**Table S3**: The results of GO enrichment of 2343 target mRNAs of 25 DE-miRNAs via DAVID

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Term | PValue | Count | Genes |
| BP | Positive regulation of transcription by RNA polymerase II | 1.78E-25 | 264 | RB1, TCERG1, PID1, MAML2, ZNF292, HNRNPU, CCNC, RBPJ, BACH1, DCAF6, RPS6KA4, ELK4, RPS6KA3, HOXA9, GPBP1, CREB3L2, HOXA1, PKNOX1, SOX7, SOX4, CDON, MEF2A, MED1, MEF2C, SMARCC1, EBF2, RFX3, SOX11, HNF1B, SOX10, ISL1, MED6, RUNX2, RFX6, RFX7, MAML3, ZFPM2, CLOCK, TP53, ZNF395, CASZ1, EPAS1, GATA6, NEDD4L, PIK3R1, GATA2, PRDM10, MED12L, PPP3R1, ZNF827, PRDM16, HIVEP1, RREB1, PPARGC1A, NKX2-3, ZNF267, PPARGC1B, STAT5B, EGR1, CREBBP, EGR2, EGR3, FZD5, BCL11B, NFATC3, SMARCA5, PBX3, NFATC2, PBX2, IGF1, PBX1, FOSL2, MLLT10, AGO1, AGO2, CD28, HOXD3, TP73, ARF4, CSRNP2, RARG, CSRNP3, TCF21, WASL, CTCF, PPP3CA, NIPBL, MED13, NELFA, TEAD1, GABPA, TEAD3, IL10, NCOA1, EDN1, NCOA6, IL13, TCF12, TET2, PAX3, FOS, PROX1, SREBF2, NR5A1, KAT2B, TOX3, IL1A, ZEB2, ZEB1, MTF1, TET3, PAX9, ZNF597, NFIX, TMF1, SATB2, GBX2, SERTAD1, SHOX, PLAGL2, MEF2D, ARNT2, CDX2, NFYB, DMRT2, DAB2IP, WWP2, RRP1B, GRHL2, HIPK2, SKI, PER1, NR6A1, NFIA, NFIB, WT1, NFIC, CRLF3, CCNT2, CRTC1, PRDM5, ARID4B, RORA, ETS1, ETS2, YY1, SALL4, POGZ, NFATC2IP, SMARCAD1, GTF2I, EOMES, LMO2, MITF, TBR1, NPNT, MYCN, MAF, LMX1A, TBL1XR1, KAT6A, LMX1B, TOX, DLX1, KMT2D, NOTCH1, KMT2A, CBFB, TNKS, ADRB2, FOXO4, NRF1, FOXO1, NEUROD1, NPAT, DVL3, OTX1, ZNF784, SMAD2, ZBTB17, TFAP2B, ZFHX3, POU2F1, SMAD3, AUTS2, WNT3A, HMGA1, HMGA2, ESRRG, MAFA, ESR1, CDK8, MLXIPL, NR4A3, SP1, MAFG, OGT, CREBZF, DDX3X, BMPR2, LDB1, ONECUT2, CHD7, HMGB2, SLC40A1, FHL5, ZIC1, ZNF521, MYBL1, KDM6A, ACTR3, PPP1R12A, CHUK, ATRX, VEZF1, ETV1, FOXL2, GREM1, TFDP2, IFNG, ELF4, IRF1, HAND2, HAND1, ITGA8, ITGA6, MET, HDAC4, NFAT5, KDM3A, LEF1, LRP5, NR2C2, RNF4, DLL1, ATAD2B, MAPK7, ZNF629, S1PR1, E2F2, E2F3, RNF20, TCF7L2, EYA1, PRRX1, ARID3A, ARID3B, KLF4, TBX5, MAPK14, MEIS2, USF2, ACVR2A, KLF2, KLF7, KLF6, REST, TNIP1, TEF, ERCC6, SSBP2, PAXBP1, MBTPS2, TAF1 |
| BP | Regulation of transcription by RNA polymerase II | 7.76E-19 | 312 | RB1, TRRAP, ZNF292, CCNC, IKZF2, RBPJ, BACH1, BACH2, ELK4, ZXDA, HOXA9, ZXDB, CREB3L2, BBX, HOXA1, PKNOX1, SOX6, ATXN7L3, HES7, ZNF287, MED1, SMARCC1, MED8, EBF1, SOX13, EBF2, RFX3, ZNF10, HNF1B, EBF3, SOX10, MED6, RUNX2, RFX6, RFX7, SUB1, ZNF710, ZFPM2, CLOCK, TP53, CGGBP1, ZNF275, URI1, ZNF395, TSHZ3, HOXD1, EPAS1, MYNN, BAZ2B, GATA2, ZBTB5, MED12L, MTDH, PCBP4, RAD21, PCBP2, PRDM16, HIVEP1, RREB1, NKX2-3, ZNF267, STAT5B, EGR1, EGR2, EGR3, NFATC3, SMARCA5, PBX3, NFATC2, PBX2, PBX1, FOSL2, MED13L, MLLT10, HOXD3, ZBTB8B, SIM2, RCOR1, TP73, PHF3, CSRNP2, CSRNP3, TCF24, TCF21, HIF3A, CTCF, ZNF280B, CIC, TEAD1, GABPA, TEAD3, PBRM1, DUSP1, TSC22D3, TSC22D2, TCF12, PAX3, PROX2, FOS, PROX1, DUSP8, ZHX1, SREBF2, DUSP6, DUSP7, NR5A1, KAT2B, TOX3, ZEB2, ZEB1, MTF1, PAX9, ZNF597, VGLL3, PHLPP2, NFIX, SATB1, SATB2, ZNF518B, PTAFR, ZNF3, HOXD11, MNT, CUX2, GBX2, SHOX, PLAGL2, HDX, ARNT2, ZNF341, ZNF583, CDX2, NFYB, DMRT2, PCGF3, DMRT3, GRHL2, FKBP1A, NR6A1, LBX2, NFIA, NFIB, WT1, NFIC, ZNF354A, ZNF213, ZNF697, CCNT2, RORC, ARID4B, RORA, HR, PRDM1, ETS1, ETS2, YY1, SALL3, SALL4, ZNF689, ZNF566, ZNF202, ZNF322, EOMES, PIAS4, SKIDA1, DYRK1A, SSU72, ARID5B, MITF, TBR1, POU3F1, HIC1, FOXP2, PIAS2, FOXP1, MYCN, MAF, LMX1A, TBL1XR1, KAT6A, PPIF, ADNP, LMX1B, TOX, FKBP5, ZNF793, DLX1, DDX5, NOTCH1, CBFB, TCF7, CREBL2, FOXO4, NRF1, FOXO1, NPAS3, ATXN7, NACC2, NACC1, SAFB2, OTX1, ZNF784, ZNF420, SMAD2, ZBTB17, TFAP2B, ZFHX3, POU2F1, SMAD3, ZBTB10, NFXL1, ESRRG, FOXN3, MAFA, FOXN2, ESR1, ZFHX4, SSH1, SMAD7, MLXIPL, NR4A3, TLX3, SP1, MAFG, SP4, JMY, SP6, TADA1, SP5, SP8, MAFK, ZNF655, BRWD1, MXD1, OGT, BRWD3, ZNF652, CREBZF, ONECUT2, HMGB2, PTEN, CHD5, CTDSPL2, DUSP16, PPP6C, DUSP10, BCL7A, TRPS1, ZIC1, ZNF644, ZNF521, NKX3-2, ZNF641, EMX2, VEZF1, ETV1, FOXL2, ETV3, ARID1A, SAFB, ARID1B, RBL2, ELF2, TFDP2, CTDSP1, ELF4, IRF1, HAND2, CTDSP2, ELF5, HAND1, ZNF516, LCORL, CRK, SMARCD1, NFAT5, KDM3A, ZBTB46, LEF1, ZBTB43, WIZ, AMBRA1, REPIN1, STOX2, ZNF629, E2F2, E2F3, E2F5, E2F6, HES2, ZNF740, TCF7L2, IRX5, PRRX1, MGA, ATP2B4, ZIC4, ARID3A, ARID3B, ZIC5, KLF4, TBX5, MAPK14, KLF3, USF2, KLF2, KLF8, KLF7, KLF6, TNIP1, TEF, KLF9 |
| BP | Positive regulation of DNA-templated transcription | 9.22E-18 | 160 | TRRAP, WWC1, RORC, RORA, GPATCH3, ETS1, YY1, ZXDA, GPBP1, CREB3L2, CAPN3, PIM2, ATXN7L3, SOX4, MAP3K5, MEF2A, EOMES, ZNF287, MED1, MEF2C, SMARCC1, DYRK1A, RFX3, ARID5B, HNF1B, EBF3, MITF, TBR1, POU3F1, SOX10, RUNX2, MYCN, RFX6, RFX7, TBL1XR1, KAT6A, CLOCK, TP53, KMT2E, CASZ1, INO80D, NOTCH1, KMT2A, PDGFB, GATA6, CREBL2, GATA2, PRDM10, FOXO1, NPAS3, MTDH, MBTD1, NEUROD1, NPAT, HMBOX1, ATXN7, PRDM16, DVL3, RREB1, PPARGC1A, SNX5, SMAD2, TFAP2B, EGR1, CREBBP, EGR2, ZFHX3, SMAD3, NEK4, FZD4, WNT3A, INSR, HMGA1, HMGA2, NFATC2, IGF1, GDF6, ESR1, QKI, COL1A1, MLXIPL, CNOT6, SP1, JMY, TADA1, OGT, TP73, CDKN1C, KDM5A, CITED4, SETD7, HMGB2, CHD4, CTCF, LBH, MED13, ZIC1, SPIN1, SOST, TEAD1, MYBL1, IL10, NCOA1, CHUK, NCOA6, MSL2, PAX3, FOXL2, FOS, ARID1A, ARID1B, TGFBR1, RAP2C, PPM1A, KAT2B, ELF2, MDFIC, ASPH, ELF4, IRF1, ZNF516, HDAC4, SMARCD1, KDM3A, RRN3, NFIX, MYCBP, LEF1, LRP5, RNF4, SERTAD3, RBBP4, ERBB4, SERTAD2, NSD1, TP53INP1, HAS3, E2F5, MTA3, RNF20, ZNF341, ARNT2, CD74, MGA, MBD2, KLF4, TBX5, GATAD2B, KLF2, PML, PER2, KLF6, REST, CD4, NFIA, WT1, NFIB, NFIC, NAA15, CRLF3 |
| BP | Negative regulation of transcription by RNA polymerase II | 5.65E-17 | 195 | RB1, TCERG1, HNRNPU, RBPJ, BACH1, BACH2, ELK4, SOX4, MEF2A, HES7, MED1, MEF2C, SOX13, SOX11, HNF1B, DICER1, SOX10, ISL1, BCORL1, ZFPM2, TP53, CGGBP1, URI1, GATA6, ZBTB1, PRDM13, GATA2, ZBTB5, MTDH, MIER3, PRDM16, HIVEP1, RREB1, HEXIM1, PLK3, EGR1, CREBBP, NFATC3, NFATC2, PKIA, CPEB3, SIM2, EZH2, CDKN1C, TENM2, BTG2, RARG, TCF21, CTCF, NIPBL, JPH2, JARID2, GABPA, EDN1, PROX1, CBFA2T2, ZHX1, SREBF2, KAT2B, ZEB2, ZEB1, MDFI, NFIX, SATB1, SATB2, MNT, CUX2, NSD1, ZNF469, TAF9B, CDX2, MBD2, DAB2IP, WWP2, SORBS3, GATAD2B, HIPK2, PER2, SKI, PER1, NR6A1, NFIB, WT1, NEDD4, NFIC, ZNF217, ZNF572, WWC1, UBE2D3, PRDM5, RORC, ZBTB20, ARID4B, PRDM1, ETS2, AMOT, YY1, CCND1, FGF9, SALL4, ZNF202, EOMES, PIAS4, ZBTB39, MORC3, USP2, ARID5B, MITF, ZBTB34, HIC1, FOXP2, FOXP1, HIC2, MAF, TBL1XR1, DLX1, DDX5, NOTCH1, CBFB, CUL3, FOXO1, HMBOX1, ATXN1, NACC2, NACC1, SKIL, WDTC1, SMAD2, ZBTB17, TFAP2B, ZFHX3, CBX5, SMAD3, CBX2, ZBTB10, HMGA2, ESR1, SCRT1, SMAD7, MLXIPL, NR4A3, CDK6, MAFG, SP5, MDM4, AMOTL2, MAFK, MXD1, OGT, PHF19, ZNF512B, KDM5A, LDB1, HMGB2, FHL2, CHD4, FASLG, TRPS1, NKX3-2, DACT1, TGIF1, TGIF2, FOXL2, ETV3, DUSP22, PPM1A, IFNG, HAND1, CRY2, HDAC4, ZBTB46, LEF1, NR2C2, CXXC5, RNF2, HDAC7, RBBP4, ATXN1L, FNIP1, MTA3, FNIP2, E2F6, HES2, TCF7L2, PRRX1, KLF4, KLF3, MEIS2, KLF2, KLF8, KLF7, REST, BRMS1L, TRIM33, TAF1 |
| BP | Chromatin remodeling | 3.70E-15 | 184 | RB1, TRIO, GTF2B, NRK, TESK1, HR, IGF1R, RPS6KA4, YY1, RPS6KA3, SLK, DHX57, KDR, SMARCAD1, PIM2, NEK3, EPHB2, STK32A, PSKH1, SKP1, PDGFRB, EOMES, MAP2K4, PDGFRA, CSNK1G3, EPHA4, SMARCC1, DAPK1, DYRK1A, SSU72, LMTK2, TBR1, RSBN1, CDC25A, UHMK1, OBSCN, ULK2, TNIK, RAD54L2, DNA2, CLOCK, EPHA3, DDX5, PKDCC, INO80D, MTMR3, ZBTB1, STK39, PRDM13, BAZ2B, STK4, NUAK1, DHX33, STK35, ZNF827, PRDM16, ABL2, MARK4, TRPM6, MARK1, CREBBP, PHC1, NEK4, NEK6, INSR, TNK2, NEK7, SMARCA5, ESR1, CLK3, SRPK1, SSH1, PTPRD, STK24, WNK1, C8ORF44-SGK3, WNK3, AAK1, FGFR3, KDM5A, DDX3Y, USP36, KDM5B, GSK3B, SETD5, DDX3X, DYRK2, CHD9, CHD7, SETD7, PTEN, CHD5, CHD4, PTPRJ, PTPRK, DUSP16, PTPRF, PPP3CA, PPP6C, DSTYK, NIPBL, DUSP10, BCL7A, SPEG, JARID2, JAK1, KDM6A, NCOA1, PBRM1, USP49, KSR1, PDPK1, DUSP1, ATRX, RIPK4, NAV2, OXSR1, DUSP8, ARID1A, ARID1B, DUSP6, DUSP7, DUSP22, DDX19A, ZAP70, PPM1A, PTP4A2, KAT2B, DDX19B, LATS2, CTDSP1, PDIK1L, CTDSP2, KIT, SGK3, TOP1, MET, STK40, HDAC4, PHLPP2, SMARCD1, KDM3A, PRKAA2, SATB1, SATB2, VPS4B, RNF2, AURKA, RBBP4, ERBB4, NSD1, ERBB2, PAK6, PTK2B, CSK, PAK3, MTA3, MAP4K3, PAK4, MAP4K4, RNF20, KDM4A, EYA1, LIMK2, MBD2, PTPN11, CDC42BPA, HIPK1, PTPN14, GATAD2B, HIPK3, PML, PER2, PER1, WEE1, REST, PIKFYVE, SBK1, RPS6KB1, AXL, TAOK1, ERCC6, PTPN4, TAF1 |
| BP | Nervous system development | 1.20E-14 | 108 | FMR1, TNR, EPHB2, SOX4, PCDHAC2, PCDHAC1, CDON, MYLIP, MEF2C, RBFOX1, SMARCC1, RBFOX2, TMOD2, DYRK1A, SOX11, PCDHA13, PCDHA12, PCDHA11, PCDHA10, RUFY3, NINJ1, IGSF8, INTU, C3ORF70, PCDH10, ZC4H2, EFNA5, ATXN3, RAP1A, ATXN1, PCDHA1, PCDHA5, PCDHA4, PCDHA3, PCDHA2, PCDHA9, MARK4, PCDHA8, PCDHA7, PCDHA6, TFAP2B, BDNF, ARHGAP26, PTPRD, DLG2, FGF14, CSPG5, TPP1, CNTN4, SCN2A, SIM2, FGF11, ITM2B, TENM1, LDB1, PTEN, PPP1R9A, PTPRF, ROBO1, ENC1, CAMK1D, APAF1, TCF12, PAX3, NRG1, PROX2, FOS, NRG2, NAV2, PROX1, ARID1A, ARID1B, TGFBR1, ZEB2, TRAPPC6B, ITGA8, DCX, RAPGEF2, ARHGEF7, DSCAML1, MET, HDAC4, CAMK2B, SMARCD1, NLGN1, LRP5, NR2C2, ACVR1B, ACVR1C, GBX2, ERBB4, NTF3, IGF2BP1, SPOCK1, IGF2BP3, IGF2BP2, MEF2D, GDF11, SEMA4B, LSAMP, SEMA4F, NAP1L1, TTLL7, AXL, NOVA1, APBA1, SCRG1, CBLN1 |
| BP | Protein phosphorylation | 8.84E-11 | 73 | GSK3B, DYRK2, PIK3CD, RPS6KA4, NEK3, PIM2, MAP3K9, JAK1, MAP3K5, MORC3, PRKCH, CHUK, PDPK1, DAPK1, PRKCE, RIPK4, DYRK1A, LMTK2, ADAM10, OXSR1, ZAP70, LATS2, PRKAR1B, SGK3, TNIK, CAMK2B, PRKAA2, CAMK2A, PDGFB, STK39, STK4, NLK, AURKA, NUAK1, MAPK8, ACVR1C, ERBB2, PTK2B, CSK, MARK4, MAPK6, FNIP2, MAP4K3, MAPK4, MARK1, MAP4K4, CDK17, SRPK2, PLK3, MAP3K1, NEK4, LIMK2, NEK6, INSR, NEK7, CDC42BPA, HIPK1, HIPK3, CLK3, HIPK2, SRPK1, MAPK10, CDK6, STK24, C8ORF44-SGK3, WNK1, CDK4, TAOK1, WNK3, AAK1, PKN2, CDK16, TAF1 |
| BP | Negative regulation of DNA-templated transcription | 9.47E-10 | 115 | RB1, PRDM5, RBPJ, CAPN3, SOX6, SOX7, PIAS4, TLE3, RBFOX2, SFMBT1, SFMBT2, SOX13, RFX3, ARID5B, TBR1, FOXP2, RUNX2, FOXP1, DKK3, HIC2, KAT6A, ZFPM2, CLOCK, TP53, NOTCH1, TSHZ3, TCF7, PDGFB, GATA6, FOXO1, MBTD1, NPAT, HMBOX1, ATXN1, ZNF827, NACC2, ZNF703, NACC1, PRDM16, PPARGC1B, SNX6, SMAD2, TFAP2B, POU2F1, PHC1, CBX5, ATP8B1, HMGA1, HMGA2, FOXN3, MLXIPL, MDM4, RCOR1, EZH2, CDKN1C, CREBZF, KDM5B, CDKN1B, LDB1, ZC3H4, HMGB2, CHD4, PTPRK, CTCF, LIMD1, JPH2, SCML2, ZMYM2, SCML1, LBH, BCL7A, HIF1AN, CIC, USP47, NRG1, FOXL2, PROX1, CBFA2T2, CBFA2T3, ZHX1, CDYL2, GREM1, ZEB2, ZEB1, ELF2, MDFIC, TFDP2, IFNG, IRF1, CRY2, HAND1, PAX9, MDFI, VGLL4, LEF1, TOB2, NR2C2, BTAF1, RBBP4, MTA3, RUNX1T1, TCF7L2, KDM4A, MBD2, DAB2IP, WWP2, KLF4, GATAD2B, PML, PER2, PER1, REST, WT1, ZNF217, TRIM33 |
| BP | Intracellular signal transduction | 1.74E-09 | 98 | CBLB, CRKL, RPS6KA4, RPS6KA3, GRIP1, SLK, STMN1, STK32A, PRKCH, WSB2, IGFBP5, DAPK1, PRKCE, DDIT4, TNIK, DGKH, PDGFB, STK39, TGFA, STK4, PLD1, NLK, SOCS3, SOCS1, PDCD10, PRKAR2A, DVL3, SOCS6, MARK4, SOCS7, PAG1, SOCS4, MARK1, SOCS5, SRPK2, SMAD2, PRPF38B, HMGA2, SRPK1, NET1, MFHAS1, NR4A3, STK24, WNK1, C8ORF44-SGK3, WNK3, PLXNB1, GSK3B, DDX3X, PRKAG2, FMN2, JAK1, VAV3, SPHK2, PDPK1, NRG1, NRG2, OXSR1, TGFBR1, CNKSR2, DUSP22, TGFBR3, ZAP70, CD200R1, LATS2, RASA2, KIT, DCX, ARHGEF4, RAPGEF2, SGK3, ARHGEF7, PHLPP2, ADCY3, MAPK7, RAB40C, ERBB2, PAK6, LRRC8B, PAK3, MAPK6, GPR155, SH2B3, MAP4K3, MAPK4, PAK4, MAP4K4, MAP3K2, ARFGEF2, MAP3K3, PLCL2, DAB2IP, PTPN11, MAPK14, PIKFYVE, DLC1, ASB7, PKN2 |
| BP | G1/S transition of mitotic cell cycle | 2.76E-08 | 29 | TRIM71, RB1, CDKN1A, CDKN1B, CCNJ, CUL3, CAMK2A, ACVR1B, PPP3CA, PPP6C, GPR132, CCND2, CCND1, E2F3, PIM2, PLK3, CDC25A, LATS2, CDC34, CDK6, CCNE2, RPS6KB1, CDK4, CCNG1, CCNI2, BCAT1, CACUL1, CCNJL, EZH2 |
| BP | Cellular response to leukemia inhibitory factor | 6.69E-08 | 34 | KDM5B, KDM3A, RARG, NRP2, PCOLCE2, PRDM5, MYNN, HNRNPU, HK2, EPS8, SOCS3, MAT2A, PDCD10, RNF138, SPOCK2, ADAM23, LRAT, JARID2, NEFH, PHC1, NFYB, FZD4, GFPT2, SMARCA5, ARID5B, SSTR1, KLF4, PML, SMAD7, CACNB4, PIGA, SPRY2, SRSF3, BCAT2 |
| BP | Angiogenesis | 7.90E-08 | 61 | NRP1, SETD2, NRP2, PLXND1, PTPRJ, RORA, HIF3A, RBPJ, HS6ST1, AMOT, FGF9, KDR, NRCAM, ITGAV, EPHB2, SLC12A6, PKNOX1, PDGFRB, VAV3, MED1, EGFL7, COL27A1, UNC5B, GAB1, VEZF1, VASH1, HSPG2, MMP14, COL4A2, PIK3CA, HAND2, PXDN, HAND1, NINJ1, MYH9, CD47, ITGA5, NOTCH1, EPAS1, NRXN1, VPS4B, NRXN3, PDGFB, PDGFA, TGFA, PDCD10, S1PR1, CCDC134, SRPK2, ANGPT4, NUS1, SEMA4A, FZD5, FZD4, SLC31A1, C1GALT1, DAB2IP, FZD8, MAPK14, AMOTL2, NAA15 |
| BP | Positive regulation of gene expression | 9.33E-08 | 98 | PID1, PRDM1, RBPJ, ETS1, YY1, FGF9, EPHB2, MEF2A, MED1, MEF2C, SOX11, HNF1B, ANK2, MITF, POU3F1, SOX10, RUNX2, ADAM19, MYCN, MAF, KAT6A, ERP29, TP53, GRIA1, NOTCH1, PDGFB, PIK3R3, GATA2, CALCR, PDCD10, PPARGC1A, MARK1, SRPK2, SMAD2, EGR1, SMAD3, WNT3A, RDX, MSN, HMGA2, NFATC2, IGF1, QKI, CDK6, AGO3, SP1, MAFG, CD28, HOXD3, KDM5B, GSK3B, RARG, EDA, DDX3X, BMPR2, CELF1, ITGB3, PIK3CD, CTCF, PIK3CB, ROBO1, PPP3CA, ITGB8, EMILIN1, KDM6A, CHUK, IL13, TCF12, MST1, NGF, TGFBR1, TGFBR3, NR5A1, IL1A, IFNG, ALDH1A2, HAND2, NFAT5, SLC24A3, NRXN1, LEF1, ACVR1B, DLL1, MAPK8, CUX2, ERBB3, ERBB2, TP53INP1, CD74, KDM4A, ZNF804A, KLF4, MAPK14, REST, ACTC1, WT1, SPRY2, ERCC6 |
| BP | Negative regulation of gene expression | 4.01E-07 | 67 | RB1, DDX3Y, GSK3B, CDKN1A, DDX3X, CELF1, HMGB2, ZBTB20, CHD4, PRDM1, AFF2, ROBO1, CRKL, YY1, PPP3CA, RACK1, KDR, ITGB8, EMILIN1, TGIF1, MEF2C, EDN1, FBXW7, SFMBT2, ADAM10, SOX11, DICER1, FOXP1, RBL2, MYCN, IFNG, PIK3CA, HAND2, ERP29, SMCR8, ADNP, GGNBP2, PRKAA2, TMF1, SLC24A3, NOTCH1, NRXN1, PDGFB, PLA2G3, GATA2, ACVR1B, AURKA, PDCD10, STC2, TP53INP1, MARK1, SMAD2, KDM4A, TGFB2, SMAD3, NDFIP1, ATP2B4, WWP2, IGF1, KLF4, ESR1, FERMT1, REST, CD28, TARDBP, RCOR1, TAF1 |
| BP | Semaphorin-plexin signaling pathway | 4.70E-07 | 19 | SEMA6C, SEMA4A, NRP1, NRP2, PLXND1, SEMA3A, SEMA4B, SEMA6D, SEMA4C, SEMA4F, SEMA3F, SEMA4G, ERBB2, KDR, PLXNA2, PLXNB1, PLXNC1, MET, PLXNA4 |
| MF | Protein binding | 7.32E-37 | 1842 | TESK1, HTR4, ISM2, NDST1, ZC3H12C, FAM110C, FAM110B, GPBP1, ANKFY1, BBX, VSTM4, PKNOX1, FNBP4, UNC5B, RC3H1, ZNF10, UNC5C, FRS2, ISL1, CD2AP, DDIT4, VOPP1, FAR1, CLOCK, URI1, PDGFB, GATA6, PDGFA, CDCA8, BAZ2B, GATA2, ADAMTS13, EPB41L1, RDH10, PIP5K1C, HEXIM1, CREBBP, PBX2, PBX1, AGO3, AGO4, C8ORF44-SGK3, PKIA, AGO1, AGO2, C19ORF47, STRN, SFXN1, SFXN5, LIN54, KCNC1, MTMR14, PRKAG2, ARHGAP5, BBC3, MED13, OLR1, NEFM, NEFH, PCMTD1, DLGAP4, JAK1, CNOT6L, KCND2, DUSP1, SPHK2, RAB3IL1, FOS, JOSD1, DUSP8, DUSP6, DUSP7, MED28, MMP14, SLC7A6, AGPS, CHST1, RAPGEF2, CACUL1, ERGIC2, ERGIC1, CRB2, ATL3, CRCT1, PTAFR, ATL2, ADAM22, DLST, SNX30, CENPA, SLC7A1, FAM117B, NRAS, SNX27, ADAM23, STX6, PLAGL2, STX5, RICTOR, STX3, EGLN2, KCNB1, MBD2, DAB2IP, DCBLD2, SKI, NUDT21, COL3A1, ETNK2, WT1, TAOK1, ETNK1, CCDC6, PKN2, CRLF3, YPEL2, TMEM167A, FBXO28, LTN1, MSI2, ALDH1L2, SLK, IBSP, FADS6, NFATC2IP, MAP3K9, NEK3, MAP3K5, PSKH1, PIAS4, BNIP3L, FBXW7, CTNNBIP1, FAM118A, ATP11C, TBR1, ATP11B, CNPY3, PIAS2, CDC25A, MINPP1, SRSF3, GMNC, PKP4, KMT2E, GRIA1, DLX1, KMT2D, KHDRBS2, KMT2A, SMYD5, ZC4H2, SPATA2, FBXO45, CREBL2, NRF1, NREP, NPAS3, RAP1B, RAP1A, G3BP2, EIF4EBP2, BMF, ZNF420, HTR1E, NEK6, NEK7, STYX, FBXO32, FBXO33, FBXO30, MOB4, LRCH1, SP1, SP4, SP6, ACO1, OGT, TRIM71, KCNK5, ALAS1, ITGB3, SNAP23, PTEN, HTR2C, HTR2A, BICD2, KIAA1549, DDI2, TAGAP, ITGAV, NEO1, SNAP29, NKX3-2, ACTR3, GRID2, APAF1, ATRX, TNFRSF19, MSL2, NRG1, TNFRSF1B, ARL4D, HAND2, HAND1, SMCR8, ITGA6, TOP1, ITGA5, BCAT1, TRIM55, BCAT2, PRKAA2, CANT1, UHRF2, RCHY1, SRL, CDC42, CCDC85C, KCTD21, ATXN1L, IGF2BP1, E2F2, E2F3, IGF2BP3, IGF2BP2, E2F5, E2F6, KCNJ2, HNRNPA0, KCNJ3, COL26A1, MARCKSL1, TRIM41, MYO10, EXOG, TBX5, EFR3B, REC8, MYO1B, MCM3AP, TSPAN14, NECAP1, SYT11, TSPAN18, EIF3J, IL2RB, TRIM36, PIK3AP1, RECK, MYO1F, TRIM33, KCNK3, CPNE8, LDLRAD4, IKZF2, CRKL, HERC2, PEG10, KDR, PTGFRN, CCDC93, ATXN7L3, TBC1D22B, SMARCC1, TMEM170B, TMEM170A, CDC34, SNORC, SUB1, NINJ1, KCNQ3, KCNQ4, BCORL1, KCTD17, TRIB1, TRIB2, TP53, KCTD16, PXT1, EPAS1, MYCBP2, ZBTB1, TGFA, ZBTB5, MED12L, MBTD1, SEC14L1, SEC14L5, KCNN3, ATP6V1C1, EGR1, STAT5B, NTNG2, EGR2, SLC10A7, SPHKAP, TGDS, FAM78A, SMARCA5, MYO5A, BSDC1, IGF1, NET1, PEX5L, NDUFAF4, MYO5B, RANBP10, CALU, TP73, HERPUD2, NRP1, NRP2, CSRNP2, AKAP12, PPP3CA, SYNCRIP, CNTRL, EPG5, BBS5, GIT1, IL10, PBRM1, MST1, IL13, GAB1, GAB2, ZHX1, SREBF2, CTTNBP2NL, RAP2C, DUS2, CNKSR2, TOX3, IL1A, RAP2A, RAP2B, PDIK1L, GAN, PITPNM3, PITPNM2, KIT, ARHGEF4, PABPC1, ARHGEF7, GNAI3, SLX4, SHOX, EPS15, MAP3K2, MAP3K3, GABBR2, GIT2, MON2, MAP3K1, SPRYD4, GAD1, KLHL1, ORMDL1, PNMA2, SH3RF3, SEC23IP, KLHL6, KIAA1958, OTUD4, SYS1, CRTC1, PRDM5, ZFAND5, LOXL4, MSMO1, PRDM1, ETS1, ETS2, IGF1R, GRIP1, TMEM267, GNPTAB, TBC1D30, DENND5A, IL6R, RAG1, MORC3, MMGT1, TMOD2, ADAM10, SDHD, TMEM250, ADAM19, SLFN12, ADAM12, PPIF, WDFY3, FBN2, DDX5, TBC1D19, HTRA3, TCF7, PLD1, PLD3, CACNA1I, VCPIP1, GRK5, MFAP3L, SYT4, TFAP2B, CRTAP, SYT2, AUTS2, SYT1, CHCHD10, SYT7, UBE2W, TMEM234, FGF14, HOOK2, UBXN10, HOOK1, GNAQ, UBE2N, UBE2O, AMOTL2, MXD1, FGF11, FBN1, DYRK2, LDB1, TNFAIP3, PITPNC1, LMNB2, GRM1, LMNB1, GHR, GRM5, CA2, GRM6, ZIC1, MYO18A, DACT1, TGIF1, SUN2, PDPK1, SHROOM2, ETV1, NAV2, GREM1, ELF2, ACOX1, ELF4, ELF5, CRY2, ATP6V1B2, NAT8L, MS4A2, SHANK2, RALA, RRN3, RALB, ASAP1, RNF4, ADD1, RNF2, AGPAT3, CYTH3, GNG2, GNG5, CNR1, SPOCK2, CLVS2, BNIP2, PTK2B, SPOCK1, MTA3, ARFGEF1, ARFGEF2, RRM2, EYA1, USF2, TTC17, SMUG1, CD4, REST, ACTC1, TNIP1, TEF, ERCC4, ERCC6, SNTB1, OTUD3, GPATCH2, HNRNPU, GPATCH3, SLC4A4, ELK4, EPS8, TFG, AP1S1, PRSS8, NCKAP5, PRKCH, PRKCE, REV1, FNDC3B, ARMC8, ATG14, ZC2HC1A, WDR81, DAAM1, MAP1B, TARS2, FREM1, FREM2, GNE, ZNF395, SEH1L, PRKRIP1, NAIF1, ARPP19, PRDM10, MTDH, GJC1, BLOC1S5, POM121C, PRDM16, PCDHA4, PCDHA2, ICOS, PLK3, STARD13, PHC1, NDFIP1, ICMT, NFATC3, NFATC2, ELL2, FOSL2, CDKN1C, DENND1C, SETD5, SETD2, CDKN1A, RARG, WDR47, BTG2, CDKN1B, SETD7, STON2, LYST, SMG6, TAF7L, AIFM1, ADAMTSL3, RBPMS2, CIC, JARID2, TEAD1, TEAD3, DENND2D, WDR37, CDYL2, KAT2B, ZEB2, ZEB1, MTF1, ANGPTL2, PLEKHO1, CEP63, EXOC5, MGLL, GAS7, NFIX, WDR26, FGD6, UBN2, NSD1, PAIP2, TAF9B, MBNL3, DEDD, RUNX1T1, PAIP1, FARP1, ZNF341, YTHDF3, PCGF3, RRP1B, HIPK1, SNCAIP, ELP5, HIPK2, GATM, OSTM1, NFIA, NFIB, NFIC, SMOC1, CEP41, SCRG1, ANKRD13C, RAB3C, VKORC1L1, PLXND1, GTF2B, IPO5, RIMS2, NRBP2, RIMS3, FCGRT, CFL2, SALL4, SLC39A6, PAPOLA, PLXNC1, GTF2I, MAGI1, CSNK1G3, MAP2K4, TLE3, USP6, CEP135, USP2, SPICE1, DYRK1A, VASH2, VASH1, LARP4B, THOC2, VRK3, GOLGA8O, HIC1, HIC2, OBSCN, KAT6A, ADNP, TOX, FKBP5, ZNF793, IPPK, RAB5B, PARM1, CBFB, FAM114A2, INSIG1, ESPNL, BTLA, PLXNA2, DVL3, SRGAP3, SRGAP1, ZNF784, PLXNA4, OSBPL8, OSBPL3, TRAPPC9, NSG1, REEP1, LRFN4, SYNJ1, P4HA2, REEP2, PLEKHM1, CSPG5, TPP1, PLXNB1, BCL2L1, BMPR2, ZC3H4, CEP164, ADAMTS5, LBH, EMILIN1, TNPO1, GAL3ST3, LBR, PLEKHG7, TRPC3, SGIP1, PLEKHG5, SECISBP2L, WIPI2, SMC1A, DNAJC1, NPEPL1, ESPL1, ACTBL2, TFDP2, CTDSP1, POLR1A, CTDSP2, LCORL, CRK, HDAC4, PLEKHH2, NUFIP2, VPS4B, HDAC7, RAB23, POLR2D, IL21R, CSK, ZNF740, NLGN4X, FKRP, PML, TNRC6C, RAB14, VAPB, RAB15, P2RX1, DNAJA2, TNRC6A, TNRC6B, PPIL6, TCERG1, PITPNA, CBLB, PPP2R2A, HS6ST1, NIPAL4, RPS6KA4, KIAA0930, RPS6KA3, ARRDC4, IL1R1, ARRDC3, COG3, YOD1, AP1AR, UHMK1, KATNAL1, SUCLG2, NSMF, DNA2, OBSL1, SPTBN4, DCUN1D5, DCUN1D3, DCUN1D4, DCUN1D1, DCUN1D2, MYL12B, FXR1, UGCG, ZNF827, PDCD10, TP53BP2, ATP6V0A2, MLEC, TRPM6, SPTBN1, SNAP91, CCSER2, RNPS1, DCP1A, TECPR2, SIM2, TECPR1, ROBO2, TENM2, HIP1, LIMD1, SPPL3, ROBO1, ZCCHC14, LIMD2, COIL, SIPA1L1, SH3PXD2A, SH3PXD2B, TMED7, TMED5, GABPA, RAB8B, SLC22A11, VAV3, EDN1, ZER1, HEG1, STRADB, SLC35G2, PROX1, CBFA2T2, CBFA2T3, MTSS2, CLDN11, SLC22A23, SCNM1, CNEP1R1, CLDN12, HNRNPH3, AIDA, MATN3, VGLL4, VGLL3, PTGER4, AMER3, ZNF3, NOL4, NKD1, BEGAIN, HDX, APBB3, MPP1, MPP2, NFYB, SLC31A1, LSAMP, LHFPL4, SORBS2, LHFPL2, SORBS3, GRHL2, SVIP, APBA1, KBTBD8, NDUFA11, AMOT, NRCAM, TMEM38B, AZI2, FAM81A, NANOS1, GAS2L3, SZT2, LMO2, ACYP2, LIFR, ATP1B2, ATP1B1, TRPC4AP, LZTFL1, MYCN, LOX, CERCAM, MATR3, RPS19BP1, CLEC16A, EFNA5, LPP, CAMSAP2, SCUBE3, ZMAT3, LONRF3, CPSF4, POU2F1, CBX5, WNT3A, CBX2, IDH1, SREK1IP1, HELZ, EIF2S2, LRP1B, DIAPH1, TLX3, CAPRIN1, BRWD1, FGFR3, KDM5A, KDM5B, SLC40A1, HK2, HS2ST1, CASP7, SNAPC1, PPP2R5E, CASP3, TRPS1, DBT, KDM6A, MAPK1IP1L, MYRIP, OXSR1, SAFB, POMGNT1, DNM3, RBL2, MYH1, ZAP70, MYH2, GAP43, PEAK1, TRAPPC6B, RASA2, DCX, MYH9, RBMS1, TMEM9, KDM3A, NRXN1, LEF1, NRXN3, NR2C2, THBS1, MAPK8, FAM168B, MAPK7, UGP2, LEPROTL1, PDSS1, MAPK6, SNCB, MAPK4, S100PBP, KDM4A, TCF7L2, LIMK2, WEE1, RPS6KB1, C5ORF24, PID1, GHITM, FZD10, RBPJ, SCAMP5, ZFYVE26, LSM11, MPRIP, LIPH, LRAT, SAMD12, MEF2A, HES7, MEF2C, RBFOX1, RBFOX2, ZFYVE21, RFX3, DICER1, HSPG2, SLC5A6, EML4, ZFYVE16, RFX6, PRKAR1B, RFX7, RUFY3, RUFY2, CGGBP1, ZNF275, MTMR3, CEP85L, IL20RA, MYNN, MTMR9, AGAP1, COPS7B, ABCB9, GUCD1, PRKAR2A, GRPEL2, VTI1A, PPARGC1A, RHBDL1, CADM3, CADM1, EDEM1, COL1A1, MLLT10, COL1A2, UCK1, GRIN3A, ZBTB8B, EZH2, ARF4, ARF1, UCMA, LRRC4, CTCF, TRIOBP, EEA1, NIPBL, JPH2, TUBA1A, B3GALT2, NELFA, APPL2, CGNL1, APPL1, ARG2, ELOVL4, PGAM1, RIPK4, NIPA1, ELOVL6, DYNLL1, FAHD2A, MZT2A, TMEM33, PIGA, MDFI, TMF1, COL11A2, MIEF1, GGA1, TMEM65, NTF3, HAS3, HAS2, DMD, MEF2D, EXTL3, CSMD1, ANKIB1, PLXDC2, GATAD2B, LRRC20, TTLL7, SPSB1, ZNF217, ZNF697, ZNF213, CCNT2, CSE1L, UBE2D3, RORC, RORA, HR, YY1, EIF4ENIF1, SESN3, SESN1, SESN2, SLC16A6, SLC25A40, ZNF689, KPNA4, PIM2, SLC16A9, KPNA2, ZNF202, KPNA3, ZNF200, KPNA1, PPP1R16B, MYLIP, ZBTB39, C11ORF87, SLC38A1, AREL1, KHNYN, ZBTB34, FOXP2, FOXP1, SLC9A3, FRMD5, TXLNA, MAF, SLC9A7, HAT1, SLC9A9, C18ORF54, ROR1, RAD54L2, UTRN, DSC2, TRABD2B, NSMAF, PFKFB4, STK39, FOXO4, FOXO1, ATXN3, NPAT, SOCS3, SOCS1, BCL2L11, ATXN1, STK35, ATXN7, CLTCL1, SLC38A9, SOCS6, SOCS7, EVI5, SOCS4, SOCS5, CPA4, ZBTB17, BDNF, GFPT2, GFPT1, ZBTB10, FOXN3, B3GALT5, MCC, FOXN2, QKI, PTPRD, MFHAS1, CXCL12, STK24, AAK1, MDM4, ZNF655, ZNF652, ZNF512B, PPP1R13B, CELF1, CDCA7L, FHL2, PIK3CD, FASLG, PIK3CB, FHL5, NGRN, ATP7A, ERC2, ZNF641, EMX2, PPP1R12A, KSR1, DST, FOXL2, VEZF1, RAD23B, PPM1A, SLC25A18, NSMCE4A, NPC1, PIK3CA, PPP1R12B, MET, PPP1R12C, ST6GALNAC6, PPP1R15B, PCOLCE2, ZBTB43, LRP5, FURIN, ZBTB44, PPM1D, PARD6B, CCL7, ZNF629, TP53INP1, FCHO2, SLITRK5, SH3BP4, LRRC8B, SH2B3, SLC12A2, LINGO1, SEC24A, NDUFA5, PRRX1, MMAB, MGA, TMPPE, SLC25A37, NOVA1, CCM2, PTPN4, TMEM41A, AHCYL1, PLEKHB2, THUMPD3, CCNC, RASSF3, DHX57, BCAP29, KIF21B, EPHB2, SEC62, SLC12A7, CALN1, EPHA4, ST6GAL2, SFMBT1, SFMBT2, ENTPD5, PAQR3, ANK2, HNF1B, CCNY, ULK2, PREB, ZNF710, EPHA3, PPP1R37, PEX11B, PIK3R3, PIK3R1, UBE2J1, SNX4, SNX2, DHX33, MIER3, PCBP4, PCBP2, ZNF703, HIVEP1, TSPAN2, N4BP2, N4BP1, RAB11FIP4, SNX5, PAG1, SNX6, ST8SIA1, INTS2, SURF4, HSPA12A, ACER2, WNK1, WNK3, CD28, COL9A1, COL9A2, INTS6, SCN2A, RGL1, CD22, RCOR1, CCNJL, INTS11, SLC7A14, PTPRJ, MIA3, WASL, PTPRK, SLC7A11, EDA2R, SCML2, SCML1, ENC1, REV3L, KIF1A, NCOA1, CCT3, STARD3NL, NCOA6, MMD, SORCS1, OSMR, AJAP1, NR5A1, CTTN, VSNL1, CD47, PDZRN4, STK40, STX12, STX17, SATB1, SATB2, TMPRSS2, MNT, SERTAD3, PGRMC1, SERTAD1, SERTAD2, PAK6, PAK3, GPC6, PAK4, CD74, PLEKHA1, PLEKHA2, YIPF4, TMUB1, AP2B1, UBE2G2, MIB1, PLEKHA8, PER2, FKBP1A, PER1, XK, NEDD4, CCNG1, CD69, TARDBP, SCARB1, MIDN, WWC1, CCND2, RGS3, CCND1, CAPN6, KIF5C, KIF5B, CAPN3, OSTF1, RGS8, EOMES, PDGFRB, PDGFRA, SLC30A4, SSU72, LMTK2, PRLR, TANC1, CCNE2, DOK5, SCN8A, DOK6, KLHL18, NDRG4, PSMD14, KLHL15, SLC1A1, KLHL11, KLHL13, PDS5B, CALCR, KIF3B, FUT9, CCDC141, CCDC134, IVNS1ABP, ZFHX3, ARHGEF38, SLC52A3, HMGA1, MSN, HMGA2, KLHL23, CLK3, ANKHD1, SSH1, COL5A1, APPBP2, TAB3, TAB2, STT3B, PHF19, DDX3Y, GSK3B, RBM25, DDX3X, EDA, CHD9, CHD7, HMGB2, ATP2A2, CHD4, PPP1R9A, AFF4, AFF1, BCL7A, UQCRFS1, SCN5A, YWHAG, NAA30, ARHGEF15, ARHGEF17, TBC1D8, DARS2, TBC1D9, SSTR1, GPCPD1, PJA1, RCN3, VCAN, RCN1, IRF1, SPOPL, ATG4A, RBM24, SCN4B, BCL2A1, RRBP1, ABHD17C, ACVR1B, CLCN3, AURKA, MAT2A, TNKS2, NAA25, NUP43, RBM38, GALNT4, LAMB3, GALNT2, ATP2B4, PDAP1, ATP2B2, MAPK14, ACVR2A, MAPK10, CLCN5, ABHD17A, KATNBL1, BRMS1L, ASB7, THRSP, NAA15, TAF1, RB1, TRIO, MAML2, TRRAP, FNBP1L, BACH1, RXFP1, DCAF7, BACH2, DCAF6, ZXDA, HOXA9, CLP1, ZXDB, STMN1, PIP4K2B, HOXA1, UNC13B, MED1, ACOT7, WSB2, DAPK1, SOX13, MED8, SOX10, MED6, DKK2, DKK3, BIN3, MAML3, TSPYL5, NEDD4L, SLAIN2, PPP3R1, RAD21, PNPO, CHST15, SSR1, SLC19A2, CDK17, FZD3, FZD5, FZD4, RDX, FZD8, MTHFR, PRRC2C, A1CF, PRRC2B, CPEB1, GIPC1, TNFSF9, RAD17, HOXD3, CPEB3, CDK16, CPEB4, CDC42SE2, ELL, TCF24, C1ORF35, TCF21, HIF3A, CYB561D1, SLC6A1, PRSS22, ADO, SLC6A2, MRC2, DSTYK, MRC1, RSPO2, RACK1, SPIN1, ANXA8, RNF150, SLC2A13, TCF12, TET2, PAX3, AEN, CD200R1, PAX9, TET3, ZNF597, PHLPP2, FIGN, SRP72, RNF138, RPL14, GCNT2, ANKRD52, RPL15, ANKRD50, WWP2, BLCAP, VEPH1, LAMTOR4, RNF141, ZNF572, CTNND2, FMR1, TUSC2, IRS2, BZW2, BZW1, CDH2, GRAP2, GRB10, SMARCAD1, GYG2, STK32A, ZNF566, PHLDA1, RNF43, RNF44, ANKRD46, IGFBP5, ANKRD44, MITF, MOB3C, CACNB4, ERP29, TNIK, GLYR1, NOTCH1, TNKS, CUL3, RNF180, CHRD, ITPR1, GTF2E1, PHF21B, NEUROD1, HMBOX1, BTBD3, NACC2, NACC1, SAFB2, ABL2, RNF170, SKIL, WDTC1, ANKRD28, MOAP1, ATP8B4, ATP8B1, CEP350, TNK2, ESRRG, BTBD9, ADAP1, C6ORF120, CDK8, CNOT6, CDK6, CDK4, MAFG, MAFK, NF2, SERINC3, EIF4G2, LMBR1L, RNF11, DAGLA, EIF4E3, BNC2, DUSP16, PPP6C, DUSP10, PSD4, C3ORF52, SOST, HIF1AN, ZNF521, SLC37A3, SH3D19, IQCB1, CHUK, AMT, NGF, NIPSNAP1, BET1L, PTP4A2, C1ORF159, ASPH, TRAF3, ESRP1, ZNF516, SMARCD1, NFAT5, ACSS3, LUZP1, RNF38, GLRX, AMBRA1, DCAF15, REPIN1, RBBP4, RNF39, FNIP1, DCAF11, FNIP2, DCAF12, UGGT1, RNF20, SEMA4A, KCNIP1, KCNJ11, SEMA4B, TXNRD1, SEMA4C, PLCL2, PTPN11, SEMA4G, CDC42BPA, KLF4, PTPN14, KLF3, KLF2, PNRC2, KLF6, NFASC, CBLN1, GOLGA3, GOLGA4, HABP4, SOX6, SOX7, GOLGA7, SOX4, CDON, SKP1, AGFG1, MTUS1, EBF1, ACSL6, EBF2, EBF3, RUNX2, ARC, XRN1, PAPPA, ZFPM2, SMIM3, GPM6A, IGSF8, TSHZ3, INTU, EIF5A2, TWF1, NLK, NUAK1, INPP5A, DPH3, MAP7, SRPK2, NUS1, RABGAP1L, DTNA, BCL11B, TMEM50B, INSR, SS18L2, AMMECR1, HSPBAP1, GDF6, SRPK1, SESTD1, TMCC3, TMCC1, ITM2B, CDS2, MRS2, DAZAP1, OLA1, RPTOR, ZMYM2, ZMYM3, TSC22D3, STRBP, TSC22D2, KREMEN1, NME4, PALD1, ADRB3, MDFIC, NME6, PACS2, B3GNT7, FAM20B, SGK3, MAPRE2, DCP2, MYCBP, AKAP6, AKAP5, TRAK2, MAP4K3, MAP4K4, RANBP2, ARNT2, GDF11, CDX2, DMRT2, C1GALT1, DMRT3, LYVE1, TJP1, LBX2, AXL, DLC1, FAS, RAB3GAP2, TRIP12, GALNT12, STEAP3, GOLT1B, GALNT15, HDLBP, ARID4B, TMEM143, ARHGAP44, POGZ, SIRPA, ANGEL1, ARID5B, TSC1, PDIA6, TMEM135, COL4A2, LMX1A, COL4A1, TBL1XR1, DNAJC30, KIF16B, EOGT, COL4A6, LMX1B, CTTNBP2, HPCA, LTBP4, ARHGAP19, ADRB1, DTX2, ADRB2, STK4, ADIPOR2, DNAJC27, NID2, ZFP36L2, DPP3, PSORS1C2, DPP8, CASKIN1, DNAJC21, OTX1, MARK4, PDZD8, MARK1, SMAD2, TGFB2, SMAD3, SMURF1, ARHGAP29, ARHGAP26, ESR1, AZIN1, SMAD7, LIN28B, PLCXD3, RALYL, DLG2, LIN28A, NR4A3, TMEM115, JMY, CREBZF, USP36, DOCK5, SCYL3, DOCK3, USP38, USP32, DOCK9, DOCK7, ELAVL4, CTDSPL2, CXCL5, SENP5, PDE4B, PDE4A, SPEG, USP47, EGFL7, USP49, CAMK1D, DESI1, USP44, USP45, ARID1A, SENP2, ARID1B, TGFBR1, TGFBR3, DDX19A, DDX19B, LATS2, IFNG, PALLD, CHMP7, CAMK2B, RGS17, RGS16, CAMK2A, USP12, PALM3, WIZ, TOB2, UACA, DLL1, USP19, PRRG4, RMND5A, ERBB3, ERBB4, PRRG1, ERBB2, REPS2, S1PR1, LRIG3, LRIG2, CLASP2, USP24, B3GAT3, CMTM4, ZFC3H1, NAP1L1, ARID3A, ARID3B, USP28, MEIS2, NAP1L5, GDAP2, NEURL4, PIKFYVE, GNPDA1, PIK3IP1, SCD, SPRY2, TBKBP1, SSBP2, HCN2 |
| MF | DNA-binding transcription factor activity | 8.98E-18 | 144 | PRDM5, RORC, RORA, PRDM1, IKZF2, RBPJ, BACH1, ETS1, ETS2, ELK4, HOXA9, GPBP1, CREB3L2, HOXA1, SOX6, PKNOX1, SOX7, SOX4, GTF2I, MEF2A, MEF2C, SKIDA1, EBF1, SOX13, RFX3, EBF2, ZNF10, SOX11, HNF1B, EBF3, TBR1, POU3F1, SOX10, HIC1, FOXP2, RUNX2, FOXP1, MYCN, MAF, RFX7, ZNF710, LMX1B, CLOCK, TP53, ZNF395, EPAS1, GATA6, CREBL2, PRDM13, NRF1, FOXO4, GATA2, PRDM10, FOXO1, NEUROD1, PRDM16, SMAD2, ZBTB17, TFAP2B, STAT5B, EGR1, EGR2, ZFHX3, EGR3, SMAD3, BCL11B, NFATC3, PBX3, NFATC2, NFXL1, FOXN3, FOXN2, MAFA, ESR1, SCRT1, PBX1, FOSL2, MLXIPL, SP1, MAFG, MAFK, SIM2, ZNF532, TP73, CREBZF, RARG, CSRNP2, CSRNP3, CTCF, AFF3, TRPS1, ZIC1, TEAD1, GABPA, TEAD3, TGIF1, TGIF2, TCF12, PAX3, ETV1, FOXL2, FOS, PROX1, ZHX1, ZEB2, ZEB1, ELF2, IRF1, MTF1, ELF5, NFAT5, NFIX, LEF1, NR2C2, STOX2, MNT, GBX2, E2F2, PLAGL2, E2F3, ZNF469, E2F5, MEF2D, ZNF740, TCF7L2, ARNT2, CDX2, NFYB, MGA, KLF4, TBX5, KLF3, GRHL2, USF2, KLF2, REST, NR6A1, TEF, NFIA, WT1, NFIB, NFIC, KLF9, ZNF217 |
| MF | Protein serine/threonine kinase activity | 5.28E-14 | 100 | TRIO, NRK, TESK1, RPS6KA4, RPS6KA3, NRBP2, SLK, PIM2, NEK3, MAP3K9, STK32A, PSKH1, MAP3K5, GTF2I, MAP2K4, CSNK1G3, PRKCH, DAPK1, PRKCE, DYRK1A, LMTK2, VRK3, UHMK1, OBSCN, ULK2, TNIK, STK39, STK4, NLK, NUAK1, GRK5, STK35, MARK4, TRPM6, MARK1, CDK17, SRPK2, PLK3, NEK4, NEK6, TNK2, NEK7, CLK3, SRPK1, CDK8, STK24, WNK1, C8ORF44-SGK3, CDK4, WNK3, AAK1, CDK16, GSK3B, DYRK2, DSTYK, SPEG, CHUK, KSR1, PDPK1, RIPK4, OXSR1, TGFBR1, LATS2, PIK3CA, PDIK1L, SGK3, TOP1, STK40, CAMK2B, PRKAA2, CAMK2A, PPM1D, ACVR1B, AURKA, MAPK8, ACVR1C, MAPK7, PAK6, PAK3, MAPK6, MAP4K3, MAPK4, PAK4, MAP4K4, MAP3K2, MAP3K3, MAP3K1, LIMK2, CDC42BPA, HIPK1, MAPK14, ACVR2A, HIPK3, HIPK2, PIKFYVE, SBK1, RPS6KB1, TAOK1, PKN2, TAF1 |
| MF | RNA polymerase II cis-regulatory region sequence-specific DNA binding | 9.49E-14 | 226 | HNRNPU, IKZF2, RBPJ, BACH1, BACH2, ELK4, HOXA9, HOXA1, PKNOX1, SOX6, SOX7, SOX4, MEF2A, HES7, ZNF287, MED1, MEF2C, MED8, EBF1, SOX13, EBF2, RFX3, ZNF10, SOX11, HNF1B, EBF3, SOX10, ISL1, RUNX2, RFX6, RFX7, SUB1, ZNF710, CLOCK, TP53, ZNF275, ZNF395, HOXD1, EPAS1, GATA6, MYNN, ZBTB1, GATA2, PRDM16, HIVEP1, RREB1, NKX2-3, ZNF267, STAT5B, EGR1, EGR2, EGR3, BCL11B, NFATC3, PBX3, NFATC2, PBX2, PBX1, FOSL2, HOXD3, EZH2, TP73, RARG, HIF3A, CTCF, ZNF280B, TEAD1, GABPA, TEAD3, TCF12, PAX3, PROX2, FOS, PROX1, SREBF2, NR5A1, ZEB2, ZEB1, MTF1, TET3, PAX9, ZNF597, NFIX, SATB1, SATB2, ZNF3, HOXD11, MNT, CUX2, NSD1, HDX, MEF2D, ARNT2, ZNF341, ZNF583, CDX2, NFYB, DMRT2, DMRT3, GRHL2, SKI, PER1, NR6A1, NFIA, NFIB, WT1, NFIC, ZNF217, ZNF354A, TARDBP, ZNF213, ZNF697, ZNF572, PRDM5, RORC, ZBTB20, RORA, PRDM1, ETS1, ETS2, YY1, SALL3, SALL4, ZNF689, ZNF202, ZNF322, ZNF200, EOMES, ZBTB39, MITF, ZBTB34, TBR1, POU3F1, FOXP2, FOXP1, HIC2, MYCN, MAF, ZNF793, DLX1, TCF7, FOXO4, NRF1, FOXO1, NACC2, NACC1, OTX1, SKIL, ZNF784, ZNF420, SMAD2, ZBTB17, TFAP2B, ZFHX3, POU2F1, SMAD3, HMGA1, MAFA, ESR1, ZFHX4, SCRT1, MLXIPL, NR4A3, TLX3, SP1, MAFG, SP4, SP6, SP5, SP8, MAFK, ZNF655, MXD1, ONECUT2, CHD7, ZIC1, ZNF644, ZNF521, MYBL1, NKX3-2, KDM6A, TGIF1, EMX2, TGIF2, ETV1, FOXL2, SAFB, RAD23B, ELF4, IRF1, HAND1, ZNF516, TOP1, HDAC4, NFAT5, LEF1, ZBTB43, WIZ, NR2C2, REPIN1, RBBP4, ZNF629, E2F2, E2F3, E2F5, E2F6, HES2, ZNF740, TCF7L2, IRX5, PRRX1, MGA, ZIC4, ZIC5, KLF4, TBX5, KLF3, MEIS2, USF2, KLF2, KLF8, KLF7, KLF6, REST, TEF, KLF9 |
| MF | Protein serine kinase activity | 3.99E-13 | 93 | GSK3B, TRIO, DYRK2, NRK, TESK1, PIK3CB, RPS6KA4, RPS6KA3, DSTYK, SLK, SPEG, NEK3, PIM2, MAP3K9, STK32A, PSKH1, MAP3K5, MAP2K4, CSNK1G3, CAMK1D, PRKCH, KSR1, PDPK1, DAPK1, PRKCE, RIPK4, DYRK1A, LMTK2, OXSR1, UHMK1, LATS2, OBSCN, PIK3CA, PDIK1L, ULK2, SGK3, TNIK, STK40, CAMK2B, PRKAA2, CAMK2A, STK39, STK4, NLK, AURKA, NUAK1, MAPK8, MAPK7, STK35, PAK6, MARK4, PAK3, MAPK6, TRPM6, MAP4K3, MAPK4, MARK1, PAK4, MAP4K4, CDK17, SRPK2, MAP3K2, PLK3, MAP3K3, MAP3K1, NEK4, LIMK2, NEK6, TNK2, NEK7, MAPK14, CDC42BPA, HIPK1, HIPK3, CLK3, HIPK2, SRPK1, MAPK10, CDK8, PIKFYVE, SBK1, CDK6, RPS6KB1, STK24, C8ORF44-SGK3, WNK1, CDK4, TAOK1, WNK3, AAK1, PKN2, CDK16, TAF1 |
| MF | DNA-binding transcription activator activity, RNA polymerase II-specific | 4.73E-13 | 115 | ZNF292, RBPJ, BACH1, ETS1, YY1, ELK4, HOXA9, CREB3L2, HOXA1, SOX7, SOX4, GTF2I, MEF2A, MEF2C, EBF2, SOX11, EBF3, MITF, SOX10, ISL1, RUNX2, MYCN, MAF, RFX6, LMX1A, CLOCK, TP53, ZNF395, CASZ1, NOTCH1, EPAS1, NRF1, FOXO4, GATA2, FOXO1, NEUROD1, PRDM16, OTX1, RREB1, ZNF267, ZNF784, SMAD2, ZBTB17, TFAP2B, STAT5B, EGR1, EGR2, POU2F1, EGR3, SMAD3, BCL11B, NFATC3, PBX3, NFATC2, PBX2, ESRRG, MAFA, ESR1, PBX1, FOSL2, MLXIPL, NR4A3, SP1, MAFG, HOXD3, TP73, CSRNP2, CSRNP3, ONECUT2, TCF21, ZIC1, ZNF521, MYBL1, GABPA, TCF12, VEZF1, ETV1, FOXL2, FOS, TFDP2, ELF4, IRF1, MTF1, HAND2, HAND1, PAX9, ZNF597, NFAT5, SATB2, LEF1, NR2C2, ZNF629, GBX2, SHOX, E2F2, PLAGL2, E2F3, MEF2D, ARNT2, PRRX1, DMRT2, NFYB, KLF4, TBX5, GRHL2, MEIS2, USF2, KLF7, KLF6, NR6A1, TEF, NFIA, WT1, NFIB, NFIC |
| MF | Sequence-specific double-stranded DNA binding | 2.41E-12 | 124 | RORC, ZBTB20, HNRNPU, PRDM1, ETS1, BACH2, ETS2, YY1, ELK4, HOXA9, BBX, HOXA1, PKNOX1, SOX7, SOX4, EOMES, HES7, MEF2C, RFX3, POU3F1, SOX10, ISL1, HIC1, RUNX2, FOXP1, MYCN, MAF, LMX1A, RFX7, LMX1B, CLOCK, DLX1, HOXD1, TCF7, GATA6, FOXO4, GATA2, NEUROD1, HMBOX1, HIVEP1, OTX1, NKX2-3, ZNF784, TFAP2B, CPSF4, EGR1, EGR2, EGR3, BCL11B, NFATC3, NFATC2, ESRRG, FOXN2, MAFA, ESR1, SCRT1, PBX1, LIN28B, TLX3, SP1, MAFG, SP8, HOXD3, KDM5B, RARG, ONECUT2, TCF21, CTCF, LMNB1, ZIC1, ZNF385D, TEAD1, NKX3-2, GABPA, TGIF1, EMX2, TGIF2, TCF12, PAX3, ETV1, FOXL2, FOS, PROX1, ETV3, SREBF2, NR5A1, ELF2, ELF4, MTF1, ELF5, HAND2, PAX9, ZNF597, NFAT5, NFIX, LEF1, ZBTB43, NR2C2, HOXD11, CUX2, GBX2, SHOX, E2F2, E2F3, HES2, MEF2D, ZNF740, ARNT2, CDX2, IRX5, ZIC4, DMRT3, ZIC5, KLF4, KLF3, MEIS2, USF2, KLF2, KLF6, NR6A1, LBX2, TEF, NFIB, NFIC |
| MF | Protein kinase activity | 3.34E-12 | 88 | SCYL3, GSK3B, NRK, TESK1, NRBP2, RPS6KA3, EEF2K, CCND1, SPEG, NEK3, MAP3K9, MAP3K5, PDGFRB, MAP2K4, PDGFRA, CSNK1G3, EPHA4, PRKCH, KSR1, CHUK, PDPK1, DAPK1, MMD, STRADB, PRKCE, RIPK4, DYRK1A, LMTK2, OXSR1, VRK3, TGFBR1, OBSCN, PDIK1L, PEAK1, PALLD, ROR1, SGK3, TNIK, TRIB1, MET, TRIB2, CAMK2B, PRKAA2, PKDCC, CAMK2A, STK4, NLK, AURKA, NUAK1, MAPK8, MAPK7, ERBB3, GRK5, STK35, ERBB2, ABL2, MARK4, MAP4K3, MARK1, PAK4, MAP4K4, CDK17, MAP3K2, MAP3K3, MAP3K1, NEK4, LIMK2, NEK6, TNK2, NEK7, MAPK14, HIPK3, CLK3, HIPK2, SRPK1, MAPK10, CDK8, WEE1, SBK1, RPS6KB1, STK24, C8ORF44-SGK3, WNK1, TAOK1, WNK3, AAK1, PKN2, TAF1 |
| MF | DNA-binding transcription factor activity, RNA polymerase II-specific | 1.45E-11 | 230 | ZNF292, RBPJ, BACH1, BACH2, ELK4, HOXA9, CREB3L2, BBX, HOXA1, PKNOX1, SOX6, SOX7, SOX4, MEF2A, HES7, ZNF287, MEF2C, EBF1, SOX13, EBF2, RFX3, ZNF10, SOX11, HNF1B, EBF3, SOX10, ISL1, RUNX2, RFX6, RFX7, CLOCK, TP53, ZNF275, CASZ1, TSHZ3, HOXD1, EPAS1, GATA6, MYNN, ZBTB1, GATA2, ZBTB5, HIVEP1, NKX2-3, STAT5B, EGR1, EGR2, EGR3, NFATC3, PBX3, NFATC2, PBX2, PBX1, FOSL2, HOXD3, ZBTB8B, SIM2, TP73, CSRNP2, RARG, CSRNP3, TCF24, TCF21, HIF3A, ZNF280B, CIC, TEAD1, GABPA, TEAD3, TCF12, PAX3, PROX2, FOS, PROX1, ZHX1, SREBF2, NR5A1, ZEB2, ZEB1, PAX9, NFIX, SATB1, SATB2, ZNF518B, ZNF3, HOXD11, MNT, CUX2, GBX2, SHOX, PLAGL2, HDX, MEF2D, ARNT2, ZNF341, ZNF583, CDX2, NFYB, DMRT2, DMRT3, GRHL2, SKI, NR6A1, LBX2, NFIA, NFIB, WT1, NFIC, ZNF217, ZNF354A, ZNF213, ZNF697, RORC, ZBTB20, RORA, ETS1, ETS2, YY1, SALL3, SALL4, ZNF689, ZNF566, ZNF202, ZNF322, ZNF200, GTF2I, EOMES, MITF, ZBTB34, TBR1, POU3F1, HIC1, FOXP2, FOXP1, MYCN, MAF, LMX1A, ADNP, LMX1B, ZNF793, DLX1, TCF7, CREBL2, FOXO4, NRF1, FOXO1, NPAS3, NEUROD1, NACC2, NACC1, OTX1, SKIL, ZNF420, SMAD2, TFAP2B, ZFHX3, POU2F1, SMAD3, NFXL1, ESRRG, FOXN3, MAFA, FOXN2, ESR1, ZFHX4, SCRT1, MLXIPL, NR4A3, TLX3, SP1, MAFG, SP4, SP6, SP5, SP8, MAFK, ZNF655, MXD1, ZNF652, CREBZF, ONECUT2, ZIC1, ZNF644, MYBL1, NKX3-2, ZNF641, TGIF1, EMX2, TGIF2, VEZF1, ETV1, FOXL2, ETV3, ELF2, TFDP2, ELF4, IRF1, HAND2, ELF5, HAND1, ZNF516, NFAT5, ZBTB46, LEF1, ZBTB43, WIZ, NR2C2, E2F2, E2F3, E2F5, E2F6, HES2, ZNF740, TCF7L2, IRX5, PRRX1, MGA, ZIC4, ZIC5, KLF4, TBX5, KLF3, MEIS2, USF2, KLF2, KLF8, KLF7, KLF6, TEF, KLF9 |
| MF | RNA polymerase II-specific DNA-binding transcription factor binding | 7.11E-11 | 55 | RB1, TCERG1, GSK3B, LDB1, CHD4, RBPJ, ETS1, ETS2, CRKL, BBS5, DACT1, GTF2I, TEAD3, EOMES, MEF2A, MEF2C, LMO2, FOS, ISL1, RAD23B, PIAS2, HAND2, HAND1, TRIB1, ZFPM2, TRIB2, TP53, HDAC4, UHRF2, EPAS1, PRDM13, STK4, GATA2, ADD1, MTDH, NEUROD1, GBX2, PPARGC1A, MEF2D, SMAD2, TCF7L2, EGR2, CREBBP, SMAD3, PRRX1, HMGA2, WWP2, KLF4, TBX5, HIPK2, MLXIPL, REST, SP1, TAF1, TP73 |
| MF | Metal ion binding | 1.74E-10 | 437 | ZNF292, TESK1, XYLT1, ADARB2, RXFP1, ZC3H12C, ZXDA, ZFYVE26, ZXDB, ANKFY1, ZNF287, PRKCH, PRKCE, REV1, CACNA2D2, ZFYVE21, ZNF10, RC3H1, DICER1, ISL1, ZFYVE16, ZC2HC1A, RUFY2, FREM1, FREM2, GNE, ZNF275, ZNF395, MTMR3, MYNN, AGAP1, PLA2G3, PRDM13, AGAP3, BAZ2B, PRDM10, ADAMTS14, ADAMTS13, PRDM16, RREB1, ZNF267, CREBBP, COL1A1, MLLT10, CPEB1, MEX3A, COL1A2, AGO3, AGO2, CPEB3, ZBTB8B, CPEB4, PHF3, LIN54, CDKN1A, SETD2, KCNC2, SLC6A1, ADO, CYB561D1, SLC6A2, SMG6, RNF157, LFNG, TUBA1A, ZNF280B, RNF150, JAK1, CNOT6L, KCND2, SIRT5, PGM2L1, FAHD2A, FAHD2B, ZEB2, ZEB1, MTF1, PXDN, ZNF597, PHLPP2, ZNF518B, COL11A2, ADCY3, FGD4, FGD6, RNF138, NSD1, PLAGL2, ZNF469, MBNL3, P4HTM, RUNX1T1, ZNF583, ZNF341, ANKIB1, PCGF3, SULF2, TTLL7, COL3A1, TTLL4, WT1, ZNF217, ZNF213, RNF141, ZNF697, YPEL2, ZNF572, LTN1, ZBTB20, HR, SLC8A2, YY1, RIMS2, SALL3, SALL4, PAPOLA, ZNF689, NEK3, STK32A, GYG2, ZNF566, ZNF202, ZNF322, MAP3K5, ZNF200, GTF2I, MYLIP, RNF43, ZBTB39, RNF44, COL27A1, USP2, ATP11C, ATP11B, ZBTB34, HIC1, FOXP2, FOXP1, MOB3C, HIC2, OBSCN, KAT6A, ADNP, TRABD2B, DGKH, KMT2E, ZNF793, KMT2D, KMT2A, SMYD5, ZC4H2, RNF180, GTF2E1, PHF21B, SNN, RNF170, SLC38A9, ZNF784, ZNF420, ZBTB17, ATP8B4, TNK2, NEK7, ZBTB10, ADAP1, SCRT1, MOB4, CNOT6, STK24, SP1, SP4, SP6, PLEKHM1, SP5, ACO1, MDM4, TPP1, SP8, ZNF655, ZNF532, ZNF652, KCNK5, BMPR2, DAGLA, BNC2, ZC3H4, ZC3H3, ITGB3, FHL2, FHL5, PPP6C, ADAMTS5, ITGB8, ITGAV, ZNF644, ATP7A, ZNF521, ZNF641, GRID2, TRPC3, KSR1, ATRX, MSL2, VEZF1, PPM1A, TRAF3, CTDSP1, CTDSP2, ZNF516, ITGA8, ITGA6, ITGA5, HDAC4, PRKAA2, UHRF2, ZBTB46, RNF38, ZBTB43, FURIN, ZBTB44, PPM1D, HDAC7, REPIN1, DCAF15, ZNF629, RSBN1L, RNF39, CSK, FNIP1, ZNF740, RNF20, SLC12A5, FKRP, TRIM41, EXOG, CDC42BPA, KLF3, KLF2, PML, TMPPE, KLF8, KLF6, FRAS1, MGAT4A, DNAJA2, KLF9, TRIM36, KCNK2, TRIM33, KCNK3, CPNE8, IKZF2, RASSF3, DHX57, KDR, BSN, SLC12A6, ATXN7L3, AGFG1, PAQR9, PAQR3, ENTPD7, EBF1, EBF2, YOD1, EBF3, THAP2, ZNF839, PDE12, SUCLG2, DNA2, ZNF710, ZFPM2, TP53, CASZ1, TSHZ3, MYCBP2, ZBTB1, ZBTB5, NUAK1, ZNF827, ARSJ, ZNF703, HIVEP1, TRPM6, ARSB, NUS1, EGR1, EGR2, EGR3, BCL11B, PM20D1, ACER2, COL9A1, TP73, NRP1, NRP2, OLA1, LIMD1, LIMD2, PPP3CA, REV3L, GIT1, VAV3, MMD, NME4, CBFA2T2, CBFA2T3, ZHX1, SCNM1, NME6, PITPNM3, PITPNM2, KIT, FAM20B, PDZRN4, GDPD1, GNAI3, ZNF3, PGRMC1, SLX4, PAK3, MAP3K2, LMLN, RANBP2, MAP3K3, GIT2, DMRT2, SCD5, C1GALT1, DMRT3, SH3RF3, SEC23IP, PDP2, ZNF354A, GALNT12, STEAP3, GALNT15, GALNT18, PRDM5, PRDM1, GALNT10, POGZ, RAG1, PDGFRB, SLC30A4, LMO2, ADAM10, SDHD, PRLR, RSBN1, ADAM19, LMX1A, ADAM12, WDFY3, LMX1B, PSMD14, SLC1A1, DTX2, ADIPOR2, CACNA1E, RASGRP1, LPP, ZFP36L2, DPP3, MAN2A1, LONRF3, PDZD8, SMAD2, CPSF4, SYT2, SMAD3, IDH1, ARHGAP29, HELZ, EIF2S2, SMAD7, COL5A1, GNAQ, COL5A2, TAB2, STT3B, FGFR3, PHF19, RBM27, KDM5B, SLC40A1, CHD5, TNFAIP3, CHD4, ZIC1, PDE4B, PDE4A, UQCRFS1, POLK, KDM6A, POMGNT1, TGFBR1, PJA1, LATS2, RASA2, KDM3A, NRXN1, USP12, CAMK2A, NRXN3, WIZ, ASAP1, ACVR1B, USP19, RNF2, UGP2, RMND5A, ACVR1C, MAT2A, CHSY1, TNKS2, PDSS1, CHSY3, MTA3, GALNT7, EYA1, B3GAT3, LIMK2, ATP2B4, ZNF804A, ZFC3H1, ZIC4, ATP2B2, ZIC5, ACVR2A, REST, PIKFYVE, PDE10A, TBKBP1, PDE7A, MBTPS2 |
| MF | ATP binding | 2.32E-10 | 261 | TRIO, PANK3, TESK1, HNRNPU, RPS6KA4, RPS6KA3, CLP1, DHX57, KDR, PIP4K2B, KIF21B, EPHB2, EPHA4, PRKCH, DAPK1, ENTPD5, PRKCE, STARD9, ACSL6, DICER1, RUNX2, UHMK1, DYNC1LI2, CDC34, KATNAL1, SUCLG2, ULK2, TARS2, DNA2, TRIB1, TRIB2, EPHA3, GNE, TWF1, ABCB9, NLK, UBE2J1, NUAK1, DHX33, PPCS, PIP5K1C, TRPM6, N4BP2, CDK17, SRPK2, PLK3, INSR, SMARCA5, MYO5A, HSPA12A, SRPK1, PM20D1, UCK1, WNK1, C8ORF44-SGK3, MYO5B, WNK3, RAD17, ITM2B, CDK16, OLA1, PRKAG2, DSTYK, CNTRL, KIF1A, JAK1, CCT3, SPHK2, STRADB, RIPK4, NME4, NME6, PDIK1L, KIT, FAM20B, SGK3, STK40, ADCY3, FIGN, HSPE1-MOB4, BTAF1, PAK6, RICTOR, PAK3, MAP4K3, PAK4, MAP4K4, MAP3K2, MAP3K3, MAP3K1, NMNAT3, UBE2G2, HIPK1, HIPK3, HIPK2, TTLL7, TTLL4, AXL, ETNK2, ETNK1, TAOK1, KIF26B, PKN2, NRK, UBE2D3, IGF1R, NRBP2, SLK, KIF5C, KIF5B, PAPOLA, SMARCAD1, NEK3, MAP3K9, PIM2, STK32A, PSKH1, MAP3K5, GTF2I, MAGI1, PDGFRB, PDGFRA, MAP2K4, CSNK1G3, DYRK1A, ATP11C, LMTK2, ATP11B, VRK3, OBSCN, KIF16B, ROR1, TNIK, RAD54L2, DGKH, IPPK, PFKFB4, DDX5, DDX4, PKDCC, ITPR1, STK39, STK4, STK35, KIF3B, GRK5, ABL2, MARK4, MARK1, ATP8B4, NEK4, ATP8B1, NEK6, TNK2, NEK7, HELZ, CLK3, CDK8, UBE2W, CDK6, HOOK2, STK24, HOOK1, CDK4, CAPRIN1, UBE2N, AAK1, UBE2O, FGFR3, DDX3Y, SCYL3, GSK3B, DDX3X, BMPR2, DYRK2, CHD9, CHD7, PIK3CD, CHD5, ATP2A2, CHD4, PIK3CB, PIK3C2A, HK2, EEF2K, MYO18A, SPEG, ATP7A, ACTR3, CAMK1D, CHUK, KSR1, APAF1, PDPK1, MARS2, ABCC5, ATRX, DARS2, NAV2, OXSR1, SMC1A, TGFBR1, MYH1, DDX19A, ZAP70, DDX19B, MYH2, LATS2, ACTBL2, PIK3CA, ATP6V1B2, MYH9, TOP1, MET, CAMK2B, ACSS3, PRKAA2, VPS4B, CAMK2A, PALM3, ACVR1B, CLCN3, TTL, AURKA, ATAD2B, GK5, MAPK8, ACVR1C, MAPK7, ERBB3, MAT2A, ERBB4, ERBB2, PTK2B, LRIG3, CSK, MAPK6, MAPK4, MYO10, KCNJ11, MMAB, LIMK2, ATP2B4, ATP2B2, CDC42BPA, MAPK14, ACVR2A, WARS2, MAPK10, CLCN5, WEE1, MYO1B, PIKFYVE, ACTC1, SBK1, RPS6KB1, P2RX1, DNAJA2, ERCC6, MYO1F, TAF1 |
| MF | DNA-binding transcription factor binding | 5.15E-10 | 51 | RB1, LDB1, GTF2B, PRDM5, HMGB2, RBPJ, YY1, SOST, MEF2A, MED1, MEF2C, RBFOX2, TCF12, LMO2, SOX10, KAT2B, MDFIC, SUB1, KAT6A, ZNF516, CGGBP1, HDAC4, GATA6, TXLNG, FOXO4, CXXC5, NLK, HDAC7, DHX33, RAD21, ZNF703, PRDM16, PPARGC1A, MEF2D, RUNX1T1, SMAD2, ZBTB17, CREBBP, CBX5, SMAD3, IRX5, NFYB, NEK6, PBX2, GRHL2, PBX1, SKI, MLXIPL, PER1, NFIA, TP73 |
| MF | DNA binding | 8.59E-10 | 232 | ZNF292, HNRNPU, RBPJ, ELK4, HOXA9, PEG10, GPBP1, CREB3L2, BBX, PKNOX1, SOX6, AGFG1, MEF2A, HES7, MEF2C, EBF1, SOX13, EBF2, RFX3, SOX11, HNF1B, EBF3, DICER1, SOX10, THAP2, MED6, RUNX2, RFX7, SUB1, PREB, DNA2, ZNF710, ZFPM2, CLOCK, TP53, ZNF275, ZNF395, TSHZ3, ZBTB1, PRDM13, PIK3R1, BAZ2B, ZBTB5, PRDM10, ZNF827, PCBP4, RAD21, PRDM16, PPARGC1A, STAT5B, EGR1, EGR2, PHC1, NFATC3, SMARCA5, PBX3, NFATC2, PBX1, FOSL2, MLLT10, HOXD3, ZBTB8B, SIM2, LIN54, RARG, AHCTF1, CTCF, JPH2, AIFM1, ZMYM3, REV3L, CIC, JARID2, TEAD1, TEAD3, PBRM1, STRBP, TET2, PAX3, PROX2, FOS, PROX1, ZHX1, SREBF2, NR5A1, ZEB2, ZEB1, MTF1, PAX9, NFIX, TMF1, SATB1, SATB2, ZNF3, CENPA, BTAF1, SLX4, RNF138, ZNF469, DEDD, RUNX1T1, ZNF341, NFYB, MBD2, HIPK1, HIPK2, NR6A1, NFIA, NFIB, WT1, NFIC, CRLF3, TARDBP, ZFAND5, RORC, ARID4B, RORA, ETS1, ETS2, YY1, POGZ, SMARCAD1, RAG1, GTF2I, EOMES, PIAS4, MORC3, ARID5B, MITF, HIC1, FOXP2, PIAS2, HIC2, MYCN, MAF, LMX1A, KAT6A, RAD54L2, ADNP, GLYR1, DLX1, KMT2D, KMT2A, TCF7, CREBL2, PDS5B, FOXO4, NRF1, ATXN1, SMAD2, ZBTB17, TFAP2B, POU2F1, SMAD3, CEP350, CBX2, HMGA1, HMGA2, HELZ, MAFA, ESR1, ZFHX4, QKI, MLXIPL, NR4A3, SP1, MAFG, SP4, ZNF532, ZNF652, PHF19, CREBZF, KDM5A, DDX3Y, KDM5B, RNF11, DDX3X, LDB1, CHD9, ZC3H3, CHD7, HMGB2, CHD5, TNFAIP3, CHD4, MYO18A, LBR, ZNF385A, TGIF1, TGIF2, ATRX, FOXL2, SMC1A, ARID1A, ARID1B, DNAJC1, TFDP2, POLR1A, IRF1, CRY2, TOP1, LCORL, HDAC4, NFAT5, UHRF2, LEF1, ZBTB44, CXXC5, RNF4, CXXC4, ATXN1L, BEND4, E2F2, LRIG3, TCF7L2, PRRX1, ZIC4, ARID3A, ARID3B, KLF4, TBX5, MEIS2, KLF2, PML, SMUG1, KLF7, ERCC4, POLR3D, ERCC6, PAXBP1, TRIM33, TAF1 |
| MF | Chromatin binding | 1.18E-09 | 106 | CCNT2, TRRAP, FMR1, HNRNPU, RBPJ, YY1, ELK4, SMARCAD1, PKNOX1, MEF2A, MED1, SMARCC1, SFMBT1, SFMBT2, EBF2, MITF, KAT6A, GMNC, ADNP, TP53, GLYR1, TSPYL5, DLX1, URI1, TSHZ3, KMT2A, GATA6, PRDM13, GATA2, FOXO1, MBTD1, NEUROD1, ATXN1, RAD21, TNRC18, SKIL, SMAD2, TFAP2B, STAT5B, CREBBP, EGR2, PHC1, CBX5, AUTS2, CBX2, SMARCA5, HMGA1, NFATC2, PBX2, ESR1, FOSL2, MLLT10, RAD17, RCOR1, PHF19, EZH2, RARG, LDB1, CHD7, SETD7, CHD5, CHD4, SCML2, NIPBL, SCML1, NELFA, JARID2, GABPA, NCOA1, PBRM1, NCOA6, ATRX, FOS, SMC1A, SAFB, NR5A1, KAT2B, TOX3, ZEB1, POLR1A, TOP1, HDAC4, SMARCD1, NFAT5, PRKAA2, SATB2, LEF1, CENPA, RNF2, HDAC7, ATAD2B, MNT, NSD1, ATXN1L, MTA3, RNF20, MBD2, ARID3A, NAP1L1, REC8, NUDT21, REST, MCM3AP, NFIA, POLR3D, ERCC6 |
| CC | Nucleoplasm | 1.47E-31 | 656 | RB1, MAML2, TRRAP, HNRNPU, GPATCH3, FZD10, RBPJ, BACH1, BACH2, DCAF7, DCAF6, ELK4, HOXA9, LSM11, CLP1, CREB3L2, PIP4K2B, MEF2A, FNBP4, MED1, MEF2C, ACOT7, RBFOX2, REV1, MED8, SOX13, SOX11, ARMC8, SOX10, MED6, MAML3, CLOCK, CGGBP1, URI1, ZNF395, HOXD1, PRKRIP1, NAIF1, GATA6, MYNN, COPS7B, NEDD4L, CDCA8, GATA2, ARPP19, GJC1, PPP3R1, POM121C, RAD21, PRDM16, PIP5K1C, PPARGC1A, PPARGC1B, HEXIM1, PLK3, CREBBP, PHC1, NFATC3, NFATC2, A1CF, ELL2, PBX1, FOSL2, MLLT10, CPEB1, AGO3, AGO1, AGO2, C19ORF47, RAD17, HOXD3, CPEB3, EZH2, DENND1C, LIN54, SETD5, CDKN1A, SETD2, RARG, CDKN1B, ELL, SETD7, PRKAG2, TCF21, CTCF, HIF3A, NIPBL, MED13, RACK1, SPIN1, OLR1, NELFA, CIC, JARID2, TEAD1, TEAD3, DENND2D, SPHK2, TCF12, TET2, PAX3, AEN, FOS, DUSP6, MED28, DUSP7, MZT2A, KAT2B, GPRC5B, ZEB2, ZEB1, MTF1, PAX9, ERGIC1, PHLPP2, WDR26, NFIX, DLST, HOXD11, CENPA, GGA1, MYCT1, BTAF1, UBN2, NSD1, STX6, TAF9B, MBNL3, MEF2D, RUNX1T1, EGLN2, PCGF3, MBD2, RRP1B, ELP5, HIPK1, SNCAIP, GATAD2B, HIPK2, SKI, NUDT21, LYRM1, NFIA, WT1, NFIB, NFIC, ZNF217, PKN2, ZNF572, CCNT2, FMR1, CSE1L, GTF2B, UBE2D3, RORC, ZBTB20, HR, RORA, ALDH1L2, IPO5, YY1, GRAP2, SESN1, SALL4, PAPOLA, SMARCAD1, TNFRSF8, KPNA4, KPNA2, PHLDA1, ZNF202, KPNA3, ZNF322, KPNA1, GTF2I, MAGI1, PIAS4, PNISR, ZBTB39, TLE3, FBXW7, CTNNBIP1, USP2, DYRK1A, MITF, ZBTB34, THOC2, VRK3, HIC1, PIAS2, CDC25A, FOXP1, HIC2, KAT6A, HAT1, SRSF3, TNIK, UTRN, FKBP5, GLYR1, IPPK, KMT2E, DLX1, KMT2D, KHDRBS2, PARM1, INO80D, NOTCH1, KMT2A, CBFB, TNKS, CUL3, STK39, SPATA2, FOXO4, NRF1, GTF2E1, FOXO1, NPAS3, NEUROD1, ATXN3, NPAT, HMBOX1, ATXN1, SOCS1, STK35, ATXN7, NACC1, SAFB2, SKIL, ZNF420, WDTC1, ANKRD28, ZBTB17, ATP8B1, NEK6, NEK7, STYX, ZBTB10, ESRRG, MCC, FBXO32, FOXN2, CDK8, MLXIPL, IBTK, CDK6, STK24, SP1, P4HA2, CDK4, MAFG, SP4, TADA1, MDM4, MAFK, OGT, ZNF512B, ALAS1, BMPR2, PPP1R13B, ONECUT2, BNC2, CELF1, ZC3H4, CDCA7L, CELF2, ITGB3, CEP164, SNAP23, FHL2, PTEN, PIK3CB, PIK3C2A, DUSP16, NGRN, PPP6C, DUSP10, DDI2, HIF1AN, ZNF521, NEO1, ZNF641, SH3D19, IQCB1, PPP1R12A, CHUK, DST, ATRX, AMT, MSL2, NRG1, VEZF1, FOXL2, WIPI2, SMC1A, RAD23B, PPM1A, NSMCE4A, TFDP2, POLR1A, CTDSP1, ESRP1, CTDSP2, HAND1, SMCR8, TOP1, PPP1R12B, BCAT2, HDAC4, SMARCD1, NFAT5, PLEKHH2, PRKAA2, NUFIP2, UHRF2, NDUFB4, RNF38, RCHY1, PPM1D, CXXC5, HDAC7, REPIN1, RBBP4, TP53INP1, POLR2D, ATXN1L, IGF2BP1, E2F2, E2F3, DCAF11, E2F5, E2F6, HNRNPA0, RNF20, FKRP, PRRX1, TXNRD1, MGA, PTPN11, RPRD2, KLF4, TBX5, KLF3, PTPN14, PML, PNRC2, KLF8, TNRC6C, KLF7, KLF6, MCM3AP, NOVA1, POLR3D, POLR3E, KLF9, PTPN4, TRIM33, TNRC6A, TNRC6B, TCERG1, PPP2R2A, CBLB, CCNC, CRKL, RPS6KA4, RPS6KA3, GOLGA3, GOLGA4, HERC2, PEG10, EPHB2, SOX6, SOX7, SOX4, SKP1, SMARCC1, SFMBT1, SFMBT2, HNF1B, RUNX2, UHMK1, CDC34, CCNY, SUB1, NSMF, DNA2, BCORL1, ZFPM2, TP53, EPHA3, CASZ1, TSHZ3, EPAS1, DCUN1D3, MYCBP2, PEX11B, ZBTB1, DCUN1D1, NLK, NUAK1, SEC14L1, DHX33, MIER3, DPH3, PCBP2, HIVEP1, TP53BP2, TNRC18, TSPAN2, SRPK2, STAT5B, EGR1, EGR2, DTNA, EGR3, INTS2, SMARCA5, AMMECR1, SRPK1, MED13L, SPATS2L, RNPS1, INTS6, SIM2, TECPR1, RCOR1, TP73, INTS11, AHCTF1, DAZAP1, CITED4, SLC7A14, LIMD1, LIMD2, RPTOR, COIL, SYNCRIP, PPP3CA, ZMYM3, ENC1, REV3L, GABPA, NCOA1, PBRM1, NCOA6, PROX1, CBFA2T2, CBFA2T3, ZHX1, SREBF2, NR5A1, TOX3, PDIK1L, FAM20B, HNRNPH3, DCP2, STK40, STX12, MYCBP, SATB1, SATB2, GNAI3, TMPRSS2, MNT, SLX4, SERTAD2, SHOX, PAK6, MAP3K2, RANBP2, GIT2, ARNT2, GDF11, CDX2, PLEKHA1, NFYB, GRHL2, PLEKHA8, PER2, PER1, NR6A1, CCNG1, TRIP12, TACC2, ZNF354A, TARDBP, CRTC1, PRDM5, ARID4B, PRDM1, ETS1, ETS2, AMOT, CCND2, CCND1, POGZ, RAG1, EOMES, PDGFRA, MORC3, LMO2, SSU72, ARID5B, TMEM250, POU3F1, MYCN, CCNE2, TBL1XR1, ADAM12, WDFY3, DDX5, RPS19BP1, PSMD14, TCF7, DTX2, PDS5B, STK4, DTX4, ZMAT3, MFAP3L, IVNS1ABP, SMAD2, CPSF4, TFAP2B, ZFHX3, POU2F1, CBX5, SMAD3, DENND4B, SMURF1, CBX2, HMGA1, HMGA2, ARHGAP28, ESR1, CLK3, SMAD7, UBE2W, LIN28B, RALYL, NR4A3, APPBP2, TLX3, JMY, UBE2N, UBE2O, TAB2, BRWD1, MXD1, PHF19, CREBZF, DDX3Y, KDM5A, USP36, KDM5B, GSK3B, RBM25, DYRK2, DDX3X, LDB1, CHD9, CHD7, HMGB2, SLC40A1, CHD5, CHD4, CTDSPL2, AFF3, AFF4, PITPNC1, LMNB1, CASP7, SENP5, SNAPC1, BCL7A, TRPS1, CASP3, ZIC1, PDE4A, SCN5A, POLK, MYBL1, ZNF385A, DACT1, KDM6A, TGIF1, USP47, TGIF2, USP49, USP44, USP45, DARS2, NAV2, ETV3, ARID1A, SAFB, SENP2, ARID1B, RBL2, DDX19A, DDX19B, ELF2, ELF4, IRF1, RBM24, CHMP7, CAMK2B, KDM3A, RRN3, USP12, CAMK2A, LEF1, WIZ, NR2C2, RNF4, UACA, ADD1, RNF2, ATAD2B, AURKA, CYTH3, MAPK8, RMND5A, MAPK7, ERBB4, ERBB2, S1PR1, LRIG3, NUP43, MAPK6, MTA3, MAPK4, ARFGEF1, USP24, KDM4A, TCF7L2, EYA1, ARID3A, ARID3B, USP28, MAPK14, USF2, WARS2, SMUG1, MAPK10, WEE1, REST, RPS6KB1, TNIP1, ERCC4, KATNBL1, BRMS1L, THRSP, ERCC6, TAF1 |
| CC | Chromatin | 2.78E-30 | 255 | RB1, RBPJ, BACH1, BACH2, ELK4, HOXA9, CREB3L2, BBX, HOXA1, PKNOX1, SOX6, SOX7, SOX4, MEF2A, HES7, MED1, MEF2C, SMARCC1, EBF1, SOX13, EBF2, RFX3, SOX11, HNF1B, EBF3, SOX10, ISL1, RUNX2, RFX6, RFX7, ZFPM2, CLOCK, TP53, TSPYL5, CASZ1, TSHZ3, HOXD1, EPAS1, GATA6, BAZ2B, ZBTB5, PRDM10, ZNF827, RAD21, PPARGC1A, NKX2-3, SRPK2, STAT5B, EGR1, CREBBP, EGR2, EGR3, NFATC3, SMARCA5, PBX3, NFATC2, PBX2, PBX1, SRPK1, FOSL2, HOXD3, ZBTB8B, SIM2, EZH2, TP73, SETD5, CSRNP2, RARG, AHCTF1, CSRNP3, TCF21, HIF3A, NIPBL, ENC1, SPIN1, CIC, JARID2, TEAD1, GABPA, TEAD3, NCOA1, PBRM1, TCF12, PAX3, PROX2, FOS, PROX1, ZHX1, SREBF2, NR5A1, ZEB2, ZEB1, PAX9, NFIX, SATB1, SATB2, HOXD11, MNT, CUX2, SLX4, GBX2, NSD1, SHOX, HDX, MEF2D, ARNT2, CDX2, NFYB, DMRT2, MBD2, DMRT3, GRHL2, GATAD2B, NR6A1, LBX2, NFIA, NFIB, NEDD4, NFIC, TARDBP, RORC, RORA, HR, ETS1, ETS2, YY1, CCND2, POGZ, SMARCAD1, EOMES, PIAS4, MORC3, MITF, ZBTB34, TBR1, POU3F1, HIC1, FOXP2, PIAS2, FOXP1, MYCN, MAF, LMX1A, KAT6A, HAT1, ADNP, LMX1B, GLYR1, KMT2E, DLX1, TCF7, CREBL2, PDS5B, FOXO4, FOXO1, NPAS3, NEUROD1, HMBOX1, NACC2, DVL3, OTX1, SMAD2, TFAP2B, ZFHX3, POU2F1, SMAD3, HMGA1, HMGA2, NFXL1, ESRRG, FOXN3, MAFA, FOXN2, ESR1, ZFHX4, SMAD7, MLXIPL, NR4A3, TLX3, SP1, CDK4, SP4, SP6, SP5, SP8, MAFK, MXD1, CREBZF, KDM5A, KDM5B, BNC2, LDB1, ONECUT2, CHD7, HMGB2, CHD5, CHD4, BCL7A, TRPS1, NKX3-2, ZNF385A, TGIF1, EMX2, TGIF2, USP44, MSL2, ETV1, FOXL2, ETV3, ARID1A, ARID1B, RBL2, ELF2, TFDP2, ELF4, IRF1, HAND2, ELF5, HAND1, SMCR8, CHMP7, HDAC4, SMARCD1, NFAT5, KDM3A, ZBTB46, LEF1, ZBTB43, NR2C2, RBBP4, E2F2, E2F3, E2F5, E2F6, HES2, ZNF740, TCF7L2, KDM4A, IRX5, PRRX1, MGA, NAP1L1, KLF4, TBX5, KLF3, MEIS2, USF2, KLF2, KLF8, KLF7, KLF6, TEF, KLF9, TRIM33, TAF1 |
| CC | Nucleus | 5.32E-23 | 880 | ZNF292, TESK1, RBPJ, ZC3H12C, LSM11, FAM110C, GPBP1, BBX, PKNOX1, MEF2A, HES7, ZNF287, MEF2C, RBFOX1, RBFOX2, STARD9, ZNF10, RFX3, DICER1, ISL1, RFX6, RFX7, RUFY2, CLOCK, CGGBP1, ZNF275, URI1, GATA6, MYNN, COPS7B, CDCA8, AGAP3, BAZ2B, GATA2, PPARGC1A, ZNF267, PPARGC1B, HEXIM1, CREBBP, PRPF38B, PBX3, PBX2, PBX1, MLLT10, AGO3, AGO4, PKIA, AGO1, AGO2, C19ORF47, ZBTB8B, EZH2, LIN54, PRKAG2, CTCF, TRIOBP, NIPBL, JPH2, TUBA1A, MED13, NELFA, APPL2, APPL1, JAK1, CNOT6L, SPHK2, DUSP1, SIRT5, FOS, DYNLL1, DUSP8, MED28, MMP14, ERGIC2, MDFI, TMF1, ZNF518B, DLST, CENPA, BTAF1, GBX2, HAS3, PLAGL2, ZNF469, DMD, STX3, EXTL3, MEF2D, EGLN2, MBD2, GATAD2B, SKI, NUDT21, WT1, ZNF217, PKN2, CRLF3, ZNF697, ZNF213, YPEL2, CCNT2, CSE1L, UBE2D3, RORC, ZBTB20, RORA, YY1, EIF4ENIF1, SESN3, SESN1, SESN2, NFATC2IP, ZNF689, KPNA4, NEK3, KPNA2, ZNF202, KPNA3, ZNF200, KPNA1, PIAS4, PPP1R16B, BNIP3L, KHNYN, FBXW7, CTNNBIP1, TBR1, PIAS2, CDC25A, FOXP2, FOXP1, MAF, HAT1, SRSF3, GMNC, PKP4, RAD54L2, KMT2E, DLX1, KMT2D, KHDRBS2, INO80D, KMT2A, ZC4H2, FBXO45, CREBL2, FOXO4, NRF1, FOXO1, ATXN3, NPAT, SBNO1, ATXN1, STK35, ATXN7, EIF4EBP2, SOCS7, EVI5, SOCS4, ZNF420, ZBTB17, NEK6, STYX, NEK7, ZBTB10, FOXN3, MCC, FBXO32, FOXN2, QKI, MLXIPL, STK24, SP1, SP4, SP6, SP5, MDM4, SP8, ZNF655, OGT, ZNF652, PPP1R13B, ONECUT2, CELF1, CDCA7L, CELF2, ITGB3, FHL2, PTEN, FASLG, PIK3CB, FHL5, NGRN, ZNF644, ZNF641, NKX3-2, ACTR3, EMX2, APAF1, DST, ATRX, MSL2, FOXL2, VEZF1, RAD23B, PPM1A, NSMCE4A, HAND2, HAND1, TOP1, TRIM55, PRKAA2, UHRF2, ZBTB46, ZBTB43, ZBTB44, PPM1D, CXXC5, RCHY1, CXXC4, PARD6B, ZNF629, TP53INP1, ATXN1L, IGF2BP1, SH3BP4, IGF2BP3, E2F3, IGF2BP2, E2F5, E2F6, HNRNPA0, PRRX1, MGA, EXOG, TBX5, REC8, MCM3AP, NOVA1, NOVA2, NT5C1B, TRIM33, CCNJ, CCNC, IKZF2, HERC2, RASSF3, KDR, BSN, ATXN7L3, SMARCC1, SFMBT1, SFMBT2, HNF1B, THAP2, CDC34, CCNY, SUB1, PREB, ZNF710, BCORL1, TRIB1, TRIB2, TP53, CCDC82, PXT1, GGNBP2, EPAS1, MYCBP2, ZBTB1, PIK3R1, ZBTB5, UBE2J1, MBTD1, DHX33, MIER3, PCBP4, PPCS, ZNF703, PCBP2, HIVEP1, N4BP1, SNX6, STAT5B, EGR1, EGR2, INTS2, SMARCA5, HSPA12A, MED13L, NET1, WNK1, RANBP10, INTS6, RCOR1, TP73, CCNJL, INTS11, CSRNP2, CSRNP3, WASL, SYNCRIP, PPP3CA, SCML2, SCML1, ENC1, CNTRL, REV3L, NCOA1, PBRM1, NCOA6, ZHX1, SREBF2, NR5A1, TOX3, IL1A, PDIK1L, CCNI2, PABPC1, SATB1, SATB2, SERTAD3, SERTAD1, SERTAD2, SHOX, GPC6, CD74, SPRYD4, PLEKHA2, TMUB1, PER2, PER1, NEDD4, CCNG1, TARDBP, OTUD4, OTUD5, MIDN, CRTC1, WWC1, PRDM5, PRDM1, ETS1, ETS2, KLHL31, CCND2, AMMECR1L, RGS3, CCND1, CAPN3, RGS8, RAG1, EOMES, PDGFRB, PDGFRA, MORC3, SSU72, ADAM10, TMEM250, POU3F1, ADAM19, SLFN12, CCNE2, DDX5, DDX4, PSMD14, KLHL15, TCF7, PDS5B, VCPIP1, MFAP3L, CCDC134, TFAP2B, ZFHX3, AUTS2, SLC52A3, HMGA1, MSN, NFXL1, CHCHD10, HMGA2, ZFHX4, CLK3, UBE2W, FGF14, APPBP2, UBE2N, UBE2O, MXD1, FGF11, PHF19, DDX3Y, RBM27, GSK3B, DYRK2, DDX3X, LDB1, CHD7, HMGB2, TNFAIP3, CHD5, CHD4, AFF3, AFF1, GRM1, LMNB1, ZIC1, MYO18A, ZNF385B, ZNF385D, MYBL1, ZNF385A, YWHAG, DACT1, TGIF1, NAA30, TGIF2, PDPK1, ETV1, ETV3, ELF2, ELF4, IRF1, ELF5, CRY2, SPOPL, RBM24, RRN3, RNF4, ADD1, RNF2, AURKA, ATAD2B, TNKS2, PTK2B, MTA3, RBM38, RRM2, EYA1, ZNF804A, ZIC4, ZIC5, MAPK14, USF2, MAPK10, REST, TEF, ERCC4, KATNBL1, BRMS1L, ERCC6, NAA15, OTUD3, TAF1, RB1, MAML2, TRRAP, GPATCH2, HNRNPU, DMP1, GPATCH3, BACH1, BACH2, DCAF7, DCAF6, NYNRIN, ELK4, ZXDA, HOXA9, CLP1, ZXDB, CREB3L2, PIP4K2B, HOXA1, MED1, PRKCH, DAPK1, PRKCE, MED8, SOX13, SOX11, ARMC8, SOX10, MED6, MAML3, TSPYL5, ZNF395, HOXD1, NAIF1, NEDD4L, PRDM13, PRDM10, MTDH, RAD21, PRDM16, PCDHA2, RREB1, NKX2-3, CDK17, PLK3, PHC1, NFATC3, NFATC2, A1CF, FOSL2, CPEB1, MEX3A, RAD17, HOXD3, CPEB3, CPEB2, CPEB4, CDK16, PHF3, CDKN1C, SETD5, SETD2, CDKN1A, BTG2, RARG, CDKN1B, TCF24, SETD7, TCF21, FMN2, SMG6, AIFM1, ZNF280B, RACK1, SPIN1, RBPMS2, CIC, JARID2, TEAD1, TEAD3, WDR37, TCF12, TET2, PAX3, AEN, CDYL2, KAT2B, ZEB2, ZEB1, MTF1, PAX9, TET3, PLEKHO1, ZNF597, WDR26, NFIX, HOXD11, RNF138, UBN2, NSD1, RPL15, RUNX1T1, ZNF583, ZNF341, 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TSHZ3, DCUN1D5, DCUN1D3, DCUN1D4, EIF5A2, DCUN1D1, DCUN1D2, NLK, FXR1, NUAK1, ZNF827, DPH3, TP53BP2, TRPM6, SPTBN1, SRPK2, RABGAP1L, BCL11B, AMMECR1, SRPK1, RNPS1, DCP1A, TENM1, TENM2, AHCTF1, DAZAP1, HIP1, CITED4, LIMD1, COIL, ZMYM2, ZMYM3, GABPA, STRBP, STRADB, TSC22D3, PROX2, PROX1, CBFA2T2, CBFA2T3, PALD1, SCNM1, MDFIC, CNEP1R1, HNRNPH3, VGLL4, VGLL3, MYCBP, ZNF3, CUX2, HDX, APBB3, RANBP2, ARNT2, CDX2, DMRT2, NFYB, SORBS2, DMRT3, GRHL2, SORBS3, TJP1, NR6A1, LBX2, DLC1, APBA1, TRIP12, ZNF354A, HDLBP, ARID4B, POGZ, TMEM38B, ANGEL1, LMO2, ARID5B, TSC1, RSBN1, MYCN, LMX1A, TBL1XR1, MATR3, LMX1B, ARHGAP19, ADRB2, STK4, DNAJC27, LPP, ZFP36L2, PDZD2, OTX1, SMAD2, CBX5, POU2F1, SMAD3, CBX2, HELZ, ESR1, AZIN1, SMAD7, DIAPH1, LIN28B, RALYL, NR4A3, LIN28A, TMEM115, TLX3, JMY, BRWD1, BRWD3, CREBZF, KDM5A, USP36, KDM5B, USP38, CASP7, SENP5, PPP2R5E, CASP3, TRPS1, PDE4B, SPEG, PDE4A, POLK, KDM6A, USP47, CAMK1D, DESI1, USP44, USP45, ARID1A, SAFB, SENP2, TGFBR1, RBL2, DDX19A, DDX19B, LATS2, PALLD, 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| CC | Cytoplasm | 6.01E-23 | 850 | PID1, TESK1, FZD10, HTR4, RBPJ, FAM110B, PKNOX1, MEF2C, RBFOX1, RBFOX2, STARD9, UNC5C, FRS2, DICER1, ISL1, CD2AP, EML4, EML6, RUFY3, RUFY2, DDIT4, URI1, MTMR3, CEP85L, PDGFB, AGAP1, MTMR9, COPS7B, AGAP3, IQGAP2, GATA2, PRKAR2A, RDH10, RNF217, HEXIM1, CREBBP, PRPF38B, PBX1, COL1A1, FERMT1, UCK1, AGO3, AGO4, PKIA, AGO1, AGO2, AVL9, ARF4, ARF1, ANXA8L1, MTMR10, UCMA, PRKAG2, ARHGAP5, TRIOBP, LRRC1, TUBA1A, NEFM, NEFH, APPL2, PCMTD1, APPL1, JAK1, ARG2, CNOT6L, SPHK2, DUSP1, PGAM1, RIPK4, DYNLL1, JOSD1, DUSP8, DUSP6, DUSP7, MZT2A, MMP14, RAPGEF2, ERGIC2, MDFI, CRB2, FAXC, DMD, MEF2D, ANKIB1, EGLN2, DAB2IP, SKI, NUDT21, WT1, ETNK2, ETNK1, TAOK1, PKN2, CRLF3, CSE1L, ZBTB20, MSI2, ALDH1L2, EIF4ENIF1, PTAR1, SLK, SESN3, SESN1, SESN2, NFATC2IP, TNFRSF8, ZNF689, KPNA4, MAP3K9, NEK3, PIM2, KPNA2, KPNA3, MAP3K5, PSKH1, KPNA1, PIAS4, PPP1R16B, AREL1, FBXW7, CTNNBIP1, CDC25A, TXLNA, MAF, LGSN, SRSF3, PKP4, ROR1, UTRN, NSMAF, KMT2E, SMYD5, ZC4H2, STK39, SPATA2, FBXO45, FOXO4, NREP, FOXO1, ATXN3, NPAT, SNN, ATXN1, SOCS1, RAP1A, STK35, G3BP2, EIF4EBP2, SOCS6, SOCS7, SOCS4, NEK4, BDNF, NEK6, STYX, NEK7, MCC, FBXO32, MOB4, MFHAS1, MLXIPL, IBTK, LRCH1, STK24, SP1, ACO1, ZNF655, PPP1R13B, CELF1, CDCA7L, CELF2, SNAP23, PTEN, PIK3CD, PIK3CB, BICD2, ERC2, SNAP29, ARL5A, TRIM67, ACTR3, PPP1R12A, KSR1, DST, ARL4D, PIK3CA, HAND1, SMCR8, PPP1R12B, BCAT1, PPP1R12C, TRIM55, ST6GALNAC6, PRKAA2, CXXC5, RCHY1, CXXC4, CDC42, FCHO2, IGF2BP1, SH3BP4, IGF2BP3, IGF2BP2, WHAMM, LRRC8B, E2F5, MARCKSL1, TRIM41, TBX5, MYO1B, MCM3AP, NOVA1, NOVA2, NT5C1B, TRIM36, SLC25A32, CCM2, PTPN4, MYO1F, AHCYL1, CCNJ, LPGAT1, THUMPD3, CRKL, HERC2, RASSF3, PEG10, KIF21B, EPHA4, SMARCC1, SNORC, ULK2, KCTD17, TRIB1, TRIB2, TP53, GGNBP2, EPAS1, MYCBP2, PIK3R1, SNX4, SEC14L1, SNX2, DHX33, PCBP4, PPCS, ZNF703, PCBP2, SEC14L5, KCNN3, SEC31B, SNX6, STAT5B, EGR1, EGR2, SPHKAP, INTS2, MYO5A, BSDC1, HSPA12A, NET1, WNK1, MYO5B, WNK3, RANBP10, CD22, TP73, CCNJL, INTS11, WASL, PTPRF, AKAP12, 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ATP6V1B2, SPOPL, ATG4A, NAT8L, BCL2A1, ASAP1, RNF4, ADD1, RNF2, AURKA, GK5, CYTH3, TNKS2, CNR1, NAA25, PTK2B, SPOCK1, BNIP2, MTA3, RBM38, RRM2, EYA1, ZNF804A, ATP2B2, MAPK14, ACVR2A, TTC17, MAPK10, REST, ACTC1, SBK1, TNIP1, KATNBL1, NAA15, MBTPS2, SNTB1, OTUD3, RB1, TRIO, GPATCH3, ADARB2, FNBP1L, BACH1, DCAF7, DCAF6, HOXA9, TFG, STMN1, ACOT7, PRKCH, DAPK1, PRKCE, SOX13, FNDC3A, ARMC8, DYNC1LI2, BIN3, TARS2, ZNF395, NEDD4L, ARPP19, MTDH, RREB1, CDK17, PLK3, FZD3, NFATC3, NFATC2, A1CF, CPEB1, GIPC1, CPEB3, CPEB2, CPEB4, CDK16, CDC42SE2, CDKN1C, WDR47, SETD2, CDKN1A, BTG2, RARG, CDKN1B, ADM, STON2, FMN2, LYST, SMG6, RNF157, ADAMTSL1, TAF7L, DSTYK, AIFM1, RACK1, RBPMS2, ANXA8, RNF150, NDC1, WDR37, SLC2A13, TCF12, MTF1, TMSB15B, TET3, PLEKHO1, EXOC5, GAS7, PHLPP2, WDR26, ADCY3, FIGN, FGD4, FGD6, RPL14, RPL15, PAIP2, MBNL3, DEDD, PAIP1, YTHDF3, WWP2, HIPK1, ELP5, SNCAIP, BLCAP, HIPK3, HIPK2, TRMT5, CEP41, ANKRD13C, FMR1, CTNND2, IRS2, BZW2, BZW1, IPO5, NRBP2, FGF9, CDH2, CFL2, GRAP2, SALL4, 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| CC | Cytosol | 5.76E-22 | 808 | USP6NL, TESK1, MPRIP, FAM110B, GPBP1, ANKFY1, PKNOX1, MEF2A, MEF2C, FRS2, DICER1, EML4, ZFYVE16, PRKAR1B, RUFY3, DDIT4, CLOCK, URI1, MTMR3, MTMR9, COPS7B, CDCA8, IQGAP2, EPB41L1, PRKAR2A, RNF217, VTI1A, PIP5K1C, PPARGC1A, PPARGC1B, CREBBP, PRPF38B, FERMT1, MLLT10, UCK1, AGO3, AGO4, C8ORF44-SGK3, AGO1, AGO2, STRN, ARF4, ARF1, ANXA8L1, MTMR10, MTMR14, PRKAG2, ARHGAP5, BBC3, LRRC1, EEA1, NIPBL, TUBA1A, NELFA, APPL1, JAK1, CNOT6L, SPHK2, PGAM1, SIRT5, RAB3IL1, FOS, DYNLL1, JOSD1, PGM2L1, DUSP6, DUSP7, MZT2A, MMP14, GPRC5B, AGPS, RAPGEF2, TMF1, DLST, CENPA, GGA1, NRAS, SNX27, STX6, STX5, RICTOR, DMD, MBD2, DAB2IP, TTLL7, SPSB1, GID4, TTLL4, WT1, ETNK2, ETNK1, TAOK1, CCDC6, PKN2, CRLF3, CCNT2, CSE1L, UBE2D3, LTN1, MSI2, EIF4ENIF1, SLK, SESN1, SESN2, KPNA4, KPNA2, KPNA3, MAP3K5, PSKH1, KPNA1, MYLIP, AREL1, FBXW7, CTNNBIP1, CDC25A, TXLNA, NSMAF, GRIA1, DLX1, PFKFB4, KMT2A, STK39, SPATA2, FOXO4, NRF1, FOXO1, RAP1B, ATXN3, SOCS3, ATXN1, SOCS1, RAP1A, BCL2L11, ATXN7, CLTCL1, G3BP2, BMF, SOCS6, SOCS7, EVI5, SOCS4, SOCS5, NEK4, NEK6, GFPT2, GFPT1, STYX, MCC, FBXO32, FBXO30, QKI, MLXIPL, STK24, SP4, AAK1, SP6, ACO1, OGT, ALAS1, PPP1R13B, CDCA7L, PTEN, PIK3CD, PIK3CB, BICD2, DDI2, TAGAP, ITGAV, ATP7A, SNAP29, ZNF641, ACTR3, PPP1R12A, APAF1, KSR1, DST, RAD23B, PPM1A, PIK3CA, PPP1R12B, BCAT1, PRKAA2, PPM1D, CXXC5, RCHY1, CDC42, PARD6B, TP53INP1, FCHO2, IGF2BP1, IGF2BP3, IGF2BP2, WHAMM, SH2B3, SEC24A, MYO10, PRRX1, EFR3B, MCM3AP, NECAP1, EIF3J, NT5C1B, IL2RB, TRIM36, PIK3AP1, PTPN4, MYO1F, AHCYL1, THUMPD3, CRKL, EFR3A, HERC2, RASSF3, PEG10, EPHB2, SFMBT2, ANK2, CDC34, ULK2, TRIB1, TP53, EPHA3, TMEM87A, EPAS1, MYCBP2, PEX11B, PIK3R3, PIK3R1, SEC14L1, RAB11FIP1, SNX2, PCBP4, PPCS, PCBP2, HIVEP1, N4BP2, SNX5, ATP6V1C1, N4BP1, SNX6, STAT5B, SURF4, MYO5A, NET1, PEX5L, WNK1, NDUFAF4, RANBP10, CD28, RGL1, TP73, INTS11, NRP1, SLC7A14, WASL, AKAP12, SYNCRIP, PPP3CA, CNTRL, BBS5, GIT1, NCOA1, CCT3, STARD3NL, NCOA6, GAB1, GAB2, SREBF2, NR5A1, RAP2C, DUS2, TOX3, IL1A, RAP2A, RAP2B, VSNL1, CTTN, GAN, PITPNM3, PITPNM2, ARHGEF4, PABPC1, ARHGEF7, STK40, STX17, TXLNG, SLX4, SERTAD2, PAK6, PAK3, EPS15, PAK4, MAP3K2, MAP3K3, MON2, MAP3K1, PLEKHA1, AP2B1, UBE2G2, MIB1, PLEKHA8, FKBP1A, PER2, PER1, SEC23IP, NEDD4, TACC2, OTUD4, OTUD5, MIDN, SYS1, CRTC1, WWC1, ETS2, GRIP1, CCND2, RGS3, CCND1, KIF5B, TBC1D30, CAPN3, DENND5A, TMOD1, SSU72, SLFN12, CCNE2, DOK5, DOK6, WDFY3, NDRG4, DDX5, PSMD14, KLHL11, KLHL13, PDS5B, RASGRP1, GRK5, KIF3B, RHPN2, CCDC134, IVNS1ABP, DENND4B, HMGA1, MSN, SYT7, HOOK2, HOOK1, UBE2N, UBE2O, TAB3, AMOTL2, TAB2, MXD1, DDX3Y, GSK3B, DYRK2, DDX3X, CHD9, TNFAIP3, CHD5, AFF3, PITPNC1, GHR, EEF2K, CA2, ZNF385A, YWHAG, DACT1, NAA30, ARHGEF15, PDPK1, ARHGEF17, GPCPD1, ELF2, ACOX1, IRF1, CRY2, ATP6V1B2, RBM24, SHANK2, BCL2A1, ASAP1, ACVR1B, ADD3, ADD1, ADD2, AURKA, CYTH3, MAT2A, TNKS2, NAA25, PTK2B, BNIP2, NUP43, RBM38, ARFGEF1, ARFGEF2, RRM2, PDAP1, MAPK14, TTC17, SMUG1, MAPK10, GALE, CLCN5, REST, ACTC1, TNIP1, ASB7, THRSP, NAA15, OTUD3, RB1, TRIO, HNRNPU, GPATCH3, FNBP1L, BACH1, BACH2, DCAF7, DCAF6, ELK4, TFG, CLP1, STMN1, AP1S1, PIP4K2B, UNC13B, ACOT7, PRKCH, WSB2, PRKCE, FNDC3A, ARMC8, ATG14, DYNC1LI2, WDR81, DAAM1, MAP1B, GNE, ZNF395, SEH1L, NAIF1, NEDD4L, SLAIN2, PPP3R1, RAD21, PRDM16, PNPO, STARD13, NFATC3, MTHFR, NFATC2, PRRC2C, CPEB1, MEX3A, GIPC1, CPEB3, CDK16, DENND1C, CDKN1A, BTG2, CDKN1B, ELL, HIF3A, STON2, FMN2, ADO, LYST, SMG6, AIFM1, RACK1, SPIN1, RBPMS2, ANXA8, DENND2D, KAT2B, ZEB2, ZEB1, CEP63, EXOC5, MGLL, PHLPP2, WDR26, FGD4, SRP72, RPL14, RPL15, MBNL3, PAIP1, FARP1, YTHDF3, WWP2, RRP1B, HIPK1, ELP5, SNCAIP, HIPK3, OSTM1, FILIP1, CEP41, FMR1, IRS2, IPO5, GRAP2, GRB10, GYG2, PHLDA1, ZNF322, MAP2K4, PNISR, CEP135, VASH2, MITF, LARP4B, GOLGA8B, OBSCN, CACNB4, KAT6A, TNIK, GOLGA8A, FKBP5, GLYR1, IPPK, NOTCH1, PARM1, TNKS, CUL3, GTF2E1, HMBOX1, BTBD3, ABL2, DVL3, SRGAP3, SRGAP1, WDTC1, ANKRD28, OSBPL8, MOAP1, OSBPL5, ATP8B1, OSBPL3, TNK2, TRAPPC9, ADAP1, CNOT6, CDK6, SYNJ1, P4HA2, CDK4, TADA1, NF2, SERINC5, EIF4G2, BCL2L1, EIF4E3, ZC3H4, CEP164, PIK3C2A, DUSP16, PPP6C, DUSP10, HIF1AN, TNPO1, SH3D19, PLEKHG3, IQCB1, CHUK, SGIP1, PLEKHG5, WIPI2, SMC1A, NGF, BET1L, DUSP22, PTP4A2, ESPL1, TRAF3, CRK, HDAC4, NFAT5, PLEKHH2, NUFIP2, VPS4B, TULP4, GLRX, AMBRA1, HDAC7, REPIN1, C15ORF39, RBBP4, HECTD2, RAB23, POLR2D, CSK, FNIP1, FNIP2, DCAF12, FKRP, TXNRD1, PTPN11, CDC42BPA, KLF4, PML, PNRC2, TNRC6C, KLF8, KLF7, KLF6, RAB14, POLR3D, DNAJA2, POLR3E, KLF9, TNRC6A, TNRC6B, PANK3, PITPNA, CBLB, PPP2R2A, GBA2, RPS6KA4, RPS6KA3, GOLGA3, GOLGA4, HABP4, SKP1, AGFG1, COG3, YOD1, AP1AR, RUNX2, ARC, XRN1, PDE12, OBSL1, SPTBN4, CASZ1, DCUN1D3, EIF5A2, DCUN1D1, TWF1, NLK, MYL12B, FXR1, STRIP2, PDCD10, DPH3, MAP7, TP53BP2, OTOF, TNRC18, STXBP5, SPTBN1, SRPK2, KLHDC8B, SRPK1, SPATS2L, RNPS1, TMCC1, DCP1A, AHCTF1, DAZAP1, HIP1, OLA1, LIMD1, LIMD2, RPTOR, COIL, ZMYM2, SH3PXD2A, VAV3, CDV3, STRADB, TSC22D3, PGGHG, PROX1, PALD1, CNEP1R1, SGK3, DCP2, AKAP5, TRAK2, APBB3, LMLN, RANBP2, MPP2, LSAMP, SORBS3, TJP1, DLC1, FAS, RAB3GAP2, APBA1, TRIP12, ZNF354A, KBTBD8, GOLT1B, NRK, ARID4B, AMOT, ARHGAP44, POGZ, ANGEL1, TSC1, PDIA6, LZTFL1, KIF16B, RPS19BP1, HPCA, CLEC16A, ARHGAP19, STK4, DTX4, LPP, CAMSAP2, DPP3, HRH1, PDZD2, DPP8, DNAJC21, MARK4, SMAD2, SMAD3, SMURF1, IDH1, IDH2, ARHGAP29, HELZ, ARHGAP28, ARHGAP26, EIF2S2, ESR1, AZIN1, SMAD7, DIAPH1, LIN28B, DLG2, LIN28A, CAPRIN1, BRWD1, DOCK5, USP36, KDM5B, SCYL3, USP38, DOCK3, USP32, DOCK9, SLC40A1, HK2, CASP7, PPP2R5E, CASP3, DBT, PDE4B, PDE4A, USP47, DESI1, USP45, MYRIP, OXSR1, SENP2, ARID1B, TGFBR3, RBL2, ZAP70, MYH2, LATS2, PALLD, TRAPPC6B, PEAK1, ALDH1A2, RASA2, DCX, MYH9, RBMS1, CHMP7, RBMS2, CAMK2B, USP12, CAMK2A, TOB2, UACA, USP19, MAPK8, UGP2, RMND5A, MAPK7, ERBB4, ERBB2, REPS2, SNCB, MAPK6, S100PBP, MAPK4, CLASP2, USP24, KDM4A, ARID3A, USP28, PIKFYVE, PDE10A, GNPDA1, RPS6KB1, SPRY2, PDE7A, PAXBP1 |
| CC | Glutamatergic synapse | 1.40E-21 | 146 | TRIO, PLXND1, CBLB, PPP2R2A, IL1RAP, HTR4, AMOT, EPS8, ARHGAP44, TNR, NRCAM, EPHB2, BSN, FAM81A, KPNA1, EPHA4, USP6, DAPK1, ADAM10, TANC1, ARC, CACNB4, PRKAR1B, DAAM1, MAP1B, SCN8A, TNIK, GRIA1, GPM6A, NOTCH1, CTTNBP2, PCDH10, CUL3, HPCA, FBXO45, AGAP3, RAP1B, FXR1, PPP3R1, RAP1A, KIF3B, CASKIN1, NXPH1, SPTBN1, MARK1, SNX6, NTNG2, SYT4, FZD3, SYT1, FZD4, WNT3A, NSG1, BTBD9, PTPRD, LRFN4, GRIN3A, GIPC1, AGO2, UBE2N, CSPG5, PLXNB1, SCN2A, OGT, GSK3B, ARF4, NRP1, NRP2, HIP1, ITGB3, GRIK3, LRRC4, ELAVL4, WASL, HTR2A, GRM1, EEA1, PPP3CA, GRM5, PCLO, EEF2K, NETO1, CASP3, ERC2, NEO1, DLGAP4, APPL1, GRID2, ARHGEF15, KCND2, NRG1, CNKSR2, DNM3, ACTBL2, ITGA8, ITGA5, SHANK2, NLGN1, SEMA3A, NRXN1, ADAM22, NRXN3, ASAP1, SEMA3F, ABHD17C, CLCN3, AURKA, CDC42, SNX27, ERBB4, CNR1, ADAM23, PTK2B, SLITRK5, STX3, PAK3, EPS15, GPC6, KCNJ2, CLASP2, MPP2, ARFGEF2, FARP1, SLC12A5, NLGN4X, KCNJ11, SEMA4B, SEMA4C, ATP2B4, SEMA4F, ATP2B2, AP2B1, MAPK14, MIB1, SLC4A8, ACTC1, PDE10A, RPS6KB1, VAPB, ABHD17A, SYT10, P2RX1, FILIP1, APBA1, CBLN4, CBLN1 |
| CC | Axon | 1.06E-13 | 91 | GSK3B, NRP1, NRP2, BMPR2, PLXND1, KCNC2, FMR1, DOCK7, ELAVL4, GRIK3, HTR2A, SLC7A11, SLC6A1, SLC6A2, PTPRF, SLC8A2, IGF1R, ROBO1, PCLO, SCN11A, HMCN2, NEFM, NRCAM, NEK3, KIF1A, SCN5A, EPHB2, SLC12A6, ATP7A, BSN, NEFH, MAP2K4, EPHA4, SLC38A1, EMX2, DST, PLEKHG5, DYRK1A, ADAM10, NGF, CCSAP, TANC2, CD2AP, UHMK1, CLDN11, DNM3, ACTBL2, PALLD, MAP1B, SCN8A, RUFY3, ROR1, WDFY3, ADNP, DSCAML1, PRKAA2, SEMA3A, HPCA, MYCBP2, SLC1A1, ADAM22, FXR1, FAM168B, MAPK8, CALCR, CNR1, NTF3, MAP7, SCN3A, NTNG2, SYT4, TGFB2, FZD3, DTNA, SYT2, FZD5, SYT1, KCNB1, SMURF1, BDNF, CADM2, INSR, DAB2IP, NMNAT3, SYT7, NFASC, SYT11, CNTN4, SCN2A, EIF4G2, HCN2 |
| CC | Dendritic spine | 3.61E-13 | 54 | GABRB3, ARF4, TENM2, FMR1, PTEN, LRRC4, PPP1R9A, SLC8A2, ARHGAP44, PPP3CA, GRM5, SIPA1L1, EEF2K, PDE4B, EPHB2, EPHA4, GRID2, KCND2, TANC2, DNM3, ARC, CTTN, MAP1B, SHANK2, GRIA1, GPM6A, NLGN1, CTTNBP2, CAMK2A, SLC1A1, ASAP1, AKAP5, ABHD17C, FXR1, CDC42, KIF3B, IGF2BP1, PTK2B, KCNJ2, MPP2, FARP1, ARFGEF2, GABRA1, ZNF804A, MOB4, ABHD17B, ABHD17A, SYT11, GIPC1, NEDD4, STRN, APBA1, CPEB3, CPEB4 |
| CC | Golgi membrane | 8.22E-12 | 140 | GALNT12, SYS1, GOLT1B, GALNT15, TMEM167A, GALNT18, XYLT1, LDLRAD4, GBA2, HS6ST1, GALNT10, HS6ST2, ZDHHC3, NDST2, SCAMP5, NDST1, GOLGA3, GOLGA4, GNPTAB, NIPAL1, NDST3, AP1S1, DENND5A, KPNA2, GOLGA7, SLC30A7, ST6GAL2, MMGT1, GLCE, COG3, PAQR3, ADAM10, FNDC3A, CASD1, TPST1, GOLGA8B, SLC9A7, TMEM87A, NOTCH1, PARM1, TNKS, SLC35D2, PDGFB, PDGFA, TEX261, PLD1, RASGRP1, PLD3, FUT4, UGCG, CHST11, MAN2A1, FUT9, PDCD10, VTI1A, CHST15, ATP6V0A2, OTOF, ST3GAL1, B3GALNT1, SYT4, SLC10A7, NDFIP1, WSCD1, FZD5, ST8SIA1, TMEM50B, SURF4, B3GALT5, ACER2, TMEM115, STK24, CSPG5, POC1B-GALNT4, SERINC3, ITM2B, SCYL3, ARF4, ARF1, USP32, HS2ST1, LFNG, GRM6, B3GALT2, MYO18A, TMED7, SNAP29, HS3ST3B1, CHST7, POMGNT1, CBFA2T3, SREBF2, BET1L, B3GNT7, FAM20B, CHST1, ERGIC2, ST6GALNAC4, ERGIC1, ST6GALNAC6, CHST3, STX12, TMF1, GNAI3, ASAP1, FURIN, CLCN3, AGPAT3, TMEM165, CYTH3, CDC42, NRAS, CHSY1, TNKS2, GCNT2, HAS3, STX6, STX5, HAS2, GCNT4, CHSY3, WHAMM, ARFGEF1, GALNT7, ARFGEF2, CD74, FKRP, GALNT4, GALNT2, B3GAT3, GALNT1, C1GALT1, SVIP, HS3ST2, PLEKHA8, PIKFYVE, CLCN5, RAB14, MGAT4A, MBTPS2 |
| CC | Postsynaptic density | 9.64E-12 | 69 | ARF1, BMPR2, FMR1, CTNND2, PTEN, PPP1R9A, SLC8A2, AMOT, EPS8, ARHGAP44, GRIP1, SIPA1L1, PCLO, EEF2K, NETO1, CDH2, CASP3, PSD3, PDE4B, ATP7A, BSN, NEFH, FAM81A, GIT1, KPNA1, PDPK1, DAPK1, ADAM10, TSC1, DNM3, TANC1, GAP43, MAP1B, NSMF, PKP4, SHANK2, CAMK2B, GRIA1, NLGN1, CAMK2A, ITPR1, FBXO45, AKAP5, AGAP3, ADD3, ADD1, AURKA, ADD2, FXR1, PCBP2, RPL14, PTK2B, SPOCK1, PAK6, PAK3, SPTBN1, MPP2, CADM1, SYT1, SEMA4C, MIB1, CPEB1, DLG2, SLC6A9, ABHD17B, SYT11, STRN, CPEB3, CPEB4 |