

Table S3. Significantly up- and down-regulated transcripts in ARPE-19 human retinal pigment epithelial cells 24 hours following infection with EBOV.

| Symbol | Ensembl ID | Name | Fold change | False discovery rate |
|---------------|-------------------|---|--------------------|-----------------------------|
| ATF3 | ENSG00000162772 | activating transcription factor 3 | 12.74 | 1.51E-197 |
| CEBPG | ENSG00000153879 | CCAAT/enhancer binding protein gamma | 9.53 | 3.86E-166 |
| E2F7 | ENSG00000165891 | E2F transcription factor 7 | 9.42 | 8.40E-160 |
| TRIB3 | ENSG00000101255 | tribbles pseudokinase 3 | 18.28 | 7.78E-159 |
| ADAMTS1 | ENSG00000154734 | ADAM metalloproteinase with thrombospondin type 1 motif 1 | 7.28 | 5.22E-131 |
| ALDH1A3 | ENSG00000184254 | aldehyde dehydrogenase 1 family member A3 | -7.29 | 3.19E-123 |
| HKDC1 | ENSG00000156510 | hexokinase domain containing 1 | 5.01 | 7.55E-115 |
| LIPG | ENSG00000101670 | lipase G, endothelial type | 6.80 | 3.24E-114 |
| ETV5 | ENSG00000244405 | ETS variant 5 | 5.55 | 1.06E-109 |

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|---------|-----------------|---|-------|-----------|
| DDIT3 | ENSG00000175197 | DNA damage inducible transcript 3 | 6.56 | 1.28E-108 |
| WARS | ENSG00000140105 | tryptophanyl-tRNA synthetase | 4.73 | 7.61E-106 |
| STON2 | ENSG00000140022 | stonin 2 | -4.55 | 8.27E-104 |
| GJA1 | ENSG00000152661 | gap junction protein alpha 1 | -4.68 | 1.93E-100 |
| LMOD1 | ENSG00000163431 | leiomodin 1 | -8.50 | 7.47E-98 |
| TMEM37 | ENSG00000171227 | transmembrane protein 37 | -5.94 | 1.05E-94 |
| MAFF | ENSG00000185022 | MAF bZIP transcription factor F | 7.30 | 5.50E-88 |
| HSPA1B | ENSG00000224501 | heat shock protein family A (Hsp70) member 1B | 5.90 | 1.06E-87 |
| SAMD4A | ENSG00000020577 | sterile alpha motif domain containing 4A | 3.96 | 1.11E-86 |
| ARHGEF3 | ENSG00000163947 | Rho guanine nucleotide exchange factor 3 | -3.76 | 4.02E-86 |
| RSAD2 | ENSG00000134321 | radical S-adenosyl methionine domain containing 2 | 80.13 | 1.22E-85 |
| HK2 | ENSG00000159399 | hexokinase 2 | 4.11 | 1.22E-85 |
| KCNQ3 | ENSG00000184156 | potassium voltage-gated channel subfamily Q member 3 | 9.40 | 6.49E-83 |
| VEGFA | ENSG00000112715 | vascular endothelial growth factor A | 3.64 | 6.93E-81 |

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|-----------|-----------------|---|-------|----------|
| RORA | ENSG00000069667 | RAR related orphan receptor A | 4.30 | 4.80E-79 |
| SLC2A3 | ENSG00000059804 | solute carrier family 2 member 3 | 3.55 | 1.02E-78 |
| TGFA | ENSG00000163235 | transforming growth factor alpha | 3.76 | 1.11E-77 |
| IFIT2 | ENSG00000119922 | interferon induced protein with tetratricopeptide repeats 2 | 5.98 | 7.58E-77 |
| LINC01105 | ENSG00000232044 | long intergenic non-protein coding RNA 1105 | -4.57 | 9.12E-77 |
| NDRG1 | ENSG00000104419 | N-myc downstream regulated 1 | 4.19 | 2.07E-76 |
| LOC285629 | | | -5.25 | 2.84E-74 |
| ASNS | ENSG00000070669 | asparagine synthetase (glutamine-hydrolyzing) | 4.17 | 1.89E-73 |
| CCL2 | ENSG00000108691 | C-C motif chemokine ligand 2 | -8.23 | 4.01E-73 |
| LURAP1L | ENSG00000153714 | leucine rich adaptor protein 1 like | 5.12 | 4.15E-73 |
| PSAT1 | ENSG00000135069 | phosphoserine aminotransferase 1 | 5.09 | 1.84E-72 |
| HSPA1A | ENSG00000237724 | heat shock protein family A (Hsp70) member 1A | 6.05 | 1.09E-71 |
| MX1 | ENSG00000157601 | MX dynamin like GTPase 1 | 11.75 | 2.19E-71 |
| AARS | ENSG00000090861 | alanyl-tRNA synthetase | 3.18 | 6.23E-70 |
| OASL | ENSG00000135114 | 2'-5'-oligoadenylate synthetase like | 34.95 | 3.16E-68 |

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|----------|-----------------|---|--------|----------|
| GARS | ENSG00000106105 | glycyl-tRNA synthetase | 3.36 | 1.34E-67 |
| KLHL4 | ENSG00000102271 | kelch like family member 4 | -4.35 | 1.55E-67 |
| RNF24 | ENSG00000101236 | ring finger protein 24 | 3.53 | 2.18E-67 |
| ERICH5 | ENSG00000177459 | glutamate rich 5 | -5.45 | 3.14E-67 |
| IFIT1 | ENSG00000185745 | interferon induced protein with tetratricopeptide repeats 1 | 4.61 | 2.54E-66 |
| OAS1 | ENSG00000089127 | 2'-5'-oligoadenylate synthetase 1 | 15.17 | 2.72E-65 |
| SLC39A14 | ENSG00000104635 | solute carrier family 39 member 14 | 3.12 | 4.36E-65 |
| NIM1K | ENSG00000177453 | NIM1 serine/threonine protein kinase | 10.43 | 6.08E-65 |
| EDN2 | ENSG00000127129 | endothelin 2 | -11.11 | 4.36E-64 |
| KRT13 | ENSG00000171401 | keratin 13 | -6.70 | 4.36E-64 |
| PPP1R15A | ENSG00000087074 | protein phosphatase 1 regulatory subunit 15A | 3.16 | 9.22E-64 |
| DUSP5 | ENSG00000138166 | dual specificity phosphatase 5 | 5.09 | 3.73E-63 |
| GRM1 | ENSG00000152822 | glutamate metabotropic receptor 1 | -7.69 | 4.33E-63 |
| NFIL3 | ENSG00000165030 | nuclear factor, interleukin 3 regulated | 3.92 | 1.16E-62 |
| YARS | ENSG00000134684 | tyrosyl-tRNA synthetase | 2.96 | 3.33E-62 |

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|---------|-----------------|---|-------|----------|
| TM4SF1 | ENSG00000169908 | transmembrane 4 L six family member 1 | -3.35 | 6.59E-62 |
| PFKFB4 | ENSG00000114268 | 6-phosphofructo-2-kinase/fructose-2,6- biphosphatase 4 | 5.63 | 1.14E-61 |
| RIMKLA | ENSG00000177181 | ribosomal modification protein rimK-like family member A | 5.03 | 2.12E-60 |
| ELF3 | ENSG00000163435 | E74 like ETS transcription factor 3 | -7.27 | 3.86E-60 |
| ZFP36L2 | ENSG00000152518 | ZFP36 ring finger protein-like 2 | -3.66 | 3.96E-60 |
| PTGIS | ENSG00000124212 | prostaglandin I2 (prostacyclin) synthase | -3.69 | 4.48E-60 |
| CYP1B1 | ENSG00000138061 | cytochrome P450 family 1 subfamily B member 1 | -3.76 | 1.04E-59 |
| INSIG1 | ENSG00000186480 | insulin induced gene 1 | 2.97 | 3.33E-58 |
| ABCA1 | ENSG00000165029 | ATP binding cassette subfamily A member 1 | -2.79 | 8.08E-58 |
| HERPUD1 | ENSG00000051108 | homocysteine inducible ER protein with ubiquitin like domain 1 | 2.73 | 1.46E-57 |
| LDLR | ENSG00000130164 | low density lipoprotein receptor | 3.31 | 2.85E-56 |
| IFI44L | ENSG00000137959 | interferon induced protein 44 like | 9.02 | 4.04E-56 |

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|---------|-----------------|---|-------|----------|
| MANF | ENSG00000145050 | mesencephalic astrocyte derived neurotrophic factor | 3.20 | 4.46E-56 |
| FRMD4B | ENSG00000114541 | FERM domain containing 4B | -3.07 | 2.28E-55 |
| STARD4 | ENSG00000164211 | StAR related lipid transfer domain containing 4 | 3.59 | 5.23E-55 |
| ARID5A | ENSG00000196843 | AT-rich interaction domain 5A | 4.90 | 5.64E-55 |
| ANGPTL7 | ENSG00000171819 | angiopoietin like 7 | -4.91 | 7.32E-55 |
| SPRY1 | ENSG00000164056 | sprouty RTK signaling antagonist 1 | 8.49 | 2.61E-54 |
| FOSL1 | ENSG00000175592 | FOS like 1, AP-1 transcription factor subunit | 5.37 | 4.18E-54 |
| FAM210A | ENSG00000177150 | family with sequence similarity 210 member A | 3.11 | 4.72E-54 |
| SLC20A1 | ENSG00000144136 | solute carrier family 20 member 1 | 2.78 | 1.26E-53 |
| CREB5 | ENSG00000146592 | cAMP responsive element binding protein 5 | 3.79 | 3.50E-53 |
| IFIT3 | ENSG00000119917 | interferon induced protein with tetratricopeptide repeats 3 | 4.84 | 3.54E-53 |
| DIO2 | ENSG00000211448 | deiodinase, iodothyronine, type II | -3.48 | 2.38E-52 |
| BMP6 | ENSG00000153162 | bone morphogenetic protein 6 | -4.61 | 4.58E-52 |
| ZNF697 | ENSG00000143067 | zinc finger protein 697 | 3.26 | 5.76E-52 |

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|---------|-----------------|--|-------|----------|
| XBP1 | ENSG00000100219 | X-box binding protein 1 | 2.66 | 6.03E-52 |
| NCR3LG1 | ENSG00000188211 | natural killer cell cytotoxicity receptor 3 ligand 1 | 3.10 | 1.35E-51 |
| NOCT | ENSG00000151014 | nocturnin | 5.23 | 1.66E-51 |
| KLF4 | ENSG00000136826 | Kruppel like factor 4 | 5.72 | 3.02E-51 |
| SQLE | ENSG00000104549 | squalene epoxidase | 2.76 | 3.16E-51 |
| TMEM50B | ENSG00000142188 | transmembrane protein 50B | 3.41 | 1.01E-50 |
| KLF6 | ENSG00000067082 | Kruppel like factor 6 | 3.32 | 1.68E-50 |
| ADORA2B | ENSG00000170425 | adenosine A2b receptor | 3.34 | 2.31E-50 |
| HSPA5 | ENSG00000044574 | heat shock protein family A (Hsp70) member 5 | 5.20 | 9.47E-50 |
| FAM198B | ENSG00000164125 | family with sequence similarity 198 member B | -3.21 | 1.03E-49 |
| FAXDC2 | ENSG00000170271 | fatty acid hydroxylase domain containing 2 | -3.55 | 7.75E-49 |
| MKNK2 | ENSG00000099875 | MAP kinase interacting serine/threonine kinase 2 | 3.65 | 8.01E-49 |
| SESN2 | ENSG00000130766 | sestrin 2 | 3.42 | 1.06E-48 |
| PRKCE | ENSG00000171132 | protein kinase C epsilon | 3.57 | 1.47E-48 |
| PCDH20 | ENSG00000280165 | protocadherin 20 | -8.60 | 2.92E-48 |

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|----------|-----------------|--|-------|----------|
| CYP24A1' | ENSG00000019186 | cytochrome P450 family 24 subfamily A member 1 | -2.92 | 3.53E-48 |
| UAP1 | ENSG00000117143 | UDP-N-acetylglucosamine pyrophosphorylase 1 | 2.75 | 6.94E-48 |
| CCDC85A | ENSG00000055813 | coiled-coil domain containing 85A | -2.86 | 8.51E-48 |
| SLC7A11 | ENSG00000151012 | solute carrier family 7 member 11 | 3.90 | 1.46E-47 |
| SLITRK4 | ENSG00000179542 | SLIT and NTRK like family member 4 | -3.52 | 2.45E-47 |
| ATP1B1 | ENSG00000143153 | ATPase Na ⁺ /K ⁺ transporting subunit beta 1 | -3.01 | 1.22E-46 |
| HMGCR | ENSG00000113161 | 3-hydroxy-3-methylglutaryl-CoA reductase | 2.65 | 1.23E-46 |
| NREP | ENSG00000134986 | neuronal regeneration related protein | -2.69 | 1.31E-46 |
| SLC7A8 | ENSG00000092068 | solute carrier family 7 member 8 | -4.46 | 2.10E-46 |
| ADORA1 | ENSG00000163485 | adenosine A1 receptor | -5.42 | 2.70E-46 |
| CNIH3 | ENSG00000143786 | cornichon family AMPA receptor auxiliary protein 3 | 5.07 | 2.97E-46 |
| SEPP1 | ENSG00000250722 | selenoprotein P, plasma, 1 | -4.81 | 4.64E-46 |
| SLC2A12 | ENSG00000146411 | solute carrier family 2 member 12 | -2.75 | 2.67E-44 |
| DYNLL1 | ENSG00000088986 | dynein light chain LC8-type 1 | 2.53 | 3.46E-44 |

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|----------|-----------------|---|-------|----------|
| RNF13 | ENSG00000082996 | ring finger protein 13 | -2.88 | 4.13E-44 |
| PCK2 | ENSG00000100889 | phosphoenolpyruvate carboxykinase 2, mitochondrial | 3.51 | 4.77E-44 |
| TAF4B | ENSG00000141384 | TATA-box binding protein associated factor 4b | 3.26 | 4.77E-44 |
| SESN3 | ENSG00000149212 | sestrin 3 | -3.45 | 6.66E-44 |
| NOG | ENSG00000183691 | noggin | 6.65 | 7.69E-44 |
| OAS2 | ENSG00000111335 | 2'-5'-oligoadenylate synthetase 2 | 45.71 | 1.30E-43 |
| PCDH18 | ENSG00000189184 | protocadherin 18 | -6.81 | 1.79E-43 |
| PRSS23 | ENSG00000150687 | protease, serine 23 | -2.51 | 2.75E-43 |
| IL1RAP | ENSG00000196083 | interleukin 1 receptor accessory protein | 3.41 | 3.14E-43 |
| IVNS1ABP | ENSG00000116679 | influenza virus NS1A binding protein | -2.65 | 3.54E-43 |
| HRK | ENSG00000135116 | harakiri, BCL2 interacting protein | 4.49 | 4.18E-43 |
| SOX4 | ENSG00000124766 | SRY-box 4 | -2.45 | 5.00E-43 |
| MARS | ENSG00000166986 | methionyl-tRNA synthetase | 2.99 | 7.02E-43 |
| PALMD | ENSG00000099260 | Palmdelphin | -8.42 | 1.66E-42 |

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|---------|-----------------|---|-------|----------|
| GPT2 | ENSG00000166123 | glutamic pyruvate transaminase (alanine aminotransferase) 2 | 3.22 | 5.72E-42 |
| MXD1 | ENSG00000059728 | MAX dimerization protein 1 | 3.46 | 1.08E-41 |
| TLE4 | ENSG00000106829 | transducin like enhancer of split 4 | -2.46 | 2.67E-41 |
| SCD | ENSG00000099194 | stearoyl-CoA desaturase | 2.34 | 4.43E-41 |
| TRIM25 | ENSG00000121060 | tripartite motif containing 25 | 2.56 | 6.53E-41 |
| ZBTB10 | ENSG00000205189 | zinc finger and BTB domain containing 10 | 2.77 | 1.06E-40 |
| CHAC1 | ENSG00000128965 | ChaC glutathione specific gamma- glutamylcyclotransferase 1 | 19.27 | 1.30E-40 |
| IFRD1 | ENSG00000006652 | interferon related developmental regulator 1 | 2.51 | 1.60E-40 |
| PPFIA4 | ENSG00000143847 | PTPRF interacting protein alpha 4 | 2.86 | 2.01E-40 |
| HILPDA | ENSG00000135245 | hypoxia inducible lipid droplet associated | 2.79 | 2.49E-40 |
| MTHFD1L | ENSG00000120254 | methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like | 2.26 | 3.73E-40 |
| B3GNT5 | ENSG00000176597 | UDP-GlcNAc:betaGal beta-1,3-N- acetylglucosaminyltransferase 5 | 4.36 | 4.36E-40 |

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|-----------|-----------------|--|--------|----------|
| LOC728392 | | | -3.84 | 5.14E-40 |
| C10orf10 | ENSG00000165507 | chromosome 10 open reading frame 10 | 3.15 | 7.77E-40 |
| XPOT | ENSG00000184575 | exportin for tRNA | 2.59 | 1.24E-39 |
| PHLDA1 | ENSG00000139289 | pleckstrin homology like domain family A member 1 | 3.39 | 1.44E-39 |
| CD274 | ENSG00000120217 | CD274 molecule | 4.93 | 2.98E-39 |
| BAMBI | ENSG00000095739 | BMP and activin membrane bound inhibitor | -2.55 | 3.07E-39 |
| KIAA1683 | ENSG00000130518 | KIAA1683 | 7.58 | 6.91E-39 |
| DDX58 | ENSG00000107201 | DEXD/H-box helicase 58 | 2.84 | 1.37E-38 |
| CLEC19A | ENSG00000261210 | C-type lectin domain family 19 member A | -13.69 | 1.55E-38 |
| FUT11 | ENSG00000196968 | fucosyltransferase 11 | 2.61 | 1.96E-38 |
| OTX2 | ENSG00000165588 | orthodenticle homeobox 2 | -2.46 | 5.72E-38 |
| SH3D21 | ENSG00000214193 | SH3 domain containing 21 | 3.03 | 6.66E-38 |
| BRINP1 | ENSG00000078725 | BMP/retinoic acid inducible neural specific 1 | -4.37 | 6.83E-38 |
| LOC730101 | | | -2.41 | 1.27E-37 |
| ERBB4 | ENSG00000178568 | erb-b2 receptor tyrosine kinase 4 | -3.18 | 2.59E-37 |

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|---------|-----------------|--|-------|----------|
| LRRC1 | ENSG00000137269 | leucine rich repeat containing 1 | -2.32 | 3.68E-37 |
| RGS7BP | ENSG00000186479 | regulator of G-protein signaling 7 binding protein | -3.38 | 7.42E-37 |
| ALDH3A2 | ENSG00000072210 | aldehyde dehydrogenase 3 family member A2 | -2.28 | 7.86E-37 |
| TSPAN13 | ENSG00000106537 | tetraspanin 13 | -2.52 | 1.42E-36 |
| AK4 | ENSG00000162433 | adenylate kinase 4 | 2.33 | 1.42E-36 |
| SNHG3 | ENSG00000242125 | small nucleolar RNA host gene 3 | -2.58 | 2.30E-36 |
| FOXQ1 | ENSG00000164379 | forkhead box Q1 | -4.22 | 2.50E-36 |
| TNFAIP3 | ENSG00000118503 | TNF alpha induced protein 3 | 5.21 | 2.81E-36 |
| MVK | ENSG00000110921 | mevalonate kinase | 3.13 | 3.23E-36 |
| TRIB2 | ENSG00000071575 | tribbles pseudokinase 2 | 3.45 | 3.30E-36 |
| EIF2AK3 | ENSG00000172071 | eukaryotic translation initiation factor 2 alpha kinase 3 | 2.35 | 3.91E-36 |
| PIGA | ENSG00000165195 | phosphatidylinositol glycan anchor biosynthesis class A | 3.27 | 4.56E-36 |
| PDE4D | ENSG00000113448 | phosphodiesterase 4D | 12.96 | 9.18E-36 |
| PPL | ENSG00000118898 | periplakin | -3.26 | 9.55E-36 |

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|---------|-----------------|---|-------|----------|
| C2orf72 | ENSG00000204128 | chromosome 2 open reading frame 72 | 3.90 | 1.05E-35 |
| USP31 | ENSG00000103404 | ubiquitin specific peptidase 31 | 2.55 | 1.15E-35 |
| FZD4 | ENSG00000174804 | frizzled class receptor 4 | -2.50 | 1.24E-35 |
| ADCY1 | ENSG00000164742 | adenylate cyclase 1 (brain) | 3.07 | 2.04E-35 |
| STK40 | ENSG00000196182 | serine/threonine kinase 40 | 2.70 | 4.66E-35 |
| FHL1 | ENSG00000022267 | four and a half LIM domains 1 | -2.56 | 8.81E-35 |
| CHSY1 | ENSG00000131873 | chondroitin sulfate synthase 1 | 2.38 | 9.95E-35 |
| LRRN1 | ENSG00000175928 | leucine rich repeat neuronal 1 | -2.59 | 1.11E-34 |
| ABLIM3 | ENSG00000173210 | actin binding LIM protein family member 3 | 2.30 | 1.21E-34 |
| GTPBP2 | ENSG00000172432 | GTP binding protein 2 | 2.61 | 1.62E-34 |
| TRAF1 | ENSG00000056558 | TNF receptor associated factor 1 | 3.27 | 1.72E-34 |
| STON1 | ENSG00000243244 | stonin 1 | -3.36 | 1.79E-34 |
| ENPP2 | ENSG00000136960 | ectonucleotide pyrophosphatase/phosphodiesterase 2 | -3.64 | 1.81E-34 |
| IRAK2 | ENSG00000134070 | interleukin 1 receptor associated kinase 2 | 3.38 | 2.68E-34 |
| ISG15 | ENSG00000187608 | ISG15 ubiquitin-like modifier | 4.25 | 3.05E-34 |

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|---------|-----------------|---|-------|----------|
| BMP4 | ENSG00000125378 | bone morphogenetic protein 4 | -2.38 | 3.88E-34 |
| AFAP1L1 | ENSG00000157510 | actin filament associated protein 1 like 1 | 2.94 | 4.03E-34 |
| IFI44 | ENSG00000137965 | interferon induced protein 44 | 4.20 | 4.15E-34 |
| ID4 | ENSG00000172201 | inhibitor of DNA binding 4, HLH protein | -2.73 | 4.22E-34 |
| BHLHE40 | ENSG00000134107 | basic helix-loop-helix family member e40 | 2.28 | 5.31E-34 |
| COL9A2 | ENSG00000049089 | collagen type IX alpha 2 | -6.96 | 9.95E-34 |
| HBEGF | ENSG00000113070 | heparin binding EGF like growth factor | 2.96 | 1.25E-33 |
| IARS | ENSG00000196305 | isoleucyl-tRNA synthetase | 2.30 | 1.90E-33 |
| TMTC1 | ENSG00000133687 | transmembrane and tetratricopeptide repeat containing 1 | -2.22 | 3.39E-33 |
| CYP51A1 | ENSG00000001630 | cytochrome P450 family 51 subfamily A member 1 | 2.31 | 4.06E-33 |
| PAG1 | ENSG00000076641 | phosphoprotein membrane anchor with glycosphingolipid microdomains 1 | 3.88 | 4.23E-33 |
| JMJD6 | ENSG00000070495 | arginine demethylase and lysine hydroxylase | 2.75 | 1.31E-32 |
| ETS1 | ENSG00000134954 | ETS proto-oncogene 1, transcription factor | 2.38 | 1.31E-32 |

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|---------|-----------------|---|-------|----------|
| FGFR1 | ENSG00000077782 | fibroblast growth factor receptor 1 | 2.35 | 1.56E-32 |
| HTR7P1 | ENSG00000183935 | 5-hydroxytryptamine receptor 7 pseudogene 1 | -2.87 | 1.79E-32 |
| RNF128 | ENSG00000133135 | ring finger protein 128, E3 ubiquitin protein ligase | -3.43 | 1.81E-32 |
| TMEM164 | ENSG00000157600 | transmembrane protein 164 | -2.27 | 2.13E-32 |
| SMPD3 | ENSG00000103056 | sphingomyelin phosphodiesterase 3 | -6.83 | 2.95E-32 |
| HDAC9 | ENSG00000048052 | histone deacetylase 9 | 2.37 | 3.50E-32 |
| ERRFI1 | ENSG00000116285 | ERBB receptor feedback inhibitor 1 | 2.56 | 4.47E-32 |
| GAS1 | ENSG00000180447 | growth arrest specific 1 | -4.79 | 6.02E-32 |
| PFKFB3 | ENSG00000170525 | 6-phosphofructo-2-kinase/fructose-2,6- biphosphatase 3 | 2.35 | 6.60E-32 |
| FAM219A | ENSG00000164970 | family with sequence similarity 219 member A | 2.84 | 6.67E-32 |
| GPAT3 | ENSG00000138678 | glycerol-3-phosphate acyltransferase 3 | 3.90 | 6.75E-32 |
| LONRF3 | ENSG00000175556 | LON peptidase N-terminal domain and ring finger 3 | 2.99 | 8.35E-32 |
| OSMR | ENSG00000145623 | oncostatin M receptor | 2.47 | 1.11E-31 |
| HSPH1 | ENSG00000120694 | heat shock protein family H (Hsp110) member 1 | 2.26 | 1.45E-31 |

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|----------|-----------------|--|-------|----------|
| ARHGAP31 | ENSG00000031081 | Rho GTPase activating protein 31 | -2.70 | 1.46E-31 |
| ARRDC3 | ENSG00000113369 | arrestin domain containing 3 | 2.50 | 1.48E-31 |
| PCDH7 | ENSG00000169851 | protocadherin 7 | -3.77 | 1.48E-31 |
| PUS7 | ENSG00000091127 | pseudouridylate synthase 7 (putative) | 2.54 | 2.00E-31 |
| SYTL2 | ENSG00000137501 | synaptotagmin like 2 | 2.96 | 3.34E-31 |
| HYOU1 | ENSG00000149428 | hypoxia up-regulated 1 | 2.40 | 4.92E-31 |
| DNAJB11 | ENSG00000090520 | DnaJ heat shock protein family (Hsp40) member B11 | 2.22 | 5.18E-31 |
| SLC1A4 | ENSG00000115902 | solute carrier family 1 member 4 | 3.06 | 6.44E-31 |
| CACNA1D | ENSG00000157388 | calcium voltage-gated channel subunit alpha1 D | -3.53 | 8.78E-31 |
| FAM86DP | ENSG00000244026 | family with sequence similarity 86 member D, pseudogene | 2.57 | 9.47E-31 |
| HSD17B2 | ENSG00000086696 | hydroxysteroid 17-beta dehydrogenase 2 | -3.31 | 1.01E-30 |
| MAP7D2 | ENSG00000184368 | MAP7 domain containing 2 | -2.78 | 1.05E-30 |
| OAS3 | ENSG00000111331 | 2'-5'-oligoadenylate synthetase 3 | 2.72 | 1.08E-30 |
| HOMER1 | ENSG00000152413 | homer scaffolding protein 1 | 3.17 | 1.27E-30 |

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|---------|-----------------|--|-------|----------|
| LGR4 | ENSG00000205213 | leucine rich repeat containing G protein-coupled receptor 4 | -2.23 | 1.45E-30 |
| HEG1 | ENSG00000173706 | heart development protein with EGF like domains 1 | -2.57 | 2.00E-30 |
| USP18 | ENSG00000184979 | ubiquitin specific peptidase 18 | 5.20 | 2.07E-30 |
| IGFBP5 | ENSG00000115461 | insulin like growth factor binding protein 5 | -2.35 | 2.53E-30 |
| CMPK2 | ENSG00000134326 | cytidine/uridine monophosphate kinase 2 | 26.34 | 3.19E-30 |
| ARHGEF2 | ENSG00000116584 | Rho/Rac guanine nucleotide exchange factor 2 | 2.76 | 3.75E-30 |
| UAP1L1 | ENSG00000197355 | UDP-N-acetylglucosamine pyrophosphorylase 1 like 1 | 3.25 | 4.52E-30 |
| BMF | ENSG00000104081 | Bcl2 modifying factor | -4.76 | 5.65E-30 |
| TXNIP | ENSG00000265972 | thioredoxin interacting protein | -2.25 | 5.69E-30 |
| TRIM58 | ENSG00000162722 | tripartite motif containing 58 | 2.53 | 5.98E-30 |
| AK2 | ENSG00000004455 | adenylate kinase 2 | 2.05 | 6.02E-30 |
| CHI3L1 | ENSG00000133048 | chitinase 3 like 1 | -3.31 | 6.40E-30 |
| HS6ST1 | ENSG00000136720 | heparan sulfate 6-O-sulfotransferase 1 | -2.76 | 6.57E-30 |

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|--------|-----------------|---|-------|----------|
| ANK3 | ENSG00000151150 | ankyrin 3, node of Ranvier (ankyrin G) | -2.65 | 7.85E-30 |
| FLRT3 | ENSG00000125848 | fibronectin leucine rich transmembrane protein 3 | -3.95 | 9.08E-30 |
| SARS | ENSG00000031698 | seryl-tRNA synthetase | 2.11 | 9.74E-30 |
| BTN3A3 | ENSG00000111801 | butyrophilin subfamily 3 member A3 | -2.62 | 1.05E-29 |
| STRIP2 | ENSG00000128578 | striatin interacting protein 2 | -2.17 | 1.05E-29 |
| PDGFRB | ENSG00000113721 | platelet derived growth factor receptor beta | -2.49 | 1.25E-29 |
| ENO2 | ENSG00000111674 | enolase 2 | 2.12 | 1.59E-29 |
| SH2D5 | ENSG00000189410 | SH2 domain containing 5 | 3.77 | 2.67E-29 |
| FMNL3 | ENSG00000161791 | formin like 3 | 2.35 | 2.70E-29 |
| TCAF2 | ENSG00000170379 | TRPM8 channel associated factor 2 | 2.82 | 3.80E-29 |
| DAB2 | ENSG00000153071 | DAB2, clathrin adaptor protein | -2.27 | 4.81E-29 |
| MAF | ENSG00000178573 | MAF bZIP transcription factor | -2.51 | 5.05E-29 |
| DGKE | ENSG00000153933 | diacylglycerol kinase epsilon | 3.06 | 5.90E-29 |
| EMP2 | ENSG00000213853 | epithelial membrane protein 2 | -2.16 | 8.36E-29 |
| DYRK3 | ENSG00000143479 | dual specificity tyrosine phosphorylation regulated kinase 3 | 2.36 | 8.38E-29 |

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|----------|-----------------|---|-------|----------|
| FGF18 | ENSG00000156427 | fibroblast growth factor 18 | -7.37 | 1.28E-28 |
| FAM162A | ENSG00000114023 | family with sequence similarity 162 member A | 2.17 | 1.31E-28 |
| IFI6 | ENSG00000126709 | interferon alpha inducible protein 6 | 2.76 | 1.97E-28 |
| CDO1 | ENSG00000129596 | cysteine dioxygenase type 1 | -2.69 | 2.17E-28 |
| PRPS1 | ENSG00000147224 | phosphoribosyl pyrophosphate synthetase 1 | -2.24 | 2.17E-28 |
| KDM7A | ENSG00000006459 | lysine demethylase 7A | 3.22 | 2.30E-28 |
| SYT17 | ENSG00000103528 | synaptotagmin 17 | -3.77 | 2.49E-28 |
| PIK3IP1 | ENSG00000100100 | phosphoinositide-3-kinase interacting protein 1 | -2.88 | 2.49E-28 |
| CLDN1 | ENSG00000163347 | claudin 1 | 3.28 | 2.77E-28 |
| PLEKHH2 | ENSG00000152527 | pleckstrin homology, MyTH4 and FERM domain containing H2 | -2.50 | 2.88E-28 |
| SBF2-AS1 | ENSG00000246273 | SBF2 antisense RNA 1 | -2.76 | 3.17E-28 |
| SELENBP1 | ENSG00000143416 | selenium binding protein 1 | -3.12 | 3.55E-28 |
| PCDH17 | ENSG00000118946 | protocadherin 17 | -5.48 | 4.35E-28 |
| NID2 | ENSG00000087303 | nidogen 2 | -3.03 | 4.44E-28 |
| RND3 | ENSG00000115963 | Rho family GTPase 3 | 2.27 | 4.52E-28 |

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|----------|-----------------|---|-------|----------|
| TICRR | ENSG00000140534 | TOPBP1 interacting checkpoint and replication regulator | 2.94 | 4.76E-28 |
| HMGCS1 | ENSG00000112972 | 3-hydroxy-3-methylglutaryl-CoA synthase 1 | 2.66 | 5.18E-28 |
| KCTD4 | ENSG00000180332 | potassium channel tetramerization domain containing 4 | -3.50 | 6.05E-28 |
| CHORDC1 | ENSG00000110172 | cysteine and histidine rich domain containing 1 | 2.81 | 7.04E-28 |
| DUSP4 | ENSG00000120875 | dual specificity phosphatase 4 | 2.44 | 1.02E-27 |
| SEMA4A | ENSG00000196189 | semaphorin 4A | -5.40 | 1.18E-27 |
| GALM | ENSG00000143891 | galactose mutarotase | -2.99 | 1.24E-27 |
| PDE5A | ENSG00000138735 | phosphodiesterase 5A | -2.36 | 1.26E-27 |
| GJC1 | ENSG00000182963 | gap junction protein gamma 1 | 2.13 | 1.36E-27 |
| CDKN1B | ENSG00000111276 | cyclin dependent kinase inhibitor 1B | -2.11 | 1.48E-27 |
| CXCR4 | ENSG00000121966 | C-X-C motif chemokine receptor 4 | 2.85 | 1.94E-27 |
| FAM57A | ENSG00000167695 | family with sequence similarity 57 member A | 2.64 | 2.93E-27 |
| PRICKLE2 | ENSG00000163637 | prickle planar cell polarity protein 2 | -2.03 | 3.24E-27 |
| MAP2K6 | ENSG00000108984 | mitogen-activated protein kinase kinase 6 | -8.45 | 3.54E-27 |

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|----------|-----------------|---|-------|----------|
| ENDOD1 | ENSG00000149218 | endonuclease domain containing 1 | -2.15 | 3.68E-27 |
| CRISPLD1 | ENSG00000121005 | cysteine rich secretory protein LCCL domain containing 1 | -3.43 | 4.11E-27 |
| ERO1A | ENSG00000197930 | endoplasmic reticulum oxidoreductase alpha | 2.57 | 5.44E-27 |
| PLXDC2 | ENSG00000120594 | plexin domain containing 2 | -2.22 | 8.12E-27 |
| FAM84B | ENSG00000168672 | family with sequence similarity 84 member B | -2.08 | 9.44E-27 |
| BEX1 | ENSG00000133169 | brain expressed X-linked 1 | -2.16 | 9.89E-27 |
| SPRY4 | ENSG00000187678 | sprouty RTK signaling antagonist 4 | 7.45 | 1.04E-26 |
| ST6GAL2 | ENSG00000144057 | ST6 beta-galactoside alpha-2,6-sialyltransferase 2 | -2.39 | 1.15E-26 |
| AGPAT5 | ENSG00000155189 | 1-acylglycerol-3-phosphate O-acyltransferase 5 | 2.19 | 2.16E-26 |
| ARID5B | ENSG00000150347 | AT-rich interaction domain 5B | -2.15 | 2.37E-26 |
| RASSF1 | ENSG00000068028 | Ras association domain family member 1 | 2.90 | 4.07E-26 |
| HELZ2 | ENSG00000130589 | helicase with zinc finger 2 | 3.64 | 4.07E-26 |
| GLCCI1 | ENSG00000106415 | glucocorticoid induced 1 | -2.86 | 4.78E-26 |
| RDH11 | ENSG00000072042 | retinol dehydrogenase 11 (all-trans/9-cis/11-cis) | 2.00 | 5.86E-26 |

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|-----------|-----------------|--|-------|----------|
| ARHGAP26 | ENSG00000145819 | Rho GTPase activating protein 26 | 2.85 | 7.09E-26 |
| SLCO4C1 | ENSG00000173930 | solute carrier organic anion transporter family member 4C1 | 11.06 | 7.09E-26 |
| DNHD1 | ENSG00000179532 | dynein heavy chain domain 1 | 3.61 | 7.82E-26 |
| LANCL2 | ENSG00000132434 | LanC like 2 | -2.20 | 8.01E-26 |
| LINC00842 | | | -2.60 | 9.06E-26 |
| TBC1D20 | ENSG00000125875 | TBC1 domain family member 20 | 2.02 | 9.91E-26 |
| NOX4 | ENSG00000086991 | NADPH oxidase 4 | -2.45 | 1.20E-25 |
| RNF19B | ENSG00000116514 | ring finger protein 19B | 2.16 | 1.58E-25 |
| MICAL2 | ENSG00000133816 | microtubule associated monooxygenase, calponin and LIM domain containing 2 | 2.10 | 1.61E-25 |
| SH2B3 | ENSG00000111252 | SH2B adaptor protein 3 | 2.40 | 1.71E-25 |
| MGLL | ENSG00000074416 | monoglyceride lipase | 2.58 | 1.72E-25 |
| MAP3K5 | ENSG00000197442 | mitogen-activated protein kinase kinase kinase 5 | 2.92 | 1.75E-25 |
| CAT | ENSG00000121691 | catalase | -2.07 | 2.20E-25 |

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|----------|-----------------|--|-------|----------|
| MTHFD2 | ENSG00000065911 | methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase | 2.09 | 2.67E-25 |
| TARS | ENSG00000113407 | threonyl-tRNA synthetase | 2.16 | 2.67E-25 |
| FEM1C | ENSG00000145780 | fem-1 homolog C | 2.48 | 3.20E-25 |
| NR2F1 | ENSG00000175745 | nuclear receptor subfamily 2 group F member 1 | -2.10 | 3.20E-25 |
| FAT4 | ENSG00000196159 | FAT atypical cadherin 4 | -2.24 | 5.49E-25 |
| HSPA9 | ENSG00000113013 | heat shock protein family A (Hsp70) member 9 | 2.02 | 5.78E-25 |
| SNTB1 | ENSG00000172164 | syntrophin beta 1 | 2.23 | 6.23E-25 |
| SLC4A4 | ENSG00000080493 | solute carrier family 4 member 4 | -2.25 | 7.76E-25 |
| TSPYL4 | ENSG00000187189 | TSPY-like 4 | -2.18 | 8.34E-25 |
| KIAA1715 | ENSG00000144320 | KIAA1715 | 2.25 | 9.07E-25 |
| CALR | ENSG00000179218 | calreticulin | 2.01 | 1.08E-24 |
| DOCK4 | ENSG00000128512 | dedicator of cytokinesis 4 | -3.04 | 1.12E-24 |
| SPRED1 | ENSG00000166068 | sprouty related EVH1 domain containing 1 | 2.34 | 1.45E-24 |

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|----------|-----------------|--|-------|----------|
| GBGT1 | ENSG00000148288 | globoside alpha-1,3-N- acetylgalactosaminyltransferase 1 | -3.77 | 1.57E-24 |
| EIF4EBP1 | ENSG00000187840 | eukaryotic translation initiation factor 4E binding protein 1 | 2.29 | 1.59E-24 |
| UBASH3B | ENSG00000154127 | ubiquitin associated and SH3 domain containing B | 2.07 | 2.68E-24 |
| TOX | ENSG00000198846 | thymocyte selection associated high mobility group box | -2.20 | 2.82E-24 |
| CXCL8 | ENSG00000169429 | C-X-C motif chemokine ligand 8 | 4.13 | 4.26E-24 |
| NUPL1 | ENSG00000139496 | nucleoporin 58 | 2.08 | 4.26E-24 |
| FZD2 | ENSG00000180340 | frizzled class receptor 2 | -2.86 | 7.04E-24 |
| IL7R | ENSG00000168685 | interleukin 7 receptor | 2.26 | 7.52E-24 |
| WDR5B | ENSG00000196981 | WD repeat domain 5B | -3.34 | 8.59E-24 |
| IL4R | ENSG00000077238 | interleukin 4 receptor | 2.78 | 1.03E-23 |
| PIK3R3 | ENSG00000117461 | phosphoinositide-3-kinase regulatory subunit 3 | -2.30 | 1.22E-23 |
| ACKR3 | ENSG00000144476 | atypical chemokine receptor 3 | -2.44 | 1.24E-23 |

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|-----------|-----------------|---|--------|----------|
| TRAM1L1 | ENSG00000174599 | translocation associated membrane protein 1-like 1 | -5.63 | 1.24E-23 |
| MITF | ENSG00000187098 | melanogenesis associated transcription factor | -2.20 | 1.49E-23 |
| ARSJ | ENSG00000180801 | arylsulfatase family member J | 2.59 | 2.11E-23 |
| LINC00639 | ENSG00000259070 | long intergenic non-protein coding RNA 639 | -3.25 | 2.34E-23 |
| IFNB1 | ENSG00000171855 | interferon beta 1 | 245.34 | 2.76E-23 |
| ZC3H12C | ENSG00000149289 | zinc finger CCCH-type containing 12C | 2.12 | 3.97E-23 |
| GOLGA8A | ENSG00000175265 | golgin A8 family member A | 2.04 | 4.84E-23 |
| HES1 | ENSG00000114315 | hes family bHLH transcription factor 1 | -3.21 | 5.23E-23 |
| BDH2 | ENSG00000164039 | 3-hydroxybutyrate dehydrogenase, type 2 | -2.15 | 5.25E-23 |
| FSHR | ENSG00000170820 | follicle stimulating hormone receptor | -5.36 | 6.82E-23 |
| INSIG2 | ENSG00000125629 | insulin induced gene 2 | 2.49 | 7.16E-23 |
| PPP2R2B | ENSG00000156475 | protein phosphatase 2 regulatory subunit Bbeta | -2.40 | 1.01E-22 |
| SMAD6 | ENSG00000137834 | SMAD family member 6 | -3.44 | 1.56E-22 |
| PRSS53 | ENSG00000151006 | protease, serine 53 | 3.40 | 1.57E-22 |
| IDI1 | ENSG00000067064 | isopentenyl-diphosphate delta isomerase 1 | 2.19 | 1.64E-22 |

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|---------|-----------------|--|-------|----------|
| PTPDC1 | ENSG00000158079 | protein tyrosine phosphatase domain containing 1 | 2.49 | 1.72E-22 |
| AEN | ENSG00000181026 | apoptosis enhancing nuclease | 2.23 | 2.45E-22 |
| ARSI | ENSG00000183876 | arylsulfatase family member I | -2.58 | 2.46E-22 |
| ZBTB21 | ENSG00000173276 | zinc finger and BTB domain containing 21 | 2.27 | 2.52E-22 |
| ANGPTL4 | ENSG00000167772 | angiopoietin like 4 | 9.20 | 2.71E-22 |
| LRIG3 | ENSG00000139263 | leucine rich repeats and immunoglobulin like domains 3 | -2.12 | 2.88E-22 |
| CRYBG3 | ENSG00000080200 | crystallin beta-gamma domain containing 3 | 2.28 | 3.97E-22 |
| PLEKHA8 | ENSG00000106086 | pleckstrin homology domain containing A8 | 2.15 | 4.16E-22 |
| TIMP3 | ENSG00000100234 | TIMP metalloproteinase inhibitor 3 | -2.04 | 4.18E-22 |
| SC5D | ENSG00000109929 | sterol-C5-desaturase | 2.16 | 4.56E-22 |
| TMEM45A | ENSG00000181458 | transmembrane protein 45A | 2.55 | 4.69E-22 |
| HCP5 | ENSG00000206337 | HLA complex P5 (non-protein coding) | -2.55 | 4.84E-22 |
| MSMO1 | ENSG00000052802 | methylsterol monooxygenase 1 | 2.01 | 5.03E-22 |
| VIM-AS1 | ENSG00000229124 | VIM antisense RNA 1 | 2.58 | 5.13E-22 |
| ACACB | ENSG00000076555 | acetyl-CoA carboxylase beta | -2.60 | 7.43E-22 |

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|-----------|-----------------|--|-------|----------|
| SYTL5 | ENSG00000147041 | synaptotagmin like 5 | -2.77 | 8.33E-22 |
| FCHO1 | ENSG00000130475 | FCH domain only 1 | -4.27 | 9.16E-22 |
| DUSP1 | ENSG00000120129 | dual specificity phosphatase 1 | 2.30 | 1.09E-21 |
| SLFN5 | ENSG00000166750 | schlafen family member 5 | 2.05 | 1.09E-21 |
| Mar-04 | ENSG00000144583 | membrane associated ring-CH-type finger 4 | 2.61 | 1.37E-21 |
| SPRED3 | ENSG00000188766 | sprouty related EVH1 domain containing 3 | 3.28 | 1.37E-21 |
| C17orf96 | ENSG00000273604 | chromosome 17 open reading frame 96 | 3.14 | 1.44E-21 |
| GATSL2 | ENSG00000274070 | GATS protein-like 2 | -2.30 | 1.44E-21 |
| ITGB3 | ENSG00000259207 | integrin subunit beta 3 | 2.51 | 1.45E-21 |
| LINC00982 | ENSG00000177133 | long intergenic non-protein coding RNA 982 | -2.68 | 1.55E-21 |
| PBX1 | ENSG00000185630 | PBX homeobox 1 | -2.15 | 1.77E-21 |
| PDCD1LG2 | ENSG00000197646 | programmed cell death 1 ligand 2 | 3.11 | 1.78E-21 |
| SLC6A15 | ENSG00000072041 | solute carrier family 6 member 15 | 2.05 | 2.14E-21 |
| C11orf71 | ENSG00000180425 | chromosome 11 open reading frame 71 | -2.99 | 2.23E-21 |
| BIRC3 | ENSG00000023445 | baculoviral IAP repeat containing 3 | 2.94 | 2.25E-21 |
| XIAP | ENSG00000101966 | X-linked inhibitor of apoptosis | 2.02 | 2.42E-21 |

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|--------------|-----------------|---|-------|----------|
| KCTD12 | ENSG00000178695 | potassium channel tetramerization domain containing 12 | 3.01 | 2.54E-21 |
| DKK1 | ENSG00000107984 | dickkopf WNT signaling pathway inhibitor 1 | -2.05 | 2.85E-21 |
| ZNF470 | ENSG00000197016 | zinc finger protein 470 | 2.56 | 3.05E-21 |
| CCDC148 | ENSG00000153237 | coiled-coil domain containing 148 | 2.54 | 3.38E-21 |
| LOC101928516 | | | 74.01 | 3.38E-21 |
| ANOS1 | ENSG00000011201 | anosmin 1 | -2.20 | 4.49E-21 |
| CBL | ENSG00000110395 | Cbl proto-oncogene | 2.13 | 4.95E-21 |
| ANKZF1 | ENSG00000163516 | ankyrin repeat and zinc finger domain containing 1 | 2.12 | 5.43E-21 |
| PLK3 | ENSG00000173846 | polo like kinase 3 | 2.26 | 5.71E-21 |
| ACTN2 | ENSG00000077522 | actinin alpha 2 | 5.37 | 7.27E-21 |
| ADAMTS9-AS2 | ENSG00000241684 | ADAMTS9 antisense RNA 2 | 4.30 | 7.27E-21 |
| HS3ST3B1 | ENSG00000125430 | heparan sulfate-glucosamine 3-sulfotransferase 3B1 | 2.14 | 7.81E-21 |
| ARNT2 | ENSG00000172379 | aryl hydrocarbon receptor nuclear translocator 2 | -2.04 | 8.65E-21 |

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|-----------|-----------------|--|-------|----------|
| PPAPDC2 | ENSG00000205808 | phospholipid phosphatase 6 | -2.46 | 9.00E-21 |
| APCDD1 | ENSG00000154856 | adenomatosis polyposis coli down-regulated 1 | -8.43 | 9.38E-21 |
| CTH | ENSG00000116761 | cystathionine gamma-lyase | 3.04 | 1.12E-20 |
| LONP1 | ENSG00000196365 | lon peptidase 1, mitochondrial | 2.45 | 1.41E-20 |
| PSMD6-AS2 | ENSG00000239653 | PSMD6 antisense RNA 2 | 2.77 | 1.82E-20 |
| PCDH1 | ENSG00000156453 | protocadherin 1 | 2.31 | 1.90E-20 |
| LGALS1 | ENSG00000119862 | galectin like | 2.42 | 1.96E-20 |
| METTL7A | ENSG00000185432 | methyltransferase like 7A | -4.01 | 2.13E-20 |
| SH3PXD2A | ENSG00000107957 | SH3 and PX domains 2A | 3.17 | 3.65E-20 |
| CRYBB2P1 | ENSG00000100058 | crystallin beta B2 pseudogene 1 | 2.22 | 4.25E-20 |
| SLC36A1 | ENSG00000123643 | solute carrier family 36 member 1 | 2.34 | 4.49E-20 |
| KIF21B | ENSG00000116852 | kinesin family member 21B | 6.37 | 5.68E-20 |
| GTF2A1 | ENSG00000165417 | general transcription factor IIA subunit 1 | 2.19 | 5.68E-20 |
| MEGF9 | ENSG00000106780 | multiple EGF like domains 9 | -2.03 | 5.91E-20 |
| MINA | ENSG00000170854 | MYC induced nuclear antigen | 2.07 | 6.34E-20 |
| FOXD1 | ENSG00000251493 | forkhead box D1 | 2.01 | 7.14E-20 |

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|----------|-----------------|--|-------|----------|
| USP36 | ENSG00000055483 | ubiquitin specific peptidase 36 | 2.16 | 7.21E-20 |
| MFHAS1 | ENSG00000147324 | malignant fibrous histiocytoma amplified sequence 1 | 2.06 | 8.72E-20 |
| TAF9B | ENSG00000187325 | TATA-box binding protein associated factor 9b | -2.53 | 9.35E-20 |
| TYRP1 | ENSG00000107165 | tyrosinase related protein 1 | -5.37 | 1.22E-19 |
| C10orf12 | ENSG00000155640 | chromosome 10 open reading frame 12 | 2.13 | 1.68E-19 |
| RASL11B | ENSG00000128045 | RAS like family 11 member B | -9.55 | 1.75E-19 |
| WIPI1 | ENSG00000070540 | WD repeat domain, phosphoinositide interacting 1 | 2.01 | 1.78E-19 |
| SLC22A14 | ENSG00000144671 | solute carrier family 22 member 14 | 11.15 | 1.83E-19 |
| PHLDA2 | ENSG00000181649 | pleckstrin homology like domain family A member 2 | 4.59 | 1.84E-19 |
| SOWAHC | ENSG00000198142 | sosondowah ankyrin repeat domain family member C | 2.19 | 1.88E-19 |
| SLC7A1 | ENSG00000139514 | solute carrier family 7 member 1 | 2.24 | 1.96E-19 |
| METTL21B | ENSG00000123427 | methyltransferase like 21B | 2.10 | 1.98E-19 |
| PLAGL1 | ENSG00000118495 | PLAG1 like zinc finger 1 | 2.48 | 2.18E-19 |

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|-----------|-----------------|--|-------|----------|
| MSS51 | ENSG00000166343 | MSS51 mitochondrial translational activator | 2.83 | 2.41E-19 |
| PPP2R5B | ENSG00000068971 | protein phosphatase 2 regulatory subunit B'beta | 2.55 | 2.49E-19 |
| CDCP1 | ENSG00000163814 | CUB domain containing protein 1 | 2.22 | 2.73E-19 |
| HSD17B7 | ENSG00000132196 | hydroxysteroid 17-beta dehydrogenase 7 | 2.20 | 2.83E-19 |
| OR51E2 | ENSG00000167332 | olfactory receptor family 51 subfamily E member 2 | -3.48 | 2.93E-19 |
| TMEM151A | ENSG00000179292 | transmembrane protein 151A | -2.79 | 3.24E-19 |
| DBP | ENSG00000105516 | D-box binding PAR bZIP transcription factor | -2.86 | 3.48E-19 |
| SLC25A32 | ENSG00000164933 | solute carrier family 25 member 32 | 2.04 | 4.05E-19 |
| LINC01128 | ENSG00000228794 | long intergenic non-protein coding RNA 1128 | 2.36 | 4.49E-19 |
| CSDC2 | ENSG00000172346 | cold shock domain containing C2 | -2.92 | 5.55E-19 |
| DPYSL4 | ENSG00000151640 | dihydropyrimidinase like 4 | 2.11 | 6.66E-19 |
| GBP2 | ENSG00000162645 | guanylate binding protein 2 | -3.45 | 7.03E-19 |
| HSPA6 | ENSG00000173110 | heat shock protein family A (Hsp70) member 6 | 10.21 | 8.39E-19 |
| ARFGEF3 | ENSG00000112379 | ARFGEF family member 3 | 2.09 | 8.73E-19 |
| LOC400940 | | | -3.77 | 9.00E-19 |

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|----------|-----------------|---|-------|----------|
| HS3ST3A1 | ENSG00000153976 | heparan sulfate-glucosamine 3-sulfotransferase 3A1 | 2.07 | 1.18E-18 |
| GALNT5 | ENSG00000136542 | polypeptide N-acetylgalactosaminyltransferase 5 | -2.28 | 1.19E-18 |
| CRISPLD2 | ENSG00000103196 | cysteine rich secretory protein LCCL domain containing 2 | -5.85 | 1.24E-18 |
| PALM2 | ENSG00000243444 | paralemmin 2 | 3.99 | 1.33E-18 |
| LXN | ENSG00000079257 | latexin | -2.28 | 1.52E-18 |
| PEX5L | ENSG00000114757 | peroxisomal biogenesis factor 5-like | -2.37 | 1.66E-18 |
| JPH2 | ENSG00000149596 | junctionophilin 2 | -2.65 | 1.94E-18 |
| KBTBD8 | ENSG00000163376 | kelch repeat and BTB domain containing 8 | 3.21 | 1.98E-18 |
| KRT33B | ENSG00000131738 | keratin 33B | -2.24 | 2.61E-18 |
| ARHGEF26 | ENSG00000277101 | Rho guanine nucleotide exchange factor 26 | -2.01 | 2.82E-18 |
| PKI55 | ENSG00000260804 | DKFZp434H1419 | -2.33 | 2.90E-18 |
| GPRC5A | ENSG00000013588 | G protein-coupled receptor class C group 5 member A | -2.10 | 3.53E-18 |
| ZNF584 | ENSG00000171574 | zinc finger protein 584 | 2.18 | 3.72E-18 |

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|-----------|------------------|--|-------|----------|
| KCNG1 | ENSG00000026559 | potassium voltage-gated channel modifier subfamily G member 1 | 8.06 | 4.42E-18 |
| ANXA8L1 | ENSG000000264230 | annexin A8-like 1 | -3.35 | 4.57E-18 |
| RNMT | ENSG000000101654 | RNA guanine-7 methyltransferase | 2.02 | 4.83E-18 |
| ADM | ENSG000000148926 | adrenomedullin | 2.07 | 4.86E-18 |
| PDGFD | ENSG000000170962 | platelet derived growth factor D | -2.50 | 4.96E-18 |
| HLA-L | ENSG000000242227 | major histocompatibility complex, class I, L (pseudogene) | 3.74 | 5.14E-18 |
| LOC154761 | | | 2.45 | 7.68E-18 |
| IPMK | ENSG000000151151 | inositol polyphosphate multikinase | 2.59 | 8.04E-18 |
| CCDC58 | ENSG000000160124 | coiled-coil domain containing 58 | 2.31 | 8.04E-18 |
| MIR155HG | ENSG000000234883 | MIR155 host gene | 3.67 | 8.55E-18 |
| MAN1A1 | ENSG000000111885 | mannosidase alpha class 1A member 1 | -2.07 | 8.57E-18 |
| TMEM139 | ENSG000000178826 | transmembrane protein 139 | -2.70 | 9.82E-18 |
| SYNPO | ENSG000000171992 | synaptopodin | -2.95 | 9.84E-18 |
| UCN2 | ENSG000000145040 | urocortin 2 | 4.87 | 9.99E-18 |

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|--------|-----------------|---|-------|----------|
| SRGAP1 | ENSG00000196935 | SLIT-ROBO Rho GTPase activating protein 1 | 2.42 | 1.06E-17 |
| AKR1C3 | ENSG00000196139 | aldo-keto reductase family 1 member C3 | -2.36 | 1.21E-17 |
| EFR3B | ENSG00000084710 | EFR3 homolog B | -2.12 | 1.27E-17 |
| EFNA3 | ENSG00000143590 | ephrin A3 | 2.53 | 1.39E-17 |
| DNAH7 | ENSG00000118997 | dynein axonemal heavy chain 7 | -3.15 | 1.47E-17 |
| SPHK1 | ENSG00000176170 | sphingosine kinase 1 | 2.72 | 1.60E-17 |
| PKD1L2 | ENSG00000166473 | polycystin 1 like 2 (gene/pseudogene) | -2.04 | 1.61E-17 |
| MMP28 | ENSG00000271447 | matrix metalloproteinase 28 | -5.25 | 1.72E-17 |
| TBC1D2 | ENSG00000095383 | TBC1 domain family member 2 | -2.32 | 1.81E-17 |
| NAMPT | ENSG00000105835 | nicotinamide phosphoribosyltransferase | 2.15 | 1.83E-17 |
| ERO1B | ENSG00000086619 | endoplasmic reticulum oxidoreductase beta | 2.19 | 1.85E-17 |
| TTC30B | ENSG00000196659 | tetratricopeptide repeat domain 30B | -2.38 | 1.94E-17 |
| BEX2 | ENSG00000133134 | brain expressed X-linked 2 | 2.09 | 3.13E-17 |
| CDYL2 | ENSG00000166446 | chromodomain protein, Y-like 2 | 2.07 | 3.32E-17 |
| CXXC5 | ENSG00000171604 | CXXC finger protein 5 | -2.01 | 3.37E-17 |

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|-----------|-----------------|--|-------|----------|
| ZDHC8P1 | ENSG00000133519 | zinc finger DHHC-type containing 8 pseudogene 1 | -2.36 | 3.43E-17 |
| TGFB3 | ENSG00000119699 | transforming growth factor beta 3 | -3.21 | 3.51E-17 |
| CRELD1 | ENSG00000163703 | cysteine rich with EGF like domains 1 | 2.15 | 3.52E-17 |
| TSPAN10 | ENSG00000182612 | tetraspanin 10 | -2.78 | 4.47E-17 |
| SPRED2 | ENSG00000198369 | sprouty related EVH1 domain containing 2 | 2.26 | 4.91E-17 |
| SLC26A6 | ENSG00000225697 | solute carrier family 26 member 6 | 2.23 | 5.30E-17 |
| EFCAB3 | ENSG00000172421 | EF-hand calcium binding domain 3 | 5.49 | 5.75E-17 |
| LOC284344 | | | 4.53 | 6.09E-17 |
| HIST1H1C | ENSG00000187837 | histone cluster 1, H1c | -2.04 | 6.18E-17 |
| USP53 | ENSG00000145390 | ubiquitin specific peptidase 53 | 2.06 | 6.25E-17 |
| TLR1 | ENSG00000174125 | toll like receptor 1 | -2.54 | 6.41E-17 |
| GLS | ENSG00000115419 | glutaminase | -2.03 | 6.58E-17 |
| HSPA4L | ENSG00000164070 | heat shock protein family A (Hsp70) member 4 like | 2.02 | 6.60E-17 |
| ZNF131 | ENSG00000172262 | zinc finger protein 131 | 2.02 | 6.68E-17 |

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|-----------|-----------------|--|-------|----------|
| RAB17 | ENSG00000124839 | RAB17, member RAS oncogene family | -3.16 | 7.23E-17 |
| SP140 | ENSG00000079263 | SP140 nuclear body protein | 2.72 | 7.48E-17 |
| SLCO4A1 | ENSG00000101187 | solute carrier organic anion transporter family member 4A1 | 3.45 | 8.16E-17 |
| DUSP8 | ENSG00000278165 | dual specificity phosphatase 8 | 2.86 | 9.54E-17 |
| FLJ42627 | | | 2.54 | 1.00E-16 |
| C17orf67 | ENSG00000214226 | chromosome 17 open reading frame 67 | 3.58 | 1.07E-16 |
| ZNF488 | ENSG00000265763 | zinc finger protein 488 | -3.18 | 1.23E-16 |
| SDF2L1 | ENSG00000128228 | stromal cell derived factor 2 like 1 | 2.84 | 1.75E-16 |
| TNFRSF10A | ENSG00000104689 | tumor necrosis factor receptor superfamily member 10a | 2.16 | 1.80E-16 |
| RELB | ENSG00000104856 | RELB proto-oncogene, NF-kB subunit | 3.51 | 1.81E-16 |
| ALPK3 | ENSG00000136383 | alpha kinase 3 | 5.55 | 1.96E-16 |
| GRB7 | ENSG00000141738 | growth factor receptor bound protein 7 | -2.40 | 2.34E-16 |
| TANC2 | ENSG00000170921 | tetratricopeptide repeat, ankyrin repeat and coiled-coil containing 2 | 2.08 | 2.68E-16 |

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|----------|-----------------|--|-------|----------|
| SPATA12 | ENSG00000186451 | spermatogenesis associated 12 | -4.28 | 2.75E-16 |
| ATOH8 | ENSG00000168874 | atonal bHLH transcription factor 8 | -2.60 | 3.00E-16 |
| IER2 | ENSG00000160888 | immediate early response 2 | 2.13 | 3.06E-16 |
| RPRM | ENSG00000177519 | reprimo, TP53 dependent G2 arrest mediator candidate | -2.87 | 3.15E-16 |
| TRIM36 | ENSG00000152503 | tripartite motif containing 36 | 2.61 | 3.54E-16 |
| MMP15 | ENSG00000102996 | matrix metalloproteinase 15 reactive intermediate imine deaminase A | -2.31 | 3.63E-16 |
| HRSP12 | ENSG00000132541 | homolog | -2.22 | 3.91E-16 |
| PAPD7 | ENSG00000112941 | PAP associated domain containing 7 | 2.07 | 3.95E-16 |
| KCNH3 | ENSG00000135519 | potassium voltage-gated channel subfamily H member 3 | -3.67 | 4.02E-16 |
| C14orf37 | ENSG00000139971 | chromosome 14 open reading frame 37 | -2.16 | 5.42E-16 |
| MAFG | ENSG00000197063 | MAF bZIP transcription factor G | 2.10 | 5.51E-16 |
| KMO | ENSG00000117009 | kynurenine 3-monooxygenase | -5.41 | 6.98E-16 |
| DUSP6 | ENSG00000139318 | dual specificity phosphatase 6 | 2.38 | 7.10E-16 |

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|--------------|-----------------|--|-------|----------|
| TGM1 | ENSG00000092295 | transglutaminase 1 | -2.49 | 8.95E-16 |
| TRIM9 | ENSG00000100505 | tripartite motif containing 9 | 4.63 | 9.17E-16 |
| ADCYAP1 | ENSG00000141433 | adenylate cyclase activating polypeptide 1 | -2.01 | 1.36E-15 |
| RELT | ENSG00000054967 | RELT tumor necrosis factor receptor | 2.77 | 1.55E-15 |
| MEF2C | ENSG00000081189 | myocyte enhancer factor 2C | -3.06 | 1.57E-15 |
| LOC100126784 | | | 2.05 | 1.60E-15 |
| LINC01125 | ENSG00000228486 | long intergenic non-protein coding RNA 1125 | 3.24 | 1.60E-15 |
| ZEB1 | ENSG00000148516 | zinc finger E-box binding homeobox 1 | 2.09 | 1.70E-15 |
| PPAP2B | ENSG00000162407 | phospholipid phosphatase 3 | -2.55 | 1.73E-15 |
| WFS1 | ENSG00000109501 | wolframin ER transmembrane glycoprotein | -2.33 | 1.75E-15 |
| ZFAND2A | ENSG00000178381 | zinc finger AN1-type containing 2A | 2.57 | 1.84E-15 |
| SLC47A1 | ENSG00000142494 | solute carrier family 47 member 1 | -3.20 | 2.18E-15 |
| HSPB2 | ENSG00000170276 | heat shock protein family B (small) member 2 | -2.35 | 2.19E-15 |
| FICD | ENSG00000198855 | FIC domain containing | 2.66 | 3.23E-15 |
| FAM184B | ENSG00000047662 | family with sequence similarity 184 member B | 4.94 | 3.24E-15 |
| SLC9A9 | ENSG00000181804 | solute carrier family 9 member A9 | -2.64 | 3.50E-15 |

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|--------------|-----------------|---|-------|----------|
| POLR2A | ENSG00000181222 | polymerase (RNA) II subunit A | 2.36 | 3.75E-15 |
| BDKRB1 | ENSG00000100739 | bradykinin receptor B1 | -2.82 | 4.75E-15 |
| BTD | ENSG00000169814 | biotinidase | -2.01 | 5.55E-15 |
| EEPD1 | ENSG00000122547 | endonuclease/exonuclease/phosphatase family domain containing 1 | -2.57 | 5.87E-15 |
| ANXA8 | ENSG00000265190 | annexin A8 | -2.84 | 6.37E-15 |
| LOC101927040 | | | 10.14 | 6.42E-15 |
| LOC101928738 | | | -6.49 | 6.65E-15 |
| TRPM3 | ENSG00000083067 | transient receptor potential cation channel subfamily M member 3 | -5.29 | 6.76E-15 |
| KSR1 | ENSG00000141068 | kinase suppressor of ras 1 | 2.46 | 6.76E-15 |
| ALS2CR12 | ENSG00000155749 | amyotrophic lateral sclerosis 2 chromosome region candidate 12 | 3.78 | 6.81E-15 |
| TKT | ENSG00000163931 | transketolase | -2.30 | 7.13E-15 |
| METTL1 | ENSG00000037897 | methyltransferase like 1 | 2.11 | 7.90E-15 |
| ARL14 | ENSG00000179674 | ADP ribosylation factor like GTPase 14 | -4.76 | 7.90E-15 |

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|----------|-----------------|---|-------|----------|
| NRAV | ENSG00000248008 | negative regulator of antiviral response (non-protein coding) | 2.02 | 9.06E-15 |
| IL11 | ENSG00000095752 | interleukin 11 | 3.34 | 9.67E-15 |
| NFKBIE | ENSG00000146232 | NFKB inhibitor epsilon | 2.19 | 1.04E-14 |
| SLC9A1 | ENSG00000090020 | solute carrier family 9 member A1 | 2.32 | 1.06E-14 |
| PDE1A | ENSG00000115252 | phosphodiesterase 1A | -3.62 | 1.14E-14 |
| GAS2L3 | ENSG00000139354 | growth arrest specific 2 like 3 | 2.04 | 1.14E-14 |
| AAK1 | ENSG00000115977 | AP2 associated kinase 1 | 2.23 | 1.23E-14 |
| FLJ42969 | ENSG00000248599 | uncharacterized LOC441374 | -4.19 | 1.36E-14 |
| BACH2 | ENSG00000112182 | BTB domain and CNC homolog 2 | 2.92 | 1.50E-14 |
| SLC22A13 | ENSG00000172940 | solute carrier family 22 member 13 | 5.14 | 1.55E-14 |
| CDH18 | ENSG00000145526 | cadherin 18 | -6.83 | 1.68E-14 |
| KLHL31 | ENSG00000124743 | kelch like family member 31 | -2.24 | 1.86E-14 |
| LRRC8C | ENSG00000171488 | leucine rich repeat containing 8 family member C | 2.40 | 1.96E-14 |
| QRICH2 | ENSG00000129646 | glutamine rich 2 | 2.62 | 2.26E-14 |
| SERTAD2 | ENSG00000179833 | SERTA domain containing 2 | 2.04 | 2.59E-14 |

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|-----------|-----------------|---|-------|----------|
| MARK1 | ENSG00000116141 | microtubule affinity regulating kinase 1 | 2.18 | 2.95E-14 |
| C14orf93 | ENSG00000100802 | chromosome 14 open reading frame 93 | -2.63 | 3.02E-14 |
| MYLIP | ENSG00000007944 | myosin regulatory light chain interacting protein | -2.79 | 3.02E-14 |
| CRB2 | ENSG00000148204 | crumbs 2, cell polarity complex component | -2.80 | 3.51E-14 |
| KIAA1107 | ENSG00000069712 | KIAA1107 | -2.33 | 3.75E-14 |
| CNR1 | ENSG00000118432 | cannabinoid receptor 1 (brain) | -2.36 | 3.76E-14 |
| UNC13D | ENSG00000092929 | unc-13 homolog D | -2.21 | 4.43E-14 |
| PBXIP1 | ENSG00000163346 | PBX homeobox interacting protein 1 | -2.01 | 4.51E-14 |
| DOK3 | ENSG00000146094 | docking protein 3 | 3.39 | 4.81E-14 |
| LOC652276 | | | 2.51 | 4.99E-14 |
| PTPN6 | ENSG00000111679 | protein tyrosine phosphatase, non-receptor type 6 | -2.26 | 5.24E-14 |
| WNT2B | ENSG00000134245 | Wnt family member 2B | -2.19 | 5.75E-14 |
| CAMTA2 | ENSG00000108509 | calmodulin binding transcription activator 2 | 2.08 | 5.96E-14 |
| TRAF5 | ENSG00000082512 | TNF receptor associated factor 5 | 2.33 | 6.42E-14 |
| UNC5B | ENSG00000107731 | unc-5 netrin receptor B | -2.95 | 7.07E-14 |
| KIFC3 | ENSG00000140859 | kinesin family member C3 | 2.06 | 7.21E-14 |

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|------------|-----------------|---|-------|----------|
| RORC | ENSG00000143365 | RAR related orphan receptor C | -3.04 | 7.94E-14 |
| ITGB4 | ENSG00000132470 | integrin subunit beta 4 | -2.39 | 7.95E-14 |
| OSGIN1 | ENSG00000140961 | oxidative stress induced growth inhibitor 1 | 2.63 | 9.58E-14 |
| FLT3 | ENSG00000122025 | fms related tyrosine kinase 3 | -2.05 | 9.80E-14 |
| ARRDC2 | ENSG00000105643 | arrestin domain containing 2 | 2.01 | 9.82E-14 |
| CRELD2 | ENSG00000184164 | cysteine rich with EGF like domains 2 | 2.52 | 9.96E-14 |
| C4orf47 | ENSG00000205129 | chromosome 4 open reading frame 47 | 3.08 | 1.09E-13 |
| RAB20 | ENSG00000139832 | RAB20, member RAS oncogene family | 2.78 | 1.18E-13 |
| TPRN | ENSG00000176058 | taperin | -2.37 | 1.24E-13 |
| EPHA3 | ENSG00000044524 | EPH receptor A3 | 2.24 | 1.46E-13 |
| ETV4 | ENSG00000175832 | ETS variant 4 | 4.98 | 1.56E-13 |
| ISG20 | ENSG00000172183 | interferon stimulated exonuclease gene 20 | 3.07 | 1.61E-13 |
| HERC5 | ENSG00000138646 | HECT and RLD domain containing E3 ubiquitin protein ligase 5 | 2.93 | 1.64E-13 |
| PDK4 | ENSG00000004799 | pyruvate dehydrogenase kinase 4 | -2.53 | 1.70E-13 |
| PARD6G-AS1 | ENSG00000267270 | PARD6G antisense RNA 1 | 3.44 | 1.81E-13 |

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|--------------|-----------------|--|-------|----------|
| LOC100133091 | | | 2.38 | 1.92E-13 |
| TCAF2P1 | ENSG00000159860 | TRPM8 channel associated factor 2 pseudogene 1 | 3.23 | 1.95E-13 |
| SBDSP1 | ENSG00000225648 | Shwachman-Bodian-Diamond syndrome pseudogene 1 | 2.12 | 2.00E-13 |
| ERICH2 | ENSG00000204334 | glutamate rich 2 | 2.32 | 2.25E-13 |
| ABTB2 | ENSG00000166016 | ankyrin repeat and BTB domain containing 2 | 2.12 | 2.55E-13 |
| SLC25A25 | ENSG00000148339 | solute carrier family 25 member 25 | 2.08 | 3.04E-13 |
| MCM3AP-AS1 | ENSG00000215424 | MCM3AP antisense RNA 1 | 2.06 | 3.09E-13 |
| LNX1 | ENSG00000072201 | ligand of numb-protein X 1 | -2.29 | 3.13E-13 |
| SPDYA | ENSG00000163806 | speedy/RINGO cell cycle regulator family member A | 2.95 | 3.16E-13 |
| LYAR | ENSG00000145220 | Ly1 antibody reactive | 2.09 | 3.19E-13 |
| MAP1LC3B | ENSG00000140941 | microtubule associated protein 1 light chain 3 beta | 2.24 | 3.29E-13 |

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|-----------|-----------------|---|-------|----------|
| KCTD8 | ENSG00000183783 | potassium channel tetramerization domain containing 8 | -2.17 | 3.43E-13 |
| KCNJ2 | ENSG00000123700 | potassium voltage-gated channel subfamily J member 2 | -2.95 | 3.64E-13 |
| DHRS13 | ENSG00000167536 | dehydrogenase/reductase 13 | 3.07 | 4.21E-13 |
| MYO7A | ENSG00000137474 | myosin VIIA | -2.46 | 4.58E-13 |
| ZC3HAV1L | ENSG00000146858 | zinc finger CCCH-type containing, antiviral 1 like | 2.15 | 4.80E-13 |
| CNNM1 | ENSG00000119946 | cyclin and CBS domain divalent metal cation transport mediator 1 | 2.21 | 4.92E-13 |
| SNHG19 | ENSG00000260260 | small nucleolar RNA host gene 19 | -3.02 | 5.43E-13 |
| FAM83G | ENSG00000188522 | family with sequence similarity 83 member G | 2.03 | 5.83E-13 |
| CYP1A1 | ENSG00000140465 | cytochrome P450 family 1 subfamily A member 1 | -5.56 | 5.84E-13 |
| FAM86B1 | ENSG00000186523 | family with sequence similarity 86 member B1 | 2.38 | 5.87E-13 |
| HSD17B7P2 | ENSG00000099251 | hydroxysteroid 17-beta dehydrogenase 7 pseudogene 2 | 2.17 | 6.93E-13 |

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|------------|-----------------|--|-------|----------|
| SMG1P7 | ENSG00000261556 | SMG1P7, nonsense mediated mRNA decay associated PI3K related kinase pseudogene 7 | 2.06 | 7.64E-13 |
| Sep-04 | ENSG00000108387 | septin 4 | -2.02 | 1.06E-12 |
| RAPH1 | ENSG00000173166 | Ras association (RalGDS/AF-6) and pleckstrin homology domains 1 | 2.77 | 1.12E-12 |
| PBLD | ENSG00000108187 | phenazine biosynthesis like protein domain containing | -2.05 | 1.21E-12 |
| SPNS2 | ENSG00000183018 | sphingolipid transporter 2 | -2.19 | 1.28E-12 |
| C17orf51 | ENSG00000212719 | chromosome 17 open reading frame 51 | 2.00 | 1.36E-12 |
| GSTA4 | ENSG00000170899 | glutathione S-transferase alpha 4 | -2.10 | 1.84E-12 |
| ERVMER34-1 | ENSG00000226887 | endogenous retrovirus group MER34 member 1 | -2.86 | 2.16E-12 |
| CEACAM19 | ENSG00000186567 | carcinoembryonic antigen related cell adhesion molecule 19 | 2.07 | 2.30E-12 |
| ADGRL3 | ENSG00000150471 | adhesion G protein-coupled receptor L3 | -2.16 | 2.44E-12 |
| RAX | ENSG00000134438 | retina and anterior neural fold homeobox | 2.22 | 2.45E-12 |
| LINC01521 | ENSG00000213888 | long intergenic non-protein coding RNA 1521 | -2.28 | 2.59E-12 |

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|--------------|-----------------|---|-------|----------|
| ALDH3B1 | ENSG00000006534 | aldehyde dehydrogenase 3 family member B1 | -2.17 | 2.69E-12 |
| SLC35G2 | ENSG00000168917 | solute carrier family 35 member G2 | 2.01 | 2.78E-12 |
| LOC100288911 | | | -2.34 | 3.43E-12 |
| CELSR3 | ENSG00000008300 | cadherin EGF LAG seven-pass G-type receptor 3 | 2.25 | 4.21E-12 |
| CASC10 | ENSG00000204682 | cancer susceptibility candidate 10 | -2.52 | 4.28E-12 |
| LRRC7 | ENSG00000033122 | leucine rich repeat containing 7 | -2.50 | 4.34E-12 |
| MAPK7 | ENSG00000166484 | mitogen-activated protein kinase 7 | 2.05 | 4.53E-12 |
| NME5 | ENSG00000112981 | NME/NM23 family member 5 | -2.36 | 4.88E-12 |
| TEC | ENSG00000135605 | tec protein tyrosine kinase | 2.03 | 5.07E-12 |
| CUBN | ENSG00000107611 | cubilin | 2.19 | 5.53E-12 |
| PQLC3 | ENSG00000162976 | PQ loop repeat containing 3 | -2.06 | 6.12E-12 |
| FGF11 | ENSG00000161958 | fibroblast growth factor 11 | 2.70 | 6.38E-12 |
| SORBS2 | ENSG00000154556 | sorbin and SH3 domain containing 2 | -2.79 | 6.65E-12 |
| MMP11 | ENSG00000275365 | matrix metalloproteinase 11 | -2.56 | 6.77E-12 |
| CSRNP3 | ENSG00000178662 | cysteine and serine rich nuclear protein 3 | -2.53 | 7.04E-12 |
| MB21D1 | ENSG00000164430 | Mab-21 domain containing 1 | 2.80 | 7.25E-12 |

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|----------|-----------------|--|-------|----------|
| MVD | ENSG00000167508 | mevalonate diphosphate decarboxylase | 2.08 | 7.25E-12 |
| GOLGA6L9 | ENSG00000274320 | golgin A6 family-like 9 | 2.03 | 8.08E-12 |
| DHFRL1 | ENSG00000178700 | dihydrofolate reductase like 1 | -2.16 | 8.88E-12 |
| DUSP19 | ENSG00000162999 | dual specificity phosphatase 19 | -2.20 | 9.15E-12 |
| SLC23A3 | ENSG00000213901 | solute carrier family 23 member 3 | 3.77 | 9.74E-12 |
| ACER2 | ENSG00000177076 | alkaline ceramidase 2 | 2.33 | 9.98E-12 |
| EPHB1 | ENSG00000154928 | EPH receptor B1 | 2.94 | 1.01E-11 |
| JUND | ENSG00000130522 | JunD proto-oncogene, AP-1 transcription factor subunit | 3.01 | 1.06E-11 |
| ANO7 | ENSG00000146205 | anoctamin 7 | 2.93 | 1.27E-11 |
| TFR2 | ENSG00000106327 | transferrin receptor 2 | 3.15 | 1.35E-11 |
| DOK7 | ENSG00000175920 | docking protein 7 | -2.97 | 1.37E-11 |
| FAM86HP | ENSG00000253540 | family with sequence similarity 86 member H, pseudogene | 2.55 | 1.58E-11 |
| VWA5A | ENSG00000110002 | von Willebrand factor A domain containing 5A | -2.08 | 1.62E-11 |
| FER1L4 | ENSG00000088340 | fer-1 like family member 4, pseudogene | 2.01 | 1.97E-11 |

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|------------|-----------------|--|-------|----------|
| HSP90AA1 | ENSG00000080824 | heat shock protein 90kDa alpha family class A member 1 | 2.05 | 1.97E-11 |
| FAM13A-AS1 | ENSG00000248019 | FAM13A antisense RNA 1 | 3.37 | 2.22E-11 |
| FAM201A | ENSG00000204860 | family with sequence similarity 201 member A | -3.82 | 2.37E-11 |
| RGS17 | ENSG00000091844 | regulator of G-protein signaling 17 | 3.30 | 2.41E-11 |
| CROT | ENSG00000005469 | carnitine O-octanoyltransferase | -2.03 | 2.43E-11 |
| SLC22A1 | ENSG00000175003 | solute carrier family 22 member 1 | 3.77 | 2.51E-11 |
| FHDC1 | ENSG00000137460 | FH2 domain containing 1 | 4.00 | 2.59E-11 |
| KRT7 | ENSG00000135480 | keratin 7 | -2.03 | 2.61E-11 |
| RASSF2 | ENSG00000101265 | Ras association domain family member 2 | 2.29 | 3.10E-11 |
| LRRK1 | ENSG00000154237 | leucine rich repeat kinase 1 | -7.03 | 3.15E-11 |
| P2RY11 | ENSG00000244165 | purinergic receptor P2Y11 | 3.77 | 3.49E-11 |
| GCH1 | ENSG00000131979 | GTP cyclohydrolase 1 | 2.41 | 3.55E-11 |
| TMEM117 | ENSG00000139173 | transmembrane protein 117 | -2.13 | 3.62E-11 |
| PABPC4L | ENSG00000254535 | poly(A) binding protein cytoplasmic 4 like | -2.38 | 3.91E-11 |
| PRR7-AS1 | ENSG00000246334 | PRR7 antisense RNA 1 | 2.60 | 4.04E-11 |

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|-----------|-----------------|--|-------|----------|
| LUCAT1 | ENSG00000248323 | lung cancer associated transcript 1 (non-protein coding) | 3.55 | 4.05E-11 |
| USP2 | ENSG00000036672 | ubiquitin specific peptidase 2 | -2.40 | 4.14E-11 |
| CASP6 | ENSG00000138794 | caspase 6 | -2.02 | 4.57E-11 |
| LINC00662 | ENSG00000261824 | long intergenic non-protein coding RNA 662 | 2.18 | 4.59E-11 |
| GAS6-AS1 | ENSG00000233695 | GAS6 antisense RNA 1 | -4.71 | 4.63E-11 |
| DDO | ENSG00000203797 | D-aspartate oxidase | -2.04 | 5.38E-11 |
| SPOCK2 | ENSG00000107742 | sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 2 | 2.97 | 6.04E-11 |
| GPR146 | ENSG00000164849 | G protein-coupled receptor 146 | 2.41 | 6.38E-11 |
| GNRH1 | ENSG00000147437 | gonadotropin releasing hormone 1 | 2.25 | 6.68E-11 |
| ARL6 | ENSG00000113966 | ADP ribosylation factor like GTPase 6 | 2.07 | 6.75E-11 |
| FAM86EP | ENSG00000251669 | family with sequence similarity 86 member E, pseudogene | 2.29 | 7.27E-11 |
| DNAH11 | ENSG00000105877 | dynein axonemal heavy chain 11 | 2.28 | 7.37E-11 |
| COL13A1 | ENSG00000197467 | collagen type XIII alpha 1 chain | 2.92 | 7.77E-11 |

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|------------|-----------------|--|-------|----------|
| TM4SF1-AS1 | ENSG00000240541 | TM4SF1 antisense RNA 1 | -4.15 | 8.46E-11 |
| FAM86C1 | ENSG00000158483 | family with sequence similarity 86 member C1 | 2.14 | 9.14E-11 |
| PDZRN3 | ENSG00000121440 | PDZ domain containing ring finger 3 | -2.36 | 9.93E-11 |
| FAM86FP | ENSG00000164845 | family with sequence similarity 86 member F, pseudogene | 2.32 | 9.98E-11 |
| LINC01089 | ENSG00000212694 | long intergenic non-protein coding RNA 1089 | -2.14 | 1.09E-10 |
| ABAT | ENSG00000183044 | 4-aminobutyrate aminotransferase | -2.01 | 1.25E-10 |
| SCX | ENSG00000260428 | scleraxis bHLH transcription factor | -4.29 | 1.25E-10 |
| NPR3 | ENSG00000113389 | natriuretic peptide receptor 3 | -2.08 | 1.31E-10 |
| GPR39 | ENSG00000183840 | G protein-coupled receptor 39 | -3.20 | 1.35E-10 |
| LANCL3 | ENSG00000147036 | LanC like 3 | 2.69 | 1.37E-10 |
| BBS12 | ENSG00000181004 | Bardet-Biedl syndrome 12 | -2.02 | 1.42E-10 |
| LRRK2 | ENSG00000188906 | leucine rich repeat kinase 2 | -2.03 | 1.43E-10 |
| CCDC88C | ENSG00000015133 | coiled-coil domain containing 88C | 2.02 | 1.45E-10 |
| MDGA1 | ENSG00000112139 | MAM domain containing glycosylphosphatidylinositol anchor 1 | -2.16 | 1.76E-10 |

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|------------|-----------------|---|-------|----------|
| MAPK13 | ENSG00000156711 | mitogen-activated protein kinase 13 | 2.52 | 1.78E-10 |
| PC | ENSG00000173599 | pyruvate carboxylase | 2.02 | 1.78E-10 |
| ID3 | ENSG00000117318 | inhibitor of DNA binding 3, HLH protein | -2.21 | 1.83E-10 |
| SULT1A1 | ENSG00000196502 | sulfotransferase family 1A member 1 | -2.05 | 1.85E-10 |
| RGS9 | ENSG00000108370 | regulator of G-protein signaling 9 | -2.07 | 2.27E-10 |
| FAM26E | ENSG00000178033 | family with sequence similarity 26 member E | -3.48 | 2.28E-10 |
| FAM174B | ENSG00000185442 | family with sequence similarity 174 member B | 2.00 | 2.38E-10 |
| RHEBL1 | ENSG00000167550 | Ras homolog enriched in brain like 1 | 7.63 | 2.44E-10 |
| ZNF214 | ENSG00000149050 | zinc finger protein 214 | -2.60 | 2.61E-10 |
| CFI | ENSG00000205403 | complement factor I | -2.09 | 2.97E-10 |
| STX11 | ENSG00000135604 | syntaxin 11 | 2.59 | 3.38E-10 |
| HEY1 | ENSG00000164683 | hes related family bHLH transcription factor with YRPW motif 1 | 3.45 | 3.50E-10 |
| HLF | ENSG00000108924 | HLF, PAR bZIP transcription factor | -2.26 | 3.72E-10 |
| HNRNPA1P33 | ENSG00000213412 | heterogeneous nuclear ribonucleoprotein A1 pseudogene 33 | -3.11 | 3.83E-10 |

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|-----------|-----------------|--|-------|----------|
| MSX1 | ENSG00000163132 | msh homeobox 1 | 2.30 | 3.89E-10 |
| CRABP2 | ENSG00000143320 | cellular retinoic acid binding protein 2 | -2.01 | 5.46E-10 |
| TSPAN15 | ENSG00000099282 | tetraspanin 15 | -2.38 | 5.90E-10 |
| PCDH9 | ENSG00000184226 | protocadherin 9 | -2.24 | 6.11E-10 |
| BACH1-IT2 | ENSG00000228817 | BACH1 intronic transcript 2 | 4.73 | 6.36E-10 |
| MIR27B | ENSG00000207864 | microRNA 27b | -2.81 | 6.75E-10 |
| MICALCL | ENSG00000133808 | MICAL C-terminal like | 4.38 | 6.83E-10 |
| SAMD11 | ENSG00000187634 | sterile alpha motif domain containing 11 | -2.23 | 7.02E-10 |
| UPK3B | ENSG00000276184 | uroplakin 3B | -2.03 | 7.44E-10 |
| SLITRK5 | ENSG00000165300 | SLIT and NTRK like family member 5 | -2.89 | 7.52E-10 |
| RAB6B | ENSG00000154917 | RAB6B, member RAS oncogene family | 2.73 | 7.59E-10 |
| MAP1LC3B2 | ENSG00000258102 | microtubule associated protein 1 light chain 3 beta 2 | 2.73 | 7.61E-10 |
| MXRA8 | ENSG00000162576 | matrix remodeling associated 8 | -2.15 | 7.73E-10 |
| SFMBT2 | ENSG00000198879 | Scm-like with four mbt domains 2 | 2.04 | 8.29E-10 |
| POT1-AS1 | ENSG00000224897 | POT1 antisense RNA 1 | -3.49 | 8.47E-10 |

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|--------------|-----------------|--|-------|----------|
| KCNMB4 | ENSG00000135643 | potassium calcium-activated channel subfamily M regulatory beta subunit 4 | -2.52 | 8.48E-10 |
| RAPSN | ENSG00000165917 | receptor associated protein of the synapse | 3.28 | 8.60E-10 |
| VSIG1 | ENSG00000101842 | V-set and immunoglobulin domain containing 1 | 2.17 | 9.97E-10 |
| RDH13 | ENSG00000276684 | retinol dehydrogenase 13 (all-trans/9-cis) | 2.09 | 1.01E-09 |
| MFSD2A | ENSG00000168389 | major facilitator superfamily domain containing 2A | 5.54 | 1.02E-09 |
| SLC22A23 | ENSG00000137266 | solute carrier family 22 member 23 | -2.02 | 1.05E-09 |
| IQUB | ENSG00000164675 | IQ motif and ubiquitin domain containing | -3.40 | 1.15E-09 |
| ZNF618 | ENSG00000157657 | zinc finger protein 618 | -2.11 | 1.18E-09 |
| MT1X | ENSG00000187193 | metallothionein 1X | 2.03 | 1.24E-09 |
| C4orf32 | ENSG00000174749 | chromosome 4 open reading frame 32 | 2.39 | 1.37E-09 |
| STX1A | ENSG00000106089 | syntaxin 1A | 2.83 | 1.38E-09 |
| LOC100507002 | | | -3.48 | 1.43E-09 |
| MYBPHL | ENSG00000221986 | myosin binding protein H-like | -4.85 | 1.52E-09 |
| CEMIP | ENSG00000103888 | cell migration inducing hyaluronan binding protein | -2.95 | 1.65E-09 |
| ARL4D | ENSG00000175906 | ADP ribosylation factor like GTPase 4D | -2.38 | 1.77E-09 |

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|-----------|-----------------|---|-------|----------|
| RAPGEF4 | ENSG00000091428 | Rap guanine nucleotide exchange factor 4 | 2.60 | 1.81E-09 |
| CSPG4 | ENSG00000173546 | chondroitin sulfate proteoglycan 4 | -2.48 | 2.19E-09 |
| SFRP4 | ENSG00000106483 | secreted frizzled related protein 4 | -2.38 | 2.42E-09 |
| LOC399815 | | | 2.59 | 2.49E-09 |
| PRR26 | ENSG00000180525 | proline rich 26 | -2.17 | 2.66E-09 |
| KCTD15 | ENSG00000153885 | potassium channel tetramerization domain containing 15 | 2.01 | 2.76E-09 |
| DOK5 | ENSG00000101134 | docking protein 5 | 3.20 | 3.15E-09 |
| LPP-AS2 | ENSG00000270959 | LPP antisense RNA 2 | -2.46 | 3.71E-09 |
| TOX2 | ENSG00000124191 | TOX high mobility group box family member 2 | 2.32 | 3.83E-09 |
| AQP11 | ENSG00000178301 | aquaporin 11 | -2.09 | 3.85E-09 |
| FRAT1 | ENSG00000165879 | frequently rearranged in advanced T-cell lymphomas 1 | -3.08 | 4.16E-09 |
| MAOB | ENSG00000069535 | monoamine oxidase B | -2.75 | 4.70E-09 |
| DSC1 | ENSG00000134765 | desmocollin 1 | -2.91 | 5.05E-09 |

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|-----------|-----------------|--|-------|----------|
| HCN3 | ENSG00000143630 | hyperpolarization activated cyclic nucleotide gated potassium channel 3 | 2.24 | 5.25E-09 |
| ADAM22 | ENSG00000008277 | ADAM metallopeptidase domain 22 | -2.39 | 5.26E-09 |
| MAMLD1 | ENSG00000013619 | mastermind like domain containing 1 | 3.65 | 5.91E-09 |
| MURC | ENSG00000170681 | muscle related coiled-coil protein | 2.72 | 6.38E-09 |
| GLRX | ENSG00000173221 | glutaredoxin | -2.14 | 7.01E-09 |
| CHDH | ENSG00000016391 | choline dehydrogenase | -2.17 | 7.61E-09 |
| C2orf61 | ENSG00000239605 | chromosome 2 open reading frame 61 | 3.51 | 7.69E-09 |
| LOC115110 | | | 2.05 | 8.10E-09 |
| DACH1 | ENSG00000276644 | dachshund family transcription factor 1 | -2.41 | 8.29E-09 |
| APTR | ENSG00000214293 | Alu-mediated CDKN1A/p21 transcriptional regulator (non-protein coding) | 2.21 | 8.63E-09 |
| BEND5 | ENSG00000162373 | BEN domain containing 5 | 2.04 | 8.71E-09 |
| BAHCC1 | ENSG00000266074 | BAH domain and coiled-coil containing 1 | -2.38 | 9.38E-09 |
| EXOC3-AS1 | ENSG00000221990 | EXOC3 antisense RNA 1 | -2.42 | 9.58E-09 |
| TMEM265 | ENSG00000281991 | transmembrane protein 265 | 2.01 | 1.01E-08 |

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|-----------|-----------------|--|-------|----------|
| HMCN1 | ENSG00000143341 | hemicentin 1 | -2.02 | 1.02E-08 |
| PHEX | ENSG00000102174 | phosphate regulating endopeptidase homolog, X-linked | 3.87 | 1.03E-08 |
| SAMD9 | ENSG00000205413 | sterile alpha motif domain containing 9 | 2.46 | 1.10E-08 |
| CCDC28B | ENSG00000160050 | coiled-coil domain containing 28B | -2.45 | 1.11E-08 |
| FPGT | ENSG00000254685 | fucose-1-phosphate guanylyltransferase | -2.15 | 1.21E-08 |
| N4BP3 | ENSG00000145911 | NEDD4 binding protein 3 | 6.17 | 1.27E-08 |
| TMEFF2 | ENSG00000144339 | transmembrane protein with EGF like and two follistatin like domains 2 | -2.43 | 1.30E-08 |
| HIST3H2BB | ENSG00000196890 | histone cluster 3, H2bb | -2.40 | 1.30E-08 |
| ZNF204P | ENSG00000204789 | zinc finger protein 204, pseudogene | -2.14 | 1.31E-08 |
| KIAA1549L | ENSG00000110427 | KIAA1549-like | 2.54 | 1.38E-08 |
| S1PR5 | ENSG00000180739 | sphingosine-1-phosphate receptor 5 | -2.16 | 1.47E-08 |
| SMIM6 | ENSG00000259120 | small integral membrane protein 6 | -2.94 | 1.87E-08 |
| RAB39B | ENSG00000155961 | RAB39B, member RAS oncogene family | 2.19 | 2.02E-08 |
| BCL11B | ENSG00000127152 | B-cell CLL/lymphoma 11B | 2.24 | 2.20E-08 |

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|--------------|-----------------|--|-------|----------|
| LOC101929705 | | | 2.78 | 2.29E-08 |
| OGDHL | ENSG00000197444 | oxoglutarate dehydrogenase-like | -2.18 | 2.48E-08 |
| CEP19 | ENSG00000174007 | centrosomal protein 19 | -2.11 | 2.96E-08 |
| SLC16A6 | ENSG00000108932 | solute carrier family 16 member 6 | 2.60 | 2.99E-08 |
| LZTS3 | ENSG00000088899 | Leucine zipper putative tumor suppressor 3 | 2.00 | 3.27E-08 |
| EPHA1-AS1 | ENSG00000229153 | EPHA1 antisense RNA 1 | 3.74 | 3.27E-08 |
| MLLT4-AS1 | ENSG00000198221 | MLLT4 antisense RNA 1 (head to head) | -3.01 | 3.33E-08 |
| OPRK1 | ENSG00000082556 | opioid receptor kappa 1 | 3.15 | 3.37E-08 |
| NEK3 | ENSG00000136098 | NIMA related kinase 3 | 3.28 | 3.72E-08 |
| EGR1 | ENSG00000120738 | early growth response 1 | 2.96 | 4.00E-08 |
| SLC4A5 | ENSG00000188687 | solute carrier family 4 member 5 | 2.96 | 4.07E-08 |
| BEND3 | ENSG00000178409 | BEN domain containing 3 | 2.09 | 4.08E-08 |
| GUCY1B3 | ENSG00000061918 | guanylate cyclase 1, soluble, beta 3 | -2.22 | 4.12E-08 |
| SLC17A9 | ENSG00000101194 | solute carrier family 17 member 9 | 2.10 | 4.28E-08 |
| PLCL1 | ENSG00000115896 | phospholipase C like 1 | -3.61 | 4.36E-08 |
| LAMB2P1 | ENSG00000270441 | laminin subunit beta 2 pseudogene 1 | 3.96 | 4.55E-08 |

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|--------------|-----------------|---|-------|----------|
| NMNAT3 | ENSG00000163864 | nicotinamide nucleotide adenylyltransferase 3 | -2.13 | 4.86E-08 |
| KRT86 | ENSG00000170442 | keratin 86 | -2.20 | 4.89E-08 |
| WDR66 | ENSG00000158023 | WD repeat domain 66 | 2.26 | 4.89E-08 |
| FLJ20021 | ENSG00000254531 | uncharacterized LOC90024 | -2.29 | 5.17E-08 |
| RNF122 | ENSG00000133874 | ring finger protein 122 | 2.22 | 6.07E-08 |
| PAPPA2 | ENSG00000116183 | pappalysin 2 | 3.89 | 6.27E-08 |
| B3GALT4 | ENSG00000235155 | beta-1,3-galactosyltransferase 4 | -2.70 | 7.14E-08 |
| RAPGEF5 | ENSG00000136237 | Rap guanine nucleotide exchange factor 5 | -2.01 | 7.20E-08 |
| CASC1 | ENSG00000118307 | cancer susceptibility candidate 1 | -4.38 | 7.71E-08 |
| LUZP2 | ENSG00000187398 | leucine zipper protein 2 | 2.23 | 8.28E-08 |
| LOC101927087 | | | 2.88 | 8.51E-08 |
| STOX1 | ENSG00000165730 | storkhead box 1 | -3.39 | 9.44E-08 |
| VASN | ENSG00000274334 | vasorin | -2.26 | 9.44E-08 |
| SLC35F3 | ENSG00000183780 | solute carrier family 35 member F3 | 2.57 | 9.90E-08 |
| HYAL3 | ENSG00000186792 | hyaluronoglucosaminidase 3 | 2.03 | 1.03E-07 |
| ZMYND10 | ENSG00000004838 | zinc finger MYND-type containing 10 | -2.54 | 1.06E-07 |

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|--------------|-----------------|---|-------|----------|
| ARG2 | ENSG00000081181 | arginase 2 | 2.01 | 1.09E-07 |
| OLFML1 | ENSG00000183801 | olfactomedin like 1 | -3.77 | 1.13E-07 |
| LOC101927901 | | | -4.34 | 1.15E-07 |
| SLC45A2 | ENSG00000164175 | solute carrier family 45 member 2 | -3.68 | 1.15E-07 |
| CBR3 | ENSG00000159231 | carbonyl reductase 3 | -2.04 | 1.24E-07 |
| BFSP1 | ENSG00000125864 | beaded filament structural protein 1 | -2.03 | 1.33E-07 |
| CBLN2 | ENSG00000141668 | cerebellin 2 precursor | -4.30 | 1.47E-07 |
| DMGDH | ENSG00000132837 | dimethylglycine dehydrogenase | -2.11 | 1.51E-07 |
| CMYA5 | ENSG00000164309 | cardiomyopathy associated 5 | -2.30 | 1.64E-07 |
| FSCN1 | ENSG00000075618 | fascin actin-bundling protein 1 | -2.06 | 1.80E-07 |
| ZNF491 | ENSG00000177599 | zinc finger protein 491 | -2.14 | 1.93E-07 |
| PTPRZ1 | ENSG00000106278 | protein tyrosine phosphatase, receptor type Z1 | -3.64 | 2.03E-07 |
| ARHGAP5-AS1 | ENSG00000258655 | ARHGAP5 antisense RNA 1 (head to head) | -2.16 | 2.19E-07 |
| SPAG8 | ENSG00000137098 | sperm associated antigen 8 | -3.44 | 2.37E-07 |
| MGAT5B | ENSG00000167889 | mannosyl (alpha-1,6-)-glycoprotein beta-1,6-N-acetyl-glucosaminyltransferase, isozyme B | 2.02 | 2.41E-07 |

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|--------------|-----------------|---|-------|----------|
| PTGDS | ENSG00000107317 | prostaglandin D2 synthase | -2.22 | 2.87E-07 |
| LIPE | ENSG00000079435 | lipase E, hormone sensitive type | -2.23 | 2.94E-07 |
| BTBD8 | ENSG00000189195 | BTB domain containing 8 | -2.23 | 3.01E-07 |
| PTX3 | ENSG00000163661 | pentraxin 3 | 2.39 | 3.21E-07 |
| KCNB1 | ENSG00000158445 | potassium voltage-gated channel subfamily B member 1 | -2.30 | 3.29E-07 |
| OTX2-AS1 | ENSG00000248550 | OTX2 antisense RNA 1 (head to head) | -2.57 | 3.39E-07 |
| LOC100128076 | | | -2.31 | 3.41E-07 |
| RNVU1-6 | ENSG00000201558 | RNA, variant U1 small nuclear 6 | -3.12 | 3.50E-07 |
| TBX3 | ENSG00000135111 | T-box 3 | 2.03 | 3.64E-07 |
| TMEM79 | ENSG00000163472 | transmembrane protein 79 | 2.01 | 3.70E-07 |
| PGM5-AS1 | ENSG00000224958 | PGM5 antisense RNA 1 | -2.62 | 4.00E-07 |
| RDH5 | ENSG00000135437 | retinol dehydrogenase 5 | -2.12 | 4.06E-07 |
| PCDHB2 | ENSG00000112852 | protocadherin beta 2 | -2.43 | 4.45E-07 |
| CAPS | ENSG00000105519 | calcyphosine | -2.11 | 4.57E-07 |
| PRR29 | ENSG00000224383 | proline rich 29 | -3.19 | 4.70E-07 |

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|------------|-----------------|--|-------|----------|
| SNAPC5 | ENSG00000174446 | small nuclear RNA activating complex polypeptide 5 | -2.19 | 5.21E-07 |
| CBARP | ENSG00000099625 | CACN beta subunit associated regulatory protein | 2.67 | 5.54E-07 |
| SERPINE3 | ENSG00000253309 | serpin family E member 3 | -2.60 | 5.65E-07 |
| ZNF233 | ENSG00000159915 | zinc finger protein 233 | -2.24 | 6.00E-07 |
| SLC29A3 | ENSG00000198246 | solute carrier family 29 member 3 | -2.36 | 6.10E-07 |
| MMAA | ENSG00000151611 | methylmalonic aciduria (cobalamin deficiency) cblA type | -2.06 | 6.22E-07 |
| MAGEE1 | ENSG00000198934 | MAGE family member E1 | -2.48 | 6.34E-07 |
| MGC12916 | ENSG00000266709 | uncharacterized protein MGC12916 | 2.19 | 6.70E-07 |
| PITRM1-AS1 | ENSG00000237399 | PITRM1 antisense RNA 1 | 2.54 | 7.45E-07 |
| DERL3 | ENSG00000274437 | derlin 3 | 2.19 | 7.46E-07 |
| SLC2A14 | ENSG00000173262 | solute carrier family 2 member 14 | 2.56 | 7.69E-07 |
| LSMEM1 | ENSG00000181016 | leucine rich single-pass membrane protein 1 | 3.36 | 7.72E-07 |
| MYO15B | ENSG00000266714 | myosin XVB | -2.33 | 7.81E-07 |
| VTRNA1-3 | ENSG00000202515 | vault RNA 1-3 | 2.41 | 7.85E-07 |

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|--------------|-----------------|--|-------|----------|
| LCTL | ENSG00000188501 | lactase like | -2.06 | 8.88E-07 |
| PRRT3 | ENSG00000163704 | proline rich transmembrane protein 3 | -2.12 | 8.88E-07 |
| SPNS3 | ENSG00000182557 | sphingolipid transporter 3 (putative) | -2.73 | 9.43E-07 |
| RELL2 | ENSG00000164620 | RELT like 2 | 2.02 | 9.47E-07 |
| KRTAP5-AS1 | ENSG00000281176 | KRTAP5-1/KRTAP5-2 antisense RNA 1 | 3.53 | 9.72E-07 |
| LOC100506258 | | | -2.64 | 9.80E-07 |
| CXCL3 | ENSG00000163734 | C-X-C motif chemokine ligand 3 | 3.77 | 1.01E-06 |
| RPS6KL1 | ENSG00000198208 | ribosomal protein S6 kinase like 1 | 2.18 | 1.01E-06 |
| HIST3H2A | ENSG00000181218 | histone cluster 3, H2a | -2.35 | 1.04E-06 |
| RAB26 | ENSG00000167964 | RAB26, member RAS oncogene family | -2.03 | 1.10E-06 |
| LIPH | ENSG00000163898 | lipase H | -2.37 | 1.14E-06 |
| TP63 | ENSG00000073282 | tumor protein p63 | -2.59 | 1.18E-06 |
| C6orf226 | ENSG00000221821 | chromosome 6 open reading frame 226 | -2.90 | 1.38E-06 |
| KCNJ14 | ENSG00000182324 | potassium voltage-gated channel subfamily J member 14 | 2.63 | 1.50E-06 |

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|--------------|-----------------|---|-------|----------|
| FAM86B3P | ENSG00000173295 | family with sequence similarity 86 member B3, pseudogene | 2.38 | 1.55E-06 |
| MDGA2 | ENSG00000139915 | MAM domain containing glycosylphosphatidylinositol anchor 2 | 2.21 | 1.57E-06 |
| AIM1L | ENSG00000176092 | absent in melanoma 1-like | 3.07 | 1.66E-06 |
| KLHDC9 | ENSG00000162755 | kelch domain containing 9 | -2.17 | 1.66E-06 |
| EVA1B | ENSG00000142694 | eva-1 homolog B (C. elegans) | -2.31 | 1.74E-06 |
| LOC100049716 | | | -2.61 | 1.75E-06 |
| IFITM1 | ENSG00000185885 | interferon induced transmembrane protein 1 | 2.65 | 2.20E-06 |
| LURAP1L-AS1 | ENSG00000235448 | LURAP1L antisense RNA 1 | 2.37 | 2.35E-06 |
| ARID3A | ENSG00000116017 | AT-rich interaction domain 3A | 2.27 | 2.40E-06 |
| TTLL11 | ENSG00000175764 | tubulin tyrosine ligase like 11 | 2.09 | 2.46E-06 |
| SULT4A1 | ENSG00000130540 | sulfotransferase family 4A member 1 | 2.09 | 2.48E-06 |
| SNORA33 | ENSG00000202283 | Small nucleolar RNA SNORA33 | -2.70 | 2.71E-06 |
| VMAC | ENSG00000187650 | vimentin-type intermediate filament associated coiled-coil protein | -2.20 | 2.81E-06 |

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|-----------|-----------------|---|-------|----------|
| LINC01003 | ENSG00000261455 | long intergenic non-protein coding RNA 1003 | -2.34 | 2.84E-06 |
| FAM86B2 | ENSG00000145002 | family with sequence similarity 86 member B2 | 2.69 | 2.90E-06 |
| FRMD3 | ENSG00000172159 | FERM domain containing 3 | 2.47 | 3.21E-06 |
| NUDT7 | ENSG00000140876 | nudix hydrolase 7 | -2.15 | 3.22E-06 |
| SMOX | ENSG00000088826 | spermine oxidase | 2.24 | 3.29E-06 |
| PINLYP | ENSG00000234465 | phospholipase A2 inhibitor and LY6/PLAUR domain containing | 2.53 | 3.34E-06 |
| LRRC66 | ENSG00000188993 | leucine rich repeat containing 66 | 2.40 | 3.36E-06 |
| C3orf35 | ENSG00000198590 | chromosome 3 open reading frame 35 | 2.68 | 3.62E-06 |
| LOC728323 | | | 2.04 | 3.65E-06 |
| TESK2 | ENSG00000070759 | testis-specific kinase 2 | -2.12 | 3.67E-06 |
| FGF14-AS2 | ENSG00000272143 | FGF14 antisense RNA 2 | -3.66 | 3.77E-06 |
| AR | ENSG00000169083 | androgen receptor | -2.26 | 3.96E-06 |
| MFI2-AS1 | ENSG00000228109 | MFI2 antisense RNA 1 | -2.02 | 4.40E-06 |
| DCDC5 | ENSG00000170959 | doublecortin domain containing 5 | -2.64 | 4.72E-06 |
| C1orf110 | ENSG00000185860 | coiled-coil domain containing 190 | -2.73 | 4.78E-06 |

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|--------------|-----------------|---|-------|----------|
| IL32 | ENSG00000008517 | interleukin 32 | 2.39 | 4.81E-06 |
| ANXA9 | ENSG00000143412 | annexin A9 | -2.90 | 5.10E-06 |
| ASB9 | ENSG00000102048 | ankyrin repeat and SOCS box containing 9 | -2.14 | 5.15E-06 |
| RAP1GAP | ENSG00000076864 | RAP1 GTPase activating protein | -2.75 | 5.44E-06 |
| CALHM2 | ENSG00000138172 | calcium homeostasis modulator 2 | -2.09 | 6.00E-06 |
| MICB | ENSG00000227772 | MHC class I polypeptide-related sequence B | 3.04 | 6.31E-06 |
| MGC2889 | | | 3.26 | 6.36E-06 |
| CXCL14 | ENSG00000145824 | C-X-C motif chemokine ligand 14 | -2.36 | 6.98E-06 |
| NR6A1 | ENSG00000148200 | nuclear receptor subfamily 6 group A member 1 | 2.01 | 7.04E-06 |
| SHF | ENSG00000138606 | Src homology 2 domain containing F | -2.71 | 7.13E-06 |
| LOC101928509 | | | -2.68 | 7.49E-06 |
| MIR125B1 | ENSG00000207971 | microRNA 125b-1 | -2.44 | 7.70E-06 |
| ONECUT2 | ENSG00000119547 | one cut homeobox 2 | 2.27 | 9.03E-06 |
| UPB1 | ENSG00000100024 | beta-ureidopropionase 1 | -3.01 | 9.08E-06 |
| C7orf69 | ENSG00000136275 | chromosome 7 open reading frame 69 | -2.68 | 9.28E-06 |
| CD200 | ENSG00000091972 | CD200 molecule | -2.03 | 9.54E-06 |

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|------------|-----------------|--|-------|----------|
| EID2B | ENSG00000176401 | EP300 interacting inhibitor of differentiation 2B | -2.33 | 1.07E-05 |
| NDUFA6-AS1 | ENSG00000273616 | NDUFA6 antisense RNA 1 (head to head) | -2.05 | 1.11E-05 |
| ABCC6 | ENSG00000091262 | ATP binding cassette subfamily C member 6 | -3.23 | 1.17E-05 |
| CCDC17 | ENSG00000159588 | coiled-coil domain containing 17 | 2.11 | 1.23E-05 |
| CTAGE15 | ENSG00000271079 | CTAGE family member 15 | 2.86 | 1.25E-05 |
| LRRC48 | ENSG00000171962 | dynein regulatory complex subunit 3 | -2.90 | 1.31E-05 |
| NDRG2 | ENSG00000165795 | NDRG family member 2 | -2.32 | 1.34E-05 |
| MFSD4 | ENSG00000174514 | major facilitator superfamily domain containing 4A | -2.15 | 1.38E-05 |
| SHANK3 | ENSG00000251322 | SH3 and multiple ankyrin repeat domains 3 | 2.52 | 1.46E-05 |
| FMO5 | ENSG00000131781 | flavin containing monooxygenase 5 | -2.48 | 1.49E-05 |
| CRB3 | ENSG00000130545 | crumbs 3, cell polarity complex component | -2.39 | 1.60E-05 |
| MAP1A | ENSG00000166963 | microtubule associated protein 1A | -2.08 | 1.64E-05 |
| COL8A2 | ENSG00000171812 | collagen type VIII alpha 2 | -2.21 | 1.70E-05 |
| RNF224 | ENSG00000233198 | ring finger protein 224 | -3.01 | 1.70E-05 |
| OSBPL6 | ENSG00000079156 | oxysterol binding protein like 6 | 2.10 | 1.72E-05 |
| SLC43A2 | ENSG00000167703 | solute carrier family 43 member 2 | -2.01 | 1.88E-05 |

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|------------|-----------------|--|-------|----------|
| NRCAM | ENSG00000091129 | neuronal cell adhesion molecule | 2.90 | 1.94E-05 |
| SLC6A10P | ENSG00000214617 | solute carrier family 6 member 10, pseudogene | 2.32 | 1.94E-05 |
| TRIM7 | ENSG00000146054 | tripartite motif containing 7 | 2.06 | 2.08E-05 |
| QPRT | ENSG00000103485 | quinolinate phosphoribosyltransferase | -2.66 | 2.09E-05 |
| LENG9 | ENSG00000275183 | leukocyte receptor cluster member 9 | -2.13 | 2.09E-05 |
| RAET1K | ENSG00000218358 | retinoic acid early transcript 1K pseudogene | 2.09 | 2.18E-05 |
| NEAT1 | ENSG00000245532 | nuclear paraspeckle assembly transcript 1 (non-protein coding) | 2.32 | 2.19E-05 |
| SPSB2 | ENSG00000111671 | splA/ryanodine receptor domain and SOCS box containing 2 | -2.34 | 2.23E-05 |
| ST6GALNAC5 | ENSG00000117069 | ST6 N-acetylgalactosaminide alpha-2,6-sialyltransferase 5 | -2.17 | 2.36E-05 |
| ENTPD3 | ENSG00000168032 | ectonucleoside triphosphate diphosphohydrolase 3 | -2.79 | 2.61E-05 |
| NPPA-AS1 | ENSG00000242349 | NPPA antisense RNA 1 | 2.61 | 2.71E-05 |
| MOCOS | ENSG00000075643 | molybdenum cofactor sulfurase | 2.67 | 2.73E-05 |

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|------------------|-----------------|--|-------|----------|
| KCNIP4-IT1 | ENSG00000280650 | KCNIP4 intronic transcript 1 | -2.62 | 2.94E-05 |
| DSCC1 | ENSG00000136982 | DNA replication and sister chromatid cohesion 1 | -2.14 | 2.97E-05 |
| ADAM20 | ENSG00000134007 | ADAM metallopeptidase domain 20 | 2.13 | 3.03E-05 |
| ALOX5AP | ENSG00000132965 | arachidonate 5-lipoxygenase activating protein | -2.59 | 3.18E-05 |
| NPHP3- ACAD11 | ENSG00000274810 | NPHP3-ACAD11 readthrough (NMD candidate) | 2.12 | 3.53E-05 |
| MIR181A1HG | ENSG00000229989 | MIR181A1 host gene | -2.27 | 3.62E-05 |
| RARA-AS1 | ENSG00000265666 | RARA antisense RNA 1 | -2.37 | 3.73E-05 |
| UBAP1L | ENSG00000246922 | ubiquitin associated protein 1 like | 2.36 | 3.83E-05 |
| ZNF467 | ENSG00000181444 | zinc finger protein 467 | -2.37 | 3.86E-05 |
| RIBC1 | ENSG00000158423 | RIB43A domain with coiled-coils 1 | -2.70 | 3.97E-05 |
| TSNAXIP1 | ENSG00000102904 | translin associated factor X interacting protein 1 | -2.14 | 4.52E-05 |
| NXNL2 | ENSG00000130045 | nucleoredoxin-like 2 | -2.21 | 4.81E-05 |
| SIM2 | ENSG00000159263 | single-minded family bHLH transcription factor 2 | 2.07 | 4.82E-05 |
| TFAP2A-AS1 | ENSG00000229950 | TFAP2A antisense RNA 1 | -2.05 | 6.04E-05 |
| ZNF732 | ENSG00000186777 | zinc finger protein 732 | 2.27 | 6.09E-05 |

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|--------------|-----------------|--|-------|----------|
| KCNQ4 | ENSG00000117013 | potassium voltage-gated channel subfamily Q member 4 | 2.37 | 6.23E-05 |
| TNXB | ENSG00000231608 | tenascin XB | 2.16 | 6.51E-05 |
| PROCA1 | ENSG00000167525 | protein interacting with cyclin A1 | -2.21 | 6.78E-05 |
| LOC100506368 | | | -2.34 | 6.97E-05 |
| PRRT2 | ENSG00000167371 | proline rich transmembrane protein 2 | -2.33 | 7.03E-05 |
| DICER1-AS1 | ENSG00000235706 | DICER1 antisense RNA 1 | -2.50 | 7.16E-05 |
| TPI1P2 | ENSG00000230359 | triosephosphate isomerase 1 pseudogene 2 | -2.64 | 8.25E-05 |
| URB1-AS1 | ENSG00000256073 | URB1 antisense RNA 1 (head to head) | -2.84 | 8.61E-05 |
| SERHL2 | ENSG00000183569 | serine hydrolase-like 2 | -2.18 | 8.67E-05 |
| HRH1 | ENSG00000196639 | histamine receptor H1 | 2.06 | 8.88E-05 |
| FAM227B | ENSG00000166262 | family with sequence similarity 227 member B | -2.01 | 9.36E-05 |
| TMEM81 | ENSG00000174529 | transmembrane protein 81 | 2.11 | 9.44E-05 |
| KRTAP2-3 | ENSG00000262862 | keratin associated protein 2-3 | 2.04 | 0.000100 |
| LCP1 | ENSG00000136167 | lymphocyte cytosolic protein 1 | 2.04 | 0.000104 |
| TMEM232 | ENSG00000186952 | transmembrane protein 232 | -2.09 | 0.000104 |

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|--------------|-----------------|--|-------|----------|
| LDLRAD4 | ENSG00000168675 | low density lipoprotein receptor class A domain containing 4 | -2.29 | 0.000115 |
| LOC100507557 | | | -2.32 | 0.000115 |
| IL20RB | ENSG00000174564 | interleukin 20 receptor subunit beta | 2.44 | 0.000116 |
| PWWP2B | ENSG00000171813 | PWWP domain containing 2B | 2.40 | 0.000116 |
| LINC01573 | ENSG00000237886 | NOTCH1 associated lncRNA in T-cell acute lymphoblastic leukemia 1 | -2.12 | 0.000118 |
| LOC101930010 | | | 2.23 | 0.000122 |
| LOC101927481 | | | 2.38 | 0.000122 |
| NRG2 | ENSG00000158458 | neuregulin 2 | -2.20 | 0.000126 |
| COLQ | ENSG00000206561 | collagen-like tail subunit (single strand of homotrimer) of asymmetric acetylcholinesterase | -2.16 | 0.000134 |
| RPL21P44 | ENSG00000229585 | ribosomal protein L21 pseudogene 44 | 2.03 | 0.000134 |
| GRIN2C | ENSG00000161509 | glutamate ionotropic receptor NMDA type subunit 2C | 2.51 | 0.000161 |
| LINC00324 | ENSG00000178977 | long intergenic non-protein coding RNA 324 | -2.02 | 0.000163 |

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|-----------|-----------------|--|-------|----------|
| PPAN | ENSG00000130810 | peter pan homolog (Drosophila) | 2.14 | 0.000179 |
| CEBPB-AS1 | ENSG00000277449 | CEBPB antisense RNA 1 | 2.11 | 0.000186 |
| CTAGE9 | ENSG00000236761 | CTAGE family member 9 | 2.45 | 0.000207 |
| TMEM71 | ENSG00000165071 | transmembrane protein 71 | 2.06 | 0.000225 |
| TMSB4Y | ENSG00000154620 | thymosin beta 4, Y-linked | -2.40 | 0.000249 |
| THEMIS2 | ENSG00000130775 | thymocyte selection associated family member 2 | 2.52 | 0.000259 |
| PCAT6 | ENSG00000228288 | prostate cancer associated transcript 6 (non-protein coding) | 2.18 | 0.000270 |
| AIM1 | ENSG00000112297 | absent in melanoma 1 | 3.42 | 0.000280 |
| PLEKHA4 | ENSG00000105559 | pleckstrin homology domain containing A4 | 2.11 | 0.000312 |
| CCDC3 | ENSG00000151468 | coiled-coil domain containing 3 | -2.00 | 0.000313 |
| LINC01465 | ENSG00000221949 | long intergenic non-protein coding RNA 1465 | -2.63 | 0.000323 |
| NCKAP5 | ENSG00000176771 | NCK associated protein 5 | -2.07 | 0.000346 |
| TNFAIP2 | ENSG00000185215 | TNF alpha induced protein 2 | -2.56 | 0.000421 |
| METRN | ENSG00000103260 | meteorin, glial cell differentiation regulator | -2.25 | 0.000444 |
| ADAM28 | ENSG00000042980 | ADAM metallopeptidase domain 28 | -3.23 | 0.000451 |

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|--------------|-----------------|---|-------|----------|
| S100A4 | ENSG00000196154 | S100 calcium binding protein A4 | -2.09 | 0.000452 |
| FAM78A | ENSG00000126882 | family with sequence similarity 78 member A | -2.19 | 0.000462 |
| LINC01271 | ENSG00000233077 | long intergenic non-protein coding RNA 1271 | -2.12 | 0.000476 |
| SNORD14C | ENSG00000202252 | small nucleolar RNA, C/D box 14C | 2.83 | 0.000537 |
| RHPN1-AS1 | ENSG00000254389 | RHPN1 antisense RNA 1 (head to head) | -2.21 | 0.000578 |
| PEX11G | ENSG00000104883 | peroxisomal biogenesis factor 11 gamma | -2.11 | 0.000590 |
| ADPRHL1 | ENSG00000153531 | ADP-ribosylhydrolase like 1 | 2.34 | 0.000603 |
| PLCD4 | ENSG00000115556 | phospholipase C delta 4 | -2.04 | 0.000609 |
| RNVU1-8 | ENSG00000201142 | RNA, variant U1 small nuclear 8 | -3.18 | 0.000715 |
| GPRIN2 | ENSG00000204175 | G protein regulated inducer of neurite outgrowth 2 | -2.08 | 0.000745 |
| NPIPA5 | ENSG00000282705 | nuclear pore complex interacting protein family member A5 | 2.07 | 0.000772 |
| TMC3 | ENSG00000188869 | transmembrane channel like 3 | -3.24 | 0.000782 |
| B3GNT3 | ENSG00000179913 | UDP-GlcNAc:betaGal beta-1,3-N- acetylglucosaminyltransferase 3 | -2.13 | 0.000801 |
| SLC25A21-AS1 | ENSG00000258708 | SLC25A21 antisense RNA 1 | -2.06 | 0.000836 |

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|--------------|-----------------|---|-------|---------|
| SMIM10L2B | ENSG00000196972 | small integral membrane protein 10 like 2B | -2.14 | 0.00100 |
| OLMALINC | ENSG00000235823 | oligodendrocyte maturation-associated long intergenic non-coding RNA | 2.04 | 0.00102 |
| METTL7B | ENSG00000170439 | methyltransferase like 7B | -2.30 | 0.00120 |
| LINC01152 | ENSG00000256124 | long intergenic non-protein coding RNA 1152 | -2.03 | 0.00123 |
| ZCCHC18 | ENSG00000166707 | zinc finger CCHC-type containing 18 | -2.17 | 0.00124 |
| XDH | ENSG00000158125 | xanthine dehydrogenase | 2.22 | 0.00126 |
| MAP3K15 | ENSG00000180815 | mitogen-activated protein kinase kinase kinase 15 | 2.03 | 0.00130 |
| MIR1204 | ENSG00000275264 | microRNA 1204 | 2.27 | 0.00135 |
| LOC100130460 | | | 2.02 | 0.00137 |
| COPG2IT1 | | | 2.02 | 0.00141 |
| PPFIA3 | ENSG00000177380 | PTPRF interacting protein alpha 3 | 2.04 | 0.00158 |
| FUT8-AS1 | ENSG00000276116 | FUT8 antisense RNA 1 | -2.23 | 0.00161 |
| GNB3 | ENSG00000111664 | G protein subunit beta 3 | 2.16 | 0.00188 |
| SEC24B-AS1 | ENSG00000247950 | SEC24B antisense RNA 1 | -2.01 | 0.00199 |
| F12 | ENSG00000131187 | coagulation factor XII | 2.05 | 0.00215 |

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|-----------|-----------------|--|-------|---------|
| STEAP1 | ENSG00000164647 | six transmembrane epithelial antigen of the prostate 1 | 2.17 | 0.00245 |
| LINC00571 | ENSG00000223685 | long intergenic non-protein coding RNA 571 | 2.23 | 0.00254 |
| AOC2 | ENSG00000131480 | amine oxidase, copper containing 2 | 2.27 | 0.00272 |
| RADIL | ENSG00000157927 | Rap associating with DIL domain | -5.69 | 0.00278 |
| RARRES3 | ENSG00000133321 | retinoic acid receptor responder 3 | -2.14 | 0.00279 |
| KDR | ENSG00000128052 | kinase insert domain receptor | -2.26 | 0.00280 |
| ST7-AS1 | ENSG00000227199 | ST7 antisense RNA 1 | -2.14 | 0.00289 |
| C10orf90 | ENSG00000154493 | chromosome 10 open reading frame 90 | -2.13 | 0.00389 |
| AGBL2 | ENSG00000165923 | ATP/GTP binding protein-like 2 | -2.18 | 0.00544 |
| CCDC96 | ENSG00000173013 | coiled-coil domain containing 96 | -2.13 | 0.00555 |
| BRICD5 | ENSG00000182685 | BRICHOS domain containing 5 | 2.10 | 0.00583 |
| RP1 | ENSG00000104237 | retinitis pigmentosa 1 (autosomal dominant) | -2.04 | 0.00616 |
| FAM74A3 | ENSG00000274355 | family with sequence similarity 74 member A3 | 2.06 | 0.00628 |
| PHYHIP | ENSG00000168490 | phytanoyl-CoA 2-hydroxylase interacting protein | -2.04 | 0.00642 |
| SNORD14E | ENSG00000200879 | small nucleolar RNA, C/D box 14E | 2.37 | 0.00651 |

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|--------------|-----------------|--|-------|---------|
| RNU5D-1 | ENSG00000200169 | RNA, U5D small nuclear 1 | -2.83 | 0.00704 |
| LINC01547 | ENSG00000183250 | long intergenic non-protein coding RNA 1547 | -2.36 | 0.00869 |
| GPSM3 | ENSG00000213654 | G-protein signaling modulator 3 | 2.03 | 0.0104 |
| SNORD14D | ENSG00000207118 | small nucleolar RNA, C/D box 14D | 2.01 | 0.0105 |
| ATP10A | ENSG00000206190 | ATPase phospholipid transporting 10A (putative) | 2.12 | 0.0107 |
| LOC101927189 | | | -2.37 | 0.0121 |
| SNORD28 | ENSG00000274544 | small nucleolar RNA, C/D box 28 | -2.35 | 0.0136 |
| LINC00310 | ENSG00000227456 | long intergenic non-protein coding RNA 310 | 2.14 | 0.0140 |
| ATP2A1-AS1 | ENSG00000260442 | ATP2A1 antisense RNA 1 | 2.16 | 0.01474 |
| XKR5 | ENSG00000275591 | XK related 5 | -2.19 | 0.0156 |
| SNORD33 | ENSG00000252022 | Small nucleolar RNA Z195/SNORD33/SNORD32 family | 2.01 | 0.01617 |
| HPDL | ENSG00000186603 | 4-hydroxyphenylpyruvate dioxygenase like | -5.42 | 0.0206 |
| LOC554206 | | | -2.13 | 0.0231 |
| LOC100289361 | | | -2.20 | 0.0236 |
| SNORD100 | ENSG00000221500 | small nucleolar RNA, C/D box 100 | -2.40 | 0.0293 |

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|----------|-----------------|------------------------------------|-------|--------|
| LRRC15 | ENSG00000172061 | leucine rich repeat containing 15 | -2.03 | 0.0307 |
| SLC16A14 | ENSG00000163053 | solute carrier family 16 member 14 | -2.32 | 0.0371 |
| TXNDC5 | ENSG00000239264 | thioredoxin domain containing 5 | -2.23 | 0.0408 |
