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Original Article

Deciphering the performance of polo-like kinase 1 in triple-negative breast cancer progression according to the centromere protein U-phosphorylation pathway

Shaorong Zhao[1,2,3,4], Yannan Geng[5], Lixia Cao[1,2,3,4], Qianxi Yang[1,2,3,4], Teng Pan[1,2,3,4], Dongdong Zhou[1,2,3,4], Jingjing Liu[1,2,3,4], Zhendong Shi[1,2,3,4], Jin Zhang[1,2,3,4]

[1]The 3rd Department of Breast Cancer, Treatment and Research Center, China Tianjin Breast Cancer Prevention, Tianjin Medical University Cancer Institute and Hospital, National Clinical Research Center of Cancer, Huan Hu Xi Road, Ti Yuan Bei, He Xi District, Tianjin 300060, People's Republic of China; [2]Key Laboratory of Cancer Prevention and Therapy, Huan Hu Xi Road, Ti Yuan Bei, He Xi District, Tianjin 300060, People's Republic of China; [3]Tianjin's Clinical Research Center for Cancer, Huan Hu Xi Road, Ti Yuan Bei, He Xi District, Tianjin 300060, People's Republic of China; [4]Key Laboratory of Breast Cancer Prevention and Therapy, Tianjin Medical University, Ministry of Education, Huan Hu Xi Road, Ti Yuan Bei, He Xi District, Tianjin 300060, People's Republic of China; [5]Department of Spinal Surgery, Tianjin Union Medical Center, Hongqiao District, Tianjin 300121, People's Republic of China

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Abstract: In general, the lack of effective therapeutic targets has led to the poor prognosis of triple-negative breast cancer (TNBC). Polo-like kinase 1 (PLK1) has been studied extensively as an effective therapeutic objective for the progression of tumor. Although the fundamental strategy and function of PLK1 in TNBC are still unclear. Here, we demonstrated that PLK1 upregulation was significantly correlated with poor prognosis in breast cancer cases utilizing the TCGA database. Additionally, ectopic PLK1 expression promoted TNBC cell proliferation, VEGFA production, and endothelial cell tube formation, whereas *PLK1* knockdown induced the opposite effects. Moreover, expression of PLK1 K82R, the kinase-dead mutant of PLK1, completely inhibited PLK1-mediated cell proliferation, VEGFA production, and tube formation. Gene Set Enrichment Analysis (GSEA) showed that PLK1 expression significantly correlated with mitosis and the VEGF signaling pathway. We further observed that PLK1 phosphorylated centromere protein U (CENPU) at residue T78, thereby regulating the signaling pathway of COX-2/HIF-1α/VEGFA and the metaphase-anaphase transition of mitosis. The mechanism underlying the activity of PLK1 was also determined using a TNBC xenograft mouse model. Moreover, a PLK1 inhibitor effectively inhibited TNBC progression. Taken together, our results revealed that PLK1 plays an important role in TNBC progression via its kinase activity and phosphorylation of CENPU. Thus, PLK1 is an effective therapeutic objective for TNBC.

Keywords: Angiogenesis, cell proliferation, CENPU, PLK1, TNBC

Introduction

Owing to the unavailability of targeted therapies, treatment of the triple-negative breast cancer (TNBC) has encountered to extremely difficult challenges. Many major advancements have been made toward identifying potential molecular drug targets for TNBC [1]. The identification of these targets, as well as advancing the current understanding of the underlying mechanisms responsible for disease progression, are key components of TNBC research.

Polo-like kinases (PLKs) are important members of the serine/threonine protein kinase family that control many crucial biological processes [2]. For instance, PLK1 is a key regulator of the cell cycle. With most tumors, during disease progression, PLK1 acts as an oncogene and regulates multiple steps of mitosis. Specifically, signal transducer and activator of transcription 3 (STAT3) can regulate centrosome clustering via the stathmin and PLK1 proteins in breast cancer cell lines [3]. Moreover, PLK1 phosphorylates and stabilizes Krüppel-

like factor 4 to promote tumorigenesis in nasopharyngeal carcinoma [4]. Additionally, PLK1 phosphorylates centromere protein A (CENPA) to promote its assembly during the metaphase-anaphase transition in mitosis [5, 6]. CENPA is a part of the family of centromere protein, which contains CENPB, CENPC, CENPT, and CENPU, among others [7]. We previously found that CENPU develops angiogenesis in TNBC through stabilization of cyclooxygenase-2 (COX-2), which subsequently induces the phosphorylated extracellular-signal-regulated kinase (pERK)-hypoxia-inducible factor-1α (HIF-1α)-vascular endothelial growth factor A (VEGFA)-signaling pathway [8]. Due to the functional involvement of PLK1 in cell cycling during tumor progression, PLK1 inhibitors have been studied in various clinical trials as potential therapeutic agents for cancer patients [9, 10]. Among these inhibitors, BI6727, also known as volasertib, is an ATP-induced competitive inhibitor of PLK1 with significant antitumor activity [11]. BI6727 acts in combination with a histone deacetylase inhibitor and inhibits the activity of cyclin D and E, while enhancing cyclin B activity in melanoma cells [12]. However, despite considerable efforts, the function of PLK1 and its inhibitors as well as their underlying mechanisms of action, remain obscure in TNBC.

The present research revealed the important performance of PLK1 activity in TNBC progression. PLK1 upregulation in TNBC is correlated with poor prognosis. Its overexpression promotes proliferation and angiogenesis in TNBC cell lines by inducing the phosphorylated CENPU (pCENPU)-dependent cyclooxygenase-2 (COX-2)-HIF-1α-VEGFA-signaling pathway and the metaphase-anaphase transition during mitosis. However, the kinase-dead K82R mutant of PLK1 inhibited such functional pathways. In addition, silencing of PLK1 and its inhibitors restricted tumor growth and angiogenesis in a mouse model of TNBC xenograft. These findings reveal the function and molecular mechanism of PLK1 in TNBC progression and provide proof of concept for the potential of PLK1 inhibitors as selective therapeutics for TNBC.

Materials and methods

Cell lines and reagents

The non-transformed breast cell line of a human (MCF10A) and cell lines of breast cancer of a human (T47D, MCF-7, BT474, SK-BR-3, HCC1937, BT-549, and MDA-MB-231) were procured from the American Type Culture Collection (Manassas, USA). The cells of CAL-51 were acquired from the German Collection of Microorganisms and Cell Culture (Leibniz Institute DSMZ, Germany). Recently, all cell lines were confirmed through the analysis of short tandem repeat and cellular morphology, at Microread Inc. (Beijing, China) conforming to the guidelines provided by ATCC. The cells were cultured as previously described by Liu et al. [13].

Extraction of RNA and quantitative analysis of reverse transcriptase-polymerase chain reaction (RT-PCR)

As recently explained by Hu et al. the following procedures were carried out, extraction of total RNA, Reverse transcription, and real-time PCR [14]. The approach of $2^{-\Delta\Delta Ct}$ was utilized to assess relative fold changes of mRNA. *PLK1* expression was quantified by RT-PCR using forward and reverse primers, namely (5'-AAGAGATCCCGGAGGTCCT-3') and (5'-TCATTCAGGAAAAGGTTGCC-3'). In order to detect glyceraldehyde 3-phosphate dehydrogenase (*GAPDH*) mRNA, primer sequences were used as explained by Zhao et al. [15].

Construction of stable cell lines

Stable cell lines of cancer, MDA-MB-231, and CAL-51 were established via lentiviral infection. Lentiviruses driving overexpression of PLK1 or shPLK1, and their associated controls were purchased from HANHENG Co. (Shanghai, China). Approximately 1×10^5 cells were grown in six-well plates in 1 mL culture medium containing 33 μL lentivirus suspension and 8 μg/mL polybrene. After 4 h, 2 mL of additional normal cultivation milieu was added, and the incubation of cells was fulfilled for another 16 h. Then, the cultivation of cells was done in a normal milieu for 2 days, and in order to select the most stable cell lines, 1 μg/mL puromycin was increased.

Western blotting

Western blotting was performed using a standard operating procedure described previously by Pan et al. [8]. The incubation of membranes was carried out during the night at 4°C by us-

ing primary antibodies from Cell Signaling Technology (MA, USA; PLK1, 4513), Abcam (Hong Kong, China; pCENPU, ab117078; Ki67, ab166617), ImmunoWay Biotechnology Co. (TX, USA; CENPU, YN1585; COX-2, YN0178; HIF-1α, YT2133; VEGFA, YT4870; GAPDH, YM3215), and Santa Cruz Biotechnology (TX, USA; Cyclin B, sc-752).

CCK-8 assay and clone formation assay

In the CCK8 assay, within the plates containing 96 wells, 3,000 cells/well were seeded in a 100 μL milieu. Six parallel wells were assigned. The numbers of cells/well were measured at 0, 24, 48, and 96 h after seeding using Cell Counting Kit-8 (CCK8, MedChemExpress, NJ, USA; K0301), per the manufacturer's instructions.

In the assessments of colony-formation, within the plates containing 6 wells, 1,000 cells were seeded per well. Three parallel wells were assigned. 10 days later, the cells were rinsed thrice using phosphate-buffered saline (PBS), by taking advantage of crystal violet, were stained for 30 min and rinsed again by PBS. After taking images, the crystal violet was eliminated by 33% glacial acetic acid, and absorbance values were measured at 650 nm.

Tube formation assay

For the assessment of tube formation, the incubation of 150 μL/well Matrigel (BD biosciences, NJ, USA) was accomplished in the plates containing 48 wells at 37°C for 30 min. Then, 4 × 10^4 cells/well were seeded and cultured for 4-6 h. The plates were monitored utilizing an inverted microscope, and the tube lengths were calculated using ImageJ software.

Enzyme-linked immunosorbent assay (ELISA)

The cultivation of cells was performed in the plates containing 6 wells with a 3 mL culture medium. Then, the supernatants were harvested and analyzed conforming to the protocol of the manufacturer (H017695, Lanpai Biotechnology, China). VEGFA concentrations in mouse plasma samples were measured using an ELISA kit from ImmunoWay Biotechnology Co. (KE1116).

Immunofluorescence (IF) staining

For cellular IF staining, 8 × 10^4 cells/well were seeded within the plates containing 24 wells on slides of the chamber. 24 h later, the cells were adjusted by using 4% paraformaldehyde for 10 min, penetrated with 2% glycine, blocked with 5% fetal bovine serum for 1 h, and stained with 4', 6-diamidino-2-phenylindole for 2 min. For terminal deoxynucleotidyl transferase dUTP nick end labeling staining, we used the kit of In-Situ Cell Death Detection, TMR Red (1215-6792910, Roche, USA), following the protocol of the manufacturer. The slides were coated with anti-fluorescent sealants, and by utilizing a fluorescence microscope, images were provided.

Co-IP assay

In order to perform the co-IP assessment, 293 cells were transfected with plasmid encoding Myc-tagged PLK1 and Flag-tagged CENPU. After 48 h, the cells were lysed and the incubation of the proteins was executed in extracts at 4°C for 2 h by using primary antibodies against the Flag tag (2368, Cell Signaling Technology) and the Myc tag (ab32072, Abcam). Next, 40 μL of Dynabeads (10004D, Invitrogen) was added to immunoprecipitate the target proteins from cell lysates at 4°C during the night. 24 h later, the beads were rinsed thrice with PBS and then boiled at 100°C. An IgG antibody (G3A1, Cell Signaling Technology) was utilized as a negative control. Specimens were finally resolved through sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) and appraised through western blotting.

In vitro kinase activity assay

For the PLK1 kinase assay, an expression of the GST-CENPU fusion protein was carried out in the cells of *Escherichia coli* BL21 and purified at Sino Biological Co. (Beijing, China). A recombinant His-tagged PLK1 protein was purchased from Sino Biological Co. Each reaction was carried out with varying concentrations of recombinant PLK1 protein (0, 0.25, 0.5, 1 μg/20 μL), with 0.25 μg/20 μL CENPU and 200 μM ATP (9804, CST). ATP was not added to the negative control. The reaction buffer was purchased from Cell Signaling Technology (9802). After the reaction, 5 μL of 5 × loading buffer

was added and boiled for 10 min. Finally, the specimens were resolved *via* SDS-PAGE and appraised through western blotting.

Tumor xenografts

The injection of approximately 5×10^6 cells was carried out into the mammary fat pads of 5-week-old female NSG mice. The mice were allocated randomly to each group ($n \geq 5$). The size and volume of the tumor were assessed every 3 days. For PLK1 inhibitor (BI6727) administration, tumors were allowed to develop up to a volume of 100 mm^3, followed by intragastric administration of 25 mg/kg once every 2 days for an additional 10 days. PBS was used as the solvent for the inhibitor. After completion of the experiment, the mice were euthanized, and the tumors were eliminated for the next analyses. The animal investigations were confirmed through the Animal Care Committee of Tianjin Medical University Cancer Hospital.

Immunohistochemistry-staining assay

The staining of IHC was accomplished utilizing standard guiding rules. Protein expression was detected using specific primary antibodies against PLK1 (Cell Signaling Technology, 45-13), pCENPU (Abcam, ab117078), Ki67 (Abcam, ab166617), and CD31 (Proteintech, IL, USA, 11265).

Statistical analysis

Three sets of independent experiments were performed, and the outcomes are given as the mean and standard deviation. The student's *t*-test was employed to evaluate paired and unpaired data. The analysis of Survival was carried out utilizing KM plotter software and Cox proportional hazard model assessment. Table summary and figure generation were performed within R [16] and Bioconductor [17]. Data with $P < 0.05$ were statistically significant. The protein bands were quantified by ImageJ.

Results

Great PLK1 expression correlates with poor prognosis of breast cancer cases

To identify appropriate prognostic factors, we conducted transcription profiling of breast cancer using a TNBC dataset from The Cancer Genome Atlas (TCGA) databank, including information from normal (n = 113) and tumor (n = 1109) groups. First, we replaced Ensembl identifiers with gene symbols using the Ensembl databank (http://asia.ensembl.org/index.html). Further, it was obtained unique gene symbols by calculating the average fragment per kilobase of transcript per million fragments mapped (FPKM) of repetitive genes and by deleting genes with an FPKM of less than 0.1. Then, we screened the appropriate prognostic factors. First, we extracted 5,499 significantly differentially expressed genes with absolute log-Fold change values of over 1 using the Wilcoxon test (Table S1 and Figure S1). Second, we obtained clinical breast cancer data (TCGA database) and combined it with the expression data obtained in the previous step. Thus, 141 prognostic factors were significantly filtered in both Kaplan-Meier and Cox prognostic analyses (Table S2). Third, we combined clinical data, including age, gender, grade, and TNM stage, and obtained 71 independent prognostic factors by multiple Cox analyses (Table S3). Fourth, we identified 12 prognostic factors according to the area below the curve value of the receiver-operating characteristics curve, which represented the accuracy of the factors as prognostic markers (Table S4). Lastly, we identified five genes that were correlated with the clinical characteristics. PLK1, one of these five genes, was associated with age and the clinical stage, especially the T stage, through the Kruskal-Wallis test (Table S5). Based on these screening analyses, we considered PLK1 an appropriate prognostic factor in the cancer of the breast.

PLK1 is an independent prognostic criterion for patients with breast cancer

To ascertain the performance of PLK1 in the progression of breast cancer, the expression PLK1 in patient samples was analyzed utilizing the TCGA database. The achieved outcomes illustrated that PLK1 was expressed at higher levels in the tissues of breast cancer compared to vicinal typical tissues (**Figure 1A**). Additionally, PLK1 expression was upregulated in 99% (111/112) of the clinical specimens, when compared to paired non-tumorigenic tissues (**Figure 1B**). Next, the measurement of log-rank was utilized to compare the high- and low-PLK1 expression groups from the TCGA database.

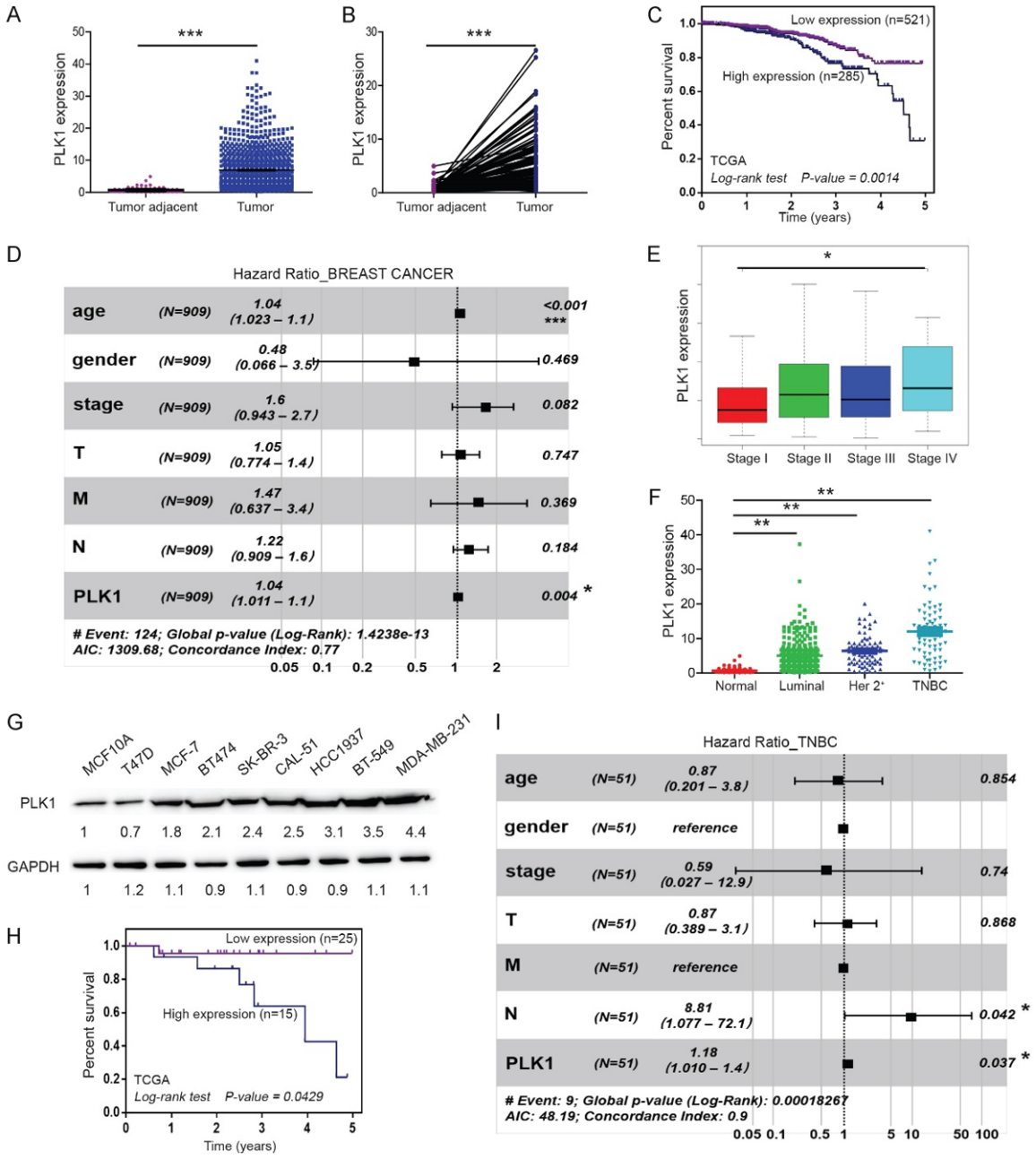


Figure 1. PLK1 predicts poor prognosis for triple-negative cancer of the breast. A. According to the data from the TCGA databank, PLK1 is significantly overexpressed in the tumor group than in the tumor-adjacent group. B. PLK1 expression is considerably greater in the paired tumor group compared to the tumor-adjacent group from the TCGA dataset. C. The log-rank test compared groups with high and low expression of PLK1 in the TCGA database for breast cancer. Low and high PLK1-expression values were separated based on the mean expression value for PLK1. D. Univariate and multivariate Cox analyses showed a correlation between PLK1 expression and clinical characteristics. PLK1 is an independent risk factor for overall survival (OS) among cases with cancer of the breast. E. PLK1 expression is upregulated in cases with clinical stage IV breast cancer. F. PLK1 is upregulated in TNBC subtypes. G. PLK1 expression in different breast cancer and normal breast cell lines. H. The log-rank test was used to compare patients with TNBC (TCGA database) and low or high PLK1 expression. The groups with low and high PLK1 expression were separated according to the mean expression value of PLK1. I. Univariate and multivariate Cox analyses showed a correlation between PLK1 expression and clinical characteristics of triple-negative breast cancer (TNBC). PLK1 was discerned as an independent risk factor for OS among cases with TNBC. *P < 0.5, **P < 0.01, ***P < 0.05.

The results illustrated that cases with higher expression of PLK1 possessed a significantly greater chance of developing breast cancer compared to those with lower values (hazard ratio [HR] = 1.961, 95% confidence interval [CI] = 1.258-3.056, *P* = 0.0014; **Figure 1C**). Multivariate and univariate analyses of Cox indicated that PLK1 expression was an independent risk factor for overall survival (OS) in cases with breast cancer (Tables S6, S7; **Figure 1D**).

To further investigate the function of PLK1, we studied the relationship between the expression of PLK1 as well as the clinical stages of breast cancer. The results revealed higher PLK1 expression in tumor tissue from cases with middle- and late-stage breast cancer (**Figure 1E**). Moreover, PLK1 expression was considerably greater in TNBC compared to the normal tissues or $Her2^{+}$ and luminal breast cancer tissues (**Figure 1F**). It was also studied the expression of PLK1 in human cell lines of breast cancer (originated from different subtypes of breast cancer) and normal cell lines. The results showed that the expression of PLK1 was at greater levels in human cell lines of breast cancer, especially in the cell lines of TNBC (**Figure 1G**). Additionally, we assessed the correlation between PLK1 expression and TNBC patient survival and discovered that higher expression of PLK1 was correlated with undesirable survival rate in TNBC cases (HR = 6.479, 95% CI = 1.471-28.54, P = 0.0429; **Figure 1H**). Multivariate and univariate analyses of Cox exhibited that PLK1 expression was an independent risk factor for TNBC (Tables S8, S9; **Figure 1I**). Thus, PLK1 is an independent and essential prognostic criterion in TNBC.

Phosphorylase activity of PLK1 performs a vital task in the proliferation and angiogenesis of breast cancer

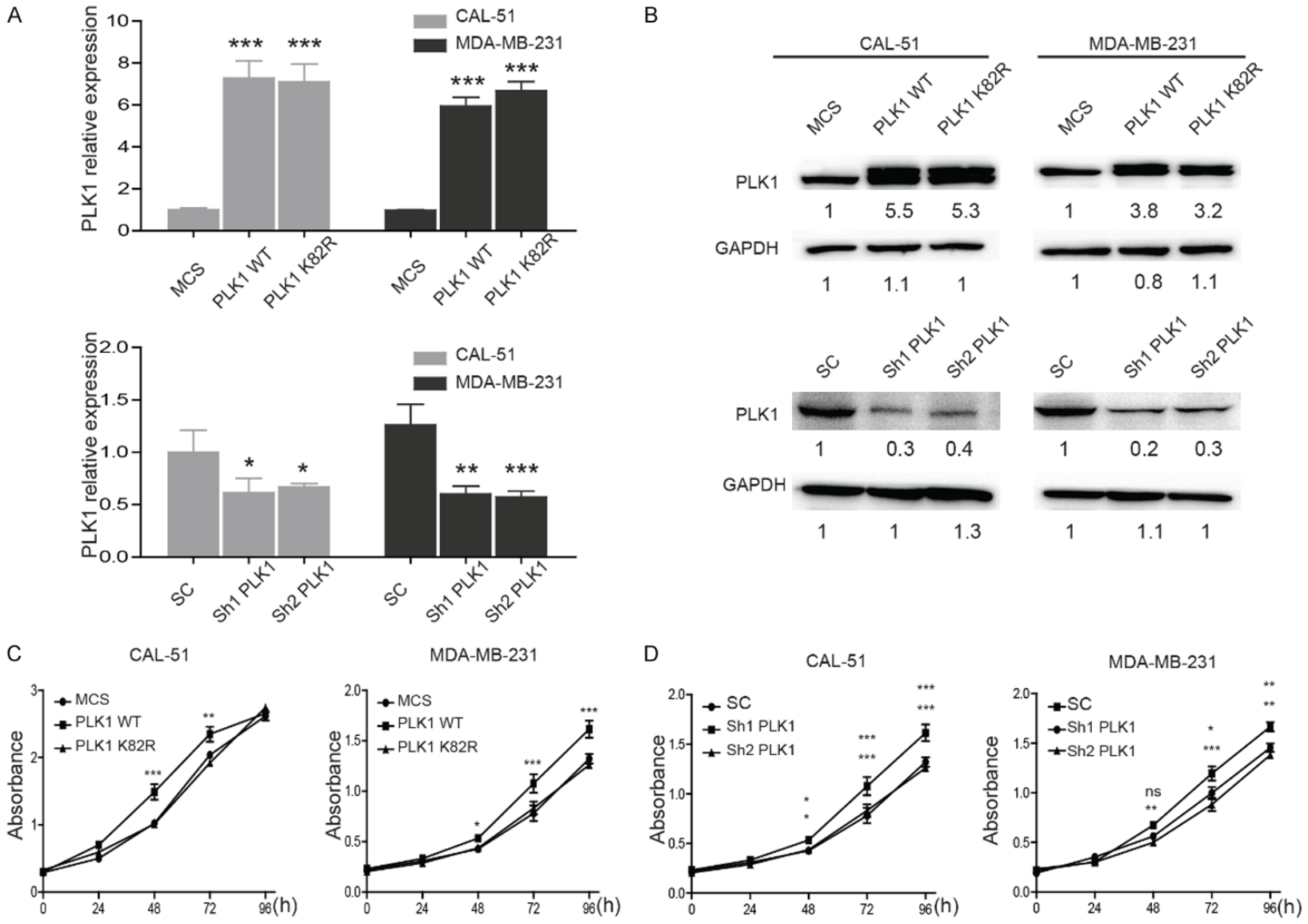
To investigate the performance of PLK1 in breast cancer progression, the assessments of loss- and gain-of-function in the human TNBC cell lines, MDA-MB-231 and CAL-51 were performed. **Figure 2A** and **2B** show the efficiencies of PLK1 overexpression and knockdown, including that of the PLK1 K82R mutant. We further analyzed the effect of ectopic PLK1 expression on tumor cell proliferation. Our results indicated that ectopic PLK1 expression fostered CAL-51 and MDA-MB-231 cell proliferation (**Figure 2C-H**). In addition, an assay of tube formation was fulfilled by using human cells of umbilical vein endothelial cocultivated with supernatants from CAL-51 and MDA-MB-231 cells overexpressing PLK1. The obtained information illustrated that the supernatants from MDA-MB-231 and CAL-51 cells overexpressing PLK1 promoted endothelial cell tube formation. The knockdown assays showed opposite results (**Figure 3A-D**). Moreover, we detected the presence of VEGFA in CAL-51 and MDA-MB-231 cell supernatants using ELISA. The results showed that PLK1 overexpression increased the VEGFA concentration, whereas PLK1 knockdown had the opposite effect (**Figure 3E**, **3F**).

More importantly, the phosphorylase-mutant, PLK1 K82R, did not promote cell proliferation and angiogenesis, along with the expression of VEGFA (**Figures 2C-H** and **3A-F**). The above findings indicate that PLK1 is important for cell proliferation and angiogenesis and is regulated by its own phosphorylase activity.

PLK1 promotes cell cycle progression and angiogenesis by phosphorylating CENPU, followed by COX-2-Hif-1α-VEGFA-pathway activation and metaphase-anaphase transition

Previous data showed that PLK1 promoted cell cycle progression by regulating multiple steps during the metaphase-anaphase transition of mitosis [10]. However, the underlying mechanism should be studied further. Using the TCGA database, we found that PLK1 was associated with multiple cell cycle-associated approaches, containing those that existed in the transition of cell cycle-phase, chromosome segregation, meiotic cell cycle, positive regulation of cell cycle progression, regulation of the cell cycle-phase transition, and sister chromatid segregation, based on gene set enrichment analysis (GSEA) of the pathways of signaling in the database of Kyoto Encyclopedia of Genes and Genomes (KEGG) (**Figure 4A**). Additionally, PLK1 expression was relevant to the relationship between angiogenesis and the VEGF-signaling pathway (**Figure 4B**). Although PLK1 overexpression decreased the apoptosis of CAL-51, CENPU overexpression had no significant effect on the cell apoptosis (Figure S2).

To investigate the regulation of cell cycle arrest and angiogenesis by PLK1 signaling, the


A
PLK1 relative expression
CAL-51
MDA-MB-231
MCS
PLK1 WT
PLK1 K82R
SC
Sh1 PLK1
Sh2 PLK1
B
CAL-51
MDA-MB-231
PLK1
GAPDH
1 5.5 5.3
1 3.8 3.2
1 1.1 1
1 0.8 1.1
1 0.3 0.4
1 0.2 0.3
1 1 1.3
1 1.1 1
C
D
Absorbance
(h)

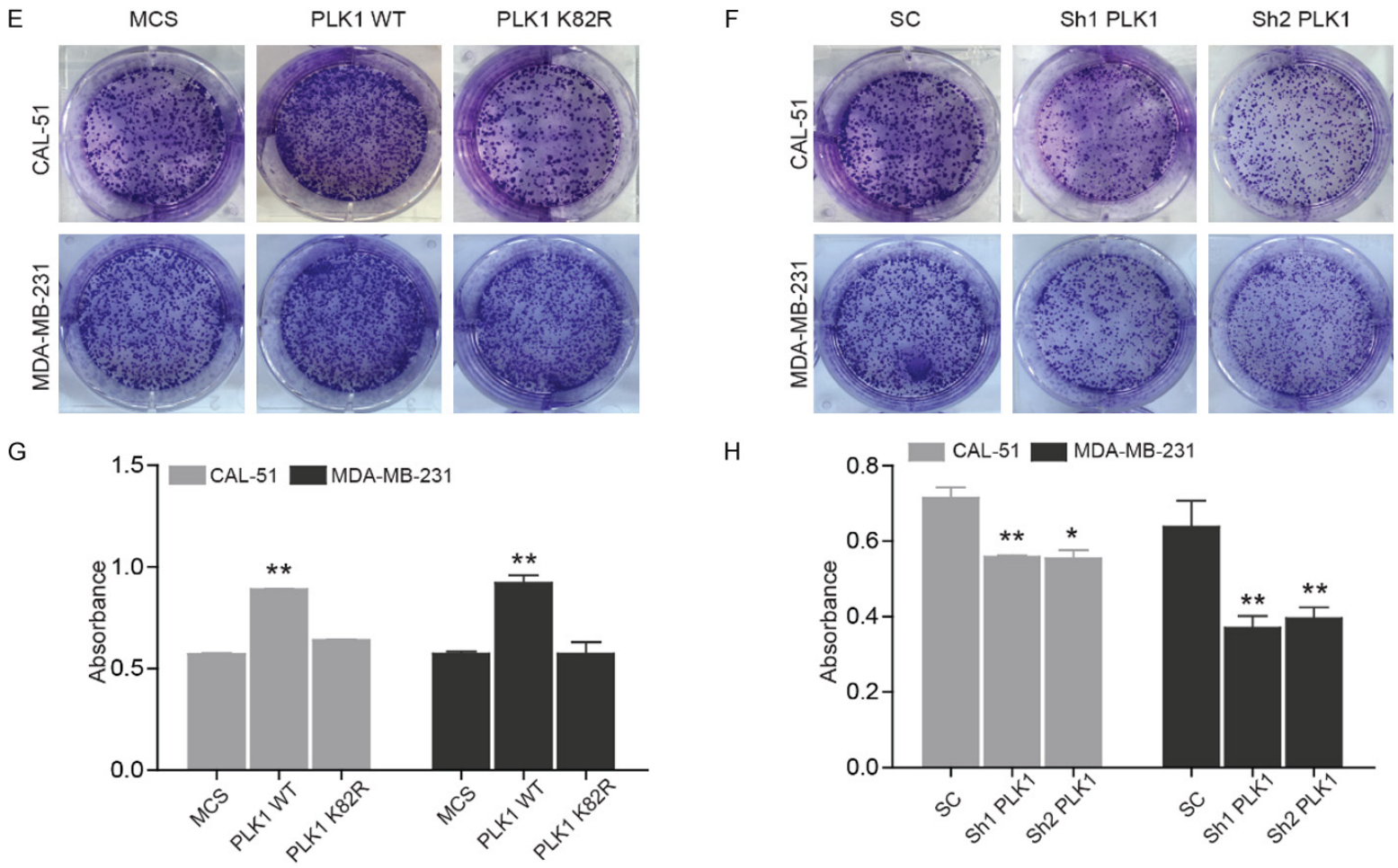


Figure 2. PLK1 promotes triple-negative breast cancer cell proliferation. (A, B) The expression of PLK1 was evaluated through real-time PCR (A) and western blotting (B) using MDA-MB-231 and CAL-51 cancer cell lines with PLK1 overexpression or knockdown. (C) Viability of PLK1-overexpressing the cells of CAL-51 and MDA-MB-231 was measured utilizing the CCK8 assessment. The MCS vector, containing the backbone of the overexpression plasmid, was used as a control. PLK1 K82R is the kinase-dead mutant of PLK1. (D) Viability of PLK1-knockdown MDA-MB-231 and CAL-51 cancer cells measured using the CCK8 assay. (E-H) The proliferation of PLK1-overexpressing (E, G) and PLK1-knockdown CAL-51 and MDA-MB-231 cells (F, H) measured using the colony-formation assay. Statistical results are shown in (G and H). $*P < 0.5$, $**P < 0.01$, $***P < 0.05$.

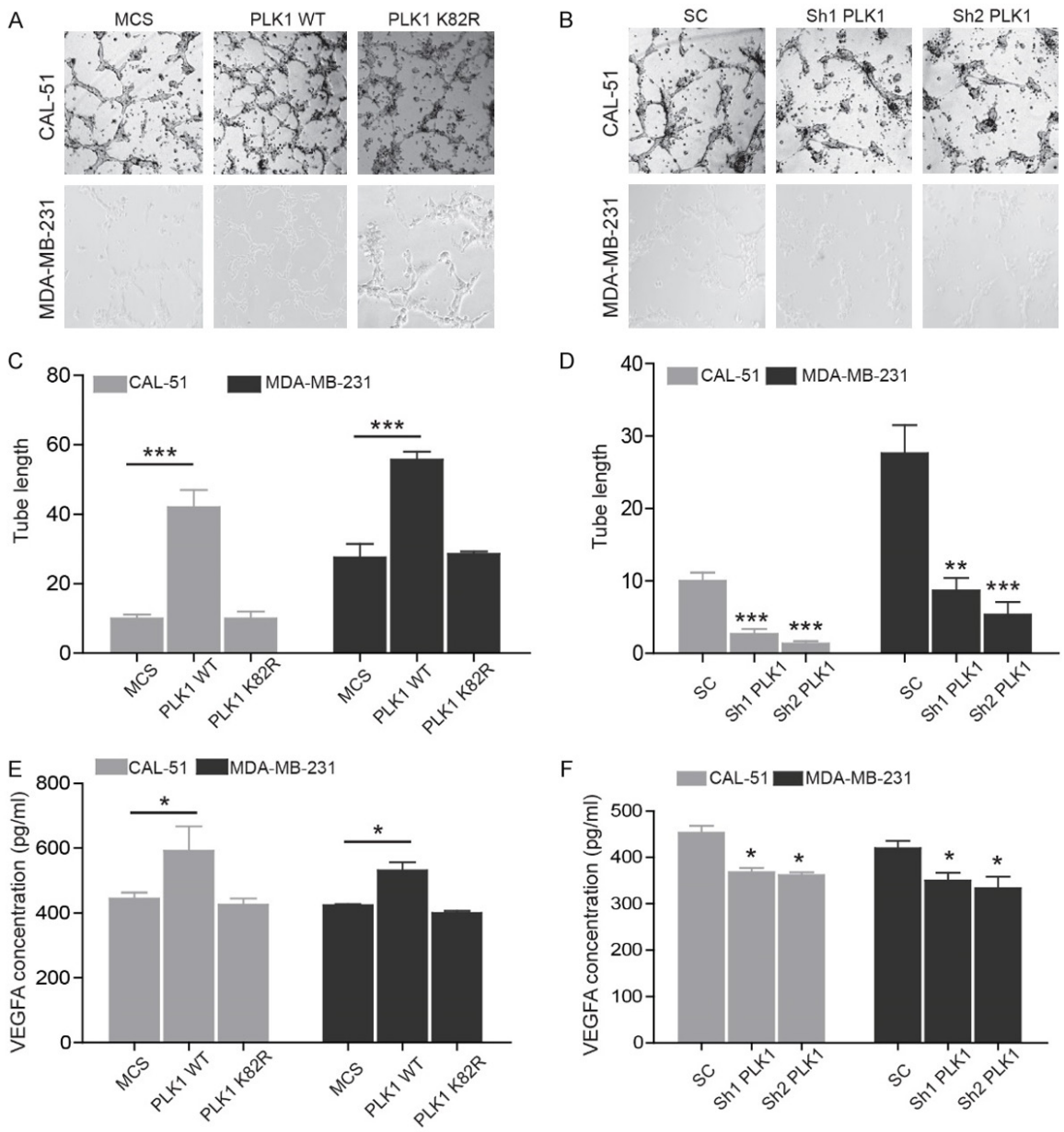


Figure 3. PLK1 promotes VEGFA production and tube formation in endothelial cells. (A, C) A tube formation assay was performed using CAL-51 and MDA-MB-231 cells transfected with the MCS, PLK1, or PLK1 K82R vector (A). Quantification of tube lengths (C). (B, D) Tube formation assays were performed in PLK1-knockdown MDA-MB-231 and CAL-51 cells (B). Quantification of tube lengths (D). (E, F) VEGFA production was measured using ELISA in PLK1-overexpressing (E) and PLK1-knockdown (F) Cells of CAL-51 or MDA-MB-231. $*P < 0.5$, $**P < 0.01$, $***P < 0.05$.

expression of pCENPU, which could be phosphorylated by PLK1, was assessed by western blotting in CAL-51 and the cells of MDA-MB-231 with PLK1 overexpression or knockdown. The results showed that ectopic PLK1 promoted CENPU phosphorylation. Our previous findings demonstrated that CENPU developed angiogenesis *via* preventing the proteasomal degradation and ubiquitination of COX-2, resulting in activation of the pathway of COX-2-HIF-1α-VEGFA-signaling in TNBC [8]. However, the relationship between the activation and phosphorylation statuses of CENPU needs further evaluation.

In this study, we evaluated HIF-1α, COX-2, and expression of VEGFA, and the results showed that pCENPU promoted the signaling of the

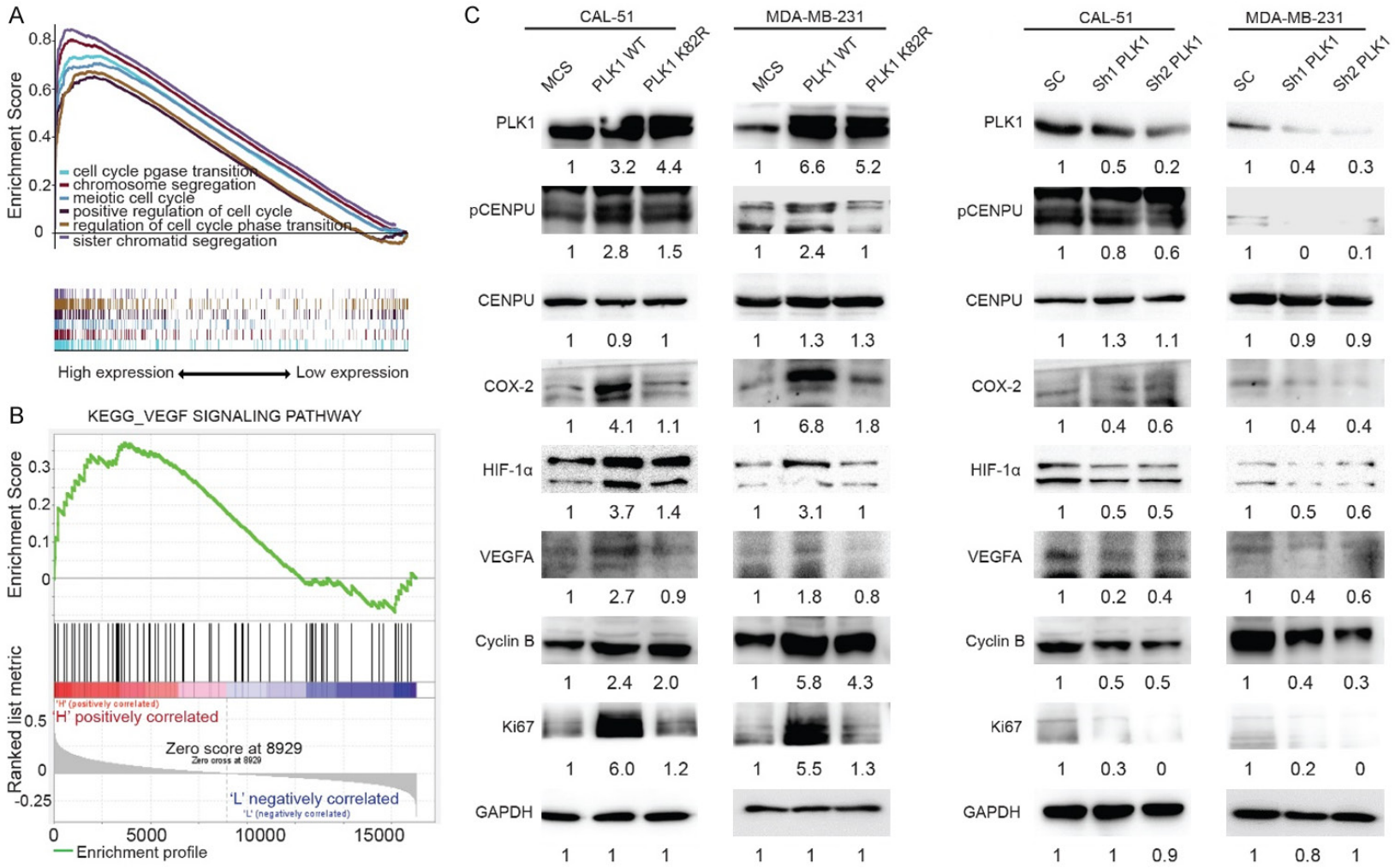


Figure 4. PLK1 promotes the pathway of COX-2-HIF-1α-VEGFA-signaling and the metaphase-anaphase transition, depending on its kinase activity. (A, B) PLK1 expression correlates with cell mitosis (A) and (B) the VEGF-signaling pathway, based on GSEA analysis using data from the TCGA database. (C) The proteins associated with VEGFA production and mitosis were determined by western blotting in PLK1-overexpressing and PLK1-knockdown CAL-51 or MDA-MB-231 cells.

pathway of COX-2-HIF-1α-VEGFA- in cell lines overexpressing PLK1 (**Figure 4C**). CENPU is a centromere constituent and is imperative for mitosis. Thus, we assessed the expression of cyclin B (a biomarker of the metaphase-anaphase transition) by western blot analysis. The results showed that PLK1 overexpression induced the metaphase-anaphase transition and mitosis (**Figure 4C**). In addition, overexpressing Ki67 demonstrated that PLK1 induced cell cycle progression (**Figure 4C**). PLK1 knockdown showed the opposite results (**Figure 4C**). Collectively, these results demonstrated that PLK1 promoted angiogenesis and cell cycle progression in TNBC cells via the COX-2-HIF-1α-VEGFA pathway and activation of the metaphase-anaphase transition, both of which could depend on CENPU phosphorylation.

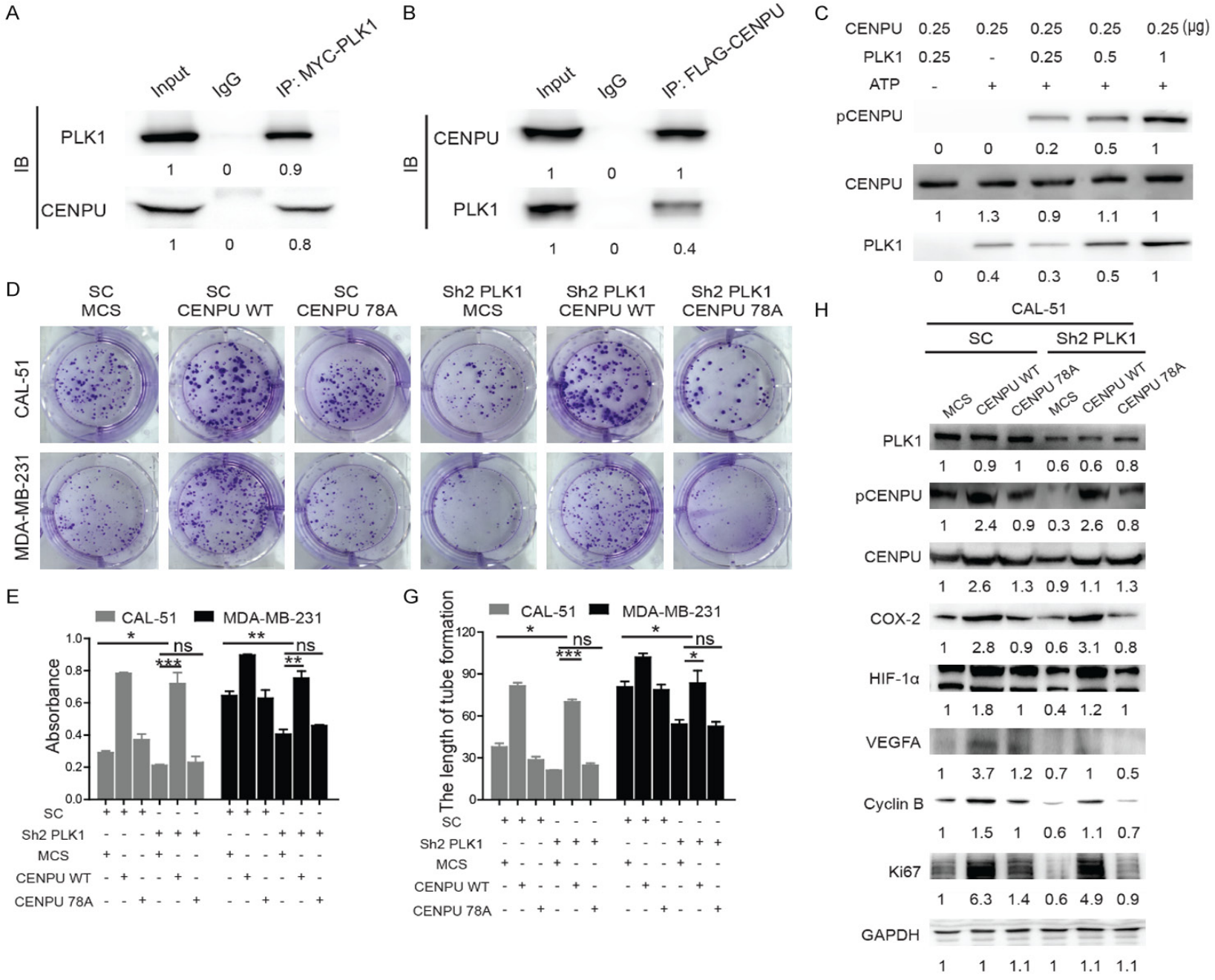
PLK1-induced activation of the pathway of COX-2-HIF-1α-VEGFA and metaphase-anaphase transition depends on CENPU phosphorylation

To confirm the direct phosphorylation of CENPU by PLK1, we first performed a co-immunoprecipitation (co-IP) assay, and the results showed that Flag-tagged CENPU could be immunoprecipitated by Myc-tagged PLK1. The reverse co-IP assay showed similar results (**Figure 5A**, **5B**). Second, an *in vitro* kinase assessment was performed utilizing recombinant His-tagged PLK1 and a glutathione S-transferase (GST)-CENPU fusion protein and detected enhanced pCENPU levels after increasing the PLK1 concentration in the reaction (**Figure 5C**). To determine the effects of CENPU phosphorylation by PLK1 and the T78A mutant on activation of the pathway of COX-2-HIF-1α-VEGFA and the metaphase-anaphase transition, we performed transwell and the assessments of tube formation. The outcomes indicated that CENPU reconstitution enhanced the tube formation and migration of breast cancer cells. However, these effects were not observed with the T78A CENPU mutant. Moreover, CENPU prevented the effects of downregulating PLK1 with a short-hairpin RNA against PLK1 mRNA (shPLK1), whereas the T78A CENPU mutant did not (**Figure 5D**, **5E**). In addition, western blotting showed that CENPU could activate the pathway of COX-2-HIF-1α-VEGFA and increase the expression levels of Ki67 and cyclin B. Similarly, these effects were abolished by the T78A mutant. Additionally, the downregulatory effect of shPLK1 was reversed by CENPU, but not by the T78A CENPU mutant (**Figure 5F**, **5G**). As whole, these outcomes represent that PLK1-dependent CENPU phosphorylation promoted activation of the pathway of COX-2-HIF-1α-VEGFA and the metaphase-anaphase transition.

PLK1 knockdown and the PLK1 inhibitor, BI6727, block TNBC growth and angiogenesis in vivo

Having established a major effect of PLK1 *in vitro* in TNBC cell lines, we further investigated its functionality *in vivo* utilizing a mouse xenograft model. The injection of the CAL-51-SC, CAL-51-Sh1 PLK1, and CAL-51-Sh2 PLK1 cells were carried out into the mammary fat pads of NSG mice ($n \geq 5$ for each group). The volume of the tumor was measured once every three days for 21 days. As exhibited in **Figure 6A**, **6B**, the growth of the tumor in the PLK1-knockdown group was considerably lower compared to the control group. Moreover, western blotting and immunohistochemistry (IHC) results showed that tumor cell proliferation and tumor angiogenesis in the PLK1-knockdown group were decreased by inhibition of the pathway of COX-2-HIF-1α-VEGFA and the metaphase-anaphase transition in comparison with those in the control group (**Figures 6A**, **6B**, S3A-C).

Moreover, we investigated the effect of a PLK1 inhibitor (BI6727) on TNBC progression. Currently, researchers are evaluating BI6727 in phase-III clinical trials for anti-tumorigenic effects. A CAL-51 mouse xenograft model was administered BI6727 or PBS every two days for 10 days ($n \geq 5$ for each group). Tumor growth was significantly inhibited by BI6727 (**Figure 6C**, **6D**). Additionally, western blotting and immunochemistry assay showed that BI6727 significantly inhibited CENPU phosphorylation, cyclin B expression, the metaphase-anaphase transition, and the expression of proteins in the COX-2-HIF-1α-VEGFA pathway (**Figure 6E-G**). Moreover, the serum concentration of VEGFA decreased in the BI6727 group (**Figure 6F**). Collectively, these results demonstrated that PLK1 inhibition restrained TNBC tumor growth and angiogenesis *in vivo* by blocking the activation of the pathway of COX-2-HIF-1α-VEGFA and the metaphase-anaphase transition, which depends on CENPU phosphorylation by PLK1.


A
Input
IgG
IP: MYC-PLK1
IB
PLK1
1 0 0.9
CENPU
1 0 0.8
B
Input
IgG
IP: FLAG-CENPU
IB
CENPU
1 0 1
PLK1
1 0 0.4
C
CENPU 0.25 0.25 0.25 0.25 0.25 (μg)
PLK1 0.25 - 0.25 0.5 1
ATP - + + + +
pCENPU
0 0 0.2 0.5 1
CENPU
1 1.3 0.9 1.1 1
PLK1
0 0.4 0.3 0.5 1
D
SC MCS
SC CENPU WT
SC CENPU 78A
Sh2 PLK1 MCS
Sh2 PLK1 CENPU WT
Sh2 PLK1 CENPU 78A
CAL-51
MDA-MB-231
E
CAL-51
MDA-MB-231
Absorbance
SC
Sh2 PLK1
MCS
CENPU WT
CENPU 78A
G
CAL-51
MDA-MB-231
The length of tube formation
SC
Sh2 PLK1
MCS
CENPU WT
CENPU 78A
H
CAL-51
SC
Sh2 PLK1
MCS
CENPU WT
CENPU 78A
MCS
CENPU WT
CENPU 78A
PLK1
1 0.9 1 0.6 0.6 0.8
pCENPU
1 2.4 0.9 0.3 2.6 0.8
CENPU
1 2.6 1.3 0.9 1.1 1.3
COX-2
1 2.8 0.9 0.6 3.1 0.8
HIF-1α
1 1.8 1 0.4 1.2 1
VEGFA
1 3.7 1.2 0.7 1 0.5
Cyclin B
1 1.5 1 0.6 1.1 0.7
Ki67
1 6.3 1.4 0.6 4.9 0.9
GAPDH
1 1 1.1 1 1.1 1.1

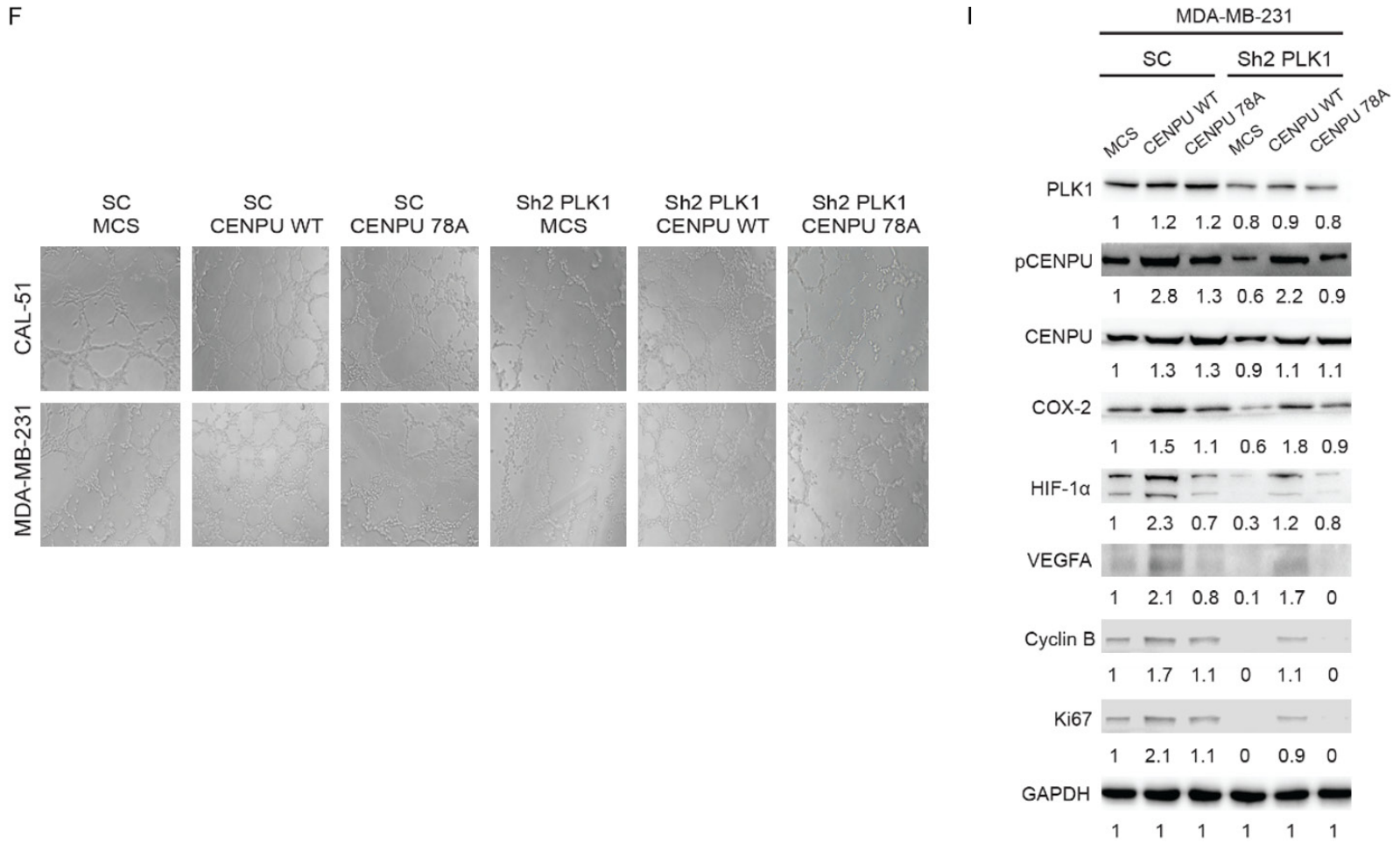


Figure 5. PLK1 phosphorylates CENPU and promotes the signaling of COX-2-HIF-1α-VEGFA-pathway and metaphase-anaphase transition. (A, B) The PLK1-CENPU interaction was investigated in 293T cells overexpressing Myc-tagged PLK1 and Flag-tagged CENPU using the co-IP assay. (C) PLK1 phosphorylates CENPU, as determined by *in vitro* kinase assay. (D, E) CENPU and CENPU T78A interfere with clone formation by PLK1-knockdown CAL-51 or MDA-MB-231 cells (D). Quantification of absorbance values (E). (F, G) CENPU and CENPU T78A interfere with tube formation by PLK1-knockdown CAL-51 cells or MDA-MB-231 cells (F). Quantification of tube lengths (G). (H, I) CENPU and CENPU T78A interfere with protein expression in PLK1-knockdown CAL-51 (H) and MDA-MB-231 cells (I). $*P < 0.5$, $**P < 0.01$, $***P < 0.05$.

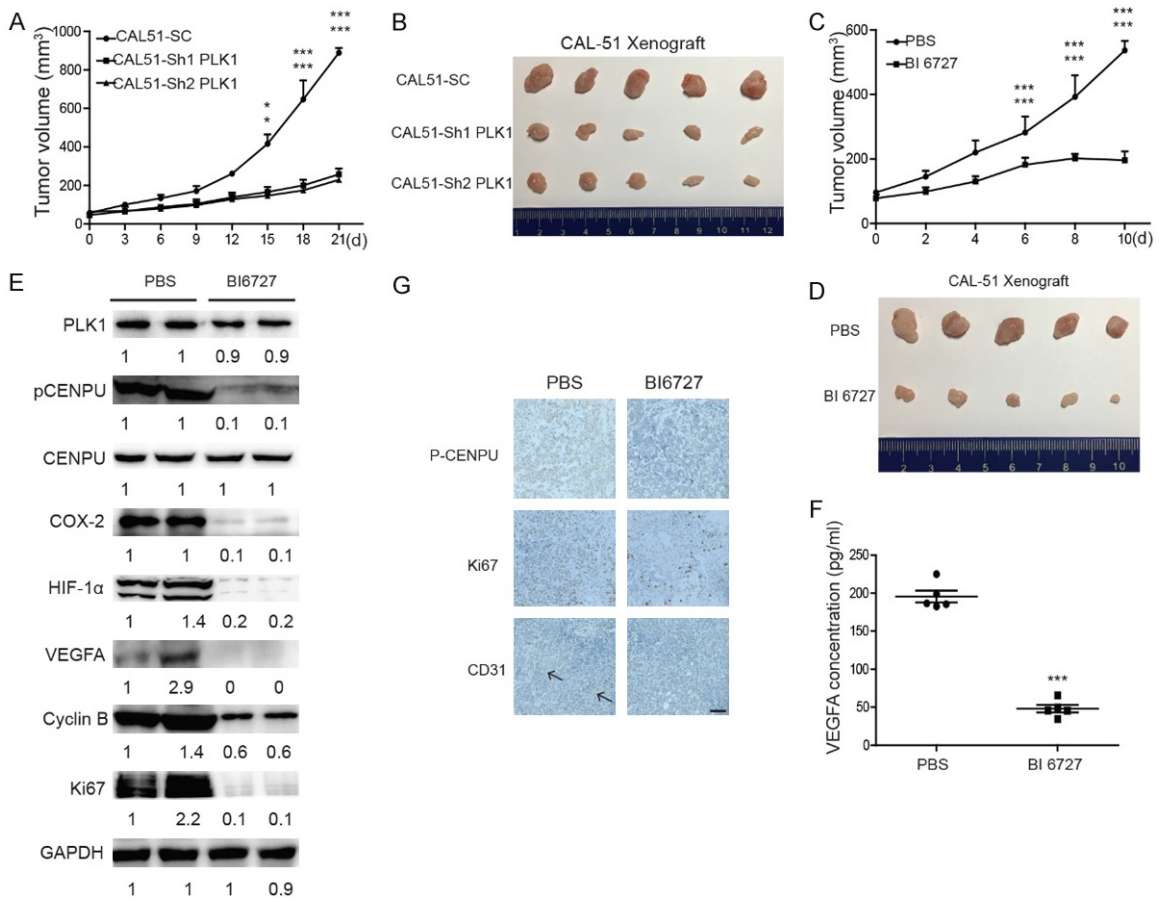


Figure 6. PLK1 knockdown and inhibition interferes with triple-negative breast cancer xenograft tumor growth and angiogenesis. A. Tumor volumes of PLK1-knockdown CAL-51 xenograft tumor and scramble control (SC) groups. ($n \geq 5$ for each group). B. Photogram of the PLK1-knockdown CAL-51 xenograft tumor group and SC group. C. Tumor volumes in the CAL-51 xenograft tumor group after treatment with the PLK1 inhibitor BI6727 and in the control PBS group. ($n \geq 5$ for each group). D. Photogram showing interference by a PLK1 inhibitor on CAL-51 xenograft tumor growth versus the control PBS group. E. The expression of proteins associated with the COX-2-HIF-1α-VEGFA-signaling pathway and the metaphase-anaphase transition in PBS- and BI6727-treated CAL-51 xenograft tumors. F. The concentration of plasma VEGFA was measured by ELISA in samples from the PLK1 inhibitor-treated CAL-51 xenograft tumor group and control PBS group. G. The expression of pCENPU, Ki67, and CD31 was determined by immunohistochemistry in the PLK1 inhibitor-treated CAL-51 xenograft tumor group and the control PBS group. $*P < 0.5$, $***P < 0.05$.

Discussion

Breast cancer is a critical threat to the health of many women around the world. Different subtypes of breast cancer, including human epidermal growth factor receptor 2 HER2-positive cancer of the breast, TNBC, and hormone-receptor-positive cancer of the breast, are regulated by the expression of ER, HER2, and PR. Effective targeted therapeutics are available for the first two subtypes [18]. However, an urgent need exists for new treatment targets for TNBC due to its poor prognosis [19]. To identify effective targets against TNBC, we performed in silico analyses using TCGA datasets. The findings demonstrated that PLK1 was highly expressed in the cancer of the breast, especially in TNBC, and PLK1 expression significantly correlated with various clinical factors. The *in vivo* and *in vitro* kinase activities of PLK1 promoted TNBC angiogenesis and tumor growth by phosphorylating CENPU, with parallel activation of the pathway of COX-2-HIF-1α-VEGFA and the metaphase-anaphase transition. Furthermore, the inhibitor BI6727 effectively restricted angiogenesis and xenograft tumor growth, highlighting the importance of PLK1 as a possible therapeutic target for TNBC.

PLK1 is an important regulator of cell cycle progression during tumor development [20]. Extensive research has focused on the functional mechanisms underlying breast cancer progression [18, 21]. By comparing 463 non-TNBC and 405 TNBC samples, Naorem et al. found that PLK1 behaved as an oncogene [22]. Most studies of PLK1 in TNBC have focused on establishing its considerable capability as a therapeutic objective. For BRCA1-deficient cancer of the breast, a PLK1 inhibitor efficiently restricts tumor growth [23]. Targeted delivery of a small-interfering RNA (siRNA) against polo-like kinase 1 (siPLK1) reduced the tumor incidence and burden in lungs and other organs in an experimental mouse model of metastatic TNBC [24]. Thus, it is necessary to apperceive the strategy of PLK1 behavior in TNBC progression. Our research revealed the activity of the pathway of COX-2-HIF-1α-VEGFA and the metaphase-anaphase transition in tumor angiogenesis and TNBC growth after CENPU phosphorylation.

CENPU is a master component of the constitutive kinetochore. Many recent investigations have been allocated to investigate the performance of CENPU in tumor development. For instance, reduced expression of CENPU inhibited lung adenocarcinoma cell migration and proliferation by the PI3K-AKT-signaling pathway [25]. CENPU promoted ovarian cancer progression by targeting the expression of high-mobility group box proteins [26]. We previously observed breast cancer tumorigenesis in a CENPU-transgene mouse model (data not shown). Then, we further studied the behavior of CENPU within tumor angiogenesis in breast cancer via the pathway of COX-2-HIF-1α-VEGFA. No previous studies have focused on any correlation between VEGFA production and the phosphorylation status of CENPU. Based on our preliminary analysis of available biological information, we propose that PLK1 is a possible prognostic factor for TNBC. Furthermore, PLK1 could phosphorylate residue T78 of CENPU, which is a component of the kinetochore and participates in the normal M phase [27]. To investigate the mechanism whereby PLK1 is involved in TNBC progression, we constructed a plasmid expressing the kinase-dead K82R mutant of PLK1 and found that it could not activate cell proliferation or tube formation. Moreover, CENPU could activate the pathway of COX-2-HIF-1α-VEGFA and increase the metaphase-anaphase transition. The effect was abolished by the T78A mutant. Additionally, the downregulation effect of shPLK1 was rescued by CENPU, but not by the T78A mutant. Thus, the underlying mechanism of PLK1 activity in cell proliferation and tube formation depends on CENPU phosphorylation and is regulated by the pathway of COX-2-HIF-1α-VEGFA during the metaphase-anaphase transition. Moreover, the mechanism of PLK1 and the effect of PLK1 inhibitors combined with chemotherapeutic drugs on TNBC progression, are promising areas of future research and development.

Conclusions

In summary, the data generated in this study confirmed the role of PLK1 in TNBC progression; meanwhile we proposed a novel mechanism for PLK1 activity in TNBC. Specifically, our *in vitro* and *in vivo* findings show that PLK1 regulates VEGFA production and the metaphase-anaphase transition during mitosis by phosphorylating CENPU. Our results, therefore, suggest a potential for PLK1 as a novel antitumor target for treating TNBC.

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Disclosure of conflict of interest

None.

Address correspondence to: Jin Zhang, The 3rd Department of Breast Cancer, Tianjin Medical University Cancer Institute and Hospital, Huan Hu Xi Road, Ti Yuan Bei, He Xi District, Tianjin 300060, People's Republic of China. Tel: +86-22-23340123; E-mail: zhangjintjmuch1@163.com

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Table S1. The 5499 significantly differentially expressed genes from TCGA database

Gene	conMean	treatMean	logFC	*P* value
PC	18.298156	7.073257103	-1.37125	4.99E-24
OSCAR	1.1446608	2.698985018	1.237497	3.21E-29
AC022532.1	0.2874878	0.143120311	-1.00627	1.35E-29
MIR99AHG	2.2176132	0.614934594	-1.8505	5.45E-61
PER1	24.05918	5.835213126	-2.04373	3.00E-52
AC017002.3	0.0473192	0.263004446	2.474589	6.63E-38
AL928742.1	0.0584209	0.928730645	3.990704	6.78E-22
RNU6-1065P	0.5864473	0.148232998	-1.98413	1.44E-28
SNORA60	0.980918	2.271996486	1.211756	8.44E-07
AL353653.1	0.0234294	0.165733443	2.822475	2.61E-06
KIR2DL4	0.0390202	0.153684554	1.977678	0.000282
KRT31	0.1183393	0.653059939	2.464286	7.03E-05
SNORA26	1.4052624	5.170029497	1.879333	5.34E-13
ENPP5	6.4350382	14.84003652	1.205474	5.69E-05
AC008738.2	0.3461298	0.17050412	-1.02151	6.11-26
SNCA	2.1229528	0.61447215	-1.78865	2.47E-53
SYPL2	1.3994113	0.222587467	-2.65238	1.26E-2
PMAIP1	2.6349264	8.820684569	1.743128	9.89E-26
DARS2	6.4814227	13.07637295	1.01258	1.70E-36
VGLL3	4.5967132	1.430025595	-1.68456	4.80E-39
LRRC8C-DT	0.7755829	0.279800809	-1.47088	1.01E-50
RNU6-875P	0.0709967	0.32033771	2.17377	2.24E-10
ADAMTS5	13.316505	1.632168138	-3.02835	6.54E-66
MYOM3	0.9145056	0.180612084	-2.3401	1.28E-26
AC097468.1	0.0355968	0.109953288	1.627072	0.000374
C2orf48	0.0390345	0.358465054	3.199011	5.94E-37
NKILA	0.7465726	1.844109951	1.30457	2.29E-29
FAM83A	0.2049287	1.379397418	2.750844	0.000201
GULP1	2.0476569	0.797457863	-1.36049	3.73E-45
AC015908.3	0.7878918	0.171320349	-2.2013	1.24E-63
CCBE1	0.9949302	0.272959614	-1.86591	3.10E-43
PCDHA1	0.0498155	0.171275279	1.781649	0.001889
NDST4	0.0155005	0.397825566	4.681748	0.01238
FAM83C-AS1	0.0289718	0.170958141	2.560922	6.44E-24
CFAP99	0.0547508	0.212210825	1.954545	1.24E-20
FREM1	2.6673816	0.373757017	-2.83525	2.58E-59
NAT2	0.3074114	0.89129576	1.535733	0.001392
MRPL12	7.0598036	19.07819338	1.434225	2.89E-30
SLC39A6	117.12739	361.4679187	1.625789	1.26E-07
CPA1	0.7437779	0.046664362	-3.99448	8.22E-66
ETV7	0.8260598	3.169768571	1.940059	1.39E-27
MIR23B	1.1455489	0.300974561	-1.92833	1.78E-36
HDAC11-AS1	0.0384529	0.124388617	1.693692	1.18E-16
VIT	6.9676845	1.055138478	-2.72325	5.50E-61
DOK7	0.5301428	2.667863829	2.331232	1.50E-13
NFE2	0.2306746	0.59126546	1.357947	0.002784
PDE8B	4.0354927	1.710239077	-1.23855	6.72E-34

PYCR1	7.9390676	37.84658382	2.253122	5.44E-58
AL049648.1	0.0374874	0.13604112	1.859566	9.81E-07
DDX39BP1	0.2450235	0.113306846	-1.11269	8.30E-16
ATP5F1EP2	0.4181281	0.884026498	1.080145	2.40E-11
PRX	3.0391756	1.326066162	-1.19653	7.10E-34
HS6ST1P1	0.2055298	0.418911366	1.027297	3.57E-07
AGMAT	0.4588874	1.107706194	1.271363	3.12E-33
ZNF726	0.3519359	0.786954397	1.160967	4.05E-18
AL451042.1	0.2470126	0.088542434	-1.48014	3.35E-28
TFRC	10.224898	21.85738165	1.096034	2.97E-17
PID1	8.8479538	1.679837566	-2.39702	1.00E-54
CHL1-AS2	0.6059342	0.07564075	-3.00193	1.69E-60
RPS10P5	0.7910706	1.647108159	1.058057	3.29E-18
AC036108.2	0.681638	0.065313382	-3.38356	7.87E-51
CLPSL2	0.2726247	2.62379054	3.266664	1.35E-34
ZYG11A	0.5365409	1.422642644	1.406813	1.10E-17
FGF13-AS1	0.838376	0.119597377	-2.80941	3.72E-58
AC092920.1	0.0524209	0.372464093	2.828887	4.46E-05
AC105020.1	0.7308083	0.327654015	-1.15732	6.09E-40
NAT8B	0.117694	0.366714862	1.639618	1.49E-17
WDR90	1.8910872	4.198830713	1.150772	2.54E-25
KCNH6	0.0100935	0.148373445	3.877738	1.70E-09
EPHA8	0.0217439	0.258533262	3.571669	2.55E-21
AC131011.1	0.0616697	0.14837152	1.266581	0.000187
KRT8P11	0.3194877	0.888484575	1.475586	1.20E-12
HIST1H4H	3.7305398	22.30880194	2.580157	1.08E-36
GYPC	22.315827	6.278308149	-1.82962	1.34E-54
CDKN1C	21.558504	5.416760561	-1.99275	2.21E-58
NFIB	35.226438	11.34908948	-1.63408	9.36E-52
DPYSL2	32.677913	12.9485565	-1.33552	6.85E-58
GDPD5	5.0822234	2.126804806	-1.25677	1.90E-32
ADH1A	0.9832626	0.043624207	-4.49438	3.09E-60
COLEC10	0.0527429	0.128543984	1.285212	6.70E-11
AP001610.1	0.0896142	0.212355654	1.244683	0.000261
CAPN9	0.5777623	3.592097494	2.636278	1.31E-23
CKAP2	3.4423384	8.925849301	1.374601	9.48E-45
HCAR3	0.7049623	0.164135242	-2.10266	1.45E-51
AC007919.1	0.2010692	0.661730542	1.718552	0.048328
SAMD11	0.4374976	2.781640605	2.668589	4.72E-16
METTL26	11.651482	26.85059461	1.204441	1.13E-41
MAGED2	120.86731	278.5489966	1.204507	1.89E-20
ASPA	2.417052	0.231044499	-3.38701	1.36E-61
ARHGAP39	1.9408801	5.89946268	1.603873	8.42E-47
RCBTB2	8.54708	3.831276505	-1.15761	6.55E-58
HOTAIRM1	4.799373	1.659650754	-1.53197	6.47E-44
SLC25A39	20.732783	45.59040835	1.136817	2.51E-47
CLEC4G	0.8761426	0.106892748	-3.035	9.58E-48
HOXC-AS3	0.043939	0.449372981	3.354339	3.97E-24
TRPM2-AS	0.7487968	1.816543874	1.27855	7.75E-09

CA12	20.807764	66.09390522	1.667395	1.81E-15
CHAC1	0.5967872	1.578134991	1.402932	1.33E-11
MCOLN2	0.5552144	1.288156991	1.214192	1.04E-17
UBBP1	0.217668	0.451417079	1.052332	7.15E-08
USP30-AS1	0.4274673	1.089200655	1.349384	1.07E-08
AC084859.1	1.039009	0.517624899	-1.00523	1.60E-17
AC015987.1	0.2082515	0.599201319	1.524714	1.18E-08
MTCYBP21	0.2164264	0.103894424	-1.05876	7.04E-23
TRBJ2-7	0.5695281	1.298708191	1.189238	0.001954
AC100771.2	0.4981103	0.062913309	-2.98503	9.35E-62
CX3CR1	7.0827602	3.317373289	-1.09427	5.13E-24
RARRES2	59.860382	23.48170381	-1.35006	9.53E-25
ACTA2-AS1	5.9442147	0.976617976	-2.60562	5.40E-42
DUTP2	0.0688156	0.177086241	1.363644	2.45E-05
SRARP	3.2570082	7.797752249	1.259511	0.033376
PAGR1	2.8676812	6.843755189	1.254903	2.92E-35
HAS1	2.1223265	0.478919114	-2.14779	6.00E-08
LINC02224	0.2254014	5.505123184	4.610207	0.000113
AC063944.2	0.3035524	0.110846095	-1.45339	2.59E-38
MXD3	0.6086308	1.821928164	1.581827	2.61E-34
FGFBP1	4.0759058	1.784184161	-1.19186	3.38E-40
FAM66D	0.5098879	0.243622744	-1.06553	9.24E-25
RCC1	7.2979507	15.63231905	1.098969	7.73E-37
MRPL35P3	0.0376655	0.112218531	1.574994	8.25E-08
RHOJ	10.901537	3.662248942	-1.57373	1.91E-58
STAT5B	27.316484	12.40123567	-1.13929	5.82E-60
BIRC5	1.2096115	13.40424355	3.470074	1.11E-57
MIR7152	1.2227641	0.287178879	-2.09012	4.21E-30
SALL4	0.0798205	0.553030108	2.792527	8.52E-48
PTGS2	4.6164341	1.515607897	-1.60688	3.10E-40
WASF3	8.8002268	2.101342492	-2.06623	2.48E-57
LINC02461	0.0383868	0.178651297	2.218466	4.05E-14
TMEM206	1.9805308	5.155492046	1.380223	5.93E-56
ZCCHC12	0.2552585	0.122583306	-1.0582	9.30E-24
MYF6	1.2243422	0.171596394	-2.83492	1.78E-14
PTPRB	7.1446689	2.091389581	-1.77241	2.61E-48
LINC02416	0.0284074	0.14660078	2.367553	1.29E-15
SAA2-SAA4	28.749098	2.287897299	-3.65142	2.63E-51
C15orf48	6.408712	21.79573342	1.765939	1.60E-18
PXDC1	26.069915	12.38552851	-1.07373	1.54E-38
AF279873.1	0.0400942	0.163672629	2.029347	0.000243
LINC01775	0.0694405	0.316140788	2.186719	1.52E-31
CENPH	2.4298742	4.908321235	1.014348	2.83E-33
LINC00460	0.0552201	0.39188035	2.827147	1.39E-27
CBX2	0.7601985	4.805547046	2.660253	1.70E-24
MBOAT2	4.2641645	11.07989155	1.377609	1.71E-29
SOHLH1	0.0081036	0.123559914	3.9305	2.26E-06
LINC02541	0.978152	0.316245198	-1.62902	7.03E-31
FTLP14	1.0774772	2.773762386	1.364187	7.41E-11

SNORA71A	0.69566	3.47846586	2.321997	0.001217
GPLD1	1.59319	0.275846061	-2.52998	9.06E-49
CAPN11	2.206718	0.426544152	-2.37114	6.64E-60
ZBED2	0.0973027	0.57864046	2.572115	1.52E-17
HOXA9	3.2970271	1.227417447	-1.42554	4.17E-48
SEPHS2	26.926094	61.06684069	1.181384	7.88E-45
AC048383.1	0.0285178	0.116026117	2.024514	0.000138
HYLS1	1.8188265	3.685254693	1.018756	3.37E-37
AC112484.3	0.3511076	0.833331555	1.246978	7.40E-16
AL591806.1	0.0382547	0.139902416	1.870711	1.59E-06
SNRPEP2	1.1848073	2.817475624	1.249751	4.41E-41
GRIA4	1.5189165	0.147462573	-3.36462	7.98E-45
MIR4326	0.150299	0.554729462	1.883949	7.94E-11
IRS2	12.899061	4.975236644	-1.37443	9.68E-44
WIF1	13.547827	3.388693336	-1.99926	1.16E-38
NPAS3	0.7779011	0.35582668	-1.12841	9.05E-38
LAMP3	1.1571878	4.124541256	1.833611	4.19E-09
GASAL1	0.2323888	0.488171709	1.070848	4.57E-27
CALCOCO1	17.655429	8.775752505	-1.00852	4.11E-56
KCNC4	1.5178121	0.569885091	-1.41325	1.05E-39
LINC01238	0.5033211	3.624863463	2.848376	3.30E-05
MAPK8IP2	0.9750626	6.084507485	2.641574	1.24E-34
AC015660.1	0.0318243	0.107801249	1.760173	0.009675
MAZ	9.3986542	22.743557	1.274932	1.49E-53
NR3C2	5.2953956	1.199035555	-2.14286	6.32E-61
CHKB-DT	0.7208522	1.474327715	1.032282	2.17E-22
TTLL9	0.1487848	0.303558513	1.028747	0.002664
HABP4	5.308509	2.486833482	-1.094	3.56E-44
SLC25A24P2	0.0914007	1.666616806	4.188573	2.80E-09
HBA2	41.269689	2.114133797	-4.28694	2.48E-47
ABCA8	9.6626944	0.742364732	-3.70223	1.56E-62
AC022211.3	0.2056241	0.60925271	1.567031	4.37E-26
H3F3AP5	0.0533629	0.126159357	1.241339	9.70E-15
SLC8A2	0.0579989	0.348504784	2.587082	0.005122
CTLA4	0.5196337	1.19584545	1.202464	4.66E-07
AC004233.4	0.0430191	0.19683322	2.193924	5.39E-24
GGH	3.8413331	11.15988475	1.538643	2.65E-16
TFPT	7.3829698	16.571315	1.166415	4.40E-29
TNFRSF10D	3.3449787	1.049085233	-1.67287	3.47E-52
GAPDHP35	0.5911625	1.636626123	1.469098	1.10E-09
AC027449.1	0.2457212	0.096080546	-1.35471	3.45E-29
PCDHGB6	0.8557845	0.383732246	-1.15715	1.03E-45
MYH11	42.679246	4.743305307	-3.16957	4.90E-61
SIM2	0.2738563	1.342880633	2.29384	6.32E-10
RLN2	0.6189473	2.089038526	1.754951	0.016686
Z99127.1	0.0113543	0.112791005	3.312346	0.005995
CRB2	0.5122323	0.116118099	-2.14121	3.40E-32
TP53AIP1	1.2108564	0.237581779	-2.34953	9.21E-32
NOTCH4	7.0342108	2.602138014	-1.43469	2.62E-50

HNRNPAB	41.989356	86.18950555	1.037489	6.60E-53
ECM2	26.368593	4.804799246	-2.45627	9.19E-45
ODCP	0.0691381	0.159418069	1.205261	5.69E-07
RNU6-26P	0.8068287	0.392228328	-1.04057	2.40E-13
KLHDC7B	1.0574544	7.4015438	2.807231	1.48E-07
AC037198.2	2.7068969	13.44948831	2.312839	2.96E-05
ARPC3P1	0.1484411	0.410805816	1.468566	7.36E-13
GLYATL1P4	9.5432685	1.867113386	-2.35367	0.029137
BHMT2	9.2869112	1.183019601	-2.97272	8.19E-45
LAMA1	1.0564829	0.451919682	-1.22513	1.11E-21
CR1	0.3573646	0.157399317	-1.18297	1.05E-21
FAM111B	1.0821718	7.050953417	2.703889	1.01E-49
SUMO4	0.0697451	0.173590737	1.315525	2.00E-06
AC092164.1	2.345494	0.508944234	-2.20431	6.15E-42
LSR	19.468846	55.05466292	1.499697	2.19E-47
F5	0.2466104	0.55828903	1.178779	2.79E-07
LINC01615	0.2016999	0.770955949	1.934438	1.38E-27
BFSP2	0.0606895	0.247519316	2.028023	1.87E-09
FLJ33534	0.0500384	0.288483574	2.527382	1.78E-09
FAM222A	1.3471241	2.981499943	1.146156	2.47E-16
NKD2	1.2679632	2.892139015	1.189624	6.62E-14
MYO1G	0.6052221	1.287996151	1.089592	1.11E-15
HID1-AS1	1.021867	0.234382787	-2.12427	1.55E-55
SFTA1P	1.1336085	0.410609162	-1.46508	1.17E-18
LDHD	8.6282765	3.095188764	-1.47905	1.05E-30
AL031864.1	0.0450329	0.126287269	1.487659	1.83E-13
HIST1H3F	0.0381144	1.15161927	4.917182	3.12E-21
TXNP5	0.0916663	0.241735651	1.398967	1.16E-07
C1DP5	0.4052542	0.090133852	-2.16869	6.48E-28
HOXB-AS4	0.015638	0.11580299	2.888547	3.22E-06
DCST1-AS1	1.5455498	3.562335876	1.204703	2.30E-24
AL356215.1	0.1838269	0.407090708	1.147002	0.00063
AL512785.1	0.2932272	0.101198707	-1.53483	3.50E-29
AC127502.1	0.3634322	0.156975455	-1.21115	2.93E-27
KLF3-AS1	0.8899773	0.321706988	-1.46802	2.65E-42
GIMAP1	3.9538142	1.599406229	-1.30571	5.06E-44
EFNA2	0.0110393	0.13649724	3.628154	2.07E-21
RHPN1-AS1	0.8761331	2.888559486	1.721128	1.11E-45
REM2	0.2418846	0.798916626	1.723726	3.81E-26
HIST1H2APS3	0.1536839	1.5175561	3.303712	9.08E-19
CAB39L	16.498073	7.241942091	-1.18785	4.16E-45
KIF20A	0.8192349	8.072555419	3.300676	4.23E-59
CYTL1	3.112438	1.149898237	-1.43654	7.12E-35
FHOD3	3.515023	1.349457365	-1.38115	9.57E-42
ENTPD7	2.3421442	5.18070484	1.145319	6.80E-35
DKFZp779M0652	0.8338021	0.256100895	-1.70299	2.88E-28
RIMKLA	0.2730469	0.737007526	1.43253	2.19E-06
SOD3	41.723799	8.853834668	-2.2365	3.43E-49
LINC02489	0.0740724	0.874935698	3.562169	1.99E-17

LYZ	37.667907	97.60347895	1.373597	1.93E-08
Z82214.2	0.034345	0.486721101	3.824922	1.31E-08
RNU6-194P	0.2434324	0.121578491	-1.00163	4.55E-15
KY	0.6296823	0.063414606	-3.31174	3.13E-49
PCK1	11.619069	0.447020659	-4.70001	1.01E-47
PNLIPRP2	0.0291375	0.265475814	3.187633	5.76E-10
HSPB2	4.1793497	0.795791956	-2.39282	1.11E-59
SEMA6D	3.8583173	1.319920571	-1.54752	7.15E-51
PGP	3.3123051	8.332501121	1.330914	3.93E-52
CKAP2L	0.263931	2.548586277	3.271465	1.81E-59
AL136115.1	0.154001	0.475650143	1.626961	0.000863
DCN	189.26382	49.31978637	-1.94016	9.56E-49
RHOD	11.417154	24.71206527	1.114012	5.17E-30
AL133243.1	0.0473194	0.121238063	1.357338	2.68E-05
AP000757.1	0.3523325	0.134620928	-1.38803	9.46E-33
SNORD67	0.1304008	0.832717132	2.674874	6.35E-07
NAT14	3.3056296	10.33044331	1.643905	1.29E-41
RPS23P1	0.391362	0.146990505	-1.41278	2.48E-39
IL18	1.8737381	4.330084659	1.208476	7.09E-20
AC010336.2	0.0785357	0.221926282	1.49866	2.52E-14
RRS1	9.3764596	20.17000881	1.105097	1.98E-29
TIMM17B	7.3495225	16.66634874	1.181216	5.50E-48
FOSB	117.16621	11.76298822	-3.31623	1.22E-50
AC104462.1	0.0555517	0.180066682	1.696628	3.40E-11
MAGEA1	0.0053426	1.402507268	8.036246	3.41E-10
RN7SL219P	0.0290227	0.152188944	2.390611	2.93E-09
GAPDHP1	2.3381393	7.439957974	1.669934	3.57E-10
MYL9	220.38579	85.56361203	-1.36496	2.56E-47
AP000845.1	0.0673953	0.135939214	1.012242	7.40E-14
ANGPTL8	2.55803	0.19519873	-3.71202	3.01E-44
KCNIP2	38.084859	1.292155286	-4.88137	7.50E-55
AC006486.2	0.1102344	0.229523793	1.058069	9.15E-28
PSCA	1.5527563	7.347960155	2.242512	4.58E-05
ISG15	12.372937	136.7493258	3.466274	7.22E-45
U73166.1	0.3017066	0.643903851	1.093699	2.89E-10
AC087289.5	0.1466141	0.312370756	1.091236	5.94E-18
MAP1LC3C	5.3235495	0.440930389	-3.59377	5.66E-59
EFNB3	4.9544366	2.062370911	-1.26442	1.00E-24
PWAR6	2.1722812	1.068023726	-1.02427	3.21E-34
ITIH5	21.823417	1.528850486	-3.83536	2.30E-65
DDN	0.0462605	0.169774383	1.875767	1.65E-08
TRAV1-1	0.0994177	0.208756114	1.070243	3.68E-06
NEB	4.455551	0.165322543	-4.75225	0.001195
ZC3H12C	2.0528016	0.778200982	-1.39938	3.67E-46
NPTX2	0.3189632	1.493243832	2.226988	2.69E-17
TLR4	9.5028184	3.610748449	-1.39606	3.44E-42
AL022341.1	0.3497232	0.773112394	1.144465	1.94E-12
CX3CL1	65.953855	12.05673643	-2.45162	1.11E-49
ZNF707	1.3598454	2.948727563	1.11665	2.36E-34

LINC01094	0.6633405	1.464613165	1.142698	2.12E-27
TMEM191A	0.3840926	0.880261549	1.196478	1.10E-25
ZNF296	1.3472207	3.828041144	1.50662	1.06E-29
ADAMTS19-AS1	0.0552823	0.286621166	2.374256	4.90E-07
SYNE3	5.7085952	0.809259345	-2.81846	5.79E-55
RNF157-AS1	0.1244021	0.291563094	1.228798	3.52E-11
HIST3H2BB	0.1526744	1.316535559	3.108216	1.24E-28
TRERF1	2.1424413	4.357458894	1.024231	4.62E-18
AC008764.2	7.5631092	3.617673715	-1.06392	2.80E-36
NOTUM	0.0608411	0.382594324	2.652697	1.59E-23
EZH2	1.3408591	6.312203365	2.234986	7.23E-58
KCNIP2-AS1	0.7458301	0.180916468	-2.04352	1.53E-41
RNU6-892P	0.5363647	0.216771899	-1.30704	4.19E-23
GPRC5B	13.498214	5.802817492	-1.21794	5.15E-48
SNX22	0.6525512	1.572287797	1.268702	5.28E-11
CHMP4BP1	0.18548	0.494463406	1.4146	3.56E-12
PRAME	0.2971009	8.265277154	4.798038	4.93E-07
RIMS4	0.6406375	6.615262764	3.368218	8.94E-11
C2orf50	0.1894491	0.6362296	1.747737	3.65E-07
AC008115.3	0.9457118	2.182982358	1.206828	2.65E-12
BCL2L12	3.3059502	7.697693875	1.219361	3.44E-38
LINC01402	0.9300819	0.235576102	-1.98116	3.61E-43
GINS1	0.9639388	5.159107885	2.420108	1.08E-57
LHFPL6	63.397745	16.10964223	-1.97651	2.56E-61
AC012213.3	0.1285089	0.318232583	1.308214	8.35E-28
LAMP5	1.086751	8.038298559	2.886869	2.35E-42
NME3	14.521416	40.33658076	1.473907	9.89E-32
PTTG1	1.4368331	12.59861312	3.132301	2.58E-61
DPY19L2P1	0.0128534	0.122105104	3.247897	2.35E-07
HIST2H2BC	1.2125722	4.416022638	1.864677	3.03E-42
AC104115.2	0.0906556	0.189544921	1.064072	0.037211
AC124319.1	0.1665335	0.785505818	2.23781	5.40E-26
DUSP1	303.34237	80.13181038	-1.9205	1.29E-47
PARD6B	2.8813272	12.64553361	2.133823	2.32E-22
CYP2U1	4.375467	1.683832314	-1.37769	3.62E-57
CENPL	0.9594231	2.469524743	1.363994	3.78E-52
PKP3	8.8983908	20.0993658	1.175534	1.21E-30
FLNC	7.9373993	1.55543799	-2.35135	1.66E-41
LINC02012	0.1517517	0.34046726	1.165803	1.04E-12
DLGAP3	0.0963956	0.288167009	1.579866	5.51E-05
PPARGC1A	0.6786544	0.321889263	-1.07611	1.27E-42
MIR32	0.2579957	0.103395082	-1.31918	1.46E-17
N4BP2L1	6.2676717	2.526436791	-1.31083	3.62E-50
AL450332.1	0.3558372	0.084778789	-2.06944	7.19E-46
BOK	32.041635	14.70629506	-1.12351	4.04E-19
LCA5	3.3989236	1.419224451	-1.25998	1.22E-44
AL122008.3	0.3960207	0.119189492	-1.73232	2.42E-29
CENPA	0.4428982	4.126937251	3.220025	2.57E-56
RIC3	1.8529229	0.596145491	-1.63607	2.15E-36

CNIH2	0.2662664	2.567397244	3.269364	1.67E-57
ALDH2	42.278511	9.858642039	-2.10046	1.14E-36
PDE1A	1.5372795	0.706162632	-1.12231	8.45E-37
AGT	3.0911435	10.39974498	1.750336	0.004388
MFAP5	46.635535	13.01996347	-1.8407	7.71E-18
Z69890.1	0.1384521	0.307122238	1.149426	3.45E-13
AC130651.1	0.0652114	0.151608432	1.217155	5.55E-05
MMRN2	23.9142	6.755575315	-1.82372	1.61E-55
PPEF1	0.4568974	0.941023634	1.042361	3.39E-44
AC120498.4	1.2394802	6.08908665	2.296491	5.72E-12
DEPDC7	0.2660243	0.589321036	1.147496	1.84E-16
PHLDB1	8.2239727	3.560013714	-1.20795	1.54E-39
AC105137.2	0.0927448	0.260430246	1.489559	1.19E-23
MMP11	0.8594255	62.68680407	6.188645	3.19E-67
BAK1	5.6856395	11.43453845	1.008004	1.41E-43
LINC01556	0.1093575	0.297931634	1.445929	3.17E-07
FRG1-DT	0.4814482	0.194496207	-1.30764	1.31E-31
MAF	11.095419	5.186707659	-1.09707	4.93E-41
LINC01883	0.5458648	0.120066428	-2.18471	8.46E-45
PAXX	9.6270083	22.73100612	1.239502	7.55E-33
AL139300.2	0.2808257	0.129161061	-1.1205	9.74E-39
SP140	0.3926552	0.94915526	1.273381	1.53E-13
FP325317.1	2.7186249	0.080261132	-5.08203	1.27E-61
AKR1C1	11.07091	1.08087552	-3.3565	6.81E-55
BCAR4	0.0128971	0.364319356	4.820084	1.06E-05
IRX6	2.758325	0.561401269	-2.29669	5.06E-44
ARHGAP19	6.3388024	3.135759772	-1.0154	8.24E-29
ARAP3	5.6175937	2.480574298	-1.17928	5.10E-51
SULF2	20.174249	42.9552351	1.090319	4.45E-16
LPL	225.67367	9.856821746	-4.51697	5.30E-58
ASIC3	0.2923559	0.891841504	1.609062	2.34E-18
DONSON	2.0907448	5.416788771	1.373421	1.98E-51
CSAG1	0.0025142	1.29074721	9.0039	1.65E-23
FSTL4	0.2404523	0.783629834	1.704422	6.22E-13
AFP	1.9744097	0.898622851	-1.13563	7.00E-23
AP000695.2	0.1491326	0.411349662	1.463769	2.26E-28
ADCY4	4.3678035	1.347238328	-1.6969	1.45E-52
RABIF	4.6762352	10.88762121	1.219269	1.03E-60
CXCL9	4.8335193	42.69019645	3.142759	2.24E-23
HBEGF	7.5051616	3.69122516	-1.02378	2.80E-27
AC093535.2	3.4892439	0.845661663	-2.04476	5.03E-52
CSMD2	0.0514517	0.224773476	2.12718	1.46E-31
HLA-DQA2	9.5061466	20.31910943	1.095905	1.10E-05
CACFD1	5.9268298	15.33831168	1.371807	8.83E-41
AC023794.1	0.8186398	0.389231958	-1.0726	1.17E-25
CORO2B	4.4139862	0.926868969	-2.25164	4.41E-63
AC110619.1	0.3227301	2.683687543	3.055817	5.92E-17
SIPA1L3	4.9306706	9.948835195	1.012744	8.06E-32
FANCD2	1.1945858	3.145722358	1.396881	3.49E-41

OGN	39.554302	7.949843832	-2.31484	7.80E-52
BCL6	23.195078	10.97601731	-1.07946	6.86E-48
CXADRP3	0.0365039	1.14220013	4.967623	1.95E-06
INTS7	4.2661368	9.788663774	1.198182	1.94E-52
RBM8B	0.2001099	0.4035158	1.011832	1.60E-13
C6	3.4266148	0.466203076	-2.87775	1.53E-28
RNASE4	2.4702296	1.115381824	-1.14711	2.52E-34
SLC24A2	0.0191957	0.588116617	4.937246	1.15E-54
BGLAP	0.3486205	0.746659102	1.098792	0.014123
NNAT	15.319846	1.554775363	-3.30062	7.18E-51
CBX8	1.1853735	3.186658504	1.426703	4.01E-43
TNFSF13B	2.4689574	5.040613787	1.029697	3.45E-11
RN7SL239P	0.0701638	0.217240474	1.630495	2.70E-06
OLFML1	9.4240597	3.813423265	-1.30526	5.59E-38
PSME2	17.733663	41.00933002	1.209462	3.52E-41
AZGP1P1	1.5923892	3.848000725	1.272916	5.08E-09
AC093249.4	0.1493908	0.317948147	1.0897	2.92E-14
AL031846.2	0.653136	0.322178945	-1.01952	1.70E-27
RASA3	13.716237	6.794004905	-1.01355	5.05E-25
UGCG	16.09435	37.43110967	1.217683	9.94E-12
AC073283.2	0.0785997	0.489409665	2.638446	8.05E-06
CYP2B7P	2.7556389	38.17204761	3.792058	2.37E-07
OTOR	0.022177	0.181002495	3.028872	4.87E-10
FAM187B2P	0.4232173	0.176784861	-1.2594	2.13E-35
TMEM63C	1.745179	5.062296593	1.536417	1.75E-21
LINC02332	0.0865831	0.218412306	1.334897	0.00126
MFSD3	5.7154703	17.21959381	1.591107	9.33E-39
PCSK1N	0.5046929	3.625459354	2.844686	0.000923
LINC02569	0.2105383	0.096943105	-1.11887	7.86E-25
MT1L	9.7157708	4.710788625	-1.04436	9.40E-39
DMRT2	1.6933472	0.279798565	-2.59742	8.61E-46
NAALAD2	1.1237027	0.171401545	-2.71281	2.99E-59
RELN	2.119845	0.323176076	-2.71357	2.18E-56
AL354707.3	0.0540102	0.167216105	1.630409	0.000172
AL034550.2	0.0445691	0.161112571	1.853952	2.35E-14
SLC25A34	0.8918852	0.307727193	-1.53521	2.38E-35
AC022079.1	0.0741347	0.153691606	1.051818	0.041129
ART5	0.7248403	0.342683686	-1.08079	1.47E-24
AL353622.1	0.5352601	1.154946255	1.109514	2.36E-10
WDFY3-AS2	1.0986117	0.411127377	-1.41802	3.64E-57
MIR27B	2.2953722	0.628140569	-1.86957	1.45E-37
MIR4664	4.8595305	10.63225397	1.129559	3.33E-10
POLE2	0.8499078	2.380776783	1.486054	2.87E-48
NBPF4	0.1087846	0.950423138	3.127095	2.85E-07
AC147067.2	1.1969069	0.487389885	-1.29616	1.63E-34
GATA3	56.684669	189.442387	1.740729	2.62E-24
AC104237.2	0.5342318	0.066723545	-3.0012	2.22E-38
CAV1	187.76494	19.70001465	-3.25266	1.28E-65
MIR342	0.2124746	0.510617079	1.264952	1.16E-06

ENTHD1	0.018299	0.132126479	2.852081	1.11E-35
CFAP157	0.3926105	1.036701293	1.40083	6.26E-34
CDH2	0.4940664	2.753557518	2.47852	1.36E-24
HGF	1.5388321	0.757652449	-1.02223	4.54E-31
PUSL1	2.3908739	5.387030724	1.171952	1.58E-38
CD302	6.7061565	2.241500862	-1.58102	1.35E-47
EFNA4	8.8859324	20.34177	1.19485	4.37E-26
OR52N4	0.2209343	0.105263771	-1.06961	1.32E-29
LINC00578	0.3359296	1.488963502	2.148078	1.72E-05
LIPE	80.34891	4.062276979	-4.30592	1.57E-51
ARHGEF15	9.2716736	2.756446666	-1.75002	3.93E-51
RNASE10	0.0216828	0.114516583	2.400931	2.60E-21
AC048382.2	0.9724792	0.349739117	-1.47539	3.53E-34
AC105450.1	0.1190916	0.417408611	1.809388	1.46E-19
ZSCAN1	0.2490086	0.621421788	1.319377	0.001151
CDIPTOSP	0.1067781	0.648216411	2.60186	1.50E-22
AC009041.2	1.9878854	0.959788051	-1.05045	1.51E-30
ZEB2	5.0121595	1.873682075	-1.41956	3.01E-34
HLA-DPB2	0.5136502	1.059808644	1.044946	1.24E-06
CCDC194	0.1106154	0.259335465	1.229267	0.000593
ALX4	2.8555346	0.539425768	-2.40426	1.09E-44
AL023754.1	0.0348718	0.387510671	3.474105	0.000168
ADAMTS1	35.769297	7.906223763	-2.17766	4.10E-54
TMEM9	18.951753	40.06557529	1.080032	1.17E-42
NPY2R	4.2100228	0.358551426	-3.55358	5.66E-55
C4BPA	2.3731236	1.164632235	-1.02691	4.64E-37
AL157373.2	0.1091553	0.257651545	1.239039	0.000564
LINC02571	0.1354449	0.47954061	1.823947	3.00E-08
MIR22HG	11.844857	4.133918339	-1.51868	1.31E-43
PPIAP2	0.0494572	0.148626144	1.587436	1.64E-12
PASK	0.8933096	1.890321236	1.081399	9.62E-35
TEX22	0.1503315	0.368438125	1.293275	1.70E-14
PCDH17	0.5742106	1.523424802	1.407667	1.59E-38
F13A1	28.771	12.10899645	-1.24854	8.56E-15
LINC01214	0.068291	0.217482897	1.671134	2.06E-06
EVL	10.075047	27.84709679	1.46674	1.97E-17
CEP112	2.6548185	0.837697347	-1.66411	1.60E-61
OGFRL1	21.588937	10.30920002	-1.06636	1.01E-36
EMX1	0.0445661	0.524355216	3.556524	4.51E-13
TLCD1	2.105121	10.64328416	2.337968	4.59E-55
ETS2	29.383896	12.5425948	-1.22819	1.29E-49
SLIT3	18.958834	3.747703344	-2.33879	5.66E-54
IFFO2	13.950942	4.751048159	-1.55404	2.54E-31
PIK3R2	0.1582506	0.369313332	1.222634	2.09E-37
IGSF9	2.4262838	8.908383666	1.876415	4.57E-41
TRAV6	0.1300407	0.273392112	1.072009	0.000307
STMN1	10.746013	36.00339715	1.744332	2.56E-46
PAGE2B	0.029513	0.631057898	4.418349	0.002376
RN7SL417P	0.898426	0.210679845	-2.09235	1.94E-36

AC010487.2	0.2748546	0.559987477	1.026726	7.96E-08
NKAIN2	0.2785289	0.128872577	-1.11188	6.87E-35
AP002884.1	0.7374496	0.327640971	-1.17043	1.41E-36
STAT1	29.113544	67.88722361	1.22145	7.47E-21
C10orf91	0.0372645	0.152069205	2.028854	8.56E-11
POSTN	55.219773	230.2926125	2.060211	1.07E-32
SPIRE2	0.6730647	1.563532595	1.215992	5.01E-23
COPE	21.530161	44.44581483	1.045688	7.94E-42
RNU6-1189P	0.7356688	0.145857431	-2.3345	1.41E-28
ST8SIA2	1.1098148	0.318226246	-1.80219	2.75E-17
CD200	10.752327	4.444139932	-1.27467	1.03E-48
MAP7D3	4.5425906	1.327466863	-1.77484	2.42E-50
LPCAT1	7.0538728	16.68264514	1.241861	1.59E-46
HSPD1P6	0.0811707	0.172525547	1.08778	8.46E-13
SLC16A7	4.7941752	0.532575146	-3.17023	3.72E-55
OAS2	6.8510378	21.80772202	1.670445	1.41E-21
MIR126	1.2797469	0.410471754	-1.6405	6.41E-24
NETO1	0.0466497	0.207273372	2.151596	7.24E-07
MEST	31.983436	11.04089792	-1.53447	1.23E-46
MCRIP2	2.0382102	6.257459327	1.618274	2.24E-44
AC073325.2	0.1634888	0.337072707	1.043868	0.000346
PLA2G4C-AS1	0.056666	0.222873129	1.975667	2.09E-20
CFP	0.922958	0.396391452	-1.21934	1.04E-16
LINC01589	1.0774286	0.202583833	-2.411	1.81E-55
CPEB1	0.5984349	0.209172201	-1.5165	1.46E-48
SNRPEP4	0.5804787	1.175433608	1.017878	3.21E-25
AC005041.3	0.3323721	0.978101924	1.557185	1.23E-29
SBK2	0.0115044	0.230955961	4.327357	3.47E-09
SNORA73B	1.3723198	104.7060786	6.253585	9.41E-11
SMTNL2	0.5996325	0.266106479	-1.17207	3.82E-23
SLC16A11	1.2945244	0.57323995	-1.17521	1.75E-27
GRIN2D	0.2091367	0.94593771	2.177299	4.58E-39
PM20D1	0.2818868	0.11664152	-1.27303	7.63E-31
PRSS30P	0.1696227	0.343883215	1.019589	0.00026
CLEC1A	2.5701269	0.852833407	-1.5915	1.25E-52
CPNE9	0.0488872	0.110302408	1.173935	1.38E-11
CERS2	31.09811	76.73983023	1.303149	1.07E-45
DCAF10	7.2279158	15.03475544	1.05665	1.29E-16
AC117382.1	0.0729613	0.152567779	1.064247	0.000495
LRRC37A7P	0.5770588	0.231006839	-1.32078	5.61E-34
RRAGD	7.1160693	3.280277898	-1.11726	1.36E-39
LINC01351	0.0700997	0.547899586	2.966432	0.001499
PDE1C	2.2784802	0.320960682	-2.8276	7.30E-51
ALDH1L1-AS2	0.8858927	0.032435611	-4.77148	6.91E-58
SDF2L1	7.1035638	19.14381145	1.430263	2.65E-37
TMCC3	4.1447857	2.069980734	-1.00168	7.34E-36
NR3C1	20.019866	6.494160067	-1.62422	2.31E-59
AL445524.1	2.0773439	6.44644435	1.633764	2.22E-40
MRVI1	5.4007892	2.561087727	-1.07641	9.65E-43

PCGF2	8.8242061	19.1804412	1.120098	1.00E-32
CYP1A1	1.292985	0.106487114	-3.60195	3.15E-17
AC093278.2	4.4723166	1.533890427	-1.54383	1.25E-45
SCARNA12	0.3002163	3.144161652	3.388601	0.021045
AC010368.1	0.1046639	0.339624191	1.698175	6.10E-12
KLF2	42.395198	15.88498132	-1.41624	2.82E-34
PTK6	2.080297	7.843466597	1.914702	2.88E-35
AC022898.2	0.0509009	0.172152853	1.757928	0.00561
YPEL4	0.700694	0.246543297	-1.50694	9.56E-46
AL691447.2	0.2398016	0.109408951	-1.13211	1.19E-24
SHISAL2A	0.1432181	0.332523675	1.215244	4.88E-15
AL138752.1	0.1064741	0.300811679	1.498358	2.64E-06
CMYA5	9.56318	2.628750721	-1.86311	1.26E-15
DUSP27	0.4510678	0.124781624	-1.85394	1.33E-05
SIAH2-AS1	0.5035438	1.30394722	1.372696	2.61E-09
SEC24AP1	0.433801	0.082992317	-2.38598	5.86E-43
RGS9BP	0.0661742	0.140515454	1.086389	3.33E-09
KLHL3	1.2494239	0.561252438	-1.15454	1.54E-42
RARB	4.6640751	2.263748844	-1.04288	1.12E-26
OIP5	0.519536	2.792306857	2.426162	2.23E-58
RNU6-403P	0.4358407	1.254355893	1.525074	1.91E-12
ERBB2	24.952756	85.99941816	1.785128	1.03E-13
AC105235.1	0.056156	0.126372166	1.170166	0.009035
CATSPER1	0.0698989	0.234558846	1.746609	2.71E-35
AC093567.1	0.0449999	0.128592328	1.514811	1.08E-05
TMEM190	0.0647674	0.443051668	2.774136	1.97E-27
CD6	0.8940592	1.936171674	1.114765	3.10E-07
C9orf163	0.104664	0.319894255	1.611829	7.99E-33
LYZL2	0.028334	0.172766423	2.608217	1.27E-07
HRC	2.0437595	0.514590322	-1.98973	1.95E-36
PROC	0.0699264	0.393890949	2.493887	2.19E-50
HPN	3.2628196	14.33453587	2.135304	3.35E-28
PTPRN	0.0943639	0.295928999	1.648944	1.61E-30
HLX-AS1	0.3590021	0.11763393	-1.60969	1.15E-34
TRAV12-3	0.3444153	0.738138485	1.099742	0.001185
MAFA-AS1	0.0192593	0.357392078	4.213879	4.20E-24
STAC2	57.448145	14.69713264	-1.96673	1.76E-30
AC126768.2	0.6777629	0.286259572	-1.24346	4.20E-38
MBOAT7	9.8619818	25.67522548	1.380427	1.95E-51
ARFGAP1	7.3218425	15.33478534	1.066529	3.30E-40
TFF1	59.364402	399.0977154	2.749072	7.61E-08
SEZ6L2	7.6734398	20.52708398	1.419583	1.15E-14
KLF9	31.360397	9.970220363	-1.65325	6.83E-53
IQGAP3	0.5162107	6.405834368	3.633355	9.25E-62
SNORA80D	0.1831143	0.478868293	1.386884	0.016001
YAP1	36.660735	17.4090692	-1.0744	1.72E-50
AL136366.1	0.8424432	0.346256297	-1.28274	1.42E-40
ABCA9	6.5844639	0.595131317	-3.46779	2.68E-62
AP005131.6	0.1118383	0.451118844	2.012093	2.32E-08

LINC01121	0.0566605	0.114001816	1.008642	6.34E-09
FGD3	2.7770943	11.20559345	2.012571	4.14E-21
TRABD2B	2.8707269	0.844056168	-1.76601	2.56E-42
AC010503.4	7.9415881	18.33085259	1.206774	9.67E-35
HAGLROS	0.179699	0.915501514	2.34898	1.44E-23
AC004233.3	0.7265362	2.270155801	1.643685	1.90E-24
FOXN3	13.543945	4.730750593	-1.51751	1.07E-53
SRRM2-AS1	0.2172634	0.480250911	1.144343	1.02E-19
LY6H	0.088872	0.471064906	2.406125	1.82E-30
GPR34	13.145794	4.236620834	-1.63362	1.54E-38
TRBV20-1	1.1988814	2.410630244	1.007721	0.015864
LINC00664	0.0739316	0.167884866	1.183208	9.86E-08
AP001528.1	0.9123205	0.410679339	-1.15153	3.30E-35
ALDH1A2	2.2801027	0.335496862	-2.76473	1.20E-63
LINC01336	0.3050374	0.133814565	-1.18875	3.08E-28
EDDM13	0.5775286	0.278691004	-1.05123	1.03E-34
KCNIP1	0.3578597	0.154167374	-1.2149	6.54E-31
SCN4B	9.0914578	1.598303284	-2.50797	4.05E-65
NOVA2	1.3858948	0.524553608	-1.40166	1.76E-44
LINC01239	0.6568642	0.26294675	-1.32082	6.58E-21
FANCI	1.7594536	6.629702822	1.913817	2.19E-54
UBE2S	1.607035	8.832075587	2.458351	3.88E-59
CHST11	2.3421617	5.264705268	1.168512	5.20E-30
AC011676.1	0.1333925	0.30145404	1.17626	2.52E-07
C5orf49	0.5525965	1.650192955	1.578336	1.18E-13
TNR	0.0180784	0.132132357	2.869648	4.21E-17
FAM89A	13.787447	2.744872303	-2.32854	1.13E-44
TSTA3	10.108181	34.09345707	1.753972	1.94E-55
TSPAN11	1.7210058	0.817986235	-1.0731	4.96E-34
PCAT7	0.2004243	0.751822217	1.907334	1.69E-16
RND1	2.4532668	6.857660134	1.483012	7.20E-21
SLC12A8	1.6421379	4.433370027	1.432829	2.98E-43
RN7SL521P	0.1264747	0.762559104	2.592	4.23E-13
AC023590.1	0.0414367	0.160703902	1.955423	6.27E-12
MIR6797	0.3098444	0.640760912	1.048242	4.41E-08
AL445426.1	2.0345951	0.1645892	-3.6278	5.85E-62
OR7E101P	0.4235193	0.082015674	-2.36846	2.56E-41
AC010616.1	0.1548732	0.419543562	1.437733	2.05E-10
GSTM5	9.9909858	1.198751011	-3.05909	1.43E-55
AL138789.1	0.0111444	0.110583095	3.310746	4.05E-31
TIMELESS	3.354685	9.526907684	1.505831	1.04E-53
C12orf54	0.2987512	0.093945381	-1.66905	5.62E-46
AC106782.2	1.7703483	5.490441311	1.632889	6.48E-32
RPL29P14	0.2573887	0.633639633	1.299714	0.024242
AC104984.1	0.02478	0.221438795	3.159662	3.02E-07
ATOH8	3.98316	0.445278792	-3.16113	6.14E-62
NDN	24.576897	7.25035561	-1.76118	2.47E-56
SULT1C4	1.8491956	0.839732261	-1.1389	7.19E-42
MX1	7.9038173	26.06044591	1.72124	1.36E-11

MYO19	1.6973867	3.395536218	1.000324	2.03E-32
SMIM3	23.525858	9.536726727	-1.30268	1.23E-32
IFI35	11.784279	23.71486863	1.008928	5.08E-18
MMP14	44.036238	107.8275946	1.291963	2.67E-27
NUSAP1	2.1337503	16.92694336	2.987858	3.31E-60
LMO3	1.9912005	0.837477916	-1.24952	3.34E-29
CCDC69	31.569751	4.688577992	-2.75132	8.98E-55
FOLR1	13.310529	6.478791233	-1.03877	1.70E-23
ST6GALNAC6	20.760358	9.705737194	-1.09692	1.09E-37
AC004825.2	1.6392944	0.694140523	-1.23978	1.47E-48
EIF3L	75.75812	36.1843857	-1.06603	3.43E-50
POU6F1	3.2516735	1.515828969	-1.10108	2.40E-56
CLEC14A	21.031083	8.944805215	-1.2334	1.99E-41
ABHD11	11.012764	26.71536178	1.278493	2.33E-35
AL365434.2	0.3817885	0.110320187	-1.79108	3.53E-25
LINC01842	0.0616829	0.599137975	3.279945	1.46E-17
HNRNPA1P57	0.0532506	3.412001144	6.001678	2.68E-14
AC104564.4	0.0456305	0.44147412	3.274258	6.70E-21
EXO1	0.370569	3.768203362	3.346063	4.97E-58
AC011247.1	7.3282346	1.438726669	-2.34867	8.88E-50
BHLHA15	0.4969422	1.284133486	1.369645	6.63E-07
PCDHGB7	2.5648669	0.797296502	-1.6857	3.97E-56
KLF6	80.017122	32.12982731	-1.3164	7.96E-40
CYYR1	21.625823	6.216831368	-1.7985	2.13E-59
TDRD10	1.2151906	0.319607034	-1.92681	2.50E-55
TPT1-AS1	2.8100247	0.960151482	-1.54925	1.35E-43
TPTE2P1	0.3729889	0.168263624	-1.14841	1.59E-37
ZNF781	0.846466	0.30771393	-1.45986	2.71E-54
PRSS23	11.962722	23.99292731	1.004064	3.24E-05
PPFIA4	0.2263276	0.54625487	1.271162	1.00E-07
ADGRL4	25.735537	8.585835406	-1.58373	4.89E-46
AC135050.4	0.06537	0.172131178	1.396807	6.13E-19
FAT2	4.3497506	0.896009259	-2.27935	1.45E-44
TMEM270	0.0256449	0.496479521	4.274992	2.30E-47
MNX1	0.0535943	0.457278144	3.092921	1.53E-14
AP000553.2	0.1579927	0.605612406	1.938537	2.47E-26
TMPRSS2	7.4678514	3.195117293	-1.22482	3.94E-16
AC011497.2	1.803732	0.897924888	-1.00632	2.78E-32
TWIST2	9.8078571	2.224085884	-2.14073	7.39E-45
EZH1	13.153533	5.592178621	-1.23397	1.89E-59
SLC29A3	4.6698253	9.658613286	1.048447	2.21E-30
PRDM16	0.416547	0.140830231	-1.56452	1.25E-46
TMIE	0.4052431	0.184322451	-1.13656	3.14E-39
PROZ	0.066932	0.279770447	2.063475	1.40E-12
NEFH	0.7350285	2.357407185	1.681329	0.001307
BMP8B	0.8588541	1.789489376	1.059063	1.95E-06
RIMS3	2.8295234	0.995380672	-1.50724	7.80E-38
EBF1	14.808187	1.962644861	-2.91552	2.81E-60
PSPHP1	5.096022	15.29180713	1.585315	9.36E-07

GPRIN1	0.3626189	2.611463491	2.848332	2.32E-61
IL4I1	0.7593071	4.715244323	2.634577	3.47E-42
AC009093.1	0.1842644	0.755426219	2.035514	2.87E-36
ADHFE1	4.6468212	1.334588861	-1.79985	8.69E-53
CDK5	2.7722171	7.196704357	1.376296	3.26E-54
NUDT1	3.6918899	7.756414436	1.07103	9.15E-31
RNF186	1.4452605	0.164015677	-3.13942	1.83E-40
PRDM5	1.0486557	0.409299213	-1.35731	1.16E-53
SMPX	2.6454707	0.152245747	-4.11905	0.000747
RTKN2	0.2928016	1.165876347	1.99342	1.07E-46
RAET1K	0.0239936	0.120401416	2.327133	2.07E-18
PDGFA	10.955545	4.494513067	-1.28542	2.61E-27
KIFC1	1.3639929	11.41011307	3.064405	5.50E-60
RASSF9	2.4333395	0.601638669	-2.01597	8.68E-56
LRRC73	0.3775901	1.502436846	1.992412	8.10E-30
BMP5	1.4836356	0.638155748	-1.21716	4.37E-47
HIST1H3B	0.038299	2.054514376	5.745346	3.28E-37
SMIM10L2B	1.4820975	0.533084779	-1.4752	8.38E-46
AC145207.9	0.3859783	1.084790602	1.490825	1.31E-22
TPSP2	0.3682897	4.699460355	3.673582	2.99E-18
MFAP2	3.1385607	15.90278819	2.341105	7.96E-47
LPCAT2	7.6748024	3.160312548	-1.28006	7.25E-43
C16orf71	0.2705673	0.889000284	1.716196	7.45E-29
ID1	24.007194	11.08490717	-1.11487	3.24E-23
B4GALT1-AS1	3.0274401	1.043076126	-1.53725	1.20E-37
ALDH1A1	46.975673	8.716981129	-2.43001	2.10E-57
TMEM220-AS1	0.9594097	0.239638506	-2.00129	1.12E-63
CHST6	0.1017777	0.448867122	2.140868	2.60E-21
LINC00989	0.3185931	0.07778783	-2.0341	1.11E-47
FZD4	37.506161	6.565033728	-2.51425	1.65E-51
AC022706.1	2.0877929	0.95010346	-1.13582	4.57E-41
CACNA1D	1.0497206	2.627999417	1.32396	1.38E-09
AC010185.1	0.4067268	0.174599601	-1.22001	3.05E-20
CCDC8	17.843665	5.057958912	-1.81878	4.69E-33
SLC39A11	7.2003241	18.79972143	1.384578	1.78E-37
SSTR2	0.603719	2.596222867	2.104465	8.40E-05
AC073288.2	0.0639169	0.133957118	1.067503	1.57E-06
C2orf88	3.039672	0.639341732	-2.24926	5.09E-57
AL021026.1	0.3021658	0.126870973	-1.25198	1.61E-36
RNA5SP323	0.0483626	0.175741738	1.861494	1.13E-14
GEN1	0.8588053	1.741225558	1.0197	3.29E-33
KRT89P	0.0525867	0.206895422	1.976132	2.09E-16
AL160408.1	0.0306453	0.2206378	2.847944	0.000814
SIX1	2.4484082	5.75848578	1.233845	9.04E-06
AC016825.1	0.0721903	0.31342442	2.118241	0.027692
HSD11B1	11.074802	2.253555588	-2.29701	2.78E-32
FILIP1	1.78103	0.706588138	-1.33377	3.15E-32
C11orf53	0.8314736	0.260516865	-1.67429	1.73E-31
NLGN1	0.4001672	0.101409054	-1.98042	1.61E-50

FZD2	1.526005	3.867145145	1.341509	2.85E-31
TFF3	43.882553	237.8728433	2.438471	6.08E-09
MT-TE	0.7234405	0.288993291	-1.32384	2.43E-14
HIST1H2AG	0.4650232	2.138961894	2.201536	4.17E-25
SIX4	1.2261028	3.93611902	1.682694	1.03E-38
DISP3	0.0724691	0.321781237	2.150642	1.60E-10
TMPO-AS1	0.3035045	0.998920013	1.718651	1.84E-48
MESP2	0.503954	1.37607781	1.449198	0.000202
RNU1-36P	0.3937385	0.10543191	-1.90093	3.85E-41
GFAP	1.0713991	0.19684933	-2.44433	4.34E-49
KIF18A	0.3986825	2.034305687	2.351224	2.00E-50
PDE11A	0.9704072	0.194449632	-2.31919	3.99E-53
AP003390.1	0.4331527	1.153646528	1.413254	2.01E-27
AP001412.1	0.0788871	0.210839568	1.418284	1.14E-21
AC005725.1	0.2130291	0.098690993	-1.11006	1.44E-23
DSC1	0.8248964	0.12658434	-2.70411	2.87E-37
HOXC4	1.7231583	3.670249026	1.090823	2.90E-12
CYP21A1P	0.4447678	1.994209601	2.164693	8.32E-15
KIFC2	1.3745838	5.69357801	2.050341	4.15E-39
CFH	16.341249	6.460705883	-1.33875	2.29E-29
SEMA3D	2.7672443	0.632714129	-2.12882	2.80E-52
RN7SL336P	0.4415096	0.191423506	-1.20568	5.00E-32
DEFB132	6.9310413	0.27198013	-4.6715	1.23E-42
SAA2	36.271227	4.981661994	-2.86413	2.72E-45
MST1R	1.6476325	4.267305012	1.372931	1.64E-27
SPON1-AS1	0.2778774	0.112450093	-1.30516	1.14E-21
BPIFB1	1.0671331	15.73829263	3.882467	1.09E-08
ELF5	21.150523	8.598764909	-1.29849	5.11E-21
FAM72D	0.039569	0.303765306	2.940514	8.21E-48
CYP26B1	4.7714781	1.231129358	-1.95445	2.75E-34
KCNK6	3.91538	10.52289517	1.426307	1.23E-27
AC016737.2	0.3789598	0.138852573	-1.44849	1.04E-28
RNVU1-7	0.1103549	8.683935173	6.298127	0.011456
IL32	6.8990311	14.57309842	1.078842	4.44E-09
METTL7A	58.438543	18.11040771	-1.6901	5.31E-62
TUBG1	9.5177213	20.82063379	1.129326	4.28E-46
CPNE7	0.6266504	3.467012514	2.46796	3.51E-25
LINC01705	0.0230524	1.228216681	5.735502	1.55E-56
GPX3	265.98535	23.34264673	-3.51031	5.10E-51
AC004846.1	1.0941106	0.496423824	-1.14011	1.17E-39
HOXB13	0.0350626	1.695919933	5.595991	6.48E-15
C15orf54	0.008044	0.159764793	4.31189	2.00E-30
INPP1	6.5000172	2.994011914	-1.11836	1.32E-52
C5orf46	1.0954458	3.567979836	1.703589	4.18E-06
GOLT1A	2.2885641	6.449288086	1.494697	1.36E-25
RASL10A	1.7851946	0.455616506	-1.97019	5.23E-22
LINC00667	7.3811407	3.626377042	-1.02531	1.49E-49
PRLR	9.6521469	21.07623991	1.126696	1.54E-14
MMP28	5.6837171	1.535633003	-1.888	1.59E-38

TPD52	10.331185	35.72977572	1.790121	2.24E-46
LIMCH1	16.244385	7.71008183	-1.07512	1.89E-35
LINC01943	0.1294017	0.494723535	1.934766	7.96E-40
EFR3B	0.4378368	1.093400555	1.320357	5.53E-12
DOP1B	4.3872332	9.976841784	1.185272	7.29E-35
AL359697.1	0.1491128	1.028159018	2.785587	7.23E-40
SFXN2	2.1505417	4.525489464	1.073374	3.21E-17
SSPN	14.015947	4.658379754	-1.58917	2.09E-59
BIK	5.222987	14.8522766	1.507737	1.70E-25
FRMD3	3.1112068	1.440658617	-1.11075	1.11E-41
KREMEN2	0.0991353	1.447142379	3.867665	1.65E-48
SOWAHD	0.2784827	0.656796627	1.237859	2.10E-26
CNTN1	3.9537005	1.950604238	-1.01928	8.56E-25
AL603839.4	0.0835542	0.244624641	1.549786	3.60E-23
AC023024.2	0.5480847	1.330401089	1.279391	1.07E-07
DLGAP5	0.5700801	5.279853821	3.211262	7.63E-59
TK2	10.312964	5.093798683	-1.01765	5.64E-50
BUB1	0.5264527	4.85926405	3.206362	8.51E-60
CLDN5	17.959448	3.23586261	-2.47252	2.00E-54
IGHGP	5.6315938	29.14386298	2.371577	6.47E-10
STBD1	2.9029888	0.921619318	-1.6553	4.55E-34
HLF	9.4390268	1.33248429	-2.82452	2.91E-62
AC090044.1	0.5686424	0.130363415	-2.12498	1.54E-36
ARID5A	25.470238	11.70361252	-1.12186	1.65E-23
SRCIN1	1.0760956	2.599375549	1.272359	8.97E-16
PDGFD	20.457066	5.743629409	-1.83256	2.75E-57
ZBP1	0.2746162	0.919437814	1.743335	5.35E-10
MIR8071-1	0.5700842	6.10290564	3.420249	5.35E-19
SPINT2	45.657529	111.9767643	1.294275	3.21E-41
APOC2	0.0734412	0.185952437	1.340273	6.82E-19
AC096887.2	0.3298252	0.711760689	1.109691	1.31E-22
ALKAL2	1.721955	0.579232833	-1.57183	1.12E-45
TRAV26-1	0.1579768	0.411902	1.382588	4.35E-06
RNU6-415P	2.8597576	1.166020623	-1.2943	1.95E-35
SLC25A22	2.8122697	7.992419806	1.506897	1.60E-51
AIM2	0.3480779	1.275032912	1.873052	4.94E-10
SLC5A5	0.0467251	0.235919909	2.336029	1.60E-07
TGFBR3	33.577933	6.343760868	-2.4041	9.32E-60
SYNE4	3.6252574	8.33102338	1.20041	2.13E-28
IGFBP6	72.542558	8.130813792	-3.15736	5.24E-62
AC022973.1	0.0226956	0.208832496	3.201859	0.03816
KLF4	46.053645	8.338952057	-2.46538	6.89E-53
ALG3	7.5592209	16.15586793	1.095749	4.60E-49
ZNF239	2.5425718	5.713932763	1.168196	8.61E-32
C9orf116	1.3191915	5.25442895	1.99388	6.38E-36
KRT8P7	0.0452608	0.15985433	1.820425	2.91E-19
MOXD1	1.1806023	2.589017844	1.132882	1.76E-10
FAM43A	6.8486344	3.215764144	-1.09065	5.24E-38
CLDN3	26.904841	67.40716428	1.325036	1.20E-15

LMOD3	1.5689563	0.106067674	-3.88675	1.08E-06
CCDC137	4.8622934	10.29468956	1.082191	1.45E-35
AQP1	167.78636	40.64843377	-2.04535	2.84E-60
CHEK1	1.0228432	2.888994459	1.497982	1.40E-41
ETV3L	0.5270368	0.169792315	-1.63413	2.51E-25
ABCG2	2.5945855	0.934622357	-1.47305	1.16E-42
PENK	3.8060139	0.464817088	-3.03355	1.35E-46
FOXD2	0.1668538	0.613256473	1.877906	1.97E-27
CARD6	4.8267033	2.091130431	-1.20676	1.81E-45
METTL11B	0.0036293	0.187729956	5.692811	5.81E-44
SLC35G2	2.7584767	0.747473742	-1.88378	1.11E-49
PEAR1	5.5350591	1.425103977	-1.95753	1.99E-58
SLC22A31	0.1246512	0.281697633	1.176251	0.011146
PPDPFL	0.8210534	0.033220185	-4.62734	5.82E-44
AC002546.1	6.2496917	0.232746805	-4.74695	2.35E-46
MCIDAS	0.1683507	1.043679948	2.632138	1.10E-11
IL34	9.9927234	4.568439274	-1.12918	7.47E-29
AL031681.1	0.0258936	0.177004298	2.773118	1.39E-13
SGO1	0.1951475	1.768993643	3.180292	1.22E-57
CENPP	0.5148427	1.266858132	1.299051	1.18E-32
PGLYRP4	0.0181357	0.244692048	3.754065	0.000133
ADGRF4	0.0263684	0.27061397	3.359357	1.98E-18
DENND2A	4.1397502	0.96124095	-2.10657	9.91E-58
CPAMD8	3.2411889	1.366384827	-1.24616	1.57E-32
ANKRD22	1.0871208	4.453883359	2.034551	3.28E-31
HIST1H1E	0.2398707	4.620989899	4.267873	2.39E-26
PKMYT1	0.2775963	4.201603831	3.91988	1.13E-63
SNORA11	1.3194822	11.24415551	3.091131	1.17E-09
AC022113.1	0.0920581	0.206422127	1.16498	0.000355
GOLGA8A	5.4111854	2.444654675	-1.14631	1.04E-25
ACTL8	0.0127204	3.067543732	7.913797	4.63E-30
NKAIN1	1.0227135	17.12830345	4.065908	8.66E-31
AP005329.2	1.1409826	0.462110766	-1.30397	2.95E-50
F10	4.8474476	0.906375868	-2.41904	4.38E-54
CELF2	11.643624	3.367513229	-1.78978	6.86E-50
ADH1B	186.92757	6.41963084	-4.86385	2.04E-58
LINC02580	0.8703131	0.188733371	-2.20518	3.17E-56
AC119424.1	0.8000629	0.320639782	-1.31916	3.49E-33
DKK4	0.4509806	0.178140065	-1.34005	3.90E-41
AC073195.1	0.2457389	0.564375401	1.199529	8.99E-22
LRRC56	1.3045695	3.946891508	1.597143	3.93E-27
C1orf194	0.1492312	0.688053109	2.204971	3.57E-15
SLCO5A1	0.0871948	0.176698432	1.018976	7.29E-18
CYSRT1	0.4182734	1.941573526	2.214708	1.85E-37
PIK3R1	37.372457	14.02923594	-1.41354	3.85E-46
MT1M	9.1148848	2.95934412	-1.62295	9.40E-51
LSM1	9.1654529	18.55669029	1.017661	1.56E-24
AC073850.1	4.5310917	0.367161978	-3.62537	5.72E-54
PIF1	0.1533125	0.759006178	2.307636	7.79E-42

NDNF	2.885438	1.095466226	-1.39725	4.85E-38
ZNF703	18.817825	66.33373993	1.817643	2.31E-18
FNDC10	2.9873917	9.328550109	1.642766	1.12E-35
AL591848.1	0.0538371	0.202340529	1.910114	0.001954
AC012555.1	0.3485202	0.120025157	-1.53791	1.17E-32
HGH1	6.5078753	17.83875483	1.454756	4.11E-53
SH3D19	29.524551	7.919626476	-1.89841	1.37E-60
EBF3	5.7884162	0.963802405	-2.58636	1.60E-59
ADD3	26.236382	10.12709499	-1.37335	2.78E-48
MMP19	6.4850529	2.982303124	-1.12069	2.44E-18
CTBP2P8	0.2212049	0.088225905	-1.32611	3.61E-29
RASA4	0.2522425	0.109818985	-1.19968	1.13E-33
PRSS8	28.538582	75.78886374	1.409072	6.65E-32
BARD1	1.5067267	3.283712875	1.12391	6.53E-33
KCTD5	6.5029817	13.51433889	1.055318	2.03E-55
HMGA1P8	0.2366159	0.627947228	1.408096	6.82E-20
ATP8B3	0.2240208	0.489433691	1.127481	1.73E-10
PRG4	12.82519	1.28308592	-3.32129	3.01E-18
C1orf115	33.662859	15.18061307	-1.14893	4.83E-41
KRT8P36	0.09476	0.219265699	1.210329	1.27E-12
CDCA2	0.3763459	2.708461388	2.847342	4.72E-52
MSLNL	0.0104911	0.17760077	4.081402	8.87E-17
AC015813.4	0.1539302	0.562970536	1.870783	2.88E-09
WISP1	0.4900915	5.697947578	3.539319	7.16E-59
AP000941.1	0.5184302	0.226672688	-1.19354	2.10E-31
AC012511.1	0.3645992	0.175179188	-1.05748	3.32E-22
PLA2R1	6.0886321	2.096292911	-1.53828	2.32E-47
MIOX	0.0248305	0.109472155	2.140379	1.35E-20
AL031710.2	0.0323289	0.128644847	1.992498	3.51E-17
ELF3-AS1	0.6616075	1.586849651	1.262118	1.47E-32
AC068724.1	0.0457703	0.107149708	1.227144	5.98E-13
RASGEF1C	0.5452029	0.261411202	-1.06047	1.51E-34
IL9RP3	0.108767	0.262733486	1.272359	2.66E-15
AC124944.1	0.0813696	0.179750532	1.143435	2.09E-12
MIR4269	0.4790133	0.207629524	-1.20605	1.69E-21
CCL14	5.3682825	0.574208954	-3.22481	4.14E-62
AL358913.1	0.0514039	1.88126102	5.193678	2.19E-19
ATP5PBP5	2.1229449	0.939641789	-1.17588	1.61E-37
C1orf105	0.0119763	0.234008021	4.288302	1.69E-14
CFL1P5	0.4345391	0.890347249	1.034882	1.05E-16
SMC4	2.9666092	8.276924506	1.48028	8.45E-38
PCSK5	2.4813499	0.836950562	-1.56791	6.22E-41
PLAC9	32.326578	4.076988806	-2.98714	1.83E-54
PQLC2L	2.3979053	0.358356793	-2.74231	6.33E-50
SLC26A4-AS1	0.2829845	0.10970593	-1.36708	2.74E-27
CCDC80	58.123435	17.41791198	-1.73855	9.25E-29
YWHAEP1	0.0512858	0.200240563	1.965102	2.26E-06
PPP1R35	5.9794156	13.93243231	1.220371	1.09E-34
SLC10A6	1.6280715	0.463861735	-1.8114	1.01E-45

AC010255.2	0.0517002	0.129890055	1.32905	1.12E-06
C2CD4B	4.2976163	1.097448694	-1.96938	9.73E-22
METTL24	0.5389632	0.240392765	-1.16479	1.77E-27
AC097713.1	2.6696934	0.179729614	-3.89277	4.53E-49
STX11	7.635814	1.943493006	-1.97413	3.03E-32
SERPINA12	0.0907687	0.423364586	2.221634	5.96E-07
LINC00933	0.6927917	0.23381072	-1.56708	1.91E-55
MGAT4EP	0.0372615	0.119234349	1.678043	2.13E-13
GNG12-AS1	0.6475464	0.19878257	-1.70379	6.48E-56
KRT8P45	0.3557996	1.076162979	1.59676	1.20E-21
KIF2C	0.8756758	8.262353768	3.238084	7.80E-60
AC092814.1	0.1487039	0.325928958	1.132115	4.22E-16
MRPL35P2	0.7668578	0.27577889	-1.47545	3.06E-41
MYL2	55.128221	0.511639353	-6.75152	3.24E-26
PLIN1	277.72678	8.338216328	-5.05778	4.18E-54
AC079298.3	0.7481518	0.261511895	-1.51645	8.74E-30
CLDND2	0.9350973	0.394135225	-1.24643	1.52E-35
AC011447.7	0.432121	1.543187307	1.836406	3.44E-29
ANKRD30BP1	0.072997	0.557578091	2.933265	0.001596
AL590133.1	0.1284343	0.370993895	1.530365	2.25E-19
AC108860.2	0.5334826	1.590542872	1.576006	2.70E-31
KRTAP5-10	0.0631826	0.181588705	1.523075	1.21E-07
UQCC2	3.7938296	8.509771674	1.165466	3.56E-46
VCAN	10.238652	31.38539709	1.616068	9.18E-26
RNASE2	0.454793	0.982729018	1.111584	6.43E-16
SPTBN1	63.234853	16.80432755	-1.91189	4.24E-60
AJM1	0.3278803	1.340391147	2.031413	1.79E-45
GAS2	0.8769267	0.322802105	-1.44181	4.23E-42
ZNF367	1.0202355	3.251870223	1.672368	3.36E-43
TNFRSF9	0.0938838	0.589443619	2.650405	6.54E-40
DLEU2	0.397955	0.924417984	1.21594	2.41E-31
MND1	0.4640746	2.821766481	2.60417	2.38E-49
BLM	0.456221	1.741025364	1.932133	2.69E-45
GNAQP1	0.4335743	1.636627635	1.916375	0.003103
OXLD1	6.5352199	14.09975384	1.109362	8.70E-32
FAM49A	7.4589553	2.565696898	-1.53962	1.68E-57
TUBB3	0.0748286	0.931970962	3.638623	4.10E-48
RAMP1	2.29166	16.62331443	2.858743	3.55E-36
BBOX1-AS1	0.0908458	0.225960629	1.314579	3.95E-05
WSCD1	0.8341035	0.266880836	-1.64403	8.98E-51
NACC1	9.2107227	24.12430065	1.389101	4.86E-58
C6orf141	1.7878721	5.619131742	1.652104	0.002572
CNR1	1.0338983	0.494983684	-1.06264	1.06E-38
PIK3C2G	5.0923748	0.756169547	-2.75156	2.93E-36
HSPB1	117.62452	352.5493543	1.583636	2.47E-24
AL365181.3	0.8359412	3.034487536	1.85998	0.009677
SHROOM2	1.2810929	2.82010984	1.138376	1.12E-25
IGSF8	19.823134	39.95415471	1.01116	1.74E-30
AC005486.1	0.4708664	0.151350856	-1.63742	6.65E-36

CCDC50	16.635926	7.181993933	-1.21185	9.30E-57
TBC1D30	1.1866587	2.504067275	1.077368	1.08E-23
ID4	42.227003	11.24399304	-1.90901	1.44E-48
CREB5	2.4957381	0.621429876	-2.0058	3.36E-55
AC008895.1	0.1437446	0.387930345	1.43229	3.74E-08
AC016924.1	0.9938069	0.077426237	-3.68207	4.88E-58
PTX3	6.3416652	2.870785721	-1.14342	4.67E-37
FCAMR	0.0281744	0.143073956	2.344306	0.000231
MFSD6L	0.7697987	1.562446331	1.021254	0.00204
SLC17A7	1.0284852	0.139459686	-2.8826	2.87E-63
MKRN3	0.0383571	0.284618274	2.891463	8.27E-07
CCL7	0.0533906	0.724355101	3.762038	7.17E-20
THSD1	4.5289166	1.683381963	-1.4278	1.56E-58
CMTM5	0.3635718	0.148693251	-1.2899	3.88E-48
QPRT	2.9084781	7.692223075	1.403136	1.87E-12
ADGRD2	1.4966425	0.118865045	-3.65433	7.83E-36
CYBRD1	127.40574	61.23673696	-1.05696	2.35E-33
MCEMP1	0.0814678	0.219405004	1.429294	3.46E-10
LINC01152	3.0164912	0.720531408	-2.06574	1.95E-30
RGCC	54.414211	19.55301186	-1.47659	1.60E-51
COMTD1	2.1411093	6.847231635	1.677162	1.39E-33
CHRD	1.6781644	4.536698764	1.434759	0.001151
FZD10-DT	0.6504499	0.271988577	-1.25789	4.58E-36
ILDR2	0.0303382	0.145505228	2.261864	4.35E-37
BGN	63.787253	327.6811326	2.360953	3.23E-54
MYZAP	9.382995	1.118462243	-3.06853	1.95E-55
ZFP36	342.04249	79.30431391	-2.1087	1.56E-43
RNU6-343P	0.6396401	0.318132682	-1.00763	1.63E-15
AC005674.2	1.213226	0.588997506	-1.04251	8.39E-32
ELOVL3	1.9870525	0.625610415	-1.66729	4.37E-25
AC012213.4	0.0325555	0.80674838	4.631146	7.95E-09
MBNL2	32.056721	15.303584	-1.06676	2.91E-46
CHTF18	1.1794869	3.975016031	1.752801	7.90E-40
RN7SKP180	0.0409377	0.261093879	2.673068	0.019973
DLX5	0.2523869	1.441662229	2.514024	3.47E-15
TAL1	1.7937864	0.490560666	-1.8705	2.76E-54
HNRNPA3P9	0.1414531	0.29209784	1.046128	5.46E-07
AC053503.2	0.1368032	0.337014647	1.30071	3.62E-24
CCL11	0.0800124	1.402866862	4.132011	3.84E-55
AC073585.1	0.175283	0.623188702	1.829983	4.77E-30
NPNT	8.9277139	33.83725658	1.92225	7.63E-20
LINC02202	1.5154405	0.183591742	-3.04516	1.16E-62
TCIRG1	8.0413614	16.56325345	1.042474	1.92E-26
TRBV26OR9-2	0.5508725	0.055176238	-3.3196	1.87E-54
PDLIM3	17.727343	3.950791031	-2.16576	4.93E-43
PARM1	15.465155	7.502493537	-1.04358	4.23E-36
MGAT5B	0.1181335	0.533288367	2.174497	0.012355
AC004884.2	0.1042746	0.377841075	1.857391	5.67E-06
GAPDHP62	0.0552272	0.141669478	1.359079	1.42E-10

GSEC	0.3980307	1.048630111	1.397554	2.48E-42
H3F3AP6	0.2967484	0.614056495	1.049131	5.31E-21
PPP1R1A	37.501158	2.931108215	-3.67742	5.21E-55
NRP1	19.566162	9.21077358	-1.08697	1.23E-31
IFNL1	0.0225868	0.188423757	3.060426	5.90E-12
SRPX	45.996293	8.414485743	-2.45057	2.99E-60
AL117329.1	0.0271063	0.301880675	3.477276	4.04E-18
SCCPDH	22.804454	46.66885197	1.033144	1.38E-20
PGM5	5.7516561	1.064805917	-2.43339	1.05E-60
IL11RA	5.8667279	2.139767249	-1.4551	1.00E-56
GREB1L	0.7557088	1.943167503	1.362508	9.92E-06
POLR2H	8.6378186	17.42484961	1.012407	2.41E-50
CYB561	17.582404	41.45610376	1.237452	4.66E-40
CHRM4	0.1423656	0.317604474	1.15763	0.045319
PPP4R1L	1.1927905	0.498157829	-1.25967	1.01E-44
LRRC8C	4.1147904	2.026558357	-1.02179	1.35E-37
AJ011932.1	0.3867804	0.142697601	-1.43855	9.57E-27
AC022390.1	0.1462206	0.342737847	1.228958	1.17E-05
AC092803.1	0.0635946	0.315946742	2.312705	8.31E-14
FBXO16	0.5046983	1.136220284	1.170749	2.27E-20
TNS1	77.69689	10.18854357	-2.93091	2.97E-64
AC105219.1	0.0507424	0.65073585	3.680808	3.81E-34
PLEKHM3	1.6332915	0.61823839	-1.40155	3.05E-38
AC134043.2	4.005869	0.394632568	-3.34353	1.07E-55
LIPE-AS1	1.1000509	0.470869723	-1.22417	5.92E-34
KRT18	90.223129	264.5971203	1.552228	2.87E-32
AC010719.1	0.891723	1.946758868	1.126407	1.49E-10
AC007016.1	0.0585961	0.159667108	1.446191	3.06E-05
INTS6L	2.7315867	1.268138037	-1.10703	2.47E-31
XIRP2	4.092352	0.067799849	-5.9155	0.000287
FAM242C	0.0601572	0.125622214	1.062283	5.76E-06
AC006539.2	0.0942926	0.191153536	1.019516	0.045634
FAM25A	0.0767082	1.514041228	4.30288	0.013744
PYDC1	0.3715268	8.089481694	4.444509	6.55E-12
CD7	1.0607438	2.203420821	1.054669	0.005139
AL021368.3	0.2916715	0.115099614	-1.34146	3.42E-24
LINC00665	2.9392271	6.085870851	1.050027	4.48E-32
EFCAB1	0.870499	0.163512115	-2.41245	2.77E-39
AC023794.3	0.7685755	0.314699729	-1.28821	4.25E-42
AL390294.1	0.4405693	1.859242931	2.077275	7.20E-09
AOC2	1.7419438	0.400622245	-2.12038	4.24E-44
CHST9	1.5020089	0.272139066	-2.46448	1.38E-35
ADGRL2	10.862346	5.099512426	-1.0909	8.61E-44
SLC9A9	4.8874393	1.748273267	-1.48315	2.40E-41
C3orf67	0.1299368	0.554965058	2.094586	9.04E-45
PLPPR3	0.9989706	3.351827437	1.746434	1.36E-05
MLLT11	1.6580152	3.656821463	1.141133	1.27E-23
SNRPGP2	4.0664872	8.315168502	1.031962	1.78E-35
ETV1	3.2525188	1.473451381	-1.14236	3.06E-25

CFAP57	0.2501062	0.521500622	1.060128	3.57E-05
HTR2A	0.6110349	0.098349931	-2.63526	4.13E-43
CARMIL2	0.2351351	0.727501954	1.629461	2.30E-11
ADIPOQ	198.97809	6.468877608	-4.94295	2.96E-51
HEY2	7.2978172	3.612695556	-1.01439	1.14E-28
DHRS2	9.8030552	22.64200891	1.207699	0.031925
LINC01344	0.0148298	0.204452224	3.785193	2.01E-26
UBE2SP2	0.0420073	0.186897627	2.153537	8.03E-25
SERPING1	188.10356	80.33408209	-1.22744	1.28E-41
MTBP	0.5684603	1.203367107	1.081945	2.08E-20
ACACB	23.911405	2.217523759	-3.43068	6.81E-59
FMOD	94.501492	45.37652923	-1.05839	1.84E-34
CDT1	1.0664263	5.551493568	2.380092	1.22E-46
AC111152.2	0.051501	0.111102916	1.109224	1.36E-08
AC015845.2	0.071475	0.17375303	1.281528	2.26E-06
TMEM63B	7.8103751	19.18802611	1.296743	1.94E-57
AGMO	0.60787	0.159751454	-1.92793	1.41E-50
AC011477.4	0.4421378	0.211480801	-1.06397	6.84E-24
PFKFB3	81.247563	23.3312601	-1.80006	5.54E-37
AP000892.3	4.1755489	0.917003034	-2.18697	3.82E-47
DHCR24-DT	0.174121	0.441504849	1.342339	1.16E-25
AC233280.1	0.0441278	0.123000454	1.478906	3.38E-17
MIR10B	1.2285003	0.406360105	-1.59607	5.92E-32
CPN2	0.0643901	0.158436753	1.298997	7.29E-09
AP000844.2	1.2692278	4.531758982	1.83612	0.000205
KRT75	0.0476829	0.848797976	4.153877	0.000354
TRAV9-2	0.3459814	0.72954578	1.076304	0.000507
AC244453.3	0.230022	0.11314808	-1.02356	2.44E-24
AC002451.1	0.3628593	0.089570387	-2.01832	1.19E-49
JADE1	8.5482814	4.130269096	-1.0494	2.02E-53
TRDN	3.4534251	0.092600702	-5.22086	2.86E-51
SLC17A9	0.5571129	2.101445574	1.91534	1.95E-20
AL135818.2	0.2671061	0.861676874	1.689734	1.19E-17
KBTBD12	0.2438941	0.114782923	-1.08735	4.58E-35
LAG3	0.5416094	2.107436384	1.960164	1.38E-14
TRBV7-4	0.0697526	0.148599255	1.091109	6.86E-05
PLIN4	300.83715	9.746751566	-4.94792	7.74E-55
AL031848.1	0.260165	1.060541378	2.027302	7.90E-13
DIAPH2	4.5144296	2.203486966	-1.03476	1.35E-37
PPP1R14BP3	9.3820449	27.49319431	1.5511	8.47E-44
AGR3	21.634517	104.1759714	2.267616	7.59E-15
HOXC13	0.6953277	5.13659507	2.885047	1.64E-33
TUBB8P12	0.0697865	0.140194701	1.006412	3.48E-06
AC007687.1	0.0825635	0.229278964	1.473528	6.27E-05
CTIF	11.455026	5.486757009	-1.06196	3.43E-34
COLCA1	1.1398154	0.388568992	-1.55256	2.51E-36
UMODL1	0.0367009	0.243377942	2.729312	2.88E-22
AC063944.3	0.2298125	0.096263741	-1.25539	1.58E-25
NMRK2	0.7346483	0.052040644	-3.81934	9.24E-19

LINC01612	0.7182579	0.111816582	-2.68337	7.15E-46
CDKN2C	13.376554	5.900578105	-1.18078	1.00E-23
KANK1	12.45684	3.675508142	-1.76092	2.29E-58
AC116312.1	0.4329322	0.083763414	-2.36975	1.58E-40
AC009121.2	0.0416467	0.128765438	1.628472	3.55E-22
AL645608.6	0.1193762	0.541551284	2.181582	3.31E-11
MRGPRX3	1.0993722	0.2306634	-2.25282	9.82E-31
AC069234.5	0.5841243	0.269295361	-1.11709	5.00E-31
HSD17B2	0.8316395	0.371645102	-1.16203	5.58E-20
AC098935.2	0.0623095	0.143985438	1.208399	0.000504
CLCA4	1.2881702	0.123780422	-3.37947	1.46E-47
CA4	9.0846846	0.259478969	-5.12975	4.78E-66
TTN	1.7423591	0.139737964	-3.64025	9.30E-28
B3GAT1	0.5877119	0.237440061	-1.30755	2.08E-26
MYCT1	11.617887	3.157499736	-1.87949	1.49E-56
IRF7	4.7613358	17.7797173	1.900794	4.64E-44
LINC02532	0.0235518	0.11495659	2.287182	0.00056
AC004988.1	0.0819221	0.224763842	1.456085	1.76E-24
FDXR	2.2637141	5.290829753	1.224802	7.51E-25
OXTR	56.824083	3.277212676	-4.11596	1.24E-39
RIBC2	0.6736192	2.237670633	1.731993	3.89E-39
HIST1H2BL	0.0685226	0.855775068	3.64258	1.88E-28
AL139412.1	0.1392429	0.624339881	2.164728	1.54E-32
PCDHGA9	0.8623621	0.407276888	-1.08228	2.95E-44
GINS4	0.5354785	1.984835373	1.890119	8.98E-35
BMP8A	0.1627101	0.837827788	2.36435	7.75E-49
SLC27A6	4.2781347	0.977085775	-2.13042	1.92E-36
ABHD12	12.616147	27.17416614	1.106964	3.01E-48
AP1S1	16.459561	37.71986349	1.196399	6.23E-50
NATD1	11.006716	3.749664927	-1.55355	8.72E-57
SNTG2	0.4264896	0.118832054	-1.84359	1.59E-46
NEFL	0.0645135	0.23061218	1.837795	0.002746
AL031055.1	0.2564716	0.580776715	1.179185	1.04E-19
AC004584.1	0.0724789	0.156656605	1.111972	9.73E-11
CCDC74B	0.6872072	1.890151452	1.459685	1.63E-05
RAB5IF	6.8922442	14.04945563	1.027469	2.65E-48
AVPI1	14.784111	6.958994203	-1.0871	2.02E-34
EMX2OS	1.1297978	0.250011626	-2.176	1.94E-43
CYP46A1	0.2781767	0.125228548	-1.15144	1.37E-40
RNF39	8.2787131	2.997261372	-1.46576	1.05E-21
STAT5A	24.753709	9.702877184	-1.35116	1.54E-50
ZNF662	3.2626363	1.479895132	-1.14054	1.02E-32
CFB	2.3149042	13.06258964	2.496417	1.10E-22
CBX1P2	0.0368455	0.123570091	1.745769	0.000179
LLGL2	4.311947	13.71453514	1.669294	8.81E-49
TBL1XR1-AS1	0.0322001	0.205849946	2.676458	2.68E-05
AL355312.3	0.091177	0.446713364	2.292607	5.29E-11
RFX6	0.3600574	0.177523056	-1.02022	1.78E-26
MYO7B	0.285507	0.117014842	-1.28683	6.90E-31

PRKAR2B	64.501975	13.29856284	-2.27807	3.55E-31
CACNB3	2.5781788	6.712032511	1.380397	3.45E-43
FAM189A2	14.657792	3.220946419	-2.18611	1.07E-44
TMEM141	18.935338	43.10092379	1.186638	2.30E-36
CRYBG2	0.0653219	0.586448897	3.166366	2.66E-46
AC090125.1	0.0135707	0.280664954	4.370286	2.47E-31
LINC02352	0.4917493	0.21269931	-1.20911	3.25E-23
AC073573.1	0.065779	0.214985505	1.70854	6.17E-10
PRC1	1.8012314	10.8750939	2.593972	1.47E-58
EPYC	0.0386349	2.371059458	5.939483	1.32E-48
PLEKHF2	14.958484	32.29114777	1.110175	1.35E-22
AC012368.1	1.2184203	0.341580484	-1.83471	7.24E-50
PREX2	3.6793914	0.813952912	-2.17645	3.18E-52
CENPN	1.2458248	3.137602162	1.332561	1.21E-31
ABCC12	0.1154722	0.324691405	1.491524	0.020934
SFXN5	1.2938952	3.164844785	1.290414	1.92E-21
P3H4	4.1633995	11.93127204	1.518914	2.64E-47
BMPER	1.2914299	0.337730895	-1.93502	2.64E-50
NUF2	0.4367679	5.674710527	3.699608	1.09E-62
AL391427.1	0.4865757	0.199496769	-1.2863	5.58E-33
COMMD5	5.9921794	12.16100068	1.021109	1.78E-44
ANO9	1.199725	3.119552478	1.378635	1.20E-23
USP2	1.8808335	0.835470035	-1.17071	3.33E-22
IGHG1	69.035335	600.2424557	3.120138	5.90E-11
TMEM97	5.2222202	14.37659634	1.460987	3.39E-33
AC019193.2	0.3763223	0.166485829	-1.17657	3.16E-33
PXDNL	0.4634462	1.941646374	2.066807	1.89E-05
ATP7B	2.0386552	4.336809764	1.089016	7.32E-07
CCDC150	0.0944462	0.247177745	1.387985	1.67E-23
RIBC1	0.7143014	1.43477206	1.006217	4.56E-13
TCEAL2	1.9804942	0.800646544	-1.30662	1.30E-41
TUFMP1	0.0168385	0.115519719	2.778304	4.70E-06
STMN1P1	0.2477215	0.548692375	1.147278	3.38E-11
AC007431.1	0.0148127	0.120128724	3.019673	6.25E-06
TTC28	5.1171009	1.956666164	-1.38693	1.59E-59
ADGRD1	1.3062153	0.244524044	-2.41734	1.85E-44
TXNDC17	4.7819947	9.934078288	1.054774	5.67E-47
DCUN1D3	5.6672524	2.585273306	-1.13233	2.15E-43
SYNPO	27.035118	8.032239898	-1.75096	1.42E-41
BMX	2.902026	0.468135207	-2.63206	2.93E-60
PELI2	4.4800112	1.385608102	-1.69298	3.07E-56
DPY19L2	0.9350753	0.386526606	-1.27451	8.04E-41
AC018816.1	0.6167069	5.698070531	3.207817	0.000708
AP003080.1	0.2319957	0.104628081	-1.14883	2.36E-29
MAB21L4	0.6419543	6.48889672	3.337431	1.52E-12
LINC00511	0.1120399	0.788597244	2.815276	3.16E-31
MYLK	27.900883	5.85777528	-2.25189	4.04E-52
PACSIN1	0.1659267	1.061491229	2.677475	1.76E-52
PGM1	35.363186	16.76717898	-1.07661	4.35E-37

AC092198.1	0.0149332	0.140671504	3.235733	6.11E-18
LDLRAD2	1.2135593	0.357192953	-1.76447	5.83E-45
AC005828.4	0.1128942	0.26594679	1.236166	1.99E-14
FUT2	1.0492398	3.067427146	1.547685	2.76E-19
ADIRF-AS1	2.4197984	1.080512927	-1.16317	5.79E-39
ARHGAP26	3.8528749	1.824589176	-1.07836	4.46E-39
LINC02273	0.1174782	0.247862093	1.077144	0.043109
AC025031.3	0.0269627	0.148008848	2.456647	7.90E-08
KLHL35	0.4702528	1.65223349	1.812909	4.13E-29
FFAR2	0.782069	1.743287232	1.156443	0.031348
CAPS	2.68795	11.59574188	2.109017	6.08E-32
IGHA2	520.74241	151.0878669	-1.78518	1.99E-21
ADGRB2	1.2346573	4.881473342	1.983206	8.74E-20
PTGDR2	0.4493242	0.155972382	-1.52647	1.53E-46
ACVR1C	8.030264	0.255712642	-4.97285	3.17E-55
SLC25A19	1.3849661	2.82354413	1.027656	6.56E-37
COBLL1	5.9107611	2.512852579	-1.23402	4.31E-40
MIR4653	0.6807793	4.088197657	2.586206	3.33E-40
ZFPM2	1.9532152	0.923499594	-1.08067	5.88E-24
SLC19A3	25.489009	0.927865652	-4.77982	2.97E-52
RGS19	4.8255343	9.903200519	1.037206	1.39E-39
RPS24P13	0.0433488	0.106531532	1.297217	0.013553
AC084026.1	0.0577825	0.384326737	2.733628	8.11E-06
SMS	27.673742	58.81005462	1.087545	2.05E-46
SCN3A	0.7933814	0.113341371	-2.80734	3.27E-58
UNC13D	1.8163575	3.664189481	1.012446	1.66E-06
AC110285.7	0.1438558	0.400660915	1.477758	1.04E-06
PAQR5	0.8955282	1.890837782	1.078215	3.12E-08
LINC01740	0.1388468	0.358512964	1.368531	0.010316
DNAH10OS	0.4689399	0.978343634	1.060938	5.34E-11
LEPR	8.0199332	1.094474794	-2.87335	1.34E-60
PLEKHD1	0.1463803	0.755816236	2.368315	1.20E-16
AL591848.2	0.0862473	0.190234228	1.141226	0.003178
CLCN2	1.0551535	2.543293146	1.269245	9.20E-45
GAPDHP60	0.079682	0.161991238	1.02359	1.22E-10
RNU6-45P	0.2580997	0.544576325	1.077206	3.23E-07
SIGIRR	6.3901151	13.99754171	1.13126	7.60E-27
BCL2A1	1.7763301	5.442151386	1.615277	2.31E-09
SCN2B	1.324041	0.182161176	-2.86166	2.61E-56
FAM124B	1.4071729	0.613380646	-1.19795	2.93E-31
AP003392.3	0.0578923	0.16724779	1.530543	3.10E-18
RBP4	153.31006	6.052198639	-4.66285	2.15E-52
LINC01252	0.4597588	0.224162551	-1.03633	1.68E-20
KCNQ3	0.3285495	0.710255636	1.112228	0.000132
AP001434.1	0.0211374	0.487084564	4.526306	3.73E-39
BNIPL	6.3658349	13.25755274	1.058393	1.29E-07
CAMP	0.1251868	2.46987925	4.302286	4.10E-36
AL021392.1	0.2398068	0.800014323	1.738153	3.24E-25
BRCA2	0.3791346	1.054570541	1.475874	3.62E-34

GLT1D1	0.2377519	0.112101631	-1.08465	3.89E-25
BRI3BP	2.9698831	6.213216199	1.064934	6.56E-38
AC012531.4	0.0761596	0.408776533	2.424214	2.25E-14
TRBV28	2.642425	5.822148886	1.139689	0.00105
ALDH1A3	11.334018	3.391812948	-1.74053	6.46E-41
CAPG	36.84575	77.02506293	1.06383	8.61E-29
AC004687.1	0.3871978	0.825742447	1.092621	0.000695
CDKN3	0.8107314	5.941353511	2.873496	8.39E-62
GDF15	2.2467731	11.37596113	2.340062	8.08E-17
PRSS22	2.4594196	6.314541025	1.36036	2.69E-25
GPRC5A	8.6531548	43.44693602	2.327956	1.97E-39
EME2	1.0716709	2.860437325	1.416374	4.89E-24
RAD51AP1	1.1407357	5.291395622	2.213684	5.81E-51
AUNIP	0.423414	1.910994645	2.174183	3.50E-50
SREBF1	19.147679	43.1977434	1.173786	7.19E-19
U62317.3	0.1775954	0.358672216	1.014072	6.79E-12
LRRC15	1.8167735	25.46551711	3.809095	5.43E-50
KCNH1-IT1	0.0273234	0.467025442	4.095295	4.63E-20
AC073370.1	0.041153	0.129431475	1.65312	5.13E-16
TNNT3	16.456898	0.94314635	-4.12507	6.72E-49
KALRN	1.3868129	0.678286306	-1.03181	6.39E-41
AC103769.1	0.0766749	0.248950323	1.699032	0.007391
AKAP5	0.6175922	1.560037498	1.336854	6.34E-12
AC073352.1	0.0621099	0.180486718	1.538998	1.68E-16
FAXDC2	13.903475	3.775615949	-1.88066	6.51E-56
HIST1H2BC	1.6594849	10.72265441	2.691855	1.16E-35
SOCS2	6.8416382	2.903519536	-1.23654	1.79E-37
PLSCR4	20.382359	4.973861608	-2.03488	1.98E-61
AC015712.4	1.3101791	0.276035326	-2.24684	4.43E-39
LRRN4CL	8.3515698	0.900064628	-3.21395	2.51E-61
LRRC45	3.0722434	8.426357588	1.455617	9.10E-39
DNAH6	0.3348097	0.165032391	-1.02059	8.42E-29
RPS3AP34	0.4069128	0.194431491	-1.06546	7.65E-20
LAMC1	59.34328	28.5897124	-1.05359	7.22E-37
NEIL3	0.1293584	1.291062356	3.319113	1.42E-58
CA9	0.1557182	3.995788116	4.68147	0.000522
IL17B	3.4881006	0.812446488	-2.1021	2.33E-38
CTHRC1	10.357287	56.62993473	2.450919	1.26E-50
ADAMTS7	0.6835414	1.404602719	1.039062	2.42E-21
GJB2	1.0132596	19.12378879	4.238293	4.15E-53
MASP1	0.5912233	0.055330552	-3.41755	6.80E-60
DNAJC22	1.4890496	3.921593113	1.397048	6.54E-13
DBX2	0.3604453	0.094084166	-1.93776	6.25E-46
BNIP3P10	0.0696629	0.150669014	1.112921	2.16E-06
KIT	58.395773	7.061096733	-3.0479	4.63E-45
DAAM2	7.7751501	2.415844454	-1.68634	1.71E-48
HOXB9	0.179675	1.121990863	2.642599	5.66E-21
H2AFZP4	0.084618	0.429148945	2.342443	0.000807
ARMT1	17.262017	46.82804664	1.439772	2.39E-08

LINC00160	0.569198	1.726373696	1.600742	9.29E-12
OR2A13P	0.2080684	0.102769239	-1.01765	3.18E-20
ARPC1B	17.704914	37.39347562	1.078637	7.54E-32
PSME2P2	0.6030612	1.523008166	1.336547	2.36E-33
ARHGEF40	13.135939	5.761429149	-1.18902	8.01E-55
LINC02544	0.4455319	5.355176941	3.587333	1.23E-49
MRAP	6.3887596	0.325205603	-4.29611	3.05E-48
SELENOP	53.711606	18.82625065	-1.51249	1.67E-51
ATP2A3	5.4145707	15.99378632	1.562593	5.97E-19
JAKMIP2	0.0645762	0.144570256	1.162697	5.02E-07
BOC	7.8363497	2.564654918	-1.61142	4.81E-51
USHBP1	1.7821316	0.5123361	-1.79844	2.03E-54
COX6CP2	0.0480493	0.168796708	1.812698	8.55E-10
CBX7	11.158292	3.96179915	-1.49389	4.07E-56
PROX1	1.586024	0.344487166	-2.20289	3.46E-48
TACR1	3.7548804	0.643798508	-2.54409	1.19E-56
HSPE1P5	0.2277699	0.11311552	-1.00978	1.10E-06
GABRD	0.220023	2.098950932	3.253942	1.58E-60
LPAR6	14.765832	7.13161325	-1.04996	5.33E-47
ADAMTS3	0.9873922	0.410455342	-1.2664	1.35E-39
AC040169.3	0.1916739	0.415524914	1.116281	3.84E-12
HIST1H4B	0.0288103	0.891781763	4.952036	4.96E-14
DNAJC1	13.739139	39.06949738	1.507751	9.48E-38
GYG2	64.650058	4.305859081	-3.90828	1.56E-46
APOO	7.1593192	15.87764056	1.149102	6.89E-53
Z92544.1	0.0414734	0.117200299	1.498717	2.95E-09
RAD17P1	0.1956399	0.536810953	1.456214	0.000146
CIT	0.4996967	1.925547123	1.946144	6.46E-52
TMTC1	8.6818429	1.984999454	-2.12886	4.41E-56
AP000439.2	0.6828544	6.676564942	3.289456	6.92E-09
AL122019.1	0.0148493	0.228204957	3.941863	1.09E-10
AC093423.2	0.4506258	0.201686966	-1.15981	1.37E-39
AC004486.1	0.1099037	0.370753975	1.754222	0.000174
BAX	7.8973614	17.14940056	1.118716	4.64E-44
NMNAT2	2.271623	0.696922161	-1.70465	5.25E-46
CRIM1	56.455641	18.00810762	-1.64847	7.07E-58
HIST2H2BA	0.2338595	0.113967856	-1.03701	1.22E-26
KRT8P41	0.0899187	0.297683766	1.727087	0.002048
AMH	0.1507128	0.949701926	2.655673	2.04E-19
AC109583.2	1.6487843	0.80634156	-1.03194	1.25E-24
CH25H	3.4798462	1.637374849	-1.08764	2.05E-17
RN7SL449P	0.0588035	0.205780379	1.807131	5.60E-06
LAMA3	14.82702	4.14893587	-1.83742	4.12E-41
NARF-AS1	0.0425273	0.130487871	1.617455	2.74E-18
ONECUT2	0.0271401	0.262833409	3.275651	0.000131
AC136632.2	0.1423987	0.414977968	1.543099	3.09E-35
LRFN5	0.6778313	0.170071696	-1.99478	2.00E-49
AL390719.1	0.7337201	1.795400213	1.291004	3.01E-18
SHISA9	0.2299745	0.933547965	2.02125	2.28E-08

LURAP1L-AS1	0.0510992	0.16895739	1.725287	0.001803
FADS2	6.0876164	18.03684694	1.566998	2.16E-09
NFKBIE	4.0604278	8.758213094	1.109005	2.17E-31
AC087442.1	0.1465886	0.362293554	1.305386	0.022112
AC006077.2	0.343384	0.695890217	1.019037	8.23E-10
CEL	0.9311859	2.002777471	1.104861	0.011009
AC005180.2	0.3218791	0.140528596	-1.19565	7.88E-21
MTX1P1	1.8136559	4.368885564	1.268365	2.31E-37
TLN2	8.2712234	2.416184466	-1.77537	5.45E-52
CECR7	2.8248002	1.289041522	-1.13185	1.81E-28
WLS	29.752759	11.71755568	-1.34435	7.75E-45
WARS2-IT1	0.3462458	0.153788095	-1.17085	7.62E-49
HIF3A	1.8041399	0.149612816	-3.59201	1.37E-62
PLEK2	2.2232552	5.832018647	1.391322	5.84E-33
RAB33A	0.3824325	0.772613477	1.014542	4.50E-16
GGTA1P	7.6690569	1.875114422	-2.03207	3.92E-58
AURKB	0.6655643	6.521898516	3.292642	2.75E-57
AC109449.1	0.2100731	0.421814028	1.005716	4.11E-11
TLL1	1.7053078	0.689683747	-1.30603	2.84E-35
CDC42EP2	12.57222	5.872699093	-1.09814	3.24E-27
AC007342.4	0.2966176	0.645977044	1.122879	1.62E-05
FAM126A	4.8151169	1.284618654	-1.90623	1.42E-58
RNU4-25P	0.0584229	0.332716421	2.509686	0.000123
AF001548.1	0.3381809	0.135624939	-1.31817	2.20E-22
AC130456.2	0.0201501	0.108353269	2.426884	7.21E-06
ANGPTL6	0.0873161	0.217303103	1.315389	2.43E-27
AC104212.1	0.8417653	0.069388148	-3.60066	3.22E-39
SDHDP6	0.6793841	0.255864691	-1.40885	1.87E-12
FCGR1B	0.1400495	0.288228008	1.041274	1.33E-19
AC004816.1	1.2104243	3.239153514	1.420104	2.93E-33
RBPMS-AS1	2.2208167	0.569305173	-1.96382	1.30E-52
AC015849.1	0.0573706	0.133874804	1.222501	3.35E-07
AC044784.1	0.1449467	14.4947836	6.643868	3.88E-23
CENPM	0.8113926	5.303228019	2.708399	4.32E-57
KLRG2	0.9520722	3.115584992	1.71036	2.71E-08
LINC00884	0.3504263	0.751540036	1.100739	2.80E-14
SYN2	3.12044	0.492884641	-2.66243	7.92E-59
SNORD104	4.1150941	13.61096559	1.725772	3.61E-12
AL591468.1	0.0244511	0.219973602	3.169357	4.73E-19
CABP7	0.0486214	0.246138153	2.339805	2.60E-18
PLXNA3	3.024659	6.598443364	1.125353	1.72E-42
AC084855.1	0.2894409	0.099694591	-1.53768	1.86E-23
HS3ST4	1.4322484	0.18785261	-2.93061	2.17E-44
GAS1	25.281868	10.25775176	-1.30139	4.75E-44
CBS	0.0349483	0.133349016	1.931915	6.21E-07
AP001542.1	0.150097	1.453827396	3.275889	1.34E-44
RHBDD3	4.0086937	8.138026979	1.021547	4.42E-33
SAMD14	0.0879396	0.33099899	1.912241	1.10E-52
IL19	0.0104826	0.4234431	5.336102	6.92E-28

WT1	0.0621694	1.391170452	4.48395	5.83E-31
ABCA10	2.6397769	0.273231366	-3.27222	3.45E-64
MIF	13.073339	37.85592565	1.533891	3.10E-32
ABCC13	0.0089006	0.429043847	5.591082	1.29E-08
OLFML2A	14.554975	6.901181355	-1.0766	7.13E-47
IGHV1-45	3.5927785	1.614640588	-1.15389	5.15E-11
AL138720.1	0.1052735	0.373643978	1.827522	1.09E-30
LGALS8-AS1	0.0884381	0.462800961	2.387652	1.40E-40
KLKP1	0.0186853	0.165087928	3.143257	5.08E-29
SNHG26	1.6386486	0.385036945	-2.08944	1.80E-51
SCN9A	0.4882344	0.109816976	-2.15247	1.18E-50
AC008687.3	0.4495223	0.094456291	-2.25067	2.31E-25
RBP2	0.1700815	0.611293687	1.84564	0.000822
ANAPC11	7.790668	17.62411943	1.177732	1.44E-39
AC068473.4	0.0325998	0.232831446	2.836352	9.44E-34
LMOD1	39.225697	6.362001307	-2.62425	3.04E-65
SEMA3F	10.801112	23.41394908	1.116188	2.11E-28
FBXL6	2.6285016	8.62190773	1.713767	2.12E-51
NTHL1	3.4391954	8.033441324	1.223947	2.86E-29
LINCR-0001	0.8978785	0.330354955	-1.4425	2.77E-26
PROKR1	0.3335237	0.097940275	-1.76782	6.40E-50
ATG9B	0.18478	0.596885103	1.691645	1.06E-23
KLC2	3.9810207	8.181107844	1.039158	4.84E-38
DNAAF3	0.2441255	1.26459394	2.372979	3.73E-27
EPS8	19.157029	9.459229384	-1.01808	9.94E-44
GBE1	16.162791	6.236196052	-1.37394	1.42E-33
CPED1	10.568833	1.610300608	-2.71441	3.53E-51
WHAMMP3	0.6425822	0.252650239	-1.34674	8.45E-48
SMIM10	6.0841177	2.216706029	-1.45663	4.80E-53
IBSP	0.0169507	3.811182093	7.812748	2.04E-61
CCR7	1.1696272	3.576487739	1.612495	6.10E-09
AL139351.1	0.0304615	0.234113	2.942148	9.99E-19
GDF9	0.3588089	2.835398323	2.982264	0.042265
MMP27	0.6569859	0.124053785	-2.4049	9.66E-50
LINC02028	0.0524875	0.108749118	1.050958	2.50E-07
LINC01352	0.8803922	0.262244216	-1.74724	5.11E-40
MUC2	0.0095479	3.885908173	8.668856	2.13E-15
CFL1	76.126141	152.2741456	1.000207	4.75E-50
C1QTNF9	1.0563021	0.091312182	-3.53207	2.74E-65
AL023803.1	0.1558385	0.471823878	1.598196	8.87E-14
SLC20A1	7.083173	15.36582618	1.117258	2.16E-51
AL645608.7	0.4873628	1.079581677	1.147404	0.000424
KLF2P1	0.3279604	0.739144159	1.172334	0.007741
LINC01929	0.0549043	0.667353191	3.603458	1.03E-39
DNAJC12	5.7939878	23.01844463	1.990162	2.07E-10
RNF223	0.7281596	2.031693365	1.480356	5.66E-19
AC005544.1	0.1272117	0.412041724	1.695559	3.70E-08
EIF1B-AS1	0.3607526	0.176168356	-1.03406	9.97E-53
EPDR1	12.992623	4.06977363	-1.67467	9.98E-47

TPO	0.9907027	0.366613333	-1.43419	1.00E-40
TRAV30	0.1056086	0.218138945	1.04652	0.002191
PARP1	18.678286	43.03269748	1.204071	7.12E-56
STIL	0.651703	2.668981152	2.034003	1.97E-48
AL356653.1	0.0647234	0.146946361	1.182929	1.13E-12
SKA1	0.3100182	3.039131284	3.293234	4.82E-59
MIR4801	0.6307707	0.047883188	-3.71952	2.09E-35
AL022344.2	0.2558448	0.122816007	-1.05877	1.14E-29
AC010300.1	0.1705955	0.357031056	1.06547	0.00818
AKAP12	24.019616	4.137998877	-2.53721	2.96E-52
HLA-DQB2	4.5684808	9.826563	1.104972	2.57E-07
AL031985.3	0.8778527	1.919000171	1.128304	1.80E-34
AC104109.2	0.3838842	0.784698164	1.031467	3.15E-19
PDIA4	38.299118	83.67116892	1.127419	2.39E-47
TIFAB	0.064536	0.171673665	1.411492	1.53E-06
ST6GAL2	0.7470573	1.676658862	1.166298	3.15E-11
LINC00243	0.1058394	0.375030687	1.825132	7.53E-19
BICDL1	0.7707868	4.849409001	2.653405	1.13E-57
VLDLR	7.4086497	2.398705064	-1.62695	9.38E-40
FUT8	6.0423893	12.15753925	1.00866	3.24E-18
AC104407.1	2.6395303	0.242342791	-3.44516	8.43E-60
RYR3	0.6810019	0.13997023	-2.28254	1.13E-57
HIST1H2AE	4.1282239	13.469299	1.706082	7.26E-27
LRFN2	0.0494099	0.314727563	2.671231	7.03E-31
GFRA2	0.9217695	0.231777079	-1.99167	2.46E-46
RNA5SP108	0.2276418	0.480738777	1.078488	9.66E-10
RDH5	5.5380088	0.334760397	-4.04817	1.36E-57
CYP4F23P	1.2470712	4.889228857	1.971063	1.30E-12
AC092919.1	0.0621029	0.146881822	1.241923	0.016035
CHRDL1	85.204884	4.483446055	-4.24826	5.51E-62
MZT2B	15.938761	39.0841916	1.294046	2.82E-25
AC069499.2	0.0206791	0.122294864	2.564116	2.65E-19
FGF12-AS3	0.2603032	0.104893056	-1.31127	4.03E-18
AL121790.2	0.3040538	1.099248767	1.854119	0.002046
IDH2	34.93088	85.28995276	1.287873	2.60E-38
GABRA3	0.0122195	0.280478052	4.520627	0.002358
AL590233.1	0.0352528	0.12759658	1.855782	0.003697
AC092119.2	0.3211529	0.6999364	1.123964	1.27E-16
OR2I1P	1.4231336	5.030077789	1.82151	6.50E-05
USP32P1	0.2447226	0.118341292	-1.04819	9.32E-17
FBN2	0.1347162	1.066181304	2.984458	5.99E-34
GRTP1	3.5862232	7.435860324	1.052034	1.41E-27
AP000866.2	0.4702888	0.211451961	-1.15322	2.40E-37
PDE3B	7.3405135	0.634938292	-3.53119	6.92E-37
FCRLA	0.3022267	0.685812992	1.182184	0.003191
CARD17	0.047754	0.383490244	3.005496	2.76E-16
Z84723.1	0.0547821	0.11003119	1.006136	6.54E-09
ATP13A4	2.6856093	1.166842723	-1.20264	1.18E-13
THBD	15.634605	7.519158704	-1.0561	1.75E-28

RUNDC3A	0.1241943	1.071469609	3.108921	0.024987
ATP6V0C	13.292272	26.80612232	1.011975	2.93E-43
AL161668.4	0.5807097	0.122342725	-2.24689	7.16E-52
AL662844.4	1.4129019	0.605288362	-1.22297	4.94E-45
ARHGEF28	2.9435807	1.369874092	-1.10353	9.22E-46
AC025580.2	0.1513013	0.341496446	1.174446	8.54E-07
AC122710.3	0.0289177	0.110640721	1.935856	1.84E-15
LBX2-AS1	2.2871168	4.579644749	1.001706	8.72E-20
INSM1	0.0737593	2.891485908	5.292842	9.61E-13
CDKN2D	3.2728436	7.656394981	1.226121	3.73E-36
AL391845.2	0.0211593	0.13029554	2.622422	5.28E-49
CLDN9	0.1366439	0.885901503	2.696726	6.69E-21
AC013724.1	0.0327599	0.285991746	3.125972	0.000108
GPAT3	4.2524593	1.39651639	-1.60646	6.73E-39
AL391421.1	0.3852828	2.864509996	2.894299	3.46E-12
KCNK1	2.4871339	8.915285713	1.841797	6.77E-16
PRSS2	0.1304758	2.817546025	4.432585	8.55E-07
AC006946.2	1.0379163	0.513857873	-1.01425	7.18E-23
IER3	36.960204	87.33311362	1.240556	2.92E-18
FGF7	4.88869	1.538569295	-1.66786	3.31E-46
LINC01213	0.1432485	0.507769953	1.825655	1.16E-14
PLAUR	2.8391186	9.175213228	1.692299	1.16E-41
CDH13	4.5493858	1.751186794	-1.37734	5.38E-50
INSYN1	0.3781098	0.942849385	1.318222	0.007238
CASP17P	1.5551965	0.498598379	-1.64115	3.04E-54
HOXC10	3.4495895	18.32848072	2.409591	1.72E-20
NKPD1	0.4018444	0.188066072	-1.0954	4.07E-16
AC021016.3	0.0636001	0.148974383	1.227964	4.08E-08
LINC01644	0.084029	1.05150363	3.645423	1.95E-13
HIST2H2BF	0.1948344	1.235335876	2.664583	2.59E-24
KAZALD1	1.6250884	4.785637393	1.558193	3.78E-12
AC093535.1	0.8610843	0.237662406	-1.85724	4.85E-32
AL162171.1	1.041245	0.441291602	-1.23851	9.81E-37
SGO2	0.9545509	2.453048706	1.361682	3.00E-41
A2M-AS1	1.4157667	0.588914361	-1.26545	2.18E-47
RPL15P21	0.3189693	0.081928976	-1.96097	8.04E-32
AC005757.1	0.0387963	0.113663607	1.550781	0.010113
SFTA2	0.5150003	0.199998595	-1.36458	0.002742
AL133373.2	0.0819088	0.172838727	1.077337	0.036363
TRBV6-6	0.220864	0.492516855	1.157015	0.000284
BCAS4	1.2037689	4.632501	1.944233	3.58E-39
AC012213.1	0.0225414	0.357644643	3.987876	0.000214
HPSE2	2.3408135	0.246066472	-3.24989	7.69E-60
CD177	0.1290956	4.015133352	4.958936	6.21E-14
PI16	48.040981	4.094553535	-3.55249	9.12E-52
KRT19	206.83716	721.2535638	1.802011	3.23E-36
PROS1	19.357224	5.069014013	-1.9331	1.97E-61
SATB1	3.9474883	1.915744696	-1.04303	4.01E-39
PAK1	8.2879607	17.80532036	1.103219	4.87E-17

PYGL	31.921619	14.9033213	-1.0989	2.05E-12
LINC00968	1.8755139	0.148318609	-3.66051	1.48E-55
KRT19P1	0.1589153	0.490387503	1.625664	3.48E-20
LINC00589	0.1034427	0.259312775	1.325861	6.65E-08
ENO2	4.3896902	12.24910462	1.480485	1.53E-15
C8G	0.2568138	0.697943916	1.442389	9.02E-14
CACNA1G	0.3729024	0.15746415	-1.24377	1.56E-19
AC025035.1	0.2683571	0.13140907	-1.03009	5.69E-20
PTCH1	1.4197477	0.546522699	-1.37728	7.98E-48
THSD7A	1.2836251	0.562446086	-1.19044	1.51E-34
OR7E126P	0.0992906	0.217485092	1.131187	1.20E-06
HMGN2P30	0.0413696	0.241424118	2.544927	0.003105
ENKUR	0.0668708	0.197440691	1.56197	5.94E-09
AL117335.1	0.6993818	0.261594154	-1.41875	7.11E-42
GAPDHP63	0.1017719	0.235422685	1.209914	2.10E-16
NUDT7	3.176039	1.206239218	-1.39671	5.29E-56
GIMAP8	11.528156	3.340290456	-1.78712	1.50E-54
MRPL24	25.748377	54.67634997	1.086435	4.07E-40
FUT7	0.0755339	0.305812192	2.017449	5.63E-27
C14orf180	7.73638	0.264042085	-4.87282	5.48E-53
MEX3A	2.3231229	8.903273573	1.93827	3.32E-23
ZPLD1	0.0721582	0.699899724	3.277912	0.000527
ORC6	0.3580554	1.964703818	2.456057	5.92E-47
CTNND2	1.2524474	2.570166228	1.037112	0.007966
SPATC1	0.0614122	0.167493906	1.447511	3.95E-20
RCOR2	0.4979097	2.46367761	2.306858	2.31E-15
WDR62	0.2907499	1.503021939	2.370016	4.28E-60
ABLIM1	34.024876	12.81740171	-1.40849	6.55E-58
DENND1B	2.1388393	4.839523054	1.178037	1.16E-11
GPC3	56.633879	10.53445925	-2.42655	2.86E-56
CDC14B	4.1043663	1.21449629	-1.7568	2.04E-60
RND3	35.546368	13.50829155	-1.39586	1.70E-45
IFITM1	86.949174	194.4366346	1.161056	1.09E-10
SIX2	0.7850908	4.445282179	2.501343	6.44E-19
AL365356.4	0.0860767	0.274130306	1.671167	0.001213
PARAL1	1.6575319	0.098851668	-4.06763	6.24E-40
LMTK3	1.0893725	2.553963702	1.229241	5.05E-14
MRC1	9.2672345	2.891180152	-1.68048	3.90E-32
AC093799.1	1.112252	0.484695366	-1.19833	9.58E-39
AURKA	1.1173679	9.4587915	3.081552	2.08E-62
PTPRQ	0.434508	0.138191108	-1.65272	5.21E-38
AL356417.2	0.1894163	0.993780465	2.391367	4.18E-28
GRIK1-AS1	1.7196013	0.547047069	-1.65234	6.27E-22
SH3BGRL2	15.602085	4.193759324	-1.89542	4.07E-62
CETP	3.157774	0.767262914	-2.04112	5.24E-07
AL450344.3	0.2080086	0.093893356	-1.14755	3.58E-30
TEX19	0.0077111	0.218131745	4.822117	6.81E-33
CEBPB-AS1	0.8731806	0.428425818	-1.02723	3.63E-44
FBP1	24.977896	53.01145865	1.085652	1.32E-14

KRT17P3	0.4272196	0.177278301	-1.26896	1.47E-19
AC125611.2	0.0398795	0.141784454	1.829981	9.43E-19
AL121832.3	0.1034996	0.263264485	1.346887	3.26E-23
LINC01485	1.9746396	0.151280249	-3.70629	2.15E-46
CCDC152	1.5633709	0.580734646	-1.42871	1.14E-50
MAFF	10.453528	3.840832738	-1.4445	1.36E-36
ATAD3A	3.7109659	7.5370366	1.022203	1.86E-26
SLC1A7	0.6540401	0.216387941	-1.59576	5.69E-31
PPIAP36	0.0538697	0.129192851	1.261981	0.033268
PSENEN	16.194188	35.29316119	1.123913	2.04E-49
AL359979.2	0.0532672	0.151446382	1.507488	9.38E-10
PLA2G10	0.1764739	0.607819302	1.784187	4.25E-13
KRT18P11	0.0582443	0.208435601	1.839412	1.09E-28
P2RY10	0.7108153	1.696375091	1.254909	9.30E-06
DES	46.180196	3.359346538	-3.78102	2.35E-39
PIMREG	0.3670453	2.868812206	2.966424	1.24E-54
TPX2	2.0515359	23.49216592	3.517403	2.96E-62
AIFM3	0.1674527	0.407726403	1.283848	1.07E-20
PANX2	0.6149385	1.995162226	1.697992	6.24E-14
RECQL4	1.1397516	7.450144369	2.708549	7.36E-58
PPP2R2C	0.246231	2.730855981	3.471269	2.47E-13
IER5L	2.222612	7.22794335	1.701329	2.58E-41
STRA6	0.6149397	1.361511451	1.146692	1.33E-25
APOA1	0.0608629	0.780806161	3.68133	3.86E-09
LINC01697	1.2651716	0.07867892	-4.00721	1.97E-61
MRGBP	4.3510189	8.847644791	1.02394	2.55E-45
LINC02574	0.0456751	0.150348401	1.71883	2.11E-09
COX6C	29.394679	205.1376995	2.802966	1.10E-48
IER3-AS1	0.2457762	0.648441913	1.399632	4.70E-26
ATG12P2	0.0429471	0.189990408	2.145295	0.002207
NDUFAF4P3	0.8536984	0.293089724	-1.54238	1.02E-36
HIST1H2BD	8.6934653	52.68212878	2.59931	3.28E-46
SLC38A5	0.7348677	2.383154257	1.697316	9.32E-23
FNDC4	9.0086551	3.491090051	-1.36763	9.04E-42
KCNB1	2.3882523	0.360646352	-2.7273	3.56E-57
MIR27A	2.7131246	0.51438175	-2.39904	1.81E-41
C21orf58	0.6260764	1.992311634	1.670033	1.02E-45
PRB3	0.0501312	0.198320961	1.984057	2.12E-05
RN7SL396P	0.0344245	0.880277311	4.676452	1.98E-08
RAC3	5.7019035	14.42341081	1.338897	1.14E-28
TRPM6	0.3756972	0.112299463	-1.74222	1.23E-47
DSCC1	1.627869	4.566124008	1.487985	1.05E-29
TMEM145	0.136566	1.809743287	3.728114	2.06E-33
FAM3D	5.9445394	2.100418291	-1.50089	1.72E-30
KLK2	0.3635452	0.136811293	-1.40995	4.84E-05
OAS1	5.755093	15.98946767	1.474211	1.92E-19
VLDLR-AS1	0.5871944	0.161888921	-1.85883	2.21E-37
AC048382.5	0.970806	0.266656835	-1.8642	5.44E-53
PRIMA1	3.5158966	1.046132492	-1.74883	4.47E-49

SERPINA11	3.682162	10.79766243	1.552094	0.020025
AC027018.1	0.0179361	0.169493762	3.240291	0.005702
GYPE	0.3297017	0.141839953	-1.2169	1.08E-25
AC015818.2	0.0460652	0.156688966	1.766155	4.44E-08
PTGIS	17.849632	4.76754094	-1.90458	1.73E-38
ALPL	18.466084	7.69099115	-1.26364	3.81E-39
ZNF106	18.761925	7.224424261	-1.37685	1.33E-46
AL359878.2	0.1058624	0.226612332	1.098037	0.000134
AL137002.1	0.1241583	0.285573793	1.201683	6.98E-07
MYPN	0.7583633	0.101690876	-2.8987	0.001001
AC104393.1	0.2676183	0.095379531	-1.48842	3.77E-27
CLIC2	10.618684	4.526367756	-1.23018	5.61E-42
SPP1	25.401689	121.342239	2.256086	3.48E-27
RN7SL3	0.2079958	79.72729776	8.582375	2.24E-14
AP001207.2	0.0264122	0.126555933	2.260498	0.030604
GAPDHP40	0.1026689	0.221092905	1.106654	6.18E-15
FAM83E	1.5545791	5.504018569	1.823961	5.23E-08
TACC1	24.276599	7.476038371	-1.69922	5.93E-50
ZCCHC24	22.121724	8.184668852	-1.43447	7.94E-45
LRRN3	2.7674524	0.687968739	-2.00814	8.35E-47
KIF25	0.6134312	0.173098352	-1.82531	9.49E-29
ADRA2A	15.913365	6.340400479	-1.32759	1.43E-34
TNIP3	0.0539635	0.230575229	2.095183	9.15E-09
CXCR2	0.5799882	0.155572708	-1.89843	3.42E-44
CDC6	0.8398086	6.323207052	2.912524	1.52E-53
AL355987.5	0.131069	0.27092679	1.047576	3.93E-10
AF178030.1	0.1176567	2.024602195	4.104983	2.05E-07
LAGE3	8.5504376	32.9299225	1.945329	4.67E-56
SCARA5	24.817477	0.82936451	-4.90321	3.16E-66
HES6	0.675302	4.94352722	2.871936	1.87E-51
RAB11FIP4	1.7008609	3.690198249	1.117433	9.27E-26
AC040169.1	0.9061133	1.849748791	1.029566	2.95E-06
SLC22A3	3.7306499	0.591263223	-2.65755	3.17E-55
CHAF1B	1.8236572	4.625048038	1.342634	6.52E-39
IL24	0.8989612	2.222458718	1.305826	3.11E-13
GSTM2	4.6684626	2.058743217	-1.18118	1.75E-37
U47924.1	0.0805682	0.30793938	1.934363	6.74E-23
APOBEC3A	0.2130073	0.635875249	1.577841	0.000693
AC243562.2	1.6799442	0.404430964	-2.05445	2.31E-47
LRRC46	0.5454583	2.247641609	2.042871	1.62E-27
RF01518	0.0238162	0.113320854	2.2504	3.67E-05
COL24A1	0.1271375	0.353747968	1.476332	2.88E-31
AC068987.4	0.6820058	0.332620581	-1.03591	7.31E-38
FAP	2.1183317	6.821208513	1.687099	2.92E-30
AL136115.2	0.1788842	0.461624785	1.367695	2.29E-06
PRLH	0.0360299	0.318043335	3.141957	3.87E-16
TRPS1	22.619358	50.74118569	1.165599	2.62E-18
WNT7B	1.4322691	4.767263575	1.734859	2.30E-20
GZMK	1.4927795	4.117611548	1.463807	7.72E-06

AL139128.1	0.05111	0.156805244	1.617295	5.02E-15
ADAMTS9-AS1	0.7061888	0.131005517	-2.43043	2.82E-55
AC100791.2	0.0300339	0.147640893	2.297426	0.000201
RETN	0.1320085	0.339794822	1.364033	1.53E-05
AL137060.1	0.0409972	0.143495156	1.807404	6.07E-36
AC020663.2	0.2194529	0.885031421	2.011818	2.25E-36
RN7SL221P	0.1618847	0.37984448	1.230442	1.64E-08
SLC12A3	0.042752	0.106945076	1.322807	4.63E-05
AC023137.1	0.1955656	0.416631325	1.091119	3.32E-06
AP000696.1	0.0195475	0.389501372	4.316574	5.52E-19
NME8	0.1147045	0.240694342	1.06928	5.38E-07
SLC11A1	0.3463436	0.919254735	1.408261	3.64E-28
PRXL2A	38.584023	18.35979919	-1.07145	1.20E-19
LINC02348	0.0561102	0.156448376	1.479352	5.21E-06
CENPK	0.3990985	1.4241022	1.835236	7.40E-46
CDSN	0.0495348	0.312590004	2.657758	0.000735
HMGA1	22.630234	63.7077048	1.493216	1.86E-37
AC004241.5	0.2470444	0.114613858	-1.10799	3.47E-36
AC010207.1	0.3865836	0.099384716	-1.95968	2.43E-46
MIR125B1	0.4928984	0.140403823	-1.81171	9.27E-25
SORD	3.3878598	10.6149851	1.647656	1.49E-33
FABP4	1080.4272	41.99006033	-4.68541	7.33E-58
ERMN	0.090157	0.4956937	2.458938	1.06E-29
PALM	17.124253	7.210232157	-1.24792	2.78E-23
SEC61G	15.905038	33.12147582	1.058283	6.84E-44
SCARNA22	0.0885091	0.590841877	2.738874	1.25E-11
AC004816.2	0.4571294	0.202664818	-1.17351	5.86E-28
AC009163.6	0.6015545	0.288204203	-1.0616	3.86E-43
AL139132.1	0.0865978	0.245023061	1.500516	3.52E-06
VAV3-AS1	0.0528712	0.173422758	1.713738	9.80E-05
DLK2	2.9242724	0.858594723	-1.76803	7.02E-29
HSD3BP2	3.1047564	0.766691591	-2.01776	1.82E-22
AC096637.2	0.0261299	0.191590484	2.874251	1.20E-40
CASP12	0.4058938	0.091032361	-2.15665	6.78E-56
BRIP1	0.3763238	1.639493729	2.123204	1.05E-42
SAMD4A	4.0406633	1.373579044	-1.55665	3.90E-49
SPX	10.858592	0.341696658	-4.98998	1.95E-51
HNRNPA3P11	0.047538	0.142599542	1.584818	0.033694
DHTKD1	7.7352754	15.88818035	1.038429	1.33E-34
SYNM	68.08804	8.009806299	-3.08756	2.70E-60
LINC01060	0.3165553	0.12047683	-1.3937	1.28E-21
AC092484.1	0.0162669	0.248398051	3.932642	8.61E-15
AL359532.1	0.5553093	0.190738952	-1.54169	1.41E-37
S100A16	65.093545	143.6522775	1.141994	1.67E-20
XKR7	0.0064554	0.184739642	4.838849	0.000434
KRT5	211.0578	58.02757608	-1.86283	2.46E-32
TNXB	17.576133	1.167455255	-3.91218	1.61E-62
DNAJB4	13.839222	5.215840589	-1.40779	3.61E-55
TMC5	4.516897	9.722461961	1.10599	0.004824

C19orf33	4.7493324	30.26909488	2.672049	1.15E-11
MOCS1	12.170927	2.994775742	-2.02292	1.71E-56
AC087623.2	0.2694638	0.552003842	1.034587	3.28E-05
AL391058.1	0.1219905	0.261279894	1.098828	1.09E-12
PCOLCE2	34.529011	1.636432065	-4.39918	4.93E-51
DPT	220.94865	21.74672467	-3.34484	1.61E-50
NMRAL1	7.8258194	16.75891778	1.098615	1.41E-41
AF015262.1	0.0168593	0.255377081	3.921013	4.29E-19
TIGD3	0.1410842	0.553888611	1.973039	2.07E-41
ATP2C2	1.2731658	2.839634531	1.157285	7.97E-14
SLC5A1	6.8799764	3.065847965	-1.16612	2.04E-17
MLPH	17.319283	47.95611713	1.469336	1.60E-19
HSPA6	1.2708676	3.929409035	1.628499	2.23E-24
AP000811.1	0.736291	0.285566649	-1.36645	1.97E-35
AC096537.1	0.1505591	0.354786981	1.236624	8.24E-15
COLGALT2	0.6539489	0.305744244	-1.09685	4.89E-38
OCIAD2	9.0941719	18.28562226	1.007696	6.08E-37
DGCR9	0.0819582	0.195509923	1.254281	0.00505
AC137932.2	0.0410425	0.135225801	1.72018	5.17E-31
AL354707.1	0.5456323	1.132430115	1.053421	4.97E-09
MSMB	3.1016432	49.32641941	3.991256	3.55E-07
AL121899.1	0.2482234	0.604070748	1.283078	5.33E-06
TNFSF4	0.5677785	2.127578041	1.905812	7.25E-42
GCNT4	1.5629223	0.772093512	-1.0174	2.64E-33
RYR1	2.3239751	0.548098085	-2.08409	4.40E-24
HSD17B7	1.6606609	3.869046822	1.220221	8.07E-42
NR5A2	1.4785294	0.594219332	-1.3151	2.37E-45
GFOD1	3.2016537	1.588495431	-1.01116	2.01E-34
C9orf106	0.0924755	0.292486514	1.661227	5.96E-12
TJP3	4.8137542	14.94489016	1.634418	3.32E-37
P2RX5	0.1574664	0.406922908	1.369711	5.45E-10
PLCH2	2.0116137	0.781130454	-1.36472	1.88E-21
SMPD5	0.0451378	0.141945288	1.652928	1.37E-21
TMEM215	0.0092441	0.155300694	4.070392	4.68E-24
MANF	15.421734	32.3754848	1.069937	7.28E-49
KRT8P8	0.0722948	0.238317845	1.720924	2.19E-19
B3GALT1	0.7338404	0.081178567	-3.1763	1.64E-55
AC093063.1	0.0254725	0.321123065	3.656114	1.18E-19
CFAP45	0.4030722	2.523490018	2.64631	5.37E-45
STAM-AS1	0.0765603	0.157842664	1.043818	3.42E-18
TRIB3	4.8848968	14.7233289	1.591704	4.41E-44
AL445483.1	0.1913915	0.532935147	1.477433	3.01E-05
AVPR1A	3.2769708	1.138434991	-1.52531	5.57E-40
MYMX	4.9040074	0.500238582	-3.29327	1.74E-40
HIST1H1T	0.0105858	0.154345315	3.865956	8.73E-23
PMEL	2.1970265	0.91311078	-1.26669	0.00022
LINC02391	0.7218705	0.217982542	-1.72753	2.76E-36
MELK	0.6161691	7.341408129	3.574659	2.16E-60
AL139260.1	1.9502309	0.582348277	-1.74369	3.18E-27

CST5	0.0695405	17.01879386	7.935059	1.20E-16
SYCE3	0.5908052	2.092847249	1.824713	2.22E-20
ALYREF	17.243281	40.68288544	1.238388	5.54E-39
LAMTOR2	17.291979	44.86187072	1.375387	2.94E-51
AL163051.1	0.2629219	0.558013919	1.085667	1.19E-22
EPHA10	0.4373915	1.090339394	1.31778	7.14E-21
CHST7	2.7419162	1.324420378	-1.04982	6.36E-43
ANTXR2	12.37229	3.867777515	-1.67754	2.79E-49
ACVRL1	9.7300538	4.78758255	-1.02315	5.71E-34
PCDHB15	1.1482506	0.518820904	-1.14613	3.49E-46
MARCKSL1	90.781015	234.4508286	1.368823	1.30E-43
MT1H	0.104294	0.817130882	2.96991	3.73E-09
KLB	7.2462659	0.323616309	-4.48488	1.80E-50
C11orf96	11.008621	5.219295766	-1.07671	4.78E-13
LRRC39	1.5410365	0.493820011	-1.64184	0.000687
BX255925.1	0.0854773	0.179004024	1.066378	1.39E-13
AC136628.3	4.3227122	1.958478947	-1.1422	4.09E-42
DMRT3	0.9571499	0.429308356	-1.15673	1.46E-25
SLC35F3	2.4521409	0.989838915	-1.30878	3.15E-25
AP003032.1	0.6553966	0.225230119	-1.54097	1.89E-24
DIO1	0.5292561	5.749179713	3.441318	4.06E-09
PPIAP65	0.0398734	0.128346104	1.68654	2.55E-12
CORIN	0.2071706	0.703250742	1.76322	5.19E-25
AC009121.1	0.0368381	0.150341271	2.028969	4.45E-28
NMB	18.045638	5.290778843	-1.7701	9.36E-33
AL031118.1	0.3503037	0.146537926	-1.25733	5.35E-45
IL2RB	2.4782171	5.17692567	1.062793	0.018415
PKNOX2	0.4658528	0.203664884	-1.19368	8.58E-40
CRISP3	2.2172058	31.19442128	3.814473	0.021638
SYNGR3	0.1127534	0.981502631	3.121821	1.33E-46
ABRA	0.9585118	0.021667698	-5.46718	2.74E-19
TIPARP	19.262526	8.397202223	-1.19782	2.56E-30
AKAP6	0.789058	0.202339002	-1.96336	4.46E-50
NME1	5.9470146	21.67402559	1.86573	1.94E-56
EIF4E1B	0.0057274	0.123391861	4.429221	1.52E-06
IGSF10	3.8357634	0.543170431	-2.82004	2.96E-60
PPM1E	0.107763	0.530747462	2.300163	5.42E-06
SCN7A	1.1751964	0.380744433	-1.62601	3.97E-36
AL021368.2	0.665598	0.247979283	-1.42443	2.72E-45
SLC34A3	0.0541019	0.191167545	1.821087	3.49E-17
AL109741.1	1.6846101	0.450041379	-1.90429	1.10E-46
LINC01010	0.3208536	0.101547293	-1.65976	0.030721
APCDD1L	5.7624923	1.504435504	-1.93747	1.20E-33
SPAAR	3.0033771	0.964878992	-1.63817	4.03E-50
AC027698.1	0.0419531	0.260429626	2.634043	0.001255
CST1	0.1393704	15.78413295	6.823407	2.18E-51
Z98257.1	0.0355381	0.195847438	2.46229	3.22E-06
PPARA	3.2522042	1.317925174	-1.30315	1.37E-46
LRRC14B	0.3210063	0.69316572	1.110598	2.04E-05

REPS2	2.5546154	7.174858378	1.489844	1.48E-06
LINC00844	1.335806	0.230798209	-2.53301	3.93E-57
TMEM35A	1.0098514	0.366496733	-1.46227	6.66E-42
HS1BP3-IT1	0.3172339	0.128416585	-1.30472	5.65E-29
PCP2	1.5382583	4.871203549	1.662981	2.55E-10
AC017002.1	0.0377243	0.142098589	1.913328	0.001983
AL031777.1	0.3177293	3.124110391	3.297575	2.75E-36
NKAIN4	0.0364324	0.158643065	2.12249	8.06E-08
MTND5P1	0.2128684	0.104738963	-1.02316	3.62E-23
AC104076.1	0.1866929	0.091263353	-1.03256	5.43E-21
MMD	39.007214	6.231435592	-2.6461	3.22E-34
BATF	6.585383	14.69375171	1.157864	2.02E-19
ZNF192P1	0.4845992	0.228938703	-1.08183	1.03E-34
SLC7A3	2.2051542	0.260651144	-3.08069	3.77E-38
AL353803.5	0.1983868	0.738811527	1.89689	6.85E-15
EMID1	1.1961588	2.542351656	1.087755	1.93E-05
VEGFD	15.557416	0.551037377	-4.81931	1.76E-67
AC092376.2	0.6653742	0.159987657	-2.05621	7.57E-63
CDC25A	0.5152681	2.208712216	2.09981	1.31E-41
GEM	24.762271	12.13396083	-1.02909	7.90E-28
RN7SL569P	0.0304169	0.110833423	1.865448	1.64E-06
NR4A3	4.7927368	1.194828588	-2.00405	9.69E-23
MYOZ2	0.9923089	0.074383989	-3.73773	6.11E-45
RN7SKP269	0.0978843	0.221983907	1.181306	1.16E-05
LINC01235	5.6263593	1.997095634	-1.4943	1.22E-30
AC084866.1	1.4724462	0.087736048	-4.0689	2.95E-17
HAP1	0.703872	0.213800044	-1.71905	2.65E-24
AC036214.3	0.0864823	0.229485084	1.407924	2.23E-25
HHIPL2	0.1164975	1.018955666	3.128721	9.90E-14
C1orf35	2.6636378	6.020131084	1.176397	8.03E-39
ASCL4	0.0156078	0.113476322	2.862054	8.08E-05
MYLK4	0.5642828	0.268742672	-1.07019	3.40E-31
VIM	463.71297	185.1323084	-1.32468	5.85E-40
AL845331.2	2.5586948	0.079827516	-5.00238	4.60E-45
AC122713.2	0.7534689	0.271546053	-1.47235	4.45E-05
LINC00518	0.0150826	0.240292026	3.993833	0.002596
AC005041.2	0.0446042	0.11367362	1.349645	0.001244
MMP13	0.1711511	11.60164102	6.082915	2.76E-57
AP005131.3	0.0884343	0.778748526	3.13848	1.13E-16
PPIAP11	0.3486819	0.740776482	1.087127	5.75E-23
AC108134.4	0.7591977	2.060590889	1.440511	4.07E-18
LINC01550	0.4053767	0.175863309	-1.20481	2.88E-38
TREM1	0.3457981	0.817445725	1.241193	4.17E-13
AC020765.2	0.4316177	0.872249119	1.014986	2.54E-10
C2CD2	13.448098	4.540397962	-1.56651	1.39E-39
AC106881.1	0.5111184	0.220177108	-1.21499	2.83E-32
RDM1	0.0716896	0.557144731	2.958216	4.23E-53
FAM110A	5.1579699	13.71267485	1.410635	2.31E-42
NAV2	8.8094024	3.456814826	-1.3496	2.12E-27

ARHGAP31	8.4916006	4.054195845	-1.06662	1.37E-39
DACT2	1.1187255	0.143323265	-2.96451	1.71E-57
LINC01614	0.201205	8.959927107	5.476749	1.92E-63
LAMB3	46.355468	14.84185733	-1.64307	2.13E-36
CD1A	0.1277405	0.928063218	2.861007	1.75E-10
PCLAF	0.5916555	5.525771437	3.223347	3.81E-63
TRH	0.2833963	12.96917346	5.516122	0.009447
SAMD10	2.3995504	5.31950888	1.148529	1.33E-33
MCTP2	0.9838808	0.481968261	-1.02955	6.57E-26
PLTP	67.762006	28.42552338	-1.25329	2.37E-36
AC004233.1	0.0657956	0.279828202	2.088478	1.26E-30
WDR24	2.5615607	5.161448944	1.010753	1.16E-35
HSD17B11	21.527423	8.993463116	-1.25923	7.39E-45
AC009806.1	0.8045798	0.161740625	-2.31455	1.55E-59
FAM71E1	1.1197422	2.41390417	1.108202	1.75E-17
NAT8L	14.235317	1.76312486	-3.01327	4.91E-43
OBP2A	0.2906513	0.992899876	1.772359	0.000324
LINC01359	0.3378524	0.162614293	-1.05494	1.11E-41
TNXA	0.2667151	0.553639183	1.053647	0.00173
KANK2	20.455024	9.86987945	-1.05135	1.63E-35
UBE2SP1	0.137152	0.698189142	2.347842	1.02E-37
RASL12	7.3297099	3.45071497	-1.08686	1.41E-43
AC022146.2	0.1880554	0.53370872	1.504895	2.77E-08
DLX2-DT	0.0157313	0.115745869	2.879253	7.55E-12
ADAMDEC1	0.6669293	4.244332019	2.669932	8.98E-29
PCNX1	7.4537177	3.646332126	-1.03151	6.41E-46
MIR3671	2.9204693	1.39586299	-1.06504	1.19E-26
DDIAS	0.5567523	1.754165993	1.655678	2.00E-37
AL392048.1	0.3035948	0.103822363	-1.54803	8.42E-40
DMGDH	1.6439961	0.274139492	-2.58422	5.80E-50
TACC1P1	0.0211095	0.299301824	3.825638	7.55E-06
VIL1	0.0114503	0.128875042	3.492514	1.12E-07
LIN28A	0.0097313	0.386667545	5.312317	0.005683
MRPS30	7.2878529	23.37620259	1.681475	1.35E-11
IQCD	0.6215678	1.475007422	1.246739	4.01E-30
AC007336.2	0.0554567	0.178250696	1.684473	4.82E-15
APBB1IP	9.6588525	4.350084805	-1.15081	3.68E-25
ADAMTS9	4.0043641	1.840120781	-1.12177	6.77E-42
KLHDC1	2.3905997	1.158366018	-1.04528	2.61E-41
DDX39A	6.4915045	17.96405445	1.468488	1.54E-53
KRTAP5-9	0.1142056	0.238087243	1.059857	5.43E-06
STRBP	4.2305461	8.894135544	1.07201	6.70E-45
AL138781.1	0.1157238	0.255254843	1.141253	2.90E-11
SLC7A11	0.2617905	1.146460161	2.130702	2.00E-22
SLC49A3	3.9241418	8.036606006	1.034209	2.32E-06
GHR	22.473059	2.909007955	-2.9496	7.20E-58
CDC45	0.5800826	4.092247537	2.818563	3.84E-53
COL1A1	157.20368	743.990381	2.242649	2.67E-38
CRTAC1	2.6506027	1.131909067	-1.22756	1.25E-42

SYCP2	2.6813314	6.897459835	1.363116	1.68E-12
LINC01116	2.8978658	7.475782043	1.367234	1.27E-11
AC004223.1	0.0451036	0.11579987	1.360318	0.029846
SDSL	3.5324767	7.897660619	1.160745	9.47E-30
LHFPL5	0.0192148	0.260386944	3.760367	9.47E-23
UNC13A	0.0288272	0.440560663	3.933838	1.05E-30
FOXD4	0.1027476	0.316733006	1.624163	2.60E-26
LGR6	6.91905	2.581800754	-1.4222	1.05E-25
AL353572.1	0.1416361	0.468948955	1.727242	1.29E-17
HIST1H2BM	0.0092117	0.534143279	5.857611	1.04E-20
APOBEC2	4.3042681	0.165070788	-4.70461	1.41E-21
FAM83H	8.9187008	28.68385918	1.685334	5.94E-51
BCL9	4.7977154	11.1990469	1.222956	2.41E-43
RNU5B-3P	0.9238184	0.081456847	-3.5035	2.59E-50
CST2	0.1394182	5.362215351	5.265339	5.15E-46
AC019077.1	0.0766935	0.195955791	1.353352	1.20E-15
ANKDD1B	0.2933805	0.114787052	-1.35381	7.07E-35
ADAT3	0.4344352	0.947200241	1.124528	3.05E-16
KISS1	0.0736108	0.471784651	2.680139	6.26E-20
GRM8	0.0194305	0.141923524	2.868722	4.23E-48
LONRF3	1.0380746	0.386386044	-1.4258	7.21E-41
SPOCK3	0.2906723	0.090422284	-1.68464	9.50E-30
SALRNA1	0.0649972	0.175445228	1.432572	7.93E-05
LINC01857	0.3899152	1.110117623	1.50948	1.07E-23
NKX3-2	0.0567431	0.442786267	2.964094	1.95E-35
TRIM67	0.0300658	0.154965311	2.365748	0.019127
AC015722.2	0.6638769	0.163137798	-2.02482	3.00E-47
FN1	39.335742	296.7489872	2.91533	3.58E-51
VSIG1	0.102791	0.323965668	1.656127	1.71E-10
CDK2AP2P2	0.3905638	0.784185656	1.005637	0.001384
U62317.4	0.1041121	0.659789715	2.663869	2.73E-20
UTRN	21.571168	8.168764454	-1.40091	1.51E-49
ANXA9	7.5647365	24.45749118	1.692915	9.47E-20
SNORD88A	0.1144434	0.269621033	1.236299	1.44E-05
CST4	0.0218707	7.84974664	8.487501	2.96E-44
SNORA14B	0.4166254	2.475276765	2.570767	0.000572
TBX15	7.5145343	1.822777947	-2.04354	3.56E-47
SLC44A4	7.4487499	40.95412221	2.458938	1.29E-24
AC120498.10	0.1610899	1.035716328	2.684691	8.45E-06
ZDHHC22	0.007737	0.195294007	4.657727	8.82E-07
AC061992.1	0.1913125	0.755052089	1.980645	1.97E-28
BX324167.1	0.0409826	0.277774686	2.760831	6.87E-20
MAG	0.1680141	0.470740165	1.486348	5.05E-07
AC092171.4	0.2665858	0.743778443	1.480273	4.19E-28
AL359715.2	0.5268467	0.258096149	-1.02947	8.88E-30
LGALS9B	0.0242541	0.170667779	2.814891	2.11E-06
MEOX2	11.771682	1.936223747	-2.604	7.19E-61
FIBCD1	0.2509759	0.930740343	1.89083	5.41E-17
TDO2	0.0714963	0.971704287	3.764577	3.55E-53

AC096921.2	1.5392183	0.329507855	-2.22381	5.40E-60
IGHEP1	0.0119091	0.179979692	3.917699	7.84E-13
ICOS	0.2619414	0.934059482	1.83427	6.10E-13
FGF16	0.5439308	0.219679613	-1.30802	1.55E-10
LAMC2	30.821297	11.88333641	-1.37499	1.31E-25
TMEM8A	6.9877551	17.45457428	1.320704	1.65E-52
AP000662.1	0.3042081	0.104347493	-1.54366	7.68E-48
ANO3	0.6269213	0.239545271	-1.38799	4.15E-33
TXNIP	624.60265	163.5571079	-1.93314	3.32E-59
ACSS3	3.6979037	1.713405426	-1.10984	2.99E-24
MICB	1.5281455	3.869081629	1.340209	1.02E-20
GPIHBP1	16.738289	1.599151341	-3.38777	6.70E-63
ZDBF2	1.6879254	0.759769176	-1.15162	2.91E-36
TPRN	2.1069431	8.143352115	1.950471	2.63E-48
APOB	1.0252163	0.057379849	-4.15924	5.89E-57
LINC00640	0.5793006	0.1089015	-2.41129	7.51E-49
LRFN4	2.9869811	7.6855955	1.363469	2.65E-22
NKAPL	1.2997071	0.217039358	-2.58216	4.40E-65
ABCA3	7.6117895	15.24517866	1.002045	1.23E-15
CCDC114	0.2115872	0.507446034	1.262002	1.34E-09
JPT2	22.997704	55.85513644	1.2802	6.42E-52
LINC02100	0.1296915	0.332761297	1.359404	2.46E-05
MBNL1-AS1	1.5901966	0.520825451	-1.61033	2.26E-50
HELLS	0.6183044	1.957676563	1.662753	1.03E-41
PAK4	6.6358875	15.00543282	1.177124	4.66E-39
AC015912.3	0.3735347	1.37700516	1.88222	5.41E-21
PRRT2	0.6313189	1.88312165	1.576685	3.52E-16
PLAC1	0.0307723	0.818467023	4.733219	1.01E-52
MIR4666A	0.0751293	0.609810852	3.020914	5.64E-18
AC015712.2	1.0812006	0.369354875	-1.54955	3.76E-38
NT5CP2	0.0561829	0.295548007	2.39519	5.46E-06
GPD1	164.80899	5.017797198	-5.0376	3.42E-55
HIST1H4PS1	0.1214647	0.3582934	1.560604	8.13E-08
KNSTRN	2.4532338	5.470768972	1.157059	4.78E-42
AC004522.1	0.1085525	0.342205711	1.656471	9.95E-06
SNORD99	1.7577737	4.075800806	1.213334	2.81E-16
AC097059.1	0.1698294	1.45169144	3.095576	3.44E-16
RNU5B-4P	1.3583345	0.531899447	-1.35261	3.47E-25
ANKRD53	1.7941339	0.307636066	-2.54399	1.12E-58
HS3ST3A1	0.1316731	0.49984268	1.924513	5.12E-32
MYB-AS1	0.1254289	0.334378263	1.414612	1.13E-05
SLC51B	0.9093591	0.380667014	-1.25632	1.62E-44
ISG20	1.4807166	3.155265802	1.091466	4.23E-16
HIST1H2AJ	0.0139493	0.660078662	5.564377	6.61E-31
RARRES2P1	0.2645915	0.112329139	-1.23603	2.58E-25
PLA2G4A	6.456921	2.4450016	-1.40101	1.30E-51
RSAD2	2.9113344	9.076386025	1.640437	2.21E-16
LINC00634	0.032979	0.192023224	2.541663	2.19E-28
PKMP3	1.9170618	0.72996378	-1.393	5.71E-50

AC107031.1	0.0351057	0.258002866	2.877609	5.35E-09
DHDH	0.3707486	0.964787358	1.37977	7.05E-12
CLMP	31.284122	6.425152064	-2.28363	2.41E-57
CCR4	0.4350697	1.3845918	1.670142	3.01E-21
SNORD60	0.7766984	2.506624604	1.69032	2.23E-24
RPLP0P2	0.1868399	1.147401195	2.618495	9.02E-58
JPH2	4.7057613	0.998450774	-2.23666	1.04E-46
APCDD1	16.221531	3.727500686	-2.12163	8.73E-61
FAM228A	0.4011516	0.071602841	-2.48606	1.65E-43
THSD4-AS1	0.0140083	0.305524952	4.446941	0.000259
EHBP1	11.479794	5.051824014	-1.18422	2.88E-47
PIWIL4	1.1589705	0.527799103	-1.13478	4.40E-38
PRR7	0.6290122	2.218165236	1.818207	2.12E-32
CYP21A2	0.2408127	1.157213274	2.264671	3.02E-16
SNRNP25	5.2322399	13.56018681	1.373876	7.16E-52
CHPF	17.027698	43.89648159	1.366222	2.08E-43
RGS2	69.598598	16.35439505	-2.08938	5.35E-41
AL109659.2	0.3648485	0.165009355	-1.14475	2.34E-31
PRR11	0.8730694	5.692554207	2.704908	2.59E-48
LINC00702	0.9902834	0.355567002	-1.47772	1.67E-24
PGAP3	10.289512	25.49886093	1.309258	1.25E-09
CIP2A	0.7767024	2.75553461	1.826898	3.21E-43
LINC02130	0.0891093	0.395730875	2.150872	1.81E-10
AL049838.1	1.7945194	0.814692228	-1.13927	6.08E-39
RNF157	3.0589279	1.015964709	-1.59018	1.24E-31
AL354950.1	0.3674813	0.17061827	-1.1069	6.42E-28
PDGFRA	13.547687	5.301702884	-1.35352	4.12E-48
CDC20B	0.0505768	1.812363124	5.163253	1.10E-16
AC067931.1	0.1381988	0.317948612	1.202049	1.02E-07
NTSR1	0.0295134	0.112944568	1.936173	1.34E-11
OASL	1.2381482	6.300909846	2.347376	5.51E-29
MIR3174	0.1599676	0.377559665	1.238925	0.013987
MIR205HG	19.725487	7.735521219	-1.35049	2.13E-20
AC098869.2	0.156228	0.329837445	1.078102	3.58E-07
AP001453.2	0.608618	2.130051519	1.807279	9.79E-36
RAB3C	0.6040178	0.214730009	-1.49207	3.61E-34
HOTAIR	0.4991321	3.096737064	2.633255	3.65E-17
PPIAP6	0.1095452	0.241932385	1.143078	2.43E-16
TUBB8	0.0569969	0.206720921	1.858729	6.14E-24
ITPRIPL1	2.7144396	0.5132818	-2.40283	9.54E-60
PAK5	0.9803822	0.105517427	-3.21586	2.60E-38
DNAI1	0.2723495	0.643066338	1.239508	3.30E-05
TTC16	0.0489313	0.175155124	1.839805	1.59E-25
HLA-F-AS1	0.7869602	0.379032262	-1.05397	4.29E-38
RMI1	2.8704534	6.422221902	1.161794	9.65E-42
WNT10B	0.6344528	0.287347546	-1.14272	1.71E-17
PTP4A2P2	0.1664407	0.379083266	1.187506	4.90E-24
AL133415.1	0.7892629	0.226233026	-1.8027	1.39E-37
TOX3	2.1918789	5.91661135	1.432603	4.24E-10

DSCAM-AS1	0.1755209	9.656427203	5.781775	8.76E-24
C8orf88	3.2224286	0.75910661	-2.08577	2.18E-60
TESMIN	1.8232399	6.91145414	1.922485	1.12E-38
HERC2P2	4.4717507	2.211328973	-1.01593	4.88E-30
MYBL1	0.6746463	2.87919942	2.093464	1.08E-23
CDC7	1.1917163	3.908998589	1.713758	1.22E-40
CILP2	0.3836108	4.097520161	3.417036	4.82E-55
RHOXF1-AS1	3.8271435	0.457020576	-3.06594	1.36E-57
ANKRD35	2.8873827	1.184143328	-1.28592	6.89E-46
ELAVL2	0.1223956	0.734621773	2.58545	5.26E-21
ANKRD65	6.0542429	2.663150259	-1.18481	1.05E-38
LINC01588	0.2269797	0.592410425	1.384034	2.05E-18
SV2B	0.7613014	0.21944807	-1.79459	2.90E-48
KCNA1	0.3419461	0.077623794	-2.1392	2.00E-38
CIB1	44.041223	93.01754636	1.078648	5.69E-39
PDE1B	2.5848218	0.842814094	-1.61678	1.06E-28
PDCD1	0.3234105	1.094211629	1.758453	6.20E-13
CELF3	0.0092901	0.225348864	4.600318	1.16E-22
AL049539.1	0.0704887	0.269146246	1.932927	2.50E-09
AL031008.1	0.0560184	0.168136296	1.585658	3.54E-14
PRICKLE2	6.106188	2.923752329	-1.06245	9.87E-44
AC010331.1	0.1097945	0.46282773	2.07567	4.24E-29
LIME1	0.3694263	0.962099383	1.380899	1.70E-20
POTEC	0.0026107	0.169104904	6.017342	4.84E-08
AP001528.2	6.8692438	0.857355334	-3.00219	7.61E-57
MYOC	12.974532	1.174978389	-3.46498	3.66E-63
AC244502.1	0.0731701	0.174138533	1.250908	1.53E-09
SMYD3	0.7346271	2.29453833	1.64312	9.58E-50
PTPN7	0.7595421	1.853691399	1.287199	1.51E-14
LYPLAL1-DT	0.5578659	0.21159021	-1.39865	6.49E-44
GNAI1	15.514001	3.030837799	-2.35578	1.19E-57
CIDEA	39.888745	1.528488717	-4.7058	2.68E-50
AC113146.1	0.0109863	0.168220976	3.936574	3.78E-09
RNF125	4.517358	1.850349407	-1.28768	7.60E-45
AL353693.1	1.413034	0.138472104	-3.35113	8.79E-47
CRIP1	1.265141	3.712291226	1.553012	1.08E-20
PDK4	120.48692	11.59865791	-3.37685	3.64E-58
AC068580.4	0.2076067	0.430828256	1.05326	1.85E-12
E2F5	1.3327267	2.881901763	1.11264	9.95E-27
MSTN	0.2449352	0.119919757	-1.03033	1.52E-32
PITX1	0.6710865	10.21607457	3.928198	1.57E-48
GSTT2	0.2593086	0.096098165	-1.43209	1.34E-08
AC093700.1	0.0866663	0.246283426	1.506777	8.65E-14
CAVIN1	241.9275	69.63936533	-1.7966	1.61E-59
FAM13C	1.639884	0.361091287	-2.18316	2.63E-59
AC099684.2	0.1068698	0.227851502	1.09224	0.023964
SUSD3	12.051521	49.54250914	2.039452	2.84E-12
POP7	14.845538	30.83539015	1.054558	1.53E-43
AL121832.1	0.0409683	0.141952839	1.792831	1.24E-16

HIST1H4I	3.3257339	13.07246443	1.974787	2.46E-43
TRIP13	1.1013844	6.226927215	2.499202	5.28E-55
AL121760.1	1.6073864	0.382474775	-2.07128	1.12E-38
CDO1	22.413225	2.046651597	-3.45301	3.41E-59
FNDC1	4.364858	12.19214889	1.481946	3.44E-22
WSCD2	0.7026784	0.216007388	-1.70178	6.92E-52
TF	11.979565	2.829425643	-2.08199	1.17E-52
ZBTB32	0.1483218	0.346568627	1.22441	7.51E-12
ACSM5	5.1942689	0.451142298	-3.52527	1.72E-55
PRKN	1.8894296	0.5627077	-1.74749	1.24E-59
ZNF552	9.2393922	23.91909921	1.372293	1.53E-17
THCAT158	0.6879714	0.336033135	-1.03374	1.17E-28
SCD	374.06431	141.5792117	-1.40168	1.01E-05
CORO1A	5.4720921	11.39615082	1.058382	1.11E-12
SPOCD1	0.1808976	0.81513963	2.171874	5.41E-35
PCDH9	0.5882944	0.186132451	-1.66021	3.54E-54
AL031770.1	0.0360428	0.169743615	2.235573	0.000618
RAPGEF3	4.3031864	1.399984117	-1.61999	4.38E-51
ARTN	0.2182693	1.910075531	3.129448	1.30E-41
LGR4	12.665655	5.514502121	-1.19962	1.90E-42
TUFT1	6.369229	17.47514057	1.456113	3.23E-46
AC073910.1	0.2649846	0.101000355	-1.39155	2.40E-29
C17orf51	1.0535569	0.492164569	-1.09806	2.50E-47
MCM2	4.4208062	14.75634366	1.738954	1.34E-46
AC007637.1	1.0449404	0.46639265	-1.1638	7.73E-34
NTNG2	0.0973683	0.195111805	1.002778	3.96E-18
ZNF587	3.5814483	7.202390446	1.007933	7.84E-16
GRB7	7.5420283	19.03891688	1.335927	0.000275
STAB2	0.6785486	0.08974404	-2.91856	7.84E-53
TRBV7-3	0.2358902	0.516481356	1.130601	4.85E-10
TYMP	9.3901097	32.7307525	1.801433	2.53E-39
AC092140.2	0.4492601	0.210551962	-1.09337	1.39E-22
SOX17	6.5188779	1.532270453	-2.08895	8.49E-50
SMIM29	6.0125288	13.22173685	1.136868	1.23E-41
PPP4C	19.407904	48.03711221	1.307505	4.97E-56
NLRP7	0.0318442	0.162631963	2.352508	0.021866
DEPDC1B	0.2492949	1.81070341	2.860625	3.30E-55
UHRF1	0.4778268	4.604824723	3.268586	1.69E-61
FGF14-AS2	4.6377788	1.20422017	-1.94533	3.49E-56
ZSCAN23	0.4718521	0.191046116	-1.30441	3.87E-27
CIDEC	146.23745	4.427618949	-5.04564	8.80E-54
GALNT7	8.2786322	18.9049388	1.191299	4.40E-16
MMP2-AS1	0.1489889	0.449919433	1.594462	1.33E-16
GACAT2	0.061876	0.673936927	3.445163	0.030653
SGCA	1.3765578	0.279995931	-2.29759	2.08E-32
AC007906.2	12.786578	1.711698526	-2.90113	2.86E-49
PPP1R12A-AS1	0.6094511	0.303340484	-1.00657	3.46E-33
AL133215.2	0.1752589	0.711250056	2.020869	1.46E-47
AC084083.1	0.0351039	0.109238216	1.637776	0.000279

RAD54B	0.3154829	0.883089678	1.484998	3.21E-38
TSLP	1.0680343	0.115916581	-3.2038	2.20E-65
NRG1	2.5326952	0.525006019	-2.27027	2.60E-32
PSMG3	7.7320291	16.96288536	1.133463	2.55E-42
KCNJ11	2.3969083	5.782550465	1.270531	1.30E-15
AC026471.3	0.0587974	0.167440007	1.50982	3.89E-06
SNORD93	0.8476766	0.28759913	-1.55945	1.33E-27
DUSP26	0.9869718	0.206455825	-2.25718	6.59E-10
AL713922.2	0.0686712	0.271765126	1.984584	1.97E-05
PODXL2	7.8756457	24.24229006	1.622056	1.76E-27
EGFR	16.759059	6.402619894	-1.38821	1.80E-58
AL357568.1	0.0125844	0.19610659	3.96193	0.000267
ESAM	22.66267	10.63461373	-1.09155	7.81E-34
ULBP1	0.0694663	0.576067072	3.051851	2.25E-27
REEP1	1.9200872	4.458085918	1.215253	3.41E-07
AC246817.2	0.2558446	0.094764092	-1.43286	2.88E-40
ANKDD1A	2.1269339	0.820767857	-1.37373	3.89E-47
FXYD1	3.2589658	0.312944679	-3.38043	1.23E-63
AC011944.1	0.0486869	0.110806162	1.186433	7.51E-10
SACS	3.0885803	1.359625861	-1.18373	3.77E-37
CENPW	4.9069739	15.15587434	1.626972	1.18E-19
ADRA1A	0.9577993	0.049325615	-4.27931	7.02E-61
ABLIM3	13.8721	5.307858379	-1.38598	3.29E-36
EMP1	81.69175	23.55671458	-1.79405	7.57E-48
GDF10	5.9252211	0.741166519	-2.999	6.64E-60
DLG3-AS1	0.1506454	0.535651676	1.830139	1.17E-17
CRB3	3.6511994	10.23631004	1.487253	3.90E-47
AC022211.1	0.1609678	0.398388596	1.307405	1.65E-13
PTGES3P2	0.9686869	0.286094636	-1.75954	7.08E-43
OLR1	1.6516575	7.322714168	2.148464	1.14E-41
ACTL6B	0.0103921	0.219500808	4.400669	0.003302
LIMS2	8.7382415	2.253634755	-1.95509	2.40E-61
SELL	2.8397321	8.403109056	1.565168	1.60E-10
TXNP4	0.0984226	0.221098628	1.167628	2.10E-10
CCDC60	0.0120447	0.129048516	3.421438	0.008056
NDUFAF6	2.239281	5.200800004	1.215698	2.82E-43
SNRPGP4	1.2174794	0.481040403	-1.33967	4.45E-26
IGFL3	0.0288891	0.854157515	4.885903	8.47E-31
RF00405	0.1537487	0.309777964	1.01066	0.02143
CKMT2	4.6822337	0.665368903	-2.81497	1.47E-55
AC110792.3	0.896792	0.438733066	-1.03143	4.91E-29
LGALS17A	0.0396438	0.561077357	3.823031	6.19E-31
PRR22	0.6085938	1.300060182	1.095027	7.45E-13
AC004678.1	0.0568115	0.154378523	1.442218	1.54E-12
AQP7P1	2.9017506	0.106412908	-4.76918	2.65E-60
RNU6-529P	2.9279371	1.192001807	-1.2965	6.68E-37
SFXN1	3.1735645	6.655527314	1.068449	4.15E-45
AC124798.1	0.2376225	0.726926939	1.613139	2.93E-20
KLHL30	1.0278727	0.189843495	-2.43678	7.58E-36

CD248	58.673673	19.26333693	-1.60686	9.68E-28
RN7SL2	28.693726	863.60445	4.911563	1.11E-17
AL807757.2	0.0725021	0.162199563	1.161676	0.010548
CTSG	5.0900747	1.542477835	-1.72244	4.28E-31
RGS7	0.0631136	0.27457947	2.121201	0.000116
SMAD9	2.2810646	0.879154494	-1.37552	1.19E-48
AC007743.1	1.0984654	0.511291253	-1.10327	1.47E-39
AKR7A3	3.0777084	16.81426043	2.449757	6.65E-13
HPX	2.0297964	7.443007273	1.874551	7.54E-06
FILIP1L	17.202865	7.191418866	-1.2583	1.23E-29
GALNT15	16.694548	1.987147893	-3.07061	4.51E-56
AC004696.1	0.4016726	0.199644516	-1.00859	6.75E-22
LINC02345	0.0668204	0.156344381	1.226368	8.33E-09
LINC01605	0.2357695	0.966577227	2.035508	7.64E-32
SPTSSB	2.0153785	7.983937747	1.98605	0.000806
SAA4	1.881382	0.446625929	-2.07465	9.79E-43
ROMO1	29.966109	67.00198993	1.160872	2.25E-31
HSPA12A	6.2089182	1.811480096	-1.77717	5.13E-26
OTUB2	0.5365256	1.098404746	1.033691	2.70E-28
SLC35A2	7.463221	18.21566114	1.287309	1.43E-60
EPHB1	3.2922397	0.663196984	-2.31156	6.38E-43
HIST1H2BK	22.696461	93.99947865	2.050185	5.24E-42
PRR19	0.368431	1.316758338	1.837524	5.03E-55
NDUFB1P1	0.0687214	0.159556098	1.215232	0.000163
AL590326.1	0.1657251	0.579828608	1.806835	2.11E-11
TANC2	1.9737724	3.9554857	1.002899	2.43E-13
LAMC3	1.4806542	0.588954152	-1.33001	6.89E-17
MIR3178	0.1341969	0.346806142	1.369778	3.33E-06
AC005682.1	1.735834	0.414536	-2.06606	5.10E-54
CDHR2	0.0420386	0.124047135	1.561103	1.69E-27
HHATL	0.94116	0.052742013	-4.15742	1.51E-47
MAST1	0.0850733	0.336086653	1.982055	2.41E-10
FADD	4.0546205	8.614913585	1.087269	5.15E-28
ITGB1BP1	14.598596	6.352447611	-1.20045	3.04E-23
SORBS1	57.85968	5.247952934	-3.46273	8.55E-60
AC064807.2	0.0606513	0.186209624	1.618318	1.77E-05
MUC19	0.017795	0.285269406	4.002783	0.024836
SLC7A10	6.8389203	0.302576068	-4.4984	2.22E-46
MPPED2	1.2151389	0.568859123	-1.09498	6.05E-38
MIR548AA1	0.2034386	0.502990174	1.305936	5.43E-08
AL356488.1	0.0815676	0.169718189	1.057073	0.000106
FGL2	18.909893	8.680098733	-1.12336	2.40E-32
NLRP6	0.0960527	0.244739096	1.349347	0.00022
TMEM45A	2.7163093	6.414833093	1.239764	2.03E-07
MIR221	1.5617345	0.361143693	-2.1125	8.41E-40
SLC52A2	8.2143152	27.75002967	1.756277	2.57E-54
AADAC	2.9099748	0.405753013	-2.84233	1.15E-35
SUSD4	2.6256422	8.085702301	1.622703	2.18E-14
GALNT6	11.303853	31.37910753	1.47299	3.94E-17

UBE2C	1.9112044	32.81623119	4.101856	3.25E-62
AL590139.1	0.5267638	1.067834686	1.01946	4.31E-29
TMEM75	0.0255319	0.319937021	3.647413	2.55E-09
HOXC-AS2	0.2699051	0.580379135	1.104543	6.28E-05
AL357055.3	0.4949763	0.159096612	-1.63746	7.89E-57
AC092071.1	0.113667	1.701542042	3.903958	1.31E-11
ATP6V0D2	0.3075217	0.628876259	1.032088	3.13E-14
INMT	6.6713556	1.255953243	-2.4092	2.36E-55
CCNA2	1.3556631	9.400528135	2.793743	1.71E-56
LMO2	9.9772996	4.484005189	-1.15386	9.50E-50
AL136964.1	0.014634	0.121773193	3.056803	1.27E-09
PLA2G16	67.45601	30.21727012	-1.15857	2.45E-21
AC011447.3	0.1450857	0.302978726	1.062311	1.17E-11
LINC01220	0.3640649	0.175505393	-1.05268	1.65E-24
PLK4	0.8536522	2.79787607	1.712612	2.07E-45
SPATA9	0.4347081	0.148332745	-1.55121	1.84E-31
AL078587.1	0.0663026	0.180448793	1.444453	3.53E-08
HIST1H2BE	0.081611	1.144506724	3.809818	4.71E-48
INSYN2	0.2765085	3.5227497	3.671306	3.83E-12
PPBP	0.4400564	0.108266303	-2.0231	9.20E-28
HSF2BP	0.3246031	0.716634846	1.142562	3.80E-30
GABARAPL1	29.042861	10.78095393	-1.4297	4.24E-62
SMKR1	0.964615	3.564450167	1.885654	1.05E-30
CDC20	1.9313173	20.94971013	3.439273	1.26E-58
CYP27B1	0.4901657	1.31215403	1.420596	2.01E-11
AC083967.1	0.0549526	1.608221412	4.871135	3.74E-38
DAB2IP	17.452532	7.949471987	-1.13451	1.09E-44
SLC2A12	1.3635919	0.614638662	-1.1496	7.34E-31
AC010531.3	0.2211655	0.097968949	-1.17473	1.15E-19
SLC6A14	5.955944	2.890963697	-1.04278	1.97E-24
AC098614.4	0.6857698	0.331242578	-1.04984	7.86E-24
LINC02550	0.5568141	0.244523721	-1.18722	9.69E-22
NPM2	0.9124235	0.416248365	-1.13226	9.24E-22
SLC12A5-AS1	0.0215965	0.185901377	3.105667	1.13E-30
AL445490.1	0.1475856	0.363857808	1.301823	0.000155
FAM149A	2.4996234	0.621582197	-2.00769	5.37E-54
AL021807.1	0.3885062	1.838308287	2.242369	1.33E-27
AOX1	10.120286	2.287120679	-2.14565	7.50E-49
RPL39L	6.1253107	15.6400512	1.35239	2.09E-29
NBPF6	0.0660179	0.561033477	3.087159	1.30E-07
HSD17B6	0.3250792	2.53147629	2.961116	1.85E-62
FAM183A	0.6401338	1.732640617	1.436527	3.52E-09
ARSI	0.5731881	1.611718007	1.491519	2.39E-22
CES1P1	0.2560353	0.10320904	-1.31077	8.16E-40
AP006565.1	0.0199206	0.151076242	2.922947	1.16E-06
PRCD	0.4182717	0.119265329	-1.81027	1.07E-54
PPIAP42	0.0838126	0.195141285	1.21928	8.83E-08
CCDC82	4.1333297	1.769168587	-1.22423	3.42E-48
FRMD1	0.9011959	0.052295039	-4.10709	1.00E-48

HMGN1P7	0.2819701	0.127666794	-1.14316	4.21E-21
AC107959.1	0.8022909	0.233851556	-1.77853	4.41E-63
EFEMP1	97.666145	27.03124801	-1.85323	8.96E-53
SCAMP3	22.375294	46.07578414	1.042102	2.59E-55
SLC2A1	9.522344	25.89177096	1.443105	1.26E-31
PNMA8C	1.0421684	0.141789806	-2.87776	8.27E-41
AC073130.3	0.3167102	0.143332998	-1.14379	1.32E-29
FARSA-AS1	0.0611298	0.218459603	1.837419	5.24E-06
SBK1	1.8309318	8.932708439	2.28652	1.13E-51
AL391069.2	0.4349971	0.918526836	1.078316	1.13E-31
ADAP1	0.4437916	1.106446427	1.317979	7.93E-19
AMY2B	1.5049927	0.670442994	-1.16657	2.27E-40
AC012512.1	0.012724	0.14681216	3.528344	3.69E-12
AC062004.1	0.9182677	0.269127632	-1.77062	1.96E-36
DNA2	0.6891673	2.231418055	1.695035	1.44E-45
FAM72B	0.0891948	0.446105151	2.322352	1.57E-39
AL365436.1	0.2678181	0.574252911	1.100433	6.09E-10
AC020928.1	0.1021407	0.292697322	1.518852	0.002219
HIST1H3C	0.0469874	0.718084797	3.933808	2.21E-25
PPP2R1B	14.026742	5.477356359	-1.35663	4.50E-35
TMEM100	7.7192303	0.911859903	-3.08157	1.85E-57
AC011773.1	0.0334191	0.134516532	2.009039	7.05E-11
IQCN	2.1115801	0.721602308	-1.54905	1.99E-37
AC079760.1	0.2147399	0.095326477	-1.17164	7.29E-19
SMCR2	0.0581511	0.378888644	2.703896	1.14E-30
MGAT3-AS1	0.3122717	0.082942113	-1.91262	2.41E-41
CDC25B	7.1478794	15.81807908	1.145987	2.19E-20
MIR4526	0.1022149	0.666371217	2.70472	2.56E-10
HOMER3	4.265304	10.08906206	1.242072	1.52E-27
PGM5P4	0.9778316	0.106215688	-3.20259	1.03E-62
UBA52P6	0.2160876	0.498482836	1.205927	2.27E-18
NTN5	0.446283	0.210263466	-1.08576	5.24E-20
KIF14	0.1732821	1.871746722	3.433191	1.65E-56
HSPB6	120.92094	6.247150847	-4.27472	2.18E-59
BOP1	6.4759296	18.50841353	1.515022	1.58E-36
DNASE1L3	2.6126361	0.41945958	-2.6389	1.85E-55
AC072039.2	0.0780714	0.165405442	1.08314	3.25E-08
AC004160.2	0.6458263	0.150497227	-2.10141	1.81E-20
LRGUK	0.2494662	0.532676779	1.094416	3.93E-08
KRT18P28	0.0518535	0.133108115	1.360086	1.87E-20
GSPT2	6.28942	2.959773973	-1.08744	6.73E-39
NEURL1	0.3974743	3.223921069	3.019883	3.74E-24
FAM180B	2.3848985	0.175043687	-3.76814	2.98E-49
FABP6	0.0466221	0.907379203	4.282619	8.15E-14
CLEC7A	1.3851738	3.382470571	1.28801	1.13E-12
AP001189.1	0.8745114	0.250749824	-1.80223	2.07E-33
GATA3-AS1	0.9259664	5.103085032	2.462338	1.89E-13
AL021154.1	0.1180836	0.304582816	1.367026	3.38E-11
AL008723.1	0.1385383	0.314911117	1.18466	0.002273

LINC01819	3.0320285	1.365740599	-1.1506	2.60E-25
TLL2	0.0438301	0.14796952	1.755305	1.74E-26
RGS6	0.6900982	0.143213675	-2.26863	1.14E-54
ZNF725P	0.0133379	0.148332483	3.475233	1.43E-11
FAM57B	0.074706	0.517768831	2.793011	1.09E-27
LSM4	13.299556	34.58096754	1.3786	1.43E-55
HCAR2	8.2010369	0.861727552	-3.2505	2.01E-54
MAML2	14.221905	3.871502106	-1.87715	6.79E-54
P2RY14	2.2495785	0.718643605	-1.64631	1.97E-33
RCN3	11.976452	24.97011226	1.060002	3.50E-14
AL357992.1	0.1476874	0.577270037	1.9667	1.46E-22
TMEM178A	3.8002513	0.840400979	-2.17695	5.09E-48
AC019131.2	1.9623406	0.718097762	-1.45032	8.16E-56
HNRNPUP1	0.3562739	0.825573356	1.21241	3.31E-12
LMNB1	3.5532339	18.39765943	2.372318	1.04E-56
RHCE	0.2380469	0.584613052	1.296236	1.12E-17
ARHGEF26-AS1	0.1698043	0.379208586	1.159119	4.49E-06
NES	33.42553	16.29779832	-1.03627	3.21E-38
AP000424.2	0.0303796	0.123603184	2.024541	8.42E-11
C10orf95	0.2712668	0.584710838	1.108011	3.52E-22
SKA2P1	0.0825237	0.19575127	1.246141	4.38E-14
LINC02587	4.1519013	0.34501637	-3.58904	1.20E-61
C1orf127	0.1044518	0.231961565	1.151049	3.35E-19
LINC02446	0.3450587	0.927346627	1.426267	0.014675
AC026355.3	0.0407855	0.217122392	2.412382	5.56E-08
ACAN	0.0809061	1.586545778	4.293497	7.73E-42
XRCC2	0.5128233	1.797726749	1.80964	3.30E-41
AC020916.1	21.211899	6.661778921	-1.67089	4.08E-38
FO393419.3	0.6914387	0.338959972	-1.02849	1.14E-24
TSPAN7	17.720747	3.400888339	-2.38146	1.83E-60
LINC02463	0.0764619	0.180745087	1.241143	0.000206
CNKSR2	0.7940153	0.197718466	-2.00572	1.20E-47
ENPP2	30.58315	4.924151239	-2.63479	5.86E-60
AC007342.9	0.3779112	0.805754551	1.092293	8.36E-05
AL121821.1	0.5233648	0.125990282	-2.0545	1.15E-37
LINC02195	0.0575772	0.320189591	2.475356	3.83E-17
GDNF	0.1664637	0.409240563	1.297742	0.000735
RNFT2	0.2680481	1.149464357	2.100398	5.88E-53
ADAM19	1.054777	3.390797683	1.684687	1.91E-40
TMEM82	0.0077977	0.11822827	3.922389	1.04E-09
COL5A1	12.356126	47.54252116	1.943992	2.70E-36
FCRLB	0.3550016	3.192041795	3.168582	2.81E-11
IL22RA1	0.8204102	0.404555751	-1.02001	5.65E-25
TRBV21-1	0.0671359	0.140727935	1.067752	0.024517
OXGR1	1.3218244	0.533435679	-1.30914	2.56E-31
CATIP	0.05812	0.184236192	1.664451	3.52E-08
CANT1	16.956093	40.37710352	1.251734	6.74E-40
GAL3ST2	0.0480653	0.787876126	4.0349	3.68E-32
CKS2	9.6541183	57.59099944	2.576627	5.30E-63

SLC25A10	4.2555024	9.534117265	1.16377	7.40E-29
LINC01894	0.6603526	0.143566182	-2.20152	5.89E-56
GAL	0.4881716	2.817112273	2.528757	0.006889
AC106886.2	0.0973727	0.204738366	1.072192	3.99E-12
ANKK1	0.836819	0.321963502	-1.37802	1.51E-24
MYBL2	1.6763014	22.48178492	3.745403	2.42E-54
CASC16	0.0350681	0.545922168	3.960462	9.54E-07
RPL23AP32	0.4331774	0.135804573	-1.67343	8.92E-34
AL118522.1	0.6758736	1.400259742	1.050869	0.014801
AL358075.2	0.2243177	0.951816072	2.08514	1.12E-32
ACKR1	56.600202	11.82932886	-2.25844	6.89E-50
IQSEC3	0.9181181	0.226523593	-2.01902	1.38E-50
HIST1H2BN	0.2284067	0.675720867	1.564822	1.24E-24
GAD1	0.041337	0.411402067	3.315042	7.96E-05
TPBGL	0.1477146	0.327725909	1.149677	1.80E-17
HOXA6	2.0241665	0.404737639	-2.32227	4.28E-56
SYN1	0.237847	1.067734719	2.166448	3.41E-16
EGLN3	2.3526839	6.817809502	1.535001	1.65E-16
G0S2	231.29009	16.01708163	-3.85202	1.13E-47
OR7E13P	0.378931	0.104788182	-1.85446	1.08E-42
GUSBP4	0.7288969	0.348930171	-1.06278	1.49E-29
AC010890.1	0.4281427	0.18357063	-1.22176	6.49E-37
ATP6AP1	28.250065	64.64470133	1.194278	1.40E-53
SMIM10L2A	3.1631809	0.688739654	-2.19935	1.32E-47
AC092634.3	0.2120637	0.103495026	-1.03494	3.48E-19
ITGA1	7.3247042	3.298751015	-1.15085	3.75E-38
AC109361.2	0.3069181	0.714217738	1.21851	2.02E-05
FRMPD3	0.1452635	0.553709883	1.930458	2.35E-14
AC091390.1	0.0907571	0.202934443	1.160932	3.70E-12
GLYCTK	2.4803797	1.105383055	-1.16601	5.05E-13
AC117489.1	0.863855	0.292158745	-1.56404	2.81E-48
MIR125B2	0.2983611	0.105819604	-1.49545	3.51E-22
TAS1R3	0.183093	0.776164723	2.083787	2.13E-21
AC113143.2	0.0222788	0.131002612	2.555853	4.15E-16
CCL13	7.1237819	1.926301172	-1.88681	2.17E-23
COX7A1	33.17633	7.104912021	-2.22327	1.92E-50
MYH1	1.5173721	0.190966242	-2.99019	2.53E-41
RHOXF1	0.9634217	0.17874386	-2.43027	6.25E-46
HIST1H2AI	0.1739936	4.500240396	4.692896	1.82E-47
SAMD1	11.150098	24.51127335	1.136389	2.12E-52
FNDC11	0.1381608	0.295949506	1.099003	2.95E-07
RHBG	0.0684512	0.405447562	2.566367	9.78E-25
FRY-AS1	0.048771	0.134798099	1.466705	1.59E-05
SOX12	3.7049642	12.58050164	1.763658	3.36E-53
ADAMTS18	1.2569271	0.428348676	-1.55304	2.22E-36
TRAV41	0.1826699	0.432391822	1.2431	0.000254
NFE2L3	3.4160197	7.969702638	1.22221	1.88E-16
AC061961.1	0.107071	2.178495964	4.346693	0.000336
BTNL9	19.448954	1.361022684	-3.83693	4.11E-65

AC135178.1	0.4949965	0.071117013	-2.79915	3.30E-48
OR7E47P	0.1449508	0.318322838	1.134927	4.93E-14
JCHAIN	455.6087	114.7123271	-1.98977	4.21E-27
SPAG5	1.0700859	7.14920263	2.740056	5.53E-60
SAMD15	0.7175289	1.552047794	1.113064	8.81E-12
MIR6071	0.5699469	0.06762643	-3.07517	1.42E-46
ZNF677	2.0954004	0.798818099	-1.39129	1.82E-45
MGAT3	3.017725	1.240245526	-1.28284	1.46E-40
TLE4	4.1852906	1.706607418	-1.2942	6.66E-43
PTN	103.49275	18.87959836	-2.45463	7.13E-34
AC010168.2	0.6739326	1.852750737	1.458993	6.70E-11
AC114956.2	0.167119	0.497686663	1.574362	0.005064
AK8	0.8629915	2.018391045	1.225787	3.71E-20
BMP2	2.9629772	0.698716481	-2.08427	1.87E-48
SCX	0.2825476	1.324473468	2.228853	9.46E-31
RNU6-1161P	0.4135896	0.081234796	-2.34803	5.88E-26
DMTN	10.99581	5.067615101	-1.11758	3.09E-35
KIF26A	1.9761782	0.855219299	-1.20835	7.10E-38
RARRES3	40.698341	101.3291655	1.316008	7.39E-13
LINC00514	0.0207113	0.153205372	2.886976	2.03E-37
HSPA12B	8.1117223	3.324677138	-1.28679	1.32E-39
AC004223.2	0.0537364	0.130021512	1.27478	0.002814
BMPR1B	1.8395522	33.3033079	4.178239	2.27E-10
RASD1	38.474536	13.75189123	-1.48427	7.73E-34
SLC19A1	1.3679816	2.783239374	1.024716	1.47E-31
MT3	0.0211178	0.142377469	2.753192	2.91E-05
TMBIM1	55.826006	27.22004186	-1.03627	2.20E-43
AL159163.1	0.1908832	0.527122942	1.46545	1.72E-27
NUDT9P1	0.3907822	0.146048968	-1.41991	8.98E-38
ABHD17C	3.914845	9.624306848	1.297727	1.57E-31
BRSK2	0.059358	0.431770962	2.862752	1.88E-10
AL451062.1	0.4739909	0.089724223	-2.40129	8.47E-22
KCCAT333	0.0447176	0.996353678	4.477743	3.39E-05
ZNF502	3.3875686	1.439676963	-1.23451	2.63E-44
FLYWCH2	10.544644	23.98388369	1.185555	6.76E-39
ACSS2	24.907526	8.404203772	-1.5674	6.90E-57
TRNP1	7.7889515	3.730828237	-1.06193	1.56E-22
C1QTNF1	18.504414	6.455081662	-1.51936	1.32E-25
DNPH1	9.6384031	19.84838595	1.042156	6.83E-20
CACNA1I	0.0929288	0.24602159	1.404588	0.012345
SLC22A20P	0.1045283	0.239228145	1.194494	0.002238
ALOX15B	47.903928	18.40290195	-1.38021	7.71E-06
LIFR	18.003717	3.170445617	-2.50554	1.29E-62
AC073072.1	0.5468726	0.106302914	-2.36302	1.34E-36
UBD	2.9523179	9.968943408	1.755593	0.001828
HSPB1P1	3.741171	8.246309787	1.140259	4.62E-10
C1QBPP2	0.0669137	0.152220375	1.185787	0.046799
RUNX1T1	1.6310589	0.514318389	-1.66508	9.49E-56
STMND1	0.8418825	4.092612246	2.281331	5.93E-11

HSPB1P2	0.1943681	0.479831163	1.303735	1.33E-19
EIPR1-IT1	0.0821891	0.339135493	2.044843	1.03E-20
FERMT2	21.200393	6.031657857	-1.81346	1.91E-52
GTF2IRD1	2.9764279	6.353626987	1.093998	1.26E-50
VGF	0.0412758	0.666332515	4.012873	1.35E-41
DLX3	0.7554182	2.006701421	1.409479	4.83E-08
AL359962.1	1.4126469	0.683411435	-1.04757	9.63E-35
ASCL1	0.0762131	2.645605777	5.117415	5.90E-07
HIST1H4C	0.0728542	1.948020826	4.740854	2.45E-19
UBXN10-AS1	1.1709072	2.544768362	1.119908	0.00031
SLC9A3R1	48.503055	166.3552086	1.77812	5.55E-33
ERCC6L	0.2559238	1.746798038	2.770927	1.47E-56
AC104350.1	0.020385	0.122740381	2.590032	0.010578
AC107214.2	0.2898422	0.613961487	1.082881	3.69E-18
TUBB6	30.628095	14.03090973	-1.12625	7.02E-35
AC007423.1	1.7953847	0.075842853	-4.56514	2.67E-49
LINC02560	0.8738233	1.994142142	1.190355	0.027752
LINC01655	0.0632946	0.250395394	1.984053	4.11E-13
CYGB	12.057984	5.138866359	-1.23047	6.13E-34
PREX1	16.289188	33.03937857	1.020272	6.46E-09
KLF8	3.068424	1.461925	-1.06963	1.52E-39
HOXA11-AS	0.0783892	0.206820216	1.399651	4.61E-05
POLD4	3.2477305	6.657422658	1.035532	2.07E-27
HIST1H4K	0.2012607	1.089842252	2.436982	1.75E-28
RUSC1	4.9570883	13.51240048	1.446719	3.05E-61
PSD2	0.5229789	0.138038119	-1.92169	3.17E-33
GTSF1	0.1437799	0.556803521	1.953306	1.13E-08
HMGB2	22.413447	49.05923895	1.13016	1.28E-30
SLC2A6	0.6745012	2.060262677	1.610935	6.81E-26
AP003721.1	0.0280951	0.119972279	2.09431	9.55E-17
SHROOM4	2.9762972	1.31584463	-1.17753	3.40E-43
MMP3	1.6752055	7.819443691	2.222728	1.38E-25
MIR3153	0.137251	1.049658591	2.935031	2.39E-28
FBXO41	1.1586308	2.443888173	1.076757	3.18E-26
PFDN2	32.481621	74.85344356	1.204445	1.58E-39
PCDHGA3	0.4761269	0.153018449	-1.63764	2.44E-46
ADGRA2	13.700211	5.276670805	-1.3765	6.12E-43
MIR320B2	0.194458	0.439728733	1.177155	3.55E-07
AC105046.1	0.4405786	0.138844516	-1.66593	2.59E-25
LBX2	0.1819872	0.629533953	1.790447	2.46E-39
PSME2P6	0.0302866	0.116500309	1.943582	2.38E-08
IGF1	1.8844843	0.373723371	-2.33413	5.54E-49
ANK2	3.6614925	0.813857093	-2.16958	3.85E-49
AC098864.1	0.4301828	0.124113143	-1.79329	4.73E-25
CENPI	0.3408803	1.581159486	2.213646	2.11E-49
RTN4R	0.7256519	1.72655227	1.250544	6.73E-24
KIRREL1	15.702779	6.861869836	-1.19435	1.32E-48
HMGB3	4.2107738	21.58417235	2.357816	2.11E-53
AL359091.2	0.0641145	0.144567815	1.173025	0.000226

TMEM252	0.6525116	0.076055538	-3.10088	5.24E-58
IFI27	19.691469	72.66698259	1.883729	5.07E-08
AC107959.3	0.067341	0.213321934	1.663475	1.46E-08
SEMA6A	4.9687544	2.066881851	-1.26543	4.42E-45
TRBV7-7	0.0457603	0.107782097	1.23595	0.000514
MIR7856	1.7944544	0.865388548	-1.05213	1.09E-15
C3	136.35445	65.7885194	-1.05145	7.05E-27
STARD10	14.734347	61.4154245	2.059418	7.32E-33
TMEM52B	0.1914465	0.388701626	1.021722	2.05E-17
EDN1	16.599951	6.417185881	-1.37117	5.86E-36
INSYN2B	3.7239696	0.251195618	-3.88996	1.30E-47
TSACC	0.2220762	0.786731793	1.824817	2.28E-46
LMF1-AS1	0.3220579	0.123317899	-1.38494	9.93E-34
ABCD2	3.6242108	0.24929502	-3.86174	6.33E-49
AC087482.1	1.8033847	0.048811012	-5.20736	4.22E-56
AC093642.2	0.2107847	0.916649135	2.1206	1.88E-08
SIRPA	25.92439	11.96679488	-1.11527	3.89E-48
SMIM22	5.8674302	30.80580874	2.392402	4.73E-38
RHOF	0.1123462	0.260176871	1.211542	1.31E-22
ZNF469	0.9126061	2.280567764	1.321329	1.09E-18
LAIR2	0.1256705	0.343063295	1.448828	1.69E-05
MRPS12	6.6032294	15.42825087	1.224331	1.83E-44
AL160408.4	0.0335061	0.226021592	2.753967	3.86E-05
EBF2	2.4869898	0.568977305	-2.12796	1.33E-48
AQP7	23.351702	0.785301785	-4.89414	1.25E-59
WASIR2	0.2949601	0.993988669	1.752709	6.25E-18
AC011465.1	0.1371059	0.396247105	1.53111	1.01E-07
RNA5SP268	0.1069634	0.319066056	1.576738	0.000706
COL23A1	1.0305055	0.511337352	-1.011	5.32E-16
TENM1	0.3276933	0.116198743	-1.49575	1.18E-48
AC093249.2	0.1272314	0.314097059	1.303756	1.03E-21
ADM2	0.92002	3.852144893	2.065925	8.32E-42
PELI1	16.35352	7.903740552	-1.04899	1.70E-36
AC005332.1	0.1044797	0.210754567	1.012342	1.58E-11
ADAMTSL4	5.4469686	1.760903196	-1.62914	1.91E-45
C2CD4D	0.4998104	1.270940924	1.346444	1.67E-18
GPATCH11	7.5492104	3.77440617	-1.00008	3.53E-33
IQANK1	4.3358543	18.78213756	2.114973	3.57E-56
STAP1	0.3754529	0.832469289	1.148765	3.66E-07
HSH2D	1.1193769	6.646622386	2.569926	5.16E-33
VWF	69.225056	17.74178874	-1.96414	4.13E-48
CARMN	2.0531638	0.284047739	-2.85364	6.57E-59
HSPB7	29.142085	1.092161723	-4.73785	4.67E-51
MYRIP	1.9891737	0.93182383	-1.09404	1.15E-31
CHCHD2P9	2.5461693	5.658804637	1.152169	2.54E-17
GALE	3.5335623	10.31796359	1.545963	3.14E-44
KRTAP5-AS1	0.2379219	0.707884188	1.573025	3.91E-14
ASH1L-IT1	0.0198547	0.137276859	2.789536	9.12E-07
DLX4	0.1372893	0.563728917	2.037782	5.68E-19

LRRC6	1.6605233	4.038906724	1.282327	6.72E-13
NMU	0.1850421	2.24597964	3.601419	7.08E-21
TNFRSF8	0.9600053	0.414010271	-1.21338	9.61E-33
AC092142.1	0.2078531	0.563076049	1.437765	7.92E-09
SCHIP1	0.3470953	0.139981637	-1.31009	1.24E-41
EMILIN2	6.6182532	2.593770652	-1.3514	4.87E-32
FLAD1	7.0884881	16.96693686	1.259176	6.03E-60
AC007014.2	0.088109	0.293144394	1.73425	5.90E-16
FCGR3A	12.262511	28.2712117	1.205079	1.99E-21
AC093838.1	0.5347461	2.630679417	2.298509	0.000909
SELENOKP1	0.222123	0.479143045	1.109097	4.42E-13
MARCO	8.9081007	3.271535454	-1.44515	3.28E-23
EMC9	3.8414344	8.82337896	1.199686	7.17E-40
USP35	1.4971338	3.212257318	1.101384	2.71E-12
TMEM213	1.6778939	0.642694624	-1.38445	6.37E-22
FOXO1	17.453755	5.138557344	-1.7641	1.37E-60
RELL2	0.3017091	0.865014972	1.519567	2.25E-30
SVEP1	16.600108	1.872645573	-3.14804	1.16E-56
PDRG1	7.8815717	16.95327669	1.105009	7.46E-39
CPS1	1.1637727	0.555814669	-1.06613	4.11E-43
AC010643.1	0.226884	0.750068855	1.725068	0.006208
ACSM1	10.091304	3.543284638	-1.50995	0.005225
CRYAB	168.99644	26.28731098	-2.68455	1.35E-54
PRSS1	0.0407234	0.520910512	3.677106	0.000553
BRINP1	2.9308593	0.840854101	-1.8014	2.92E-29
AL031587.5	2.4038132	1.14018101	-1.07606	6.16E-32
MATN2	29.551302	5.145950392	-2.52171	5.75E-62
AC012640.5	0.0751625	0.163720765	1.123152	6.94E-10
AC067817.2	0.5734373	0.209869438	-1.45014	1.09E-33
E2F2	0.3767052	2.133328561	2.501598	6.30E-48
ZWILCH	2.2778344	4.824063906	1.082586	1.58E-43
TPM2	75.654684	30.42820827	-1.31402	4.45E-22
PDZD2	9.0728309	1.620120302	-2.48545	4.52E-53
GABRA5	0.0023758	0.142161851	5.903001	1.10E-11
NECTIN2	27.313316	65.42142005	1.260159	3.79E-40
FAM102A	17.201642	35.46948835	1.044032	1.83E-32
UGP2	42.563254	19.03702174	-1.1608	7.73E-48
AC004233.2	0.0992902	1.218208074	3.616966	2.71E-16
TINAGL1	24.084069	7.724330352	-1.6406	1.75E-54
AC068669.1	0.0604521	0.201939603	1.74006	3.64E-08
ADM	12.813945	5.009961881	-1.35484	1.16E-32
MLXIPL	6.2092111	0.629176749	-3.30287	1.44E-48
AC124947.2	0.1418141	0.580282761	2.032755	1.04E-25
AC105118.1	0.0307811	0.449530478	3.868301	9.92E-27
LIFR-AS1	0.8875225	0.372817363	-1.25131	6.28E-38
LIVAR	0.1349151	0.357995867	1.407891	1.90E-07
DCAF13	3.5636659	8.226845798	1.206977	6.78E-46
PRUNE2	1.8238	0.721674445	-1.33753	1.63E-39
GPR158	0.0671875	0.381147652	2.504086	0.001353

LINC01087	0.8682617	3.800795747	2.1301	0.000163
HIST1H2AM	0.1180282	2.004766722	4.086231	1.83E-50
SEMA6A-AS2	0.2344005	0.101769955	-1.20366	1.19E-24
PLA2G5	1.056874	0.429050311	-1.30058	4.68E-34
CDH5	22.816463	7.829929558	-1.543	3.17E-48
DOCK11	13.583726	3.060173343	-2.15019	4.00E-39
IKZF3	1.0619302	2.24849535	1.082271	0.000672
BST1	3.7240692	1.727675468	-1.10805	1.93E-30
UBE2T	2.5922138	23.49453375	3.180068	5.28E-64
AC122710.2	0.0335942	0.119366452	1.829112	1.83E-15
CCND1	51.862617	129.711562	1.32254	3.17E-11
LHX6	3.3847734	1.063877737	-1.66973	1.58E-47
MICAL2	2.5338966	7.061144038	1.478544	1.61E-39
TUBA3C	0.0067566	0.213119269	4.979229	1.54E-10
SYNDIG1	0.3775198	2.851524416	2.917109	6.03E-38
SYT17	1.2514909	3.277871301	1.389111	3.88E-10
LINC01522	0.0527584	2.798210473	5.72896	7.33E-27
CYP4F24P	0.5519056	0.096258737	-2.51943	1.45E-16
HBB	191.71785	7.113741905	-4.75223	6.57E-53
FLT4	3.6559453	1.656185821	-1.14238	2.81E-41
RARA	11.932963	27.47646416	1.203244	2.20E-22
EDN3	5.2476878	0.920429827	-2.5113	3.39E-37
SGK1	16.344524	6.000648597	-1.44562	1.44E-36
F8	6.3430174	2.036677282	-1.63895	8.64E-56
CXCL2	19.235033	1.815034639	-3.40567	1.24E-60
DGAT2	40.913831	4.547161938	-3.16955	7.33E-39
TMEM79	3.624483	9.670275844	1.415782	2.03E-39
IGLV3-13	0.4424954	0.21489024	-1.04206	2.29E-06
CENPS	1.1321313	2.321159662	1.035805	9.07E-40
AP1M2	18.98005	52.45335724	1.466551	1.84E-46
AL035420.3	0.0905269	0.344273736	1.927138	8.75E-19
CLGN	1.1976669	7.032213234	2.553752	5.45E-18
KCNMB1	7.099421	1.276780932	-2.47519	9.91E-42
C4A	4.0071984	10.29221111	1.360887	3.58E-07
HTR1D	0.0389059	0.474072484	3.607049	3.19E-43
ZNF670-ZNF695	0.0327863	0.119147998	1.86159	2.77E-30
NMUR1	1.9400887	0.196916365	-3.30047	2.96E-50
FAM92B	0.061456	0.208051896	1.759319	0.000777
LINC01537	1.2233628	0.108823162	-3.49079	5.41E-63
NR2F6	11.305962	26.72841199	1.24129	6.38E-49
RNU6ATAC18P	1.5898714	0.409879536	-1.95564	1.27E-36
MROH6	0.8240029	3.20382772	1.959075	5.13E-31
P2RY12	4.0636085	0.739154539	-2.45881	9.29E-54
HIST2H2BD	0.1994169	0.697070183	1.805516	6.42E-31
AC068189.1	0.0289087	0.206589172	2.837189	2.01E-23
TARS2	6.7417546	14.03467236	1.057799	9.00E-50
AKR1C2	19.078785	2.331259628	-3.03279	4.17E-50
GATA4	0.0111823	0.380851854	5.08994	0.001056
AF131215.5	2.2439893	0.836002318	-1.42449	7.38E-37

AC138474.1	0.2395288	0.116475382	-1.04017	1.21E-40
LINC00632	0.3141077	0.125941048	-1.31851	3.64E-17
SLC25A5P5	0.0338772	0.110680682	1.708018	0.009966
GRK3	10.760057	3.531670539	-1.60726	2.06E-46
PPIAP40	0.0763679	0.16019194	1.068763	0.047588
MIR100HG	5.4272487	1.760032233	-1.62462	1.44E-56
AL356489.2	0.7037531	0.083156199	-3.08117	6.87E-61
COX17P1	0.215362	0.517670808	1.265271	3.92E-14
VIP	0.3382017	0.087989542	-1.94248	2.96E-45
SIDT1-AS1	0.1231396	0.286062801	1.216037	0.015632
C20orf194	6.1956575	2.831109579	-1.12989	5.83E-56
HIST1H2BF	0.2044479	3.01082385	3.880353	3.05E-37
PRDX1P1	0.2014431	1.00606272	2.320276	9.53E-18
LINC01273	0.4759379	0.231637348	-1.03891	3.26E-30
THRSP	79.909864	12.55757631	-2.66982	3.24E-44
MSS51	1.5575773	0.712369744	-1.12861	0.000605
LEP	98.847698	1.619858833	-5.93127	1.56E-55
ATP1A2	13.928051	0.819038316	-4.08792	1.38E-61
ACSL1	111.54334	18.40276254	-2.59961	5.03E-42
NTF4	1.5661893	0.278613255	-2.49092	3.36E-32
KLHL21	16.713908	7.812249396	-1.09724	5.20E-52
AL121832.2	1.1323084	2.688555673	1.247564	5.22E-16
HOXA7	1.9066883	0.496871347	-1.94012	5.16E-57
AL671883.1	0.1889037	0.657943976	1.800314	9.72E-11
CLEC11A	4.6959672	12.05986207	1.360719	8.78E-21
HPGD	7.2586045	3.480768919	-1.06029	1.07E-16
CD24	140.31381	379.4112704	1.435105	1.06E-13
P2RY6	0.5259954	1.510697897	1.522093	5.30E-25
MIR193BHG	2.3619963	1.162287422	-1.02304	3.42E-13
NEURL3	1.6329163	0.763218528	-1.09728	2.39E-10
TYRO3	4.3494523	1.091595201	-1.9944	3.13E-29
COX6B1P5	0.0950239	0.245228327	1.367764	2.94E-13
LINC00536	0.0642158	0.344258406	2.422491	1.05E-14
SAA1	682.31358	69.53337265	-3.29466	1.95E-52
OR2S1P	0.6993899	0.241208769	-1.53581	1.80E-46
AL031710.1	0.463825	0.105608727	-2.13485	5.84E-33
NPW	0.0856131	1.44423326	4.076329	1.47E-26
DRAP1	21.335058	45.28492791	1.085805	4.03E-31
MEOX1	12.187496	2.06469349	-2.5614	1.34E-56
LILRB5	3.1108807	0.494885459	-2.65216	3.07E-34
AC133644.2	0.1140521	1.08701479	3.252606	1.31E-32
MIAT	0.2680699	0.750770995	1.485764	5.40E-19
LINC02321	0.1362303	0.676401167	2.311832	1.93E-29
HIST1H2BPS2	0.0422761	0.213645692	2.337306	2.55E-15
AP001528.3	8.6645542	0.816712136	-3.40723	3.92E-62
LUZP2	0.7795726	0.191992659	-2.02163	5.63E-36
AC138409.1	0.034985	0.221626973	2.663326	0.001486
CCNF	1.6267063	5.322377185	1.710117	3.27E-55
RNU6-323P	0.1783979	0.399033116	1.16141	0.001377

CHAF1A	3.0559924	6.464412684	1.080878	2.54E-38
NCOA7	14.499643	6.887519	-1.07396	3.08E-35
PCDHGA2	1.066605	0.480733316	-1.14972	2.19E-37
SELP	8.3322119	2.577027851	-1.69299	2.99E-42
LGALS12	24.213273	1.227805423	-4.30164	1.40E-48
TYMS	3.085242	11.98557085	1.957843	2.55E-47
TIMP1	101.8058	218.7855383	1.103698	7.02E-25
ELOB	61.997525	134.7704905	1.120222	3.60E-42
PBK	0.6983511	7.26611046	3.379159	8.87E-60
MYCN	0.3674985	1.207366623	1.716054	0.000774
SNX25P1	0.2765032	0.750583629	1.440717	2.66E-29
RPL22P12	0.0301673	0.146982374	2.284586	1.44E-19
AL031666.3	0.0465653	0.213607898	2.197639	0.00436
TRAV26-2	0.1506589	0.310287801	1.042321	0.000185
F7	0.3616939	2.406713178	2.734223	5.22E-13
HIST1H4D	0.1132952	2.398016917	4.403683	7.23E-39
TOMM40	8.1644186	18.79577028	1.202986	7.95E-48
SLC16A12	0.7622691	0.167388874	-2.1871	8.78E-49
EZR	56.284429	131.0484493	1.219293	2.43E-42
JAM2	11.681992	2.889373044	-2.01546	4.47E-64
AL031316.1	12.006126	0.661397019	-4.18211	5.37E-52
ARHGAP5-AS1	3.0272891	1.354763031	-1.15999	7.54E-44
ADGRG3	0.6721543	0.184973377	-1.86147	1.80E-35
ADAMTS19	0.0964534	0.471904719	2.290591	0.014405
AC097534.1	0.709656	0.346608666	-1.03381	1.53E-30
TXNDC12-AS1	0.0475577	0.117718205	1.307586	0.017468
CDH7	0.0142679	0.15060218	3.399899	5.15E-06
PINLYP	0.8619286	0.405495859	-1.08788	3.48E-45
MXRA5Y	0.1309789	0.274120069	1.065474	5.25E-06
SMCO2	0.0446183	0.171619543	1.943506	6.50E-31
AP006284.1	0.6878976	2.126461277	1.628189	1.63E-10
FCER1A	5.9949005	2.675944601	-1.16369	1.79E-28
POU3F2	0.0089198	0.175404227	4.297536	0.003555
PTCH2	1.6046397	0.644490852	-1.31602	5.52E-39
MYH7B	0.4177356	0.202874461	-1.042	1.64E-31
IFNWP19	0.4877673	0.225829959	-1.11096	1.70E-22
TEX11	0.0468935	0.106114742	1.178166	2.73E-19
LINC02036	0.5121613	1.041647383	1.024197	0.000422
LRP4	1.985857	0.986382687	-1.00954	3.56E-40
TP53INP1	10.159822	21.65927911	1.09211	1.54E-20
YDJC	4.4637115	11.21344983	1.328914	1.27E-38
AL645939.1	0.0667187	0.15032445	1.171916	0.001036
LINC02518	0.4593265	0.128544147	-1.83726	8.16E-37
AC138305.3	0.0511298	0.204561559	2.000298	4.96E-15
TDRKH-AS1	0.3728914	0.928656272	1.316389	1.82E-36
AC022509.3	1.7246863	0.819178209	-1.07408	2.92E-28
IGLV2-33	0.491191	0.240146737	-1.03237	5.23E-09
THPO	0.4110157	1.525443421	1.891963	0.0003
AL032819.2	0.1494607	1.263285511	3.079342	2.92E-18

AP001099.1	0.0336081	0.168346685	2.324556	3.05E-10
AL589765.1	0.0320116	0.107407801	1.746433	2.71E-11
AC068580.3	0.4087218	1.340307724	1.713373	1.77E-26
IL33	25.329356	3.979691196	-2.67008	4.26E-62
HOGA1	0.6271216	0.196324176	-1.67551	1.82E-37
STOX2	1.2988153	0.484468087	-1.42272	6.20E-44
AL133353.1	0.1610849	0.356927145	1.147808	3.22E-10
AC106795.5	0.0365855	0.128873803	1.816616	4.19E-09
AC109446.3	0.0953675	0.229677657	1.268041	1.58E-05
PVT1	1.5119802	3.895940921	1.365533	1.36E-25
AC121757.1	1.5068148	0.672165218	-1.16461	2.39E-18
RBMS3	6.4625848	1.522759132	-2.08542	9.67E-63
NTRK2	21.047356	3.487618212	-2.59332	3.46E-59
LINC02511	0.67775	0.041361795	-4.03438	3.28E-67
SYNPO2	18.840758	3.780286642	-2.31729	5.45E-59
EOMES	0.357165	0.798901849	1.161428	0.000805
MIR135A1	1.6767526	0.6215551	-1.43172	9.84E-23
LINC01208	0.073119	0.699210478	3.257408	0.016843
ERG	6.3517554	2.0955449	-1.59983	8.32E-57
DPF1	0.078633	0.183037597	1.218933	6.64E-16
VSTM4	5.43315	2.284529997	-1.24989	8.36E-32
CD5	1.1748476	2.737364788	1.220314	1.86E-06
TMEM249	0.0251115	0.146633177	2.545794	7.71E-28
AC006483.1	0.0796025	0.21758556	1.450697	4.26E-11
AC141930.1	0.7339853	1.87623956	1.354021	1.18E-11
SYNE1	2.9879033	1.170418167	-1.35211	7.67E-52
AC055854.1	0.3480734	3.21502807	3.207368	1.21E-16
LVRN	2.8615384	0.100990476	-4.8245	1.24E-53
UBE2Q2P1	0.974508	0.403434827	-1.27234	1.44E-38
FZD7	33.229002	14.09407078	-1.23735	3.48E-30
AC087783.1	0.0517109	0.105406191	1.027419	0.008271
DSN1	5.1579148	11.08976752	1.104369	8.35E-46
RF00265	1.2193318	0.340732423	-1.83938	5.06E-33
CCDC189	0.1916371	0.614446096	1.680909	1.31E-28
H2AFJ	19.500337	44.7616282	1.198763	8.18E-11
AC138904.1	0.1099888	0.625453217	2.507545	5.31E-38
USP53	8.4220176	3.63882629	-1.21069	3.85E-44
AC005730.3	0.0946312	0.274796476	1.537975	7.10E-08
MMP17	1.0159503	2.078256594	1.032544	5.37E-08
RDH16	0.1678642	1.026239133	2.612001	1.80E-21
CDNF	2.4482214	1.100218186	-1.15394	4.26E-44
AL662890.1	0.0691615	0.167107851	1.272739	2.21E-06
10-Mar	0.0266521	0.156552655	2.554327	4.43E-20
SIRPG	0.424766	1.253667768	1.561415	1.10E-08
ANTXRL	0.3779466	0.124533501	-1.60165	2.27E-33
KCNH8	0.6365707	0.151796426	-2.06818	1.15E-34
AL449106.1	0.1289798	0.322810562	1.323542	5.01E-14
TBC1D31	0.6389437	1.481580719	1.213377	7.02E-35
HMCN2	0.7564691	0.207012871	-1.86956	1.07E-29

DEGS2	3.3620984	18.17396958	2.43444	3.65E-25
THSD7B	1.0191019	0.274288515	-1.89353	6.92E-48
GAS1RR	0.9877401	0.209197989	-2.23926	1.79E-56
LAMA4	24.314168	9.292288774	-1.38769	1.64E-27
TMEM132E	0.0875678	0.361517197	2.045592	2.85E-05
AC067945.1	0.0408492	0.167058082	2.031969	4.10E-06
DRD4	0.2216032	0.598802279	1.434101	2.11E-17
RRN3P1	1.0412196	0.386653416	-1.42916	2.68E-46
ADH4	0.7250311	0.057355314	-3.66004	3.20E-55
CSRP1	78.071793	30.4202799	-1.35977	4.41E-34
SNHG25	0.6391663	2.32527806	1.86314	3.95E-25
PPP1R14A	12.422597	2.528163847	-2.2968	6.11E-59
GPR19	0.1486495	0.718810198	2.273697	2.94E-35
PTH1R	3.2642147	0.784523748	-2.05685	1.04E-46
AC092569.1	0.2777422	0.877081318	1.658964	1.30E-13
KRT37	0.0252625	0.245720193	3.281946	2.76E-17
AP001271.2	0.0498335	0.152209386	1.61087	1.68E-06
FBXO32	42.506998	20.25775454	-1.06923	5.80E-22
CR936218.2	0.0511864	0.198179918	1.95298	0.037332
WT1-AS	0.0076867	0.201094965	4.709368	3.24E-27
FAM87B	0.2256101	0.109539024	-1.04239	5.05E-32
CSRNP3	1.4322896	0.263494664	-2.44248	8.73E-43
HIST2H2AC	0.5053928	4.506628032	3.156571	2.10E-37
TEF	15.164586	6.037113015	-1.32878	2.49E-49
AL133153.1	0.0797381	0.2329603	1.546743	5.69E-14
LINC01230	1.6658633	0.075338227	-4.46674	1.84E-48
PRRT3	1.2996971	4.886160773	1.910526	1.28E-33
GLYAT	7.5828874	0.147517668	-5.68379	3.60E-57
TK1	4.8648989	38.4493737	2.982478	2.27E-60
MIR4530	0.4308484	0.091544697	-2.23463	3.69E-22
LINC00896	0.0591195	0.148016647	1.324052	0.001733
BX324167.2	0.0387612	0.120033018	1.630746	1.83E-08
AL133467.1	1.2274098	0.262450604	-2.2255	2.48E-38
DPP4	6.3261169	2.289468337	-1.46631	8.51E-36
12-Sep	0.0458092	0.161957437	1.821907	5.68E-15
KRT18P10	0.0558595	0.202992436	1.861551	5.67E-28
SPEF1	0.3075449	1.589086095	2.369329	3.59E-24
APLP1	0.750413	4.369013993	2.541551	6.16E-16
DYNLL1P4	0.2863784	0.117647881	-1.28345	2.81E-22
PTCHD1	1.2972077	0.302203499	-2.10182	3.06E-37
LNCAROD	0.0707076	0.413047424	2.54637	6.78E-07
GLRA3	3.0675736	1.244001165	-1.30211	1.05E-16
SPHKAP	0.7874318	0.111915103	-2.81475	1.25E-44
AC026355.1	0.1598704	1.258748623	2.977016	2.21E-05
TUBA3E	0.1627896	1.308917033	3.007293	5.65E-13
NPM1P9	0.0772484	0.169012916	1.129556	4.75E-14
TBILA	0.5044398	1.387032832	1.459248	1.09E-11
ATP6V0B	16.931218	42.55744931	1.329726	5.74E-55
LGALS9C	0.0203432	0.113891983	2.485048	4.96E-07

TMPOP2	0.0422748	0.118761076	1.490192	3.87E-14
KLK4	0.2294545	1.822927684	2.989977	4.33E-26
AC114271.1	0.1643593	0.332528861	1.016627	1.90E-33
PTPN21	6.9673419	2.668358354	-1.38466	1.62E-57
VAX2	0.9857507	2.093819528	1.086842	0.006683
RASGRF2	3.2640945	1.335456423	-1.28935	1.60E-27
TIGD5	1.5619225	3.209233263	1.038906	1.61E-27
EFNA1	27.532495	56.25291483	1.030793	2.23E-27
CD300LG	17.256192	0.603749087	-4.83702	2.79E-67
PSRC1	1.2509187	4.304346808	1.782806	4.54E-48
P2RX6	0.3415142	0.075425169	-2.17883	4.58E-44
YTHDF3-AS1	0.9019052	1.879175128	1.059052	5.33E-13
AL445437.1	0.2585205	0.109605243	-1.23796	5.30E-34
ATP2A1-AS1	0.3133278	1.455456847	2.215727	1.13E-43
CD36	141.5045	8.899919168	-3.99091	5.07E-59
POLQ	0.1695935	0.990904646	2.546666	2.89E-51
CDKL2	0.436292	0.197406709	-1.14412	5.14E-24
TTK	0.5595012	3.830296979	2.775243	9.93E-53
SAPCD2	1.3840073	6.073329892	2.133636	4.31E-44
AC024451.3	0.0278744	0.108303575	1.95807	0.001557
AC243960.2	0.0813344	0.181624017	1.159018	2.04E-20
AC091804.1	0.0290621	0.185222832	2.672049	7.69E-11
RASSF6	4.6559804	1.945122581	-1.25922	6.74E-19
TTC3-AS1	0.0776752	0.202275128	1.380792	2.78E-09
AC099667.1	0.0727295	0.15191089	1.062612	4.28E-07
AC037198.1	1.0735161	4.044334494	1.913558	3.40E-11
LIMD2	1.5496919	4.702379675	1.60141	1.86E-26
CELSR1	7.188714	19.9229739	1.470627	1.11E-20
DLG2	0.3791648	0.182540019	-1.05461	1.44E-37
PNMA8B	1.108134	0.456778385	-1.27857	1.92E-45
OR2B6	0.0298938	0.66279494	4.470646	1.24E-50
CKMT1B	0.550052	1.545730863	1.490649	1.42E-07
RNA5SP527	0.3775788	0.176314236	-1.09863	4.93E-12
OR8T1P	0.2563142	0.098201551	-1.3841	1.16E-36
EHD2	91.442886	25.70404122	-1.83088	3.71E-50
ECSCR	10.543924	3.198482068	-1.72095	2.21E-52
LINC01778	0.4578555	0.225728647	-1.0203	1.13E-29
TEX14	0.2496828	0.94770637	1.924344	0.033291
MOB3B	5.0511937	1.887865895	-1.41987	1.08E-47
FOXD1	0.0989345	0.750110534	2.922558	0.000182
SLC25A24P1	0.1354777	2.595830781	4.260069	1.17E-11
PFKFB4	0.9572496	2.282524749	1.253663	9.46E-43
CLIC3	1.4658763	4.885553943	1.736759	4.25E-11
CYFIP2	1.8871895	4.765024408	1.336244	2.28E-17
AC134312.5	0.0881405	0.844132202	3.259592	8.79E-51
TFPI	6.50088	1.97171341	-1.72119	2.72E-52
CDCA4	3.7896525	8.736154926	1.204933	3.09E-45
HNRNPA1P33	0.4801669	0.203661208	-1.23736	1.95E-29
CHST3	9.7231937	4.106627104	-1.24348	6.06E-44

AC091182.2	0.1569411	0.468400232	1.577519	1.85E-14
AC090844.2	0.9395398	0.295997446	-1.66637	9.26E-30
WFDC21P	0.3471464	2.602951966	2.906533	4.02E-19
AL360270.2	0.0712358	0.153930211	1.111602	3.19E-17
RHOQP2	0.9147608	0.302576161	-1.5961	2.90E-31
MYRFL	0.1278819	0.410763607	1.683496	4.82E-13
IGFLR1	0.4406472	0.884679616	1.005531	1.20E-23
CDH20	0.5099684	0.061681869	-3.04749	1.49E-48
FOXP3	0.5927743	2.486713197	2.068685	7.57E-41
RPL12P10	0.2196639	0.108984282	-1.01118	4.43E-18
LINC00092	0.5791567	0.221533518	-1.38643	2.73E-41
FAM162B	2.733109	0.655946668	-2.05889	1.20E-59
SNORD73B	0.2502665	0.501183909	1.001875	1.78E-05
AP001033.1	0.2554918	0.518620214	1.021401	5.91E-09
WWC2-AS2	0.4150675	0.205292419	-1.01567	6.37E-35
AC091057.1	0.2159332	0.643885182	1.576218	1.22E-36
PCAT19	3.574952	1.162144563	-1.62113	3.38E-53
PLPP5	8.2522562	19.26635187	1.223223	1.09E-17
DKK3	28.695207	11.92760673	-1.26651	1.19E-31
AL583722.1	0.0686492	0.234820657	1.774246	4.09E-18
B4GALT6	1.5757847	0.721284246	-1.12743	8.91E-42
AL109811.1	0.3275107	0.092837504	-1.81876	8.38E-31
CLDN19	2.5471215	0.2229152	-3.5143	3.65E-45
FKBP10	17.5322	41.22162098	1.233394	8.04E-33
HOXA2	1.1116035	0.251676499	-2.143	1.55E-55
RHBDL1	0.4332504	2.588283127	2.578723	9.77E-33
CACHD1	10.205217	2.405386392	-2.08497	3.16E-62
CERS6	7.1341772	14.85582228	1.05821	2.53E-17
ABRACL	14.873375	36.62390252	1.300053	5.69E-34
ARHGEF16	2.218281	4.86122753	1.131879	3.54E-29
CTSD	147.81676	365.3863752	1.305613	1.73E-29
MIR4668	0.429008	0.885150761	1.044919	0.005212
KPNA2	12.172367	52.91624276	2.120101	6.04E-58
GNG13	0.0240131	1.161381648	5.595875	2.79E-50
AC112721.1	0.0285189	0.371380846	3.702909	3.22E-43
GPR146	2.3955366	0.393925118	-2.60436	1.08E-59
AC092645.1	2.7254609	1.062297134	-1.35931	2.83E-36
AL353763.1	0.5218914	0.235244109	-1.14959	7.41E-28
AGR2	44.893219	225.3119644	2.327354	1.37E-16
GZMA	3.8739954	7.977678233	1.042147	0.003232
TNFRSF4	0.9544974	2.354230505	1.302442	3.02E-19
AC124067.2	0.9075272	2.772971003	1.61142	3.42E-05
CD3EAP	1.1215006	2.347520703	1.065707	4.28E-46
LINC00466	0.005621	0.111621601	4.311641	4.66E-40
RNF150	6.7058765	1.196089163	-2.4871	2.88E-58
ITGA9	6.4099509	2.827619948	-1.18073	1.88E-47
NSG2	0.0253182	1.526350383	5.913769	7.54E-27
RNU1-106P	0.9923641	3.475800502	1.808404	1.20E-23
BNIP3P27	0.170779	0.464684312	1.44412	5.83E-05

HIST1H2BB	0.0099006	0.253805817	4.680071	1.06E-13
TAP1	11.559486	33.33127051	1.527799	1.55E-25
AL031663.3	0.0512891	0.226263919	2.141283	7.66E-09
LINC01197	0.448407	0.122832038	-1.86812	4.64E-52
CD3D	3.8280197	7.671323497	1.002877	0.017426
BRSK1	0.9517378	1.970596321	1.049996	5.65E-11
PDLIM4	14.177816	6.172503351	-1.19971	9.53E-25
NUDT16L1	7.9408405	19.72912401	1.312963	2.42E-46
HIST2H4A	0.0442315	0.325536271	2.879671	1.58E-37
HOXB2	6.9377665	17.82158637	1.361083	0.000534
CXCL3	0.8461656	0.216975747	-1.96341	4.01E-45
RACGAP1	3.1064333	11.45300368	1.882395	1.23E-54
KISS1R	0.0478954	0.840454223	4.133212	2.57E-29
SLC7A13	0.0930243	0.293107837	1.655752	9.12E-12
KIF11	1.6183041	8.762731921	2.436898	4.80E-57
KCNE4	3.3766593	20.47581384	2.600252	1.15E-10
CYTOR	2.2319036	4.716761918	1.079522	7.99E-28
ABCC5	3.5226164	7.686750594	1.125726	6.76E-17
GAS2L2	0.5016441	0.184436719	-1.44354	5.71E-38
AC128687.2	0.068531	0.145517995	1.086368	4.36E-09
MEG3	4.092427	1.483117617	-1.46432	2.85E-44
EGFLAM	6.2955636	1.961120279	-1.68266	1.68E-59
BIN1	7.5807686	3.059489565	-1.30905	3.77E-35
AC099518.1	0.1781367	0.449748361	1.336133	4.88E-15
GABRQ	0.0131615	0.728612487	5.790752	5.22E-09
HRASLS2	2.3409688	6.228784846	1.411845	1.53E-09
TPRG1-AS1	2.2555337	0.80276248	-1.49042	3.51E-41
KANK3	3.5649919	1.063335716	-1.7453	4.15E-47
CMPK2	1.875065	4.793140362	1.354031	2.31E-13
CACNA2D1	4.7773015	1.464516493	-1.70577	6.26E-46
ZNF48	2.9187491	5.909454882	1.017675	2.92E-40
UBE2D3P3	0.0503117	0.141375356	1.490564	4.94E-05
FMO2	30.482031	3.390943411	-3.1682	3.74E-64
AGAP1-IT1	0.1681121	1.102707633	2.713555	1.09E-37
KLF11	12.87923	5.653471912	-1.18784	2.33E-50
CRYBA2	0.0079526	0.235225997	4.886475	7.55E-17
SRGAP3-AS2	0.0081299	0.241795676	4.894404	8.09E-07
PPP1R3G	0.6065067	0.270838921	-1.16309	4.54E-39
PRSS51	1.1286096	0.362893544	-1.63693	2.56E-24
AP004371.1	0.084754	0.269117947	1.666885	0.020446
E2F7	0.1382571	0.971005971	2.812126	9.64E-51
HIST1H3A	0.1156213	0.51667188	2.159841	2.40E-05
AC245014.1	0.055794	0.14019618	1.329266	1.45E-06
FSTL1	102.86482	43.49017281	-1.24199	5.56E-29
IGKV1D-42	1.2948837	0.639786283	-1.01716	4.30E-10
BHLHE41	27.98897	12.42731702	-1.17134	2.37E-37
BVES	1.5958137	0.683971128	-1.22228	9.75E-44
FAM13A	7.7296279	1.524278462	-2.34227	5.67E-64
IL17D	1.3973348	0.429754895	-1.70109	9.58E-33

ANGPT1	4.1766732	0.680986172	-2.61666	1.17E-52
SERPINF1	133.77446	59.21351088	-1.1758	2.48E-24
CRY2	17.834995	8.270523478	-1.10866	3.59E-53
KCNF1	0.7481679	4.143255167	2.469331	4.35E-11
ROCR	12.600185	4.813913516	-1.38816	1.95E-27
TACC3	1.5692641	7.794680632	2.312402	6.94E-59
HRAT5	0.5072452	0.212347695	-1.25625	3.47E-27
HMGB1P24	0.0503609	0.130796388	1.376947	1.29E-11
MCM10	0.3252387	2.80194706	3.106859	1.71E-52
PAX9	0.5457563	1.639131345	1.586603	5.72E-16
DMRTC2	0.0198968	0.118927918	2.579481	0.007103
PNCK	0.0919681	0.538676311	2.550213	4.83E-13
MFSD4A	1.9469056	0.970464732	-1.00444	7.36E-44
FGF1	11.822356	2.74193676	-2.10825	3.72E-57
ANXA1	162.95728	33.0842642	-2.30028	1.22E-61
CHRNA6	0.0255049	0.500856354	4.29555	4.57E-49
NCAPG2	2.4441431	5.518591646	1.174971	7.21E-36
MT-TF	10.837768	3.117706334	-1.79751	4.36E-20
AP001178.1	0.0416846	0.124052128	1.57336	5.60E-09
DNAH14	0.2626499	0.76707828	1.546233	2.43E-44
CEBPA	26.40478	6.437284246	-2.03628	1.95E-23
INSYN1-AS1	0.0088071	0.150702199	4.096895	2.06E-06
C4orf48	1.6962565	6.598348852	1.959751	2.26E-27
CACNA1B	0.0211269	0.125225505	2.567377	0.001143
KCNJ12	0.750209	0.355396273	-1.07786	1.06E-28
SHCBP1	0.5072142	2.925980777	2.528253	1.08E-54
AC097381.3	0.0239007	0.162623293	2.76641	7.33E-17
AC087239.1	0.1534029	0.473063874	1.624709	1.09E-18
PPIAP82	0.05996	0.136719638	1.189149	7.08E-10
LINC01569	0.9444246	1.988163129	1.073929	1.61E-21
OSM	0.5192596	1.393931253	1.424632	3.35E-17
CBX1P3	0.0640217	0.146695297	1.196189	0.019989
PYY2	0.1999151	0.442041107	1.144793	8.94E-11
AC007728.3	0.0606083	0.164336373	1.439064	1.60E-10
MGARP	1.1885472	0.319959272	-1.89324	1.32E-51
MTMR10	6.8055822	3.388125733	-1.00623	2.44E-49
HIST1H3J	0.0158048	0.373215806	4.561579	2.49E-46
CASQ2	5.2814159	0.678395557	-2.96073	1.03E-52
CAV2	30.044277	4.313310661	-2.80022	3.55E-64
PPIAP45	0.0305835	0.143278349	2.227997	2.69E-10
MIR4524B	0.3395499	0.07984097	-2.08842	1.77E-46
CLDN25	0.0085092	0.157969275	4.21447	8.86E-18
ABCA6	2.8165876	0.484846684	-2.53835	3.97E-58
TCTEX1D2	2.1332572	4.803542255	1.171041	4.78E-39
P2RX6P	0.4984824	0.12156241	-2.03585	7.05E-27
CD24P4	0.6916931	1.5337307	1.148841	0.000123
TWIST1	9.8053373	4.693540996	-1.06289	4.72E-29
LINC01954	0.0517543	0.135449732	1.388008	1.41E-05
AL590999.1	0.5772773	0.127441609	-2.17943	1.41E-45

AL365436.2	0.0979257	0.445240844	2.184827	9.98E-18
CEACAM5	0.8310785	15.86515274	4.254733	3.77E-22
VCAN-AS1	0.0453612	0.160434557	1.822455	8.26E-07
BMP3	0.9728802	0.107832204	-3.17347	1.12E-49
GPBAR1	1.7844971	0.25460723	-2.80917	2.19E-40
AC074135.1	0.4039501	0.957312841	1.244813	0.001255
GBP5	0.6923586	3.908010062	2.496843	1.35E-18
MCAM	63.554265	15.36728059	-2.04813	3.69E-47
SNORA2C	0.2210161	2.433103756	3.460575	0.000177
RBBP8NL	1.2085961	3.389036741	1.487543	1.68E-34
MTHFD2	8.5084823	22.94627232	1.431286	7.84E-51
RECK	8.7079464	2.706566732	-1.68587	1.52E-52
COL4A3	0.3227601	0.140250094	-1.20246	8.97E-22
SPC24	0.4998052	4.271296364	3.095236	1.23E-60
SEMA3A	1.0851056	0.36771341	-1.56118	9.50E-43
SEC1P	0.303949	0.110307291	-1.4623	5.10E-42
AC144450.1	0.4341769	1.080236333	1.314992	1.56E-09
NAXE	27.499133	68.24333271	1.311302	2.44E-54
KCNJ2	3.0967831	1.197951069	-1.3702	6.04E-45
GIMAP7	25.399079	10.0779042	-1.33358	1.01E-41
SEMA7A	1.0084149	2.636392181	1.386476	2.91E-30
TSPAN13	50.740187	150.2980424	1.566625	8.46E-33
PLA2G2A	27.910609	11.80755768	-1.2411	1.74E-16
C8orf76	1.8278065	3.774188231	1.046053	3.67E-44
EVA1B	8.0184588	22.33356186	1.477816	2.17E-15
AC093890.1	0.6748597	0.270112318	-1.32103	7.35E-26
AKAP14	0.019405	0.176328934	3.183772	9.02E-05
PIGR	81.11782	15.0255054	-2.43261	2.96E-31
TRBV5-5	0.0962113	0.208052071	1.112666	0.001597
OR7E62P	0.0852843	0.637335583	2.901702	7.10E-09
TUBA4B	0.0305983	0.239078345	2.965962	8.66E-12
ATP13A5	2.8212658	0.839176639	-1.7493	1.33E-22
AL357054.3	0.0479199	0.122211428	1.350683	0.005184
BCAS1	1.1228284	5.699758687	2.343763	1.84E-13
MIR554	0.0930126	0.898646467	3.272255	1.13E-07
TAGLN	203.09022	80.44953322	-1.33596	7.22E-39
AL391056.1	0.0891806	0.202251505	1.181348	1.53E-06
ADORA2A	0.0444998	0.13393701	1.589685	3.91E-12
SYNGR4	0.0321333	0.280025103	3.123414	9.51E-41
BASP1	8.6269852	20.07620288	1.218558	1.16E-24
AC093840.1	0.1345128	0.319209816	1.246762	7.60E-16
LINC00924	0.8197517	0.163770268	-2.32351	9.48E-54
PLPP7	2.5920929	0.896691648	-1.53143	2.01E-38
HMMR	0.5343921	4.174023174	2.965468	1.18E-58
TBC1D4	16.966862	7.556065523	-1.16701	1.18E-47
TAF7L	0.0673811	0.140451037	1.059652	0.000135
AC005225.2	0.4754228	0.195069435	-1.28522	1.16E-11
RUNDC3A-AS1	0.0625439	0.281792336	2.171692	3.62E-19
AC108451.2	0.019862	0.120814309	2.604711	4.89E-15

TRPC1	2.4055002	1.032153568	-1.22068	1.70E-46
SECTM1	4.6004926	12.8053019	1.476881	7.70E-17
STARD3	7.3113937	16.65873343	1.18806	4.46E-12
LRG1	4.110887	16.70962219	2.023157	1.60E-08
KLHL13	8.0370017	1.25205452	-2.68236	7.15E-49
NOD2	0.7093796	1.908446503	1.427769	9.54E-24
AC131097.3	0.0614312	0.685466006	3.480041	5.48E-32
AC027702.1	0.3718797	0.812286946	1.127154	3.51E-08
AP003086.2	0.0688607	0.258722827	1.909654	2.20E-06
HADH	55.833934	24.75677264	-1.17332	3.15E-50
FAM155B	0.3835273	1.104189302	1.525586	3.37E-12
MID1	4.2193432	1.60624098	-1.39333	4.93E-41
SLC16A6	2.1018866	11.07090193	2.397016	7.94E-18
LAMC1-AS1	1.1239831	0.375096065	-1.58329	2.95E-41
TDGF1P5	0.0476153	0.199167352	2.064484	0.000273
TRBV6-1	0.3023009	0.622376775	1.041803	0.000292
ADCY5	5.1016208	2.303206095	-1.14731	2.83E-33
ESM1	0.5757846	4.196246605	2.865498	4.45E-56
AIFM2	13.505665	4.253515345	-1.66684	6.31E-32
TEDC2	0.4236896	2.85718053	2.753513	2.35E-60
C5orf38	4.1735257	11.12106054	1.413956	0.04018
AC114488.1	0.5634243	0.203719393	-1.46764	2.39E-28
IL1RAPL2	0.3784758	0.172367731	-1.13471	2.51E-18
AP003071.1	0.4175489	0.1686646	-1.30779	1.10E-17
AC098934.1	0.2843575	1.512926122	2.411564	6.83E-39
FSIP1	1.1007787	6.772104952	2.62108	1.57E-12
SMC1B	0.115887	0.538401679	2.215964	0.000392
RHOU	17.267824	6.14247863	-1.49119	1.74E-47
RF01909	0.0519054	0.182891531	1.817031	1.20E-08
ADAMTS14	0.1685495	1.412571788	3.06708	2.20E-54
HIST1H2AH	0.0513758	0.67224243	3.70982	2.38E-09
ADAMTS8	1.1711278	0.490107579	-1.25673	3.73E-22
LINC00641	3.537581	1.365670269	-1.37315	1.26E-49
AP002026.1	0.6063262	0.180489088	-1.74818	6.38E-53
S100A11	352.13505	789.0615761	1.164009	1.88E-32
NIPAL4	0.0644965	0.288514098	2.16135	3.60E-09
WDR34	13.189345	37.37187224	1.50258	3.56E-50
PPP1R15A	42.665288	18.40640113	-1.21286	2.31E-37
LINC01558	0.6357521	0.252154596	-1.33416	6.32E-40
LINC00607	0.0793514	0.272978544	1.78246	4.51E-18
CDK5R2	0.0104961	0.339290072	5.014592	7.91E-11
LINC01513	0.0369724	0.130055552	1.814606	0.001224
MPL	0.246568	0.111886867	-1.13994	4.55E-40
DAND5	0.0819417	0.177020161	1.111244	2.12E-06
AL592148.1	0.092435	0.219753477	1.249375	1.96E-05
AL133387.1	0.2220171	1.440731246	2.698059	6.64E-07
ANLN	0.8323165	8.284098969	3.315141	3.53E-58
LRRC10B	0.5168515	1.674646622	1.696035	0.000768
KIAA0319	0.0482546	0.258413925	2.420946	0.001474

ARHGEF39	0.3311981	1.086621113	1.714083	7.19E-47
TTC39A	5.9316569	14.78073801	1.317211	1.54E-20
AL023803.2	0.0308862	0.342557279	3.471309	4.80E-46
SLC7A8	12.041868	25.97803272	1.109233	4.80E-13
AL031429.1	0.2643215	0.088469259	-1.57905	2.09E-15
CENPU	1.8501034	9.152967218	2.306634	1.81E-55
GTSE1	0.4099616	3.237378216	2.981265	3.83E-58
SIAH2	14.16969	44.5837642	1.65371	1.20E-38
NLRP12	0.083794	0.173496624	1.049989	3.93E-10
AC018629.1	4.256235	1.049654991	-2.01966	2.11E-28
LINC01978	0.030978	0.134097603	2.113969	3.72E-22
IFI6	65.719749	463.2720736	2.817461	6.97E-38
RIPPLY3	0.1885937	1.600934805	3.085561	2.17E-39
WDR38	0.0390295	0.301510064	2.94957	2.31E-06
AC245014.3	0.2947009	0.648966551	1.138893	0.000386
FAM135B	0.0421685	0.256599209	2.605279	0.045785
AC024451.4	0.0714469	0.24177736	1.758735	7.59E-11
ADAMTS9-AS2	0.7803758	0.092364074	-3.07877	3.21E-62
CLEC4C	0.057217	0.136190126	1.251107	0.008087
CLDN11	7.9180357	1.453592293	-2.44552	2.65E-56
AL132708.1	0.0869821	0.437130967	2.329276	1.10E-05
ASPHD1	0.7799198	2.393684642	1.617835	7.62E-07
GPR68	1.2929859	4.221917789	1.707192	2.20E-42
MAP2K6	2.4170223	1.168071213	-1.0491	5.72E-29
GLDN	2.1089695	0.537809573	-1.97137	4.22E-43
ANGPTL1	8.0020477	1.069345989	-2.90364	2.54E-57
AC064875.1	0.2696612	0.119602638	-1.1729	1.96E-24
PRAC2	0.006686	0.593019504	6.470794	4.39E-16
IL12B	0.0308052	0.131409203	2.092819	1.07E-15
PCSK4	0.5569253	1.526227627	1.454414	5.57E-15
MXRA5	18.904817	40.44102024	1.097066	1.07E-15
NRIR	0.1862739	0.374229999	1.0065	0.003724
HS3ST6	0.0786848	0.346850393	2.140157	0.025397
SIK2	23.713523	4.815333177	-2.3	1.24E-62
RNU6-242P	0.8106263	0.147690192	-2.45646	4.09E-48
RP1	0.0465541	0.13345854	1.519412	0.046318
PPM1J	1.0448262	3.893891753	1.89795	1.64E-28
AC025175.1	0.9954374	0.488272051	-1.02765	2.94E-35
EMCN	12.137103	3.325191621	-1.86791	2.04E-58
GPC4	6.0907362	13.90679836	1.191102	8.77E-11
PPFIA3	1.0570279	2.574271533	1.284151	1.03E-21
PANO1	0.1711495	0.435663482	1.347957	7.20E-33
ULBP2	0.3144921	1.066952112	1.7624	2.69E-10
TMPRSS4	0.1266195	0.904687283	2.83692	8.63E-12
CEACAM7	0.1158795	0.427611695	1.883676	4.43E-05
DHCR7	11.09574	24.24002207	1.127385	4.18E-22
H2AFY	7.3807428	15.50446222	1.070846	6.64E-60
PTPRM	12.769695	4.768729469	-1.42105	5.12E-43
STX19	2.1701213	0.920580527	-1.23716	4.58E-23

PLPP3	44.666719	12.01912888	-1.89387	2.79E-63
POTEKP	1.2646173	4.611521536	1.866542	0.001133
KDR	14.624237	7.062462205	-1.05012	3.03E-39
HELZ2	2.7184655	6.041798185	1.152185	6.79E-23
PDXP	0.1447512	0.289523332	1.000104	6.24E-14
AC254633.1	3.4910559	0.713120339	-2.29145	3.04E-52
SLC5A4	0.4695716	0.200647449	-1.22668	1.84E-30
AL161747.1	0.0523342	0.120862451	1.207541	0.000974
SIRLNT	0.0328985	3.838344828	6.866319	2.41E-09
KIF26B	0.4088571	2.683943895	2.714686	1.16E-48
NKX6-1	0.1190168	0.794940622	2.739682	1.05E-17
AC025259.3	2.321785	0.853054488	-1.44452	5.42E-29
CNTNAP3	0.790852	0.155980405	-2.34204	3.59E-55
ARHGAP10	3.2957089	1.352798639	-1.28464	1.11E-51
LRRC70	1.1074877	0.281211276	-1.97756	1.62E-52
IGHE	0.0730592	1.243525536	4.089227	6.66E-26
TBX20	0.0363306	0.180328458	2.311369	0.005802
CISH	5.7333275	12.12162527	1.080139	6.88E-18
IGFBP1	1.0453282	0.377704975	-1.46862	2.81E-29
EIF3EP1	2.5767133	1.181960676	-1.12435	1.77E-27
PYROXD2	6.200629	2.721078733	-1.18824	2.25E-39
CENPF	1.1762178	10.69167911	3.184261	2.19E-59
FAM19A5	0.8465095	1.915433834	1.178073	0.000158
GAS2L3	0.5969494	1.477882219	1.307851	3.90E-30
BST2	82.577591	212.6627679	1.364745	2.02E-15
FGFBP2	8.3058988	1.378941382	-2.59058	2.99E-48
CLIP4	7.1818288	2.306330417	-1.63875	1.93E-53
AC011503.2	0.3692577	0.927311223	1.328426	2.60E-22
RNASE7	1.6535732	0.266953485	-2.63093	1.00E-43
C4orf51	0.022998	0.158405251	2.784042	0.000295
CCT3	51.203453	116.1617156	1.181822	2.41E-55
AGRP	0.0562993	0.125346309	1.15473	1.98E-12
AL121890.4	0.23284	0.106806236	-1.12434	1.64E-19
MYEOV	6.3786395	1.844988791	-1.78964	7.68E-38
TAT-AS1	0.5367174	0.255951199	-1.06829	4.52E-14
NUPR2	1.8566304	6.999511654	1.914568	6.99E-14
DYDC2	0.1132543	0.490946572	2.116001	1.67E-10
SAC3D1	3.0333466	8.220118215	1.438249	4.31E-42
ST6GAL2-IT1	0.0365018	0.185647125	2.346524	1.27E-15
BTBD11	1.5261535	0.693024307	-1.13892	4.25E-30
ADAMTS6	0.2005728	0.489249038	1.286443	6.69E-21
AL136146.1	0.0126007	0.119501941	3.245453	0.008379
MIR186	6.5286867	3.247488131	-1.00747	3.31E-14
ASCL2	0.6828189	2.700426427	1.983612	4.00E-19
HIST1H2AB	0.0194755	0.41470762	4.41236	5.66E-16
AC008403.3	0.0831051	0.302021657	1.861644	2.01E-19
LOXL4	8.2604991	2.764736795	-1.57909	5.19E-53
FOXJ1	0.1267207	2.828490447	4.480308	4.71E-16
AC079354.3	0.0328605	0.111879506	1.767519	3.05E-12

SLC35F1	0.3452663	0.158276911	-1.12526	7.91E-29
AL021408.1	0.3581751	0.098755248	-1.85874	1.52E-49
LINC01771	0.0461397	0.114258972	1.308228	6.86E-06
PPIAP39	6.5771588	0.962923708	-2.77197	6.68E-61
AC008840.1	0.472337	0.146439448	-1.68951	4.81E-27
CXorf36	12.105507	3.088797053	-1.97055	1.59E-59
CCNO	1.5226784	7.905599053	2.376263	1.55E-08
IFITM10	2.0069638	4.28212655	1.093313	0.024184
AC010307.4	0.0190542	0.398866868	4.387728	1.33E-31
CTPS1	2.9486116	7.282006653	1.3043	4.78E-39
BNIP3P39	0.074026	0.207557478	1.487407	0.005913
TMEM47	21.017717	8.742475641	-1.26549	8.22E-53
ADAM33	5.5489621	0.877949135	-2.66001	2.27E-60
SHISA8	0.0265446	0.155220447	2.547827	8.25E-19
PRKCA	2.0176835	0.959550001	-1.07227	4.16E-43
AC006378.2	0.208846	0.104130887	-1.00404	1.63E-30
ERFE	0.0500452	0.21073893	2.074152	7.43E-23
RGN	2.8050731	0.751495507	-1.9002	1.46E-51
CXCR2P1	0.1363704	1.304120223	3.257474	2.48E-16
SLC12A5	0.0413826	0.145802988	1.816925	6.85E-14
PCSK1	0.1408295	11.96059807	6.408196	0.001651
LINC01093	0.2410765	0.106421006	-1.17971	6.87E-20
ADCYAP1R1	2.13585	0.352940697	-2.59731	3.54E-62
AC005776.1	0.123641	0.273928736	1.147643	8.45E-08
AC011445.2	0.6623278	1.556577366	1.23276	7.33E-11
VSTM2L	0.5197711	3.122009478	2.586527	3.03E-10
RALGPS2	4.2790348	9.35665124	1.128707	2.69E-18
LINC00987	2.2513146	0.889763283	-1.33927	6.47E-50
LCN12	0.2864078	1.103553973	1.946014	1.09E-10
DRAIC	0.9127228	2.26706137	1.312575	2.32E-05
SLC7A5	5.0834095	28.73826352	2.499105	8.23E-30
COL4A6	2.2457089	0.878990211	-1.35325	2.26E-33
DDIT4L	1.9345692	0.894834055	-1.11232	1.45E-28
OVCH2	1.5376549	0.159029412	-3.27337	1.17E-36
MAPK10	2.8413811	0.767732577	-1.88792	9.73E-36
AL513283.1	1.7246519	0.468656645	-1.8797	2.43E-39
KCNH3	0.6054715	0.296553096	-1.02977	5.22E-21
DEFB131E	0.0326069	0.110679175	1.763134	3.85E-15
CLDN6	0.0531651	1.455327076	4.774721	4.47E-13
ROBO3	2.0006733	0.603801561	-1.72834	2.79E-53
C10orf113	0.0351933	0.252338646	2.841988	0.012217
UNC5B-AS1	0.1568081	0.555140591	1.823853	6.70E-22
RFC4	3.6557592	8.372984096	1.195571	7.18E-41
AL592494.3	0.0711405	0.44848315	2.65631	7.85E-16
AL391001.1	1.5921537	4.027952941	1.339067	3.10E-11
PECR	7.4541966	3.286472297	-1.18151	8.62E-13
CCDC136	0.9844961	0.39155601	-1.33017	2.71E-37
SLC27A2	3.3171714	8.261119243	1.316384	8.12E-05
TMEM238	1.537218	5.387476778	1.809288	5.96E-33

PALM2-AKAP2	0.4422291	0.070075615	-2.65781	3.75E-43
LINGO1	0.9510555	5.294752865	2.476962	7.24E-27
AC011479.1	0.575613	1.237463266	1.104215	0.009228
VMO1	1.2459414	5.023753955	2.01153	8.41E-12
FFAR4	1.3821655	0.373229022	-1.8888	9.20E-35
ELAVL3	0.0139801	0.126469696	3.177347	0.045708
PDP2	3.9273507	1.83160919	-1.10044	7.27E-39
N4BP3	1.9579071	6.703084289	1.775513	1.50E-37
HPRT1	12.231013	25.64892224	1.068354	5.00E-41
LINC02356	0.4838772	0.211849198	-1.1916	4.42E-27
TRHDE-AS1	2.9605829	0.078602165	-5.23517	6.58E-56
AP003071.4	0.9246515	0.20030449	-2.20671	6.01E-53
XG	5.6269657	1.757960297	-1.67845	8.20E-18
UGT2B28	9.4090265	1.946504378	-2.27316	7.02E-10
RNA5SP515	0.5792589	0.118211443	-2.29284	1.93E-40
DENND2C	0.9162382	0.380142724	-1.26918	1.23E-50
DTYMK	5.7175657	12.02632448	1.072723	2.51E-45
FER1L4	0.2918467	0.803424683	1.460952	5.48E-09
TRIM63	0.8623245	0.110108664	-2.9693	4.53E-13
RAB11FIP1	7.4599978	16.02561617	1.103133	0.000343
AC092802.1	0.2782283	0.118022145	-1.23721	2.00E-43
RFC2	8.9999595	18.15912208	1.012704	8.66E-50
ZNF695	0.081681	0.715883642	3.131652	1.19E-44
AL354732.1	0.1070479	0.269242998	1.330653	2.22E-16
RNU6-583P	0.1020823	0.268015731	1.392584	2.64E-08
SPRY2	22.271858	4.197170594	-2.40773	5.97E-66
AMOTL2	31.991873	12.00136992	-1.41451	6.34E-56
AC125611.1	0.13368	0.276969956	1.050946	0.00214
SPAG1	1.6491587	4.090503867	1.310548	6.17E-35
UBBP2	0.0823203	0.273355438	1.731457	3.59E-07
ABCA12	1.3483604	3.014204804	1.160571	1.67E-06
RNF180	2.7902769	1.081216976	-1.36775	1.77E-50
HIST1H3G	0.0850839	0.659318181	2.954017	2.65E-18
CDCA5	0.9661261	7.835590024	3.019759	3.93E-59
AL672207.1	0.0797728	0.176224883	1.143448	3.07E-17
BOK-AS1	0.7638991	0.126617709	-2.5929	1.38E-34
CHST8	1.1515973	4.027571855	1.806274	0.007738
EXOC3L4	0.096236	0.302875552	1.654077	2.75E-05
ZNF252P-AS1	0.0742561	0.164308229	1.145823	3.96E-18
BX293535.1	0.2233501	0.450561059	1.012416	0.028876
ZDHHC12	6.4782767	14.59071198	1.171368	1.04E-44
MNX1-AS2	0.1334922	0.649820398	2.283286	2.00E-08
ZNF887P	0.1855705	0.375798969	1.017994	3.95E-16
KAT2B	7.7434314	3.13823138	-1.30302	1.19E-48
TIGIT	0.3219764	1.300858635	2.014437	1.24E-17
RF00406	0.3152831	0.913469754	1.534709	1.00E-08
OVOL1	1.3332132	3.043333128	1.190745	7.14E-22
FAAP24	1.3118487	2.904698258	1.146787	9.32E-52
PLCXD3	0.8543598	0.197641793	-2.11196	8.37E-45

DIXDC1	10.613961	4.06406679	-1.38497	5.08E-56
ACO1	24.018184	6.608743307	-1.86168	1.20E-41
GIMAP6	15.635085	5.616438064	-1.47706	3.33E-48
B4GALT3	9.544991	21.82418533	1.193112	9.21E-51
MEDAG	17.886527	3.674501292	-2.28325	3.79E-40
1-Mar	11.470699	1.950444913	-2.55608	1.34E-40
HIST3H2A	5.4134495	21.09731953	1.96244	2.94E-21
SPINK5	0.9638006	0.479859345	-1.00612	2.83E-32
GFER	4.0261993	9.043821461	1.167514	1.25E-41
ZC3H12B	0.5349834	0.212971839	-1.32883	2.90E-46
PHKG2	2.429659	5.284013645	1.12088	9.42E-50
FNDC5	1.9626759	0.655353016	-1.58248	9.61E-21
RHBDL2	0.9069593	1.84582743	1.025158	2.87E-14
CCR8	0.0710016	0.643219483	3.179387	8.65E-36
HEPACAM	2.2176539	0.069259316	-5.00088	8.52E-62
GPR17	0.7995157	0.169295721	-2.23958	5.01E-51
FAM184A	1.4294187	0.647574571	-1.14231	1.73E-41
MRPL55	9.9307031	21.37762456	1.106134	1.35E-37
HMGB3P10	0.9958464	0.140828932	-2.82198	2.35E-48
PYCR3	3.2233311	10.83735594	1.749389	9.13E-51
SBSN	0.1333784	3.174788307	4.573064	4.98E-05
CLEC3A	1.6014677	77.69390851	5.600335	0.022829
AL133230.1	0.0951846	0.268330758	1.495213	9.95E-06
ACKR3	43.820112	13.71200582	-1.67615	1.25E-25
CALB2	33.287344	8.843564686	-1.91227	1.14E-32
FRMPD1	0.3804926	0.171459868	-1.15	1.77E-32
LRTM2	0.0097846	0.46817711	5.580404	1.65E-27
MAP1B	11.61888	5.42580536	-1.09856	1.27E-38
JPT1	8.1306988	36.33657593	2.159971	5.84E-59
AP001094.2	0.2248806	0.105754772	-1.08844	5.23E-30
AC067930.5	0.0364855	0.146295324	2.00349	3.68E-19
ARHGAP24	2.9532823	1.296794338	-1.18737	3.92E-49
LINC00940	0.1271259	0.642954212	2.338459	9.14E-18
BX640514.2	0.4672779	1.481513786	1.664719	1.47E-11
PAX2	0.0644733	0.345257543	2.420898	1.93E-09
DOC2B	5.0327456	2.094244101	-1.26492	9.93E-36
SLC2A4	8.1353406	0.408644417	-4.31528	2.75E-62
RNU7-186P	0.2821084	0.104422195	-1.43382	3.80E-14
SCT	0.1208902	1.851220247	3.936707	1.60E-52
AL513303.1	1.108762	0.075384322	-3.87854	2.41E-53
AC093904.2	0.080713	0.405781902	2.329832	5.02E-06
AL031009.1	0.1168613	0.291424877	1.318327	3.93E-14
KMO	0.5395364	1.704071429	1.659194	6.28E-14
PCSK9	0.1074519	0.330002973	1.618788	1.20E-06
ESPL1	0.3655899	2.297220266	2.651591	9.13E-54
RDH12	0.0902182	0.204601826	1.181329	6.18E-08
ACRV1	0.0421068	0.125457053	1.575069	3.48E-21
SYT5	0.0173729	0.311166638	4.162775	4.81E-18
KCNH1	0.0489292	0.408466707	3.061452	7.45E-14

HIST1H4J	0.1215086	0.647447762	2.413706	1.29E-31
MCFD2P1	0.3232176	0.11439408	-1.49849	4.47E-31
LTA	0.1942857	0.673015877	1.792461	6.85E-15
AC087878.1	0.0291729	0.159102722	2.447258	9.42E-12
AC006970.2	0.2744346	0.817735273	1.575172	1.24E-06
LINC01341	0.209197	0.461589911	1.14175	6.57E-06
SLC1A3	6.874388	2.923917351	-1.23333	3.06E-20
RN7SL752P	0.0660111	0.963667339	3.867755	9.81E-08
UTS2	0.0380527	0.165568068	2.121352	1.24E-12
RNASE1	187.1539	70.93645491	-1.39963	5.04E-19
MIR4999	0.207328	0.10226973	-1.01954	1.78E-10
PCDHB4	2.7682852	1.292873876	-1.09841	3.28E-40
JUN	163.69638	62.92234652	-1.37938	2.78E-38
GRK5	4.6015427	2.067814339	-1.15401	4.94E-46
PPL	22.966738	9.763561484	-1.23407	2.92E-42
ARHGAP20	3.0548107	0.380380686	-3.00557	3.10E-65
MIRLET7F1	0.3048516	0.136335248	-1.16095	4.89E-22
ACTC1	0.4578712	0.153318863	-1.57841	0.000108
FOS	431.71639	78.87980425	-2.45236	4.40E-45
TH	0.0584663	0.235020012	2.007107	0.000239
H2AFZP3	0.1259873	0.360658785	1.517356	2.05E-18
PPP1R14B	15.785653	45.70750726	1.533817	7.83E-46
AL117381.1	0.1394225	0.53282528	1.934199	0.031638
AL158212.3	2.185019	1.024818529	-1.09228	6.48E-48
AC064799.2	0.051889	0.620952858	3.580984	0.010087
AC022196.1	0.0177267	0.567226162	4.999927	3.90E-11
MXRA7	13.823636	6.695927858	-1.04578	2.48E-38
C5orf66-AS1	0.0147127	0.936413024	5.992008	4.51E-32
ACTG2	66.458762	17.06774312	-1.96119	8.80E-41
LINC01198	0.8448973	0.240825987	-1.81078	4.72E-32
PYCARD	7.2021734	26.02786941	1.853553	6.31E-30
AL451042.2	0.2796024	0.11484447	-1.2837	2.42E-32
CIB3	0.1162267	0.902712718	2.957325	3.19E-29
AC068587.2	2.0176523	0.887192439	-1.18536	2.82E-24
TPM3	28.959653	62.74670845	1.115495	7.60E-62
OXCT1-AS1	0.5922674	0.129731002	-2.19073	4.00E-59
CCDC87	0.2525532	0.758912463	1.587346	1.77E-26
SLC25A27	4.1336425	1.074914872	-1.94319	7.54E-53
AC009119.1	0.7304634	1.807784599	1.307339	8.25E-09
SCN2A	0.9836194	0.184308748	-2.41598	2.71E-42
AC012065.3	0.6516448	0.291559342	-1.1603	2.73E-32
PTPN14	10.185184	3.352395792	-1.60321	8.66E-54
ICAM2	5.7231968	2.208358814	-1.37385	2.35E-46
FXYD3	27.990762	69.48027144	1.311653	5.78E-24
CNGA1	1.0792709	0.482984236	-1.16001	3.53E-35
AC000403.1	0.5475661	0.245819281	-1.15544	2.35E-44
KCNG3	0.0222986	0.155988362	2.806414	1.97E-22
FAM69A	9.857488	4.816481215	-1.03324	5.73E-39
PPARG	22.083128	2.392057752	-3.20662	1.39E-56

SLC25A25	11.42146	5.407258129	-1.07878	1.70E-25
UBE2R2-AS1	0.0852036	0.218691572	1.359911	0.000818
NXPH4	0.6590426	3.394102038	2.364586	5.50E-13
C1orf112	0.9996386	2.465191752	1.302221	1.56E-45
H2AFX	7.3061484	26.49013831	1.858272	7.51E-53
AC011447.6	0.0416084	0.137950084	1.729198	5.46E-15
SLC28A3	5.2412541	2.121087905	-1.30511	1.80E-22
AP005205.2	0.3097203	0.152901579	-1.01836	2.69E-17
DDR2	28.099938	4.885430195	-2.52401	3.61E-53
RABEP2	3.6092874	8.335311266	1.207522	4.45E-33
KRT8	80.668195	268.3988868	1.734307	4.73E-38
CAT	95.639096	25.95905929	-1.88136	5.14E-60
AC027601.2	0.50048	0.182030106	-1.45914	3.95E-44
AL022313.2	0.2129474	0.443099372	1.057133	2.77E-08
BUB3	9.5088798	19.36258453	1.025924	2.74E-47
GSDMD	8.0451606	16.33686927	1.021938	1.45E-23
USP44	0.4671679	0.096583589	-2.27409	3.98E-57
ZBTB12	2.5811833	5.351663816	1.051955	2.56E-27
DBF4	1.6126	3.632243817	1.171472	1.26E-39
RPL18P10	0.0593879	0.247497242	2.059171	4.26E-08
AC006449.5	0.278988	0.92533907	1.729779	3.27E-26
LINC00504	1.4825857	2.983503871	1.008892	1.70E-05
HIST1H3H	0.5236907	9.865511713	4.235607	1.78E-48
MYOZ1	14.16963	1.176033455	-3.5908	4.33E-14
HIST1H1PS1	0.635634	5.857562382	3.204032	7.28E-38
GNAL	2.9254832	0.715900818	-2.03084	1.82E-61
MCM6	8.6442807	17.52301032	1.019433	2.35E-34
TEDC1	0.8195734	1.988600286	1.278808	8.61E-29
TNNI3	0.0620906	0.896971085	3.852615	1.18E-16
MAB21L1	2.8200046	0.451798782	-2.64195	3.24E-61
SH2D2A	0.6300113	1.917695927	1.605924	1.76E-17
AL023693.1	0.0986519	0.527926841	2.419919	1.56E-06
AC106795.2	0.4100121	1.29825902	1.66284	1.48E-20
LARP6	5.4567824	1.829169223	-1.57686	2.01E-53
NUP210	4.9340539	17.54351762	1.830093	2.76E-53
RPUSD1	4.4683045	11.32835117	1.342138	3.82E-47
TREX2	0.1413714	0.305550882	1.111922	2.64E-07
MMP1	0.2143992	18.48646038	6.430026	3.75E-51
AC233992.3	0.0796956	0.309654848	1.95809	4.12E-23
ARID5B	26.951476	9.650846141	-1.48164	5.57E-55
AP000864.1	0.0206471	0.11987935	2.537571	1.22E-17
VSIR	17.592377	6.086185067	-1.53134	1.37E-52
AC012531.3	0.0612315	0.529736792	3.112929	3.60E-19
SLC2A10	7.9422328	19.21693005	1.274761	1.98E-20
TNFRSF18	1.0089971	7.116380202	2.818222	1.80E-39
CDCA3	0.3801576	2.97660643	2.968999	3.25E-60
TRIM59	0.4887553	1.833012409	1.907032	2.70E-57
ASPSCR1	1.3681828	2.945924387	1.106459	8.16E-36
SQLE	5.6093397	26.02007945	2.213723	1.22E-50

LINC00524	0.0224241	0.15814598	2.818135	5.99E-08
B4GALNT3	1.6760118	5.403359964	1.688824	4.07E-18
AC090709.1	0.0133369	0.130560369	3.291222	1.12E-06
AP005264.1	0.8958508	0.098696547	-3.18219	1.23E-61
AC133528.1	0.2172123	0.441794964	1.024271	3.26E-10
AC139769.3	0.4400472	0.972191927	1.143583	3.72E-09
ROGDI	4.6850243	12.97850666	1.469996	2.36E-42
MIR4435-2HG	1.3405547	2.737266726	1.029906	2.58E-34
GPR75	1.6008543	0.669051729	-1.25865	1.96E-25
DNAJA4	6.2031552	12.73998403	1.038289	2.26E-21
AL138995.1	0.4847023	0.206686547	-1.22965	5.98E-43
APCDD1L-DT	1.9174257	0.39079277	-2.29469	3.00E-39
AC022893.3	0.2286858	0.114248977	-1.00119	2.83E-20
HIST2H3D	0.073722	0.404039405	2.454329	5.61E-14
AC090825.1	0.7372786	0.301737795	-1.28891	4.40E-35
VAT1L	0.69689	0.291616558	-1.25686	3.55E-21
TRBV18	0.2664393	0.642107094	1.269007	3.91E-05
CEND1	0.049964	0.168471013	1.75354	5.30E-26
AC243829.1	0.1359787	0.428525413	1.656	5.96E-08
RNU6-548P	0.2107077	0.576589298	1.452301	1.07E-09
TSSC2	1.0233736	0.306211049	-1.74073	2.71E-46
SERPINB7	0.0772899	0.921222916	3.575199	1.12E-08
SHE	4.3226543	1.04034903	-2.05485	3.61E-58
AC092431.1	0.2729513	0.099117769	-1.46143	3.18E-26
HIST1H3E	1.6085464	4.160843391	1.371118	5.62E-17
TMEM244	0.0570378	0.217001741	1.927717	8.07E-19
GAS7	9.6808157	4.77890915	-1.01845	1.04E-24
AL645939.2	0.235209	0.107597658	-1.1283	1.46E-09
AP003469.2	0.4062627	1.355373123	1.738205	2.31E-06
U91319.1	0.0753155	0.350955079	2.220268	7.04E-07
RRAD	3.5591716	1.409267083	-1.3366	2.77E-27
CAMK1	3.4042392	1.377397547	-1.30539	4.84E-33
NGFR	15.250498	3.793456013	-2.00727	9.63E-41
ARC	2.259913	1.02888961	-1.13518	1.41E-27
HYAL3	1.1423708	2.664221444	1.221683	8.06E-34
4-Mar	0.0097782	0.269734928	4.785822	2.99E-47
IL6	9.4542266	1.466001057	-2.68907	1.66E-33
PDZRN3	10.655297	5.257172908	-1.01921	3.26E-41
FBXO43	0.0648811	0.329310953	2.343581	3.00E-50
AC135352.1	0.235318	0.097989894	-1.26391	3.01E-30
ASF1B	1.5848642	12.59713598	2.990665	1.24E-62
SOBP	2.0017823	0.68486771	-1.54739	1.74E-55
CAPSL	0.0831509	1.259135356	3.920557	8.74E-23
MIR155HG	0.4389239	0.933428481	1.088569	1.63E-11
FAM83D	0.7721759	8.337513846	3.432616	8.43E-57
INAVA	0.7782394	2.206173066	1.50326	0.03336
AL583785.1	3.625904	1.328826615	-1.44819	2.55E-41
SNRPGP9	0.0768813	0.266557628	1.793744	2.44E-14
UCN	0.5734955	1.562422295	1.44593	5.47E-19

ABAT	3.2181163	7.685829444	1.255984	5.57E-06
DMD	7.2081944	0.956881377	-2.91323	1.54E-64
LINC02515	2.1270247	0.699415814	-1.60461	2.31E-31
AL390729.1	0.0998655	0.254882591	1.351775	0.00024
CPNE8	3.1268302	1.542657649	-1.01928	5.62E-36
LOXL1	6.2466865	16.91907964	1.437488	2.80E-32
LINC02308	0.3263886	0.130239039	-1.32543	1.41E-29
MARK1	3.1563254	1.53511782	-1.0399	1.92E-30
GSTT2B	4.7239454	2.283255692	-1.0489	0.04982
HAPLN1	0.0235655	0.92471581	5.29426	3.63E-37
MMP9	7.6555077	65.75575903	3.102547	4.74E-31
LINC02289	0.4268816	0.106054314	-2.00903	3.06E-50
SFRP1	235.03678	37.98867778	-2.62925	3.23E-53
AL022316.1	0.1840294	0.955981873	2.377047	1.50E-25
FCMR	3.3258412	6.930199142	1.059178	6.26E-13
CERS1	0.0976464	0.216806944	1.150772	0.036396
ARHGAP6	1.2894903	0.552546693	-1.22263	5.00E-47
PAK3	1.7763504	0.289684234	-2.61636	4.37E-53
CTTNBP2	1.6202152	0.788714901	-1.03861	2.40E-45
ABCB1	3.5670239	0.853079115	-2.06397	3.14E-49
AC114550.1	0.0234621	0.138195531	2.558306	1.19E-08
SLC37A1	2.6323161	5.939865083	1.174097	3.76E-43
SEMA3G	33.227359	5.080738577	-2.70926	6.66E-59
KIF23	0.8076477	4.765514868	2.560834	1.26E-57
COMP	1.9732106	46.18345274	4.548759	1.40E-54
COL4A2-AS1	0.353584	0.114237479	-1.63002	6.14E-33
GPR143	0.7707358	2.369580992	1.620324	1.13E-22
UBA52P7	0.0534189	0.127595329	1.256152	0.00444
FGFR3	1.3997201	7.197268158	2.362311	9.82E-19
STPG3-AS1	0.1915408	0.391734128	1.032223	0.001612
TFR2	0.0869019	0.79526079	3.193968	4.15E-42
SAMD5	7.2042869	0.874120829	-3.04295	8.38E-46
TDRKH	2.6579314	5.922235363	1.155838	2.00E-39
AC025569.1	0.2780544	0.091525048	-1.60313	1.12E-43
RNU6-813P	0.506461	5.26346424	3.37749	7.26E-07
AL139246.5	0.4395774	1.684669817	1.938277	1.40E-24
SLAMF8	2.0077412	5.910582664	1.557727	1.58E-24
NRBF2P5	0.1864459	0.418205448	1.165455	0.000865
HSPC324	0.9480517	0.313659414	-1.59577	1.42E-40
CARD19	4.9577043	10.03756724	1.017666	4.53E-30
KRTAP5-1	0.1716906	0.389707009	1.182579	7.59E-12
AL645924.1	0.1720949	0.774730161	2.170489	3.13E-17
MEPE	0.0298289	0.353368106	3.566389	5.66E-09
AC016205.1	0.226456	0.555184003	1.293735	1.17E-12
USP18	2.9587275	6.649383707	1.168244	3.34E-21
CERS3-AS1	0.4735138	0.080648467	-2.55369	1.94E-58
SHC3	0.7851022	0.321777268	-1.28682	1.85E-39
FGF2	9.9381614	1.629422754	-2.60862	2.12E-58
FBXL19	3.2714429	7.609518123	1.217878	1.49E-42

LINC01497	0.7460325	0.072576434	-3.36167	1.26E-74
HERC2P9	1.6057545	0.788051928	-1.02689	2.68E-40
TSEN54	5.3550925	12.25498757	1.194386	5.77E-43
HOXA4	2.4622134	0.502587933	-2.29251	7.78E-61
PTCHD3	0.4723847	0.173503398	-1.445	8.68E-37
CRTAP	52.012555	25.54369299	-1.02589	1.79E-48
HSPE1P8	0.0417332	0.138541821	1.731054	0.00029
GPR84	0.2945195	1.038140048	1.817566	2.03E-30
AC108463.3	0.0822854	0.164918744	1.003046	5.13E-05
RPSAP70	0.8579646	0.247644883	-1.79265	1.21E-45
AC036108.3	2.2990288	0.412324178	-2.47917	3.16E-50
TG	0.0387019	0.109264157	1.497345	4.65E-15
TCF7L2	14.216728	6.711146469	-1.08296	6.09E-51
BRCA1	1.1945942	2.548381466	1.093061	6.62E-23
ABHD6	4.3400211	2.027827757	-1.09777	2.13E-39
SLC27A4	8.3597386	16.98355747	1.022609	3.84E-39
ZNF462	3.6644131	1.80331573	-1.02293	1.43E-33
AC007750.1	0.0536182	0.143244062	1.41768	6.78E-20
HPDL	0.4450872	1.654901285	1.894585	0.000479
AL121845.3	0.1431121	0.30424974	1.08811	1.54E-13
BRICD5	0.6523843	1.513873554	1.214451	3.54E-16
AL136084.3	2.3440808	1.006159584	-1.22016	1.07E-31
AC016866.3	0.0494424	0.215616707	2.124648	5.11E-11
AP003472.1	0.0247539	0.158781748	2.681318	5.68E-11
AL671986.1	0.0670291	0.163588966	1.287216	0.000102
ZFP36L2	134.05652	60.81751909	-1.14028	9.16E-44
SIX3-AS1	0.0195049	0.151162969	2.954195	0.005482
AP006621.4	0.2074255	0.517672008	1.319445	4.64E-11
TRAV2	0.2665515	0.600143132	1.170892	1.23E-05
WASF5P	0.0387002	0.168723711	2.12425	9.08E-07
CLEC10A	4.2393236	1.912600839	-1.1483	1.42E-22
AC007541.1	1.3273738	0.618435799	-1.10188	1.24E-45
KLHL29	2.5522069	0.459580067	-2.47336	1.28E-61
PARPBP	0.5778639	1.679811959	1.539498	6.20E-44
AC096536.2	0.177712	0.529577762	1.575301	5.47E-32
MRPL13	5.3112769	12.35952753	1.218493	1.46E-48
RN7SL180P	0.0757472	0.256050822	1.757167	4.11E-05
FAM110D	5.7485194	1.443151182	-1.99397	3.60E-50
SLIT2	5.1629429	2.000039262	-1.36817	1.37E-38
ABCA17P	0.0940276	0.212248772	1.174601	8.13E-12
PAPPA2	0.4603781	0.084727028	-2.44193	1.88E-55
RN7SL236P	0.068044	0.224174096	1.72008	3.12E-06
LINC00840	0.4242365	0.161963568	-1.3892	2.94E-33
AL645608.8	0.0879139	0.262918755	1.580453	5.90E-13
AC243772.2	0.0613127	0.243308673	1.988531	1.31E-22
TRAIP	0.91395	2.152934695	1.236117	1.42E-41
AC103740.2	0.1225484	0.327553894	1.418381	0.000491
AC019117.1	0.0868241	0.462015571	2.411774	1.12E-06
NREP	3.5065495	8.342316839	1.250396	1.01E-36

CCNE1	0.5386864	3.720504311	2.787981	8.04E-42
PDE7B	1.7539941	0.627890881	-1.48206	1.94E-51
AC110995.1	1.3990592	0.663969825	-1.07527	8.01E-13
AC116025.2	0.016663	0.238811635	3.841157	1.91E-36
CENPO	1.1322498	2.689962495	1.248394	9.94E-47
TMC4	17.109992	37.84053104	1.145093	6.11E-21
AC007255.1	0.4009939	1.303194279	1.7004	1.97E-19
ZDHHC2	5.453648	2.674846244	-1.02777	2.25E-38
AL592293.1	0.6739137	0.243977512	-1.46582	4.08E-46
TGFBR3L	0.051018	0.430984503	3.078556	3.01E-28
RNU6-132P	0.2681833	0.108387952	-1.30701	5.74E-15
AC005244.1	0.0761142	0.153204341	1.00922	0.038255
MCTP1	2.0977218	0.988208829	-1.08594	4.99E-33
ZMYND10	0.7259787	3.989848696	2.458335	7.21E-26
DNASE1L2	0.1616866	0.758711891	2.230352	4.57E-34
AC069437.1	0.0293804	0.158540211	2.431922	0.006447
NAALADL1	1.4542009	0.650090618	-1.16151	1.00E-44
APOBR	1.9323169	5.008217186	1.373965	6.04E-20
NFAT5	5.9440993	2.827183912	-1.07209	2.45E-32
STX1A	0.8636662	2.365013822	1.453303	5.06E-40
CAVIN2	44.508264	3.146612031	-3.8222	3.19E-67
TENM2	2.1048501	0.571346046	-1.88128	8.30E-31
NVL	4.3717255	10.80973064	1.306056	8.43E-53
AL391994.1	0.2360577	0.489489785	1.052139	1.92E-05
MRGPRF	7.9447127	2.036191862	-1.96412	9.21E-54
SPINK4	0.0738266	0.910821069	3.624955	4.50E-14
ALDOA	124.38625	262.4244057	1.077075	2.81E-39
BBOX1	12.050448	2.718495391	-2.14821	8.17E-37
CTXN1	3.0576184	21.28351787	2.799256	5.73E-53
AC104667.2	0.536532	1.587863066	1.56535	4.28E-30
LRRC59	19.811131	47.74969812	1.26918	7.65E-51
AL138781.2	0.0538839	0.123875524	1.200964	1.79E-12
MMEL1	0.4019538	0.989669341	1.299917	5.44E-18
ABCB5	0.652281	0.055737737	-3.54877	1.94E-57
CNN1	71.225545	7.903470133	-3.17184	2.83E-51
MT1X	65.04191	21.38662565	-1.60466	6.15E-48
EDN2	0.893738	4.808867028	2.427773	1.09E-23
AL050327.1	0.3500789	0.139961007	-1.32266	1.95E-21
AL121906.2	0.1578044	0.876147805	2.473037	3.74E-45
ZG16B	9.4748044	34.39693718	1.860112	1.72E-25
SGK2	2.8008451	0.360675974	-2.95709	7.55E-50
AC134682.1	0.0602177	0.15546464	1.368328	1.38E-07
TESC	5.2506816	1.455034856	-1.85145	8.28E-46
RN7SL128P	0.0567364	0.928297694	4.032242	4.13E-10
KCNT2	0.3058146	0.138539674	-1.14236	4.22E-34
CCM2L	4.0721148	1.351454123	-1.59127	1.75E-51
PRDM8	0.8745677	0.357851731	-1.28921	6.94E-44
RFTN2	1.7304369	0.73515127	-1.23502	2.38E-39
LIPM	0.0956356	0.360467204	1.914248	3.50E-23

AL033519.3	0.0564134	0.43402356	2.943664	1.36E-14
IL27	0.0645929	0.205407855	1.669044	8.29E-28
AP001627.1	0.5724183	0.080515616	-2.82973	8.82E-59
DPEP1	0.1132164	0.619921084	2.453001	2.07E-37
FAM155A	0.2203927	0.613766205	1.477613	0.049689
PRKD1	3.3299838	1.266515012	-1.39465	3.05E-55
MEIS2	2.3144257	0.790634738	-1.54957	3.40E-54
PABPC1P4	2.6009901	0.802086306	-1.69723	8.33E-53
SLC39A4	1.4105174	5.04430892	1.838432	1.67E-34
AL161908.1	1.2245532	2.847134777	1.217255	7.53E-09
SYNGR2	31.870128	71.57106189	1.167172	3.30E-45
COL17A1	48.832111	6.571804828	-2.89347	7.28E-38
KRT17	226.45433	71.55761149	-1.66204	9.35E-26
AC139100.1	0.3638459	0.866535656	1.251932	8.64E-08
LRP8	0.4838592	1.472846793	1.605948	2.39E-21
EIF4EBP1	20.677294	54.52795077	1.398949	3.08E-19
TRIM60P17	0.2102862	0.098221722	-1.09824	9.57E-26
HS6ST3	0.2526178	1.773484999	2.811559	6.37E-10
KRT15	88.698767	28.9804095	-1.61384	2.75E-24
HIST1H1B	0.0462372	1.745216952	5.23821	1.26E-29
AL691482.3	0.6815649	1.466864502	1.105813	9.47E-05
AC109322.1	0.649631	1.685087764	1.375131	8.18E-23
CENPE	0.3930018	2.33500658	2.570819	2.36E-53
CPLX2	0.0154626	1.363360948	6.46224	0.03172
CA3	44.806654	1.567891916	-4.83681	1.35E-56
AC103982.1	0.0093385	0.152309386	4.027667	9.49E-11
PKDCC	8.927108	2.502636342	-1.83474	8.28E-34
PRDM11	1.6148618	0.774133634	-1.06076	3.01E-46
LRIG3	9.598459	3.507690653	-1.45228	3.85E-53
MAEL	0.0347895	0.699085629	4.328747	0.000115
ESPN	1.9492589	6.516698856	1.741216	7.47E-20
COX20P1	0.9389099	2.288894342	1.285592	4.95E-07
PLD1	2.8694613	1.387241874	-1.04856	1.46E-46
CLDN8	24.381824	5.089866336	-2.26011	1.81E-31
UQCC3	4.2275641	9.811053406	1.214581	8.25E-31
TPPP	4.2112241	1.774988663	-1.24643	4.61E-38
CHST1	1.8587689	7.301586697	1.973863	1.33E-23
AC007938.3	2.565875	0.86180704	-1.57401	3.97E-41
ASB12	0.4338296	0.110605529	-1.9717	5.65E-28
TEX45	0.1205502	0.452178591	1.907258	3.32E-28
IKBKE	2.4050528	5.432868134	1.175645	3.67E-33
AC106782.6	0.7521413	1.684904609	1.163591	9.21E-18
ROBO4	10.480048	2.977033027	-1.8157	3.96E-54
AC003965.2	0.1898113	0.632745587	1.73706	7.00E-23
SCG2	0.5098995	3.609438571	2.82349	1.97E-22
AC132008.1	0.849354	0.372332541	-1.18977	8.41E-32
AC138696.2	0.7487495	2.453342176	1.712193	9.79E-30
PGAM1P7	0.0818885	0.186886671	1.190431	6.53E-08
EEF1DP1	0.7630708	1.539093154	1.012192	1.80E-14

DEPP1	113.99934	26.3510803	-2.11309	9.79E-48
RRM2	1.1948807	11.98794218	3.326646	9.89E-59
LINC00052	0.0644232	3.180263126	5.625422	3.57E-17
TGFBR2	102.33359	23.2496057	-2.138	2.82E-61
PLEKHN1	0.8677622	1.870050918	1.107706	3.56E-18
FOXM1	0.975244	10.22949429	3.390828	3.69E-59
AC244669.2	0.2847761	0.082082832	-1.79468	2.33E-20
TRIM46	0.5200045	1.440060683	1.469534	5.36E-20
RNF144A-AS1	0.1497514	0.366477681	1.291156	2.77E-17
VSIG4	18.056665	8.012033987	-1.17229	1.72E-12
TOR3A	9.7854882	19.71278477	1.010416	3.63E-52
PKIA	4.2931918	2.069843285	-1.05253	1.20E-28
SPART-AS1	0.5871317	0.251109981	-1.22536	1.92E-32
LINC00605	0.0601876	0.198382096	1.720743	9.48E-06
STK19B	0.6088527	2.449342775	2.008229	5.80E-10
CGA	0.0286194	11.13799563	8.604278	1.47E-18
HBA1	1.1461533	0.075605007	-3.92217	3.09E-38
TICRR	0.3192824	1.273571904	1.995976	2.82E-36
AL451085.1	0.0891269	0.179828995	1.012693	2.26E-11
AC010326.4	2.7817471	7.7159685	1.471856	2.17E-28
P3H2	4.6010123	1.790768718	-1.36137	1.14E-47
TSTD1	25.824585	61.30557272	1.247273	1.00E-32
ZNHIT2	4.7076686	10.04876575	1.093934	2.58E-25
GNG7	6.6521974	2.777436528	-1.26008	5.18E-31
RNU6ATAC35P	0.6292935	0.118894637	-2.40405	4.45E-31
NXPH1	0.1548899	2.340586724	3.917555	0.034914
FANCA	0.372804	1.331934638	1.837034	3.68E-40
OPRPN	22.895395	7.25817819	-1.65738	2.06E-31
ACADS	16.916697	7.253446666	-1.22171	4.87E-34
AL592071.1	0.048908	0.218365379	2.158603	5.71E-23
EPN3	2.5924609	11.0114913	2.086616	3.77E-42
TCP11L2	2.5879578	1.225574234	-1.07836	7.17E-39
SPDEF	38.781569	103.044399	1.409823	8.80E-23
SFTPA1	0.369745	0.083426619	-2.14795	0.000456
HIST1H2AD	0.4138591	4.885653568	3.56134	1.58E-43
AL121929.2	0.2605365	0.649753834	1.318408	0.034431
EHMT2-AS1	0.1040327	0.274751573	1.40109	1.24E-11
CAPN13	2.353815	7.890527632	1.745121	2.59E-22
AL078621.3	1.2724594	0.580453172	-1.13237	1.31E-42
MISP3	2.3606489	6.439648017	1.447798	1.83E-23
LINC01293	0.0568954	0.249590991	2.133183	0.004131
TIMP4	55.435061	2.807775986	-4.3033	9.76E-53
AC226118.1	0.4462559	0.096710343	-2.20613	2.75E-28
PRELID2P1	0.3875206	0.135155004	-1.51966	4.06E-10
GOLGA8H	0.2276022	0.091066729	-1.32152	1.83E-34
PNPLA2	108.14006	33.74641475	-1.68009	3.37E-32
CDC20P1	1.3362611	0.442193381	-1.59545	5.77E-43
USP41	0.0303871	0.192370822	2.662359	8.51E-15
MIR210HG	0.5510706	1.612046703	1.548584	2.25E-21

SLC23A1	0.2179541	0.688006826	1.658399	3.50E-14
AC015883.1	0.0488112	0.227113153	2.218127	0.000286
NAPSA	0.68396	0.30354661	-1.17199	0.007287
CCDC151	0.1768243	0.763398463	2.11012	3.66E-16
ALG1L3P	0.0480268	0.165271657	1.782929	0.000193
MAGEC1	0.0123389	0.189159815	3.938319	1.46E-06
PLPP4	0.1613754	4.815090273	4.89907	6.20E-60
ABI3BP	10.066685	2.511455805	-2.00299	2.79E-44
MNX1-AS1	0.2147995	1.458057614	2.762985	3.28E-12
SPRY1	34.678603	10.37326505	-1.74118	1.42E-55
MYOM2	3.5802355	0.622618287	-2.52363	3.09E-44
ABCC6	1.7706894	0.718524813	-1.3012	7.20E-26
ARL11	0.5630409	1.253526304	1.154681	3.20E-15
SPC25	0.640052	4.297767708	2.747326	1.39E-61
NR4A1	35.482383	9.908254332	-1.8404	2.07E-30
MIR3189	0.2812905	1.040602479	1.887286	5.20E-05
AGPAT2	93.128271	31.51932594	-1.56298	1.08E-14
AC026462.1	0.080803	0.293782666	1.862269	1.60E-25
KIAA1257	0.1073495	0.3907487	1.863925	1.86E-23
EPSTI1	2.2678289	4.85412716	1.0979	1.54E-15
JPH3	0.0536412	0.283848604	2.403708	7.59E-14
TIE1	8.8145807	4.047877642	-1.12273	1.97E-40
CDH23	1.3442467	0.376338551	-1.83669	1.97E-47
AC138811.2	0.0958158	0.234406424	1.290677	1.20E-21
LINC00337	0.037139	0.250366093	2.753034	8.77E-45
AC008759.2	0.3543347	0.173149482	-1.03309	2.77E-21
CLPSL1	0.4874418	3.574086733	2.874273	1.11E-20
LINC00920	1.583958	0.558013335	-1.50516	4.15E-26
AC002367.1	0.0735588	0.168553804	1.196239	2.33E-15
ZNF92P3	0.0941675	0.205738103	1.127508	6.87E-09
RGPD8	0.3277437	0.158860706	-1.04481	1.26E-32
RGL1	13.40355	4.866077523	-1.46178	6.85E-54
ORM2	0.2534035	5.67800467	4.485876	3.02E-06
RAPGEFL1	1.8118412	4.327301843	1.256011	0.000725
LINC01281	0.0121887	0.117731343	3.271887	2.91E-31
DRAXIN	0.121624	0.316160784	1.37823	3.14E-07
AC005865.1	0.070377	0.151430495	1.105481	1.40E-07
CXCL13	13.997519	39.89103211	1.510893	1.82E-13
AC021188.1	0.6713155	0.227977324	-1.5581	5.20E-48
GMPSP1	0.0859036	0.277736814	1.692928	2.52E-24
AC106900.1	0.0237123	0.155217538	2.710587	7.03E-12
C5AR2	1.2022013	3.335324265	1.472149	2.80E-13
AC244502.3	0.0531205	0.138888694	1.386588	1.47E-06
UPK2	0.2202986	0.655229961	1.572541	0.006373
LAPTM4B	30.764803	74.53801848	1.276696	1.67E-12
ABCA5	4.1706939	1.480758099	-1.49395	3.22E-54
GPM6B	10.249844	2.998211623	-1.77343	7.43E-37
AP000785.2	1.0509511	0.497724195	-1.07828	4.18E-31
PLXNA4	5.6845637	0.644120477	-3.14165	2.57E-47

EPHA2	9.1697771	4.13061316	-1.15053	4.44E-40
AC137055.1	0.0627185	0.179615922	1.517951	0.039376
CXCL10	4.3644663	50.87769199	3.543156	1.65E-41
SDR16C5	1.700605	5.890022193	1.792225	2.07E-06
DIO3OS	0.8365134	0.275897287	-1.60026	2.38E-42
LINC02593	0.3057051	1.402517829	2.197807	4.08E-08
AC009549.1	1.302874	0.470458431	-1.46956	9.89E-28
MIR6746	0.5505673	0.136620643	-2.01074	9.51E-23
CCDC74A	4.4060834	14.51490223	1.719966	5.22E-07
TFAP2A-AS1	0.4264081	0.96389099	1.176635	8.89E-23
SLC29A4	6.9073753	1.329380705	-2.37738	1.96E-27
DMBX1	0.0304227	0.266734291	3.132184	4.29E-23
GAL3ST1	0.2598391	0.117978962	-1.13909	7.75E-27
TSHZ2	7.5262076	1.434733418	-2.39114	2.93E-61
P4HA3	0.4759527	2.64109425	2.472246	3.79E-48
C11orf98	1.9092076	4.04844195	1.084393	4.08E-31
ZNF204P	7.6702923	2.490980975	-1.62257	2.88E-49
LYPD8	0.0721813	0.454671468	2.655127	0.034018
SPATA20P1	0.0249328	0.587159239	4.557637	4.22E-47
ZNF668	0.7699908	1.614043862	1.067767	1.05E-48
TRBV5-6	0.230637	0.542546727	1.234124	0.000166
FCRL3	0.1578269	0.451483442	1.51633	3.20E-05
SENCR	1.0895982	0.438274694	-1.31389	4.98E-36
MYCBP2	11.641021	5.416150159	-1.10388	3.02E-39
RAB40C	5.0486756	10.27418978	1.025048	5.66E-35
TMEM220	4.4586892	0.972463274	-2.1969	1.05E-65
CSF3R	1.8484736	3.749076417	1.020201	0.00021
ZNF300P1	1.7598998	0.386853607	-2.18563	1.18E-55
U62317.1	0.4892784	3.680466203	2.911161	1.04E-30
AL390719.2	1.325653	2.664403304	1.007109	6.22E-11
CCNI2	0.1941774	0.653375645	1.750537	8.18E-07
TMEM37	32.435397	4.567370066	-2.82813	3.74E-42
PCDH18	12.453118	3.672734836	-1.76158	6.81E-46
SLC6A9	2.1220378	6.045000983	1.510292	2.85E-25
ZNF730	0.1287735	0.417599007	1.697282	2.05E-12
AC018521.6	2.9485539	1.131266522	-1.38207	4.38E-53
ATP1B2	2.1107426	0.782641003	-1.43133	6.80E-51
RNF139-AS1	0.2600422	0.590110479	1.18224	4.00E-21
KRT8P48	0.1014971	0.336618434	1.729675	1.01E-15
RGS7BP	0.4880695	0.118641106	-2.04048	7.31E-46
RIIAD1	0.0439068	0.44552032	3.342975	6.51E-28
XPNPEP2	2.1894579	0.337819328	-2.69625	1.12E-45
EFNA3	2.6474911	9.153158297	1.789644	1.27E-24
LTBP4	22.692355	6.344174634	-1.8387	3.91E-56
RN7SKP271	0.113705	0.255758842	1.169488	0.047648
EFCAB12	0.2293374	0.488269619	1.090206	0.000885
AC003965.1	0.2922245	0.621137085	1.087835	3.26E-10
AL603832.3	0.0379648	0.11349706	1.579921	8.20E-14
ARRDC3	51.514925	18.78694208	-1.45526	3.51E-40

AC021087.3	0.4701563	1.41877769	1.593436	7.21E-09
CBLN4	1.0789524	0.364710725	-1.56481	2.33E-15
RNF224	0.0852174	0.329799775	1.95237	2.36E-22
SNCAIP	1.290338	0.620356478	-1.05658	9.68E-42
SCRIB	9.2707721	18.67946448	1.010692	6.05E-24
LRRC61	3.5777481	7.332980667	1.035348	1.56E-32
AC096745.2	0.3685888	0.175378438	-1.07154	2.49E-34
HIST1H1D	0.2044057	2.528285738	3.628652	2.93E-22
RUFY4	0.066333	0.323834235	2.287457	1.13E-17
CCL25	0.0811315	0.176167497	1.118614	2.68E-08
KLF10	45.568055	20.04049338	-1.1851	1.13E-41
CLPS	0.091725	0.728959612	2.990452	2.43E-19
BNIP3P17	0.2637057	0.771723574	1.549156	5.11E-18
HM13	10.36079	20.74048986	1.001316	2.14E-54
ADRB2	5.3269761	0.817909673	-2.7033	5.85E-63
C1QL1	0.598052	1.268702854	1.085011	0.008766
HOXA10	2.750742	1.16425087	-1.24042	1.26E-36
CHL1	5.8600848	0.781385739	-2.90681	1.44E-60
VWFP1	0.5250183	0.22699126	-1.20973	9.17E-25
F12	0.5095651	3.450882661	2.759627	1.11E-46
GRAMD2B	15.363454	5.291976393	-1.53762	1.43E-30
C2orf40	19.692844	2.555301443	-2.94611	1.02E-59
NYAP1	0.50219	0.167082303	-1.58767	4.26E-46
MUC7	1.3051484	0.402166775	-1.69835	3.77E-15
TMEM184A	1.2455838	3.279642213	1.396716	2.89E-26
UBE2CP2	1.2159202	0.377734448	-1.6866	1.63E-24
RAD54L	0.3815554	2.502361328	2.713326	2.76E-54
CNTNAP2	0.2660519	3.874260016	3.864141	1.96E-27
ALPK3	3.4923092	0.820757853	-2.08915	2.47E-23
AC012363.2	0.2757782	0.088924994	-1.63285	5.99E-45
AL161785.1	3.0720291	1.318180864	-1.22064	1.96E-41
FCGR1A	0.6379061	1.955840467	1.616373	1.02E-36
FEN1	5.905906	17.8250629	1.593677	1.25E-53
SUSD2	5.4937706	11.71166023	1.092077	0.000278
AC011477.7	0.2507852	0.120257019	-1.06033	1.24E-26
IGHA1	1566.0606	680.9199058	-1.20158	1.76E-15
C4B	4.5294778	11.39369287	1.330819	5.35E-07
PTGER4	6.7185117	2.583055058	-1.37906	7.27E-48
SCARNA21	0.2615689	15.10844727	5.852021	5.11E-05
LINC01117	0.3883671	1.582173523	2.026415	3.36E-17
VPREB3	0.6554304	1.766794185	1.430619	2.05E-05
TRPC6	1.8981	0.793467608	-1.25831	1.06E-47
MANEAL	2.5715423	7.428272762	1.530393	5.01E-30
RBMS2	10.021986	4.645686646	-1.1092	2.15E-58
TMEM54	16.442395	38.60901584	1.231517	2.28E-39
MUC15	6.5852164	2.391556995	-1.46128	1.30E-23
KRT8P2	0.0087221	0.159997807	4.197229	6.98E-17
NAV2-AS3	0.0461705	0.107223372	1.215577	0.046138
ARL4A	16.627221	5.438263167	-1.61233	4.79E-48

CES1	50.674438	4.059609858	-3.64185	1.60E-55
FNDC1-IT1	0.03615	0.195211739	2.432971	2.23E-17
AL683807.1	0.1613374	0.504212023	1.643949	6.46E-21
PAX7	0.0315561	0.513973768	4.025706	8.59E-11
TMED3	3.9491635	9.290275467	1.234174	1.29E-45
AC138866.1	0.0686548	0.14404354	1.069073	0.007758
TRMT9B	1.6233587	0.404866873	-2.00346	4.62E-45
TNNI1	5.8444545	0.320127385	-4.19035	0.000259
HCG11	8.2827623	3.427974027	-1.27276	3.51E-50
AP001148.1	0.7607602	0.304671007	-1.32019	2.64E-43
MS4A4E	0.540999	0.235767381	-1.19826	4.72E-30
MIR3150BHG	0.035581	0.226086988	2.667701	9.29E-28
ARRDC1	7.9261152	17.07705732	1.107374	5.53E-34
PRR15	4.2209062	20.56636472	2.284662	3.21E-26
AP000695.1	0.3426468	0.808812252	1.239083	2.40E-19
TLCD2	5.5091292	1.876971866	-1.55342	5.41E-26
TMEM211	0.2114988	0.103869328	-1.02588	3.78E-29
CUBN	0.5093833	0.182260375	-1.48275	8.81E-49
LINC01096	0.0371926	0.184487095	2.310432	7.61E-14
TOR2A	2.250475	4.965741746	1.14178	5.14E-44
ACTN3	2.1948224	0.060879954	-5.17199	0.001986
GRASP	6.1009751	2.40720158	-1.34168	4.40E-41
PHYHIP	1.8633786	0.431249057	-2.11133	1.32E-56
AC093620.1	0.396397	0.821288777	1.050943	2.35E-07
MIR770	0.4888908	0.127029649	-1.94435	3.29E-25
AF131215.6	1.4189029	0.646437272	-1.13419	9.96E-32
AC016888.1	2.4015868	7.549624673	1.652417	2.11E-18
CLIC5	3.2714947	0.782786445	-2.06326	4.35E-57
RILP	4.8989865	2.298427669	-1.09184	4.66E-33
KIF18B	0.2549876	2.847339165	3.481115	9.63E-60
NT5E	10.327864	4.462696196	-1.21055	1.92E-30
AL158847.1	1.021973	0.352643325	-1.53508	1.47E-16
AC083949.1	0.0480946	0.149712788	1.638251	4.35E-10
TERT	0.0183267	0.118015535	2.686954	2.22E-23
LINC02014	0.1518453	0.336436955	1.147734	0.012842
ADAMTSL2	0.6783215	2.24853602	1.728945	2.09E-38
TUBA1C	8.5019367	22.38160986	1.39645	2.66E-52
COL3A1	263.69556	703.8296791	1.416353	2.74E-21
LINC00639	0.6573625	0.252484729	-1.38049	9.87E-46
SHANK3	8.644316	3.597804523	-1.26464	4.85E-41
MIR8071-2	1.1689695	9.236653194	2.982133	6.01E-16
FAM72A	0.0769168	0.408220885	2.407979	2.86E-48
AP003086.1	0.2765045	0.116629762	-1.24537	1.94E-31
HOXA3	2.461503	0.701712734	-1.81059	8.82E-54
AC073263.1	0.1027228	0.301789486	1.554786	9.07E-08
AC092683.1	0.0598411	0.123677619	1.047377	1.06E-14
KCTD13	2.3914247	4.977601038	1.05758	9.52E-41
AL356218.1	2.2680543	0.073911374	-4.93952	3.65E-57
RASSF7	4.4545047	13.60022971	1.610294	9.76E-35

KC877373.1	0.0413905	0.179646699	2.117791	2.61E-09
AC092134.1	0.4130466	0.157395466	-1.39191	1.82E-36
SRD5A2	0.0374711	0.185823169	2.310082	7.13E-20
STS	9.2563953	4.452414179	-1.05586	8.86E-31
S100A14	30.600708	178.7428613	2.546249	1.36E-36
FAM234B	5.7005364	16.9118658	1.568866	3.93E-08
AC040904.1	0.0453642	0.142678169	1.653139	2.56E-05
GRHL3	0.5681739	1.241405766	1.12757	4.01E-07
PECAM1	65.52002	22.26009197	-1.55748	2.85E-45
AL512328.1	0.0501494	0.194312556	1.954076	7.30E-16
AC006329.1	1.2184983	3.275512415	1.426616	1.69E-16
LINC02408	0.010156	0.110178188	3.439428	3.03E-47
EGR3	28.89562	6.581304444	-2.13441	2.24E-35
MYBPC1	33.676481	6.679584195	-2.33391	5.10E-22
CADPS	0.0155116	0.145030929	3.224939	3.31E-28
MAMDC2	12.589316	1.577417794	-2.99656	1.01E-65
EGR1	507.09482	82.87736637	-2.61321	2.39E-51
SMYD1	5.9237315	0.25779317	-4.52222	1.19E-43
PLN	8.0517464	2.255022018	-1.83616	4.96E-21
LPAR2	3.759592	7.812860929	1.055275	4.00E-32
FOXD3	0.0371587	0.331271234	3.15624	1.77E-14
SOX2	0.0942428	0.961902356	3.351437	0.021437
PLA2G2D	0.9099121	2.317706939	1.348899	0.001353
ZDHHC15	0.9924887	0.442638667	-1.16492	4.45E-40
AC025271.4	0.2718228	0.116705485	-1.21979	2.15E-20
TCEAL7	6.8930328	1.541908162	-2.16042	3.64E-59
AC103760.1	0.9532443	2.246087968	1.236497	1.65E-11
AC012073.1	0.3740839	1.108759322	1.567512	2.57E-37
AC093297.2	4.6138032	15.60326329	1.757819	4.36E-08
SLC26A3	4.3029298	1.19259101	-1.85122	6.37E-17
Z98742.3	0.0447316	0.109447373	1.290872	1.12E-05
DGCR10	0.0471797	0.105414717	1.159837	0.043316
C3orf52	1.0692371	3.004379694	1.490485	1.86E-17
CHRNA9	0.0226992	2.534479609	6.802907	2.27E-23
SOSTDC1	10.830492	3.073977452	-1.81692	6.16E-33
FGFR4	1.3613602	4.314163182	1.664032	7.02E-08
COL14A1	39.607481	13.38382719	-1.56528	3.95E-38
AL355355.2	1.4706417	0.715366842	-1.03969	1.73E-29
MYL3	9.2548014	0.319071159	-4.85825	9.47E-27
ACAA2	20.413953	9.697750377	-1.07383	1.12E-40
RHPN1	2.6506593	12.21762357	2.204541	5.88E-47
MMP12	0.7649208	4.032587716	2.398324	1.11E-05
TELO2	5.8392708	11.8197351	1.017338	2.52E-27
AL157935.1	0.2807045	0.723634456	1.366209	2.08E-18
MTURN	34.860991	6.656239338	-2.38883	7.32E-61
PRRT4	2.5838766	0.237701333	-3.44232	4.85E-43
AQP4	0.7396224	0.234869295	-1.65493	3.53E-36
ENTPD8	0.2608505	1.564755183	2.584642	5.52E-18
SLC30A8	0.1932851	10.63811315	5.782368	1.83E-07

MFAP4	138.81173	26.82942672	-2.37124	3.53E-49
TNS4	22.756628	7.165042447	-1.66724	6.79E-24
EPO	0.0553661	0.796783976	3.847114	2.01E-08
AC103706.1	0.5074132	1.815266637	1.838949	4.25E-33
IRAK3	3.2707319	1.524688563	-1.1011	6.13E-34
DNAJC5B	0.1861274	0.430458455	1.209583	4.80E-20
C19orf84	0.0423295	0.107160011	1.340033	1.43E-12
JAM3	10.856539	4.958906135	-1.13047	4.67E-50
AC006270.1	0.0646233	0.404047546	2.644398	0.000439
NECAB1	1.3915538	0.533025777	-1.38442	2.23E-54
CASP14	0.1181092	11.80877844	6.643594	5.17E-06
PI15	23.458533	11.01578014	-1.09054	8.55E-28
AC023301.1	0.0533358	0.187267618	1.811925	0.000134
MAOA	42.675801	4.883848168	-3.12733	4.88E-56
MIRLET7D	4.5618259	2.116235245	-1.10811	3.39E-25
PCAT6	2.3756716	7.224072384	1.604477	4.74E-36
RBMS3-AS3	0.9864486	0.168503543	-2.54946	2.55E-59
ALDOAP2	0.0527254	0.106965143	1.02057	1.73E-08
AL157395.1	0.3664693	0.162108356	-1.17673	2.67E-26
HCN2	0.0445261	0.576137712	3.69369	2.14E-54
RPL41P2	3.6079438	1.794879321	-1.00729	0.007598
PCNA	33.681102	87.03609705	1.369675	8.40E-53
SAP30	4.7226967	9.95680408	1.076072	8.67E-35
AL589765.6	0.1278947	0.398202768	1.638547	1.19E-25
HOXA11	0.2127626	0.500957914	1.235445	0.000226
AKR1C3	19.143741	3.97710445	-2.26708	1.24E-49
KRT2	0.0113551	0.116791599	3.362528	1.24E-06
BMPR1B-DT	0.1311726	2.582206674	4.299066	1.81E-07
KNOP1	2.2753412	4.629403875	1.024744	8.48E-46
C7	15.570331	5.146867657	-1.59703	3.81E-34
AC068987.1	0.3127088	0.10528475	-1.57052	2.81E-37
DSCR8	0.006046	0.439369639	6.183317	3.01E-14
MEF2C	6.2501847	2.792961151	-1.1621	3.09E-45
RHOQ	29.333795	10.94143004	-1.42276	7.99E-44
PRR15L	15.434149	37.56551959	1.283283	2.95E-22
PLPP1	47.982077	14.85090095	-1.69195	9.57E-61
PALMD	21.94757	3.246846221	-2.75695	2.18E-64
AC003005.2	0.0515305	0.112269481	1.123467	0.00018
KCTD12	49.321709	16.51108588	-1.57879	7.77E-54
MS4A15	0.111695	1.943366816	4.120922	3.28E-36
EDA	1.0993524	0.445688513	-1.30255	4.63E-51
CLDN14	0.0907842	0.244732132	1.430691	1.04E-25
ANXA8L1	0.966839	0.440854196	-1.13297	4.51E-28
SLC50A1	12.145859	44.78886368	1.882676	7.16E-62
AC005180.1	0.2745279	0.089325978	-1.6198	6.72E-26
MGLL	35.971768	8.479925522	-2.08474	1.20E-45
AC084125.4	0.1793774	0.549097897	1.614065	3.06E-22
LINC01983	0.0391351	0.194419188	2.312635	0.010043
MIR593	0.1914374	0.393619537	1.039929	0.000115

CYP39A1	3.019641	1.34161742	-1.1704	2.06E-36
CASP16P	0.1570279	0.49589464	1.659013	6.42E-09
EMILIN3	1.4483638	0.44888066	-1.69002	6.39E-38
ACTA2	314.80257	101.3370151	-1.63529	9.80E-40
DPYD	9.7769545	4.279646837	-1.19189	1.53E-48
LDB2	11.451463	2.724886444	-2.07126	3.21E-62
AP005233.2	3.7866613	0.889158727	-2.09041	1.07E-31
FANCB	0.2829789	0.61755005	1.125861	4.98E-20
GNG11	34.683579	8.202462839	-2.08012	3.67E-59
HIST1H2AC	23.39691	66.91205459	1.515948	3.66E-26
MAGED1	25.398811	52.30486652	1.042184	6.38E-36
HOXA-AS2	1.0564424	0.360843486	-1.54977	7.03E-50
CXCR3	0.9252201	2.803886999	1.59956	2.26E-11
COX6CP1	2.688536	16.51074151	2.618512	0.000667
AC010536.3	0.0397675	0.135794778	1.771765	1.64E-11
GPRASP2	7.2238055	2.877295479	-1.32805	4.93E-55
CALHM6	2.8419528	6.030150947	1.085312	4.88E-07
RNA5SP160	0.1587182	0.455313648	1.520393	0.021512
BBC3	1.7008098	4.241413074	1.318323	7.22E-29
HOXC12	0.1177703	1.870989158	3.989754	8.65E-10
MAGOH2P	1.6537196	0.474230025	-1.80206	9.27E-50
C1orf53	1.4022477	3.141845332	1.163871	1.77E-19
BLOC1S1-RDH5	1.2303305	0.276861176	-2.15181	9.13E-54
TEK	9.3744245	2.785474456	-1.75081	7.57E-48
RETSAT	79.772711	27.34164383	-1.5448	3.84E-27
ECE2	0.5880399	2.138667743	1.862726	8.41E-50
AL137793.1	0.4795469	0.223475096	-1.10156	4.46E-14
HIST2H2AB	0.0503554	0.997680921	4.308359	7.18E-16
AL110115.1	0.0521855	0.176202554	1.755515	6.26E-06
POU3F3	0.3155567	0.091247976	-1.79003	2.46E-21
GABRE	5.1244545	1.111538972	-2.20484	4.15E-45
ACAD11	0.239828	0.112128023	-1.09685	1.21E-34
RHOH	2.1026103	4.231285848	1.008915	1.43E-05
DRD2	1.0763617	0.356764151	-1.59312	1.15E-35
AC246817.1	0.3812606	0.127958096	-1.57511	4.66E-35
CALCR	0.3668158	0.168480904	-1.12247	7.53E-33
APOBEC3B	1.0955703	6.169760641	2.493532	1.91E-33
TMEM125	6.081085	12.60715943	1.051843	2.44E-26
STXBP6	0.8249397	0.294164128	-1.48767	2.58E-47
COA6	8.0426435	19.44523523	1.273675	2.65E-54
GGCT	21.194488	54.04319062	1.350424	1.47E-46
LDB3	5.7389025	0.288445602	-4.3144	1.88E-37
ZWINT	3.3191107	18.98970667	2.516349	2.06E-60
AC083880.1	0.3448097	0.918689097	1.413777	1.23E-22
AF064858.3	0.2328708	0.099485562	-1.22697	2.11E-22
CSF3	1.2571185	0.101402145	-3.63196	1.77E-38
CREB3L1	4.1433153	20.13514995	2.280859	9.83E-36
RAB19	0.5716973	1.517704541	1.408568	8.35E-22
RASL10B	3.3047284	1.410466586	-1.22836	9.35E-15

3-Sep	1.6201894	3.795352403	1.228071	0.002879
CFI	11.049654	4.697484506	-1.23404	5.00E-44
KDELR3	10.252356	22.819939	1.154339	5.73E-23
LAMA2	12.594031	4.011182976	-1.65064	2.30E-41
GPR160	5.0171151	12.18400838	1.280059	1.03E-23
AC069120.1	1.0408178	3.413280284	1.713441	0.00143
NUAK2	0.768793	3.619829588	2.235255	7.50E-58
LINC01088	0.6259152	0.14052723	-2.15512	2.01E-31
TNMD	8.7577918	0.644097044	-3.76522	1.75E-60
GAPDHP61	0.0469305	0.193268436	2.042008	6.72E-08
LINC01186	0.7407708	0.100374215	-2.88364	7.96E-56
AC020922.3	0.0622536	0.192050592	1.625258	1.45E-20
AP001453.3	0.6401326	1.504405498	1.232751	3.30E-37
C3orf80	0.4702198	1.844152824	1.971551	1.61E-45
TCEAL3	11.227445	23.17278506	1.045402	4.03E-14
RBAKDN	0.0199268	0.14371066	2.850386	1.86E-08
CRIP1P2	0.0505753	0.188383004	1.897164	3.60E-11
SLC16A3	1.0937454	5.417101218	2.308244	7.10E-49
CFAP58-DT	0.2863381	0.786569677	1.457855	0.000435
TRAV34	0.0443314	0.109346317	1.302503	1.80E-05
MISP	1.7280016	15.39202878	3.155007	1.46E-38
PLK1	0.6760409	6.925219824	3.356677	5.03E-61
VWCE	0.5930795	0.178757505	-1.73022	3.76E-49
FADS3	8.1681627	3.036143962	-1.42777	5.84E-27
ZC3H3	5.1203788	10.40053771	1.022336	5.92E-42
GINS2	1.6462161	6.838384564	2.054502	4.20E-45
MITF	4.4430577	2.160897506	-1.03992	1.62E-31
PTGER3	10.019658	4.219051444	-1.24784	7.94E-25
MIS18A	5.1583636	10.68782132	1.050982	2.20E-43
CPM	15.924706	4.31060349	-1.88531	4.64E-30
FAM96AP2	0.7128458	0.300310674	-1.24713	1.18E-23
MAP6D1	1.0389436	2.297234362	1.144781	5.44E-16
SNX20	0.7412292	1.583439232	1.09507	2.51E-11
AC025470.2	1.3809522	0.115516668	-3.57949	9.95E-60
AC012676.1	0.1626865	0.334801644	1.041212	2.22E-17
DCDC1	0.1040814	0.358200181	1.783053	0.000185
CASQ1	9.7652261	0.881024321	-3.4704	0.016522
HERC2P3	0.8518154	0.27733344	-1.61892	2.22E-36
IL20	0.3414001	3.637200174	3.413293	1.93E-11
AC023043.4	0.8127156	1.672762445	1.04141	1.72E-14
RN7SL4P	0.1744902	3.685667111	4.400708	6.03E-11
PLAGL1	5.2097411	1.662742693	-1.64765	1.73E-52
H3F3BP1	0.1593054	0.420107162	1.398962	1.02E-24
ZBTB16	4.7205411	0.623440462	-2.92063	5.14E-55
CRABP2	125.87006	520.0122951	2.046611	9.95E-27
SMIM6	0.0879152	0.276489763	1.653041	0.023586
ZFP42	0.0139341	0.455348074	5.030275	0.026215
AC083843.2	2.2681073	0.979079256	-1.21199	3.28E-27
BOLA2B	0.1142416	0.362660048	1.66653	4.91E-36

HPD	2.1066878	0.695797243	-1.59824	1.14E-40
CDK5R1	0.6498175	1.574767666	1.277032	4.02E-29
C1orf220	0.205686	0.477587056	1.21532	1.18E-15
AC009159.3	0.9324394	0.316498347	-1.55881	1.47E-50
AMOTL1	12.80802	4.803841835	-1.41479	1.30E-53
GPR141	0.1735614	0.653455785	1.912643	1.11E-23
AL357054.2	0.2357006	0.678792866	1.526016	2.59E-05
RERGL	7.1582864	1.033364289	-2.79227	4.89E-60
CHCHD3P1	0.0285277	0.152458826	2.417985	5.95E-05
EPB41L4B	8.5448685	4.090647328	-1.06273	1.01E-31
MYOCD	0.4570886	0.09829476	-2.21729	1.70E-52
HIST1H2BG	2.3188303	11.29390243	2.284075	7.60E-29
LINC00165	0.37236	0.117008819	-1.67008	4.70E-31
PAFAH1B3	8.8349	46.15452217	2.385186	1.05E-61
TRIM29	20.258576	5.959379379	-1.7653	5.74E-28
GRIP2	0.2607191	0.111667631	-1.22329	1.11E-32
AC092851.1	1.2869973	0.257826258	-2.31954	4.48E-31
CLEC3B	83.036821	6.049776076	-3.7788	2.67E-61
FLRT2	1.3957745	0.442406278	-1.65762	2.17E-51
AC099850.3	1.279528	8.362339894	2.708295	3.86E-42
AC007490.1	0.5350911	1.341062029	1.32552	5.53E-08
CREB3L4	15.972936	47.72596571	1.579145	3.01E-33
PARD3B	4.0354101	1.918981853	-1.07237	2.04E-44
AC104964.3	0.7409245	0.236254509	-1.64898	5.71E-41
AHNAK	209.7045	77.59396639	-1.43434	1.73E-52
INA	0.0344881	0.479099661	3.796157	7.90E-05
AC005225.4	1.2954351	0.310831106	-2.05923	1.32E-47
CYP2A7P2	0.0693389	1.205445026	4.119757	3.79E-08
PLAU	13.305884	33.36332866	1.326199	1.14E-18
SEMA5A	10.383249	3.609285284	-1.52447	1.12E-31
AC008406.3	0.0139009	0.144594183	3.37876	1.74E-30
NLGN4X	1.9045068	0.899155034	-1.08278	2.93E-34
TSPAN1	8.6076697	44.34681614	2.365136	3.67E-16
ELMOD3	8.0472584	3.269858852	-1.29927	4.36E-39
AC127024.2	0.0704417	0.145786452	1.049355	0.001972
AC005165.2	0.4048982	0.172815413	-1.22833	2.46E-09
ACOT7	3.0547459	7.947301189	1.379413	2.65E-40
SRP72P2	0.0236021	0.12545108	2.410135	1.53E-06
CEP55	0.7595218	7.826611034	3.365225	2.36E-60
RNA5SP154	0.4707289	0.115180823	-2.031	2.60E-30
AC040970.1	0.6534393	1.500878439	1.199682	8.05E-21
AP001010.1	0.1740448	0.366681463	1.075069	1.07E-08
AL357568.2	0.0168364	0.140747745	3.063455	0.00011
SKAP2	12.679444	5.721618072	-1.148	2.61E-50
TLX1	0.011597	0.640005674	5.786259	1.11E-19
ASTN1	0.5969079	0.142779146	-2.06372	6.56E-40
C19orf12	11.11068	5.039224732	-1.14067	1.44E-42
FAM129C	0.1080426	0.264526137	1.29181	0.003137
ST8SIA6-AS1	0.4275434	3.414863934	2.997685	3.29E-13

AC110597.1	0.3751332	0.116790989	-1.68347	2.51E-45
COL12A1	17.501404	51.04261666	1.544232	4.26E-20
FRGCA	0.0304224	0.16297921	2.421484	6.17E-06
AL137026.1	0.4849775	0.145757017	-1.73435	9.44E-52
LINC01264	0.0234246	0.134478295	2.521276	1.62E-15
IL11	0.1488135	0.433184881	1.541477	3.65E-24
GPR15	0.8599386	0.278598755	-1.62604	1.85E-13
ORC1	0.5053731	2.317527201	2.197165	1.19E-43
PAQR4	2.1252121	12.52612665	2.559262	1.48E-60
KLF14	0.3407046	0.092718659	-1.87759	8.38E-42
AL356479.1	3.9852964	0.602851715	-2.72481	9.35E-55
S100A4	167.42712	79.75201185	-1.06994	2.77E-18
C1GALT1C1L	1.9162103	0.797833412	-1.2641	6.29E-45
WDHD1	1.233024	2.884100228	1.22592	1.96E-38
MPDZ	7.9694214	3.663137291	-1.1214	7.83E-47
IGFALS	0.3019558	2.080305119	2.784386	1.98E-14
RAB3A	1.5139268	4.009959644	1.405292	1.24E-37
AC078778.1	0.2721129	0.658697814	1.275411	3.32E-19
LRRC34	0.6286968	0.309606943	-1.02193	1.04E-40
BNIP3P11	1.1252212	2.30765464	1.036219	1.55E-10
AL031058.1	1.1591284	2.628549081	1.181226	6.51E-16
AL365356.5	0.0639024	0.355088235	2.474236	2.06E-32
C19orf48	8.5343389	18.40930298	1.109084	3.05E-31
TRAV39	0.1241178	0.283007252	1.189129	5.67E-07
CBLN2	0.0449508	3.090143757	6.103183	1.28E-09
BOLA2P3	0.0663405	0.244427097	1.881442	6.50E-14
C5orf66	0.1129885	0.236752535	1.067204	4.62E-23
AC111170.3	0.0787223	0.177121769	1.169898	0.001328
AC244021.1	0.2763362	0.109347082	-1.33751	1.57E-26
GOLM1	27.702179	66.77168355	1.269237	1.56E-25
NDRG2	55.786206	11.99746224	-2.21718	3.10E-58
CORO2A	4.0880948	10.42231774	1.350176	1.14E-30
PAEP	0.2461148	0.508411781	1.046666	0.006036
AC098591.1	0.0548319	0.129395998	1.238707	2.07E-07
ACOXL	0.0490381	0.126701324	1.369456	6.45E-06
RAB6C-AS1	0.5971214	1.384862435	1.213647	0.049915
KNTC1	1.4817134	3.101512917	1.065706	6.87E-31
AL513318.2	0.3253112	0.145276423	-1.16302	2.37E-39
ANGPTL7	4.483855	0.265360695	-4.07871	2.27E-57
MYL7	1.293209	0.53748022	-1.26667	6.00E-21
AC000067.1	0.0283043	0.154281548	2.446472	2.63E-21
ST3GAL4	4.246352	8.832073256	1.056528	4.09E-30
Z99289.1	0.5158321	0.168985479	-1.61	1.64E-35
MRPL40P1	0.0356541	0.315022134	3.143314	1.08E-37
CAMSAP3	4.579213	9.265859304	1.016825	5.44E-22
ITLN1	0.6568297	0.046304154	-3.82631	1.33E-05
GP2	2.0054143	12.01117301	2.582405	5.05E-05
AC115284.2	0.2841392	0.133451956	-1.09028	1.33E-24
CETN4P	0.6864651	0.197208758	-1.79946	3.05E-34

AC022182.1	0.0667729	0.137011755	1.036964	0.000617
LINC02568	2.219908	6.079480517	1.453448	3.33E-05
F2RL2	3.1561189	9.791964009	1.633447	2.67E-17
ATAD2	3.5418418	13.29885703	1.908731	2.10E-44
HIST1H1C	29.494914	146.8871683	2.31617	5.99E-30
SLC4A8	0.5994756	1.782717649	1.572305	1.27E-11
KCTD14	5.7786344	1.907504809	-1.59904	9.44E-37
EXOSC4	7.1833924	19.44359325	1.436558	7.06E-39
AC092809.4	0.1998763	0.515252572	1.366172	9.73E-08
ZNF728	0.3881473	0.125306423	-1.63114	6.40E-45
ALDOC	22.19917	6.179618165	-1.84492	3.01E-46
COL22A1	0.1587262	1.235131306	2.960052	4.71E-27
AC112777.1	0.0803199	0.692558315	3.108106	2.30E-51
GRM4	0.014834	0.585762295	5.303337	1.10E-51
CCDC158	1.0079919	0.345637957	-1.54415	5.08E-42
MIR6757	0.927229	0.320517252	-1.53252	8.18E-18
GIMAP5	0.7023429	0.262306522	-1.42092	2.58E-44
WNT11	6.1398802	2.821054397	-1.12198	4.13E-34
GALNT5	1.1700362	3.560779358	1.60564	0.000431
PWAR5	1.1491158	0.516405212	-1.15395	2.76E-28
LYPD1	0.1567988	0.696287856	2.150769	4.71E-35
TONSL	0.9103025	3.713790842	2.028475	9.00E-50
TNNC2	37.192824	1.0759314	-5.11137	1.14E-20
AC009171.2	0.398266	0.912040658	1.195366	2.72E-16
A2M	242.84677	115.1052494	-1.07709	4.59E-50
PDGFRL	23.570076	10.64219073	-1.14716	4.36E-29
PAQR6	0.9825746	3.094399704	1.655021	1.49E-18
GRAMD4P8	0.3500422	1.277839946	1.868106	0.000141
GPR18	0.2674509	0.713415961	1.415469	8.81E-08
B4GALNT1	0.3302314	0.784750345	1.248756	0.00045
AC105219.3	0.2572668	1.028874284	1.999729	5.03E-39
NAP1L2	3.1892984	1.052906313	-1.59886	7.17E-43
ITIH2	2.2165564	0.446205061	-2.31254	7.30E-30
AC015712.7	0.4706689	0.139221101	-1.75733	2.32E-28
TCL1A	0.2835642	0.93320873	1.718524	1.29E-05
AC133540.1	0.0463933	0.221646075	2.256269	8.34E-06
GPR37L1	0.0580992	0.251315151	2.112908	6.67E-12
HIST1H2BJ	0.6854699	4.051115687	2.563154	6.59E-34
AC083906.1	0.0695211	0.179553989	1.368895	7.14E-06
SYT7	9.566321	19.778537	1.0479	4.14E-12
AC108134.3	1.3406047	0.467430234	-1.52006	5.58E-45
KIAA1614	0.7482673	0.35465726	-1.07713	1.04E-47
AL022323.1	4.0270356	2.001673878	-1.00851	2.60E-20
TONSL-AS1	0.2986646	0.816597435	1.451099	1.25E-30
ABCC9	4.7649065	1.07461149	-2.14863	4.48E-39
TM4SF18	12.986353	6.135793233	-1.08167	8.38E-35
SSX2IP	1.7988302	4.125206937	1.197408	3.88E-40
AC099684.1	0.0455124	0.138053272	1.600893	0.017596
EPS8L1	3.2261582	7.832337893	1.279626	9.35E-23

S100P	1.7582793	46.27467594	4.717987	4.54E-43
PGLYRP2	0.6217605	2.683264826	2.109559	0.038154
IL9R	0.0479421	0.196802778	2.037386	6.82E-28
INKA2	1.7301917	0.699455642	-1.30663	3.31E-51
HIST4H4	0.5724277	1.574602452	1.459822	2.92E-08
GPAM	55.913826	3.012303384	-4.21427	6.57E-59
AP003481.1	0.9495718	0.246278411	-1.94699	1.93E-24
LINC01863	0.132634	0.508445539	1.938643	1.69E-06
AL096828.3	0.2550241	1.049714467	2.041291	1.96E-40
AC062028.1	0.065135	1.277338654	4.293565	0.000552
NECTIN4	12.767892	25.95693871	1.0236	5.03E-18
ACSL4	13.550948	6.175777798	-1.1337	4.45E-42
ROS1	0.0107661	0.177140177	4.040318	3.12E-08
AL353626.2	0.3086511	0.151342846	-1.02816	4.89E-18
OAZ3	0.6562774	1.558019994	1.247336	2.39E-28
AC023421.1	0.9676849	0.460727039	-1.07063	1.12E-25
DCDC2	4.3843382	1.873027496	-1.22699	6.46E-16
MAP3K20	14.428541	5.717521839	-1.33546	7.64E-47
ARMC3	0.0618916	0.42745696	2.787964	2.69E-25
SMIM1	1.279756	2.966116529	1.212707	4.37E-16
NCR3LG1	0.2323025	0.573280644	1.303237	1.63E-05
FBXO6	5.1580807	10.6358059	1.044023	1.33E-37
JAKMIP1	0.0848612	0.564100821	2.732776	5.29E-32
ENPP6	0.4952966	0.185113957	-1.41988	4.50E-29
HRASLS	1.1205251	2.440573809	1.123045	0.043967
RMI2	1.1204288	6.74174468	2.589071	5.66E-59
AC004221.1	0.0476269	0.122561189	1.363653	3.81E-12
Z84484.1	0.1507642	0.332179305	1.139668	5.46E-06
NRG2	2.0060244	0.387128927	-2.37345	1.96E-52
LINC01426	0.2253454	0.55621499	1.303504	4.59E-12
TPTEP1	3.4276062	1.706448463	-1.0062	7.66E-28
FIGN	1.3356494	0.502775801	-1.40955	4.82E-42
AC098934.2	0.0514638	0.214952916	2.062392	4.91E-38
CALR	178.44089	366.4716066	1.038255	1.63E-48
RSPH1	0.9011409	2.981446904	1.726188	3.28E-22
HIST1H4A	0.0157872	0.482235319	4.932907	3.20E-14
AP003306.1	1.3792404	0.428414131	-1.6868	2.18E-23
CCDC24	2.5668536	5.727549631	1.157917	4.74E-23
KNL1	0.2314435	1.567401535	2.759643	2.28E-56
FSD1	0.0393186	0.277632065	2.819892	1.80E-11
CBLC	5.294202	13.48394349	1.348757	6.47E-29
AC015908.2	0.8398622	0.19880682	-2.07879	6.51E-41
TYMSOS	0.31217	1.361044076	2.12431	1.48E-37
CCL28	38.471003	6.757935923	-2.50912	3.51E-36
RN7SL313P	0.0848456	0.1974031	1.218233	5.77E-09
BNIP3P40	0.0459626	0.189279784	2.041986	0.039632
MIR4263	1.2866576	2.847621663	1.146129	3.59E-23
AC116347.1	0.3987807	0.996206389	1.320849	4.89E-28
AC027801.3	0.05109	0.137233688	1.42552	2.86E-05

AC117498.2	0.1851464	0.545608648	1.5592	2.25E-24
CABP1	0.4132916	0.094955984	-2.12183	1.99E-53
LINC00659	0.0119516	0.199469439	4.060895	6.60E-13
DNMT3B	0.8074822	2.189849165	1.439329	7.31E-27
LINC01058	0.8463479	0.234684752	-1.85053	1.60E-49
LINC02586	0.3527703	0.174108519	-1.01874	8.24E-23
AL355073.2	0.2892014	0.084941903	-1.76753	6.11E-44
FKBP4	31.189849	82.59651316	1.405004	2.46E-41
WDR86-AS1	2.7928407	0.55539276	-2.33015	4.18E-57
PHYHIPL	0.3148479	0.109587431	-1.52257	1.03E-35
ODF3L1	1.2122597	0.254190407	-2.25372	5.26E-48
AC015819.1	0.3851163	0.902873387	1.229229	7.45E-20
KCNQ5	0.3052881	0.661525107	1.115625	0.000101
FAM166B	2.1339512	0.794574589	-1.42527	5.73E-37
PARP9	6.8816792	13.82885214	1.006849	1.45E-28
AL139317.4	0.4688955	0.142220139	-1.72114	2.64E-36
GADD45G	4.1898445	10.90756408	1.38036	9.64E-17
LRRC31	0.4511584	2.162074898	2.26071	0.011598
AL355355.1	0.3294581	0.113969296	-1.53145	9.30E-41
PRRG3	1.353624	0.176938693	-2.93551	1.36E-60
FALEC	0.2026716	0.423381878	1.062816	1.74E-11
TTYH3	7.9421567	19.029883	1.260664	5.69E-39
NANS	7.154045	15.86967669	1.149442	3.84E-47
UBE2L6	27.63483	57.60655067	1.059745	3.99E-25
AL355388.2	0.2096427	0.437608671	1.061709	1.18E-12
HHIP-AS1	0.4236166	0.209612678	-1.01503	8.42E-34
AC022007.1	5.0400872	2.0254343	-1.31522	8.64E-29
ISM1	20.228779	4.355177075	-2.21561	3.48E-55
ASPN	13.322195	50.72459433	1.928854	1.66E-16
AC009005.1	0.4751522	2.607005431	2.455932	1.43E-37
LRRC2	1.2696874	0.130318277	-3.28436	5.86E-64
POLR2F	0.2196802	0.108478573	-1.01799	2.28E-29
EDNRB	9.7559968	2.259203792	-2.11047	1.25E-59
TEAD4	3.6838436	8.051906146	1.128119	4.60E-32
FAT4	2.4588603	0.773237611	-1.66901	5.07E-48
PIWIL2	0.5335994	0.26143789	-1.02929	7.37E-41
CFL2	9.1939232	2.392263279	-1.9423	5.18E-61
CCL23	1.1664574	0.305438341	-1.93318	5.27E-35
AC020659.1	0.833693	0.394667754	-1.07888	2.84E-17
KIF12	7.7436139	16.2546325	1.069772	0.000519
H3F3AP4	8.4326393	18.36302572	1.122748	8.74E-24
Z95114.3	0.5297008	0.179990696	-1.55726	4.02E-50
HID1	9.8832284	28.02034525	1.50342	2.84E-30
LENEP	0.0666582	0.173325949	1.378634	1.18E-06
GPC2	0.2236024	0.769570267	1.783117	3.30E-10
Z69720.2	0.1812095	0.596661845	1.719255	6.69E-22
TTPA	0.8854282	0.389058118	-1.18639	4.38E-31
CASKIN1	0.1683992	0.4829959	1.520126	1.81E-17
OAS3	6.5853173	18.99162616	1.528039	3.47E-26

AC123023.1	0.056654	0.667530135	3.558584	1.45E-07
TRDV1	0.2265884	0.594853388	1.39246	0.011962
RGMA	3.3281362	1.421578023	-1.22722	1.52E-38
AC010329.1	1.140813	0.564976914	-1.0138	4.63E-14
LINC02104	0.9419875	0.183666545	-2.35862	1.42E-35
IFIT2	6.4053868	13.25958287	1.049678	0.000391
PYY	0.1701529	1.039181694	2.610544	3.14E-07
ANGPT4	0.912127	0.090788246	-3.32866	2.26E-59
SAMD12-AS1	0.1922771	0.571507349	1.571585	1.39E-25
ATP5MC1P4	0.1198215	0.664567012	2.471528	1.07E-41
CRYBG3	5.3937223	1.584446139	-1.7673	4.10E-47
SNCG	60.439586	19.2786198	-1.64849	2.73E-36
AC010326.3	4.7238937	11.14688407	1.238592	1.13E-20
ITPKA	0.074651	0.7456237	3.320214	4.10E-45
BLOC1S5-TXNDC5	0.2497932	0.088748636	-1.49294	8.79E-39
CNFN	3.5969808	8.153353514	1.180607	9.56E-13
AVPR2	2.9869972	0.476586812	-2.64788	2.10E-58
NAT1	5.2274543	48.043594	3.200164	3.60E-14
NALCN	0.9476567	0.468423248	-1.01655	8.41E-17
GNG2	10.752433	2.834264189	-1.92362	6.54E-42
TCEAL5	2.5384597	0.357735759	-2.82699	2.07E-47
SKAP1	2.8733558	6.5828281	1.195971	9.64E-12
MICU3	1.8841267	0.42225645	-2.1577	9.76E-59
CRHBP	2.1993497	0.176060458	-3.64293	4.34E-55
NEK5	0.4670162	1.050134473	1.16903	4.67E-10
AC008966.2	0.649866	0.28149546	-1.20703	3.36E-38
AC004160.1	0.3700428	0.114767906	-1.68897	2.09E-18
GUCY1B2	0.0457414	0.327921784	2.84178	4.33E-11
AC137630.3	0.168082	0.357216234	1.087633	9.71E-08
F3	29.26859	9.238634968	-1.6636	2.41E-48
HSPA8P15	0.263836	0.552453933	1.066213	0.013492
AC108860.1	0.051329	0.295285897	2.524265	5.22E-12
IL21R	0.1728151	1.025530533	2.569069	1.52E-45
MRPL14	21.212055	52.2707437	1.301119	1.95E-50
SNRPE	23.883863	51.51677967	1.109006	3.93E-49
ELANE	0.5348584	0.107519863	-2.31455	1.47E-46
MCM4	6.8428557	22.8678377	1.74065	4.52E-48
AC091057.4	0.1186339	0.337317648	1.507591	2.66E-22
AC003986.2	0.8678626	0.101775269	-3.09208	3.79E-48
CACNA2D2	1.6192062	3.628545491	1.164105	0.000105
SELE	6.0266384	2.262119788	-1.41368	1.20E-05
ANO6	33.889921	13.0401818	-1.37789	1.06E-48
TRAV18	0.1141015	0.263469989	1.207321	3.11E-06
PKD1L2	0.4517068	0.079661384	-2.50343	6.76E-41
ANO7	0.2075632	0.550016423	1.405924	7.98E-11
ST6GALNAC3	1.2914196	0.368424147	-1.80952	4.83E-51
CCL20	0.2171139	1.136845214	2.388512	1.72E-12
ZNF334	1.6358287	0.81080601	-1.01259	2.05E-25
EGR2	28.507291	6.123105283	-2.219	8.77E-40

PKD2	13.856779	5.171440306	-1.42195	1.39E-57
ROPN1L	0.2133712	0.741729748	1.797528	8.52E-05
CCL2	28.366653	13.50623997	-1.07057	2.19E-11
FADS6	0.0120512	0.110136348	3.192042	0.0003
AC005841.1	0.1859278	0.386715705	1.056531	3.29E-11
NPR2	6.7985091	2.410042729	-1.49616	4.42E-53
AL451069.2	0.1510231	0.387127706	1.35804	1.52E-06
MRAP2	1.9182233	0.895847338	-1.09845	4.03E-33
AP003031.1	0.6247695	0.132465046	-2.23771	3.36E-26
OPRD1	0.0528102	0.373682285	2.822924	4.35E-08
RNU6-1209P	0.1812865	0.514220504	1.504116	1.92E-07
HAND2-AS1	0.3473516	0.100598829	-1.78778	1.15E-50
GSN	217.40544	40.81153087	-2.41334	5.59E-62
AC007998.3	1.0531586	0.360396519	-1.54707	4.26E-31
DHRS13	1.0079791	2.196092515	1.123473	9.86E-23
MTFP1	0.8990994	2.064542022	1.199269	2.29E-29
GREM2	1.7898586	0.468696324	-1.93312	6.61E-42
AP001360.2	1.1567737	0.090309785	-3.67908	2.32E-43
ATP2B1-AS1	0.8878603	0.423295691	-1.06867	6.35E-39
TEPP	0.4096913	0.06895971	-2.57071	4.12E-40
GNG3	0.133401	0.875745688	2.714742	6.89E-25
AC024909.2	0.9476827	0.140402682	-2.75483	6.62E-58
GLYATL1	0.4567199	1.533606091	1.747547	1.90E-06
PRR36	2.0950753	9.066297633	2.113511	1.75E-39
ALG1L	0.6401285	2.684220461	2.06807	0.001034
PLEKHH2	3.0740317	0.972978112	-1.65965	4.92E-49
EDAR	0.3775804	0.115799278	-1.70516	9.75E-29
ECHDC3	22.093522	9.00604809	-1.29466	3.96E-37
AC005828.6	0.1193611	0.341167921	1.515149	3.18E-05
AC092999.1	0.1887413	0.092987691	-1.0213	4.17E-29
AC124312.2	1.3742853	0.663879329	-1.04969	4.81E-27
AL355877.2	0.0592521	0.123964847	1.064992	3.18E-16
AC093895.1	0.0085266	0.294709936	5.111187	1.79E-43
C20orf144	0.0579775	0.22168454	1.934943	1.55E-38
MYH3	0.7621003	0.326070685	-1.2248	6.19E-39
LINGO3	0.0975001	0.221080876	1.181098	5.07E-09
PHLDB2	6.6935916	2.959513318	-1.17742	6.80E-33
IL22RA2	0.7255998	0.319668701	-1.1826	7.01E-20
STARD9	1.8930368	0.450594404	-2.0708	9.20E-59
KCNAB1	2.2881149	0.697107557	-1.71471	2.54E-54
BAK1P2	0.0629931	0.214066857	1.764797	0.001297
PPP1R16B	6.2586072	1.960820201	-1.67438	4.76E-43
ITIH6	0.5921475	1.454584197	1.296578	1.31E-07
RPS15AP36	0.2774943	0.739819936	1.414716	1.90E-14
LRRIQ4	0.044833	0.194822859	2.11953	3.48E-07
ZNF727	1.2711379	0.466918288	-1.44488	1.49E-35
AC025176.1	0.0654506	0.352894443	2.430759	4.53E-29
TAC1	1.0013567	0.345538247	-1.53504	1.32E-25
HAS3	9.9681891	1.267177462	-2.97571	4.76E-49

HIST1H4E	0.3253411	5.789804332	4.15349	1.70E-29
ZNF724	0.3808486	0.784809766	1.043125	6.66E-12
CADM2	0.6627723	0.312781627	-1.08336	3.56E-28
MYOM1	7.3861496	0.461470093	-4.00051	1.72E-64
ARHGAP11A	0.8012412	3.685489057	2.201548	1.06E-50
CDC25C	0.2171337	2.132697006	3.296024	1.07E-60
MIR23A	4.7324882	0.936612293	-2.33708	8.49E-46
HIST1H2APS4	0.048105	0.20908041	2.119798	1.51E-10
SLC10A4	0.0520502	0.120617798	1.212467	8.22E-06
PAX1	0.0245963	0.188860351	2.940806	2.35E-13
ZNF366	1.9224687	0.60386857	-1.67065	4.05E-45
AL589765.4	0.7225148	2.007150398	1.47405	2.51E-26
HDGF	52.371729	120.8646301	1.206532	2.02E-57
TMEM151A	0.0146163	0.198166046	3.761057	7.53E-17
FAM173A	2.3088927	7.802511146	1.756737	5.92E-39
AC092112.1	0.0545441	0.152112776	1.479645	0.004655
RET	1.469304	11.15936304	2.92505	7.51E-18
SCN4A	2.4729804	0.267664756	-3.20775	1.78E-60
AC109826.1	0.296099	0.677061771	1.193208	8.55E-05
MIR324	0.4525587	0.201380233	-1.16818	9.66E-17
LRP1	58.45928	19.91747519	-1.5534	2.46E-37
AC093010.3	22.690284	10.77178315	-1.07482	2.46E-50
CADM3	4.3738214	0.97068422	-2.17182	2.03E-48
LINC02257	0.0714448	0.292711492	2.034579	1.08E-17
ADGRF5	19.735249	5.536544264	-1.83372	6.92E-53
ZNF350-AS1	0.3594296	1.410077598	1.971994	0.000164
TBX18	1.7608801	0.814868166	-1.11166	2.10E-35
EPB41L2	19.704685	6.664276456	-1.56402	2.44E-52
AC093908.1	0.2000039	0.417633773	1.062211	6.29E-05
AC093110.1	2.685384	0.529093698	-2.34353	2.87E-53
MS4A6E	0.396377	0.088491543	-2.16326	8.25E-06
AC006946.3	0.7834108	0.350978562	-1.15839	1.10E-24
RASIP1	7.7681258	3.017811274	-1.36406	3.03E-48
SULF1	8.9185995	33.19761929	1.896191	1.45E-35
KRT8P42	0.0785781	0.167114545	1.088638	3.00E-06
AC009686.2	0.4739239	1.831435762	1.950248	9.14E-34
AL591846.2	0.1671951	0.383004282	1.195828	5.41E-14
AC123912.4	0.6188636	0.302450645	-1.03292	1.53E-28
AC061975.6	0.0061015	0.112852726	4.209133	8.34E-18
TRBV8-2	0.0486826	0.144822039	1.572803	4.86E-08
IGF2BP3	0.0227743	0.143698244	2.657562	0.012057
CLCN1	0.3186809	0.10163802	-1.64867	1.16E-30
AC068137.1	0.0518649	0.234845964	2.178883	8.43E-17
SRSF9P1	0.3207174	0.749881009	1.225359	1.33E-27
TTLL10	0.2199936	0.093284958	-1.23775	1.09E-36
C1QTNF7	2.3427198	0.481331531	-2.28308	2.22E-38
QKI	11.290964	5.119030886	-1.14123	1.17E-44
TMEM255A	3.4764504	0.730263845	-2.25113	1.86E-55
MMRN1	11.588734	1.174997867	-3.30199	1.24E-50

RAB31	12.276124	37.39890824	1.607141	7.02E-29
RTN4RL2	0.7208435	2.010186297	1.479571	1.62E-34
AC073517.1	0.0752538	0.16351534	1.119589	1.86E-08
TRPM2	1.3489591	3.172988756	1.233996	1.41E-25
RNU7-47P	0.2622619	0.124291664	-1.07728	3.31E-12
ITGA7	25.901419	2.40481687	-3.42903	7.75E-57
LEF1	1.4324861	5.525136557	1.947489	3.43E-36
MZB1	5.2579532	12.44279024	1.242737	0.001708
PSPH	3.375123	7.18071559	1.089188	8.64E-32
AC022432.1	0.088582	0.32879485	1.892103	1.84E-12
NUBP2	5.8742492	12.15433251	1.048994	1.46E-33
DLC1	13.337485	4.149052761	-1.68463	5.64E-46
AC245884.10	0.1096511	0.260377945	1.247687	0.006698
NCAM1	1.3649725	0.489898257	-1.47832	2.08E-47
IGFBPL1	0.0899644	0.545496628	2.600144	1.64E-14
MUC21	0.0258674	0.144084901	2.477715	0.008169
LINC01852	0.740888	0.346022976	-1.09839	3.28E-31
TUBAL3	0.396545	0.903524305	1.188079	0.001011
AC124312.5	2.5484488	1.071878889	-1.24948	4.37E-28
GOLGA8N	0.2881224	0.118601927	-1.28055	1.81E-41
LRRN2	2.1612573	6.111259896	1.499599	6.33E-17
AC084864.1	0.1370802	0.584316621	2.09173	8.61E-34
GAPDH	376.9172	777.2670254	1.044163	1.05E-35
SHISAL1	0.2312489	0.75098406	1.699336	3.09E-11
AC131009.2	0.0241264	0.134532748	2.479275	1.90E-17
FAM171A2	0.4546064	1.127566069	1.310522	2.48E-13
MYO16	0.4361975	0.160281693	-1.44437	8.90E-28
SNORD72	0.2237059	0.533948431	1.255097	1.65E-06
FOXD3-AS1	0.1010801	2.227091632	4.46159	9.68E-35
IGFL2	0.0919803	0.777917151	3.08022	1.38E-32
CISD3	7.3546199	16.73504831	1.18615	2.88E-27
ACADL	2.4750933	0.267236149	-3.2113	5.59E-55
RAD21	37.116272	75.75299521	1.029251	1.03E-25
DEPDC1	0.279218	2.519389212	3.17361	4.41E-55
MIR6503	1.0965667	0.266693084	-2.03974	7.72E-30
NPAS1	0.3267595	0.699959601	1.099042	1.21E-09
MATN3	1.3256423	9.349090319	2.818134	7.36E-40
AC092757.2	0.3416556	0.167421461	-1.02906	4.19E-22
SLC14A2	0.7818368	0.201094835	-1.95899	1.13E-34
CITED1	10.352358	2.912897268	-1.82943	2.74E-26
SPDYC	0.0427869	6.484071534	7.243587	3.95E-10
AP000851.2	2.8710909	1.372184875	-1.06512	2.08E-27
ARHGEF6	23.667852	9.482536238	-1.31958	2.80E-44
HMGN1P13	0.0333251	0.153009444	2.198939	4.62E-12
LKAAEAR1	0.0239453	0.179204039	2.903792	4.89E-21
ADRA2B	0.7665162	0.3565181	-1.10434	9.77E-28
AC009133.1	0.7201068	1.580020556	1.133661	5.96E-46
LYVE1	28.910053	1.020388786	-4.82438	1.12E-59
GLYATL1P2	0.0743987	0.229038188	1.62224	0.028738

AL158151.2	0.0624435	0.182998178	1.551205	3.76E-07
MIR1972-1	0.194457	0.608563492	1.645957	0.031856
AL358075.1	0.0689651	0.273253083	1.9863	3.42E-18
ASPM	0.2985462	3.264850549	3.450991	1.09E-57
KLRF1	0.8046826	0.377649367	-1.09137	8.99E-30
S1PR1	30.555274	7.996335655	-1.93401	8.08E-54
TOP2A	2.6007955	27.81007099	3.418583	1.13E-57
THRB	8.6594424	3.21328613	-1.43022	6.08E-55
AC009414.2	9.0816825	3.602491499	-1.33396	1.75E-49
FLT3	0.7702935	1.813096784	1.234976	0.004999
MIEN1	10.488131	41.39250568	1.980612	2.11E-39
POLR3K	5.2342732	15.00880349	1.519748	2.72E-57
SPATA17	0.2981735	1.022810744	1.778315	1.23E-36
NECAB3	4.152329	11.18833297	1.430002	1.26E-33
MINDY4B	0.099348	0.50043184	2.332611	1.73E-19
AC145124.1	0.3881165	0.1919969	-1.01541	8.38E-18
AL513523.1	0.0418994	0.155464799	1.891585	4.87E-14
NACAD	1.5466566	0.643008512	-1.26624	6.51E-46
SYNPR-AS1	0.1762717	0.675936799	1.939087	5.60E-09
FLVCR1	1.7237007	4.592693461	1.413831	6.22E-48
HJURP	0.3994759	4.339123315	3.441223	5.81E-61
AC113346.1	0.0461412	0.302920562	2.714811	6.24E-10
ADH1C	9.2436421	0.8929878	-3.37175	8.44E-62
PGM5-AS1	1.5579948	0.146678407	-3.40896	1.65E-64
AC092801.1	0.0287159	0.615829104	4.422611	9.06E-14
OBSCN	2.3106828	0.969132698	-1.25355	1.12E-13
PVALB	0.4925229	14.33308104	4.863014	4.81E-05
IFIT1	8.2841091	22.80572556	1.460978	0.000177
AC068580.1	0.3649448	1.367709714	1.906012	2.36E-22
TMEM88	7.2953752	1.974904794	-1.8852	1.26E-54
HSD11B2	2.5272417	5.447631665	1.108066	2.10E-12
CRIP1P4	0.0397483	0.149121004	1.907519	5.60E-11
WDR76	1.642652	3.973497356	1.274382	2.62E-40
GALNT8	0.309363	0.106043024	-1.54465	1.23E-43
KCNK15	1.2314164	7.12281074	2.532128	7.63E-20
TMPRSS6	0.4370849	2.33361909	2.416584	6.72E-08
QPCT	2.598654	6.28703005	1.274614	1.27E-10
KLHL31	4.3292219	0.386648271	-3.48501	4.69E-55
AL138878.2	0.0443159	0.446568391	3.332985	5.16E-15
PHLDA2	3.7779089	10.11319348	1.420579	1.95E-18
COL1A2	156.1823	472.5014945	1.597088	9.82E-24
AC136475.5	0.2128258	0.10385682	-1.03508	4.33E-25
YIF1B	5.6437702	12.3569986	1.130597	1.09E-47
INHBA	1.0739904	11.26300162	3.390538	6.14E-59
AL391825.1	0.10067	0.231233512	1.199717	4.98E-17
AK4	12.708854	6.219009303	-1.03108	3.98E-40
THOC6	8.9461482	18.53094242	1.050598	4.98E-38
VKORC1L1	29.513893	14.16751893	-1.05881	1.05E-16
PNOC	0.187963	0.395962797	1.074917	0.037024

ESR1	12.982962	40.74946373	1.650162	1.15E-08
IL17REL	0.037399	0.308272261	3.043132	4.46E-26
C22orf23	1.7004098	0.781958073	-1.12072	2.75E-32
NANOGP1	0.4346657	0.207999944	-1.06332	0.020468
MDFIC	15.099367	6.84115508	-1.14218	2.11E-34
HOXB-AS1	4.6117354	1.916267613	-1.26701	3.23E-23
TRIM11	2.1496684	5.439096136	1.339253	1.09E-53
ZNF467	3.1316023	8.905209702	1.507749	7.62E-33
PAMR1	19.41478	1.71141282	-3.5039	1.65E-65
CXCL12	74.789848	20.49273208	-1.86773	1.02E-55
AC135584.1	0.7215204	0.188057223	-1.93987	8.11E-37
CAPN3	0.738661	0.163997924	-2.17123	4.79E-37
B4GALNT2	0.1316846	0.615109098	2.223756	0.000115
COQ8A	16.336918	7.854211487	-1.0566	1.41E-30
RTBDN	0.0110726	0.884083593	6.31912	1.36E-33
LINC01055	0.21017	0.1022094	-1.04003	2.16E-19
NEU4	0.0246762	0.209913502	3.088605	1.29E-06
AL356157.2	0.1894409	0.380970995	1.007933	6.09E-05
HIST1H2AL	0.0282019	0.607045367	4.42794	3.98E-34
LY6E	75.026852	152.0447653	1.019017	9.82E-08
FCGR1CP	0.1972264	0.447692812	1.182657	2.48E-17
FAM107A	11.850569	1.960522409	-2.59565	1.04E-56
AC124947.1	0.4755665	0.217623796	-1.12781	4.85E-23
AL157838.1	0.3115062	0.863267568	1.470547	5.35E-19
PYCARD-AS1	0.0425278	0.133745114	1.653009	1.26E-21
POC1A	1.4380645	5.991157249	2.058706	1.39E-61
DIAPH3	0.360727	1.69900053	2.235707	2.56E-46
AC121247.1	0.5902413	0.186472903	-1.66234	1.26E-39
GCNT3	0.0393268	0.248979719	2.662443	1.60E-05
SOX5	1.308961	0.435602987	-1.58734	2.70E-39
SKA3	0.4600449	3.637637948	2.983155	7.60E-59
FTOP1	1.4744894	0.406372212	-1.85934	3.19E-44
C6orf99	0.2582862	1.564875466	2.599005	1.56E-55
MIR6835	0.3347643	1.066018745	1.671015	5.45E-18
TMEM158	2.0814862	6.093847933	1.549739	3.21E-06
RASL11A	7.9024976	3.939926936	-1.00414	1.34E-31
KRT10	7.7550397	19.67460511	1.343129	2.34E-16
EMX2	0.9695257	0.385154805	-1.33184	4.29E-24
KCNS1	0.6469118	0.269803436	-1.26166	3.24E-26
HES2	0.3490478	1.237905453	1.826405	2.83E-09
GIPC1	12.427787	25.15662564	1.017369	3.33E-35
THBS2	28.357211	62.02267693	1.12908	6.49E-13
E2F1	1.6156054	9.868268847	2.610722	2.45E-54
RAD51	0.605841	3.480069274	2.522105	2.20E-57
SLC35F2	2.705207	5.757984454	1.089825	2.09E-18
RXRG	0.9051657	0.14300226	-2.66214	8.40E-49
ANGPTL4	27.381719	7.759970977	-1.81909	3.45E-38
LINC01977	0.6315613	2.14927459	1.766855	2.25E-15
SOX11	0.2678412	2.019781059	2.914749	2.09E-08

MYT1	0.0310842	0.688888148	4.470016	1.54E-28
TP63	13.200543	2.127069046	-2.63366	2.70E-38
SASH1	17.089533	7.179311511	-1.2512	8.11E-48
APOC1	23.524495	48.02160595	1.02952	5.84E-20
NCAPG	0.5249244	4.186068848	2.995415	4.91E-58
AARD	6.3853953	26.50861766	2.053614	1.43E-05
AL353708.3	0.1513846	0.401434201	1.406945	4.07E-26
CEACAM6	4.0533131	73.23145156	4.17529	8.67E-18
CENPX	10.96735	29.28729935	1.41706	6.92E-41
AC027559.1	0.815861	0.309572077	-1.39805	4.58E-40
ZFHX4-AS1	0.4719203	0.225905089	-1.06283	1.37E-21
SULT1C3	27.562941	2.373803126	-3.53746	5.63E-27
SYT13	0.4395885	13.37299187	4.927025	2.79E-17
CCNB1	3.8134132	21.52608377	2.496931	4.53E-62
HES4	2.9422268	6.983039362	1.246947	2.60E-13
JPH4	0.3566832	0.170701681	-1.06317	6.68E-33
BMP6	5.33182	1.558897288	-1.7741	1.84E-50
CXCL11	0.6488608	8.44249485	3.701689	5.76E-40
PPP2R2B	0.2835257	0.089830665	-1.6582	3.70E-42
EBP	8.8223324	18.81060259	1.092314	1.78E-40
TMEM171	0.0840605	0.370840069	2.141297	4.38E-14
AEBP1	69.130842	155.7316919	1.171661	2.87E-18
CSPG5	0.2796525	0.598904645	1.098691	5.93E-12
KPNA7	0.0759611	0.296872355	1.966511	7.57E-15
RNU6ATAC14P	0.0976229	0.424107484	2.119138	1.88E-08
AL356311.1	0.4929285	4.005344913	3.022476	4.44E-08
ADCK5	1.7974979	4.43032615	1.301423	7.90E-32
COL11A1	0.4111629	27.39719728	6.058174	1.83E-57
MSRB3	23.55104	7.144527561	-1.72088	8.14E-61
AC105001.1	0.4329233	0.144584079	-1.5822	1.05E-49
RBMS1P1	0.6521383	0.314350005	-1.05281	1.31E-30
RSPO1	3.407463	0.927020342	-1.87803	8.17E-22
CCDC78	0.1891243	2.021398426	3.417947	6.67E-48
SERPINA9	0.0811022	0.469668634	2.53383	5.26E-15
IFNL3P1	0.0235349	0.111449707	2.243519	2.15E-10
KLF15	7.1426523	0.772465446	-3.20892	3.28E-60
AP003419.3	0.4043254	1.19345128	1.561551	1.65E-14
LRRC26	1.3623771	3.658184697	1.425002	1.11E-05
MAPT-IT1	0.0807971	0.390396601	2.272564	0.000466
PTGFR	2.7673443	0.669184459	-2.04803	1.56E-47
BRWD1-AS1	0.0942699	0.231119144	1.293768	7.17E-07
TCF15	1.1452176	0.399859878	-1.51806	4.41E-28
AC239803.3	0.1093733	0.342594957	1.647243	1.28E-16
CD19	0.3083415	0.911920171	1.564378	0.00057
AC126474.1	0.1515804	0.364234015	1.264782	6.28E-38
OR7E38P	2.220946	4.555113643	1.036313	2.85E-08
AL136162.1	0.2609165	0.52983616	1.021958	2.41E-12
LINC01085	0.5301537	0.181312979	-1.54793	2.67E-29
CST6	0.9701542	5.699317063	2.554503	5.52E-16

CDCA8	1.3077564	10.11537394	2.951384	1.82E-61
FBLN5	36.401683	10.85340917	-1.74586	2.53E-54
HOXC11	0.2732684	3.019934849	3.466127	7.16E-27
SLC6A2	0.3095574	0.138324679	-1.16215	1.76E-47
SLC22A15	0.6789684	1.388603481	1.032218	1.41E-13
AC010327.4	0.063495	0.156871112	1.304866	2.11E-09
HIST1H3D	0.5838558	6.099866619	3.385094	1.04E-44
AC022336.1	0.0591332	0.128323971	1.117751	0.000772
GRIK4	0.1726444	0.410724047	1.250366	0.000461
ITM2A	50.59196	11.14734788	-2.18221	1.46E-63
Z97989.1	1.146425	0.389039642	-1.55915	5.79E-54
GNG8	0.177281	0.445233736	1.328525	1.59E-13
TIMM17A	10.673651	23.51843675	1.139738	1.45E-58
PARP10	7.1946022	15.94512205	1.148128	1.12E-20
AC005363.2	0.0462749	0.16169912	1.805011	1.54E-14
AL158211.4	0.0791604	0.316226824	1.99811	5.84E-08
LINC01711	0.3426648	0.934090131	1.446764	5.24E-21
DCTPP1	15.366722	36.11598085	1.232828	5.90E-49
HLA-G	1.3577494	2.907747995	1.098685	2.29E-05
AC239859.6	1.9773933	0.860511253	-1.20033	3.56E-25
LINC01224	0.0352693	0.482681697	3.774586	6.07E-10
PPIAP3	0.0780488	0.166933293	1.096824	4.83E-11
FOXA1	23.891806	79.82229478	1.740276	2.24E-29
AC032011.1	0.2931528	0.110919388	-1.40214	1.74E-26
DTX1	6.6232482	1.345886678	-2.29898	1.40E-50
CFAP61	0.1234583	0.294482774	1.254159	1.58E-09
HIST1H2BO	0.0778054	1.994116795	4.679736	7.65E-50
AC011445.1	0.1413428	0.341031879	1.270708	2.93E-15
FAM83A-AS1	0.0341379	0.209664503	2.618637	0.001568
CEMIP	0.3594654	3.077225711	3.097705	2.25E-43
OLFML2B	9.2145119	22.14285276	1.264861	1.39E-26
APOD	660.69191	224.7327526	-1.55577	6.89E-44
WFDC3	0.1876782	0.390214865	1.056007	4.84E-09
CMA1	4.9583617	0.694091845	-2.83667	4.39E-46
AC002401.3	0.4929103	0.085047179	-2.53499	1.65E-36
AL161646.1	0.1378268	1.170374421	3.086042	3.49E-10
UNC5A	0.4519892	2.157086626	2.254724	4.69E-08
AZU1	0.2515889	0.726281465	1.529461	0.044077
EME1	0.3013349	1.754799397	2.541866	7.77E-56
AC080037.1	0.0107976	0.125236525	3.535879	7.71E-09
SNORA23	0.1825662	13.12564874	6.167825	0.021615
CCNE2	0.4138602	2.159167682	2.38326	1.28E-49
PNKD	6.5406727	13.21693286	1.014876	5.37E-35
EPCAM	40.984525	100.2642782	1.290657	5.14E-33
TRPA1	0.032821	2.721947967	6.373876	1.11E-22
ADGRL3	0.9683614	0.236471351	-2.03388	5.96E-52
SRL	1.6868257	0.170288718	-3.30826	2.61E-47
COL8A1	5.6653094	12.47179781	1.138443	2.07E-14
MICALL2	1.8147657	3.704142971	1.029357	7.92E-21

STARD8	3.7846992	1.798396942	-1.07347	1.00E-40
AC004854.2	0.2482019	0.565063571	1.186899	6.47E-24
FOXO6	0.9410693	2.875322423	1.611351	7.14E-36
SYT9	0.5869046	2.282465412	1.959395	0.001692
AL451050.2	0.1253886	0.348469186	1.474625	2.56E-20
TTLL12	9.8656411	25.00710648	1.341853	1.29E-33
AC005014.3	0.8659684	0.361316173	-1.26105	4.08E-28
LRCH2	1.1108305	0.460590682	-1.27008	4.19E-43
CDK1	1.4672974	12.61461687	3.103863	1.09E-61
ALDH1L1	4.4929257	0.199909983	-4.49023	1.78E-59
AC015849.5	0.0173166	0.198852406	3.52147	6.62E-48
TINCR	0.8748951	4.966762878	2.505124	2.49E-18
APOLD1	18.71358	4.835945478	-1.95222	1.59E-32
NRXN1	0.3416653	0.123425814	-1.46894	2.52E-43
SSTR1	0.6602512	0.22628388	-1.54488	1.67E-58
ME1	17.869344	6.464429177	-1.46689	1.71E-16
CCL17	0.507822	1.750991584	1.785777	3.29E-09
ITSN1	6.4473354	2.06928307	-1.63957	3.08E-40
RNU7-160P	0.5762975	0.207730708	-1.4721	1.86E-22
IDH2-DT	0.1769972	0.430295467	1.281601	5.60E-06
TRIM2	11.205345	4.744221279	-1.23994	6.31E-36
LDLRAD1	0.155898	0.508904818	1.706794	1.49E-06
MMP25	0.6319405	1.556125596	1.300098	5.23E-05
SPTB	0.5750724	0.139322234	-2.04532	1.89E-31
AP005131.4	0.032913	0.301835677	3.197035	0.032849
LINC02185	0.796669	0.113161557	-2.8156	2.55E-60
LINC01561	0.0074912	0.209068095	4.802638	4.38E-52
SGCE	26.824275	13.09082128	-1.03498	2.35E-39
AL445649.1	0.0348289	0.161252409	2.210966	0.00084
AC004585.1	0.2333679	0.857194691	1.877017	1.02E-28
MESTIT1	0.49647	0.091979727	-2.43232	4.01E-58
ATP1A3	0.0918832	0.892163661	3.279435	5.84E-30
HPN-AS1	0.093845	0.252940504	1.430447	2.61E-14
LRWD1	1.6361506	3.561621131	1.122228	2.38E-44
IGHG3	21.661162	118.1475096	2.447407	1.08E-09
LMOD2	5.4207719	0.117646635	-5.52597	3.85E-15
ADAM12	4.6307599	11.52662713	1.31565	4.16E-19
CALHM1	0.0156145	0.116170375	2.895282	9.07E-16
DTL	0.8489105	6.683489538	2.976917	9.81E-60
MS4A8	0.0973966	0.86926702	3.157856	2.03E-09
CCL24	1.2250767	0.312169331	-1.97247	1.89E-36
AL357134.1	0.032418	0.158547986	2.290054	4.65E-07
HSPE1	22.649804	49.2699941	1.121211	3.10E-48
ANKRD29	3.7783811	0.84878571	-2.1543	1.23E-60
DMP1	0.0060065	0.166661998	4.794268	6.84E-26
SRPK3	0.3764051	1.129405491	1.585206	3.44E-14
SEMA5B	0.2422904	0.493567139	1.026509	2.20E-11
AL132712.1	0.589439	1.184617806	1.007007	4.63E-10
TUBA3D	0.6579539	4.53599854	2.785362	4.35E-13

AL583856.2	0.9311906	0.34754606	-1.42187	2.33E-43
PPP1CA	31.654049	68.39679563	1.111539	9.52E-51
CCNB2	1.2179741	9.44299592	2.954761	9.84E-59
RNF208	3.5025674	7.936171641	1.18003	7.04E-24
FOXP2	0.6046475	0.1665504	-1.86014	3.89E-50
SCUBE3	0.4541638	3.331354826	2.874824	1.51E-18
AL109924.2	0.0255513	0.112538934	2.138955	6.54E-21
TCHH	0.0568987	0.132801233	1.222802	0.000133
USP6	0.3315299	0.112836709	-1.5549	9.92E-19
AC025165.1	0.4095932	0.171160396	-1.25884	1.89E-29
KCNS3	5.6177055	11.95389539	1.089428	2.30E-15
TLE6	0.4979459	1.443083636	1.535094	2.96E-19
CNTFR	16.280492	2.936768086	-2.47084	1.21E-47
FHL1	168.87055	6.842392834	-4.62527	2.93E-61
HSPE1P6	0.047755	0.152793344	1.677859	1.22E-15
DAP3P1	0.0933344	0.187993474	1.010203	0.003259
RUNDC3B	1.2817349	0.40852029	-1.64962	6.46E-53
AC010976.2	0.9322225	0.191473152	-2.28353	2.18E-41
KLHDC9	2.287046	6.8758233	1.588047	5.89E-27
NANOGNBP3	0.0732253	0.153236194	1.065343	2.98E-11
TMEM92	0.077473	0.450375184	2.539361	5.02E-39
EPAS1	78.252821	21.68227186	-1.85163	1.11E-55
TEKT5	0.1503996	0.47383554	1.655586	1.29E-19
ANGPTL5	0.7907185	0.054971052	-3.84642	1.77E-44
CD209	5.300822	0.916264074	-2.53238	3.46E-39
NOV	9.2416718	3.409355151	-1.43865	1.27E-36
MIR4728	0.3869278	1.146094011	1.566589	0.001136
PLA2G4F	0.4151754	1.103474941	1.410261	6.64E-14
LINC01050	0.0247275	0.154079403	2.639484	1.73E-21
AF131215.7	0.7050963	0.200735062	-1.81253	1.22E-32
AL138760.1	0.1678065	0.421713048	1.329463	1.07E-05
AL121829.2	0.0776897	0.3181834	2.034063	1.50E-19
GIPC2	2.8505742	0.470374114	-2.59937	1.64E-63
AC108474.1	0.8434058	0.135658602	-2.63625	4.27E-49
AC092171.3	0.3650457	0.807748791	1.145829	9.96E-16
IFI30	0.2153888	0.442575445	1.03898	3.23E-20
VWA5B2	0.0655691	0.237442977	1.856494	7.54E-05
SERPINC1	0.0606365	0.281765243	2.216234	1.14E-13
MAL2	32.750322	98.85421629	1.593793	4.09E-42
MAPKAPK2	30.922666	65.47962659	1.082381	1.32E-46
AP000866.5	0.2359609	0.099131609	-1.25113	1.72E-24
MED15P4	0.0191075	1.442709038	6.238495	4.42E-12
ZIC2	0.1057833	0.781376046	2.884905	0.042022
LINC01703	0.6541572	1.420169558	1.118354	1.67E-14
BAMBI	16.441617	40.32926444	1.294475	2.79E-07
H2AFZ	31.652397	87.12943013	1.460845	3.24E-58
CDKN2B-AS1	0.0594743	0.253240298	2.090168	5.35E-39
AC127024.3	0.0597967	0.198971817	1.734427	0.000575
OR7E12P	0.267436	0.095189801	-1.49031	4.17E-25

TIMM8AP1	0.9447647	0.35610909	-1.40764	7.07E-24
GPSM2	1.4267628	3.402455832	1.253831	8.22E-34
CACNG4	6.0342259	29.90935117	2.309356	4.72E-20
C20orf204	0.0937644	0.474392091	2.338968	6.40E-37
BNC1	0.7096345	0.331063979	-1.09997	1.51E-36
MYH2	35.81736	0.231094967	-7.27603	5.33E-30
AC010336.5	0.0262536	0.108514845	2.047306	1.27E-15
GATA5	0.0396805	0.493319199	3.636019	0.002847
C10orf90	1.0279676	0.177809875	-2.53139	5.01E-52
SCAND1	10.100953	22.05630158	1.126699	5.80E-25
KCNJ10	0.0514012	0.265759827	2.37025	2.77E-29
AP001107.5	0.9455946	0.308447562	-1.6162	2.10E-33
EOGT	9.73137	3.922717503	-1.31079	5.32E-57
TMEM121	0.9790205	3.01169131	1.621163	1.42E-22
RNU6-341P	0.2230553	0.555695036	1.316892	0.024959
CXCR4	20.899794	43.81191125	1.067834	2.06E-21
CLSPN	0.2302841	1.649419076	2.840471	2.34E-51
NPR1	22.073863	2.049635522	-3.4289	3.78E-62
CNR2	0.0654483	0.139791756	1.094852	0.008264
RASL11B	1.0840086	3.403581573	1.650678	2.56E-30
EPHB2	0.563443	1.20372526	1.095165	2.83E-20
FLI1	5.3567462	2.489365696	-1.10558	6.88E-39
UBL4B	0.2592722	0.122201472	-1.08521	1.56E-21
PA2G4P6	0.0499314	0.121769645	1.286135	0.010715
AC112721.2	0.0638938	0.693804575	3.440781	3.75E-45
LINC01985	0.7875425	0.087558697	-3.16904	1.21E-63
WFIKKN1	0.0984037	0.258996927	1.39615	4.88E-14
AL163636.2	0.5760821	0.207435665	-1.47361	2.51E-41
KIF15	0.4486065	2.533013955	2.497333	3.95E-53
TBX1	1.2097958	2.838582688	1.230407	0.006303
PSMB3	49.037803	108.0864038	1.140219	3.52E-40
RUNX2	1.1721029	2.851677799	1.282712	2.04E-22
SPARCL1	254.01395	79.62272576	-1.67366	1.03E-59
PYGM	13.63196	0.25394664	-5.74632	8.35E-60
AMIGO2	29.378393	14.26185357	-1.04259	4.47E-27
CCDC167	7.8011095	28.86614497	1.887627	1.60E-60
PRELP	41.437478	10.8513986	-1.93306	3.35E-44
FAM124A	1.2361526	0.553888858	-1.15819	2.32E-48
DUX4L27	0.2868666	0.132614199	-1.11314	1.68E-26
AC023908.3	0.1278672	0.30520976	1.255155	1.54E-15
KRT14	310.21516	84.71597841	-1.87256	8.69E-34
SNRPB	60.855642	141.2838842	1.215134	1.30E-48
RAB25	28.583083	74.39701471	1.380083	5.18E-43
OSR1	6.1579966	1.58481632	-1.95815	4.92E-46
TMEM273	5.6862722	1.716827254	-1.72774	2.75E-52
FGD4	3.6190595	1.63336972	-1.14776	1.89E-48
NMT2	10.480706	3.097526784	-1.75855	2.71E-57
BTNL10	0.1258676	0.470940746	1.903639	9.33E-15
AP003555.3	1.8289965	0.350659026	-2.38291	3.13E-32

LPAL2	0.3076713	0.116529433	-1.4007	1.64E-47
C1orf189	0.1741589	0.780156462	2.16336	5.01E-18
ERP27	3.2594482	9.292933456	1.511506	6.68E-12
DDX11-AS1	0.1593304	0.426355575	1.420036	9.86E-32
AC104237.3	0.764565	0.086313248	-3.14699	5.74E-39
ECHDC1	14.353273	6.760054815	-1.08627	2.13E-49
MTFR2	0.2586638	1.768849217	2.773661	3.18E-58
PLPPR1	0.7408393	0.14782561	-2.32526	1.94E-41
AP005131.1	0.0547774	0.333362328	2.605439	0.025793
ANXA3	13.501385	5.563244115	-1.27911	1.61E-39
VAV3	11.291252	28.24572478	1.322827	8.21E-18
RHEBL1	0.5896238	1.349099405	1.19413	2.69E-29
AOC3	108.55071	7.969039203	-3.76782	1.05E-57
MS4A4A	9.664396	4.597139441	-1.07194	4.29E-12
MORN3	0.3761347	1.101940843	1.550726	1.98E-26
HLA-DPA3	0.1911671	0.513365986	1.425153	1.22E-07
NEK2	0.5073395	9.075015955	4.160877	8.30E-65
REEP4	5.1480875	13.33344483	1.372941	8.91E-48
RCAN2	7.1962117	3.48706574	-1.04522	7.19E-35
HRASLS5	15.684966	3.938662811	-1.9936	1.00E-38
DPP3	6.3056102	17.81537063	1.498415	2.21E-56
IL2RG	5.7676905	11.87683021	1.042084	0.000583
TRARG1	73.851749	2.564753371	-4.84774	1.82E-53
TGM3	0.1100887	0.519764382	2.239192	0.000327
KIAA1211	0.1919406	1.160061066	2.595469	1.30E-35
ATP8B4	1.0191771	0.435359821	-1.22712	9.99E-34
KCNJ2-AS1	0.8036783	0.186446217	-2.10786	8.94E-57
MIR222HG	1.1040892	0.498359692	-1.1476	4.18E-38
NELL2	0.93714	8.762064849	3.224934	2.83E-10
VN1R48P	0.0383571	0.274266599	2.838012	1.09E-13
LGI4	3.0931086	0.643180383	-2.26576	1.76E-58
SLC22A18	2.1927486	5.074240849	1.210452	2.60E-23
DHRS3	33.796487	16.453624	-1.03847	3.88E-32
ANGPTL2	62.87186	18.75103178	-1.74544	1.09E-46
UBE2Q1-AS1	0.1739318	0.380196174	1.128222	1.54E-15
AFAP1L1	7.0332404	2.591363296	-1.44048	1.78E-37
LINC02516	0.0553121	0.147747351	1.417465	0.001088
SORBS2	7.1771826	3.471824975	-1.04772	5.55E-30
AL356740.3	0.3016402	0.607206168	1.009358	0.001405
EGF	4.8752116	1.741416045	-1.4852	6.62E-15
MAPK15	0.9713038	5.846450863	2.589567	1.04E-22
AC093496.1	0.9315055	0.14226219	-2.71101	1.89E-36
PLPPR4	1.1898866	0.576101064	-1.04643	2.23E-35
RPS6KA3	9.8245893	4.779381169	-1.03957	2.08E-41
WISP2	16.894742	5.948863692	-1.50589	3.68E-18
AC004156.1	0.058313	0.134156956	1.202032	1.45E-12
SERINC2	23.84575	58.01544361	1.282705	1.49E-28
EIF5AP3	0.0582637	0.130179777	1.159837	0.000322
CD34	30.964073	7.572910002	-2.03168	3.06E-60

CKMT1A	0.5106495	1.50082265	1.555348	8.50E-11
CBARP	0.1141653	0.285053091	1.320106	5.33E-23
DQX1	0.0610982	0.858394125	3.812438	3.74E-38
GRAMD1A	8.1599908	17.10515006	1.067791	1.10E-51
FHL5	4.7727186	0.834755613	-2.51539	7.64E-54
PCOTH	0.2156272	0.478292128	1.149353	2.10E-08
KLHL4	0.5683577	0.170372534	-1.73811	2.54E-35
AP001189.3	1.7751526	0.870108244	-1.02868	1.24E-20
AC010457.1	0.8256192	0.176225375	-2.22805	5.88E-43
TMEM71	2.4659627	0.931321328	-1.4048	2.39E-36
AP005131.2	0.1915219	0.824890335	2.106693	1.13E-23
E2F8	0.2195424	1.728334865	2.976811	1.03E-51
ZNF423	2.5698068	1.196340578	-1.10303	2.39E-37
IGHG2	70.69393	255.3995119	1.853098	0.000177
MDK	33.882638	86.21708095	1.347427	1.86E-18
AC048341.1	0.7984898	0.382773044	-1.06078	3.30E-30
AC023983.2	0.1452664	0.349317561	1.265838	3.41E-05
DRP2	0.0437579	0.154643871	1.821335	5.94E-43
PTENP1	0.6140526	0.306621596	-1.0019	7.70E-33
LHX2	0.0174494	0.353826942	4.341799	4.19E-38
NTRK3	0.8784927	0.374166973	-1.23135	1.26E-39
AC124067.4	0.1744297	0.746319102	2.097147	3.65E-13
PPP1R37	3.9699066	8.779535947	1.14504	1.16E-36
DST	26.649943	5.031409792	-2.4051	4.40E-58
NEDD9	15.444108	6.179432124	-1.32151	6.21E-40
AC138965.3	0.0217798	0.159835959	2.875526	4.01E-16
S100A7A	0.0991413	2.270891765	4.517628	9.43E-05
RNA5SP449	0.100087	0.344862043	1.784765	2.44E-07
ZBED3-AS1	0.4797264	0.201002295	-1.255	2.29E-44
UNC5B	3.2044519	12.30042609	1.940559	8.38E-52
TMOD2	3.1812954	1.494448068	-1.09	7.06E-42
SCGB3A1	36.126643	13.92396992	-1.37549	3.50E-22
MASP2	0.6985414	0.286715805	-1.28472	1.60E-36
CD164L2	1.5419937	0.692466493	-1.15498	2.73E-16
PSMA6P1	0.1631225	0.342249671	1.069093	9.05E-17
NME1-NME2	0.3185775	0.909423758	1.513308	3.19E-22
HIST1H2BI	0.0162239	0.484809292	4.901223	1.64E-14
HIST1H2BH	0.5088227	5.532396691	3.44267	3.65E-36
AC092364.2	0.0555118	0.122349019	1.140137	0.00033
OTX1	0.1670227	0.905557333	2.438762	1.06E-27
AC106865.1	0.0691961	0.167460019	1.275055	0.016503
COL6A6	2.7683145	0.306082697	-3.17701	1.22E-57
ACTL10	0.6957762	1.544724157	1.150654	4.80E-19
AL445423.1	0.8540811	0.281497589	-1.60125	2.98E-35
SPIB	0.3110489	1.637032545	2.395869	0.000158
MIR200CHG	5.0861712	11.37712329	1.161484	6.95E-17
FOLR2	25.829859	7.201261823	-1.84272	5.60E-27
AC138356.1	0.5759756	0.158236786	-1.86392	4.65E-46
LINC01063	0.2271127	0.603969068	1.411066	3.36E-19

SOCS3	87.654301	25.31033295	-1.7921	6.78E-18
HOXA5	10.207527	1.964663322	-2.37728	1.63E-60
COL25A1	0.7403482	0.139744314	-2.40541	9.95E-57
BUB1B	0.6680612	4.873526262	2.866914	8.24E-58
AC092042.2	0.0514555	0.125388119	1.285002	0.009527
AL356234.2	0.0731516	0.354025099	2.274891	0.005457
PTPRZ1	1.8468951	0.620854296	-1.57278	5.60E-37
NECTIN3	2.1581224	0.683833616	-1.65806	8.01E-51
PPDPF	128.34655	284.6065185	1.148924	3.61E-31
AL645608.2	0.0456341	0.202385766	2.148922	1.06E-11
PIGQ	5.357471	12.38978357	1.209527	1.98E-36
AL359183.1	0.4350884	0.894437554	1.039672	1.95E-19
CAMK2N2	0.0938708	0.785204227	3.06432	4.87E-44
CYR61	246.89099	81.60661973	-1.59712	1.02E-35
PFDN6	5.8448734	13.01644999	1.155092	1.17E-45
GCAT	4.0913585	8.440485648	1.044746	1.56E-21
LCN6	0.5874379	0.125400221	-2.2279	2.66E-47
REEP6	13.798224	29.90788346	1.116043	3.39E-07
LMNB2	5.6989684	14.60718038	1.357905	4.73E-46
SCARNA13	1.038323	15.18658611	3.87047	0.04637
AP000577.1	0.0508233	0.138555693	1.446903	0.000179
AC083906.3	0.2087927	1.203057792	2.526563	1.35E-10
MYO1H	0.3225756	0.111402372	-1.53386	8.90E-39
NCAPH	0.7988445	5.262669028	2.719808	1.67E-56
NKX2-2	0.0108775	0.525750016	5.594953	1.06E-08
CNRIP1	7.7543393	2.448094163	-1.66334	2.00E-46
ARNT2	2.471595	9.821338769	1.990477	5.70E-23
LINC02351	0.6912653	0.150841461	-2.19621	2.58E-50
CRAT	17.065398	34.38541074	1.010723	5.28E-05
KMT5C	1.5296589	3.090830281	1.014784	1.16E-24
SH3TC2	0.3000099	0.109771653	-1.4505	5.20E-44
ASPHD2	0.6594916	1.358197872	1.042267	1.75E-30
BAIAP2L1	4.603516	9.430790709	1.034643	3.39E-29
RBP7	58.367718	13.39683966	-2.12328	1.62E-51
WHAMMP2	0.6398274	0.219142375	-1.54581	1.77E-50
AC131097.1	0.0191585	0.218644125	3.512526	2.48E-24
FEZ1	2.3048435	0.890726805	-1.37161	4.73E-48
PACRG	0.7975198	0.241317765	-1.72459	2.98E-40
IL17RD	10.229213	3.603154721	-1.50536	5.09E-36
AC078864.1	0.2208766	0.683087423	1.62883	9.05E-07
AC064807.4	0.6128815	1.261810299	1.041815	2.16E-12
MUC1	24.104417	130.0017853	2.431162	1.62E-30
FBXL16	2.397416	9.190927484	1.93873	2.18E-22
S100B	46.646188	7.168118721	-2.70209	2.14E-55
PRSS27	0.2936341	0.827209005	1.494232	1.23E-15
RASGRF1	0.1813167	0.431708138	1.251545	0.039211
DIRC1	0.0765196	0.189420695	1.307693	2.01E-10
ACSM3	1.9612206	0.566804163	-1.79083	2.17E-26
AL121672.3	0.1942293	0.401793894	1.048695	0.003801

STXBP1	9.4175492	4.378522106	-1.10491	6.88E-47
AC016705.2	0.3200985	0.985939984	1.622984	1.10E-14
LINC00922	0.024296	0.560435963	4.527759	2.37E-54
POP1	1.452621	2.976868181	1.035137	1.13E-28
TRIM54	0.6599358	0.126549526	-2.38262	1.53E-05
DUSP6	35.610708	13.06511345	-1.44659	4.81E-50
OVOL1-AS1	0.0875589	0.194530598	1.151671	6.94E-10
AC113368.1	0.8384095	0.09215824	-3.18547	5.24E-48
TEAD1	15.563369	6.927360572	-1.16778	7.23E-41
AC093424.1	0.243326	0.108360334	-1.16705	7.09E-27
PDE2A	9.9328921	1.231627525	-3.01165	1.33E-64
DOC2A	0.2806462	0.790854881	1.49466	1.37E-08
CABLES2	2.3433681	5.412146113	1.207617	1.37E-40
LINC02086	0.009255	0.121638921	3.716227	1.29E-33
RPL39P5	0.265141	0.095865143	-1.46768	1.51E-24
MRAS	25.27486	5.858196424	-2.10917	3.88E-57
UNQ6494	0.036799	0.122413789	1.734027	7.63E-25
HGFAC	0.0459031	0.134736497	1.553476	6.05E-05
LRFN1	0.6974658	2.065282892	1.566145	1.25E-31
MZT2A	3.9897323	9.836747747	1.301889	7.71E-29
KCNJ16	1.4324894	0.251572599	-2.50948	9.79E-57
TRAF2	4.1009666	9.039559604	1.140289	4.18E-42
GK	0.8684807	1.847290326	1.088845	4.20E-30
GUSBP3	0.110277	0.328021915	1.57266	0.015016
APBA1	1.7273054	0.70315732	-1.2966	9.33E-46
TBCB	10.376656	21.06773899	1.021694	5.26E-42
AL359837.1	0.0687531	0.143162835	1.05816	3.02E-06
RN7SL5P	0.0503581	1.396547054	4.793496	3.29E-17
BAIAP2L2	0.489257	1.125845601	1.202345	0.035875
BCAS2P2	0.0696834	0.298130263	2.097056	0.005034
RNU6-1061P	0.3360428	0.13579849	-1.30718	3.96E-12
ORM1	0.1674242	10.54231013	5.976539	1.09E-11
PCSK6	1.5506168	3.197713878	1.044199	0.000517
HASPIN	0.2909391	1.127190215	1.953942	1.79E-41
AL161669.3	0.1995123	0.556772962	1.480612	2.91E-08
MMP8	0.0535162	0.130435608	1.28529	0.003171
GPR137C	0.2804191	0.708040803	1.336248	3.21E-28
CSRNP1	47.23308	13.07602296	-1.85287	1.57E-39
AC243562.1	0.4614631	0.185602843	-1.314	5.00E-24
C1QTNF6	1.5298998	6.874382501	2.167793	5.40E-55
AC092718.4	2.1242737	6.032679094	1.505829	2.59E-33
MAFG-DT	1.5085253	4.743192481	1.652719	5.64E-42
STK32A	0.4673827	0.170341481	-1.45617	1.25E-45
CADM3-AS1	0.8400751	0.140989565	-2.57493	1.25E-56
CD80	0.1001232	0.464224434	2.213046	2.08E-38
SCGB1A1	7.3484031	0.521094192	-3.81781	3.41E-06
AC020765.4	0.0649332	0.132170984	1.025378	0.002644
STXBP2	3.8376067	9.857782393	1.361056	8.44E-41
PKIB	4.8740334	16.27059522	1.739079	1.70E-14

TNNI2	23.604542	1.795194641	-3.71685	4.94E-11
AL121578.3	0.0333427	0.265048055	2.990811	1.15E-09
HAGHL	0.265319	2.733589589	3.364997	6.63E-57
NPR3	6.3823481	1.766830614	-1.85292	3.10E-21
AP000251.1	0.1648	0.917013533	2.476227	8.82E-38
ADRB1	1.3374073	0.573289361	-1.2221	2.35E-35
MECOM	3.2160485	1.445693935	-1.15353	6.96E-36
HYAL1	2.6063373	0.924466249	-1.49533	4.80E-52
PPP1R12B	10.151113	2.494528812	-2.0248	1.75E-62
IGHG4	33.549757	142.2630166	2.084186	2.63E-24
LURAP1	1.2800125	0.466453995	-1.45635	3.90E-49
TNRC18P1	1.2306612	4.313522024	1.809433	7.04E-05
GAPDHP71	0.0875224	0.214765214	1.295036	5.96E-09
HOPX	0.7822665	1.635076798	1.063626	3.49E-18
MTCL1	0.5295329	1.447927685	1.451197	5.52E-15
PFKFB1	7.4282772	0.735748001	-3.33574	1.42E-45
RCAN1	32.500858	9.572428483	-1.76352	1.22E-43
LRRTM2	0.5553739	0.180706978	-1.61981	1.28E-57
NCALD	13.195533	4.451634766	-1.56764	2.14E-44
ECM1	12.302701	42.91830695	1.802618	9.81E-09
POTEI	0.0362092	0.151020355	2.060314	0.000263
LINC00887	0.0568172	0.15608802	1.45796	3.60E-05
LINC02520	0.0568136	0.141701266	1.318544	8.98E-06
FBXL19-AS1	0.6128506	1.503596544	1.29481	8.58E-23
VSTM2A	0.2971991	4.626041147	3.960276	0.004442
LARP1P1	0.0395884	0.30420312	2.941887	4.70E-26
NIPSNAP3B	5.6186241	0.883506147	-2.6689	3.83E-63
AP005131.7	0.3318857	1.350167022	2.02438	2.80E-25
TMEM105	0.1407079	0.308781985	1.133885	0.004482
POLH-AS1	0.3004559	0.783402528	1.3826	2.21E-37
STON1	3.0074148	1.339793135	-1.16651	9.62E-36
CNTD2	0.5350875	4.301997793	3.00716	1.82E-33
AC027307.3	0.6988148	0.253796569	-1.46124	3.65E-49
GDPD2	0.0591327	0.447586754	2.92014	7.68E-06
AL035409.1	0.4541896	0.958570864	1.07759	0.005975
AC093904.4	0.0746823	0.460043758	2.622933	1.49E-07
CPXM2	16.359038	6.724366496	-1.28262	1.72E-36
AL139220.2	0.0981934	0.274938678	1.485412	1.05E-13
RNF138P1	0.2189077	0.091522003	-1.25813	3.04E-31
LINC00958	0.9463195	0.436103515	-1.11766	1.63E-26
CCDC178	0.9759613	0.129406651	-2.91491	4.08E-62
OIT3	0.0451276	0.144838756	1.682365	6.06E-24
ASB2	0.9142761	0.392022971	-1.22169	3.69E-08
NDC80	0.5495731	4.82409398	3.133875	7.80E-60
CDH11	3.8906606	11.0228016	1.502404	1.71E-27
GPRASP1	4.664886	1.145345439	-2.02606	1.93E-59
RASGRP1	1.1900038	3.369547961	1.501589	2.43E-11
SPACA4	0.0879096	0.355841697	2.017143	5.65E-15
LINC02256	0.7598857	0.311916459	-1.28462	1.37E-40

DLL3	0.0432261	0.280774207	2.699434	4.78E-05
U62317.2	2.5286615	5.203180355	1.04102	9.23E-25
AC011444.3	0.5059952	0.175914089	-1.52425	7.38E-36
AC024075.1	4.6104129	2.167152677	-1.0891	5.22E-30
KIF22	6.8875777	18.37504726	1.415679	2.47E-53
PER2	13.634267	5.726460939	-1.25152	3.12E-33
AC015802.3	0.7590577	0.352160871	-1.10797	6.65E-37
HMX2	0.0058947	0.158158885	4.745819	1.35E-15
CR381653.2	0.3428136	0.082521966	-2.05457	2.17E-46
SGCG	5.0136081	1.008214335	-2.31405	1.28E-43
AC092375.2	0.3193001	0.094550332	-1.75576	1.42E-40
SOX7	5.495854	1.554221359	-1.82215	1.97E-52
ECT2	3.1752458	11.38891385	1.84269	2.41E-52
MUC5AC	0.021108	0.466837535	4.467061	1.79E-07
AC046185.3	0.5695724	1.252800433	1.137205	9.20E-16
SOX9-AS1	1.4421402	0.554812595	-1.37814	5.51E-26
KL	2.1730962	0.409736185	-2.40698	1.43E-60
PPIAP19	0.0627444	0.134657067	1.101731	0.00122
AC021739.2	1.3842427	0.380068215	-1.86477	6.78E-56
LINC02154	0.0228296	0.126008178	2.464539	4.94E-05
MGAM2	1.6056101	0.506579008	-1.66426	2.36E-31
TPPP3	16.078609	7.850605813	-1.03427	2.54E-22
XKRX	0.1109925	0.239334036	1.108563	6.63E-16
AC007285.2	0.1070664	0.261068881	1.285925	8.88E-13
PSMD3	18.881689	50.24516403	1.411997	5.04E-39
CCDC154	0.2477171	0.783709212	1.661625	3.67E-15
LINC01136	0.0364708	0.135092221	1.889132	5.58E-28
SCN3B	0.668931	0.152240023	-2.13551	1.88E-57
TRBC2	5.5294988	11.67185822	1.077814	0.004891
PRNP	82.308031	32.14796559	-1.35631	4.04E-51
EVPL	2.6053426	7.818640382	1.585445	1.67E-39
VAV2	5.8676384	12.03340638	1.036193	1.30E-42
FAM189B	5.7234653	11.86671436	1.05196	1.62E-40
NEXN	8.3414411	2.800651494	-1.57453	3.98E-50
CCL21	72.330183	14.59751933	-2.30887	2.96E-40
ETNK2	4.7475743	12.56902935	1.404611	4.44E-18
AC093627.6	0.6128923	0.155306661	-1.98051	2.31E-24
SLC1A2	0.7006459	1.845812367	1.397499	0.015816
AMPD1	2.6524149	0.231041483	-3.52108	5.40E-31
AP003068.4	0.1538046	0.348089702	1.17836	0.000141
TCF19	4.3781729	10.12977533	1.210201	1.43E-29
AL139393.2	1.2666623	3.062425823	1.273643	2.98E-21
AKR7L	0.2971568	0.721108499	1.278992	9.41E-11
AC073130.2	0.6808643	0.188624252	-1.85185	1.38E-47
TEKT4	0.0443682	0.127591411	1.523933	0.032736
RAB26	0.5489571	4.478561639	3.02827	7.64E-46
AC027228.2	0.1372168	0.379762977	1.468642	5.51E-06
SDC1	33.042353	115.5968876	1.806714	1.02E-35
KRT8P3	1.2033656	3.003729291	1.31968	6.77E-14

PTCRA	0.0799325	0.20141498	1.333317	1.61E-17
DBNDD1	2.7250027	9.765574603	1.841447	3.02E-43
IRX1	17.20563	5.504380297	-1.64423	1.53E-33
MME	30.975467	3.233133023	-3.26012	4.95E-65
ANKRD33B	1.3174614	0.5526442	-1.25334	2.71E-35
AL445228.2	0.2333461	0.49184781	1.075741	1.15E-08
TYRP1	0.0307014	0.645620521	4.394311	2.83E-15
ESRP1	12.501152	35.73708477	1.515361	4.65E-50
CCDC36	0.6031065	0.168482671	-1.83981	2.20E-44
LINC02407	0.8397097	0.243078313	-1.78847	1.85E-41
CLEC5A	0.1946127	1.779988359	3.19319	8.21E-52
GSDMC	0.37211	1.449889255	1.962142	0.002382
AC132192.2	0.5111774	1.10898855	1.117348	9.88E-22
AL049597.2	1.9276023	0.727339756	-1.40611	5.41E-49
FAM72C	0.0208366	0.132057012	2.663966	4.36E-32
TMEM170B	3.101612	1.156141285	-1.4237	2.08E-32
AC035139.1	0.0516911	0.105736194	1.032482	0.002351
CDKN2A	0.7646723	5.127622729	2.745377	1.76E-32
RGS4	0.8629905	2.922529275	1.759801	4.68E-24
ROCK1P1	0.3950227	1.181629444	1.58077	1.67E-15
TNS2	29.833182	10.1861268	-1.55031	4.55E-54
COL5A2	22.590547	78.7102139	1.800832	3.23E-31
CFD	206.69087	27.4620027	-2.91197	7.78E-49
GPR132	0.8373796	1.786807798	1.093431	6.27E-16
PODN	25.631501	11.9817641	-1.09708	1.22E-18
AC020922.4	0.0461508	0.204495719	2.147642	3.05E-14
CCDC85A	0.983292	0.262228811	-1.90679	3.26E-45
TMOD1	3.7953063	0.666873109	-2.50873	7.44E-57
OR7E91P	0.1901338	0.867238234	2.189414	4.77E-18
RPL23AP49	3.0928844	1.103794786	-1.48648	1.54E-42
MET	12.542502	4.714268809	-1.41172	3.44E-50
AC024337.1	0.0622455	0.127503336	1.034494	0.048771
TROAP	0.3538319	3.951676375	3.481329	8.00E-61
CLDN7	20.180612	45.72107728	1.179889	1.76E-31
KIF1A	0.080507	1.543282905	4.260745	0.000248
IDO1	1.473336	6.349382426	2.10753	0.010274
CBX4	6.6831015	21.15813303	1.662623	4.63E-50
MAL2-AS1	0.0593863	0.226751899	1.932912	6.23E-12
INHA	0.2962146	1.849534558	2.642448	2.72E-08
METRN	3.1348895	15.9267279	2.344963	4.09E-37
LCTL	0.0545674	0.15171843	1.475285	8.38E-22
ABCA1	9.2711561	4.10028049	-1.17703	3.45E-27
AC012157.1	0.0879372	0.176315864	1.003617	0.000518
RNA5SP494	0.6128853	0.253316312	-1.27468	3.17E-21
ESCO2	0.1652568	1.034533238	2.646199	4.44E-54
NRIP2	3.7851847	1.787360384	-1.08253	1.30E-41
MAD2L1	1.0720938	4.625104387	2.109055	5.16E-53
KCNH2	0.2119914	1.029470021	2.279824	0.000126
SPATA12	0.0827662	0.18913354	1.192291	2.19E-09

EVC2	1.902622	0.840573295	-1.17854	1.73E-46
TRBV12-3	0.1401605	0.294056553	1.069014	0.00082
FITM1	1.0352043	0.267124051	-1.95433	5.26E-05
LHX1	0.0036163	0.225448197	5.962155	1.54E-10
ACKR4	2.152594	0.709052053	-1.60211	7.37E-32
AL133368.1	0.0126407	0.2135271	4.078271	9.38E-07
RNASEH2A	5.1161384	17.24309536	1.752892	1.22E-58
FOXS1	1.1010946	2.553312232	1.213432	1.23E-26
RELT	0.4936869	1.428156169	1.532485	1.71E-46
AC002398.2	0.632133	0.055639361	-3.50605	2.02E-46
AASS	4.2862822	1.293746092	-1.72817	8.55E-49
TMEM246	2.0379501	0.458663142	-2.15161	3.20E-61
AMZ1	0.1137204	0.699398227	2.620623	1.01E-23
AC013652.1	0.0538147	0.505067458	3.230405	2.02E-27
HSD17B13	3.6660889	0.123749184	-4.88875	4.01E-60
MRPS34	27.065534	70.72534194	1.38577	5.57E-48
EEPD1	7.1550993	2.315229118	-1.62782	5.36E-56
ZNF804A	0.0685157	0.151634398	1.14609	5.14E-08
AK5	11.807661	2.1971772	-2.426	2.34E-34
HDAC11	4.663597	9.60391365	1.042179	7.22E-21
MT-TM	0.3924954	1.314504149	1.743771	0.00777
RPL18AP2	0.0488481	0.117084984	1.261181	0.001222
LINC01814	0.0746907	0.165187811	1.145107	1.82E-08
AL109809.1	0.6854295	0.088516348	-2.95299	1.87E-45
AL354919.2	0.0446752	0.213983975	2.259956	1.94E-26
BACH2	1.6081341	0.617175071	-1.38164	8.21E-39
FUT8-AS1	0.2260731	0.663398619	1.553087	2.60E-13
AC110285.6	0.0708441	0.273456034	1.948589	9.25E-08
ETV5	8.5484406	3.904454195	-1.13054	6.96E-31
HNRNPA1P21	0.1985544	1.501917221	2.919199	7.71E-43
MUC5B	0.8038069	5.40646716	2.749765	0.001637
COL10A1	0.3268599	42.91205648	7.036567	2.43E-65
NRN1	25.576301	5.744356142	-2.15459	2.23E-54
OR52K3P	0.0803479	0.16634451	1.049842	3.74E-08
EEF1A2	11.949874	55.8708893	2.225101	8.77E-20
LTB	1.7446879	7.693866266	2.14074	4.25E-14
CELSR3	0.230184	1.235435766	2.424161	5.17E-32
AC011893.1	0.0077791	0.120889089	3.957943	1.32E-52
AC008243.1	0.0725552	0.18340519	1.337883	2.26E-06
AC135983.2	1.1535754	0.468709936	-1.29935	2.30E-42
AC023886.1	0.4579177	0.158102126	-1.53423	1.05E-35
AC099677.1	7.9484051	3.329169204	-1.2555	1.14E-25
IVL	0.0394502	0.619168805	3.972228	0.000679
GRAMD2A	4.5980246	2.266080481	-1.02082	1.61E-16
MIR378H	1.2935521	0.64175398	-1.01125	8.56E-15
MIR497HG	1.2589004	0.341279717	-1.88314	7.01E-58
SH3RF2	2.2956658	0.908495937	-1.33736	2.55E-38
SLC13A2	6.7989864	1.793965767	-1.92217	7.45E-26
MMP10	0.4211735	3.243680547	2.945145	2.53E-25

ERMP1	9.2670361	19.81424151	1.096358	5.48E-28
GYS2	0.8882776	0.038092747	-4.54342	1.83E-47
UCP3	0.8627676	0.4222996	-1.03071	0.047299
AL359220.1	0.3739697	0.174171902	-1.10241	5.24E-37
AC004637.1	0.6603935	0.281315468	-1.23114	3.75E-38
CCDC3	35.085431	5.422474803	-2.69385	9.38E-50
AC103702.2	0.0148979	0.296581692	4.315244	3.97E-19
EDA2R	2.631067	1.257323548	-1.06529	5.14E-29
MGST1	47.555267	23.03595997	-1.04572	2.09E-16
KIF24	0.6180214	1.788097559	1.532697	3.27E-46
KIF4A	0.4836078	6.574171839	3.7649	5.53E-63
SDS	0.9252158	4.269818243	2.206313	5.59E-48
AC012651.1	0.454567	0.175981333	-1.36907	1.77E-35
FLJ12825	0.1023613	0.388891521	1.925697	1.43E-11
ADAM8	1.1246282	5.219595395	2.21449	1.62E-46
MYOT	5.807328	0.241633972	-4.58698	5.28E-16
KDM4B	4.9876633	10.91619297	1.130034	1.38E-18
IFI44	11.113556	22.87073941	1.041182	0.000172
SPAG4	0.9098833	2.593296047	1.511034	2.29E-27
MYOSLID	0.5658108	0.276616934	-1.03243	6.92E-21
CACNA1H	0.9920684	5.238149807	2.400546	1.47E-08
HIST2H2BE	9.6401732	38.32339163	1.991094	2.61E-31
TMEM132C	10.422197	0.469107848	-4.4736	4.52E-61
LINC01140	1.2319384	0.269506347	-2.19254	1.05E-50
CEP68	9.6933612	4.308032539	-1.16997	5.06E-61
LMNTD2	0.5987436	1.46578166	1.29166	2.75E-13
HSPA8P8	0.074688	0.316317776	2.082426	1.86E-05
PPIAP51	0.0559164	0.178614189	1.675504	0.024893
LAD1	9.9780989	22.55623151	1.176689	8.30E-08
ZNF483	0.6301911	0.284903416	-1.14532	5.38E-31
B4GALNT4	2.5656046	9.115486426	1.829021	8.57E-36
AC026355.2	0.0171176	0.30142875	4.138263	8.41E-22
FO680682.1	0.0477697	0.147008135	1.621728	3.13E-07
ARF1	106.90546	222.1624437	1.055279	3.10E-59
JARID2-AS1	0.1232143	0.265506799	1.107579	7.06E-06
FOXH1	0.0299718	0.141017554	2.234198	2.94E-30
NSG1	3.1938492	0.663426128	-2.26729	2.00E-45
DSCAS	0.2551965	0.122781007	-1.05552	6.24E-26
ELFN1-AS1	0.0491419	0.840933639	4.096967	9.59E-06
ATF3	47.212207	11.2845524	-2.06481	1.74E-38
AC011008.2	0.4506644	0.134446229	-1.74502	3.42E-43
TMEM132A	3.6117099	15.34760602	2.08726	1.47E-44
HLA-K	3.4846493	1.734786073	-1.00626	1.68E-21
FBLN2	75.154262	33.02982363	-1.18609	1.75E-15
LINC01354	0.8597071	0.221531194	-1.95634	1.19E-51
AOC1	0.1013187	1.102699691	3.444067	5.52E-11
ARHGEF4	1.3372085	0.611967691	-1.1277	2.68E-37
JTB	56.567927	121.7099645	1.105391	1.52E-56
AC120498.8	0.0090043	0.165950689	4.203999	2.88E-26

RSPO3	6.6452722	1.283161386	-2.37263	2.82E-58
AL032819.1	0.0393678	0.320978187	3.027389	2.16E-23
UST	4.7607812	2.1484536	-1.1479	1.39E-43
SLC52A3	3.0343737	7.437764823	1.29347	6.70E-25
MAGIX	0.4966928	1.05088557	1.08118	4.34E-22
AC245100.3	0.0658307	0.594873672	3.175751	2.84E-11
MAGI2-AS3	3.9776979	0.911518471	-2.12559	4.39E-63
WDR86	3.435257	0.806849137	-2.09005	9.94E-47
AC010761.6	0.0867149	0.242181629	1.481738	1.61E-12
AL591686.1	1.9713268	0.087045896	-4.50125	4.65E-63
SRMS	0.832422	4.017577515	2.270939	8.92E-35
RBPMS2	5.4052189	1.860370422	-1.53876	1.13E-24
MKI67	1.092243	8.762996849	3.00413	7.91E-56

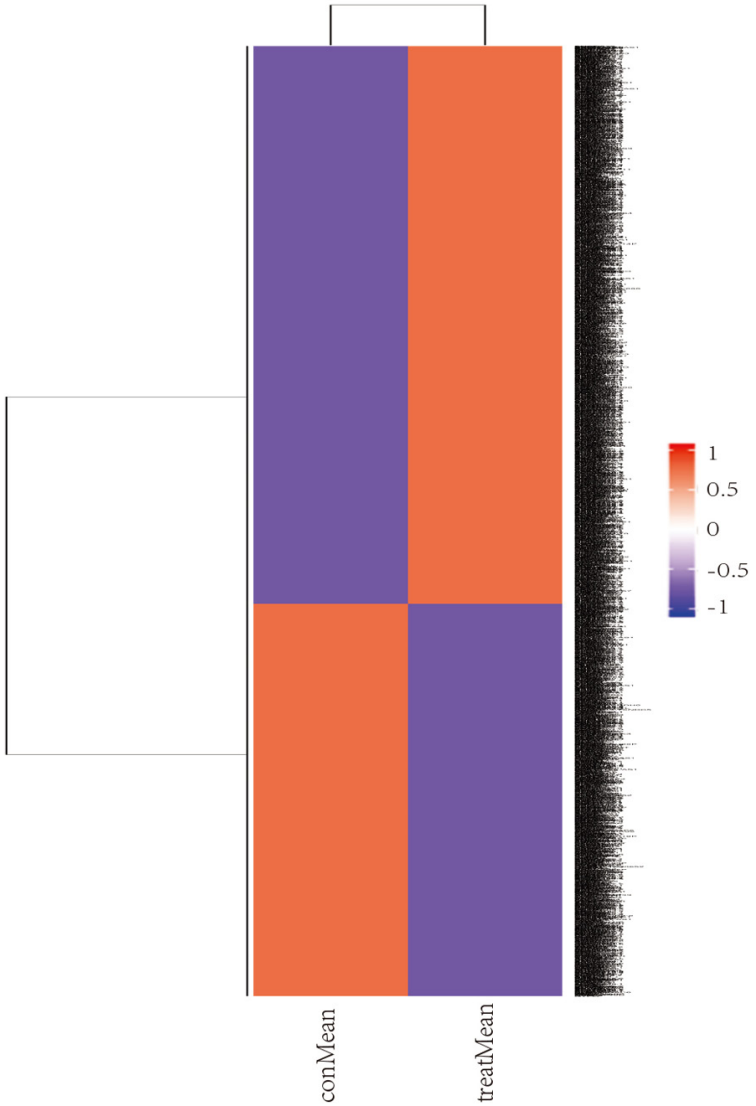

Figure S1. Heatmap of 5,499 significantly differentially expressed genes from the TCGA database.

Table S2. Prognostic factors filtered by Kaplan-Meier and Cox prognostic analyses

Gene	KM	HR	HR.95L	HR.95H	Cox *P* value
NFE2	0.007343	0.73794	0.562808	0.967568	0.027915
SAA2-SAA4	0.001012	0.930545	0.87645	0.987979	0.018487
SNRPEP2	0.013104	1.106586	1.004166	1.219452	0.040967
NPAS3	0.027759	1.299783	1.103104	1.531529	0.001735
LAMP3	0.019917	0.967811	0.938581	0.997951	0.036524
REM2	0.001734	0.727405	0.556141	0.95141	0.020146
U73166.1	0.00811	0.664533	0.461071	0.957781	0.028433
AC087289.5	0.00885	0.395761	0.167815	0.93333	0.03421
PRAME	0.011436	1.006409	1.000882	1.011967	0.022975
AC012213.3	0.019625	1.497166	1.163096	1.927189	0.001732
N4BP2L1	0.023322	0.841864	0.743088	0.953771	0.006866
LINC01556	0.039934	0.537218	0.306613	0.941264	0.029893
CXCL9	0.00436	0.995406	0.992062	0.998761	0.007322
BGLAP	0.012614	0.629258	0.411287	0.962747	0.032766
PSME2	0.000677	0.983884	0.975062	0.992785	0.000407
LINC02332	0.047983	0.56253	0.322531	0.981115	0.042648
TRAV6	0.021478	0.588458	0.349454	0.990927	0.046125
SHISAL2A	0.000208	0.398318	0.194738	0.81472	0.011696
CD6	0.001765	0.886332	0.807054	0.973399	0.011606
LYZL2	0.003317	1.377295	1.122948	1.689252	0.002118
TFF1	0.012431	0.999453	0.999035	0.999871	0.010401
LIMCH1	0.02185	1.037462	1.01572	1.05967	0.000666
ARID5A	0.015534	0.978146	0.957772	0.998954	0.039643
TRAV26-1	0.001959	0.688895	0.479218	0.990313	0.044164
MGAT4EP	0.000227	1.880014	1.083195	3.262985	0.02483
QPRT	8.60E-05	1.027395	1.009404	1.045707	0.002714
LINC01152	0.001763	1.021771	1.005208	1.038607	0.009795
GREB1L	0.005074	0.897264	0.822812	0.978454	0.014174
AC022390.1	0.000691	0.465577	0.281818	0.769155	0.002839
SERPING1	0.048665	0.995586	0.991848	0.999337	0.021135
TRBV7-4	0.007321	0.397868	0.16758	0.944615	0.036697
IRF7	0.037856	0.982636	0.967806	0.997693	0.023966
STAT5A	0.014578	0.96722	0.938018	0.997332	0.033107
CFB	0.006229	0.980938	0.965761	0.996353	0.015556
ATP7B	0.020795	0.95402	0.914655	0.995078	0.028562
RIBC1	0.023928	0.830453	0.702957	0.981074	0.028915
TRBV28	0.003328	0.962491	0.934699	0.99111	0.010549
RN7SL449P	0.019169	0.206174	0.051798	0.820649	0.025064
TLN2	0.000781	0.828823	0.718793	0.955697	0.00978
WLS	0.004036	0.981823	0.964447	0.999512	0.044056
HLA-DQB2	0.000783	0.980874	0.962336	0.99977	0.047297
MZT2B	0.013082	0.992904	0.986327	0.999525	0.035718
DLK2	0.006578	0.71785	0.533564	0.965787	0.028528
AP000811.1	0.009578	1.669809	1.26306	2.207545	0.000319
BATF	0.026633	0.97694	0.96109	0.993051	0.005181
SLC7A3	0.000525	0.635038	0.416694	0.967793	0.034665
GRM8	0.020458	2.848076	1.464202	5.539904	0.002048

AC061992.1	0.022582	0.651256	0.483035	0.878062	0.00491
ISG20	0.00861	0.916034	0.848393	0.989067	0.025037
ITPRIPL1	0.022133	0.674256	0.479069	0.948967	0.023799
PDCD1	0.010231	0.85586	0.747196	0.980327	0.024655
SUSD3	0.003034	0.996261	0.99299	0.999542	0.025544
CORO1A	0.007693	0.982049	0.964996	0.999405	0.042702
TRBV7-3	0.013746	0.69024	0.494731	0.96301	0.029125
RAD54B	0.001356	1.365661	1.086796	1.71608	0.007491
TSLP	0.008295	0.138978	0.035969	0.536981	0.004215
KCNJ11	0.019162	0.962079	0.929229	0.996091	0.029187
NDUFAF6	0.000821	1.033566	1.006356	1.061512	0.015292
SORBS1	0.001007	0.943785	0.900593	0.989049	0.015492
LRGUK	0.004826	0.637876	0.407086	0.99951	0.049751
TRBV21-1	0.000656	0.359904	0.137707	0.940626	0.037084
ANKK1	0.043065	0.448822	0.235524	0.855289	0.014888
SAMD1	0.046263	0.981735	0.965595	0.998144	0.02929
TRAV41	0.011206	0.634369	0.439134	0.916403	0.015303
SLC19A1	0.014204	1.112222	1.017984	1.215184	0.018546
NUDT9P1	0.004257	0.176475	0.043723	0.712281	0.014828
AC105046.1	0.020736	0.381076	0.15353	0.945864	0.03753
DCAF13	0.03306	1.040122	1.012567	1.068427	0.004084
AC122710.2	0.000249	3.369506	1.328933	8.543373	0.010496
SAA1	0.00671	0.997934	0.996003	0.999868	0.036317
CD5	0.001742	0.929648	0.87459	0.988171	0.019182
AC055854.1	0.016093	0.948146	0.907247	0.990888	0.017941
SIRPG	0.020473	0.855376	0.754983	0.969118	0.014189
LIMD2	0.008691	0.952442	0.911742	0.994958	0.028756
AC091182.2	0.009282	1.139923	1.054902	1.231796	0.000928
MIR4668	0.047193	0.813553	0.669606	0.988446	0.037807
GZMA	0.00292	0.977745	0.957862	0.998041	0.031793
CD3D	0.00046	0.971366	0.949915	0.9933	0.010772
PDLIM4	0.006637	0.95377	0.918696	0.990182	0.013282
CBX1P3	0.040526	1.877897	1.373405	2.567705	7.89E-05
C8orf76	0.021407	1.101636	1.032528	1.17537	0.003408
TRBV5-5	0.001099	0.322107	0.13878	0.747606	0.008363
TBC1D4	0.043474	0.960149	0.925442	0.996157	0.030393
FAM155B	0.002224	1.128343	1.021666	1.24616	0.017174
IL12B	0.002531	0.164759	0.046708	0.581173	0.005051
PCSK4	0.047509	0.840607	0.727776	0.970932	0.01822
CISH	0.011437	0.975313	0.955363	0.995679	0.017759
LINC00987	0.001498	0.697402	0.5252	0.926064	0.012744
ZNF887P	0.036714	1.618999	1.069338	2.451195	0.022801
CLEC3A	0.038238	1.000566	1.000103	1.00103	0.016577
DOC2B	0.040661	0.916574	0.852994	0.984892	0.017549
GSTT2B	0.004159	0.921724	0.850188	0.999279	0.047989
CLEC10A	0.022876	0.919657	0.851635	0.993111	0.032657
MRPL13	0.003929	1.017695	1.008231	1.027248	0.000234
PRDM11	0.036686	0.62275	0.394509	0.98304	0.042012
USP41	1.97E-05	1.327157	1.051503	1.675074	0.017184

CXCL13	0.031465	0.995083	0.990754	0.999431	0.026699
EFCAB12	0.001761	0.600763	0.401492	0.898937	0.013208
CCL25	0.020369	0.316808	0.110665	0.906946	0.032196
RILP	0.023751	0.852145	0.747272	0.971736	0.016947
TUBA1C	0.006695	1.014736	1.003397	1.026202	0.010725
AQP4	0.025009	1.058819	1.012631	1.107113	0.012021
CXCR3	0.025929	0.922744	0.867244	0.981797	0.011072
PLK1	0.039608	1.022362	1.000082	1.045139	0.049148
IGFALS	0.003086	0.937432	0.879041	0.999701	0.048944
TRAV39	0.00352	0.528022	0.298251	0.934808	0.028432
RSPH1	0.022606	0.916366	0.855639	0.981402	0.012539
CCDC24	0.000125	0.939031	0.890851	0.989816	0.01924
AC116347.1	0.000774	0.605955	0.444304	0.826421	0.001555
AC015819.1	0.009338	0.755774	0.588924	0.969895	0.027797
TRDV1	0.003897	0.604709	0.433213	0.844096	0.003117
ANO6	0.008842	1.041308	1.011749	1.071731	0.005871
LEF1	0.011938	0.968991	0.939092	0.999842	0.048856
NPAS1	0.019316	0.76034	0.583234	0.991227	0.042858
AP000851.2	0.007466	0.907341	0.830235	0.991608	0.031877
FLT3	0.018028	0.894843	0.822031	0.974104	0.010292
AC136475.5	0.010089	0.073657	0.010832	0.500864	0.007655
RAD51	0.0399	1.064462	1.005919	1.126412	0.03043
PPP2R2B	0.000274	0.053007	0.005758	0.487939	0.009499
KLF15	0.027757	0.78535	0.619925	0.994919	0.045266
DCTPP1	0.000308	1.015039	1.006823	1.023323	0.000319
DTX1	0.00705	0.827162	0.68994	0.991675	0.040335
SGCE	0.014163	0.982711	0.966801	0.998883	0.036247
AC108474.1	0.010243	0.140225	0.036797	0.534363	0.004001
MAL2	0.000391	1.002054	1.001124	1.002984	1.47E-05
MED15P4	0.049197	1.013305	1.000018	1.026769	0.049689
MORN3	0.001238	0.80583	0.652256	0.995563	0.045372
IL2RG	0.012515	0.978585	0.963368	0.994041	0.006781
AL356740.3	0.000285	0.70205	0.51642	0.954404	0.023957
POP1	0.013196	1.099335	1.040535	1.161458	0.000734
MZT2A	0.012896	0.970755	0.943874	0.998401	0.038297
CSRNP1	0.04558	0.980195	0.961248	0.999515	0.044572
ADRB1	0.010087	0.813796	0.674659	0.981629	0.031258
AC015802.3	0.039618	0.498785	0.249911	0.995503	0.048524
TRBC2	0.000892	0.978499	0.963275	0.993963	0.006592
TEKT4	0.00865	0.237004	0.059272	0.94768	0.041754
SDC1	0.013826	1.002313	1.000759	1.003869	0.003521
ESRP1	0.021071	1.007705	1.000222	1.015244	0.043557
CACNA1H	0.030088	1.017373	1.003759	1.031172	0.012218
LMNTD2	0.005533	0.814224	0.695766	0.952851	0.010406
AL591686.1	0.000468	0.215875	0.047754	0.975871	0.046404

Table S3. Independent prognostic factors filtered by multivariant Cox analysis

Factor ID	HR	HR.95L	HR.95H	*P* value
NFE2	0.724758	0.536528	0.979027	0.035895
SNRPEP2	1.149891	1.025337	1.289575	0.016953
REM2	0.582045	0.413328	0.819631	0.001943
U73166.1	0.493447	0.309494	0.786735	0.003
PRAME	1.00666	1.000845	1.012508	0.024717
N4BP2L1	0.857477	0.754643	0.974325	0.018323
LINC01556	0.463378	0.2344	0.91604	0.026955
CXCL9	0.996246	0.992727	0.999778	0.037237
BGLAP	0.606388	0.380958	0.965215	0.034923
PSME2	0.982781	0.973191	0.992465	0.000517
TFF1	0.999292	0.998807	0.999776	0.004179
LIMCH1	1.033407	1.008567	1.058859	0.008119
GREB1L	0.847727	0.760379	0.945109	0.002906
AC022390.1	0.4208	0.234288	0.755789	0.003767
IRF7	0.977029	0.959917	0.994447	0.009948
CFB	0.964248	0.946065	0.98278	0.000178
ATP7B	0.943997	0.900488	0.989608	0.016672
RIBC1	0.659228	0.543503	0.799592	2.33E-05
RN7SL449P	0.122313	0.023681	0.631759	0.012136
HLA-DQB2	0.984188	0.969224	0.999384	0.041472
MZT2B	0.990778	0.983648	0.997959	0.011917
BATF	0.976735	0.958273	0.995553	0.015616
GRM8	3.328409	1.612155	6.871736	0.001149
AC061992.1	0.584989	0.41436	0.825882	0.00231
SUSD3	0.994223	0.99026	0.998203	0.004478
RAD54B	1.334689	1.045759	1.703447	0.020372
TSLP	0.235363	0.058113	0.953236	0.042655
KCNJ11	0.915853	0.876637	0.956823	8.26E-05
LRGUK	0.387766	0.224905	0.66856	0.000653
ANKK1	0.457722	0.233736	0.896351	0.022663
SLC19A1	1.123454	1.019385	1.238149	0.018922
DCAF13	1.039018	1.01122	1.067581	0.005669
AC122710.2	6.953583	2.802661	17.25229	2.88E-05
AC055854.1	0.93113	0.884228	0.98052	0.006811
MIR4668	0.778419	0.625807	0.968247	0.024463
CBX1P3	1.765878	1.219248	2.557581	0.002622
TRBV5-5	0.375194	0.152903	0.920654	0.032317
PCSK4	0.713712	0.589012	0.864812	0.000577
CISH	0.972642	0.949306	0.996551	0.025168
ZNF887P	1.622524	1.013472	2.597589	0.043831
CLEC3A	1.000556	1.000063	1.001049	0.026936
DOC2B	0.910246	0.837311	0.989533	0.027322
GSTT2B	0.91341	0.835131	0.999027	0.047562
MRPL13	1.032944	1.011424	1.054921	0.002549
EFCAB12	0.381155	0.242345	0.599472	2.98E-05
RILP	0.774324	0.666399	0.899728	0.000839
TUBA1C	1.019944	1.008159	1.031867	0.000868

AQP4	1.061281	1.017557	1.106883	0.005592
PLK1	1.03874	1.013724	1.064372	0.002244
IGFALS	0.852635	0.77568	0.937225	0.000956
RSPH1	0.859337	0.790978	0.933603	0.000338
CCDC24	0.922126	0.8672	0.980532	0.00967
AC116347.1	0.542877	0.38195	0.771606	0.000661
AC015819.1	0.717322	0.531152	0.968745	0.030228
TRDV1	0.705776	0.505401	0.985592	0.040841
ANO6	1.041716	1.00729	1.077319	0.017145
NPAS1	0.556788	0.38122	0.813214	0.002448
FLT3	0.891683	0.810221	0.981336	0.019006
AC136475.5	0.026152	0.00305	0.224277	0.000889
RAD51	1.103391	1.040545	1.170033	0.001008
SGCE	0.98249	0.965725	0.999545	0.044248
AC108474.1	0.147953	0.034626	0.632183	0.009913
MAL2	1.002663	1.000953	1.004376	0.002261
MORN3	0.745304	0.564518	0.983987	0.038093
AL356740.3	0.708474	0.503476	0.996942	0.047981
POP1	1.126994	1.068822	1.188332	9.80E-06
MZT2A	0.968589	0.939436	0.998647	0.040678
AC015802.3	0.432407	0.199158	0.938832	0.034045
TEKT4	0.134743	0.027964	0.649249	0.012477
SDC1	1.002336	1.000506	1.004169	0.012328
LMNTD2	0.762403	0.627735	0.925961	0.006225

Table S4. Prognostic factors filtered by area under the curve (AUC) values

Gene	AUC
SNRPEP2	0.647842
MZT2B	0.6138
RAD54B	0.64444
SLC19A1	0.631751
DCAF13	0.619048
AC122710.2	0.603084
CLEC3A	0.632671
MRPL13	0.638238
TUBA1C	0.645513
PLK1	0.635786
RAD51	0.707357
POP1	0.621693

Table S5. Genes correlated with clinical characteristics

ID	Age	Gender	Stage	T	M	N	Sig Num
SLC19A1	0.331427	0.100027	0.006167	0.030822	0.704633	0.127581	2
MRPL13	0.066843	0.078755	0.021	0.002219	0.726915	0.10005	2
TUBA1C	0.306081	0.265607	0.106644	0.002601	0.450879	0.531042	1
PLK1	0.014055	0.868314	5.04E-05	1.80E-08	0.772874	0.365253	3
POP1	0.115	0.357425	0.029153	0.002172	0.201567	0.078096	2

Table S6. PLK1 expression is an independent risk factor for patient overall survival by univariate Cox analysis

Factor	HR	HR.95L	HR.95H	*P* value
Age	1.034699	1.020025	1.049584	2.86E-06
Gender	0.856538	0.119389	6.145089	0.877588
Stage	2.165662	1.713061	2.737843	1.05E-10
T	1.54439	1.245329	1.915269	7.56E-05
M	6.418627	3.599551	11.44553	2.97E-10
N	1.699874	1.411957	2.046503	2.10E-08
PLK1	1.031815	1.006655	1.057603	0.012897

Table S7. PLK1 expression is an independent risk factor for overall survival by multivariate Cox analysis

Factor	HR	HR.95L	HR.95H	*P* value
Age	1.03838	1.023307	1.053675	4.46E-07
Gender	0.479842	0.065694	3.504846	0.4692
Stage	1.59558	0.942828	2.700254	0.081746
T	1.051828	0.773918	1.429533	0.74686
M	1.465371	0.636504	3.373606	0.369121
N	1.221051	0.909374	1.63955	0.18412
PLK1	1.036749	1.011283	1.062856	0.004453

Table S8. PLK1 expression is an independent risk factor for triple negative breast cancer by univariate Cox analysis

Factor	HR	HR.95L	HR.95H	*P* value
Age	0.990843	0.302047	3.250384	0.987891
Gender	NA	NA	NA	NA
Stage	19.90754	4.767389	83.12937	4.10E-05
T	3.227629	1.031319	10.10123	0.044121
M	NA	NA	NA	NA
N	4.888475	2.408903	9.920361	1.11E-05
PLK1	1.023897	0.946273	1.107888	0.557148

Table S9. PLK1 expression is an independent risk factor for triple negative breast cancer by multivariate Cox analysis

ID	HR	HR.95L	HR.95H	*P* value
Age	0.871594	0.200759	3.784026	0.854436
Gender	NA	NA	NA	NA
Stage	0.593837	0.027308	12.91351	0.740118
T	1.091657	0.389225	3.061764	0.867632
M	NA	NA	NA	NA
N	8.808991	1.076835	72.06146	0.042459
PLK1	1.1783	1.010142	1.374451	0.036761

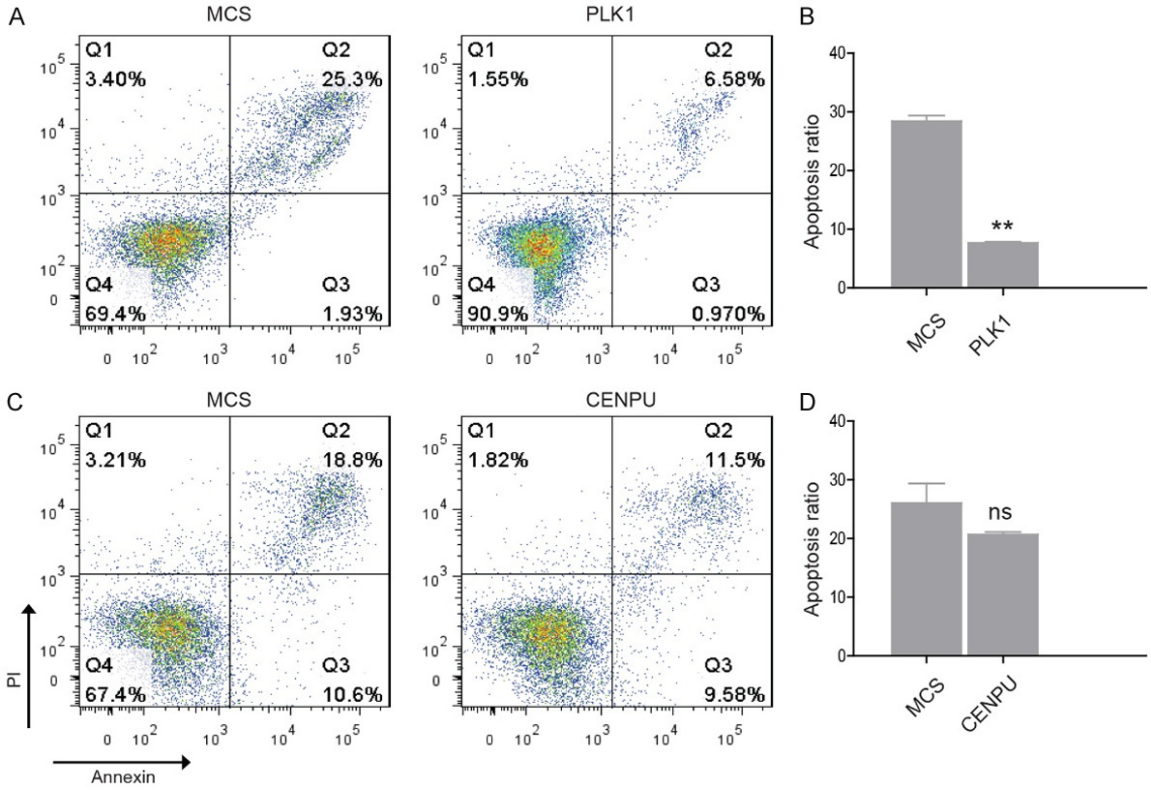

Figure S2. The effect of PLK1 or CENPU on CAL-51 cell apoptosis. A. Flow cytometric analysis of cell apoptosis of CAL-51 transfected with PLK1 vector and control vector. B. The quantificational results of PLK1 on CAL-51 cell apoptosis. C. Flow cytometric analysis of cell apoptosis of CAL-51 transfected with CENPU vector and control vector. D. The quantificational results of CENPU on CAL-51 cell apoptosis. **P < 0.01.

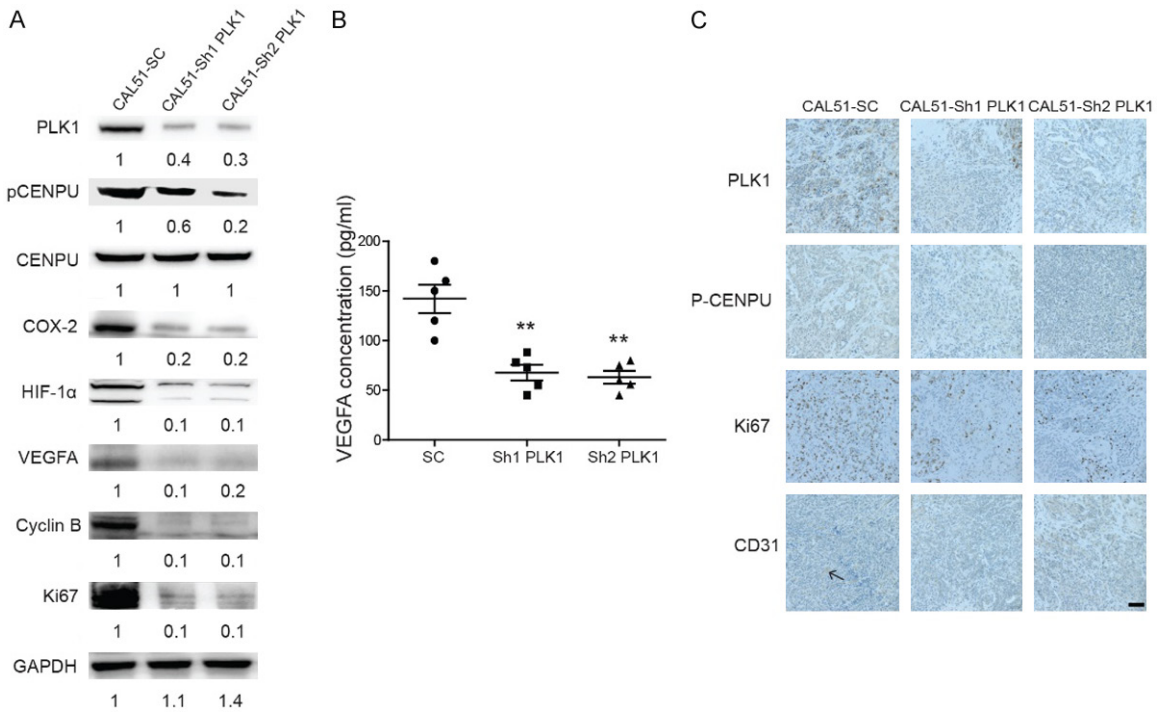

Figure S3. Inhibition of TNBC xenograft tumor growth and angiogenesis following *PLK1* knockdown. A. Expression of proteins associated with the COX-2-HIF-1-VEGFA-signaling pathway and the metaphase-anaphase transition during mitosis in *PLK1*-knockdown CAL-51 xenograft tumor cells and the SC group. B. Concentration of plasma VEGFA was measured by ELISA in the *PLK1* knockdown CAL-51 xenograft mouse model and in the SC group. C. PLK1, pCENPU, Ki67, and CD31 expression was confirmed by immunohistochemical analysis. $^{**}P < 0.01$.