SRSF5  | 212266_s_at  | 7.94  | 3.52E-16 |
| CBR1   | 209213_at   | 7.93  | 2.63E-29 |
| SUCLG1 | 217874_at   | 7.93  | 1.64E-22 |
| Gene     | ProbeID       | Log2FC | P-value |
|----------|---------------|--------|---------|
| SUMO3    | 200740_s_at   | 7.82   | 2.95E-15|
| PFCD4    | 205361_s_at   | 7.82   | 1.91E-13|
| PSMF1    | 201052_s_at   | 7.82   | 5.32E-28|
| ASMTL    | 36554_at      | 7.82   | 1.08E-26|
| SAR1B    | 1554482_a_at  | 7.79   | <2.90E-44|
| PRKCI    | 209678_s_at   | 7.79   | 1.77E-14|
| RAB5B    | 201276_at     | 7.79   | 8.68E-39|
| WRB      | 202749_at     | 7.79   | 1.94E-17|
| KDM5D    | 206700_s_at   | 7.79   | 2.54E-30|
| AHS1A1   | 201491_at     | 7.77   | 4.69E-21|
| SPA17    | 205406_s_at   | 7.77   | 5.86E-26|
| HMGA1    | 206074_s_at   | 7.77   | 9.02E-20|
| PCID2    | 225149_at     | 7.77   | 2.36E-28|
| BGLAP    | 206956_at     | 7.77   | 1.04E-30|
| C1orf131 | 226242_at     | 7.76   | 4.25E-21|
| C1orf122 | 225480_at     | 7.76   | 1.89E-24|
| TSHZ1    | 223283_s_at   | 7.76   | 3.32E-15|
| ARFIP2   | 202109_at     | 7.75   | 2.37E-25|
| ANKR1D13A| 224810_s_at   | 7.75   | 3.18E-23|
| JOSD1    | 201751_at     | 7.75   | 1.43E-24|
| CHMP1B   | 218178_s_at   | 7.75   | 6.88E-35|
| SREK1    | 212721_at     | 7.75   | 4.86E-12|
| GPATCH8  | 212485_at     | 7.75   | 4.11E-23|
| MT1G     | 204745_x_at   | 7.75   | 5.75E-11|
| CCDC104  | 224968_at     | 7.74   | 3.05E-21|
| SUPT20H  | 226330_s_at   | 7.74   | 1.99E-21|
| SIAH2    | 209339_at     | 7.74   | 8.49E-37|
| PYROXD1  | 213878_at     | 7.74   | 1.24E-17|
| HLA-E    | 200905_x_at   | 7.73   | 9.46E-20|
| U2SURP   | 212058_at     | 7.73   | 4.18E-16|
| HARS2    | 209252_at     | 7.73   | 3.44E-29|
| VEGFB    | 203683_s_at   | 7.72   | 4.46E-33|
| LIN37    | 213526_s_at   | 7.72   | 1.79E-22|
| NADSYN1  | 232946_s_at   | 7.72   | 2.31E-20|
| FAM122A  | 226443_at     | 7.72   | 4.25E-27|
| PSMD7    | 201705_at     | 7.72   | 1.64E-17|
| BAG3     | 217911_s_at   | 7.71   | 7.20E-21|
| RP9      | 227852_at     | 7.71   | 3.31E-23|
| AKAP11   | 203156_at     | 7.71   | 1.95E-15|
| ZFP36L2  | 201369_s_at   | 7.70   | 1.22E-13|
| UBA6     | 218340_s_at   | 7.70   | 8.44E-39|
| Gene  | ProbeID   | Log2FoldChange | Log10PValue |
|-------|-----------|----------------|-------------|
| ARF6  | 203311_s_at | 7.70           | 4.24E-40    |
| SNRPB2| 202505_at  | 7.70           | 2.19E-27    |
| NPR2  | 204310_s_at | 7.70           | 9.90E-38    |
| H2BS5 | 208579_x_at | 7.69           | 3.44E-36    |
| COPG2 | 223457_at  | 7.69           | 4.05E-34    |
| NEDD4 | 213012_at  | 7.69           | 1.00E-21    |
| SF3B1 | 201071_x_at | 7.68           | 1.73E-19    |
| TPR   | 201730_s_at | 7.68           | 3.84E-15    |
| WIPF2 | 212051_at  | 7.68           | 8.83E-28    |
| MTIF3 | 223356_s_at | 7.68           | 1.19E-21    |
| MIB1  | 224726_at  | 7.68           | 7.50E-23    |
| DRG1  | 202810_at  | 7.67           | 5.83E-23    |
| BIRC6 | 224635_s_at | 7.67           | 5.79E-26    |
| RNF5  | 209111_at  | 7.67           | 2.91E-21    |
| FAM89B| 32209_at   | 7.66           | 2.35E-28    |
| ILVBL | 202993_at  | 7.66           | 2.16E-17    |
| MELK  | 204825_at  | 7.66           | 4.50E-11    |
| SNX6  | 217789_at  | 7.65           | 7.63E-21    |
| PSMB8 | 209040_s_at | 7.65           | 1.26E-17    |
| ASH1L | 222667_s_at | 7.65           | 1.35E-16    |
| HGSNAT| 218017_s_at | 7.65           | 7.87E-19    |
| AGPAT3| 223182_s_at | 7.65           | 1.29E-13    |
| SNX8  | 223241_at  | 7.64           | 1.99E-27    |
| KIF3B | 225205_at  | 7.64           | 4.71E-27    |
| DPP8  | 220939_s_at | 7.64           | 2.32E-22    |
| NUP93 | 202188_at  | 7.64           | 2.53E-27    |
| OTTHUMG00000163952| 235696_at | 7.64           | < 2.90E-44 |
| SEC61B| 203133_at  | 7.63           | 1.50E-20    |
| CREB3 | 209432_s_at | 7.63           | 2.98E-20    |
| STX4  | 203530_s_at | 7.63           | 1.11E-24    |
| FAM103A1| 225210_s_at | 7.63           | 2.75E-13    |
| WBP11 | 217821_s_at | 7.63           | 3.41E-33    |
| CERS5 | 224951_at  | 7.62           | 6.07E-23    |
| TMEM185A| 227880_s_at | 7.62           | 7.52E-23    |
| C15orf40| 1552310_at | 7.62           | 1.66E-18    |
| NMRAL1| 223206_s_at | 7.61           | 5.67E-18    |
| USP47 | 221518_s_at | 7.60           | 9.83E-28    |
| C1orf21| 223125_s_at | 7.60           | 4.53E-15    |
| EIF1AY| 204409_s_at | 7.60           | 2.16E-32    |
| G3BP1 | 201514_s_at | 7.60           | 2.61E-26    |
| PLK2  | 201939_at  | 7.59           | 1.06E-14    |
| Gene      | Affymetrix Probe ID | Log2 Ratio | Log10 P Value |
|-----------|---------------------|------------|---------------|
| MBOAT2    | 226726_at           | 7.59       | 8.86E-33      |
| TJP2      | 202085_at           | 7.59       | 5.86E-14      |
| SETD7     | 224928_at           | 7.59       | 3.47E-15      |
| ABCF1     | 200045_at           | 7.59       | 1.69E-20      |
| RPL23A    | 213084_x_at         | 7.59       | 1.05E-17      |
| RNASET2   | 217983_s_at         | 7.58       | 4.44E-14      |
| MED15     | 222175_s_at         | 7.58       | 4.53E-26      |
| PCCB      | 212694_s_at         | 7.58       | 9.42E-18      |
| ZMAT2     | 224782_at           | 7.56       | 4.57E-19      |
| SMARCA5   | 202303_x_at         | 7.56       | 2.46E-24      |
| DLAT      | 212568_s_at         | 7.56       | 2.10E-20      |
| TIMM21    | 223181_at           | 7.55       | 6.88E-21      |
| RBM42     | 205740_s_at         | 7.55       | 6.64E-21      |
| EIF4B     | 211938_at           | 7.54       | 1.36E-17      |
| PRNP      | 215707_s_at         | 7.54       | 1.86E-40      |
| NOA1      | 223157_at           | 7.53       | 8.89E-23      |
| STAT1     | 200887_s_at         | 7.53       | 1.15E-10      |
| ATF7IP    | 218987_at           | 7.53       | 6.65E-25      |
| ALG8      | 203545_at           | 7.52       | 4.81E-24      |
| KLHL12    | 225068_at           | 7.52       | 4.86E-17      |
| LDB2      | 206481_s_at         | 7.52       | 1.90E-15      |
| EPB41L2   | 201718_s_at         | 7.51       | 2.31E-30      |
| BACE1     | 224335_s_at         | 7.51       | < 2.90E-44    |
| BSCL2     | 208906_at           | 7.50       | 1.60E-23      |
| RALBP1    | 202845_s_at         | 7.50       | 2.38E-26      |
| YLPM1     | 212787_at           | 7.50       | 6.37E-19      |
| SERBP1    | 209669_s_at         | 7.50       | 3.74E-19      |
| MRPS27    | 212145_at           | 7.50       | 1.44E-25      |
| KCNE4     | 1552508_at          | 7.48       | 1.50E-31      |
| EIF4G2    | 200004_at           | 7.48       | 2.51E-19      |
| HOXC6     | 206858_s_at         | 7.48       | 6.60E-12      |
| WARS2     | 222734_at           | 7.47       | 4.18E-22      |
| ARHGAP17  | 218076_s_at         | 7.47       | 7.52E-25      |
| WHSC1     | 209053_s_at         | 7.47       | 3.94E-26      |
| AGA       | 216064_s__at        | 7.47       | 2.66E-31      |
| UGDH      | 203343_at           | 7.47       | 7.58E-12      |
| PRKAG2    | 222582_at           | 7.47       | 1.77E-16      |
| KIF2A     | 203087_s_at         | 7.47       | 1.85E-19      |
| ARNTL2    | 220658_s_at         | 7.46       | 1.13E-35      |
| PLGRKT    | 218992_at           | 7.45       | 3.66E-22      |
| LPHN2     | 206953_s_at         | 7.44       | 1.39E-15      |
| Gene  | Probe Set       | Log2 Fold Change | P-Value     |
|-------|----------------|-----------------|-------------|
| APEH  | 201284_s_at    | 7.44            | 4.43E-18    |
| HMG20A| 218152_at      | 7.44            | 6.53E-19    |
| LRP1  | 200785_s_at    | 7.44            | 9.83E-18    |
| BRK1  | 224575_at      | 7.44            | 1.75E-24    |
| FAM32A| 201863_at      | 7.44            | 9.34E-24    |
| DEXI  | 203733_at      | 7.43            | 1.59E-28    |
| HMG20A| 218152_at      | 7.44            | 7.49E-20    |
| LRP1  | 200785_s_at    | 7.44            | 2.17E-07    |
| ICT1  | 204868_at      | 7.43            | 1.39E-25    |
| TEAD2 | 226408_at      | 7.43            | 4.31E-24    |
| IDUA  | 205059_s_at    | 7.42            | 7.81E-29    |
| DCTN4 | 218013_x_at    | 7.42            | 1.10E-39    |
| PPP3CC| 207000_s_at    | 7.42            | 2.77E-36    |
| ZDHHHC13| 219296_at    | 7.42            | 4.59E-29    |
| METTL17| 223528_s_at    | 7.42            | 4.44E-24    |
| PHTF1 | 210191_s_at    | 7.41            | 2.77E-34    |
| LOC100288142| 201104_x_at | 7.41            | 4.87E-26    |
| DDX5  | 200033_at      | 7.41            | 2.89E-18    |
| ZW10  | 204812_at      | 7.41            | 3.87E-29    |
| SEC16A| 215696_s_at    | 7.41            | 1.66E-20    |
| FAM46A| 221766_s_at    | 7.41            | 5.37E-15    |
| HIGD2A| 209329_x_at    | 7.41            | 9.19E-27    |
| DIDO1 | 227335_at      | 7.41            | 3.18E-35    |
| MRP63 | 224535_s_at    | 7.40            | 2.30E-30    |
| DIAPH3| 229097_at      | 7.40            | 3.67E-12    |
| SMARCA1| 215294_s_at    | 7.40            | 2.11E-31    |
| DCPS  | 218774_at      | 7.40            | 7.44E-27    |
| UGGT1 | 222569_at      | 7.39            | 8.57E-40    |
| SH3KBP1| 1554168_a_at  | 7.39            | 1.97E-14    |
| SP1   | 224754_at      | 7.39            | 5.84E-20    |
| ME2   | 210154_at      | 7.38            | <2.90E-44   |
| CNRIP1| 226751_at      | 7.38            | 2.96E-17    |
| SRGAP1| 227484_at      | 7.38            | 6.59E-22    |
| CWC15 | 223067_at      | 7.37            | 3.49E-18    |
| ALG6  | 219649_at      | 7.37            | 2.03E-17    |
| MLX   | 217909_s_at    | 7.36            | 2.77E-29    |
| POLR1C| 207515_s_at    | 7.36            | 1.07E-36    |
| HNRNPA0| 201054_at     | 7.36            | 2.37E-16    |
| COL6A3| 201438_at      | 7.36            | 1.48E-21    |
| LOC654342| 214110_s_at | 7.36            | 3.83E-21    |
| LPIN1 | 212276_at      | 7.36            | 1.62E-21    |
| Gene     | Reference   | Log2FC | P-value |
|----------|-------------|--------|---------|
| SNHG17   | 65588_at    | 7.36   | 1.79E-21|
| DSE      | 218854_at   | 7.35   | 5.37E-08|
| HERPUD2  | 1552628_a_at| 7.35   | 4.24E-25|
| TIPIN    | 219258_at   | 7.34   | 2.62E-21|
| KIAA1737 | 225623_at   | 7.33   | 1.26E-23|
| DEPDC1   | 232278_s_at | 7.33   | 2.19E-43|
| TSR3     | 213104_at   | 7.33   | 3.77E-25|
| SLC30A1  | 212907_at   | 7.33   | 1.98E-12|
| MINA     | 213189_at   | 7.32   | 1.53E-23|
| CTD-2336O2.1 | 227092_at | 7.32   | 4.95E-28|
| MYO1C    | 225080_at   | 7.32   | 7.56E-28|
| MET      | 203510_at   | 7.31   | 8.28E-11|
| LINC00667| 226235_at   | 7.31   | 3.77E-33|
| EIF2S1   | 201144_s_at | 7.31   | 2.26E-17|
| ZMYM4    | 202050_s_at | 7.31   | 8.24E-30|
| PITHD1   | 223124_s_at | 7.31   | 1.68E-20|
| SLC6A8   | 202219_at   | 7.31   | 1.67E-12|
| PDCD5    | 219275_at   | 7.30   | 4.20E-29|
| EXOC1    | 222127_s_at | 7.30   | 4.22E-19|
| GSK3B    | 209945_s_at | 7.30   | 1.16E-20|
| EAPP     | 202623_at   | 7.30   | 9.05E-20|
| MITD1    | 226329_s_at | 7.30   | 1.86E-22|
| UBE3A    | 211285_s_at | 7.30   | 1.12E-21|
| IDH2     | 210046_s_at | 7.30   | 6.11E-17|
| DHFR     | 202533_s_at | 7.29   | <2.90E-44|
| PIK3CA   | 204369_at   | 7.29   | 3.20E-30|
| FAH      | 202862_at   | 7.29   | 2.32E-21|
| U2AF1    | 202858_at   | 7.29   | 6.76E-17|
| TXNDC15  | 220495_s_at | 7.29   | 2.97E-17|
| SH2B3    | 203320_at   | 7.29   | 2.07E-21|
| NCK1     | 204725_s_at | 7.29   | 7.82E-32|
| SNX14    | 225101_s_at | 7.29   | 9.09E-19|
| BLCAP    | 201032_at   | 7.29   | 3.96E-20|
| TBC1D16  | 228488_at   | 7.28   | 1.10E-22|
| FAM83D   | 225687_at   | 7.28   | 7.19E-14|
| LY96     | 206584_at   | 7.28   | 3.19E-13|
| TMEM206  | 222752_s_at | 7.28   | 6.96E-24|
| MNAT1    | 203565_s_at | 7.28   | 9.30E-32|
| DIXDC1   | 214724_at   | 7.27   | 5.34E-14|
| JAGN1    | 223104_at   | 7.27   | 2.82E-24|
| PTPN12   | 202006_at   | 7.26   | 6.06E-16|
| Gene Symbol | Entrez ID | FC  | p-value |
|-------------|-----------|-----|---------|
| ST3GAL1     | 225033_at | 7.26| 2.11E-24 |
| GBA         | 209093_s_at | 7.26| 3.82E-29 |
| GTF3A       | 201338_x_at | 7.26| 2.81E-18 |
| ERRFI1      | 224657_at | 7.25| 1.60E-11 |
| NDUFAF4     | 219006_at | 7.24| 4.50E-23 |
| SLC9A6      | 203909_at | 7.24| 5.06E-29 |
| AKAP12      | 227529_s_at | 7.24| 8.04E-10 |
| NECAP1      | 209300_s_at | 7.24| 5.83E-24 |
| SYAP1       | 225154_at | 7.24| 5.62E-22 |
| TIMM22      | 222841_s_at | 7.24| 7.11E-41 |
| MAGT1       | 224899_s_at | 7.23| 2.37E-13 |
| MDP1        | 228763_at | 7.23| 1.03E-17 |
| GEM         | 204472_at | 7.22| 1.39E-11 |
| EHD3        | 218935_at | 7.22| 9.52E-18 |
| MED16       | 43544_at | 7.22| 1.10E-13 |
| DCAF5       | 224703_at | 7.22| 4.23E-25 |
| VPS37B      | 221704_s_at | 7.22| 1.16E-21 |
| ZDHHC6      | 218249_at | 7.22| 5.44E-22 |
| CCDC28A     | 209479_at | 7.21| 3.40E-20 |
| CDK16       | 207239_s_at | 7.21| 2.35E-32 |
| CD58        | 205173_x_at | 7.20| 3.62E-16 |
| RFC4        | 204023_at | 7.20| 1.50E-17 |
| GFM2        | 225392_at | 7.20| 5.97E-29 |
| C19orf43    | 223003_at | 7.19| 1.08E-22 |
| SNX4        | 205329_s_at | 7.19| 7.67E-23 |
| MFSD10      | 209215_at | 7.19| 5.83E-21 |
| CYB5R4      | 219079_at | 7.19| 1.48E-36 |
| BNIP2       | 226280_at | 7.19| 6.78E-15 |
| PNPO        | 222653_at | 7.19| 4.24E-30 |
| UMP5        | 202706_s_at | 7.19| 4.80E-22 |
| SUPT16H     | 217815_at | 7.19| 9.68E-23 |
| STEAP1B     | 217553_at | 7.18| 1.37E-38 |
| NOTCH2      | 210756_s_at | 7.18| 2.90E-44 |
| KMT2E       | 223189_x_at | 7.18| 2.98E-15 |
| MYO1E       | 203072_at | 7.17| 1.68E-34 |
| FOXF2       | 206377_at | 7.17| 7.87E-21 |
| BAALC       | 222780_s_at | 7.17| 1.06E-36 |
| APOPT1      | 225948_at | 7.17| 3.07E-37 |
| NENF        | 218407_x_at | 7.17| 1.50E-27 |
| TUBA4A      | 212242_at | 7.16| 3.63E-18 |
| COA4        | 220647_s_at | 7.16| 1.45E-25 |
| Gene     | Probe ID   | Log2FC | Adj. p-value |
|----------|------------|--------|--------------|
| PXN      | 201087_at  | 7.16   | 2.43E-29     |
| COL27A1  | 225288_at  | 7.16   | 9.83E-15     |
| DAPK3    | 203890_s_at| 7.16   | 2.90E-44     |
| NDC80    | 204162_at  | 7.15   | 2.48E-11     |
| PGAM1    | 200886_s_at| 7.15   | 2.97E-19     |
| XPC      | 209375_at  | 7.15   | 1.55E-24     |
| TRIM44   | 217759_at  | 7.15   | 1.70E-19     |
| GTF2B    | 208066_s_at| 7.15   | 2.17E-20     |
| UROS     | 203031_s_at| 7.14   | 1.99E-23     |
| LINC0094 | 203245_s_at| 7.14   | 7.25E-20     |
| MSRB3    | 1554127_s_at| 7.13  | 1.55E-19     |
| EIF3J    | 208985_s_at| 7.13   | 3.47E-15     |
| DUSP6    | 208893_s_at| 7.13   | 4.62E-14     |
| IGF2BP2  | 218847_at  | 7.13   | 1.71E-12     |
| UTP18    | 203721_s_at| 7.12   | 1.12E-15     |
| NOP16    | 214011_s_at| 7.12   | 2.06E-21     |
| WDR46    | 209196_at  | 7.11   | 6.86E-23     |
| TWISTNB  | 226784_at  | 7.11   | 1.58E-30     |
| WDSUB1   | 226668_at  | 7.11   | 1.42E-17     |
| HADH     | 211569_s_at| 7.11   | 2.50E-18     |
| UBA2LP1  | 201378_s_at| 7.11   | 7.68E-30     |
| UBXN7    | 217100_s_at| 7.11   | 6.10E-33     |
| FUS      | 200959_at  | 7.11   | 6.33E-17     |
| YTHDF3   | 1564053_a_at| 7.11 | < 2.90E-44   |
| GOPC     | 227215_at  | 7.10   | 5.38E-16     |
| ACIN1    | 201715_s_at| 7.10   | 3.09E-26     |
| HLA-C    | 211749_x_at| 7.10   | 1.58E-16     |
| C12orf10 | 218220_at  | 7.10   | 2.00E-20     |
| ABHD17C  | 225436_at  | 7.10   | 3.96E-27     |
| YARS     | 212048_s_at| 7.10   | 2.23E-23     |
| PRPF31   | 202407_s_at| 7.10   | 4.40E-40     |
| ACAD8    | 221669_s_at| 7.10   | 5.16E-35     |
| TGS1     | 238346_s_at| 7.10   | 1.64E-17     |
| FOSL1    | 204420_at  | 7.10   | 1.66E-40     |
| PLA2G16  | 209581_at  | 7.09   | 2.17E-13     |
| KLHL21   | 203068_at  | 7.09   | 4.59E-24     |
| CFDP1    | 203166_at  | 7.09   | 4.44E-22     |
| PDPK1    | 224986_s_at| 7.08   | 2.51E-20     |
| CYFIP1   | 208923_at  | 7.08   | 2.70E-18     |
| FZD6     | 203987_at  | 7.08   | 2.05E-13     |
| TANK     | 207616_s_at| 7.08   | 1.97E-23     |
| Gene Symbol | probeset ID | log2 Fold Change | p-value |
|-------------|-------------|------------------|---------|
| NPIPA1      | 204538_x_at | 7.08             | 8.31E-20|
| ABL2        | 231907_at   | 7.08             | 6.44E-35|
| COMMD9      | 218072_at   | 7.07             | 2.11E-20|
| RPL22       | 221726_at   | 7.07             | 1.45E-14|
| CPPED1      | 222686_s_at | 7.07             | 1.28E-38|
| HTRA2       | 203089_s_at | 7.07             | 2.00E-16|
| BMP1        | 205574_x_at | 7.06             | 1.00E-13|
| METTL8      | 1554667_s_at| 7.06             | 9.33E-25|
| HCCS        | 203746_s_at | 7.06             | 8.02E-22|
| HSPB11      | 203960_s_at | 7.06             | 2.14E-33|
| CSNK2A2     | 203575_at   | 7.06             | 1.48E-20|
| LGALS3BP    | 200923_at   | 7.05             | 2.58E-20|
| LOC728554   | 224623_at   | 7.05             | 1.83E-14|
| COX20       | 224824_at   | 7.05             | 4.78E-28|
| C9orf123    | 224879_at   | 7.05             | 1.01E-21|
| PHYH        | 203335_at   | 7.05             | 5.41E-14|
| DST         | 212254_s_at | 7.05             | 1.89E-14|
| MUT         | 202959_at   | 7.04             | 2.11E-24|
| ABI3BP      | 223395_at   | 7.04             | 2.50E-04|
| KIN         | 205664_at   | 7.04             | 8.99E-20|
| NAA50       | 222393_s_at | 7.04             | 2.03E-20|
| CTPS1       | 202613_at   | 7.03             | 2.46E-19|
| ABCE1       | 201873_s_at | 7.03             | 8.61E-18|
| GNA12       | 224681_at   | 7.03             | 5.50E-25|
| SCPEP1      | 218217_at   | 7.03             | 2.02E-17|
| IL6         | 205207_at   | 7.03             | 3.67E-07|
| ATP1B3      | 208836_at   | 7.01             | 1.99E-16|
| WBP4        | 203597_s_at | 7.01             | 4.58E-22|
| MAP2K1      | 202670_at   | 7.00             | 1.26E-21|
| FOXN3       | 218031_s_at | 7.00             | 6.44E-17|
| EXOSC4      | 218695_at   | 7.00             | 3.40E-24|
| BRMS1       | 215631_s_at | 7.00             | 9.14E-28|
| DPYSL2      | 200762_at   | 7.00             | 4.18E-16|
| SMIM3       | 223276_at   | 6.99             | 1.83E-11|
| TMEM60      | 223396_at   | 6.99             | 7.24E-14|
| SECISBP2    | 224250_s_at | 6.99             | 8.60E-21|
| IFNGR1      | 211676_s_at | 6.99             | 1.61E-14|
| DIS3        | 234660_s_at | 6.99             | < 2.90E-44|
| LPIN2       | 202459_s_at | 6.99             | 4.84E-38|
| NARS        | 200027_at   | 6.97             | 1.55E-14|
| GCLM        | 203925_at   | 6.97             | 2.15E-12|
| Gene     | Probe   | Log2 FC | p-value |
|----------|---------|---------|---------|
| FAM134C  | 212697_at| 6.97    | 2.03E-25|
| LLPH     | 224446_at| 6.96    | 3.30E-28|
| UBXN1    | 201871_s_at| 6.96    | 3.60E-22|
| SSU72    | 223053_x_at| 6.96    | 6.51E-31|
| SFT2D3   | 222763_s_at| 6.96    | 2.86E-18|
| STK17B   | 205214_at| 6.96    | 5.98E-22|
| MRPS6    | 224919_at| 6.95    | 1.17E-16|
| ZCRB1    | 227416_s_at| 6.95    | 4.46E-34|
| VPS37A   | 225378_at| 6.95    | 2.42E-22|
| PHF5A    | 225309_at| 6.95    | 1.03E-28|
| OXSM     | 219133_at| 6.95    | 8.95E-21|
| CHCHD10  | 224932_at| 6.95    | 8.24E-16|
| TTC9C    | 226175_at| 6.94    | 3.90E-31|
| CTBP2    | 210554_s_at| 6.94    | 1.84E-18|
| OGDH     | 201282_at| 6.94    | 1.04E-38|
| BLVRA    | 203771_s_at| 6.94    | 2.88E-34|
| NAP114   | 1560339_s_at| 6.94    | 5.16E-39|
| VEZF1    | 202171_at| 6.94    | 5.94E-27|
| RSL24D1  | 217915_s_at| 6.93    | 1.95E-17|
| EBF1     | 229487_at| 6.93    | 5.41E-21|
| PNKP     | 218961_s_at| 6.93    | 5.05E-17|
| LMCD1    | 242767_at| 6.93    | 1.38E-12|
| MFAP3    | 213123_at| 6.92    | 2.50E-22|
| CABLES1  | 225532_at| 6.92    | 1.94E-24|
| IFT52    | 218709_s_at| 6.92    | 4.37E-21|
| GTF3C6   | 225083_at| 6.92    | 1.18E-14|
| ZNF286A  | 227077_at| 6.92    | 2.47E-19|
| TMEM173  | 224929_at| 6.91    | 1.47E-18|
| COG8     | 219575_s_at| 6.91    | 2.49E-23|
| DNAJC17  | 219861_at| 6.91    | 1.71E-37|
| HLA-G    | 211529_x_at| 6.90    | 1.78E-18|
| RPS3A    | 200099_s_at| 6.90    | 1.47E-17|
| PEAK1    | 225913_at| 6.90    | 2.20E-21|
| TMEM200B | 227386_s_at| 6.90    | 3.73E-16|
| METRNL   | 225955_at| 6.89    | 7.46E-13|
| LYPD1    | 212909_at| 6.88    | 2.88E-09|
| GPR124   | 221814_at| 6.88    | 1.90E-21|
| FKRPS    | 219853_at| 6.88    | <2.90E-44|
| SIGMAR1  | 214484_s_at| 6.87    | <2.90E-44|
| G6PC3    | 44654_at| 6.87    | 4.90E-27|
| TMEM222  | 221512_at| 6.87    | 2.61E-24|
| Gene  | probe_set | log2 fold change | p-value |
|-------|-----------|-----------------|---------|
| BUB1  | 209642_at | 6.86            | 4.28E-29|
| DNMT1 | 201697_s_at| 6.86            | 1.41E-20|
| LRP5  | 209468_at | 6.86            | 2.19E-39|
| GSR   | 205770_at | 6.86            | 5.73E-27|
| CENPE | 205046_at | 6.86            | 6.19E-30|
| SEC24A| 212902_at | 6.86            | 3.47E-34|
| DDX49 | 210811_s_at| 6.86            | 9.86E-37|
| GEMIN5| 225712_at | 6.86            | 1.05E-29|
| GIT2  | 225558_at | 6.85            | 6.25E-18|
| FAM20C| 226722_at | 6.85            | 8.18E-18|
| RHOG  | 203175_at | 6.85            | 4.25E-19|
| TFPI  | 213258_at | 6.85            | 9.59E-10|
| PHLPP2| 213407_at | 6.85            | 1.81E-32|
| PPIG  | 208993_s_at| 6.85            | 1.18E-15|
| RAB24 | 225251_at | 6.84            | 1.64E-18|
| GTF3C3| 218343_s_at| 6.84            | 2.22E-25|
| PSMG1 | 203405_at | 6.84            | 1.64E-18|
| ATP6  | 1553567_s_at| 6.84            | 1.22E-11|
| RQCD1 | 1554080_at| 6.84            | 1.89E-20|
| RABEP2| 74694_s_at | 6.84            | 5.65E-18|
| FAHD1 | 227960_s_at| 6.84            | 5.80E-15|
| LARP4B| 208954_s_at| 6.83            | 2.67E-26|
| HMMR  | 207165_at | 6.83            | 1.43E-09|
| MAP1LC3A| 232011_s_at| 6.83            | <2.90E-44|
| SNRP40| 215905_s_at| 6.82            | 2.12E-31|
| RFTN1 | 212646_at | 6.82            | 1.70E-14|
| RBM23 | 219816_s_at| 6.82            | 7.57E-24|
| ELF1  | 212420_at | 6.81            | 8.64E-20|
| CDK9  | 203198_at | 6.81            | 5.05E-34|
| GPD2  | 225447_at | 6.81            | 5.81E-22|
| PABPC3| 208113_x_at| 6.81            | 7.13E-20|
| TOR1B | 209593_s_at| 6.81            | 1.17E-23|
| RAI14 | 202052_s_at| 6.80            | 2.16E-17|
| PUF60 | 209899_s_at| 6.80            | 5.70E-22|
| JTB   | 200048_s_at| 6.80            | 1.87E-19|
| GSTM3 | 202554_s_at| 6.80            | 5.06E-16|
| SUGP1 | 215004_s_at| 6.80            | 2.51E-26|
| UBASH3B| 238462_at | 6.79            | <2.90E-44|
| CHMP4A| 218572_at | 6.79            | 5.63E-26|
| STX2  | 213434_at | 6.79            | 2.09E-18|
| ICMT  | 201611_s_at| 6.78            | 1.33E-21|
| Gene | Accession | Fold Change | Log2FoldChange |
|------|-----------|-------------|----------------|
| AIMP2 | 202138\_x\_at | 6.77 | 1.24E-19 |
| WNK1 | 211992\_at | 6.77 | 3.73E-17 |
| EML1 | 204797\_s\_at | 6.77 | 4.45E-27 |
| CTSC | 225647\_s\_at | 6.77 | 2.84E-21 |
| F8A1 | 203274\_at | 6.77 | 2.42E-24 |
| NXN | 219489\_s\_at | 6.77 | 2.59E-13 |
| MSH3 | 210947\_s\_at | 6.77 | 3.60E-35 |
| GRB2 | 223049\_at | 6.77 | 6.18E-22 |
| TYW3 | 227141\_at | 6.76 | 6.07E-16 |
| TAF15 | 202840\_at | 6.76 | 3.75E-21 |
| EHD1 | 209037\_s\_at | 6.76 | 4.12E-28 |
| SNTB2 | 205315\_s\_at | 6.76 | 2.83E-19 |
| NUP107 | 218768\_at | 6.75 | 3.22E-16 |
| PREB | 217861\_s\_at | 6.75 | 2.81E-20 |
| STYXL1 | 233982\_x\_at | 6.75 | 1.43E-29 |
| ZBTB43 | 204182\_s\_at | 6.75 | 2.48E-36 |
| MIR1236 | 209219\_s\_at | 6.75 | 2.01E-18 |
| SPTBN1 | 212071\_s\_at | 6.75 | 1.82E-16 |
| THOC2 | 222122\_s\_at | 6.75 | 3.72E-19 |
| C17orf61 | 56197\_at | 6.75 | 1.43E-18 |
| KPNA4 | 225267\_at | 6.75 | 7.35E-25 |
| TAPBP | 208829\_at | 6.74 | 9.03E-19 |
| MCM10 | 220651\_s\_at | 6.74 | 5.43E-35 |
| APOOL | 213289\_at | 6.74 | 1.09E-42 |
| CPNE1 | 206918\_s\_at | 6.74 | 5.63E-20 |
| LOC100506639 | 214741\_at | 6.74 | 6.12E-18 |
| GLT8D2 | 221447\_s\_at | 6.74 | 5.79E-15 |
| ACOX2 | 205364\_at | 6.73 | 2.40E-27 |
| LOC728392 | 218380\_at | 6.73 | 9.67E-14 |
| TUSC2 | 203272\_s\_at | 6.73 | 5.88E-38 |
| PPM1A | 203966\_s\_at | 6.73 | 1.14E-15 |
| MYL12B | 221474\_at | 6.73 | 7.30E-18 |
| PSD3 | 218613\_at | 6.72 | 5.05E-12 |
| TBX3 | 219682\_s\_at | 6.72 | 2.23E-18 |
| IFI30 | 201422\_at | 6.72 | 1.12E-11 |
| UNC13B | 202893\_at | 6.72 | 5.07E-29 |
| PSMD2 | 200830\_at | 6.72 | 4.47E-22 |
| SEC24C | 202361\_at | 6.72 | 3.16E-20 |
| C14orf142 | 223273\_at | 6.72 | 1.04E-26 |
| ANAPC1 | 231973\_s\_at | 6.72 | 3.45E-31 |
| SPG11 | 203513\_at | 6.72 | 1.69E-22 |
| Gene  | Accession | Log2 Fold Change | P-value  |
|-------|-----------|-----------------|----------|
| COX17 | 203880_at | 6.71            | 8.81E-21 |
| YTHDF1| 221741_s_at| 6.71            | 3.70E-23 |
| AKT1S1| 224982_at | 6.71            | <2.90E-44|
| TRPM7 | 223324_s_at| 6.71            | 1.08E-28 |
| MIR4800| 212347_x_at| 6.70            | 1.40E-30 |
| RAB5A | 206113_s_at| 6.70            | <2.90E-44|
| HDGF  | 200896_x_at| 6.70            | 5.89E-20 |
| KIAA2013| 224706_at | 6.69            | 2.90E-24 |
| PLAU  | 211668_s_at| 6.69            | 5.47E-19 |
| POLD2 | 201115_at | 6.69            | 2.01E-21 |
| SNRNP27| 212440_at | 6.69            | 6.76E-18 |
| IL10RB| 209575_at | 6.68            | 8.21E-22 |
| ATR   | 209902_at | 6.68            | 1.53E-20 |
| ZCCHC10| 1559399_s_at| 6.68            | <2.90E-44|
| LARP7 | 212785_s_at| 6.67            | 8.62E-23 |
| SPATA5L1| 222163_s_at| 6.67            | 4.44E-21 |
| UCKL1 | 218533_s_at| 6.67            | 1.18E-17 |
| EHBP1L1| 91703_at  | 6.67            | 1.37E-37 |
| ENSA  | 202596_at | 6.67            | 5.04E-20 |
| PEAR1 | 228618_at | 6.66            | 4.36E-27 |
| RAB21 | 203885_at | 6.66            | 2.01E-14 |
| RNF10 | 207801_s_at| 6.66            | 4.13E-25 |
| NDUFB3| 203371_s_at| 6.66            | 2.94E-23 |
| EBNA1BP2| 201323_at | 6.66            | 2.73E-20 |
| NDUFS2| 201966_at | 6.65            | 6.96E-21 |
| ZFHX4 | 219779_at | 6.65            | 9.00E-31 |
| MRPL3 | 208787_at | 6.65            | 1.66E-15 |
| LOC93622| 225391_at | 6.65            | 2.20E-20 |
| CMC4  | 216862_s_at| 6.64            | 3.90E-21 |
| SEL1L3| 212314_at | 6.64            | 2.23E-10 |
| DHX16 | 203694_s_at| 6.64            | 3.21E-24 |
| AGTRAP| 1555736_a_at| 6.64            | 1.66E-36 |
| MAVS  | 229741_at | 6.63            | 3.37E-40 |
| NCS1  | 230146_s_at| 6.63            | 1.47E-35 |
| CCDC34| 226287_at | 6.63            | 1.07E-12 |
| DESI1 | 212527_at | 6.63            | 3.84E-28 |
| HDAC5 | 202455_at | 6.63            | 3.40E-27 |
| ACAT2 | 209608_s_at| 6.63            | 5.31E-28 |
| LOC100506029| 228661_s_at | 6.63     | 4.32E-23 |
| PYCARD| 221666_s_at| 6.63            | 2.76E-16 |
| SNRPD3| 202567_at | 6.62            | 3.66E-19 |
| Gene       | ProbeID      | Fold Change | P-Value   |
|------------|--------------|-------------|-----------|
| ZNF318     | 203521_s_at  | 6.62        | 6.07E-29  |
| MIS18A     | 228597_at    | 6.62        | 1.61E-17  |
| EIF2D      | 218253_s_at  | 6.62        | 5.81E-22  |
| PABPC1///RLIM | 215823_x_at | 6.62        | 5.03E-19  |
| AGO2       | 225827_at    | 6.62        | 1.46E-32  |
| PSG5       | 204830_x_at  | 6.62        | 6.88E-28  |
| MRPL14     | 225201_s_at  | 6.62        | 2.34E-22  |
| C4orf33    | 1552370_at   | <2.90E-44   |           |
| MIS18A     | 228597_at    | 6.62        | 1.61E-17  |
| EIF2D      | 218253_s_at  | 6.62        | 5.81E-22  |
| PABPC1///RLIM | 215823_x_at | 6.62        | 5.03E-19  |
| AGO2       | 225827_at    | 6.62        | 1.46E-32  |
| PSG5       | 204830_x_at  | 6.62        | 6.88E-28  |
| MRPL14     | 225201_s_at  | 6.62        | 2.34E-22  |
| C4orf33    | 1552370_at   | <2.90E-44   |           |
| SAAL1      | 225614_at    | 6.61        | 7.29E-39  |
| PEX19      | 201707_at    | 6.61        | 3.20E-25  |
| FAM134A    | 218037_at    | 6.61        | 5.26E-23  |
| FEN1       | 204768_s_at  | 6.61        | 4.95E-35  |
| SLC22A4    | 205896_at    | 6.61        | 3.09E-31  |
| FAM168B    | 212017_at    | 6.61        | 5.06E-22  |
| RAB11FIP2  | 203884_s_at  | 6.61        | 9.43E-19  |
| ZNF271     | 211009_s_at  | 6.60        | 3.34E-27  |
| CDC2A2     | 226661_at    | 6.60        | 1.42E-30  |
| IVNS1ABP   | 206245_s_at  | 6.60        | 2.86E-16  |
| CEBPZ      | 203341_at    | 6.60        | 1.86E-20  |
| CYB5B      | 201633_s_at  | 6.60        | 1.86E-20  |
| DNPEP      | 201937_s_at  | 6.60        | 2.63E-19  |
| C16orf45   | 212736_at    | 6.59        | 7.42E-20  |
| ECHDC1     | 233124_s_at  | 6.59        | 1.40E-21  |
| EIF4A3     | 201303_at    | 6.59        | 2.09E-19  |
| CCDC107    | 229063_s_at  | 6.59        | 1.70E-28  |
| AES        | 217729_s_at  | 6.59        | 3.49E-31  |
| ZBTB38     | 219221_at    | 6.59        | 2.60E-15  |
| TMPO       | 203432_at    | 6.59        | 1.33E-20  |
| TGF1       | 203313_s_at  | 6.59        | 2.09E-18  |
| TARDBP     | 200020_at    | 6.59        | 4.06E-21  |
| EED        | 209572_s_at  | 6.58        | 8.32E-21  |
| FAM92A1    | 235391_at    | 6.58        | 9.34E-20  |
| IER3IP1    | 223071_at    | 6.57        | 2.73E-13  |
| APRT       | 203219_s_at  | 6.57        | 5.48E-19  |
| UHRF1      | 225655_at    | 6.57        | 9.01E-17  |
| CEP57      | 203492_x_at  | 6.57        | 2.45E-35  |
| MEAF6      | 218165_at    | 6.57        | 1.51E-21  |
| ANGEL2     | 221826_at    | 6.57        | 1.29E-35  |
| ZDHHC24    | 205634_x_at  | 6.56        | 1.64E-29  |
| SUCLA2     | 202930_s_at  | 6.56        | 4.92E-13  |
| NR3C1      | 211671_s_at  | 6.56        | 4.51E-13  |
| Gene | Accession | Log2FC | p-value |
|------|-----------|--------|---------|
| ELL2 | 226982_at | 6.55   | 9.98E-11|
| APOO | 221620_s_at| 6.55   | 5.73E-32|
| SRP9 | 201273_s_at| 6.55   | 8.66E-16|
| RFT1 | 226060_at | 6.55   | 5.97E-25|
| TCTA | 203054_s_at| 6.55   | 3.07E-28|
| GJC1 | 228776_at | 6.55   | 3.99E-11|
| STAM2 | 215044_s_at | 6.55 | 1.86E-38|
| PRPF8 | 200000_s_at | 6.55 | 1.65E-21|
| METTL3 | 209265_s_at | 6.54 | 4.07E-18|
| LZIC | 226087_at | 6.54   | 5.31E-21|
| FAM129B | 223019_at | 6.54 | 1.02E-23|
| CIRBP | 230142_s_at | 6.54 | 2.19E-15|
| WDR18 | 209461_x_at | 6.54 | 5.81E-29|
| WDR70 | 219193_at | 6.53   | 5.15E-20|
| RASA3 | 225562_at | 6.53   | 1.19E-27|
| HIF1AN | 226648_at | 6.53 | 8.32E-23|
| FAM192A | 217896_s_at | 6.53 | 3.46E-23|
| FAHD2A | 218504_at | 6.53 | 5.28E-22|
| TRIM32 | 203846_at | 6.53 | 1.67E-29|
| CDK5RAP2 | 233540_s_at | 6.52 | 3.16E-17|
| TPBG | 203476_at | 6.52 | 4.39E-13|
| MINK1 | 214246_x_at | 6.52 | 7.34E-22|
| PRDM16 | 232424_at | 6.52 | 1.55E-29|
| NEO1 | 204321_at | 6.51   | 1.35E-27|
| ZDHHC16 | 223212_at | 6.51 | 1.02E-18|
| RBM22 | 224068_x_at | 6.51 | 5.11E-30|
| CLN3 | 210859_x_at | 6.50 | 3.28E-30|
| SRD5A3 | 222750_s_at | 6.50 | 2.60E-16|
| LOC150776 | 207856_s_at | 6.50 | 6.18E-25|
| DNTTIP2 | 202776_at | 6.50 | 4.22E-23|
| PRKAR2A | 225000_at | 6.50 | 2.37E-26|
| SETX | 201964_at | 6.50 | 1.11E-17|
| FAM173A | 219709_x_at | 6.50 | 1.61E-20|
| GOSR2 | 210009_s_at | 6.50 | 2.03E-36|
| KIAA1967 | 225187_at | 6.50 | 8.02E-31|
| LOC100506365 | 227765_at | 6.50 | 1.57E-19|
| EVA1B | 221710_x_at | 6.50 | 8.95E-18|
| MAT2A | 200769_s_at | 6.50 | <2.90E-44|
| PIGP | 221689_s_at | 6.49 | 2.53E-18|
| C18orf21 | 223526_at | 6.49 | 1.68E-19|
| YAF2 | 206238_s_at | 6.49 | <2.90E-44|
| Gene Symbol | Accession | Log2 Ratio | Log10(FDR) |
|-------------|-----------|------------|------------|
| BCKDHB      | 210653_s_at | 6.48       | 8.83E-35   |
| ISY1        | 223831_x_at | 6.48       | 1.29E-37   |
| MTHFD2      | 201761_at  | 6.48       | 4.62E-08   |
| KIF20A      | 218755_at  | 6.48       | 1.03E-13   |
| IMPA2       | 203126_at  | 6.47       | 1.45E-14   |
| TRIB3       | 218145_at  | 6.47       | 6.30E-17   |
| ZDHHC2      | 222730_s_at| 6.47       | 7.23E-36   |
| BIVM        | 233255_s_at| 6.47       | 1.96E-22   |
| SETD9       | 238465_at  | 6.47       | 3.18E-23   |
| SNUPN       | 207438_s_at| 6.47       | 1.52E-23   |
| NRD1        | 208709_s_at| 6.47       | 2.59E-25   |
| AVPI1       | 218631_at  | 6.47       | 1.40E-17   |
| C16orf58    | 217891_at  | 6.46       | 3.07E-26   |
| RASAL2      | 219026_s_at| 6.46       | < 2.90E-44 |
| PJA2        | 201133_s_at| 6.46       | 4.74E-14   |
| ZBTB21      | 233952_s_at| 6.46       | 2.65E-11   |
| ABHD14B     | 224821_at  | 6.46       | 1.79E-26   |
| LITAF       | 200706_s_at| 6.46       | 6.12E-17   |
| FNDC1       | 226930_at  | 6.46       | 2.55E-06   |
| FLNB        | 208613_s_at| 6.45       | 4.37E-22   |
| CCDC115     | 224946_s_at| 6.45       | 3.61E-20   |
| KIAA0430    | 202386_s_at| 6.45       | 2.80E-14   |
| RFNG        | 212968_at  | 6.44       | 6.27E-27   |
| PTTG1IP     | 200677_at  | 6.44       | 3.77E-17   |
| CARS        | 212971_at  | 6.44       | 8.07E-20   |
| ZNF622      | 225152_at  | 6.44       | 8.39E-24   |
| LRRC47      | 212904_at  | 6.44       | 2.28E-23   |
| WDFY1       | 224800_at  | 6.43       | 1.03E-12   |
| PDP1        | 222572_at  | 6.43       | 1.99E-11   |
| NFASC       | 213438_at  | 6.43       | 2.15E-13   |
| PAFAH1B3    | 203228_at  | 6.43       | 3.62E-19   |
| GATAD2A     | 234294_x_at| 6.43       | 2.12E-22   |
| NTN4        | 223315_at  | 6.43       | 1.45E-08   |
| ORC2        | 204853_at  | 6.43       | 8.47E-31   |
| ZNF148      | 203319_s_at| 6.43       | 1.05E-24   |
| IDS         | 206342_x_at| 6.43       | 4.95E-18   |
| LINCO0493   | 226236_at  | 6.43       | 2.26E-23   |
| PROCR       | 203650_at  | 6.42       | 2.87E-20   |
| SCAMP3      | 201771_at  | 6.42       | 2.88E-20   |
| DDX39A      | 201584_s_at| 6.42       | 3.06E-13   |
| AGO3        | 219426_at  | 6.42       | 3.99E-24   |
| Gene Symbol | Gene ID | Log2 Fold Change | p-Value |
|-------------|---------|------------------|---------|
| MXRA8       | 213422_s_at | 6.42             | 5.73E-17 |
| TMEM54      | 202090_s_at | 6.42             | 8.79E-17 |
| SART3       | 209127_s_at | 6.41             | 5.35E-13 |
| CYP20A1     | 219565_at  | 6.41             | 6.95E-35 |
| COA1        | 209445_x_at| 6.41             | 1.37E-25 |
| KHSRP       | 204372_s_at| 6.41             | 7.23E-21 |
| LSM14A      | 212131_at  | 6.40             | 3.51E-18 |
| NDUF56      | 203606_s_at| 6.40             | 2.73E-21 |
| MRPL12      | 203931_s_at| 6.40             | 5.57E-17 |
| IDE         | 203327_at  | 6.40             | 3.73E-18 |
| NPYB        | 218129_s_at| 6.40             | 2.05E-31 |
| DBN1        | 202806_at  | 6.39             | 1.83E-26 |
| WDR37       | 211383_s_at| 6.39             | 9.34E-20 |
| DALR3D      | 221934_s_at| 6.39             | 9.36E-27 |
| CLCN4       | 214769_at  | 6.39             | 5.26E-30 |
| QPCT        | 205174_s_at| 6.39             | 4.35E-16 |
| TOLLIP      | 217930_s_at| 6.38             | 1.61E-29 |
| NUMB        | 209073_s_at| 6.37             | 1.65E-25 |
| AKIP1       | 219953_s_at| 6.37             | 6.67E-35 |
| ASCC3       | 212815_at  | 6.37             | 6.49E-17 |
| UBA2C2      | 224298_s_at| 6.37             | 5.37E-23 |
| LIIM51      | 207198_s_at| 6.37             | 1.49E-16 |
| COLEC12     | 221019_s_at| 6.37             | 5.24E-08 |
| SLC2A14     | 222088_s_at| 6.36             | 9.07E-15 |
| TPRA1       | 218855_at  | 6.35             | 1.99E-29 |
| PTCDC2      | 1555910_at | 6.35             | 1.57E-23 |
| SMAD5       | 235451_at  | 6.35             | 6.81E-19 |
| IFI16       | 208966_x_at| 6.35             | 7.34E-13 |
| HOXA5       | 213844_at  | 6.35             | 7.81E-08 |
| NADK2       | 226946_at  | 6.35             | 2.29E-36 |
| BIN1        | 214439_x_at| 6.34             | 7.18E-18 |
| C1orf31     | 231045_x_at| 6.34             | 1.56E-22 |
| ZNF689      | 227445_at  | 6.34             | 5.36E-29 |
| TRIP13      | 204033_at  | 6.33             | 5.85E-14 |
| SCAMP4      | 213244_at  | 6.33             | 4.00E-34 |
| BTBD1       | 217945_at  | 6.33             | 4.95E-19 |
| IFT27       | 205037_at  | 6.33             | 2.46E-29 |
| MGEA5       | 200899_s_at| 6.33             | 2.75E-18 |
| NLN         | 225943_at  | 6.33             | 9.89E-24 |
| GTPBP10     | 234311_s_at| 6.33             | 4.00E-20 |
| TPST2       | 204079_at  | 6.32             | 7.52E-15 |
| Gene   | ProbeID    | Log2FC | P-value     |
|--------|------------|--------|-------------|
| MEGF9  | 212830_at  | 6.32   | 6.53E-26    |
| KDM3B  | 210878_s_at| 6.32   | 2.19E-18    |
| DPYSL4 | 205493_s_at| 6.31   | 4.95E-17    |
| ATG12  | 204833_at  | 6.31   | 7.70E-43    |
| SRD5A1 | 210959_s_at| 6.31   | 2.94E-29    |
| PFKM   | 210976_s_at| 6.31   | 1.79E-15    |
| HK2    | 202934_at  | 6.31   | 1.06E-11    |
| PDE4DIP| 210305_at  | 6.30   | 3.81E-26    |
| MPI    | 202472_at  | 6.30   | 4.10E-33    |
| RAE1   | 211318_s_at| 6.30   | 1.70E-29    |
| FDX1   | 203647_s_at| 6.30   | 2.80E-12    |
| NXF1   | 208922_s_at| 6.29   | 2.82E-20    |
| SCARA3 | 219416_at  | 6.29   | 3.86E-26    |
| DHPS   | 211558_s_at| 6.29   | 6.13E-27    |
| BDKRB1 | 207510_at  | 6.29   | 2.64E-25    |
| BCL7C  | 219072_at  | 6.29   | 4.39E-23    |
| CTSO   | 203758_at  | 6.29   | 1.47E-15    |
| FAM20B | 202915_s_at| 6.29   | 1.02E-36    |
| TRIM27 | 210541_s_at| 6.28   | 2.02E-39    |
| SIVA1  | 203489_at  | 6.28   | 1.52E-27    |
| MAPKAP1| 217808_s_at| 6.28   | 1.49E-23    |
| API5   | 201687_s_at| 6.28   | 6.57E-22    |
| KAT6A  | 226547_at  | 6.28   | 2.60E-19    |
| PARVB  | 37966_at   | 6.28   | 1.44E-23    |
| CASC3  | 207842_s_at| 6.28   | 2.63E-23    |
| PAPD7  | 202466_at  | 6.27   | 1.02E-25    |
| BRPF3  | 225217_s_at| 6.27   | 7.36E-34    |
| SNHG1  | 224610_at  | 6.26   | 9.03E-17    |
| NUDC   | 210574_s_at| 6.26   | 1.89E-19    |
| MLLT1  | 224993_at  | 6.26   | 5.24E-25    |
| MIA3   | 212305_s_at| 6.26   | 1.42E-30    |
| MFN1   | 207098_s_at| 6.26   | 9.83E-21    |
| C12orf4| 218374_s_at| 6.26   | 3.11E-25    |
| TRIM4  | 223384_s_at| 6.26   | 1.60E-14    |
| EXOC2  | 219349_s_at| 6.26   | 1.53E-33    |
| PDAP1  | 202290_at  | 6.25   | 4.49E-29    |
| DYN1L1 | 217976_s_at| 6.25   | 2.18E-19    |
| ADAMTS5| 229357_at  | 6.25   | 4.75E-06    |
| NAGPA  | 205090_s_at| 6.25   | 6.07E-22    |
| MN1    | 205330_at  | 6.25   | 4.54E-15    |
| CPT1A  | 203633_at  | 6.25   | 6.46E-26    |
| Gene Symbol | Probe ID       | Fold Change | p-Value       |
|-------------|----------------|-------------|---------------|
| FAM45A      | 222955_s_at    | 6.25        | 5.48E-39      |
| TOX4        | 201685_s_at    | 6.24        | 6.48E-26      |
| C15         | 1555229_a_at   | 6.24        | < 2.90E-44    |
| PPM1D       | 204566_at      | 6.24        | 9.23E-13      |
| MPDU1       | 209208_at      | 6.24        | 3.24E-43      |
| HOTAI RM1   | 1557051_s_at   | 6.24        | 3.85E-26      |
| ENOPH1      | 217956_s_at    | 6.24        | 6.51E-14      |
| MOB4        | 202919_at      | 6.23        | 4.89E-17      |
| GAR1        | 219110_at      | 6.23        | 3.34E-13      |
| MXI1        | 202364_at      | 6.23        | 2.99E-14      |
| CLASP1      | 212752_at      | 6.23        | 2.03E-27      |
| GALNS       | 206335_at      | 6.23        | 5.93E-20      |
| ERBB2IP     | 222473_s_at    | 6.23        | 3.83E-11      |
| C1orf53     | 1558508_a_at   | 6.23        | 5.87E-10      |
| DNAJC14     | 223420_at      | 6.22        | 4.84E-23      |
| CNOT3       | 203239_s_at    | 6.22        | < 2.90E-44    |
| GPRC5A      | 203108_at      | 6.22        | 4.44E-08      |
| NET1        | 201830_s_at    | 6.22        | 4.89E-06      |
| ALG14       | 1553954_at     | 6.22        | 6.17E-22      |
| OS9         | 215399_s_at    | 6.22        | 2.62E-22      |
| CFLAR        | 210563_x_at    | 6.22        | 6.41E-22      |
| CPSF1       | 201639_s_at    | 6.21        | 1.28E-13      |
| FGFR1OP     | 205588_s_at    | 6.21        | 2.44E-34      |
| SAP30BP     | 217965_s_at    | 6.21        | 9.93E-25      |
| TNFAIP6     | 206025_s_at    | 6.21        | 1.28E-09      |
| CTNND1      | 208407_s_at    | 6.20        | 2.37E-18      |
| SMPDL3A     | 213624_at      | 6.20        | 8.95E-18      |
| MGME1       | 225890_at      | 6.20        | 4.94E-21      |
| EDEM3       | 223243_s_at    | 6.20        | 3.05E-16      |
| MIR4746     | 223012_at      | 6.19        | 5.14E-15      |
| DAGLB       | 225833_at      | 6.19        | < 2.90E-44    |
| PNKD        | 225298_at      | 6.19        | 1.14E-23      |
| ISCA2       | 226007_at      | 6.19        | 4.00E-15      |
| SUPV3L1     | 212894_at      | 6.19        | 1.51E-21      |
| DTL         | 218585_s_at    | 6.18        | 5.84E-13      |
| PKN2        | 212629_s_at    | 6.18        | 5.79E-15      |
| CHST12      | 218927_s_at    | 6.18        | 6.20E-19      |
| C11orf1     | 222785_x_at    | 6.17        | 7.22E-18      |
| UBR7        | 218108_at      | 6.17        | 9.07E-21      |
| UBL7        | 225063_at      | 6.17        | 4.24E-30      |
| C8orf33     | 218187_s_at    | 6.17        | 1.18E-15      |
| gene   | symbol       | log2FC | adj.p   |
|--------|--------------|--------|---------|
| GNE    | 205042_at    | 6.17   | 8.45E-16|
| UCHL5  | 219960_s_at  | 6.17   | 5.19E-22|
| STX6   | 212799_at    | 6.17   | 7.37E-18|
| RAD50  | 208393_s_at  | 6.17   | 6.86E-18|
| FBXO22 | 225736_at    | 6.17   | 1.53E-16|
| USP4   | 211800_s_at  | 6.16   | 5.58E-20|
| TBC1D23| 225121_at    | 6.16   | 9.49E-22|
| CDS2   | 212862_at    | 6.16   | 4.73E-36|
| TTC17  | 224852_at    | 6.16   | 1.47E-19|
| UDCD1  | 225439_at    | 6.16   | 2.57E-19|
| C6orf48| 220755_s_at  | 6.15   | 2.66E-14|
| CAP2   | 212551_at    | 6.15   | 1.98E-14|
| DNAJC19| 225359_at    | 6.15   | 5.79E-24|
| DSEL   | 232235_at    | 6.15   | 1.43E-08|
| GRN    | 216041_x_at  | 6.15   | 2.91E-15|
| NEK7   | 212530_at    | 6.15   | 1.01E-07|
| ROCK1  | 214578_s_at  | 6.15   | 3.14E-39|
| CARKD  | 217940_s_at  | 6.14   | 1.09E-15|
| ZNRF1  | 223383_at    | 6.14   | 1.01E-30|
| ANXA11 | 206200_s_at  | 6.14   | 1.15E-17|
| C1orf216| 212791_at    | 6.13   | 6.95E-21|
| POP7   | 209482_at    | 6.13   | 2.79E-23|
| ADORA2B| 205891_at    | 6.13   | 1.40E-43|
| SLMO2  | 217851_s_at  | 6.12   | 5.53E-13|
| FMN2   | 1555471_a_at | 6.12   | <2.90E-44|
| LEPREL2| 204854_at    | 6.12   | 1.35E-19|
| CES2   | 209667_at    | 6.12   | 4.85E-21|
| IWS1   | 224768_at    | 6.12   | 2.48E-31|
| TRAPPC2| 209751_s_at  | 6.12   | 4.77E-22|
| OTTHUMG00000014155| 216532_x_at | 6.11 | <2.90E-44|
| PTRHD1 | 226243_at    | 6.11   | 5.63E-13|
| HLA-A  | 215313_x_at  | 6.11   | 3.86E-18|
| LRP12  | 219631_at    | 6.11   | 4.83E-27|
| CEP63  | 222151_s_at  | 6.10   | 3.41E-35|
| EFTUD2 | 222398_s_at  | 6.10   | 4.96E-24|
| ADIPOR1| 217748_at    | 6.10   | 4.28E-22|
| ARHGAP5| 217936_at    | 6.10   | 1.07E-14|
| DNASE2 | 214992_s_at  | 6.10   | 1.81E-36|
| HYLS1  | 227687_at    | 6.10   | 5.62E-24|
| LOC339803| 227941_at    | 6.10   | 2.22E-24|
| Gene          | Accession   | Log2 Fold Change | p-value   |
|--------------|-------------|-----------------|-----------|
| MOV10        | 223849_s_at | 6.10            | 1.87E-26  |
| FAM118B      | 223386_at   | 6.09            | 2.00E-16  |
| TMEM8A       | 221882_s_at | 6.09            | 3.97E-31  |
| DNAJC1       | 222621_at   | 6.09            | 2.07E-19  |
| KIAA1468     | 225508_at   | 6.09            | 1.66E-30  |
| TINF2        | 220052_s_at | 6.09            | 2.26E-30  |
| CPD          | 201940_at   | 6.09            | 7.80E-20  |
| DGCR8        | 218650_at   | 6.09            | 1.26E-21  |
| ISCU         | 209075_s_at | 6.09            | 2.75E-16  |
| SOWAHC       | 227034_at   | 6.09            | 9.03E-13  |
| SIK3         | 204156_at   | 6.08            | < 2.90E-44|
| KIAA0196     | 201985_at   | 6.08            | 4.81E-24  |
| DIS3L        | 235005_at   | 6.08            | 2.68E-25  |
| DYNLT3       | 203303_at   | 6.08            | 3.76E-11  |
| RNF170       | 220985_s_at | 6.08            | 6.31E-23  |
| ARFGAP2      | 211975_at   | 6.08            | 2.19E-24  |
| AGPAT1       | 215535_s_at | 6.08            | 3.94E-24  |
| NTPCR        | 223272_s_at | 6.07            | 8.42E-18  |
| FTSJ2        | 218356_at   | 6.07            | 7.87E-17  |
| DUSP3        | 201537_s_at | 6.07            | 8.90E-27  |
| FAM19A5      | 229459_at   | 6.07            | 4.39E-13  |
| STX7         | 212632_at   | 6.07            | 1.10E-15  |
| KIF23        | 204709_s_at | 6.07            | 1.09E-14  |
| CENPA        | 204962_s_at | 6.07            | 5.76E-11  |
| GTF3C2       | 212429_s_at | 6.06            | 4.66E-24  |
| CREM         | 207630_s_at | 6.06            | 1.33E-21  |
| CDC42EP1     | 204693_at   | 6.06            | 4.73E-36  |
| ATRN         | 211852_s_at | 6.06            | 1.13E-36  |
| MRPS35       | 217942_at   | 6.06            | 9.35E-19  |
| MT1HL1       | 211456_s_at | 6.06            | 7.60E-11  |
| CUEDC2       | 218097_s_at | 6.06            | 9.49E-21  |
| CRTC3        | 218648_at   | 6.06            | 3.18E-19  |
| SUMF1        | 226850_at   | 6.06            | 1.37E-17  |
| ATG14        | 204568_at   | 6.05            | 2.92E-25  |
| TUBA1A       | 209118_s_at | 6.05            | 5.71E-15  |
| CCBL2        | 209472_at   | 6.04            | 9.50E-16  |
| MIR1292      | 200875_s_at | 6.04            | 1.54E-19  |
| TMEM185B     | 219253_at   | 6.04            | 9.36E-26  |
| ALDH9A1      | 201612_at   | 6.03            | 1.01E-15  |
| GBE1         | 203282_at   | 6.03            | 1.45E-13  |
| VPS45        | 209268_at   | 6.03            | 1.92E-18  |
| Gene  | Probe ID    | Log2FoldChange | p-value  |
|-------|-------------|----------------|----------|
| ASB8  | 226861_at   | 6.02           | 1.92E-26 |
| BET1L | 223023_at   | 6.02           | 3.62E-26 |
| FHOD1 | 218530_at   | 6.02           | 9.78E-18 |
| DTNB1 | 223446_s_at | 6.02           | 5.34E-29 |
| TMEM167B | 222495_at | 6.02           | 7.94E-13 |
| TSPAN6| 209109_s_at | 6.02           | 5.41E-13 |
| FHOD1 | 222432_s_at | 6.02           | 1.44E-20 |
| RPAIN | 228183_s_at | 6.02           | 1.52E-23 |
| SGCD  | 210330_at   | 6.01           | 3.60E-22 |
| TBC1D9| 212956_at   | 6.01           | 1.29E-10 |
| WAPAL | 212264_s_at | 6.01           | 1.65E-17 |
| TMEM98| 223170_at   | 6.01           | 2.93E-19 |
| FBXO5 | 234863_x_at | 6.01           | 9.98E-36 |
| ZNF605| 227822_at   | 6.01           | 2.32E-25 |
| SED1  | 213488_at   | 6.01           | 4.47E-14 |
| TMEM256| 227063_at  | 6.01           | 1.81E-23 |
| RNF34 | 219035_s_at | 6.00           | 6.84E-23 |
| PHACTR4| 219235_s_at| 6.00           | 1.84E-34 |
| TICAM2| 228234_at   | 6.00           | 1.09E-08 |
| ELOVL5| 208788_at   | 6.00           | 3.39E-14 |
| SLC25A4| 202825_at  | 6.00           | 5.04E-16 |
| RNF149| 225414_at   | 5.99           | 1.75E-12 |
| MTMR11| 205076_s_at | 5.99           | 1.92E-28 |
| EMX2  | 221950_at   | 5.99           | 7.30E-07 |
| ATF4  | 200779_at   | 5.99           | 7.55E-21 |
| ITPR3 | 201188_s_at | 5.99           | 5.78E-26 |
| LOC100507303| 228049_x_at | 5.98           | 4.95E-12 |
| KRR1  | 203202_at   | 5.98           | 3.10E-18 |
| DCAF8 | 202250_s_at | 5.98           | 3.33E-24 |
| ARV1  | 223223_at   | 5.98           | 3.69E-19 |
| LDOC1L| 223228_at   | 5.98           | 2.84E-22 |
| ALG2  | 225621_at   | 5.98           | 1.94E-17 |
| UNC50 | 203583_at   | 5.98           | 1.58E-15 |
| AIP   | 201781_s_at | 5.98           | 1.64E-39 |
| CMSS1 | 224523_s_at | 5.98           | 4.88E-21 |
| LCLAT1| 226996_at   | 5.98           | 8.25E-18 |
| MRAP2 | 227226_at   | 5.97           | 3.35E-14 |
| RNF123| 224186_s_at | 5.97           | 2.69E-25 |
| HYI   | 223622_s_at | 5.97           | 2.59E-28 |
| SOGA2 | 213358_at   | 5.97           | 3.60E-14 |
| WHSC1L1| 222544_s_at| 5.97           | 3.67E-17 |
| Gene  | Probe ID     | Log2 Fold Change | p-Value          |
|-------|--------------|------------------|------------------|
| SON   | 201086_x_at  | 5.97             | 1.09E-20         |
| SLC33A1 | 203165_s_at | 5.97             | 1.15E-14         |
| SPPL3  | 224640_at    | 5.97             | 8.56E-27         |
| FBXO16 | 223216_x_at  | 5.97             | 6.10E-16         |
| RPS17  | 211487_x_at  | 5.97             | 2.53E-15         |
| NDNL2  | 226008_at    | 5.96             | 1.41E-37         |
| CDC34  | 212540_at    | 5.96             | 4.34E-23         |
| SCML1  | 218793_s_at  | 5.96             | 2.91E-14         |
| CRLS1  | 223978_s_at  | 5.96             | 8.29E-15         |
| PDCD2  | 213581_at    | 5.95             | 9.58E-21         |
| CCDC117| 225644_at    | 5.95             | 3.19E-16         |
| CCND3  | 201700_at    | 5.95             | 6.01E-17         |
| CHAMP1 | 226194_at    | 5.95             | 6.37E-40         |
| MMAB   | 225826_at    | 5.95             | 8.45E-23         |
| SLC41A1| 225570_at    | 5.94             | 1.05E-39         |
| MRPS21 | 222997_s_at  | 5.94             | 2.22E-16         |
| HUS1   | 204883_s_at  | 5.94             | 2.49E-27         |
| WDR41  | 222503_s_at  | 5.94             | 1.52E-15         |
| ZNF593 | 204175_at    | 5.94             | 5.54E-21         |
| BRD3   | 203825_at    | 5.94             | 1.81E-18         |
| KATNA1 | 205526_s_at  | 5.93             | 8.37E-19         |
| FUT8   | 1554930_a_at | 5.93             | <2.90E-44        |
| SEC62  | 208943_s_at  | 5.93             | 4.15E-15         |
| PRPSAP1| 202529_at    | 5.92             | 3.75E-25         |
| FAM214A| 225327_at    | 5.92             | 2.30E-17         |
| PPP2R1B| 202886_s_at  | 5.92             | 3.40E-32         |
| RAB13  | 202252_at    | 5.92             | 6.34E-16         |
| RAB2B  | 225074_at    | 5.92             | 4.95E-22         |
| SUMF2  | 225002_s_at  | 5.91             | 1.99E-34         |
| NOC3L  | 218889_at    | 5.91             | 1.16E-18         |
| TWSG1  | 219201_s_at  | 5.91             | 1.01E-19         |
| WBSCR22| 207628_s_at  | 5.91             | 6.33E-23         |
| LOC101060503 | 201009_s_at | 5.91 | 6.82E-13         |
| POLI   | 219317_at    | 5.91             | 2.68E-17         |
| DNAJC6 | 204720_s_at  | 5.91             | 1.10E-26         |
| CEPT1  | 219375_at    | 5.91             | 8.51E-16         |
| SMYD2  | 212922_s_at  | 5.90             | 4.54E-19         |
| ITGA10 | 206766_at    | 5.90             | 8.75E-28         |
| AGAP2-AS1 | 1555907_at | 5.90 | 4.76E-27         |
| TK1    | 1554408_a_at | 5.90             | 7.04E-33         |
| Gene   | Gene ID       | Log2 Fold Change | Log10 P-value |
|--------|---------------|------------------|---------------|
| ASB3   | 224524_s_at   | 5.90             | 2.32E-14      |
| USE1   | 219348_at     | 5.90             | 9.33E-19      |
| ADSS   | 221761_at     | 5.90             | 1.76E-15      |
| PID1   | 219093_at     | 5.90             | 9.42E-10      |
| NUP35  | 225470_at     | 5.89             | 1.01E-18      |
| C5orf30| 221823_at     | 5.89             | 9.10E-15      |
| SLC25A36| 201917_s_at  | 5.89             | 4.79E-15      |
| AIFM2  | 224461_s_at   | 5.89             | 2.31E-24      |
| PREP   | 204117_at     | 5.89             | 3.27E-24      |
| EIF1AX | 201018_at     | 5.89             | 1.14E-16      |
| TMEM19 | 229126_at     | 5.89             | 4.08E-17      |
| ATG13  | 203364_s_at   | 5.88             | 1.42E-24      |
| GPR89A | 220642_x_at   | 5.88             | 7.30E-24      |
| TENM2  | 231867_at     | 5.88             | 4.82E-11      |
| CHMP2B | 202536_at     | 5.88             | 1.45E-08      |
| CENPT  | 218148_at     | 5.88             | 1.93E-38      |
| ZNF580 | 220748_s_at   | 5.88             | 5.11E-20      |
| GTDC2  | 225689_at     | 5.88             | 1.37E-23      |
| PMPCA  | 212088_at     | 5.87             | 1.60E-18      |
| ATXN2  | 202622_s_at   | 5.87             | 2.54E-27      |
| CCDC93 | 209688_s_at   | 5.87             | 3.59E-19      |
| KDM1A  | 212348_s_at   | 5.87             | 5.07E-21      |
| CLN5   | 204084_s_at   | 5.87             | 9.73E-21      |
| ISG20L2| 208114_s_at   | 5.87             | 3.98E-33      |
| NDNF   | 219747_at     | 5.87             | 6.73E-06      |
| LUC7L2 | 226758_at     | 5.87             | 1.01E-21      |
| MARK3  | 202568_s_at   | 5.86             | 6.77E-22      |
| APPL1  | 222538_s_at   | 5.86             | 2.89E-21      |
| CAPZA2 | 201237_at     | 5.86             | 2.43E-08      |
| MAP1S  | 218522_s_at   | 5.86             | 2.16E-23      |
| ANKRD28| 226025_at     | 5.86             | 4.80E-11      |
| AASDHPPT| 202170_s_at  | 5.85             | 1.67E-19      |
| TMEM18 | 225489_at     | 5.85             | 5.10E-20      |
| PFAS   | 213302_at     | 5.85             | 1.07E-20      |
| ACYP2  | 206833_s_at   | 5.85             | 4.64E-25      |
| EYA2   | 209692_at     | 5.84             | 1.08E-14      |
| LSM5   | 211747_s_at   | 5.84             | 2.88E-15      |
| AP5M1  | 218139_s_at   | 5.84             | 3.48E-14      |
| UGGT2  | 218801_at     | 5.84             | 6.72E-21      |
| Gene       | Accession   | Log2 Fold Change | p-Value         |
|------------|-------------|-----------------|-----------------|
| BARD1      | 227545_at   | 5.84            | 8.46E-23        |
| AAMP       | 201511_at   | 5.83            | 2.09E-27        |
| C2orf76    | 227840_at   | 5.83            | 2.82E-17        |
| AP3S1      | 202442_at   | 5.83            | 7.28E-17        |
| RBMX       | 225310_at   | 5.83            | 8.13E-15        |
| SNX30      | 226249_at   | 5.83            | 9.05E-14        |
| STT3B      | 224700_at   | 5.83            | 7.62E-15        |
| XPO6       | 211982_x_at | 5.83            | 2.22E-22        |
| LOC101060511 | 225278_at | 5.82            | 8.05E-18        |
| TFDP2      | 203588_s_at | 5.82            | 1.86E-28        |
| POGLUT1    | 217806_s_at | 5.82            | 2.06E-24        |
| POLDIP2    | 213059_at   | 5.81            | 1.14E-17        |
| TRIM22     | 213293_s_at | 5.81            | 3.93E-14        |
| PURB       | 225120_at   | 5.81            | 1.56E-17        |
| CCPG1      | 221511_x_at | 5.80            | 1.82E-11        |
| TMEM199    | 225375_at   | 5.80            | 1.19E-26        |
| IFT46      | 218483_s_at | 5.80            | 1.29E-28        |
| RPS4X      | 200933_x_at | 5.80            | 5.39E-18        |
| TMBIM4     | 223892_s_at | 5.80            | 1.49E-21        |
| ND2        | 1553551_s_at| 5.80            | 2.54E-09        |
| ZNF12      | 1559881_s_at| 5.79            | 1.14E-43        |
| ZNF638     | 213775_x_at | 5.79            | 3.26E-15        |
| OSBPL3     | 209627_s_at | 5.79            | 7.14E-25        |
| HIATL1     | 223073_at   | 5.79            | 9.23E-17        |
| UFSP2      | 218449_at   | 5.79            | 2.15E-15        |
| NDST1      | 1554010_at  | 5.78            | 8.36E-35        |
| MAPK9      | 203218_at   | 5.78            | 2.26E-16        |
| STK38L     | 212572_at   | 5.78            | 1.72E-09        |
| RNF114     | 200867_at   | 5.78            | 2.08E-20        |
| RPS27A     | 200017_at   | 5.78            | 5.12E-18        |
| GMFB       | 202544_at   | 5.78            | 9.49E-14        |
| SMARCE1    | 211989_at   | 5.77            | 2.63E-19        |
| DHR53      | 202481_at   | 5.77            | 2.02E-12        |
| RRP15      | 219037_at   | 5.77            | 4.50E-13        |
| CDC42      | 208727_s_at | 5.77            | 8.71E-17        |
| SIN3A      | 225135_at   | 5.77            | 3.91E-25        |
| KDELC1     | 219479_at   | 5.76            | 4.93E-16        |
| Gene   | Symbol   | Value | Log2FoldChange |
|--------|----------|-------|----------------|
| SF3A2  | 37462_i_at | 5.76  | 2.85E-17       |
| STAT6  | 201331_s_at | 5.75  | 1.21E-19       |
| PARN   | 203905_at  | 5.75  | 5.07E-17       |
| DAZAP2 | 200794_x_at | 5.75  | 4.11E-22       |
| ECT2   | 219787_s_at | 5.74  | 9.47E-11       |
| MLF1IP | 218883_s_at | 5.74  | 6.78E-12       |
| C14orf28 | 238647_at | 5.74  | 2.69E-15       |
| PJ1A   | 218667_at  | 5.74  | 3.28E-19       |
| UBE2W  | 222657_s_at | 5.74  | 2.81E-11       |
| CENPW  | 226936_at  | 5.73  | 1.19E-16       |
| GTF2IRD2 | 228765_at | 5.73  | 1.06E-18       |
| SH3GL1 | 201851_at  | 5.73  | 2.88E-28       |
| SPAG7  | 200053_at  | 5.73  | 4.15E-24       |
| PLD1   | 200827_at  | 5.73  | 1.19E-17       |
| MRPL55 | 225719_s_at | 5.73  | 6.08E-22       |
| CBY1   | 203450_at  | 5.73  | 9.67E-21       |
| PIK3C3 | 204297_at  | 5.72  | 2.94E-20       |
| PLEC   | 201373_at  | 5.72  | 1.51E-22       |
| DDX17  | 208719_s_at | 5.72  | 7.84E-32       |
| ARHGEF10 | 216620_s_at | 5.72  | 1.45E-24       |
| KEAP1  | 202417_at  | 5.72  | 2.95E-26       |
| PLAUR  | 211924_s_at | 5.72  | 3.42E-19       |
| TSPYL4 | 212928_at  | 5.72  | 7.09E-18       |
| PARP4  | 202239_at  | 5.72  | 1.06E-21       |
| ATL1   | 223340_at  | 5.72  | 7.16E-14       |
| LPCAT1 | 201818_at  | 5.71  | 2.05E-19       |
| LOC101060460 | 209382_at | 5.71  | 2.97E-27       |
| RHBD2  | 222995_s_at | 5.71  | 8.13E-15       |
| OIP5   | 213599_at  | 5.71  | 2.13E-30       |
| METTL13 | 212407_at | 5.71  | 4.45E-18       |
| LONP2  | 223099_s_at | 5.71  | 1.24E-18       |
| SLC2A3 | 202498_s_at | 5.70  | 5.54E-26       |
| CEBPB  | 212501_at  | 5.70  | 2.19E-12       |
| PGPT1B | 206288_at  | 5.70  | < 2.90E-44     |
| ZFR    | 201857_at  | 5.70  | 8.50E-16       |
| RAB27A | 210951_x_at | 5.70  | 9.58E-16       |
| SNAPP29 | 218327_s_at | 5.70  | 5.50E-23       |
| ASS1   | 207076_s_at | 5.70  | 2.07E-14       |
| RNF41  | 201961_s_at | 5.70  | 8.91E-23       |
| ZNF655 | 225945_at  | 5.70  | 1.13E-14       |
| TMEM160 | 219219_at | 5.70  | 6.34E-24       |
| probe   | symbol     | value  | p-value       |
|---------|------------|--------|---------------|
| TRNT1   | 1552625_a_at | 5.69   | < 2.90E-44    |
| ARSA    | 204443_at   | 5.69   | 3.13E-32      |
| ZFP82   | 1555793_a_at| 5.69   | 1.91E-22      |
| TEAD4   | 41037_at    | 5.69   | 1.01E-28      |
| OARD1   | 213322_at   | 5.69   | 8.43E-13      |
| DDX50   | 221699_s_at | 5.69   | 3.21E-19      |
| NFE2L1  | 200758_s_at | 5.68   | 6.03E-25      |
| ZFAND2B | 226168_at   | 5.68   | 4.57E-22      |
| MTCH1   | 221619_s_at | 5.68   | 1.42E-19      |
| TMEM243 | 204215_at   | 5.68   | 1.01E-17      |
| ALDH4A1 | 203722_at   | 5.68   | 2.84E-29      |
| LOC100507165 | 236640_at | 5.67   | 3.21E-18      |
| CTB-193M12.5 | 227249_at | 5.67   | 1.24E-15      |
| MIEN1   | 224447_s_at | 5.67   | 3.20E-18      |
| FBXO28  | 202272_s_at | 5.67   | 9.69E-20      |
| ZNF585B | 1557302_at  | 5.66   | 2.30E-29      |
| DDX18   | 208895_s_at | 5.66   | 2.02E-23      |
| MRTO4   | 220688_s_at | 5.66   | 7.36E-23      |
| NBN     | 202907_s_at | 5.66   | 1.08E-15      |
| BCAS2   | 203053_at   | 5.66   | 6.12E-14      |
| HAGH    | 205012_s_at | 5.66   | 7.85E-21      |
| RHNO1   | 225837_at   | 5.65   | 1.60E-21      |
| LOC101060412 | 214870_x_at | 5.65   | 1.43E-15      |
| AP4M1   | 209837_at   | 5.65   | 9.90E-28      |
| RNF113A | 209565_at   | 5.64   | 1.17E-18      |
| ADAMTS6 | 237411_at   | 5.64   | 1.18E-11      |
| CYGB    | 226632_at   | 5.64   | 2.94E-13      |
| PDCD10  | 210907_s_at | 5.64   | 1.99E-11      |
| CPQ     | 208454_s_at | 5.63   | 7.30E-24      |
| GADD45B | 209305_s_at | 5.63   | 2.98E-10      |
| WDR34   | 224715_at   | 5.63   | 8.41E-16      |
| CKLF    | 223451_s_at | 5.63   | 1.53E-18      |
| CLIP2   | 211031_s_at | 5.63   | 4.96E-26      |
| TBC1D2B | 212796_s_at | 5.63   | 1.75E-23      |
| TNPO3   | 214550_s_at | 5.63   | 3.88E-27      |
| ABHD16A | 224756_s_at | 5.63   | 1.36E-23      |
| SCAMP1  | 1552978_a_at| 5.62   | < 2.90E-44    |
| ETFB    | 202942_at   | 5.62   | 2.03E-18      |
| BOD1    | 225030_at   | 5.62   | 3.02E-21      |
| ZNF667-AS1 | 244741_s_at | 5.62   | 1.93E-14      |
| NDUFA9  | 208969_at   | 5.61   | 2.10E-20      |
| Gene   | Accession | log2FC | P-value |
|--------|-----------|--------|---------|
| AHNAK  | 211986_at | 5.61   | 8.75E-18|
| TEX261 | 212083_at | 5.61   | 3.91E-18|
| CASP6  | 209790_s_at | 5.61  | 6.42E-17|
| UTP14A | 221514_at | 5.60   | 7.28E-22|
| FARSA  | 216602_s_at | 5.60  | 7.05E-39|
| RPP30  | 203436_at | 5.59   | 1.14E-22|
| UBB    | 200633_at | 5.59   | 2.23E-15|
| KRTAP2-3 | 1555673_at | 5.59  | 2.04E-27|
| MAP4   | 212566_at | 5.59   | 6.12E-20|
| IGF2   | 202409_at | 5.59   | 5.91E-06|
| SUDS3  | 233841_s_at | 5.58  | 1.40E-21|
| ASAP3  | 219103_at | 5.58   | 1.56E-28|
| MME    | 203434_s_at | 5.58  | 2.87E-07|
| MCU    | 225320_at | 5.58   | 1.58E-27|
| GDF5   | 206614_at | 5.58   | 2.88E-35|
| VAT1   | 208626_s_at | 5.58  | 9.23E-24|
| FGFR1OP2 | 1556283_s_at | 5.57  | 1.89E-12|
| KLHL9  | 213233_s_at | 5.57  | 2.52E-19|
| RCOR1  | 212612_at | 5.57   | 6.80E-16|
| RBBP7  | 201092_at | 5.57   | 2.37E-15|
| KHYN    | 212355_at | 5.57   | 1.60E-20|
| DCAF6  | 217908_s_at | 5.56  | 4.42E-16|
| COX7A1 | 204570_at | 5.56   | 3.38E-12|
| KDM4B  | 212492_s_at | 5.56  | 2.00E-12|
| CPEB1  | 219578_s_at | 5.56  | 1.31E-28|
| KIF11  | 204444_at | 5.56   | 1.88E-12|
| NDUFB5 | 203621_at | 5.56   | 1.19E-14|
| C19orf12 | 225863_s_at | 5.56  | 1.93E-21|
| EIF4ENIF1 | 218626_at | 5.55  | 7.36E-21|
| ANXA2P2 | 208816_x_at | 5.55  | 2.96E-14|
| DHX40  | 222574_s_at | 5.55  | 2.30E-20|
| GEMIN2 | 211115_x_at | 5.55  | 6.78E-23|
| TMEM129 | 225588_s_at | 5.55  | 8.29E-19|
| DOK5   | 214844_s_at | 5.55  | 1.91E-10|
| ADM    | 202912_at | 5.55   | 2.67E-07|
| TMEM42 | 226361_at | 5.54   | 3.40E-24|
| GPATCH2L| 235302_at | 5.54   | 4.27E-40|
| SH3BP5 | 201810_s_at | 5.54  | 3.90E-18|
| SMS    | 202043_s_at | 5.54  | 7.69E-12|
| TXNL1  | 201588_at | 5.54   | 2.31E-14|
| GNPTG  | 224887_at | 5.54   | 1.88E-20|
| Gene  | Probe ID      | log2FC | p-value   |
|-------|---------------|--------|-----------|
| MED7  | 204350_s_at   | 5.53   | 1.77E-32  |
| ACVR1 | 203935_at     | 5.53   | 1.37E-13  |
| G3BP2 | 208840_s_at   | 5.53   | 1.45E-23  |
| CACUL1| 227257_s_at   | 5.53   | < 2.90E-44|
| ZNF827| 226764_at     | 5.53   | 1.20E-14  |
| LOC100508408 | 200018_at | 5.53   | 1.46E-16  |
| ZADH2 | 227978_s_at  | 5.53   | 2.57E-40  |
| NUDT1 | 204766_s_at   | 5.53   | 2.19E-20  |
| G3BP2 | 208840_s_at   | 5.53   | 1.37E-13  |
| ACVR1 | 203935_at     | 5.53   | 1.45E-23  |
| CACUL1| 227257_s_at   | 5.53   | < 2.90E-44|
| ZNF827| 226764_at     | 5.53   | 1.20E-14  |
| LOC100508408 | 200018_at | 5.53   | 1.46E-16  |
| ZADH2 | 227978_s_at  | 5.53   | 2.57E-40  |
| NUDT1 | 204766_s_at   | 5.53   | 2.19E-20  |
| G3BP2 | 208840_s_at   | 5.53   | 1.37E-13  |
| ACVR1 | 203935_at     | 5.53   | 1.45E-23  |
| CACUL1| 227257_s_at   | 5.53   | < 2.90E-44|
| ZNF827| 226764_at     | 5.53   | 1.20E-14  |
| LOC100508408 | 200018_at | 5.53   | 1.46E-16  |
| ZADH2 | 227978_s_at  | 5.53   | 2.57E-40  |
| NUDT1 | 204766_s_at   | 5.53   | 2.19E-20  |
| G3BP2 | 208840_s_at   | 5.53   | 1.37E-13  |
| Symbol | Description | Fold Change | p-value |
|--------|-------------|-------------|---------|
| SRRT   |             | 5.49        | 5.50E-19|
| RPL32  |             | 5.48        | 3.48E-17|
| SMUG1  |             | 5.48        | 5.88E-30|
| NIPAL3 |             | 5.48        | 1.77E-18|
| ZFYVE20|             | 5.48        | 3.23E-21|
| MYLK   |             | 5.48        | 4.91E-14|
| HSD3B7 |             | 5.48        | 2.52E-23|
| CWC27  |             | 5.48        | 5.46E-11|
| SCAF11 |             | 5.47        | 9.79E-16|
| NAAA   |             | 5.47        | 1.72E-10|
| TMED1  |             | 5.47        | 5.11E-20|
| VPS51  |             | 5.47        | 1.25E-17|
| MAT2B  |             | 5.47        | 7.13E-11|
| COX5A  |             | 5.47        | 2.44E-17|
| TLK2   |             | 5.46        | 2.08E-26|
| AUTS2  |             | 5.46        | 1.30E-16|
| NCOA5  |             | 5.46        | 2.23E-26|
| SLC30A9|             | 5.46        | 1.93E-14|
| SBF1   |             | 5.46        | 4.12E-42|
| ERBB2  |             | 5.46        | 1.02E-20|
| TLE3   |             | 5.46        | 1.35E-38|
| NUP98  |             | 5.45        | 7.74E-24|
| YWHAG  |             | 5.45        | 3.24E-19|
| NUP155 |             | 5.44        | 4.56E-22|
| DNAJC16|             | 5.44        | 1.07E-19|
| TFCP2  |             | 5.44        | 1.34E-21|
| MAGI1  |             | 5.44        | 2.98E-28|
| TM9SF4 |             | 5.44        | 2.68E-22|
| CARM1  |             | 5.44        | 2.22E-22|
| RNF146 |             | 5.43        | < 2.90E-44|
| CBR3   |             | 5.43        | 5.17E-16|
| MLH1   |             | 5.43        | 3.92E-19|
| FAM193A|             | 5.43        | 9.37E-18|
| BTBD10 |             | 5.42        | 2.18E-16|
| C9orf3 |             | 5.42        | 1.19E-18|
| GTF2H2 |             | 5.42        | 1.42E-34|
| MRPL1  |             | 5.42        | 2.33E-25|
| RPAP3  |             | 5.42        | 2.09E-21|
| AP4E1  |             | 5.42        | 4.91E-24|
| TTC8   |             | 5.42        | 2.30E-13|
| UNC119B|             | 5.42        | 5.52E-19|
| Gene       | Accession     | Log2 Fold Change | p-value   |
|------------|---------------|------------------|-----------|
| PKIG       | 202732_at     | 5.42             | 6.62E-18  |
| TIAL1      | 202406_s_at   | 5.42             | 2.16E-17  |
| EXOC6B     | 225900_at     | 5.42             | 5.78E-40  |
| MORC2      | 216863_s_at   | 5.41             | 1.39E-26  |
| PIP4K2A    | 212829_at     | 5.41             | 1.22E-12  |
| METAP1     | 212673_at     | 5.41             | 1.00E-20  |
| ARHGEF18   | 213039_at     | 5.41             | 5.87E-21  |
| GGCT       | 215380_s_at   | 5.41             | 2.49E-18  |
| FLAD1      | 205661_s_at   | 5.41             | 2.57E-33  |
| CUTC       | 218970_s_at   | 5.41             | 4.96E-29  |
| PRPF3      | 202251_at     | 5.40             | 1.68E-18  |
| AIFM1      | 205512_s_at   | 5.40             | 5.28E-20  |
| XPO1       | 208775_at     | 5.40             | 2.28E-16  |
| FNBP1      | 212288_at     | 5.40             | 2.37E-18  |
| TP53TG1    | 209917_s_at   | 5.40             | 8.87E-23  |
| SF3A3      | 203818_s_at   | 5.40             | 5.00E-22  |
| DCAF17     | 231921_at     | 5.39             | <2.90E-44 |
| SEC22C     | 225460_at     | 5.39             | 2.99E-12  |
| RN4        | 212696_s_at   | 5.39             | 8.64E-20  |
| NKTR       | 215338_s_at   | 5.39             | 1.05E-07  |
| SNAPC5     | 1554093_a_at  | 5.39             | 5.37E-24  |
| PHAX       | 231812_x_at   | 5.39             | 1.69E-41  |
| C3orf62    | 202681_at     | 5.39             | 6.04E-28  |
| BDH2       | 218285_s_at   | 5.39             | 1.50E-17  |
| E124       | 216396_s_at   | 5.39             | 8.90E-23  |
| VANG1      | 219330_at     | 5.39             | 3.72E-26  |
| IRGQ       | 1555833_a_at  | 5.39             | 9.86E-24  |
| TXNDC12    | 223017_at     | 5.39             | 9.60E-19  |
| NAGLU      | 204360_s_at   | 5.38             | 3.21E-21  |
| GMPS       | 214431_at     | 5.38             | 2.23E-18  |
| WBPS       | 217975_at     | 5.38             | 7.40E-12  |
| CSTF1      | 202190_at     | 5.38             | 1.75E-26  |
| AAMDC      | 221600_s_at   | 5.38             | 1.72E-30  |
| ITM2C      | 221004_s_at   | 5.38             | 1.20E-16  |
| CIZ1       | 213977_s_at   | 5.38             | 8.47E-26  |
| FBXO8      | 1554806_a_at  | 5.38             | 1.25E-11  |
| GPS2       | 209350_s_at   | 5.38             | 3.77E-23  |
| QTRT1      | 221270_s_at   | 5.37             | 1.34E-15  |
| CMAS       | 218111_s_at   | 5.37             | 1.19E-21  |
| COMMD7     | 224815_at     | 5.37             | 3.55E-22  |
| CDV3       | 212010_s_at   | 5.37             | 7.91E-17  |
| Gene   | Accession | Log2 Fold Change | p-value       |
|--------|-----------|-----------------|---------------|
| HCFC2  | 219484_at | 5.37            | 2.23E-27      |
| SGSH   | 35626_at  | 5.37            | 1.93E-17      |
| C14orf132 | 231859_at | 5.37            | 1.73E-28      |
| CSNK1D | 208774_at | 5.37            | 3.84E-19      |
| SORT1  | 224818_at | 5.37            | 3.15E-15      |
| GOLPH3L| 218361_at | 5.36            | 7.68E-20      |
| MRPL11 | 219162_s_at | 5.36        | 6.63E-18      |
| GDF11  | 216860_s_at | 5.36            | 4.29E-34      |
| HDAC2  | 201833_at | 5.36            | 4.04E-19      |
| MPHOSPH10 | 212885_at | 5.35            | 1.29E-19      |
| HNRNPH1| 213470_s_at | 5.35          | <2.90E-44     |
| SNAPIN | 223066_at | 5.35            | 1.19E-22      |
| PMM2   | 203201_at | 5.35            | 7.59E-19      |
| GOLGA1 | 203384_s_at | 5.35        | 6.46E-31      |
| PLXNB2 | 208890_s_at | 5.34            | 6.66E-19      |
| PARP2  | 214086_s_at | 5.34            | 5.86E-23      |
| OXCT1  | 202780_at | 5.34            | 9.19E-13      |
| NPIPA2 | 221501_x_at | 5.34          | 2.74E-15      |
| CYB5D1 | 226833_at | 5.34            | 1.16E-21      |
| HAUS7  | 213334_x_at | 5.34            | 5.21E-16      |
| STRADB | 223266_at | 5.34            | 1.63E-21      |
| C11orf95 | 218641_at | 5.34            | 1.43E-17      |
| LINCO0662 | 235191_at | 5.34            | 2.72E-41      |
| PANK4  | 218771_at | 5.33            | 1.11E-21      |
| PROSER1| 225887_at | 5.33            | 9.98E-19      |
| MIR4680| 202731_at | 5.33            | 1.51E-16      |
| TPRKB  | 219030_at | 5.32            | 1.07E-16      |
| CYB5D2 | 225804_at | 5.32            | 7.89E-26      |
| TMEM158| 213338_at | 5.32            | 1.85E-05      |
| ATL2   | 222700_at | 5.32            | 1.28E-16      |
| RPL38  | 202029_x_at | 5.32          | 1.40E-17      |
| CHMMP5 | 219356_s_at | 5.32          | 8.41E-14      |
| FG5    | 210310_s_at | 5.32            | 6.52E-39      |
| NSMAF  | 232149_s_at | 5.32            | 2.22E-26      |
| C7orf60| 228149_at | 5.31            | 3.01E-13      |
| C9orf69| 224962_at | 5.31            | 4.06E-23      |
| TNIP1  | 207196_s_at | 5.31            | 1.80E-20      |
| MIR31HG| 1554097_a_at | 5.31        | 1.32E-30      |
| MPDZ   | 205079_s_at | 5.31            | 2.00E-23      |
| BCL7B  | 202518_at | 5.31            | 1.01E-23      |
| C4orf46| 201812_s_at | 5.31            | 3.21E-16      |
| Gene   | Accession   | Log2 Fold Change | P-Value   |
|--------|-------------|-----------------|-----------|
| TRIP11 | 209778_at   | 5.30            | 3.45E-23  |
| NPM3   | 205129_at   | 5.30            | 1.49E-27  |
| DPH3P1 | 204849_at   | 5.30            | 4.30E-13  |
| TOM1   | 202807_s_at | 5.30            | 7.97E-25  |
| MRPS22 | 219220_x_at | 5.30            | 1.13E-22  |
| ABHD17A| 221267_s_at | 5.30            | 1.30E-15  |
| NPM3   | 205129_at   | 5.30            | 2.72E-17  |
| PNPLA6 | 203718_at   | 5.29            | 3.76E-22  |
| IP6K2  | 223165_s_at | 5.29            | 7.13E-10  |
| SLC38A7| 218727_at   | 5.29            | 3.01E-24  |
| NAP1L3 | 204749_at   | 5.29            | 6.02E-08  |
| FEM1C  | 213341_at   | 5.29            | 2.42E-20  |
| ADNP2  | 203322_at   | 5.29            | 3.54E-20  |
| ZFAND5 | 210275_s_at | 5.29            | 1.84E-19  |
| AARS   | 201000_at   | 5.29            | 1.01E-18  |
| LMNB1  | 203276_at   | 5.29            | 1.29E-24  |
| KDELRC2| 225128_at   | 5.28            | 1.56E-16  |
| SLC25A15| 218653_at  | 5.28            | 1.67E-30  |
| STK16  | 209622_at   | 5.27            | 6.23E-36  |
| DDX47  | 220890_s_at | 5.27            | 2.29E-21  |
| TRIQK  | 225600_at   | 5.27            | 2.23E-24  |
| AP3B1  | 203142_s_at | 5.27            | 4.20E-26  |
| DHTKD1 | 227094_at   | 5.27            | 9.84E-19  |
| TBL1X  | 201867_s_at | 5.27            | 3.56E-17  |
| TDRD7  | 213361_at   | 5.27            | 1.64E-23  |
| CCS    | 203522_at   | 5.27            | 4.28E-17  |
| TP53INP2| 224836_at  | 5.27            | 1.77E-21  |
| TRA2A  | 204658_at   | 5.26            | 2.49E-19  |
| NUDT11 | 219855_at   | 5.26            | 1.26E-16  |
| GAS5   | 224841_x_at | 5.26            | 2.47E-09  |
| GPN2   | 218799_at   | 5.26            | 1.83E-25  |
| RHBD1F | 218686_s_at | 5.26            | 1.23E-23  |
| CDO1   | 204154_at   | 5.26            | 2.16E-07  |
| GM2A   | 212737_at   | 5.26            | 2.98E-17  |
| LOC100506710| 225635_s_at | 5.25            | 4.46E-23  |
| KCTD11 | 235857_at   | 5.25            | 1.53E-20  |
| MR1    | 210223_s_at | 5.25            | 2.80E-25  |
| SMC2   | 204240_s_at | 5.25            | 3.04E-15  |
| ABHD5  | 218739_at   | 5.25            | 2.46E-34  |
| RBM10  | 208984_x_at | 5.25            | 2.63E-18  |
| DENND1A| 219763_at   | 5.25            | 1.88E-32  |
| gene       | probe   | fold_change | p-value       |
|------------|---------|-------------|---------------|
| HNRNPA1    | 214280_x_at | 5.25 | 8.41E-15     |
| CTR9       | 202060_at  | 5.25 | 1.50E-17     |
| PRKACB     | 202741_at  | 5.25 | 1.36E-11     |
| ATF1       | 1565269_s_at | 5.25 | 4.05E-41     |
| TIPRL      | 1554351_a_at | 5.24 | 2.19E-43     |
| TMEM184B   | 202027_at  | 5.24 | 3.01E-19     |
| GPAA1      | 215690_x_at | 5.24 | 2.30E-21     |
| RPL7       | 212042_x_at | 5.24 | 1.56E-16     |
| TBC1D5     | 201813_s_at | 5.23 | 1.23E-23     |
| TFE3       | 212457_at  | 5.23 | 3.10E-19     |
| ANAPC15    | 204218_at  | 5.23 | 3.38E-23     |
| NOL9       | 1554082_a_at | 5.23 | 2.90E-30     |
| CERS6      | 212442_s_at | 5.23 | 3.62E-17     |
| POLR2D     | 203664_s_at | 5.23 | 5.92E-32     |
| NDUFAF5    | 222894_x_at | 5.23 | 1.96E-29     |
| RPSA       | 213801_x_at | 5.22 | 1.09E-18     |
| CLCC1      | 1555543_a_at | 5.22 | 4.36E-37     |
| PDE5A      | 227088_at  | 5.22 | 2.00E-08     |
| PIGO       | 209998_at  | 5.22 | 1.71E-24     |
| FBLIM1     | 1554795_a_at | 5.22 | 5.78E-16     |
| SDSL       | 228274_at  | 5.22 | 4.46E-27     |
| FBXL4      | 209943_at  | 5.22 | 2.45E-21     |
| IRS1       | 204686_at  | 5.21 | 1.49E-09     |
| NDUFAF3    | 209177_at  | 5.21 | 4.34E-22     |
| NOB1       | 223018_at  | 5.21 | 7.20E-16     |
| TBCEL      | 227395_at  | 5.21 | 3.18E-19     |
| DCAF7      | 221744_at  | 5.21 | 2.90E-44     |
| GOT1       | 208813_at  | 5.21 | 3.37E-21     |
| PDE8A      | 212522_at  | 5.21 | 3.70E-13     |
| FAM172A    | 212936_at  | 5.21 | 4.07E-14     |
| BTBD7      | 224943_at  | 5.21 | 1.26E-23     |
| PNO1       | 203622_s_at | 5.21 | 5.86E-21     |
| PPP2R5D    | 211159_s_at | 5.21 | 2.34E-34     |
| ACTA2      | 200974_at  | 5.21 | 3.04E-12     |
| FAM216A    | 204521_at  | 5.21 | 2.19E-19     |
| ELMOD2     | 1553928_at | 5.21 | 4.08E-14     |
| MYO6       | 203215_s_at | 5.21 | 2.53E-12     |
| DET1       | 219641_at  | 5.20 | 1.35E-23     |
| CEBPD      | 213006_at  | 5.20 | 9.73E-25     |
| NUDT2      | 218609_s_at | 5.20 | 9.64E-25     |
| SLC25A33   | 223296_at  | 5.20 | 8.09E-14     |
| Gene   | Probe_ID | Log2 Fold Change | p-value |
|--------|----------|------------------|---------|
| SLC35A3 | 226894_at | 5.20              | 2.19E-16|
| ADAT1  | 219384_s_at | 5.19             | 4.46E-25|
| TLC1D1 | 227804_at  | 5.19              | 1.98E-26|
| C2orf47 | 219176_at  | 5.19              | 3.63E-20|
| TMED9  | 208757_at  | 5.19              | 2.46E-21|
| C17orf89 | 225967_s_at | 5.19           | 2.02E-18|
| GAPVD1 | 214869_x_at | 5.19            | 1.08E-33|
| TRAM2-AS1 | 227298_at | 5.19             | 1.35E-25|
| ADAT1  | 219384_s_at | 5.19             | 4.46E-25|
| MOG5   | 210627_s_at | 5.18             | 1.09E-20|
| ATOH8  | 228890_at  | 5.18              | 7.75E-25|
| ISCA1  | 209274_s_at | 5.18             | 5.76E-15|
| LOC645638 | 229566_at  | 5.18             | 1.22E-34|
| XRCC4  | 205071_x_at | 5.18            | 3.17E-27|
| ASXL1  | 244519_at  | 5.18              | 1.26E-24|
| ZCCHC9 | 225538_at  | 5.18              | 4.89E-16|
| TMX4   | 201580_s_at | 5.18             | 5.48E-23|
| LCMT1  | 221515_s_at | 5.18             | 8.05E-21|
| GNB4   | 225710_at  | 5.18              | 6.65E-10|
| IFT20  | 210312_s_at | 5.18             | 3.41E-19|
| BTBD19 | 1557049_at | 5.17              | 4.53E-23|
| LOC100505806 | 227655_at | 5.17 | 4.23E-15|
| GIN1   | 219467_at  | 5.17              | 4.67E-14|
| ABCF3  | 202394_s_at | 5.17             | 1.34E-25|
| SMIM13 | 227124_at  | 5.17              | 3.80E-16|
| KDM2B  | 226215_s_at | 5.16             | 2.31E-23|
| NFYC   | 202216_x_at | 5.16             | 7.32E-38|
| SKA2   | 225684_at  | 5.15              | 2.85E-15|
| DRAM1  | 218627_at  | 5.15              | 8.12E-17|
| PTPMT1 | 225901_at  | 5.15              | 5.38E-27|
| CSTF3  | 203947_at  | 5.15              | 9.85E-20|
| PTCD3  | 217895_at  | 5.15              | 2.02E-19|
| C12orf29 | 228378_at  | 5.15             | 6.05E-31|
| NUDT9  | 218375_at  | 5.15              | 8.22E-18|
| FAM127B | 217948_at  | 5.15            | 2.59E-29|
| ITGA8  | 214265_at  | 5.15              | 2.00E-18|
| EVL    | 217838_s_at | 5.15             | 1.90E-19|
| PSMG3  | 223363_at  | 5.15              | 1.71E-21|
| SULF2  | 233555_s_at | 5.15             | 1.70E-14|
| TRIM13 | 203659_s_at | 5.15             | 5.93E-20|
| Gene       | Feature   | FC    | p-value     |
|------------|-----------|-------|-------------|
| BBS12      | 229603_at | 5.14  | 3.93E-17    |
| MAP3K6     | 219278_at | 5.14  | 1.02E-16    |
| LOC100996752 | 206303_s_at | 5.14  | 2.00E-36    |
| TMX3       | 225302_at | 5.14  | 1.04E-12    |
| ZFAND3     | 218020_s_at | 5.14  | 7.77E-28    |
| EEF2K      | 225545_at | 5.14  | 7.44E-18    |
| SMC6       | 218781_at | 5.14  | 3.98E-18    |
| C1orf198   | 223063_at | 5.14  | 1.67E-13    |
| LOC100996626 | 222406_s_at | 5.13  | 7.57E-19    |
| GCDH       | 203500_at | 5.13  | 7.18E-23    |
| KCTD7      | 218310_at | 5.13  | 2.26E-15    |
| NCDN       | 209556_at | 5.13  | 4.25E-36    |
| CARS2      | 218153_at | 5.13  | 2.09E-17    |
| SLC31A1    | 235013_at | 5.13  | 1.06E-32    |
| NELFB      | 202757_at | 5.13  | 1.21E-19    |
| CRIPT      | 222702_x_at | 5.12  | 1.81E-14    |
| GCC2       | 202832_at | 5.12  | 7.83E-14    |
| SENP6      | 202318_s_at | 5.12  | 4.76E-18    |
| PCTP       | 218676_s_at | 5.12  | 7.65E-19    |
| ZNF75A     | 227670_at | 5.12  | 2.84E-32    |
| CAB39L     | 225915_at | 5.12  | 1.08E-13    |
| FIGNL1     | 222843_at | 5.12  | 4.04E-11    |
| CNIH       | 201653_at | 5.12  | 1.08E-09    |
| SCO2       | 205241_at | 5.12  | 6.37E-13    |
| DTD2       | 227158_at | 5.12  | 6.42E-13    |
| SELENBP1   | 214433_s_at | 5.12  | 1.46E-10    |
| MTMR9      | 213278_at | 5.12  | 2.54E-13    |
| LUC7L      | 1557067_s_at | 5.11  | 9.60E-35    |
| C6orf1     | 226306_at | 5.11  | 7.03E-28    |
| USP25      | 220419_s_at | 5.11  | 5.46E-14    |
| LRP11      | 225060_at | 5.11  | 1.55E-08    |
| SPATC1L    | 223360_at | 5.11  | 2.99E-23    |
| ZRANB1     | 225131_at | 5.11  | 8.37E-24    |
| Gid8       | 225376_at | 5.11  | 1.40E-16    |
| TWF1       | 214007_s_at | 5.11  | 1.33E-25    |
| WDR7       | 212880_at | 5.11  | 8.31E-21    |
| RFXANK     | 202758_s_at | 5.10  | 4.70E-16    |
| SLC38A6    | 214830_at | 5.10  | 1.64E-13    |
| GABPB1     | 204618_s_at | 5.10  | 1.27E-19    |
| FAM73A     | 243042_at | 5.10  | < 2.90E-44  |
| MED25      | 1553993_s_at | 5.10  | 5.86E-17    |
| Gene      | Probe ID       | Log2 FC | p-value |
|-----------|----------------|---------|---------|
| NAT14     | 223284_at      | 5.09    | 7.53E-19|
| PTTG1     | 203554_x_at    | 5.09    | 1.34E-11|
| NRN1      | 218625_at      | 5.09    | 4.87E-28|
| FAM89A/   | 226448_at      | 5.09    | 9.85E-15|
| MRPL45    | 224479_s_at    | 5.09    | 6.02E-26|
| PPT1      | 200975_at      | 5.08    | 5.20E-14|
| PPP1R15A  | 37028_at       | 5.08    | 1.39E-19|
| SLC26A2   | 224959_at      | 5.08    | 5.63E-11|
| AP3S2     | 202399_s_at    | 5.08    | 4.51E-19|
| UBTF      | 1558215_s_at   | 5.08    | 2.39E-25|
| WDR36     | 226180_at      | 5.08    | 2.62E-13|
| PA2G4     | 214794_at      | 5.07    | 7.90E-43|
| CTNNBL1   | 221021_s_at    | 5.07    | 1.08E-20|
| COG6      | 225769_at      | 5.07    | 2.90E-09|
| SNORA1    | 221580_s_at    | 5.07    | 5.68E-20|
| SMIM12    | 225404_at      | 5.07    | 1.99E-21|
| TRNAU1AP  | 218977_s_at    | 5.07    | 6.17E-32|
| TCF7L1    | 221016_s_at    | 5.07    | 6.11E-18|
| TRNP1     | 227862_at      | 5.07    | 2.04E-27|
| RPS18     | 201049_s_at    | 5.07    | 6.74E-20|
| ATP6V1F   | 201527_at      | 5.07    | 1.01E-21|
| NAA10     | 203025_at      | 5.06    | 2.67E-17|
| MLST8     | 220587_s_at    | 5.06    | 6.23E-23|
| PDE7B     | 230109_at      | 5.06    | 3.43E-14|
| ZBTB8A    | 235142_at      | 5.06    | 1.89E-13|
| GOLGB1    | 201057_s_at    | 5.06    | 9.58E-16|
| NRXN2     | 209982_s_at    | 5.05    | 1.88E-18|
| ITGB5     | 214021_x_at    | 5.05    | 1.44E-15|
| SAFB      | 201748_s_at    | 5.05    | 1.57E-17|
| FIP1L1    | 221007_s_at    | 5.05    | 3.21E-14|
| LOC101060455 | 211996_s_at  | 5.05    | 1.22E-04|
| C19orf60  | 51200_at       | 5.05    | 1.34E-20|
| ANKRD9    | 230972_at      | 5.04    | 3.20E-16|
| MFAP1     | 203406_at      | 5.04    | 3.73E-20|
| COL4A3BP  | 219625_s_at    | 5.04    | 3.78E-13|
| CHEK1     | 205393_s_at    | 5.04    | 3.34E-34|
| FAM204A   | 222617_s_at    | 5.04    | 5.71E-22|
| RGS3      | 203823_at      | 5.04    | 9.28E-16|
| C16orf62  | 203173_s_at    | 5.03    | 7.58E-29|
| BCS1L     | 207618_s_at    | 5.03    | 1.09E-20|
| MCM2      | 202107_s_at    | 5.03    | 2.23E-13|
| Gene Symbol | Probe set ID    | Fold change | P-value     |
|-------------|----------------|-------------|-------------|
| COMMD5      | 223819_x_at    | 5.03        | 1.61E-22    |
| CHST14      | 226314_at      | 5.03        | 7.43E-25    |
| AMMECR1     | 204976_s_at    | 5.03        | 7.18E-10    |
| SUPT7L      | 201837_s_at    | 5.03        | 3.23E-18    |
| SUGT1       | 223329_x_at    | 5.03        | 5.60E-14    |
| NBAS        | 202926_at      | 5.03        | 1.50E-23    |
| NGFRAP1     | 217963_s_at    | 5.03        | 8.79E-15    |
| DHDDS       | 218547_at      | 5.03        | 1.67E-24    |
| KIAA1715    | 225718_at      | 5.03        | 5.51E-29    |
| CTBS        | 218924_s_at    | 5.03        | 7.15E-17    |
| NIPBL       | 207108_s_at    | 5.02        | 1.29E-40    |
| POLD4       | 202996_at      | 5.02        | 3.95E-32    |
| MTMR12      | 225232_at      | 5.02        | 6.37E-13    |
| POLRMT      | 203782_s_at    | 5.02        | 2.35E-15    |
| BYSL        | 203612_at      | 5.01        | 5.14E-19    |
| PUSL1       | 228733_at      | 5.01        | 3.27E-25    |
| BLOC1S4     | 223431_at      | 5.01        | 2.55E-20    |
| LAYN        | 228080_at      | 5.01        | 1.47E-14    |
| BBS7        | 219688_at      | 5.01        | 9.24E-30    |
| SLC39A13    | 1552295_a_at   | 5.01        | 3.75E-22    |
| GTF2IRD1    | 218412_s_at    | 5.01        | 1.37E-25    |
| TAMM41      | 226815_at      | 5.01        | 1.40E-36    |
| AAGAB       | 202852_s_at    | 5.00        | 8.38E-16    |
| ANP32B      | 201305_x_at    | 5.00        | 2.56E-13    |

**Downregulated genes (Fold change>5; Two-tailed Moderated t-test with Benjamini-Hochberg multiple testing adjusted P<0.05)**

| Gene Symbol | Probe set ID    | Fold change | P-value     |
|-------------|----------------|-------------|-------------|
| TCTE3       | 1554400_at     | -51.52      | 2.00E-25    |
| LRR25       | 1559502_s_at   | -22.51      | 2.57E-20    |
| LINC00520   | 1555786_s_at   | -18.15      | 7.83E-27    |
| ZNF548      | 1553718_at     | -17.41      | 4.10E-20    |
| ABCB9       | 1555323_at     | -16.81      | 3.84E-32    |
| LOC100133089| 1558784_at     | -16.68      | 1.51E-26    |
| SPATA24     | 1558641_at     | -14.72      | 4.29E-28    |
| LOC101060557| 1553657_at     | -14.60      | 1.58E-25    |
| RNGTT       | 211387_x_at    | -14.44      | 3.74E-34    |
| SFTP8       | 213936_x_at    | -11.94      | 1.08E-29    |
| KCNS1       | 207366_at      | -11.61      | 1.08E-27    |
| LINC00491   | 1564281_at     | -11.43      | 3.85E-29    |
| SLAMF6      | 1552497_a_at   | -11.22      | 2.69E-33    |
| Gene Symbol | Description | Fold Change | p-Value |
|-------------|-------------|-------------|---------|
| OTTHUMG00000035180 1561044_at | -11.13 | 2.41E-22 |
| SAMD15 1557680_at | -10.64 | 1.20E-14 |
| MPV17L 1559167_x_at | -9.93 | 4.99E-30 |
| GNAO1 204763_s_at | -9.72 | 2.89E-25 |
| ACACB 1552615_at | -9.39 | 1.29E-27 |
| GOLGA6L1 1561171_a_at | -9.18 | 1.21E-27 |
| HIF3A 222124_at | -9.15 | 1.47E-32 |
| KLC3 1552749_a_at | -9.11 | 3.92E-19 |
| SYT15 1560878_at | -8.8 | 2.3E-19 |
| ZNF236 47571_at | -8.62 | 1.29E-29 |
| G3BP1 222187_x_at | -8.53 | 3.64E-29 |
| OTTHUMG00000175500 233116_at | -8.53 | 6.00E-19 |
| TCP11L2 1569206_at | -8.53 | 1.75E-12 |
| PLAC4 214750_at | -8.3 | 1.42E-30 |
| ASB12 236033_at | -8.25 | 7.26E-18 |
| ADRBK1 38447_at | -8.13 | 2.80E-33 |
| BTNL8 220421_at | -8.11 | 1.54E-21 |
| BEST1 1554442_at | -7.91 | 4.70E-21 |
| GLP1R 208390_s_at | -7.89 | 1.79E-29 |
| MCF2L 1563808_at | -7.54 | 1.41E-16 |
| OR7E104P 1566956_at | -7.43 | 3.90E-28 |
| OTTHUMG00000169306 228691_at | -7.31 | 8.71E-22 |
| OTTHUMG0000020566 237345_at | -7.23 | 1.48E-20 |
| PNPLA2 39854_r_at | -7.17 | 7.38E-32 |
| C14orf159 1554039_at | -7.12 | 5.87E-29 |
| SERPINB6 231628_s_at | -7.05 | 2.67E-08 |
| LOC100505478 231203_at | -6.96 | 2.79E-23 |
| AC093162.5 1566471_at | -6.92 | 3.08E-21 |
| NNX1-1 1565537_at | -6.89 | 7.16E-19 |
| WHAMMP2 1557450_s_at | -6.88 | 2.75E-22 |
| LOC100129098 1569361_a_at | -6.74 | 3.78E-27 |
| CYP19A1 239459_s_at | -6.68 | 1.13E-12 |
| SYN1 1553264_a_at | -6.57 | 3.89E-21 |
| MAP3K19 221180_at | -6.56 | 2.08E-27 |
| OTTHUMG00000177665 1558275_at | -6.46 | 7.05E-24 |
| RBMY3AP 1565320_at | -6.44 | 3.95E-12 |
| RAB6B 221792_at | -6.37 | 2.80E-33 |
| MESP1 229195_at | -6.36 | 1.35E-25 |
| SMPDL3B 1554050_at | -6.36 | 7.46E-30 |
| LOC541473 1554318_at | -6.17 | 3.01E-31 |
| LEPREL1 230813_at | -6.16 | 3.09E-16 |
| Gene          | Probe ID | Log2 Fold Change | P-value  |
|--------------|----------|------------------|----------|
| C19orf26     | 1552354_at | -6.15            | 8.70E-12 |
| PTAFR        | 211661_x_at  | -5.83            | 9.28E-28 |
| SLC7A8       | 216604_s_at  | -5.82            | 3.84E-19 |
| LINC00944    | 1560818_at   | -5.81            | 1.41E-27 |
| DKFZp434E1119| 1565771_at   | -5.75            | 3.46E-21 |
| GPR4         | 211266_s_at  | -5.59            | 3.93E-19 |
| SEMA4G       | 219194_at    | -5.57            | 1.64E-28 |
| APOC2        | 206738_at    | -5.56            | 1.22E-21 |
| SLC8A3       | 1568859_a_at | -5.52            | 1.29E-27 |
| FANCD2       | 1568889_at   | -5.51            | 1.13E-26 |
| FAM170B-AS1  | 1563255_at   | -5.44            | 3.48E-21 |
| FUT6         | 210399_x_at  | -5.40            | 1.80E-27 |
| FGD2         | 1565752_at   | -5.38            | 2.68E-27 |
| CTD-2309H9.3 | 1569841_x_at | -5.37            | 1.51E-24 |
| CTD-2010I22.2| 241945_at    | -5.36            | 7.30E-17 |
| OTTHUMG00000172987 | 1556994_at | -5.34            | 3.21E-14 |
| IFT122       | 216678_at    | -5.31            | 6.04E-29 |
| CA9          | 205199_at    | -5.30            | 1.92E-16 |
| LOC286149    | 1556755_s_at | -5.30            | 2.34E-25 |
| MCM3AP       | 215582_x_at  | -5.19            | 1.64E-18 |
| LOC100652911 | 1556914_at   | -5.15            | 2.06E-21 |
| HNF1B        | 205313_at    | -5.15            | 1.61E-23 |
| LINC00642    | 1557656_at   | -5.12            | 4.39E-23 |
| TAF1L        | 1553011_at   | -5.12            | 8.53E-26 |
| TIRAP        | 1554091_a_at | -5.12            | 8.54E-20 |
| OTTHUMG00000175668 | 1569615_at | -5.11            | 2.80E-32 |
| PLIN5        | 241368_at    | -5.09            | 8.80E-22 |
| LOC100505711 | 237779_at    | -5.09            | 7.07E-27 |
| CTC-774J1.1  | 1561107_at   | -5.06            | 7.82E-26 |
| OTTHUMG00000165624 | 220583_at | -5.03            | 7.19E-17 |

P-values were calculated by Moderated t-tests with Benjamini-Hochberg multiple testing adjustment. All statistical tests were two-sided.
**Supplementary Table 4.** Clinical and histopathological information for the 46 high grade serous ovarian cancer specimens used in the survival analysis.

| Characteristic                                      | CAF-C (n=23) | CAF-N (n=23) |
|-----------------------------------------------------|--------------|--------------|
| Age at diagnosis, median (interquartile range), year| 56 (49-70)   | 58 (53.5-69.5) |
| Disease grade                                       |              |              |
| 3                                                   | 23 (100)     | 23 (100)     |
| Disease stage                                       |              |              |
| 3                                                   | 22 (96)      | 20 (87)      |
| 4                                                   | 1 (4)        | 3 (13)       |
| Overall survival, median (interquartile range), month| 16 (13-32)  | 33 (22.5-43.5) |
| Progress-free survival, median (interquartile range), month | 5.5 (3.25-14) | 11 (5.5-15.5) |
| Debulking status                                    |              |              |
| Optimal                                             | 15 (65%)     | 18 (79%)     |
| Suboptimal                                          | 6 (26%)      | 4 (17%)      |
| Unclear                                             | 2 (9%)       | 1 (4%)       |
Supplementary Table 5. Differentially expressed secretory ligands in cancer cells in group C compared with cancer cells in group N

Upregulated ligands in cancer cells (Group C vs group N) (Fold change>=2; Two-tailed Student t-test, P<0.05)

| Gene symbol | Fold change | P-value  |
|-------------|-------------|----------|
| VCAN        | 3.13        | 1.91E-02 |
| COL5A2      | 3.10        | 3.92E-02 |
| INHBA       | 2.76        | 1.91E-02 |
| IGF1        | 2.50        | 2.77E-02 |
| COL5A1      | 2.46        | 2.30E-02 |
| COL11A1     | 2.35        | 4.63E-02 |
| COL6A3      | 2.33        | 4.27E-02 |
| COL1A1      | 2.22        | 3.60E-02 |
| FN1         | 2.04        | 2.10E-02 |
| COL3A1      | 1.87        | 4.63E-02 |
| EFN B2      | 1.59        | 4.63E-02 |
| CXCL5       | 1.09        | 2.05E-02 |

P-values were calculated by Student t-tests. All statistical tests were two-sided.
**Supplementary Table 6.** Activated transcription factors in CAFs of patients with CAF-C gene signature

| Gene symbol | P-value  |
|-------------|----------|
| HIF1A       | 2.00E-03 |
| TP53        | 5.50E-03 |
| STAT5A      | 8.70E-03 |
| STAT5B      | 8.70E-03 |
| STAT1       | 1.57E-02 |
| STAT4       | 2.04E-02 |
| SMAD3       | 2.70E-02 |
| ARNT        | 3.08E-02 |
| FLI1        | 3.57E-02 |
| CREBBP      | 4.55E-02 |
| EP300       | 4.55E-02 |
| STAT2       | 4.73E-02 |
| STAT6       | 4.73E-02 |

P-values were calculated by Fisher’s exact test. All statistical tests were one-sided.
**Supplementary Table 7.** Activated signaling pathways in CAF-C when compared to CAF-N induced by differentially expressed ligands from the corresponding cancer cells

| Pathway name                          | P-value     | Number of KEGG pathway genes observed in the input data set | % of KEGG pathway genes observed in the input data set |
|---------------------------------------|-------------|-------------------------------------------------------------|--------------------------------------------------------|
| PI3K-Akt signaling pathway            | < 1.00E-04  | 160                                                         | 46.9%                                                  |
| Thyroid hormone signaling pathway     | < 1.00E-04  | 58                                                          | 52.7%                                                  |
| Smad signaling pathway                | 3.00E-04    | 35                                                          | 47.9%                                                  |
| Toll-like receptor signaling pathway  | 4.06E-02    | 39                                                          | 38.2%                                                  |

P-values were calculated by Fisher’s exact test. All statistical tests were one-sided.
**Supplementary Table 8.** Differentially expressed receptors in CAFs of patients with CAF-C gene signature when compared to patients with CAF-N gene signature

**Upregulated receptor in CAFs (Group C vs group N) (Fold change>=1.5; Two-tailed Student t-test P<=0.5)**

| Gene symbol | Fold change | P-value |
|-------------|-------------|---------|
| CD47        | 9.73        | < 1.00E-04 |
| ITGB1       | 9.60        | < 1.00E-04 |
| EDNRA       | 8.21        | < 1.00E-04 |
| TGFBR2      | 6.86        | < 1.00E-04 |
| CD14        | 6.37        | < 1.00E-04 |
| FZD1        | 5.92        | < 1.00E-04 |
| PLAUR       | 5.67        | < 1.00E-04 |
| SDC1        | 5.62        | < 1.00E-04 |
| IL7R        | 5.29        | < 1.00E-04 |
| OSMR        | 5.25        | < 1.00E-04 |
| PLXNA1      | 5.24        | < 1.00E-04 |
| CD93        | 5.16        | < 1.00E-04 |
| CD74        | 4.83        | < 1.00E-04 |
| ITGB2       | 4.82        | < 1.00E-04 |
| TFRC        | 4.77        | < 1.00E-04 |
| IL1R1       | 4.64        | < 1.00E-04 |
| TNFRSF10B   | 4.60        | < 1.00E-04 |
| IL13RA1     | 4.32        | < 1.00E-04 |
| SDC4        | 4.30        | < 1.00E-04 |
| FZD7        | 4.29        | < 1.00E-04 |
| BMPR2       | 4.24        | < 1.00E-04 |
| IL10RA      | 4.21        | < 1.00E-04 |
| TNFRSF12A   | 4.18        | < 1.00E-04 |
| PTPRC       | 4.17        | < 1.00E-04 |
| FZD2        | 4.03        | < 1.00E-04 |
| ROBO1       | 4.02        | < 1.00E-04 |
| ITGB5       | 4.02        | < 1.00E-04 |
| UNC5B       | 4.02        | < 1.00E-04 |
| F2RL1       | 4.00        | < 1.00E-04 |
| IGFBP3      | 3.98        | < 1.00E-04 |
| ATP6AP2     | 3.94        | < 1.00E-04 |
| CXCR4       | 3.93        | < 1.00E-04 |
| CD44        | 3.90        | < 1.00E-04 |
| ACVR1       | 3.74        | < 1.00E-04 |
| ITGAV       | 3.54        | < 1.00E-04 |
| Gene          | Log2 Fold Change | Significance |
|--------------|-----------------|--------------|
| TNFRSF1A     | 3.52            | < 1.0E-04    |
| DAG1         | 3.48            | < 1.0E-04    |
| FGFR2        | 3.48            | < 1.0E-04    |
| ACKR3        | 3.48            | < 1.0E-04    |
| ITGB8        | 3.39            | < 1.0E-04    |
| NRP2         | 3.38            | < 1.0E-04    |
| ITGA11       | 3.30            | < 1.0E-04    |
| APP          | 3.29            | < 1.0E-04    |
| IGF2R        | 3.24            | < 1.0E-04    |
| NOTCH2       | 3.19            | < 1.0E-04    |
| NRP1         | 3.19            | < 1.0E-04    |
| AXL          | 3.15            | < 1.0E-04    |
| ITGA5        | 3.10            | < 1.0E-04    |
| IGF1R        | 3.08            | < 1.0E-04    |
| PDGFRA       | 3.05            | < 1.0E-04    |
| MARCO        | 3.03            | 2.41E-02     |
| FAS          | 2.98            | < 1.0E-04    |
| ERBB3        | 2.96            | 1.42E-02     |
| TGFBR1       | 2.95            | < 1.0E-04    |
| ITGA1        | 2.92            | < 1.0E-04    |
| IL6ST        | 2.89            | < 1.0E-04    |
| ACVR2A       | 2.87            | < 1.0E-04    |
| MET          | 2.83            | < 1.0E-04    |
| LRP1         | 2.78            | < 1.0E-04    |
| IFNCR1       | 2.76            | < 1.0E-04    |
| CSF2RB       | 2.65            | < 1.0E-04    |
| INSR         | 2.63            | < 1.0E-04    |
| ITGAM        | 2.51            | < 1.0E-04    |
| SORT1        | 2.50            | < 1.0E-04    |
| CSAR1        | 2.47            | < 1.0E-04    |
| BMPR1B       | 2.40            | 1.0E-04      |
| IGFBP5       | 2.38            | 1.0E-04      |
| RYK          | 2.35            | < 1.0E-04    |
| EPHA2        | 2.34            | < 1.0E-04    |
| F2R          | 2.26            | < 1.0E-04    |
| IL10RB       | 2.23            | < 1.0E-04    |
| CX3CR1       | 2.22            | 1.98E-02     |
| ROR2         | 2.22            | < 1.0E-04    |
| IFNAR1       | 2.20            | < 1.0E-04    |
| CCR2         | 2.17            | 5.9E-04      |
| IL4R         | 2.15            | < 1.0E-04    |
| Gene   | Fold Change | P-value       |
|--------|-------------|---------------|
| ITGA6  | 2.07        | < 1.00E-04    |
| PDGFRB | 2.05        | < 1.00E-04    |
| GHR    | 2.03        | 4.00E-04      |
| FZD5   | 2.02        | < 1.00E-04    |
| BMPR1A | 2.01        | 1.00E-04      |
| FGFR1  | 2.01        | < 1.00E-04    |

P-values were calculated by Student t-tests with Benjamini-Hochberg multiple testing adjustment. All statistical tests were two-sided.
**Supplementary Table 9.** Activated signaling pathways in CAF-C when compared to CAF-N that are mediated through upregulated receptors in CAFs

| Pathway name                                | P-value          | Number of KEGG pathway genes observed in the input data set | % of KEGG pathway genes observed in the input data set |
|---------------------------------------------|------------------|-------------------------------------------------------------|--------------------------------------------------------|
| PI3K-Akt signaling pathway                  | < 1.00E-04       | 205                                                         | 60.1%                                                  |
| FoxO signaling pathway                      | < 1.00E-04       | 69                                                          | 55.6%                                                  |
| Hippo signaling pathway                     | < 1.00E-04       | 85                                                          | 56.3%                                                  |
| Adherens junction                           | < 1.00E-04       | 38                                                          | 55.1%                                                  |
| HIF-1 signaling pathway                     | < 1.00E-04       | 55                                                          | 56.1%                                                  |
| Thyroid hormone signaling pathway           | < 1.00E-04       | 53                                                          | 48.2%                                                  |
| MAPK signaling pathway                      | < 1.00E-04       | 120                                                         | 47.6%                                                  |
| Smad signaling pathway                      | 3.00E-04         | 47                                                          | 64.4%                                                  |
| Chemokine signaling pathway                 | 7.00E-04         | 88                                                          | 48.4%                                                  |
| Wnt signaling pathway                       | 8.00E-04         | 61                                                          | 44.5%                                                  |
| Osteoclast differentiation                  | 2.10E-03         | 55                                                          | 46.2%                                                  |
| ErbB signaling pathway                      | 3.90E-03         | 45                                                          | 52.3%                                                  |
| Melanogenesis                               | 2.28E-02         | 44                                                          | 43.6%                                                  |
| Toll-like receptor signaling pathway        | 4.06E-02         | 55                                                          | 53.9%                                                  |

P-values were calculated by Fisher’s exact test. All statistical tests were one-sided.
**Supplementary Table 10.** Activated signaling pathways identified in robustness assessment of CCCExplorer using randomly generated data sets.

| Differentially expressed ligand-mediated crosstalk | Appearance |
|---------------------------------------------------|------------|
| Rap1 signaling pathway                            | 28 / 1,000 runs |
| Jak-STAT signaling pathway                        | 21 / 1,000 runs |
| MAPK signaling pathway                            | 19 / 1,000 runs |
| Regulation of actin cytoskeleton                  | 16 / 1,000 runs |
| Thyroid hormone signaling pathway                 | 15 / 1,000 runs |
| Axon guidance                                     | 14 / 1,000 runs |
| PI3K-Akt signaling pathway                        | 14 / 1,000 runs |
| Focal adhesion                                    | 13 / 1,000 runs |
| Leukocyte transendothelial migration              | 13 / 1,000 runs |
| Ras signaling pathway                             | 12 / 1,000 runs |
| Osteoclast differentiation                        | 11 / 1,000 runs |
| HIF-1 signaling pathway                           | 9 / 1,000 runs |
| Smad signaling pathway                            | 9 / 1,000 runs |
| Chemokine signaling pathway                       | 8 / 1,000 runs |
| FoxO signaling pathway                            | 8 / 1,000 runs |
| Apoptosis                                         | 7 / 1,000 runs |
| Melanogenesis                                     | 7 / 1,000 runs |
| Prolactin signaling pathway                       | 6 / 1,000 runs |
| Toll-like receptor signaling pathway              | 6 / 1,000 runs |
| Inflammatory mediator regulation of TRP channels   | 5 / 1,000 runs |
| Endocytosis                                       | 4 / 1,000 runs |
| ErbB signaling pathway                            | 4 / 1,000 runs |
| Hippo signaling pathway                           | 4 / 1,000 runs |
| mTOR signaling pathway                            | 4 / 1,000 runs |
| Notch signaling pathway                           | 4 / 1,000 runs |
| Wnt signaling pathway                             | 4 / 1,000 runs |
| Adherens junction                                 | 3 / 1,000 runs |
| cGMP-PKG signaling pathway                        | 2 / 1,000 runs |
| GnRH signaling pathway                            | 2 / 1,000 runs |
| Natural killer cell mediated cytotoxicity          | 2 / 1,000 runs |
| NF-kappa B signaling pathway                      | 2 / 1,000 runs |

| Differentially expressed receptor-mediated crosstalk | Appearance |
|------------------------------------------------------|------------|
| Thyroid hormone signaling pathway                    | 29 / 1,000 runs |
| Osteoclast differentiation                           | 28 / 1,000 runs |
| Prolactin signaling pathway                          | 28 / 1,000 runs |
| Apoptosis                                            | 25 / 1,000 runs |
| FoxO signaling pathway                               | 25 / 1,000 runs |
| MAPK signaling pathway                               | 25 / 1,000 runs |
| TNF signaling pathway                                | 25 / 1,000 runs |
| cGMP-PKG signaling pathway                          | 23 / 1,000 runs |
| Neurotrophin signaling pathway                       | 23 / 1,000 runs |
| PI3K-Akt signaling pathway                           | 23 / 1,000 runs |
| Axon guidance                                        | 21 / 1,000 runs |
| Jak-STAT signaling pathway                           | 21 / 1,000 runs |
| Leukocyte transendothelial migration                 | 21 / 1,000 runs |
| Melanogenesis                                        | 21 / 1,000 runs |
| Smad signaling pathway                               | 21 / 1,000 runs |
| Hippo signaling pathway                              | 21 / 1,000 runs |
| HIF-1 signaling pathway                              | 19 / 1,000 runs |
| mTOR signaling pathway                               | 19 / 1,000 runs |
| Rap1 signaling pathway                               | 19 / 1,000 runs |
| Ras signaling pathway                                | 18 / 1,000 runs |
| Regulation of actin cytoskeleton                     | 18 / 1,000 runs |
| T cell receptor signaling pathway                    | 17 / 1,000 runs |
| Focal adhesion                                       | 14 / 1,000 runs |
| Wnt signaling pathway                                | 13 / 1,000 runs |
| Toll-like receptor signaling pathway                 | 12 / 1,000 runs |
| Adipocytokine signaling pathway                      | 11 / 1,000 runs |
| Chemokine signaling pathway                          | 10 / 1,000 runs |
| ErbB signaling pathway                               | 10 / 1,000 runs |
| NOD-like receptor signaling pathway                  | 10 / 1,000 runs |
| Estrogen signaling pathway                           | 9 / 1,000 runs |
| B cell receptor signaling pathway                    | 8 / 1,000 runs |
| Pathway                                                                 | 2 / 1,000 runs | 8 / 1,000 runs |
|------------------------------------------------------------------------|----------------|----------------|
| Oxytocin signaling pathway                                             | 2 / 1,000 runs | 8 / 1,000 runs |
| TNF signaling pathway                                                 | 2 / 1,000 runs | 8 / 1,000 runs |
| Adipocytokine signaling pathway                                        | 1 / 1,000 runs | 7 / 1,000 runs |
| Aldosterone-regulated sodium reabsorption                             | 1 / 1,000 runs | 7 / 1,000 runs |
| Antigen processing and presentation                                   | 1 / 1,000 runs | 6 / 1,000 runs |
| Calcium signaling pathway                                             | 1 / 1,000 runs | 6 / 1,000 runs |
| Estrogen signaling pathway                                            | 1 / 1,000 runs | 6 / 1,000 runs |
| Insulin signaling pathway                                             | 1 / 1,000 runs | 6 / 1,000 runs |
| Neurotrophin signaling pathway                                        | 1 / 1,000 runs | 5 / 1,000 runs |
| NOD-like receptor signaling pathway                                   | 1 / 1,000 runs | 5 / 1,000 runs |
| RIG-I-like receptor signaling pathway                                 | 1 / 1,000 runs | 4 / 1,000 runs |
| T cell receptor signaling pathway                                     | 1 / 1,000 runs | 4 / 1,000 runs |
| Thyroid hormone synthesis                                             | 1 / 1,000 runs | 4 / 1,000 runs |
| Endocytosis                                                           | 8 / 1,000 runs | 4 / 1,000 runs |
| NF-kappa B signaling pathway                                          | 8 / 1,000 runs | 4 / 1,000 runs |
| Dorso-ventral axis formation                                          | 7 / 1,000 runs | 4 / 1,000 runs |
| GnRH signaling pathway                                                | 7 / 1,000 runs | 3 / 1,000 runs |
| Insulin secretion                                                     | 7 / 1,000 runs | 3 / 1,000 runs |
| Inflammatory mediator regulation of TRP channels                      | 6 / 1,000 runs | 3 / 1,000 runs |
| Notch signaling pathway                                               | 6 / 1,000 runs | 3 / 1,000 runs |
| RIG-I-like receptor signaling pathway                                 | 6 / 1,000 runs | 3 / 1,000 runs |
| Adherens junction                                                     | 5 / 1,000 runs | 3 / 1,000 runs |
| Gap junction                                                          | 5 / 1,000 runs | 3 / 1,000 runs |
| Calcium signaling pathway                                             | 4 / 1,000 runs | 3 / 1,000 runs |
| Fc gamma R-mediated phagocytosis                                      | 4 / 1,000 runs | 3 / 1,000 runs |
| Natural killer cell mediated cytotoxicity                             | 4 / 1,000 runs | 3 / 1,000 runs |
| Thyroid hormone synthesis                                             | 4 / 1,000 runs | 3 / 1,000 runs |
| VEGF signaling pathway                                                | 4 / 1,000 runs | 3 / 1,000 runs |
| Aldosterone-regulated sodium reabsorption                             | 3 / 1,000 runs | 2 / 1,000 runs |
| Cytosolic DNA-sensing pathway                                         | 3 / 1,000 runs | 2 / 1,000 runs |
| Insulin signaling pathway                                             | 3 / 1,000 runs | 2 / 1,000 runs |
| Oxytocin signaling pathway                                            | 3 / 1,000 runs | 2 / 1,000 runs |
| Bile secretion                                                       | 2 / 1,000 runs | 2 / 1,000 runs |
| Long-term depression                                                  | 2 / 1,000 runs | 2 / 1,000 runs |
| Vascular smooth muscle contraction                                    | 2 / 1,000 runs | 1 / 1,000 runs |
| Endocrine and other factor-regulated calcium reabsorption             | 1 / 1,000 runs | 1 / 1,000 runs |
| Oocyte meiosis                                                        | 1 / 1,000 runs | 1 / 1,000 runs |
| p53 signaling pathway                                                 | 1 / 1,000 runs | 1 / 1,000 runs |

With randomized gene lists as input data sets, for differentially expressed ligand-mediated crosstalk, only 218 out of 1,000 runs identified at least one activated signaling pathway with P<0.05. All pathways were predicted for less than 28 times out of 1,000 runs (P=0.028) and most of the pathways appeared less than 10 times out of 1,000 runs (P<0.01). The Smad signaling pathway appeared only in 9 of the 1,000 runs performed using randomly generated gene lists (P=0.009). For differentially expressed receptor-mediated crosstalk, 402 out of 1,000 runs identified at least one activated signaling pathway with P<0.05. All pathways were predicted for less than 29 times out of 1,000 runs (P=0.029) and 30 out of 56 signaling pathways appeared less than 10 times out of 1,000 runs (P<0.01). The Smad signaling pathway appeared only in 21 of the 1,000 runs performed using randomly generated gene lists (P=0.021).
**Supplementary Table 11.** Activated signaling pathways identified in robustness assessment of CCCExplorer by random candidate gene addition or deletion.

### Differentially expressed ligand-mediated crosstalk

| Pathway name                                  | Appearance | Appearance |
|-----------------------------------------------|------------|------------|
| PI3K-Akt signaling pathway                    | 1,000 / 1,000 runs | 989 / 1,000 runs |
| Thyroid hormone signaling pathway             | 1,000 / 1,000 runs | 980 / 1,000 runs |
| Smad signaling pathway                        | 1,000 / 1,000 runs | 891 / 1,000 runs |
| Toll-like receptor signaling pathway          | 481 / 1,000 runs | 380 / 1,000 runs |

For differentially expressed ligand-mediated crosstalk, adding randomly selected unimportant genes to all lists had minimal effect on the prediction of truly important pathways. Using data sets containing 10% of randomly selected genes as input data, 3 out of 4 (75%) pathways predicted using the original data set, including SMAD signaling pathways, were still predicted by the CCCExplorer in all 1,000 runs with P<0.05. Similarly, 3 out of 4 (75%) signaling pathways predicted using the original data set, including SMAD signaling pathways, were still predicted by the CCCExplorer in more than 890 out of 1,000 runs with P<0.05 using input data with 10% of randomly selected genes deleted.

### Differentially expressed receptor-mediated crosstalk

| Pathway name                                  | Appearance | Appearance |
|-----------------------------------------------|------------|------------|
| FoxO signaling pathway                        | 1,000 / 1,000 runs | 1,000 / 1,000 runs |
| Hippo signaling pathway                       | 1,000 / 1,000 runs | 1,000 / 1,000 runs |
| HIF-1 signaling pathway                       | 1,000 / 1,000 runs | 1,000 / 1,000 runs |
| Chemokine signaling pathway                   | 1,000 / 1,000 runs | 996 / 1,000 runs |
| Smad signaling pathway                        | 1,000 / 1,000 runs | 995 / 1,000 runs |
| PI3K-Akt signaling pathway                    | 1,000 / 1,000 runs | 993 / 1,000 runs |
| MAPK signaling pathway                        | 1,000 / 1,000 runs | 993 / 1,000 runs |
| Wnt signaling pathway                         | 1,000 / 1,000 runs | 990 / 1,000 runs |
| Adherens junction                             | 1,000 / 1,000 runs | 989 / 1,000 runs |
| Osteoclast differentiation                    | 1,000 / 1,000 runs | 989 / 1,000 runs |
| Thyroid hormone signaling pathway             | 1,000 / 1,000 runs | 988 / 1,000 runs |
| ErbB signaling pathway                        | 1,000 / 1,000 runs | 874 / 1,000 runs |
| Melanogenesis                                 | 783 / 1,000 runs | 720 / 1,000 runs |
| Toll-like receptor signaling pathway          | 490 / 1,000 runs | 478 / 1,000 runs |

For differentially expressed receptor-mediated crosstalk, using data sets containing 10% of randomly selected genes as input data, 12 out of 14 (85.7%) pathways predicted using the original data set, including SMAD signaling pathways, were still predicted by the CCCExplorer in all 1,000 runs with P<0.05. Similarly, 12 out of 14 (85.7%) pathways predicted using the original data set, including SMAD signaling pathways, were still predicted by the CCCExplorer in more than 870 out of 1,000 runs with P<0.05 using input data with 10% of randomly selected genes deleted.
### Supplementary Table 12. List of Smad-regulated genes included in unsupervised clustering analysis of CAF samples

| Gene symbol | Gene symbol | Gene symbol | Gene symbol | Gene symbol |
|-------------|-------------|-------------|-------------|-------------|
| ABI2        | COL10A1     | GZMA        | LY6A        | SMAD1       |
| ACTA2       | COL1A1      | GZMB        | MBOAT2      | SMAD2       |
| ACTA2       | COL2A1      | HBEGF       | MMP13       | SMAD3       |
| ALB         | COL3A1      | HEY1        | MMP2        | SMAD4       |
| Alp         | CRP         | HNF4A       | MMP9        | SMAD5       |
| AREG        | CTGF        | HP          | MSTN        | SMAD7       |
| ASPN        | CTNNB1      | IFNB1       | MUC4        | SMURF2      |
| BCL2        | CXCL10      | IFNG        | MYC         | SNAI1       |
| BCL2L11     | CXCL3       | IL13        | MYF5        | SNAI2       |
| BECN1       | CYP11A1     | IL15        | NANOG       | SOX17A      |
| BGLAP       | CYP19A1     | IL1B        | NET1        | TBX21       |
| BGN         | DEPTOR      | IL2         | NODAL       | TERT        |
| BMP2        | DOCK4       | IL23A       | NOS2        | TGFA        |
| BMP6        | DUSP4       | IL4         | NOV         | TGBF1       |
| CBLB        | EGR1        | IL5         | NR5A1       | TGBF3       |
| CCL2        | ELN         | IL6         | ORM1        | TGBFR1      |
| CCL3L3      | EREG        | IL6R        | PARC1A      | TGBFR2      |
| CCL4        | ESR1        | IL9         | PCNA        | THBS1       |
| CCND1       | ESR2        | INHA        | PITX2       | TIMP3       |
| CCND2       | FLT1        | INHBA       | PPARD       | TNC         |
| CCNE1       | FN1         | ITGB1       | PTGS2       | TNF         |
| CDH1        | FNDC5       | JAG1        | RAC1        | TPM1        |
| CDH2        | FOS         | JAM2        | RNA         | TPM2        |
| CDH5        | FOXP3       | JUN         | RORC        | TPM3        |
| CDK4        | FPR2        | JUNB        | RUNX2       | VEGFA       |
| CDKN1A      | FSHB        | JUND        | S1PR1       | VEGFC       |
| CDKN2A      | FSTL3       | KLK3        | S1PR4       | VIM         |
| CDKN2B      | GAST        | LEFTY2      | SELE        | WNT8        |
| CDX2        | GATA3       | LGALS9B     | SERPINE1    | XIAP        |
| CHRD        | GLI1        | LPAR1       | SKIL        |             |
| CIITA       | GLI2        | LUM         | SLC51B      |             |
**Supplementary Table 13.** Drug candidates in the two largest repositioned drug clusters after false positive filtering by affinity propagation clustering

| First drug cluster | Drug ID      | Drug Name             | Second drug cluster | Drug ID      | Drug Name            |
|--------------------|--------------|-----------------------|---------------------|--------------|----------------------|
| BRD-K27316855      | Calcitriol   |                       | BRD-A16444946       | Acarbose     |
| BRD-K16336526      | Capsaicin    |                       | BRD-A22032524       | Amlodipine   |
| BRD-K16508793      | Diazepam     |                       | BRD-K67017579       | Cilostazol   |
| BRD-K45330754      | Diethylstilbestrol |             | BRD-K45252063       | Clofibrate   |
| BRD-A54845972      | Dihydroergotamine |               | BRD-K40758068       | Efavirenz    |
| BRD-K38305202      | Domperidone  |                       | BRD-K66296774       | Fluvastatin  |
| BRD-K18910433      | Estradiol    |                       | BRD-A95869247       | Indapamide   |
| BRD-A97104540      | Fenoterol    |                       | BRD-A49172652       | Lansoprazole |
| BRD-K98769987      | Flumazenil   |                       | BRD-A11170096       | Pravastatin  |
| BRD-K32830106      | Guanfacine   |                       | BRD-K89348303       | Ramipril     |
| BRD-A07440155      | Labetalol    |                       | BRD-K82846253       | Repaglinide  |
| BRD-K52662033      | Lidocaine    |                       | BRD-K82941592       | Rosuvastatin |
| BRD-K89152108      | Liothyronine |                       | BRD-A81772229       | Simvastatin  |
| BRD-K88871508      | Lisuride     |                       | BRD-K19416115       | Sitagliptin  |
| BRD-K77641333      | Naphazoline  |                       |                     |             |
| BRD-K76810206      | Nicergoline  |                       |                     |             |
| BRD-K05395900      | Nicotine     |                       |                     |             |
| BRD-K96354014      | Nifedipine   |                       |                     |             |
| BRD-A91555231      | Norepinephrine |                 |                     |             |
| BRD-A97701745      | Pindolol     |                       |                     |             |
| BRD-K95921201      | Reserpine    |                       |                     |             |
| BRD-A50157456      | Terbutaline  |                       |                     |             |
| BRD-A55393291      | Testosterone |                       |                     |             |
| BRD-A43974575      | Tranylcypromine |                 |                     |             |