

DIS3 depletion in multiple myeloma causes extensive perturbation in cell cycle progression and centrosome amplification

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SUPPLEMENTARY DATA

Supplementary methods

Multi-Omics Data in CoMMpass Study

Multi-omics data about bone marrow MM samples at baseline (BM_1) were freely available from MMRF CoMMpass Study (<https://research.themmr.org/>) and obtained from the Interim Analysis 15a (MMRF_CoMMpass_IA15a).

Transcript per Million (TPM) reads values of the *DIS3* transcript were retrieved using Salmon gene expression quantification data (MMRF_CoMMpass_IA15a_E74GTF_Salmon_V7.2_Filtered_Gene_TPM) in 774 BM_1 MM patients. Clinical data regarding Overall Survival (OS) and Progression free Survival (PFS) were considered in 767 MM patients for which both RNA-seq expression and survival data were available. Non-synonymous (NS) somatic mutation variants and counts data were obtained from whole exome sequencing (WES) analyses, main IgH translocations were inferred from RNA-seq spike expression estimates of known target genes and Copy Number Alteration (CNA) data were retrieved by means of Next generation Sequencing (NGS)-based fluorescence in situ hybridization (FISH) [1] in 660 MM cases for which all data were available [2]. The presence of a specific CNA was considered when occurring in at least one of the investigated cytoband at a 20% cut-off for each considered chromosomal aberration, as previously reported [2].

Survival analysis

Survival analyses were performed using survival [3-4] and survminer [5] packages in R Bioconductor (version 4.0.0). Kaplan-Meier analysis was applied on OS and PFS data in *DIS3* high/low expression groups according to median *DIS3* expression level, using survminer package. Log-Rank test p-value was calculated to measure the global difference between survival curves.

siRNA and *in vitro* HMCLs transfection

DIS3 silencing was obtained by using ON-TARGETplus siRNAs targeting *DIS3* and a non-silencing negative control siRNA (siSCR) (Dharmacon). NCI-H929 and AMO-1 cells were seeded at 0.1×10^6 cells/0.5mL), and transfected by Neon Transfection System (Invitrogen, CA, US), with the following electroporation conditions: 1100 V, 30 ms, 2 pulse. siRNA was used at 200 nM concentration. The transfection efficiency was evaluated by comparative qRT-PCR. Cells were incubated at 37° C and collected at 24-48 hrs after transfection to assess the downregulation of *DIS3* by qRT-PCR and then by Western blot analysis.

Design of GapmeRs and *in vitro* transfection of HMCLs

LNA gapmeR oligonucleotides were provided by Exiqon (QIAGEN). LNA gapmeRs were in house-designed and purified by HPLC followed by Na⁺-salt exchange and lyophilization.

NAME	DESIGN ID	SEQUENCE 5'-3'	Mw. calc. (Da)
<i>gDIS3#2</i>	339511-1	ACTTAATGGTAATAGA	5351.29
<i>gDIS3#13</i>	339511-2	GAGTCGAGACACCATG	5268.21
<i>gDIS3#15</i>	339511-3	TTCTATGCGACAAGGG	5302.21

HMCLs were transfected through the use of Neon Transfection System, with the following electroporation conditions: 1100 V, 30 ms, 2 pulse. LNA gapmeRs were used at 100 nM. The transfection efficiency was evaluated by comparative qRT-PCR.

Gymnosis

Cells were seeded at low plating density (5×10^4 /mL) to reach confluence on the final day of the experiments (day 6). Cells were treated with the naked *gDIS3g#13* and the scrambled *g#SCR*, at the same time of the seeding at a final concentration of 5 μ M.

Cell viability and growth assessment

Cell viability was evaluated by counting the number of viable cells after trypan blue staining.

Colony-formation assay

For colony-forming assay, SCR and *gDIS3* silenced cells were suspended in RPMI-1640 medium with 10% fetal bovine serum (FBS) and plated on methylcellulose-based media (MethoCult™ STEMCELL Technologies) containing 1% methylcellulose in RPMI-1640 medium, 10% FBS. Colonies were scored by an inverted microscope after a 21-day incubation at 37 °C in a fully humidified atmosphere at 5% CO². Each condition was evaluated twice in triplicates.

Cell cycle analysis and apoptosis

Cell cycle distribution of *DIS3* silenced and relative SCR HMCLs was assessed using BD FACSVerse™ flow cytometer (BD Bioscience, Italy). Samples for cell cycle analysis were fixed in 70% ethanol at 4 °C for at least 2 hrs and incubated with FxCycle™ PI/RNase Staining Solution (Life Technologies) for 30 min in the dark, according to the manufacturer's instructions. Fluorescent emissions were collected through a 575 nm band-pass filter. Flow cytometry analysis was performed by using FlowJo™ Software (BD Bioscience, Italy). To detect apoptosis, scramble and *DIS3*-silenced

cells were stained using a PE Annexin V Apoptosis Detection Kit (BD Biosciences), followed by BD FACSVerse™ flow cytometry (BD Biosciences) to analyze apoptotic distribution.

RNA extraction, RT-PCR and qPCR

Total RNA was extracted using TRIzol® Reagent (Invitrogen, Life Technologies) according to manufacturer's instructions. The purity and concentration of total RNA was determined by the NanoDrop One spectrophotometer (Thermo Fisher Scientific). The ratios of absorption (260 nm/280 nm) of all samples were between 1.8 and 2.0. cDNA was synthesized from 500 ng of total RNA with random primers using the High-Capacity cDNA Reverse Transcriptase Kit (Invitrogen, Life Technologies) according to the manufacturer's instructions. mRNA expression was performed by real-time quantitative PCR (q-RT-PCR) reaction using SYBR green PCR Master Mix (Applied Biosystems) after optimization of the primer conditions. 10 ng of reverse-transcribed RNAs were mixed with 300 nM of specific forward and reverse primers in a final volume of 10 µl. Q-RT-PCR was performed on an Applied Biosystems StepOnePlus Real-Time PCR system for 40 cycles. The relative expression level was calculated with the $2^{-\Delta\Delta Ct}$ method and expressed as a fold change: normalization of data was performed on house-keeping gene (GAPDH) expression. To determine RNA levels by q-RT-PCR, the following primers were used:

Primer Name	Sequence (5'-3')
GAPDH FW	5'-ACAGTCAGCCGCATCTTCTT-3'
GAPDH RW	5'-AATGAAGGGGTCATTGATGG-3'
DIS3 FW	5'-GCGATTTCGAGTAGCAGCAA-3'
DIS3 RW	5'-TGAGTTCGGGGTTAGCAGTT-3'
RAD51B FW	5'-CATGTTAGGAGCGCTGGAAC-3'
RAD51B RW	5'-TGGCCCTGGTCTTCTTTTCT-3'
ARID5B FW	5'-GGCAGAAATAGCGACCATGG -3'
ARID5B RW	5'-CCCAAGGCCTCAGTTTTCAC -3'
CCNB1 FW	5'-TTTCTGCTGGGTGTAGGTCC-3'
CCNB1 RW	5'-GCCATGTTGATCTTCGCCTT-3'
CDC20 FW	5'-CGTTCGAGAGTGACCTGCA-3'
CDC20 RW	5'-CCAGGTTTGCTAGGAGTGGT-3'
KIF14 RW	5'-TGCCATGGGATTGATTAGATCTC -3'
KIF14 RW	5'-TGGAGCACGATTAACCATCCT-3'
TOP2A FW	5'-ACATATTTTGCTCCGCCAG-3'

TOP2A RW	5'-CTTTGTTTGTGTCCGCAGC-3'
POLR2H FW	5'-CTCGACTGCATTGTGAGAGTG-3'
POLR2H RW	5'-AAGGCCTATCATCAGTGGGG-3'

Protein detection by Western blots

Cells were homogenized in lysis buffer M-PER® Mammalian Protein Extraction Reagent (Thermo Scientific, Italy) and Halt Protease and Phosphatase inhibitor cocktail, EDTA-free, 100X, (Thermo Scientific). Whole cell lysates (40 µg per cell line) from cell lines were separated using Bolt™ 4-12% Bis-Tris Plus Acrylamide Gels (Invitrogen), electro-transferred onto nitrocellulose membranes (Bio-Rad, Hercules, CA, USA), and immunoblotted with specific primary antibody (listed below). Membranes were washed three times in PBST solution and then incubated with a secondary antibody conjugated with horseradish peroxidase (HRP) in BSA 2% - PBST for 2 hrs at RT. Chemiluminescence was developed using Clarity ECL Western Blot Substrate Kit (BIO-RAD) and signal intensity was detected by the use of ChemiDoc MP System (Bio-Rad). The experiments were repeated at least three times.

Ab	Company	Code	Dilution	Secondary Ab
Anti-CCNE1	Cell Signaling Technology	#20808	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-CCNA2	Cell Signaling Technology	#4656	1:1000 BSA 5%- PBS TW 0,1%	Mouse: 1:2000 BSA 2%-PBS TW 0,1%
Anti-pCCNB1 Ser133	Cell Signaling Technology	#4133	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-CCNB1	Cell Signaling Technology	#4138	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-pCDK1 Thr161	Cell Signaling Technology	#9114	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-CDK1	Cell Signaling Technology	#77055	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-pCDC20 Ser51	Cell Signaling Technology	#8038	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-CDC20	Cell Signaling Technology	#4823	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%
Anti-CENP-A	Cell Signaling Technology	#2186	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%

Anti-GAPDH	Santa Cruz	Sc-7899	1:2000 BSA 5%- PBS TW 0,1%	Mouse: 1:2000 BSA 2%-PBS TW 0,1%
Anti- <i>DIS3</i>	Proteintech	14689-1-AP	1:1000 BSA 5%- PBS TW 0,1%	Rabbit: 1:2000 BSA 2%-PBS TW 0,1%

Immunofluorescence

0.050 x 10⁶ cells were harvested, centrifuged onto glass slides (Cytospin 4, Thermo Scientific), then fixed in 4% paraformaldehyde in PBS1X for 6 min at 22°C, followed by three 5-min washes in PBS. Cells were permeabilized (0.5% Triton X-100 in PBS, 15-min), washed in PBS (3X, 5 min each), blocked 1 h at 22° C with 5% BSA Triton X-100 0.1% in PBS, and then incubated 1 hr at 22°C with *DIS3* antibody (#14689-1-AP; Proteintech; 1:100) or γ -Tubulin (#5886; Cell Signaling Technology; 1:100) to detect centriole. Thereafter, slides were washed in PBS (3X, 5 min each) and incubated 1 h at 22°C in the dark, with Alexa Fluor 555 Anti-Rabbit IgG secondary Antibody (Cell Signaling Technology, 1:500).

Anti- α -Tubulin Alexa Fluor 488 (Abcam; #185031, 1:100) was used to detect microtubule. After three PBS washes, cells were mounted under coverslips with DAPI-containing Vectashield (Vector Laboratories). Images were acquired by Leica TCS SP8 confocal laser scanning microscope (DMi8); acquisitions were performed with 40X and 63X immersion oil objectives. Conversion of imaged z-stacks into average intensity projections was processed by Leica Microsystem software (Leica Application Suite X - LAS X).

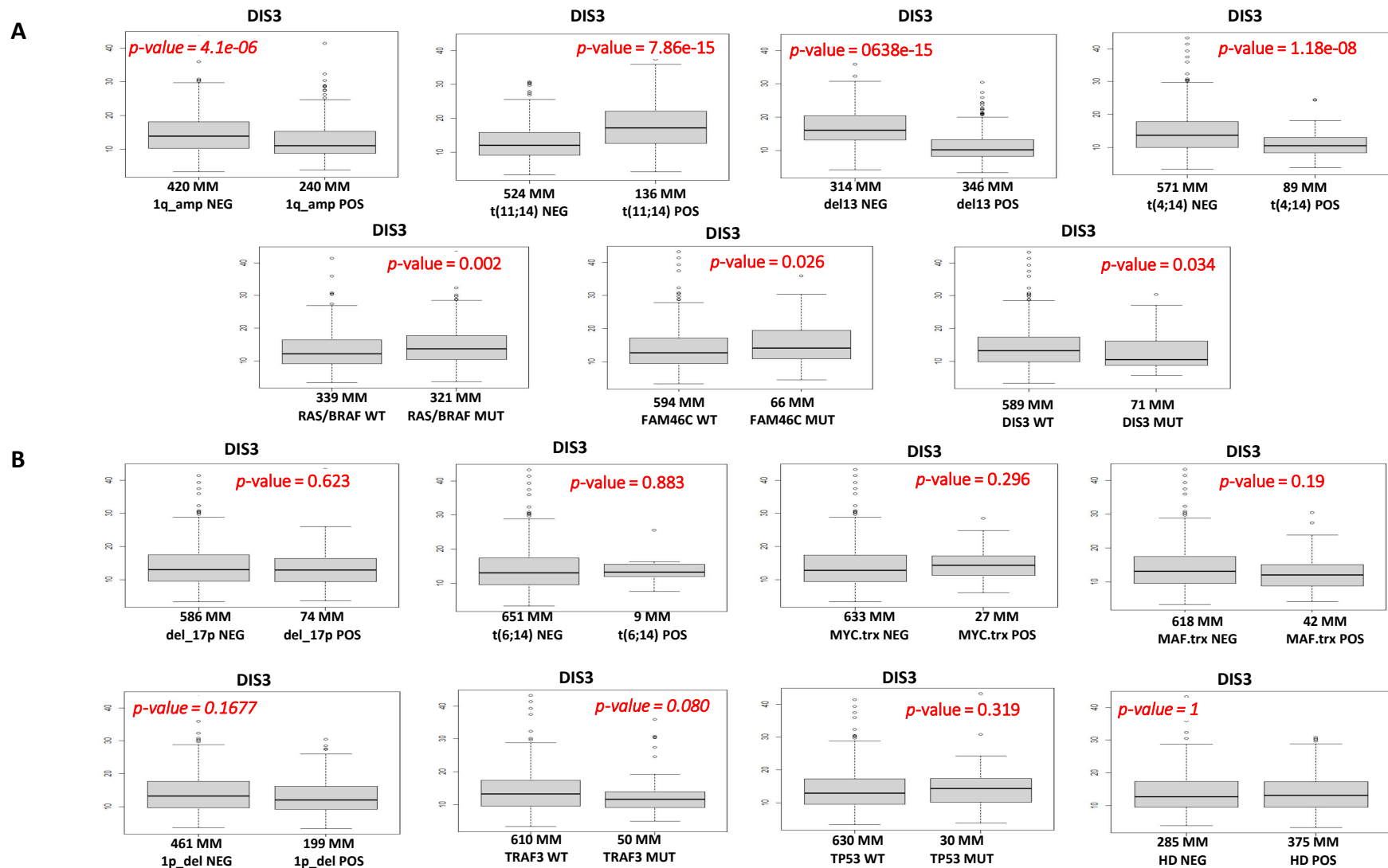
Gene expression profiling

Total RNA samples were processed using WT PLUS Reagent Kit in accordance with the manufacturer's protocols (Thermo Fisher Scientific, Waltham, MA, USA). Global gene expression profiles were obtained using Clariom D array (Thermo Fisher Scientific, Waltham, MA, USA) in triplicates NCI-H929 *DIS3*-KD and controls. Robust Multichip Average (RMA) normalization was applied on raw data and a custom annotation pipeline was applied using the Chip Definition File (CDF) version 25 for GENECODE transcript annotations, freely available: at <http://brainarray.mbni.med.umich.edu/Brainarray/Database/CustomCDF/25.0.0/gencodet.asp>.

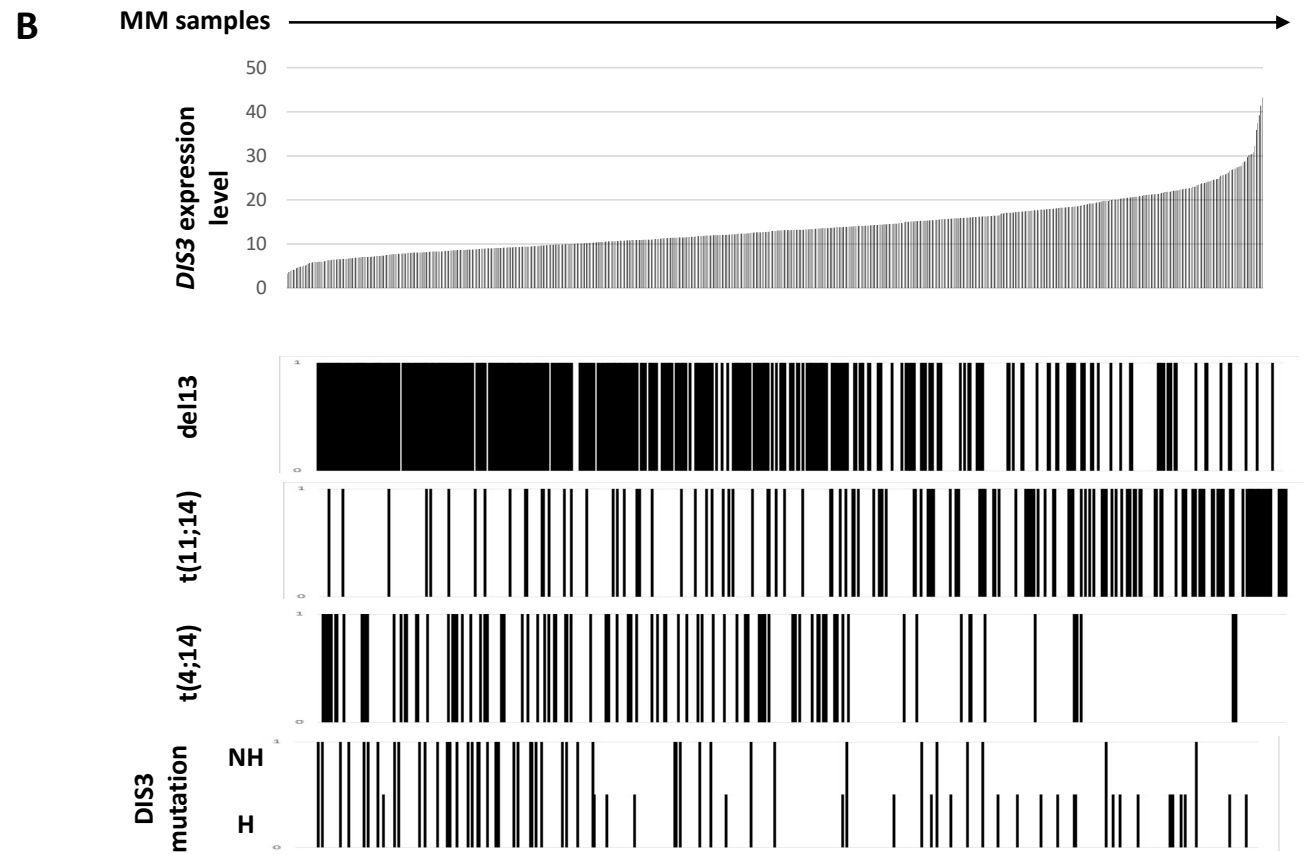
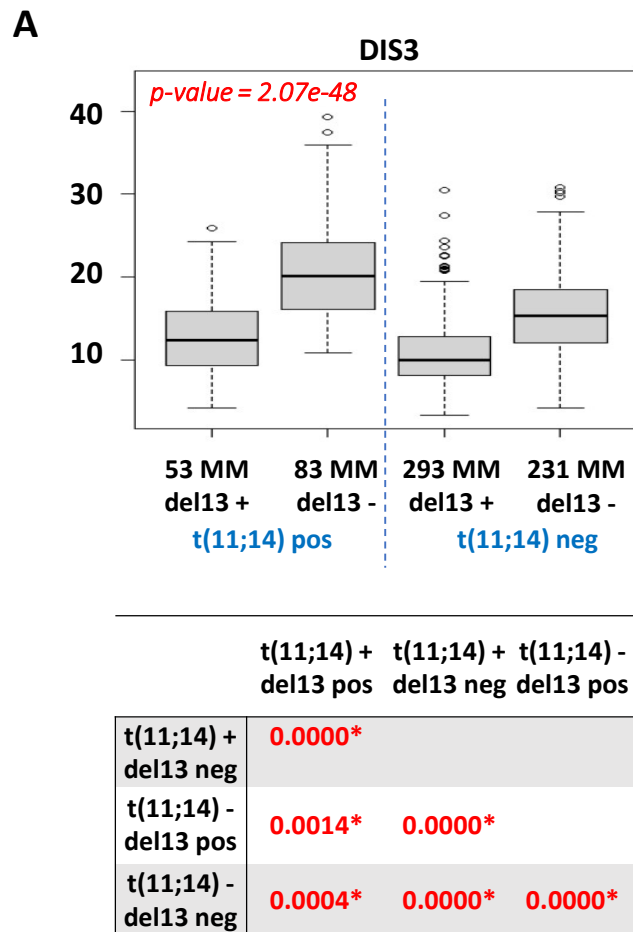
Therefore, the expression levels of Ensembl genes specific for 19241 protein coding were obtained. Genes differentially expressed in gymnotic *DIS3*-KD and SCR NCI-H929 triplicates were evaluated by means of Significance analysis of Microarrays (SAM) analysis [6] applying 500 permutations and default analysis conditions. Specific transcriptional patterns were defined using a 10% cut-off on FDR q-value.

Functional enrichment analysis was performed using clusterProfiler package (version 3.18.1) (Guangchuang Y et al., A Journal of Integrative Biology. 2012) in R 4.0.0 environment, on Gene Ontology (GO) Biological Process (BP) and Molecular Function (MF) terms. Barplot charts of the top 20 most significant annotation category terms were depicted using the global differentially expressed (DE) gene list ranked by Fold Change (FC) and setting p-value < 0.05 and q-value < 0.10 cut-off. Network interactions between the top five GO-BP or GO-MF annotation terms were visualized by using the cnetplot function. Gene Set Enrichment Analysis (GSEA) [7] was achieved on global annotated protein coding genes gene expression profiles. Significant Hallmark, KEGG and Reactome gene sets (version 7.4) were selected on the base of nominal p-value <0.05 and FDR q-value < 5%.

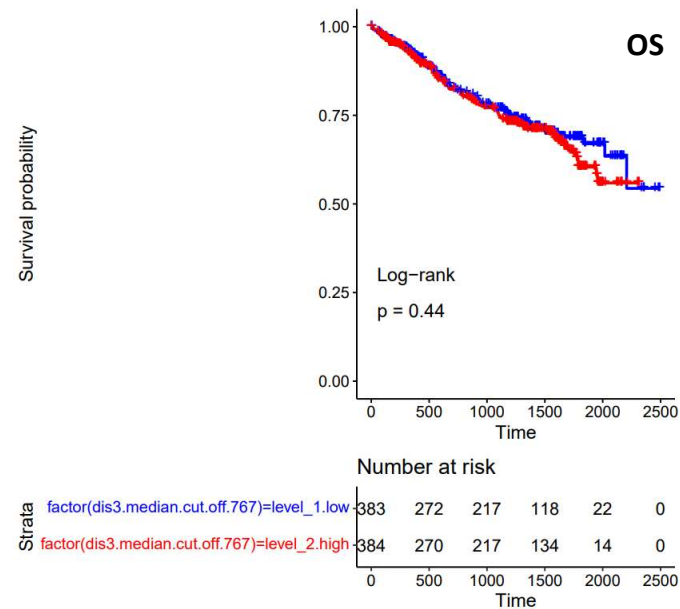
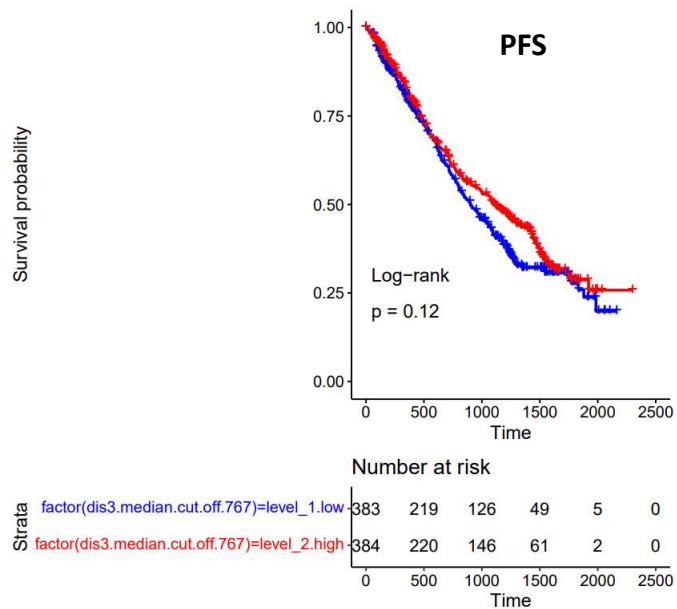
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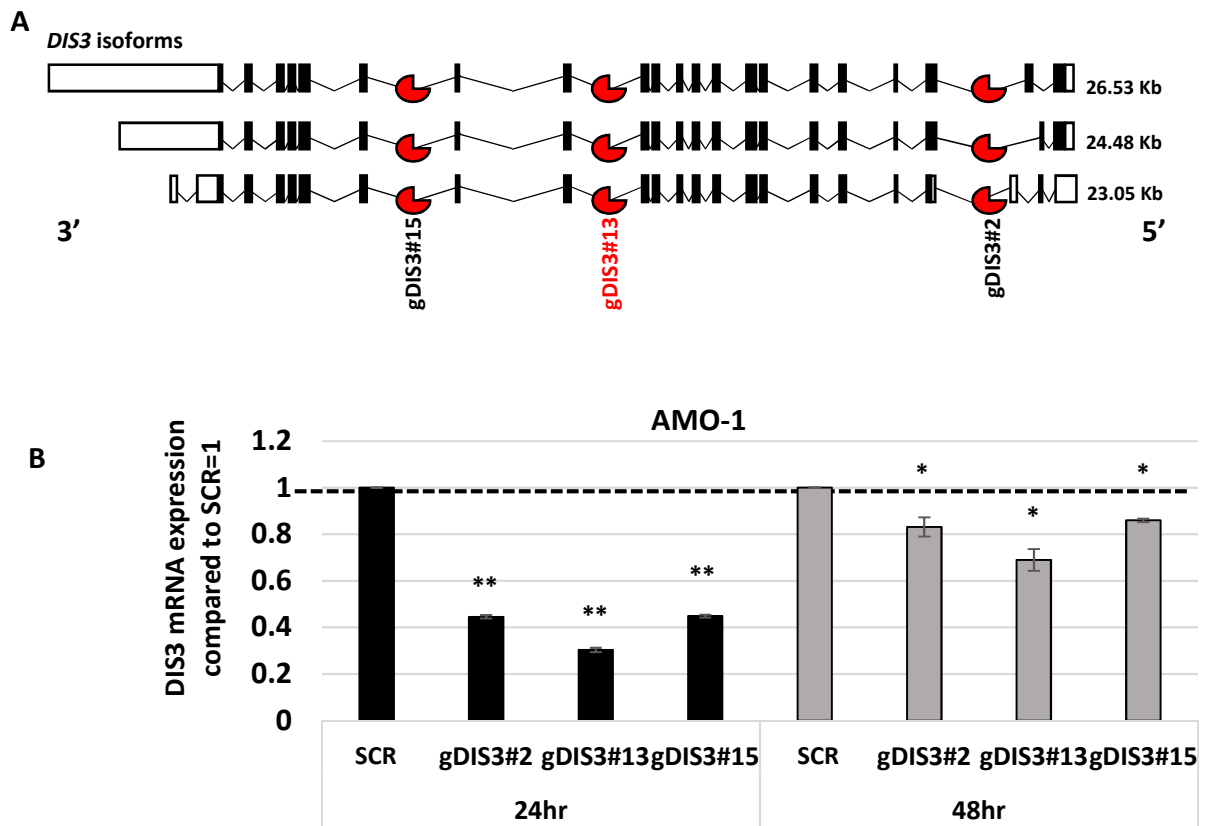
Supplementary Figure S1 (A) Significant differences in *DIS3* expression levels as shown by box plots of 660 MM cases stratified according to the presence of 1q-gain, t(11;14), del(13q), t(4;14), or the occurrence of NS somatic mutations in *RAS/BRAF*, *FAM46C*, or *DIS3* genes. **(B)** Not-significant differences in *DIS3* expression level as shown by box plots in 660 MM cases stratified according to the presence of del(17p)/TP53, t(6;14), MYC translocations, MAF translocations, del(1p), the occurrence of NS somatic mutations in *TRAF3* or *TP53* genes, or hyperdiploidy (HD). For each plot, differential expression was tested by Wilcoxon rank-sum test with continuity correction. P-values were corrected by BH adjustment.



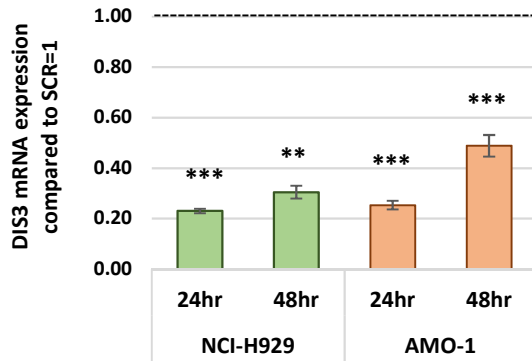
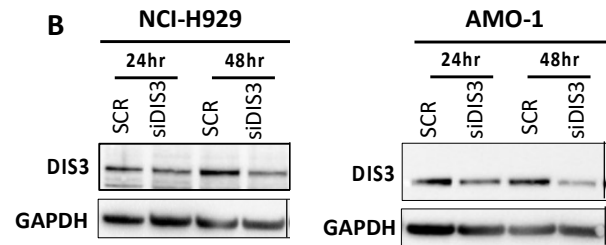
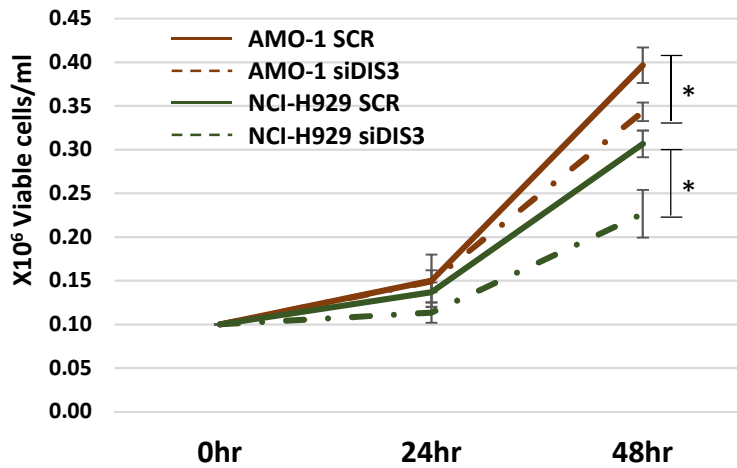
Supplementary Figure S2 (A) Significant differences in *DIS3* expression level as shown by box plots of 660 MM cases stratified according to the presence of t(11;14) and del13. Kruskal-Wallis test was applied to assess differences in expression levels between groups. The significant pairwise comparison performed by the Dunn's test are marked red-bold in the table. **(B)** Representation of the distribution of del13, t(11;14), t(4;14), and *DIS3* gene mutation in the cohort of 660 CoMMpass samples ordered based on increasing *DIS3* expression levels. For *DIS3* mutation, the high bar in the histogram indicates the presence of not-hotspot *DIS3* mutations (NH) in the patients, the shorter bar indicates hotspot (H) *DIS3* mutations.



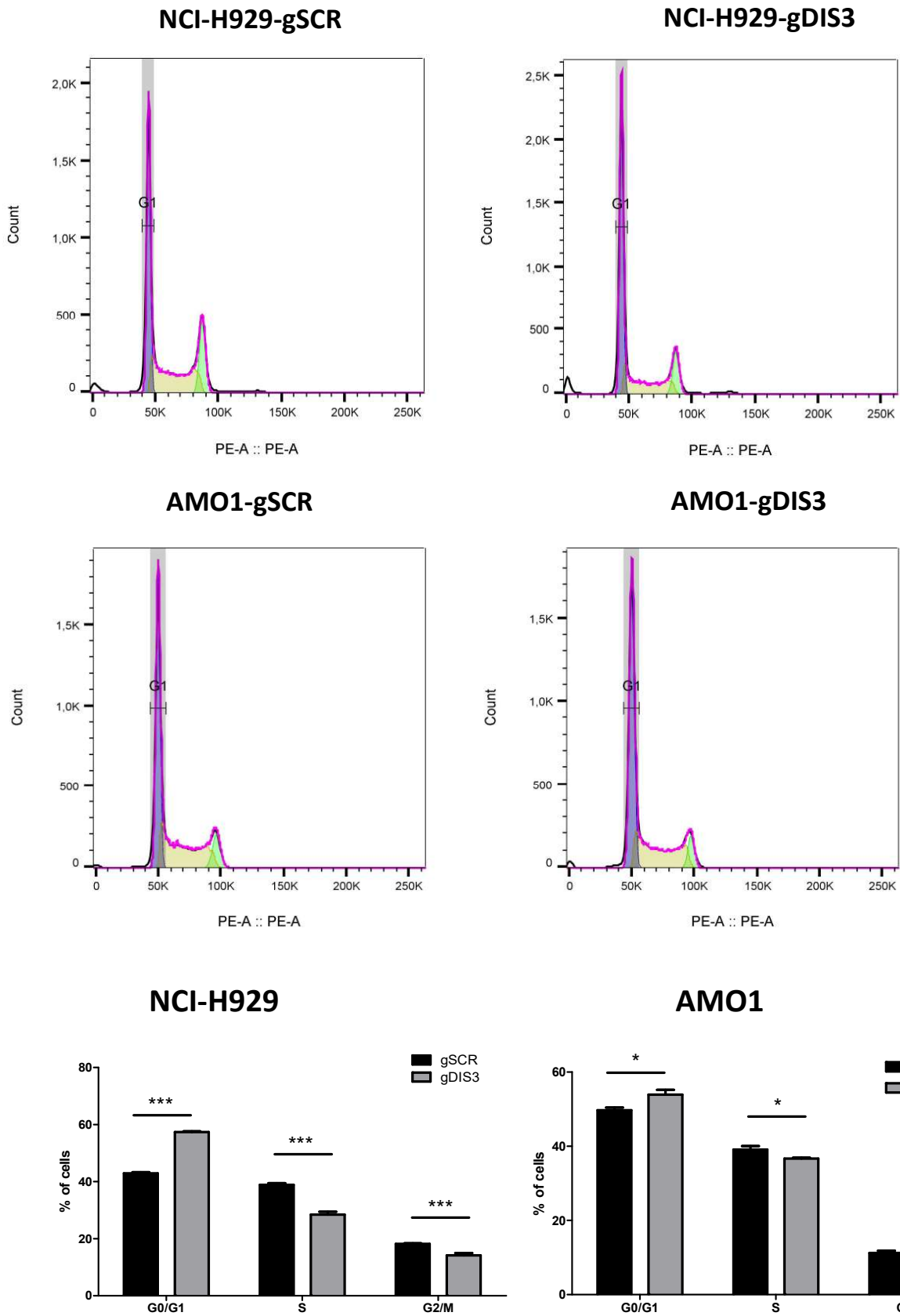
Supplementary Figure S3 Kaplan-Meier survival curves (PFS=Progression Free Survival; OS= Overall Survival) in the CoMMpass global dataset including 767 MM. MM cases were stratified in high and low *DIS3* expression groups, according to the median expression level across the dataset. Log-rank test p-value measuring the global difference between survival curves and number of samples at risk in each group across time are reported.



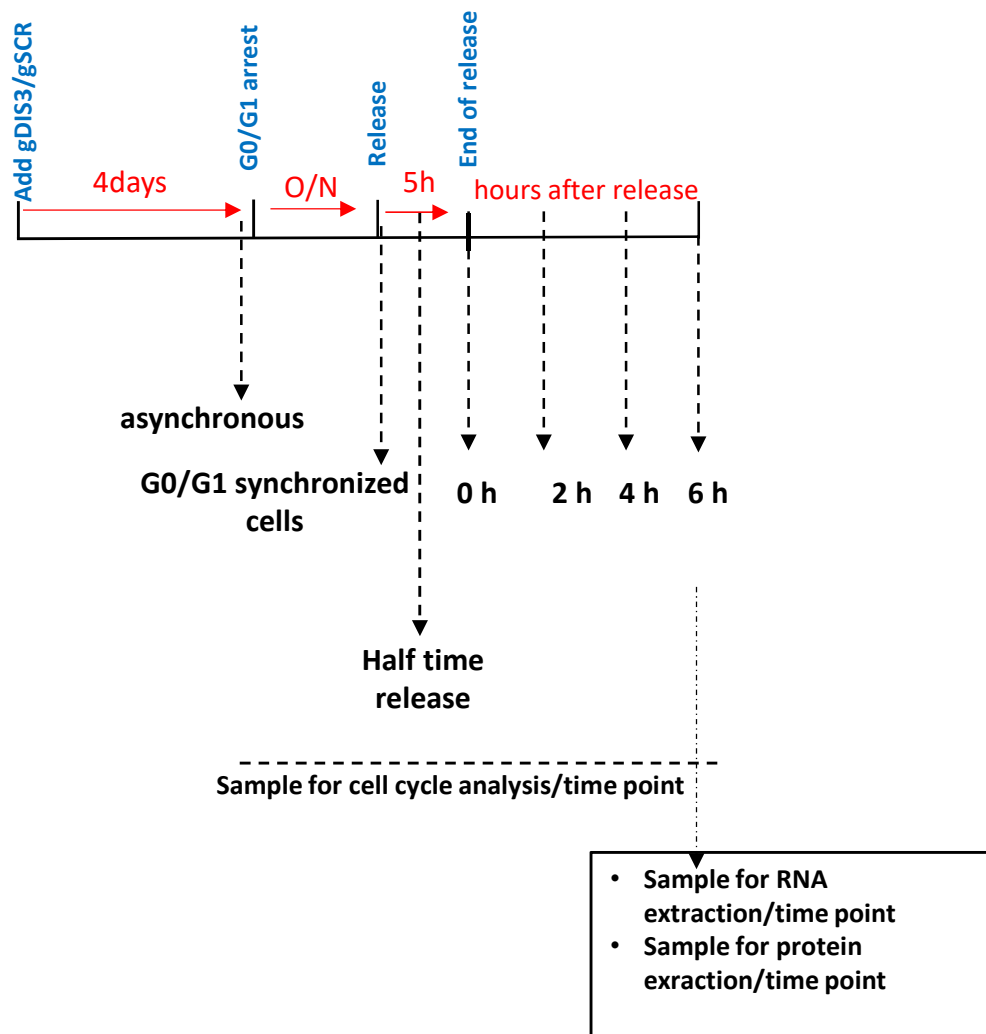
Supplementary Figure S4. (A) Schematic representation of *DIS3* protein coding isoforms together with all the tested gamperR; the gamper selected for following experiments is marked in red. **(B)** *DIS3* expression in AMO-1 24 hr and 48 hr after each LNA-gamper transfection using Neon Transfection System.

A**B****C**

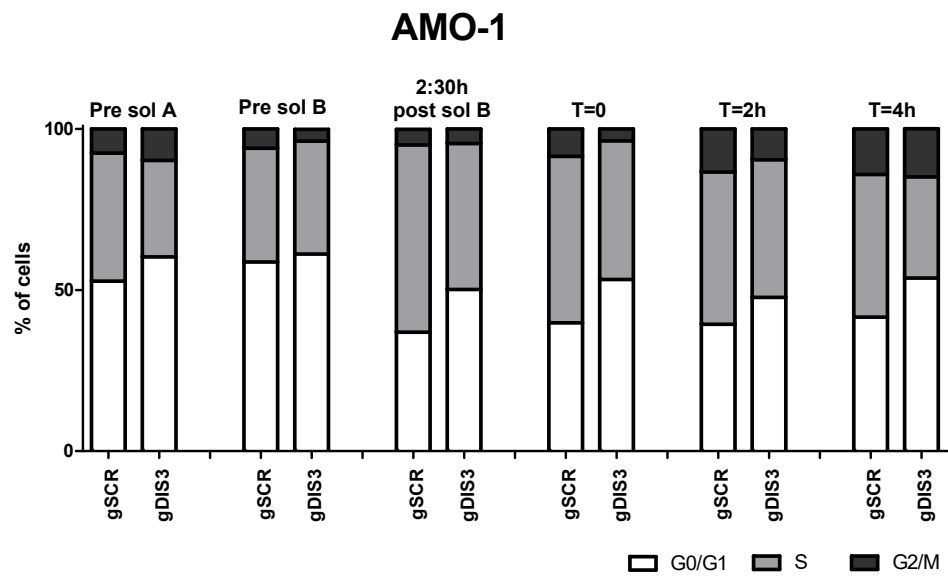
Supplementary Figure S5. (A) Quantitative real-time PCR (qRT-PCR) of *DIS3* in NCI-H929 and AMO-1 cells at the indicated time points using RNA interference strategy; *DIS3* expression was expressed as $2^{-\Delta\Delta Ct}$ relative to the scramble siRNA at the same time point. **(B)** WB of *DIS3* in NCI-H929 and AMO-1 cells 24-48 hrs after siRNA delivery (200 nM). **(C)** Growth curves of AMO-1 and NCI-H929 cells after siRNA delivery. * $p < 0.05$, Student's t test.



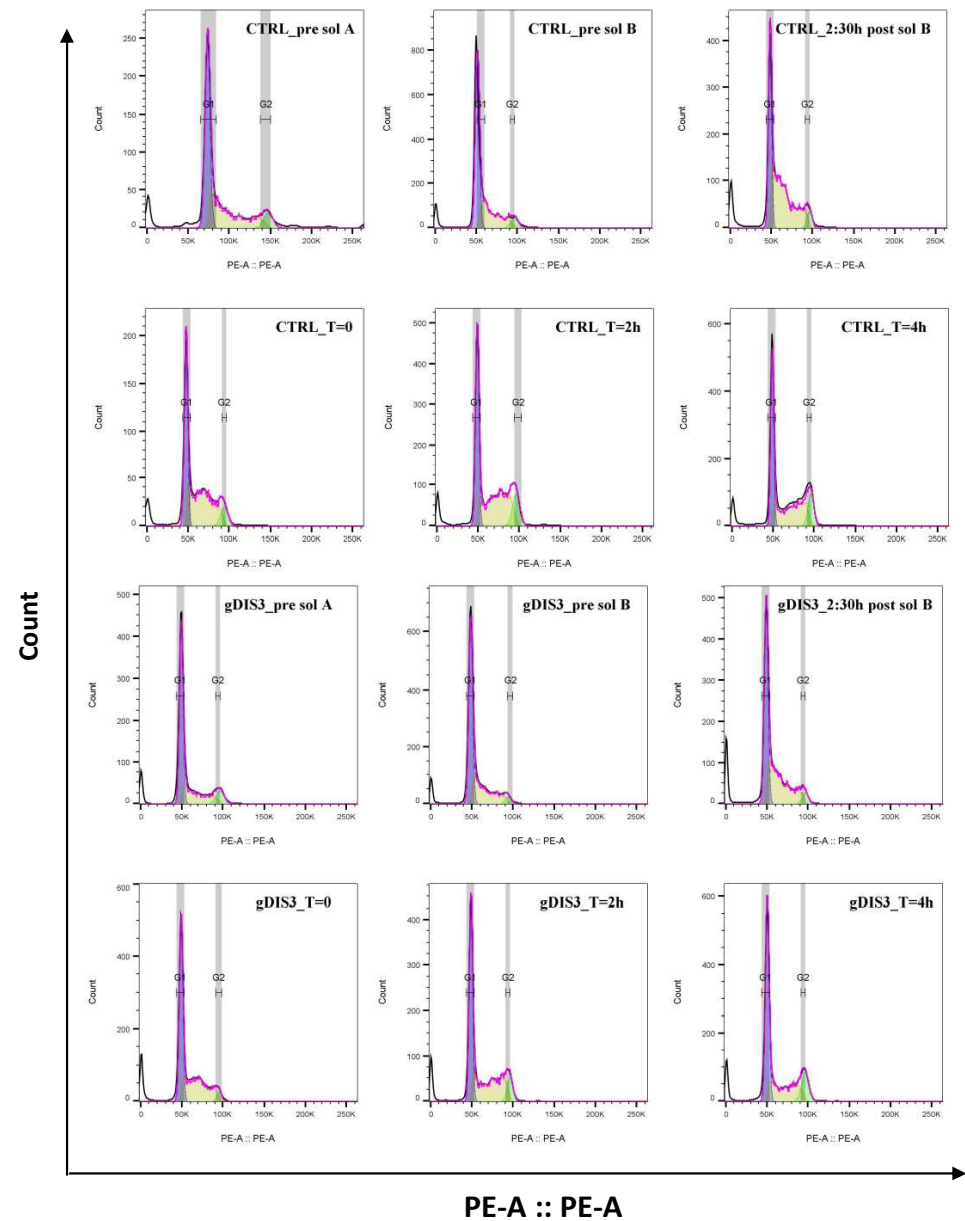
Supplementary Figure S6. Cell cycle analysis by flow cytometry of NCI-H929 and AMO-1 cells treated with gDIS3 or scramble (gSCR) gapmeR (5 μ M) for 4 days. Standard deviation of three replicates are reported, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, Student's t test.

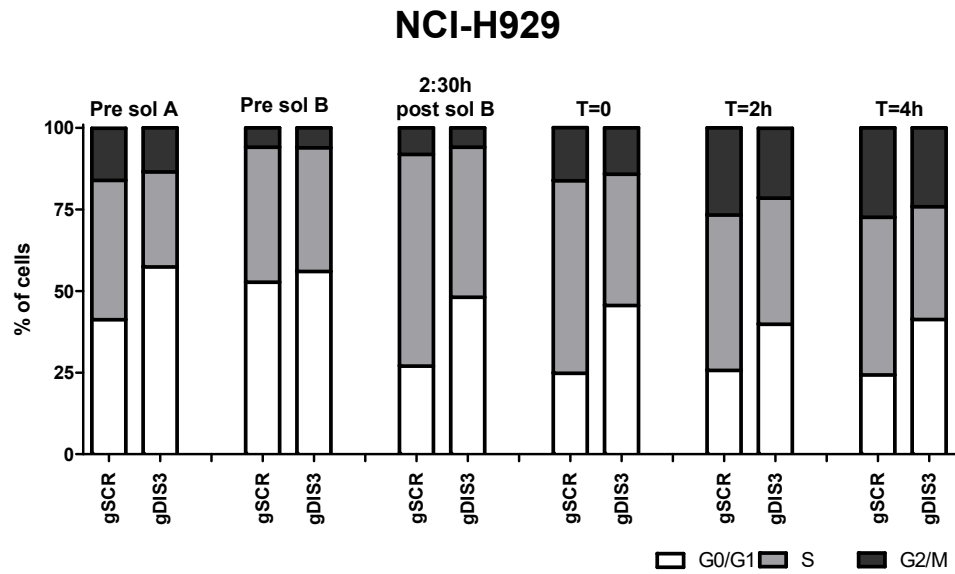


Supplementary Figure S7. Schematic representation of Synchronoset protocol for cell synchronization. At time 0 cells were seeded and gDIS3 was added. At day 4, solution A was added and cells were incubated overnight. At day 5, solution B was added and cells were incubated for 5 hrs for release. Then, samples were collected for RNA, proteins and cell cycle analysis.

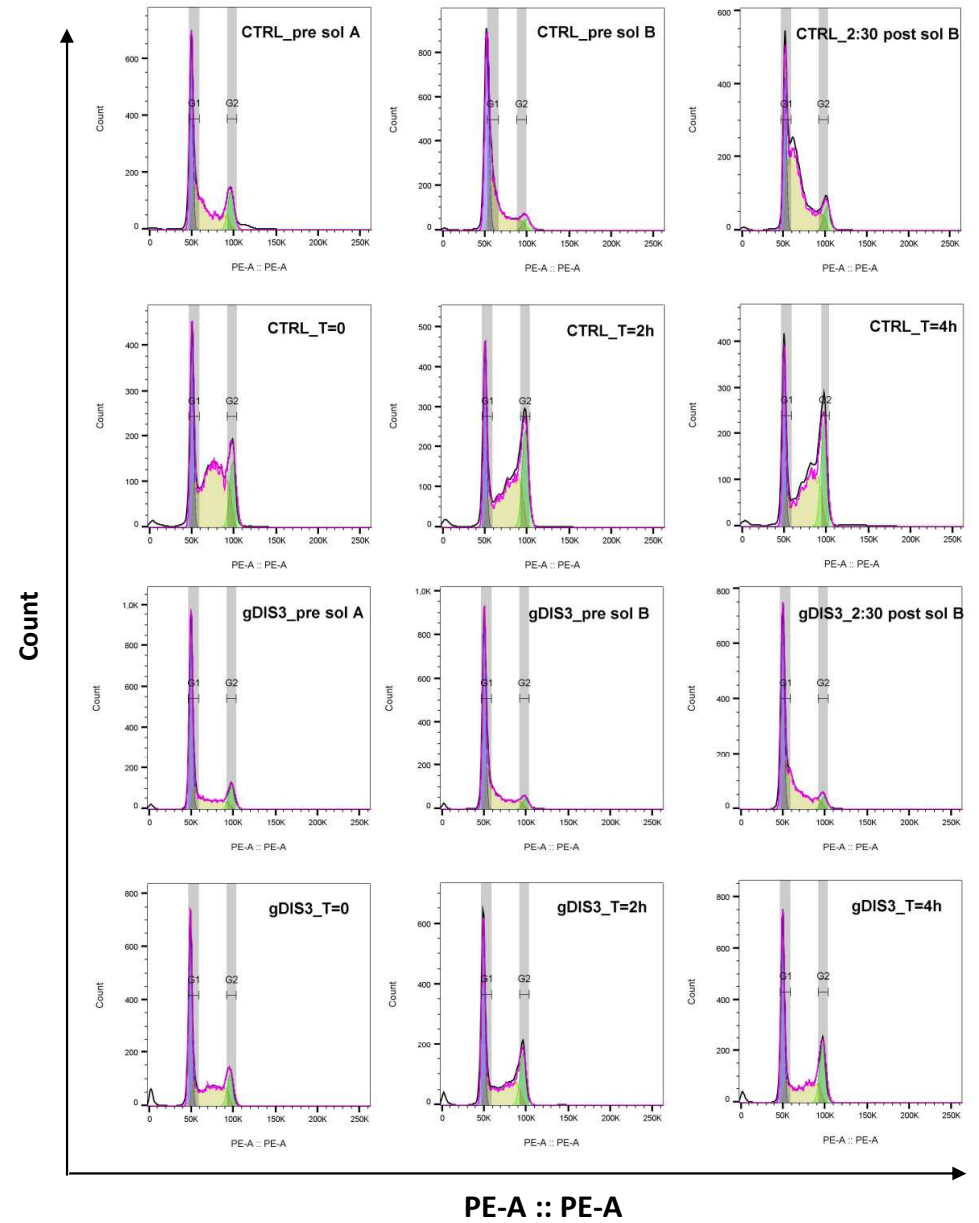


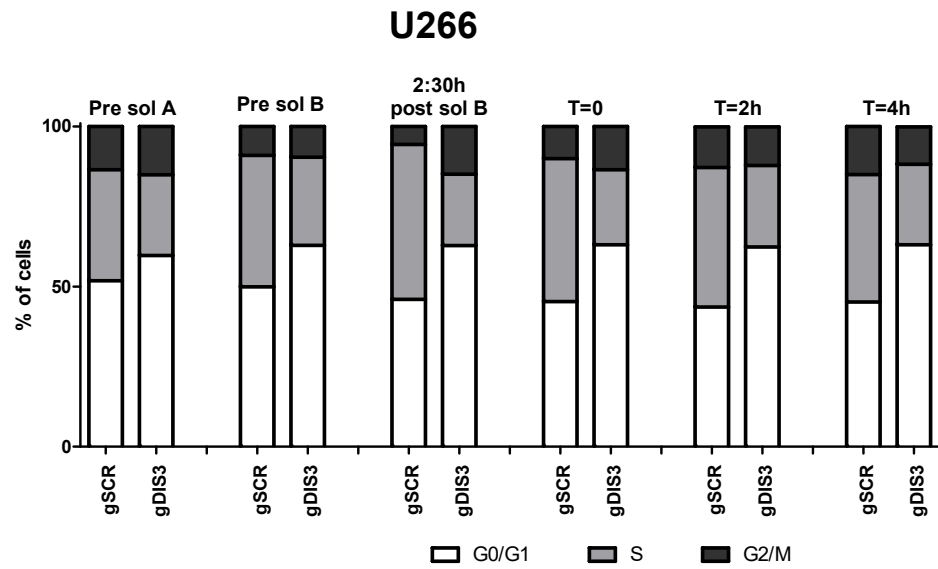
Supplementary Figure S8. AMO-1 cells were synchronized by synchroset protocol. Cell cycle progression was monitored by PI staining and FACS analysis of the DNA content of cells before synchronization (asynchronous cells), and at different time points after synchronization and after release.



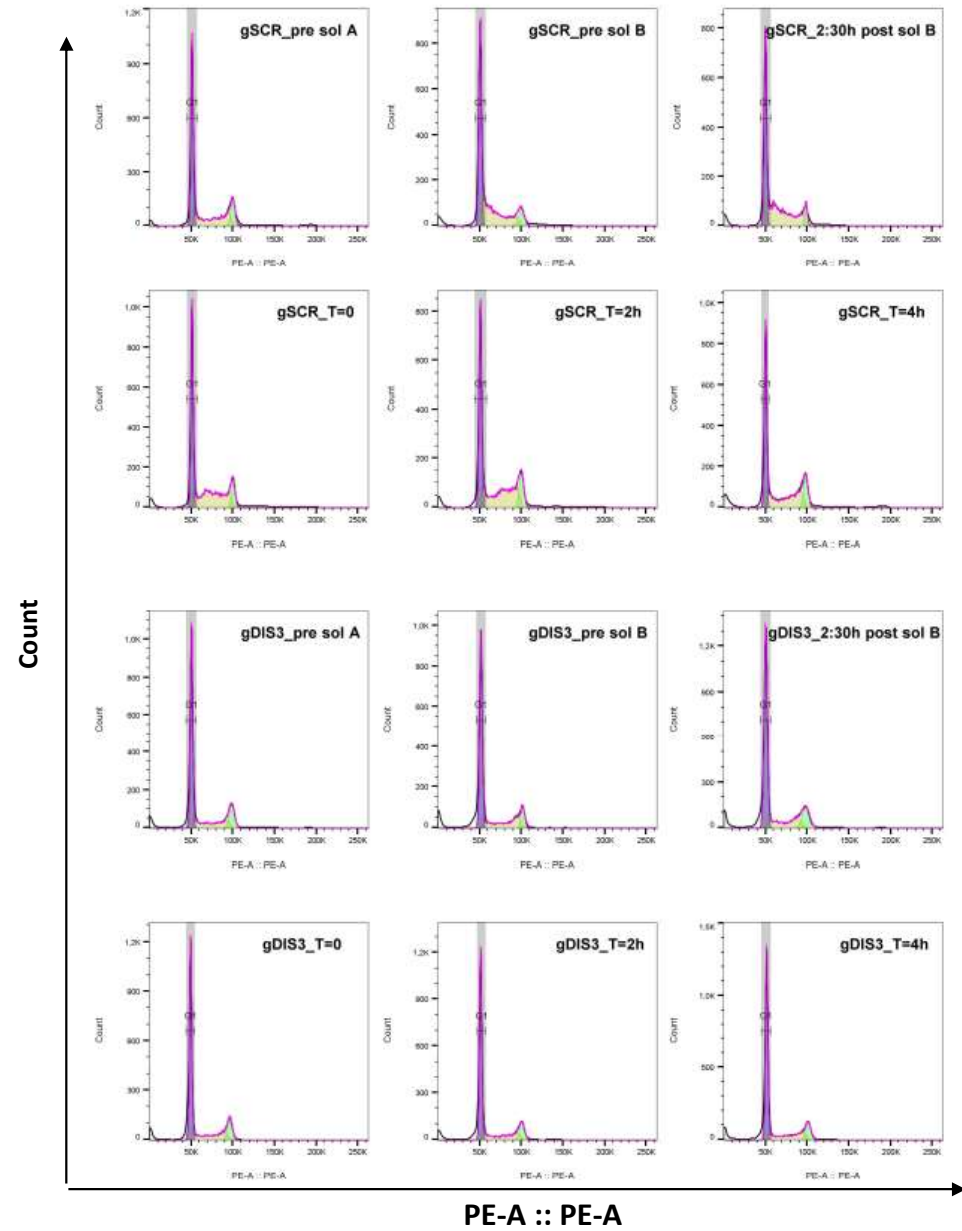


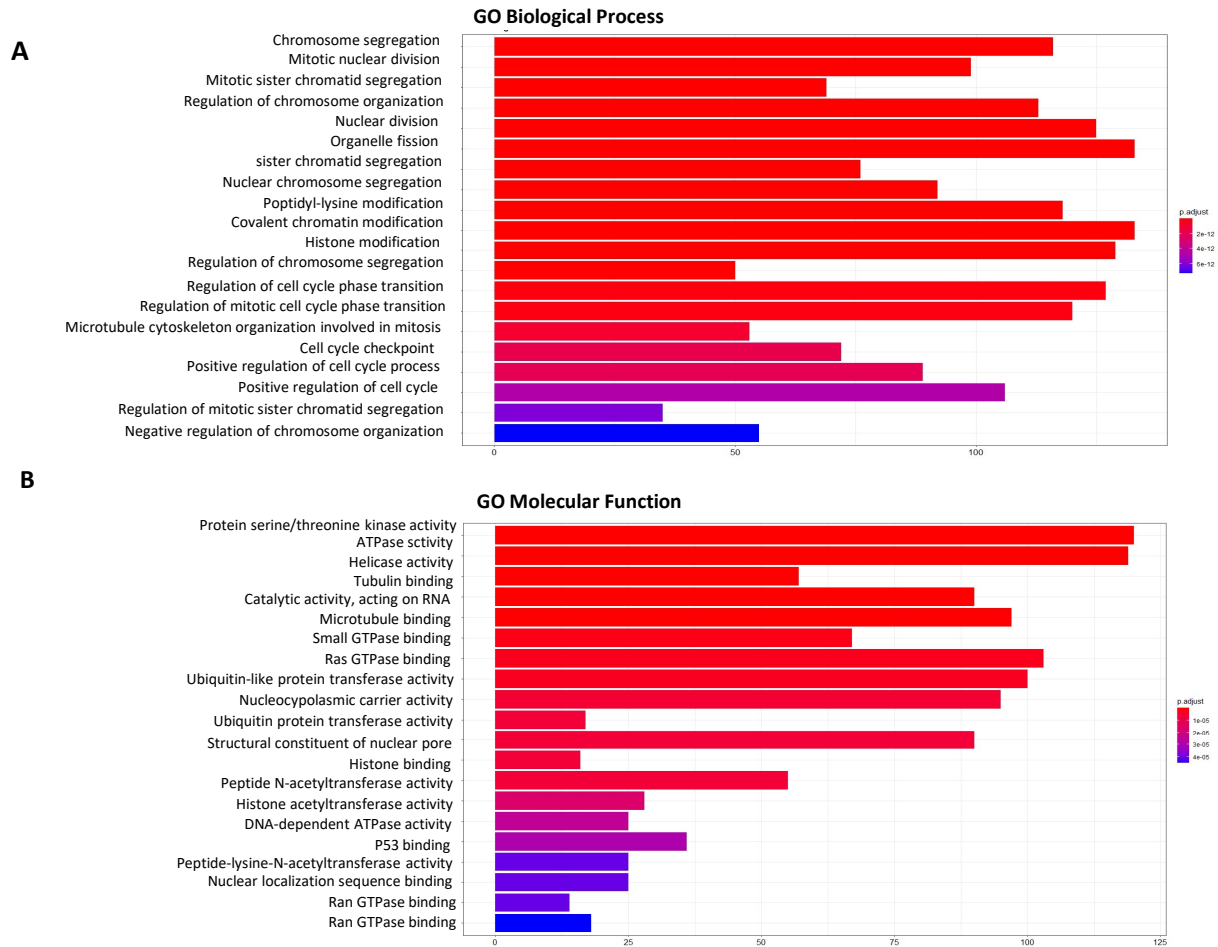
Supplementary Figure S9. NCI-H929 cells were synchronized by Synchroset protocol. Cell cycle progression was monitored by PI staining and FACS analysis of the DNA content of cells before synchronization (asynchronous cells), and at different time points after synchronization and after release.



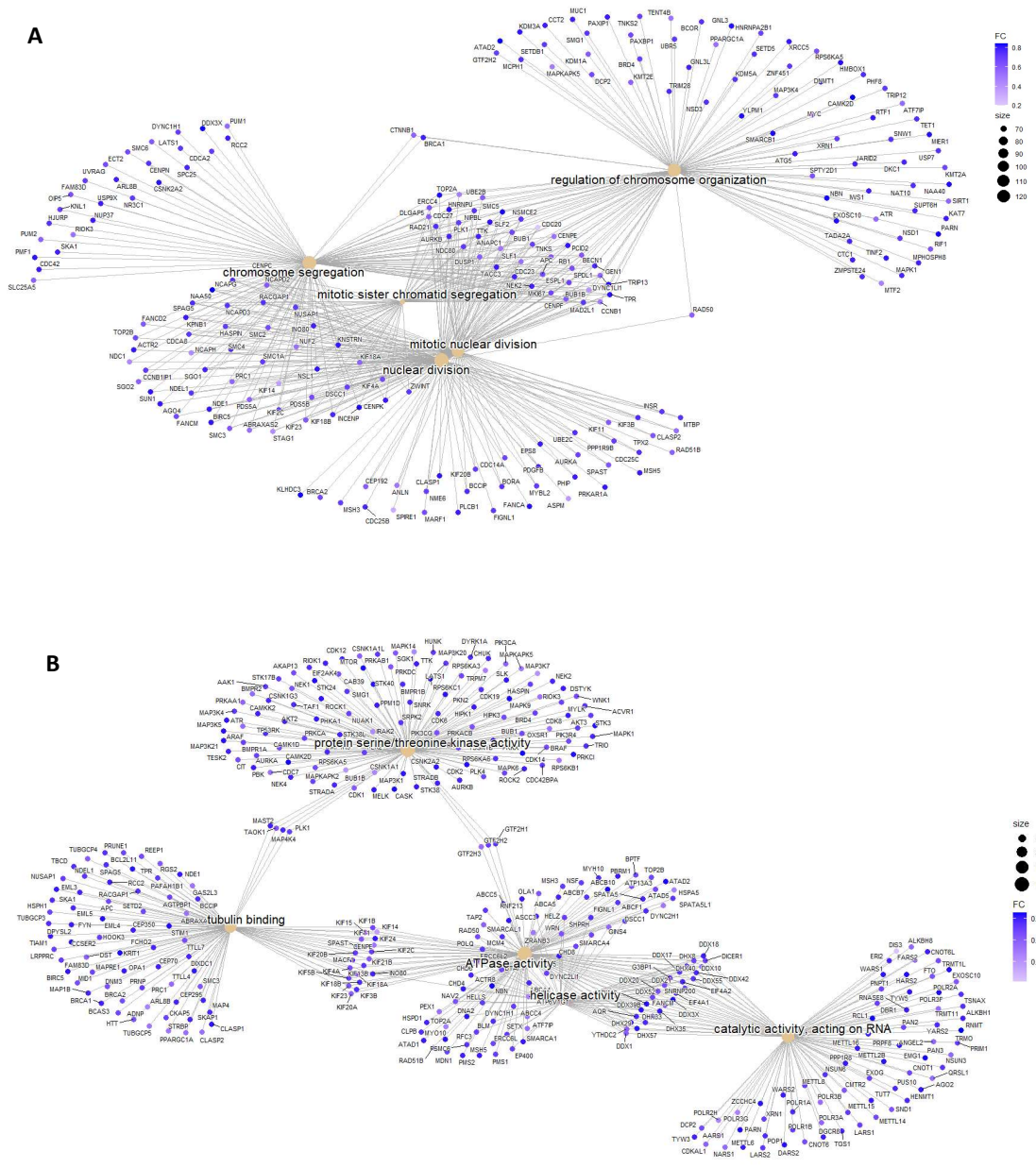


Supplementary Figure S10. U266 cells were synchronized by Synchroset protocol. Cell cycle progression was monitored by PI staining and FACS analysis of the DNA content of cells before synchronization (asynchronous cells), and at different time points after synchronization and after release.



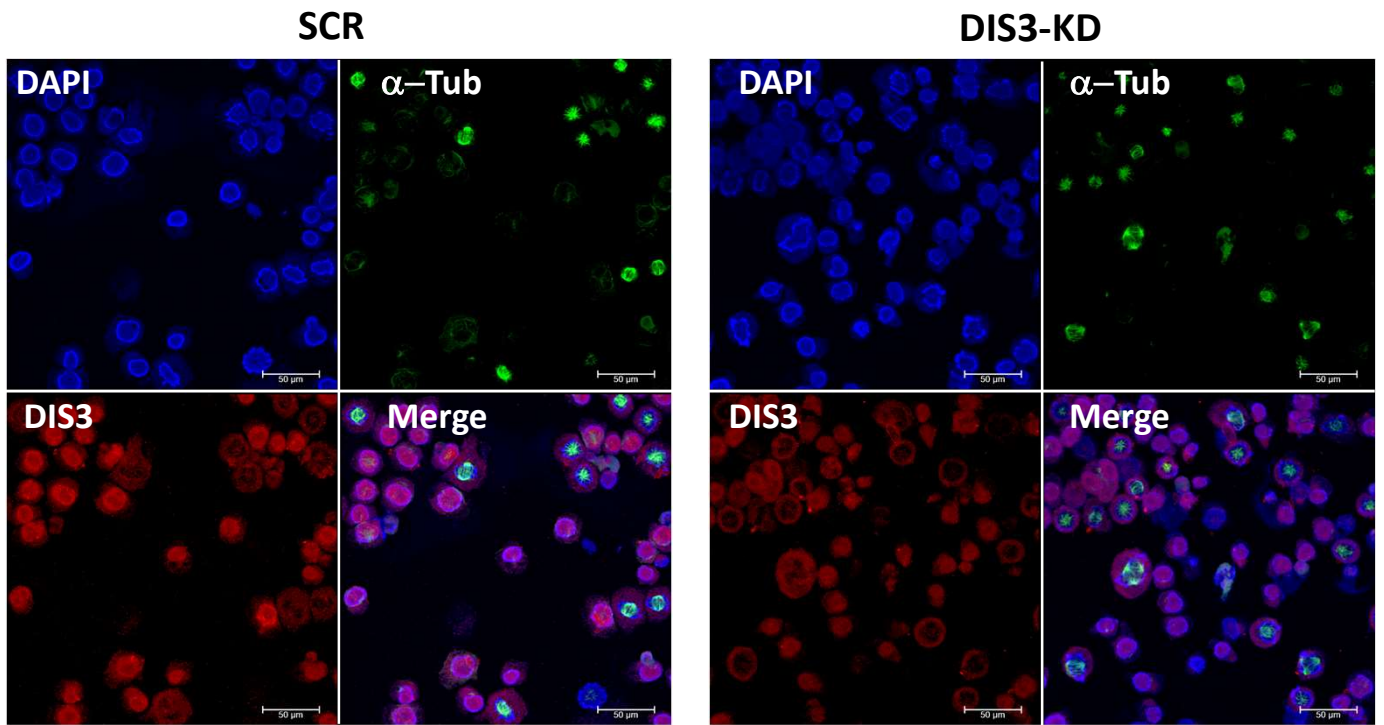


Supplementary Figure S11. Top 20 most significantly enriched GO Biological Process (**A**) and GO Molecular function (**B**) terms for 2595 differentially expressed protein coding genes with annotated gene symbols.

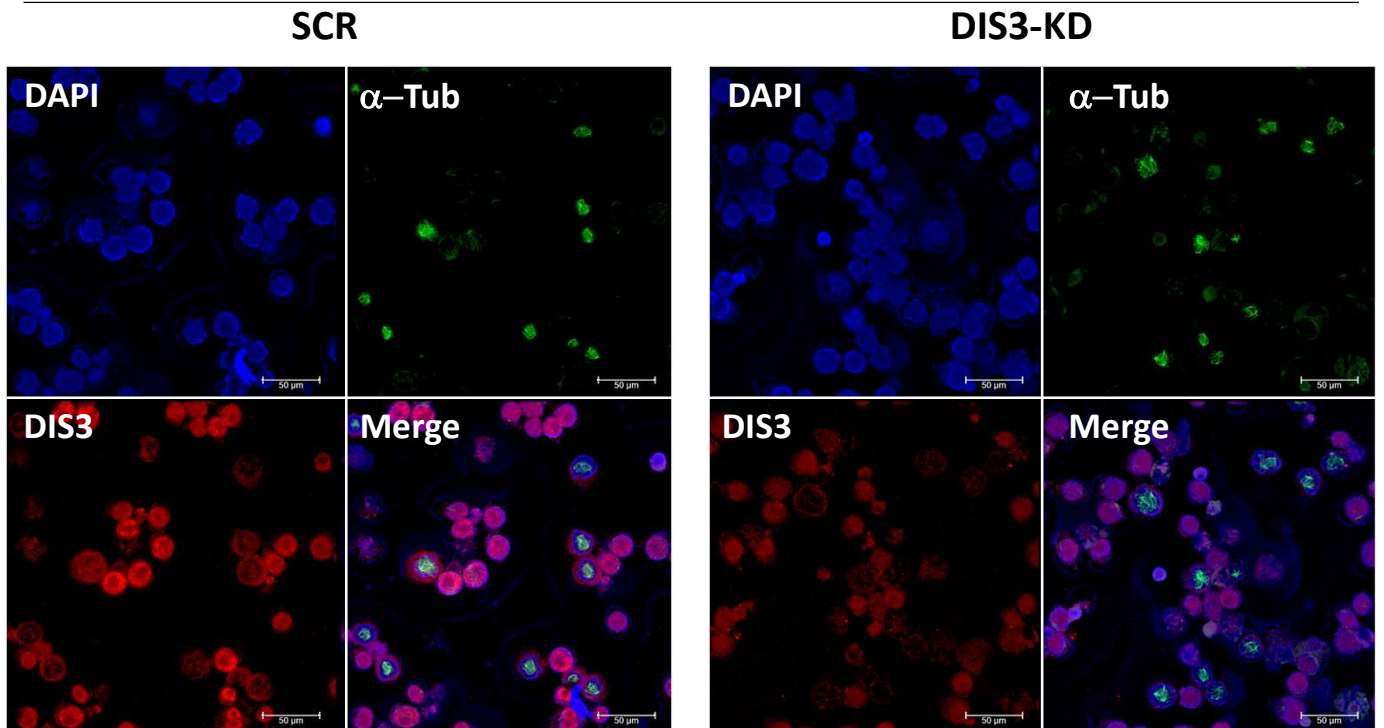


Supplementary Figure S12. Network interactions between the top five GO-BP (A) or GO-MF (B) annotation terms were visualized by using the cnetplot function.

NCI-H929



AMO-1



Supplementary Figure S13. Representative images of multipolar spindles in NCI-H929 and AMO-1 cells upon *DIS3* silencing. Scale bar 50 μ m.

Supplementary Table S1. Number and relative frequency of main IgH translocations (trx), copy number alterations (CNAs) and non-synonymous (NS) somatic mutations, in 660 BM-1 MM cases of MMRF_CoMMpass_IA15a cohort with available data about DIS3 expression by RNA sequencing (RNA-seq), IgH trx by RNA-seq, NS somatic mutations by Whole Exome sequencing (WES) and CNAs by next generation sequencing (NGS)-based FISH (FISH-WES).

IgH trx (RNA-seq)	N (%)
t(11;14)/CCND1	136 (20.6%)
t(6;14)/CCND3	9 (1.4%)
t(4;14)/WHSC1/FGFR3	89 (13.5%)
t(14;16)/MAF;t(14;20)/MAFB; t(8;16)/MAFA	42 (6.4%)
t(8;14)/MYC	27 (4.1%)
CNA (FISH-WES)	N (%)
del(13)(q14)/(q34)/RB1_20%	346 (52.4%)
1q21 gain_20%	240 (36.4%)
del(1)(p22)/CDKN2C_20%	199 (30.2%)
del(17)(p13)/TP53_20%	74 (11.2%)
HD	375 (56.8%)
NS Somatic Mutation (WES)	N (%)
<i>DIS3</i>	71 (10.8%)
<i>N-RAS</i>	146 (22.1%)
<i>H-RAS</i>	0 (0%)
<i>K-RAS</i>	160 (24.2%)
<i>BRAF</i>	51 (7.7%)
<i>TP53</i>	30 (4.5%)
<i>FAM46C</i>	66 (10%)
<i>TRAF3</i>	50 (7.6%)

Supplementary Table S2. Percentage of cell viability in *ex-vivo* primary CD138+ tumor cells purified from the BM of four MM patients after treatment with gSCR or gDIS3.

	gSCR	gDIS3
Patient N°1	87%	79%
Patient N°2	79%	67%
Patient N°3	81%	79%
Patient N°4	66%	59%

Supplementary Table S3. List of significant differentially expressed genes between NCI-H929 *DIS3*-KD and NCI-H929 control, by SAM analysis at q-value =0. 37 up- and 3995 down-regulated transcripts in *DIS3*-KD vs control are respectively ordered according to score(d). Fold change (FC), q-value and score(d) statistics parameters are reported for each transcript.

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000112078	KCTD20	protein_coding	-12.509	0.143	0
ENSG00000083520	DIS3	protein_coding	-9.625	0.21	0
ENSG00000117399	CDC20	protein_coding	-9.115	0.2	0
ENSG00000100216	TOMM22	protein_coding	-7.3	0.287	0
ENSG00000139921	TMX1	protein_coding	-7.272	0.316	0
ENSG00000134278	SPIRE1	protein_coding	-7.145	0.304	0
ENSG00000253352	TUG1	protein_coding	-7.124	0.348	0
ENSG00000231007	CDC20P1	processed_pseudogene	-6.783	0.239	0
ENSG00000177646	ACAD9	protein_coding	-6.6	0.281	0
ENSG00000165970	SLC6A5	protein_coding	-6.552	0.268	0
ENSG00000187323	DCC	protein_coding	-6.353	0.338	0
ENSG00000170540	ARL6IP1	protein_coding	-6.284	0.348	0
ENSG00000102531	FNDC3A	protein_coding	-6.252	0.323	0
ENSG00000156970	BUB1B	protein_coding	-6.248	0.386	0
ENSG00000148110	MFSD14B	protein_coding	-6.235	0.386	0
ENSG00000006576	PHTF2	protein_coding	-5.95	0.329	0
ENSG00000184371	CSF1	protein_coding	-5.949	0.405	0
ENSG00000135341	MAP3K7	protein_coding	-5.846	0.4	0
ENSG00000118007	STAG1	protein_coding	-5.725	0.417	0
ENSG00000106415	GLCCI1	protein_coding	-5.689	0.431	0
ENSG00000138459	SLC35A5	protein_coding	-5.679	0.368	0
ENSG00000068650	ATP11A	protein_coding	-5.669	0.35	0
ENSG00000164305	CASP3	protein_coding	-5.633	0.42	0
ENSG00000019995	ZRANB1	protein_coding	-5.59	0.413	0
ENSG00000139117	CPNE8	protein_coding	-5.546	0.365	0
ENSG00000118193	KIF14	protein_coding	-5.436	0.35	0
ENSG00000197043	ANXA6	protein_coding	-5.404	0.405	0
ENSG00000138709	LARP1B	protein_coding	-5.298	0.444	0
ENSG00000178982	EIF3K	protein_coding	-5.286	0.371	0
ENSG00000145386	CCNA2	protein_coding	-5.265	0.428	0
ENSG00000111912	NCOA7	protein_coding	-5.221	0.406	0
ENSG00000113712	CSNK1A1	protein_coding	-5.191	0.444	0
ENSG00000112062	MAPK14	protein_coding	-5.162	0.441	0
ENSG00000120690	ELF1	protein_coding	-5.153	0.431	0
ENSG00000134070	IRAK2	protein_coding	-5.106	0.427	0
ENSG00000100461	RBM23	protein_coding	-5.072	0.432	0
ENSG00000080802	CNOT4	protein_coding	-5.054	0.394	0
ENSG00000121152	NCAPH	protein_coding	-5.044	0.428	0
ENSG00000110108	TMEM109	protein_coding	-5.032	0.401	0
ENSG00000066279	ASPM	protein_coding	-4.995	0.366	0
ENSG00000068489	PRR11	protein_coding	-4.992	0.443	0
ENSG00000144711	IQSEC1	protein_coding	-4.928	0.405	0
ENSG00000173706	HEG1	protein_coding	-4.913	0.461	0
ENSG00000072571	HMMR	protein_coding	-4.905	0.372	0

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000198755	RPL10A	protein_coding	-4.869	0.416	0
ENSG00000163882	POLR2H	protein_coding	-4.846	0.449	0
ENSG00000044574	HSPA5	protein_coding	-4.842	0.456	0
ENSG00000143033	MTF2	protein_coding	-4.839	0.465	0
ENSG00000196757	ZNF700	protein_coding	-4.838	0.377	0
ENSG00000119285	HEATR1	protein_coding	-4.83	0.442	0
ENSG00000236015	ENSG00000236015	processed_pseudogene	-4.778	0.365	0
ENSG00000058804	NDC1	protein_coding	-4.709	0.427	0
ENSG00000122068	FYTTD1	protein_coding	-4.696	0.383	0
ENSG00000101126	ADNP	protein_coding	-4.694	0.455	0
ENSG00000005020	SKAP2	protein_coding	-4.692	0.447	0
ENSG00000119537	KDSR	protein_coding	-4.678	0.438	0
ENSG00000161547	SRSF2	protein_coding	-4.655	0.461	0
ENSG00000165650	PDZD8	protein_coding	-4.649	0.468	0
ENSG00000127081	ZNF484	protein_coding	-4.632	0.4	0
ENSG00000089022	MAPKAPK5	protein_coding	-4.6	0.481	0
ENSG00000113356	POLR3G	protein_coding	-4.593	0.457	0
ENSG00000110075	PPP6R3	protein_coding	-4.564	0.485	0
ENSG00000136888	ATP6V1G1	protein_coding	-4.546	0.454	0
ENSG00000138018	SELENOI	protein_coding	-4.532	0.492	0
ENSG00000152683	SLC30A6	protein_coding	-4.525	0.374	0
ENSG00000101557	USP14	protein_coding	-4.51	0.451	0
ENSG00000111707	SUDS3	protein_coding	-4.507	0.509	0
ENSG00000164941	INTS8	protein_coding	-4.471	0.461	0
ENSG00000131747	TOP2A	protein_coding	-4.464	0.466	0
ENSG00000197142	ACSL5	protein_coding	-4.458	0.443	0
ENSG00000152767	FARP1	protein_coding	-4.45	0.491	0
ENSG00000124406	ATP8A1	protein_coding	-4.44	0.488	0
ENSG00000030066	NUP160	protein_coding	-4.386	0.497	0
ENSG00000163660	CCNL1	protein_coding	-4.378	0.477	0
ENSG00000140386	SCAPER	protein_coding	-4.37	0.502	0
ENSG00000105778	AVL9	protein_coding	-4.369	0.486	0
ENSG00000198589	LRBA	protein_coding	-4.368	0.477	0
ENSG00000139278	GLIPR1	protein_coding	-4.355	0.478	0
ENSG00000138363	ATIC	protein_coding	-4.354	0.469	0
ENSG00000150347	ARID5B	protein_coding	-4.33	0.434	0
ENSG00000178105	DDX10	protein_coding	-4.265	0.531	0
ENSG00000172939	OXR1	protein_coding	-4.262	0.514	0
ENSG00000275835	TUBGCP5	protein_coding	-4.261	0.502	0
ENSG00000134057	CCNB1	protein_coding	-4.25	0.49	0
ENSG00000095139	ARCN1	protein_coding	-4.223	0.509	0
ENSG00000114480	GBE1	protein_coding	-4.219	0.452	0
ENSG00000153107	ANAPC1	protein_coding	-4.216	0.494	0
ENSG00000164983	TMEM65	protein_coding	-4.21	0.472	0
ENSG00000080298	RFX3	protein_coding	-4.192	0.522	0
ENSG00000139505	MTMR6	protein_coding	-4.176	0.525	0
ENSG00000163539	CLASP2	protein_coding	-4.158	0.529	0
ENSG00000011426	ANLN	protein_coding	-4.154	0.499	0
ENSG00000130348	QRSL1	protein_coding	-4.148	0.527	0

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000204217	BMPR2	protein_coding	-4.146	0.548	0
ENSG00000069275	NUCKS1	protein_coding	-4.133	0.526	0
ENSG00000121274	TENT4B	protein_coding	-4.132	0.509	0
ENSG00000173334	TRIB1	protein_coding	-4.129	0.51	0
ENSG00000226360	RPL10AP6	processed_pseudogene	-4.124	0.396	0
ENSG00000198431	TXNRD1	protein_coding	-4.113	0.547	0
ENSG00000145780	FEM1C	protein_coding	-4.112	0.503	0
ENSG00000202411	RNA5SP259	rRNA_pseudogene	-4.101	0.377	0
ENSG00000155495	MAGEC1	protein_coding	-4.097	0.464	0
ENSG00000189308	LIN54	protein_coding	-4.09	0.524	0
ENSG00000136021	SCYL2	protein_coding	-4.089	0.473	0
ENSG00000108443	RPS6KB1	protein_coding	-4.068	0.495	0
ENSG00000101752	MIB1	protein_coding	-4.048	0.53	0
ENSG00000141384	TAF4B	protein_coding	-4.046	0.527	0
ENSG00000125257	ABCC4	protein_coding	-4.032	0.523	0
ENSG00000110172	CHORDC1	protein_coding	-4.028	0.499	0
ENSG00000280433	ENSG00000280433	protein_coding	-4.023	0.463	0
ENSG00000136010	ALDH1L2	protein_coding	-4.02	0.495	0
ENSG00000075223	SEMA3C	protein_coding	-4.017	0.491	0
ENSG00000152520	PAN3	protein_coding	-4.007	0.551	0
ENSG00000143702	CEP170	protein_coding	-3.97	0.488	0
ENSG00000177189	RPS6KA3	protein_coding	-3.956	0.471	0
ENSG00000162378	ZYG11B	protein_coding	-3.943	0.469	0
ENSG00000109819	PPARGC1A	protein_coding	-3.939	0.525	0
ENSG00000163629	PTPN13	protein_coding	-3.923	0.528	0
ENSG00000106066	CPVL	protein_coding	-3.913	0.5	0
ENSG00000171241	SHCBP1	protein_coding	-3.911	0.506	0
ENSG00000093144	ECHDC1	protein_coding	-3.91	0.534	0
ENSG00000196083	IL1RAP	protein_coding	-3.886	0.492	0
ENSG00000121039	RDH10	protein_coding	-3.885	0.533	0
ENSG00000140199	SLC12A6	protein_coding	-3.884	0.514	0
ENSG00000121988	ZRANB3	protein_coding	-3.878	0.501	0
ENSG00000147853	AK3	protein_coding	-3.876	0.519	0
ENSG00000182923	CEP63	protein_coding	-3.868	0.487	0
ENSG00000183475	ASB7	protein_coding	-3.865	0.534	0
ENSG00000134644	PUM1	protein_coding	-3.863	0.547	0
ENSG00000101782	RIOK3	protein_coding	-3.845	0.518	0
ENSG00000198901	PRC1	protein_coding	-3.838	0.554	0
ENSG00000146433	TMEM181	protein_coding	-3.831	0.492	0
ENSG00000133302	SLF1	protein_coding	-3.826	0.52	0
ENSG00000173757	STAT5B	protein_coding	-3.817	0.544	0
ENSG00000097046	CDC7	protein_coding	-3.813	0.525	0
ENSG00000172243	CLEC7A	protein_coding	-3.811	0.514	0
ENSG00000119314	PTBP3	protein_coding	-3.809	0.501	0
ENSG00000198879	SFMBT2	protein_coding	-3.807	0.513	0
ENSG00000157741	UBN2	protein_coding	-3.805	0.559	0
ENSG00000187988	KCTD9P3	processed_pseudogene	-3.799	0.413	0
ENSG00000134243	SORT1	protein_coding	-3.792	0.536	0
ENSG00000055917	PUM2	protein_coding	-3.789	0.575	0

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000276966	H4C5	protein_coding	-3.784	0.506	0
ENSG00000113594	LIFR	protein_coding	-3.784	0.493	0
ENSG00000173852	DPY19L1	protein_coding	-3.78	0.51	0
ENSG00000164211	STARD4	protein_coding	-3.78	0.456	0
ENSG00000176986	SEC24C	protein_coding	-3.777	0.547	0
ENSG00000187257	RSBN1L	protein_coding	-3.773	0.54	0
ENSG00000112699	GMDS	protein_coding	-3.76	0.531	0
ENSG00000173120	KDM2A	protein_coding	-3.759	0.573	0
ENSG00000197329	PELI1	protein_coding	-3.751	0.454	0
ENSG00000198125	MB	protein_coding	-3.748	0.524	0
ENSG00000137776	SLTM	protein_coding	-3.741	0.563	0
ENSG00000134440	NARS1	protein_coding	-3.739	0.545	0
ENSG00000165209	STRBP	protein_coding	-3.739	0.508	0
ENSG00000143815	LBR	protein_coding	-3.737	0.565	0
ENSG00000248216	KCTD9P5	processed_pseudogene	-3.735	0.39	0
ENSG00000164808	SPIDR	protein_coding	-3.734	0.565	0
ENSG00000115761	NOL10	protein_coding	-3.731	0.533	0
ENSG00000080839	RBL1	protein_coding	-3.711	0.476	0
ENSG00000124789	NUP153	protein_coding	-3.704	0.546	0
ENSG00000115970	THADA	protein_coding	-3.699	0.564	0
ENSG00000104970	KIR3DX1	transcribed_unprocessed	-3.687	0.549	0
ENSG00000106460	TMEM106B	protein_coding	-3.687	0.511	0
ENSG00000165660	ABRAXAS2	protein_coding	-3.674	0.525	0
ENSG00000187240	DYNC2H1	protein_coding	-3.672	0.495	0
ENSG00000196586	MYO6	protein_coding	-3.661	0.557	0
ENSG00000101191	DIDO1	protein_coding	-3.659	0.584	0
ENSG00000121892	PDS5A	protein_coding	-3.658	0.566	0
ENSG00000127980	PEX1	protein_coding	-3.653	0.526	0
ENSG00000115840	SLC25A12	protein_coding	-3.651	0.55	0
ENSG00000165934	CPSF2	protein_coding	-3.632	0.51	0
ENSG00000120800	UTP20	protein_coding	-3.628	0.534	0
ENSG00000243156	MICAL3	protein_coding	-3.618	0.585	0
ENSG00000115464	USP34	protein_coding	-3.614	0.542	0
ENSG00000280098	ENSG00000280098	TEC	-3.611	0.476	0
ENSG00000206560	ANKRD28	protein_coding	-3.607	0.541	0
ENSG00000155380	SLC16A1	protein_coding	-3.594	0.573	0
ENSG00000185274	GALNT17	protein_coding	-3.59	0.53	0
ENSG00000124275	MTRR	protein_coding	-3.584	0.559	0
ENSG00000147251	DOCK11	protein_coding	-3.573	0.541	0
ENSG00000147874	HAUS6	protein_coding	-3.573	0.498	0
ENSG00000167193	CRK	protein_coding	-3.557	0.551	0
ENSG00000151806	GUF1	protein_coding	-3.552	0.545	0
ENSG00000005483	KMT2E	protein_coding	-3.552	0.572	0
ENSG00000156103	MMP16	protein_coding	-3.55	0.517	0
ENSG00000060339	CCAR1	protein_coding	-3.548	0.59	0
ENSG00000066651	TRMT11	protein_coding	-3.526	0.538	0
ENSG00000170965	PLAC1	protein_coding	-3.511	0.569	0
ENSG00000143228	NUF2	protein_coding	-3.507	0.522	0
ENSG00000148606	POLR3A	protein_coding	-3.496	0.563	0

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000278540	ACACA	protein_coding	-3.491	0.559	0
ENSG00000171681	ATF7IP	protein_coding	-3.491	0.546	0
ENSG00000159579	RSPRY1	protein_coding	-3.485	0.593	0
ENSG00000036549	ZZZ3	protein_coding	-3.482	0.572	0
ENSG00000198793	MTOR	protein_coding	-3.474	0.579	0
ENSG00000106692	FKTN	protein_coding	-3.473	0.523	0
ENSG00000107672	NSMCE4A	protein_coding	-3.473	0.581	0
ENSG00000145819	ARHGAP26	protein_coding	-3.468	0.591	0
ENSG00000224837	GCSHP5	processed_pseudogene	-3.458	0.289	0
ENSG00000143013	LMO4	protein_coding	-3.456	0.59	0
ENSG00000157483	MYO1E	protein_coding	-3.447	0.559	0
ENSG00000112984	KIF20A	protein_coding	-3.444	0.563	0
ENSG00000008869	HEATR5B	protein_coding	-3.442	0.556	0
ENSG00000099219	ERMP1	protein_coding	-3.429	0.561	0
ENSG00000013503	POLR3B	protein_coding	-3.423	0.543	0
ENSG00000144893	MED12L	protein_coding	-3.419	0.585	0
ENSG00000120685	PROSER1	protein_coding	-3.416	0.572	0
ENSG00000175054	ATR	protein_coding	-3.415	0.54	0
ENSG00000054118	THRAP3	protein_coding	-3.415	0.57	0
ENSG00000132356	PRKAA1	protein_coding	-3.405	0.568	0
ENSG00000197024	ZNF398	protein_coding	-3.4	0.555	0
ENSG00000224078	SNHG14	lncRNA	-3.397	0.585	0
ENSG00000171497	PPID	protein_coding	-3.383	0.578	0
ENSG00000074657	ZNF532	protein_coding	-3.379	0.548	0
ENSG00000187951	ENSG00000187951	lncRNA	-3.367	0.536	0
ENSG00000111358	GTF2H3	protein_coding	-3.365	0.535	0
ENSG00000269997	ENSG00000269997	lncRNA	-3.363	0.436	0
ENSG00000225014	KCTD9P1	transcribed_processed_pseudogene	-3.361	0.356	0
ENSG00000025800	KPNA6	protein_coding	-3.361	0.612	0
ENSG00000095574	IKZF5	protein_coding	-3.352	0.543	0
ENSG00000272335	ENSG00000272335	lncRNA	-3.347	0.503	0
ENSG00000140396	NCOA2	protein_coding	-3.341	0.594	0
ENSG00000099256	PRTFDC1	protein_coding	-3.34	0.525	0
ENSG00000222588	ENSG00000222588	snoRNA	-3.334	0.523	0
ENSG00000174485	DENND4A	protein_coding	-3.332	0.563	0
ENSG00000116748	AMPD1	protein_coding	-3.329	0.546	0
ENSG00000143384	MCL1	protein_coding	-3.328	0.572	0
ENSG00000129003	VPS13C	protein_coding	-3.326	0.568	0
ENSG00000147202	DIAPH2	protein_coding	-3.325	0.497	0
ENSG00000117222	RBBP5	protein_coding	-3.321	0.604	0
ENSG00000115827	DCAF17	protein_coding	-3.32	0.56	0
ENSG00000201217	Y_RNA	misc_RNA	-3.314	0.514	0
ENSG00000121879	PIK3CA	protein_coding	-3.31	0.583	0
ENSG00000169756	LIMS1	protein_coding	-3.307	0.578	0
ENSG00000137760	ALKBH8	protein_coding	-3.305	0.546	0
ENSG00000166263	STXBP4	protein_coding	-3.301	0.561	0
ENSG00000139372	TDG	protein_coding	-3.298	0.533	0
ENSG00000129071	MBD4	protein_coding	-3.295	0.576	0
ENSG00000096717	SIRT1	protein_coding	-3.295	0.57	0

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000168036	CTNNB1	protein_coding	-3.293	0.565	0
ENSG00000101639	CEP192	protein_coding	-3.291	0.596	0
ENSG00000130449	ZSWIM6	protein_coding	-3.289	0.569	0
ENSG00000123104	ITPR2	protein_coding	-3.287	0.609	0
ENSG00000092140	G2E3	protein_coding	-3.282	0.536	0
ENSG00000200090	Y_RNA	misc_RNA	-3.28	0.485	0
ENSG00000139514	SLC7A1	protein_coding	-3.275	0.593	0
ENSG00000273797	ENSG00000273797	lncRNA	-3.274	0.481	0
ENSG00000197594	ENPP1	protein_coding	-3.273	0.562	0
ENSG00000023516	AKAP11	protein_coding	-3.271	0.56	0
ENSG00000196914	ARHGEF12	protein_coding	-3.265	0.604	0
ENSG00000166801	FAM111A	protein_coding	-3.264	0.575	0
ENSG00000117280	RAB29	protein_coding	-3.264	0.604	0
ENSG00000184575	XPOT	protein_coding	-3.256	0.596	0
ENSG00000124151	NCOA3	protein_coding	-3.25	0.61	0
ENSG00000281183	NPTN-IT1	lncRNA	-3.25	0.176	0
ENSG00000112624	BICRAL	protein_coding	-3.247	0.58	0
ENSG00000100934	SEC23A	protein_coding	-3.241	0.566	0
ENSG00000134970	TMED7	protein_coding	-3.235	0.552	0
ENSG00000182185	RAD51B	protein_coding	-3.234	0.578	0
ENSG00000137822	TUBGCP4	protein_coding	-3.233	0.605	0
ENSG00000211456	SACM1L	protein_coding	-3.232	0.596	0
ENSG00000079785	DDX1	protein_coding	-3.231	0.59	0
ENSG00000176225	RTTN	protein_coding	-3.23	0.562	0
ENSG00000189091	SF3B3	protein_coding	-3.23	0.606	0
ENSG00000113583	C5orf15	protein_coding	-3.229	0.574	0
ENSG00000197872	CYRIA	protein_coding	-3.226	0.576	0
ENSG00000251513	LIX1-AS1	lncRNA	-3.224	0.525	0
ENSG00000144554	FANCD2	protein_coding	-3.223	0.598	0
ENSG00000149294	NCAM1	protein_coding	-3.222	0.584	0
ENSG00000151893	CACUL1	protein_coding	-3.221	0.582	0
ENSG00000155849	ELMO1	protein_coding	-3.219	0.6	0
ENSG00000004487	KDM1A	protein_coding	-3.219	0.6	0
ENSG00000125686	MED1	protein_coding	-3.216	0.571	0
ENSG00000149485	FADS1	protein_coding	-3.215	0.587	0
ENSG00000164164	OTUD4	protein_coding	-3.215	0.624	0
ENSG00000131873	CHSY1	protein_coding	-3.213	0.6	0
ENSG00000174606	ANGEL2	protein_coding	-3.209	0.563	0
ENSG00000132549	VPS13B	protein_coding	-3.205	0.587	0
ENSG00000151914	DST	protein_coding	-3.204	0.578	0
ENSG00000113070	HBEGF	protein_coding	-3.202	0.608	0
ENSG00000198826	ARHGAP11A	protein_coding	-3.201	0.566	0
ENSG00000109911	ELP4	protein_coding	-3.196	0.595	0
ENSG00000023228	NDUFS1	protein_coding	-3.187	0.609	0.227
ENSG00000218336	TENM3	protein_coding	-3.182	0.571	0.227
ENSG00000163029	SMC6	protein_coding	-3.18	0.605	0.227
ENSG00000139354	GAS2L3	protein_coding	-3.179	0.509	0.227
ENSG00000155903	RASA2	protein_coding	-3.172	0.573	0.227
ENSG00000188033	ZNF490	protein_coding	-3.172	0.577	0.227

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000005022	SLC25A5	protein_coding	-3.168	0.579	0.227
ENSG00000242110	AMACR	protein_coding	-3.152	0.56	0.227
ENSG00000197563	PIGN	protein_coding	-3.151	0.6	0.227
ENSG00000145982	FARS2	protein_coding	-3.142	0.564	0.227
ENSG00000261096	ENSG00000261096	lncRNA	-3.137	0.505	0.227
ENSG00000146263	MMS22L	protein_coding	-3.136	0.584	0.227
ENSG00000266618	MIR4742	miRNA	-3.132	0.425	0.227
ENSG00000280365	ENSG00000280365	TEC	-3.127	0.496	0.227
ENSG00000138468	SENP7	protein_coding	-3.123	0.543	0.227
ENSG00000145703	IQGAP2	protein_coding	-3.12	0.596	0.227
ENSG00000259924	ENSG00000259924	processed_pseudogene	-3.12	0.462	0.227
ENSG00000145241	CENPC	protein_coding	-3.118	0.555	0.227
ENSG00000189266	PNRC2	protein_coding	-3.116	0.572	0.227
ENSG00000101194	SLC17A9	protein_coding	-3.116	0.596	0.227
ENSG00000180917	CMTR2	protein_coding	-3.115	0.613	0.227
ENSG00000243005	RN7SL16P	misc_RNA	-3.113	0.559	0.227
ENSG00000105849	POLR1F	protein_coding	-3.11	0.572	0.227
ENSG00000126581	BECN1	protein_coding	-3.106	0.609	0.227
ENSG00000149308	NPAT	protein_coding	-3.102	0.579	0.227
ENSG00000115808	STRN	protein_coding	-3.099	0.595	0.227
ENSG00000166478	ZNF143	protein_coding	-3.099	0.607	0.227
ENSG00000253729	PRKDC	protein_coding	-3.097	0.62	0.227
ENSG00000186908	ZDHHC17	protein_coding	-3.096	0.611	0.227
ENSG00000138778	CENPE	protein_coding	-3.09	0.518	0.227
ENSG00000144136	SLC20A1	protein_coding	-3.09	0.63	0.227
ENSG00000115165	CYTIP	protein_coding	-3.089	0.613	0.227
ENSG00000116852	KIF21B	protein_coding	-3.083	0.605	0.227
ENSG00000111731	C2CD5	protein_coding	-3.081	0.606	0.227
ENSG00000102384	CENPI	protein_coding	-3.081	0.549	0.227
ENSG00000217128	FNIP1	protein_coding	-3.078	0.626	0.227
ENSG00000153944	MSI2	protein_coding	-3.077	0.62	0.227
ENSG00000196418	ZNF124	protein_coding	-3.076	0.579	0.227
ENSG00000279845	ENSG00000279845	TEC	-3.075	0.443	0.227
ENSG00000189283	FHIT	protein_coding	-3.071	0.605	0.227
ENSG00000095319	NUP188	protein_coding	-3.066	0.621	0.227
ENSG00000035687	ADSS2	protein_coding	-3.065	0.61	0.227
ENSG00000047188	YTHDC2	protein_coding	-3.062	0.59	0.227
ENSG00000205765	C5orf51	protein_coding	-3.059	0.613	0.227
ENSG00000147536	GINS4	protein_coding	-3.055	0.569	0.227
ENSG00000105677	TMEM147	protein_coding	-3.053	0.589	0.227
ENSG00000197157	SND1	protein_coding	-3.046	0.614	0.227
ENSG00000139173	TMEM117	protein_coding	-3.045	0.578	0.227
ENSG00000186260	MRTFB	protein_coding	-3.04	0.587	0.227
ENSG00000198146	ZNF770	protein_coding	-3.037	0.581	0.227
ENSG00000113522	RAD50	protein_coding	-3.036	0.584	0.227
ENSG00000164031	DNAJB14	protein_coding	-3.035	0.526	0.227
ENSG00000188873	RPL10AP2	processed_pseudogene	-3.035	0.522	0.227
ENSG00000118515	SGK1	protein_coding	-3.034	0.612	0.227
ENSG00000132002	DNAJB1	protein_coding	-3.032	0.574	0.227

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000119446	RBM18	protein_coding	-3.031	0.6	0.227
ENSG00000130803	ZNF317	protein_coding	-3.028	0.595	0.227
ENSG00000021574	SPAST	protein_coding	-3.021	0.622	0.227
ENSG00000152952	PLOD2	protein_coding	-3.02	0.575	0.227
ENSG00000132294	EFR3A	protein_coding	-3.018	0.568	0.227
ENSG00000213673	SLC25A5P3	processed_pseudogene	-3.017	0.504	0.227
ENSG00000073712	FERMT2	protein_coding	-3.014	0.6	0.227
ENSG00000075151	EIF4G3	protein_coding	-3.013	0.632	0.227
ENSG00000200879	SNORD14E	snoRNA	-3.01	0.549	0.227
ENSG00000185104	FAF1	protein_coding	-3	0.633	0.227
ENSG00000164091	WDR82	protein_coding	-3	0.604	0.227
ENSG00000135919	SERPINE2	protein_coding	-2.99	0.606	0.227
ENSG00000175782	SLC35E3	protein_coding	-2.989	0.6	0.227
ENSG00000144635	DYNC1LI1	protein_coding	-2.982	0.562	0.227
ENSG00000066739	ATG2B	protein_coding	-2.98	0.622	0.227
ENSG00000166479	TMX3	protein_coding	-2.975	0.622	0.227
ENSG00000124120	TTPAL	protein_coding	-2.974	0.558	0.227
ENSG00000065183	WDR3	protein_coding	-2.972	0.645	0.227
ENSG00000159921	GNE	protein_coding	-2.971	0.604	0.227
ENSG00000181222	POLR2A	protein_coding	-2.969	0.624	0.227
ENSG00000125249	RAP2A	protein_coding	-2.966	0.631	0.227
ENSG00000226241	ENSG00000226241	processed_pseudogene	-2.965	0.584	0.227
ENSG00000064651	SLC12A2	protein_coding	-2.964	0.601	0.227
ENSG00000145996	CDKAL1	protein_coding	-2.956	0.578	0.227
ENSG00000168301	KCTD6	protein_coding	-2.954	0.506	0.227
ENSG00000004766	VPS50	protein_coding	-2.953	0.604	0.227
ENSG00000251194	ENSG00000251194	lncRNA	-2.953	0.558	0.227
ENSG00000065526	SPEN	protein_coding	-2.95	0.64	0.227
ENSG00000100554	ATP6V1D	protein_coding	-2.948	0.585	0.227
ENSG00000121621	KIF18A	protein_coding	-2.938	0.569	0.227
ENSG00000148943	LIN7C	protein_coding	-2.938	0.628	0.227
ENSG00000163596	ICA1L	protein_coding	-2.937	0.609	0.227
ENSG00000125869	LAMP5	protein_coding	-2.937	0.613	0.227
ENSG00000185607	ACTBP7	processed_pseudogene	-2.935	0.533	0.227
ENSG00000010292	NCAPD2	protein_coding	-2.933	0.614	0.227
ENSG00000160551	TAOK1	protein_coding	-2.931	0.62	0.227
ENSG00000204120	GIGYF2	protein_coding	-2.928	0.652	0.227
ENSG00000105483	CARD8	protein_coding	-2.926	0.615	0.227
ENSG00000103994	ZNF106	protein_coding	-2.924	0.621	0.227
ENSG00000196505	GDAP2	protein_coding	-2.923	0.578	0.227
ENSG00000183808	RBM12B	protein_coding	-2.918	0.606	0.227
ENSG00000132953	XPO4	protein_coding	-2.917	0.636	0.227
ENSG00000122741	DCAF10	protein_coding	-2.914	0.575	0.227
ENSG00000109861	CTSC	protein_coding	-2.91	0.601	0.227
ENSG00000092931	MFSD11	protein_coding	-2.899	0.607	0.227
ENSG00000241634	ENSG00000241634	processed_pseudogene	-2.899	0.355	0.227
ENSG00000242247	ARFGAP3	protein_coding	-2.891	0.602	0.227
ENSG00000153767	GTF2E1	protein_coding	-2.891	0.603	0.227
ENSG00000185420	SMYD3	protein_coding	-2.891	0.623	0.227

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000108588	CCDC47	protein_coding	-2.887	0.639	0.227
ENSG00000142875	PRKACB	protein_coding	-2.886	0.638	0.227
ENSG00000170275	CRTAP	protein_coding	-2.885	0.6	0.227
ENSG00000086200	IPO11	protein_coding	-2.88	0.58	0.227
ENSG00000068615	REEP1	protein_coding	-2.88	0.653	0.227
ENSG00000128989	ARPP19	protein_coding	-2.876	0.627	0.227
ENSG00000249859	PVT1	lncRNA	-2.873	0.623	0.227
ENSG00000088325	TPX2	protein_coding	-2.873	0.62	0.227
ENSG00000048052	HDAC9	protein_coding	-2.871	0.611	0.227
ENSG00000263790	MIR4473	miRNA	-2.87	0.427	0.227
ENSG00000255725	TDGP1	processed_pseudogene	-2.868	0.523	0.227
ENSG00000253333	ENSG00000253333	unprocessed_pseudogene	-2.866	0.642	0.227
ENSG00000272886	DCP1A	protein_coding	-2.861	0.62	0.227
ENSG00000103489	XYLT1	protein_coding	-2.861	0.582	0.227
ENSG00000005844	ITGAL	protein_coding	-2.856	0.646	0.227
ENSG00000144426	NBEAL1	protein_coding	-2.856	0.63	0.227
ENSG00000140718	FTO	protein_coding	-2.855	0.633	0.227
ENSG00000151012	SLC7A11	protein_coding	-2.853	0.631	0.227
ENSG00000114757	PEX5L	protein_coding	-2.851	0.611	0.227
ENSG00000026508	CD44	protein_coding	-2.849	0.651	0.227
ENSG00000143437	ARNT	protein_coding	-2.846	0.635	0.227
ENSG00000115163	CENPA	protein_coding	-2.845	0.584	0.227
ENSG00000100281	HMGXB4	protein_coding	-2.84	0.584	0.227
ENSG00000234857	HNRNPUL2-BSCL2	protein_coding	-2.84	0.571	0.227
ENSG00000158966	CACHD1	protein_coding	-2.839	0.61	0.227
ENSG00000170312	CDK1	protein_coding	-2.838	0.601	0.227
ENSG00000103091	WDR59	protein_coding	-2.836	0.629	0.227
ENSG00000196233	LCOR	protein_coding	-2.832	0.634	0.227
ENSG00000137601	NEK1	protein_coding	-2.832	0.629	0.227
ENSG00000160190	SLC37A1	protein_coding	-2.832	0.619	0.227
ENSG00000265415	ENSG00000265415	lncRNA	-2.826	0.59	0.227
ENSG00000241913	RPS29P21	processed_pseudogene	-2.821	0.566	0.227
ENSG00000240024	LINC00888	transcribed_unprocessed	-2.819	0.625	0.227
ENSG00000261098	ENSG00000261098	lncRNA	-2.819	0.581	0.227
ENSG00000110395	CBL	protein_coding	-2.817	0.636	0.227
ENSG00000184634	MED12	protein_coding	-2.814	0.662	0.227
ENSG00000120705	ETF1	protein_coding	-2.812	0.635	0.227
ENSG00000104643	MTMR9	protein_coding	-2.811	0.669	0.227
ENSG00000170854	RIOX2	protein_coding	-2.81	0.625	0.227
ENSG00000081014	AP4E1	protein_coding	-2.808	0.626	0.227
ENSG00000118762	PKD2	protein_coding	-2.805	0.658	0.227
ENSG00000104147	OIP5	protein_coding	-2.803	0.626	0.227
ENSG00000166833	NAV2	protein_coding	-2.802	0.634	0.227
ENSG00000188641	DPYD	protein_coding	-2.799	0.636	0.227
ENSG00000024526	DEPDC1	protein_coding	-2.797	0.582	0.227
ENSG00000185900	POMK	protein_coding	-2.797	0.643	0.227
ENSG00000138074	SLC5A6	protein_coding	-2.797	0.631	0.227
ENSG00000108055	SMC3	protein_coding	-2.796	0.621	0.227
ENSG00000135932	CAB39	protein_coding	-2.794	0.643	0.227

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000122707	RECK	protein_coding	-2.794	0.65	0.227
ENSG00000090861	AARS1	protein_coding	-2.791	0.634	0.227
ENSG00000134987	WDR36	protein_coding	-2.79	0.626	0.227
ENSG00000225224	RPS27AP12	processed_pseudogene	-2.789	0.405	0.227
ENSG00000004897	CDC27	protein_coding	-2.788	0.595	0.227
ENSG00000237999	ACTG1P19	processed_pseudogene	-2.787	0.588	0.227
ENSG00000140262	TCF12	protein_coding	-2.782	0.627	0.227
ENSG00000163535	SGO2	protein_coding	-2.781	0.573	0.227
ENSG00000154945	ANKRD40	protein_coding	-2.779	0.643	0.227
ENSG00000203546	ENSG00000203546	protein_coding	-2.777	0.537	0.227
ENSG00000116984	MTR	protein_coding	-2.775	0.623	0.227
ENSG00000117724	CENPF	protein_coding	-2.773	0.618	0.227
ENSG00000156958	GALK2	protein_coding	-2.773	0.634	0.227
ENSG00000224315	RPL7P7	processed_pseudogene	-2.773	0.5	0.227
ENSG00000100784	RPS6KA5	protein_coding	-2.771	0.644	0.227
ENSG00000252343	RNU2-34P	snRNA	-2.769	0.375	0.227
ENSG00000197386	HTT	protein_coding	-2.768	0.64	0.227
ENSG00000226421	SLC25A5P5	processed_pseudogene	-2.765	0.531	0.227
ENSG00000266709	ENSG00000266709	lncRNA	-2.76	0.57	0.227
ENSG00000052795	FNIP2	protein_coding	-2.758	0.659	0.227
ENSG00000157456	CCNB2	protein_coding	-2.757	0.612	0.227
ENSG00000151532	VTI1A	protein_coding	-2.757	0.655	0.227
ENSG00000196712	NF1	protein_coding	-2.755	0.607	0.227
ENSG00000167986	DDB1	protein_coding	-2.754	0.648	0.227
ENSG00000103544	VPS35L	protein_coding	-2.753	0.633	0.227
ENSG00000157764	BRAF	protein_coding	-2.752	0.664	0.227
ENSG00000125648	SLC25A23	protein_coding	-2.751	0.616	0.227
ENSG00000180747	SMG1P3	transcribed_unprocessed	-2.751	0.52	0.227
ENSG00000039319	ZFYVE16	protein_coding	-2.751	0.614	0.227
ENSG00000225813	ENSG00000225813	processed_pseudogene	-2.751	0.637	0.227
ENSG00000080345	RIF1	protein_coding	-2.747	0.616	0.227
ENSG00000119048	UBE2B	protein_coding	-2.746	0.597	0.227
ENSG00000151726	ACSL1	protein_coding	-2.745	0.636	0.227
ENSG00000238713	Y_RNA	misc_RNA	-2.745	0.49	0.227
ENSG00000033030	ZCCHC8	protein_coding	-2.737	0.599	0.227
ENSG00000107929	LARP4B	protein_coding	-2.736	0.632	0.227
ENSG00000117362	APH1A	protein_coding	-2.731	0.614	0.227
ENSG00000165512	ZNF22	protein_coding	-2.729	0.566	0.227
ENSG00000184009	ACTG1	protein_coding	-2.726	0.614	0.227
ENSG00000221978	CCNL2	protein_coding	-2.725	0.635	0.227
ENSG00000213763	ACTBP2	processed_pseudogene	-2.723	0.505	0.401
ENSG00000170776	AKAP13	protein_coding	-2.718	0.658	0.401
ENSG00000138160	KIF11	protein_coding	-2.718	0.613	0.401
ENSG00000123473	STIL	protein_coding	-2.718	0.603	0.401
ENSG00000116171	SCP2	protein_coding	-2.717	0.63	0.401
ENSG00000072803	FBXW11	protein_coding	-2.716	0.682	0.401
ENSG00000159593	NAE1	protein_coding	-2.715	0.613	0.401
ENSG00000235064	SLC25A5P2	processed_pseudogene	-2.715	0.502	0.401
ENSG00000151690	MFSD6	protein_coding	-2.708	0.642	0.401

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000165195	PIGA	protein_coding	-2.708	0.594	0.401
ENSG00000204469	PRRC2A	protein_coding	-2.707	0.648	0.401
ENSG00000284633	ENSG00000284633	lncRNA	-2.707	0.592	0.401
ENSG00000133657	ATP13A3	protein_coding	-2.706	0.634	0.401
ENSG00000125107	CNOT1	protein_coding	-2.705	0.671	0.401
ENSG00000185483	ROR1	protein_coding	-2.704	0.624	0.401
ENSG00000137807	KIF23	protein_coding	-2.701	0.61	0.401
ENSG00000212124	TAS2R19	protein_coding	-2.701	0.578	0.401
ENSG00000101871	MID1	protein_coding	-2.7	0.646	0.401
ENSG00000101166	PRELID3B	protein_coding	-2.7	0.618	0.401
ENSG00000163297	ANTXR2	protein_coding	-2.699	0.667	0.401
ENSG00000197959	DNM3	protein_coding	-2.698	0.642	0.401
ENSG00000125968	ID1	protein_coding	-2.698	0.601	0.401
ENSG00000119414	PPP6C	protein_coding	-2.698	0.63	0.401
ENSG00000145365	TIFA	protein_coding	-2.698	0.613	0.401
ENSG00000116668	SWT1	protein_coding	-2.696	0.605	0.401
ENSG00000075218	GTSE1	protein_coding	-2.695	0.635	0.401
ENSG00000251934	RNU6-1143P	snRNA	-2.692	0.373	0.401
ENSG00000011201	ANOS1	protein_coding	-2.685	0.605	0.401
ENSG00000057019	DCBLD2	protein_coding	-2.685	0.64	0.401
ENSG00000090530	P3H2	protein_coding	-2.684	0.577	0.401
ENSG00000171634	BPTF	protein_coding	-2.683	0.673	0.401
ENSG00000196950	SLC39A10	protein_coding	-2.682	0.641	0.401
ENSG00000169570	DTWD2	protein_coding	-2.678	0.615	0.401
ENSG00000173848	NET1	protein_coding	-2.678	0.662	0.401
ENSG00000136824	SMC2	protein_coding	-2.677	0.656	0.401
ENSG00000003989	SLC7A2	protein_coding	-2.669	0.622	0.401
ENSG00000090863	GLG1	protein_coding	-2.667	0.642	0.401
ENSG00000183049	CAMK1D	protein_coding	-2.665	0.662	0.401
ENSG00000064703	DDX20	protein_coding	-2.663	0.634	0.401
ENSG00000231952	DPY19L1P2	unprocessed_pseudogene	-2.663	0.624	0.401
ENSG00000138430	OLA1	protein_coding	-2.663	0.633	0.401
ENSG00000121964	GTDC1	protein_coding	-2.661	0.658	0.401
ENSG00000009413	REV3L	protein_coding	-2.661	0.652	0.401
ENSG00000138658	ZGRF1	protein_coding	-2.661	0.603	0.401
ENSG00000175455	CCDC14	protein_coding	-2.659	0.614	0.401
ENSG00000226468	ENSG00000226468	processed_pseudogene	-2.659	0.514	0.401
ENSG00000112339	HBS1L	protein_coding	-2.658	0.625	0.401
ENSG00000123643	SLC36A1	protein_coding	-2.658	0.645	0.401
ENSG00000100815	TRIP11	protein_coding	-2.657	0.631	0.401
ENSG00000144481	TRPM8	protein_coding	-2.656	0.656	0.401
ENSG00000218819	TDRD15	protein_coding	-2.654	0.589	0.401
ENSG00000134982	APC	protein_coding	-2.65	0.662	0.401
ENSG00000169826	CSGALNACT2	protein_coding	-2.65	0.631	0.401
ENSG00000159086	PAXBP1	protein_coding	-2.644	0.666	0.401
ENSG00000069869	NEDD4	protein_coding	-2.642	0.614	0.401
ENSG00000126787	DLGAP5	protein_coding	-2.639	0.63	0.401
ENSG00000136731	UGGT1	protein_coding	-2.638	0.66	0.401
ENSG00000108306	FBXL20	protein_coding	-2.636	0.602	0.401

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000263631	MIR378D1	miRNA	-2.636	0.602	0.401
ENSG00000213079	SCAF8	protein_coding	-2.632	0.67	0.401
ENSG00000109084	TMEM97	protein_coding	-2.632	0.628	0.401
ENSG00000127946	HIP1	protein_coding	-2.631	0.633	0.401
ENSG00000158079	PTPDC1	protein_coding	-2.628	0.652	0.401
ENSG00000177485	ZBTB33	protein_coding	-2.628	0.644	0.401
ENSG00000170340	B3GNT2	protein_coding	-2.627	0.608	0.401
ENSG00000183826	BTBD9	protein_coding	-2.627	0.641	0.401
ENSG00000107863	ARHGAP21	protein_coding	-2.622	0.625	0.401
ENSG00000164171	ITGA2	protein_coding	-2.622	0.669	0.401
ENSG00000168769	TET2	protein_coding	-2.622	0.639	0.401
ENSG00000243508	DNAJB6P7	processed_pseudogene	-2.62	0.445	0.401
ENSG00000144036	EXOC6B	protein_coding	-2.62	0.634	0.401
ENSG00000148154	UGCG	protein_coding	-2.62	0.626	0.401
ENSG00000271971	ENSG00000271971	lncRNA	-2.62	0.521	0.401
ENSG00000101544	ADNP2	protein_coding	-2.619	0.639	0.401
ENSG00000058668	ATP2B4	protein_coding	-2.617	0.653	0.401
ENSG00000165392	WRN	protein_coding	-2.617	0.635	0.401
ENSG00000134852	CLOCK	protein_coding	-2.616	0.659	0.401
ENSG00000075539	FRYL	protein_coding	-2.612	0.644	0.401
ENSG00000248625	ENSG00000248625	processed_pseudogene	-2.607	0.533	0.401
ENSG00000171100	MTM1	protein_coding	-2.604	0.6	0.401
ENSG00000233125	ACTBP12	processed_pseudogene	-2.6	0.542	0.401
ENSG00000185477	GPRIN3	protein_coding	-2.6	0.663	0.401
ENSG00000115084	SLC35F5	protein_coding	-2.6	0.64	0.401
ENSG00000236088	COX10-AS1	lncRNA	-2.599	0.638	0.401
ENSG00000119004	CYP20A1	protein_coding	-2.599	0.645	0.401
ENSG00000153253	SCN3A	protein_coding	-2.598	0.632	0.401
ENSG00000196396	PTPN1	protein_coding	-2.597	0.616	0.401
ENSG00000163026	WDCP	protein_coding	-2.597	0.577	0.401
ENSG00000080200	CRYBG3	protein_coding	-2.595	0.664	0.401
ENSG00000131844	MCCC2	protein_coding	-2.593	0.632	0.401
ENSG00000279957	ENSG00000279957	TEC	-2.584	0.64	0.401
ENSG00000005339	CREBBP	protein_coding	-2.582	0.652	0.401
ENSG00000285728	ENSG00000285728	lncRNA	-2.573	0.555	0.401
ENSG00000165891	E2F7	protein_coding	-2.572	0.636	0.401
ENSG00000198105	ZNF248	protein_coding	-2.571	0.666	0.401
ENSG00000163597	SNHG16	lncRNA	-2.568	0.657	0.401
ENSG00000114346	ECT2	protein_coding	-2.567	0.657	0.401
ENSG00000170185	USP38	protein_coding	-2.567	0.669	0.401
ENSG00000164074	ABHD18	protein_coding	-2.566	0.652	0.401
ENSG00000105851	PIK3CG	protein_coding	-2.566	0.638	0.401
ENSG00000040275	SPDL1	protein_coding	-2.566	0.643	0.401
ENSG00000140534	TICRR	protein_coding	-2.566	0.629	0.401
ENSG00000088451	TGDS	protein_coding	-2.565	0.573	0.401
ENSG00000166747	AP1G1	protein_coding	-2.563	0.654	0.401
ENSG00000188994	ZNF292	protein_coding	-2.563	0.683	0.401
ENSG00000115307	AUP1	protein_coding	-2.562	0.646	0.401
ENSG00000201944	SNORA72	snoRNA	-2.561	0.633	0.401

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000165732	DDX21	protein_coding	-2.56	0.658	0.401
ENSG00000060237	WNK1	protein_coding	-2.56	0.67	0.401
ENSG00000090989	EXOC1	protein_coding	-2.559	0.664	0.401
ENSG00000168610	STAT3	protein_coding	-2.559	0.66	0.401
ENSG00000139144	PIK3C2G	protein_coding	-2.558	0.626	0.401
ENSG00000064607	SUGP2	protein_coding	-2.558	0.666	0.401
ENSG00000181555	SETD2	protein_coding	-2.555	0.675	0.401
ENSG00000136051	WASHC4	protein_coding	-2.552	0.645	0.401
ENSG00000110066	KMT5B	protein_coding	-2.55	0.661	0.401
ENSG00000182670	TTC3	protein_coding	-2.547	0.655	0.401
ENSG00000179820	MYADM	protein_coding	-2.544	0.627	0.401
ENSG00000126249	PDCD2L	protein_coding	-2.541	0.662	0.401
ENSG00000134900	TPP2	protein_coding	-2.541	0.647	0.401
ENSG00000175216	CKAP5	protein_coding	-2.538	0.689	0.401
ENSG00000175984	DENND2C	protein_coding	-2.538	0.653	0.401
ENSG00000281344	HELLPAR	lncRNA	-2.537	0.59	0.401
ENSG00000139324	TMTC3	protein_coding	-2.537	0.668	0.401
ENSG00000092847	AGO1	protein_coding	-2.536	0.664	0.401
ENSG00000176542	USF3	protein_coding	-2.536	0.65	0.401
ENSG00000051382	PIK3CB	protein_coding	-2.535	0.635	0.401
ENSG00000152749	GPR180	protein_coding	-2.534	0.639	0.401
ENSG00000022267	FHL1	protein_coding	-2.532	0.66	0.401
ENSG00000215264	RPL10AP3	processed_pseudogene	-2.53	0.572	0.401
ENSG00000090889	KIF4A	protein_coding	-2.528	0.658	0.401
ENSG00000163947	ARHGEF3	protein_coding	-2.527	0.653	0.401
ENSG00000065534	MYLK	protein_coding	-2.525	0.69	0.401
ENSG00000103257	SLC7A5	protein_coding	-2.525	0.674	0.401
ENSG00000154608	CEP170P1	transcribed_unprocessed	-2.523	0.561	0.401
ENSG00000179295	PTPN11	protein_coding	-2.523	0.682	0.401
ENSG00000189180	ZNF33A	protein_coding	-2.52	0.631	0.401
ENSG00000215158	ENSG00000215158	transcribed_unprocessed	-2.518	0.622	0.401
ENSG00000134313	KIDINS220	protein_coding	-2.516	0.676	0.401
ENSG00000162894	FCMR	protein_coding	-2.514	0.614	0.401
ENSG00000179598	PLD6	protein_coding	-2.512	0.581	0.401
ENSG00000138780	GSTCD	protein_coding	-2.511	0.643	0.401
ENSG00000064313	TAF2	protein_coding	-2.51	0.626	0.401
ENSG00000155256	ZFYVE27	protein_coding	-2.509	0.643	0.401
ENSG00000100888	CHD8	protein_coding	-2.508	0.687	0.401
ENSG00000260269	ENSG00000260269	lncRNA	-2.508	0.463	0.401
ENSG00000136938	ANP32B	protein_coding	-2.507	0.64	0.401
ENSG00000120129	DUSP1	protein_coding	-2.506	0.588	0.401
ENSG00000153560	UBP1	protein_coding	-2.506	0.672	0.401
ENSG00000223559	ENSG00000223559	processed_pseudogene	-2.506	0.587	0.401
ENSG00000115419	GLS	protein_coding	-2.505	0.649	0.401
ENSG00000054523	KIF1B	protein_coding	-2.505	0.677	0.401
ENSG00000169855	ROBO1	protein_coding	-2.505	0.671	0.401
ENSG00000119866	BCL11A	protein_coding	-2.504	0.648	0.401
ENSG00000075624	ACTB	protein_coding	-2.503	0.639	0.401
ENSG00000155744	FAM126B	protein_coding	-2.501	0.654	0.51

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000184005	ST6GALNAC3	protein_coding	-2.5	0.616	0.51
ENSG00000198382	UVRAG	protein_coding	-2.5	0.646	0.51
ENSG00000255014	ARL6IP1P3	processed_pseudogene	-2.496	0.575	0.51
ENSG00000139083	ETV6	protein_coding	-2.495	0.633	0.51
ENSG00000166483	WEE1	protein_coding	-2.494	0.662	0.51
ENSG00000108582	CPD	protein_coding	-2.493	0.671	0.51
ENSG00000127947	PTPN12	protein_coding	-2.493	0.651	0.51
ENSG00000166783	MARF1	protein_coding	-2.491	0.651	0.51
ENSG00000198843	SELENOT	protein_coding	-2.49	0.68	0.51
ENSG00000196628	TCF4	protein_coding	-2.488	0.645	0.51
ENSG00000066557	LRRC40	protein_coding	-2.487	0.661	0.51
ENSG00000236105	PRELID3BP10	processed_pseudogene	-2.487	0.582	0.51
ENSG00000156650	KAT6B	protein_coding	-2.485	0.67	0.51
ENSG00000189007	ADAT2	protein_coding	-2.484	0.667	0.51
ENSG00000035499	DEPDC1B	protein_coding	-2.484	0.637	0.51
ENSG00000148773	MKI67	protein_coding	-2.483	0.67	0.51
ENSG00000102908	NFAT5	protein_coding	-2.482	0.673	0.51
ENSG00000136143	SUCLA2	protein_coding	-2.482	0.665	0.51
ENSG00000135049	AGTPBP1	protein_coding	-2.48	0.684	0.51
ENSG00000258890	CEP95	protein_coding	-2.479	0.657	0.51
ENSG00000178764	ZHX2	protein_coding	-2.478	0.605	0.51
ENSG00000225406	ELF2P4	processed_pseudogene	-2.477	0.556	0.51
ENSG00000106723	SPIN1	protein_coding	-2.477	0.661	0.51
ENSG00000109458	GAB1	protein_coding	-2.476	0.648	0.51
ENSG00000185480	PARPBP	protein_coding	-2.476	0.649	0.51
ENSG00000260404	ENSG00000260404	transcribed_unprocessed	-2.474	0.684	0.51
ENSG00000143458	GABPB2	protein_coding	-2.473	0.651	0.51
ENSG00000268785	RPL7P50	processed_pseudogene	-2.473	0.54	0.51
ENSG00000134802	SLC43A3	protein_coding	-2.469	0.669	0.51
ENSG00000158161	EYA3	protein_coding	-2.468	0.654	0.51
ENSG00000112159	MDN1	protein_coding	-2.466	0.69	0.51
ENSG00000137558	PI15	protein_coding	-2.466	0.636	0.51
ENSG00000175175	PPM1E	protein_coding	-2.464	0.607	0.51
ENSG00000144566	RAB5A	protein_coding	-2.464	0.665	0.51
ENSG00000252764	RNU6-1092P	snRNA	-2.464	0.299	0.51
ENSG00000275111	ZNF2	protein_coding	-2.463	0.658	0.51
ENSG00000164597	COG5	protein_coding	-2.461	0.652	0.51
ENSG00000075711	DLG1	protein_coding	-2.461	0.663	0.51
ENSG00000070610	GBA2	protein_coding	-2.46	0.67	0.51
ENSG00000051341	POLQ	protein_coding	-2.46	0.657	0.51
ENSG00000095787	WAC	protein_coding	-2.457	0.672	0.51
ENSG00000235146	ENSG00000235146	lncRNA	-2.456	0.366	0.51
ENSG00000215784	FAM72D	protein_coding	-2.453	0.585	0.51
ENSG00000152127	MGAT5	protein_coding	-2.453	0.667	0.51
ENSG00000231006	RPL7P32	processed_pseudogene	-2.453	0.518	0.51
ENSG00000143569	UBAP2L	protein_coding	-2.453	0.687	0.51
ENSG00000104177	MYEF2	protein_coding	-2.452	0.682	0.51
ENSG00000176087	SLC35A4	protein_coding	-2.451	0.609	0.51
ENSG00000122566	HNRNPA2B1	protein_coding	-2.449	0.684	0.51

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000233020	CHORDC1P5	processed_pseudogene	-2.448	0.434	0.51
ENSG00000205268	PDE7A	protein_coding	-2.447	0.681	0.51
ENSG00000124571	XPO5	protein_coding	-2.447	0.679	0.51
ENSG00000131558	EXOC4	protein_coding	-2.442	0.687	0.51
ENSG00000125827	TMX4	protein_coding	-2.442	0.697	0.51
ENSG00000083642	PDS5B	protein_coding	-2.44	0.652	0.51
ENSG00000110422	HIPK3	protein_coding	-2.438	0.662	0.51
ENSG00000198677	TTC37	protein_coding	-2.438	0.647	0.51
ENSG00000234129	ENSG00000234129	lncRNA	-2.432	0.632	0.51
ENSG00000134516	DOCK2	protein_coding	-2.43	0.667	0.51
ENSG00000159128	IFNGR2	protein_coding	-2.427	0.637	0.51
ENSG00000129691	ASH2L	protein_coding	-2.426	0.666	0.51
ENSG00000118058	KMT2A	protein_coding	-2.426	0.676	0.51
ENSG00000157600	TMEM164	protein_coding	-2.425	0.68	0.51
ENSG00000197045	GMFB	protein_coding	-2.424	0.673	0.51
ENSG00000197056	ZMYM1	protein_coding	-2.424	0.611	0.51
ENSG00000115966	ATF2	protein_coding	-2.423	0.666	0.51
ENSG00000198919	DZIP3	protein_coding	-2.422	0.629	0.51
ENSG00000151612	ZNF827	protein_coding	-2.421	0.643	0.51
ENSG00000172292	CERS6	protein_coding	-2.419	0.656	0.51
ENSG00000158987	RAPGEF6	protein_coding	-2.419	0.698	0.51
ENSG00000121486	TRMT1L	protein_coding	-2.419	0.659	0.51
ENSG00000183474	GTF2H2C	protein_coding	-2.417	0.627	0.51
ENSG00000105339	DENND3	protein_coding	-2.416	0.692	0.51
ENSG00000257803	PIGAP1	processed_pseudogene	-2.416	0.425	0.51
ENSG00000100479	POLE2	protein_coding	-2.416	0.667	0.51
ENSG00000273373	ENSG00000273373	lncRNA	-2.416	0.583	0.51
ENSG00000275490	ENSG00000275490	unprocessed_pseudogene	-2.412	0.489	0.51
ENSG00000173727	ENSG00000173727	transcribed_unprocessed	-2.411	0.613	0.51
ENSG00000148337	CIZ1	protein_coding	-2.41	0.652	0.51
ENSG00000276564	ENSG00000276564	lncRNA	-2.408	0.658	0.51
ENSG00000115232	ITGA4	protein_coding	-2.407	0.679	0.51
ENSG00000035681	NSMAF	protein_coding	-2.404	0.651	0.51
ENSG00000122565	CBX3	protein_coding	-2.402	0.679	0.51
ENSG00000206622	SNORA69	snoRNA	-2.402	0.493	0.51
ENSG00000187231	SESTD1	protein_coding	-2.4	0.632	0.51
ENSG00000100731	PCNX1	protein_coding	-2.399	0.673	0.51
ENSG00000113448	PDE4D	protein_coding	-2.399	0.686	0.51
ENSG00000139746	RBM26	protein_coding	-2.395	0.701	0.51
ENSG00000185009	AP3M1	protein_coding	-2.394	0.671	0.51
ENSG00000116667	C1orf21	protein_coding	-2.394	0.662	0.51
ENSG00000103995	CEP152	protein_coding	-2.394	0.657	0.51
ENSG00000086730	LAT2	protein_coding	-2.394	0.619	0.51
ENSG00000119900	OGFRL1	protein_coding	-2.394	0.635	0.51
ENSG00000233673	ANAPC1P1	transcribed_unprocessed	-2.393	0.663	0.51
ENSG00000134986	NREP	protein_coding	-2.393	0.692	0.51
ENSG00000166946	CCNDBP1	protein_coding	-2.392	0.684	0.51
ENSG00000204310	AGPAT1	protein_coding	-2.39	0.65	0.51
ENSG00000205659	LIN52	protein_coding	-2.389	0.634	0.51

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000173276	ZBTB21	protein_coding	-2.388	0.671	0.51
ENSG00000225507	ENSG00000225507	processed_pseudogene	-2.388	0.671	0.51
ENSG00000172175	MALT1	protein_coding	-2.387	0.66	0.51
ENSG00000139687	RB1	protein_coding	-2.386	0.624	0.51
ENSG00000072364	AFF4	protein_coding	-2.385	0.663	0.51
ENSG00000084774	CAD	protein_coding	-2.385	0.656	0.51
ENSG00000253132	IGHV3-62	IG_V_pseudogene	-2.383	0.592	0.51
ENSG00000178202	POGLUT3	protein_coding	-2.382	0.698	0.51
ENSG00000236901	MIR600HG	lncRNA	-2.381	0.597	0.51
ENSG00000142892	PIGK	protein_coding	-2.38	0.699	0.51
ENSG00000095564	BTAF1	protein_coding	-2.379	0.678	0.51
ENSG00000137992	DBT	protein_coding	-2.379	0.64	0.51
ENSG00000127080	IPPK	protein_coding	-2.379	0.652	0.51
ENSG00000133393	CEP20	protein_coding	-2.376	0.659	0.51
ENSG00000163249	CCNYL1	protein_coding	-2.374	0.624	0.51
ENSG00000206527	HACD2	protein_coding	-2.373	0.668	0.51
ENSG00000171295	ZNF440	protein_coding	-2.372	0.652	0.51
ENSG00000198312	BMS1P9	unprocessed_pseudogene	-2.371	0.604	0.51
ENSG00000283255	ENSG00000283255	lncRNA	-2.371	0.469	0.51
ENSG00000008294	SPAG9	protein_coding	-2.37	0.683	0.51
ENSG00000179119	SPTY2D1	protein_coding	-2.37	0.635	0.51
ENSG00000146842	TMEM209	protein_coding	-2.369	0.653	0.51
ENSG00000131467	PSME3	protein_coding	-2.368	0.648	0.51
ENSG00000145860	RNF145	protein_coding	-2.367	0.667	0.51
ENSG00000199251	RNU6-664P	snRNA	-2.367	0.486	0.51
ENSG00000119402	FBXW2	protein_coding	-2.366	0.652	0.51
ENSG00000122966	CIT	protein_coding	-2.364	0.657	0.51
ENSG00000137941	TLL7	protein_coding	-2.364	0.652	0.51
ENSG00000109046	WSB1	protein_coding	-2.364	0.649	0.51
ENSG00000118217	ATF6	protein_coding	-2.361	0.703	0.51
ENSG00000065413	ANKRD44	protein_coding	-2.36	0.673	0.51
ENSG00000166851	PLK1	protein_coding	-2.359	0.705	0.51
ENSG00000153339	TRAPPC8	protein_coding	-2.359	0.668	0.51
ENSG00000162889	MAPKAPK2	protein_coding	-2.358	0.697	0.51
ENSG00000173542	MOB1B	protein_coding	-2.358	0.69	0.51
ENSG00000139618	BRCA2	protein_coding	-2.357	0.66	0.51
ENSG00000161405	IKZF3	protein_coding	-2.357	0.689	0.51
ENSG00000212424	RNU1-119P	snRNA	-2.357	0.452	0.51
ENSG00000240356	RPL23AP7	transcribed_processed_p	-2.357	0.587	0.51
ENSG00000153201	RANBP2	protein_coding	-2.356	0.68	0.51
ENSG00000242931	RPL7P49	processed_pseudogene	-2.356	0.58	0.51
ENSG00000092439	TRPM7	protein_coding	-2.356	0.676	0.51
ENSG00000186106	ANKRD46	protein_coding	-2.353	0.699	0.51
ENSG00000117523	PRRC2C	protein_coding	-2.352	0.686	0.51
ENSG00000113532	ST8SIA4	protein_coding	-2.352	0.704	0.51
ENSG00000114166	KAT2B	protein_coding	-2.351	0.678	0.51
ENSG00000118922	KLF12	protein_coding	-2.351	0.654	0.51
ENSG00000083168	KAT6A	protein_coding	-2.347	0.673	0.51
ENSG00000264853	ENSG00000264853	lncRNA	-2.346	0.504	0.51

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000176244	ACBD7	protein_coding	-2.344	0.66	0.51
ENSG00000132466	ANKRD17	protein_coding	-2.344	0.707	0.51
ENSG00000106346	USP42	protein_coding	-2.344	0.667	0.51
ENSG00000237094	ENSG00000237094	transcribed_unprocessed	-2.344	0.668	0.51
ENSG00000154229	PRKCA	protein_coding	-2.343	0.689	0.51
ENSG00000271503	CCL5	protein_coding	-2.342	0.667	0.51
ENSG00000239115	RNU7-67P	snRNA	-2.341	0.571	0.51
ENSG00000254252	RPL7P20	processed_pseudogene	-2.341	0.626	0.51
ENSG00000177570	SAMD12	protein_coding	-2.341	0.661	0.51
ENSG00000056586	RC3H2	protein_coding	-2.339	0.666	0.51
ENSG00000168538	TRAPPC11	protein_coding	-2.339	0.692	0.51
ENSG00000058091	CDK14	protein_coding	-2.338	0.663	0.51
ENSG00000127616	SMARCA4	protein_coding	-2.337	0.677	0.51
ENSG00000104517	UBR5	protein_coding	-2.335	0.719	0.51
ENSG00000112200	ZNF451	protein_coding	-2.334	0.716	0.51
ENSG00000272337	RNU6-90P	snRNA	-2.332	0.611	0.51
ENSG00000141404	GNAL	protein_coding	-2.33	0.675	0.51
ENSG00000234702	VDAC1P3	processed_pseudogene	-2.33	0.566	0.51
ENSG00000153094	BCL2L11	protein_coding	-2.329	0.678	0.51
ENSG00000115760	BIRC6	protein_coding	-2.329	0.7	0.51
ENSG00000280347	ENSG00000280347	TEC	-2.329	0.611	0.51
ENSG00000157895	C12orf43	protein_coding	-2.328	0.617	0.51
ENSG00000135473	PAN2	protein_coding	-2.327	0.674	0.51
ENSG00000266079	SNORA59B	snoRNA	-2.327	0.536	0.51
ENSG00000271880	ENSG00000271880	lncRNA	-2.327	0.654	0.51
ENSG00000085721	RRN3	protein_coding	-2.326	0.691	0.51
ENSG00000116138	DNAJC16	protein_coding	-2.324	0.695	0.51
ENSG00000119927	GPAM	protein_coding	-2.323	0.669	0.51
ENSG00000141376	BCAS3	protein_coding	-2.322	0.676	0.51
ENSG00000151304	SRFBP1	protein_coding	-2.317	0.685	0.51
ENSG00000164494	PDSS2	protein_coding	-2.314	0.62	0.51
ENSG00000198780	FAM169A	protein_coding	-2.313	0.689	0.51
ENSG00000138095	LRPPRC	protein_coding	-2.31	0.697	0.51
ENSG00000113300	CNOT6	protein_coding	-2.309	0.653	0.51
ENSG00000138035	PNPT1	protein_coding	-2.309	0.683	0.51
ENSG00000172348	RCAN2	protein_coding	-2.309	0.661	0.51
ENSG00000165997	ARL5B	protein_coding	-2.308	0.71	0.51
ENSG00000235089	ENSG00000235089	processed_pseudogene	-2.308	0.629	0.51
ENSG00000100321	SYNGR1	protein_coding	-2.307	0.659	0.51
ENSG00000242999	RN7SL239P	misc_RNA	-2.303	0.465	0.51
ENSG00000011405	PIK3C2A	protein_coding	-2.302	0.651	0.51
ENSG00000111670	GNPTAB	protein_coding	-2.301	0.698	0.51
ENSG00000072274	TFRC	protein_coding	-2.301	0.693	0.51
ENSG00000225355	ARL6IP1P2	processed_pseudogene	-2.299	0.537	0.51
ENSG00000270640	ENSG00000270640	lncRNA	-2.299	0.48	0.51
ENSG00000102218	RP2	protein_coding	-2.298	0.681	0.51
ENSG00000126216	TUBGCP3	protein_coding	-2.297	0.684	0.51
ENSG00000076716	GPC4	protein_coding	-2.295	0.641	0.51
ENSG00000177272	KCNA3	protein_coding	-2.294	0.648	0.51

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000161813	LARP4	protein_coding	-2.294	0.684	0.51
ENSG00000157036	EXOG	protein_coding	-2.292	0.689	0.51
ENSG00000169679	BUB1	protein_coding	-2.291	0.671	0.51
ENSG00000003402	CFLAR	protein_coding	-2.29	0.682	0.51
ENSG00000180182	MED14	protein_coding	-2.29	0.7	0.51
ENSG00000135297	MTO1	protein_coding	-2.29	0.7	0.51
ENSG00000153250	RBMS1	protein_coding	-2.29	0.661	0.51
ENSG00000077097	TOP2B	protein_coding	-2.289	0.665	0.51
ENSG00000254590	ENSG00000254590	processed_pseudogene	-2.288	0.543	0.51
ENSG00000248783	ENSG00000248783	lncRNA	-2.287	0.631	0.779
ENSG00000176853	FAM91A1	protein_coding	-2.284	0.687	0.779
ENSG00000018699	TTC27	protein_coding	-2.283	0.648	0.779
ENSG00000137812	KNL1	protein_coding	-2.282	0.687	0.779
ENSG00000072849	DERL2	protein_coding	-2.281	0.668	0.779
ENSG00000067596	DHX8	protein_coding	-2.281	0.692	0.779
ENSG00000004864	SLC25A13	protein_coding	-2.281	0.68	0.779
ENSG00000113369	ARRDC3	protein_coding	-2.28	0.659	0.779
ENSG00000162852	CNST	protein_coding	-2.28	0.67	0.779
ENSG00000155100	OTUD6B	protein_coding	-2.28	0.684	0.779
ENSG00000164253	WDR41	protein_coding	-2.28	0.681	0.779
ENSG00000130150	MOSPD2	protein_coding	-2.278	0.645	0.779
ENSG00000060749	QSER1	protein_coding	-2.278	0.705	0.779
ENSG00000137502	RAB30	protein_coding	-2.277	0.719	0.779
ENSG00000136943	CTSV	protein_coding	-2.276	0.669	0.779
ENSG00000156931	VPS8	protein_coding	-2.276	0.704	0.779
ENSG00000274943	ENSG00000274943	lncRNA	-2.276	0.587	0.779
ENSG00000287292	ENSG00000287292	lncRNA	-2.274	0.623	0.779
ENSG00000079335	CDC14A	protein_coding	-2.273	0.68	0.779
ENSG00000068912	ERLEC1	protein_coding	-2.271	0.671	0.779
ENSG00000065060	UHRF1BP1	protein_coding	-2.271	0.699	0.779
ENSG00000155592	ZKSCAN2	protein_coding	-2.268	0.672	0.779
ENSG00000101367	MAPRE1	protein_coding	-2.266	0.679	0.779
ENSG00000204186	ZDBF2	protein_coding	-2.266	0.684	0.779
ENSG00000108510	MED13	protein_coding	-2.264	0.69	0.779
ENSG00000136040	PLXNC1	protein_coding	-2.262	0.684	0.779
ENSG00000092531	SNAP23	protein_coding	-2.262	0.705	0.779
ENSG00000168827	GFM1	protein_coding	-2.258	0.691	0.779
ENSG00000170759	KIF5B	protein_coding	-2.258	0.698	0.779
ENSG00000107518	ATRNL1	protein_coding	-2.257	0.693	0.779
ENSG00000206651	Y_RNA	misc_RNA	-2.256	0.541	0.779
ENSG00000280356	ENSG00000280356	lncRNA	-2.255	0.577	0.779
ENSG00000278053	DDX52	protein_coding	-2.254	0.687	0.779
ENSG00000185722	ANKFY1	protein_coding	-2.253	0.684	0.779
ENSG00000162063	CCNF	protein_coding	-2.253	0.676	0.779
ENSG00000230551	ENSG00000230551	lncRNA	-2.253	0.688	0.779
ENSG00000008311	AASS	protein_coding	-2.252	0.661	0.779
ENSG00000279415	ENSG00000279415	TEC	-2.252	0.499	0.779
ENSG00000108061	SHOC2	protein_coding	-2.251	0.711	0.779
ENSG00000165675	ENOX2	protein_coding	-2.25	0.696	0.779

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000285035	ENSG00000285035	transcribed_unprocessed	-2.249	0.522	0.779
ENSG00000185305	ARL15	protein_coding	-2.246	0.676	0.779
ENSG00000163510	CWC22	protein_coding	-2.246	0.707	0.779
ENSG00000147854	UHRF2	protein_coding	-2.246	0.719	0.779
ENSG00000103064	SLC7A6	protein_coding	-2.245	0.704	0.779
ENSG00000148634	HERC4	protein_coding	-2.244	0.682	0.779
ENSG00000107560	RAB11FIP2	protein_coding	-2.243	0.676	0.779
ENSG00000273449	ENSG00000273449	lncRNA	-2.243	0.456	0.779
ENSG00000270135	ENSG00000270135	lncRNA	-2.241	0.576	0.779
ENSG00000204568	MRPS18B	protein_coding	-2.24	0.707	0.779
ENSG00000086758	HUWE1	protein_coding	-2.238	0.71	0.779
ENSG00000174010	KLHL15	protein_coding	-2.238	0.695	0.779
ENSG00000078304	PPP2R5C	protein_coding	-2.238	0.703	0.779
ENSG00000270048	ENSG00000270048	lncRNA	-2.237	0.694	0.779
ENSG00000090905	TNRC6A	protein_coding	-2.236	0.701	0.779
ENSG00000130856	ZNF236	protein_coding	-2.236	0.7	0.779
ENSG00000254186	ENSG00000254186	lncRNA	-2.236	0.635	0.779
ENSG00000172795	DCP2	protein_coding	-2.234	0.663	0.779
ENSG00000173517	PEAK1	protein_coding	-2.234	0.661	0.779
ENSG00000120733	KDM3B	protein_coding	-2.233	0.708	0.779
ENSG00000152601	MBNL1	protein_coding	-2.232	0.707	0.779
ENSG00000205534	SMG1P2	transcribed_unprocessed	-2.231	0.607	0.779
ENSG00000135119	RNFT2	protein_coding	-2.229	0.683	0.779
ENSG00000280374	ENSG00000280374	lncRNA	-2.229	0.569	0.779
ENSG00000081320	STK17B	protein_coding	-2.227	0.696	0.779
ENSG00000176208	ATAD5	protein_coding	-2.226	0.666	0.779
ENSG00000137478	FCHSD2	protein_coding	-2.226	0.691	0.779
ENSG00000207984	MIR513A2	miRNA	-2.226	0.551	0.779
ENSG00000131023	LATS1	protein_coding	-2.224	0.718	0.779
ENSG00000172965	MIR4435-2HG	lncRNA	-2.224	0.677	0.779
ENSG00000162594	IL23R	protein_coding	-2.223	0.672	0.779
ENSG00000108651	UTP6	protein_coding	-2.222	0.685	0.779
ENSG00000185112	FAM43A	protein_coding	-2.22	0.674	0.779
ENSG00000173482	PTPRM	protein_coding	-2.22	0.7	0.779
ENSG00000197102	DYNC1H1	protein_coding	-2.219	0.706	0.779
ENSG00000135476	ESPL1	protein_coding	-2.219	0.685	0.779
ENSG00000207741	MIR590	miRNA	-2.219	0.56	0.779
ENSG00000160049	DFFA	protein_coding	-2.218	0.694	0.779
ENSG00000082805	ERC1	protein_coding	-2.217	0.707	0.779
ENSG00000222921	RNA5SP104	rRNA_pseudogene	-2.217	0.63	0.779
ENSG00000145604	SKP2	protein_coding	-2.216	0.687	0.779
ENSG00000212415	ENSG00000212415	snoRNA	-2.215	0.627	0.779
ENSG00000279384	ENSG00000279384	TEC	-2.215	0.503	0.779
ENSG00000103429	BFAR	protein_coding	-2.209	0.719	0.779
ENSG00000131263	RLIM	protein_coding	-2.208	0.696	0.779
ENSG00000124222	STX16	protein_coding	-2.208	0.69	0.779
ENSG00000104472	CHRAC1	protein_coding	-2.207	0.677	0.779
ENSG00000107099	DOCK8	protein_coding	-2.207	0.684	0.779
ENSG00000112282	MED23	protein_coding	-2.207	0.727	0.779

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000279608	ENSG00000279608	TEC	-2.207	0.673	0.779
ENSG00000163635	ATXN7	protein_coding	-2.205	0.706	0.779
ENSG00000215421	ZNF407	protein_coding	-2.205	0.671	0.779
ENSG00000141867	BRD4	protein_coding	-2.204	0.699	0.779
ENSG00000117318	ID3	protein_coding	-2.203	0.623	0.779
ENSG00000124198	ARFGEF2	protein_coding	-2.201	0.715	0.779
ENSG00000153827	TRIP12	protein_coding	-2.201	0.721	0.779
ENSG00000111328	CDK2AP1	protein_coding	-2.2	0.694	0.779
ENSG00000149635	OCSTAMP	protein_coding	-2.2	0.673	0.779
ENSG00000212168	ENSG00000212168	snoRNA	-2.199	0.607	0.779
ENSG00000011009	LYPLA2	protein_coding	-2.198	0.692	0.779
ENSG00000164654	MIOS	protein_coding	-2.196	0.688	0.779
ENSG00000138381	ASNSD1	protein_coding	-2.194	0.703	0.779
ENSG00000215895	HSPA5P1	processed_pseudogene	-2.193	0.574	0.779
ENSG00000104133	SPG11	protein_coding	-2.191	0.7	0.779
ENSG00000137135	ARHGEF39	protein_coding	-2.19	0.707	0.779
ENSG00000183495	EP400	protein_coding	-2.19	0.699	0.779
ENSG00000163681	SLMAP	protein_coding	-2.189	0.71	0.779
ENSG00000145907	G3BP1	protein_coding	-2.188	0.731	0.779
ENSG00000204802	ENSG00000204802	lncRNA	-2.188	0.68	0.779
ENSG00000127527	EPS15L1	protein_coding	-2.186	0.706	0.779
ENSG00000206887	RNU6-1008P	snRNA	-2.185	0.523	0.779
ENSG00000204116	CHIC1	protein_coding	-2.184	0.683	0.779
ENSG00000228071	RPL7P47	processed_pseudogene	-2.184	0.584	0.779
ENSG00000133639	BTG1	protein_coding	-2.183	0.704	0.779
ENSG00000051825	MPHOSPH9	protein_coding	-2.182	0.684	0.779
ENSG00000120254	MTHFD1L	protein_coding	-2.182	0.707	0.779
ENSG00000213047	DENND1B	protein_coding	-2.18	0.702	0.779
ENSG00000213066	CEP43	protein_coding	-2.177	0.697	0.779
ENSG00000181544	FANCB	protein_coding	-2.177	0.672	0.779
ENSG00000164327	RICTOR	protein_coding	-2.177	0.699	0.779
ENSG00000181804	SLC9A9	protein_coding	-2.177	0.681	0.779
ENSG00000111371	SLC38A1	protein_coding	-2.176	0.697	0.779
ENSG00000173273	TNKS	protein_coding	-2.176	0.692	0.779
ENSG00000213390	ARHGAP19	protein_coding	-2.175	0.624	0.779
ENSG00000116539	ASH1L	protein_coding	-2.173	0.712	0.779
ENSG00000111300	NAA25	protein_coding	-2.173	0.702	0.779
ENSG00000092201	SUPT16H	protein_coding	-2.172	0.693	0.779
ENSG00000171488	LRR8C	protein_coding	-2.171	0.716	0.779
ENSG00000244754	N4BP2L2	protein_coding	-2.171	0.715	0.779
ENSG00000198743	SLC5A3	protein_coding	-2.17	0.614	0.779
ENSG00000173875	ZNF791	protein_coding	-2.17	0.721	0.779
ENSG00000084676	NCOA1	protein_coding	-2.169	0.678	0.779
ENSG00000279541	ENSG00000279541	TEC	-2.169	0.662	0.779
ENSG00000276573	ENSG00000276573	lncRNA	-2.168	0.545	0.779
ENSG00000284882	ENSG00000284882	lncRNA	-2.167	0.528	0.779
ENSG00000152061	RABGAP1L	protein_coding	-2.166	0.692	0.779
ENSG00000066422	ZBTB11	protein_coding	-2.166	0.698	0.779
ENSG00000162636	FAM102B	protein_coding	-2.164	0.69	0.779

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000124614	RPS10	protein_coding	-2.164	0.708	0.779
ENSG00000151320	AKAP6	protein_coding	-2.163	0.734	0.779
ENSG00000224389	C4B	protein_coding	-2.163	0.628	0.779
ENSG00000201367	RNU6-522P	snRNA	-2.162	0.633	0.779
ENSG00000072415	MPP5	protein_coding	-2.16	0.714	0.779
ENSG00000170734	POLH	protein_coding	-2.159	0.68	0.779
ENSG00000267249	ENSG00000267249	lncRNA	-2.159	0.545	0.779
ENSG00000215236	RPL7P33	processed_pseudogene	-2.157	0.565	0.779
ENSG00000100697	DICER1	protein_coding	-2.156	0.686	0.779
ENSG00000198265	HELZ	protein_coding	-2.156	0.71	0.779
ENSG00000114982	KANSL3	protein_coding	-2.155	0.701	0.779
ENSG00000199890	Y_RNA	misc_RNA	-2.153	0.595	0.779
ENSG00000138794	CASP6	protein_coding	-2.152	0.714	0.779
ENSG00000105983	LMBR1	protein_coding	-2.152	0.695	0.779
ENSG00000036672	USP2	protein_coding	-2.152	0.72	0.779
ENSG00000133706	LARS1	protein_coding	-2.151	0.701	0.779
ENSG00000133119	RFC3	protein_coding	-2.151	0.715	0.779
ENSG00000075336	TIMM21	protein_coding	-2.15	0.703	0.779
ENSG00000171365	CLCN5	protein_coding	-2.149	0.694	0.779
ENSG00000187790	FANCM	protein_coding	-2.145	0.661	0.779
ENSG00000085511	MAP3K4	protein_coding	-2.145	0.72	0.779
ENSG00000124067	SLC12A4	protein_coding	-2.145	0.712	0.779
ENSG00000280710	ENSG00000280710	lncRNA	-2.145	0.663	0.779
ENSG00000157426	AASDH	protein_coding	-2.142	0.685	0.779
ENSG00000179387	ELMOD2	protein_coding	-2.141	0.701	0.779
ENSG00000184661	CDCA2	protein_coding	-2.138	0.708	0.779
ENSG00000116641	DOCK7	protein_coding	-2.137	0.684	0.779
ENSG00000172113	NME6	protein_coding	-2.137	0.705	0.779
ENSG00000118705	RPN2	protein_coding	-2.137	0.712	0.779
ENSG00000164535	DAGLB	protein_coding	-2.136	0.713	0.779
ENSG00000166024	R3HCC1L	protein_coding	-2.134	0.697	0.779
ENSG00000139734	DIAPH3	protein_coding	-2.133	0.687	0.779
ENSG00000136997	MYC	protein_coding	-2.133	0.717	0.779
ENSG00000264932	ENSG00000264932	lncRNA	-2.133	0.677	0.779
ENSG00000131504	DIAPH1	protein_coding	-2.131	0.729	0.779
ENSG00000230449	RPL7P4	processed_pseudogene	-2.13	0.611	0.779
ENSG00000132485	ZRANB2	protein_coding	-2.129	0.724	0.779
ENSG00000207160	RNU6-1289P	snRNA	-2.128	0.521	0.779
ENSG00000101935	AMMECR1	protein_coding	-2.127	0.713	0.779
ENSG00000007168	PAFAH1B1	protein_coding	-2.126	0.722	0.779
ENSG00000157450	RNF111	protein_coding	-2.126	0.709	0.779
ENSG00000141298	SSH2	protein_coding	-2.125	0.722	0.779
ENSG00000172493	AFF1	protein_coding	-2.124	0.709	0.779
ENSG00000198000	NOL8	protein_coding	-2.124	0.718	0.779
ENSG00000069956	MAPK6	protein_coding	-2.123	0.683	0.779
ENSG00000165685	TMEM52B	protein_coding	-2.122	0.654	0.779
ENSG00000145632	PLK2	protein_coding	-2.121	0.699	0.779
ENSG00000067057	PFKP	protein_coding	-2.12	0.704	0.779
ENSG00000119682	AREL1	protein_coding	-2.119	0.693	0.779

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000249274	PDLIM1P4	processed_pseudogene	-2.117	0.707	0.779
ENSG00000072501	SMC1A	protein_coding	-2.117	0.709	0.779
ENSG00000267040	ENSG00000267040	lncRNA	-2.116	0.664	0.779
ENSG00000104299	INTS9	protein_coding	-2.114	0.673	0.779
ENSG00000005889	ZFX	protein_coding	-2.114	0.73	0.779
ENSG00000232707	AP1B1P2	unprocessed_pseudogene	-2.113	0.62	0.779
ENSG00000068878	PSME4	protein_coding	-2.113	0.716	0.779
ENSG00000145284	SCD5	protein_coding	-2.113	0.698	0.779
ENSG00000270627	ENSG00000270627	processed_pseudogene	-2.113	0.563	0.779
ENSG00000279078	SND1-IT1	lncRNA	-2.112	0.601	0.779
ENSG00000132436	FIGNL1	protein_coding	-2.11	0.726	0.779
ENSG00000090674	MCOLN1	protein_coding	-2.107	0.665	0.779
ENSG00000172954	LCLAT1	protein_coding	-2.106	0.703	0.779
ENSG00000101057	MYBL2	protein_coding	-2.106	0.71	0.779
ENSG00000107854	TNKS2	protein_coding	-2.106	0.702	0.779
ENSG00000142731	PLK4	protein_coding	-2.104	0.682	0.779
ENSG00000160746	ANO10	protein_coding	-2.102	0.742	0.779
ENSG00000136982	DSCC1	protein_coding	-2.102	0.699	0.779
ENSG00000227525	RPL7P6	processed_pseudogene	-2.102	0.592	0.779
ENSG00000156787	TBC1D31	protein_coding	-2.098	0.697	0.779
ENSG00000168803	ADAL	protein_coding	-2.097	0.638	0.779
ENSG00000163513	TGFBR2	protein_coding	-2.097	0.704	0.779
ENSG00000100393	EP300	protein_coding	-2.096	0.718	0.779
ENSG00000123505	AMD1	protein_coding	-2.095	0.713	0.779
ENSG00000258445	MAD2L1P1	processed_pseudogene	-2.095	0.711	0.779
ENSG00000112242	E2F3	protein_coding	-2.094	0.671	0.779
ENSG00000176183	ENSG00000176183	processed_pseudogene	-2.094	0.597	0.779
ENSG00000186073	CDIN1	protein_coding	-2.093	0.684	0.779
ENSG00000111364	DDX55	protein_coding	-2.093	0.734	0.779
ENSG00000120071	KANSL1	protein_coding	-2.092	0.714	0.779
ENSG00000187555	USP7	protein_coding	-2.091	0.744	0.779
ENSG00000198700	IPO9	protein_coding	-2.09	0.717	0.779
ENSG00000105639	JAK3	protein_coding	-2.089	0.673	0.779
ENSG00000155926	SLA	protein_coding	-2.089	0.724	0.779
ENSG00000040341	STAU2	protein_coding	-2.088	0.703	0.779
ENSG00000075568	TMEM131	protein_coding	-2.087	0.702	1.118
ENSG00000151148	UBE3B	protein_coding	-2.087	0.695	1.118
ENSG00000058056	USP13	protein_coding	-2.087	0.716	1.118
ENSG00000273973	ENSG00000273973	lncRNA	-2.087	0.613	1.118
ENSG00000102710	SUPT20H	protein_coding	-2.086	0.709	1.118
ENSG00000235486	ANAPC1P6	unprocessed_pseudogene	-2.085	0.543	1.118
ENSG00000171793	CTPS1	protein_coding	-2.085	0.739	1.118
ENSG00000113318	MSH3	protein_coding	-2.085	0.713	1.118
ENSG00000108064	TFAM	protein_coding	-2.085	0.701	1.118
ENSG00000203965	EFCAB7	protein_coding	-2.084	0.66	1.118
ENSG00000074590	NUAK1	protein_coding	-2.084	0.694	1.118
ENSG00000213790	OLA1P1	processed_pseudogene	-2.082	0.564	1.118
ENSG00000202534	RNU6-1329P	snRNA	-2.082	0.672	1.118
ENSG00000114770	ABCC5	protein_coding	-2.081	0.714	1.118

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000277253	CICP28	processed_pseudogene	-2.081	0.512	1.118
ENSG00000120756	PLS1	protein_coding	-2.081	0.708	1.118
ENSG00000151240	DIP2C	protein_coding	-2.08	0.691	1.118
ENSG00000274487	NPEPPSP1	transcribed_unprocessed	-2.08	0.469	1.118
ENSG00000033867	SLC4A7	protein_coding	-2.079	0.713	1.118
ENSG00000176871	WSB2	protein_coding	-2.077	0.696	1.118
ENSG00000125630	POLR1B	protein_coding	-2.076	0.712	1.118
ENSG00000144724	PTPRG	protein_coding	-2.075	0.714	1.118
ENSG00000100814	CCNB1IP1	protein_coding	-2.074	0.712	1.118
ENSG00000151276	MAGI1	protein_coding	-2.074	0.707	1.118
ENSG00000185760	KCNQ5	protein_coding	-2.073	0.726	1.118
ENSG00000181827	RFX7	protein_coding	-2.072	0.707	1.118
ENSG00000100426	ZBED4	protein_coding	-2.072	0.681	1.118
ENSG00000138433	CIR1	protein_coding	-2.071	0.712	1.118
ENSG00000259366	ENSG00000259366	lncRNA	-2.07	0.6	1.118
ENSG00000145388	METTL14	protein_coding	-2.069	0.67	1.118
ENSG00000269972	ENSG00000269972	lncRNA	-2.069	0.663	1.118
ENSG00000151743	AMN1	protein_coding	-2.067	0.667	1.118
ENSG00000174799	CEP135	protein_coding	-2.067	0.695	1.118
ENSG00000140022	STON2	protein_coding	-2.066	0.741	1.118
ENSG00000067365	METTL22	protein_coding	-2.065	0.725	1.118
ENSG00000230360	DDX10P2	processed_pseudogene	-2.063	0.683	1.118
ENSG00000148429	USP6NL	protein_coding	-2.063	0.658	1.118
ENSG00000207697	MIR573	miRNA	-2.06	0.705	1.118
ENSG00000072736	NFATC3	protein_coding	-2.06	0.721	1.118
ENSG00000168653	NDUFS5	protein_coding	-2.058	0.694	1.118
ENSG00000231245	C1DP1	processed_pseudogene	-2.056	0.459	1.118
ENSG00000135315	CEP162	protein_coding	-2.056	0.69	1.118
ENSG00000166086	JAM3	protein_coding	-2.055	0.725	1.118
ENSG00000143379	SETDB1	protein_coding	-2.055	0.722	1.118
ENSG00000088538	DOCK3	protein_coding	-2.054	0.717	1.118
ENSG00000168843	FSTL5	protein_coding	-2.054	0.73	1.118
ENSG00000127507	ADGRE2	protein_coding	-2.053	0.709	1.118
ENSG00000138376	BARD1	protein_coding	-2.053	0.696	1.118
ENSG00000138231	DBR1	protein_coding	-2.052	0.703	1.118
ENSG00000147224	PRPS1	protein_coding	-2.052	0.724	1.118
ENSG00000048707	VPS13D	protein_coding	-2.052	0.714	1.118
ENSG00000251986	Y_RNA	misc_RNA	-2.052	0.697	1.118
ENSG00000156017	CARNMT1	protein_coding	-2.051	0.702	1.118
ENSG00000121957	GPSM2	protein_coding	-2.051	0.7	1.118
ENSG00000113580	NR3C1	protein_coding	-2.051	0.713	1.118
ENSG00000143493	INTS7	protein_coding	-2.047	0.704	1.118
ENSG00000148700	ADD3	protein_coding	-2.046	0.696	1.118
ENSG00000230589	IMP3P1	processed_pseudogene	-2.046	0.706	1.118
ENSG00000009954	BAZ1B	protein_coding	-2.045	0.719	1.118
ENSG00000107104	KANK1	protein_coding	-2.045	0.716	1.118
ENSG00000168385	SEPTIN2	protein_coding	-2.045	0.734	1.118
ENSG00000172985	SH3RF3	protein_coding	-2.045	0.712	1.118
ENSG00000162733	DDR2	protein_coding	-2.044	0.682	1.118

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000215120	SOCS6P1	processed_pseudogene	-2.044	0.708	1.118
ENSG00000156876	SASS6	protein_coding	-2.043	0.699	1.118
ENSG00000163006	CCDC138	protein_coding	-2.04	0.663	1.118
ENSG00000123600	METTL8	protein_coding	-2.04	0.697	1.118
ENSG00000075945	KIFAP3	protein_coding	-2.039	0.655	1.118
ENSG00000066084	DIP2B	protein_coding	-2.038	0.744	1.118
ENSG00000185238	PRMT3	protein_coding	-2.038	0.71	1.118
ENSG00000138180	CEP55	protein_coding	-2.037	0.695	1.118
ENSG00000153904	DDAH1	protein_coding	-2.037	0.634	1.118
ENSG00000199514	RNU6-235P	snRNA	-2.033	0.559	1.118
ENSG00000100603	SNW1	protein_coding	-2.033	0.74	1.118
ENSG00000287697	ENSG00000287697	lncRNA	-2.032	0.676	1.118
ENSG00000135250	SRPK2	protein_coding	-2.03	0.736	1.118
ENSG00000237629	UQCRHP2	processed_pseudogene	-2.03	0.677	1.118
ENSG00000164291	ARSK	protein_coding	-2.029	0.705	1.118
ENSG00000037637	FBXO42	protein_coding	-2.028	0.703	1.118
ENSG00000073614	KDM5A	protein_coding	-2.028	0.732	1.118
ENSG00000139146	SINHCAF	protein_coding	-2.028	0.684	1.118
ENSG00000133065	SLC41A1	protein_coding	-2.028	0.731	1.118
ENSG00000196455	PIK3R4	protein_coding	-2.027	0.716	1.118
ENSG00000214259	ENSG00000214259	processed_pseudogene	-2.025	0.683	1.118
ENSG00000197894	ADH5	protein_coding	-2.024	0.714	1.118
ENSG00000143776	CDC42BPA	protein_coding	-2.024	0.722	1.118
ENSG00000120549	KIAA1217	protein_coding	-2.024	0.729	1.118
ENSG00000196850	PPTC7	protein_coding	-2.024	0.691	1.118
ENSG00000140943	MBTPS1	protein_coding	-2.022	0.736	1.118
ENSG00000037749	MFAP3	protein_coding	-2.022	0.687	1.118
ENSG00000272800	ENSG00000272800	lncRNA	-2.022	0.668	1.118
ENSG00000087586	AURKA	protein_coding	-2.021	0.693	1.118
ENSG00000104361	NIPAL2	protein_coding	-2.019	0.717	1.118
ENSG00000185127	C6orf120	protein_coding	-2.017	0.675	1.118
ENSG00000257923	CUX1	protein_coding	-2.017	0.711	1.118
ENSG00000117139	KDM5B	protein_coding	-2.017	0.74	1.118
ENSG00000278845	MRPL45	protein_coding	-2.017	0.638	1.118
ENSG00000055070	SZRD1	protein_coding	-2.017	0.692	1.118
ENSG00000180776	ZDHHC20	protein_coding	-2.017	0.72	1.118
ENSG00000238754	SCARNA18B	snoRNA	-2.014	0.633	1.118
ENSG00000178691	SUZ12	protein_coding	-2.014	0.723	1.118
ENSG00000163625	WDFY3	protein_coding	-2.014	0.711	1.118
ENSG00000220267	ACTBP8	processed_pseudogene	-2.013	0.632	1.118
ENSG00000165671	NSD1	protein_coding	-2.013	0.724	1.118
ENSG00000137509	PRCP	protein_coding	-2.013	0.706	1.118
ENSG00000288062	ENSG00000288062	lncRNA	-2.013	0.463	1.118
ENSG00000225155	TOMM22P5	processed_pseudogene	-2.012	0.565	1.118
ENSG00000172915	NBEA	protein_coding	-2.011	0.712	1.118
ENSG00000284671	ENSG00000284671	transcribed_unprocessed	-2.011	0.416	1.118
ENSG00000100201	DDX17	protein_coding	-2.01	0.74	1.118
ENSG00000114450	GNB4	protein_coding	-2.01	0.702	1.118
ENSG00000100519	PSMC6	protein_coding	-2.01	0.726	1.118

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000117020	AKT3	protein_coding	-2.009	0.716	1.118
ENSG00000188419	CHM	protein_coding	-2.009	0.735	1.118
ENSG00000204856	FAM216A	protein_coding	-2.009	0.702	1.118
ENSG00000276894	RAB28P4	processed_pseudogene	-2.009	0.612	1.118
ENSG00000181163	NPM1	protein_coding	-2.008	0.735	1.118
ENSG00000222365	SNORD12B	snoRNA	-2.008	0.488	1.118
ENSG00000241547	ACTG1P20	processed_pseudogene	-2.007	0.668	1.118
ENSG00000278571	MIR7161	miRNA	-2.007	0.632	1.118
ENSG00000252255	RNU2-35P	snRNA	-2.007	0.546	1.118
ENSG00000145348	TBCK	protein_coding	-2.006	0.7	1.118
ENSG00000100503	NIN	protein_coding	-2.005	0.725	1.118
ENSG00000156831	NSMCE2	protein_coding	-2.003	0.724	1.118
ENSG00000157106	SMG1	protein_coding	-2.003	0.731	1.118
ENSG00000280079	ENSG00000280079	TEC	-2.003	0.667	1.118
ENSG00000081386	ZNF510	protein_coding	-2	0.691	1.118
ENSG00000150756	ATPSCKMT	protein_coding	-1.998	0.738	1.118
ENSG00000148175	STOM	protein_coding	-1.997	0.715	1.118
ENSG00000103657	HERC1	protein_coding	-1.995	0.733	1.118
ENSG00000275597	ANAPC1P5	unprocessed_pseudogene	-1.994	0.571	1.118
ENSG00000143376	SNX27	protein_coding	-1.994	0.709	1.118
ENSG00000137265	IRF4	protein_coding	-1.993	0.732	1.118
ENSG00000261371	PECAM1	protein_coding	-1.993	0.74	1.118
ENSG00000083312	TNPO1	protein_coding	-1.993	0.728	1.118
ENSG00000105968	H2AZ2	protein_coding	-1.992	0.722	1.118
ENSG00000277130	ENSG00000277130	lncRNA	-1.992	0.565	1.118
ENSG00000174197	MGA	protein_coding	-1.991	0.736	1.118
ENSG00000208005	MIR503	miRNA	-1.991	0.714	1.118
ENSG00000140455	USP3	protein_coding	-1.99	0.736	1.118
ENSG00000244701	ENSG00000244701	lncRNA	-1.99	0.713	1.118
ENSG00000124107	SLPI	protein_coding	-1.989	0.607	1.118
ENSG00000254151	NIPA2P4	processed_pseudogene	-1.988	0.707	1.118
ENSG00000138246	DNAJC13	protein_coding	-1.986	0.727	1.118
ENSG00000137337	MDC1	protein_coding	-1.986	0.701	1.118
ENSG00000080986	NDC80	protein_coding	-1.986	0.717	1.118
ENSG00000100401	RANGAP1	protein_coding	-1.986	0.712	1.118
ENSG00000128708	HAT1	protein_coding	-1.985	0.689	1.118
ENSG00000142945	KIF2C	protein_coding	-1.985	0.706	1.118
ENSG00000256682	ENSG00000256682	transcribed_processed_pseudogene	-1.985	0.698	1.118
ENSG00000107951	MTPAP	protein_coding	-1.983	0.742	1.118
ENSG00000253668	ENSG00000253668	processed_pseudogene	-1.983	0.49	1.118
ENSG00000168214	RBPJ	protein_coding	-1.981	0.716	1.118
ENSG00000114127	XRN1	protein_coding	-1.981	0.7	1.118
ENSG00000110768	GTF2H1	protein_coding	-1.979	0.755	1.118
ENSG00000025039	RRAGD	protein_coding	-1.979	0.746	1.118
ENSG00000090054	SPTLC1	protein_coding	-1.979	0.716	1.118
ENSG00000182481	KPNA2	protein_coding	-1.978	0.733	1.118
ENSG00000252178	RNU7-69P	snRNA	-1.978	0.659	1.118
ENSG00000163257	DCAF16	protein_coding	-1.975	0.74	1.118
ENSG00000166446	CDYL2	protein_coding	-1.974	0.708	1.118

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000133943	DGLUCY	protein_coding	-1.974	0.75	1.118
ENSG00000029725	RABEP1	protein_coding	-1.974	0.722	1.118
ENSG00000165409	TSHR	protein_coding	-1.974	0.706	1.118
ENSG00000166579	NDEL1	protein_coding	-1.973	0.735	1.118
ENSG00000278266	ENSG00000278266	lncRNA	-1.973	0.536	1.118
ENSG00000151702	FLI1	protein_coding	-1.972	0.719	1.118
ENSG00000116741	RGS2	protein_coding	-1.97	0.614	1.118
ENSG00000117114	ADGRL2	protein_coding	-1.969	0.713	1.118
ENSG00000134909	ARHGAP32	protein_coding	-1.967	0.742	1.118
ENSG00000171105	INSR	protein_coding	-1.967	0.728	1.118
ENSG00000147316	MCPH1	protein_coding	-1.967	0.735	1.118
ENSG00000071189	SNX13	protein_coding	-1.967	0.736	1.118
ENSG00000164754	RAD21	protein_coding	-1.966	0.749	1.118
ENSG00000280104	ENSG00000280104	TEC	-1.966	0.705	1.118
ENSG00000237447	CDC27P2	processed_pseudogene	-1.965	0.672	1.118
ENSG00000250950	ENSG00000250950	lncRNA	-1.965	0.589	1.118
ENSG00000287097	ENSG00000287097	lncRNA	-1.964	0.664	1.118
ENSG00000108094	CUL2	protein_coding	-1.961	0.728	1.118
ENSG00000181610	MRPS23	protein_coding	-1.961	0.711	1.118
ENSG00000151503	NCAPD3	protein_coding	-1.961	0.735	1.118
ENSG00000143398	PIP5K1A	protein_coding	-1.96	0.718	1.118
ENSG00000143507	DUSP10	protein_coding	-1.959	0.709	1.118
ENSG00000129515	SNX6	protein_coding	-1.959	0.73	1.118
ENSG00000110400	NECTIN1	protein_coding	-1.958	0.701	1.118
ENSG00000157837	SPPL3	protein_coding	-1.957	0.708	1.118
ENSG00000242477	ENSG00000242477	processed_pseudogene	-1.955	0.622	1.118
ENSG00000135451	TROAP	protein_coding	-1.954	0.704	1.118
ENSG00000130396	AFDN	protein_coding	-1.953	0.744	1.118
ENSG00000168918	INPP5D	protein_coding	-1.953	0.701	1.118
ENSG00000173889	PHC3	protein_coding	-1.953	0.73	1.118
ENSG00000144028	SNRNP200	protein_coding	-1.953	0.73	1.118
ENSG00000250162	CSNK1A1P3	processed_pseudogene	-1.95	0.621	1.118
ENSG00000273014	ENSG00000273014	lncRNA	-1.95	0.675	1.118
ENSG00000278287	ENSG00000278287	misc_RNA	-1.95	0.654	1.118
ENSG00000196911	KPNA5	protein_coding	-1.949	0.725	1.118
ENSG00000108406	DHX40	protein_coding	-1.948	0.715	1.118
ENSG00000254612	DNAJB6P1	processed_pseudogene	-1.948	0.571	1.118
ENSG00000275927	ENSG00000275927	lncRNA	-1.948	0.504	1.118
ENSG00000107779	BMPR1A	protein_coding	-1.947	0.696	1.118
ENSG00000090857	PDPR	protein_coding	-1.947	0.743	1.118
ENSG00000168411	RFWD3	protein_coding	-1.947	0.731	1.118
ENSG00000113761	ZNF346	protein_coding	-1.947	0.75	1.118
ENSG00000267264	ENSG00000267264	processed_pseudogene	-1.947	0.674	1.118
ENSG00000153207	AHCTF1	protein_coding	-1.946	0.72	1.118
ENSG00000163125	RPRD2	protein_coding	-1.946	0.731	1.118
ENSG00000006695	COX10	protein_coding	-1.945	0.731	1.118
ENSG00000265733	SNORA74C-1	snoRNA	-1.945	0.625	1.118
ENSG00000183337	BCOR	protein_coding	-1.944	0.734	1.118
ENSG00000223756	TSSC2	transcribed_unprocessed	-1.944	0.734	1.118

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000250874	ENSG00000250874	lncRNA	-1.943	0.625	1.118
ENSG00000257103	LSM14A	protein_coding	-1.942	0.726	1.118
ENSG00000003393	ALS2	protein_coding	-1.939	0.726	1.118
ENSG00000168439	STIP1	protein_coding	-1.939	0.745	1.118
ENSG00000123552	USP45	protein_coding	-1.939	0.706	1.118
ENSG00000151779	NBAS	protein_coding	-1.938	0.724	1.118
ENSG00000131374	TBC1D5	protein_coding	-1.937	0.713	1.118
ENSG00000064933	PMS1	protein_coding	-1.936	0.709	1.118
ENSG00000271751	ENSG00000271751	lncRNA	-1.936	0.6	1.118
ENSG00000198056	PRIM1	protein_coding	-1.935	0.703	1.118
ENSG00000216938	RPL7P58	processed_pseudogene	-1.935	0.652	1.118
ENSG00000183309	ZNF623	protein_coding	-1.935	0.703	1.118
ENSG00000279679	ENSG00000279679	TEC	-1.935	0.559	1.118
ENSG00000107290	SETX	protein_coding	-1.934	0.723	1.118
ENSG00000207981	MIR519D	miRNA	-1.933	0.63	1.118
ENSG00000207988	MIR576	miRNA	-1.933	0.68	1.118
ENSG00000197223	C1D	protein_coding	-1.932	0.691	1.118
ENSG00000100226	GTPBP1	protein_coding	-1.932	0.751	1.118
ENSG00000223482	NUTM2A-AS1	lncRNA	-1.931	0.737	1.118
ENSG00000134690	CDCA8	protein_coding	-1.929	0.719	1.118
ENSG00000233642	GPR158-AS1	lncRNA	-1.929	0.722	1.118
ENSG00000073969	NSF	protein_coding	-1.929	0.713	1.118
ENSG00000137073	UBAP2	protein_coding	-1.928	0.74	1.118
ENSG00000135720	DYNC1LI2	protein_coding	-1.927	0.726	1.118
ENSG00000256040	PAPPA-AS1	lncRNA	-1.926	0.669	1.118
ENSG00000279267	ENSG00000279267	TEC	-1.926	0.605	1.118
ENSG00000238721	RNU7-194P	snRNA	-1.923	0.628	1.118
ENSG00000254556	ENSG00000254556	lncRNA	-1.923	0.678	1.118
ENSG00000286791	ENSG00000286791	lncRNA	-1.923	0.73	1.118
ENSG00000264743	DPRXP4	processed_pseudogene	-1.921	0.343	1.118
ENSG00000105976	MET	protein_coding	-1.921	0.739	1.118
ENSG00000163602	RYBP	protein_coding	-1.921	0.668	1.118
ENSG00000168172	HOOK3	protein_coding	-1.92	0.702	1.118
ENSG00000115207	GTF3C2	protein_coding	-1.919	0.731	1.118
ENSG00000252542	SNORD36C	snoRNA	-1.919	0.536	1.118
ENSG00000151116	UEVLD	protein_coding	-1.919	0.72	1.118
ENSG00000140006	WDR89	protein_coding	-1.919	0.722	1.118
ENSG00000286676	ACTBP4	processed_pseudogene	-1.918	0.589	1.118
ENSG00000168461	RAB31	protein_coding	-1.917	0.73	1.118
ENSG00000224869	ENSG00000224869	processed_pseudogene	-1.917	0.641	1.118
ENSG00000079387	SENP1	protein_coding	-1.916	0.739	1.118
ENSG00000011376	LARS2	protein_coding	-1.915	0.725	1.118
ENSG00000110660	SLC35F2	protein_coding	-1.915	0.756	1.118
ENSG00000287151	C2orf27A	lncRNA	-1.913	0.732	1.118
ENSG00000069493	CLEC2D	protein_coding	-1.913	0.707	1.118
ENSG00000163002	NUP35	protein_coding	-1.913	0.718	1.118
ENSG00000117000	RLF	protein_coding	-1.913	0.715	1.118
ENSG00000152291	TGOLN2	protein_coding	-1.913	0.723	1.118
ENSG00000118985	ELL2	protein_coding	-1.912	0.728	1.118

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000104756	KCTD9	protein_coding	-1.911	0.713	1.118
ENSG00000226521	ENSG00000226521	transcribed_unprocessed	-1.91	0.683	1.118
ENSG00000103591	AAGAB	protein_coding	-1.909	0.736	1.118
ENSG00000152404	CWF19L2	protein_coding	-1.909	0.704	1.118
ENSG00000118482	PHF3	protein_coding	-1.909	0.742	1.118
ENSG00000080819	CPOX	protein_coding	-1.908	0.723	1.118
ENSG00000102024	PLS3	protein_coding	-1.908	0.721	1.118
ENSG00000166068	SPRED1	protein_coding	-1.908	0.754	1.118
ENSG00000115977	AAK1	protein_coding	-1.907	0.714	1.118
ENSG00000108819	PPP1R9B	protein_coding	-1.906	0.702	1.118
ENSG00000238311	SNORD13E	snoRNA	-1.906	0.707	1.118
ENSG00000101447	FAM83D	protein_coding	-1.904	0.708	1.662
ENSG00000100647	SUSD6	protein_coding	-1.904	0.701	1.662
ENSG00000147130	ZMYM3	protein_coding	-1.904	0.736	1.662
ENSG00000136167	LCP1	protein_coding	-1.903	0.723	1.662
ENSG00000089902	RCOR1	protein_coding	-1.903	0.725	1.662
ENSG00000234376	UBTFL2	processed_pseudogene	-1.903	0.616	1.662
ENSG00000202314	SNORD6	snoRNA	-1.902	0.692	1.662
ENSG00000240291	ENSG00000240291	lncRNA	-1.902	0.692	1.662
ENSG00000116704	SLC35D1	protein_coding	-1.9	0.708	1.662
ENSG00000115514	TXNDC9	protein_coding	-1.9	0.706	1.662
ENSG00000005810	MYCBP2	protein_coding	-1.899	0.746	1.662
ENSG00000241458	RPL7P19	processed_pseudogene	-1.899	0.669	1.662
ENSG00000197323	TRIM33	protein_coding	-1.899	0.747	1.662
ENSG00000170113	NIPA1	protein_coding	-1.898	0.74	1.662
ENSG00000146676	PURB	protein_coding	-1.897	0.715	1.662
ENSG00000196655	TRAPPC4	protein_coding	-1.896	0.702	1.662
ENSG00000261249	LINC01751	lncRNA	-1.895	0.734	1.662
ENSG00000228649	SNHG26	lncRNA	-1.895	0.685	1.662
ENSG00000114120	SLC25A36	protein_coding	-1.894	0.737	1.662
ENSG00000103978	TMEM87A	protein_coding	-1.893	0.729	1.662
ENSG00000119397	CNTRL	protein_coding	-1.892	0.705	1.662
ENSG00000268117	VN1R84P	unprocessed_pseudogene	-1.892	0.608	1.662
ENSG00000259039	ENSG00000259039	lncRNA	-1.892	0.61	1.662
ENSG00000188786	MTF1	protein_coding	-1.891	0.732	1.662
ENSG00000113569	NUP155	protein_coding	-1.891	0.751	1.662
ENSG00000106344	RBM28	protein_coding	-1.891	0.731	1.662
ENSG00000267369	TAF5LP1	processed_pseudogene	-1.891	0.675	1.662
ENSG00000116729	WLS	protein_coding	-1.891	0.752	1.662
ENSG00000125484	GTF3C4	protein_coding	-1.89	0.717	1.662
ENSG00000174373	RALGAPA1	protein_coding	-1.89	0.724	1.662
ENSG00000284741	PDE11A	protein_coding	-1.889	0.704	1.662
ENSG00000234253	RPL7P13	processed_pseudogene	-1.889	0.644	1.662
ENSG00000175066	GK5	protein_coding	-1.887	0.716	1.662
ENSG00000137804	NUSAP1	protein_coding	-1.887	0.712	1.662
ENSG00000123728	RAP2C	protein_coding	-1.887	0.696	1.662
ENSG00000197892	KIF13B	protein_coding	-1.886	0.733	1.662
ENSG00000112531	QKI	protein_coding	-1.886	0.736	1.662
ENSG00000228599	RPL7P52	processed_pseudogene	-1.886	0.635	1.662

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000277693	ENSG00000277693	lncRNA	-1.886	0.68	1.662
ENSG00000242887	IGHJ3	IG_J_gene	-1.884	0.72	1.662
ENSG00000283891	MIR628	miRNA	-1.884	0.631	1.662
ENSG00000170537	TMC7	protein_coding	-1.883	0.703	1.662
ENSG00000152413	HOMER1	protein_coding	-1.88	0.734	1.662
ENSG00000118976	OTUD4P1	processed_pseudogene	-1.879	0.698	1.662
ENSG00000204267	TAP2	protein_coding	-1.877	0.721	1.662
ENSG00000287708	ENSG00000287708	lncRNA	-1.877	0.752	1.662
ENSG00000124207	CSE1L	protein_coding	-1.875	0.713	1.662
ENSG00000163788	SNRK	protein_coding	-1.875	0.759	1.662
ENSG00000181800	CELF2-AS1	lncRNA	-1.874	0.657	1.662
ENSG00000126003	PLAGL2	protein_coding	-1.874	0.724	1.662
ENSG00000131269	ABCB7	protein_coding	-1.873	0.736	1.662
ENSG00000213857	ACTBP15	processed_pseudogene	-1.873	0.646	1.662
ENSG00000092853	CLSPN	protein_coding	-1.873	0.736	1.662
ENSG00000088812	ATRN	protein_coding	-1.87	0.738	1.662
ENSG00000282508	LINC01002	lncRNA	-1.87	0.71	1.662
ENSG00000134250	NOTCH2	protein_coding	-1.87	0.731	1.662
ENSG00000109618	SEPSECS	protein_coding	-1.87	0.736	1.662
ENSG00000177853	ZNF518A	protein_coding	-1.869	0.696	1.662
ENSG00000113273	ARSB	protein_coding	-1.867	0.739	1.662
ENSG00000115540	MOB4	protein_coding	-1.867	0.714	1.662
ENSG00000141279	NPEPPS	protein_coding	-1.866	0.739	1.662
ENSG00000276334	ENSG00000276334	lncRNA	-1.865	0.635	1.662
ENSG00000131779	PEX11B	protein_coding	-1.864	0.69	1.662
ENSG00000165733	BMS1	protein_coding	-1.863	0.724	1.662
ENSG00000260413	ENSG00000260413	transcribed_unprocessed	-1.863	0.686	1.662
ENSG00000259051	HNRNPUP1	processed_pseudogene	-1.862	0.75	1.662
ENSG00000155858	LSM11	protein_coding	-1.862	0.731	1.662
ENSG00000038532	CLEC16A	protein_coding	-1.861	0.75	1.662
ENSG00000180667	YOD1	protein_coding	-1.861	0.742	1.662
ENSG00000153310	CYRIB	protein_coding	-1.86	0.755	1.662
ENSG00000148843	PDCD11	protein_coding	-1.857	0.748	1.662
ENSG00000156026	MCU	protein_coding	-1.856	0.709	1.662
ENSG00000137504	CREBZF	protein_coding	-1.855	0.746	1.662
ENSG00000140299	BNIP2	protein_coding	-1.854	0.71	1.662
ENSG00000179912	R3HDM2	protein_coding	-1.854	0.709	1.662
ENSG00000147604	RPL7	protein_coding	-1.854	0.722	1.662
ENSG00000167978	SRRM2	protein_coding	-1.854	0.74	1.662
ENSG00000248503	ENSG00000248503	transcribed_processed_p	-1.854	0.628	1.662
ENSG00000243806	RPL7P18	processed_pseudogene	-1.853	0.729	1.662
ENSG00000254240	IGLVI-20	IG_V_pseudogene	-1.852	0.725	1.662
ENSG00000255088	ENSG00000255088	processed_pseudogene	-1.852	0.614	1.662
ENSG00000083857	FAT1	protein_coding	-1.85	0.682	1.662
ENSG00000162441	LZIC	protein_coding	-1.85	0.697	1.662
ENSG00000261072	ENSG00000261072	processed_pseudogene	-1.85	0.617	1.662
ENSG00000181690	PLAG1	protein_coding	-1.849	0.737	1.662
ENSG00000101868	POLA1	protein_coding	-1.848	0.755	1.662
ENSG00000076382	SPAG5	protein_coding	-1.848	0.757	1.662

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000138036	DYNC2LI1	protein_coding	-1.847	0.7	1.662
ENSG00000143797	MBOAT2	protein_coding	-1.847	0.719	1.662
ENSG00000207168	SNORA15	snoRNA	-1.847	0.641	1.662
ENSG00000127362	TAS2R3	protein_coding	-1.847	0.696	1.662
ENSG00000221944	TIGD1	protein_coding	-1.847	0.671	1.662
ENSG00000128915	ICE2	protein_coding	-1.846	0.751	1.662
ENSG00000170345	FOS	protein_coding	-1.844	0.693	1.662
ENSG00000050426	LETMD1	protein_coding	-1.843	0.731	1.662
ENSG00000136875	PRPF4	protein_coding	-1.843	0.725	1.662
ENSG00000236287	ZBED5	protein_coding	-1.842	0.739	1.662
ENSG00000163719	MTMR14	protein_coding	-1.841	0.747	1.662
ENSG00000119396	RAB14	protein_coding	-1.841	0.727	1.662
ENSG00000271134	IFITM3P9	processed_pseudogene	-1.84	0.72	1.662
ENSG00000196981	WDR5B	protein_coding	-1.84	0.728	1.662
ENSG00000084710	EFR3B	protein_coding	-1.838	0.737	1.662
ENSG00000283677	MIR3913-2	miRNA	-1.838	0.666	1.662
ENSG00000072401	UBE2D1	protein_coding	-1.837	0.705	1.662
ENSG00000074356	NCBP3	protein_coding	-1.836	0.713	1.662
ENSG00000104738	MCM4	protein_coding	-1.835	0.752	1.662
ENSG00000269189	ENSG00000269189	lncRNA	-1.834	0.588	1.662
ENSG00000119522	DENND1A	protein_coding	-1.833	0.737	1.662
ENSG00000117862	TXNDC12	protein_coding	-1.831	0.746	1.662
ENSG00000138182	KIF20B	protein_coding	-1.829	0.711	1.662
ENSG00000156136	DCK	protein_coding	-1.828	0.703	1.662
ENSG00000160606	TLCD1	protein_coding	-1.828	0.703	1.662
ENSG00000275580	ENSG00000275580	lncRNA	-1.828	0.64	1.662
ENSG00000265102	MIR3942	miRNA	-1.827	0.666	1.662
ENSG00000171867	PRNP	protein_coding	-1.827	0.715	1.662
ENSG00000162129	CLPB	protein_coding	-1.826	0.746	1.662
ENSG00000235454	HAUS6P3	processed_pseudogene	-1.825	0.594	1.662
ENSG00000133704	IPO8	protein_coding	-1.825	0.743	1.662
ENSG00000166889	PATL1	protein_coding	-1.825	0.755	1.662
ENSG00000116750	UCHL5	protein_coding	-1.825	0.739	1.662
ENSG00000268565	ENSG00000268565	lncRNA	-1.825	0.709	1.662
ENSG00000001561	ENPP4	protein_coding	-1.824	0.755	1.662
ENSG00000136937	NCBP1	protein_coding	-1.824	0.736	1.662
ENSG00000135763	URB2	protein_coding	-1.824	0.74	1.662
ENSG00000284719	ENSG00000284719	lncRNA	-1.824	0.7	1.662
ENSG00000286085	ENSG00000286085	lncRNA	-1.822	0.673	1.662
ENSG00000086475	SEPHS1	protein_coding	-1.821	0.751	1.662
ENSG00000218418	ENSG00000218418	processed_pseudogene	-1.821	0.631	1.662
ENSG00000180957	PITPNB	protein_coding	-1.82	0.75	1.662
ENSG00000280207	ENSG00000280207	lncRNA	-1.82	0.665	1.662
ENSG00000123066	MED13L	protein_coding	-1.819	0.756	1.662
ENSG00000047644	WWC3	protein_coding	-1.819	0.729	1.662
ENSG00000073464	CLCN4	protein_coding	-1.817	0.749	1.662
ENSG00000143669	LYST	protein_coding	-1.817	0.765	1.662
ENSG00000147548	NSD3	protein_coding	-1.817	0.741	1.662
ENSG00000104356	POP1	protein_coding	-1.817	0.761	1.662

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000099942	CRKL	protein_coding	-1.816	0.719	1.662
ENSG00000279960	ENSG00000279960	TEC	-1.815	0.598	1.662
ENSG00000204387	SNHG32	lncRNA	-1.814	0.751	1.662
ENSG00000147124	ZNF41	protein_coding	-1.813	0.718	1.662
ENSG00000135749	PCNX2	protein_coding	-1.812	0.745	1.662
ENSG00000268089	GABRQ	protein_coding	-1.811	0.716	1.662
ENSG00000164190	NIPBL	protein_coding	-1.81	0.737	1.662
ENSG00000034693	PEX3	protein_coding	-1.81	0.756	1.662
ENSG00000142583	SLC2A5	protein_coding	-1.81	0.72	1.662
ENSG00000225701	EIF4A1P13	processed_pseudogene	-1.809	0.685	1.662
ENSG00000263001	GTF2I	protein_coding	-1.809	0.759	1.662
ENSG00000135679	MDM2	protein_coding	-1.809	0.723	1.662
ENSG00000178694	NSUN3	protein_coding	-1.809	0.732	1.662
ENSG00000115282	TTC31	protein_coding	-1.809	0.721	1.662
ENSG00000204778	CBWD4P	unprocessed_pseudogene	-1.808	0.295	1.662
ENSG00000135677	GNS	protein_coding	-1.808	0.752	1.662
ENSG00000248508	SRP14-AS1	lncRNA	-1.808	0.709	1.662
ENSG00000148516	ZEB1	protein_coding	-1.807	0.751	1.662
ENSG00000170100	ZNF778	protein_coding	-1.807	0.744	1.662
ENSG00000095261	PSMD5	protein_coding	-1.806	0.748	1.662
ENSG00000262815	ENSG00000262815	lncRNA	-1.806	0.574	1.662
ENSG00000185658	BRWD1	protein_coding	-1.804	0.737	1.662
ENSG00000184293	CLECL1	protein_coding	-1.804	0.696	1.662
ENSG00000214185	XPOTP1	processed_pseudogene	-1.804	0.665	1.662
ENSG00000273243	ENSG00000273243	lncRNA	-1.804	0.653	1.662
ENSG00000275576	ENSG00000275576	lncRNA	-1.804	0.681	1.662
ENSG00000135966	TGFBRAP1	protein_coding	-1.803	0.763	1.662
ENSG00000224707	E2F3-IT1	lncRNA	-1.802	0.686	1.662
ENSG00000141027	NCOR1	protein_coding	-1.802	0.742	1.662
ENSG00000206852	RNU6-895P	snRNA	-1.802	0.733	1.662
ENSG00000135040	NAA35	protein_coding	-1.801	0.721	1.662
ENSG00000162885	B3GALNT2	protein_coding	-1.8	0.741	1.662
ENSG00000135452	TSPAN31	protein_coding	-1.8	0.699	1.662
ENSG00000122952	ZWINT	protein_coding	-1.8	0.721	1.662
ENSG00000252840	ENSG00000252840	snoRNA	-1.8	0.61	1.662
ENSG00000116005	PCYOX1	protein_coding	-1.798	0.753	1.662
ENSG00000166233	ARIH1	protein_coding	-1.797	0.761	1.662
ENSG00000229752	RPL7P10	processed_pseudogene	-1.797	0.612	1.662
ENSG00000139597	N4BP2L1	protein_coding	-1.796	0.683	1.662
ENSG00000207815	MIR563	miRNA	-1.794	0.623	1.662
ENSG00000276712	MIR7111	miRNA	-1.794	0.687	1.662
ENSG00000122126	OCRL	protein_coding	-1.794	0.736	1.662
ENSG00000104067	TJP1	protein_coding	-1.793	0.736	1.662
ENSG00000204745	ENSG00000204745	unprocessed_pseudogene	-1.792	0.722	1.662
ENSG00000261451	ENSG00000261451	lncRNA	-1.792	0.723	1.662
ENSG00000155974	GRIP1	protein_coding	-1.79	0.749	1.662
ENSG00000071051	NCK2	protein_coding	-1.79	0.719	1.662
ENSG00000277687	ENSG00000277687	lncRNA	-1.79	0.67	1.662
ENSG00000148672	GLUD1	protein_coding	-1.789	0.753	1.662

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000170248	PDCD6IP	protein_coding	-1.789	0.721	1.662
ENSG00000156011	PSD3	protein_coding	-1.789	0.751	1.662
ENSG00000122042	UBL3	protein_coding	-1.789	0.718	1.662
ENSG00000102786	INTS6	protein_coding	-1.788	0.749	1.662
ENSG00000095397	WHRN	protein_coding	-1.788	0.745	1.662
ENSG00000165355	FBXO33	protein_coding	-1.786	0.69	1.662
ENSG00000140015	KCNH5	protein_coding	-1.784	0.683	1.662
ENSG00000141252	VPS53	protein_coding	-1.784	0.744	1.662
ENSG00000156384	SFR1	protein_coding	-1.782	0.677	1.662
ENSG00000135913	USP37	protein_coding	-1.782	0.733	1.662
ENSG00000250442	EIF3KP3	processed_pseudogene	-1.781	0.669	1.662
ENSG00000119969	HELLS	protein_coding	-1.781	0.709	1.662
ENSG00000091157	WDR7	protein_coding	-1.781	0.761	1.662
ENSG00000114744	COMMD2	protein_coding	-1.779	0.736	1.662
ENSG00000280069	ENSG00000280069	TEC	-1.779	0.67	1.662
ENSG00000124496	TRERF1	protein_coding	-1.778	0.756	1.662
ENSG00000273294	C1QTNF3-AMACR	protein_coding	-1.777	0.663	1.662
ENSG00000041880	PARP3	protein_coding	-1.777	0.759	1.662
ENSG00000162402	USP24	protein_coding	-1.777	0.755	1.662
ENSG00000259562	ENSG00000259562	transcribed_processed_p:	-1.777	0.653	1.662
ENSG00000273437	ENSG00000273437	lncRNA	-1.777	0.663	1.662
ENSG00000125962	ARMCX5	protein_coding	-1.776	0.674	1.662
ENSG00000082438	COBLL1	protein_coding	-1.775	0.734	1.662
ENSG00000137269	LRRC1	protein_coding	-1.775	0.757	1.662
ENSG00000015676	NUDCD3	protein_coding	-1.775	0.737	1.662
ENSG00000133026	MYH10	protein_coding	-1.774	0.741	1.662
ENSG00000158615	PPP1R15B	protein_coding	-1.774	0.73	1.662
ENSG00000180773	SLC36A4	protein_coding	-1.773	0.75	1.662
ENSG00000115993	TRAK2	protein_coding	-1.773	0.761	1.662
ENSG00000280206	ENSG00000280206	lncRNA	-1.773	0.698	1.662
ENSG00000198740	ZNF652	protein_coding	-1.772	0.733	1.662
ENSG00000121644	DESI2	protein_coding	-1.771	0.744	1.662
ENSG00000146276	GABRR1	protein_coding	-1.771	0.767	1.662
ENSG00000225871	ENSG00000225871	processed_pseudogene	-1.771	0.634	1.662
ENSG00000255521	ENSG00000255521	lncRNA	-1.771	0.677	1.662
ENSG00000228294	BMS1P17	transcribed_unprocessed_	-1.77	0.68	1.662
ENSG00000088387	DOCK9	protein_coding	-1.77	0.767	1.662
ENSG00000136122	BORA	protein_coding	-1.769	0.731	1.662
ENSG00000214354	PAFAH1B1P1	processed_pseudogene	-1.769	0.614	1.662
ENSG00000276688	ENSG00000276688	lncRNA	-1.769	0.727	1.662
ENSG00000142149	HUNK	protein_coding	-1.768	0.705	1.662
ENSG00000252391	RNU6-638P	snRNA	-1.768	0.655	1.662
ENSG00000146414	SHPRH	protein_coding	-1.767	0.754	1.662
ENSG00000278332	ENSG00000278332	processed_pseudogene	-1.767	0.729	1.662
ENSG00000188321	ZNF559	protein_coding	-1.766	0.709	1.662
ENSG00000237321	ENSG00000237321	lncRNA	-1.766	0.733	1.662
ENSG00000168137	SETD5	protein_coding	-1.765	0.75	1.662
ENSG00000256019	TAS2R63P	unprocessed_pseudogene	-1.765	0.657	1.662
ENSG00000279481	ENSG00000279481	TEC	-1.765	0.627	1.662

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000285603	ENSG00000285603	lncRNA	-1.765	0.678	1.662
ENSG00000145736	GTF2H2	protein_coding	-1.763	0.7	1.662
ENSG00000166451	CENPN	protein_coding	-1.762	0.742	1.662
ENSG00000226359	ACTG1P24	processed_pseudogene	-1.761	0.671	1.662
ENSG00000228816	AK3P5	processed_pseudogene	-1.761	0.643	1.662
ENSG00000107669	ATE1	protein_coding	-1.759	0.757	1.662
ENSG00000175115	PACS1	protein_coding	-1.758	0.759	1.662
ENSG00000168813	ZNF507	protein_coding	-1.758	0.744	1.662
ENSG00000280405	ENSG00000280405	TEC	-1.757	0.696	1.662
ENSG00000119820	YIPF4	protein_coding	-1.756	0.769	1.662
ENSG00000151422	FER	protein_coding	-1.755	0.741	1.662
ENSG00000240622	RPL7P15	processed_pseudogene	-1.755	0.633	1.662
ENSG00000084073	ZMPSTE24	protein_coding	-1.755	0.75	1.662
ENSG00000183814	LIN9	protein_coding	-1.754	0.766	1.662
ENSG00000197857	ZNF44	protein_coding	-1.754	0.748	1.662
ENSG00000206926	RNU6-1024P	snRNA	-1.753	0.46	1.662
ENSG00000207443	RNU6-417P	snRNA	-1.753	0.734	1.662
ENSG00000250432	FAM242C	lncRNA	-1.751	0.662	1.662
ENSG00000143363	PRUNE1	protein_coding	-1.749	0.744	1.662
ENSG00000084234	APLP2	protein_coding	-1.748	0.753	1.662
ENSG00000047621	C12orf4	protein_coding	-1.747	0.748	1.662
ENSG00000163808	KIF15	protein_coding	-1.747	0.727	1.662
ENSG00000177034	MTX3	protein_coding	-1.747	0.71	1.662
ENSG00000146350	TBC1D32	protein_coding	-1.747	0.741	1.662
ENSG00000261684	ENSG00000261684	lncRNA	-1.747	0.592	1.662
ENSG00000267787	ENSG00000267787	lncRNA	-1.746	0.667	1.662
ENSG00000201658	RNU6-283P	snRNA	-1.744	0.674	1.662
ENSG00000237819	CDK6-AS1	lncRNA	-1.743	0.741	1.662
ENSG00000241058	NSUN6	protein_coding	-1.743	0.743	1.662
ENSG00000206629	RNU1-63P	snRNA	-1.743	0.588	1.662
ENSG00000235090	RPL7L1P3	processed_pseudogene	-1.742	0.691	1.662
ENSG00000175063	UBE2C	protein_coding	-1.742	0.744	1.662
ENSG00000173275	ZNF449	protein_coding	-1.742	0.742	1.662
ENSG00000288098	ENSG00000288098	lncRNA	-1.742	0.72	1.662
ENSG00000159322	ADPGK	protein_coding	-1.74	0.746	1.662
ENSG00000105810	CDK6	protein_coding	-1.739	0.773	1.662
ENSG00000120948	TARDBP	protein_coding	-1.739	0.754	1.662
ENSG00000141556	TBCD	protein_coding	-1.739	0.757	1.662
ENSG00000170006	TMEM154	protein_coding	-1.739	0.702	1.662
ENSG00000169372	CRADD	protein_coding	-1.738	0.76	1.662
ENSG00000100528	CNIH1	protein_coding	-1.737	0.76	1.662
ENSG00000053254	FOXN3	protein_coding	-1.737	0.763	1.662
ENSG00000108883	EFTUD2	protein_coding	-1.736	0.762	1.662
ENSG00000135372	NAT10	protein_coding	-1.736	0.751	1.662
ENSG00000196367	TRRAP	protein_coding	-1.735	0.755	1.662
ENSG00000172943	PHF8	protein_coding	-1.734	0.751	1.662
ENSG00000249125	ENSG00000249125	lncRNA	-1.734	0.66	1.662
ENSG00000267041	ZNF850	protein_coding	-1.733	0.748	1.662
ENSG00000074800	ENO1	protein_coding	-1.732	0.766	1.662

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000213931	HBE1	protein_coding	-1.732	0.511	1.662
ENSG00000271601	LIX1L	protein_coding	-1.732	0.753	1.662
ENSG00000173039	RELA	protein_coding	-1.732	0.728	1.662
ENSG00000138336	TET1	protein_coding	-1.731	0.75	1.662
ENSG00000038382	TRIO	protein_coding	-1.731	0.748	1.662
ENSG00000226642	ACTG1P12	processed_pseudogene	-1.73	0.617	1.662
ENSG00000158169	FANCC	protein_coding	-1.73	0.716	1.662
ENSG00000119509	INVS	protein_coding	-1.73	0.78	1.662
ENSG00000164109	MAD2L1	protein_coding	-1.73	0.722	1.662
ENSG00000056277	ZNF280C	protein_coding	-1.729	0.751	1.662
ENSG00000217495	ENSG00000217495	processed_pseudogene	-1.728	0.646	1.662
ENSG00000287513	ENSG00000287513	lncRNA	-1.728	0.628	1.662
ENSG00000182150	ERCC6L2	protein_coding	-1.728	0.727	2.511
ENSG00000252431	RNU6-1247P	snRNA	-1.728	0.673	2.511
ENSG00000198231	DDX42	protein_coding	-1.727	0.763	2.511
ENSG00000027001	MIPEP	protein_coding	-1.727	0.741	2.511
ENSG00000140829	DHX38	protein_coding	-1.726	0.765	2.511
ENSG00000068097	HEATR6	protein_coding	-1.726	0.731	2.511
ENSG00000284032	MIR29A	miRNA	-1.726	0.606	2.511
ENSG00000260142	ENSG00000260142	lncRNA	-1.726	0.658	2.511
ENSG00000143207	COP1	protein_coding	-1.725	0.746	2.511
ENSG00000275854	ENSG00000275854	lncRNA	-1.725	0.614	2.511
ENSG00000241685	ARPC1A	protein_coding	-1.724	0.728	2.511
ENSG00000141219	C17orf80	protein_coding	-1.723	0.742	2.511
ENSG00000134769	DTNA	protein_coding	-1.723	0.768	2.511
ENSG00000085760	MTIF2	protein_coding	-1.723	0.733	2.511
ENSG00000171763	SPATA5L1	protein_coding	-1.723	0.734	2.511
ENSG00000171960	PPIH	protein_coding	-1.722	0.728	2.511
ENSG00000272072	ENSG00000272072	lncRNA	-1.722	0.569	2.511
ENSG00000276517	ENSG00000276517	lncRNA	-1.722	0.702	2.511
ENSG00000029364	SLC39A9	protein_coding	-1.721	0.767	2.511
ENSG00000048740	CELF2	protein_coding	-1.72	0.767	2.511
ENSG00000144840	RABL3	protein_coding	-1.72	0.729	2.511
ENSG00000123485	HJURP	protein_coding	-1.719	0.741	2.511
ENSG00000112893	MAN2A1	protein_coding	-1.718	0.746	2.511
ENSG00000115750	TAF1B	protein_coding	-1.717	0.744	2.511
ENSG00000268235	TCP11X1	protein_coding	-1.717	0.503	2.511
ENSG00000145375	SPATA5	protein_coding	-1.716	0.78	2.511
ENSG00000177410	ZFAS1	lncRNA	-1.716	0.764	2.511
ENSG00000287981	ENSG00000287981	lncRNA	-1.716	0.597	2.511
ENSG00000114098	ARMC8	protein_coding	-1.714	0.759	2.511
ENSG00000068654	POLR1A	protein_coding	-1.714	0.762	2.511
ENSG00000253467	IGHV7-40	IG_V_pseudogene	-1.713	0.699	2.511
ENSG00000173660	UQCRH	protein_coding	-1.713	0.753	2.511
ENSG00000185862	EVI2B	protein_coding	-1.711	0.708	2.511
ENSG00000241218	CSP2	processed_pseudogene	-1.71	0.741	2.511
ENSG00000162408	NOL9	protein_coding	-1.71	0.756	2.511
ENSG00000163406	SLC15A2	protein_coding	-1.71	0.76	2.511
ENSG00000127481	UBR4	protein_coding	-1.709	0.771	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000237666	ENSG00000237666	unprocessed_pseudogene	-1.709	0.529	2.511
ENSG00000177479	ARIH2	protein_coding	-1.708	0.757	2.511
ENSG00000182963	GJC1	protein_coding	-1.708	0.734	2.511
ENSG00000172167	MTBP	protein_coding	-1.707	0.736	2.511
ENSG00000266173	STRADA	protein_coding	-1.706	0.77	2.511
ENSG00000267463	UBE2V2P2	processed_pseudogene	-1.706	0.708	2.511
ENSG00000275004	ZNF280B	protein_coding	-1.706	0.756	2.511
ENSG00000227515	C1DP4	processed_pseudogene	-1.705	0.611	2.511
ENSG00000135052	GOLM1	protein_coding	-1.705	0.734	2.511
ENSG00000012174	MBTPS2	protein_coding	-1.705	0.757	2.511
ENSG00000156642	NPTN	protein_coding	-1.705	0.726	2.511
ENSG00000266365	ENSG00000266365	unprocessed_pseudogene	-1.705	0.585	2.511
ENSG00000065150	IPO5	protein_coding	-1.703	0.781	2.511
ENSG00000214846	ENSG00000214846	processed_pseudogene	-1.703	0.73	2.511
ENSG00000279410	ENSG00000279410	TEC	-1.703	0.631	2.511
ENSG00000286122	ENSG00000286122	lncRNA	-1.703	0.609	2.511
ENSG00000187325	TAF9B	protein_coding	-1.702	0.746	2.511
ENSG00000286400	ENSG00000286400	lncRNA	-1.702	0.659	2.511
ENSG00000189079	ARID2	protein_coding	-1.701	0.783	2.511
ENSG00000169905	TOR1AIP2	protein_coding	-1.7	0.784	2.511
ENSG00000113812	ACTR8	protein_coding	-1.699	0.777	2.511
ENSG00000091039	OSBPL8	protein_coding	-1.699	0.757	2.511
ENSG00000165312	OTUD1	protein_coding	-1.699	0.661	2.511
ENSG00000226823	SUGT1P1	unprocessed_pseudogene	-1.699	0.742	2.511
ENSG00000116127	ALMS1	protein_coding	-1.698	0.734	2.511
ENSG00000161960	EIF4A1	protein_coding	-1.698	0.769	2.511
ENSG00000177602	HASPIN	protein_coding	-1.698	0.706	2.511
ENSG00000161800	RACGAP1	protein_coding	-1.698	0.739	2.511
ENSG00000233786	CDC27P1	processed_pseudogene	-1.697	0.622	2.511
ENSG00000170027	YWHAG	protein_coding	-1.697	0.748	2.511
ENSG00000260852	FBXL19-AS1	lncRNA	-1.696	0.718	2.511
ENSG00000107949	BCCIP	protein_coding	-1.695	0.76	2.511
ENSG00000150995	ITPR1	protein_coding	-1.695	0.776	2.511
ENSG00000136536	MARCHF7	protein_coding	-1.695	0.75	2.511
ENSG00000136237	RAPGEF5	protein_coding	-1.695	0.764	2.511
ENSG00000222430	Y_RNA	misc_RNA	-1.695	0.622	2.511
ENSG00000287665	ENSG00000287665	lncRNA	-1.695	0.482	2.511
ENSG00000232202	CHORDC1P1	processed_pseudogene	-1.693	0.652	2.511
ENSG00000119707	RBM25	protein_coding	-1.693	0.771	2.511
ENSG00000213450	VDAC1P7	processed_pseudogene	-1.693	0.724	2.511
ENSG00000104219	ZDHHC2	protein_coding	-1.692	0.765	2.511
ENSG00000252171	Y_RNA	misc_RNA	-1.691	0.528	2.511
ENSG00000171466	ZNF562	protein_coding	-1.691	0.764	2.511
ENSG00000115170	ACVR1	protein_coding	-1.69	0.746	2.511
ENSG00000168297	PXK	protein_coding	-1.69	0.726	2.511
ENSG00000205581	HMGN1	protein_coding	-1.689	0.757	2.511
ENSG00000071054	MAP4K4	protein_coding	-1.689	0.774	2.511
ENSG00000212136	RNU6-696P	snRNA	-1.689	0.696	2.511
ENSG00000212539	U3	snoRNA	-1.688	0.718	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000243072	ENSG00000243072	processed_pseudogene	-1.688	0.655	2.511
ENSG00000204304	PBX2	protein_coding	-1.687	0.77	2.511
ENSG00000240695	ENSG00000240695	processed_pseudogene	-1.687	0.718	2.511
ENSG00000127483	HP1BP3	protein_coding	-1.686	0.764	2.511
ENSG00000171492	LRRC8D	protein_coding	-1.686	0.774	2.511
ENSG00000232548	LINC01809	lncRNA	-1.685	0.708	2.511
ENSG00000185236	RAB11B	protein_coding	-1.685	0.738	2.511
ENSG00000100347	SAMM50	protein_coding	-1.685	0.753	2.511
ENSG00000234383	CTBP2P8	processed_pseudogene	-1.684	0.712	2.511
ENSG00000145715	RASA1	protein_coding	-1.684	0.746	2.511
ENSG00000264164	ENSG00000264164	transcribed_processed_pseudogene	-1.684	0.713	2.511
ENSG00000131966	ACTR10	protein_coding	-1.683	0.739	2.511
ENSG00000124177	CHD6	protein_coding	-1.683	0.762	2.511
ENSG00000147133	TAF1	protein_coding	-1.683	0.753	2.511
ENSG00000128791	TWSG1	protein_coding	-1.683	0.775	2.511
ENSG00000196323	ZBTB44	protein_coding	-1.683	0.766	2.511
ENSG00000077943	ITGA8	protein_coding	-1.682	0.785	2.511
ENSG00000265342	ENSG00000265342	lncRNA	-1.682	0.761	2.511
ENSG00000158122	PRXL2C	protein_coding	-1.681	0.75	2.511
ENSG00000199313	RNU4-82P	snRNA	-1.681	0.613	2.511
ENSG00000203995	ZYG11A	protein_coding	-1.681	0.775	2.511
ENSG00000092964	DPYSL2	protein_coding	-1.68	0.757	2.511
ENSG00000171711	DEFB4A	protein_coding	-1.679	0.498	2.511
ENSG00000226112	FCF1P4	processed_pseudogene	-1.679	0.726	2.511
ENSG00000283409	MIR3662	miRNA	-1.679	0.553	2.511
ENSG00000249730	OR10J4	polymorphic_pseudogene	-1.679	0.75	2.511
ENSG00000272130	ENSG00000272130	lncRNA	-1.679	0.61	2.511
ENSG00000111145	ELK3	protein_coding	-1.678	0.764	2.511
ENSG00000134371	CDC73	protein_coding	-1.677	0.772	2.511
ENSG00000243264	IGKV2D-29	IG_V_gene	-1.677	0.711	2.511
ENSG00000133398	MED10	protein_coding	-1.677	0.74	2.511
ENSG00000158864	NDUFS2	protein_coding	-1.677	0.772	2.511
ENSG00000214455	RCN1P2	processed_pseudogene	-1.677	0.605	2.511
ENSG00000244249	ENSG00000244249	processed_pseudogene	-1.677	0.663	2.511
ENSG00000229001	ACTBP14	processed_pseudogene	-1.676	0.706	2.511
ENSG00000050405	LIMA1	protein_coding	-1.676	0.731	2.511
ENSG00000172197	MBOAT1	protein_coding	-1.676	0.71	2.511
ENSG00000145779	TNFAIP8	protein_coding	-1.676	0.75	2.511
ENSG00000274038	ENSG00000274038	lncRNA	-1.676	0.575	2.511
ENSG00000109805	NCAPG	protein_coding	-1.675	0.752	2.511
ENSG00000108395	TRIM37	protein_coding	-1.675	0.769	2.511
ENSG00000100601	ALKBH1	protein_coding	-1.674	0.754	2.511
ENSG00000158402	CDC25C	protein_coding	-1.674	0.746	2.511
ENSG00000062485	CS	protein_coding	-1.674	0.784	2.511
ENSG00000135905	DOCK10	protein_coding	-1.674	0.695	2.511
ENSG00000070018	LRP6	protein_coding	-1.673	0.763	2.511
ENSG00000264764	MIR4772	miRNA	-1.673	0.684	2.511
ENSG00000255463	ENSG00000255463	processed_pseudogene	-1.673	0.662	2.511
ENSG00000138688	KIAA1109	protein_coding	-1.672	0.752	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000185737	NRG3	protein_coding	-1.671	0.724	2.511
ENSG00000226479	TMEM185B	protein_coding	-1.671	0.742	2.511
ENSG00000064419	TNPO3	protein_coding	-1.671	0.758	2.511
ENSG00000154217	PITPNC1	protein_coding	-1.67	0.748	2.511
ENSG00000152818	UTRN	protein_coding	-1.67	0.755	2.511
ENSG00000175832	ETV4	protein_coding	-1.669	0.745	2.511
ENSG00000182022	CHST15	protein_coding	-1.668	0.778	2.511
ENSG00000272219	ENSG00000272219	lncRNA	-1.668	0.58	2.511
ENSG00000287961	ENSG00000287961	lncRNA	-1.668	0.594	2.511
ENSG00000277829	ENSG00000277829	lncRNA	-1.667	0.608	2.511
ENSG00000130826	DKC1	protein_coding	-1.666	0.779	2.511
ENSG00000165417	GTF2A1	protein_coding	-1.666	0.769	2.511
ENSG00000277172	GAPDHP41	processed_pseudogene	-1.665	0.691	2.511
ENSG00000286561	ENSG00000286561	lncRNA	-1.665	0.686	2.511
ENSG00000287669	ENSG00000287669	lncRNA	-1.665	0.708	2.511
ENSG00000102780	DGKH	protein_coding	-1.664	0.768	2.511
ENSG00000139318	DUSP6	protein_coding	-1.664	0.767	2.511
ENSG00000138614	INTS14	protein_coding	-1.664	0.767	2.511
ENSG00000283188	MIR2052	miRNA	-1.664	0.628	2.511
ENSG00000081913	PHLPP1	protein_coding	-1.664	0.76	2.511
ENSG00000091009	RBM27	protein_coding	-1.664	0.749	2.511
ENSG00000238998	RNU7-187P	snRNA	-1.663	0.683	2.511
ENSG00000066382	MPPED2	protein_coding	-1.662	0.739	2.511
ENSG00000241765	RPS26P45	processed_pseudogene	-1.662	0.747	2.511
ENSG00000164118	CEP44	protein_coding	-1.661	0.717	2.511
ENSG00000067141	NEO1	protein_coding	-1.661	0.758	2.511
ENSG00000233995	ENSG00000233995	unprocessed_pseudogene	-1.661	0.705	2.511
ENSG00000278643	ENSG00000278643	misc_RNA	-1.661	0.708	2.511
ENSG00000256525	POLG2	protein_coding	-1.659	0.788	2.511
ENSG00000207938	MIR511	miRNA	-1.658	0.734	2.511
ENSG00000285918	ENSG00000285918	lncRNA	-1.658	0.588	2.511
ENSG00000227344	HAUS6P1	processed_pseudogene	-1.657	0.659	2.511
ENSG00000154975	CA10	protein_coding	-1.656	0.736	2.511
ENSG00000170852	KBTBD2	protein_coding	-1.655	0.767	2.511
ENSG00000138594	TMOD3	protein_coding	-1.655	0.76	2.511
ENSG00000049618	ARID1B	protein_coding	-1.654	0.766	2.511
ENSG00000181007	ZFP82	protein_coding	-1.654	0.726	2.511
ENSG00000178295	GEN1	protein_coding	-1.653	0.758	2.511
ENSG00000227770	RPL7P12	processed_pseudogene	-1.653	0.652	2.511
ENSG00000106080	FKBP14	protein_coding	-1.652	0.748	2.511
ENSG00000165219	GAPVD1	protein_coding	-1.652	0.761	2.511
ENSG00000111897	SERINC1	protein_coding	-1.652	0.754	2.511
ENSG00000113739	STC2	protein_coding	-1.652	0.74	2.511
ENSG00000096384	HSP90AB1	protein_coding	-1.651	0.782	2.511
ENSG00000176349	ENSG00000176349	lncRNA	-1.65	0.733	2.511
ENSG00000184743	ATL3	protein_coding	-1.649	0.768	2.511
ENSG00000041802	LSG1	protein_coding	-1.649	0.771	2.511
ENSG00000154124	OTULIN	protein_coding	-1.649	0.767	2.511
ENSG00000144736	SHQ1	protein_coding	-1.648	0.752	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000222529	Y_RNA	misc_RNA	-1.648	0.579	2.511
ENSG00000177613	CSTF2T	protein_coding	-1.647	0.706	2.511
ENSG00000124813	RUNX2	protein_coding	-1.647	0.78	2.511
ENSG00000250615	ENSG00000250615	lncRNA	-1.647	0.721	2.511
ENSG00000112983	BRD8	protein_coding	-1.645	0.76	2.511
ENSG00000263606	CHORDC1P4	transcribed_processed_p	-1.644	0.625	2.511
ENSG00000028137	TNFRSF1B	protein_coding	-1.644	0.764	2.511
ENSG00000075340	ADD2	protein_coding	-1.643	0.762	2.511
ENSG00000031823	RANBP3	protein_coding	-1.643	0.762	2.511
ENSG00000110713	NUP98	protein_coding	-1.641	0.78	2.511
ENSG00000079308	TNS1	protein_coding	-1.641	0.742	2.511
ENSG00000120694	HSPH1	protein_coding	-1.64	0.765	2.511
ENSG00000204574	ABCF1	protein_coding	-1.639	0.765	2.511
ENSG00000175376	EIF1AD	protein_coding	-1.639	0.758	2.511
ENSG00000047849	MAP4	protein_coding	-1.639	0.762	2.511
ENSG00000172840	PDP2	protein_coding	-1.639	0.767	2.511
ENSG00000207518	RNU6-59P	snRNA	-1.639	0.675	2.511
ENSG00000021776	AQR	protein_coding	-1.638	0.767	2.511
ENSG00000188352	FOCAD	protein_coding	-1.638	0.779	2.511
ENSG00000186818	LILRB4	protein_coding	-1.638	0.748	2.511
ENSG00000166822	TMEM170A	protein_coding	-1.638	0.756	2.511
ENSG00000072133	RPS6KA6	protein_coding	-1.637	0.743	2.511
ENSG00000122692	SMU1	protein_coding	-1.637	0.74	2.511
ENSG00000288235	FAM106C	lncRNA	-1.636	0.606	2.511
ENSG00000164151	ICE1	protein_coding	-1.636	0.759	2.511
ENSG00000113441	LNPEP	protein_coding	-1.636	0.764	2.511
ENSG00000164180	TMEM161B	protein_coding	-1.636	0.742	2.511
ENSG00000082516	GEMIN5	protein_coding	-1.634	0.766	2.511
ENSG00000175398	OR10P1	protein_coding	-1.633	0.751	2.511
ENSG00000232105	RPL32P28	processed_pseudogene	-1.633	0.754	2.511
ENSG00000206896	RNU6-1124P	snRNA	-1.632	0.601	2.511
ENSG00000144161	ZC3H8	protein_coding	-1.632	0.757	2.511
ENSG00000150477	KIAA1328	protein_coding	-1.631	0.737	2.511
ENSG00000146281	PM20D2	protein_coding	-1.631	0.755	2.511
ENSG00000179242	CDH4	protein_coding	-1.63	0.733	2.511
ENSG00000128829	EIF2AK4	protein_coding	-1.63	0.752	2.511
ENSG00000151466	SCLT1	protein_coding	-1.63	0.761	2.511
ENSG00000229587	ENSG00000229587	lncRNA	-1.63	0.715	2.511
ENSG00000230118	ENSG00000230118	processed_pseudogene	-1.63	0.688	2.511
ENSG00000198018	ENTPD7	protein_coding	-1.629	0.764	2.511
ENSG00000166225	FRS2	protein_coding	-1.629	0.714	2.511
ENSG00000173226	IQCB1	protein_coding	-1.629	0.755	2.511
ENSG00000135842	NIBAN1	protein_coding	-1.629	0.779	2.511
ENSG00000126860	EVI2A	protein_coding	-1.628	0.707	2.511
ENSG00000253030	MIR2116	miRNA	-1.628	0.637	2.511
ENSG00000139496	NUP58	protein_coding	-1.628	0.759	2.511
ENSG00000197121	PGAP1	protein_coding	-1.628	0.736	2.511
ENSG00000265213	MIR3684	miRNA	-1.627	0.683	2.511
ENSG00000055208	TAB2	protein_coding	-1.627	0.744	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000115365	LANCL1	protein_coding	-1.626	0.745	2.511
ENSG00000150712	MTMR12	protein_coding	-1.626	0.783	2.511
ENSG00000121064	SCPEP1	protein_coding	-1.626	0.789	2.511
ENSG00000199405	SNORA1B	snoRNA	-1.626	0.747	2.511
ENSG00000242610	OR5BH1P	unprocessed_pseudogene	-1.625	0.676	2.511
ENSG00000142039	CCDC97	protein_coding	-1.624	0.759	2.511
ENSG00000171621	SPSB1	protein_coding	-1.624	0.76	2.511
ENSG00000110090	CPT1A	protein_coding	-1.623	0.765	2.511
ENSG00000113327	GABRG2	protein_coding	-1.623	0.733	2.511
ENSG00000259151	CAP2P1	transcribed_processed_pseudogene	-1.622	0.695	2.511
ENSG00000173456	RNF26	protein_coding	-1.622	0.717	2.511
ENSG00000117597	UTP25	protein_coding	-1.622	0.757	2.511
ENSG00000075391	RASAL2	protein_coding	-1.62	0.774	2.511
ENSG00000248103	ENSG00000248103	lncRNA	-1.62	0.727	2.511
ENSG00000259301	ENSG00000259301	processed_pseudogene	-1.62	0.734	2.511
ENSG00000270130	ENSG00000270130	lncRNA	-1.62	0.756	2.511
ENSG00000138696	BMPR1B	protein_coding	-1.619	0.76	2.511
ENSG00000233560	KRT8P39	processed_pseudogene	-1.619	0.652	2.511
ENSG00000232036	ENSG00000232036	processed_pseudogene	-1.619	0.744	2.511
ENSG00000197299	BLM	protein_coding	-1.618	0.759	2.511
ENSG00000047346	FAM214A	protein_coding	-1.617	0.76	2.511
ENSG00000238271	IFNWP19	unprocessed_pseudogene	-1.617	0.678	2.511
ENSG00000222297	RNU6-1156P	snRNA	-1.617	0.661	2.511
ENSG00000279348	ENSG00000279348	TEC	-1.617	0.627	2.511
ENSG00000185825	BCAP31	protein_coding	-1.616	0.767	2.511
ENSG00000107581	EIF3A	protein_coding	-1.616	0.772	2.511
ENSG00000186105	LRRC70	protein_coding	-1.616	0.689	2.511
ENSG00000207617	MIR3074	miRNA	-1.616	0.693	2.511
ENSG00000188580	NKAIN2	protein_coding	-1.616	0.716	2.511
ENSG00000113163	CERT1	protein_coding	-1.615	0.769	2.511
ENSG00000184922	FMNL1	protein_coding	-1.614	0.747	2.511
ENSG00000213090	SCYL2P1	processed_pseudogene	-1.614	0.675	2.511
ENSG00000273951	ENSG00000273951	lncRNA	-1.614	0.706	2.511
ENSG00000104442	ARMC1	protein_coding	-1.613	0.782	2.511
ENSG00000163714	U2SURP	protein_coding	-1.613	0.772	2.511
ENSG00000166669	ATF7IP2	protein_coding	-1.61	0.716	2.511
ENSG00000263793	MIR3115	miRNA	-1.61	0.679	2.511
ENSG00000112992	NNT	protein_coding	-1.61	0.766	2.511
ENSG00000213341	CHUK	protein_coding	-1.609	0.772	2.511
ENSG00000139842	CUL4A	protein_coding	-1.608	0.775	2.511
ENSG00000266431	MIR5580	miRNA	-1.608	0.691	2.511
ENSG00000065923	SLC9A7	protein_coding	-1.608	0.747	2.511
ENSG00000272103	ENSG00000272103	lncRNA	-1.608	0.69	2.511
ENSG00000156976	EIF4A2	protein_coding	-1.607	0.778	2.511
ENSG00000164070	HSPA4L	protein_coding	-1.607	0.77	2.511
ENSG00000234803	FAM197Y2	transcribed_unprocessed_pseudogene	-1.606	0.565	2.511
ENSG00000137574	TGS1	protein_coding	-1.606	0.766	2.511
ENSG00000233109	ENSG00000233109	processed_pseudogene	-1.606	0.771	2.511
ENSG00000257000	ENSG00000257000	lncRNA	-1.606	0.726	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000145734	BDP1	protein_coding	-1.605	0.755	2.511
ENSG00000274274	GAGE13	protein_coding	-1.605	0.445	2.511
ENSG00000166912	MTMR10	protein_coding	-1.605	0.779	2.511
ENSG00000171988	JMJD1C	protein_coding	-1.604	0.753	2.511
ENSG00000137944	KYAT3	protein_coding	-1.604	0.772	2.511
ENSG00000180385	EMC3-AS1	transcribed_unprocessed	-1.603	0.774	2.511
ENSG00000197081	IGF2R	protein_coding	-1.603	0.781	2.511
ENSG00000132326	PER2	protein_coding	-1.603	0.746	2.511
ENSG00000109674	NEIL3	protein_coding	-1.602	0.751	2.511
ENSG00000172315	TP53RK	protein_coding	-1.601	0.755	2.511
ENSG00000160710	ADAR	protein_coding	-1.6	0.758	2.511
ENSG00000234282	ENSG00000234282	unprocessed_pseudogene	-1.6	0.709	2.511
ENSG00000058673	ZC3H11A	protein_coding	-1.598	0.743	2.511
ENSG00000168014	C2CD3	protein_coding	-1.597	0.775	2.511
ENSG00000162923	WDR26	protein_coding	-1.597	0.772	2.511
ENSG00000177311	ZBTB38	protein_coding	-1.596	0.766	2.511
ENSG00000261087	ZNNT1	lncRNA	-1.596	0.726	2.511
ENSG00000111665	CDCA3	protein_coding	-1.595	0.759	2.511
ENSG00000207468	SNORA19	snoRNA	-1.595	0.696	2.511
ENSG00000279265	ENSG00000279265	TEC	-1.595	0.623	2.511
ENSG00000140443	IGF1R	protein_coding	-1.594	0.764	2.511
ENSG00000252887	RNU6-430P	snRNA	-1.594	0.683	2.511
ENSG00000185278	ZBTB37	protein_coding	-1.594	0.751	2.511
ENSG00000259863	SH3RF3-AS1	lncRNA	-1.593	0.69	2.511
ENSG00000256981	ENSG00000256981	unprocessed_pseudogene	-1.593	0.671	2.511
ENSG00000267749	ENSG00000267749	lncRNA	-1.593	0.67	2.511
ENSG00000100350	FOXRED2	protein_coding	-1.592	0.749	2.511
ENSG00000100722	ZC3H14	protein_coding	-1.592	0.796	2.511
ENSG00000112031	MTRF1L	protein_coding	-1.591	0.748	2.511
ENSG00000151692	RNF144A	protein_coding	-1.591	0.763	2.511
ENSG00000207092	Y_RNA	misc_RNA	-1.591	0.611	2.511
ENSG00000255893	ENSG00000255893	lncRNA	-1.591	0.695	2.511
ENSG00000183530	PRR14L	protein_coding	-1.59	0.742	2.511
ENSG00000118503	TNFAIP3	protein_coding	-1.59	0.771	2.511
ENSG00000138768	USO1	protein_coding	-1.59	0.769	2.511
ENSG00000204516	MICB	protein_coding	-1.589	0.758	2.511
ENSG00000236229	VEZF1P1	processed_pseudogene	-1.589	0.706	2.511
ENSG00000188177	ZC3H6	protein_coding	-1.589	0.76	2.511
ENSG00000197714	ZNF460	protein_coding	-1.589	0.752	2.511
ENSG00000260865	ENSG00000260865	transcribed_processed_p	-1.589	0.703	2.511
ENSG00000271778	ENSG00000271778	lncRNA	-1.588	0.617	2.511
ENSG00000275361	ENSG00000275361	unprocessed_pseudogene	-1.588	0.741	2.511
ENSG00000110906	KCTD10	protein_coding	-1.587	0.743	2.511
ENSG00000100030	MAPK1	protein_coding	-1.587	0.771	2.511
ENSG00000184787	UBE2G2	protein_coding	-1.587	0.775	2.511
ENSG00000138629	UBL7	protein_coding	-1.587	0.755	2.511
ENSG00000206144	MAPK6P1	processed_pseudogene	-1.586	0.775	2.511
ENSG00000168003	SLC3A2	protein_coding	-1.586	0.778	2.511
ENSG00000176142	TMEM39A	protein_coding	-1.586	0.783	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000118620	ZNF430	protein_coding	-1.586	0.733	2.511
ENSG00000213186	TRIM59	protein_coding	-1.585	0.764	2.511
ENSG00000123200	ZC3H13	protein_coding	-1.585	0.752	2.511
ENSG00000133111	RFXAP	protein_coding	-1.584	0.752	2.511
ENSG00000264503	ENSG00000264503	processed_pseudogene	-1.584	0.577	2.511
ENSG00000188312	CENPP	protein_coding	-1.583	0.787	2.511
ENSG00000136560	TANK	protein_coding	-1.583	0.749	2.511
ENSG00000105939	ZC3HAV1	protein_coding	-1.583	0.78	2.511
ENSG00000239969	ENSG00000239969	transcribed_unprocessed	-1.583	0.522	2.511
ENSG00000225210	DUXAP9	transcribed_processed_p	-1.581	0.68	2.511
ENSG00000091436	MAP3K20	protein_coding	-1.581	0.768	2.511
ENSG00000185619	PCGF3	protein_coding	-1.581	0.747	2.511
ENSG00000239653	PSMD6-AS2	lncRNA	-1.579	0.721	2.511
ENSG00000108963	DPH1	protein_coding	-1.578	0.787	2.511
ENSG00000152133	GPATCH11	protein_coding	-1.578	0.771	2.511
ENSG00000232077	LINC01031	lncRNA	-1.578	0.76	2.511
ENSG00000207444	SNORD56B	snoRNA	-1.578	0.686	2.511
ENSG00000142207	URB1	protein_coding	-1.578	0.768	2.511
ENSG00000273284	ENSG00000273284	lncRNA	-1.578	0.649	2.511
ENSG00000165521	EML5	protein_coding	-1.577	0.777	2.511
ENSG00000136925	TSTD2	protein_coding	-1.577	0.759	2.511
ENSG00000249006	ENSG00000249006	processed_pseudogene	-1.577	0.716	2.511
ENSG00000258081	ENSG00000258081	lncRNA	-1.577	0.775	2.511
ENSG00000097007	ABL1	protein_coding	-1.576	0.754	2.511
ENSG00000165813	CCDC186	protein_coding	-1.576	0.757	2.511
ENSG00000258065	ENSG00000258065	processed_pseudogene	-1.576	0.7	2.511
ENSG00000260816	ENSG00000260816	lncRNA	-1.576	0.595	2.511
ENSG00000279659	ENSG00000279659	TEC	-1.576	0.733	2.511
ENSG00000155111	CDK19	protein_coding	-1.575	0.749	2.511
ENSG00000108439	PNPO	protein_coding	-1.575	0.775	2.511
ENSG00000146112	PPP1R18	protein_coding	-1.575	0.727	2.511
ENSG00000116455	WDR77	protein_coding	-1.574	0.77	2.511
ENSG00000150764	DIXDC1	protein_coding	-1.573	0.773	2.511
ENSG00000280016	ENSG00000280016	TEC	-1.573	0.707	2.511
ENSG00000287932	ENSG00000287932	lncRNA	-1.573	0.75	2.511
ENSG00000136238	RAC1	protein_coding	-1.572	0.771	2.511
ENSG00000248774	ENSG00000248774	lncRNA	-1.571	0.629	2.511
ENSG00000244509	APOBEC3C	protein_coding	-1.57	0.777	2.511
ENSG00000146085	MMUT	protein_coding	-1.57	0.751	2.511
ENSG00000279235	ENSG00000279235	TEC	-1.57	0.698	2.511
ENSG00000156162	DPY19L4	protein_coding	-1.568	0.745	2.511
ENSG00000211455	STK38L	protein_coding	-1.568	0.777	2.511
ENSG00000078687	TNRC6C	protein_coding	-1.568	0.746	2.511
ENSG00000166226	CCT2	protein_coding	-1.567	0.797	2.511
ENSG00000276550	HERC2P2	transcribed_unprocessed	-1.566	0.743	2.511
ENSG00000138600	SPPL2A	protein_coding	-1.565	0.759	2.511
ENSG00000280279	LINC02887	lncRNA	-1.564	0.735	2.511
ENSG00000163939	PBRM1	protein_coding	-1.564	0.799	2.511
ENSG00000162927	PUS10	protein_coding	-1.564	0.766	2.511

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000139131	YARS2	protein_coding	-1.564	0.766	2.511
ENSG00000287546	ENSG00000287546	lncRNA	-1.564	0.679	2.511
ENSG00000275318	ENSG00000275318	unprocessed_pseudogene	-1.563	0.564	2.511
ENSG00000136518	ACTL6A	protein_coding	-1.562	0.773	2.511
ENSG00000232827	LINC01189	lncRNA	-1.562	0.662	2.511
ENSG00000182199	SHMT2	protein_coding	-1.562	0.782	2.511
ENSG00000224162	UQCRHP3	processed_pseudogene	-1.562	0.682	2.511
ENSG00000163568	AIM2	protein_coding	-1.561	0.762	2.511
ENSG00000114302	PRKAR2A	protein_coding	-1.561	0.783	2.511
ENSG00000225703	ENSG00000225703	lncRNA	-1.561	0.609	2.511
ENSG00000286362	ENSG00000286362	lncRNA	-1.561	0.699	2.511
ENSG00000123570	RAB9B	protein_coding	-1.56	0.76	2.511
ENSG00000239473	RPL7P38	processed_pseudogene	-1.558	0.754	2.511
ENSG00000197860	SGTB	protein_coding	-1.558	0.788	4.003
ENSG00000149182	ARFGAP2	protein_coding	-1.557	0.774	4.003
ENSG00000155393	HEATR3	protein_coding	-1.557	0.786	4.003
ENSG00000109111	SUPT6H	protein_coding	-1.557	0.771	4.003
ENSG00000114491	UMPS	protein_coding	-1.557	0.781	4.003
ENSG00000081181	ARG2	protein_coding	-1.556	0.767	4.003
ENSG00000140525	FANCI	protein_coding	-1.555	0.781	4.003
ENSG00000181752	OR8K5	protein_coding	-1.555	0.725	4.003
ENSG00000234109	RPL7P36	processed_pseudogene	-1.555	0.684	4.003
ENSG00000256684	LINC02737	lncRNA	-1.554	0.77	4.003
ENSG00000169327	OR5AU1	protein_coding	-1.554	0.674	4.003
ENSG00000252644	RNU7-30P	snRNA	-1.554	0.451	4.003
ENSG00000269918	ENSG00000269918	lncRNA	-1.554	0.777	4.003
ENSG00000100473	COCH	protein_coding	-1.552	0.734	4.003
ENSG00000228485	GRK5-IT1	lncRNA	-1.552	0.709	4.003
ENSG00000003056	M6PR	protein_coding	-1.552	0.759	4.003
ENSG00000160199	PKNOX1	protein_coding	-1.552	0.792	4.003
ENSG00000131626	PPFIA1	protein_coding	-1.552	0.772	4.003
ENSG00000104331	BPNT2	protein_coding	-1.551	0.793	4.003
ENSG00000261628	ENSG00000261628	unprocessed_pseudogene	-1.551	0.602	4.003
ENSG00000273261	ENSG00000273261	lncRNA	-1.551	0.676	4.003
ENSG00000280385	ENSG00000280385	TEC	-1.551	0.712	4.003
ENSG00000140750	ARHGAP17	protein_coding	-1.55	0.786	4.003
ENSG00000282308	DPRXP3	processed_pseudogene	-1.55	0.646	4.003
ENSG00000180008	SOCS4	protein_coding	-1.55	0.778	4.003
ENSG00000130726	TRIM28	protein_coding	-1.55	0.762	4.003
ENSG00000120334	CENPL	protein_coding	-1.549	0.765	4.003
ENSG00000215796	ENSG00000215796	processed_pseudogene	-1.549	0.724	4.003
ENSG00000176390	CRLF3	protein_coding	-1.548	0.784	4.003
ENSG00000069248	NUP133	protein_coding	-1.548	0.783	4.003
ENSG00000203362	POLH-AS1	lncRNA	-1.548	0.726	4.003
ENSG00000199402	RNA5SP308	rRNA_pseudogene	-1.548	0.715	4.003
ENSG00000154127	UBASH3B	protein_coding	-1.548	0.764	4.003
ENSG00000280036	ENSG00000280036	lncRNA	-1.548	0.618	4.003
ENSG00000287392	ENSG00000287392	lncRNA	-1.548	0.716	4.003
ENSG00000265739	ENSG00000265739	lncRNA	-1.547	0.579	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000178631	ACTG1P1	processed_pseudogene	-1.546	0.658	4.003
ENSG00000119965	C10orf88	protein_coding	-1.545	0.717	4.003
ENSG00000031003	FAM13B	protein_coding	-1.545	0.771	4.003
ENSG00000118579	MED28	protein_coding	-1.544	0.767	4.003
ENSG00000163138	PACRGL	protein_coding	-1.544	0.8	4.003
ENSG00000100311	PDGFB	protein_coding	-1.544	0.777	4.003
ENSG00000272263	ENSG00000272263	lncRNA	-1.544	0.685	4.003
ENSG00000173545	ZNF622	protein_coding	-1.543	0.764	4.003
ENSG00000244405	ETV5	protein_coding	-1.542	0.749	4.003
ENSG00000073536	NLE1	protein_coding	-1.542	0.766	4.003
ENSG00000227105	PARP1P1	processed_pseudogene	-1.542	0.734	4.003
ENSG00000270620	ENSG00000270620	unprocessed_pseudogene	-1.542	0.7	4.003
ENSG00000134108	ARL8B	protein_coding	-1.541	0.789	4.003
ENSG00000230146	SEPHS1P4	processed_pseudogene	-1.541	0.663	4.003
ENSG00000084444	FAM234B	protein_coding	-1.54	0.736	4.003
ENSG00000198825	INPP5F	protein_coding	-1.54	0.777	4.003
ENSG00000108239	TBC1D12	protein_coding	-1.54	0.79	4.003
ENSG00000257267	ZNF271P	transcribed_unitary_pseudogene	-1.54	0.765	4.003
ENSG00000256591	ENSG00000256591	protein_coding	-1.54	0.641	4.003
ENSG00000157540	DYRK1A	protein_coding	-1.539	0.744	4.003
ENSG00000181104	F2R	protein_coding	-1.539	0.771	4.003
ENSG00000105176	URI1	protein_coding	-1.539	0.775	4.003
ENSG00000237350	CDC42P6	processed_pseudogene	-1.538	0.74	4.003
ENSG00000113649	TCERG1	protein_coding	-1.538	0.782	4.003
ENSG00000180357	ZNF609	protein_coding	-1.537	0.756	4.003
ENSG00000106689	LHX2	protein_coding	-1.536	0.762	4.003
ENSG00000147140	NONO	protein_coding	-1.536	0.787	4.003
ENSG00000131503	ANKHD1	protein_coding	-1.535	0.777	4.003
ENSG00000135046	ANXA1	protein_coding	-1.535	0.699	4.003
ENSG00000226982	CENPCP1	processed_pseudogene	-1.535	0.713	4.003
ENSG00000227850	SEPTIN2P1	processed_pseudogene	-1.535	0.751	4.003
ENSG00000252820	Y_RNA	misc_RNA	-1.534	0.736	4.003
ENSG00000271565	ENSG00000271565	processed_pseudogene	-1.534	0.699	4.003
ENSG00000266028	SRGAP2	protein_coding	-1.533	0.751	4.003
ENSG00000145868	FBXO38	protein_coding	-1.532	0.774	4.003
ENSG00000166913	YWHAB	protein_coding	-1.532	0.799	4.003
ENSG00000164463	CREBRF	protein_coding	-1.531	0.782	4.003
ENSG00000107758	PPP3CB	protein_coding	-1.531	0.775	4.003
ENSG00000069399	BCL3	protein_coding	-1.53	0.768	4.003
ENSG00000106144	CASP2	protein_coding	-1.53	0.768	4.003
ENSG00000233176	OR7E157P	unprocessed_pseudogene	-1.529	0.554	4.003
ENSG00000128059	PPAT	protein_coding	-1.529	0.782	4.003
ENSG00000136754	ABI1	protein_coding	-1.528	0.783	4.003
ENSG00000259735	ENSG00000259735	lncRNA	-1.528	0.707	4.003
ENSG00000124767	GLO1	protein_coding	-1.527	0.788	4.003
ENSG00000108622	ICAM2	protein_coding	-1.527	0.726	4.003
ENSG00000251542	LINC01957	lncRNA	-1.527	0.768	4.003
ENSG00000169519	METTL15	protein_coding	-1.527	0.718	4.003
ENSG00000224219	SEC61GP1	processed_pseudogene	-1.527	0.685	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000169902	TPST1	protein_coding	-1.527	0.757	4.003
ENSG00000207131	Y_RNA	misc_RNA	-1.527	0.766	4.003
ENSG00000241317	ENSG00000241317	lncRNA	-1.526	0.724	4.003
ENSG00000251844	ENSG00000251844	snoRNA	-1.526	0.742	4.003
ENSG00000278535	DHRS11	protein_coding	-1.525	0.746	4.003
ENSG00000111206	FOXM1	protein_coding	-1.525	0.77	4.003
ENSG00000228283	KATNBL1P6	transcribed_processed_p	-1.525	0.733	4.003
ENSG00000240309	MTCO1P6	processed_pseudogene	-1.525	0.642	4.003
ENSG00000269952	ENSG00000269952	lncRNA	-1.525	0.677	4.003
ENSG00000236119	ENSG00000236119	lncRNA	-1.524	0.715	4.003
ENSG00000058063	ATP11B	protein_coding	-1.523	0.765	4.003
ENSG00000188100	FAM25A	protein_coding	-1.523	0.524	4.003
ENSG00000157470	FAM81A	protein_coding	-1.523	0.755	4.003
ENSG00000263361	MIR378H	miRNA	-1.523	0.733	4.003
ENSG00000166803	PCLAF	protein_coding	-1.523	0.684	4.003
ENSG00000274455	GUSBP7	unprocessed_pseudogene	-1.522	0.631	4.003
ENSG00000186185	KIF18B	protein_coding	-1.522	0.764	4.003
ENSG00000204138	PHACTR4	protein_coding	-1.521	0.772	4.003
ENSG00000255555	ENSG00000255555	lncRNA	-1.521	0.763	4.003
ENSG00000270108	ENSG00000270108	lncRNA	-1.521	0.657	4.003
ENSG00000275578	ENSG00000275578	unprocessed_pseudogene	-1.521	0.756	4.003
ENSG00000279880	ENSG00000279880	TEC	-1.521	0.636	4.003
ENSG00000133740	E2F5	protein_coding	-1.52	0.763	4.003
ENSG00000216636	RPL7P25	processed_pseudogene	-1.52	0.697	4.003
ENSG00000232838	PET117	protein_coding	-1.519	0.66	4.003
ENSG00000196187	TMEM63A	protein_coding	-1.519	0.776	4.003
ENSG00000229122	AGBL5-IT1	lncRNA	-1.518	0.681	4.003
ENSG00000168710	AHCYL1	protein_coding	-1.518	0.782	4.003
ENSG00000198369	SPRED2	protein_coding	-1.518	0.78	4.003
ENSG00000250485	EXOC7P1	processed_pseudogene	-1.517	0.71	4.003
ENSG00000005156	LIG3	protein_coding	-1.517	0.78	4.003
ENSG00000253586	ENSG00000253586	lncRNA	-1.517	0.658	4.003
ENSG00000143614	GATAD2B	protein_coding	-1.515	0.787	4.003
ENSG00000075188	NUP37	protein_coding	-1.514	0.801	4.003
ENSG00000186723	OR10H1	protein_coding	-1.514	0.774	4.003
ENSG00000207508	RNU6-1237P	snRNA	-1.514	0.705	4.003
ENSG00000144048	DUSP11	protein_coding	-1.513	0.796	4.003
ENSG00000006831	ADIPOR2	protein_coding	-1.512	0.744	4.003
ENSG00000196866	H2AC7	protein_coding	-1.512	0.711	4.003
ENSG00000222627	RNU2-37P	snRNA	-1.512	0.72	4.003
ENSG00000107864	CPEB3	protein_coding	-1.511	0.798	4.003
ENSG00000149262	INTS4	protein_coding	-1.511	0.773	4.003
ENSG00000101350	KIF3B	protein_coding	-1.511	0.757	4.003
ENSG00000204308	RNF5	protein_coding	-1.511	0.729	4.003
ENSG00000185946	RNPC3	protein_coding	-1.511	0.759	4.003
ENSG00000271797	ENSG00000271797	lncRNA	-1.511	0.694	4.003
ENSG00000150337	FCGR1A	protein_coding	-1.51	0.784	4.003
ENSG00000157107	FCHO2	protein_coding	-1.51	0.787	4.003
ENSG00000199961	SNORD1B	snoRNA	-1.51	0.645	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000068120	COASY	protein_coding	-1.509	0.779	4.003
ENSG00000086102	NFX1	protein_coding	-1.509	0.796	4.003
ENSG00000138771	SHROOM3	protein_coding	-1.509	0.797	4.003
ENSG00000221962	TMEM14EP	transcribed_processed_p	-1.509	0.737	4.003
ENSG00000181472	ZBTB2	protein_coding	-1.509	0.748	4.003
ENSG00000228446	ANKRD49P1	processed_pseudogene	-1.508	0.679	4.003
ENSG00000154642	C21orf91	protein_coding	-1.508	0.779	4.003
ENSG00000157181	ODR4	protein_coding	-1.508	0.807	4.003
ENSG00000217527	RPS16P5	transcribed_processed_p	-1.508	0.709	4.003
ENSG00000185811	IKZF1	protein_coding	-1.507	0.796	4.003
ENSG00000200822	Y_RNA	misc_RNA	-1.507	0.721	4.003
ENSG00000281026	N4BP2L2-IT2	lncRNA	-1.506	0.745	4.003
ENSG00000287568	ENSG00000287568	lncRNA	-1.506	0.742	4.003
ENSG00000279696	ENSG00000279696	TEC	-1.505	0.714	4.003
ENSG00000160216	AGPAT3	protein_coding	-1.504	0.781	4.003
ENSG00000116918	TSNAX	protein_coding	-1.503	0.748	4.003
ENSG00000197779	ZNF81	protein_coding	-1.503	0.797	4.003
ENSG00000247134	ENSG00000247134	lncRNA	-1.503	0.767	4.003
ENSG00000156735	BAG4	protein_coding	-1.502	0.764	4.003
ENSG00000203668	CHML	protein_coding	-1.502	0.765	4.003
ENSG00000104142	VPS18	protein_coding	-1.502	0.766	4.003
ENSG00000272407	ENSG00000272407	transcribed_processed_p	-1.502	0.682	4.003
ENSG00000112249	ASCC3	protein_coding	-1.501	0.791	4.003
ENSG00000005100	DHX33	protein_coding	-1.501	0.779	4.003
ENSG00000172869	DMXL1	protein_coding	-1.5	0.781	4.003
ENSG00000259089	GRAMD4P5	unprocessed_pseudogene	-1.5	0.722	4.003
ENSG00000201809	U8	snoRNA	-1.5	0.722	4.003
ENSG00000199762	Y_RNA	misc_RNA	-1.5	0.678	4.003
ENSG00000229349	ACTG1P9	processed_pseudogene	-1.499	0.712	4.003
ENSG00000135837	CEP350	protein_coding	-1.499	0.791	4.003
ENSG00000008083	JARID2	protein_coding	-1.499	0.79	4.003
ENSG00000212572	RNU6-903P	snRNA	-1.499	0.729	4.003
ENSG00000211697	TRGV5	TR_V_gene	-1.499	0.701	4.003
ENSG00000274303	7SK	misc_RNA	-1.498	0.747	4.003
ENSG00000172269	DPAGT1	protein_coding	-1.498	0.748	4.003
ENSG00000134146	DPH6	protein_coding	-1.498	0.735	4.003
ENSG00000177733	HNRNPA0	protein_coding	-1.498	0.771	4.003
ENSG00000163166	IWS1	protein_coding	-1.498	0.791	4.003
ENSG00000231307	RPS3P2	processed_pseudogene	-1.498	0.75	4.003
ENSG00000184305	CCSER1	protein_coding	-1.497	0.782	4.003
ENSG00000198961	PJA2	protein_coding	-1.496	0.792	4.003
ENSG00000200041	Y_RNA	misc_RNA	-1.496	0.754	4.003
ENSG00000248322	ENSG00000248322	lncRNA	-1.496	0.641	4.003
ENSG00000252548	RNU7-149P	snRNA	-1.495	0.711	4.003
ENSG00000023734	STRAP	protein_coding	-1.495	0.79	4.003
ENSG00000279786	ENSG00000279786	TEC	-1.495	0.74	4.003
ENSG00000088205	DDX18	protein_coding	-1.494	0.792	4.003
ENSG00000147650	LRP12	protein_coding	-1.494	0.769	4.003
ENSG00000241293	PPATP1	processed_pseudogene	-1.494	0.768	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000101413	RPRD1B	protein_coding	-1.493	0.786	4.003
ENSG00000226619	ENSG00000226619	lncRNA	-1.493	0.747	4.003
ENSG00000253908	ENSG00000253908	processed_pseudogene	-1.493	0.653	4.003
ENSG00000273786	ENSG00000273786	lncRNA	-1.493	0.696	4.003
ENSG00000277911	ENSG00000277911	lncRNA	-1.493	0.656	4.003
ENSG00000279111	OR10X1	protein_coding	-1.492	0.76	4.003
ENSG00000280392	ENSG00000280392	TEC	-1.492	0.559	4.003
ENSG00000131711	MAP1B	protein_coding	-1.491	0.782	4.003
ENSG00000066933	MYO9A	protein_coding	-1.491	0.773	4.003
ENSG00000235631	RNF148	protein_coding	-1.491	0.712	4.003
ENSG00000250612	ENSG00000250612	processed_pseudogene	-1.491	0.774	4.003
ENSG00000183249	NF1P3	unprocessed_pseudogene	-1.49	0.74	4.003
ENSG00000185246	PRPF39	protein_coding	-1.49	0.771	4.003
ENSG00000167325	RRM1	protein_coding	-1.49	0.784	4.003
ENSG00000198554	WDHD1	protein_coding	-1.49	0.767	4.003
ENSG00000232672	ACTG1P21	processed_pseudogene	-1.489	0.693	4.003
ENSG00000128908	INO80	protein_coding	-1.489	0.783	4.003
ENSG00000251090	OR5AC4P	transcribed_unprocessed	-1.489	0.734	4.003
ENSG00000254500	RANP3	processed_pseudogene	-1.488	0.672	4.003
ENSG00000227382	EIF4A2P2	processed_pseudogene	-1.487	0.797	4.003
ENSG00000113194	FAF2	protein_coding	-1.487	0.783	4.003
ENSG00000136381	IREB2	protein_coding	-1.487	0.775	4.003
ENSG00000251856	MIR449C	miRNA	-1.487	0.766	4.003
ENSG00000201596	Y_RNA	misc_RNA	-1.487	0.556	4.003
ENSG00000217512	ENSG00000217512	processed_pseudogene	-1.487	0.71	4.003
ENSG00000232508	MRPL45P1	processed_pseudogene	-1.486	0.696	4.003
ENSG00000117640	MTFR1L	protein_coding	-1.486	0.771	4.003
ENSG00000273454	ENSG00000273454	lncRNA	-1.486	0.666	4.003
ENSG00000224141	MIR548XHG	lncRNA	-1.485	0.762	4.003
ENSG00000274934	ENSG00000274934	misc_RNA	-1.484	0.69	4.003
ENSG00000162437	RAVER2	protein_coding	-1.483	0.777	4.003
ENSG00000038210	PI4K2B	protein_coding	-1.482	0.787	4.003
ENSG00000154265	ABCA5	protein_coding	-1.481	0.78	4.003
ENSG00000139323	POC1B	protein_coding	-1.481	0.786	4.003
ENSG00000240940	RN7SL591P	misc_RNA	-1.481	0.676	4.003
ENSG00000199601	RNU6-562P	snRNA	-1.481	0.579	4.003
ENSG00000141293	SKAP1	protein_coding	-1.481	0.776	4.003
ENSG00000286103	ENSG00000286103	lncRNA	-1.481	0.653	4.003
ENSG00000129226	CD68	protein_coding	-1.48	0.779	4.003
ENSG00000183150	GPR19	protein_coding	-1.48	0.764	4.003
ENSG00000101224	CDC25B	protein_coding	-1.479	0.767	4.003
ENSG00000231475	IGHV4-31	IG_V_gene	-1.479	0.668	4.003
ENSG00000114030	KPNA1	protein_coding	-1.479	0.8	4.003
ENSG00000248693	LINC02100	lncRNA	-1.479	0.706	4.003
ENSG00000237885	ENSG00000237885	processed_pseudogene	-1.479	0.691	4.003
ENSG00000248955	ENSG00000248955	processed_pseudogene	-1.479	0.735	4.003
ENSG00000180611	MB21D2	protein_coding	-1.478	0.676	4.003
ENSG00000163848	ZNF148	protein_coding	-1.478	0.773	4.003
ENSG00000219302	ENSG00000219302	processed_pseudogene	-1.478	0.717	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000188848	BEND4	protein_coding	-1.477	0.774	4.003
ENSG00000106701	FSD1L	protein_coding	-1.477	0.788	4.003
ENSG00000167515	TRAPPC2L	protein_coding	-1.477	0.773	4.003
ENSG00000109790	KLHL5	protein_coding	-1.476	0.778	4.003
ENSG00000237263	MAPK6P3	processed_pseudogene	-1.476	0.714	4.003
ENSG00000274591	ENSG00000274591	lncRNA	-1.476	0.685	4.003
ENSG00000279502	ENSG00000279502	TEC	-1.476	0.621	4.003
ENSG00000187097	ENTPD5	protein_coding	-1.475	0.774	4.003
ENSG00000144381	HSPD1	protein_coding	-1.475	0.788	4.003
ENSG00000017797	RALBP1	protein_coding	-1.475	0.776	4.003
ENSG00000134308	YWHAQ	protein_coding	-1.475	0.779	4.003
ENSG00000143322	ABL2	protein_coding	-1.474	0.785	4.003
ENSG00000115677	HDLBP	protein_coding	-1.474	0.798	4.003
ENSG00000184182	UBE2F	protein_coding	-1.473	0.8	4.003
ENSG00000238832	ENSG00000238832	snoRNA	-1.472	0.725	4.003
ENSG00000182158	CREB3L2	protein_coding	-1.471	0.805	4.003
ENSG00000196604	POTEF	protein_coding	-1.471	0.674	4.003
ENSG00000255071	SAA2-SAA4	protein_coding	-1.47	0.666	4.003
ENSG00000258536	FKBP1BP1	processed_pseudogene	-1.469	0.735	4.003
ENSG00000108424	KPNB1	protein_coding	-1.469	0.799	4.003
ENSG00000152217	SETBP1	protein_coding	-1.469	0.796	4.003
ENSG00000232542	DPYD-IT1	lncRNA	-1.468	0.763	4.003
ENSG00000122507	BBS9	protein_coding	-1.467	0.784	4.003
ENSG00000114107	CEP70	protein_coding	-1.467	0.792	4.003
ENSG00000271629	ENSG00000271629	processed_pseudogene	-1.467	0.761	4.003
ENSG00000259904	ACTG1P15	processed_pseudogene	-1.466	0.689	4.003
ENSG00000144369	FAM171B	protein_coding	-1.466	0.748	4.003
ENSG00000241549	GUSBP2	transcribed_unprocessed	-1.466	0.729	4.003
ENSG00000213690	ENSG00000213690	processed_pseudogene	-1.466	0.7	4.003
ENSG00000258441	LINC00641	lncRNA	-1.465	0.703	4.003
ENSG00000213281	NRAS	protein_coding	-1.465	0.762	4.003
ENSG00000276234	TADA2A	protein_coding	-1.465	0.778	4.003
ENSG00000227809	ENSG00000227809	lncRNA	-1.465	0.799	4.003
ENSG00000257027	ENSG00000257027	lncRNA	-1.465	0.699	4.003
ENSG00000261187	ENSG00000261187	lncRNA	-1.465	0.685	4.003
ENSG00000177340	FLJ13224	lncRNA	-1.464	0.718	4.003
ENSG00000047932	GOPC	protein_coding	-1.464	0.807	4.003
ENSG00000061987	MON2	protein_coding	-1.464	0.783	4.003
ENSG00000103047	TANGO6	protein_coding	-1.464	0.798	4.003
ENSG00000284607	ENSG00000284607	lncRNA	-1.464	0.709	4.003
ENSG00000014824	SLC30A9	protein_coding	-1.463	0.782	4.003
ENSG00000203875	SNHG5	lncRNA	-1.463	0.797	4.003
ENSG00000113732	ATP6V0E1	protein_coding	-1.462	0.765	4.003
ENSG00000143515	ATP8B2	protein_coding	-1.461	0.775	4.003
ENSG00000094880	CDC23	protein_coding	-1.461	0.784	4.003
ENSG00000147155	EBP	protein_coding	-1.461	0.755	4.003
ENSG00000100330	MTMR3	protein_coding	-1.461	0.796	4.003
ENSG00000164951	PDP1	protein_coding	-1.461	0.786	4.003
ENSG00000083123	BCKDHB	protein_coding	-1.46	0.785	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000108506	INTS2	protein_coding	-1.46	0.755	4.003
ENSG00000211943	IGHV3-15	IG_V_gene	-1.459	0.694	4.003
ENSG00000168159	RNF187	protein_coding	-1.459	0.751	4.003
ENSG00000163823	CCR1	protein_coding	-1.458	0.8	4.003
ENSG00000089041	P2RX7	protein_coding	-1.458	0.78	4.003
ENSG00000231967	ENSG00000231967	processed_pseudogene	-1.458	0.649	4.003
ENSG00000212102	MIR301B	miRNA	-1.457	0.749	4.003
ENSG00000207983	MIR613	miRNA	-1.457	0.75	4.003
ENSG00000105887	MTPN	protein_coding	-1.457	0.784	4.003
ENSG00000138801	PAPSS1	protein_coding	-1.457	0.76	4.003
ENSG00000082146	STRADB	protein_coding	-1.457	0.794	4.003
ENSG00000272211	ENSG00000272211	lncRNA	-1.457	0.724	4.003
ENSG00000012048	BRCA1	protein_coding	-1.456	0.792	4.003
ENSG00000033170	FUT8	protein_coding	-1.456	0.775	4.003
ENSG00000135093	USP30	protein_coding	-1.456	0.803	4.003
ENSG00000166348	USP54	protein_coding	-1.456	0.803	4.003
ENSG00000275097	ENSG00000275097	lncRNA	-1.456	0.618	4.003
ENSG00000100167	SEPTIN3	protein_coding	-1.455	0.792	4.003
ENSG00000186153	WWOX	protein_coding	-1.455	0.791	4.003
ENSG00000073905	VDAC1P1	processed_pseudogene	-1.454	0.749	4.003
ENSG00000235060	VDAC1P4	processed_pseudogene	-1.454	0.742	4.003
ENSG00000231887	PRH1	protein_coding	-1.453	0.752	4.003
ENSG00000239280	ENSG00000239280	processed_pseudogene	-1.453	0.743	4.003
ENSG00000010539	ZNF200	protein_coding	-1.452	0.791	4.003
ENSG00000283971	MIR4442	miRNA	-1.451	0.626	4.003
ENSG00000144233	AMMECR1L	protein_coding	-1.45	0.764	4.003
ENSG00000248476	BACH1-IT1	lncRNA	-1.45	0.726	4.003
ENSG00000125149	C16orf70	protein_coding	-1.45	0.797	4.003
ENSG00000144283	PKP4	protein_coding	-1.45	0.802	4.003
ENSG00000228481	PRKCE-AS1	lncRNA	-1.45	0.755	4.003
ENSG00000288024	ENSG00000288024	lncRNA	-1.45	0.701	4.003
ENSG00000265599	MIR4471	miRNA	-1.449	0.764	4.003
ENSG00000113048	MRPS27	protein_coding	-1.448	0.774	4.003
ENSG00000157212	PAXIP1	protein_coding	-1.448	0.799	4.003
ENSG00000126773	PCNX4	protein_coding	-1.448	0.762	4.003
ENSG00000114062	UBE3A	protein_coding	-1.448	0.789	4.003
ENSG00000280372	ENSG00000280372	TEC	-1.448	0.631	4.003
ENSG00000207827	MIR30A	miRNA	-1.447	0.624	4.003
ENSG00000154839	SKA1	protein_coding	-1.447	0.783	4.003
ENSG00000272215	U7	snRNA	-1.447	0.653	4.003
ENSG00000263427	ENSG00000263427	lncRNA	-1.447	0.766	4.003
ENSG00000186871	ERCC6L	protein_coding	-1.446	0.682	4.003
ENSG00000101452	DHX35	protein_coding	-1.445	0.801	4.003
ENSG00000168906	MAT2A	protein_coding	-1.444	0.792	4.003
ENSG00000207416	Y_RNA	misc_RNA	-1.444	0.612	4.003
ENSG00000145675	PIK3R1	protein_coding	-1.443	0.765	4.003
ENSG00000147459	DOCK5	protein_coding	-1.442	0.794	4.003
ENSG00000103494	RPGRIP1L	protein_coding	-1.442	0.785	4.003
ENSG00000155850	SLC26A2	protein_coding	-1.442	0.79	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000114316	USP4	protein_coding	-1.442	0.795	4.003
ENSG00000135775	COG2	protein_coding	-1.441	0.797	4.003
ENSG00000204406	MBD5	protein_coding	-1.441	0.794	4.003
ENSG00000263669	RN7SL470P	misc_RNA	-1.441	0.682	4.003
ENSG00000256238	SUPT16HP1	processed_pseudogene	-1.441	0.705	4.003
ENSG00000274104	ENSG00000274104	lncRNA	-1.441	0.619	4.003
ENSG00000206803	RNU6-968P	snRNA	-1.44	0.57	4.003
ENSG00000197969	VPS13A	protein_coding	-1.44	0.77	4.003
ENSG00000200522	RNU6-957P	snRNA	-1.439	0.629	4.003
ENSG00000236896	ENSG00000236896	lncRNA	-1.439	0.698	4.003
ENSG00000178971	CTC1	protein_coding	-1.438	0.788	4.003
ENSG00000101019	UQCC1	protein_coding	-1.437	0.803	4.003
ENSG00000138767	CNOT6L	protein_coding	-1.436	0.796	4.003
ENSG00000228612	HK2P1	processed_pseudogene	-1.436	0.668	4.003
ENSG00000275640	MIR6793	miRNA	-1.436	0.75	4.003
ENSG00000283431	ENSG00000283431	unprocessed_pseudogene	-1.436	0.678	4.003
ENSG00000145990	GFOD1	protein_coding	-1.435	0.797	4.003
ENSG00000236654	ENSG00000236654	processed_pseudogene	-1.435	0.586	4.003
ENSG00000110931	CAMKK2	protein_coding	-1.434	0.791	4.003
ENSG00000151292	CSNK1G3	protein_coding	-1.434	0.77	4.003
ENSG00000280190	ENSG00000280190	TEC	-1.434	0.592	4.003
ENSG00000165029	ABCA1	protein_coding	-1.433	0.776	4.003
ENSG00000150456	EEF1AKMT1	protein_coding	-1.433	0.756	4.003
ENSG00000128944	KNSTRN	protein_coding	-1.433	0.805	4.003
ENSG00000136153	LMO7	protein_coding	-1.433	0.787	4.003
ENSG00000207008	SNORA54	snoRNA	-1.433	0.764	4.003
ENSG00000271452	ENSG00000271452	lncRNA	-1.433	0.681	4.003
ENSG00000012983	MAP4K5	protein_coding	-1.432	0.779	4.003
ENSG00000166343	MSS51	protein_coding	-1.432	0.796	4.003
ENSG00000271429	RPL17P51	processed_pseudogene	-1.432	0.695	4.003
ENSG00000254936	ENSG00000254936	lncRNA	-1.432	0.783	4.003
ENSG00000096060	FKBP5	protein_coding	-1.431	0.788	4.003
ENSG00000168575	SLC20A2	protein_coding	-1.431	0.809	4.003
ENSG00000168939	SPRY3	protein_coding	-1.431	0.772	4.003
ENSG00000078124	ACER3	protein_coding	-1.43	0.799	4.003
ENSG00000258816	ENSG00000258816	unprocessed_pseudogene	-1.43	0.65	4.003
ENSG00000128731	HERC2	protein_coding	-1.429	0.798	4.003
ENSG00000207701	MIR597	miRNA	-1.429	0.721	4.003
ENSG00000254623	DEFB108E	unprocessed_pseudogene	-1.428	0.729	4.003
ENSG00000277556	OR13C5	protein_coding	-1.428	0.608	4.003
ENSG00000274963	RN7SL600P	misc_RNA	-1.428	0.68	4.003
ENSG00000259461	ANP32BP3	processed_pseudogene	-1.427	0.711	4.003
ENSG00000118412	CASP8AP2	protein_coding	-1.427	0.793	4.003
ENSG00000111860	CEP85L	protein_coding	-1.427	0.801	4.003
ENSG00000127804	METTL16	protein_coding	-1.427	0.802	4.003
ENSG00000230499	ENSG00000230499	lncRNA	-1.427	0.707	4.003
ENSG00000280310	ENSG00000280310	TEC	-1.427	0.577	4.003
ENSG00000280081	LINC01667	transcribed_processed_pseudogene	-1.425	0.772	4.003
ENSG00000186575	NF2	protein_coding	-1.425	0.798	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000104447	TRPS1	protein_coding	-1.425	0.769	4.003
ENSG00000279594	ENSG00000279594	TEC	-1.425	0.762	4.003
ENSG00000248122	APOOP4	processed_pseudogene	-1.424	0.73	4.003
ENSG00000148019	CEP78	protein_coding	-1.424	0.797	4.003
ENSG00000276819	TRBV15	TR_V_gene	-1.424	0.7	4.003
ENSG00000256035	ENSG00000256035	processed_pseudogene	-1.424	0.759	4.003
ENSG00000077514	POLD3	protein_coding	-1.423	0.796	4.003
ENSG00000201579	RNU6-343P	snRNA	-1.422	0.662	4.003
ENSG00000085433	WDR47	protein_coding	-1.422	0.76	4.003
ENSG00000142599	RERE	protein_coding	-1.421	0.813	4.003
ENSG00000008277	ADAM22	protein_coding	-1.42	0.808	4.003
ENSG00000120647	CCDC77	protein_coding	-1.42	0.783	4.003
ENSG00000186001	LRCH3	protein_coding	-1.42	0.793	4.003
ENSG00000134318	ROCK2	protein_coding	-1.42	0.794	4.003
ENSG00000168078	PBK	protein_coding	-1.419	0.801	4.003
ENSG00000137713	PPP2R1B	protein_coding	-1.419	0.794	4.003
ENSG00000199781	Y_RNA	misc_RNA	-1.419	0.647	4.003
ENSG00000074603	DPP8	protein_coding	-1.418	0.794	4.003
ENSG00000116906	GNPAT	protein_coding	-1.418	0.792	4.003
ENSG00000078747	ITCH	protein_coding	-1.418	0.814	4.003
ENSG00000196199	MPHOSPH8	protein_coding	-1.418	0.789	4.003
ENSG00000107036	RIC1	protein_coding	-1.418	0.793	4.003
ENSG00000251660	ENSG00000251660	lncRNA	-1.418	0.642	4.003
ENSG00000136504	KAT7	protein_coding	-1.417	0.791	4.003
ENSG00000111224	PARP11	protein_coding	-1.417	0.787	4.003
ENSG00000126226	PCID2	protein_coding	-1.417	0.808	4.003
ENSG00000196313	POM121	protein_coding	-1.417	0.795	4.003
ENSG00000199326	RNU6-1298P	snRNA	-1.417	0.765	4.003
ENSG00000207127	Y_RNA	misc_RNA	-1.417	0.721	4.003
ENSG00000209482	SNORD83A	snoRNA	-1.416	0.719	4.003
ENSG00000270510	ENSG00000270510	processed_pseudogene	-1.416	0.658	4.003
ENSG00000213435	ATP6V0CP3	processed_pseudogene	-1.415	0.76	4.003
ENSG00000113810	SMC4	protein_coding	-1.415	0.781	4.003
ENSG00000048028	USP28	protein_coding	-1.414	0.786	4.003
ENSG00000153015	CWC27	protein_coding	-1.413	0.807	4.003
ENSG00000127603	MACF1	protein_coding	-1.413	0.804	4.003
ENSG00000250337	PURPL	lncRNA	-1.413	0.792	4.003
ENSG00000206615	RNU6-338P	snRNA	-1.413	0.582	4.003
ENSG00000169860	P2RY1	protein_coding	-1.412	0.701	4.003
ENSG00000119906	SLF2	protein_coding	-1.412	0.813	4.003
ENSG00000212306	Y_RNA	misc_RNA	-1.412	0.704	4.003
ENSG00000227994	ENSG00000227994	processed_pseudogene	-1.412	0.725	4.003
ENSG00000234584	ENSG00000234584	lncRNA	-1.412	0.734	4.003
ENSG00000229101	ELOCP20	unprocessed_pseudogene	-1.411	0.794	4.003
ENSG00000198964	SGMS1	protein_coding	-1.411	0.778	4.003
ENSG00000204637	ARPP19P2	processed_pseudogene	-1.41	0.73	4.003
ENSG00000170558	CDH2	protein_coding	-1.41	0.79	4.003
ENSG00000199109	MIR411	miRNA	-1.41	0.74	4.003
ENSG00000270601	PRAMEF5	protein_coding	-1.41	0.45	4.003

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000163694	RBM47	protein_coding	-1.41	0.801	4.003
ENSG00000134294	SLC38A2	protein_coding	-1.41	0.767	4.003
ENSG00000198464	ZNF480	protein_coding	-1.41	0.774	4.003
ENSG00000182827	ACBD3	protein_coding	-1.409	0.797	4.003
ENSG00000279319	ENSG00000279319	TEC	-1.409	0.782	4.003
ENSG00000260644	HERC2P5	transcribed_unprocessed	-1.408	0.745	4.003
ENSG00000138380	CARF	protein_coding	-1.407	0.751	4.003
ENSG00000229014	RPL30P13	processed_pseudogene	-1.407	0.783	4.003
ENSG00000226389	MAPK6P6	processed_pseudogene	-1.406	0.767	4.003
ENSG00000223695	ENSG00000223695	lncRNA	-1.406	0.725	4.003
ENSG00000225292	ENSG00000225292	lncRNA	-1.406	0.737	4.003
ENSG00000270096	ENSG00000270096	lncRNA	-1.406	0.739	4.003
ENSG00000278971	ENSG00000278971	TEC	-1.406	0.79	4.003
ENSG00000084463	WBP11	protein_coding	-1.405	0.793	4.003
ENSG00000223271	Y_RNA	misc_RNA	-1.405	0.719	4.003
ENSG00000249919	FABP5P6	processed_pseudogene	-1.404	0.745	4.003
ENSG00000218186	KRT8P43	processed_pseudogene	-1.404	0.702	4.003
ENSG00000139722	VPS37B	protein_coding	-1.404	0.773	4.003
ENSG00000253423	ENSG00000253423	processed_pseudogene	-1.404	0.692	4.003
ENSG00000115364	MRPL19	protein_coding	-1.403	0.807	4.003
ENSG00000163605	PPP4R2	protein_coding	-1.403	0.793	4.003
ENSG00000288162	ENSG00000288162	lncRNA	-1.403	0.519	4.003
ENSG00000123545	NDUFAF4	protein_coding	-1.402	0.783	4.003
ENSG00000266920	ACTBP9	processed_pseudogene	-1.401	0.7	4.003
ENSG00000119929	CUTC	protein_coding	-1.401	0.793	4.003
ENSG00000118276	B4GALT6	protein_coding	-1.4	0.775	4.003
ENSG00000265584	MIR3978	miRNA	-1.4	0.679	4.003
ENSG00000270325	BNIP3P9	processed_pseudogene	-1.399	0.687	4.003
ENSG00000180138	CSNK1A1L	protein_coding	-1.399	0.72	4.003
ENSG00000168310	IRF2	protein_coding	-1.399	0.808	4.003
ENSG00000174780	SRP72	protein_coding	-1.399	0.797	4.003
ENSG00000287021	ENSG00000287021	lncRNA	-1.399	0.749	4.003
ENSG00000163320	CGGBP1	protein_coding	-1.398	0.784	4.003
ENSG00000106459	NRF1	protein_coding	-1.398	0.79	4.003
ENSG00000277757	ENSG00000277757	lncRNA	-1.398	0.728	4.003
ENSG00000122512	PMS2	protein_coding	-1.398	0.789	5.863
ENSG00000173166	RAPH1	protein_coding	-1.398	0.797	5.863
ENSG00000151491	EPS8	protein_coding	-1.397	0.799	5.863
ENSG00000131389	SLC6A6	protein_coding	-1.397	0.782	5.863
ENSG00000144791	LIMD1	protein_coding	-1.396	0.786	5.863
ENSG00000139289	PHLDA1	protein_coding	-1.396	0.768	5.863
ENSG00000252685	RNU6-928P	snRNA	-1.396	0.694	5.863
ENSG00000112079	STK38	protein_coding	-1.396	0.805	5.863
ENSG00000183864	TOB2	protein_coding	-1.396	0.771	5.863
ENSG00000213856	VDAC1P2	processed_pseudogene	-1.396	0.73	5.863
ENSG00000269987	ENSG00000269987	lncRNA	-1.396	0.723	5.863
ENSG00000277755	ENSG00000277755	processed_pseudogene	-1.396	0.774	5.863
ENSG00000065457	ADAT1	protein_coding	-1.395	0.782	5.863
ENSG00000162736	NCSTN	protein_coding	-1.395	0.8	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000252010	SCARNA5	scaRNA	-1.395	0.74	5.863
ENSG00000260505	ENSG00000260505	lncRNA	-1.395	0.747	5.863
ENSG00000169919	GUSB	protein_coding	-1.393	0.785	5.863
ENSG00000129347	KRI1	protein_coding	-1.393	0.799	5.863
ENSG00000178177	LCORL	protein_coding	-1.393	0.791	5.863
ENSG00000230484	OR51A10P	unitary_pseudogene	-1.393	0.663	5.863
ENSG00000162735	PEX19	protein_coding	-1.393	0.801	5.863
ENSG00000266984	POLR3GP2	processed_pseudogene	-1.393	0.748	5.863
ENSG00000111602	TIMELESS	protein_coding	-1.393	0.817	5.863
ENSG00000184188	ENSG00000184188	processed_pseudogene	-1.393	0.791	5.863
ENSG00000201376	SNORA70	snoRNA	-1.392	0.645	5.863
ENSG00000205133	TRIQQ	protein_coding	-1.392	0.767	5.863
ENSG00000138399	FASTKD1	protein_coding	-1.391	0.799	5.863
ENSG00000163607	GTPBP8	protein_coding	-1.391	0.777	5.863
ENSG00000170836	PPM1D	protein_coding	-1.391	0.803	5.863
ENSG00000124486	USP9X	protein_coding	-1.391	0.798	5.863
ENSG00000147905	ZCCHC7	protein_coding	-1.391	0.801	5.863
ENSG00000254000	ENSG00000254000	lncRNA	-1.391	0.783	5.863
ENSG00000257941	ENSG00000257941	processed_pseudogene	-1.391	0.71	5.863
ENSG00000205208	C4orf46	protein_coding	-1.39	0.81	5.863
ENSG00000206723	RNU6-1056P	snRNA	-1.39	0.685	5.863
ENSG00000233126	ZNF736P3Y	processed_pseudogene	-1.39	0.753	5.863
ENSG00000261542	ENSG00000261542	lncRNA	-1.39	0.699	5.863
ENSG00000272791	ENSG00000272791	lncRNA	-1.39	0.666	5.863
ENSG00000285292	ABCF2-H2BE1	protein_coding	-1.389	0.516	5.863
ENSG00000258290	BRWD1P2	processed_pseudogene	-1.389	0.731	5.863
ENSG00000124784	RIOK1	protein_coding	-1.389	0.797	5.863
ENSG00000111880	RNGTT	protein_coding	-1.389	0.788	5.863
ENSG00000207371	Y_RNA	misc_RNA	-1.389	0.646	5.863
ENSG00000241772	ENSG00000241772	lncRNA	-1.389	0.759	5.863
ENSG00000281469	ENSG00000281469	TEC	-1.389	0.728	5.863
ENSG00000204842	ATXN2	protein_coding	-1.388	0.807	5.863
ENSG00000048828	FAM120A	protein_coding	-1.388	0.814	5.863
ENSG00000185499	MUC1	protein_coding	-1.388	0.793	5.863
ENSG00000141458	NPC1	protein_coding	-1.388	0.777	5.863
ENSG00000196376	SLC35F1	protein_coding	-1.388	0.779	5.863
ENSG00000105221	AKT2	protein_coding	-1.387	0.794	5.863
ENSG00000140577	CRTC3	protein_coding	-1.387	0.797	5.863
ENSG00000235045	RPL7P8	processed_pseudogene	-1.387	0.63	5.863
ENSG00000272123	ENSG00000272123	lncRNA	-1.386	0.795	5.863
ENSG00000105186	ANKRD27	protein_coding	-1.385	0.805	5.863
ENSG00000015568	RGPD5	protein_coding	-1.385	0.732	5.863
ENSG00000143751	SDE2	protein_coding	-1.385	0.796	5.863
ENSG00000262663	ENSG00000262663	lncRNA	-1.385	0.776	5.863
ENSG00000221883	ARIH2OS	lncRNA	-1.384	0.66	5.863
ENSG00000231537	MTCO3P10	unprocessed_pseudogene	-1.384	0.718	5.863
ENSG00000214980	ENSG00000214980	processed_pseudogene	-1.384	0.671	5.863
ENSG00000005194	CIAPIN1	protein_coding	-1.383	0.795	5.863
ENSG00000188394	GPR21	protein_coding	-1.383	0.777	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000225484	NUTM2B-AS1	lncRNA	-1.383	0.754	5.863
ENSG00000114331	ACAP2	protein_coding	-1.382	0.795	5.863
ENSG00000178035	IMPDH2	protein_coding	-1.382	0.808	5.863
ENSG00000108474	PIGL	protein_coding	-1.382	0.791	5.863
ENSG00000271257	ENSG00000271257	processed_pseudogene	-1.382	0.777	5.863
ENSG00000138303	ASCC1	protein_coding	-1.381	0.806	5.863
ENSG00000271524	BNIP3P17	processed_pseudogene	-1.381	0.705	5.863
ENSG00000227295	ELL2P1	processed_pseudogene	-1.381	0.737	5.863
ENSG00000196678	ERI2	protein_coding	-1.381	0.788	5.863
ENSG00000132323	ILKAP	protein_coding	-1.381	0.797	5.863
ENSG00000227509	LINC01839	lncRNA	-1.381	0.741	5.863
ENSG00000200138	RNY1P10	misc_RNA	-1.381	0.779	5.863
ENSG00000254445	HSPB2-C11orf52	protein_coding	-1.38	0.724	5.863
ENSG00000230898	ENSG00000230898	lncRNA	-1.38	0.731	5.863
ENSG00000280088	ENSG00000280088	TEC	-1.38	0.686	5.863
ENSG00000130119	GNL3L	protein_coding	-1.379	0.788	5.863
ENSG00000007202	KIAA0100	protein_coding	-1.379	0.811	5.863
ENSG00000130227	XPO7	protein_coding	-1.379	0.798	5.863
ENSG00000170653	ATF7	protein_coding	-1.378	0.789	5.863
ENSG00000108256	NUFIP2	protein_coding	-1.378	0.803	5.863
ENSG00000206190	ATP10A	protein_coding	-1.377	0.796	5.863
ENSG00000173064	HECTD4	protein_coding	-1.377	0.791	5.863
ENSG00000251349	MSANTD3-TMEFF1	protein_coding	-1.377	0.596	5.863
ENSG00000267310	OR4G1P	transcribed_unprocessed	-1.377	0.73	5.863
ENSG00000256341	ENSG00000256341	lncRNA	-1.377	0.76	5.863
ENSG00000260123	CARMAL	lncRNA	-1.376	0.795	5.863
ENSG00000286741	ENSG00000286741	lncRNA	-1.376	0.603	5.863
ENSG00000182197	EXT1	protein_coding	-1.375	0.783	5.863
ENSG00000253073	RN7SKP295	misc_RNA	-1.375	0.774	5.863
ENSG00000202245	RNU6-728P	snRNA	-1.375	0.732	5.863
ENSG00000253401	VTA1P2	processed_pseudogene	-1.375	0.746	5.863
ENSG00000079246	XRCC5	protein_coding	-1.375	0.806	5.863
ENSG00000258800	ENSG00000258800	lncRNA	-1.375	0.693	5.863
ENSG00000262160	ENSG00000262160	lncRNA	-1.375	0.693	5.863
ENSG00000250853	RNF138P1	processed_pseudogene	-1.374	0.732	5.863
ENSG00000204713	TRIM27	protein_coding	-1.374	0.805	5.863
ENSG00000165490	DDIAS	protein_coding	-1.373	0.781	5.863
ENSG00000114867	EIF4G1	protein_coding	-1.373	0.804	5.863
ENSG00000089154	GCN1	protein_coding	-1.373	0.805	5.863
ENSG00000171208	NETO2	protein_coding	-1.373	0.813	5.863
ENSG00000279996	ENSG00000279996	TEC	-1.373	0.721	5.863
ENSG00000266992	DHX40P1	transcribed_unprocessed	-1.372	0.645	5.863
ENSG00000253546	IGLVVI-22-1	IG_V_pseudogene	-1.372	0.805	5.863
ENSG00000225801	RABEPKP1	processed_pseudogene	-1.372	0.76	5.863
ENSG00000255310	ENSG00000255310	lncRNA	-1.372	0.606	5.863
ENSG00000231340	ACTG1P10	processed_pseudogene	-1.371	0.766	5.863
ENSG00000136643	RPS6KC1	protein_coding	-1.371	0.818	5.863
ENSG00000165699	TSC1	protein_coding	-1.371	0.806	5.863
ENSG00000141664	ZCCHC2	protein_coding	-1.371	0.773	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000145332	KLHL8	protein_coding	-1.37	0.796	5.863
ENSG00000135912	TLL4	protein_coding	-1.369	0.811	5.863
ENSG00000279648	ENSG00000279648	TEC	-1.369	0.744	5.863
ENSG00000163378	EOGT	protein_coding	-1.368	0.79	5.863
ENSG00000189362	NEMP2	protein_coding	-1.368	0.796	5.863
ENSG00000211845	TRAJ44	TR_J_gene	-1.368	0.663	5.863
ENSG00000166004	CEP295	protein_coding	-1.367	0.79	5.863
ENSG00000163349	HIPK1	protein_coding	-1.367	0.804	5.863
ENSG00000146247	PHIP	protein_coding	-1.367	0.797	5.863
ENSG00000227470	RPL39P16	processed_pseudogene	-1.367	0.705	5.863
ENSG00000264538	SUZ12P1	transcribed_unprocessed	-1.367	0.758	5.863
ENSG00000054654	SYNE2	protein_coding	-1.367	0.804	5.863
ENSG00000116761	CTH	protein_coding	-1.366	0.781	5.863
ENSG00000283476	MIR1279	miRNA	-1.366	0.723	5.863
ENSG00000265623	MIR3139	miRNA	-1.366	0.73	5.863
ENSG00000006757	PNPLA4	protein_coding	-1.366	0.791	5.863
ENSG00000128191	DGCR8	protein_coding	-1.365	0.793	5.863
ENSG00000179051	RCC2	protein_coding	-1.365	0.795	5.863
ENSG00000180245	RRH	protein_coding	-1.365	0.764	5.863
ENSG00000124201	ZNFX1	protein_coding	-1.365	0.817	5.863
ENSG00000253118	ENSG00000253118	processed_pseudogene	-1.365	0.755	5.863
ENSG00000103194	USP10	protein_coding	-1.364	0.82	5.863
ENSG00000274378	ENSG00000274378	unprocessed_pseudogene	-1.364	0.477	5.863
ENSG00000213716	FABP5P5	processed_pseudogene	-1.363	0.736	5.863
ENSG00000134324	LPIN1	protein_coding	-1.363	0.816	5.863
ENSG00000155561	NUP205	protein_coding	-1.363	0.81	5.863
ENSG00000182621	PLCB1	protein_coding	-1.363	0.798	5.863
ENSG00000108423	TUBD1	protein_coding	-1.363	0.789	5.863
ENSG00000271511	ENSG00000271511	processed_pseudogene	-1.363	0.717	5.863
ENSG00000178904	DPY19L3	protein_coding	-1.362	0.782	5.863
ENSG00000228963	OR7E93P	unprocessed_pseudogene	-1.362	0.661	5.863
ENSG00000129810	SGO1	protein_coding	-1.362	0.782	5.863
ENSG00000208772	SNORD94	snoRNA	-1.362	0.784	5.863
ENSG00000123908	AGO2	protein_coding	-1.361	0.806	5.863
ENSG00000274099	ABCB10P1	processed_pseudogene	-1.361	0.718	5.863
ENSG00000070269	TMEM260	protein_coding	-1.361	0.776	5.863
ENSG00000285734	ENSG00000285734	lncRNA	-1.361	0.633	5.863
ENSG00000224032	EPB41L4A-AS1	lncRNA	-1.36	0.809	5.863
ENSG00000240207	ENSG00000240207	lncRNA	-1.36	0.774	5.863
ENSG00000248185	ENSG00000248185	processed_pseudogene	-1.36	0.751	5.863
ENSG00000286008	ENSG00000286008	lncRNA	-1.36	0.685	5.863
ENSG00000226419	SLC16A1-AS1	lncRNA	-1.359	0.809	5.863
ENSG00000199461	Y_RNA	misc_RNA	-1.359	0.685	5.863
ENSG00000231204	ENSG00000231204	lncRNA	-1.359	0.799	5.863
ENSG00000279551	ENSG00000279551	TEC	-1.359	0.64	5.863
ENSG00000074054	CLASP1	protein_coding	-1.358	0.813	5.863
ENSG00000253846	PCDHGA10	protein_coding	-1.358	0.785	5.863
ENSG00000101654	RNMT	protein_coding	-1.358	0.797	5.863
ENSG00000252108	RNU6-1232P	snRNA	-1.358	0.788	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000225159	NPM1P39	processed_pseudogene	-1.357	0.775	5.863
ENSG00000230622	UQCRHP1	processed_pseudogene	-1.357	0.722	5.863
ENSG00000163811	WDR43	protein_coding	-1.357	0.823	5.863
ENSG00000174442	ZWILCH	protein_coding	-1.357	0.793	5.863
ENSG00000279315	ENSG00000279315	TEC	-1.357	0.72	5.863
ENSG00000085377	PREP	protein_coding	-1.356	0.793	5.863
ENSG00000238882	RNU6-329P	snRNA	-1.356	0.72	5.863
ENSG00000141564	RPTOR	protein_coding	-1.356	0.811	5.863
ENSG00000139697	SBNO1	protein_coding	-1.356	0.825	5.863
ENSG00000100154	TTC28	protein_coding	-1.356	0.786	5.863
ENSG00000234844	CDC42P2	processed_pseudogene	-1.355	0.791	5.863
ENSG00000198563	DDX39B	protein_coding	-1.355	0.823	5.863
ENSG00000117262	GPR89A	protein_coding	-1.355	0.814	5.863
ENSG00000252017	RNU6-1194P	snRNA	-1.355	0.744	5.863
ENSG00000232205	CDY18P	unprocessed_pseudogene	-1.354	0.625	5.863
ENSG00000205683	DPF3	protein_coding	-1.354	0.803	5.863
ENSG00000211699	TRGV3	TR_V_gene	-1.354	0.771	5.863
ENSG00000229159	TSPY23P	unprocessed_pseudogene	-1.354	0.793	5.863
ENSG00000133059	DSTYK	protein_coding	-1.353	0.801	5.863
ENSG00000158711	ELK4	protein_coding	-1.353	0.813	5.863
ENSG00000157827	FMNL2	protein_coding	-1.353	0.795	5.863
ENSG00000116580	GON4L	protein_coding	-1.353	0.809	5.863
ENSG00000101928	MOSPD1	protein_coding	-1.353	0.8	5.863
ENSG00000253075	RN7SKP92	misc_RNA	-1.353	0.702	5.863
ENSG00000279910	ENSG00000279910	TEC	-1.353	0.725	5.863
ENSG00000186432	KPNA4	protein_coding	-1.352	0.787	5.863
ENSG00000263711	LINC02864	lncRNA	-1.352	0.793	5.863
ENSG00000264200	MIR4693	miRNA	-1.352	0.818	5.863
ENSG00000068383	INPP5A	protein_coding	-1.351	0.803	5.863
ENSG00000114686	MRPL3	protein_coding	-1.351	0.815	5.863
ENSG00000105193	RPS16	protein_coding	-1.351	0.802	5.863
ENSG00000170265	ZNF282	protein_coding	-1.351	0.793	5.863
ENSG00000248227	LINC02513	lncRNA	-1.35	0.716	5.863
ENSG00000221680	MIR1278	miRNA	-1.35	0.74	5.863
ENSG00000188050	RNF133	protein_coding	-1.349	0.746	5.863
ENSG00000177565	TBL1XR1	protein_coding	-1.349	0.8	5.863
ENSG00000152253	SPC25	protein_coding	-1.348	0.78	5.863
ENSG00000277462	ZNF670	protein_coding	-1.348	0.727	5.863
ENSG00000152223	EPG5	protein_coding	-1.347	0.807	5.863
ENSG00000108829	LRRC59	protein_coding	-1.346	0.802	5.863
ENSG00000214013	GANC	protein_coding	-1.345	0.789	5.863
ENSG00000267450	OR1AB1P	unprocessed_pseudogene	-1.345	0.751	5.863
ENSG00000268845	ENSG00000268845	lncRNA	-1.345	0.76	5.863
ENSG00000275409	ENSG00000275409	lncRNA	-1.345	0.668	5.863
ENSG00000260286	ARMH2	protein_coding	-1.344	0.793	5.863
ENSG00000086015	MAST2	protein_coding	-1.344	0.796	5.863
ENSG00000083635	NUFIP1	protein_coding	-1.344	0.8	5.863
ENSG00000201288	RNU6-1047P	snRNA	-1.344	0.799	5.863
ENSG00000228681	ENSG00000228681	processed_pseudogene	-1.344	0.729	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000107186	MPDZ	protein_coding	-1.343	0.798	5.863
ENSG00000223158	RNY1P3	misc_RNA	-1.343	0.713	5.863
ENSG00000122862	SRGN	protein_coding	-1.343	0.798	5.863
ENSG00000186660	ZFP91	protein_coding	-1.342	0.782	5.863
ENSG00000138138	ATAD1	protein_coding	-1.341	0.807	5.863
ENSG00000184156	KCNQ3	protein_coding	-1.341	0.79	5.863
ENSG00000279098	ENSG00000279098	TEC	-1.341	0.753	5.863
ENSG00000108587	GOSR1	protein_coding	-1.34	0.813	5.863
ENSG00000165899	OTOGL	protein_coding	-1.34	0.779	5.863
ENSG00000088179	PTPN4	protein_coding	-1.34	0.804	5.863
ENSG00000248699	ENSG00000248699	processed_pseudogene	-1.34	0.768	5.863
ENSG00000272183	ENSG00000272183	lncRNA	-1.34	0.696	5.863
ENSG00000273314	ENSG00000273314	lncRNA	-1.34	0.714	5.863
ENSG00000166377	ATP9B	protein_coding	-1.339	0.819	5.863
ENSG00000240680	H4P1	processed_pseudogene	-1.339	0.688	5.863
ENSG00000070882	OSBPL3	protein_coding	-1.339	0.804	5.863
ENSG00000116874	WARS2	protein_coding	-1.339	0.8	5.863
ENSG00000123219	CENPK	protein_coding	-1.338	0.798	5.863
ENSG00000172936	MYD88	protein_coding	-1.338	0.772	5.863
ENSG00000114904	NEK4	protein_coding	-1.338	0.787	5.863
ENSG00000151881	TMEM267	protein_coding	-1.337	0.803	5.863
ENSG00000274403	ENSG00000274403	lncRNA	-1.337	0.733	5.863
ENSG00000132842	AP3B1	protein_coding	-1.336	0.8	5.863
ENSG00000157224	CLDN12	protein_coding	-1.336	0.778	5.863
ENSG00000175749	EIF3KP1	processed_pseudogene	-1.336	0.706	5.863
ENSG00000201545	RNU4-85P	snRNA	-1.336	0.735	5.863
ENSG00000196247	ZNF107	protein_coding	-1.336	0.785	5.863
ENSG00000251278	ENSG00000251278	processed_pseudogene	-1.336	0.786	5.863
ENSG00000276570	ENSG00000276570	lncRNA	-1.336	0.671	5.863
ENSG00000133703	KRAS	protein_coding	-1.335	0.791	5.863
ENSG00000063322	MED29	protein_coding	-1.335	0.782	5.863
ENSG00000145725	PPIP5K2	protein_coding	-1.335	0.765	5.863
ENSG00000201574	RNU1-93P	snRNA	-1.335	0.668	5.863
ENSG00000138190	EXOC6	protein_coding	-1.334	0.807	5.863
ENSG00000081189	MEF2C	protein_coding	-1.334	0.822	5.863
ENSG00000201619	ENSG00000201619	snoRNA	-1.334	0.653	5.863
ENSG00000008405	CRY1	protein_coding	-1.333	0.821	5.863
ENSG00000178917	ZNF852	protein_coding	-1.333	0.799	5.863
ENSG00000252945	ENSG00000252945	snoRNA	-1.333	0.706	5.863
ENSG00000270387	ENSG00000270387	processed_pseudogene	-1.332	0.753	5.863
ENSG00000280376	ENSG00000280376	TEC	-1.332	0.657	5.863
ENSG00000138071	ACTR2	protein_coding	-1.331	0.811	5.863
ENSG00000196793	ZNF239	protein_coding	-1.331	0.801	5.863
ENSG00000253558	ENSG00000253558	transcribed_processed_pseudogene	-1.331	0.77	5.863
ENSG00000259712	ENSG00000259712	lncRNA	-1.331	0.762	5.863
ENSG00000286165	ENSG00000286165	protein_coding	-1.331	0.697	5.863
ENSG00000167258	CDK12	protein_coding	-1.33	0.81	5.863
ENSG00000153046	CDYL	protein_coding	-1.33	0.825	5.863
ENSG00000249557	HSPD1P15	processed_pseudogene	-1.33	0.611	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000264757	MIR3198-1	miRNA	-1.33	0.697	5.863
ENSG00000163584	RPL22L1	protein_coding	-1.33	0.792	5.863
ENSG00000029153	ARNTL2	protein_coding	-1.329	0.822	5.863
ENSG00000152242	C18orf25	protein_coding	-1.329	0.805	5.863
ENSG00000152457	DCLRE1C	protein_coding	-1.329	0.775	5.863
ENSG00000160294	MCM3AP	protein_coding	-1.329	0.808	5.863
ENSG00000227445	OR10R1P	unprocessed_pseudogene	-1.329	0.737	5.863
ENSG00000137872	SEMA6D	protein_coding	-1.329	0.789	5.863
ENSG00000287684	ENSG00000287684	lncRNA	-1.329	0.699	5.863
ENSG00000057663	ATG5	protein_coding	-1.328	0.795	5.863
ENSG00000251363	LINC02315	lncRNA	-1.328	0.741	5.863
ENSG00000164930	FZD6	protein_coding	-1.327	0.812	5.863
ENSG00000252452	RNU6-107P	snRNA	-1.327	0.631	5.863
ENSG00000200645	RNU6-1210P	snRNA	-1.327	0.633	5.863
ENSG00000125676	THOC2	protein_coding	-1.327	0.809	5.863
ENSG00000225594	ENSG00000225594	unprocessed_pseudogene	-1.327	0.703	5.863
ENSG00000226423	ENSG00000226423	lncRNA	-1.327	0.773	5.863
ENSG00000068366	ACSL4	protein_coding	-1.326	0.804	5.863
ENSG00000198380	GFPT1	protein_coding	-1.326	0.816	5.863
ENSG00000263641	MIR4777	miRNA	-1.326	0.783	5.863
ENSG00000197381	ADARB1	protein_coding	-1.325	0.814	5.863
ENSG00000178999	AURKB	protein_coding	-1.325	0.781	5.863
ENSG00000283215	LINC02537	lncRNA	-1.325	0.827	5.863
ENSG00000102699	PARP4	protein_coding	-1.325	0.802	5.863
ENSG00000227163	ENSG00000227163	processed_pseudogene	-1.325	0.762	5.863
ENSG00000215311	NPM1P12	processed_pseudogene	-1.324	0.776	5.863
ENSG00000251715	ENSG00000251715	snoRNA	-1.324	0.692	5.863
ENSG00000264659	ENSG00000264659	lncRNA	-1.324	0.742	5.863
ENSG00000171310	CHST11	protein_coding	-1.323	0.795	5.863
ENSG00000257331	RACGAP1P1	processed_pseudogene	-1.323	0.751	5.863
ENSG00000235683	ENSG00000235683	processed_pseudogene	-1.323	0.66	5.863
ENSG00000253551	ENSG00000253551	lncRNA	-1.323	0.71	5.863
ENSG00000273451	ENSG00000273451	lncRNA	-1.323	0.706	5.863
ENSG00000166881	NEMP1	protein_coding	-1.322	0.768	5.863
ENSG00000150907	FOXO1	protein_coding	-1.321	0.749	5.863
ENSG00000105576	TNPO2	protein_coding	-1.32	0.809	5.863
ENSG00000250928	ENSG00000250928	processed_pseudogene	-1.32	0.73	5.863
ENSG00000186480	INSIG1	protein_coding	-1.319	0.808	5.863
ENSG00000143947	RPS27A	protein_coding	-1.319	0.807	5.863
ENSG00000230965	SNX18P13	processed_pseudogene	-1.319	0.672	5.863
ENSG00000213036	ENSG00000213036	processed_pseudogene	-1.319	0.664	5.863
ENSG00000254124	EEF1A1P37	processed_pseudogene	-1.318	0.819	5.863
ENSG00000175387	SMAD2	protein_coding	-1.318	0.816	5.863
ENSG00000095209	TMEM38B	protein_coding	-1.318	0.828	5.863
ENSG00000132256	TRIM5	protein_coding	-1.318	0.793	5.863
ENSG00000180011	ZADH2	protein_coding	-1.318	0.793	5.863
ENSG00000278475	ENSG00000278475	lncRNA	-1.318	0.777	5.863
ENSG00000177981	ASB8	protein_coding	-1.317	0.795	5.863
ENSG00000159267	HLCS	protein_coding	-1.317	0.81	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000171223	JUNB	protein_coding	-1.317	0.766	5.863
ENSG00000254894	NAV2-AS1	lncRNA	-1.317	0.728	5.863
ENSG00000136159	NUDT15	protein_coding	-1.317	0.78	5.863
ENSG00000258397	BCAR1P1	processed_pseudogene	-1.316	0.646	5.863
ENSG00000236562	IFITM3P1	processed_pseudogene	-1.316	0.702	5.863
ENSG00000258568	RHOQP1	processed_pseudogene	-1.316	0.772	5.863
ENSG00000179091	CYC1	protein_coding	-1.315	0.794	5.863
ENSG00000211955	IGHV3-33	IG_V_gene	-1.315	0.734	5.863
ENSG00000135164	DMTF1	protein_coding	-1.314	0.808	5.863
ENSG00000200247	RNU6-254P	snRNA	-1.314	0.751	5.863
ENSG00000187764	SEMA4D	protein_coding	-1.314	0.823	5.863
ENSG00000149970	CNKS2	protein_coding	-1.313	0.81	5.863
ENSG00000070759	TESK2	protein_coding	-1.313	0.787	5.863
ENSG00000131725	WDR44	protein_coding	-1.313	0.812	5.863
ENSG00000207488	Y_RNA	misc_RNA	-1.313	0.751	5.863
ENSG00000232952	ENSG00000232952	processed_pseudogene	-1.313	0.742	5.863
ENSG00000162769	FLVCR1	protein_coding	-1.312	0.796	5.863
ENSG00000186566	GPATCH8	protein_coding	-1.311	0.808	5.863
ENSG0000011258	MBTD1	protein_coding	-1.311	0.813	5.863
ENSG00000119685	TLL5	protein_coding	-1.311	0.803	5.863
ENSG00000166716	ZNF592	protein_coding	-1.311	0.814	5.863
ENSG00000250071	ENSG00000250071	processed_pseudogene	-1.311	0.705	5.863
ENSG00000159131	GART	protein_coding	-1.31	0.826	5.863
ENSG00000115290	GRB14	protein_coding	-1.31	0.805	5.863
ENSG00000198836	OPA1	protein_coding	-1.31	0.809	5.863
ENSG00000134086	VHL	protein_coding	-1.31	0.809	5.863
ENSG00000260743	ENSG00000260743	lncRNA	-1.31	0.773	5.863
ENSG00000271175	ENSG00000271175	processed_pseudogene	-1.31	0.733	5.863
ENSG00000181090	EHMT1	protein_coding	-1.309	0.812	5.863
ENSG00000264616	MIR4755	miRNA	-1.309	0.766	5.863
ENSG00000204410	MSH5	protein_coding	-1.309	0.802	5.863
ENSG00000138744	NAAA	protein_coding	-1.309	0.801	5.863
ENSG00000199940	RN7SKP75	misc_RNA	-1.309	0.744	5.863
ENSG00000197312	DDI2	protein_coding	-1.308	0.824	5.863
ENSG00000228523	DNAJB6P4	processed_pseudogene	-1.308	0.732	5.863
ENSG00000139641	ESYT1	protein_coding	-1.308	0.808	5.863
ENSG00000148840	PPRC1	protein_coding	-1.308	0.816	5.863
ENSG00000138375	SMARCA1	protein_coding	-1.308	0.811	5.863
ENSG00000279145	ENSG00000279145	lncRNA	-1.308	0.692	5.863
ENSG00000068697	LAPTM4A	protein_coding	-1.307	0.808	5.863
ENSG00000268295	POLR3GP1	transcribed_processed_p	-1.307	0.784	5.863
ENSG00000123444	KBTD4	protein_coding	-1.306	0.774	5.863
ENSG00000108946	PRKAR1A	protein_coding	-1.306	0.807	5.863
ENSG00000223198	RNU2-22P	snRNA	-1.306	0.678	5.863
ENSG00000249363	ENSG00000249363	processed_pseudogene	-1.306	0.729	5.863
ENSG00000270409	ENSG00000270409	transcribed_unprocessed	-1.306	0.779	5.863
ENSG00000201701	ENSG00000201701	snoRNA	-1.305	0.762	5.863
ENSG00000267637	ENSG00000267637	lncRNA	-1.305	0.77	5.863
ENSG00000274021	ENSG00000274021	lncRNA	-1.305	0.787	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000250115	AK3P2	processed_pseudogene	-1.304	0.767	5.863
ENSG00000073849	ST6GAL1	protein_coding	-1.304	0.797	5.863
ENSG00000275046	ENSG00000275046	processed_pseudogene	-1.304	0.667	5.863
ENSG00000277151	ENSG00000277151	lncRNA	-1.304	0.717	5.863
ENSG00000150768	DLAT	protein_coding	-1.303	0.821	5.863
ENSG00000115109	EPB41L5	protein_coding	-1.303	0.806	5.863
ENSG00000122912	SLC25A16	protein_coding	-1.303	0.794	5.863
ENSG00000025772	TOMM34	protein_coding	-1.303	0.787	5.863
ENSG00000223518	CSNK1A1P1	transcribed_processed_pseudogene	-1.302	0.768	5.863
ENSG00000136231	IGF2BP3	protein_coding	-1.302	0.8	5.863
ENSG00000162623	TYW3	protein_coding	-1.302	0.797	5.863
ENSG00000254644	ENSG00000254644	processed_pseudogene	-1.302	0.767	5.863
ENSG00000286386	ENSG00000286386	lncRNA	-1.302	0.697	5.863
ENSG00000198130	HIBCH	protein_coding	-1.301	0.805	5.863
ENSG00000156504	PABIR2	protein_coding	-1.301	0.799	5.863
ENSG00000234835	PHBP13	processed_pseudogene	-1.301	0.715	5.863
ENSG00000272391	POM121C	protein_coding	-1.301	0.801	5.863
ENSG00000214837	LINC01347	transcribed_unprocessed_pseudogene	-1.3	0.807	5.863
ENSG00000206562	METTL6	protein_coding	-1.3	0.802	5.863
ENSG00000185973	TMLHE	protein_coding	-1.3	0.78	5.863
ENSG00000083223	TUT7	protein_coding	-1.3	0.807	5.863
ENSG00000259647	ENSG00000259647	lncRNA	-1.3	0.671	5.863
ENSG00000183354	KIAA2026	protein_coding	-1.299	0.786	5.863
ENSG00000216813	ENSG00000216813	processed_pseudogene	-1.299	0.776	5.863
ENSG00000206149	HERC2P9	transcribed_unprocessed_pseudogene	-1.298	0.772	5.863
ENSG00000134330	IAH1	protein_coding	-1.298	0.819	5.863
ENSG00000223086	RNA5SP155	rRNA_pseudogene	-1.298	0.714	5.863
ENSG00000124422	USP22	protein_coding	-1.298	0.796	5.863
ENSG00000285077	ARHGAP11B	protein_coding	-1.297	0.722	5.863
ENSG00000198862	LTN1	protein_coding	-1.297	0.81	5.863
ENSG00000113100	CDH9	protein_coding	-1.296	0.808	5.863
ENSG00000226658	RPL23AP30	processed_pseudogene	-1.296	0.779	5.863
ENSG00000267771	ENSG00000267771	unprocessed_pseudogene	-1.296	0.665	5.863
ENSG00000207493	SNORA46	snoRNA	-1.295	0.772	5.863
ENSG00000178665	ZNF713	protein_coding	-1.294	0.804	5.863
ENSG00000218520	ENSG00000218520	processed_pseudogene	-1.294	0.691	5.863
ENSG00000226380	ENSG00000226380	lncRNA	-1.294	0.749	5.863
ENSG00000187676	B3GLCT	protein_coding	-1.293	0.8	5.863
ENSG00000200102	RNU6-252P	snRNA	-1.293	0.713	5.863
ENSG00000285676	ENSG00000285676	lncRNA	-1.293	0.591	5.863
ENSG00000065809	FAM107B	protein_coding	-1.292	0.773	5.863
ENSG00000236121	HAUS6P2	processed_pseudogene	-1.292	0.707	5.863
ENSG00000143674	MAP3K21	protein_coding	-1.292	0.829	5.863
ENSG00000137955	RABGGTB	protein_coding	-1.292	0.799	5.863
ENSG00000086589	RBM22	protein_coding	-1.292	0.812	5.863
ENSG00000230727	RBM22	unprocessed_pseudogene	-1.292	0.778	5.863
ENSG00000147526	TACC1	protein_coding	-1.292	0.806	5.863
ENSG00000013810	TACC3	protein_coding	-1.292	0.798	5.863
ENSG00000189042	ZNF567	protein_coding	-1.292	0.827	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000239407	ENSG00000239407	lncRNA	-1.292	0.797	5.863
ENSG00000256663	ENSG00000256663	processed_pseudogene	-1.292	0.792	5.863
ENSG00000082153	BZW1	protein_coding	-1.291	0.82	5.863
ENSG00000251787	RNU7-47P	snRNA	-1.291	0.665	5.863
ENSG00000225918	RPL7P59	processed_pseudogene	-1.291	0.698	5.863
ENSG00000036054	TBC1D23	protein_coding	-1.291	0.824	5.863
ENSG00000230029	CDY11P	unprocessed_pseudogene	-1.29	0.76	5.863
ENSG00000271123	ELOCP5	processed_pseudogene	-1.29	0.77	5.863
ENSG00000066583	ISOC1	protein_coding	-1.29	0.764	5.863
ENSG00000249915	PDCD6	protein_coding	-1.29	0.818	5.863
ENSG00000177181	RIMKLA	protein_coding	-1.29	0.822	5.863
ENSG00000152102	FAM168B	protein_coding	-1.289	0.812	5.863
ENSG00000147509	RGS20	protein_coding	-1.289	0.792	5.863
ENSG00000244088	RPL23AP44	processed_pseudogene	-1.289	0.789	5.863
ENSG00000198794	SCAMP5	protein_coding	-1.289	0.777	5.863
ENSG00000127364	TAS2R4	protein_coding	-1.289	0.804	5.863
ENSG00000225581	TRIM53AP	unprocessed_pseudogene	-1.289	0.651	5.863
ENSG00000168228	ZCCHC4	protein_coding	-1.289	0.821	5.863
ENSG00000256733	ENSG00000256733	lncRNA	-1.289	0.812	5.863
ENSG00000286855	ENSG00000286855	lncRNA	-1.288	0.73	5.863
ENSG00000144395	CCDC150	protein_coding	-1.287	0.819	5.863
ENSG00000055609	KMT2C	protein_coding	-1.287	0.816	5.863
ENSG00000221954	OR4C12	protein_coding	-1.287	0.678	5.863
ENSG00000251768	RNA5SP217	rRNA_pseudogene	-1.287	0.744	5.863
ENSG00000252651	RNU6-557P	snRNA	-1.287	0.751	5.863
ENSG00000139737	SLAIN1	protein_coding	-1.287	0.797	5.863
ENSG00000211820	TRAV41	TR_V_gene	-1.287	0.77	5.863
ENSG00000092208	GEMIN2	protein_coding	-1.286	0.802	5.863
ENSG00000147421	HMBOX1	protein_coding	-1.286	0.823	5.863
ENSG00000225723	MTND6P15	processed_pseudogene	-1.286	0.721	5.863
ENSG00000227663	RPL7P2	processed_pseudogene	-1.286	0.77	5.863
ENSG00000112742	TTK	protein_coding	-1.286	0.794	5.863
ENSG00000201778	Y_RNA	misc_RNA	-1.286	0.655	5.863
ENSG00000273064	ENSG00000273064	lncRNA	-1.286	0.766	5.863
ENSG00000287590	ENSG00000287590	lncRNA	-1.286	0.708	5.863
ENSG00000157985	AGAP1	protein_coding	-1.285	0.804	5.863
ENSG00000169598	DFFB	protein_coding	-1.285	0.816	5.863
ENSG00000163755	HPS3	protein_coding	-1.285	0.804	5.863
ENSG00000118961	LDAH	protein_coding	-1.285	0.787	5.863
ENSG00000166326	TRIM44	protein_coding	-1.285	0.811	5.863
ENSG00000237679	VDAC1P11	processed_pseudogene	-1.285	0.809	5.863
ENSG00000273139	ENSG00000273139	lncRNA	-1.285	0.695	5.863
ENSG00000286141	ENSG00000286141	lncRNA	-1.285	0.739	5.863
ENSG00000112218	GPR63	protein_coding	-1.284	0.785	5.863
ENSG00000249263	PARP4P3	transcribed_unprocessed	-1.284	0.743	5.863
ENSG00000166439	RNF169	protein_coding	-1.284	0.822	5.863
ENSG00000256804	ENSG00000256804	processed_pseudogene	-1.284	0.698	5.863
ENSG00000261609	GAN	protein_coding	-1.283	0.801	5.863
ENSG00000198951	NAGA	protein_coding	-1.283	0.798	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000204702	OR2J1	protein_coding	-1.283	0.755	5.863
ENSG00000225192	ZNF33BP1	processed_pseudogene	-1.283	0.782	5.863
ENSG00000236159	ENSG00000236159	processed_pseudogene	-1.283	0.734	5.863
ENSG00000006740	ARHGAP44	protein_coding	-1.282	0.815	5.863
ENSG00000171456	ASXL1	protein_coding	-1.282	0.811	5.863
ENSG00000233080	LINC01399	transcribed_processed_p:	-1.282	0.811	5.863
ENSG00000151835	SACS	protein_coding	-1.282	0.809	5.863
ENSG00000119953	SMNDC1	protein_coding	-1.282	0.812	5.863
ENSG00000112320	SOBP	protein_coding	-1.282	0.788	5.863
ENSG00000256533	ENSG00000256533	processed_pseudogene	-1.282	0.69	5.863
ENSG00000268282	ENSG00000268282	processed_pseudogene	-1.282	0.793	5.863
ENSG00000110328	GALNT18	protein_coding	-1.281	0.773	5.863
ENSG00000128585	MKLN1	protein_coding	-1.281	0.806	5.863
ENSG00000126653	NSRP1	protein_coding	-1.281	0.82	5.863
ENSG00000253327	RAD21-AS1	lncRNA	-1.281	0.808	5.863
ENSG00000286195	ENSG00000286195	lncRNA	-1.281	0.685	5.863
ENSG00000087299	L2HGDH	protein_coding	-1.28	0.796	5.863
ENSG00000158528	PPP1R9A	protein_coding	-1.28	0.809	5.863
ENSG00000139998	RAB15	protein_coding	-1.28	0.795	5.863
ENSG00000284879	ENSG00000284879	lncRNA	-1.28	0.724	5.863
ENSG00000213983	AP1G2	protein_coding	-1.279	0.805	5.863
ENSG00000156471	PTDSS1	protein_coding	-1.279	0.825	5.863
ENSG00000137642	SORL1	protein_coding	-1.279	0.81	5.863
ENSG00000251878	SNORD79	snoRNA	-1.278	0.779	5.863
ENSG00000181722	ZBTB20	protein_coding	-1.278	0.8	5.863
ENSG00000067177	PHKA1	protein_coding	-1.277	0.807	5.863
ENSG00000270116	ENSG00000270116	lncRNA	-1.277	0.696	5.863
ENSG00000279416	ENSG00000279416	TEC	-1.277	0.786	5.863
ENSG00000167522	ANKRD11	protein_coding	-1.276	0.808	5.863
ENSG00000234741	GAS5	lncRNA	-1.276	0.801	5.863
ENSG00000187504	RPL7P48	processed_pseudogene	-1.276	0.673	5.863
ENSG00000243920	RPS26P24	processed_pseudogene	-1.276	0.735	5.863
ENSG00000253013	ENSG00000253013	snoRNA	-1.276	0.733	5.863
ENSG00000268043	NBPF12	protein_coding	-1.275	0.783	5.863
ENSG00000253437	RNU6-988P	snRNA	-1.275	0.788	5.863
ENSG00000160208	RRP1B	protein_coding	-1.275	0.81	5.863
ENSG00000267920	SNX6P1	processed_pseudogene	-1.275	0.728	5.863
ENSG00000163960	UBXN7	protein_coding	-1.275	0.809	5.863
ENSG00000143951	WDPCP	protein_coding	-1.275	0.806	5.863
ENSG00000207100	ENSG00000207100	snoRNA	-1.275	0.633	5.863
ENSG00000279366	ENSG00000279366	TEC	-1.275	0.773	5.863
ENSG00000229918	DOCK9-AS1	lncRNA	-1.274	0.807	5.863
ENSG00000215961	MIR297	miRNA	-1.274	0.78	5.863
ENSG00000117751	PPP1R8	protein_coding	-1.274	0.809	5.863
ENSG00000154001	PPP2R5E	protein_coding	-1.274	0.822	5.863
ENSG00000213585	VDAC1	protein_coding	-1.274	0.81	5.863
ENSG00000200448	Y_RNA	misc_RNA	-1.274	0.763	5.863
ENSG00000272801	ENSG00000272801	lncRNA	-1.274	0.684	5.863
ENSG00000286753	ENSG00000286753	lncRNA	-1.274	0.76	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000105926	MPP6	protein_coding	-1.273	0.8	5.863
ENSG00000105426	PTPRS	protein_coding	-1.273	0.823	5.863
ENSG00000224271	ENSG00000224271	lncRNA	-1.273	0.803	5.863
ENSG00000253307	ENSG00000253307	lncRNA	-1.273	0.789	5.863
ENSG00000272076	ENSG00000272076	lncRNA	-1.273	0.725	5.863
ENSG00000277227	ENSG00000277227	unprocessed_pseudogene	-1.273	0.733	5.863
ENSG00000153093	ACOXL	protein_coding	-1.272	0.809	5.863
ENSG00000102900	NUP93	protein_coding	-1.272	0.811	5.863
ENSG00000164430	CGAS	protein_coding	-1.271	0.796	5.863
ENSG00000163507	CIP2A	protein_coding	-1.271	0.794	5.863
ENSG00000266038	MIR4659A	miRNA	-1.27	0.736	5.863
ENSG00000199411	SNORD62	snoRNA	-1.27	0.598	5.863
ENSG00000261279	ULK4P1	transcribed_unprocessed	-1.27	0.724	5.863
ENSG00000205189	ZBTB10	protein_coding	-1.27	0.782	5.863
ENSG00000269662	BNIP3P39	processed_pseudogene	-1.269	0.781	5.863
ENSG00000163938	GNL3	protein_coding	-1.269	0.823	5.863
ENSG00000251019	HIGD1AP13	processed_pseudogene	-1.269	0.705	5.863
ENSG00000078589	P2RY10	protein_coding	-1.269	0.809	5.863
ENSG00000251045	SLC25A48-AS1	lncRNA	-1.269	0.802	5.863
ENSG00000117500	TMED5	protein_coding	-1.269	0.827	5.863
ENSG00000279952	ENSG00000279952	TEC	-1.269	0.776	5.863
ENSG00000200601	RNA5SP50	rRNA_pseudogene	-1.268	0.795	5.863
ENSG00000116754	SRSF11	protein_coding	-1.268	0.833	5.863
ENSG00000212347	ENSG00000212347	snoRNA	-1.268	0.761	5.863
ENSG00000230506	ENSG00000230506	lncRNA	-1.268	0.747	5.863
ENSG00000277576	ENSG00000277576	unprocessed_pseudogene	-1.268	0.778	5.863
ENSG00000214252	AZGP1P2	unprocessed_pseudogene	-1.267	0.775	5.863
ENSG00000106560	GIMAP2	protein_coding	-1.267	0.738	5.863
ENSG00000265981	MIR544B	miRNA	-1.267	0.664	5.863
ENSG00000173821	RNF213	protein_coding	-1.267	0.8	5.863
ENSG00000252082	RNU6-547P	snRNA	-1.267	0.763	5.863
ENSG00000252743	RNU6-850P	snRNA	-1.267	0.813	5.863
ENSG00000255717	SNHG1	lncRNA	-1.267	0.819	5.863
ENSG00000225326	USP9YP19	unprocessed_pseudogene	-1.267	0.667	5.863
ENSG00000243081	ENSG00000243081	lncRNA	-1.267	0.729	5.863
ENSG00000272085	ENSG00000272085	lncRNA	-1.267	0.726	5.863
ENSG00000286420	ENSG00000286420	lncRNA	-1.266	0.8	5.863
ENSG00000091140	DLD	protein_coding	-1.265	0.812	5.863
ENSG00000163798	SLC4A1AP	protein_coding	-1.265	0.814	5.863
ENSG00000114126	TFDP2	protein_coding	-1.265	0.814	5.863
ENSG00000249978	TRGV7	TR_V_pseudogene	-1.265	0.681	5.863
ENSG00000071539	TRIP13	protein_coding	-1.265	0.824	5.863
ENSG00000161533	ACOX1	protein_coding	-1.264	0.808	5.863
ENSG00000230750	SDAD1P2	processed_pseudogene	-1.264	0.787	5.863
ENSG00000072858	SIDT1	protein_coding	-1.264	0.804	5.863
ENSG00000092330	TINF2	protein_coding	-1.264	0.812	5.863
ENSG00000106477	CEP41	protein_coding	-1.263	0.801	5.863
ENSG00000084754	HADHA	protein_coding	-1.263	0.807	5.863
ENSG00000283569	MIR4773-2	miRNA	-1.263	0.736	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000101843	PSMD10	protein_coding	-1.263	0.825	5.863
ENSG00000267224	ENSG00000267224	lncRNA	-1.263	0.798	5.863
ENSG00000267838	ENSG00000267838	lncRNA	-1.263	0.695	5.863
ENSG00000133019	CHRM3	protein_coding	-1.262	0.801	5.863
ENSG00000058262	SEC61A1	protein_coding	-1.262	0.823	5.863
ENSG00000183171	ENSG00000183171	processed_pseudogene	-1.262	0.782	5.863
ENSG00000260465	ENSG00000260465	lncRNA	-1.262	0.749	5.863
ENSG00000134698	AGO4	protein_coding	-1.261	0.809	5.863
ENSG00000163214	DHX57	protein_coding	-1.261	0.82	5.863
ENSG00000137942	FBNP1L	protein_coding	-1.261	0.813	5.863
ENSG00000100938	GMPR2	protein_coding	-1.261	0.799	5.863
ENSG00000230585	PHBP12	processed_pseudogene	-1.261	0.684	5.863
ENSG00000227581	STAU2P1	processed_pseudogene	-1.261	0.649	5.863
ENSG00000280325	ENSG00000280325	TEC	-1.261	0.736	5.863
ENSG00000207994	MIR100	miRNA	-1.26	0.756	5.863
ENSG00000272498	ENSG00000272498	lncRNA	-1.26	0.799	5.863
ENSG00000279841	ENSG00000279841	TEC	-1.26	0.769	5.863
ENSG00000284705	ENSG00000284705	lncRNA	-1.26	0.66	5.863
ENSG00000228411	CDY4P	processed_pseudogene	-1.259	0.815	5.863
ENSG00000214035	ENSG00000214035	processed_pseudogene	-1.259	0.741	5.863
ENSG00000226843	ENSG00000226843	processed_pseudogene	-1.259	0.807	5.863
ENSG00000122026	RPL21	protein_coding	-1.258	0.82	5.863
ENSG00000280369	ENSG00000280369	TEC	-1.258	0.636	5.863
ENSG00000285082	ENSG00000285082	protein_coding	-1.258	0.722	5.863
ENSG00000142002	DPP9	protein_coding	-1.257	0.808	5.863
ENSG00000257504	LINC02297	lncRNA	-1.257	0.667	5.863
ENSG00000231613	ENSG00000231613	lncRNA	-1.257	0.745	5.863
ENSG00000271843	ENSG00000271843	lncRNA	-1.257	0.758	5.863
ENSG00000286571	ENSG00000286571	lncRNA	-1.257	0.723	5.863
ENSG00000234147	ENSG00000234147	lncRNA	-1.256	0.755	5.863
ENSG00000264911	ENSG00000264911	processed_pseudogene	-1.256	0.813	5.863
ENSG00000259670	ENSG00000259670	lncRNA	-1.255	0.798	5.863
ENSG00000140526	ABHD2	protein_coding	-1.254	0.816	5.863
ENSG00000160783	PMF1	protein_coding	-1.254	0.817	5.863
ENSG00000140105	WARS1	protein_coding	-1.254	0.815	5.863
ENSG00000270804	ENSG00000270804	transcribed_processed_pseudogene	-1.254	0.805	5.863
ENSG00000278946	ENSG00000278946	lncRNA	-1.254	0.789	5.863
ENSG00000109572	CLCN3	protein_coding	-1.253	0.808	5.863
ENSG00000117650	NEK2	protein_coding	-1.253	0.78	5.863
ENSG00000170605	OR9K2	protein_coding	-1.253	0.716	5.863
ENSG00000173431	RNASE8	protein_coding	-1.253	0.796	5.863
ENSG00000213853	EMP2	protein_coding	-1.252	0.813	5.863
ENSG00000164167	LSM6	protein_coding	-1.252	0.814	5.863
ENSG00000136603	SKIL	protein_coding	-1.252	0.824	5.863
ENSG00000164828	SUN1	protein_coding	-1.252	0.816	5.863
ENSG00000206573	THUMPD3-AS1	lncRNA	-1.252	0.812	5.863
ENSG00000271204	ENSG00000271204	lncRNA	-1.252	0.734	5.863
ENSG00000249286	AMD1P3	processed_pseudogene	-1.251	0.78	5.863
ENSG00000220871	DNAJC19P6	processed_pseudogene	-1.251	0.747	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000229221	HNRNPA1P66	processed_pseudogene	-1.251	0.746	5.863
ENSG00000278236	ENSG00000278236	misc_RNA	-1.251	0.553	5.863
ENSG00000112234	FBXL4	protein_coding	-1.25	0.799	5.863
ENSG00000095015	MAP3K1	protein_coding	-1.25	0.817	5.863
ENSG00000053372	MRT04	protein_coding	-1.25	0.798	5.863
ENSG00000102038	SMARCA1	protein_coding	-1.25	0.806	5.863
ENSG00000119596	YLPM1	protein_coding	-1.25	0.828	5.863
ENSG00000261167	ENSG00000261167	lncRNA	-1.25	0.686	5.863
ENSG00000166266	CUL5	protein_coding	-1.249	0.817	5.863
ENSG00000246863	GPR176-DT	lncRNA	-1.249	0.82	5.863
ENSG00000162601	MYSM1	protein_coding	-1.249	0.816	5.863
ENSG00000201343	Y_RNA	misc_RNA	-1.249	0.773	5.863
ENSG00000001629	ANKIB1	protein_coding	-1.248	0.813	5.863
ENSG00000162819	BROX	protein_coding	-1.248	0.777	5.863
ENSG00000222445	RN7SKP56	misc_RNA	-1.248	0.708	5.863
ENSG00000237296	SMG1P1	transcribed_unprocessed	-1.248	0.762	5.863
ENSG00000229271	ENSG00000229271	lncRNA	-1.248	0.826	5.863
ENSG00000160588	MPZL3	protein_coding	-1.247	0.8	5.863
ENSG00000241186	TDGF1	protein_coding	-1.247	0.765	5.863
ENSG00000261544	ENSG00000261544	lncRNA	-1.247	0.778	5.863
ENSG00000166147	FBN1	protein_coding	-1.246	0.809	5.863
ENSG00000239119	RNU7-119P	snRNA	-1.246	0.813	5.863
ENSG00000115268	RPS15	protein_coding	-1.246	0.809	5.863
ENSG00000201182	RNU6-670P	snRNA	-1.245	0.613	5.863
ENSG00000227236	ENSG00000227236	processed_pseudogene	-1.245	0.769	5.863
ENSG00000198799	LRIG2	protein_coding	-1.244	0.813	5.863
ENSG00000231049	OR52B5P	transcribed_unprocessed	-1.244	0.778	5.863
ENSG00000273106	PPM1B-DT	lncRNA	-1.244	0.743	5.863
ENSG00000120594	PLXDC2	protein_coding	-1.243	0.791	5.863
ENSG00000206939	RNU6-281P	snRNA	-1.243	0.734	5.863
ENSG00000238304	RNU7-50P	snRNA	-1.243	0.615	5.863
ENSG00000147010	SH3KBP1	protein_coding	-1.243	0.812	5.863
ENSG00000143324	XPR1	protein_coding	-1.243	0.808	5.863
ENSG00000249993	BFSP2-AS1	lncRNA	-1.242	0.765	5.863
ENSG00000113161	HMGCR	protein_coding	-1.242	0.813	5.863
ENSG00000265503	MIR1269B	miRNA	-1.242	0.716	5.863
ENSG00000107263	RAPGEF1	protein_coding	-1.242	0.798	5.863
ENSG00000241745	RN7SL788P	misc_RNA	-1.242	0.797	5.863
ENSG00000283347	ENSG00000283347	lncRNA	-1.242	0.777	5.863
ENSG00000263020	ENSG00000263020	protein_coding	-1.241	0.794	5.863
ENSG00000273090	ENSG00000273090	lncRNA	-1.241	0.733	5.863
ENSG00000224549	ENSG00000224549	lncRNA	-1.241	0.753	8.482
ENSG00000070831	CDC42	protein_coding	-1.24	0.803	8.482
ENSG00000180229	HERC2P3	transcribed_unprocessed	-1.24	0.805	8.482
ENSG00000199135	MIR101-1	miRNA	-1.24	0.761	8.482
ENSG00000223677	OR2AD1P	unprocessed_pseudogene	-1.24	0.737	8.482
ENSG00000168778	TCTN2	protein_coding	-1.24	0.79	8.482
ENSG00000286995	ENSG00000286995	lncRNA	-1.24	0.711	8.482
ENSG00000182831	C16orf72	protein_coding	-1.239	0.837	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000231721	LINC-PINT	lncRNA	-1.239	0.788	8.482
ENSG00000151576	QTRT2	protein_coding	-1.239	0.812	8.482
ENSG00000287871	ENSG00000287871	lncRNA	-1.239	0.798	8.482
ENSG00000248131	LINC01194	lncRNA	-1.238	0.805	8.482
ENSG00000238205	MPC1L	protein_coding	-1.238	0.788	8.482
ENSG00000236920	ENSG00000236920	lncRNA	-1.238	0.727	8.482
ENSG00000238707	ENSG00000238707	snoRNA	-1.238	0.823	8.482
ENSG00000286837	ENSG00000286837	lncRNA	-1.238	0.744	8.482
ENSG00000257594	GALNT4	protein_coding	-1.237	0.785	8.482
ENSG00000131351	HAUS8	protein_coding	-1.237	0.807	8.482
ENSG00000153187	HNRNPU	protein_coding	-1.237	0.814	8.482
ENSG00000163738	MTHFD2L	protein_coding	-1.237	0.815	8.482
ENSG00000203739	PRDX6-AS1	lncRNA	-1.237	0.788	8.482
ENSG00000122257	RBBP6	protein_coding	-1.237	0.814	8.482
ENSG00000124788	ATXN1	protein_coding	-1.236	0.82	8.482
ENSG00000267153	CTBP2P3	processed_pseudogene	-1.236	0.761	8.482
ENSG00000105993	DNAJB6	protein_coding	-1.236	0.821	8.482
ENSG00000235651	G3BP1P1	processed_pseudogene	-1.236	0.707	8.482
ENSG00000075975	MKRN2	protein_coding	-1.236	0.811	8.482
ENSG00000165832	TRUB1	protein_coding	-1.236	0.803	8.482
ENSG00000241102	ENSG00000241102	processed_pseudogene	-1.236	0.773	8.482
ENSG00000111832	RWDD1	protein_coding	-1.235	0.778	8.482
ENSG00000197961	ZNF121	protein_coding	-1.235	0.816	8.482
ENSG00000280060	ENSG00000280060	TEC	-1.235	0.639	8.482
ENSG00000287552	ENSG00000287552	lncRNA	-1.235	0.587	8.482
ENSG00000251595	ABCA11P	transcribed_processed_pseudogene	-1.234	0.726	8.482
ENSG00000132964	CDK8	protein_coding	-1.234	0.804	8.482
ENSG00000239650	GUSBP4	transcribed_unprocessed_pseudogene	-1.234	0.534	8.482
ENSG00000145555	MYO10	protein_coding	-1.234	0.828	8.482
ENSG00000109320	NFKB1	protein_coding	-1.234	0.828	8.482
ENSG00000001167	NFYA	protein_coding	-1.234	0.794	8.482
ENSG00000112210	RAB23	protein_coding	-1.234	0.801	8.482
ENSG00000104635	SLC39A14	protein_coding	-1.234	0.818	8.482
ENSG00000164953	TMEM67	protein_coding	-1.234	0.807	8.482
ENSG00000132846	ZBED3	protein_coding	-1.234	0.777	8.482
ENSG00000175322	ZNF519	protein_coding	-1.234	0.816	8.482
ENSG00000215547	DEFB115	protein_coding	-1.233	0.764	8.482
ENSG00000252777	ENSG00000252777	scaRNA	-1.233	0.603	8.482
ENSG00000271578	ENSG00000271578	processed_pseudogene	-1.233	0.812	8.482
ENSG00000067248	DHX29	protein_coding	-1.232	0.795	8.482
ENSG00000181450	ZNF678	protein_coding	-1.232	0.807	8.482
ENSG00000149499	EML3	protein_coding	-1.231	0.804	8.482
ENSG00000090266	NDUFB2	protein_coding	-1.231	0.809	8.482
ENSG00000172575	RASGRP1	protein_coding	-1.231	0.812	8.482
ENSG00000117620	SLC35A3	protein_coding	-1.231	0.83	8.482
ENSG00000285948	ENSG00000285948	lncRNA	-1.231	0.71	8.482
ENSG00000224688	E2F6P2	processed_pseudogene	-1.23	0.701	8.482
ENSG00000230818	MTND2P16	processed_pseudogene	-1.23	0.797	8.482
ENSG00000174738	NR1D2	protein_coding	-1.23	0.789	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000244691	RPL10AP1	processed_pseudogene	-1.23	0.815	8.482
ENSG00000146858	ZC3HAV1L	protein_coding	-1.23	0.796	8.482
ENSG00000145191	EIF2B5	protein_coding	-1.229	0.826	8.482
ENSG00000168243	GNG4	protein_coding	-1.229	0.816	8.482
ENSG00000172199	OR8U1	protein_coding	-1.229	0.744	8.482
ENSG00000248588	ENSG00000248588	lncRNA	-1.229	0.778	8.482
ENSG00000270859	ENSG00000270859	processed_pseudogene	-1.229	0.795	8.482
ENSG00000280022	ENSG00000280022	TEC	-1.229	0.672	8.482
ENSG00000141428	C18orf21	protein_coding	-1.228	0.787	8.482
ENSG00000043093	DCUN1D1	protein_coding	-1.228	0.819	8.482
ENSG00000138101	DTNB	protein_coding	-1.228	0.812	8.482
ENSG00000171843	MLLT3	protein_coding	-1.228	0.835	8.482
ENSG00000186124	OR9M1P	transcribed_unprocessed	-1.228	0.761	8.482
ENSG00000104689	TNFRSF10A	protein_coding	-1.228	0.804	8.482
ENSG00000112851	ERBIN	protein_coding	-1.227	0.806	8.482
ENSG00000187741	FANCA	protein_coding	-1.227	0.822	8.482
ENSG00000128654	MTX2	protein_coding	-1.227	0.831	8.482
ENSG00000150776	NKAPD1	protein_coding	-1.227	0.813	8.482
ENSG00000125450	NUP85	protein_coding	-1.227	0.81	8.482
ENSG00000145246	ATP10D	protein_coding	-1.226	0.81	8.482
ENSG00000222057	RNU4-62P	snRNA	-1.226	0.644	8.482
ENSG00000065613	SLK	protein_coding	-1.226	0.813	8.482
ENSG00000125304	TM9SF2	protein_coding	-1.226	0.82	8.482
ENSG00000207231	Y_RNA	misc_RNA	-1.226	0.669	8.482
ENSG00000253642	ENSG00000253642	lncRNA	-1.226	0.795	8.482
ENSG00000259375	ENSG00000259375	lncRNA	-1.226	0.823	8.482
ENSG00000105393	BABAM1	protein_coding	-1.225	0.823	8.482
ENSG00000268997	DNAJC19P3	processed_pseudogene	-1.225	0.764	8.482
ENSG00000136699	SMPD4	protein_coding	-1.225	0.794	8.482
ENSG00000200051	ENSG00000200051	snoRNA	-1.225	0.796	8.482
ENSG00000272829	ENSG00000272829	lncRNA	-1.225	0.774	8.482
ENSG00000260427	AGGF1P9	processed_pseudogene	-1.224	0.797	8.482
ENSG00000175548	ALG10B	protein_coding	-1.224	0.776	8.482
ENSG00000227740	LINC02803	lncRNA	-1.224	0.768	8.482
ENSG00000279465	ENSG00000279465	TEC	-1.224	0.678	8.482
ENSG00000214273	AGGF1P1	processed_pseudogene	-1.223	0.634	8.482
ENSG00000163171	CDC42EP3	protein_coding	-1.223	0.801	8.482
ENSG00000252072	RNA5SP320	rRNA_pseudogene	-1.223	0.675	8.482
ENSG00000252026	RNU6-1262P	snRNA	-1.223	0.593	8.482
ENSG00000260290	ENSG00000260290	processed_pseudogene	-1.223	0.764	8.482
ENSG00000070770	CSNK2A2	protein_coding	-1.222	0.818	8.482
ENSG00000234121	GPM6BP3	processed_pseudogene	-1.222	0.761	8.482
ENSG00000229954	MTND2P2	processed_pseudogene	-1.222	0.778	8.482
ENSG00000274400	ENSG00000274400	lncRNA	-1.222	0.778	8.482
ENSG00000107625	DDX50	protein_coding	-1.221	0.823	8.482
ENSG00000010810	FYN	protein_coding	-1.221	0.806	8.482
ENSG00000178502	KLHL11	protein_coding	-1.221	0.805	8.482
ENSG00000252768	RNU6-856P	snRNA	-1.221	0.668	8.482
ENSG00000248652	ENSG00000248652	processed_pseudogene	-1.221	0.675	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000181192	DHTKD1	protein_coding	-1.22	0.823	8.482
ENSG00000143190	POU2F1	protein_coding	-1.22	0.819	8.482
ENSG00000209042	SNORD12C	snoRNA	-1.22	0.791	8.482
ENSG00000236498	ENSG00000236498	lncRNA	-1.22	0.755	8.482
ENSG00000237429	ENSG00000237429	lncRNA	-1.22	0.789	8.482
ENSG00000241991	ENSG00000241991	processed_pseudogene	-1.22	0.744	8.482
ENSG00000254212	ENSG00000254212	processed_pseudogene	-1.22	0.715	8.482
ENSG00000261468	ENSG00000261468	lncRNA	-1.22	0.738	8.482
ENSG00000280277	ENSG00000280277	TEC	-1.22	0.756	8.482
ENSG00000138346	DNA2	protein_coding	-1.219	0.821	8.482
ENSG00000117298	ECE1	protein_coding	-1.219	0.81	8.482
ENSG00000141179	PCTP	protein_coding	-1.219	0.807	8.482
ENSG00000171396	KRTAP4-4	protein_coding	-1.218	0.744	8.482
ENSG00000039560	RAI14	protein_coding	-1.218	0.821	8.482
ENSG00000253580	TRMT10BP1	processed_pseudogene	-1.218	0.76	8.482
ENSG00000155313	USP25	protein_coding	-1.218	0.801	8.482
ENSG00000176567	OR4X1	protein_coding	-1.217	0.76	8.482
ENSG00000233541	RPL31P47	processed_pseudogene	-1.217	0.788	8.482
ENSG00000212378	ENSG00000212378	snoRNA	-1.217	0.739	8.482
ENSG00000164687	FABP5	protein_coding	-1.216	0.774	8.482
ENSG00000110514	MADD	protein_coding	-1.216	0.821	8.482
ENSG00000202231	ENSG00000202231	snoRNA	-1.216	0.691	8.482
ENSG00000236073	ENSG00000236073	processed_pseudogene	-1.216	0.752	8.482
ENSG00000254201	ENSG00000254201	lncRNA	-1.216	0.738	8.482
ENSG00000269786	ENSG00000269786	processed_pseudogene	-1.216	0.733	8.482
ENSG00000211514	MIR454	miRNA	-1.215	0.673	8.482
ENSG00000173418	NAA20	protein_coding	-1.215	0.78	8.482
ENSG00000229512	ENSG00000229512	lncRNA	-1.215	0.677	8.482
ENSG00000166845	C18orf54	protein_coding	-1.214	0.782	8.482
ENSG00000196284	SUPT3H	protein_coding	-1.214	0.819	8.482
ENSG00000240240	ENSG00000240240	lncRNA	-1.214	0.715	8.482
ENSG00000249943	ENSG00000249943	processed_pseudogene	-1.214	0.716	8.482
ENSG00000261315	LARP4P	transcribed_processed_pseudogene	-1.213	0.717	8.482
ENSG00000213089	PDCL3P5	processed_pseudogene	-1.213	0.745	8.482
ENSG00000146918	NCAPG2	protein_coding	-1.212	0.822	8.482
ENSG00000008952	SEC62	protein_coding	-1.212	0.839	8.482
ENSG00000216360	ENSG00000216360	processed_pseudogene	-1.212	0.764	8.482
ENSG00000270491	ENSG00000270491	processed_pseudogene	-1.212	0.73	8.482
ENSG00000138686	BBS7	protein_coding	-1.211	0.827	8.482
ENSG00000174944	P2RY14	protein_coding	-1.211	0.806	8.482
ENSG00000207155	RNY1P14	misc_RNA	-1.211	0.726	8.482
ENSG00000235605	ENSG00000235605	processed_pseudogene	-1.211	0.817	8.482
ENSG00000279148	ENSG00000279148	TEC	-1.211	0.815	8.482
ENSG00000153317	ASAP1	protein_coding	-1.21	0.824	8.482
ENSG00000118816	CCNI	protein_coding	-1.21	0.808	8.482
ENSG00000203737	GPR52	protein_coding	-1.21	0.716	8.482
ENSG00000200806	RNA5SP275	rRNA_pseudogene	-1.21	0.723	8.482
ENSG00000235105	ENSG00000235105	processed_pseudogene	-1.21	0.657	8.482
ENSG00000236358	ENSG00000236358	lncRNA	-1.21	0.803	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000277350	ENSG00000277350	lncRNA	-1.21	0.626	8.482
ENSG00000139624	CERS5	protein_coding	-1.209	0.804	8.482
ENSG00000187080	OR2AK2	protein_coding	-1.209	0.787	8.482
ENSG00000261144	ENSG00000261144	processed_pseudogene	-1.209	0.789	8.482
ENSG00000270751	FBXW7-AS1	lncRNA	-1.208	0.776	8.482
ENSG00000130935	NOL11	protein_coding	-1.208	0.818	8.482
ENSG00000121314	TAS2R8	protein_coding	-1.208	0.747	8.482
ENSG00000248347	ENSG00000248347	unprocessed_pseudogene	-1.208	0.828	8.482
ENSG00000273240	ENSG00000273240	lncRNA	-1.208	0.754	8.482
ENSG00000278880	ENSG00000278880	TEC	-1.208	0.718	8.482
ENSG00000113384	GOLPH3	protein_coding	-1.207	0.819	8.482
ENSG00000263813	MIR3679	miRNA	-1.207	0.739	8.482
ENSG00000230549	USP17L1	protein_coding	-1.207	0.793	8.482
ENSG00000136451	VEZF1	protein_coding	-1.207	0.807	8.482
ENSG00000101974	ATP11C	protein_coding	-1.206	0.815	8.482
ENSG00000000460	C1orf112	protein_coding	-1.206	0.811	8.482
ENSG00000147872	PLIN2	protein_coding	-1.206	0.81	8.482
ENSG00000250359	PTP4A1P4	processed_pseudogene	-1.206	0.722	8.482
ENSG00000198918	RPL39	protein_coding	-1.206	0.747	8.482
ENSG00000137815	RTF1	protein_coding	-1.206	0.807	8.482
ENSG00000271779	ENSG00000271779	processed_pseudogene	-1.206	0.766	8.482
ENSG00000282386	ENSG00000282386	lncRNA	-1.206	0.797	8.482
ENSG00000286395	ENSG00000286395	lncRNA	-1.206	0.779	8.482
ENSG00000253971	CDC42P3	processed_pseudogene	-1.205	0.757	8.482
ENSG00000129493	HEATR5A	protein_coding	-1.205	0.822	8.482
ENSG00000230911	PPIHP1	processed_pseudogene	-1.205	0.799	8.482
ENSG00000057657	PRDM1	protein_coding	-1.205	0.827	8.482
ENSG00000255423	EBLN2	protein_coding	-1.204	0.743	8.482
ENSG00000226491	FTOP1	processed_pseudogene	-1.204	0.791	8.482
ENSG00000204623	ZNRD1ASP	transcribed_unitary_pseu	-1.204	0.836	8.482
ENSG00000253667	ENSG00000253667	processed_pseudogene	-1.204	0.809	8.482
ENSG00000254350	ENSG00000254350	lncRNA	-1.204	0.733	8.482
ENSG00000276533	ENSG00000276533	lncRNA	-1.204	0.749	8.482
ENSG00000280202	ENSG00000280202	TEC	-1.204	0.75	8.482
ENSG00000252655	Y_RNA	misc_RNA	-1.203	0.735	8.482
ENSG00000197123	ZNF679	protein_coding	-1.203	0.826	8.482
ENSG00000224132	ENSG00000224132	lncRNA	-1.203	0.812	8.482
ENSG00000214875	MED28P1	processed_pseudogene	-1.202	0.763	8.482
ENSG00000186086	NBPF6	protein_coding	-1.202	0.727	8.482
ENSG00000188636	RTL6	protein_coding	-1.202	0.803	8.482
ENSG00000248445	SEMA6A-AS1	lncRNA	-1.202	0.826	8.482
ENSG00000278040	ENSG00000278040	misc_RNA	-1.202	0.761	8.482
ENSG00000021826	CPS1	protein_coding	-1.201	0.823	8.482
ENSG00000165304	MELK	protein_coding	-1.201	0.812	8.482
ENSG00000140157	NIPA2	protein_coding	-1.201	0.832	8.482
ENSG00000067900	ROCK1	protein_coding	-1.201	0.818	8.482
ENSG00000235748	SEPTIN14P12	processed_pseudogene	-1.201	0.735	8.482
ENSG00000253060	ENSG00000253060	scaRNA	-1.201	0.792	8.482
ENSG00000285473	ENSG00000285473	lncRNA	-1.201	0.717	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000149187	CELF1	protein_coding	-1.2	0.839	8.482
ENSG00000127463	EMC1	protein_coding	-1.2	0.822	8.482
ENSG00000250076	MAPRE1P2	processed_pseudogene	-1.2	0.77	8.482
ENSG00000174231	PRPF8	protein_coding	-1.2	0.828	8.482
ENSG00000200571	RNU6-1284P	snRNA	-1.2	0.75	8.482
ENSG00000252874	Y_RNA	misc_RNA	-1.2	0.697	8.482
ENSG00000105497	ZNF175	protein_coding	-1.2	0.816	8.482
ENSG00000197782	ZNF780A	protein_coding	-1.2	0.764	8.482
ENSG00000233589	ENSG00000233589	lncRNA	-1.2	0.793	8.482
ENSG00000271653	ENSG00000271653	lncRNA	-1.2	0.816	8.482
ENSG00000122483	CCDC18	protein_coding	-1.199	0.807	8.482
ENSG00000260451	GEMIN8P2	processed_pseudogene	-1.199	0.783	8.482
ENSG00000100578	KIAA0586	protein_coding	-1.199	0.813	8.482
ENSG00000244025	KRTAP19-3	protein_coding	-1.199	0.805	8.482
ENSG00000232970	POLHP1	processed_pseudogene	-1.199	0.672	8.482
ENSG00000102572	STK24	protein_coding	-1.199	0.825	8.482
ENSG00000267693	ENSG00000267693	processed_pseudogene	-1.199	0.741	8.482
ENSG00000188996	HUS1B	protein_coding	-1.198	0.787	8.482
ENSG00000251604	LINC01385	lncRNA	-1.198	0.788	8.482
ENSG00000137821	LRRC49	protein_coding	-1.198	0.811	8.482
ENSG00000159459	UBR1	protein_coding	-1.198	0.782	8.482
ENSG00000184110	EIF3C	protein_coding	-1.197	0.768	8.482
ENSG00000252005	RNU4ATAC8P	snRNA	-1.197	0.784	8.482
ENSG00000218180	SLC25A5P7	processed_pseudogene	-1.197	0.722	8.482
ENSG00000223959	AFG3L1P	transcribed_unitary_pseu	-1.196	0.826	8.482
ENSG00000231162	COX11P1	processed_pseudogene	-1.196	0.813	8.482
ENSG00000171877	FRMD5	protein_coding	-1.196	0.816	8.482
ENSG00000233448	PMS2P9	transcribed_unprocessed_	-1.196	0.72	8.482
ENSG00000261284	RBM22P13	processed_pseudogene	-1.196	0.756	8.482
ENSG00000238694	ENSG00000238694	snoRNA	-1.196	0.667	8.482
ENSG00000258365	ENSG00000258365	lncRNA	-1.196	0.814	8.482
ENSG00000258904	ENSG00000258904	lncRNA	-1.196	0.808	8.482
ENSG00000286052	ENSG00000286052	lncRNA	-1.196	0.682	8.482
ENSG00000197548	ATG7	protein_coding	-1.195	0.826	8.482
ENSG00000143924	EML4	protein_coding	-1.195	0.831	8.482
ENSG00000207959	MIR656	miRNA	-1.195	0.77	8.482
ENSG00000141576	RNF157	protein_coding	-1.195	0.827	8.482
ENSG00000143514	TP53BP2	protein_coding	-1.195	0.827	8.482
ENSG00000217372	TUBB4BP7	processed_pseudogene	-1.195	0.779	8.482
ENSG00000279478	ENSG00000279478	TEC	-1.195	0.793	8.482
ENSG00000217241	CBX3P9	processed_pseudogene	-1.194	0.715	8.482
ENSG00000176624	MEX3C	protein_coding	-1.194	0.824	8.482
ENSG00000263741	MIR548AS	miRNA	-1.194	0.711	8.482
ENSG00000226306	NPY6R	transcribed_processed_p	-1.194	0.754	8.482
ENSG00000084093	REST	protein_coding	-1.194	0.805	8.482
ENSG00000143344	RGL1	protein_coding	-1.194	0.807	8.482
ENSG00000202031	SNORD38A	snoRNA	-1.194	0.812	8.482
ENSG00000111642	CHD4	protein_coding	-1.193	0.809	8.482
ENSG00000087338	GMCL1	protein_coding	-1.193	0.824	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000110583	NAA40	protein_coding	-1.193	0.829	8.482
ENSG00000260307	PABPC1P13	processed_pseudogene	-1.193	0.793	8.482
ENSG00000101695	RNF125	protein_coding	-1.193	0.809	8.482
ENSG00000199394	RNU6-600P	snRNA	-1.193	0.806	8.482
ENSG00000225823	RPL7P45	processed_pseudogene	-1.193	0.762	8.482
ENSG00000230793	SMARCE1P5	processed_pseudogene	-1.193	0.812	8.482
ENSG0000023608	SNAPC1	protein_coding	-1.193	0.798	8.482
ENSG00000287083	ENSG00000287083	lncRNA	-1.193	0.786	8.482
ENSG00000169607	CKAP2L	protein_coding	-1.192	0.809	8.482
ENSG00000100592	DAAM1	protein_coding	-1.192	0.816	8.482
ENSG00000133731	IMPA1	protein_coding	-1.192	0.829	8.482
ENSG00000078140	UBE2K	protein_coding	-1.192	0.832	8.482
ENSG00000229832	ENSG00000229832	lncRNA	-1.192	0.791	8.482
ENSG00000249079	ENSG00000249079	processed_pseudogene	-1.192	0.74	8.482
ENSG00000260659	ENSG00000260659	lncRNA	-1.192	0.736	8.482
ENSG00000123575	FAM199X	protein_coding	-1.191	0.822	8.482
ENSG00000137441	FGFBP2	protein_coding	-1.191	0.763	8.482
ENSG00000196844	PATE2	protein_coding	-1.191	0.801	8.482
ENSG00000231508	RPL34P20	processed_pseudogene	-1.191	0.714	8.482
ENSG00000286850	ENSG00000286850	lncRNA	-1.191	0.801	8.482
ENSG00000287616	ENSG00000287616	lncRNA	-1.191	0.819	8.482
ENSG00000161692	DBF4B	protein_coding	-1.19	0.817	8.482
ENSG00000186205	MTARC1	protein_coding	-1.19	0.801	8.482
ENSG00000197713	RPE	protein_coding	-1.19	0.813	8.482
ENSG00000115524	SF3B1	protein_coding	-1.19	0.831	8.482
ENSG00000257113	ENSG00000257113	processed_pseudogene	-1.19	0.704	8.482
ENSG00000267448	ENSG00000267448	lncRNA	-1.19	0.757	8.482
ENSG00000286174	ENSG00000286174	lncRNA	-1.19	0.746	8.482
ENSG00000287129	ENSG00000287129	lncRNA	-1.19	0.667	8.482
ENSG00000229606	LINC01718	lncRNA	-1.189	0.774	8.482
ENSG00000215871	ENSG00000215871	processed_pseudogene	-1.189	0.767	8.482
ENSG00000255336	ENSG00000255336	unprocessed_pseudogene	-1.189	0.709	8.482
ENSG00000103351	CLUAP1	protein_coding	-1.188	0.823	8.482
ENSG00000166197	NOLC1	protein_coding	-1.188	0.819	8.482
ENSG00000152193	OBI1	protein_coding	-1.188	0.835	8.482
ENSG00000171863	RPS7	protein_coding	-1.188	0.822	8.482
ENSG00000200816	SNORA38	snoRNA	-1.188	0.763	8.482
ENSG00000285573	ENSG00000285573	lncRNA	-1.188	0.758	8.482
ENSG00000206762	RNU6-418P	snRNA	-1.187	0.737	8.482
ENSG00000244045	TMEM199	protein_coding	-1.187	0.78	8.482
ENSG00000276269	ENSG00000276269	lncRNA	-1.187	0.788	8.482
ENSG00000185000	DGAT1	protein_coding	-1.186	0.833	8.482
ENSG00000119321	FKBP15	protein_coding	-1.186	0.821	8.482
ENSG00000104381	GDAP1	protein_coding	-1.186	0.811	8.482
ENSG00000236051	MYCBP2-AS1	lncRNA	-1.186	0.833	8.482
ENSG00000257875	ENSG00000257875	processed_pseudogene	-1.186	0.71	8.482
ENSG00000165288	BRWD3	protein_coding	-1.185	0.818	8.482
ENSG00000136280	CCM2	protein_coding	-1.185	0.822	8.482
ENSG00000171824	EXOSC10	protein_coding	-1.185	0.828	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000241945	PWP2	protein_coding	-1.185	0.817	8.482
ENSG00000124216	SNAI1	protein_coding	-1.185	0.815	8.482
ENSG00000206850	Y_RNA	misc_RNA	-1.185	0.687	8.482
ENSG00000116406	EDEM3	protein_coding	-1.184	0.823	8.482
ENSG00000143756	FBXO28	protein_coding	-1.184	0.819	8.482
ENSG00000156515	HK1	protein_coding	-1.184	0.829	8.482
ENSG00000248704	MTND4P2	unprocessed_pseudogene	-1.184	0.745	8.482
ENSG00000227434	RNF19BPX	processed_pseudogene	-1.184	0.762	8.482
ENSG00000252884	RNU6-1213P	snRNA	-1.184	0.769	8.482
ENSG00000229892	ENSG00000229892	processed_pseudogene	-1.184	0.769	8.482
ENSG00000198019	FCGR1B	protein_coding	-1.183	0.77	8.482
ENSG00000065243	PKN2	protein_coding	-1.183	0.823	8.482
ENSG00000249028	ENSG00000249028	lncRNA	-1.183	0.78	8.482
ENSG00000230564	CALM1P2	processed_pseudogene	-1.182	0.791	8.482
ENSG00000119922	IFIT2	protein_coding	-1.182	0.771	8.482
ENSG00000056097	ZFR	protein_coding	-1.182	0.838	8.482
ENSG00000230188	ENSG00000230188	processed_pseudogene	-1.182	0.795	8.482
ENSG00000273221	ENSG00000273221	lncRNA	-1.182	0.723	8.482
ENSG00000089685	BIRC5	protein_coding	-1.181	0.816	8.482
ENSG00000188694	KRTAP24-1	protein_coding	-1.181	0.805	8.482
ENSG00000253994	NDUFB9P3	processed_pseudogene	-1.181	0.759	8.482
ENSG00000231556	RSL24D1P3	processed_pseudogene	-1.181	0.773	8.482
ENSG00000164663	USP49	protein_coding	-1.181	0.835	8.482
ENSG00000171940	ZNF217	protein_coding	-1.181	0.837	8.482
ENSG00000286784	ENSG00000286784	lncRNA	-1.181	0.618	8.482
ENSG00000166260	COX11	protein_coding	-1.18	0.816	8.482
ENSG00000260846	FRG2HP	unprocessed_pseudogene	-1.18	0.784	8.482
ENSG00000117569	PTBP2	protein_coding	-1.18	0.829	8.482
ENSG00000231650	RFESDP1	processed_pseudogene	-1.18	0.676	8.482
ENSG00000233979	RPL22P21	processed_pseudogene	-1.18	0.745	8.482
ENSG00000233145	ENSG00000233145	lncRNA	-1.18	0.606	8.482
ENSG00000162639	HENMT1	protein_coding	-1.179	0.778	8.482
ENSG00000085274	MYNN	protein_coding	-1.179	0.809	8.482
ENSG00000223744	RBMY2GP	unprocessed_pseudogene	-1.179	0.684	8.482
ENSG00000226646	RPL7P37	processed_pseudogene	-1.179	0.78	8.482
ENSG00000170242	USP47	protein_coding	-1.179	0.823	8.482
ENSG00000287725	ENSG00000287725	protein_coding	-1.179	0.679	8.482
ENSG00000196741	LINC01560	lncRNA	-1.178	0.672	8.482
ENSG00000199095	MIR372	miRNA	-1.178	0.739	8.482
ENSG00000250746	ENSG00000250746	processed_pseudogene	-1.178	0.719	8.482
ENSG00000268322	BNIP3P25	processed_pseudogene	-1.177	0.729	8.482
ENSG00000234197	ETV5-AS1	lncRNA	-1.177	0.765	8.482
ENSG00000252615	Y_RNA	misc_RNA	-1.177	0.798	8.482
ENSG00000145349	CAMK2D	protein_coding	-1.176	0.844	8.482
ENSG00000067955	CBFB	protein_coding	-1.176	0.827	8.482
ENSG00000130816	DNMT1	protein_coding	-1.176	0.831	8.482
ENSG00000261794	GOLGA8H	protein_coding	-1.176	0.642	8.482
ENSG00000284388	MIR4496	miRNA	-1.176	0.599	8.482
ENSG00000078177	N4BP2	protein_coding	-1.176	0.82	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000143157	POGK	protein_coding	-1.176	0.829	8.482
ENSG00000207083	RNU6-22P	snRNA	-1.176	0.489	8.482
ENSG00000252585	Y_RNA	misc_RNA	-1.176	0.812	8.482
ENSG00000185015	CA13	protein_coding	-1.175	0.823	8.482
ENSG00000112855	HARS2	protein_coding	-1.175	0.83	8.482
ENSG00000068885	IFT80	protein_coding	-1.175	0.796	8.482
ENSG00000252288	RNU6-966P	snRNA	-1.175	0.79	8.482
ENSG00000164548	TRA2A	protein_coding	-1.175	0.834	8.482
ENSG00000270503	YTHDF2P1	processed_pseudogene	-1.175	0.815	8.482
ENSG00000202343	ENSG00000202343	snoRNA	-1.175	0.75	8.482
ENSG00000259388	ENSG00000259388	processed_pseudogene	-1.175	0.807	8.482
ENSG00000279759	ENSG00000279759	TEC	-1.175	0.782	8.482
ENSG00000155846	PPARGC1B	protein_coding	-1.174	0.837	8.482
ENSG00000265745	RN7SL375P	misc_RNA	-1.174	0.752	8.482
ENSG00000133812	SBF2	protein_coding	-1.174	0.831	8.482
ENSG00000199938	Y_RNA	misc_RNA	-1.174	0.815	8.482
ENSG00000275185	ENSG00000275185	lncRNA	-1.174	0.776	8.482
ENSG00000276805	ENSG00000276805	transcribed_unprocessed	-1.174	0.799	8.482
ENSG00000287584	ENSG00000287584	lncRNA	-1.174	0.799	8.482
ENSG00000018236	CNTN1	protein_coding	-1.173	0.829	8.482
ENSG00000175595	ERCC4	protein_coding	-1.173	0.829	8.482
ENSG00000257242	LINC01619	lncRNA	-1.173	0.815	8.482
ENSG00000222099	RN7SKP32	misc_RNA	-1.173	0.731	8.482
ENSG00000198963	RORB	protein_coding	-1.173	0.814	8.482
ENSG00000250914	ENSG00000250914	processed_pseudogene	-1.173	0.846	8.482
ENSG00000287902	ENSG00000287902	lncRNA	-1.173	0.671	8.482
ENSG00000110723	EXPH5	protein_coding	-1.172	0.823	8.482
ENSG00000131724	IL13RA1	protein_coding	-1.172	0.784	8.482
ENSG00000184967	NOC4L	protein_coding	-1.172	0.808	8.482
ENSG00000082898	XPO1	protein_coding	-1.172	0.821	8.482
ENSG00000202222	Y_RNA	misc_RNA	-1.172	0.768	8.482
ENSG00000261299	C2orf69P3	processed_pseudogene	-1.171	0.797	8.482
ENSG00000264678	MIR3140	miRNA	-1.171	0.744	8.482
ENSG00000223263	RNU6-387P	snRNA	-1.171	0.74	8.482
ENSG00000199226	RNU6-50P	snRNA	-1.171	0.768	8.482
ENSG00000172139	SLC9C1	protein_coding	-1.171	0.825	8.482
ENSG00000232204	TET1P1	processed_pseudogene	-1.171	0.795	8.482
ENSG00000258275	OR7K1P	unprocessed_pseudogene	-1.17	0.75	8.482
ENSG00000231911	TPRKBP1	processed_pseudogene	-1.17	0.759	8.482
ENSG00000283204	MIR4434	miRNA	-1.169	0.714	8.482
ENSG00000222146	RNU4-37P	snRNA	-1.169	0.78	8.482
ENSG00000277840	ENSG00000277840	lncRNA	-1.169	0.72	8.482
ENSG00000103381	CPPED1	protein_coding	-1.168	0.82	8.482
ENSG00000178974	FBXO34	protein_coding	-1.168	0.833	8.482
ENSG00000196143	OR11H13P	unprocessed_pseudogene	-1.168	0.794	8.482
ENSG00000176903	PNMA1	protein_coding	-1.168	0.834	8.482
ENSG00000204479	PRAMEF17	protein_coding	-1.168	0.798	8.482
ENSG00000090104	RGS1	protein_coding	-1.168	0.667	8.482
ENSG00000173611	SCAI	protein_coding	-1.168	0.822	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000283491	ENSG00000283491	unprocessed_pseudogene	-1.168	0.688	8.482
ENSG0000006007	GDE1	protein_coding	-1.167	0.819	8.482
ENSG00000124702	KLHDC3	protein_coding	-1.167	0.835	8.482
ENSG00000145495	MARCHF6	protein_coding	-1.167	0.826	8.482
ENSG00000276547	PCDHGB5	protein_coding	-1.167	0.797	8.482
ENSG00000182347	PDSS1P1	processed_pseudogene	-1.167	0.814	8.482
ENSG00000146223	RPL7L1	protein_coding	-1.167	0.821	8.482
ENSG00000255161	ENSG00000255161	processed_pseudogene	-1.167	0.721	8.482
ENSG00000279042	ENSG00000279042	TEC	-1.167	0.735	8.482
ENSG00000280183	ENSG00000280183	TEC	-1.167	0.718	8.482
ENSG00000133794	ARNTL	protein_coding	-1.166	0.835	8.482
ENSG00000171953	ATPAF2	protein_coding	-1.166	0.818	8.482
ENSG00000255531	NDUFS5P6	processed_pseudogene	-1.166	0.754	8.482
ENSG00000286219	NOTCH2NLC	protein_coding	-1.166	0.819	8.482
ENSG00000240189	RN7SL621P	misc_RNA	-1.166	0.789	8.482
ENSG00000200616	Y_RNA	misc_RNA	-1.166	0.769	8.482
ENSG00000275017	ENSG00000275017	processed_pseudogene	-1.166	0.75	8.482
ENSG00000214264	KCTD9P4	processed_pseudogene	-1.165	0.754	8.482
ENSG00000048649	RSF1	protein_coding	-1.165	0.835	8.482
ENSG00000276094	SNORA70	snoRNA	-1.165	0.669	8.482
ENSG00000187735	TCEA1	protein_coding	-1.165	0.819	8.482
ENSG00000233470	ENSG00000233470	lncRNA	-1.165	0.815	8.482
ENSG00000243445	ENSG00000243445	processed_pseudogene	-1.165	0.77	8.482
ENSG00000109576	AADAT	protein_coding	-1.164	0.784	8.482
ENSG00000151917	BEND6	protein_coding	-1.164	0.832	8.482
ENSG00000256721	CACNA1C-IT3	lncRNA	-1.164	0.797	8.482
ENSG00000221325	MIR1200	miRNA	-1.164	0.749	8.482
ENSG00000212493	SNORD19	snoRNA	-1.164	0.678	8.482
ENSG00000184277	TM2D3	protein_coding	-1.164	0.825	8.482
ENSG00000172888	ZNF621	protein_coding	-1.164	0.831	8.482
ENSG00000100439	ABHD4	protein_coding	-1.163	0.821	8.482
ENSG00000011114	BTBD7	protein_coding	-1.163	0.832	8.482
ENSG00000253578	IGKV1-22	IG_V_pseudogene	-1.163	0.567	8.482
ENSG00000204092	LINC00951	lncRNA	-1.163	0.764	8.482
ENSG00000275670	MIR8076	miRNA	-1.163	0.793	8.482
ENSG00000181616	OR52H1	protein_coding	-1.163	0.772	8.482
ENSG00000117394	SLC2A1	protein_coding	-1.163	0.842	8.482
ENSG00000254929	ENSG00000254929	lncRNA	-1.163	0.802	8.482
ENSG00000264254	ENSG00000264254	lncRNA	-1.163	0.783	8.482
ENSG00000279488	ENSG00000279488	TEC	-1.163	0.761	8.482
ENSG00000286711	ENSG00000286711	lncRNA	-1.163	0.734	8.482
ENSG00000120798	NR2C1	protein_coding	-1.162	0.833	8.482
ENSG00000240935	PLGLA	transcribed_unprocessed	-1.162	0.559	8.482
ENSG00000224019	RPL21P32	processed_pseudogene	-1.162	0.664	8.482
ENSG00000281641	SAMD12-AS1	lncRNA	-1.162	0.796	8.482
ENSG00000196182	STK40	protein_coding	-1.162	0.827	8.482
ENSG00000163872	YEATS2	protein_coding	-1.162	0.834	8.482
ENSG00000202183	ENSG00000202183	snoRNA	-1.162	0.793	8.482
ENSG00000146416	AIG1	protein_coding	-1.161	0.815	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000077684	JADE1	protein_coding	-1.161	0.826	8.482
ENSG00000072864	NDE1	protein_coding	-1.161	0.808	8.482
ENSG00000205578	POM121B	unprocessed_pseudogene	-1.161	0.728	8.482
ENSG00000104375	STK3	protein_coding	-1.161	0.832	8.482
ENSG00000271482	ENSG00000271482	processed_pseudogene	-1.161	0.758	8.482
ENSG00000285269	ENSG00000285269	protein_coding	-1.161	0.793	8.482
ENSG00000146476	ARMT1	protein_coding	-1.16	0.835	8.482
ENSG00000256464	YWHABP2	processed_pseudogene	-1.16	0.692	8.482
ENSG00000248337	ENSG00000248337	processed_pseudogene	-1.16	0.805	8.482
ENSG00000248881	ENSG00000248881	lncRNA	-1.16	0.713	8.482
ENSG00000153006	SREK1IP1	protein_coding	-1.159	0.81	8.482
ENSG00000224324	THAP5P1	processed_pseudogene	-1.159	0.649	8.482
ENSG00000258184	ENSG00000258184	processed_pseudogene	-1.159	0.773	8.482
ENSG00000266335	ENSG00000266335	lncRNA	-1.159	0.78	8.482
ENSG00000253685	MTND5P41	unprocessed_pseudogene	-1.158	0.773	8.482
ENSG00000237929	RPL31P3	processed_pseudogene	-1.158	0.633	8.482
ENSG00000047410	TPR	protein_coding	-1.158	0.821	8.482
ENSG00000271182	ENSG00000271182	processed_pseudogene	-1.158	0.781	8.482
ENSG00000286132	ENSG00000286132	protein_coding	-1.158	0.714	8.482
ENSG00000186638	KIF24	protein_coding	-1.157	0.809	8.482
ENSG00000043462	LCP2	protein_coding	-1.157	0.83	8.482
ENSG00000258548	LINC00645	lncRNA	-1.157	0.827	8.482
ENSG00000212122	TSSK1B	protein_coding	-1.157	0.83	8.482
ENSG00000285717	ENSG00000285717	lncRNA	-1.157	0.72	8.482
ENSG00000144320	LNPK	protein_coding	-1.156	0.839	8.482
ENSG00000251759	RN7SKP298	misc_RNA	-1.156	0.782	8.482
ENSG00000288059	ENSG00000288059	lncRNA	-1.156	0.724	8.482
ENSG00000185275	CD24P4	processed_pseudogene	-1.155	0.452	8.482
ENSG00000115649	CNPPD1	protein_coding	-1.155	0.828	8.482
ENSG00000201447	RNA5SP509	rRNA_pseudogene	-1.155	0.76	8.482
ENSG00000206951	Y_RNA	misc_RNA	-1.155	0.761	8.482
ENSG00000253108	ENSG00000253108	lncRNA	-1.155	0.81	8.482
ENSG00000254694	ENSG00000254694	lncRNA	-1.155	0.805	8.482
ENSG00000286864	ENSG00000286864	lncRNA	-1.155	0.753	8.482
ENSG00000207956	MIR579	miRNA	-1.154	0.77	8.482
ENSG00000236047	RPL13AP12	processed_pseudogene	-1.154	0.764	8.482
ENSG00000233966	UBE2SP1	processed_pseudogene	-1.154	0.778	8.482
ENSG00000227585	ENSG00000227585	processed_pseudogene	-1.154	0.776	8.482
ENSG00000140479	PCSK6	protein_coding	-1.153	0.819	8.482
ENSG00000248660	SRIP1	processed_pseudogene	-1.153	0.783	8.482
ENSG00000237422	ENSG00000237422	lncRNA	-1.153	0.813	8.482
ENSG00000240040	ENSG00000240040	lncRNA	-1.153	0.758	8.482
ENSG00000149548	CCDC15	protein_coding	-1.152	0.811	8.482
ENSG00000101311	FERMT1	protein_coding	-1.152	0.826	8.482
ENSG00000118873	RAB3GAP2	protein_coding	-1.152	0.831	8.482
ENSG00000164506	STXBP5	protein_coding	-1.152	0.836	8.482
ENSG00000235965	ENSG00000235965	lncRNA	-1.152	0.79	8.482
ENSG00000172489	OR5T3	protein_coding	-1.151	0.791	8.482
ENSG00000090924	PLEKHG2	protein_coding	-1.151	0.825	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000261357	ENSG00000261357	lncRNA	-1.151	0.763	8.482
ENSG00000107771	CCSER2	protein_coding	-1.15	0.828	8.482
ENSG00000238243	OR2W3	protein_coding	-1.15	0.722	8.482
ENSG00000116731	PRDM2	protein_coding	-1.15	0.834	8.482
ENSG00000250041	ENSG00000250041	lncRNA	-1.15	0.797	8.482
ENSG00000120868	APAF1	protein_coding	-1.149	0.818	8.482
ENSG00000128928	IVD	protein_coding	-1.149	0.847	8.482
ENSG00000186814	ZSCAN30	protein_coding	-1.149	0.837	8.482
ENSG00000279766	ENSG00000279766	TEC	-1.149	0.757	8.482
ENSG00000281348	ENSG00000281348	protein_coding	-1.149	0.764	8.482
ENSG00000164284	GRPEL2	protein_coding	-1.148	0.837	8.482
ENSG00000198160	MIER1	protein_coding	-1.148	0.826	8.482
ENSG00000284609	OR8B3	protein_coding	-1.148	0.765	8.482
ENSG00000162924	REL	protein_coding	-1.148	0.819	8.482
ENSG00000136932	TRMO	protein_coding	-1.148	0.849	8.482
ENSG00000270084	GAS5-AS1	lncRNA	-1.147	0.711	8.482
ENSG00000206650	SNORA70G	snoRNA	-1.147	0.777	8.482
ENSG00000139291	TMEM19	protein_coding	-1.147	0.835	8.482
ENSG00000201483	Y_RNA	misc_RNA	-1.147	0.769	8.482
ENSG00000185728	YTHDF3	protein_coding	-1.147	0.832	8.482
ENSG00000154639	CXADR	protein_coding	-1.146	0.826	8.482
ENSG00000197442	MAP3K5	protein_coding	-1.146	0.813	8.482
ENSG00000136045	PWP1	protein_coding	-1.146	0.832	8.482
ENSG00000252041	RNA5SP228	rRNA_pseudogene	-1.146	0.795	8.482
ENSG00000050438	SLC4A8	protein_coding	-1.146	0.838	8.482
ENSG00000230112	ENSG00000230112	processed_pseudogene	-1.146	0.671	8.482
ENSG00000287999	ENSG00000287999	lncRNA	-1.146	0.666	8.482
ENSG00000154511	DIPK1A	protein_coding	-1.145	0.835	8.482
ENSG00000160767	FAM189B	protein_coding	-1.145	0.826	8.482
ENSG00000236719	OVAAL	lncRNA	-1.145	0.783	8.482
ENSG00000264907	PRELID3BP3	processed_pseudogene	-1.145	0.692	8.482
ENSG00000101236	RNF24	protein_coding	-1.145	0.841	8.482
ENSG00000252857	RNU6-389P	snRNA	-1.145	0.761	8.482
ENSG00000215347	SLC25A5P1	transcribed_processed_p	-1.145	0.791	8.482
ENSG00000078061	ARAF	protein_coding	-1.144	0.822	8.482
ENSG00000137814	HAUS2	protein_coding	-1.144	0.824	8.482
ENSG00000270685	IGHV1OR15-6	IG_V_pseudogene	-1.144	0.787	8.482
ENSG00000164024	METAP1	protein_coding	-1.144	0.831	8.482
ENSG00000162971	TYW5	protein_coding	-1.144	0.819	8.482
ENSG00000279838	ENSG00000279838	TEC	-1.144	0.714	8.482
ENSG00000050748	MAPK9	protein_coding	-1.143	0.834	8.482
ENSG00000216777	PRRC2CP1	processed_pseudogene	-1.143	0.729	8.482
ENSG00000251850	RNA5SP96	rRNA_pseudogene	-1.143	0.764	8.482
ENSG00000135316	SYNCRIP	protein_coding	-1.143	0.834	8.482
ENSG00000177125	ZBTB34	protein_coding	-1.143	0.783	8.482
ENSG00000153930	ANKFN1	protein_coding	-1.142	0.816	8.482
ENSG00000205744	DENND1C	protein_coding	-1.142	0.831	8.482
ENSG00000102034	ELF4	protein_coding	-1.142	0.81	8.482
ENSG00000184434	LRRC19	protein_coding	-1.142	0.838	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000130340	SNX9	protein_coding	-1.142	0.824	8.482
ENSG00000270381	ENSG00000270381	processed_pseudogene	-1.142	0.722	8.482
ENSG00000135776	ABCB10	protein_coding	-1.141	0.834	8.482
ENSG00000125954	CHURC1-FNTB	protein_coding	-1.141	0.794	8.482
ENSG00000205730	ITPRIPL2	protein_coding	-1.141	0.814	8.482
ENSG00000231082	LINC02655	lncRNA	-1.141	0.807	8.482
ENSG00000124160	NCOA5	protein_coding	-1.141	0.828	8.482
ENSG00000260761	ENSG00000260761	lncRNA	-1.141	0.796	8.482
ENSG00000277223	ENSG00000277223	lncRNA	-1.141	0.777	8.482
ENSG00000100523	DDHD1	protein_coding	-1.14	0.845	8.482
ENSG00000267046	E2F3P1	processed_pseudogene	-1.14	0.723	8.482
ENSG00000207705	MIR129-1	miRNA	-1.14	0.661	8.482
ENSG00000175198	PCCA	protein_coding	-1.14	0.827	8.482
ENSG00000155158	TTC39B	protein_coding	-1.14	0.842	8.482
ENSG00000255470	ENSG00000255470	lncRNA	-1.14	0.781	8.482
ENSG00000275759	ENSG00000275759	lncRNA	-1.14	0.759	8.482
ENSG00000115548	KDM3A	protein_coding	-1.139	0.812	8.482
ENSG00000237065	NANOCP4	transcribed_processed_pseudogene	-1.139	0.756	8.482
ENSG00000243302	ENSG00000243302	processed_pseudogene	-1.139	0.8	8.482
ENSG00000260209	ENSG00000260209	lncRNA	-1.139	0.785	8.482
ENSG00000271003	ENSG00000271003	unprocessed_pseudogene	-1.139	0.733	8.482
ENSG00000271900	ENSG00000271900	processed_pseudogene	-1.139	0.745	8.482
ENSG00000286000	ENSG00000286000	lncRNA	-1.139	0.769	8.482
ENSG00000143771	CNIH4	protein_coding	-1.138	0.829	8.482
ENSG00000226700	MTND4P25	processed_pseudogene	-1.138	0.824	8.482
ENSG00000234309	SLC25A18P1	processed_pseudogene	-1.138	0.779	8.482
ENSG00000271734	ENSG00000271734	lncRNA	-1.138	0.778	8.482
ENSG00000116133	DHCR24	protein_coding	-1.137	0.811	8.482
ENSG00000226157	OR52E3P	unprocessed_pseudogene	-1.137	0.789	8.482
ENSG00000002016	RAD52	protein_coding	-1.137	0.847	8.482
ENSG00000072042	RDH11	protein_coding	-1.137	0.824	8.482
ENSG00000233661	SPIN4-AS1	lncRNA	-1.137	0.831	8.482
ENSG00000258212	ZNF75BP	processed_pseudogene	-1.137	0.762	8.482
ENSG00000203334	ENSG00000203334	lncRNA	-1.137	0.773	8.482
ENSG00000268582	ENSG00000268582	processed_pseudogene	-1.137	0.753	8.482
ENSG00000287474	ENSG00000287474	lncRNA	-1.137	0.82	8.482
ENSG00000138031	ADCY3	protein_coding	-1.136	0.809	8.482
ENSG00000186416	NKRF	protein_coding	-1.136	0.82	8.482
ENSG00000102595	UGGT2	protein_coding	-1.136	0.816	8.482
ENSG00000266379	ENSG00000266379	transcribed_unprocessed_pseudogene	-1.136	0.811	8.482
ENSG00000273055	ENSG00000273055	lncRNA	-1.136	0.608	8.482
ENSG00000121058	COIL	protein_coding	-1.135	0.812	8.482
ENSG00000270499	MKI67P1	processed_pseudogene	-1.135	0.804	8.482
ENSG00000198015	MRPL42	protein_coding	-1.135	0.811	8.482
ENSG00000261668	ENSG00000261668	lncRNA	-1.135	0.808	8.482
ENSG00000259261	IGHV4OR15-8	IG_V_gene	-1.134	0.624	8.482
ENSG00000149503	INCENP	protein_coding	-1.134	0.833	8.482
ENSG00000001461	NIPAL3	protein_coding	-1.134	0.813	8.482
ENSG00000232064	USP9YP33	unprocessed_pseudogene	-1.134	0.803	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000272094	ENSG00000272094	lncRNA	-1.134	0.72	8.482
ENSG00000123374	CDK2	protein_coding	-1.133	0.831	8.482
ENSG00000202377	SNORA25B	snoRNA	-1.133	0.8	8.482
ENSG00000259136	ENSG00000259136	processed_pseudogene	-1.133	0.778	8.482
ENSG00000260212	ENSG00000260212	unprocessed_pseudogene	-1.133	0.804	8.482
ENSG00000260425	ENSG00000260425	lncRNA	-1.133	0.688	8.482
ENSG00000267222	ENSG00000267222	lncRNA	-1.133	0.707	8.482
ENSG00000081791	DELE1	protein_coding	-1.132	0.826	8.482
ENSG00000073792	IGF2BP2	protein_coding	-1.132	0.83	8.482
ENSG00000139725	RHOF	protein_coding	-1.132	0.817	8.482
ENSG00000271789	ENSG00000271789	lncRNA	-1.132	0.782	8.482
ENSG00000137409	MTCH1	protein_coding	-1.131	0.832	8.482
ENSG00000242456	MTCO3P38	processed_pseudogene	-1.131	0.779	8.482
ENSG00000163558	PRKCI	protein_coding	-1.131	0.829	8.482
ENSG00000170921	TANC2	protein_coding	-1.131	0.842	8.482
ENSG00000101849	TBL1X	protein_coding	-1.131	0.831	8.482
ENSG00000065308	TRAM2	protein_coding	-1.131	0.841	8.482
ENSG00000066135	KDM4A	protein_coding	-1.13	0.816	8.482
ENSG00000188895	MSL1	protein_coding	-1.13	0.832	8.482
ENSG00000211837	TRAJ53	TR_J_gene	-1.13	0.802	8.482
ENSG00000258311	ENSG00000258311	protein_coding	-1.13	0.79	8.482
ENSG00000139436	GIT2	protein_coding	-1.129	0.837	8.482
ENSG00000164758	MED30	protein_coding	-1.129	0.809	8.482
ENSG00000136839	OR13C9	protein_coding	-1.129	0.814	8.482
ENSG00000121390	PSPC1	protein_coding	-1.129	0.843	8.482
ENSG00000222202	RNU4-26P	snRNA	-1.129	0.691	8.482
ENSG00000105866	SP4	protein_coding	-1.129	0.827	8.482
ENSG00000152455	SUV39H2	protein_coding	-1.129	0.828	8.482
ENSG00000271187	ENSG00000271187	processed_pseudogene	-1.129	0.789	8.482
ENSG00000274341	ENSG00000274341	lncRNA	-1.129	0.681	8.482
ENSG00000162771	FAM71A	protein_coding	-1.128	0.756	8.482
ENSG00000154165	GPR15	protein_coding	-1.128	0.79	8.482
ENSG00000251958	RNU6-1102P	snRNA	-1.128	0.762	8.482
ENSG00000085365	SCAMP1	protein_coding	-1.128	0.836	8.482
ENSG00000010803	SCMH1	protein_coding	-1.128	0.827	8.482
ENSG00000264456	ENSG00000264456	lncRNA	-1.128	0.717	8.482
ENSG00000270497	ENSG00000270497	processed_pseudogene	-1.128	0.754	8.482
ENSG00000285797	ENSG00000285797	lncRNA	-1.128	0.636	8.482
ENSG00000270500	COX6CP4	processed_pseudogene	-1.127	0.734	8.482
ENSG00000014641	MDH1	protein_coding	-1.127	0.844	8.482
ENSG00000223749	MIR503HG	lncRNA	-1.127	0.792	8.482
ENSG00000110911	SLC11A2	protein_coding	-1.127	0.831	8.482
ENSG00000097096	SYDE2	protein_coding	-1.127	0.839	8.482
ENSG00000213557	ENSG00000213557	processed_pseudogene	-1.127	0.798	8.482
ENSG00000235881	ENSG00000235881	lncRNA	-1.127	0.773	8.482
ENSG00000266932	ENSG00000266932	transcribed_processed_pseudogene	-1.127	0.726	8.482
ENSG00000287251	ENSG00000287251	lncRNA	-1.127	0.715	8.482
ENSG00000088035	ALG6	protein_coding	-1.126	0.801	8.482
ENSG00000082196	C1QTNF3	protein_coding	-1.126	0.815	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000279414	CDRT15P9	processed_pseudogene	-1.126	0.789	8.482
ENSG00000165055	METTL2B	protein_coding	-1.126	0.822	8.482
ENSG00000260075	NSFP1	unprocessed_pseudogene	-1.126	0.773	8.482
ENSG00000252311	RNU1-103P	snRNA	-1.126	0.693	8.482
ENSG00000223847	ENSG00000223847	processed_pseudogene	-1.126	0.803	8.482
ENSG00000278879	ENSG00000278879	TEC	-1.126	0.699	8.482
ENSG00000280099	ENSG00000280099	TEC	-1.126	0.804	8.482
ENSG00000198722	UNC13B	protein_coding	-1.125	0.831	8.482
ENSG00000236385	ENSG00000236385	lncRNA	-1.125	0.792	8.482
ENSG00000001631	KRIT1	protein_coding	-1.124	0.833	8.482
ENSG00000176312	OR4H12P	unprocessed_pseudogene	-1.124	0.752	8.482
ENSG00000260322	ENSG00000260322	lncRNA	-1.124	0.808	8.482
ENSG00000112379	ARFGEF3	protein_coding	-1.123	0.833	8.482
ENSG00000162642	C1orf52	protein_coding	-1.123	0.814	8.482
ENSG00000253626	EIF5AL1	protein_coding	-1.123	0.757	8.482
ENSG00000216056	MIR891A	miRNA	-1.123	0.792	8.482
ENSG00000176787	OR52E2	protein_coding	-1.123	0.79	8.482
ENSG00000243446	RN7SL284P	misc_RNA	-1.123	0.765	8.482
ENSG00000252725	RNU6-765P	snRNA	-1.123	0.804	8.482
ENSG00000175931	UBE2O	protein_coding	-1.123	0.814	8.482
ENSG00000147044	CASK	protein_coding	-1.122	0.835	8.482
ENSG00000126749	EMG1	protein_coding	-1.122	0.842	8.482
ENSG00000233810	MOB1AP2	processed_pseudogene	-1.122	0.815	8.482
ENSG00000232102	MTCO3P2	processed_pseudogene	-1.122	0.739	8.482
ENSG00000223691	ENSG00000223691	processed_pseudogene	-1.122	0.796	8.482
ENSG00000250922	ATP5F1EP1	processed_pseudogene	-1.121	0.758	8.482
ENSG00000185885	IFITM1	protein_coding	-1.121	0.806	8.482
ENSG00000196821	ILRUN	protein_coding	-1.121	0.837	8.482
ENSG00000167257	RNF214	protein_coding	-1.121	0.84	8.482
ENSG00000228739	ENSG00000228739	lncRNA	-1.121	0.809	8.482
ENSG00000279829	ENSG00000279829	TEC	-1.121	0.737	8.482
ENSG00000286259	ENSG00000286259	lncRNA	-1.121	0.689	8.482
ENSG00000226481	ACTR3BP2	processed_pseudogene	-1.12	0.739	8.482
ENSG00000265227	MIR4699	miRNA	-1.12	0.741	8.482
ENSG00000258239	MTND2P17	unprocessed_pseudogene	-1.12	0.795	8.482
ENSG00000144802	NFKBIZ	protein_coding	-1.12	0.816	8.482
ENSG00000117697	NSL1	protein_coding	-1.12	0.809	8.482
ENSG00000219222	RPL12P47	processed_pseudogene	-1.12	0.711	8.482
ENSG00000236378	ENSG00000236378	lncRNA	-1.12	0.824	8.482
ENSG00000087008	ACOX3	protein_coding	-1.118	0.85	8.482
ENSG00000226469	ADAM1B	unitary_pseudogene	-1.118	0.81	8.482
ENSG00000219387	ATF1P1	processed_pseudogene	-1.118	0.817	8.482
ENSG00000230562	FAM133DP	processed_pseudogene	-1.118	0.735	8.482
ENSG00000281332	LINC00997	lncRNA	-1.118	0.683	8.482
ENSG00000215424	MCM3AP-AS1	lncRNA	-1.118	0.816	8.482
ENSG00000167359	OR51I1	protein_coding	-1.118	0.622	8.482
ENSG00000207105	Y_RNA	misc_RNA	-1.118	0.811	8.482
ENSG00000139154	AEBP2	protein_coding	-1.117	0.831	8.482
ENSG00000228928	KPNA2P2	processed_pseudogene	-1.117	0.812	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000196865	NHLRC2	protein_coding	-1.117	0.832	8.482
ENSG00000165730	STOX1	protein_coding	-1.117	0.824	8.482
ENSG00000187079	TEAD1	protein_coding	-1.117	0.832	8.482
ENSG00000212978	ENSG00000212978	lncRNA	-1.117	0.808	8.482
ENSG00000107890	ANKRD26	protein_coding	-1.116	0.816	8.482
ENSG00000188185	LINC00265	lncRNA	-1.116	0.788	8.482
ENSG00000186314	PRELID2	protein_coding	-1.116	0.82	8.482
ENSG00000084090	STARD7	protein_coding	-1.116	0.843	8.482
ENSG00000107341	UBE2R2	protein_coding	-1.116	0.833	8.482
ENSG00000279302	ENSG00000279302	TEC	-1.116	0.789	8.482
ENSG00000283236	ENSG00000283236	transcribed_unprocessed	-1.116	0.598	8.482
ENSG00000198042	MAK16	protein_coding	-1.115	0.846	8.482
ENSG00000227613	QRSL1P2	processed_pseudogene	-1.115	0.769	8.482
ENSG00000212308	RNA5SP23	rRNA_pseudogene	-1.115	0.785	8.482
ENSG00000252068	RNU6-390P	snRNA	-1.115	0.8	8.482
ENSG00000222533	RNU6-705P	snRNA	-1.115	0.724	8.482
ENSG00000201377	RNY4P23	misc_RNA	-1.115	0.74	8.482
ENSG00000258763	ENSG00000258763	lncRNA	-1.115	0.785	8.482
ENSG00000284604	ENSG00000284604	lncRNA	-1.115	0.794	8.482
ENSG00000143761	ARF1	protein_coding	-1.114	0.834	8.482
ENSG00000145782	ATG12	protein_coding	-1.114	0.843	8.482
ENSG00000108559	NUP88	protein_coding	-1.114	0.849	8.482
ENSG00000265564	PIGPP4	processed_pseudogene	-1.114	0.78	8.482
ENSG00000205746	PKD1P4	transcribed_unprocessed	-1.114	0.738	8.482
ENSG00000220311	RPL35AP18	processed_pseudogene	-1.114	0.762	8.482
ENSG00000231136	ENSG00000231136	processed_pseudogene	-1.114	0.689	8.482
ENSG00000261680	ENSG00000261680	processed_pseudogene	-1.114	0.778	8.482
ENSG00000272798	ENSG00000272798	lncRNA	-1.114	0.758	8.482
ENSG00000188092	GPR89B	protein_coding	-1.113	0.828	8.482
ENSG00000207721	MIR186	miRNA	-1.113	0.729	8.482
ENSG00000240084	MTND4LP10	processed_pseudogene	-1.113	0.782	8.482
ENSG00000200217	RNU6-839P	snRNA	-1.113	0.635	8.482
ENSG00000221740	SNORD93	snoRNA	-1.113	0.798	8.482
ENSG00000153914	SREK1	protein_coding	-1.113	0.838	8.482
ENSG00000118965	WDR35	protein_coding	-1.113	0.826	8.482
ENSG00000282864	ENSG00000282864	TEC	-1.113	0.801	8.482
ENSG00000224117	PTPN2P2	processed_pseudogene	-1.112	0.747	8.482
ENSG00000034533	ASTE1	protein_coding	-1.111	0.84	8.482
ENSG00000183943	PRKX	protein_coding	-1.111	0.843	8.482
ENSG00000000457	SCYL3	protein_coding	-1.111	0.836	8.482
ENSG00000198887	SMC5	protein_coding	-1.111	0.835	8.482
ENSG00000201602	Y_RNA	misc_RNA	-1.111	0.81	8.482
ENSG00000140694	PARN	protein_coding	-1.11	0.836	8.482
ENSG00000176024	ZNF613	protein_coding	-1.11	0.831	8.482
ENSG00000235298	ENSG00000235298	lncRNA	-1.11	0.733	8.482
ENSG00000254222	ENSG00000254222	lncRNA	-1.11	0.81	8.482
ENSG00000215301	DDX3X	protein_coding	-1.109	0.84	8.482
ENSG00000196550	FAM72A	protein_coding	-1.109	0.792	8.482
ENSG00000230342	FANCD2P2	unprocessed_pseudogene	-1.109	0.834	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000230528	NOS2P3	transcribed_unprocessed_	-1.109	0.638	8.482
ENSG00000080608	PUM3	protein_coding	-1.109	0.849	8.482
ENSG00000122376	SHLD2	protein_coding	-1.109	0.827	8.482
ENSG00000125875	TBC1D20	protein_coding	-1.109	0.835	8.482
ENSG00000274070	CASTOR2	protein_coding	-1.108	0.833	8.482
ENSG00000132664	POLR3F	protein_coding	-1.108	0.831	8.482
ENSG00000099956	SMARCB1	protein_coding	-1.108	0.834	8.482
ENSG00000232040	ZBED9	protein_coding	-1.108	0.835	8.482
ENSG00000249244	ENSG00000249244	unprocessed_pseudogene	-1.108	0.733	8.482
ENSG00000260986	ENSG00000260986	lncRNA	-1.108	0.598	8.482
ENSG00000269570	ENSG00000269570	lncRNA	-1.108	0.766	8.482
ENSG00000277210	ENSG00000277210	lncRNA	-1.108	0.766	8.482
ENSG00000108578	BLMH	protein_coding	-1.107	0.851	8.482
ENSG00000181274	FRAT2	protein_coding	-1.107	0.81	8.482
ENSG00000261008	LINC01572	lncRNA	-1.107	0.823	8.482
ENSG00000132570	PCBD2	protein_coding	-1.107	0.807	8.482
ENSG00000028277	POU2F2	protein_coding	-1.107	0.809	8.482
ENSG00000111725	PRKAB1	protein_coding	-1.107	0.837	8.482
ENSG00000165632	TAF3	protein_coding	-1.107	0.837	8.482
ENSG00000288102	ENSG00000288102	lncRNA	-1.107	0.764	8.482
ENSG00000153132	CLGN	protein_coding	-1.106	0.839	8.482
ENSG00000168116	KIAA1586	protein_coding	-1.106	0.819	8.482
ENSG00000183604	SMG1P5	transcribed_unprocessed_	-1.106	0.703	8.482
ENSG00000143387	CTSK	protein_coding	-1.105	0.844	8.482
ENSG00000207923	MIR559	miRNA	-1.105	0.835	8.482
ENSG00000271488	RBM11P1	processed_pseudogene	-1.105	0.749	8.482
ENSG00000279617	ENSG00000279617	TEC	-1.105	0.794	8.482
ENSG00000044459	CNTLN	protein_coding	-1.104	0.836	8.482
ENSG00000163281	GNPDA2	protein_coding	-1.104	0.832	8.482
ENSG00000124155	PIGT	protein_coding	-1.104	0.832	8.482
ENSG00000186815	TPCN1	protein_coding	-1.104	0.839	8.482
ENSG00000202459	Y_RNA	misc_RNA	-1.104	0.777	8.482
ENSG00000156639	ZFAND3	protein_coding	-1.104	0.828	8.482
ENSG00000156802	ATAD2	protein_coding	-1.103	0.841	8.482
ENSG00000259750	NSA2P4	processed_pseudogene	-1.103	0.782	8.482
ENSG00000219262	OR2E1P	unprocessed_pseudogene	-1.103	0.731	8.482
ENSG00000252386	RNU6-1018P	snRNA	-1.103	0.758	8.482
ENSG00000187605	TET3	protein_coding	-1.103	0.827	8.482
ENSG00000134490	TMEM241	protein_coding	-1.103	0.825	8.482
ENSG00000260572	ENSG00000260572	lncRNA	-1.103	0.775	8.482
ENSG00000287918	ENSG00000287918	lncRNA	-1.103	0.744	8.482
ENSG00000163017	ACTG2	protein_coding	-1.102	0.844	8.482
ENSG00000146409	SLC18B1	protein_coding	-1.102	0.834	8.482
ENSG00000239893	ZNF736P9Y	transcribed_processed_p	-1.102	0.801	8.482
ENSG00000179600	GPHB5	protein_coding	-1.101	0.82	8.482
ENSG00000204084	INPP5B	protein_coding	-1.101	0.827	8.482
ENSG00000229243	LINC01981	lncRNA	-1.101	0.786	8.482
ENSG00000215417	MIR17HG	lncRNA	-1.101	0.839	8.482
ENSG00000188167	TMPPE	protein_coding	-1.101	0.827	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000271817	U3	snoRNA	-1.101	0.772	8.482
ENSG00000165156	ZHX1	protein_coding	-1.101	0.832	8.482
ENSG00000250084	ENSG00000250084	unprocessed_pseudogene	-1.101	0.729	8.482
ENSG00000251487	ENSG00000251487	lncRNA	-1.101	0.766	8.482
ENSG00000271259	ENSG00000271259	lncRNA	-1.101	0.711	8.482
ENSG00000284611	ENSG00000284611	unprocessed_pseudogene	-1.101	0.725	8.482
ENSG00000143621	ILF2	protein_coding	-1.1	0.844	8.482
ENSG00000111696	NT5DC3	protein_coding	-1.1	0.848	8.482
ENSG00000264172	PDLIM1P3	processed_pseudogene	-1.1	0.745	8.482
ENSG00000101773	RBBP8	protein_coding	-1.1	0.845	8.482
ENSG00000120158	RCL1	protein_coding	-1.1	0.843	8.482
ENSG00000265334	ENSG00000265334	lncRNA	-1.1	0.825	8.482
ENSG00000279486	OR2AG1	protein_coding	-1.099	0.831	8.482
ENSG00000228577	ENSG00000228577	lncRNA	-1.099	0.813	8.482
ENSG00000249848	ENSG00000249848	processed_pseudogene	-1.099	0.805	8.482
ENSG00000253985	ENSG00000253985	lncRNA	-1.099	0.696	8.482
ENSG00000270352	ENSG00000270352	processed_pseudogene	-1.099	0.841	8.482
ENSG00000069974	RAB27A	protein_coding	-1.098	0.845	8.482
ENSG00000052723	SIKE1	protein_coding	-1.098	0.846	8.482
ENSG00000250384	UBE2CP3	processed_pseudogene	-1.098	0.76	8.482
ENSG00000227673	ENSG00000227673	lncRNA	-1.098	0.8	8.482
ENSG00000253923	ENSG00000253923	processed_pseudogene	-1.098	0.709	8.482
ENSG00000266002	ENSG00000266002	lncRNA	-1.098	0.825	8.482
ENSG00000106392	C1GALT1	protein_coding	-1.097	0.841	8.482
ENSG00000285106	ENSG00000285106	lncRNA	-1.097	0.797	8.482
ENSG00000143486	EIF2D	protein_coding	-1.096	0.848	8.482
ENSG00000179172	HNRNPCL1	protein_coding	-1.096	0.814	8.482
ENSG00000249988	ENSG00000249988	lncRNA	-1.096	0.842	8.482
ENSG00000279214	ENSG00000279214	TEC	-1.096	0.798	8.482
ENSG00000147324	MFHAS1	protein_coding	-1.095	0.808	8.482
ENSG00000277801	ENSG00000277801	lncRNA	-1.095	0.657	8.482
ENSG00000279798	ENSG00000279798	TEC	-1.095	0.808	8.482
ENSG00000261326	LINC01355	lncRNA	-1.094	0.816	8.482
ENSG00000200575	RNU6-414P	snRNA	-1.094	0.722	8.482
ENSG00000175606	TMEM70	protein_coding	-1.094	0.838	8.482
ENSG00000243314	ENSG00000243314	processed_pseudogene	-1.094	0.782	8.482
ENSG00000252798	ENSG00000252798	scaRNA	-1.094	0.77	8.482
ENSG00000266579	ENSG00000266579	lncRNA	-1.094	0.749	8.482
ENSG00000111790	FGFR1OP2	protein_coding	-1.093	0.817	8.482
ENSG00000120063	GNA13	protein_coding	-1.093	0.828	8.482
ENSG00000265527	MIR5690	miRNA	-1.093	0.805	8.482
ENSG00000101079	NDRG3	protein_coding	-1.093	0.843	8.482
ENSG00000205331	OR6C72P	unprocessed_pseudogene	-1.093	0.769	8.482
ENSG00000100302	RASD2	protein_coding	-1.093	0.805	8.482
ENSG00000181458	TMEM45A	protein_coding	-1.093	0.843	8.482
ENSG00000253976	ENSG00000253976	lncRNA	-1.093	0.824	8.482
ENSG00000185432	METTL7A	protein_coding	-1.092	0.839	8.482
ENSG00000266407	MIR3157	miRNA	-1.092	0.813	8.482
ENSG00000131368	MRPS25	protein_coding	-1.092	0.849	8.482

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000270995	ENSG00000270995	processed_pseudogene	-1.092	0.761	8.482
ENSG00000276934	ENSG00000276934	lncRNA	-1.092	0.741	8.482
ENSG00000278126	ENSG00000278126	lncRNA	-1.092	0.789	8.482
ENSG00000139163	ETNK1	protein_coding	-1.091	0.836	8.482
ENSG00000240804	NPM1P28	processed_pseudogene	-1.091	0.782	8.482
ENSG00000249516	PRELID3BP6	processed_pseudogene	-1.091	0.78	8.482
ENSG00000217878	ENSG00000217878	processed_pseudogene	-1.091	0.735	8.482
ENSG00000234883	MIR155HG	lncRNA	-1.09	0.837	8.482
ENSG00000231103	PRAMEF30P	unprocessed_pseudogene	-1.09	0.79	8.482
ENSG00000212549	RNA5SP354	rRNA_pseudogene	-1.09	0.742	8.482
ENSG00000167323	STIM1	protein_coding	-1.09	0.834	8.482
ENSG00000111424	VDR	protein_coding	-1.09	0.836	8.482
ENSG00000203414	BTBD7P1	processed_pseudogene	-1.089	0.754	8.482
ENSG00000117593	DARS2	protein_coding	-1.089	0.831	8.482
ENSG00000113212	PCDHB7	protein_coding	-1.089	0.837	8.482
ENSG00000111961	SASH1	protein_coding	-1.089	0.837	8.482
ENSG00000089006	SNX5	protein_coding	-1.089	0.843	8.482
ENSG00000156299	TIAM1	protein_coding	-1.089	0.812	8.482
ENSG00000136631	VPS45	protein_coding	-1.089	0.822	8.482
ENSG00000238034	ENSG00000238034	lncRNA	-1.089	0.805	8.482
ENSG00000286596	ENSG00000286596	lncRNA	-1.089	0.764	8.482
ENSG00000136068	FLNB	protein_coding	-1.088	0.847	8.482
ENSG00000276789	MRGPRX8P	processed_pseudogene	-1.088	0.807	8.482
ENSG00000243104	MTND4LP14	processed_pseudogene	-1.088	0.695	8.482
ENSG00000121579	NAA50	protein_coding	-1.088	0.841	8.482
ENSG00000104320	NBN	protein_coding	-1.088	0.839	8.482
ENSG00000246067	RAB30-DT	lncRNA	-1.088	0.834	8.482
ENSG00000227161	ENSG00000227161	lncRNA	-1.088	0.797	8.482
ENSG00000235279	ENSG00000235279	lncRNA	-1.088	0.834	8.482
ENSG00000250145	ENSG00000250145	processed_pseudogene	-1.088	0.759	8.482
ENSG00000258142	ENSG00000258142	processed_pseudogene	-1.088	0.661	8.482
ENSG00000200432	Y_RNA	misc_RNA	2.502	2.131	8.482
ENSG00000286070	ENSG00000286070	protein_coding	2.505	1.534	8.482
ENSG00000244094	SPRR2F	protein_coding	2.516	1.637	8.482
ENSG00000164733	CTSB	protein_coding	2.522	1.546	8.482
ENSG00000271130	IGHV3OR16-8	IG_V_gene	2.567	2.729	8.482
ENSG00000277592	Metazoa_SRP	misc_RNA	2.577	1.565	8.482
ENSG00000119801	YPEL5	protein_coding	2.619	1.477	8.482
ENSG00000206659	Y_RNA	misc_RNA	2.68	1.834	5.863
ENSG00000251837	Y_RNA	misc_RNA	2.685	2.176	5.863
ENSG00000259171	ENSG00000259171	protein_coding	2.693	2.055	5.863
ENSG00000214025	ATP5BP4	processed_pseudogene	2.715	1.679	5.863
ENSG00000275896	PRSS2	protein_coding	2.715	1.513	5.863
ENSG00000163191	S100A11	protein_coding	2.729	1.646	5.863
ENSG00000213030	CGB8	protein_coding	2.734	1.974	5.863
ENSG00000200600	Y_RNA	misc_RNA	2.751	1.85	5.863
ENSG00000207925	MIR516B2	miRNA	2.768	2.02	5.863
ENSG00000199866	Y_RNA	misc_RNA	2.8	1.902	5.863
ENSG00000228974	ENSG00000228974	processed_pseudogene	2.806	1.962	5.863

Gene ID	Gene name	Gene type	Score(d)	Fold Change	q-value(%)
ENSG00000169116	PARM1	protein_coding	2.82	1.665	5.863
ENSG00000185339	TCN2	protein_coding	2.847	1.633	5.863
ENSG00000151883	PARP8	protein_coding	2.905	1.612	4.003
ENSG00000106733	NMRK1	protein_coding	2.94	1.635	4.003
ENSG00000268799	H3Y2	protein_coding	3.054	2.193	4.003
ENSG00000262074	SNORD3B-2	snoRNA	3.067	1.727	4.003
ENSG00000276216	ENSG00000276216	lncRNA	3.116	1.849	4.003
ENSG00000241794	SPRR2A	protein_coding	3.13	2.278	4.003
ENSG00000202412	RNY3P13	misc_RNA	3.215	2.615	2.511
ENSG00000254258	ENSG00000254258	lncRNA	3.233	2.664	2.511
ENSG00000065833	ME1	protein_coding	3.336	1.716	2.511
ENSG00000273058	ENSG00000273058	lncRNA	3.38	2.121	2.511
ENSG00000177409	SAMD9L	protein_coding	3.418	2.123	2.511
ENSG00000133321	PLAAT4	protein_coding	3.477	1.868	2.511
ENSG00000272068	BCAN-AS1	lncRNA	3.55	2.341	2.511
ENSG00000270882	H4C14	protein_coding	3.823	2.954	1.662
ENSG00000273372	SFTPD-AS1	lncRNA	3.981	2.75	1.662
ENSG00000108405	P2RX1	protein_coding	4.153	1.871	1.662
ENSG00000165949	IFI27	protein_coding	4.802	2.551	1.662

Supplementary Table S4. List of positively (red) or negatively (blue) enriched gene sets in NCI-H929 *DIS3* -KD compared to NCI-H929 control, by GSEA analysis on global annotated PC gene expression profiles. Up- and down-regulated gene sets (red and blue, respectively) of Kegg, Hallmark, Reactome collections (version 7.2) are ordered according to nominal p-value and Normalized Enrichment Score (NES). Size, Normalized Enrichment Score (NES), Nominal p-value and FDR q-value are reported for each gene set.

NAME	SIZE	NES	NOM p-val	FDR q-val
REACTOME_COLLAGEN_DEGRADATION	64	2.2476418	0	0
REACTOME_COLLAGEN_CHAIN_TRIMERIZATION	44	2.2165043	0	3.30E-04
KEGG_SYSTEMIC_LUPUS_ERYTHEMATOSUS	125	2.087219	0	6.50E-04
REACTOME_DEGRADATION_OF_THE_EXTRACELLULAR_MATRIX	140	2.0821471	0	0.0054064
REACTOME_DNA_METHYLATION	56	2.060171	0	0.0059864
REACTOME_ACTIVATED_PKN1_STIMULATES_TRANSCRIPTION_OF_AR_ANDROGEN_RECEPTOR REGULATED_GENES_KLK2_AND_KLK3	58	2.02988	0	0.0076293
REACTOME_AMYLOID_FIBER_FORMATION	101	2.0293024	0	0.0064687
REACTOME_PEPTIDE_LIGAND_BINDING_RECEPTORS	197	2.0025346	0	0.0079409
KEGG_ARACHIDONIC_ACID_METABOLISM	58	1.9830483	0	0.0028908
REACTOME_ERCC6_CSB_AND_EHMT2_G9A_POSITIVELY_REGULATE_RRNA_EXPRESSION	67	1.978127	0	0.0096958
REACTOME_RHO_GTPASES_ACTIVATE_PKNS	85	1.9578769	0	0.0112716
REACTOME_RECOGNITION_AND_ASSOCIATION_OF_DNA_GLYCOSYLASE_WITH_SITE_CONTAINING_AN_AFFECTED_PURINE	51	1.9446796	0	0.0115748
REACTOME_SIRT1_NEGATIVELY_REGULATES_RRNA_EXPRESSION	59	1.923329	0	0.0143552
REACTOME_ASSEMBLY_OF_COLLAGEN_FIBRILS_AND_OTHER_MULTIMERIC_STRUCTURES	61	1.9198449	0	0.013809
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	72	1.9188383	0	0.0128469
REACTOME_ARACHIDONIC_ACID_METABOLISM	59	1.9181056	0	0.0121587
REACTOME_DISEASES_OF_PROGRAMMED_CELL_DEATH	93	1.9157989	0	0.0115222
REACTOME_CLASS_A_1_RHODOPSIN_LIKE_RECEPTORS	329	1.9106088	0	0.0116522
REACTOME_CLASS_B_2_SECRETIN_FAMILY_RECEPTORS	94	1.8757987	0	0.0164025
REACTOME_TRANSCRIPTIONAL_REGULATION_OF_GRANULOPOIESIS	81	1.8488111	0	0.0196586
REACTOME_GPCR_LIGAND_BINDING	461	1.8432766	0	0.0190154
KEGG_DRUG_METABOLISM_CYTOCHROME_P450	68	1.8232737	0	0.0168424
REACTOME_MEIOTIC_RECOMBINATION	78	1.820088	0	0.0210361
REACTOME_REGULATION_OF_INSULIN_LIKE_GROWTH_FACTOR_IGF_TRANSPORT_AND_UPTAKE_BY_INSULIN_LIKE_GROWTH_FACTOR_BINDING_PROTEINS_IGFBPS	124	1.8168567	0	0.0211202
REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	301	1.8084924	0	0.022705
REACTOME_FORMATION_OF_THE_CORNIFIED_ENVELOPE	128	1.7839274	0	0.0281481
KEGG_NEUROACTIVE_LIGAND_RECEPTOR_INTERACTION	271	1.7717366	0	0.0279333
REACTOME_CROSSLINKING_OF_COLLAGEN_FIBRILS	18	1.767916	0	0.0304125
REACTOME_DNA_DAMAGE_TELOMERE_STRESS_INDUCED_SENESCENCE	75	1.7657275	0	0.0305085
REACTOME_RUNX1_REGULATES_GENES_INVOLVED_IN_MEGAKARYOCYTE_DIFFERENTIATION_AND_PLATELET_FUNCTION	85	1.7646374	0	0.0300055
REACTOME_OLFACTORY_SIGNALING_PATHWAY	378	1.7527246	0	0.033169
KEGG_OLFACTORY_TRANSDUCTION	372	1.7446207	0	0.0328102
REACTOME_HDACS_DEACETYLATE_HISTONES	87	1.869546	0.001447178	0.016675
REACTOME_DNA_DOUBLE_STRAND_BREAK_RESPONSE	76	1.7466742	0.001464129	0.0343344
REACTOME_PRE_NOTCH_EXPRESSION_AND_PROCESSING	96	1.7729299	0.001474926	0.0295902
REACTOME_COLLAGEN_FORMATION	90	1.7009022	0.001481482	0.0497045
REACTOME_TNFS_BIND_THEIR_PHYSIOLOGICAL_RECEPTORS	28	1.8370649	0.001538462	0.0196812
REACTOME_BASE_EXCISION_REPAIR_AP_SITE_FORMATION	58	1.7803034	0.001557632	0.0282116
REACTOME_PRC2_METHYLATES_HISTONES_AND_DNA	64	1.8474575	0.002915452	0.0190342
REACTOME_NONHOMOLOGOUS_END_JOINING_NHEJ	67	1.8302712	0.002980626	0.0193167
REACTOME_NCAM1_INTERACTIONS	42	1.7422339	0.003025719	0.0349414
REACTOME_SYNTHESIS_SECRETION_AND_DEACYLATION_OF_GHRELIN	19	1.8588375	0.003159558	0.0186524
REACTOME_ANCHORING_FIBRIL_FORMATION	15	1.8302757	0.003169572	0.0201216
REACTOME_NICOTINATE_METABOLISM	31	1.7397816	0.00317965	0.0349094
REACTOME_FATTY_ACIDS	15	1.804805	0.003205128	0.022991
REACTOME_CONDENSATION_OF_PROPHASE_CHROMOSOMES	65	1.7056066	0.005997002	0.0485587

NAME	SIZE	NES	NOM p-val	FDR q-val
HALLMARK_G2M_CHECKPOINT	199	-3.448332	0	0
REACTOME_MITOTIC_SPINDLE_CHECKPOINT	111	-3.26577	0	0
HALLMARK_MITOTIC_SPINDLE	199	-3.264961	0	0
REACTOME_MITOTIC_PROMETAPHASE	203	-3.149322	0	0
HALLMARK_E2F_TARGETS	200	-3.093854	0	0
REACTOME_RESOLUTION_OF_SISTER_CHROMATID_COHESION	126	-3.012712	0	0
REACTOME_RHO_GTPASES_ACTIVATE_FORMINS	140	-2.959161	0	0

NAME	SIZE	NES	NOM p-val	FDR q-val
REACTOME_SUMOYLATION_OF_DNA_REPLICATION_PROTEINS	46	-2.844179	0	0
REACTOME_SUMOYLATION_OF_UBIQUITINYLIATION_PROTEINS	39	-2.708669	0	0
REACTOME_POSTMITOTIC_NUCLEAR_PORE_COMPLEX_NPC_REFORMATION	27	-2.703683	0	0
REACTOME_NUCLEAR_PORE_COMPLEX_NPC_DISASSEMBLY	36	-2.695551	0	0
REACTOME_INTERACTIONS_OF_REV_WITH_HOST_CELLULAR_PROTEINS	37	-2.692247	0	0
REACTOME_NUCLEAR_IMPORT_OF_REV_PROTEIN	34	-2.680229	0	0
REACTOME_NUCLEAR_ENVELOPE_BREAKDOWN	53	-2.63313	0	0
REACTOME_EXPORT_OF_VIRAL_RIBONUCLEOPROTEINS_FROM_NUCLEUS	33	-2.61499	0	0
KEGG_CELL_CYCLE	124	-2.556227	0	0
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM	82	-2.555709	0	0
REACTOME_INTERACTIONS_OF_VPR_WITH_HOST_CELLULAR_PROTEINS	36	-2.55144	0	0
REACTOME_MITOTIC_METAPHASE_AND_ANAPHASE	236	-2.548557	0	0
REACTOME_AURKA_ACTIVATION_BY_TPX2	72	-2.534014	0	0
REACTOME_SUMOYLATION_OF_DNA_DAMAGE_RESPONSE_AND_REPAIR_PROTEINS	77	-2.518734	0	9.89E-05
REACTOME_SNRNP_ASSEMBLY	54	-2.500463	0	9.34E-05
REACTOME_TRANSPORT_OF_THE_SLBP_DEPENDANT_MATURE_MRNA	36	-2.493957	0	8.85E-05
REACTOME_SUMOYLATION_OF_SUMOYLATION_PROTEINS	35	-2.488801	0	8.41E-05
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES_THROUGH_SYNTHESIS_DEPENDENT_STRAND_ANNEALING_SDSA	26	-2.463775	0	8.01E-05
REACTOME_CYCLIN_A_B1_B2_ASSOCIATED_EVENTS_DURING_G2_M_TRANSITION	24	-2.460956	0	7.65E-05
REACTOME_SEPARATION_OF_SISTER_CHROMATIDS	191	-2.459688	0	7.31E-05
REACTOME_TRANSPORT_OF_MATURE_MRNAs_DERIVED_FROM_INTRONLESS_TRANSCRIPTS	43	-2.438877	0	1.44E-04
REACTOME_REGULATION_OF_PLK1_ACTIVITY_AT_G2_M_TRANSITION	87	-2.432994	0	1.38E-04
REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY	56	-2.432105	0	1.33E-04
REACTOME_SYNTHESIS_OF_PIPS_AT_THE_PLASMA_MEMBRANE	53	-2.406737	0	1.28E-04
REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRAND_EXCHANGE	42	-2.394648	0	1.23E-04
REACTOME_TRNA_PROCESSING	108	-2.365639	0	1.19E-04
KEGG_RNA_DEGRADATION	57	-2.361409	0	0
REACTOME_NS1_MEDIATED_EFFECTS_ON_HOST_PATHWAYS	41	-2.360186	0	1.15E-04
REACTOME_RECRUITMENT_OF_MITOTIC_CENTROSOME_PROTEINS_AND_COMPLEXES	81	-2.360047	0	1.11E-04
REACTOME_POLO_LIKE_KINASE_MEDIATED_EVENTS	16	-2.344919	0	2.66E-04
REACTOME_REGULATION_OF_GLUKOKINASE_BY_GLUKOKINASE_REGULATORY_PROTEIN	32	-2.343129	0	2.58E-04
REACTOME_G0_AND_EARLY_G1	27	-2.304086	0	4.48E-04
REACTOME_RHOD_GTPASE_CYCLE	51	-2.294348	0	5.34E-04
REACTOME_ANCHORING_OF_THE_BASAL_BODY_TO_THE_PLASMA_MEMBRANE	97	-2.28572	0	5.05E-04
REACTOME_VIRAL_MESSENGER_RNA_SYNTHESIS	44	-2.273014	0	5.38E-04
REACTOME_REGULATION_OF_TP53_EXPRESSION_AND_DEGRADATION	37	-2.266141	0	6.53E-04
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_PHOSPHORYLATION	92	-2.256921	0	7.21E-04
REACTOME_TRNA_PROCESSING_IN_THE_NUCLEUS	58	-2.246669	0	7.03E-04
REACTOME_RHOBTB2_GTPASE_CYCLE	23	-2.23624	0	7.67E-04
REACTOME_M_PHASE	408	-2.229831	0	9.14E-04
REACTOME_REGULATION_OF_TP53_ACTIVITY	160	-2.221332	0	0.001048
REACTOME_HDR_THROUGH_SINGLE_STRAND_ANNEALING_SSA	37	-2.206339	0	0.0012534
REACTOME_CELL_CYCLE_CHECKPOINTS	290	-2.197289	0	0.0012975
KEGG_PROGESTERONE_MEDIATED_OOCYTE_MATURATION	85	-2.194562	0	0.001275
REACTOME_RHOF_GTPASE_CYCLE	42	-2.180184	0	0.0014536
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A	26	-2.167011	0	0.0015612
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_CYCLE_GENES	49	-2.160232	0	0.0017292
REACTOME_DOWNSTREAM_SIGNAL_TRANSDUCTION	29	-2.139323	0	0.0021402
REACTOME_GLYCOLYSIS	72	-2.118678	0	0.0029118
KEGG_UBIQUITIN_MEDIATED_PROTEOLYSIS	133	-2.114373	0	0.0042099
KEGG_RENAL_CELL_CARCINOMA	70	-2.107637	0	0.0033679
REACTOME_SIGNALING_BY_CYTOSOLIC_FGFR1_FUSION_MUTANTS	18	-2.094039	0	0.0037453
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS	21	-2.087359	0	0.0039702
REACTOME_RHOBTB_GTPASE_CYCLE	35	-2.085199	0	0.0039592
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	240	-2.075233	0	0.0043706
REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBINATION_HRR	66	-2.068582	0	0.0046092
REACTOME_RNA_POLYMERASE_II_TRANSCRIBES_SNRNA_GENES	74	-2.060139	0	0.004892
REACTOME_PI_METABOLISM	84	-2.057638	0	0.0048925
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION_INITIATION	47	-2.055108	0	0.0048949
KEGG_MTOR_SIGNALING_PATHWAY	52	-2.054594	0	0.0067734
REACTOME_RNA_POLYMERASE_III_CHAIN_ELONGATION	18	-2.052248	0	0.0050316

NAME	SIZE	NES	NOM p-val	FDR q-val
REACTOME_SIGNALING_BY_PDGFR_IN_DISEASE	20	-2.039142	0	0.0055522
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B	24	-2.035909	0	0.0056706
REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_DREAM_COMPLEX	19	-2.027188	0	0.006034
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_TP53	359	-2.025639	0	0.0060238
REACTOME_CONVERSION_FROM_APC_C_CDC20_TO_APC_C_CDH1_IN_LATE_ANAPHASE	20	-2.023654	0	0.0060589
REACTOME_GLUCOSE_METABOLISM	91	-2.011766	0	0.0069281
REACTOME_REGULATION_OF_HSF1_MEDIATED_HEAT_SHOCK_RESPONSE	82	-2.010539	0	0.0069269
REACTOME_KSRP_KHSRP_BINDS_AND_DESTABILIZES_MRNA	17	-2.001992	0	0.0072746
KEGG_OOCYTE_MEIOSIS	112	-1.997197	0	0.0094559
REACTOME_BUTYRATE_RESPONSE_FACTOR_1_BRF1_BINDS_AND_DESTABILIZES_MRNA	17	-1.993935	0	0.0076456
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FROM_TYPE_1_PROMOTER	28	-1.981166	0	0.0084978
REACTOME_EXTENSION_OF_TELOMERES	51	-1.978882	0	0.008675
REACTOME_RHO_GTPASE_CYCLE	444	-1.973101	0	0.0088615
KEGG_LYSINE_DEGRADATION	44	-1.971127	0	0.0098348
KEGG_ADHERENS_JUNCTION	73	-1.968093	0	0.0088513
REACTOME_ACTIVATED_TAK1_MEDIATES_P38_MAPK_ACTIVATION	23	-1.964695	0	0.0093436
REACTOME_CELLULAR_RESPONSE_TO_HEAT_STRESS	101	-1.962172	0	0.0095267
REACTOME_MITOTIC_G2_G2_M_PHASES	199	-1.960824	0	0.0095746
HALLMARK_TGF_BETA_SIGNALING	54	-1.958523	0	6.85E-04
REACTOME_CIRCADIAN_CLOCK	70	-1.958177	0	0.00955
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_DNA_REPAIR_GENES	62	-1.954595	0	0.0096766
KEGG_CHRONIC_MYELOID_LEUKEMIA	73	-1.95422	0	0.0091469
REACTOME_RHO_GTPASE_EFFECTORS	315	-1.942879	0	0.0106783
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FROM_TYPE_3_PROMOTER	28	-1.935333	0	0.0110343
REACTOME_G1_S_SPECIFIC_TRANSCRIPTION	29	-1.934437	0	0.0109703
REACTOME_NUCLEAR_EVENTS_KINASE_AND_TRANSCRIPTION_FACTOR_ACTIVATION	61	-1.930932	0	0.0113068
REACTOME_FLT3_SIGNALING	38	-1.922324	0	0.0120206
REACTOME_TRNA_MODIFICATION_IN_THE_NUCLEUS_AND_CYTOSOL	43	-1.913744	0	0.0127484
REACTOME_RRNA_MODIFICATION_IN_THE_NUCLEUS_AND_CYTOSOL	59	-1.912338	0	0.0127753
REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS	37	-1.897458	0	0.0143036
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION_TERMINATION	31	-1.892112	0	0.0149261
HALLMARK_MTORC1_SIGNALING	200	-1.881625	0	0.0022169
HALLMARK_UV_RESPONSE_DN	144	-1.877232	0	0.0018474
REACTOME_HIV_LIFE_CYCLE	149	-1.873602	0	0.017137
REACTOME_SUMOYLATION	185	-1.861285	0	0.0184433
REACTOME_RECRUITMENT_OF_NUMA_TO_MITOTIC_CENTROSOMES	95	-1.859207	0	0.0185758
REACTOME_RHOB_GTPASE_CYCLE	70	-1.858879	0	0.0184268
REACTOME_SIGNALING_BY_NTRKS	134	-1.857606	0	0.0184276
KEGG_ERBB_SIGNALING_PATHWAY	87	-1.835436	0	0.0198822
REACTOME_RRNA_PROCESSING	202	-1.829966	0	0.0217658
REACTOME_RHOQ_GTPASE_CYCLE	59	-1.828136	0	0.0218755
REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PROTEINS	88	-1.817919	0	0.0229084
REACTOME_REGULATION_OF_LIPID_METABOLISM_BY_PPARG	120	-1.814751	0	0.023041
REACTOME_DUAL_INCISION_IN_TC_NER	65	-1.810971	0	0.023478
HALLMARK_MYC_TARGETS_V2	58	-1.804868	0	0.0029176
REACTOME_ORGANELLE_BIOGENESIS_AND_MAINTENANCE	294	-1.797109	0	0.0254641
REACTOME_SIGNALING_BY_VEGF	106	-1.792773	0	0.0257844
KEGG_NEUROTROPHIN_SIGNALING_PATHWAY	126	-1.791933	0	0.0286473
REACTOME_INTERLEUKIN_17_SIGNALING	71	-1.786459	0	0.0265697
REACTOME_FACTORS_INVOLVED_IN_MEGAKARYOCYTE_DEVELOPMENT_AND_PLATELET_PRODUCTION	165	-1.778544	0	0.0282217
REACTOME_CDC42_GTPASE_CYCLE	159	-1.767657	0	0.0303699
KEGG_AMINOACYL_TRNA_BIOSYNTHESIS	41	-1.766501	0	0.032434
HALLMARK_MYC_TARGETS_V1	200	-1.761533	0	0.0032348
REACTOME_INFLUENZA_INFECTION	156	-1.746811	0	0.0338528
REACTOME_INTRA_GOLGI_AND_RETROGRADE_GOLGI_TO_ER_TRAFFIC	203	-1.743971	0	0.0342987
REACTOME_S_PHASE	162	-1.732571	0	0.0362878
REACTOME_RAC1_GTPASE_CYCLE	184	-1.699264	0	0.0419643
REACTOME_GOLGI_TO_ER_RETROGRADE_TRANSPORT	134	-1.684535	0	0.0453251
REACTOME_CILIUM_ASSEMBLY	201	-1.673082	0	0.0484422
REACTOME_COPI_DEPENDENT_GOLGI_TO_ER_RETROGRADE_TRAFFIC	100	-1.666873	0	0.0496452

NAME	SIZE	NES	NOM p-val	FDR q-val
REACTOME_E2F_MEDIATED_REGULATION_OF_DNA_REPLICATION	21	-1.942032	0.00257732	0.0106487
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_TERMINATION	23	-1.954384	0.002724796	0.0096015
REACTOME_DEADENYLATION_OF_MRNA	25	-2.286613	0.00273224	5.19E-04
REACTOME_RETROGRADE_TRANSPORT_AT_THE_TRANS_GOLGI_NETWORK	49	-1.82421	0.002747253	0.0222518
REACTOME_TRISTETRAPROLIN_TTP_ZFP36_BINDS_AND_DESTABILIZES_MRNA	17	-2.090166	0.002754821	0.0038851
REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_P107_RBL1_AND_P130_RBL2_IN_COMPLEX_WITH_HDAC1	16	-2.1675	0.002785515	0.001593
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES	33	-1.94347	0.002801121	0.0107433
REACTOME_SIGNALING_BY_CTNNB1_PHOSPHO_SITE_MUTANTS	15	-1.856466	0.002801121	0.0183985
REACTOME_FORMATION_OF_TC_NER_PRE_INCISION_COMPLEX	53	-1.791453	0.002816901	0.0257683
REACTOME_RNA_POLYMERASE_II_TRANSCRIPTION_TERMINATION	66	-1.84354	0.002857143	0.0197278
HALLMARK_PROTEIN_SECRETION	95	-1.737565	0.002890173	0.0043315
REACTOME_RHOJ_GTPASE_CYCLE	55	-2.146669	0.002898551	0.0020227
REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMAD4_HETEROTRIMER	44	-1.821662	0.002898551	0.022619
KEGG_COLORECTAL_CANCER	62	-1.985653	0.00295858	0.0090812
KEGG_PANCREATIC_CANCER	70	-1.731527	0.00295858	0.0370705
REACTOME_HIV_TRANSCRIPTION_INITIATION	47	-1.81057	0.002994012	0.0233633
REACTOME_RHOC_GTPASE_CYCLE	74	-1.74711	0.003076923	0.0340074
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION	41	-1.90617	0.00310559	0.0134275
REACTOME_SUMOYLATION_OF_RNA_BINDING_PROTEINS	47	-2.189043	0.003134796	0.0013737
REACTOME_NUCLEOTIDE_EXCISION_REPAIR	110	-1.724177	0.003194888	0.0376632
REACTOME_TRANSCRIPTION_OF_THE_HIV_GENOME	70	-1.669471	0.003194888	0.0494238
REACTOME_TRANSCRIPTIONAL_ACTIVATION_OF_MITOCHONDRIAL_BIOGENESIS	55	-1.958553	0.003367003	0.0096251
REACTOME_DEPOLYMERISATION_OF_THE_NUCLEAR_LAMINA	15	-1.842078	0.004950495	0.0199001
REACTOME_RND1_GTPASE_CYCLE	42	-1.725937	0.005361931	0.0375914
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GENES_WHOSE_EXACT_ROLE_IN_THE_P53_PATHWAY_REMAIN_UNCERTAIN	21	-2.000656	0.005434783	0.0072629
REACTOME_INITIATION_OF_NUCLEAR_ENVELOPE_REFORMATION	19	-1.852753	0.005555556	0.0186901
REACTOME_MRNA_CAPPING	29	-1.700105	0.005586592	0.0419851
REACTOME_MRNA_DECAY_BY_3_TO_5_EXORIBONUCLEASE	16	-1.97695	0.005649718	0.0086933
REACTOME_RORA_ACTIVATES_GENE_EXPRESSION	18	-1.819651	0.005830904	0.022721
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_G2_CELL_CYCLE_ARREST	18	-1.737899	0.005847953	0.0350437
KEGG_ACUTE_MYELOID_LEUKEMIA	57	-1.747843	0.005952381	0.0348875
REACTOME_REGULATION_OF_CHOLESTEROL_BIOSYNTHESIS_BY_SREBP_SREBF	55	-1.845496	0.00625	0.0195813
REACTOME_PHOSPHORYLATION_OF_THE_APC_C	20	-1.794947	0.008086253	0.0257901
REACTOME_SIGNALING_BY_KIT_IN_DISEASE	20	-1.741514	0.008086253	0.0347012
REACTOME_INTERLEUKIN_3_INTERLEUKIN_5_AND_GM-CSF_SIGNALING	46	-1.751139	0.008498584	0.0336869
KEGG_RNA_POLYMERASE	28	-1.90745	0.00867052	0.0112906
REACTOME_FLT3_SIGNALING_IN_DISEASE	28	-1.793871	0.008746356	0.0258063
REACTOME_CLASS_C_3_METABOTROPIC_Glutamate_Pheromone_Receptors	39	-1.764041	0.00882353	0.0309843
REACTOME_TRNA_AMINOACYLATION	42	-1.723369	0.009009009	0.0376981
REACTOME_SIGNALING_BY_FGFR1_IN_DISEASE	38	-1.758322	0.010498688	0.0320636
REACTOME_NUCLEOBASE_BIOSYNTHESIS	15	-1.815477	0.01055409	0.0231676
REACTOME_SIGNALING_BY_NTRK2_TRKB	25	-1.713642	0.010638298	0.0396025
REACTOME_SIGNALING_BY_ERYTHROPOIETIN	25	-1.741396	0.011111111	0.0345063
REACTOME_HEME_SIGNALING	48	-1.680134	0.011204482	0.0463533
REACTOME_CD209_DC_Signaling	21	-1.750014	0.011428571	0.0336939
REACTOME_SIGNALING_BY_FLT3_FUSION_PROTEINS	19	-1.874839	0.011527377	0.0171028
HALLMARK_ANDROGEN_RESPONSE	100	-1.517484	0.011976048	0.0260975
REACTOME_CYTOSOLIC_TRNA_AMINOACYLATION	24	-1.72612	0.015060241	0.0378367
REACTOME_REGULATION_OF_SIGNALING_BY_CBL	22	-1.702208	0.015584416	0.0420281
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_E2F6	34	-1.692014	0.016483517	0.0434882
REACTOME_MAPK_TARGETS_NUCLEAR_EVENTS_MEDIATED_BY_MAP_KINASES	31	-1.692111	0.018867925	0.0437206
REACTOME_BETA_CATENIN_PHOSPHORYLATION_CASCADE	17	-1.754802	0.019125683	0.0328344
REACTOME_DOWNREGULATION_OF_SMAD2_3_SMAD4_TRANSCRIPTIONAL_ACTIVITY	23	-1.712721	0.021447722	0.0395958
REACTOME_JNK_C_JUN_KINASES_PHOSPHORYLATION_AND_ACTIVATION_MEDIATED_BY_ACTIVATED_HUMAN_TAK1	22	-1.700372	0.02247191	0.0422151
REACTOME_PROCESSING_OF_INTRONLESS_PRE_MRNAs	19	-1.687169	0.02247191	0.0447464
REACTOME_PLATELET_SENSITIZATION_BY_LDL	17	-1.667652	0.02387268	0.0497264
REACTOME_TELOMERE_EXTENSION_BY_TELOMERASE	23	-1.707142	0.024096385	0.0408927