

| Transcription Factor | Target Genes | pvalue | Fold Change |
|----------------------|--------------|--------|-------------|
| JUN_GENES | EPHX1 | 0.0162 | 2.72 |
| | ARID1A | 0.0223 | 2.41 |
| | LTBP3 | 0.0070 | 2.35 |
| | ZYX | 0.0032 | 2.21 |
| | CORO1B | 0.0393 | 2.16 |
| | TGFB1 | 0.0301 | 2.09 |
| | DPYSL4 | 0.0499 | 2.06 |
| | PTOV1 | 0.0211 | 2.04 |
| | C16orf58 | 0.0308 | 2.04 |
| | CDC42EP5 | 0.0176 | 2.04 |
| | EML3 | 0.0479 | 2.02 |
| | DGKZ | 0.0500 | 2.02 |
| | SLC16A3 | 0.0294 | 2.00 |
| | BOK | 0.0167 | 2.00 |
| | TLE2 | 0.0109 | 1.99 |
| | TLN1 | 0.0037 | 1.96 |
| | LMNA | 0.0057 | 1.96 |
| | MYL9 | 0.0053 | 1.94 |
| | TMEM132A | 0.0072 | 1.89 |
| | TRIP6 | 0.0070 | 1.86 |
| | PLEKHM2 | 0.0175 | 1.84 |
| | ZC3H3 | 0.0476 | 1.82 |
| | CPSF1 | 0.0366 | 1.82 |
| | DMPK | 0.0100 | 1.79 |
| | PLEC | 0.0073 | 1.79 |
| | PLOD3 | 0.0052 | 1.78 |
| | DOCK6 | 0.0214 | 1.76 |
| | HGSNAT | 0.0184 | 1.76 |
| | COTL1 | 0.0246 | 1.74 |
| | RAC2 | 0.0104 | 1.72 |
| | CABIN1 | 0.0224 | 1.71 |
| | GAS6 | 0.0243 | 1.71 |
| | TMEM39B | 0.0226 | 1.71 |
| | SLC6A8 | 0.0150 | 1.70 |
| | SMARCB1 | 0.0406 | 1.70 |
| | PFN1 | 0.0154 | 1.69 |
| | HDAC7 | 0.0140 | 1.68 |
| | ASMTL | 0.0059 | 1.68 |
| | FAM69B | 0.0085 | 1.68 |
| | CYC1 | 0.0200 | 1.67 |
| | FCGRT | 0.0135 | 1.67 |
| | CX3CL1 | 0.0445 | 1.66 |
| | NBEAL2 | 0.0152 | 1.65 |
| | MARCKSL1 | 0.0454 | 1.65 |

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| DOLK | 0.0307 | 1.64 |
| ERBB2 | 0.0481 | 1.63 |
| MFSD10 | 0.0248 | 1.63 |
| NADSYN1 | 0.0448 | 1.63 |
| RAB1B | 0.0386 | 1.62 |
| MAP7D1 | 0.0133 | 1.61 |
| FSCN1 | 0.0037 | 1.60 |
| TNIP1 | 0.0338 | 1.60 |
| C19orf43 | 0.0240 | 1.60 |
| DTX3 | 0.0104 | 1.58 |
| EEFSEC | 0.0182 | 1.58 |
| NDUFB11 | 0.0260 | 1.58 |
| SLC2A6 | 0.0311 | 1.57 |
| ZZEF1 | 0.0452 | 1.57 |
| HMGA1 | 0.0167 | 1.57 |
| FKBP8 | 0.0314 | 1.57 |
| PLXNB3 | 0.0228 | 1.56 |
| ALDOA | 0.0162 | 1.55 |
| SIGMAR1 | 0.0036 | 1.55 |
| GBGT1 | 0.0296 | 1.55 |
| MAP4 | 0.0431 | 1.54 |
| ZNF513 | 0.0446 | 1.54 |
| TUBB3 | 0.0000 | 1.53 |
| ELF4 | 0.0121 | 1.53 |
| ADD1 | 0.0044 | 1.52 |
| KHNYN | 0.0117 | 1.52 |
| SYVN1 | 0.0310 | 1.52 |
| PRKCDBP | 0.0265 | 1.51 |
| DYNC1H1 | 0.0228 | 1.51 |
| AIF1L | 0.0380 | 1.50 |
| MFAP2 | 0.0437 | 1.50 |
| STAT6 | 0.0036 | 1.49 |
| HLA-G | 0.0304 | 1.49 |
| PSMG3 | 0.0443 | 1.48 |
| PIM3 | 0.0203 | 1.48 |
| S100A6 | 0.0309 | 1.48 |
| LDB1 | 0.0421 | 1.48 |
| CDC25B | 0.0189 | 1.47 |
| UBAP2L | 0.0333 | 1.47 |
| GADD45B | 0.0118 | 1.46 |
| TMEM8A | 0.0088 | 1.45 |
| ATG13 | 0.0458 | 1.45 |
| TTYH3 | 0.0379 | 1.44 |
| BCAR1 | 0.0141 | 1.44 |
| NCAPH2 | 0.0477 | 1.44 |
| NOTCH4 | 0.0002 | 1.43 |
| PI4KB | 0.0356 | 1.43 |

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|-----------|--------|------|
| FAM127A | 0.0206 | 1.43 |
| KRT18 | 0.0384 | 1.42 |
| CCDC86 | 0.0428 | 1.42 |
| HYOU1 | 0.0187 | 1.42 |
| AARS | 0.0180 | 1.42 |
| HK1 | 0.0365 | 1.41 |
| COL6A1 | 0.0310 | 1.41 |
| EHD2 | 0.0349 | 1.39 |
| MDC1 | 0.0086 | 1.39 |
| DCTN2 | 0.0288 | 1.38 |
| VPS53 | 0.0248 | 1.37 |
| INO80B | 0.0177 | 1.37 |
| ABL2 | 0.0475 | 1.37 |
| SH3TC1 | 0.0077 | 1.36 |
| EPN2 | 0.0391 | 1.35 |
| COMT | 0.0380 | 1.35 |
| ICAM2 | 0.0248 | 1.35 |
| IFITM2 | 0.0224 | 1.35 |
| HPS1 | 0.0460 | 1.34 |
| SVEP1 | 0.0003 | 1.34 |
| RABGAP1 | 0.0287 | 1.34 |
| KLC1 | 0.0378 | 1.34 |
| AP2S1 | 0.0043 | 1.34 |
| GTF2IRD1 | 0.0087 | 1.34 |
| LSM11 | 0.0464 | 1.33 |
| CABLES1 | 0.0027 | 1.33 |
| REPIN1 | 0.0038 | 1.33 |
| KDELR1 | 0.0058 | 1.33 |
| PRMT2 | 0.0477 | 1.33 |
| WWTR1 | 0.0286 | 1.33 |
| PLAU | 0.0025 | 1.32 |
| TBCB | 0.0419 | 1.32 |
| CLN6 | 0.0030 | 1.32 |
| CLCN7 | 0.0460 | 1.31 |
| HLA-E | 0.0031 | 1.31 |
| PSMC4 | 0.0223 | 1.31 |
| KIAA0319L | 0.0053 | 1.31 |
| SLC6A17 | 0.0097 | 1.31 |
| XKR8 | 0.0072 | 1.30 |
| NMT1 | 0.0340 | 1.30 |
| SLC25A22 | 0.0306 | 1.29 |
| GIT1 | 0.0338 | 1.29 |
| GPAA1 | 0.0460 | 1.29 |
| RAPGEF1 | 0.0079 | 1.28 |
| BACE2 | 0.0069 | 1.28 |
| PPP1R12C | 0.0381 | 1.28 |
| SLC1A5 | 0.0427 | 1.28 |

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| HIPK1 | 0.0290 | 1.27 |
| ENO1 | 0.0086 | 1.27 |
| ZNFX1 | 0.0397 | 1.27 |
| NDUFC1 | 0.0037 | 1.27 |
| SLC41A3 | 0.0462 | 1.26 |
| SQSTM1 | 0.0138 | 1.26 |
| BTNL9 | 0.0490 | 1.26 |
| CYB5R3 | 0.0141 | 1.26 |
| ERP29 | 0.0048 | 1.26 |
| LCNL1 | 0.0241 | 1.26 |
| ENPP1 | 0.0103 | 1.26 |
| MICAL2 | 0.0440 | 1.25 |
| SEC61A1 | 0.0067 | 1.25 |
| ATAD3A | 0.0306 | 1.25 |
| ABCC10 | 0.0349 | 1.25 |
| CA12 | 0.0383 | 1.24 |
| PER1 | 0.0355 | 1.23 |
| PDIA5 | 0.0018 | 1.23 |
| FNDC5 | 0.0219 | 1.23 |
| DNASE1 | 0.0326 | 1.23 |
| MMRN2 | 0.0133 | 1.23 |
| PEX5 | 0.0452 | 1.22 |
| PTMS | 0.0452 | 1.21 |
| DCTN3 | 0.0490 | 1.21 |
| TCP11L2 | 0.0249 | 1.20 |
| JDP2 | 0.0369 | 1.19 |
| MAPK8 | 0.0134 | 1.19 |
| GAB2 | 0.0212 | 1.19 |
| PRR5 | 0.0420 | 1.19 |
| NDUFAB1 | 0.0161 | 1.18 |
| CPXM1 | 0.0187 | 1.18 |
| EPHA6 | 0.0237 | 1.18 |
| HTR3A | 0.0164 | 1.18 |
| ZNF154 | 0.0411 | 1.17 |
| DNAH1 | 0.0434 | 1.17 |
| SNX18 | 0.0039 | 1.17 |
| DERL3 | 0.0352 | 1.17 |
| PNCK | 0.0497 | 1.16 |
| AQP4 | 0.0067 | 1.16 |
| KIF19 | 0.0013 | 1.16 |
| LY6K | 0.0199 | 1.16 |
| PRSS37 | 0.0353 | 1.15 |
| PHPT1 | 0.0256 | 1.15 |
| AGER | 0.0384 | 1.15 |
| PPP2R5B | 0.0050 | 1.15 |
| GLI3 | 0.0257 | 1.15 |
| GRSF1 | 0.0074 | 1.14 |

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| RAET1E | 0.0063 | 1.14 |
| SLC35C2 | 0.0299 | 1.14 |
| PCCA | 0.0163 | 1.14 |
| ZFP91 | 0.0108 | 1.14 |
| HLA-DOB | 0.0228 | 1.13 |
| MLX | 0.0463 | 1.12 |
| MCTP2 | 0.0333 | 1.12 |
| TLK1 | 0.0018 | 1.11 |
| GFRA1 | 0.0026 | 1.10 |
| WDR49 | 0.0376 | 1.10 |
| MAP9 | 0.0365 | 1.10 |
| BHLHE40 | 0.0216 | 1.09 |
| CHST5 | 0.0408 | 1.08 |
| PIPOX | 0.0048 | 1.06 |
| FANCC | 0.0045 | -1.05 |
| VDAC2 | 0.0465 | -1.07 |
| PARK7 | 0.0308 | -1.07 |
| SFTA3 | 0.0143 | -1.08 |
| PTPRO | 0.0176 | -1.08 |
| DCN | 0.0422 | -1.08 |
| SLAMF9 | 0.0315 | -1.10 |
| SGCB | 0.0113 | -1.10 |
| FZD1 | 0.0063 | -1.10 |
| HPGD | 0.0201 | -1.11 |
| BLID | 0.0391 | -1.11 |
| CASC5 | 0.0055 | -1.11 |
| SNTB1 | 0.0400 | -1.11 |
| EPHA3 | 0.0311 | -1.12 |
| USP14 | 0.0196 | -1.12 |
| SYT3 | 0.0493 | -1.12 |
| RAP1B | 0.0008 | -1.13 |
| CASP2 | 0.0333 | -1.13 |
| CLCA4 | 0.0151 | -1.14 |
| DUSP13 | 0.0224 | -1.14 |
| YIPF4 | 0.0239 | -1.14 |
| PDZD3 | 0.0478 | -1.14 |
| CYP2C9 | 0.0331 | -1.15 |
| KIAA1919 | 0.0464 | -1.15 |
| ATP2B2 | 0.0021 | -1.16 |
| IQCK | 0.0407 | -1.17 |
| IL27 | 0.0088 | -1.17 |
| C11orf57 | 0.0218 | -1.17 |
| HOPX | 0.0278 | -1.17 |
| CLDN11 | 0.0077 | -1.17 |
| KCNJ16 | 0.0461 | -1.18 |
| NPM1 | 0.0115 | -1.18 |
| CA5B | 0.0163 | -1.18 |

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| LYSMD1 | 0.0146 | -1.18 |
| AREG | 0.0010 | -1.18 |
| PCMT1 | 0.0221 | -1.19 |
| BLVRA | 0.0106 | -1.19 |
| AKTIP | 0.0403 | -1.20 |
| SLC24A4 | 0.0390 | -1.20 |
| CFLAR | 0.0021 | -1.21 |
| AHI1 | 0.0297 | -1.21 |
| PCDHA9 | 0.0107 | -1.22 |
| ZNF445 | 0.0115 | -1.22 |
| SPTA1 | 0.0385 | -1.22 |
| ZMYM2 | 0.0098 | -1.22 |
| LIMS3 | 0.0075 | -1.22 |
| BTBD9 | 0.0266 | -1.22 |
| ACLY | 0.0331 | -1.22 |
| ZNF780B | 0.0066 | -1.22 |
| SETD6 | 0.0390 | -1.23 |
| CMIP | 0.0350 | -1.23 |
| HEATR5B | 0.0043 | -1.23 |
| PARVG | 0.0229 | -1.24 |
| RAB8B | 0.0341 | -1.24 |
| TDRD3 | 0.0085 | -1.24 |
| CNIH4 | 0.0151 | -1.24 |
| DENND4C | 0.0382 | -1.25 |
| RPL15 | 0.0474 | -1.25 |
| PAPSS2 | 0.0394 | -1.26 |
| COPS8 | 0.0249 | -1.26 |
| TPD52L3 | 0.0310 | -1.26 |
| UQCRC2 | 0.0421 | -1.26 |
| SH3BP5 | 0.0116 | -1.26 |
| TM9SF3 | 0.0421 | -1.27 |
| CARD14 | 0.0075 | -1.27 |
| NMD3 | 0.0121 | -1.28 |
| CBX3 | 0.0005 | -1.28 |
| ELL3 | 0.0185 | -1.28 |
| ZNF175 | 0.0163 | -1.29 |
| NR2C1 | 0.0099 | -1.29 |
| RPL23 | 0.0366 | -1.29 |
| ANKRD26 | 0.0379 | -1.29 |
| PTPRB | 0.0486 | -1.29 |
| UBE3A | 0.0300 | -1.29 |
| CPM | 0.0153 | -1.30 |
| ADK | 0.0082 | -1.30 |
| VPS4B | 0.0457 | -1.31 |
| RFTN2 | 0.0232 | -1.31 |
| MED24 | 0.0218 | -1.31 |
| AP1G1 | 0.0120 | -1.32 |

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| DDX3X | 0.0261 | -1.32 |
| SARNP | 0.0465 | -1.33 |
| NCOA3 | 0.0110 | -1.33 |
| SLMAP | 0.0198 | -1.33 |
| TTC13 | 0.0488 | -1.33 |
| ORC4 | 0.0141 | -1.33 |
| CMKLR1 | 0.0199 | -1.33 |
| MYO10 | 0.0091 | -1.34 |
| KPNA4 | 0.0222 | -1.34 |
| PPP2R5E | 0.0267 | -1.34 |
| TCF20 | 0.0138 | -1.36 |
| MRVI1 | 0.0477 | -1.36 |
| CCNC | 0.0369 | -1.37 |
| CSNK1G3 | 0.0222 | -1.37 |
| DDR2 | 0.0366 | -1.37 |
| USP53 | 0.0278 | -1.37 |
| RBM39 | 0.0239 | -1.38 |
| IFRD1 | 0.0420 | -1.38 |
| GFM1 | 0.0204 | -1.40 |
| ZNF10 | 0.0135 | -1.40 |
| HELZ | 0.0259 | -1.41 |
| ZBTB20 | 0.0217 | -1.41 |
| LRRCC1 | 0.0196 | -1.41 |
| KDM4C | 0.0361 | -1.43 |
| ZNF587 | 0.0255 | -1.46 |
| BNC2 | 0.0384 | -1.47 |
| CRBN | 0.0328 | -1.48 |
| TMLHE | 0.0202 | -1.48 |
| DMXL1 | 0.0127 | -1.49 |
| DNAJC1 | 0.0022 | -1.50 |
| SBDS | 0.0462 | -1.50 |
| LRP2BP | 0.0490 | -1.51 |
| NFIA | 0.0361 | -1.52 |
| SPAG16 | 0.0272 | -1.58 |
| RRP15 | 0.0424 | -1.59 |
| CARD8 | 0.0061 | -1.59 |
| SERPINB9 | 0.0221 | -1.61 |
| CHMP5 | 0.0438 | -1.64 |
| ATXN1 | 0.0332 | -1.65 |
| CDC14B | 0.0270 | -1.65 |
| ERGIC2 | 0.0002 | -1.70 |
| TAF9B | 0.0271 | -1.74 |
| GNAS | 0.0198 | -1.77 |
| TM2D1 | 0.0362 | -1.84 |
| FOSL2 | 0.0106 | -1.93 |
| AKAP2 | 0.0314 | -1.96 |
| RASSF3 | 0.0462 | -2.18 |

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| | NAA15 | 0.0345 | -2.35 |
| | ERAP1 | 0.0390 | -2.83 |
| | ARGLU1 | 0.0016 | -2.83 |
| | OGT | 0.0258 | -2.86 |
| | TNRC6B | 0.0118 | -2.90 |
| RREB1_GENES | VARS | 0.0170 | 2.73 |
| | PRRC2A | 0.0398 | 1.81 |
| | FLOT1 | 0.0103 | 1.81 |
| | EHMT2 | 0.0485 | 1.57 |
| | DDX39B | 0.0177 | 1.50 |
| | HLA-E | 0.0031 | 1.31 |
| CBX5_GENES | C1GALT1C1 | 0.0403 | -1.36 |
| | GTF2A1 | 0.0291 | -1.21 |
| | GTPBP10 | 0.0329 | -1.31 |
| | OR2F1 | 0.0086 | 1.08 |
| | RPS27L | 0.0181 | -2.36 |
| PPARA_GENES | GPR56 | 0.0364 | 1.83 |
| | DALRD3 | 0.0259 | 1.65 |
| | ACE | 0.0143 | 1.60 |
| | BCAR1 | 0.0141 | 1.44 |
| | PTMS | 0.0452 | 1.21 |
| | CSPG4 | 0.0022 | 1.20 |
| | UBL5 | 0.0462 | 1.14 |
| | RARA | 0.0020 | 1.13 |
| | ANKRD9 | 0.0093 | 1.11 |
| | RPS3A | 0.0452 | -1.08 |
| | BHMT2 | 0.0423 | -1.14 |
| | PKP4 | 0.0290 | -1.16 |
| | NR2F6 | 0.0376 | -1.16 |
| | BAZ1B | 0.0383 | -1.22 |
| | MARK3 | 0.0076 | -1.24 |
| | LDLRAD3 | 0.0403 | -1.30 |
| | PTPRE | 0.0279 | -1.32 |
| | COG5 | 0.0164 | -1.32 |
| | C2orf27A | 0.0284 | -1.33 |
| | TCF20 | 0.0138 | -1.36 |
| | KIAA0232 | 0.0058 | -1.38 |
| | KIAA1731 | 0.0107 | -1.56 |
| | DICER1 | 0.0080 | -1.78 |
| | JRKL | 0.0096 | -2.00 |
| | PPP3CA | 0.0015 | -2.17 |
| ATF1_GENES | PRRC2A | 0.0397962 | 1.81 |
| | COTL1 | 0.0246135 | 1.74 |
| | YPEL3 | 0.0122296 | 1.69 |
| | HES4 | 0.0496334 | 1.57 |

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| | PI4KB | 0.0356287 | 1.43 |
| | HK1 | 0.0364752 | 1.41 |
| | SLC9A1 | 0.0129621 | 1.41 |
| | TYK2 | 0.0241114 | 1.40 |
| | SREBF2 | 0.0493517 | 1.40 |
| | ZFAND2B | 0.0496484 | 1.39 |
| | CRELD1 | 0.0213071 | 1.37 |
| | MPV17L2 | 0.000250357 | 1.37 |
| | RNPS1 | 0.0178513 | 1.24 |
| | TMUB2 | 0.031506 | 1.24 |
| | C6orf132 | 0.0320494 | 1.20 |
| | ADPRHL1 | 0.0105337 | 1.16 |
| | FAM53C | 0.0319929 | 1.14 |
| | USP22 | 0.00248997 | 1.13 |
| | BRF1 | 0.041197 | 1.12 |
| | HSPA12A | 0.0443255 | 1.11 |
| | EAF2 | 0.0334967 | 1.09 |
| | MCM10 | 0.0229955 | -1.04 |
| | PTPRO | 0.0176464 | -1.08 |
| | NACA | 0.0432938 | -1.08 |
| | RPL24 | 0.0328647 | -1.17 |
| | MURC | 0.021704 | -1.17 |
| | ARL5B | 0.0326243 | -1.23 |
| | KPNA4 | 0.0221878 | -1.34 |
| | UBE2N | 0.0244434 | -1.38 |
| | ARMCX3 | 0.0300292 | -1.47 |
| | DNAJA2 | 0.0113841 | -1.49 |
| | UBE2B | 0.0226948 | -1.52 |
| | JUN | 0.0146453 | -1.58 |
| | RBBP6 | 0.0247192 | -1.60 |
| | KPNA5 | 0.045299 | -1.60 |
| | TPR | 0.0299332 | -1.77 |
| PLAG1_GENES | DDX39B | 0.0177 | 1.50 |
| | EHMT2 | 0.0485 | 1.57 |
| | FLOT1 | 0.0103 | 1.81 |
| | HLA-E | 0.0031 | 1.31 |
| | PRRC2A | 0.0398 | 1.81 |
| | VARS | 0.0170 | 2.73 |
| TEAD2_GENES | RFC5 | 0.0035 | -3.37 |
| | SPTBN1 | 0.0057 | -2.95 |
| | RHEB | 0.0450 | -2.93 |
| | OGT | 0.0258 | -2.86 |
| | HDGFRP3 | 0.0032 | -2.77 |
| | COCH | 0.0257 | -2.48 |
| | RPL27A | 0.0174 | -2.47 |

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| UBE2Z | 0.0278 | -1.96 |
| TMEFF2 | 0.0081 | -1.96 |
| TRIM13 | 0.0370 | -1.92 |
| NFKBIZ | 0.0147 | -1.79 |
| SLC12A2 | 0.0025 | -1.73 |
| RPL10 | 0.0486 | -1.66 |
| ATP11A | 0.0246 | -1.62 |
| APLP2 | 0.0273 | -1.60 |
| JUN | 0.0146 | -1.58 |
| KIAA1731 | 0.0107 | -1.56 |
| DCUN1D1 | 0.0120 | -1.48 |
| RREB1 | 0.0210 | -1.48 |
| SS18L1 | 0.0365 | -1.47 |
| SEMA6D | 0.0131 | -1.46 |
| CKS2 | 0.0329 | -1.44 |
| NFX1 | 0.0078 | -1.44 |
| MECOM | 0.0435 | -1.42 |
| QKI | 0.0201 | -1.41 |
| RIMKLB | 0.0309 | -1.38 |
| IFRD1 | 0.0420 | -1.38 |
| MSI2 | 0.0493 | -1.35 |
| EPS15L1 | 0.0312 | -1.35 |
| ORC4 | 0.0141 | -1.33 |
| ING2 | 0.0183 | -1.32 |
| FBXO11 | 0.0423 | -1.31 |
| CNOT6L | 0.0471 | -1.30 |
| CD58 | 0.0421 | -1.30 |
| SMAD2 | 0.0396 | -1.28 |
| PPP2R5C | 0.0246 | -1.28 |
| CBX3 | 0.0005 | -1.28 |
| NMD3 | 0.0121 | -1.28 |
| SOCS5 | 0.0197 | -1.28 |
| CARD14 | 0.0075 | -1.27 |
| JPH3 | 0.0175 | -1.27 |
| RFPL2 | 0.0465 | -1.27 |
| ADRBK2 | 0.0393 | -1.26 |
| PER3 | 0.0479 | -1.26 |
| CHCHD7 | 0.0473 | -1.25 |
| AHCTF1 | 0.0483 | -1.25 |
| ZNF345 | 0.0332 | -1.24 |
| DEK | 0.0264 | -1.24 |
| RAB1A | 0.0430 | -1.22 |
| DPP6 | 0.0283 | -1.22 |
| TBC1D24 | 0.0025 | -1.21 |
| FBXL13 | 0.0039 | -1.20 |

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| OCLM | 0.0034 | -1.19 |
| KDELC1 | 0.0239 | -1.19 |
| TBXA2R | 0.0099 | -1.18 |
| HNRNPL | 0.0233 | -1.18 |
| MED19 | 0.0406 | -1.17 |
| ANO5 | 0.0400 | -1.17 |
| NPAS3 | 0.0037 | -1.16 |
| RASGRF1 | 0.0398 | -1.16 |
| ATP2B2 | 0.0021 | -1.16 |
| NR2F6 | 0.0376 | -1.16 |
| GPBP1 | 0.0459 | -1.15 |
| CDK5R1 | 0.0138 | -1.14 |
| ANXA2 | 0.0310 | -1.11 |
| C6orf223 | 0.0392 | -1.09 |
| VSX1 | 0.0209 | -1.08 |
| KCMF1 | 0.0113 | -1.06 |
| IRS1 | 0.0299 | -1.05 |
| PCSK4 | 0.0035 | 1.06 |
| CDHR5 | 0.0418 | 1.10 |
| RPS28 | 0.0117 | 1.10 |
| MRFAP1 | 0.0489 | 1.11 |
| CAMK2N2 | 0.0234 | 1.12 |
| H3F3A | 0.0051 | 1.13 |
| MYL5 | 0.0379 | 1.13 |
| ZFP91 | 0.0108 | 1.14 |
| ATRNL1 | 0.0271 | 1.14 |
| TRMT61A | 0.0427 | 1.14 |
| GLI3 | 0.0257 | 1.15 |
| COL8A2 | 0.0060 | 1.15 |
| EPHB2 | 0.0169 | 1.15 |
| HSPB7 | 0.0144 | 1.16 |
| ZNF385B | 0.0308 | 1.16 |
| ACTB | 0.0475 | 1.17 |
| KANK2 | 0.0114 | 1.17 |
| LPIN1 | 0.0375 | 1.17 |
| RAE1 | 0.0079 | 1.17 |
| OBSCN | 0.0307 | 1.18 |
| MLLT6 | 0.0290 | 1.18 |
| CPXM1 | 0.0187 | 1.18 |
| TNFRSF18 | 0.0485 | 1.18 |
| TLE1 | 0.0436 | 1.18 |
| ZBTB7B | 0.0020 | 1.19 |
| PRR5 | 0.0420 | 1.19 |
| NAV2 | 0.0067 | 1.19 |
| JDP2 | 0.0369 | 1.19 |

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| SLC27A5 | 0.0355 | 1.22 |
| TGIF2 | 0.0410 | 1.23 |
| MARVELD1 | 0.0306 | 1.23 |
| HBA1 | 0.0388 | 1.23 |
| LIMK1 | 0.0182 | 1.23 |
| TSPYL2 | 0.0301 | 1.24 |
| C11orf84 | 0.0351 | 1.24 |
| CSNK1G2 | 0.0007 | 1.24 |
| ABCD1 | 0.0326 | 1.25 |
| ATXN7L3 | 0.0055 | 1.25 |
| CDV3 | 0.0193 | 1.25 |
| MAPKAPK2 | 0.0488 | 1.25 |
| LPPR3 | 0.0159 | 1.25 |
| RGS19 | 0.0320 | 1.26 |
| SQSTM1 | 0.0138 | 1.26 |
| THRA | 0.0434 | 1.27 |
| HS1BP3 | 0.0183 | 1.27 |
| SLC1A5 | 0.0427 | 1.28 |
| C17orf70 | 0.0423 | 1.28 |
| SLC25A22 | 0.0306 | 1.29 |
| ARHGEF17 | 0.0011 | 1.29 |
| COL4A2 | 0.0181 | 1.30 |
| NMT1 | 0.0340 | 1.30 |
| EPHB4 | 0.0392 | 1.31 |
| RAB4B | 0.0181 | 1.33 |
| COMMD4 | 0.0076 | 1.33 |
| GABARAP | 0.0010 | 1.33 |
| RGS3 | 0.0088 | 1.33 |
| PRMT2 | 0.0477 | 1.33 |
| GTF2IRD1 | 0.0087 | 1.34 |
| COMT | 0.0380 | 1.35 |
| PRDX5 | 0.0174 | 1.36 |
| ABL2 | 0.0475 | 1.37 |
| CSRP1 | 0.0005 | 1.37 |
| FAM78A | 0.0069 | 1.37 |
| VPS53 | 0.0248 | 1.37 |
| CRELD2 | 0.0444 | 1.38 |
| ARAP3 | 0.0055 | 1.38 |
| UBL7 | 0.0282 | 1.38 |
| UBTF | 0.0447 | 1.38 |
| SHC1 | 0.0261 | 1.39 |
| TENC1 | 0.0080 | 1.39 |
| MTA1 | 0.0080 | 1.39 |
| ZC3H7B | 0.0336 | 1.40 |
| SLC9A1 | 0.0130 | 1.41 |

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| CIC | 0.0030 | 1.41 |
| ABHD14A | 0.0085 | 1.41 |
| FSD1 | 0.0175 | 1.42 |
| EIF4G1 | 0.0336 | 1.43 |
| ACIN1 | 0.0030 | 1.43 |
| BCAR1 | 0.0141 | 1.44 |
| TUBB | 0.0008 | 1.46 |
| UBE2J2 | 0.0428 | 1.46 |
| OGFR | 0.0367 | 1.46 |
| TPI1 | 0.0385 | 1.46 |
| CDC25B | 0.0189 | 1.47 |
| SMARCA4 | 0.0130 | 1.47 |
| TSPAN4 | 0.0444 | 1.47 |
| PIM3 | 0.0203 | 1.48 |
| CRAT | 0.0067 | 1.49 |
| STAT6 | 0.0036 | 1.49 |
| TCF3 | 0.0182 | 1.49 |
| PILRB | 0.0348 | 1.50 |
| DYNC1H1 | 0.0228 | 1.51 |
| AES | 0.0063 | 1.51 |
| ELF4 | 0.0121 | 1.53 |
| MMP2 | 0.0028 | 1.54 |
| RAB5C | 0.0010 | 1.55 |
| ACADVL | 0.0202 | 1.55 |
| PCBP4 | 0.0475 | 1.56 |
| HMGA1 | 0.0167 | 1.57 |
| ZZEF1 | 0.0452 | 1.57 |
| ATP13A1 | 0.0039 | 1.57 |
| HES4 | 0.0496 | 1.57 |
| SCARA3 | 0.0210 | 1.58 |
| SLC29A1 | 0.0303 | 1.59 |
| CPNE1 | 0.0157 | 1.59 |
| RAVER1 | 0.0239 | 1.59 |
| PPP2R4 | 0.0220 | 1.63 |
| UCKL1 | 0.0427 | 1.64 |
| FBLIM1 | 0.0327 | 1.64 |
| CITED2 | 0.0364 | 1.64 |
| LRFN4 | 0.0386 | 1.64 |
| FSTL3 | 0.0214 | 1.65 |
| MARCKSL1 | 0.0454 | 1.65 |
| SGSH | 0.0274 | 1.67 |
| MCM7 | 0.0417 | 1.67 |
| HSF1 | 0.0433 | 1.68 |
| PRPF31 | 0.0406 | 1.68 |
| ASMTL | 0.0059 | 1.68 |

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|--------------|----------|--------|-------|
| | HDAC7 | 0.0140 | 1.68 |
| | DHCR7 | 0.0033 | 1.69 |
| | MDK | 0.0242 | 1.69 |
| | PPP1R14B | 0.0165 | 1.69 |
| | PFN1 | 0.0154 | 1.69 |
| | GNA11 | 0.0031 | 1.70 |
| | SLC6A8 | 0.0150 | 1.70 |
| | HOMER3 | 0.0009 | 1.70 |
| | HIP1R | 0.0280 | 1.73 |
| | DBN1 | 0.0097 | 1.73 |
| | MBOAT7 | 0.0231 | 1.74 |
| | STUB1 | 0.0275 | 1.76 |
| | CTSD | 0.0072 | 1.77 |
| | ECM1 | 0.0355 | 1.78 |
| | FAM65A | 0.0014 | 1.78 |
| | SH2D3C | 0.0316 | 1.78 |
| | PLEC | 0.0073 | 1.79 |
| | FLOT1 | 0.0103 | 1.81 |
| | RPP25 | 0.0192 | 1.85 |
| | ACTR1A | 0.0214 | 1.87 |
| | LRP5 | 0.0194 | 1.92 |
| | MYL9 | 0.0053 | 1.94 |
| | LMNA | 0.0057 | 1.96 |
| | ZNF618 | 0.0034 | 2.06 |
| | NT5DC2 | 0.0023 | 2.08 |
| | PRKCSH | 0.0137 | 2.11 |
| | ARHGDIA | 0.0058 | 2.15 |
| | POLR2L | 0.0119 | 2.15 |
| | ZYX | 0.0032 | 2.21 |
| | CAMK2N1 | 0.0406 | 2.22 |
| | MAZ | 0.0010 | 2.25 |
| | TGFB1I1 | 0.0056 | 2.33 |
| | LTBP3 | 0.0070 | 2.35 |
| | FLNA | 0.0007 | 2.67 |
| REPIN1_GENES | FAM76B | 0.0239 | -5.94 |
| | EME1 | 0.0252 | -3.19 |
| | OGT | 0.0258 | -2.86 |
| | FLCN | 0.0303 | -2.41 |
| | RPS27L | 0.0181 | -2.36 |
| | TMEFF2 | 0.0081 | -1.96 |
| | FOSL2 | 0.0106 | -1.93 |
| | MRPS25 | 0.0117 | -1.92 |
| | SLMO2 | 0.0447 | -1.87 |
| | FAM134A | 0.0045 | -1.86 |
| | PDGFA | 0.0087 | -1.82 |

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| TAF9B | 0.0271 | -1.74 |
| SCAF11 | 0.0258 | -1.73 |
| KPNA3 | 0.0268 | -1.70 |
| RAB14 | 0.0498 | -1.69 |
| NEK1 | 0.0383 | -1.67 |
| ATXN7 | 0.0420 | -1.63 |
| FNIP1 | 0.0199 | -1.63 |
| PRICKLE1 | 0.0263 | -1.63 |
| PHAX | 0.0070 | -1.56 |
| ANKH | 0.0028 | -1.52 |
| NDUFS1 | 0.0341 | -1.52 |
| HIPK2 | 0.0278 | -1.48 |
| FOXN2 | 0.0463 | -1.48 |
| TRAPPC2 | 0.0388 | -1.48 |
| PLEKHA3 | 0.0219 | -1.47 |
| PPP1R2 | 0.0340 | -1.46 |
| MAP4K4 | 0.0201 | -1.46 |
| HELZ | 0.0259 | -1.41 |
| KIAA0232 | 0.0058 | -1.38 |
| RBM39 | 0.0239 | -1.38 |
| PICALM | 0.0440 | -1.37 |
| CCNC | 0.0369 | -1.37 |
| METTL4 | 0.0364 | -1.37 |
| GNB4 | 0.0275 | -1.36 |
| DHRS12 | 0.0378 | -1.36 |
| GUK1 | 0.0102 | -1.33 |
| DDX3X | 0.0261 | -1.32 |
| NCS1 | 0.0330 | -1.32 |
| PTPRE | 0.0279 | -1.32 |
| PTPRB | 0.0486 | -1.29 |
| ATF1 | 0.0250 | -1.29 |
| SMAD2 | 0.0396 | -1.28 |
| ARHGEF40 | 0.0339 | -1.28 |
| PDGFC | 0.0464 | -1.27 |
| KARS | 0.0052 | -1.27 |
| NUP50 | 0.0184 | -1.26 |
| ATP5F1 | 0.0026 | -1.26 |
| RGS10 | 0.0178 | -1.26 |
| LUC7L3 | 0.0066 | -1.25 |
| CHCHD7 | 0.0473 | -1.25 |
| B3GALNT2 | 0.0114 | -1.24 |
| CMIP | 0.0350 | -1.23 |
| SLC10A7 | 0.0308 | -1.23 |
| ZNF248 | 0.0221 | -1.22 |
| DPP6 | 0.0283 | -1.22 |

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| CFLAR | 0.0021 | -1.21 |
| SNAP25 | 0.0336 | -1.20 |
| SFT2D1 | 0.0115 | -1.20 |
| MYLIP | 0.0413 | -1.20 |
| FBXL13 | 0.0039 | -1.20 |
| RNF138 | 0.0345 | -1.18 |
| HOPX | 0.0278 | -1.17 |
| SERP2 | 0.0346 | -1.16 |
| MATR3 | 0.0300 | -1.16 |
| BMP2K | 0.0490 | -1.16 |
| PKP4 | 0.0290 | -1.16 |
| PKNOX1 | 0.0464 | -1.14 |
| ZIC4 | 0.0051 | -1.14 |
| SMU1 | 0.0362 | -1.13 |
| SYT3 | 0.0493 | -1.12 |
| EIF5 | 0.0467 | -1.12 |
| SNTB1 | 0.0400 | -1.11 |
| CASP9 | 0.0235 | -1.10 |
| RPL22 | 0.0476 | -1.10 |
| HNRNPAB | 0.0310 | -1.10 |
| ZIC1 | 0.0407 | -1.07 |
| CASZ1 | 0.0483 | 1.07 |
| PPIA | 0.0170 | 1.07 |
| GFRA1 | 0.0026 | 1.10 |
| CDHR5 | 0.0418 | 1.10 |
| RPS28 | 0.0117 | 1.10 |
| ANKRD9 | 0.0093 | 1.11 |
| RASGRP1 | 0.0221 | 1.11 |
| PAWR | 0.0402 | 1.12 |
| MLX | 0.0463 | 1.12 |
| UFD1L | 0.0349 | 1.12 |
| BRF1 | 0.0412 | 1.12 |
| RARA | 0.0020 | 1.13 |
| FOXH1 | 0.0376 | 1.14 |
| C17orf100 | 0.0432 | 1.14 |
| ATRNL1 | 0.0271 | 1.14 |
| SLC35C2 | 0.0299 | 1.14 |
| EPHB2 | 0.0169 | 1.15 |
| ZNF385B | 0.0308 | 1.16 |
| SYNE1 | 0.0422 | 1.17 |
| TMEM37 | 0.0498 | 1.17 |
| HSP90AB1 | 0.0305 | 1.17 |
| HEY2 | 0.0357 | 1.18 |
| EPHA6 | 0.0237 | 1.18 |
| ZBTB7B | 0.0020 | 1.19 |

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| NAV2 | 0.0067 | 1.19 |
| MAPK8 | 0.0134 | 1.19 |
| FOXC2 | 0.0087 | 1.19 |
| CDH5 | 0.0311 | 1.20 |
| RASSF7 | 0.0241 | 1.23 |
| LIMK1 | 0.0182 | 1.23 |
| CSNK1G2 | 0.0007 | 1.24 |
| USF2 | 0.0105 | 1.25 |
| ATXN7L3 | 0.0055 | 1.25 |
| CDV3 | 0.0193 | 1.25 |
| BTBD6 | 0.0447 | 1.26 |
| CYB5R3 | 0.0141 | 1.26 |
| KCTD17 | 0.0386 | 1.27 |
| WIPI2 | 0.0071 | 1.28 |
| LRRC32 | 0.0370 | 1.28 |
| ZNF76 | 0.0481 | 1.28 |
| GIT1 | 0.0338 | 1.29 |
| SLC25A22 | 0.0306 | 1.29 |
| JMJD8 | 0.0002 | 1.29 |
| COL4A2 | 0.0181 | 1.30 |
| LTBP2 | 0.0101 | 1.30 |
| EPHB4 | 0.0392 | 1.31 |
| KIAA0319L | 0.0053 | 1.31 |
| TSNARE1 | 0.0377 | 1.31 |
| COMMD5 | 0.0068 | 1.31 |
| CLCN7 | 0.0460 | 1.31 |
| CAV1 | 0.0497 | 1.33 |
| RGS3 | 0.0088 | 1.33 |
| GANAB | 0.0341 | 1.33 |
| MADD | 0.0418 | 1.33 |
| ARMC4 | 0.0205 | 1.34 |
| IFitm2 | 0.0224 | 1.35 |
| SEMA3F | 0.0125 | 1.35 |
| TMEM141 | 0.0008 | 1.35 |
| ADAM15 | 0.0389 | 1.35 |
| CPNE2 | 0.0014 | 1.35 |
| GRK5 | 0.0292 | 1.36 |
| PRDX5 | 0.0174 | 1.36 |
| TONSL | 0.0202 | 1.37 |
| BMP1 | 0.0049 | 1.37 |
| INO80B | 0.0177 | 1.37 |
| FAM78A | 0.0069 | 1.37 |
| VPS53 | 0.0248 | 1.37 |
| MAP1LC3A | 0.0459 | 1.38 |
| TENC1 | 0.0080 | 1.39 |

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| GP1BB | 0.0125 | 1.40 |
| SLC9A1 | 0.0130 | 1.41 |
| CIC | 0.0030 | 1.41 |
| GPR108 | 0.0479 | 1.41 |
| ILK | 0.0046 | 1.42 |
| FAM127A | 0.0206 | 1.43 |
| YBEY | 0.0195 | 1.43 |
| EIF4G1 | 0.0336 | 1.43 |
| CTNNBIP1 | 0.0434 | 1.44 |
| PLD2 | 0.0011 | 1.44 |
| NCAPH2 | 0.0477 | 1.44 |
| TMEM8A | 0.0088 | 1.45 |
| CAPNS1 | 0.0460 | 1.46 |
| RBPMS | 0.0375 | 1.46 |
| MED25 | 0.0069 | 1.46 |
| UBAP2L | 0.0333 | 1.47 |
| SMARCA4 | 0.0130 | 1.47 |
| AHCY | 0.0095 | 1.47 |
| PIM3 | 0.0203 | 1.48 |
| SH2B1 | 0.0346 | 1.49 |
| CRAT | 0.0067 | 1.49 |
| HSPG2 | 0.0028 | 1.49 |
| YIF1A | 0.0343 | 1.51 |
| SYVN1 | 0.0310 | 1.52 |
| ADD1 | 0.0044 | 1.52 |
| CLTB | 0.0220 | 1.53 |
| LZTS2 | 0.0230 | 1.55 |
| PCBP4 | 0.0475 | 1.56 |
| VPS28 | 0.0142 | 1.57 |
| ACVRL1 | 0.0414 | 1.57 |
| FARP1 | 0.0474 | 1.58 |
| SCARA3 | 0.0210 | 1.58 |
| GPS1 | 0.0466 | 1.58 |
| SLC29A1 | 0.0303 | 1.59 |
| RAVER1 | 0.0239 | 1.59 |
| PPDPF | 0.0380 | 1.60 |
| FSCN1 | 0.0037 | 1.60 |
| CDK2AP2 | 0.0045 | 1.61 |
| UBTD1 | 0.0247 | 1.61 |
| POLR2E | 0.0099 | 1.61 |
| RAB1B | 0.0386 | 1.62 |
| CTDNEP1 | 0.0490 | 1.63 |
| TNK2 | 0.0261 | 1.63 |
| WBP2 | 0.0260 | 1.64 |
| JAG2 | 0.0435 | 1.64 |

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| LRFN4 | 0.0386 | 1.64 |
| FSTL3 | 0.0214 | 1.65 |
| OBSL1 | 0.0398 | 1.65 |
| ASMTL | 0.0059 | 1.68 |
| HDAC7 | 0.0140 | 1.68 |
| SLC25A39 | 0.0057 | 1.68 |
| MDK | 0.0242 | 1.69 |
| SELO | 0.0343 | 1.69 |
| PNKD | 0.0317 | 1.71 |
| CABIN1 | 0.0224 | 1.71 |
| ARPC4 | 0.0444 | 1.73 |
| FGFR1 | 0.0061 | 1.73 |
| HGSNAT | 0.0184 | 1.76 |
| MYO1D | 0.0345 | 1.77 |
| PUF60 | 0.0129 | 1.78 |
| STRN4 | 0.0425 | 1.78 |
| TRIM47 | 0.0048 | 1.81 |
| CPSF1 | 0.0366 | 1.82 |
| GPR56 | 0.0364 | 1.83 |
| FAM129B | 0.0320 | 1.84 |
| SDF4 | 0.0223 | 1.85 |
| RPP25 | 0.0192 | 1.85 |
| FASN | 0.0263 | 1.87 |
| LYL1 | 0.0356 | 1.88 |
| PRKD2 | 0.0220 | 1.89 |
| ITGA5 | 0.0058 | 1.90 |
| LRP5 | 0.0194 | 1.92 |
| FXYD5 | 0.0020 | 1.93 |
| ISYNA1 | 0.0223 | 1.93 |
| ARF3 | 0.0182 | 1.94 |
| SPHK1 | 0.0440 | 1.96 |
| ACTN4 | 0.0087 | 1.98 |
| HGS | 0.0136 | 1.98 |
| TLE2 | 0.0109 | 1.99 |
| DPYSL4 | 0.0499 | 2.06 |
| FOXP4 | 0.0472 | 2.11 |
| ARHGDIA | 0.0058 | 2.15 |
| COL18A1 | 0.0157 | 2.17 |
| MAZ | 0.0010 | 2.25 |
| ATP5D | 0.0118 | 2.51 |