

Supporting Information

for *Adv. Sci.*, DOI 10.1002/adv.202206187

Lipid Nanoparticles Deliver the Therapeutic VEGFA mRNA In Vitro and In Vivo and Transform Extracellular Vesicles for Their Functional Extensions

*Muhammad Nawaz, Sepideh Heydarkhan-Hagvall, Benyapa Tangruksa, Hernán González-King Garibotti, Yujia Jing, Marco Maugeri, Franziska Kohl, Leif Hultin, Azadeh Reyahi, Alessandro Camponeschi, Bengt Kull, Jonas Christoffersson, Ola Grimsholm, Karin Jennbacken, Martina Sundqvist, John Wiseman, Abdel Wahad Bidar, Lennart Lindfors, Jane Synnergren and Hadi Valadi**

Supporting information

Lipid Nanoparticles Deliver the Therapeutic VEGFA mRNA *in Vitro* and *in Vivo* and Transform Extracellular Vesicles for Their Functional Extensions

Muhammad Nawaz ¹, Sepideh Heydarkhan-Hagvall ^{2,3}, Benyapa Tangruksa ^{1,3}, Hernán González-King Garibotti ², Yujia Jing ⁴, Marco Maugeri ^{1,5}, Franziska Kohl ^{6,7}, Leif Hultin ⁸, Azadeh Reyahi ¹, Alessandro Camponeschi ¹, Bengt Kull ², Jonas Christoffersson ^{2,3}, Ola Grimsholm ^{1,9}, Karin Jennbacken ², Martina Sundqvist ¹, John Wiseman ⁶, Abdel Wahad Bidar ⁶, Lennart Lindfors ⁴, Jane Synnergren ^{3,10}, Hadi Valadi ^{1*}

Affiliations

¹ Department of Rheumatology and Inflammation Research, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, 41346, Sweden

² BioPharmaceuticals R&D, Early Cardiovascular, Renal and Metabolism (CVRM), Bioscience Cardiovascular, AstraZeneca, 431 83, Gothenburg, Mölndal, Sweden

³ Systems Biology Research Center, School of Bioscience, University of Skövde, SE-541 28 Skövde, Sweden

⁴ Advanced Drug Delivery, Pharmaceutical Sciences, BioPharmaceuticals R&D, AstraZeneca, Gothenburg, 431 83 Mölndal, Sweden

⁵ Safety Innovations, Clinical Pharmacology and Safety Sciences, R&D, AstraZeneca, Gothenburg, 431 83 Mölndal, Sweden

⁶ BioPharmaceuticals R&D, Discovery Sciences, Translational Genomics, AstraZeneca, 431 83, Gothenburg, Mölndal, Sweden

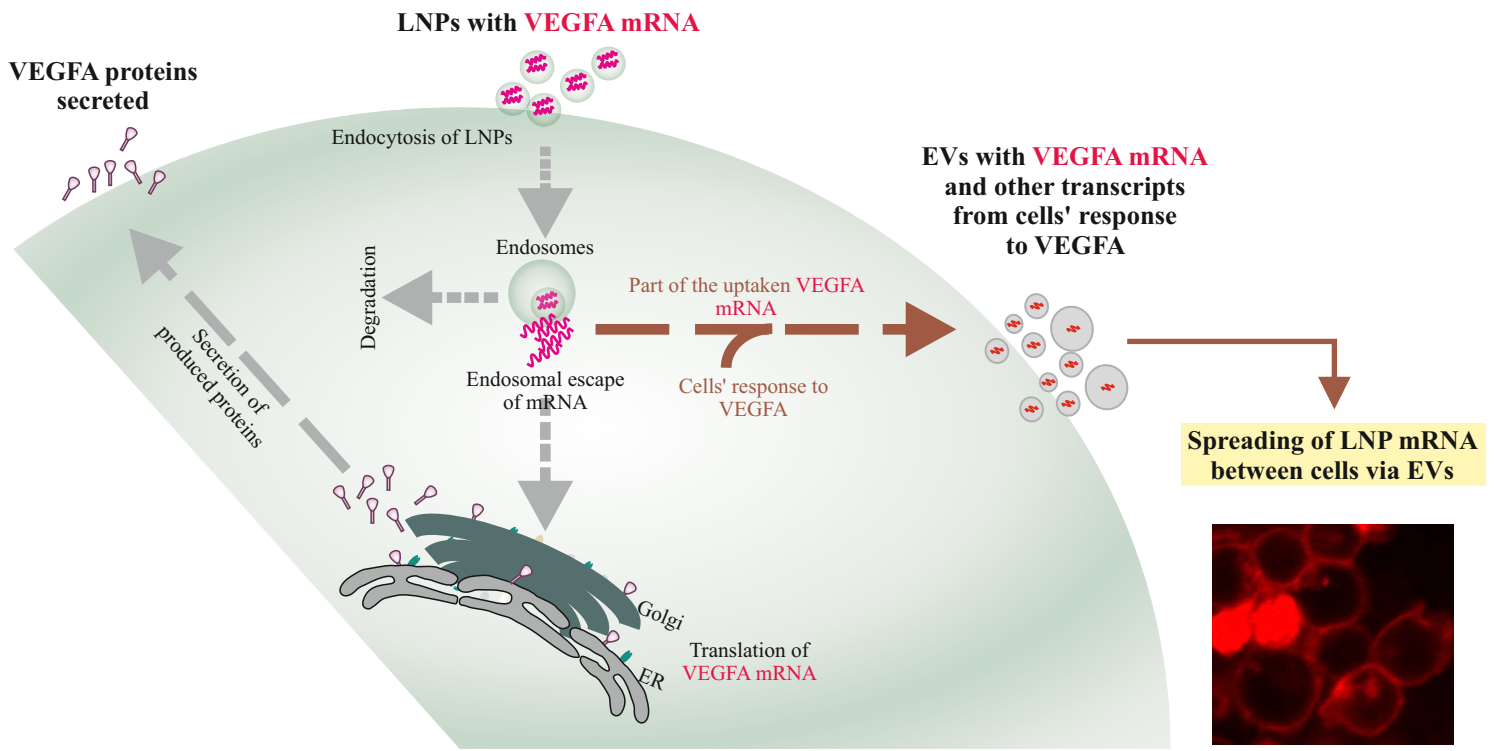
⁷ Department of Medical Biochemistry and Biophysics, Karolinska Institute, Solna, Stockholm, 171 77, Sweden

⁸ BioPharmaceuticals R&D, Clinical Pharmacology and Safety Science, Imaging and Data Analytics, AstraZeneca, 431 83, Gothenburg, Mölndal, Sweden

⁹ Institute of Pathophysiology and Allergy Research, Medical University of Vienna, 1090 Vienna, Austria

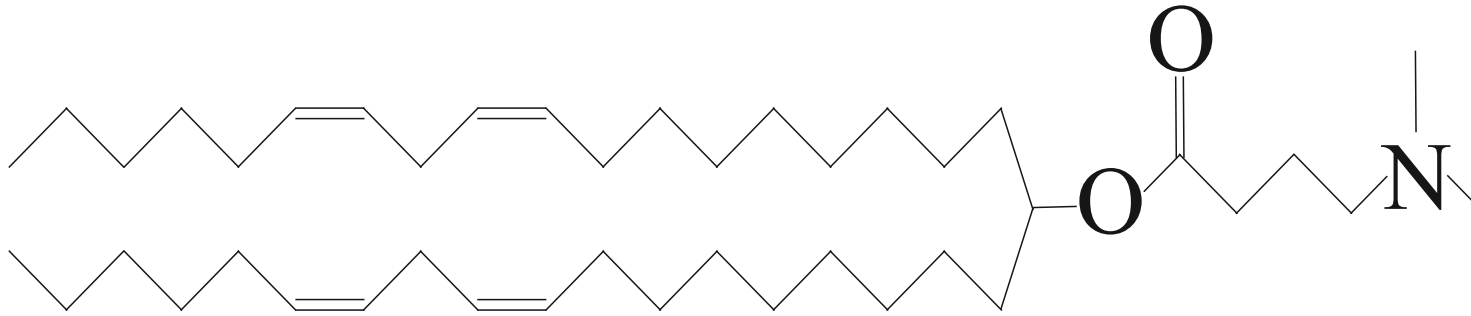
¹⁰ Department of Molecular and Clinical Medicine, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, 41345, Sweden

*Correspondence: Hadi Valadi hadi.valadi@gu.se

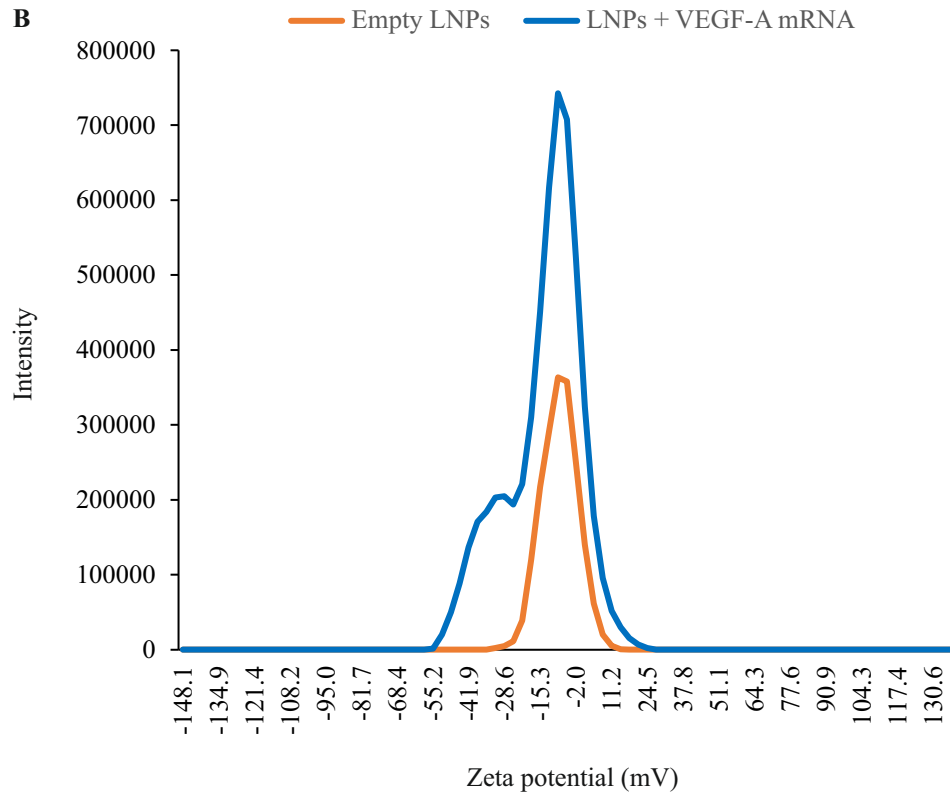


ToC image

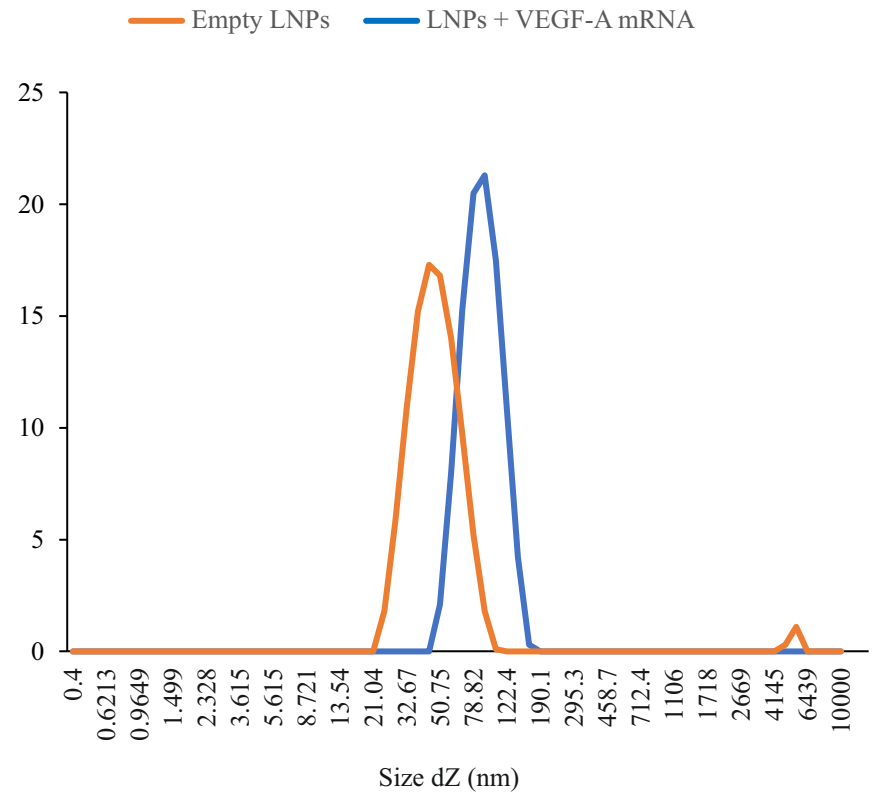
A

DLin-MC3-DMA (MC3-LNPs)

B

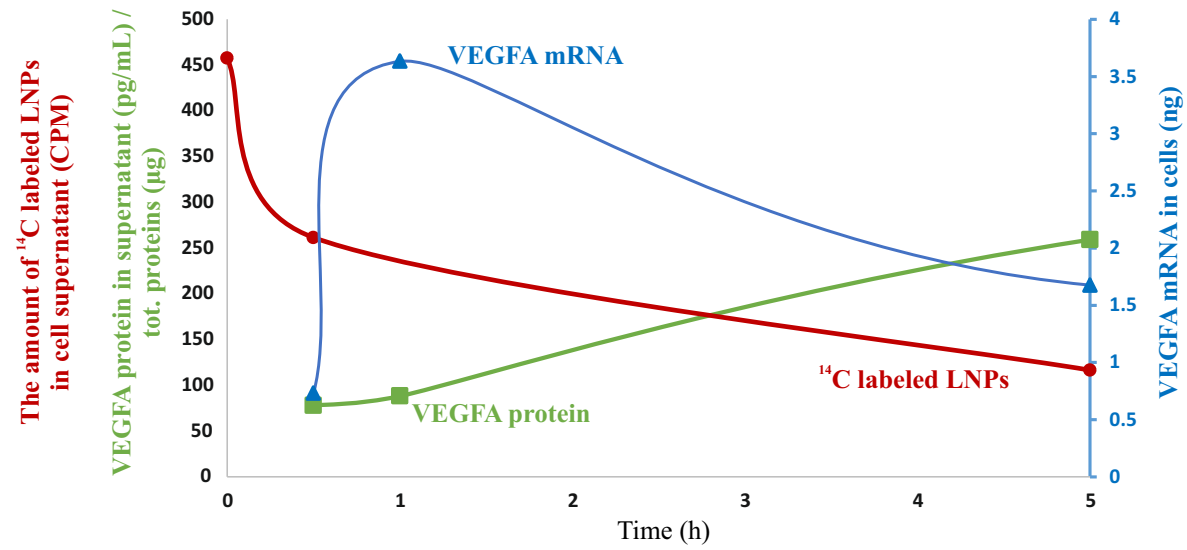


C

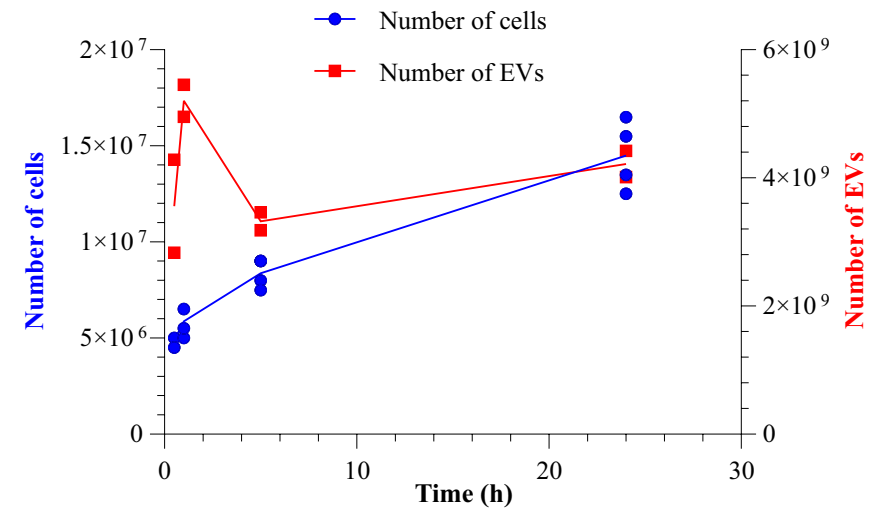


Supplementary Fig. 1: (A) The chemical structure of Dlin-MC3-DMA lipid nanoparticles (MC-LNPs) used in the current study. (B) Zeta potential distribution of MC3-LNPs (containing Dlin-MC3-DMA/Chol/DSPC/DMPE-PEG) with and without *VEGF-A* mRNA measured in 5 mM phosphate, pH 7.4. The zeta potential value for the *VEGF-A* mRNA loaded LNPs, is -18.0 mV. The zeta potential for the LNPs without *VEGF-A* mRNA (empty LNPs), is -7.3 mV. Each value is averaged from 5 replicated measurements. Since the PEG lipid used in LNPs carries a net negative charge, therefore zeta potential values are in negative. (C) Size distribution of MC3-LNPs LNPs with and without *VEGF-A* mRNA used in the current study. Empty LNPs: LNPs without mRNA.

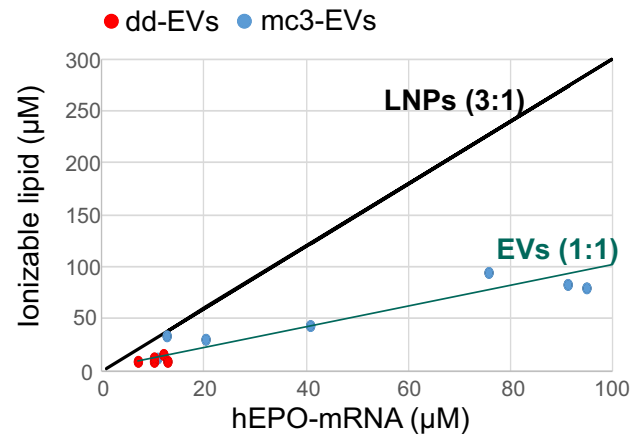
A



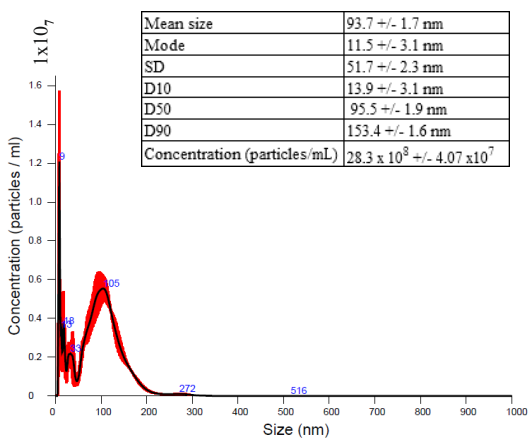
B



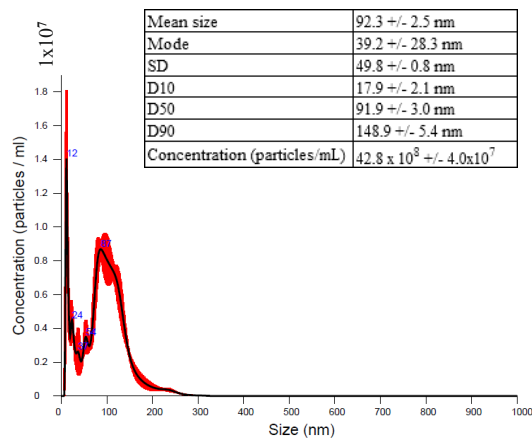
C



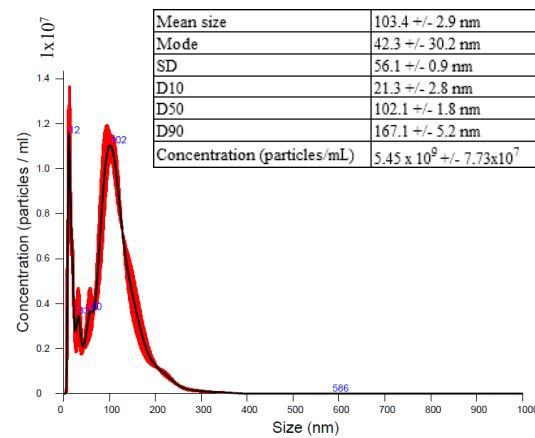
Supplementary Fig. 2: (A) The relationships between lipid nanoparticle (LNP) uptake by cells, LNP-mRNA detection in cells, and time-dependent translation of VEGF-A mRNA into VEGF-A protein. The Y-axis on the left side represents uptake of ¹⁴C-labeled LNPs and VEGF-A protein levels in supernatants. The Y-axis on the right side represents VEGF-A mRNA in cells. CPM, count per minute. (B) Number of cells and EVs corresponding to time points at which VEGF-A mRNA copy numbers were quantified. (C) Stoichiometric content (molar ratio) of ionizable lipids per mRNA nucleotides present in LNPs and EVs. The EVs were isolated from two different LNPs, i.e. “mc3-EVs” that were isolated from cells treated with LNPs formulated with DLin-MC3-DMA ionizable lipids, and “dd-EVs” that were isolated from cells treated with LNPs formulated with DLin-DMA ionizable lipids. Red circles (dd-EV) and blue circles (mc3-EV). Ionizable lipids and hEPO-mRNA of mc3-EVs (n = 7) each. Ionizable lipids and hEPO-mRNA of dd-EVs (n = 6) each. Both LNPs contain modified hEPO mRNA (858 nucleotides) (5meC, Ψ) (Trilink). dd-EVs: the EVs secreted from cells treated with DLin-DMA ionizable lipids. mc3-EVs: the EVs secreted from cells treated with DLin-MC3-DMA ionizable lipids. Suppl. Fig. 2J originally published by Maugeri M. et al. [18].



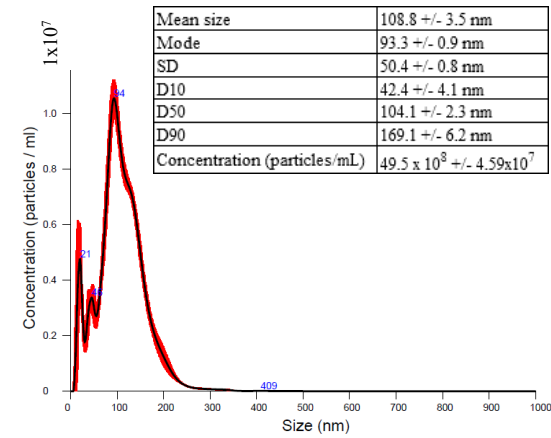
0.5h, replicate 1



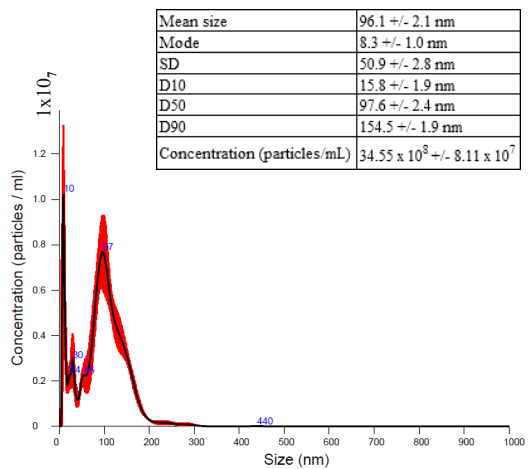
0.5h, replicate 2



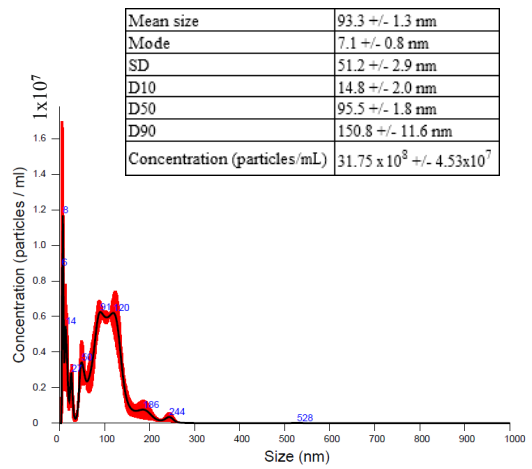
1h, replicate 1



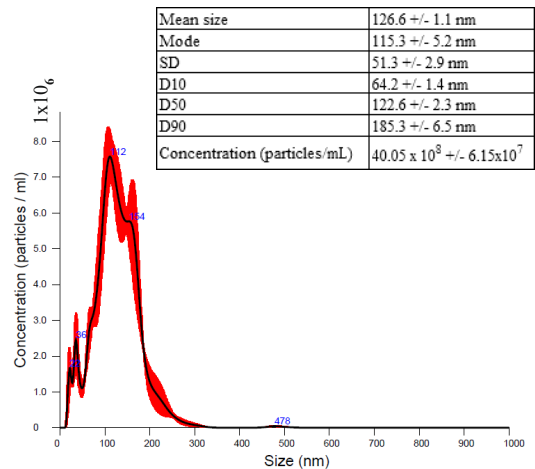
1h, replicate 2



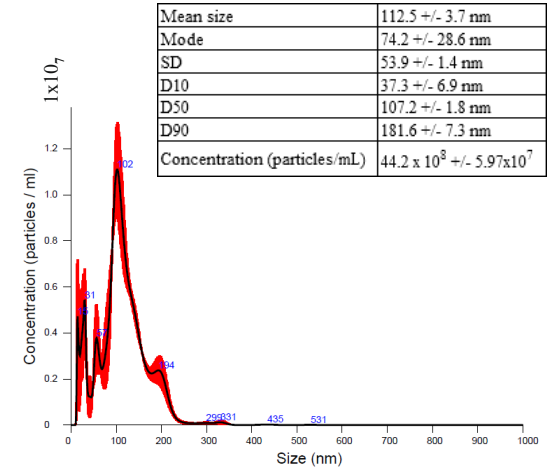
5h, replicate 1



5h, replicate 2



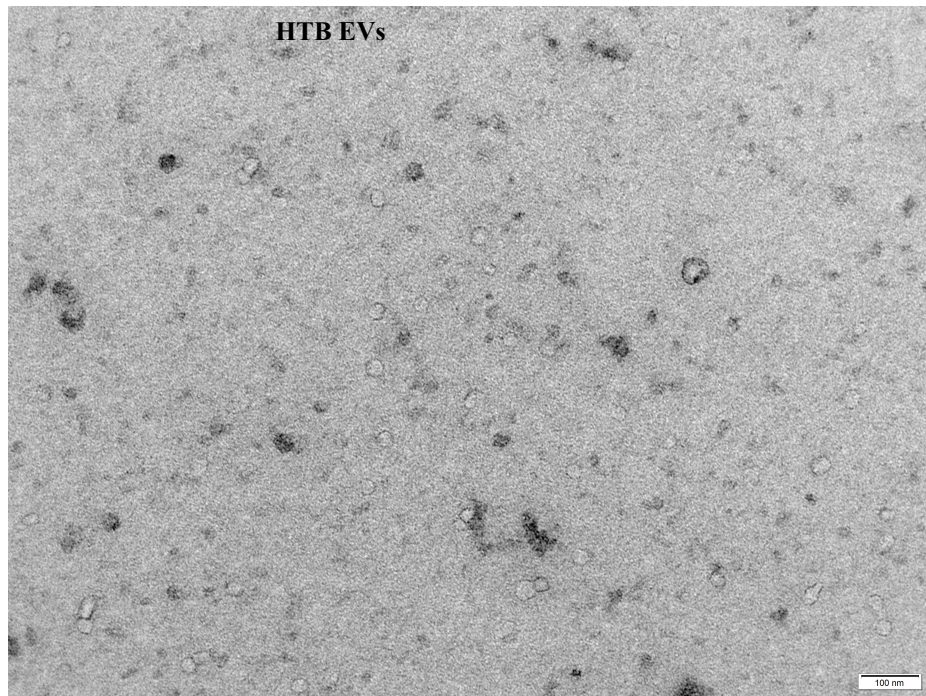
24h, replicate 1



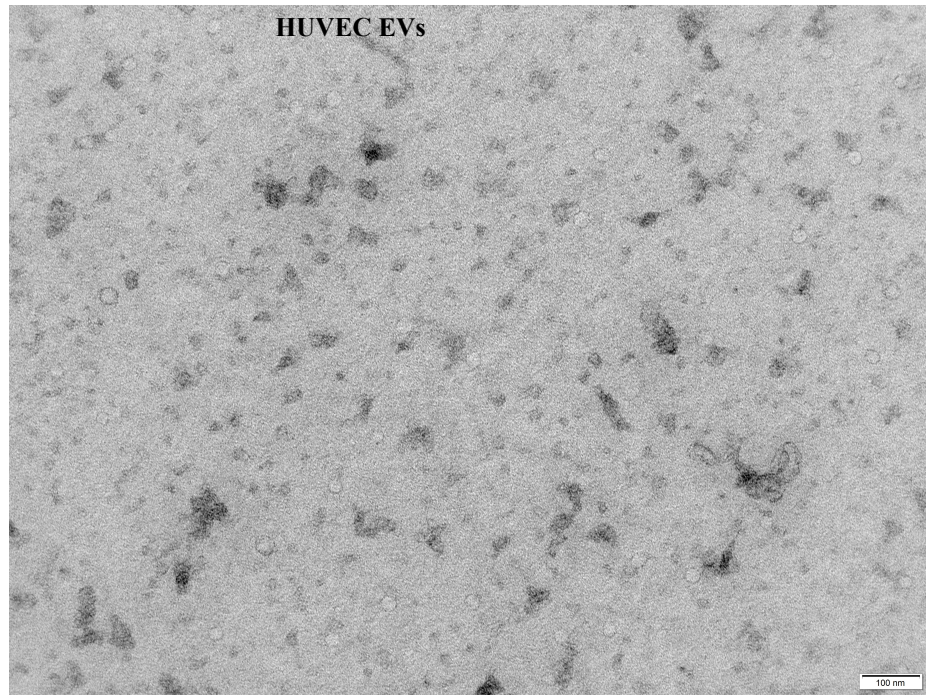
24h, replicate 2

Supplementary Fig. 3: The size (nm) and concentration of extracellular vesicles (EVs, particle/mL) determined by Nanoparticle Tracking Analysis (NTA) at different time points (0.5 h, 1 h, 5 h, and 24 h). The particle concentration in the graphs represent the values recorded after EV dilution. However, their adjusted concentration is given in the tables.

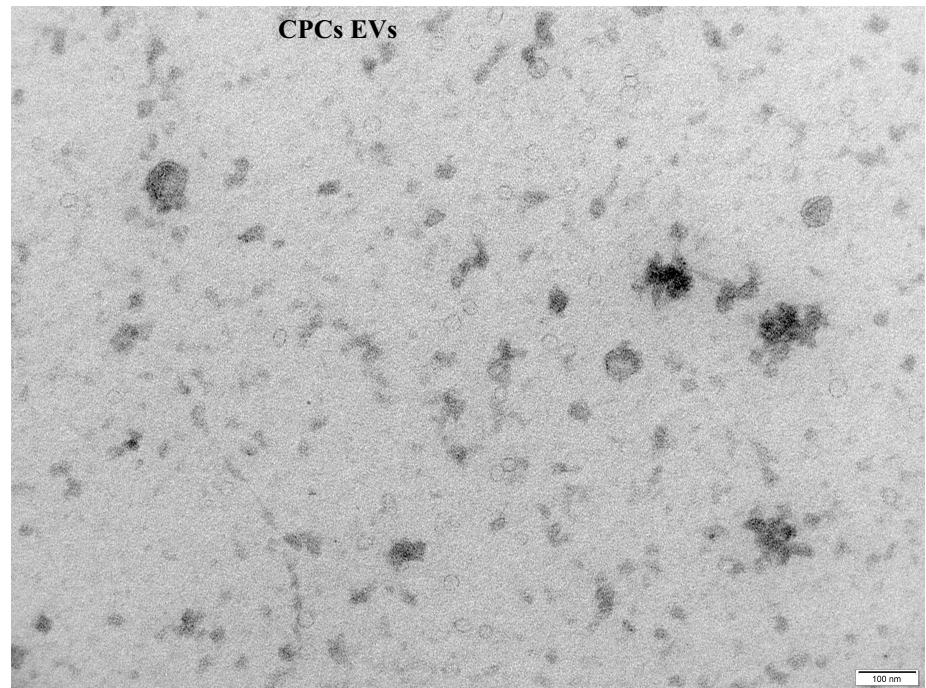
A



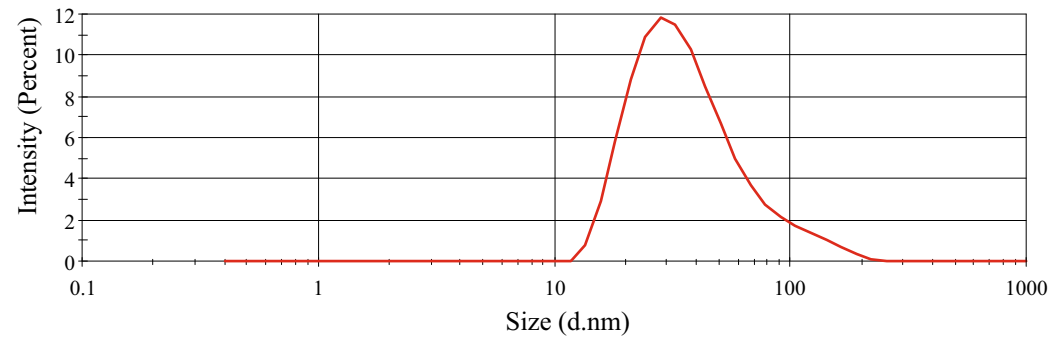
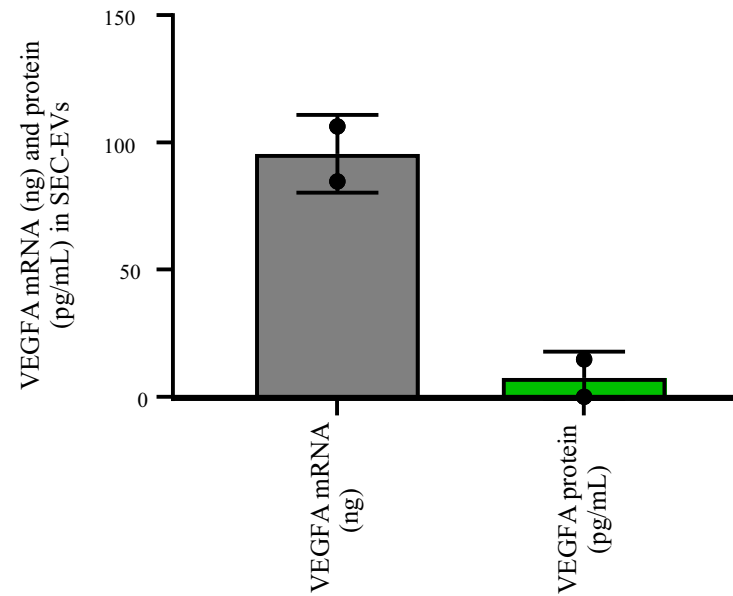
B



C

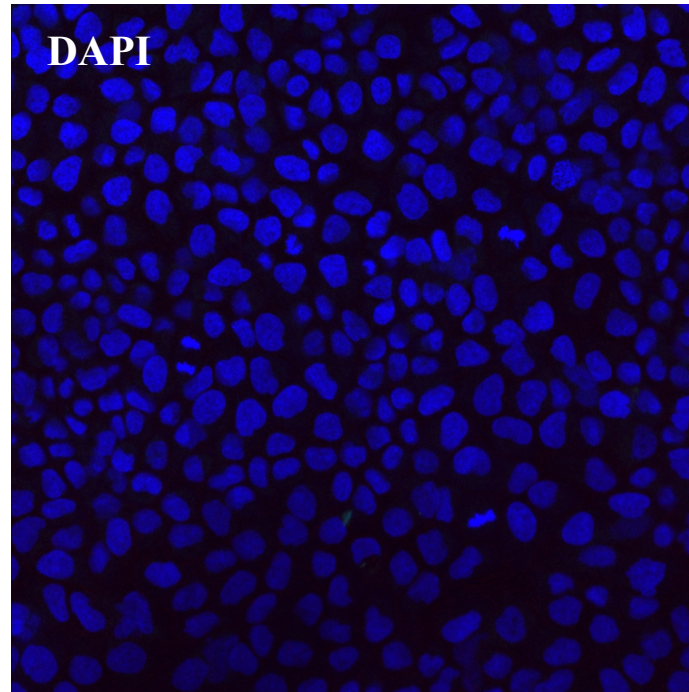


Supplementary Fig. 4: Transmission electron microscopy of **(A)** HTB-EVs, **(B)** HUVEC-EVs, and **(C)** CPC-EVs (n = 3). Scalebar: 100 nm.

A**SEC-EVs: size distribution by intensity****B**

Supplementary Fig. 5: (A) Zetasizer-based size distribution of extracellular vesicles (EVs) isolated by size exclusion chromatography (SEC). **(B)** Detection of *VEGF-A* mRNA (by qPCR) and VEGF-A protein (by ELISA) in purified SEC-EV fractions.

UNT cells (cells w/o Cy5-eGFP-mRNA)

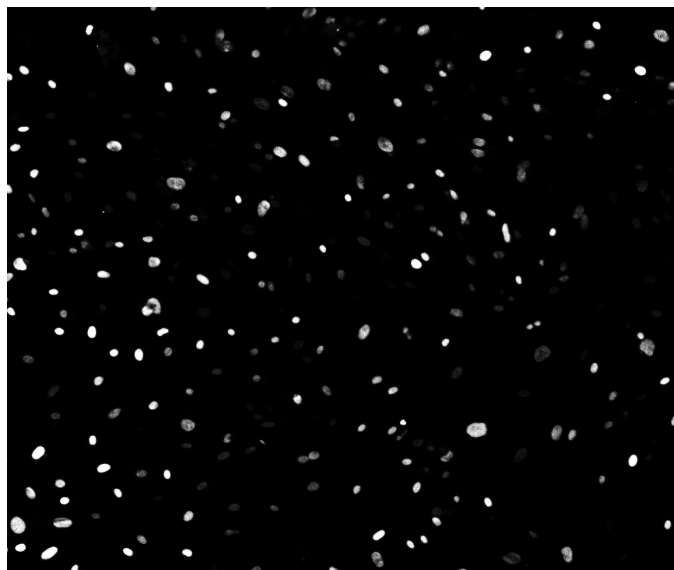


Supplementary Fig. 6: Examination of *Cy5-eGFP* mRNA and eGFP Protein in Untreated Cells

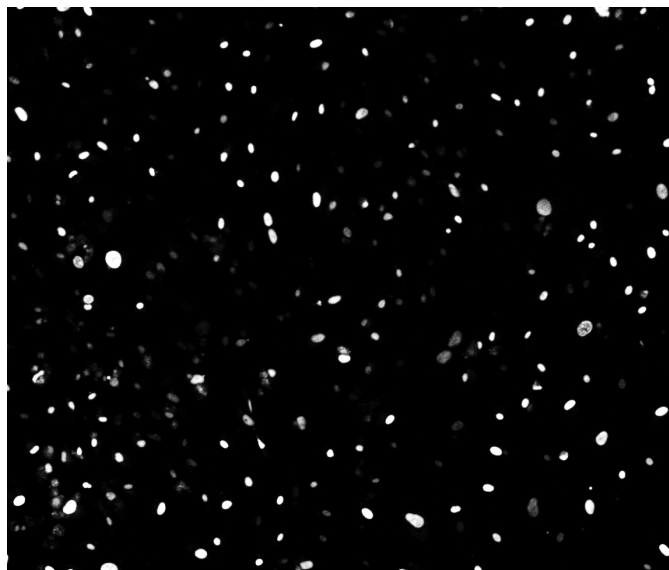
Control (untreated) HTB-177 cells (which did not receive extracellular vesicles (EVs) with *Cy5-eGFP* mRNA) were examined by confocal microscopy for the presence or absence of *Cy5-eGFP* or eGFP protein. The blue shades represent nuclei (DAPI stained), whereas no *Cy5-eGFP* mRNA or eGFP were detected. One representative image is shown. UNT, untreated; w/o, without.

A

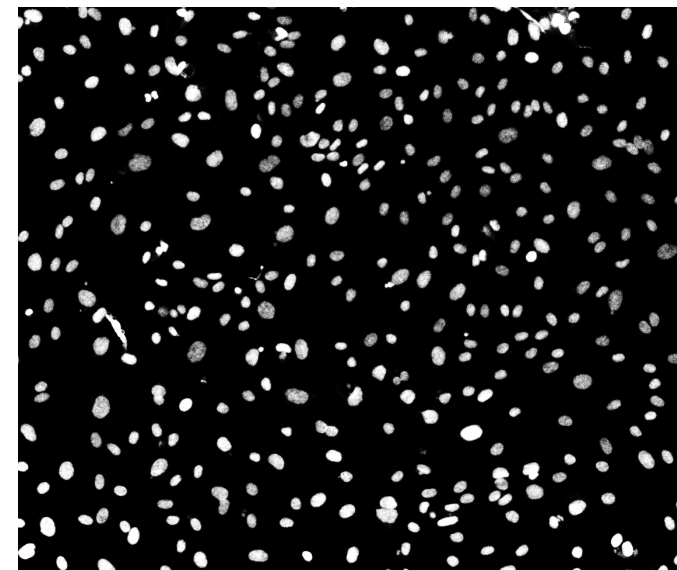
UNT cells



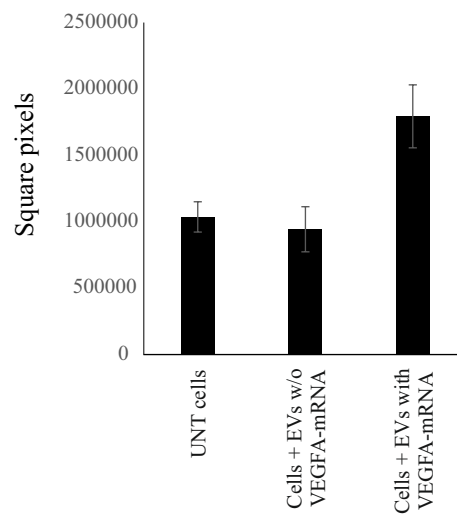
Cells + EVs w/o VEGFA-mRNA



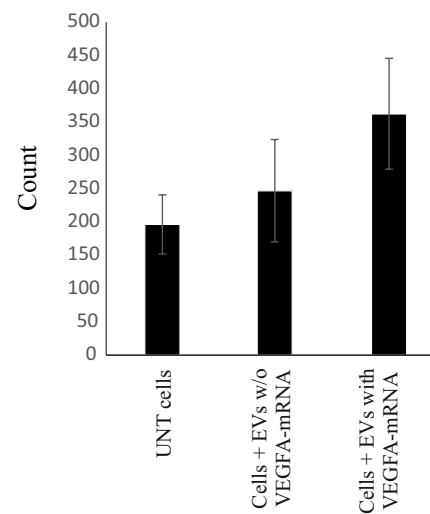
Cells + EVs with VEGFA-mRNA



B

Average nucleus size

C

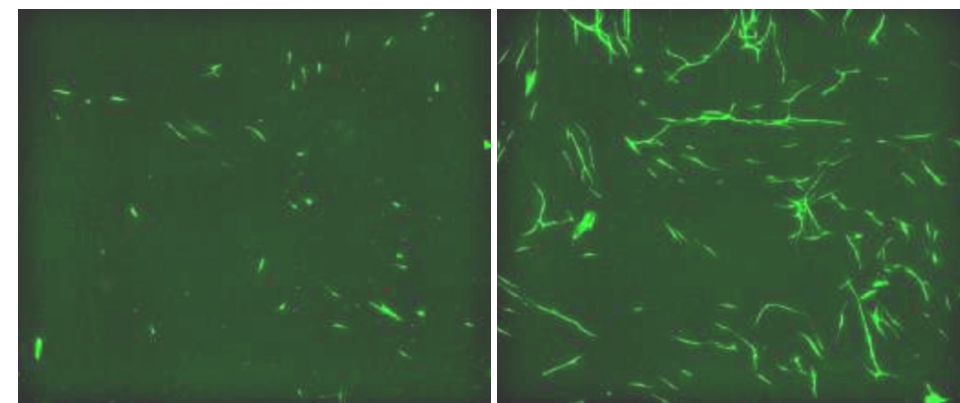
Number of nuclei

D

UNT

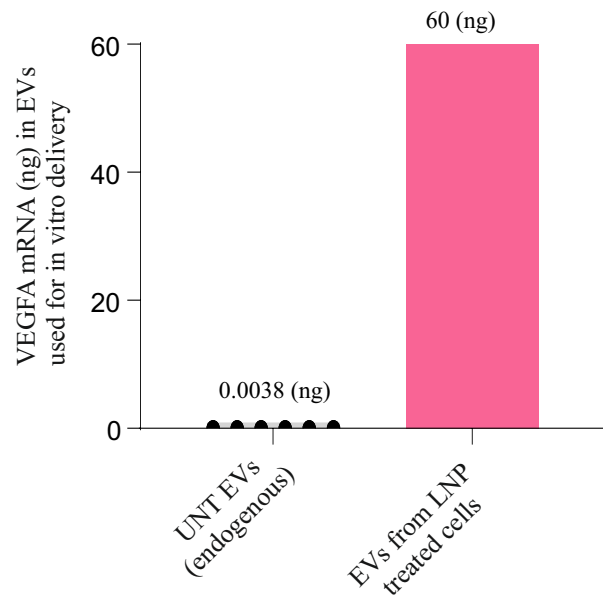
HTB-EVs + VEGFA mRNA

Endothelial vascular network formation

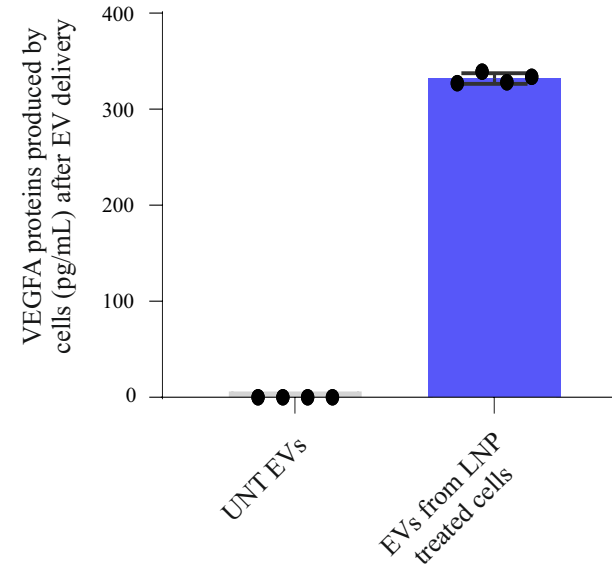


Supplementary Fig. 7: Proliferation of Endothelial Cells After *VEGF-A* mRNA Delivery via Extracellular Vesicles (EVs)

EVs carrying *VEGF-A* mRNA were delivered to HUVECs, and cell proliferation was assessed by measuring the number and size of nuclei. **(A)** Microscopic examination showing the morphological differences in cell nuclei numbers after delivering EVs containing *VEGF-A* mRNA, compared to EVs without *VEGF-A* mRNA or untreated cells (i.e., cells that did not receive any EVs). **(B)** Mean size of nuclei after delivery of *VEGF-A* mRNA via EVs, compared to controls (untreated cells or cells treated with EVs carrying no *VEGF-A* mRNA). **(C)** Quantification of the number of nuclei after delivery of *VEGF-A* mRNA via EVs, compared to controls. **(D)** Network (tube) formation in HUVECs after delivery of EVs containing *VEGF-A* mRNA. Untreated cells, and EVs without *VEGF-A* mRNA were used as controls. UNT, untreated; w/o, without.



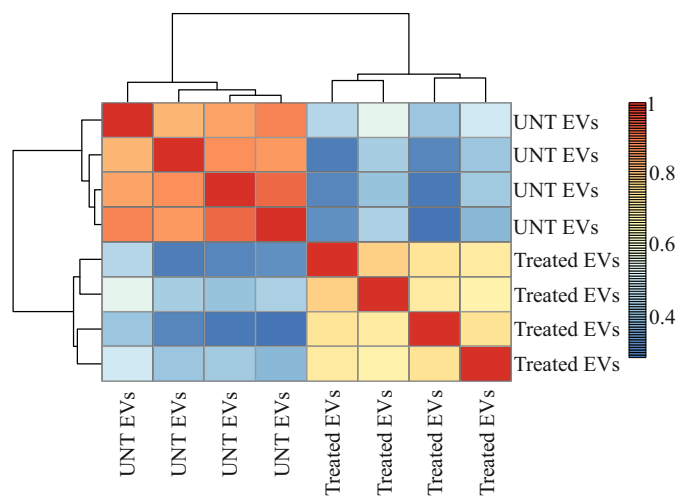
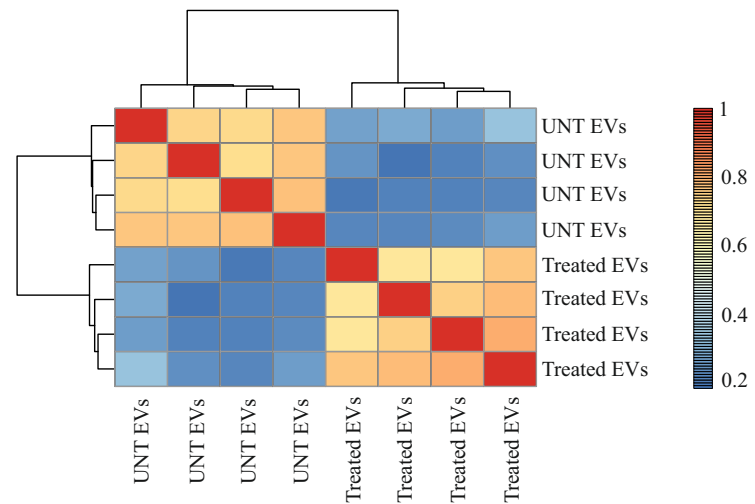
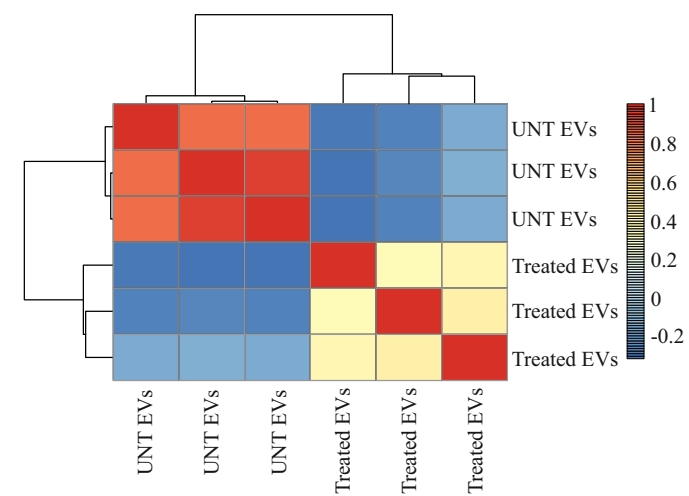
Cells $\xrightarrow{\text{EV delivery}}$ VEGFA protein?



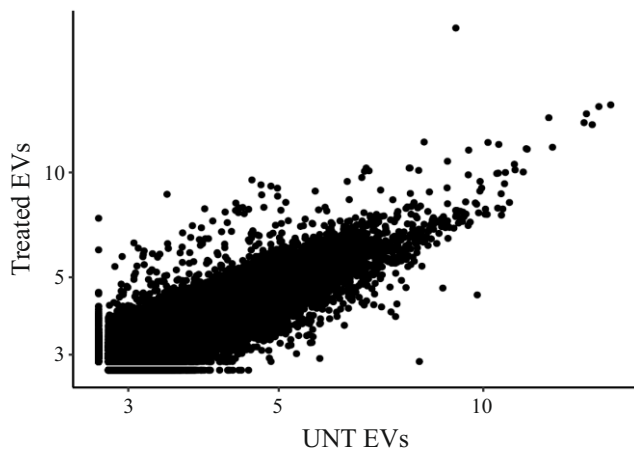
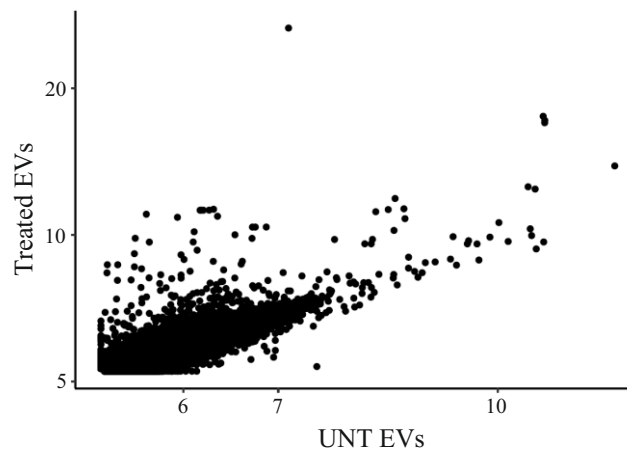
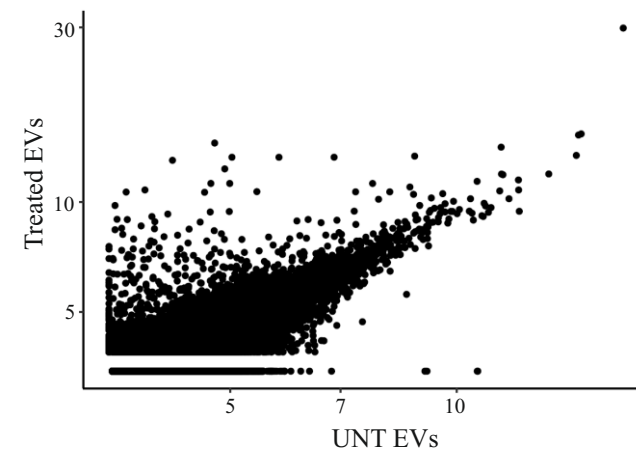
Supplementary Fig. 8: The Effect of Endogenous *VEGF-A* mRNA on Data Interpretation

A control experiment was performed to evaluate the interference of endogenous *VEGF-A* mRNA on data interpretation. *VEGF-A* mRNA was quantified in HTB-EVs secreted from untreated HTB-177 cells to estimate their endogenous amounts in EVs. The untreated EVs (EVs secreted from untreated cells) were delivered to HUVECs, and VEGF-A protein levels were quantified in recipient cells. EVs had only a minute amount of endogenous *VEGF-A* mRNA; likewise, the amount of newly produced VEGF-A protein in recipient cells was negligible. In contrast, the EV delivery of exogenous *VEGF-A* mRNA produced significantly higher amounts of VEGF-A protein. This data shows that the VEGF-A protein detected in recipient cells is produced from exogenously delivered *VEGF-A* mRNA.

A

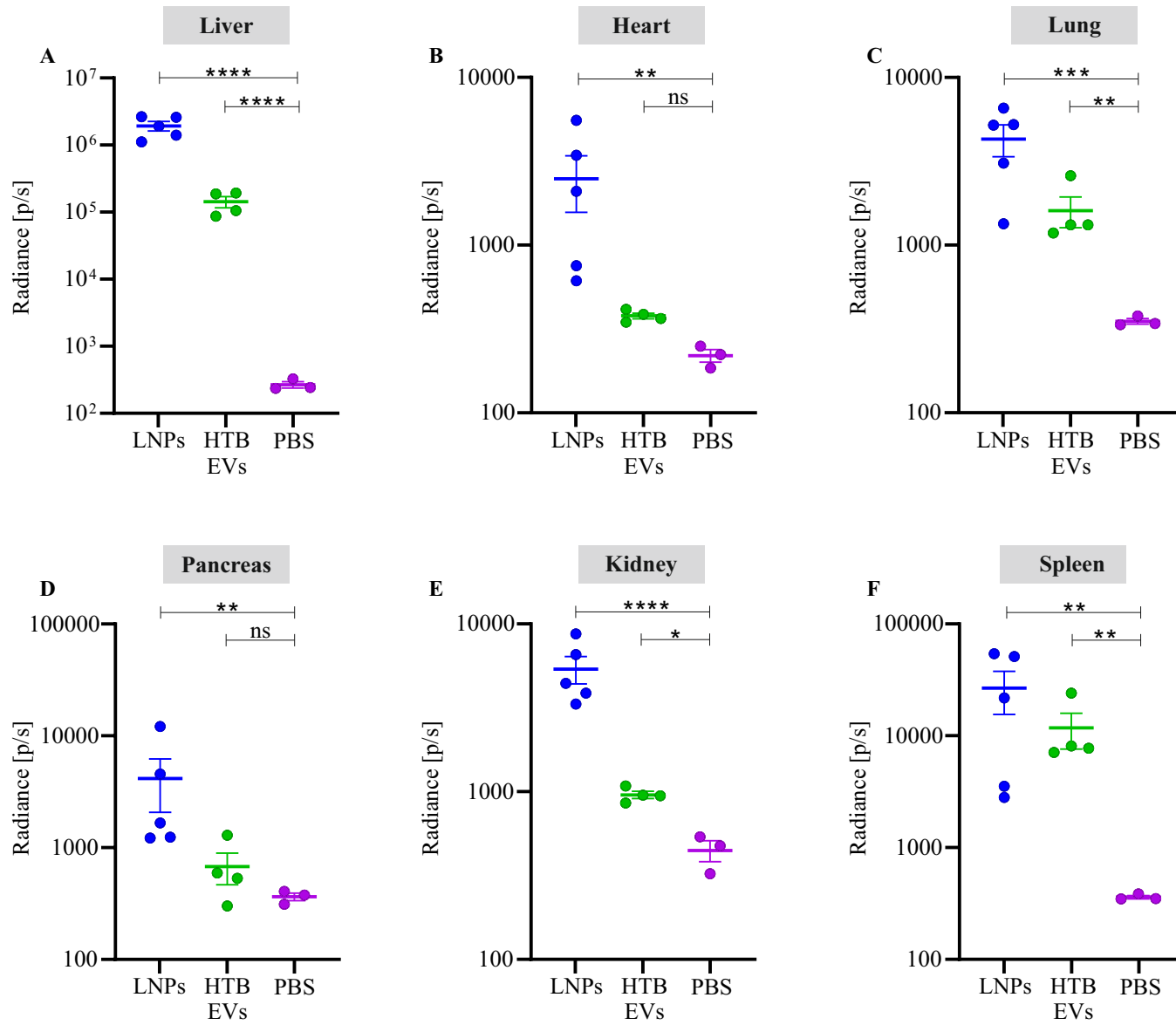
EVs fr. HTB cells**EVs fr. HUVEC cells****EVs fr. CPC cells**

B

EVs fr. HTB cells**EVs fr. HUVEC cells****EVs fr. CPC cells**

Supplementary Fig. 9: The Quality and Expression Assessment of RNA-Seq Data

(A) The clustered heat maps represent the sample correlation based on the normalized expression of the top 500 genes with the highest variance from LNP-treated and untreated HTB-, HUVEC-, and CPC-EVs. (B) Dot plots representing the mean normalized gene expression under the LNP-treated condition (Y-axis) against the untreated condition (X-axis) from HTB-, HUVEC-, and CPC-EVs. UNT, untreated; w/o, without.



Supplementary Fig. 10: Intravenous Delivery of Luciferase mRNA via EVs or LNPs

EVs or LNPs containing 1 μg of luciferase mRNA (FLuc-mRNA) were administered intravenously to female C57bl/Ncr. After 6 hours of EV or LNP administration, luciferin (~ 5 mL/kg) was administered intravenously. The mice were terminated 20 minutes after the luciferin administration and the organs were dissected and scanned with a IVIS Spectrum within less than 5 minutes after termination. The total radiance was quantified and used as marker for translatable luciferase mRNA. The amount of luciferase (activity) in **(A)** liver, **(B)** heart, **(C)** lung, **(D)** pancreas, **(E)** kidney, and **(F)** spleen. One-way ANOVA test was applied to compare LNP treated, or HTB-EV treated mice with untreated (PBS). $n=5$. (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$).

Suppl. Table 1: Deregulated genes in extracellular vesicles secreted from HTB-177 cells after LNP treatment

| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC | FDR |
|--------------------|------------------------|--|---------------------|-------------------------|--|--------|------------------------|
| ENSG00000275700.4 | MAITF | apoptosis antagonizing transcription factor | Nucleus | transcription regulator | | -1.136 | 2.91x10 ⁻⁰² |
| ENSG00000140798.15 | ABCC12 | ATP binding cassette subfamily C member 12 | Nucleus | transporter | | -1.159 | 4.25x10 ⁻⁰² |
| ENSG00000143994.13 | ABHD1 | abhydrolase domain containing 1 | Other | other | | 1.393 | 2.24x10 ⁻⁰⁴ |
| ENSG00000175164.13 | ABO | ABO, alpha 1-3-N-acetylgalactosaminyltransferase and alpha 1-3-galactosyltransferase | Plasma Membrane | enzyme | | 2.385 | 4.61x10 ⁻⁰³ |
| ENSG00000120437.8 | ACAT2 | acetyl-CoA acetyltransferase 2 | Cytoplasm | enzyme | | -2.372 | 1.20x10 ⁻⁰² |
| ENSG00000131473.16 | ACTY | actin cytarate lyase | Cytoplasm | enzyme | bempedoic acid/ezetimibe, bempedoic acid | -1.755 | 1.01x10 ⁻⁰² |
| ENSG00000122729.18 | ACD1 | acnionase 1 | Cytoplasm | enzyme | | -1.897 | 7.58x10 ⁻⁰³ |
| ENSG00000075624.13 | ACTB | actin beta | Cytoplasm | other | | -1.633 | 2.07x10 ⁻⁰² |
| ENSG00000154009.9 | ACTG1 | actin gamma 1 | Cytoplasm | other | | -2.428 | 4.74x10 ⁻⁰³ |
| ENSG00000136518.16 | ACTL6A | actin like 6A | Nucleus | other | | -1.795 | 2.44x10 ⁻⁰³ |
| ENSG00000138071.13 | ACTR2 | actin related protein 2 | Plasma Membrane | other | | -1.577 | 2.10x10 ⁻⁰² |
| ENSG00000139567.12 | ACTR1 | actin R receptor like type 1 | Plasma Membrane | kinase | PF-3446962, parulibic, BMP type I receptor | 1.353 | 3.73x10 ⁻⁰³ |
| ENSG00000156218.12 | ADAMTSL3 | ADAMTS like 3 | Nucleus | other | | 1.599 | 1.45x10 ⁻⁰² |
| ENSG00000105963.13 | ADAP1 | AdfGAP with dual FH domains 1 | Nucleus | other | | 1.198 | 1.85x10 ⁻⁰² |
| ENSG00000185736.15 | ADAR2 | adenosine deaminase RNA specific B2 (inactive) | Nucleus | enzyme | | 1.221 | 7.38x10 ⁻⁰³ |
| ENSG00000092774.16 | ADD1 | adducin 1 | Cytoplasm | other | | -1.633 | 4.78x10 ⁻⁰² |
| ENSG00000162618.12 | ADGRL4 | adhesion G-protein coupled receptor L4 | Plasma Membrane | receptor | adenosine kinase inhibitor, pesintinon/ibavrin | -2.981 | 4.23x10 ⁻⁰² |
| ENSG00000158110.13 | ADK | adenosine kinase | Nucleus | kinase | | -1.215 | 4.85x10 ⁻⁰² |
| ENSG00000239900.11 | ADSL | adenylosuccinate lyase | Cytoplasm | enzyme | | -2.315 | 1.21x10 ⁻⁰² |
| ENSG00000157510.13 | AFAP1L1 | actin filament associated protein 1 like 1 | Other | other | | -1.675 | 2.26x10 ⁻⁰² |
| ENSG00000141385.9 | AFG3L2 | AFG3 like matrix AAA peptidase subunit 2 | Nucleus | peptidase | | -2.708 | 6.70x10 ⁻⁰⁷ |
| ENSG00000124942.13 | AHNAK | AHNAK nucleoprotein | Nucleus | other | | -1.522 | 3.62x10 ⁻⁰³ |
| ENSG00000105591.1 | AHS4T1 | activator of HSP90 ATPase activity 1 | Cytoplasm | other | | -2.276 | 9.66x10 ⁻⁰⁶ |
| ENSG00000131016.16 | AKAP2 | A-kinase anchoring protein 12 | Cytoplasm | transporter | | -1.486 | 2.45x10 ⁻⁰² |
| ENSG00000198074.9 | AKR1B10 | aldo-keto reductase family 1 member B10 | Cytoplasm | enzyme | | -1.545 | 1.51x10 ⁻⁰² |
| ENSG00000149925.19 | AKA | aldolase, fructose-bisphosphate A | Cytoplasm | enzyme | | -1.201 | 1.20x10 ⁻⁰² |
| ENSG00000168625.9 | AKM1 | angiogenin like 1 | Plasma Membrane | growth factor | AMG 780, CXV-060, nesvacumab, CXV-241 | -1.666 | 9.13x10 ⁻⁰³ |
| ENSG00000191879.13 | ANGPT2 | angiopoietin 2 | Extracellular Space | growth factor | | -1.388 | 3.63x10 ⁻⁰³ |
| ENSG00000131593.20 | ANKRD1/ANKRD1-EIF4EBP3 | ankyrin repeat and KH domain containing 1 | Cytoplasm | other | | -1.522 | 3.62x10 ⁻⁰³ |
| ENSG00000148817.4 | ANKRD1 | ankyrin repeat domain 1 | Cytoplasm | transcription regulator | | 1.904 | 4.04x10 ⁻⁰² |
| ENSG00000224309.7 | ANKRD30B2 | ankyrin repeat domain 30B pseudogene 2 | Other | other | | 1.187 | 1.06x10 ⁻⁰² |
| ENSG00000230006.7 | ANKRD36B2 | ankyrin repeat domain 36B pseudogene 2 | Other | other | | -2.828 | 4.95x10 ⁻⁰⁶ |
| ENSG00000114266.10 | ANLN | anillin actin binding protein | Cytoplasm | other | | -2.138 | 2.93x10 ⁻⁰⁵ |
| ENSG00000140350.15 | ANP32A | acidic nuclear phosphoprotein 32 family member A | Cytoplasm | other | | -2.134 | 1.86x10 ⁻⁰³ |
| ENSG00000136938.8 | ANP32B | acidic nuclear phosphoprotein 32 family member B | Nucleus | other | | 1.258 | 2.18x10 ⁻⁰² |
| ENSG00000259760.1 | ANP32BP1 | acidic nuclear phosphoprotein 32 family member B pseudogene 1 | Nucleus | other | | -2.138 | 2.93x10 ⁻⁰⁵ |
| ENSG00000143401.14 | ANP32BP2 | acidic nuclear phosphoprotein 32 family member B pseudogene 2 | Nucleus | other | | -3.311 | 3.77x10 ⁻⁰⁶ |
| ENSG00000168625.13 | ANPEP | aminyl aminopeptidase, membrane | Plasma Membrane | peptidase | CNGCR peptide-TNF alpha conjugate | 3.404 | 4.96x10 ⁻⁰² |
| ENSG00000103254.9 | ANTKMT | adenine nucleotide translocase lysine methyltransferase | Cytoplasm | enzyme | | -2.281 | 3.13x10 ⁻⁰⁴ |
| ENSG00000182718.16 | ANXA2 | annexin A2 | Plasma Membrane | other | | -1.675 | 2.26x10 ⁻⁰² |
| ENSG00000164111.14 | ANXA5 | annexin A5 | Plasma Membrane | other | | -2.196 | 7.46x10 ⁻⁰⁴ |
| ENSG00000197043.13 | ANXA6 | annexin A6 | Plasma Membrane | ion channel | | -1.879 | 4.30x10 ⁻⁰² |
| ENSG00000138279.15 | ANXA7 | annexin A7 | Plasma Membrane | ion channel | | -1.519 | 1.63x10 ⁻⁰² |
| ENSG00000103260.8 | ANXB1 | adaptor related protein complex 1 subunit beta 1 | Cytoplasm | other | | -2.642 | 3.27x10 ⁻⁰³ |
| ENSG00000183020.13 | AP2A2 | adaptor related protein complex 2 subunit alpha 2 | Cytoplasm | transporter | | 3.685 | 5.79x10 ⁻⁰⁴ |
| ENSG00000161203.13 | AP2M1 | adaptor related protein complex 2 subunit mu 1 | Cytoplasm | other | | -1.797 | 2.36x10 ⁻⁰² |
| ENSG0000007420.15 | APBB1IP | amyloid beta precursor protein binding family B member 1 interacting protein | Cytoplasm | enzyme | E 3330, luanthione | -2.976 | 3.64x10 ⁻⁰⁹ |
| ENSG00000100823.11 | APCS1 | apocynin/apocynininduced endonucleonuclease 1 | Cytoplasm | enzyme | | -2.947 | 4.70x10 ⁻¹⁰ |
| ENSG00000166181.12 | API5 | apoptosis inhibitor 5 | Cytoplasm | other | | 3.209 | 5.07x10 ⁻⁰⁹ |
| ENSG00000094234.16 | APLF2 | amyloid beta precursor like protein 2 | Cytoplasm | other | | -2.009 | 7.74x10 ⁻⁰⁴ |
| ENSG00000142192.20 | APP | amyloid beta precursor protein | Plasma Membrane | other | bapineuzumab, florbetapir F18, aducanumab | -2.131 | 3.90x10 ⁻⁰² |
| ENSG00000158576.3 | ARC | actin cytotkeleton associated protein | Cytoplasm | other | | -1.519 | 1.63x10 ⁻⁰² |
| ENSG00000099539.13 | ARCN1 | archin 1 | Cytoplasm | other | | -2.131 | 3.90x10 ⁻⁰² |
| ENSG00000143761.13 | ARF1 | ADP ribosylation factor 1 | Cytoplasm | enzyme | | -1.519 | 1.63x10 ⁻⁰² |
| ENSG00000109826.10 | ARHGAP11A | Rho GTPase activating protein 11A | Cytoplasm | other | | -2.114 | 1.75x10 ⁻⁰² |
| ENSG00000146376.10 | ARHGAP18 | Rho GTPase activating protein 18 | Cytoplasm | other | | -1.51 | 3.54x10 ⁻⁰³ |
| ENSG00000160007.17 | ARHGAP35 | Rho GTPase activating protein 35 | Nucleus | transcription regulator | | -4.107 | 1.26x10 ⁻⁰⁵ |
| ENSG00000113448.8 | ARHGAP36 | Rho GTPase activating protein 36 | Cytoplasm | enzyme | | -1.187 | 8.07x10 ⁻⁰³ |
| ENSG00000102696.17 | ARHGEF7 | Rho guanine nucleotide exchange factor 7 | Nucleus | transcription regulator | | -1.397 | 6.14x10 ⁻⁰³ |
| ENSG00000117713.17 | ARID1A | AT-rich interaction domain 1A | Other | other | | 2.604 | 1.67x10 ⁻⁰³ |
| ENSG00000141748.12 | ARL5C | ADP ribosylation factor like GTPase 5C | Other | other | | -1.785 | 1.60x10 ⁻⁰² |
| ENSG0000021688.8 | ARPC1A | actin related protein 2/3 complex subunit 1A | Extracellular Space | other | | -1.273 | 1.31x10 ⁻⁰² |
| ENSG00000130429.12 | ARPC1B | actin related protein 2/3 complex subunit 1B | Cytoplasm | other | | -2.736 | 2.8x10 ⁻⁰⁵ |
| ENSG00000163466.15 | ARPC2 | actin related protein 2/3 complex subunit 2 | Cytoplasm | other | | -1.507 | 3.12x10 ⁻⁰³ |
| ENSG00000112289.15 | ARPC3 | actin related protein 2/3 complex subunit 3 | Cytoplasm | other | | 1.381 | 4.41x10 ⁻⁰² |
| ENSG00000153317.11 | ASAP1 | ArfGAP with SH3 domain, ankyrin repeat and PH domain 1 | Plasma Membrane | other | | -1.713 | 2.42x10 ⁻⁰² |
| ENSG00000239388.8 | ASB14 | ankyrin repeat and SOCS box containing 14 | Cytoplasm | enzyme | | -1.516 | 2.20x10 ⁻⁰² |
| ENSG00000112249.13 | ASCC3 | activating signal co-receptor 1 complex subunit 3 | Cytoplasm | transmembrane receptor | | -1.516 | 2.20x10 ⁻⁰² |
| ENSG00000141561.15 | ASGRT1 | asialoglycoprotein receptor 1 | Plasma Membrane | receptor | | -1.247 | 4.20x10 ⁻⁰² |
| ENSG00000156802.12 | ATAD2 | ATPase family AAA domain containing 2 | Nucleus | enzyme | | -2.003 | 1.86x10 ⁻⁰³ |
| ENSG00000111676.14 | ATN1 | atrophin 1 | Nucleus | transcription regulator | | 1.124 | 1.96x10 ⁻⁰³ |
| ENSG00000165399.15 | ATP1A1 | ATPase Na+/K+ transporting subunit alpha 1 | Plasma Membrane | transporter | digoxin, acetyldigoxin derivative, trichloron | -1.251 | 3.49x10 ⁻⁰² |
| ENSG00000143153.12 | ATP1B1 | ATPase Na+/K+ transporting subunit beta 1 | Plasma Membrane | transporter | | -2.498 | 2.89x10 ⁻⁰² |
| ENSG00000152334.15 | ATP5F1A | ATP synthase F1 subunit alpha | Cytoplasm | transporter | | -1.777 | 1.30x10 ⁻⁰³ |
| ENSG00000109955.6 | ATP5F1B | ATP synthase F1 subunit beta | Cytoplasm | transporter | | -1.378 | 3.66x10 ⁻⁰² |
| ENSG00000156629.19 | ATP5F1C | ATP synthase F1 subunit gamma | Cytoplasm | transporter | | -2.612 | 2.97x10 ⁻⁰³ |
| ENSG00000167283.7 | ATP5MG | ATP synthase membrane subunit g | Cytoplasm | enzyme | | -1.378 | 3.66x10 ⁻⁰² |
| ENSG00000156411.9 | ATP5MJ | ATP synthase membrane subunit j | Cytoplasm | other | | -2.612 | 2.97x10 ⁻⁰³ |
| ENSG00000118489.10 | ATP5P6 | ATP synthase peripheral stalk-membrane subunit 6 | Cytoplasm | transporter | | -1.378 | 3.66x10 ⁻⁰² |
| ENSG0000021837.6 | ATP5P2 | ATP synthase peripheral stalk subunit 2 | Cytoplasm | transporter | | -3.384 | 1.01x10 ⁻⁰² |
| ENSG00000131100.12 | ATP6V1E1 | ATPase H+ transporting V1 subunit E1 | Cytoplasm | transporter | | -1.643 | 4.49x10 ⁻⁰² |
| ENSG00000128524.4 | ATP6V1F | ATPase H+ transporting V1 subunit F | Cytoplasm | enzyme | | -1.828 | 4.65x10 ⁻⁰³ |
| ENSG00000139888.8 | ATP6V1G1 | ATPase H+ transporting V1 subunit G1 | Cytoplasm | transporter | | -1.486 | 3.20x10 ⁻⁰³ |
| ENSG00000085224.20 | ATRX | ATRX chromatin remediator | Other | transcription regulator | | 1.018 | 2.13x10 ⁻⁰² |
| ENSG00000146776.14 | ATXN1/2 | ataxin 1 like 1 | Other | other | | -2.826 | 3.8x10 ⁻⁰³ |
| ENSG00000167601.11 | AXL | AXL receptor tyrosine kinase | Plasma Membrane | kinase | CH5451098, gilteritinib, bosutinib/luxmab, | -1.814 | 1.58x10 ⁻⁰⁴ |
| ENSG00000175711.8 | AXTL1 | ADP-GlcNAc:beta-Gal beta-1,3-N-acetylglucosaminyltransferase like 1 | Cytoplasm | enzyme | | -1.597 | 8.51x10 ⁻⁰³ |
| ENSG00000151929.9 | BAG3 | BAG co-chaperone 3 | Cytoplasm | other | | -1.606 | 1.52x10 ⁻⁰³ |
| ENSG00000099554.10 | BAG2 | chromodomain adjacent to zinc finger domain 1B | Nucleus | transcription regulator | | -1.709 | 3.11x10 ⁻⁰⁵ |
| ENSG00000156525.15 | BANP1 | B cell receptor associated protein 31 | Nucleus | transporter | | -1.753 | 8.37x10 ⁻⁰³ |
| ENSG00000050820.16 | BCAR1 | BCAR1 scaffold protein, Cas family member | Plasma Membrane | enzyme | | 1.217 | 2.51x10 ⁻⁰² |
| ENSG00000127152.17 | BCL11B | BAF chromatin remodeling complex subunit BCL11B | Nucleus | transcription regulator | pelitoclast, navitoclax, ABT-737 | -1.323 | 1.20x10 ⁻⁰² |
| ENSG00000129473.9 | BCL2L2 | BCL2 like 2 | Cytoplasm | other | | -1.551 | 1.22x10 ⁻⁰³ |
| ENSG00000228624.4 | BCLYRN1 | brain cytoplasmic RNA 1 | Other | other | | -2.126 | 3.11x10 ⁻⁰⁴ |
| ENSG00000145734.18 | BDP1 | B double prime 1, subunit of RNA polymerase III transcription initiation factor IIIb | Nucleus | transcription regulator | | -4.302 | 4.38x10 ⁻⁰³ |
| ENSG00000166681.13 | BEX3 | brain expressed X-linked 3 | Cytoplasm | other | | -1.623 | 3.37x10 ⁻⁰³ |
| ENSG00000162492.15 | BGN | biglycan | Extracellular Space | other | | -1.263 | 1.66x10 ⁻⁰² |
| ENSG00000098665.14 | BIRC5 | baculoviral IAP repeat containing 5 | Cytoplasm | other | saataaparin, EZN 3042 | -1.195 | 3.40x10 ⁻⁰² |
| ENSG00000165733.7 | BMS1 | BMS1 ribosome biogenesis factor | Nucleus | other | | -1.95 | 3.40x10 ⁻⁰² |
| ENSG00000104765.14 | BNIP3L | BCL2 interacting protein 3 like | Cytoplasm | other | | -1.379 | 4.68x10 ⁻⁰² |
| ENSG00000145919.10 | BOI1 | orientation of chromosomes in cell division 1 | Nucleus | other | | -1.131 | 1.46x10 ⁻⁰² |
| ENSG00000038219.12 | BOD1L1 | orientation of chromosomes in cell division 1 like 1 | Nucleus | other | | -1.636 | 1.86x10 ⁻⁰² |
| ENSG00000169925.16 | BRD3 | chromodomain containing 3 | Nucleus | kinase | BI 804999 | -1.205 | 4.54x10 ⁻⁰² |
| ENSG0000012963.17 | BRD8 | chromodomain containing 8 | Nucleus | transcription regulator | | -1.919 | 1.62x10 ⁻⁰² |
| ENSG00000145711.15 | BT3 | basic transcription factor 3 | Nucleus | transcription regulator | | -1.523 | 3.56x10 ⁻⁰³ |
| ENSG00000082153.17 | BZW1 | basic leucine zipper and W2 domains 1 | Other | translation regulator | | -1.184 | 2.53x10 ⁻⁰² |
| ENSG0000010696.9 | C11orf58 | chromosome 11 open reading frame 58 | Other | other | | 1.567 | 3.28x10 ⁻⁰² |
| ENSG00000194425.13 | C11orf71 | chromosome 11 open reading frame 71 | Other | other | | -2.164 | 2.17x10 ⁻⁰² |
| ENSG00000278615.4 | C11orf98 | chromosome 11 open reading frame 98 | Other | other | | -2.26 | 2.01x10 ⁻⁰² |
| ENSG00000235162.6 | C12orf75 | chromosome 12 open reading frame 75 | Other | other | | -1.862 | 1.09x10 ⁻⁰³ |
| ENSG00000184206.10 | C22orf6 | CTA-218E10.6 | Other | other | | 1.154 | 1.20x10 ⁻⁰² |
| ENSG00000157192.8 | CASP1 | calcium binding protein 1 | Plasma Membrane | other | | -1.88 | 3.22x10 ⁻⁰³ |
| ENSG00000116181.17 | CACYBP | calyculin binding protein | Nucleus | other | | 2.382 | 3.89x10 ⁻⁰³ |
| ENSG00000164304.15 | | | | | | | |

| | | | | | | | |
|---------------------|--------------|---|---------------------|-------------------------|--|--------|----------|
| ENSG00000153648.17 | CDYL | chromodomain Y like | Nucleus | transcription regulator | | -1.527 | 4.31e+02 |
| ENSG00000198166.3 | CEACAM7 | CEA cell adhesion molecule 7 | Plasma Membrane | other | | 1.793 | 4.31e+02 |
| ENSG00000204948.45 | CEBPB | CCAAT enhancer binding protein alpha | Nucleus | transcription regulator | | 2.543 | 4.02e+04 |
| ENSG00000172216.5 | CEBPB | CCAAT enhancer binding protein beta | Nucleus | transcription regulator | | 4.113 | 4.02e+04 |
| ENSG00000221869.4 | CEBPD | CCAAT enhancer binding protein delta | Nucleus | transcription regulator | | 4.191 | 1.20e+02 |
| ENSG00000125817.7 | CENPB | centromere protein B | Nucleus | other | | 2.881 | 7.10e+03 |
| ENSG00000138778.11 | CENPE | centromere protein E | Nucleus | other | GSK923295 | -2.312 | 6.61e+05 |
| ENSG00000117724.12 | CENPF | centromere protein F | Nucleus | other | | -2.452 | 3.39e+05 |
| ENSG00000100422.13 | CERK | ceramide kinase | Plasma Membrane | kinase | | -2.294 | 8.07e+03 |
| ENSG00000188432.13 | CEPRL | ceramide kinase like | Nucleus | enzyme | | 3.269 | 3.89e+02 |
| ENSG00000197748.12 | CFAP43 | cilia and flagella associated protein 43 | Cytoplasm | other | | 1.715 | 2.07e+02 |
| ENSG00000209530.6 | CFAP44 | cilia and flagella associated protein 44 | Extracellular Space | peptidase | | 2.532 | 1.99e+11 |
| ENSG00000172757.12 | CFI | cofilin 1 | Nucleus | other | | -2.659 | 1.29e+05 |
| ENSG00000167670.15 | CHAF1A | chromatin assembly factor 1 subunit A | Nucleus | other | | -2.49 | 7.67e+03 |
| ENSG00000272888.5 | CHASERR1 | CHD2 adjacent suppressive regulatory RNA | Other | other | | 1.177 | 4.78e+02 |
| ENSG00000108153.12 | CHCHD2 | coiled-coil-helix-coiled-coil-helix domain containing 2 | Cytoplasm | other | | -3.814 | 2.09e+03 |
| ENSG00000111642.14 | CHD4 | chromodomain helicase DNA binding protein 4 | Nucleus | enzyme | | -1.42 | 9.78e+03 |
| ENSG00000100888.12 | CHD8 | chromodomain helicase DNA binding protein 8 | Nucleus | enzyme | | -1.69 | 4.19e+03 |
| ENSG00000101423.3 | CHMP4B | charged multivesicular body protein 4B | Cytoplasm | other | | -2.001 | 2.55e+03 |
| ENSG00000129988.13 | CHN1 | chitin N-acetylglucosamine 6-acetylaminase | Cytoplasm | kinase | | -2.983 | 3.42e+06 |
| ENSG00000175216.14 | CKAP5 | cytoskeleton associated protein 5 | Nucleus | transcription regulator | | -2.364 | 9.87e+06 |
| ENSG00000166165.12 | CKB | creatine kinase B | Cytoplasm | kinase | | 1.783 | 9.64e+04 |
| ENSG00000132971.0 | CLDN11 | claudin 11 | Plasma Membrane | other | | -1.825 | 4.00e+02 |
| ENSG00000178435.6 | CLIC14A | C-type lectin domain containing 14A | Nucleus | ion channel | | -3.668 | 1.28e+04 |
| ENSG00000213719.8 | CLIC1 | chloride intracellular channel 1 | Nucleus | ion channel | | -2.55 | 1.96e+04 |
| ENSG00000169504.14 | CLIC4 | chloride intracellular channel 4 | Plasma Membrane | ion channel | | -1.945 | 9.99e+04 |
| ENSG00000142018.8 | CLN3A | chloride nucleotide-sensitive channel 1A | Plasma Membrane | ion channel | | -1.508 | 1.93e+02 |
| ENSG00000202553.13 | CLSPN | claspin | Nucleus | other | | -1.808 | 1.57e+03 |
| ENSG00000116031.16 | CLSTN1 | calyculin 1 | Plasma Membrane | other | | -2.345 | 1.31e+03 |
| ENSG00000175416.12 | CLTB | clathrin light chain B | Plasma Membrane | other | | -1.501 | 3.58e+02 |
| ENSG00000103951.9 | CLU | clustering | Cytoplasm | other | AB-165S, clusterin antisense oligonucleotide | 1.517 | 1.27e+02 |
| ENSG00000168405.14 | CMAHP | cytidine monophospho-N-acetylneuraminic acid hydroxylase, pseudogene | Cytoplasm | other | | 2.13 | 3.80e+02 |
| ENSG00000184220.10 | CMSS1 | cmr1 ribosomal small subunit homolog | Other | other | | -2.258 | 1.04e+02 |
| ENSG00000169714.14 | CNPB | CCHC-type zinc finger nucleic acid binding protein | Nucleus | transcription regulator | | -1.431 | 4.00e+03 |
| ENSG00000133113.14 | CNDP2 | carboxypeptidase 2 | Cytoplasm | peptidase | | -1.32 | 1.68e+02 |
| ENSG00000205423.11 | CNEP1R1 | CTD nuclear envelope phosphatase 1 regulatory subunit 1 | Nucleus | other | | 1.67 | 4.60e+02 |
| ENSG00000094666.14 | CNN2 | calponin 2 | Cytoplasm | other | | -2.065 | 7.03e+03 |
| ENSG00000117519.15 | CNN3 | calponin 3 | Cytoplasm | other | | -2.43 | 3.38e+03 |
| ENSG00000125107.16 | CNOT1 | CCR4-NOT transcription complex subunit 1 | Cytoplasm | other | | -1.195 | 4.60e+02 |
| ENSG00000182871.14 | COL18A1 | collagen type XVIII alpha 1 chain | Extracellular Space | other | collagenase | -2.555 | 2.48e+02 |
| ENSG00000187498.14 | COL4A1 | collagen type IV alpha 1 chain | Extracellular Space | other | collagenase | -3.191 | 2.52e+02 |
| ENSG00000154871.17 | COL4A2 | collagen type IV alpha 2 chain | Extracellular Space | other | collagenase | -1.32 | 3.92e+06 |
| ENSG00000183359.15 | COL6A3 | collagen type VI alpha 3 chain | Extracellular Space | other | collagenase | 1.104 | 5.96e+03 |
| ENSG00000184432.9 | COPB2 | COP1 coat complex subunit beta 2 | Cytoplasm | transporter | | -1.497 | 1.19e+02 |
| ENSG00000139858.8 | COPB3 | COP9 signalosome | Cytoplasm | peptidase | | 1.882 | 1.62e+02 |
| ENSG00000168090.9 | COPB6 | COP9 signalosome subunit 6 | Nucleus | other | | -1.747 | 1.08e+03 |
| ENSG00000110880.10 | CORO1C | coronin 1C | Cytoplasm | other | | -1.732 | 7.59e+04 |
| ENSG00000103187.7 | COTL1 | coactosin like F-actin binding protein 1 | Cytoplasm | other | | -1.616 | 3.49e+03 |
| ENSG00000131143.8 | COX5A | cytochrome c oxidase subunit 5A | Cytoplasm | enzyme | | -2.206 | 1.20e+02 |
| ENSG00000178741.11 | COX5B | cytochrome c oxidase subunit 5B | Cytoplasm | enzyme | | -2.06 | 1.20e+02 |
| ENSG00000160471.12 | COX6B2 | cytochrome c oxidase subunit 6B2 | Cytoplasm | enzyme | | 2.495 | 7.27e+03 |
| ENSG00000164918.19 | COX6C | cytochrome c oxidase subunit 6C | Cytoplasm | enzyme | | -2.372 | 6.61e+06 |
| ENSG00000127184.10 | COX7C | cytochrome c oxidase subunit 7C | Cytoplasm | enzyme | | -2.195 | 2.61e+06 |
| ENSG00000110090.12 | CP11A | cariniline palmitoyltransferase 1A | Cytoplasm | enzyme | perhexiline | -1.63 | 4.94e+02 |
| ENSG00000150939.9 | CRMI1 | cysteine rich transmembrane BMP regulator 1 | Extracellular Space | kinase | | -2.439 | 9.87e+06 |
| ENSG00000109307.15 | CRP1 | cardi shock domain containing ET | Cytoplasm | other | | -1.544 | 3.84e+02 |
| ENSG00000124207.16 | CSE1L | chromosome segregation 1 like | Nucleus | transporter | | -1.522 | 1.81e+02 |
| ENSG00000113712.16 | CSNK1A1 | casein kinase 1 alpha 1 | Cytoplasm | kinase | SM1-71 | -1.654 | 1.32e+03 |
| ENSG00000204435.13 | CSNK2B | casein kinase 2 beta | Cytoplasm | kinase | | -2.35 | 5.99e+03 |
| ENSG00000160213.5 | CSYB | cystatin B | Cytoplasm | peptidase | | -1.534 | 4.08e+02 |
| ENSG00000206708.11 | CTA_29F111 | Other | Other | Other | | 2.535 | 8.01e+05 |
| ENSG00000102974.14 | CTCF | CCCTC-binding factor | Nucleus | transcription regulator | | -1.868 | 8.13e+03 |
| ENSG00000225432.3 | CTD_29S1B204 | CTD 29S1B204 | Other | Other | | 1.544 | 3.84e+02 |
| ENSG00000208925.1 | CTD_3099C69 | CTD 3099C69 | Other | Other | | -2.069 | 2.71e+02 |
| ENSG00000175215.9 | CTDSP2 | CTD small phosphatase 2 | Nucleus | phosphatase | | -1.584 | 1.21e+02 |
| ENSG000002044115.20 | CTNNA1 | catenin alpha 1 | Plasma Membrane | other | | -1.435 | 9.45e+03 |
| ENSG00000193261.14 | CTNNA2 | catenin alpha like 1 | Plasma Membrane | other | | -1.778 | 4.67e+02 |
| ENSG00000198561.12 | CTNND1 | catenin delta 1 | Nucleus | other | | -1.24 | 1.33e+02 |
| ENSG00000164733.20 | CTSB | cathepsin B | Cytoplasm | peptidase | | -2.575 | 6.05e+06 |
| ENSG00000101160.13 | CTSD | cathepsin D | Cytoplasm | peptidase | | -2.983 | 6.05e+06 |
| ENSG00000205530.15 | CUL1 | culin 1 | Nucleus | enzyme | | -1.562 | 2.11e+02 |
| ENSG00000139842.14 | CUL4A | culin 4A | Nucleus | other | | -1.342 | 2.71e+02 |
| ENSG00000206116.8 | CXCL2 | C-X-C motif chemokine ligand 2 | Extracellular Space | cytokine | | 2.311 | 5.41e+06 |
| ENSG00000163734.4 | CXCL3 | C-X-C motif chemokine ligand 3 | Extracellular Space | cytokine | | 2.594 | 6.78e+07 |
| ENSG00000169429.10 | CXCL8 | C-X-C motif chemokine ligand 8 | Extracellular Space | cytokine | BMS-986253 | 2.558 | 3.71e+06 |
| ENSG00000167740.9 | CY5B2 | cytochrome b5 domain containing 2 | Extracellular Space | other | | 1.507 | 4.60e+02 |
| ENSG00000102043.20 | CY5B3 | cytochrome b5 domain containing 3 | Extracellular Space | enzyme | | -2.35 | 2.02e+02 |
| ENSG00000273749.4 | CYFP1 | cytoplasmic FMRI interacting protein 1 | Cytoplasm | translation regulator | | -1.108 | 4.27e+02 |
| ENSG00000129562.10 | DAD1 | defender against cell death 1 | Cytoplasm | other | | -3.8 | 1.85e+03 |
| ENSG00000155368.16 | DBI | diacepam binding inhibitor, acyl-CoA binding protein | Cytoplasm | other | | -2.881 | 4.56e+06 |
| ENSG00000113758.13 | DBP1 | deafness 1 | Plasma Membrane | other | | -3.348 | 3.98e+11 |
| ENSG00000186341.7 | DCHS1 | DCHS1 deafness-related 1 | Plasma Membrane | other | | -1.726 | 2.11e+02 |
| ENSG00000129187.14 | DCTD | diacylglycerol phosphatase | Cytoplasm | enzyme | tetrahydouridine | -2.661 | 5.37e+03 |
| ENSG00000204943.12 | DCTN1 | dynamitin subunit 1 | Cytoplasm | other | | -1.093 | 1.49e+03 |
| ENSG00000167896.13 | DDI1 | damage specific DNA binding protein 1 | Nucleus | other | | -1.02 | 3.19e+02 |
| ENSG00000175197.10 | DDIT3 | DNA damage inducible transcript 3 | Nucleus | transcription regulator | | 1.918 | 6.08e+05 |
| ENSG00000244038.9 | DDOST | dolichyl-diphosphooligosaccharide-protein glycosyltransferase non-catalytic subunit | Cytoplasm | enzyme | | -2.251 | 3.27e+02 |
| ENSG0000019785.14 | DDX1 | DEAD-box helicase | Nucleus | enzyme | | 1.527 | Nucleus |
| ENSG00000102021.18 | DDX17 | DEAD-box helicase 17 | Nucleus | enzyme | | -2.031 | 8.25e+04 |
| ENSG00000215301.9 | DDX3X | DEAD-box helicase 3 X-linked | Cytoplasm | enzyme | | -1.299 | 3.63e+02 |
| ENSG00000108854.11 | DDX5 | DEAD-box helicase 5 | Nucleus | enzyme | | -1.144 | 8.78e+03 |
| ENSG00000165507.8 | DEP1 | DEP1 autophagy regulator | Cytoplasm | other | | -3.209 | 7.92e+04 |
| ENSG0000007044.9 | DGKD | diacylglycerol kinase delta | Cytoplasm | kinase | | 1.127 | 2.93e+02 |
| ENSG00000133943.20 | DGLUCY | D-glutamate cyclase | Cytoplasm | enzyme | | 1.325 | 1.41e+02 |
| ENSG00000161531.11 | DHAP1 | D-4-hydroxycholesterol reductase | Cytoplasm | enzyme | | -2.35 | 1.20e+02 |
| ENSG00000109606.12 | DHX15 | DEAH-box helicase 15 | Nucleus | enzyme | | -1.263 | 4.56e+02 |
| ENSG00000204560.9 | DHX16 | DEAH-box helicase 16 | Nucleus | enzyme | | -1.861 | 4.80e+02 |
| ENSG00000140829.11 | DHX8 | DEAH-box helicase 8 | Nucleus | enzyme | | -3.095 | 3.44e+03 |
| ENSG00000135829.16 | DHX9 | DEH-box helicase 9 | Nucleus | enzyme | | -1.395 | 1.20e+02 |
| ENSG00000131504.15 | DIAPH1 | diaphanous related formin 1 | Plasma Membrane | other | | -1.584 | 1.40e+03 |
| ENSG00000189225.11 | DIP2C-AS1 | DIP2C antisense RNA 1 | Other | other | | 1.111 | 1.83e+02 |
| ENSG00000147113.16 | DIP2B | diaphanous related protein kinase domain 2B | Other | other | | 1.212 | 1.21e+02 |
| ENSG00000130826.15 | DKC1 | dyx1c1 pseudouridine synthase 1 | Nucleus | enzyme | | -1.476 | 1.57e+02 |
| ENSG00000128787.12 | DLAGP5 | DLG associated protein 5 | Nucleus | other | | -1.97 | 4.07e+02 |
| ENSG00000163914.14 | DNAH2 | Dynein axonemal heavy chain 2 | Cytoplasm | other | | 1.36 | 2.05e+02 |
| ENSG00000208905.15 | DNAH3 | DnaJ heat shock protein family (Hsp40) member A1 | Nucleus | other | | -2.499 | 9.87e+06 |
| ENSG00000132002.7 | DNAJB1 | DnaJ heat shock protein family (Hsp40) member B1 | Nucleus | transcription regulator | | 1.936 | 1.40e+05 |
| ENSG00000102980.14 | DNAJC3 | DnaJ heat shock protein family (Hsp40) member C3 | Cytoplasm | other | | -2.028 | 2.63e+02 |
| ENSG00000217403.3 | DNAJC3-OT | DNAJC3 divergent transcript | Other | other | | 1.674 | 2.94e+02 |
| ENSG00000101152.10 | DNAJC5 | DnaJ heat shock protein family (Hsp40) member C5 | Plasma Membrane | other | | -1.419 | 4.85e+02 |
| ENSG00000126988.10 | DNAJC8 | DnaJ heat shock protein family (Hsp40) member C8 | Nucleus | other | | -1.898 | 4.15e+02 |
| ENSG00000107554.15 | DNAH9 | dynamitin binding protein | Cytoplasm | other | | -1.383 | 6.38e+03 |
| ENSG0000027695.5 | DNMBP-AS1 | DNMBP antisense RNA 1 | Other | other | | 1.712 | 3.30e+02 |
| ENSG00000150780.12 | DOCK1 | dedicator of cytokinesis 1 | Cytoplasm | other | | -1.61 | 1.29e+02 |
| ENSG00000128512.19 | DOCK4 | dedicator of cytokinesis 4 | Plasma Membrane | other | | -1.67 | 7.78e+05 |
| ENSG0000008837.17 | DOCK9 | dedicator of cytokinesis 9 | Plasma Membrane | other | | -1.432 | 3.88e+03 |
| ENSG0000029284.16 | DPYSL2 | dihydropyrimidinase like 2 | Cytoplasm | enzyme | | -1.917 | 2.55e+04 |
| ENSG00000113657.12 | DPYSL3 | dihydropyrimidinase like 3 | Cytoplasm | enzyme | | -1.431 | 3.58e+03 |
| ENSG00000151974.17 | DST1 | dystronin | Plasma Membrane | other | | -1.69 | 2.15e+03 |
| ENSG00000102988.15 | DSTN | desmin, actin depolymerizing factor | Cytoplasm | other | | -3.878 | 3.24e+04 |
| ENSG00000125821.11 | DTD1 | D-aminooacyl-tRNA deacylase 1 | Cytoplasm | enzyme | | -1.538 | 4.33e+02 |
| ENSG00000120129.5 | DUSP1 | dual specificity phosphatase 1 | Nucleus | phosphatase | | 1.374 | 1.92e+02 |
| ENSG00000204398.9 | DUXAP19 | double homeobox 3 pseudogene 10 | Other | other | | 1.183 | 1.74e+02 |
| ENSG00000197102.10 | DYNC1H1 | dynein cytoplasmic 1 heavy chain 1 | Cytoplasm | peptidase | | -1.355 | 4.91e+02 |
| ENSG00000077380.15 | DYNC1I2 | dynein cytoplasmic 1 intermediate chain 2 | Cytoplasm | other | | -1.489 | 2.00e+02 |
| ENSG00000126870.15 | DYNC2I1 | dynein 2 intermediate chain 1 | Extracellular Space | other | | -2.317 | 5.91e+05 |
| ENSG00000135638.13 | DYSF | dysferlin | Plasma Membrane | other | | -5.099 | 2.50e+04 |
| ENSG00000205250.8 | E2F4 | E2F transcription factor 4 | Nucleus | transcription regulator | | -1.839 | 1.45e+02 |
| ENSG00000117298.14 | ECE1 | endothelin converting enzyme 1 | Plasma Membrane | peptidase | | -2.784 | 2.81e+06 |
| ENSG00000104823.8 | ECH1 | enoyl-CoA hydratase 1 | Cytoplasm | enzyme | | -5.193 | 3.77e+04 |
| ENSG00000198721.12 | ECL2 | enoyl-CoA delta isomerase 2 | Cytoplasm | enzyme | | -2.522 | 4.36e+03 |
| ENSG00000136813.14 | ECPAS | Ecm29 proteasome adaptor and scaffold | Cytoplasm | other | | -1.316 | 1.88e+02 |
| ENSG00000143465.13 | ECSCR | endothelial cell surface expressed chemotaxis and apoptosis regulator | Other | other | | -5.685 | 3.13e+06 |
| ENSG00000102891.13 | ECT2 | epithelial cell transforming 2 | Cytoplasm | other | | -1.939 | 9.83e+03 |
| ENSG00000102189.16 | EEA1 | early endosome antigen 1 | Cytoplasm | other | | -1.245 | 1.33e+02 |
| ENSG00000156508.17 | EEF1A1 | eukaryotic translation elongation factor 1 alpha 1 | Cytoplasm | translation regulator | | -2.46 | 5.62e+05 |
| ENSG00000166205.8 | EEF1A2 | eukaryotic translation elongation factor 1 alpha 2 pseudogene 5 | Extracellular Space | other | | -1.881 | 2.56e+03 |
| ENSG00000114642.13 | EEF2 | eukaryotic translation elongation factor 2 | Nucleus | translation regulator | | -1.804 | 2.10e+03 |
| ENSG00000204772.9 | EEF1G | eukaryotic translation elongation factor 1 gamma | Cytoplasm | translation regulator | | -2.3 | |

| | | | | | | | | |
|--------------------|----------------------------|---|---------------------|----------------------------|---|--|--------|----------|
| ENSG00000120990.13 | ELF1 | E74 like ETS transcription factor 1 | Nucleus | transcription regulator | | | -1.805 | 3.32e+02 |
| ENSG00000111445 | ELK3 | E75 transcription factor ELK3 | Nucleus | transcription regulator | | | -2.337 | 1.34e+04 |
| ENSG00000124519 | EMBP1 | ectoplasmal membrane protein 1 | Plasma Membrane | other | | | -1.684 | 3.84e+02 |
| ENSG00000106991.13 | ENG | endoglin | Plasma Membrane | transmembrane receptor | carotidumab | | -3.921 | 7.69e+06 |
| ENSG00000074900.13 | ENO1 | enolase | Cytoplasm | enzyme | | | -2.208 | 1.28e+04 |
| ENSG00000145293 | ENOPH1 | enolase-phosphatase 1 | Cytoplasm | enzyme | | | -2.255 | 5.12e+02 |
| ENSG00000079819 | EPHA1L2 | erythrocyte membrane protein band 4.1 like 2 | Plasma Membrane | other | | | -1.108 | 1.86e+02 |
| ENSG00000229153 | EPHA1-AS1 | EPHA1 antisense RNA 1 | Other | other | | | -1.092 | 2.86e+02 |
| ENSG00000133216 | EPHB2 | EPH receptor B2 | Plasma Membrane | kinase | ALW-II-4B7, ALW-II-36.3, SM1-71 | | -1.484 | 5.29e+04 |
| ENSG00000109411 | EPIR | EPH receptor B4 | Plasma Membrane | kinase | issavatibin, NVP-BHG127, JI 101, AZ12672 | | -1.637 | 1.51e+02 |
| ENSG00000136628 | EPRN1 | ethylamyl-prolyl-RNA synthetase 1 | Cytoplasm | enzyme | | | -1.611 | 1.14e+02 |
| ENSG00000105722 | ERF | ETS2 repressor factor | Nucleus | transcription regulator | | | -3.715 | 1.07e+02 |
| ENSG0000015754 | ERG | ETS transcription factor ERG | Nucleus | transcription regulator | | | -1.285 | 4.50e+02 |
| ENSG00000106320 | ERH | ERH RNA splicing and mitosis factor | Nucleus | other | | | -1.584 | 1.03e+02 |
| ENSG00000165837 | ERIC4B6 | glutamate rich 6B | Other | other | | | 1.572 | 3.05e+03 |
| ENSG00000149564 | ESAM | endothelial cell adhesion molecule | Plasma Membrane | other | | | -2.407 | 3.69e+02 |
| ENSG00000089048 | ESF1 | ESF1 nuclear pre-RNA processing protein homolog | Nucleus | transcription regulator | | | -2.224 | 3.65e+03 |
| ENSG00000164283 | ESM1 | endothelial cell specific molecule 1 | Extracellular Space | growth factor | | | -6.681 | 7.57e+04 |
| ENSG00000139641 | ESYT1 | extended synaptotagmin 1 | Cytoplasm | other | | | -2.204 | 2.20e+02 |
| ENSG00000185982 | EVF2 | ecovirus viral integration site 2B | Plasma Membrane | other | | | 1.294 | 4.17e+03 |
| ENSG00000182944 | EWSR1 | EWS RNA binding protein 1 | Nucleus | other | | | -1.255 | 2.06e+02 |
| ENSG00000181104 | F2R | coagulation factor II thrombin receptor | Plasma Membrane | G-protein coupled receptor | chrysalin, voraparax, PARI inhibitor, aragrat | | -1.373 | 1.35e+02 |
| ENSG00000164887 | FABP5 | fatty acid binding protein 5 | Cytoplasm | transporter | | | -1.148 | 4.33e+02 |
| ENSG00000154824 | FADS2 | fatty acid desaturase 2 | Plasma Membrane | enzyme | | | -1.175 | 4.74e+03 |
| ENSG00000065809 | FAM107B | family with sequence similarity 107 member B | Other | other | | | -1.226 | 4.55e+02 |
| ENSG00000138640 | FAM13A | family with sequence similarity 13 member A | Cytoplasm | other | | | 1.173 | 1.76e+03 |
| ENSG00000161632 | FAM171A2 | family with sequence similarity 171 member A2 | Other | other | | | 3.971 | 6.16e+04 |
| ENSG00000052338 | FAM124B | family with sequence similarity 214 member B | Nucleus | other | | | 1.318 | 9.34e+03 |
| ENSG00000139438 | FAM22A | family with sequence similarity 222 member A | Other | other | | | 1.469 | 4.78e+02 |
| ENSG00000185112 | FAM34A | family with sequence similarity 43 member A | Other | other | | | -2.191 | 7.38e+03 |
| ENSG00000109550 | FAM72A | family with sequence similarity 72 member A | Cytoplasm | other | | | 1.425 | 2.80e+02 |
| ENSG00000188610 | FAM72B | family with sequence similarity 72 member B | Cytoplasm | other | | | 2.126 | 2.64e+05 |
| ENSG00000263513 | FAM72C/FAM72D | family with sequence similarity 72 member D | Nucleus | other | | | 1.339 | 8.23e+03 |
| ENSG00000105968 | FAM83C | family with sequence similarity 83 member C | Other | other | | | 1.32 | 4.75e+02 |
| ENSG00000149890 | FAT1 | FAT1 ubiquitin like and ribosomal protein S30 fusion | Cytoplasm | other | | | -2.039 | 9.80e+04 |
| ENSG00000105202 | FBL | fibrillarin | Nucleus | enzyme | | | -1.706 | 1.31e+02 |
| ENSG00000162458 | FBLIM1 | fibrillin binding LIM protein 1 | Plasma Membrane | other | | | -2.237 | 4.75e+02 |
| ENSG00000138829 | FBN2 | fibrillin 2 | Extracellular Space | other | | | -2.941 | 1.03e+05 |
| ENSG00000118584 | FBXL5 | F-box and leucine rich repeat protein 5 | Cytoplasm | other | | | -2.889 | 4.53e+03 |
| ENSG00000138081 | FBXO11 | F-box protein 11 | Other | other | | | -1.98 | 4.66e+03 |
| ENSG00000178974 | FBXO34 | F-box protein 34 | Cytoplasm | enzyme | | | -1.259 | 2.79e+02 |
| ENSG00000078659 | FBS | farnesyl-diphosphate farnesyltransferase 1 | Nucleus | enzyme | lapaquistat, zoledronic acid | | -1.75 | 4.33e+03 |
| ENSG00000160752 | FDPS | farnesyl diphosphate synthase | Cytoplasm | enzyme | fosidronic acid, zoledronic acid, minodronat | | -2.427 | 1.93e+02 |
| ENSG00000161513 | FDXR | ferredoxin reductase | Cytoplasm | enzyme | | | -1.335 | 1.58e+02 |
| ENSG00000204918 | FELC1 | fes l like family member 5 | Other | other | | | 2.801 | 2.00e+08 |
| ENSG00000176971 | FIBIN | fin bud initiation factor homolog | Cytoplasm | other | | | 7.792 | 6.56e+04 |
| ENSG00000088832 | FKBP1A | FKBP prolyl isomerase 1A | Cytoplasm | enzyme | methotrexate/siroliumus/tacrolimus, prednison | | -2.385 | 1.05e+04 |
| ENSG00000100442 | FKBP2 | FKBP prolyl isomerase 3 | Nucleus | enzyme | | | -2.246 | 3.19e+02 |
| ENSG0000004478 | FKBP3 | FKBP prolyl isomerase 4 | Cytoplasm | other | | | -1.645 | 3.19e+02 |
| ENSG00000105701 | FKBP8 | FKBP prolyl isomerase 8 | Other | other | | | -1.614 | 3.49e+02 |
| ENSG00000143631 | FLG | filaggrin | Cytoplasm | other | | | -1.24 | 1.31e+02 |
| ENSG0000015702 | FLI1 | FLI1 proto-oncogene, ETS transcription factor | Nucleus | transcription regulator | | | -1.147 | 3.32e+03 |
| ENSG00000177311 | FLII | FLII actin remodeling protein | Other | other | | | -1.787 | 7.30e+03 |
| ENSG00000136068 | FLNB | fibrillin 8 | Cytoplasm | other | | | -2.834 | 2.61e+06 |
| ENSG00000128291 | FLNC | fibrillin 9 | Cytoplasm | other | | | -4.113 | 5.58e+04 |
| ENSG00000131781 | FKOB | flavin containing dimethylalanine monooxygenase 5 | Cytoplasm | enzyme | | | 1.383 | 3.10e+02 |
| ENSG00000115414 | FN1 | fibronectin 1 | Extracellular Space | enzyme | ocripilamin, bifkalupif alfa, L19T/Falpa, L | | -2.371 | 3.34e+05 |
| ENSG00000170345 | FOS | Fos proto-oncogene, AP-1 transcription factor subunit | Nucleus | transcription regulator | | | 2.807 | 1.69e+09 |
| ENSG00000045698 | FOXP1 | forkhead box P1 | Nucleus | transcription regulator | | | 1.73 | 1.73e+06 |
| ENSG00000237424 | FOXD2-AS1 | FOXD2 adjacent opposite strand RNA 1 | Other | other | | | 1.783 | 4.47e+02 |
| ENSG00000186766 | FOXJ2 | forkhead box J2 | Nucleus | transcription regulator | | | 1.402 | 1.45e+02 |
| ENSG00000065970 | FOXJ2 | forkhead box J2 | Nucleus | transcription regulator | | | 5.64 | 2.08e+23 |
| ENSG00000112025 | FRG1 | FRG region gene 1 family member B | Other | other | | | 2.811 | 1.01e+02 |
| ENSG00000205097 | FRG2/FRG2B | FRG region gene 2 family member B | Other | other | | | 1.801 | 2.10e+02 |
| ENSG00000134363 | FST | folliculatin | Extracellular Space | other | | | 1.739 | 1.45e+03 |
| ENSG00000163430 | FSTL1 | folliculin like 1 | Extracellular Space | other | | | -1.152 | 4.58e+02 |
| ENSG00000167996 | FTH1 | ferritin heavy chain 1 | Cytoplasm | enzyme | | | -1.627 | 1.83e+02 |
| ENSG00000144416 | FXR1 | FMR1 autosomal homolog 1 | Cytoplasm | other | | | -1.354 | 3.79e+02 |
| ENSG00000163820 | FYVE | FYVE and coiled-coil domain autophagy adaptor 1 | Other | other | | | -1.145 | 3.18e+02 |
| ENSG00000138757 | GAB1 | GAB1 stress granule assembly factor 2 | Cytoplasm | enzyme | | | 1.214 | 3.29e+02 |
| ENSG00000136928 | GABBR2 | gamma-aminobutyric acid type B receptor subunit 2 | Plasma Membrane | G-protein coupled receptor | baclofen, arbaclofen, amitriptyline/baclofen | | -1.528 | 2.72e+02 |
| ENSG00000099660 | GADD45B | growth arrest and DNA damage inducible beta | Cytoplasm | other | | | 1.317 | 3.31e+02 |
| ENSG00000144293 | GALNT1 | polypeptide N-acetylglucosaminyltransferase 1 | Cytoplasm | enzyme | | | -2.615 | 2.44e+04 |
| ENSG00000143841 | GALNT2 | polypeptide N-acetylglucosaminyltransferase 2 | Cytoplasm | enzyme | | | -1.126 | 4.47e+02 |
| ENSG00000257594 | GALNT4 | polypeptide N-acetylglucosaminyltransferase 4 | Cytoplasm | enzyme | | | 1.263 | 4.07e+02 |
| ENSG00000099597 | GANAB | glucosylase II alpha subunit | Cytoplasm | enzyme | miglitol | | -2.246 | 2.55e+03 |
| ENSG00000116403 | GARS1 | glyceraldehyde-3-phosphate dehydrogenase | Cytoplasm | enzyme | | | -1.699 | 1.03e+02 |
| ENSG00000106105 | GARS1 | glycyl-RNA synthetase 1 | Cytoplasm | enzyme | | | -1.508 | 9.26e+03 |
| ENSG00000114480 | GBE1 | 1,4-alpha-glucan branching enzyme 1 | Cytoplasm | enzyme | | | -2.109 | 5.00e+03 |
| ENSG00000151979 | GCH1 | GTP cyclohydrolase 1 | Cytoplasm | enzyme | | | 2.816 | 1.87e+02 |
| ENSG00000135418 | GDI1 | growth differentiation factor 11 | Extracellular Space | growth factor | luspatercept | | -1.089 | 2.12e+02 |
| ENSG00000057098 | GDI2 | GDP dissociation inhibitor 2 | Cytoplasm | other | | | 1.712 | 3.94e+03 |
| ENSG00000131459 | GFPT2 | glutamine-fructose-6-phosphate transaminase 2 | Cytoplasm | enzyme | | | -2.191 | 2.93e+09 |
| ENSG00000165678 | GHTM1 | growth hormone inducible transmembrane protein | Cytoplasm | other | | | -3.846 | 1.34e+03 |
| ENSG00000204120 | GIGYF2 | GRB10 interacting GYF protein 2 | Cytoplasm | other | | | -1.293 | 2.35e+02 |
| ENSG00000133574 | GIMAP4 | GI Pass, IMAP family member 4 | Nucleus | other | | | -2.177 | 2.28e+05 |
| ENSG00000171153 | GIMAP8 | GI Pass, IMAP family member 8 | Other | other | | | -1.374 | 1.88e+02 |
| ENSG00000102861 | GLAI | gap junction protein alpha 1 | Plasma Membrane | transporter | | | 2.923 | 2.20e+02 |
| ENSG00000090863 | GLG1 | golgi glycoprotein 1 | Cytoplasm | other | | | -1.166 | 3.62e+02 |
| ENSG00000114353 | GNIA2 | G protein subunit alpha 2 | Plasma Membrane | enzyme | | | -2.204 | 1.65e+04 |
| ENSG00000078389 | GNB1 | G protein subunit beta 1 | Plasma Membrane | enzyme | | | -1.684 | 1.87e+04 |
| ENSG00000127620 | GNB11 | G protein subunit gamma 11 | Plasma Membrane | enzyme | | | -2.526 | 2.41e+05 |
| ENSG00000134697 | GNL2 | G protein nuclear 2 | Nucleus | enzyme | | | -1.285 | 4.60e+02 |
| ENSG00000116704 | GNPTAB | N-acetylglucosamine-1-phosphate transferase subunits alpha and beta | Cytoplasm | enzyme | | | 1.165 | 1.74e+02 |
| ENSG00000139935 | GOLGA1 | golgin A1 | Cytoplasm | other | | | 1.114 | 1.14e+02 |
| ENSG00000144674 | GOLGA4 | golgin A4 | Cytoplasm | other | | | -1.125 | 2.55e+02 |
| ENSG00000277322 | GOLGA6L6 (includes others) | golgin A6 family like 6 | Other | other | | | 1.622 | 2.35e+02 |
| ENSG00000278624 | GOLGA6L9 (includes others) | golgin A6 family like 9 | Other | other | | | 1.205 | 6.71e+02 |
| ENSG00000115806 | GORASP2 | golgi assembly stacking protein 2 | Cytoplasm | other | | | -1.519 | 3.61e+03 |
| ENSG00000125166 | GOT2 | glutamic-oxaloacetic transaminase 2 | Cytoplasm | enzyme | | | -1.598 | 2.35e+02 |
| ENSG00000169318 | GPATC4 | G-patch domain containing 4 | Other | other | | | -1.377 | 9.72e+03 |
| ENSG00000167588 | GPT1 | glutamic-3-phosphate dehydrogenase 1 | Cytoplasm | enzyme | | | 1.479 | 7.32e+03 |
| ENSG00000105220 | GPI | glucose-6-phosphate isomerase | Extracellular Space | enzyme | | | -1.129 | 3.61e+02 |
| ENSG00000166123 | GPT2 | glutamic-pyruvic transaminase 2 | Cytoplasm | enzyme | | | 1.254 | 4.90e+03 |
| ENSG00000167468 | GPX4 | glutathione peroxidase 4 | Cytoplasm | enzyme | | | -3.053 | 1.28e+07 |
| ENSG00000169181 | GSC1 | GSC1 like | Plasma Membrane | enzyme | | | 1.103 | 2.80e+02 |
| ENSG00000104687 | GSR | glutathione disulfide reductase | Cytoplasm | enzyme | carmustine/prednisone, carmustine | | -1.882 | 2.23e+02 |
| ENSG00000192365 | GTF2E2 | general transcription factor IIE subunit 2 | Nucleus | transcription regulator | | | -2.531 | 1.22e+02 |
| ENSG00000202659 | GTF2E2B | general transcription factor IIE subunit 2B (pseudogene) | Other | other | | | -3.119 | 2.10e+02 |
| ENSG00000270196 | GTF3C2P3 | GTF3C3 pseudogene 3 | Other | other | | | 1.971 | 3.88e+02 |
| ENSG00000178605 | GTPBP6 | GTP binding protein 6 (putative) | Other | other | | | 1.099 | 1.62e+02 |
| ENSG00000189860 | H1-0 | H1.0 linker histone | Nucleus | other | | | 1.38 | 3.47e+02 |
| ENSG00000104897 | H1-10 | H1.10 linker histone | Nucleus | other | | | 2.894 | 1.72e+03 |
| ENSG00000196737 | H2AC11 | H2A clustered histone 11 | Nucleus | other | | | -4.182 | 3.18e+06 |
| ENSG00000278933 | H2AC16 | H2A clustered histone 16 | Nucleus | other | | | -1.76 | 3.46e+02 |
| ENSG00000194263 | H2AC20 | H2A clustered histone 20 | Nucleus | other | | | 1.499 | 2.92e+02 |
| ENSG00000188486 | H2AX | H2A.X variant histone | Nucleus | transcription regulator | | | 1.249 | 3.37e+02 |
| ENSG00000281716 | H2BC20P | H2B clustered histone 20, pseudogene | Other | other | | | 1.123 | 1.82e+02 |
| ENSG00000184878 | H2BC21 | H2B clustered histone 21 | Nucleus | other | | | 1.202 | 9.82e+03 |
| ENSG00000106890 | H2BU1 | H2B.U1 histone 1 | Nucleus | other | | | 1.28 | 2.56e+02 |
| ENSG00000183598 | H3C13 | H3 clustered histone 13 | Nucleus | other | | | 2.166 | 3.23e+05 |
| ENSG00000273983 | H3C8</ | | | | | | | |

| | | | | | | | |
|--------------------|-----------------------------|---|---------------------|-------------------------|--------|----------|--|
| ENSG00000105997.22 | HOXA3 | homeobox A3 | Nucleus | transcription regulator | -1.946 | 9.96e+03 | |
| ENSG00000105704.14 | HPR1 | hypoxanthine phosphoribosyltransferase 1 | Cytoplasm | enzyme | -2.357 | 1.87e+04 | 6-mercaptopurine, thioquinane, azathioprine |
| ENSG00000119605.4 | HSP90 | histidine rich glycoprotein | Extracellular Space | other | -1.854 | 3.30e+02 | |
| ENSG00000108786.10 | HSD17B1 | hydroxysteroid 17-beta dehydrogenase 1 | Cytoplasm | enzyme | 1.304 | 3.47e+02 | |
| ENSG00000090824.18 | HSP90AA1 | heat shock protein 90 alpha family class A member 1 | Cytoplasm | enzyme | -2.049 | 7.85e+04 | alvesipimycin, retaspimycin, luminespib, TAS |
| ENSG00000093514.18 | HSP90AB1 | heat shock protein 90 alpha family class B member 1 | Cytoplasm | enzyme | -2.053 | 1.14e+04 | alvesipimycin, retaspimycin, TAS-116, cisplatin |
| ENSG00000166598.12 | HSP90B1 | heat shock protein 90 beta family member 1 | Cytoplasm | other | -2.209 | 4.68e+05 | alvesipimycin, retaspimycin, cisplatin |
| ENSG00000204388.6 | HSPA1A/HSPA1B | heat shock protein family A (Hsp70) member 1A | Cytoplasm | enzyme | 2.264 | 6.94e+04 | |
| ENSG00000204389.0 | HSPA1A/HSPA1B | heat shock protein family A (Hsp70) member 1A | Cytoplasm | enzyme | 2.118 | 3.61e+04 | |
| ENSG00000106803.81 | HSPA4 | heat shock protein family A (Hsp70) member 4 | Cytoplasm | other | 1.537 | 1.14e+04 | |
| ENSG0000017006.13 | HSPA4 | heat shock protein family A (Hsp70) member 4 | Cytoplasm | other | -1.191 | 4.39e+02 | |
| ENSG00000109971.13 | HSP8A | heat shock protein family A (Hsp70) member 8 | Cytoplasm | enzyme | -1.648 | 6.14e+03 | |
| ENSG00000113013.12 | HSP9A | heat shock protein family A (Hsp70) member 9 | Cytoplasm | other | -1.487 | 9.73e+03 | |
| ENSG00000106211.8 | HSPB1 | heat shock protein family B (small) member 1 | Cytoplasm | other | -2.673 | 2.88e+06 | |
| ENSG00000144381.16 | HSPD1 | heat shock protein family D (Hsp60) member 1 | Cytoplasm | enzyme | -2.114 | 7.83e+04 | |
| ENSG00000115541.10 | HSPF1 | heat shock protein family E (Hsp70) member 1 | Cytoplasm | enzyme | -1.602 | 8.10e+03 | |
| ENSG00000142798.16 | HSPD3 | heparan sulfate proteoglycan 2 | Extracellular Space | enzyme | -5.115 | 6.02e+07 | |
| ENSG00000086758.15 | HUWE1 | HECT, UBA and WWF domain containing E3 ubiquitin protein ligase 1 | Nucleus | transcription regulator | -1.732 | 2.05e+03 | |
| ENSG00000149428.18 | HYOU1 | hypoxia up-regulated 1 | Cytoplasm | other | -2.191 | 2.26e+04 | |
| ENSG00000087714.9 | IRS2 | insulin-like growth factor 2, mitochondrial | Cytoplasm | enzyme | -2.015 | 2.90e+03 | |
| ENSG00000108622.10 | ICAM2 | intercellular adhesion molecule 2 | Plasma Membrane | other | -2.682 | 9.34e+03 | |
| ENSG00000125968.8 | ID1 | inhibitor of DNA binding 1, HLH protein | Nucleus | transcription regulator | 1.84 | 2.77e+03 | |
| ENSG00000115738.9 | ID2 | inhibitor of DNA binding 2 | Nucleus | transcription regulator | 1.969 | 3.92e+04 | |
| ENSG00000109888.6 | IER3 | immediate early response 3 | Cytoplasm | transcription regulator | 3.296 | 2.83e+03 | |
| ENSG00000137331.11 | IER3 | immediate early response 3 | Cytoplasm | other | 1.624 | 4.64e+04 | |
| ENSG00000162783.10 | IER5 | immediate early response 5 | Nucleus | other | 1.939 | 1.35e+08 | |
| ENSG00000168483.7 | IER5L | immediate early response 5 like | Other | other | 1.385 | 1.59e+02 | |
| ENSG00000159217.9 | IGFBP1 | insulin like growth factor 2 mRNA binding protein 1 | Cytoplasm | transcription regulator | -1.22 | 2.98e+02 | |
| ENSG0000007392.15 | IGFBP2 | insulin like growth factor 2 mRNA binding protein 2 | Cytoplasm | transcription regulator | -2.461 | 1.16e+03 | |
| ENSG00000115457.9 | IGFBP2 | insulin like growth factor binding protein 2 | Extracellular Space | other | -1.39 | 3.21e+02 | |
| ENSG00000117353.12 | IGFBP4 | insulin like growth factor binding protein 4 | Extracellular Space | other | -2.829 | 1.93e+02 | |
| ENSG00000163453.11 | IGFBP7 | insulin like growth factor binding protein 7 | Extracellular Space | transporter | -3.182 | 2.13e+02 | |
| ENSG00000113141.15 | IK | IK cytokine | Extracellular Space | cytokine | -2.22 | 1.58e+04 | |
| ENSG0000011382.4 | IL12B | interleukin 12B | Extracellular Space | cytokine | 1.817 | 1.57e+03 | |
| ENSG00000115607.9 | IL18RAP | interleukin 18 receptor accessory protein | Plasma Membrane | transmembrane receptor | 2.294 | 4.99e+03 | ustekinumab, methotrexate/ustekinumab |
| ENSG00000115602.16 | IL1RL1 | interleukin 1 receptor like 1 | Plasma Membrane | transmembrane receptor | -1.579 | 6.56e+04 | |
| ENSG00000119244.11 | IL6 | interleukin 6 | Extracellular Space | cytokine | 1.774 | 5.62e+05 | anti-IL-6 monoclonal antibody, tocilizumab |
| ENSG00000134322.19 | IL1ST | interleukin 6 cytokine family signal transducer | Plasma Membrane | transmembrane receptor | -1.028 | 1.09e+03 | |
| ENSG00000109348.16 | IMPDH1 | inosine monophosphate dehydrogenase 1 | Cytoplasm | enzyme | -2.293 | 2.51e+02 | thioquinane, VX-944, pegivron/ritonavir, PF |
| ENSG00000149503.12 | INCENP | inner centromere protein | Nucleus | other | -2.274 | 5.91e+05 | |
| ENSG00000153487.12 | ING1 | inhibitor of growth family member 1 | Nucleus | transcription regulator | 1.336 | 4.00e+03 | |
| ENSG00000104941.13 | INTS8 | integrator complex subunit 8 | Cytoplasm | enzyme | 1.887 | 1.89e+04 | |
| ENSG00000085150.18 | IPO5 | importin 5 | Nucleus | transporter | -1.503 | 4.65e+03 | |
| ENSG00000205339.9 | IPO7 | importin 7 | Nucleus | transporter | -1.638 | 2.38e+03 | |
| ENSG00000140575.12 | IQGAP1 | IQ motif containing GTPase activating protein 1 | Cytoplasm | other | -2.716 | 2.07e+07 | |
| ENSG00000183856.10 | IQGAP3 | IQ motif containing GTPase activating protein 3 | Plasma Membrane | other | -1.428 | 4.00e+02 | |
| ENSG00000184216.11 | IRAK1 | interleukin 1 receptor associated kinase 1 | Plasma Membrane | kinase | -1.7 | 1.68e+02 | |
| ENSG00000119669.4 | IRF2BP1 | interferon regulatory factor 2 binding protein like | Nucleus | enzyme | 1.813 | 2.05e+03 | |
| ENSG00000109369.8 | IRS2 | insulin receptor substrate 2 | Cytoplasm | enzyme | 1.398 | 1.92e+06 | |
| ENSG00000170561.12 | IRX2 | iroquois homeobox 2 | Nucleus | transcription regulator | 2.247 | 1.43e+05 | |
| ENSG00000177598.11 | IRX3 | iroquois homeobox 3 | Nucleus | transcription regulator | 1.854 | 3.43e+02 | |
| ENSG00000161638.10 | ITGA5 | integrin subunit alpha 5 | Plasma Membrane | transmembrane receptor | -2.839 | 6.6e+04 | |
| ENSG00000091409.14 | ITGA6 | integrin subunit alpha 6 | Plasma Membrane | transmembrane receptor | -2.237 | 2.08e+04 | |
| ENSG00000150093.18 | TGFB1 | transforming growth factor beta 1 | Plasma Membrane | transmembrane receptor | -4.397 | 1.65e+02 | OS2966 |
| ENSG00000123104.11 | ITPR2 | inositol 1,4,5-trisphosphate receptor type 2 | Cytoplasm | ion channel | -1.256 | 4.76e+02 | |
| ENSG00000165198.12 | IWS1 | interacts with SUP17F, C1D assembly factor 1 | Nucleus | enzyme | -2.11 | 1.97e+05 | |
| ENSG00000162434.11 | JAK1 | Janus kinase 1 | Cytoplasm | kinase | -2.914 | 3.95e+06 | SHR0302, solcitinib, tofacitinib, ruxolitinib, n |
| ENSG00000176906.6 | JUN | Jun proto-oncogene, AP-1 transcription factor subunit | Nucleus | transcription regulator | 2.251 | 9.87e+06 | |
| ENSG0000017223.3 | JUNB | JunB proto-oncogene, AP-1 transcription factor subunit | Nucleus | transcription regulator | 3.489 | 1.29e+06 | |
| ENSG00000130522.5 | JUND | JunD proto-oncogene, AP-1 transcription factor subunit | Nucleus | transcription regulator | 4.121 | 1.13e+03 | |
| ENSG00000173801.16 | JUP | junction plakoglobin | Plasma Membrane | enzyme | -2.13 | 2.57e+03 | |
| ENSG00000065427.14 | KARS1 | lysyl-tRNA synthetase 1 | Cytoplasm | enzyme | -1.818 | 2.07e+02 | |
| ENSG00000178955.8 | KAT5 | potassium channel tetramerization domain containing 12 | Plasma Membrane | ion channel | 1.13 | 1.27e+02 | |
| ENSG00000112078.13 | KCTD20 | potassium channel tetramerization domain containing 20 | Cytoplasm | other | -1.314 | 1.93e+02 | |
| ENSG00000105438.8 | KDELR1 | KDEL endoplasmic reticulum protein retention receptor 1 | Cytoplasm | transporter | -2.529 | 9.98e+03 | |
| ENSG00000054487.15 | KDM1A | lysine demethylase 1A | Nucleus | enzyme | -1.162 | 6.01e+03 | |
| ENSG00000140575.12 | KDR | kinase insert domain receptor | Plasma Membrane | kinase | 2.745 | 1.31e+07 | TAS1440, GSK-2879552, ROT051790, IMG |
| ENSG00000127174.17 | KHDRBS1 | KSH RNA binding domain containing, signal transduction associated 1 | Nucleus | transcription regulator | -2.083 | 2.64e+03 | CHIR-265, midostaurin, PDGF receptor tyro |
| ENSG0000010427.14 | KIAA1549L | KIAA1549 like | Cytoplasm | transcription regulator | -1.019 | 2.55e+02 | CWP232291 |
| ENSG00000197077.12 | KIAA1671 | KIAA1671 | Other | other | -1.186 | 1.22e+02 | |
| ENSG00000220355.3 | KIAA2012-AS1 | KIAA2012 antisense RNA 1 | Other | other | 1.381 | 3.43e+02 | |
| ENSG00000138160.5 | KIF11 | kinesin family member 11 | Cytoplasm | other | -1.701 | 3.02e+02 | ispinesib, AZD4877, MK-0731, filanesib, SB |
| ENSG00000129250.11 | KIF1C | kinesin family member 1C | Cytoplasm | other | -3.396 | 9.33e+08 | |
| ENSG00000112984.11 | KIF20A | kinesin family member 20A | Cytoplasm | other | -1.985 | 2.51e+02 | |
| ENSG00000158116.17 | KIF27A | kinesin family member 27A | Cytoplasm | other | -1.294 | 1.25e+02 | |
| ENSG0000011350.17 | KIF3A | kinesin family member 3A | Cytoplasm | transporter | -1.293 | 5.77e+03 | |
| ENSG00000170759.10 | KIF5B | kinesin family member 5B | Cytoplasm | other | -2.084 | 4.74e+05 | |
| ENSG00000127528.5 | KIF2 | Kruppel like factor 2 | Nucleus | transcription regulator | 2.779 | 1.06e+04 | |
| ENSG00000138828.4 | KIF4 | Kruppel like factor 4 | Cytoplasm | transcription regulator | 1.151 | 1.11e+02 | |
| ENSG00000128944.13 | KNSTRN | kinetochore localized astrin (SPA95) binding protein | Cytoplasm | other | -1.491 | 1.91e+02 | |
| ENSG00000162481.8 | KPNA2 | karyopherin subunit alpha 2 | Nucleus | other | -2.184 | 6.60e+04 | |
| ENSG00000102553.9 | KPNA3 | karyopherin subunit alpha 3 | Nucleus | transporter | -1.799 | 1.38e+02 | |
| ENSG00000028900.13 | KPNA4 | karyopherin subunit alpha 4 | Cytoplasm | other | -1.226 | 2.21e+02 | |
| ENSG00000108424.9 | KPNB1 | karyopherin subunit beta 1 | Nucleus | other | -1.687 | 1.12e+03 | |
| ENSG00000186365.6 | KRT10 | keratin 10 | Cytoplasm | other | -2.381 | 2.05e+02 | |
| ENSG00000215604.4 | KRT18P35 | keratin 18 pseudogene 35 | Other | other | 6.019 | 4.45e+05 | |
| ENSG00000171403.9 | KRT9 | keratin 9 | Cytoplasm | other | 1.134 | 3.12e+02 | |
| ENSG00000105700.10 | KOD1 | KoD1 motif containing 1 | Cytoplasm | other | -2.171 | 3.49e+03 | |
| ENSG00000198945.7 | LMBMTL3 | L3MBTL histone methyl-lysine binding protein 3 | Nucleus | other | -2.302 | 3.88e+03 | |
| ENSG00000112709.18 | LAMA4 | lamamin subunit alpha 4 | Extracellular Space | enzyme | 1.528 | 1.69e+02 | |
| ENSG00000091136.13 | LAMB1 | lamamin subunit beta 1 | Extracellular Space | other | -2.571 | 1.41e+06 | |
| ENSG00000170237.13 | LAMB2 | lamamin subunit beta 2 | Extracellular Space | enzyme | -1.659 | 2.94e+02 | |
| ENSG00000138952.8 | LAMC1 | lamamin subunit gamma 1 | Extracellular Space | other | -2.851 | 1.99e+03 | |
| ENSG00000155506.16 | LARP1 | La ribonucleoprotein 1, translational regulator | Cytoplasm | other | -1.227 | 2.85e+02 | |
| ENSG0000001497.16 | LAS1L | LAS1 like ribosome biogenesis factor | Nucleus | other | -1.159 | 2.42e+02 | |
| ENSG00000150457.8 | LATS2 | large tumor suppressor kinase 2 | Nucleus | kinase | -1.351 | 3.80e+02 | |
| ENSG00000134333.13 | LAZ1 | lactate dehydrogenase A | Cytoplasm | enzyme | -2.698 | 1.86e+02 | |
| ENSG00000111716.12 | LAZ2 | lactate dehydrogenase B | Cytoplasm | enzyme | -2.088 | 1.86e+04 | |
| ENSG00000130164.11 | LDLR | low density lipoprotein receptor | Plasma Membrane | transporter | -1.318 | 2.92e+02 | iodine 1131 iodocholesterol |
| ENSG00000100397.11 | LGSAL1 | lactacin 1 | Extracellular Space | other | -1.238 | 1.86e+05 | |
| ENSG00000131981.15 | LGSAL3 | lactacin 3 | Extracellular Space | other | -1.343 | 2.73e+02 | GCS-100, GR-MD-02 |
| ENSG00000244968.6 | LIFR-AS1 | LIF receptor antisense RNA 1 | Other | other | 1.6 | 4.19e+03 | |
| ENSG00000060402.17 | LIMCH1 | LIM and calponin homology domains 1 | Cytoplasm | other | -1.499 | 9.13e+03 | |
| ENSG00000269313.5 | LINC00668 | long intergenic non-protein coding RNA 668 | Other | other | 1.73 | 1.00e+02 | |
| ENSG00000203721.5 | LINC00882 | long intergenic non-protein coding RNA 882 | Other | other | 1.73 | 1.00e+02 | |
| ENSG00000248988.1 | LINC00920 | long intergenic non-protein coding RNA 920 | Other | other | 1.913 | 2.09e+02 | |
| ENSG00000255314.1 | LINC00957 | long intergenic non-protein coding RNA 957 | Other | other | 2.087 | 3.07e+02 | |
| ENSG00000244041.7 | LINC01011 | long intergenic non-protein coding RNA 1011 | Other | other | 2.483 | 4.84e+05 | |
| ENSG0000023304.5 | LINC01346 | long intergenic non-protein coding RNA 1346 | Other | other | 1.744 | 1.48e+02 | |
| ENSG00000237094.11 | LINC01347 (includes others) | long intergenic non-protein coding RNA 1347 | Other | other | 1.441 | 4.07e+03 | |
| ENSG00000253686.1 | LINC01491 | long intergenic non-protein coding RNA 1491 | Other | other | 1.817 | 4.48e+05 | |
| ENSG00000280350.1 | LINC01726 | long intergenic non-protein coding RNA 1726 | Other | other | 2.607 | 2.24e+03 | |
| ENSG00000202161.4 | LINC02076 | long intergenic non-protein coding RNA 2076 | Other | other | 1.394 | 2.05e+02 | |
| ENSG00000261122.6 | LINC02167 | long intergenic non-protein coding RNA 2167 | Other | other | 2.147 | 3.39e+02 | |
| ENSG00000260702.1 | LINC02260 | long intergenic non-protein coding RNA 2260 | Other | other | 1.416 | 1.78e+04 | |
| ENSG0000014695.5 | LMAN1 | lectin, mannose binding 1 | Cytoplasm | other | -1.514 | 2.60e+02 | |
| ENSG00000169223.14 | LMAN2 | lectin, mannose binding 2 | Cytoplasm | transporter | -1.702 | 4.95e+02 | |
| ENSG00000113688.11 | LMNB1 | lamins B1 | Nucleus | other | -1.394 | 2.21e+02 | |
| ENSG00000206535.7 | LNPI1 | leukemia NUP98 fusion partner 1 | Other | other | 2.117 | 1.88e+04 | |
| ENSG00000227717.4 | LOC100132022/LOC84502 | polgln A6 family-like | Other | other | 1.098 | 1.18e+02 | |
| ENSG00000230387.2 | LOC10056964 | uncharacterized LOC10056964 | Other | other | 2.155 | 6.66e+08 | |
| ENSG00000241890.6 | LOC100984 | | | | | | |

| | | | | | | | |
|--------------------|-------------------------|---|---------------------|-----------------------------------|---|--------|-------------|
| ENSG00000165304.7 | MELK | maternal embryonic leucine zipper kinase | Cytoplasm | kinase | | -3.547 | 2.09e+02 |
| ENSG00000140256.6 | MPFI | microfilament associated protein 1 | Extracellular Space | other | OTS167 | -1.205 | 3.48e+02 |
| ENSG00000117122.13 | MFP2 | microfilament associated protein 2 | Extracellular Space | other | | -2.666 | 1.98e+02 |
| ENSG00000197614.10 | MFP5 | microfilament associated protein 5 | Extracellular Space | other | | 1.929 | 2.69e+02 |
| ENSG00000116698.16 | MPN2 | mitofusin 2 | Cytoplasm | enzyme | | -1.63 | 2.89e+02 |
| ENSG00000152127.2 | MGA15 | alpha 1 (8-mannosyl)glucosyl protein 6-beta-N-acetylglucosaminyltransferase | Cytoplasm | enzyme | | -1.544 | 3.59e+03 |
| ENSG00000111341.9 | MGP | matrix gla protein | Extracellular Space | other | | -2.742 | 8.65e+04 |
| ENSG00000101752.11 | MIB1 | MIB E3 ubiquitin protein ligase 1 | Cytoplasm | enzyme | | -1.344 | 6.83e+03 |
| ENSG00000153816.13 | MICAL2 | microtubule associated monoxygenase, calponin and LIM domain containing 2 | Cytoplasm | enzyme | | -1.243 | 1.30e+02 |
| ENSG00000100138.13 | MICAL1 | MICAL like 1 | Cytoplasm | enzyme | | -1.121 | 3.81e+02 |
| ENSG00000240972.1 | MIF | macrophage migration inhibitory factor | Extracellular Space | cytokine | Imalimab | -1.964 | 2.06e+03 |
| ENSG00000215417.10 | MIR17HG | mIR-17-92a-1 cluster host gene | Other | other | | 2.033 | 7.92e+03 |
| ENSG00000148713.12 | MKI67 | marker of proliferation K67 | Nucleus | other | | -1.12 | 1.30e+02 |
| ENSG00000196611.4 | MMP1 | matrix metalloproteinase 1 | Extracellular Space | peptidase | rebimastat, marimastat | -9.035 | 5.05e+03 |
| ENSG00000162727.12 | MMP14 | matrix metalloproteinase 14 | Extracellular Space | peptidase | rebimastat, marimastat, prinomastat, BT171 | -2.688 | 1.40e+04 |
| ENSG0000017245.12 | MMP2 | matrix metalloproteinase 2 | Extracellular Space | peptidase | rebimastat, marimastat, prinomastat, MMP2 | -3.445 | 3.48e+03 |
| ENSG00000138722.9 | MMP11 | matrilin 1 | Extracellular Space | other | | 1.026 | 1.20e+03 |
| ENSG00000173269.13 | MMP22 | matrilin 2 | Extracellular Space | other | | -1.577 | 1.12e+02 |
| ENSG00000185787.14 | MORF4L1 | mortality factor 4 like 1 | Nucleus | other | | -1.453 | 7.11e+03 |
| ENSG00000178910.14 | MRFAP1 | Morf4 family associated protein 1 | Nucleus | other | | -1.14 | 1.93e+02 |
| ENSG00000137547.8 | MRLP15 | mitochondrial ribosomal protein L15 | Cytoplasm | other | | -2.664 | 9.26e+03 |
| ENSG00000147065.16 | MSN | moesin | Plasma Membrane | other | | -2.897 | 5.33e+02 |
| ENSG00000198804.2 | MT-CO1 | cytochrome c oxidase subunit I | Cytoplasm | enzyme | naproxen/sumatriptan, esomeprazole/napro | -1.573 | 2.55e+02 |
| ENSG00000198938.2 | MT-CO3 | cytochrome c oxidase subunit III | Cytoplasm | enzyme | | -1.743 | 3.24e+03 |
| ENSG00000125148.6 | MT2A | metallothionein 2A | Cytoplasm | other | | -4.35 | 1.88e+02 |
| ENSG00000248527.1 | MTATP6P1 | MT-ATP6 pseudogene 1 | Other | other | | -1.2 | 2.36e+02 |
| ENSG00000236560.1 | MTATP6P2 | MT-ATP6 pseudogene 4 | Other | other | | 1.308 | 1.20e+02 |
| ENSG00000137409.18 | MTCH1 | mitochondrial carrier 1 | Cytoplasm | other | | -1.952 | 4.16e+02 |
| ENSG00000233550.1 | MTCVB8 | Other | Other | other | | 2.557 | 1.93e+02 |
| ENSG00000120254.15 | MTDHFD | methylmalonyltrihydrofolate dehydrogenase (NADP+ dependent) 1 like | Cytoplasm | enzyme | | -2.608 | 3.08e+02 |
| ENSG00000203914.1 | MTND2P13 | MT-ND2 pseudogene 13 | Other | other | | -1.111 | 2.81e+02 |
| ENSG00000225630.1 | MTND2P28 | MT-ND2 pseudogene 28 | Other | other | | 2.075 | 3.57e+02 |
| ENSG00000204727.2 | MTND4P12 | MT-ND4 pseudogene 12 | Other | other | | 1.578 | 4.14e+03 |
| ENSG00000225796.2 | MTND4P23 | MT-ND4 pseudogene 23 | Other | other | | 1.934 | 5.00e+03 |
| ENSG00000232548.5 | MTND4P27 | MT-ND4 pseudogene 27 | Other | other | | 1.689 | 4.18e+02 |
| ENSG00000270906.1 | MTND4P35 | Other | Other | other | | 1.52 | 4.75e+02 |
| ENSG00000270230.1 | MTND8P22 | Other | Other | other | | 2.524 | 1.43e+03 |
| ENSG00000224911.9 | MTND8P4 | Other | Other | other | | 1.628 | 2.10e+02 |
| ENSG00000129422.13 | MTUS1 | microtubule associated scaffold protein 1 | Extracellular Space | other | | -1.249 | 5.18e+03 |
| ENSG00000184566.15 | MUC6 | mucin 6, oligomeric mucus/gel-forming | Extracellular Space | other | | 1.247 | 1.32e+03 |
| ENSG0000013364.18 | MVP | major vault protein | Nucleus | other | | -2.823 | 4.74e+03 |
| ENSG00000195697.16 | MYBL1 | MYB proto-oncogene like 1 | Nucleus | transcription regulator | | 3.457 | 6.84e+03 |
| ENSG00000136997.14 | MYC | MYC proto-oncogene, bHLH transcription factor | Nucleus | transcription regulator | MYC-targeting siRNA DCR-MYC, AVI-4126 | 1.105 | 8.23e+03 |
| ENSG00000059810.17 | MYCBP2 | MYC binding protein 2 | Nucleus | enzyme | | -1.45 | 4.24e+03 |
| ENSG00000133038.12 | MYH9 | myosin heavy chain 10 | Cytoplasm | enzyme | | -2.943 | 4.99e+02 |
| ENSG00000100345.20 | MYH9 | myosin heavy chain 9 | Cytoplasm | enzyme | | -1.466 | 4.14e+02 |
| ENSG00000101608.12 | MVL12A | myosin light chain 12A | Cytoplasm | other | | -2.751 | 4.07e+03 |
| ENSG00000118680.12 | MVL12B | myosin light chain 12B | Cytoplasm | other | | -3.092 | 1.69e+03 |
| ENSG00000029411.18 | MYL6 | myosin light chain 6 | Cytoplasm | enzyme | | -1.111 | 2.81e+02 |
| ENSG00000145555.14 | MYO10 | myosin X | Cytoplasm | enzyme | | -1.238 | 2.11e+02 |
| ENSG00000201888.8 | MYO3B-AS1 | MYO3B antisense RNA 1 | Other | other | | 1.587 | 1.26e+02 |
| ENSG00000138119.18 | MYO6 | myoferlin | Nucleus | other | | -2.471 | 3.10e+02 |
| ENSG0000024754.8 | N4BP2L2 | NEDD4 binding protein 2 like 2 | Other | transcription regulator | | 1.895 | 3.25e+02 |
| ENSG00000196531.10 | NAGA | nascent polypeptide associated complex subunit A | Cytoplasm | transcription regulator | | -1.39 | 1.39e+02 |
| ENSG00000181709.13 | NAP1L1 | nucleosome assembly protein 1 like 1 | Nucleus | other | | -1.501 | 6.73e+03 |
| ENSG00000205531.12 | NAP1L2 | nucleosome assembly protein 1 like 2 | Cytoplasm | other | | -1.438 | 3.24e+02 |
| ENSG00000132780.16 | NASP | nuclear autoantigenic sperm protein | Nucleus | other | | -1.406 | 7.46e+03 |
| ENSG00000010292.12 | NAPD2 | non-SMC condensin I complex subunit D2 | Nucleus | other | | -1.446 | 2.01e+02 |
| ENSG00000109805.8 | NAPG | non-SMC condensin I complex subunit G | Other | other | | -1.848 | 1.87e+02 |
| ENSG00000213212.3 | NCLP1 | nucleolin pseudogene 1 | Other | other | | 1.881 | 3.84e+02 |
| ENSG00000184983.9 | NDUFA6 | NADH:ubiquinone oxidoreductase subunit A6 | Cytoplasm | enzyme | | -2 | 5.06e+03 |
| ENSG0000004779.9 | NDUFA8 | NADH:ubiquinone oxidoreductase subunit A8 | Cytoplasm | enzyme | | -2.716 | 5.26e+03 |
| ENSG00000214877.3 | NDUFA9 | NADH:ubiquinone oxidoreductase complex assembly factor 8 | Cytoplasm | enzyme | | 1.669 | 2.10e+02 |
| ENSG00000140990.14 | NDUFB10 | NADH:ubiquinone oxidoreductase subunit B10 | Cytoplasm | enzyme | | -1.681 | 1.98e+02 |
| ENSG00000259374.2 | NDUFB4P11 | Other | Other | other | | 1.272 | 4.75e+02 |
| ENSG00000164258.11 | NDUFS4 | NADH:ubiquinone oxidoreductase subunit S4 | Cytoplasm | enzyme | | -2.195 | 4.59e+02 |
| ENSG00000168653.10 | NDUFS5 | NADH:ubiquinone oxidoreductase subunit S5 | Cytoplasm | enzyme | | -2.876 | 1.98e+02 |
| ENSG00000245532.5 | NEAT1 | nuclear paraspeckle assembly transcript 1 | Other | other | | -1.598 | 1.20e+02 |
| ENSG00000132688.10 | NEB | neslin | Extracellular Space | other | | -2.16 | 7.23e+02 |
| ENSG00000173848.18 | NET1 | neuropilial cell transforming 1 | Nucleus | other | | -2.254 | 3.24e+02 |
| ENSG00000198575.17 | NEFL | neurofilament 2 | Plasma Membrane | other | | -1.344 | 4.14e+02 |
| ENSG00000263412.1 | NF2L1-DT | Other | Other | other | | 1.866 | 5.20e+03 |
| ENSG00000100906.10 | NFKBIA | NF-kB inhibitor alpha | Cytoplasm | transcription regulator | | 3.61 | 6.61e+02 |
| ENSG00000145912.2 | NFPA2 | NFPA2 ribonucleoprotein | Nucleus | other | | -1.694 | 1.97e+02 |
| ENSG00000155438.11 | NFKF | nucleolar protein interacting with the FHA domain of MKI67 | Nucleus | other | | -1.449 | 2.11e+02 |
| ENSG00000100503.23 | NIN | kinin | Cytoplasm | other | | -1.376 | 3.05e+03 |
| ENSG00000229617.2 | NME1 | NME/NM23 nucleoside diphosphate kinase 1 | Cytoplasm | kinase | | 3.248 | 3.24e+02 |
| ENSG00000188976.10 | NO2C2 | NO2C like nuclear associated transcriptional repressor | Cytoplasm | transcription regulator | | -1.802 | 1.39e+03 |
| ENSG00000103512.14 | NO3M1 (includes others) | NO3M1 modulator 1 | Plasma Membrane | other | | -1.931 | 3.10e+03 |
| ENSG00000182117.5 | NO3P10 | NO3P10 ribonucleoprotein | Nucleus | other | | -3.089 | 3.63e+02 |
| ENSG0000009298.15 | NO3P14 | NO3P14 nuclear protein | Nucleus | other | | -1.431 | 3.91e+02 |
| ENSG00000148400.9 | NOTCH1 | notch receptor 1 | Plasma Membrane | transcription regulator | OMP-50M51 | -2.415 | 5.14e+03 |
| ENSG0000024967.6 | NPAS3 (includes others) | nuclear pore complex interacting protein family member A5 | Nucleus | other | | 7.047 | 3.70e+07 |
| ENSG00000185844.16 | NPAS9 (includes others) | nuclear pore complex interacting protein family member B5 | Other | other | | 1.245 | 2.81e+03 |
| ENSG00000181163.13 | NPM1 | nucleophosmin 1 | Nucleus | transcription regulator | | -2.166 | 2.49e+04 |
| ENSG0000023884.1 | NPM1P19 | nucleophosmin 1 pseudogene 19 | Other | other | | 1.78 | 4.18e+02 |
| ENSG00000107833.10 | NPM3 | nucleophosmin/nucleoplasm 3 | Nucleus | other | | -2.458 | 4.20e+02 |
| ENSG00000181019.12 | NPC1 | NAD(P)H quinone dehydrogenase 1 | Cytoplasm | enzyme | | -1.230 | 4.23e+02 |
| ENSG0000017545.11 | NR2F1 | nuclear receptor subfamily 2 group F member 1 | Nucleus | ligand-dependent nuclear receptor | | 1.148 | 8.37e+03 |
| ENSG00000123358.19 | NR3A1 | nuclear receptor subfamily 4 group A member 1 | Nucleus | ligand-dependent nuclear receptor | | 1.368 | 4.92e+03 |
| ENSG00000189453.13 | NR3A2 | NOTCH regulator ankyrin repeat protein | Nucleus | transcription regulator | | 3.737 | 3.17e+04 |
| ENSG00000078618.19 | NRDC | hardyans constrictase | Cytoplasm | peptidase | | -2.004 | 2.67e+04 |
| ENSG00000099250.17 | NRP1 | neuropilin 1 | Plasma Membrane | transmembrane receptor | vesencumab | -1.904 | 2.84e+05 |
| ENSG00000164346.9 | NSA2 | NSA2 ribosome biogenesis factor | Nucleus | other | | -1.839 | 6.23e+03 |
| ENSG00000178964.9 | NLSN3 | NOP255un RNA methyltransferase 3 | Cytoplasm | enzyme | | 1.68 | 2.81e+02 |
| ENSG00000141698.16 | NTSC3B | S-nucleosidase, cytosolic IIIb | Cytoplasm | phosphatase | | -2.056 | 4.78e+02 |
| ENSG00000135318.11 | NTSE | S-nucleosidase ecto | Plasma Membrane | phosphatase | Sym204, MED19447, CPL-006, NZV930, BM | -2.008 | 5.65e+03 |
| ENSG00000133458.18 | NNAK2 | NUAK family kinase 2 | Other | other | | 1.687 | 4.90e+03 |
| ENSG00000090273.13 | NUDC | nucleus distribution C, dynein complex regulator | Cytoplasm | other | | -2.093 | 2.67e+04 |
| ENSG00000198585.11 | NUDT16 | nucleic hydrolase 16 | Cytoplasm | enzyme | | -2.216 | 9.69e+06 |
| ENSG0000027325.1 | NUDT3 | nucleic hydrolase 3 | Cytoplasm | phosphatase | | -1.446 | 1.48e+02 |
| ENSG00000108268.8 | NUPF2 | nuclear FMR1 interacting protein 2 | Cytoplasm | other | | 3.176 | 3.17e+02 |
| ENSG00000155561.14 | NUP205 | nucleoporin 205 | Nucleus | other | | -1.545 | 2.33e+02 |
| ENSG00000143529.9 | NUP210L | nucleoporin 210 like | Other | other | | 3.803 | 4.63e+07 |
| ENSG00000162231.13 | NXF1 | nuclear RNA export factor 1 | Nucleus | other | | -1.407 | 4.96e+02 |
| ENSG00000085154.11 | OC1T | ornithine aminotransferase | Cytoplasm | enzyme | | 1.807 | 4.49e+02 |
| ENSG00000115758.12 | ODC1 | ornithine decarboxylase 1 | Cytoplasm | enzyme | tasartone, eformilthine | -1.743 | 2.67e+04 |
| ENSG00000217315.1 | ORX2W2P | olfactory receptor family 2 subfamily W member 2 pseudogene | Other | other | | 3.593 | 3.59e+07 |
| ENSG00000176283.2 | OSK13 | olfactory receptor family 4 subfamily K member 13 | Plasma Membrane | other | | 1.235 | 2.81e+02 |
| ENSG00000135506.15 | OS9 | OS9 endoplasmic reticulum lectin | Nucleus | other | | -1.194 | 3.93e+02 |
| ENSG00000228474.5 | OST4 | oligosaccharyltransferase complex subunit 4, non-catalytic | Cytoplasm | other | | -2.943 | 1.12e+03 |
| ENSG00000068308.13 | OTUD5 | OTU deubiquitinase 5 | Cytoplasm | enzyme | | -2.486 | 7.84e+03 |
| ENSG00000185624.14 | PAH8 | proliferin 4 hydroxylase subunit beta | Cytoplasm | enzyme | | 1.608 | 4.74e+03 |
| ENSG00000170515.13 | PAG2A | proliferation-associated 204 | Nucleus | transcription regulator | | -1.402 | 1.12e+02 |
| ENSG00000070756.13 | PABPC1 | poly(A) binding protein cytoplasmic 1 | Cytoplasm | translation regulator | | -2.059 | 3.87e+04 |
| ENSG00000098621.1 | PABPC4 | poly(A) binding protein cytoplasmic 4 | Cytoplasm | translation regulator | | -1.374 | 2.81e+02 |
| ENSG00000175115.11 | PACST1 | phosphofurin acidic cluster sorting protein 1 | Cytoplasm | other | | -1.241 | 3.67e+02 |
| ENSG00000008712.14 | PAF1 | PAF1 homolog, Paf1/RNA polymerase II complex component | Nucleus | other | | -2.125 | 4.74e+03 |
| ENSG00000168892.13 | PAFAH1B2 | platelet activating factor acetylhydrolase 1b catalytic subunit 2 | Cytoplasm | enzyme | | -1.536 | 6.28e+03 |
| ENSG00000116298.12 | PARK7 | Parkin domain associated deglycase | Nucleus | enzyme | | 3.973 | 2.82e+02 |
| ENSG00000143799.12 | PARP1 | poly(ADP-ribose) polymerase 1 | Nucleus | enzyme | talazoparib, SCI10914, olaparib, ABT-767, r | -1.433 | 9.98e+03 |
| ENSG00000102699.5 | PARP4 | poly(ADP-ribose) polymerase family member 4 | Cytoplasm | enzyme | | -2.312 | 5.79e+04 |
| ENSG00000152611.7 | PART1 | prostate androgen-regulated transcript 1 | Other | other | | 1.687 | 4.90e+03 |
| ENSG00000188677.14 | PARV8 | parvin beta | Cytoplasm | other | | 1.528 | 1.06e+02 |
| ENSG00000231806.2 | PCAT7 | prostate cancer associated transcript 7 | Other | other | | 1.688 | 4.20e+02 |
| ENSG00000166228.8 | PCBD1 | plem-4 alpha-carbonolamine dehydratase 1 | Nucleus | transcription regulator | | -3.462 | 2.35e+02 |
| ENSG00000169546.6 | PCBP1 | poly(C) binding protein 1 | Nucleus | transcription regulator | | -1.892 | 1.40e+03 |
| ENSG00000197111.15 | PCBP2 | poly(C) binding protein 2 | Nucleus | other | | -1.598 | 3.89e+03 |
| ENSG00000114054.13 | PCCB | propionyl-CoA carboxylase subunit beta | Cytoplasm | enzyme | | -1.899 | 3.24e+02 |
| ENSG00000132646.10 | PCNA | proliferating cell nuclear antigen | Nucleus | enzyme | | -2.141 | 2.05e+03 |
| ENSG00000081154.11 | PCNP | PEST protein;viral spall containing nuclear protein | Nucleus | other | | -2.084 | 1.06e+02 |
| ENSG00000148843.13 | PCDD11 | programmed cell death 11 | Nucleus | other | | -1.318 | 3.47e+02 |
| ENSG00000115539.13 | PCDL3 | phoducin like 3 | Cytoplasm | other | | -1.907 | 1.78e+02 |
| ENSG00000156973.13 | PEE6D | phosphodiesterase 6D | Cytoplasm | enzyme | | 1.695 | 3.73e+02 |
| ENSG00000131828.13 | PDHA1 | pyruvate dehydrogenase E1 subunit alpha 1 | Cytoplasm | enzyme | | -1.858 | 8.37e+03 |
| ENSG00000188291.12 | PDHB | pyruvate dehydrogenase E1 subunit beta | Cytoplasm | enzyme | | -2.058 | 1.39e+02 |
| ENSG0000017004.12 | PDIA3 | protein disulfide isomerase family A member 3 | Cytoplasm | peptidase | | -2.708 | 5.01e+06 |
| ENSG00000155680.10 | PDIA4 | protein disulfide isomerase family A member 4 | Cytoplasm | enzyme | | -2.38 | 2.27e+07 |
| ENSG00000143870.12 | PDIA6 | protein disulfide isomerase family A member 6 | Cytoplasm | enzyme | | -3.729 | 9.36e+010</ |

| | | | | | | | |
|--------------------|-------------------------|--|---------------------|-------------------------|--|--------|----------|
| ENSG00000183281.14 | PLGB1/PLGLB2 | plasminogen like B2 | Extracellular Space | peptidase | | 1.934 | 3.00e+02 |
| ENSG000003444.16 | PLOD1 | procollagen-lysine, 2-oxoglutarate 5-dioxygenase 1 | Cytoplasm | enzyme | | -2.012 | 1.28e+02 |
| ENSG00000152932.14 | PLOD2 | procollagen-lysine, 2-oxoglutarate 5-dioxygenase 2 | Cytoplasm | enzyme | | -2.686 | 1.97e+02 |
| ENSG00000102024.17 | PLS3 | plastin 3 | Cytoplasm | other | | -2.317 | 4.82e+05 |
| ENSG0000004399.12 | PLND1 | plexin D1 | Plasma Membrane | transmembrane receptor | | -2.562 | 2.52e+02 |
| ENSG0000009817.11 | POLR2E | RNA polymerase II, Land III subunit E | Nucleus | enzyme | | -1.625 | 1.03e+02 |
| ENSG00000105258.8 | POLR2I | RNA polymerase II subunit I | Nucleus | transcription regulator | | -1.731 | 2.04e+02 |
| ENSG00000113356.10 | POLR3G | RNA polymerase III subunit G | Nucleus | enzyme | | -1.725 | 1.63e+02 |
| ENSG000002190.5 | POM121L2 | POM121 transmembrane nucleoporin like 12 | Other | other | | 3.622 | 2.88e+06 |
| ENSG00000152534.8 | PPP | pancreatic progenitor cell differentiation and proliferation factor | Cytoplasm | enzyme | | -1.725 | 1.03e+02 |
| ENSG00000119623.13 | PP1A | peptidylprolyl isomerase A | Cytoplasm | enzyme | cytosolipin A/methotrexate, basiliximab/vo | -1.973 | 3.00e+04 |
| ENSG00000198744.4 | PP1B | peptidylprolyl isomerase B | Cytoplasm | enzyme | | -3.151 | 9.87e+07 |
| ENSG00000115241.10 | PP1M1G | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent 1G | Cytoplasm | phosphatase | | -1.29 | 2.76e+02 |
| ENSG00000172531.14 | PPP1CA | protein phosphatase 1 catalytic subunit alpha | Cytoplasm | phosphatase | | -2.526 | 4.34e+03 |
| ENSG0000027557.2 | PPP1R12A-AS1 | PPP1R12A antisense RNA 1 | Other | other | | 1.316 | 2.21e+02 |
| ENSG00000087074.7 | PPP1R15A | protein phosphatase 1 regulatory subunit 15A | Cytoplasm | other | | 1.627 | 3.82e+05 |
| ENSG00000100796.17 | PPP4R3A | protein phosphatase 4 regulatory subunit 3A | Plasma Membrane | other | | -1.069 | 4.47e+02 |
| ENSG0000011485.14 | PPP5C | protein phosphatase 5 catalytic subunit | Nucleus | phosphatase | | -1.685 | 7.92e+03 |
| ENSG00000117453.13 | PRDX1 | peroxiredoxin 1 | Cytoplasm | enzyme | | -2.305 | 6.42e+04 |
| ENSG00000167815.11 | PRDX2 | peroxiredoxin 2 | Cytoplasm | enzyme | | -3.249 | 2.40e+02 |
| ENSG00000123131.12 | PRDX4 | peroxiredoxin 4 | Cytoplasm | enzyme | | -2.959 | 6.67e+04 |
| ENSG00000199230.9 | PREL1D1 | PREL1 domain containing 1 | Cytoplasm | other | | -1.808 | 6.24e+03 |
| ENSG00000104108.13 | PREK1 | phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 1 | Cytoplasm | other | | -3.194 | 1.25e+03 |
| ENSG00000046889.18 | PREX2 | phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 2 | Cytoplasm | other | | -2.216 | 5.72e+04 |
| ENSG0000023729.7 | PRKDC | protein kinase, DNA-activated, catalytic subunit | Nucleus | kinase | | -2.644 | 2.86e+06 |
| ENSG00000185532.14 | PRKGI1 | protein kinase GGNP-dependent 1 | Cytoplasm | kinase | nanulisib, CC-115, nediserib, SM1-71, BR1 | 1.348 | 3.98e+02 |
| ENSG0000017867.16 | PRNP | prion protein | Plasma Membrane | other | | -1.674 | 1.09e+02 |
| ENSG00000101161.7 | PRPF6 | pre-mRNA processing factor 6 | Nucleus | transcription regulator | | -2.043 | 5.80e+03 |
| ENSG00000174231.16 | PRPF8 | pre-mRNA processing factor 8 | Nucleus | other | | -1.213 | 3.63e+02 |
| ENSG00000101911.12 | PRPF9 | phosphobasyl pyrophosphate synthase 2 | Cytoplasm | kinase | | 1.397 | 1.43e+02 |
| ENSG00000183248.11 | PRR36 | proline rich 36 | Other | other | | 1.363 | 4.06e+02 |
| ENSG00000150587.11 | PRSS23 | serine protease 23 | Extracellular Space | peptidase | | -1.034 | 2.30e+02 |
| ENSG00000122378.13 | PRXL2A | peroxiredoxin like 2A | Extracellular Space | other | | -2.296 | 1.36e+02 |
| ENSG00000177746.13 | PSAP | protoporphyrin | Extracellular Space | other | | -2.579 | 1.10e+05 |
| ENSG00000164985.14 | PSIP1 | PC4 and SFRS1 interacting protein 1 | Nucleus | transcription regulator | | -1.732 | 1.20e+03 |
| ENSG00000106588.10 | PSMA2 | proteasome 20S subunit alpha 2 | Cytoplasm | peptidase | | -1.283 | 3.19e+02 |
| ENSG0000011182.13 | PSMA7 | proteasome 20S subunit alpha 7 | Cytoplasm | peptidase | | -1.531 | 1.29e+02 |
| ENSG0000008018.8 | PSMB1 | proteasome 20S subunit beta 1 | Cytoplasm | peptidase | carfilzomib, bortezomib/cladribine/rituximab | -1.882 | 3.21e+02 |
| ENSG00000142507.9 | PSMB6 | proteasome 20S subunit beta 6 | Nucleus | peptidase | | -2.039 | 5.66e+04 |
| ENSG00000100754.13 | PSMC1 | proteasome 26S subunit, ATPase 1 | Nucleus | peptidase | | -1.413 | 6.48e+03 |
| ENSG00000165918.14 | PSMC3 | proteasome 26S subunit, ATPase 3 | Nucleus | peptidase | | -1.889 | 3.33e+03 |
| ENSG00000131470.14 | PSMCA3P | PSMC3 interacting protein | Nucleus | transcription regulator | | -1.602 | 1.27e+02 |
| ENSG00000173692.12 | PSMD1 | proteasome 26S subunit, non-ATPase 1 | Cytoplasm | other | | -1.9 | 2.21e+03 |
| ENSG00000185627.17 | PSMD13 | proteasome 26S subunit, non-ATPase 13 | Cytoplasm | peptidase | bortezomib/cladribine/rituximab, bortezomib | -1.9 | 2.21e+03 |
| ENSG00000103035.10 | PSMD7 | proteasome 26S subunit, non-ATPase 7 | Cytoplasm | other | | -2.503 | 7.97e+05 |
| ENSG00000140043.11 | PTGR2 | prostacyclin inducible 2 | Cytoplasm | enzyme | glycyrrhetic acid | 1.157 | 2.42e+02 |
| ENSG00000199398.19 | PTK2 | protein tyrosine kinase 2 | Cytoplasm | kinase | PF-573222, PF-431396, NVP-TAE 226, B16 | -1.248 | 4.11e+02 |
| ENSG00000167114.14 | PTMA | prothymosin alpha | Plasma Membrane | enzyme | | -1.511 | 1.29e+03 |
| ENSG00000179295.15 | PTPN11 | protein tyrosine phosphatase non-receptor type 11 | Cytoplasm | phosphatase | BBP-398, ERAS-601, PF-07284892, TN015 | -1.526 | 1.69e+03 |
| ENSG0000025708.1 | PTPRD-AS1 | PTPRD antisense RNA 1 | Other | other | | 1.89 | 1.85e+03 |
| ENSG00000142948.17 | PTPRF | protein tyrosine phosphatase receptor type F | Plasma Membrane | phosphatase | | 1.468 | 1.89e+03 |
| ENSG00000183255.11 | PTTG1IP | PTTG1 interacting protein | Nucleus | other | | -1.457 | 2.52e+02 |
| ENSG00000163661.3 | PTX3 | pentraxin 3 | Extracellular Space | other | | -3.376 | 1.43e+03 |
| ENSG00000134844.15 | PUM1 | sumo1 RNA binding family member 1 | Cytoplasm | other | | -1.641 | 8.26e+03 |
| ENSG00000139645.11 | PUP1 | PUP1 homolog, endonuclease | Nucleus | other | | -1.113 | 3.01e+02 |
| ENSG00000130508.10 | PXDN | peroxidasin | Extracellular Space | enzyme | | -2.115 | 1.53e+04 |
| ENSG00000145337.4 | PYRIF | PIGY upstream reading frame | Cytoplasm | other | | -2.514 | 2.92e+02 |
| ENSG00000143845.8 | RAB13 | RAB13, member RAS oncogene family | Plasma Membrane | enzyme | | -3.078 | 3.88e+07 |
| ENSG00000104388.14 | RAB2A | RAB2A, member RAS oncogene family | Cytoplasm | enzyme | | -1.87 | 2.39e+02 |
| ENSG00000152932.7 | RAB3C | RAB3C, member RAS oncogene family | Cytoplasm | enzyme | | 1.093 | 1.78e+02 |
| ENSG0000017585.12 | RAB7A | RAB7A, member RAS oncogene family | Cytoplasm | enzyme | | -1.529 | 9.11e+03 |
| ENSG00000128238.17 | RAC1 | Rac family small GTPase 1 | Plasma Membrane | enzyme | | -1.912 | 1.17e+03 |
| ENSG00000204528.11 | RACK1 | receptor for activated C kinase 1 | Cytoplasm | enzyme | | -1.987 | 3.70e+04 |
| ENSG00000164754.12 | RAD21 | RAD21 cohesin complex component | Nucleus | transcription regulator | | -1.452 | 8.26e+03 |
| ENSG00000039560.13 | RAL1A | retroic acid induced 14 | Nucleus | transcription regulator | | -1.942 | 4.14e+05 |
| ENSG0000006451.11 | RALA | RAS like proto-oncogene A | Cytoplasm | enzyme | | -2.536 | 9.69e+06 |
| ENSG00000132341.11 | RAN | RAN, member RAS oncogene family | Nucleus | enzyme | | -1.127 | 3.00e+02 |
| ENSG00000099901.16 | RANBP1 | RAN binding protein 1 | Nucleus | other | | -1.434 | 2.23e+02 |
| ENSG00000153201.11 | RANBP2 | RAN binding protein 2 | Nucleus | enzyme | | 1.033 | 1.37e+02 |
| ENSG00000100401.19 | RANGAP1 | Ran GTPase activating protein 1 | Nucleus | other | | -1.592 | 1.98e+02 |
| ENSG00000107263.18 | RAPGEF1 | Rap guanine nucleotide exchange factor 1 | Cytoplasm | other | | -1.803 | 7.88e+03 |
| ENSG00000145715.15 | RASA1 | RAS p21 protein activator 1 | Cytoplasm | transporter | | -1.703 | 4.03e+02 |
| ENSG00000165889.10 | RASA3 | RAS p21 protein activator 3 | Plasma Membrane | ion channel | | 3.268 | 2.80e+02 |
| ENSG0000010851.4 | RASD1 | ras related dexamethasone induced 1 | Cytoplasm | enzyme | | 5.218 | 1.08e+02 |
| ENSG00000153179.11 | RASSF3 | Ras association domain family member 3 | Other | other | | -2.932 | 3.98e+06 |
| ENSG0000012295.10 | RC3H19 | RNA binding motif protein 19 | Nucleus | other | | 1.259 | 1.00e+02 |
| ENSG0000004949.8 | RCN1 | reticulocalbin 1 | Cytoplasm | other | | -2.46 | 7.06e+06 |
| ENSG00000137710.14 | RDX | radixin | Cytoplasm | other | | -1.751 | 1.54e+03 |
| ENSG00000181826.9 | REL1L | REL1 like 1 | Plasma Membrane | other | | -3.578 | 1.86e+02 |
| ENSG00000148300.11 | REXOM | REX4 homophil, 3'5' exonuclease | Nucleus | transcription regulator | | -1.901 | 2.21e+02 |
| ENSG00000143390.17 | RFX5 | regulatory factor X5 | Nucleus | transcription regulator | | 1.41 | 3.50e+03 |
| ENSG00000183054.11 | RGPD4 (includes others) | RANBP2 like and GRIP domain containing 5 | Nucleus | enzyme | | -1.483 | 5.00e+03 |
| ENSG00000138835.22 | RGSS3 | regulator of G protein signaling 3 | Nucleus | enzyme | | 1.832 | 2.61e+03 |
| ENSG00000143248.12 | RGSS5 | regulator of G protein signaling 5 | Plasma Membrane | enzyme | | -1.281 | 1.59e+02 |
| ENSG0000007580.10 | RHOA | ras homolog family member A | Cytoplasm | enzyme | | -2.643 | 4.15e+06 |
| ENSG00000143878.9 | RHOB | ras homolog family member B | Cytoplasm | enzyme | | 1.434 | 9.25e+03 |
| ENSG00000102785.15 | RHOJ | ras homolog family member J | Cytoplasm | enzyme | | -1.181 | 3.01e+02 |
| ENSG00000289903.3 | RMRP | RNA component of mitochondrial RNA processing endonuclease | Cytoplasm | other | | 1.937 | 4.01e+02 |
| ENSG00000263740.2 | RN7SL4P | RNA, 7SL, cytoplasmic 4, pseudogene | Other | other | | 2.116 | 9.86e+03 |
| ENSG0000025735.2 | RN7SL5P | RNA, 7SL, cytoplasmic 5, pseudogene | Other | other | | 1.788 | 1.07e+03 |
| ENSG00000239437.3 | RN7SL75P | RNA, 7SL, cytoplasmic 5, pseudogene | Other | other | | 3.48 | 1.28e+03 |
| ENSG00000275757.1 | RNA5-8SN1 | RNA, 5.8S ribosomal N1 | Other | other | | 11.432 | 2.67e+06 |
| ENSG00000163981.4 | RNF188 | ring finger protein 188 | Nucleus | enzyme | | -1.212 | 2.90e+02 |
| ENSG00000155807.11 | RNF20 | ring finger protein 20 | Nucleus | enzyme | | 1.497 | 7.04e+03 |
| ENSG00000196204.11 | RNF216P1 | ring finger protein 216 pseudogene 1 | Other | other | | -1.52 | 2.07e+02 |
| ENSG00000200340.1 | RNU1-105P | RNA, U1 small nuclear 105, pseudogene | Other | other | | 5.285 | 2.18e+07 |
| ENSG00000199805.13 | RNU1-134P | RNA, U1 small nuclear 134, pseudogene | Other | other | | 2.411 | 3.01e+02 |
| ENSG00000206908.1 | RNU1-136P | RNA, U1 small nuclear 136, pseudogene | Other | other | | 4.905 | 2.51e+05 |
| ENSG00000212699.1 | RNU1-139P | RNA, U1 small nuclear 139, pseudogene | Other | other | | 3.891 | 1.23e+02 |
| ENSG00000201910.1 | RNU1-140P | RNA, U1 small nuclear 140, pseudogene | Other | other | | 5.389 | 2.47e+03 |
| ENSG00000203985.1 | RNU1-146P | RNA, U1 small nuclear 146, pseudogene | Other | other | | 8.634 | 6.07e+03 |
| ENSG00000199629.1 | RNU1-14P | RNA, U1 small nuclear 14, pseudogene | Other | other | | 4.597 | 9.79e+05 |
| ENSG00000202347.1 | RNU1-16P | RNA, U1 small nuclear 16, pseudogene | Other | other | | 4.205 | 1.43e+03 |
| ENSG00000200197.1 | RNU1-21P | RNA, U1 small nuclear 21, pseudogene | Other | other | | 4.532 | 6.50e+04 |
| ENSG00000206598.1 | RNU1-27P | RNA, U1 small nuclear 27, pseudogene | Other | other | | 2.126 | 3.24e+02 |
| ENSG0000020807.1 | RNU1-32P | RNA, U1 small nuclear 32, pseudogene | Other | other | | 5 | 1.22e+03 |
| ENSG00000206624.1 | RNU1-39P | RNA, U1 small nuclear 39, pseudogene | Other | other | | 3.925 | 2.01e+02 |
| ENSG00000212170.1 | RNU1-77P | RNA, U1 small nuclear 77, pseudogene | Other | other | | 4.349 | 6.30e+09 |
| ENSG00000207322.1 | RNU1-89P | RNA, U1 small nuclear 89, pseudogene | Other | other | | 3.322 | 2.76e+05 |
| ENSG00000239023.1 | RNU1-98P | RNA, U1 small nuclear 98, pseudogene | Other | other | | 3.871 | 5.20e+03 |
| ENSG0000020103.3 | RNU11 | RNA, U12 small nuclear | Other | other | | 3.659 | 3.42e+06 |
| ENSG00000276027.11 | RNU2-1P | RNA, U2 small nuclear 1, pseudogene | Other | other | | 4.192 | 4.77e+04 |
| ENSG0000022328.1 | RNU2-2P | RNA, U2 small nuclear 2, pseudogene | Nucleus | other | | 2.443 | 1.44e+05 |
| ENSG0000022627.1 | RNU2-37P | RNA, U2 small nuclear 37, pseudogene | Other | other | | 4.989 | 3.77e+06 |
| ENSG0000022426.1 | RNU2-50P | RNA, U2 small nuclear 50, pseudogene | Other | other | | 4.504 | 7.48e+04 |
| ENSG0000022810.1 | RNU2-68P | RNA, U2 small nuclear 50, pseudogene | Other | other | | 5.065 | 7.15e+05 |
| ENSG00000200795.1 | RNU4-1 | RNA, U4 small nuclear 1 | Nucleus | other | | 3.507 | 8.70e+02 |
| ENSG00000202538.1 | RNU4-2 | RNA, U4 small nuclear 2 | Other | other | | 3.639 | 2.83e+03 |
| ENSG00000106968.1 | RNUSA-1 | RNA, USA small nuclear 1 | Other | other | | 4.295 | 2.74e+04 |
| ENSG00000200972.1 | RNUSA-8P | RNA, USA small nuclear 8, pseudogene | Other | other | | 4.657 | 5.48e+05 |
| ENSG00000200156.1 | RNU5B-1 | RNA, USB small nuclear 1 | Other | other | | 3.347 | 8.30e+04 |
| ENSG00000199347.1 | RNU5E-1 | RNA, USE small nuclear 1 | Other | other | | 4.533 | 1.05e+02 |

| | | | | | | | |
|--------------------|------------------|---|---------------------|----------------------------|--------|------------------------|--|
| ENSG00000197958.12 | RPL12 | ribosomal protein L12 | Nucleus | other | -1.415 | 3.63x10 ⁻⁰² | |
| ENSG00000142541.16 | RPL13A | ribosomal protein L13a | Cytoplasm | other | -1.58 | 2.74x10 ⁻⁰⁴ | |
| ENSG00000158846.13 | RPL14 | ribosomal protein L14 | Cytoplasm | other | -1.524 | 3.46x10 ⁻⁰⁴ | |
| ENSG00000174748.18 | RPL15 | ribosomal protein L15 | Cytoplasm | other | -1.563 | 4.19x10 ⁻⁰³ | |
| ENSG00000265691.6 | RPL17 | ribosomal protein L17 | Cytoplasm | other | -1.405 | 1.56x10 ⁻⁰² | |
| ENSG00000031771.72 | RPL18 | ribosomal protein L18 | Cytoplasm | other | -1.572 | 6.19x10 ⁻⁰³ | |
| ENSG00000105640.12 | RPL18A | ribosomal protein L18a | Cytoplasm | other | -1.979 | 4.02x10 ⁻⁰⁴ | |
| ENSG00000108298.9 | RPL19 | ribosomal protein L19 | Cytoplasm | other | -1.886 | 2.46x10 ⁻⁰³ | |
| ENSG00000122026.10 | RPL21 | ribosomal protein L21 | Cytoplasm | other | -2.138 | 2.12x10 ⁻⁰⁴ | |
| ENSG00000116251.8 | RPL23 | ribosomal protein L23 | Cytoplasm | translation regulator | -2.008 | 1.40x10 ⁻⁰⁴ | |
| ENSG00000119824.13 | RPL23A | ribosomal protein L23a | Cytoplasm | other | -1.539 | 4.36x10 ⁻⁰³ | |
| ENSG00000114391.12 | RPL24 | ribosomal protein L24 | Cytoplasm | other | -2.176 | 2.50x10 ⁻⁰⁴ | |
| ENSG00000161970.12 | RPL26 | ribosomal protein L26 | Cytoplasm | other | -1.536 | 3.69x10 ⁻⁰³ | |
| ENSG00000131469.12 | RPL27 | ribosomal protein L27 | Cytoplasm | other | -1.803 | 1.21x10 ⁻⁰³ | |
| ENSG00000162244.10 | RPL29 | ribosomal protein L29 | Cytoplasm | other | -2.019 | 2.50x10 ⁻⁰⁴ | |
| ENSG00000100316.15 | RPL5 | ribosomal protein L5 | Nucleus | other | -2.055 | 1.57x10 ⁻⁰⁴ | cytarabine(daunorubicin)omacelastine mepe |
| ENSG00000144713.12 | RPL32 | ribosomal protein L32 | Cytoplasm | other | -1.677 | 3.91x10 ⁻⁰³ | |
| ENSG00000109475.16 | RPL34 | ribosomal protein L34 | Cytoplasm | other | -1.519 | 2.21x10 ⁻⁰² | |
| ENSG00000162998.14 | RPL35A | ribosomal protein L35a | Cytoplasm | other | -1.472 | 7.22x10 ⁻⁰³ | |
| ENSG00000241343.9 | RPL36A | ribosomal protein L36a | Cytoplasm | other | -1.574 | 1.17x10 ⁻⁰² | |
| ENSG00000165502.6 | RPL36AL | ribosomal protein L36a like | Cytoplasm | other | -1.808 | 1.41x10 ⁻⁰³ | |
| ENSG00000145592.13 | RPL37 | ribosomal protein L37 | Cytoplasm | other | -2.373 | 3.27x10 ⁻⁰⁵ | |
| ENSG00000109818.7 | RPL39 | ribosomal protein L39 | Cytoplasm | other | -1.252 | 4.94x10 ⁻⁰² | |
| ENSG00000174444.14 | RPL4 | ribosomal protein L4 | Cytoplasm | enzyme | -1.094 | 1.39x10 ⁻⁰⁴ | |
| ENSG00000122406.12 | RPL5 | ribosomal protein L5 | Cytoplasm | other | -1.705 | 3.88x10 ⁻⁰³ | |
| ENSG0000009909.18 | RPL6 | ribosomal protein L6 | Nucleus | other | -2.453 | 7.34x10 ⁻⁰⁶ | |
| ENSG00000147604.13 | RPL7 | ribosomal protein L7 | Nucleus | transcription regulator | -1.913 | 7.65x10 ⁻⁰⁴ | |
| ENSG00000148303.16 | RPL7A | ribosomal protein L7a | Cytoplasm | other | -1.726 | 2.97x10 ⁻⁰³ | |
| ENSG00000161016.15 | RPL8 | ribosomal protein L8 | Cytoplasm | other | -1.349 | 4.96x10 ⁻⁰² | |
| ENSG00000163862.15 | RPL9 | ribosomal protein L9 | Nucleus | other | -1.673 | 4.50x10 ⁻⁰³ | |
| ENSG00000089157.15 | RPLP0 | ribosomal protein lateral stalk subunit P0 | Cytoplasm | other | -1.591 | 6.19x10 ⁻⁰³ | |
| ENSG00000137818.11 | RPLP1 | ribosomal protein lateral stalk subunit P1 | Cytoplasm | other | -1.712 | 6.90x10 ⁻⁰³ | |
| ENSG00000177603.9 | RPLP2 | ribosomal protein lateral stalk subunit P2 | Cytoplasm | other | -1.755 | 2.34x10 ⁻⁰³ | |
| ENSG00000163902.11 | RPN1 | ribophen I | Cytoplasm | enzyme | -1.562 | 1.41x10 ⁻⁰² | |
| ENSG00000118705.16 | RPN2 | ribophen II | Cytoplasm | enzyme | -2.559 | 4.47x10 ⁻⁰⁵ | |
| ENSG00000124514.13 | RPS10 | ribosomal protein S10 | Cytoplasm | other | -3.754 | 2.63x10 ⁻⁰³ | |
| ENSG00000142534.8 | RPS11 | ribosomal protein S11 | Cytoplasm | other | -1.543 | 1.63x10 ⁻⁰² | |
| ENSG00000112306.7 | RPS12 | ribosomal protein S12 | Cytoplasm | other | -1.419 | 8.09x10 ⁻⁰³ | neomycin |
| ENSG00000134419.15 | RPS15A | ribosomal protein S15a | Cytoplasm | other | -1.933 | 5.09x10 ⁻⁰⁴ | |
| ENSG00000105193.8 | RPS16 | ribosomal protein S16 | Cytoplasm | other | -1.329 | 1.06x10 ⁻⁰² | |
| ENSG00000162714.10 | RPS17 | ribosomal protein S17 | Cytoplasm | other | -1.747 | 4.36x10 ⁻⁰³ | |
| ENSG00000231500.6 | RPS18 | ribosomal protein S18 | Cytoplasm | other | -1.811 | 1.79x10 ⁻⁰² | |
| ENSG00000098989.9 | RPS20 | ribosomal protein S20 | Cytoplasm | other | -2.462 | 3.99x10 ⁻⁰⁵ | |
| ENSG00000118468.18 | RPS23 | ribosomal protein S23 | Cytoplasm | other | -1.825 | 7.06x10 ⁻⁰⁴ | |
| ENSG00000138326.18 | RPS24 | ribosomal protein S24 | Cytoplasm | translation regulator | -1.348 | 6.52x10 ⁻⁰² | |
| ENSG00000109728.9 | RPS26 | ribosomal protein S26 | Cytoplasm | other | -1.511 | 1.02x10 ⁻⁰² | |
| ENSG00000143947.12 | RPS27A | ribosomal protein S27a | Cytoplasm | other | -1.538 | 6.83x10 ⁻⁰³ | |
| ENSG0000004942.2 | RPS29P5 | ribosomal protein S2 pseudogene 5 | Cytoplasm | other | -1.973 | 1.40x10 ⁻⁰⁴ | |
| ENSG00000149273.14 | RPS3 | ribosomal protein S3 | Cytoplasm | enzyme | -2.125 | 8.01x10 ⁻⁰⁵ | |
| ENSG00000145425.9 | RPS3A | ribosomal protein S3A | Nucleus | other | -2.213 | 2.35x10 ⁻⁰⁵ | |
| ENSG0000024797.8 | RPS3AP1 | RPS3A pseudogene 6 | Cytoplasm | other | -3.017 | 6.30x10 ⁻⁰⁸ | |
| ENSG00000198034.10 | RPS4X | ribosomal protein S4 X-linked | Cytoplasm | other | -1.867 | 7.74x10 ⁻⁰⁴ | |
| ENSG00000083845.8 | RPS5 | ribosomal protein S5 | Cytoplasm | other | -1.43 | 3.18x10 ⁻⁰² | |
| ENSG00000171154.12 | RPS8 | ribosomal protein S8 | Cytoplasm | other | -2.452 | 5.21x10 ⁻⁰⁶ | |
| ENSG00000124211.11 | RPS8K2A | ribosomal protein S8 kinase A2 | Cytoplasm | kinase | -1.589 | 6.09x10 ⁻⁰² | PMO-D26, LH685 |
| ENSG00000142937.11 | RPS8 | ribosomal protein S8 | Cytoplasm | other | -1.589 | 6.09x10 ⁻⁰³ | |
| ENSG00000168028.13 | RPSA | ribosomal protein S8A | Cytoplasm | translation regulator | -2.236 | 5.88x10 ⁻⁰⁵ | |
| ENSG00000167325.15 | RPM1 | ribonucleotide reductase catalytic subunit M1 | Nucleus | enzyme | -2.259 | 6.29x10 ⁻⁰³ | |
| ENSG00000189306.10 | RRP7A | ribosomal RNA processing 7 homolog A | Cytoplasm | enzyme | -2.619 | 4.34x10 ⁻⁰³ | L-asparaginase/gemcitabine/oxaliplatin, aler |
| ENSG00000166402.15 | RSPH10B/RSPH10B2 | radial spoke head 10 homolog B | Extracellular Space | other | 2.28 | 1.66x10 ⁻⁰² | |
| ENSG00000109747.8 | S100A10 | S100 calcium binding protein A10 | Cytoplasm | other | -1.907 | 4.22x10 ⁻⁰⁴ | |
| ENSG00000163101.8 | S100A11 | S100 calcium binding protein A11 | Cytoplasm | other | -1.032 | 4.21x10 ⁻⁰² | |
| ENSG00000188643.10 | S100A16 | S100 calcium binding protein A16 | Nucleus | other | -2.764 | 4.36x10 ⁻⁰³ | |
| ENSG00000170589.8 | S1PR1 | sphingosine-1-phosphate receptor 1 | Plasma Membrane | G-protein coupled receptor | -2.513 | 2.85x10 ⁻⁰³ | fingolimod phosphate, siponimod, ponosimo |
| ENSG00000163513.13 | SACS | sacsin molecular chaperone | Plasma Membrane | other | -1.158 | 1.07x10 ⁻⁰² | |
| ENSG00000142230.11 | SAE1 | SUMO1 activating enzyme subunit 1 | Cytoplasm | enzyme | -1.669 | 3.80x10 ⁻⁰² | |
| ENSG00000160633.12 | SABF | scaffold attachment factor B | Nucleus | other | -1.684 | 1.37x10 ⁻⁰⁴ | |
| ENSG00000138760.8 | SCARB2 | scavenger receptor class B member 2 | Plasma Membrane | transmembrane receptor | -1.867 | 7.36x10 ⁻⁰⁴ | |
| ENSG0000025249.11 | SCARNA13 | small Cajal body-specific RNA 13 | Nucleus | other | -1.111 | 6.19x10 ⁻⁰² | |
| ENSG00000280486.1 | SCARNA4 | small Cajal body-specific RNA 4 | Other | other | 3.407 | 5.67x10 ⁻⁰⁴ | |
| ENSG00000099104.5 | SCD | stearyl-CoA desaturase | Cytoplasm | enzyme | -1.813 | 4.18x10 ⁻⁰⁴ | |
| ENSG00000126163.16 | SCRNI | sceramin 1 | Cytoplasm | other | -1.277 | 1.65x10 ⁻⁰² | |
| ENSG00000157020.11 | SEC13 | SEC13 homolog, nuclear pore and COPII coat complex component | Cytoplasm | transporter | -1.461 | 1.18x10 ⁻⁰² | |
| ENSG00000129657.14 | SEC14L1 | SEC14 like lipid binding protein 1 | Cytoplasm | transporter | -1.646 | 3.14x10 ⁻⁰⁴ | |
| ENSG00000148396.18 | SEC16A | SEC16 homolog A, endoplasmic reticulum export factor | Cytoplasm | other | -1.503 | 8.70x10 ⁻⁰³ | |
| ENSG0000011542.11 | SEC22 | SEC22 homolog, vesicle trafficking protein | Cytoplasm | transporter | -1.844 | 2.19x10 ⁻⁰² | |
| ENSG00000176996.14 | SEC24C | SEC24 homolog C, COPII coat complex component | Cytoplasm | transporter | -2.109 | 1.83x10 ⁻⁰² | |
| ENSG00000138674.16 | SEC31A | SEC31 homolog A, COPII coat complex component | Cytoplasm | transporter | -2.43 | 1.61x10 ⁻⁰⁵ | |
| ENSG00000056262.2 | SEC61A1 | SEC61 translocase subunit alpha 1 | Cytoplasm | transporter | -1.922 | 1.68x10 ⁻⁰³ | |
| ENSG00000132432.10 | SEC61G | SEC61 translocase subunit gamma | Plasma Membrane | transporter | -2.176 | 2.07x10 ⁻⁰³ | |
| ENSG00000008952.16 | SEC62 | SEC62 homolog, preproliferin translocation factor | Cytoplasm | transporter | -1.013 | 4.77x10 ⁻⁰² | |
| ENSG00000162430.16 | SELENON1 | selenoprotein N | Cytoplasm | other | -2.484 | 1.94x10 ⁻⁰³ | |
| ENSG0000029722.8 | SELENOF | selenoprotein F | Extracellular Space | other | 1.234 | 1.22x10 ⁻⁰² | |
| ENSG00000178950.14 | SELENOW | selenoprotein W | Cytoplasm | enzyme | -1.444 | 3.91x10 ⁻⁰² | |
| ENSG00000170381.12 | SEMSE3 | semaphorin 3E | Extracellular Space | other | 1.066 | 2.33x10 ⁻⁰² | |
| ENSG00000112701.17 | SENP1 | SUMO specific peptidase 6 | Cytoplasm | peptidase | -1.13 | 2.99x10 ⁻⁰² | |
| ENSG0000020900.1 | SEPT1/PTN78 | septin 7 pseudogene 8 | Other | other | 2.444 | 5.77x10 ⁻⁰³ | |
| ENSG00000142864.14 | SERPINE1 | SERPINE1 mRNA binding protein 1 | Cytoplasm | other | -1.405 | 1.41x10 ⁻⁰² | |
| ENSG00000124570.17 | SERPINH6 | serpin family H member 6 | Cytoplasm | other | -1.386 | 4.30x10 ⁻⁰² | |
| ENSG00000103686.8 | SERPINF1 | serpin family F member 1 | Extracellular Space | other | -3.532 | 9.24x10 ⁻⁰³ | |
| ENSG00000149257.13 | SERPINH1 | serpin family H member 1 | Extracellular Space | other | -1.547 | 1.27x10 ⁻⁰² | TM5614, drotrecogin alfa |
| ENSG00000119335.16 | SET | SET nuclear proto-oncogene | Nucleus | phosphatase | -1.67 | 1.27x10 ⁻⁰⁴ | |
| ENSG00000168137.15 | SETD5 | SET domain containing 5 | Cytoplasm | enzyme | -1.536 | 4.48x10 ⁻⁰³ | |
| ENSG0000009995.13 | SETD1A | splicing factor 3a subunit 1 | Cytoplasm | other | -1.194 | 6.34x10 ⁻⁰⁴ | |
| ENSG00000183431.11 | SF3A3 | splicing factor 3a subunit 3 | Nucleus | other | -1.853 | 3.72x10 ⁻⁰³ | |
| ENSG00000115524.15 | SF3B1 | splicing factor 3b subunit 1 | Nucleus | other | -1.664 | 2.08x10 ⁻⁰⁴ | H3B-8800 |
| ENSG00000178819.15 | SF3B2 | splicing factor 3b subunit 2 | Nucleus | other | -1.099 | 2.17x10 ⁻⁰³ | |
| ENSG00000189091.12 | SF3B3 | splicing factor 3b subunit 3 | Nucleus | other | -1.539 | 2.57x10 ⁻⁰³ | |
| ENSG00000111252.10 | SH2B3 | SH2B adaptor protein 3 | Plasma Membrane | other | -1.493 | 3.68x10 ⁻⁰³ | |
| ENSG00000095370.19 | SH2D3C | SH2 domain containing 3C | Cytoplasm | other | -3.46 | 7.47x10 ⁻⁰³ | |
| ENSG00000125989.13 | SHC1 | SH2 domain and tyrosine phosphatase repeats 1 | Extracellular Space | other | -2.273 | 2.34x10 ⁻⁰² | |
| ENSG00000158352.15 | SHROOM4 | shroom family member 4 | Plasma Membrane | other | -1.7 | 2.60x10 ⁻⁰⁴ | |
| ENSG00000138083.4 | SIX3 | SIX homeobox 3 | Nucleus | transcription regulator | 1.125 | 3.55x10 ⁻⁰² | |
| ENSG00000124140.12 | SLC12A5 | solute carrier family 12 member 5 | Plasma Membrane | transporter | 1.392 | 5.96x10 ⁻⁰³ | bumetanide |
| ENSG00000152644.10 | SLC25A35 | solute carrier family 25 member 35 | Cytoplasm | transporter | 1.449 | 1.41x10 ⁻⁰² | |
| ENSG00000050222.5 | SLC25A5 | solute carrier family 25 member 5 | Cytoplasm | transporter | -1.771 | 4.89x10 ⁻⁰³ | clodronic acid |
| ENSG00000112759.16 | SLC29A1 | solute carrier family 29 member 1 (Augustine blood group) | Plasma Membrane | transporter | -3.115 | 2.82x10 ⁻⁰² | |
| ENSG00000157637.17 | SLC38A10 | solute carrier family 38 member 10 | Plasma Membrane | transporter | -1.449 | 4.56x10 ⁻⁰² | canabidiol |
| ENSG00000147804.9 | SLC39A4 | solute carrier family 39 member 4 | Plasma Membrane | transporter | 1.307 | 2.80x10 ⁻⁰² | |
| ENSG0000011083.8 | SLC6A7 | solute carrier family 6 member 7 | Plasma Membrane | transporter | 1.394 | 4.04x10 ⁻⁰² | |
| ENSG00000260727.1 | SLC7A6P1 | solute carrier family 7 member 5 pseudogene 1 | Other | other | 5.38 | 2.34x10 ⁻⁰⁴ | |
| ENSG00000258186.2 | SLC7A7 | solute carrier family 7 member 7 | Other | other | 3.846 | 6.26x10 ⁻⁰² | |
| ENSG00000065613.13 | SLK | STE20 like kinase | Other | kinase | -1.509 | 1.20x10 ⁻⁰³ | |
| ENSG00000137776.15 | SLTM | SAFB like translocation modulator | Nucleus | other | -1.172 | 1.21x10 ⁻⁰² | |
| ENSG0000009603.19 | SMARCA2 | SMARCN1 related, matrix associated, actin dependent regulator of chromatin, subfamily A, member 2 | Nucleus | transcription regulator | -1.722 | 2.41x10 ⁻⁰³ | |
| ENSG00000153147.5 | SMARCA5 | SMARCN1 related, matrix associated, actin dependent regulator of chromatin, subfamily A, member 5 | Nucleus | transcription regulator | -1.128 | 3.47x10 ⁻⁰² | |
| ENSG00000099956.17 | SMARCB1 | SMARCN1 related, matrix associated, actin dependent regulator of chromatin, subfamily B, member 1 | Nucleus | transcription regulator | -2.439 | 7.78x10 ⁻⁰³ | |
| ENSG00000173473.10 | SMARCC1 | SMARCN1 related, matrix associated, actin dependent regulator of chromatin, subfamily C, member | | | | | |

| | | | | | | | |
|--------------------|---------------|--|---------------------|-------------------------|---|--------|----------|
| ENS000000182934.11 | SRPRA | SRP receptor subunit alpha | Cytoplasm | other | | -2.098 | 3.75e+03 |
| ENS00000019855.14 | SRPX | short repeat containing protein X-linked | Cytoplasm | other | | -2.757 | 4.80e+03 |
| ENS000000146856.9 | SRP3 | signal sequence receptor subunit 3 | Cytoplasm | other | | -2.115 | 3.25e+03 |
| ENS00000025374.2 | SSR4P1 | signal sequence receptor subunit 4 pseudogene 1 | Other | other | | 2.434 | 2.74e+04 |
| ENS000000149136.7 | SSRP1 | structure specific recognition protein 1 | Nucleus | transcription regulator | | -1.451 | 1.22e+02 |
| ENS000000103080.1 | ST13 | ST13 Hsp70 interacting protein | Cytoplasm | other | | 1.072 | 1.00e+04 |
| ENS00000010327.10 | STAB1 | stabilin 1 | Plasma Membrane | transporter | FP-1305 | -2.016 | 1.71e+02 |
| ENS000000101972.18 | STAG2 | stromal antigen 2 | Nucleus | other | | -1.646 | 8.02e+03 |
| ENS000000064090.13 | STAR07 | STAR related lipid transfer domain containing 7 | Cytoplasm | other | | -1.187 | 4.71e+02 |
| ENS00000017632.20 | STMN1 | stathmin 1 | Cytoplasm | other | | 1.005 | 4.08e+04 |
| ENS000000134910.12 | STT3A | STT3 oligosaccharyltransferase complex catalytic subunit A | Plasma Membrane | enzyme | | -1.344 | 2.82e+02 |
| ENS000000163527.9 | STT3B | STT3 oligosaccharyltransferase complex catalytic subunit B | Cytoplasm | enzyme | | -2.682 | 1.33e+02 |
| ENS000000173597.8 | SUL11B1 | sulfotransferase family 1B member 1 | Cytoplasm | enzyme | | -1.383 | 4.90e+02 |
| ENS00000016030.16 | SUMO1 | small ubiquitin like modifier 1 | Nucleus | enzyme | | -1.44 | 3.17e+02 |
| ENS000000188612.11 | SUMO2 | small ubiquitin like modifier 2 | Nucleus | enzyme | | -1.652 | 4.74e+03 |
| ENS000000092201.9 | SUPT16H | SPT16 homolog, facilitates chromatin remodeling subunit | Nucleus | transcription regulator | | -1.126 | 2.11e+02 |
| ENS000000109111.14 | SUPT16H | SPT16 homolog, histone chaperone and transcription elongation factor | Nucleus | transcription regulator | | -1.741 | 4.85e+04 |
| ENS000000148248.13 | SURF4 | surfeit 4 | Cytoplasm | other | | -2.268 | 1.62e+03 |
| ENS000000133789.14 | SWAP70 | switching B cell complex subunit SWAP70 | Cytoplasm | other | | -2.017 | 1.53e+04 |
| ENS000000135318.17 | SYNCRIP | synaptotagmin binding cytoplasmic RNA interacting protein | Nucleus | other | suprotoxin | -1.598 | 3.41e+03 |
| ENS000000055070.16 | SZRD1 | SUZ RNA binding domain containing 1 | Other | other | | -1.538 | 3.63e+02 |
| ENS000000147526.19 | TACC3 | transforming acidic coiled-coil containing protein 1 | Nucleus | other | | -1.746 | 3.99e+05 |
| ENS00000027047.5 | TAF15 | TATA-box binding protein associated factor 15 | Nucleus | other | | -2.395 | 1.45e+05 |
| ENS000000158710.14 | TACLN2 | tacln2 | Cytoplasm | other | | -1.493 | 1.28e+02 |
| ENS000000177156.10 | TALDO1 | transaldolase 1 | Cytoplasm | enzyme | | -1.593 | 1.49e+02 |
| ENS000000138114.12 | TBC1D4 | TBC1 domain family member 4 | Cytoplasm | other | | -1.987 | 5.12e+03 |
| ENS000000183735.9 | TBK1 | TANK binding kinase 1 | Cytoplasm | kinase | | -2.899 | 2.10e+02 |
| ENS000000154444.12 | TBRG1 | transforming growth factor beta regulator 1 | Cytoplasm | kinase | 8-aminopyrazolo[ymidine derivative comp | -1.421 | 3.38e+02 |
| ENS000000133142.17 | TCEAL4 | transcription elongation factor A like 4 | Other | other | | -2.109 | 2.97e+04 |
| ENS000000185222.17 | TCEAL9 | transcription elongation factor A like 9 | Other | other | | -1.628 | 6.36e+03 |
| ENS000000102027.11 | TCEB2 | transcription factor 20 | Nucleus | transcription regulator | | -1.01 | 1.98e+02 |
| ENS000000120438.11 | TCP1 | t-complex 1 | Cytoplasm | other | | -1.677 | 1.06e+02 |
| ENS000000120156.20 | TEK | TEK receptor tyrosine kinase | Plasma Membrane | kinase | CEP-1197, everolimus/vandetanib, caboz | -3.004 | 3.36e+03 |
| ENS000000169848.5 | TERF2IP | TERF2 interacting protein | Nucleus | other | | -1.549 | 5.68e+02 |
| ENS00000002436.14 | TFPI1 | tissue factor pathway inhibitor | Extracellular Space | other | dalteparin, BAY1503884 | -1.719 | 6.27e+03 |
| ENS000000105329.9 | TGFB1 | transforming growth factor beta 1 | Extracellular Space | growth factor | YL-13027, dalantercept, SRK-181, NIS793, | -1.483 | 4.03e+02 |
| ENS000000163513.17 | TGFB2 | transforming growth factor beta receptor 2 | Plasma Membrane | kinase | IMC-TR1, SM1-71 | -3.16 | 1.51e+07 |
| ENS000000198959.17 | TGFB3 | transforming growth factor beta receptor 3 | Plasma Membrane | kinase | | -2.849 | 1.07e+07 |
| ENS000000137801.10 | THBS1 | thrombospondin 1 | Extracellular Space | other | | -5.966 | 2.61e+02 |
| ENS000000054118.13 | THRAP3 | thyroid hormone receptor associated protein 3 | Nucleus | transcription regulator | | -1.969 | 9.34e+04 |
| ENS000000069566.13 | THY1 | thymocyte antigen with immunoglobulin like and EGF like domains 1 | Plasma Membrane | kinase | | -1.945 | 9.01e+03 |
| ENS000000154808.8 | TIMM10 | translocase of inner mitochondrial membrane 10 | Cytoplasm | transporter | | -2.097 | 8.31e+03 |
| ENS000000142910.15 | TINAGL1 | tubulin/actin/nephrin antigen like 1 | Extracellular Space | transporter | | -1.685 | 3.57e+02 |
| ENS000000104067.16 | TJP1 | tight junction protein 1 | Plasma Membrane | other | | -1.084 | 3.63e+02 |
| ENS000000137076.18 | TLN1 | tlcn1 | Plasma Membrane | other | | -2.906 | 3.18e+06 |
| ENS000000107807.12 | TLX1 | T cell leukaemia homeobox 1 | Nucleus | transcription regulator | | 1.554 | 4.75e+02 |
| ENS000000170348.8 | TMED10 | transmembrane p24 trafficking protein 10 | Cytoplasm | transporter | | -1.533 | 2.14e+03 |
| ENS000000089596.10 | TMED2 | transmembrane p24 trafficking protein 2 | Cytoplasm | transporter | | -1.359 | 1.32e+02 |
| ENS000000102928.14 | TMEM123 | transmembrane protein 123 | Plasma Membrane | other | | -2.298 | 1.12e+02 |
| ENS000000164124.10 | TMEM144 | transmembrane protein 144 | Other | other | | 1.524 | 8.06e+04 |
| ENS000000198792.12 | TMEM184B | transmembrane protein 184B | Other | other | | -2.937 | 8.68e+05 |
| ENS00000012697.15 | TMS6A | transmembrane protein 30A | Cytoplasm | transporter | | -1.921 | 1.10e+02 |
| ENS000000257167.2 | TMPO-AS1 | TMPO antisense RNA 1 | Other | other | | 1.626 | 3.65e+03 |
| ENS00000029542.10 | TMSB10/TMSB4X | thymosin beta 4 X-linked | Cytoplasm | other | | -2.281 | 2.88e+06 |
| ENS000000185015.8 | TNF-IP2 | TNF alpha induced protein 2 | Extracellular Space | other | | 1.451 | 7.76e+03 |
| ENS000000118503.14 | TNFAIP2 | TNF alpha induced protein 3 | Nucleus | enzyme | | 1.115 | 3.15e+02 |
| ENS000000149115.13 | TNKS1BP1 | taskyrase 1 binding protein 1 | Nucleus | other | | -1.578 | 3.11e+03 |
| ENS000000130204.12 | TMOM40 | translocase of outer mitochondrial membrane 40 | Cytoplasm | ion channel | | -1.883 | 4.47e+02 |
| ENS000000196983.10 | TMOM7 | translocase of outer mitochondrial membrane 7 | Cytoplasm | transporter | | -1.037 | 8.97e+03 |
| ENS000000198900.5 | TOP1 | DNA topoisomerase 1 | Nucleus | enzyme | bevacizumab, irinotecan/oxaliplatin, SN-38, | -1.276 | 2.91e+02 |
| ENS000000131747.14 | TOP2A | DNA topoisomerase II alpha | Nucleus | enzyme | bortezomib/doxorubicin, daunorubicin/tret | -1.332 | 1.97e+02 |
| ENS000000277027.13 | TOP2B | DNA topoisomerase II beta | Nucleus | enzyme | daunorubicin/tretinoin, chlorambucil/epirubi | -2.489 | 2.73e+04 |
| ENS000000111551.17 | TOP2L2 | TOP2L2 | Cytoplasm | kinase | | 1.993 | 3.93e+02 |
| ENS000000116699.14 | TPH1 | tryptophan 5-hydroxylase 1 | Cytoplasm | enzyme | | -1.836 | 1.86e+03 |
| ENS000000143549.19 | TPM3 | tropomyosin 3 | Cytoplasm | other | | -1.328 | 1.31e+02 |
| ENS000000167460.14 | TPM4 | tropomyosin 4 | Cytoplasm | other | AZD-7451 | -1.796 | 2.97e+03 |
| ENS00000047410.13 | TPR | translocated promoter region, nuclear basket protein | Cytoplasm | other | | -1.357 | 6.45e+03 |
| ENS000000188001.9 | TPR3 | tumor protein p83 regulated 1 | Cytoplasm | other | | 1.342 | 2.80e+03 |
| ENS000000133112.16 | TPST1 | tumor protein, translationally-controlled 1 | Cytoplasm | other | | -1.853 | 5.89e+04 |
| ENS000000115993.11 | TRAK2 | trafficking kinesin protein 2 | Plasma Membrane | transporter | | -1.611 | 1.68e+02 |
| ENS000000081877.7 | TRAM1 | translocation associated membrane protein 1 | Cytoplasm | other | | -2.142 | 2.18e+02 |
| ENS000000168538.15 | TRAPP1C11 | trafficking protein particle complex subunit 11 | Cytoplasm | other | | -2.705 | 3.30e+02 |
| ENS000000161026.8 | TRAPP3C5 | trafficking protein particle complex subunit 5 | Cytoplasm | other | | -1.523 | 1.49e+02 |
| ENS000000123144.10 | TRR | telomerase RNA component interacting RNase | Nucleus | enzyme | | -2.469 | 4.11e+02 |
| ENS000000167721.10 | TSR1 | TSR1 ribosome maturation factor | Nucleus | other | | -1.305 | 2.81e+02 |
| ENS000000113312.10 | ITTC1 | tetratricopeptide repeat domain 1 | Cytoplasm | other | | -1.696 | 1.17e+02 |
| ENS00000017552.13 | TUBA1A | tubulin alpha 1c | Cytoplasm | other | docetaxel/gemcitabine/vinorelbine, colchicin | -1.598 | 3.29e+02 |
| ENS000000123416.15 | TUBA1B | tubulin alpha 1b | Cytoplasm | other | | -2.019 | 1.15e+03 |
| ENS000000167553.14 | TUBA1C | tubulin alpha 1c | Cytoplasm | other | docetaxel/gemcitabine/vinorelbine, colchicin | -1.909 | 2.97e+04 |
| ENS000000196230.12 | TUBB | tubulin beta class I | Cytoplasm | other | taxipipone/iramipim, alcupurnol/coldicine, | -3.037 | 8.12e+04 |
| ENS000000134627.11 | TUBO1 | tubulin gamma 1 | Other | other | | -1.927 | 6.87e+02 |
| ENS00000017952.8 | TUFM | Tu translation elongation factor, mitochondrial | Cytoplasm | translation regulator | | -1.809 | 5.05e+03 |
| ENS000000198810.12 | TXN | thioredoxin | Cytoplasm | enzyme | | -1.382 | 3.63e+02 |
| ENS000000293248.4 | TXNDC5 | thioredoxin domain containing 5 | Cytoplasm | enzyme | | -3.932 | 3.29e+02 |
| ENS000000198431.15 | TXNRD1 | thioredoxin reductase 1 | Cytoplasm | enzyme | arsenic trioxide/dacarbazine/tretinoin, arsenic | -1.315 | 2.75e+02 |
| ENS000000178890.15 | TYMS | thymidylate synthetase | Nucleus | enzyme | pemetrexed, capecitabine/lemezololam, or | -1.929 | 1.12e+02 |
| ENS000000130985.16 | UBA1 | ubiquitin like modifier activating enzyme 1 | Cytoplasm | enzyme | | -2.334 | 8.89e+04 |
| ENS00000021963.17 | UBA9 | ubiquitin A-32 residue ribosomal protein fusion product 1 | Cytoplasm | enzyme | MLN2743 | -1.357 | 1.87e+02 |
| ENS000000150991.14 | UBC | ubiquitin C | Cytoplasm | enzyme | | 1.93 | 7.87e+04 |
| ENS000000109332.19 | UBE2D3 | ubiquitin conjugating enzyme E2 D3 | Cytoplasm | enzyme | | -1.011 | 2.82e+02 |
| ENS000000198833.6 | UBE2J1 | ubiquitin conjugating enzyme E2 J1 | Cytoplasm | enzyme | | -1.638 | 1.79e+02 |
| ENS000000185651.14 | UBE2L3 | ubiquitin conjugating enzyme E2 L3 | Nucleus | enzyme | | -1.623 | 3.40e+02 |
| ENS000000244687.11 | UBE2V1 | ubiquitin conjugating enzyme E2 V1 | Nucleus | transcription regulator | | -1.055 | 3.95e+02 |
| ENS000000103344.7 | UBE4A | ubiquitination factor 4-A | Cytoplasm | enzyme | | -1.533 | 5.00e+02 |
| ENS000000135018.13 | UBQLN1 | ubiquitin 1 | Cytoplasm | other | | 1.092 | 1.00e+02 |
| ENS000000104517.12 | UBR5 | ubiquitin protein ligase E3 component n-recognin 5 | Nucleus | other | | -1.503 | 7.29e+03 |
| ENS000000144224.16 | UBXN4 | UBX domain protein 4 | Extracellular Space | other | | -1.676 | 1.32e+03 |
| ENS000000126711.12 | UGT1 | UDP-glucose glucosyltransferase 1 | Cytoplasm | enzyme | | -1.259 | 3.92e+02 |
| ENS000000102595.18 | UGT2 | UDP-glucose glycoprotein glucosyltransferase 2 | Cytoplasm | enzyme | | -2.841 | 8.88e+03 |
| ENS000000198722.12 | UNC13B | UNC13 homolog B | Cytoplasm | other | | -2.575 | 1.81e+02 |
| ENS000000055007.12 | UPE1 | UPE1 RNA helicase and ATPase | Nucleus | enzyme | | -1.839 | 4.01e+02 |
| ENS000000184078.12 | UQCRC10 | ubiquinol-cytochrome c reductase complex III subunit X | Cytoplasm | enzyme | | -2.232 | 3.46e+02 |
| ENS000000127540.11 | UQCRC11 | ubiquinol-cytochrome c reductase complex III subunit XI | Cytoplasm | enzyme | | -2.232 | 3.46e+02 |
| ENS00000010256.10 | UQCRC12 | ubiquinol-cytochrome c reductase core protein 1 | Cytoplasm | enzyme | | -2.25 | 2.38e+03 |
| ENS00000017960.11 | UQCRC13 | ubiquinol-cytochrome c reductase hinge protein | Cytoplasm | enzyme | | -2.255 | 6.57e+03 |
| ENS000000154405.10 | UQCRC14 | ubiquinol-cytochrome c reductase complex III subunit VII | Cytoplasm | enzyme | | -1.982 | 6.90e+04 |
| ENS000000103005.11 | USB1 | USP RNA biogenesis phosphodiesterase 1 | Nucleus | enzyme | | -1.521 | 1.70e+03 |
| ENS000000105988.15 | USP2 | ubiquitin specific peptidase 2 | Nucleus | transcription regulator | | -1.849 | 2.51e+02 |
| ENS000000138788.11 | USO1 | USO1 vesicle transport factor | Cytoplasm | other | | -1.069 | 3.68e+02 |
| ENS000000124422.11 | USP22 | ubiquitin specific peptidase 22 | Nucleus | peptidase | | -1.239 | 4.90e+02 |
| ENS000000134588.12 | USP26 | ubiquitin specific peptidase 26 | Cytoplasm | peptidase | | 1.515 | 3.97e+02 |
| ENS000000195697.12 | UTF14A | UTF14A small subunit processome component | Nucleus | other | | -1.71 | 6.28e+03 |
| ENS000000152818.13 | UTRN | urochitin | Plasma Membrane | transmembrane receptor | | -3.011 | 1.21e+06 |
| ENS000000049245.12 | VAMP3 | vesicle associated membrane protein 3 | Plasma Membrane | other | | -2.592 | 1.24e+02 |
| ENS000000071246.10 | VASH1 | vasohibin 1 | Extracellular Space | peptidase | | -1.148 | 2.23e+02 |
| ENS000000198828.15 | VAT1 | vesicle amine transport 1 | Plasma Membrane | transporter | | -2.146 | 5.37e+03 |
| ENS000000171724.10 | VAT1L | vesicle amine transport 1 like | Other | other | | 1.858 | 7.80e+04 |
| ENS000000165280.15 | VCP | valosin containing protein | Cytoplasm | enzyme | CB-5339, CB-5083 | -3.19 | 5.31e+07 |
| ENS000000215885.10 | VDAC1 | voltage dependent anion channel 1 | Cytoplasm | ion channel | | -1.37 | 1.29e+02 |
| ENS000000166607.13 | VDAC2 | voltage dependent anion channel 2 | Cytoplasm | ion channel | | -1.772 | 1.68e+02 |
| ENS000000078668.13 | VDAC3 | voltage dependent anion channel 3 | Cytoplasm | ion channel | | -2.1 | 7.39e+03 |
| ENS000000112715.20 | VEGFA | vascular endothelial growth factor A | Extracellular Space | growth factor | bevacizumab/capecitabine, bevacizumab/te | 16.773 | 0.00e+00 |
| ENS000000175118 | VEGFB | vascular endothelial growth factor B | Extr | | | | |

Suppl. Table 2: Deregulated genes in extracellular vesicles secreted from HUVEC cells after LNP treatment

| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC | FDR |
|-------------------|-------------------------|---|---------------------|----------------------------|-------------------------------|--------|------------------------|
| ENS00000225877.1 | 5 S rRNA | | Other | other | | 3.779 | 1.67×10 ⁻⁰² |
| ENS00000234969.1 | AARS1P1 | | Other | other | | 4.029 | 4.25×10 ⁻⁰² |
| ENS00000173899.9 | ABCA13 | ATP binding cassette subfamily A member 13 | Extracellular Space | transporter | | 1.065 | 1.84×10 ⁻⁰² |
| ENS00000114626.1 | ABT11 | ankyrin repeat and BTB domain containing 1 | Cytoplasm | translation regulator | | -1.142 | 2.05×10 ⁻⁰² |
| ENS00000231043.3 | AC0072381 | | Other | other | | -1.566 | 2.17×10 ⁻⁰² |
| ENS00000235725.1 | AC0073893 | | Other | other | | -1.557 | 3.79×10 ⁻⁰² |
| ENS00000261079.1 | AC009053.2 | | Other | other | | -1.571 | 2.13×10 ⁻⁰² |
| ENS00000238045.9 | AC009133.12 | | Other | other | | 5.457 | 9.69×10 ⁻⁰⁵ |
| ENS00000229143.1 | AC009394 | | Other | other | | 5.096 | 4.06×10 ⁻⁰³ |
| ENS00000225840.2 | AC010970.2 | | Other | other | | 9.18 | 6.01×10 ⁻¹² |
| ENS00000229426.1 | AC0932302 | | Other | other | | -1.378 | 4.74×10 ⁻⁰² |
| ENS00000227978.2 | AC1147601 | | Other | other | | 3.221 | 2.54×10 ⁻⁰² |
| ENS00000275249.1 | AC171558.3 | | Other | other | | -3.939 | 1.17×10 ⁻⁰² |
| ENS00000182827.8 | ACBD3 | acyl-CoA binding domain containing 3 | Cytoplasm | other | | 2.255 | 1.70×10 ⁻⁰⁴ |
| ENS00000097085.1 | ACHE2 | acetylcholinesterase (Cartwright blood group) | Plasma Membrane | enzyme | tuperezine A, pyridostigmine. | -1.277 | 3.22×10 ⁻⁰² |
| ENS0000017465.4 | ACOT4 | acyl-CoA thioesterase 4 | Cytoplasm | enzyme | | -2.107 | 3.37×10 ⁻⁰² |
| ENS00000123130.1 | ACOT9 | acyl-CoA thioesterase 9 | Cytoplasm | enzyme | | 1.73 | 1.73×10 ⁻⁰³ |
| ENS00000075624.1 | ACTB | actin beta | Cytoplasm | other | | 2.915 | 3.84×10 ⁻⁰⁵ |
| ENS00000184009.9 | ACTG1 | actin gamma 1 | Cytoplasm | other | | 2.681 | 1.81×10 ⁻⁰³ |
| ENS00000130402.1 | ACTN4 | actinin alpha 4 | Cytoplasm | transcription regulator | | 1.486 | 8.41×10 ⁻⁰⁴ |
| ENS00000138071.1 | ACTR2 | actin related protein 2 | Plasma Membrane | other | | 2.293 | 4.77×10 ⁻⁰⁵ |
| ENS00000105993.3 | ADLP1 | AdfGAP with dual FHL domains 1 | Nucleus | other | | 3.123 | 3.75×10 ⁻⁰⁷ |
| ENS00000129467.1 | ADCY4 | adenylate cyclase 4 | Plasma Membrane | enzyme | | 4.783 | 4.81×10 ⁻¹⁶ |
| ENS00000148700.1 | ADD3 | adducin 3 | Cytoplasm | other | | 1.238 | 3.65×10 ⁻⁰² |
| ENS00000256925.2 | ADGRA1-AS1 | ADGRA1 antisense RNA 1 | Other | other | | -1.442 | 3.93×10 ⁻⁰² |
| ENS00000173699.1 | ADGRG2 | adhesion G protein-coupled receptor G2 | Plasma Membrane | G-protein coupled receptor | | 1.339 | 1.75×10 ⁻⁰² |
| ENS00000072071.1 | ADGR L1 | adhesion G protein-coupled receptor L1 | Plasma Membrane | G-protein coupled receptor | | -1.219 | 1.17×10 ⁻⁰² |
| ENS00000162818.1 | ADGR L4 | adhesion G protein-coupled receptor L4 | Plasma Membrane | G-protein coupled receptor | | 0.073 | 2.62×10 ⁻⁰³ |
| ENS00000254936.4 | AF131253 | | Other | other | | 1.367 | 9.63×10 ⁻⁰³ |
| ENS00000157510.1 | AFAP1L1 | actin filament associated protein 1 like 1 | Other | other | | 2.003 | 1.16×10 ⁻⁰⁴ |
| ENS00000155966.1 | AFB2 | AF4/FMR2 family member 2 | Nucleus | other | | 1.01 | 1.47×10 ⁻⁰² |
| ENS00000006530.1 | AFK | acylglycerol kinase | Cytoplasm | kinase | SM1-71 | 1.251 | 2.43×10 ⁻⁰³ |
| ENS00000155189.1 | AGPAT5 | 1-acylglycerol-3-phosphate O-acyltransferase 5 | Cytoplasm | enzyme | | 1.318 | 2.36×10 ⁻⁰² |
| ENS00000234187.1 | AIMP1P1 | aminocacyl tRNA synthetase complex interacting multifunctional protein 1 pseudogene 1 | Other | other | | 2.378 | 1.93×10 ⁻⁰² |
| ENS00000131016.1 | AKAP12 | A-kinase anchoring protein 12 | Cytoplasm | transporter | | 1.294 | 4.17×10 ⁻¹¹ |
| ENS00000143149.1 | ALDH9A1 | aldehyde dehydrogenase 9 family member A1 | Cytoplasm | enzyme | | 2.021 | 3.63×10 ⁻⁰² |
| ENS00000179148.9 | ALOXE3 | arachidonate lipoxygenase 3 | Extracellular Space | enzyme | | -2.51 | 3.85×10 ⁻⁰² |
| ENS00000178171.1 | AMER3 | APC membrane recruitment protein 3 | Other | other | | -1.323 | 4.07×10 ⁻⁰² |
| ENS00000135409.1 | AMHR2 | anti-Müllerian hormone receptor type 2 | Plasma Membrane | kinase | GM102 | -1.196 | 1.17×10 ⁻⁰² |
| ENS00000101933.9 | ANM1CR1 | ANM1CR nuclear protein 1 | Nucleus | other | | 1.692 | 1.06×10 ⁻⁰² |
| ENS00000174606.1 | ANGEL2 | angel homolog 2 | Nucleus | other | | 1.066 | 1.69×10 ⁻⁰² |
| ENS00000198720.1 | ANKRD13B | ankyrin repeat domain 13B | Plasma Membrane | other | | -2.63 | 2.09×10 ⁻⁰² |
| ENS00000107890.1 | ANKRD26 | ankyrin repeat domain 26 | Nucleus | transcription regulator | | 1.251 | 4.24×10 ⁻⁰² |
| ENS00000180777.1 | ANKRD30B | ankyrin repeat domain 30B | Extracellular Space | other | | 1.764 | 2.72×10 ⁻⁰² |
| ENS00000198483.1 | ANKRD35 | ankyrin repeat domain 35 | Other | other | | -2.524 | 3.03×10 ⁻⁰² |
| ENS00000214263.4 | ANKRD36BP1 | ankyrin repeat domain 36B pseudogene 1 | Other | other | | 3.151 | 3.03×10 ⁻⁰² |
| ENS00000151459.1 | ANKRD50 | ankyrin repeat domain 50 | Other | other | | 2.058 | 7.96×10 ⁻⁰⁴ |
| ENS000000011426.1 | ANLN | anillin actin binding protein | Cytoplasm | other | | 1.335 | 3.23×10 ⁻⁰² |
| ENS0000011201.1 | ANOS1 | anosmin 1 | Extracellular Space | other | | 1.571 | 3.72×10 ⁻⁰² |
| ENS00000136938.8 | ANP32B | acidic nuclear phosphoprotein 32 family member B | Nucleus | other | | 3.005 | 3.21×10 ⁻⁰³ |
| ENS00000103254.9 | ANTKMT | adenine nucleotide translocase lysine methyltransferase | Cytoplasm | enzyme | | 6.564 | 4.89×10 ⁻⁰⁵ |
| ENS00000182718.1 | ANXA2 | annexin A2 | Plasma Membrane | other | | 1.624 | 1.43×10 ⁻⁰² |
| ENS00000164111.4 | ANXA5 | annexin A5 | Plasma Membrane | transporter | | 1.6 | 7.01×10 ⁻⁰³ |
| ENS00000132842.1 | AP3B1 | adaptor related protein complex 3 subunit beta 1 | Plasma Membrane | transporter | | 1.534 | 4.53×10 ⁻⁰³ |
| ENS00000077420.1 | APBB1P | amyloid beta precursor protein binding family B member 1 interacting protein | Cytoplasm | other | | 3.357 | 1.03×10 ⁻³¹ |
| ENS00000110244.6 | APOA4 | apolipoprotein A4 | Extracellular Space | transporter | | -3.125 | 4.62×10 ⁻⁰² |
| ENS00000184730.1 | APOBR | apolipoprotein B receptor | Plasma Membrane | transmembrane receptor | | -1.374 | 9.06×10 ⁻⁰⁵ |
| ENS00000142192.2 | APP | amyloid beta precursor protein | Plasma Membrane | other | batineuzumab, florbetapir F | 2.198 | 5.89×10 ⁻¹¹ |
| ENS00000214293.8 | APTR | Ahn-mediated C/EBPΔ/Δp21 transcriptional regulator | Cytoplasm | other | | 1.538 | 3.75×10 ⁻⁰² |
| ENS00000101246.1 | ARFRNP1 | ADP ribosylation factor related protein 1 | Cytoplasm | enzyme | | -1.401 | 4.79×10 ⁻⁰² |
| ENS00000146376.1 | ARHGAP18 | Rho GTPase activating protein 18 | Cytoplasm | other | | 1.866 | 4.78×10 ⁻⁰³ |
| ENS00000186517.1 | ARHGAP30 | Rho GTPase activating protein 30 | Cytoplasm | other | | -1.021 | 6.33×10 ⁻⁰³ |
| ENS00000111348.8 | ARHGAP35 | Rho GTPase activating protein 35 | Cytoplasm | enzyme | | 2.165 | 1.14×10 ⁻⁰⁶ |
| ENS00000212314.4 | ARHGAP35 | Rho guanine nucleotide exchange factor 35 | Other | other | | -1.06 | 4.91×10 ⁻⁰³ |
| ENS00000129675.1 | ARHGAP36 | Rac/Cdc42 guanine nucleotide exchange factor 6 | Cytoplasm | other | | 1.534 | 1.96×10 ⁻⁰² |
| ENS00000182196.1 | ARL1BP4 | ADP ribosylation factor like GTPase 6 interacting protein 4 | Nucleus | other | | 1.865 | 9.96×10 ⁻⁰⁵ |
| ENS00000163466.1 | ARPC2 | actin related protein 2/3 complex subunit 2 | Cytoplasm | other | | 1.197 | 9.19×10 ⁻⁰⁴ |
| ENS00000111229.1 | ARPC3 | actin related protein 2/3 complex subunit 3 | Cytoplasm | other | | 2.327 | 1.13×10 ⁻⁰⁸ |
| ENS00000183876.8 | ARSI | arylsulfatase family member 1 | Extracellular Space | enzyme | | -2.07 | 8.21×10 ⁻⁰³ |
| ENS0000018861.1 | ASAH2 | N-acylsphingosine amidohydrolase 2 | Cytoplasm | enzyme | | 1.165 | 1.93×10 ⁻⁰² |
| ENS0000015331.1 | ASAP1 | ArfGAP with SH3 domain, ankyrin repeat and PH domain 1 | Plasma Membrane | other | | 1.821 | 1.46×10 ⁻⁰² |
| ENS00000066279.1 | ASPM | assembly factor for spindle microtubules | Nucleus | other | | 1.065 | 1.94×10 ⁻⁰³ |
| ENS00000188896.3 | ASTL | astacin like metalloendopeptidase | Cytoplasm | peptidase | | -3.625 | 4.04×10 ⁻⁰² |
| ENS00000115966.1 | ATF2 | activating transcription factor 2 | Nucleus | transcription regulator | | 1.972 | 3.81×10 ⁻⁰² |
| ENS00000128272.14 | ATF4 | activating transcription factor 4 | Nucleus | transcription regulator | | 1.31 | 1.60×10 ⁻⁰³ |
| ENS00000105409.1 | ATP1A3 | ATPase Na ⁺ /K ⁺ transporting subunit alpha 3 | Plasma Membrane | transporter | dioxin, ethacrynic acid, per | -1.342 | 4.08×10 ⁻⁰² |
| ENS0000013268.1 | ATP1A4 | ATPase Na ⁺ /K ⁺ transporting subunit alpha 4 | Plasma Membrane | transporter | dioxin, ethacrynic acid, per | -1.069 | 9.45×10 ⁻⁰² |
| ENS00000101892.1 | ATP1B4 | ATPase Na ⁺ /K ⁺ transporting family member beta 4 | Plasma Membrane | transporter | | 1.212 | 4.71×10 ⁻⁰² |
| ENS00000169020.9 | ATP5ME | ATP synthase membrane subunit e | Cytoplasm | transporter | | 3.967 | 2.05×10 ⁻⁰⁵ |
| ENS00000156411.9 | ATP5MJ | ATP synthase membrane subunit j | Cytoplasm | other | | 1.839 | 1.17×10 ⁻⁰³ |
| ENS00000154723.1 | ATP5PF | ATP synthase peripheral stalk subunit F6 | Cytoplasm | transporter | | 2.575 | 2.71×10 ⁻⁰⁸ |
| ENS00000138888.6 | ATP9V1G1 | ATPase H ⁺ transporting V1 subunit G1 | Cytoplasm | transporter | | 2.738 | 2.63×10 ⁻⁰² |
| ENS00000085224.2 | ATRX | ATRX chromatin remodeler | Nucleus | transcription regulator | | 1.626 | 1.48×10 ⁻⁰⁸ |
| ENS00000198204.6 | AVPR1B | arginine vasopressin receptor 1B | Plasma Membrane | G-protein coupled receptor | AVP, lyspressin | -1.684 | 1.37×10 ⁻⁰³ |
| ENS00000176022.4 | B3GALT6 | beta-1,3-galactosyltransferase 6 | Cytoplasm | enzyme | | -1.919 | 4.29×10 ⁻⁰² |
| ENS0000025545.7 | B3GAT1-DT | B3GAT1 divergent transcript | Other | other | | -1.055 | 2.56×10 ⁻⁰² |
| ENS00000175711.8 | B3GNTL1 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase like 1 | Other | enzyme | | 1.094 | 4.01×10 ⁻⁰³ |
| ENS00000139044.10 | B4GALNT3 | beta-1,4-N-acetyl-galactosaminyltransferase 3 | Cytoplasm | enzyme | | -1.404 | 5.18×10 ⁻⁰⁴ |
| ENS00000187172.1 | BAGE2 | BAGE family member 2 | Other | other | | -1.173 | 3.5 |
| ENS0000026074.8 | BAHCC1 | BAH domain and coiled-coil containing 1 | Other | other | | -1.252 | 2.02×10 ⁻⁰² |
| ENS00000140320.1 | BAHD1 | brmo adjacent homology domain containing 1 | Nucleus | other | | -1.38 | 4.05×10 ⁻⁰² |
| ENS00000009954.10 | BAZ1B | brromodomain adjacent to zinc finger domain 1B | Nucleus | transcription regulator | | 1.469 | 1.29×10 ⁻⁰⁵ |
| ENS00000138686.9 | BBS7 | Bardet-Biedl syndrome 7 | Cytoplasm | other | | 1.682 | 4.57×10 ⁻⁰² |
| ENS00000060982.14 | BCAT1 | branched chain amino acid transaminase 1 | Cytoplasm | enzyme | | 1.044 | 8.35×10 ⁻⁰⁴ |
| ENS00000105552.14 | BCAT2 | branched chain amino acid transaminase 2 | Cytoplasm | enzyme | | -1.813 | 3.23×10 ⁻⁰² |
| ENS000001083123.4 | BCDH8 | branched chain keto acid dehydrogenase E1 subunit beta | Cytoplasm | enzyme | | 1.682 | 1.63×10 ⁻⁰² |
| ENS00000153094.2 | BCL2L1 | BCL2 like 11 | Cytoplasm | other | | 1.405 | 9.98×10 ⁻⁰³ |
| ENS00000116128.9 | BCL9 | BCL9 transcription coactivator | Nucleus | other | | -1.221 | 3.87×10 ⁻⁰² |
| ENS00000173681.1 | BCLAF1 | BCLAF1 and THRAP3 family member 3 | Other | other | | 1.081 | 4.67×10 ⁻⁰² |
| ENS00000168398.6 | BDRKB2 | bradykinin receptor B2 | Plasma Membrane | G-protein coupled receptor | anantib, icatibant, lobradim | -1.077 | 1.82×10 ⁻⁰² |
| ENS00000177951.1 | BET1L | Bet1 golgi vesicular membrane trafficking protein like | Cytoplasm | transporter | | -1.754 | 8.08×10 ⁻⁰³ |
| ENS0000016968.1 | BEX3 | brain expressed X-linked 3 | Cytoplasm | other | | 2.513 | 2.00×10 ⁻⁰⁴ |
| ENS00000235831.6 | BHLHE40-AS1 | BHLHE40 antisense RNA 1 | Other | other | | 2.095 | 2.35×10 ⁻⁰² |
| ENS00000248684.1 | BIN2P2 | bridging integrator 2 pseudogene 2 | Other | other | | -3.832 | 2.66×10 ⁻⁰² |
| ENS00000104765.14 | BNIP3L | BCL2 interacting protein 3 like | Cytoplasm | other | | 2.013 | 1.87×10 ⁻⁰² |
| ENS00000269040.1 | BNIP3P24 | BCL2 interacting protein 3 pseudogene 24 | Other | other | | 4.548 | 3.02×10 ⁻⁰² |
| ENS00000254901.7 | BORCS8 | BLOC-1 related complex subunit 8 | Cytoplasm | other | | -1.265 | 1.24×10 ⁻⁰² |
| ENS00000279205.1 | BPT2-2164C11 | | Other | other | | 1.49 | 3.62×10 ⁻⁰³ |
| ENS00000064726.9 | BTBD1 | BTB domain containing 1 | Cytoplasm | other | | 1.171 | 3.06×10 ⁻⁰² |
| ENS00000166323.12 | C11orf65 | chromosome 11 open reading frame 65 | Other | other | | 1.546 | 3.51×10 ⁻⁰² |
| ENS00000179088.14 | C12orf42 | chromosome 12 open reading frame 42 | Other | other | | 1.535 | 4.11×10 ⁻⁰² |
| ENS00000167194.7 | C16orf92 | chromosome 16 open reading frame 92 | Other | other | | -3.62 | 4.14×10 ⁻⁰² |
| ENS00000119559.1 | C19orf25 | chromosome 19 open reading frame 25 | Other | other | | -2.585 | 2.63×10 ⁻⁰² |
| ENS00000104979.8 | C19orf53 | chromosome 19 open reading frame 53 | Nucleus | other | | 2.924 | 3.70×10 ⁻⁰⁴ |
| ENS00000239887.4 | C1orf226 | chromosome 1 open reading frame 226 | Other | other | | -1.141 | 2.99×10 ⁻⁰² |
| ENS00000164008.1 | C1orf50 | chromosome 1 open reading frame 50 | Other | other | | 3.269 | 8.17×10 ⁻⁰³ |
| ENS00000177994.14 | C2orf73 | chromosome 2 open reading frame 73 | Other | other | | 2.478 | 1.41×10 ⁻⁰² |
| ENS00000147894.14 | C9orf72 | C9orf72-SMCR complex subunit | Cytoplasm | other | | 1.842 | 4.89×10 ⁻⁰² |
| ENS00000063180.8 | CA11 | carbonic anhydrase 11 | Extracellular Space | enzyme | | -1.832 | 1.18×10 ⁻⁰⁵ |
| ENS00000139333.10 | CAB39 | calcium binding protein 39 | Cytoplasm | enzyme | | 1.468 | 3.35×10 ⁻⁰³ |
| ENS00000100314 | CABP7 | calcium binding protein 7 | Cytoplasm | enzyme | | -2.018 | 4.39×10 ⁻⁰² |
| ENS00000223770.5 | CACNA2D1-AS1 | CACNA2D1 antisense RNA 1 | Other | other | | 2.127 | 8.97×10 ⁻⁰³ |
| ENS00000167535.7 | CACNB3 | calcium voltage-gated channel auxiliary subunit beta 3 | Plasma Membrane | ion channel | verapamil, dexamethasone/r | -1.115 | 7.23×10 ⁻⁰³ |
| ENS00000075461.5 | CACNG4 | calcium voltage-gated channel auxiliary subunit gamma 4 | Plasma Membrane | ion channel | | -1.836 | 3.16×10 ⁻⁰² |
| ENS00000105605.7 | CACNG7 | calcium voltage-gated channel auxiliary subunit gamma 7 | Plasma Membrane | ion channel | | -1.692 | 4.76×10 ⁻⁰² |
| ENS00000143933.10 | CALM1 (includes others) | calmodulin 1 | Plasma Membrane | other | | 1.468 | 3.35×10 ⁻⁰³ |
| ENS00000119866.8 | CALM1 (includes others) | calmodulin 1 | Cytoplasm | other | | 1.487 | 4.39×10 ⁻⁰⁵ |
| ENS00000179218.1 | CALR | calreticulon | Cytoplasm | transcription regulator | | 1.636 | 1.76×10 ⁻⁰⁶ |
| ENS00000127022.14 | CANX | calnexin | Cytoplasm | other | | 1.675 | 4.69×10 ⁻⁰⁵ |
| ENS00000112186.1 | CAP2 | cyclase associated actin cy | | | | | |

| | | | | | | | |
|--------------------|--------------------------|--|---------------------|----------------------------|--------------------------------|--------|------------------------|
| ENSG00000165233.1 | CARD19 | cardase recruitment domain family member 19 | Cytoplasm | other | | -1.406 | 4.73x10 ⁻⁰² |
| ENSG00000268001.1 | CARD8-AS1 | CARD8 antisense RNA 1 | Other | other | | 2.383 | 1.85x10 ⁻⁰³ |
| ENSG00000153446.1 | CARHSP1 | calcium regulated heat stable protein 1 | Cytoplasm | transcription regulator | | -1.423 | 3.86x10 ⁻⁰² |
| ENSG00000105141.5 | CASP14 | caspase 14 | Cytoplasm | protease | | -1.185 | 3.99x10 ⁻⁰³ |
| ENSG00000165806.1 | CASP7 | caspase 7 | Cytoplasm | peptidase | | 1.084 | 3.68x10 ⁻⁰³ |
| ENSG00000121691.4 | CAT | catalase | Cytoplasm | enzyme | fomepizole | 2.075 | 2.29x10 ⁻⁰² |
| ENSG00000158428.3 | CATIP | ciliogenesis associated TTC17 interacting protein | Cytoplasm | other | | -1.414 | 3.70x10 ⁻⁰² |
| ENSG00000141668.9 | CBLN2 | cerebellin 2 precursor | Extracellular Space | other | | 1.104 | 1.94x10 ⁻⁰² |
| ENSG0000019687.1 | CBWD3/CBWD6 | COBVI domain containing 3 | Other | other | | 1.956 | 6.33x10 ⁻⁰⁴ |
| ENSG00000069333.1 | CCAR1 | cell division cycle and apoptosis regulator 1 | Nucleus | transcription regulator | | 1.477 | 1.01x10 ⁻⁰³ |
| ENSG00000167131.1 | CCDC103 | coiled-coil domain containing 103 | Cytoplasm | other | | 1.415 | 8.46x10 ⁻⁰⁴ |
| ENSG00000160799.1 | CCDC12 | coiled-coil domain containing 12 | Other | other | | -1.056 | 1.44x10 ⁻⁰² |
| ENSG00000152076.1 | CCDC74B | coiled-coil domain containing 74B | Other | other | | -1.845 | 1.84x10 ⁻⁰² |
| ENSG00000149231.1 | CCDC82 | coiled-coil domain containing 82 | Other | other | | 1.078 | 9.15x10 ⁻⁰³ |
| ENSG00000142039.3 | CCDC97 | coiled-coil domain containing 97 | Other | other | | -1.162 | 1.09x10 ⁻⁰² |
| ENSG00000108700.4 | CCL2 | C-C motif chemokine ligand 2 | Extracellular Space | cytokine | | 3.069 | 3.16x10 ⁻⁰² |
| ENSG00000100814.1 | CCNB1IP1 | cyclin B1 interacting protein 1 | Nucleus | enzyme | | -1.219 | 3.23x10 ⁻⁰² |
| ENSG00000113328.1 | CCNG1 | cyclin G1 | Nucleus | other | | 1.698 | 1.80x10 ⁻⁰² |
| ENSG00000105219.8 | CCNP | cyclin P | Nucleus | other | | -2.479 | 3.78x10 ⁻⁰² |
| ENSG00000160791.1 | CCR5 | C-C motif chemokine receptor 5 | Plasma Membrane | G-protein coupled receptor | PRO 140, maraviroc, vicriviroc | -1.565 | 2.69x10 ⁻⁰⁵ |
| ENSG00000150753.1 | CCT5 | chaperonin containing TCP1 subunit 5 | Cytoplasm | other | | 1.619 | 7.94x10 ⁻⁰³ |
| ENSG00000140731.1 | CCTB | chaperonin containing TCP1 subunit 6A | Cytoplasm | other | | 3.146 | 4.21x10 ⁻⁰³ |
| ENSG00000174950.1 | CD16AL2 | CD164 molecule like 2 | Other | other | | -1.652 | 1.77x10 ⁻⁰² |
| ENSG00000198821.1 | CD247 | CD247 molecule | Plasma Membrane | transmembrane receptor | blinatumomab | -1.224 | 3.67x10 ⁻⁰² |
| ENSG00000196352.1 | CD55 | CD55 molecule (Cromer blood group) | Plasma Membrane | other | | 1.947 | 8.38x10 ⁻⁰⁴ |
| ENSG0000004897.1 | CDC27 | cell division cycle 27 | Nucleus | other | | 1.649 | 1.69x10 ⁻⁰² |
| ENSG00000171219.8 | CDC42BP6 | CDC42 binding protein kinase gamma | Cytoplasm | kinase | | -1.84 | 3.23x10 ⁻⁰⁶ |
| ENSG00000107736.1 | CDH23 | cadherin related 23 | Plasma Membrane | transporter | | -1.035 | 2.39x10 ⁻⁰² |
| ENSG00000134058.1 | CDK7 | cyclin dependent kinase 7 | Nucleus | kinase | roscovitine, XL102, BMS-387 | 3.45 | 1.68x10 ⁻⁰³ |
| ENSG00000102384.1 | CENPI | centromere protein 1 | Nucleus | other | | 2.405 | 1.77x10 ⁻⁰² |
| ENSG00000123219.1 | CENPK | centromere protein K | Nucleus | other | | 1.062 | 3.18x10 ⁻⁰² |
| ENSG00000228615.1 | CENPNP2 | CENPN pseudogene 2 | Other | other | | -1.789 | 3.31x10 ⁻⁰² |
| ENSG00000174799.1 | CENP135 | centrosomal protein 135 | Cytoplasm | other | | 1.251 | 4.94x10 ⁻⁰² |
| ENSG00000101639.1 | CENP192 | centrosomal protein 192 | Cytoplasm | other | | 1.022 | 3.70x10 ⁻⁰² |
| ENSG00000160228.1 | CFAP410 | cilia and flagella associated protein 410 | Nucleus | other | | -2.763 | 4.10x10 ⁻⁰² |
| ENSG00000206530.8 | CFAP44 | cilia and flagella associated protein 44 | Extracellular Space | peptidase | | 2.226 | 2.16x10 ⁻²⁵ |
| ENSG00000181378.1 | CFAP65 | cilia and flagella associated protein 65 | Cytoplasm | other | | -1.488 | 1.27x10 ⁻⁰⁵ |
| ENSG00000134389.9 | CFHR5 | complement factor H related 5 | Extracellular Space | other | | 1.986 | 2.95x10 ⁻⁰² |
| ENSG00000172757.1 | CFL1 | cofilin 1 | Nucleus | other | | 1.26 | 1.54x10 ⁻⁰³ |
| ENSG00000196337.1 | CFMB7 | chorionic gonadotropin subunit beta 7 | Extracellular Space | other | | -1.257 | 4.96x10 ⁻⁰² |
| ENSG0000014337.1 | CFM1 | congnin | Plasma Membrane | other | | -1.671 | 4.10x10 ⁻⁰³ |
| ENSG00000281181.1 | CH507-513H4.3 | | Other | other | | 8.213 | 1.66x10 ⁻¹³ |
| ENSG00000280614.1 | CH507-513H4.4 | | Other | other | | 6.947 | 1.06x10 ⁻¹⁴ |
| ENSG00000281383.1 | CH507-513H4.5 | | Other | other | | 7.677 | 6.06x10 ⁻¹¹ |
| ENSG00000280800.1 | CH507-513H4.6 | | Other | other | | 7.186 | 3.65x10 ⁻¹⁵ |
| ENSG00000280175.1 | CH507-42P116 | | Other | other | | -4.898 | 5.46x10 ⁻⁰⁴ |
| ENSG00000198821.5 | CHAMP1 | chromosome alignment maintaining phosphoprotein 1 | Nucleus | other | | 1.044 | 4.10x10 ⁻⁰³ |
| ENSG00000272888.5 | CHASERR | CHD2 adjacent suppressive regulatory RNA | Other | other | | 1.124 | 4.32x10 ⁻⁰² |
| ENSG00000106153.1 | CHCHD2 | coiled-coil-helix-coiled-coil-helix domain containing 2 | Cytoplasm | other | | 3.577 | 3.63x10 ⁻⁰³ |
| ENSG00000203668.1 | CHML | CHM like Rab escort protein | Cytoplasm | enzyme | | 1.183 | 8.72x10 ⁻⁰³ |
| ENSG00000278530.4 | CHMP1B2P | charged multivesicular body protein 1B2, pseudogene | Other | other | | 1.175 | 1.05x10 ⁻⁰² |
| ENSG00000130724.8 | CHMP2A | charged multivesicular body protein 2A | Cytoplasm | other | | 1.972 | 1.08x10 ⁻⁰³ |
| ENSG00000205493.1 | CHORD1 | chordin like 2 | Cytoplasm | other | | -1.177 | 1.71x10 ⁻⁰² |
| ENSG00000101204.1 | CHRNA2 | cholinergic receptor nicotinic alpha 4 subunit | Plasma Membrane | transmembrane receptor | succinylcholine, lobeline, rap | -1.228 | 5.71x10 ⁻⁰³ |
| ENSG00000160716.4 | CHRNA2 | cholinergic receptor nicotinic beta 2 subunit | Plasma Membrane | transmembrane receptor | varenicline, ABT-089, ABT 4 | -1.017 | 3.57x10 ⁻⁰² |
| ENSG00000232852.1 | CICP4 | capicua transcriptional repressor pseudogene 4 | Other | other | | -3.567 | 1.50x10 ⁻⁰² |
| ENSG00000160161.9 | CILP2 | cartilage intermediate layer protein 2 | Extracellular Space | other | | -4.379 | 4.57x10 ⁻⁰³ |
| ENSG00000273145.1 | CITFD2_92A61 | | Other | other | | -4.092 | 1.57x10 ⁻⁰² |
| ENSG00000171361.1 | CLCA1 | chloride voltage-gated channel 5 | Plasma Membrane | ion channel | | 1.106 | 1.07x10 ⁻⁰³ |
| ENSG00000164007.1 | CLDN19 | claudin 19 | Plasma Membrane | other | | -1.919 | 1.65x10 ⁻⁰² |
| ENSG00000213719.8 | CLIC1 | chloride intracellular channel 1 | Nucleus | ion channel | | 2.326 | 3.80x10 ⁻⁰³ |
| ENSG00000169504.1 | CLIC4 | chloride intracellular channel 4 | Plasma Membrane | ion channel | | 1.863 | 9.31x10 ⁻⁰⁷ |
| ENSG00000113282.1 | CLINT1 | clathrin interactor 1 | Cytoplasm | other | | 1.081 | 1.71x10 ⁻⁰³ |
| ENSG00000115295.1 | CLIP4 | CAP-Gly domain containing linker protein family member 4 | Other | other | | 1.017 | 3.06x10 ⁻⁰² |
| ENSG00000134863.1 | CLK1 | clock circadian regulator | Nucleus | other | | 1.18 | 1.18x10 ⁻⁰³ |
| ENSG00000122705.1 | CLTA | clathrin light chain A | Plasma Membrane | other | | 1.884 | 5.03x10 ⁻⁰³ |
| ENSG00000141367.1 | CLTC | clathrin heavy chain | Plasma Membrane | other | | 1.022 | 1.72x10 ⁻⁰² |
| ENSG00000117519.1 | CNN3 | calponin 3 | Cytoplasm | other | | 2.017 | 1.63x10 ⁻⁰⁴ |
| ENSG00000168763.1 | CNNM3 | cyclin and CBS domain divalent metal cation transport mediator 3 | Other | other | | -1.413 | 2.46x10 ⁻⁰² |
| ENSG00000125107.1 | CNOT1 | CCR4-NOT transcription complex subunit 1 | Cytoplasm | other | | 1.119 | 4.38x10 ⁻⁰² |
| ENSG00000155496.1 | CNORP1 | cyclin P1/PHI96 domain containing 1 | Other | other | | -1.402 | 4.08x10 ⁻⁰² |
| ENSG00000168542.1 | COL3A1 | collagen type III alpha 1 chain | Extracellular Space | other | collagenase | 1.493 | 1.10x10 ⁻⁰² |
| ENSG00000187498.1 | COL4A1 | collagen type IV alpha 1 chain | Extracellular Space | other | collagenase | 1.026 | 2.28x10 ⁻⁰³ |
| ENSG00000134871.1 | COL4A2 | collagen type IV alpha 2 chain | Extracellular Space | other | collagenase | 1.289 | 9.19x10 ⁻⁰⁴ |
| ENSG00000130635.1 | COL5A1 | collagen type V alpha 1 chain | Extracellular Space | other | collagenase | 1.698 | 9.98x10 ⁻¹³ |
| ENSG00000198756.1 | COLGALT2 | collagen beta(1-O)-galactosyltransferase 2 | Cytoplasm | enzyme | | 1.031 | 3.00x10 ⁻⁰² |
| ENSG00000159440.6 | COX5B | cytochrome c oxidase subunit 5B | Cytoplasm | enzyme | | 1.552 | 3.36x10 ⁻⁰² |
| ENSG00000226022.1 | COX5B7 | cytochrome c oxidase subunit 5B pseudogene 7 | Other | other | | 6.081 | 6.08x10 ⁻¹² |
| ENSG00000127184.1 | COX7C | cytochrome c oxidase subunit 7C | Cytoplasm | enzyme | | 1.35 | 8.41x10 ⁻⁰⁴ |
| ENSG00000153002.1 | CPB1 | carboxypeptidase B1 | Extracellular Space | peptidase | | 1.418 | 4.69x10 ⁻⁰³ |
| ENSG00000168993.1 | CPLX1 | complexin 1 | Plasma Membrane | transporter | | -3.149 | 4.05x10 ⁻⁰² |
| ENSG00000178772.6 | CPN2 | carboxypeptidase N subunit 2 | Extracellular Space | peptidase | | -1.388 | 2.15x10 ⁻⁰² |
| ENSG00000113851.1 | CRBN | cereblin | Cytoplasm | enzyme | lenalidomide, lenalidomide | 1.169 | 2.88x10 ⁻⁰² |
| ENSG00000215930.1 | CROC/CP2 | CROC pseudogene 2 | Other | other | | -1.059 | 1.05x10 ⁻⁰² |
| ENSG00000176092.1 | CRYBG2 | crystallin beta-gamma domain containing 2 | Extracellular Space | other | | -2.321 | 3.14x10 ⁻⁰² |
| ENSG00000233025.1 | CRYZP1 | crystallin zeta pseudogene 1 | Other | other | | 2.854 | 1.79x10 ⁻⁰² |
| ENSG00000009307.1 | CSDE1 | cold shock domain containing E1 | Cytoplasm | enzyme | | 2.522 | 1.21x10 ⁻¹¹ |
| ENSG00000268940.5 | CT45A1 (includes others) | cancer/testis antigen family 45 member A2 | Other | other | | 5.541 | 2.79x10 ⁻⁰³ |
| ENSG00000232872.2 | CTAGE3P | CTAGE family member 3, pseudogene | Other | other | | -1.331 | 3.16x10 ⁻⁰² |
| ENSG00000278251.1 | CTB_32C43 | | Other | other | | -2.087 | 3.75x10 ⁻⁰² |
| ENSG00000253422.1 | CTB_47B84 | | Other | other | | 3.847 | 4.74x10 ⁻⁰³ |
| ENSG00000267385.1 | CTB_50L1714 | | Other | other | | -2.08 | 2.34x10 ⁻⁰² |
| ENSG00000175029.1 | CTBP2 | C-terminal binding protein 2 | Nucleus | transcription regulator | | 1.117 | 8.66x10 ⁻⁰³ |
| ENSG00000263571.1 | CTC_3041175 | | Other | other | | -3.681 | 2.49x10 ⁻⁰² |
| ENSG00000268906.1 | CTC_518829 | | Other | other | | -2.323 | 1.32x10 ⁻⁰² |
| ENSG00000281348.1 | CTD_2687H2414 | | Other | other | | -4.194 | 3.71x10 ⁻⁰³ |
| ENSG00000275454.1 | CTD_202K114 | | Other | other | | -3.359 | 4.97x10 ⁻⁰² |
| ENSG00000276107.1 | CTD_203D152 | | Other | other | | 2.63 | 4.07x10 ⁻⁰² |
| ENSG00000264932.3 | CTD_2104P172 | | Other | other | | 4.774 | 1.22x10 ⁻⁰² |
| ENSG00000248288.1 | CTD_2194F42 | | Other | other | | 2.857 | 9.35x10 ⁻⁰³ |
| ENSG00000278898.1 | CTD_234Z231 | | Other | other | | 1.437 | 4.83x10 ⁻⁰² |
| ENSG00000278570.1 | CTD_2687H2414 | | Other | other | | -1.567 | 4.82x10 ⁻⁰² |
| ENSG00000278972.1 | CTD_302Z1241 | | Other | other | | 1.62 | 4.35x10 ⁻⁰³ |
| ENSG00000268120.1 | CTD_3193O1311 | | Other | other | | 2.798 | 6.50x10 ⁻⁰⁴ |
| ENSG00000214248.2 | CTD_3193O1312 | | Other | other | | -1.902 | 1.46x10 ⁻⁰³ |
| ENSG00000168036.1 | CTNNB1 | catenin beta 1 | Nucleus | transcription regulator | PRI-724 | 1.291 | 4.16x10 ⁻⁰² |
| ENSG000002055130.1 | CUL1 | cullin 1 | Nucleus | enzyme | | 3.231 | 2.58x10 ⁻⁰² |
| ENSG00000168266.1 | CUL5 | cullin 5 | Nucleus | ion channel | | 1.36 | 4.96x10 ⁻⁰² |
| ENSG00000163510.1 | CWC22 | CWC22 spliceosome associated protein homolog | Nucleus | other | | 2.331 | 8.87x10 ⁻⁰⁴ |
| ENSG00000178927.1 | CYBC1 | cytochrome b-245 chaperone 1 | Cytoplasm | other | | -1.904 | 1.60x10 ⁻⁰² |
| ENSG00000198077.1 | CYP2A6 (includes others) | cytochrome P450 family 2 subfamily A member 6 | Cytoplasm | enzyme | | -1.642 | 2.76x10 ⁻⁰² |
| ENSG00000138115.1 | CYP2C8 | cytochrome P450 family 2 subfamily C member 8 | Cytoplasm | enzyme | | 1.798 | 1.27x10 ⁻⁰² |
| ENSG00000130649.9 | CYP2E1 | cytochrome P450 family 2 subfamily E member 1 | Cytoplasm | enzyme | | -1.147 | 1.78x10 ⁻⁰³ |
| ENSG00000073067.1 | CYP2W1 | cytochrome P450 family 2 subfamily W member 1 | Cytoplasm | enzyme | | 2.058 | 6.18x10 ⁻⁰⁴ |
| ENSG00000172817.3 | CYP11B1 | cytochrome P450 family 7 subfamily B member 1 | Cytoplasm | enzyme | | 2.226 | 3.06x10 ⁻⁰² |
| ENSG00000180432.5 | CYP6B1 | cytochrome P450 family 6 subfamily B member 1 | Cytoplasm | enzyme | | -1.147 | 4.29x10 ⁻⁰² |
| ENSG00000105443.1 | CYTH2 | cytohesin 2 | Cytoplasm | other | | -1.206 | 1.01x10 ⁻⁰³ |
| ENSG00000155368.1 | DBI | diazepam binding inhibitor, acyl-CoA binding protein | Cytoplasm | other | | 2.15 | 1.39x10 ⁻⁰⁶ |
| ENSG00000163257.1 | DCAF16 | DDI1 and CUL4 associated factor 16 | Nucleus | other | | -1.517 | 1.09x10 ⁻⁰³ |
| ENSG00000236397.3 | DDX11L2 | DDAD/HH-box helicase 11 like 2 (pseudogene) | Other | other | | -1.422 | 4.60x10 ⁻⁰² |
| ENSG00000215301.9 | DDX3X | DDAD-box helicase 3 X-linked | Cytoplasm | enzyme | | 1.316 | 1.94x10 ⁻⁰³ |
| ENSG00000108654.1 | DDX5 | DDAD-box helicase 5 | Nucleus | enzyme | | 1.661 | 2.50x10 ⁻⁰⁸ |
| ENSG00000174485.1 | DENND4A | DENN domain containing 4A | Nucleus | other | | 1.118 | 2.66x10 ⁻⁰² |
| ENSG00000246422.2 | DIAPH1-AS1 | DIAPH1 antisense RNA 1 | Other | other | | 1.274 | 3.17x10 ⁻⁰² |
| ENSG00000151208.1 | DLG5 | discs large MAGUK scaffold protein 5 | Plasma Membrane | other | | -1.757 | 7.87x10 ⁻⁰³ |
| ENSG00000261520.5 | DLGAP1-AS5 | DLGAP1 antisense RNA 5 | Other | other | | 1.162 | 1.77x10 ⁻⁰² |
| ENSG00000250817.1 | DNAAF4 | dyein axonemal assembly factor 4 | Nucleus | other | | 3.037 | 3.27x10 ⁻⁰³ |
| ENSG00000250091.2 | DNAAF10OS | dyein axonemal heavy chain 10 opposite strand | Other | other | | -1.276 | 1.80x10 ⁻⁰² |
| ENSG00000183914.1 | DNAAF2 | dyein axonemal heavy chain 2 | Cytoplasm | other | | 3.276 | 1.31x10 ⁻⁰³ |
| ENSG00000115423.1 | DNAAF6 | dyein axonemal heavy chain 6 | Extracellular Space | other | | -2.771 | 4.28x10 ⁻⁰² |
| ENSG00000086061.1 | DNAA1 | DnaJ heat shock protein family (Hsp40) member A1 | Nucleus | other | | 2.146 | 1.84x10 ⁻⁰⁶ |
| ENSG00000120675.5 | DNAA1C15 | DnaJ heat shock protein family (Hsp40) member C15 | Cytoplasm | other | | 1.081 | 1.01x10 ⁻⁰³ |
| ENSG00000272636.3 | DOC2B | | | | | | |

| | | | | | | |
|---|---|---------------------|----------------------------|--------|-------------------------|------------------------|
| ENS00000092964.16DPYSL2 | dihydropyrimidinase like 2 | Cytoplasm | enzyme | 1.284 | 1.46×10 ⁻⁰⁴ | |
| ENS000000171962.17DRC3 | dynein regulatory complex subunit 3 | Cytoplasm | other | -1.181 | 2.93×10 ⁻⁰² | |
| ENS000000125869.13DSTN | desmin, actin depolymerizing factor | Cytoplasm | other | 1.997 | 3.29×10 ⁻⁰⁶ | |
| ENS000000112679.19DHP22 | dual specificity phosphatase 22 | Cytoplasm | phosphatase | 1.927 | 9.7×10 ⁻⁰⁸ | |
| ENS000000197102.10DYNCH11 | dynein cytoplasmic 1 heavy chain 1 | Cytoplasm | peptidase | 1.194 | 1.97×10 ⁻⁰⁵ | |
| ENS000000167967.18E4F1 | E4F transcription factor 1 | Nucleus | transcription regulator | -1.764 | 2.24×10 ⁻⁰² | |
| ENS000000156508.17EEF1A1 | eukaryotic translation elongation factor 1 alpha 1 | Cytoplasm | translation regulator | 3.427 | 1.86×10 ⁻⁰⁴ | |
| ENS000000196205.8EEF1A1P5 | eukaryotic translation elongation factor 1 alpha 1 pseudogene 5 | Extracellular Space | other | 1.941 | 2.63×10 ⁻⁰² | |
| ENS000000114842.13EEF1B2 | eukaryotic translation elongation factor 1 beta 2 | Cytoplasm | translation regulator | 2.429 | 1.81×10 ⁻⁰⁹ | |
| ENS000000125772.9EEF1G | eukaryotic translation elongation factor 1 gamma | Cytoplasm | translation regulator | 1.376 | 1.87×10 ⁻⁰⁴ | |
| ENS000000167658.18EEF2 | eukaryotic translation elongation factor 2 | Cytoplasm | translation regulator | 2.939 | 7.60×10 ⁻²⁴ | |
| ENS000000115380.18EFEMP1 | EGF containing fibulin extracellular matrix protein 1 | Cytoplasm | translation regulator | 2.718 | 1.76×10 ⁻⁰² | |
| ENS000000108947.4EFNB3 | EFNB3 | Extracellular Space | enzyme | 1.192 | 1.57×10 ⁻⁰² | |
| ENS000000255302.3EID1 | EP300 interacting inhibitor of differentiation 1 | Plasma Membrane | kinase | -1.38 | 5.19×10 ⁻⁰³ | |
| ENS000000173812.14EIF1 | eukaryotic translation initiation factor 1 | Nucleus | transcription regulator | 1.748 | 1.09×10 ⁻⁰³ | |
| ENS000000262154.1EIF1P4 | eukaryotic translation initiation factor 1 pseudogene 4 | Cytoplasm | translation regulator | Other | -3.933 | 1.78×10 ⁻⁰² |
| ENS000000125977.6EIF2S3 | eukaryotic translation initiation factor 2 subunit beta | Cytoplasm | translation regulator | 1.798 | 4.09×10 ⁻⁰⁵ | |
| ENS000000130741.10EIF2S3 | eukaryotic translation initiation factor 2 subunit gamma | Cytoplasm | translation regulator | 1.782 | 5.13×10 ⁻⁰³ | |
| ENS000000107581.12EIF3A | eukaryotic translation initiation factor 3 subunit A | Cytoplasm | translation regulator | 1.805 | 1.20×10 ⁻¹⁶ | |
| ENS000000100353.17EIF3D | eukaryotic translation initiation factor 3 subunit D | Cytoplasm | translation regulator | 1.519 | 8.73×10 ⁻⁰³ | |
| ENS000000104131.11EIF3J3 | eukaryotic translation initiation factor 3 subunit J | Cytoplasm | translation regulator | 2.258 | 3.51×10 ⁻⁰⁴ | |
| ENS000000100129.17EIF3L3 | eukaryotic translation initiation factor 3 subunit L | Cytoplasm | translation regulator | 1.462 | 3.71×10 ⁻⁰³ | |
| ENS000000161960.14EIF4A1 | eukaryotic translation initiation factor 4A1 | Cytoplasm | translation regulator | 1.453 | 3.27×10 ⁻⁰⁵ | |
| ENS000000063046.17EIF4B | eukaryotic translation initiation factor 4B | Cytoplasm | translation regulator | 1.476 | 4.39×10 ⁻⁰⁶ | |
| ENS000000110321.18EIF4G2 | eukaryotic translation initiation factor 4 gamma 2 | Cytoplasm | translation regulator | 1.583 | 1.47×10 ⁻¹⁰ | |
| ENS000000132507.11EIF5A | eukaryotic translation initiation factor 5A | Cytoplasm | translation regulator | 1.626 | 8.83×10 ⁻⁰⁴ | |
| ENS00000023608.11ELFN1AS1 | ELFN1 antisense RNA 1 | Cytoplasm | other | 1.079 | 3.87×10 ⁻⁰² | |
| ENS000000183791.4ELOA3P (includes others) | elongin A3, pseudogene | Nucleus | other | -3.615 | 1.75×10 ⁻⁰⁷ | |
| ENS000000235640.1ELOAP1 | ELOA pseudogene 1 | Other | other | 1.785 | 1.42×10 ⁻⁰² | |
| ENS000000103363.14ELOB | elongin B | Nucleus | transcription regulator | 2.891 | 2.16×10 ⁻⁰³ | |
| ENS000000161671.18EMC10 | ER membrane protein complex subunit 10 | Cytoplasm | other | -1.352 | 2.68×10 ⁻⁰⁷ | |
| ENS000000131148.8EMC8 | ER membrane protein complex subunit 8 | Cytoplasm | other | 1.173 | 4.55×10 ⁻⁰² | |
| ENS000000149499.11EML3 | ENAP like 3 | Cytoplasm | other | 1.316 | 5.59×10 ⁻⁰³ | |
| ENS000000142227.10EMP3 | epithelial membrane protein 3 | Plasma Membrane | other | -2.702 | 4.80×10 ⁻⁰² | |
| ENS000000135638.13EMX1 | empty spiracles homeobox 1 | Nucleus | transcription regulator | -1.847 | 1.08×10 ⁻⁰³ | |
| ENS000000074800.13ENO1 | enolase 1 | Cytoplasm | enzyme | 1.367 | 1.36×10 ⁻⁰³ | |
| ENS000000108515.17ENO3 | enolase 3 | Cytoplasm | enzyme | -1.302 | 3.61×10 ⁻⁰² | |
| ENS000000136960.13ENPP2 | ectonucleotide pyrophosphatase/phosphodiesterase 2 | Plasma Membrane | enzyme | 1.35 | 4.15×10 ⁻⁰² | |
| ENS000000183317.18EPHA10 | EPH receptor A10 | Plasma Membrane | transmembrane receptor | -1.497 | 3.85×10 ⁻⁰² | |
| ENS000000085893.11EPHA5 | epidermal growth factor receptor pathway substrate 15 | Cytoplasm | other | 1.031 | 1.77×10 ⁻⁰² | |
| ENS000000225830.10ERCC6 | ERCC excision repair 6, chromatin remodeling factor | Nucleus | transcription regulator | 1.133 | 9.94×10 ⁻⁰⁵ | |
| ENS000000186871.6ERCC6L | ERCC excision repair 6 like, spindle assembly checkpoint helicase | Nucleus | enzyme | 1.517 | 1.74×10 ⁻⁰² | |
| ENS000000157554.18ERG | ETS transcription factor ERG | Nucleus | transcription regulator | 1.991 | 1.46×10 ⁻¹² | |
| ENS000000135476.11ESPL1 | extra spindle pole bodies like 1, separase | Nucleus | peptidase | -1.501 | 2.75×10 ⁻⁰² | |
| ENS000000139641.12ESYT1 | extended synaptotagmin 1 | Cytoplasm | other | 1.8 | 1.22×10 ⁻⁰² | |
| ENS000000205707.11EUF1 | electron transfer flavoprotein regulatory factor 1 | Cytoplasm | other | 4.378 | 5.89×10 ⁻⁰⁶ | |
| ENS000000151348.13EXT2 | exostosin glycosyltransferase 2 | Cytoplasm | enzyme | 1.196 | 2.88×10 ⁻⁰² | |
| ENS000000092820.17EZR | eizin | Plasma Membrane | other | 1.612 | 2.44×10 ⁻⁰² | |
| ENS000000185010.13F8 | coagulation factor VIII | Extracellular Space | other | 1.15 | 2.58×10 ⁻⁰² | |
| ENS000000170323.8FABP4 | fatty acid binding protein 4 | Cytoplasm | transporter | 3.159 | 3.66×10 ⁻⁰⁴ | |
| ENS000000164687.10FABP5 | fatty acid binding protein 5 | Cytoplasm | transporter | 2.273 | 7.24×10 ⁻¹⁵ | |
| ENS000000135477.10FAM12 | Fas apoptotic inhibitory molecule 2 | Plasma Membrane | other | -1.045 | 3.81×10 ⁻⁰² | |
| ENS000000184083.11FAM120C | family with sequence similarity 120C | Other | other | 1.284 | 3.94×10 ⁻⁰² | |
| ENS000000138640.14FAM13A | family with sequence similarity 13 member A | Cytoplasm | other | 1.563 | 1.58×10 ⁻⁰⁸ | |
| ENS000000031003.10FAM13B | family with sequence similarity 13 member B | Cytoplasm | other | 2.22 | 4.77×10 ⁻⁰⁴ | |
| ENS000000143340.6FAM163A | family with sequence similarity 163 member A | Other | other | -1.995 | 4.38×10 ⁻⁰² | |
| ENS000000294736.5FAM170B-AS1 | FAM170B antisense RNA 1 | Other | other | -1.133 | 4.12×10 ⁻⁰² | |
| ENS000000214886.4FAM177A1 | filatative protein FAM177A2 | Other | other | 1.277 | 1.81×10 ⁻⁰³ | |
| ENS000000262497.1FAM187B2P | family with sequence similarity 187 member B pseudogene | Other | other | -4.266 | 3.56×10 ⁻⁰³ | |
| ENS000000225560.6FAM197Y3 (includes others) | family with sequence similarity 197 Y-linked member 9 | Other | other | -5.324 | 7.23×10 ⁻⁰⁵ | |
| ENS000000124098.9FAM210B | family with sequence similarity 210 member B | Extracellular Space | other | 1.274 | 1.62×10 ⁻⁰² | |
| ENS000000187248.11FAM230I | family with sequence similarity 230 member 1 | Other | other | -3.566 | 4.47×10 ⁻⁰² | |
| ENS000000223885.4FAM90A26 (includes others) | family with sequence similarity 90 member A26 | Other | other | -3.743 | 4.09×10 ⁻⁰² | |
| ENS000000149804.1FAU | FAU ubiquitin like and ribosomal protein S30 fusion | Cytoplasm | enzyme | 1.308 | 3.61×10 ⁻⁰² | |
| ENS000000138081.18FBX011 | F-box protein 11 | Cytoplasm | enzyme | 1.384 | 4.13×10 ⁻⁰² | |
| ENS000000159069.13FBXW5 | F-box and WD repeat domain containing 5 | Cytoplasm | other | 1.415 | 1.15×10 ⁻⁰² | |
| ENS000000109670.13FBXW7 | F-box and WD repeat domain containing 7 | Nucleus | enzyme | 1.06 | 5.97×10 ⁻⁰⁴ | |
| ENS000000162897.14FCAMR | Fc fragment of IgA and IgM receptor | Plasma Membrane | transmembrane receptor | -2.172 | 1.56×10 ⁻⁰² | |
| ENS000000275395.4FCGBP | Fc fragment of IgG binding protein | Extracellular Space | other | -1.811 | 1.57×10 ⁻⁰⁵ | |
| ENS000000158337.13FCGRI4A | Fc fragment of IgG receptor 4A | Plasma Membrane | transmembrane receptor | 1.496 | 5.59×10 ⁻⁰³ | |
| ENS000000275340.17GDS1 | FYE, RhoGEF and PH domain containing 5 pseudogene 1 | Other | other | -1.841 | 1.81×10 ⁻⁰⁵ | |
| ENS000000160867.14GFR4 | fibroblast growth factor receptor 4 | Plasma Membrane | kinase | -1.664 | 3.55×10 ⁻⁰² | |
| ENS000000176971.3FIBIN | fin bud initiation factor homolog | Cytoplasm | other | 5.775 | 2.81×10 ⁻⁰⁷ | |
| ENS000000088832.14FKBP1A | FKBP prolyl isomerase 1A | Cytoplasm | enzyme | 1.333 | 6.90×10 ⁻⁰³ | |
| ENS000000143631.10FLG | flaggrin | Cytoplasm | other | -1.209 | 1.85×10 ⁻⁰⁵ | |
| ENS000000275620.1FLJ16779 | Uncharacterized LOC100192386 | Other | other | -1.067 | 7.33×10 ⁻⁰⁴ | |
| ENS000000196924.14FLNA5 | filamin A5 | Cytoplasm | other | 1.045 | 3.17×10 ⁻⁰⁵ | |
| ENS000000122025.14FLT3 | Fms related receptor tyrosine kinase 3 | Plasma Membrane | kinase | 3.055 | 3.79×10 ⁻⁰³ | |
| ENS000000102081.13FMR1 | FMR1 translational regulator 1 | Cytoplasm | translation regulator | 1.533 | 5.82×10 ⁻⁰⁶ | |
| ENS000000115414.18FBN1 | fibronectin 1 | Extracellular Space | enzyme | 1.164 | 9.52×10 ⁻¹¹ | |
| ENS000000065970.8FOXP2 | forkhead box J2 | Nucleus | transcription regulator | 6.891 | 4.20×10 ⁻¹³³ | |
| ENS000000153303.18FRMD1 | FERM domain containing 1 | Other | other | -1.241 | 3.37×10 ⁻⁰² | |
| ENS000000167991.13FTH1 | ferritin heavy chain 1 | Cytoplasm | enzyme | 3.483 | 2.73×10 ⁻⁵⁰ | |
| ENS000000087086.13FTL | ferritin light chain | Cytoplasm | enzyme | 3.346 | 4.11×10 ⁻²¹ | |
| ENS000000162613.18FUBP1 | far upstream element binding protein 1 | Nucleus | transcription regulator | 1.677 | 6.97×10 ⁻⁰³ | |
| ENS000000130383.7FUT5 | fucosyltransferase 5 | Cytoplasm | enzyme | -3.708 | 9.84×10 ⁻⁰³ | |
| ENS000000114416.17FXR1 | FXR1 autosomal homolog 1 | Cytoplasm | other | 1.221 | 6.90×10 ⁻⁰⁴ | |
| ENS000000269964.5FXYP1 | FXYP domain containing ion transport regulator 1 | Plasma Membrane | ion channel | -2.299 | 1.39×10 ⁻⁰² | |
| ENS000000131731.19FXYP2 | FXYP domain containing ion transport regulator 2 | Plasma Membrane | ion channel | -1.852 | 2.73×10 ⁻⁰² | |
| ENS000000163251.3FZD5 | fizzled class receptor 5 | Plasma Membrane | G-protein coupled receptor | 1.855 | 2.05×10 ⁻¹² | |
| ENS000000138757.14G3BP2 | GBP stress granule assembly factor 2 | Cytoplasm | enzyme | 1.086 | 2.65×10 ⁻⁰² | |
| ENS000000131482.9G6PC1 | glucose-6-phosphatase catalytic subunit 1 | Cytoplasm | phosphatase | -1.41 | 4.56×10 ⁻⁰² | |
| ENS000000160211.18G6PD | glucose-6-phosphate dehydrogenase | Cytoplasm | enzyme | 3.191 | 2.56×10 ⁻⁰² | |
| ENS00000011677.14GABRA3 | gamma-aminobutyric acid type A receptor subunit alpha3 | Plasma Membrane | ion channel | 1.368 | 2.16×10 ⁻⁰² | |
| ENS000000099869.14GADD45B | growth arrest and DNA damage inducible beta | Cytoplasm | other | -2.01 | 2.98×10 ⁻⁰² | |
| ENS000000197093.10GALST4 | galactose-3-O-sulfotransferase 4 | Cytoplasm | enzyme | -1.292 | 4.08×10 ⁻⁰² | |
| ENS000000182870.12GALNT9 | polypeptide N-acetylgalactosaminyltransferase 9 | Cytoplasm | enzyme | -2.115 | 1.66×10 ⁻⁰² | |
| ENS00000011640.14GAPDH | glyceraldehyde-3-phosphate dehydrogenase | Cytoplasm | enzyme | 3.036 | 7.85×10 ⁻³⁴ | |
| ENS000000166398.12GARRE1 | granule associated Rac and RHOG effector 1 | Extracellular Space | other | 1.222 | 3.08×10 ⁻⁰³ | |
| ENS000000117226.11GBP3 | guanylate binding protein 3 | Cytoplasm | enzyme | 1.214 | 4.02×10 ⁻⁰² | |
| ENS000000205316.5GNT1ZP1 | GNT1Z pseudogene 1 | Other | other | 3.064 | 4.92×10 ⁻⁰⁴ | |
| ENS000000092208.18GEMN2 | gem nuclear organelle associated protein 2 | Nucleus | other | 1.924 | 3.01×10 ⁻⁰² | |
| ENS000000100083.18GGA1 | golgi associated, gamma adaptin ear containing, ARF binding protein 1 | Cytoplasm | transporter | -1.565 | 9.72×10 ⁻⁰³ | |
| ENS000000115486.11GGCX | gamma-glutamyl carboxylase | Cytoplasm | enzyme | 1.03 | 6.23×10 ⁻⁰³ | |
| ENS000000101193.7GID8 | GID complex subunit 8 homolog | Nucleus | other | 1.117 | 3.57×10 ⁻⁰² | |
| ENS000000274944.4GJA9-MYCBP | GJA9-MYCBP readthrough | Other | other | 2.195 | 1.43×10 ⁻⁰⁴ | |
| ENS000000198814.13GK | glycerol kinase | Cytoplasm | kinase | 2.175 | 3.70×10 ⁻⁰² | |
| ENS000000127920.5GNG11 | G protein subunit gamma 11 | Plasma Membrane | enzyme | 1.619 | 4.91×10 ⁻⁰³ | |
| ENS000000186469.8GNG2 | G protein subunit gamma 2 | Plasma Membrane | enzyme | 1.34 | 3.90×10 ⁻⁰³ | |
| ENS000000100522.8GNPNAT1 | glucosamine-phosphate N-acetyltransferase 1 | Cytoplasm | enzyme | 1.576 | 6.57×10 ⁻⁰³ | |
| ENS000000111670.14GNPTAB | N-acetylglucosamine-1-phosphate transferase subunits alpha and beta | Cytoplasm | enzyme | 3.156 | 2.36×10 ⁻⁰⁷ | |
| ENS000000144674.18GOLGA4 | golgin A4 | Cytoplasm | other | 1.124 | 6.87×10 ⁻⁰³ | |
| ENS000000223999.3GOLGA6L11P | golgin A6 family like 11_pseudogene | Other | other | -3.967 | 4.08×10 ⁻⁰² | |
| ENS000000261844.9GOLGA6L7 | golgin A6 family like 7 | Other | other | -1.017 | 1.27×10 ⁻⁰⁵ | |
| ENS000000278662.4GOLGA6L9 (includes others) | golgin A6 family like 9 | Other | other | 1.116 | 1.54×10 ⁻⁰² | |
| ENS000000135052.18GOLM1 | golgi membrane protein 1 | Cytoplasm | other | 1.299 | 3.36×10 ⁻⁰² | |
| ENS000000152133.14GPATCH11 | G-patch domain containing 11 | Nucleus | other | 1.473 | 1.72×10 ⁻⁰² | |
| ENS000000236240.11GPC5-IT1 | GPC5 intronic transcript 1 | Other | other | 1.741 | 4.05×10 ⁻⁰² | |
| ENS000000175514.2GPR152 | G protein-coupled receptor 152 | Plasma Membrane | G-protein coupled receptor | -3.825 | 1.46×10 ⁻⁰² | |
| ENS000000180759.13GPR157 | G protein-coupled receptor 157 | Plasma Membrane | G-protein coupled receptor | 3.483 | 2.69×10 ⁻⁰² | |
| ENS000000178623.11GPR35 | G protein-coupled receptor 35 | Plasma Membrane | G-protein coupled receptor | -1.857 | 2.66×10 ⁻⁰² | |
| ENS000000234696.11GPR50-AS1 | GPR50 antisense RNA 1 | Other | other | 2.272 | 3.16×10 ⁻⁰² | |
| ENS000000170412.16GPRC5C | G protein-coupled receptor class C group 5 member C | Plasma Membrane | G-protein coupled receptor | -1.123 | 3.83×10 ⁻⁰² | |
| ENS000000204175.5GPRIN2 | G protein regulated inducer of neurite outgrowth 2 | Other | other | -3.596 | 1.56×10 ⁻⁰² | |
| ENS000000167466.16GPX4 | glutathione peroxidase 4 | Cytoplasm | enzyme | 2.253 | 6.14×10 ⁻¹¹ | |
| ENS000000105731.9GRIK5 | glutamate ionotropic receptor kainate type subunit 5 | Plasma Membrane | ion channel | -2.113 | 2.98×10 ⁻⁰² | |
| ENS000000164082.14GRM2 | glutamate metabotropic receptor 2 | Plasma Membrane | G-protein coupled receptor | -1.201 | 5.81×10 ⁻⁰⁴ | |
| ENS000000229180.5GS1_124K511 | Other | Other | Other | -1.638 | 4.09×10 ⁻⁰⁵ | |
| ENS000000254219.1GS1_251B12 | Other | Other | Other | 4.564 | 8.75×10 ⁻⁰³ | |
| ENS000000104518.10GSDMD | gasdermin D | Extracellular Space | transporter | 1.391 | 2.67×10 ⁻⁰² | |
| ENS0 | | | | | | |

| | | | | | | | |
|--------------------|-----------------------------|--|---------------------|-------------------------|---------------------------------|--------|-------------------------|
| ENS00000164032.1 | H2AZ1 | H2A Z variant histone 1 | Nucleus | other | | 1.308 | 4.34×10 ⁻⁰² |
| ENS00000008382.1 | HACE1 | HECT domain and ankyrin repeat containing E3 ubiquitin protein ligase 1 | Cytoplasm | enzyme | | 1.155 | 4.17×10 ⁻⁰² |
| ENS000000084754.1 | HADHA | hydroxacyl-CoA dehydrogenase trifunctional multienzyme complex subunit alpha | Cytoplasm | enzyme | | 2.84 | 3.36×10 ⁻⁰⁴ |
| ENS000000081273.1 | HADC7 | histone deacetylase 7 | Nucleus | transcription regulator | tributyrin, belinostat, pyroxan | -1.93 | 3.35×10 ⁻⁰³ |
| ENS000000180229.13 | HERC2P3 | hect domain and RLD 2 pseudogene 3 | other | other | | 1.054 | 3.64×10 ⁻⁰⁴ |
| ENS000000049860.13 | HEXB | hexosaminidase subunit beta | Cytoplasm | enzyme | | 1.951 | 2.43×10 ⁻⁰³ |
| ENS000000019991.18 | HGF | hepatocyte growth factor | Extracellular Space | growth factor | riotumumab, SCH 900105, t | 7.698 | 5.68×10 ⁻¹⁴⁵ |
| ENS000000071794.18 | HLTF | helicase like transcription factor | Nucleus | transcription regulator | | 1.339 | 6.90×10 ⁻⁰³ |
| ENS000000252626.6 | HMBB5 | hydroxymethylbilane synthase | Cytoplasm | enzyme | | 2.082 | 4.38×10 ⁻⁰² |
| ENS000000137320.18 | HMG1 | high mobility group AT-hook 1 | Nucleus | transcription regulator | | 1.987 | 1.63×10 ⁻⁰⁷ |
| ENS000000189403.14 | HMG1B | high mobility group box 1 | Nucleus | transcription regulator | | 1.023 | 4.23×10 ⁻⁰⁴ |
| ENS000000254146.1 | HMG1P46 | high mobility group box 1 pseudogene 46 | Other | other | | 2.589 | 1.77×10 ⁻⁰² |
| ENS000000205581.10 | HMG1N1 | high mobility group nucleosome binding domain 1 | Nucleus | transcription regulator | | 1.649 | 5.78×10 ⁻⁰⁵ |
| ENS000000182952.4 | HMG1N4 | high mobility group nucleosome binding domain 4 | Nucleus | other | | 2.328 | 3.81×10 ⁻⁰² |
| ENS000000198157.10 | HMG1N5 | high mobility group nucleosome binding domain 5 | Nucleus | transcription regulator | | 1.527 | 4.24×10 ⁻⁰² |
| ENS000000135480.11 | HNRNP1 | heterogeneous nuclear ribonucleoprotein A1 | Nucleus | other | | 1.979 | 4.98×10 ⁻²² |
| ENS000000122662.20 | HNRNP2B1 | heterogeneous nuclear ribonucleoprotein A2/B1 | Nucleus | other | | 1.895 | 1.42×10 ⁻⁰⁸ |
| ENS000000170144.18 | HNRNP3 | heterogeneous nuclear ribonucleoprotein A3 | Nucleus | other | | 1.28 | 6.17×10 ⁻⁰⁷ |
| ENS000000197451.10 | HNRNPAB | heterogeneous nuclear ribonucleoprotein A/B | Nucleus | enzyme | | 2.109 | 1.48×10 ⁻⁰³ |
| ENS000000092199.17 | HNRNPC | heterogeneous nuclear ribonucleoprotein C | Nucleus | other | | 1.797 | 1.09×10 ⁻⁰⁶ |
| ENS000000128945.8 | HNRNP2 | heterogeneous nuclear ribonucleoprotein H2 | Nucleus | other | | 2.182 | 1.23×10 ⁻⁰³ |
| ENS000000165110.18 | HNRNP1K | heterogeneous nuclear ribonucleoprotein K | Nucleus | other | | 1.926 | 2.06×10 ⁻¹⁰ |
| ENS000000273046.1 | HOCX5 | homeobox C5 | Nucleus | transcription regulator | | -3.049 | 3.66×10 ⁻⁰³ |
| ENS000000130528.11 | HRC | histidine rich calcium binding protein | Cytoplasm | other | | -1.515 | 2.23×10 ⁻⁰⁴ |
| ENS000000153976.2 | HS3ST3A1 | heparan sulfate-glucosaminase 3-sulfotransferase 3A1 | Cytoplasm | enzyme | | -4.728 | 1.31×10 ⁻⁰³ |
| ENS000000133835.14 | HSD17B4 | hydroxysteroid 17-beta dehydrogenase 4 | Cytoplasm | enzyme | | 1.455 | 2.37×10 ⁻⁰³ |
| ENS000000080824.18 | HSP90AA1 | heat shock protein 90 alpha family class A member 1 | Cytoplasm | enzyme | alvespimycin, retaspimycin, l | 1.901 | 1.27×10 ⁻¹⁴ |
| ENS000000096384.11 | HSP90AB1 | heat shock protein 90 alpha family class B member 1 | Cytoplasm | enzyme | alvespimycin, retaspimycin, l | 3.118 | 5.10×10 ⁻³² |
| ENS000000109871.13 | HSP98 | heat shock protein family A (Hsp70) member 8 | Cytoplasm | enzyme | | 2.507 | 3.84×10 ⁻²⁴ |
| ENS000000251614.1 | HSPA8P19 | heat shock protein family A (Hsp70) member pseudogene 19 | Other | other | | 3.495 | 4.97×10 ⁻⁰² |
| ENS000000224773.2 | HSPA8P7 | heat shock protein family A (Hsp70) member 8 pseudogene 7 | Other | other | | 2.278 | 3.97×10 ⁻⁰² |
| ENS000000113013.12 | HSPA9 | heat shock protein family A (Hsp70) member 9 | Cytoplasm | other | | 1.48 | 1.39×10 ⁻⁰³ |
| ENS000000106211.8 | HSPB1 | heat shock protein family B (small) member 1 | Cytoplasm | other | | 2.283 | 2.72×10 ⁻⁰⁹ |
| ENS000000144381.10 | HSPD1 | heat shock protein family D (Hsp60) member 1 | Cytoplasm | enzyme | | 2.211 | 1.97×10 ⁻⁰⁵ |
| ENS000000142793.10 | HSPD2 | heparan sulfate proteoglycan 2 | Extracellular Space | other | | 2.76 | 3.27×10 ⁻⁴⁶ |
| ENS000000102241.11 | HATATSF1 | HIV-1 Tat specific factor 1 | Nucleus | transcription regulator | | 1.879 | 2.47×10 ⁻⁰³ |
| ENS000000086758.18 | HUWE1 | HECT, UBA and WWE domain containing E3 ubiquitin protein ligase 1 | Nucleus | transcription regulator | | 1.044 | 4.61×10 ⁻⁰³ |
| ENS00000005700.14 | IBTK | inhibitor of Brtton tyrosine kinase | Cytoplasm | other | | 1.59 | 3.81×10 ⁻⁰⁴ |
| ENS000000182054.9 | IDH2 | isocitrate dehydrogenase (NADP(+)) 2 | Cytoplasm | enzyme | enasidenib, TQB3455, HMP1 | 2.469 | 3.58×10 ⁻⁰² |
| ENS000000134049.4 | IFNGP1 | immediate early response 3 interacting protein 1 | Cytoplasm | other | | 1.734 | 3.70×10 ⁻⁰³ |
| ENS000000255733.11 | IFNG-AS1 | IFNG antisense RNA 1 | Other | other | | 3.223 | 3.27×10 ⁻⁰³ |
| ENS00000002769.12 | IFNGR1 | interferon gamma receptor 1 | Plasma Membrane | transmembrane receptor | interferon gamma-tb | 2.294 | 1.05×10 ⁻⁰² |
| ENS000000101052.13 | IFT52 | intraflagellar transport 52 | Cytoplasm | other | | 2.128 | 2.51×10 ⁻⁰³ |
| ENS000000163915.7 | IGF2BP2-AS1 | IGF2BP2 antisense RNA 1 | Other | other | | -1.427 | 3.29×10 ⁻⁰⁴ |
| ENS000000141753.6 | IGFBP4 | insulin like growth factor binding protein 4 | Extracellular Space | other | | 3.24 | 3.27×10 ⁻⁰⁴ |
| ENS000000276566.11 | IGKV1D-13 | immunoglobulin kappa variable 1D-13 | Other | other | | -3.79 | 1.49×10 ⁻⁰² |
| ENS000000113302.12 | IL2 | interleukin 2 | Extracellular Space | cytokine | ustekinumab, methotrexate | 1.51 | 3.67×10 ⁻⁰³ |
| ENS000000134352.18 | IL6ST | interleukin 6 cytokine family signal transducer | Plasma Membrane | transmembrane receptor | | 1.047 | 1.61×10 ⁻⁰² |
| ENS000000169592.14 | INOC8E | INOC8 complex subunit E | Nucleus | other | | -1.205 | 1.97×10 ⁻⁰² |
| ENS000000125629.14 | INSIG2 | insulin induced gene 2 | Cytoplasm | other | | 1.068 | 4.44×10 ⁻⁰² |
| ENS000000130518.16 | IQCN | IQ motif containing N | Cytoplasm | other | | -1.351 | 1.55×10 ⁻⁰² |
| ENS000000120945.11 | IQSEC3 | IQ motif and Sec7 domain ArfGEF 3 | Cytoplasm | other | | -1.127 | 2.84×10 ⁻⁰² |
| ENS000000091409.11 | ITGA6 | integrin subunit alpha 6 | Plasma Membrane | transmembrane receptor | | 1.712 | 3.18×10 ⁻⁰³ |
| ENS000000150093.18 | ITGB1 | integrin subunit beta 1 | Plasma Membrane | transmembrane receptor | OS2966 | 1.774 | 1.56×10 ⁻⁰³ |
| ENS000000160255.18 | ITGB2 | integrin subunit beta 2 | Plasma Membrane | transmembrane receptor | | -1.21 | 2.35×10 ⁻⁰² |
| ENS000000163207.6 | IVL | involucrin | Cytoplasm | other | | -1.605 | 4.39×10 ⁻⁰² |
| ENS000000116679.18 | IVNS1ABP | influenza virus NS1A binding protein | Nucleus | other | | 1.672 | 5.90×10 ⁻⁰⁴ |
| ENS000000162434.11 | JAK1 | Janus kinase 1 | Cytoplasm | kinase | SHR0302, solicitinib, tofacitin | 1.437 | 4.91×10 ⁻⁰³ |
| ENS000000105633.10 | JAK3 | Janus kinase 3 | Cytoplasm | kinase | tofacitinib, R-348, decernon | 1.51 | 3.87×10 ⁻⁰² |
| ENS000000235012.11 | JCADP1 | JCAD pseudogene 1 | Other | other | | -1.683 | 1.83×10 ⁻⁰² |
| ENS000000168970.20 | JMJD7-PLA2G4B | JMJD7-PLA2G4B readthrough | Cytoplasm | other | | -1.748 | 2.75×10 ⁻⁰² |
| ENS000000146049.1 | KAAG1 | kidney associated antigen 1 | Extracellular Space | other | | -2.736 | 4.43×10 ⁻⁰² |
| ENS000000274225.1 | KB_68A71 | | Other | other | | -4.33 | 4.35×10 ⁻⁰³ |
| ENS000000153922.13 | KCNJ16 | potassium inwardly rectifying channel subfamily J member 16 | Plasma Membrane | ion channel | | 1.104 | 4.79×10 ⁻⁰³ |
| ENS000000079044.10 | KCNJ22 | potassium voltage-gated channel subfamily C member 2 | Plasma Membrane | ion channel | | -1.465 | 3.93×10 ⁻⁰³ |
| ENS000000170745.11 | KCNK3 | potassium voltage-gated channel modifier subfamily S member 3 | Plasma Membrane | ion channel | | -1.374 | 1.79×10 ⁻⁰² |
| ENS000000260231.1 | KDM7A-DT | KDM7A divergent transcript | Other | other | | -1.138 | 3.11×10 ⁻⁰² |
| ENS000000189367.14 | KIAA0408 | KIAA0408 | Other | other | | -3.858 | 2.35×10 ⁻⁰² |
| ENS000000130294.14 | KIF1A | kinesin family member 1A | Cytoplasm | other | | -1.744 | 1.23×10 ⁻⁰⁴ |
| ENS000000090889.11 | KIF4A | kinesin family member 4A | Nucleus | other | | 2.8 | 1.54×10 ⁻⁰² |
| ENS000000170759.10 | KIF5B | kinesin family member 5B | Cytoplasm | other | | 1.781 | 3.29×10 ⁻⁰⁶ |
| ENS000000167633.10 | KIR3DL1 | killer cell immunoglobulin like receptor, three Ig domains and long cytoplasmic tail 1 | Plasma Membrane | transmembrane receptor | | -2.813 | 2.62×10 ⁻⁰³ |
| ENS00000003096.13 | KLHL13 | kelch like family member 13 | Cytoplasm | other | | 1.85 | 2.62×10 ⁻⁰³ |
| ENS000000167548.14 | KMT2D | lysine methyltransferase 2D | Nucleus | transcription regulator | | -1.044 | 2.23×10 ⁻⁰³ |
| ENS000000171798.11 | KNDC1 | kinase non-catalytic C-lobe domain containing 1 | Plasma Membrane | other | | -2.125 | 3.30×10 ⁻⁰² |
| ENS000000128944.13 | KNSTRN | kinetochore localized astrin (SPAG5) binding protein | Cytoplasm | other | | 1.803 | 3.91×10 ⁻⁰² |
| ENS000000205215.8 | KRT17P7 | keratin 17 pseudogene 7 | Other | other | | -3.848 | 4.28×10 ⁻⁰² |
| ENS000000215600.4 | KRT18P35 | keratin 18 pseudogene 35 | Other | other | | 3.825 | 3.87×10 ⁻⁰⁴ |
| ENS000000214514.7 | KRT14P2 | keratin 42 pseudogene | Other | other | | -1.036 | 4.86×10 ⁻⁰² |
| ENS000000170454.5 | KRT75 | keratin 75 | Cytoplasm | other | | -2.289 | 3.64×10 ⁻⁰² |
| ENS000000170423.12 | KRT78 | keratin 78 | Cytoplasm | other | | -1.172 | 4.10×10 ⁻⁰² |
| ENS000000170421.11 | KRT8 | keratin 8 | Cytoplasm | other | | -1.131 | 3.65×10 ⁻⁰² |
| ENS000000205445.3 | KRTAP10-2 | keratin associated protein 10-2 | Cytoplasm | other | | -3.945 | 2.90×10 ⁻⁰² |
| ENS000000183840.11 | KRTAP8-1 | keratin associated protein 8-1 | Cytoplasm | other | | 4.478 | 1.36×10 ⁻⁰³ |
| ENS000000126777.11 | KTN1 | kinectin 1 | Plasma Membrane | transmembrane receptor | | 1.08 | 6.16×10 ⁻⁰⁵ |
| ENS000000198945.7 | L3MBTL3 | L3MBTL histone methyl-lysine binding protein 3 | Nucleus | other | | 1.947 | 1.90×10 ⁻⁰⁴ |
| ENS000000262312.2 | LA16C_390H24 | | Other | other | | -2.19 | 4.62×10 ⁻⁰² |
| ENS000000133706.17 | LARS1 | leucyl-tRNA synthetase 1 | Cytoplasm | enzyme | | 1.516 | 1.00×10 ⁻⁰² |
| ENS000000213626.11 | LBH | LBH regulator of WNT signaling pathway | Nucleus | transcription regulator | | -1.155 | 3.10×10 ⁻⁰² |
| ENS000000198233.11 | LCOR | ligand dependent nuclear receptor corepressor | Nucleus | transcription regulator | | 1.264 | 1.98×10 ⁻⁰⁵ |
| ENS000000115850.9 | LCT | lactase | Plasma Membrane | enzyme | | -1.287 | 2.06×10 ⁻⁰² |
| ENS000000134333.13 | LDHA | lactate dehydrogenase A | Cytoplasm | enzyme | | 1.244 | 8.59×10 ⁻⁰³ |
| ENS000000111716.13 | LDHB | lactate dehydrogenase B | Cytoplasm | enzyme | | 2.782 | 2.71×10 ⁻⁰⁹ |
| ENS000000166477.12 | LEO1 | LEO1 homolog, Paf1/RNA polymerase II complex component | Nucleus | other | | 1.087 | 1.62×10 ⁻⁰² |
| ENS000000188924.14 | LETM1 | leucine zipper and EF-hand containing transmembrane protein 1 | Cytoplasm | transporter | | 2.519 | 3.29×10 ⁻⁰⁵ |
| ENS00000028866.11 | LETM2 | leucine zipper and EF-hand containing transmembrane protein 1 pseudogene 2 | Other | other | | -1.875 | 5.15×10 ⁻⁰³ |
| ENS00000010009.17 | LGALS1 | galectin 1 | Extracellular Space | other | OTX008 | 4.258 | 1.42×10 ⁻⁰⁶ |
| ENS000000205076.4 | LGALS7/LGALS7B | galectin 7 | Extracellular Space | other | | -2.335 | 5.77×10 ⁻⁰³ |
| ENS000000156959.8 | LHPFL4 | LHPFL tetraspanin subfamily member 4 | Plasma Membrane | other | | -1.298 | 2.16×10 ⁻⁰⁴ |
| ENS000000205837.7 | LINC00487 | long intergenic non-protein coding RNA 487 | Other | other | | -2.209 | 4.07×10 ⁻⁰² |
| ENS000000264575.1 | LINC00526 | long intergenic non-protein coding RNA 526 | Other | other | | -3.847 | 4.03×10 ⁻⁰² |
| ENS000000234555.1 | LINC00701 | long intergenic non-protein coding RNA 701 | Other | other | | 2.925 | 3.40×10 ⁻⁰² |
| ENS000000235040.8 | LINC00940 | long intergenic non-protein coding RNA 940 | Other | other | | -1.905 | 9.00×10 ⁻⁰⁵ |
| ENS000000235314.1 | LINC00957 | long intergenic non-protein coding RNA 957 | Other | other | | -1.866 | 1.11×10 ⁻⁰³ |
| ENS000000244041.7 | LINC01011 | long intergenic non-protein coding RNA 1011 | Other | other | | 1.207 | 3.57×10 ⁻⁰² |
| ENS000000237094.1 | LINC01347 (includes others) | long intergenic non-protein coding RNA 1347 | Other | other | | -1.094 | 2.33×10 ⁻⁰² |
| ENS000000183250.11 | LINC01547 | long intergenic non-protein coding RNA 1547 | Cytoplasm | other | | -3.127 | 4.90×10 ⁻⁰² |
| ENS000000198741.5 | LINC01580 | long intergenic non-protein coding RNA 1580 | Other | other | | 1.872 | 3.37×10 ⁻⁰² |
| ENS000000280350.1 | LINC01726 | long intergenic non-protein coding RNA 1726 | Other | other | | 4.84 | 1.49×10 ⁻⁰⁵ |
| ENS000000267452.1 | LINC02073 | long intergenic non-protein coding RNA 2073 | Other | other | | -1.584 | 4.12×10 ⁻⁰² |
| ENS000000248132.2 | LINC02101 | long intergenic non-protein coding RNA 2101 | Other | other | | 4.417 | 8.14×10 ⁻⁰³ |
| ENS000000250387.2 | LINC02197 | long intergenic non-protein coding RNA 2197 | Other | other | | 1.305 | 7.11×10 ⁻⁰³ |
| ENS000000282012.1 | L22NC03-N95F10.1 | | Other | other | | 5.718 | 1.60×10 ⁻⁰³ |
| ENS000000282416.1 | LLNL1F-173C4.2 | | Other | other | | -3.936 | 2.14×10 ⁻⁰² |
| ENS00000013994.11 | LTM1B | LM homeobox transcription factor 1 beta | Nucleus | transcription regulator | | -1.333 | 2.36×10 ⁻⁰² |
| ENS000000230000.2 | LOC10028770 | | | | | | |

| | | | | | | | |
|--------------------|------------|---|---------------------|----------------------------|------------------------------|--------|------------------------|
| ENSG00000162972.10 | MAIP1 | matrix AAA peptidase interacting protein 1 | Cytoplasm | other | | 3.704 | 6.35x10 ⁻⁰⁴ |
| ENSG00000117643.14 | MAINTC1 | mannosidase alpha class 1C member 1 | Cytoplasm | enzyme | | -1.06 | 2.01x10 ⁻⁰² |
| ENSG00000140941.14 | MAJL1 | microtubule associated protein 1 light chain 3 beta | Cytoplasm | other | | 1.854 | 1.65x10 ⁻⁰³ |
| ENSG00000099159.2 | MAP1A | mitogen-activated protein kinase kinase 3 | Cytoplasm | kinase | SM1-71, E 6201 | 1.036 | 2.33x10 ⁻⁰² |
| ENSG00000130758.7 | MAP3K10 | mitogen-activated protein kinase kinase kinase 10 | Cytoplasm | kinase | | -3.62 | 2.64x10 ⁻⁰² |
| ENSG00000060623.13 | MAP3K14 | mitogen-activated protein kinase kinase kinase 14 | Cytoplasm | kinase | | -2.508 | 3.40x10 ⁻⁰² |
| ENSG00000135341.17 | MAP3K7 | mitogen-activated protein kinase kinase kinase 7 | Cytoplasm | kinase | takinib | 1.472 | 3.78x10 ⁻⁰² |
| ENSG00000215179.5 | MAPK6P4 | mitogen-activated protein kinase 6 pseudogene 4 | Other | other | | 1.263 | 1.32x10 ⁻⁰² |
| ENSG00000107943.18 | MAPK8 | mitogen-activated protein kinase 8 | Cytoplasm | kinase | JNK-IN-8, cobimetinib/encor | 1.066 | 2.74x10 ⁻⁰² |
| ENSG00000098735.13 | MAPK8BP2 | mitogen-activated protein kinase 8 interacting protein 2 | Cytoplasm | other | | -1.231 | 2.3x10 ⁻⁰² |
| ENSG00000138834.12 | MAPK8BP3 | mitogen-activated protein kinase 8 interacting protein 3 | Cytoplasm | other | | -1.324 | 9.52x10 ⁻⁰³ |
| ENSG00000175130.6 | MARCKSL1 | MARCKS like 1 | Cytoplasm | other | | 1.291 | 1.21x10 ⁻⁰² |
| ENSG00000162510.5 | MATN1 | matrin 1 | Extracellular Space | other | | -1.469 | 1.88x10 ⁻⁰² |
| ENSG0000015479.17 | MATR3 | matrin 3 | Nucleus | other | | 1.5 | 1.12x10 ⁻⁰⁵ |
| ENSG00000103495.13 | MAZ | MYC associated zinc finger protein | Nucleus | transcription regulator | | 6.034 | 3.50x10 ⁻¹⁴ |
| ENSG00000071655.11 | MBD3 | methyl-CpG binding domain protein 3 | Nucleus | other | | -2.111 | 4.47x10 ⁻⁰⁸ |
| ENSG00000129071.9 | MBD4 | methyl-CpG binding domain 4, DNA glycosylase | Nucleus | enzyme | | 1.584 | 4.57x10 ⁻⁰² |
| ENSG00000229619.3 | MBNL1-AS1 | MBNL1 antisense RNA 1 | Other | other | | 1.31 | 1.71x10 ⁻⁰⁷ |
| ENSG00000076770.14 | MBNL3 | muscleblind like splicing regulator 3 | Nucleus | other | | 1.172 | 3.57x10 ⁻⁰² |
| ENSG0000012174.11 | MBTPS2 | membrane bound transcription factor peptidase, site 2 | Cytoplasm | peptidase | | 1.336 | 4.48x10 ⁻⁰² |
| ENSG00000076003.4 | MCM6 | minichromosome maintenance complex component 6 | Nucleus | enzyme | | 1.78 | 3.51x10 ⁻⁰² |
| ENSG00000178460.11 | MCMDC2 | minichromosome maintenance domain containing 2 | Other | other | | 1.199 | 1.72x10 ⁻⁰² |
| ENSG0000005833.8 | ME1 | malic enzyme 1 | Cytoplasm | enzyme | | 2.005 | 1.47x10 ⁻⁰² |
| ENSG00000108510.9 | MED13 | mediator complex subunit 13 | Nucleus | transcription regulator | | 1.084 | 2.85x10 ⁻⁰² |
| ENSG00000180182.10 | MED14 | mediator complex subunit 14 | Nucleus | transcription regulator | | 1.885 | 3.43x10 ⁻⁰⁴ |
| ENSG00000229431.1 | MED8-AS1 | MEI8 antisense RNA 1 | Other | other | | 1.596 | 4.77x10 ⁻⁰² |
| ENSG00000068305.17 | MEF2A | myocyte enhancer factor 2A | Nucleus | transcription regulator | | 1.271 | 2.93x10 ⁻⁰² |
| ENSG00000105428.13 | MEGF8 | multiple EGF like domains 8 | Extracellular Space | other | | -2.208 | 2.50x10 ⁻⁰⁵ |
| ENSG00000197899.9 | MEIS1 | meiosis/spermatogenesis associated 1 | Nucleus | other | | -3.810 | 2.58x10 ⁻⁰² |
| ENSG00000164024.11 | METAP1 | methionyl aminopeptidase 1 | Cytoplasm | peptidase | | 1.511 | 2.73x10 ⁻⁰² |
| ENSG00000111412.13 | METAP2 | methionyl aminopeptidase 2 | Cytoplasm | peptidase | M8891, nitroloxine, beloroni | 1.53 | 4.29x10 ⁻⁰⁵ |
| ENSG00000103260.8 | METRN | metenonin, glial cell differentiation regulator | Extracellular Space | other | | 1.627 | 5.48x10 ⁻⁰⁷ |
| ENSG00000254726.2 | MEX3A | mex-3 RNA binding family member A | Cytoplasm | other | | -1.153 | 1.35x10 ⁻⁰² |
| ENSG00000111341.9 | MGP | matrix Gla protein | Extracellular Space | other | | 1.353 | 3.10x10 ⁻⁰² |
| ENSG00000081857.6 | MIA | MIA SH3 domain containing | Extracellular Space | other | | 2.794 | 3.3x10 ⁻⁰² |
| ENSG00000240972.1 | MIF | macrophage migration inhibitory factor | Extracellular Space | cytokine | imalumab | 1.774 | 2.66x10 ⁻⁰² |
| ENSG00000233006.6 | MIR3936HG | MIR3936 host gene | Other | other | | 2.138 | 3.75x10 ⁻⁰² |
| ENSG00000224414.5 | MIR548XHG | MIR548X host gene | Other | other | | 3.761 | 3.40x10 ⁻¹³ |
| ENSG00000227195.8 | MIR663AHG | MIR663A host gene | Other | other | | 2.507 | 5.87x10 ⁻⁰⁷ |
| ENSG00000196914.4 | MMP1 | matrix metalloproteinase 1 | Extracellular Space | peptidase | retinastat, marinastat | 4.395 | 1.75x10 ⁻¹⁴ |
| ENSG00000087240.1 | MMP2 | matrix metalloproteinase 2 | Extracellular Space | peptidase | prinomastat, retinastat, mar | 3.891 | 1.21x10 ⁻⁰² |
| ENSG00000166391.14 | MOGAT2 | monacylglycerol O-acyltransferase 2 | Cytoplasm | enzyme | | -1.452 | 6.00x10 ⁻⁰³ |
| ENSG00000123562.18 | MORF4L2 | mortality factor 4 like 2 | Nucleus | other | | 3.119 | 7.80x10 ⁻⁰⁵ |
| ENSG00000172938.3 | MRGPRD | MAS related GPR family member D | Plasma Membrane | G-protein coupled receptor | | -3.646 | 2.37x10 ⁻⁰² |
| ENSG00000182170.3 | MRGPRG | MAS related GPR family member G | Plasma Membrane | G-protein coupled receptor | | -3.718 | 3.08x10 ⁻⁰² |
| ENSG00000254529.1 | MRGPRX7P | MAS related GPR family member X7, pseudogene | Other | other | | -1.59 | 1.70x10 ⁻⁰² |
| ENSG00000169285.11 | MRL1 | mitochondrial ribosomal protein L1 | Cytoplasm | other | | 3.59 | 3.38x10 ⁻⁰³ |
| ENSG00000172172.7 | MRL13 | mitochondrial ribosomal protein L13 | Cytoplasm | other | | 1.54 | 2.41x10 ⁻⁰² |
| ENSG00000112110.9 | MRLP18 | mitochondrial ribosomal protein L18 | Cytoplasm | translation regulator | | 2.081 | 1.15x10 ⁻⁰² |
| ENSG00000224870.6 | MRLP20-AS1 | MRLP20 antisense RNA 1 | Other | other | | -2.664 | 2.23x10 ⁻⁰² |
| ENSG00000005302.17 | MSL3 | MSL complex subunit 3 | Nucleus | transcription regulator | | 1.934 | 8.43x10 ⁻⁰⁶ |
| ENSG00000147065.18 | MSN | moesin | Plasma Membrane | other | | 2.196 | 8.56x10 ⁻¹⁷ |
| ENSG00000168341.1 | MSN1 | MSN1 mitochondrial translational activator | Other | other | | 1.694 | 1.99x10 ⁻⁰² |
| ENSG00000198727.2 | MT-CYB | cytochrome b | Cytoplasm | enzyme | atovaquone, atovaquone/pro | -1.169 | 4.28x10 ⁻⁰⁸ |
| ENSG00000198763.3 | MT-ND2 | NADH dehydrogenase subunit 2 | Cytoplasm | enzyme | | -1.38 | 1.14x10 ⁻¹⁰ |
| ENSG00000211459.2 | MT-RNR1 | s-rRNA | Cytoplasm | other | | 3.74 | 3.49x10 ⁻³⁵ |
| ENSG00000210082.2 | MT-RNR2 | l-rRNA | Cytoplasm | other | | 1.783 | 2.35x10 ⁻⁰⁵ |
| ENSG00000210194.1 | MT-TE | IRNA | Cytoplasm | other | | 3.327 | 2.21x10 ⁻⁰⁴ |
| ENSG00000210071.1 | MT-TE1 | IRNA | Cytoplasm | other | | 1.217 | 3.75x10 ⁻⁰³ |
| ENSG00000169715.14 | MT1E | metallothionein 1E | Other | other | | 4.15 | 4.07x10 ⁻⁰⁵ |
| ENSG00000125148.6 | MT2A | metallothionein 2A | Cytoplasm | other | | 3.788 | 1.54x10 ⁻²⁴ |
| ENSG00000248527.1 | MTATP6P1 | MT-ATP6 pseudogene 1 | Other | other | | -1.096 | 4.43x10 ⁻⁰⁷ |
| ENSG00000172167.7 | MTBP | MDM2 binding protein | Cytoplasm | other | | 1.397 | 1.13x10 ⁻⁰² |
| ENSG00000229090.1 | MTCO3P30 | | Other | other | | 3.485 | 1.62x10 ⁻⁰² |
| ENSG00000228579.1 | MTCO3P31 | | Other | other | | 2.069 | 2.38x10 ⁻⁰² |
| ENSG00000228414.1 | MTCYBP38 | | Other | other | | 2.074 | 1.41x10 ⁻⁰² |
| ENSG00000063601.18 | MTMR1 | myotubularin related protein 1 | Cytoplasm | phosphatase | | 1.782 | 8.38x10 ⁻⁰⁴ |
| ENSG00000227225.1 | MTND1P14 | MT-ND1 pseudogene 14 | Other | other | | 1.507 | 4.65x10 ⁻⁰² |
| ENSG00000264168.1 | MTND1P15 | MT-ND1 pseudogene 15 | Other | other | | 2.04 | 8.24x10 ⁻⁰³ |
| ENSG00000243658.1 | MTND5P16 | MT-ND5 pseudogene 16 | Other | other | | 1.84 | 8.34x10 ⁻⁰³ |
| ENSG00000261904.1 | MTND5P33 | MT-ND5 pseudogene 33 | Other | other | | 1.217 | 3.06x10 ⁻⁰² |
| ENSG00000259425.2 | MTRNR2L10 | MT-RNR2 like 10 | Other | other | | 2.85 | 3.38x10 ⁻⁰³ |
| ENSG00000269028.3 | MTRNR2L12 | MT-RNR2 like 12 | Other | other | | 1.745 | 3.80x10 ⁻⁰² |
| ENSG00000258823.2 | MTRNR2L8 | MT-RNR2 like 8 | Other | other | | 1.812 | 4.82x10 ⁻⁰² |
| ENSG00000170873.18 | MTSS1 | MTSS1-BAR domain containing 1 | Cytoplasm | other | | 1.865 | 3.34x10 ⁻⁰⁷ |
| ENSG00000129422.13 | MTUS1 | microtubule associated scaffold protein 1 | Extracellular Space | other | | 1.016 | 1.94x10 ⁻⁰³ |
| ENSG00000198788.8 | MUC2 | mucin 2, oligomeric mucin/gel-forming | Extracellular Space | other | | -1.498 | 1.63x10 ⁻⁰⁷ |
| ENSG00000213347.1 | MXD3 | MAX dimerization protein 3 | Nucleus | transcription regulator | | -2.099 | 1.84x10 ⁻⁰² |
| ENSG00000105357.18 | MYH14 | myosin heavy chain 14 | Extracellular Space | enzyme | | -1.193 | 4.89x10 ⁻⁰⁴ |
| ENSG00000100345.20 | MYH9 | myosin heavy chain 9 | Cytoplasm | enzyme | | 1.451 | 5.51x10 ⁻¹¹ |
| ENSG00000101608.12 | MYL12A | myosin light chain 12A | Cytoplasm | other | | 1.766 | 2.47x10 ⁻⁰⁵ |
| ENSG00000118690.13 | MYL12B | myosin light chain 12B | Cytoplasm | other | | 2.6 | 3.93x10 ⁻⁰⁷ |
| ENSG00000089284.18 | MYL6 | myosin light chain 6 | Cytoplasm | enzyme | | 1.232 | 4.82x10 ⁻⁰⁶ |
| ENSG00000101335.9 | MYL9 | myosin light chain 9 | Cytoplasm | other | | 1.89 | 1.42x10 ⁻⁰² |
| ENSG00000145949.9 | MYLK4 | myosin light chain kinase family member 4 | Cytoplasm | kinase | | 1.095 | 2.76x10 ⁻⁰² |
| ENSG00000137474.18 | MYO7A | myosin VIIA | Cytoplasm | enzyme | | -1.486 | 2.33x10 ⁻⁰² |
| ENSG00000196132.11 | MYT1 | myelin transcription factor 1 | Nucleus | transcription regulator | | -1.006 | 2.81x10 ⁻⁰² |
| ENSG00000244754.8 | N4BP2L2 | NEDD4 binding protein 2 like 2 | Nucleus | transcription regulator | | 3.189 | 2.31x10 ⁻⁴⁵ |
| ENSG00000152620.13 | NADK2 | NAD kinase 2, mitochondrial | Cytoplasm | kinase | | 1.737 | 4.03x10 ⁻⁰² |
| ENSG00000105835.11 | NADK3P1 | nicotinamide phosphoribosyltransferase | Extracellular Space | cytokine | | 1.11 | 1.84x10 ⁻⁰² |
| ENSG00000187109.13 | NAP1L1 | nucleosome assembly protein 1 like 1 | Nucleus | other | daporinad, KPT-9274 | 1.82 | 4.38x10 ⁻¹⁶ |
| ENSG00000204272.10 | NBNBY | negative regulator of P-body association | Other | other | | 5.23 | 1.41x10 ⁻⁰³ |
| ENSG00000104320.13 | NBN | nibrin | Nucleus | other | | 1.241 | 3.93x10 ⁻⁰² |
| ENSG00000115053.18 | NCL | nucleolin | Nucleus | other | AGRO 100 | 1.792 | 4.24x10 ⁻²⁰ |
| ENSG00000196498.13 | NCOA2 | nuclear receptor corepressor 2 | Nucleus | transcription regulator | | 1.905 | 2.16x10 ⁻¹⁷ |
| ENSG00000107130.11 | NCS1 | neuronal calcium sensor 1 | Plasma Membrane | other | | -1.518 | 1.91x10 ⁻⁰² |
| ENSG00000174886.13 | NDUFA11 | NADH:ubiquinone oxidoreductase subunit A11 | Cytoplasm | enzyme | | -1.588 | 4.00x10 ⁻⁰² |
| ENSG00000168653.10 | NDUFS5 | NADH:ubiquinone oxidoreductase subunit S5 | Cytoplasm | enzyme | | 2.431 | 5.46x10 ⁻⁰⁴ |
| ENSG00000100285.9 | NEFH | neurofilament heavy | Cytoplasm | other | | -1.297 | 2.93x10 ⁻⁰³ |
| ENSG00000223489.1 | NEFHBP1 | neurofilament heavy pseudogene 1 | Other | other | | -1.147 | 7.35x10 ⁻⁰³ |
| ENSG00000173848.18 | NETE1 | neuroepithelial cell transforming 1 | Nucleus | other | | 1.077 | 2.07x10 ⁻⁰² |
| ENSG00000204999.11 | NEU4 | neuraminidase 4 | Cytoplasm | enzyme | | -2.242 | 2.19x10 ⁻⁰² |
| ENSG00000185158.15 | NHS | NHS actin remodeling regulator | Nucleus | other | | 1.563 | 1.25x10 ⁻⁰⁶ |
| ENSG0000010322.13 | NISCH | nischarin | Plasma Membrane | other | moxonidine, agmatine | -1.333 | 3.25x10 ⁻⁰³ |
| ENSG00000179846.8 | NKPD1 | NTase/Pase family P-loop domain containing 1 | Other | other | | -2.038 | 1.80x10 ⁻⁰² |
| ENSG00000183072.9 | NKX2-5 | NK2 homeobox 5 | Nucleus | transcription regulator | | 2.17 | 5.36x10 ⁻⁰⁴ |
| ENSG00000148826.8 | NKX6-2 | NK6 homeobox 2 | Nucleus | transcription regulator | | -2.806 | 4.05x10 ⁻⁰² |
| ENSG00000259167.2 | NNUMAT1P1 | NNMAT1 pseudogene 1 | Other | other | | 2.608 | 4.77x10 ⁻⁰² |
| ENSG00000147140.18 | NONO | non-POL domain containing octamer binding | Nucleus | transcription regulator | | 1.93 | 3.69x10 ⁻⁰⁸ |
| ENSG00000149308.18 | NPAT | nuclear protein, coactivator of histone transcription | Nucleus | transcription regulator | | 1.169 | 3.86x10 ⁻⁰² |
| ENSG00000196796.5 | NPIPBP10P | nuclear pore complex interacting protein family, member B10, pseudogene | Other | other | | -4.275 | 5.19x10 ⁻⁰³ |
| ENSG00000181163.13 | NPM1 | nucleophosmin 1 | Nucleus | transcription regulator | | 3.071 | 1.87x10 ⁻³⁶ |
| ENSG00000221890.2 | NPTXR | neuronal pentraxin receptor | Plasma Membrane | transmembrane receptor | | -2.258 | 3.67x10 ⁻⁰⁴ |
| ENSG00000137494.14 | NRM | numrin | Nucleus | other | | 1.686 | 4.79x10 ⁻⁰² |
| ENSG00000110075.11 | NRXN2 | neurexin 2 | Plasma Membrane | transporter | | -1.591 | 1.35x10 ⁻⁰⁴ |
| ENSG00000223705.9 | NSUN5P1 | NSUN5 pseudogene 1 | Other | other | | -1.092 | 1.47x10 ⁻⁰² |
| ENSG00000256355.1 | NTAN1P3 | N-terminal asparagine amidase pseudogene 3 | Other | other | | 3.489 | 2.40x10 ⁻⁰² |
| ENSG00000069275.12 | NUCKS1 | nuclear casein kinase and cyclin dependent kinase substrate 1 | Nucleus | kinase | | 1.152 | 3.07x10 ⁻⁰⁴ |
| ENSG00000196368.4 | | | | | | | |

| | | | | | | | |
|--------------------|------------|---|---------------------|----------------------------|-------------------------|------------------------|------------------------|
| ENSG0000025490.1 | ORSM7P | olfactory receptor family 5 subfamily M member 7 pseudogene | Other | other | 1.751 | 4.23x10 ⁻⁰² | |
| ENSG00000186513.2 | O9R502 | olfactory receptor family 9 subfamily Q member 2 | Plasma Membrane | G-protein coupled receptor | -3.434 | 4.20x10 ⁻⁰² | |
| ENSG0000000622.1 | OBSPL | oxysterol binding protein like 7 | Cytoplasm | other | -1.4 | 4.06x10 ⁻⁰² | |
| ENSG00000198956.0 | OSTC7 | oligosaccharyltransferase complex non-catalytic subunit | Cytoplasm | enzyme | 2.222 | 3.33x10 ⁻⁰² | |
| ENSG00000189401.2 | OTUD6A | OTU deubiquitinase 6A | Other | peptidase | 2.146 | 4.70x10 ⁻⁰² | |
| ENSG00000198754.5 | OXCT2 | 3-oxoacid CoA-transferase 2 | Cytoplasm | enzyme | -4.262 | 6.57x10 ⁻⁰³ | |
| ENSG00000164830.1 | OXR1 | oxidation resistance 1 | Cytoplasm | enzyme | 1.022 | 2.61x10 ⁻⁰² | |
| ENSG00000185624.14 | P4H8E | prolyl 4-hydroxylase subunit beta | Cytoplasm | enzyme | 2.39 | 4.72x10 ⁻⁰² | |
| ENSG00000070756.13 | PABP1 | poly(A) binding protein cytoplasmic 1 | Cytoplasm | translation regulator | 2.637 | 2.61x10 ⁻⁰³ | |
| ENSG00000229638.1 | PABPC1P12 | poly(A) binding protein cytoplasmic 1 pseudogene 12 | Other | other | 1.131 | 1.41x10 ⁻⁰² | |
| ENSG00000250651.1 | PABPC1P7 | poly(A) binding protein cytoplasmic 1 pseudogene 7 | Other | other | 2.22 | 3.59x10 ⁻⁰² | |
| ENSG00000228755.1 | PABPC1P8 | poly(A) binding protein cytoplasmic 1 pseudogene 8 | Other | other | -1.378 | 4.56x10 ⁻⁰² | |
| ENSG00000124507.1 | PACSN1 | protein kinase C and casein kinase substrate in neurons 1 | Cytoplasm | kinase | -1.534 | 1.89x10 ⁻⁰² | |
| ENSG00000223973.2 | PAFAH1B1P2 | platelet activating factor acetylhydrolase 1b regulatory subunit 1 pseudogene 2 | Other | other | -3.341 | 4.89x10 ⁻⁰² | |
| ENSG00000168092.1 | PAFAH1B2 | platelet activating factor acetylhydrolase 1b catalytic subunit 2 | Cytoplasm | enzyme | 1.14 | 2.95x10 ⁻⁰³ | |
| ENSG00000107719.8 | PALD1 | phosphatase domain containing paladin 1 | Other | phosphatase | -2.073 | 4.34x10 ⁻⁰² | |
| ENSG00000187867.8 | PALM3 | paralemnin 3 | Other | other | -1.296 | 5.84x10 ⁻⁰⁶ | |
| ENSG00000115421.1 | PAPOLG | poly(A) polymerase gamma | Nucleus | enzyme | 1.166 | 3.72x10 ⁻⁰² | |
| ENSG0000025743.1 | PARK7P1 | PARK7 pseudogene 1 | Other | other | 3.067 | 1.42x10 ⁻⁰² | |
| ENSG00000197111.1 | PCBP2 | poly(C) binding protein 2 | Nucleus | other | 1.702 | 8.62x10 ⁻⁰⁸ | |
| ENSG00000102290.2 | PCDH11X | protocadherin 11 X-linked | Plasma Membrane | other | 1.333 | 3.66x10 ⁻⁰³ | |
| ENSG00000099715.14 | PCDH11Y | protocadherin 11 Y-linked | Other | other | -2.161 | 1.73x10 ⁻⁰² | |
| ENSG00000113212.6 | PCDH87 | protocadherin beta 7 | Plasma Membrane | other | 1.245 | 8.39x10 ⁻⁰⁵ | |
| ENSG00000120322.3 | PCDH88 | protocadherin beta 8 | Plasma Membrane | other | 1.608 | 8.72x10 ⁻⁰⁷ | |
| ENSG00000168300.1 | PCMTD1 | protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 1 | Cytoplasm | enzyme | 1.363 | 1.27x10 ⁻⁰² | |
| ENSG00000155660.1 | PDI4A | protein disulfide isomerase family A member 4 | Cytoplasm | enzyme | 1.911 | 6.55x10 ⁻⁰³ | |
| ENSG00000172367.1 | PDZD3 | PDZ domain containing 3 | Plasma Membrane | transporter | -1.822 | 2.78x10 ⁻⁰³ | |
| ENSG0000028137.1 | PECAM1 | platelet and endothelial cell adhesion molecule 1 | Plasma Membrane | other | 1.307 | 3.29x10 ⁻⁰⁵ | |
| ENSG00000282164.1 | PEG13 | paternally expressed 13 | Other | other | -1.135 | 1.80x10 ⁻⁰² | |
| ENSG00000197329.1 | PELI1 | pellino E3 ubiquitin protein ligase 1 | Cytoplasm | enzyme | 1.195 | 2.78x10 ⁻⁰² | |
| ENSG00000179094.1 | PER1 | period circadian regulator 1 | Nucleus | transcription regulator | avibactam | -1.409 | 1.80x10 ⁻⁰² |
| ENSG00000248191.1 | PES1P1 | periscadillo ribosomal biogenesis factor 1 pseudogene 1 | Other | other | -1.725 | 2.80x10 ⁻⁰³ | |
| ENSG00000139197.1 | PEX5 | peroxisomal biogenesis factor 5 | Cytoplasm | other | -1.865 | 2.03x10 ⁻⁰² | |
| ENSG00000178922.1 | PFAS5 | phosphoribosylformylglycinamide synthase | Cytoplasm | enzyme | -1.789 | 2.04x10 ⁻⁰² | |
| ENSG00000123340.1 | PFDN5 | protein subunit 5 | Nucleus | transcription regulator | 1.14 | 1.71x10 ⁻⁰³ | |
| ENSG00000102144.1 | PGK1 | phosphoglycerate kinase 1 | Cytoplasm | kinase | 1.743 | 3.17x10 ⁻⁰⁵ | |
| ENSG00000164902.1 | PHAX | phosphorylated adaptor for RNA export | Cytoplasm | other | 1.285 | 1.60x10 ⁻⁰² | |
| ENSG00000122733.1 | PHF24 | PHD finger protein 24 | Other | other | -1.362 | 3.91x10 ⁻⁰² | |
| ENSG00000143395.1 | PI4KB | phosphatidylinositol 4-kinase beta | Cytoplasm | kinase | -1.189 | 1.79x10 ⁻⁰² | |
| ENSG00000073922.1 | PICALM | phosphatidylinositol binding clathrin assembly protein | Cytoplasm | other | 2.941 | 9.84x10 ⁻⁰³ | |
| ENSG00000165195.1 | PIC1A | phosphatidylinositol glycan anchor biosynthesis class A | Cytoplasm | enzyme | 1.361 | 4.73x10 ⁻⁰² | |
| ENSG00000051382.8 | PIK3CB | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta | Cytoplasm | kinase | TXG-221, AZD8186, GNE-4 | 1.553 | 1.28x10 ⁻⁰³ |
| ENSG00000141506.1 | PIK3R5 | phosphoinositide-3-kinase regulatory subunit 5 | Cytoplasm | kinase | -1.688 | 2.59x10 ⁻⁰³ | |
| ENSG00000102309.1 | PI4N4 | peptidylprolyl cis/trans isomerase, NIMA-interacting 4 | Nucleus | enzyme | 1.375 | 3.78x10 ⁻⁰² | |
| ENSG00000198961.9 | PJA2 | praja ring finger ubiquitin ligase 2 | Cytoplasm | enzyme | 2.006 | 4.87x10 ⁻⁰³ | |
| ENSG00000165495.1 | PBXKNOX2 | PBX/knotted 1 homeobox 2 | Nucleus | transcription regulator | -1.059 | 1.75x10 ⁻⁰³ | |
| ENSG00000153245.1 | PKAZ2 | phospholipase A2 receptor 1 | Plasma Membrane | transmembrane receptor | 1.316 | 4.47x10 ⁻⁰² | |
| ENSG00000196155.1 | PLEKHG4 | pleckstrin homology and RhoGEF domain containing G4 | Cytoplasm | other | -2.033 | 3.70x10 ⁻⁰² | |
| ENSG00000102007.1 | PLP2 | proteolipid protein 2 | Cytoplasm | transporter | 2.426 | 1.54x10 ⁻⁰² | |
| ENSG00000102024.1 | PLS3 | plastin 3 | Cytoplasm | other | 1.995 | 2.11x10 ⁻⁰³ | |
| ENSG00000141682.1 | PMAIP1 | phorbol-12-myristate-13-acetate-induced protein 1 | Cytoplasm | other | 1.985 | 2.72x10 ⁻⁰² | |
| ENSG00000147669.1 | POLR2K | RNA polymerase II, I and III subunit K | Nucleus | enzyme | 2.882 | 5.46x10 ⁻⁰³ | |
| ENSG00000205571.1 | POM121B | POM121 transmembrane nucleoporin B (pseudogene) | Other | other | -3.789 | 2.41x10 ⁻⁰² | |
| ENSG00000221900.5 | POM121L1 | POM121 transmembrane nucleoporin like 12 | Other | other | 4.535 | 2.27x10 ⁻⁷⁶ | |
| ENSG000002239511.2 | POM121L7P | POM121 transmembrane nucleoporin like 7 pseudogene | Other | other | -3.866 | 2.73x10 ⁻⁰² | |
| ENSG00000236870.2 | POMPP1 | POMP pseudogene 1 | Other | other | 5.632 | 1.89x10 ⁻⁰³ | |
| ENSG00000177380.1 | PPPIA3 | PTPRF interacting protein alpha 3 | Plasma Membrane | phosphatase | -1.09 | 3.97x10 ⁻⁰² | |
| ENSG00000196262.1 | PPPIA | peptidylprolyl isomerase A | Cytoplasm | enzyme | 1.607 | 4.28x10 ⁻⁰² | |
| ENSG00000228971.1 | PPP1P5 | peptidylprolyl isomerase A pseudogene 55 | Other | other | 1.874 | 2.73x10 ⁻⁰² | |
| ENSG00000168781.2 | PPP1P5K1 | diphosphoinositide pentakisphosphate kinase 1 | Nucleus | phosphatase | -1.141 | 2.71x10 ⁻⁰² | |
| ENSG00000087074.7 | PPP1R15A | protein phosphatase 1 regulatory subunit 15A | Cytoplasm | other | -1.006 | 2.74x10 ⁻⁰² | |
| ENSG00000131771.1 | PPP1R1B | protein phosphatase 1 regulatory inhibitor subunit 1B | Cytoplasm | phosphatase | -1.459 | 1.94x10 ⁻⁰² | |
| ENSG00000273643.1 | PPP1R26P2 | protein phosphatase 1 regulatory subunit 26 pseudogene 2 | Other | other | -1.799 | 9.84x10 ⁻⁰² | |
| ENSG00000104866.1 | PPP1R37 | protein phosphatase 1 regulatory subunit 37 | Other | other | -1.2 | 3.36x10 ⁻⁰² | |
| ENSG00000113571.1 | PPP2R1A | protein phosphatase 2 catalytic subunit alpha | Cytoplasm | phosphatase | 1.963 | 1.93x10 ⁻⁰² | |
| ENSG00000175470.1 | PPP2R2D | protein phosphatase 2 regulatory subunit Bdelta | Nucleus | other | -1.207 | 2.47x10 ⁻⁰⁵ | |
| ENSG00000224960.3 | PPP4R3C | protein phosphatase 4 regulatory subunit 3C | Other | other | 1.903 | 4.24x10 ⁻⁰² | |
| ENSG00000105063.1 | PPP6R1 | protein phosphatase 6 regulatory subunit 1 | Cytoplasm | other | -1.703 | 8.75x10 ⁻⁰³ | |
| ENSG00000142611.1 | PRSET16 | PR/SET domain 16 | Nucleus | transcription regulator | -1.462 | 1.32x10 ⁻⁰² | |
| ENSG00000117450.1 | PRDX1 | peroxiredoxin 1 | Cytoplasm | enzyme | 2.863 | 1.59x10 ⁻⁰² | |
| ENSG00000126432.1 | PRDX5 | peroxiredoxin 5 | Cytoplasm | enzyme | 2.482 | 1.63x10 ⁻⁰³ | |
| ENSG00000052413 | PRKAR2B | protein kinase cAMP-dependent type II regulatory subunit beta | Cytoplasm | kinase | 3.234 | 1.15x10 ⁻⁰⁷ | |
| ENSG00000115825.9 | PRKQ3 | protein kinase D3 | Nucleus | kinase | SM1-71, kb-NB 142-70 | 1.168 | 9.70x10 ⁻⁰⁴ |
| ENSG00000155066.1 | PROM2 | prominin 2 | Plasma Membrane | transmembrane receptor | -1.133 | 2.06x10 ⁻⁰² | |
| ENSG00000196504.1 | PRPF40A | pre-mRNA processing factor 40 homolog A | Nucleus | other | 1.41 | 3.30x10 ⁻⁰⁴ | |
| ENSG00000135406.1 | PRPH | peripherin | Plasma Membrane | other | -3.318 | 2.65x10 ⁻⁰² | |
| ENSG00000163246.1 | PRR36 | proline rich 36 | Other | other | -1.145 | 2.45x10 ⁻⁰² | |
| ENSG00000130032.1 | PRR38 | proline rich and G1a domain 3 | Plasma Membrane | other | 1.172 | 1.43x10 ⁻⁰⁴ | |
| ENSG00000188086.1 | PRSS45P | serine protease 45, pseudogene | Other | peptidase | -3.235 | 9.35x10 ⁻⁰³ | |
| ENSG00000101182.1 | PSMA7 | proteasome 20S subunit alpha 7 | Cytoplasm | peptidase | 2.288 | 7.84x10 ⁻⁰³ | |
| ENSG00000161057.1 | PSMC2 | proteasome 26S subunit, ATPase 2 | Nucleus | peptidase | 1.944 | 1.16x10 ⁻⁰³ | |
| ENSG00000095261.1 | PSMD5 | proteasome 26S subunit, non-ATPase 5 | Cytoplasm | other | 1.601 | 1.49x10 ⁻⁰² | |
| ENSG00000103035.1 | PSM7D | proteasome 26S subunit, non-ATPase 7 | Cytoplasm | other | 2.078 | 1.05x10 ⁻⁰² | |
| ENSG00000128781.1 | PSMC9 | proteasome assembly chaperone 2 | Nucleus | other | 2.121 | 2.18x10 ⁻⁰⁵ | |
| ENSG00000187514.1 | PTMA | prothymosin alpha | Nucleus | other | 1.77 | 5.42x10 ⁻¹⁴ | |
| ENSG00000104960.1 | PTOV1 | PTOV1 extended AT-hook containing adaptor protein | Nucleus | other | -2.531 | 1.47x10 ⁻⁰² | |
| ENSG00000112245.9 | PTPA41 | protein tyrosine phosphatase 4A1 | Cytoplasm | phosphatase | 1.386 | 2.12x10 ⁻⁰² | |
| ENSG00000184007.1 | PTPA42 | protein tyrosine phosphatase 4A2 | Cytoplasm | phosphatase | 1.506 | 1.29x10 ⁻⁰⁴ | |
| ENSG00000179295.1 | PTPN11 | protein tyrosine phosphatase non-receptor type 11 | Cytoplasm | phosphatase | 1.751 | 2.40x10 ⁻⁰⁷ | |
| ENSG00000134242.1 | PTPN22 | protein tyrosine phosphatase non-receptor type 22 | Cytoplasm | phosphatase | 2.686 | 8.95x10 ⁻⁰³ | |
| ENSG00000054356.1 | PTPRN | protein tyrosine phosphatase receptor type N | Plasma Membrane | phosphatase | -1.961 | 2.50x10 ⁻⁰⁴ | |
| ENSG00000147485.1 | PXNDL | peroxidasin like | Extracellular Space | enzyme | 1.372 | 4.26x10 ⁻⁰² | |
| ENSG00000145337.4 | PYURF | P1GY upstream reading frame | Cytoplasm | other | 2.914 | 3.91x10 ⁻⁰² | |
| ENSG00000206418.3 | RAB12 | RAB12, member RAS oncogene family | Cytoplasm | enzyme | 2.473 | 3.53x10 ⁻⁰² | |
| ENSG00000143545.8 | RAB13 | RAB13, member RAS oncogene family | Plasma Membrane | enzyme | 1.849 | 6.24x10 ⁻¹⁶ | |
| ENSG00000139999.1 | RAB15 | RAB15, member RAS oncogene family | Cytoplasm | other | -2.018 | 2.61x10 ⁻⁰² | |
| ENSG00000102128.7 | RAB40AL | RAB40A like | Plasma Membrane | other | 1.912 | 3.65x10 ⁻⁰² | |
| ENSG00000078785.1 | RAB7A | RAB7A, member RAS oncogene family | Cytoplasm | enzyme | 1.414 | 4.91x10 ⁻⁰³ | |
| ENSG00000167461.1 | RAB8A | RAB8A, member RAS oncogene family | Plasma Membrane | enzyme | -2.391 | 9.84x10 ⁻⁰³ | |
| ENSG00000166128.1 | RAB8B | RAB8B, member RAS oncogene family | Cytoplasm | enzyme | 1.55 | 4.34x10 ⁻⁰² | |
| ENSG00000204626.1 | RACK1 | receptor for activated C kinase 1 | Cytoplasm | enzyme | 2.174 | 1.23x10 ⁻¹⁴ | |
| ENSG00000002016.1 | RAD52 | RAD52 homolog, DNA repair protein | Nucleus | other | 1.509 | 3.20x10 ⁻⁰² | |
| ENSG00000157927.1 | RADIL | Rap associating with DIL domain | Cytoplasm | other | -1.907 | 8.10x10 ⁻⁰³ | |
| ENSG00000039560.1 | RAI14 | retinoic acid induced 14 | Nucleus | transcription regulator | 1.1 | 4.66x10 ⁻⁰³ | |
| ENSG00000006451.7 | RALA | RAS like proto-oncogene A | Cytoplasm | enzyme | 2.803 | 4.44x10 ⁻¹⁰ | |
| ENSG00000144118.1 | RALB | RAS like proto-oncogene B | Cytoplasm | enzyme | 1.244 | 1.65x10 ⁻⁰³ | |
| ENSG00000153201.1 | RANBP2 | RAN binding protein 2 | Nucleus | enzyme | 1.207 | 1.50x10 ⁻⁰⁵ | |
| ENSG0000011777.1 | RASGRP4 | RAS guanyl releasing protein 4 | Cytoplasm | other | -1.498 | 1.32x10 ⁻⁰² | |
| ENSG00000153179.1 | RASSF3 | Ras association domain family member 3 | Other | other | 1.331 | 1.27x10 ⁻⁰³ | |
| ENSG00000103479.1 | RBL2 | RB transcriptional corepressor like 2 | Nucleus | other | 1.201 | 1.69x10 ⁻⁰² | |
| ENSG00000089682.1 | RBM41 | RNA binding motif protein 41 | Other | other | 1.233 | 1.61x10 ⁻⁰² | |
| ENSG00000127993.1 | RBM48 | RNA binding motif protein 48 | Nucleus | other | 1.537 | 1.90x10 ⁻⁰² | |
| ENSG00000147274.1 | RBMX | RNA binding motif protein X-linked | Nucleus | other | 1.425 | 2.12x10 ⁻⁰⁴ | |
| ENSG00000134597.1 | RBMX2 | RNA binding motif protein X-linked 2 | Nucleus | other | 2.149 | 4.51x10 ⁻⁰² | |
| ENSG00000170745.6 | RBMXL2 | RBMX like 2 | Nucleus | other | 1.365 | 4.34x10 ⁻⁰² | |
| ENSG00000049449.8 | RCN1 | reticulocalbin 1 | Cytoplasm | other | 1.413 | 2.59x10 ⁻⁰³ | |
| ENSG00000137710.1 | RDX | radixin | Cytoplasm | other | 1.443 | 3.13x10 ⁻⁰⁵ | |
| ENSG00000172023.7 | REG1B | regenerating family member 1 beta | Extracellular Space | other | 1.699 | 1.77x10 ⁻⁰² | |
| ENSG00000169891.1 | REPS2 | RALBP1 associated Eps domain containing 2 | Cytoplasm | other | 1.053 | 7.44x10 ⁻⁰³ | |
| ENSG00000163515.6 | RETMLE | resistin like beta | Extracellular Space | other | -3.438 | 2.65x10 ⁻⁰² | |
| ENSG00000278999.1 | REXO1L2P | REXO1 like 2, pseudogene | Other | other | -6.753 | 1.18x10 ⁻⁰⁸ | |
| ENSG00000277422.1 | REXO1L6P | REXO1 like 6, pseudogene | Other | other | -1.202 | 1.63x10 ⁻⁰⁸ | |

| | | | | | | |
|-------------------|---------------|--|-----------|-------------------------|--------|------------------------|
| ENSG0000026900.3 | RMRP | RNA component of mitochondrial RNA processing endoribonuclease | Cytoplasm | other | 5.018 | 5.17×10 ⁻³⁶ |
| ENSG0000027168.1 | RN7SL1 | RNA component of signal recognition particle 7SL1 | Other | other | 2.121 | 6.91×10 ⁻¹⁵ |
| ENSG00000274012.1 | RN7SL2 | RNA component of signal recognition particle 7SL2 | Other | other | 1.864 | 1.14×10 ⁻¹⁰ |
| ENSG0000027077.1 | RN7SL3 | RNA component of signal recognition particle 7SL3 | Other | other | 2.056 | 2.12×10 ⁻¹⁵ |
| ENSG00000263426.2 | RN7SL471P | | Other | other | 3.216 | 1.01×10 ⁻⁰² |
| ENSG00000263740.2 | RN7SL4P | RNA, 7SL, cytoplasmic 4, pseudogene | Other | other | 1.442 | 1.37×10 ⁻⁰⁵ |
| ENSG00000265735.2 | RN7SL5P | RNA, 7SL, cytoplasmic 5, pseudogene | Other | other | 3.309 | 2.83×10 ⁻⁰⁴ |
| ENSG00000277739.1 | RNA5-8S5 | RNA, 5.8S ribosomal 5 | Other | other | 6.108 | 2.33×10 ⁻⁰⁵ |
| ENSG00000275787.1 | RNA5-8SN1 | RNA, 5.8S ribosomal N1 | Other | other | 4.887 | 2.51×10 ⁻²¹ |
| ENSG00000278189.1 | RNA5-8SN1 | RNA, 5.8S ribosomal N1 | Other | other | 4.911 | 2.60×10 ⁻¹⁹ |
| ENSG00000273730.1 | RNA5-8SN2 | RNA, 5.8S ribosomal N2 | Other | other | 4.889 | 1.10×10 ⁻²² |
| ENSG00000278233.1 | RNA5-8SN2 | RNA, 5.8S ribosomal N2 | Other | other | 6.93 | 1.22×10 ⁻⁰⁷ |
| ENSG00000275215.1 | RNA5-8SN3 | RNA, 5.8S ribosomal N3 | Other | other | 6.891 | 1.73×10 ⁻⁰⁷ |
| ENSG00000276700.1 | RNA5-8SN4 | RNA, 5.8S ribosomal N4 | Other | other | 6.79 | 7.05×10 ⁻⁰⁷ |
| ENSG00000274917.1 | RNA5-8SN5 | RNA, 5.8S ribosomal N5 | Other | other | 6.618 | 2.01×10 ⁻⁰⁶ |
| ENSG00000200343.1 | RNA5-8SP2 | RNA, 5.8S ribosomal pseudogene 2 | Other | other | 8.457 | 3.98×10 ⁻²⁸ |
| ENSG00000251705.1 | RNA5-8SP6 | RNA, 5.8S ribosomal pseudogene 6 | Other | other | 9.277 | 1.37×10 ⁻⁰² |
| ENSG00000201321.1 | RNA5S9 | RNA, 5S ribosomal 9 | Other | other | 4.715 | 1.44×10 ⁻⁰⁶ |
| ENSG00000201413.1 | RNA5SP141 | RNA, 5S ribosomal pseudogene 141 | Other | other | 4.568 | 4.94×10 ⁻⁰² |
| ENSG00000201822.1 | RNA5SP149 | RNA, 5S ribosomal pseudogene 149 | Other | other | 5.122 | 6.03×10 ⁻⁰¹ |
| ENSG00000201185.1 | RNA5SP202 | RNA, 5S ribosomal pseudogene 202 | Other | other | 11.057 | 8.63×10 ⁻¹⁸ |
| ENSG00000202380.1 | RNA5SP211 | RNA, 5S ribosomal pseudogene 211 | Other | other | 7.877 | 6.40×10 ⁻¹² |
| ENSG00000200310.1 | RNA5SP215 | RNA, 5S ribosomal pseudogene 215 | Other | other | 5.501 | 3.22×10 ⁻⁰³ |
| ENSG00000251920.1 | RNA5SP216 | RNA, 5S ribosomal pseudogene 216 | Other | other | 5.375 | 7.10×10 ⁻⁰³ |
| ENSG00000222806.1 | RNA5SP225 | RNA, 5S ribosomal pseudogene 225 | Other | other | 5.886 | 2.50×10 ⁻⁰⁴ |
| ENSG00000252261.1 | RNA5SP262 | RNA, 5S ribosomal pseudogene 262 | Other | other | 7.01 | 4.84×10 ⁻⁰⁸ |
| ENSG00000200246.1 | RNA5SP263 | | Other | other | 5.88 | 3.71×10 ⁻⁰⁴ |
| ENSG00000201763.1 | RNA5SP267 | RNA, 5S ribosomal pseudogene 267 | Other | other | 6.319 | 3.33×10 ⁻⁰⁵ |
| ENSG00000201861.1 | RNA5SP286 | | Other | other | 4.531 | 6.52×10 ⁻⁰³ |
| ENSG00000200225.1 | RNA5SP382 | RNA, 5S ribosomal pseudogene 382 | Other | other | 5.51 | 2.43×10 ⁻⁰³ |
| ENSG0000022268.1 | RNA5SP425 | RNA, 5S ribosomal pseudogene 425 | Other | other | 6.111 | 7.23×10 ⁻⁰⁵ |
| ENSG00000252680.1 | RNA5SP449 | RNA, 5S ribosomal pseudogene 449 | Other | other | 8.181 | 8.66×10 ⁻¹² |
| ENSG00000252546.1 | RNA5SP466 | RNA, 5S ribosomal pseudogene 466 | Other | other | 5.118 | 2.46×10 ⁻⁰² |
| ENSG00000200309.1 | RNA5P48 | RNA, 5S ribosomal pseudogene 48 | Other | other | 6.046 | 9.96×10 ⁻⁰⁵ |
| ENSG00000251779.1 | RNA5P486 | RNA, 5S ribosomal pseudogene 486 | Other | other | 6.965 | 3.57×10 ⁻⁰⁷ |
| ENSG00000275305.1 | RNA5P528 | | Other | other | 5.601 | 1.99×10 ⁻⁰³ |
| ENSG00000219200.1 | RNASEK | ribonuclease K | Other | peptidase | -1.999 | 1.27×10 ⁻⁰² |
| ENSG00000115963.1 | RND3 | Rho family GTPase 3 | Cytoplasm | enzyme | 1.281 | 2.18×10 ⁻⁰² |
| ENSG00000103561.1 | RNF14 | ring finger protein 14 | Cytoplasm | transcription regulator | 1.211 | 2.37×10 ⁻⁰² |
| ENSG00000223690.1 | RNF14P4 | RNF14 pseudogene 4 | Other | other | -1.467 | 3.86×10 ⁻⁰² |
| ENSG00000173456.4 | RNF26 | ring finger protein 26 | Cytoplasm | enzyme | 1.783 | 1.29×10 ⁻⁰² |
| ENSG00000092098.1 | RNF31 | ring finger protein 31 | Cytoplasm | enzyme | 1.829 | 2.84×10 ⁻⁰⁴ |
| ENSG00000200340.1 | RNU1-105P | RNA, U1 small nuclear 105, pseudogene | Other | other | 4.407 | 3.73×10 ⁻⁰⁷ |
| ENSG00000202199.1 | RNU1-115P | | Other | other | 5.991 | 4.05×10 ⁻²⁶ |
| ENSG00000212424.1 | RNU1-119P | | Other | other | 3.19 | 2.55×10 ⁻⁰⁵ |
| ENSG00000206702.1 | RNU1-119P | RNA, U1 small nuclear 11, pseudogene | Other | other | 3.357 | 4.17×10 ⁻⁰⁴ |
| ENSG00000200800.1 | RNU1-130P | | Other | other | 4.884 | 1.91×10 ⁻¹⁷ |
| ENSG00000199805.1 | RNU1-134P | RNA, U1 small nuclear 134, pseudogene | Other | other | 4.442 | 9.70×10 ⁻⁴⁴ |
| ENSG00000206908.1 | RNU1-136P | RNA, U1 small nuclear 136, pseudogene | Other | other | 3.422 | 3.22×10 ⁻⁰⁷ |
| ENSG00000206820.1 | RNU1-138P | | Other | other | 3.622 | 3.60×10 ⁻⁰² |
| ENSG00000212609.1 | RNU1-139P | | Other | other | 5.223 | 8.49×10 ⁻⁰⁵ |
| ENSG00000201910.1 | RNU1-140P | | Other | other | 4.7 | 2.68×10 ⁻⁰⁵ |
| ENSG00000200980.1 | RNU1-142P | RNA, U1 small nuclear 146, pseudogene | Other | other | 4.749 | 4.50×10 ⁻⁰⁵ |
| ENSG00000199629.1 | RNU1-144P | RNA, U1 small nuclear 14, pseudogene | Other | other | 5.131 | 2.01×10 ⁻⁷² |
| ENSG00000202347.1 | RNU1-16P | RNA, U1 small nuclear 16, pseudogene | Other | other | 2.21 | 4.98×10 ⁻⁰⁶ |
| ENSG00000200176.1 | RNU1-19P | RNA, U1 small nuclear 19, pseudogene | Other | other | 3.862 | 6.28×10 ⁻⁰⁹ |
| ENSG00000200184.1 | RNU1-20P | RNA, U1 small nuclear 20, pseudogene | Other | other | 5.104 | 4.78×10 ⁻⁰³ |
| ENSG00000200197.1 | RNU1-21P | RNA, U1 small nuclear 21, pseudogene | Other | other | 5.216 | 5.19×10 ⁻⁷¹ |
| ENSG00000200223.1 | RNU1-22P | RNA, U1 small nuclear 22, pseudogene | Other | other | 3.626 | 4.12×10 ⁻⁰² |
| ENSG00000206596.1 | RNU1-27P | RNA, U1 small nuclear 27, pseudogene | Other | other | 2.987 | 4.52×10 ⁻⁰⁵ |
| ENSG00000200807.1 | RNU1-32P | RNA, U1 small nuclear 32, pseudogene | Other | other | 4.176 | 3.25×10 ⁻¹⁴ |
| ENSG00000201119.1 | RNU1-33P | | Other | other | 4.458 | 8.94×10 ⁻⁶³ |
| ENSG00000206624.1 | RNU1-39P | RNA, U1 small nuclear 39, pseudogene | Other | other | 3.504 | 1.92×10 ⁻³² |
| ENSG00000253000.1 | RNU1-45P | | Other | other | 2.828 | 9.19×10 ⁻⁰⁴ |
| ENSG00000201151.1 | RNU1-45P | | Other | other | 4.308 | 4.96×10 ⁻⁰⁶ |
| ENSG00000206917.1 | RNU1-52P | | Other | other | 4.846 | 2.12×10 ⁻⁰³ |
| ENSG00000202380.1 | RNU1-55P | | Other | other | 3.54 | 7.92×10 ⁻¹¹ |
| ENSG00000207175.1 | RNU1-67P | RNA, U1 small nuclear 67, pseudogene | Other | other | 4.073 | 3.37×10 ⁻⁰² |
| ENSG00000212550.1 | RNU1-78P | RNA, U1 small nuclear 78, pseudogene | Other | other | 5.009 | 2.09×10 ⁻²⁵ |
| ENSG00000207322.1 | RNU1-89P | RNA, U1 small nuclear 89, pseudogene | Other | other | 3.175 | 3.49×10 ⁻⁰⁸ |
| ENSG00000239823.1 | RNU1-98P | | Other | other | 3.626 | 4.12×10 ⁻⁰² |
| ENSG00000270103.3 | RNU11 | | Other | other | 2.025 | 4.48×10 ⁻¹² |
| ENSG00000276027.1 | RNU12 | RNA, U12 small nuclear | Nucleus | other | 4.829 | 2.84×10 ⁻⁸⁴ |
| ENSG0000022328.1 | RNU2-2P | RNA, U2 small nuclear 2, pseudogene | Nucleus | other | 3.906 | 5.91×10 ⁻⁵⁵ |
| ENSG00000252604.1 | RNU2-44P | | Other | other | 3.878 | 2.81×10 ⁻⁰⁵ |
| ENSG00000222426.1 | RNU2-50P | RNA, U2 small nuclear 50, pseudogene | Other | other | 4.764 | 4.53×10 ⁻¹⁵ |
| ENSG00000222810.1 | RNU2-68P | | Other | other | 4.65 | 2.44×10 ⁻²⁴ |
| ENSG00000222720.1 | RNU2-71P | | Other | other | 4.885 | 4.12×10 ⁻⁰² |
| ENSG00000202538.1 | RNU4-2 | RNA, U4 small nuclear 2 | Other | other | 4.087 | 1.21×10 ⁻⁰³ |
| ENSG00000199568.1 | RNU5A-1 | RNA, USA small nuclear 1 | Other | other | 5.665 | 1.10×10 ⁻⁰⁵ |
| ENSG00000206863.1 | RNU5A-6P | RNA, USA small nuclear 6, pseudogene | Other | other | 5.53 | 3.04×10 ⁻⁰³ |
| ENSG00000200156.1 | RNU5B-1 | RNA, USB small nuclear 1 | Other | other | 6.282 | 3.78×10 ⁻⁰² |
| ENSG00000199347.1 | RNU5E-1 | RNA, USE small nuclear 1 | Other | other | 7.561 | 2.88×10 ⁻²⁶ |
| ENSG00000207340.1 | RNVU-11 | RNA, variant U1 small nuclear 1 | Other | other | 5.649 | 5.33×10 ⁻¹⁶ |
| ENSG00000207205.1 | RNVU-15 | RNA, variant U1 small nuclear 15 | Other | other | 2.207 | 5.71×10 ⁻⁰⁷ |
| ENSG00000207349.1 | RNVU-17 | RNA, variant U1 small nuclear 17 | Other | other | 4.087 | 1.35×10 ⁻⁰⁵ |
| ENSG00000275538.1 | RNVU-19 | RNA, variant U1 small nuclear 19 | Other | other | 4.303 | 2.05×10 ⁻³¹ |
| ENSG00000238825.1 | RNVU-2 | RNA, variant U1 small nuclear 2 | Other | other | 2.842 | 3.54×10 ⁻⁰² |
| ENSG00000199876.1 | RNVU-22 | | Other | other | 5.942 | 2.00×10 ⁻³² |
| ENSG00000274210.1 | RNVU-27 | | Other | other | 4.724 | 2.59×10 ⁻⁰⁶ |
| ENSG00000277918.1 | RNVU-28 | | Other | other | 1.607 | 7.51×10 ⁻⁰⁶ |
| ENSG00000273768.1 | RNVU-29 | | Other | other | 3.077 | 1.63×10 ⁻⁰² |
| ENSG00000278099.1 | RNVU-2A | RNA, variant U1 small nuclear 2A | Other | other | 5.211 | 2.40×10 ⁻³⁹ |
| ENSG00000270722.1 | RNVU-31 | RNA, variant U1 small nuclear 31 | Other | other | 3.338 | 1.94×10 ⁻⁰⁶ |
| ENSG00000207110.1 | RNVU-32 | RNA, variant U1 small nuclear 32 | Other | other | 5.098 | 2.81×10 ⁻¹¹ |
| ENSG00000201098.1 | RNY1 | RNA, Ro60-associated Y1 | Nucleus | other | 2.97 | 4.89×10 ⁻⁰⁷ |
| ENSG00000202354.1 | RNY3 | RNA, Ro60-associated Y3 | Other | other | 5.438 | 6.24×10 ⁻⁰⁷ |
| ENSG00000252316.1 | RNY4 | RNA, Ro60-associated Y4 | Other | other | 5.069 | 5.33×10 ⁻⁰⁹ |
| ENSG00000116747.1 | RO60 | Ro60, Y RNA binding protein | Nucleus | other | 1.077 | 9.38×10 ⁻⁰³ |
| ENSG00000282306.1 | RP11-126O22.2 | | Other | other | 2.495 | 2.23×10 ⁻⁰⁴ |
| ENSG00000282299.1 | RP11-126O22.6 | | Other | other | 2.793 | 1.01×10 ⁻⁰² |
| ENSG00000282697.1 | RP11-126O22.7 | | Other | other | 1.178 | 1.63×10 ⁻⁰² |
| ENSG00000282222.1 | RP11-126O22.8 | | Other | other | 1.857 | 4.82×10 ⁻⁰² |
| ENSG00000258461.5 | RP11-164J13.1 | | Other | other | -1.498 | 1.80×10 ⁻⁰² |
| ENSG00000280222.1 | RP11-174G17.3 | | Other | other | -1.044 | 2.08×10 ⁻⁰³ |
| ENSG00000224722.3 | RP11-255B23.1 | | Other | other | -1.538 | 4.01×10 ⁻⁰² |
| ENSG00000258130.7 | RP11-347C12.3 | | Other | other | -1.351 | 1.49×10 ⁻⁰² |
| ENSG00000272566.1 | RP11-462G22.2 | | Other | other | 4.471 | 1.05×10 ⁻⁰² |
| ENSG00000261187.1 | RP11_1007O242 | | Other | other | 2.474 | 3.78×10 ⁻⁰² |
| ENSG00000275944.1 | RP11_104J231 | | Other | other | -1.834 | 3.40×10 ⁻⁰² |
| ENSG00000279196.1 | RP11_1072A33 | | Other | other | -1.612 | 1.66×10 ⁻⁰² |
| ENSG00000279166.1 | RP11_107E53 | | Other | other | 1.173 | 1.80×10 ⁻⁰² |
| ENSG00000251101.1 | RP11_1267H101 | | Other | other | 3.356 | 1.86×10 ⁻⁰² |
| ENSG00000266537.1 | RP11_142O61 | | Other | other | -2.337 | 4.88×10 ⁻⁰² |
| ENSG00000261099.1 | RP11_1437A85 | | Other | other | 8.345 | 4.89×10 ⁻⁰² |
| ENSG0000027728.1 | RP11_143K117 | | Other | other | 5.679 | 2.36×10 ⁻⁰³ |
| ENSG00000230759.1 | RP11_153F12 | | Other | other | -2.115 | 4.10×10 ⁻⁰² |
| ENSG00000244669.1 | RP11_158O161 | | Other | other | 4.064 | 3.70×10 ⁻⁰² |
| ENSG00000254800.2 | RP11_163O193 | | Other | other | 3.012 | 3.89×10 ⁻⁰² |
| ENSG00000279311.1 | RP11_170K42 | | Other | other | -1.44 | 4.53×10 ⁻⁰² |
| ENSG00000228686.1 | RP11_170M171 | | Other | other | -3.629 | 3.23×10 ⁻⁰² |
| ENSG00000278935.1 | RP11_173D34 | | Other | other | -1.538 | 8.39×10 ⁻⁰³ |
| ENSG00000225531.1 | RP11_196I183 | | Other | other | 4.185 | 3.07×10 ⁻⁰² |
| ENSG00000279520.1 | RP11_20I232 | | Other | other | -1.993 | 8.39×10 ⁻⁰³ |
| ENSG00000240579.1 | RP11_20L241 | | Other | other | -3.702 | 3.18×10 ⁻⁰² |
| ENSG00000237846.1 | RP11_216M211 | | Other | other | -1.636 | 2.41×10 ⁻⁰² |
| ENSG0000025037.1 | RP11_22A32 | | Other | other | 2.361 | 2.70×10 ⁻⁰³ |
| ENSG00000260823.1 | RP11_249C2410 | | Other | other | 3.879 | 4.15×10 ⁻⁰² |
| ENSG00000249731.1 | RP11_259O23 | | Other | other | -1.03 | 2.36×10 ⁻⁰² |
| ENSG00000274204.1 | RP11_272L142 | | Other | other | 3.226 | 2.63×10 ⁻⁰² |
| ENSG00000243635.1 | RP11_281P111 | | Other | other | 6.824 | 8.11×10 ⁻⁰⁸ |
| ENSG00000278698.1 | RP11_282A113 | | Other | other | -1.702 | 3.50×10 ⁻⁰³ |
| ENSG00000279963.1 | RP11_284J227 | | Other | other | 1.305 | 4.57×10 ⁻⁰² |
| ENSG0000025789.1 | RP11_2B183 | | Other | other | 8.313 | 1.4×10 ⁻¹⁰ |
| ENSG00000227700.1 | RP11_301M171 | | Other | other | -3.509 | 1.70×10 ⁻⁰² |
| ENSG00000271519.1 | RP11_307A172 | | Other | other | 1.432 | 2.66×10 ⁻⁰² |
| ENSG00000261642.1 | RP11_309H213 | | Other | other | 1.827 | 5.77×10 ⁻⁰³ |
| ENSG00000261298.1 | RP11_309M71 | | Other | other | 1.677 | 4.43×10 ⁻⁰² |

| | | | | | | | |
|-------------------|---------------|--|-----------|-------------------------|-----------------------------|--------|------------------------|
| ENS00000272551.1 | RP11_324L171 | | Other | other | | 3.029 | 1.01x10 ⁻⁰² |
| ENS00000272583.1 | RP11_344P136 | | Other | other | | 2.59 | 4.84x10 ⁻⁰² |
| ENS00000231590.1 | RP11_353L173 | | Other | other | | 1.804 | 1.23x10 ⁻⁰² |
| ENS00000250435.1 | RP11_366M415 | | Other | other | | -3.540 | 3.50x10 ⁻⁰² |
| ENS00000227217.1 | RP11_367J73 | | Other | other | | 3.031 | 4.03x10 ⁻⁰² |
| ENS00000272247.1 | RP11_379F49 | | Other | other | | 2.228 | 2.71x10 ⁻⁰² |
| ENS00000219329.1 | RP11_397G52 | | Other | other | | -3.53 | 3.35x10 ⁻⁰² |
| ENS00000254258.1 | RP11_398H61 | | Other | other | | 2.109 | 4.41x10 ⁻⁰² |
| ENS00000279715.1 | RP11_403N164 | | Other | other | | 1.022 | 3.21x10 ⁻⁰² |
| ENS00000261519.3 | RP11_403P174 | | Other | other | | 1.725 | 1.87x10 ⁻⁰² |
| ENS00000279171.1 | RP11_407A165 | | Other | other | | -2.895 | 3.90x10 ⁻⁰² |
| ENS00000247903.1 | RP11_421F163 | | Other | other | | 2.994 | 4.58x10 ⁻⁰³ |
| ENS00000279862.1 | RP11_423E72 | | Other | other | | 1.479 | 2.34x10 ⁻⁰² |
| ENS00000267075.1 | RP11_434D23 | | Other | other | | -1.207 | 1.85x10 ⁻⁰² |
| ENS00000271623.1 | RP11_435I105 | | Other | other | | -4.209 | 4.07x10 ⁻⁰³ |
| ENS00000269855.1 | RP11_439E1910 | | Other | other | | 1.096 | 1.98x10 ⁻⁰² |
| ENS00000271379.1 | RP11_440G22 | | Other | other | | 3.093 | 2.75x10 ⁻⁰² |
| ENS00000250596.1 | RP11_440I142 | | Other | other | | 2.217 | 2.67x10 ⁻⁰² |
| ENS00000275088.1 | RP11_442O13 | | Other | other | | -2.145 | 1.78x10 ⁻⁰² |
| ENS00000231291.3 | RP11_445O31 | | Other | other | | 2.445 | 3.01x10 ⁻⁰² |
| ENS00000279060.1 | RP11_466M211 | | Other | other | | 4.994 | 4.85x10 ⁻⁰³ |
| ENS00000248176.1 | RP11_472K221 | | Other | other | | 4.588 | 3.01x10 ⁻⁰² |
| ENS00000273064.1 | RP11_474G233 | | Other | other | | 2.256 | 3.64x10 ⁻⁰² |
| ENS00000272049.1 | RP11_480D46 | | Other | other | | 4.776 | 2.65x10 ⁻⁰² |
| ENS00000237850.7 | RP11_483E232 | | Other | other | | -1.16 | 3.00x10 ⁻⁰⁶ |
| ENS00000249926.2 | RP11_495K96 | | Other | other | | -2.531 | 3.59x10 ⁻⁰² |
| ENS00000278330.1 | RP11_48164 | | Other | other | | -1.39 | 2.83x10 ⁻⁰² |
| ENS00000218663.3 | RP11_506R65 | | Other | other | | 2.296 | 2.94x10 ⁻⁰² |
| ENS00000280157.1 | RP11_520H147 | | Other | other | | 1.509 | 3.02x10 ⁻⁰² |
| ENS00000272335.1 | RP11_530I93 | | Other | other | | 1.208 | 4.76x10 ⁻⁰² |
| ENS00000280086.1 | RP11_544P13 | | Other | other | | -1.795 | 4.45x10 ⁻⁰² |
| ENS00000275363.1 | RP11_566K1912 | | Other | other | | 1.126 | 1.65x10 ⁻⁰² |
| ENS00000232172.1 | RP11_57C192 | | Other | other | | -3.386 | 4.40x10 ⁻⁰² |
| ENS00000257984.2 | RP11_597A114 | | Other | other | | -1.545 | 2.73x10 ⁻⁰² |
| ENS00000279778.1 | RP11_60A141 | | Other | other | | 1.731 | 2.33x10 ⁻⁰² |
| ENS00000260182.1 | RP11_616M225 | | Other | other | | 7.334 | 9.05x10 ⁻⁰⁹ |
| ENS00000225673.3 | RP11_641C173 | | Other | other | | 4.976 | 7.04x10 ⁻⁰³ |
| ENS00000259648.1 | RP11_643G164 | | Other | other | | 1.348 | 4.77x10 ⁻⁰² |
| ENS00000234428.2 | RP11_666F171 | | Other | other | | 2.395 | 2.01x10 ⁻⁰² |
| ENS00000261734.1 | RP11_689C191 | | Other | other | | -1.194 | 1.89x10 ⁻⁰² |
| ENS00000262181.1 | RP11_683I232 | | Other | other | | -3.47 | 4.04x10 ⁻⁰² |
| ENS00000267349.1 | RP11_686D229 | | Other | other | | 3.696 | 3.69x10 ⁻⁰² |
| ENS00000277501.1 | RP11_697E222 | | Other | other | | 1.675 | 1.80x10 ⁻⁰⁶ |
| ENS00000255234.5 | RP11_727A2310 | | Other | other | | -1.073 | 4.09x10 ⁻⁰³ |
| ENS00000258975.1 | RP11_753D201 | | Other | other | | -3.634 | 4.68x10 ⁻⁰² |
| ENS00000257086.1 | RP11_783K1613 | | Other | other | | -3.59 | 4.59x10 ⁻⁰² |
| ENS00000272703.1 | RP11_78A194 | | Other | other | | 1.669 | 5.15x10 ⁻⁰² |
| ENS00000279682.1 | RP11_791N191 | | Other | other | | 1.998 | 8.08x10 ⁻⁰³ |
| ENS00000270401.1 | RP11_812E1914 | | Other | other | | -3.51 | 4.89x10 ⁻⁰² |
| ENS00000233974.3 | RP11_823P93 | | Other | other | | -3.078 | 7.51x10 ⁻¹⁰ |
| ENS00000260470.1 | RP11_834C1111 | | Other | other | | -1.412 | 2.75x10 ⁻⁰² |
| ENS00000280122.1 | RP11_87G242 | | Other | other | | -1.383 | 7.50x10 ⁻⁰³ |
| ENS00000232952.1 | RP11_90H1 | | Other | other | | 1.669 | 5.15x10 ⁻⁰² |
| ENS00000258505.1 | RP11_90P161 | | Other | other | | 3.983 | 1.23x10 ⁻⁰³ |
| ENS00000266998.1 | RP11_936I51 | | Other | other | | -2.036 | 2.87x10 ⁻⁰³ |
| ENS00000255923.1 | RP11_983C21 | | Other | other | | -2.772 | 4.05x10 ⁻⁰² |
| ENS00000260610.1 | RP11_989E611 | | Other | other | | -2.333 | 4.56x10 ⁻⁰³ |
| ENS00000251158.1 | RP11_98J231 | | Other | other | | -1.067 | 1.82x10 ⁻⁰⁴ |
| ENS00000273211.1 | RP13_131K197 | | Other | other | | 3.554 | 3.41x10 ⁻⁰² |
| ENS00000260585.1 | RP13_192B192 | | Other | other | | 1.561 | 4.74x10 ⁻⁰² |
| ENS00000279072.1 | RP13_580B184 | | Other | other | | -1.024 | 4.49x10 ⁻⁰⁶ |
| ENS00000279942.1 | RP1_153P147 | | Other | other | | -1.03 | 2.35x10 ⁻⁰² |
| ENS00000230973.1 | RP1_154J132 | | Other | other | | 4.073 | 4.07x10 ⁻⁰² |
| ENS00000278206.1 | RP1_20N28 | | Other | other | | 1.617 | 3.91x10 ⁻⁰² |
| ENS00000218938.2 | RP1_29C1810 | | Other | other | | -1.812 | 4.71x10 ⁻⁰² |
| ENS00000220960.1 | RP1_72A231 | | Other | other | | 4.747 | 4.36x10 ⁻⁰² |
| ENS00000216917.2 | RP5_988G151 | | Other | other | | 3.268 | 2.15x10 ⁻⁰² |
| ENS00000147403.18 | RPL10 | ribosomal protein L10 | Cytoplasm | translation regulator | | 2.225 | 1.58x10 ⁻⁰⁹ |
| ENS00000142676.12 | RPL11 | ribosomal protein L11 | Cytoplasm | other | | 3.024 | 1.26x10 ⁻¹⁴ |
| ENS00000197958.12 | RPL12 | ribosomal protein L12 | Nucleus | other | | 1.555 | 1.42x10 ⁻⁰⁸ |
| ENS0000014254.18 | RPL13A | ribosomal protein L13a | Cytoplasm | other | | 2.87 | 9.72x10 ⁻³⁵ |
| ENS00000188848.13 | RPL14 | ribosomal protein L14 | Cytoplasm | other | | 1.433 | 2.65x10 ⁻¹¹ |
| ENS00000174748.18 | RPL15 | ribosomal protein L15 | Cytoplasm | other | | 1.894 | 5.51x10 ⁻¹¹ |
| ENS00000265681.6 | RPL17 | ribosomal protein L17 | Cytoplasm | other | | 2.719 | 6.89x10 ⁻²⁴ |
| ENS00000105640.12 | RPL18A | ribosomal protein L18a | Cytoplasm | other | | 2.089 | 3.23x10 ⁻¹⁴ |
| ENS00000108298.9 | RPL19 | ribosomal protein L19 | Cytoplasm | other | | 2.071 | 8.52x10 ⁻¹⁸ |
| ENS00000122026.10 | RPL21 | ribosomal protein L21 | Cytoplasm | other | | 2.175 | 7.60x10 ⁻¹⁰ |
| ENS00000116251.9 | RPL22 | ribosomal protein L22 | Cytoplasm | translation regulator | | 1.927 | 6.11x10 ⁻¹² |
| ENS00000225483.1 | RPL22P4 | ribosomal protein L22 pseudogene 4 | Other | other | | 4.534 | 3.40x10 ⁻⁰² |
| ENS00000125691.12 | RPL23 | ribosomal protein L23 | Cytoplasm | other | | 1.63 | 6.06x10 ⁻¹¹ |
| ENS00000198242.13 | RPL23A | ribosomal protein L23a | Cytoplasm | other | | 2.596 | 6.45x10 ⁻²⁶ |
| ENS00000213122.4 | RPL23AP46 | ribosomal protein L23a pseudogene 46 | Other | other | | 3.586 | 4.79x10 ⁻⁰² |
| ENS00000114391.12 | RPL24 | ribosomal protein L24 | Cytoplasm | other | | 1.442 | 3.64x10 ⁻⁰⁴ |
| ENS00000181971.12 | RPL26 | ribosomal protein L26 | Cytoplasm | other | | 2.57 | 2.81x10 ⁻²⁴ |
| ENS00000131469.12 | RPL27 | ribosomal protein L27 | Cytoplasm | other | | 1.758 | 3.90x10 ⁻⁰⁸ |
| ENS00000166441.12 | RPL27A | ribosomal protein L27a | Cytoplasm | other | | 1.133 | 1.72x10 ⁻⁰⁴ |
| ENS00000108107.12 | RPL28 | ribosomal protein L28 | Cytoplasm | other | | 1.689 | 1.05x10 ⁻¹⁴ |
| ENS00000162244.10 | RPL29 | ribosomal protein L29 | Cytoplasm | other | | 1.594 | 8.20x10 ⁻⁰⁴ |
| ENS00000100316.18 | RPL3 | ribosomal protein L3 | Nucleus | other | | 2.356 | 4.61x10 ⁻²⁷ |
| ENS00000108219.10 | RPL31 | ribosomal protein L31 | Cytoplasm | other | cytarabine/daunorubicin/oms | 1.948 | 1.61x10 ⁻⁰³ |
| ENS00000144713.12 | RPL32 | ribosomal protein L32 | Cytoplasm | other | | 1.983 | 2.35x10 ⁻¹¹ |
| ENS00000109475.18 | RPL34 | ribosomal protein L34 | Cytoplasm | other | | 1.872 | 1.68x10 ⁻⁰⁸ |
| ENS00000136942.14 | RPL35 | ribosomal protein L35 | Cytoplasm | other | | 2.808 | 1.27x10 ⁻¹⁶ |
| ENS00000182899.14 | RPL35A | ribosomal protein L35a | Cytoplasm | other | | 2.112 | 3.14x10 ⁻⁰³ |
| ENS00000130255.12 | RPL36 | ribosomal protein L36 | Cytoplasm | other | | 1.196 | 3.70x10 ⁻⁰² |
| ENS00000241344.9 | RPL36A | ribosomal protein L36a | Cytoplasm | other | | 2.621 | 2.81x10 ⁻²² |
| ENS00000165502.6 | RPL36AL | ribosomal protein L36a like | Cytoplasm | other | | 2.243 | 2.33x10 ⁻⁰⁷ |
| ENS00000172809.12 | RPL38 | ribosomal protein L38 | Cytoplasm | other | | 2.221 | 3.04x10 ⁻¹⁶ |
| ENS00000198918.7 | RPL39 | ribosomal protein L39 | Cytoplasm | other | | 1.483 | 5.44x10 ⁻⁰³ |
| ENS00000174444.14 | RPL4 | ribosomal protein L4 | Cytoplasm | enzyme | | 2.202 | 2.88x10 ⁻²⁶ |
| ENS00000122406.12 | RPL5 | ribosomal protein L5 | Cytoplasm | other | | 3.707 | 1.86x10 ⁻⁴⁶ |
| ENS0000024352.12 | RPL5P33 | ribosomal protein L5 pseudogene 33 | Other | other | | 2.352 | 4.46x10 ⁻⁰² |
| ENS00000089009.18 | RPL6 | ribosomal protein L6 | Nucleus | other | | 1.489 | 7.86x10 ⁻⁰⁷ |
| ENS00000147604.13 | RPL7 | ribosomal protein L7 | Nucleus | transcription regulator | | 2.265 | 5.95x10 ⁻¹¹ |
| ENS00000148303.18 | RPL7A | ribosomal protein L7a | Cytoplasm | other | | 1.762 | 2.63x10 ⁻¹⁰ |
| ENS00000204622.1 | RPL7P15 | ribosomal protein L7 pseudogene 15 | Other | other | | 4.222 | 3.40x10 ⁻⁰² |
| ENS00000161016.18 | RPL8 | ribosomal protein L8 | Cytoplasm | other | | 1.617 | 1.49x10 ⁻⁰³ |
| ENS00000163868.18 | RPL9 | ribosomal protein L9 | Nucleus | other | | 1.261 | 3.32x10 ⁻⁰² |
| ENS00000237550.5 | RPL9P9 | ribosomal protein L9 | Other | other | | 4.356 | 1.13x10 ⁻⁰⁶ |
| ENS00000089157.18 | RPLP0 | ribosomal protein lateral stalk subunit P0 | Cytoplasm | other | | 1.846 | 6.61x10 ⁻¹³ |
| ENS00000137818.11 | RPLP1 | ribosomal protein lateral stalk subunit P1 | Cytoplasm | other | | 2.717 | 3.72x10 ⁻²² |
| ENS00000177600.8 | RPLP2 | ribosomal protein lateral stalk subunit P2 | Cytoplasm | other | | 3.109 | 2.09x10 ⁻²⁵ |
| ENS00000259001.3 | RPPH1 | ribonuclease P RNA component H1 | Other | other | | 1.98 | 2.22x10 ⁻¹¹ |
| ENS00000277209.1 | RPPH1 | ribonuclease P RNA component H1 | Other | other | | 6.169 | 9.30x10 ⁻⁰⁴ |
| ENS00000124614.11 | RPS10 | ribosomal protein S10 | Cytoplasm | other | | 2.981 | 1.39x10 ⁻⁰⁸ |
| ENS00000142534.6 | RPS11 | ribosomal protein S11 | Cytoplasm | other | | 1.859 | 3.28x10 ⁻⁰⁴ |
| ENS00000112306.7 | RPS12 | ribosomal protein S12 | Cytoplasm | other | neomycin | 3.694 | 2.05x10 ⁻⁰⁷ |
| ENS00000110700.6 | RPS13 | ribosomal protein S13 | Cytoplasm | other | | 1.308 | 2.76x10 ⁻⁰² |
| ENS00000115268.9 | RPS15 | ribosomal protein S15 | Cytoplasm | other | | 2.179 | 2.21x10 ⁻⁰⁸ |
| ENS00000134419.18 | RPS15A | ribosomal protein S15a | Cytoplasm | other | | 1.26 | 7.95x10 ⁻⁰⁶ |
| ENS00000182771.10 | RPS17 | ribosomal protein S17 | Cytoplasm | other | | 1.335 | 1.43x10 ⁻⁰⁵ |
| ENS00000231500.6 | RPS18 | ribosomal protein S18 | Cytoplasm | other | | 1.785 | 1.58x10 ⁻⁰⁸ |
| ENS00000105372.6 | RPS19 | ribosomal protein S19 | Cytoplasm | other | | 1.64 | 4.92x10 ⁻⁰⁸ |
| ENS00000140968.18 | RPS2 | ribosomal protein S2 | Cytoplasm | other | | 1.951 | 7.36x10 ⁻¹⁴ |
| ENS00000089898.9 | RPS20 | ribosomal protein S20 | Cytoplasm | other | | 2.250 | 3.81x10 ⁻¹⁵ |
| ENS00000186468.12 | RPS23 | ribosomal protein S23 | Cytoplasm | translation regulator | | 2.453 | 4.90x10 ⁻²⁴ |
| ENS00000138328.18 | RPS24 | ribosomal protein S24 | Cytoplasm | other | | 1.345 | 2.33x10 ⁻⁰⁵ |
| ENS00000118181.10 | RPS25 | ribosomal protein S25 | Cytoplasm | other | | 2.01 | 8.14x10 ⁻⁰⁶ |
| ENS00000197728.9 | RPS26 | ribosomal protein S26 | Cytoplasm | other | | 2.222 | 1.27x10 ⁻⁰⁹ |
| ENS00000177954.11 | RPS27 | ribosomal protein S27 | Cytoplasm | other | empesertib | 1.869 | 2.55x10 ⁻⁰⁷ |
| ENS00000143947.12 | RPS27A | ribosomal protein S27a | Cytoplasm | other | | 2.106 | 9.32x10 ⁻⁰⁹ |
| ENS00000185088.12 | RPS27L | ribosomal protein S27 like | Cytoplasm | translation regulator | | 1.033 | 1.98x10 ⁻⁰³ |
| ENS00000149273.14 | RPS3 | ribosomal protein S3 | Cytoplasm | enzyme | | 1.5 | 4.71x10 ⁻⁰⁹ |
| ENS00000145425.9 | RPS3A | ribosomal protein S3A | Nucleus | other | | 2.795 | 3.30x10 ⁻¹⁹ |
| ENS00000226292.1 | RPS3AP10 | RPS3A pseudogene 10 | Other | other | | -3.652 | 3.42x10 ⁻⁰² |
| ENS00000198034.10 | RPS4X | ribosomal protein S4 X-linked | Cytoplasm | other | | 2.993 | 8.97x10 ⁻²⁸ |
| ENS00000083845.8 | RPS5 | ribosomal protein S5 | Cytoplasm | other | | 1.024 | 4.34x10 ⁻⁰² |
| ENS00000137154.12 | RPS6 | ribosomal | | | | | |

| | | | | | | | | |
|--------------------|-----------------------------|---|---------------------|-------------------------|--|-----------------------------------|--------|------------------------|
| ENS00000072133.10 | RPS6KA6 | ribosomal protein S6 kinase A6 | Cytoplasm | kinase | | PMD-026 | 1,809 | 4.19x10 ⁻⁰³ |
| ENS00000142937.11 | RPS8 | ribosomal protein S8 | Cytoplasm | other | | | 2,247 | 7.30x10 ⁻⁰⁹ |
| ENS00000170889.13 | RPS9 | ribosomal protein S9 | Cytoplasm | translation regulator | | | 1,577 | 1.6x10 ⁻⁰⁵ |
| ENS00000168022.14 | RPSA | ribosomal protein SA | Cytoplasm | regulator | | | 2,084 | 2.99x10 ⁻⁰⁹ |
| ENS00000167325.14 | RRM1 | ribonucleotide reductase catalytic subunit M1 | Nucleus | enzyme | | L-asparaginase/gemcitabine | 1,764 | 4.94x10 ⁻⁰² |
| ENS00000214018.3 | RRM2P3 | ribonucleotide reductase M2 polypeptide pseudogene 3 | Other | other | | | 2,251 | 2.21x10 ⁻⁰² |
| ENS00000026036.20 | RTEL1-TNFRSF6B | RTEL1-TNFRSF6B readthrough (NMD candidate) | Other | other | | | -2,933 | 2.82x10 ⁻⁰² |
| ENS00000140698.16 | RUSF1 | RUS family member 1 | Other | other | | | -1,479 | 4.15x10 ⁻⁰² |
| ENS00000197741.7 | S100A10 | S100 calcium binding protein A10 | Cytoplasm | other | | | 1,945 | 4.50x10 ⁻⁰⁴ |
| ENS00000163191.6 | S100A11 | S100 calcium binding protein A11 | Cytoplasm | other | | | 4,46 | 5.09x10 ⁻⁰⁶ |
| ENS00000188643.10 | S100A16 | S100 calcium binding protein A16 | Nucleus | other | | | 2,138 | 3.62x10 ⁻⁰³ |
| ENS00000197956.9 | S100A6 | S100 calcium binding protein A6 | Cytoplasm | transporter | | | 2,711 | 4.09x10 ⁻⁰⁵ |
| ENS00000165821.11 | SALL2 | spalt like transcription factor 2 | Nucleus | transcription regulator | | | -1,023 | 1.38x10 ⁻⁰² |
| ENS00000161526.14 | SAP30BP | SAP30 binding protein | Nucleus | transcription regulator | | | -1,067 | 3.58x10 ⁻⁰² |
| ENS00000079332.14 | SAR1A | secretion associated Ras related GTPase 1A | Cytoplasm | enzyme | | | 1,235 | 1.85x10 ⁻⁰³ |
| ENS00000120532.9 | SARPN | SAP domain containing ribonucleoprotein | Nucleus | transcription regulator | | | 2,402 | 1.85x10 ⁻⁰³ |
| ENS00000130068.10 | SAT1 | serpinidase N1-acetyltransferase 1 | Cytoplasm | enzyme | | | 2,765 | 5.57x10 ⁻¹⁶ |
| ENS00000248522.11 | SBF1P1 | SET binding factor 1 pseudogene 1 | Other | other | | | -1,751 | 1.80x10 ⁻⁰² |
| ENS00000252481.1 | SCARNA13 | small Cajal body-specific RNA 13 | Nucleus | other | | | 2,942 | 2.26x10 ⁻⁰² |
| ENS000000280466.1 | SCARNA4 | small Cajal body-specific RNA 4 | Other | other | | | 4,755 | 1.16x10 ⁻⁰² |
| ENS00000161929.14 | SCIMP | SLP adaptor and CSK interacting membrane protein | Plasma Membrane | ion channel | | | -2,006 | 2.73x10 ⁻⁰² |
| ENS00000003714.11 | SCNA42 | sodium voltage-gated channel alpha subunit 4 | Plasma Membrane | other | | diclofenac/omeprazole, diclofenac | -1,121 | 1.27x10 ⁻⁰² |
| ENS00000144306.13 | SCRN3 | secernin 3 | Other | other | | | 1,304 | 4.74x10 ⁻⁰² |
| ENS00000150961.14 | SEC24D | SEC24 homolog D, COPII coat complex component | Cytoplasm | transporter | | | 1,145 | 2.65x10 ⁻⁰² |
| ENS00000132432.13 | SEC61G | SEC61 translocon subunit gamma | Plasma Membrane | transporter | | | 2,628 | 2.85x10 ⁻⁰⁵ |
| ENS00000131871.14 | SELENO5 | selenoprotein S | Cytoplasm | other | | | 1,302 | 1.77x10 ⁻⁰³ |
| ENS00000196189.13 | SEMA4A | semaphorin 4A | Plasma Membrane | other | | | -1,362 | 2.18x10 ⁻⁰³ |
| ENS00000167860.13 | SEMA6B | semaphorin 6B | Plasma Membrane | other | | | 1,643 | 3.50x10 ⁻⁰² |
| ENS00000138468.13 | SEN7P | SUMO specific peptidase 7 | Nucleus | peptidase | | | 1,928 | 4.38x10 ⁻⁰² |
| ENS00000186522.14 | SEPTIN10 | septin 10 | Cytoplasm | transcription regulator | | | 1,731 | 3.18x10 ⁻⁰⁴ |
| ENS000000281379.2 | SEPTIN14P19 | septin 14 pseudogene 19 | Other | other | | | 2,35 | 3.56x10 ⁻⁰² |
| ENS00000168385.17 | SEPTIN2 | septin 2 | Cytoplasm | enzyme | | | 1,161 | 1.61x10 ⁻⁰² |
| ENS00000259099.11 | SEPTIN7P1 | septin 7 pseudogene 1 | Other | other | | | 3,701 | 3.48x10 ⁻⁰⁴ |
| ENS00000142864.14 | SERPIN1 | SERPIN1 mRNA binding protein 1 | Cytoplasm | other | | | 1,237 | 3.01x10 ⁻⁰³ |
| ENS00000120557.9 | SERP1A/SERP1B | small EDNRK-rich factor 1 | Other | other | | | -1,693 | 2.93x10 ⁻⁰² |
| ENS00000119335.10 | SET | SET nuclear proto-oncogene | Nucleus | phosphatase | | | 1,522 | 1.57x10 ⁻⁰⁶ |
| ENS00000136169.10 | SETDB2 | SET domain bifurcated histone lysine methyltransferase 2 | Nucleus | enzyme | | | 1,863 | 9.54x10 ⁻⁰⁵ |
| ENS00000227541.1 | SFR1P1 | SFR1 pseudogene 1 | Other | other | | | 4,115 | 3.49x10 ⁻⁰² |
| ENS00000145423.4 | SFRP2 | secreted frizzled related protein 2 | Plasma Membrane | transmembrane receptor | | | 3,332 | 4.63x10 ⁻²⁴ |
| ENS00000161523.13 | SGSH | N-sulfolucosamine sulfoxidase | Cytoplasm | enzyme | | | 1,427 | 4.14x10 ⁻⁰² |
| ENS0000013117.11 | SH3BGR | SH3 domain binding glutamate rich protein like | Nucleus | transporter | | | 2,686 | 2.93x10 ⁻⁰² |
| ENS00000105251.10 | SHD | SHc homology 2 domain containing transforming protein D | Cytoplasm | other | | | -1,611 | 2.75x10 ⁻⁰² |
| ENS00000198892.6 | SHISA4 | shisa family member 4 | Other | other | | | -3,743 | 2.66x10 ⁻⁰² |
| ENS0000011984.14 | SHLD1 | shieldin complex subunit 1 | Nucleus | other | | | 1,89 | 9.53x10 ⁻⁰³ |
| ENS00000165874.13 | SHLD2P1 | shieldin complex subunit 2 pseudogene 1 | Other | other | | | -1,214 | 1.80x10 ⁻⁰² |
| ENS00000275993.2 | SHK1/SHK1B | shik inducible kinase 1 | Nucleus | kinase | | | 2,037 | 9.35x10 ⁻⁰³ |
| ENS00000138983.4 | SHX | SHX homeobox 3 | Nucleus | transcription regulator | | | 1,458 | 2.93x10 ⁻⁰⁴ |
| ENS00000138603.13 | SKIL | SKI like proto-oncogene | Nucleus | transcription regulator | | | 1,637 | 1.67x10 ⁻⁰⁴ |
| ENS00000145604.18 | SKP2 | S-phase kinase associated protein 2 | Nucleus | other | | | 1,442 | 2.18x10 ⁻⁰² |
| ENS00000104888.9 | SLC17A7 | solute carrier family 17 member 7 | Plasma Membrane | transporter | | | -1,643 | 2.11x10 ⁻¹⁰ |
| ENS00000168065.13 | SLC22A11 | solute carrier family 22 member 11 | Plasma Membrane | transporter | | | -1,54 | 1.12x10 ⁻⁰² |
| ENS00000102743.14 | SLC25A15 | solute carrier family 25 member 15 | Cytoplasm | transporter | | | 2,032 | 1.56x10 ⁻⁰² |
| ENS00000008549.13 | SLC25A24 | solute carrier family 25 member 24 | Cytoplasm | transporter | | | 1,623 | 2.93x10 ⁻⁰² |
| ENS00000005022.5 | SLC25A5 | solute carrier family 25 member 5 | Cytoplasm | transporter | | | 2,781 | 1.78x10 ⁻⁰³ |
| ENS00000169100.12 | SLC25A6 | solute carrier family 25 member 6 | Cytoplasm | transporter | | | 2,295 | 2.55x10 ⁻⁰⁷ |
| ENS00000135502.16 | SLC26A10 | solute carrier family 26 member 10 | Other | other | | | 1,735 | 1.10x10 ⁻⁰⁴ |
| ENS000000091137.11 | SLC26A4 | solute carrier family 26 member 4 | Plasma Membrane | transporter | | | 1,767 | 2.34x10 ⁻⁰² |
| ENS00000225897.10 | SLC26A6 | solute carrier family 26 member 6 | Cytoplasm | transporter | | | -1,299 | 1.71x10 ⁻⁰² |
| ENS0000015801.13 | SLC3A2 | solute carrier family 30 member 2 | Plasma Membrane | transporter | | | -2,023 | 2.93x10 ⁻⁰³ |
| ENS0000013183.10 | SLC3A4A | solute carrier family 34 member 1 | Plasma Membrane | transporter | | | -1,519 | 3.57x10 ⁻⁰² |
| ENS00000134294.13 | SLC38A2 | solute carrier family 38 member 2 | Plasma Membrane | transporter | | | 1,299 | 6.57x10 ⁻⁰⁴ |
| ENS00000138079.13 | SLC3A1 | solute carrier family 3 member 1 | Plasma Membrane | transporter | | | 2,844 | 2.53x10 ⁻²⁴ |
| ENS00000164889.13 | SLC4A2 | solute carrier family 4 member 2 | Plasma Membrane | transporter | | | -1,301 | 7.44x10 ⁻⁰³ |
| ENS000000063127.13 | SLC6A16 | solute carrier family 6 member 16 | Plasma Membrane | transporter | | | -1,475 | 1.05x10 ⁻⁰² |
| ENS00000164361.13 | SLC6A18 | solute carrier family 6 member 18 | Plasma Membrane | transporter | | | 4,23 | 3.93x10 ⁻⁰² |
| ENS0000011083.8 | SLC6A7 | solute carrier family 6 member 7 | Plasma Membrane | transporter | | | -1,626 | 3.32x10 ⁻⁰³ |
| ENS00000103257.8 | SLC7A5 | solute carrier family 7 member 5 | Plasma Membrane | transporter | | | -2,417 | 4.62x10 ⁻⁰² |
| ENS00000115616.12 | SLC9A2 | solute carrier family 9 member A2 | Plasma Membrane | transporter | | | 1,694 | 8.06x10 ⁻⁰⁸ |
| ENS00000179542.13 | SLITRK4 | SLIT and NTRK like family member 4 | Extracellular Space | other | | | 1,114 | 3.00x10 ⁻⁰² |
| ENS00000006513.13 | SLK | STE20 like kinase | Nucleus | kinase | | | 1,188 | 1.22x10 ⁻⁰² |
| ENS00000163691.14 | SLMAP | scalloped/leukemia associated protein | Plasma Membrane | other | | | 1,157 | 3.17x10 ⁻⁰⁵ |
| ENS00000137716.13 | SLTM | SARF like transcription modulator | Nucleus | other | | | 1,11 | 2.73x10 ⁻⁰³ |
| ENS00000170365.9 | SMAD1 | SMAD family member 1 | Nucleus | transcription regulator | | | 1,234 | 3.65x10 ⁻⁰² |
| ENS000000080503.19 | SMARCA2 | SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 | Nucleus | transcription regulator | | | 1,382 | 2.81x10 ⁻⁰² |
| ENS00000127616.11 | SMARCA4 | SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 | Nucleus | transcription regulator | | | 1,111 | 1.77x10 ⁻⁰² |
| ENS00000224531.5 | SMIM13 | small integral membrane protein 13 | Other | other | | | 1,512 | 3.08x10 ⁻⁰² |
| ENS00000262543.11 | SMIM28 | small integral membrane protein 28 | Other | other | | | -3,578 | 2.73x10 ⁻⁰² |
| ENS00000120557.11 | SMN1/SMN2 | survival of motor neuron 1, telomeric | Nucleus | other | | | 1,684 | 3.93x10 ⁻⁰³ |
| ENS00000103056.11 | SMPO3 | sphingomyelin phosphodiesterase 3 | Cytoplasm | enzyme | | | -1,424 | 2.73x10 ⁻⁰² |
| ENS00000102172.13 | SMSS | spermine synthase | Cytoplasm | enzyme | | (±)-2-hydroxyoleic acid | 2,403 | 5.34x10 ⁻⁰⁴ |
| ENS00000242125.3 | SNHG3 | small nucleolar RNA host gene 3 | Nucleus | other | | | 1,096 | 1.56x10 ⁻⁰³ |
| ENS00000281398.2 | SNHG4 | small nucleolar RNA host gene 4 | Other | other | | | 2,404 | 7.00x10 ⁻⁰⁴ |
| ENS00000207181.1 | SNORA14B | small nucleolar RNA, H/ACA box 14B | Other | other | | | 2,503 | 1.41x10 ⁻⁰² |
| ENS0000027827.11 | SNORA4 | small nucleolar RNA, H/ACA box 61 | Other | other | | | 2,787 | 1.47x10 ⁻⁰² |
| ENS00000274266.11 | SNORA73A | small nucleolar RNA, H/ACA box 73A | Nucleus | other | | | 7,767 | 2.01x10 ⁻⁰⁶ |
| ENS00000200087.11 | SNORA73B | small nucleolar RNA, H/ACA box 73B | Other | other | | | 3,447 | 5.69x10 ⁻⁰⁴ |
| ENS00000199753.1 | SNORD104 | small nucleolar RNA, C/D box 104 | Other | other | | | 5,471 | 7.41x10 ⁻⁰⁴ |
| ENS00000227688.11 | SNORD26 | small nucleolar RNA, C/D box 26 | Other | other | | | 4,691 | 2.34x10 ⁻⁰² |
| ENS00000167088.10 | SNRNP1 | small nuclear ribonucleoprotein D1 polypeptide | Nucleus | other | | | 1,454 | 1.49x10 ⁻⁰³ |
| ENS00000104497.13 | SNX16 | sorting nexin 16 | Cytoplasm | transporter | | | 1,976 | 1.47x10 ⁻⁰² |
| ENS00000112335.14 | SNX3 | sorting nexin 3 | Cytoplasm | transporter | | | 2,171 | 2.59x10 ⁻⁰⁴ |
| ENS00000173548.8 | SNX33 | sorting nexin 33 | Cytoplasm | other | | | -1,335 | 4.74x10 ⁻⁰³ |
| ENS00000185338.4 | SOCS1 | suppressor of cytokine signaling 1 | Cytoplasm | other | | | 3,107 | 7.40x10 ⁻³¹ |
| ENS00000142168.14 | SOD1 | superoxide dismutase 1 | Cytoplasm | enzyme | | | 2,307 | 1.52x10 ⁻⁰² |
| ENS00000113140.10 | SPARC | secreted protein acidic and cysteine rich | Extracellular Space | other | | | 1,422 | 9.63x10 ⁻⁰⁷ |
| ENS00000152880.13 | SPARCL1 | SPARC like 1 | Extracellular Space | other | | | 1,661 | 6.20x10 ⁻⁰⁷ |
| ENS00000133104.13 | SPART | spartan | Cytoplasm | other | | | 1,262 | 3.11x10 ⁻⁰² |
| ENS00000189357.8 | SPATA31D1 (includes others) | SPATA31 subfamily D member 1 | Other | other | | | -3,525 | 2.99x10 ⁻⁰³ |
| ENS000000066336.11 | SPI1 | Spi-1 proto-oncogene | Nucleus | transcription regulator | | | 1,371 | 3.55x10 ⁻⁰⁴ |
| ENS00000106723.16 | SPIN1 | spinidin 1 | Nucleus | other | | | 2,027 | 6.60x10 ⁻⁰⁵ |
| ENS00000107742.13 | SPOCK2 | SPARC (osteonectin), cwcv and kazal like domains proteoglycan 2 | Extracellular Space | other | | | -1,073 | 3.70x10 ⁻⁰² |
| ENS00000171621.13 | SPSB1 | spiA/ryanodine receptor domain and SOCS box containing 1 | Cytoplasm | other | | | 2,943 | 6.20x10 ⁻⁰⁷ |
| ENS00000160469.13 | SPTBN4 | spectrin beta, non-erythrocytic 4 | Cytoplasm | other | | | -1,417 | 1.52x10 ⁻⁰² |
| ENS00000165389.6 | SPTSSA | serine palmitoyltransferase small subunit A | Cytoplasm | enzyme | | | 2,126 | 5.21x10 ⁻⁰⁵ |
| ENS00000161011.19 | SQSTM1 | sequestosome 1 | Cytoplasm | transcription regulator | | | 1,806 | 4.91x10 ⁻⁰⁶ |
| ENS00000140319.10 | SRP14 | signal recognition particle 14 | Cytoplasm | other | | | 3 | 7.58x10 ⁻²¹ |
| ENS00000143742.13 | SRP9 | signal recognition particle 9 | Cytoplasm | other | | | 2,982 | 5.19x10 ⁻⁰⁵ |
| ENS00000138450.13 | SRP91 | serine and arginine rich splicing factor 1 | Nucleus | other | | | 1,317 | 1.69x10 ⁻⁰² |
| ENS00000116754.13 | SRSF11 | serine and arginine rich splicing factor 11 | Nucleus | other | | | 1,205 | 1.76x10 ⁻⁰⁴ |
| ENS00000112081.10 | SRSF3 | serine and arginine rich splicing factor 3 | Nucleus | other | | | 1,031 | 3.14x10 ⁻⁰² |
| ENS0000011786.8 | SRSF9 | serine and arginine rich splicing factor 9 | Nucleus | enzyme | | | 1,885 | 8.62x10 ⁻⁰³ |
| ENS00000179954.14 | SSCS5D | scavenger receptor cysteine rich family member with 5 domains | Plasma Membrane | transmembrane receptor | | | -1,18 | 1.22x10 ⁻⁰³ |
| ENS0 | | | | | | | | |

| | | | | | | |
|--------------------|-------------------------|--|---------------------|----------------------------|--------|------------------------|
| ENS00000143028.8 | SYPL2 | synaptophysin like 2 | Other | other | -1.187 | 1.87×10 ⁻⁰² |
| ENS00000213023.9 | SYT3 | synaptotagmin 3 | Cytoplasm | transporter | -1.44 | 5.25×10 ⁻⁰⁴ |
| ENS00000157625.18 | TAK3 | TRAF-beta activated kinase 1 (MAP3K7) binding protein 3 | Cytoplasm | other | 1.007 | 1.32×10 ⁻⁰² |
| ENS00000231922.1 | TAPB | TAP binding protein | Cytoplasm | transporter | -1.865 | 5.91×10 ⁻⁰² |
| ENS00000212128.2 | TAS2R13 | taste 2 receptor member 13 | Plasma Membrane | G-protein coupled receptor | 2.124 | 4.10×10 ⁻⁰² |
| ENS00000164532.10 | TBX20 | T-box transcription factor 20 | Nucleus | transcription regulator | 1.974 | 1.65×10 ⁻⁰³ |
| ENS00000133142.17 | TCEAL4 | transcription elongation factor A like 4 | Other | other | 1.176 | 1.76×10 ⁻⁰² |
| ENS00000185222.7 | TCEAL9 | transcription elongation factor A like 9 | Other | other | 2.343 | 4.06×10 ⁻⁰⁵ |
| ENS00000215029.8 | TCF11Y2 | T-complex 1 family, X-linked 2 | Other | other | 2.956 | 2.79×10 ⁻⁰² |
| ENS0000022382.1 | TCRF1P6 | TCRF 1 pseudogene 6 | Other | other | 2.811 | 2.51×10 ⁻⁰³ |
| ENS00000131126.18 | TEX101 | testis expressed 101 | Plasma Membrane | other | 3.057 | 7.39×10 ⁻¹¹ |
| ENS00000140682.18 | TGFBI1 | transforming growth factor beta 1 induced transcript 1 | Nucleus | transcription regulator | -1.131 | 4.91×10 ⁻⁰³ |
| ENS00000137801.10 | THBS1 | thrombospondin 1 | Extracellular Space | other | 1.775 | 2.47×10 ⁻¹⁸ |
| ENS00000130775.18 | THEMIS2 | thymocyte selection associated family member 2 | Other | other | -1.149 | 1.20×10 ⁻⁰² |
| ENS00000227339.1 | THRAP3P1 | THRAP3 pseudogene 1 | Other | other | -1.345 | 4.53×10 ⁻⁰² |
| ENS0000025883.1 | TIFA | TIFA inhibitor | Other | other | -1.392 | 1.47×10 ⁻⁰² |
| ENS00000137221.14 | TJAP | tight junction associated protein 1 | Plasma Membrane | other | -1.566 | 1.09×10 ⁻⁰³ |
| ENS00000196781.13 | TLE1 | TLE family member 1, transcriptional corepressor | Nucleus | transcription regulator | 1.222 | 4.22×10 ⁻⁰² |
| ENS00000104953.18 | TLE6 | TLE family member 6, subcortical maternal complex member | Nucleus | other | -3.408 | 2.09×10 ⁻⁰² |
| ENS00000239732.3 | TLR9 | toll like receptor 9 | Plasma Membrane | transmembrane receptor | -4.503 | 2.23×10 ⁻⁰³ |
| ENS00000136404.18 | TM6SF1 | transmembrane 6 superfamily member 1 | Plasma Membrane | other | 5.579 | 1.59×10 ⁻⁰⁷ |
| ENS00000232112.3 | TMA1 | translation machinery associated 7 homolog | Other | other | 1.487 | 2.57×10 ⁻⁰² |
| ENS00000149488.12 | TMC2 | transmembrane channel like 2 | Plasma Membrane | ion channel | -1.151 | 4.68×10 ⁻⁰² |
| ENS00000162542.13 | TMC04 | transmembrane and coiled-coil domains 4 | Other | other | 2.005 | 2.68×10 ⁻⁰² |
| ENS00000091947.9 | TMEM101 | transmembrane protein 101 | Extracellular Space | other | -1.653 | 4.12×10 ⁻⁰² |
| ENS00000183307.3 | TMEM121B | transmembrane protein 121B | Nucleus | transcription regulator | -1.455 | 9.35×10 ⁻⁰³ |
| ENS00000152556.14 | TMEM123 | transmembrane protein 123 | Plasma Membrane | other | 1.72 | 2.49×10 ⁻⁰² |
| ENS00000184497.13 | TMEM255B | transmembrane protein 255B | Other | other | -1.625 | 6.08×10 ⁻⁰³ |
| ENS00000180694.11 | TMEM64 | transmembrane protein 64 | Cytoplasm | other | 1.217 | 2.25×10 ⁻⁰³ |
| ENS00000224533.4 | TMLHE-AS1 | TMHE antisense RNA 1 | Other | other | 2.225 | 1.90×10 ⁻⁰² |
| ENS00000034510.5 | TMSB10/TMSB4X | thymosin beta 4 X-linked | Cytoplasm | other | 3.252 | 1.78×10 ⁻¹⁹ |
| ENS00000205542.10 | TMSB10/TMSB4X | thymosin beta 4 X-linked | Cytoplasm | other | 2.371 | 5.70×10 ⁻¹² |
| ENS00000204505.8 | TNFRSF13B | TNF receptor superfamily member 13B | Plasma Membrane | transmembrane receptor | -1.556 | 9.82×10 ⁻⁰⁷ |
| ENS00000061938.10 | TNKC | tyrosine kinase non receptor 2 | Cytoplasm | kinase | -1.144 | 4.56×10 ⁻⁰³ |
| ENS0000008331.12 | TNP1 | transcriptin 1 | Nucleus | transporter | 1.375 | 3.23×10 ⁻⁰⁵ |
| ENS00000230962.1 | TNP01P2 | transcriptin 1 pseudogene 2 | Other | other | 5.849 | 3.77×10 ⁻⁰⁶ |
| ENS00000182095.14 | TNRC18 | trinucleotide repeat containing 18 | Nucleus | other | -1.513 | 1.98×10 ⁻⁰⁵ |
| ENS00000223566.1 | TNRC18P2 | trinucleotide repeat containing 18 pseudogene 2 | Other | other | -1.645 | 2.23×10 ⁻⁰⁴ |
| ENS00000168477.17 | TNXB | tenascin XB | Extracellular Space | other | -2.082 | 6.16×10 ⁻⁰⁴ |
| ENS00000137326.10 | TMOM20 | translocase of outer mitochondrial membrane 20 | Cytoplasm | transporter | 2.027 | 1.27×10 ⁻⁰⁵ |
| ENS00000198901.6 | TNA1 | DNA topoisomerase 1 | Nucleus | enzyme | 1.578 | 3.23×10 ⁻⁰² |
| ENS00000077097.13 | TOP2B | DNA topoisomerase II beta | Nucleus | enzyme | 1.957 | 4.53×10 ⁻⁰³ |
| ENS00000103460.16 | TOX3 | TOX high mobility group box family member 3 | Nucleus | transcription regulator | 1.265 | 4.57×10 ⁻⁰² |
| ENS00000143549.18 | TPM3 | tropomyosin 3 | Cytoplasm | other | 1.075 | 3.20×10 ⁻⁰⁵ |
| ENS00000167460.14 | TPM4 | tropomyosin 4 | Cytoplasm | other | 2.103 | 4.28×10 ⁻¹⁴ |
| ENS00000047410.13 | TPR | tripartite motif containing 28 | Nucleus | other | 1.379 | 2.03×10 ⁻⁰³ |
| ENS00000188001.9 | TPR1 | tumor protein p53 regulated 1 | Cytoplasm | other | 1.078 | 5.33×10 ⁻⁰² |
| ENS00000116176.6 | TPSG1 | trypsin gamma 1 | Extracellular Space | peptidase | -3.53 | 4.63×10 ⁻⁰² |
| ENS00000133112.16 | TPST1 | tumor protein, translationally-controlled 1 | Cytoplasm | other | 1.918 | 1.91×10 ⁻¹⁷ |
| ENS00000115993.11 | TRAK2 | trafficking kinesin protein 2 | Plasma Membrane | transporter | 1.413 | 5.44×10 ⁻⁰⁸ |
| ENS00000225992.1 | TRGVA | T cell receptor gamma variable A (pseudogene) | Other | other | 5.622 | 2.92×10 ⁻⁰³ |
| ENS00000130726.11 | TRIM28 | tripartite motif containing 28 | Nucleus | transcription regulator | 2.73 | 1.81×10 ⁻⁰⁴ |
| ENS00000168001.11 | TRIM51HP | tripartite motif containing 51H, pseudogene | Other | other | 6.538 | 1.07×10 ⁻⁰² |
| ENS00000223709.5 | TRIM64EP | tripartite motif containing 64E, pseudogene | Other | other | 4.452 | 8.75×10 ⁻⁰³ |
| ENS00000178809.11 | TRIM73/TRIM74 | tripartite motif containing 74 | Cytoplasm | other | -1.285 | 1.89×10 ⁻⁰² |
| ENS00000204025.6 | TRPC5OS | TRPC5 opposite strand | Other | other | 1.652 | 1.02×10 ⁻⁰² |
| ENS00000196688.10 | TRPV1 | transient receptor potential cation channel subfamily V member 1 | Plasma Membrane | ion channel | -2.231 | 1.66×10 ⁻⁰² |
| ENS00000165832.5 | TRUB1 | TRUB pseudouridine synthase family member 1 | Other | enzyme | 1.507 | 4.68×10 ⁻⁰² |
| ENS0000025503.12 | TRUN1 | TRUN1-AS1 | Other | other | 4.616 | 2.91×10 ⁻⁰² |
| ENS00000156298.13 | TSPAN7 | tetraspanin 7 | Plasma Membrane | other | 2.937 | 2.75×10 ⁻⁰² |
| ENS00000233803.8 | TSFY1 (includes others) | testis specific protein Y-linked 1 | Other | other | -2.317 | 5.85×10 ⁻⁰³ |
| ENS00000258992.5 | TSFY1 (includes others) | testis specific protein Y-linked 1 | Other | other | -3.858 | 2.30×10 ⁻⁰² |
| ENS00000146216.11 | TTBK1 | tau tubulin kinase 1 | Other | kinase | -1.854 | 1.71×10 ⁻⁰⁴ |
| ENS00000215105.4 | TTCCP1 | tetratricopeptide repeat domain 3 pseudogene 1 | Other | other | 1.573 | 2.11×10 ⁻⁰² |
| ENS0000020823.12 | TTLL10-AS1 | TTLL10 antisense RNA 1 | Other | other | 2.632 | 2.61×10 ⁻⁰³ |
| ENS00000233061.1 | TTLL7-T11 | TTLL7 intronic transcript 1 | Other | other | 1.884 | 2.11×10 ⁻⁰² |
| ENS00000225154.2 | TUBA9P | tubulin alpha pseudogene 9 | Other | other | -4.547 | 1.61×10 ⁻⁰³ |
| ENS00000196230.12 | TUBB | tubulin beta class I | Cytoplasm | other | 1.387 | 8.24×10 ⁻⁰⁶ |
| ENS00000137267.5 | TUBB2A | tubulin beta 2A class IIA | Cytoplasm | other | 2.265 | 2.01×10 ⁻⁰² |
| ENS00000104833.10 | TUBB4A | tubulin beta 4A class IIVA | Cytoplasm | other | -2.125 | 3.08×10 ⁻⁰² |
| ENS00000178014.12 | TUBB6 | tubulin beta 6 class V | Cytoplasm | other | 1.596 | 6.35×10 ⁻⁰⁴ |
| ENS000001086712.12 | TXLNG | taxilin gamma | Cytoplasm | other | 1.916 | 3.31×10 ⁻⁰³ |
| ENS00000239264.8 | TXNDC5 | thioredoxin domain containing 5 | Cytoplasm | enzyme | 2.163 | 7.80×10 ⁻⁰⁵ |
| ENS00000176890.18 | TYMS | thymidylate synthetase | Nucleus | enzyme | 1.986 | 1.47×10 ⁻⁰² |
| ENS00000278774.1 | U2 | U2 | Other | other | 9.433 | 7.21×10 ⁻⁰³ |
| ENS00000137831.14 | UACA | uveal autoantigen with coiled-coil domains and ankyrin repeats | Cytoplasm | other | 1.446 | 1.21×10 ⁻¹⁰ |
| ENS00000117145.13 | UAAP1 | UDP-N-acetylglucosamine pyrophosphorylase 1 | Nucleus | enzyme | 1.929 | 3.90×10 ⁻⁰² |
| ENS00000170316.11 | UBB | ubiquitin B | Cytoplasm | enzyme | 2.017 | 3.31×10 ⁻⁰⁶ |
| ENS00000150991.14 | UBC | ubiquitin C | Cytoplasm | enzyme | 1.062 | 1.11×10 ⁻⁰² |
| ENS00000131508.11 | UBE2D2 | ubiquitin conjugating enzyme E2 D2 | Cytoplasm | enzyme | 1.372 | 4.83×10 ⁻⁰² |
| ENS00000132388.12 | UBE2G1 | ubiquitin conjugating enzyme E2 G1 | Cytoplasm | enzyme | 1.531 | 6.13×10 ⁻⁰⁵ |
| ENS00000104517.12 | UBRS | ubiquitin protein ligase E3 component n-recognition 5 | Nucleus | enzyme | 1.344 | 3.37×10 ⁻⁰² |
| ENS00000233007.1 | UBTFL11 | UBTFL1 like 11 (pseudogene) | Other | other | 1.655 | 4.38×10 ⁻⁰² |
| ENS0000016219.11 | UBX1 | UBX domain protein 1 | Cytoplasm | other | 1.407 | 1.61×10 ⁻⁰⁴ |
| ENS00000135220.10 | UCT2A3 | UDP glucuronosyltransferase family 2 member A3 | Other | enzyme | 2.445 | 5.58×10 ⁻⁰³ |
| ENS00000147854.18 | UHRF2 | ubiquitin like with PHD and ring finger domains 2 | Nucleus | enzyme | 1.028 | 9.84×10 ⁻⁰³ |
| ENS00000233392.5 | UICLM | up-regulated in colorectal cancer liver metastasis | Other | other | -3.447 | 3.81×10 ⁻⁰⁴ |
| ENS00000184385.2 | UMODL1-AS1 | UMODL1 antisense RNA 1 | Other | other | -2.309 | 1.02×10 ⁻⁰² |
| ENS00000198722.12 | UNC13B | unc-13 homolog B | Cytoplasm | other | 1.631 | 2.62×10 ⁻⁰³ |
| ENS00000140353.3 | UNC5A | unc-5 myosin chaperone A | Plasma Membrane | other | -1.127 | 4.72×10 ⁻⁰² |
| ENS00000115446.11 | UNC50 | unc-50 inner nuclear membrane RNA binding protein | Cytoplasm | other | 1.489 | 5.03×10 ⁻⁰³ |
| ENS00000204922.4 | UQC3C | ubiquinol-cytochrome c reductase core complex assembly factor 3 | Extracellular Space | other | -1.789 | 2.18×10 ⁻⁰² |
| ENS00000140740.10 | UQCRC2 | ubiquinol-cytochrome c reductase core protein 2 | Cytoplasm | enzyme | 1.112 | 4.32×10 ⁻⁰² |
| ENS00000105176.17 | UR1 | UR1 prefoldin like chaperone | Nucleus | transcription regulator | 1.741 | 1.94×10 ⁻⁰³ |
| ENS00000233327.10 | USP3P2 | ubiquitin specific peptidase 32 pseudogene 2 | Other | other | 1.816 | 1.81×10 ⁻⁰⁵ |
| ENS00000118361.12 | USP45 | ubiquitin specific peptidase 35 | Extracellular Space | peptidase | -1.144 | 2.81×10 ⁻⁰² |
| ENS00000170236.14 | USP50 | ubiquitin specific peptidase 50 | Other | peptidase | 5.389 | 6.97×10 ⁻⁰³ |
| ENS00000132467.3 | UTP3 | UTP3 small subunit processome component | Nucleus | other | -1.231 | 1.64×10 ⁻⁰² |
| ENS00000152818.18 | UTRN | utrophin | Plasma Membrane | transmembrane receptor | 1.379 | 5.64×10 ⁻⁰⁴ |
| ENS00000049245.12 | VAMP3 | vesicle associated membrane protein 3 | Plasma Membrane | other | 1.65 | 3.36×10 ⁻⁰² |
| ENS00000117533.14 | VAMP4 | vesicle associated membrane protein 4 | Cytoplasm | other | 1.777 | 3.78×10 ⁻⁰⁴ |
| ENS00000204394.11 | VARB1 | vary-RNA synthetase 1 | Cytoplasm | enzyme | 2.478 | 5.52×10 ⁻⁰⁴ |
| ENS00000165637.13 | VDAC2 | voltage dependent anion channel 2 | Cytoplasm | ion channel | 1.475 | 4.82×10 ⁻⁰² |
| ENS00000078668.13 | VDAC3 | voltage dependent anion channel 3 | Cytoplasm | ion channel | 2.531 | 4.91×10 ⁻⁰³ |
| ENS00000112715.20 | VEGFA | vascular endothelial growth factor A | Extracellular Space | growth factor | 20.43 | 0.00×10 ⁻⁰⁰ |
| ENS00000173511.9 | VEGFB | vascular endothelial growth factor B | Extracellular Space | growth factor | 2.843 | 7.94×10 ⁻⁰⁷ |
| ENS00000202605.13 | VIM | vimentin | Cytoplasm | other | 2.942 | 1.20×10 ⁻⁴⁴ |
| ENS00000108019.13 | VIPR2 | vasoactive intestinal peptide receptor 2 | Plasma Membrane | G-protein coupled receptor | 2.157 | 2.58×10 ⁻⁰² |
| ENS00000197817.6 | VNTR5 | vomerin1 1 receptor 5 (gene/pseudogene) | Other | other | -3.657 | 3.77×10 ⁻⁰² |
| ENS00000093134.13 | VNN3 | vannin 3 | Extracellular Space | enzyme | -1.289 | 3.27×10 ⁻⁰² |
| ENS00000129003.18 | VPS13C | vacuolar protein sorting 13 homolog C | Cytoplasm | other | 2.238 | 1.18×10 ⁻⁰⁷ |
| ENS00000132821.1 | VSTM2L | V-set and transmembrane domain containing 2 like | Extracellular Space | other | 3.325 | 8.26×10 ⁻⁰⁹ |
| ENS00000199990.1 | VTRNA1-1 | vault RNA 1-1 | Other | other | 7.562 | 1.30×10 ⁻⁰⁹ |
| ENS00000202111.1 | VTRNA1-2 | vault RNA 1-2 | Other | other | 5.391 | 1.04×10 ⁻⁰³ |
| ENS00000146556.14 | WASF1P | WASP family homolog 2, pseudogene | Other | other | -1.985 | 6.81×10 ⁻⁰⁴ |
| ENS00000182484.14 | WASH6P | WASP family homolog 6, pseudogene | Cytoplasm | other | -2.068 | 7.86×10 ⁻⁰⁵ |
| ENS00000071127.18 | WDR1 | WD repeat domain 1 | Extracellular Space | other | 1.28 | 2.17×10 ⁻⁰⁴ |
| ENS00000167716.18 | WDR81 | WD repeat domain 81 | Plasma Membrane | other | -1.098 | 2.46×10 ⁻⁰² |
| ENS00000095397.13 | WHIRL1 | whirlin | Plasma Membrane | other | -1.37 | 1.57×10 ⁻⁰² |
| ENS00000188064.9 | WNT7B | Wnt family member 7B | Extracellular Space | other | -2.337 | 2.86×10 ⁻⁰² |
| ENS00000124535.18 | WRNIP1 | WRN helicase interacting protein 1 | Nucleus | enzyme | 1.638 | 1.77×10 ⁻⁰² |
| ENS00000047644.13 | WWC3 | WWC family member 3 | Cytoplasm | other | 1.229 | 3.18×10 ⁻⁰² |
| ENS0000018408.14 | WWRTR1 | WW domain containing transcription regulator 1 | Nucleus | transcription regulator | 1.398 | 1.46×10 ⁻⁰³ |
| ENS00000101966.12 | XIAP | X-linked inhibitor of apoptosis | Cytoplasm | enzyme | 1.091 | 1.24×10 ⁻⁰² |
| ENS00000182489.8 | XKRX | XK related X-linked | Other | other | 1.621 | 2.07×10 ⁻⁰² |
| ENS00000079246.18 | XKRC5 | X-ray repair cross complementing 5 | Nucleus | enzyme | 1.862 | 1. |

| | | | | | | |
|--------------------|-----------|---|---------------------|-------------------------|--------|------------------------|
| ENSG00000139168.7 | ZCRB1 | zinc finger CCHC-type and RNA binding motif containing 1 | Nucleus | other | 1,709 | 4.68×10 ⁻⁰² |
| ENSG00000160446.18 | ZDHHC12 | zinc finger DHHC-type palmitoyltransferase 12 | Cytoplasm | enzyme | -1,118 | 1.65×10 ⁻⁰² |
| ENSG00000104219.12 | ZDHHC2 | zinc finger DHHC-type palmitoyltransferase 2 | Nucleus | enzyme | 1,788 | 3.37×10 ⁻⁰² |
| ENSG00000148519.2 | ZEB1 | zinc finger E-box binding homeobox 1 | Nucleus | transcription regulator | 1,006 | 3.73×10 ⁻⁰⁶ |
| ENSG00000196867.7 | ZFP28 | ZFP28 zinc finger protein | Nucleus | transcription regulator | 1,042 | 3.50×10 ⁻⁰² |
| ENSG00000181007.8 | ZFP82 | ZFP82 zinc finger protein | Nucleus | transcription regulator | 1,694 | 1.48×10 ⁻⁰³ |
| ENSG00000179588.8 | ZFPM1 | zinc finger protein, FOG family member 1 | Nucleus | transcription regulator | 1,728 | 6.50×10 ⁻⁰⁵ |
| ENSG00000188070.9 | ZFTA | zinc finger translocation associated | Other | other | -1,245 | 2.15×10 ⁻⁰² |
| ENSG00000166432.14 | ZMAT1 | zinc finger matrin-type 1 | Nucleus | other | 1,43 | 1.22×10 ⁻⁰² |
| ENSG00000100319.13 | ZMAT5 | zinc finger matrin-type 5 | Nucleus | other | -2,451 | 5.24×10 ⁻⁰³ |
| ENSG00000196247.11 | ZNF107 | zinc finger protein 107 | Nucleus | transcription regulator | 1,788 | 2.45×10 ⁻⁰³ |
| ENSG00000196646.11 | ZNF136 | zinc finger protein 136 | Nucleus | transcription regulator | 1,895 | 7.41×10 ⁻⁰⁴ |
| ENSG00000167384.10 | ZNF180 | zinc finger protein 180 | Nucleus | transcription regulator | 2,450 | 1.40×10 ⁻⁰² |
| ENSG00000136870.10 | ZNF189 | zinc finger protein 189 | Nucleus | transcription regulator | 2,401 | 5.19×10 ⁻⁰⁴ |
| ENSG00000175395.13 | ZNF25 | zinc finger protein 25 | Nucleus | transcription regulator | 1,745 | 3.01×10 ⁻⁰² |
| ENSG00000056277.13 | ZNF280C | zinc finger protein 280C | Nucleus | transcription regulator | 2,391 | 4.07×10 ⁻⁰³ |
| ENSG00000223910.11 | ZNF32-AS3 | ZNF32 antisense RNA 3 | Other | other | 2,855 | 1.54×10 ⁻⁰² |
| ENSG00000225614.2 | ZNF469 | zinc finger protein 469 | Nucleus | transcription regulator | -1,421 | 4.13×10 ⁻⁰³ |
| ENSG00000177853.14 | ZNF518A | zinc finger protein 518A | Other | other | 1,209 | 2.21×10 ⁻⁰² |
| ENSG00000118156.12 | ZNF541 | zinc finger protein 541 | Nucleus | transcription regulator | -3,086 | 1.51×10 ⁻⁰² |
| ENSG00000188785.11 | ZNF548 | zinc finger protein 548 | Other | other | 1,202 | 2.92×10 ⁻⁰² |
| ENSG00000102870.5 | ZNF629 | zinc finger protein 629 | Nucleus | transcription regulator | -1,117 | 8.73×10 ⁻⁰³ |
| ENSG00000167395.10 | ZNF646 | zinc finger protein 646 | Nucleus | transcription regulator | -1,222 | 2.67×10 ⁻⁰⁴ |
| ENSG00000179195.13 | ZNF664 | zinc finger protein 664 | Nucleus | transcription regulator | 1,247 | 3.03×10 ⁻⁰³ |
| ENSG00000197472.14 | ZNF695 | zinc finger protein 695 | Nucleus | transcription regulator | 2,223 | 4.07×10 ⁻⁰³ |
| ENSG00000242779.6 | ZNF702P | zinc finger protein 702, pseudogene | Nucleus | other | 2,038 | 3.39×10 ⁻⁰² |
| ENSG00000227124.8 | ZNF717 | zinc finger protein 717 | Nucleus | transcription regulator | 1,16 | 3.75×10 ⁻⁰² |
| ENSG00000268986.1 | ZNF723 | zinc finger protein 723 | Other | other | 2,937 | 3.55×10 ⁻⁰² |
| ENSG00000197779.13 | ZNF81 | zinc finger protein 81 | Nucleus | transcription regulator | 1,392 | 1.74×10 ⁻⁰² |
| ENSG00000152475.6 | ZNF837 | zinc finger protein 837 | Other | other | -3,71 | 3.53×10 ⁻⁰² |
| ENSG00000159904.11 | ZNF890P | zinc finger protein 890, pseudogene | Other | other | -3,631 | 4.08×10 ⁻⁰² |
| ENSG00000213988.9 | ZNF90 | zinc finger protein 90 | Nucleus | transcription regulator | 1,134 | 1.53×10 ⁻⁰² |
| ENSG00000106400.11 | ZNHIT1 | zinc finger HIT-type containing 1 | Nucleus | other | -1,075 | 2.30×10 ⁻⁰² |
| ENSG00000169249.12 | ZRSR2 | zinc finger CCHC-type, RNA binding motif and serine/arginine rich 2 | Nucleus | other | 1,346 | 4.82×10 ⁻⁰² |
| ENSG00000158691.14 | ZSCAN12 | zinc finger and SCAN domain containing 12 | Nucleus | transcription regulator | 1,303 | 3.96×10 ⁻⁰³ |
| ENSG00000214655.10 | ZSWIM8 | zinc finger SWIM-type containing 8 | Extracellular Space | other | -1,025 | 5.36×10 ⁻⁰³ |
| ENSG00000198205.6 | ZXDA | zinc finger X-linked duplicated A | Other | transcription regulator | 1,851 | 7.39×10 ⁻⁰⁴ |

Suppl. Table 3: Deregulated genes in extracellular vesicles secreted from CPCs after LNP treatment

| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | logFC | FDR | Drug(s) |
|--------------------|--------------|--|---------------------|----------------------------|--------|-------------------------|----------------------|
| ENSG00000124574.14 | ABCC10 | ATP binding cassette subfamily C member 10 | Plasma Membrane | transporter | 3,001 | 3.18×10 ⁻⁰⁶ | |
| ENSG00000204574.12 | ABCF1 | ATP binding cassette subfamily F member 1 | Cytoplasm | transporter | -1,423 | 1.23×10 ⁻⁰² | |
| ENSG00000163995.18 | ABLIM2 | actin binding LIM protein family member 2 | Cytoplasm | other | 5,262 | 1.24×10 ⁻¹⁸ | |
| ENSG00000269026.2 | AC0030067 | | Other | other | 3,473 | 1.63×10 ⁻⁰² | |
| ENSG00000242073.2 | AC0060147 | | Other | other | 4,125 | 2.39×10 ⁻⁰² | |
| ENSG00000229379.1 | AC0060411 | | Other | other | 5,489 | 3.29×10 ⁻⁰³ | |
| ENSG00000236231.1 | AC0170482 | | Other | other | 9,299 | 2.30×10 ⁻²⁷ | |
| ENSG00000267740.5 | AC02459212 | | Other | other | 8,075 | 2.81×10 ⁻⁰³ | |
| ENSG00000229642.1 | AC0271191 | | Other | other | 7,252 | 8.90×10 ⁻⁰³ | |
| ENSG00000255495.1 | AC145124.2 | | Other | other | 3,056 | 9.41×10 ⁻⁰⁴ | |
| ENSG00000131584.18 | ACAP3 | ArfGAP with coiled-coil, ankyrin repeat and PH domains 3 | Nucleus | transcription regulator | 1,474 | 2.88×10 ⁻⁰² | |
| ENSG00000100813.14 | ACIN1 | apoptotic chromatin condensation inducer 1 | Nucleus | enzyme | -1,069 | 2.76×10 ⁻⁰³ | |
| ENSG00000107796.12 | ACTA2 | actin alpha 2, smooth muscle | Cytoplasm | other | 2,534 | 5.61×10 ⁻¹³ | |
| ENSG00000159251.6 | ACTC1 | actin alpha cardiac muscle 1 | Cytoplasm | enzyme | 2,978 | 1.75×10 ⁻²⁴ | |
| ENSG00000178631.7 | ACTG1P1 | actin gamma 1 pseudogene 1 | Other | other | 4,284 | 2.72×10 ⁻⁰² | |
| ENSG00000077522.12 | ACTN2 | actinin alpha 2 | Nucleus | transcription regulator | 2,024 | 1.50×10 ⁻⁰³ | |
| ENSG00000197859.9 | ADAMTSL2 | ADAMTS like 2 | Extracellular Space | other | 6,576 | 2.73×10 ⁻⁷⁶ | |
| ENSG00000185736.15 | ADARB2 | adenosine deaminase RNA specific B2 (inactive) | Nucleus | enzyme | 6,293 | 1.61×10 ⁻⁰⁸ | |
| ENSG00000162618.12 | ADGRL4 | adhesion G protein-coupled receptor L4 | Plasma Membrane | G-protein coupled receptor | 12,641 | 3.44×10 ⁻³¹ | |
| ENSG00000130396.20 | AFDN | afadin, adherens junction formation factor | Nucleus | other | -1,152 | 9.89×10 ⁻⁰³ | |
| ENSG00000260994.1 | AGGF1P7 | angiogenic factor with G-patch and FHA domains 1 pseudogene 7 | Other | other | 8,994 | 1.24×10 ⁻⁰² | |
| ENSG00000162482.4 | AKR7A3 | aldo-keto reductase family 7 member A3 | Cytoplasm | enzyme | 5,295 | 1.13×10 ⁻⁰³ | |
| ENSG00000253710.2 | ALG11 | ALG11 alpha 1,2-mannosyltransferase | Cytoplasm | enzyme | 2,615 | 2.64×10 ⁻⁰² | |
| ENSG00000214274.9 | ANG | angiogenin | Extracellular Space | enzyme | 5,087 | 5.46×10 ⁻⁰³ | |
| ENSG00000148677.6 | ANKRD1 | ankyrin repeat domain 1 | Cytoplasm | transcription regulator | 1,318 | 5.47×10 ⁻⁰⁸ | |
| ENSG00000106013.12 | ANKRD7 | ankyrin repeat domain 7 | Nucleus | transcription regulator | 7,300 | 2.79×10 ⁻⁰² | |
| ENSG00000160746.12 | ANO10 | anoctamin 10 | Plasma Membrane | ion channel | 2,174 | 3.57×10 ⁻⁰² | |
| ENSG00000136938.8 | ANP32B | acidic nuclear phosphoprotein 32 family member B | Nucleus | other | -1,136 | 3.18×10 ⁻⁰⁶ | |
| ENSG00000182718.16 | ANXA2 | annexin A2 | Plasma Membrane | other | -1,775 | 2.88×10 ⁻⁰² | |
| ENSG00000243478.7 | AOX2P | aldehyde oxidase 2, pseudogene | Other | other | 11,407 | 4.67×10 ⁻⁶¹ | |
| ENSG00000238220.1 | AP00027564 | | Other | other | 8,994 | 1.24×10 ⁻⁰² | |
| ENSG00000279586.1 | AP0007111 | | Other | other | 4,229 | 2.70×10 ⁻⁰² | |
| ENSG00000177879.14 | AP3S1 | adaptor related protein complex 3 subunit sigma 1 | Cytoplasm | transporter | 2,486 | 5.17×10 ⁻⁰⁷ | |
| ENSG00000084674.13 | APOB | apolipoprotein B | Extracellular Space | transporter | 2,780 | 1.44×10 ⁻⁰³ | mipomersen |
| ENSG00000267467.3 | APOC4 | apolipoprotein C4 | Extracellular Space | transporter | 7,300 | 2.79×10 ⁻⁰² | |
| ENSG00000006740.16 | ARHGAP44 | Rho GTPase activating protein 44 | Cytoplasm | other | 2,328 | 3.88×10 ⁻⁰² | |
| ENSG00000116584.17 | ARHGEF2 | Rho/Rac guanine nucleotide exchange factor 2 | Cytoplasm | other | -3,596 | 4.79×10 ⁻⁰² | |
| ENSG00000118017.10 | ARID3A | AT-rich interaction domain 3A | Nucleus | transcription regulator | 1,229 | 1.09×10 ⁻⁰² | |
| ENSG00000100289.17 | ARSA | arylsulfatase A | Cytoplasm | enzyme | 7,174 | 2.12×10 ⁻⁸² | |
| ENSG00000256167.1 | ATF4P4 | activating transcription factor 4 pseudogene 4 | Other | other | 3,933 | 3.04×10 ⁻⁰² | |
| ENSG00000144848.10 | ATG3 | autophagy related 3 | Cytoplasm | enzyme | 1,630 | 4.57×10 ⁻⁰² | |
| ENSG00000101844.17 | ATG4A | autophagy related 4A cysteine peptidase | Cytoplasm | peptidase | 3,636 | 1.19×10 ⁻⁰² | |
| ENSG00000124406.16 | ATP8A1 | ATPase phospholipid transporting 8A1 | Cytoplasm | transporter | 2,432 | 3.06×10 ⁻⁰² | |
| ENSG00000085224.20 | ATRX | ATRX chromatin remodeler | Nucleus | transcription regulator | -1,474 | 2.39×10 ⁻⁰² | |
| ENSG00000175711.8 | B3GNL1 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase like 1 | Other | enzyme | 8,698 | 1.25×10 ⁻¹¹ | |
| ENSG00000099968.17 | BCL2L13 | BCL2 like 13 | Cytoplasm | other | 1,783 | 4.73×10 ⁻⁰² | |
| ENSG00000185963.13 | BICD2 | BICD cargo adaptor 2 | Cytoplasm | other | 1,194 | 2.61×10 ⁻⁰² | |
| ENSG00000138696.10 | BMPR1B | bone morphogenetic protein receptor type 1B | Plasma Membrane | kinase | 4,375 | 2.88×10 ⁻⁰³ | LDN-193189 |
| ENSG00000261236.5 | BOP1 | BOP1 ribosomal biogenesis factor | Nucleus | other | 1,769 | 6.20×10 ⁻⁰² | |
| ENSG00000196544.7 | BORCS6 | BLOC-1 related complex subunit 6 | Cytoplasm | other | 2,620 | 1.47×10 ⁻⁰³ | |
| ENSG00000171634.16 | BPTF | bromodomain PHD finger transcription factor | Nucleus | transcription regulator | -1,122 | 1.60×10 ⁻⁰² | |
| ENSG00000176605.7 | C14orf177 | chromosome 14 putative open reading frame 177 | Other | other | 11,178 | 3.68×10 ⁻¹⁷ | |
| ENSG00000235034.6 | C19orf81 | chromosome 19 open reading frame 81 | Other | other | 4,196 | 4.99×10 ⁻⁰² | |
| ENSG00000160298.17 | C21orf58 | chromosome 21 open reading frame 58 | Other | other | 4,201 | 2.28×10 ⁻⁶⁷ | |
| ENSG00000063180.8 | CA11 | carbonic anhydrase 11 | Extracellular Space | enzyme | -3,821 | 3.00×10 ⁻⁰² | |
| ENSG00000177469.12 | CAVIN1 | caveolae associated protein 1 | Nucleus | transcription regulator | 1,361 | 6.74×10 ⁻⁰³ | |
| ENSG00000160200.17 | CBS/CBSL | cystathionine beta-synthase | Cytoplasm | enzyme | -2,750 | 2.40×10 ⁻⁰² | |
| ENSG00000167131.16 | CCDC103 | coiled-coil domain containing 103 | Cytoplasm | other | 1,795 | 5.03×10 ⁻⁰⁷ | |
| ENSG00000168491.9 | CCDC110 | coiled-coil domain containing 110 | Nucleus | other | 4,859 | 1.49×10 ⁻⁰² | |
| ENSG00000164989.15 | CCDC171 | coiled-coil domain containing 171 | Other | other | 1,842 | 6.00×10 ⁻⁰³ | |
| ENSG00000151838.11 | CCDC175 | coiled-coil domain containing 175 | Other | other | 8,397 | 2.80×10 ⁻³⁶ | |
| ENSG00000105383.14 | CD33 | CD33 molecule | Plasma Membrane | other | 4,161 | 5.47×10 ⁻⁰³ | gemtuzumab ozog |
| ENSG00000164045.11 | CDC25A | cell division cycle 25A | Nucleus | phosphatase | 1,759 | 2.17×10 ⁻⁰² | |
| ENSG00000128536.15 | CDHR3 | cadherin related family member 3 | Plasma Membrane | other | 3,453 | 3.18×10 ⁻⁰² | |
| ENSG00000081282.22 | CDK11A | cyclin dependent kinase 11A | Nucleus | kinase | -3,911 | 2.38×10 ⁻⁰² | |
| ENSG00000226020.4 | CDK2AP2P3 | cyclin dependent kinase 2 associated protein 2 pseudogene 3 | Other | other | 7,300 | 2.79×10 ⁻⁰² | |
| ENSG00000124762.13 | CDKN1A | cyclin dependent kinase inhibitor 1A | Nucleus | kinase | 1,271 | 2.07×10 ⁻⁰² | |
| ENSG00000147883.10 | CDKN2B | cyclin dependent kinase inhibitor 2B | Nucleus | transcription regulator | 1,745 | 2.79×10 ⁻⁰³ | |
| ENSG00000218739.9 | CEBPZOS | CEBPZ opposite strand | Other | other | 6,478 | 1.93×10 ⁻⁴³ | |
| ENSG00000172631.11 | CES2 | carboxylesterase 2 | Cytoplasm | enzyme | 2,629 | 2.91×10 ⁻⁰⁵ | |
| ENSG00000206530.8 | CFAP44 | cilia and flagella associated protein 44 | Extracellular Space | peptidase | 11,337 | 7.49×10 ⁻¹⁰¹ | |
| ENSG00000170004.16 | CHD3 | chromodomain helicase DNA binding protein 3 | Nucleus | enzyme | -1,906 | 6.83×10 ⁻⁰³ | |
| ENSG00000129749.3 | CHRNA10 | cholinergic receptor nicotinic alpha 10 subunit | Plasma Membrane | transmembrane receptor | 6,498 | 6.58×10 ⁻⁰⁶ | succinylcholine, rap |
| ENSG00000174343.5 | CHRNA9 | cholinergic receptor nicotinic alpha 9 subunit | Plasma Membrane | transmembrane receptor | 6,088 | 2.35×10 ⁻¹⁴ | ABT-089, isoflurane |
| ENSG0000013297.10 | CLDN11 | claudin 11 | Plasma Membrane | other | 2,604 | 4.89×10 ⁻⁰² | |
| ENSG00000182372.7 | CLN8 | CLN8 transmembrane ER and ERGIC protein | Cytoplasm | other | 2,410 | 1.44×10 ⁻⁰² | |
| ENSG00000171603.16 | CLSTN1 | calsynenin 1 | Plasma Membrane | other | -4,180 | 1.26×10 ⁻⁰² | |
| ENSG00000176571.11 | CNBD1 | cyclic nucleotide binding domain containing 1 | Other | other | 9,126 | 3.91×10 ⁻⁰³ | |
| ENSG00000213854.3 | CNN2P6 | calponin 2 pseudogene 6 | Other | other | 5,438 | 2.14×10 ⁻⁰³ | |
| ENSG00000111799.20 | COL12A1 | collagen type XII alpha 1 chain | Extracellular Space | other | 4,409 | 2.09×10 ⁻²⁴ | collagenase |
| ENSG00000108821.13 | COL1A1 | collagen type I alpha 1 chain | Extracellular Space | other | 1,450 | 9.63×10 ⁻¹¹ | collagenase |
| ENSG00000188517.14 | COL25A1 | collagen type XXV alpha 1 chain | Cytoplasm | other | 2,852 | 9.23×10 ⁻⁰⁶ | collagenase |
| ENSG00000168542.12 | COL3A1 | collagen type III alpha 1 chain | Extracellular Space | other | 2,055 | 3.67×10 ⁻¹¹ | collagenase |
| ENSG00000206384.10 | COL6A6 | collagen type VI alpha 6 chain | Extracellular Space | other | 3,429 | 1.37×10 ⁻⁰⁴ | |
| ENSG0000049089.13 | COL9A2 | collagen type IX alpha 2 chain | Extracellular Space | other | -3,100 | 9.79×10 ⁻⁰³ | collagenase |
| ENSG00000110442.11 | COMMD9 | COMM domain containing 9 | Cytoplasm | other | 4,324 | 1.09×10 ⁻⁰⁵ | |
| ENSG00000115520.8 | COQ10B | coenzyme Q10B | Cytoplasm | other | 4,171 | 6.31×10 ⁻¹⁹ | |
| ENSG00000240203.5 | COX19 | cytochrome c oxidase assembly factor COX19 | Cytoplasm | other | 2,686 | 1.01×10 ⁻⁰⁴ | |
| ENSG00000158255.15 | CPA5 | carboxypeptidase A5 | Extracellular Space | peptidase | 5,405 | 5.30×10 ⁻⁰³ | |
| ENSG00000226321.5 | CROCC2 | ciliary rootlet coiled-coil, rootletin family member 2 | Other | other | 4,897 | 6.04×10 ⁻⁰³ | |
| ENSG00000164796.17 | CSDM3 | CLUB and Sushi multiple domains 3 | Plasma Membrane | enzyme | 2,731 | 4.78×10 ⁻⁰² | |
| ENSG00000159176.13 | CSRP1 | cysteine and glycine rich protein 1 | Nucleus | other | 1,910 | 3.82×10 ⁻⁰³ | |
| ENSG00000227519.1 | CTA_342B11 | | Other | other | 9,450 | 1.07×10 ⁻⁰⁴ | |
| ENSG00000257639.1 | CTB_31N192 | | Other | other | 13,033 | 2.05×10 ⁻²⁴ | |
| ENSG00000243829.1 | CTB_33G101 | | Other | other | 6,912 | 1.22×10 ⁻⁰² | |
| ENSG00000242858.1 | CTC_484M21 | | Other | other | 5,201 | 2.81×10 ⁻⁰³ | |
| ENSG00000268362.5 | CTD_2017D111 | | Other | other | 4,157 | 3.26×10 ⁻⁰² | |
| ENSG00000269815.1 | CTD_2278I104 | | Other | other | 7,670 | 8.25×10 ⁻⁰⁹ | |
| ENSG00000240627.1 | CTD_2312P211 | | Other | other | 10,652 | 6.53×10 ⁻⁰⁵ | |
| ENSG00000251648.2 | CTD_2353N241 | | Other | other | 6,197 | 4.30×10 ⁻⁰⁴ | |
| ENSG00000267303.1 | CTD_2369P212 | | Other | other | 8,994 | 1.24×10 ⁻⁰² | |
| ENSG00000260871.1 | CTD_2373J61 | | Other | other | 10,391 | 3.71×10 ⁻⁰² | |
| ENSG00000269053.1 | CTD_2521M248 | | Other | other | 5,498 | 4.36×10 ⁻⁰² | |
| ENSG00000279014.1 | CTD_2651B208 | | Other | other | 5,169 | 5.74×10 ⁻¹⁵ | |
| ENSG00000165168.7 | CYBB | cytochrome b-245 beta chain | Cytoplasm | enzyme | 8,210 | 5.82×10 ⁻³⁸ | |
| ENSG0000008256.15 | CYTH3 | cytohesin 3 | Cytoplasm | other | 2,245 | 1.83×10 ⁻⁰² | |

| | | | | | | | |
|--------------------|---------------|---|---------------------|-------------------------|--------|-------------------------|-----------------------|
| ENSG00000150401.14 | DCUN1D2 | defective in cullin neddylation 1 domain containing 2 | Other | other | 2,612 | 2.41×10 ⁻⁰² | |
| ENSG00000279928.11 | DDX11L17 | DEAD/HH-box helicase 11 like 17 (pseudogene) | Other | other | 5,344 | 2.44×10 ⁻⁰² | |
| ENSG00000100201.18 | DDX17 | DEAD-box helicase 17 | Nucleus | enzyme | -1,585 | 4.60×10 ⁻⁰² | |
| ENSG00000108654.11 | DDX5 | DEAD-box helicase 5 | Nucleus | enzyme | -1,124 | 2.81×10 ⁻⁰² | |
| ENSG00000131504.15 | DIAPH1 | diaphanous related formin 1 | Plasma Membrane | other | -2,237 | 4.02×10 ⁻⁰² | |
| ENSG00000187775.16 | DNAH17 | dynein axonemal heavy chain 17 | Cytoplasm | other | 6,282 | 1.62×10 ⁻¹⁰ | |
| ENSG00000039139.9 | DNAH5 | dynein axonemal heavy chain 5 | Cytoplasm | enzyme | 7,630 | 4.00×10 ⁻³⁹ | |
| ENSG00000187726.8 | DNAJB13 | DnaJ heat shock protein family (Hsp40) member B13 | Cytoplasm | other | 8,953 | 5.43×10 ⁻⁰⁴ | |
| ENSG00000104129.9 | DNAJC17 | DnaJ heat shock protein family (Hsp40) member C17 | Other | other | 1,694 | 3.10×10 ⁻⁰² | |
| ENSG00000125170.10 | DOK4 | docking protein 4 | Plasma Membrane | other | 1,368 | 1.77×10 ⁻⁰⁵ | |
| ENSG00000101134.11 | DOK5 | docking protein 5 | Plasma Membrane | other | 3,739 | 2.79×10 ⁻⁰³ | |
| ENSG00000124205.15 | EDN3 | endothelin 3 | Extracellular Space | other | 4,666 | 4.80×10 ⁻⁰² | |
| ENSG00000232587.1 | EEF1A1P3 | eukaryotic translation elongation factor 1 alpha 1 pseudogene 3 | Other | other | 6,058 | 2.43×10 ⁻⁰⁵ | |
| ENSG00000173442.11 | EHBP1L1 | EH domain binding protein 1 like 1 | Other | other | 2,615 | 4.57×10 ⁻⁰⁷ | |
| ENSG00000103966.9 | EHD4 | EH domain containing 4 | Plasma Membrane | enzyme | 3,053 | 1.21×10 ⁻¹⁵ | |
| ENSG00000128929.11 | EIF2AK4 | eukaryotic translation initiation factor 2 alpha kinase 4 | Cytoplasm | kinase | 2,012 | 2.45×10 ⁻⁰⁶ | GCN2IA |
| ENSG00000205609.12 | EIF3CL | eukaryotic translation initiation factor 3 subunit C like | Other | other | -4,396 | 1.09×10 ⁻⁰² | |
| ENSG00000158417.10 | EIF5B | eukaryotic translation initiation factor 5B | Cytoplasm | translation regulator | -1,021 | 4.02×10 ⁻⁰² | |
| ENSG00000062598.17 | ELMO2 | engulfment and cell motility 2 | Cytoplasm | other | 1,768 | 3.83×10 ⁻⁰² | |
| ENSG0000022919.3 | ELOC3P | elongin C pseudogene 3 | Other | other | 9,687 | 5.34×10 ⁻⁰⁸ | |
| ENSG00000197774.12 | EME2 | essential meiotic structure-specific endonuclease subunit 2 | Other | other | 3,259 | 4.32×10 ⁻⁰⁹ | |
| ENSG00000163064.6 | EN1 | engrailed homeobox 1 | Nucleus | transcription regulator | 3,468 | 1.63×10 ⁻⁰³ | |
| ENSG00000120658.12 | ENOX1 | ecto-NOX disulfide-thiol exchanger 1 | Plasma Membrane | enzyme | 3,739 | 5.42×10 ⁻⁰⁵ | |
| ENSG00000163508.12 | EOMES | omesoderm | Nucleus | transcription regulator | 2,299 | 1.57×10 ⁻⁰⁴ | |
| ENSG00000116016.13 | EPAS1 | endothelial PAS domain protein 1 | Nucleus | transcription regulator | 1,459 | 2.71×10 ⁻⁰² | PT-2385, belzutifar |
| ENSG00000142627.12 | EPHA2 | EPH receptor A2 | Plasma Membrane | kinase | -3,758 | 3.14×10 ⁻⁰² | afatinib/dasatinib, d |
| ENSG00000196411.9 | EPHB4 | EPH receptor B4 | Plasma Membrane | kinase | -4,099 | 1.44×10 ⁻⁰² | lesevatnib, NVP-B |
| ENSG00000151491.12 | EPS8 | epidermal growth factor receptor pathway substrate 8 | Plasma Membrane | peptidase | 4,152 | 1.30×10 ⁻⁰² | |
| ENSG00000105722.9 | ERF | ETS2 repressor factor | Nucleus | transcription regulator | 1,695 | 1.34×10 ⁻⁰² | |
| ENSG00000120705.12 | ETF1 | eukaryotic translation termination factor 1 | Cytoplasm | translation regulator | 1,943 | 5.44×10 ⁻⁰⁹ | |
| ENSG00000118219.10 | EXT1 | exostosin glycosyltransferase 1 | Cytoplasm | enzyme | 2,418 | 2.35×10 ⁻¹² | |
| ENSG00000112319.17 | EYA4 | EYA transcriptional coactivator and phosphatase 4 | Cytoplasm | phosphatase | 7,178 | 5.26×10 ⁻³³ | |
| ENSG00000103089.8 | FA2H | fatty acid 2-hydroxylase | Cytoplasm | enzyme | 5,823 | 3.21×10 ⁻¹⁶ | |
| ENSG00000169122.11 | FAM110B | family with sequence similarity 110 member B | Cytoplasm | other | 2,625 | 4.14×10 ⁻⁰⁴ | |
| ENSG00000112584.13 | FAM120B | family with sequence similarity 120B | Nucleus | other | 1,795 | 1.63×10 ⁻⁰² | |
| ENSG00000204677.10 | FAM153CP | protein FAM153C | Other | other | 6,420 | 1.73×10 ⁻⁰² | |
| ENSG00000111879.18 | FAM184A | family with sequence similarity 184 member A | Extracellular Space | other | -1,611 | 4.00×10 ⁻⁰² | |
| ENSG00000146067.15 | FAM193B | family with sequence similarity 193 member B | Nucleus | other | -3,586 | 4.76×10 ⁻⁰² | |
| ENSG00000185112.5 | FAM43A | family with sequence similarity 43 member A | Other | other | 1,987 | 8.99×10 ⁻⁰³ | |
| ENSG00000142530.10 | FAM71E1 | family with sequence similarity 71 member E1 | Other | other | 5,804 | 3.62×10 ⁻¹⁰ | |
| ENSG00000130244.12 | FAM98C | family with sequence similarity 98 member C | Other | other | 2,808 | 1.62×10 ⁻⁰⁸ | |
| ENSG00000145982.11 | FARS2 | phenylalanyl-tRNA synthetase 2, mitochondrial | Cytoplasm | enzyme | 2,405 | 1.27×10 ⁻⁰² | |
| ENSG00000099364.16 | FBXL19 | F-box and leucine rich repeat protein 19 | Cytoplasm | enzyme | 1,836 | 4.63×10 ⁻⁰⁷ | |
| ENSG00000167196.13 | FBXO22 | F-box protein 22 | Cytoplasm | enzyme | 1,575 | 2.65×10 ⁻⁰² | |
| ENSG00000267673.6 | FDX2 | ferredoxin 2 | Cytoplasm | transporter | 2,321 | 5.74×10 ⁻⁰³ | |
| ENSG00000249715.9 | FER1L5 | fer-1 like family member 5 | Other | other | 5,167 | 1.72×10 ⁻⁰⁶ | |
| ENSG0000022267.16 | FHL1 | four and a half LIM domains 1 | Cytoplasm | other | 3,183 | 3.90×10 ⁻⁰² | |
| ENSG00000183366.9 | FHL3 | four and a half LIM domains 3 | Plasma Membrane | other | 5,142 | 2.06×10 ⁻⁰⁸ | |
| ENSG00000176971.3 | FIBIN | fin bud initiation factor homolog | Cytoplasm | other | 5,737 | 1.04×10 ⁻¹⁴ | |
| ENSG00000109920.12 | FNBP4 | formin binding protein 4 | Nucleus | other | 2,520 | 3.89×10 ⁻⁰⁹ | |
| ENSG00000065970.8 | FOXJ2 | forkhead box J2 | Nucleus | transcription regulator | 12,748 | 4.24×10 ⁻²⁸ | |
| ENSG00000150893.10 | FREM2 | FRAS1 related extracellular matrix 2 | Extracellular Space | other | -3,723 | 3.83×10 ⁻⁰² | |
| ENSG00000146013.10 | GFR3A3 | GNDF family receptor alpha 3 | Plasma Membrane | transmembrane receptor | 5,500 | 1.50×10 ⁻⁰² | |
| ENSG00000104522.15 | GFUS | GDP-L-fucose synthase | Plasma Membrane | enzyme | 2,561 | 2.08×10 ⁻⁰⁸ | |
| ENSG00000165113.12 | GKAP1 | G kinase anchoring protein 1 | Cytoplasm | other | 5,274 | 3.30×10 ⁻⁴³ | |
| ENSG00000120063.9 | GNA13 | G protein subunit alpha 13 | Plasma Membrane | enzyme | 1,352 | 1.53×10 ⁻⁰² | |
| ENSG00000113384.13 | GOLPH3 | golgi phosphoprotein 3 | Cytoplasm | other | 1,942 | 2.63×10 ⁻⁰⁴ | |
| ENSG00000062194.15 | GPBBP1 | GC-rich promoter binding protein 1 | Nucleus | transcription regulator | -3,591 | 4.85×10 ⁻⁰² | |
| ENSG00000185974.6 | GRK1 | G protein-coupled receptor kinase 1 | Plasma Membrane | kinase | 8,212 | 2.46×10 ⁻⁰⁵ | |
| ENSG00000125388.19 | GRK4 | G protein-coupled receptor kinase 4 | Plasma Membrane | kinase | 3,373 | 3.14×10 ⁻⁰² | |
| ENSG00000125865.13 | GTF2F1 | general transcription factor IIF subunit 1 | Nucleus | transcription regulator | -1,208 | 4.73×10 ⁻⁰² | |
| ENSG00000277053.4 | GTF2FIP1 | general transcription factor IIF pseudogene 1 | Other | other | -3,269 | 2.98×10 ⁻⁰² | |
| ENSG00000272196.2 | H2AC18/H2AC19 | H2A clustered histone 18 | Nucleus | other | -5,368 | 2.78×10 ⁻⁰⁴ | |
| ENSG00000183598.3 | H3C13 | H3 clustered histone 13 | Nucleus | other | 2,315 | 2.18×10 ⁻⁰³ | |
| ENSG00000203852.3 | H3C15 | H3 clustered histone 15 | Nucleus | other | -4,173 | 1.35×10 ⁻⁰² | |
| ENSG00000179101.5 | H3P47 | H3P47 | Other | other | 7,860 | 2.85×10 ⁻⁰⁶ | |
| ENSG00000084754.10 | HADHA | hydroxyacyl-CoA dehydrogenase trifunctional multienzyme complex subunit 1 | Cytoplasm | enzyme | 2,160 | 1.07×10 ⁻⁰⁶ | |
| ENSG00000138029.13 | HADHB | hydroxyacyl-CoA dehydrogenase trifunctional multienzyme complex subunit 2 | Cytoplasm | enzyme | 2,824 | 2.10×10 ⁻⁰² | |
| ENSG00000164107.8 | HAND2 | heart and neural crest derivatives expressed 2 | Nucleus | transcription regulator | 1,357 | 4.48×10 ⁻⁰³ | |
| ENSG00000188536.12 | HBA1/HBA2 | hemoglobin subunit alpha 2 | Extracellular Space | transporter | 10,992 | 8.96×10 ⁻¹³⁶ | iron dextran, meflo |
| ENSG00000208172.8 | HBA1/HBA2 | hemoglobin subunit alpha 2 | Extracellular Space | transporter | 12,125 | 5.21×10 ⁻¹⁶ | iron dextran, meflo |
| ENSG00000196591.11 | HDAC2 | histone deacetylase 2 | Nucleus | transcription regulator | -2,075 | 1.53×10 ⁻⁰² | theophylline, trame |
| ENSG00000227183.3 | HDFGP1 | heparin binding growth factor pseudogene 1 | Other | other | 4,392 | 5.15×10 ⁻⁰⁶ | |
| ENSG00000165338.16 | HECTD2 | HECT domain E3 ubiquitin protein ligase 2 | Cytoplasm | enzyme | 2,186 | 3.23×10 ⁻⁰² | |
| ENSG00000173066.12 | HEG1 | heart development protein with EGF like domains 1 | Plasma Membrane | other | 1,414 | 9.67×10 ⁻⁰³ | |
| ENSG00000051108.14 | HERPUD1 | homocysteine inducible ER protein with ubiquitin like domain 1 | Cytoplasm | other | 1,592 | 4.33×10 ⁻⁰² | |
| ENSG00000220557.1 | HMG1P13 | high mobility group box 1 pseudogene 13 | Other | other | 4,669 | 9.24×10 ⁻⁰³ | |
| ENSG00000164104.11 | HMG2B | high mobility group box 2 | Nucleus | transcription regulator | -1,073 | 1.43×10 ⁻⁰³ | |
| ENSG00000237603.1 | HMG3P12 | high mobility group box 3 pseudogene 12 | Other | other | 6,495 | 1.88×10 ⁻⁰⁵ | |
| ENSG00000249439.1 | HMGN1P14 | high mobility group nucleosome binding domain 1 pseudogene 14 | Other | other | 10,466 | 2.54×10 ⁻¹² | |
| ENSG00000198830.10 | HMG2N | high mobility group nucleosomal binding domain 2 | Nucleus | other | -1,747 | 1.02×10 ⁻⁰² | |
| ENSG00000212769.5 | HMG2NP8 | high mobility group nucleosomal binding domain 2 pseudogene 8 | Other | other | 4,494 | 7.29×10 ⁻⁰³ | |
| ENSG00000170144.18 | HNRNPA3 | heterogeneous nuclear ribonucleoprotein A3 | Nucleus | other | -1,664 | 1.11×10 ⁻⁰² | |
| ENSG00000105323.16 | HNRNPUL1 | heterogeneous nuclear ribonucleoprotein U like 1 | Nucleus | other | -1,539 | 2.21×10 ⁻⁰² | |
| ENSG00000172987.12 | HPS2E | heparanase 2 (inactive) | Plasma Membrane | enzyme | 6,329 | 1.11×10 ⁻⁰⁵ | |
| ENSG00000165868.12 | HSPA12A | heat shock protein family A (Hsp70) member 12A | Cytoplasm | other | 2,438 | 4.57×10 ⁻⁰² | |
| ENSG00000132622.10 | HSPA12B | heat shock protein family A (Hsp70) member 12B | Other | other | 3,750 | 7.62×10 ⁻⁰⁴ | |
| ENSG00000170606.13 | HSPA4 | heat shock protein family A (Hsp70) member 4 | Cytoplasm | other | -1,461 | 4.68×10 ⁻⁰² | |
| ENSG00000232953.1 | HSPA8P18 | heat shock protein family A (Hsp70) member 8 pseudogene 18 | Other | other | 5,576 | 1.50×10 ⁻⁰² | |
| ENSG00000152778.8 | IFIT5 | interferon induced protein with tetratricopeptide repeats 5 | Plasma Membrane | other | 3,648 | 3.37×10 ⁻⁰² | |
| ENSG00000159128.14 | IFNGR2 | interferon gamma receptor 2 | Plasma Membrane | transmembrane receptor | 2,893 | 4.86×10 ⁻⁰⁵ | interferon gamma-1 |
| ENSG00000167244.17 | IGF2 | insulin like growth factor 2 | Extracellular Space | growth factor | 1,802 | 3.06×10 ⁻¹⁷ | MEDI-573, BI 8368 |
| ENSG00000113302.4 | IL12B | interleukin 12B | Extracellular Space | cytokine | 10,156 | 3.85×10 ⁻⁴⁵ | ustekinumab, meth |
| ENSG00000112706.11 | IMP3 | interphotoreceptor matrix proteoglycan 1 | Extracellular Space | other | 6,964 | 2.61×10 ⁻⁰⁴ | |
| ENSG00000068383.18 | INPP5A | inositol polyphosphate-5-phosphatase A | Plasma Membrane | phosphatase | 2,605 | 2.36×10 ⁻⁰³ | |
| ENSG00000278885.4 | IQCAL1L | IQ motif containing with AAA domain 1 like | Other | other | 4,982 | 4.31×10 ⁻⁰² | |
| ENSG00000173228.16 | IQCCB1 | IQ motif containing B1 | Extracellular Space | other | 1,973 | 3.16×10 ⁻⁰² | |
| ENSG00000119669.4 | IRF2BPL | interferon regulatory factor 2 binding protein like | Nucleus | enzyme | 1,607 | 3.62×10 ⁻⁰² | |
| ENSG00000140968.10 | IRF8 | interferon regulatory factor 8 | Nucleus | transcription regulator | 3,781 | 2.39×10 ⁻⁰⁷ | |
| ENSG0000016082.14 | ISL1 | ISL LIM homeobox 1 | Nucleus | transcription regulator | 1,973 | 2.00×10 ⁻⁰² | |
| ENSG00000138448.11 | ITGAV | integrin subunit alpha V | Plasma Membrane | transmembrane receptor | 1,570 | 4.73×10 ⁻¹² | abciximab, inetum |
| ENSG00000123243.14 | ITI5H5 | inter-alpha-trypsin inhibitor heavy chain 5 | Plasma Membrane | other | 5,833 | 9.48×10 ⁻⁰² | |
| ENSG00000143772.9 | ITPKB | inositol-trisphosphate 3-kinase B | Cytoplasm | kinase | 1,843 | 3.14×10 ⁻⁰² | GNF362 |
| ENSG00000188385.11 | JAKMIP3 | Janus kinase and microtubule interacting protein 3 | Other | other | 3,327 | 4.14×10 ⁻⁰² | |
| ENSG00000140044.12 | JDP2 | Jun dimerization protein 2 | Nucleus | transcription regulator | 1,517 | 5.41×10 ⁻⁰³ | |
| ENSG00000161999.11 | JMJD8 | jumonji domain containing 8 | Cytoplasm | other | 5,973 | 3.19×10 ⁻¹¹⁰ | |
| ENSG00000237556.1 | KCNQ3-AS1 | KCNQ3 antisense RNA 1 | Other | other | 11,596 | 1.03×10 ⁻¹⁷ | |
| ENSG00000180509.11 | KCNE1 | potassium voltage-gated channel subfamily E regulatory subunit 1 | Plasma Membrane | ion channel | 3,848 | 4.92×10 ⁻⁰² | nicorandil, amiodar |
| ENSG00000276289.4 | KCNE1B | potassium voltage-gated channel subfamily E regulatory subunit 1B | Plasma Membrane | ion channel | 6,768 | 5.89×10 ⁻⁰⁴ | |
| ENSG00000171303.6 | KCNK3 | potassium two pore domain channel subfamily K member 3 | Plasma Membrane | ion channel | 5,293 | 6.00×10 ⁻⁰⁴ | doxapram, amiodar |
| ENSG00000162687.16 | KCNT2 | potassium sodium-activated channel subfamily T member 2 | Plasma Membrane | ion channel | 3,058 | 2.16×10 ⁻⁰² | |

| | | | | | | | |
|--------------------|-------------------|---|---------------------|-----------------------------------|--------|-------------------------|-----------------------|
| ENSG00000100196.10 | KDEL3 | KDEL endoplasmic reticulum protein retention receptor 3 | Cytoplasm | transporter | 4,057 | 3.38×10 ⁻⁰³ | |
| ENSG00000117245.12 | KIF17 | kinesin family member 17 | Cytoplasm | transporter | 3,743 | 1.34×10 ⁻⁰⁵ | |
| ENSG00000129250.11 | KIF1C | kinesin family member 1C | Cytoplasm | other | -1,056 | 3.30×10 ⁻⁰² | |
| ENSG00000126790.11 | L3HYPDH | trans-L-3-hydroxyproline dehydratase | Other | enzyme | 3,748 | 8.57×10 ⁻⁰⁴ | |
| ENSG00000226440.7 | LAMA4-AS1 | LAMA4 antisense RNA 1 | Other | other | 4,920 | 5.61×10 ⁻⁰³ | |
| ENSG00000131981.15 | LGALS3 | galectin 3 | Extracellular Space | other | 5,248 | 5.52×10 ⁻¹⁸ | GCS-100, GR-MD- |
| ENSG00000214269.3 | LGMNP1 | legumain pseudogene 1 | Other | other | 5,064 | 4.10×10 ⁻⁰⁵ | |
| ENSG00000259527.2 | LINC00052 | long intergenic non-protein coding RNA 52 | Other | other | 5,688 | 3.73×10 ⁻⁰³ | |
| ENSG00000184274.3 | LINC00315 | long intergenic non-protein coding RNA 315 | Other | other | 6,064 | 9.33×10 ⁻⁰⁴ | |
| ENSG00000178977.3 | LINC00324 | long intergenic non-protein coding RNA 324 | Other | other | 2,173 | 1.20×10 ⁻⁰² | |
| ENSG00000281778.1 | LINC00550 | long intergenic non-protein coding RNA 550 | Other | other | 7,146 | 6.18×10 ⁻⁰⁵ | |
| ENSG00000233395.1 | LINC00841 | long intergenic non-protein coding RNA 841 | Other | other | 3,551 | 2.48×10 ⁻⁰² | |
| ENSG00000229017.6 | LINC01277 | long intergenic non-protein coding RNA 1277 | Other | other | 5,892 | 3.37×10 ⁻⁰² | |
| ENSG00000273415.1 | LINC02725 | | Other | other | 11,933 | 4.66×10 ⁻⁰⁹ | |
| ENSG00000071282.11 | LMCD1 | LIM and cysteine rich domains 1 | Cytoplasm | transcription regulator | 3,256 | 3.27×10 ⁻⁰⁸ | |
| ENSG00000160789.19 | LMNA | lamin A/C | Nucleus | other | 1,321 | 3.04×10 ⁻⁰⁴ | |
| ENSG00000266149.1 | LOC100192426 | uncharacterized LOC100192426 | Other | other | 11,843 | 7.15×10 ⁻⁰³ | |
| ENSG00000255284.1 | LOC171391 | uncharacterized LOC171391 | Other | other | 4,510 | 2.06×10 ⁻⁰⁴ | |
| ENSG00000134324.11 | LPIN1 | lipin 1 | Nucleus | phosphatase | 2,229 | 1.90×10 ⁻⁰⁸ | |
| ENSG00000250462.8 | LRRRC37BP1 | leucine rich repeat containing 37B pseudogene 1 | Other | other | 2,126 | 4.27×10 ⁻⁰² | |
| ENSG00000125872.7 | LRRN4 | leucine rich repeat neuronal 4 | Plasma Membrane | other | 2,176 | 1.54×10 ⁻⁰³ | |
| ENSG00000108848.15 | LUC7L3 | LUC7 like 3 pre-mRNA splicing factor | Nucleus | other | -1,410 | 5.95×10 ⁻⁰⁵ | |
| ENSG00000150556.16 | LYPD6B | LY6/PLAUR domain containing 6B | Other | other | 3,653 | 5.84×10 ⁻⁰⁵ | |
| ENSG00000133315.10 | MACROD1 | mono-ADP ribosylhydrolase 1 | Cytoplasm | enzyme | 2,827 | 2.89×10 ⁻⁰³ | |
| ENSG00000113648.16 | MACROH2A1 | macroH2A.1 histone | Nucleus | other | 2,476 | 2.21×10 ⁻⁴⁴ | |
| ENSG00000198934.4 | MAGEE1 | MAGE family member E1 | Plasma Membrane | other | 4,836 | 1.94×10 ⁻⁰⁸ | |
| ENSG00000198162.12 | MAN1A2 | mannosidase alpha class 1A member 2 | Cytoplasm | enzyme | 1,849 | 2.03×10 ⁻⁰⁷ | |
| ENSG00000175130.6 | MARCKSL1 | MARCKS like 1 | Cytoplasm | other | -1,317 | 1.49×10 ⁻⁰² | |
| ENSG00000151224.12 | MAT1A | methionine adenosyltransferase 1A | Cytoplasm | enzyme | 6,427 | 1.90×10 ⁻⁰⁸ | |
| ENSG00000112159.11 | MDN1 | midasin AAA ATPase 1 | Nucleus | other | -1,555 | 5.54×10 ⁻⁰³ | |
| ENSG00000159479.16 | MED8 | mediator complex subunit 8 | Nucleus | other | 1,902 | 4.32×10 ⁻⁰² | |
| ENSG00000176845.12 | METRNL | meteorin like, glial cell differentiation regulator | Cytoplasm | other | 2,592 | 4.97×10 ⁻⁰³ | |
| ENSG00000165171.10 | METTL27 | methyltransferase like 27 | Other | enzyme | 4,944 | 4.19×10 ⁻⁰³ | |
| ENSG00000185432.11 | METTL7A | methyltransferase like 7A | Cytoplasm | other | 3,119 | 2.79×10 ⁻⁰² | |
| ENSG00000197530.12 | MIB2 | MIB E3 ubiquitin protein ligase 2 | Nucleus | transcription regulator | 1,470 | 1.14×10 ⁻⁰² | |
| ENSG00000158747.13 | MICOS10-NBL1/NBL1 | NBL1, DAN family BMP antagonist | Nucleus | other | 3,734 | 1.59×10 ⁻⁰⁴ | |
| ENSG00000207605.2 | mir-191 | microRNA 191 | Cytoplasm | microRNA | 5,456 | 1.93×10 ⁻⁰³ | |
| ENSG00000224141.5 | MIR548XHG | MIR548X host gene | Other | other | 14,066 | 9.71×10 ⁻⁰⁴ | |
| ENSG00000273776.1 | MIR6126 | microRNA 6126 | Cytoplasm | microRNA | 4,911 | 2.22×10 ⁻⁰⁵ | |
| ENSG00000227195.8 | MIR663AHG | MIR663A host gene | Other | other | 2,247 | 1.44×10 ⁻¹³ | |
| ENSG00000106788.11 | MLX | MAX dimerization protein MLX | Nucleus | transcription regulator | 3,899 | 2.87×10 ⁻³⁸ | |
| ENSG00000169446.5 | MMGT1 | membrane magnesium transporter 1 | Cytoplasm | transporter | 3,328 | 9.79×10 ⁻⁰³ | |
| ENSG00000243927.5 | MRP56 | mitochondrial ribosomal protein S6 | Cytoplasm | other | 1,201 | 4.26×10 ⁻⁰² | |
| ENSG00000174099.10 | MSRB3 | methionine sulfoxide reductase B3 | Cytoplasm | enzyme | 2,929 | 4.80×10 ⁻⁰² | |
| ENSG00000198899.2 | MT-ATP6 | ATP synthase F0 subunit 6 | Cytoplasm | transporter | -1,617 | 1.18×10 ⁻⁰³ | |
| ENSG00000228253.1 | MT-ATP8 | ATP synthase F0 subunit 8 | Cytoplasm | enzyme | -1,371 | 1.29×10 ⁻⁰² | |
| ENSG00000198804.2 | MT-CO1 | cytochrome c oxidase subunit I | Cytoplasm | enzyme | -1,273 | 8.65×10 ⁻⁰³ | naproxen/sumatript |
| ENSG00000198712.1 | MT-CO2 | cytochrome c oxidase subunit II | Cytoplasm | enzyme | -1,170 | 2.94×10 ⁻⁰³ | naproxen/sumatript |
| ENSG00000198938.2 | MT-CO3 | cytochrome c oxidase subunit III | Cytoplasm | enzyme | -1,182 | 3.14×10 ⁻⁰² | |
| ENSG00000198727.2 | MT-CYB | cytochrome b | Cytoplasm | enzyme | -1,591 | 1.02×10 ⁻⁰⁵ | atovaquone, atovac |
| ENSG00000198888.2 | MT-ND1 | NADH dehydrogenase subunit 1 | Cytoplasm | enzyme | -1,601 | 8.01×10 ⁻⁰⁶ | |
| ENSG00000198763.3 | MT-ND2 | NADH dehydrogenase subunit 2 | Cytoplasm | enzyme | -1,651 | 3.54×10 ⁻⁰⁴ | |
| ENSG00000198886.2 | MT-ND4 | NADH dehydrogenase subunit 4 | Cytoplasm | enzyme | -1,543 | 1.67×10 ⁻⁰⁶ | |
| ENSG00000198786.2 | MT-ND5 | NADH dehydrogenase subunit 5 | Cytoplasm | enzyme | -1,465 | 2.44×10 ⁻⁰⁸ | |
| ENSG00000211459.2 | MT-RNR1 | s-rRNA | Cytoplasm | other | -1,307 | 3.82×10 ⁻⁰² | |
| ENSG00000210151.2 | MT-TS1 | tRNA | Cytoplasm | other | 2,721 | 1.22×10 ⁻⁰⁶ | |
| ENSG00000248527.1 | MTATP6P1 | MT-ATP6 pseudogene 1 | Other | other | -1,182 | 2.20×10 ⁻⁰² | |
| ENSG00000063601.16 | MTMR1 | myotubularin related protein 1 | Cytoplasm | phosphatase | 2,571 | 1.02×10 ⁻⁰² | |
| ENSG00000102043.15 | MTMR8 | myotubularin related protein 8 | Nucleus | phosphatase | 6,989 | 1.11×10 ⁻⁰⁴ | |
| ENSG00000223431.1 | MTND6P21 | MT-ND6 pseudogene 21 | Other | other | 5,358 | 1.92×10 ⁻⁰² | |
| ENSG00000205592.13 | MUC19 | mucin 19, oligomeric | Cytoplasm | other | -3,988 | 2.38×10 ⁻⁰² | |
| ENSG00000162576.16 | MXRA8 | matrix remodeling associated 8 | Cytoplasm | other | 1,723 | 2.87×10 ⁻⁰² | |
| ENSG00000185697.16 | MYBL1 | MYB proto-oncogene like 1 | Nucleus | transcription regulator | 2,166 | 8.49×10 ⁻⁰⁹ | |
| ENSG00000144821.9 | MYH15 | myosin heavy chain 15 | Extracellular Space | other | 3,674 | 2.03×10 ⁻⁰³ | |
| ENSG00000197616.11 | MYH6 | myosin heavy chain 6 | Cytoplasm | enzyme | 5,034 | 5.32×10 ⁻⁷⁷ | |
| ENSG00000198336.9 | MYL4 | myosin light chain 4 | Cytoplasm | other | 1,711 | 4.48×10 ⁻⁰³ | |
| ENSG00000106631.8 | MYL7 | myosin light chain 7 | Cytoplasm | enzyme | 2,147 | 8.76×10 ⁻⁰⁷ | |
| ENSG00000133454.15 | MYO18B | myosin XVIIIIB | Cytoplasm | other | 3,495 | 3.33×10 ⁻⁰³ | |
| ENSG00000141052.17 | MYOCD | myocardin | Nucleus | transcription regulator | 2,579 | 2.64×10 ⁻⁰⁶ | |
| ENSG00000244754.8 | N4BP2L2 | NEDD4 binding protein 2 like 2 | Nucleus | transcription regulator | 8,926 | 5.33×10 ⁻⁶¹ | |
| ENSG00000177694.14 | NAALADL2 | N-acetylated alpha-linked acidic dipeptidase like 2 | Nucleus | other | 7,119 | 7.18×10 ⁻¹¹ | |
| ENSG00000105402.7 | NAPA | NSF attachment protein alpha | Cytoplasm | transporter | 4,669 | 9.48×10 ⁻⁹³ | |
| ENSG00000132780.16 | NASP | nuclear autoantigenic sperm protein | Nucleus | other | -1,146 | 1.39×10 ⁻⁰³ | |
| ENSG00000255358.1 | NDUFAF2P2 | NDUFAF2 pseudogene 2 | Other | other | 5,161 | 3.37×10 ⁻⁰² | |
| ENSG00000110400.10 | NECTIN1 | nectin cell adhesion molecule 1 | Plasma Membrane | other | 5,675 | 1.39×10 ⁻¹⁸⁷ | |
| ENSG00000173848.18 | NET1 | neuroepithelial cell transforming 1 | Nucleus | other | -2,411 | 2.89×10 ⁻⁰² | |
| ENSG00000131196.17 | NFATC1 | nuclear factor of activated T cells 1 | Nucleus | transcription regulator | -3,842 | 2.81×10 ⁻⁰² | |
| ENSG00000187736.12 | NHEJ1 | non-homologous end joining factor 1 | Nucleus | other | 2,630 | 1.20×10 ⁻⁰² | |
| ENSG00000116962.14 | NID1 | nidogen 1 | Extracellular Space | other | 2,082 | 1.73×10 ⁻⁰² | |
| ENSG00000140807.5 | NKD1 | NKD inhibitor of WNT signaling pathway 1 | Other | other | -3,982 | 1.86×10 ⁻⁰² | |
| ENSG00000171487.14 | NLRP5 | NLR family pyrin domain containing 5 | Cytoplasm | other | 6,149 | 5.71×10 ⁻⁰⁴ | |
| ENSG00000158806.13 | NPM2 | nucleophosmin/nucleoplasm 2 | Nucleus | other | 6,234 | 2.16×10 ⁻¹¹ | |
| ENSG00000175745.11 | NR2F1 | nuclear receptor subfamily 2 group F member 1 | Nucleus | ligand-dependent nuclear receptor | 8,451 | 1.53×10 ⁻¹¹ | |
| ENSG00000198435.3 | NRARP | NOTCH regulated ankyrin repeat protein | Nucleus | transcription regulator | 6,345 | 1.33×10 ⁻⁵³ | |
| ENSG00000248008.2 | NRAV | negative regulator of antiviral response | Other | other | 2,959 | 8.93×10 ⁻⁰³ | |
| ENSG00000118257.16 | NRP2 | neuropilin 2 | Plasma Membrane | kinase | 1,305 | 2.74×10 ⁻⁰³ | |
| ENSG00000179915.20 | NRXN1 | neurexin 1 | Plasma Membrane | transporter | 3,448 | 8.09×10 ⁻⁰⁶ | |
| ENSG00000143552.9 | NUP210L | nucleoporin 210 like | Other | other | 12,382 | 5.05×10 ⁻⁶⁹ | |
| ENSG00000226328.6 | NUP50-DT | NUP50 divergent transcript | Other | other | 5,476 | 4.44×10 ⁻⁰³ | |
| ENSG00000149635.2 | OCSTAMP | osteoclast stimulatory transmembrane protein | Other | other | 10,644 | 8.38×10 ⁻¹⁰⁶ | |
| ENSG00000162745.10 | OLFML2B | olfactomedin like 2B | Extracellular Space | other | 3,624 | 2.86×10 ⁻⁰³ | |
| ENSG00000276240.1 | OR4E1 | olfactory receptor family 4 subfamily E member 1 | Plasma Membrane | other | 5,870 | 4.32×10 ⁻⁰⁹ | |
| ENSG00000128694.11 | OSGEP1 | O-sialoglycoprotein endopeptidase like 1 | Cytoplasm | peptidase | 4,457 | 1.39×10 ⁻⁰² | |
| ENSG00000172939.8 | OXS1 | oxidative stress responsive kinase 1 | Nucleus | kinase | 1,518 | 3.69×10 ⁻⁰² | |
| ENSG00000130669.17 | PAK4 | p21 (RAC1) activated kinase 4 | Cytoplasm | kinase | 2,159 | 1.57×10 ⁻⁰⁶ | FRAX355, PF-375 |
| ENSG00000129116.17 | PALLD | palladin, cytoskeletal associated protein | Plasma Membrane | other | 1,676 | 1.03×10 ⁻⁰⁴ | |
| ENSG00000111224.13 | PARP11 | poly(ADP-ribose) polymerase family member 11 | Nucleus | enzyme | 7,947 | 7.37×10 ⁻¹⁹⁹ | |
| ENSG00000138650.8 | PCDH10 | protocadherin 10 | Plasma Membrane | other | -4,812 | 1.98×10 ⁻⁰³ | |
| ENSG00000156374.14 | PCGF6 | polycomb group ring finger 6 | Nucleus | transcription regulator | 2,318 | 7.01×10 ⁻⁰³ | |
| ENSG00000099139.13 | PCSK5 | proprotein convertase subtilisin/kexin type 5 | Extracellular Space | peptidase | 1,605 | 1.75×10 ⁻⁰² | |
| ENSG00000244119.1 | PDC3L3P4 | PDC3L3 pseudogene 4 | Other | other | 5,365 | 6.43×10 ⁻⁰⁶ | |
| ENSG00000065989.15 | PDE4A | phosphodiesterase 4A | Cytoplasm | enzyme | 4,506 | 3.34×10 ⁻³³ | caffeine, pentoxifyll |
| ENSG00000138735.15 | PDE5A | phosphodiesterase 5A | Cytoplasm | enzyme | 3,311 | 2.55×10 ⁻⁰⁹ | dyphylline, udenafil |
| ENSG00000156973.13 | PDE6D | phosphodiesterase 6D | Cytoplasm | enzyme | 4,791 | 6.92×10 ⁻³⁷ | |
| ENSG00000170962.12 | PDGFD | platelet derived growth factor D | Extracellular Space | growth factor | 3,705 | 8.83×10 ⁻⁰³ | |
| ENSG00000160209.18 | PDXK | pyridoxal kinase | Cytoplasm | kinase | 1,472 | 3.17×10 ⁻⁰² | |
| ENSG00000242265.5 | PEG10 | paternally expressed 10 | Nucleus | other | -1,393 | 1.21×10 ⁻⁰³ | |
| ENSG00000157911.9 | PEX10 | peroxisomal biogenesis factor 10 | Cytoplasm | other | 3,850 | 1.33×10 ⁻¹⁹ | |
| ENSG00000070087.13 | PFN2 | profilin 2 | Cytoplasm | enzyme | 1,458 | 1.02×10 ⁻⁰² | |
| ENSG00000176732.6 | PFN4 | profilin family member 4 | Other | other | 8,994 | 1.24×10 ⁻⁰² | |
| ENSG00000112419.14 | PHACTR2 | phosphatase and actin regulator 2 | Other | other | -1,826 | 4.36×10 ⁻⁰² | |

| | | | | | | | |
|--------------------|--------------|---|---------------------|-------------------------|--------|-------------------------|-------------------------|
| ENSG00000118482.11 | PHF3 | PHD finger protein 3 | Nucleus | other | -4.583 | 3.75×10 ⁻⁰³ | |
| ENSG00000125207.7 | PIWIL1 | pwi like RNA-mediated gene silencing 1 | Cytoplasm | enzyme | 8.202 | 1.84×10 ⁻⁰⁴ | |
| ENSG00000166689.14 | PLEKHA7 | pleckstrin homology domain containing A7 | Cytoplasm | other | 1.569 | 4.28×10 ⁻⁰² | |
| ENSG00000120756.12 | PLS1 | plastin 1 | Plasma Membrane | other | 3.176 | 2.45×10 ⁻⁰² | |
| ENSG00000182013.17 | PNMA8A | PNMA family member 8A | Other | other | 2.702 | 1.60×10 ⁻⁰⁴ | |
| ENSG00000105258.8 | POLR21 | RNA polymerase II subunit I | Nucleus | transcription regulator | 1.812 | 1.30×10 ⁻⁰² | |
| ENSG00000184486.8 | POU3F2 | POU class 3 homeobox 2 | Nucleus | transcription regulator | 4.265 | 5.18×10 ⁻⁰⁹ | |
| ENSG00000173281.4 | PPP1R3B | protein phosphatase 1 regulatory subunit 3B | Cytoplasm | phosphatase | 4.766 | 1.34×10 ⁻⁰³ | |
| ENSG00000138814.16 | PPP3CA | protein phosphatase 3 catalytic subunit alpha | Cytoplasm | phosphatase | 1.699 | 1.79×10 ⁻⁰² | voclosporin, tacrolimus |
| ENSG0000017132.13 | PRKCE | protein kinase C epsilon | Cytoplasm | kinase | 2.455 | 1.22×10 ⁻⁰² | ingenol mebutate, f |
| ENSG00000117523.15 | PRRC2C | proline rich coiled-coil 2C | Cytoplasm | other | -1.675 | 5.94×10 ⁻⁰⁸ | |
| ENSG00000150687.11 | PRSS23 | serine protease 23 | Extracellular Space | peptidase | 1.784 | 1.05×10 ⁻⁰² | |
| ENSG00000105227.14 | PRX | peritaxin | Nucleus | other | 5.274 | 1.11×10 ⁻²⁸ | |
| ENSG00000156011.16 | PSD3 | pleckstrin and Sec7 domain containing 3 | Cytoplasm | other | 2.930 | 1.17×10 ⁻²³ | |
| ENSG00000174915.11 | PTDSS2 | phosphatidylserine synthase 2 | Cytoplasm | enzyme | 2.260 | 1.10×10 ⁻⁰³ | |
| ENSG00000187514.14 | PTMA | protymosin alpha | Nucleus | other | -1.022 | 1.42×10 ⁻⁰⁷ | |
| ENSG00000163629.12 | PTPN13 | protein tyrosine phosphatase non-receptor type 13 | Cytoplasm | phosphatase | -1.494 | 1.24×10 ⁻⁰² | |
| ENSG00000196090.12 | PTPR | protein tyrosine phosphatase receptor type I | Plasma Membrane | phosphatase | 3.453 | 3.98×10 ⁻⁰² | |
| ENSG0000017192.13 | PUS1 | pseudouridine synthase 1 | Nucleus | enzyme | 2.665 | 5.08×10 ⁻¹⁰ | |
| ENSG00000143545.8 | RAB13 | RAB13, member RAS oncogene family | Plasma Membrane | enzyme | -1.804 | 6.34×10 ⁻⁰³ | |
| ENSG00000132698.13 | RAB25 | RAB25, member RAS oncogene family | Cytoplasm | enzyme | 3.064 | 4.57×10 ⁻⁰³ | |
| ENSG00000164520.11 | RAET1E | retinoic acid early transcript 1E | Plasma Membrane | other | 6.216 | 2.62×10 ⁻¹¹ | |
| ENSG00000112183.14 | RBM24 | RNA binding motif protein 24 | Cytoplasm | other | 2.376 | 1.48×10 ⁻⁰² | |
| ENSG00000119707.13 | RBM25 | RNA binding motif protein 25 | Nucleus | other | -1.240 | 1.21×10 ⁻⁰⁴ | |
| ENSG00000144642.20 | RBM35 | RNA binding motif single stranded interacting protein 3 | Cytoplasm | other | 2.325 | 4.73×10 ⁻⁰² | |
| ENSG00000170748.6 | RBMXL2 | RBMX like 2 | Nucleus | other | 3.626 | 6.12×10 ⁻⁰³ | |
| ENSG00000175718.9 | RBMXL3 | RBMX like 3 | Other | other | 5.691 | 4.80×10 ⁻⁰² | |
| ENSG00000137710.14 | RDX | radixin | Cytoplasm | other | -1.991 | 4.88×10 ⁻⁰³ | |
| ENSG00000076344.15 | RGS11 | regulator of G protein signaling 11 | Plasma Membrane | enzyme | 5.130 | 6.24×10 ⁻¹⁰ | |
| ENSG00000158315.10 | RHBDL2 | rhomoid like 2 | Plasma Membrane | peptidase | 9.103 | 2.47×10 ⁻¹¹² | |
| ENSG00000155366.16 | RHOC | ras homolog family member C | Plasma Membrane | enzyme | -3.609 | 4.75×10 ⁻⁰² | |
| ENSG00000042062.11 | RIPOR3 | RIPOR family member 3 | Other | other | 2.735 | 1.73×10 ⁻⁰² | |
| ENSG00000200674.1 | RN7SKP160 | | Other | other | 5.892 | 3.37×10 ⁻⁰² | |
| ENSG00000243738.3 | RN7SL181P | RNA, 7SL, cytoplasmic 181, pseudogene | Other | other | 4.416 | 8.65×10 ⁻⁰⁴ | |
| ENSG00000265753.2 | RN7SL444P | | Other | other | 3.643 | 4.86×10 ⁻⁰² | |
| ENSG00000242894.3 | RN7SL634P | RNA, 7SL, cytoplasmic 634, pseudogene | Other | other | 5.947 | 8.69×10 ⁻⁰³ | |
| ENSG00000241172.3 | RN7SL70P | RNA, 7SL, cytoplasmic 70, pseudogene | Other | other | 3.816 | 4.80×10 ⁻⁰² | |
| ENSG00000239748.3 | RN7SL795P | RNA, 7SL, cytoplasmic 795, pseudogene | Other | other | 3.998 | 3.79×10 ⁻⁰² | |
| ENSG00000275757.1 | RNA5-8SN1 | RNA, 5.8S ribosomal N1 | Other | other | 3.781 | 6.72×10 ⁻⁰⁷ | |
| ENSG00000276700.1 | RNA5-8SN4 | RNA, 5.8S ribosomal N4 | Other | other | 6.725 | 1.70×10 ⁻⁰² | |
| ENSG00000201185.1 | RNA5SP202 | RNA, 5S ribosomal pseudogene 202 | Other | other | 2.257 | 6.97×10 ⁻⁰⁵ | |
| ENSG00000252281.1 | RNA5SP262 | RNA, 5S ribosomal pseudogene 262 | Other | other | 2.385 | 6.67×10 ⁻⁰⁶ | |
| ENSG00000200246.1 | RNA5SP263 | | Other | other | 4.009 | 1.28×10 ⁻⁰³ | |
| ENSG00000202474.1 | RNA5SP283 | RNA, 5S ribosomal pseudogene 283 | Other | other | 5.127 | 1.37×10 ⁻⁰² | |
| ENSG00000199525.1 | RNA5SP295 | RNA, 5S ribosomal pseudogene 295 | Other | other | 6.418 | 1.20×10 ⁻⁰³ | |
| ENSG00000222427.1 | RNA5SP338 | RNA, 5S ribosomal pseudogene 338 | Other | other | 4.419 | 4.63×10 ⁻⁰⁴ | |
| ENSG00000272435.1 | RNA5SP357 | RNA, 5S ribosomal pseudogene 357 | Other | other | 4.130 | 2.40×10 ⁻⁰² | |
| ENSG00000222268.1 | RNA5SP425 | RNA, 5S ribosomal pseudogene 425 | Other | other | 5.118 | 4.73×10 ⁻⁰² | |
| ENSG00000200558.1 | RNA5SP429 | RNA, 5S ribosomal pseudogene 429 | Other | other | 3.914 | 2.22×10 ⁻⁰³ | |
| ENSG00000252680.1 | RNA5SP449 | RNA, 5S ribosomal pseudogene 449 | Other | other | 2.771 | 2.16×10 ⁻¹¹ | |
| ENSG00000251770.1 | RNA5SP486 | RNA, 5S ribosomal pseudogene 486 | Other | other | 4.412 | 1.32×10 ⁻⁰² | |
| ENSG00000145860.11 | RNF145 | ring finger protein 145 | Other | other | 2.200 | 3.29×10 ⁻⁰⁴ | |
| ENSG00000185946.15 | RNPC3 | RNA binding region (RNP1, RRM) containing 3 | Nucleus | other | 2.382 | 1.88×10 ⁻⁰² | |
| ENSG00000206652.1 | RNU1-1 | RNA, U1 small nuclear 1 | Other | other | -9.716 | 2.89×10 ⁻¹¹ | |
| ENSG00000200340.1 | RNU1-105P | RNA, U1 small nuclear 105, pseudogene | Other | other | 4.605 | 6.51×10 ⁻⁰⁵ | |
| ENSG00000199805.1 | RNU1-134P | RNA, U1 small nuclear 134, pseudogene | Other | other | 1.408 | 2.78×10 ⁻⁰² | |
| ENSG00000212609.1 | RNU1-139P | | Other | other | 4.128 | 9.79×10 ⁻²⁸ | |
| ENSG00000199629.1 | RNU1-14P | RNA, U1 small nuclear 14, pseudogene | Other | other | 2.472 | 1.72×10 ⁻⁰³ | |
| ENSG00000202347.1 | RNU1-16P | RNA, U1 small nuclear 16, pseudogene | Other | other | 3.995 | 5.41×10 ⁻⁴¹ | |
| ENSG00000207005.1 | RNU1-2 | RNA, U1 small nuclear 2 | Nucleus | other | 7.113 | 1.33×10 ⁻⁰² | |
| ENSG00000200197.1 | RNU1-21P | RNA, U1 small nuclear 21, pseudogene | Other | other | 3.800 | 9.83×10 ⁻⁰⁶ | |
| ENSG00000206596.1 | RNU1-27P | RNA, U1 small nuclear 27, pseudogene | Other | other | 4.671 | 2.92×10 ⁻⁵⁷ | |
| ENSG00000206588.1 | RNU1-28P | RNA, U1 small nuclear 28, pseudogene | Other | other | -8.069 | 1.69×10 ⁻⁰⁸ | |
| ENSG00000207513.1 | RNU1-3 | RNA, U1 small nuclear 3 | Other | other | -9.835 | 1.80×10 ⁻¹⁰ | |
| ENSG00000201119.1 | RNU1-33P | | Other | other | 4.861 | 3.99×10 ⁻³³ | |
| ENSG00000206624.1 | RNU1-39P | RNA, U1 small nuclear 39, pseudogene | Other | other | 2.125 | 9.10×10 ⁻⁰⁶ | |
| ENSG00000207389.1 | RNU1-4 | RNA, U1 small nuclear 4 | Nucleus | other | 6.542 | 1.58×10 ⁻³⁶ | |
| ENSG00000253000.1 | RNU1-45P | | Other | other | 3.676 | 3.82×10 ⁻¹⁶ | |
| ENSG00000207154.1 | RNU1-46P | | Other | other | 5.629 | 2.16×10 ⁻²⁴ | |
| ENSG00000212170.1 | RNU1-77P | | Other | other | 4.413 | 4.96×10 ⁻¹³ | |
| ENSG00000270103.3 | RNU11 | | Other | other | 2.173 | 1.42×10 ⁻⁰⁸ | |
| ENSG00000276027.1 | RNU12 | RNA, U12 small nuclear | Nucleus | other | 4.108 | 5.60×10 ⁻⁴⁸ | |
| ENSG00000222985.1 | RNU2-14P | | Other | other | 4.219 | 6.19×10 ⁻³⁷ | |
| ENSG0000022328.1 | RNU2-2P | RNA, U2 small nuclear 2, pseudogene | Nucleus | other | 2.217 | 1.48×10 ⁻²⁹ | |
| ENSG00000252604.1 | RNU2-44P | | Other | other | 4.835 | 2.01×10 ⁻¹⁹ | |
| ENSG00000222426.1 | RNU2-50P | RNA, U2 small nuclear 50, pseudogene | Other | other | 3.271 | 1.23×10 ⁻¹⁷ | |
| ENSG00000222650.1 | RNU2-70P | RNA, U2 small nuclear 70, pseudogene | Other | other | 3.061 | 1.16×10 ⁻⁰² | |
| ENSG00000199568.1 | RNU5A-1 | RNA, U5A small nuclear 1 | Other | other | 2.200 | 2.03×10 ⁻⁰⁷ | |
| ENSG00000200972.1 | RNU5A-8P | RNA, U5A small nuclear 8, pseudogene | Other | other | 2.236 | 2.32×10 ⁻⁰² | |
| ENSG00000200169.1 | RNU5D-1 | RNA, U5D small nuclear 1 | Other | other | 2.706 | 8.01×10 ⁻¹³ | |
| ENSG00000199347.1 | RNU5E-1 | RNA, U5E small nuclear 1 | Other | other | 2.997 | 5.14×10 ⁻³⁷ | |
| ENSG00000202444.1 | RNU5E-6P | RNA, U5E small nuclear 6, pseudogene | Other | other | 2.403 | 2.94×10 ⁻¹³ | |
| ENSG00000207291.1 | RNU6-30P | RNA, U6 small nuclear 30, pseudogene | Other | other | 6.912 | 1.22×10 ⁻⁰² | |
| ENSG00000207349.1 | RNVU1-17 | RNA, variant U1 small nuclear 17 | Other | other | 5.396 | 4.39×10 ⁻⁰² | |
| ENSG00000206737.1 | RNVU1-18 | RNA, variant U1 small nuclear 18 | Other | other | -8.093 | 3.53×10 ⁻⁰⁶ | |
| ENSG00000275538.1 | RNVU1-19 | RNA, variant U1 small nuclear 19 | Other | other | 3.042 | 8.99×10 ⁻⁰³ | |
| ENSG00000277918.1 | RNVU1-28 | | Other | other | 1.503 | 4.86×10 ⁻⁰⁵ | |
| ENSG00000273768.1 | RNVU1-29 | | Other | other | 9.282 | 8.22×10 ⁻⁶³ | |
| ENSG00000278099.1 | RNVU1-2A | RNA, variant U1 small nuclear 2A | Other | other | 2.379 | 9.01×10 ⁻⁰³ | |
| ENSG00000206585.1 | RNVU1-7 | RNA, variant U1 small nuclear 7 | Other | other | 2.580 | 6.11×10 ⁻⁰⁹ | |
| ENSG00000201098.1 | RNY1 | RNA, Ro60-associated Y1 | Nucleus | other | 2.148 | 5.49×10 ⁻⁰⁷ | |
| ENSG00000202354.1 | RNY3 | RNA, Ro60-associated Y3 | Other | other | 1.578 | 2.15×10 ⁻⁰² | |
| ENSG00000185483.11 | ROR1 | receptor tyrosine kinase like orphan receptor 1 | Plasma Membrane | kinase | 1.660 | 1.62×10 ⁻⁰³ | cirmtuzumab, VLS- |
| ENSG00000272980.3 | RP11-517H2.6 | | Other | other | 5.474 | 5.43×10 ⁻⁰⁶ | |
| ENSG00000260729.1 | RP11_106M32 | | Other | other | 4.768 | 2.47×10 ⁻⁰³ | |
| ENSG00000284643.1 | RP11_118G232 | | Other | other | 8.994 | 1.24×10 ⁻⁰² | |
| ENSG00000227200.1 | RP11_121A143 | | Other | other | 7.800 | 8.00×10 ⁻⁰⁶ | |
| ENSG00000253496.2 | RP11_13N121 | | Other | other | 7.300 | 2.70×10 ⁻⁰² | |
| ENSG00000260483.2 | RP11_151H21 | | Other | other | 8.994 | 1.24×10 ⁻⁰² | |
| ENSG00000256669.1 | RP11_173P155 | | Other | other | 27.099 | 4.33×10 ⁻¹⁰ | |
| ENSG00000261076.1 | RP11_179B156 | | Other | other | 5.057 | 1.43×10 ⁻⁰⁷ | |
| ENSG00000256439.6 | RP11_196G111 | | Other | other | 6.816 | 2.43×10 ⁻⁰² | |
| ENSG00000232748.3 | RP11_196G116 | | Other | other | 4.593 | 9.78×10 ⁻⁰³ | |
| ENSG00000261441.1 | RP11_217B12 | | Other | other | 3.391 | 1.80×10 ⁻⁰⁵ | |
| ENSG00000253288.1 | RP11_238K61 | | Other | other | 5.360 | 1.88×10 ⁻⁰² | |
| ENSG00000233724.1 | RP11_252C242 | | Other | other | 7.300 | 2.79×10 ⁻⁰² | |
| ENSG00000278319.1 | RP11_266I38 | | Other | other | 8.171 | 1.10×10 ⁻⁰³ | |
| ENSG00000260310.1 | RP11_27M242 | | Other | other | 10.475 | 1.81×10 ⁻⁰² | |
| ENSG00000257991.1 | RP11_2H83 | | Other | other | 2.285 | 1.79×10 ⁻⁰⁴ | |
| ENSG00000273063.1 | RP11_334G221 | | Other | other | 5.691 | 4.80×10 ⁻⁰² | |
| ENSG00000270696.1 | RP11_342K61 | | Other | other | 4.015 | 4.57×10 ⁻⁰² | |

| | | | | | | | |
|--------------------|---------------|--|---------------------|-------------------------|--------|------------------------|---------------------|
| ENSG00000249359.2 | RP11_374A41 | | Other | other | 8,745 | 1.29×10 ⁻⁰⁶ | |
| ENSG00000254485.5 | RP11_380D241 | | Other | other | 4,177 | 2.09×10 ⁻⁰² | |
| ENSG00000248755.1 | RP11_384D101 | | Other | other | 10,765 | 1.65×10 ⁻⁰³ | |
| ENSG00000263717.1 | RP11_466A196 | | Other | other | 6,912 | 1.22×10 ⁻⁰² | |
| ENSG00000278060.1 | RP11_466M211 | | Other | other | 12,908 | 1.92×10 ⁻⁰⁷ | |
| ENSG00000261889.1 | RP11_473M2016 | | Other | other | 3,291 | 5.52×10 ⁻¹⁶ | |
| ENSG00000276131.1 | RP11_481J23 | | Other | other | 6,107 | 7.31×10 ⁻⁰⁶ | |
| ENSG00000259677.1 | RP11_493E31 | | Other | other | 13,795 | 9.18×10 ⁻¹⁷ | |
| ENSG00000237212.1 | RP11_569G132 | | Other | other | 5,505 | 3.91×10 ⁻⁰² | |
| ENSG00000258413.1 | RP11_665C186 | | Other | other | 4,406 | 4.10×10 ⁻⁰² | |
| ENSG00000279086.1 | RP11_667F141 | | Other | other | 4,154 | 7.45×10 ⁻⁰⁶ | |
| ENSG00000254044.5 | RP11_681L81 | | Other | other | 9,126 | 3.91×10 ⁻⁰³ | |
| ENSG00000251588.2 | RP11_698E181 | | Other | other | 11,681 | 6.80×10 ⁻⁰⁷ | |
| ENSG00000237074.1 | RP11_6J212 | | Other | other | 9,874 | 3.98×10 ⁻⁰² | |
| ENSG00000255028.5 | RP11_708B62 | | Other | other | 11,466 | 4.03×10 ⁻¹⁷ | |
| ENSG00000256469.1 | RP11_856F162 | | Other | other | 5,407 | 2.48×10 ⁻⁰² | |
| ENSG00000253872.1 | RP11_90D111 | | Other | other | 13,578 | 1.82×10 ⁻¹⁸ | |
| ENSG00000281039.1 | RP4-777O23.3 | | Other | other | 9,684 | 9.51×10 ⁻⁰⁸ | |
| ENSG00000236674.1 | RP4_792G43 | | Other | other | 8,723 | 1.35×10 ⁻³⁰ | |
| ENSG00000236772.1 | RP5_1184F45 | | Other | other | 6,554 | 1.01×10 ⁻⁰⁵ | |
| ENSG00000231010.1 | RP6_109B72 | | Other | other | 6,645 | 1.07×10 ⁻⁰³ | |
| ENSG00000108298.9 | RPL19 | ribosomal protein L19 | Cytoplasm | other | -1,102 | 4.86×10 ⁻⁰⁵ | |
| ENSG00000114391.12 | RPL24 | ribosomal protein L24 | Cytoplasm | other | -1,732 | 3.61×10 ⁻⁰² | |
| ENSG00000242595.1 | RPL26P26 | ribosomal protein L26 pseudogene 26 | Other | other | 10,149 | 9.69×10 ⁻¹¹ | |
| ENSG00000162244.10 | RPL29 | ribosomal protein L29 | Cytoplasm | other | -1,774 | 2.79×10 ⁻⁰² | |
| ENSG00000136942.14 | RPL35 | ribosomal protein L35 | Cytoplasm | other | -1,730 | 1.43×10 ⁻⁰⁵ | |
| ENSG00000122406.12 | RPL5 | ribosomal protein L5 | Cytoplasm | other | -1,895 | 1.34×10 ⁻⁰³ | |
| ENSG00000228462.1 | RPS19P7 | ribosomal protein S19 pseudogene 7 | Other | other | 10,582 | 2.51×10 ⁻⁰² | |
| ENSG00000186468.12 | RPS23 | ribosomal protein S23 | Cytoplasm | translation regulator | -1,288 | 4.36×10 ⁻⁰² | |
| ENSG00000125844.15 | RRBP1 | ribosome binding protein 1 | Cytoplasm | other | -1,094 | 3.34×10 ⁻⁰² | |
| ENSG00000132275.10 | RRP8 | ribosomal RNA processing 8 | Nucleus | enzyme | 2,472 | 2.06×10 ⁻⁰³ | |
| ENSG00000103449.11 | SALL1 | spalt like transcription factor 1 | Nucleus | transcription regulator | -1,967 | 2.51×10 ⁻⁰² | |
| ENSG00000155875.13 | SAXO1 | stabilizer of axonal microtubules 1 | Cytoplasm | other | 5,300 | 1.34×10 ⁻⁰³ | |
| ENSG00000252577.1 | SCARNA20 | small Cajal body-specific RNA 20 | Other | other | 2,511 | 9.01×10 ⁻⁰³ | |
| ENSG00000208466.1 | SCARNA4 | small Cajal body-specific RNA 4 | Other | other | 11,300 | 2.59×10 ⁻¹⁶ | |
| ENSG00000281394.1 | SCARNA4 | small Cajal body-specific RNA 4 | Other | other | -3,868 | 2.70×10 ⁻⁰² | |
| ENSG00000251733.1 | SCARNA8 | small Cajal body-specific RNA 8 | Other | other | 2,328 | 5.11×10 ⁻⁰⁴ | |
| ENSG00000169432.14 | SCN9A | sodium voltage-gated channel alpha subunit 9 | Plasma Membrane | ion channel | 3,117 | 4.16×10 ⁻⁰² | bupivacaine/lidocai |
| ENSG00000146555.18 | SDK1 | sidekick cell adhesion molecule 1 | Plasma Membrane | other | 4,499 | 2.32×10 ⁻⁰² | |
| ENSG00000139410.14 | SDSL | serine dehydratase like | Cytoplasm | enzyme | 3,676 | 2.51×10 ⁻⁰³ | |
| ENSG00000148396.18 | SEC16A | SEC16 homolog A, endoplasmic reticulum export factor | Cytoplasm | other | 1,251 | 4.23×10 ⁻⁰² | |
| ENSG00000150961.14 | SEC24D | SEC24 homolog D, COPII coat complex component | Cytoplasm | transporter | 1,791 | 1.24×10 ⁻⁰² | |
| ENSG00000075826.16 | SEC31B | SEC31 homolog B, COPII coat complex component | Cytoplasm | other | 2,594 | 5.00×10 ⁻⁰³ | |
| ENSG0000007908.15 | SELE | selectin E | Plasma Membrane | transmembrane receptor | 8,069 | 2.46×10 ⁻⁰⁴ | uprolelesan, GMI-1 |
| ENSG00000248445.5 | SEMA6A-AS1 | SEMA6A antisense RNA 1 | Other | other | 5,810 | 2.66×10 ⁻⁰⁷ | |
| ENSG00000106366.8 | SERPINE1 | serpin family E member 1 | Extracellular Space | other | 2,212 | 9.31×10 ⁻⁰³ | TM5614, drotrecog |
| ENSG00000099995.18 | SF3A1 | splicing factor 3a subunit 1 | Nucleus | other | -8,283 | 2.71×10 ⁻⁰² | |
| ENSG00000087365.14 | SF3B2 | splicing factor 3b subunit 2 | Nucleus | other | -1,152 | 1.30×10 ⁻⁰² | |
| ENSG00000104611.11 | SH2D4A | SH2 domain containing 4A | Cytoplasm | other | 2,434 | 1.34×10 ⁻⁰² | |
| ENSG00000251322.7 | SHANK3 | SH3 and multiple ankyrin repeat domains 3 | Plasma Membrane | other | 1,889 | 3.61×10 ⁻⁰³ | |
| ENSG00000164403.14 | SHROOM1 | shroom family member 1 | Other | other | 3,955 | 4.49×10 ⁻⁰³ | |
| ENSG00000127511.9 | SIN3B | SIN3 transcription regulator family member B | Nucleus | transcription regulator | -3,790 | 3.49×10 ⁻⁰² | |
| ENSG00000163406.10 | SLC15A2 | solute carrier family 15 member 2 | Plasma Membrane | transporter | 4,837 | 2.91×10 ⁻⁰⁵ | |
| ENSG00000261608.1 | SLC25A1P4 | solute carrier family 25 member 1 pseudogene 4 | Other | other | 7,336 | 8.10×10 ⁻¹⁰ | |
| ENSG00000258708.1 | SLC25A21-AS1 | SLC25A21 antisense RNA 1 | Other | other | 4,385 | 2.77×10 ⁻⁰² | |
| ENSG00000160785.13 | SLC25A44 | solute carrier family 25 member 44 | Cytoplasm | transporter | 2,806 | 1.91×10 ⁻¹⁴ | |
| ENSG00000215790.6 | SLC35E2A | solute carrier family 35 member E2A | Other | other | 4,291 | 2.60×10 ⁻¹⁹ | |
| ENSG00000123643.12 | SLC36A1 | solute carrier family 36 member 1 | Plasma Membrane | transporter | 3,139 | 2.70×10 ⁻⁰² | |
| ENSG00000138079.13 | SLC3A1 | solute carrier family 3 member 1 | Plasma Membrane | transporter | 2,810 | 4.53×10 ⁻¹⁶ | |
| ENSG00000188687.15 | SLC4A5 | solute carrier family 4 member 5 | Plasma Membrane | transporter | 6,636 | 1.64×10 ⁻¹¹ | |
| ENSG00000050438.16 | SLC4A8 | solute carrier family 4 member 8 | Plasma Membrane | transporter | 3,091 | 7.13×10 ⁻¹¹ | |
| ENSG00000164363.9 | SLC6A18 | solute carrier family 6 member 18 | Plasma Membrane | transporter | 2,921 | 1.86×10 ⁻⁰³ | |
| ENSG00000100678.18 | SLC8A3 | solute carrier family 8 member A3 | Plasma Membrane | transporter | 3,407 | 1.03×10 ⁻⁰⁹ | |
| ENSG00000214239.7 | SLC9B1P2 | solute carrier family 9 member B1 pseudogene 2 | Other | other | 10,822 | 2.65×10 ⁻⁰² | |
| ENSG00000137776.16 | SLTM | SAFB like transcription modulator | Nucleus | other | -1,809 | 1.34×10 ⁻⁰² | |
| ENSG00000181625.17 | SLX1A/SLX1B | SLX1 homolog B, structure-specific endonuclease subunit | Nucleus | enzyme | 5,036 | 9.73×10 ⁻⁰³ | |
| ENSG00000153147.5 | SMARCA5 | SWI/SNF related, matrix associated, actin dependent regulator of chr | Nucleus | transcription regulator | -2,100 | 2.79×10 ⁻⁰² | |
| ENSG00000173473.10 | SMARCC1 | SWI/SNF related, matrix associated, actin dependent regulator of chr | Nucleus | transcription regulator | -1,197 | 7.16×10 ⁻⁰³ | |
| ENSG00000176994.10 | SMCR8 | SMCR8-C9orf72 complex subunit | Nucleus | other | 1,797 | 4.70×10 ⁻⁰³ | |
| ENSG00000205670.10 | SMIM11A | small integral membrane protein 11A | Plasma Membrane | other | 7,300 | 2.79×10 ⁻⁰² | |
| ENSG00000281398.2 | SNHG4 | small nucleolar RNA host gene 4 | Other | other | 6,193 | 3.80×10 ⁻⁰⁵ | |
| ENSG00000184602.5 | SNN | stannin | Plasma Membrane | other | 1,943 | 3.49×10 ⁻⁰² | |
| ENSG00000206811.1 | SNORA10 | small nucleolar RNA, H/ACA box 10 | Other | other | 1,506 | 3.14×10 ⁻⁰² | |
| ENSG00000221716.1 | SNORA11 | small nucleolar RNA, H/ACA box 11 | Other | other | 1,997 | 1.18×10 ⁻⁰³ | |
| ENSG00000221705.1 | SNORA11E | small nucleolar RNA, H/ACA box 11E | Other | other | 10,203 | 3.98×10 ⁻⁰² | |
| ENSG00000280498.1 | SNORA16A | small nucleolar RNA, H/ACA box 16A | Other | other | 9,814 | 3.30×10 ⁻⁰² | |
| ENSG00000276161.1 | SNORA17B | small nucleolar RNA, H/ACA box 17B | Other | other | 9,126 | 3.91×10 ⁻⁰³ | |
| ENSG00000206903.1 | SNORA24B | small nucleolar RNA, H/ACA box 24B | Other | other | 4,595 | 1.32×10 ⁻⁰⁴ | |
| ENSG00000206612.1 | SNORA2A | small nucleolar RNA, H/ACA box 2A | Other | other | 3,135 | 5.00×10 ⁻⁰³ | |
| ENSG00000207313.1 | SNORA2B | small nucleolar RNA, H/ACA box 2B | Other | other | 2,889 | 9.04×10 ⁻⁰³ | |
| ENSG00000221491.2 | SNORA2C | small nucleolar RNA, H/ACA box 2C | Other | other | 2,467 | 4.78×10 ⁻⁰³ | |
| ENSG00000253051.1 | SNORA31B | small nucleolar RNA, H/ACA box 31B | Other | other | 1,314 | 2.74×10 ⁻⁰³ | |
| ENSG00000263776.1 | SNORA4 | small nucleolar RNA, H/ACA box 4 | Other | other | 1,872 | 5.72×10 ⁻⁰⁵ | |
| ENSG00000206838.1 | SNORA5A | small nucleolar RNA, H/ACA box 5A | Other | other | 1,956 | 1.11×10 ⁻⁰² | |
| ENSG00000207405.1 | SNORA64 | small nucleolar RNA, H/ACA box 64 | Other | other | 2,201 | 2.89×10 ⁻⁰³ | |
| ENSG00000207523.1 | SNORA66 | small nucleolar RNA, H/ACA box 66 | Other | other | 1,307 | 4.30×10 ⁻⁰⁴ | |
| ENSG00000200087.1 | SNORA73B | small nucleolar RNA, H/ACA box 73B | Other | other | 1,382 | 1.96×10 ⁻⁰⁶ | |
| ENSG00000206885.1 | SNORA75 | small nucleolar RNA, H/ACA box 75 | Other | other | 1,225 | 2.79×10 ⁻⁰² | |
| ENSG00000222489.1 | SNORA79B | small nucleolar RNA, H/ACA box 79B | Other | other | 1,951 | 2.21×10 ⁻⁰⁵ | |
| ENSG00000200792.1 | SNORA80A | small nucleolar RNA, H/ACA box 80A | Other | other | 4,021 | 8.24×10 ⁻⁰⁵ | |
| ENSG00000277194.1 | SNORD22 | small nucleolar RNA, C/D box 22 | Other | other | 1,242 | 7.75×10 ⁻⁰⁴ | |
| ENSG00000263934.4 | SNORD3A | small nucleolar RNA, C/D box 3A | Other | other | 1,032 | 2.32×10 ⁻⁰² | |
| ENSG00000206602.1 | SNORD58A | small nucleolar RNA, C/D box 58A | Other | other | 3,180 | 2.57×10 ⁻⁰⁴ | |
| ENSG0000023224.1 | SNORD71 | small nucleolar RNA, C/D box 71 | Other | other | 4,251 | 5.20×10 ⁻⁰⁴ | |
| ENSG00000206772.1 | SNORD94 | small nucleolar RNA, C/D box 94 | Other | other | 2,818 | 5.85×10 ⁻⁰³ | |
| ENSG00000101400.5 | SNTA1 | syntrophin alpha 1 | Plasma Membrane | other | 3,645 | 1.03×10 ⁻⁰² | |
| ENSG00000188807.16 | SNTB2 | syntrophin beta 2 | Plasma Membrane | other | 3,893 | 2.85×10 ⁻²⁷ | |
| ENSG00000172803.17 | SNX32 | sorting nexin 32 | Other | other | 4,554 | 4.06×10 ⁻⁰⁴ | |
| ENSG00000113140.10 | SPARC | secreted protein acidic and cysteine rich | Extracellular Space | other | 1,368 | 1.85×10 ⁻⁰⁴ | |
| ENSG00000158792.15 | SPATA2L | spermatogenesis associated 2 like | Other | other | 3,255 | 4.20×10 ⁻⁰² | |
| ENSG00000066336.11 | SP1 | Spi-1 proto-oncogene | Nucleus | transcription regulator | 2,622 | 1.12×10 ⁻⁰² | |
| ENSG00000107742.12 | SPOCK2 | SPARC (osteonectin), cwcv and kazal like domains proteoglycan 2 | Extracellular Space | other | 3,382 | 8.61×10 ⁻⁰⁴ | |
| ENSG00000262655.3 | SPON1 | spondin 1 | Extracellular Space | other | 2,058 | 9.50×10 ⁻⁰³ | |
| ENSG00000118785.13 | SPP1 | secreted phosphoprotein 1 | Extracellular Space | cytokine | 1,920 | 1.33×10 ⁻⁰² | |
| ENSG00000161011.19 | SQSTM1 | sequestosome 1 | Cytoplasm | transcription regulator | 1,326 | 2.92×10 ⁻⁰³ | |
| ENSG00000153914.15 | SREK1 | splicing regulatory glutamic acid and lysine rich protein 1 | Nucleus | other | -2,132 | 4.97×10 ⁻⁰³ | |
| ENSG00000116754.13 | SRSF11 | serine and arginine rich splicing factor 11 | Nucleus | other | -1,198 | 4.53×10 ⁻⁰² | |
| ENSG0000011728.10 | ST8SIA1 | ST8 alpha-N-acetylneuraminidase alpha-2,8-sialyltransferase 1 | Cytoplasm | enzyme | 2,641 | 2.84×10 ⁻⁰² | |
| ENSG00000214530.7 | STARD10 | STAR related lipid transfer domain containing 10 | Cytoplasm | other | 2,112 | 3.98×10 ⁻⁰² | |
| ENSG00000149043.16 | SYT8 | synaptotagmin 8 | Cytoplasm | transporter | 7,112 | 4.92×10 ⁻⁰⁷ | |
| ENSG00000147526.19 | TACC1 | transforming acidic coiled-coil containing protein 1 | Nucleus | other | 2,148 | 1.72×10 ⁻⁰⁴ | |

| | | | | | | | |
|--------------------|-----------------|--|---------------------|-------------------------|--------|-------------------------|-----------------------|
| ENSG00000176769.9 | TCERG1L | transcription elongation regulator 1 like | Other | other | 3,305 | 1.61×10 ⁻⁰³ | |
| ENSG00000125878.5 | TCF15 | transcription factor 15 | Nucleus | transcription regulator | 7,322 | 2.03×10 ⁻⁶¹ | |
| ENSG00000182134.15 | TDRKH | tudor and KH domain containing | Cytoplasm | other | 3,298 | 3.45×10 ⁻⁰⁴ | |
| ENSG0000009694.13 | TENM1 | teneurin transmembrane protein 1 | Plasma Membrane | transmembrane receptor | 4,060 | 6.66×10 ⁻⁰⁶ | |
| ENSG00000112773.15 | TENT5A | terminal nucleotidyltransferase 5A | Other | other | 2,462 | 8.12×10 ⁻⁰⁴ | |
| ENSG00000249311.4 | TERF1P3 | TERRF1 pseudogene 3 | Other | other | 5,821 | 2.93×10 ⁻⁰² | |
| ENSG00000223824.1 | TERF1P6 | TERRF1 pseudogene 6 | Other | other | 12,540 | 3.36×10 ⁻⁰⁹ | |
| ENSG00000135269.17 | TES | testin LIM domain protein | Plasma Membrane | other | 2,142 | 4.06×10 ⁻⁰⁵ | |
| ENSG00000121101.15 | TEX14 | testis expressed 14, intercellular bridge forming factor | Plasma Membrane | kinase | 4,759 | 1.61×10 ⁻⁰⁴ | |
| ENSG00000029639.10 | TFB1M | transcription factor B1, mitochondrial | Cytoplasm | transcription regulator | 2,400 | 2.38×10 ⁻⁰² | |
| ENSG00000115112.7 | TFCP2L1 | transcription factor CP2 like 1 | Nucleus | transcription regulator | 2,653 | 2.72×10 ⁻⁰² | |
| ENSG00000072274.12 | TFR3 | transferrin receptor | Plasma Membrane | transporter | 2,087 | 8.77×10 ⁻⁰³ | CALAA-01, CX-202 |
| ENSG00000126708.16 | TGFB1 | transforming growth factor beta induced | Extracellular Space | other | 2,517 | 3.59×10 ⁻⁰⁵ | |
| ENSG00000137801.10 | THBS1 | thrombospondin 1 | Extracellular Space | other | 1,250 | 1.88×10 ⁻⁰² | |
| ENSG00000064115.10 | TM7SF3 | transmembrane 7 superfamily member 3 | Plasma Membrane | other | 3,168 | 4.22×10 ⁻⁰³ | |
| ENSG00000244187.7 | TMEM141 | transmembrane protein 141 | Other | other | 1,638 | 4.33×10 ⁻⁰² | |
| ENSG00000164484.11 | TMEM200A | transmembrane protein 200A | Other | other | 3,224 | 4.73×10 ⁻⁰² | |
| ENSG00000072954.6 | TMEM38A | transmembrane protein 38A | Cytoplasm | ion channel | 8,401 | 4.30×10 ⁻⁶⁷ | |
| ENSG00000095209.11 | TMEM38B | transmembrane protein 38B | Nucleus | ion channel | 3,470 | 7.70×10 ⁻⁰³ | |
| ENSG00000175348.10 | TMEM9B | TMEM9 domain family member B | Other | other | 4,242 | 2.57×10 ⁻⁰⁴ | |
| ENSG00000120802.13 | TMPO | thymopoietin | Nucleus | other | 3,163 | 6.06×10 ⁻⁷⁷ | |
| ENSG00000168591.15 | TMUB2 | transmembrane and ubiquitin like domain containing 2 | Other | other | 2,851 | 1.40×10 ⁻⁰² | |
| ENSG00000118194.18 | TNNT2 | troponin T2, cardiac type | Cytoplasm | other | 2,075 | 8.95×10 ⁻¹⁵ | |
| ENSG00000198900.5 | TOP1 | DNA topoisomerase I | Nucleus | enzyme | -1,777 | 9.60×10 ⁻⁰³ | bevacizumab/irinota |
| ENSG00000131747.14 | TOP2A | DNA topoisomerase II alpha | Nucleus | enzyme | -3,107 | 4.80×10 ⁻⁰² | bortezomib/doxorotu |
| ENSG00000111669.14 | TP1 | triosephosphate isomerase 1 | Cytoplasm | enzyme | -1,412 | 2.21×10 ⁻⁰² | |
| ENSG00000140416.19 | TPM1 | tropomyosin 1 | Cytoplasm | other | 1,001 | 1.15×10 ⁻⁰⁴ | |
| ENSG00000076604.14 | TRAF4 | TNF receptor associated factor 4 | Cytoplasm | other | 1,457 | 3.71×10 ⁻⁰² | |
| ENSG00000196459.13 | TRAPPC2 | trafficking protein particle complex subunit 2 | Cytoplasm | other | 3,194 | 1.73×10 ⁻⁰² | |
| ENSG00000173334.3 | TRIB1 | tribbles pseudokinase 1 | Cytoplasm | kinase | 1,931 | 1.56×10 ⁻⁰² | |
| ENSG00000149743.13 | TRPT1 | tRNA phosphotransferase 1 | Other | enzyme | 2,415 | 3.26×10 ⁻⁰² | |
| ENSG00000170892.10 | TSEN34 | tRNA splicing endonuclease subunit 34 | Nucleus | enzyme | 3,347 | 1.63×10 ⁻¹⁵ | |
| ENSG00000176728.7 | TTYTY14 | testis-specific transcript, Y-linked 14 | Other | other | 4,300 | 2.48×10 ⁻⁰² | |
| ENSG00000166402.8 | TUB | TUB bipartite transcription factor | Cytoplasm | transcription regulator | 1,769 | 6.05×10 ⁻⁰³ | |
| ENSG00000104804.7 | TULP2 | TUB like protein 2 | Other | enzyme | 7,084 | 1.78×10 ⁻⁰² | |
| ENSG00000149016.15 | TUT1 | terminal uridylyl transferase 1, U6 snRNA-specific | Nucleus | enzyme | 2,336 | 3.08×10 ⁻⁰² | |
| ENSG00000198431.15 | TXNRD1 | thioredoxin reductase 1 | Cytoplasm | enzyme | 1,437 | 2.42×10 ⁻⁰² | arsenic trioxide/ida |
| ENSG00000278591.1 | UZ | | Other | other | 2,479 | 2.91×10 ⁻⁰⁵ | |
| ENSG00000272173.1 | U47924.31 | | Other | other | 4,120 | 4.48×10 ⁻⁰³ | |
| ENSG00000106106.13 | UBE2S | ubiquitin conjugating enzyme E2 S | Nucleus | enzyme | -4,047 | 1.63×10 ⁻⁰² | |
| ENSG00000175564.12 | UCP3 | uncoupling protein 3 | Cytoplasm | transporter | 4,862 | 1.98×10 ⁻¹¹ | |
| ENSG00000151461.19 | UPF2 | UPF2 regulator of nonsense mediated mRNA decay | Cytoplasm | other | -1,593 | 2.51×10 ⁻⁰² | |
| ENSG00000105176.17 | URI1 | URI1 prefoldin like chaperone | Nucleus | transcription regulator | 1,694 | 5.57×10 ⁻⁰⁴ | |
| ENSG00000135093.12 | USP30 | ubiquitin specific peptidase 30 | Cytoplasm | peptidase | 5,094 | 8.05×10 ⁻¹⁷ | |
| ENSG00000171724.2 | VAT1L | vesicle amine transport 1 like | Other | enzyme | 2,826 | 6.64×10 ⁻¹⁴ | |
| ENSG00000112715.20 | VEGFA | vascular endothelial growth factor A | Extracellular Space | growth factor | 12,974 | 4.65×10 ⁻⁸⁹ | bevacizumab/caper |
| ENSG00000173511.9 | VEGFB | vascular endothelial growth factor B | Extracellular Space | growth factor | 7,691 | 1.01×10 ⁻²⁸⁵ | afibercept, afliberce |
| ENSG00000171475.13 | WIPF2 | WAS/WASL interacting protein family member 2 | Cytoplasm | other | 1,893 | 5.43×10 ⁻⁰³ | |
| ENSG00000200291.1 | Y_RNA | | Other | other | 10,206 | 1.95×10 ⁻⁰² | |
| ENSG00000083896.12 | YTHDC1 | YTH domain containing 1 | Cytoplasm | other | -1,357 | 1.88×10 ⁻⁰² | |
| ENSG00000108953.16 | YWHAE | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation p | Cytoplasm | other | -1,326 | 3.23×10 ⁻⁰³ | |
| ENSG00000180011.6 | ZADH2 | zinc binding alcohol dehydrogenase domain containing 2 | Cytoplasm | enzyme | 3,208 | 1.34×10 ⁻⁰² | |
| ENSG00000146839.18 | ZAN | zonadhesin | Plasma Membrane | other | 6,167 | 5.79×10 ⁻⁰⁴ | |
| ENSG00000198081.10 | ZBTB14 | zinc finger and BTB domain containing 14 | Nucleus | transcription regulator | 2,486 | 2.36×10 ⁻⁰³ | |
| ENSG00000123200.16 | ZC3H13 | zinc finger CCCH-type containing 13 | Extracellular Space | other | -1,344 | 4.96×10 ⁻⁰⁴ | |
| ENSG00000206077.10 | ZDHHC11B | zinc finger DHHC-type containing 11B | Other | other | 4,974 | 2.86×10 ⁻⁰² | |
| ENSG00000156599.10 | ZDHHC5 | zinc finger DHHC-type palmitoyltransferase 5 | Nucleus | enzyme | 4,168 | 9.97×10 ⁻⁰⁵ | |
| ENSG00000169564.16 | ZEB2 | zinc finger E-box binding homeobox 2 | Nucleus | transcription regulator | -3,808 | 2.98×10 ⁻⁰² | |
| ENSG00000229043.2 | ZFAND2A-DT | ZFAND2A divergent transcript | Other | other | 5,716 | 2.55×10 ⁻¹⁹ | |
| ENSG00000169946.13 | ZFPM2 | zinc finger protein, FOG family member 2 | Nucleus | transcription regulator | 2,462 | 4.44×10 ⁻⁰³ | |
| ENSG00000188070.9 | ZFTA | zinc finger translocation associated | Other | other | 1,819 | 3.37×10 ⁻⁰³ | |
| ENSG00000166526.16 | ZNF3 | zinc finger protein 3 | Nucleus | transcription regulator | 1,636 | 4.36×10 ⁻⁰² | |
| ENSG00000215452.3 | ZNF663P | zinc finger protein 663, pseudogene | Other | other | 4,507 | 2.65×10 ⁻⁰² | |
| ENSG00000197372.9 | ZNF675 | zinc finger protein 675 | Nucleus | transcription regulator | 2,307 | 2.61×10 ⁻⁰² | |
| ENSG00000215343.7 | ZNF705B/ZNF705D | zinc finger protein 705B | Other | other | 6,523 | 4.14×10 ⁻⁰⁵ | |
| ENSG00000213967.10 | ZNF726 | zinc finger protein 726 | Other | other | 4,710 | 1.28×10 ⁻⁰⁴ | |
| ENSG00000181220.15 | ZNF746 | zinc finger protein 746 | Cytoplasm | transcription regulator | 1,740 | 4.80×10 ⁻⁰² | |
| ENSG00000133624.13 | ZNF767P | zinc finger family member 767, pseudogene | Other | other | 1,957 | 2.19×10 ⁻⁰² | |
| ENSG00000198146.4 | ZNF770 | zinc finger protein 770 | Other | other | 1,982 | 1.17×10 ⁻⁰² | |
| ENSG00000183579.15 | ZNRF3 | zinc and ring finger 3 | Plasma Membrane | enzyme | 2,133 | 2.09×10 ⁻⁰² | |
| ENSG00000074755.14 | ZZEF1 | zinc finger ZZ-type and EF-hand domain containing 1 | Other | other | 1,360 | 2.47×10 ⁻⁰² | |

Suppl. Table 4: Top 30 up-regulated genes in HTB-EVs, HUVEC-EVs and CPC-EVs after LNP treatment

| HTB EVs | | | | | | | |
|--------------------|--------------------------|---|---------------------|-------------------------|---------------------------------------|------------------------|-------------|
| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC (with shrinkage) | FDR |
| ENSG00000112715.20 | VEGFA | vascular endothelial growth factor A | Extracellular Space | growth factor | bevacizumab/capecitabine, bevacizumab | 16.7638939 | 0 |
| ENSG00000275757.1 | RNA5-8SN1 | RNA, 5.8S ribosomal N1 | Other | other | | 10.78867104 | 2.56815E-09 |
| ENSG00000176971.3 | FIBIN | fin bud initiation factor homolog | Cytoplasm | other | | 7.574350765 | 6.55909E-44 |
| ENSG00000278099.1 | RNVU1-2A | RNA, variant U1 small nuclear 2A | Other | other | | 6.605796274 | 2.22638E-15 |
| ENSG00000214967.5 | NPIPAS (includes others) | nuclear pore complex interacting protein family member A5 | Nucleus | other | | 5.813595538 | 3.96060E-07 |
| ENSG00000019991.15 | HGF | hepatocyte growth factor | Extracellular Space | growth factor | rilovatumab, SCH 900105, bevacizumab | 5.708103623 | 1.33943E-46 |
| ENSG00000200885.1 | RNVU1-146P | RNA, U1 small nuclear 146, pseudogene | Other | other | | 5.6782403 | 6.49826E-07 |
| ENSG00000199879.1 | RNVU1-22 | Other | Other | other | | 5.65062988 | 1.53873E-13 |
| ENSG00000006570.8 | FOXJ2 | forkhead box J2 | Nucleus | transcription regulator | | 5.386801881 | 2.07908E-23 |
| ENSG00000202444.1 | RNU5E-6P | RNA, U5E small nuclear 6, pseudogene | Other | other | | 5.137487387 | 1.59998E-10 |
| ENSG00000108551.4 | RASD1 | ras related dexamethasone induced 1 | Cytoplasm | enzyme | | 4.975787293 | 1.0751E-20 |
| ENSG00000207110.1 | RNVU1-32 | RNA, variant U1 small nuclear 32 | Other | other | | 4.706741384 | 4.07645E-07 |
| ENSG00000200340.1 | RNVU1-105P | RNA, U1 small nuclear 105, pseudogene | Other | other | | 4.544910827 | 2.17745E-07 |
| ENSG00000207340.1 | RNVU1-1 | RNA, variant U1 small nuclear 1 | Other | other | | 4.504878173 | 2.67928E-05 |
| ENSG00000275538.1 | RNVU1-19 | RNA, variant U1 small nuclear 19 | Other | other | | 4.43361906 | 7.75586E-05 |
| ENSG00000273544.1 | SNORA44 | small nucleolar RNA, H/ACA box 44 | Other | other | | 4.400864658 | 5.6172E-05 |
| ENSG00000243635.1 | RP11_281P111 | | Other | other | | 4.255287841 | 1.60104E-08 |
| ENSG00000258186.2 | SLC7A5P2 | solute carrier family 7 member 5 pseudogene 2 | Other | other | | 4.109981866 | 2.61499E-06 |
| ENSG00000226227.1 | RNU2-37P | RNA, U2 small nuclear 37, pseudogene | Other | other | | 4.106063439 | 3.76798E-06 |
| ENSG00000130522.5 | JUND | JunD proto-oncogene, AP-1 transcription factor subunit | Nucleus | transcription regulator | | 3.94643134 | 1.13445E-19 |
| ENSG00000212170.1 | RNVU1-77P | | Other | other | | 3.89726213 | 6.06624E-09 |
| ENSG00000200887.1 | SNORA73B | small nucleolar RNA, H/ACA box 73B | Other | other | | 3.845409878 | 9.11862E-06 |
| ENSG00000206908.1 | RNVU1-136P | RNA, U1 small nuclear 136, pseudogene | Other | other | | 3.811585309 | 2.50757E-05 |
| ENSG00000278274.1 | SNORA61 | small nucleolar RNA, H/ACA box 61 | Other | other | | 3.78741906 | 1.23235E-05 |
| ENSG00000215606.4 | KRT18P35 | keratin 18 pseudogene 35 | Other | other | | 3.771943277 | 4.94538E-05 |
| ENSG00000222810.1 | RNU2-68P | | Other | other | | 3.728128631 | 7.1474E-05 |
| ENSG00000171223.5 | JUNB | JunB proto-oncogene, AP-1 transcription factor subunit | Nucleus | transcription regulator | | 3.690049262 | 1.08638E-16 |
| ENSG00000202538.1 | RNU4-2 | RNA, U4 small nuclear 2 | Other | other | | 3.677448138 | 2.87211E-13 |
| ENSG00000259135.1 | RP11_6711114 | | Other | other | | 3.670057508 | 2.32455E-05 |
| ENSG00000260727.1 | SLC7A5P1 | solute carrier family 7 member 5 pseudogene 1 | Other | other | | 3.588285017 | 0.000233762 |

| HUVEC EVs | | | | | | | |
|--------------------|----------------|--------------------------------------|---------------------|-------------------------|---------------------------------------|------------------------|--------------|
| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC (with shrinkage) | FDR |
| ENSG00000112715.20 | VEGFA | vascular endothelial growth factor A | Extracellular Space | growth factor | bevacizumab/capecitabine, bevacizumab | 20.4252527 | 0 |
| ENSG00000201185.1 | RNA5SP202 | RNA, 5S ribosomal pseudogene 202 | Other | other | | 13.02558347 | 8.62529E-18 |
| ENSG00000225842.0 | AC010970.2 | | Other | other | | 9.07672313 | 6.0089E-127 |
| ENSG00000200434.1 | RNA5-8SP2 | RNA, 5.8S ribosomal pseudogene 2 | Other | other | | 8.088228537 | 3.97516E-28 |
| ENSG00000257991.1 | RP11_2H83 | | Other | other | | 7.858671997 | 1.14121E-10 |
| ENSG0000019991.15 | HGF | hepatocyte growth factor | Extracellular Space | growth factor | rilovatumab, SCH 900105, bevacizumab | 7.63716289 | 5.684E-145 |
| ENSG0000028181.1 | CH507-513H4.3 | | Other | other | | 7.509460828 | 1.6613E-13 |
| ENSG00000252680.1 | RNA5SP449 | RNA, 5S ribosomal pseudogene 449 | Other | other | | 7.397762354 | 6.86191E-12 |
| ENSG00000015413.9 | DPEP1 | dipeptidase 1 | Cytoplasm | peptidase | cilastatin | 7.297052669 | 4.66146E-76 |
| ENSG00000199347.1 | RNU5E-1 | RNA, U5E small nuclear 1 | Other | other | | 7.253111467 | 2.87713E-26 |
| ENSG00000202386.1 | RNA5SP211 | RNA, 5S ribosomal pseudogene 211 | Other | other | | 7.161312833 | 6.39555E-12 |
| ENSG00000281383.1 | CH507-513H4.5 | | Other | other | | 6.946164415 | 4.93831E-08 |
| ENSG00000065970.8 | FOXJ2 | forkhead box J2 | Nucleus | transcription regulator | | 6.840890502 | 4.11982E-133 |
| ENSG00000199990.1 | VTRNA1-1 | vault RNA 1-1 | Other | other | | 6.781631446 | 1.30265E-09 |
| ENSG00000280800.1 | CH507-513H4.6 | | Other | other | | 6.724717253 | 3.64827E-15 |
| ENSG00000260182.1 | RP11_616M225 | | Other | other | | 6.526017785 | 9.05423E-09 |
| ENSG00000274266.1 | SNORA73A | small nucleolar RNA, H/ACA box 73A | Nucleus | other | | 6.515688769 | 2.00685E-06 |
| ENSG00000280614.1 | CH507-513H4.4 | | Other | other | | 6.508337794 | 1.05665E-14 |
| ENSG00000252361.1 | RNA5SP262 | RNA, 5S ribosomal pseudogene 262 | Other | other | | 6.180614432 | 4.93831E-08 |
| ENSG00000251770.1 | RNA5SP486 | RNA, 5S ribosomal pseudogene 486 | Other | other | | 6.152236673 | 1.57079E-07 |
| ENSG00000278233.1 | RNA5-8SN2 | RNA, 5.8S ribosomal N2 | Other | other | | 6.11872747 | 1.21867E-07 |
| ENSG00000275215.1 | RNA5-8SN3 | RNA, 5.8S ribosomal N3 | Other | other | | 6.072374018 | 1.73401E-07 |
| ENSG00000243635.1 | RP11_281P111 | | Other | other | | 6.057465121 | 8.1077E-08 |
| ENSG00000276900.1 | RNA5-8SN4 | RNA, 5.8S ribosomal N4 | Other | other | | 5.923918287 | 7.04946E-07 |
| ENSG00000202199.1 | RNVU1-115P | | Other | other | | 5.813625065 | 4.04873E-26 |
| ENSG00000183305.13 | MAGEF3/MAGEA2B | MAGE family member A2 | Nucleus | other | | 5.806013468 | 6.52823E-16 |
| ENSG00000274917.1 | RNA5-8SN5 | RNA, 5.8S ribosomal N5 | Other | other | | 5.731889554 | 2.00685E-06 |
| ENSG00000176971.3 | FIBIN | fin bud initiation factor homolog | Cytoplasm | other | | 5.719205634 | 2.80637E-77 |
| ENSG00000103495.13 | MAZ | MYC associated zinc finger protein | Nucleus | transcription regulator | | 5.707965086 | 3.50166E-14 |
| ENSG00000198879.1 | RNVU1-22 | Other | Other | other | | 5.707158449 | 1.9962E-32 |

| CPC EVs | | | | | | | |
|--------------------|--------------|---|---------------------|----------------------------|--|------------------------|-------------|
| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC (with shrinkage) | FDR |
| ENSG00000256569.1 | RP11_173P155 | | Other | other | | 24.61299343 | 4.33184E-10 |
| ENSG00000224415.5 | MIRS48XHG | MIRS48X host gene | Other | other | | 13.45233539 | 9.70873E-40 |
| ENSG00000112715.20 | VEGFA | vascular endothelial growth factor A | Extracellular Space | growth factor | bevacizumab/capecitabine, bevacizumab | 12.74905993 | 4.6143E-89 |
| ENSG00000259677.1 | RP11_493E11 | | Other | other | | 12.4933458 | 9.18369E-17 |
| ENSG00000253872.1 | RP11_90D111 | | Other | other | | 12.43580251 | 1.81975E-18 |
| ENSG00000257639.1 | CTB_31N192 | | Other | other | | 12.24095457 | 2.05451E-24 |
| ENSG00000143552.9 | NUP210L | nucleoporin 210 like | Other | other | | 12.12876803 | 5.05192E-69 |
| ENSG00000069570.8 | FOXJ2 | forkhead box J2 | Nucleus | transcription regulator | | 12.09474013 | 4.23844E-28 |
| ENSG00000162618.12 | ADGR4 | adhesion G protein-coupled receptor L4 | Plasma Membrane | G-protein coupled receptor | | 12.06292079 | 3.49356E-31 |
| ENSG00000251588.2 | RP11_698E181 | | Other | other | | 11.46615334 | 6.79589E-74 |
| ENSG00000206530.8 | CFAP44 | cilia and flagella associated protein 44 | Extracellular Space | peptidase | | 11.20110344 | 7.4869E-101 |
| ENSG00000243478.7 | AOX2P | aldehyde oxidase 2, pseudogene | Other | other | | 11.18089081 | 4.67361E-61 |
| ENSG00000206172.8 | HBA1/HBA2 | hemoglobin subunit alpha 2 | Extracellular Space | transporter | iron dextran, mefloquine, donepezil/me | 11.16361685 | 5.20662E-19 |
| ENSG00000266149.1 | LOC100192426 | uncharacterized LOC100192426 | Other | other | | 11.07060732 | 7.14722E-19 |
| ENSG00000188536.12 | HBA1/HBA2 | hemoglobin subunit alpha 2 | Extracellular Space | transporter | iron dextran, mefloquine, donepezil/me | 10.87043609 | 8.9646E-136 |
| ENSG00000237556.1 | KCNQ3-AS1 | KCNQ3 antisense RNA 1 | Other | other | | 10.82229497 | 1.03262E-17 |
| ENSG00000223824.1 | TERF1P6 | TERF1 pseudogene 6 | Other | other | | 10.80514479 | 3.35922E-09 |
| ENSG00000255028.5 | RP11_708B62 | | Other | other | | 10.69031556 | 4.03476E-17 |
| ENSG00000278060.1 | RP11_466M211 | | Other | other | | 10.65312121 | 1.92498E-07 |
| ENSG00000248755.1 | RP11_384D101 | | Other | other | | 10.58056021 | 1.65251E-63 |
| ENSG00000149635.2 | OCSTAMP | osteoclast stimulatory transmembrane protein | Other | other | | 10.53633151 | 8.3787E-106 |
| ENSG00000280466.1 | SCARNA4 | small Cajal body-specific RNA 4 | Other | other | | 10.52021176 | 2.59046E-16 |
| ENSG00000176605.7 | CL4orf177 | chromosome 14 putative open reading frame 177 | Other | other | | 10.45584524 | 3.67805E-17 |
| ENSG00000273415.1 | UNC02725 | | Other | other | | 10.44913711 | 1.66196E-08 |
| ENSG00000113302.4 | IL12B | interleukin 12B | Extracellular Space | cytokine | ustekinumab, methotrexate/ustekinumab | 9.937279869 | 3.85460E-45 |
| ENSG00000249439.1 | HMGNP14 | high mobility group nucleosome binding domain 1 pseudogene 14 | Other | other | | 9.63539843 | 2.53562E-12 |
| ENSG00000242595.1 | RPL26P26 | ribosomal protein L26 pseudogene 26 | Other | other | | 9.270156146 | 6.99255E-11 |
| ENSG00000273768.1 | RNVU1-29 | | Other | other | | 9.157891591 | 8.2247E-63 |
| ENSG00000158315.10 | RHBDL2 | rhuboid like 2 | Plasma Membrane | peptidase | | 9.036847015 | 2.4724E-112 |
| ENSG00000236231.1 | AC0170482 | | Other | other | | 9.015197557 | 2.29584E-27 |

Suppl. Table 5: Top 30 Down-regulated genes in HTB-EVs, HUVEC-EVs and CPC-EVs after LNP treatment

| HTB EVs | | | | | | | |
|--------------------|---------|---|---------------------|------------------------|---|------------------------|-------------|
| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC (with shrinkage) | FDR |
| ENSG00000196611.4 | MMP1 | matrix metalloproteinase 1 | Extracellular Space | peptidase | rebimastat, marimastat | -8.30836508 | 5.04956E-13 |
| ENSG00000137801.10 | THBS1 | thrombospondin 1 | Extracellular Space | other | | -5.64032192 | 2.60802E-20 |
| ENSG00000142798.16 | HSPG2 | heparan sulfate proteoglycan 2 | Extracellular Space | enzyme | | -4.832042736 | 6.02393E-17 |
| ENSG00000249751.1 | ECSCR | endothelial cell surface expressed chemotaxis and apoptosis regulator | Other | other | | -4.641547271 | 3.12819E-06 |
| ENSG00000110799.13 | WVF | von Willebrand factor | Extracellular Space | other | | -4.629243901 | 2.82711E-13 |
| ENSG00000150913.18 | ITGB1 | integrin subunit beta 1 | Plasma Membrane | transmembrane receptor | FA, capliczumab, turoctocog OS2966 | -4.089546376 | 1.64653E-12 |
| ENSG00000125148.6 | MT2A | metallothionein 2A | Cytoplasm | other | | -4.043096524 | 1.88313E-12 |
| ENSG00000138722.9 | MIMRN1 | miR-1 | Extracellular Space | other | | -3.717085048 | 1.19527E-11 |
| ENSG00000115380.18 | EFEMP1 | EGF containing fibulin extracellular matrix protein 1 | Extracellular Space | enzyme | | -3.629313884 | 1.21559E-12 |
| ENSG00000139678.7 | H2AC11 | H2A clustered histone 11 | Nucleus | other | | -3.467539856 | 3.17788E-06 |
| ENSG00000135636.13 | DYSF | dysferlin | Plasma Membrane | other | | -3.425118625 | 0.000249541 |
| ENSG00000172889.15 | EGFL7 | EGF like domain multiple 7 | Extracellular Space | other | paratsuzumab | -3.394326141 | 0.00304111 |
| ENSG00000143870.12 | PDIA6 | protein disulfide isomerase family A member 6 | Cytoplasm | enzyme | | -3.364062353 | 8.35571E-10 |
| ENSG00000104823.8 | ECH1 | enoyl-CoA hydratase 1 | Cytoplasm | enzyme | | -3.331832506 | 0.000377433 |
| ENSG00000111348.8 | ARHGDB8 | Rho GDP dissociation inhibitor beta | Cytoplasm | enzyme | | -3.285671303 | 1.26147E-05 |
| ENSG00000134871.17 | COL4A2 | collagen type IV alpha 2 chain | Extracellular Space | other | collagenase | -3.24395724 | 3.31729E-09 |
| ENSG00000142120.20 | APP | amyloid beta precursor protein | Plasma Membrane | other | bapineuzumab, florbetapir F3 | -3.224611745 | 1.21314E-10 |
| ENSG00000106991.13 | ENG | endoglin | Plasma Membrane | transmembrane receptor | carotuximab | -3.181751834 | 7.69146E-06 |
| ENSG00000179776.17 | CDH5 | cadherin 5 | Plasma Membrane | other | | -3.147392705 | 1.68551E-09 |
| ENSG0000010129.17 | EIF3L | eukaryotic translation initiation factor 3 subunit L | Cytoplasm | translation regulator | | -3.054548959 | 0.000227988 |
| ENSG00000113758.13 | DNMT1 | dnmt1 | Cytoplasm | other | | -3.051880106 | 3.3819E-11 |
| ENSG00000261371.5 | PICAM1 | platelet and endothelial cell adhesion molecule 1 | Plasma Membrane | other | | -3.046442335 | 1.68551E-09 |
| ENSG00000113140.10 | SPARC | secreted protein acidic and cysteine rich | Extracellular Space | other | | -2.981638238 | 5.78791E-10 |
| ENSG00000131236.16 | CAP1 | cyclase associated actin cytoskeleton regulatory protein 1 | Plasma Membrane | other | | -2.977234815 | 1.10641E-05 |
| ENSG00000129250.11 | KIF1C | kinesin family member 1C | Cytoplasm | other | | -2.943254274 | 9.32905E-08 |
| ENSG00000135404.11 | CD63 | CD63 molecule | Plasma Membrane | other | | -2.899827241 | 0.000316651 |
| ENSG00000168835.13 | ANPEP | alanine aminopeptidase, membrane | Plasma Membrane | peptidase | | -2.744646402 | 3.76798E-06 |
| ENSG00000187498.14 | COL4A1 | collagen type IV alpha 1 chain | Extracellular Space | other | CNGRC peptide-TNF alpha col collagenase | -2.735496475 | 2.51672E-07 |
| ENSG00000163513.17 | TGFB2 | transforming growth factor beta receptor 2 | Plasma Membrane | kinase | IMC-TR1, SM1-71 | -2.72383406 | 1.51385E-07 |
| ENSG00000128591.15 | FLNC | filamin C | Cytoplasm | other | | -2.711202139 | 0.000557576 |

| HUVEC EVs | | | | | | | |
|--------------------|-----------------------------|--|---------------------|-------------------------|----------------------------|------------------------|-------------|
| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC (with shrinkage) | FDR |
| ENSG00000276998.1 | REXO1L2P | REXO1 like 2, pseudogene | Other | other | | -6.142175804 | 1.18055E-09 |
| ENSG00000225660.6 | FAM197Y3 (includes others) | family with sequence similarity 197 Y-linked member 9 | Other | other | | -4.398635022 | 7.2321E-05 |
| ENSG00000276077.4 | LOC389831 (includes others) | uncharacterized LOC389831 | Other | other | | -4.089728061 | 0.000169772 |
| ENSG00000280179.1 | CHS07_42P116 | | Other | other | | -3.616025395 | 0.000546418 |
| ENSG00000183791.4 | ELOA3P (includes others) | elongin A3, pseudogene | Nucleus | other | | -3.253075988 | 1.74896E-07 |
| ENSG00000153976.2 | HS3T5L1 | heparan sulfate glucosaminase 3-sulfotransferase 3A1 | Cytoplasm | enzyme | | -3.169102772 | 0.002993467 |
| ENSG00000217872.4 | ORAF7P | ORAF family receptor family A subfamily F member 7 pseudogene | Other | other | | -2.999755378 | 0.01563709 |
| ENSG00000225154.2 | TUBAP9 | tubulin alpha pseudogene 9 | Other | other | | -2.971506097 | 0.001610584 |
| ENSG00000233974.3 | RP11_823P93 | | Other | other | | -2.824459211 | 7.51093E-10 |
| ENSG00000239732.3 | TLR9 | tolllike receptor 9 | Plasma Membrane | transmembrane receptor | cavitrolimod, MGN1703, IS- | -2.793024321 | 0.002234268 |
| ENSG00000233922.5 | UCLM1 | up-regulated in colorectal cancer liver metastasis | Other | other | | -2.578405234 | 0.000308082 |
| ENSG00000262497.1 | FAM187B2P | family with sequence similarity 187, member B pseudogene | Other | other | | -2.460198773 | 0.003559976 |
| ENSG00000274225.1 | KB_68A71 | | Other | other | | -2.383321275 | 0.004333547 |
| ENSG00000160161.9 | CILP2 | cartilage intermediate layer protein 2 | Extracellular Space | other | | -2.376284023 | 0.004573157 |
| ENSG00000271623.1 | RP11_43S1105 | | Other | other | | -2.36470426 | 0.004068822 |
| ENSG00000196796.5 | NPIP810P | nuclear pore complex interacting protein family, member B10, pseudogene | Other | other | | -2.26579266 | 0.005190157 |
| ENSG00000189357.8 | SPATA31D1 (includes others) | SPATA31 subfamily D member 1 | Other | other | | -2.152636322 | 0.002993467 |
| ENSG00000198754.5 | CDCT2 | 3-oxoacid CoA-transferase 2 | Cytoplasm | enzyme | | -2.140379562 | 0.006571911 |
| ENSG00000060491.16 | DGFR | opioid growth factor receptor | Plasma Membrane | other | enkephalin, methionine | -2.066875031 | 0.000496139 |
| ENSG00000281348.1 | CTD-2574D22.6 | | Other | other | | -1.963929158 | 0.00873464 |
| ENSG00000271655.17 | MBD3 | methyl-CpG binding domain protein 3 | Nucleus | other | | -1.919399031 | 4.87445E-09 |
| ENSG00000274046.1 | HOXC5 | homeobox C5 | Nucleus | transcription regulator | | -1.86105017 | 0.003659532 |
| ENSG00000176313.16 | KIR3DL1 | kilr cell immunoglobulin like receptor, three lg domains and long cytoplasmic tail 1 | Plasma Membrane | transmembrane receptor | | -1.812905698 | 0.002621101 |
| ENSG00000105429.12 | MEGF8 | multiple EGF like domains 8 | Extracellular Space | other | | -1.789057918 | 6.50162E-05 |
| ENSG00000130383.7 | FUT5 | fucosyltransferase 5 | Cytoplasm | enzyme | | -1.771640921 | 0.00984336 |
| ENSG00000275249.1 | AC171558.3 | | Other | other | | -1.74721071 | 0.011708827 |
| ENSG00000221890.2 | NPTXR | neuronal pentraxin receptor | Plasma Membrane | transmembrane receptor | | -1.724943995 | 0.000366895 |
| ENSG00000236081.1 | ELFN1-AS1 | ELFN1 antisense RNA 1 | Other | other | | -1.716011176 | 0.001253463 |
| ENSG00000182484.14 | WASH6P | WASP family homolog 6, pseudogene | Cytoplasm | other | | -1.675728705 | 7.82952E-05 |
| ENSG00000188086.12 | PRSS45P | serine protease 45, pseudogene | Other | peptidase | | -1.654002132 | 0.009351969 |

| CPC EVs | | | | | | | |
|--------------------|---------------|---|---------------------|-------------------------|--------------------------------|------------------------|-------------|
| Ensembl ID | Symbol | Entrez Gene Name | Location | Type(s) | Drug(s) | logFC (with shrinkage) | FDR |
| ENSG00000207513.1 | RNU1-3 | RNA, U1 small nuclear 3 | Other | other | | 9.000853731 | 1.80044E-10 |
| ENSG00000206652.1 | RNU1-1 | RNA, U1 small nuclear 1 | Other | other | | 8.862137757 | 2.89315E-11 |
| ENSG00000205588.1 | RNU1-28P | RNA, U1 small nuclear 28, pseudogene | Other | other | | 7.39621453 | 1.69076E-08 |
| ENSG00000206737.1 | RNVU1-18 | RNA, variant U1 small nuclear 18 | Other | other | | 7.12519946 | 3.52752E-06 |
| ENSG00000272196.2 | H2AC18/H2AC19 | H2A clustered histone 18 | Nucleus | other | | -4.33042253 | 0.000278141 |
| ENSG000001138650.8 | PCDH10 | protocadherin 10 | Plasma Membrane | other | | -3.379935774 | 0.001975867 |
| ENSG00000118482.11 | PHF3 | PHD finger protein 3 | Nucleus | other | | -2.994563377 | 0.00374654 |
| ENSG00000205699.12 | EIF3CL | eukaryotic translation initiation factor 3 subunit C like | Other | other | | -2.433086411 | 0.010854623 |
| ENSG00000171603.16 | CLSTN1 | calystenin 1 | Plasma Membrane | other | | -2.260991266 | 0.012813572 |
| ENSG00000203852.3 | H3C15 | H3 clustered histone 15 | Nucleus | other | | -2.228967832 | 0.01349518 |
| ENSG00000196411.9 | EPH84 | EPH receptor B4 | Plasma Membrane | kinase | tesevatinib, NVP-BHG712, II | -2.172891067 | 0.01443703 |
| ENSG00000108106.13 | UBE2S | ubiquitin conjugating enzyme E2 S | Nucleus | enzyme | | -2.1009886 | 0.016323224 |
| ENSG00000140807.5 | NOD1 | NOD1 inhibitor of WNT signaling pathway 1 | Other | other | | -2.018593929 | 0.018763642 |
| ENSG00000205592.13 | MUC19 | mucin 19, oligomeric | Cytoplasm | other | | -1.913734366 | 0.023847242 |
| ENSG00000049089.13 | COL9A2 | collagen type IX alpha 2 chain | Extracellular Space | collagenase | | -1.897639103 | 0.009786585 |
| ENSG00000008128.22 | CDK11A | cyclin dependent kinase 11A | Nucleus | kinase | | -1.893851922 | 0.023797458 |
| ENSG00000281394.1 | SCARNA4 | small Cajal body-specific RNA 4 | Other | other | | -1.81893001 | 0.026984297 |
| ENSG00000099995.18 | SF3A1 | splicing factor 3a subunit 1 | Nucleus | other | | -1.804753869 | 0.017071898 |
| ENSG00000131196.17 | NFATC1 | nuclear factor of activated T cells 1 | Nucleus | transcription regulator | | -1.786433017 | 0.028088851 |
| ENSG00000169554.16 | ZEB2 | zinc finger E-box binding homeobox 2 | Nucleus | transcription regulator | | -1.751477028 | 0.03984471 |
| ENSG00000063180.8 | CA11 | carbonic anhydrase 11 | Extracellular Space | enzyme | | -1.75130643 | 0.030049914 |
| ENSG00000142627.12 | EPHA2 | EPH receptor A2 | Plasma Membrane | kinase | afatinib/dasatinib, dasatinib, | -1.716582069 | 0.021338832 |
| ENSG00000127511.9 | SIN3B | SIN3 transcription regulator family member B | Nucleus | transcription regulator | | -1.678247406 | 0.034901617 |
| ENSG00000150893.10 | PRM2 | PRAS1 related extracellular matrix 2 | Other | other | | -1.625443466 | 0.038237778 |
| ENSG00000277053.4 | GTF2IP1 | general transcription factor III pseudogene 1 | Other | other | | -1.619931945 | 0.02984471 |
| ENSG00000160200.17 | CBS/CBSL | cystathionine beta-synthase | Cytoplasm | enzyme | | -1.540744143 | 0.024045871 |
| ENSG00000153914.15 | SREK1 | serine regulatory glutamic acid and lysine rich protein 1 | Other | other | | -1.515823575 | 0.004971201 |
| ENSG00000117523.15 | PRRC2C | proline rich coiled-coil 2C | Cytoplasm | other | | -1.515570455 | 5.93683E-08 |
| ENSG00000155866.16 | RNOC | ras homolog family member C | Plasma Membrane | enzyme | | -1.511414953 | 0.047515949 |
| ENSG00000146067.15 | FAM193B | family with sequence similarity 193 member B | Nucleus | other | | -1.506872338 | 0.047571695 |

Suppl. Table 6: Overlapped deregulated genes in HTB-EVs, HUVEC-EVs and CPC-EVs after LNP treatment

| Ensembl ID | Symbol | HTB logFC | HUVEC logFC | CPC logFC | Red/green visualisation | | |
|--------------------|-----------|--------------|--------------|--------------|-------------------------|-------------|-----------|
| | | | | | HTB logFC | HUVEC logFC | CPC logFC |
| ENSG00000065970.8 | FOXJ2 | 5,640392697 | 6,891193173 | 12,74790982 | ▲5,64 | ▲6,89 | ▲12,75 |
| ENSG00000084754.10 | HADHA | -1,84361252 | 2,839936215 | 2,159776463 | ▼-1,84 | ▲2,84 | ▲2,16 |
| ENSG00000085224.20 | ATRX | -1,496320877 | 1,525948531 | -1,474349028 | ▼-1,5 | ▲1,53 | ▼-1,47 |
| ENSG00000108298.9 | RPL19 | -1,886198387 | 2,070892798 | -1,102364801 | ▼-1,89 | ▲2,07 | ▼-1,1 |
| ENSG00000108654.11 | DDX5 | -1,440046676 | 1,661324282 | -1,124209334 | ▼-1,44 | ▲1,66 | ▼-1,12 |
| ENSG00000108953.16 | YWHAE | -1,868590959 | 1,663484755 | -1,325834991 | ▼-1,87 | ▲1,66 | ▼-1,33 |
| ENSG00000112715.20 | VEGFA | 16,77311714 | 20,43038205 | 12,97428558 | ▲16,77 | ▲20,43 | ▲12,97 |
| ENSG00000113140.10 | SPARC | -3,314994891 | 1,421910055 | 1,368243408 | ▼-3,31 | ▲1,42 | ▲1,37 |
| ENSG00000113302.4 | IL12B | 1,816751114 | 1,51022065 | 10,1559889 | ▲1,82 | ▲1,51 | ▲10,16 |
| ENSG00000114391.12 | RPL24 | -1,535527998 | 1,4417107 | -1,73170255 | ▼-1,54 | ▲1,44 | ▼-1,73 |
| ENSG00000122406.12 | RPL5 | -2,453163458 | 3,707219957 | -1,895458761 | ▼-2,45 | ▲3,71 | ▼-1,9 |
| ENSG00000136938.8 | ANP32B | -2,134090596 | 3,004576406 | -1,135981423 | ▼-2,13 | ▲3, | ▼-1,14 |
| ENSG00000137710.14 | RDX | -1,750820607 | 1,442965171 | -1,991185238 | ▼-1,75 | ▲1,44 | ▼-1,99 |
| ENSG00000137776.16 | SLTM | -1,172114175 | 1,110300892 | -1,808585576 | ▼-1,17 | ▲1,11 | ▼-1,81 |
| ENSG00000137801.10 | THBS1 | -5,965848377 | 1,775251257 | 1,249897598 | ▼-5,97 | ▲1,78 | ▲1,25 |
| ENSG00000143545.8 | RAB13 | -3,07831215 | 1,849019836 | -1,804206529 | ▼-3,08 | ▲1,85 | ▼-1,8 |
| ENSG00000143552.9 | NUP210L | 3,802783381 | 2,188258031 | 12,3820262 | ▲3,8 | ▲2,19 | ▲12,38 |
| ENSG00000162244.10 | RPL29 | -2,055167647 | 1,594202326 | -1,774480367 | ▼-2,06 | ▲1,59 | ▼-1,77 |
| ENSG00000162618.12 | ADGRL4 | -1,632557661 | 2,07316928 | 12,64114467 | ▼-1,63 | ▲2,07 | ▲12,64 |
| ENSG00000167131.16 | CCDC103 | 4,461717966 | 1,414961088 | 1,794832294 | ▲4,46 | ▲1,41 | ▲1,79 |
| ENSG00000170144.18 | HNRNPA3 | -2,221890605 | 1,280137888 | -1,664464575 | ▼-2,22 | ▲1,28 | ▼-1,66 |
| ENSG00000173511.9 | VEGFB | 1,56551197 | 2,843356332 | 7,691474499 | ▲1,57 | ▲2,84 | ▲7,69 |
| ENSG00000173848.18 | NET1 | -2,754449822 | 1,07654907 | -2,410993799 | ▼-2,75 | ▲1,08 | ▼-2,41 |
| ENSG00000175130.6 | MARCKSL1 | -2,566822346 | 1,29112043 | -1,31652 | ▼-2,57 | ▲1,29 | ▼-1,32 |
| ENSG00000175711.8 | B3GNTL1 | 1,187204441 | 1,094076567 | 8,697769917 | ▲1,19 | ▲1,09 | ▲8,7 |
| ENSG00000176971.3 | FIBIN | 7,791973725 | 5,775322204 | 5,737277602 | ▲7,79 | ▲5,78 | ▲5,74 |
| ENSG00000182718.16 | ANXA2 | -2,280735476 | 1,523581401 | -1,775066337 | ▼-2,28 | ▲1,52 | ▼-1,78 |
| ENSG00000186468.12 | RPS23 | -2,24615957 | 2,452948535 | -1,288042037 | ▼-2,25 | ▲2,45 | ▼-1,29 |
| ENSG00000187514.14 | PTMA | -1,735273444 | 1,769508439 | -1,022087993 | ▼-1,74 | ▲1,77 | ▼-1,02 |
| ENSG00000198900.5 | TOP1 | -1,275976606 | 1,603745081 | -1,7765037 | ▼-1,28 | ▲1,6 | ▼-1,78 |
| ENSG00000199347.1 | RNU5E-1 | 4,553414314 | 7,561169605 | 2,997396791 | ▲4,55 | ▲7,56 | ▲3, |
| ENSG00000199568.1 | RNU5A-1 | 4,294845375 | 5,664913385 | 2,199903918 | ▲4,29 | ▲5,66 | ▲2,2 |
| ENSG00000199629.1 | RNU1-14P | 4,596809167 | 5,130843853 | 2,471853112 | ▲4,6 | ▲5,13 | ▲2,47 |
| ENSG00000199805.1 | RNU1-134P | 3,740640233 | 4,442164191 | 1,407887008 | ▲3,74 | ▲4,44 | ▲1,41 |
| ENSG00000200087.1 | SNORA73B | 4,768101053 | 3,447026474 | 1,382076765 | ▲4,77 | ▲3,45 | ▲1,38 |
| ENSG00000200197.1 | RNU1-21P | 4,531502276 | 5,215518365 | 3,799559031 | ▲4,53 | ▲5,22 | ▲3,8 |
| ENSG00000200340.1 | RNU1-105P | 5,284886089 | 4,40729103 | 4,605100005 | ▲5,28 | ▲4,41 | ▲4,61 |
| ENSG00000202347.1 | RNU1-16P | 4,204701504 | 2,209750547 | 3,994794984 | ▲4,2 | ▲2,21 | ▲3,99 |
| ENSG00000206530.8 | CFAP44 | 2,531779724 | 2,226208839 | 11,33661181 | ▲2,53 | ▲2,23 | ▲11,34 |
| ENSG00000206596.1 | RNU1-27P | 2,125330026 | 2,996840774 | 4,671383565 | ▲2,13 | ▲3, | ▲4,67 |
| ENSG00000206624.1 | RNU1-39P | 3,924874668 | 3,504450103 | 2,125352471 | ▲3,92 | ▲3,5 | ▲2,13 |
| ENSG00000212609.1 | RNU1-139P | 3,890941632 | 5,222944434 | 4,127578503 | ▲3,89 | ▲5,22 | ▲4,13 |
| ENSG00000222328.1 | RNU2-2P | 2,443165548 | 3,905667535 | 2,216528585 | ▲2,44 | ▲3,91 | ▲2,22 |
| ENSG00000222426.1 | RNU2-50P | 4,593932437 | 4,763775961 | 3,271299601 | ▲4,59 | ▲4,76 | ▲3,27 |
| ENSG00000244754.8 | N4BP2L2 | 1,895431746 | 3,189464046 | 8,926198699 | ▲1,9 | ▲3,19 | ▲8,93 |
| ENSG00000248527.1 | MTATP6P1 | -1,200272461 | -1,096351046 | -1,182320789 | ▼-1,2 | ▼-1,1 | ▼-1,18 |
| ENSG00000270103.3 | RNU11 | 3,959277863 | 2,025405545 | 2,173000549 | ▲3,96 | ▲2,03 | ▲2,17 |
| ENSG00000273768.1 | RNVU1-29 | 2,115969848 | 3,07665443 | 9,281915367 | ▲2,12 | ▲3,08 | ▲9,28 |
| ENSG00000275538.1 | RNVU1-19 | 6,358317231 | 4,302804769 | 3,042133501 | ▲6,36 | ▲4,3 | ▲3,04 |
| ENSG00000275757.1 | RNA5-8SN1 | 11,43176857 | 4,886540808 | 3,781339587 | ▲11,43 | ▲4,89 | ▲3,78 |
| ENSG00000276027.1 | RNU12 | 4,192157488 | 4,828585445 | 4,108012842 | ▲4,19 | ▲4,83 | ▲4,11 |
| ENSG00000277918.1 | RNVU1-28 | 3,271339421 | 1,606673972 | 1,502952209 | ▲3,27 | ▲1,61 | ▲1,5 |
| ENSG00000278099.1 | RNVU1-2A | 7,181929453 | 5,210702519 | 2,379372713 | ▲7,18 | ▲5,21 | ▲2,38 |
| ENSG00000280466.1 | SCARNA4 | 3,406569284 | 4,754728299 | 11,29999233 | ▲3,41 | ▲4,75 | ▲11,3 |

Suppl. Table 7: Expression of pro-angiogenic genes in HTB-EVs after LNP treatment

| Ensembl ID | GeneSymbol | Averaged normalised untreated HTB-EVs counts | Averaged normalised LNP treated HTB-EVs counts |
|-----------------|------------|--|--|
| ENSG00000127837 | AAMP | 5,208153652 | 4,37464576 |
| ENSG00000144476 | ACKR3 | 4,39980351 | 3,955564839 |
| ENSG00000184009 | ACTG1 | 9,110587351 | 7,777063986 |
| ENSG00000139567 | ACVRL1 | 5,095742614 | 4,236487479 |
| ENSG00000143537 | ADAM15 | 5,002593745 | 4,865439721 |
| ENSG00000151651 | ADAM8 | 3,599063981 | 3,68594612 |
| ENSG00000020181 | ADGRA2 | 4,384179408 | 3,906009147 |
| ENSG00000205336 | ADGRG1 | 5,110230184 | 4,629902776 |
| ENSG00000128165 | ADM2 | 3,84802959 | 4,096679215 |
| ENSG00000164252 | AGGF1 | 4,796340089 | 4,957526906 |
| ENSG00000164022 | AIMP1 | 4,998347002 | 4,347578256 |
| ENSG00000126016 | AMOT | 5,074952552 | 4,858561238 |
| ENSG00000166025 | AMOTL1 | 5,733327156 | 4,82474294 |
| ENSG00000114019 | AMOTL2 | 4,987548554 | 4,494228663 |
| ENSG00000214274 | ANG | 3,330662718 | 2,712240272 |
| ENSG00000154188 | ANGPT1 | 4,597820632 | 4,529589804 |
| ENSG00000091879 | ANGPT2 | 5,345824976 | 4,372035102 |
| ENSG00000101280 | ANGPT4 | 4,120223622 | 4,648060272 |
| ENSG00000132855 | ANGPTL3 | 3,667386408 | 3,817906069 |
| ENSG00000167772 | ANGPTL4 | 3,774818706 | 4,169920629 |
| ENSG00000130812 | ANGPTL6 | 3,114354685 | 3,327125468 |
| ENSG00000166825 | ANPEP | 5,743147051 | 3,679244238 |
| ENSG00000182718 | ANXA2 | 8,383187805 | 6,448160177 |
| ENSG00000248329 | APELA | 3,419845172 | 3,557141762 |
| ENSG00000171388 | APLN | 5,318103436 | 4,0927003 |
| ENSG00000134817 | APLNR | 4,079377745 | 3,704419099 |
| ENSG00000189058 | APOD | 3,625006361 | 3,793867558 |
| ENSG00000178878 | APOLD1 | 5,041912292 | 5,389397993 |
| ENSG00000128805 | ARHGAP22 | 4,268059778 | 4,647275633 |
| ENSG00000138639 | ARHGAP24 | 4,959865071 | 4,807249166 |
| ENSG00000110955 | ATP5F1B | 5,854141385 | 4,518448518 |
| ENSG00000130770 | ATP5IF1 | 5,759010034 | 5,009183319 |
| ENSG00000141376 | BCAS3 | 5,328127518 | 4,939731683 |
| ENSG00000125378 | BMP4 | 4,095289918 | 3,85938017 |
| ENSG00000172270 | BSG | 5,231986904 | 3,990391903 |
| ENSG00000106392 | C1GALT1 | 4,792759491 | 4,882643182 |
| ENSG00000064989 | CALCRL | 5,243346892 | 4,741346619 |
| ENSG00000122786 | CALD1 | 6,998012071 | 6,262876325 |
| ENSG00000064012 | CASP8 | 4,994189355 | 5,367162674 |
| ENSG00000105974 | CAV1 | 5,926226232 | 5,167484966 |
| ENSG00000183287 | CCBE1 | 4,480365209 | 4,461012501 |
| ENSG00000100147 | CCDC134 | 3,501734297 | 2,712240272 |
| ENSG00000108691 | CCL2 | 4,253102259 | 3,695041304 |
| ENSG00000108700 | CCL8 | 3,114235069 | 3,253316095 |
| ENSG00000118523 | CCN2 | 6,949359895 | 5,191485081 |
| ENSG00000136999 | CCN3 | 3,198749706 | 3,783020391 |
| ENSG00000117281 | CD160 | 5,076083627 | 5,404683368 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG0000079385 | CEACAM1 | 4,60695718 | 4,645863434 |
| ENSG00000135048 | CEMIP2 | 5,554751051 | 5,37453209 |
| ENSG00000185043 | CIB1 | 3,782860876 | 3,367218028 |
| ENSG00000169504 | CLIC4 | 5,864068892 | 4,561920476 |
| ENSG00000204291 | COL15A1 | 4,266411336 | 4,507665811 |
| ENSG00000182871 | COL18A1 | 5,383030229 | 3,997509987 |
| ENSG00000169436 | COL22A1 | 3,589171249 | 3,288753729 |
| ENSG00000187498 | COL4A1 | 6,375683173 | 4,336924412 |
| ENSG00000134871 | COL4A2 | 6,732083652 | 4,284417588 |
| ENSG00000144810 | COL8A1 | 5,503381318 | 4,775620846 |
| ENSG00000171812 | COL8A2 | 3,665600683 | 3,608810699 |
| ENSG00000173546 | CSPG4 | 4,135455445 | 3,878029818 |
| ENSG00000189377 | CXCL17 | 3,154113729 | 3,429499691 |
| ENSG00000169429 | CXCL8 | 4,510521623 | 6,40623103 |
| ENSG00000186810 | CXCR3 | 3,651378233 | 3,657392653 |
| ENSG00000138061 | CYP1B1 | 5,270894166 | 4,958267612 |
| ENSG00000136848 | DAB2IP | 4,552527118 | 4,494313587 |
| ENSG00000128917 | DLL4 | 4,662217792 | 4,962633211 |
| ENSG00000143369 | ECM1 | 4,718559992 | 4,338084607 |
| ENSG00000249751 | ECSCR | 5,744640731 | 2,930014235 |
| ENSG00000127129 | EDN2 | 2,856285109 | 3,089465284 |
| ENSG00000151617 | EDNRA | 3,756293504 | 3,905885156 |
| ENSG00000169242 | EFNA1 | 3,651140522 | 4,321209946 |
| ENSG00000125266 | EFNB2 | 4,809688819 | 4,13359894 |
| ENSG00000138798 | EGF | 4,07501022 | 4,058357975 |
| ENSG00000172889 | EGFL7 | 4,867774047 | 2,871691322 |
| ENSG00000172071 | EIF2AK3 | 4,355773884 | 4,246896629 |
| ENSG00000111145 | ELK3 | 5,585659113 | 4,176368 |
| ENSG00000161671 | EMC10 | 5,871488586 | 5,883034768 |
| ENSG00000164035 | EMCN | 4,62002186 | 4,224059501 |
| ENSG00000106991 | ENG | 5,538151995 | 3,429499691 |
| ENSG00000138792 | ENPEP | 4,453390969 | 4,674254397 |
| ENSG00000116016 | EPAS1 | 6,03905549 | 5,423968739 |
| ENSG00000182585 | EPGN | 3,390746027 | 3,480733288 |
| ENSG00000146904 | EPHA1 | 3,670974845 | 4,080845383 |
| ENSG00000142627 | EPHA2 | 4,42919785 | 4,09537032 |
| ENSG00000154928 | EPHB1 | 4,030280654 | 4,620342567 |
| ENSG00000133216 | EPHB2 | 5,686212714 | 4,359424549 |
| ENSG00000182580 | EPHB3 | 3,533542786 | 3,949003549 |
| ENSG00000196411 | EPHB4 | 5,099249658 | 4,247931632 |
| ENSG00000164307 | ERAP1 | 4,893806337 | 4,702471372 |
| ENSG00000124882 | EREG | 4,087225217 | 4,440009345 |
| ENSG00000164283 | ESM1 | 5,189125175 | 3,644452117 |
| ENSG00000078098 | FAP | 3,932098934 | 4,311752165 |
| ENSG00000113578 | FGF1 | 4,642721124 | 4,461651083 |
| ENSG00000070193 | FGF10 | 3,797015959 | 4,297613996 |
| ENSG00000156427 | FGF18 | 3,467066598 | 3,452053013 |
| ENSG00000138685 | FGF2 | 5,102165551 | 5,383923281 |
| ENSG00000111241 | FGF6 | 2,81443146 | 2,940133234 |
| ENSG00000102678 | FGF9 | 4,284444656 | 4,298381191 |
| ENSG00000066468 | FGFR2 | 3,909714699 | 4,570764641 |
| ENSG00000196924 | FLNA | 7,842248115 | 7,102642557 |

| | | | |
|-----------------|----------|-------------|-------------|
| ENSG00000102755 | FLT1 | 5,750032014 | 5,019579753 |
| ENSG00000037280 | FLT4 | 4,895493707 | 4,696223906 |
| ENSG00000161791 | FMNL3 | 6,224073854 | 6,189898749 |
| ENSG00000115414 | FN1 | 9,197526437 | 7,155767391 |
| ENSG00000054598 | FOXC1 | 4,737488976 | 5,979748735 |
| ENSG00000163251 | FZD5 | 4,815889936 | 5,544600001 |
| ENSG00000177283 | FZD8 | 4,208970737 | 4,67959478 |
| ENSG00000109458 | GAB1 | 4,74026752 | 4,623101985 |
| ENSG00000263761 | GDF2 | 3,829527025 | 3,69041385 |
| ENSG00000265107 | GJA5 | 4,806966149 | 4,769153667 |
| ENSG00000135821 | GLUL | 5,997737869 | 5,277395999 |
| ENSG00000120063 | GNA13 | 5,075942485 | 4,780419978 |
| ENSG00000166923 | GREM1 | 6,012696237 | 6,101724491 |
| ENSG00000113196 | HAND1 | 3,986319077 | 3,922961243 |
| ENSG00000164107 | HAND2 | 3,706178195 | 4,000487354 |
| ENSG00000164683 | HEY1 | 4,113998749 | 3,724128112 |
| ENSG00000100644 | HIF1A | 5,586585527 | 4,722293938 |
| ENSG00000124440 | HIF3A | 4,562337226 | 4,549661589 |
| ENSG00000100292 | HMOX1 | 4,224861904 | 3,941571619 |
| ENSG00000105997 | HOXA3 | 5,054728463 | 3,950870299 |
| ENSG00000122592 | HOXA7 | 4,161778088 | 3,684083901 |
| ENSG00000159184 | HOXB13 | 4,552544557 | 4,81950129 |
| ENSG00000120093 | HOXB3 | 4,629241644 | 4,461248169 |
| ENSG00000113905 | HRG | 4,149892634 | 4,954943549 |
| ENSG00000136720 | HS6ST1 | 4,435909187 | 4,493412984 |
| ENSG00000142798 | HSPG2 | 8,720348061 | 4,661014952 |
| ENSG00000109854 | HTATIP2 | 4,789596391 | 4,538993979 |
| ENSG00000125968 | ID1 | 4,275831495 | 5,319240711 |
| ENSG00000150782 | IL18 | 4,72738118 | 4,965393979 |
| ENSG00000161638 | ITGA5 | 6,745293344 | 4,753606259 |
| ENSG00000138448 | ITGAV | 5,047682534 | 4,60191409 |
| ENSG00000119185 | ITGB1BP1 | 4,536066473 | 4,835684343 |
| ENSG00000101384 | JAG1 | 4,913844628 | 5,113846688 |
| ENSG00000166086 | JAM3 | 5,126995924 | 4,42464576 |
| ENSG00000177606 | JUN | 5,466324731 | 7,346001654 |
| ENSG00000128052 | KDR | 5,578980142 | 3,75724718 |
| ENSG00000102554 | KLF5 | 4,115646398 | 4,220036254 |
| ENSG00000001631 | KRIT1 | 4,513482241 | 4,32217644 |
| ENSG00000174697 | LEP | 4,44331949 | 4,384429545 |
| ENSG00000116678 | LEPR | 4,901412365 | 5,113809044 |
| ENSG00000112062 | MAPK14 | 4,988256275 | 5,054814169 |
| ENSG00000076706 | MCAM | 6,410507649 | 4,296748312 |
| ENSG00000125686 | MED1 | 5,713050361 | 5,356278137 |
| ENSG00000143995 | MEIS1 | 5,531448442 | 5,820836419 |
| ENSG00000106511 | MEOX2 | 4,374205476 | 3,996935839 |
| ENSG00000140545 | MFGE8 | 4,76312009 | 4,639372635 |
| ENSG00000169330 | MINAR1 | 4,568740344 | 4,434863355 |
| ENSG00000157227 | MMP14 | 5,373923062 | 3,948912379 |
| ENSG00000123342 | MMP19 | 4,873364113 | 4,489547954 |
| ENSG00000087245 | MMP2 | 5,614234712 | 3,380917737 |
| ENSG00000173269 | MMRN2 | 5,470742798 | 4,507718623 |
| ENSG00000074842 | MYDGF | 4,211254116 | 2,712240272 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG00000100345 | MYH9 | 8,738235509 | 7,466032864 |
| ENSG00000164134 | NAA15 | 5,15428099 | 4,758431085 |
| ENSG00000115053 | NCL | 10,75176375 | 9,275568135 |
| ENSG00000173376 | NDNF | 4,146632909 | 3,417736662 |
| ENSG00000131669 | NINJ1 | 4,020735367 | 4,307754099 |
| ENSG00000164867 | NOS3 | 4,669983368 | 4,37325032 |
| ENSG00000148400 | NOTCH1 | 5,659661756 | 4,117422784 |
| ENSG00000007952 | NOX1 | 3,02051965 | 2,867380794 |
| ENSG00000255346 | NOX5 | 5,581820808 | 5,819718415 |
| ENSG00000091129 | NRCAM | 5,14415028 | 4,401024837 |
| ENSG00000099250 | NRP1 | 6,515335798 | 5,048910806 |
| ENSG00000118257 | NRP2 | 6,235786424 | 5,793630324 |
| ENSG00000179915 | NRXN1 | 5,607663155 | 5,419948372 |
| ENSG00000021645 | NRXN3 | 6,020132283 | 5,839187055 |
| ENSG00000153989 | NUS1 | 5,146150487 | 5,021268986 |
| ENSG00000154124 | OTULIN | 5,280971548 | 5,645178785 |
| ENSG00000125850 | OVOL2 | 3,414527381 | 3,503585039 |
| ENSG00000125779 | PANK2 | 5,129818854 | 4,980485946 |
| ENSG00000197702 | PARVA | 5,471376417 | 5,035228214 |
| ENSG00000114209 | PDCD10 | 4,565015491 | 4,216136996 |
| ENSG00000249915 | PDCD6 | 5,654795121 | 5,258004036 |
| ENSG00000115539 | PDCL3 | 4,954674005 | 3,925676571 |
| ENSG00000152270 | PDE3B | 4,724574838 | 4,959106477 |
| ENSG00000197461 | PDGFA | 4,40392896 | 4,023118901 |
| ENSG00000113721 | PDGFRB | 4,402880717 | 4,209528528 |
| ENSG00000119630 | PGF | 4,794354248 | 4,359804066 |
| ENSG00000121879 | PIK3CA | 4,811060148 | 4,561685686 |
| ENSG00000105851 | PIK3CG | 4,739620016 | 4,229633642 |
| ENSG00000276231 | PIK3R6 | 3,435829769 | 3,428667604 |
| ENSG00000160199 | PKNOX1 | 4,844455732 | 5,108588337 |
| ENSG00000161714 | PLCD3 | 4,692218831 | 4,7706832 |
| ENSG00000161381 | PLXDC1 | 4,357753497 | 4,633561872 |
| ENSG00000004399 | PLXND1 | 6,382269284 | 4,532646497 |
| ENSG00000101346 | POFUT1 | 5,301484157 | 4,534319608 |
| ENSG00000154229 | PRKCA | 5,638584667 | 5,246759179 |
| ENSG00000184304 | PRKD1 | 3,585386716 | 3,615404926 |
| ENSG00000105287 | PRKD2 | 4,608659199 | 3,618417471 |
| ENSG00000183943 | PRKX | 4,691764639 | 4,475151314 |
| ENSG00000143125 | PROK1 | 3,420295865 | 3,48226599 |
| ENSG00000163421 | PROK2 | 3,344054708 | 3,556948799 |
| ENSG00000171862 | PTEN | 6,168476987 | 5,944879869 |
| ENSG00000073756 | PTGS2 | 4,426620933 | 4,272041146 |
| ENSG00000169398 | PTK2 | 6,193889214 | 5,318296358 |
| ENSG00000120899 | PTK2B | 4,255655131 | 3,846532027 |
| ENSG00000127329 | PTPRB | 6,00861093 | 5,519423594 |
| ENSG00000132329 | RAMP1 | 3,015747971 | 2,712240272 |
| ENSG00000131477 | RAMP2 | 3,436179889 | 2,867380794 |
| ENSG00000079337 | RAPGEF3 | 5,627675367 | 5,860169002 |
| ENSG00000105538 | RASIP1 | 4,404700638 | 4,054247665 |
| ENSG00000168214 | RBPJ | 4,902091014 | 4,605220679 |
| ENSG00000143878 | RHOB | 4,963388962 | 6,019946259 |
| ENSG00000126785 | RHOJ | 5,534519611 | 4,686928702 |

| | | | |
|-----------------|-----------|-------------|-------------|
| ENSG00000173821 | RNF213 | 7,006290901 | 6,720374663 |
| ENSG00000154133 | ROBO4 | 5,639989831 | 4,372140699 |
| ENSG00000069667 | RORA | 5,826603667 | 6,415581899 |
| ENSG00000146374 | RSPO3 | 3,696349754 | 3,912566738 |
| ENSG00000143556 | S100A7 | 3,472742144 | 2,712240272 |
| ENSG00000170989 | S1PR1 | 5,006642728 | 3,590488876 |
| ENSG00000130066 | SAT1 | 5,974730979 | 6,516152665 |
| ENSG00000171951 | SCG2 | 4,651596328 | 4,475771903 |
| ENSG00000170381 | SEMA3E | 4,922412102 | 5,680382528 |
| ENSG00000196189 | SEMA4A | 4,995570484 | 4,80156512 |
| ENSG00000106366 | SERPINE1 | 7,082861753 | 4,115744779 |
| ENSG00000181555 | SETD2 | 6,125426237 | 5,776962148 |
| ENSG00000027869 | SH2D2A | 3,892098842 | 4,511870988 |
| ENSG00000107338 | SHB | 3,758533457 | 3,607358419 |
| ENSG00000160691 | SHC1 | 5,613059491 | 4,90585335 |
| ENSG00000164690 | SHH | 4,471583382 | 4,641286627 |
| ENSG00000096717 | SIRT1 | 4,681835459 | 4,781417713 |
| ENSG00000140199 | SLC12A6 | 5,260156677 | 4,677371097 |
| ENSG00000164736 | SOX17 | 4,090595891 | 2,867380794 |
| ENSG00000203883 | SOX18 | 4,072292841 | 3,407015314 |
| ENSG00000135250 | SRPK2 | 4,909473022 | 4,328844837 |
| ENSG00000102359 | SRPX2 | 4,235445569 | 4,392005071 |
| ENSG00000136011 | STAB2 | 3,382539311 | 3,833512564 |
| ENSG00000165025 | SYK | 4,625506231 | 4,556415704 |
| ENSG00000162367 | TAL1 | 4,578316592 | 4,393742932 |
| ENSG00000184058 | TBX1 | 3,33384873 | 3,322814941 |
| ENSG00000121075 | TBX4 | 4,347291805 | 4,568877724 |
| ENSG00000120156 | TEK | 4,814767485 | 3,3812896 |
| ENSG00000163235 | TGFA | 4,712232088 | 4,623290628 |
| ENSG00000120708 | TGFBI | 6,133304379 | 5,808976559 |
| ENSG00000106799 | TGFBR1 | 5,121617267 | 5,237491601 |
| ENSG00000005108 | THSD7A | 5,608621791 | 5,440677306 |
| ENSG00000154096 | THY1 | 4,587891222 | 4,127422505 |
| ENSG00000066056 | TIE1 | 5,294584239 | 4,155063519 |
| ENSG00000166292 | TMEM100 | 4,063628506 | 4,365760578 |
| ENSG00000185215 | TNFAIP2 | 5,833136041 | 7,039933342 |
| ENSG00000006327 | TNFRSF12A | 4,573034446 | 4,269912543 |
| ENSG00000239697 | TNFSF12 | 3,646204214 | 3,015872977 |
| ENSG00000106025 | TSPAN12 | 3,807374189 | 3,517640514 |
| ENSG00000025708 | TYMP | 3,590342572 | 4,004815771 |
| ENSG00000153560 | UBP1 | 5,779362671 | 4,994441945 |
| ENSG00000107731 | UNC5B | 4,473745034 | 4,413248505 |
| ENSG00000071246 | VASH1 | 5,964694168 | 5,120608439 |
| ENSG00000160293 | VAV2 | 4,035040294 | 4,046373712 |
| ENSG00000134215 | VAV3 | 4,43773251 | 4,14184381 |
| ENSG00000112715 | VEGFA | 9,11381039 | 25,89951115 |
| ENSG00000150630 | VEGFC | 3,659420857 | 2,930014235 |
| ENSG00000165197 | VEGFD | 3,412426789 | 3,519300148 |
| ENSG00000136451 | VEZF1 | 4,865205353 | 4,74548949 |
| ENSG00000140105 | WARS1 | 5,412651763 | 5,249639675 |
| ENSG00000158195 | WASF2 | 5,709307814 | 4,800343233 |
| ENSG00000154764 | WNT7A | 4,272908016 | 4,407898151 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG00000100219 | XBP1 | 5,05634012 | 4,801166756 |
| ENSG00000164924 | YWHAZ | 6,926289867 | 5,390556769 |
| ENSG00000163874 | ZC3H12A | 4,088170922 | 4,088024805 |
| ENSG00000131845 | ZNF304 | 4,105429589 | 4,176368 |

Suppl. Table 8: Expression of pro-angiogenic genes in HUVEC-EVs after LNP treatment

| Ensembl ID | GeneSymbol | Average normalised untreated HUVEC-EVs counts | Average normalised LNP treated HUVEC-EVs counts |
|-----------------|------------|---|---|
| ENSG00000127837 | AAMP | 6,208132779 | 5,843478382 |
| ENSG00000144476 | ACKR3 | 5,792312838 | 5,481567125 |
| ENSG00000184009 | ACTG1 | 6,303042456 | 7,680975946 |
| ENSG00000139567 | ACVRL1 | 6,082497928 | 6,231589924 |
| ENSG00000143537 | ADAM15 | 6,053670743 | 6,025340113 |
| ENSG00000151651 | ADAM8 | 5,688441241 | 5,627837533 |
| ENSG0000020181 | ADGRA2 | 6,062454371 | 6,078070726 |
| ENSG00000205336 | ADGRG1 | 6,192547948 | 5,986666637 |
| ENSG00000128165 | ADM2 | 6,128883986 | 5,764555599 |
| ENSG00000164252 | AGGF1 | 6,155178881 | 6,109187965 |
| ENSG00000164022 | AIMP1 | 5,971464842 | 5,989499237 |
| ENSG00000126016 | AMOT | 6,413282381 | 6,420302166 |
| ENSG00000166025 | AMOTL1 | 6,365796739 | 6,686897763 |
| ENSG00000114019 | AMOTL2 | 6,096516126 | 5,923422111 |
| ENSG00000214274 | ANG | 5,643359001 | 5,342016942 |
| ENSG00000154188 | ANGPT1 | 6,064312706 | 6,006563833 |
| ENSG00000091879 | ANGPT2 | 6,205630334 | 6,284450168 |
| ENSG00000101280 | ANGPT4 | 6,119620606 | 6,051841509 |
| ENSG00000132855 | ANGPTL3 | 5,511716555 | 5,590137752 |
| ENSG00000167772 | ANGPTL4 | 6,181281149 | 5,818722118 |
| ENSG00000130812 | ANGPTL6 | 5,605964146 | 5,710146291 |
| ENSG00000166825 | ANPEP | 5,85892306 | 6,096699625 |
| ENSG00000182718 | ANXA2 | 6,503133781 | 7,268769496 |
| ENSG00000248329 | APELA | 5,740844407 | 5,829436343 |
| ENSG00000171388 | APLN | 5,729047476 | 5,75245842 |
| ENSG00000134817 | APLNR | 6,150784811 | 5,888354899 |
| ENSG00000189058 | APOD | 5,757294584 | 5,565183153 |
| ENSG00000178878 | APOLD1 | 6,375592103 | 6,312703168 |
| ENSG00000128805 | ARHGAP22 | 6,011247276 | 6,225438765 |
| ENSG00000138639 | ARHGAP24 | 6,107492722 | 6,140486368 |
| ENSG00000110955 | ATP5F1B | 5,652891347 | 5,793526876 |
| ENSG00000130770 | ATP5IF1 | 6,090059053 | 6,361520392 |
| ENSG00000141376 | BCAS3 | 6,756025853 | 6,489217864 |
| ENSG00000125378 | BMP4 | 6,022194198 | 5,93279426 |
| ENSG00000172270 | BSG | 5,843491809 | 5,686318244 |
| ENSG00000106392 | C1GALT1 | 6,03130727 | 6,311471518 |
| ENSG00000064989 | CALCRL | 5,729409445 | 5,85999148 |
| ENSG00000122786 | CALD1 | 7,027641142 | 7,108164198 |
| ENSG00000064012 | CASP8 | 6,270354555 | 6,284821895 |
| ENSG00000105974 | CAV1 | 6,038427359 | 6,006865731 |
| ENSG00000183287 | CCBE1 | 6,31065768 | 6,094711208 |
| ENSG00000100147 | CCDC134 | 5,680384949 | 5,407425211 |
| ENSG00000108691 | CCL2 | 5,984578611 | 5,993148989 |
| ENSG00000108700 | CCL8 | 5,411449861 | 5,787918341 |
| ENSG00000118523 | CCN2 | 6,067086468 | 6,079790253 |
| ENSG00000136999 | CCN3 | 5,553108957 | 5,583814882 |
| ENSG00000117281 | CD160 | 6,227243722 | 6,12656658 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG0000079385 | CEACAM1 | 6,498196846 | 6,197787792 |
| ENSG00000135048 | CEMIP2 | 6,373628073 | 6,445481513 |
| ENSG00000185043 | CIB1 | 5,434186794 | 5,456687722 |
| ENSG00000169504 | CLIC4 | 5,916314312 | 6,485441332 |
| ENSG00000204291 | COL15A1 | 5,877178402 | 5,831068455 |
| ENSG00000182871 | COL18A1 | 6,131951504 | 6,279648953 |
| ENSG00000169436 | COL22A1 | 5,989986812 | 5,992735102 |
| ENSG00000187498 | COL4A1 | 6,217291209 | 6,614253172 |
| ENSG00000134871 | COL4A2 | 6,160283168 | 6,646123354 |
| ENSG00000144810 | COL8A1 | 6,137073602 | 5,963938549 |
| ENSG00000171812 | COL8A2 | 5,997493099 | 5,820223111 |
| ENSG00000173546 | CSPG4 | 6,15034065 | 5,882114071 |
| ENSG00000189377 | CXCL17 | 5,87816693 | 5,837792582 |
| ENSG00000169429 | CXCL8 | 5,421288937 | 5,480677673 |
| ENSG00000186810 | CXCR3 | 5,765255487 | 5,505163287 |
| ENSG00000138061 | CYP1B1 | 5,811331727 | 5,868178157 |
| ENSG00000136848 | DAB2IP | 6,096530873 | 6,176580596 |
| ENSG00000128917 | DLL4 | 6,312007605 | 6,330700627 |
| ENSG00000143369 | ECM1 | 6,071347776 | 5,925026987 |
| ENSG00000249751 | ECSCR | 5,467827219 | 5,750587487 |
| ENSG00000127129 | EDN2 | 5,583612799 | 5,723073172 |
| ENSG00000151617 | EDNRA | 5,726378327 | 5,522894352 |
| ENSG00000169242 | EFNA1 | 5,823109326 | 5,992614939 |
| ENSG00000125266 | EFNB2 | 6,287123581 | 6,292784196 |
| ENSG00000138798 | EGF | 5,860433922 | 5,875326495 |
| ENSG00000172889 | EGFL7 | 5,701013777 | 5,638327121 |
| ENSG00000172071 | EIF2AK3 | 5,864982871 | 5,79580164 |
| ENSG00000111145 | ELK3 | 5,867283286 | 6,146234354 |
| ENSG00000161671 | EMC10 | 7,809143308 | 6,971696993 |
| ENSG00000164035 | EMCN | 5,941620097 | 6,118405593 |
| ENSG00000106991 | ENG | 5,743082534 | 5,975241338 |
| ENSG00000138792 | ENPEP | 6,316122241 | 6,199874469 |
| ENSG00000116016 | EPAS1 | 6,196285423 | 6,400811515 |
| ENSG00000182585 | EPGN | 5,354197821 | 5,570852627 |
| ENSG00000146904 | EPHA1 | 5,943541963 | 5,868974859 |
| ENSG00000142627 | EPHA2 | 5,696036791 | 5,7893922 |
| ENSG00000154928 | EPHB1 | 6,528123206 | 6,281514156 |
| ENSG00000133216 | EPHB2 | 6,67281716 | 6,567888428 |
| ENSG00000182580 | EPHB3 | 5,906021286 | 5,672008372 |
| ENSG00000196411 | EPHB4 | 6,086036501 | 5,815352161 |
| ENSG00000164307 | ERAP1 | 6,0211456 | 6,064283275 |
| ENSG00000124882 | EREG | 5,889554538 | 5,837613996 |
| ENSG00000164283 | ESM1 | 5,698230028 | 5,899146771 |
| ENSG00000078098 | FAP | 5,978562869 | 6,028078978 |
| ENSG00000113578 | FGF1 | 6,127970633 | 5,90273289 |
| ENSG00000070193 | FGF10 | 5,91674635 | 5,803378151 |
| ENSG00000156427 | FGF18 | 5,792477548 | 5,661581004 |
| ENSG00000138685 | FGF2 | 6,100611967 | 6,111301827 |
| ENSG00000111241 | FGF6 | 5,572315042 | 5,424253238 |
| ENSG00000102678 | FGF9 | 6,096525994 | 6,31123585 |
| ENSG00000066468 | FGFR2 | 6,214182813 | 6,046328343 |
| ENSG00000196924 | FLNA | 6,027070345 | 6,537315935 |
| ENSG00000102755 | FLT1 | 6,284721157 | 6,440862124 |
| ENSG00000037280 | FLT4 | 6,229406035 | 5,951513727 |

| | | | |
|-----------------|----------|-------------|-------------|
| ENSG00000161791 | FMNL3 | 7,117792547 | 7,232788637 |
| ENSG00000115414 | FN1 | 6,892591077 | 7,57812111 |
| ENSG00000054598 | FOXC1 | 6,183222635 | 6,060824133 |
| ENSG00000163251 | FZD5 | 6,255311589 | 7,047041041 |
| ENSG00000177283 | FZD8 | 5,968242735 | 5,804595272 |
| ENSG00000109458 | GAB1 | 6,095658799 | 6,338312597 |
| ENSG00000263761 | GDF2 | 5,805963779 | 5,758035993 |
| ENSG00000265107 | GJA5 | 6,10142891 | 6,039394818 |
| ENSG00000135821 | GLUL | 6,583566408 | 6,482840833 |
| ENSG00000120063 | GNA13 | 6,098081293 | 6,135860536 |
| ENSG00000166923 | GREM1 | 6,845392883 | 6,90643308 |
| ENSG00000113196 | HAND1 | 6,104794014 | 5,934984757 |
| ENSG00000164107 | HAND2 | 6,004326835 | 5,689541338 |
| ENSG00000164683 | HEY1 | 5,872703444 | 5,908738677 |
| ENSG00000100644 | HIF1A | 5,931648201 | 6,113496481 |
| ENSG00000124440 | HIF3A | 6,666372982 | 6,451231797 |
| ENSG00000100292 | HMOX1 | 5,54739671 | 5,565183153 |
| ENSG00000105997 | HOXA3 | 6,164214066 | 6,067491167 |
| ENSG00000122592 | HOXA7 | 5,971198425 | 5,890665545 |
| ENSG00000159184 | HOXB13 | 6,296954717 | 6,130949251 |
| ENSG00000120093 | HOXB3 | 6,184420001 | 6,128097172 |
| ENSG00000113905 | HRG | 6,476830893 | 6,300610653 |
| ENSG00000136720 | HS6ST1 | 6,088587991 | 5,954559123 |
| ENSG00000142798 | HSPG2 | 6,522407638 | 8,156643023 |
| ENSG00000109854 | HTATIP2 | 6,178371844 | 6,047977012 |
| ENSG00000125968 | ID1 | 5,66561466 | 5,527799427 |
| ENSG00000150782 | IL18 | 6,431828047 | 6,20625318 |
| ENSG00000161638 | ITGA5 | 6,483726827 | 6,457736961 |
| ENSG00000138448 | ITGAV | 5,77725715 | 5,855600473 |
| ENSG00000119185 | ITGB1BP1 | 6,000701493 | 5,957489295 |
| ENSG00000101384 | JAG1 | 6,206615578 | 6,30118283 |
| ENSG00000166086 | JAM3 | 6,016889144 | 5,910162053 |
| ENSG00000177606 | JUN | 6,027174679 | 6,031334467 |
| ENSG00000128052 | KDR | 5,948431869 | 6,122759845 |
| ENSG00000102554 | KLF5 | 6,15254675 | 5,786525656 |
| ENSG00000001631 | KRIT1 | 5,975632701 | 5,986363515 |
| ENSG00000174697 | LEP | 6,021011797 | 5,823527186 |
| ENSG00000116678 | LEPR | 6,043945086 | 6,168605277 |
| ENSG00000112062 | MAPK14 | 6,30546779 | 6,344004955 |
| ENSG00000076706 | MCAM | 6,215947238 | 6,293482335 |
| ENSG00000125686 | MED1 | 6,495420643 | 6,520084709 |
| ENSG00000143995 | MEIS1 | 6,68028619 | 6,780730383 |
| ENSG00000106511 | MEOX2 | 5,939716976 | 5,852044178 |
| ENSG00000140545 | MFGE8 | 6,26991684 | 6,129283679 |
| ENSG00000169330 | MINAR1 | 6,1962013 | 6,04908241 |
| ENSG00000157227 | MMP14 | 6,02440106 | 6,298659231 |
| ENSG00000123342 | MMP19 | 6,126453402 | 6,106292586 |
| ENSG00000087245 | MMP2 | 5,77164024 | 6,204349794 |
| ENSG00000173269 | MMRN2 | 6,109756989 | 6,085137492 |
| ENSG00000074842 | MYDGF | 5,382427517 | 5,53527297 |
| ENSG00000100345 | MYH9 | 6,830753642 | 7,700840332 |
| ENSG00000164134 | NAA15 | 6,126548953 | 6,33036341 |
| ENSG00000115053 | NCL | 6,779922234 | 7,860896151 |
| ENSG00000173376 | NDNF | 6,004896791 | 6,041685297 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG00000131669 | NINJ1 | 5,691848004 | 5,826131493 |
| ENSG00000164867 | NOS3 | 5,907639731 | 5,997024569 |
| ENSG00000148400 | NOTCH1 | 6,081388212 | 6,135101196 |
| ENSG00000007952 | NOX1 | 5,421815401 | 5,363051708 |
| ENSG00000255346 | NOX5 | 6,879413396 | 6,673523781 |
| ENSG00000091129 | NRCAM | 5,794401657 | 5,815077197 |
| ENSG00000099250 | NRP1 | 6,57097619 | 6,682628768 |
| ENSG00000118257 | NRP2 | 6,752958686 | 6,919663825 |
| ENSG00000179915 | NRXN1 | 6,770635205 | 6,8943585 |
| ENSG00000021645 | NRXN3 | 7,182835854 | 7,022661823 |
| ENSG00000153989 | NUS1 | 6,116298786 | 6,155465736 |
| ENSG00000154124 | OTULIN | 6,492972264 | 6,495774781 |
| ENSG00000125850 | OVOL2 | 5,81164895 | 5,34063721 |
| ENSG00000125779 | PANK2 | 6,105030788 | 6,125404454 |
| ENSG00000197702 | PARVA | 6,898190598 | 6,487641433 |
| ENSG00000114209 | PDCD10 | 5,803682026 | 5,63013438 |
| ENSG00000249915 | PDCD6 | 6,502034459 | 6,530913624 |
| ENSG00000115539 | PDCL3 | 5,865905031 | 6,039817425 |
| ENSG00000152270 | PDE3B | 6,332442617 | 6,299731783 |
| ENSG00000197461 | PDGFA | 5,792082461 | 5,850974784 |
| ENSG00000113721 | PDGFRB | 6,142290259 | 5,643758759 |
| ENSG00000119630 | PGF | 6,143979923 | 6,129416469 |
| ENSG00000121879 | PIK3CA | 6,055338784 | 6,274965382 |
| ENSG00000105851 | PIK3CG | 6,075569761 | 6,090194459 |
| ENSG00000276231 | PIK3R6 | 5,654338329 | 5,653183583 |
| ENSG00000160199 | PKNOX1 | 6,391472987 | 6,459298325 |
| ENSG00000161714 | PLCD3 | 6,171843348 | 5,929647459 |
| ENSG00000161381 | PLXDC1 | 6,150324852 | 6,186920876 |
| ENSG00000004399 | PLXND1 | 6,332276547 | 6,513371981 |
| ENSG00000101346 | POFUT1 | 6,200386568 | 6,100493553 |
| ENSG00000154229 | PRKCA | 6,58282412 | 6,240725122 |
| ENSG00000184304 | PRKD1 | 5,759918116 | 5,719385276 |
| ENSG00000105287 | PRKD2 | 6,2677068 | 5,887872003 |
| ENSG00000183943 | PRKX | 5,870934116 | 5,979741944 |
| ENSG00000143125 | PROK1 | 5,635088826 | 5,598831834 |
| ENSG00000163421 | PROK2 | 5,553057057 | 5,631403713 |
| ENSG00000171862 | PTEN | 6,333654173 | 6,369442573 |
| ENSG00000073756 | PTGS2 | 5,698766164 | 5,818038379 |
| ENSG00000169398 | PTK2 | 6,443640669 | 6,586123531 |
| ENSG00000120899 | PTK2B | 6,243306407 | 5,996646227 |
| ENSG00000127329 | PTPRB | 6,608179717 | 6,679187728 |
| ENSG00000132329 | RAMP1 | 5,481274113 | 5,31448642 |
| ENSG00000131477 | RAMP2 | 5,709994732 | 5,48384752 |
| ENSG00000079337 | RAPGEF3 | 7,161868262 | 6,750614195 |
| ENSG00000105538 | RASIP1 | 5,982371413 | 5,649626783 |
| ENSG00000168214 | RBPJ | 6,153757968 | 6,251094932 |
| ENSG00000143878 | RHOB | 5,739825092 | 6,057729186 |
| ENSG00000126785 | RHOJ | 6,045633874 | 6,566145382 |
| ENSG00000173821 | RNF213 | 7,098996366 | 7,042026012 |
| ENSG00000154133 | ROBO4 | 6,421287713 | 6,516259699 |
| ENSG00000069667 | RORA | 6,767055328 | 6,806798583 |
| ENSG00000146374 | RSPO3 | 5,786657769 | 5,867537024 |
| ENSG00000143556 | S100A7 | 5,336864926 | 5,247698419 |
| ENSG00000170989 | S1PR1 | 6,045098051 | 6,228023211 |

| | | | |
|-----------------|-----------|-------------|-------------|
| ENSG00000130066 | SAT1 | 5,835784543 | 6,721368666 |
| ENSG00000171951 | SCG2 | 5,969042225 | 5,984171386 |
| ENSG00000170381 | SEMA3E | 6,399996603 | 6,373254469 |
| ENSG00000196189 | SEMA4A | 6,552982061 | 6,070662266 |
| ENSG00000106366 | SERPINE1 | 6,021838245 | 6,239307676 |
| ENSG00000181555 | SETD2 | 6,658298506 | 6,799642342 |
| ENSG00000027869 | SH2D2A | 5,983077257 | 5,851694313 |
| ENSG00000107338 | SHB | 5,578783716 | 5,507392574 |
| ENSG00000160691 | SHC1 | 5,805555336 | 5,934847119 |
| ENSG00000164690 | SHH | 6,166372825 | 5,99950939 |
| ENSG00000096717 | SIRT1 | 5,985489148 | 6,194823503 |
| ENSG00000140199 | SLC12A6 | 6,4602833 | 6,266016823 |
| ENSG00000164736 | SOX17 | 5,624054236 | 5,853015254 |
| ENSG00000203883 | SOX18 | 5,616170384 | 5,770169005 |
| ENSG00000135250 | SRPK2 | 5,732951744 | 5,970281025 |
| ENSG00000102359 | SRPX2 | 5,842849856 | 5,808306924 |
| ENSG00000136011 | STAB2 | 5,855310272 | 5,755844897 |
| ENSG00000165025 | SYK | 6,172520077 | 6,212827454 |
| ENSG00000162367 | TAL1 | 6,011508585 | 5,957489295 |
| ENSG00000184058 | TBX1 | 5,861266354 | 6,204676637 |
| ENSG00000121075 | TBX4 | 6,057619852 | 5,974943438 |
| ENSG00000120156 | TEK | 5,935523112 | 5,882932712 |
| ENSG00000163235 | TGFA | 6,258375965 | 6,125256519 |
| ENSG00000120708 | TGFBI | 6,754567087 | 6,456402497 |
| ENSG00000106799 | TGFBR1 | 6,03320733 | 6,259145919 |
| ENSG00000005108 | THSD7A | 6,521037323 | 6,560936008 |
| ENSG00000154096 | THY1 | 6,443962984 | 6,339822615 |
| ENSG00000066056 | TIE1 | 6,242648258 | 6,185265031 |
| ENSG00000166292 | TMEM100 | 5,837548592 | 5,792606816 |
| ENSG00000185215 | TNFAIP2 | 6,05747071 | 5,768511874 |
| ENSG00000006327 | TNFRSF12A | 5,612239603 | 5,424253238 |
| ENSG00000239697 | TNFSF12 | 5,726404969 | 5,363051708 |
| ENSG00000106025 | TSPAN12 | 5,600485093 | 5,714891592 |
| ENSG00000025708 | TYMP | 5,758490271 | 5,673916374 |
| ENSG00000153560 | UBP1 | 6,500680567 | 6,338429586 |
| ENSG00000107731 | UNC5B | 6,106035672 | 6,032918832 |
| ENSG00000071246 | VASH1 | 6,617600438 | 6,797133772 |
| ENSG00000160293 | VAV2 | 5,848459851 | 5,760347829 |
| ENSG00000134215 | VAV3 | 6,002396625 | 6,103792445 |
| ENSG00000112715 | VEGFA | 7,117943814 | 26,62693261 |
| ENSG00000150630 | VEGFC | 5,49237854 | 5,638194158 |
| ENSG00000165197 | VEGFD | 5,530413055 | 5,754804133 |
| ENSG00000136451 | VEZF1 | 5,981652617 | 6,121491755 |
| ENSG00000140105 | WARS1 | 6,066463664 | 6,164004544 |
| ENSG00000158195 | WASF2 | 6,374053931 | 6,249262735 |
| ENSG00000154764 | WNT7A | 6,175784646 | 6,079100624 |
| ENSG00000100219 | XBP1 | 5,875624572 | 5,782197938 |
| ENSG00000164924 | YWHAZ | 6,29195382 | 6,676680473 |
| ENSG00000163874 | ZC3H12A | 5,93037097 | 5,614579017 |
| ENSG00000131845 | ZNF304 | 5,822534498 | 5,977660468 |

Suppl. Table 9: Expression of pro-angiogenic genes in CPC-EVs after LNP treatment

| Ensembl ID | GeneSymbol | Average normalised untreated CPC-EVs counts | Average normalised LNP treated CPC-EVs counts |
|-----------------|------------|---|---|
| ENSG00000112715 | VEGFA | 16,65490909 | 29,92193444 |
| ENSG00000100345 | MYH9 | 9,902387693 | 10,0470353 |
| ENSG00000115053 | NCL | 10,87605174 | 9,921589838 |
| ENSG00000115414 | FN1 | 9,649530949 | 9,897562572 |
| ENSG00000122786 | CALD1 | 9,520380566 | 9,658639603 |
| ENSG00000184009 | ACTG1 | 9,819391796 | 9,427009677 |
| ENSG00000196924 | FLNA | 8,828689606 | 8,929491858 |
| ENSG00000182871 | COL18A1 | 8,013662779 | 7,669014945 |
| ENSG00000164924 | YWHAZ | 7,404976837 | 7,052245855 |
| ENSG00000134871 | COL4A2 | 7,234348909 | 6,974386324 |
| ENSG00000177606 | JUN | 7,086769061 | 6,858267298 |
| ENSG00000173821 | RNF213 | 6,419910756 | 6,762176259 |
| ENSG00000118257 | NRP2 | 5,784791526 | 6,744109438 |
| ENSG00000130770 | ATP5IF1 | 6,746141228 | 6,547233609 |
| ENSG00000164107 | HAND2 | 5,563344809 | 6,531080591 |
| ENSG00000142798 | HSPG2 | 6,855346594 | 6,453802939 |
| ENSG00000172270 | BSG | 6,822258991 | 6,372200341 |
| ENSG00000100644 | HIF1A | 5,975798432 | 6,3435874 |
| ENSG00000120063 | GNA13 | 5,400705119 | 6,251985399 |
| ENSG00000166025 | AMOTL1 | 7,183577961 | 6,187487114 |
| ENSG00000187498 | COL4A1 | 6,910542424 | 6,125677588 |
| ENSG00000143878 | RHOB | 6,283694904 | 6,102086776 |
| ENSG00000120708 | TGFBI | 4,700552862 | 6,090288197 |
| ENSG00000181555 | SETD2 | 6,382708506 | 6,08464068 |
| ENSG00000114019 | AMOTL2 | 6,533994622 | 5,959549511 |
| ENSG00000116016 | EPAS1 | 5,099113222 | 5,948452168 |
| ENSG00000113196 | HAND1 | 6,250099622 | 5,948426663 |
| ENSG00000087245 | MMP2 | 6,349228395 | 5,909658702 |
| ENSG00000101384 | JAG1 | 5,106143446 | 5,877337298 |
| ENSG00000161638 | ITGA5 | 5,534605002 | 5,787241293 |
| ENSG00000125968 | ID1 | 6,646685921 | 5,750263032 |
| ENSG00000054598 | FOXC1 | 5,138251877 | 5,69671831 |
| ENSG00000159184 | HOXB13 | 4,122877653 | 5,675113845 |
| ENSG00000107731 | UNC5B | 5,134158092 | 5,657948782 |
| ENSG00000169398 | PTK2 | 6,315454655 | 5,627386523 |
| ENSG00000004399 | PLXND1 | 6,015192453 | 5,581433016 |
| ENSG00000171862 | PTEN | 5,398465639 | 5,580642447 |
| ENSG00000135250 | SRPK2 | 5,650055822 | 5,558590736 |
| ENSG00000138448 | ITGAV | 4,891843154 | 5,483206021 |
| ENSG00000179915 | NRXN1 | 4,303776316 | 5,41516363 |
| ENSG00000148400 | NOTCH1 | 5,432388821 | 5,408804104 |
| ENSG00000182718 | ANXA2 | 6,859450515 | 5,382178683 |
| ENSG00000169504 | CLIC4 | 5,587505202 | 5,366682911 |
| ENSG00000126016 | AMOT | 5,868095112 | 5,28403363 |
| ENSG00000177283 | FZD8 | 4,957229839 | 5,213194375 |
| ENSG00000125686 | MED1 | 5,21373679 | 5,207067355 |

| | | | |
|-----------------|-----------|-------------|-------------|
| ENSG00000157227 | MMP14 | 5,718734377 | 5,191940149 |
| ENSG00000160691 | SHC1 | 5,416225795 | 5,191940149 |
| ENSG00000163251 | FZD5 | 4,81379976 | 5,136805706 |
| ENSG00000106366 | SERPINE1 | 4,48717077 | 5,12903933 |
| ENSG00000127837 | AAMP | 5,530510777 | 5,123897759 |
| ENSG00000158195 | WASF2 | 5,514762975 | 5,086413552 |
| ENSG00000135821 | GLUL | 6,194595691 | 5,024169451 |
| ENSG00000164736 | SOX17 | 6,038505062 | 5,005630928 |
| ENSG00000110955 | ATP5F1B | 5,698922712 | 4,948786431 |
| ENSG00000140545 | MFGE8 | 5,036892183 | 4,937131505 |
| ENSG00000140105 | WARS1 | 5,435842967 | 4,857945972 |
| ENSG00000184304 | PRKD1 | 4,708366605 | 4,831771832 |
| ENSG00000161671 | EMC10 | 5,444090155 | 4,831271379 |
| ENSG00000153989 | NUS1 | 4,686514004 | 4,826129807 |
| ENSG00000154096 | THY1 | 4,88968838 | 4,826129807 |
| ENSG00000100219 | XBP1 | 6,099985799 | 4,826129807 |
| ENSG00000118523 | CCN2 | 5,563123241 | 4,819869195 |
| ENSG00000143995 | MEIS1 | 5,099708414 | 4,789258282 |
| ENSG00000146374 | RSPO3 | 4,742506347 | 4,714365056 |
| ENSG00000164683 | HEY1 | 4,45724513 | 4,656528617 |
| ENSG00000130066 | SAT1 | 5,663268627 | 4,656528617 |
| ENSG00000111145 | ELK3 | 4,803865999 | 4,651387045 |
| ENSG00000164134 | NAA15 | 5,362166015 | 4,639363554 |
| ENSG00000125779 | PANK2 | 4,816478395 | 4,639363554 |
| ENSG00000102554 | KLF5 | 4,972378735 | 4,597350457 |
| ENSG00000143537 | ADAM15 | 4,100030689 | 4,543857627 |
| ENSG00000164022 | AIMP1 | 4,884797424 | 4,543857627 |
| ENSG00000125378 | BMP4 | 4,7324051 | 4,543857627 |
| ENSG00000133216 | EPHB2 | 5,249969278 | 4,543857627 |
| ENSG00000161791 | FMNL3 | 5,262170155 | 4,543857627 |
| ENSG00000113721 | PDGFRB | 5,017440931 | 4,534372446 |
| ENSG00000131845 | ZNF304 | 4,219496605 | 4,534372446 |
| ENSG00000076706 | MCAM | 4,614151501 | 4,432092876 |
| ENSG00000099250 | NRP1 | 5,597353968 | 4,407741462 |
| ENSG00000138792 | ENPEP | 4,189029926 | 4,369114866 |
| ENSG00000001631 | KRIT1 | 4,712528396 | 4,369114866 |
| ENSG00000161714 | PLCD3 | 4,820645228 | 4,369114866 |
| ENSG00000069667 | RORA | 4,582941043 | 4,311439073 |
| ENSG00000125266 | EFNB2 | 5,00472681 | 4,265905433 |
| ENSG00000182580 | EPHB3 | 4,885606099 | 4,178953524 |
| ENSG00000114209 | PDCD10 | 4,663769858 | 4,178953524 |
| ENSG00000006327 | TNFRSF12A | 4,523889285 | 4,178953524 |
| ENSG00000071246 | VASH1 | 4,884059507 | 4,178953524 |
| ENSG00000109458 | GAB1 | 4,759603609 | 4,173811952 |
| ENSG00000119185 | ITGB1BP1 | 4,367258953 | 4,173811952 |
| ENSG00000119630 | PGF | 4,523513594 | 4,173811952 |
| ENSG00000154229 | PRKCA | 4,458709637 | 4,173811952 |
| ENSG00000096717 | SIRT1 | 5,237287429 | 4,173811952 |
| ENSG00000141376 | BCAS3 | 4,616358396 | 4,09881045 |
| ENSG00000135048 | CEMIP2 | 5,137714843 | 4,09881045 |
| ENSG00000136848 | DAB2IP | 6,140833697 | 4,09881045 |

| | | | |
|-----------------|----------|-------------|-------------|
| ENSG00000074842 | MYDGF | 4,370287472 | 4,09881045 |
| ENSG00000197702 | PARVA | 5,274740096 | 4,09881045 |
| ENSG00000249915 | PDCD6 | 4,812916126 | 4,09881045 |
| ENSG00000106799 | TGFBR1 | 4,808605318 | 4,09881045 |
| ENSG00000214274 | ANG | 3,653844524 | 4,056797353 |
| ENSG00000138685 | FGF2 | 4,339663594 | 4,056797353 |
| ENSG00000101346 | POFUT1 | 4,341354839 | 4,056797353 |
| ENSG00000168214 | RBPJ | 4,707389597 | 4,056797353 |
| ENSG00000153560 | UBP1 | 5,631173316 | 4,056797353 |
| ENSG00000134817 | APLNR | 4,970551601 | 3,987045699 |
| ENSG00000117281 | CD160 | 3,632211856 | 3,987045699 |
| ENSG00000169436 | COL22A1 | 4,125184948 | 3,987045699 |
| ENSG00000091129 | NRCAM | 4,749069902 | 3,987045699 |
| ENSG00000105287 | PRKD2 | 4,960754879 | 3,987045699 |
| ENSG00000196189 | SEMA4A | 4,237277254 | 3,987045699 |
| ENSG00000140199 | SLC12A6 | 4,265704857 | 3,987045699 |
| ENSG00000134215 | VAV3 | 4,056606289 | 3,987045699 |
| ENSG00000154764 | WNT7A | 3,971133006 | 3,987045699 |
| ENSG00000139567 | ACVRL1 | 3,941805574 | 3,924067688 |
| ENSG00000205336 | ADGRG1 | 4,024108797 | 3,924067688 |
| ENSG00000128805 | ARHGAP22 | 4,242061754 | 3,924067688 |
| ENSG00000105974 | CAV1 | 4,14790135 | 3,924067688 |
| ENSG00000172889 | EGFL7 | 4,16060225 | 3,924067688 |
| ENSG00000105997 | HOXA3 | 3,978819978 | 3,924067688 |
| ENSG00000128052 | KDR | 5,263650337 | 3,924067688 |
| ENSG00000154124 | OTULIN | 4,563615315 | 3,924067688 |
| ENSG00000197461 | PDGFA | 4,280412313 | 3,924067688 |
| ENSG00000170989 | S1PR1 | 4,022263579 | 3,924067688 |
| ENSG00000121075 | TBX4 | 4,260417624 | 3,924067688 |
| ENSG00000185215 | TNFAIP2 | 5,069978622 | 3,924067688 |
| ENSG00000150630 | VEGFC | 3,708179883 | 3,924067688 |
| ENSG00000079385 | CEACAM1 | 3,863264457 | 3,891539773 |
| ENSG00000128917 | DLL4 | 4,786073125 | 3,891539773 |
| ENSG00000066468 | FGFR2 | 5,803664783 | 3,891539773 |
| ENSG00000100292 | HMOX1 | 4,479437023 | 3,891539773 |
| ENSG00000136720 | HS6ST1 | 5,224382037 | 3,891539773 |
| ENSG00000166086 | JAM3 | 4,621956955 | 3,891539773 |
| ENSG00000112062 | MAPK14 | 4,569497475 | 3,891539773 |
| ENSG00000105851 | PIK3CG | 3,725579974 | 3,891539773 |
| ENSG00000163874 | ZC3H12A | 4,340353345 | 3,891539773 |
| ENSG00000144476 | ACKR3 | 4,22213944 | 3,446492595 |
| ENSG00000151651 | ADAM8 | 4,041909992 | 3,446492595 |
| ENSG00000020181 | ADGRA2 | 4,687685837 | 3,446492595 |
| ENSG00000128165 | ADM2 | 4,305734657 | 3,446492595 |
| ENSG00000164252 | AGGF1 | 4,809121257 | 3,446492595 |
| ENSG00000154188 | ANGPT1 | 3,707674927 | 3,446492595 |
| ENSG00000091879 | ANGPT2 | 4,212236012 | 3,446492595 |
| ENSG00000101280 | ANGPT4 | 3,741784533 | 3,446492595 |
| ENSG00000167772 | ANGPTL4 | 4,08479737 | 3,446492595 |
| ENSG00000130812 | ANGPTL6 | 3,642725584 | 3,446492595 |
| ENSG00000166825 | ANPEP | 4,224612612 | 3,446492595 |

| | | | |
|-----------------|----------|-------------|-------------|
| ENSG00000248329 | APELA | 4,496583823 | 3,446492595 |
| ENSG00000171388 | APLN | 3,735789924 | 3,446492595 |
| ENSG00000189058 | APOD | 3,566645273 | 3,446492595 |
| ENSG00000178878 | APOLD1 | 3,893605313 | 3,446492595 |
| ENSG00000138639 | ARHGAP24 | 5,431990256 | 3,446492595 |
| ENSG00000106392 | C1GALT1 | 4,255898238 | 3,446492595 |
| ENSG00000064989 | CALCRL | 3,675935411 | 3,446492595 |
| ENSG00000064012 | CASP8 | 4,056845685 | 3,446492595 |
| ENSG00000183287 | CCBE1 | 4,468683224 | 3,446492595 |
| ENSG00000100147 | CCDC134 | 4,044379762 | 3,446492595 |
| ENSG00000108691 | CCL2 | 3,929676772 | 3,446492595 |
| ENSG00000136999 | CCN3 | 3,595863125 | 3,446492595 |
| ENSG00000185043 | CIB1 | 4,247457519 | 3,446492595 |
| ENSG00000204291 | COL15A1 | 3,897978742 | 3,446492595 |
| ENSG00000144810 | COL8A1 | 3,759397082 | 3,446492595 |
| ENSG00000171812 | COL8A2 | 3,80138094 | 3,446492595 |
| ENSG00000173546 | CSPG4 | 4,188819269 | 3,446492595 |
| ENSG00000189377 | CXCL17 | 3,589943892 | 3,446492595 |
| ENSG00000169429 | CXCL8 | 3,802556649 | 3,446492595 |
| ENSG00000186810 | CXCR3 | 3,596890349 | 3,446492595 |
| ENSG00000138061 | CYP1B1 | 4,207218927 | 3,446492595 |
| ENSG00000143369 | ECM1 | 3,875297038 | 3,446492595 |
| ENSG00000249751 | ECSCR | 3,916103937 | 3,446492595 |
| ENSG00000127129 | EDN2 | 3,557773478 | 3,446492595 |
| ENSG00000151617 | EDNRA | 3,991603202 | 3,446492595 |
| ENSG00000169242 | EFNA1 | 4,307682051 | 3,446492595 |
| ENSG00000138798 | EGF | 3,912395335 | 3,446492595 |
| ENSG00000172071 | EIF2AK3 | 4,555112137 | 3,446492595 |
| ENSG00000164035 | EMCN | 3,681768617 | 3,446492595 |
| ENSG00000106991 | ENG | 3,651226781 | 3,446492595 |
| ENSG00000182585 | EPGN | 3,492007264 | 3,446492595 |
| ENSG00000146904 | EPHA1 | 4,225527419 | 3,446492595 |
| ENSG00000142627 | EPHA2 | 5,631689739 | 3,446492595 |
| ENSG00000154928 | EPHB1 | 4,442502387 | 3,446492595 |
| ENSG00000196411 | EPHB4 | 5,855368616 | 3,446492595 |
| ENSG00000164307 | ERAP1 | 3,972816645 | 3,446492595 |
| ENSG00000124882 | EREG | 3,653804311 | 3,446492595 |
| ENSG00000164283 | ESM1 | 3,623643954 | 3,446492595 |
| ENSG00000078098 | FAP | 3,624626672 | 3,446492595 |
| ENSG00000113578 | FGF1 | 3,886475592 | 3,446492595 |
| ENSG00000070193 | FGF10 | 4,343739657 | 3,446492595 |
| ENSG00000156427 | FGF18 | 3,819576689 | 3,446492595 |
| ENSG00000111241 | FGF6 | 3,636683964 | 3,446492595 |
| ENSG00000102678 | FGF9 | 3,953519627 | 3,446492595 |
| ENSG00000102755 | FLT1 | 4,668415701 | 3,446492595 |
| ENSG00000037280 | FLT4 | 4,142372907 | 3,446492595 |
| ENSG00000263761 | GDF2 | 3,683270301 | 3,446492595 |
| ENSG00000265107 | GJA5 | 3,894352461 | 3,446492595 |
| ENSG00000166923 | GREM1 | 4,47883666 | 3,446492595 |
| ENSG00000124440 | HIF3A | 4,439684779 | 3,446492595 |
| ENSG00000122592 | HOXA7 | 3,657184104 | 3,446492595 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG00000120093 | HOXB3 | 4,379646681 | 3,446492595 |
| ENSG00000113905 | HRG | 3,850244432 | 3,446492595 |
| ENSG00000109854 | HTATIP2 | 4,065748318 | 3,446492595 |
| ENSG00000150782 | IL18 | 3,643578329 | 3,446492595 |
| ENSG00000174697 | LEP | 3,839009616 | 3,446492595 |
| ENSG00000116678 | LEPR | 3,95750587 | 3,446492595 |
| ENSG00000106511 | MEOX2 | 3,886839398 | 3,446492595 |
| ENSG00000169330 | MINAR1 | 4,354205361 | 3,446492595 |
| ENSG00000123342 | MMP19 | 3,843608261 | 3,446492595 |
| ENSG00000173269 | MMRN2 | 3,95832008 | 3,446492595 |
| ENSG00000173376 | NDNF | 4,147707607 | 3,446492595 |
| ENSG00000131669 | NINJ1 | 4,303624615 | 3,446492595 |
| ENSG00000164867 | NOS3 | 3,942415647 | 3,446492595 |
| ENSG00000007952 | NOX1 | 3,492007264 | 3,446492595 |
| ENSG00000255346 | NOX5 | 4,050583645 | 3,446492595 |
| ENSG00000021645 | NRXN3 | 4,746744747 | 3,446492595 |
| ENSG00000125850 | OVOL2 | 4,342878596 | 3,446492595 |
| ENSG00000115539 | PDCL3 | 5,228257352 | 3,446492595 |
| ENSG00000152270 | PDE3B | 4,671520851 | 3,446492595 |
| ENSG00000121879 | PIK3CA | 4,330762195 | 3,446492595 |
| ENSG00000276231 | PIK3R6 | 3,566645273 | 3,446492595 |
| ENSG00000160199 | PKNOX1 | 4,397274768 | 3,446492595 |
| ENSG00000161381 | PLXDC1 | 3,959705095 | 3,446492595 |
| ENSG00000183943 | PRKX | 4,493414294 | 3,446492595 |
| ENSG00000163421 | PROK2 | 3,627025775 | 3,446492595 |
| ENSG00000073756 | PTGS2 | 3,706606513 | 3,446492595 |
| ENSG00000120899 | PTK2B | 4,412324376 | 3,446492595 |
| ENSG00000127329 | PTPRB | 3,874647991 | 3,446492595 |
| ENSG00000132329 | RAMP1 | 3,705844547 | 3,446492595 |
| ENSG00000131477 | RAMP2 | 3,691215045 | 3,446492595 |
| ENSG00000079337 | RAPGEF3 | 4,540510666 | 3,446492595 |
| ENSG00000105538 | RASIP1 | 3,814385014 | 3,446492595 |
| ENSG00000126785 | RHOJ | 3,797173372 | 3,446492595 |
| ENSG00000154133 | ROBO4 | 3,758651644 | 3,446492595 |
| ENSG00000171951 | SCG2 | 3,726131735 | 3,446492595 |
| ENSG00000170381 | SEMA3E | 4,353667768 | 3,446492595 |
| ENSG00000027869 | SH2D2A | 3,672076913 | 3,446492595 |
| ENSG00000107338 | SHB | 5,362671653 | 3,446492595 |
| ENSG00000164690 | SHH | 3,947765408 | 3,446492595 |
| ENSG00000203883 | SOX18 | 4,040677943 | 3,446492595 |
| ENSG00000102359 | SRPX2 | 3,682430834 | 3,446492595 |
| ENSG00000136011 | STAB2 | 3,598571592 | 3,446492595 |
| ENSG00000165025 | SYK | 3,823132208 | 3,446492595 |
| ENSG00000162367 | TAL1 | 3,907637452 | 3,446492595 |
| ENSG00000184058 | TBX1 | 4,036022885 | 3,446492595 |
| ENSG00000120156 | TEK | 4,083957525 | 3,446492595 |
| ENSG00000163235 | TGFA | 3,860905868 | 3,446492595 |
| ENSG00000005108 | THSD7A | 4,42194914 | 3,446492595 |
| ENSG00000066056 | TIE1 | 3,800713867 | 3,446492595 |
| ENSG00000166292 | TMEM100 | 3,762617312 | 3,446492595 |
| ENSG00000239697 | TNFSF12 | 3,86816607 | 3,446492595 |

| | | | |
|-----------------|---------|-------------|-------------|
| ENSG00000106025 | TSPAN12 | 4,332066131 | 3,446492595 |
| ENSG00000025708 | TYMP | 3,940635989 | 3,446492595 |
| ENSG00000160293 | VAV2 | 5,368462061 | 3,446492595 |
| ENSG00000165197 | VEGFD | 3,510836078 | 3,446492595 |
| ENSG00000136451 | VEZF1 | 4,748220552 | 3,446492595 |

Suppl Table S10: Top 5 canonical pathways identified in the transcriptome of HTB-EVs, HUVEC-EVs, and CPC-EVs after treatment of their parent cells with LNP-VEGFA mRNA

| HTB-EVs | | | |
|---|-------------------------|------------------------|--|
| Ingenity Canonical Pathways | $-\log(p\text{-value})$ | Ratio | Molecules |
| EIF2 Signaling | 4.87×10^0 | 3.62×10^{-01} | ACTB,DDIT3,EIF2S2,EIF2S3,EIF3A,EIF3C,EIF3D,EIF3E,EIF3H,EIF3L,EIF4A1,EIF4G1,EIF4G2,EIF4G3,EIF5B,FAU,HNRNP1A,MYC,PABPC1,PIK3C2A,PPP1CA,PPP1R15A,RALA,RASD1,RPL10A,RPL11,RPL12,RPL13A,RPL14,RPL15,RPL17,RPL18,RPL18A,RPL19,RPL21,RPL22,RPL23,RPL23A,RPL24,RPL26,RPL27,RPL29,RPL3,RPL32,RPL34,RPL35A,RPL36A,RPL36AL,RPL37,RPL39,RPL4,RPL5,RPL6,RPL7,RPL7A,RPL8,RPL9,RPL90,RPL1,RPL2,RPS10,RPS11,RPS12,RPS15A,RPS16,RPS17,RPS18,RPS20,RPS23,RPS24,RPS26,RPS27A,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS8,RPSA,UBA52,VEGFA |
| mTOR Signaling | 1.6×10^0 | 2.08×10^{-01} | CDC42,EIF3A,EIF3C,EIF3D,EIF3E,EIF3H,EIF3L,EIF4A1,EIF4B,EIF4G1,EIF4G2,EIF4G3,FAU,FKBP1A,HIF1A,PIK3C2A,RAC1,RALA,RASD1,RHOA,RHOB,RHOJ,RPS10,RPS11,RPS12,RPS15A,RPS16,RPS17,RPS18,RPS20,RPS23,RPS24,RPS26,RPS27A,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS6KA2,RPS8,RPSA,VEGFA,VEGFB |
| Regulation of eIF4 and p70S6K Signaling | 1.5×10^0 | 2.18×10^{-01} | EIF2S2,EIF2S3,EIF3A,EIF3C,EIF3D,EIF3E,EIF3H,EIF3L,EIF4A1,EIF4G1,EIF4G2,EIF4G3,FAU,ITGA5,ITGA6,ITGB1,PABPC1,PIK3C2A,RALA,RASD1,RPS10,RPS11,RPS12,RPS15A,RPS16,RPS17,RPS18,RPS20,RPS23,RPS24,RPS26,RPS27A,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS8,RPSA |
| Coronavirus Pathogenesis Pathway | 1.38×10^0 | 1.97×10^{-01} | CASP3,CXCL8,DDIT3,E2F4,EEF1A1,FAU,FOS,HDAC4,HIF1A,IL6,JAK1,JUN,KPNB1,NFKBIA,NPM1,PA2G4,RAB7A,RPS10,RPS11,RPS12,RPS15A,RPS16,RPS17,RPS18,RPS20,RPS23,RPS24,RPS26,RPS27A,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS8,RPSA,SERPINE1,TBK1,TGFB1,TGFB2 |
| Mitochondrial Dysfunction | 1.34×10^0 | 2.11×10^{-01} | ACO1,APP,ATP5F1A,ATP5F1B,ATP5F1C,ATP5MG,ATP5PB,ATP5PO,CASP3,COX4I1,COX5A,COX6B2,COX6C,COX7C,CPT1A,CYB5R3,GPX4,GSR,MT-CO1,MT-CO3,NDUFA6,NDUFB1,NDUFB10,NDUFS4,NDUFS5,PARK7,PDHA1,SOD2,UQCRC1,UQCRC11,UQCRC12,UQCRC13,UQCRC14,UQCRC15,UQCRC16,UQCRC17,UQCRC18,UQCRC19,UQCRC20,UQCRC21,UQCRC22,UQCRC23,UQCRC24,UQCRC25,UQCRC26,UQCRC27,UQCRC28,UQCRC29,UQCRC30,UQCRC31,UQCRC32,UQCRC33,UQCRC34,UQCRC35,UQCRC36,UQCRC37,UQCRC38,UQCRC39,UQCRC40,UQCRC41,UQCRC42,UQCRC43,UQCRC44,UQCRC45,UQCRC46,UQCRC47,UQCRC48,UQCRC49,UQCRC50,UQCRC51,UQCRC52,UQCRC53,UQCRC54,UQCRC55,UQCRC56,UQCRC57,UQCRC58,UQCRC59,UQCRC60,UQCRC61,UQCRC62,UQCRC63,UQCRC64,UQCRC65,UQCRC66,UQCRC67,UQCRC68,UQCRC69,UQCRC70,UQCRC71,UQCRC72,UQCRC73,UQCRC74,UQCRC75,UQCRC76,UQCRC77,UQCRC78,UQCRC79,UQCRC80,UQCRC81,UQCRC82,UQCRC83,UQCRC84,UQCRC85,UQCRC86,UQCRC87,UQCRC88,UQCRC89,UQCRC90,UQCRC91,UQCRC92,UQCRC93,UQCRC94,UQCRC95,UQCRC96,UQCRC97,UQCRC98,UQCRC99,UQCRC100 |

| All Canonical Pathways associated with cardiac | | | |
|--|-------------------------|------------------------|---|
| Ingenity Canonical Pathways | $-\log(p\text{-value})$ | Ratio | Molecules |
| Role of NFAT in Cardiac Hypertrophy | 9.59×10^{-01} | 6.76×10^{-02} | CALM1,CSNK1A1,GNAI2,GNB1,GNB11,HDAC4,IL6,IL6ST,ITPR2,PDIA3,PIK3C2A,RALA,RASD1,TGFB1,TGFB2 |
| Cardiac Hypertrophy Signaling (Enhanced) | 9.07×10^{-01} | 5.9×10^{-02} | APEX1,CALM1,CXCL8,DIAPH1,GNAI2,GNB1,GNB11,HDAC4,HSPB1,IL12B,IL18RAP,IL1RL1,IL6,IL6ST,ITGA5,ITGA6,ITGB1,ITPR2,JUN,MYC,PDE6D,PDIA3,PIK3C2A,PKA1,PRKG1,PTK2,RALA,RASD1,RHOA,RPS6,TGFB1,TGFB2 |
| Apelin Cardiac Fibroblast Signaling Pathway | 2.4×10^0 | 2.17×10^{-01} | ANGPT2,CXCL2,IL6,SERPINE1,TGFB1 |
| Cardiac Hypertrophy Signaling | 1.88×10^0 | 8.08×10^{-02} | CALM1,CDC42,GNAI2,GNB1,GNB11,HSPB1,IL6,JUN,MYL12A,MYL12B,MYL6,PDIA3,PIK3C2A,RAC1,RALA,RASD1,RHOA,RHOB,RHOJ,TGFB1,TGFB2 |
| Cardiac β -adrenergic Signaling | -0×10^0 | 3.93×10^{-02} | AKAP12,APEX1,GNAI2,GNB1,GNB11,PDE6D,PPP1CA |

| HUVEC-EVs | | | |
|---|-------------------------|------------------------|--|
| Ingenity Canonical Pathways | $-\log(p\text{-value})$ | Ratio | Molecules |
| EIF2 Signaling | 6.43×10^0 | 4.06×10^{-01} | ACTB,ATF4,EIF1,EIF2S2,EIF2S3,EIF3A,EIF3D,EIF3L,EIF3L,EIF4A1,EIF4G2,FAU,HNRNP1A,MT-RNR1,MT-RNR2,NKX6-2,PABPC1,PIK3CB,PIK3RS,PPP1R15A,RALA,RALB,RNA5-8SN5,RPL10,RPL11,RPL12,RPL13A,RPL14,RPL15,RPL17,RPL18A,RPL19,RPL21,RPL22,RPL23,RPL23A,RPL24,RPL26,RPL27A,RPL28,RPL29,RPL3,RPL31,RPL32,RPL34,RPL35,RPL36A,RPL36AL,RPL38,RPL39,RPL4,RPL5,RPL6,RPL7,RPL7A,RPL8,RPL9,RPL90,RPL1,RPL2,RPS10,RPS11,RPS12,RPS13,RPS15,RPS16,RPS17,RPS18,RPS19,RPS2,RPS20,RPS23,RPS24,RPS25,RPS26,RPS27,RPS27A,RPS27L,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS8,RPS9,RPSA,VEGFA,VEGFB |
| mTOR Signaling | 2.37×10^0 | 2.41×10^{-01} | EIF3A,EIF3D,EIF3L,EIF3L,EIF4A1,EIF4B,EIF4G2,FAU,FKBP1A,MT-RNR1,MT-RNR2,PIK3CB,PIK3RS,PPP2CA,PRKD3,RALA,RALB,RHOA,RHOB,RHOBTB2,RHOJ,RND3,RPS10,RPS11,RPS12,RPS13,RPS15,RPS16,RPS17,RPS18,RPS19,RPS2,RPS20,RPS23,RPS24,RPS25,RPS26,RPS27,RPS27A,RPS27L,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS6KA6,RPS8,RPS9,RPSA,VEGFA,VEGFB |
| Regulation of eIF4 and p70S6K Signaling | 2.36×10^0 | 2.63×10^{-01} | EIF1,EIF2S2,EIF2S3,EIF3A,EIF3D,EIF3L,EIF3L,EIF4A1,EIF4G2,FAU,ITGA6,ITGB1,ITGB2,MT-RNR1,MT-RNR2,PABPC1,PIK3CB,PIK3RS,PPP2CA,RALA,RALB,RPS10,RPS11,RPS12,RPS13,RPS15,RPS16,RPS17,RPS18,RPS19,RPS2,RPS20,RPS23,RPS24,RPS25,RPS26,RPS27,RPS27A,RPS27L,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS8,RPS9,RPSA |
| Coronavirus Pathogenesis Pathway | 1.7×10^0 | 2.07×10^{-01} | ATF4,BCL2L1,EEF1A1,FAU,HDAC7,JAK1,MAPK8,MT-RNR1,MT-RNR2,NPM1,RAB7A,RBL2,RN75L1,RN75L2,RPS10,RPS11,RPS12,RPS13,RPS15,RPS16,RPS17,RPS18,RPS19,RPS2,RPS20,RPS23,RPS24,RPS25,RPS26,RPS27,RPS27A,RPS27L,RPS3,RPS3A,RPS4X,RPS5,RPS6,RPS8,RPS9,RPSA,STING1,TNPO1 |
| Germ Cell-Sertoli Cell Junction Signaling | 9.06×10^0 | 1.64×10^{-01} | ACTB,ACTG1,ACTN4,CFL1,CLINT1,CTNNA1,ITGA6,ITGB1,MAP3K1,MAP3K10,MAP3K14,MAP3K7,MAPK8,MYO7A,PIK3CB,PIK3RS,RAB8B,RALA,RALB,RHOA,RHOB,RHOBTB2,RHOJ,RND3,TUBB,TUBB2A,TUBB4A,TUBB6 |

| All Canonical Pathways associated with cardiac | | | |
|---|-------------------------|------------------------|---|
| Ingenity Canonical Pathways | $-\log(p\text{-value})$ | Ratio | Molecules |
| Cardiac Hypertrophy Signaling | 6.12×10^0 | 1.15×10^{-01} | ADCY4,ATF2,CACNB3,CACNG4,CACNG7,CALM1 (includes others),GNG11,GNG2,HSPB1,MAP3K1,MAP3K10,MAP3K7,MAPK8,MEF2A,MYL12A,MYL12B,MYL6,MYL9,NKX2-5,PIK3CB,PIK3RS,PRKAR2B,RALA,RALB,RHOA,RHOB,RHOBTB2,RHOJ,RND3 |
| Cardiac β -adrenergic Signaling | 4.61×10^{-01} | 5.06×10^{-02} | ADCY4,AKAP12,CACNB3,CACNG4,CACNG7,GNG11,GNG2,PPP2CA,PRKAR2B |
| Embryonic Stem Cell Differentiation into Cardiac Lineages | 4.52×10^{-01} | 1×10^{-01} | NKX2-5 |
| Role of NFAT in Cardiac Hypertrophy | 2.87×10^0 | 9.01×10^{-02} | ADCY4,CACNB3,CACNG4,CACNG7,CALM1 (includes others),GNG11,GNG2,HDAC7,IL6ST,MAP3K1,MAP3K7,MAPK8,MEF2A,NKX2-5,PIK3CB,PIK3RS,PRKAR2B,PRKD3,RALA,RALB |
| Cardiac Hypertrophy Signaling (Enhanced) | 1.8×10^0 | 6.27×10^{-02} | ADCY4,ATF2,CACNB3,CACNG4,CACNG7,CALM1 (includes others),CTNNA1,FGFR4,FZD5,GNG11,GNG2,HDAC7,HSPB1,IL12B,IL6ST,ITGA6,ITGB1,ITGB2,MAP3K1,MAP3K10,MAP3K14,MAP3K7,MAPK8,MEF2A,NKX2-5,PIK3CB,PIK3RS,PRKAR2B,PRKD3,RALA,RALB,RHOA,RPS6,WNT7B |

| CPC-EVs | | | |
|---|-------------------------|------------------------|--|
| Ingenity Canonical Pathways | $-\log(p\text{-value})$ | Ratio | Molecules |
| Hepatic Fibrosis / Hepatic Stellate Cell Activation | 6.92×10^0 | 8.76×10^{-02} | ACTA2,COL12A1,COL1A1,COL25A1,COL3A1,COL6A6,COL9A2,IFNGR2,IGF2,MYH6,MYL4,MYL7,MYO18B,PDGFR,SERPINE1,VEGFA,VEGFB |
| Oxidative Phosphorylation | 4.42×10^0 | 9.01×10^{-02} | ENOX1,MT-ATP6,MT-CO1,MT-CO2,MT-CO3,MT-CYB,MT-ND1,MT-ND2,MT-ND4,MT-ND5 |
| Calcium Signaling | 4.27×10^0 | 6.42×10^{-02} | ACTA2,ACTC1,CHRNA10,CHRNA9,HDAC2,MYH6,MYL4,MYL7,MYO18B,NFATC1,PPP3CA,SLC8A3,TNNT2,TMP1 |
| Tight Junction Signaling | 3.94×10^0 | 6.74×10^{-02} | ACTA2,ACTC1,AFDN,ARRHGFE2,CLDN11,MYH6,MYL4,MYL7,MYO18B,NAPA,NECTIN1,RAB13 |
| tRNA Splicing | 3.74×10^0 | 1.3×10^{-01} | PDE4A,PDE5A,PDE6D,TRPT1,TSEN34,TULP2 |

| All Canonical Pathways associated with cardiac | | | |
|---|-------------------------|------------------------|---|
| Ingenity Canonical Pathways | $-\log(p\text{-value})$ | Ratio | Molecules |
| Cardiac β -adrenergic Signaling | 9.59×10^{-01} | 3.37×10^{-02} | GNA13,PDE4A,PDE5A,PDE6D,SLC8A3,TULP2 |
| Embryonic Stem Cell Differentiation into Cardiac Lineages | 7.72×10^{-01} | 1×10^{-01} | ISL1 |
| Cardiac Hypertrophy Signaling | 4.66×10^{-01} | 2.31×10^{-02} | GNA13,HAND2,MYL4,MYL7,PPP3CA,RHOC |
| Apelin Cardiac Fibroblast Signaling Pathway | 4.6×10^{-01} | 4.35×10^{-02} | SERPINE1 |
| Cardiac Hypertrophy Signaling (Enhanced) | 1.12×10^0 | 2.77×10^{-02} | CYBB,DIAPH1,GNA13,HAND2,HDAC2,IL12B,ITGAV,MYOCD,NFATC1,PDE4A,PDE5A,PDE6D,PPP3CA,PRKCE,TULP2 |
| Role of NFAT in Cardiac Hypertrophy | -0×10^0 | 1.8×10^{-02} | HDAC2,PPP3CA,PRKCE,SLC8A3 |