**Appendix 7**: Table illustrates significantly (p-value<0.05) enriched diseases and functions from ΔD8differentially expressed gene list analysis using IPA®. For each disease and function term the cluster category is reported together with p-value, z-score, predicted activation state (z-score>2= increased activation, z-score<-2=decreased activation), number of transcripts and their IDs. Data were analysed through the use of IPA (QIAGEN Inc., <https://www.qiagenbioinformatics.com/products/ingenuitypathway-analysis>)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Categories** | **Diseases or Functions Annotation** | **p-value** | **Predicted Activation State** | **Activation z-score** | **# Genes** | **Genes** |
| Cellular Compromise, Inflammatory Response | Degranulation of phagocytes | 1.90E-10 | Decreased | -2.36 | 124 | ACP3, ACTR2, ADAM10, ADGRE2, ADGRG3, ANXA2, ANXA3, APP, ARMC8, ARPC5, ASAH1, ATG7, ATP6AP2, B2M, B4GALT1, BRI3, BTK, CAP1, CCT2, CD14, CD84, CD93, CDA, CEACAM3, CLEC4D, CPPED1, CTLA4, CTSB, CTSC, CTSZ, CXCL1, CXCR2, CYBB, CYSTM1, DDX3X, DEFB103A/DEFB103B, DHCR7, DOCK2, DYNC1LI1, DYNLL1, FCGR2A, FGL2, FPR1, FPR2, FTH1, FTL, GAB2, GDI2, GLA, GLIPR1, GMFG, GYG1, HBB, HCK, HLA-C, HMOX1, HSP90AA1, HSP90AB1, HSPA1A/HSPA1B, HVCN1, IGF2R, IL1B, IRAG2, ITGAX, KCNAB2, LAT2, LCP2, LILRB3, LYN, LYZ, MAGT1, MCEMP1, METTL7A, MLEC, MVP, MYO1F, NCKAP1L, OSTF1, P2RX1, PAK2, PDAP1, PECAM1, PF4, PIGA, PLCG2, PLEKHO2, PRKCD, PSAP, PSMC2, PSMD1, PSMD11, PSMD12, PSMD2, PSMD7, PTEN, PTPN6, RAB27A, RAB31, RAC2, RAP1A, RHOA, RNASET2, S100A9, SDCBP, SERPINB3, SH3BP2, SIGLEC9, SIRPA, SIRPB1, SLC11A1, SNAP23, SNAP29, SPHK2, SURF4, SWAP70, SYK, TLR2, TREM1, TREML2, TYROBP, WIPF1, XRCC5, YPEL5, ZEB2 |
| Cellular Function and Maintenance | Endocytosis | 3.33E-10 | Decreased | -5.945 | 151 | ACTG1, ACTR2, AMPH, ANKFY1, ANXA5, APC, APLP2, APOA1, APOA2, APOB, APOL1, APP, APPL2, ARF1, ARHGAP27, ARPC2, ATG2B, ATG7, ATP6V1A, ATP6V1B2, ATP6V1H, B2M, BECN1, BTK, CAP1, CARMIL1, CAV3, CCL5, CD14, CD93, CDC5L, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC9A, CLIC4, CLIP1, CORO1C, CSF1R, CTNND1, CYBB, DAB2, DDX3X, DEF6, DET1, DNM3, DOCK2, DPYSL2, EEF2K, ENTPD1, EZR, FCAMR, FCGR2A, FGD4, FNBP1L, FPR1, FPR2, FRS2, GAB2, GRB2, HBA1/HBA2, HBB, HCK, HFE, HMOX1, HSP90AA1, HSP90B1, HSPA5, ICAM1, IFNAR1, IGF1R, IGF2R, IL1B, IRF8, JAK1, KAT6A, KCTD5, KRAS, let-7, LRP2, LRP8, LRPAP1, LYN, M6PR, MAPKAPK3, MERTK, MEX3B, mir-24, MS4A4A, MYLK, MYO5A, NCKAP1L, NCL, NLGN3, NR3C1, NTRK1, PACSIN2, PARK7, PDZD8, PF4, PIP5K1A, PLEK, PRKCD, PSMD4, PTEN, PTPN6, RAB11A, RAB21, RAB22A, RAB31, RAB4A, RAB5A, RAC2, RALB, RALBP1, RGCC, RHOA, RHOB, RIT1, RUFY1, S100A9, SCARB2, SCRIB, SH3BP2, SIRPA, SIRPB1, SLAMF7, SNAP23, SNAP91, SORL1, SRSF3, STK4, SWAP70, SYK, TFRC, TLR2, TLR4, TM2D2, TNFRSF1A, TNFSF10, TREM1, TREML2, TYROBP, UBE2L3, VIM, WASF2, WIPF1, WNK1, ZDHHC17, ZNF217 |
| Cellular Compromise, Inflammatory Response | Degranulation of neutrophils | 4.17E-10 | Decreased | -2.433 | 102 | ACP3, ACTR2, ADAM10, ADGRG3, ANXA2, ANXA3, ARMC8, ARPC5, ASAH1, ATG7, ATP6AP2, B2M, B4GALT1, BRI3, CAP1, CCT2, CD14, CD93, CDA, CEACAM3, CLEC4D, CPPED1, CTSB, CTSC, CTSZ, CXCL1, CXCR2, CYBB, CYSTM1, DDX3X, DOCK2, DYNC1LI1, DYNLL1, FCGR2A, FGL2, FPR1, FPR2, FTH1, FTL, GDI2, GLA, GLIPR1, GMFG, GYG1, HBB, HCK, HLA-C, HSP90AA1, HSP90AB1, HSPA1A/HSPA1B, HVCN1, IGF2R, IRAG2, ITGAX, KCNAB2, LILRB3, LYZ, MAGT1, MCEMP1, METTL7A, MLEC, MVP, MYO1F, NCKAP1L, OSTF1, P2RX1, PDAP1, PECAM1, PF4, PLCG2, PLEKHO2, PRKCD, PSAP, PSMC2, PSMD1, PSMD11, PSMD12, PSMD2, PSMD7, PTPN6, RAB27A, RAB31, RAP1A, RHOA, RNASET2, S100A9, SDCBP, SERPINB3, SIGLEC9, SIRPA, SIRPB1, SLC11A1, SNAP23, SNAP29, SURF4, SYK, TLR2, TREM1, TREML2, TYROBP, XRCC5, YPEL5 |
| Cellular Compromise, Inflammatory Response | Degranulation of cells | 1.99E-09 | Decreased | -2.032 | 146 | ACP3, ACTN1, ACTR2, ADAM10, ADGRE2, ADGRG3, ANXA2, ANXA3, ANXA5, APLP2, APOA1, APP, ARMC8, ARPC5, ASAH1, ATG7, ATP6AP2, B2M, B4GALT1, BRI3, BTK, CAP1, CCR1, CCT2, CD14, CD84, CD93, CDA, CEACAM3, CLEC4D, CPPED1, CTLA4, CTSB, CTSC, CTSZ, CX3CR1, CXCL1, CXCR2, CYBB, CYSTM1, DDX3X, DEFB103A/DEFB103B, DHCR7, DOCK2, DUSP5, DYNC1LI1, DYNLL1, ENTPD1, F13A1, F8, FCGR2A, FGL2, FPR1, FPR2, FTH1, FTL, GAB2, GDI2, GLA, GLIPR1, GMFG, GYG1, HBB, HCK, HLA-C, HMOX1, HSP90AA1, HSP90AB1, HSPA1A/HSPA1B, HVCN1, IGF1, IGF2R, IL1B, IRAG2, ITGAX, KCNAB2, LAT2, LCP2, LHFPL2, LILRB3, LYN, LYZ, MAGT1, MCEMP1, METTL7A, MLEC, MMRN1, MVP, MYO1F, NCKAP1L, OSTF1, P2RX1, PAK2, PDAP1, PECAM1, PF4, PIGA, PLCG2, PLEK, PLEKHO2, POTEKP, PRKCD, PSAP, PSMC2, PSMD1, PSMD11, PSMD12, PSMD2, PSMD7, PTEN, PTPN6, RAB27A, RAB31, RAC2, RALB, RAP1A, RHOA, RICTOR, RNASET2, S100A9, SCG3, SDCBP, SERPINB3, SGK1, SH3BP2, SIGLEC9, SIRPA, SIRPB1, SLC11A1, SNAP23, SNAP29, SPHK2, SRGN, SURF4, SWAP70, SYK, TAGLN2, TLR2, TREM1, TREML2, TYROBP, VTI1B, WIPF1, XRCC5, YPEL5, ZEB2 |
| Cellular Movement | Cell movement | 1.00E-08 | Decreased | -9.182 | 493 | ACO2, ACTG1, ACTN1, ACTR2, ADAM10, ADAM15, ADAM17, ADGRE2, ADGRG3, ADIPOR1, ADM, AGO2, AIF1, AKAP12, ALKBH1, ALOX5AP, ANGPTL4, ANO5, ANXA2, ANXA3, APBA1, APBB1IP, APC, APLP2, APOA1, APOB, APP, APPL2, AQP9, ARF1, ARF4, ARHGAP19, ARHGAP25, ARHGDIB, ARNT, ARPC2, ARRDC3, ATAT1, ATG3, ATG7, ATOX1, ATRN, B4GALT1, BARHL1, BARX2, BCAS3, BECN1, BGN, BID, BRCA1, BTG2, BTK, CACNA1E, CALML3, CALU, CAMK1D, CAP1, CARMIL1, CASP8, CATSPERD, CAV3, CAVIN2, CCDC40, CCDC88A, CCL23, CCL5, CCNYL1, CCR1, CCR10, CD14, CD84, CD86, CD93, CDKL5, CEACAM3, CELSR3, CGA, CGB3 (includes others), CHD4, CHST1, CLASP1, CLCA2, CLCN3, CLEC1B, CLEC4M, CLEC7A, CLIC4, CLIP1, CNP, CNR1, COL1A2, COL7A1, CORO1C, CPEB1, CREB1, CRKL, CSF1R, CSF3R, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP26B1, CYP2J2, DAB2, DDX3X, DEF6, DEFB103A/DEFB103B, DEFB114, DKK3, DNAJB4, DNAJB6, DOCK2, DOCK8, DPP10-AS1, DPYSL2, DSE, DUSP3, DUSP5, EFS, EIF3A, ELF3, ELK3, ELN, EMC10, ENTPD1, EPB41L5, EPHA8, EPHB1, EPO, EYA3, EZR, F10, F11R, F13A1, F2R, FAIM2, FBLN2, FCAMR, FCGR2A, FFAR4, FGD4, FGL2, FNBP1L, FOXO3, FOXP3, FPR1, FPR2, FRS2, FTH1, FTX, FUT7, FYB1, FZD3, GAB1, GAB2, GAL3ST1, GALNT1, GAPDH, GC, GCNT2, GIT2, GLCE, GLIPR2, GLUL, GMFG, GNG12, GRB2, GSE1, GUCA2A, H1-6, HAMP, HCK, HCLS1, HDAC9, HEBP1, HLA-A, HLA-G, HMOX1, HNRNPA2B1, HOTAIR, HOXA4, HOXA7, HSBP1, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, HTATIP2, HVCN1, ICAM1, IER2, IFI16, IFNAR1, IFNGR1, IFT88, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IL1B, IL1RN, ILF3, IP6K2, IRF8, ITGA4, ITGAX, ITGB8, JAK1, JAML, JPX, KCNE3, KDM5A, KIAA0319L, KIDINS220, KIF13A, KIF1C, KIF26B, KLF6, KLHL20, KMT5B, KRAS, LAMA5, LASP1, LCP1, LCP2, LEFTY1, let-7, LGALS8, LGMN, LILRB3, LIMK2, LIMS1, LINC00887, LITAF, LRP2, LRP8, LRPAP1, LSP1, LTBR, LUCAT1, LYN, LYVE1, LYZ, MACIR, MAK, MAP3K1, MAP3K2, MAP4, MAP4K4, MAPKAP1, MAPRE1, MAPRE3, MAX, MBP, MCL1, MCM3, MCM7, MDM2, MEF2C, MERTK, MGAT5, mir-122, mir-133, mir-137, mir-138, mir-154, mir-24, mir-26, mir-28, mir-299, mir-515, MMP14, MPP1, MS4A4A, MSN, MT1F, MTCH2, MTDH, MTOR, MUC1, MUC13, MXD1, MYH14, MYLK, MYO1F, MYO5A, MYO5B, MYOF, NAMPT, NARS1, NCF2, NCKAP1L, NCL, NDE1, NDEL1, NEDD9, NFATC4, NFE2L2, NFKBIZ, NINJ1, NKD2, NOTCH2, NR3C1, NRDC, NREP, NUAK2, NUMB, OPA1, P2RX1, PACSIN2, PAK2, PAQR3, PARK7, PDCD4, PDCL, PDE4B, PDGFRA, PDIA3, PEAK1, PECAM1, PF4, PHACTR1, PHLPP1, PILRA, PIP5K1A, PITX2, PLCB3, PLCG2, PLCL1, PLP1, PPIF, PPM1D, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PROK2, PRSS55, PSG1, PSMB8, PSMD10, PTEN, PTGS2, PTMA, PTPN6, RAB21, RAB27A, RAB5A, RABEP1, RAC2, RAF1, RALB, RALBP1, RAMP2, RAP1A, RAPGEF2, RCC2, RFFL, RGCC, RHOA, RHOB, RICTOR, RIN2, RIOK3, RIPK2, RIPK3, RNF11, RNF20, ROPN1L, RPL13A, RTN4, RUFY3, S100A14, S100A9, SCN9A, SCRIB, SDCBP, SEMA4A, SERPINB3, SFRP4, SGK1, SH2B3, SH3RF1, SHC3, SIGLEC9, SIRPA, SKP2, SLC11A1, SLC4A2, SLC7A7, SLC8A1, SMAD1, SNAP23, SNX27, SOCS4, SOD2, SOS2, SP1, SP100, SPAG9, SPATA13, SPHK2, SPOCK1, SRGN, SRSF1, SSH1, ST3GAL6, ST6GALNAC2, ST8SIA4, STAT3, STK24, STK35, STK4, STX3, SWAP70, SYK, TAFA4, TAGLN2, TAZ, TBX5, TBXAS1, TCAF1, TCF4, TDGF1, TDP2, TEKT4, TET2, THBS2, TJP1, TLR2, TLR4, TLR5, TLR7, TMOD3, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, TPD52L1, TPM3, TREM1, TREML2, TRIM46, TRIM55, TRIO, TRIP10, TSPAN3, TUBA1A, TUBA1C, TXNRD1, TYROBP, UNC5C, USP17L2 (includes others), USP4, VCAN, VDAC1, VDR, VIM, VNN2, VTCN1, WARS1, WASF2, WASF3, WIPF1, WNK1, WWTR1, YBX1, YWHAE, YWHAZ, ZEB2, ZFYVE21, ZNF217, ZNF24 |
| Cellular Function and Maintenance, Inflammatory Response | Phagocytosis | 1.28E-08 | Decreased | -4.656 | 102 | ACTR2, AMPH, ANXA3, ANXA5, APOA1, APOA2, APP, APPL2, ARPC2, ATG2B, ATG3, ATG7, BECN1, BTK, CAMK1D, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLIC4, CLIP1, CORO1C, CSF1R, CSF3R, CYBB, DDX3X, DEF6, DET1, DNTTIP1, DOCK2, F10, FCGR2A, FPR1, FPR2, GAB2, GRB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, let-7, LYN, MAP1LC3A, MERTK, MEX3B, mir-24, MSN, MYO5A, NCKAP1L, NR3C1, PECAM1, PF4, PIP4P2, PIP5K1A, PLEK, PRKCD, PRKCG, PRLH, PSMD4, PTEN, PTPN6, RAB11A, RAB27A, RAB31, RAB5A, RAC2, RALB, RGCC, RHOA, RIT1, S100A9, SCARB2, SH3BP2, SIRPA, SIRPB1, SLAMF7, SLC11A1, SNAP23, SWAP70, SYK, TAFA4, TAZ, TBK1, TLR2, TLR4, TM2D2, TM9SF4, TREM1, TREML2, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Cellular Function and Maintenance | Engulfment of cells | 1.39E-08 | Decreased | -5.778 | 129 | ACTR2, AMPH, ANKFY1, ANXA3, ANXA5, APC, APLP2, APOA1, APOA2, APP, APPL2, ARF1, ARPC2, ATG3, ATG7, ATP6V1A, ATP6V1B2, BECN1, BTK, CAMK1D, CCL5, CD14, CD93, CDC5L, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLIC4, CLIP1, CORO1C, CSF1R, CSF3R, CTNND1, DAB2, DDX3X, DEF6, DET1, DNTTIP1, DOCK2, DPYSL2, EEF2K, EZR, F10, FCGR2A, FGD4, FPR1, FPR2, FRS2, GAB2, GRB2, HCK, HMOX1, HSP90AA1, HSPA5, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, KRAS, let-7, LRP2, LRPAP1, LYN, M6PR, MERTK, MEX3B, mir-24, MS4A4A, NCKAP1L, NCL, NR3C1, NTRK1, PARK7, PDZD8, PECAM1, PF4, PIP4P2, PIP5K1A, PLEK, PRKCD, PRKCG, PRLH, PSMD4, PTEN, PTPN6, RAB11A, RAB27A, RAB31, RAB4A, RAC2, RALB, RGCC, RHOA, RHOB, RIT1, RUFY1, S100A9, SCARB2, SH3BP2, SIRPA, SIRPB1, SLAMF7, SLC11A1, SNAP23, SNAP91, SRSF3, STK4, SWAP70, SYK, TAFA4, TLR2, TLR4, TM2D2, TM9SF4, TNFSF10, TREM1, TREML2, TYROBP, UBE2L3, VIM, WASF2, WIPF1, WNK1, ZNF217 |
| Cellular Function and Maintenance | Internalization of cells | 4.86E-08 | Decreased | -4.781 | 79 | ACTR2, APC, APOA1, APOA2, APP, APPL2, ARPC2, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLIC4, CLIP1, CSF1R, CSF3R, DDX3X, DEF6, DET1, DOCK2, EZR, FCGR2A, FGD4, FPR1, GAB2, GRB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, KRAS, let-7, LYN, MERTK, MEX3B, mir-24, NCKAP1L, NCL, PF4, PIP5K1A, PLEK, PRKCD, PSMD4, PTEN, PTPN6, RAB11A, RAB31, RAC2, RALB, RGCC, RHOA, RIT1, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SNAP23, SNAP29, SYK, TLR2, TLR4, TM2D2, TREM1, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Cellular Function and Maintenance | Endocytosis by eukaryotic cells | 5.90E-08 | Decreased | -5.392 | 98 | ACTR2, ANXA5, APLP2, APOA1, APOA2, APP, APPL2, ARPC2, ATG7, ATP6V1A, ATP6V1B2, BECN1, BTK, CCL5, CD14, CD93, CDC5L, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CLIP1, CSF1R, CTNND1, DAB2, DDX3X, DEF6, DET1, DOCK2, DPYSL2, FCGR2A, FPR1, FRS2, GAB2, GRB2, HCK, HMOX1, HSP90AA1, HSPA5, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, let-7, LRPAP1, M6PR, MERTK, MEX3B, mir-24, MS4A4A, NCKAP1L, NR3C1, NTRK1, PARK7, PDZD8, PF4, PIP5K1A, PLEK, PRKCD, PSMD4, PTEN, PTPN6, RAB11A, RAB31, RALB, RGCC, RHOA, RHOB, RIT1, RUFY1, S100A9, SCARB2, SH3BP2, SIRPA, SIRPB1, SLAMF7, SNAP23, SNAP91, SRSF3, STK4, SWAP70, SYK, TLR2, TLR4, TM2D2, TNFSF10, TREM1, TREML2, TYROBP, UBE2L3, VIM, WASF2, WNK1, ZNF217 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Inflammatory Response | Phagocytosis of cells | 9.66E-08 | Decreased | -4.496 | 91 | ACTR2, ANXA3, ANXA5, APOA1, APOA2, APP, APPL2, ARPC2, ATG3, ATG7, BECN1, BTK, CAMK1D, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLIC4, CLIP1, CORO1C, CSF1R, CSF3R, DDX3X, DEF6, DET1, DNTTIP1, DOCK2, F10, FCGR2A, FPR1, FPR2, GAB2, GRB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, let-7, LYN, MERTK, MEX3B, mir-24, NCKAP1L, NR3C1, PECAM1, PF4, PIP4P2, PIP5K1A, PLEK, PRKCD, PRKCG, PRLH, PSMD4, PTEN, PTPN6, RAB11A, RAB27A, RAB31, RAC2, RALB, RGCC, RHOA, RIT1, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SLC11A1, SNAP23, SWAP70, SYK, TAFA4, TLR2, TLR4, TM2D2, TM9SF4, TREML2, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Infectious Diseases | Viral Infection | 1.27E-07 | Decreased | -7.999 | 338 | ABCC2, ACP3, ACSL1, ACTN1, ACTR2, ADAM10, AGO2, ALG14, ALKBH3, ALKBH8, AMPH, ANXA2, ANXA5, APBB1IP, APC2, APOA1, APOB, APOBEC3B, APOL1, APP, ARF1, ARHGDIB, ARNTL, ARPC5, ARRDC3, ASMTL, ATF5, ATG7, ATOX1, ATP6AP2, ATP6V1A, ATP6V1B2, ATP6V1G1, B2M, BCL2L11, BECN1, BGN, BMP2K, BNIP2, BRCA1, BRINP2, BTG2, CALCOCO1, CAMK1D, CARD16, CCL5, CCNK, CCR1, CCT2, CD14, CD86, CD93, CFLAR, CHMP2A, CHMP3, CHMP4B, CHMP6, CHORDC1, CHST1, CHST6, CLEC4M, CLIC4, CLIP1, CNP, COG2, COG5, CPSF4, CREB1, CSF3R, CTLA4, CTSB, CTSZ, CXCL1, CXCL9, CXCR2, CXCR3, CYB5B, CYBB, CYP51A1, CYSTM1, DAZAP2, DCP1A, DDIT3, DDX17, DDX23, DDX3X, DDX5, DEFB103A/DEFB103B, DLGAP4, DNAJA2, DTX2, DUSP3, DYRK1A, EDEM3, EIF3A, EIF3G, EIF3I, ELOA, EPO, ERCC5, ETV3, F10, F11R, F13A1, F2R, F8, FAM228B, FAS-AS1, FCGR2A, FCGR2C, FGD6, FOXO3, FOXP3, FPR1, FRS2, FTL, G3BP2, GAB1, GAB2, GALC, GAPDH, GATAD2A, GCLC, GLUL, GLYR1, GRB2, GYG1, H2AC18/H2AC19, H2BC12, H2BC21, H3-3A/H3-3B, HBA1/HBA2, HCK, HERPUD1, HLA-A, HLA-C, HLA-E, HMCN2, HMOX1, HNRNPA1, HNRNPH1, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2R, IL1B, IL1RN, ILF3, IMPA2, INTS6, IRF8, ITGA4, JAK1, KAT6A, KDM7A, KMT5B, KRAS, LCP2, LEFTY1, LILRA2, LIMK2, LRPAP1, LSM3, LSP1, MAGT1, MAP1LC3A, MAP3K7CL, MAP4, MAP4K4, MAPKAPK3, MAPRE1, MAPRE3, MDM2, MED30, MED31, MERTK, MGAT5, MICB, mir-103, mir-122, mir-24, mir-515, MKNK1, MS4A1, MS4A4A, MT1X, MTOR, MVP, MX2, MXD1, MYO1F, MYO5B, MYOF, NACA2, NCL, NDE1, NFKBIZ, NLGN3, NMT1, NPC1L1, NPSR1-AS1, NR3C1, NUP160, NUP50, NUP58, NUP62, NUP93, OR5M1, OTUD3, P2RX1, PACSIN2, PAK2, PCK1, PDE4B, PDE8A, PDGFRA, PDIA3, PDZD8, PF4, PHF12, PIP5K1A, PLCG2, PPM1D, PRKAA1, PRKCD, PRL, PRPF38A, PRPF6, PSMC2, PSMD12, PSMD2, PSMD4, PTGS2, PTPN6, PURA, RAB11A, RAB31, RAB33B, RAB5A, RAB8A, RAB9A, RABEP1, RAF1, RALB, RBM25, RBM5, RBPJ, RFFL, RHOA, RHOB, RIPK2, RPL13A, RPL18, RPL38, RPL5, RTN3, S100A9, SART3, SBF2, SCARB2, SDCBP, SEC13, SEC14L1, SENP5, SERPINB3, SESTD1, SF3B1, SF3B6, SGCA, SGK1, SH2B3, SLC31A1, SLU7, SMARCA2, SNAP23, SNAPIN, SNRPD3, SNRPF, SP100, SP110, SPAST, SRPK1, SRPK2, SRSF1, SSR1, STAT3, STAU1, STIP1, TAGLN2, TALDO1, TBK1, TCF4, TFRC, TKFC, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TNPO3, TRAF3, TRAF3IP1, TREM1, TRIM5, TRIM55, TRMT5, TRPT1, TSG101, TUBA1A, TUBA1C, TUBB2A, TYROBP, UBE2B, UBE2E2, UBE2L3, USP15, UTP11, VDR, VNN2, VPS4B, WASF2, WIPF1, WNK1, YBX1, ZEB2, ZMPSTE24, ZNF148, ZNF175, ZNF417/ZNF587, ZNF720 |
| Cellular Function and Maintenance | Engulfment of blood cells | 2.16E-07 | Decreased | -3.931 | 67 | ACTR2, ANXA5, APOA1, APOA2, APP, ARPC2, ATG7, BECN1, BTK, CCL5, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, CTNND1, DEF6, DOCK2, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, let-7, LYN, M6PR, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PLEK, PRKCD, PTEN, PTPN6, RAB11A, RAC2, RGCC, RHOA, RIT1, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STK4, SWAP70, SYK, TLR2, TLR4, TREM1, TREML2, TYROBP, UBE2L3, WASF2, WNK1, ZNF217 |
| Cell-To-Cell Signaling and Interaction | Response of antigen presenting cells | 2.73E-07 | Decreased | -4.049 | 58 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CCL5, CD14, CD86, CD93, CLEC4M, CLEC6A, CLEC7A, CLEC9A, CLIC4, CSF1R, DEF6, DOCK2, F2R, FCAMR, FCGR2A, GAB2, HCK, HMOX1, HSP90AA1, IFNAR1, IL1B, IRF8, let-7, LYN, MERTK, MEX3B, mir-24, MUC1, NCKAP1L, NR3C1, PARK7, PLCB3, PRKAA1, PSMB8, PTEN, RAB11A, RGCC, S100A9, SEMA4A, SH3BP2, SIRPA, SIRPB1, SLAMF7, STAT3, SWAP70, SYK, TLR2, TLR4, TLR7, TNFSF4, TREM1, TYROBP |
| Cellular Movement | Migration of cells | 2.92E-07 | Decreased | -9.058 | 437 | ACTG1, ACTN1, ADAM10, ADAM15, ADAM17, ADGRE2, ADGRG3, ADIPOR1, ADM, AGO2, AIF1, AKAP12, ALKBH1, ALOX5AP, ANGPTL4, ANXA2, ANXA3, APBA1, APBB1IP, APC, APLP2, APOA1, APOB, APP, APPL2, AQP9, ARF1, ARF4, ARHGAP25, ARHGDIB, ARNT, ARPC2, ARRDC3, ATAT1, ATG3, ATG7, ATOX1, ATRN, B4GALT1, BARHL1, BARX2, BCAS3, BECN1, BGN, BID, BRCA1, BTG2, BTK, CALML3, CALU, CAMK1D, CAP1, CARMIL1, CASP8, CAVIN2, CCDC88A, CCL23, CCL5, CCR1, CCR10, CD14, CD84, CD86, CD93, CDKL5, CEACAM3, CELSR3, CGA, CGB3 (includes others), CHST1, CLASP1, CLCA2, CLCN3, CLEC1B, CLEC4M, CLEC7A, CLIC4, CNP, CNR1, COL1A2, COL7A1, CORO1C, CPEB1, CRKL, CSF1R, CSF3R, CTLA4, CTNNA1, CTNND1, CTSB, CTSC, CTSZ, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP26B1, CYP2J2, DAB2, DDX3X, DEF6, DEFB103A/DEFB103B, DNAJB6, DOCK2, DOCK8, DPP10-AS1, DPYSL2, DSE, DUSP3, DUSP5, EFS, ELK3, ELN, EMC10, EPB41L5, EPHA8, EPHB1, EPO, EYA3, EZR, F10, F11R, F13A1, F2R, FAIM2, FBLN2, FCAMR, FCGR2A, FGD4, FGL2, FNBP1L, FOXO3, FOXP3, FPR1, FPR2, FRS2, FTH1, FTX, FUT7, FYB1, FZD3, GAB1, GAB2, GAL3ST1, GALNT1, GC, GCNT2, GIT2, GLIPR2, GLUL, GMFG, GNG12, GRB2, GSE1, GUCA2A, HAMP, HCK, HCLS1, HEBP1, HLA-A, HLA-G, HMOX1, HNRNPA2B1, HOTAIR, HOXA4, HOXA7, HSBP1, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, HTATIP2, HVCN1, ICAM1, IFI16, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IL1B, IL1RN, ILF3, IP6K2, ITGA4, ITGAX, ITGB8, JAK1, JAML, JPX, KCNE3, KDM5A, KIAA0319L, KIDINS220, KIF13A, KIF26B, KLF6, KLHL20, KMT5B, KRAS, LAMA5, LASP1, LCP1, LCP2, LEFTY1, let-7, LGMN, LILRB3, LIMK2, LINC00887, LITAF, LRP8, LRPAP1, LSP1, LTBR, LUCAT1, LYN, LYVE1, LYZ, MACIR, MAP3K1, MAP3K2, MAP4, MAP4K4, MAPKAP1, MAPRE1, MAX, MCL1, MCM3, MCM7, MDM2, MEF2C, MERTK, MGAT5, mir-122, mir-133, mir-137, mir-138, mir-154, mir-24, mir-26, mir-28, mir-299, mir-515, MMP14, MPP1, MS4A4A, MSN, MT1F, MTDH, MTOR, MUC1, MUC13, MXD1, MYLK, MYO1F, MYOF, NAMPT, NARS1, NCF2, NCKAP1L, NCL, NDE1, NDEL1, NEDD9, NFATC4, NFE2L2, NFKBIZ, NINJ1, NKD2, NOTCH2, NR3C1, NRDC, NREP, NUMB, OPA1, P2RX1, PACSIN2, PAK2, PAQR3, PARK7, PDCD4, PDCL, PDE4B, PDGFRA, PEAK1, PECAM1, PF4, PHACTR1, PILRA, PIP5K1A, PITX2, PLCB3, PLCG2, PLCL1, PLP1, PPIF, PPM1D, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PROK2, PRSS55, PSG1, PSMB8, PSMD10, PTEN, PTGS2, PTMA, PTPN6, RAB21, RAB27A, RAB5A, RABEP1, RAC2, RAF1, RALB, RALBP1, RAMP2, RAP1A, RAPGEF2, RCC2, RFFL, RGCC, RHOA, RHOB, RICTOR, RIN2, RIOK3, RIPK2, RNF11, RNF20, RPL13A, RTN4, RUFY3, S100A14, S100A9, SCN9A, SCRIB, SDCBP, SEMA4A, SERPINB3, SFRP4, SGK1, SH2B3, SH3RF1, SIGLEC9, SIRPA, SKP2, SLC4A2, SLC7A7, SLC8A1, SMAD1, SNAP23, SOCS4, SOD2, SOS2, SP1, SP100, SPAG9, SPATA13, SPHK2, SPOCK1, SRGN, SSH1, ST3GAL6, ST8SIA4, STAT3, STK24, STK35, STK4, SWAP70, SYK, TAFA4, TAZ, TBX5, TCAF1, TCF4, TDGF1, TDP2, THBS2, TJP1, TLR2, TLR4, TLR5, TLR7, TMOD3, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, TPD52L1, TPM3, TREM1, TREML2, TRIM46, TRIM55, TRIO, TRIP10, TSPAN3, TUBA1A, TXNRD1, TYROBP, UNC5C, USP17L2 (includes others), USP4, VCAN, VDAC1, VDR, VIM, VNN2, VTCN1, WARS1, WASF2, WASF3, WIPF1, WWTR1, YBX1, YWHAE, YWHAZ, ZEB2, ZFYVE21, ZNF24 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of leukocytes | 3.00E-07 | Decreased | -6.103 | 187 | ADAM10, ADAM15, ADAM17, ADGRE2, ADM, AIF1, ALOX5AP, ANXA2, APBB1IP, APC, APOA1, APP, AQP9, ARHGAP25, ATG7, ATRN, B4GALT1, BECN1, BGN, BID, BTK, CAMK1D, CASP8, CCDC88A, CCL23, CCL5, CCR1, CCR10, CD14, CD86, CD93, CHST1, CLEC1B, CLEC4M, CNP, CNR1, CRKL, CSF1R, CSF3R, CTLA4, CTSB, CTSC, CTSZ, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP26B1, CYP2J2, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, ELN, EPO, EZR, F10, F11R, F2R, FCGR2A, FGL2, FOXP3, FPR1, FPR2, FUT7, FYB1, GAL3ST1, GALNT1, GIT2, HAMP, HCK, HCLS1, HEBP1, HLA-A, HLA-G, HMOX1, HSPA5, HSPD1, ICAM1, IFNAR1, IFNGR1, IL1B, IL1RN, ITGA4, ITGAX, JAK1, JAML, KCNE3, KLF6, KRAS, LAMA5, LCP1, LCP2, LGMN, LILRB3, LITAF, LSP1, LTBR, LYN, MAP3K2, MAPKAP1, MGAT5, mir-133, mir-154, MMP14, MPP1, MS4A4A, MSN, MTOR, MYLK, MYO1F, NARS1, NCKAP1L, NEDD9, NFE2L2, NFKBIZ, NINJ1, NR3C1, OPA1, PDE4B, PECAM1, PF4, PILRA, PLCB3, PLCG2, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PROK2, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RAP1A, RGCC, RHOA, RHOB, RICTOR, RIPK2, RPL13A, RTN4, S100A14, S100A9, SCN9A, SCRIB, SEMA4A, SERPINB3, SGK1, SH2B3, SIRPA, SOS2, SPHK2, STAT3, STK4, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, TREM1, TREML2, TRIO, TYROBP, VCAN, VDR, VTCN1, WIPF1, YBX1 |
| Inflammatory Response | Immune response of cells | 3.17E-07 | Decreased | -5.184 | 145 | ACTR2, ALS2, ANXA3, ANXA5, APOA1, APOA2, APP, APPL2, ARPC2, ATG3, ATG7, ATXN3, BCL2L11, BECN1, BTK, CAMK1D, CASP8, CD14, CD86, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLEC9A, CLIC4, CLIP1, CORO1C, CSF1R, CSF3R, CTLA4, CTSB, CXCL1, DDX3X, DEF6, DET1, DNTTIP1, DOCK2, DOCK8, ELF3, F10, F2R, F8, FCAMR, FCGR2A, FFAR4, FPR1, FPR2, GAB2, GAPDH, GRB2, HCK, HMOX1, HSDL1, HSP90AA1, HSP90B1, ICAM1, IFNAR1, IFNGR1, IL1B, IRF8, ITGA4, ITGAX, JAK1, KAT6A, KCTD5, LCP2, let-7, LILRA2, LILRB3, LITAF, LYN, MCL1, MERTK, MEX3B, mir-24, mir-515, MS4A1, MTOR, MUC1, NAMPT, NCKAP1L, NR3C1, PECAM1, PF4, PIP4P2, PIP5K1A, PLEK, PLP1, PRKAA1, PRKCD, PRKCG, PRLH, PSMB8, PSMD4, PTEN, PTPN6, RAB11A, RAB27A, RAB31, RAC2, RALB, RALBP1, RGCC, RHOA, RICTOR, RIT1, S100A9, SEMA4A, SGK1, SH3BP2, SIAH1, SIRPA, SIRPB1, SLAMF7, SLC11A1, SNAP23, STAT3, STK4, SWAP70, SYK, TAFA4, TLR2, TLR4, TLR5, TLR7, TM2D2, TM9SF4, TNFRSF1A, TNFSF10, TNFSF4, TRAF3, TREM1, TREML2, TRIM23, TRIM5, TRIM55, TRIM65, TYROBP, UBE2L3, VIM, VTCN1, WASF2, ZNF217 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Response of phagocytes | 4.76E-07 | Decreased | -3.823 | 62 | ADGRE2, ANXA5, APOA1, APOA2, APP, ATG7, BECN1, BTK, CCL5, CCR1, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLIC4, CSF1R, CXCL1, DEF6, DOCK2, F2R, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, ITGA4, ITGAX, let-7, LILRB3, LYN, MERTK, MEX3B, mir-24, MUC1, NCKAP1L, NR3C1, PF4, PLCB3, PRKAA1, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STAT3, SYK, TLR2, TLR4, TLR7, TREM1, TYROBP, ZEB2 |
| Cellular Function and Maintenance, Hematological System Development and Function | Engulfment of myeloid cells | 5.73E-07 | Decreased | -4.124 | 49 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, CTNND1, DEF6, DOCK2, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, let-7, M6PR, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PTEN, PTPN6, RAB11A, RGCC, RHOA, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SYK, TLR2, TLR4, TREM1, TYROBP, WNK1 |
| Cardiovascular Disease, Organismal Injury and Abnormalities | Peripheral arterial disease | 8.22E-07 |  |  | 59 | AMPH, APOA1, ARHGDIB, B2M, BTG2, CASP8, CCR1, CHORDC1, COL1A2, CTSB, CTSC, DAB2, DNAJB4, DNAJB5, EIF1B, F10, F2R, FCGR2A, FPR1, FTH1, FYB1, HBA1/HBA2, HBB, HCK, HCLS1, HSPA1A/HSPA1B, HTATIP2, IRF8, ITGA4, LCP1, LYN, MAP4K4, NEDD9, NGRN, NPC1L1, NR3C1, OTUD3, PACSIN2, PDLIM5, PLEKHO2, PPP1CB, PTGS2, RAB33B, RAB4A, RUFY1, RUSC1, SAT1, SGK1, SLC25A32, SSX2IP, STK24, SYK, TGOLN2, TLR7, TREM1, TUBA1A, TUBA1C, TUBB2A, USP15 |
| Cellular Function and Maintenance | Engulfment of phagocytes | 8.54E-07 | Decreased | -3.613 | 50 | ANXA5, APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, CTNND1, DEF6, DOCK2, FCGR2A, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, let-7, M6PR, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PTEN, PTPN6, RAB11A, RGCC, RHOA, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STK4, SWAP70, SYK, TLR2, TLR4, TREML2, TYROBP, WNK1 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of antigen presenting cells | 8.69E-07 | Decreased | -3.666 | 53 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD86, CD93, CLEC4M, CLEC6A, CLEC9A, CLIC4, CSF1R, DEF6, DOCK2, F2R, FCAMR, FCGR2A, GAB2, HCK, HMOX1, HSP90AA1, IFNAR1, IL1B, IRF8, let-7, LYN, MERTK, MEX3B, mir-24, MUC1, NCKAP1L, NR3C1, PRKAA1, PSMB8, PTEN, RAB11A, RGCC, S100A9, SEMA4A, SH3BP2, SIRPA, SIRPB1, SLAMF7, SWAP70, SYK, TLR2, TLR4, TLR7, TNFSF4, TREM1, TYROBP |
| Cellular Function and Maintenance | Engulfment of leukocytes | 8.69E-07 | Decreased | -4.064 | 53 | ANXA5, APOA1, APOA2, APP, ATG7, BECN1, BTK, CCL5, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, CTNND1, DEF6, DOCK2, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, let-7, M6PR, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PTEN, PTPN6, RAB11A, RGCC, RHOA, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STK4, SWAP70, SYK, TLR2, TLR4, TREM1, TREML2, TYROBP, WNK1 |
| Cellular Movement | Cell movement of blood cells | 1.18E-06 | Decreased | -6.463 | 216 | ADAM10, ADAM15, ADAM17, ADGRE2, ADGRG3, ADM, AIF1, ALOX5AP, ANXA2, APBB1IP, APC, APOA1, APOB, APP, AQP9, ARHGAP25, ATG7, ATRN, B4GALT1, BECN1, BGN, BID, BTK, CAMK1D, CASP8, CCDC88A, CCL23, CCL5, CCR1, CCR10, CD14, CD84, CD86, CD93, CEACAM3, CHST1, CLEC1B, CLEC4M, CLEC7A, CNP, CNR1, COL1A2, CRKL, CSF1R, CSF3R, CTLA4, CTSB, CTSC, CTSZ, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP26B1, CYP2J2, DDX3X, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, ELN, EPO, EZR, F10, F11R, F13A1, F2R, FCAMR, FCGR2A, FGL2, FOXP3, FPR1, FPR2, FRS2, FUT7, FYB1, GAB2, GAL3ST1, GALNT1, GC, GIT2, GRB2, HAMP, HCK, HCLS1, HEBP1, HLA-A, HLA-G, HMOX1, HOXA7, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IL1B, IL1RN, ITGA4, ITGAX, JAK1, JAML, KCNE3, KLF6, KRAS, LAMA5, LCP1, LCP2, LGMN, LILRB3, LITAF, LSP1, LTBR, LYN, LYZ, MAP3K2, MAPKAP1, MERTK, MGAT5, mir-133, mir-154, MMP14, MPP1, MS4A4A, MSN, MTOR, MYLK, MYO1F, NARS1, NCKAP1L, NEDD9, NFE2L2, NFKBIZ, NINJ1, NR3C1, OPA1, P2RX1, PDE4B, PECAM1, PF4, PILRA, PLCB3, PLCG2, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PROK2, PSG1, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RAP1A, RGCC, RHOA, RHOB, RICTOR, RIPK2, RIPK3, RPL13A, RTN4, S100A14, S100A9, SCN9A, SCRIB, SEMA4A, SERPINB3, SGK1, SH2B3, SIGLEC9, SIRPA, SLC7A7, SOD2, SOS2, SPHK2, ST3GAL6, STAT3, STK4, SWAP70, SYK, TAFA4, TET2, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, TREM1, TREML2, TRIO, TYROBP, VCAN, VDR, VNN2, VTCN1, WIPF1, YBX1 |
| Cellular Movement, Immune Cell Trafficking | Leukocyte migration | 1.22E-06 | Decreased | -6.465 | 214 | ADAM10, ADAM15, ADAM17, ADGRE2, ADGRG3, ADM, AIF1, ALOX5AP, ANXA2, APBB1IP, APC, APOA1, APOB, APP, AQP9, ARHGAP25, ATG7, ATRN, B4GALT1, BECN1, BGN, BID, BTK, CAMK1D, CASP8, CCDC88A, CCL23, CCL5, CCR1, CCR10, CD14, CD84, CD86, CD93, CEACAM3, CHST1, CLEC1B, CLEC4M, CLEC7A, CNP, CNR1, COL1A2, CRKL, CSF1R, CSF3R, CTLA4, CTSB, CTSC, CTSZ, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP26B1, CYP2J2, DDX3X, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, ELN, EPO, EZR, F10, F11R, F13A1, F2R, FCAMR, FCGR2A, FGL2, FOXP3, FPR1, FPR2, FRS2, FUT7, FYB1, GAB2, GAL3ST1, GALNT1, GC, GIT2, GRB2, HAMP, HCK, HCLS1, HEBP1, HLA-A, HLA-G, HMOX1, HOXA7, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IL1B, IL1RN, ITGA4, ITGAX, JAK1, JAML, KCNE3, KLF6, KRAS, LAMA5, LCP1, LCP2, LGMN, LILRB3, LITAF, LSP1, LTBR, LYN, LYZ, MAP3K2, MAPKAP1, MERTK, MGAT5, mir-133, mir-154, MMP14, MPP1, MS4A4A, MSN, MTOR, MYLK, MYO1F, NARS1, NCKAP1L, NEDD9, NFE2L2, NFKBIZ, NINJ1, NR3C1, OPA1, P2RX1, PDE4B, PECAM1, PF4, PILRA, PLCB3, PLCG2, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PROK2, PSG1, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RAP1A, RGCC, RHOA, RHOB, RICTOR, RIPK2, RPL13A, RTN4, S100A14, S100A9, SCN9A, SCRIB, SEMA4A, SERPINB3, SGK1, SH2B3, SIGLEC9, SIRPA, SLC7A7, SOD2, SOS2, SPHK2, ST3GAL6, STAT3, STK4, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, TREM1, TREML2, TRIO, TYROBP, VCAN, VDR, VNN2, VTCN1, WIPF1, YBX1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Cell movement of phagocytes | 1.32E-06 | Decreased | -5.681 | 138 | ADAM10, ADAM15, ADAM17, ADM, AIF1, ALOX5AP, ANXA2, APOA1, APP, AQP9, ARHGAP25, ATRN, B4GALT1, BECN1, BID, BTK, CAMK1D, CASP8, CCDC88A, CCL23, CCL5, CCR1, CD14, CD86, CLEC1B, CLEC4M, CNP, CNR1, CRKL, CSF1R, CSF3R, CTSB, CTSC, CTSZ, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DEFB103A/DEFB103B, DOCK2, DOCK8, ELN, EPO, F10, F11R, F2R, FCGR2A, FPR1, FPR2, FUT7, GAL3ST1, GIT2, HAMP, HCK, HCLS1, HEBP1, HMOX1, HSPA5, ICAM1, IFNGR1, IL1B, IL1RN, ITGA4, ITGAX, JAK1, JAML, KLF6, LGMN, LILRB3, LITAF, LSP1, LYN, MGAT5, mir-133, MMP14, MPP1, MS4A4A, MYLK, MYO1F, NARS1, NCKAP1L, NFE2L2, NFKBIZ, NINJ1, OPA1, PDE4B, PECAM1, PF4, PILRA, PLCB3, PLCG2, PLP1, PPM1D, PRKCD, PRKG1, PROK2, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RHOA, RHOB, RICTOR, RPL13A, RTN4, S100A14, S100A9, SCN9A, SEMA4A, SGK1, SH2B3, SIRPA, SPHK2, STAT3, STK4, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF4, TNIP1, TREM1, TREML2, TYROBP, VCAN, VTCN1, YBX1 |
| Cell-To-Cell Signaling and Interaction | Response of myeloid cells | 1.41E-06 | Decreased | -3.969 | 60 | ADGRE2, APOA1, APOA2, APP, ATG7, BECN1, BTK, CCR1, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC7A, CLIC4, CSF1R, CXCL1, DEF6, DOCK2, F2R, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, ITGA4, ITGAX, let-7, LILRB3, LYN, MERTK, MEX3B, mir-24, NCKAP1L, NR3C1, PARK7, PF4, PLCB3, PRKAA1, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STAT3, SYK, TLR2, TLR4, TLR7, TREM1, TYROBP, ZEB2 |
| Cellular Movement | Cell movement of tumor cell lines | 1.43E-06 | Decreased | -7.086 | 233 | ACTN1, ADAM10, ADAM15, ADAM17, AGO2, AIF1, AKAP12, ANGPTL4, ANXA2, APC, APP, ARF1, ARHGDIB, ARPC2, ARRDC3, ATOX1, BRCA1, CALML3, CALU, CAP1, CASP8, CCDC88A, CCL23, CCL5, CGB3 (includes others), CLCN3, CLEC1B, CLIC4, CLIP1, COL7A1, CRKL, CSF1R, CTNND1, CTSB, CTSZ, CXCL1, CXCL9, CXCR2, CXCR3, CYP2J2, DAB2, DEF6, DEFB103A/DEFB103B, DKK3, DNAJB4, DNAJB6, DOCK2, DOCK8, DPP10-AS1, DPYSL2, DSE, DUSP5, EIF3A, EPHB1, EPO, EYA3, EZR, F11R, F2R, FAIM2, FBLN2, FFAR4, FGD4, FNBP1L, FOXO3, FOXP3, FPR1, FPR2, FTX, FUT7, FYB1, GAB1, GAB2, GC, GIT2, GMFG, GRB2, GSE1, HCK, HDAC9, HMOX1, HNRNPA2B1, HOTAIR, HOXA4, HSBP1, HSP90AA1, HSP90B1, HSPA1A/HSPA1B, HTATIP2, HVCN1, IFNAR1, IGF1, IGF1R, IGF2BP3, IGFBP4, IL1B, ILF3, IP6K2, ITGA4, JAK1, JPX, KDM5A, KIDINS220, KLF6, KRAS, LAMA5, LASP1, LCP1, LCP2, let-7, LGALS8, LIMK2, LINC00887, LRPAP1, LUCAT1, LYN, LYVE1, MAP3K1, MAP4, MAP4K4, MAPRE3, MDM2, MERTK, MGAT5, mir-122, mir-154, mir-24, mir-26, mir-28, mir-299, mir-515, MMP14, MSN, MTCH2, MTDH, MTOR, MUC1, MUC13, MYOF, NAMPT, NCL, NEDD9, NFATC4, NFE2L2, NINJ1, NKD2, NOTCH2, NREP, NUMB, P2RX1, PACSIN2, PAK2, PDCD4, PDGFRA, PEAK1, PECAM1, PHACTR1, PHLPP1, PITX2, PLCL1, PPIF, PRKAA1, PRKCD, PRKCG, PRKG1, PRL, PSMD10, PTEN, PTGS2, PTPN6, RAB21, RAB27A, RAB5A, RAC2, RAF1, RALB, RALBP1, RAP1A, RFFL, RHOA, RHOB, RICTOR, RIOK3, RNF11, RNF20, S100A14, S100A9, SCRIB, SDCBP, SEMA4A, SERPINB3, SFRP4, SH2B3, SHC3, SIRPA, SKP2, SMAD1, SNX27, SOCS4, SOD2, SP1, SPHK2, SRGN, SSH1, ST6GALNAC2, STAT3, STK24, SYK, TAGLN2, TAZ, TBXAS1, TCAF1, TCF4, TDGF1, THBS2, TLR2, TLR4, TNFSF10, TPD52L1, TPM3, TRIO, TRIP10, TUBA1C, USP4, VCAN, VDAC1, VIM, WARS1, WASF2, WWTR1, YBX1, ZEB2, ZFYVE21 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Duodenal cancer | 1.51E-06 |  |  | 21 | APC, B2M, BCL7A, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IRF8, KBTBD12, KRAS, MCL1, MSH6, PRKCD, PRKCG, PTEN, RHOA, TET2, TRAF3, U2AF1/U2AF1L5 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of phagocytes | 1.61E-06 | Decreased | -3.115 | 56 | ANXA5, APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, CXCL1, DEF6, DOCK2, F2R, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, ITGA4, ITGAX, let-7, LILRB3, LYN, MERTK, MEX3B, mir-24, MUC1, NCKAP1L, NR3C1, PF4, PRKAA1, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STAT3, SYK, TLR2, TLR4, TLR7, TREM1, TYROBP |
| Hematological Disease, Immunological Disease | Abnormal function of neutrophils | 1.89E-06 |  |  | 25 | B4GALT1, CCR1, CD14, CLCN3, CLEC6A, CLEC7A, CXCL6, CXCR2, CYBB, ENTPD1, FCGR2A, FUT7, GIT2, HCK, LCP1, LYN, MPP1, NFE2L2, PILRA, PLCB3, PRKCD, RAC2, RAP1A, SIGLEC9, SYK |
| Hematological Disease | Hemorrhagic disease | 2.19E-06 | Increased | 2.222 | 69 | APC, APP, ARID4B, ARNT, ASXL1, ATG7, BCL2L11, C1GALT1C1, CCL5, CD93, CDA, CLEC1B, CLEC4M, CSF3R, CTSB, CXCL1, ENTPD1, ETV6, F10, F13A1, F2R, F8, FCGR2A, FCGR2C, FOXP3, FYB1, HSP90B1, HSPA5, IFNAR1, IFNGR1, IFNGR2, IL1RN, IREB2, let-7, LYN, MAPKAP1, MDM2, mir-154, MIR4270, MS4A1, MTOR, MX2, NFE2L2, NR3C1, P2RX1, PAK2, PLEK, PSMD1, PSMD2, PTEN, PTGS2, RAP1A, RPL18, RPL5, S100A9, SIRPA, SLAMF7, SLC11A1, SP1, SP3, SPHK2, ST3GAL6, SYK, THBS2, TLR7, TNFSF10, TNNC1, VDR, WIPF1 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of tumor cell lines | 2.31E-06 | Decreased | -2.435 | 54 | ACTR2, APPL2, ARPC2, ATG7, ATXN3, BECN1, BTK, CD93, CLIP1, CTSB, DEF6, DET1, DOCK2, FCGR2A, GAPDH, GRB2, HCK, HMOX1, HSP90B1, ICAM1, IL1B, JAK1, KAT6A, KCTD5, MCL1, MERTK, mir-515, MS4A1, MTOR, NCKAP1L, NR3C1, PIP5K1A, PLEK, PRKCD, PSMD4, PTEN, PTPN6, RAB11A, RAB31, RALB, RHOA, RIT1, SIAH1, SIRPA, SLAMF7, STAT3, TLR4, TM2D2, TRAF3, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Inflammatory Response | Phagocytosis of blood cells | 2.57E-06 | Decreased | -3.481 | 58 | ACTR2, ANXA5, APOA1, APOA2, APP, ARPC2, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, JAK1, KAT6A, KCTD5, let-7, LYN, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PLEK, PRKCD, PTEN, RAB11A, RAC2, RGCC, RIT1, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SYK, TLR2, TLR4, TREML2, TYROBP, UBE2L3, WASF2, ZNF217 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Hematological System Development and Function | Phagocytosis of myeloid cells | 2.81E-06 | Decreased | -3.885 | 44 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IRF8, let-7, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SYK, TLR2, TLR4, TREM1, TYROBP |
| Cellular Movement | Diapedesis | 2.87E-06 | Decreased | -2.425 | 9 | ADAM17, CXCL1, F11R, IL1B, ITGA4, LSP1, PECAM1, RHOA, TRIM55 |
| Cardiovascular Disease, Organismal Injury and Abnormalities | Intermediate disease stage peripheral arterial disease | 3.06E-06 |  |  | 40 | AMPH, ARHGDIB, BTG2, CASP8, CCR1, CTSB, CTSC, DAB2, DNAJB4, DNAJB5, EIF1B, FCGR2A, FPR1, FYB1, HBA1/HBA2, HBB, HCK, HCLS1, IRF8, ITGA4, LCP1, LYN, MAP4K4, NGRN, PACSIN2, PDLIM5, PLEKHO2, PPP1CB, RAB33B, RAB4A, RUFY1, SAT1, SGK1, SSX2IP, STK24, SYK, TGOLN2, TLR7, TREM1, USP15 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of leukocytes | 3.29E-06 | Decreased | -3.946 | 79 | ANXA5, APOA1, APOA2, APP, ATG7, BCL2L11, BECN1, BTK, CASP8, CD14, CD86, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLEC9A, CLIC4, CSF1R, CTLA4, CXCL1, DEF6, DOCK2, DOCK8, F2R, F8, FCAMR, FCGR2A, FFAR4, FPR1, GAB2, HCK, HMOX1, HSDL1, HSP90AA1, ICAM1, IFNAR1, IFNGR1, IL1B, IRF8, ITGA4, ITGAX, LCP2, let-7, LILRB3, LYN, MERTK, MEX3B, mir-24, MTOR, MUC1, NAMPT, NCKAP1L, NR3C1, PF4, PLP1, PRKAA1, PSMB8, PTEN, RAB11A, RGCC, S100A9, SEMA4A, SH3BP2, SIRPA, SIRPB1, SLAMF7, STAT3, SWAP70, SYK, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF4, TREM1, TREML2, TYROBP, VTCN1 |
| Cell-To-Cell Signaling and Interaction | Binding of blood cells | 3.76E-06 | Decreased | -4.749 | 100 | ADAM10, ADAM17, ADGRE2, ANXA5, APBB1IP, APOA1, APP, ATRN, B4GALT1, BTK, C1GALT1C1, CCL5, CCR1, CD14, CD84, CD86, CLEC1B, CLEC4M, CNR1, CSF3R, CTLA4, CTSZ, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DOCK2, DOCK8, ENTPD1, EZR, F10, F11R, F2R, F8, FCGR2A, FPR1, FPR2, FUT7, FYB1, GAB2, GALNT1, HCK, ICAM1, IFNGR1, IL1B, IRF8, ITGA4, ITGAX, JAK1, LAMA5, LCP1, LCP2, LGALS8, LILRB3, LRP8, LRPAP1, LSP1, LTBR, LYN, MAP3K2, MGAT5, MSN, NEDD9, NFE2L2, NINJ1, NOTCH2, NR3C1, PAK2, PECAM1, PF4, PILRA, PLCB3, PLCG2, PRL, PTGS2, PTPN6, RAC2, RAP1A, RHOA, RHOB, RICTOR, S100A9, SIRPA, ST6GALNAC2, STK4, SWAP70, SYK, TFRC, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF14, TNIP1, TYROBP, WIPF1 |
| Cell-To-Cell Signaling and Interaction | Response of tumor cell lines | 3.90E-06 | Decreased | -2.286 | 63 | ACTR2, APP, APPL2, ARPC2, ATG7, ATXN3, BECN1, BTK, CD93, CLIP1, CTSB, DDIT3, DEF6, DET1, DOCK2, ERO1A, FCGR2A, GAPDH, GRB2, HCK, HFE, HMOX1, HNRNPA1, HSP90B1, HSPA5, ICAM1, IGF1, IL1B, JAK1, KAT6A, KCTD5, MCL1, MERTK, mir-515, MS4A1, MTOR, NCKAP1L, NR3C1, PIP5K1A, PLEK, PRKCD, PSMD4, PTEN, PTPN6, RAB11A, RAB31, RALB, RHOA, RIT1, RTN1, SIAH1, SIRPA, SLAMF7, STAT3, TLR4, TM2D2, TMBIM6, TRAF3, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| RNA Post-Transcriptional Modification | Processing of mRNA | 4.55E-06 |  | 0.421 | 65 | AGO2, AKAP8L, APP, BUD13, CASC3, CDC5L, CELF1, CPEB1, CPSF4, CPSF7, CSTF1, CWC15, DDX17, DDX23, DDX39A, DDX5, DHX38, DHX8, DYRK1A, FUS, GTF2H3, HBB, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, IK, LSM3, LSM6, MAGOHB, NCBP1, NONO, NSRP1, NUDT21, PABPC1, PNN, PQBP1, PRPF38A, PRPF4, PRPF6, RBM22, RBM25, RBM4, RBM5, SART3, SF3A3, SF3B1, SF3B6, SLU7, SNRPB, SNRPD3, SNRPF, SRPK1, SRPK2, SRSF1, SRSF3, SRSF4, SRSF5, THRAP3, U2AF1/U2AF1L5, WBP11, WDR33, YBX1, ZMAT2, ZRSR2 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Cell movement of neutrophils | 4.72E-06 | Decreased | -3.831 | 79 | ADAM10, ADAM15, ADAM17, ADM, ALOX5AP, ANXA2, APOA1, APP, AQP9, ARHGAP25, B4GALT1, BTK, CAMK1D, CCL23, CCL5, CCR1, CD14, CSF3R, CTSB, CTSC, CXCL1, CXCL6, CXCL9, CXCR2, CYBB, CYP2J2, DEFB103A/DEFB103B, DOCK2, F10, FCGR2A, FPR1, FPR2, FUT7, GIT2, HCK, HMOX1, ICAM1, IFNGR1, IL1B, IL1RN, ITGA4, JAML, LILRB3, LSP1, LYN, MGAT5, mir-133, MPP1, MYLK, MYO1F, NCKAP1L, NFKBIZ, PDE4B, PECAM1, PF4, PLCB3, PLCG2, PLP1, PPM1D, PRKG1, PTEN, PTGS2, PTPN6, RAB27A, RAC2, RTN4, S100A9, SGK1, STAT3, SYK, TLR2, TLR4, TLR7, TNFRSF1A, TNIP1, TREM1, TREML2, VTCN1, YBX1 |
| Cardiovascular Disease, Organismal Injury and Abnormalities | Advanced stage peripheral arterial disease | 4.99E-06 |  |  | 38 | AMPH, ARHGDIB, CASP8, CCR1, CHORDC1, COL1A2, CTSB, DAB2, DNAJB4, DNAJB5, F10, FTH1, FYB1, HBA1/HBA2, HBB, HCLS1, HSPA1A/HSPA1B, HTATIP2, IRF8, ITGA4, LCP1, LYN, MAP4K4, NEDD9, NGRN, OTUD3, PDLIM5, PLEKHO2, PPP1CB, RAB33B, RUFY1, RUSC1, SLC25A32, SSX2IP, STK24, SYK, TLR7, USP15 |
| RNA Post-Transcriptional Modification | Splicing of RNA | 5.20E-06 |  | 0.806 | 62 | ATXN3, BUD13, CASC3, CDC5L, CELF1, CLK2, CLK3, CPSF4, CPSF7, CSTF1, CWC15, DDX17, DDX23, DDX39A, DDX5, DHX38, DHX8, DYRK1A, FUS, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, IK, LSM3, LSM6, MAGOHB, NCBP1, NONO, NSRP1, NUDT21, PNN, PQBP1, PRPF38A, PRPF4, PRPF6, RBM22, RBM25, RBM4, RBM5, SART3, SF3A3, SF3B1, SF3B6, SLU7, SNRPB, SNRPD3, SNRPF, SRPK1, SRPK2, SRSF1, SRSF3, SRSF4, SRSF5, THRAP3, U2AF1/U2AF1L5, WBP11, WDR33, YBX1, ZMAT2, ZNF326, ZRSR2 |
| Cellular Function and Maintenance | Engulfment of antigen presenting cells | 6.75E-06 | Decreased | -3.36 | 43 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CLEC4M, CLEC6A, CLIC4, CSF1R, CTNND1, DEF6, DOCK2, FCGR2A, GAB2, HCK, HMOX1, IL1B, let-7, M6PR, MERTK, MEX3B, mir-24, NCKAP1L, PTEN, PTPN6, RAB11A, RGCC, RHOA, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STK4, SWAP70, TLR2, TLR4, TREML2, TYROBP, WNK1 |
| RNA Post-Transcriptional Modification | Splicing of mRNA | 7.06E-06 |  | 0.883 | 55 | BUD13, CASC3, CDC5L, CPSF4, CPSF7, CSTF1, CWC15, DDX17, DDX23, DDX39A, DDX5, DHX38, DHX8, DYRK1A, FUS, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, IK, LSM3, LSM6, MAGOHB, NCBP1, NSRP1, NUDT21, PNN, PQBP1, PRPF38A, PRPF4, PRPF6, RBM22, RBM25, RBM4, RBM5, SART3, SF3A3, SF3B1, SF3B6, SLU7, SNRPB, SNRPD3, SNRPF, SRPK2, SRSF1, SRSF3, SRSF4, SRSF5, THRAP3, U2AF1/U2AF1L5, WBP11, WDR33, YBX1, ZMAT2, ZRSR2 |
| Cellular Movement | Cell movement of myeloid cells | 7.17E-06 | Decreased | -5.317 | 133 | ADAM10, ADAM15, ADAM17, ADM, AIF1, ALOX5AP, ANXA2, APOA1, APP, AQP9, ARHGAP25, ATRN, B4GALT1, BECN1, BID, BTK, CAMK1D, CASP8, CCDC88A, CCL23, CCL5, CCR1, CD14, CNP, CNR1, CRKL, CSF1R, CSF3R, CTSB, CTSC, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DEFB103A/DEFB103B, DOCK2, ELN, EPO, F10, F11R, F2R, FCGR2A, FPR1, FPR2, FUT7, FYB1, GAL3ST1, GIT2, HAMP, HCK, HEBP1, HMOX1, HSPA5, ICAM1, IFNGR1, IL1B, IL1RN, ITGA4, ITGAX, JAK1, JAML, KLF6, LAMA5, LGMN, LILRB3, LITAF, LSP1, LYN, MGAT5, mir-133, MMP14, MPP1, MS4A4A, MTOR, MYLK, MYO1F, NCKAP1L, NFE2L2, NFKBIZ, NINJ1, OPA1, PDE4B, PECAM1, PF4, PILRA, PLCB3, PLCG2, PLP1, PPM1D, PRKCD, PRKG1, PROK2, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RHOA, RHOB, RICTOR, RPL13A, RTN4, S100A14, S100A9, SEMA4A, SGK1, SH2B3, SIRPA, SPHK2, STAT3, SWAP70, SYK, TAFA4, TET2, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF4, TNIP1, TREM1, TREML2, TYROBP, VCAN, VTCN1, YBX1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Migration of phagocytes | 7.31E-06 | Decreased | -4.588 | 71 | ADAM10, ADAM15, ADAM17, ANXA2, APOA1, APP, BTK, CCL5, CCR1, CD86, CLEC1B, CLEC4M, CNR1, CSF1R, CTSZ, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK8, F10, F11R, FPR1, FPR2, HCK, HCLS1, ICAM1, IL1B, IL1RN, ITGA4, ITGAX, JAK1, KLF6, LSP1, MGAT5, mir-133, MMP14, MS4A4A, MYLK, MYO1F, NARS1, NINJ1, PDE4B, PECAM1, PILRA, PPM1D, PROK2, PTEN, PTGS2, PTPN6, RAC2, RHOA, RHOB, RTN4, S100A9, SCN9A, SEMA4A, SH2B3, SIRPA, STK4, SWAP70, TLR2, TLR4, TLR7, TNFRSF1A, TYROBP, VCAN |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Duodenal neoplasm | 7.61E-06 |  |  | 22 | APC, B2M, BCL7A, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IRF8, KBTBD12, KRAS, MCL1, MSH6, PRKCD, PRKCG, PTEN, PTGS2, RHOA, TET2, TRAF3, U2AF1/U2AF1L5 |
| Cancer, Organismal Injury and Abnormalities | Malignant genitourinary solid tumor | 8.87E-06 |  | 0.344 | 1292 | A1CF, ABCB5, ABCC2, ABHD3, ABHD8, ACBD3, ACO1, ACOX1, ACP3, ACSL1, ACSS3, ACTG1, ACTN1, ACTR2, ACYP1, ADAD1, ADAM10, ADAM15, ADAM17, ADGRA1, ADM, ADNP2, AGO2, AIF1, AIG1, AIPL1, AK9, AKAP12, ALDH3A1, ALDH5A1, ALDH9A1, ALG11, ALKBH1, ALKBH3, ALKBH8, ALOX5AP, ALS2, AMPH, ANAPC13, ANGPTL5, ANKFY1, ANKLE2, ANKRD13A, ANKRD13B, ANKRD42, ANKRD44, ANO5, ANO9, ANTXR2, ANXA2, ANXA3, ANXA5, AOPEP, AP1G1, AP5M1, APBA1, APBB1IP, APC, APOA1, APOA2, APOB, APOBEC3A, APOBEC3B, APOLD1, APP, AQP9, ARF4, ARHGAP19, ARHGAP25, ARHGAP27, ARHGAP29, ARHGDIB, ARHGEF25, ARID4B, ARIH2, ARL6IP1, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ARRDC3, ARSD, ARVCF, ASB10, ASB7, ASMTL, ASXL1, ATF7IP, ATG13, ATG2B, ATG7, ATL3, ATN1, ATP6AP2, ATP6V1A, ATP6V1B2, ATP6V1H, ATP7B, ATRN, ATXN3, AURKB, B2M, B3GNTL1, BABAM2, BACH1, BARX2, BASP1, BAZ2B, BBS7, BCAS3, BCL2L11, BECN1, BGN, BLVRA, BLZF1, BMP2K, BMS1, BNIP2, BNIP3L, BNIPL, BOD1L1, BPGM, BPIFB1, BRCA1, BRD8, BRIP1, BRWD3, BTBD3, BTD, BTG2, BTK, BTN2A1, BTNL8, BUD13, C10orf71, C12orf60, C16orf70, C17orf80, C18orf25, C1GALT1C1, C1orf87, C1RL, C22orf23, C7orf25, C9orf153, C9orf64, C9orf78, CACNA1E, CALCOCO2, CALU, CAMK2A, CAMSAP2, CAP1, CAPN11, CAPZA1, CAPZB, CARD16, CARD6, CARD8, CARMIL1, CARNS1, CASC2, CASC3, CASP8, CATSPERD, CAVIN2, CBX1, CBY1, CCDC174, CCDC40, CCDC47, CCDC88A, CCL5, CCNK, CCP110, CCR1, CCT2, CD14, CD1E, CD300E, CD86, CDA, CDC25C, CDC5L, CDCP2, CDH12, CDKL1, CDKL5, CELF1, CELF2, CELSR3, CEP128, CEP63, CEP72, CETN1, CFAP161, CFAP206, CFAP58, CFAP92, CFLAR, CGB3 (includes others), CHCHD5, CHD4, CHMP2A, CHMP3, CHPF, CHST11, CKMT2, CLASP1, CLEC1B, CLEC4F, CLEC4M, CLEC9A, CLIC2, CLIC4, CLIP1, CLK2, CMSS1, CNMD, CNP, CNPY3, CNR1, COG2, COG5, COL1A2, COL7A1, COMMD2, CORO1C, CPEB1, CPN1, CPQ, CPSF4, CPSF7, CPT1A, CRB1, CREB1, CRKL, CRNN, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CST8, CSTF1, CT45A10/CT45A5, CTAG2, CTBS, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP2A6 (includes others), CYP2W1, CYP4F2, CYP4F3, CYP51A1, CYTH4, DAB2, DCLRE1C, DDC, DDIT3, DDX17, DDX21, DDX23, DDX27, DDX39A, DDX3X, DDX5, DEF6, DENND3, DENND5A, DET1, DGAT2, DGLUCY, DHCR7, DHDDS, DHRS7, DHX30, DHX38, DHX8, DIP2B, DKK3, DLG3, DLGAP4, DLX6-AS1, DNAJA2, DNAJB11, DNAJB12, DNAJB5, DNAJB6, DNAJC14, DNAJC17, DNAJC2, DNAJC7, DNM3, DOCK2, DOCK8, DOK5, DPF2, DPF3, DPH2, DPRX, DPYD, DSE, DUSP5, DYNC1LI1, DYRK1A, EBLN2, ECE1, ECPAS, EDEM3, EDRF1, EEF2K, EFCAB2, EFS, EHD3, EIF1AX, EIF1B, EIF3A, EIF3I, EIF4G3, ELAC1, ELF1, ELF3, ELK3, ELL2, ELN, ELOA, EMC10, EMSY, ENPP5, ENTPD1, ENTPD4, EOGT, EPB41L3, EPHB1, EPM2AIP1, ERCC5, ERO1A, ESS2, ETFDH, ETV3, ETV6, EVC2, EVI5L, EWSR1, EXD2, EXOC3L4, EXT1, EZR, F10, F11R, F13A1, F2R, F8, FAH, FAM126B, FAM136A, FAM13B, FAM209A, FAM214B, FAM217B, FAM72A, FASTKD2, FBLN2, FBXO33, FBXO38, FCAMR, FEZ1, FFAR4, FGD4, FGD6, FGGY, FGL2, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FPR1, FPR2, FRMD4B, FRS2, FTH1, FTX, FUBP3, FUS, FUT7, FYB1, FZD1, FZD3, G3BP2, GAB2, GADL1, GAL3ST1, GALC, GALNT1, GAPDH, GAS7, GASK1B, GATA5, GBE1, GC, GFOD2, GFRAL, GHITM, GIT2, GK, GLCE, GLE1, GLIPR1, GLT8D2, GLUL, GLYCTK, GLYR1, GNB4, GOLGB1, GPATCH1, GPATCH4, GPR21, GPR50, GPR75, GPRIN1, GRB2, GSTA1, GTDC1, GTF2E1, GTF2H3, GTF3C3, GTPBP1, GUCA2B, GYG1, H2AC18/H2AC19, H2BC21, H3-3A/H3-3B, H3-5, HAL, HAMP, HAUS7, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HCLS1, HDAC7, HDAC9, HDLBP, HECA, HELZ, HERC3, HGD, HIC2, HLA-A, HLA-C, HLA-E, HLA-G, HMCN2, HMOX1, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, HOTAIR, HOXA10, HOXA3, HOXA4, HOXA6, HS3ST4, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA13, HSPA1A/HSPA1B, HSPA5, HSPB7, HSPD1, HTATIP2, HTR1F, HVCN1, ICAM1, IDH3A, IER2, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IGSF6, IK, IL1B, IL1R2, IL1RN, ILF3, IMPG2, IP6K2, IQCD, IQSEC3, IRAG2, IREB2, IRX4, ITGA4, ITGAX, ITGB8, JADE1, JAK1, JAML, JMJD1C, JMJD4, JPH4, JPT1, JPX, KAT6A, KAT6B, KCNJ2, KCNJ4, KCTD20, KDM1B, KDM5A, KDM7A, KIAA0319L, KIAA0556, KIDINS220, KIF13A, KIF1A, KIF1C, KIF26B, KLF6, KLHL15, KLHL20, KMT5B, KRAS, KRT23, KRT34, KYNU, L3MBTL3, LAMA5, LAMTOR5, LARP4, LARP6, LAS1L, LASP1, LAT2, LCOR, LCP1, LCT, LEFTY1, let-7, LETM2, LGALS8, LGMN, LGR5, LHCGR, LHFPL2, LIAS, LILRA1, LILRA2, LILRB3, LIMK2, LINC00511, LINC00887, LINC01564, LIPM, LITAF, LMTK2, LONRF3, LRP2, LRP8, LRPAP1, LRRFIP1, LSM12, LSM14A, LSP1, LUCAT1, LUZP2, LY6K, LY86, LY9, LYPLA2, LYVE1, LYZ, M6PR, MAD2L1BP, MAFF, MAGT1, MAK, MAN2A2, MANBAL, MAP3K1, MAP3K2, MAP3K7CL, MAP4, MAP4K4, MAPKAP1, MAPRE1, MAPRE3, MARF1, MAX, MBP, MCCC2, MCL1, MCM7, MDM1, MDM2, MED23, MED30, MEF2C, MERTK, METTL21A, MEX3B, MGAT5, MICB, mir-101, mir-103, mir-122, mir-133, mir-138, mir-154, mir-202, mir-24, mir-26, mir-28, mir-515, MKNK1, MLX, MMP14, MOB3A, MORN5, MPHOSPH10, MPND, MPP1, MPZL3, MRPL15, MS4A1, MS4A14, MS4A4A, MS4A7, MSH6, MSMB, MSN, MT1A, MT1F, MT1X, MTCH2, MTDH, MTERF2, MTF1, MTFR2, MTHFD2, MTOR, MTRR, MTTP, MTURN, MUC1, MUC13, MUC15, MVP, MX2, MXD1, MYBBP1A, MYH14, MYH15, MYLK, MYLK2, MYO15A, MYO1F, MYO5A, MYO5B, MYOF, MYOG, NABP1, NACA2, NAMPT, NAP1L5, NAPB, NASP, NAT2, NCBP1, NCCRP1, NCF2, NCKAP1L, NCL, NCOA1, NCOA4, NDE1, NDEL1, NDRG4, NECAB2, NEDD9, NETO2, NFATC4, NFE2L2, NFKBIZ, NHSL1, NIM1K, NIN, NINJ1, NIPSNAP1, NLGN3, NLGN4X, NOM1, NONO, NOTCH2, NOTCH2NLA/NOTCH2NLB, NOXRED1, NPC1L1, NPL, NPTN, NR3C1, NRBF2, NRDC, NSFL1C, NSRP1, NTRK1, NUAK2, NUBP1, NUDT7, NUMB, NUP160, NUP50, NUP62, NUP93, NXPE4, NXPH4, OAT, OAZ1, OBP2A, OGFOD2, OPA1, OPN3, OR10R2, OR2A14, OR4D10, OR4K5, OR51A2, OR52L1, OR5AC2, OR5M1, OSBPL11, OTUD3, OXA1L, P2RY13, PABPC1, PACSIN2, PAK2, PAQR3, PARP8, PCLO, PCOLCE, PCYT1A, PDAP1, PDCD4, PDE4B, PDGFRA, PDIA3, PDIA5, PDK3, PDLIM5, PDS5B, PDZD8, PEAK1, PECAM1, PER2, PEX19, PF4, PGAM2, PHF12, PHLPP1, PID1, PIGO, PILRA, PIN4, PIP4P2, PIP5K1A, PITPNA, PITPNM1, PITX2, PIWIL1, PJA2, PKN3, PLAGL2, PLB1, PLCB3, PLCG2, PLCL1, PLEK, PLEKHA5, PLEKHA7, PLEKHM3, PLP1, PLXDC2, PLXNA4, PNN, PODNL1, POLD3, POLR1A, POTEH (includes others), POU4F2, PPHLN1, PPIF, PPM1D, PPP1CB, PPP1R12B, PPP1R17, PPP1R3B, PPP4R2, PPP6R3, PQBP1, PRC1, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PRPF38A, PRPF6, PRR12, PRRC2C, PRSS55, PSAP, PSMC1, PSMC2, PSMD1, PSMD12, PSMD2, PSMD4, PSMD7, PSME3, PTCD3, PTCHD4, PTEN, PTF1A, PTGFRN, PTGS2, PTPRE, PUDP, PURA, PUS3, PWWP3A, RAB27A, RAB31, RAB3GAP2, RAB9A, RABEP1, RABGAP1L, RAC2, RAD51C, RAD51D, RAF1, RALB, RALBP1, RALGPS1, RALGPS2, RAMP2, RAP1A, RAPGEF2, RASEF, RASSF2, RBM12B, RBM25, RBM4, RBM47, RBM5, RBMS1, RBMXL3, RCBTB2, RCC2, RCOR3, REEP5, RFPL2, RFX3, RGCC, RGS2, RHBG, RHOA, RHOB, RICTOR, RIIAD1, RIN2, RIOK1, RIOK2, RIOK3, RIOX2, RIPK3, RNF103, RNF103-CHMP3, RNF121, RNF130, RNF149, RNF169, RNF20, RNF40, RPF2, RPGRIP1, RPL28, RPL39, RPL4, RPL5, RPS15, RPS6KA5, RRNAD1, RSPH3, RTCB, RTF1, RTN3, RTN4, RTTN, RUSC1, S100A14, S100A9, S100Z, SAAL1, SAMD4B, SART3, SAT1, SAV1, SBF2, SCARB2, SCFD2, SCG3, SCN9A, SCP2D1, SCRIB, SCRN1, SCRT2, SDCBP, SEC13, SEC14L1, SEC24D, SEC61A2, SEL1L, SEMA3G, SENP2, SENP5, SERHL2, SERPINB3, SERPINB4, SERPINB8, SESTD1, SETDB1, SF3A3, SF3B1, SF3B6, SFRP4, SGK1, SH2B3, SH3BP2, SHISAL2B, SHROOM3, SIAH1, SIPA1L2, SIRPA, SIRPB1, SKP2, SLC16A11, SLC22A15, SLC22A18, SLC22A4, SLC22A5, SLC24A4, SLC25A2, SLC25A3, SLC25A32, SLC26A11, SLC31A1, SLC35F4, SLC36A1, SLC43A3, SLC49A4, SLC4A1AP, SLC4A2, SLC6A6, SLC7A7, SLC8A1, SLC8A3, SLC9A9, SLITRK6, SLU7, SMARCA2, SMARCC2, SMS, SMTN, SNAP91, SNRPB, SNRPF, SNX13, SNX27, SOCS4, SOD2, SORL1, SOS2, SP1, SP100, SP110, SP3, SPACA5/SPACA5B, SPAG9, SPAST, SPATA31A6 (includes others), SPATA5, SPEF2, SPHK2, SPINK5, SPOP, SPOUT1, SPRY3, SPTBN4, SPTSSB, SQOR, SRD5A2, SRPK1, SRPK2, SRSF3, SRSF4, SRSF5, SSBP2, SSH1, SSH3, SSR1, ST6GALNAC2, ST8SIA4, STARD8, STAT3, STAU1, STEAP4, STK24, STK4, STX3, STXBP6, SUFU, SUSD6, SVIL, SWAP70, SWT1, SYK, SYNE4, SYT17, SZT2, TACC1, TAF1, TAF7, TAGLN2, TALDO1, TASP1, TBC1D12, TBC1D14, TBC1D8, TBC1D9, TBL1X, TBX5, TCAIM, TCF4, TCP1, TDGF1, TDP2, TDRD1, TEKT4, TERF2IP, TET2, TFRC, TGOLN2, THBS2, THEG, THEMIS2, THOC5, THRAP3, TIFA, TIGAR, TIGD1, TIMMDC1, TJP1, TKFC, TLK2, TLR2, TLR4, TLR5, TLR7, TM2D2, TM6SF2, TM7SF3, TMEM140, TMEM185B, TMEM43, TMEM70, TMEM86A, TMPRSS7, TMTC2, TNFRSF10D, TNFRSF1A, TNFSF10, TNIP1, TNNC1, TNNI3K, TOPORS, TOR1B, TOX4, TPM3, TRAF3, TRAF3IP1, TRANK1, TREML2, TRIM34, TRIM41, TRIM43/TRIM43B, TRIM46, TRIM5, TRIM55, TRIM64C, TRIM65, TRIO, TRIOBP, TRIP10, TRIP12, TRIP4, TRMT1, TRMT9B, TRNT1, TRPM6, TSG101, TSHZ3, TSPAN1, TTC13, TTC17, TTC26, TTF1, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, TUBGCP3, TUT7, U2AF1/U2AF1L5, UBAP2L, UBE2E3, UBE2F, UBE2J2, UBE3B, UBE4B, UBR2, UCK2, UEVLD, UGT2B11, UGT3A1, UNC5C, UQCRC2, USP15, USP19, USP32, USP4, UTP14A, UTP23, UTP4, VCAN, VCPIP1, VDAC2, VDR, VIM, VKORC1L1, VMP1, VNN2, VPS26C, VRK3, VTCN1, VTI1B, WASF2, WASF3, WDFY3, WDR19, WDR33, WIPF1, WNK1, WNK3, WSB1, WWTR1, XAF1, XPNPEP3, XRCC5, YBX1, YBX3, YPEL3, YPEL5, YWHAE, YWHAZ, ZAN, ZBTB21, ZEB2, ZFPM2, ZFYVE21, ZMAT2, ZMPSTE24, ZMYM3, ZNF10, ZNF134, ZNF143, ZNF148, ZNF165, ZNF17, ZNF180, ZNF189, ZNF195, ZNF200, ZNF212, ZNF217, ZNF224, ZNF229, ZNF235, ZNF24, ZNF257, ZNF267, ZNF281, ZNF283, ZNF287, ZNF3, ZNF320, ZNF333, ZNF33A, ZNF33B, ZNF34, ZNF347, ZNF350, ZNF398, ZNF41, ZNF429, ZNF431, ZNF443, ZNF45, ZNF461, ZNF469, ZNF493, ZNF516, ZNF518A, ZNF525, ZNF528, ZNF534, ZNF548, ZNF555, ZNF558, ZNF565, ZNF567, ZNF568, ZNF570, ZNF585B, ZNF606, ZNF610, ZNF613, ZNF615, ZNF616, ZNF649, ZNF667, ZNF677, ZNF684, ZNF700, ZNF711, ZNF714, ZNF717, ZNF721, ZNF738, ZNF746, ZNF761, ZNF776, ZNF781, ZNF799, ZNF81, ZNF829, ZNF836, ZNF880, ZNF93, ZNFX1, ZRANB1, ZRSR2, ZSCAN2, ZXDC |
| Cellular Movement | Cellular infiltration | 9.54E-06 | Decreased | -2.447 | 112 | ACO2, ADAM17, ADM, ALOX5AP, ANXA2, ANXA3, APC, APOA1, APP, ARHGAP25, ATG7, B4GALT1, BECN1, BGN, BID, CASP8, CAV3, CCDC88A, CCL5, CCR1, CD14, CD86, CD93, CHD4, CNP, CNR1, CSF1R, CTLA4, CTSB, CTSC, CUX1, CX3CR1, CXCL16, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DEF6, DOCK2, EFS, EPO, EZR, F2R, FGL2, FOXP3, FPR1, FPR2, FUT7, GAL3ST1, GAPDH, HAMP, HCK, HLA-A, HMOX1, HSPA5, HSPD1, ICAM1, IFNGR1, IL1B, IL1RN, IRF8, ITGA4, KCNE3, KRAS, LCP2, LILRB3, LTBR, LYN, MBP, MGAT5, MMP14, MYLK, NFE2L2, NFKBIZ, NINJ1, NR3C1, OPA1, PDIA3, PF4, PLCB3, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RGCC, RIPK2, RPL13A, S100A9, SGK1, STAT3, TET2, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TREM1, VDR, VTCN1, YBX1 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Inflammatory Response | Phagocytosis of leukocytes | 9.65E-06 | Decreased | -3.603 | 44 | ANXA5, APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, FPR1, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, let-7, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SYK, TLR2, TLR4, TREML2, TYROBP |
| Cellular Function and Maintenance | Engulfment of tumor cell lines | 1.02E-05 | Decreased | -3.991 | 56 | ACTR2, APC, APLP2, APPL2, ARPC2, ATP6V1A, ATP6V1B2, BECN1, BTK, CCL5, CD93, CDC5L, CLIP1, DAB2, DEF6, DET1, DOCK2, EZR, FCGR2A, FRS2, GRB2, HCK, HMOX1, HSP90AA1, ICAM1, JAK1, KAT6A, KCTD5, KRAS, LRPAP1, MERTK, NCKAP1L, NCL, NTRK1, PDZD8, PIP5K1A, PLEK, PRKCD, PSMD4, PTPN6, RAB11A, RAB31, RALB, RHOA, RHOB, RIT1, SCARB2, SLAMF7, SRSF3, TM2D2, TNFSF10, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Nervous System Development and Function | Neuroprotection of cerebral cortex cells | 1.11E-05 |  | -0.575 | 11 | APP, CNR1, DDIT3, EPO, IGF1, NFATC4, PHLPP1, PTGS2, STAT3, STIP1, WDFY3 |
| Cellular Movement | Homing of cells | 1.12E-05 | Decreased | -6.075 | 129 | ACTN1, ACTR2, ADAM10, ADAM17, ADGRE2, AIF1, AKAP12, ANXA2, APOA1, APP, AQP9, ARHGAP25, ARPC2, B4GALT1, CAMK1D, CCDC88A, CCL23, CCL5, CCR1, CCR10, CLCN3, CNR1, CRKL, CSF1R, CSF3R, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, EPHB1, F10, F2R, FCGR2A, FOXP3, FPR1, FPR2, FRS2, FUT7, FYB1, GAB1, GIT2, GRB2, HCK, HCLS1, HEBP1, HLA-G, HSPD1, ICAM1, IGF1, IGF1R, IGF2R, IL1B, ITGA4, JAK1, JAML, LCP1, LGMN, LILRB3, LITAF, LRP2, LSP1, LTBR, LYN, MAP3K1, MAPKAP1, MEF2C, mir-154, mir-24, MMP14, MPP1, MTOR, MUC1, MYLK, MYO1F, MYO5B, NCKAP1L, NEDD9, NINJ1, NR3C1, PDE4B, PDGFRA, PF4, PIP5K1A, PLCG2, PRKCD, PRKCG, PRKG1, PROK2, PTEN, PTGS2, PTPN6, RAC2, RALBP1, RHOA, RHOB, RICTOR, RPL13A, RTN4, S100A14, S100A9, SCN9A, SCRIB, SIRPA, SPHK2, STAT3, STK4, STX3, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF14, TREM1, TREML2, TRIP10, WARS1, WIPF1, WNK1 |
| Cancer, Organismal Injury and Abnormalities | Genitourinary tumor | 1.33E-05 |  | 0.167 | 1309 | A1CF, ABCB5, ABCC2, ABHD3, ABHD8, ACBD3, ACO1, ACOX1, ACP3, ACSL1, ACSS3, ACTG1, ACTN1, ACTR2, ACYP1, ADAD1, ADAM10, ADAM15, ADAM17, ADGRA1, ADM, ADNP2, AGO2, AIF1, AIG1, AIPL1, AK9, AKAP12, AKAP8L, ALDH3A1, ALDH5A1, ALDH9A1, ALG11, ALKBH1, ALKBH3, ALKBH8, ALOX5AP, ALS2, AMPH, ANAPC13, ANGPTL5, ANKFY1, ANKLE2, ANKRD13A, ANKRD13B, ANKRD42, ANKRD44, ANO5, ANO9, ANTXR2, ANXA2, ANXA3, ANXA5, AOPEP, AP1G1, AP5M1, APBA1, APBB1IP, APC, APOA1, APOA2, APOB, APOBEC3A, APOBEC3B, APOLD1, APP, AQP9, ARF4, ARHGAP19, ARHGAP25, ARHGAP26, ARHGAP27, ARHGAP29, ARHGDIB, ARHGEF25, ARID4B, ARIH2, ARL6IP1, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ARRDC3, ARSD, ARVCF, ASB10, ASB7, ASMTL, ASXL1, ATF7IP, ATG13, ATG2B, ATG7, ATL3, ATN1, ATP6AP2, ATP6V1A, ATP6V1B2, ATP6V1H, ATP7B, ATRN, ATXN3, AURKB, B2M, B3GNTL1, BABAM2, BACH1, BARX2, BASP1, BAZ2B, BBS7, BCAS3, BCL2L11, BECN1, BGN, BLVRA, BLZF1, BMP2K, BMS1, BNIP2, BNIP3L, BNIPL, BOD1L1, BPGM, BPIFB1, BRCA1, BRD8, BRIP1, BRWD3, BTBD3, BTD, BTG2, BTK, BTN2A1, BTNL8, BUD13, C10orf71, C12orf60, C16orf70, C17orf80, C18orf25, C1GALT1C1, C1orf87, C1RL, C22orf23, C7orf25, C9orf153, C9orf64, C9orf78, CACNA1E, CALCOCO2, CALU, CAMK2A, CAMSAP2, CAP1, CAPN11, CAPZA1, CAPZB, CARD16, CARD6, CARD8, CARMIL1, CARNS1, CASC2, CASC3, CASP8, CATSPERD, CAVIN2, CBX1, CBY1, CCDC174, CCDC40, CCDC47, CCDC88A, CCL5, CCNK, CCP110, CCR1, CCT2, CD14, CD1E, CD300E, CD86, CDA, CDC25C, CDC5L, CDCP2, CDH12, CDKL1, CDKL5, CELF1, CELF2, CELSR3, CEP128, CEP63, CEP72, CETN1, CFAP161, CFAP206, CFAP58, CFAP92, CFLAR, CGA, CGB3 (includes others), CHCHD5, CHD4, CHM, CHMP2A, CHMP3, CHPF, CHST11, CKMT2, CLASP1, CLEC1B, CLEC4F, CLEC4M, CLEC9A, CLIC2, CLIC4, CLIP1, CLK2, CMSS1, CNMD, CNP, CNPY3, CNR1, COG2, COG5, COL1A2, COL7A1, COMMD2, CORO1C, CPEB1, CPN1, CPQ, CPSF4, CPSF7, CPT1A, CRB1, CREB1, CRKL, CRNN, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CST8, CSTF1, CT45A10/CT45A5, CTAG2, CTBS, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP2A6 (includes others), CYP2W1, CYP4F2, CYP4F3, CYP51A1, CYTH4, DAB2, DCLRE1C, DDC, DDIT3, DDX17, DDX21, DDX23, DDX27, DDX39A, DDX3X, DDX5, DEF6, DENND3, DENND5A, DET1, DGAT2, DGLUCY, DHCR7, DHDDS, DHRS7, DHX30, DHX38, DHX8, DIP2B, DKK3, DLG3, DLGAP4, DLX6-AS1, DMTF1, DNAJA2, DNAJB11, DNAJB12, DNAJB5, DNAJB6, DNAJC14, DNAJC17, DNAJC2, DNAJC7, DNM3, DOCK2, DOCK8, DOK5, DPF2, DPF3, DPH2, DPRX, DPYD, DSE, DUSP5, DYNC1LI1, DYRK1A, EBLN2, ECE1, ECPAS, EDEM3, EDRF1, EEF2K, EFCAB2, EFS, EHD3, EIF1AX, EIF1B, EIF3A, EIF3I, EIF4G3, ELAC1, ELF1, ELF3, ELK3, ELL2, ELN, ELOA, EMC10, EMSY, ENPP5, ENTPD1, ENTPD4, EOGT, EPB41L3, EPHB1, EPM2AIP1, EPO, ERCC5, ERO1A, ESS2, ETFDH, ETV3, ETV6, EVC2, EVI5L, EWSR1, EXD2, EXOC3L4, EXT1, EZR, F10, F11R, F13A1, F2R, F8, FAH, FAM126B, FAM136A, FAM13B, FAM209A, FAM214B, FAM217B, FAM72A, FASTKD2, FBLN2, FBXO33, FBXO38, FCAMR, FEZ1, FFAR4, FGD4, FGD6, FGGY, FGL2, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FPR1, FPR2, FRMD4B, FRS2, FTH1, FTX, FUBP3, FUS, FUT7, FYB1, FZD1, FZD3, G3BP2, GAB2, GADL1, GAL3ST1, GALC, GALNT1, GAPDH, GAS7, GASK1B, GATA5, GBE1, GC, GFOD2, GFRAL, GHITM, GIT2, GK, GLCE, GLE1, GLIPR1, GLT8D2, GLUL, GLYCTK, GLYR1, GNB4, GOLGB1, GPATCH1, GPATCH4, GPR21, GPR50, GPR75, GPRIN1, GRB2, GSTA1, GTDC1, GTF2E1, GTF2H3, GTF3C3, GTPBP1, GUCA2B, GYG1, H2AC18/H2AC19, H2BC21, H3-3A/H3-3B, H3-5, HAL, HAMP, HAUS7, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HCLS1, HDAC7, HDAC9, HDLBP, HECA, HELZ, HERC3, HGD, HIC2, HLA-A, HLA-C, HLA-E, HLA-G, HMCN2, HMOX1, HNMT, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, HOTAIR, HOXA10, HOXA3, HOXA4, HOXA6, HS3ST4, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA13, HSPA1A/HSPA1B, HSPA5, HSPB7, HSPD1, HTATIP2, HTR1F, HVCN1, ICAM1, IDH3A, IER2, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IGSF6, IK, IL1B, IL1R2, IL1RN, ILF3, IMPG2, IP6K2, IQCD, IQSEC3, IRAG2, IREB2, IRX4, ITGA4, ITGAX, ITGB8, JADE1, JAK1, JAML, JMJD1C, JMJD4, JPH4, JPT1, JPX, KAT6A, KAT6B, KCNJ2, KCNJ4, KCTD20, KDM1B, KDM5A, KDM7A, KIAA0319L, KIAA0556, KIDINS220, KIF13A, KIF1A, KIF1C, KIF26B, KLF6, KLHL15, KLHL20, KMT5B, KRAS, KRT23, KRT34, KYNU, L3MBTL3, LAMA5, LAMTOR5, LARP4, LARP6, LAS1L, LASP1, LAT2, LCOR, LCP1, LCT, LEFTY1, let-7, LETM2, LGALS8, LGMN, LGR5, LHCGR, LHFPL2, LIAS, LILRA1, LILRA2, LILRB3, LIMK2, LINC00511, LINC00887, LINC01564, LIPM, LITAF, LMTK2, LONRF3, LRP2, LRP8, LRPAP1, LRRFIP1, LSM12, LSM14A, LSP1, LUCAT1, LUZP2, LY6K, LY86, LY9, LYN, LYPLA2, LYVE1, LYZ, M6PR, MAD2L1BP, MAFF, MAGT1, MAK, MAN2A2, MANBAL, MAP3K1, MAP3K2, MAP3K7CL, MAP4, MAP4K4, MAPKAP1, MAPRE1, MAPRE3, MARF1, MAX, MBP, MCCC2, MCL1, MCM7, MDM1, MDM2, MED23, MED30, MEF2C, MERTK, METTL21A, MEX3B, MGAT5, MICB, mir-101, mir-103, mir-122, mir-1260a, mir-133, mir-138, mir-154, mir-202, mir-24, mir-26, mir-28, mir-515, mir-551, MKNK1, MLX, MMP14, MOB3A, MORN5, MPHOSPH10, MPND, MPP1, MPZL3, MRPL15, MS4A1, MS4A14, MS4A4A, MS4A7, MSH6, MSMB, MSN, MT1A, MT1F, MT1X, MTCH2, MTDH, MTERF2, MTF1, MTFR2, MTHFD2, MTOR, MTRR, MTTP, MTURN, MUC1, MUC13, MUC15, MVP, MX2, MXD1, MYBBP1A, MYH14, MYH15, MYLK, MYLK2, MYO15A, MYO1F, MYO5A, MYO5B, MYOF, MYOG, NABP1, NACA2, NAMPT, NAP1L5, NAPB, NASP, NAT2, NCBP1, NCCRP1, NCF2, NCKAP1L, NCL, NCOA1, NCOA4, NDE1, NDEL1, NDRG4, NECAB2, NEDD9, NETO2, NFATC4, NFE2L2, NFKBIZ, NHSL1, NIM1K, NIN, NINJ1, NIPSNAP1, NLGN3, NLGN4X, NOM1, NONO, NOTCH2, NOTCH2NLA/NOTCH2NLB, NOXRED1, NPC1L1, NPL, NPTN, NR3C1, NRBF2, NRDC, NSFL1C, NSRP1, NTRK1, NUAK2, NUBP1, NUDT7, NUMB, NUP160, NUP50, NUP62, NUP93, NXPE4, NXPH4, OAT, OAZ1, OBP2A, OGFOD2, OPA1, OPN3, OR10R2, OR2A14, OR4D10, OR4K5, OR51A2, OR52L1, OR5AC2, OR5M1, OSBPL11, OTUD3, OXA1L, P2RY13, PABPC1, PACSIN2, PAK2, PAQR3, PARP8, PCLO, PCOLCE, PCYT1A, PDAP1, PDCD4, PDE4B, PDGFRA, PDIA3, PDIA5, PDK3, PDLIM5, PDS5B, PDZD8, PEAK1, PECAM1, PER2, PEX19, PF4, PGAM2, PHF12, PHLPP1, PID1, PIGO, PILRA, PIN4, PIP4P2, PIP5K1A, PITPNA, PITPNM1, PITX2, PIWIL1, PJA2, PKN3, PLAGL2, PLB1, PLCB3, PLCG2, PLCL1, PLEK, PLEKHA5, PLEKHA7, PLEKHM3, PLP1, PLXDC2, PLXNA4, PNN, PODNL1, POLD3, POLR1A, POTEH (includes others), POU4F2, PPHLN1, PPIF, PPM1D, PPP1CB, PPP1R12B, PPP1R17, PPP1R3B, PPP4R2, PPP6R3, PQBP1, PRC1, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PRPF38A, PRPF6, PRR12, PRRC2C, PRSS55, PSAP, PSMC1, PSMC2, PSMD1, PSMD10, PSMD12, PSMD2, PSMD4, PSMD7, PSME3, PTCD3, PTCHD4, PTEN, PTF1A, PTGFRN, PTGS2, PTPRE, PUDP, PURA, PUS3, PWWP3A, RAB27A, RAB31, RAB3GAP2, RAB9A, RABEP1, RABGAP1L, RAC2, RAD51C, RAD51D, RAF1, RALB, RALBP1, RALGPS1, RALGPS2, RAMP2, RAP1A, RAPGEF2, RASEF, RASSF2, RBM12B, RBM25, RBM4, RBM47, RBM5, RBMS1, RBMXL3, RCBTB2, RCC2, RCOR3, REEP5, RFPL2, RFX3, RGCC, RGS2, RHBG, RHOA, RHOB, RICTOR, RIIAD1, RIN2, RIOK1, RIOK2, RIOK3, RIOX2, RIPK3, RNF103, RNF103-CHMP3, RNF121, RNF130, RNF149, RNF169, RNF20, RNF40, RPF2, RPGRIP1, RPL28, RPL39, RPL4, RPL5, RPS15, RPS6KA5, RRNAD1, RSPH3, RTCB, RTF1, RTN3, RTN4, RTTN, RUSC1, RYBP, S100A14, S100A9, S100Z, SAAL1, SAMD4B, SART3, SAT1, SAV1, SBF2, SCARB2, SCFD2, SCG3, SCN9A, SCP2D1, SCRIB, SCRN1, SCRT2, SDCBP, SEC13, SEC14L1, SEC24D, SEC61A2, SEL1L, SEMA3G, SENP2, SENP5, SERHL2, SERPINB3, SERPINB4, SERPINB8, SESTD1, SETDB1, SF3A3, SF3B1, SF3B6, SFRP4, SGK1, SH2B3, SH3BP2, SHISAL2B, SHROOM3, SIAH1, SIPA1L2, SIRPA, SIRPB1, SKP2, SLC16A11, SLC22A15, SLC22A18, SLC22A4, SLC22A5, SLC24A4, SLC25A2, SLC25A3, SLC25A32, SLC26A11, SLC31A1, SLC35F4, SLC36A1, SLC43A3, SLC49A4, SLC4A1AP, SLC4A2, SLC6A6, SLC7A7, SLC8A1, SLC8A3, SLC9A9, SLITRK6, SLU7, SMARCA2, SMARCC2, SMS, SMTN, SNAP91, SNRPB, SNRPF, SNX13, SNX27, SOCS4, SOD2, SORL1, SOS2, SP1, SP100, SP110, SP3, SPACA5/SPACA5B, SPAG9, SPAST, SPATA31A6 (includes others), SPATA5, SPEF2, SPHK2, SPINK5, SPOP, SPOUT1, SPRY3, SPTBN4, SPTSSB, SQOR, SRD5A2, SRPK1, SRPK2, SRSF3, SRSF4, SRSF5, SSBP2, SSH1, SSH3, SSR1, ST6GALNAC2, ST8SIA4, STAMBP, STARD8, STAT3, STAU1, STEAP4, STIP1, STK24, STK4, STX3, STXBP6, SUFU, SUSD6, SVIL, SWAP70, SWT1, SYK, SYNE4, SYT17, SZT2, TACC1, TAF1, TAF7, TAGLN2, TALDO1, TASP1, TBC1D12, TBC1D14, TBC1D8, TBC1D9, TBL1X, TBX5, TCAIM, TCF4, TCP1, TDGF1, TDP2, TDRD1, TEKT4, TERF2IP, TET2, TFRC, TGOLN2, THBS2, THEG, THEMIS2, THOC5, THRAP3, TIFA, TIGAR, TIGD1, TIMMDC1, TJP1, TKFC, TLK2, TLR2, TLR4, TLR5, TLR7, TM2D2, TM6SF2, TM7SF3, TMEM140, TMEM185B, TMEM43, TMEM70, TMEM86A, TMPRSS7, TMTC2, TNFRSF10D, TNFRSF1A, TNFSF10, TNIP1, TNNC1, TNNI3K, TNPO3, TOPORS, TOR1B, TOX4, TPM3, TRAF3, TRAF3IP1, TRANK1, TREML2, TRIM34, TRIM41, TRIM43/TRIM43B, TRIM46, TRIM5, TRIM55, TRIM64C, TRIM65, TRIO, TRIOBP, TRIP10, TRIP12, TRIP4, TRMT1, TRMT9B, TRNT1, TRPM6, TSG101, TSHZ3, TSPAN1, TTC13, TTC17, TTC26, TTF1, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, TUBGCP3, TUT7, U2AF1/U2AF1L5, UBAP2L, UBE2B, UBE2E3, UBE2F, UBE2J2, UBE3B, UBE4B, UBR2, UCK2, UEVLD, UGT2B11, UGT3A1, UNC5C, UQCRC2, USP15, USP19, USP32, USP4, UTP14A, UTP23, UTP4, VCAN, VCPIP1, VDAC2, VDR, VIM, VKORC1L1, VMP1, VNN2, VPS26C, VRK3, VTCN1, VTI1B, WASF2, WASF3, WDFY3, WDR19, WDR33, WIPF1, WNK1, WNK3, WSB1, WWTR1, XAF1, XPNPEP3, XRCC5, YBX1, YBX3, YPEL3, YPEL5, YWHAE, YWHAZ, ZAN, ZBTB21, ZDHHC17, ZEB2, ZFPM2, ZFYVE21, ZMAT2, ZMPSTE24, ZMYM3, ZNF10, ZNF134, ZNF143, ZNF148, ZNF165, ZNF17, ZNF180, ZNF189, ZNF195, ZNF200, ZNF212, ZNF217, ZNF224, ZNF229, ZNF235, ZNF24, ZNF257, ZNF267, ZNF281, ZNF283, ZNF287, ZNF3, ZNF320, ZNF333, ZNF33A, ZNF33B, ZNF34, ZNF347, ZNF350, ZNF398, ZNF41, ZNF429, ZNF431, ZNF443, ZNF45, ZNF461, ZNF469, ZNF493, ZNF516, ZNF518A, ZNF525, ZNF528, ZNF534, ZNF548, ZNF555, ZNF558, ZNF565, ZNF567, ZNF568, ZNF570, ZNF585B, ZNF606, ZNF610, ZNF613, ZNF615, ZNF616, ZNF649, ZNF667, ZNF677, ZNF684, ZNF700, ZNF711, ZNF714, ZNF717, ZNF721, ZNF738, ZNF746, ZNF761, ZNF776, ZNF781, ZNF799, ZNF81, ZNF829, ZNF836, ZNF880, ZNF93, ZNFX1, ZRANB1, ZRSR2, ZSCAN2, ZXDC |
| Cellular Movement | Cell tethering or rolling of leukocytes | 1.60E-05 | Decreased | -2.57 | 24 | ADAM17, ARHGAP25, ARNTL, BTK, CD14, CHST1, CXCL1, CXCR2, FCGR2A, FPR2, FUT7, FYB1, GALNT1, HCK, ICAM1, IL1B, ITGA4, LCP2, LYN, MGAT5, RAC2, ST3GAL6, SWAP70, TLR4 |
| Inflammatory Response | Inflammatory response | 1.71E-05 | Decreased | -3.781 | 174 | ADAM10, ADAM17, ADM, AIF1, ALOX5AP, ALS2, ANGPTL4, ANXA2, APOA1, APP, AQP9, AREL1, ARHGAP25, ARIH2, ATG7, B4GALT1, BCL2L11, BID, CAMK1D, CASP8, CCDC88A, CCL23, CCL5, CCR1, CCR10, CD14, CD84, CEACAM3, CLEC4M, CLEC7A, CSF1R, CSF3R, CTSB, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP26B1, CYP4F3, DDIT3, DEFB103A/DEFB103B, DEFB114, DOCK2, EFS, ELF3, ELN, EPO, F11R, F2R, FCGR2A, FFAR4, FOXO3, FOXP3, FPR1, FPR2, FUT7, GC, GIT2, GPRC5B, HCK, HDAC7, HDAC9, HEBP1, HLA-A, HLA-G, HMOX1, HSPD1, ICAM1, IFNAR1, IGF1, IL1B, IL1RN, IL22RA2, ITGA4, JAML, KCNE3, LCP1, let-7, LGMN, LIAS, LILRA2, LILRB3, LITAF, LSP1, LYN, LYZ, MACIR, MAPKAP1, MCL1, MEFV, mir-138, mir-657, MMP14, MPP1, MUC1, MYLK, MYO1F, NCKAP1L, NCL, NEDD9, NFATC4, NFE2L2, NFKBIZ, NINJ1, NPW, NR1D2, NR3C1, OTULIN, PARK7, PDCD4, PDE4B, PECAM1, PF4, PLCG2, PLP1, PPM1D, PRKCD, PRKCG, PRKG1, PTEN, PTGS2, PTPN6, RAB27A, RAC2, RALB, RGMA, RHOA, RHOB, RICTOR, RIOX2, RIPK2, RIPK3, RPL13A, S100A14, S100A9, SCN9A, SIGLEC9, SIRPA, SLC11A1, SMAD1, SPHK2, STAT3, STK4, SWAP70, SYK, TAFA4, TBK1, TBXAS1, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF14, TNFSF4, TNIP1, TRAF3, TREM1, TREML2, TRNT1, TUBA1A, TUBA1C, TUBB2A, TYROBP, VPS35, VTCN1, WFDC1, WIPF1 |
| Cell Death and Survival | Cell death of colorectal cancer cell lines | 1.77E-05 |  | 1.186 | 75 | ADAM17, ADIPOR1, APC, ATG7, BCL2L11, BECN1, BID, BTK, CASP8, CD14, CFLAR, CNR1, DDIT3, DFFA, EIF1AX, EZR, FOXO3, GLIPR1, GSTA1, GUCA2A, GUCA2B, HMOX1, HOTAIR, HSPD1, IGF1, IGF1R, IGF2R, IL1B, IP6K2, IRF8, KRAS, LGALS8, LGR5, LIMS1, LTBR, LUCAT1, MCL1, mir-154, mir-515, MLKL, MT1F, MTOR, MUC1, NFE2L2, PARK7, PDE4B, PECAM1, PHLPP1, PRKCD, PRKG1, PTEN, PTGS2, RAF1, RASSF3, RHOA, RICTOR, SGK1, SOD2, SPHK2, SRPK1, STAU1, TCF4, TLR4, TM9SF4, TNFRSF10C, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TXNRD1, VDAC1, VDR, VPS35, XRCC5, YWHAE |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Inflammatory Response | Phagocytosis of phagocytes | 1.80E-05 | Decreased | -3.405 | 42 | ANXA5, APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CEACAM3, CLCN3, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, GAB2, HCK, HMOX1, ICAM1, IFNAR1, IL1B, let-7, MERTK, MEX3B, mir-24, NCKAP1L, PF4, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, SYK, TLR2, TLR4, TYROBP |
| Free Radical Scavenging | Synthesis of reactive oxygen species | 2.39E-05 | Decreased | -3.846 | 112 | ACOX1, ADGRE2, ALDH3A2, ALS2, ANXA2, AOPEP, APOA1, APP, ARHGDIB, ARNT, ATG7, ATP6AP2, BECN1, BID, BNIP3L, BRCA1, CASP8, CCL5, CD14, CLCN3, CLEC7A, CTLA4, CXCL9, CYBB, CYP2A6 (includes others), DDIT3, DOCK2, ENTPD1, EPO, ERO1A, F2R, FCGR2A, FOXO3, FPR1, FPR2, FTH1, FTL, GAB2, HBA1/HBA2, HBB, HCK, HMOX1, HSP90AB1, HVCN1, ICAM1, IGF1, IL1B, ITGAX, ITM2B, JAK1, KRAS, LCP2, let-7, LYN, MLKL, MMP14, MS4A1, MTOR, MUC1, MYLK, NAMPT, NCF2, NDUFS1, NFE2L2, NTRK1, PARK7, PCK1, PECAM1, PGAM2, PLAGL2, PLCB3, PLCG2, PRKAA1, PRKCD, PSMB8, PTEN, PTGS2, PTPN6, RAC2, RAP1A, RBPJ, RHOA, RIPK3, RTN4, SAT1, SIGLEC9, SLC8A1, SLU7, SNAP23, SOD2, SPAG9, STAT3, SYK, TAFA4, TAZ, TFRC, TIGAR, TLR2, TLR4, TLR5, TLR7, TMBIM6, TNFRSF1A, TNFSF14, TRAF3, TREML2, TXNRD1, TYROBP, UQCRC2, VDAC1, VDR, YWHAZ |
| Cellular Movement | Chemotaxis | 2.71E-05 | Decreased | -5.536 | 121 | ACTN1, ADAM10, ADAM17, ADGRE2, AIF1, AKAP12, ANXA2, APOA1, APP, AQP9, ARHGAP25, B4GALT1, CAMK1D, CCDC88A, CCL23, CCL5, CCR1, CCR10, CLCN3, CNR1, CRKL, CSF1R, CSF3R, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, EPHB1, F10, F2R, FCGR2A, FPR1, FPR2, FRS2, GAB1, GIT2, GRB2, HCK, HCLS1, HEBP1, HLA-G, HSPD1, ICAM1, IGF1, IGF1R, IGF2R, IL1B, ITGA4, JAML, LCP1, LGMN, LILRB3, LITAF, LRP2, LSP1, LYN, MAP3K1, MAPKAP1, mir-154, mir-24, MMP14, MPP1, MTOR, MUC1, MYLK, MYO1F, MYO5B, NCKAP1L, NEDD9, NINJ1, NR3C1, PDE4B, PDGFRA, PF4, PIP5K1A, PLCG2, PRKCD, PRKCG, PRKG1, PROK2, PTEN, PTGS2, PTPN6, RAC2, RALBP1, RHOA, RHOB, RICTOR, RPL13A, RTN4, S100A14, S100A9, SCN9A, SCRIB, SIRPA, SPHK2, STAT3, STK4, STX3, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF14, TREM1, TREML2, TRIP10, WARS1, WIPF1, WNK1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Homing of leukocytes | 3.27E-05 | Decreased | -4.568 | 86 | ADAM10, ADAM17, AIF1, APOA1, APP, AQP9, ARHGAP25, B4GALT1, CAMK1D, CCDC88A, CCL23, CCL5, CCR1, CSF1R, CSF3R, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, F2R, FCGR2A, FOXP3, FPR1, FPR2, FUT7, FYB1, GIT2, HCK, HEBP1, HLA-G, HSPD1, ICAM1, IL1B, ITGA4, JAK1, JAML, LCP1, LGMN, LILRB3, LITAF, LSP1, LTBR, LYN, MAPKAP1, MPP1, MYLK, MYO1F, NCKAP1L, NEDD9, NINJ1, NR3C1, PDE4B, PF4, PLCG2, PRKG1, PTEN, PTPN6, RAC2, RHOA, RHOB, RICTOR, RPL13A, S100A14, S100A9, SPHK2, STAT3, STK4, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF14, TREM1, TREML2, WIPF1 |
| Cell-To-Cell Signaling and Interaction | Adhesion of blood cells | 3.27E-05 | Decreased | -4.957 | 86 | ADAM10, ADAM17, ADGRE2, ANXA5, APBB1IP, APOA1, APP, ATRN, B4GALT1, BTK, CCL5, CCR1, CD14, CD86, CLEC4M, CNR1, CSF3R, CTSZ, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DOCK2, ENTPD1, EZR, F10, F11R, F2R, FCGR2A, FPR1, FPR2, FUT7, FYB1, GAB2, GALNT1, HCK, ICAM1, IL1B, ITGA4, ITGAX, JAK1, LAMA5, LCP1, LCP2, LGALS8, LILRB3, LRP8, LRPAP1, LSP1, LTBR, LYN, MAP3K2, MGAT5, MSN, NEDD9, NINJ1, NR3C1, PAK2, PECAM1, PF4, PILRA, PLCB3, PLCG2, PTGS2, PTPN6, RAC2, RAP1A, RHOA, RHOB, RICTOR, S100A9, SIRPA, ST6GALNAC2, STK4, SWAP70, SYK, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNIP1, TYROBP |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of granulocytes | 3.29E-05 | Decreased | -3.864 | 89 | ADAM10, ADAM15, ADAM17, ADM, ALOX5AP, ANXA2, APOA1, APP, AQP9, ARHGAP25, B4GALT1, BECN1, BTK, CAMK1D, CASP8, CCL23, CCL5, CCR1, CD14, CSF3R, CTSB, CTSC, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DEFB103A/DEFB103B, DOCK2, EPO, F10, F2R, FCGR2A, FPR1, FPR2, FUT7, GIT2, HCK, HMOX1, ICAM1, IFNGR1, IL1B, IL1RN, ITGA4, JAML, LAMA5, LILRB3, LSP1, LYN, MGAT5, mir-133, MPP1, MYLK, MYO1F, NCKAP1L, NFE2L2, NFKBIZ, PDE4B, PECAM1, PF4, PLCB3, PLCG2, PLP1, PPM1D, PRKG1, PTEN, PTGS2, PTPN6, RAB27A, RAC2, RTN4, S100A14, S100A9, SGK1, SIRPA, STAT3, SWAP70, SYK, TLR2, TLR4, TLR7, TNFRSF1A, TNIP1, TREM1, TREML2, VTCN1, YBX1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell rolling of leukocytes | 3.75E-05 | Decreased | -2.258 | 22 | ADAM17, ARHGAP25, BTK, CD14, CHST1, CXCL1, CXCR2, FCGR2A, FPR2, FUT7, FYB1, GALNT1, HCK, ICAM1, IL1B, ITGA4, LCP2, LYN, MGAT5, RAC2, SWAP70, TLR4 |
| Cellular Function and Maintenance | Internalization of tumor cell lines | 3.79E-05 | Decreased | -2.779 | 40 | ACTR2, APC, APPL2, ARPC2, BTK, CD93, CLIP1, DEF6, DET1, DOCK2, EZR, FCGR2A, GRB2, HCK, HMOX1, ICAM1, JAK1, KAT6A, KCTD5, KRAS, MERTK, NCKAP1L, NCL, PIP5K1A, PLEK, PRKCD, PSMD4, PTPN6, RAB11A, RAB31, RALB, RHOA, RIT1, SLAMF7, TM2D2, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Small intestine cancer | 3.80E-05 |  |  | 25 | APC, B2M, BCL7A, CTLA4, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IRF8, KBTBD12, KRAS, MCL1, MSH6, NOTCH2, NTRK1, PRKCD, PRKCG, PTEN, RHOA, SSBP2, TET2, TRAF3, U2AF1/U2AF1L5 |
| Cell Death and Survival | Cell death of fibroblast cell lines | 3.83E-05 | Decreased | -2.156 | 94 | ADIPOR1, APP, ARNT, ASAH1, ATG3, ATG7, ATN1, ATP6AP2, BCL2L11, BECN1, BID, BNIP3L, BRCA1, CA4, CASP8, CFLAR, CLIC4, CRADD, CTSB, CWC15, DDIT3, DDX3X, DFFA, DMTF1, EIF3I, FOXL2, FOXO3, FTH1, GRB2, GSTA1, HMOX1, HNRNPA1, HOXA3, HSPA5, HSPD1, IFI16, IFNAR1, IGF1, INSM2, KLF6, KRAS, L3MBTL2, MAP3K1, MAPKAP1, MCL1, MDM2, MLKL, MTCH2, MTF1, MTOR, MUC1, MXD1, NFATC4, NFE2L2, NTRK1, NUDT13, OAZ1, OPA1, PAK2, PARK7, PDIA3, PLAGL2, PPM1D, PRKAR1A, PRKCD, PRKCG, PTEN, PURA, RALB, RALBP1, RHOA, RHOB, RIPK3, RPS6KA5, RTN4, SENP2, SERPINB3, SERPINB4, SF3B6, SKP2, SOD2, SPHK2, STK4, SYK, TACC1, TBK1, TMEM107, TNFRSF1A, TNFSF10, TNIP1, UNC5C, VDAC1, VIM, YWHAZ |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Leukopoiesis | 3.85E-05 | Decreased | -4.652 | 173 | ADAM10, ADAM17, ADGRG3, ADM, APC, APP, ARID4B, ARNTL, ASXL1, B2M, BCL2L11, BRCA1, BTK, CASP8, CCL23, CCL5, CD14, CD86, CDA, CFLAR, CHD4, CLEC4M, CLEC6A, CREB1, CSF1R, CSF3R, CTLA4, CXCL1, CXCR2, CXCR3, CYBB, CYP26B1, DCLRE1C, DEF6, DMTF1, DNAJA2, DOCK2, DOCK8, DUSP5, DYRK1A, ELF1, ELF3, ENTPD1, EPHB1, EPO, EZR, FCAMR, FCGR2A, FOXO3, FOXP3, FUT7, FYB1, GAB2, GIMAP4, GIT2, GMPR2, GRB2, HCLS1, HDAC7, HDAC9, HLA-A, HLA-G, HOXA10, HOXA7, HSP90AA1, HSP90B1, HSPD1, ICAM1, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IRF8, ITGA4, ITGB8, JAK1, KRAS, L3MBTL3, LAT2, LCP1, LCP2, let-7, LGALS8, LILRA2, LILRB3, LSP1, LTBR, LY9, LYN, MAPKAP1, MBP, MCL1, MDM2, MEF2C, MERTK, mir-24, MMP14, MPZL2, MS4A1, MSN, MTOR, NCKAP1L, NFE2L2, NFKBIZ, NMT1, NOTCH2, NTRK1, PF4, PHLPP1, PLCG2, PLP1, PPM1D, PRKAA1, PRKCD, PRL, PROK2, PSAP, PSMB8, PTEN, PTGS2, PTPN6, RAC2, RAD52, RAF1, RALB, RBPJ, RFFL, RGCC, RHOA, RICTOR, RIPK2, RIPK3, S100A9, SEMA4A, SFRP4, SH2B3, SIGLEC9, SKP2, SP3, SPINK5, STAT3, SWAP70, SYK, TCF4, TDP2, TET2, THEMIS2, THOC5, TLR2, TLR4, TLR5, TLR7, TMEM178A, TNFRSF1A, TNFSF10, TNFSF4, TRAF3, TREM1, TYROBP, USP15, USP4, VDR, VTCN1, WIPF1, XRCC5, ZBTB46, ZEB2, ZRSR2 |
| Connective Tissue Disorders, Immunological Disease, Inflammatory Disease, Inflammatory Response, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Rheumatoid arthritis | 3.89E-05 |  | 0.851 | 159 | ACO1, ACSL1, ADAM10, ADAM15, ADAM17, ADGRA1, ADIPOR1, ADM, AIF1, APLP2, APOA1, AQP9, ARF1, ARHGDIB, ATAT1, B2M, BGN, C9orf78, CARD8, CASC3, CCL23, CCL5, CCR1, CD86, CDA, CELF2, CLEC1B, CLEC4D, CLIC2, CSF3R, CTLA4, CTSB, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CYP4F3, DEF6, DNAJA4, DYNLL1, ECHDC1, EEF1E1, EIF1B, EPO, F10, F11R, FCGR2A, FGL2, FKBP5, FOXO3, FOXP3, FPR2, FTH1, GALNT1, GLIPR2, GLUL, H3-3A/H3-3B, HAMP, HCK, HCLS1, HDAC7, HLA-A, HLA-C, HLA-G, HMOX1, HNMT, HNRNPA1, HSP90B1, HSPA1A/HSPA1B, HSPD1, ICAM1, IFNAR1, IGF1, IGFBP4, IL1B, IL1R2, IL1RN, JAK1, JMJD1C, KCTD20, KRAS, LCP1, LINC00922, LYZ, MACIR, MAP3K2, MAP4K4, MAPRE1, MCL1, MDM2, MEFV, MMP14, MRFAP1, MS4A1, MS4A7, MTOR, NAMPT, NOM1, NONO, NR3C1, NTRK1, NUMB, P2RY13, PDIA3, PECAM1, PHTF1, PLAC4, PSMB8, PTGS2, PTMA, PTPRE, RALB, RAMP2, RFX3, RGCC, RNF149, RNF169, RPL18A, RTF2, S100A9, SEC14L3, SEL1L, SF3B6, SLC22A4, SORL1, SPOCK1, STAT3, STEAP4, STK19, SWT1, SYK, TALDO1, TCF4, TFRC, TJP1, TLR2, TLR4, TLR7, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF4, TNNC1, TRIO, TUT7, UQCRC2, USP15, VDR, VIM, VTCN1, WNK1, ZNF143, ZNF281, ZNF326, ZNF331 |
| Cancer, Organismal Injury and Abnormalities, Tumor Morphology | Invasion of tumor | 3.90E-05 | Decreased | -2.853 | 56 | ANXA2, APC, CD14, COL7A1, CTNND1, CTNND2, CTSB, CTSZ, CXCL1, CXCL6, EZR, F2R, FOXO3, G3BP2, GAB1, GAB2, HDLBP, HMOX1, HNRNPA1, HSPA5, ICAM1, IGF1, KRAS, let-7, LHCGR, LIMK2, MDM2, mir-103, mir-133, MMP14, NEDD9, NFE2L2, NOTCH2, NUAK2, PARK7, PDCD4, PDGFRA, PSMD10, PTEN, PTGS2, RALBP1, RHOA, RHOB, S100A9, SCRIB, SETDB1, SSX2IP, STAT3, SYK, TDGF1, TLR4, TRAF3, VCAN, VIM, WASF3, ZFYVE21 |
| Cell-To-Cell Signaling and Interaction | Binding of lymphatic system cells | 3.96E-05 | Decreased | -3.523 | 45 | ADGRG3, ANXA2, APBB1IP, APOA1, BGN, BTK, CCL5, CCR1, CD86, CTLA4, CXCL9, CXCR3, DOCK2, DOCK8, EZR, F2R, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, JAK1, LCP2, LTBR, LYN, MAP3K2, MSN, MTOR, NEDD9, NR3C1, PECAM1, PRL, PTPN6, RAC2, RAP1A, RHOA, RICTOR, STK4, SWAP70, SYK, TFRC, THBS2, TLR4, TNFSF14 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function | Binding of leukocytes | 3.98E-05 | Decreased | -5.297 | 87 | ADAM10, ADAM17, ADGRE2, APBB1IP, APOA1, APP, ATRN, B4GALT1, BTK, CCL5, CCR1, CD14, CD86, CLEC4M, CNR1, CSF3R, CTLA4, CTSZ, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DOCK2, DOCK8, ENTPD1, EZR, F10, F11R, F2R, FCGR2A, FPR1, FPR2, FUT7, FYB1, GAB2, GALNT1, HCK, ICAM1, IFNGR1, IL1B, ITGA4, ITGAX, JAK1, LCP1, LCP2, LGALS8, LILRB3, LSP1, LTBR, LYN, MAP3K2, MGAT5, MSN, NEDD9, NINJ1, NOTCH2, NR3C1, PAK2, PECAM1, PF4, PILRA, PLCB3, PRL, PTGS2, PTPN6, RAC2, RAP1A, RHOA, RHOB, RICTOR, S100A9, SIRPA, STK4, SWAP70, SYK, TFRC, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF14, TNIP1, TYROBP |
| Infectious Diseases | Production of virus | 4.08E-05 |  | -1.859 | 31 | AGO2, APOB, ASMTL, BECN1, CD14, CNP, DDX17, DDX5, EDEM3, EIF3G, FAS-AS1, HCK, HNRNPA1, HSP90AB1, IFNAR1, LCP2, MAP1LC3A, mir-122, PSMC2, PTPN6, SART3, SDCBP, SNAPIN, SNRPF, STAU1, TKFC, TLR2, TNFRSF1A, TSG101, YBX1, ZNF175 |
| Cellular Function and Maintenance | Pinocytosis | 4.35E-05 |  | -1.85 | 17 | ANKFY1, APC, CARMIL1, DAB2, DOCK2, EZR, FRS2, KRAS, MAPKAPK3, NCL, NTRK1, RAB5A, RHOA, RHOB, TLR4, TNFRSF1A, WNK1 |
| Free Radical Scavenging | Production of reactive oxygen species | 4.60E-05 | Decreased | -3.16 | 87 | ACOX1, ADGRE2, ALDH3A2, ALS2, ANXA2, AOPEP, APP, ARHGDIB, ARNT, ATG7, BID, BRCA1, CASP8, CCL5, CD14, CLEC7A, CTLA4, CXCL9, CYBB, DDIT3, DOCK2, EPO, F2R, FCGR2A, FOXO3, FPR1, FPR2, FTH1, FTL, HBA1/HBA2, HBB, HCK, HMOX1, HSP90AB1, HVCN1, ICAM1, IGF1, IL1B, ITGAX, JAK1, LCP2, LYN, MLKL, MS4A1, MTOR, MUC1, MYLK, NCF2, NDUFS1, NFE2L2, NTRK1, PARK7, PCK1, PECAM1, PLAGL2, PLCG2, PRKAA1, PRKCD, PSMB8, PTEN, PTGS2, PTPN6, RAC2, RBPJ, RHOA, RIPK3, RTN4, SIGLEC9, SLC8A1, SLU7, SNAP23, SOD2, SPAG9, SYK, TAZ, TIGAR, TLR2, TLR4, TLR5, TMBIM6, TNFRSF1A, TRAF3, TREML2, TXNRD1, TYROBP, VDAC1, YWHAZ |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Carcinoma of ampulla of Vater | 4.63E-05 |  |  | 11 | APC, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, KBTBD12, KRAS, PRKCD, PRKCG, U2AF1/U2AF1L5 |
| Cellular Movement | Cellular infiltration by blood cells | 4.95E-05 | Decreased | -2.456 | 99 | ADAM17, ADM, ALOX5AP, ANXA2, APC, APOA1, APP, ARHGAP25, ATG7, B4GALT1, BECN1, BGN, BID, CASP8, CCL5, CCR1, CD14, CD86, CD93, CNP, CNR1, CSF1R, CTLA4, CTSB, CTSC, CUX1, CX3CR1, CXCL16, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DEF6, DOCK2, EFS, EPO, EZR, F2R, FGL2, FOXP3, FPR1, FPR2, FUT7, GAL3ST1, HAMP, HCK, HLA-A, HMOX1, HSPA5, HSPD1, ICAM1, IFNGR1, IL1B, IL1RN, ITGA4, KCNE3, KRAS, LILRB3, LTBR, LYN, MMP14, MYLK, NFE2L2, NFKBIZ, NINJ1, OPA1, PF4, PLCB3, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RGCC, RIPK2, RPL13A, S100A9, SGK1, STAT3, TET2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TREM1, VDR, VTCN1, YBX1 |
| Connective Tissue Disorders, Inflammatory Disease, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Rheumatic Disease | 5.24E-05 |  | 0.407 | 259 | ABCC2, ACO1, ACSL1, ADAM10, ADAM15, ADAM17, ADGRA1, ADIPOR1, ADM, AIF1, ALOX5AP, APLP2, APOA1, APOBEC3A, AQP9, ARF1, ARHGDIB, ARPC5, ATAT1, B2M, BCL2L11, BGN, BID, C9orf78, CARD8, CASC3, CASP8, CCL23, CCL5, CCR1, CD86, CDA, CELF2, CFLAR, CLEC1B, CLEC4D, CLIC2, CNR1, COL1A2, COL9A2, CPT1A, CRB1, CREB1, CRY2, CSF1R, CSF3R, CTLA4, CTSB, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYP4F3, DDIT3, DEF6, DGAT2, DKK3, DNAJA4, DUSP5, DYNLL1, ECHDC1, EEF1E1, EIF1B, ELF3, EPO, ERCC5, F10, F11R, F13A1, FCGR2A, FCGR2C, FGL2, FKBP5, FOXO3, FOXP3, FPR1, FPR2, FTH1, FTL, GAB1, GALNT1, GLIPR2, GLUL, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HCK, HCLS1, HDAC7, HLA-A, HLA-C, HLA-E, HLA-G, HMOX1, HNMT, HNRNPA1, HOXA7, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFI16, IFNAR1, IFNGR1, IGF1, IGF1R, IGFBP4, IL1B, IL1R2, IL1RN, IRF8, ITGAX, JAK1, JMJD1C, KCTD20, KRAS, LCP1, let-7, LINC-PINT, LINC00922, LTBR, LY9, LYN, LYZ, MACIR, MAP3K2, MAP4K4, MAPRE1, MCL1, MDM2, MEFV, MERTK, mir-154, mir-24, mir-299, MMP14, MRFAP1, MS4A1, MS4A7, MTOR, NAMPT, NCF2, NFE2L2, NOM1, NONO, NR3C1, NTRK1, NUMB, NUP62, OPA1, OXT, P2RY13, PDE4B, PDGFRA, PDIA3, PECAM1, PF4, PHTF1, PILRA, PLA2G4C, PLAC4, PLCG2, PRL, PROK2, PSMB8, PSME3, PTEN, PTGS2, PTMA, PTPN6, PTPRE, PURA, RAB27A, RAB31, RAB5A, RABGAP1L, RALB, RAMP2, RBPJ, RFPL2, RFX3, RGCC, RHOA, RIPK2, RIPK3, RNF149, RNF169, RPL18A, RTF2, S100A9, SCN9A, SEC14L3, SEL1L, SF3B6, SGK1, SKP2, SLAMF7, SLC11A1, SLC22A4, SLU7, SOD2, SORL1, SOS2, SP1, SPHK2, SPOCK1, SRSF1, SRSF3, STAT3, STEAP4, STK19, STXBP6, SWT1, SYK, TALDO1, TBK1, TCF4, TFRC, TJP1, TLR2, TLR4, TLR5, TLR7, TMEM178A, TMEM39A, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TNNC1, TNPO3, TRIO, TUBA1A, TUBA1C, TUBB2A, TUT7, TYROBP, UBE2L3, UQCRC2, USP15, VDR, VIM, VTCN1, WARS1, WIPF1, WNK1, ZNF143, ZNF148, ZNF281, ZNF326, ZNF331 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cellular infiltration by leukocytes | 5.45E-05 | Decreased | -2.583 | 98 | ADAM17, ADM, ALOX5AP, ANXA2, APC, APOA1, APP, ARHGAP25, ATG7, B4GALT1, BECN1, BGN, BID, CASP8, CCL5, CCR1, CD14, CD86, CD93, CNP, CNR1, CSF1R, CTLA4, CTSB, CTSC, CUX1, CX3CR1, CXCL16, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DEF6, DOCK2, EFS, EPO, EZR, F2R, FGL2, FOXP3, FPR1, FPR2, FUT7, GAL3ST1, HAMP, HCK, HLA-A, HMOX1, HSPA5, HSPD1, ICAM1, IFNGR1, IL1B, IL1RN, ITGA4, KCNE3, KRAS, LILRB3, LTBR, LYN, MMP14, MYLK, NFE2L2, NFKBIZ, NINJ1, OPA1, PF4, PLCB3, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RGCC, RIPK2, RPL13A, S100A9, SGK1, STAT3, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TREM1, VDR, VTCN1, YBX1 |
| Cell Death and Survival | Cell death of pheochromocytoma cell lines | 5.63E-05 |  | -0.712 | 30 | APP, ATG7, ATN1, ATXN3, BCL2L11, BNIP3L, BTG2, DYNLL1, FFAR4, GAB1, GAPDH, HERPUD1, IGF1, IL1B, IL1RN, MAP3K1, NTRK1, PRKCD, PSAP, PTGS2, PTPN6, RIT1, SIAH1, SIRPA, SOD2, SP1, SPHK2, STAT3, TNFRSF1A, VCAN |
| Cell Death and Survival | Cell death of myeloid cells | 5.77E-05 |  | -0.619 | 57 | ADAM17, APP, ASAH1, ATG7, BID, BNIP3L, BTK, CASP8, CCL5, CD14, CFLAR, CTSB, CXCL1, CYBB, DDIT3, DFFA, ENTPD1, EPO, FOXO3, HMOX1, IFNAR1, IGF1, IL1B, IL1RN, IRF8, LYN, LYZ, MCL1, MDM2, MEFV, mir-154, MLKL, MTOR, NAMPT, NFE2L2, NR3C1, PELI2, PF4, PRKCD, PTEN, PTPN6, RAF1, RALBP1, RIPK3, SH3BP2, SIGLEC9, SIRPA, SOD2, STAT3, STK4, SYK, TLR2, TLR4, TMOD3, TNFRSF1A, TNFSF10, TREM1 |
| Hematological System Development and Function, Humoral Immune Response, Lymphoid Tissue Structure and Development, Tissue Morphology | Quantity of follicular B lymphocytes | 5.80E-05 | Decreased | -3.434 | 34 | ADAM10, ADGRG3, APBB1IP, ARHGDIB, ARNTL, BCL2L11, BTK, CASP8, CD84, DKK3, DOCK2, DOCK8, GALNT1, HVCN1, IFNAR1, IFNGR1, IRF8, KIDINS220, KRAS, LYN, MTOR, NEDD9, NOTCH2, PLCG2, PRKCD, PTEN, SH3BP2, STAT3, STK4, TET2, TLR2, TLR4, TYROBP, WIPF1 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Response of macrophages | 5.99E-05 | Decreased | -3.348 | 44 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CLEC4M, CLEC6A, CLEC7A, CLIC4, CSF1R, DEF6, DOCK2, F2R, FCGR2A, GAB2, HCK, HMOX1, IL1B, IRF8, let-7, LYN, MERTK, MEX3B, mir-24, NCKAP1L, NR3C1, PLCB3, PRKAA1, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, STAT3, TLR2, TLR4, TREM1, TYROBP |
| Cell Death and Survival | Cell death of connective tissue cells | 6.19E-05 |  | -0.896 | 128 | ADIPOR1, ADM, APP, ARNT, ASAH1, ATF5, ATG3, ATG7, ATN1, ATP6AP2, BABAM2, BCL2L11, BECN1, BGN, BID, BNIP3L, BRCA1, CA4, CASP8, CCDC47, CFLAR, CLIC4, CNR1, CRADD, CREB1, CRKL, CTSB, CWC15, DDIT3, DDX3X, DFFA, DMTF1, EIF3I, ELOA, FOXL2, FOXO3, FTH1, GAB1, GRB2, GSTA1, HMOX1, HNRNPA1, HOXA3, HSPA5, HSPD1, IFI16, IFNAR1, IGF1, IGF1R, IGF2R, IL1B, INSM2, KLF6, KRAS, L3MBTL2, LGALS8, LRPAP1, M6PR, MAP3K1, MAP4, MAPKAP1, MCL1, MDM2, mir-103, MLKL, MMP14, MTCH2, MTF1, MTOR, MUC1, MXD1, NFATC4, NFE2L2, NTRK1, NUDT13, OAZ1, OPA1, PAK2, PARK7, PDIA3, PITPNA, PLAGL2, PPM1D, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRL, PTEN, PURA, RAD51D, RAF1, RALB, RALBP1, RHOA, RHOB, RIPK3, RPS6KA5, RTN4, SENP2, SERPINB3, SERPINB4, SETDB1, SF3B6, SFRP4, SGK1, SKP2, SOD2, SPHK2, STAT3, STK4, SYK, TACC1, TBK1, TCF4, TMEM107, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TNIP1, TRAF3, TSG101, UNC5C, VDAC1, VDR, VIM, YWHAZ |
| RNA Post-Transcriptional Modification | Processing of RNA | 6.26E-05 |  | -0.141 | 86 | AGO2, AKAP8L, APP, ATXN3, BMS1, BUD13, CASC3, CDC5L, CELF1, CELF2, CLK2, CLK3, CPEB1, CPSF4, CPSF7, CSTF1, CWC15, DDX17, DDX23, DDX27, DDX39A, DDX5, DHX38, DHX8, DYRK1A, FUS, GTF2H3, HBB, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, IK, INTS4, INTS6, LAS1L, LSM3, LSM6, MAGOHB, MPHOSPH10, NCBP1, NONO, NSRP1, NUDT21, PABPC1, PIN4, PNN, POP5, PQBP1, PRPF38A, PRPF4, PRPF6, RBM22, RBM25, RBM4, RBM5, RBMS1, RPL5, RPS15, SART3, SF3A3, SF3B1, SF3B6, SLU7, SNRPB, SNRPD3, SNRPF, SRPK1, SRPK2, SRSF1, SRSF3, SRSF4, SRSF5, THRAP3, TRNT1, U2AF1/U2AF1L5, UTP11, UTP14A, UTP3, UTP4, WBP11, WDR33, YBX1, ZMAT2, ZNF326, ZRSR2 |
| Cellular Movement | Cell tethering or rolling | 6.56E-05 | Decreased | -2.745 | 25 | ADAM17, ARHGAP25, ARNTL, BTK, CD14, CHST1, CXCL1, CXCR2, FCGR2A, FPR2, FUT7, FYB1, GALNT1, HCK, ICAM1, IL1B, ITGA4, LCP2, LYN, MGAT5, RAC2, ST3GAL6, ST6GALNAC2, SWAP70, TLR4 |
| Cell Death and Survival | Apoptosis of myeloma cell lines | 6.56E-05 |  | 0.659 | 25 | ARNT, B2M, BCL2L11, BTK, CASP8, CXCR3, DDIT3, FOXO3, IGF1, IGF1R, IRF8, KRAS, MCL1, MDM2, mir-154, MTOR, NR3C1, PRKCD, PTEN, SP1, STAT3, STK4, TNFSF10, VDAC1, YBX1 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of macrophages | 6.56E-05 | Decreased | -3.089 | 41 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, F2R, FCGR2A, GAB2, HCK, HMOX1, IL1B, IRF8, let-7, LYN, MERTK, MEX3B, mir-24, NCKAP1L, NR3C1, PRKAA1, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, TLR2, TLR4, TREM1, TYROBP |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking | Adhesion of immune cells | 6.73E-05 | Decreased | -5.381 | 80 | ADAM10, ADAM17, ADGRE2, APBB1IP, APOA1, APP, ATRN, B4GALT1, BTK, CCL5, CCR1, CD14, CD86, CLEC4M, CNR1, CSF3R, CTSZ, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DOCK2, ENTPD1, EZR, F10, F11R, F2R, FCGR2A, FPR1, FPR2, FUT7, FYB1, GAB2, GALNT1, HCK, ICAM1, IL1B, ITGA4, ITGAX, JAK1, LCP1, LCP2, LGALS8, LILRB3, LSP1, LTBR, LYN, MAP3K2, MGAT5, MSN, NEDD9, NINJ1, NR3C1, PAK2, PECAM1, PF4, PILRA, PLCB3, PTGS2, PTPN6, RAC2, RAP1A, RHOA, RHOB, RICTOR, S100A9, SIRPA, STK4, SWAP70, SYK, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNIP1, TYROBP |
| Cell Morphology, Cellular Assembly and Organization, Cellular Function and Maintenance | Formation of lamellipodia | 6.89E-05 | Decreased | -4.743 | 42 | ACTR2, ARPC2, BECN1, BTK, CAP1, CAPZB, CARMIL1, CCDC88A, CRKL, CTLA4, CTNND2, CXCR3, DKK3, EZR, FGD4, FNBP1L, GAB1, HSP90AA1, IGF1, ITGA4, ITGB8, LASP1, LCP1, LCP2, MAP3K1, MTOR, NCF2, PIP5K1A, PLCG2, RAB5A, RAC2, RHOA, RHOB, SIRPB1, SPATA13, STAT3, SWAP70, SYK, TRIP10, VIM, WASF2, WASF3 |
| Immunological Disease | Systemic autoimmune syndrome | 6.90E-05 |  | -0.056 | 266 | ACO1, ACSL1, ADAD1, ADAM10, ADAM15, ADAM17, ADGRA1, ADIPOR1, ADM, AIF1, ALOX5AP, ANXA3, APBB1IP, APLP2, APOA1, APOBEC3A, AQP9, ARF1, ARHGDIB, ARIH2, ATAT1, ATP6V1B2, B2M, BCL2L11, BGN, BTN2A1, C9orf78, CAPSL, CARD8, CASC3, CASP8, CCL23, CCL5, CCR1, CD14, CD84, CD86, CDA, CELF2, CFLAR, CLEC1B, CLEC4D, CLEC6A, CLEC9A, CLIC2, COL1A2, COL7A1, CPT1A, CRB1, CREB1, CSF3R, CTLA4, CTSB, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP4F3, DDC, DEF6, DGAT2, DKK3, DNAJA4, DUSP5, DYNLL1, ECHDC1, EEF1E1, EIF1B, EPO, ERCC5, F10, F11R, FCGR2A, FCGR2C, FGL2, FKBP5, FOXO3, FOXP3, FPR2, FTH1, GALNT1, GIMAP4, GLIPR2, GLUL, H2AC18/H2AC19, H3-3A/H3-3B, HAAO, HAMP, HBA1/HBA2, HCK, HCLS1, HDAC7, HLA-A, HLA-C, HLA-G, HMOX1, HNMT, HNRNPA1, HOXA7, HSP90B1, HSPA1A/HSPA1B, HSPD1, ICAM1, IER2, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGFBP4, IL1B, IL1R2, IL1RN, IRF8, ITGA4, ITGAX, JAK1, JAML, JMJD1C, KCTD20, KRAS, LCP1, LILRB3, LINC-PINT, LINC00922, LRP8, LY86, LY9, LYN, LYZ, MACIR, MAP3K2, MAP4K4, MAPRE1, MCL1, MDM2, MEFV, MERTK, MICB, mir-122, mir-154, mir-24, mir-299, MMP14, MPEG1, MRFAP1, MS4A1, MS4A7, MTOR, MUC1, MYO1F, NAMPT, NCF2, NOM1, NONO, NR3C1, NTRK1, NUMB, NUP62, OPA1, P2RY13, PABPC1, PDCD4, PDE4B, PDIA3, PECAM1, PHTF1, PILRB, PLA2G4C, PLAC4, PLEK, PRKCD, PROK2, PSMB8, PTGS2, PTMA, PTPN6, PTPRE, RAB27A, RAB31, RAB5A, RABGAP1L, RALB, RAMP2, RFPL2, RFX3, RGCC, RGS2, RIPK3, RNF149, RNF169, RPL18, RPL18A, RTF2, RTL6, S100A9, SEC14L3, SEL1L, SF3B6, SGK1, SH2B3, SIRPB1, SKP2, SLAMF7, SLC22A4, SLU7, SNX13, SOD2, SORL1, SOS2, SP1, SPOCK1, SRSF1, STAT3, STEAP4, STK19, STXBP6, SULT1A2, SWT1, SYK, TALDO1, TBK1, TCF4, TFRC, TJP1, TLR2, TLR4, TLR5, TLR7, TMEM140, TMEM39A, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TNNC1, TNP2, TNPO3, TRIO, TUT7, TYROBP, UBE2L3, UQCRC2, USP15, VDR, VIM, VTCN1, WARS1, WNK1, XAF1, ZNF143, ZNF148, ZNF165, ZNF281, ZNF326, ZNF331, ZNF468, ZSCAN12 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Chemotaxis of neutrophils | 7.01E-05 | Decreased | -3.02 | 40 | APOA1, APP, AQP9, ARHGAP25, CAMK1D, CCL23, CCL5, CSF3R, CXCL1, CXCL6, CXCR2, DEFB103A/DEFB103B, DOCK2, FCGR2A, FPR1, FPR2, GIT2, HCK, ICAM1, IL1B, ITGA4, JAML, LILRB3, LSP1, LYN, MPP1, MYO1F, NCKAP1L, PDE4B, PF4, PRKG1, PTEN, PTPN6, RAC2, S100A9, SYK, TLR4, TNFRSF1A, TREM1, TREML2 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Hematological System Development and Function, Inflammatory Response | Phagocytosis of leukocyte cell lines | 7.03E-05 | Decreased | -2.776 | 11 | APOA1, APOA2, APP, BECN1, CD14, DDX3X, FCGR2A, PTPN6, SNAP23, TLR2, TLR4 |
| Hematological Disease | Polycythemia | 7.24E-05 |  | 1.759 | 51 | APC, APOA1, APP, ARNTL, ASXL1, BCL2L11, BNIP3L, BPGM, CFLAR, CSF1R, CSF3R, CUX1, CXCL1, CXCR2, DEF6, EPO, FUT7, HAMP, HBA1/HBA2, HBB, IFNAR1, IL1B, IL1RN, ITGA4, JAK1, KRAS, let-7, LILRB3, MGAT5, mir-26, NFE2L2, NR3C1, PDE4B, PDE8A, PDGFRA, PF4, PTGS2, PTPN6, RAC2, RHOA, S100A9, SF3B1, SH2B3, STAT3, SYK, TET2, THBS2, TLR2, TNFSF10, TRNT1, U2AF1/U2AF1L5 |
| Cardiovascular System Development and Function, Organismal Development | Angiogenesis | 7.51E-05 | Decreased | -5.991 | 213 | ACTG1, ADAM15, ADAM17, ADM, ADM2, AGO2, AIF1, ALOX5AP, ANGPTL4, ANTXR2, ANXA2, ANXA3, APC, APOA1, APOB, APP, ARID4B, ARNT, ARNTL, ATG7, B4GALT1, BCAS3, BECN1, BRCA1, C1GALT1C1, CAMK2A, CARD6, CASP8, CAVIN2, CCDC88A, CCL5, CHM, CLEC1B, CLIC4, CNMD, CNR1, COL1A2, CREB1, CRKL, CSF1R, CTSB, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP4F2, CYP51A1, DAB2, DCTN5, DDIT3, DHCR7, DUSP3, ECE1, EHD3, ELK3, ELN, EMC10, EPHB1, EPO, ERO1A, ETV6, F11R, F2R, FBLN2, FFAR4, FOXO3, FPR2, FRS2, GAB1, GAB2, GATA5, GATAD2A, GLUL, HCK, HDAC7, HDAC9, HLA-G, HMOX1, HOXA3, HOXA7, HSP90AA1, HSPA5, HSPD1, HTATIP2, ICAM1, IDH3A, IFI16, IFNAR1, IFT88, IGF1, IGF1R, IGF2R, IGFBP4, IL1B, IL1RN, ITGA4, ITGAX, ITGB8, KAT6A, KCNJ2, KLF6, KLF7, KLHL20, LAMA5, LEFTY1, let-7, LGALS8, LRP2, LRP8, LRPAP1, LRRFIP1, LTBR, LYVE1, MDM2, MEF2C, MERTK, MGAT5, mir-103, mir-122, mir-133, mir-137, mir-154, mir-24, mir-26, MMP14, MTDH, MTOR, MYOF, NCF2, NCL, NCOA1, NFATC4, NFE2L2, NOTCH2, NR3C1, NTRK1, OTULIN, OXT, PAQR3, PDGFRA, PEAK1, PECAM1, PF4, PITX2, PLXNA4, PRKAA1, PRKCD, PRKCG, PRKG1, PRL, PRLH, PROK2, PSAP, PTEN, PTGS2, PTPN6, RAB9A, RAC2, RAF1, RAMP2, RAP1A, RAPGEF2, RBPJ, RGCC, RGS2, RHOA, RHOB, RICTOR, RIPK3, RTN4, S100A9, SAT1, SEMA4A, SIRPA, SKP2, SLC8A1, SOS2, SP1, SP100, SPHK2, SPINK5, SRGN, SRPK1, SRPK2, STAT3, STK4, STX7, SUFU, SYK, TAZ, TCF4, TDGF1, THAP1, THBS2, THRAP3, TJP1, TLR2, TLR4, TNFRSF1A, TNFSF10, TUBA1C, VIM, WARS1, WASF2, WNK1, WWTR1, YWHAZ, ZBTB46, ZFPM2, ZNF24 |
| Cell Death and Survival | Cell death of blood cells | 7.95E-05 |  | -1.824 | 145 | ADAM17, ADGRE2, ADGRG3, ANTXR2, AOPEP, APC, APOB, APP, ARNT, ASAH1, ATG3, ATG7, AURKB, BCL2L11, BECN1, BID, BNIP3L, BRCA1, BTK, CASP8, CCL5, CD14, CD86, CFLAR, CNR1, CREB1, CRKL, CSF1R, CTLA4, CTSB, CX3CR1, CXCL1, CYBB, DDIT3, DEF6, DFFA, DKK3, DOCK8, DUSP5, ELF1, ENTPD1, EPO, EZR, F2R, FGL2, FOXO3, FTH1, FUS, GAB2, GAPDH, GIMAP4, HCK, HCLS1, HLA-G, HMOX1, HOXA3, HSP90AB1, HSPA5, ICAM1, IFNAR1, IFNGR1, IGF1, IL1B, IL1RN, IP6K2, IRF8, ITGA4, JAK1, KIF1C, KRAS, LAT2, LGALS8, LY9, LYN, LYZ, MAP3K2, MCL1, MDM2, MEF2C, MEFV, MERTK, MGAT5, mir-154, mir-24, MLKL, MS4A1, MTOR, MTTP, MVP, MXD1, NAMPT, NCF2, NFE2L2, NR3C1, NUMB, PDIA3, PECAM1, PELI2, PF4, PLCG2, PPM1D, PRKAA1, PRKCD, PRL, PTEN, PTPN6, RAC2, RAF1, RALBP1, RBM5, RBPJ, RHOA, RICTOR, RIPK3, SF3B1, SH3BP2, SIGLEC9, SIRPA, SLC6A6, SOD2, SP1, STAT3, STK4, SWAP70, SYK, TBC1D15, THAP1, THBS2, TLR2, TLR4, TLR7, TMOD3, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TREM1, TYROBP, USP17L2 (includes others), VDR, WIPF1, XRCC5, YWHAZ, ZEB2, ZMPSTE24 |
| Cell Death and Survival | Cell death of immune cells | 8.10E-05 | Decreased | -2.325 | 137 | ADAM17, ADGRE2, ADGRG3, ANTXR2, AOPEP, APOB, APP, ATG3, AURKB, BCL2L11, BECN1, BID, BRCA1, BTK, CASP8, CCL5, CD14, CD86, CFLAR, CNR1, CREB1, CRKL, CSF1R, CTLA4, CTSB, CX3CR1, CXCL1, CYBB, DDIT3, DEF6, DFFA, DKK3, DOCK8, DUSP5, ELF1, ENTPD1, EPO, EZR, F2R, FGL2, FOXO3, FTH1, FUS, GAB2, GAPDH, GIMAP4, HCK, HCLS1, HLA-G, HMOX1, HOXA3, HSP90AB1, HSPA5, ICAM1, IFNAR1, IFNGR1, IGF1, IL1B, IL1RN, IP6K2, IRF8, ITGA4, JAK1, KIF1C, KRAS, LAT2, LGALS8, LY9, LYN, LYZ, MAP3K2, MCL1, MDM2, MEF2C, MEFV, MERTK, MGAT5, mir-154, mir-24, MLKL, MS4A1, MTOR, MTTP, MVP, NAMPT, NCF2, NFE2L2, NR3C1, NUMB, PDIA3, PECAM1, PELI2, PF4, PLCG2, PPM1D, PRKAA1, PRKCD, PRL, PTEN, PTPN6, RAC2, RAF1, RALBP1, RBM5, RBPJ, RHOA, RICTOR, RIPK3, SH3BP2, SIGLEC9, SIRPA, SLC6A6, SOD2, SP1, STAT3, STK4, SWAP70, SYK, TBC1D15, THAP1, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TREM1, TYROBP, USP17L2 (includes others), VDR, WIPF1, XRCC5, YWHAZ, ZEB2, ZMPSTE24 |
| Connective Tissue Disorders, Hematological Disease, Organismal Injury and Abnormalities | Thrombocytopenia | 8.25E-05 | Increased | 3.548 | 54 | APC, APP, ARID4B, ARNT, ASXL1, BCL2L11, C1GALT1C1, CDA, CLEC1B, CSF3R, ENTPD1, ETV6, F10, F2R, FCGR2A, FCGR2C, FOXP3, FYB1, HSP90B1, IFNAR1, IFNGR1, IFNGR2, IREB2, let-7, LYN, MAPKAP1, MDM2, mir-154, MIR4270, MS4A1, MTOR, MX2, NFE2L2, NR3C1, PAK2, PLEK, PSMD1, PSMD2, PTEN, PTGS2, RAP1A, SIRPA, SLAMF7, SLC11A1, SP1, SP3, SPHK2, ST3GAL6, SYK, TLR7, TNFSF10, TNNC1, VDR, WIPF1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Chemotaxis of leukocytes | 9.65E-05 | Decreased | -4.253 | 80 | ADAM10, ADAM17, AIF1, APOA1, APP, AQP9, ARHGAP25, B4GALT1, CAMK1D, CCDC88A, CCL23, CCL5, CCR1, CSF1R, CSF3R, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, F2R, FCGR2A, FPR1, FPR2, GIT2, HCK, HEBP1, HLA-G, HSPD1, ICAM1, IL1B, ITGA4, JAML, LCP1, LGMN, LILRB3, LITAF, LSP1, LYN, MAPKAP1, MPP1, MYLK, MYO1F, NCKAP1L, NEDD9, NINJ1, NR3C1, PDE4B, PF4, PLCG2, PRKG1, PTEN, PTPN6, RAC2, RHOA, RHOB, RICTOR, RPL13A, S100A14, S100A9, SPHK2, STK4, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF14, TREM1, TREML2, WIPF1 |
| Cancer, Organismal Injury and Abnormalities | Anogenital cancer | 9.94E-05 |  | 0.443 | 1185 | A1CF, ABCB5, ABCC2, ABHD3, ABHD8, ACBD3, ACO1, ACOX1, ACP3, ACSL1, ACTG1, ACTN1, ACTR2, ACYP1, ADAD1, ADAM10, ADAM15, ADAM17, ADGRA1, ADM, ADNP2, AGO2, AIF1, AIG1, AIPL1, AK9, AKAP12, ALDH3A1, ALDH5A1, ALDH9A1, ALG11, ALKBH1, ALKBH3, ALOX5AP, ALS2, AMPH, ANAPC13, ANGPTL5, ANKFY1, ANKRD13A, ANKRD13B, ANKRD42, ANKRD44, ANO5, ANO9, ANTXR2, ANXA2, ANXA3, ANXA5, AOPEP, AP1G1, AP5M1, APBA1, APBB1IP, APC, APOA1, APOA2, APOB, APOBEC3A, APOBEC3B, APOLD1, APP, AQP9, ARF4, ARHGAP19, ARHGAP25, ARHGAP29, ARHGDIB, ARHGEF25, ARID4B, ARIH2, ARL6IP1, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ARRDC3, ARSD, ARVCF, ASB10, ASB7, ASMTL, ASXL1, ATF7IP, ATG13, ATG2B, ATG7, ATL3, ATN1, ATP6AP2, ATP6V1A, ATP6V1B2, ATP6V1H, ATP7B, ATRN, AURKB, B2M, B3GNTL1, BABAM2, BACH1, BAZ2B, BBS7, BCAS3, BCL2L11, BECN1, BGN, BLVRA, BMP2K, BMS1, BNIP2, BNIP3L, BNIPL, BOD1L1, BPIFB1, BRCA1, BRIP1, BRWD3, BTBD3, BTD, BTG2, BTK, BTN2A1, BTNL8, C10orf71, C12orf60, C16orf70, C17orf80, C18orf25, C1GALT1C1, C1orf87, C1RL, C22orf23, C7orf25, C9orf153, C9orf78, CACNA1E, CALCOCO2, CALU, CAMK2A, CAMSAP2, CAPN11, CAPZA1, CAPZB, CARD16, CARD8, CARMIL1, CARNS1, CASC2, CASC3, CASP8, CATSPERD, CAVIN2, CBX1, CBY1, CCDC174, CCDC40, CCDC47, CCDC88A, CCL5, CCNK, CCP110, CCT2, CD14, CD1E, CD300E, CD86, CDA, CDC25C, CDC5L, CDH12, CDKL1, CDKL5, CELF1, CELF2, CELSR3, CEP128, CEP72, CETN1, CFAP161, CFAP206, CFAP58, CFAP92, CFLAR, CHCHD5, CHD4, CHMP2A, CHMP3, CHPF, CHST11, CKMT2, CLASP1, CLEC4F, CLEC4M, CLEC9A, CLIC2, CLIC4, CLIP1, CLK2, CMSS1, CNP, CNPY3, CNR1, COG2, COG5, COL1A2, COL7A1, CORO1C, CPEB1, CPQ, CPSF7, CPT1A, CRB1, CREB1, CRKL, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CST8, CT45A10/CT45A5, CTAG2, CTBS, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP2A6 (includes others), CYP2W1, CYP4F2, CYP4F3, CYP51A1, CYTH4, DAB2, DCLRE1C, DDIT3, DDX17, DDX23, DDX27, DDX39A, DDX3X, DDX5, DEF6, DENND3, DENND5A, DET1, DGLUCY, DHCR7, DHRS7, DHX30, DHX38, DHX8, DIP2B, DKK3, DLG3, DLGAP4, DNAJA2, DNAJB11, DNAJB12, DNAJB5, DNAJB6, DNAJC17, DNAJC2, DNAJC7, DNM3, DOCK2, DOCK8, DOK5, DPF2, DPF3, DPH2, DPRX, DPYD, DSE, DUSP5, DYNC1LI1, DYRK1A, EBLN2, ECE1, ECPAS, EDEM3, EDRF1, EEF2K, EFCAB2, EFS, EHD3, EIF1AX, EIF1B, EIF3A, EIF3I, EIF4G3, ELAC1, ELF1, ELF3, ELL2, ELN, ELOA, EMC10, EMSY, ENTPD1, EOGT, EPB41L3, EPHB1, EPM2AIP1, ERCC5, ERO1A, ESS2, ETFDH, ETV3, ETV6, EVC2, EVI5L, EWSR1, EXD2, EXOC3L4, EXT1, EZR, F10, F11R, F13A1, F2R, F8, FAM126B, FAM136A, FAM13B, FAM209A, FAM214B, FAM217B, FAM72A, FASTKD2, FBLN2, FBXO33, FBXO38, FCAMR, FEZ1, FGD4, FGD6, FGGY, FGL2, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FPR1, FPR2, FRMD4B, FRS2, FTH1, FUBP3, FUS, FUT7, FYB1, FZD1, FZD3, G3BP2, GAB2, GADL1, GAL3ST1, GALC, GALNT1, GAPDH, GAS7, GASK1B, GATA5, GBE1, GC, GFOD2, GFRAL, GHITM, GIT2, GK, GLCE, GLE1, GLIPR1, GLT8D2, GLUL, GLYCTK, GLYR1, GNB4, GOLGB1, GPATCH1, GPATCH4, GPR21, GPR75, GRB2, GSTA1, GTDC1, GTF2H3, GTF3C3, GTPBP1, GUCA2B, GYG1, H2AC18/H2AC19, H2BC21, H3-3A/H3-3B, H3-5, HAL, HAMP, HAUS7, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HCLS1, HDAC7, HDAC9, HDLBP, HECA, HELZ, HERC3, HGD, HIC2, HLA-A, HLA-C, HLA-E, HLA-G, HMCN2, HMOX1, HNRNPA1, HNRNPA2B1, HNRNPH1, HNRNPH2, HOTAIR, HOXA3, HOXA4, HOXA6, HS3ST4, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA13, HSPA5, HSPB7, HSPD1, HTATIP2, HTR1F, HVCN1, IDH3A, IER2, IFI16, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IGSF6, IK, IL1B, IL1R2, ILF3, IMPG2, IP6K2, IQCD, IQSEC3, IRAG2, IREB2, IRX4, ITGA4, ITGAX, ITGB8, JADE1, JAK1, JAML, JMJD1C, JMJD4, JPH4, JPT1, JPX, KAT6A, KAT6B, KCNJ2, KCNJ4, KCTD20, KDM1B, KDM5A, KDM7A, KIAA0556, KIDINS220, KIF13A, KIF1A, KIF1C, KIF26B, KLF6, KLHL15, KLHL20, KRAS, KRT23, KRT34, L3MBTL3, LAMA5, LAMTOR5, LARP4, LARP6, LAS1L, LASP1, LAT2, LCOR, LCP1, LCT, LEFTY1, let-7, LETM2, LGALS8, LGMN, LGR5, LHCGR, LIAS, LILRA1, LIMK2, LINC00511, LINC01564, LIPM, LITAF, LMTK2, LONRF3, LRP2, LRP8, LRPAP1, LRRFIP1, LSM12, LSP1, LUZP2, LY6K, LY86, LY9, LYPLA2, LYVE1, LYZ, MAD2L1BP, MAFF, MAGT1, MAK, MAN2A2, MAP3K1, MAP3K2, MAP3K7CL, MAP4, MAP4K4, MAPKAP1, MAPRE1, MAPRE3, MARF1, MAX, MBP, MCCC2, MCL1, MCM7, MDM1, MDM2, MED23, MED30, MEF2C, MERTK, METTL21A, MEX3B, MGAT5, MICB, mir-101, mir-103, mir-122, mir-133, mir-154, mir-202, mir-24, mir-26, mir-28, mir-515, MKNK1, MLX, MMP14, MOB3A, MORN5, MPHOSPH10, MPND, MRPL15, MS4A1, MS4A14, MS4A4A, MS4A7, MSH6, MSMB, MSN, MT1A, MT1F, MT1X, MTCH2, MTDH, MTERF2, MTF1, MTFR2, MTHFD2, MTOR, MTRR, MTTP, MTURN, MUC1, MUC15, MYBBP1A, MYH14, MYH15, MYLK, MYLK2, MYO15A, MYO1F, MYO5A, MYO5B, MYOF, MYOG, NABP1, NACA2, NAMPT, NAP1L5, NAPB, NASP, NAT2, NCBP1, NCCRP1, NCF2, NCKAP1L, NCL, NCOA1, NCOA4, NDE1, NECAB2, NEDD9, NETO2, NFATC4, NFE2L2, NHSL1, NIM1K, NIN, NIPSNAP1, NLGN3, NLGN4X, NONO, NOTCH2, NOTCH2NLA/NOTCH2NLB, NOXRED1, NPC1L1, NPTN, NR3C1, NRBF2, NRDC, NSFL1C, NSRP1, NTRK1, NUAK2, NUBP1, NUDT7, NUMB, NUP160, NUP50, NUP62, NUP93, NXPE4, OAT, OAZ1, OBP2A, OPA1, OPN3, OR10R2, OR2A14, OR4D10, OR51A2, OR52L1, OR5AC2, OR5M1, OSBPL11, OTUD3, OXA1L, P2RY13, PABPC1, PACSIN2, PAK2, PARP8, PCLO, PCOLCE, PCYT1A, PDAP1, PDCD4, PDE4B, PDGFRA, PDIA3, PDIA5, PDK3, PDLIM5, PDS5B, PDZD8, PEAK1, PECAM1, PER2, PEX19, PF4, PHF12, PID1, PILRA, PIN4, PIP4P2, PIP5K1A, PITPNA, PITPNM1, PITX2, PIWIL1, PJA2, PKN3, PLAGL2, PLB1, PLCB3, PLCG2, PLCL1, PLEK, PLEKHA5, PLEKHA7, PLEKHM3, PLP1, PLXDC2, PLXNA4, PNN, PODNL1, POLD3, POLR1A, POTEH (includes others), POU4F2, PPHLN1, PPIF, PPM1D, PPP1CB, PPP1R12B, PPP1R17, PPP1R3B, PPP4R2, PPP6R3, PQBP1, PRC1, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PRPF38A, PRPF6, PRR12, PRRC2C, PRSS55, PSAP, PSMC1, PSMC2, PSMD1, PSMD12, PSMD2, PSMD4, PSMD7, PSME3, PTCHD4, PTEN, PTGFRN, PTGS2, PTPRE, PUDP, PURA, PUS3, PWWP3A, RAB31, RAB3GAP2, RAB9A, RABEP1, RABGAP1L, RAC2, RAD51C, RAD51D, RAF1, RALBP1, RALGPS1, RALGPS2, RAMP2, RAP1A, RAPGEF2, RASEF, RASSF2, RBM12B, RBM25, RBM47, RBM5, RBMS1, RBMXL3, RCBTB2, RCC2, RCOR3, REEP5, RFPL2, RFX3, RGCC, RGS2, RHBG, RHOA, RHOB, RICTOR, RIIAD1, RIN2, RIOK1, RIOK2, RIOK3, RIOX2, RIPK3, RNF103, RNF103-CHMP3, RNF121, RNF130, RNF149, RNF169, RNF20, RNF40, RPF2, RPGRIP1, RPL28, RPL39, RPL4, RPL5, RPS15, RPS6KA5, RRNAD1, RSPH3, RTCB, RTF1, RTN3, RTN4, RTTN, RUSC1, S100A14, S100A9, S100Z, SAAL1, SAMD4B, SART3, SAT1, SBF2, SCARB2, SCFD2, SCN9A, SCP2D1, SCRIB, SCRN1, SCRT2, SEC14L1, SEC24D, SEC61A2, SEL1L, SEMA3G, SENP2, SENP5, SERHL2, SERPINB3, SERPINB4, SERPINB8, SETDB1, SF3A3, SF3B1, SF3B6, SFRP4, SGK1, SH2B3, SH3BP2, SHISAL2B, SHROOM3, SIPA1L2, SIRPA, SIRPB1, SKP2, SLC16A11, SLC22A15, SLC22A18, SLC22A4, SLC22A5, SLC24A4, SLC25A2, SLC25A3, SLC25A32, SLC26A11, SLC31A1, SLC35F4, SLC36A1, SLC43A3, SLC4A1AP, SLC4A2, SLC6A6, SLC7A7, SLC8A1, SLC8A3, SLC9A9, SLITRK6, SMARCA2, SMARCC2, SMS, SMTN, SNAP91, SNRPB, SNRPF, SNX27, SOCS4, SOD2, SORL1, SOS2, SP1, SP100, SP110, SP3, SPACA5/SPACA5B, SPAG9, SPAST, SPATA31A6 (includes others), SPATA5, SPEF2, SPHK2, SPINK5, SPOP, SPOUT1, SPTBN4, SPTSSB, SQOR, SRD5A2, SRPK1, SRPK2, SRSF4, SRSF5, SSBP2, SSH1, SSH3, SSR1, ST6GALNAC2, ST8SIA4, STARD8, STAT3, STAU1, STEAP4, STK24, STK4, STX3, STXBP6, SUFU, SUSD6, SVIL, SWAP70, SWT1, SYK, SYNE4, SYT17, SZT2, TACC1, TAF1, TAF7, TAGLN2, TALDO1, TASP1, TBC1D12, TBC1D14, TBC1D8, TBC1D9, TBL1X, TBX5, TCAIM, TCF4, TCP1, TDGF1, TDRD1, TEKT4, TERF2IP, TET2, TFRC, TGOLN2, THBS2, THEG, THEMIS2, THOC5, THRAP3, TIFA, TIGAR, TIGD1, TIMMDC1, TJP1, TKFC, TLK2, TLR2, TLR4, TLR5, TLR7, TM2D2, TM6SF2, TM7SF3, TMEM140, TMEM43, TMEM70, TMEM86A, TMPRSS7, TMTC2, TNFRSF10D, TNFRSF1A, TNFSF10, TNIP1, TNNC1, TNNI3K, TOPORS, TOR1B, TPM3, TRAF3, TRANK1, TREML2, TRIM34, TRIM41, TRIM43/TRIM43B, TRIM46, TRIM5, TRIM55, TRIM64C, TRIM65, TRIO, TRIOBP, TRIP10, TRIP12, TRIP4, TRMT1, TRMT9B, TRNT1, TRPM6, TSG101, TSHZ3, TTC17, TTC26, TTF1, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, TUBGCP3, U2AF1/U2AF1L5, UBAP2L, UBE2E3, UBE2F, UBE2J2, UBE3B, UBE4B, UBR2, UCK2, UEVLD, UGT2B11, UGT3A1, UNC5C, UQCRC2, USP15, USP19, USP32, USP4, UTP23, UTP4, VCAN, VCPIP1, VDAC2, VDR, VIM, VKORC1L1, VMP1, VNN2, VPS26C, VRK3, VTCN1, VTI1B, WASF2, WASF3, WDFY3, WDR19, WIPF1, WNK1, WNK3, WSB1, WWTR1, XAF1, XPNPEP3, XRCC5, YBX1, YPEL3, YPEL5, YWHAE, YWHAZ, ZAN, ZBTB21, ZEB2, ZFPM2, ZFYVE21, ZMPSTE24, ZMYM3, ZNF10, ZNF134, ZNF143, ZNF148, ZNF165, ZNF17, ZNF180, ZNF189, ZNF195, ZNF200, ZNF212, ZNF217, ZNF224, ZNF229, ZNF235, ZNF24, ZNF257, ZNF267, ZNF281, ZNF283, ZNF287, ZNF3, ZNF320, ZNF333, ZNF33A, ZNF33B, ZNF34, ZNF347, ZNF350, ZNF398, ZNF41, ZNF429, ZNF431, ZNF443, ZNF45, ZNF461, ZNF469, ZNF493, ZNF516, ZNF518A, ZNF525, ZNF528, ZNF534, ZNF548, ZNF555, ZNF558, ZNF565, ZNF567, ZNF568, ZNF570, ZNF585B, ZNF606, ZNF610, ZNF615, ZNF616, ZNF649, ZNF667, ZNF677, ZNF684, ZNF711, ZNF717, ZNF721, ZNF738, ZNF746, ZNF761, ZNF776, ZNF781, ZNF799, ZNF81, ZNF829, ZNF836, ZNF880, ZNF93, ZNFX1, ZRANB1, ZSCAN2, ZXDC |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Response of monocytes | 1.04E-04 | Decreased | -2.772 | 11 | CCR1, CD14, CD93, CLEC7A, FCGR2A, FPR1, PF4, SYK, TLR2, TLR4, TREM1 |
| Cellular Movement | Migration of tumor cell lines | 1.05E-04 | Decreased | -6.859 | 189 | ACTN1, ADAM10, ADAM15, ADAM17, AGO2, AIF1, AKAP12, ANGPTL4, ANXA2, APC, APP, ARF1, ARHGDIB, ARPC2, ARRDC3, ATOX1, BRCA1, CALML3, CALU, CASP8, CCDC88A, CCL5, CGB3 (includes others), COL7A1, CRKL, CSF1R, CTNND1, CTSB, CTSZ, CXCL9, CYP2J2, DAB2, DEF6, DNAJB6, DOCK8, DPP10-AS1, DPYSL2, DSE, DUSP5, EPHB1, EPO, EYA3, EZR, F2R, FAIM2, FBLN2, FGD4, FNBP1L, FOXO3, FOXP3, FTX, GAB1, GAB2, GMFG, GSE1, HMOX1, HNRNPA2B1, HOTAIR, HOXA4, HSBP1, HSP90AA1, HSP90B1, HSPA1A/HSPA1B, HTATIP2, HVCN1, IFNAR1, IGF1, IGF1R, IGF2BP3, IGFBP4, IL1B, ILF3, IP6K2, ITGA4, JAK1, JPX, KDM5A, KIDINS220, KLF6, KRAS, LAMA5, LASP1, let-7, LIMK2, LINC00887, LUCAT1, LYN, LYVE1, MAP3K1, MAP4, MAP4K4, MDM2, MERTK, MGAT5, mir-122, mir-154, mir-24, mir-26, mir-28, mir-299, mir-515, MMP14, MSN, MTDH, MTOR, MUC1, MUC13, MYOF, NCL, NEDD9, NFATC4, NFE2L2, NINJ1, NKD2, NOTCH2, NREP, NUMB, P2RX1, PACSIN2, PAK2, PDCD4, PDGFRA, PEAK1, PECAM1, PHACTR1, PITX2, PLCL1, PPIF, PRKAA1, PRKCD, PRKG1, PRL, PSMD10, PTEN, PTGS2, PTPN6, RAB21, RAC2, RAF1, RALB, RALBP1, RAP1A, RFFL, RHOA, RHOB, RICTOR, RIOK3, RNF11, RNF20, S100A9, SCRIB, SDCBP, SEMA4A, SERPINB3, SFRP4, SH2B3, SIRPA, SKP2, SMAD1, SOCS4, SOD2, SP1, SPHK2, SRGN, SSH1, STAT3, STK24, SYK, TAZ, TCAF1, TCF4, TDGF1, THBS2, TLR2, TLR4, TNFSF10, TPD52L1, TPM3, TRIO, TRIP10, USP4, VCAN, VDAC1, VIM, WASF2, WWTR1, YBX1, ZEB2, ZFYVE21 |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Development of mononuclear leukocytes | 1.06E-04 | Decreased | -4.709 | 149 | ADAM10, ADAM17, ADGRG3, ADM, APC, APP, ARNTL, ASXL1, B2M, BCL2L11, BRCA1, BTK, CASP8, CCL23, CCL5, CD14, CD86, CDA, CFLAR, CHD4, CLEC4M, CLEC6A, CREB1, CSF1R, CSF3R, CTLA4, CXCL1, CXCR2, CXCR3, CYP26B1, DCLRE1C, DEF6, DNAJA2, DOCK2, DOCK8, DUSP5, ELF1, ELF3, ENTPD1, EPHB1, EPO, EZR, FCAMR, FCGR2A, FOXO3, FOXP3, FUT7, FYB1, GIMAP4, GMPR2, GRB2, HDAC7, HDAC9, HLA-A, HLA-G, HOXA7, HSP90AA1, HSP90B1, HSPD1, ICAM1, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IRF8, ITGA4, ITGB8, JAK1, KRAS, LAT2, LCP1, LCP2, let-7, LGALS8, LILRA2, LSP1, LTBR, LY9, LYN, MAPKAP1, MBP, MCL1, MDM2, MEF2C, MERTK, mir-24, MMP14, MPZL2, MS4A1, MSN, MTOR, NCKAP1L, NFKBIZ, NMT1, NOTCH2, NTRK1, PF4, PHLPP1, PLCG2, PLP1, PRKAA1, PRKCD, PRL, PSAP, PSMB8, PTEN, PTGS2, PTPN6, RAD52, RAF1, RBPJ, RGCC, RHOA, RICTOR, RIPK2, RIPK3, SEMA4A, SH2B3, SKP2, SP3, SPINK5, STAT3, SWAP70, SYK, TCF4, TDP2, THEMIS2, THOC5, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TRAF3, TREM1, TYROBP, USP15, USP4, WIPF1, XRCC5, ZBTB46, ZEB2 |
| Cell Death and Survival | Apoptosis of fibroblast cell lines | 1.07E-04 |  | -1.876 | 72 | APP, ASAH1, ATG3, ATN1, ATP6AP2, BCL2L11, BECN1, BID, BNIP3L, BRCA1, CA4, CASP8, CFLAR, CLIC4, CRADD, CWC15, DDIT3, DDX3X, EIF3I, FOXO3, FTH1, HNRNPA1, HSPA5, HSPD1, IFI16, IFNAR1, IGF1, INSM2, KRAS, L3MBTL2, MAP3K1, MAPKAP1, MCL1, MDM2, MLKL, MTCH2, MTF1, MTOR, MUC1, MXD1, NFATC4, NFE2L2, NTRK1, NUDT13, PDIA3, PLAGL2, PPM1D, PRKAR1A, PRKCD, PRKCG, PTEN, RALB, RALBP1, RHOA, RHOB, RIPK3, RPS6KA5, RTN4, SERPINB3, SERPINB4, SF3B6, SKP2, SPHK2, STK4, SYK, TMEM107, TNFRSF1A, TNFSF10, TNIP1, UNC5C, VDAC1, VIM |
| Cancer, Cellular Movement, Organismal Injury and Abnormalities, Tumor Morphology | Invasion of tumor cells | 1.12E-04 | Decreased | -3.141 | 43 | APC, CD14, COL7A1, CTNND2, CTSB, CTSZ, CXCL1, CXCL6, EZR, F2R, FOXO3, GAB1, GAB2, HDLBP, HMOX1, IGF1, KRAS, let-7, LIMK2, mir-103, mir-133, MMP14, NEDD9, NFE2L2, NOTCH2, NUAK2, PARK7, PDCD4, PSMD10, PTEN, PTGS2, RALBP1, RHOA, RHOB, S100A9, SCRIB, SSX2IP, STAT3, SYK, TRAF3, VCAN, WASF3, ZFYVE21 |
| Protein Synthesis | Expression of protein | 1.13E-04 |  | 0.531 | 89 | ACO1, ADM, AGO2, ALDH3A1, ALKBH1, APP, ATF5, BTG2, BTK, CASC3, CAV3, CNBP, CPEB1, CREB1, DDX3X, EEF2K, EIF1AX, EIF3A, EIF3G, EIF3I, EIF4G3, EIF4H, FOXO3, FUS, GAB2, GAPDH, HCK, HELZ, HSPA1A/HSPA1B, HSPA5, IFNAR1, IGF1, IGF2BP3, IL1B, ILF3, IREB2, KRAS, LARP4B, let-7, LYN, MARS1, MKNK1, MMP14, MRPL15, MRPL18, MRPL28, MRPL55, MRPS10, MRPS18A, MRRF, MTOR, MTRF1L, MYBBP1A, NCBP1, NCL, NR3C1, OXA1L, PABPC1, PDCD4, PHLPP1, PIWIL1, PPM1G, PRKAA1, PTCD3, RBM4, RGS2, RNASET2, RPL13A, RPL18, RPL18A, RPL28, RPL38, RPL39, RPL4, RPL5, RPS15, S100A9, SOD2, SRSF3, STAT3, STAU1, SWAP70, SYK, TNFSF10, TNIP1, VDR, WARS1, YBX1, ZFPM2 |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Differentiation of mononuclear leukocytes | 1.16E-04 | Decreased | -4.909 | 149 | ADAM10, ADAM17, ADGRG3, APC, APP, ARNTL, ASXL1, B2M, BCL2L11, BRCA1, BTK, CASP8, CCL23, CCL5, CD14, CD86, CDA, CFLAR, CHD4, CLEC4M, CLEC6A, CREB1, CSF1R, CSF3R, CTLA4, CXCL1, CXCR2, CXCR3, CYP26B1, DCLRE1C, DEF6, DNAJA2, DOCK2, DOCK8, DUSP5, ELF1, ELF3, ENTPD1, EPHB1, EPO, EZR, FCAMR, FCGR2A, FOXO3, FOXP3, FUT7, FYB1, GAB2, GIMAP4, GMPR2, GRB2, HDAC7, HDAC9, HLA-A, HLA-G, HOXA7, HSP90AA1, HSP90B1, HSPD1, ICAM1, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IRF8, ITGA4, ITGB8, JAK1, KRAS, LAT2, LCP1, LCP2, let-7, LGALS8, LILRA2, LSP1, LTBR, LY9, LYN, MAPKAP1, MBP, MCL1, MDM2, MEF2C, MERTK, mir-24, MMP14, MPZL2, MS4A1, MSN, MTOR, NCKAP1L, NFKBIZ, NMT1, NOTCH2, NTRK1, PF4, PHLPP1, PLCG2, PLP1, PRKAA1, PRKCD, PRL, PSAP, PSMB8, PTEN, PTGS2, PTPN6, RAD52, RAF1, RBPJ, RGCC, RHOA, RICTOR, RIPK2, RIPK3, SEMA4A, SH2B3, SKP2, SP3, SPINK5, STAT3, SWAP70, SYK, TCF4, TDP2, THEMIS2, THOC5, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TRAF3, TREM1, TYROBP, USP15, USP4, WIPF1, XRCC5, ZBTB46, ZEB2 |
| Cellular Function and Maintenance, Hematological System Development and Function, Inflammatory Response | Engulfment by macrophages | 1.22E-04 | Decreased | -2.772 | 35 | APP, ATG7, BECN1, BTK, CD14, CD93, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, GAB2, HCK, HMOX1, IL1B, let-7, MERTK, MEX3B, mir-24, NCKAP1L, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, TLR2, TLR4, TREML2, TYROBP, WNK1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Duodenal carcinoma | 1.22E-04 |  |  | 12 | APC, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, KBTBD12, KRAS, MSH6, PRKCD, PRKCG, U2AF1/U2AF1L5 |
| Connective Tissue Disorders, Immunological Disease, Inflammatory Disease, Inflammatory Response, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Juvenile rheumatoid arthritis | 1.23E-04 |  |  | 47 | ADM, APOA1, C9orf78, CCL5, CCR1, CD86, CDA, CLIC2, DNAJA4, DYNLL1, F11R, FGL2, FOXO3, FPR2, GALNT1, HDAC7, HLA-G, HNMT, HNRNPA1, HSPA1A/HSPA1B, IL1B, IL1RN, JAK1, JMJD1C, KRAS, MAP3K2, MCL1, NOM1, NR3C1, NUMB, P2RY13, PECAM1, PTGS2, PTMA, PTPRE, RALB, S100A9, SF3B6, SORL1, SWT1, TALDO1, TNFRSF10C, TRIO, VTCN1, WNK1, ZNF281, ZNF326 |
| Molecular Transport | Export of heavy metal | 1.24E-04 |  | -1.071 | 8 | ACO1, APP, ATOX1, ATP7B, FTH1, HAMP, HMOX1, SLC11A1 |
| Cell Death and Survival | Cell death of breast cell lines | 1.29E-04 |  | 1.257 | 26 | ATG7, BCL2L11, BID, BRCA1, BTK, CASP8, CFLAR, CLCA2, DAB2, DYNLL1, FOXO3, IGF1, IGF1R, KRAS, LIMS1, MERTK, MTOR, PPM1D, PRL, SERPINB3, SGK1, TAZ, TNFSF10, UBE2B, WWTR1, YWHAZ |
| Free Radical Scavenging | Metabolism of reactive oxygen species | 1.32E-04 | Decreased | -3.941 | 114 | ACOX1, ADGRE2, ALDH3A2, ALS2, ANXA2, AOPEP, APOA1, APP, ARHGDIB, ARNT, ATG7, ATP6AP2, BECN1, BID, BNIP3L, BRCA1, CASP8, CCL5, CD14, CLCN3, CLEC7A, CTLA4, CXCL9, CYBB, CYP2A6 (includes others), DDIT3, DOCK2, ENTPD1, EPO, ERO1A, F2R, FCGR2A, FOXL2, FOXO3, FPR1, FPR2, FTH1, FTL, GAB2, HBA1/HBA2, HBB, HCK, HMOX1, HSP90AB1, HVCN1, ICAM1, IGF1, IL1B, ITGAX, ITM2B, JAK1, KRAS, LCP2, let-7, LYN, MLKL, MMP14, MS4A1, MTOR, MUC1, MYLK, NAMPT, NCF2, NDUFS1, NDUFS3, NFE2L2, NTRK1, PARK7, PCK1, PECAM1, PGAM2, PLAGL2, PLCB3, PLCG2, PRKAA1, PRKCD, PSMB8, PTEN, PTGS2, PTPN6, RAC2, RAP1A, RBPJ, RHOA, RIPK3, RTN4, SAT1, SIGLEC9, SLC8A1, SLU7, SNAP23, SOD2, SPAG9, STAT3, SYK, TAFA4, TAZ, TFRC, TIGAR, TLR2, TLR4, TLR5, TLR7, TMBIM6, TNFRSF1A, TNFSF14, TRAF3, TREML2, TXNRD1, TYROBP, UQCRC2, VDAC1, VDR, YWHAZ |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Hematopoiesis of mononuclear leukocytes | 1.33E-04 | Decreased | -4.819 | 148 | ADAM10, ADAM17, ADGRG3, APC, APP, ARNTL, ASXL1, B2M, BCL2L11, BRCA1, BTK, CASP8, CCL23, CCL5, CD14, CD86, CDA, CFLAR, CHD4, CLEC4M, CLEC6A, CREB1, CSF1R, CSF3R, CTLA4, CXCL1, CXCR2, CXCR3, CYP26B1, DCLRE1C, DEF6, DNAJA2, DOCK2, DOCK8, DUSP5, ELF1, ELF3, ENTPD1, EPHB1, EPO, EZR, FCAMR, FCGR2A, FOXO3, FOXP3, FUT7, FYB1, GIMAP4, GMPR2, GRB2, HDAC7, HDAC9, HLA-A, HLA-G, HOXA7, HSP90AA1, HSP90B1, HSPD1, ICAM1, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IRF8, ITGA4, ITGB8, JAK1, KRAS, LAT2, LCP1, LCP2, let-7, LGALS8, LILRA2, LSP1, LTBR, LY9, LYN, MAPKAP1, MBP, MCL1, MDM2, MEF2C, MERTK, mir-24, MMP14, MPZL2, MS4A1, MSN, MTOR, NCKAP1L, NFKBIZ, NMT1, NOTCH2, NTRK1, PF4, PHLPP1, PLCG2, PLP1, PRKAA1, PRKCD, PRL, PSAP, PSMB8, PTEN, PTGS2, PTPN6, RAD52, RAF1, RBPJ, RGCC, RHOA, RICTOR, RIPK2, RIPK3, SEMA4A, SH2B3, SKP2, SP3, SPINK5, STAT3, SWAP70, SYK, TCF4, TDP2, THEMIS2, THOC5, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TRAF3, TREM1, TYROBP, USP15, USP4, WIPF1, XRCC5, ZBTB46, ZEB2 |
| Cellular Movement | Emigration of cells | 1.36E-04 | Decreased | -3.055 | 18 | ADAM17, BTK, CXCL1, CXCL6, F11R, FCGR2A, FPR2, IL1B, ITGA4, LAMA5, LSP1, LTBR, PECAM1, RHOA, SIRPA, STK4, TNFRSF1A, TRIM55 |
| Cell-To-Cell Signaling and Interaction | Response of myeloid leukocytes | 1.36E-04 | Decreased | -2.427 | 30 | ADGRE2, APP, BECN1, CD14, CEACAM3, CLCN3, CLEC6A, CXCL1, DOCK2, FCGR2A, FPR1, HCK, HMOX1, ICAM1, IFNAR1, IL1B, ITGA4, ITGAX, LILRB3, LYN, MERTK, PARK7, RAB11A, S100A9, STAT3, SYK, TLR2, TLR4, TREM1, TYROBP |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Binding of neutrophils | 1.41E-04 | Decreased | -2.056 | 29 | ADAM10, ADAM17, ADGRE2, APOA1, B4GALT1, CSF3R, CXCL1, CXCR2, CYBB, FCGR2A, FUT7, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LSP1, LYN, MGAT5, PF4, PLCB3, PTPN6, S100A9, TLR2, TLR4, TLR5 |
| Infectious Diseases | Replication of HIV | 1.46E-04 |  | -1.807 | 34 | ADAM10, ANXA5, APOBEC3B, ARHGDIB, ARNTL, ATG7, BECN1, CCL5, CCNK, CFLAR, DDX5, DYRK1A, FAS-AS1, GALC, HCK, IL1B, MED30, NUP62, P2RX1, PACSIN2, PDE8A, RAB11A, RAB9A, RAF1, S100A9, SNAPIN, SRSF1, STAT3, TLR2, TLR4, TLR7, TNFSF10, TRIM5, TSG101 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of mononuclear leukocytes | 1.50E-04 | Decreased | -4.973 | 106 | ADAM10, ADAM17, AIF1, ANXA2, APBB1IP, APC, APOA1, APP, ATG7, ATRN, BGN, BTK, CCL23, CCL5, CCR1, CCR10, CD86, CTLA4, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYP26B1, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, ELN, EZR, F11R, F2R, FOXP3, FPR1, FPR2, FUT7, FYB1, HCK, HCLS1, HEBP1, HLA-A, HLA-G, HMOX1, HSPD1, ICAM1, IFNAR1, IFNGR1, IL1B, ITGA4, ITGAX, JAK1, KCNE3, KRAS, LCP1, LCP2, LGMN, LTBR, MAP3K2, MAPKAP1, mir-133, MMP14, MSN, MTOR, MYLK, NEDD9, NFKBIZ, NINJ1, NR3C1, PECAM1, PF4, PILRA, PLCB3, PRKAA1, PRKCD, PROK2, PTEN, PTGS2, RAC2, RAP1A, RHOA, RICTOR, S100A14, SCRIB, SERPINB3, SIRPA, SOS2, SPHK2, STAT3, STK4, SWAP70, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, VTCN1, WIPF1 |
| Cellular Assembly and Organization, Cellular Function and Maintenance | Formation of vesicles | 1.62E-04 |  | -1.262 | 38 | ANKFY1, ANXA13, ANXA2, ANXA5, ARF1, ATG13, ATG14, ATG3, ATG7, BECN1, BRCA1, CASP8, CHMP2A, CHMP3, CHMP4B, CHMP6, FOXO3, LITAF, MTOR, MYH14, PCLO, PITPNA, PRL, RAB11A, RHOA, SNAP23, SNAP91, TAZ, TBC1D14, TBK1, TGOLN2, TLR4, TMBIM6, TSG101, VPS25, VPS4B, WASF2, WNK1 |
| Cell Death and Survival | Apoptosis of colorectal cancer cell lines | 1.62E-04 |  | 0.94 | 61 | ADAM17, ADIPOR1, APC, ATG7, BCL2L11, BID, BTK, CASP8, CD14, CFLAR, CNR1, DDIT3, DFFA, EZR, FOXO3, GLIPR1, GSTA1, GUCA2A, GUCA2B, HOTAIR, HSPD1, IGF1, IGF2R, IL1B, IP6K2, IRF8, KRAS, LGALS8, LGR5, LIMS1, LUCAT1, MCL1, mir-154, mir-515, MT1F, MUC1, NFE2L2, PARK7, PDE4B, PECAM1, PHLPP1, PRKCD, PRKG1, PTGS2, RAF1, RASSF3, RHOA, RICTOR, SGK1, SPHK2, SRPK1, STAU1, TCF4, TLR4, TM9SF4, TNFRSF10C, TNFRSF1A, TNFSF10, VPS35, XRCC5, YWHAE |
| Hematological System Development and Function | Hemostasis | 1.63E-04 |  | -1.052 | 73 | ANXA2, ANXA5, APLP2, APP, ARNTL, C1GALT1C1, C4BPB, CALU, CAPZA1, CAPZB, CARMIL1, CCL5, CD84, CLEC1B, COL1A2, CYBB, CYP4F2, DOCK8, EHD3, ENTPD1, EPO, F10, F13A1, F2R, F8, FCGR2A, FYB1, GATA5, H3-3A/H3-3B, H3C1, H3C13, HBB, HCK, ICAM1, JMJD1C, LCP2, LRP8, LRPAP1, LYN, MAFF, MERTK, P2RX1, PDGFRA, PECAM1, PF4, PLCB3, PLCG2, PLEK, PRKAR1A, PRKCD, PRKCG, PRKG1, PTEN, PTGS2, PTPN6, RAB27A, RAB5A, RAD51C, RAF1, RAP1A, RHOA, SGK1, SH2B3, ST6GALNAC2, SYK, THBS2, TLR2, TLR4, TREM1, VCAN, WIPF1, YWHAZ, ZFPM2 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Inflammatory Response | Phagocytosis of tumor cell lines | 1.65E-04 | Decreased | -2.608 | 36 | ACTR2, APPL2, ARPC2, BTK, CD93, CLIP1, DEF6, DET1, DOCK2, FCGR2A, GRB2, HCK, HMOX1, ICAM1, JAK1, KAT6A, KCTD5, MERTK, NCKAP1L, PIP5K1A, PLEK, PRKCD, PSMD4, PTPN6, RAB11A, RAB31, RALB, RHOA, RIT1, SLAMF7, TM2D2, TYROBP, UBE2L3, VIM, WASF2, ZNF217 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Inflammatory Response | Phagocytosis of antigen presenting cells | 1.76E-04 | Decreased | -3.119 | 35 | APOA1, APOA2, APP, ATG7, BECN1, BTK, CD14, CD93, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, GAB2, HCK, HMOX1, IL1B, let-7, MERTK, MEX3B, mir-24, NCKAP1L, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, TLR2, TLR4, TYROBP |
| Cellular Movement | Cell rolling | 1.79E-04 | Decreased | -2.453 | 23 | ADAM17, ARHGAP25, BTK, CD14, CHST1, CXCL1, CXCR2, FCGR2A, FPR2, FUT7, FYB1, GALNT1, HCK, ICAM1, IL1B, ITGA4, LCP2, LYN, MGAT5, RAC2, ST6GALNAC2, SWAP70, TLR4 |
| Cellular Movement | Chemotaxis of myeloid cells | 1.79E-04 | Decreased | -4.095 | 65 | AIF1, APOA1, APP, AQP9, ARHGAP25, B4GALT1, CAMK1D, CCDC88A, CCL23, CCL5, CCR1, CSF1R, CSF3R, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, F2R, FCGR2A, FPR1, FPR2, GIT2, HCK, HEBP1, ICAM1, IL1B, ITGA4, JAML, LGMN, LILRB3, LITAF, LSP1, LYN, MPP1, MYO1F, NCKAP1L, NINJ1, PDE4B, PF4, PRKG1, PTEN, PTPN6, RAC2, RHOA, RHOB, RICTOR, RPL13A, S100A14, S100A9, SPHK2, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TNFRSF1A, TREM1, TREML2 |
| Cellular Movement | Cell movement of leukemia cell lines | 1.95E-04 | Decreased | -4.108 | 37 | ACTN1, ADAM10, AIF1, ANXA2, APP, CCL23, CCL5, CXCL1, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, F2R, FGD4, FPR1, FPR2, FUT7, FYB1, GAB1, GC, GMFG, ITGA4, KIDINS220, KRAS, LCP2, LYN, MTOR, NEDD9, P2RX1, PAK2, RHOA, RICTOR, SSH1, ST6GALNAC2, STAT3, SYK, WARS1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Migration of neutrophils | 1.96E-04 | Decreased | -2.647 | 31 | ADAM10, ADAM15, BTK, CCL5, CCR1, CXCL1, CXCL6, CXCL9, CXCR2, CYBB, F10, FPR1, HCK, ICAM1, IL1B, LSP1, MGAT5, mir-133, MYLK, MYO1F, PDE4B, PECAM1, PPM1D, PTEN, PTPN6, RTN4, S100A9, TLR2, TLR4, TLR7, TNFRSF1A |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Transmigration of leukocytes | 1.99E-04 | Decreased | -3.76 | 35 | ADAM10, ADAM15, ADAM17, APP, ARHGAP25, CCL5, CCR1, CD86, CXCL1, CXCL9, CXCR2, CXCR3, DOCK8, F11R, FPR1, GALNT1, ICAM1, IL1B, ITGA4, ITGAX, MMP14, MTOR, MYLK, MYO1F, NINJ1, PECAM1, PTPN6, RAC2, RAP1A, RHOA, RTN4, SIRPA, TLR2, TNFRSF1A, TRIO |
| Endocrine System Disorders, Metabolic Disease, Organismal Injury and Abnormalities | Insulin resistance of cells | 2.04E-04 |  | -1.026 | 9 | C1QL3, CCDC88A, CYBB, DYRK1A, PTEN, SOD2, STAT3, TLR4, TNFRSF1A |
| Cellular Assembly and Organization, Cellular Function and Maintenance | Organization of cytoskeleton | 2.09E-04 | Decreased | -6.574 | 292 | ABITRAM, ACTG1, ACTN1, ACTR2, ADAM10, ADM, AKAP12, ALKBH1, ALS2, ANGPTL4, AP1G1, APBA1, APBB1IP, APC, APC2, APLP2, APP, APPL2, ARF1, ARHGAP17, ARHGAP25, ARHGEF25, ARHGEF9, ARPC2, ARPC5, ASB7, ATAT1, ATG7, ATRN, ATXN3, AURKB, BASP1, BCAS3, BECN1, BMP2K, BRCA1, BRWD3, BTBD3, BTG2, BTK, CALML3, CALU, CAMK1D, CAMK1G, CAMK2A, CAMSAP2, CAP1, CAPZB, CARMIL1, CAV3, CBY1, CCDC88A, CCL5, CCP110, CDKL5, CELSR3, CEP72, CIBAR1, CLASP1, CLEC1B, CLIP1, CNP, CNR1, CORO1C, CREB1, CRKL, CSF1R, CTLA4, CTNND1, CTNND2, CUX1, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DKK3, DLG3, DNAJB6, DNM3, DOCK2, DPYSL2, DRG1, DYNC1LI1, DYNLL1, DYRK1A, EIF4G3, EMC10, EPB41L3, EPB41L5, EPHA8, EPHB1, EPO, ERC2, EVI5L, EZR, F11R, F13A1, F2R, FARP2, FCGR2A, FEZ1, FGD4, FNBP1L, GAB1, GAPDH, GAS7, GMFG, GPRIN1, GPSM2, HBP1, HCK, HOXA4, HSP90AA1, HSP90AB1, ICAM1, IFT88, IGF1, IGF1R, IL1B, ITGA4, ITGB8, KCNJ2, KIDINS220, KIF13B, KIF1C, KLF7, KNSTRN, KRAS, KRT6C, LAMA5, LARP4, LASP1, LCP1, LCP2, LHCGR, LIMK2, LRP2, LRP8, LRPAP1, LSP1, LYN, MAP3K1, MAP4, MAPRE1, MAPRE3, MAST3, MBP, MERTK, MGAT5, mir-138, mir-26, MPP1, MSN, MTOR, MYLK, MYO1F, MYO5A, MYO5B, NCF2, NCKAP1L, NDC80, NDE1, NDEL1, NEDD1, NEDD9, NFATC4, NIN, NINJ1, NLGN3, NTRK1, NUAK2, NUMB, NUP160, NUP62, OPA1, P2RX1, PACSIN2, PAK2, PCLO, PDGFRA, PDIA3, PDZD8, PF4, PHACTR1, PIP5K1A, PITPNA, PITPNM1, PJA2, PLCG2, PLEK, PLXNA4, POU4F2, PQBP1, PRC1, PRKAA1, PRKCD, PRKCG, PRKG1, PTEN, PTF1A, PTGS2, PTPRE, RAB11A, RAB21, RAB31, RAB5A, RAB8A, RAC2, RAF1, RALB, RALBP1, RAP1A, RAPGEF2, RFX3, RGMA, RHOA, RHOB, RICTOR, RIT1, RNF6, RPL4, RTN3, RTN4, RUFY3, S100A9, SEMA3G, SEMA4A, SEMA4F, SGK1, SHROOM3, SIAH1, SIRPA, SIRPB1, SLITRK6, SMAD1, SNAP29, SNAP91, SNAPIN, SP1, SPAST, SPATA13, SPTBN4, SRGAP3, SSH1, SSH3, SSX2IP, STAT3, STIP1, STK24, STK35, STK38L, STX3, SWAP70, SYK, TACC1, TBC1D30, TBK1, TESK2, TJP1, TLR4, TLR7, TMEM107, TMOD3, TNFRSF1A, TNFSF10, TPM3, TRAF3IP1, TRIM46, TRIO, TRIOBP, TRIP10, TTC26, TUBGCP3, TXNRD1, TYROBP, UBAP2L, UBE4B, VAMP4, VIM, VTCN1, WASF2, WASF3, WDR19, WDR60, WIPF1, WWTR1, YBX1, ZEB2, ZMYM3, ZRANB1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Transmigration of phagocytes | 2.12E-04 | Decreased | -2.855 | 24 | ADAM15, ADAM17, APP, CCL5, CXCL1, CXCR2, DOCK8, F11R, FPR1, ICAM1, IL1B, ITGA4, ITGAX, MMP14, MYLK, MYO1F, NINJ1, PECAM1, PTPN6, RHOA, RTN4, SIRPA, TLR2, TNFRSF1A |
| Cell-To-Cell Signaling and Interaction | Binding of myeloid cells | 2.25E-04 | Decreased | -3.723 | 50 | ADAM10, ADAM17, ADGRE2, APOA1, APP, B4GALT1, BTK, CCL5, CCR1, CD14, CLEC4M, CNR1, CSF3R, CTSZ, CXCL1, CXCR2, CYBB, F10, F2R, FCGR2A, FPR1, FPR2, FUT7, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LSP1, LYN, MGAT5, MSN, NOTCH2, PAK2, PECAM1, PF4, PLCB3, PTGS2, PTPN6, RAC2, RHOA, RHOB, S100A9, SWAP70, TLR2, TLR4, TLR5 |
| Cell-To-Cell Signaling and Interaction | Binding of tumor cell lines | 2.28E-04 | Decreased | -4.26 | 89 | ADAM10, ADAM15, ADAM17, AGO2, AKAP12, ANGPTL4, ANXA2, ANXA5, APP, B4GALT1, CASP8, CD14, CHST6, CLCA2, CLEC4M, CLEC7A, CTSB, CTSZ, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DAB2, DKK3, DOCK8, DSE, ELN, EPHB1, F10, F11R, F2R, FCGR2A, FUT7, FYB1, GAL3ST1, GMFG, HCK, HLA-A, HOXA4, HSP90B1, HSPA5, ICAM1, IGF1, IGF1R, IL1B, IL1R2, IP6K2, ITGA4, ITGAX, LAMA5, LASP1, LCP2, LGALS8, LRP2, LTBR, MGAT5, mir-103, MMP14, MTOR, MUC1, MUC13, NCL, PAK2, PECAM1, PITX2, PRKAA1, PRL, PSMD4, PTPN6, RAB21, RAF1, RAMP2, RAP1A, RHOA, SERPINB3, SFRP4, SH2B3, SRGN, ST6GALNAC2, STAT3, TFRC, TJP1, TLR2, TLR4, TLR5, VCAN, WWTR1, ZEB2 |
| Cellular Function and Maintenance | Macropinocytosis | 2.38E-04 |  | -1.115 | 13 | APC, CARMIL1, DOCK2, EZR, FRS2, KRAS, MAPKAPK3, NCL, NTRK1, RHOA, RHOB, TLR4, TNFRSF1A |
| Connective Tissue Disorders, Immunological Disease, Inflammatory Disease, Inflammatory Response, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Polyarticular juvenile rheumatoid arthritis | 2.48E-04 |  |  | 24 | ADM, CCL5, CCR1, CD86, CDA, F11R, FPR2, HDAC7, HLA-G, HNMT, HNRNPA1, HSPA1A/HSPA1B, IL1B, MCL1, NUMB, P2RY13, PECAM1, PTGS2, PTMA, PTPRE, RALB, S100A9, SORL1, TNFRSF10C |
| Infectious Diseases | Infection by Murine leukemia virus | 2.55E-04 |  | 0.277 | 6 | APOBEC3B, APP, MDM2, MERTK, TLR4, TRIM5 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Chemotaxis of phagocytes | 2.56E-04 | Decreased | -4.261 | 66 | AIF1, APOA1, APP, AQP9, ARHGAP25, B4GALT1, CAMK1D, CCDC88A, CCL23, CCL5, CCR1, CSF1R, CSF3R, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, F2R, FCGR2A, FPR1, FPR2, GIT2, HCK, HEBP1, ICAM1, IL1B, ITGA4, JAML, LGMN, LILRB3, LITAF, LSP1, LYN, MPP1, MYO1F, NCKAP1L, NINJ1, PDE4B, PF4, PLCG2, PRKG1, PTEN, PTPN6, RAC2, RHOA, RHOB, RICTOR, RPL13A, S100A14, S100A9, SPHK2, SWAP70, SYK, TAFA4, THBS2, TLR2, TLR4, TNFRSF1A, TREM1, TREML2 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Chemotaxis of granulocytes | 2.57E-04 | Decreased | -3.088 | 43 | APOA1, APP, AQP9, ARHGAP25, CAMK1D, CCL23, CCL5, CSF3R, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, DEFB103A/DEFB103B, DOCK2, FCGR2A, FPR1, FPR2, GIT2, HCK, ICAM1, IL1B, ITGA4, JAML, LILRB3, LSP1, LYN, MPP1, MYO1F, NCKAP1L, PDE4B, PF4, PRKG1, PTEN, PTPN6, RAC2, S100A14, S100A9, SYK, TLR4, TNFRSF1A, TREM1, TREML2 |
| Cancer, Hematological Disease, Organismal Injury and Abnormalities | Polycythemia vera | 2.58E-04 |  |  | 16 | APC, ARNTL, ASXL1, CUX1, HBA1/HBA2, IFNAR1, JAK1, KRAS, let-7, mir-26, NR3C1, PTGS2, SF3B1, SH2B3, TET2, U2AF1/U2AF1L5 |
| Cardiovascular System Development and Function, Cellular Development, Cellular Function and Maintenance, Cellular Growth and Proliferation, Organismal Development, Tissue Development | Cell proliferation of vascular endothelial cells | 2.61E-04 | Decreased | -3.666 | 44 | ADAM15, ADAM17, ADM, ANTXR2, C1GALT1C1, CAVIN2, COL1A2, CXCL1, CYBB, DAB2, F2R, FOXO3, FPR2, FRS2, HSPA5, IGF1, IL1B, IL1RN, ITGA4, let-7, MEF2C, MERTK, mir-133, mir-154, mir-24, MTOR, MYOF, OXT, PAQR3, PECAM1, PLXNA4, PRL, PTEN, S100A9, SKP2, SLC8A1, SP1, STAT3, TAZ, THBS2, THRAP3, TNFSF10, WNK1, WWTR1 |
| Post-Translational Modification, Protein Degradation | Oxidation of protein | 2.65E-04 |  | 1.088 | 10 | ALDH3A1, APP, CYBB, FTH1, FTL, HMOX1, IGF1, NFE2L2, PARK7, RHOA |
| Cell Death and Survival | Cell death of myeloma cell lines | 2.77E-04 |  | 0.601 | 26 | ARNT, B2M, BCL2L11, BTK, CASP8, CXCR3, DDIT3, FOXO3, IGF1, IGF1R, IL1B, IRF8, KRAS, MCL1, MDM2, mir-154, MTOR, NR3C1, PRKCD, PTEN, SP1, STAT3, STK4, TNFSF10, VDAC1, YBX1 |
| Connective Tissue Disorders, Inflammatory Disease, Inflammatory Response, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Inflammation of joint | 2.79E-04 |  | 0.104 | 203 | ABCC2, ACO1, ACSL1, ADAM10, ADAM15, ADAM17, ADGRA1, ADIPOR1, ADM, AIF1, ALOX5AP, APLP2, APOA1, AQP9, ARF1, ARHGDIB, ATAT1, B2M, BCL2L11, BGN, BID, C9orf78, CARD8, CASC3, CASP8, CCL23, CCL5, CCR1, CD86, CDA, CELF2, CLEC1B, CLEC4D, CLIC2, CNR1, CRY2, CSF1R, CSF3R, CTLA4, CTSB, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYP4F3, DDIT3, DEF6, DNAJA4, DYNLL1, ECHDC1, EEF1E1, EIF1B, ELF3, EPO, F10, F11R, F13A1, FCGR2A, FGL2, FKBP5, FOXO3, FOXP3, FPR2, FTH1, FTL, GALNT1, GLIPR2, GLUL, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HCK, HCLS1, HDAC7, HLA-A, HLA-C, HLA-E, HLA-G, HMOX1, HNMT, HNRNPA1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IGFBP4, IL1B, IL1R2, IL1RN, JAK1, JMJD1C, KCTD20, KRAS, LCP1, LINC00922, LTBR, LYN, LYZ, MACIR, MAP3K2, MAP4K4, MAPRE1, MCL1, MDM2, MEFV, MERTK, MMP14, MRFAP1, MS4A1, MS4A7, MTOR, NAMPT, NOM1, NONO, NR3C1, NTRK1, NUMB, NUP62, OXT, P2RY13, PDE4B, PDGFRA, PDIA3, PECAM1, PF4, PHTF1, PILRA, PLAC4, PLCG2, PSMB8, PTEN, PTGS2, PTMA, PTPN6, PTPRE, PURA, RALB, RAMP2, RBPJ, RFX3, RGCC, RIPK2, RNF149, RNF169, RPL18A, RTF2, S100A9, SCN9A, SEC14L3, SEL1L, SF3B6, SLC11A1, SLC22A4, SOD2, SORL1, SPHK2, SPOCK1, STAT3, STEAP4, STK19, SWT1, SYK, TALDO1, TCF4, TFRC, TJP1, TLR2, TLR4, TLR5, TLR7, TMEM178A, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF4, TNNC1, TRIO, TUBA1A, TUBA1C, TUBB2A, TUT7, TYROBP, UQCRC2, USP15, VDR, VIM, VTCN1, WIPF1, WNK1, ZNF143, ZNF281, ZNF326, ZNF331 |
| Infectious Diseases | Susceptibility to tuberculosis | 2.84E-04 |  |  | 5 | IFNGR1, MAPKAPK3, SLC11A1, SP110, TLR2 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of PBMCs | 2.84E-04 | Decreased | -3.364 | 20 | ADAM17, ANXA2, APOA1, APP, CCL5, CCR1, CXCL16, CXCL9, CXCR3, F2R, FPR1, FPR2, FYB1, ICAM1, LCP1, LCP2, NR3C1, PECAM1, PLCB3, TLR2 |
| Inflammatory Disease | Chronic inflammatory disorder | 2.86E-04 |  | 1.659 | 232 | ACO1, ACSL1, ADAM10, ADAM15, ADAM17, ADGRA1, ADIPOR1, ADM, AIF1, APC, APLP2, APOA1, APOA2, APP, AQP9, ARF1, ARHGDIB, ATAT1, B2M, BCAS3, BCL2L11, BGN, C9orf78, CA4, CARD8, CASC3, CCDC40, CCL23, CCL5, CCR1, CCR10, CD86, CDA, CDKL2, CELF2, CLEC1B, CLEC4D, CLIC2, COL1A2, CSF3R, CSTF1, CTLA4, CTNND1, CTSB, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP4F3, CYP51A1, DDIT3, DDX5, DEF6, DNAJA4, DYNLL1, ECHDC1, EEF1E1, EIF1B, ENTPD1, EPO, F10, F11R, FCGR2A, FCGR2C, FGL2, FKBP5, FOXL2, FOXO3, FOXP3, FPR2, FRMD4B, FTH1, FUT7, GALNT1, GC, GLIPR2, GLUL, GTPBP1, H3-3A/H3-3B, HAMP, HBA1/HBA2, HCK, HCLS1, HDAC7, HLA-A, HLA-C, HLA-G, HMOX1, HNMT, HNRNPA1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFI16, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGFBP4, IL1B, IL1R2, IL1RN, ITGA4, ITGB8, JAK1, JMJD1C, KCTD20, KIAA0040, KRAS, LCP1, let-7, LINC00922, LRP2, LRP8, LTBR, LY86, LYZ, MACIR, MAP3K2, MAP4K4, MAPKAPK3, MAPRE1, MCL1, MDM2, MEFV, MERTK, mir-138, mir-422, mir-515, mir-550, MMP14, MPEG1, MRFAP1, MS4A1, MS4A7, MTOR, MUC1, NAMPT, NCF2, NOM1, NONO, NOTCH2, NR3C1, NTRK1, NUMB, OXT, P2RY13, PBLD, PDE4B, PDE8A, PDGFRA, PDIA3, PECAM1, PHTF1, PLAC4, PRKCD, PSMB8, PSMD1, PSMD2, PTGFRN, PTGS2, PTMA, PTPN6, PTPRE, RALB, RAMP2, RFX3, RGCC, RHOA, RNF149, RNF169, RPL18A, RSPH3, RTF2, S100A9, SEC14L3, SEL1L, SF3B1, SF3B6, SLC22A4, SLC22A5, SLC24A4, SORL1, SPOCK1, SRD5A2, STAT3, STEAP4, STK19, SWT1, SYK, TAFA4, TALDO1, TCF4, TET2, TFRC, TJP1, TLR2, TLR4, TLR5, TLR7, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF4, TNNC1, TRABD2B, TREM1, TRIO, TUT7, UQCRC2, USP15, USP4, VDR, VIM, VNN2, VTCN1, WDFY3, WNK1, ZBTB46, ZNF143, ZNF281, ZNF326, ZNF331 |
| Cell Death and Survival | Apoptosis of breast cell lines | 2.91E-04 |  | 0.539 | 21 | ATG7, BCL2L11, BID, BTK, CASP8, CFLAR, CLCA2, DAB2, DYNLL1, FOXO3, IGF1, IGF1R, KRAS, LIMS1, MTOR, PRL, SGK1, TAZ, TNFSF10, WWTR1, YWHAZ |
| Cellular Development, Cellular Growth and Proliferation | Proliferation of myeloma cell lines | 2.91E-04 |  | -1.346 | 21 | DDIT3, EEF2K, EPO, FBXL15, FOXO3, HCK, IGF1, LYN, MDM2, mir-154, MTOR, PTGS2, RAB8A, RAF1, SGK1, SLC10A5, SOD2, SP1, TIFA, TNFSF10, YBX1 |
| Cell Death and Survival | Cell death of central nervous system cells | 2.97E-04 |  | -0.163 | 66 | APP, ATG7, ATXN3, BCL2L11, BECN1, BID, CAMK2A, CASP8, CDC25C, CFLAR, CXCL1, DDIT3, EPO, F2R, FAIM2, FOXO3, FUS, GAPDH, GCLC, HDAC9, HSP90AA1, HSPA5, HSPD1, IGF1, IGF1R, IL1B, IL1RN, KLF6, LILRB3, LRPAP1, MAP3K1, MCL1, MEF2C, mir-26, MTOR, NFATC4, NFE2L2, NTRK1, PARK7, PITX2, PLXNA4, PRKAA1, PRKCD, PRKCG, PTEN, PTGS2, RHOA, RIT1, SEL1L, SGK1, SHC3, SKP2, SP1, SP3, SRPK2, STIP1, STK4, TCP1, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, UBE2L3, WNK3, YWHAB |
| Organismal Survival | Morbidity or mortality | 2.97E-04 | Increased | 13.683 | 479 | ACTG1, ADAM10, ADAM15, ADAM17, ADM, AGO2, AKAP12, ALDH5A1, ALKBH3, AMPH, ANGPTL4, ANTXR2, ANXA2, AP1G1, APBA1, APC, APLP2, APOA1, APOB, APP, ARF1, ARF4, ARHGDIB, ARID4B, ARIH2, ARNT, ARNT2, ARNTL, ARPP19, ASAH1, ASXL1, ATG3, ATG7, ATN1, ATOX1, ATP7B, ATXN3, AURKB, B2M, B4GALT1, BBS7, BCAS3, BCL2L11, BCL7A, BECN1, BEST1, BGN, BID, BNIP3L, BRCA1, BRIP1, C1GALT1C1, C7orf25, CA4, CAP1, CAPZB, CASP8, CBY1, CCDC47, CCNK, CCP110, CCR1, CCR10, CD14, CDA, CDK2AP1, CELF1, CELF2, CELSR3, CFLAR, CHD4, CHM, CHMP2A, CKS2, CLCN3, CLEC1B, CLEC4D, CLEC4M, CLEC6A, CLEC7A, CLIC4, CNP, CNPY3, CNR1, COL7A1, CPLX2, CPT1A, CREB1, CRKL, CSAD, CSF1R, CTLA4, CTNND1, CTSB, CUX1, CX3CR1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP26B1, CYP51A1, DAB2, DCLRE1C, DDIT3, DDX17, DDX3X, DDX5, DGAT2, DHCR7, DLD, DMTF1, DNAJB4, DNAJB6, DNM3, DOCK2, DPH3, DPP10-AS1, DPYD, DYRK1A, ECE1, EEF1E1, EEF2K, EHD3, ELK3, ELN, ELOA, EPB41L3, EPO, ERCC5, ERO1A, ETV6, EVC2, EWSR1, EXT1, EXTL3, F10, F13A1, F2R, F8, FAH, FOXL2, FOXO3, FOXP3, FPR1, FPR2, FRS2, FTH1, FTL, FTX, FUS, GAB1, GALNT1, GATA5, GATAD2A, GBE1, GCLC, GLCE, GLT8D2, GNG7, GRB2, GSE1, H2AC18/H2AC19, H3-3A/H3-3B, HAMP, HCK, HDAC7, HFE, HLA-A, HLA-G, HMOX1, HNRNPA1, HOTAIR, HOXA3, HOXA4, HOXA7, HSBP1, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPB7, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2BP3, IGF2R, IL1B, IL1RN, ILF3, IP6K2, IPMK, IREB2, IRF8, ITGA4, ITGB8, JAK1, JPH4, JPX, KAT6A, KCNAB2, KCNJ2, KDM5A, KIDINS220, KIF1A, KLF6, KLF7, KMT5B, KRAS, L3MBTL2, L3MBTL3, LAT2, LCP1, LCP2, LEFTY1, LGR5, LIAS, LIMS1, LIN7A, LMTK2, LRP2, LRP8, LRPAP1, LTBR, LUCAT1, LY6K, LYN, LYZ, M6PR, MAFF, MAN2A2, MAP3K1, MAP4, MAP4K4, MAPKAPK3, MAX, MCL1, MCM3, MDM2, MED23, MEF2C, MERTK, MEX3B, mir-122, mir-133, mir-137, mir-154, mir-202, mir-26, mir-299, MLKL, MMP14, MORF4L1, MSH6, MSN, MTDH, MTF1, MTHFD2, MTOR, MTTP, MUC1, MYBBP1A, MYCNOS, MYH14, MYOF, MYOG, NAMPT, NAPB, NASP, NCOA1, NDC80, NDEL1, NFATC4, NFE2L2, NFKBIZ, NIN, NINJ1, NLGN3, NOTCH2, NR3C1, NTRK1, NUAK2, NUBP1, NUMB, NUP62, OAT, OPA1, OXT, P2RX1, PAK2, PCK1, PCLO, PCYT1A, PDCD4, PDE4B, PDGFRA, PDIA3, PDS5B, PELI2, PER2, PHF12, PIGA, PILRA, PILRB, PIP5K1A, PITPNA, PITX2, PLAGL2, PLCB3, PLCG2, PLCL1, PLEKHA7, PLP1, PNN, PNO1, PPIF, PPM1D, PPP6C, PRKAR1A, PRKCD, PRKG1, PSAP, PSMC1, PSMC2, PSMD4, PTEN, PTF1A, PTGS2, PTPN6, PURA, RAB11A, RAB27A, RAB31, RAB5A, RAB8A, RAC2, RAD51C, RAD51D, RAD52, RAF1, RALB, RAMP2, RAP1A, RAPGEF2, RASSF2, RBMS1, RBPJ, RFX3, RGMA, RHOA, RICTOR, RIPK3, RNASET2, RPL4, RPL5, RPS6KA5, RTEL1, RTN4, RUFY3, S100A9, SAV1, SCARB2, SCN9A, SCRIB, SDHD, SEL1L, SERTAD1, SESTD1, SETDB1, SF3B1, SFRP4, SH2B3, SHC3, SIAH1, SKP2, SLC22A4, SLC22A5, SLC25A37, SLC31A1, SLC4A2, SLC8A1, SMAD1, SMARCC2, SMTN, SNAP23, SNAP91, SNAPIN, SNX13, SNX27, SOD2, SP1, SPINK5, SPOP, SPOUT1, SPRTN, SRGAP3, SRGN, SRSF1, SRSF3, SSBP2, ST8SIA4, STAMBP, STAT3, STEAP4, STIP1, STK35, STK4, SUDS3, SUFU, SUPT4H1, SUSD6, SYK, SYT5, TAF7, TASP1, TBK1, TBX5, TCF15, TCF4, TDGF1, TET2, TFRC, THAP1, THBS2, THOC5, TIFA, TLR2, TLR4, TLR5, TLR7, TMEM107, TMOD3, TNFRSF1A, TNFSF10, TNIP1, TPM3, TRAF3, TREM1, TRIM55, TRIO, TRIP12, TRPM6, TSG101, TSHZ3, TXNRD1, U2AF1/U2AF1L5, UBA3, UBE2B, UBE2L3, UBE4B, UBR2, USP17L2 (includes others), USP4, VCAN, VDAC1, VDR, VIM, VPS41, VTCN1, VTI1A, VTI1B, WASF2, WIPF1, XRCC5, YBX1, YBX3, YWHAE, ZDHHC16, ZEB2, ZFPM2, ZMPSTE24, ZNF148, ZNF24, ZNF281 |
| Cell-To-Cell Signaling and Interaction, Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Recruitment of phagocytes | 3.01E-04 | Decreased | -3.149 | 57 | ADAM10, ADAM17, ALOX5AP, APOA1, APOB, APP, ATG7, B4GALT1, CASP8, CCL23, CCL5, CCR1, CD14, CNR1, CSF1R, CTSC, CX3CR1, CXCL1, CXCL6, CXCR2, F13A1, FCGR2A, FPR2, FUT7, GAB2, GC, HCK, HSPA1A/HSPA1B, ICAM1, IFNAR1, IL1B, IL1RN, KRAS, LSP1, LYN, LYZ, MGAT5, NFE2L2, P2RX1, PDE4B, PECAM1, PTEN, RHOA, RHOB, RIPK2, RTN4, SIGLEC9, SOD2, ST3GAL6, STAT3, THBS2, TLR2, TLR4, TLR5, TNFRSF1A, TREML2, VDR |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking | Binding of granulocytes | 3.03E-04 | Decreased | -2.409 | 34 | ADAM10, ADAM17, ADGRE2, APOA1, B4GALT1, CCL5, CSF3R, CXCL1, CXCR2, CYBB, F10, FCGR2A, FPR2, FUT7, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LSP1, LYN, MGAT5, PECAM1, PF4, PLCB3, PTPN6, S100A9, SWAP70, TLR2, TLR4, TLR5 |
| Lymphoid Tissue Structure and Development, Tissue Morphology | Quantity of lymph follicle | 3.05E-04 | Decreased | -3.497 | 37 | ADAM10, ADGRG3, APBB1IP, ARHGDIB, ARNTL, BCL2L11, BECN1, BTK, CASP8, CD84, DKK3, DOCK2, DOCK8, FCAMR, GALNT1, HVCN1, IFNAR1, IFNGR1, IRF8, KIDINS220, KRAS, LYN, MTOR, NEDD9, NOTCH2, PLCG2, PRKCD, PTEN, SH3BP2, STAT3, STK4, TET2, TLR2, TLR4, TRIP10, TYROBP, WIPF1 |
| Cell-To-Cell Signaling and Interaction | Interaction of tumor cell lines | 3.06E-04 | Decreased | -4.17 | 91 | ADAM10, ADAM15, ADAM17, AGO2, AKAP12, ANGPTL4, ANXA2, ANXA5, APP, B4GALT1, CASP8, CD14, CHST6, CLCA2, CLEC4M, CLEC7A, CTSB, CTSZ, CXCL9, CXCR2, CXCR3, CYBB, CYP2J2, DAB2, DKK3, DOCK8, DSE, ELN, EPHB1, EZR, F10, F11R, F2R, FCGR2A, FUT7, FYB1, GAL3ST1, GMFG, HCK, HLA-A, HOXA4, HSP90B1, HSPA5, ICAM1, IGF1, IGF1R, IL1B, IL1R2, IP6K2, ITGA4, ITGAX, LAMA5, LASP1, LCP2, LGALS8, LRP2, LTBR, MGAT5, mir-103, MMP14, MTOR, MUC1, MUC13, NCL, PAK2, PECAM1, PITX2, PRKAA1, PRL, PSMD4, PTPN6, RAB21, RAF1, RAMP2, RAP1A, RHOA, RICTOR, SERPINB3, SFRP4, SH2B3, SRGN, ST6GALNAC2, STAT3, TFRC, TJP1, TLR2, TLR4, TLR5, VCAN, WWTR1, ZEB2 |
| Cardiovascular System Development and Function | Development of vasculature | 3.13E-04 | Decreased | -5.992 | 230 | ACTG1, ADAM15, ADAM17, ADM, ADM2, AGO2, AIF1, ALOX5AP, ANGPTL4, ANTXR2, ANXA2, ANXA3, APC, APOA1, APOB, APP, ARID4B, ARNT, ARNTL, ATG7, B4GALT1, BACH1, BCAS3, BECN1, BRCA1, C1GALT1C1, CAMK2A, CARD6, CASP8, CAVIN2, CCDC88A, CCL5, CHM, CLEC1B, CLIC4, CNMD, CNR1, COL1A2, CREB1, CRKL, CSF1R, CTSB, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP4F2, CYP51A1, DAB2, DCTN5, DDIT3, DDX3X, DHCR7, DPH3, DUSP3, ECE1, EHD3, ELK3, ELN, EMC10, EPHB1, EPO, ERO1A, ETV6, F11R, F2R, FBLN2, FFAR4, FOXO3, FPR2, FRS2, GAB1, GAB2, GATA5, GATAD2A, GLUL, HCK, HDAC7, HDAC9, HLA-G, HMOX1, HOXA3, HOXA7, HSP90AA1, HSPA5, HSPB7, HSPD1, HTATIP2, ICAM1, IDH3A, IFI16, IFNAR1, IFT88, IGF1, IGF1R, IGF2R, IGFBP4, IL1B, IL1RN, ITGA4, ITGAX, ITGB8, KAT6A, KCNJ2, KIDINS220, KLF6, KLF7, KLHL20, KRAS, LAMA5, LEFTY1, let-7, LGALS8, LRP2, LRP8, LRPAP1, LRRFIP1, LTBR, LYVE1, MDM2, MED23, MEF2C, MERTK, MGAT5, mir-103, mir-122, mir-133, mir-137, mir-154, mir-24, mir-26, MMP14, MTDH, MTOR, MYOF, NCF2, NCL, NCOA1, NFATC4, NFE2L2, NLK, NOTCH2, NR3C1, NTRK1, NUMB, OTULIN, OXT, PAQR3, PDGFRA, PEAK1, PECAM1, PER2, PF4, PITX2, PLXNA4, PRKAA1, PRKCD, PRKCG, PRKG1, PRL, PRLH, PROK2, PSAP, PTEN, PTGS2, PTPN6, RAB9A, RAC2, RAF1, RAMP2, RAP1A, RAPGEF2, RBPJ, RGCC, RGS2, RHOA, RHOB, RICTOR, RIPK3, RTN4, S100A9, SAT1, SAV1, SCARB2, SEMA4A, SIRPA, SKP2, SLC8A1, SNX13, SOS2, SP1, SP100, SPHK2, SPINK5, SRGN, SRPK1, SRPK2, STAT3, STK4, STX7, SUFU, SYK, TAZ, TCF4, TDGF1, THAP1, THBS2, THRAP3, TJP1, TLK2, TLR2, TLR4, TNFRSF1A, TNFSF10, TUBA1C, UBE4B, UBR2, VDR, VIM, WARS1, WASF2, WNK1, WWTR1, YWHAZ, ZBTB46, ZFPM2, ZNF24 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of leukocyte cell lines | 3.14E-04 | Decreased | -3.113 | 13 | APOA1, APOA2, APP, BECN1, CD14, DDX3X, FCGR2A, PTPN6, SNAP23, SYK, TLR2, TLR4, TLR7 |
| Cancer, Organismal Injury and Abnormalities | Multiple cancers | 3.16E-04 |  | 0.106 | 640 | ABCC2, ACBD3, ACP3, ACTG1, ACTR2, ACYP1, ADAM10, ADAM15, ADAM17, ADGRA1, AGO2, AIF1, AIG1, AIPL1, AK9, AKAP12, ALDH3A1, ALDH5A1, ALKBH1, ALKBH3, ALS2, AMPH, ANAPC13, ANGPTL5, ANKRD42, ANXA3, ANXA5, AOPEP, AP5M1, APBA1, APC, APOA1, APOB, APOBEC3B, APP, ARF4, ARHGAP19, ARHGDIB, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ASB10, ASXL1, ATG2B, ATG7, ATL3, ATN1, ATP6V1B2, ATRN, AURKB, B2M, BCL2L11, BECN1, BGN, BLVRA, BMP2K, BNIPL, BOD1L1, BRCA1, BRIP1, BTG2, C17orf80, C18orf25, C1GALT1C1, C1RL, C7orf25, CACNA1E, CALCOCO2, CAMK2A, CAPZB, CARD16, CARNS1, CASP8, CATSPERD, CCDC47, CCDC88A, CCL5, CCP110, CD300E, CDC5L, CDH12, CELSR3, CEP128, CEP72, CFLAR, CHCHD5, CHD4, CKMT2, CLASP1, CLIC4, CLK2, CNPY3, COG2, COG5, COL1A2, COL7A1, CPEB1, CPQ, CPT1A, CRKL, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CT45A10/CT45A5, CTAG2, CTBS, CTLA4, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL16, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP2A6 (includes others), CYP4F3, CYTH4, DAB2, DDX17, DDX23, DDX27, DDX39A, DDX3X, DDX5, DEF6, DENND3, DGLUCY, DHCR7, DHX8, DIP2B, DLGAP4, DNAJB12, DNAJB6, DNAJC2, DNAJC7, DNM3, DOCK8, DOK5, DPF3, DPH2, DPYD, DSE, DUSP5, DYRK1A, EBLN2, ECE1, EFS, EIF1AX, EIF3A, EIF4G3, ELF3, ELOA, EOGT, EPB41L3, EPHA8, EPM2AIP1, ERO1A, ETV6, EVI5L, EXOC3L4, EXT1, EZR, F10, F11R, F13A1, F2R, F8, FAM126B, FAM209A, FAM214B, FBLN2, FBXO38, FCAMR, FEZ1, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FPR2, FRMD4B, FTH1, FUBP3, FUS, FUT7, FZD1, FZD3, G3BP2, GAB2, GAL3ST1, GAPDH, GAS7, GASK1B, GATA5, GBE1, GC, GLE1, GLUL, GLYR1, GNB4, GOLGB1, GPATCH4, GPD1, GPR75, GSTA1, GTF3C3, GYG1, H2AC18/H2AC19, H2BC21, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HCLS1, HDAC9, HLA-A, HLA-E, HLA-G, HMOX1, HNRNPA1, HNRNPA2B1, HNRNPH2, HOTAIR, HOXA3, HOXA4, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPB7, HSPD1, HTATIP2, HTR1F, HVCN1, IDH3A, IER2, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IGSF6, IL1B, IL1RN, ILF3, IQSEC3, IRX4, ITGAX, JAK1, JAML, JMJD1C, JMJD4, JPH4, JPT1, JPX, KAT6A, KAT6B, KCNJ4, KDM1B, KDM5A, KDM7A, KIF1C, KIF26B, KLF6, KLHL15, KRAS, KRT23, L3MBTL3, LAMA5, LAMTOR5, LARP4, LARP6, LAS1L, LASP1, LAT2, LCP2, LEFTY1, let-7, LETM2, LGALS8, LGR5, LHCGR, LILRA1, LIMK2, LINC00511, LIPM, LMTK2, LONRF3, LRP2, LRP8, LRRFIP1, LSP1, LY6K, LY86, LY9, LYVE1, MAFF, MAGT1, MAN2A2, MAP3K1, MAP4, MAP4K4, MAPRE1, MAPRE3, MARF1, MAX, MCCC2, MCL1, MDM2, MED23, MEF2C, mir-101, mir-103, mir-122, mir-154, mir-202, mir-24, mir-26, mir-28, MMP14, MORN5, MRPL15, MS4A1, MS4A14, MS4A4A, MS4A7, MSH6, MT1A, MT1F, MT1X, MTCH2, MTDH, MTFR2, MTHFD2, MTOR, MTTP, MUC1, MUC15, MYBBP1A, MYH15, MYLK, MYO5B, MYOF, MYOG, NABP1, NAMPT, NASP, NCF2, NCKAP1L, NCL, NDC80, NDE1, NFATC4, NFE2L2, NHSL1, NIN, NLGN3, NLGN4X, NONO, NOTCH2, NOXRED1, NPC1L1, NR3C1, NTRK1, NUMB, NUP50, NUP93, NXPE4, OPA1, OR2A14, OR4D10, OR5AC2, OSBPL11, OTUD3, PAK2, PCLO, PCOLCE, PDAP1, PDGFRA, PDIA3, PDLIM5, PDS5B, PEAK1, PECAM1, PEX19, PF4, PHF12, PILRA, PIN4, PIP5K1A, PITX2, PIWIL1, PLAGL2, PLB1, PLEKHA7, PLXDC2, PLXNA4, PODNL1, POTEH (includes others), PPM1D, PPP1R12B, PPP1R17, PPP4R2, PQBP1, PRC1, PRKAA1, PRKCD, PRKCG, PRL, PRPF6, PRR12, PRSS55, PSMB8, PSMD1, PSMD12, PSMD2, PSMD4, PSMD7, PTEN, PTGS2, PTPRE, PUDP, PWWP3A, RAB31, RAB3GAP2, RABGAP1L, RAD51C, RAD51D, RAF1, RALBP1, RALGPS1, RAP1A, RASEF, RBMXL3, RCBTB2, RFPL2, RFX3, RGCC, RGS2, RHBG, RHOA, RHOB, RICTOR, RIN2, RIOK1, RIOK2, RNF103, RNF103-CHMP3, RNF121, RNF130, RNF149, RPF2, RPGRIP1, RPL4, RPL5, RTCB, RTN3, RTN4, RTTN, S100A14, S100A9, SBF2, SCRIB, SCRT2, SEC14L1, SEC61A2, SENP2, SETDB1, SF3B1, SH2B3, SH3BP2, SIPA1L2, SIRPB1, SKP2, SLAMF7, SLC22A18, SLC22A4, SLC24A4, SLC25A32, SLC31A1, SLC35F4, SLC43A3, SLC4A2, SLC6A6, SLC8A1, SLITRK6, SMARCA2, SMTN, SNX27, SOD2, SORL1, SP100, SP3, SPAG9, SPATA5, SPEF2, SPHK2, SPOP, SRPK1, SRPK2, SSH3, STAT3, STEAP4, STX3, SUFU, SUSD6, SWAP70, SYK, SYNE4, SYT17, SZT2, TAF1, TAF7, TAGLN2, TBC1D12, TBC1D8, TBC1D9, TBL1X, TBX5, TCAIM, TCF4, TCP1, TDGF1, TDRD1, TERF2IP, TET2, TFRC, THBS2, THEG, THRAP3, TLR4, TLR5, TM2D2, TM7SF3, TMEM140, TMEM43, TMEM70, TMTC2, TNFRSF1A, TNFSF10, TNNC1, TNNI3K, TOR1B, TPM3, TRAF3, TRIM46, TRIM5, TRIM65, TRIO, TRIP10, TRIP12, TRMT9B, TRPM6, TSG101, TSHZ3, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBA3, UBAP2L, UBE2E3, UBE4B, USP15, USP19, USP32, UTP4, VCAN, VCPIP1, VDAC2, VDR, VIM, VTCN1, VTI1B, WASF2, WASF3, WDFY3, WDR19, WIPF1, WNK1, WNK3, WSB1, XPNPEP3, XRCC5, YBX1, YPEL5, YWHAZ, ZAN, ZBTB21, ZEB2, ZFPM2, ZMPSTE24, ZMYM3, ZNF10, ZNF143, ZNF165, ZNF217, ZNF229, ZNF235, ZNF24, ZNF281, ZNF3, ZNF33B, ZNF398, ZNF41, ZNF45, ZNF461, ZNF516, ZNF525, ZNF555, ZNF570, ZNF606, ZNF615, ZNF667, ZNF677, ZNF684, ZNF711, ZNF738, ZNF746, ZNFX1, ZRSR2, ZSCAN2 |
| Cell Death and Survival, Hematological System Development and Function | Cell viability of myeloid cells | 3.20E-04 | Decreased | -3.329 | 26 | ADGRE2, APP, BCL2L11, BTK, CFLAR, CSF1R, CX3CR1, EPO, FOXO3, ICAM1, IL1B, KIF1C, LAT2, LYN, MCL1, MGAT5, PF4, PTPN6, RAC2, RAF1, SOD2, STAT3, TLR4, TNFSF10, TYROBP, YWHAZ |
| Cell-To-Cell Signaling and Interaction, Nervous System Development and Function | Long-term potentiation of hippocampus | 3.21E-04 |  | 0.202 | 29 | APP, ARHGEF9, ATXN3, B2M, CAMK2A, CCDC88A, CNR1, CREB1, CYBB, IGF2R, IL1B, IL1RN, ITM2B, JPH4, KIDINS220, KRAS, LGMN, LILRB3, LRP8, LRPAP1, NLGN3, NPTN, PJA2, PRKAR1A, RTN4, ST8SIA4, STIP1, TCF4, TLR4 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Hematological System Development and Function, Inflammatory Response | Phagocytosis by macrophages | 3.24E-04 | Decreased | -2.872 | 33 | APP, ATG7, BECN1, BTK, CD14, CD93, CLEC4M, CLEC6A, CLIC4, CSF1R, DEF6, DOCK2, FCGR2A, GAB2, HCK, HMOX1, IL1B, let-7, MERTK, MEX3B, mir-24, NCKAP1L, PTEN, RAB11A, RGCC, S100A9, SH3BP2, SIRPA, SIRPB1, SLAMF7, TLR2, TLR4, TYROBP |
| Cellular Function and Maintenance, Hematological System Development and Function | Engulfment of red blood cells | 3.38E-04 |  | -1.11 | 24 | ACTR2, ARPC2, CD93, DOCK2, FCGR2A, HCK, ICAM1, IL1B, JAK1, KAT6A, KCTD5, LYN, MERTK, NCKAP1L, PLEK, PRKCD, PTEN, RAC2, RIT1, SIRPA, SYK, UBE2L3, WASF2, ZNF217 |
| Cellular Movement | Transmigration of myeloid cells | 3.40E-04 | Decreased | -2.408 | 20 | ADAM15, ADAM17, CXCL1, CXCL9, CXCR2, FPR1, ICAM1, ITGA4, MMP14, MTOR, MYLK, MYO1F, NINJ1, PECAM1, PTPN6, RHOA, RTN4, SIRPA, TLR2, TNFRSF1A |
| Cell-To-Cell Signaling and Interaction | Binding of lymphoid cells | 3.59E-04 | Decreased | -3.577 | 39 | APBB1IP, APOA1, BTK, CCL5, CCR1, CD86, CTLA4, CXCL9, CXCR3, DOCK2, DOCK8, EZR, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, JAK1, LCP2, LTBR, MAP3K2, MSN, NEDD9, NR3C1, PECAM1, PRL, PTPN6, RAC2, RAP1A, RHOA, RICTOR, STK4, SWAP70, SYK, TFRC, THBS2, TLR4, TNFSF14 |
| Cell-To-Cell Signaling and Interaction | Adhesion of myeloid cells | 3.59E-04 | Decreased | -2.857 | 39 | ADAM10, ADAM17, ADGRE2, APOA1, APP, BTK, CCL5, CNR1, CSF3R, CTSZ, CXCL1, CXCR2, CYBB, F10, F2R, FPR2, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LYN, MGAT5, PAK2, PECAM1, PF4, PLCB3, PTGS2, PTPN6, RAC2, RHOB, S100A9, SWAP70, TLR2, TLR4, TLR5 |
| Cellular Assembly and Organization, Cellular Function and Maintenance | Formation of multivesicular bodies | 3.79E-04 |  |  | 10 | ANXA2, CHMP2A, CHMP3, CHMP4B, CHMP6, LITAF, RAB11A, TSG101, VPS25, VPS4B |
| Cardiovascular Disease, Organismal Injury and Abnormalities | Formation of blood clot | 3.79E-04 |  | -0.905 | 18 | ANXA2, APP, CXCR2, EPO, F10, F8, FCGR2A, LCP2, LRP8, P2RX1, PF4, PLCB3, RAP1A, RHOA, SGK1, SYK, TNFRSF1A, VDR |
| Post-Translational Modification | Phosphorylation of protein | 3.88E-04 | Decreased | -3.697 | 141 | ADAM10, ADAM17, ADM, ADM2, AIF1, ANKLE2, ANXA2, APOA1, APP, ATG14, AURKB, BTBD10, BTK, CAMK1G, CAMK2A, CCDC88A, CCL5, CCNYL1, CCR1, CDK2AP1, CDKL5, CELSR3, CLEC1B, CLEC7A, CLK2, CLK3, CORO1C, CREB1, CRKL, CSF1R, CTLA4, DAB2, DYNLL1, DYRK1A, EEF2K, EIF4G3, ELF1, EPHA8, EPHB1, EPO, F2R, FCGR2A, FPR2, FZD1, GLYCTK, GMFG, GPRC5B, GRK7, HCK, HSP90AA1, HTATIP2, IGF1, IGF1R, IL1B, ILF3, JAK1, KCTD20, KRAS, LAT2, LILRB3, LIMK2, LMTK2, LYN, MAK, MAP3K1, MAP3K2, MAP4K4, MCM7, MERTK, mir-137, mir-26, MKNK1, MTOR, MYLK2, NCKAP1L, NIM1K, NLK, NPTN, NTRK1, NUAK2, OXT, PAK2, PAQR3, PARK7, PDE8A, PDGFRA, PDIA3, PEAK1, PECAM1, PELI2, PHACTR1, PHKB, PHLPP1, PID1, PKN3, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PSAP, PTEN, PTPN6, RAF1, RALB, RGMA, RICTOR, RIOK2, RIPK3, ROPN1L, RPS6KA5, SDCBP, SENP2, SGK1, SIRPA, SMAD1, SRPK1, SRPK2, STAT3, STK19, STK24, STK38L, STK4, SYK, TAF1, TBK1, TERF2IP, TESK2, TFRC, TLK2, TLR7, TNNI3K, TRAF3IP1, TYROBP, WARS1, WEE2, WNK1, WNK3, WWTR1, YWHAZ |
| Cellular Movement, Immune Cell Trafficking | Cell movement of lymphatic system cells | 4.03E-04 | Decreased | -4.302 | 93 | ADAM10, ADAM17, ADGRG3, APBB1IP, APC, APP, ATG7, BGN, BTK, CCL23, CCL5, CCR1, CCR10, CD86, CLEC1B, CTLA4, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYP26B1, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, EPO, EZR, F11R, FOXP3, FRS2, FUT7, FYB1, HCLS1, HLA-A, HLA-G, HMOX1, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IL1B, ITGA4, JAK1, KCNE3, KRAS, LCP1, LCP2, LTBR, MAP3K2, MAPKAP1, MMP14, MSN, MTOR, MYLK, NEDD9, NR3C1, PECAM1, PF4, PLCB3, PLCG2, PRKAA1, PRKCD, PTEN, PTGS2, RAC2, RAP1A, RHOA, RICTOR, SCRIB, SERPINB3, SOS2, SPHK2, STAT3, STK4, SWAP70, SYK, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, VTCN1, WIPF1 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Non-Hodgkin lymphoma | 4.03E-04 |  | 1.03 | 223 | AMPH, ANKLE2, ANO5, ANXA2, APBA1, APOBEC3A, APOBEC3B, APP, ARHGAP17, ASB10, ASMTL, ASXL1, ATN1, ATP6V1B2, ATRN, ATXN3, AURKB, B2M, BASP1, BAZ2B, BBS7, BCL2L11, BCL7A, BECN1, BOD1L1, BRCA1, BRIP1, BTG2, BTK, CARMIL1, CARNS1, CASP8, CAV3, CCNDBP1, CD86, CDC23, CELF2, CFLAR, CGB1/CGB2, CHD4, CHPF, CMSS1, CNR1, COL1A2, CPSF7, CRNN, CSDE1, CSF1R, CSF3R, CXCL9, CXCR3, CYP2A6 (includes others), DCLRE1C, DDX3X, DMTF1, DNAJB14, DNM3, DOCK2, DPYD, DUSP5, DYRK1A, ETV6, EWSR1, F11R, FAM131C, FCAMR, FCGR2A, FOXP3, FUS, FYB1, FZD1, GPRIN1, GPSM2, GRB2, GSE1, HAO2, HCK, HCLS1, HDAC7, HDAC9, HECA, HLA-A, HLA-G, HMOX1, HNRNPA2B1, HOXA7, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, ICAM1, IDH3A, IFNAR1, IGF1, IGFBP4, IL1B, ING3, IRF8, ITGAX, JAK1, JMJD1C, KAT6A, KLF6, KRAS, LCT, let-7, LRRFIP1, LSM3, LTBR, MAP4K4, MAX, MCL1, MDM2, MERTK, MICB, mir-101, mir-154, mir-26, mir-28, MPEG1, MS4A1, MTOR, MUC1, MYO5B, MYOF, NACA2, NDUFS1, NETO2, NINJ1, NONO, NOTCH2, NR3C1, NUAK2, NUBP1, NUDT6, NXPE4, PAK2, PCLO, PCOLCE, PDGFRA, PECAM1, PLCG2, PLEKHA7, POLR3B, POTEH (includes others), PPM1D, PPP1R12B, PPP6R3, PRKG1, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGS2, PTPN6, PTPRE, PWWP3A, RAB38, RAB4A, RAD52, RAF1, RBM4, RBPJ, RESF1, RGCC, RHOA, RICTOR, RPS15, RTTN, SCN9A, SEC14L1, SERTAD1, SF3B1, SGK1, SHROOM3, SKP2, SMARCA2, SORL1, SP100, SP110, SRPK2, SSBP2, STAT3, STIP1, STXBP6, SWAP70, SYK, TAF1, TDRD1, TET2, THBS2, TJP1, TLR2, TLR4, TLR7, TNFRSF10C, TNFRSF10D, TNIP1, TRAF3, TRIM55, TRIP12, TRPM6, TTC21B, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBE2F, UNC5C, VDAC1, WIPF1, XRCC5, YAE1, YWHAE, YWHAZ, ZMYM3, ZNF148, ZNF331, ZNF615, ZNF700, ZNF714, ZRSR2 |
| Cell Death and Survival, Neurological Disease, Organismal Injury and Abnormalities | Cell death of brain cells | 4.13E-04 |  | -0.25 | 61 | APP, ATG7, ATXN3, BCL2L11, BECN1, BID, CAMK2A, CASP8, CDC25C, CFLAR, CXCL1, DDIT3, EPO, FAIM2, FOXO3, FUS, GAPDH, GCLC, HDAC9, HSPA5, HSPD1, IGF1, IGF1R, IL1B, IL1RN, KLF6, LILRB3, LRPAP1, MAP3K1, MCL1, MEF2C, mir-26, MTOR, NFATC4, NFE2L2, NTRK1, PARK7, PITX2, PRKCD, PRKCG, PTEN, PTGS2, RHOA, RIT1, SGK1, SHC3, SKP2, SP1, SP3, SRPK2, STIP1, STK4, TCP1, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, UBE2L3, WNK3, YWHAB |
| Cell Death and Survival | Apoptosis of tumor cell lines | 4.34E-04 | Increased | 2.359 | 261 | ACO2, ADAM17, ADIPOR1, ADM, AKAP12, ALKBH3, ALS2, ANGPTL4, ANXA2, ANXA5, APC, APP, ARNT, ATF5, ATG7, ATN1, B2M, BACH1, BCL2L11, BECN1, BID, BNIP2, BNIP3L, BRCA1, BTG2, BTK, CARD8, CASP8, CCT2, CD14, CELF1, CFLAR, CIBAR1, CKS2, CLASP1, CLCA2, CLK3, CNR1, CREB1, CSF1R, CTNND1, CTSB, CUX1, CXCR3, CYP2J2, DAB2, DDIT3, DFFA, DKK2, DKK3, DPH2, DTD2, DYNLL1, EEF2K, EPO, EWSR1, EZR, FAIM2, FASTKD2, FFAR4, FKBP5, FOXL2, FOXO3, FOXP3, FTH1, GAB1, GAPDH, GAS7, GIMAP4, GLIPR1, GSTA1, GUCA2A, GUCA2B, HCK, HCLS1, HDAC9, HFE, HLA-G, HMOX1, HNRNPA1, HNRNPH1, HOTAIR, HSP90AB1, HSPA1A/HSPA1B, HSPA5, HSPD1, HTATIP2, IFI16, IGF1, IGF1R, IGF2R, IGFBP4, IL1B, ING3, IP6K2, IRF8, ITGA4, JAK1, KIDINS220, KIF1C, KLF6, KRAS, LAMA5, let-7, LGALS8, LGR5, LIMS1, LINC00887, LSP1, LUCAT1, LYN, LYPLA2, MAP3K1, MAPKAP1, MAX, MCL1, MDM2, MEF2C, MERTK, mir-103, mir-122, mir-133, mir-138, mir-154, mir-26, mir-299, mir-515, MIR4728, MKNK1, MMP14, MOB3A, MS4A1, MSN, MT1F, MTDH, MTOR, MUC1, MVP, MXD1, MYBBP1A, NASP, NBR2, NCL, NCOA4, NDC80, NEDD9, NFE2L2, NFKBIZ, NOTCH2, NR3C1, NTRK1, NUMB, OPA1, PAK2, PARK7, PDCD4, PDE4B, PDGFRA, PECAM1, PHLPP1, PIWIL1, PLAGL2, PLCG2, PLXNA4, PPM1D, PRKAA1, PRKAR1A, PRKCD, PRKG1, PRL, PSAP, PSMD4, PSME3, PTEN, PTGS2, PTMA, PTPN6, PTPRE, PUS10, RAF1, RALB, RAPGEF2, RASD1, RASSF3, RBM5, RHOA, RHOB, RICTOR, RIPK2, RIPK3, RIT1, RTN1, RTN4, S100A9, SAT1, SENP8, SFRP4, SGK1, SH3RF1, SIAH1, SIRPA, SKP2, SLU7, SMAD1, SOD2, SP1, SPHK2, SPOCK1, SPOP, SRGN, SRPK1, SRPK2, SRSF1, STAT3, STAU1, STK4, SUDS3, SYK, TACC1, TAGLN2, TASP1, TBK1, TCF4, TCP1, TDGF1, TDP2, TERF2IP, TESK2, TFRC, THAP1, THOC5, TLR2, TLR4, TM9SF4, TMBIM6, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TREM1, TSG101, TTF1, TUBA1A, TXNRD1, UBE2V1, USP17L2 (includes others), VCAN, VDAC1, VDAC2, VDR, VPS35, WSB1, WWTR1, XAF1, XRCC5, YBX1, YWHAE, YWHAZ, ZNF148 |
| Neurological Disease, Organismal Injury and Abnormalities | Progressive encephalopathy | 4.39E-04 |  | 1.405 | 179 | ADAM10, ALDH5A1, ALS2, AMPH, ANXA2, ANXA5, APLP2, APOA1, APOA2, APP, ARHGDIB, ARL6IP5, ARMC2, ARNT, ARNT2, ASAH1, BCL2L11, BECN1, BGN, BRCA1, CAMK2A, CAPZB, CASP8, CCDC88A, CCL5, CCT2, CD14, CDCP2, CELF2, CNP, CNR1, COL1A2, CPT1A, CSF1R, CSF3R, CTSB, CXCL16, CXCR2, CYP26B1, DDC, DDIT3, DHCR7, DNAJB6, DOK5, DPYSL2, DYRK1A, EEF2K, ELN, ENO3, EZR, F2R, FCGR2A, FCGR2C, FOXO3, FRMD4B, FTH1, FTL, FUS, GAB2, GALC, GAPDH, GAS7, GC, GCNT2, H3-3A/H3-3B, HBA1/HBA2, HFE, HMOX1, HNRNPA1, HNRNPA2B1, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFNGR1, IGF1, IGF1R, IL1B, IL1R2, IREB2, JPT1, KIAA0040, KIF1A, KRAS, LARP4, let-7, LGMN, LIMS1, LOC440040, LRP8, LRPAP1, MBP, MEF2C, mir-101, mir-103, mir-133, mir-154, mir-24, mir-26, mir-28, mir-3180, mir-3690, mir-422, mir-515, mir-550, mir-551, mir-657, MIR4270, MS4A4A, MS4A6E, MTHFD2, MTOR, MTRR, MYOG, NFATC4, NFE2L2, NFS1, NOM1, NR3C1, NTRK1, OPA1, PARK7, PDE4B, PDIA3, PGAM2, PIP4P2, PLA2G4C, PLCG2, PRKAR1A, PRKCD, PRL, PSAP, PSMC1, PTEN, PTGS2, PTPRE, RHOA, RHOB, RNASET2, RNF114, RNF6, RPL13A, RTN1, RTN3, RTN4, S100A9, SCARB2, SCN9A, SGK1, SHROOM3, SLC52A2, SLC6A6, SNAP91, SOD2, SORL1, SRPK2, ST8SIA4, STAT3, STIP1, TAF1, TBK1, TFRC, TLR4, TNNC1, TRIO, TSHZ3, TUBA1A, TUBA1B, TUBA1C, TUBB2A, TYROBP, VDAC1, VDR, VIM, VPS35, WDFY3, WWTR1, YWHAZ, ZNF721 |
| Cell-To-Cell Signaling and Interaction, Nervous System Development and Function | Long-term potentiation of cerebral cortex | 4.44E-04 |  | 0.2 | 30 | APP, ARHGEF9, ATXN3, B2M, CAMK2A, CCDC88A, CNR1, CREB1, CYBB, IGF2R, IL1B, IL1RN, ITM2B, JPH4, KIDINS220, KRAS, LGMN, LILRB3, LRP8, LRPAP1, NLGN3, NPTN, PJA2, PRKAR1A, RHOB, RTN4, ST8SIA4, STIP1, TCF4, TLR4 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Small intestine carcinoma | 4.46E-04 |  |  | 15 | APC, CTLA4, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, KBTBD12, KRAS, MSH6, NTRK1, PRKCD, PRKCG, SSBP2, U2AF1/U2AF1L5 |
| Cellular Movement | Transmigration of cells | 4.57E-04 | Decreased | -4.248 | 42 | ADAM10, ADAM15, ADAM17, APP, ARHGAP25, CCL5, CCR1, CD86, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, DOCK8, ELN, F11R, F2R, FPR1, GALNT1, HSP90AA1, ICAM1, IGF1, IL1B, ITGA4, ITGAX, LSP1, MMP14, MTOR, MYLK, MYO1F, NINJ1, PECAM1, PTPN6, RAC2, RAP1A, RHOA, RTN4, SIRPA, TLR2, TNFRSF1A, TRIM55, TRIO |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Homing of mononuclear leukocytes | 4.61E-04 | Decreased | -3.46 | 47 | ADAM10, ADAM17, AIF1, APOA1, APP, CCL23, CCL5, CCR1, CUX1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, DEFB103A/DEFB103B, ELN, F2R, FOXP3, FPR1, FPR2, FUT7, FYB1, HEBP1, HLA-G, HSPD1, IL1B, ITGA4, JAK1, LCP1, LGMN, LTBR, MAPKAP1, MYLK, NEDD9, NR3C1, PF4, PTEN, RAC2, RHOA, S100A14, STAT3, STK4, THBS2, TLR2, TLR4, TNFSF14, WIPF1 |
| Cellular Movement | Migration of myeloid cells | 4.62E-04 | Decreased | -3.683 | 44 | ADAM10, ADAM15, ADAM17, APP, BTK, CCL5, CCR1, CXCL1, CXCL6, CXCL9, CXCR2, CYBB, F10, F11R, FPR1, HCK, HMOX1, ICAM1, IL1B, ITGA4, ITGAX, LAMA5, LSP1, MGAT5, mir-133, MMP14, MTOR, MYLK, MYO1F, NINJ1, PDE4B, PECAM1, PPM1D, PTEN, PTPN6, RHOA, RTN4, S100A9, SIRPA, SWAP70, TLR2, TLR4, TLR7, TNFRSF1A |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Endometrial adenosquamous carcinoma | 4.63E-04 |  |  | 9 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, KRAS, PTEN, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Organismal Injury and Abnormalities | Philadelphia chromosome negative hematological system tumor | 4.72E-04 |  |  | 29 | APC, ARNTL, ASXL1, BCL2L11, CCL5, CSF1R, CSF3R, CUX1, HBA1/HBA2, HCK, IFNAR1, JAK1, KRAS, let-7, LYN, mir-26, MS4A1, NR3C1, PDE4B, PDE8A, PTGS2, SF3B1, SH2B3, STK24, TET2, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Activation of phagocytes | 4.76E-04 | Decreased | -2.786 | 78 | ADAM10, ALS2, ANXA2, APOA1, APP, ATG7, BID, BTK, CASP8, CCL5, CD14, CD84, CD86, CD93, CEACAM3, CLEC4M, CLEC7A, CNR1, CSF1R, CX3CR1, CXCL1, CXCL6, CXCR2, CYBB, DDIT3, EPO, FCGR2A, FPR1, FPR2, GC, HCK, HLA-A, HMOX1, HSP90B1, HSPD1, ICAM1, IFNAR1, IGF1, IL1B, IL1RN, LCP2, let-7, LILRA2, LILRB3, LTBR, LYN, MERTK, PF4, PILRB, PPM1D, PRKCD, PTGS2, PTPN6, PTPRE, RAB27A, RGMA, RHOA, RIPK2, S100A9, SCN9A, SIGLEC9, SIRPA, SLC11A1, STAT3, SYK, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TREM1, TREML2, TYROBP, VTCN1, ZBTB46 |
| Hematological Disease, Infectious Diseases, Organismal Injury and Abnormalities | Endotoxin shock response | 4.78E-04 | Decreased | -2.313 | 22 | ADAM17, B2M, BID, CD14, CLIC4, CXCL6, ENTPD1, F2R, HCK, ICAM1, IFI16, IFNGR1, IL1RN, NR3C1, PTGS2, RPS6KA5, S100A9, STAT3, TERF2IP, TLR4, TNFRSF1A, TREM1 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | B-cell non-Hodgkin lymphoma | 4.99E-04 |  | 0.314 | 164 | AMPH, ANKLE2, ANO5, ANXA2, APBA1, APOBEC3A, APOBEC3B, APP, ARHGAP17, ASB10, ASMTL, ATN1, ATRN, ATXN3, B2M, BAZ2B, BBS7, BCL2L11, BCL7A, BECN1, BOD1L1, BTG2, BTK, CARMIL1, CARNS1, CASP8, CAV3, CCNDBP1, CDC23, CFLAR, CGB1/CGB2, CHD4, CMSS1, CNR1, CPSF7, CRNN, CSDE1, CSF1R, CSF3R, CYP2A6 (includes others), DCLRE1C, DMTF1, DNAJB14, DOCK2, DPYD, DYRK1A, ETV6, EWSR1, F11R, FAM131C, FCGR2A, FOXP3, FUS, FYB1, GPRIN1, GPSM2, GRB2, GSE1, HAO2, HCLS1, HDAC7, HDAC9, HECA, HLA-G, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IDH3A, IL1B, IRF8, JAK1, KAT6A, KRAS, LCT, let-7, LRRFIP1, LSM3, MAX, MCL1, MDM2, mir-154, mir-28, MPEG1, MS4A1, MTOR, MYO5B, MYOF, NACA2, NDUFS1, NETO2, NONO, NOTCH2, NR3C1, NUBP1, NUDT6, NXPE4, PCLO, PDGFRA, PECAM1, PLCG2, PLEKHA7, POLR3B, POTEH (includes others), PPM1D, PPP1R12B, PPP6R3, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGS2, PTPRE, PWWP3A, RAB38, RAB4A, RAF1, RBM4, RESF1, RHOA, RICTOR, RPS15, RTTN, SCN9A, SEC14L1, SF3B1, SGK1, SHROOM3, SMARCA2, SORL1, SRPK2, STAT3, STIP1, STXBP6, SWAP70, TAF1, TDRD1, TET2, THBS2, TLR2, TLR7, TNFRSF10C, TNIP1, TRAF3, TRIM55, TRIP12, TRPM6, TTC21B, TUBA1A, TUBA1C, TUBB2A, UBE2F, UNC5C, VDAC1, XRCC5, YAE1, YWHAE, YWHAZ, ZMYM3, ZNF615, ZNF700, ZNF714 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Aggressive NK-cell leukemia | 5.09E-04 |  |  | 6 | HSP90AA1, HSP90AB1, HSP90B1, NR3C1, STAT3, TNFSF10 |
| Cellular Function and Maintenance | Endocytosis by dendritic cells | 5.09E-04 |  | -1.664 | 6 | HMOX1, RHOA, STK4, SWAP70, TLR2, TLR4 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Advanced lung cancer | 5.21E-04 |  | -1.404 | 57 | ADM, AKAP12, ANGPTL4, ANXA2, B2M, BRCA1, CALU, CASP8, CCL5, CLCN3, CPEB1, CSF1R, CSF3R, CTLA4, CTNND1, CTSB, CTSZ, FTL, G3BP2, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, IGF1R, IL1B, KLF6, KRAS, let-7, LYN, MAP4, MDM2, MERTK, mir-133, mir-24, mir-26, MKNK1, MTOR, NKD2, NR3C1, NTRK1, PDGFRA, PTEN, PTGS2, RAF1, RHOA, RIOK3, RIPK3, SCRIB, SKP2, SOD2, STAT3, TMBIM6, TUBA1A, TUBA1C, TUBB2A, YWHAE, ZEB2 |
| Molecular Transport, Protein Synthesis, Protein Trafficking | Localization of autoantibody | 5.38E-04 |  | 1.673 | 8 | ATG7, BECN1, CYBB, LYN, MERTK, PRKCD, STAT3, TNIP1 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Hematological System Development and Function, Inflammatory Response | Phagocytosis of red blood cells | 5.45E-04 |  | -0.901 | 23 | ACTR2, ARPC2, CD93, DOCK2, FCGR2A, HCK, ICAM1, IL1B, JAK1, KAT6A, KCTD5, LYN, NCKAP1L, PLEK, PRKCD, PTEN, RAC2, RIT1, SIRPA, SYK, UBE2L3, WASF2, ZNF217 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Inflammatory Response | Binding of professional phagocytic cells | 5.52E-04 | Decreased | -3.302 | 46 | ADAM10, ADAM17, ADGRE2, APOA1, APP, B4GALT1, BTK, CCL5, CCR1, CD14, CLEC4M, CNR1, CSF3R, CTSZ, CXCL1, CXCR2, CYBB, F2R, FCGR2A, FPR1, FUT7, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LSP1, LYN, MGAT5, MSN, NOTCH2, PAK2, PF4, PLCB3, PTGS2, PTPN6, RAC2, RHOA, RHOB, S100A9, TLR2, TLR4, TLR5 |
| Nervous System Development and Function | Neuroprotection of brain | 5.53E-04 |  | -0.845 | 12 | APP, CNR1, DDIT3, EPO, IGF1, IL1RN, NFATC4, PHLPP1, PTGS2, STAT3, STIP1, WDFY3 |
| Cell Death and Survival | Cell death of macrophages | 5.54E-04 |  | -1.154 | 32 | APP, CASP8, CCL5, CD14, CFLAR, CTSB, CYBB, DDIT3, DFFA, ENTPD1, HMOX1, IFNAR1, IL1B, LYZ, MCL1, MEFV, MTOR, NAMPT, NFE2L2, PELI2, PTEN, PTPN6, RALBP1, RIPK3, SOD2, STAT3, STK4, TLR2, TLR4, TNFRSF1A, TNFSF10, TREM1 |
| Neurological Disease | Progressive neurological disorder | 5.55E-04 |  | 0.6 | 208 | ACTG1, ADAM10, ADAM17, ALDH5A1, ALS2, AMPH, ANXA2, ANXA5, APLP2, APOA1, APOA2, APP, ARHGDIB, ARL6IP5, ARMC2, ARNT, ARNT2, ASAH1, BCL2L11, BECN1, BGN, BRCA1, CAMK2A, CAPZB, CASP8, CCDC88A, CCL5, CCT2, CD14, CDCP2, CELF2, CFLAR, CNP, CNR1, COL1A2, CPT1A, CSF1R, CSF3R, CTLA4, CTSB, CXCL1, CXCL16, CXCR2, CXCR3, CYP26B1, CYP51A1, DDC, DDIT3, DHCR7, DNAJB11, DNAJB6, DOCK8, DOK5, DPYSL2, DYRK1A, EEF2K, ELN, ENO3, EZR, F2R, FCGR2A, FCGR2C, FOXO3, FOXP3, FRMD4B, FTH1, FTL, FUS, GAB2, GALC, GAPDH, GAS7, GC, GCNT2, H3-3A/H3-3B, HBA1/HBA2, HFE, HLA-G, HMOX1, HNRNPA1, HNRNPA2B1, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IL1B, IL1R2, IREB2, ITGA4, JPT1, KIAA0040, KIF1A, KRAS, LARP4, let-7, LGMN, LIMS1, LOC440040, LRP8, LRPAP1, M6PR, MBP, MEF2C, MERTK, mir-101, mir-103, mir-133, mir-154, mir-24, mir-26, mir-28, mir-3180, mir-3690, mir-422, mir-515, mir-550, mir-551, mir-657, MIR4270, MS4A1, MS4A4A, MS4A6E, MTHFD2, MTOR, MTRR, MYOG, NFATC4, NFE2L2, NFS1, NOM1, NR3C1, NTRK1, OAZ1, OPA1, PARK7, PDE4B, PDGFRA, PDIA3, PGAM2, PIP4P2, PLA2G4C, PLCG2, PRKAR1A, PRKCD, PRL, PSAP, PSMB8, PSMC1, PTEN, PTGS2, PTPRE, RAF1, RHOA, RHOB, RNASET2, RNF114, RNF6, RPL13A, RPL5, RTN1, RTN3, RTN4, S100A9, SCARB2, SCN9A, SGK1, SHROOM3, SLC52A2, SLC6A6, SNAP91, SOD2, SORL1, SRPK2, ST8SIA4, STAT3, STIP1, TAF1, TBK1, TFRC, THAP1, TLR2, TLR4, TNFRSF1A, TNNC1, TRIM5, TRIO, TSHZ3, TUBA1A, TUBA1B, TUBA1C, TUBB2A, TYROBP, UQCRC2, VDAC1, VDR, VIM, VPS35, WDFY3, WWTR1, YWHAZ, ZNF721 |
| Cell-To-Cell Signaling and Interaction | Response of microglia | 5.57E-04 |  | -1.635 | 11 | APP, BECN1, CD14, DOCK2, HMOX1, IL1B, MERTK, PARK7, S100A9, TLR2, TLR4 |
| Cellular Development, Hematological System Development and Function, Lymphoid Tissue Structure and Development | Maturation of bone marrow-derived dendritic cells | 5.57E-04 |  | -0.756 | 11 | BTK, CLEC7A, ELF3, HMOX1, HSPD1, IL1B, LYN, RHOA, SWAP70, TLR4, TLR7 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Breast or ovarian cancer | 5.75E-04 |  | 0.286 | 622 | ABCC2, ACBD3, ACP3, ACTG1, ACTR2, ACYP1, ADAM10, ADAM15, ADAM17, ADGRA1, AGO2, AIF1, AIG1, AIPL1, AK9, AKAP12, ALDH3A1, ALDH5A1, ALKBH1, ALKBH3, ALS2, AMPH, ANAPC13, ANGPTL5, ANKRD42, ANXA3, AOPEP, AP5M1, APBA1, APC, APOA1, APOB, APOBEC3B, APP, ARF4, ARHGAP19, ARHGDIB, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ASB10, ASXL1, ATG2B, ATG7, ATL3, ATN1, ATP6V1B2, ATRN, AURKB, B2M, BCL2L11, BECN1, BGN, BLVRA, BMP2K, BNIPL, BOD1L1, BRCA1, BRIP1, BTG2, C17orf80, C18orf25, C1GALT1C1, C1RL, C7orf25, CACNA1E, CALCOCO2, CAMK2A, CAPZB, CARD16, CARNS1, CASP8, CATSPERD, CCDC47, CCDC88A, CCP110, CD300E, CDC5L, CDH12, CELSR3, CEP128, CEP72, CFLAR, CHCHD5, CHD4, CKMT2, CLASP1, CLIC4, CLK2, CNPY3, COG2, COG5, COL1A2, COL7A1, CPEB1, CPQ, CPT1A, CRKL, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CT45A10/CT45A5, CTAG2, CTBS, CTLA4, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL16, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP2A6 (includes others), CYP4F3, CYTH4, DAB2, DDX17, DDX23, DDX27, DDX39A, DDX3X, DDX5, DEF6, DENND3, DGLUCY, DHCR7, DHX8, DIP2B, DLGAP4, DNAJB12, DNAJB6, DNAJC2, DNAJC7, DNM3, DOCK8, DOK5, DPF3, DPH2, DPYD, DSE, DUSP5, DYRK1A, EBLN2, ECE1, EFS, EIF1AX, EIF3A, EIF4G3, ELF3, ELOA, EOGT, EPB41L3, EPM2AIP1, ERO1A, ETV6, EVI5L, EXOC3L4, EXT1, EZR, F10, F11R, F13A1, F2R, F8, FAM126B, FAM209A, FAM214B, FBLN2, FBXO38, FCAMR, FEZ1, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FPR2, FRMD4B, FTH1, FUBP3, FUS, FUT7, FZD1, FZD3, G3BP2, GAB2, GAL3ST1, GAPDH, GAS7, GASK1B, GATA5, GBE1, GC, GLE1, GLUL, GLYR1, GNB4, GOLGB1, GPATCH4, GPR75, GSTA1, GTF3C3, GYG1, H2AC18/H2AC19, H2BC21, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HCLS1, HDAC9, HLA-A, HLA-E, HLA-G, HMOX1, HNRNPA1, HNRNPA2B1, HNRNPH2, HOTAIR, HOXA3, HOXA4, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPB7, HSPD1, HTATIP2, HTR1F, HVCN1, IDH3A, IER2, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IGSF6, IL1B, ILF3, IQSEC3, IRX4, ITGAX, JAK1, JAML, JMJD1C, JMJD4, JPH4, JPT1, JPX, KAT6A, KAT6B, KCNJ4, KDM1B, KDM5A, KDM7A, KIF1C, KIF26B, KLF6, KLHL15, KRAS, KRT23, L3MBTL3, LAMA5, LAMTOR5, LARP4, LARP6, LAS1L, LASP1, LAT2, LEFTY1, let-7, LETM2, LGALS8, LGR5, LHCGR, LILRA1, LIMK2, LINC00511, LIPM, LMTK2, LONRF3, LRP2, LRP8, LRRFIP1, LSP1, LY6K, LY86, LY9, LYVE1, MAFF, MAGT1, MAN2A2, MAP3K1, MAP4, MAP4K4, MAPRE1, MAPRE3, MARF1, MAX, MCCC2, MCL1, MDM2, MED23, MEF2C, mir-101, mir-103, mir-122, mir-154, mir-202, mir-24, mir-26, mir-28, MMP14, MORN5, MRPL15, MS4A1, MS4A14, MS4A4A, MS4A7, MSH6, MT1A, MT1F, MT1X, MTCH2, MTDH, MTFR2, MTHFD2, MTOR, MTTP, MUC1, MUC15, MYBBP1A, MYH15, MYLK, MYO5B, MYOF, MYOG, NABP1, NAMPT, NASP, NCF2, NCKAP1L, NCL, NDE1, NFATC4, NFE2L2, NHSL1, NIN, NLGN3, NLGN4X, NONO, NOTCH2, NOXRED1, NPC1L1, NR3C1, NTRK1, NUMB, NUP50, NUP93, NXPE4, OPA1, OR2A14, OR4D10, OR5AC2, OSBPL11, OTUD3, PAK2, PCLO, PCOLCE, PDAP1, PDGFRA, PDIA3, PDLIM5, PDS5B, PEAK1, PECAM1, PEX19, PF4, PHF12, PILRA, PIN4, PIP5K1A, PITX2, PIWIL1, PLAGL2, PLB1, PLEKHA7, PLXDC2, PLXNA4, PODNL1, POTEH (includes others), PPM1D, PPP1R12B, PPP1R17, PPP4R2, PQBP1, PRC1, PRKCD, PRKCG, PRL, PRPF6, PRR12, PRSS55, PSMD12, PSMD4, PSMD7, PTEN, PTGS2, PTPRE, PUDP, PWWP3A, RAB31, RAB3GAP2, RABGAP1L, RAD51C, RAD51D, RAF1, RALBP1, RALGPS1, RAP1A, RASEF, RBMXL3, RCBTB2, RFPL2, RFX3, RGCC, RGS2, RHBG, RHOA, RHOB, RICTOR, RIN2, RIOK1, RIOK2, RNF103, RNF103-CHMP3, RNF121, RNF130, RNF149, RPF2, RPGRIP1, RPL4, RPL5, RTCB, RTN3, RTN4, RTTN, S100A14, S100A9, SBF2, SCRIB, SCRT2, SEC14L1, SEC61A2, SENP2, SETDB1, SF3B1, SH2B3, SH3BP2, SIPA1L2, SIRPB1, SKP2, SLC22A18, SLC22A4, SLC24A4, SLC25A32, SLC31A1, SLC35F4, SLC43A3, SLC4A2, SLC6A6, SLC8A1, SLITRK6, SMARCA2, SMTN, SNX27, SOD2, SORL1, SP100, SP3, SPAG9, SPATA5, SPEF2, SPHK2, SPOP, SRPK1, SRPK2, SSH3, STAT3, STEAP4, STX3, SUSD6, SWAP70, SYK, SYNE4, SYT17, SZT2, TAF1, TAF7, TAGLN2, TBC1D12, TBC1D8, TBC1D9, TBL1X, TBX5, TCAIM, TCF4, TCP1, TDGF1, TDRD1, TERF2IP, TET2, TFRC, THBS2, THEG, THRAP3, TLR4, TLR5, TM2D2, TM7SF3, TMEM140, TMEM43, TMEM70, TMTC2, TNFRSF1A, TNFSF10, TNNC1, TOR1B, TPM3, TRIM46, TRIM5, TRIM65, TRIO, TRIP10, TRIP12, TRMT9B, TRPM6, TSG101, TSHZ3, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBAP2L, UBE2E3, UBE4B, USP15, USP19, USP32, UTP4, VCAN, VCPIP1, VDAC2, VDR, VIM, VTCN1, VTI1B, WASF2, WASF3, WDFY3, WDR19, WIPF1, WNK1, WNK3, WSB1, XPNPEP3, XRCC5, YBX1, YPEL5, YWHAZ, ZAN, ZBTB21, ZEB2, ZFPM2, ZMPSTE24, ZMYM3, ZNF10, ZNF143, ZNF165, ZNF217, ZNF229, ZNF235, ZNF24, ZNF281, ZNF3, ZNF33B, ZNF398, ZNF41, ZNF45, ZNF461, ZNF516, ZNF525, ZNF555, ZNF570, ZNF606, ZNF615, ZNF667, ZNF677, ZNF684, ZNF711, ZNF738, ZNF746, ZNFX1, ZSCAN2 |
| Cancer, Hematological Disease, Organismal Injury and Abnormalities | Philadelphia chromosome negative chronic myeloproliferative neoplasm | 5.84E-04 |  |  | 25 | APC, ARNTL, ASXL1, BCL2L11, CCL5, CSF1R, CSF3R, CUX1, HBA1/HBA2, HCK, IFNAR1, JAK1, KRAS, let-7, LYN, mir-26, NR3C1, PDE4B, PDE8A, PTGS2, SF3B1, SH2B3, STK24, TET2, U2AF1/U2AF1L5 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function | Interaction of lymphocytes | 6.04E-04 | Decreased | -3.655 | 41 | APBB1IP, APOA1, ATRN, BTK, CCL5, CCR1, CD86, CLEC4M, CTLA4, CXCL9, CXCR3, DOCK2, DOCK8, EZR, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, JAK1, LCP2, LTBR, MAP3K2, MSN, NEDD9, NR3C1, PECAM1, PRL, PTPN6, RAC2, RAP1A, RHOA, RICTOR, STK4, SWAP70, TFRC, THBS2, TLR2, TLR4, TNFSF14 |
| Cell Signaling | Viral life cycle | 6.05E-04 |  | 1.502 | 29 | APOBEC3A, APOBEC3B, CALCOCO2, CCL5, CHMP2A, CHMP3, CHMP4B, CHMP6, CXCR3, DDX5, IFI16, ILF3, mir-122, mir-24, NUP160, NUP50, NUP58, NUP62, NUP93, PTGS2, RAD52, SEC13, SRPK1, SRPK2, TLR4, TNIP1, TNPO3, TSG101, VPS4B |
| Organismal Survival | Organismal death | 6.11E-04 | Increased | 14.151 | 470 | ACTG1, ADAM10, ADAM15, ADAM17, ADM, AGO2, AKAP12, ALDH5A1, ALKBH3, AMPH, ANGPTL4, ANTXR2, ANXA2, AP1G1, APBA1, APC, APLP2, APOA1, APOB, APP, ARF1, ARF4, ARHGDIB, ARID4B, ARIH2, ARNT, ARNT2, ARNTL, ARPP19, ASAH1, ASXL1, ATG3, ATG7, ATN1, ATOX1, ATP7B, ATXN3, AURKB, B2M, B4GALT1, BBS7, BCAS3, BCL2L11, BCL7A, BECN1, BEST1, BGN, BID, BNIP3L, BRCA1, BRIP1, C1GALT1C1, C7orf25, CA4, CAP1, CAPZB, CASP8, CBY1, CCDC47, CCNK, CCP110, CCR1, CCR10, CD14, CDA, CDK2AP1, CELF1, CELF2, CELSR3, CFLAR, CHD4, CHM, CHMP2A, CKS2, CLCN3, CLEC1B, CLEC4M, CLEC7A, CLIC4, CNP, CNPY3, CNR1, COL7A1, CPLX2, CPT1A, CREB1, CRKL, CSAD, CSF1R, CTLA4, CTNND1, CTSB, CUX1, CX3CR1, CXCL9, CXCR2, CXCR3, CYBB, CYP24A1, CYP26B1, CYP51A1, DAB2, DCLRE1C, DDIT3, DDX17, DDX3X, DDX5, DGAT2, DHCR7, DLD, DMTF1, DNAJB4, DNAJB6, DNM3, DOCK2, DPH3, DPP10-AS1, DPYD, DYRK1A, ECE1, EEF1E1, EEF2K, EHD3, ELK3, ELN, ELOA, EPB41L3, EPO, ERCC5, ERO1A, ETV6, EVC2, EWSR1, EXT1, EXTL3, F10, F13A1, F2R, F8, FAH, FOXL2, FOXO3, FOXP3, FPR2, FRS2, FTH1, FTL, FTX, FUS, GAB1, GALNT1, GATA5, GATAD2A, GBE1, GCLC, GLCE, GLT8D2, GNG7, GRB2, GSE1, H2AC18/H2AC19, H3-3A/H3-3B, HAMP, HCK, HDAC7, HFE, HLA-G, HMOX1, HNRNPA1, HOTAIR, HOXA3, HOXA4, HOXA7, HSBP1, HSD17B12, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPB7, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2BP3, IGF2R, IL1B, IL1RN, ILF3, IP6K2, IPMK, IREB2, IRF8, ITGA4, ITGB8, JAK1, JPH4, JPX, KAT6A, KCNAB2, KCNJ2, KDM5A, KIDINS220, KIF1A, KLF6, KLF7, KMT5B, KRAS, L3MBTL2, L3MBTL3, LAT2, LCP1, LCP2, LEFTY1, LGR5, LIAS, LIMS1, LIN7A, LMTK2, LRP2, LRP8, LRPAP1, LTBR, LUCAT1, LY6K, LYN, LYZ, M6PR, MAFF, MAN2A2, MAP3K1, MAP4, MAP4K4, MAPKAPK3, MAX, MCL1, MCM3, MDM2, MED23, MEF2C, MERTK, MEX3B, mir-122, mir-133, mir-137, mir-154, mir-202, mir-26, mir-299, MLKL, MMP14, MORF4L1, MSH6, MSN, MTDH, MTF1, MTHFD2, MTOR, MTTP, MUC1, MYBBP1A, MYCNOS, MYH14, MYOF, MYOG, NAMPT, NAPB, NASP, NCOA1, NDC80, NDEL1, NFATC4, NFE2L2, NFKBIZ, NIN, NINJ1, NLGN3, NOTCH2, NR3C1, NTRK1, NUAK2, NUBP1, NUMB, NUP62, OAT, OPA1, OXT, P2RX1, PAK2, PCK1, PCLO, PCYT1A, PDCD4, PDE4B, PDGFRA, PDIA3, PDS5B, PER2, PHF12, PIGA, PIP5K1A, PITPNA, PITX2, PLAGL2, PLCB3, PLCG2, PLCL1, PLP1, PNN, PNO1, PPIF, PPM1D, PPP6C, PRKAR1A, PRKCD, PRKG1, PSAP, PSMC1, PSMC2, PSMD4, PTEN, PTF1A, PTGS2, PTPN6, PURA, RAB11A, RAB27A, RAB31, RAB5A, RAB8A, RAC2, RAD51C, RAD51D, RAD52, RAF1, RALB, RAMP2, RAP1A, RAPGEF2, RASSF2, RBMS1, RBPJ, RFX3, RGMA, RHOA, RICTOR, RIPK3, RNASET2, RPL4, RPL5, RPS6KA5, RTEL1, RTN4, RUFY3, S100A9, SAV1, SCARB2, SCN9A, SCRIB, SDHD, SEL1L, SERTAD1, SESTD1, SETDB1, SF3B1, SFRP4, SH2B3, SHC3, SIAH1, SKP2, SLC22A4, SLC22A5, SLC25A37, SLC31A1, SLC4A2, SLC8A1, SMAD1, SMARCC2, SMTN, SNAP23, SNAP91, SNAPIN, SNX13, SNX27, SOD2, SP1, SPINK5, SPOP, SPOUT1, SPRTN, SRGAP3, SRGN, SRSF1, SRSF3, SSBP2, ST8SIA4, STAMBP, STAT3, STEAP4, STIP1, STK35, STK4, SUDS3, SUFU, SUPT4H1, SUSD6, SYK, SYT5, TAF7, TASP1, TBK1, TBX5, TCF15, TCF4, TDGF1, TET2, TFRC, THAP1, THBS2, THOC5, TIFA, TLR2, TLR4, TLR5, TLR7, TMEM107, TMOD3, TNFRSF1A, TNFSF10, TNIP1, TPM3, TRAF3, TREM1, TRIM55, TRIO, TRIP12, TRPM6, TSG101, TSHZ3, TXNRD1, U2AF1/U2AF1L5, UBA3, UBE2B, UBE2L3, UBE4B, UBR2, USP17L2 (includes others), USP4, VCAN, VDAC1, VDR, VIM, VPS41, VTCN1, VTI1A, VTI1B, WASF2, WIPF1, XRCC5, YBX1, YBX3, YWHAE, ZDHHC16, ZEB2, ZFPM2, ZMPSTE24, ZNF148, ZNF24, ZNF281 |
| Cell-To-Cell Signaling and Interaction, Inflammatory Response | Immune response of dendritic cells | 6.17E-04 | Decreased | -2.008 | 14 | CD86, CLEC9A, FCAMR, FCGR2A, HMOX1, HSP90AA1, mir-24, MUC1, PSMB8, SEMA4A, SWAP70, SYK, TLR4, TNFSF4 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function | Binding of T lymphocytes | 6.20E-04 | Decreased | -3.539 | 32 | APBB1IP, APOA1, CCL5, CCR1, CD86, CTLA4, CXCL9, CXCR3, DOCK2, EZR, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, JAK1, LCP2, LTBR, MAP3K2, MSN, NR3C1, PECAM1, PRL, RAC2, RAP1A, RHOA, RICTOR, STK4, THBS2, TLR4, TNFSF14 |
| Cell-To-Cell Signaling and Interaction, Cellular Movement | Recruitment of blood cells | 6.33E-04 | Decreased | -3.512 | 71 | ADAM10, ADAM17, ALOX5AP, APOA1, APOB, APP, ATG7, B4GALT1, CASP8, CCL23, CCL5, CCR1, CD14, CD93, CLEC1B, CLEC7A, CNR1, CSF1R, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, ENTPD1, F13A1, FCGR2A, FPR2, FUT7, GAB2, GC, HCK, HMOX1, HSPA1A/HSPA1B, ICAM1, IFNAR1, IL1B, IL1RN, ITGA4, KRAS, LSP1, LYN, LYZ, MGAT5, NFE2L2, NINJ1, P2RX1, PDE4B, PECAM1, PTEN, RAP1A, RHOA, RHOB, RIPK2, RTN4, SIGLEC9, SOD2, ST3GAL6, STAT3, SWAP70, SYK, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TREML2, VDR |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Migration of mononuclear leukocytes | 6.35E-04 | Decreased | -4.165 | 82 | ADAM10, ADAM17, ANXA2, APBB1IP, APP, BTK, CCL23, CCL5, CCR1, CCR10, CD86, CTLA4, CUX1, CX3CR1, CXCL1, CXCL16, CXCL9, CXCR2, CXCR3, CYP26B1, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, EZR, F11R, FOXP3, FUT7, FYB1, HCLS1, HLA-A, HLA-G, HSPD1, ICAM1, IFNAR1, IFNGR1, IL1B, ITGA4, ITGAX, JAK1, LCP1, LCP2, LTBR, MAP3K2, MAPKAP1, mir-133, MMP14, MSN, MTOR, MYLK, NINJ1, NR3C1, PECAM1, PILRA, PLCB3, PRKAA1, PROK2, PTEN, PTGS2, RAC2, RAP1A, RHOA, RICTOR, SCRIB, SERPINB3, SIRPA, SOS2, SPHK2, STAT3, STK4, SWAP70, THBS2, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF14, TNFSF4, TNIP1, VTCN1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of antigen presenting cells | 6.35E-04 | Decreased | -4.517 | 82 | ADAM17, APOA1, APP, B4GALT1, BECN1, BID, CASP8, CCDC88A, CCL5, CCR1, CD86, CLEC1B, CLEC4M, CNP, CNR1, CRKL, CSF1R, CTSZ, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, DOCK8, ELN, EPO, FPR1, FPR2, GAL3ST1, HAMP, HCK, HCLS1, HEBP1, HMOX1, HSPA5, ICAM1, IFNGR1, IL1B, IL1RN, KLF6, LITAF, LSP1, MYLK, NARS1, NFE2L2, NFKBIZ, NINJ1, OPA1, PF4, PLCG2, PLP1, PRKCD, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAC2, RHOA, RHOB, RPL13A, SCN9A, SEMA4A, SH2B3, SIRPA, STAT3, STK4, SWAP70, TAFA4, THBS2, TLR2, TLR4, TLR7, TNFSF4, TNIP1, TYROBP, VCAN, VTCN1, YBX1 |
| Protein Synthesis | Metabolism of protein | 6.37E-04 | Decreased | -2.387 | 233 | A1CF, ACO1, ADAM10, ADAM15, ADAM17, ADM, AGO2, ALDH3A1, ALKBH1, APC, APLP2, APOA1, APOA2, APOB, APOL1, APP, AREL1, ARIH2, ARNTL, ATF5, ATF7IP, ATG7, ATXN3, AURKB, B2M, B4GALT1, BTG2, BTK, C4BPB, CALU, CASC3, CASP8, CAV3, CCDC47, CCT2, CDC23, CDKL2, CGA, CGB3 (includes others), CHMP6, CNBP, CPEB1, CPN1, CPQ, CREB1, CTNND1, CTSB, CTSC, CTSZ, CYP51A1, DDIT3, DDX3X, DLD, DNAJB12, ECE1, ECPAS, EDEM3, EEF2K, EIF1AX, EIF3A, EIF3G, EIF3I, EIF4G3, EIF4H, FOXO3, FTH1, FUS, GAB2, GAPDH, GNL3L, H3-3A/H3-3B, H3C1, H3C13, H4C14, HCK, HELZ, HERPUD1, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, ICAM1, IFNAR1, IGF1, IGF2BP3, IGFBP4, IL1B, IL1RN, ILF3, IREB2, ITM2B, JAK1, KCTD21, KLHL15, KRAS, LARP4, LARP4B, LARP6, let-7, LGMN, LYN, LYZ, MAP3K1, MAP4K4, MARS1, MDM2, mir-101, MKNK1, MMP14, MRPL15, MRPL18, MRPL28, MRPL55, MRPS10, MRPS18A, MRRF, MTOR, MTRF1L, MTTP, MYBBP1A, MYCNOS, NCBP1, NCL, NLK, NLN, NPC1L1, NR3C1, NRDC, OAZ1, OAZ2, OS9, OTUD3, OXA1L, PABPC1, PARK7, PCOLCE, PDCD4, PEX19, PHLPP1, PIWIL1, PPM1G, PRKAA1, PRKCG, PRL, PSMC2, PSMD11, PSMD2, PSME3, PTCD3, PTEN, RASSF2, RBM4, RFFL, RGS2, RNASET2, RNF11, RNF149, RNF185, RNF20, RNF40, RNF6, RPL13A, RPL18, RPL18A, RPL28, RPL38, RPL39, RPL4, RPL5, RPS15, RTN4, S100A9, SAT1, SAV1, SCG3, SEL1L, SENP2, SENP8, SERPINB3, SIAH1, SKP2, SOD2, SORL1, SP1, SPINK5, SPOP, SRSF3, STAT3, STAU1, STIP1, STK4, STX12, SUFU, SVBP, SWAP70, SYK, TAF1, TASP1, TBL1X, TCP1, TGOLN2, TLR4, TMPRSS7, TMPRSS9, TNFSF10, TNIP1, TOPORS, TRABD2B, TRAF3, TRIP12, TSG101, TSPAN1, TTF1, TYROBP, UBA3, UBE2B, UBE2L3, UBE4B, UBR2, USP19, USP4, VCAN, VDR, VIM, VPS35, WARS1, XPNPEP3, YBX1, YTHDF3, ZFPM2, ZMPSTE24 |
| Cellular Movement | Invasion of cells | 6.39E-04 | Decreased | -5.271 | 212 | ADAM10, ADAM15, ADAM17, ADM, AGO2, AKAP12, ALKBH3, ANGPTL4, ANTXR2, ANXA2, APC, APP, ARF4, ARRDC3, ATG7, BARX2, BRCA1, BTG2, CAP1, CAVIN2, CCDC88A, CCR1, CD14, CELF2, CGA, CGB3 (includes others), CLCA2, CLEC4M, CNR1, COL7A1, CRKL, CTNND1, CTNND2, CTSB, CTSZ, CXCL1, CXCL6, CXCR2, CXCR3, CYP2J2, DAB2, DEF6, DEFB103A/DEFB103B, DKK3, DNAJB4, DNAJB6, DPP10-AS1, DPYSL2, DSE, ECE1, EIF3A, ELF3, ETV6, EYA3, EZR, F11R, F2R, FAIM2, FBLN2, FGD4, FNBP1L, FOXO3, FOXP3, FTX, GAB1, GAB2, GIT2, GMFG, GRB2, GSE1, HBP1, HDLBP, HMOX1, HNRNPA2B1, HOTAIR, HSBP1, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HTATIP2, IFNAR1, IGF1, IGF1R, IGF2BP3, IL1B, ILF3, ITGA4, ITGAX, ITGB8, JPX, KDM5A, KLF6, KMT5B, KRAS, LAMA5, LASP1, LCP1, let-7, LGMN, LIMK2, LINC00887, LRPAP1, LUCAT1, LYN, MACIR, MAP4, MAP4K4, MAPRE3, MDM2, MERTK, MGAT5, mir-103, mir-122, mir-133, mir-138, mir-154, mir-24, mir-26, mir-28, mir-515, MMP14, MTDH, MTOR, MUC1, MUC13, MYLK, NAMPT, NCOA1, NCOA4, NEDD9, NFATC4, NFE2L2, NKD2, NONO, NOTCH2, NUAK2, NUMB, PAK2, PARK7, PDCD4, PDGFRA, PECAM1, PHLPP1, PIP5K1A, PPIF, PRKAA1, PRKCD, PRL, PSMD10, PTEN, PTGS2, PTPN6, RAB5A, RALB, RALBP1, RAP1A, RHOA, RHOB, RICTOR, RIOK3, S100A14, S100A9, SCRIB, SDCBP, SEC24D, SEL1L, SETDB1, SKP2, SMAD1, SNAP23, SOD2, SP1, SP100, SPHK2, SRGN, SSX2IP, STAT3, STK24, STK38L, SYK, TAGLN2, TCF4, TDGF1, THBS2, TJP1, TLR2, TLR4, TM9SF4, TMBIM6, TNFSF10, TRAF3, TRIO, TRIP10, UNC5C, USP4, VCAN, VDAC1, VDR, VIM, WASF2, WASF3, WNK1, WSB1, WWTR1, YBX1, ZEB2, ZFYVE21, ZMPSTE24, ZNF24, ZNF350 |
| Cellular Function and Maintenance | Function of blood cells | 6.39E-04 |  | -0.861 | 106 | AQP9, ARHGDIB, ARIH2, ATG7, B2M, B4GALT1, BCL2L11, BTK, CASP8, CCL5, CCR1, CD14, CD84, CD86, CLCN3, CLEC1B, CLEC6A, CLEC7A, CNPY3, CREB1, CSF1R, CTLA4, CTSC, CTSZ, CX3CR1, CXCR2, CYBB, DCLRE1C, DMTF1, DOCK8, DUSP5, EFS, ENTPD1, EPO, F11R, FCAMR, FCGR2A, FOXP3, FPR2, FUT7, FYB1, GAB2, GIMAP4, HCK, HLA-A, HLA-E, HLA-G, HSP90AA1, ICAM1, IFNAR1, IFNGR1, IFNGR2, IL1B, IRF8, LAT2, LCP1, LGMN, LILRB3, LSP1, LYN, MCL1, MERTK, MMP14, MTOR, NEDD9, NFE2L2, NFKBIZ, NINJ1, PECAM1, PER2, PLCB3, PLCG2, PPM1D, PSAP, PTEN, PTGS2, RAC2, RAP1A, RAPGEF2, RHOA, RIPK2, RIPK3, SEMA4A, SH3BP2, SIGLEC9, SIRPA, SKP2, SPHK2, STAT3, STK4, TAGLN2, TBK1, TCF4, TET2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TRIP10, TYROBP, VDR, WIPF1 |
| Cell Death and Survival | Cell death of phagocytes | 6.39E-04 |  | -0.561 | 49 | ADAM17, APP, BCL2L11, BID, BTK, CASP8, CCL5, CD14, CFLAR, CNR1, CTSB, CXCL1, CYBB, DDIT3, DFFA, ENTPD1, FOXO3, HMOX1, HSP90AB1, IFNAR1, IL1B, IL1RN, IRF8, LYZ, MCL1, MEFV, MLKL, MTOR, NAMPT, NFE2L2, NR3C1, PELI2, PF4, PRKCD, PTEN, PTPN6, RALBP1, RIPK3, SH3BP2, SIGLEC9, SOD2, STAT3, STK4, SYK, TLR2, TLR4, TNFRSF1A, TNFSF10, TREM1 |
| Organismal Injury and Abnormalities, Reproductive System Disease | Adenomyosis | 6.40E-04 |  |  | 17 | AIG1, ANXA2, CD14, HBA1/HBA2, LGMN, MTHFD2, NR3C1, OXT, PDS5B, PRL, PRRC2C, STX7, STXBP6, TBL1X, TCF4, UBE2B, VDAC1 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function | Binding of lymphocytes | 6.47E-04 | Decreased | -3.478 | 38 | APBB1IP, APOA1, BTK, CCL5, CCR1, CD86, CTLA4, CXCL9, CXCR3, DOCK2, DOCK8, EZR, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, JAK1, LCP2, LTBR, MAP3K2, MSN, NEDD9, NR3C1, PECAM1, PRL, PTPN6, RAC2, RAP1A, RHOA, RICTOR, STK4, SWAP70, TFRC, THBS2, TLR4, TNFSF14 |
| Cell Death and Survival | Apoptosis of myeloid cells | 6.57E-04 |  | -0.517 | 46 | ADAM17, APP, ASAH1, BID, BNIP3L, BTK, CASP8, CCL5, CD14, CFLAR, CXCL1, CYBB, DDIT3, DFFA, EPO, FOXO3, IGF1, IL1B, IL1RN, IRF8, LYN, MCL1, MDM2, MEFV, mir-154, MTOR, NAMPT, NFE2L2, PELI2, PF4, PRKCD, PTEN, PTPN6, RAF1, RIPK3, SH3BP2, SIGLEC9, SOD2, STAT3, SYK, TLR2, TLR4, TMOD3, TNFRSF1A, TNFSF10, TREM1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Cell movement of monocytes | 6.59E-04 | Decreased | -3.457 | 40 | ADAM17, AIF1, ANXA2, APOA1, APP, ATRN, CCL23, CCL5, CCR1, CX3CR1, CXCL9, CXCR2, DEFB103A/DEFB103B, ELN, F11R, F2R, FPR1, FPR2, HEBP1, ICAM1, IL1B, ITGA4, ITGAX, JAK1, LGMN, mir-133, MMP14, NFKBIZ, NINJ1, PECAM1, PF4, PILRA, PROK2, RAC2, RHOA, S100A14, SIRPA, TLR7, TNFRSF1A, TNIP1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of peripheral blood leukocytes | 6.63E-04 | Decreased | -3.509 | 21 | ADAM10, ADAM17, ANXA2, APOA1, APP, CCL5, CCR1, CXCL16, CXCL9, CXCR3, F2R, FPR1, FPR2, FYB1, ICAM1, LCP1, LCP2, NR3C1, PECAM1, PLCB3, TLR2 |
| Cell-To-Cell Signaling and Interaction | Response of macrophage cancer cell lines | 6.68E-04 |  | -0.113 | 9 | CLIP1, HMOX1, MCL1, NR3C1, PIP5K1A, PRKCD, PTPN6, SIAH1, TLR4 |
| Infectious Diseases | Assembly of virus | 6.77E-04 |  | -0.277 | 4 | ANXA2, CNP, IRF8, TSG101 |
| Cellular Assembly and Organization, Cellular Function and Maintenance | Quantity of filopodia-like projection | 6.77E-04 |  | 1 | 4 | ACTR2, ARPC2, CAPZB, NINJ1 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Hematological System Development and Function, Inflammatory Response | Phagocytosis of monocytes | 6.77E-04 |  |  | 4 | CD93, FCGR2A, PF4, SYK |
| Amino Acid Metabolism, Molecular Transport, Small Molecule Biochemistry | Release of L-cysteine | 6.77E-04 |  | 1 | 4 | IL1B, IL1RN, TLR2, TLR4 |
| Inflammatory Response | Secretion by mast cells | 6.77E-04 |  |  | 4 | BTK, LYN, SNAP23, YWHAZ |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking | Adhesion of granulocytes | 6.83E-04 |  | -1.951 | 29 | ADAM10, ADAM17, ADGRE2, APOA1, CSF3R, CXCL1, CXCR2, CYBB, F10, FPR2, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LYN, MGAT5, PECAM1, PF4, PLCB3, PTPN6, S100A9, SWAP70, TLR2, TLR4, TLR5 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Small intestine tumor | 6.85E-04 |  |  | 27 | ADAM17, APC, B2M, BCL7A, CTLA4, FCRLA, GSE1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IRF8, KBTBD12, KRAS, MCL1, MSH6, NOTCH2, NTRK1, PRKCD, PRKCG, PTEN, PTGS2, RHOA, SSBP2, TET2, TRAF3, U2AF1/U2AF1L5 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Adenocarcinoma of accessory sinus | 6.87E-04 |  |  | 5 | APC, HSP90AA1, HSP90AB1, HSP90B1, KRAS |
| Cellular Development | Lifespan of red blood cells | 6.87E-04 |  | -1.342 | 5 | EPO, FOXO3, NCKAP1L, PER2, PRKAA1 |
| Cell Morphology, Cellular Assembly and Organization, Cellular Function and Maintenance, Inflammatory Response | Formation of phagocytic cups | 6.87E-04 |  |  | 5 | APPL2, HCK, LYN, RAB31, RHOA |
| Cellular Function and Maintenance | Function of leukocytes | 6.96E-04 |  | -0.609 | 96 | ARHGDIB, ARIH2, B2M, B4GALT1, BCL2L11, BTK, CASP8, CCL5, CCR1, CD14, CD84, CD86, CLCN3, CLEC6A, CLEC7A, CNPY3, CREB1, CSF1R, CTLA4, CTSC, CTSZ, CX3CR1, CXCR2, CYBB, DCLRE1C, DMTF1, DOCK8, DUSP5, EFS, F11R, FCAMR, FCGR2A, FOXP3, FPR2, FUT7, FYB1, GAB2, GIMAP4, HCK, HLA-A, HLA-E, HLA-G, HSP90AA1, ICAM1, IFNAR1, IFNGR1, IFNGR2, IL1B, IRF8, LAT2, LCP1, LGMN, LILRB3, LSP1, LYN, MCL1, MERTK, MMP14, MTOR, NEDD9, NFKBIZ, NINJ1, PECAM1, PLCG2, PPM1D, PSAP, PTEN, PTGS2, RAC2, RAP1A, RIPK2, RIPK3, SEMA4A, SH3BP2, SIGLEC9, SIRPA, SKP2, SPHK2, STAT3, STK4, TAGLN2, TBK1, TCF4, TET2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TRIP10, TYROBP, VDR, WIPF1 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | B-cell lymphoma | 7.08E-04 |  | 1.258 | 174 | AMPH, ANKLE2, ANO5, ANXA2, APBA1, APOBEC3A, APOBEC3B, APP, ARHGAP17, ASB10, ASMTL, ATN1, ATRN, ATXN3, B2M, BAZ2B, BBS7, BCL2L11, BCL7A, BECN1, BOD1L1, BTG2, BTK, CARMIL1, CARNS1, CASP8, CAV3, CCNDBP1, CDC23, CFLAR, CGB1/CGB2, CHD4, CMSS1, CNR1, CPSF7, CRNN, CSDE1, CSF1R, CSF3R, CYP2A6 (includes others), DCLRE1C, DMTF1, DNAJB14, DOCK2, DPYD, DYRK1A, ETV6, EWSR1, F11R, FAM131C, FCGR2A, FOXP3, FUS, FYB1, GPRIN1, GPSM2, GRB2, GSE1, HAO2, HCLS1, HDAC7, HDAC9, HECA, HLA-G, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, ICAM1, IDH3A, IFNGR1, IL1B, IRF8, JAK1, KAT6A, KRAS, LCT, let-7, LRRFIP1, LSM3, MAD2L1BP, MAX, MCL1, MDM2, mir-154, mir-28, MPEG1, MS4A1, MTOR, MUC1, MYO5B, MYOF, NACA2, NDUFS1, NETO2, NONO, NOTCH2, NR3C1, NUBP1, NUDT6, NXPE4, PCLO, PDCD4, PDGFRA, PECAM1, PLCG2, PLEKHA7, POLR3B, POTEH (includes others), PPM1D, PPP1R12B, PPP6R3, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGS2, PTPRE, PWWP3A, RAB38, RAB4A, RAF1, RBM4, RESF1, RHOA, RICTOR, RPS15, RTTN, SCN9A, SEC14L1, SF3B1, SGK1, SH2B3, SHROOM3, SMARCA2, SORL1, SRPK2, SSBP2, STAT3, STIP1, STXBP6, SWAP70, TAF1, TDRD1, TET2, THBS2, TLR2, TLR7, TNFRSF10C, TNIP1, TRAF3, TRIM55, TRIP12, TRPM6, TTC21B, TUBA1A, TUBA1C, TUBB2A, TXLNA, UBE2F, UNC5C, VDAC1, WASF2, WDFY3, XRCC5, YAE1, YWHAE, YWHAZ, ZMYM3, ZNF615, ZNF700, ZNF714 |
| Cell Death and Survival, Embryonic Development | Cell death of embryonic cell lines | 7.23E-04 |  | -1.892 | 80 | ADIPOR1, APOBEC3B, APOL1, APP, ARNT, ATG3, ATG7, ATXN3, BCL2L11, BECN1, BID, BNIP3L, BRCA1, CARD8, CASP8, CDK2AP1, CFLAR, CRADD, CTSB, DDIT3, DDN, DDX17, DFFA, DMTF1, FOXL2, FOXO3, GAPDH, GAS7, HNRNPA1, HSPA5, IFI16, IFNAR1, IGF1, IGF1R, IP6K2, KRAS, L3MBTL2, LYN, MAP3K1, MCL1, MDM2, MEFV, MLKL, MTCH2, MTF1, MTOR, NAMPT, NDEL1, NFATC4, NFE2L2, OPA1, PAK2, PARK7, PDIA3, PITX2, PPM1D, PRKAA1, PRKCD, PTEN, RALBP1, RHOA, RHOB, RIPK3, RPS6KA5, RTN4, SENP2, SH3RF1, SIAH1, SKP2, SOD2, STAT3, STK35, STK4, TBK1, TCF4, TFRC, TLR2, TNFRSF1A, TNFSF10, VDAC1 |
| Hematological System Development and Function, Inflammatory Response, Tissue Morphology | Quantity of phagocytes | 7.23E-04 |  | -1.208 | 95 | ADAM10, ADAM17, ADM2, APOB, ARID4B, ARNTL, B2M, B4GALT1, BCL2L11, BID, CASP8, CCR1, CD86, CFLAR, CLEC4D, CLEC4M, CLEC7A, CLIC4, CSF1R, CSF3R, CTLA4, CTSB, CX3CR1, CXCR2, CYBB, DDIT3, DOCK8, DUSP3, EPO, FCGR2A, FOXP3, FPR1, FPR2, FUT7, GAB2, HCK, HMOX1, HOXA3, ICAM1, IFNAR1, IFNGR1, IGF1R, IL1B, IL1RN, IRF8, KDM5A, KRAS, LHCGR, LITAF, LSP1, LTBR, LYN, MCL1, mir-122, MPP1, MSN, MTOR, NFE2L2, NOTCH2, PDE4B, PILRA, PLP1, PPM1D, PRKCD, PRL, PROK2, PTEN, PTPN6, RAC2, RHOA, RICTOR, RIOX2, S100A9, SH2B3, SIGLEC9, SIRPA, SOS2, ST3GAL6, STAT3, STEAP4, STK4, SWAP70, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TYROBP, VDR, VTCN1, WIPF1, YBX1, ZBTB46, ZEB2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Recurrent plasma cell myeloma | 7.43E-04 |  |  | 11 | F10, HSP90AA1, HSP90AB1, HSP90B1, mir-154, NR3C1, PSMB8, PSMD1, PSMD2, PTGS2, SLAMF7 |
| Cellular Movement, Immune Cell Trafficking | Migration of lymphatic system cells | 7.67E-04 | Decreased | -3.994 | 80 | ADAM10, ADAM17, ADGRG3, APBB1IP, APP, BTK, CCL23, CCL5, CCR1, CCR10, CD86, CLEC1B, CTLA4, CUX1, CX3CR1, CXCL1, CXCL16, CXCL9, CXCR2, CXCR3, CYP26B1, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, EPO, EZR, F11R, FOXP3, FRS2, FUT7, FYB1, HCLS1, HLA-A, HLA-G, HSPD1, ICAM1, IFNAR1, IFNGR1, IGF1, IL1B, ITGA4, JAK1, LCP1, LCP2, LTBR, MAP3K2, MAPKAP1, MSN, MTOR, MYLK, NR3C1, PECAM1, PLCB3, PLCG2, PRKAA1, PTEN, PTGS2, RAC2, RAP1A, RHOA, RICTOR, SCRIB, SERPINB3, SOS2, SPHK2, STAT3, STK4, SWAP70, SYK, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF14, TNFSF4, TNIP1, VTCN1 |
| Cell-To-Cell Signaling and Interaction, Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Recruitment of leukocytes | 7.67E-04 | Decreased | -3.545 | 69 | ADAM10, ADAM17, ALOX5AP, APOA1, APOB, APP, ATG7, B4GALT1, CASP8, CCL23, CCL5, CCR1, CD14, CD93, CLEC7A, CNR1, CSF1R, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, F13A1, FCGR2A, FPR2, FUT7, GAB2, GC, HCK, HMOX1, HSPA1A/HSPA1B, ICAM1, IFNAR1, IL1B, IL1RN, ITGA4, KRAS, LSP1, LYN, LYZ, MGAT5, NFE2L2, NINJ1, P2RX1, PDE4B, PECAM1, PTEN, RAP1A, RHOA, RHOB, RIPK2, RTN4, SIGLEC9, SOD2, ST3GAL6, STAT3, SWAP70, SYK, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TREML2, VDR |
| Lipid Metabolism, Small Molecule Biochemistry | Binding of lipid | 7.74E-04 | Decreased | -2.202 | 21 | ANXA2, APOA1, APOB, APP, CD14, CPT1A, F2R, FKBP5, HSP90AB1, IGF1, MAP4, NCOA4, NPC1L1, NR3C1, PACSIN2, PRKCG, PSAP, STIP1, TLR4, TNFSF10, VDR |
| Connective Tissue Disorders, Inflammatory Disease, Inflammatory Response, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Polyarthritis | 7.92E-04 |  | -0.745 | 39 | ADM, CCL5, CCR1, CD86, CDA, DDIT3, F11R, F13A1, FOXP3, FPR2, HDAC7, HLA-G, HNMT, HNRNPA1, HSPA1A/HSPA1B, IFNGR1, IL1B, IL1R2, IL1RN, LTBR, MCL1, NR3C1, NUMB, P2RY13, PECAM1, PTEN, PTGS2, PTMA, PTPRE, RALB, S100A9, SORL1, SPHK2, STAT3, TLR2, TLR4, TNFRSF10C, TNFRSF1A, VTCN1 |
| Cellular Compromise | Respiratory burst | 7.93E-04 | Decreased | -2.484 | 19 | APP, CD14, CLEC4D, CXCL1, CYBB, FPR1, HCK, ICAM1, IRF8, ITGA4, LILRB3, LYN, NCF2, PF4, SLC11A1, SYK, TLR4, TREM1, TYROBP |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed CD20 positive diffuse large B-cell non-Hodgkin lymphoma | 8.10E-04 |  |  | 8 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Plasma cell neoplasm | 8.15E-04 |  |  | 96 | AMPH, ANXA2, ANXA5, APBA1, APC, ASXL1, ATRN, B2M, BCL2L11, BECN1, BRCA1, BTK, CASP8, CAVIN2, CCL5, CCNDBP1, CSF1R, CSF3R, CTSC, CXCL1, CXCL6, EPHA8, F10, F11R, FCGR2A, FOXO3, FRMD4B, FUS, FYB1, GPD1, GRB2, HCLS1, HDAC9, HLA-A, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, IFNAR1, IGF1, IGF2R, IL1B, IL1RN, JAK1, KAT6A, KRAS, LCP1, LCP2, MAP4K4, MAX, MCL1, mir-154, MPEG1, MS4A1, MTOR, NDC80, NONO, NOTCH2, NR3C1, NUBP1, PDGFRA, PF4, PLCG2, PPP4R2, PRKAA1, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGS2, PTPRE, RAB4A, RICTOR, SF3B1, SLAMF7, SMARCA2, SOD2, SRPK2, STAT3, STIP1, TET2, TFRC, TLR4, TNNI3K, TRAF3, TRIO, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBA3, VIM, YWHAE, YWHAZ, ZRSR2 |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Development of phagocytes | 8.53E-04 |  | -1.551 | 56 | ADAM10, ADAM17, APP, BTK, CCL23, CDA, CLEC4M, CSF1R, CSF3R, DYRK1A, EPO, GMPR2, HOXA10, HOXA7, IFI16, IFNAR1, IFNGR1, IL1B, IL1RN, IRF8, KRAS, LILRA2, LILRB3, LTBR, LYN, MAPKAP1, MEF2C, MTOR, NFE2L2, NOTCH2, PF4, PLCG2, PPM1D, PRKAA1, PROK2, PTEN, RALB, RBPJ, RFFL, S100A9, SH2B3, SP3, STAT3, TET2, THOC5, TLR2, TLR4, TLR5, TLR7, TMEM178A, TNFRSF1A, TNFSF10, TREM1, VDR, ZBTB46, ZRSR2 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Breast cancer | 8.59E-04 |  | 0.419 | 425 | ABCC2, ACBD3, ADAM15, ADAM17, ADGRA1, AGO2, AIG1, AIPL1, AK9, AKAP12, ALDH3A1, AMPH, ANAPC13, ANKRD42, ANXA3, AOPEP, AP5M1, APC, APOA1, APOBEC3B, APP, ARF4, ARHGAP19, ARHGDIB, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ASB10, ASXL1, ATG7, ATL3, ATN1, BCL2L11, BECN1, BGN, BLVRA, BNIPL, BOD1L1, BRCA1, BRIP1, BTG2, C17orf80, C18orf25, C1GALT1C1, C1RL, C7orf25, CACNA1E, CAMK2A, CAPZB, CARNS1, CASP8, CCP110, CDC5L, CDH12, CEP128, CEP72, CHCHD5, CHD4, CKMT2, CLK2, CNPY3, COG2, COG5, COL1A2, COL7A1, CPEB1, CPQ, CPT1A, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CT45A10/CT45A5, CTBS, CTLA4, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL9, CXCR3, CYBB, CYP2A6 (includes others), CYTH4, DDX17, DDX27, DDX5, DGLUCY, DHCR7, DLGAP4, DNAJB6, DNAJC7, DOCK8, DOK5, DPYD, DSE, DYRK1A, EBLN2, ECE1, EFS, EIF1AX, EIF3A, EIF4G3, ELF3, EOGT, EPM2AIP1, ETV6, EZR, F10, F11R, F8, FAM214B, FBLN2, FEZ1, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FRMD4B, FTH1, FUS, FUT7, FZD1, G3BP2, GAL3ST1, GAS7, GASK1B, GBE1, GLE1, GLUL, GLYR1, GPATCH4, H2BC21, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HLA-A, HLA-G, HMOX1, HNRNPA1, HNRNPH2, HOTAIR, HOXA3, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPB7, HSPD1, HTATIP2, HVCN1, IDH3A, IER2, IGF1, IGF1R, IL1B, ILF3, ITGAX, JAK1, JAML, JMJD4, JPH4, KAT6A, KDM1B, KDM5A, KIF1C, KIF26B, KLF6, KLHL15, KRAS, L3MBTL3, LAMA5, LAMTOR5, LARP4, LAS1L, let-7, LETM2, LGALS8, LHCGR, LILRA1, LINC00511, LONRF3, LRP2, LRRFIP1, LSP1, LY6K, LY9, LYVE1, MAFF, MAP3K1, MAP4, MAPRE1, MAPRE3, MARF1, MAX, MCCC2, MCL1, MDM2, MED23, MEF2C, mir-101, mir-103, mir-122, mir-154, mir-202, mir-24, mir-26, mir-28, MMP14, MORN5, MRPL15, MS4A1, MT1A, MT1F, MT1X, MTCH2, MTDH, MTHFD2, MTOR, MTTP, MUC1, MYBBP1A, MYH15, MYLK, MYO5B, NABP1, NAMPT, NASP, NCF2, NCKAP1L, NCL, NDE1, NFATC4, NFE2L2, NHSL1, NIN, NLGN3, NLGN4X, NONO, NOTCH2, NR3C1, NTRK1, NUMB, NUP93, OPA1, OR2A14, OR4D10, OR5AC2, OSBPL11, OTUD3, PAK2, PCOLCE, PDGFRA, PDLIM5, PDS5B, PECAM1, PEX19, PF4, PILRA, PIN4, PITX2, PLXDC2, POTEH (includes others), PPM1D, PPP1R12B, PQBP1, PRC1, PRKCD, PRL, PRR12, PRSS55, PSMD12, PSMD4, PTEN, PTGS2, PTPRE, PUDP, PWWP3A, RAB31, RAB3GAP2, RAD51C, RAF1, RALBP1, RALGPS1, RAP1A, RASEF, RBMXL3, RFPL2, RFX3, RGS2, RHBG, RHOA, RHOB, RICTOR, RIN2, RPGRIP1, RPL4, RPL5, RTCB, RTN4, RTTN, S100A14, S100A9, SBF2, SCRIB, SEC14L1, SEC61A2, SENP2, SETDB1, SF3B1, SKP2, SLC22A18, SLC22A4, SLC24A4, SLC25A32, SLC31A1, SLC43A3, SLC4A2, SLC6A6, SLC8A1, SLITRK6, SMTN, SOD2, SORL1, SP100, SP3, SPAG9, SPATA5, SPEF2, SPHK2, SPOP, SRPK1, STAT3, STX3, SUSD6, SYK, SYT17, SZT2, TAF1, TAGLN2, TBC1D12, TBC1D9, TCAIM, TCF4, TCP1, TDGF1, TERF2IP, TET2, THRAP3, TLR4, TLR5, TM2D2, TM7SF3, TMEM43, TMTC2, TNFRSF1A, TNFSF10, TNNC1, TOR1B, TRIM46, TRIM5, TRIM65, TRIO, TRIP10, TRIP12, TRMT9B, TRPM6, TSG101, TSHZ3, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBAP2L, UBE4B, USP19, USP32, UTP4, VCAN, VCPIP1, VDAC2, VDR, VTI1B, WASF2, WDFY3, WNK1, WNK3, WSB1, XPNPEP3, YPEL5, YWHAZ, ZAN, ZBTB21, ZMPSTE24, ZMYM3, ZNF10, ZNF165, ZNF217, ZNF229, ZNF235, ZNF24, ZNF3, ZNF398, ZNF45, ZNF461, ZNF516, ZNF525, ZNF570, ZNF615, ZNF677, ZNF711, ZNFX1, ZSCAN2 |
| Cell-To-Cell Signaling and Interaction, Cellular Movement | Recruitment of cells | 8.83E-04 | Decreased | -4.029 | 76 | ADAM10, ADAM17, ALOX5AP, APOA1, APOB, APP, ATG7, B4GALT1, CASP8, CCL23, CCL5, CCR1, CD14, CD93, CLEC1B, CLEC7A, CNR1, CSF1R, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, ENTPD1, F13A1, FCGR2A, FPR2, FUT7, GAB2, GC, GLCE, HCK, HMOX1, HSPA1A/HSPA1B, ICAM1, IFNAR1, IL1B, IL1RN, ITGA4, KRAS, LSP1, LYN, LYZ, MGAT5, MTOR, NFE2L2, NINJ1, P2RX1, PDE4B, PECAM1, PTEN, PTGS2, RAP1A, RHOA, RHOB, RIPK2, RTN4, SIGLEC9, SLC11A1, SOD2, ST3GAL6, STAT3, SWAP70, SYK, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TREML2, VDR, VIM |
| Hematological System Development and Function | Coagulation | 8.84E-04 |  | -1.217 | 62 | ANXA2, ANXA5, APLP2, APP, ARNTL, C1GALT1C1, C4BPB, CALU, CAPZA1, CAPZB, CARMIL1, CCL5, CLEC1B, COL1A2, CYP4F2, DOCK8, EHD3, ENTPD1, EPO, F10, F13A1, F2R, F8, FCGR2A, GATA5, H3-3A/H3-3B, H3C1, H3C13, HBB, JMJD1C, LCP2, LYN, MAFF, MERTK, P2RX1, PDGFRA, PECAM1, PF4, PLCB3, PLCG2, PLEK, PRKAR1A, PRKCD, PRKCG, PRKG1, PTEN, PTGS2, PTPN6, RAB27A, RAB5A, RAD51C, RAF1, SGK1, SH2B3, SYK, THBS2, TLR2, TLR4, TREM1, VCAN, YWHAZ, ZFPM2 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function | Interaction of T lymphocytes | 9.07E-04 | Decreased | -3.716 | 34 | APBB1IP, APOA1, ATRN, CCL5, CCR1, CD86, CTLA4, CXCL9, CXCR3, DOCK2, EZR, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, JAK1, LCP2, LTBR, MAP3K2, MSN, NR3C1, PECAM1, PRL, RAC2, RAP1A, RHOA, RICTOR, STK4, THBS2, TLR2, TLR4, TNFSF14 |
| Cellular Development, Cellular Growth and Proliferation, Embryonic Development, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Organ Development, Organismal Development, Tissue Development | Lymphopoiesis | 9.16E-04 | Decreased | -4.657 | 134 | ADAM10, ADAM17, ADGRG3, APC, ARNTL, ASXL1, B2M, BCL2L11, BRCA1, BTK, CASP8, CCL5, CD14, CD86, CFLAR, CHD4, CLEC6A, CREB1, CTLA4, CXCL1, CXCR2, CXCR3, CYP26B1, DCLRE1C, DEF6, DNAJA2, DOCK2, DOCK8, DUSP5, ELF1, ELF3, ENTPD1, EPHB1, EPO, EZR, FCAMR, FCGR2A, FOXO3, FOXP3, FUT7, FYB1, GIMAP4, GRB2, HDAC7, HDAC9, HLA-A, HLA-G, HSP90AA1, HSP90B1, HSPD1, ICAM1, IFNAR1, IFNGR1, IFNGR2, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IRF8, ITGA4, ITGB8, JAK1, KRAS, LAT2, LCP1, LCP2, let-7, LGALS8, LSP1, LTBR, LY9, LYN, MAPKAP1, MBP, MCL1, MDM2, MEF2C, MERTK, mir-24, MMP14, MPZL2, MS4A1, MSN, MTOR, NCKAP1L, NFKBIZ, NMT1, NOTCH2, NTRK1, PF4, PHLPP1, PLCG2, PLP1, PRKAA1, PRKCD, PRL, PSAP, PSMB8, PTEN, PTGS2, PTPN6, RAD52, RAF1, RBPJ, RGCC, RHOA, RICTOR, RIPK2, RIPK3, SEMA4A, SKP2, SP3, SPINK5, STAT3, SWAP70, SYK, TCF4, TDP2, THEMIS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TRAF3, TYROBP, USP15, USP4, WIPF1, XRCC5, ZEB2 |
| Cellular Development, Cellular Growth and Proliferation, Embryonic Development, Hematological System Development and Function, Hematopoiesis, Humoral Immune Response, Lymphoid Tissue Structure and Development, Organ Development, Organismal Development, Tissue Development | Development of marginal-zone B lymphocytes | 9.20E-04 |  |  | 7 | ADAM10, ADAM17, BTK, DOCK8, LYN, NOTCH2, RICTOR |
| Cell Death and Survival, Skeletal and Muscular System Development and Function | Cell viability of vascular smooth muscle cells | 9.23E-04 |  | -1.664 | 6 | APP, FOXO3, HMOX1, IGF1, IGF1R, PDGFRA |
| Nervous System Development and Function | Protection of cortical neurons | 9.23E-04 |  | 0.975 | 6 | APP, CNR1, DDIT3, NFATC4, PHLPP1, WDFY3 |
| Molecular Transport, Protein Synthesis, Protein Trafficking | Localization of anti-DNA antibody | 9.23E-04 |  | 1.109 | 6 | ATG7, BECN1, CYBB, MERTK, STAT3, TNIP1 |
| Infectious Diseases | Infection of cells | 9.29E-04 | Decreased | -8.87 | 153 | ACP3, ACTR2, ADAM10, ALG14, ALKBH3, ALKBH8, AMPH, ANXA2, APOBEC3B, APP, ARF1, ARPC5, ATG7, ATOX1, ATP6AP2, B2M, BMP2K, BRCA1, BRINP2, BTG2, CALCOCO1, CAMK1D, CARD16, CCL5, CCR1, CCT2, CD86, CD93, CHORDC1, CHST1, CLEC4M, CLIP1, COG2, COG5, CTSB, CTSZ, CYB5B, CYBB, DAZAP2, DCP1A, DDX23, DDX3X, DEFB103A/DEFB103B, DLGAP4, DNAJA2, EIF3A, EIF3G, EIF3I, ELOA, ERCC5, ETV3, F10, F2R, FAM228B, FGD6, FPR1, FRS2, FUT7, GATAD2A, H3-3A/H3-3B, HCK, HMCN2, HNRNPH1, HSP90B1, HSPA5, ICAM1, IFNAR1, IGF2R, INTS6, ITGA4, JAK1, KAT6A, KDM7A, KMT5B, LCP2, LEFTY1, let-7, LIMK2, LSM3, MAP4, MAPRE1, MDM2, MED31, MERTK, MGAT5, MT1X, MYO1F, MYOF, NACA2, NLGN3, NMT1, NPSR1-AS1, NUP160, NUP50, NUP62, OTUD3, PCK1, PDE8A, PDGFRA, PDIA3, PDZD8, PHF12, PIP5K1A, PRKAA1, PRPF38A, PRPF6, PSMD12, PSMD4, PURA, RAB5A, RAB8A, RALB, RBM25, RBM5, RHOB, RPL18, RPL5, RTN3, SBF2, SEC14L1, SENP5, SESTD1, SF3B1, SLC31A1, SLU7, SNRPD3, SP110, SPAST, SSR1, STAU1, STIP1, TAGLN2, TBK1, TFRC, TLR2, TLR4, TNPO3, TRIM5, TRIM55, TRMT5, TRPT1, TSG101, UBE2B, UBE2L3, UTP11, VDR, WASF2, WNK1, YBX1, ZMPSTE24, ZNF148, ZNF417/ZNF587, ZNF720 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory CD20 positive aggressive non-Hodgkin lymphoma | 9.43E-04 |  |  | 9 | BTK, CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2 |
| Cell-To-Cell Signaling and Interaction, Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Recruitment of neutrophils | 9.55E-04 | Decreased | -2.55 | 41 | ADAM10, ADAM17, ALOX5AP, APOA1, ATG7, B4GALT1, CCL5, CCR1, CD14, CTSC, CX3CR1, CXCL1, CXCL6, CXCR2, FCGR2A, FPR2, FUT7, GC, HCK, HSPA1A/HSPA1B, ICAM1, IFNAR1, IL1B, IL1RN, LSP1, LYN, LYZ, MGAT5, P2RX1, PDE4B, PTEN, RIPK2, RTN4, SIGLEC9, SOD2, ST3GAL6, TLR2, TLR4, TLR5, TNFRSF1A, TREML2 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Influx of neutrophils | 9.56E-04 | Decreased | -2.2 | 14 | ADAM17, CTSC, CX3CR1, CXCL1, CXCL6, CXCR2, CYBB, FCGR2A, IFNAR1, IL1B, PTEN, TLR2, TLR4, TNFRSF1A |
| Molecular Transport | Export of metal | 9.56E-04 |  | -1.425 | 14 | ACO1, APOL1, APP, ATOX1, ATP7B, F2R, FTH1, HAMP, HMOX1, PLCB3, SGK1, SLC11A1, SLC8A3, YWHAE |
| Cancer, Connective Tissue Disorders, Ophthalmic Disease, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Retinoblastoma | 9.56E-04 |  |  | 14 | AKAP12, APC, CSF3R, CYP51A1, EWSR1, HSP90AA1, HSP90AB1, HSP90B1, KRAS, MAX, RAF1, TUBA1A, TUBA1C, TUBB2A |
| Cellular Assembly and Organization, Cellular Function and Maintenance | Organization of cytoplasm | 9.62E-04 | Decreased | -6.574 | 313 | ABITRAM, ACTG1, ACTN1, ACTR2, ADAM10, ADM, AKAP12, ALKBH1, ALS2, ANGPTL4, AP1G1, APBA1, APBB1IP, APC, APC2, APLP2, APP, APPL2, ARF1, ARHGAP17, ARHGAP25, ARHGEF25, ARHGEF9, ARPC2, ARPC5, ASB7, ATAT1, ATG7, ATL3, ATRN, ATXN3, AURKB, BASP1, BCAS3, BECN1, BLZF1, BMP2K, BRCA1, BRWD3, BTBD3, BTG2, BTK, CALML3, CALU, CAMK1D, CAMK1G, CAMK2A, CAMSAP2, CAP1, CAPZB, CARMIL1, CAV3, CBY1, CCDC47, CCDC88A, CCL5, CCP110, CDKL5, CELSR3, CEP72, CIBAR1, CLASP1, CLEC1B, CLIP1, CNP, CNR1, COG2, CORO1C, CREB1, CRKL, CSF1R, CTLA4, CTNND1, CTNND2, CUX1, CX3CR1, CXCL1, CXCL9, CXCR2, CXCR3, CYBB, DKK3, DLG3, DNAJB6, DNM3, DOCK2, DPYSL2, DRG1, DYNC1LI1, DYNLL1, DYRK1A, EIF4G3, EMC10, EPB41L3, EPB41L5, EPHA8, EPHB1, EPO, ERC2, EVI5L, EZR, F11R, F13A1, F2R, FARP2, FCGR2A, FEZ1, FGD4, FNBP1L, GAB1, GAPDH, GAS7, GMFG, GOLGB1, GPRIN1, GPSM2, HBP1, HCK, HOXA4, HSP90AA1, HSP90AB1, ICAM1, IFT88, IGF1, IGF1R, IL1B, ITGA4, ITGB8, KCNJ2, KIDINS220, KIF13B, KIF1C, KLF7, KNSTRN, KRAS, KRT6C, LAMA5, LARP4, LASP1, LCP1, LCP2, LHCGR, LIMK2, LRP2, LRP8, LRPAP1, LSP1, LYN, MAP3K1, MAP4, MAPRE1, MAPRE3, MAST3, MBP, MERTK, MGAT5, mir-138, mir-26, MPP1, MSN, MTFR2, MTOR, MYLK, MYO1F, MYO5A, MYO5B, NCF2, NCKAP1L, NDC80, NDE1, NDEL1, NEDD1, NEDD9, NFATC4, NIN, NINJ1, NLGN3, NSFL1C, NTRK1, NUAK2, NUMB, NUP160, NUP62, OPA1, P2RX1, PACSIN2, PAK2, PARK7, PCLO, PDGFRA, PDIA3, PDZD8, PEX19, PF4, PHACTR1, PHETA2, PIP5K1A, PITPNA, PITPNM1, PJA2, PLCG2, PLEK, PLXNA4, POU4F2, PQBP1, PRC1, PRKAA1, PRKCD, PRKCG, PRKG1, PTEN, PTF1A, PTGS2, PTPRE, RAB11A, RAB21, RAB22A, RAB31, RAB38, RAB5A, RAB8A, RAC2, RAF1, RALB, RALBP1, RAP1A, RAPGEF2, RFX3, RGMA, RHOA, RHOB, RICTOR, RIT1, RNF6, RPL4, RTN3, RTN4, RUFY3, S100A9, SEMA3G, SEMA4A, SEMA4F, SGK1, SHROOM3, SIAH1, SIRPA, SIRPB1, SLC22A5, SLITRK6, SMAD1, SNAP29, SNAP91, SNAPIN, SOD2, SP1, SPAST, SPATA13, SPTBN4, SPTSSB, SRGAP3, SSH1, SSH3, SSX2IP, STAT3, STIP1, STK24, STK35, STK38L, STX3, SURF4, SWAP70, SYK, TACC1, TBC1D30, TBK1, TESK2, TJP1, TLR4, TLR7, TMEM107, TMOD3, TNFRSF1A, TNFSF10, TOR1AIP2, TOR1B, TPM3, TRAF3IP1, TRIM46, TRIO, TRIOBP, TRIP10, TTC26, TUBGCP3, TXNRD1, TYROBP, UBAP2L, UBE4B, VAMP4, VCPIP1, VIM, VPS35, VPS4B, VTCN1, WASF2, WASF3, WDR19, WDR60, WIPF1, WWTR1, YBX1, ZEB2, ZMYM3, ZRANB1 |
| Cell Morphology, Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Cell spreading of phagocytes | 9.76E-04 | Decreased | -3.132 | 11 | ATRN, CLEC1B, HCK, ICAM1, LYN, PECAM1, PLCG2, RHOA, RHOB, SIRPA, SYK |
| Cell Death and Survival | Cell death of brain | 9.83E-04 |  | -0.305 | 63 | APP, ATG7, ATXN3, BCL2L11, BECN1, BID, CAMK2A, CASP8, CDC25C, CFLAR, CXCL1, DDIT3, EPO, FAIM2, FOXO3, FUS, GAPDH, GCLC, HDAC9, HSPA5, HSPD1, IGF1, IGF1R, IL1B, IL1RN, KLF6, LILRB3, LRPAP1, MAP3K1, MCL1, MEF2C, mir-26, MTOR, NFATC4, NFE2L2, NTRK1, PARK7, PITX2, PRKCD, PRKCG, PTEN, PTGS2, RHOA, RIT1, RPS6KA5, SGK1, SHC3, SKP2, SP1, SP3, SRPK2, STIP1, STK4, TCP1, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TRIP10, UBE2L3, WNK3, YWHAB |
| Cell-mediated Immune Response, Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Lymphoid Tissue Structure and Development | Homing of T lymphocytes | 9.93E-04 | Decreased | -2.393 | 27 | ADAM10, ADAM17, CCL23, CCL5, CCR1, CUX1, CXCL16, CXCL9, CXCR2, CXCR3, DEFB103A/DEFB103B, FOXP3, FYB1, HSPD1, ITGA4, JAK1, LCP1, LTBR, MAPKAP1, NR3C1, PTEN, RAC2, STAT3, STK4, THBS2, TLR4, TNFSF14 |
| Molecular Transport, RNA Trafficking | Transport of RNA | 9.93E-04 |  |  | 25 | CASC3, CPEB1, CPSF4, DDX39A, DDX3X, DHX38, FUS, HNRNPA2B1, MAGOHB, NCBP1, NUP160, NUP50, NUP58, NUP62, NUP93, SEC13, SLU7, SRSF1, SRSF3, SRSF4, SRSF5, THOC5, U2AF1/U2AF1L5, WDR33, YBX1 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Mature B cell malignant tumor | 1.00E-03 |  | -0.246 | 193 | AMPH, ANKLE2, ANO5, ANXA2, ANXA5, APBA1, APC, APOBEC3A, APOBEC3B, APP, ARHGAP17, ASB10, ASMTL, ASXL1, ATN1, ATRN, ATXN3, B2M, BAZ2B, BBS7, BCL2L11, BCL7A, BECN1, BOD1L1, BRCA1, BTK, CARMIL1, CARNS1, CASP8, CAV3, CAVIN2, CCL5, CCNDBP1, CDC23, CFLAR, CGB1/CGB2, CHD4, CMSS1, CNR1, CPSF7, CRNN, CSDE1, CSF1R, CSF3R, CTSC, CXCL1, CXCL6, CYP2A6 (includes others), DMTF1, DNAJB14, DOCK2, DPYD, DYRK1A, EPHA8, ETV6, EWSR1, F10, F11R, FAM131C, FCGR2A, FOXO3, FRMD4B, FUS, FYB1, GPD1, GPRIN1, GPSM2, GRB2, GSE1, HAO2, HCLS1, HDAC9, HECA, HLA-A, HLA-G, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IDH3A, IFNAR1, IGF1, IGF2R, IL1B, IL1RN, IRF8, JAK1, KAT6A, KRAS, LCP1, LCP2, LCT, let-7, LRRFIP1, LSM3, MAP4K4, MAX, MCL1, MDM2, mir-154, mir-28, MPEG1, MS4A1, MTOR, MYO5B, MYOF, NACA2, NDC80, NDUFS1, NETO2, NONO, NOTCH2, NR3C1, NUBP1, NUDT6, NXPE4, PCLO, PDGFRA, PECAM1, PF4, PLCG2, PLEKHA7, POLR3B, POTEH (includes others), PPM1D, PPP1R12B, PPP4R2, PPP6R3, PRKAA1, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGS2, PTPRE, PWWP3A, RAB38, RAB4A, RAF1, RBM4, RESF1, RHOA, RICTOR, RPS15, RTTN, SCN9A, SEC14L1, SF3B1, SHROOM3, SLAMF7, SMARCA2, SOD2, SORL1, SRPK2, STAT3, STIP1, STXBP6, SWAP70, TDRD1, TET2, TFRC, THBS2, TLR2, TLR4, TLR7, TNFRSF10C, TNIP1, TNNI3K, TRAF3, TRIM55, TRIO, TRIP12, TRPM6, TTC21B, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBA3, UBE2F, UNC5C, VDAC1, VIM, YAE1, YWHAE, YWHAZ, ZMYM3, ZNF615, ZNF700, ZNF714, ZRSR2 |
| Cell Death and Survival, Neurological Disease, Organismal Injury and Abnormalities | Apoptosis of cortical neurons | 1.01E-03 |  | -0.782 | 22 | APP, BCL2L11, BECN1, DDIT3, EPO, GCLC, HSPA5, IGF1, LRPAP1, MAP3K1, MCL1, MEF2C, mir-26, NFATC4, PTGS2, RHOA, SHC3, SRPK2, TLR7, TNFRSF1A, WNK3, YWHAB |
| Hematological System Development and Function, Humoral Immune Response, Lymphoid Tissue Structure and Development, Tissue Morphology | Quantity of marginal-zone B lymphocytes | 1.01E-03 | Decreased | -2.851 | 22 | ADGRG3, APBB1IP, ARHGDIB, BCL2L11, CASP8, DOCK2, DOCK8, HVCN1, IFNAR1, IRF8, KRAS, LYN, MTOR, NEDD9, NOTCH2, PRKCD, SH3BP2, STK4, TET2, TLR2, TLR4, WIPF1 |
| Hematological System Development and Function, Lymphoid Tissue Structure and Development, Tissue Morphology | Morphology of lymphoid tissue | 1.02E-03 |  |  | 109 | ADAM17, ADGRG3, ANGPTL4, ARHGDIB, ARID4B, ARL6IP5, ARNTL, ASXL1, ATP6AP2, B4GALT1, BCL2L11, BECN1, BNIP3L, BRCA1, BTK, CASP8, CD84, CD86, CFLAR, CLEC1B, CLEC4D, CLEC4M, CSF1R, CTLA4, CUX1, CXCR2, CYP51A1, DCLRE1C, DOCK2, EPO, ERCC5, EWSR1, EZR, F2R, FCAMR, FOXO3, FOXP3, FPR2, FUT7, GIT2, HCK, HMOX1, HOXA3, HOXA7, HSP90B1, IFNAR1, IFNGR1, IGF1, IL1RN, IRF8, JAK1, KAT6A, KRAS, LCP1, LCP2, LGMN, LHCGR, LTBR, LYN, LYPLA2, MCL1, MDM2, MERTK, MTOR, NFE2L2, NFKBIZ, NR3C1, NUMB, PITX2, PPM1D, PRKAA1, PRKCD, PRKG1, PSAP, PTEN, PTF1A, PTGS2, PTPN6, PURA, RAB27A, RAMP2, RASSF2, RIPK3, SH2B3, SH3BP2, SNX27, SPHK2, ST6GALNAC2, STAT3, STK4, SYK, TDP2, TET2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF14, TNIP1, TRAF3, TRIP10, TYROBP, VDR, VTCN1, WIPF1, XRCC5, ZBTB46, ZEB2, ZMPSTE24 |
| Cell Death and Survival | Cell death of macrophage cancer cell lines | 1.03E-03 |  | -1.653 | 16 | ANTXR2, BCL2L11, BNIP3L, CASP8, CFLAR, DDIT3, FOXO3, HSP90AB1, ITGA4, MCL1, MVP, PRKCD, RIPK3, TLR4, TNFRSF1A, TREM1 |
| Post-Translational Modification | Autophosphorylation of protein | 1.03E-03 |  |  | 36 | AURKB, BTK, CAMK2A, CDKL5, CLK2, CLK3, CSF1R, DYRK1A, EEF2K, EPHA8, EPHB1, GRK7, HCK, HTATIP2, IGF1R, LMTK2, LYN, MAK, MAP3K1, MTOR, MYLK2, NLK, NTRK1, PAK2, PDGFRA, PEAK1, PRKCD, PRKCG, RIOK2, RIPK3, STK24, STK4, SYK, TAF1, WNK1, WNK3 |
| Cell Morphology | Polarization of cells | 1.04E-03 | Decreased | -2.822 | 42 | APC, AQP9, CCL5, CLIP1, CTLA4, CXCL9, CYBB, CYP26B1, DOCK2, DPYSL2, GAB1, HLA-G, HOXA3, HSBP1, IL1B, IL1RN, ITGA4, KIF26B, KRAS, LAMA5, LCP1, let-7, LSP1, MSN, MYLK, NAMPT, PRKAA1, PRKG1, PTEN, RAP1A, RBPJ, RHOA, RICTOR, SCRIB, STAT3, STK4, SVIL, SWAP70, TLR2, TLR4, WIPF1, WWTR1 |
| Cell-To-Cell Signaling and Interaction, Nervous System Development and Function | Long-term potentiation of brain | 1.04E-03 |  | 0.2 | 31 | APP, ARHGEF9, ATXN3, B2M, CAMK2A, CCDC88A, CNR1, CREB1, CYBB, IGF2R, IL1B, IL1RN, ITM2B, JPH4, KIDINS220, KRAS, LGMN, LILRB3, LRP8, LRPAP1, NLGN3, NPTN, PJA2, PRKAR1A, PSAP, RHOB, RTN4, ST8SIA4, STIP1, TCF4, TLR4 |
| Cardiovascular Disease, Cell Death and Survival, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Apoptosis of cardiomyocytes | 1.04E-03 |  | 1.553 | 41 | ACSL1, ADM, APOA1, BACH1, BCL2L11, BECN1, BNIP3L, CASP8, CAV3, CYBB, CYP2J2, EPO, FOXO3, GAPDH, HMOX1, HSPD1, IGF1, IL1B, IL1RN, KRAS, MAP3K1, MCL1, MDM2, mir-133, mir-154, mir-24, MT1A, NAMPT, PARK7, PRKAA1, PRKCD, PTEN, RAF1, RHOA, RTN4, SLC8A1, SOD2, STAT3, STK4, TLR4, UBE4B |
| Cell Cycle | Cell cycle progression of carcinoma cell lines | 1.07E-03 |  | 0.64 | 13 | DNAJB4, EMSLR, FOXO3, HMOX1, IFI16, MDM2, mir-138, NASP, PRKCD, RAF1, SMARCA2, TCF4, YWHAE |
| Cardiovascular Disease, Hematological Disease, Organismal Injury and Abnormalities | Formation of thrombus | 1.08E-03 |  | -1.223 | 16 | ANXA2, CXCR2, EPO, F8, FCGR2A, LCP2, LRP8, P2RX1, PF4, PLCB3, RAP1A, RHOA, SGK1, SYK, TNFRSF1A, VDR |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Mammary tumor | 1.08E-03 |  | -0.279 | 445 | ABCC2, ACBD3, ADAM15, ADAM17, ADGRA1, AGO2, AIG1, AIPL1, AK9, AKAP12, ALDH3A1, AMPH, ANAPC13, ANKRD42, ANXA3, AOPEP, AP5M1, APC, APOA1, APOBEC3B, APP, ARF4, ARHGAP19, ARHGDIB, ARMC3, ARMCX5-GPRASP2/GPRASP2, ARNT, ARNTL, ARRDC3, ASB10, ASXL1, ATG7, ATL3, ATN1, BCL2L11, BECN1, BGN, BLVRA, BNIPL, BOD1L1, BRCA1, BRIP1, BTG2, BTK, C17orf80, C18orf25, C1GALT1C1, C1RL, C7orf25, CACNA1E, CAMK2A, CAPZB, CARNS1, CASP8, CCDC88A, CCL5, CCP110, CDC5L, CDH12, CEP128, CEP72, CGB3 (includes others), CHCHD5, CHD4, CKMT2, CLK2, CNPY3, COG2, COG5, COL1A2, COL7A1, CPEB1, CPQ, CPT1A, CRY2, CRYBG3, CSDE1, CSF1R, CSF3R, CT45A10/CT45A5, CTBS, CTLA4, CTNND1, CTNND2, CTSB, CTSC, CTSZ, CUX1, CXCL1, CXCL9, CXCR3, CYBB, CYP2A6 (includes others), CYTH4, DAB2, DDX17, DDX27, DDX5, DGLUCY, DHCR7, DLGAP4, DMTF1, DNAJB6, DNAJC7, DOCK8, DOK5, DPYD, DSE, DYRK1A, EBLN2, ECE1, EFS, EIF1AX, EIF3A, EIF4G3, ELF3, EOGT, EPM2AIP1, EPO, ETV6, EZR, F10, F11R, F2R, F8, FAM214B, FBLN2, FEZ1, FKBP5, FNBP1L, FOXL2, FOXO3, FOXP3, FRMD4B, FTH1, FUS, FUT7, FZD1, G3BP2, GAL3ST1, GAS7, GASK1B, GBE1, GLE1, GLUL, GLYR1, GPATCH4, H2BC21, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HBP1, HCCS, HCK, HDLBP, HLA-A, HLA-G, HMOX1, HNRNPA1, HNRNPH2, HOTAIR, HOXA3, HSP90AA1, HSP90AB1, HSP90B1, HSPA5, HSPB7, HSPD1, HTATIP2, HVCN1, IDH3A, IER2, IGF1, IGF1R, IL1B, ILF3, ITGAX, JAK1, JAML, JMJD1C, JMJD4, JPH4, KAT6A, KDM1B, KDM5A, KIF1C, KIF26B, KLF6, KLHL15, KLHL20, KRAS, L3MBTL3, LAMA5, LAMTOR5, LARP4, LAS1L, let-7, LETM2, LGALS8, LHCGR, LILRA1, LINC00511, LONRF3, LRP2, LRRFIP1, LSP1, LY6K, LY9, LYN, LYVE1, MAFF, MAP3K1, MAP4, MAPRE1, MAPRE3, MARF1, MAX, MCCC2, MCL1, MDM2, MED23, MEF2C, mir-101, mir-103, mir-122, mir-1260a, mir-138, mir-154, mir-202, mir-24, mir-26, mir-28, mir-551, MMP14, MORN5, MRPL15, MS4A1, MT1A, MT1F, MT1X, MTCH2, MTDH, MTHFD2, MTOR, MTTP, MUC1, MYBBP1A, MYH15, MYLK, MYO5B, NABP1, NAMPT, NASP, NCF2, NCKAP1L, NCL, NDE1, NEDD9, NFATC4, NFE2L2, NHSL1, NIN, NLGN3, NLGN4X, NONO, NOTCH2, NR3C1, NTRK1, NUMB, NUP93, OPA1, OR2A14, OR4D10, OR5AC2, OSBPL11, OTUD3, PAK2, PCOLCE, PDGFRA, PDLIM5, PDS5B, PECAM1, PEX19, PF4, PILRA, PIN4, PITX2, PLXDC2, POTEH (includes others), PPM1D, PPP1CB, PPP1R12B, PQBP1, PRC1, PRKCD, PRL, PRR12, PRSS55, PSMD10, PSMD12, PSMD4, PTEN, PTGS2, PTPRE, PUDP, PWWP3A, RAB31, RAB3GAP2, RAD51C, RAF1, RALBP1, RALGPS1, RAP1A, RASEF, RBMXL3, RFPL2, RFX3, RGS2, RHBG, RHOA, RHOB, RICTOR, RIN2, RPGRIP1, RPL4, RPL5, RTCB, RTN4, RTTN, S100A14, S100A9, SBF2, SCRIB, SEC14L1, SEC61A2, SENP2, SETDB1, SF3B1, SKP2, SLC22A18, SLC22A4, SLC24A4, SLC25A32, SLC31A1, SLC43A3, SLC4A2, SLC6A6, SLC8A1, SLITRK6, SMTN, SOD2, SORL1, SP100, SP3, SPAG9, SPATA5, SPEF2, SPHK2, SPOP, SRPK1, STAT3, STIP1, STX3, SUSD6, SYK, SYT17, SZT2, TAF1, TAGLN2, TBC1D12, TBC1D9, TCAIM, TCF4, TCP1, TDGF1, TERF2IP, TET2, THRAP3, TLR4, TLR5, TM2D2, TM7SF3, TMEM43, TMTC2, TNFRSF1A, TNFSF10, TNNC1, TOR1B, TRIM46, TRIM5, TRIM65, TRIO, TRIP10, TRIP12, TRMT9B, TRPM6, TSG101, TSHZ3, TTI2, TUBA1A, TUBA1B, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBAP2L, UBE4B, USP19, USP32, UTP4, VCAN, VCPIP1, VDAC2, VDR, VTI1B, WASF2, WDFY3, WNK1, WNK3, WSB1, XPNPEP3, YPEL5, YWHAZ, ZAN, ZBTB21, ZMPSTE24, ZMYM3, ZNF10, ZNF165, ZNF217, ZNF229, ZNF235, ZNF24, ZNF3, ZNF398, ZNF45, ZNF461, ZNF516, ZNF525, ZNF570, ZNF615, ZNF677, ZNF711, ZNFX1, ZSCAN2 |
| Cell Death and Survival | Cell death of lymphoma cell lines | 1.09E-03 |  | 1.486 | 46 | ADAM17, ANXA2, ARNT, ATG3, ATG7, BCL2L11, BTG2, BTK, CARD8, CASP8, CEACAM3, CFLAR, DDIT3, EZR, FTH1, HCK, HNRNPA1, IGF1R, IGFBP4, IRF8, ITGA4, JAK1, LSP1, LYN, MAX, MCL1, MS4A1, MTOR, MUC1, MXD1, NCL, NR3C1, PDE4B, PLCG2, PRL, PTPN6, RAET1E, RIPK3, SMAD1, SOD2, STAT3, SYK, TNFRSF1A, TNFSF10, TRAF3, YWHAZ |
| Infectious Diseases | Replication of HIV-1 | 1.09E-03 |  | -1.803 | 29 | ADAM10, ANXA5, APOBEC3B, ARHGDIB, ARNTL, ATG7, BECN1, CCL5, CCNK, CFLAR, DDX5, DYRK1A, FAS-AS1, GALC, HCK, IL1B, MED30, NUP62, P2RX1, PACSIN2, PDE8A, RAF1, S100A9, SNAPIN, STAT3, TLR2, TNFSF10, TRIM5, TSG101 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Lymphoid Tissue Structure and Development | Homing of lymphocytes | 1.13E-03 | Decreased | -2.673 | 35 | ADAM10, ADAM17, CCL23, CCL5, CCR1, CUX1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, DEFB103A/DEFB103B, FOXP3, FUT7, FYB1, HLA-G, HSPD1, ITGA4, JAK1, LCP1, LTBR, MAPKAP1, MYLK, NEDD9, NR3C1, PF4, PTEN, RAC2, RHOA, STAT3, STK4, THBS2, TLR4, TNFSF14, WIPF1 |
| Cell Death and Survival | Apoptosis of central nervous system cells | 1.14E-03 |  | -0.307 | 37 | APP, BCL2L11, BECN1, DDIT3, EPO, F2R, FOXO3, GAPDH, GCLC, HSP90AA1, HSPA5, IGF1, IGF1R, IL1B, KLF6, LRPAP1, MAP3K1, MCL1, MEF2C, mir-26, NFATC4, NFE2L2, PITX2, PRKAA1, PTEN, PTGS2, RHOA, SEL1L, SGK1, SHC3, SKP2, SRPK2, TLR7, TNFRSF1A, TNFSF10, WNK3, YWHAB |
| Cell Death and Survival | Cell viability of blood cells | 1.15E-03 | Decreased | -5.3 | 61 | ADGRE2, APOB, APP, ARNT, ATG3, BCL2L11, BID, BRCA1, BTK, CASP8, CD86, CFLAR, CSF1R, CTLA4, CX3CR1, DEF6, DOCK8, ELF1, EPO, F2R, FOXO3, GAB2, HBB, HCK, ICAM1, IGF1, IL1B, JAK1, KIF1C, KRAS, LAT2, LY9, LYN, MCL1, MEF2C, MGAT5, mir-24, MTOR, MVP, NCF2, PF4, PLCG2, PRKAA1, PROK2, PTPN6, RAC2, RAF1, RBPJ, RHOA, RICTOR, RIPK3, SOD2, STAT3, SYK, TLR4, TNFSF10, TRAF3, TYROBP, WIPF1, YWHAZ, ZEB2 |
| Hematological System Development and Function, Organismal Functions | Coagulation of blood | 1.15E-03 |  | -1.844 | 60 | ANXA2, ANXA5, APLP2, APP, ARNTL, C1GALT1C1, C4BPB, CALU, CAPZA1, CAPZB, CARMIL1, CCL5, CLEC1B, COL1A2, CYP4F2, DOCK8, EHD3, ENTPD1, F10, F13A1, F2R, F8, FCGR2A, GATA5, H3-3A/H3-3B, H3C1, H3C13, HBB, JMJD1C, LCP2, LYN, MAFF, MERTK, P2RX1, PDGFRA, PECAM1, PF4, PLCB3, PLCG2, PLEK, PRKAR1A, PRKCD, PRKCG, PRKG1, PTEN, PTGS2, PTPN6, RAB27A, RAB5A, RAD51C, RAF1, SGK1, SH2B3, SYK, THBS2, TLR2, TLR4, VCAN, YWHAZ, ZFPM2 |
| Connective Tissue Disorders, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Non-traumatic arthropathy | 1.15E-03 |  | 0.826 | 172 | ABCC2, ACO1, ACSL1, ADAM10, ADAM15, ADAM17, ADGRA1, ADIPOR1, ADM, AIF1, APLP2, APOA1, AQP9, ARF1, ARHGDIB, ATAT1, B2M, BGN, C9orf78, CARD8, CASC3, CCL23, CCL5, CCR1, CD86, CDA, CELF2, CLEC1B, CLEC4D, CLIC2, CNR1, CSF3R, CTLA4, CTSB, CTSC, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYP4F3, DEF6, DNAJA4, DYNLL1, ECHDC1, EEF1E1, EIF1B, ELF3, EPO, F10, F11R, FCGR2A, FGL2, FKBP5, FOXO3, FOXP3, FPR2, FTH1, GALNT1, GLIPR2, GLUL, H3-3A/H3-3B, HAMP, HBA1/HBA2, HBB, HCK, HCLS1, HDAC7, HLA-A, HLA-C, HLA-G, HMOX1, HNMT, HNRNPA1, HSP90B1, HSPA1A/HSPA1B, HSPD1, ICAM1, IFNAR1, IGF1, IGFBP4, IL1B, IL1R2, IL1RN, JAK1, JMJD1C, KCTD20, KRAS, LCP1, LINC00922, LYZ, MACIR, MAP3K2, MAP4K4, MAPRE1, MCL1, MDM2, MEFV, MMP14, MRFAP1, MS4A1, MS4A7, MTOR, NAMPT, NOM1, NONO, NR3C1, NTRK1, NUMB, OXT, P2RY13, PDIA3, PECAM1, PHTF1, PLAC4, PSMB8, PTGS2, PTMA, PTPRE, RALB, RAMP2, RBPJ, RFX3, RGCC, RNF149, RNF169, RPL18A, RTF2, S100A9, SCN9A, SEC14L3, SEL1L, SF3B6, SLC22A4, SOD2, SORL1, SPOCK1, STAT3, STEAP4, STK19, SWT1, SYK, TALDO1, TCF4, TFRC, TJP1, TLR2, TLR4, TLR7, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF4, TNNC1, TRIO, TUBA1A, TUBA1C, TUBB2A, TUT7, UQCRC2, USP15, VDR, VIM, VTCN1, WNK1, ZNF143, ZNF281, ZNF326, ZNF331 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Stage III-IV mantle cell lymphoma | 1.18E-03 |  |  | 12 | BTK, CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2, TUBA1A, TUBA1C, TUBB2A |
| Cell Morphology, Inflammatory Response | Shape change of phagocytes | 1.18E-03 | Decreased | -2.791 | 12 | ATRN, CLEC1B, HCK, ICAM1, LYN, PECAM1, PLCG2, RHOA, RHOB, SIRPA, SYK, WIPF1 |
| Cancer | Sphere formation of carcinoma cell lines | 1.18E-03 |  | -1.316 | 8 | DPP10-AS1, HTATIP2, let-7, MTHFD2, MYOF, PTEN, SRGN, STAT3 |
| Cell Death and Survival | Cell death of mesothelioma cell lines | 1.18E-03 |  | 0.111 | 8 | BID, CASP8, CFLAR, MCL1, NOTCH2, SFRP4, STAT3, TNFSF10 |
| Cell-mediated Immune Response, Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of peripheral T lymphocyte | 1.18E-03 | Decreased | -2.191 | 8 | CCL5, CXCL16, FYB1, ICAM1, LCP1, LCP2, NR3C1, PLCB3 |
| Cancer, Organismal Injury and Abnormalities, Tumor Morphology | Progressive recurrent neoplasm | 1.21E-03 |  |  | 21 | CSF1R, CTLA4, HSP90AA1, HSP90AB1, HSP90B1, IGF1R, LHCGR, MERTK, MS4A1, NR3C1, NTRK1, PDGFRA, PSMB8, PSMD1, PSMD2, PTGS2, RAF1, SLAMF7, TUBA1A, TUBA1C, TUBB2A |
| Protein Synthesis | Translation of protein | 1.23E-03 |  | 0.675 | 70 | ACO1, AGO2, ALKBH1, APP, ATF5, BTG2, BTK, CASC3, CNBP, CPEB1, DDX3X, EEF2K, EIF1AX, EIF3A, EIF3G, EIF3I, EIF4G3, EIF4H, FOXO3, FUS, GAPDH, HELZ, HSPA1A/HSPA1B, HSPA5, IGF1, IGF2BP3, ILF3, IREB2, KRAS, LARP4B, let-7, MARS1, MKNK1, MRPL15, MRPL18, MRPL28, MRPL55, MRPS10, MRPS18A, MRRF, MTOR, MTRF1L, NCBP1, NCL, OXA1L, PABPC1, PDCD4, PIWIL1, PRKAA1, PTCD3, RBM4, RGS2, RNASET2, RPL13A, RPL18, RPL18A, RPL28, RPL38, RPL39, RPL4, RPL5, RPS15, S100A9, SRSF3, STAU1, SYK, TNFSF10, TNIP1, WARS1, YBX1 |
| Cancer, Organismal Injury and Abnormalities | Development of head and neck tumor | 1.26E-03 |  | 1.234 | 30 | AKAP12, ANXA2, APC, BTG2, CSF3R, CYP51A1, EWSR1, FOXO3, HSP90AA1, HSP90AB1, HSP90B1, KDM5A, KRAS, MAX, MTDH, NAMPT, PER2, PPM1D, PRKAR1A, PRL, PTEN, RAF1, SDHD, SSBP2, TDGF1, TUBA1A, TUBA1C, TUBB2A, VDR, XRCC5 |
| Connective Tissue Disorders, Immunological Disease, Inflammatory Disease, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Lupus erythematosus | 1.26E-03 |  | 1.423 | 79 | APOBEC3A, BCL2L11, CASP8, CD86, CFLAR, CPT1A, CRB1, CREB1, CTLA4, CXCL16, CXCL9, DDIT3, DGAT2, DKK3, DUSP5, ERCC5, FCGR2A, FOXO3, HLA-A, HOXA7, ICAM1, IFI16, IFNGR1, IGF1R, IL1B, IL1R2, IRF8, ITGAX, JAK1, LINC-PINT, LY9, LYN, MCL1, MERTK, mir-154, mir-24, mir-299, MS4A1, MTOR, NCF2, NR3C1, OPA1, PLA2G4C, PROK2, PSME3, PTGS2, PTPN6, RAB27A, RAB31, RAB5A, RABGAP1L, RFPL2, RIPK3, S100A9, SGK1, SKP2, SLAMF7, SLU7, SOD2, SOS2, SP1, SRSF1, STAT3, STXBP6, TBK1, TLR2, TLR4, TLR5, TLR7, TMEM39A, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TNPO3, UBE2L3, VDR, WARS1, ZNF148 |
| Cell Death and Survival | Necroptosis | 1.28E-03 |  | -1.062 | 25 | ATP6AP2, CASP8, CD14, CFLAR, CWC15, GAPDH, GRB2, HOXA3, HSP90AA1, HSP90AB1, IFNAR1, INSM2, IPMK, JAK1, MLKL, MTOR, NUDT13, PPIF, RIPK3, SF3B6, SOD2, TLR4, TMEM107, TNFRSF1A, TNFSF10 |
| Cell Death and Survival | Apoptosis of macrophages | 1.28E-03 |  | -1.109 | 25 | APP, CASP8, CCL5, CD14, CFLAR, CYBB, DDIT3, DFFA, IL1B, MCL1, MEFV, MTOR, NAMPT, NFE2L2, PELI2, PTEN, PTPN6, RIPK3, SOD2, STAT3, TLR2, TLR4, TNFRSF1A, TNFSF10, TREM1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Malignant neoplasm of pleura | 1.28E-03 |  |  | 19 | ADAM10, CTLA4, DDX3X, FOXO3, HSP90AA1, HSP90AB1, HSP90B1, KRAS, LYN, MYBBP1A, PDGFRA, PDZD8, SETDB1, SP1, THBS2, TTF1, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Organismal Injury and Abnormalities, Tumor Morphology | Progression of malignant tumor | 1.29E-03 |  | 0.822 | 45 | ADAM10, ANXA3, BTK, COL1A2, CSF1R, CSF3R, CTLA4, CYP51A1, FOXO3, FUS, HSP90AA1, HSP90AB1, HSP90B1, IGF1R, ITGA4, KRAS, LHCGR, LIMK2, LYN, MERTK, mir-26, MKNK1, MS4A1, MTOR, NR3C1, NTRK1, OAZ1, PDGFRA, PSMB8, PSMD1, PSMD2, PTEN, PTGS2, RAF1, S100A9, SAT1, SF3B1, SKP2, SLAMF7, STAT3, TDGF1, TLR2, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Neurological Disease, Organismal Injury and Abnormalities | Desmoplastic medulloblastoma | 1.30E-03 |  |  | 9 | HSP90AA1, HSP90AB1, HSP90B1, IGF1R, MSH6, SUFU, TUBA1A, TUBA1C, TUBB2A |
| Cellular Assembly and Organization | Accumulation of lysosome | 1.30E-03 |  | -0.558 | 9 | APP, ATG7, BECN1, BORCS5, CTSB, IGF1, IGF1R, MYOF, VTI1B |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities, Tumor Morphology | Progressive multiple myeloma | 1.30E-03 |  |  | 9 | HSP90AA1, HSP90AB1, HSP90B1, NR3C1, PSMB8, PSMD1, PSMD2, PTGS2, SLAMF7 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Stage I Hodgkin disease | 1.30E-03 |  |  | 9 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Gastrointestinal Disease, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Small intestinal lymphoma | 1.32E-03 |  |  | 10 | B2M, BCL7A, HVCN1, IRF8, MCL1, NOTCH2, PTEN, RHOA, TET2, TRAF3 |
| Cell-To-Cell Signaling and Interaction, Cellular Compromise, Cellular Function and Maintenance, Inflammatory Response | Respiratory burst of phagocytes | 1.33E-03 |  | -1.903 | 13 | APP, CXCL1, FPR1, HCK, ICAM1, IRF8, ITGA4, LILRB3, LYN, PF4, SYK, TREM1, TYROBP |
| Cellular Assembly and Organization | Remodeling of actin cytoskeleton | 1.33E-03 | Decreased | -2.891 | 13 | APP, BTG2, CCDC88A, CXCR2, F2R, GAB1, MSN, PAK2, RAB5A, RHOA, RICTOR, TLR4, TRIO |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Stage IVA nasopharyngeal cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cellular Development, Hematological System Development and Function, Lymphoid Tissue Structure and Development | Maturation of peripheral dendritic cells | 1.35E-03 |  |  | 3 | TLR2, TLR4, TNFRSF1A |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage IV ALK mutation negative EGFR mutation negative nonsquamous non-small cell lung carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Stage 4a unresectable hypopharyngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Stage IV BRCA mutation positive triple negative breast cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Stage IA cervical cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage 3 inoperable non-small cell lung cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage 4a undifferentiated laryngeal carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cell Morphology, Cellular Development, Cellular Growth and Proliferation, Tissue Development | Morphogenesis of stem cells | 1.35E-03 |  |  | 3 | ATP6AP2, FZD3, PIGA |
| Cancer, Organismal Injury and Abnormalities | Stage IVB loco-regionally advanced squamous cell carcinoma of the head and neck | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Stage III CDKN2A positive oropharyngeal carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Stage IB2-IVA invasive cervical squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities | High-risk occult primary cancer of head and neck | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage 4b undifferentiated laryngeal carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Inflammatory Response | Sjogren's-syndrome like inflammation | 1.35E-03 |  |  | 3 | FOXO3, NFKBIZ, STAT3 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Stage IB2-IVA primary cervical adenocarcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cellular Movement, Tissue Morphology | Formation of endothelial dome | 1.35E-03 |  |  | 3 | CXCL1, IL1B, LSP1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | TNM stage T3 glottis cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Connective Tissue Disorders, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease, Skeletal and Muscular Disorders | High-risk squamous cell cancer of the maxillary sinus | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Locally advanced glottis cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Hepatic System Disease, Organismal Injury and Abnormalities | Non-well differentiated fetal hepatoblastoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | High-risk squamous cell cancer of the oropharynx | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage III locally advanced laryngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Stage 3 resectable hypopharynx carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage IVA locally advanced laryngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Ethmoid sinus adenocarcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | High-risk squamous cell cancer of the ethmoid sinus | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Resectable glottis cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage 3 resectable laryngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage 4a resectable laryngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Stage 3 undifferentiated laryngeal carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Dermatological Diseases and Conditions, Gastrointestinal Disease, Organismal Injury and Abnormalities | High-risk squamous cell cancer of the lip | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | High-risk squamous cell cancer of the glottis | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Resectable supraglottis cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Adenoid cystic carcinoma of parotid gland | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Stage IVA locally advanced hypopharyngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | High-risk squamous cell cancer of the supraglottis | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Invasive cervical adenocarcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Advanced stage primary laryngeal cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Locally advanced supraglottis cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities | Stage IVA loco-regionally advanced squamous cell carcinoma of the head and neck | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Infectious Diseases | Candidemia | 1.35E-03 |  |  | 3 | CYP51A1, IFNGR1, IFNGR2 |
| Hematopoiesis, Lymphoid Tissue Structure and Development | Frequency of transitional type 3 B lymphocytes | 1.35E-03 |  |  | 3 | BCL2L11, CTLA4, LYN |
| Inflammatory Disease, Organismal Injury and Abnormalities, Respiratory Disease | Pleurisy | 1.35E-03 |  |  | 3 | IL1RN, TLR2, TLR4 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | FIGO stage IIA2 cervical cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Primary oropharyngeal squamous-cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Stage III locally advanced hypopharyngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Primary cervical adenosquamous carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | Undifferentiated oropharyngeal carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response, Tissue Development | Accumulation of effector memory T lymphocytes | 1.35E-03 |  |  | 3 | CCR1, DEF6, FOXO3 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | TNM stage T2-4 nasopharyngeal cancer | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Hematological Disease, Respiratory Disease | Hyperoxia | 1.35E-03 |  |  | 3 | SOD2, TLR2, TLR4 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | CDKN2A overexpression negative hypopharyngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Renal and Urological System Development and Function, Tissue Development | Multilayering of kidney cell lines | 1.35E-03 |  |  | 3 | CTNND2, RAF1, RHOA |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Primary cervical squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | CDKN2A overexpression negative laryngeal squamous cell carcinoma | 1.35E-03 |  |  | 3 | HSP90AA1, HSP90AB1, HSP90B1 |
| Cell-To-Cell Signaling and Interaction | Degradation of synapse | 1.35E-03 |  |  | 3 | APP, JAK1, STAT3 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Adhesion of phagocytes | 1.35E-03 | Decreased | -2.41 | 34 | ADAM10, ADAM17, ADGRE2, APOA1, BTK, CCL5, CNR1, CSF3R, CTSZ, CXCL1, CXCR2, CYBB, F2R, HCK, ICAM1, IL1B, ITGA4, ITGAX, LCP1, LGALS8, LILRB3, LYN, MGAT5, PAK2, PF4, PLCB3, PTGS2, PTPN6, RAC2, RHOB, S100A9, TLR2, TLR4, TLR5 |
| Cancer, Organismal Injury and Abnormalities | Secondary tumor | 1.37E-03 | Decreased | -2.883 | 206 | ADAM10, ADAM15, ADAM17, ADM, AKAP12, ALDH5A1, ANGPTL4, ANTXR2, ANXA2, ANXA5, APC, APOA1, ARF4, ASAH1, ASXL1, AURKB, B2M, BACH1, BCL2L11, BRCA1, BRIP1, BTK, CALU, CASP8, CCDC88A, CCL5, CCR10, CD86, CDA, CFLAR, CHD4, CLCN3, CLEC4D, CLEC6A, CPEB1, CREB1, CSF1R, CSF3R, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSZ, CUX1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP51A1, DNAJB6, DPP10-AS1, DPYD, DPYSL2, EFS, ENTPD1, EPB41L3, EPO, ERCC5, ETV6, EXT1, EZR, F10, F2R, FCGR2A, FCGR2C, FNBP1L, FOXO3, FRS2, FTL, FUS, FUT7, G3BP2, GAS7, GLUL, GSE1, HCLS1, HLA-E, HLA-G, HMOX1, HOTAIR, HOXA10, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HTATIP2, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IL1B, IL1RN, IP6K2, ITGA4, JAK1, KAT6A, KCNJ2, KDM5A, KIDINS220, KLF6, KRAS, LAMA5, let-7, LGALS8, LHCGR, LIMK2, LYN, MAP3K1, MAP4, MCM3, MDM2, MERTK, mir-101, mir-122, mir-133, mir-137, mir-138, mir-154, mir-24, mir-26, mir-28, mir-450, mir-550, MKNK1, MMP14, MS4A1, MSH6, MTOR, MUC1, MYOF, NCF2, NEDD9, NKD2, NR3C1, NTRK1, NUMB, NUP93, OTUD3, PCOLCE, PDCD4, PDGFRA, PECAM1, PFKFB4, PHLPP1, PITX2, PPM1D, PRL, PSAP, PSMD1, PSMD10, PSMD2, PTEN, PTGS2, RAB31, RAC2, RAD51C, RAD51D, RAF1, RALB, RALBP1, RHOA, RHOB, RICTOR, RIOK3, RIPK3, RNF19B, RTN1, SCRIB, SDCBP, SERTAD2, SF3B1, SKP2, SOD2, SRD5A2, SSX2IP, STAT3, TET2, TLR2, TLR4, TLR7, TMBIM6, TNFRSF1A, TNNC1, TRIO, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, USP4, VCAN, VDR, VIM, VTCN1, WNK1, WSB1, WWTR1, YWHAE, YWHAZ, ZEB2, ZFYVE21, ZNF350, ZRSR2 |
| Cellular Movement, Hair and Skin Development and Function | Cell movement of epithelial cell lines | 1.37E-03 | Decreased | -2.675 | 35 | APOA1, APP, ARF4, CCL5, CCR1, CLASP1, CNR1, CPEB1, CXCL1, CXCR2, EPHA8, F10, FBLN2, FPR2, FUT7, GAB1, GRB2, ICAM1, IGF1, IGF1R, KRAS, MAPRE1, MAPRE3, MSN, NARS1, PEAK1, PTEN, PTGS2, RHOA, RICTOR, SRSF1, TLR2, TXNRD1, VIM, WWTR1 |
| Cellular Movement, Immune Cell Trafficking, Lymphoid Tissue Structure and Development | Homing of lymphatic system cells | 1.37E-03 | Decreased | -2.781 | 36 | ADAM10, ADAM17, CCL23, CCL5, CCR1, CUX1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, DEFB103A/DEFB103B, FOXP3, FUT7, FYB1, HLA-G, HSPD1, ITGA4, JAK1, LCP1, LTBR, MAPKAP1, MMP14, MYLK, NEDD9, NR3C1, PF4, PTEN, RAC2, RHOA, STAT3, STK4, THBS2, TLR4, TNFSF14, WIPF1 |
| Lymphoid Tissue Structure and Development, Tissue Morphology | Quantity of lymphatic system cells | 1.39E-03 | Decreased | -4.66 | 157 | ADAM10, ADGRG3, AP1G1, APBB1IP, APOA1, APP, ARHGDIB, ARID4B, ARNTL, ASXL1, ATG7, ATP6AP2, B2M, B4GALT1, BCL2L11, BID, BNIP3L, BTK, CASP8, CCL5, CCR1, CD84, CD86, CFLAR, CLEC4D, CLEC4M, CREB1, CSF1R, CSF3R, CTLA4, CTSB, CX3CR1, CXCL16, CXCR2, CXCR3, DCLRE1C, DDIT3, DEF6, DKK3, DMTF1, DOCK2, DOCK8, DUSP5, ELF1, EPO, FCGR2A, FOXO3, FOXP3, FUT7, FYB1, GAB2, GALNT1, GCNT2, HCK, HCLS1, HLA-A, HLA-G, HOXA3, HSP90B1, HSPD1, HVCN1, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2R, IL1B, IPMK, IRF8, ITGB8, JAK1, KAT6A, KIDINS220, KRAS, LCP2, let-7, LGALS8, LGMN, LHCGR, LILRB3, LSP1, LTBR, LY9, LYN, MBP, MCL1, MDM2, MERTK, mir-24, MPZL2, MS4A1, MSN, MTOR, MTTP, MUC1, MXD1, NEDD9, NLK, NMT1, NOTCH2, NR3C1, NTRK1, PABPC1, PAK2, PECAM1, PLCG2, PLP1, PPM1D, PRKCD, PRL, PSAP, PSMB8, PSME3, PTEN, PTPN6, RAC2, RAF1, RAPGEF2, RASSF2, RBPJ, RGCC, RICTOR, RIPK2, RIPK3, RPS6KA5, SH2B3, SH3BP2, SIRPA, SLC6A6, SOD2, SPHK2, SSBP2, ST3GAL6, ST6GALNAC2, STAT3, STK4, SYK, TCF4, TDP2, TET2, THBS2, TLR2, TLR4, TMOD3, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TRAF3, TYROBP, VDR, VTCN1, WIPF1, XRCC5, ZEB2, ZRANB1 |
| Cell Death and Survival | Apoptosis of pheochromocytoma cell lines | 1.39E-03 |  | -0.673 | 21 | APP, ATN1, BCL2L11, BNIP3L, BTG2, DYNLL1, FFAR4, GAB1, IGF1, MAP3K1, PSAP, PTGS2, PTPN6, RIT1, SIAH1, SIRPA, SOD2, SPHK2, STAT3, TNFRSF1A, VCAN |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Inflammatory Response | Binding of blood platelets | 1.39E-03 |  | -0.179 | 21 | ANXA5, APP, C1GALT1C1, CD84, CLEC1B, CYBB, ENTPD1, F10, F8, FYB1, HCK, ICAM1, LCP2, LRP8, LRPAP1, PECAM1, PLCG2, RHOA, ST6GALNAC2, TLR2, WIPF1 |
| Cell Death and Survival | Cell death of tumor cell lines | 1.39E-03 | Increased | 2.501 | 318 | ACO2, ADAM10, ADAM17, ADIPOR1, ADM, AKAP12, ALKBH3, ALS2, ANGPTL4, ANTXR2, ANXA2, ANXA5, APC, APOB, APP, ARL6IP1, ARNT, ASAH1, ATF5, ATG13, ATG14, ATG3, ATG7, ATN1, ATXN3, AURKB, B2M, BACH1, BCL2L11, BECN1, BID, BNIP2, BNIP3L, BRCA1, BTG2, BTK, CARD8, CASP8, CCP110, CCT2, CD14, CDA, CEACAM3, CELF1, CFLAR, CGB3 (includes others), CIBAR1, CKS2, CLASP1, CLCA2, CLK3, CNR1, CREB1, CSF1R, CTNND1, CTSB, CUX1, CXCR3, CYP2J2, DAB2, DDIT3, DDX3X, DFFA, DHCR7, DKK2, DKK3, DNAJB12, DPH2, DPYD, DTD2, DYNLL1, EEF2K, EIF1AX, EIF3G, EPO, EWSR1, EZR, FAIM2, FASTKD2, FFAR4, FKBP5, FOXL2, FOXO3, FOXP3, FTH1, GAB1, GAPDH, GAS7, GBE1, GIMAP4, GLIPR1, GSTA1, GUCA2A, GUCA2B, HCK, HCLS1, HDAC9, HERPUD1, HFE, HLA-G, HMOX1, HNRNPA1, HNRNPH1, HOTAIR, HSP90AA1, HSP90AB1, HSPA1A/HSPA1B, HSPA5, HSPD1, HTATIP2, IFI16, IFNAR1, IGF1, IGF1R, IGF2R, IGFBP4, IL1B, IL1RN, ING3, IP6K2, IPMK, IRF8, ITGA4, JAK1, KIDINS220, KIF1C, KLF6, KRAS, LAMA5, LCE1E, let-7, LGALS8, LGR5, LIMS1, LINC00887, LSP1, LTBR, LUCAT1, LYN, LYPLA2, MAP3K1, MAPKAP1, MAX, MBP, MCL1, MCM7, MDM2, MEF2C, MEFV, MERTK, mir-101, mir-103, mir-122, mir-133, mir-138, mir-154, mir-26, mir-299, mir-515, MIR4728, MKNK1, MLKL, MMP14, MOB3A, MS4A1, MSN, MT1F, MT1X, MTDH, MTOR, MUC1, MVP, MXD1, MYBBP1A, NABP1, NAMPT, NASP, NBR2, NCL, NCOA4, NDC80, NEDD9, NFE2L2, NFKBIZ, NOTCH2, NR3C1, NTRK1, NUMB, NUP58, NUP93, OAZ1, OPA1, PAK2, PARK7, PCK1, PDCD4, PDE4B, PDGFRA, PECAM1, PHLPP1, PIWIL1, PLAGL2, PLCG2, PLEKHA7, PLXNA4, PPM1D, PRKAA1, PRKAR1A, PRKCD, PRKG1, PRL, PSAP, PSMD2, PSMD4, PSMD7, PSME3, PTEN, PTGS2, PTMA, PTPN6, PTPRE, PUS10, RAB22A, RAD51C, RAET1E, RAF1, RALB, RALBP1, RAPGEF2, RASD1, RASSF3, RBM5, RHOA, RHOB, RICTOR, RIPK2, RIPK3, RIT1, RTN1, RTN4, S100A9, SAT1, SENP8, SFR1, SFRP4, SGK1, SH2B3, SH3RF1, SIAH1, SIRPA, SKP2, SLU7, SMAD1, SOD2, SP1, SPHK2, SPOCK1, SPOP, SRGN, SRPK1, SRPK2, SRSF1, STAT3, STAU1, STIP1, STK4, SUDS3, SVIL, SYK, TACC1, TAGLN2, TASP1, TBK1, TCF4, TCP1, TDGF1, TDP2, TERF2IP, TESK2, TFRC, THAP1, THOC5, TLR2, TLR4, TM9SF4, TMBIM6, TMCC3, TNFRSF10C, TNFRSF10D, TNFRSF1A, TNFSF10, TNFSF14, TRAF3, TREM1, TSG101, TTF1, TUBA1A, TXNRD1, UBA3, UBE2L3, UBE2V1, USP17L2 (includes others), VCAN, VDAC1, VDAC2, VDR, VPS35, WDR19, WSB1, WWTR1, XAF1, XRCC5, YBX1, YWHAE, YWHAZ, ZMYM3, ZNF148, ZNF229 |
| Organismal Survival | Survival of organism | 1.40E-03 |  | -1.468 | 157 | ACSL1, ADAM15, ADM, ALDH5A1, ALKBH1, ANTXR2, APC, APC2, APOA1, APP, AQP9, ARHGDIB, ARNT, ASAH1, ASXL1, ATG7, ATN1, ATP7B, AURKB, B2M, BARHL1, BCL2L11, BECN1, BGN, BID, BRCA1, CASP8, CBY1, CCNK, CCR1, CD14, CDA, CLEC4D, CLIC4, CNPY3, CNR1, CREB1, CTLA4, CTNND1, CTSB, CTSC, CXCL9, CXCR2, CXCR3, CYBB, DDX3X, DEFB103A/DEFB103B, DEFB114, DNM3, DUSP3, EEF2K, ELK3, ELN, EPO, F2R, FCGR2A, FGL2, FTL, GALC, GLUL, GSTA1, HFE, HLA-A, HMOX1, HOXA3, HSP90B1, HSPA1A/HSPA1B, HTATIP2, ICAM1, IFI16, IFNAR1, IFNGR1, IFT88, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IRF8, ITGA4, KLF6, KRAS, LAT2, let-7, LITAF, LTBR, LYZ, MCL1, MDM2, mir-122, mir-515, MMP14, MS4A1, MTDH, MTTP, MUC13, MVP, MYOG, NAMPT, NCL, NCOA1, NDC80, NFE2L2, NINJ1, NOTCH2, NR3C1, NTRK1, PCLO, PER2, PPIF, PPM1D, PPP1CB, PRKAR1A, PRKG1, PTEN, PTGS2, PWWP3A, RAB5A, RAC2, RALBP1, RAMP2, RHOA, RIPK2, RIPK3, RPL13A, S100A9, SAV1, SF3B1, SKP2, SLC11A1, SLC31A1, SNX27, SOD2, SP1, STAT3, STIP1, SYK, TCF4, TET2, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, TRAF3, TREM1, TSG101, VTCN1, WARS1, XRCC5, ZDHHC16, ZMPSTE24 |
| Antimicrobial Response, Inflammatory Response | Antibacterial response | 1.40E-03 |  |  | 30 | ADM, ANXA3, APP, B2M, CLEC4D, DEFB103A/DEFB103B, FPR2, H2BC12, H2BC21, H2BC4, HCK, HLA-A, HLA-E, HLA-G, IRF8, LYZ, MPEG1, MYO1F, NOTCH2, PPM1D, PRKCD, RBPJ, RPL39, S100A9, SLC11A1, SYK, TBK1, TLR2, TLR4, TNFRSF1A |
| Cell Death and Survival | Apoptosis of uterine cell lines | 1.41E-03 |  | 0 | 5 | KRAS, MCL1, mir-24, PTGS2, RAF1 |
| Infectious Diseases | Aspergillosis | 1.41E-03 |  |  | 5 | CLEC1A, CLEC7A, CYBB, CYP51A1, NR3C1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of lymphocytes | 1.41E-03 | Decreased | -4.27 | 86 | ADAM10, ADAM17, APBB1IP, APC, APP, ATG7, BGN, BTK, CCL23, CCL5, CCR1, CCR10, CD86, CTLA4, CUX1, CX3CR1, CXCL1, CXCL16, CXCL6, CXCL9, CXCR2, CXCR3, CYP26B1, DEF6, DEFB103A/DEFB103B, DOCK2, DOCK8, DPYSL2, EFS, EZR, F11R, FOXP3, FUT7, FYB1, HCLS1, HLA-A, HLA-G, HMOX1, HSPD1, ICAM1, IFNAR1, IFNGR1, IL1B, ITGA4, JAK1, KCNE3, KRAS, LCP1, LCP2, LTBR, MAP3K2, MAPKAP1, MMP14, MSN, MTOR, MYLK, NEDD9, NR3C1, PECAM1, PF4, PLCB3, PRKAA1, PRKCD, PTEN, PTGS2, RAC2, RAP1A, RHOA, RICTOR, SCRIB, SERPINB3, SOS2, SPHK2, STAT3, STK4, SWAP70, THBS2, TLR2, TLR4, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TNIP1, VTCN1, WIPF1 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | B cell cancer | 1.43E-03 |  | 0.834 | 230 | AMPH, ANKLE2, ANO5, ANXA2, ANXA5, APBA1, APC, APOBEC3A, APOBEC3B, APP, ARHGAP17, ASB10, ASMTL, ASXL1, ATF7IP, ATN1, ATRN, ATXN3, B2M, BAZ2B, BBS7, BCL2L11, BCL7A, BECN1, BOD1L1, BRCA1, BTG2, BTK, CARMIL1, CARNS1, CASP8, CAV3, CAVIN2, CCL5, CCNDBP1, CD86, CDC23, CFLAR, CGB1/CGB2, CHD4, CMSS1, CNR1, CPSF7, CRNN, CSDE1, CSF1R, CSF3R, CTSC, CXCL1, CXCL6, CXCL9, CYP2A6 (includes others), DCLRE1C, DDC, DMTF1, DNAJB14, DOCK2, DPYD, DYRK1A, EPHA8, ETV6, EWSR1, F10, F11R, FAM131C, FCGR2A, FOXO3, FOXP3, FRMD4B, FUS, FYB1, FZD3, GPD1, GPRIN1, GPSM2, GRB2, GSE1, HAO2, HCLS1, HDAC7, HDAC9, HECA, HLA-A, HLA-G, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, ICAM1, IDH3A, IFNAR1, IFNGR1, IGF1, IGF2R, IL1B, IL1RN, IRF8, ITGA4, JAK1, KAT6A, KRAS, LCP1, LCP2, LCT, let-7, LRRFIP1, LSM3, LYN, LYPLA2, MAD2L1BP, MAP4K4, MAX, MCL1, MDM2, mir-138, mir-154, mir-28, MPEG1, MS4A1, MSH6, MTOR, MUC1, MYO5B, MYOF, NACA2, NAMPT, NDC80, NDUFS1, NETO2, NFE2L2, NONO, NOTCH2, NR3C1, NUBP1, NUDT6, NXPE4, PCLO, PDCD4, PDGFRA, PECAM1, PF4, PLCG2, PLEKHA7, POLR3B, POTEH (includes others), PPM1D, PPP1R12B, PPP4R2, PPP6C, PPP6R3, PRKAA1, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGS2, PTPRE, PWWP3A, RAB38, RAB4A, RAF1, RBM4, RESF1, RHOA, RICTOR, RPS15, RTTN, S100A9, SCN9A, SEC14L1, SF3B1, SGK1, SH2B3, SHROOM3, SLAMF7, SMARCA2, SNRPD3, SOD2, SORL1, SRPK2, SSBP2, STAT3, STIP1, STXBP6, SWAP70, SYK, TAF1, TDRD1, TET2, TFRC, THBS2, TLR2, TLR4, TLR5, TLR7, TNFRSF10C, TNIP1, TNNI3K, TRAF3, TRIM55, TRIO, TRIOBP, TRIP12, TRPM6, TTC21B, TUBA1A, TUBA1C, TUBB2A, TXLNA, U2AF1/U2AF1L5, UBA3, UBE2F, UNC5C, VDAC1, VIM, WASF2, WDFY3, XRCC5, YAE1, YWHAE, YWHAZ, ZEB2, ZMYM3, ZNF217, ZNF615, ZNF700, ZNF714, ZRSR2 |
| Molecular Transport, RNA Trafficking | Transport of mRNA | 1.44E-03 |  |  | 23 | CASC3, CPEB1, CPSF4, DDX39A, DHX38, FUS, HNRNPA2B1, MAGOHB, NCBP1, NUP160, NUP50, NUP58, NUP62, NUP93, SEC13, SLU7, SRSF1, SRSF3, SRSF4, SRSF5, THOC5, U2AF1/U2AF1L5, WDR33 |
| Cardiovascular Disease, Cell Death and Survival, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Necrosis of cardiac muscle | 1.47E-03 |  | 0.937 | 47 | ACSL1, ADM, APOA1, BACH1, BCL2L11, BECN1, BNIP3L, CASP8, CAV3, CYBB, CYP2J2, EPO, FOXO3, GAPDH, HMOX1, HSPD1, IGF1, IL1B, IL1RN, KRAS, MAP3K1, MCL1, MDM2, mir-133, mir-154, mir-24, MT1A, NAMPT, NCL, NFE2L2, PARK7, PPIF, PRKAA1, PRKCD, PTEN, RAF1, RHOA, RIPK3, RTN4, SGCA, SLC8A1, SOD2, STAT3, STK4, THBS2, TLR4, UBE4B |
| Cell Death and Survival | Cell survival | 1.48E-03 | Decreased | -8.529 | 296 | ABCB5, ADAM17, ADGRE2, ADIPOR1, ADM, AGO2, AKAP8L, ALDH3A1, ALKBH3, ALKBH8, ALS2, ANTXR2, ANXA5, APC, APOB, APOBEC3A, APP, APPL2, ARNT, ASAH1, ATF5, ATG3, ATG7, ATP7B, AURKB, B2M, BABAM2, BCL2L11, BECN1, BID, BNIP2, BRCA1, BRIP1, BTG2, BTK, CAMK1G, CARS1, CASP8, CCL5, CCNK, CCR1, CD86, CDK2AP1, CFLAR, CHD4, CLCA2, CLK2, CLK3, CREB1, CRKL, CSF1R, CSF3R, CTLA4, CTSB, CUX1, CX3CR1, CXCL1, CXCL9, CXCR3, CYBB, DAB2, DAZ2, DCLRE1C, DDIT3, DDX3X, DDX5, DEF6, DEFB103A/DEFB103B, DEFB114, DHX38, DHX8, DNAJB6, DOCK8, DPH2, DPYD, DUSP5, DYRK1A, EEF2K, EIF3A, ELF1, ELF3, EPHB1, EPO, ERCC5, EWSR1, EYA3, EZR, F2R, FAIM2, FKBP5, FOXO3, FOXP3, FTH1, FTL, FUS, GAB1, GAB2, GCLC, GMFG, GRB2, HBA1/HBA2, HBB, HCK, HERPUD1, HLA-A, HLA-G, HMOX1, HNRNPUL2, HOTAIR, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HSPA5, HSPD1, HTATIP2, ICAM1, IGF1, IGF1R, IGF2BP3, IGF2R, IK, IL1B, IL1RN, JAK1, JMJD1C, KIF1A, KIF1C, KLF6, KRAS, LAMA5, LAT2, LIMK2, LIMS1, LRPAP1, LSM6, LUCAT1, LY9, LYN, LYZ, MAP3K1, MBP, MCFD2, MCL1, MCM7, MDM2, MEF2C, MEFV, MERTK, MGAT5, mir-133, mir-137, mir-154, mir-24, mir-26, mir-299, mir-515, MKNK1, MSH6, MTDH, MTOR, MVP, NAMPT, NCF2, NDC80, NEDD9, NFE2L2, NLK, NOTCH2, NR3C1, NTRK1, NUP58, NUP62, NUP93, OPN3, PAK2, PARK7, PDCD4, PDGFRA, PDIA3, PER2, PF4, PFKFB2, PHLPP1, PITX2, PLCG2, PLP1, POLDIP2, POLR1A, POU4F2, PPM1D, PPM1G, PPP1CB, PPP1R12B, PPP1R17, PPP6C, PRKAA1, PRKAR1A, PRKCD, PRKCG, PRKG1, PRL, PROK2, PSAP, PSMA4, PSMC2, PSMD1, PSMD12, PSME3, PTEN, PTGS2, PTPN6, PTPRE, RAB11A, RAB5A, RAC2, RAD51C, RAD51D, RAD52, RAF1, RALB, RBPJ, RHOA, RICTOR, RIPK2, RIPK3, RIT1, RPGRIP1, RPL38, RPN2, RPS6KA5, S100A9, SAT1, SDCBP, SEL1L, SETDB1, SF3B1, SFR1, SGK1, SHC3, SHLD1, SIAH1, SLC11A1, SLC31A1, SLC8A3, SMAD1, SMARCA2, SMARCC2, SNRPB, SNRPF, SOD2, SOS2, SPOP, SRGN, SRSF3, STAMBP, STAT3, STIP1, STX3, SUFU, SVIL, SYK, TBC1D9, TBK1, TCP1, TDP2, TET2, THBS2, THOC5, TLR2, TLR4, TNFRSF1A, TNFSF10, TRAF3, TRIM68, TSG101, TYROBP, U2AF1/U2AF1L5, UBE2L3, UBE2V1, USP15, VCAN, VDAC1, VDR, VIM, VTCN1, WIPF1, XAF1, XRCC5, YBX1, YPEL3, YWHAZ, ZEB2, ZNF257, ZNF429, ZNF431, ZNF528 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell rolling of granulocytes | 1.49E-03 | Decreased | -2 | 12 | ADAM17, BTK, CXCL1, FUT7, HCK, ICAM1, IL1B, ITGA4, LYN, MGAT5, RAC2, SWAP70 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Lung metastasis by tumor | 1.49E-03 |  | -1.213 | 12 | ANGPTL4, CTNND1, G3BP2, KRAS, MDM2, mir-24, NKD2, PTEN, RHOA, SKP2, STAT3, TMBIM6 |
| Connective Tissue Disorders, Hematological Disease, Organismal Injury and Abnormalities | Erythrocytosis | 1.49E-03 |  | 1.546 | 12 | BNIP3L, BPGM, EPO, HAMP, HBA1/HBA2, HBB, NFE2L2, PTPN6, RAC2, RHOA, SH2B3, TRNT1 |
| Cancer, Gastrointestinal Disease, Hepatic System Disease, Organismal Injury and Abnormalities | Hepatoblastoma | 1.49E-03 |  |  | 12 | APC, CELF1, HSP90AA1, HSP90AB1, HSP90B1, MSH6, MTOR, RAF1, SAV1, TUBA1A, TUBA1C, TUBB2A |
| Cell-To-Cell Signaling and Interaction, Cellular Movement | Recruitment of myeloid cells | 1.49E-03 | Decreased | -2.984 | 58 | ADAM10, ADAM17, ALOX5AP, APOA1, APOB, APP, ATG7, B4GALT1, CASP8, CCL23, CCL5, CCR1, CD14, CNR1, CSF1R, CTSC, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, FCGR2A, FPR2, FUT7, GAB2, GC, HCK, HSPA1A/HSPA1B, ICAM1, IFNAR1, IL1B, IL1RN, KRAS, LSP1, LYN, LYZ, MGAT5, NFE2L2, P2RX1, PDE4B, PECAM1, PTEN, RHOA, RHOB, RIPK2, RTN4, SIGLEC9, SOD2, ST3GAL6, STAT3, SWAP70, THBS2, TLR2, TLR4, TLR5, TNFRSF1A, TREML2, VDR |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Cell movement of macrophages | 1.50E-03 | Decreased | -3.798 | 64 | ADAM17, APOA1, APP, B4GALT1, BID, CASP8, CCDC88A, CCL5, CCR1, CNP, CNR1, CRKL, CSF1R, CX3CR1, CXCL1, CXCL9, CXCR3, CYBB, DEFB103A/DEFB103B, DOCK2, ELN, EPO, FPR2, GAL3ST1, HAMP, HCK, HMOX1, HSPA5, ICAM1, IFNGR1, IL1B, IL1RN, KLF6, LITAF, MYLK, NFE2L2, NFKBIZ, NINJ1, OPA1, PF4, PLP1, PRKCD, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAC2, RHOA, RHOB, RPL13A, SEMA4A, SH2B3, SIRPA, STAT3, TAFA4, THBS2, TLR2, TLR7, TNFSF4, TYROBP, VCAN, VTCN1, YBX1 |
| Cell Signaling | Protein kinase cascade | 1.51E-03 | Decreased | -2.834 | 104 | ADIPOR1, APC, APP, ATP6AP2, BNIP2, BTK, CARD16, CARD6, CARD8, CASC2, CASP8, CAV3, CCL5, CD14, CD84, CFLAR, CLEC6A, CRKL, DDX21, DLG3, DOK5, DUSP3, DUSP5, EPHA8, EPHB1, F2R, FRS2, GAB1, GFRAL, GPRC5B, GRB2, HACD3, IFNAR1, IGF1, IGF1R, IGFBP4, IL1B, JAK1, KRAS, LAMTOR5, LTBR, MAP3K1, MAP4K4, MBP, MEF2C, mir-26, MTDH, MTURN, MYLK2, NUP62, PAQR3, PDGFRA, PELI2, PHLPP1, POU4F2, PRKCD, PRL, PSAP, PSMA4, PSMB8, PSMC1, PSMC2, PSMD1, PSMD10, PSMD11, PSMD12, PSMD2, PSMD4, PSMD7, PSME3, PTPN6, RAF1, RAPGEF2, RASSF2, RHOA, RIOK3, RIPK2, RIPK3, RNF149, SFRP4, SH2B3, SH3RF1, SHC3, SIRPA, SLC11A1, SMAD1, SPAG9, SPHK2, SPTBN4, STAMBP, STAT3, TBK1, TERF2IP, TFRC, TIFA, TLR4, TNFRSF1A, TNFSF10, TNIP1, TPD52L1, TRIM5, UBE2V1, YWHAB, YWHAE |
| Cell Death and Survival, Skeletal and Muscular Disorders | Apoptosis of vascular smooth muscle cells | 1.53E-03 | Decreased | -2.128 | 18 | APP, CASP8, DDIT3, FOXO3, HMOX1, IGF1, IGF1R, LIMS1, mir-138, PDCD4, PRKCD, PTEN, RIPK3, SP1, STAT3, STK4, TNFSF10, XAF1 |
| Cancer, Organismal Injury and Abnormalities | Advanced stage tumor | 1.53E-03 | Decreased | -2.85 | 224 | ADAM10, ADAM15, ADAM17, ADM, AKAP12, ALDH5A1, ANGPTL4, ANTXR2, ANXA2, ANXA5, APC, APOA1, ARF4, ASAH1, ASXL1, AURKB, B2M, BACH1, BCL2L11, BRCA1, BRIP1, BTK, CALCOCO2, CALU, CARD16, CASP8, CCDC88A, CCL5, CCR10, CD86, CDA, CFLAR, CHD4, CLCN3, CLEC4D, CLEC6A, CPEB1, CREB1, CSF1R, CSF3R, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSZ, CUX1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP51A1, DAB2, DNAJB6, DPP10-AS1, DPYD, DPYSL2, EFS, ENTPD1, EPB41L3, EPO, ERCC5, ETV6, EXT1, EZR, F10, F2R, FCGR2A, FCGR2C, FNBP1L, FOXO3, FRS2, FTL, FUS, FUT7, FZD3, G3BP2, GAS7, GLUL, GSE1, H2AC18/H2AC19, HCK, HCLS1, HLA-E, HLA-G, HMOX1, HOTAIR, HOXA10, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HTATIP2, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGFBP4, IL1B, IL1RN, IP6K2, IRF8, ITGA4, JAK1, KAT6A, KCNJ2, KDM5A, KIDINS220, KLF6, KRAS, LAMA5, let-7, LGALS8, LHCGR, LIMK2, LRP2, LRP8, LYN, MAP3K1, MAP4, MCM3, MDM2, MERTK, mir-101, mir-122, mir-133, mir-137, mir-138, mir-154, mir-24, mir-26, mir-28, mir-450, mir-550, MKNK1, MMP14, MS4A1, MSH6, MTFR2, MTOR, MUC1, MYOF, NCF2, NEDD9, NKD2, NOTCH2, NR3C1, NTRK1, NUMB, NUP93, OTUD3, PCOLCE, PDCD4, PDGFRA, PECAM1, PF4, PFKFB4, PHLPP1, PITX2, PPM1D, PRL, PSAP, PSMD1, PSMD10, PSMD2, PTEN, PTGS2, RAB31, RAC2, RAD51C, RAD51D, RAF1, RALB, RALBP1, RGCC, RHOA, RHOB, RICTOR, RIOK3, RIPK3, RNF19B, RTN1, SCRIB, SDCBP, SERTAD2, SF3B1, SH2B3, SKP2, SOD2, SRD5A2, SSX2IP, STAT3, STK24, TET2, TLR2, TLR4, TLR7, TMBIM6, TNFRSF1A, TNNC1, TRIO, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, USP4, VCAN, VDR, VIM, VTCN1, WNK1, WSB1, WWTR1, YWHAE, YWHAZ, ZEB2, ZFPM2, ZFYVE21, ZNF350, ZNF738, ZRSR2 |
| Infectious Diseases | Infection by Herpesviridae | 1.54E-03 |  | 0.108 | 24 | APP, CCL5, CLIP1, CXCL9, CXCR2, DEFB103A/DEFB103B, F10, F2R, FCGR2A, FCGR2C, IFNAR1, IFNGR1, IGF2R, IL1RN, MAGT1, MAPRE1, MTOR, NFKBIZ, NR3C1, PDGFRA, PLCG2, TBK1, TLR2, TRAF3 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Cellular infiltration by phagocytes | 1.54E-03 | Decreased | -2.251 | 65 | ADAM17, ADM, ALOX5AP, ANXA2, APOA1, APP, ARHGAP25, B4GALT1, BECN1, BID, CASP8, CCR1, CD14, CD86, CNP, CNR1, CSF1R, CTSB, CTSC, CX3CR1, CXCR2, CYBB, CYP2J2, DOCK2, EPO, FPR1, FPR2, FUT7, GAL3ST1, HAMP, HMOX1, HSPA5, ICAM1, IFNGR1, IL1B, IL1RN, NFE2L2, NFKBIZ, NINJ1, OPA1, PF4, PLCB3, PLP1, PPM1D, PRKCD, PRKG1, PSMB8, PTEN, PTGS2, PTMA, PTPN6, RAB27A, RAC2, RPL13A, SGK1, STAT3, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF4, TNIP1, TREM1, VTCN1, YBX1 |
| Cell Death and Survival | Cell viability of leukocytes | 1.55E-03 | Decreased | -4.652 | 55 | ADGRE2, APOB, APP, ATG3, BCL2L11, BRCA1, BTK, CASP8, CD86, CFLAR, CSF1R, CTLA4, CX3CR1, DEF6, DOCK8, ELF1, F2R, FOXO3, GAB2, HCK, ICAM1, IL1B, JAK1, KIF1C, KRAS, LAT2, LY9, LYN, MCL1, MEF2C, MGAT5, mir-24, MTOR, MVP, NCF2, PF4, PLCG2, PRKAA1, PTPN6, RAC2, RAF1, RBPJ, RHOA, RICTOR, RIPK3, SOD2, STAT3, SYK, TLR4, TNFSF10, TRAF3, TYROBP, WIPF1, YWHAZ, ZEB2 |
| Hereditary Disorder, Organismal Injury and Abnormalities | X-linked hereditary disease | 1.58E-03 |  |  | 76 | ARHGEF9, ARMCX5-GPRASP2/GPRASP2, ATP6AP2, BGN, BNIP3L, BRWD3, BTK, CA4, CAP1, CCL5, CDKL5, CELF2, CHM, CLIC2, COL1A2, CPQ, CYBB, DAB2, DDX3X, DLG3, F10, F8, FCGR2A, FCGR2C, FOXO3, FOXP3, FRMD4B, GK, GLA, HCCS, HLA-A, HLA-C, HNRNPH2, IQSEC2, KLHL15, LAS1L, LHCGR, MAGT1, mir-133, mir-154, mir-299, MS4A1, MSN, MYLK2, NLGN3, NLGN4X, NONO, NR3C1, PDK3, PIGA, PLP1, PQBP1, PSAP, PTGS2, RP2, RS1, SCN9A, SDCBP, SMS, SZT2, TAF1, TAZ, TLR2, TLR4, TLR5, TMLHE, TMOD4, TSR2, TUBB2A, TXNRD1, VDR, VMA21, ZNF41, ZNF674, ZNF711, ZNF81 |
| Hematological System Development and Function, Tissue Morphology | Quantity of leukocytes | 1.60E-03 | Decreased | -4.746 | 185 | ADAM10, ADAM17, ADGRG3, ADM2, AP1G1, APBB1IP, APOA1, APOB, APP, ARHGDIB, ARID4B, ARNTL, ASXL1, ATG7, ATP6AP2, B2M, B4GALT1, BCL2L11, BID, BTK, CASP8, CCL5, CCR1, CD84, CD86, CFLAR, CHST1, CLEC4D, CLEC4M, CLEC7A, CLIC4, CREB1, CSF1R, CSF3R, CTLA4, CTSB, CX3CR1, CXCL16, CXCL6, CXCR2, CXCR3, CYBB, DCLRE1C, DDIT3, DEF6, DKK3, DMTF1, DOCK2, DOCK8, DUSP3, DUSP5, ELF1, EPO, F13A1, FCGR2A, FOXO3, FOXP3, FPR1, FPR2, FUT7, FYB1, GAB2, GALNT1, GCNT2, HBB, HCK, HCLS1, HLA-A, HLA-G, HMOX1, HOXA3, HSP90B1, HSPD1, HVCN1, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IPMK, IRF8, ITGB8, JAK1, KAT6A, KDM5A, KIDINS220, KRAS, LCP2, LGALS8, LGMN, LHCGR, LILRB3, LITAF, LSP1, LTBR, LY9, LYN, MBP, MCL1, MDM2, MERTK, mir-122, mir-24, MPP1, MPZL2, MS4A1, MSN, MTOR, MTTP, MUC1, MXD1, NEDD9, NFE2L2, NMT1, NOTCH2, NR3C1, NTRK1, PABPC1, PDE4B, PECAM1, PILRA, PLCG2, PLP1, PPM1D, PRKCD, PRL, PROK2, PSAP, PSMB8, PSME3, PTEN, PTGS2, PTPN6, RAC2, RAF1, RASSF2, RBPJ, RGCC, RHOA, RICTOR, RIOX2, RIPK2, RIPK3, RPS6KA5, S100A9, SH2B3, SH3BP2, SIGLEC9, SIRPA, SLC6A6, SOS2, SPHK2, SSBP2, ST3GAL6, ST6GALNAC2, STAT3, STEAP4, STK4, SWAP70, SYK, TCF4, TDP2, TET2, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TRAF3, TYROBP, VCAN, VDR, VTCN1, WIPF1, XRCC5, YBX1, ZBTB46, ZEB2, ZRANB1 |
| Cellular Assembly and Organization | Development of cytoplasm | 1.60E-03 | Decreased | -3.902 | 107 | ABITRAM, ACTG1, ACTR2, AIF1, ANKRD13A, ANKRD13B, APC, APOA1, APOL1, APP, ARF1, ARHGAP19, ARPC2, ASB7, ATG13, ATG14, ATG3, ATG7, BECN1, CAMSAP2, CAPZB, CARMIL1, CAV3, CCDC88A, CLASP1, CLIP1, CNP, CREB1, CTNND1, CXCR2, DAB2, DPYSL2, DRG1, DYNLL1, DYRK1A, ELN, F11R, F2R, FCGR2A, FEZ1, GAS7, GLUL, GNG12, GNG7, GRB2, HCK, HCLS1, ICAM1, IFT88, IGF1, IL1B, KRAS, LAS1L, LAT2, LIMK2, MAP1LC3A, MAP3K1, MAPRE1, MAPRE3, MGAT5, mir-138, mir-24, MSRB1, MTOR, MYH14, MYLK, NCKAP1L, NIN, NTRK1, OPA1, PACSIN2, PAK2, PARK7, PECAM1, PEX19, PHACTR1, PID1, PITPNM1, PLCB3, POLDIP2, PRKCD, PTEN, RAB22A, RAB33B, RAB5A, RGCC, RHOA, RHOB, RICTOR, SGK1, SIRPA, SLC4A2, SNAPIN, STAT3, STK4, STX12, TESK2, TJP1, TLR2, TPM3, TRIP10, TTC17, UBAP2L, VMP1, WASF2, WASF3, WIPF1 |
| Cellular Function and Maintenance, Molecular Transport, Small Molecule Biochemistry | Homeostasis of transition metal ion | 1.60E-03 |  |  | 21 | ACO1, APLP2, APP, ARF1, ATOX1, ATP6V1A, ATP6V1G1, ATP7B, B2M, FTH1, FTL, HAMP, HFE, HMOX1, IREB2, NCOA4, NUBP1, SLC11A1, SLC31A1, SOD2, TFRC |
| Infectious Diseases | Replication of virus | 1.61E-03 | Decreased | -3.627 | 109 | ADAM10, AGO2, AMPH, ANXA5, APBB1IP, APC2, APOBEC3B, ARHGDIB, ARNTL, ATG7, ATP6AP2, ATP6V1A, ATP6V1B2, ATP6V1G1, B2M, BCL2L11, BECN1, BNIP2, CCL5, CCNK, CCR1, CFLAR, CLIC4, CPSF4, CREB1, DDIT3, DDX3X, DDX5, DTX2, DUSP3, DYRK1A, EIF3A, EIF3G, F11R, F13A1, FAS-AS1, GAB1, GALC, GCLC, GLYR1, HCK, HERPUD1, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, HSPD1, IFNAR1, IL1B, ILF3, JAK1, MAP1LC3A, MAP3K7CL, MAP4K4, MDM2, MED30, mir-122, mir-515, MKNK1, MTOR, MVP, MX2, MYO5B, NCL, NUP62, P2RX1, PACSIN2, PAK2, PDE8A, PRKCD, PSMD2, PTGS2, RAB11A, RAB33B, RAB9A, RABEP1, RAF1, RFFL, RIPK2, RPL13A, S100A9, SF3B1, SF3B6, SGCA, SGK1, SNAP23, SNAPIN, SNRPF, SP100, SP110, SRPK1, SRPK2, SRSF1, STAT3, TBK1, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNPO3, TRAF3IP1, TRIM5, TSG101, UBE2E2, USP15, VNN2, YBX1, ZEB2 |
| Cardiovascular Disease, Cell Death and Survival, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders | Cell death of cardiomyocytes | 1.61E-03 |  | 1.063 | 46 | ACSL1, ADM, APOA1, BACH1, BCL2L11, BECN1, BNIP3L, CASP8, CAV3, CYBB, CYP2J2, EPO, FOXO3, GAPDH, HMOX1, HSPD1, IGF1, IL1B, IL1RN, KRAS, MAP3K1, MCL1, MDM2, mir-133, mir-154, mir-24, MT1A, NAMPT, NCL, NFE2L2, PARK7, PPIF, PRKAA1, PRKCD, PTEN, RAF1, RHOA, RIPK3, RTN4, SLC8A1, SOD2, STAT3, STK4, THBS2, TLR4, UBE4B |
| Cellular Function and Maintenance, Hematological System Development and Function, Humoral Immune Response | Function of B lymphocytes | 1.63E-03 |  | -1.067 | 11 | BTK, FCAMR, FCGR2A, LCP1, MTOR, NEDD9, PPM1D, PTEN, SH3BP2, STAT3, TET2 |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Differentiation of phagocytes | 1.65E-03 | Decreased | -2.703 | 59 | ADAM10, ADAM17, APP, BTK, CASP8, CCL23, CDA, CLEC4M, CSF1R, CSF3R, CYBB, DEF6, DMTF1, DUSP5, EPO, GAB2, GIT2, GMPR2, HCLS1, HOXA7, IFI16, IFNAR1, IL1B, IL1RN, IRF8, L3MBTL3, LILRA2, LILRB3, LTBR, LYN, MAPKAP1, MEF2C, MTOR, NOTCH2, PF4, PTEN, PTPN6, RBPJ, RFFL, S100A9, SFRP4, SH2B3, SIGLEC9, SP3, STAT3, TET2, THOC5, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TREM1, TYROBP, VDR, VTCN1, ZBTB46, ZRSR2 |
| Cell Morphology, Nervous System Development and Function, Organ Morphology, Organismal Development | Morphology of brain cells | 1.65E-03 |  |  | 35 | ALS2, APP, ATAT1, ATG7, BID, CAMK2A, CASP8, CCR10, CGA, CHMP4B, CLCN3, CTSB, DYRK1A, FAIM2, IGF1, IL1B, IREB2, KLF7, LRP8, MDM2, NCOA1, NDE1, NDEL1, PITPNA, PRL, PSAP, PTF1A, PURA, RICTOR, SMAD1, ST8SIA4, TLR7, TUBA1A, UBE4B, VPS35 |
| Infectious Diseases | Replication of RNA virus | 1.67E-03 | Decreased | -3.935 | 99 | ADAM10, AGO2, AMPH, ANXA5, APBB1IP, APC2, APOBEC3B, ARHGDIB, ARNTL, ATG7, ATP6AP2, ATP6V1A, ATP6V1B2, ATP6V1G1, B2M, BECN1, BNIP2, CCL5, CCNK, CCR1, CFLAR, CLIC4, CPSF4, CREB1, DDX3X, DDX5, DTX2, DUSP3, DYRK1A, EIF3A, EIF3G, F11R, F13A1, FAS-AS1, GAB1, GALC, GCLC, GLYR1, HCK, HERPUD1, HMOX1, HSP90AA1, HSP90AB1, HSPD1, IFNAR1, IL1B, ILF3, JAK1, MAP1LC3A, MAP3K7CL, MAP4K4, MDM2, MED30, mir-122, mir-515, MTOR, MVP, MYO5B, NCL, NUP62, P2RX1, PACSIN2, PAK2, PDE8A, PRKCD, PSMD2, PTGS2, RAB11A, RAB33B, RAB9A, RABEP1, RAF1, RFFL, RPL13A, S100A9, SF3B1, SF3B6, SGCA, SGK1, SNAPIN, SNRPF, SP110, SRPK1, SRPK2, SRSF1, STAT3, TBK1, TLR2, TLR4, TLR7, TNFSF10, TNPO3, TRAF3IP1, TRIM5, TSG101, UBE2E2, USP15, VNN2, YBX1 |
| Cellular Assembly and Organization, Cellular Function and Maintenance | Assembly of multivesicular bodies | 1.68E-03 |  |  | 8 | CHMP2A, CHMP3, CHMP4B, CHMP6, RAB11A, TSG101, VPS25, VPS4B |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Activation of leukocytes | 1.69E-03 | Decreased | -2.979 | 135 | ADAM10, ALS2, ANXA2, APOA1, APP, ATG7, B2M, BCL2L11, BID, BMP2K, BTK, CASP8, CCL23, CCL5, CD14, CD1E, CD84, CD86, CD93, CEACAM3, CLEC1B, CLEC4M, CLEC7A, CNR1, CRY2, CSF1R, CTLA4, CX3CR1, CXCL1, CXCL6, CXCL9, CXCR2, CYBB, DDIT3, DEF6, DOCK2, DUSP3, EPO, F10, FCGR2A, FOXO3, FOXP3, FPR1, FPR2, GC, HBP1, HCK, HDAC7, HDAC9, HEBP1, HLA-A, HLA-E, HLA-G, HMOX1, HSP90B1, HSPD1, ICAM1, IFNAR1, IGF1, IGF2R, IL1B, IL1RN, IRF8, ITGA4, JPH4, KIDINS220, LAT2, LCP2, let-7, LILRA2, LILRB3, LTBR, LYN, MAGT1, MBP, MERTK, MGAT5, MICB, mir-515, MS4A1, MTOR, NFE2L2, NFKBIZ, NOTCH2, PAK2, PECAM1, PF4, PILRB, PLCG2, PLP1, PPM1D, PRKAA1, PRKCD, PRL, PSAP, PSMB8, PTEN, PTGS2, PTPN6, PTPRE, RAB27A, RAB4A, RBPJ, RGMA, RHOA, RHOB, RIPK2, S100A9, SCN9A, SEMA4A, SIGLEC9, SIRPA, SLC11A1, SPHK2, STAT3, SWAP70, SYK, TBK1, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TNFSF14, TNFSF4, TRAF3, TREM1, TREML2, TXLNA, TYROBP, VCAN, VTCN1, VTI1B, ZBTB46 |
| Cell Death and Survival | Cell death of carcinoma cell lines | 1.73E-03 |  | 1.151 | 78 | ACO2, ADAM17, ANGPTL4, ANXA2, APP, ATG7, BCL2L11, BECN1, BID, CASP8, CCP110, CELF1, CFLAR, CREB1, CTSB, CXCR3, CYP2J2, DDIT3, DPYD, FAIM2, FOXO3, GAB1, GAPDH, HMOX1, HNRNPH1, HOTAIR, HSPA5, HTATIP2, IGF1, IGF1R, IP6K2, KLF6, KRAS, let-7, LINC00887, MCL1, MDM2, MEF2C, mir-103, mir-138, mir-154, mir-26, MTDH, MTOR, NR3C1, PDCD4, PDGFRA, PPM1D, PRKAR1A, PRKCD, PTEN, PTGS2, PTPN6, RAF1, RASD1, RHOB, RICTOR, RIPK3, SH2B3, SH3RF1, SKP2, SLU7, SPOCK1, SRGN, SRPK1, SRPK2, SRSF1, STAT3, TBK1, TLR4, TNFRSF1A, TNFSF10, TTF1, TXNRD1, VDAC1, YBX1, YWHAZ, ZNF148 |
| Cellular Development, Cellular Growth and Proliferation, Connective Tissue Development and Function, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Skeletal and Muscular System Development and Function, Tissue Development | Osteoclastogenesis of bone marrow-derived macrophages | 1.73E-03 | Increased | 2.36 | 10 | ADAM17, DYRK1A, IL1RN, IRF8, NOTCH2, PLCG2, PRKAA1, RBPJ, TMEM178A, TNFRSF1A |
| Cardiovascular System Development and Function, Cell Death and Survival | Cell viability of endothelial cell lines | 1.73E-03 | Decreased | -2.985 | 10 | ATG7, CXCR3, HMOX1, IGF1, MCL1, PDGFRA, SF3B1, SNRPF, THBS2, U2AF1/U2AF1L5 |
| Dermatological Diseases and Conditions, Inflammatory Disease, Organismal Injury and Abnormalities | Acne | 1.74E-03 |  |  | 22 | AIF1, APOA1, APOBEC3A, CCR1, CD14, ICAM1, IGF1, IL1B, IL1R2, ITGA4, LYZ, NTRK1, PTGS2, RAC2, S100A9, SGK1, SOD2, SRD5A2, TLR2, TLR4, TRAF3, VDR |
| Cell-To-Cell Signaling and Interaction | Interaction of lymphoma cell lines | 1.74E-03 | Decreased | -2.2 | 22 | ANXA2, APP, CLEC4M, CXCR3, ELN, EZR, F2R, FUT7, HCK, HSP90B1, ICAM1, IL1B, ITGA4, ITGAX, LCP2, MTOR, NCL, PECAM1, PTPN6, RHOA, TFRC, VCAN |
| Cancer, Organismal Injury and Abnormalities | Advanced malignant tumor | 1.75E-03 | Decreased | -2.85 | 223 | ADAM10, ADAM15, ADAM17, ADM, AKAP12, ALDH5A1, ANGPTL4, ANTXR2, ANXA2, ANXA5, APC, APOA1, ARF4, ASAH1, ASXL1, AURKB, B2M, BACH1, BCL2L11, BRCA1, BRIP1, BTK, CALCOCO2, CALU, CARD16, CASP8, CCDC88A, CCL5, CCR10, CD86, CDA, CFLAR, CHD4, CLCN3, CLEC4D, CLEC6A, CPEB1, CREB1, CSF1R, CSF3R, CTLA4, CTNNA1, CTNND1, CTNND2, CTSB, CTSZ, CUX1, CXCL1, CXCL6, CXCL9, CXCR2, CXCR3, CYBB, CYP51A1, DAB2, DNAJB6, DPP10-AS1, DPYD, DPYSL2, EFS, ENTPD1, EPB41L3, EPO, ERCC5, ETV6, EXT1, EZR, F10, F2R, FCGR2A, FCGR2C, FNBP1L, FOXO3, FRS2, FTL, FUS, FUT7, FZD3, G3BP2, GAS7, GLUL, GSE1, H2AC18/H2AC19, HCK, HCLS1, HLA-E, HLA-G, HMOX1, HOTAIR, HOXA10, HSP90AA1, HSP90AB1, HSP90B1, HSPA1A/HSPA1B, HTATIP2, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGFBP4, IL1B, IL1RN, IP6K2, IRF8, ITGA4, JAK1, KAT6A, KCNJ2, KDM5A, KIDINS220, KLF6, KRAS, LAMA5, let-7, LGALS8, LHCGR, LIMK2, LRP2, LRP8, LYN, MAP3K1, MAP4, MCM3, MDM2, MERTK, mir-101, mir-122, mir-133, mir-137, mir-138, mir-154, mir-24, mir-26, mir-28, mir-450, mir-550, MKNK1, MMP14, MS4A1, MSH6, MTFR2, MTOR, MUC1, MYOF, NCF2, NEDD9, NKD2, NOTCH2, NR3C1, NTRK1, NUMB, NUP93, OTUD3, PCOLCE, PDCD4, PDGFRA, PECAM1, PF4, PFKFB4, PHLPP1, PITX2, PPM1D, PRL, PSAP, PSMD1, PSMD10, PSMD2, PTEN, PTGS2, RAB31, RAC2, RAD51C, RAD51D, RAF1, RALB, RALBP1, RGCC, RHOA, RHOB, RICTOR, RIOK3, RIPK3, RNF19B, RTN1, SCRIB, SDCBP, SERTAD2, SF3B1, SKP2, SOD2, SRD5A2, SSX2IP, STAT3, STK24, TET2, TLR2, TLR4, TLR7, TMBIM6, TNFRSF1A, TNNC1, TRIO, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, USP4, VCAN, VDR, VIM, VTCN1, WNK1, WSB1, WWTR1, YWHAE, YWHAZ, ZEB2, ZFPM2, ZFYVE21, ZNF350, ZNF738, ZRSR2 |
| Cellular Development, Cellular Growth and Proliferation | Cell proliferation of tumor cell lines | 1.75E-03 | Decreased | -4.895 | 344 | ABCB5, ABCC2, ACP3, ACTN1, ADAM10, ADAM15, ADAM17, ADIPOR1, ADM, AKAP12, ALKBH3, ANGPTL4, ANXA2, AP1G1, APC, APOB, APP, ARF1, ARID4B, ARIH2, ARNT, ARRDC3, ASAH1, ATF5, ATG7, AURKB, BARX2, BCL2L11, BECN1, BID, BNIPL, BRCA1, BTG2, BTK, CASC2, CASP8, CBX1, CCDC88A, CCNK, CDC42SE2, CDK2AP1, CELF2, CFLAR, CHCHD5, CHD4, CIBAR1, CKS2, CLCA2, CLCN3, CLIP1, CNR1, CPSF4, CREB1, CRKL, CSF1R, CTNND1, CTSB, CXCL1, CXCR2, CXCR3, CYP2A6 (includes others), CYP2J2, DAB2, DDIT3, DDX17, DDX21, DDX3X, DDX5, DKK3, DLX6-AS1, DMTF1, DNAJB4, DNAJB6, DPF2, DUSP5, EEF2K, EIF3A, EIF4H, ELF1, ELF3, EMC10, ENTPD1, EPB41L3, EPO, ERAS, ETV6, EWSR1, EXT1, EXTL3, EZR, F2R, FAIM2, FBLN2, FBXL15, FKBP5, FOXO3, FOXP3, FPR2, FTH1, FTL, FTX, FUS, GAB1, GAB2, GAPDH, GLIPR1, GNG7, GRB2, GSE1, GUCA2B, HBP1, HCK, HFE, HMOX1, HNRNPA1, HNRNPA2B1, HNRNPH2, HOTAIR, HSP90AA1, HSPA5, HTATIP2, HVCN1, IFI16, IFNAR1, IFT88, IGF1, IGF1R, IGF2BP3, IGF2R, IGFBP4, IL1B, IL1RN, ILF3, IRF8, ITGB8, JAK1, JPX, KAT6A, KCTD5, KDM5A, KIDINS220, KIF13A, KIF1A, KLF6, KRAS, LAMA5, LAMTOR5, LAS1L, LCOR, LCP1, let-7, LILRB3, LINC00511, LINC00887, LUCAT1, LUZP2, LYN, MAP1LC3A, MAP4K4, MAPRE1, MAX, MCL1, MCM7, MDM2, MEF2C, MGAT5, mir-101, mir-103, mir-122, mir-133, mir-154, mir-202, mir-24, mir-26, mir-28, mir-299, mir-515, MKNK1, MMP14, MSMB, MT1A, MTDH, MTOR, MUC1, MUC13, MYBBP1A, MYH14, MYLK, MYOF, MYOG, NABP1, NAMPT, NASP, NCL, NCOA1, NCOA4, NDRG4, NEDD9, NFATC4, NFE2L2, NFS1, NINJ1, NKD2, NONO, NOTCH2, NR3C1, NTRK1, NUBP1, NUDT6, NUMB, NUP62, OAZ1, OXT, PACSIN2, PBLD, PCOTH, PDCD4, PDGFRA, PDIA3, PDS5B, PEAK1, PECAM1, PHLPP1, PIWIL1, PLCG2, PLXNA4, POLDIP2, POU4F2, PPIF, PRKAA1, PRKAR1A, PRKCD, PRKG1, PRL, PRPF6, PRRC2C, PSMA4, PSMC2, PSMD2, PSMD4, PTEN, PTGS2, PTMA, PTPN6, PTPRE, PURA, RAB8A, RAF1, RALB, RALBP1, RAPGEF2, RASD1, RASSF3, RBM25, RBM5, RHOA, RHOB, RICTOR, RIOX2, RNF11, RNF149, RNF20, RNF40, S100A9, SAT1, SDCBP, SEL1L, SERTAD1, SETDB1, SFRP4, SGK1, SH2B3, SHC3, SIAH1, SKP2, SLC10A5, SLC36A1, SMAD1, SMARCA2, SNX27, SOD2, SP1, SP110, SPAST, SPHK2, SPOP, ST8SIA4, STAT3, STK24, STK38L, STK4, STX3, SUDS3, SUFU, SYK, TACC1, TAF7, TAGLN2, TASP1, TAZ, TBX5, TBXAS1, TCF4, TCN2, TCP1, TDGF1, TET2, TFRC, THBS2, TIFA, TIMM10B, TIPRL, TLR2, TLR4, TLR5, TNFRSF1A, TNFSF10, TNFSF14, TP53TG5, TPD52L1, TRAF3, TRIO, TRPM6, TSG101, TTF1, TUBB2A, UBE2J2, UNC5C, USP17L2 (includes others), VCAN, VDAC1, VDR, VMP1, VPS35, VTCN1, WSB1, WWTR1, XRCC5, YBX1, YWHAZ, ZEB2, ZNF267, ZNF282, ZNF350 |
| Organ Morphology, Reproductive System Development and Function | Morphology of placenta | 1.76E-03 |  |  | 32 | ADAM17, ADM, AGO2, ALKBH1, ARNT, ARNTL, BCAS3, CHM, CRKL, DDX3X, DPH3, EPO, IGF1R, IGF2R, ITGA4, ITGB8, MMP14, NCOA1, NUMB, PTEN, RAF1, RAPGEF2, RBPJ, RGS2, RICTOR, RTEL1, SLC8A1, SMAD1, SNX13, STK4, TLK2, TRIP12 |
| Cancer, Organismal Injury and Abnormalities | Complex adenocarcinoma | 1.76E-03 |  |  | 9 | DPYD, HSP90AA1, HSP90AB1, HSP90B1, KRAS, STAT3, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Stage II Hodgkin disease | 1.76E-03 |  |  | 9 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Stage III Hodgkin lymphoma | 1.76E-03 |  |  | 9 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Stage IV Hodgkin lymphoma | 1.76E-03 |  |  | 9 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, TUBA1A, TUBA1C, TUBB2A |
| Inflammatory Response | Innate immune response | 1.78E-03 | Decreased | -3.951 | 45 | ADAM15, APOBEC3A, APOL1, APP, B2M, BTK, CAPZA1, CCL5, CD300E, CLEC4D, CLEC6A, CXCL1, CYBB, DDX3X, DEFB114, FPR1, FPR2, HLA-E, HLA-G, HSP90B1, let-7, MSRB1, NCF2, OTULIN, POLR3B, RIOK3, RIPK2, SIAH1, SIGLEC16, SIRPB1, SKP2, SYK, TBK1, TIFA, TKFC, TLR2, TLR4, TLR7, TRAF3, TREM1, TRIM23, TRIM5, TRIM55, TRIM65, TYROBP |
| Protein Synthesis | Translation | 1.79E-03 |  | 0.523 | 71 | ACO1, AGO2, ALKBH1, APP, ATF5, BTG2, BTK, CASC3, CNBP, CPEB1, DDX3X, EEF2K, EIF1AX, EIF3A, EIF3G, EIF3I, EIF4G3, EIF4H, FOXO3, FTH1, FUS, GAPDH, HELZ, HSPA1A/HSPA1B, HSPA5, IGF1, IGF2BP3, ILF3, IREB2, KRAS, LARP4B, let-7, MARS1, MKNK1, MRPL15, MRPL18, MRPL28, MRPL55, MRPS10, MRPS18A, MRRF, MTOR, MTRF1L, NCBP1, NCL, OXA1L, PABPC1, PDCD4, PIWIL1, PRKAA1, PTCD3, RBM4, RGS2, RNASET2, RPL13A, RPL18, RPL18A, RPL28, RPL38, RPL39, RPL4, RPL5, RPS15, S100A9, SRSF3, STAU1, SYK, TNFSF10, TNIP1, WARS1, YBX1 |
| Hematological System Development and Function, Tissue Morphology | Quantity of blood cells | 1.80E-03 | Decreased | -4.917 | 205 | ADAM10, ADAM17, ADGRG3, ADM2, AP1G1, APBB1IP, APOA1, APOB, APP, ARHGDIB, ARID4B, ARNTL, ASXL1, ATG7, ATP6AP2, B2M, B4GALT1, BCL2L11, BID, BNIP3L, BTK, CASP8, CCL5, CCR1, CD84, CD86, CFLAR, CHST1, CLEC4D, CLEC4M, CLEC7A, CLIC4, CREB1, CSF1R, CSF3R, CTLA4, CTSB, CX3CR1, CXCL16, CXCL6, CXCR2, CXCR3, CYBB, DCLRE1C, DDIT3, DEF6, DKK3, DMTF1, DOCK2, DOCK8, DUSP3, DUSP5, ELF1, EPO, F13A1, FCGR2A, FOXO3, FOXP3, FPR1, FPR2, FUT7, FYB1, GAB2, GALNT1, GCNT2, HBA1/HBA2, HBB, HCK, HCLS1, HLA-A, HLA-G, HMOX1, HOXA3, HSP90B1, HSPD1, HVCN1, ICAM1, IFNAR1, IFNGR1, IGF1, IGF1R, IGF2R, IL1B, IL1RN, IPMK, IREB2, IRF8, ITGB8, JAK1, KAT6A, KDM5A, KIDINS220, KRAS, L3MBTL3, LCP2, let-7, LGALS8, LGMN, LHCGR, LILRB3, LITAF, LSP1, LTBR, LY9, LYN, MBP, MCL1, MDM2, MERTK, mir-122, mir-24, MPP1, MPZL2, MS4A1, MSN, MTOR, MTTP, MUC1, MXD1, NEDD9, NFE2L2, NMT1, NOTCH2, NR3C1, NTRK1, PABPC1, PAK2, PARK7, PDE4B, PECAM1, PER2, PF4, PILRA, PITX2, PLCG2, PLP1, PPM1D, PRKAA1, PRKCD, PRKG1, PRL, PROK2, PSAP, PSMB8, PSME3, PTEN, PTGS2, PTPN6, PURA, RAB27A, RAC2, RAF1, RAPGEF2, RASSF2, RBPJ, RGCC, RHOA, RICTOR, RIOX2, RIPK2, RIPK3, RPS6KA5, S100A9, SH2B3, SH3BP2, SIGLEC9, SIRPA, SLC6A6, SLC8A1, SOS2, SPHK2, SSBP2, ST3GAL6, ST6GALNAC2, STAT3, STEAP4, STK4, SWAP70, SYK, TCF4, TDP2, TET2, TFRC, THBS2, TLR2, TLR4, TLR5, TLR7, TMOD3, TNFRSF1A, TNFSF10, TNFSF4, TNIP1, TPM3, TRAF3, TYROBP, VCAN, VDR, VTCN1, WIPF1, XRCC5, YBX1, ZBTB46, ZEB2, ZRANB1 |
| Hematological System Development and Function, Tissue Morphology | Quantity of antigen presenting cells | 1.81E-03 | Decreased | -2.136 | 64 | ADAM10, ADM2, APOB, APP, B2M, BCL2L11, BID, CD86, CFLAR, CLEC4D, CLIC4, CSF1R, CTLA4, CX3CR1, CYBB, DDIT3, DOCK8, DUSP3, EPO, FPR2, HCK, HMOX1, HOXA3, IFNAR1, IFNGR1, IGF1, IGF1R, IL1B, IL1RN, IRF8, KRAS, LHCGR, LITAF, LSP1, LTBR, MCL1, mir-122, MTOR, NFE2L2, NOTCH2, PILRA, PLP1, PRKCD, PTEN, PTPN6, RHOA, RICTOR, RIOX2, SH2B3, SIGLEC9, SIRPA, STAT3, STEAP4, STK4, TLR2, TLR4, TLR7, TNFRSF1A, TYROBP, VDR, VTCN1, YBX1, ZBTB46, ZEB2 |
| Cellular Assembly and Organization | Remodeling of cytoskeleton | 1.81E-03 | Decreased | -2.891 | 15 | APP, BTG2, CCDC88A, CSF1R, CXCR2, F2R, GAB1, MSN, PAK2, RAB5A, RHOA, RICTOR, TLR4, TRIO, VNN2 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Migration of granulocytes | 1.81E-03 | Decreased | -2.935 | 34 | ADAM10, ADAM15, BTK, CCL5, CCR1, CXCL1, CXCL6, CXCL9, CXCR2, CYBB, F10, FPR1, HCK, ICAM1, IL1B, LAMA5, LSP1, MGAT5, mir-133, MYLK, MYO1F, PDE4B, PECAM1, PPM1D, PTEN, PTPN6, RTN4, S100A9, SIRPA, SWAP70, TLR2, TLR4, TLR7, TNFRSF1A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Enteropathy-associated T-cell lymphoma | 1.82E-03 |  |  | 17 | BRIP1, HDAC7, HDAC9, HSP90AA1, HSP90AB1, HSP90B1, JAK1, KRAS, MS4A1, NR3C1, PSMD1, PSMD2, STAT3, TET2, TUBA1A, TUBA1C, TUBB2A |
| Molecular Transport, RNA Trafficking | Nuclear export of mRNA | 1.83E-03 |  |  | 21 | CASC3, CPSF4, DDX39A, DHX38, HNRNPA2B1, MAGOHB, NCBP1, NUP160, NUP50, NUP58, NUP62, NUP93, SEC13, SLU7, SRSF1, SRSF3, SRSF4, SRSF5, THOC5, U2AF1/U2AF1L5, WDR33 |
| Cell Morphology | Orientation of cells | 1.84E-03 | Decreased | -2.547 | 43 | APC, AQP9, CCL5, CLIP1, CTLA4, CXCL9, CYBB, CYP26B1, DOCK2, DPYSL2, ELN, GAB1, HLA-G, HOXA3, HSBP1, IL1B, IL1RN, ITGA4, KIF26B, KRAS, LAMA5, LCP1, let-7, LSP1, MSN, MYLK, NAMPT, PRKAA1, PRKG1, PTEN, RAP1A, RBPJ, RHOA, RICTOR, SCRIB, STAT3, STK4, SVIL, SWAP70, TLR2, TLR4, WIPF1, WWTR1 |
| Cancer, Gastrointestinal Disease, Hereditary Disorder, Organismal Injury and Abnormalities | Hereditary diffuse malignant gastric tumor | 1.85E-03 |  |  | 4 | CTNNA1, IL1B, IL1RN, KRAS |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Resectable oral squamous cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | TNM stage T2 laryngeal squamous cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Organismal Injury and Abnormalities, Tissue Morphology, Tumor Morphology | Volume of benign tumor | 1.85E-03 |  |  | 4 | APC, ATG7, KRAS, NR3C1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | CDKN2A negative oropharyngeal squamous cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response, Tissue Development | Accumulation of effector T lymphocytes | 1.85E-03 |  |  | 4 | CCR1, CXCR3, DEF6, FOXO3 |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Resectable laryngeal squamous cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Cell Death and Survival, Organismal Injury and Abnormalities, Tumor Morphology | Cell death of non-small-cell lung cancer cells | 1.85E-03 |  |  | 4 | BID, CTSB, PTEN, TNFSF10 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | TNM stage T3 oropharyngeal squamous-cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | TNM stage T2 oropharyngeal squamous-cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Lipid Metabolism, Small Molecule Biochemistry | Binding of sterol | 1.85E-03 |  |  | 4 | APOA1, APP, NPC1L1, VDR |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities, Respiratory Disease | TNM stage N2-3 oropharyngeal squamous-cell carcinoma | 1.85E-03 |  |  | 4 | CTLA4, HSP90AA1, HSP90AB1, HSP90B1 |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Primary oral squamous cell carcinoma | 1.85E-03 |  |  | 4 | HSP90AA1, HSP90AB1, HSP90B1, PTGS2 |
| Tissue Development | Accumulation of cells | 1.86E-03 |  | -0.402 | 70 | APC, APOA1, B2M, BCL2L11, BGN, BID, BRCA1, CASP8, CCL5, CCR1, CD86, CNR1, CTLA4, CTSC, CX3CR1, CXCL1, CXCL16, CXCR2, CXCR3, CYBB, DDIT3, DEF6, DOCK2, DOCK8, ENTPD1, F2R, FCGR2A, FOXO3, GATAD2A, HCK, HMOX1, ICAM1, IFI16, IFNAR1, IGF1, IL1B, IL1RN, ITGA4, ITGAX, KRAS, L3MBTL3, LAMA5, LRP8, LTBR, LYN, MAPKAP1, MERTK, NOTCH2, NR3C1, PPM1G, PTEN, PTGS2, RAC2, RBPJ, RHOB, RIPK3, S100A9, SH3BP2, SOS2, STAT3, STK4, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TYROBP, UQCRC2, WASF2 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response | Adhesion of neutrophils | 1.86E-03 |  | -1.545 | 23 | ADAM10, ADAM17, ADGRE2, APOA1, CSF3R, CXCL1, CXCR2, CYBB, ICAM1, IL1B, ITGAX, LCP1, LGALS8, LILRB3, LYN, MGAT5, PF4, PLCB3, PTPN6, S100A9, TLR2, TLR4, TLR5 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function | Interaction of mononuclear leukocytes | 1.92E-03 | Decreased | -4.047 | 45 | APBB1IP, APOA1, ATRN, B4GALT1, BTK, CCL5, CCR1, CD14, CD86, CLEC4M, CTLA4, CXCL9, CXCR3, DOCK2, DOCK8, EZR, FUT7, FYB1, ICAM1, IFNGR1, IL1B, ITGA4, ITGAX, JAK1, LCP1, LCP2, LTBR, MAP3K2, MSN, NEDD9, NR3C1, PECAM1, PRL, PTPN6, RAC2, RAP1A, RHOA, RICTOR, STK4, SWAP70, TFRC, THBS2, TLR2, TLR4, TNFSF14 |
| Cell Death and Survival, Neurological Disease, Organismal Injury and Abnormalities | Cell death of cortical neurons | 1.94E-03 |  | 0.072 | 39 | APP, ATXN3, BCL2L11, BECN1, CASP8, CFLAR, DDIT3, EPO, FUS, GAPDH, GCLC, HSPA5, HSPD1, IGF1, IL1B, IL1RN, LRPAP1, MAP3K1, MCL1, MEF2C, mir-26, NFATC4, NFE2L2, NTRK1, PARK7, PTGS2, RHOA, SHC3, SP1, SP3, SRPK2, TCP1, TLR2, TLR4, TLR7, TNFRSF1A, UBE2L3, WNK3, YWHAB |
| Cellular Movement, Renal and Urological System Development and Function | Cell movement of kidney cell lines | 1.98E-03 | Decreased | -3.465 | 35 | ANXA2, APC, APOA1, APP, CCL5, CCR1, CNR1, CTNND2, CXCL1, CXCR2, DAB2, EPHA8, EZR, F10, FBLN2, FPR2, FUT7, GAB1, GLIPR2, GRB2, ICAM1, MMP14, NARS1, PEAK1, RAC2, RAF1, RALB, RHOA, SNX27, SRSF1, STK24, TLR2, TXNRD1, VIM, WASF3 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Uterine corpus cancer | 2.01E-03 |  |  | 13 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, KRAS, MTOR, NFE2L2, PTEN, SPOP, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5 |
| Antigen Presentation, Inflammatory Response | Antigen presentation by leukocytes | 2.01E-03 |  | -1.274 | 13 | CD86, CLEC9A, FCAMR, FCGR2A, HSP90AA1, IFNAR1, LILRA2, PSMB8, SEMA4A, SWAP70, SYK, TLR4, TNFSF4 |
| Cell Morphology | Shape change of myeloid cells | 2.01E-03 | Decreased | -2.96 | 13 | ATRN, CCL5, FYB1, HCK, ICAM1, LYN, PECAM1, PLCG2, RHOA, RHOB, SIRPA, SYK, WIPF1 |
| Cell Death and Survival, Skeletal and Muscular Disorders | Apoptosis of muscle cells | 2.05E-03 |  | -0.475 | 54 | ACSL1, ADM, APOA1, APP, BACH1, BCL2L11, BECN1, BNIP3L, CASP8, CAV3, CNR1, CYBB, CYP2J2, DDIT3, EPO, FOXO3, GAPDH, HMOX1, HSPD1, IGF1, IGF1R, IL1B, IL1RN, KRAS, let-7, LIMS1, MAP3K1, MCL1, MDM2, mir-133, mir-138, mir-154, mir-24, MT1A, NAMPT, PARK7, PDCD4, PRKAA1, PRKCD, PTEN, RAF1, RHOA, RIPK3, RTN4, SLC8A1, SOD2, SP1, STAT3, STK4, TLR4, TNFRSF1A, TNFSF10, UBE4B, XAF1 |
| Hematological System Development and Function, Immune Cell Trafficking, Inflammatory Response, Tissue Development | Accumulation of leukocytes | 2.06E-03 |  | -0.545 | 56 | APOA1, B2M, BCL2L11, BGN, CASP8, CCL5, CCR1, CD86, CTLA4, CTSC, CX3CR1, CXCL1, CXCR2, CXCR3, CYBB, DDIT3, DEF6, DOCK2, DOCK8, ENTPD1, F2R, FCGR2A, FOXO3, GATAD2A, HCK, HMOX1, ICAM1, IFNAR1, IL1B, IL1RN, ITGA4, ITGAX, KRAS, LAMA5, LTBR, LYN, MAPKAP1, NOTCH2, NR3C1, PTEN, PTGS2, RBPJ, RIPK3, S100A9, SH3BP2, SOS2, STAT3, STK4, TLR2, TLR4, TLR7, TNFRSF1A, TNFSF10, TNFSF4, TYROBP, UQCRC2 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Metastatic prostate carcinoma | 2.06E-03 |  |  | 11 | CSF3R, CXCR3, HSP90AA1, HSP90AB1, HSP90B1, KLF6, LHCGR, NR3C1, TUBA1A, TUBA1C, TUBB2A |
| Cellular Development, Cellular Growth and Proliferation, Hematological System Development and Function, Hematopoiesis, Lymphoid Tissue Structure and Development, Tissue Development | Hematopoiesis of phagocytes | 2.07E-03 | Decreased | -2.485 | 45 | ADAM10, ADAM17, APP, BTK, CCL23, CDA, CLEC4M, CSF1R, CSF3R, EPO, GMPR2, HOXA7, IFI16, IFNAR1, IL1B, IL1RN, IRF8, LILRA2, LILRB3, LTBR, LYN, MAPKAP1, MEF2C, MTOR, NOTCH2, PF4, PTEN, RBPJ, RFFL, S100A9, SH2B3, SP3, STAT3, TET2, THOC5, TLR2, TLR4, TLR5, TLR7, TNFRSF1A, TNFSF10, TREM1, VDR, ZBTB46, ZRSR2 |
| Hematological Disease | Thrombocytosis | 2.08E-03 |  | 1.767 | 18 | ARNTL, ASXL1, BCL2L11, BNIP3L, CUX1, HBA1/HBA2, IFNAR1, JAK1, LILRB3, PDE4B, PDE8A, PF4, PTGS2, SF3B1, SH2B3, TET2, THBS2, U2AF1/U2AF1L5 |
| Cell Morphology | Cell polarity formation | 2.08E-03 |  |  | 18 | APC, CRB1, CRKL, CTNNA1, CYP26B1, DOCK2, EPHB1, EZR, FEZ1, FZD3, GAB1, HSP90AA1, HSP90AB1, IGF1R, KIF26B, KRAS, LIMS1, SCRIB |
| Protein Synthesis | Synthesis of protein | 2.09E-03 |  | -1.055 | 106 | ACO1, ADM, AGO2, ALDH3A1, ALKBH1, APP, ATF5, B4GALT1, BTG2, BTK, CASC3, CAV3, CDKL2, CNBP, CPEB1, CREB1, DDIT3, DDX3X, EEF2K, EIF1AX, EIF3A, EIF3G, EIF3I, EIF4G3, EIF4H, FOXO3, FTH1, FUS, GAB2, GAPDH, HCK, HELZ, HSPA1A/HSPA1B, HSPA5, ICAM1, IFNAR1, IGF1, IGF2BP3, IL1B, ILF3, IREB2, KRAS, LARP4, LARP4B, LARP6, let-7, LYN, MAP4K4, MARS1, MKNK1, MMP14, MRPL15, MRPL18, MRPL28, MRPL55, MRPS10, MRPS18A, MRRF, MTOR, MTRF1L, MTTP, MYBBP1A, NCBP1, NCL, NR3C1, OXA1L, PABPC1, PARK7, PDCD4, PHLPP1, PIWIL1, PPM1G, PRKAA1, PRL, PTCD3, PTEN, RBM4, RGS2, RNASET2, RPL13A, RPL18, RPL18A, RPL28, RPL38, RPL39, RPL4, RPL5, RPS15, S100A9, SAT1, SOD2, SRSF3, STAT3, STAU1, STIP1, SWAP70, SYK, TLR4, TNFSF10, TNIP1, VDR, VIM, WARS1, YBX1, YTHDF3, ZFPM2 |
| Cellular Function and Maintenance, Molecular Transport, Small Molecule Biochemistry | Exocytosis of catecholamine | 2.10E-03 |  | 0.239 | 7 | CPLX2, ENTPD1, SNAP23, SNAP29, STX3, STXBP6, VAMP4 |
| Connective Tissue Disorders, Developmental Disorder, Hematological Disease, Hereditary Disorder, Organismal Injury and Abnormalities | Familial erythrocytosis | 2.10E-03 |  |  | 7 | BPGM, EPO, HAMP, HBA1/HBA2, HBB, SH2B3, TRNT1 |
| Cell Death and Survival, Skeletal and Muscular Disorders | Apoptosis of smooth muscle cells | 2.11E-03 | Decreased | -2.555 | 23 | APP, CASP8, DDIT3, FOXO3, HMOX1, IGF1, IGF1R, IL1B, let-7, LIMS1, mir-138, PDCD4, PRKCD, PTEN, RHOA, RIPK3, SP1, STAT3, STK4, TLR4, TNFRSF1A, TNFSF10, XAF1 |
| Cardiovascular Disease | Pericardial effusion | 2.11E-03 | Increased | 2.53 | 15 | ADM, CYP51A1, ECE1, F2R, HDAC7, NR3C1, RAMP2, RTEL1, TBX5, TFRC, TUBA1A, TUBA1C, TUBB2A, UBE4B, UBR2 |
| Cell-To-Cell Signaling and Interaction, Cellular Compromise | Respiratory burst of cells | 2.11E-03 | Decreased | -2.09 | 14 | APP, CD14, CXCL1, FPR1, HCK, ICAM1, IRF8, ITGA4, LILRB3, LYN, PF4, SYK, TREM1, TYROBP |
| Organismal Development | Growth of vessel | 2.12E-03 |  | -1.679 | 55 | ADM, AIF1, ALOX5AP, ARNT, CAMK2A, CCDC88A, CLEC1B, CNP, CNR1, CTSB, CX3CR1, CYBB, ELN, EPO, ERO1A, FRS2, HDAC9, HMOX1, HSPD1, IFNGR1, IGF1, IGF1R, IGFBP4, IL1B, let-7, LRRFIP1, MMP14, NCF2, NCOA1, NFE2L2, NOTCH2, PRKAA1, PRKG1, PRL, PTEN, PTGS2, PTPN6, RAP1A, RHOA, RIPK3, RTN4, S100A9, SIRPA, SKP2, SNAP23, SOD2, SP1, STAT3, STK4, SYK, TCF4, TLR2, TLR4, TNFRSF1A, TNFSF10 |
| Cell Death and Survival | Cell death of bone marrow cell lines | 2.13E-03 |  | 0.677 | 17 | AOPEP, ASAH1, BID, CFLAR, EPO, IGF1, IGF1R, IRF8, MAX, NOTCH2, NTRK1, PAK2, PRKCD, PTPN6, RAF1, RIPK3, STAT3 |
| Cell Death and Survival | Cell death of kidney cancer cell lines | 2.16E-03 |  | -1.197 | 15 | BCL2L11, CASP8, CFLAR, CXCR3, DDIT3, DKK2, HMOX1, HOTAIR, LINC00887, NBR2, PRKAR1A, SH3RF1, STAT3, TNFSF10, TXNRD1 |
| Cancer, Neurological Disease, Organismal Injury and Abnormalities, Tumor Morphology | Progressive central nervous system tumor | 2.16E-03 |  |  | 16 | CSF1R, CTLA4, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, NTRK1, OAZ1, PDGFRA, RAF1, STAT3, TUBA1A, TUBA1C, TUBB2A, YWHAZ |
| Cancer, Organismal Injury and Abnormalities, Respiratory Disease | Neoplasm of pleura | 2.21E-03 |  |  | 20 | ADAM10, ARSD, CTLA4, DDX3X, FOXO3, HSP90AA1, HSP90AB1, HSP90B1, KRAS, LYN, MYBBP1A, PDGFRA, PDZD8, SETDB1, SP1, THBS2, TTF1, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL E255K-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F359V-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Endometrial clear cell carcinoma | 2.24E-03 |  |  | 10 | CSF3R, FAM136A, HSP90AA1, HSP90AB1, HSP90B1, KRAS, SPOP, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F359C-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL E255V-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Gastrointestinal Disease, Organismal Injury and Abnormalities | Anal carcinoma | 2.24E-03 |  |  | 10 | HSP90AA1, HSP90AB1, HSP90B1, KRAS, MTOR, NFE2L2, SERPINB3, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F359V-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL E255V-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F359C-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F359I-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cell Death and Survival | Apoptosis of macrophage cancer cell lines | 2.24E-03 |  | -0.965 | 11 | BCL2L11, CASP8, CFLAR, DDIT3, FOXO3, HSP90AB1, MCL1, MVP, TLR4, TNFRSF1A, TREM1 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F359I-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL Y253H-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Hematological Disease, Immunological Disease | Lymphoid immunodeficiency | 2.24E-03 |  |  | 10 | BCL2L11, CASP8, CTLA4, EXTL3, FOXP3, KRAS, MAGT1, PRKCD, STK4, TRNT1 |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Hypersensitivity Response, Inflammatory Response | Binding of mast cells | 2.24E-03 |  | -1.671 | 10 | BTK, F2R, HCK, ICAM1, IL1B, ITGA4, LYN, NOTCH2, PAK2, RAC2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL E255K-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL Y253H-positive Philadelphia-positive acute lymphoblastic leukemia | 2.24E-03 |  |  | 10 | CSF1R, HCK, LYN, MS4A1, NR3C1, PDGFRA, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cell Morphology | Area of cells | 2.25E-03 |  |  | 22 | APP, C10orf71, CNP, CUX1, DYRK1A, HOTAIR, IGF1, IGF1R, IL1B, ITM2B, MYO5A, NLGN3, NR3C1, NTRK1, PF4, PLP1, PRKCD, PTEN, SCARB2, TJP1, TLR4, VDR |
| Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Hematopoiesis | Binding of hematopoietic progenitor cells | 2.30E-03 | Decreased | -2.791 | 12 | BTK, CXCL9, CXCR3, F2R, FYB1, ICAM1, IRF8, ITGA4, PECAM1, PRL, RAC2, RHOA |
| Developmental Disorder, Hereditary Disorder, Metabolic Disease, Organismal Injury and Abnormalities | Glycogen storage disease | 2.30E-03 |  |  | 12 | ENO3, FCGR2A, FCGR2C, FOXP3, GBE1, GYG1, M6PR, MS4A1, PGAM2, PHKB, PSMD1, PSMD2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | CD20 positive aggressive mature B-cell lymphoma | 2.30E-03 |  |  | 12 | BTK, CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2, TUBA1A, TUBA1C, TUBB2A |
| Cellular Assembly and Organization | Rearrangement of actin cytoskeleton | 2.30E-03 | Decreased | -2.009 | 12 | DEF6, FPR1, FYB1, IGF1, ITGA4, PACSIN2, PIP5K1A, PLXNA4, RAB5A, RAC2, RHOA, RICTOR |
| Cell-To-Cell Signaling and Interaction | Response of neuroglia | 2.30E-03 |  | -1.844 | 12 | APP, BECN1, CD14, DOCK2, HMOX1, IL1B, LILRB3, MERTK, PARK7, S100A9, TLR2, TLR4 |
| Cancer, Organismal Injury and Abnormalities, Reproductive System Disease | Cervical cancer | 2.31E-03 |  |  | 79 | ALDH5A1, ANXA2, ANXA5, APOBEC3B, ARHGDIB, CASP8, CDKL5, CLEC4F, CLEC4M, CSF1R, CTSB, CTSC, DPYD, EIF3A, F10, FOXO3, GOLGB1, HBA1/HBA2, HBB, HLA-A, HSP90AA1, HSP90AB1, HSP90B1, IGF1, ITGA4, ITGAX, ITGB8, KRAS, let-7, MAP4, MAX, MCM7, MDM2, mir-133, mir-154, mir-202, mir-24, mir-26, mir-28, mir-515, MTOR, MYO15A, NEDD9, NOTCH2, NUBP1, NUP62, OR2A14, PITPNA, PSME3, PTEN, PTGFRN, PTGS2, RAMP2, RTTN, SERPINB3, SERPINB4, SF3B1, SMARCC2, STAT3, TET2, TFRC, THBS2, TLR7, TPM3, TRIO, TRIOBP, TTF1, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UGT2B11, USP4, VCAN, VIM, YWHAE, ZEB2, ZNF350, ZNF677 |
| Infectious Diseases, Inflammatory Disease, Organismal Injury and Abnormalities, Respiratory Disease | Severe acute respiratory syndrome | 2.31E-03 |  |  | 25 | ACSL1, ACTN1, CTSZ, F10, FOXO3, FPR1, G3BP2, GAPDH, GLUL, GYG1, H2AC18/H2AC19, H2BC12, H2BC21, IMPA2, IRF8, ITGA4, KRAS, LILRA2, MXD1, NR3C1, RAB31, S100A9, SH2B3, TALDO1, TLR2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Mature B-cell neoplasm | 2.33E-03 |  | -0.246 | 238 | AIG1, AMPH, ANKLE2, ANO5, ANXA2, ANXA5, APBA1, APC, APOBEC3A, APOBEC3B, APP, ARHGAP17, ARL6IP5, ASB10, ASMTL, ASXL1, ATN1, ATRN, ATXN3, B2M, BAZ2B, BBS7, BCL2L11, BCL7A, BECN1, BOD1L1, BRCA1, BTG2, BTK, CARMIL1, CARNS1, CASP8, CAV3, CAVIN2, CCL5, CCNDBP1, CD300E, CD86, CDC23, CFLAR, CGB1/CGB2, CHD4, CKMT2, CMSS1, CNR1, COL1A2, COL7A1, CPSF7, CRNN, CSDE1, CSF1R, CSF3R, CTNND2, CTSC, CXCL1, CXCL6, CXCL9, CYP2A6 (includes others), DMTF1, DNAJB14, DOCK2, DPYD, DYRK1A, EPHA8, ETV6, EWSR1, F10, F11R, FAM131C, FCGR2A, FOXO3, FRMD4B, FUS, FYB1, FZD3, GATA5, GPD1, GPRIN1, GPSM2, GRB2, GSE1, HAO2, HCLS1, HDAC9, HECA, HLA-A, HLA-G, HMOX1, HSP90AA1, HSP90AB1, HSP90B1, HVCN1, IDH3A, IFNAR1, IGF1, IGF2R, IL1B, IL1RN, IRF8, ITGA4, ITGAX, JAK1, KAT6A, KRAS, LCP1, LCP2, LCT, let-7, LHCGR, LRP2, LRRFIP1, LSM3, LYN, LYPLA2, MAP4K4, MAX, MCL1, MDM2, mir-138, mir-154, mir-28, MLX, MPEG1, MS4A1, MTOR, MYO15A, MYO5B, MYOF, NACA2, NAMPT, NDC80, NDUFS1, NETO2, NFE2L2, NONO, NOTCH2, NR3C1, NUBP1, NUDT6, NXPE4, PCLO, PDGFRA, PECAM1, PF4, PLCG2, PLEKHA7, POLR3B, POTEH (includes others), PPM1D, PPP1R12B, PPP4R2, PPP6C, PPP6R3, PRKAA1, PSMB8, PSMD1, PSMD2, PSME3, PTEN, PTGFRN, PTGS2, PTPRE, PWWP3A, RAB38, RAB4A, RAF1, RBM4, RESF1, RHOA, RICTOR, RPS15, RTTN, S100A9, SCN9A, SCRT2, SEC14L1, SEC24D, SF3B1, SHROOM3, SLAMF7, SLC25A32, SMARCA2, SNRPD3, SOD2, SORL1, SPAG9, SRPK2, STAT3, STEAP4, STIP1, STXBP6, SUCLG1, SWAP70, SYK, TDRD1, TET2, TFRC, THBS2, TLR2, TLR4, TLR5, TLR7, TMEM45B, TMPRSS9, TNFRSF10C, TNIP1, TNNI3K, TOX4, TRAF3, TRIM5, TRIM55, TRIO, TRIP12, TRPM6, TTC21B, TUBA1A, TUBA1C, TUBB2A, U2AF1/U2AF1L5, UBA3, UBE2F, UBE2J2, UNC5C, VCAN, VDAC1, VIM, YAE1, YWHAE, YWHAZ, ZMYM3, ZNF10, ZNF211, ZNF212, ZNF229, ZNF615, ZNF700, ZNF714, ZRSR2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory CD20 positive diffuse large B-cell non-Hodgkin lymphoma | 2.33E-03 |  |  | 8 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | CD20 positive refractory non Hodgkin lymphoma | 2.35E-03 |  |  | 9 | BTK, CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2 |
| Cell-To-Cell Signaling and Interaction, Cellular Function and Maintenance, Hematological System Development and Function, Inflammatory Response | Phagocytosis by microglia | 2.35E-03 |  | -1.407 | 9 | APP, BECN1, CD14, DOCK2, IL1B, MERTK, S100A9, TLR2, TLR4 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory CD20-positive B-cell non-Hodgkin lymphoma | 2.35E-03 |  |  | 9 | BTK, CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, PSMD1, PSMD2 |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F317L-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F317I-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | High-risk CD20 positive diffuse large B-cell non-Hodgkin lymphoma | 2.35E-03 |  |  | 9 | CSF3R, HSP90AA1, HSP90AB1, HSP90B1, MS4A1, NR3C1, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F317V-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F317I-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL T315A-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL T315A-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F317C-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Relapsed BCR-ABL F317L-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F317C-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cancer, Hematological Disease, Immunological Disease, Organismal Injury and Abnormalities | Refractory BCR-ABL F317V-positive Philadelphia-positive acute lymphoblastic leukemia | 2.35E-03 |  |  | 9 | CSF1R, HCK, LYN, MS4A1, NR3C1, STK24, TUBA1A, TUBA1C, TUBB2A |
| Cardiovascular System Development and Function, Cellular Movement | Migration of endothelial cells | 2.37E-03 | Decreased | -3.516 | 75 | ADAM10, ADAM15, ADAM17, ADGRG3, ADM, ANGPTL4, ANXA2, ANXA3, APC, APOA1, ARNT, BCAS3, CAVIN2, CCL5, CLEC1B, CXCL1, CXCR2, ELN, EMC10, EPO, EYA3, F11R, F2R, FOXO3, FRS2, GAB1, GLUL, HSP90AB1, HSPA5, ICAM1, IGF1, IGF2R, IL1B, ITGA4, KIF26B, KLHL20, MAX, MDM2, MEF2C, mir-133, mir-137, mir-24, mir-26, MMP14, MTOR, MXD1, NCL, NFE2L2, PAQR3, PECAM1, PF4, PRKAA1, PRKG1, PROK2, PRSS55, PTEN, PTGS2, PTPN6, RGCC, RHOA, RHOB, RIN2, RTN4, SFRP4, SP1, SP100, STAT3, STK35, TAZ, TDGF1, TJP1, TNFSF10, VIM, WARS1, YWHAZ |
| Cellular Development, Cellular Growth and Proliferation | Proliferation of lung cancer cell lines | 2.44E-03 | Decreased | -2.922 | 64 | ADAM17, ANXA2, BID, CREB1, CRKL, CYP2J2, DAB2, DDX3X, DNAJB4, DPF2, DUSP5, ELF3, EPB41L3, FAIM2, FOXO3, GAPDH, HMOX1, HNRNPA2B1, IGF1, IGF1R, IL1B, ITGB8, KDM5A, KRAS, let-7, LINC00511, LUCAT1, MCL1, MDM2, mir-103, mir-154, mir-24, mir-515, MTOR, MUC1, MYH14, NASP, NFE2L2, NOTCH2, NUMB, PDGFRA, PRKCD, PRRC2C, PTEN, PTGS2, RAF1, RALB, RALBP1, RASD1, RHOB, SETDB1, SKP2, SMARCA2, STAT3, TASP1, TAZ, TBXAS1, THBS2, TLR2, TLR5, TNFSF10, TTF1, TUBB2A, YWHAZ |
| Cancer, Organismal Injury and Abnormalities | Medullary carcinoma | 2.45E-03 |  |  | 13 | AMY1C (includes others), CSF1R, KRAS, MAPKAP1, MERTK, NR3C1, NTRK1, PDGFRA, PTEN, PTGS2, RAF1, STAT3, TBC1D9 |
| Nervous System Development and Function | Neuroprotection of hippocampus | 2.47E-03 |  | -1.318 | 6 | APP, EPO, IGF1, PTGS2, STAT3, STIP1 |
| Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking | Cell movement of lymphoblasts | 2.47E-03 | Decreased | -2.213 | 6 | CCL5, DEFB103A/DEFB103B, HCLS1, ICAM1, SOS2, STK4 |