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| **Table S10. List of disease & functions associated with the identified gene co-expression modules in B cells of primary Sjögren's syndrome.** | | | | | | |
| Categories | Diseases or Functions Annotation | p-Value | -log(p-value) | Module | # Molecules | Molecules |
| Cell Death and Survival | Cell death of immune cells | 0.0000572 | 4.242603971 | yellow | 16 | DUSP5,FYN,GADD45B,HCK,HRK,IL15,LEF1,MAP2K3,PIK3CA,PLCG1,SMAD3,SMARCA4,SOX4,TBXA2R,TNFSF8,TRAF3IP2 |
| Hematological System Development and Function,Tissue Morphology | Quantity of leukocytes | 0.0000601 | 4.221125528 | yellow | 20 | BANK1,BMPR2,CDK6,DUSP5,FYN,GADD45B,HCK,HIVEP3,IL15,MYBL1,NT5E,PIK3CA,SMAD3,SMARCA4,SOX4,TBXA2R,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B |
| Hematological System Development and Function,Tissue Morphology | Quantity of mononuclear leukocytes | 0.000105 | 3.978810701 | yellow | 17 | BANK1,CDK6,DUSP5,FYN,GADD45B,HIVEP3,IL15,MYBL1,NT5E,PIK3CA,SMAD3,SMARCA4,SOX4,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol 3,5-diphosphate | 0.000107 | 3.970616222 | yellow | 2 | HIP1,HIP1R |
| Hematological System Development and Function,Tissue Morphology | Quantity of blood cells | 0.000108 | 3.966576245 | yellow | 21 | BANK1,BMPR2,CDK6,DUSP5,FYN,GADD45B,HCK,HIVEP3,IL15,MYBL1,NT5E,PIK3CA,PLCG1,SMAD3,SMARCA4,SOX4,TBXA2R,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of artificial clathrin cages | 0.000112 | 3.950781977 | yellow | 3 | AP1B1,HIP1,HIP1R |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Sebaceous gland tumor | 0.000136 | 3.866461092 | yellow | 3 | FHIT,LEF1,PIK3CA |
| Cell Death and Survival | Cell death of lymphocytes | 0.000146 | 3.835647144 | yellow | 11 | DUSP5,FYN,GADD45B,HRK,IL15,MAP2K3,PLCG1,SMAD3,SOX4,TBXA2R,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction | Response of lymphatic system cells | 0.000167 | 3.777283529 | yellow | 8 | CD58,FYN,IL15,PLCG1,SMAD3,TNFRSF10A,TNFSF8,TRAF3IP2 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphatic system cells | 0.000174 | 3.759450752 | yellow | 17 | BANK1,CDK6,DUSP5,FYN,GADD45B,HCK,HIVEP3,IL15,MYBL1,NT5E,PIK3CA,SMARCA4,SOX4,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B |
| Cellular Growth and Proliferation | Cell proliferation of hematopoietic cell lines | 0.000174 | 3.759450752 | yellow | 9 | FYN,GADD45B,HCK,HIP1,IL15,MPRIP,MSI2,MYBL1,PIK3CA |
| Cellular Assembly and Organization | Development of cytoplasm | 0.000209 | 3.679853714 | yellow | 13 | AKAP2,CDK6,CRTC3,FHIT,FYN,HCK,HIP1,HIP1R,IL15,MPRIP,SMAD3,SMARCA4,SSBP1 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol-3-phosphate | 0.000214 | 3.669586227 | yellow | 2 | HIP1,HIP1R |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol 3,4-diphosphate | 0.000214 | 3.669586227 | yellow | 2 | HIP1,HIP1R |
| Cardiovascular System Development and Function,Cellular Movement | Migration of pulmonary artery endothelial cells | 0.000214 | 3.669586227 | yellow | 2 | BMPR2,SMAD3 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphocytes | 0.000216 | 3.665546249 | yellow | 16 | BANK1,CDK6,DUSP5,FYN,GADD45B,HIVEP3,IL15,MYBL1,NT5E,PIK3CA,SMARCA4,SOX4,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B |
| Cell Death and Survival | Apoptosis of lymphocytes | 0.000239 | 3.621602099 | yellow | 10 | DUSP5,FYN,GADD45B,IL15,MAP2K3,PLCG1,SMAD3,SOX4,TBXA2R,TRAF3IP2 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of lymphocytes | 0.000275 | 3.560667306 | yellow | 16 | BANK1,CD58,CDK6,DUSP5,FYN,GADD45B,HCK,IL15,LEF1,MYBL1,NT5E,PIK3CA,SMAD3,SMARCA4,TNFRSF10A,UBASH3B |
| Cell-To-Cell Signaling and Interaction,Reproductive System Development and Function | Activation of oocytes | 0.000355 | 3.449771647 | yellow | 2 | FYN,PLCG1 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastasis to bone of tumor cell lines | 0.000355 | 3.449771647 | yellow | 2 | NT5E,SMAD3 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of lymphoid organ | 0.000365 | 3.437707136 | yellow | 11 | BANK1,CDK6,FYN,HCK,IL15,MYBL1,SMAD3,SOX4,TBXA2R,TNFRSF10A,TRAF3IP2 |
| Cell Death and Survival | Cell viability of blood cells | 0.000366 | 3.436518915 | yellow | 9 | GADD45B,HCK,IL15,LEF1,PIK3CA,SMAD3,SMARCA4,TNFSF8,TRAF3IP2 |
| Cell Cycle,Hematological System Development and Function | Cell division of T lymphocytes | 0.000443 | 3.353596274 | yellow | 3 | FYN,IL15,SMAD3 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hepatobiliary system cancer | 0.000448 | 3.348721986 | yellow | 56 | ADAM28,AGO2,AP1B1,ARHGEF7,BANK1,BMPR2,C12orf49,CATSPER3,CD58,CDK6,CNST,CRTC3,CTNNA1,DIS3,DOCK9,ELOVL5,FHIT,H3F3A/H3F3B,HCK,HEATR5B,HIP1,HIVEP3,IL15,KCNQ5,LEF1,LHFPL2,MAP2K3,MICAL3,MPRIP,MSI2,NETO1,NT5E,PIK3CA,PLCG1,PRKD3,PRR5L,RASGRP2,RNFT2,RPAIN,SLC2A5,SLC5A3,SMARCA4,SNTB1,SOX4,TCHP,TM6SF1,TMEM131L,TMEM237,TNFSF8,TRAF3IP2,UBASH3B,WDR5B,WDR74,YWHAH,ZDHHC23,ZNF829 |
| 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 pro-B lymphocytes | 0.000498 | 3.302770657 | yellow | 3 | FYN,PLCG1,SMARCA4 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function | Cell proliferation of leukocyte cell lines | 0.000502 | 3.299296283 | yellow | 8 | FYN,GADD45B,HCK,HIP1,IL15,MPRIP,MSI2,PIK3CA |
| Cell Death and Survival,Hematological System Development and Function | Cell viability of lymphocytes | 0.000521 | 3.283162277 | yellow | 7 | HCK,IL15,LEF1,PIK3CA,SMAD3,SMARCA4,TRAF3IP2 |
| Infectious Diseases | Binding of virus | 0.000529 | 3.276544328 | yellow | 4 | FYN,HCK,IL15,LARGE1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Tumorigenesis of prostatic adenocarcinoma | 0.00053 | 3.27572413 | yellow | 2 | HIP1,SOX4 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymphoid organ | 0.000588 | 3.230622674 | yellow | 12 | BANK1,CDK6,FYN,HCK,IL15,MYBL1,NT5E,SMAD3,SOX4,TBXA2R,TNFRSF10A,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Response of lymphocytes | 0.000591 | 3.228412519 | yellow | 7 | CD58,FYN,IL15,PLCG1,SMAD3,TNFSF8,TRAF3IP2 |
| Cardiovascular System Development and Function | Vascular resistance | 0.000622 | 3.206209615 | yellow | 3 | BMPR2,NT5E,TBXA2R |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of spleen | 0.000706 | 3.151195299 | yellow | 9 | BANK1,CDK6,FYN,HCK,MYBL1,SMAD3,SOX4,TBXA2R,TRAF3IP2 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid tissue | 0.00072 | 3.142667504 | yellow | 10 | BANK1,CDK6,DUSP5,FYN,HIVEP3,MYBL1,PIK3CA,SOX4,TRAF3IP2,UBASH3B |
| Cell Cycle,Embryonic Development | Cell division of embryonic cells | 0.000739 | 3.131355562 | yellow | 2 | LEF1,PIK3CA |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Tissue Morphology | Morphology of spleen | 0.000755 | 3.122053048 | yellow | 10 | BANK1,CDK6,FYN,HCK,IL15,MYBL1,SMAD3,SOX4,TBXA2R,TRAF3IP2 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Liver cancer | 0.000774 | 3.111259039 | yellow | 53 | ADAM28,AGO2,AP1B1,ARHGEF7,BANK1,BMPR2,C12orf49,CATSPER3,CD58,CDK6,CRTC3,CTNNA1,DIS3,DOCK9,ELOVL5,FHIT,H3F3A/H3F3B,HCK,HEATR5B,HIVEP3,IL15,KCNQ5,LEF1,LHFPL2,MAP2K3,MICAL3,MPRIP,MSI2,NETO1,NT5E,PIK3CA,PLCG1,PRKD3,PRR5L,RASGRP2,RNFT2,RPAIN,SLC2A5,SLC5A3,SMARCA4,SOX4,TCHP,TM6SF1,TMEM131L,TMEM237,TNFSF8,TRAF3IP2,UBASH3B,WDR5B,WDR74,YWHAH,ZDHHC23,ZNF829 |
| Cell Death and Survival | Cell viability of leukocytes | 0.000792 | 3.101274818 | yellow | 8 | HCK,IL15,LEF1,PIK3CA,SMAD3,SMARCA4,TNFSF8,TRAF3IP2 |
| Infectious Diseases | Binding of HIV | 0.000843 | 3.074172425 | yellow | 3 | FYN,HCK,IL15 |
| Cellular Function and Maintenance | Function of blood cells | 0.000914 | 3.039053804 | yellow | 12 | BANK1,BMPR2,DUSP5,FYN,GADD45B,HCK,IL15,MAP2K3,NT5E,RASGRP2,SMAD3,TBXA2R |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Medulloblastoma WNT-subtype | 0.000981 | 3.008330993 | yellow | 2 | PIK3CA,SMARCA4 |
| Cellular Assembly and Organization | Rearrangement of actin | 0.000981 | 3.008330993 | yellow | 2 | HCK,PIK3CA |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Formation of splenocytes | 0.000981 | 3.008330993 | yellow | 2 | IL15,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic estrogen receptor positive HER2 negative progesterone receptor positive breast cancer | 0.000981 | 3.008330993 | yellow | 2 | CDK6,PIK3CA |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Adrenal cortex carcinoma | 0.00101 | 2.995678626 | yellow | 3 | BMPR2,H3F3A/H3F3B,PIK3CA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | T cell response | 0.00102 | 2.991399828 | yellow | 6 | CD58,FYN,IL15,PLCG1,TNFSF8,TRAF3IP2 |
| Cellular Movement | Cell movement | 0.00104 | 2.982966661 | yellow | 33 | AGO2,ARHGEF7,BHLHE41,BMPR2,CATSPER3,CD58,CDK6,CTNNA1,DUSP5,FHIT,FYN,HCK,IL15,LEF1,MAP2K3,MPRIP,NAV1,NREP,NT5E,PIK3C2B,PIK3CA,PLCG1,PPIL2,PRKD3,RASGRP2,SMAD3,SMARCA4,SSBP1,TBXA2R,TNFRSF10A,TNFRSF19,TNFSF8,TRAF3IP2 |
| Cellular Assembly and Organization | Formation of cytoskeleton | 0.00125 | 2.903089987 | yellow | 10 | AKAP2,CDK6,FHIT,FYN,HCK,HIP1,HIP1R,MPRIP,SMAD3,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progressive hormone receptor positive HER2 negative metastatic breast cancer | 0.00126 | 2.899629455 | yellow | 2 | CDK6,PIK3CA |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Lip and oral cavity carcinoma | 0.00126 | 2.899629455 | yellow | 2 | FHIT,SNTB1 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Recurrent ALK fusion negative EGFR mutation negative lung squamous cell carcinoma | 0.00126 | 2.899629455 | yellow | 2 | CDK6,PIK3CA |
| Cellular Movement | Cell movement of tumor cell lines | 0.00128 | 2.89279003 | yellow | 18 | AGO2,BHLHE41,BMPR2,DUSP5,FHIT,FYN,HCK,LEF1,MPRIP,NREP,NT5E,PIK3C2B,PIK3CA,PLCG1,PRKD3,SMAD3,SSBP1,TBXA2R |
| Cell Death and Survival | Cell death of hematopoietic progenitor cells | 0.00132 | 2.879426069 | yellow | 7 | FYN,GADD45B,HRK,PLCG1,SMAD3,SOX4,TBXA2R |
| Cellular Movement | Migration of cells | 0.00135 | 2.869666232 | yellow | 30 | AGO2,ARHGEF7,BHLHE41,BMPR2,CD58,CDK6,CTNNA1,DUSP5,FHIT,FYN,HCK,IL15,LEF1,MAP2K3,NAV1,NREP,NT5E,PIK3C2B,PIK3CA,PLCG1,PPIL2,RASGRP2,SMAD3,SMARCA4,SSBP1,TBXA2R,TNFRSF10A,TNFRSF19,TNFSF8,TRAF3IP2 |
| Organismal Injury and Abnormalities,Tissue Morphology | Quantity of lesion | 0.00137 | 2.863279433 | yellow | 7 | BMPR2,FHIT,HIP1,IL15,LEF1,NT5E,PIK3CA |
| Cell Morphology,Cellular Function and Maintenance | Permeability of cells | 0.00139 | 2.8569852 | yellow | 5 | ARHGEF7,BMPR2,NT5E,PIK3CA,PLCG1 |
| Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Quantity of lymphoid organ | 0.00144 | 2.841637508 | yellow | 8 | CDK6,DUSP5,FYN,HIVEP3,MYBL1,PIK3CA,TRAF3IP2,UBASH3B |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Liver carcinoma | 0.00153 | 2.815308569 | yellow | 51 | ADAM28,AGO2,AP1B1,ARHGEF7,BANK1,BMPR2,C12orf49,CATSPER3,CD58,CDK6,CRTC3,CTNNA1,DIS3,DOCK9,ELOVL5,FHIT,H3F3A/H3F3B,HCK,HEATR5B,HIVEP3,KCNQ5,LEF1,LHFPL2,MAP2K3,MICAL3,MPRIP,MSI2,NETO1,NT5E,PIK3CA,PLCG1,PRKD3,PRR5L,RASGRP2,RNFT2,RPAIN,SLC2A5,SLC5A3,SMARCA4,SOX4,TCHP,TM6SF1,TMEM131L,TMEM237,TNFSF8,TRAF3IP2,UBASH3B,WDR5B,YWHAH,ZDHHC23,ZNF829 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of tumor | 0.00154 | 2.812479279 | yellow | 6 | BMPR2,HIP1,IL15,LEF1,NT5E,PIK3CA |
| Cell Cycle,Renal and Urological System Development and Function | S phase of kidney cell lines | 0.00156 | 2.806875402 | yellow | 2 | CDK6,PLCG1 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgM | 0.00157 | 2.804100348 | yellow | 5 | BANK1,FYN,GADD45B,IL15,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of immune cells | 0.00165 | 2.782516056 | yellow | 9 | ADAM28,CD58,FYN,HCK,IL15,NT5E,PIK3CA,RASGRP2,TRAF3IP2 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development | Proliferation of B lymphocytes | 0.00166 | 2.779891912 | yellow | 8 | BANK1,FYN,HCK,IL15,LEF1,MYBL1,PIK3CA,SMAD3 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of leukemia cells | 0.00173 | 2.761953897 | yellow | 4 | CDK6,IL15,SMARCA4,TNFRSF10A |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Papilloma | 0.00173 | 2.761953897 | yellow | 5 | DUSP5,FHIT,PIK3CA,SMAD3,TRAF3IP2 |
| Cellular Development,Connective Tissue Development and Function,Tissue Development | Differentiation of connective tissue cells | 0.00175 | 2.756961951 | yellow | 13 | BMPR2,CDK6,FYN,GADD45B,H3F3A/H3F3B,HIVEP3,LEF1,MAP2K3,SLC2A5,SMAD3,SMARCA4,TMEM178A,UBASH3B |
| Cell Death and Survival,Organismal Injury and Abnormalities | Apoptosis of keratinocytes | 0.00188 | 2.725842151 | yellow | 4 | CDK6,CTNNA1,IL15,TNFRSF10A |
| Connective Tissue Development and Function | Adipogenesis | 0.00195 | 2.709965389 | yellow | 5 | BMPR2,PIK3CA,SMAD3,SMARCA4,TNFRSF19 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell malignant neoplasm | 0.00207 | 2.684029655 | yellow | 12 | CD58,DUSP5,FHIT,FYN,GADD45B,HCK,IL15,LEF1,PIK3CA,PLCG1,RASGRP2,SMARCA4 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Enlargement of lymph node | 0.00228 | 2.642065153 | yellow | 2 | SMAD3,TRAF3IP2 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Phosphorylation of phosphatidylinositol phosphate | 0.00228 | 2.642065153 | yellow | 2 | PIK3C2B,PIK3CA |
| Embryonic Development,Organismal Development,Tissue Development | Development of somites | 0.00231 | 2.63638802 | yellow | 4 | MAML3,PIK3CA,SMAD3,SOX4 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult T cell leukemia | 0.00239 | 2.621602099 | yellow | 5 | CD58,FHIT,FYN,PLCG1,SMARCA4 |
| Cellular Function and Maintenance | Cellular homeostasis | 0.00244 | 2.612610174 | yellow | 25 | ARHGEF7,BMPR2,CDK6,CRTC3,FYN,GADD45B,GNG3,HCK,IL15,LARGE1,LEF1,NT5E,PIK3C2B,PIK3CA,PLCG1,SMAD3,SMARCA4,SOCS5,SOX4,TBXA2R,TCHP,TMEM178A,TNFRSF10A,TNFSF8,UBASH3B |
| Cancer,Organismal Injury and Abnormalities | Growth of malignant tumor | 0.00245 | 2.610833916 | yellow | 10 | ADAM28,FHIT,HRK,IL15,MAP2K3,MSI2,NT5E,PIK3CA,SMAD3,SOX4 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Blast crisis phase chronic myeloid leukemia | 0.0025 | 2.602059991 | yellow | 3 | FYN,HCK,MSI2 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of secondary tumor | 0.0025 | 2.602059991 | yellow | 3 | BMPR2,IL15,NT5E |
| Cardiovascular Disease,Cardiovascular System Development and Function | Abnormal morphology of cardiovascular system | 0.00264 | 2.578396073 | yellow | 15 | AGO2,BMPR2,CDK6,DUSP5,HCK,IL15,LEF1,MAML3,MAP2K3,NT5E,PIK3CA,SMAD3,SMARCA4,SOX4,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Response of cytotoxic T cells | 0.00268 | 2.571865206 | yellow | 2 | CD58,IL15 |
| Neurological Disease,Organismal Injury and Abnormalities | Kindling | 0.00268 | 2.571865206 | yellow | 2 | AP3M2,FYN |
| Cardiovascular System Development and Function | Morphogenesis of cardiovascular system | 0.00275 | 2.560667306 | yellow | 7 | BMPR2,MAML3,MAP2K3,PIK3C2B,SMAD3,SMARCA4,SOX4 |
| Organismal Development | Abnormal morphology of body cavity | 0.00286 | 2.543633967 | yellow | 22 | AGO2,BANK1,BMPR2,CDK6,DUSP5,FHIT,FYN,HCK,IL15,LEF1,MAML3,MAP2K3,MYBL1,NT5E,PIK3CA,RBMS1,SMAD3,SMARCA4,SOX4,TBXA2R,TNFRSF10A,TRAF3IP2 |
| Organismal Development | Growth of organism | 0.0029 | 2.537602002 | yellow | 15 | AGO2,BMPR2,CDK6,CTNNA1,H3F3A/H3F3B,HIP1,HIP1R,IL15,MAP2K3,MSI2,PLCG1,SMAD3,SMARCA4,SOX4,ZBTB20 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Differentiation of Th1 cells | 0.0029 | 2.537602002 | yellow | 4 | GADD45B,IL15,LEF1,SMARCA4 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Cell proliferation of T lymphocytes | 0.00293 | 2.53313238 | yellow | 12 | CD58,CDK6,DUSP5,FYN,GADD45B,IL15,NT5E,PIK3CA,SMAD3,SMARCA4,TNFRSF10A,UBASH3B |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of lipid | 0.003 | 2.522878745 | yellow | 15 | AGPAT5,BMPR2,ELOVL5,FYN,IL15,LARGE1,PIK3C2B,PIK3CA,PLCG1,PRKD3,RASGRP2,SMAD3,STARD10,TBXA2R,ZBTB20 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Differentiation of helper T lymphocytes | 0.00304 | 2.517126416 | yellow | 6 | GADD45B,IL15,LEF1,SMAD3,SMARCA4,TNFSF8 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic hormone receptor positive breast carcinoma | 0.00312 | 2.505845406 | yellow | 2 | CDK6,PIK3CA |
| Infectious Diseases | Infection by Dengue virus 2 | 0.00319 | 2.496209317 | yellow | 3 | AP1B1,HIP1,HIP1R |
| Cell Death and Survival | Killing of tumor cell lines | 0.00347 | 2.459670525 | yellow | 4 | FYN,IL15,PIK3C2B,PRKD3 |
| Cell Cycle | Cell cycle progression of tumor cell lines | 0.0035 | 2.455931956 | yellow | 7 | CDK6,FHIT,PIK3CA,PRKD3,SMAD3,SMARCA4,ZBTB20 |
| Connective Tissue Development and Function,Embryonic Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Development of vertebral column | 0.00358 | 2.446116973 | yellow | 3 | ARHGEF7,HIP1,HIP1R |
| Cell Signaling | Transmembrane receptor protein serine/threonine kinase signaling pathway | 0.00358 | 2.446116973 | yellow | 2 | AKAP2,BMPR2 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Cardiac lesion | 0.00358 | 2.446116973 | yellow | 6 | CTNNA1,NT5E,PIK3CA,SMAD3,SMARCA4,TBXA2R |
| Cell Death and Survival | Apoptosis of hematopoietic progenitor cells | 0.00373 | 2.428291168 | yellow | 6 | FYN,GADD45B,PLCG1,SMAD3,SOX4,TBXA2R |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of T lymphocytes | 0.0038 | 2.420216403 | yellow | 11 | CDK6,DUSP5,FYN,GADD45B,HIVEP3,IL15,NT5E,PIK3CA,SMARCA4,TNFSF8,TRAF3IP2 |
| Cardiovascular System Development and Function,Cellular Development,Cellular Growth and Proliferation,Organ Development,Skeletal and Muscular System Development and Function,Tissue Development | Proliferation of vascular smooth muscle cells | 0.00384 | 2.415668776 | yellow | 5 | BMPR2,CDK6,SMAD3,SMARCA4,TNFRSF10A |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG | 0.00388 | 2.411168274 | yellow | 6 | BANK1,FYN,GADD45B,IL15,MYBL1,TRAF3IP2 |
| Cellular Growth and Proliferation | Arrest in proliferation of cells | 0.00396 | 2.402304814 | yellow | 6 | CDK6,DUSP5,MAP2K3,MYBL1,PIK3CA,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities | Benign Tumors | 0.00396 | 2.402304814 | yellow | 15 | DUSP5,FHIT,GNG3,H3F3A/H3F3B,LARGE1,LEF1,MYBL1,PIK3C2B,PIK3CA,PLCG1,SLC2A5,SLC5A3,SMAD3,SOX4,TRAF3IP2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic leukemia | 0.00398 | 2.400116928 | yellow | 13 | CD58,FHIT,FYN,HCK,IL15,LEF1,NETO1,PIK3CA,PLCG1,SMAD3,SMARCA4,TNFRSF10A,WDR74 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Development of papilloma | 0.00399 | 2.399027104 | yellow | 3 | DUSP5,SMAD3,TRAF3IP2 |
| Cellular Assembly and Organization | Development of mitochondria | 0.00399 | 2.399027104 | yellow | 3 | CRTC3,IL15,SSBP1 |
| Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Proliferation of connective tissue cells | 0.00407 | 2.390405591 | yellow | 12 | CDK6,FYN,IL15,MAP2K3,PIK3CA,PRKD3,SMAD3,SMARCA4,SOX4,STARD10,TNFRSF10A,TRAF3IP2 |
| Cellular Growth and Proliferation | Cytostasis | 0.00407 | 2.390405591 | yellow | 7 | BMPR2,CDK6,FHIT,FYN,SMAD3,SMARCA4,TNFSF8 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase BCR-ABL F359V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase BCR-ABL E255K positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase BCR-ABL F359C positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase BCR-ABL Y253H positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase BCR-ABL F359I positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase BCR-ABL Y253H positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase BCR-ABL E255K positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase BCR-ABL E255V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL E255K-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chemoresistant Philadelphia positive chronic myeloid leukemia in blast crisis | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase BCR-ABL F359C positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase BCR-ABL E255V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL F359V-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL F359C-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL E255V-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase BCR-ABL Y253H positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL F359V-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL E255V-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase BCR-ABL F359V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL F359C-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL F359I-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase BCR-ABL F359C positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase BCR-ABL F359V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Stage IV ALK fusion negative EGFR mutation negative non-small cell lung carcinoma | 0.00408 | 2.389339837 | yellow | 2 | CDK6,PIK3CA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL F359I positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL Y253H positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase BCR-ABL F359I positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL F359I-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase BCR-ABL F359I positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cell Cycle,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Effector phase of T lymphocytes | 0.00408 | 2.389339837 | yellow | 2 | IL15,PLCG1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL Y253H-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL F359V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL E255V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL E255K positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase BCR-ABL E255V positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL E255K-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL F359C positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent hormone receptor positive HER2 negative breast cancer | 0.00408 | 2.389339837 | yellow | 2 | CDK6,PIK3CA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase BCR-ABL E255K positive Philadelphia-positive chronic myeloid leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL Y253H-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00408 | 2.389339837 | yellow | 2 | FYN,HCK |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of cancer cells | 0.00419 | 2.377785977 | yellow | 6 | CDK6,FHIT,IL15,SMARCA4,SOX4,TNFRSF10A |
| Cellular Growth and Proliferation | Cytostasis of tumor cell lines | 0.00424 | 2.372634143 | yellow | 5 | CDK6,FHIT,SMAD3,SMARCA4,TNFSF8 |
| Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Liver lesion | 0.00428 | 2.368556231 | yellow | 58 | AAK1,ADAM28,AGO2,AP1B1,ARHGEF7,BANK1,BMPR2,C12orf49,CATSPER3,CD58,CDK6,CRTC3,CTNNA1,DIS3,DOCK9,ELOVL5,FHIT,GADD45B,H3F3A/H3F3B,HCK,HEATR5B,HIVEP3,IL15,KCNQ5,LEF1,LHFPL2,MAP2K3,MICAL3,MPRIP,MSI2,NETO1,NT5E,PIK3CA,PLCG1,PRKD3,PRR5L,RASGRP2,RNFT2,RPAIN,SLC2A5,SLC5A3,SMAD3,SMARCA4,SOX4,STAG3,TCHP,TM6SF1,TMEM131L,TMEM237,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B,WDR5B,WDR74,YWHAH,ZDHHC23,ZNF829 |
| Cellular Function and Maintenance,Hematological System Development and Function,Tissue Development | Function of blood platelets | 0.00443 | 2.353596274 | yellow | 3 | NT5E,RASGRP2,TBXA2R |
| Cellular Development,Cellular Growth and Proliferation,Organ Development,Skeletal and Muscular System Development and Function,Tissue Development | Proliferation of smooth muscle cells | 0.00455 | 2.341988603 | yellow | 7 | BMPR2,CDK6,IL15,PIK3CA,SMAD3,SMARCA4,TNFRSF10A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chemoresistant Ph positive chronic myeloid leukemia in chronic phase | 0.0046 | 2.337242168 | yellow | 2 | FYN,HCK |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Development of natural killer T lymphocytes | 0.0046 | 2.337242168 | yellow | 2 | FYN,IL15 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of cervical lymph node | 0.0046 | 2.337242168 | yellow | 2 | TBXA2R,TRAF3IP2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chemoresistant Ph positive chronic myeloid leukemia in accelerated phase | 0.0046 | 2.337242168 | yellow | 2 | FYN,HCK |
| Cell Death and Survival,Cellular Development,Cellular Function and Maintenance | Self-renewal of tumor cell lines | 0.0046 | 2.337242168 | yellow | 2 | LEF1,SMARCA4 |
| Cell-To-Cell Signaling and Interaction | Binding of myeloid cells | 0.00461 | 2.336299075 | yellow | 6 | CD58,FYN,HCK,IL15,PIK3CA,RASGRP2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Polyposis | 0.00466 | 2.331614083 | yellow | 3 | FHIT,PIK3CA,PLCG1 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Pulmonary metastasis | 0.00477 | 2.321481621 | yellow | 5 | BMPR2,IL15,NT5E,PIK3CA,SSBP1 |
| Cell Death and Survival | Killing of cells | 0.00479 | 2.319664487 | yellow | 6 | FHIT,FYN,HRK,IL15,PIK3C2B,PRKD3 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Hypertrophy of heart | 0.00496 | 2.304518324 | yellow | 8 | BMPR2,DUSP5,HCK,MAP2K3,NT5E,PIK3CA,SMAD3,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of malignant tumor | 0.00514 | 2.289036881 | yellow | 4 | BMPR2,IL15,LEF1,NT5E |
| Cell Death and Survival,Hematological System Development and Function | Survival of hematopoietic cells | 0.00514 | 2.289036881 | yellow | 4 | GADD45B,LEF1,SMARCA4,TRAF3IP2 |
| Organ Morphology,Reproductive System Development and Function | Quantity of ovary | 0.00514 | 2.289036881 | yellow | 4 | CDK6,FYN,PIK3CA,SMAD3 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Th2 immune response of T lymphocytes | 0.00516 | 2.287350298 | yellow | 2 | TNFSF8,TRAF3IP2 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Liver tumor | 0.0053 | 2.27572413 | yellow | 56 | AAK1,ADAM28,AGO2,AP1B1,ARHGEF7,BANK1,BMPR2,C12orf49,CATSPER3,CD58,CDK6,CRTC3,CTNNA1,DIS3,DOCK9,ELOVL5,FHIT,H3F3A/H3F3B,HCK,HEATR5B,HIVEP3,IL15,KCNQ5,LEF1,LHFPL2,MAP2K3,MICAL3,MPRIP,MSI2,NETO1,NT5E,PIK3CA,PLCG1,PRKD3,PRR5L,RASGRP2,RNFT2,RPAIN,SLC2A5,SLC5A3,SMAD3,SMARCA4,SOX4,STAG3,TCHP,TM6SF1,TMEM131L,TMEM237,TNFSF8,TRAF3IP2,UBASH3B,WDR5B,WDR74,YWHAH,ZDHHC23,ZNF829 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative hormone receptor negative breast cancer | 0.00534 | 2.272458743 | yellow | 5 | CDK6,FYN,HCK,NT5E,PIK3CA |
| Hematological System Development and Function,Hematopoiesis | Development of hematopoietic system | 0.00537 | 2.270025714 | yellow | 8 | AGO2,FYN,H3F3A/H3F3B,HIVEP3,IL15,PLCG1,SMARCA4,TMEM178A |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of mononuclear leukocytes | 0.00538 | 2.269217724 | yellow | 10 | BMPR2,CD58,FYN,HCK,IL15,NT5E,PIK3CA,PLCG1,SMAD3,TRAF3IP2 |
| Organismal Development | Morphology of body cavity | 0.00557 | 2.254144805 | yellow | 23 | AGO2,BANK1,BMPR2,CDK6,DUSP5,FHIT,FYN,HCK,IL15,LEF1,MAML3,MAP2K3,MYBL1,NT5E,PIK3CA,RBMS1,SMAD3,SMARCA4,SOX4,STARD10,TBXA2R,TNFRSF10A,TRAF3IP2 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Medulloblastoma | 0.00559 | 2.252588192 | yellow | 5 | CDK6,H3F3A/H3F3B,PIK3C2B,PIK3CA,SMARCA4 |
| Cellular Movement,Immune Cell Trafficking | Leukocyte migration | 0.00566 | 2.247183569 | yellow | 16 | ARHGEF7,BMPR2,CD58,FYN,HCK,IL15,MAP2K3,NT5E,PIK3CA,PLCG1,PPIL2,RASGRP2,SMAD3,TNFRSF10A,TNFSF8,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction | Adhesion of myeloid cells | 0.00571 | 2.243363892 | yellow | 5 | FYN,HCK,IL15,PIK3CA,RASGRP2 |
| Embryonic Development,Organismal Development,Tissue Development | Development of paraxial mesoderm | 0.00574 | 2.241088108 | yellow | 2 | LEF1,SMAD3 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Newly diagnosed Ph positive chronic myeloid leukemia in chronic phase | 0.00574 | 2.241088108 | yellow | 2 | FYN,HCK |
| Hematological System Development and Function,Tissue Morphology | Quantity of myeloid-derived suppressor cells | 0.00574 | 2.241088108 | yellow | 2 | BMPR2,IL15 |
| Cell Morphology,Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Size of fibroblast cell lines | 0.00574 | 2.241088108 | yellow | 2 | PIK3CA,SMARCA4 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of polyunsaturated fatty acids | 0.00574 | 2.241088108 | yellow | 2 | ELOVL5,HCK |
| Cancer,Organismal Injury and Abnormalities | Growth of tumor | 0.00584 | 2.233587153 | yellow | 15 | ADAM28,BMPR2,CD58,CDK6,FHIT,HRK,IL15,LEF1,MAP2K3,MSI2,NT5E,PIK3CA,SMAD3,SOX4,TNFRSF10A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Advanced hematologic cancer | 0.00597 | 2.224025669 | yellow | 4 | FYN,HCK,IL15,MSI2 |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Formation of hippocampus | 0.00597 | 2.224025669 | yellow | 4 | CDK6,FYN,LEF1,ZBTB20 |
| Cell Morphology,Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell spreading of CD4+ T-lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | PLCG1 |
| Cell Morphology,Cellular Assembly and Organization,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Nervous System Development and Function,Organismal Development,Tissue Development | Branching of axon terminals | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Cellular Movement,Hematological System Development and Function,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response | Influx of mast cells | 0.00602 | 2.220403509 | yellow | 1 | SMAD3 |
| Cellular Assembly and Organization | Association of clathrin-coated vesicles | 0.00602 | 2.220403509 | yellow | 1 | HIP1R |
| Dermatological Diseases and Conditions,Hereditary Disorder,Infectious Diseases,Organismal Injury and Abnormalities | Familial candidiasis type 8 | 0.00602 | 2.220403509 | yellow | 1 | TRAF3IP2 |
| Cardiovascular System Development and Function | Formation of neovasculature | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Abnormal morphology of synovial capsule | 0.00602 | 2.220403509 | yellow | 1 | SMAD3 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Conversion of AMP | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Immunological Disease,Organismal Injury and Abnormalities | Lymphangioma | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 positive progesterone receptor positive breast carcinoma | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Cell Morphology,Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Nervous System Development and Function,Organ Development,Organ Morphology,Organismal Development,Tissue Development,Visual System Development and Function | Morphogenesis of lens fiber cells | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Lichenoid actinic keratosis | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies) type A6 | 0.00602 | 2.220403509 | yellow | 1 | LARGE1 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Neurotransmission of mossy fiber synapse | 0.00602 | 2.220403509 | yellow | 1 | NETO1 |
| Cellular Response to Therapeutics | Sensitivity of hematopoietic cell lines | 0.00602 | 2.220403509 | yellow | 1 | HCK |
| Cell Death and Survival | Cell death of cytotoxic type 1 T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Neurological Disease,Organismal Injury and Abnormalities | Brain cyst | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Infectious Diseases | Infection of microvascular endothelial cells | 0.00602 | 2.220403509 | yellow | 1 | PLCG1 |
| Cardiovascular Disease,Connective Tissue Disorders,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Calcification of joints and arteries | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Dephosphorylation of adenosine | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Dermatological Diseases and Conditions,Hereditary Disorder,Organismal Injury and Abnormalities | Susceptibility to psoriasis 13 | 0.00602 | 2.220403509 | yellow | 1 | TRAF3IP2 |
| Inflammatory Response | CD8+ memory T lymphocyte response by T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Inflammatory Response,Lymphoid Tissue Structure and Development,Organ Development,Tissue Development | Proliferation of follicular dendritic cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary nonendometrioid endometrial carcinoma | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of retrosplenial cortex | 0.00602 | 2.220403509 | yellow | 1 | ZBTB20 |
| DNA Replication, Recombination, and Repair | Linking number of DNA | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of subiculum | 0.00602 | 2.220403509 | yellow | 1 | ZBTB20 |
| Inflammatory Response | Degranulation by leukocytes | 0.00602 | 2.220403509 | yellow | 1 | HCK |
| Developmental Disorder | PIK3CA mutation positive segmental overgrowth | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Cell Cycle,Gene Expression | Binding of PAX8 binding site | 0.00602 | 2.220403509 | yellow | 1 | SMAD3 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lamina propria T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Fibrosis of skin lesion | 0.00602 | 2.220403509 | yellow | 1 | SMAD3 |
| Cardiovascular Disease,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities | CLOVE syndrome | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Skeletal and Muscular System Development and Function,Tissue Morphology | Catabolism of bone | 0.00602 | 2.220403509 | yellow | 1 | HIVEP3 |
| Developmental Disorder,Organismal Injury and Abnormalities,Reproductive System Disease | Breast columnar cell lesion | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Cell Cycle | Arrest in S/G2 phase transition of squamous cell carcinoma cell lines | 0.00602 | 2.220403509 | yellow | 1 | FHIT |
| Cellular Development,Cellular Growth and Proliferation,Nervous System Development and Function | Growth of glial cell projections | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Cancer,Organismal Injury and Abnormalities | FGFR3 positive solid tumor | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Carbohydrate Metabolism,Nucleic Acid Metabolism,Small Molecule Biochemistry | Hydrolysis of UDP-D-glucose | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Delay in cell death of lymphoma cells | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cancer,Organismal Injury and Abnormalities | Survival of head and neck squamous cell carcinoma | 0.00602 | 2.220403509 | yellow | 1 | FHIT |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Primary pulmonary hypertension with hereditary hemorrhagic telangiectasia 1 | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Infantile hypotonia with psychomotor retardation | 0.00602 | 2.220403509 | yellow | 1 | CCDC174 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Colony formation of chronic myeloid leukemia in blast crisis cells | 0.00602 | 2.220403509 | yellow | 1 | MSI2 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Cytotoxic reaction of memory T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cell Cycle,Hematological System Development and Function,Humoral Immune Response | Mitogenesis of pro-B lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Pulmonary venoocclusive disease type 1 | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of hyperplastic polyp | 0.00602 | 2.220403509 | yellow | 1 | FHIT |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Typical lung carcinoid tumor | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Cellular Development,Embryonic Development,Organismal Development,Tissue Development | Differentiation of intermediate progenitor cells | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cellular Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development | Maturation of thymic precursor cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Platelet-type bleeding disorder type 18 | 0.00602 | 2.220403509 | yellow | 1 | RASGRP2 |
| Developmental Disorder,Hereditary Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of white pulp | 0.00602 | 2.220403509 | yellow | 1 | MYBL1 |
| Nervous System Development and Function,Neurological Disease | Lack of phrenic nerve | 0.00602 | 2.220403509 | yellow | 1 | SLC5A3 |
| Cell Morphology | Cell flattening of prostate cancer cell lines | 0.00602 | 2.220403509 | yellow | 1 | SMARCA4 |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Osteoclastogenesis of bone marrow stromal cells | 0.00602 | 2.220403509 | yellow | 1 | HIVEP3 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Inflammatory Response,Lymphoid Tissue Structure and Development | Expansion of NK dendritic cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Fenfluramine-associated primary pulmonary hypertension | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Cancer,Organismal Injury and Abnormalities | Susceptibility to 4NQO-induced head and neck carcinogenesis | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Absorption of D-fructose | 0.00602 | 2.220403509 | yellow | 1 | SLC2A5 |
| Skeletal and Muscular System Development and Function | Mineralization of rib | 0.00602 | 2.220403509 | yellow | 1 | GADD45B |
| Infectious Diseases | Severe melioidosis | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Organization of intercalated disks | 0.00602 | 2.220403509 | yellow | 1 | CTNNA1 |
| Organismal Injury and Abnormalities,Tissue Morphology | Width of wound | 0.00602 | 2.220403509 | yellow | 1 | SMAD3 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Short sleeper | 0.00602 | 2.220403509 | yellow | 1 | BHLHE41 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Renal and Urological Disease,Skeletal and Muscular Disorders | Joubert syndrome type 14 | 0.00602 | 2.220403509 | yellow | 1 | TMEM237 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Dexfenfluramine-associated primary pulmonary hypertension | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Cellular Function and Maintenance | Cell saturation density of embryonic cells | 0.00602 | 2.220403509 | yellow | 1 | PLCG1 |
| Cell Morphology,Organ Morphology,Skeletal and Muscular System Development and Function,Tissue Morphology | Area of vascular smooth muscle cells | 0.00602 | 2.220403509 | yellow | 1 | MPRIP |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Hydrolysis of IMP | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Connective Tissue Development and Function,Embryonic Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Morphogenesis of vertebral column | 0.00602 | 2.220403509 | yellow | 1 | ARHGEF7 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Delay in initiation of growth of skeletal metastasis | 0.00602 | 2.220403509 | yellow | 1 | SMAD3 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Sporadic ovarian small cell carcinoma hypercalcemic type | 0.00602 | 2.220403509 | yellow | 1 | SMARCA4 |
| Organismal Injury and Abnormalities | Dysplastic nodule | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Organ Morphology | Enlargement of lacrimal gland | 0.00602 | 2.220403509 | yellow | 1 | TRAF3IP2 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities | Formation of squamous carcinoma cells | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Cell Cycle | Delay in G0/G1 phase transition of T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Endocrine System Disorders,Hereditary Disorder,Organismal Injury and Abnormalities,Reproductive System Disease | Premature ovarian failure type 8 | 0.00602 | 2.220403509 | yellow | 1 | STAG3 |
| Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Clonal expansion of lamina propria cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Bleeding of intestinal mucosa | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Cell Death and Survival | Survival of thymoma cell lines | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Spinocerebellar ataxia 38 | 0.00602 | 2.220403509 | yellow | 1 | ELOVL5 |
| Cell Cycle | Delay in initiation of G2/M phase of myeloma cell lines | 0.00602 | 2.220403509 | yellow | 1 | TBXA2R |
| Cancer,Organismal Injury and Abnormalities | Trabecular adenocarcinoma | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Nervous System Development and Function | Formation of neuronal layer | 0.00602 | 2.220403509 | yellow | 1 | SOX4 |
| Cellular Function and Maintenance | Maintenance of invariant natural killer T cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Quantity of NK dendritic cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cancer,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Renal and Urological Disease | Rhabdoid tumor predisposition syndrome type 2 | 0.00602 | 2.220403509 | yellow | 1 | SMARCA4 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastasis to bone of carcinoma cell lines | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autosomal recessive primary microcephaly 12 | 0.00602 | 2.220403509 | yellow | 1 | CDK6 |
| Cell Cycle,Embryonic Development | Arrest in G2/M phase of embryonic stem cells | 0.00602 | 2.220403509 | yellow | 1 | SMARCA4 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Fibrosis of right ventricle | 0.00602 | 2.220403509 | yellow | 1 | CTNNA1 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastasis to bone of hepatoma cell lines | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Cell Morphology,Cellular Function and Maintenance | Length of prostate cancer cell lines | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Infectious Diseases | Binding of Mobala virus | 0.00602 | 2.220403509 | yellow | 1 | LARGE1 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of CD56dim natural killer cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Androgen-dependent prostate tumor | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cellular Development,Cellular Growth and Proliferation,Nervous System Development and Function | Delay in myelination of cells | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Infectious Diseases | Infection by human herpesvirus 6 | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Gastrointestinal Disease,Organ Morphology,Organismal Injury and Abnormalities | Pathological dilation of colon | 0.00602 | 2.220403509 | yellow | 1 | SLC2A5 |
| Cell Death and Survival,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Lipoapoptosis of hepatocytes | 0.00602 | 2.220403509 | yellow | 1 | TNFRSF10A |
| Hematological System Development and Function | Thromboregulation | 0.00602 | 2.220403509 | yellow | 1 | NT5E |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal dominant mental retardation type 16 | 0.00602 | 2.220403509 | yellow | 1 | SMARCA4 |
| Cardiovascular Disease,Hematological Disease,Organismal Injury and Abnormalities,Respiratory Disease | Arterial thrombosis of lung | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Cancer,Organismal Injury and Abnormalities | Adenomyoepithelioma | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Organ Morphology | Enlargement of submandibular gland | 0.00602 | 2.220403509 | yellow | 1 | TRAF3IP2 |
| Cell Morphology | Surface area of prostate cancer cell lines | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Cell-mediated Immune Response,Cellular Function and Maintenance,Hematological System Development and Function | Homeostasis of natural killer T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cell Cycle,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Effector phase of cytotoxic T cells | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma in posterior cranial fossa | 0.00602 | 2.220403509 | yellow | 1 | H3F3A/H3F3B |
| Cellular Development,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development | Maturation of pro-T3 thymocytes | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Giant cell tumor of bone in femur | 0.00602 | 2.220403509 | yellow | 1 | H3F3A/H3F3B |
| Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Susceptibility to platelet-type bleeding disorder type 13 | 0.00602 | 2.220403509 | yellow | 1 | TBXA2R |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Patterned macular dystrophy type 2 | 0.00602 | 2.220403509 | yellow | 1 | CTNNA1 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Chondroblastoma in humerus | 0.00602 | 2.220403509 | yellow | 1 | H3F3A/H3F3B |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Delay in initiation of infiltration of T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Enlargement of cervical lymph node | 0.00602 | 2.220403509 | yellow | 1 | TRAF3IP2 |
| Connective Tissue Disorders,Developmental Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Kyphosis of thoracolumbar spine | 0.00602 | 2.220403509 | yellow | 1 | HIP1 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Production of alpha-beta T lymphocytes | 0.00602 | 2.220403509 | yellow | 1 | FYN |
| Cardiovascular Disease,Cellular Compromise,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Atrophy of ventricular myocytes | 0.00602 | 2.220403509 | yellow | 1 | MAP2K3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary endometrioid endometrial cancer | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Cell Morphology | Cell flattening of breast cancer cell lines | 0.00602 | 2.220403509 | yellow | 1 | SMARCA4 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Medulloblastoma in cerebral hemisphere | 0.00602 | 2.220403509 | yellow | 1 | H3F3A/H3F3B |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Lack of mesencephalic tract of the trigeminal nerve | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cell Death and Survival | Delay in cell death of thymoma cell lines | 0.00602 | 2.220403509 | yellow | 1 | LEF1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Transmigration of monocyte-derived macrophages | 0.00602 | 2.220403509 | yellow | 1 | BMPR2 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Congenital muscular dystrophy 1D | 0.00602 | 2.220403509 | yellow | 1 | LARGE1 |
| Cancer,Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Cowden disease type 5 | 0.00602 | 2.220403509 | yellow | 1 | PIK3CA |
| Infectious Diseases,Organismal Injury and Abnormalities,Reproductive System Disease | Infection of vagina | 0.00602 | 2.220403509 | yellow | 1 | IL15 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Primrose syndrome | 0.00602 | 2.220403509 | yellow | 1 | ZBTB20 |
| Cancer,Organismal Injury and Abnormalities | Invasive cancer | 0.00605 | 2.218244625 | yellow | 8 | ADAM28,ARHGEF7,CDK6,FHIT,PIK3CA,RNFT2,SNTB1,SOX4 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymph node | 0.0061 | 2.214670165 | yellow | 5 | IL15,NT5E,SMAD3,TBXA2R,TRAF3IP2 |
| Cellular Movement,Hematological System Development and Function,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response | Cell movement of mast cells | 0.0062 | 2.207608311 | yellow | 3 | ARHGEF7,FYN,IL15 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Neuroblastoma in autonomic ganglion | 0.00635 | 2.197226275 | yellow | 2 | PIK3CA,SMARCA4 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Leukopoiesis | 0.00667 | 2.175874166 | yellow | 14 | CDK6,DUSP5,FYN,GADD45B,IL15,LEF1,MYBL1,PLCG1,SMAD3,SMARCA4,SOCS5,SOX4,TMEM178A,TNFSF8 |
| Hematological System Development and Function | Bleeding time | 0.00677 | 2.169411331 | yellow | 3 | NT5E,RASGRP2,TBXA2R |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of CD4+ T-lymphocytes | 0.00677 | 2.169411331 | yellow | 3 | FYN,GADD45B,MAP2K3 |
| Embryonic Development,Organismal Development,Tissue Development | Formation of mesoderm | 0.00677 | 2.169411331 | yellow | 3 | BMPR2,LEF1,SMAD3 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Lymphocyte migration | 0.00678 | 2.168770306 | yellow | 8 | BMPR2,CD58,FYN,IL15,NT5E,PIK3CA,PLCG1,TRAF3IP2 |
| Organismal Development | Arrest in growth of organism | 0.00678 | 2.168770306 | yellow | 5 | BMPR2,CDK6,PLCG1,SMARCA4,SOX4 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cecum adenocarcinoma | 0.00698 | 2.156144577 | yellow | 10 | BMPR2,DIS3,FYN,MICAL3,NREP,PIK3CA,RNFT2,SMAD3,SMARCA4,ZBTB20 |
| Cellular Movement | Chemotaxis of breast cancer cell lines | 0.00699 | 2.155522824 | yellow | 2 | NT5E,SMAD3 |
| Cell Death and Survival | Apoptosis of pro-B lymphocytes | 0.00699 | 2.155522824 | yellow | 2 | SMAD3,SOX4 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Hematopoiesis,Immune Cell Trafficking,Inflammatory Response | Activation of thymocytes | 0.00699 | 2.155522824 | yellow | 2 | CD58,FYN |
| Connective Tissue Development and Function,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Development | Abnormal morphology of marrow space | 0.00699 | 2.155522824 | yellow | 2 | HCK,HIVEP3 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Hyperplasia of epidermal cells | 0.00699 | 2.155522824 | yellow | 2 | PIK3CA,SMAD3 |
| Cell Death and Survival,Hematological System Development and Function | Cell viability of B lymphocytes | 0.00708 | 2.149966742 | yellow | 4 | HCK,LEF1,PIK3CA,TRAF3IP2 |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of lymphoma cell lines | 0.00722 | 2.141462802 | yellow | 5 | IL15,MYBL1,SMAD3,SOX4,TNFSF8 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Aggregation of blood cells | 0.0073 | 2.13667714 | yellow | 6 | FYN,IL15,RASGRP2,TBXA2R,TRAF3IP2,UBASH3B |
| Cellular Movement | Migration of tumor cell lines | 0.00737 | 2.132532512 | yellow | 14 | AGO2,BHLHE41,BMPR2,DUSP5,FHIT,FYN,LEF1,NREP,PIK3C2B,PIK3CA,PLCG1,SMAD3,SSBP1,TBXA2R |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Hyperplasia of spleen | 0.00737 | 2.132532512 | yellow | 3 | GADD45B,MYBL1,TRAF3IP2 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Formation of skin lesion | 0.00748 | 2.126098402 | yellow | 4 | CDK6,FYN,LEF1,TRAF3IP2 |
| Cell Cycle | Cleavage of cells | 0.00767 | 2.115204636 | yellow | 5 | FYN,IL15,LEF1,PIK3CA,SMAD3 |
| Cellular Movement,Hematological System Development and Function,Hypersensitivity Response,Immune Cell Trafficking | Cellular infiltration by eosinophils | 0.00768 | 2.11463878 | yellow | 3 | HCK,TNFSF8,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Activation of blood cells | 0.00782 | 2.106793247 | yellow | 13 | BANK1,CD58,CRTC3,FYN,HCK,IL15,MAP2K3,NT5E,PIK3CA,SMAD3,SMARCA4,TBXA2R,TNFRSF10A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic breast cancer | 0.00789 | 2.102922997 | yellow | 4 | CDK6,PIK3CA,SMAD3,TNFRSF10A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Growth of mammary tumor | 0.00789 | 2.102922997 | yellow | 4 | ADAM28,MAP2K3,NT5E,PIK3CA |
| Cellular Development,Cellular Growth and Proliferation,Hair and Skin Development and Function,Organ Development,Tissue Development | Proliferation of epidermal cells | 0.00799 | 2.097453221 | yellow | 5 | CTNNA1,FYN,PRKD3,SMAD3,TRAF3IP2 |
| Cell Death and Survival,Cell Signaling | Activation of caspase | 0.008 | 2.096910013 | yellow | 3 | HIP1,HIP1R,SMAD3 |
| Cancer,Organismal Injury and Abnormalities | Visceral metastasis | 0.00805 | 2.09420412 | yellow | 8 | BMPR2,CDK6,IL15,NT5E,PIK3CA,SLC5A3,SMAD3,SSBP1 |
| 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 | 0.00812 | 2.090443971 | yellow | 12 | CDK6,DUSP5,FYN,GADD45B,IL15,LEF1,PLCG1,SMAD3,SMARCA4,SOCS5,SOX4,TNFSF8 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Fibrosis of heart | 0.00815 | 2.088842391 | yellow | 5 | CTNNA1,PIK3CA,SMAD3,SMARCA4,TBXA2R |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of leukocytes | 0.00826 | 2.083019953 | yellow | 12 | BANK1,CD58,CRTC3,FYN,HCK,IL15,MAP2K3,NT5E,SMAD3,SMARCA4,TBXA2R,TNFRSF10A |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Primitive neuroectodermal tumor | 0.00831 | 2.080398976 | yellow | 6 | CDK6,FYN,H3F3A/H3F3B,PIK3C2B,PIK3CA,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities | Invasive carcinoma | 0.00832 | 2.079876674 | yellow | 7 | ADAM28,ARHGEF7,CDK6,FHIT,PIK3CA,RNFT2,SOX4 |
| Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of germinal center | 0.00833 | 2.079354999 | yellow | 3 | BANK1,MYBL1,TRAF3IP2 |
| Cell Morphology,Hematopoiesis,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of pre-B lymphocytes | 0.00836 | 2.077793723 | yellow | 2 | SOX4,TRAF3IP2 |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of T lymphocytes | 0.00858 | 2.066512712 | yellow | 6 | BMPR2,FYN,IL15,PIK3CA,PLCG1,TRAF3IP2 |
| Cell Death and Survival | Cell death of T lymphocytes | 0.00878 | 2.056505484 | yellow | 7 | DUSP5,FYN,GADD45B,HRK,IL15,MAP2K3,TBXA2R |
| Cancer,Organismal Injury and Abnormalities | Genitourinary tumor | 0.00898 | 2.046723663 | yellow | 75 | AAK1,ADAM28,AGO2,AGPAT5,AKAP2,AP1B1,AP3M2,ARHGEF7,BMPR2,CAPN7,CCDC174,CDK6,CHML,CRTC3,CTNNA1,DIS3,DOCK9,DUSP5,ELOVL5,FYN,GADD45B,GLCCI1,GNG3,H3F3A/H3F3B,HCK,HEATR5B,HIP1,HIP1R,HIVEP3,HRK,IL15,KCNQ5,LEF1,LHFPL2,LINC02245,LUC7L,MAML3,MAP2K3,MICAL3,MPRIP,MYBL1,NAV1,NETO1,NT5E,PIK3C2B,PIK3CA,PLCG1,PPIL2,PRKD3,RASGRP2,RBMS1,RNFT2,SCML4,SLC2A5,SLC5A3,SMAD3,SMARCA4,SNTB1,SOCS5,SOX4,SSBP1,STAG3,STARD10,SUSD1,TBXA2R,TNFRSF10A,TNFRSF19,WDR74,YWHAH,ZBTB20,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF829 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function | Resorption of bone | 0.00898 | 2.046723663 | yellow | 5 | AGO2,DEF8,HIVEP3,TMEM178A,UBASH3B |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Development of skin tumor | 0.00901 | 2.045275209 | yellow | 3 | CDK6,LEF1,TRAF3IP2 |
| Infectious Diseases | Infection of hepatoma cell lines | 0.00901 | 2.045275209 | yellow | 3 | AP1B1,HIP1,HIP1R |
| Cellular Development,Connective Tissue Development and Function,Tissue Development | Differentiation of bone cells | 0.00907 | 2.042392713 | yellow | 8 | BMPR2,CDK6,H3F3A/H3F3B,HIVEP3,MAP2K3,SMAD3,TMEM178A,UBASH3B |
| Behavior,Digestive System Development and Function | Nursing | 0.00909 | 2.041436117 | yellow | 2 | FYN,MYBL1 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Induction of malignant tumor | 0.00909 | 2.041436117 | yellow | 2 | NT5E,PIK3CA |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of thromboxane | 0.00909 | 2.041436117 | yellow | 2 | RASGRP2,TBXA2R |
| Cell Death and Survival,Hematological System Development and Function | Survival of pre-B lymphocytes | 0.00909 | 2.041436117 | yellow | 2 | LEF1,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic postmenopausal breast cancer | 0.00909 | 2.041436117 | yellow | 2 | CDK6,PIK3CA |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic progenitor cells | 0.00913 | 2.039529222 | yellow | 9 | CDK6,DUSP5,FYN,HIVEP3,IL15,PIK3CA,PLCG1,SOX4,TRAF3IP2 |
| Tissue Morphology | Quantity of cells | 0.00916 | 2.038104526 | yellow | 25 | ARHGEF7,BANK1,BMPR2,CDK6,CRTC3,DUSP5,FYN,GADD45B,HCK,HIVEP3,IL15,LEF1,MYBL1,NT5E,PIK3CA,PLCG1,SMAD3,SMARCA4,SOX4,TBXA2R,TMEM178A,TNFRSF10A,TNFSF8,TRAF3IP2,UBASH3B |
| Cell Cycle,Cell Morphology,Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Abnormal morphology of chromosomes | 0.00936 | 2.028724151 | yellow | 3 | H3F3A/H3F3B,HIP1R,MYBL1 |
| Cell Death and Survival | Cell viability of tumor cell lines | 0.00948 | 2.023191663 | yellow | 15 | AGO2,CDK6,DIS3,DUSP5,FHIT,HCK,HIP1,LEF1,MAP2K3,PIK3CA,PLCG1,SMAD3,SMARCA4,TNFSF8,ZBTB20 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Hematological System Development and Function | Stimulation of T lymphocytes | 0.00969 | 2.013676223 | yellow | 4 | FYN,IL15,PIK3CA,SMAD3 |
| Cell Death and Survival,Neurological Disease,Organismal Injury and Abnormalities | Cell death of cortical neurons | 0.00969 | 2.013676223 | yellow | 5 | CDK6,HIP1,MAP2K3,PIK3CA,TNFRSF10A |
| Cancer,Organismal Injury and Abnormalities | Development of adenocarcinoma | 0.0097 | 2.013228266 | yellow | 50 | AAK1,ADAM28,AGO2,AKAP2,AP1B1,ARHGEF7,CCDC174,CHML,CRTC3,CTNNA1,DIS3,DOCK9,DUSP5,ELOVL5,FHIT,GADD45B,GLCCI1,GNG3,HCK,HEATR5B,HIP1,HIVEP3,KCNQ5,LHFPL2,MAML3,MAP2K3,MICAL3,MPRIP,MSI2,MYBL1,NAV1,NETO1,PIK3C2B,PIK3CA,PLCG1,PPIL2,RCN2,RNFT2,SCML4,SLC5A3,SMAD3,SMARCA4,SOCS5,SOX4,SUSD1,TBXA2R,WDR74,ZC3H15,ZNF19,ZNF829 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Metabolism of phosphoinositide | 0.00972 | 2.012333735 | yellow | 3 | PIK3C2B,PIK3CA,PLCG1 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of tumor cells | 0.00972 | 2.012333735 | yellow | 9 | ADAM28,BMPR2,CDK6,FHIT,IL15,MSI2,PIK3CA,SMAD3,SOX4 |
| Organismal Injury and Abnormalities | Fibrosis | 0.00972 | 2.012333735 | yellow | 10 | AGO2,BMPR2,CTNNA1,HCK,NT5E,PIK3CA,SMAD3,SMARCA4,TBXA2R,TRAF3IP2 |
| Cellular Assembly and Organization | Biogenesis of mitochondria | 0.00984 | 2.007004902 | yellow | 2 | CRTC3,IL15 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,DNA Replication, Recombination, and Repair,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | VDJ recombination | 0.00984 | 2.007004902 | yellow | 2 | LEF1,SOX4 |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphatic system cells | 0.00987 | 2.005682847 | yellow | 6 | CDK6,FYN,HIP1,IL15,SOX4,TRAF3IP2 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of activated T lymphocytes | 0.0101 | 1.995678626 | yellow | 3 | FYN,IL15,SMAD3 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of leukocytes | 0.0101 | 1.995678626 | yellow | 7 | FYN,HCK,IL15,PLCG1,SMAD3,TNFSF8,TRAF3IP2 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Differentiation of T lymphocytes | 0.0102 | 1.991399828 | yellow | 8 | CDK6,GADD45B,IL15,LEF1,SMAD3,SMARCA4,SOX4,TNFSF8 |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of lymphocytes | 0.0102 | 1.991399828 | yellow | 4 | FYN,IL15,LEF1,TNFSF8 |
| Cell Death and Survival,Organismal Injury and Abnormalities | Necrosis of epithelial tissue | 0.0102 | 1.991399828 | yellow | 11 | AAK1,BMPR2,CDK6,CTNNA1,FYN,GADD45B,IL15,MAP2K3,SMAD3,TNFRSF10A,TNFRSF19 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Formation of actin filaments | 0.0103 | 1.987162775 | yellow | 7 | CDK6,FYN,HCK,HIP1R,MPRIP,SMAD3,SMARCA4 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Recruitment of neutrophils | 0.0104 | 1.982966661 | yellow | 5 | HCK,MAP2K3,RASGRP2,SMAD3,TRAF3IP2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Growth of ovarian tumor | 0.0106 | 1.974694135 | yellow | 2 | NT5E,PIK3CA |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Hyperplasia of lymph node | 0.0106 | 1.974694135 | yellow | 2 | MYBL1,TRAF3IP2 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Brain cancer | 0.0106 | 1.974694135 | yellow | 6 | CDK6,H3F3A/H3F3B,HRK,PIK3C2B,PIK3CA,SMARCA4 |
| Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Leukocytosis | 0.0107 | 1.970616222 | yellow | 4 | FYN,IL15,SMAD3,TRAF3IP2 |
| Protein Degradation,Protein Synthesis | Stabilization of protein | 0.0108 | 1.966576245 | yellow | 5 | AAK1,HIP1,HIP1R,SMAD3,SOX4 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | T cell development | 0.0109 | 1.962573502 | yellow | 10 | CDK6,FYN,GADD45B,IL15,LEF1,SMAD3,SMARCA4,SOCS5,SOX4,TNFSF8 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Development of endocrine gland tumor | 0.0109 | 1.962573502 | yellow | 4 | BMPR2,H3F3A/H3F3B,PIK3CA,SMARCA4 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Digestive system cancer | 0.011 | 1.958607315 | yellow | 94 | AAK1,ADAM28,AGO2,AGPAT5,AKAP2,AP1B1,AP3M2,ARHGEF7,BANK1,BHLHE41,BMPR2,C12orf49,CAPN7,CATSPER3,CCDC174,CD58,CDK6,CHML,CNST,CRTC3,CTNNA1,DEF8,DIS3,DOCK9,DUSP5,ELOVL5,FHIT,FYN,GBP5,GLCCI1,GNG3,H3F3A/H3F3B,HCK,HEATR5B,HIP1,HIP1R,HIVEP3,IL15,ITPRIPL2,KCNQ5,LEF1,LHFPL2,LUC7L,MAML3,MAP2K3,MICAL3,MPRIP,MSI2,MYBL1,NAV1,NETO1,NREP,NT5E,PIK3C2B,PIK3CA,PLCG1,PPIL2,PRKD3,PRR5L,RASGRP2,RBMS1,RNFT2,RPAIN,SCML4,SLC2A5,SLC5A3,SMAD3,SMARCA4,SNTB1,SNX29,SOCS5,SOX4,STAG3,SUSD1,TBXA2R,TCHP,TM6SF1,TMEM131L,TMEM237,TNFRSF10A,TNFRSF19,TNFSF8,TRAF3IP2,UBASH3B,WDR5B,WDR74,YWHAH,ZBTB20,ZC2HC1A,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF829 |
| Cell Morphology,Cellular Assembly and Organization | Morphology of nucleus | 0.011 | 1.958607315 | yellow | 5 | H3F3A/H3F3B,HIP1R,IL15,MYBL1,SMARCA4 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Morphology of heart ventricle | 0.0111 | 1.954677021 | yellow | 7 | BMPR2,CDK6,DUSP5,MAP2K3,NT5E,SMARCA4,SOX4 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of memory T lymphocytes | 0.0112 | 1.950781977 | yellow | 3 | GADD45B,IL15,TRAF3IP2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart | 0.0113 | 1.946921557 | yellow | 12 | AGO2,BMPR2,CDK6,DUSP5,HCK,MAML3,MAP2K3,NT5E,PIK3CA,SMAD3,SMARCA4,SOX4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 negative breast carcinoma | 0.0114 | 1.943095149 | yellow | 2 | CDK6,PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Advanced metastatic breast cancer | 0.0114 | 1.943095149 | yellow | 2 | CDK6,PIK3CA |
| Cancer,Organismal Injury and Abnormalities | Delay in growth of tumor | 0.0114 | 1.943095149 | yellow | 2 | NT5E,SMAD3 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma in brainstem | 0.0114 | 1.943095149 | yellow | 2 | H3F3A/H3F3B,PIK3CA |
| DNA Replication, Recombination, and Repair | Metabolism of DNA | 0.0115 | 1.93930216 | yellow | 8 | FHIT,FYN,NT5E,PIK3CA,RPAIN,SSBP1,TNFRSF19,ZBTB20 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Advanced lung cancer | 0.0116 | 1.935542011 | yellow | 6 | BMPR2,CDK6,IL15,NT5E,PIK3CA,SSBP1 |
| DNA Replication, Recombination, and Repair | Recombination | 0.0116 | 1.935542011 | yellow | 5 | LEF1,MYBL1,RPAIN,SOX4,STAG3 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | High-grade lymphoma | 0.0118 | 1.928117993 | yellow | 8 | CD58,CDK6,FYN,HIP1,LEF1,PIK3CA,SMARCA4,TNFRSF10A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell leukemia | 0.0118 | 1.928117993 | yellow | 6 | CD58,FHIT,FYN,LEF1,PLCG1,SMARCA4 |
| Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Muscle stiffness | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Molecular Transport,Small Molecule Biochemistry | Release of adenosine | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic luminal B-like breast carcinoma | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Generation of natural killer T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cellular Assembly and Organization | Binding of nucleus | 0.012 | 1.920818754 | yellow | 1 | SMARCA4 |
| Cell Death and Survival,Cellular Development,Cellular Function and Maintenance | Self-renewal of leukemia cell lines | 0.012 | 1.920818754 | yellow | 1 | SMARCA4 |
| Infectious Diseases | Binding of Oliveros virus | 0.012 | 1.920818754 | yellow | 1 | LARGE1 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Metabolism of phosphatidylinositol 4,5-diphosphate | 0.012 | 1.920818754 | yellow | 1 | PLCG1 |
| Cell Death and Survival | Killing of lymphoblastoid cell lines | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Non-brainstem pediatric glioblastoma | 0.012 | 1.920818754 | yellow | 1 | H3F3A/H3F3B |
| Cell Death and Survival,Hematological System Development and Function | Survival of central memory cytotoxic T cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Embryonic Development,Organismal Development,Tissue Development | Development of axial mesendoderm | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Cell Morphology,Cellular Function and Maintenance | Autophagy of lymphoma cell lines | 0.012 | 1.920818754 | yellow | 1 | UBASH3B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial endometrioid adenocarcinoma with clear cell change | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Neurological Disease,Organismal Injury and Abnormalities | Kindling of amygdala | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Connective Tissue Development and Function,Tissue Development | Maturation of growth plate | 0.012 | 1.920818754 | yellow | 1 | HIVEP3 |
| Cardiovascular System Development and Function,Cellular Development,Embryonic Development,Organismal Development,Tissue Development | Differentiation of mesoangioblast | 0.012 | 1.920818754 | yellow | 1 | BHLHE41 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Adenoid cystic carcinoma in breast | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cell Cycle,Embryonic Development,Nervous System Development and Function | Cell division of neuroblasts | 0.012 | 1.920818754 | yellow | 1 | LEF1 |
| Cellular Movement,Connective Tissue Development and Function,Hair and Skin Development and Function | Chemotaxis of dermal fibroblasts | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Energy Production,Nucleic Acid Metabolism,Small Molecule Biochemistry | Dephosphorylation of ATP | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cellular Function and Maintenance | Maintenance of memory natural killer cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell Death and Survival | Apoptosis of intraepithelial T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell-mediated Immune Response,Cellular Function and Maintenance,Hematological System Development and Function | Homeostasis of memory T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell Death and Survival | Apoptosis of effector memory helper T cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Connective Tissue Development and Function,Connective Tissue Disorders,Digestive System Development and Function,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Lack of alveolar bone | 0.012 | 1.920818754 | yellow | 1 | LEF1 |
| Infectious Diseases | Binding of lymphocytic choriomeningitis virus | 0.012 | 1.920818754 | yellow | 1 | LARGE1 |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Catabolism of AMP | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Injury of heart tissue | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cellular Growth and Proliferation,Nervous System Development and Function | Cytostasis of astrocytes | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of 1-oleoyl lysophosphatidylcholine | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Cardiovascular Disease,Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Loeys-Dietz syndrome type 3 | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Behavior,Organismal Functions | Hypolocomotion of mice | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Degradation of adenosine | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Organismal Survival | Thriving of mice | 0.012 | 1.920818754 | yellow | 1 | HIP1 |
| Cell Morphology,Cellular Function and Maintenance | Homologous recombination repair of epithelial cells | 0.012 | 1.920818754 | yellow | 1 | FHIT |
| Endocrine System Development and Function,Lipid Metabolism,Small Molecule Biochemistry,Vitamin and Mineral Metabolism | Catabolism of glucocorticoid | 0.012 | 1.920818754 | yellow | 1 | YWHAH |
| Infectious Diseases | Delay in replication of HIV-1 | 0.012 | 1.920818754 | yellow | 1 | HCK |
| Cellular Function and Maintenance | Maintenance of effector T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Organismal Injury and Abnormalities | Calcification of joint | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast metastasis | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cell Signaling,Post-Translational Modification | Delay in tyrosine phosphorylation of protein | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Hematological System Development and Function | Suppression of macrophages | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Arrest in development of alpha-beta T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Cell Death and Survival | Survival of suprabasal cells | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Generation of monocyte derived langerhans cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Hematological Disease,Organismal Injury and Abnormalities,Tumor Morphology | Expansion of leukemia cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Hematological System Development and Function,Inflammatory Response | Induction of monocyte-derived dendritic cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell Morphology | Cell flattening of carcinoma cell lines | 0.012 | 1.920818754 | yellow | 1 | SMARCA4 |
| Cellular Function and Maintenance,Cellular Growth and Proliferation | Production of hair cells | 0.012 | 1.920818754 | yellow | 1 | SOX4 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities | Myxoid/round cell liposarcoma | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Hydrolysis of inositol | 0.012 | 1.920818754 | yellow | 1 | PLCG1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of memory natural killer cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell Death and Survival | Activation-induced cell death of T lymphoblasts | 0.012 | 1.920818754 | yellow | 1 | GADD45B |
| Cellular Development,Connective Tissue Development and Function,Embryonic Development,Organismal Development,Tissue Development | Differentiation of adipose mesenchymal stem cells | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Auditory and Vestibular System Development and Function,Cellular Growth and Proliferation,Connective Tissue Development and Function,Organ Development,Tissue Development | Proliferation of utricular supporting cells | 0.012 | 1.920818754 | yellow | 1 | SOX4 |
| Cell-To-Cell Signaling and Interaction | Penetration of adenocarcinoma cells | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Cell Morphology | Contraction of breast cancer cell lines | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of intraepithelial T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Organismal Injury and Abnormalities | Regression of endothelial tube | 0.012 | 1.920818754 | yellow | 1 | PLCG1 |
| Cellular Movement,Hematological System Development and Function,Hematopoiesis,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemotaxis of BMMC cells | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Maintenance of memory cells of T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cancer,Cell Cycle | Aneuploidization of cervical cancer cell lines | 0.012 | 1.920818754 | yellow | 1 | YWHAH |
| Immunological Disease,Organismal Injury and Abnormalities | Injury of spleen | 0.012 | 1.920818754 | yellow | 1 | MAP2K3 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of Candida albicans | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Compaction of colorectal cancer cell lines | 0.012 | 1.920818754 | yellow | 1 | CTNNA1 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Hyperplasia of basal epidermal cells | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cell-To-Cell Signaling and Interaction | Responsiveness of naive T lymphocytes | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of effector memory RA-positive cytotoxic T cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Proinflammatory response of microglia | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Pediatric diffuse intrinsic pontine glioma | 0.012 | 1.920818754 | yellow | 1 | H3F3A/H3F3B |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of perinuclear vesicles | 0.012 | 1.920818754 | yellow | 1 | HIP1 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Keratotic lesion | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Cancer,Organismal Injury and Abnormalities | KRAS codon 13 mutation positive cancer | 0.012 | 1.920818754 | yellow | 1 | CDK6 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of hepatoma cell lines | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities,Reproductive System Disease | Intraductal papilloma | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage 2-3 multicentric invasive breast cancer | 0.012 | 1.920818754 | yellow | 1 | CDK6 |
| Cancer,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Sclerosing rhabdomyosarcoma | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Salivary duct carcinoma in parotid gland | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cellular Compromise,Inflammatory Response | Degranulation of CD56bright natural killer cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Oligodendroglioma in thalamus | 0.012 | 1.920818754 | yellow | 1 | H3F3A/H3F3B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II-III bilateral invasive breast cancer | 0.012 | 1.920818754 | yellow | 1 | CDK6 |
| Cancer,Organismal Functions,Organismal Injury and Abnormalities,Tumor Morphology | Suppression of melanoma | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cellular Development,Cellular Growth and Proliferation,Nervous System Development and Function,Tissue Development | Generation of retinal ganglion cells | 0.012 | 1.920818754 | yellow | 1 | SOX4 |
| RNA Post-Transcriptional Modification | Processing of siRNA | 0.012 | 1.920818754 | yellow | 1 | AGO2 |
| Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation | Assembly of mural cells | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Generation of ADP | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cellular Compromise,Inflammatory Response | Degranulation of CD56dim natural killer cells | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Mass of lymph node | 0.012 | 1.920818754 | yellow | 1 | IL15 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Malignant skin appendage neoplasm | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Connective Tissue Disorders,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Systemic rheumatic disease | 0.012 | 1.920818754 | yellow | 1 | TRAF3IP2 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Dephosphorylation of AMP | 0.012 | 1.920818754 | yellow | 1 | NT5E |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Stimulation of thymocytes | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Developmental Disorder,Skeletal and Muscular Disorders | Congenital malformation of forelimb | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Gastrointestinal Disease,Inflammatory Disease,Organismal Injury and Abnormalities | Inflammatory disorder of stomach | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Cell Cycle,Renal and Urological System Development and Function | Initiation of S phase of kidney cell lines | 0.012 | 1.920818754 | yellow | 1 | CDK6 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Long-term potentiation of dorsal striatum | 0.012 | 1.920818754 | yellow | 1 | FYN |
| Cancer,Organismal Injury and Abnormalities | Dermoid cyst | 0.012 | 1.920818754 | yellow | 1 | LEF1 |
| Hair and Skin Development and Function,Organismal Injury and Abnormalities | Epithelialization of wound | 0.012 | 1.920818754 | yellow | 1 | SMAD3 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cancer of floor of mouth | 0.012 | 1.920818754 | yellow | 1 | PIK3CA |
| Cell Death and Survival | Cell death of blood cells | 1.14E-26 | 25.94309515 | turquoise | 224 | ABCB1,ABCC4,ABCG1,ADA,ADGRE2,AHR,AIM2,ANXA1,ARNT,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIK,BIRC3,BIRC5,BNIP3L,BTG1,BTLA,CAMK4,CAV1,CCL3,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD300A,CD38,CD4,CD48,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CNR1,CR2,CREBBP,CSF1R,CSF2RB,CSNK1A1,CST3,CX3CR1,CXCL2,CXCL8,CXCR4,DAPK1,DAPK2,DTX1,DUSP4,E2F2,EIF4B,EPHA4,ERN1,ESR1,ETS2,EYA2,FAIM,FAS,FBXW7,FCAR,FCER1G,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXO1,FOXP1,GAPDH,GATA3,GFI1,GGT1,GIMAP4,GIMAP5,GNAS,GPSM1,GZMA,GZMB,HAVCR2,HAX1,HCST,HIPK2,HMOX1,HSH2D,HSP90AB1,HSPA5,HSPA9,ICOSLG/LOC102723996,ID2,IER3,IGHE,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGB1,ITPKB,ITPR1,KDELR1,KIF1C,LAMTOR2,LAT,LAX1,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LTK,LYN,LYZ,MAP3K14,MAP3K5,MCL1,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MLKL,MYB,MYH11,MZB1,NAMPT,NFIL3,NFYA,NLRP1,NLRP3,NR3C1,PALLD,PAWR,PAX5,PCLAF,PDCD5,PERP,PIK3C3,PIK3CA,PLA2G6,POU2AF1,PPIA,PRDM1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PTK2,PXN,PYCARD,RBM5,REL,RHOH,S100A8,SATB1,SELPLG,SH2D1A,SH3BP2,SH3BP5,SH3GLB1,SH3KBP1,SIRPA,SKIL,SLC29A2,SMAD3,SPN,ST3GAL3,ST6GAL1,STAT4,STAT5B,STOML2,STUB1,SWAP70,TBX21,TCF7,TCL1A,TFDP1,TGFB2,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,TUBB,TYROBP,VAV3,VDR,VEGFA,XBP1,ZBTB16 |
| Cell Death and Survival | Cell death of immune cells | 2.59E-25 | 24.58670024 | turquoise | 211 | ABCC4,ABCG1,ADA,ADGRE2,AHR,AIM2,ANXA1,ARRB1,BAK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BTG1,BTLA,CAMK4,CAV1,CCL3,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD300A,CD38,CD4,CD48,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CNR1,CR2,CSF1R,CSF2RB,CSNK1A1,CST3,CX3CR1,CXCL2,CXCL8,CXCR4,DAPK1,DAPK2,DTX1,DUSP4,E2F2,EIF4B,EPHA4,ERN1,ESR1,ETS2,EYA2,FAIM,FAS,FBXW7,FCAR,FCER1G,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXO1,FOXP1,GAPDH,GATA3,GFI1,GGT1,GIMAP4,GIMAP5,GNAS,GPSM1,GZMA,GZMB,HAVCR2,HCST,HMOX1,HSH2D,HSP90AB1,HSPA5,ICOSLG/LOC102723996,ID2,IER3,IGHE,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGB1,ITPKB,ITPR1,KDELR1,KIF1C,LAMTOR2,LAT,LAX1,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LTK,LYN,LYZ,MAP3K14,MAP3K5,MCL1,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MLKL,MYB,MYH11,MZB1,NAMPT,NFIL3,NLRP1,NLRP3,NR3C1,PAWR,PAX5,PDCD5,PERP,PIK3C3,PIK3CA,PLA2G6,POU2AF1,PRDM1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PTK2,PXN,PYCARD,RBM5,REL,RHOH,S100A8,SATB1,SELPLG,SH2D1A,SH3BP2,SH3BP5,SH3GLB1,SH3KBP1,SIRPA,SKIL,SMAD3,SPN,ST3GAL3,ST6GAL1,STAT4,STAT5B,STOML2,STUB1,SWAP70,TBX21,TCF7,TCL1A,TFDP1,TGFB2,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,TUBB,TYROBP,VAV3,VDR,VEGFA,XBP1,ZBTB16 |
| Immunological Disease | Systemic autoimmune syndrome | 3.54E-22 | 21.45099674 | turquoise | 346 | ABCB1,ABCG1,ACSL1,ADA,ADA2,ADARB1,ADGRE5,AGFG1,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANAPC5,ANG,ANXA1,AP4B1,APLP2,APOBEC3A,AQP9,ARF1,ARG1,ARIH2,ARRB1,ATP1A1,ATP1B1,ATP5MC2,ATXN1,BACH2,BAK1,BANK1,BIRC5,C5AR1,C5orf30,CALCR,CAMK2D,CBLB,CCL3,CCL5,CCR1,CD14,CD163,CD19,CD1A,CD22,CD226,CD27,CD300A,CD33,CD36,CD38,CD4,CD69,CD70,CD74,CD80,CD86,CD99,CDC42EP3,CDK4,CDS2,CEBPB,CERS6,CFLAR,CHCHD2,CIITA,CLEC12A,CLEC2B,CLEC2D,CLEC4D,CMAHP,COCH,COL4A3,COL4A4,CR1,CR2,CRIP1,CSF2RB,CSF3R,CST3,CTSA,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAD1,DAPK1,DDR1,DIAPH1,DIP2C,DTNBP1,DYNLL1,E2F2,EHD4,EIF1,EIF1B,EIF3E,ENAH,ENO1,ERGIC3,ESR1,ESR2,EVI2A,EXOSC9,EYA2,FAS,FCAR,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FCRL1,FGL2,FKBP1A,FKBP5,FLOT1,FLT1,FOXO1,FURIN,FXYD5,GABBR1,GALNT1,GAR1,GATA3,GBP4,GIMAP4,GINS2,GLUL,GNAQ,GNAS,GNLY,GPR18,GSTM1,GUSB,GZMA,GZMB,GZMK,HAVCR2,HCAR3,HCST,HIST1H3B,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IMPDH1,IRF4,IRF8,IRGM,ITGAM,ITGAX,ITGB7,ITPR1,JAML,JMJD1C,KCNAB3,KMO,KRTCAP2,L3MBTL4,LAT,LDHB,LGALS1,LILRB2,LILRB3,LPP,LRP8,LST1,LTK,LY6E-DT,LYN,LYZ,MAFB,MAP3K5,MBD2,MBTD1,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MKKS,MRPS15,MRPS28,MRPS36,MS4A6A,MSRB2,MT2A,MYH11,MYL12A,MYO1F,MYO9A,MZB1,NACA,NAMPT,NDUFB10,NLRP1,NLRP3,NOTCH4,NR3C1,NT5E,NXPE3,OLAH,P2RY13,PANK2,PDCD4,PDE4A,PDE4D,PGK1,PGM1,PHF19,PHF20,PILRB,PLAUR,PLBD1,PLEK,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRF1,PRKCB,PRKCD,PRR5,PRUNE2,PTAFR,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RAB31,RBP7,REL,RERE,RFLNB,RNF149,RRAGD,RUNX3,S100A10,S100A12,S100A4,S100A6,S100A8,S100A9,SCML1,SCN4A,SEC61A1,SEC62,SEL1L,SH2D1A,SIGMAR1,SIRPB1,SLAMF7,SLC3A2,SND1,SNRPA1,SOCS2,SORL1,SOS2,SPN,ST6GAL1,STAMBPL1,STAP1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBK1,TBRG1,TCF7,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TLE3,TLR2,TLR4,TMEM39A,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TNRC6B,TPGS2,TRAF5,TRAK2,TRAM2,TUBB,TXN,TYMS,TYROBP,UBAC1,UBE2H,UBE2L3,VARS,VDR,VEGFA,VIM,WARS,WDFY4,WNT10A,WNT7B,XBP1,XRCC6,YTHDC2,ZMYND11,ZNF281,ZNF593 |
| Cellular Compromise,Inflammatory Response | Degranulation of neutrophils | 4.27E-22 | 21.36957212 | turquoise | 137 | ADA2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ARG1,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CCL3,CCT8,CD14,CD300A,CD33,CD36,CD55,CD58,CD59,CD63,CD93,CFD,CFP,CKAP4,CLEC12A,CLEC4D,CMTM6,COTL1,CPPED1,CR1,CREG1,CRISPLD2,CST3,CSTB,CTSA,CTSC,CXCL8,CYFIP1,CYSTM1,DDOST,DIAPH1,DNAJC3,DOK3,DSP,DYNLL1,FABP5,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FPR1,FUCA2,GNS,GPI,GUSB,GYG1,HEXB,HMOX2,HSP90AB1,HSPA8,HVCN1,IMPDH1,IQGAP2,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LGALS3,LILRB2,LILRB3,LYZ,MAGT1,MAPK1,MGST1,MIF,MLEC,MYO1F,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PKM,PLAUR,PPIA,PRDX4,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD13,PSMD14,PTAFR,PTPRB,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SERPINB6,SIRPA,SIRPB1,SLC11A1,SLC2A5,SNAP29,STX11,SURF4,SVIP,TIMP2,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VPS35L,XRCC6 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of mononuclear leukocytes | 4.53E-22 | 21.3439018 | turquoise | 226 | ABCG1,ABI2,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BANK1,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD300A,CD33,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CD99,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSNK1A1,CXCL2,CXCR3,CXCR4,DCLRE1C,DIAPH1,DNM2,DTX1,E2F2,EED,ESR1,ETS2,FAS,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGL2,FKBP1A,FNIP1,FOXO1,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HLA-DMA,HLA-DMB,HMGA1,HMOX1,HRH2,HSH2D,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLF9,KLRD1,LAT,LCP2,LGALS1,LGALS3,LGALS4,LILRB2,LILRB3,LST1,LY96,LYN,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYB,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NT5E,PAG1,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PPIA,PRDM1,PRF1,PRKCB,PRKCD,PRKCE,PSMB10,PTGS2,PYCARD,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SOS2,SPN,ST6GAL1,STAT4,STAT5B,SWAP70,TALDO1,TBX21,TCF7,TCL1A,TFRC,TGFB2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TXNIP,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB16,ZBTB32,ZNHIT1 |
| Cellular Compromise,Inflammatory Response | Degranulation of cells | 5.38E-22 | 21.26921772 | turquoise | 192 | ABCC4,ACTN1,ACTN4,ADA2,ADGRE2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ANXA5,APLP2,ARG1,ARHGEF7,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CALM1 (includes others),CCL3,CCR1,CCT8,CD14,CD226,CD300A,CD33,CD36,CD48,CD55,CD58,CD59,CD63,CD93,CFD,CFP,CKAP4,CLEC12A,CLEC4D,CMTM6,CORO1B,COTL1,CPPED1,CR1,CREG1,CRH,CRISPLD2,CST3,CSTB,CTSA,CTSC,CX3CR1,CXCL8,CYFIP1,CYSTM1,DDOST,DIAPH1,DNAJC3,DOCK5,DOK3,DSP,DUSP7,DYNLL1,EPM2A,FABP5,FAM3C,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FLNA,FPR1,FUCA2,GNS,GPI,GRK3,GUSB,GYG1,HAVCR2,HEXB,HMOX1,HMOX2,HSP90AB1,HSPA8,HVCN1,IGHE,IL1B,IL4R,IMPDH1,IQGAP2,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LAT,LAX1,LCP2,LGALS3,LILRB2,LILRB3,LYN,LYZ,MAGT1,MANF,MAPK1,MGST1,MIF,MLEC,MYO1F,NCK2,NDUFC2,PA2G4,PAG1,PDXK,PGAM1,PGM1,PHACTR2,PILRA,PKM,PLAUR,PLEK,PPIA,PRDX4,PRF1,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD13,PSMD14,PTAFR,PTP4A2,PTPN14,PTPRB,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RASGRP1,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SERPINB6,SH3BP2,SIRPA,SIRPB1,SLC11A1,SLC2A5,SLC9A3R1,SNAP29,SOD1,SRGN,STAT5B,STX11,SURF4,SVIP,SWAP70,TAGLN2,TGFB2,TIMP1,TIMP2,TIMP3,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TTN,TUBA4A,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VEGFA,VPS35L,VTI1B,WDR1,XRCC6 |
| Inflammatory Response | Degranulation | 5.5E-22 | 21.25963731 | turquoise | 193 | ABCC4,ACTN1,ACTN4,ADA2,ADGRE2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ANXA5,APLP2,ARG1,ARHGEF7,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CALM1 (includes others),CCL3,CCR1,CCT8,CD14,CD226,CD300A,CD33,CD36,CD48,CD55,CD58,CD59,CD63,CD93,CFD,CFP,CKAP4,CLEC12A,CLEC4D,CMTM6,CORO1B,COTL1,CPPED1,CR1,CREG1,CRH,CRISPLD2,CST3,CSTB,CTSA,CTSC,CX3CR1,CXCL8,CYFIP1,CYSTM1,DDOST,DIAPH1,DNAJC3,DOCK5,DOK3,DSP,DUSP7,DYNLL1,EPM2A,FABP5,FAM3C,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FLNA,FPR1,FUCA2,GLRX,GNS,GPI,GRK3,GUSB,GYG1,HAVCR2,HEXB,HMOX1,HMOX2,HSP90AB1,HSPA8,HVCN1,IGHE,IL1B,IL4R,IMPDH1,IQGAP2,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LAT,LAX1,LCP2,LGALS3,LILRB2,LILRB3,LYN,LYZ,MAGT1,MANF,MAPK1,MGST1,MIF,MLEC,MYO1F,NCK2,NDUFC2,PA2G4,PAG1,PDXK,PGAM1,PGM1,PHACTR2,PILRA,PKM,PLAUR,PLEK,PPIA,PRDX4,PRF1,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD13,PSMD14,PTAFR,PTP4A2,PTPN14,PTPRB,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RASGRP1,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SERPINB6,SH3BP2,SIRPA,SIRPB1,SLC11A1,SLC2A5,SLC9A3R1,SNAP29,SOD1,SRGN,STAT5B,STX11,SURF4,SVIP,SWAP70,TAGLN2,TGFB2,TIMP1,TIMP2,TIMP3,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TTN,TUBA4A,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VEGFA,VPS35L,VTI1B,WDR1,XRCC6 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of immune cells | 6.08E-22 | 21.21609642 | turquoise | 233 | ABCG1,ABI2,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BANK1,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTG1,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD300A,CD33,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CD99,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSNK1A1,CUX1,CXCL2,CXCR3,CXCR4,DCLRE1C,DIAPH1,DNM2,DTX1,E2F2,EED,ESR1,ETS2,FAS,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGL2,FKBP1A,FNIP1,FOXO1,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HLA-DMA,HLA-DMB,HMGA1,HMOX1,HRH2,HSH2D,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLF9,KLRD1,LAMTOR2,LAT,LCP2,LGALS1,LGALS3,LGALS4,LILRB2,LILRB3,LST1,LY96,LYN,MAFB,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYB,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NR3C1,NT5E,PAG1,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PPIA,PRDM1,PRF1,PRKCB,PRKCD,PRKCE,PSMB10,PTGS2,PTK2,PYCARD,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SEMA3A,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SOS2,SPN,ST6GAL1,STAT4,STAT5B,SWAP70,TALDO1,TBX21,TCF7,TCL1A,TFRC,TGFB2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TXNIP,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB16,ZBTB32,ZNHIT1 |
| Cellular Compromise,Inflammatory Response | Degranulation of granulocytes | 6.81E-22 | 21.16685289 | turquoise | 139 | ADA2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ARG1,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CCL3,CCT8,CD14,CD300A,CD33,CD36,CD48,CD55,CD58,CD59,CD63,CD93,CFD,CFP,CKAP4,CLEC12A,CLEC4D,CMTM6,COTL1,CPPED1,CR1,CREG1,CRISPLD2,CST3,CSTB,CTSA,CTSC,CXCL8,CYFIP1,CYSTM1,DDOST,DIAPH1,DNAJC3,DOK3,DSP,DYNLL1,FABP5,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FPR1,FUCA2,GNS,GPI,GUSB,GYG1,HEXB,HMOX2,HSP90AB1,HSPA8,HVCN1,IMPDH1,IQGAP2,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LGALS3,LILRB2,LILRB3,LYZ,MAGT1,MAPK1,MGST1,MIF,MLEC,MYO1F,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PKM,PLAUR,PPIA,PRDX4,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD13,PSMD14,PTAFR,PTPRB,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SERPINB6,SIRPA,SIRPB1,SLC11A1,SLC2A5,SNAP29,STX11,SURF4,SVIP,TIMP2,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VPS35L,XRCC6 |
| Hematological System Development and Function,Tissue Morphology | Quantity of leukocytes | 1.4E-21 | 20.85387196 | turquoise | 267 | ABCB1,ABCG1,ADA,ADGRE5,AFF1,AHR,AIM2,AKAP13,ALOX5,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD200,CD22,CD27,CD300A,CD300LF,CD36,CD38,CD4,CD48,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CFP,CIITA,CLEC11A,CLEC4D,CLEC7A,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DTX1,E2F2,ELMO1,EPHA4,ESR1,ESR2,ETS2,EZH2,FABP5,FAS,FCER1G,FCGR2A,FCGR2B,FLNA,FLT1,FNIP1,FOXO1,FPR1,FYB1,GADD45A,GALNT1,GATA3,GBA,GFI1,GNAS,GNLY,GPR18,HAVCR2,HAX1,HBEGF,HCST,HEXB,HLA-DMA,HMOX1,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,ITPR1,JARID2,JCHAIN,KISS1R,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LITAF,LSP1,LYN,MAP3K14,MAPK1,MBTD1,MCL1,MDM2,MDM4,MGAT2,MGAT4B,MIF,MIR17HG,MYB,MYH11,MYO1G,NDFIP1,NFATC3,NFIL3,NFYA,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PAWR,PAX5,PCLAF,PHC1,PIK3CA,PIK3R5,PIK3R6,PILRA,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PSMB10,PTAFR,PTGS2,PTK2,PTTG1,PYCARD,RAP1B,RARG,RASGRP1,RBL2,RC3H2,REL,RGS10,RHOH,RORA,RPS6KA4,RUNX2,RUNX3,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SERPINA1,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIRPA,SMAD3,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TCL1A,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TRIB1,TXN,TXNIP,TYROBP,UACA,UBE2W,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZNF318 |
| Cellular Movement | Cell movement | 1.7E-21 | 20.76955108 | turquoise | 554 | ABCB4,ABCC4,ABCG1,ABHD2,ACAP3,ACP5,ACTN1,ACTN4,ACTR3,ACVR1,ADA,ADARB1,ADGRE2,ADGRE5,ADI1,AFDN,AGO2,AHNAK,AHR,AIF1,AIM2,ALDOA,ALOX5,AMOTL1,ANXA1,ANXA2,ANXA5,APBB2,APLP2,AQP3,AQP9,ARF1,ARF4,ARFGAP3,ARG1,ARHGAP21,ARHGAP31,ARHGEF7,ARNT,ARPC1B,ARPC2,ARRB1,ASB2,ASPM,ATP1B1,ATP1B3,ATP2B4,ATP5F1A,ATP5F1B,AURKA,AUTS2,BACH2,BAG3,BANP,BBS4,BCAT1,BCL11B,BHLHE41,BID,BMP6,BMPR1A,BRAF,BSG,BTLA,C1GALT1,C5AR1,C5orf30,CADM1,CALU,CAMK1D,CAMK2D,CAMK4,CAMKK2,CAPN2,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEMIP2,CERS6,CFL1,CHAD,CHL1,CHN2,CIITA,CITED2,CKLF,CLCN4,CLEC11A,CLEC7A,CLIP1,CNN3,CNP,CNR1,COCH,COL18A1,COL4A3,CORO1B,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTNND1,CTSC,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYTOR,DANCR,DAPK2,DDR1,DGKD,DIAPH1,DNAH11,DNM2,DOCK5,DPYSL2,DSP,DST,DSTN,DTL,DTX1,DUSP4,DUSP6,DYSF,E2F2,ECT2,EGOT,EHD1,EIF3A,EIF3E,ELK3,ELMO1,EMILIN2,ENAH,ENO1,EPB41L5,EPHA4,EPPK1,EPS8,ERC1,ESAM,ESR1,ESR2,ETV4,EYA2,EZH2,FABP5,FAM89B,FAS,FBXO4,FBXW7,FCAR,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGF9,FGL2,FLNA,FLNB,FLOT1,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FPR1,FRS2,FURIN,FYB1,GAB1,GADD45A,GALNT1,GAPDH,GATA3,GBA,GLRX,GNAI3,GNAQ,GNAS,GNLY,GPI,GPR18,GPSM1,GTF2I,GZMB,HAVCR2,HAX1,HBEGF,HDAC9,HDGF,HMGA1,HMMR,HMOX1,HOMER3,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HVCN1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IGFBP4,IGFBP7,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,INPP4A,IQSEC1,IRAK1,IRF8,IRS2,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,ITPR1,JAML,JCHAIN,KCNN3,KCNN4,KEAP1,KIAA0319,KIF1C,KIF2C,KISS1R,KMT5A,KPNA2,LAMC1,LAMTOR2,LASP1,LAT,LCP2,LDHA,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LIMK2,LIMS1,LITAF,LMNB1,LPP,LRP8,LRPAP1,LSP1,LTK,LY96,LYN,LYZ,MAFB,MAP3K14,MAP3K5,MAP4,MAPK1,MAPRE2,MARCKS,MARCKSL1,MCOLN2,MDM2,MEF2C,MGAT3,MGAT5,MGLL,MIA3,MIAT,MIF,MINK1,MIR17HG,MMP11,MPRIP,MTDH,MTSS1,MYB,MYH11,MYL12A,MYO1B,MYO1F,MYO1G,MYO9A,NAAA,NACA,NAMPT,NCK2,NCOA3,NDST1,NFATC3,NFATC4,NFIL3,NINJ1,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NRCAM,NREP,NSD2,NSUN7,NT5E,NUAK2,NUCB2,OBSCN,P4HB,PA2G4,PAG1,PALLD,PARVG,PAX5,PCSK5,PDCD4,PDGFD,PEBP1,PHACTR1,PIK3C3,PIK3CA,PIK3IP1,PIK3R5,PIK3R6,PILRA,PKD1,PKM,PLA2G16,PLA2G6,PLAUR,PLXNB2,PLXNC1,PLXND1,PODXL,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PTAFR,PTGS2,PTK2,PTP4A2,PTPN12,PTPN14,PTPRB,PTPRK,PTTG1,PXN,PYCARD,QPCT,RABEP1,RACGAP1,RALGAPA2,RANBP2,RAP1B,RAP2A,RAP2B,RARG,RASGRP1,RASSF1,RDX,REL,RERE,RFFL,RGS10,RHOU,RNH1,ROPN1,RPRD1A,RPS6KA6,RRAS2,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A12,S100A4,S100A6,S100A8,S100A9,SAMSN1,SARS,SELPLG,SEMA3A,SEMA4A,SERP1,SERPINA1,SERPINA5,SF1,SGPP1,SGPP2,SH2D1A,SH3KBP1,SH3PXD2A,SH3RF1,SIGMAR1,SIRPA,SKAP1,SKIL,SLC11A1,SLC16A1,SLC16A3,SLC3A2,SLC8A1,SLC9A3R1,SLC9B2,SLIRP,SMAD3,SMARCB1,SND1,SNHG7,SOCS2,SOD1,SOS2,SPN,SRGAP1,SSH2,ST3GAL3,ST3GAL6,ST6GAL1,STAB1,STAP1,STAT5B,STK26,STUB1,SWAP70,SYNE2,TAGLN2,TARS,TBX21,TBXAS1,TERF2,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TNIK,TP63,TPI1,TPST2,TREM1,TREML2,TRIB1,TRPV2,TSHR,TUBA1C,TUBB,TXN,TYMP,TYROBP,UCHL1,USP14,UTRN,VAV3,VCAN,VCL,VCP,VDAC1,VDAC3,VDR,VEGFA,VIM,VSIR,WARS,XBP1,YWHAE,ZBTB16,ZBTB7A,ZFAND5,ZYX |
| Cell Death and Survival | Necrosis | 1.75E-21 | 20.75696195 | turquoise | 633 | AAK1,ABCB1,ABCB4,ABCC4,ABCG1,ACSL1,ADA,ADARB1,ADGRE2,ADI1,AGAP3,AGTPBP1,AHR,AIM2,ALDH1A1,ALDOA,ALOX5,AMOTL1,ANG,ANXA1,ANXA2,ANXA5,APOBEC3B,ARG1,ARHGAP18,ARID3B,ARNT,ARRB1,ATF5,ATG13,ATG4A,ATP1A1,ATP1B3,ATP2B4,ATP5F1A,ATXN1,AURKA,B4GALT5,BACH2,BAG3,BAK1,BANP,BBS4,BCKDK,BCL11A,BCL11B,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BMPR1A,BNIP3L,BRAF,BSG,BTG1,BTLA,BUB1B,BUB3,C5AR1,CADM1,CALCR,CAMK2D,CAMK4,CAPN2,CAPN3,CAPNS1,CAV1,CBX5,CCAR2,CCDC6,CCL3,CCL5,CCNC,CCND2,CCT8,CD14,CD19,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD33,CD36,CD38,CD4,CD48,CD55,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CD99,CDC42EP3,CDC6,CDCA2,CDCA5,CDK2AP1,CDK4,CDK5,CDKN2C,CDT1,CEBPA,CEBPB,CEBPD,CERS5,CERS6,CFLAR,CHEK1,CHL1,CIITA,CITED2,CLEC11A,CLPTM1L,CNP,CNR1,COL18A1,COL4A3,COMMD4,COPG1,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CR1,CR2,CREBBP,CRH,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CSTA,CSTB,CTNND1,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,CYTOR,DAPK1,DAPK2,DCTN3,DDX17,DGKD,DNM2,DPPA4,DSP,DST,DTL,DTX1,DUSP4,DUSP6,DUT,DYNLL1,DYSF,E2F2,EEF2K,EGOT,EHD4,EIF2AK1,EIF3E,EIF3M,EIF4B,ELOA,ELOC,EMILIN2,ENO1,EPHA4,EPM2A,ERN1,ESR1,ESR2,ETHE1,ETS2,EXOG,EYA2,EZH2,FAIM,FAS,FBXO32,FBXW7,FCAR,FCER1G,FCER2,FCGR2B,FCGR3A/FCGR3B,FGF9,FGL2,FKBP1A,FKBP5,FLNA,FLNB,FLT1,FNIP1,FOXO1,FOXP1,FURIN,GAB1,GABBR1,GADD45A,GAPDH,GATA3,GBA,GCLC,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GLUD1,GNAQ,GNAS,GNLY,GPI,GPSM1,GPX1,GRIA1,GSTM1,GZMA,GZMB,GZMH,GZMK,HAVCR2,HAX1,HBEGF,HCST,HDAC9,HDGF,HIPK2,HLA-B,HLA-DMA,HMGA1,HMMR,HMOX1,HMOX2,HRH2,HSD17B10,HSH2D,HSP90AB1,HSP90B1,HSPA5,HSPA8,HSPA9,HSPB11,HSPE1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IDH2,IER3,IFNAR2,IGFBP4,IGFBP7,IGHE,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL5RA,IL6R,IL7,IL7R,IL9R,INPP4A,INPP5A,INVS,IQGAP2,IRAK1,IRAK2,IRF4,IRF8,IRGM,IRS2,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,ITPR1,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KLF10,KLF9,KMO,KNL1,KPNA2,LAMTOR2,LANCL2,LARP1B,LAT,LAX1,LDHA,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LGMN,LILRB3,LIMS1,LMNB1,LRPAP1,LSP1,LTK,LY96,LYN,LYNX1,LYPLA2,LYZ,LZTS1,MAFB,MAGED1,MAGEH1,MANF,MAP3K14,MAP3K5,MAP3K9,MAP4,MAPK1,MAPKAPK3,MCL1,MCOLN2,MDM2,MDM4,MEF2C,MGAT3,MGAT5,MIAT,MIF,MIR17HG,MKI67,MLKL,MMP11,MRPL49,MSI2,MSRB2,MT1X,MT2A,MTDH,MTFP1,MTM1,MXI1,MYB,MYH11,MZB1,NABP1,NACC2,NAMPT,NAPA,NCK2,NCOA3,NCOA7,NDC80,NDST1,NDUFA13,NDUFAB1,NEK6,NFATC4,NFE2L1,NFIL3,NFYA,NLRP1,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NRCAM,NSD2,NT5E,NUP88,OAZ1,P4HB,PA2G4,PAG1,PALLD,PAWR,PAX5,PBX3,PCDHGC3,PCLAF,PDCD4,PDCD5,PDE4A,PDE4D,PDE7A,PDE7B,PDGFD,PDLIM7,PEBP1,PERP,PFKFB3,PHGDH,PIK3C3,PIK3CA,PIK3IP1,PITPNA,PKD1,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PLCB1,PLP2,PMEPA1,POU2AF1,PPARGC1B,PPIA,PPP1R9A,PRDM1,PRDX1,PRDX3,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PSMA3,PSMA5,PSMA6,PSMA7,PSMB10,PSMB3,PSMC2,PSMD14,PTAFR,PTGS2,PTK2,PTPRE,PTTG1,PVT1,PXN,PYCARD,QKI,RAB32,RABGGTA,RACGAP1,RANBP2,RARG,RASGRP1,RASSF1,RASSF4,RASSF6,RBL2,RBM5,RBX1,RDH10,RDX,REL,RGMB,RGS10,RHOH,RIC8B,RPL10,RPL13,RPL3,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRAS2,RRM2,RRM2B,RTN1,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SCO2,SDHA,SDHB,SDR16C5,SEC61G,SEL1L,SELPLG,SEMA3A,SERP1,SERPINA1,SGCB,SGPP1,SGPP2,SH2D1A,SH3BP2,SH3BP5,SH3GLB1,SH3KBP1,SH3PXD2A,SH3RF1,SIGMAR1,SIRPA,SKIL,SLC16A1,SLC25A23,SLC25A4,SLC29A2,SLC39A6,SLC3A2,SLC8A1,SLC9B2,SMAD3,SMARCB1,SMC1A,SMCO4,SMOX,SND1,SNHG7,SNRPA1,SOD1,SPN,SRI,SRXN1,ST3GAL3,ST6GAL1,STAT4,STAT5B,STK17A,STK26,STOML2,STUB1,SUN1,SVIL,SWAP70,SYCP2,SYCP3,TAGLN2,TBK1,TBX21,TCF7,TCL1A,TCP1,TERF2,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TMBIM6,TMCC3,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP63,TPX2,TRADD,TRAF5,TREM1,TRIB1,TRMT61A,TRPV2,TTN,TUBB,TUBB3,TXN,TXN2,TXNIP,TYMP,TYMS,TYROBP,UACA,UBE2C,UBE2L3,UBE2Q1,UCHL1,USP53,VAV3,VCAN,VCP,VDAC1,VDR,VEGFA,VIM,VOPP1,VSIR,VTI1B,WEE1,WWC3,XBP1,XRCC6,YME1L1,YWHAE,ZBTB16,ZBTB7A,ZHX2,ZMYND11,ZNF274,ZYX |
| Cellular Compromise,Inflammatory Response | Degranulation of phagocytes | 2.28E-21 | 20.64206515 | turquoise | 160 | ADA2,ADGRE2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ARG1,ARHGEF7,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CCL3,CCT8,CD14,CD226,CD300A,CD33,CD36,CD55,CD58,CD59,CD63,CD93,CFD,CFP,CKAP4,CLEC12A,CLEC4D,CMTM6,CORO1B,COTL1,CPPED1,CR1,CREG1,CRH,CRISPLD2,CST3,CSTB,CTSA,CTSC,CXCL8,CYFIP1,CYSTM1,DDOST,DIAPH1,DNAJC3,DOCK5,DOK3,DSP,DYNLL1,FABP5,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FPR1,FUCA2,GNS,GPI,GUSB,GYG1,HAVCR2,HEXB,HMOX1,HMOX2,HSP90AB1,HSPA8,HVCN1,IGHE,IL1B,IL4R,IMPDH1,IQGAP2,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LAT,LAX1,LCP2,LGALS3,LILRB2,LILRB3,LYN,LYZ,MAGT1,MAPK1,MGST1,MIF,MLEC,MYO1F,NCK2,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PKM,PLAUR,PPIA,PRDX4,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD13,PSMD14,PTAFR,PTPN14,PTPRB,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RASGRP1,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SERPINB6,SH3BP2,SIRPA,SIRPB1,SLC11A1,SLC2A5,SLC9A3R1,SNAP29,STAT5B,STX11,SURF4,SVIP,SWAP70,TIMP2,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VPS35L,XRCC6 |
| Cellular Development,Cellular Growth and Proliferation | Proliferation of blood cells | 2.86E-21 | 20.54363397 | turquoise | 251 | ABCB1,ABCG1,ABI2,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,ARIH2,AURKA,B3GNT5,BACH2,BANK1,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTG1,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD22,CD226,CD27,CD300A,CD33,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CD99,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSF3R,CSNK1A1,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,DCLRE1C,DIAPH1,DNM2,DTX1,E2F2,EED,ESR1,ETS2,EZH2,FAS,FBXO4,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGL2,FKBP1A,FNIP1,FOXO1,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HIPK2,HLA-DMA,HLA-DMB,HMGA1,HMOX1,HRH2,HSH2D,HSP90B1,HSPA5,HSPA8,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP4A,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAX,ITGB1,ITPKB,JMJD1C,KCNN4,KLF9,KLRD1,LAMTOR2,LAT,LCP2,LGALS1,LGALS3,LGALS4,LILRB2,LILRB3,LST1,LY96,LYN,MAFB,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYB,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NR3C1,NT5E,PAG1,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PPIA,PRDM1,PRF1,PRKCB,PRKCD,PRKCE,PSMB10,PTGS2,PTK2,PYCARD,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SEMA3A,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SOCS2,SOD1,SOS2,SPN,ST6GAL1,STAT4,STAT5B,SWAP70,TALDO1,TBX21,TCF7,TCL1A,TFRC,TGFB2,TGFBR2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TXNIP,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB16,ZBTB32,ZNHIT1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of lymphocytes | 4.12E-21 | 20.38510278 | turquoise | 221 | ABCG1,ABI2,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BANK1,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD300A,CD33,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CD99,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF2RB,CSNK1A1,CXCR3,CXCR4,DCLRE1C,DIAPH1,DNM2,DTX1,E2F2,EED,ESR1,ETS2,FAS,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGL2,FKBP1A,FNIP1,FOXO1,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HLA-DMA,HLA-DMB,HMGA1,HMOX1,HRH2,HSH2D,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLF9,KLRD1,LAT,LCP2,LGALS1,LGALS3,LILRB2,LILRB3,LST1,LY96,LYN,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYB,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NT5E,PAG1,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRF1,PRKCB,PRKCD,PRKCE,PSMB10,PTGS2,PYCARD,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SOS2,SPN,ST6GAL1,STAT4,STAT5B,SWAP70,TBX21,TCF7,TCL1A,TFRC,TGFB2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TXNIP,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB16,ZBTB32,ZNHIT1 |
| Cellular Movement | Cell movement of blood cells | 1.51E-20 | 19.82102305 | turquoise | 275 | ABCB4,ABCC4,ABCG1,ACTN4,ADA,ADGRE2,ADGRE5,AHR,AIF1,AIM2,ALOX5,ANXA1,ANXA2,ANXA5,AQP3,AQP9,ARG1,ARHGEF7,ARRB1,ASB2,ATP1B1,ATP1B3,BACH2,BCL11B,BID,BMPR1A,BRAF,BSG,BTLA,C1GALT1,C5AR1,CAMK1D,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CEBPA,CIITA,CKLF,CLEC11A,CLEC7A,CNP,CNR1,COCH,COL4A3,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTSC,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,DAPK2,DDR1,DIAPH1,DOCK5,DPYSL2,DYSF,ELMO1,EPS8,ESAM,ESR1,ESR2,FABP5,FAS,FCAR,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOXO1,FPR1,FRS2,FYB1,GALNT1,GATA3,GBA,GLRX,GNAI3,GNAS,GNLY,GPR18,GPSM1,GZMB,HBEGF,HMOX1,HRH2,HSPA5,HYOU1,ICOSLG/LOC102723996,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,JAML,JCHAIN,KCNN4,LAMTOR2,LAT,LCP2,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LTK,LY96,LYN,LYZ,MAP3K14,MAP3K5,MCOLN2,MGAT5,MIA3,MIF,MINK1,MIR17HG,MYB,MYO1F,MYO1G,NAAA,NDST1,NFIL3,NINJ1,NLRP3,NOTCH4,NR3C1,NT5E,PA2G4,PIK3C3,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PTAFR,PTGS2,PTK2,PTPRB,PXN,PYCARD,QPCT,RAP1B,RAP2A,RASGRP1,REL,RTN4,RUNX3,RXRA,S100A10,S100A12,S100A4,S100A8,S100A9,SAMSN1,SELPLG,SEMA3A,SEMA4A,SERP1,SERPINA1,SGPP1,SGPP2,SH2D1A,SH3KBP1,SIRPA,SKAP1,SLC16A1,SLC16A3,SLC3A2,SMAD3,SOD1,SOS2,SPN,ST3GAL6,STAB1,STAP1,STAT5B,SWAP70,TBX21,TERF2,TGFB2,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VDR,VEGFA,ZBTB16 |
| Cell Death and Survival | Apoptosis | 3.39E-20 | 19.4698003 | turquoise | 623 | ABCB1,ABCG1,ACSL1,ACTN4,ADA,ADARB1,ADI1,AGO2,AHR,AIF1,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,AMOTL1,ANG,ANXA1,ANXA2,ANXA5,ANXA7,APBB2,APOBEC3B,AQP3,ARF4,ARG1,ARHGAP18,ARHGEF18,ARHGEF7,ARID3B,ARIH2,ARL6IP5,ARNT,ARRB1,ASB2,ATF5,ATOX1,ATP1A1,ATP1B3,ATP2B4,ATXN1,AURKA,AVEN,B4GALT5,BACH2,BAG3,BAK1,BANP,BBS2,BBS4,BCL11A,BCL11B,BCL2L2,BHLHE41,BID,BIK,BIRC3,BIRC5,BLOC1S2,BLVRA,BMP6,BMPR1A,BNIP3L,BRAF,BSG,BTG1,BUB3,C1GALT1,C5AR1,CADM1,CALCR,CAMK1D,CAMK2D,CAMK4,CANX,CAPN2,CAPN3,CAPNS1,CAV1,CBLB,CBX4,CBX5,CCAR2,CCDC6,CCL3,CCL5,CCNA2,CCNC,CCND2,CD14,CD19,CD200,CD22,CD226,CD27,CD33,CD36,CD38,CD4,CD48,CD55,CD59,CD69,CD70,CD74,CD80,CD8A,CD99,CDC42EP3,CDC6,CDCA2,CDK2AP1,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CERS6,CFL1,CFLAR,CHEK1,CHL1,CIITA,CITED2,CLEC11A,CLPTM1L,CNKSR1,CNP,CNR1,COL18A1,COL4A3,COL4A4,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CR2,CREBBP,CRH,CRIP1,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CSTA,CSTB,CTNND1,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,CYTOR,DAD1,DAP,DAPK1,DAPK2,DCLRE1C,DCPS,DDR1,DDX17,DDX5,DGKD,DNAJC3,DNM2,DSP,DTX1,DUSP4,DUSP6,DUT,DYNLL1,E2F2,E2F7,ECT2,EEF2K,EGOT,EHD1,EHD3,EHD4,EIF2AK1,EIF3M,EIF4B,EIF4G1,ELMO1,ELOA,ELOC,EMILIN2,ENO1,EPHA4,EPM2A,ERC1,ERN1,ESR1,ESR2,ETHE1,ETS2,EXOG,EYA2,EZH2,FAIM,FAS,FBXO32,FBXW7,FCER1G,FCER2,FCGR2B,FCGR3A/FCGR3B,FGF9,FGL2,FKBP1A,FKBP5,FLNA,FLNB,FLT1,FNIP1,FNIP2,FOXO1,FOXP1,FRS2,FURIN,GAB1,GABBR1,GABPB1,GADD45A,GADD45GIP1,GAPDH,GATA3,GCLC,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GLUD1,GMNN,GNAQ,GNAS,GNG5,GNLY,GPI,GPR18,GPX1,GZMA,GZMB,GZMH,HAVCR2,HAX1,HBEGF,HCST,HDAC9,HDGF,HEXB,HIGD1A,HIPK2,HLA-B,HLA-DMA,HMGA1,HMMR,HMOX1,HMOX2,HRH2,HS1BP3,HSD17B10,HSH2D,HSP90AB1,HSP90B1,HSPA5,HSPA8,HSPA9,HSPE1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IER3,IFI27L1,IFI27L2,IFNAR2,IGFBP4,IGFBP7,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,INPP4A,INVS,IQGAP2,IRAK1,IRAK2,IRF4,IRF8,IRS2,ITGAM,ITGAV,ITGB1,ITPR1,JMJD1C,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KLF10,KLF9,KMO,KMT5A,KNL1,KPNA2,LAMTOR2,LANCL2,LARP1B,LDHA,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LGMN,LIMK2,LIMS1,LMNB1,LRPAP1,LSP1,LTK,LY96,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGED1,MAGEH1,MAP3K14,MAP3K5,MAP3K9,MAP4,MAPK1,MAPKAPK3,MCL1,MDM2,MDM4,MEF2C,MGAT3,MIAT,MIF,MIR17HG,MKI67,MLKL,MMP11,MPRIP,MRPL41,MRPL49,MSRB2,MT2A,MTDH,MTFP1,MTM1,MXI1,MYB,MYDGF,MYH11,MZB1,NAA15,NACC2,NAMPT,NAPA,NCOA3,NDC80,NDST1,NDUFA13,NEK6,NFATC4,NFE2L1,NFIL3,NFYA,NINJ1,NLRP1,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NSD2,NT5E,NUAK2,NUMA1,NUSAP1,OBSCN,P4HB,PA2G4,PAFAH1B3,PALLD,PAWR,PAX5,PAXX,PBX3,PCDHGC3,PCLAF,PDCD4,PDCD5,PDE4A,PDE4D,PDGFD,PDLIM7,PDXK,PEBP1,PERP,PHGDH,PIAS2,PIK3C3,PIK3CA,PIK3IP1,PITPNA,PKD1,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PLP2,PMEPA1,POU2AF1,PPARGC1B,PPIA,PRDM1,PRDX1,PRDX3,PRDX4,PRDX5,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PSMB10,PSME4,PTAFR,PTGS2,PTK2,PTP4A2,PTPRE,PTTG1,PVT1,PXN,PYCARD,QKI,RAB32,RABGGTA,RACGAP1,RAP1B,RARG,RASGRP1,RASSF1,RASSF4,RASSF6,RBL2,RBM5,RBX1,RDX,REL,RGMB,RHOH,RPL10,RPLP0,RPS3A,RRAS2,RRM2,RRM2B,RTN1,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SAV1,SCARB2,SDF2L1,SEC23B,SEC61G,SEL1L,SEMA3A,SEMA4A,SERPINA1,SGPP1,SGPP2,SH3BP2,SH3GLB1,SH3KBP1,SH3PXD2A,SH3RF1,SIGMAR1,SIRPA,SKIL,SLC25A4,SLC39A6,SLC8A1,SMAD3,SMARCA2,SMARCB1,SMOX,SNAP29,SND1,SNHG7,SOCS2,SOD1,SOS2,SPN,SRA1,SRI,SRXN1,ST3GAL3,ST6GAL1,STAT4,STAT5B,STK17A,STK26,STOML2,STUB1,SUB1,SUN1,SWAP70,SYCP2,SYCP3,SYDE1,TAF10,TAGLN2,TBK1,TCF7,TCL1A,TCP1,TEAD2,TERF2,TFDP1,TFDP2,TFRC,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TMBIM6,TNF,TNFAIP2,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP53I3,TP63,TPX2,TRADD,TRAF5,TREM1,TRIB1,TRPV2,TTN,TXN,TXN2,TXNDC5,TXNIP,TYMP,TYMS,TYROBP,UACA,UCHL1,USP53,VAV3,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,VOPP1,VPS41,VTI1B,WEE1,XBP1,XRCC6,YBX3,YME1L1,YWHAE,ZBTB16,ZBTB7A,ZFAND5,ZFAND6,ZHX2,ZMYND11,ZNF274 |
| Cellular Movement,Immune Cell Trafficking | Leukocyte migration | 4.94E-20 | 19.30627305 | turquoise | 271 | ABCB4,ABCC4,ABCG1,ACTN4,ADA,ADGRE2,ADGRE5,AHR,AIF1,AIM2,ALOX5,ANXA1,ANXA2,ANXA5,AQP3,AQP9,ARG1,ARHGEF7,ARRB1,ASB2,ATP1B1,ATP1B3,BACH2,BCL11B,BID,BMPR1A,BRAF,BSG,BTLA,C1GALT1,C5AR1,CAMK1D,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CEBPA,CIITA,CKLF,CLEC11A,CLEC7A,CNP,CNR1,COCH,COL4A3,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTSC,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,DAPK2,DDR1,DIAPH1,DOCK5,DPYSL2,DYSF,ELMO1,EPS8,ESAM,ESR1,ESR2,FABP5,FAS,FCAR,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOXO1,FPR1,FRS2,FYB1,GALNT1,GATA3,GBA,GLRX,GNAI3,GNAS,GNLY,GPR18,GPSM1,HBEGF,HMOX1,HRH2,HSPA5,HYOU1,ICOSLG/LOC102723996,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,JAML,JCHAIN,KCNN4,LAMTOR2,LAT,LCP2,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LTK,LY96,LYN,LYZ,MAP3K14,MAP3K5,MCOLN2,MGAT5,MIA3,MIF,MIR17HG,MYB,MYO1F,MYO1G,NAAA,NDST1,NFIL3,NINJ1,NLRP3,NOTCH4,NR3C1,NT5E,PA2G4,PIK3C3,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PTAFR,PTGS2,PTK2,PTPRB,PXN,PYCARD,QPCT,RAP1B,RAP2A,RASGRP1,REL,RTN4,RUNX3,RXRA,S100A10,S100A12,S100A4,S100A8,S100A9,SAMSN1,SELPLG,SEMA3A,SEMA4A,SERP1,SERPINA1,SGPP1,SGPP2,SH2D1A,SIRPA,SKAP1,SLC16A1,SLC16A3,SLC3A2,SMAD3,SOD1,SOS2,SPN,ST3GAL6,STAB1,STAP1,STAT5B,SWAP70,TBX21,TERF2,TGFB2,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VDR,VEGFA |
| Inflammatory Response,Organismal Injury and Abnormalities | Inflammation of organ | 8.55E-20 | 19.06803389 | turquoise | 339 | ABAT,ABCB1,ABCB4,ABCC4,ABCG1,ACTN4,ADA,ADGRE1,AGO2,AHNAK,AHR,ALDOA,ALOX5,ANXA1,ANXA2P2,ANXA5,ANXA7,APOA2,APOBEC3A,ARFGAP3,ARG1,ARIH2,ARRB1,ASB2,ATP1A1,ATP1B1,ATXN1,BACH2,BAK1,BCL11B,BID,BIRC3,BIRC5,BLMH,BSG,BTLA,BTN1A1,C5AR1,CAMK4,CAPZB,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD1A,CD200,CD22,CD300LF,CD36,CD38,CD4,CD48,CD55,CD69,CD72,CD74,CD80,CD86,CD8A,CD99,CDC42EP3,CEBPA,CEBPB,CELA3B,CFL1,CFLAR,CHCHD2,CIITA,CLEC4D,CLEC7A,CNN3,CNR1,COCH,COL4A3,COL4A4,COTL1,CPVL,CR1,CR2,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYP51A1,DDR1,DDX5,DIAPH1,DPYSL2,DSP,DTX1,E2F2,EIF1,EIF3E,ENO1,EPHA4,EPPK1,EPS8,ESR1,ESR2,EZH2,FABP5,FAIM,FAS,FBXO32,FCER1G,FCER2,FCGBP,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLNA,FLOT1,FLT1,FOSL2,GABBR1,GADD45A,GAPDH,GATA3,GBA,GFI1,GLMP,GPX1,GSTK1,GSTM1,GSTO1,GZMB,HAVCR2,HBEGF,HCST,HLA-DMA,HMOX1,HMOX2,HRH2,HSP90B1,HSPA5,ICOSLG/LOC102723996,ID2,IDE,IDI1,IFI30,IFNAR2,IGHD,IGHE,IGHM,IGKC,IGLJ3,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP5A,IRAK1,IRF4,IRS2,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,JCHAIN,JPT1,KCNAB3,KCNN3,KCNN4,KEAP1,KMO,LAT,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LGMN,LY6E-DT,LY96,LYN,MAP3K14,MAP3K5,MAPKAPK3,MCL1,MDM2,MGAT2,MGAT5,MGLL,MIF,MIR17HG,MKI67,MRS2,MTDH,MXI1,NAAA,NAPA,NDFIP1,NFATC3,NFE2L1,NFIL3,NINJ1,NLRP3,NR2F1,NR3C1,NT5E,OTUD7B,P4HB,PANK2,PAX5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PHGDH,PIK3C3,PKD1,PKM,PLAUR,PLEKHA1,PLEKHA2,PNKD,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRR5,PSAP,PSMB2,PTAFR,PTGS2,PYCARD,RAB34,RARG,RASSF1,REL,RORA,RPS6KA4,RRM2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A8,S100A9,SAT1,SEC61A1,SEL1L,SELPLG,SEMA4A,SGPP1,SGPP2,SHCBP1,SIGMAR1,SLC8A1,SMAD3,SMTN,SOCS2,SOD1,SPN,ST3GAL3,STAB1,STAMBPL1,STAT4,STAT5B,STUB1,SYNE2,TARP,TBK1,TBX21,TFRC,TGFBR2,THRB,TIMP1,TIMP3,TKT,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TOP2A,TP63,TPI1,TRAM2,TREM1,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,TYROBP,UACA,UCHL1,UPP1,UTRN,VAV3,VCL,VCP,VDR,VEGFA,VIM,VSIR,XBP1,XRCC6,ZC3HAV1L,ZNF395,ZNF546,ZYX |
| Hematological System Development and Function,Tissue Morphology | Quantity of mononuclear leukocytes | 1.06E-19 | 18.97469413 | turquoise | 220 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD38,CD4,CD48,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DTX1,E2F2,EPHA4,ESR1,ESR2,ETS2,FABP5,FAS,FCER1G,FCGR2A,FCGR2B,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNAS,GNLY,GPR18,HAVCR2,HAX1,HCST,HEXB,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,JARID2,JCHAIN,KISS1R,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MBTD1,MCL1,MDM2,MGAT2,MIF,MIR17HG,MYB,MYH11,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PAWR,PAX5,PHC1,PIK3CA,PIK3R6,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PSAP,PSMB10,PTAFR,PTTG1,PYCARD,RAP1B,RARG,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIRPA,SMAD3,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TXNIP,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Cellular Growth and Proliferation,Lymphoid Tissue Structure and Development | Proliferation of lymphatic system cells | 1.39E-19 | 18.8569852 | turquoise | 232 | ABCG1,ABI2,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BANK1,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL3,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD300A,CD33,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CD99,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSNK1A1,CXCL8,CXCR3,CXCR4,DCLRE1C,DIAPH1,DNM2,DTX1,E2F2,EED,ESR1,ETS2,FAS,FBXO4,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGL2,FKBP1A,FNIP1,FOXO1,FRS2,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HLA-DMA,HLA-DMB,HMGA1,HMOX1,HRH2,HSH2D,HSP90AB1,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP4A,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAX,ITGB1,ITPKB,KCNN4,KLF9,KLRD1,LAT,LCP2,LGALS1,LGALS3,LILRB2,LILRB3,LST1,LY96,LYN,MAFB,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYB,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NT5E,PAG1,PAWR,PCYT1A,PDE4D,PHC1,PIK3C3,PIK3CA,PLA2G6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRF1,PRKCB,PRKCD,PRKCE,PSMB10,PTGS2,PYCARD,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SOD1,SOS2,SPN,ST6GAL1,STAT4,STAT5B,SWAP70,TBX21,TCF7,TCL1A,TFRC,TGFB2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TXNIP,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB16,ZBTB32,ZNHIT1 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphatic system cells | 2.14E-19 | 18.66958623 | turquoise | 226 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,AURKA,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC5,BNIP3L,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD38,CD4,CD48,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CFLAR,CIITA,CLEC11A,CLEC4D,CR2,CREBBP,CRH,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DTX1,E2F2,EPHA4,ESR1,ESR2,ETS2,FABP5,FAS,FCER1G,FCGR2A,FCGR2B,FLNA,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GBA,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HEXB,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL1B,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,JCHAIN,KISS1R,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MCL1,MDM2,MDM4,MGAT2,MIF,MIR17HG,MYB,MYH11,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PAWR,PAX5,PCLAF,PHC1,PICALM,PIK3CA,PIK3R6,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PSAP,PSMB10,PTAFR,PTTG1,PYCARD,RAP1B,RARG,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIRPA,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TPX2,TXNIP,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZNF318 |
| Cellular Movement | Migration of cells | 2.27E-19 | 18.64397414 | turquoise | 495 | ABCB4,ABCC4,ABCG1,ABHD2,ACAP3,ACP5,ACTN1,ACTN4,ACTR3,ACVR1,ADA,ADARB1,ADGRE2,ADGRE5,ADI1,AFDN,AGO2,AHNAK,AHR,AIF1,AIM2,ALDOA,ALOX5,AMOTL1,ANXA1,ANXA2,ANXA5,APBB2,APLP2,AQP3,AQP9,ARF1,ARF4,ARFGAP3,ARG1,ARHGAP21,ARHGAP31,ARHGEF7,ARNT,ARPC2,ARRB1,ASB2,ASPM,ATP1B1,ATP1B3,ATP5F1A,ATP5F1B,AURKA,AUTS2,BACH2,BAG3,BANP,BBS4,BCAT1,BCL11B,BHLHE41,BID,BMP6,BMPR1A,BRAF,BSG,BTLA,C1GALT1,C5AR1,C5orf30,CALU,CAMK1D,CAMK2D,CAMK4,CAMKK2,CAPN2,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEMIP2,CERS6,CFL1,CHL1,CHN2,CIITA,CITED2,CKLF,CLCN4,CLEC11A,CLEC7A,CNN3,CNP,CNR1,COCH,COL18A1,COL4A3,CORO1B,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTNND1,CTSC,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYTOR,DANCR,DAPK2,DDR1,DGKD,DIAPH1,DNM2,DOCK5,DPYSL2,DSP,DTL,DTX1,DUSP4,DUSP6,DYSF,ECT2,EGOT,EHD1,EIF3E,ELK3,ELMO1,EMILIN2,ENAH,EPB41L5,EPHA4,EPPK1,EPS8,ERC1,ESAM,ESR1,ESR2,ETV4,EYA2,EZH2,FABP5,FAM89B,FAS,FBXO4,FBXW7,FCAR,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGF9,FLNA,FLNB,FLOT1,FLT1,FNDC3B,FOXO1,FOXP1,FPR1,FRS2,FURIN,FYB1,GAB1,GADD45A,GALNT1,GATA3,GBA,GLRX,GNAI3,GNAQ,GNAS,GNLY,GPI,GPR18,GPSM1,GZMB,HAVCR2,HAX1,HBEGF,HDGF,HMMR,HMOX1,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HVCN1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IGFBP4,IGFBP7,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL6R,IL7,IL7R,INPP4A,IQSEC1,IRS2,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,ITPR1,JAML,JCHAIN,KCNN3,KCNN4,KEAP1,KIAA0319,KIF2C,KISS1R,KMT5A,KPNA2,LAMC1,LAMTOR2,LASP1,LAT,LCP2,LDHA,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LIMK2,LITAF,LMNB1,LPP,LRP8,LRPAP1,LSP1,LTK,LY96,LYN,LYZ,MAFB,MAP3K14,MAP3K5,MAP4,MAPK1,MAPRE2,MARCKS,MARCKSL1,MCOLN2,MDM2,MEF2C,MGAT3,MGAT5,MGLL,MIA3,MIAT,MIF,MINK1,MIR17HG,MMP11,MTDH,MYB,MYH11,MYL12A,MYO1F,MYO1G,MYO9A,NAAA,NACA,NAMPT,NCK2,NCOA3,NDST1,NFATC3,NFATC4,NFIL3,NINJ1,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NREP,NSD2,NT5E,NUCB2,PA2G4,PAG1,PALLD,PAX5,PCSK5,PDCD4,PDGFD,PHACTR1,PIK3C3,PIK3CA,PIK3IP1,PIK3R5,PIK3R6,PILRA,PKD1,PKM,PLA2G16,PLA2G6,PLAUR,PLXNB2,PLXNC1,PLXND1,PODXL,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PTAFR,PTGS2,PTK2,PTP4A2,PTPN12,PTPN14,PTPRB,PTPRK,PTTG1,PXN,PYCARD,QPCT,RABEP1,RACGAP1,RALGAPA2,RANBP2,RAP1B,RAP2A,RAP2B,RARG,RASGRP1,RASSF1,RDX,REL,RERE,RFFL,RHOU,RNH1,RPRD1A,RRAS2,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A12,S100A4,S100A6,S100A8,S100A9,SAMSN1,SARS,SELPLG,SEMA3A,SEMA4A,SERP1,SERPINA1,SERPINA5,SF1,SGPP1,SGPP2,SH2D1A,SH3KBP1,SH3RF1,SIRPA,SKAP1,SKIL,SLC16A1,SLC16A3,SLC3A2,SLC8A1,SLC9A3R1,SMAD3,SMARCB1,SND1,SNHG7,SOD1,SOS2,SPN,SRGAP1,SSH2,ST3GAL6,ST6GAL1,STAB1,STAP1,STAT5B,STK26,STUB1,SWAP70,SYNE2,TARS,TBX21,TERF2,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TP63,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,VSIR,WARS,XBP1,YWHAE,ZBTB16,ZBTB7A,ZFAND5,ZYX |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid cells | 2.34E-19 | 18.63078414 | turquoise | 213 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD38,CD4,CD48,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CFLAR,CIITA,CLEC4D,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CX3CR1,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DTX1,E2F2,EPHA4,ESR1,ESR2,ETS2,FABP5,FAS,FCER1G,FCGR2A,FCGR2B,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HEXB,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL1B,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,JCHAIN,KISS1R,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MCL1,MDM2,MGAT2,MIF,MIR17HG,MYB,MYH11,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PAWR,PAX5,PHC1,PIK3CA,PIK3R6,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PSAP,PSMB10,PTAFR,PTTG1,PYCARD,RAP1B,RARG,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIRPA,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TXNIP,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of leukocytes | 2.84E-19 | 18.54668166 | turquoise | 202 | ADA,AHNAK,AHR,ANXA1,ANXA2,AP3B1,AP3D1,BACH2,BAK1,BANK1,BCL11B,BID,BMPR1A,BTLA,C5AR1,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CEBPA,CEBPB,CLEC11A,CLEC2D,CLEC7A,CNR1,CR1,CR2,CRH,CSF1R,CSF2RB,CST3,CX3CR1,CXCL8,CXCR5,DDOST,DOK3,DTX1,DYSF,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FKBP1A,FOXO1,FOXP1,FPR1,GADD45A,GATA3,GFI1,GNLY,GZMA,HAVCR2,HBP1,HDAC9,HLA-DMA,HLA-DMB,HLA-DOA,HMOX1,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHE,IGHG3,IGHM,IL15RA,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,KCNN4,KLRD1,LAT,LAX1,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LILRA2,LILRB2,LILRB3,LY96,LYN,MAGT1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PAX5,PFKFB3,PILRB,PIP5K1B,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSME2,PTGS2,PTPRE,PYCARD,RAB32,RAB33A,RAB34,RASGRP1,REL,RHOH,RORA,S100A12,S100A8,S100A9,SAMSN1,SATB1,SEMA4A,SH2D1A,SIRPA,SLA2,SLC11A1,SMAD3,SOCS2,SOD1,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREM1,TREML2,TSHR,TXNIP,TYROBP,UBE2N,VAV3,VCAN,VEGFA,VSIR,VTI1B |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphocytes | 3.49E-19 | 18.45717457 | turquoise | 212 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD38,CD4,CD48,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CFLAR,CIITA,CLEC4D,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CX3CR1,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DTX1,E2F2,EPHA4,ESR1,ESR2,ETS2,FABP5,FAS,FCER1G,FCGR2A,FCGR2B,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HEXB,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,JCHAIN,KISS1R,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MCL1,MDM2,MGAT2,MIF,MIR17HG,MYB,MYH11,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PAWR,PAX5,PHC1,PIK3CA,PIK3R6,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PSAP,PSMB10,PTAFR,PTTG1,PYCARD,RAP1B,RARG,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIRPA,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TXNIP,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Activation of blood cells | 4.26E-19 | 18.3705904 | turquoise | 219 | ADA,AHNAK,AHR,ANXA1,ANXA2,AP3B1,AP3D1,ARRB1,BACH2,BAK1,BANK1,BCL11B,BID,BMPR1A,BTLA,C1GALT1C1,C5AR1,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CEBPA,CEBPB,CLEC11A,CLEC2D,CLEC7A,CLIC1,CNR1,CR1,CR2,CRH,CSF1R,CSF2RB,CST3,CX3CR1,CXCL8,CXCR5,DDOST,DGKD,DOK3,DTX1,DYSF,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FKBP1A,FLNA,FOXO1,FOXP1,FPR1,GADD45A,GATA3,GFI1,GMNN,GNAQ,GNLY,GRIA1,GZMA,HAVCR2,HBP1,HDAC9,HLA-DMA,HLA-DMB,HLA-DOA,HMOX1,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHE,IGHG3,IGHM,IL15RA,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,ITPR1,KCNN4,KLRD1,LAT,LAX1,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LILRA2,LILRB2,LILRB3,LIMK1,LY96,LYN,MAGT1,MAPK1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PAX5,PFKFB3,PIK3CA,PIK3R5,PIK3R6,PILRB,PIP5K1B,PLEK,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSME2,PTGS2,PTPRE,PYCARD,RAB32,RAB33A,RAB34,RAP2B,RASGRP1,REL,RHOH,RORA,S100A12,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SEMA4A,SH2D1A,SIRPA,SLA2,SLC11A1,SMAD3,SOCS2,SOD1,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREM1,TREML2,TSHR,TXNIP,TYROBP,UBE2N,VAV3,VCAN,VEGFA,VSIR,VTI1B |
| Hematological System Development and Function,Tissue Morphology | Quantity of blood cells | 1.03E-18 | 17.98716278 | turquoise | 283 | ABCB1,ABCG1,ADA,ADGRE5,AFF1,AHR,AIM2,AKAP13,ALOX5,AP3B1,ARID3A,ARID4B,ARNTL,AURKA,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BLOC1S2,BNIP3L,BTLA,C5AR1,CAMK4,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCND2,CCR1,CD19,CD200,CD22,CD27,CD300A,CD300LF,CD36,CD38,CD4,CD48,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDK4,CDKN2C,CEBPA,CEBPB,CFLAR,CFP,CIITA,CLEC11A,CLEC4D,CLEC7A,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DTX1,E2F2,EIF2AK1,ELMO1,EPB42,EPHA4,ESR1,ESR2,ETS2,EZH2,FABP5,FAS,FBXW7,FCER1G,FCGR2A,FCGR2B,FLNA,FLT1,FNIP1,FOXO1,FPR1,FYB1,GADD45A,GALNT1,GATA3,GBA,GFI1,GNAS,GNLY,GPR18,HAVCR2,HAX1,HBEGF,HCST,HEXB,HLA-DMA,HMOX1,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,ITPR1,JARID2,JCHAIN,KISS1R,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LITAF,LSP1,LYN,MAP3K14,MAPK1,MBTD1,MCL1,MDM2,MDM4,MGAT2,MGAT4B,MIF,MIR17HG,MYB,MYH11,MYO1G,NDFIP1,NFATC3,NFE2L1,NFIL3,NFYA,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PAWR,PAX5,PCLAF,PHC1,PICALM,PIK3CA,PIK3R5,PIK3R6,PILRA,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PSMB10,PTAFR,PTGS2,PTK2,PTTG1,PYCARD,RAP1B,RARG,RASGRP1,RBL2,RC3H2,REL,RGS10,RHOH,RORA,RPS6KA4,RUNX2,RUNX3,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SERPINA1,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIRPA,SLC4A1,SLC8A1,SMAD3,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TCL1A,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TRIB1,TXN,TXNIP,TYROBP,UACA,UBE2W,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZNF318 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of mononuclear leukocytes | 3.75E-18 | 17.42596873 | turquoise | 149 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BANK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CLEC2D,CLEC7A,CNR1,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FOXO1,FOXP1,GADD45A,GATA3,GFI1,GZMA,HAVCR2,HDAC9,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHE,IGHG3,IGHM,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL6R,IL7,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITPKB,KCNN4,KLRD1,LAT,LAX1,LDLR,LGALS1,LGALS3,LGALS4,LILRA2,LILRB2,LILRB3,LY96,LYN,MAGT1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PAX5,PIP5K1B,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PYCARD,RASGRP1,REL,S100A12,S100A9,SAMSN1,SATB1,SEMA4A,SH2D1A,SLA2,SLC11A1,SMAD3,SOCS2,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREM1,TREML2,TXNIP,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Leukopoiesis | 4.77E-18 | 17.32148162 | turquoise | 231 | ABCG1,ADA,AFF1,AHR,AKAP13,ALOX5,ANXA1,AP3B1,AP3D1,ARG1,ARID3A,ARID4B,ARNTL,ARRB1,BACH2,BCL11A,BCL11B,BIK,BIRC5,BMPR1A,BRAF,BSG,C5AR1,CADM1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCND2,CD14,CD19,CD226,CD27,CD300A,CD36,CD38,CD4,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CFP,CHEK1,CIITA,CITED2,CLEC11A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EIF2AK1,EPHA4,ERN1,ESR1,ESR2,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GAB3,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GNLY,GON4L,HAVCR2,HAX1,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LILRA2,LILRB2,LILRB3,LSP1,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MYB,MYH11,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PHC1,PICALM,PIK3C3,PIK3R6,PLA2G6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTGS2,PTPN12,RACGAP1,RARG,RASGRP1,RBL2,REL,RFFL,RGS10,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA3A,SEMA4A,SH2D1A,SLA2,SLC3A2,SMAD3,SOCS2,SOD1,SPN,STAT4,STAT5B,SWAP70,TBX21,TCF7,TESC,TGFBR2,THEMIS2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TREM1,TRIB1,TSHR,TYROBP,UBE2N,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZMIZ1 |
| 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 | 5.19E-18 | 17.28483264 | turquoise | 198 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARID3A,ARNTL,ARRB1,BACH2,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CCND2,CD14,CD19,CD226,CD27,CD36,CD38,CD4,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CR2,CREBBP,CSF3R,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ERN1,ESR1,ESR2,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GON4L,HAVCR2,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LILRB2,LSP1,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MYB,MYH11,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PHC1,PICALM,PIK3C3,PIK3R6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTGS2,PTPN12,RASGRP1,RBL2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SPN,STAT4,STAT5B,SWAP70,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TSHR,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZMIZ1 |
| Hematological Disease,Immunological Disease | Lymphoproliferative disorder | 1.01E-17 | 16.99567863 | turquoise | 439 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DNM2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA2,KRR1,LANCL2,LAT,LCP2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCD,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASGRP1,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL10,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SH2D1A,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SOS2,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cellular Function and Maintenance | Function of leukocytes | 1.32E-17 | 16.87942607 | turquoise | 149 | ABCB1,ADA,ADGRE1,AHNAK,AHR,AIM2,AKAP13,ANG,ARIH2,BACH2,BANK1,BCAT1,BIK,BIRC3,BIRC5,BTLA,CAV1,CBLB,CBX5,CCL5,CCR1,CD14,CD200,CD27,CD300A,CD300LF,CD36,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CIITA,CLEC2D,CLEC7A,CR2,CRH,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL8,DCLRE1C,DENND1B,DTX1,DUSP4,FCER1G,FCER2,FCGR2A,FCGR2B,FLOT1,FLT1,FYB1,GFI1,GIMAP4,GNAI3,GZMA,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFI30,IFNAR2,IGHE,IGHM,IL13RA1,IL15RA,IL16,IL1B,IL21R,IL4R,IL7,IL9R,IMPDH1,IRAK1,IRAK2,IRF8,ITGAL,ITGAM,ITGB7,JCHAIN,KCNN4,KLF10,LAT,LAX1,LDHA,LGALS1,LGALS3,LGMN,LILRB3,LSP1,LY96,LYN,MARCKSL1,MCL1,MIF,MYO1G,NINJ1,NLRP1,NLRP3,PAWR,PIK3C3,PIP5K1B,PLAUR,POU2AF1,PPIA,PRF1,PSAP,PSMB10,PSME2,PTGS2,PYCARD,RASGRP1,REL,RRAS2,S100A4,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SIGMAR1,SIRPA,SLA2,SMAD3,SPN,ST6GAL1,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TGFB2,TLR2,TLR4,TNF,TPCN1,TRAF5,TXNIP,TYROBP,VDR,VEGFA |
| Cell Death and Survival | Cell survival | 1.47E-17 | 16.83268267 | turquoise | 379 | ABCB1,ABCB4,ACTN4,ADGRE2,AEN,AGO2,AGTPBP1,AGTRAP,AHR,AK3,AKAP13,ANG,ANLN,ANXA5,APOBEC3A,AQP3,ARNT,ARRB1,ATF5,ATP5MD,ATP5PD,ATXN1,AURKA,AURKAIP1,B4GALT5,BAG3,BAK1,BCKDK,BCL11B,BCL2L2,BID,BIK,BIRC5,BMP6,BMPR1A,BRAF,BRIP1,BTLA,BUB1B,C1GALT1,CADM1,CALCR,CAMK2D,CAMK2N1,CAMK4,CAPN2,CAPN3,CARS,CAV1,CBLB,CBX5,CCL3,CCL5,CCNA2,CCND2,CCR1,CD19,CD200,CD22,CD27,CD300A,CD33,CD38,CD4,CD48,CD55,CD59,CD74,CD80,CD86,CD8A,CDCA7L,CDK2AP1,CDK4,CDK5,CDKN2C,CEBPB,CEBPD,CFLAR,CHEK1,CLCN4,CLEC11A,COCH,COL18A1,COL4A3,CR1,CREBBP,CRH,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DCLRE1C,DDR1,DDX5,DNM2,DST,DUSP6,DUSP7,EEF2K,EGOT,EHD4,EIF3A,EIF3E,EIF4A3,EIF4G1,EMILIN2,ENO1,EPB41L2,EPHA4,ERN1,ESR1,ESR2,ETS2,EZH2,FA2H,FAS,FBXO32,FCER1G,FCGR3A/FCGR3B,FGF9,FKBP5,FLNA,FLT1,FOXO1,GAB1,GABBR1,GADD45A,GALK2,GATA3,GCLC,GIMAP5,GLRX,GLUD1,GNLY,GPSM1,GPX1,GSTM1,GZMB,H2AFY,HBEGF,HDGF,HIPK2,HMGA1,HMOX1,HMOX2,HSD17B10,HSH2D,HSP90AB1,HSP90B1,HSPA5,HSPA9,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IER3,IGFBP7,IGHM,IKZF2,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,INPP4A,INPP5A,IRAK1,IRF4,IRS2,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,JDP2,JMJD1C,KEAP1,KIF11,KIF1B,KIF1C,KIRREL1,LANCL2,LAT,LAX1,LDHA,LGALS3,LIMK2,LIMS1,LMNB1,LYN,LYZ,MAGED1,MAP3K14,MAP3K5,MAPK1,MCL1,MCOLN2,MCUR1,MDM2,MDM4,MEF2C,MGAT5,MGST1,MIAT,MICAL2,MIF,MIR17HG,MTDH,MTMR1,MYB,MYH11,NAB1,NAMPT,NDC80,NDUFA13,NEAT1,NEK3,NEK8,NFIL3,NR1D1,NR3C1,NRCAM,NSD2,NUP210,OBSCN,OTUD7B,P4HB,PAX5,PBX3,PCDHGC3,PDCD4,PFDN5,PIK3C3,PIK3CA,PIK3IP1,PKM,PLA2G6,PLAUR,POLDIP2,POU2AF1,PPIA,PPIB,PPM1G,PPM1M,PPP1R3D,PPP1R9A,PRDM1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PSMA1,PSMA3,PSMA6,PSMA7,PSME4,PTAFR,PTGS2,PTK2,PTP4A2,PTPRE,PTPRK,PYCARD,RAB11A,RAD17,RARG,RARRES3,RASSF1,REL,RPS6KA4,RPS6KA6,RRM2,RRM2B,RUNX2,RXRA,S100A4,S100A6,S100A8,S100A9,SARAF,SAT1,SEL1L,SELENOH,SELENOS,SELPLG,SEM1,SGPP1,SH3KBP1,SH3PXD2A,SIGMAR1,SLC11A1,SLC16A1,SLC25A23,SLC31A1,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC1A,SND1,SNRPA1,SOCS2,SOD1,SPATS2,SPIDR,SPN,SPRY1,SSPN,STAT4,STAT5B,STK26,SVIL,TBC1D16,TBC1D9,TBK1,TBX21,TCF7,TCL1A,TCP1,TERF2,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOP2A,TOX,TP53I3,TP63,TRADD,TRIM69,TRPV2,TUBB,TUBB3,TXN,TXNDC5,TXNIP,TXNL4A,TYMP,TYMS,TYROBP,UBE2L3,UCHL1,UHRF1,USP14,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,WDR1,WEE1,XBP1,XRCC6,ZBTB16,ZNF274,ZNF528,ZNF665 |
| Cancer,Organismal Injury and Abnormalities | Lymphatic system tumor | 2.06E-17 | 16.68613278 | turquoise | 447 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BID,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,CNR1,COCH,COL18A1,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTNND1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DNM2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EHD1,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,EPS8,ERC1,ESR1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMMR,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGED1,MAP3K14,MAP4,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP3,NLRP7,NR3C1,NRCAM,NSD2,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAWR,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCD,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,QPCT,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL10,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBC1D16,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Differentiation of mononuclear leukocytes | 2.73E-17 | 16.56383735 | turquoise | 205 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARID3A,ARNTL,ARRB1,BACH2,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CCND2,CD14,CD19,CD226,CD27,CD36,CD38,CD4,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ERN1,ESR1,ESR2,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GNLY,GON4L,HAVCR2,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LILRA2,LILRB2,LSP1,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MYB,MYH11,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PHC1,PICALM,PIK3C3,PIK3R6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTGS2,PTPN12,RASGRP1,RBL2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SPN,STAT4,STAT5B,SWAP70,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TREM1,TSHR,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZMIZ1 |
| Infectious Diseases | Viral Infection | 2.96E-17 | 16.52870829 | turquoise | 396 | ABCB1,ACSL1,ACTN1,ACTR3,ADA,ADARB1,ADGRE5,AGFG1,AGO2,AGTRAP,AHR,AKAP13,ALG14,ALOX5,ANXA1,ANXA2,ANXA5,AP3D1,APOBEC3B,APOBEC3G,ARF1,ARHGAP21,ARHGAP32,ARNTL,ARPC1B,ARRB1,ASGR2,ATF5,ATOX1,ATP1B3,ATP5F1B,ATP5IF1,ATP6V0A1,ATP6V0E1,ATP6V1A,BAIAP3,BAK1,BCL11A,BCL2L2,BIRC3,BSG,CAMK1D,CAMKK2,CAPN3,CARD16,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD200,CD22,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CD8A,CD93,CDC42EP3,CDK4,CEBPD,CEP68,CFLAR,CHCHD2,CHMP2A,CIITA,CLIP1,CLUH,CNP,COPG1,COPZ1,CR2,CREB3,CREBBP,CSF2RB,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CYP51A1,CYSTM1,DAPK2,DDOST,DDX17,DDX5,DDX50,DIAPH1,DMXL1,DNM2,DTX4,DYSF,E2F2,EDEM1,EGOT,EIF3A,EIF4A3,EIF4EBP2,ELOA,ELOC,EPS8,ERC1,ERN1,ESR1,ESR2,ETHE1,ETS2,EZH2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGD6,FKBP1A,FLNA,FLT1,FPR1,FRS2,FURIN,GAB1,GABBR1,GABPB1,GAPDH,GCLC,GLUL,GPI,GSTO1,GTF2I,GYG1,GZMA,HAVCR2,HID1,HLA-B,HLA-DOA,HMGA1,HMOX1,HRH2,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HSPA9,IER3,IFNAR2,IGHM,IGKC,IKZF2,IL16,IL1B,IL1RN,IL2RB,IL32,IL4R,IL6R,IL7,IL7R,IMPDH1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,JCHAIN,KANSL1,KATNB1,KCNN4,KIF11,LCP2,LDLR,LGALS1,LGALS3,LILRA2,LIMK1,LIMK2,LMAN2,LRPAP1,LSP1,MAGT1,MAN1A1,MAP3K14,MAP3K7CL,MAP3K9,MAP4,MAPK1,MAPKAPK3,MDM2,MED30,MGAT1,MGLL,MICAL3,MID1IP1,MIF,MINK1,MRPL23,MRS2,MSRB2,MT1X,MT2A,MYO1F,MYOF,NCOA3,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NEK8,NFIL3,NIPSNAP3B,NLRP1,NR2F1,NR3C1,NUP133,OSBPL3,PCSK5,PDCD2L,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDXK,PGM1,PICALM,PIK3C3,PIK3R5,PKD1,PLAUR,PLXND1,PMM1,POLR2L,PPIA,PPIB,PPM1K,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCI,PSMA1,PSMA2,PSMA3,PSMA5,PSMA7,PSMB6,PSMD14,PSME2,PTAFR,PTGES3,PTGS2,PTTG1,PVT1,PYCARD,RAB11A,RAB1B,RAB31,RAB32,RAB3D,RAB5IF,RAB8A,RABEP1,RACGAP1,RANBP2,RAP1B,RARG,RARRES3,RASSF1,RBM5,RFFL,RHOH,RNH1,RPL3,RPS20,RRAGD,RRM2,RRM2B,RTN3,RXRA,S100A12,S100A4,S100A8,S100A9,SAMHD1,SAMSN1,SCARB2,SEC14L1,SEC61G,SELPLG,SERPINA1,SERPINA5,SERPINB6,SESTD1,SFXN3,SH2D1A,SHCBP1,SIGMAR1,SIKE1,SLC31A1,SLC9A3R1,SLCO3A1,SMAD3,SMARCA2,SMARCB1,SNRPA1,SNX9,SOCS2,SPCS1,SPCS3,SPN,SSR1,SSR3,ST3GAL3,ST6GAL1,STAB1,STAT4,STAT5B,STT3A,STX11,SUB1,TAGLN2,TALDO1,TBK1,TBX21,TERF2,TFDP2,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TKT,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TOX,TRADD,TREM1,TRERF1,TRIM14,TRIM38,TRIM44,TRIM8,TRMT61A,TRPV2,TTC3,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXN,TXNIP,TXNL4A,TYMS,TYROBP,UAP1,UBE2C,UBE2E2,UBE2H,UBE2L3,UPF3B,UQCRC1,VCP,VDR,VEGFA,WNT10A,XBP1,XK,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Hematopoiesis of mononuclear leukocytes | 3.57E-17 | 16.44733178 | turquoise | 204 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARID3A,ARNTL,ARRB1,BACH2,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CCND2,CD14,CD19,CD226,CD27,CD36,CD38,CD4,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CST3,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ERN1,ESR1,ESR2,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GNLY,GON4L,HAVCR2,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LILRA2,LILRB2,LSP1,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MYB,MYH11,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PHC1,PICALM,PIK3C3,PIK3R6,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTGS2,PTPN12,RASGRP1,RBL2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SPN,STAT4,STAT5B,SWAP70,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TREM1,TSHR,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZBTB7A,ZMIZ1 |
| Cell-To-Cell Signaling and Interaction | Activation of lymphatic system cells | 4.39E-17 | 16.35753548 | turquoise | 143 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BANK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD1A,CD200,CD22,CD226,CD27,CD300LF,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD72,CD74,CD80,CD86,CD8A,CLEC2D,CLEC7A,CNR1,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FOXO1,GADD45A,GATA3,GFI1,GMNN,GZMA,HAVCR2,HDAC9,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHE,IGHG3,IGHM,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL6R,IL7,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGAX,ITPKB,KCNN4,KLRD1,LAT,LAX1,LDLR,LGALS1,LGALS3,LILRB2,LILRB3,LYN,MAGT1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PAX5,PHC1,PIP5K1B,POU2AF1,PRDM1,PRDX1,PRF1,PRKCB,PYCARD,RASGRP1,REL,S100A9,SAMSN1,SATB1,SEMA4A,SH2D1A,SLA2,SLC11A1,SMAD3,SOCS2,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREML2,TXNIP,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Inflammatory Response | Immune response of cells | 4.59E-17 | 16.33818731 | turquoise | 172 | ABCB1,ABCC4,AHR,ANXA1,ANXA5,APOA2,BAK1,BIRC3,BIRC5,BRAF,C5AR1,CAMK1D,CAV1,CCL3,CD14,CD19,CD200,CD22,CD226,CD36,CD38,CD4,CD48,CD59,CD69,CD74,CD80,CD86,CD8A,CD93,CEBPB,CLEC7A,CLIP1,CMC2,COCH,CR1,CSF1R,CSF2RB,CSF3R,CST3,CXCL8,CYP1B1,DNM2,DYSF,EHD1,EIF2AK1,EIF4EBP2,ELMO1,ERN1,ETS2,FAS,FBXO32,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FLNA,FOXO1,FOXP1,FPR1,FURIN,GAPDH,GLRX,GNAS,GPR18,GZMB,GZMH,HAVCR2,HBEGF,HMOX1,HRH2,HSDL1,HSH2D,HSP90B1,HSPA8,ICOSLG/LOC102723996,IFNAR2,IGHA1,IGHE,IGHG3,IGHM,IGKC,IL1B,IL6R,IL7,IL7R,IQSEC1,IRAK1,IRF8,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,LAT,LCP2,LGALS1,LGALS3,LILRA2,LILRB2,LILRB3,LIMK1,LITAF,LMAN2,LY96,LYN,MAPK1,MCL1,MESD,MIF,MYO1G,NAMPT,NFIL3,NLRP3,NR3C1,PFKFB3,PLA2G6,PLAUR,PRDM1,PRKCB,PRKCD,PRKCE,PSME2,PTK2,PXN,PYCARD,RAB31,RAB33A,REL,RORA,RRAS2,S100A12,S100A8,S100A9,SELPLG,SEMA4A,SH2D1A,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLA2,SLC11A1,SMAD3,SPRY1,SWAP70,SYT11,SYT7,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TOP2A,TREM1,TREML2,TRIM14,TRIM23,TRIM38,TRIM45,TRIM8,TRPV2,TTC3,TYROBP,UBE2L3,VEGFA,VIM,XBP1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphoid cancer | 4.95E-17 | 16.3053948 | turquoise | 439 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,CNR1,COCH,COL18A1,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTNND1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DNM2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,ESR1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMMR,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL10,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBC1D16,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cellular Function and Maintenance | Function of blood cells | 5.25E-17 | 16.2798407 | turquoise | 160 | ABCB1,ADA,ADGRE1,AHNAK,AHR,AIM2,AKAP13,ANG,AQP9,ARIH2,BACH2,BAK1,BANK1,BCAT1,BIK,BIRC3,BIRC5,BTLA,CAV1,CBLB,CBX5,CCL5,CCR1,CD14,CD200,CD27,CD300A,CD300LF,CD36,CD4,CD55,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CIITA,CLEC2D,CLEC7A,CR2,CRH,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL8,DCLRE1C,DENND1B,DTX1,DUSP4,EIF2AK1,FCER1G,FCER2,FCGR2A,FCGR2B,FLNA,FLOT1,FLT1,FYB1,GFI1,GIMAP4,GNAI3,GNAQ,GPX1,GZMA,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFI30,IFNAR2,IGHE,IGHM,IL13RA1,IL15RA,IL16,IL1B,IL21R,IL4R,IL7,IL9R,IMPDH1,IRAK1,IRAK2,IRF8,ITGAL,ITGAM,ITGB7,JCHAIN,KCNN4,KLF10,LAT,LAX1,LDHA,LGALS1,LGALS3,LGMN,LILRB3,LSP1,LY96,LYN,MARCKSL1,MCL1,MIF,MYO1G,NINJ1,NLRP1,NLRP3,NT5E,PAWR,PCLAF,PICALM,PIK3C3,PIP5K1B,PLAUR,POU2AF1,PPIA,PRF1,PSAP,PSMB10,PSME2,PTGS2,PYCARD,RASGRP1,REL,RRAS2,S100A4,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SIGMAR1,SIRPA,SLA2,SMAD3,SPN,ST6GAL1,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TGFB2,TLR2,TLR4,TNF,TPCN1,TRAF5,TXNIP,TYROBP,VDR,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of leukocytes | 5.55E-17 | 16.25570702 | turquoise | 435 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BID,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HRH2,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphocytic neoplasm | 7.46E-17 | 16.12726117 | turquoise | 434 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DNM2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL10,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cell-To-Cell Signaling and Interaction | Activation of lymphoid cells | 1.18E-16 | 15.92811799 | turquoise | 140 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BANK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD1A,CD200,CD22,CD226,CD27,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD72,CD74,CD80,CD86,CD8A,CLEC2D,CLEC7A,CNR1,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FOXO1,GADD45A,GATA3,GFI1,GZMA,HAVCR2,HDAC9,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHE,IGHG3,IGHM,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL6R,IL7,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGAX,ITPKB,KCNN4,KLRD1,LAT,LAX1,LDLR,LGALS1,LGALS3,LILRB2,LILRB3,LYN,MAGT1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PAX5,PIP5K1B,POU2AF1,PRDM1,PRDX1,PRF1,PRKCB,PYCARD,RASGRP1,REL,S100A9,SAMSN1,SATB1,SEMA4A,SH2D1A,SLA2,SLC11A1,SMAD3,SOCS2,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREML2,TXNIP,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Cell proliferation of T lymphocytes | 1.26E-16 | 15.89962945 | turquoise | 176 | ABCG1,ABI2,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,BACH2,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CD14,CD19,CD226,CD27,CD33,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CD99,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CRH,CRIP3,CSF2RB,CSNK1A1,CXCR3,CXCR4,DCLRE1C,DIAPH1,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FCER1G,FCGR2B,FGL2,FKBP1A,FOXO1,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HLA-DMA,HLA-DMB,HMOX1,HRH2,HSH2D,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IL15RA,IL1B,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,IRS2,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLRD1,LAT,LCP2,LGALS1,LGALS3,LILRB2,MAP3K14,MGAT5,MIF,MIR17HG,MXI1,MYB,MYDGF,NCK2,NDFIP1,NFATC3,NT5E,PAG1,PAWR,PDE4D,PIK3CA,POU2AF1,PRDM1,PRF1,PRKCE,PSMB10,PTGS2,PYCARD,RASGRP1,RBL2,RC3H2,REL,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SH2D1A,SKAP1,SKIL,SLC3A2,SLC4A1,SMAD3,SOS2,SPN,STAT4,STAT5B,TBX21,TCF7,TCL1A,TFRC,TGFB2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TXNIP,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB16,ZBTB32,ZNHIT1 |
| Hematological Disease,Immunological Disease | T-cell lymphoproliferative disorder | 2.29E-16 | 15.64016452 | turquoise | 170 | ADA,AIM2,AMOTL1,ANKIB1,ANXA1,ATP1B1,ATXN1,ATXN7L1,AURKA,BAK1,BCL11B,BIRC5,BRAF,BTG1,CADM1,CBLB,CBX4,CD14,CD163,CD19,CD1A,CD200,CD27,CD33,CD4,CD58,CD69,CD86,CDK4,CDKN2C,CEBPA,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CREBBP,CSF3R,CSNK1A1,CXCL8,CXCR3,DNM2,DTX1,DUSP4,E2F2,EED,ERC1,EZH2,FAS,FBXW7,FCER2,FKBP1A,FNDC3B,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-B,HLA-DOA,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IGLC1,IKZF2,IL13RA1,IL16,IL2RB,IL6R,IL7R,IMPDH1,IRF4,IRS2,ITGAM,ITGAX,ITGB1,ITM2C,ITPKB,JARID2,JMJD1C,KMO,LAT,MAFB,MAP3K14,MCL1,MDM2,MGAT4A,MGLL,MKI67,MXI1,MYB,MYOF,NR3C1,NRCAM,NUAK2,PAX5,PDE4D,PDE7B,PIK3CA,PIK3R5,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRR5,PSMB2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,REL,RHOH,RHOU,RPL10,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SETD2,SKIL,SLC16A7,SPN,SSBP2,STAT4,STAT5B,TARP,TBX21,TCF7,TCL1A,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,VEGFA,VMP1,XRCC6,ZBTB10,ZMIZ1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of lymphocytes | 2.47E-16 | 15.60730305 | turquoise | 139 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BANK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD1A,CD200,CD22,CD226,CD27,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD72,CD74,CD80,CD86,CD8A,CLEC2D,CLEC7A,CNR1,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FOXO1,GADD45A,GATA3,GFI1,GZMA,HAVCR2,HDAC9,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHE,IGHG3,IGHM,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL6R,IL7,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITPKB,KCNN4,KLRD1,LAT,LAX1,LDLR,LGALS1,LGALS3,LILRB2,LILRB3,LYN,MAGT1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PAX5,PIP5K1B,POU2AF1,PRDM1,PRDX1,PRF1,PRKCB,PYCARD,RASGRP1,REL,S100A9,SAMSN1,SATB1,SEMA4A,SH2D1A,SLA2,SLC11A1,SMAD3,SOCS2,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREML2,TXNIP,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cell-To-Cell Signaling and Interaction | Activation of cells | 3.25E-16 | 15.48811664 | turquoise | 265 | ADA,AHNAK,AHR,ANG,ANK3,ANXA1,ANXA2,AP3B1,AP3D1,ARRB1,BACH2,BAK1,BANK1,BCL11B,BID,BMPR1A,BTLA,C1GALT1C1,C5AR1,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CDK4,CEBPA,CEBPB,CFL1,CLEC11A,CLEC12A,CLEC2D,CLEC7A,CLIC1,CNR1,COL4A3,CR1,CR2,CRH,CSF1R,CSF2RB,CST3,CTNND1,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DDOST,DGKD,DOK3,DTX1,DYSF,EIF3A,ERN1,FAS,FBXW7,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FKBP1A,FLNA,FOXO1,FOXP1,FPR1,GADD45A,GATA3,GFI1,GGT1,GMNN,GNAQ,GNAS,GNLY,GPX1,GRIA1,GZMA,GZMB,HAVCR2,HBEGF,HBP1,HDAC9,HLA-DMA,HLA-DMB,HLA-DOA,HMOX1,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHG3,IGHM,IL15RA,IL16,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,KCNN4,KLRD1,LAT,LAX1,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LILRA2,LILRB2,LILRB3,LIMK1,LSP1,LY96,LYN,LYNX1,MAGT1,MAP3K14,MAPK1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,NUCB2,OTUD7B,PAG1,PALLD,PARPBP,PAX5,PBX3,PFKFB3,PHC1,PIK3CA,PIK3IP1,PIK3R5,PIK3R6,PILRB,PIP5K1B,PKM,PLAUR,PLCB1,PLEK,PLXNB2,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSMC2,PSME2,PTGS2,PTK2,PTPRE,PYCARD,RAB32,RAB33A,RAB34,RAP2B,RASGRP1,REL,RHOH,RORA,RUNX2,S100A12,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SEMA4A,SERPINA1,SH2D1A,SIRPA,SLA2,SLC11A1,SLC24A4,SMAD3,SOCS2,SOD1,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TERF2,TGFB2,TGFBR2,TGFBR3,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOP2A,TP63,TRAF5,TREM1,TREML2,TSHR,TXNIP,TYROBP,UBE2C,UBE2N,VAV3,VCAN,VEGFA,VIM,VSIR,VTI1B |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of leukocytes | 4.18E-16 | 15.37882372 | turquoise | 226 | ABCB4,ABCC4,ABCG1,ACTN4,ADA,ADGRE2,AHR,AIF1,AIM2,ALOX5,ANXA1,ANXA2,AQP3,AQP9,ARG1,ARHGEF7,ARRB1,ASB2,BACH2,BCL11B,BID,BMPR1A,BRAF,BSG,C1GALT1,C5AR1,CAMK1D,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD226,CD300LF,CD36,CD38,CD4,CD48,CD55,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CEBPA,CIITA,CKLF,CLEC11A,CNP,CNR1,COL4A3,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DIAPH1,DOCK5,DPYSL2,DYSF,ELMO1,EPS8,ESR1,ESR2,FABP5,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GATA3,GBA,GNAI3,GNAS,GNLY,GPR18,GPSM1,HMOX1,HRH2,HSPA5,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,JAML,KCNN4,LAT,LCP2,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LTK,LYN,MAP3K14,MAP3K5,MGAT5,MIF,MYB,MYO1F,MYO1G,NAAA,NDST1,NFIL3,NINJ1,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PTGS2,PTPRB,PYCARD,QPCT,RAP1B,RAP2A,RASGRP1,REL,RTN4,RUNX3,S100A10,S100A12,S100A4,S100A8,S100A9,SAMSN1,SELPLG,SEMA3A,SEMA4A,SERP1,SERPINA1,SGPP1,SGPP2,SH2D1A,SIRPA,SKAP1,SMAD3,SOS2,SPN,STAB1,STAP1,STAT5B,SWAP70,TBX21,TERF2,TGFB2,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell malignant neoplasm | 4.45E-16 | 15.35163999 | turquoise | 169 | ADA,AIM2,AMOTL1,ANKIB1,ANXA1,ATP1B1,ATXN1,ATXN7L1,AURKA,BAK1,BCL11B,BIRC5,BRAF,BTG1,CADM1,CBLB,CBX4,CD14,CD163,CD19,CD1A,CD200,CD27,CD33,CD4,CD58,CD69,CD86,CDK4,CDKN2C,CEBPA,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CREBBP,CSF3R,CSNK1A1,CXCL8,CXCR3,DNM2,DTX1,DUSP4,E2F2,EED,ERC1,EZH2,FAS,FBXW7,FCER2,FKBP1A,FNDC3B,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-B,HLA-DOA,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IGLC1,IKZF2,IL13RA1,IL16,IL2RB,IL6R,IL7R,IMPDH1,IRF4,IRS2,ITGAM,ITGAX,ITGB1,ITM2C,ITPKB,JARID2,JMJD1C,KMO,MAFB,MAP3K14,MCL1,MDM2,MGAT4A,MGLL,MKI67,MXI1,MYB,MYOF,NR3C1,NRCAM,NUAK2,PAX5,PDE4D,PDE7B,PIK3CA,PIK3R5,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRR5,PSMB2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,REL,RHOH,RHOU,RPL10,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SETD2,SKIL,SLC16A7,SPN,SSBP2,STAT4,STAT5B,TARP,TBX21,TCF7,TCL1A,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,VEGFA,VMP1,XRCC6,ZBTB10,ZMIZ1 |
| Cellular Function and Maintenance | Homeostasis of blood cells | 1.3E-15 | 14.88605665 | turquoise | 173 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARNT,ARRB1,BAK1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD38,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CREBBP,CSF2RB,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GATA3,GFI1,GIMAP4,GIMAP5,GPI,HAVCR2,HLA-DMA,HLA-DOA,HMGA1,HMOX1,HS1BP3,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGKC,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,ITGAL,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LILRB2,LILRB3,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MEF2C,MIF,MINK1,MIR17HG,MTHFD1,MYB,MYH11,NAB1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRDX1,PRELID1,PTGS2,RASGRP1,RBL2,RC3H2,REL,RHOH,RORA,RPS17,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SKIL,SLC3A2,SMAD3,SOCS2,SOD1,SOS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZMIZ1 |
| Cell Death and Survival | Cell viability | 2.58E-15 | 14.58838029 | turquoise | 352 | ABCB1,ABCB4,ACTN4,ADGRE2,AEN,AGO2,AGTPBP1,AGTRAP,AHR,AK3,AKAP13,ANLN,ANXA5,APOBEC3A,AQP3,ARNT,ARRB1,ATF5,ATP5MD,ATP5PD,ATXN1,AURKA,AURKAIP1,B4GALT5,BAG3,BAK1,BCKDK,BCL11B,BCL2L2,BID,BIK,BIRC5,BMP6,BMPR1A,BRAF,BRIP1,BTLA,BUB1B,C1GALT1,CADM1,CALCR,CAMK2D,CAMK2N1,CAMK4,CAPN2,CAPN3,CARS,CAV1,CBX5,CCL3,CCL5,CCNA2,CCND2,CCR1,CD19,CD200,CD22,CD27,CD300A,CD33,CD38,CD4,CD48,CD55,CD59,CD74,CD80,CD86,CD8A,CDK2AP1,CDK5,CDKN2C,CEBPB,CEBPD,CFLAR,CHEK1,CLCN4,CLEC11A,COCH,COL4A3,CR1,CREBBP,CRH,CSF1R,CSF2RB,CSNK1A1,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DCLRE1C,DDR1,DDX5,DNM2,DST,DUSP6,DUSP7,EEF2K,EGOT,EHD4,EIF3A,EIF3E,EIF4A3,EIF4G1,EMILIN2,ENO1,EPB41L2,EPHA4,ERN1,ESR1,ESR2,ETS2,EZH2,FA2H,FAS,FBXO32,FCER1G,FCGR3A/FCGR3B,FGF9,FKBP5,FLNA,FLT1,FOXO1,GAB1,GADD45A,GALK2,GATA3,GCLC,GIMAP5,GLUD1,GNLY,GPX1,GSTM1,H2AFY,HBEGF,HDGF,HIPK2,HMGA1,HMOX1,HMOX2,HSD17B10,HSH2D,HSP90AB1,HSP90B1,HSPA5,HSPA9,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IER3,IGFBP7,IGHM,IKZF2,IL1B,IL1RN,IL21R,IL2RB,IL6R,IL7,IL7R,INPP4A,INPP5A,IRAK1,IRF4,IRS2,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,JMJD1C,KEAP1,KIF11,KIF1B,KIF1C,KIRREL1,LANCL2,LAT,LAX1,LDHA,LGALS3,LIMK2,LMNB1,LYN,LYZ,MAP3K14,MAP3K5,MAPK1,MCL1,MCOLN2,MCUR1,MDM2,MDM4,MEF2C,MGAT5,MGST1,MIAT,MICAL2,MIF,MIR17HG,MTDH,MTMR1,MYB,MYH11,NAB1,NAMPT,NDC80,NDUFA13,NEAT1,NEK3,NEK8,NFIL3,NR1D1,NR3C1,NRCAM,NSD2,NUP210,OBSCN,OTUD7B,P4HB,PAX5,PBX3,PCDHGC3,PDCD4,PFDN5,PIK3C3,PIK3CA,PIK3IP1,PKM,PLA2G6,PLAUR,POLDIP2,POU2AF1,PPIA,PPM1G,PPM1M,PPP1R3D,PPP1R9A,PRDM1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PSMA1,PSMA3,PSMA6,PSME4,PTAFR,PTGS2,PTK2,PTP4A2,PTPRE,PTPRK,PYCARD,RAB11A,RARG,RARRES3,RASSF1,REL,RPS6KA6,RRM2,RRM2B,RUNX2,RXRA,S100A4,S100A6,S100A8,S100A9,SARAF,SAT1,SEL1L,SELENOH,SELPLG,SEM1,SGPP1,SH3KBP1,SIGMAR1,SLC16A1,SLC25A23,SLC31A1,SMAD3,SMARCA2,SMARCB1,SMARCD3,SND1,SNRPA1,SOCS2,SOD1,SPATS2,SPIDR,SPN,SPRY1,SSPN,STAT4,STAT5B,STK26,SVIL,TBC1D16,TBC1D9,TBK1,TBX21,TCF7,TCL1A,TCP1,TERF2,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TP53I3,TP63,TRADD,TRIM69,TRPV2,TUBB3,TXN,TXNDC5,TXNIP,TXNL4A,TYMP,TYMS,TYROBP,UBE2L3,UCHL1,UHRF1,USP14,VCAN,VCP,VDAC1,VDR,VEGFA,WDR1,WEE1,XBP1,XRCC6,ZBTB16,ZNF528,ZNF665 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Morphology of lymphoid tissue | 2.67E-15 | 14.57348874 | turquoise | 160 | ABCB4,ABCC4,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,ALOX5,ARG1,ARID4B,ARL6IP5,ARNTL,ATP2B4,AURKA,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BIK,BNIP3L,CAMK4,CD19,CD200,CD226,CD4,CD55,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CITED2,CLEC4D,CR2,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CUX1,CXCR4,CXCR5,CYP51A1,DAD1,DCLRE1C,DIAPH1,DUSP6,E2F2,EPB42,EPHA4,ESR1,ESR2,ETS2,FAS,FCER1G,FCGR2B,FNIP1,GADD45A,GATA3,GBA,GFI1,GSTK1,HCST,HMGA1,HMOX1,HSH2D,HSP90B1,ICOSLG/LOC102723996,ID2,IGHM,IGKC,IL1RN,IL21R,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGAL,ITGB7,ITPKB,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MCL1,MDM2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,NR3C1,NT5E,PANK2,PAWR,PHC1,PICALM,PIK3C3,POLM,POU2AF1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PTGS2,PTTG1,PYCARD,RAPGEF6,RARG,RASGRP1,RBL2,REL,RHOH,RRM2,RRM2B,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TCL1A,TGFBI,TGFBR3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TRADD,TRIB1,TXNIP,TYROBP,UBE2W,VDR,VEGFA,XRCC6,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic cancer | 2.68E-15 | 14.57186521 | turquoise | 414 | ABAT,ABCG1,ABHD5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DNM2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KMO,KPNA2,KRR1,LANCL2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL10,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VMP1,VWA3B,WWC3,XRCC6,YWHAE,ZBTB10,ZBTB16,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cell Death and Survival | Apoptosis of tumor cell lines | 5.08E-15 | 14.29413629 | turquoise | 320 | ABCB1,ADI1,AHR,AIM2,ALOX5,ANXA2,ANXA5,ARG1,ARID3B,ARNT,ATP1B3,AURKA,BACH2,BAG3,BAK1,BANP,BBS4,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BNIP3L,BRAF,BSG,BUB3,C5AR1,CAPN2,CAPNS1,CAV1,CBX5,CCAR2,CCDC6,CD14,CD226,CD4,CD48,CD55,CD59,CD99,CDC6,CDCA2,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CERS6,CFLAR,CHEK1,CLPTM1L,CNR1,COL18A1,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CREBBP,CRH,CSF1R,CSF2RB,CSNK1A1,CSTA,CSTB,CTNND1,CUX1,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,DAPK1,DAPK2,DGKD,DNM2,DSP,DUSP4,DUT,DYNLL1,E2F2,EEF2K,EGOT,EIF3M,EIF4B,ELOC,EMILIN2,ENO1,ERN1,ESR1,ESR2,ETHE1,ETS2,EXOG,EZH2,FAIM,FAS,FBXO32,FCER2,FCGR2B,FGF9,FKBP5,FLNB,FLT1,FOXO1,GAB1,GADD45A,GAPDH,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GNAS,GNLY,GPX1,GZMB,HAX1,HBEGF,HCST,HDAC9,HIPK2,HMGA1,HMMR,HMOX1,HSH2D,HSP90AB1,HSPA5,HSPA8,HSPA9,IDE,IER3,IFNAR2,IGFBP4,IGFBP7,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL32,IL6R,IL7,INVS,IRAK1,IRAK2,IRF4,IRF8,ITGAM,ITGAV,ITGB1,ITPR1,KIF11,KIF1B,KIF1C,KLF10,KLF9,KNL1,KPNA2,LANCL2,LARP1B,LGALS1,LGALS3,LIMS1,LMNB1,LSP1,LYN,LYPLA2,MAGED1,MAP3K14,MAP3K5,MAP3K9,MAPK1,MCL1,MDM2,MDM4,MEF2C,MGAT3,MIF,MIR17HG,MRPL49,MSRB2,MT2A,MTDH,MTFP1,MTM1,MXI1,MYB,NACC2,NAPA,NCOA3,NDC80,NDUFA13,NEK6,NFE2L1,NFIL3,NLRP1,NOTCH4,NR3C1,NSD2,P4HB,PA2G4,PAWR,PAX5,PBX3,PDCD4,PDE4D,PDLIM7,PEBP1,PHGDH,PIK3C3,PIK3CA,PIK3IP1,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PMEPA1,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PTAFR,PTGS2,PTK2,PTPRE,PTTG1,PVT1,PYCARD,RAB32,RABGGTA,RACGAP1,RARG,RASSF1,RASSF6,RBL2,RBM5,RBX1,REL,RPLP0,RRM2,RTN1,RTN4,RUNX3,RXRA,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SEC61G,SEMA3A,SH3RF1,SIRPA,SLC39A6,SMAD3,SMOX,SND1,SNHG7,SOD1,SPN,SRI,ST6GAL1,STAT5B,STK17A,STK26,STOML2,STUB1,SYCP3,TAGLN2,TBK1,TCL1A,TCP1,TFRC,TGFB2,TGFBR2,TGFBR3,TIAM1,TIMP1,TIMP3,TLR2,TLR4,TMBIM6,TNF,TNFRSF10C,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP63,TPX2,TRADD,TREM1,TRPV2,TXN,TXN2,TYMP,TYMS,UACA,UCHL1,VCAN,VCP,VDAC1,VDR,VEGFA,VOPP1,WEE1,XBP1,YWHAE,ZBTB16 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature lymphocytic neoplasm | 6.32E-15 | 14.19928292 | turquoise | 355 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,AP4B1,APOBEC3B,ARL6IP5,ATP1B1,ATXN1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,CADM1,CAV1,CBX4,CCL3,CCL5,CCND2,CD163,CD19,CD1A,CD200,CD22,CD27,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAD1,DAP,DAPK1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,ESR2,EZH2,FAS,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FNDC3B,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HVCN1,ID2,IDH2,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IL13RA1,IL16,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAV,ITGAX,ITM2C,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF2C,KPNA2,KRR1,LCP2,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAFB,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MXI1,MYB,MYO1G,MYOF,NAMPT,NAPA,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDE4D,PDE7B,PDIA6,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF4,RBL2,RDH10,REL,RHOH,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,STAMBPL1,STAT4,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TRADD,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Connective Tissue Disorders,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Rheumatic Disease | 1.27E-14 | 13.89619628 | turquoise | 316 | ABCB1,ACSL1,ACTR3,ADA,ADARB1,ADGRE5,AGFG1,AHR,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANG,ANXA1,AP3B1,APLP2,AQP9,ARF1,ARG1,ARRB1,ATP1B1,ATP5MPL,ATXN1,BAK1,BANK1,BID,BIRC5,C5AR1,C5orf30,CAMK2D,CAPN2,CCL3,CCL5,CCR1,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD33,CD36,CD4,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CDK2AP2,CEBPB,CERS6,CFLAR,CFP,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,COL9A1,CR1,CR2,CSF1R,CSF2RB,CSF3R,CST3,CTSA,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAPK1,DDR1,DIAPH1,DIP2C,DTNBP1,DYNLL1,E2F2,EHD4,EIF1,EIF1B,EIF3E,ENO1,ERN1,ESR1,ESR2,FAS,FCAR,FCER1G,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FKBP1A,FKBP5,FLT1,FOXO1,FPR1,FURIN,GAB1,GALNT1,GAR1,GATA3,GFI1,GINS2,GLUL,GNAQ,GNAS,GNLY,GPI,GSTM1,GUSB,GZMA,GZMB,HAVCR2,HCAR3,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMMR,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA5,HSPA8,HSPE1,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP4,IGFBP7,IGHD,IGHM,IGKC,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRF8,ITGAM,ITGAX,ITGB7,ITPR1,JMJD1C,KCNN3,L3MBTL4,LDHB,LDLR,LGALS1,LPP,LST1,LY6E-DT,LYN,LYZ,MAFB,MAP3K5,MBD2,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MKKS,MMP11,MRPS15,MRPS28,MRPS36,MS4A6A,MT2A,MYL12A,MYO9A,NAMPT,NDUFB10,NLRP1,NLRP3,NOTCH4,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PDGFD,PGK1,PHC1,PHF19,PHF20,PILRA,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRKCB,PRR5,PRUNE2,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RAB31,RABGAP1,RBP7,REL,RFLNB,RNF149,RRM2,RUNX3,S100A10,S100A12,S100A8,S100A9,SAMHD1,SCML1,SCN4A,SEC61A1,SEC62,SEL1L,SH2D1A,SIGMAR1,SLAMF7,SLC11A1,SLC1A4,SMAD3,SND1,SNX9,SORL1,SOS2,ST6GAL1,STAMBPL1,STAT4,STAT5B,STEAP4,SYN3,TAGAP,TALDO1,TARP,TBK1,TBRG1,TBX21,TCF7,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLE3,TLR2,TLR4,TMEM39A,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TP63,TPGS2,TRADD,TRAF5,TRAK2,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMS,TYROBP,UBAC1,UBE2H,UBE2L3,VARS,VDR,VEGFA,VIM,WDFY4,WNT10A,WNT7B,XBP1,XRCC6,YTHDC2,ZMYND11,ZNF281 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Plasma cell dyscrasia | 1.46E-14 | 13.83564714 | turquoise | 140 | ABCB1,ACP5,ANXA2,ANXA5,ATP1B1,AURKA,BCAT1,BCL11A,BIRC3,BIRC5,BRAF,CAV1,CCL3,CCL5,CCND2,CD163,CD19,CD27,CD36,CD38,CD48,CDK4,CDKN2C,CEBPA,CEBPD,CIITA,CITED2,COCH,CREBBP,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,DAP,DIAPH1,DUSP4,E2F2,EIF4E3,ELOC,ENAH,FAS,FCER2,FCGR2A,FKBP1A,FLNA,FLT1,FYB1,GTF2I,HCAR3,HDAC9,HLA-B,HMOX1,HSP90AB1,HSP90B1,IDH2,IFNAR2,IGH,IGHM,IGKC,IL1B,IL1RN,IL6R,IL7,IMPDH1,IRF4,ITGAV,JCHAIN,KCNN3,KIF11,KIF2C,KPNA2,LCP2,MAGED1,MAP3K14,MCL1,MGLL,MKI67,MXI1,NDC80,NEK3,NR3C1,NSD2,PAX5,PDIA6,PIK3CA,PPIA,PRDM1,PRF1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PTGS2,PTPRE,RBL2,RRM2,RRM2B,RUNX2,RUNX3,S100A10,SATB1,SETD2,SIGMAR1,SLAMF7,SMARCA2,SMARCB1,SOCS2,SOD1,STX11,TARP,TFDP1,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TRADD,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,XBP1,XRCC6,YWHAE,ZC3HAV1L |
| Cell Death and Survival | Cell death of tumor cell lines | 1.61E-14 | 13.79317412 | turquoise | 388 | ABCB1,ABCB4,ABCC4,ADI1,AHR,AIM2,ALOX5,ANG,ANXA2,ANXA5,ARG1,ARID3B,ARNT,ATG13,ATG4A,ATP1A1,ATP1B3,ATP5F1A,ATXN1,AURKA,BACH2,BAG3,BAK1,BANP,BBS4,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BNIP3L,BRAF,BSG,BTG1,BUB1B,BUB3,C5AR1,CADM1,CAMK4,CAPN2,CAPN3,CAPNS1,CAV1,CBX5,CCAR2,CCDC6,CCND2,CCT8,CD14,CD226,CD4,CD48,CD55,CD59,CD99,CDC6,CDCA2,CDCA5,CDK5,CDKN2C,CDT1,CEBPA,CEBPB,CEBPD,CERS5,CERS6,CFLAR,CHEK1,CLPTM1L,CNR1,COL18A1,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CR1,CREBBP,CRH,CSF1R,CSF2RB,CSNK1A1,CSTA,CSTB,CTNND1,CUX1,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,DAPK1,DAPK2,DCTN3,DGKD,DNM2,DSP,DST,DTL,DUSP4,DUT,DYNLL1,E2F2,EEF2K,EGOT,EIF3M,EIF4B,ELOC,EMILIN2,ENO1,EPM2A,ERN1,ESR1,ESR2,ETHE1,ETS2,EXOG,EZH2,FAIM,FAS,FBXO32,FCER1G,FCER2,FCGR2B,FGF9,FKBP1A,FKBP5,FLNB,FLT1,FOXO1,GAB1,GADD45A,GAPDH,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GNAS,GNLY,GPI,GPSM1,GPX1,GSTM1,GZMB,GZMH,GZMK,HAX1,HBEGF,HCST,HDAC9,HIPK2,HMGA1,HMMR,HMOX1,HSH2D,HSP90AB1,HSPA5,HSPA8,HSPA9,HSPB11,ICMT,IDE,IER3,IFNAR2,IGFBP4,IGFBP7,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL32,IL6R,IL7,INVS,IQGAP2,IRAK1,IRAK2,IRF4,IRF8,IRGM,ITGAM,ITGAV,ITGB1,ITPR1,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KLF10,KLF9,KNL1,KPNA2,LANCL2,LARP1B,LGALS1,LGALS3,LIMS1,LMNB1,LSP1,LYN,LYPLA2,MAGED1,MAP3K14,MAP3K5,MAP3K9,MAPK1,MCL1,MCOLN2,MDM2,MDM4,MEF2C,MGAT3,MIF,MIR17HG,MLKL,MRPL49,MSI2,MSRB2,MT1X,MT2A,MTDH,MTFP1,MTM1,MXI1,MYB,NABP1,NACC2,NAMPT,NAPA,NCOA3,NCOA7,NDC80,NDUFA13,NEK6,NFE2L1,NFIL3,NLRP1,NLRP3,NOTCH4,NR3C1,NSD2,NT5E,OAZ1,P4HB,PA2G4,PAG1,PAWR,PAX5,PBX3,PDCD4,PDE4D,PDLIM7,PEBP1,PFKFB3,PHGDH,PIK3C3,PIK3CA,PIK3IP1,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PMEPA1,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PSMD14,PTAFR,PTGS2,PTK2,PTPRE,PTTG1,PVT1,PYCARD,RAB32,RABGGTA,RACGAP1,RARG,RASSF1,RASSF6,RBL2,RBM5,RBX1,RDX,REL,RIC8B,RPLP0,RRM2,RRM2B,RTN1,RTN4,RUNX3,RXRA,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SEC61G,SEMA3A,SERP1,SH3GLB1,SH3RF1,SIRPA,SLC29A2,SLC39A6,SLC3A2,SLC9B2,SMAD3,SMC1A,SMCO4,SMOX,SND1,SNHG7,SOD1,SPN,SRI,ST6GAL1,STAT5B,STK17A,STK26,STOML2,STUB1,SVIL,SYCP3,TAGLN2,TBK1,TCL1A,TCP1,TFRC,TGFB2,TGFBR2,TGFBR3,TIAM1,TIMP1,TIMP3,TLR2,TLR4,TMBIM6,TMCC3,TNF,TNFRSF10C,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP63,TPX2,TRADD,TREM1,TRMT61A,TRPV2,TUBB3,TXN,TXN2,TYMP,TYMS,UACA,UBE2C,UBE2L3,UBE2Q1,UCHL1,VAV3,VCAN,VCP,VDAC1,VDR,VEGFA,VOPP1,WEE1,WWC3,XBP1,YWHAE,ZBTB16 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymphoid organ | 2.15E-14 | 13.66756154 | turquoise | 147 | ABCB4,ABCC4,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARL6IP5,ARNTL,ATP2B4,AURKA,B3GNT5,BAG3,BAK1,BANK1,BCL11A,BCL11B,BIK,BNIP3L,CAMK4,CD19,CD200,CD226,CD4,CD55,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CITED2,CLEC4D,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CUX1,CXCR5,DAD1,DCLRE1C,DIAPH1,DUSP6,E2F2,EPB42,EPHA4,ESR1,ESR2,ETS2,FAS,FCER1G,FCGR2B,FNIP1,GADD45A,GATA3,GBA,GFI1,GSTK1,HCST,HMGA1,HMOX1,HSH2D,HSP90B1,ICOSLG/LOC102723996,ID2,IGHM,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGAL,ITPKB,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MCL1,MDM2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,NR3C1,NT5E,PANK2,PAWR,PHC1,PICALM,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PTGS2,PTTG1,RAPGEF6,RARG,RASGRP1,RBL2,REL,RHOH,RRM2,RRM2B,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TCL1A,TGFBI,TGFBR3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TRADD,TRIB1,TXNIP,UBE2W,VDR,VEGFA,XRCC6,ZBTB16 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature T-cell or NK-cell neoplasm | 2.36E-14 | 13.627088 | turquoise | 130 | ADA,AIM2,AMOTL1,ANKIB1,ANXA1,ATP1B1,ATXN1,AURKA,BAK1,BIRC5,BTG1,CADM1,CBX4,CD163,CD19,CD1A,CD200,CD27,CD4,CD69,CD86,CDKN2C,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CXCL8,CXCR3,DTX1,DUSP4,EZH2,FAS,FCER2,FNDC3B,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-DOA,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IGLC1,IL13RA1,IL16,IL2RB,IL6R,IMPDH1,IRF4,IRS2,ITGAX,ITM2C,ITPKB,JMJD1C,LPCAT2,MAFB,MAP3K14,MCL1,MGAT4A,MGLL,MKI67,MXI1,MYOF,NAPA,NR3C1,NRCAM,NUAK2,PDE4D,PIK3CA,PIK3R5,PLXNB2,PPIA,PRDM1,PRF1,PRKCB,PRR5,PSMB2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,REL,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SLC16A7,SPN,STAT4,STAT5B,TARP,TBX21,TCL1A,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,ZBTB10 |
| Cellular Function and Maintenance | Homeostasis of leukocytes | 2.46E-14 | 13.60906489 | turquoise | 167 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARRB1,BAK1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD38,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CREBBP,CSF2RB,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GATA3,GFI1,GIMAP4,GIMAP5,HAVCR2,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGKC,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,ITGAL,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LILRB2,LILRB3,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MEF2C,MIF,MINK1,MIR17HG,MTHFD1,MYB,MYH11,NAB1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTGS2,RASGRP1,RBL2,RC3H2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SKIL,SLC3A2,SMAD3,SOCS2,SOS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZMIZ1 |
| Cellular Function and Maintenance | Lymphocyte homeostasis | 2.59E-14 | 13.58670024 | turquoise | 165 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARRB1,BAK1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD38,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CLEC11A,CREBBP,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GATA3,GFI1,GIMAP4,GIMAP5,HAVCR2,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGKC,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,ITGAL,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LILRB2,LILRB3,LYN,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MEF2C,MIF,MINK1,MIR17HG,MYB,MYH11,NAB1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAG1,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTGS2,RASGRP1,RBL2,RC3H2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SKIL,SLC3A2,SMAD3,SOCS2,SOS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZMIZ1 |
| Cellular Function and Maintenance | Function of lymphatic system cells | 2.92E-14 | 13.53461715 | turquoise | 101 | ABCB1,ADGRE1,AHNAK,AHR,AKAP13,ANG,BACH2,BAK1,BANK1,BCAT1,BIK,BIRC3,BIRC5,BTLA,CBLB,CBX5,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CIITA,CLEC12A,CLEC2D,CR2,CSF2RB,CTSC,CX3CR1,DENND1B,DTX1,ESR1,FCER1G,FCGR2A,FYB1,GIMAP4,GNAI3,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFNAR2,IGHM,IL13RA1,IL15RA,IL16,IL1B,IL21R,IL4R,IL7,IL9R,IMPDH1,IRF8,ITGAL,ITGB7,KCNN4,KLF10,LAT,LAX1,LDHA,LGALS1,LGMN,LILRB3,MCL1,MYO1G,NFIL3,PAWR,PIK3C3,POU2AF1,PPIA,PRDM1,PRF1,PSMB10,PSME2,RASGRP1,REL,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SMAD3,SPN,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TXNIP,TYROBP,VDR |
| Inflammatory Response | Inflammation of absolute anatomical region | 3.35E-14 | 13.47495519 | turquoise | 255 | ABCB1,ABCB4,ABCC4,ABCG1,ADA,ADGRE1,AGO2,AHR,ALDOA,ALOX5,ANXA1,ANXA5,ANXA7,APOA2,ARG1,ARIH2,ARRB1,ASB2,ATP1B1,ATXN1,BACH2,BID,BIRC3,BIRC5,BSG,BTLA,BTN1A1,C5AR1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LF,CD36,CD38,CD4,CD48,CD55,CD69,CD72,CD74,CD80,CD86,CD99,CDC42EP3,CEBPA,CELA3B,CFLAR,CHCHD2,CIITA,CLEC4D,CLEC7A,CNR1,COCH,COTL1,CR2,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CYP51A1,DAPK1,DDR1,DDX5,DTX1,E2F2,ENO1,EPHA4,ESR1,ESR2,EZH2,FAIM,FAS,FBXO32,FCER1G,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,FOSL2,GABBR1,GAPDH,GFI1,GLMP,GPX1,GSTK1,HAVCR2,HCST,HLA-DMA,HMOX1,HMOX2,HRH2,HSP90B1,HSPA5,ICOSLG/LOC102723996,ID2,IDE,IFI30,IFNAR2,IGHE,IGHM,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP5A,IRAK1,IRF4,IRS2,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,KCNAB3,KCNN3,KCNN4,KEAP1,KMO,LAT,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LITAF,LY96,LYN,MAP3K14,MAP3K5,MAPKAPK3,MGAT5,MGLL,MIF,MIR17HG,MRS2,MTDH,NAAA,NDFIP1,NFATC3,NFE2L1,NFIL3,NINJ1,NLRP3,NR3C1,NT5E,OTUD7B,P4HB,PANK2,PAX5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PIK3C3,PKD1,PKM,PLAUR,PNKD,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRR5,PSTPIP2,PTAFR,PTGS2,PYCARD,RASSF1,REL,RORA,RUNX3,RXRA,S100A4,S100A8,SAT1,SEL1L,SEMA4A,SGPP1,SGPP2,SHCBP1,SIGMAR1,SLC8A1,SMAD3,SMTN,SOCS2,SOD1,SPN,ST3GAL3,ST6GAL1,STAB1,STAT4,STAT5B,STUB1,TARP,TBK1,TBX21,TFRC,TGFBR2,TIMP1,TIMP3,TKT,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TOP2A,TP63,TPI1,TRAM2,TREM1,TSHR,TUBB,TYMP,TYMS,TYROBP,UACA,UCHL1,UPP1,VAV3,VDR,VEGFA,VIM,VSIR,XBP1,ZC3HAV1L |
| Cellular Function and Maintenance | Cellular homeostasis | 4.81E-14 | 13.31785492 | turquoise | 393 | ABCG1,ABHD5,ACSL1,ADA,AFDN,AFF1,AHR,ALDOA,AMOTL1,ANXA1,ANXA2,ANXA7,AP3B1,AP3D1,APLP2,AQP3,ARF1,ARG1,ARHGEF7,ARNT,ARNTL,ARRB1,ATG13,ATG4A,ATOX1,ATP1A1,ATP1B1,ATP1B3,ATP2B4,ATP5IF1,ATP6V1A,AURKA,BAG3,BAK1,BCL11A,BCL11B,BCL2L2,BHLHA15,BID,BIK,BIRC5,BMP6,BNIP3L,BRAF,BSG,C5AR1,CADM1,CALCR,CAMK2D,CAMK4,CAMKK2,CAPN3,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD27,CD300A,CD36,CD38,CD4,CD55,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CERS5,CFLAR,CHEK1,CHMP2A,CIITA,CISD2,CLEC11A,CLEC12A,CLEC7A,CLIC1,CLMP,CNP,CNR1,COPZ1,COX5A,CPTP,CR1,CRACR2B,CREBBP,CRH,CSF2RB,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DACT1,DAP,DAPK1,DAPK2,DCLRE1C,DTX1,DUSP4,DYNLL1,E2F2,EED,EEF2K,EIF2AK1,EIF4G1,EPB42,EPHA4,EPM2A,ERC1,ERN1,ERO1A,ERO1B,ESR1,ESR2,ETS2,EYA2,EZH2,FABP5,FAS,FBXO4,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FECH,FFAR1,FKBP1A,FLT1,FMO5,FNIP1,FOXO1,FOXP1,FPR1,FURIN,FYB1,GAB1,GATA3,GATM,GFI1,GGT1,GIMAP4,GIMAP5,GNAI3,GNAQ,GNAS,GNLY,GPBAR1,GPI,GPR18,GPSM1,GZMA,GZMB,GZMK,H2AFY,HAVCR2,HECTD4,HERC1,HEXB,HLA-DMA,HLA-DOA,HMGA1,HMOX1,HMOX2,HS1BP3,HSP90B1,HSPA5,HSPA8,ICMT,ICOSLG/LOC102723996,ID2,IFNAR2,IGFBP4,IGHE,IGHM,IGKC,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,IRGM,IRS2,ITGAL,ITGAV,ITPKB,ITPR1,KCNN4,KDELR1,KLF10,LAT,LAX1,LCP2,LDHA,LDLR,LGALS1,LGALS2,LILRB2,LILRB3,LRPAP1,LYN,LZTS1,MAFB,MAGT1,MAP3K14,MAPK1,MBD2,MBD5,MCL1,MDM2,MEF2C,MGLL,MIF,MINK1,MIR17HG,MSRB2,MT2A,MTDH,MTHFD1,MTM1,MYB,MYH11,NAB1,NAMPT,NDFIP1,NDUFAB1,NFATC3,NFIL3,NR1D1,NR3C1,NT5E,NUCB2,OCRL,OTUD7B,PAG1,PANK2,PAPOLA,PAWR,PAX5,PGM1,PICALM,PIEZO1,PIK3C3,PIK3CA,PIK3R6,PIP4K2B,PKD1,PKM,PLA2G16,PLA2G6,PLCL2,POLDIP2,POLM,POU2AF1,PPA2,PPIA,PPIB,PRDM1,PRDX1,PRDX3,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PTGS2,PTK2,PTPRB,PXN,PYCARD,RAB11A,RAB8A,RAP1B,RASGRP1,RBL2,RC3H2,REL,RHOH,RORA,RPS17,RTN1,RTN4,RUNX2,RUNX3,S100A8,S100A9,SATB1,SCN4A,SDHB,SEMA4A,SERPINA1,SGPP2,SH2D1A,SH3GLB1,SH3KBP1,SIGMAR1,SIK3,SKIL,SLA2,SLC11A1,SLC16A1,SLC30A1,SLC31A1,SLC39A6,SLC3A2,SLC4A1,SLC8A1,SLC9A3R1,SLC9A7,SMAD3,SOCS2,SOD1,SORL1,SOS2,SPN,SRXN1,STAT4,STAT5B,STOML2,STUB1,SVIP,SWAP70,TBC1D16,TBC1D9,TBC1D9B,TBK1,TBX21,TBXAS1,TCF7,TCL1A,TESC,TFRC,TGFBI,TGFBR2,THEMIS2,TIMP2,TIMP3,TLR2,TLR4,TMBIM6,TMEM165,TMEM199,TMTC2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TPCN1,TRAF5,TRIM8,TXNIP,TYROBP,UBE2N,VAV3,VCP,VDAC1,VDR,VEGFA,VIM,VMP1,VTI1B,WDR41,WDR45,WIPI1,XBP1,XK,XRCC6,YWHAE,ZBTB16,ZMIZ1 |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of lymphocytes | 5.61E-14 | 13.25103714 | turquoise | 96 | ABCB1,ADGRE1,AHNAK,AHR,AKAP13,ANG,BACH2,BANK1,BCAT1,BIK,BIRC3,BIRC5,BTLA,CBLB,CBX5,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CIITA,CLEC2D,CR2,CSF2RB,CTSC,CX3CR1,DENND1B,DTX1,FCER1G,FCGR2A,FYB1,GIMAP4,GNAI3,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFNAR2,IGHM,IL13RA1,IL15RA,IL16,IL1B,IL21R,IL4R,IL7,IL9R,IMPDH1,IRF8,ITGAL,ITGB7,KCNN4,KLF10,LAT,LAX1,LDHA,LGALS1,LGMN,LILRB3,MCL1,MYO1G,PAWR,PIK3C3,POU2AF1,PPIA,PRF1,PSMB10,PSME2,RASGRP1,REL,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SMAD3,SPN,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TXNIP,TYROBP,VDR |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer of cells | 5.89E-14 | 13.22988471 | turquoise | 398 | ABAT,ABCG1,ABHD5,ACTG1,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,AMOTL1,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA7,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CBX4,CCL3,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CLMP,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EED,EIF2AK1,ELMO1,ELOC,ERC1,ESR2,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HVCN1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAM,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KMO,KPNA2,KRR1,LANCL2,LDHA,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYB,MYH11,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RHOH,RHOU,RIOK2,RPL13,RPL23,RPS20,RRM2,RRM2B,RUNX3,RXRA,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TGFB2,TGFBI,TGFBR2,TIMP1,TIMP2,TIMP3,TLK1,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRAM2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VMP1,VWA3B,WWC3,XRCC6,YWHAE,ZBTB10,ZBTB16,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cell Death and Survival | Cell death of lymphatic system cells | 7.89E-14 | 13.102923 | turquoise | 124 | ABCC4,ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIRC5,BNIP3L,C5AR1,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CD99,CFLAR,CHEK1,CIITA,CLEC11A,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,EEF2K,EPHA4,ETS2,FAIM,FAS,FBXW7,FCAR,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GADD45A,GAPDH,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAX1,HMGA1,HSH2D,HSPA5,ICOSLG/LOC102723996,ID2,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRS2,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SLC29A2,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TCL1A,TGFB2,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA,ZBTB16 |
| Cell Death and Survival | Apoptosis of blood cells | 8.26E-14 | 13.08301995 | turquoise | 142 | ABCG1,ADA,AHR,ANXA1,ARNT,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIRC3,BIRC5,BNIP3L,BTG1,CAV1,CCL3,CCL5,CD14,CD22,CD226,CD27,CD38,CD4,CD59,CD69,CD70,CD80,CEBPB,CFLAR,CHEK1,CIITA,CNR1,CR2,CREBBP,CXCL2,CXCL8,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCER1G,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAVCR2,HAX1,HIPK2,HSH2D,HSP90AB1,HSPA9,ICOSLG/LOC102723996,IER3,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,IRS2,ITGAM,ITGB1,ITPR1,KDELR1,LAMTOR2,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIF,MIR17HG,MYB,NAMPT,NFYA,NLRP1,NLRP3,NR3C1,PALLD,PAWR,PAX5,PCLAF,PERP,PIK3C3,PLA2G6,POU2AF1,PPIA,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,S100A8,SATB1,SH3BP2,SKIL,SMAD3,SPN,ST3GAL3,ST6GAL1,STAT5B,STOML2,STUB1,SWAP70,TCL1A,TGFB2,TIMP1,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,VAV3,VDR,VEGFA,ZBTB16 |
| Cell-To-Cell Signaling and Interaction | Adhesion of blood cells | 1.43E-13 | 12.84466396 | turquoise | 117 | ABCC4,ADGRE2,ADGRE5,ANXA1,ANXA5,ANXA7,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD226,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD74,CD80,CD86,CD99,CFP,CNR1,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,DNAJC1,EPHA4,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GLRX,GZMB,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LGALS1,LGALS3,LILRB3,LIMK1,LRP8,LRPAP1,LSP1,LYN,MAP3K14,MGAT5,MIF,MYO1G,NINJ1,NR3C1,NT5E,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP1,REL,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SLC4A1,SPN,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Immunological Disease | Allergy | 1.91E-13 | 12.71896663 | turquoise | 127 | ADGRE2,AHNAK,ALDOA,ALOX5,ANXA1,ANXA2P2,ANXA5,AQP3,ARFGAP3,ARG1,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD300A,CD300LF,CD63,CD74,CFL1,CNN3,CNR1,CORO1B,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,CYP51A1,DOCK5,DPYSL2,EIF1,EIF3E,ENO1,EPS8,ESR1,ESR2,EZH2,FABP5,FAS,FCER1G,FCER2,FCGBP,FCGR2A,FCGR2B,FKBP1A,FLNA,FLOT1,GADD45A,GAPDH,GATA3,GRIA1,GSTO1,GZMB,HAVCR2,HRH2,HSPA5,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL16,IL18BP,IL1B,IL1RN,IL4R,IL5RA,IL6R,IL7,ITGB7,JPT1,LAT,LCP2,LGALS1,LGMN,LY96,LYN,MCL1,MKI67,MXI1,NAPA,NR2F1,NR3C1,P4HB,PDE4A,PDE4D,PDE7A,PDE7B,PFKFB3,PHGDH,PIP5K1B,PPIA,PRDX1,PRF1,PRKCB,PSAP,PTAFR,PTGS2,RAB34,S100A11,S100A8,S100A9,SMAD3,SOCS2,SYNE2,TBX21,TFRC,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF25,TPI1,TUBB,TYMS,VAV3,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature T-cell neoplasm | 2.46E-13 | 12.60906489 | turquoise | 124 | ADA,AIM2,AMOTL1,ANKIB1,ANXA1,ATP1B1,ATXN1,AURKA,BAK1,BIRC5,BTG1,CADM1,CBX4,CD163,CD19,CD1A,CD200,CD27,CD4,CD69,CD86,CDKN2C,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CXCL8,CXCR3,DTX1,DUSP4,EZH2,FAS,FCER2,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-DOA,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IGLC1,IL13RA1,IL16,IL2RB,IL6R,IRF4,IRS2,ITGAX,ITM2C,ITPKB,JMJD1C,MAFB,MAP3K14,MCL1,MGAT4A,MGLL,MKI67,MXI1,MYOF,NR3C1,NRCAM,NUAK2,PDE4D,PIK3CA,PIK3R5,PRDM1,PRF1,PRKCB,PRR5,PSMB2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,REL,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SLC16A7,SPN,STAT4,STAT5B,TARP,TBX21,TCL1A,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,ZBTB10 |
| Immunological Disease | Abnormal morphology of immune system | 3.25E-13 | 12.48811664 | turquoise | 96 | ABCB1,ABHD5,AFF1,AHR,ARID3A,ARSG,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CCR1,CD19,CD200,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CR2,CREBBP,CRISPLD2,CSF1R,CSF3R,CXCR5,DCLRE1C,DTX1,E2F2,ERN1,FAS,FCER1G,FCGR2B,FNIP1,GATA3,GBA,GFI1,HAX1,HEXB,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGAM,ITGB7,ITPKB,LAMTOR2,LAT,LCP2,LDLR,LGALS3,LILRB3,LSP1,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSAP,PSMB10,RASGRP1,REL,RHOH,RRAS2,RUNX3,SH2D1A,SMAD3,SOD1,STAT5B,TBX21,TLR2,TLR4,TNF,TOX,TXNIP,UACA,XRCC6 |
| Cell Death and Survival | Apoptosis of leukocytes | 3.78E-13 | 12.4225082 | turquoise | 130 | ABCG1,ADA,AHR,ANXA1,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC3,BIRC5,BTG1,CAV1,CCL3,CCL5,CD14,CD22,CD226,CD27,CD38,CD4,CD59,CD69,CD70,CD80,CEBPB,CFLAR,CHEK1,CIITA,CNR1,CR2,CXCL2,CXCL8,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCER1G,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAVCR2,HSH2D,HSP90AB1,ICOSLG/LOC102723996,IER3,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,IRS2,ITGAM,ITGB1,ITPR1,KDELR1,LAMTOR2,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIF,MIR17HG,NAMPT,NLRP1,NLRP3,NR3C1,PAWR,PAX5,PERP,PIK3C3,PLA2G6,POU2AF1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,S100A8,SATB1,SH3BP2,SKIL,SMAD3,SPN,ST3GAL3,ST6GAL1,STAT5B,STOML2,STUB1,SWAP70,TCL1A,TGFB2,TIMP1,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,VAV3,VDR,VEGFA,ZBTB16 |
| Cell-To-Cell Signaling and Interaction | Response of mononuclear leukocytes | 3.8E-13 | 12.4202164 | turquoise | 79 | ADA,AHR,BAK1,C5AR1,CBLB,CCL3,CCR1,CD14,CD19,CD200,CD22,CD226,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD70,CD80,CD86,CD8A,CD93,CLEC7A,CR2,CSF2RB,CXCL8,FAS,FCGR2A,FCGR2B,FOXO1,FPR1,FURIN,GATA3,GNAS,GZMB,HAVCR2,HMOX1,HSDL1,HSP90B1,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL7,IL7R,ITPKB,LAX1,LCP2,LGALS1,LILRB2,LILRB3,LYN,NAMPT,NFIL3,PFKFB3,PLAUR,PSMB10,PSME2,PTAFR,PYCARD,REL,SELPLG,SEMA4A,SH2D1A,SLA2,SMAD3,STAT4,STAT5B,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TREM1,TREML2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Tumorigenesis of lymphocytes | 4.01E-13 | 12.39685563 | turquoise | 322 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,ALDH1A1,ALOX5,ANKRD36,ANXA1,ANXA2,ANXA5,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BID,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CAV1,CCL3,CCL5,CCND2,CD163,CD19,CD200,CD22,CD27,CD36,CD38,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CDKN2C,CEBPA,CEBPD,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,ESR2,EZH2,FAS,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FOXO1,FOXP1,FRYL,FYB1,GTF2I,HCAR3,HDAC9,HIST1H3B,HLA-B,HMGA1,HMOX1,HSP90AB1,HSP90B1,HVCN1,ID2,IDH2,IFNAR2,IGH,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF2,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPR1,JARID2,JCHAIN,KCNAB3,KCNN3,KIF11,KIF2C,KPNA2,KRR1,LCP2,LGALS1,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYB,MYO1G,MYOF,NAMPT,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NSD2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4D,PDE7B,PDIA6,PEG10,PIK3CA,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RASSF1,RBL2,REL,RHOH,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TLK1,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB16,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Cell-mediated Immune Response,Cellular Function and Maintenance,Hematological System Development and Function | T cell homeostasis | 4.07E-13 | 12.39040559 | turquoise | 155 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARRB1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD38,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FOXO1,FOXP1,FURIN,FYB1,GATA3,GFI1,GIMAP4,GIMAP5,HAVCR2,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGKC,IKZF2,IL15RA,IL1B,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,ITGAL,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LILRB2,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MIF,MINK1,MIR17HG,MYB,MYH11,NAB1,NDFIP1,NFATC3,OTUD7B,PAG1,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTGS2,RASGRP1,RBL2,RC3H2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZMIZ1 |
| Cell Death and Survival | Cell death of lymphoid cells | 4.36E-13 | 12.36051351 | turquoise | 114 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCAR,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GAPDH,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,HSPA5,ICOSLG/LOC102723996,ID2,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRS2,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TCL1A,TGFB2,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA,ZBTB16 |
| Hematological System Development and Function,Tissue Morphology | Quantity of granulocytes | 4.37E-13 | 12.35951856 | turquoise | 101 | ABCB1,ADA,ADGRE5,AHR,ALOX5,ARID4B,ARNTL,BAG3,BID,BIK,C5AR1,CD19,CD22,CD300A,CD36,CD8A,CEBPA,CFLAR,CFP,CLEC11A,CLEC7A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CXCL2,CXCL8,DIAPH1,ESR2,EZH2,FAS,FCGR2A,FCGR2B,FPR1,GADD45A,GALNT1,GFI1,GNAS,HAX1,IGHE,IL13RA1,IL18BP,IL1B,IL21R,IL2RB,IL4R,IL5RA,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,ITPR1,JARID2,KISS1R,LDLR,LGALS1,LGALS2,LGALS3,LYN,MGAT4B,MIF,NDFIP1,PIK3R5,PIK3R6,PILRA,PRF1,PRKCD,PRKCE,PTGS2,PTK2,REL,RORA,RUNX2,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAT4,STAT5B,STX11,TBK1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TRIB1,TXN,UBE2W,VDR,ZBTB16 |
| Inflammatory Response,Neurological Disease | Inflammation of central nervous system | 4.83E-13 | 12.31605287 | turquoise | 107 | AGO2,AHR,ALOX5,ANXA1,ARG1,ARRB1,BSG,BTLA,BTN1A1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD200,CD300LF,CD36,CD4,CD74,CD80,CD86,CD99,CIITA,CLEC4D,CRH,CST3,CX3CR1,CYP51A1,EPHA4,ESR1,ESR2,FAS,FCER1G,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,GFI1,HAVCR2,HCST,HEXB,HLA-DMA,HRH2,HSPA5,ID2,IFI30,IGHM,IL18BP,IL1B,IL1RN,IL21R,IL9R,IRAK1,IRF4,ITGAL,ITGAV,ITGAX,ITGB1,LCP2,LGALS1,LGALS3,LYN,MAP3K14,MGAT5,MGLL,MIF,MIR17HG,MTDH,NFIL3,NINJ1,NLRP3,NR3C1,NT5E,OTUD7B,PDCD4,PRDM1,PRF1,PTAFR,PTGS2,PYCARD,REL,RORA,SEMA4A,SHCBP1,SOD1,SPN,STAT4,TBK1,TBX21,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TYMP,TYMS,TYROBP,UPP1,VDR,VEGFA,VIM,VSIR,XBP1 |
| Cell Morphology,Immunological Disease | Abnormal morphology of leukocytes | 5.26E-13 | 12.27901426 | turquoise | 77 | ABCB1,ABHD5,AFF1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CR2,CREBBP,CSF1R,CXCR5,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FCGR2B,FNIP1,GATA3,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGB7,ITPKB,LAMTOR2,LAT,LCP2,LGALS3,LILRB3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,RASGRP1,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TLR2,TLR4,TNF,TOX,TXNIP,XRCC6 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | T cell development | 5.59E-13 | 12.25258819 | turquoise | 152 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARRB1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EED,EPHA4,ETS2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FKBP1A,FLT1,FOXO1,FOXP1,FURIN,FYB1,GATA3,GFI1,GIMAP4,GIMAP5,HAVCR2,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGKC,IKZF2,IL15RA,IL1B,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,ITGAL,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LILRB2,MAFB,MAP3K14,MAPK1,MBD2,MCL1,MIF,MINK1,MIR17HG,MYB,MYH11,NAB1,NDFIP1,NFATC3,OTUD7B,PAG1,PAX5,PICALM,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTGS2,RASGRP1,RBL2,REL,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZBTB16,ZMIZ1 |
| Cellular Function and Maintenance | Endocytosis | 5.63E-13 | 12.24949161 | turquoise | 147 | ACTG1,ACTN4,ANXA1,ANXA5,AP2S1,APLP2,APOA2,ARF1,ARHGAP21,ARRB1,ATP5F1B,ATP6V0E1,ATP6V1A,ATP6V1D,BRAF,BTBD19,CANX,CAV1,CCL3,CCL5,CD14,CD163,CD22,CD300A,CD36,CD38,CD63,CD93,CDC5L,CDK5,CEBPB,CLIP1,CRH,CSF1R,CSF2RB,CTNND1,DNM2,DPYSL2,EEF2K,EHD1,EHD4,EIF2AK1,ELMO1,EPB41L2,EPS8,ETS2,FAS,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FLNA,FLOT1,FOXP1,FPR1,FRS2,GLRX,GPR18,HAX1,HBEGF,HMOX1,HSH2D,HSP90B1,HSPA5,HSPA8,HSPA9,HYOU1,ICOSLG/LOC102723996,IGHA1,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IL1B,IL7,IQSEC1,IRF8,ITGAM,ITGAV,ITGB1,JCHAIN,LAT,LDLR,LDLRAP1,LGALS3,LIMK1,LMAN2,LRP8,LRPAP1,LYN,MAPK1,MAPKAPK3,MIF,MYO1G,NR3C1,OCRL,PDLIM7,PFKFB3,PICALM,PIP5K1B,PLA2G6,PLAUR,PRF1,PRKCB,PRKCD,PRKCE,PTK2,PTRHD1,PXN,PYCARD,RAB31,RAB34,RORA,RRAS2,S100A10,S100A9,SCAMP2,SCAMP5,SCARB2,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLC9B2,SMARCB1,SNX9,SORL1,ST6GAL1,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VCP,VIM,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell neoplasm | 6.17E-13 | 12.20971484 | turquoise | 321 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,ALDH1A1,ALOX5,ANKRD36,ANXA1,ANXA2,ANXA5,AP4B1,APOBEC3B,ARL6IP5,ATP11A,ATP1B1,ATXN1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CAV1,CCL3,CCL5,CCND2,CD163,CD19,CD200,CD22,CD27,CD36,CD38,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CDKN2C,CEBPA,CEBPD,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,ESR2,EZH2,FAS,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FOXO1,FOXP1,FRYL,FYB1,GTF2I,HCAR3,HDAC9,HIST1H3B,HLA-B,HMGA1,HMOX1,HSP90AB1,HSP90B1,HVCN1,ID2,IDH2,IFNAR2,IGH,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF2,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPR1,JARID2,JCHAIN,KCNAB3,KCNN3,KIF11,KIF2C,KPNA2,KRR1,LCP2,LGALS1,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYB,MYO1G,MYOF,NAMPT,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NSD2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4D,PDE7B,PDIA6,PEG10,PIK3CA,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RASSF1,RBL2,REL,RHOH,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TLK1,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB16,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell neoplasm | 6.79E-13 | 12.16813023 | turquoise | 306 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,ALDH1A1,ALOX5,ANKRD36,ANXA1,ANXA2,ANXA5,AP4B1,APOBEC3B,ARL6IP5,ATP1B1,ATXN1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,CAV1,CCL3,CCL5,CCND2,CD163,CD19,CD200,CD22,CD27,CD36,CD38,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CDKN2C,CEBPA,CEBPD,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,CNR1,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,ESR2,EZH2,FAS,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLNA,FLT1,FOXO1,FOXP1,FRYL,FYB1,GTF2I,HCAR3,HDAC9,HIST1H3B,HLA-B,HMOX1,HSP90AB1,HSP90B1,HVCN1,IDH2,IFNAR2,IGH,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPR1,JARID2,JCHAIN,KCNAB3,KCNN3,KIF11,KIF2C,KPNA2,KRR1,LCP2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAGED1,MAP3K14,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYB,MYO1G,MYOF,NAMPT,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NSD2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDE4D,PDE7B,PDIA6,PEG10,PIK3CA,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RAPGEF6,RBL2,REL,RHOH,RPS20,RRM2,RRM2B,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,STAMBPL1,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TLK1,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VWA3B,WWC3,XBP1,XRCC6,YWHAE,ZBTB16,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Cancer,Organismal Injury and Abnormalities | Secondary tumor | 7.4E-13 | 12.13076828 | turquoise | 235 | ABAT,ABCB1,ABLIM1,ABRAXAS1,ACP5,ACTN4,ADGRE5,AFDN,ALOX5,ANK3,ANXA1,ANXA2,ANXA5,ANXA7,ARG1,BCOR,BHLHE41,BIRC5,BMPR1A,BRAF,BRIP1,C5AR1,CALU,CAPN2,CAV1,CCL5,CCND2,CD200,CD226,CD33,CD36,CD48,CD59,CD80,CD86,CD8A,CD99,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPD,CFLAR,CHEK1,COL18A1,CPEB2,CREB3,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CST7,CTNND1,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,CYP1B1,CYP51A1,DANCR,DAPK1,DDR1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,ESR2,EZH2,FABP5,FAS,FBXW7,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGF9,FKBP1A,FLNA,FLT1,FOXP1,GADD45A,GATA3,GLRX,GLUL,GNAS,GPI,HAX1,HCST,HIST1H3B,HMGA1,HMMR,HMOX1,HRH2,HSP90AB1,HSP90B1,HYOU1,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL7,IMPDH1,IQSEC1,IRF4,IRS2,ITGAL,ITGAV,ITGB1,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LYN,MAFB,MAP4,MAPK1,MBD2,MDM2,MDM4,MGAT3,MIF,MIR17HG,MSI2,MYB,MYL12A,NACA,NCAPG,NCOA3,NDUFA13,NDUFB4,NLRP1,NR2F1,NR3C1,NT5E,PDCD4,PDCD5,PIK3CA,PIK3R5,PLAUR,PPIA,PRF1,PRKCE,PRKCI,PRUNE2,PSAP,PSMB2,PTGS2,PTK2,PTTG1,PXN,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNF19B,RNH1,RPL7,RPS11,RRM2,RRM2B,RTN1,RUNX2,RXRA,S100A11,S100A4,SEC61G,SECTM1,SERPINA1,SETD2,SKIL,SLC16A3,SLC5A3,SMAD3,SND1,SOD1,SRD5A3,SSR2,STAB1,TBC1D16,TBX21,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXNIP,TYMP,TYMS,UBE2N,VAV3,VCAN,VDR,VEGFA,VIM,WNT7B,YWHAE,ZBTB7A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development | Proliferation of B lymphocytes | 8.73E-13 | 12.05898576 | turquoise | 93 | ADA,B3GNT5,BANK1,BCL11A,BTLA,CBLB,CCND2,CD14,CD19,CD22,CD300A,CD38,CD4,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CLEC4D,CR2,CRH,DCLRE1C,DTX1,EED,FAS,FCER2,FCGR2B,FCGR3A/FCGR3B,HSH2D,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL7,IL7R,IRF4,IRF8,IRS2,KLF9,LILRB3,LY96,LYN,MAP3K14,MDM2,MEF2C,MIF,MIR17HG,MYB,NFATC3,PAWR,PCYT1A,PIK3CA,PLCL2,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRKCB,PRKCD,RBL2,REL,SAMSN1,SERPINA1,SH3BP2,SH3KBP1,SLAMF7,SMAD3,ST6GAL1,STAT5B,SWAP70,TCL1A,TFRC,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TRAF5,TXN,TYROBP,VAV3,ZBTB16 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Inflammation of joint | 8.8E-13 | 12.05551733 | turquoise | 266 | ABCB1,ACSL1,ADA,ADGRE5,AHR,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANG,ANXA1,AP3B1,APLP2,AQP9,ARF1,ARG1,ARRB1,ATP1B1,ATP5MPL,ATXN1,BID,BIRC5,C5AR1,C5orf30,CAMK2D,CAPN2,CCL3,CCL5,CCR1,CD163,CD1A,CD200,CD27,CD33,CD36,CD4,CD59,CD69,CD70,CD72,CD74,CD80,CD86,CDK2AP2,CEBPB,CERS6,CFP,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,COL9A1,CR1,CR2,CSF1R,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DDR1,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,ERN1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FKBP1A,FKBP5,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLUL,GNLY,GPI,GUSB,GZMA,GZMB,HAVCR2,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMMR,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP4,IGFBP7,IGHD,IGHM,IGKC,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,ITGAM,ITGB7,ITPR1,JMJD1C,L3MBTL4,LDHB,LDLR,LGALS1,LST1,LYN,LYZ,MAFB,MBD2,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MMP11,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NDUFB10,NLRP1,NLRP3,NOTCH4,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PDGFD,PGK1,PHC1,PHF19,PHF20,PILRA,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRKCB,PRR5,PRUNE2,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RABGAP1,RBP7,REL,RFLNB,RNF149,RUNX3,S100A10,S100A12,S100A8,S100A9,SCML1,SCN4A,SEC61A1,SEC62,SEL1L,SH2D1A,SIGMAR1,SLC11A1,SLC1A4,SMAD3,SND1,SNX9,SORL1,STAT4,STAT5B,STEAP4,SYN3,TAGAP,TALDO1,TARP,TBRG1,TBX21,TCF7,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TP63,TPGS2,TRADD,TRAK2,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMS,TYROBP,UBAC1,UBE2H,VARS,VDR,VEGFA,VIM,WNT10A,WNT7B,XBP1,YTHDC2,ZMYND11,ZNF281 |
| Cell-To-Cell Signaling and Interaction | Interaction of blood cells | 9.67E-13 | 12.01457353 | turquoise | 127 | ABCC4,ADGRE2,ADGRE5,ANXA1,ANXA5,ANXA7,BTLA,C1GALT1C1,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD74,CD80,CD86,CD99,CFP,CNR1,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,DNAJC1,EPHA4,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GLRX,GZMB,HLA-DMA,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IL7,IL7R,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LGALS1,LGALS3,LILRB3,LIMK1,LRP8,LRPAP1,LSP1,LTK,LYN,MAP3K14,MGAT5,MIF,MYO1G,NFATC3,NINJ1,NR3C1,NT5E,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP1,REL,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SH2D1A,SIRPA,SKAP1,SLC4A1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Encephalitis | 1.04E-12 | 11.98296666 | turquoise | 99 | AGO2,AHR,ALOX5,ARG1,ARRB1,BSG,BTLA,BTN1A1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD200,CD300LF,CD36,CD4,CD74,CD80,CD86,CD99,CIITA,CLEC4D,CRH,CST3,CX3CR1,EPHA4,ESR1,ESR2,FAS,FCER1G,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,GFI1,HAVCR2,HCST,HLA-DMA,HRH2,HSPA5,ID2,IFI30,IGHM,IL18BP,IL1B,IL1RN,IL21R,IL9R,IRAK1,IRF4,ITGAL,ITGAV,ITGAX,ITGB1,LCP2,LGALS1,LGALS3,LYN,MAP3K14,MGAT5,MGLL,MIF,MIR17HG,MTDH,NFIL3,NINJ1,NLRP3,NR3C1,NT5E,OTUD7B,PDCD4,PRDM1,PRF1,PYCARD,REL,RORA,SEMA4A,SHCBP1,SOD1,SPN,STAT4,TBK1,TBX21,TIMP1,TLR4,TNF,TNFRSF1B,TYMP,TYROBP,UPP1,VDR,VEGFA,VIM,VSIR,XBP1 |
| Cell Morphology,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of lymphocytes | 1.05E-12 | 11.9788107 | turquoise | 65 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,CBLB,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CR2,CREBBP,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FCGR2B,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,RASGRP1,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,TXNIP,XRCC6 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of T lymphocytes | 1.16E-12 | 11.93554201 | turquoise | 151 | ABCB1,ADA,AFF1,AHR,AIM2,AP3B1,ARID4B,BACH2,BCL11A,BCL11B,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD27,CD38,CD4,CD48,CD69,CD70,CD74,CD80,CD86,CD8A,CDKN2C,CFLAR,CIITA,CREBBP,CRIP3,CSF2RB,CXCR3,CXCR4,DCLRE1C,DDR1,DENND1B,DIAPH1,E2F2,EPHA4,ESR1,ESR2,ETS2,FABP5,FAS,FCER1G,FCGR2B,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HEXB,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IGHM,IL13RA1,IL15RA,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,KLF10,LAT,LCP2,LDLR,LGALS1,LGALS2,LYN,MAP3K14,MAPK1,MCL1,MGAT2,MIF,MIR17HG,MYH11,NDFIP1,NFATC3,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PAG1,PHC1,PIK3CA,PLXND1,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PSMB10,PTAFR,PTTG1,PYCARD,RARG,RASGRP1,RC3H2,REL,RHOH,RPS6KA4,RUNX2,RUNX3,SATB1,SELPLG,SERPINB6,SH2D1A,SHCBP1,SIRPA,STAT5B,TBK1,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TNFRSF25,TOX,TXNIP,VAV3,VDR,VEGFA,XRCC6 |
| Cell-To-Cell Signaling and Interaction | Binding of blood cells | 1.26E-12 | 11.89962945 | turquoise | 126 | ABCC4,ADGRE2,ADGRE5,ANXA1,ANXA5,ANXA7,BTLA,C1GALT1C1,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD38,CD4,CD48,CD55,CD58,CD59,CD69,CD74,CD80,CD86,CD99,CFP,CNR1,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,DNAJC1,EPHA4,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GLRX,GZMB,HLA-DMA,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IL7,IL7R,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LGALS1,LGALS3,LILRB3,LIMK1,LRP8,LRPAP1,LSP1,LYN,MAP3K14,MGAT5,MIF,MYO1G,NFATC3,NINJ1,NR3C1,NT5E,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP1,REL,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SH2D1A,SIRPA,SKAP1,SLC4A1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Cell Morphology,Immunological Disease | Abnormal morphology of mononuclear leukocytes | 1.29E-12 | 11.88941029 | turquoise | 66 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CR2,CREBBP,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FCGR2B,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,RASGRP1,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,TXNIP,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of leukocytes | 1.37E-12 | 11.86327943 | turquoise | 98 | ANXA1,ANXA5,APOA2,BAK1,BRAF,C5AR1,CCL3,CD14,CD226,CD36,CD38,CD48,CD59,CD69,CD74,CD80,CD86,CD8A,CD93,CEBPB,CMC2,CSF1R,CSF2RB,CST3,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FOXO1,FPR1,FURIN,GLRX,GNAS,GPR18,GZMB,HAVCR2,HMOX1,HSDL1,HSH2D,ICOSLG/LOC102723996,IGHA1,IGHG3,IGHM,IL1B,IL6R,IL7,IL7R,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,LCP2,LGALS1,LGALS3,LILRB2,LILRB3,LY96,LYN,MIF,MYO1G,NAMPT,NR3C1,PFKFB3,PLAUR,PSME2,PXN,PYCARD,REL,RORA,S100A9,SELPLG,SEMA4A,SH2D1A,SH3BP2,SIRPA,SIRPB1,SLA2,SMAD3,SWAP70,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TYROBP,XBP1 |
| Cell Death and Survival | Cell death of lymphocytes | 1.55E-12 | 11.8096683 | turquoise | 112 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCAR,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GAPDH,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,ICOSLG/LOC102723996,ID2,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRS2,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TCL1A,TGFB2,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA,ZBTB16 |
| Cell Death and Survival | Cell death of mononuclear leukocytes | 1.86E-12 | 11.73048706 | turquoise | 115 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCAR,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GAPDH,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,ICOSLG/LOC102723996,ID2,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,IRS2,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PAX5,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,S100A8,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TCL1A,TGFB2,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA,ZBTB16 |
| Cellular Function and Maintenance | Engulfment of cells | 2.05E-12 | 11.68824614 | turquoise | 130 | ACTN4,ANXA1,ANXA5,AP2S1,APLP2,APOA2,ARF1,ARHGAP21,ARRB1,ATP6V0E1,ATP6V1A,ATP6V1D,BRAF,BTBD19,CAMK1D,CAV1,CCL3,CCL5,CD14,CD163,CD22,CD36,CD38,CD4,CD48,CD63,CD93,CDC5L,CEBPB,CLEC7A,CLIP1,CR1,CRH,CSF1R,CSF2RB,CSF3R,CTNND1,DNM2,DYSF,EEF2K,EHD1,EHD4,EIF2AK1,ELMO1,EPB41L2,EPS8,ETS2,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FLNA,FLOT1,FOXP1,FPR1,FRS2,GLRX,GPR18,HAX1,HBEGF,HMOX1,HSH2D,HSPA5,HSPA8,HYOU1,ICOSLG/LOC102723996,IGHM,IL1B,IL7,IQSEC1,IRF8,ITGAM,ITGAV,ITGAX,ITGB1,LAT,LDLR,LGALS3,LIMK1,LMAN2,LRPAP1,LYN,MAPK1,MESD,MIF,MYO1G,NR3C1,ORAI2,PFKFB3,PICALM,PLA2G6,PLAUR,PRF1,PRKCB,PRKCD,PRKCE,PTK2,PTRHD1,PXN,PYCARD,RAB31,RORA,RRAS2,S100A10,S100A9,SCARB2,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLC11A1,SLC9B2,SMARCB1,SRA1,SWAP70,SYT11,SYT7,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VIM,XBP1,ZBTB7A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoma | 2.23E-12 | 11.65169514 | turquoise | 315 | ABAT,ABCG1,ABHD5,ADA,AHNAK,AHR,AIM2,ALOX5,AMOTL1,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA7,AP4B1,APOBEC3B,AURKA,BAK1,BCAT1,BCL11B,BCL7A,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CAV1,CBX4,CCNA2,CCND2,CD163,CD19,CD1A,CD200,CD22,CD27,CD36,CD4,CD48,CD58,CD63,CD69,CD70,CD80,CD86,CDCA2,CDCA7,CDCA7L,CDK4,CDKN2C,CEBPA,CEBPB,CEP120,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CLMP,CNR1,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,EED,EIF2AK1,ELOC,EZH2,FAM189A1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FNDC3B,FOSL2,FOXO1,FOXP1,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IL13RA1,IL16,IL1B,IL2RB,IL4R,IL6R,IL7,IL9R,IMPDH1,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAX,ITM2C,ITPKB,ITPR1,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KPNA2,KRR1,LANCL2,LDLR,LGALS1,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYNX1,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIR17HG,MKI67,MRPL20,MXI1,MYH11,MYO1G,MYOF,NAP1L1,NAPA,NEK3,NEK6,NETO2,NLRP7,NR3C1,NT5E,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PCSK5,PDCD4,PDE4D,PDLIM5,PEG10,PIK3CA,PIK3R5,PLXNB2,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRKCB,PRKCI,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RARG,RARRES3,RASSF1,RASSF4,RBL2,RDH10,REL,RIOK2,RPL13,RPL23,RPS20,RRM2,RRM2B,RXRA,S100A4,SARS,SATB1,SAV1,SDK2,SEC14L1,SECTM1,SELPLG,SERPINA1,SETD2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STK17A,STX11,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TCL1B,TFDP1,TGFB2,TGFBI,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCP,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE,ZBTB10,ZNF490 |
| Cancer,Organismal Injury and Abnormalities | Multiple cancers | 2.25E-12 | 11.64781748 | turquoise | 87 | ABCB1,ACP5,ANXA5,AURKA,BIRC3,BIRC5,BRAF,CCL3,CCL5,CD19,CD27,CD36,CD38,CD48,CDK4,CDKN2C,CEBPA,CIITA,COCH,CREBBP,CSF2RB,CSF3R,CXCL8,CXCR4,ESR1,ESR2,FAS,FLNA,FLT1,HCAR3,HLA-B,HSP90AB1,HSP90B1,IDH2,IFNAR2,IGH,IL1B,IL1RN,IL6R,IL7,IMPDH1,IRF4,ITGAV,KCNN3,KIF2C,LCP2,MAGED1,MAP3K14,MCL1,MGLL,MKI67,NDC80,NR3C1,NSD2,PDIA6,PIK3CA,PPIA,PRDM1,PRR5,PSMA2,PSMB10,PSMB2,PTGS2,PTPRE,RRM2,RUNX2,SETD2,SIGMAR1,SLAMF7,SMARCB1,TARP,TIMP1,TIMP2,TNF,TNFRSF13B,TNFRSF17,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,XBP1,ZC3HAV1L |
| Inflammatory Response | Inflammation of body cavity | 2.55E-12 | 11.59345982 | turquoise | 212 | ABCB1,ABCB4,ABCC4,ABCG1,ADA,ADGRE1,AGO2,AHR,ALDOA,ALOX5,ANXA1,ANXA5,ANXA7,APOA2,ARG1,ARIH2,ASB2,ATP1B1,ATXN1,BACH2,BID,BIRC3,BIRC5,BSG,BTLA,C5AR1,CAV1,CCL3,CCL5,CCR1,CD14,CD200,CD300LF,CD36,CD38,CD4,CD48,CD55,CD69,CD72,CD80,CD86,CDC42EP3,CEBPA,CELA3B,CFLAR,CHCHD2,CIITA,CLEC4D,CLEC7A,CNR1,COCH,COTL1,CR2,CRH,CSF1R,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,CYP51A1,DDR1,DDX5,DTX1,E2F2,ENO1,ESR1,ESR2,EZH2,FAIM,FAS,FBXO32,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,FOSL2,GABBR1,GAPDH,GLMP,GPX1,GSTK1,HAVCR2,HMOX1,HRH2,HSP90B1,HSPA5,ICOSLG/LOC102723996,ID2,IDE,IFNAR2,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,INPP5A,IRS2,ITGAM,ITGB7,KCNAB3,KCNN3,KEAP1,KMO,LAT,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LY96,LYN,MAP3K14,MAP3K5,MAPKAPK3,MGAT5,MGLL,MIF,MRS2,NAAA,NDFIP1,NFATC3,NFE2L1,NFIL3,NLRP3,NR3C1,NT5E,P4HB,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PIK3C3,PKD1,PKM,PLAUR,PNKD,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRR5,PTAFR,PTGS2,PYCARD,RASSF1,RORA,RUNX3,RXRA,S100A4,S100A8,SAT1,SEL1L,SGPP1,SGPP2,SIGMAR1,SLC8A1,SMAD3,SMTN,SOCS2,SOD1,ST3GAL3,STAB1,STAT4,STAT5B,STUB1,TARP,TBX21,TFRC,TGFBR2,TIMP1,TIMP3,TKT,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TOP2A,TP63,TPI1,TRAM2,TREM1,TSHR,TUBB,TYMP,TYMS,TYROBP,UACA,UCHL1,VAV3,VDR,VEGFA,VSIR,XBP1,ZC3HAV1L |
| Dermatological Diseases and Conditions,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Dermatitis | 2.76E-12 | 11.55909092 | turquoise | 126 | ADA,AHNAK,AHR,ANXA1,ANXA2P2,ANXA5,ARFGAP3,ARIH2,ATP1A1,BCL11B,BLMH,BTLA,C5AR1,CAPZB,CCL5,CCNA2,CD1A,CD300LF,CD4,CD55,CD74,CFL1,CNN3,CNR1,CPVL,CSF2RB,CST3,CXCL8,CXCR4,CYP51A1,DIAPH1,DPYSL2,DSP,EIF1,EIF3E,ENO1,EPS8,FABP5,FAS,FCER1G,FCER2,FCGBP,FCGR2A,FCGR2B,FKBP1A,FLNA,FLOT1,GADD45A,GATA3,GBA,GSTO1,GZMB,HAVCR2,HRH2,ICOSLG/LOC102723996,IDE,IDI1,IFI30,IFNAR2,IGHE,IGHM,IGKC,IGLJ3,IL16,IL1B,IL1RN,IL2RB,IL4R,ITGB7,JPT1,KCNN4,LCP2,LDLR,LGALS1,LGMN,LYN,MCL1,MKI67,MXI1,NAPA,NLRP3,NR2F1,NR3C1,PHGDH,PPIA,PRDM1,PRF1,PRKCB,PSAP,PSMB2,PTAFR,PTGS2,RAB34,RARG,REL,RPS6KA4,RRM2,RXRA,S100A11,S100A8,S100A9,SELPLG,SOCS2,SYNE2,TBK1,TBX21,TIMP1,TLR2,TLR4,TNF,TOP2A,TPI1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZNF546,ZYX |
| Inflammatory Disease | Chronic inflammatory disorder | 2.77E-12 | 11.55752023 | turquoise | 275 | ABCB1,ABCB4,ABCG1,ACSL1,ACTN4,ADA,ADGRE5,AHR,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANG,ANXA1,APLP2,APOA2,AQP9,ARF1,ARG1,ARRB1,ATP1B1,ATXN1,BCL11B,BIRC5,BRAF,BSG,C5AR1,C5orf30,CAMK2D,CCDC65,CCL3,CCL5,CCR1,CD1A,CD33,CD36,CD4,CD59,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CEBPB,CELA3B,CERS6,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,COL4A3,COTL1,CR1,CR2,CSF2RB,CSF3R,CST3,CTNND1,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP51A1,DDR1,DDX5,DIP2C,DNAH8,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,ESR1,EZH2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FKBP1A,FKBP5,FLT1,FMO5,FOSL2,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLUL,GNLY,GUSB,GZMA,GZMB,HAVCR2,HBEGF,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP4,IGFBP7,IGHE,IGHM,IGKC,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,INPP5A,IRGM,ITGB7,ITPR1,JMJD1C,KCNA6,KCNAB3,KCNN3,KEAP1,KMO,L3MBTL4,LDHB,LGALS1,LGALS4,LST1,LYZ,MAFB,MAPKAPK3,MBD2,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NDUFB10,NLRP3,NOTCH4,NR3C1,NXPE3,OLAH,P2RY13,P4HB,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PGK1,PHF19,PHF20,PKM,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRKCD,PRKCE,PRR5,PRUNE2,PSMB2,PSTPIP2,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RAPGEF6,RASSF1,RBP7,RFLNB,RNF149,RUNX3,RXRA,S100A10,S100A12,S100A4,S100A8,S100A9,SCML1,SCN4A,SEC62,SEL1L,SGPP2,SIGMAR1,SLC24A4,SND1,SORL1,SPON1,STAB1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TEX9,TFRC,TGFB2,TGFBR2,THRB,TIAM1,TIMP1,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TOP2A,TPGS2,TRAK2,TRAM2,TREM1,TSHR,TXN,TYMP,TYMS,UBAC1,UBE2H,UCHL1,VARS,VAV3,VDR,VEGFA,VIM,WNT10A,WNT7B,XBP1,YTHDC2,ZC3HAV1L,ZMYND11,ZNF281 |
| Hematological System Development and Function,Tissue Morphology | Quantity of myeloid cells | 3.22E-12 | 11.49214413 | turquoise | 139 | ABCB1,ADA,ADGRE5,AHR,ALOX5,ARID3A,ARID4B,ARNTL,AURKA,BAG3,BID,BIK,BIRC3,BIRC5,C5AR1,CCL3,CCR1,CD19,CD200,CD22,CD300A,CD36,CD8A,CEBPA,CFLAR,CFP,CLEC11A,CLEC7A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR4,DDR1,DIAPH1,ELMO1,ESR2,EZH2,FAS,FCGR2A,FCGR2B,FLNA,FPR1,GADD45A,GALNT1,GBA,GFI1,GNAS,HAVCR2,HAX1,HBEGF,HMOX1,IGHE,IL13RA1,IL18BP,IL1B,IL21R,IL2RB,IL4R,IL5RA,IL9R,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,ITPR1,JARID2,KISS1R,LDLR,LGALS1,LGALS2,LGALS3,LILRB3,LITAF,LSP1,LYN,MGAT4B,MIF,MYB,NDFIP1,NFYA,NT5E,PCLAF,PIK3R5,PIK3R6,PILRA,PRF1,PRKCD,PRKCE,PTGS2,PTK2,RBL2,REL,RGS10,RORA,RUNX2,RUNX3,S100A8,S100A9,SELPLG,SERPINA1,SHCBP1,SIRPA,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TCL1A,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TRIB1,TXN,TYROBP,UACA,UBE2W,VDR,VEGFA,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Plasma cell myeloma | 3.25E-12 | 11.48811664 | turquoise | 85 | ABCB1,ACP5,ANXA5,AURKA,BIRC3,BIRC5,BRAF,CCL3,CCL5,CD19,CD27,CD36,CD38,CD48,CDK4,CDKN2C,CEBPA,CIITA,COCH,CREBBP,CSF2RB,CSF3R,CXCL8,CXCR4,FAS,FLNA,FLT1,HCAR3,HLA-B,HSP90AB1,HSP90B1,IDH2,IFNAR2,IGH,IL1B,IL1RN,IL6R,IL7,IMPDH1,IRF4,ITGAV,KCNN3,KIF2C,LCP2,MAGED1,MAP3K14,MCL1,MGLL,MKI67,NDC80,NR3C1,NSD2,PDIA6,PIK3CA,PPIA,PRDM1,PRR5,PSMA2,PSMB10,PSMB2,PTGS2,PTPRE,RRM2,RUNX2,SETD2,SIGMAR1,SLAMF7,SMARCB1,TARP,TIMP1,TIMP2,TNF,TNFRSF13B,TNFRSF17,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,XBP1,ZC3HAV1L |
| Endocrine System Disorders,Gastrointestinal Disease,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Insulin-dependent diabetes mellitus | 3.71E-12 | 11.43062609 | turquoise | 121 | ABCG1,ACSL1,AIF1,AIM2,ANXA1,AP4B1,ATXN1,BACH2,BANK1,CALCR,CBLB,CCL5,CCR1,CD19,CD22,CD226,CD27,CD300A,CD38,CD4,CD74,CD80,CD86,CDC42EP3,CDK4,CIITA,CLEC12A,CLEC2B,CLEC2D,CMAHP,CR2,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DDR1,E2F2,ENAH,EVI2A,EYA2,FCER1G,FCER2,FCGR2A,FCGR2B,FCRL1,FKBP1A,FLOT1,FXYD5,GABBR1,GBP4,GPR18,GZMA,HAVCR2,HCST,HIST1H3B,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,IGFBP7,IGHM,IL18BP,IL1B,IL21R,IL2RB,IL7R,IMPDH1,IRF4,IRGM,ITGAX,ITGB7,ITPR1,JAML,KCNAB3,KMO,LAT,LILRB3,LRP8,LST1,LYZ,MS4A6A,MYH11,MYO1F,MZB1,NOTCH4,NT5E,P2RY13,PDCD4,PGM1,PILRB,PLBD1,PLEK,PPIA,PRF1,PRKCB,PRR5,PRUNE2,PTAFR,PTGS2,REL,RUNX3,S100A4,S100A6,SH2D1A,SIGMAR1,SIRPB1,SLC3A2,SOCS2,SPN,STAP1,STAT4,TGFBI,TGFBR2,TLR2,TNF,TNFRSF1B,TUBB,TYROBP,VDR |
| Neurological Disease,Skeletal and Muscular Disorders | Neuromuscular disease | 3.77E-12 | 11.42365865 | turquoise | 232 | ABCB1,ALAS1,ALG14,ALOX5,ANXA1,ANXA2,AP1S2,ARHGAP32,ARHGEF7,ARIH2,ARL3,ARL6IP5,ARRB1,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11B,BCL7A,BSG,CA11,CAB39,CAMK4,CAMKK2,CANX,CAPN3,CAPNS1,CAPZB,CBLB,CCAR2,CCL5,CD38,CD48,CD55,CD74,CD80,CD86,CDK5,CDS1,CFLAR,CHCHD2,CIITA,CNP,CNR1,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CR2,CRYM,CSF3R,CST3,CXCR3,CYFIP2,CYP51A1,DAD1,DNAJB11,DNAJC1,EIF3E,EIF4G1,ELMO1,EPHA4,ESR1,ESR2,ETV4,F8A1 (includes others),FAM3C,FAS,FBXW7,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLOT1,FOXP1,FURIN,GABBR1,GADD45A,GAPDH,GBA,GNAS,GPI,GRIA1,HAVCR2,HBP1,HIGD1A,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HMOX1,HMOX2,HRH2,HSP90B1,HSPA5,HSPA8,IER3,IER5,IFNAR2,IGHM,IL1B,IL1RN,IL2RB,IL6R,IL7R,IMPDH1,IRF8,IRGM,ITGAM,ITGAV,ITPKB,ITPR1,KCNA6,KCNN3,KEAP1,KIF1B,LDHA,LDHB,LDLR,LIMK1,MAN1A1,MAP3K5,MAPKAPK3,MIF,MT1E,MT1G,MT1X,MT2A,MTDH,MYL12A,MYO1B,NAPA,NDUFA13,NDUFA2,NDUFA7,NDUFB2,NDUFB3,NDUFS4,NDUFS5,NGRN,NOTCH4,NR1D1,NR3C1,NRCAM,NREP,PDE4A,PDE4D,PDLIM7,PEBP1,PGK1,PKM,PLA2G6,PLCB1,PODXL,PPARGC1B,PPIA,PRKCB,PRR5,PSAT1,PSMA2,PSMB6,PTGES3,PTGS2,PTPRE,RAB11A,RARRES3,RERE,RPL13,RPL3,RPS3A,RRM2,RRM2B,RTN1,RTN4,RUNX3,SAT1,SCAMP5,SCARB2,SCN4A,SDHA,SDHB,SEC11A,SEC24A,SERPINA1,SF1,SIGMAR1,SLC1A4,SLIRP,SMTN,SOD1,SORL1,SRM,SSR3,STAP1,STARD4,STUB1,SUB1,TARP,TCL1A,TESC,TLR2,TLR4,TNF,TOP2A,TPI1,TRAK2,TRAM1,TUBA1B,TUBA1C,TXN,UBAC1,UCHL1,UQCRB,UQCRC1,VAMP1,VCAN,VCP,VDR,VIM,XBP1,XRCC6,ZBTB16,ZBTB44 |
| Cell Death and Survival | Apoptosis of lymphatic system cells | 4.05E-12 | 11.39254498 | turquoise | 109 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BNIP3L,C5AR1,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CFLAR,CHEK1,CIITA,CLEC11A,CR2,CXCR4,DTX1,DUSP4,E2F2,EEF2K,EPHA4,ETS2,FAIM,FAS,FBXW7,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GADD45A,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAX1,HMGA1,HSH2D,HSPA5,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRS2,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TCL1A,TGFB2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA,ZBTB16 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of secondary lymphoid organ | 4.21E-12 | 11.3757179 | turquoise | 113 | ABCB4,ABCC4,ADA,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARNTL,AURKA,B3GNT5,BAG3,BAK1,BANK1,BIK,BNIP3L,CD19,CD55,CD72,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CITED2,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CUX1,CXCR5,DCLRE1C,DIAPH1,DUSP6,E2F2,EPB42,ESR1,ESR2,FAS,FCER1G,FCGR2B,FNIP1,GBA,GSTK1,HCST,HMGA1,HMOX1,HSH2D,ICOSLG/LOC102723996,ID2,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PHC1,PICALM,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PTGS2,PTTG1,RAPGEF6,RASGRP1,RBL2,REL,RHOH,RRM2,RRM2B,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TCL1A,TGFBI,TGFBR3,TNF,TNFRSF13B,TOX,TRADD,TRIB1,VDR,VEGFA,XRCC6,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B cell cancer | 4.32E-12 | 11.36451625 | turquoise | 261 | ABCG1,ABHD5,ADA,AHNAK,AHR,ALOX5,ANKRD36,ANXA1,ANXA2,AP4B1,APOBEC3B,ATP11A,ATXN1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BRAF,BTG1,BUB1B,CAV1,CCL3,CCND2,CD163,CD19,CD22,CD27,CD36,CD38,CD48,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CDC42EP3,CDCA2,CDK5,CDKN2C,CEBPA,CEBPD,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,CNR1,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DLEU2,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ESR2,EZH2,FAS,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FLT1,FOXO1,FOXP1,FYB1,GTF2I,HDAC9,HIST1H3B,HLA-B,HMGA1,HMOX1,HSP90AB1,HSP90B1,HVCN1,ID2,IDH2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF2,IL1B,IL2RB,IL4R,IL7,IL7R,IL9R,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITPR1,JCHAIN,KCNAB3,KCNN3,KIF11,KPNA2,KRR1,LGALS1,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYB,MYO1G,MYOF,NAMPT,NEK3,NETO2,NLRP7,NR3C1,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PBX3,PCSK5,PDCD4,PDE4D,PDE7B,PEG10,PIK3CA,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRICKLE1,PRKCB,PRKCI,PRR5,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,RASSF1,RBL2,REL,RPS20,RRM2,RRM2B,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SERPINA1,SETD2,SIPA1L3,SKIL,SLC16A1,SLC16A7,SLC29A2,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STX11,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFB2,TGFBR2,TIMP2,TLK1,TLR2,TLR4,TNF,TNFRSF10C,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,VAV3,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE,ZYX |
| Cell Death and Survival | Cell viability of leukocytes | 5.08E-12 | 11.29413629 | turquoise | 84 | ADGRE2,ARRB1,BAK1,BCL11B,BIK,BIRC5,BTLA,CAMK4,CD19,CD22,CD300A,CD38,CD48,CD74,CD80,CD86,CD8A,CEBPB,CFLAR,CLEC11A,CSF1R,CSF2RB,CSNK1A1,CX3CR1,CXCL8,CXCR4,ERN1,FAS,FCER1G,FCGR3A/FCGR3B,FOXO1,GATA3,GIMAP5,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF2,IL1B,IL21R,IL2RB,IL7,IL7R,IRAK1,IRF4,ITGAL,ITPKB,KIF1C,LAT,LAX1,LGALS3,LYN,MAP3K14,MCL1,MEF2C,MGAT5,MIF,MIR17HG,MYB,MYH11,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PRKCB,PTK2,PYCARD,REL,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TYROBP,XBP1 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Rheumatoid arthritis | 5.5E-12 | 11.25963731 | turquoise | 202 | ABCB1,ACSL1,ADA,ADGRE5,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANG,ANXA1,APLP2,AQP9,ARF1,ARG1,ARRB1,ATP1B1,ATXN1,BIRC5,C5AR1,C5orf30,CAMK2D,CCL3,CCL5,CCR1,CD1A,CD33,CD36,CD4,CD69,CD70,CD74,CD80,CD86,CEBPB,CERS6,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,CR1,CR2,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DDR1,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FKBP1A,FKBP5,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLUL,GNLY,GUSB,GZMA,GZMB,HAVCR2,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IMPDH1,ITPR1,JMJD1C,L3MBTL4,LDHB,LGALS1,LST1,LYZ,MAFB,MBD2,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NDUFB10,NOTCH4,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PGK1,PHF19,PHF20,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTGS2,PTPRE,PXN,QKI,RAB1B,RBP7,RFLNB,RNF149,RUNX3,S100A10,S100A12,S100A8,S100A9,SCML1,SCN4A,SEC62,SEL1L,SND1,SORL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TFRC,TGFB2,TIMP1,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TPGS2,TRAK2,TRAM2,TXN,TYMS,UBAC1,UBE2H,VARS,VDR,VEGFA,VIM,WNT10A,WNT7B,XBP1,YTHDC2,ZMYND11,ZNF281 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Glioma cancer | 7.73E-12 | 11.11182051 | turquoise | 125 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ALDH1A1,ALDOA,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BRAF,C5AR1,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD48,CD93,CD99,CDK4,CDK5,CDKN2C,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,COCH,COL18A1,CREBBP,CSF1R,CSF2RB,CSRP1,DBNDD1,DDR1,DMXL2,ECT2,EEF2K,ELMO1,EPPK1,EVI2A,EZH2,FA2H,FBXW7,FLNA,FLT1,FOXO1,FURIN,GLDC,HIPK2,HIST1H3B,HLA-B,HSP90AB1,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,KCNN3,MAP7,MARCKS,MBD2,MDM2,MGLL,MKI67,MXI1,NEK6,NINJ2,OBSCN,PA2G4,PALLD,PCLAF,PFKFB3,PIK3CA,PKM,PRKCB,PRR5,PTTG1,RRM2,RRM2B,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMC1A,TARP,TGFB2,TGFBI,TGFBR2,TIMP1,TLE3,TLR4,TNF,TNFRSF1B,TOP2A,TRAM2,TSHZ2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Tissue Morphology | Morphology of spleen | 8.33E-12 | 11.079355 | turquoise | 112 | ABCB4,ABCC4,ADA,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARNTL,AURKA,B3GNT5,BAG3,BAK1,BANK1,BIK,BNIP3L,CD19,CD55,CD72,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CITED2,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CUX1,CXCR5,DCLRE1C,DIAPH1,DUSP6,E2F2,EPB42,ESR1,ESR2,FAS,FCER1G,FCGR2B,FNIP1,GBA,GSTK1,HCST,HMGA1,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PHC1,PICALM,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PTGS2,PTTG1,RAPGEF6,RASGRP1,RBL2,REL,RHOH,RRM2,RRM2B,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TCL1A,TGFBI,TGFBR3,TNF,TNFRSF13B,TOX,TRADD,TRIB1,VDR,VEGFA,XRCC6,ZBTB16 |
| Cellular Movement | Cellular infiltration | 8.33E-12 | 11.079355 | turquoise | 134 | ABCB4,ABCG1,ADA,AHR,AIM2,ALDOA,ANXA1,ARG1,ARRB1,BCL11B,BID,BMPR1A,BRAF,BSG,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD38,CD4,CD48,CD55,CD80,CD86,CD93,CEBPA,CIITA,CNP,CNR1,COL4A3,CR1,CR2,CRH,CSF1R,CSF2RB,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR5,E2F2,ENO1,ESR1,ESR2,FAS,FCAR,FCER1G,FCGR2B,FGL2,FLT1,FPR1,GAPDH,GBA,GPR18,HMOX1,HSPA5,HYOU1,IGHE,IGHM,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IRF8,ITGAL,ITGAM,ITGB1,LCP2,LDLR,LGALS1,LGALS3,LILRB3,LIMK1,LMNB1,MAP3K14,MAP3K5,MGAT5,MIF,MIR17HG,NAAA,NDST1,NINJ1,NLRP3,NR3C1,NT5E,P4HB,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PTGS2,RUNX3,S100A10,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,SOCS2,ST3GAL3,STAT5B,TBX21,TGFBR2,TIMP1,TIMP3,TKT,TLR2,TLR4,TNF,TNFRSF1B,TPI1,TREM1,TSHR,TUBB,UTRN,VAV3,VEGFA,ZBTB16 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of cells | 8.37E-12 | 11.07727454 | turquoise | 89 | ANXA1,ANXA5,APOA2,BRAF,CAMK1D,CAV1,CCL3,CD14,CD22,CD36,CD38,CD4,CD48,CD93,CEBPB,CLEC7A,CLIP1,CR1,CSF1R,CSF2RB,CSF3R,DNM2,DYSF,EHD1,EIF2AK1,ELMO1,ETS2,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FLNA,FOXP1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HSPA8,ICOSLG/LOC102723996,IL1B,IQSEC1,IRF8,ITGAM,ITGAV,ITGAX,ITGB1,LAT,LGALS3,LIMK1,LMAN2,LYN,MAPK1,MESD,MIF,MYO1G,NR3C1,PFKFB3,PLA2G6,PLAUR,PRKCB,PRKCD,PRKCE,PTK2,PXN,PYCARD,RAB31,RORA,RRAS2,S100A9,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLC11A1,SWAP70,SYT11,SYT7,TLR2,TLR4,TNF,TREML2,TRPV2,VIM,XBP1 |
| Inflammatory Disease | Severe inflammatory disorder | 8.71E-12 | 11.05998184 | turquoise | 62 | ACSL1,ACTN1,ANXA1,CD63,CEBPD,COL4A3,CSF2RB,CSF3R,FCGR3A/FCGR3B,FKBP1A,FPR1,GAPDH,GATA3,GLUL,GSTO1,GYG1,IER3,IGHE,IL4R,IL5RA,IRF8,IRS2,ITGAM,ITGB7,LILRA2,MIR17HG,MSRB2,NFIL3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PDXK,PPIA,PTAFR,PTGS2,PTTG1,RAB31,RAB32,RAB5IF,RARG,RRAGD,RRM2,S100A12,S100A9,SERPINA1,SLCO3A1,ST6GAL1,STAT4,TALDO1,TBX21,TGFBR2,TIMP1,TIMP2,TKT,TLR2,TNF,TUBB4B,WNT10A,WNT7B,ZYX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell non-Hodgkin lymphoma | 9E-12 | 11.04575749 | turquoise | 123 | ADA,AIM2,AMOTL1,ANKIB1,ANXA1,AURKA,BAK1,BIRC5,BTG1,CBX4,CD163,CD19,CD1A,CD200,CD27,CD4,CD69,CD86,CDKN2C,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CR2,CXCL8,CXCR3,DTX1,DUSP4,E2F2,EZH2,FAS,FCER2,FKBP1A,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-DOA,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IGLC1,IL13RA1,IL16,IL2RB,IL6R,IMPDH1,IRF4,IRS2,ITGAX,ITM2C,ITPKB,JMJD1C,MAFB,MAP3K14,MCL1,MDM2,MGAT4A,MKI67,MXI1,MYOF,NR3C1,NUAK2,PAX5,PDE4D,PIK3CA,PIK3R5,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PSMB2,PTPRK,RARG,RARRES3,RASSF4,RDH10,REL,RRM2,RXRA,SATB1,SECTM1,SELPLG,SKIL,SPN,SSBP2,STAT4,STAT5B,TBX21,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,XRCC6,ZBTB10 |
| Cell Morphology | Morphology of mononuclear leukocytes | 9.73E-12 | 11.01188716 | turquoise | 69 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CR2,CREBBP,CSF3R,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FCGR2B,FNIP1,GFI1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,RASGRP1,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,TXNIP,XBP1,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of T lymphocytes | 9.84E-12 | 11.0070049 | turquoise | 102 | ADA,AHNAK,ANXA1,BACH2,BAK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD226,CD27,CD38,CD4,CD48,CD55,CD58,CD59,CD74,CD80,CD86,CD8A,CLEC7A,CNR1,CSF2RB,CXCL8,DDOST,DTX1,FAS,FCER1G,FOXO1,GADD45A,GATA3,GFI1,GZMA,HAVCR2,HRH2,HSH2D,HSP90B1,HYOU1,ICOSLG/LOC102723996,IGHG3,IL15RA,IL1B,IL21R,IL2RB,IL6R,IL7,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITPKB,KCNN4,KLRD1,LAT,LAX1,LDLR,LGALS1,LILRB2,LYN,MAGT1,MGAT5,MGST1,MIF,NDFIP1,NFATC3,NFIL3,NT5E,OTUD7B,PAG1,PIP5K1B,PRF1,PYCARD,REL,SATB1,SEMA4A,SLA2,SLC11A1,SMAD3,SPN,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TYROBP,UBE2N,VSIR,VTI1B |
| Cellular Movement | Invasion of cells | 1.1E-11 | 10.95860731 | turquoise | 238 | ABLIM1,ACTN4,ACVR1,ADGRE5,ADI1,AFDN,AGO2,AHNAK,AHR,ALOX5,ANG,ANK3,ANXA1,ANXA2,ARG1,ARHGEF18,ATP6V0A1,AURKA,B4GALT5,BCAT1,BHLHE41,BIRC5,BMP6,BRAF,BSG,C5orf30,CAPN2,CAPNS1,CAV1,CBX5,CCNA2,CCR1,CD14,CD4,CD74,CD99,CDK5,CEBPB,CEMIP2,CLCN4,CNR1,COL18A1,CREB3,CRTAP,CST3,CTNND1,CXCL8,CXCR3,CXCR4,CYFIP1,CYP1B1,CYTOR,DANCR,DDR1,DIAPH1,DNM2,DPYSL2,DSP,DTX1,DUSP6,ECT2,EED,EIF3A,EIF3E,ELMO1,ENAH,EPS8,ERC1,ESR1,ESR2,ETS2,ETV4,EYA2,EZH2,FABP5,FAS,FBXW7,FKBP1A,FLNA,FLT1,FOXO1,FOXP1,FURIN,FXYD5,GAB1,GATA3,GNAI3,GNAQ,GNAS,GPI,GZMB,HAVCR2,HAX1,HBEGF,HBP1,HDGF,HIPK2,HMGA1,HMGB3,HMOX1,HSP90AB1,HSP90B1,HSPA5,ID2,IER3,IL1B,IL32,IQSEC1,IRS2,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,KEAP1,KIF2C,KISS1R,LAMC1,LASP1,LDHA,LDLRAP1,LGALS1,LGALS3,LGMN,LIMK1,LIMK2,LRPAP1,LYN,MAP4,MAPK1,MARCKS,MBD2,MDM2,MGAT5,MIF,MINK1,MIR17HG,MSI2,MTDH,MYB,MYO9A,NAA15,NAMPT,NCOA3,NFATC4,NRCAM,NSD2,NUAK2,OBSCN,PA2G4,PAG1,PALLD,PAX5,PDCD4,PDGFD,PEBP1,PICALM,PIK3CA,PIP5K1B,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PPIA,PRKCB,PRKCD,PRKCE,PRKCI,PTAFR,PTGES3,PTGS2,PTK2,PTP4A2,PTPRK,PTTG1,PXN,RANBP2,RARG,RASSF1,REL,RNH1,RORA,RPRD1A,RPS6KA6,RRAS2,RRM2,RUNX2,RUNX3,S100A10,S100A11,S100A12,S100A4,S100A6,S100A8,S100A9,SATB1,SEC24D,SEL1L,SERP1,SERPINA1,SETD2,SIGMAR1,SLC9A3R1,SMAD3,SNHG7,SRA1,ST6GAL1,STAT5B,STK38L,SYT7,TAGLN2,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TMBIM6,TNF,TP63,TRPV2,VANGL1,VAV3,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,WNT7B,ZBTB16,ZBTB7A |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of T lymphocytes | 1.16E-11 | 10.93554201 | turquoise | 79 | ABCB1,ADGRE1,AHNAK,ANG,BCAT1,BIRC3,BIRC5,CBLB,CBX5,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CIITA,CSF2RB,CTSC,DENND1B,DTX1,FCER1G,FYB1,GIMAP4,GNAI3,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFNAR2,IGHM,IL13RA1,IL16,IL21R,IL4R,IL7,IL9R,IMPDH1,IRF8,ITGAL,KCNN4,KLF10,LAT,LAX1,LGALS1,LILRB3,MCL1,MYO1G,PAWR,PIK3C3,POU2AF1,PPIA,PRF1,PSMB10,PSME2,RASGRP1,REL,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SMAD3,SPN,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TYROBP,VDR |
| Cellular Function and Maintenance,Inflammatory Response | Phagocytosis | 1.17E-11 | 10.93181414 | turquoise | 97 | ANXA1,ANXA5,APOA2,BRAF,CAMK1D,CAV1,CCL3,CD14,CD22,CD36,CD38,CD4,CD48,CD93,CEBPB,CLEC7A,CLIP1,CR1,CSF1R,CSF2RB,CSF3R,DNM2,DYSF,EHD1,EIF2AK1,ELMO1,ETS2,FAS,FCAR,FCER1G,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FLNA,FOXP1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HSPA8,ICOSLG/LOC102723996,IL1B,IQSEC1,IRF8,ITGAM,ITGAV,ITGAX,ITGB1,LAT,LGALS3,LIMK1,LMAN2,LYN,MAPK1,MESD,MIF,MYO1G,NR3C1,OCRL,PFKFB3,PLA2G6,PLAUR,PRKCB,PRKCD,PRKCE,PTK2,PXN,PYCARD,RAB31,RORA,RRAS2,RXRA,S100A9,SCARB2,SELPLG,SH3BP2,SH3GLB1,SH3KBP1,SIRPA,SIRPB1,SLC11A1,SWAP70,SYT11,SYT7,TBK1,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VCP,VIM,XBP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Malignant astrocytoma | 1.17E-11 | 10.93181414 | turquoise | 122 | ABAT,ACTN1,ACTN4,ADARB1,ADGRE5,ALDH1A1,ALDOA,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BRAF,C5AR1,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD48,CD93,CD99,CDK4,CDK5,CDKN2C,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,COCH,CREBBP,CSF1R,CSF2RB,CSRP1,DBNDD1,DDR1,DMXL2,ECT2,EEF2K,ELMO1,EPPK1,EVI2A,EZH2,FA2H,FBXW7,FLNA,FLT1,FOXO1,FURIN,GLDC,HIPK2,HIST1H3B,HLA-B,HSP90AB1,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,KCNN3,MAP7,MARCKS,MBD2,MDM2,MGLL,MKI67,MXI1,NEK6,NINJ2,OBSCN,PA2G4,PALLD,PCLAF,PFKFB3,PIK3CA,PKM,PRKCB,PRR5,PTTG1,RRM2,RRM2B,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMC1A,TARP,TGFB2,TGFBI,TGFBR2,TIMP1,TLE3,TLR4,TNF,TNFRSF1B,TRAM2,TSHZ2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of tumor cell lines | 1.22E-11 | 10.91364017 | turquoise | 388 | ABCB1,ABLIM1,ACTN1,ACTN4,ACVR1,AFF1,AHNAK,AHR,AIM2,ALDH1A1,ALDOA,ANG,ANXA1,ANXA2,ANXA7,ARF1,ARG1,ARID3A,ARID4B,ARIH2,ARNT,ATF5,ATP5MD,ATP6V0A1,AURKA,BACE2,BAK1,BID,BIRC5,BMP6,BMPR1A,BRAF,BSG,BUB3,C1GALT1,CACYBP,CAMK2D,CAMK2N1,CAMK4,CAPN3,CAV1,CCDC6,CCL3,CCNA2,CCND2,CD163,CD19,CD38,CD4,CD59,CD72,CD74,CD80,CD99,CDCA2,CDCA5,CDK2AP1,CDK4,CDK5,CDKN2C,CDT1,CEBPA,CEBPB,CEBPD,CEMIP2,CFLAR,CHEK1,CHN2,CISD2,CLEC11A,CLIP1,CMC2,CNKSR1,CNR1,COL18A1,COL4A3,COPS6,COPS8,COPZ1,CREB3,CREG1,CRH,CSF2RB,CSNK1A1,CSNK1G3,CTNND1,CXCL8,CXCR3,CXCR4,CYP1B1,CYTOR,DAPK2,DDX17,DDX5,DGKD,DLGAP5,DTL,DTX1,DUSP4,DUSP6,ECT2,EED,EEF1B2,EEF2K,EIF1,EIF2AK1,EIF3A,EIF3E,EIF3M,EIF4B,EIF4EBP2,EMILIN2,ENAH,EPHA4,EPS8,ESR1,ESR2,ETS2,EZH2,FABP5,FAS,FBXO32,FBXO4,FBXW7,FCER1G,FCER2,FGF9,FKBP5,FLNA,FLOT1,FLT1,FOSL2,FOXO1,FOXP1,GAB1,GADD45A,GADD45GIP1,GAPDH,GATA3,GFI1,GGT1,GLDC,GMNN,GNAQ,GNAS,GPX1,GRIA1,GSTM1,GTF2I,GZMB,H2AFY,H2AFZ,HAVCR2,HBEGF,HBP1,HDGF,HIPK2,HMGA1,HMMR,HMOX1,HOTAIRM1,HSPA5,HVCN1,ICMT,ID2,IDE,IDH2,IER3,IGFBP4,IGFBP7,IGHM,IGKC,IL15RA,IL16,IL1B,IL1RN,IL2RB,IL32,IL6R,IL7,IQGAP2,IRF4,IRF8,IRS2,ITGAV,ITGB1,ITPR1,KCNN4,KCTD12,KCTD5,KEAP1,KIF20A,KIF2C,KISS1R,KLF10,KPNA2,LDHA,LGALS1,LGALS3,LILRB2,LILRB3,LIMK1,LYN,LZTS1,MAGED1,MAP3K14,MAP3K5,MAPK1,MBD2,MCL1,MDM2,MDM4,MEF2C,MGAT5,MGLL,MIF,MIR17HG,MKI67,MT2A,MTDH,MXI1,MYB,MYCBP,NABP1,NACA,NACC2,NAMPT,NCAPG,NCOA3,NDFIP1,NDUFA13,NDUFB11,NFATC4,NOTCH4,NR2F1,NR3C1,NRIP1,NSD2,NUCB2,NUDT6,NUMA1,OAZ1,PA2G4,PAG1,PAX5,PBX3,PCLAF,PDCD4,PDE4D,PEBP1,PEG10,PFKFB3,PGD,PHC1,PHGDH,PICALM,PIK3C3,PIK3CA,PIK3IP1,PIP4K2B,PKD2L2,PKM,PLA2G6,PLAUR,PMEPA1,POLD4,PPARGC1B,PPIL1,PRDM1,PRKCB,PRKCD,PRKCE,PRKCI,PRR5,PSMA5,PSMB2,PSMB3,PSMB7,PSMC2,PTAFR,PTGS2,PTK2,PTPN14,PTPRE,PTPRK,PTTG1,PVT1,PXN,PYHIN1,RAB30,RAB8A,RACGAP1,RANBP2,RAP1B,RARG,RARRES3,RASGRP1,RASSF1,RASSF4,RB1-DT,RBL2,RBM5,RBX1,REL,RNF149,RORA,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A6,SAT1,SATB1,SEC61G,SEL1L,SLC16A1,SLC16A3,SLC25A42,SLC39A6,SLC3A2,SLC9A3R1,SMAD3,SMARCA2,SMARCB1,SMC1A,SMOX,SND1,SNHG7,SOD1,SRM,STAT5B,STK26,STK38L,STOML2,STUB1,TAGLN2,TARP,TBC1D16,TBXAS1,TCP1,TES,TFRC,TGFB2,TGFBR2,TGFBR3,THEM4,THRB,TIAM1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF17,TNIK,TOX,TP63,TPX2,TRMT61A,TRPV2,TUBB,TUBB3,TXN,TXNIP,TYMS,UAP1,UBE2C,UBE2J1,UCHL1,UHRF1,UTRN,VANGL1,VAV3,VCAN,VCP,VDAC1,VDAC3,VDR,VEGFA,VMP1,XBP1,XRCC6,ZBTB16,ZBTB7A,ZMIZ1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of immune cells | 1.38E-11 | 10.86012091 | turquoise | 105 | ADGRE2,ADGRE5,ANXA1,ANXA5,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD226,CD36,CD38,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD99,CFP,CNR1,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,DNAJC1,FAS,FCAR,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GLRX,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LGALS1,LGALS3,LILRB3,LSP1,LYN,MAP3K14,MGAT5,MIF,MYO1G,NINJ1,NR3C1,NT5E,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP1,REL,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SPN,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphocytes | 1.42E-11 | 10.84771166 | turquoise | 66 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,CBLB,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPB,CR2,CREBBP,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FCGR2B,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,RASGRP1,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,TXNIP,XBP1,XRCC6 |
| Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Quantity of phagocytes | 1.46E-11 | 10.83564714 | turquoise | 124 | ABCB1,ADA,AHR,ARID4B,ARNTL,BAG3,BCL11A,BID,BIK,BIRC3,C5AR1,CCL3,CCR1,CD19,CD200,CD300A,CD36,CD86,CEBPA,CFLAR,CIITA,CLEC11A,CLEC4D,CLEC7A,CR2,CSF1R,CSF3R,CX3CR1,CXCL2,CXCL8,DDR1,DIAPH1,ELMO1,ESR2,EZH2,FAS,FCER1G,FCGR2A,FCGR2B,FPR1,GBA,GFI1,GNAS,GNLY,HAVCR2,HAX1,HBEGF,HMOX1,ID2,IGHE,IGHM,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL7R,IL9R,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB7,ITPKB,JARID2,KISS1R,LDLR,LGALS1,LGALS2,LGALS3,LITAF,LSP1,LYN,MCL1,MGAT4B,MIF,NDFIP1,NFYA,NT5E,PIK3R5,PIK3R6,PILRA,PRDM1,PRF1,PRKCD,PRKCE,PTK2,RORA,S100A8,S100A9,SELPLG,SERPINA1,SHCBP1,SIRPA,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TCL1A,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TRIB1,TYROBP,UACA,UBE2W,VDR,VEGFA,XBP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Glioblastoma | 1.55E-11 | 10.8096683 | turquoise | 120 | ACTN1,ADARB1,ADGRE5,ALDH1A1,ALDOA,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BRAF,C5AR1,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD48,CD93,CD99,CDK4,CDK5,CDKN2C,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,COCH,CREBBP,CSF1R,CSF2RB,CSRP1,DBNDD1,DDR1,DMXL2,ECT2,EEF2K,ELMO1,EPPK1,EVI2A,EZH2,FA2H,FBXW7,FLNA,FLT1,FOXO1,FURIN,GLDC,HIPK2,HIST1H3B,HLA-B,HSP90AB1,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,KCNN3,MAP7,MARCKS,MBD2,MDM2,MGLL,MKI67,MXI1,NEK6,NINJ2,OBSCN,PA2G4,PALLD,PCLAF,PFKFB3,PIK3CA,PKM,PRKCB,PRR5,PTTG1,RRM2,RRM2B,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMC1A,TARP,TGFB2,TGFBI,TGFBR2,TIMP1,TLE3,TLR4,TNF,TNFRSF1B,TRAM2,TSHZ2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG1 | 1.65E-11 | 10.78251606 | turquoise | 46 | ABCB1,AKAP13,ARID3A,ARNTL,BACH2,BTLA,CD19,CD22,CD36,CD80,CD86,CR2,CSF2RB,DUSP4,FCER1G,FCER2,FCGR2B,GADD45A,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHM,IGLL1/IGLL5,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,ITPKB,LAX1,LYN,NFIL3,POU2AF1,PPIA,PRKCD,PTGS2,REL,SH2D1A,SH3BP2,TBK1,TNF,TNFRSF13B,TNFRSF1B,TRAF5,UXS1 |
| Tissue Morphology | Quantity of cells | 1.68E-11 | 10.77469072 | turquoise | 414 | ABCB1,ABCG1,ACTN4,ACTR3,ADA,ADGRE5,AFF1,AGTRAP,AHR,AIM2,AKAP13,ALOX5,ANK3,ANXA1,AP3B1,APLP2,ARF1,ARHGEF7,ARID3A,ARID4B,ARNT,ARNTL,ARNTL2,ARPC2,ARSG,ATXN1,AURKA,B3GNT5,BACH2,BAG3,BAK1,BANK1,BCL11A,BCL11B,BCL2L2,BID,BIK,BIRC3,BIRC5,BLOC1S2,BMP6,BMPR1A,BNIP3L,BOC,BRAF,BSG,BTLA,C1GALT1,C5AR1,CADM1,CALCR,CAMK2D,CAMK4,CANX,CAPNS1,CAPZB,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CCR1,CD19,CD200,CD22,CD27,CD300A,CD300LF,CD36,CD38,CD4,CD48,CD59,CD63,CD69,CD70,CD72,CD74,CD80,CD86,CD8A,CDK2AP1,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CFLAR,CFP,CIITA,CITED2,CLEC11A,CLEC4D,CLEC7A,COL18A1,COL19A1,COL4A3,CR2,CREBBP,CRH,CRIP3,CRTAP,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DDR1,DENND1B,DIAPH1,DNAJC3,DSP,DTX1,DUSP4,DUSP6,DYNLL1,E2F2,EHD4,EIF2AK1,EIF4EBP2,ELMO1,ENO1,EPB42,EPHA4,EPM2A,EPS8,ESR1,ESR2,ETS2,EYA2,EZH2,FABP5,FAS,FBXW7,FCER1G,FCER2,FCGR2A,FCGR2B,FGF9,FLNA,FLT1,FNIP1,FOSL2,FOXO1,FPR1,FURIN,FYB1,GADD45A,GADD45GIP1,GALNT1,GATA3,GBA,GDPD5,GFI1,GGT1,GNAQ,GNAS,GNLY,GPHN,GPR18,GPX1,H2AFY,HAVCR2,HAX1,HBEGF,HCST,HDGF,HEXB,HIPK2,HLA-DMA,HMGA1,HMOX1,HRH2,HSP90B1,HSPA5,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGFBP7,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IQGAP2,IRAK1,IRF4,IRF8,IRS2,ISL2,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KIF1B,KISS1R,KLF10,LAMC1,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LILRB3,LITAF,LMNB1,LRPAP1,LRRK1,LSP1,LYN,LZTS1,MAFB,MAP3K14,MAP7,MAPK1,MBTD1,MCL1,MDM2,MDM4,MEF2C,MGAT2,MGAT3,MGAT4B,MIF,MIR17HG,MMP11,MT2A,MTHFD2,MTM1,MYB,MYH11,MYO1G,MYOF,NACA,NDFIP1,NFATC3,NFE2L1,NFIL3,NFYA,NLRP3,NOTCH4,NR2F1,NR3C1,NRCAM,NT5E,P2RY13,PAFAH1B3,PAG1,PAIP2,PAWR,PAX5,PCDH9,PCDHGC3,PCLAF,PHC1,PICALM,PIK3C3,PIK3CA,PIK3R5,PIK3R6,PILRA,PITPNA,PKD1,PLAUR,PLCL2,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PSAP,PSMB10,PSTPIP2,PTAFR,PTGS2,PTK2,PTPN12,PTTG1,PYCARD,RACGAP1,RAD17,RAP1B,RAP2A,RARG,RARRES3,RASGRP1,RASSF6,RBL2,RC3H2,RDX,REL,RERE,RGMB,RGS10,RHOH,RORA,RPS3A,RPS6KA4,RUNX2,RUNX3,RXRA,S100A8,S100A9,SAMSN1,SATB1,SAV1,SELPLG,SEMA3A,SERPINA1,SERPINB6,SH2D1A,SH3BP2,SHCBP1,SIK3,SIRPA,SLC4A1,SLC8A1,SMAD3,SMARCB1,SNHG7,SOD1,SPN,SSBP2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SUB1,SUN1,SWAP70,TBK1,TBX21,TCL1A,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TPX2,TRIB1,TSHR,TUBB3,TXN,TXNIP,TYMS,TYROBP,UACA,UBE2J1,UBE2W,UHRF1,UTRN,VAV3,VCAN,VCL,VDR,VEGFA,VIM,WNT7B,XBP1,XRCC6,ZBTB16,ZBTB7A,ZNF318 |
| Cell Death and Survival | Apoptosis of lymphoid cells | 1.96E-11 | 10.70774393 | turquoise | 100 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,HSPA5,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRS2,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TCL1A,TGFB2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA,ZBTB16 |
| Immunological Disease | Hypersensitive reaction | 2.12E-11 | 10.67366414 | turquoise | 124 | ADGRE2,AHNAK,AHR,ALOX5,ANXA1,ANXA2P2,ANXA5,ARFGAP3,ARG1,ATP1B1,BCL11B,CAPZB,CCL5,CCNA2,CCR1,CD1A,CD300A,CD300LF,CD4,CD63,CD74,CEBPB,CFL1,CLEC4D,CNN3,CNR1,CORO1B,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,DOCK5,DPYSL2,EIF1,EIF3E,ENO1,EPS8,ESR2,EZH2,FABP5,FCER1G,FCER2,FCGBP,FCGR2A,FCGR2B,FKBP1A,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,H2AFZ,HAVCR2,HLA-B,HLA-DMA,HRH2,ICOSLG/LOC102723996,IDE,IDI1,IFI30,IGHE,IGHM,IGKC,IGLJ3,IL16,IL1B,IL1RN,IL21R,IL4R,IL5RA,IL6R,ITGB7,JPT1,LAT,LCP2,LGALS1,LGALS2,LGMN,LYN,MAPKAPK3,MCL1,MIF,MKI67,MXI1,NAPA,NLRP3,NR2F1,NR3C1,PHGDH,PIP5K1B,PPIA,PRF1,PRKCB,PSAP,PSME2,PTAFR,PTGS2,PYCARD,RAB34,RUNX3,S100A11,S100A8,S100A9,SEMA4A,SOCS2,SOD1,SRM,SYNE2,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Interaction of leukocytes | 2.43E-11 | 10.61439373 | turquoise | 112 | ADGRE2,ADGRE5,ANXA1,ANXA5,BTLA,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD38,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD99,CFP,CNR1,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,DNAJC1,FAS,FCAR,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GLRX,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LGALS1,LGALS3,LILRB3,LSP1,LTK,LYN,MAP3K14,MGAT5,MIF,MYO1G,NFATC3,NINJ1,NR3C1,NT5E,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP1,REL,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Protein Synthesis | Production of protein | 2.56E-11 | 10.59176003 | turquoise | 93 | ABCB1,AIM2,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BANK1,BTLA,C5AR1,CCR1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DTX1,DUSP4,E2F2,ESR1,ESR2,FAS,FCER1G,FCER2,FCGR2B,GADD45A,GALNT1,HAX1,HEXB,HLA-DOA,HSP90B1,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,IRF8,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,MIF,NFIL3,NR3C1,PLCL2,POU2AF1,PPIA,PRF1,PRKCD,PRKCE,PTGS2,PTTG1,PYCARD,RASGRP1,REL,RXRA,SAMSN1,SH2D1A,SH3BP2,SWAP70,TBK1,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UBE2N,UXS1,VSIR,XRCC6 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG | 2.82E-11 | 10.54975089 | turquoise | 68 | ABCB1,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BANK1,BTLA,CCR1,CD19,CD22,CD36,CD69,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DUSP4,ESR1,FCER1G,FCER2,FCGR2B,GADD45A,GALNT1,HAX1,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,NFIL3,POU2AF1,PPIA,PRKCD,PTGS2,PTTG1,REL,SAMSN1,SH2D1A,SH3BP2,TBK1,TBX21,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UXS1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of phagocytes | 2.84E-11 | 10.54668166 | turquoise | 158 | ABCC4,AIF1,AIM2,ALOX5,ANXA1,ANXA2,AQP9,ARG1,ARHGEF7,ARRB1,ASB2,BID,BRAF,BSG,C1GALT1,C5AR1,CAMK1D,CAV1,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD38,CD4,CD55,CD58,CD69,CD72,CD74,CD80,CD86,CD99,CKLF,CLEC11A,CNP,CNR1,COL4A3,CR1,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DAPK2,DIAPH1,DOCK5,DYSF,EPS8,FAS,FCAR,FCER1G,FCGR2A,FLNA,FLOT1,FLT1,FPR1,GBA,GNAI3,GNLY,GPR18,GPSM1,HMOX1,HRH2,HSPA5,IL15RA,IL16,IL1B,IL1RN,IL21R,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LYN,MAP3K5,MGAT5,MIF,MYO1F,NAAA,NDST1,NINJ1,NLRP3,NT5E,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,PPIA,PRDM1,PRKCB,PRKCD,PTGS2,PTPRB,QPCT,RAP1B,REL,RTN4,RUNX3,S100A10,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SEMA4A,SERPINA1,SGPP1,SGPP2,SIRPA,SMAD3,SPN,STAB1,STAP1,SWAP70,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of leukocytes | 3.17E-11 | 10.49894074 | turquoise | 111 | ADGRE2,ADGRE5,ANXA1,ANXA5,BTLA,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD38,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD99,CFP,CNR1,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,DNAJC1,FAS,FCAR,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GLRX,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LGALS1,LGALS3,LILRB3,LSP1,LYN,MAP3K14,MGAT5,MIF,MYO1G,NFATC3,NINJ1,NR3C1,NT5E,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP1,REL,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of mononuclear leukocytes | 3.26E-11 | 10.4867824 | turquoise | 135 | ABCG1,ACTN4,AIF1,ALOX5,ANXA1,ANXA2,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD48,CD55,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CIITA,CKLF,COL4A3,CREB3,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIAPH1,DPYSL2,ELMO1,ESR1,ESR2,FABP5,FAS,FLOT1,FLT1,FOXO1,FPR1,FYB1,GATA3,GNAI3,GNAS,GNLY,GPSM1,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LGALS3,LGMN,LIMK1,LTK,MAP3K14,MIF,MYB,MYO1G,NFIL3,NINJ1,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,PILRA,PLA2G6,PLAUR,POU2AF1,PPIA,PPIB,PRF1,PRKCB,PRKCD,PTGS2,PTPRB,PYCARD,QPCT,RAP1B,RAP2A,RASGRP1,S100A12,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SIRPA,SKAP1,SMAD3,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3,VEGFA |
| Cell Death and Survival | Cell viability of blood cells | 3.52E-11 | 10.45345734 | turquoise | 89 | ADGRE2,ARNT,ARRB1,BAK1,BCL11B,BID,BIK,BIRC5,BTLA,CAMK4,CCL3,CD19,CD22,CD300A,CD38,CD48,CD74,CD80,CD86,CD8A,CEBPB,CFLAR,CLEC11A,CSF1R,CSF2RB,CSNK1A1,CX3CR1,CXCL8,CXCR4,ERN1,FAS,FCER1G,FCGR3A/FCGR3B,FOXO1,GADD45A,GATA3,GIMAP5,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF2,IL1B,IL21R,IL2RB,IL7,IL7R,IRAK1,IRF4,ITGAL,ITPKB,KIF1C,LAT,LAX1,LGALS3,LYN,MAP3K14,MCL1,MEF2C,MGAT5,MIF,MIR17HG,MYB,MYH11,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PRKCB,PTK2,PYCARD,REL,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TYROBP,VEGFA,XBP1 |
| Humoral Immune Response,Protein Synthesis | Quantity of immunoglobulin | 4.75E-11 | 10.32330639 | turquoise | 85 | ABCB1,AIM2,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BANK1,BTLA,CCR1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DTX1,DUSP4,E2F2,ESR1,ESR2,FAS,FCER1G,FCER2,FCGR2B,GADD45A,GALNT1,HAX1,HEXB,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,IRF8,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,NFIL3,PLCL2,POU2AF1,PPIA,PRF1,PRKCD,PTGS2,PTTG1,PYCARD,RASGRP1,REL,SAMSN1,SH2D1A,SH3BP2,SWAP70,TBK1,TBX21,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UXS1,VSIR,XRCC6 |
| Cancer,Organismal Injury and Abnormalities | Advanced stage tumor | 5.18E-11 | 10.28567024 | turquoise | 249 | ABAT,ABCB1,ABLIM1,ABRAXAS1,ACP5,ACTN4,ADGRE5,AFDN,ALOX5,ANK3,ANXA1,ANXA2,ANXA5,ANXA7,ARG1,BAK1,BCOR,BHLHE41,BIRC5,BMP6,BMPR1A,BRAF,BRIP1,C5AR1,CALU,CAPN2,CARD16,CAV1,CCL5,CCND2,CD200,CD226,CD33,CD36,CD48,CD59,CD74,CD80,CD86,CD8A,CD99,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPD,CFLAR,CHEK1,COL18A1,CPEB2,CREB3,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CST7,CTNND1,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,CYP1B1,CYP51A1,DANCR,DAPK1,DDR1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,ESR2,EZH2,FABP5,FAS,FBXW7,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGF9,FKBP1A,FLNA,FLT1,FOXP1,GADD45A,GATA3,GLRX,GLUL,GNAS,GPI,HAX1,HCST,HIST1H3B,HMGA1,HMMR,HMOX1,HRH2,HSP90AB1,HSP90B1,HYOU1,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IFNAR2,IGFBP4,IGFBP7,IKZF2,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL7,IMPDH1,IQSEC1,IRF4,IRS2,ITGAL,ITGAV,ITGB1,KCNK6,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LRP8,LYN,MAFB,MAP4,MAPK1,MBD2,MDM2,MDM4,MGAT3,MIF,MIR17HG,MSI2,MYB,MYL12A,NACA,NCAPG,NCOA3,NDUFA13,NDUFB4,NLRP1,NOTCH4,NR2F1,NR3C1,NT5E,PDCD2L,PDCD4,PDCD5,PIK3CA,PIK3R5,PLAUR,PPIA,PRF1,PRKCE,PRKCI,PRUNE2,PSAP,PSMB2,PTAFR,PTGS2,PTK2,PTTG1,PXN,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNF19B,RNH1,RPL3,RPL7,RPS11,RRM2,RRM2B,RTN1,RUNX2,RXRA,S100A11,S100A4,SEC61G,SECTM1,SERPINA1,SETD2,SKIL,SLC16A3,SLC5A3,SMAD3,SMARCB1,SMC4,SND1,SOD1,SRD5A3,SSR2,STAB1,TBC1D16,TBX21,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXNIP,TYMP,TYMS,UBE2N,VAV3,VCAN,VDR,VEGFA,VIM,WNT7B,YWHAE,ZBTB7A |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant tumor | 5.97E-11 | 10.22402567 | turquoise | 248 | ABAT,ABCB1,ABLIM1,ABRAXAS1,ACP5,ACTN4,ADGRE5,AFDN,ALOX5,ANK3,ANXA1,ANXA2,ANXA5,ANXA7,ARG1,BAK1,BCOR,BHLHE41,BIRC5,BMPR1A,BRAF,BRIP1,C5AR1,CALU,CAPN2,CARD16,CAV1,CCL5,CCND2,CD200,CD226,CD33,CD36,CD48,CD59,CD74,CD80,CD86,CD8A,CD99,CDCA7L,CDK4,CDK5,CDKN2C,CEBPA,CEBPD,CFLAR,CHEK1,COL18A1,CPEB2,CREB3,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CST7,CTNND1,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,CYP1B1,CYP51A1,DANCR,DAPK1,DDR1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,ESR2,EZH2,FABP5,FAS,FBXW7,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGF9,FKBP1A,FLNA,FLT1,FOXP1,GADD45A,GATA3,GLRX,GLUL,GNAS,GPI,HAX1,HCST,HIST1H3B,HMGA1,HMMR,HMOX1,HRH2,HSP90AB1,HSP90B1,HYOU1,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IFNAR2,IGFBP4,IGFBP7,IKZF2,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL7,IMPDH1,IQSEC1,IRF4,IRS2,ITGAL,ITGAV,ITGB1,KCNK6,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LRP8,LYN,MAFB,MAP4,MAPK1,MBD2,MDM2,MDM4,MGAT3,MIF,MIR17HG,MSI2,MYB,MYL12A,NACA,NCAPG,NCOA3,NDUFA13,NDUFB4,NLRP1,NOTCH4,NR2F1,NR3C1,NT5E,PDCD2L,PDCD4,PDCD5,PIK3CA,PIK3R5,PLAUR,PPIA,PRF1,PRKCE,PRKCI,PRUNE2,PSAP,PSMB2,PTAFR,PTGS2,PTK2,PTTG1,PXN,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNF19B,RNH1,RPL3,RPL7,RPS11,RRM2,RRM2B,RTN1,RUNX2,RXRA,S100A11,S100A4,SEC61G,SECTM1,SERPINA1,SETD2,SKIL,SLC16A3,SLC5A3,SMAD3,SMARCB1,SMC4,SND1,SOD1,SRD5A3,SSR2,STAB1,TBC1D16,TBX21,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXNIP,TYMP,TYMS,UBE2N,VAV3,VCAN,VDR,VEGFA,VIM,WNT7B,YWHAE,ZBTB7A |
| Cellular Movement | Cell movement of tumor cell lines | 6.25E-11 | 10.20411998 | turquoise | 243 | ABCC4,ACTN1,ACTN4,ACVR1,ADGRE5,AFDN,AGO2,AHNAK,AHR,AIF1,ANXA1,ANXA2,ARF1,ARHGAP21,ARPC1B,ARPC2,ARRB1,AURKA,BANP,BHLHE41,BMP6,BRAF,BSG,CALU,CAMKK2,CAPN2,CAPNS1,CAV1,CBLB,CCL3,CCL5,CD36,CD69,CD99,CDCA7L,CDK5,CEBPB,CEMIP2,CERS6,CHN2,CKLF,CLCN4,CLIP1,COL18A1,COL4A3,CREB3,CSF1R,CTNND1,CXCL2,CXCL8,CXCR4,CYTOR,DANCR,DDR1,DGKD,DIAPH1,DNM2,DOCK5,DPYSL2,DSP,DTX1,DUSP6,ECT2,EGOT,EIF3A,ELMO1,ENAH,EPHA4,EPS8,ERC1,ESR1,ESR2,ETV4,EYA2,EZH2,FAM89B,FBXO4,FBXW7,FLNA,FLNB,FLT1,FOXO1,FOXP1,FPR1,FURIN,FYB1,GAB1,GATA3,GNAI3,GNAS,GPI,GZMB,HAVCR2,HAX1,HBEGF,HDAC9,HDGF,HMGA1,HMMR,HMOX1,HOMER3,HRH2,HSP90B1,HVCN1,ICMT,ID2,IGFBP4,IGFBP7,IL1B,IL32,IL6R,INPP4A,ITGAV,ITGB1,ITPR1,KCNN3,KCNN4,KEAP1,KISS1R,KPNA2,LASP1,LCP2,LDHA,LGALS1,LGALS3,LIMK1,LIMK2,LRPAP1,LTK,LYN,MAP4,MAPK1,MARCKS,MDM2,MGAT3,MGAT5,MIF,MINK1,MPRIP,MTDH,MYB,NCOA3,NFATC4,NINJ1,NRCAM,NREP,NSD2,NT5E,PA2G4,PAG1,PALLD,PARVG,PAX5,PDCD4,PEBP1,PHACTR1,PIK3CA,PIK3R5,PIK3R6,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PPIA,PRKCB,PRKCD,PRKCE,PRKCI,PTAFR,PTGS2,PTK2,PTP4A2,PTPN12,PTPN14,PTPRK,PTTG1,PXN,RACGAP1,RALGAPA2,RANBP2,RAP1B,RAP2A,RAP2B,RARG,RASGRP1,RASSF1,RFFL,RHOU,RPS6KA6,RRAS2,RUNX2,RUNX3,S100A10,S100A11,S100A4,S100A8,S100A9,SAMSN1,SELPLG,SEMA3A,SEMA4A,SERPINA1,SERPINA5,SH3KBP1,SIGMAR1,SIRPA,SLC16A1,SLC9A3R1,SMAD3,SMARCB1,SND1,SNHG7,ST6GAL1,STUB1,TAGLN2,TBXAS1,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF25,TNIK,TP63,TUBA1C,UCHL1,VAV3,VCAN,VCL,VCP,VDAC1,VEGFA,VIM,ZBTB7A,ZYX |
| Inflammatory Disease,Neurological Disease,Organismal Injury and Abnormalities | Myelitis | 6.97E-11 | 10.15676722 | turquoise | 83 | AGO2,AHR,ARG1,ARRB1,BSG,BTLA,BTN1A1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD200,CD300LF,CD4,CD74,CD80,CD86,CD99,CIITA,CLEC4D,CRH,CST3,CX3CR1,EPHA4,ESR1,ESR2,FAS,FCER1G,FCGR2A,HAVCR2,HCST,HLA-DMA,HRH2,HSPA5,ID2,IFI30,IFNAR2,IGHM,IL18BP,IL1B,IL1RN,IL21R,IL9R,IRAK1,IRF4,ITGAL,ITGAV,ITGAX,ITGB1,LCP2,LGALS1,LYN,MAP3K14,MGAT5,MIF,MIR17HG,NFIL3,NINJ1,NLRP3,NR3C1,NT5E,OTUD7B,PDCD4,PRDM1,PYCARD,REL,RORA,SEMA4A,SHCBP1,SPN,STAT4,TBX21,TIMP1,TLR4,TNF,TNFRSF1B,TYROBP,VDR,VSIR,XBP1 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of B lymphocytes | 7.1E-11 | 10.14874165 | turquoise | 103 | ABCG1,AFF1,AHR,AKAP13,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BANK1,BIK,CD19,CD22,CD27,CD300LF,CD36,CD38,CD69,CD70,CD72,CD74,CD80,CDKN2C,CEBPB,CLEC4D,CR2,CREBBP,CXCR4,CXCR5,DCLRE1C,DTX1,ESR1,ESR2,FAS,FCER1G,FCGR2A,FCGR2B,FLT1,FNIP1,FOXO1,GALNT1,GFI1,HAX1,HSP90B1,ID2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL21R,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGAL,ITGB7,JCHAIN,LILRB3,LYN,MAP3K14,MDM2,MYB,MYO1G,NFATC3,PAX5,PLCL2,POLM,POU2AF1,PRDM1,PRF1,PRKCB,PRKCD,RAP1B,RARG,RASGRP1,REL,RUNX2,SAMSN1,SH2D1A,SH3BP2,SHCBP1,SPN,SSBP2,ST6GAL1,STAT5B,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TYROBP,VAV3,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Humoral Immune Response,Protein Synthesis | Production of antibody | 7.34E-11 | 10.13430394 | turquoise | 88 | ABCB1,AIM2,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BANK1,BTLA,CCR1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DTX1,DUSP4,E2F2,ESR1,ESR2,FAS,FCER1G,FCER2,FCGR2B,GADD45A,GALNT1,HAX1,HEXB,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,IRF8,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,MIF,NFIL3,NR3C1,PLCL2,POU2AF1,PPIA,PRF1,PRKCD,PTGS2,PTTG1,PYCARD,RASGRP1,REL,SAMSN1,SH2D1A,SH3BP2,SWAP70,TBK1,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UXS1,VSIR,XRCC6 |
| Cellular Function and Maintenance | Endocytosis by eukaryotic cells | 7.42E-11 | 10.12959609 | turquoise | 94 | ANXA1,ANXA5,APLP2,APOA2,ARRB1,ATP6V0E1,ATP6V1A,ATP6V1D,BRAF,BTBD19,CAV1,CCL3,CCL5,CD14,CD163,CD36,CD38,CD93,CDC5L,CEBPB,CLIP1,CRH,CSF1R,CSF2RB,CTNND1,DNM2,EHD1,EIF2AK1,ELMO1,EPB41L2,ETS2,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FLNA,FOXP1,FPR1,FRS2,GLRX,GPR18,HAX1,HBEGF,HMOX1,HSH2D,HSPA5,HYOU1,ICOSLG/LOC102723996,IL1B,IL7,IQSEC1,IRF8,ITGAM,ITGB1,LAT,LGALS3,LIMK1,LMAN2,LYN,MIF,MYO1G,NR3C1,PFKFB3,PLA2G6,PLAUR,PRF1,PRKCB,PRKCD,PRKCE,PTK2,PTRHD1,PXN,RAB31,RORA,RRAS2,S100A9,SCARB2,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SMARCB1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VIM,XBP1 |
| Immunological Disease,Inflammatory Disease | Atopic disease | 7.64E-11 | 10.11690664 | turquoise | 85 | ADGRE2,AHNAK,ANXA1,ANXA2P2,ANXA5,ARFGAP3,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD74,CFL1,CNN3,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,DPYSL2,EIF1,EIF3E,ENO1,ESR2,EZH2,FABP5,FCER1G,FCER2,FCGBP,FKBP1A,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,HAVCR2,HRH2,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL1RN,IL4R,IL5RA,IL6R,ITGB7,JPT1,LGALS1,LGMN,LYN,MKI67,MXI1,NAPA,NR2F1,NR3C1,PHGDH,PPIA,PRF1,PRKCB,PSAP,PTAFR,PTGS2,RAB34,S100A11,S100A8,S100A9,SOCS2,SYNE2,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Cell Death and Survival | Apoptosis of lymphocytes | 7.88E-11 | 10.10347378 | turquoise | 98 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRS2,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TCL1A,TGFB2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA,ZBTB16 |
| Infectious Diseases | Parasitic Infection | 8.67E-11 | 10.0619809 | turquoise | 59 | ABAT,AHNAK,ANXA1,AQP9,ATP2B4,C5AR1,CCR1,CD36,CD4,CD74,CIITA,CSF3R,CXCR4,DUSP4,FCER1G,FCER2,FCGR2A,FCGR2B,FLT1,GZMA,HLA-DMA,HMOX1,IGHM,IL13RA1,IL4R,IL5RA,IL6R,IRF8,ITGB7,ITPKB,JCHAIN,LGALS3,MIF,NLRP3,NR3C1,NT5E,PLA2G6,POU2AF1,PRF1,PRKCD,PTAFR,PTGS2,REL,RRM2,RRM2B,RUNX3,SH2D1A,SLC11A1,SLC4A1,SNX9,STAT4,TBX21,THRB,TLR2,TLR4,TNF,TNFRSF1B,TUBB4B,TYMS |
| Cell Death and Survival | Apoptosis of mononuclear leukocytes | 9.25E-11 | 10.03385827 | turquoise | 101 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD38,CD4,CD59,CD70,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,FCGR2B,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,IRS2,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MDM2,MIR17HG,NR3C1,PAWR,PAX5,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,REL,RHOH,S100A8,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TCL1A,TGFB2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA,ZBTB16 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Migration of mononuclear leukocytes | 1.02E-10 | 9.991399828 | turquoise | 110 | ALOX5,ANXA1,ANXA2,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD22,CD226,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,COL4A3,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIAPH1,DPYSL2,ELMO1,ESR2,FABP5,FAS,FLOT1,FLT1,FOXO1,FYB1,GATA3,GNAI3,GNLY,GPSM1,HYOU1,ICOSLG/LOC102723996,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LGALS3,LIMK1,LTK,MAP3K14,MIF,MYB,MYO1G,NFIL3,NINJ1,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,PILRA,PLA2G6,PLAUR,PRF1,PTGS2,PTPRB,PYCARD,QPCT,RAP1B,RAP2A,RASGRP1,S100A4,SELPLG,SEMA3A,SERP1,SH2D1A,SIRPA,SKAP1,SOS2,SPN,STAB1,SWAP70,TERF2,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VEGFA |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Non-traumatic arthropathy | 1.27E-10 | 9.896196279 | turquoise | 220 | ABCB1,ACSL1,ADA,ADGRE5,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANG,ANXA1,APLP2,AQP9,ARF1,ARG1,ARRB1,ATP1B1,ATXN1,BIRC5,C5AR1,C5orf30,CAMK2D,CCL3,CCL5,CCR1,CD163,CD1A,CD33,CD36,CD4,CD69,CD70,CD74,CD80,CD86,CEBPB,CERS6,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,COL9A1,CR1,CR2,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DDR1,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,FAS,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FGL2,FKBP1A,FKBP5,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLUL,GNLY,GUSB,GZMA,GZMB,HAVCR2,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP4,IGFBP7,IGHM,IGKC,IL16,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IMPDH1,ITPR1,JMJD1C,L3MBTL4,LDHB,LGALS1,LST1,LYZ,MAFB,MBD2,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MMP11,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NDUFB10,NOTCH4,NR3C1,NT5E,NXPE3,OLAH,P2RY13,PANK2,PDGFD,PGK1,PHF19,PHF20,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTGS2,PTPRE,PXN,QKI,RAB1B,RBP7,RFLNB,RNF149,RUNX3,S100A10,S100A12,S100A8,S100A9,SCML1,SCN4A,SEC61A1,SEC62,SEL1L,SIGMAR1,SLC1A4,SMAD3,SND1,SORL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TFRC,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TPGS2,TRAK2,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMS,UBAC1,UBE2H,VARS,VDR,VEGFA,VIM,WNT10A,WNT7B,XBP1,YTHDC2,ZMYND11,ZNF281 |
| Dermatological Diseases and Conditions,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoproliferative disorder of the skin | 1.27E-10 | 9.896196279 | turquoise | 54 | ADA,ANXA1,AURKA,BAK1,CD4,CD48,CEP120,CFLAR,CXCR3,DTX1,DUSP4,FAS,FOXP1,IFI30,IFNAR2,IGFBP4,IL13RA1,IL16,IL2RB,IRF4,KCNAB3,MAP3K14,MCL1,MKI67,MXI1,NR3C1,PRF1,PRKCB,PSMB2,PTPRE,RARG,RARRES3,RASSF4,RDH10,REL,RRM2,RXRA,SATB1,SECTM1,SELPLG,STAT4,STAT5B,TARP,TLR2,TLR4,TNF,TOP2A,TOX,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Juvenile rheumatoid arthritis | 1.41E-10 | 9.850780887 | turquoise | 67 | ALOX5,ANG,ANXA1,ATP1B1,ATXN1,CCL3,CCL5,CCR1,CD69,CD74,CD80,CD86,CEBPB,CIITA,COCH,CR1,DYNLL1,EHD4,EIF1,FGL2,GALNT1,GNLY,GZMA,HRH2,IGKC,IL1B,IL1RN,IL6R,IMPDH1,JMJD1C,LGALS1,MBD2,MCL1,MCTP2,MGLL,MIF,MRPS15,MRPS36,NDUFB10,NR3C1,P2RY13,PANK2,PHF20,PLAUR,PRDM1,PRR5,PTGS2,PTPRE,RAB1B,RBP7,RUNX3,S100A10,S100A12,S100A8,S100A9,SEC62,SORL1,TALDO1,TARP,TBRG1,TLE3,TNF,TNFRSF10C,TPGS2,TRAK2,TXN,ZNF281 |
| Cellular Movement,Immune Cell Trafficking | Cell movement of lymphoid cells | 1.52E-10 | 9.818156412 | turquoise | 116 | ABCG1,ACTN4,ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CKLF,COL4A3,CSF2RB,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIAPH1,DPYSL2,ELMO1,ESR1,ESR2,FABP5,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNAS,GNLY,GPSM1,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MIR17HG,MYB,MYO1G,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,RASGRP1,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3 |
| Inflammatory Response,Respiratory Disease | Inflammation of respiratory system | 1.68E-10 | 9.774690718 | turquoise | 117 | ABCG1,ADA,AGO2,AHR,ALDOA,ANXA1,ANXA5,ARG1,ARIH2,ASB2,ATP1B1,BACH2,BID,BIRC5,BSG,BTLA,C5AR1,CAV1,CCL5,CCR1,CD14,CD200,CD300LF,CD36,CD4,CD48,CD55,CD72,CD86,CFLAR,CIITA,CLEC4D,CLEC7A,COCH,CRH,CSF1R,CSF2RB,CXCL8,CXCR3,CYP51A1,DDR1,DTX1,E2F2,ENO1,FAS,FCGR2A,FCGR2B,FKBP1A,FLT1,FOSL2,GAPDH,GATA3,GPX1,HMOX1,HRH2,HSPA5,IDE,IGHE,IL15RA,IL1B,IL1RN,IL4R,IL5RA,IL6R,IMPDH1,INPP5A,KCNN3,KEAP1,LAT,LCP2,LDLR,LGALS1,LGALS3,LY96,LYN,MAP3K14,MGAT5,MGLL,NDFIP1,NFATC3,NLRP3,NR3C1,NT5E,P4HB,PDE4A,PDE4D,PRDX1,PRR5,PTAFR,PTGS2,PYCARD,RORA,S100A4,SIGMAR1,SMAD3,SOCS2,ST3GAL3,SWAP70,TARP,TBX21,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TOP2A,TPI1,TREM1,TUBB,TYMS,UACA,VAV3,VDR,VEGFA,VSIR |
| Inflammatory Response,Respiratory Disease | Inflammation of respiratory system component | 1.93E-10 | 9.714442691 | turquoise | 116 | ABCG1,ADA,AGO2,AHR,ALDOA,ANXA1,ANXA5,ARG1,ARIH2,ASB2,ATP1B1,BACH2,BID,BIRC5,BSG,BTLA,C5AR1,CAV1,CCL5,CCR1,CD14,CD200,CD300LF,CD36,CD4,CD48,CD55,CD72,CD86,CFLAR,CIITA,CLEC4D,CLEC7A,COCH,CRH,CSF1R,CSF2RB,CXCL8,CXCR3,CYP51A1,DDR1,DTX1,E2F2,ENO1,FAS,FCGR2A,FCGR2B,FKBP1A,FLT1,FOSL2,GAPDH,GATA3,GPX1,HMOX1,HRH2,HSPA5,IDE,IGHE,IL15RA,IL1B,IL1RN,IL4R,IL5RA,IL6R,IMPDH1,INPP5A,KCNN3,KEAP1,LAT,LCP2,LDLR,LGALS1,LGALS3,LY96,LYN,MAP3K14,MGAT5,MGLL,NDFIP1,NFATC3,NLRP3,NR3C1,NT5E,P4HB,PDE4A,PDE4D,PRDX1,PRR5,PTAFR,PTGS2,PYCARD,RORA,S100A4,SIGMAR1,SMAD3,SOCS2,ST3GAL3,SWAP70,TARP,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TOP2A,TPI1,TREM1,TUBB,TYMS,UACA,VAV3,VDR,VEGFA,VSIR |
| Dermatological Diseases and Conditions,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Atopic dermatitis | 1.96E-10 | 9.707743929 | turquoise | 78 | AHNAK,ANXA1,ANXA2P2,ANXA5,ARFGAP3,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD74,CFL1,CNN3,CPVL,CSF2RB,CST3,CXCL8,CXCR4,DPYSL2,EIF1,EIF3E,ENO1,FABP5,FCER1G,FCER2,FCGBP,FKBP1A,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,HAVCR2,HRH2,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL1RN,IL4R,ITGB7,JPT1,LGALS1,LGMN,LYN,MKI67,MXI1,NAPA,NR2F1,NR3C1,PHGDH,PPIA,PRF1,PRKCB,PSAP,PTAFR,PTGS2,RAB34,S100A11,S100A8,S100A9,SOCS2,SYNE2,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VEGFA,XRCC6,ZNF395,ZYX |
| Cellular Movement,Immune Cell Trafficking | Cell movement of lymphatic system cells | 1.98E-10 | 9.70333481 | turquoise | 120 | ABCG1,ACTN4,ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CKLF,CLEC11A,COL4A3,CSF2RB,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DDR1,DIAPH1,DPYSL2,ELMO1,ESR1,ESR2,FABP5,FAS,FLOT1,FOXO1,FRS2,FYB1,GATA3,GNAI3,GNAS,GNLY,GPSM1,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MIR17HG,MYB,MYO1G,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,RASGRP1,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3 |
| Immunological Disease | Immediate hypersensitivity | 2.04E-10 | 9.690369833 | turquoise | 96 | ADGRE2,AHNAK,ALOX5,ANXA1,ANXA2P2,ANXA5,ARFGAP3,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD300A,CD300LF,CD63,CD74,CFL1,CNN3,CORO1B,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,DOCK5,DPYSL2,EIF1,EIF3E,ENO1,ESR2,EZH2,FABP5,FCER1G,FCER2,FCGBP,FCGR2A,FCGR2B,FKBP1A,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,HAVCR2,HRH2,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL1RN,IL4R,IL5RA,IL6R,ITGB7,JPT1,LAT,LCP2,LGALS1,LGMN,LYN,MKI67,MXI1,NAPA,NR2F1,NR3C1,PHGDH,PIP5K1B,PPIA,PRF1,PRKCB,PSAP,PTAFR,PTGS2,RAB34,S100A11,S100A8,S100A9,SOCS2,SYNE2,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Response of phagocytes | 2.05E-10 | 9.688246139 | turquoise | 71 | ADGRE2,ANXA1,ANXA5,APOA2,BRAF,C5AR1,CCL3,CCL5,CCR1,CD14,CD36,CD38,CD93,CEBPB,CLEC7A,CMC2,CSF1R,CSF2RB,CST3,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GNAQ,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHA1,IL1B,IL6R,IRAK1,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,LGALS3,LILRB3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PRKCE,PTAFR,PXN,RARRES3,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,TYROBP,XBP1 |
| Cell Morphology | Morphology of leukocytes | 2.33E-10 | 9.632644079 | turquoise | 95 | ABCB1,ABHD5,AFF1,AHR,ARID3A,ARSG,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CCR1,CD19,CD200,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CR2,CREBBP,CSF1R,CSF3R,CXCL8,CXCR5,DCLRE1C,DTX1,ERN1,ESR1,ETS2,FAS,FCER1G,FCGR2B,FNIP1,GATA3,GBA,GFI1,HAX1,HEXB,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL4R,IL5RA,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGAM,ITGB7,ITPKB,LAMTOR2,LAT,LCP2,LDLR,LGALS3,LILRB3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSAP,PSMB10,RASGRP1,REL,RHOH,RRAS2,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TLR2,TLR4,TNF,TOX,TXNIP,UACA,XBP1,XRCC6 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell lymphoma | 2.61E-10 | 9.583359493 | turquoise | 140 | ADA,AHR,ALOX5,ANKRD36,ANXA1,ANXA2,AP4B1,BCAT1,BCL11B,BCL7A,BIRC3,BRAF,BTG1,CAV1,CCND2,CD19,CD22,CD27,CD36,CD48,CD58,CD63,CD69,CD70,CDKN2C,CEBPA,CFLAR,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,CXCR4,CXCR5,DIAPH1,DMXL1,DSP,DTX1,DUSP4,E2F2,ELOC,EZH2,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FOXO1,FOXP1,FYB1,GTF2I,HDAC9,HIST1H3B,HMOX1,HSP90AB1,HSP90B1,IFNAR2,IGKC,IGLL1/IGLL5,IKBIP,IL1B,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ITPR1,KCNAB3,KCNN3,KIF11,KPNA2,MCL1,MDM2,MDM4,MGLL,MIR17HG,MKI67,MXI1,MYO1G,NEK3,NLRP7,NR3C1,P2RY8,PAG1,PAX5,PCSK5,PIK3CA,POU2AF1,PPIA,PPWD1,PRDM1,PRF1,PRKCB,PRKCI,PSMB10,PSMB2,PTGS2,PTPN14,PTPRE,RBL2,REL,RRM2,RRM2B,RXRA,SATB1,SERPINA1,SETD2,SLC16A1,SLC16A7,SLC29A2,SMARCA2,SMARCB1,SPN,STX11,SWAP70,TARP,TCL1A,TFDP1,TNF,TNFRSF10C,TNIK,TOP2A,TP63,TPST2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,XRCC6,YWHAE |
| Immunological Disease,Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Experimental autoimmune encephalomyelitis | 2.65E-10 | 9.576754126 | turquoise | 81 | AGO2,AHR,ARG1,ARRB1,BSG,BTLA,BTN1A1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD200,CD300LF,CD4,CD74,CD80,CD86,CD99,CIITA,CLEC4D,CRH,CX3CR1,EPHA4,ESR1,ESR2,FAS,FCER1G,FCGR2A,HAVCR2,HCST,HLA-DMA,HRH2,HSPA5,ID2,IFI30,IGHM,IL18BP,IL1B,IL1RN,IL21R,IL9R,IRAK1,IRF4,ITGAL,ITGAV,ITGAX,ITGB1,LCP2,LGALS1,LYN,MAP3K14,MGAT5,MIF,MIR17HG,NFIL3,NINJ1,NLRP3,NR3C1,NT5E,OTUD7B,PDCD4,PRDM1,PYCARD,REL,RORA,SEMA4A,SHCBP1,SPN,STAT4,TBX21,TIMP1,TLR4,TNF,TNFRSF1B,TYROBP,VDR,VSIR,XBP1 |
| Infectious Diseases | Infection by RNA virus | 3.59E-10 | 9.444905551 | turquoise | 226 | ABCB1,ACTR3,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,APOBEC3B,ARF1,ARHGAP32,ARPC1B,ARRB1,ASGR2,ATOX1,ATP5F1B,ATP5IF1,ATP6V0A1,BCL11A,BCL2L2,BSG,CAMK1D,CAMKK2,CARD16,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD300LF,CD36,CD38,CD4,CD55,CD74,CD80,CD86,CD93,CDC42EP3,CEP68,CHCHD2,COPG1,COPZ1,CR2,CSF2RB,CXCL8,CXCR3,CXCR4,CYP51A1,DAPK2,DDOST,DDX5,DDX50,DIAPH1,DMXL1,DNM2,DTX4,DYSF,EIF3A,EIF4EBP2,ELOA,ELOC,EPS8,ERC1,ESR1,ESR2,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGD6,FKBP1A,FLT1,FPR1,FRS2,FURIN,GABBR1,GABPB1,GPI,HAVCR2,HID1,HLA-DOA,HRH2,HSP90B1,HSPA5,HSPA9,IFNAR2,IL2RB,IL4R,IL7,IL7R,IMPDH1,ITGAM,ITGB1,ITGB7,KCNN4,LCP2,LIMK2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MAPKAPK3,MDM2,MGAT1,MGLL,MICAL3,MID1IP1,MRPL23,MRS2,MT1X,MT2A,MYO1F,MYOF,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NIPSNAP3B,NLRP1,NR3C1,NUP133,OSBPL3,PDCD2L,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PGM1,PICALM,PMM1,POLR2L,PPIA,PPIB,PPM1K,PRKCB,PSMA1,PSMA2,PSMA3,PSMA5,PSMA7,PSMB6,PSME2,PTAFR,PTGES3,PTGS2,PVT1,RAB1B,RAB3D,RAB8A,RANBP2,RAP1B,RARG,RARRES3,RBM5,RNH1,RPL3,RRM2,RRM2B,RTN3,RXRA,S100A4,SAMHD1,SEC14L1,SEC61G,SERPINA1,SERPINB6,SESTD1,SFXN3,SHCBP1,SIGMAR1,SLC31A1,SNRPA1,SPCS3,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TBK1,TBX21,TERF2,TFDP2,TFRC,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TOX,TRIM44,TRIM8,TTC3,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2H,UBE2L3,UPF3B,UQCRC1,VDR,XBP1,XK,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of lymphoid organ | 3.66E-10 | 9.436518915 | turquoise | 114 | ABCB4,ABCC4,AFF1,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARL6IP5,ATP2B4,B3GNT5,BAK1,BANK1,BCL11A,BCL11B,BIK,BNIP3L,CD19,CD200,CD4,CD74,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CIITA,CITED2,CLEC4D,CREBBP,CSF1R,CSF2RB,CTSA,CUX1,CXCR5,DCLRE1C,DIAPH1,E2F2,ESR1,ESR2,FAS,FCER1G,FCGR2B,FNIP1,GATA3,GBA,GFI1,HMGA1,HMOX1,ICOSLG/LOC102723996,ID2,IGHM,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITPKB,KCNN4,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MCL1,MDM2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PICALM,PRDX1,PRF1,PRKCD,PSAP,PTGS2,PTTG1,RAPGEF6,RASGRP1,REL,RHOH,RRM2,RRM2B,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,STAT5B,TCL1A,TGFBI,TGFBR3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TRADD,TRIB1,TXNIP,VDR,VEGFA,XRCC6 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell leukemia | 4.07E-10 | 9.390405591 | turquoise | 85 | ADA,ANXA1,ATP11A,ATXN1,BACH2,BAK1,BCL2L2,BCL9L,BIRC3,BRAF,CCL3,CD19,CD22,CD38,CD74,CD80,CD86,CDC42EP3,CDK5,CHD2,CREBBP,CSF1R,CSF3R,CXCL8,DAD1,DAPK1,DDR1,DLEU2,E2F7,ESR2,FAS,FBXW7,FCGR2A,FKBP1A,FLT1,HLA-B,HVCN1,IDH2,IGKC,IKZF2,IL1B,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,LYN,LYPLA2,MCL1,MIF,MIR17HG,MYB,NAMPT,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PPIA,PRICKLE1,PRKCB,PRR5,PSMB2,PTPRE,RRM2,RRM2B,SIPA1L3,SMAD3,SYNE2,TARP,TBX21,TGFBR2,TLK1,TLR2,TNF,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,ZYX |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Psoriasis | 4.35E-10 | 9.361510743 | turquoise | 140 | ADGRE5,ANXA1,ANXA2,APOBEC3A,AQP3,AQP9,ARG1,ARPC1B,ATOX1,ATP1B1,CAMK2N1,CAV1,CCND2,CD36,CD4,CD63,CDK5,CEBPB,CEBPD,CFD,CFL1,CFLAR,CLEC7A,CMAHP,CRH,CRIP1,CSTA,CSTB,CXCL8,CYP1B1,DDR1,EIF4A3,ELL2,ELOVL5,FABP5,FCGR3A/FCGR3B,FKBP1A,FLT1,FMO5,GAPDH,GATA3,GBA,GOT2,GSTM1,GZMB,H2AFY,H2AFZ,HAX1,HMOX1,HSPA5,HSPA8,HSPE1,IFI30,IFNAR2,IGFBP7,IL13RA1,IL16,IL1B,IL1RN,IL4R,IL6R,IRAK1,ITGAL,KDELR2,KEAP1,KPNA2,KYNU,LDLR,LGALS1,LGALS3,LRIG2,LYN,MANF,MAPKAPK3,MARCKS,MIF,MKI67,MT1X,NAB1,NAMPT,NFIL3,NR3C1,P4HB,PCBD1,PCLAF,PDE4A,PDE4D,PGAM1,PGD,PKM,PLA2G16,PPIA,PRF1,PRKCB,PSAP,PSMA3,PSMA6,PSMB10,PSMB6,PSME2,PTGS2,RARG,RXRA,S100A11,S100A12,S100A8,S100A9,SCO2,SEC23B,SEC61B,SEC61G,SEMA3A,SLAMF7,SLC16A1,SLC39A6,SOCS2,SRM,SUB1,TAF10,TGFBR3,TIMP2,TIMP3,TLE3,TLR2,TLR4,TNF,TNFRSF17,TRAK2,TUBB,TUBG1,TXNIP,TYMP,UBE2N,UPP1,VDAC1,VDR,VEGFA,WNT7B,YWHAE,ZBTB16 |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Respiratory Disease | Inflammation of lung | 4.43E-10 | 9.353596274 | turquoise | 103 | ABCG1,ADA,AGO2,AHR,ALDOA,ANXA1,ANXA5,ARG1,ARIH2,ASB2,ATP1B1,BACH2,BID,BIRC5,BSG,C5AR1,CAV1,CCR1,CD14,CD200,CD300LF,CD36,CD4,CD55,CD72,CD86,CFLAR,CIITA,CLEC4D,CLEC7A,COCH,CSF1R,CSF2RB,CXCR3,CYP51A1,DDR1,DTX1,E2F2,ENO1,FAS,FCGR2B,FKBP1A,FLT1,FOSL2,GAPDH,GPX1,HMOX1,HSPA5,IDE,IGHE,IL15RA,IL1B,IL1RN,IL4R,IL5RA,IL6R,IMPDH1,INPP5A,KCNN3,KEAP1,LAT,LCP2,LDLR,LGALS1,LGALS3,LY96,LYN,MAP3K14,MGAT5,MGLL,NDFIP1,NFATC3,NLRP3,NR3C1,NT5E,P4HB,PRDX1,PRR5,PTAFR,PTGS2,PYCARD,RORA,S100A4,SOCS2,ST3GAL3,TARP,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TOP2A,TPI1,TREM1,TUBB,TYMS,UACA,VAV3,VDR,VEGFA,VSIR |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of lymphocytes | 4.63E-10 | 9.334419009 | turquoise | 114 | ABCG1,ACTN4,ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CKLF,COL4A3,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIAPH1,DPYSL2,ELMO1,ESR1,ESR2,FABP5,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNAS,GNLY,GPSM1,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MYB,MYO1G,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,RASGRP1,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3 |
| Cell-To-Cell Signaling and Interaction | Response of lymphatic system cells | 5.06E-10 | 9.295849483 | turquoise | 67 | ADA,AHR,C5AR1,CBLB,CD19,CD200,CD22,CD226,CD38,CD4,CD48,CD55,CD58,CD59,CD70,CD80,CD86,CD8A,CLEC7A,CR2,CSF2RB,CXCL8,CYP1B1,FCGR2A,FCGR2B,FOXO1,FURIN,GATA3,GNAS,GZMB,HAVCR2,HMOX1,HSDL1,HSP90B1,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL7,IL7R,IRF8,ITPKB,LAX1,LCP2,LGALS1,LYN,NAMPT,NFIL3,NLRP3,PFKFB3,PLAUR,PSMB10,PYCARD,REL,SELPLG,SEMA4A,SH2D1A,SMAD3,STAT4,STAT5B,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TNFRSF25,TREML2 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Chronic skin disorder | 5.68E-10 | 9.245651664 | turquoise | 55 | ARG1,ATOX1,ATP1B1,CEBPB,CEBPD,CFLAR,CLEC7A,CRIP1,CSTB,EIF4A3,ELL2,FABP5,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,GATA3,GOT2,H2AFZ,HMOX1,HSPA8,HSPE1,IGHE,IL4R,IL5RA,IRAK1,KDELR2,KPNA2,KYNU,LDLR,MANF,MAPKAPK3,MARCKS,PCBD1,PCLAF,PGAM1,PGD,PKM,PSMB10,PSME2,RXRA,S100A11,S100A12,S100A8,S100A9,SEC23B,SLC39A6,SRM,TAF10,TIMP3,TNF,TUBG1,UBE2N,UPP1,VDR |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Central nervous system cancer | 6.46E-10 | 9.189767482 | turquoise | 164 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ALDH1A1,ALDOA,ANXA1,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BIRC5,BRAF,C5AR1,CABYR,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD48,CD93,CD99,CDCA7L,CDK4,CDK5,CDKN2C,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLMP,COCH,COL18A1,COL4A3,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CXCL8,DBNDD1,DDR1,DMXL2,ECT2,EEF2K,ELMO1,EPPK1,ESR1,ESR2,EVI2A,EZH2,FA2H,FBXW7,FLNA,FLT1,FOSL2,FOXO1,FOXP1,FURIN,GLDC,GNAS,GOT2,HDAC9,HIPK2,HIST1H3B,HLA-B,HSP90AB1,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,IRAK1,IRS2,ITGAV,KCNN3,KIF21A,LDLR,LIMK1,LRIG2,MAP7,MARCKS,MBD2,MCL1,MDM2,MGLL,MKI67,MRPL20,MXI1,MYH11,NEK6,NINJ2,NR3C1,NUAK2,OBSCN,PA2G4,PALLD,PCLAF,PDLIM5,PFKFB3,PIK3CA,PKM,PRDM1,PRKCB,PRR5,PTGS2,PTTG1,PVT1,PYCARD,RARG,RASSF1,RRM2,RRM2B,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMAD3,SMARCB1,SMC1A,TARP,TERF2,TGFB2,TGFBI,TGFBR2,TIMP1,TINF2,TLE3,TLR4,TNF,TNFRSF1B,TOP2A,TRAM2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L,ZNF490 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Response of lymphocytes | 7.21E-10 | 9.142064735 | turquoise | 63 | ADA,AHR,C5AR1,CBLB,CD19,CD200,CD22,CD226,CD38,CD4,CD48,CD55,CD58,CD59,CD70,CD80,CD86,CD8A,CLEC7A,CR2,CSF2RB,CXCL8,FCGR2A,FCGR2B,FOXO1,FURIN,GATA3,GNAS,GZMB,HAVCR2,HMOX1,HSDL1,HSP90B1,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL7,IL7R,ITPKB,LAX1,LCP2,LGALS1,LYN,NAMPT,NFIL3,PFKFB3,PLAUR,PSMB10,PYCARD,REL,SELPLG,SEMA4A,SH2D1A,SMAD3,STAT4,STAT5B,TBX21,TGFBR2,TNF,TNFRSF1B,TNFRSF25,TREML2 |
| Cell Death and Survival | Cell viability of tumor cell lines | 8.58E-10 | 9.066512712 | turquoise | 225 | ABCB1,ACTN4,AEN,AGO2,AGTRAP,AHR,AK3,AKAP13,ANLN,AQP3,ARRB1,ATF5,ATP5MD,ATP5PD,AURKA,AURKAIP1,BAG3,BCKDK,BID,BIRC5,BMPR1A,BRAF,BRIP1,BUB1B,C1GALT1,CADM1,CAMK2D,CAMK2N1,CAPN2,CAPN3,CARS,CAV1,CBX5,CCNA2,CCND2,CD200,CD33,CD38,CD55,CDKN2C,CEBPB,CEBPD,CFLAR,CHEK1,CLCN4,CRH,CUX1,CXCL2,CXCL8,CXCR4,DCLRE1C,DDR1,DNM2,DST,DUSP6,DUSP7,EEF2K,EGOT,EIF3A,EIF3E,EIF4A3,EIF4G1,ENO1,EPB41L2,EPHA4,ESR1,ESR2,EZH2,FA2H,FAS,FGF9,FKBP5,FLNA,FLT1,GAB1,GALK2,GCLC,GLUD1,GPX1,GSTM1,H2AFY,HBEGF,HMGA1,HMOX1,HSP90AB1,HSP90B1,HSPA5,HSPA9,ICMT,ID2,IER3,IGFBP7,IGHM,IL1B,IL1RN,IL6R,IL7,INPP4A,INPP5A,IRAK1,IRF4,IRS2,ITGAM,ITGB1,JMJD1C,KIF11,LANCL2,LDHA,LGALS3,LIMK2,LMNB1,LYN,LYZ,MAP3K14,MAP3K5,MAPK1,MCL1,MCOLN2,MDM2,MDM4,MIAT,MICAL2,MIR17HG,MTDH,MTMR1,MYB,NAB1,NAMPT,NDC80,NDUFA13,NEAT1,NEK3,NEK8,NR1D1,NR3C1,NSD2,NUP210,OTUD7B,P4HB,PBX3,PDCD4,PFDN5,PIK3CA,PKM,PLAUR,POU2AF1,PPM1G,PPM1M,PPP1R3D,PPP1R9A,PRKCD,PRKCE,PRKCI,PSAP,PSMA1,PSMA3,PSMA6,PSME4,PTGS2,PTK2,PTP4A2,PTPRE,PTPRK,PYCARD,RAB11A,RASSF1,REL,RPS6KA6,RRM2,RRM2B,RUNX2,RXRA,S100A4,S100A6,S100A9,SARAF,SAT1,SEL1L,SELENOH,SEM1,SGPP1,SLC25A23,SMAD3,SMARCA2,SMARCB1,SMARCD3,SNRPA1,SOD1,SPATS2,SPIDR,STAT5B,STK26,SVIL,TBC1D16,TBC1D9,TBK1,TCP1,TERF2,TGFBR2,TIMP2,TIMP3,TNF,TNFRSF1B,TOX,TP53I3,TP63,TRADD,TRIM69,TRPV2,TUBB3,TXN,TXNL4A,TYMP,TYMS,UBE2L3,UHRF1,VCAN,VCP,VEGFA,WDR1,WEE1,XRCC6,ZBTB16,ZNF528,ZNF665 |
| Cell Death and Survival | Cytolysis | 9.13E-10 | 9.039529222 | turquoise | 77 | ABCB1,ALDOA,ANXA1,AQP9,BAK1,C1GALT1C1,CAV1,CD226,CD4,CD48,CD55,CD59,CD8A,CR1,CR2,CX3CR1,EIF2AK1,EPB42,FAS,FCAR,FCER1G,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FURIN,GCLC,GNLY,GPI,GZMA,GZMB,HCST,HMOX1,IFNAR2,IGHG3,IGKC,IL15RA,IL1B,IL21R,IL2RB,IL7R,IMPDH1,ITGAL,KCNN4,KLRD1,LCP2,LGALS1,LGALS3,LYN,LYZ,NFIL3,NR3C1,PIEZO1,PPIA,PRDX1,PRF1,PSME2,REL,RNF19B,SEC23B,SH2D1A,SLAMF7,SLC4A1,ST3GAL3,STAT5B,STX11,TBK1,TBX21,TGFBR2,TLR4,TNF,TNFRSF1B,TOX,TP53I11,TYROBP,VEGFA,VIM |
| Cellular Function and Maintenance | Internalization of cells | 9.45E-10 | 9.024568191 | turquoise | 71 | ANXA1,APOA2,BRAF,CCL3,CD14,CD22,CD36,CD38,CD48,CD93,CEBPB,CLEC7A,CLIP1,CSF1R,CSF2RB,CSF3R,EIF2AK1,ETS2,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FOXP1,FPR1,GLRX,GPR18,HMOX1,HSH2D,IL1B,IL7,IQSEC1,IRF8,ITGAL,ITGAM,ITGB1,LGALS3,LIMK1,LMAN2,LY96,LYN,MIF,MYO1G,OCRL,PFKFB3,PLA2G6,PLAUR,PRKCB,PRKCD,PRKCE,PTK2,PXN,RAB31,RORA,RRAS2,S100A9,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLC9B2,SNAP29,TLR2,TLR4,TNF,TREM1,TRPV2,VIM,XBP1 |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphatic system cells | 1.1E-09 | 8.958607315 | turquoise | 74 | ABCB1,AHR,ARID3A,ARID4B,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,CBLB,CCND2,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDK4,CDKN2C,CEBPA,CEBPB,CR2,CREBBP,CXCR5,CYP1B1,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FCGR2B,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LYN,MCL1,MDM4,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,RASGRP1,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,TRIB1,TXNIP,XBP1,XRCC6 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic leukemia | 1.22E-09 | 8.913640169 | turquoise | 174 | ACTG1,ADA,ALDH1A1,ANK3,ANXA1,ARL6IP5,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCL11B,BCL2L2,BCL9L,BIRC3,BRAF,CADM1,CAMK2N1,CBLB,CCL3,CD14,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD38,CD4,CD48,CD58,CD74,CD80,CD86,CDC42EP3,CDK5,CEBPA,CEP68,CFL1,CHD2,CIITA,COCH,COL4A4,CREBBP,CSF1R,CSF3R,CSNK1A1,CXCL8,DAD1,DAPK1,DDR1,DLEU2,E2F7,EED,ELMO1,ERC1,ESR2,EZH2,FAS,FBXW7,FCGR2A,FKBP1A,FLT1,FRYL,GADD45A,GATA3,GSTM1,GZMB,HLA-B,HSP90AB1,HSP90B1,HSPA5,HVCN1,IDH2,IFNAR2,IGH,IGKC,IKZF2,IL1B,IL21R,IL6R,IL7,IL7R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ITGAM,ITGAX,ITGB1,JARID2,KMO,LDHA,LGALS1,LYN,LYPLA2,MCL1,MGLL,MIF,MIR17HG,MKI67,MYB,NAMPT,NCOA3,NEK8,NR3C1,NRCAM,PAX5,PBX3,PDE4A,PDE4D,PDE7A,PDE7B,PIK3CA,PNKD,PPIA,PRDM1,PRDM15,PRICKLE1,PRKCB,PRR5,PSMB2,PTPRE,PTPRK,RAPGEF6,REL,RHOH,RHOU,RRM2,RRM2B,RUNX3,SEC23B,SEC24D,SETD2,SGPP2,SIPA1L3,SLC16A7,SMAD3,STAT5B,STEAP4,SUCLG1,SYNE2,TARP,TBX21,TCF7,TCL1A,TGFBR2,TLK1,TLR2,TMTC2,TNF,TOP2A,TRAM2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,VCAN,VEGFA,VMP1,VWA3B,ZBTB16,ZFP2,ZMIZ1,ZNF395,ZYX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Non-Hodgkin lymphoma | 1.24E-09 | 8.906578315 | turquoise | 261 | ABCG1,ABHD5,ADA,AHNAK,AHR,AIM2,ALOX5,AMOTL1,ANKIB1,ANKRD36,ANXA1,ANXA2,AP4B1,APOBEC3B,AURKA,BAK1,BCAT1,BCL11B,BCL7A,BCOR,BIRC3,BIRC5,BRAF,BTG1,CAV1,CBX4,CCNA2,CCND2,CD163,CD19,CD1A,CD200,CD22,CD27,CD36,CD4,CD48,CD58,CD63,CD69,CD70,CD86,CDCA2,CDKN2C,CEBPA,CEBPB,CEP120,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CNR1,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CXCL8,CXCR3,CXCR4,CXCR5,DAPK1,DCLRE1C,DDR1,DGKD,DIAPH1,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,EIF2AK1,ELOC,EZH2,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FOXO1,FOXP1,FYB1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-DOA,HMOX1,HS3ST1,HSP90AB1,HSP90B1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP4,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IL13RA1,IL16,IL1B,IL2RB,IL4R,IL6R,IL9R,IMPDH1,IRF4,IRF8,IRS2,ISL2,ITGAX,ITM2C,ITPKB,ITPR1,JMJD1C,KCNAB3,KCNN3,KIF11,KPNA2,KRR1,LIMK1,LRIG2,LRRFIP1,LYNX1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NEK3,NEK6,NETO2,NLRP7,NR3C1,NUAK2,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PCSK5,PDE4D,PEG10,PIK3CA,PIK3R5,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRKCB,PRKCI,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RBL2,RDH10,REL,RPS20,RRM2,RRM2B,RXRA,SARS,SATB1,SDK2,SEC14L1,SECTM1,SELPLG,SERPINA1,SETD2,SKIL,SLC16A1,SLC16A7,SLC29A2,SMARCA2,SMARCB1,SMARCD3,SMC6,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STK17A,STX11,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF10C,TNIK,TOP2A,TOX,TP63,TPST2,TRERF1,TRIM38,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE,ZBTB10 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid tissue | 1.3E-09 | 8.886056648 | turquoise | 105 | ABCB1,AFF1,AHR,AKAP13,ARG1,ARID3A,ARNTL,B3GNT5,BAK1,BANK1,BCL11A,BCL11B,BNIP3L,C5AR1,CD19,CD200,CD22,CD4,CD70,CD72,CD74,CD80,CD86,CD8A,CDKN2C,CIITA,COL18A1,CR2,CREBBP,CRH,CRIP3,CXCR4,CXCR5,DCLRE1C,DIAPH1,DTX1,EPHA4,ESR1,ESR2,ETS2,FAS,FCER1G,FCGR2B,FOXO1,FYB1,GADD45A,GALNT1,GBA,GFI1,GSTK1,HAX1,ICOSLG/LOC102723996,ID2,IGHM,IKZF2,IL15RA,IL2RB,IL7,IL7R,IRF8,ITPKB,LAT,LCP2,LGALS2,LYN,MAP3K14,MCL1,MIR17HG,MXI1,MYH11,NFATC3,NOTCH4,NR3C1,PAG1,PIK3CA,PLXND1,POU2AF1,PRF1,PRKCD,PSMB10,RAP1B,RARG,RASGRP1,REL,RHOH,RRM2B,RUNX2,RUNX3,SATB1,SH2D1A,SH3BP2,ST6GAL1,STAT5B,TGFBR3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TOX,TPX2,TYROBP,VAV3,VDR,XRCC6 |
| Cell Death and Survival | Cell death of leukemia cell lines | 1.31E-09 | 8.882728704 | turquoise | 96 | ABCB1,ABCB4,AHR,ARG1,BAK1,BID,BIK,BIRC3,BIRC5,BTG1,C5AR1,CAV1,CD226,CD4,CD55,CD59,CD99,CDC6,CDK5,CEBPA,CEBPD,CFLAR,CHEK1,CRH,CSF2RB,CXCR4,EIF4B,EMILIN2,EPM2A,ERN1,ESR1,FAS,FCER2,FKBP5,GAPDH,GFI1,GIMAP4,GIMAP5,GNLY,GPSM1,GZMB,GZMH,GZMK,HCST,HMOX1,HSPA8,IL15RA,IL1B,IL7,ITGAM,ITGB1,ITPR1,LGALS1,LGALS3,LYN,MCL1,MSRB2,MTDH,MYB,NFIL3,NLRP3,NOTCH4,NR3C1,PAWR,PAX5,PBX3,PKM,PPIA,PRF1,PRKCB,PRKCD,PRKCI,PTK2,PTPRE,PYCARD,RBM5,RDX,REL,RIC8B,S100A8,S100A9,SAT1,SLC29A2,SPN,STAT5B,STOML2,TCL1A,TLR2,TNF,TNFRSF25,TOP2A,TOX,TRADD,UCHL1,WEE1,ZBTB16 |
| Cellular Movement | Cell movement of myeloid cells | 1.31E-09 | 8.882728704 | turquoise | 151 | AIF1,AIM2,ALOX5,ANXA1,ANXA2,AQP9,ARG1,ARHGEF7,ARRB1,BID,BRAF,BSG,C1GALT1,C5AR1,CAMK1D,CAV1,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD4,CD48,CD55,CD69,CD72,CD74,CD99,CKLF,CLEC11A,CNP,CNR1,COL4A3,CR1,CREB3,CRH,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DDR1,DOCK5,DYSF,FAS,FCAR,FCER1G,FCGR2A,FLNA,FLOT1,FLT1,FPR1,GBA,GNAI3,GNLY,GPR18,HMOX1,HRH2,HSPA5,IGHE,IL15RA,IL16,IL1B,IL1RN,IL2RB,IL4R,IL6R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LYN,MAP3K5,MGAT5,MIF,MYO1F,NAAA,NDST1,NINJ1,NLRP3,NT5E,PIK3R5,PILRA,PLA2G6,PLAUR,PLXND1,PPIA,PRDM1,PRKCB,PRKCD,PTGS2,PTPRB,QPCT,RAP1B,REL,RTN4,RUNX3,S100A10,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SEMA4A,SERPINA1,SGPP1,SGPP2,SIRPA,SMAD3,SPN,STAB1,STAP1,SWAP70,TBX21,TGFB2,TGFBR2,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VEGFA,ZBTB16 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Recruitment of leukocytes | 1.51E-09 | 8.821023053 | turquoise | 93 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LB,CD36,CD4,CD69,CD74,CD8A,CD93,CLEC7A,CNR1,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,FABP5,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,HMOX1,IGHE,IL15RA,IL16,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS1,LGALS3,LSP1,LY96,LYN,LYZ,MCOLN2,MGAT5,MIF,NDST1,NINJ1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PYCARD,RAP1B,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,SWAP70,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TXN,VAV3,VDR |
| Inflammatory Response | Antibody response | 1.59E-09 | 8.798602876 | turquoise | 51 | BACH2,BTLA,C5AR1,CCL5,CD19,CD38,CD69,CD80,CD86,CEBPB,CR2,CXCR5,DIAPH1,DOK3,FAS,FCER2,GATA3,GPI,HBP1,HLA-B,ICOSLG/LOC102723996,IGHM,IGKC,IL7,IRF8,ITGAL,JCHAIN,LCP2,LYN,MEF2C,MIF,MZB1,PAX5,POU2AF1,PRDM1,PSMB10,PYCARD,RASGRP1,REL,SH2D1A,SH3KBP1,ST6GAL1,TLR4,TNF,TNFRSF13B,TRAF5,TREM1,TYROBP,UXS1,VAV3,XBP1 |
| Infectious Diseases | Infection by Retroviridae | 1.63E-09 | 8.787812396 | turquoise | 184 | ABCB1,ACTR3,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,APOBEC3B,ARF1,ARHGAP32,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,CAMK1D,CAMKK2,CARD16,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD36,CD38,CD4,CD74,CD80,CD86,CDC42EP3,CEP68,CR2,CSF2RB,CXCL8,CXCR4,CYP51A1,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,ELOA,ELOC,EPS8,ESR1,ESR2,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGD6,FKBP1A,FPR1,FURIN,GABPB1,GPI,HAVCR2,HID1,HLA-DOA,HRH2,IFNAR2,IL2RB,IL4R,IL7,IMPDH1,ITGB1,ITGB7,KCNN4,LCP2,LIMK2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MDM2,MGAT1,MICAL3,MID1IP1,MRPL23,MT1X,MT2A,MYO1F,MYOF,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NIPSNAP3B,NLRP1,NR3C1,NUP133,OSBPL3,PDCD2L,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PGM1,PMM1,POLR2L,PPIB,PPM1K,PSMA1,PSMA2,PSMA3,PSMA5,PSMA7,PSMB6,PSME2,PTAFR,PTGES3,PTGS2,PVT1,RAB1B,RAB8A,RANBP2,RAP1B,RARG,RBM5,RNH1,RRM2,RRM2B,RTN3,RXRA,SAMHD1,SEC14L1,SEC61G,SERPINA1,SERPINB6,SESTD1,SFXN3,SHCBP1,SIGMAR1,SLC31A1,SNRPA1,SPCS3,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TERF2,TFDP2,TFRC,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TRIM44,TRIM8,TTC3,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2H,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Organismal Injury and Abnormalities | Growth of lesion | 1.8E-09 | 8.744727495 | turquoise | 214 | ABCC4,ACTN4,AFDN,AHR,ALOX5,ANG,ANXA1,ANXA2,APCDD1,ARL6IP5,AURKA,BIK,BIRC5,BMP6,BRAF,BSG,BUB1B,CACYBP,CAPN2,CAPNS1,CAV1,CCL3,CCL5,CCR1,CD226,CD33,CD36,CD38,CD58,CD59,CD70,CD80,CD8A,CDK4,CDK5,CERS6,CFLAR,CHEK1,CISD2,CNKSR1,CNR1,COL18A1,COL4A3,COX17,COX8A,CREBBP,CSF1R,CSF3R,CST3,CUX1,CXCL8,CXCR3,CXCR4,CYFIP1,DAPK1,DNM2,EIF4B,ERO1A,ESR1,ESR2,EZH2,FABP5,FAS,FCER1G,FCER2,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXO1,GADD45A,GALNT1,GAPDH,GATA3,GLDC,GZMA,H2AFY,HAVCR2,HBEGF,HCST,HDGF,HMGA1,HMGB3,HMMR,HMOX1,HSPA5,HSPA8,HYOU1,ICMT,ID2,IDH2,IGFBP7,IGHM,IKZF2,IL16,IL1B,IL1RN,IL32,IL4R,IL6R,IL7,IQGAP2,IRF4,IRF8,ITGAM,ITGAV,ITGB1,KISS1R,KLF10,LDHA,LGALS1,LGALS3,LITAF,LZTS1,MAP3K14,MAP4,MAPK1,MAPKAPK3,MCL1,MDM2,MDM4,MGAT5,MGLL,MIF,MIR17HG,MKI67,MSI2,MTDH,MYB,NAMPT,NCAPG,NCOA3,NDST1,NDUFA13,NLRP3,NT5E,PA2G4,PAWR,PDE4A,PDE4D,PDGFD,PEG10,PFKFB3,PGD,PIK3CA,PIK3R5,PKM,PLAUR,PRF1,PRKCD,PRKCE,PRKCI,PTAFR,PTGS2,PTK2,PTPRE,PXN,RAD17,RARG,RASSF1,RB1-DT,RBM5,RNF19B,RORA,RPS27,RRAS2,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A6,S100A9,SAT1,SELPLG,SEMA3A,SH2D1A,SKIL,SLC16A1,SLC16A3,SLC39A6,SLC3A2,SMAD3,SRGN,STAT5B,TCL1A,TGFB2,TGFBR2,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNIK,TOX,TP63,TPX2,TRIM69,TUBB3,TXN,TXNIP,UBE2C,UCHL1,VAV3,VCAN,VDR,VEGFA,XBP1,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of myeloid cells | 1.85E-09 | 8.732828272 | turquoise | 81 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD36,CD4,CD69,CD74,CD8A,CNR1,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CYP1B1,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LGALS1,LGALS3,LSP1,LY96,LYN,LYZ,MCOLN2,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PYCARD,RAP1B,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,SWAP70,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,VAV3,VDR |
| Cellular Movement | Invasion of tumor cell lines | 2.13E-09 | 8.671620397 | turquoise | 186 | ABLIM1,ACTN4,ACVR1,ADGRE5,ADI1,AFDN,AGO2,AHNAK,AHR,ANK3,ANXA1,ARG1,ATP6V0A1,AURKA,BHLHE41,BIRC5,BMP6,BRAF,BSG,CAPN2,CAPNS1,CAV1,CBX5,CCNA2,CCR1,CD74,CD99,CDK5,CEBPB,CEMIP2,CLCN4,CNR1,COL18A1,CREB3,CRTAP,CTNND1,CXCL8,CXCR3,CXCR4,CYFIP1,CYP1B1,CYTOR,DANCR,DDR1,DIAPH1,DPYSL2,DSP,DTX1,DUSP6,ECT2,EED,EIF3A,EIF3E,ELMO1,ENAH,EPS8,ERC1,ESR1,ESR2,ETS2,ETV4,EYA2,EZH2,FABP5,FAS,FBXW7,FOXP1,FURIN,FXYD5,GATA3,GNAI3,GNAS,GPI,HAVCR2,HAX1,HBEGF,HBP1,HDGF,HIPK2,HMGA1,HMOX1,ID2,IL32,IQSEC1,IRS2,ITGAL,ITGAV,ITGB1,KEAP1,KISS1R,LASP1,LDHA,LDLRAP1,LGALS1,LGALS3,LIMK1,LIMK2,LYN,MAP4,MAPK1,MARCKS,MBD2,MDM2,MGAT5,MIF,MINK1,MSI2,MTDH,MYB,MYO9A,NAA15,NAMPT,NCOA3,NFATC4,NRCAM,NSD2,PA2G4,PALLD,PAX5,PDCD4,PEBP1,PIK3CA,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PRKCD,PRKCE,PRKCI,PTAFR,PTGES3,PTGS2,PTK2,PTP4A2,PTPRK,PTTG1,PXN,RANBP2,RARG,RASSF1,REL,RORA,RPS6KA6,RRAS2,RRM2,RUNX2,RUNX3,S100A10,S100A11,S100A12,S100A4,S100A6,S100A9,SATB1,SEC24D,SEL1L,SERPINA1,SIGMAR1,SLC9A3R1,SMAD3,SNHG7,SRA1,ST6GAL1,STAT5B,STK38L,TAGLN2,TGFB2,TGFBI,TGFBR2,TGFBR3,TIAM1,TIMP1,TIMP2,TIMP3,TMBIM6,TNF,TP63,VANGL1,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,ZBTB7A |
| Infectious Diseases,Respiratory Disease | Viral respiratory infection | 2.24E-09 | 8.649751982 | turquoise | 41 | ACSL1,ACTN1,ANXA1,CD63,CEBPD,CSF2RB,FCGR3A/FCGR3B,FPR1,GAPDH,GLUL,GSTO1,GYG1,IER3,IRF8,IRS2,ITGAM,LILRA2,MSRB2,NFIL3,NR3C1,PDXK,PTTG1,RAB31,RAB32,RAB5IF,RRAGD,RRM2,S100A12,S100A9,SERPINA1,SLCO3A1,ST6GAL1,STAT4,TALDO1,TIMP1,TIMP2,TKT,TLR2,TNF,TUBB4B,ZYX |
| Cancer,Organismal Injury and Abnormalities | Metastatic solid tumor | 2.26E-09 | 8.645891561 | turquoise | 159 | ABAT,ABCB1,ABRAXAS1,ACP5,ACTN4,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BCOR,BIRC5,BRAF,BRIP1,C5AR1,CALU,CAV1,CCL5,CCND2,CD200,CD36,CD48,CD8A,CDCA7L,CDK4,CDKN2C,CEBPD,CHEK1,COL18A1,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST7,CTNND1,CXCL8,CXCR3,CXCR4,CYP51A1,DDR1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,ESR2,EZH2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLNA,FLT1,GATA3,GLRX,GLUL,GNAS,HAX1,HIST1H3B,HMMR,HMOX1,HSP90AB1,HSP90B1,ID2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL1RN,IL2RB,IL4R,IRF4,ITGB1,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MYL12A,NCAPG,NCOA3,NDUFB4,NLRP1,NR2F1,NR3C1,NT5E,PIK3CA,PLAUR,PPIA,PRKCE,PRKCI,PRUNE2,PSMB2,PTGS2,PTK2,PTTG1,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNH1,RPL7,RPS11,RRM2,RRM2B,RTN1,RUNX2,S100A11,S100A4,SEC61G,SECTM1,SETD2,SLC16A3,SLC5A3,SMAD3,SND1,SRD5A3,SSR2,TBX21,TGFB2,TGFBR2,TGFBR3,THRB,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,VDR,VEGFA,YWHAE |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarthritis | 2.28E-09 | 8.642065153 | turquoise | 58 | ADGRE5,AHR,ANG,ANXA1,ARRB1,CCL3,CCL5,CCR1,CD69,CD70,CD74,CD80,CD86,CEBPB,COCH,CR1,CR2,ERN1,FAS,FCGR2B,FLT1,GNLY,GZMA,HMMR,IL1B,IL1RN,IL2RB,IL4R,IL6R,LGALS1,MCL1,NR3C1,P2RY13,PHC1,PLAUR,PRDM1,PRR5,PTGS2,PTPRE,PYCARD,REL,S100A10,S100A12,S100A8,S100A9,SH2D1A,SNX9,SORL1,STAT4,TARP,TBX21,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF1B,TXN |
| Cell Death and Survival | Cell death of hematopoietic cell lines | 2.37E-09 | 8.625251654 | turquoise | 67 | ABCB1,BAK1,BID,BIRC3,BIRC5,BRAF,CCL5,CCND2,CD19,CD27,CD69,CD8A,CD99,CEBPA,CEBPB,CFLAR,CLEC11A,DAPK1,DAPK2,EIF4B,ESR1,EYA2,FAIM,FAS,FOXO1,GFI1,GGT1,GZMA,GZMB,HCST,HSPA5,IGHM,IL32,IL7,IL9R,IRF4,IRF8,ITGB1,LGALS1,LGALS3,LTK,LYN,MCL1,MDM2,MYB,MYH11,MZB1,NFIL3,PAX5,PDCD5,PRDM1,PRKCE,PXN,RBM5,SH3BP2,SH3GLB1,SPN,ST6GAL1,STAT5B,TFDP1,TGFB2,TLR2,TNF,TNFRSF1B,TNFRSF25,TUBB,WEE1 |
| Cancer,Organismal Injury and Abnormalities | Growth of tumor | 2.57E-09 | 8.590066877 | turquoise | 213 | ABCC4,ACTN4,AFDN,AHR,ALOX5,ANG,ANXA1,ANXA2,APCDD1,ARL6IP5,AURKA,BIK,BIRC5,BMP6,BRAF,BSG,BUB1B,CACYBP,CAPN2,CAV1,CCL3,CCL5,CCR1,CD226,CD33,CD36,CD38,CD58,CD59,CD70,CD80,CD8A,CDK4,CDK5,CERS6,CFLAR,CHEK1,CISD2,CNKSR1,CNR1,COL18A1,COL4A3,COX17,COX8A,CREBBP,CSF1R,CSF3R,CST3,CUX1,CXCL8,CXCR3,CXCR4,CYFIP1,DAPK1,DNM2,EIF4B,ERO1A,ESR1,ESR2,EZH2,FABP5,FAS,FCER1G,FCER2,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXO1,GADD45A,GALNT1,GAPDH,GATA3,GLDC,GZMA,H2AFY,HAVCR2,HBEGF,HCST,HDGF,HMGA1,HMGB3,HMMR,HMOX1,HSPA5,HSPA8,HYOU1,ICMT,ID2,IDH2,IGFBP7,IGHM,IKZF2,IL16,IL1B,IL1RN,IL32,IL4R,IL6R,IL7,IQGAP2,IRF4,IRF8,ITGAM,ITGAV,ITGB1,KISS1R,KLF10,LDHA,LGALS1,LGALS3,LITAF,LZTS1,MAP3K14,MAP4,MAPK1,MAPKAPK3,MCL1,MDM2,MDM4,MGAT5,MGLL,MIF,MIR17HG,MKI67,MSI2,MTDH,MYB,NAMPT,NCAPG,NCOA3,NDST1,NDUFA13,NLRP3,NT5E,PA2G4,PAWR,PDE4A,PDE4D,PDGFD,PEG10,PFKFB3,PGD,PIK3CA,PIK3R5,PKM,PLAUR,PRF1,PRKCD,PRKCE,PRKCI,PTAFR,PTGS2,PTK2,PTPRE,PXN,RAD17,RARG,RASSF1,RB1-DT,RBM5,RNF19B,RORA,RPS27,RRAS2,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A6,S100A9,SAT1,SELPLG,SEMA3A,SH2D1A,SKIL,SLC16A1,SLC16A3,SLC39A6,SLC3A2,SMAD3,SRGN,STAT5B,TCL1A,TGFB2,TGFBR2,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNIK,TOX,TP63,TPX2,TRIM69,TUBB3,TXN,TXNIP,UBE2C,UCHL1,VAV3,VCAN,VDR,VEGFA,XBP1,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of blood cells | 2.85E-09 | 8.54515514 | turquoise | 94 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LB,CD36,CD4,CD69,CD74,CD8A,CD93,CLEC7A,CNR1,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,FABP5,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,HMOX1,IGHE,IL15RA,IL16,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS1,LGALS3,LSP1,LY96,LYN,LYZ,MCOLN2,MGAT5,MIF,NDST1,NINJ1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PYCARD,RAP1B,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,SWAP70,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TXN,VAV3,VDR,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Neuroepithelial tumor | 2.9E-09 | 8.537602002 | turquoise | 259 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA7,ARF4,ARHGAP32,ARHGEF18,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BAG3,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BOC,BRAF,BRIP1,BZW1,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD38,CD48,CD93,CD99,CDC42EP3,CDK4,CDK5,CDKN2C,CHEK1,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCR4,CYP51A1,DBNDD1,DCAF12,DDR1,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,EPHA4,EPPK1,ETV4,EVI2A,EZH2,FA2H,FAS,FBXW7,FCHSD2,FKBP1A,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GON4L,GPSM1,GPX1,GREB1L,H2AFZ,HBEGF,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL16,IL1B,IL32,IL7,INPP5A,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KLHL21,KPNA2,LDLR,LIMK1,LIMK2,LTK,LYNX1,MAP4,MAP7,MARCKS,MBD2,MDM2,MDM4,MGLL,MIR17HG,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NOTCH4,NR3C1,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCB,PRKCD,PRKCE,PRR5,PRUNE2,PSTPIP2,PTGS2,PTTG1,QKI,RBL2,RBM47,RC3H2,RRM2,RRM2B,RUNX2,RUNX3,S100A4,S100A9,SDHA,SDHB,SEC11A,SEC24C,SEC61G,SECISBP2L,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMARCB1,SMC1A,SPON1,SRA1,STUB1,TARP,TBK1,TGFB2,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TROAP,TRPV2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF532,ZNF880 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgM | 2.98E-09 | 8.525783736 | turquoise | 43 | ABCB1,ARID3A,BACH2,BANK1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CIITA,CR2,FCER2,FCGR2B,GADD45A,ICOSLG/LOC102723996,IGHE,IGHM,IGKC,IL21R,IL5RA,IRF4,IRF8,JCHAIN,LDLR,LYN,PLCL2,POU2AF1,PRKCD,PTGS2,PTTG1,REL,SAMSN1,SH2D1A,SH3BP2,TBX21,TNF,TNFRSF13B,TRAF5,VSIR,XRCC6 |
| Cellular Movement | Cell tethering or rolling of leukocytes | 3.12E-09 | 8.505845406 | turquoise | 32 | ANXA1,ARNTL,C1GALT1,CD14,CD63,CXCL2,CXCL8,FAS,FCGR2A,FCGR3A/FCGR3B,FYB1,GALNT1,IL1B,ITGAL,ITGAM,ITGB1,ITGB7,LCP2,LDLR,LGALS3,LYN,MGAT5,NDST1,PRDX1,SELPLG,SPN,ST3GAL6,SWAP70,TLR4,TNF,VAV3,VEGFA |
| Cellular Movement | Migration of tumor cell lines | 3.17E-09 | 8.498940738 | turquoise | 200 | ABCC4,ACTN1,ACTN4,ACVR1,ADGRE5,AFDN,AGO2,AHNAK,AHR,AIF1,ANXA1,ANXA2,ARF1,ARHGAP21,ARPC2,ARRB1,AURKA,BANP,BHLHE41,BMP6,BRAF,BSG,CALU,CAMKK2,CAPN2,CAPNS1,CAV1,CBLB,CCL3,CCL5,CD36,CD99,CDCA7L,CDK5,CEBPB,CEMIP2,CERS6,CHN2,CKLF,CLCN4,COL18A1,COL4A3,CREB3,CSF1R,CTNND1,CXCL2,CXCL8,CXCR4,CYTOR,DANCR,DGKD,DIAPH1,DNM2,DOCK5,DPYSL2,DSP,DTX1,DUSP6,ECT2,EGOT,ELMO1,ENAH,EPHA4,ERC1,ESR1,ESR2,ETV4,EYA2,EZH2,FBXO4,FBXW7,FLNA,FLNB,FOXO1,FOXP1,FURIN,GAB1,GATA3,GNAI3,GNAS,GPI,GZMB,HAVCR2,HAX1,HBEGF,HDGF,HMMR,HMOX1,HSP90B1,HVCN1,ICMT,ID2,IGFBP4,IGFBP7,IL1B,IL32,IL6R,INPP4A,ITGAV,ITGB1,ITPR1,KCNN3,KEAP1,KISS1R,KPNA2,LASP1,LDHA,LGALS1,LGALS3,LIMK1,LIMK2,LTK,LYN,MAP4,MAPK1,MDM2,MGAT3,MGAT5,MIF,MTDH,NCOA3,NFATC4,NINJ1,NREP,NSD2,PAG1,PALLD,PAX5,PDCD4,PHACTR1,PIK3CA,PIK3R5,PIK3R6,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PPIA,PRKCD,PRKCI,PTAFR,PTGS2,PTK2,PTP4A2,PTPN12,PTPRK,PTTG1,PXN,RACGAP1,RALGAPA2,RANBP2,RAP1B,RAP2A,RARG,RASGRP1,RASSF1,RFFL,RHOU,RUNX2,RUNX3,S100A10,S100A11,S100A4,S100A8,S100A9,SEMA3A,SEMA4A,SERPINA1,SERPINA5,SH3KBP1,SIRPA,SLC16A1,SLC9A3R1,SMAD3,SMARCB1,SND1,SNHG7,ST6GAL1,STUB1,TGFBI,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF25,TP63,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,ZBTB7A,ZYX |
| Post-Translational Modification | N-glycosylation of protein | 3.22E-09 | 8.492144128 | turquoise | 21 | ASGR2,DAD1,DDOST,DERL3,KRTCAP2,MAGT1,MGAT2,MGAT3,MGAT4A,MGAT4B,MGAT5,OST4,RPN1,RPN2,SERPINA1,ST6GAL1,STT3A,TMEM165,TMEM258,UBE2J1,VCP |
| Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Disorder of basal ganglia | 3.63E-09 | 8.440093375 | turquoise | 191 | ABCB1,ALAS1,ANXA2,AP1S2,ARHGAP32,ARHGEF7,ARIH2,ARL3,ARL6IP5,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BBS2,BBS4,BCL11B,BCL7A,CA11,CAB39,CAMK4,CAMKK2,CAPN3,CAPNS1,CAPZB,CAV1,CCL5,CD38,CD48,CD74,CDK5,CDS1,CFLAR,CHCHD2,CIITA,CNP,CNR1,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CRYM,CYFIP2,CYP51A1,DAD1,DNAJC1,EIF3E,EIF4G1,ELMO1,EPHA4,ETV4,F8A1 (includes others),FAM3C,FAS,FBXW7,FLOT1,FOXP1,GADD45A,GAPDH,GBA,GNAS,GPI,GRIA1,HBP1,HIGD1A,HLA-B,HMOX1,HMOX2,HSPA5,HSPA8,IER3,IER5,IL1B,IL6R,INPP4A,ITGAM,ITPKB,ITPR1,KCNN3,KIF1B,LDHA,LDHB,LDLR,LIMK1,LYNX1,MAN1A1,MAP3K5,MAPKAPK3,MT1E,MT1G,MT1X,MT2A,MTDH,MYL12A,MYO1B,NAPA,NDUFA13,NDUFA2,NDUFA7,NDUFB2,NDUFB3,NDUFS5,NGRN,NR1D1,NREP,PANK2,PDE4A,PDE4D,PDLIM7,PEBP1,PGK1,PKM,PLA2G6,PLCB1,PNKD,PODXL,PPARGC1B,PPIA,PRKCB,PRR5,PSAT1,PSMB6,PTGES3,PTGS2,PTPRE,RAB11A,RARRES3,RERE,RNASEH2B,RPL13,RPL3,RPS3A,RTN1,RTN4,RUNX3,S100A10,SAMHD1,SAT1,SCAMP5,SCARB2,SCN4A,SDHA,SDHB,SEC11A,SEC24A,SERPINA1,SIGMAR1,SLC1A4,SLIRP,SMTN,SOD1,SORL1,SRM,SSR3,STAP1,STARD4,STUB1,SUB1,TARP,TESC,TLR4,TNF,TPI1,TRAK2,TRAM1,TUBA1B,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMP,UBAC1,UCHL1,UPP1,UQCRB,UQCRC1,VAMP1,VCAN,VIM,WDR45,XRCC6,ZBTB16,ZBTB44 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Nervous system neoplasm | 3.78E-09 | 8.4225082 | turquoise | 309 | ABAT,ABCC4,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA2,ANXA7,ARF4,ARHGAP32,ARHGEF18,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BAG3,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BOC,BRAF,BRIP1,BZW1,C5AR1,CABYR,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD38,CD48,CD93,CD99,CDC42EP3,CDCA7L,CDK4,CDK5,CDKN2C,CHEK1,CHL1,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLECL1,CLIP1,CLMP,CNKSR1,CNKSR2,COCH,COL18A1,COL4A3,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCL8,CXCR4,CYP51A1,DBNDD1,DCAF12,DDR1,DMXL2,DNAH8,DNM2,DOCK5,DST,ECT2,EED,EEF2K,EGOT,EHD4,ELMO1,EPHA4,EPPK1,ESR1,ESR2,ETV4,EVI2A,EZH2,FA2H,FAS,FBXW7,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCHSD2,FKBP1A,FLNA,FLT1,FOSL2,FOXO1,FOXP1,FURIN,GIMAP6,GLDC,GNAQ,GNAS,GON4L,GOT2,GPSM1,GPX1,GREB1L,GRIA1,H2AFZ,HBEGF,HDAC9,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HMMR,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL16,IL1B,IL2RB,IL32,IL7,IMPDH1,INPP5A,IRAK1,IRF4,IRS2,ITGAV,ITPKB,KCNN3,KIF11,KIF18B,KIF1B,KIF21A,KLHL21,KPNA2,LDLR,LGALS3,LIMK1,LIMK2,LRIG2,LTK,LYNX1,MAP4,MAP7,MARCKS,MBD2,MCL1,MDH2,MDM2,MDM4,MGLL,MKI67,MPRIP,MRPL20,MXI1,MYH11,MYO1D,MYO1G,NAA15,NEK6,NINJ2,NIPAL4,NLRP3,NOTCH4,NR3C1,NUAK2,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PDE4A,PDLIM5,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCB,PRKCD,PRKCE,PRR5,PRUNE2,PSTPIP2,PTGS2,PTTG1,PVT1,PYCARD,QKI,RARG,RASSF1,RBL2,RBM47,RC3H2,RRM2,RRM2B,RUNX2,RUNX3,S100A4,S100A9,SDHA,SDHB,SEC11A,SEC24C,SEC61G,SECISBP2L,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMAD3,SMARCB1,SMC1A,SPON1,SRA1,STUB1,TARP,TBK1,TERF2,TGFB2,TGFBI,TGFBR2,TIGD7,TIMP1,TINF2,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TP63,TRAM2,TROAP,TRPV2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,UTRN,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,ZC3HAV1L,ZMIZ1,ZMYND11,ZNF274,ZNF480,ZNF490,ZNF532,ZNF880 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of cells | 4.19E-09 | 8.377785977 | turquoise | 100 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LB,CD36,CD4,CD63,CD69,CD74,CD8A,CD93,CLEC7A,CNR1,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,FABP5,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,HMOX1,HRH2,IGHE,IL15RA,IL16,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS1,LGALS3,LSP1,LY96,LYN,LYZ,MCOLN2,MGAT5,MIF,NDST1,NINJ1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PTGS2,PTK2,PYCARD,RAP1B,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SLC11A1,SMAD3,ST3GAL6,SWAP70,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TXN,VAV3,VDR,VEGFA,VIM |
| Infectious Diseases,Respiratory Disease | Infection of respiratory tract | 4.26E-09 | 8.370590401 | turquoise | 52 | ACSL1,ACTN1,ALOX5,ANXA1,CD63,CEBPD,CSF2RB,CYP51A1,FCGR3A/FCGR3B,FPR1,GAPDH,GLUL,GSTO1,GYG1,IER3,IRF8,IRS2,ITGAM,LILRA2,MSRB2,NFIL3,NR3C1,PDXK,PTAFR,PTGS2,PTTG1,RAB31,RAB32,RAB5IF,RRAGD,RRM2,S100A12,S100A9,SCN4A,SERPINA1,SIGMAR1,SLCO3A1,ST6GAL1,STAT4,TALDO1,TIMP1,TIMP2,TKT,TLR2,TLR4,TNF,TOP2A,TUBB4B,TYMS,VDR,XK,ZYX |
| Cancer,Organismal Injury and Abnormalities | Development of neuroepithelial tumor | 4.26E-09 | 8.370590401 | turquoise | 258 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA7,ARF4,ARHGAP32,ARHGEF18,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BAG3,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BOC,BRAF,BRIP1,BZW1,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD38,CD48,CD93,CD99,CDC42EP3,CDK4,CDK5,CDKN2C,CHEK1,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCR4,CYP51A1,DBNDD1,DCAF12,DDR1,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,EPHA4,EPPK1,ETV4,EVI2A,EZH2,FA2H,FAS,FBXW7,FCHSD2,FKBP1A,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GON4L,GPSM1,GPX1,GREB1L,H2AFZ,HBEGF,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL16,IL1B,IL32,IL7,INPP5A,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KLHL21,KPNA2,LDLR,LIMK1,LIMK2,LTK,LYNX1,MAP4,MAP7,MARCKS,MBD2,MDM2,MDM4,MGLL,MIR17HG,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NOTCH4,NR3C1,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCB,PRKCD,PRKCE,PRR5,PRUNE2,PSTPIP2,PTGS2,PTTG1,QKI,RBL2,RBM47,RC3H2,RRM2,RRM2B,RUNX2,RUNX3,S100A4,S100A9,SDHA,SEC11A,SEC24C,SEC61G,SECISBP2L,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMARCB1,SMC1A,SPON1,SRA1,STUB1,TARP,TBK1,TGFB2,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TROAP,TRPV2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF532,ZNF880 |
| Infectious Diseases | Infection by lentivirus | 4.33E-09 | 8.363512104 | turquoise | 181 | ABCB1,ACTR3,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,ARF1,ARHGAP32,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,CAMK1D,CAMKK2,CARD16,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD36,CD38,CD4,CD74,CD80,CD86,CDC42EP3,CEP68,CR2,CSF2RB,CXCL8,CXCR4,CYP51A1,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,ELOA,ELOC,EPS8,ESR1,ESR2,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGD6,FKBP1A,FPR1,FURIN,GABPB1,GPI,HAVCR2,HID1,HLA-DOA,HRH2,IFNAR2,IL2RB,IL4R,IL7,IMPDH1,ITGB1,ITGB7,KCNN4,LCP2,LIMK2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MDM2,MGAT1,MICAL3,MID1IP1,MRPL23,MT1X,MT2A,MYO1F,MYOF,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NIPSNAP3B,NLRP1,NR3C1,NUP133,OSBPL3,PDCD2L,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PGM1,PMM1,POLR2L,PPIB,PPM1K,PSMA1,PSMA2,PSMA3,PSMA5,PSMA7,PSMB6,PSME2,PTAFR,PTGES3,PTGS2,PVT1,RAB1B,RAB8A,RANBP2,RAP1B,RARG,RBM5,RNH1,RRM2,RRM2B,RTN3,RXRA,SAMHD1,SEC14L1,SEC61G,SERPINA1,SERPINB6,SESTD1,SFXN3,SHCBP1,SIGMAR1,SNRPA1,SPCS3,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TERF2,TFDP2,TFRC,TLR2,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TRIM44,TRIM8,TTC3,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2H,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cell Morphology | Morphology of blood cells | 4.49E-09 | 8.347753659 | turquoise | 116 | ABCB1,ABHD5,AFF1,AHR,ANXA7,ARID3A,ARID4B,ARSG,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,BLOC1S2,BNIP3L,C1GALT1,CBLB,CCND2,CCR1,CD19,CD200,CD22,CD36,CD4,CD74,CD80,CD86,CD8A,CDK4,CDKN2C,CEBPA,CEBPB,CITED2,CR2,CREBBP,CSF1R,CSF3R,CXCL8,CXCR5,DCLRE1C,DTX1,EIF2AK1,EPB42,ERN1,ESR1,ETS2,FAS,FCER1G,FCGR2B,FNIP1,GATA3,GBA,GFI1,GNAQ,HAX1,HEXB,HLA-DMA,HSP90B1,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL4R,IL5RA,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGAM,ITGB7,ITPKB,LAMTOR2,LAT,LCP2,LDLR,LGALS3,LGMN,LILRB3,LYN,MCL1,MXI1,MYB,NFIL3,PCLAF,PHC1,POU2AF1,PRDM1,PRDX1,PRKCE,PSAP,PSMB10,RASGRP1,REL,RHOH,RRAS2,RUNX3,SH2D1A,SLC4A1,SOD1,ST3GAL6,STAT5B,TBX21,TFRC,TLR2,TLR4,TNF,TOX,TRIB1,TXNIP,UACA,XBP1,XRCC6 |
| Cell-To-Cell Signaling and Interaction | Response of myeloid cells | 4.55E-09 | 8.341988603 | turquoise | 67 | ADGRE2,ANXA1,APOA2,C5AR1,CCL3,CCR1,CD14,CD36,CD38,CD93,CEBPB,CLEC7A,CMC2,CSF1R,CSF2RB,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GNAQ,GPR18,HMOX1,HSH2D,IGHA1,IGHG3,IL1B,IL5RA,IL6R,IRAK1,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,LGALS3,LILRB3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PRKCE,PTAFR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,TYROBP,XBP1 |
| Cell Death and Survival | Cytotoxicity | 4.78E-09 | 8.320572103 | turquoise | 68 | AGAP3,BMPR1A,CALM1 (includes others),CBLB,CCL5,CD226,CD27,CD300A,CD38,CD48,CD58,CD59,CD69,CD74,CFLAR,CHEK1,CREBBP,CRH,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FKBP1A,GZMA,GZMB,HAVCR2,HCST,HSPA8,IL1RN,IL21R,IL7,IMPDH1,IRAK1,ITGAL,ITGAM,KLRD1,LARP1B,LAT,LDLR,LGALS3,LYN,MAPK1,NAMPT,NDUFS4,PFDN5,PIK3CA,PPIA,PPIB,PRF1,PRKCD,RASGRP1,SH2D1A,SLAMF7,SOD1,SPN,STAT4,STAT5B,STX7,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TOP2A,TXN,TYROBP,VAV3 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Benign pelvic disease | 5.86E-09 | 8.232102384 | turquoise | 140 | ABCG1,ABI2,ADARB1,ADGRE5,AHR,ALDH1A1,ALDOA,ANK3,AP2S1,APOBEC3B,ARF1,ARIH2,ARNT,ATP1B1,BCAT1,BIRC5,BMP8B,BSG,BUB1B,CCNA2,CCR1,CD163,CD48,CDC42EP3,CEBPB,CITED2,CLUH,CNP,COCH,COL18A1,CSF1R,CTNND1,CTSC,CUX1,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,DST,DYNLL1,EIF1,ELL2,EPPK1,ESR1,ESR2,FAS,FKBP1A,FLT1,FOSL2,FOXO1,GABBR1,GALK2,GATA3,GNAS,GPI,GZMA,HLA-DOB,HSD17B10,HSP90AB1,IL2RB,IRS2,ITGAL,ITGAM,ITGB1,KCNG1,KCNN3,KIF20A,LSP1,LYN,MARCKS,MCM4,MGLL,MGST1,MLX,MMP11,MPHOSPH8,MT1E,MT1G,MT1X,MTHFD2,MYL6,NFIL3,NR2F1,NR3C1,NRIP1,PDE4D,PDGFD,PFKFB3,PIK3CA,PIP5K1B,PKD1,PLA2G6,PLAUR,PLD3,PLXNC1,PPP1R3D,PRKCB,PRR5,PSMA1,PSMA6,PTAFR,PTGS2,PTTG1,RAP1B,RAP2B,REL,RORA,RXRA,S100A8,S100A9,SAT1,SLC16A1,SLC1A4,SLC2A5,SLC5A3,SRPRB,TARP,TBL1X,TGFB2,TGFBI,TIMP2,TNF,TNFRSF17,TNFRSF1B,TOP2A,TRAF5,UBAC1,UCHL1,UQCRH,UTRN,VCAN,VCP,VDR,VEGFA,VIM,WEE1,XRCC6,ZBTB16,ZYX |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Glioma | 5.92E-09 | 8.227678293 | turquoise | 256 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA7,ARF4,ARHGAP32,ARHGEF18,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BAG3,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BOC,BRAF,BRIP1,BZW1,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD38,CD48,CD93,CD99,CDC42EP3,CDK4,CDK5,CDKN2C,CHEK1,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCR4,DBNDD1,DCAF12,DDR1,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,EPHA4,EPPK1,ETV4,EVI2A,EZH2,FA2H,FAS,FBXW7,FCHSD2,FKBP1A,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GON4L,GPSM1,GPX1,GREB1L,H2AFZ,HBEGF,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL16,IL1B,IL32,IL7,INPP5A,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KLHL21,KPNA2,LDLR,LIMK1,LIMK2,LTK,LYNX1,MAP4,MAP7,MARCKS,MBD2,MDM2,MDM4,MGLL,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NOTCH4,NR3C1,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCB,PRKCD,PRKCE,PRR5,PRUNE2,PSTPIP2,PTGS2,PTTG1,QKI,RBL2,RBM47,RC3H2,RRM2,RRM2B,RUNX2,RUNX3,S100A4,S100A9,SDHA,SEC11A,SEC24C,SEC61G,SECISBP2L,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMARCB1,SMC1A,SPON1,SRA1,STUB1,TARP,TBK1,TGFB2,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TROAP,TRPV2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF532,ZNF880 |
| Infectious Diseases | HIV infection | 6.3E-09 | 8.200659451 | turquoise | 180 | ABCB1,ACTR3,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,ARF1,ARHGAP32,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,CAMK1D,CAMKK2,CARD16,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD36,CD38,CD4,CD74,CD80,CD86,CDC42EP3,CEP68,CR2,CSF2RB,CXCL8,CXCR4,CYP51A1,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,ELOA,ELOC,EPS8,ESR1,ESR2,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGD6,FKBP1A,FPR1,FURIN,GABPB1,GPI,HAVCR2,HID1,HLA-DOA,HRH2,IFNAR2,IL2RB,IL4R,IL7,IMPDH1,ITGB1,ITGB7,KCNN4,LCP2,LIMK2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MGAT1,MICAL3,MID1IP1,MRPL23,MT1X,MT2A,MYO1F,MYOF,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NIPSNAP3B,NLRP1,NR3C1,NUP133,OSBPL3,PDCD2L,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PGM1,PMM1,POLR2L,PPIB,PPM1K,PSMA1,PSMA2,PSMA3,PSMA5,PSMA7,PSMB6,PSME2,PTAFR,PTGES3,PTGS2,PVT1,RAB1B,RAB8A,RANBP2,RAP1B,RARG,RBM5,RNH1,RRM2,RRM2B,RTN3,RXRA,SAMHD1,SEC14L1,SEC61G,SERPINA1,SERPINB6,SESTD1,SFXN3,SHCBP1,SIGMAR1,SNRPA1,SPCS3,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TERF2,TFDP2,TFRC,TLR2,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TRIM44,TRIM8,TTC3,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2H,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Migration of phagocytes | 6.5E-09 | 8.187086643 | turquoise | 81 | ABCC4,ANXA1,ANXA2,ASB2,C1GALT1,CCL3,CCL5,CCR1,CD38,CD58,CD74,CD80,CD86,CD99,CLEC11A,CNR1,CRH,CSF1R,CSF2RB,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DIAPH1,EPS8,FAS,FLNA,FLT1,FPR1,GNAI3,HRH2,IL16,IL1B,IL1RN,IL21R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,LDLR,LGALS1,LGALS3,LSP1,MGAT5,MIF,NINJ1,NLRP3,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,PTGS2,PTPRB,QPCT,RAP1B,RTN4,RUNX3,S100A10,S100A8,S100A9,SELPLG,SEMA3A,SEMA4A,SIRPA,STAB1,SWAP70,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic lymphocytic leukemia | 6.66E-09 | 8.176525771 | turquoise | 65 | ADA,ATXN1,BACH2,BAK1,BCL2L2,BCL9L,BIRC3,BRAF,CCL3,CD38,CD74,CD80,CD86,CDC42EP3,CDK5,CHD2,CSF3R,CXCL8,DAD1,DAPK1,DLEU2,E2F7,ESR2,FAS,FBXW7,FCGR2A,FLT1,HLA-B,HVCN1,IL1B,IL7,IMPDH1,IRAK1,IRF4,IRF8,LYN,LYPLA2,MCL1,MIF,MIR17HG,MYB,NAMPT,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PPIA,PRICKLE1,PRKCB,PRR5,PTPRE,RRM2,RRM2B,SIPA1L3,SMAD3,SYNE2,TARP,TBX21,TLK1,TLR2,TNF,TOP2A,TRAM2,ZYX |
| Cellular Movement | Homing of cells | 6.72E-09 | 8.172630727 | turquoise | 149 | ACTN1,ADGRE2,AIF1,ALOX5,ANXA1,ANXA2,AQP9,ARHGEF7,ARPC2,ARRB1,C5AR1,CAMK1D,CAPN2,CAV1,CCL3,CCL5,CCR1,CD36,CD38,CD4,CD69,CD72,CD74,CKLF,CNR1,COL4A3,CORO1B,CREB3,CSF1R,CSF3R,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DDR1,DIAPH1,DOCK5,DUSP6,DYSF,ELMO1,ENAH,ETV4,FAS,FCER1G,FCGR2A,FLOT1,FLT1,FOXO1,FPR1,FRS2,FYB1,GAB1,GATA3,GLRX,GNAI3,GNAS,GNLY,GPR18,GPSM1,HBEGF,HOMER3,HRH2,IL16,IL1B,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,JAML,KCNN4,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LSP1,LYN,MAP3K14,MAP3K5,MAPK1,MEF2C,MIF,MYB,MYO1F,NCK2,NDST1,NINJ1,NR3C1,NRCAM,NT5E,PDGFD,PIK3CA,PIK3R5,PLA2G6,PLAUR,PLXND1,PPIA,PPIB,PRKCB,PRKCD,PTAFR,PTGS2,PTK2,PXN,RAP1B,REL,RGS10,RHOU,RTN4,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SGPP1,SIRPA,SMAD3,SPN,STAP1,SWAP70,TGFB2,TIAM1,TLR2,TLR4,TNF,TP63,TREM1,TREML2,TRIB1,TRPV2,TXN,TYMP,USP14,VAV3,VEGFA |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Recruitment of phagocytes | 6.81E-09 | 8.166852888 | turquoise | 74 | AHR,ALOX5,ANXA1,BRAF,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD36,CD4,CD69,CD74,CD8A,CNR1,COCH,CR2,CSF1R,CTSC,CX3CR1,CXCL2,CXCL8,CYP1B1,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,IGHE,IL1B,IL1RN,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS3,LSP1,LY96,LYN,LYZ,MCOLN2,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PYCARD,RAP1B,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,VAV3,VDR |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of lymphoid organ | 7.26E-09 | 8.139063379 | turquoise | 61 | ANXA1,ANXA7,ARL6IP5,BIRC3,BIRC5,BRAF,CD19,CD22,CDK4,CEBPA,CHEK1,COL18A1,CR2,CREBBP,CSF1R,CSF3R,CTNND1,DTX1,EED,ESR1,ESR2,EZH2,FBXW7,FCER2,FKBP1A,FLT1,HMMR,HSP90AB1,HSP90B1,IDH2,IGH,IL4R,ITGB1,MAP4,MCL1,MKI67,NLRP3,NR3C1,PAWR,PAX5,PIK3CA,POU2AF1,PTGS2,REL,RRM2,RRM2B,SPN,SSBP2,STAT5B,SWAP70,TBC1D16,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,XRCC6 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Chronic psoriasis | 7.35E-09 | 8.133712661 | turquoise | 45 | ARG1,ATOX1,ATP1B1,CEBPB,CEBPD,CFLAR,CRIP1,CSTB,EIF4A3,ELL2,FABP5,GATA3,GOT2,H2AFZ,HMOX1,HSPA8,HSPE1,IL4R,IRAK1,KDELR2,KPNA2,KYNU,LDLR,MANF,MAPKAPK3,MARCKS,PCBD1,PCLAF,PGAM1,PGD,PKM,PSMB10,PSME2,S100A11,S100A12,S100A9,SEC23B,SLC39A6,SRM,TAF10,TIMP3,TUBG1,UBE2N,UPP1,VDR |
| Cellular Movement | Cell rolling of blood cells | 8.18E-09 | 8.087246696 | turquoise | 30 | ANXA1,C1GALT1,CD14,CD36,CD63,CXCL2,CXCL8,FAS,FCGR2A,FCGR3A/FCGR3B,FYB1,GALNT1,IL1B,ITGAL,ITGAM,ITGB1,ITGB7,LCP2,LGALS3,LYN,MGAT5,NDST1,PRDX1,SELPLG,SPN,SWAP70,TLR4,TNF,VAV3,VEGFA |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of spleen | 1.07E-08 | 7.970616222 | turquoise | 88 | ABCB4,ABCC4,AHR,AIM2,AKAP13,ALOX5,ARID4B,B3GNT5,BAK1,BANK1,BIK,BNIP3L,CD19,CD80,CD86,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CITED2,CREBBP,CSF1R,CSF2RB,CTSA,CUX1,DCLRE1C,DIAPH1,E2F2,ESR2,FAS,FCER1G,FCGR2B,FNIP1,GBA,HMGA1,HMOX1,ICOSLG/LOC102723996,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PICALM,PRDX1,PRF1,PRKCD,PSAP,PTGS2,RAPGEF6,RASGRP1,REL,RHOH,RRM2,RRM2B,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,STAT5B,TCL1A,TGFBI,TGFBR3,TNF,TNFRSF13B,TOX,TRADD,TRIB1,VDR,XRCC6 |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of leukocytes | 1.09E-08 | 7.962573502 | turquoise | 77 | ABCG1,ADGRE5,AHR,ALOX5,ANXA1,BRAF,C5AR1,CCL3,CCL5,CCR1,CD200,CD27,CD300LB,CD70,CD80,CD86,CD99,CEBPA,COL18A1,CR1,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DDR1,EPHA4,ETS2,EZH2,FAS,FCGR2A,FCGR3A/FCGR3B,GFI1,GNAQ,HAVCR2,HMOX1,ICOSLG/LOC102723996,IER3,IL1B,IL1RN,IL21R,IL2RB,IL7,IL9R,IRF4,ITGAL,ITGAM,ITGAX,ITGB1,LAT,LDLR,LYN,MIF,NR3C1,NT5E,PTGS2,RASGRP1,RUNX3,S100A8,S100A9,SELPLG,SH3BP2,SOD1,SOS2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TYROBP,VEGFA,VSIR,XBP1 |
| Infectious Diseases,Inflammatory Disease,Organismal Injury and Abnormalities,Respiratory Disease | Severe acute respiratory syndrome | 1.26E-08 | 7.899629455 | turquoise | 39 | ACSL1,ACTN1,CD63,CEBPD,CSF2RB,FCGR3A/FCGR3B,FPR1,GAPDH,GLUL,GSTO1,GYG1,IER3,IRF8,IRS2,ITGAM,LILRA2,MSRB2,NFIL3,PDXK,PTTG1,RAB31,RAB32,RAB5IF,RRAGD,RRM2,S100A12,S100A9,SERPINA1,SLCO3A1,ST6GAL1,STAT4,TALDO1,TIMP1,TIMP2,TKT,TLR2,TNF,TUBB4B,ZYX |
| Hematological System Development and Function,Tissue Development | Accumulation of blood cells | 1.27E-08 | 7.896196279 | turquoise | 81 | ABCG1,ADGRE5,AHR,ALOX5,ANXA1,BRAF,C5AR1,CCL3,CCL5,CCR1,CD200,CD27,CD300LB,CD70,CD80,CD86,CD99,CEBPA,COL18A1,CR1,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DDR1,EPHA4,ETS2,EZH2,FAS,FCGR2A,FCGR2B,FCGR3A/FCGR3B,GFI1,GNAQ,HAVCR2,HMOX1,ICOSLG/LOC102723996,IER3,IL1B,IL1RN,IL21R,IL2RB,IL7,IL9R,IRF4,ITGAL,ITGAM,ITGAX,ITGB1,LAT,LDLR,LYN,MIF,NFYA,NR3C1,NT5E,P4HB,PTGS2,RASGRP1,RUNX3,S100A8,S100A9,SELPLG,SH3BP2,SOD1,SOS2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TYROBP,VEGFA,VSIR,XBP1,ZBTB16 |
| Cell Death and Survival | Cell viability of mononuclear leukocytes | 1.42E-08 | 7.847711656 | turquoise | 61 | ARRB1,BAK1,BCL11B,BIK,BTLA,CAMK4,CD19,CD22,CD74,CD80,CD86,CD8A,CLEC11A,CSF1R,CXCL8,FAS,FCGR3A/FCGR3B,GATA3,GIMAP5,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF2,IL21R,IL2RB,IL7,IL7R,ITGAL,ITPKB,LAT,LAX1,LGALS3,MAP3K14,MCL1,MEF2C,MIF,MIR17HG,MYB,MYH11,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PRKCB,PTK2,PYCARD,REL,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B |
| Tissue Development | Accumulation of cells | 1.44E-08 | 7.841637508 | turquoise | 92 | ABCG1,ADGRE5,AHR,ALOX5,ANXA1,BID,BRAF,BUB1B,C5AR1,CCL3,CCL5,CCR1,CD200,CD27,CD300LB,CD70,CD80,CD86,CD99,CEBPA,CHEK1,COL18A1,CR1,CSNK1A1,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DDR1,EPHA4,ETS2,EZH2,FAS,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLT1,GFI1,GNAQ,HAVCR2,HMOX1,ICOSLG/LOC102723996,IER3,IL1B,IL1RN,IL21R,IL2RB,IL7,IL9R,IRF4,ITGAL,ITGAM,ITGAX,ITGB1,KMT5A,LAT,LDLR,LRP8,LYN,MIF,NFYA,NR3C1,NT5E,P4HB,PPM1G,PTGS2,RASGRP1,RUNX3,S100A8,S100A9,SAMHD1,SELPLG,SH3BP2,SMARCB1,SOD1,SOS2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TPX2,TYROBP,VEGFA,VSIR,XBP1,ZBTB16 |
| Cell Death and Survival,Hematological System Development and Function | Cell viability of lymphocytes | 1.48E-08 | 7.829738285 | turquoise | 59 | ARRB1,BAK1,BCL11B,BIK,BTLA,CAMK4,CD19,CD22,CD74,CD80,CD86,CD8A,CLEC11A,FAS,FCGR3A/FCGR3B,GATA3,GIMAP5,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF2,IL21R,IL2RB,IL7,IL7R,ITGAL,ITPKB,LAT,LAX1,LGALS3,MAP3K14,MCL1,MEF2C,MIF,MIR17HG,MYB,MYH11,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PRKCB,PTK2,PYCARD,REL,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B |
| Organismal Survival | Morbidity or mortality | 1.54E-08 | 7.812479279 | turquoise | 529 | ABCB1,ABCB4,ABCC4,ABHD5,ACTG1,ACTN4,ACVR1,ADA,ADARB1,ADGRE5,AFDN,AFF1,AFF4,AFMID,AGO2,AHR,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANK3,ANXA1,ANXA2,ANXA7,APBB2,APLP2,ARF1,ARF4,ARG1,ARID3A,ARID3B,ARID4B,ARIH2,ARNT,ARNTL,ARRB1,ASGR2,ASL,ATOX1,ATP1A1,ATP1B1,AURKA,B3GNT5,BACE2,BAG3,BAK1,BBS4,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BLMH,BLOC1S2,BMP6,BMPR1A,BNIP3L,BRAF,BRIP1,BSG,BUB1B,BUB3,C1GALT1,C1GALT1C1,C5AR1,CALCR,CAMK4,CANX,CAPN2,CAPNS1,CAPZB,CAV1,CBLB,CBX4,CCNA2,CCNC,CCND2,CCR1,CD14,CD19,CD200,CD22,CD226,CD300A,CD36,CD4,CD55,CD59,CD70,CD74,CD8A,CDK2AP1,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CFL1,CFLAR,CFP,CHEK1,CHMP2A,CISD2,CITED2,CLEC12A,CLEC4D,CLEC7A,CLMP,CLUH,CNN3,CNP,CNR1,COL19A1,COL4A3,COPS8,COX17,CPEB2,CR2,CREB5,CREBBP,CSF1R,CSNK1A1,CSRP1,CST3,CTNND1,CTSA,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYP51A1,CYTOR,DACT1,DAD1,DBI,DBNDD1,DCLRE1C,DDR1,DDX17,DDX5,DGKD,DNAJC3,DNM2,DPPA4,DSP,DTL,E2F2,E2F7,ECT2,EED,EEF2K,EHD1,EHD3,EHD4,EIF2AK1,EIF3M,ELK3,ELOA,EMC7,ENAH,ERC1,ERN1,ERO1A,ESR1,ESR2,ETHE1,ETS2,EXT1,EZH2,FAIM,FAS,FBXO4,FBXW7,FCER1G,FCGR2B,FCN1,FECH,FGF9,FKBP1A,FLNA,FLNB,FLT1,FNDC3B,FNIP1,FOSL2,FOXO1,FPR1,FRS2,FURIN,GAB1,GABBR1,GABPB1,GADD45A,GADD45GIP1,GALNT1,GATA3,GBA,GCLC,GFI1,GGCX,GGT1,GMNN,GNAI3,GNAQ,GNAS,GNG5,GNLY,GPHN,GPX1,GSTK1,GSTM1,GTF2I,GZMA,H2AFY,H2AFZ,HAVCR2,HAX1,HBEGF,HCST,HEXB,HIPK2,HLA-DMA,HMOX1,HMOX2,HRH2,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HSPE1,HYOU1,ICMT,ID2,IDE,IDH2,IFI30,IFNAR2,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL2RB,IL4R,IL6R,IQGAP2,IRAK1,IRAK2,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGB1,ITPKB,ITPR1,JCHAIN,KBTBD2,KEAP1,KIF1B,KIF20A,KISS1R,KLF9,KMT5A,KRR1,LAMC1,LAMTOR2,LCP2,LDLR,LGALS2,LGALS3,LIMK1,LIMS1,LMNB1,LRIG2,LRP8,LRPAP1,LRRK1,LY96,LYN,LYZ,MAFB,MAP3K14,MAP4,MAPK1,MAPKAPK3,MARCKSL1,MBD5,MBTD1,MCL1,MDM2,MDM4,MEF2C,MGAT1,MGAT2,MIA3,MIF,MIR17HG,MKI67,MKKS,MMP11,MNS1,MTDH,MTHFD2,MTM1,MTSS1,MXI1,MYB,MYH11,MYL6,NAB1,NCAPH,NCK2,NCOA3,NDC80,NDST1,NDUFA13,NDUFS4,NEAT1,NEK8,NFATC3,NFATC4,NFE2L1,NFIL3,NFYA,NINJ1,NIPAL4,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NRCAM,NT5E,NUAK2,NUMA1,NUSAP1,OCRL,OTUD7B,PALLD,PAM,PANK2,PAX5,PAXX,PBX3,PCDHGC3,PCSK5,PCYT1A,PDCD4,PEG10,PERP,PFKFB3,PHC1,PHGDH,PIAS2,PICALM,PIK3CA,PILRA,PILRB,PITPNA,PKD1,PKM,PLA2G6,PLAUR,PLCB1,PLIN2,PLXNB2,PLXND1,PMEPA1,PPARGC1B,PPIA,PPIB,PPP1R9A,PRDM1,PRDX1,PRF1,PRKCD,PRKCI,PSAP,PSMC2,PSMG1,PTAFR,PTGES3,PTGS2,PTK2,PTPN12,PTTG1,PXN,PYCARD,QKI,RAB11A,RAB31,RAB3D,RAB8A,RAD17,RARG,RASSF1,RBL2,RBMS1,RBX1,RDH10,REC8,REL,RGS10,RNASEH2B,RORA,RPS6KA4,RRM2B,RTN4,RUNX2,RXRA,S100A4,S100A8,S100A9,SATB1,SAV1,SCARB2,SEC24C,SEL1L,SEMA3A,SERP1,SERPINA1,SESTD1,SETD2,SH3PXD2A,SIGMAR1,SIK3,SKIL,SLC25A37,SLC31A1,SLC3A2,SLC4A1,SLC5A3,SLC8A1,SLC9A3R1,SLIRP,SMAD3,SMARCB1,SMTN,SNRPN,SOD1,SPRY1,SRXN1,SSBP2,ST7,STAB1,STAT4,STAT5B,STUB1,SUB1,SUN1,SYCP2,SYCP3,SYNE2,TAF10,TBK1,TBX21,TEAD2,TERF2,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TGFBR3,TGIF1,THEM4,THRB,TIMP1,TIMP2,TIMP3,TINF2,TKT,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TREM1,TRIM38,TRPV2,TSHR,TSHZ1,TTN,TUBG1,TXN,TXNIP,TYMP,UBE2C,UBE2J1,UBE2L3,UBE2N,UBE2Q1,UBE2W,UHRF1,USP14,UTRN,UXS1,VAV3,VCAN,VCL,VCP,VDAC1,VDAC3,VDR,VEGFA,VIM,VPS41,VTI1B,WDR1,WNT7B,XBP1,XRCC6,YBX3,YME1L1,YWHAE,ZBTB7A,ZMIZ1,ZNF274,ZNF281 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell leukemia | 1.58E-08 | 7.801342913 | turquoise | 73 | ADA,ANXA1,ATP1B1,ATXN1,ATXN7L1,BCL11B,BRAF,CADM1,CBLB,CD14,CD1A,CD27,CD33,CD4,CD58,CD86,CEBPA,CIITA,CSF3R,CSNK1A1,EED,ERC1,EZH2,FAS,FBXW7,FKBP1A,GATA3,GZMB,HLA-B,IDH2,IFNAR2,IKZF2,IL6R,IL7R,IMPDH1,IRF4,ITGAM,ITGB1,JARID2,KMO,MGLL,MYB,NR3C1,NRCAM,PAX5,PDE7B,PPIA,PRDM1,PRKCB,PRR5,PSMB2,PTPRE,REL,RHOH,RHOU,RRM2,RUNX3,SETD2,SLC16A7,STAT5B,TARP,TCF7,TCL1A,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,VMP1,ZMIZ1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Central nervous system solid tumor | 1.59E-08 | 7.798602876 | turquoise | 292 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA2,ANXA7,ARF4,ARHGAP32,ARHGEF18,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BAG3,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BOC,BRAF,BRIP1,BZW1,C5AR1,CABYR,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD38,CD48,CD93,CD99,CDC42EP3,CDCA7L,CDK4,CDK5,CDKN2C,CHEK1,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLECL1,CLIP1,CLMP,CNKSR1,CNKSR2,COCH,COL18A1,COL4A3,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCL8,CXCR4,CYP51A1,DBNDD1,DCAF12,DDR1,DMXL2,DNAH8,DNM2,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,EPHA4,EPPK1,ESR1,ESR2,ETV4,EVI2A,EZH2,FA2H,FAS,FBXW7,FCHSD2,FKBP1A,FLNA,FLT1,FOSL2,FOXO1,FOXP1,FURIN,GIMAP6,GLDC,GNAQ,GNAS,GON4L,GOT2,GPSM1,GPX1,GREB1L,GRIA1,H2AFZ,HBEGF,HDAC9,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL16,IL1B,IL32,IL7,IMPDH1,INPP5A,IRAK1,IRF4,IRS2,ITGAV,ITPKB,KCNN3,KIF18B,KIF21A,KLHL21,KPNA2,LDLR,LIMK1,LIMK2,LRIG2,LTK,LYNX1,MAP4,MAP7,MARCKS,MBD2,MCL1,MDM2,MDM4,MGLL,MKI67,MPRIP,MRPL20,MXI1,MYH11,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NOTCH4,NR3C1,NUAK2,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PDE4A,PDLIM5,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCB,PRKCD,PRKCE,PRR5,PRUNE2,PSTPIP2,PTGS2,PTTG1,PVT1,PYCARD,QKI,RARG,RASSF1,RBL2,RBM47,RC3H2,RRM2,RRM2B,RUNX2,RUNX3,S100A4,S100A9,SDHA,SEC11A,SEC24C,SEC61G,SECISBP2L,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMAD3,SMARCB1,SMC1A,SPON1,SRA1,STUB1,TARP,TBK1,TERF2,TGFB2,TGFBI,TGFBR2,TIGD7,TIMP1,TINF2,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TP63,TRAM2,TROAP,TRPV2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF490,ZNF532,ZNF880 |
| Cell Cycle | Cell cycle progression | 1.71E-08 | 7.76700389 | turquoise | 247 | ADARB1,AHNAK,AHR,AIF1,ANLN,APBB2,ARG1,ARHGAP32,ARNTL,ARNTL2,ARPC1B,ARRB1,AURKA,BAK1,BANP,BIRC5,BMP6,BMPR1A,BRAF,BTG1,BUB1B,BUB3,CAB39,CAMK2N1,CAMK4,CAPN2,CAV1,CCL3,CCNA2,CCNC,CCND2,CD14,CD19,CD4,CD59,CD70,CDC5L,CDC6,CDCA5,CDK4,CDK5,CDKN2C,CDT1,CEBPA,CEBPB,CENPW,CHEK1,CHMP2A,CHN2,CITED2,CLIP1,COPZ1,COPZ2,CREBBP,CREG1,CRH,CSF1R,CSNK1A1,CSTB,CUX1,CXCL8,DBI,DDX17,DLGAP5,DTL,E2F2,EIF3E,EIF3M,ELOA,ELOC,EPS8,ERN1,ESR1,EZH2,FAS,FBXO4,FBXW7,FCGR2A,FCGR2B,FGF9,FKBP1A,FLNA,FLT1,FOSL2,FOXO1,FRS2,GAB1,GADD45A,GATA3,GDPD5,GMNN,GNAI3,GPI,GPX1,HBEGF,HBP1,HIPK2,HMOX1,HSPA8,HSPA9,ICOSLG/LOC102723996,ID2,IER3,IGHM,IL1B,IL2RB,IL4R,IL6R,IL7,IL7R,INVS,IRS2,ITGAL,ITGB1,JARID2,JDP2,KIF11,KIF18B,KIF1C,KIF2C,KLF10,KMT5A,KNL1,LAMTOR2,LGALS3,LGALS4,LGMN,LIMK2,LYN,LZTS1,MAFB,MAGED1,MAP4,MAPK1,MARCKS,MDM2,MDM4,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MXI1,MYB,NCOA3,NDC80,NEK6,NFYA,NR3C1,NUDT6,NUMA1,NUP88,NUSAP1,PA2G4,PAWR,PAX5,PCLAF,PDLIM7,PEBP1,PHC1,PIAS2,PIK3CA,PITPNA,PKD1,PLA2G16,POLD4,POLDIP2,PPM1G,PRDX1,PRKCB,PRKCD,PRKCI,PRR11,PTGS2,PTK2,PTPRB,PTPRK,PTTG1,QKI,RACGAP1,RAD17,RARG,RASSF1,RASSF6,RBL2,RBX1,REL,RHOU,RRAGD,RRAS2,RUNX2,RUNX3,S100A4,SAMHD1,SERPINA5,SH3BP2,SKA2,SKIL,SLC9A3R1,SMAD3,SMARCA2,SMARCB1,SND1,SSBP2,STAT4,STAT5B,SYCP3,TAF1D,TBRG1,TCP1,TFDP1,TFDP2,TGFB2,TGFBR2,TGIF1,THRB,TIMP1,TIMP2,TLR2,TLR4,TNF,TOP2A,TOX,TP53I3,TP63,TPX2,TSHR,TUBB,TUBB3,TUBG1,TXLNG,TXN,TYMS,UBE2C,VAV3,VCAN,VCP,VEGFA,WEE1,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB16,ZNF274,ZNF655,ZWINT |
| Organismal Injury and Abnormalities | Visceromegaly | 1.78E-08 | 7.749579998 | turquoise | 178 | ABCB4,ABCC4,ACSL1,ADA,AGO2,AHR,AIM2,AKAP13,ANXA7,ARG1,ARID4B,ASB2,ATXN1,B3GNT5,BAG3,BAK1,BIK,BIRC5,BNIP3L,BRAF,CAMK2D,CAMK4,CAPNS1,CAV1,CD19,CD36,CD8A,CDC42EP3,CDKN2C,CDS2,CEBPA,CEBPB,CFLAR,CIITA,CREBBP,CSF2RB,CTSA,CTSC,CUX1,CXCR3,DACT1,DNAJC3,DSP,DTNBP1,E2F2,EHD3,EHD4,EIF2AK1,ESR1,ESR2,FAS,FBXO32,FCER1G,FCGR2B,FKBP1A,FLT1,FNIP1,FOXO1,GBA,GNAQ,GNAS,GPX1,H2AFZ,HBEGF,HDAC9,HMGA1,HMOX1,HRH2,IER3,IL1B,IL2RB,IL5RA,IL6R,IL7,IRF4,IRF8,ITGAV,JARID2,KCNN4,LASP1,LAT,LCP2,LGMN,LIMS1,LITAF,LTK,LYN,LYPLA2,MAP3K5,MAPK1,MCL1,MDM2,MDM4,MEF2C,MGAT2,MGLL,MIF,MIR17HG,MMP11,MXI1,MYH11,NAB1,NDUFS6,NFATC3,NFATC4,NR3C1,NT5E,PAWR,PBX3,PDLIM5,PGK1,PHC1,PICALM,PIK3CA,PILRA,PKD1,PLA2G16,PLCB1,PNKD,PPARGC1B,PPIA,PRDX1,PRKCB,PRKCD,PRKCE,PRKCI,PTGS2,PTK2,PTTG1,RAPGEF6,RASGRP1,RASSF1,RBL2,REL,RRM2,RRM2B,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A6,SCO2,SDHA,SDHB,SEMA3A,SLC25A11,SLC25A4,SLC4A1,SLC8A1,SMAD3,SMTN,STAB1,STAT5B,SUCLG1,SYNE2,TCL1A,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TIMP3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TPI1,TTN,TXN,UACA,VAV3,VCL,VDAC1,VDR,VEGFA,XYLT1 |
| Cell Death and Survival | Cell viability of lymphatic system cells | 1.85E-08 | 7.732828272 | turquoise | 63 | ARRB1,BAK1,BCL11B,BIK,BTLA,CAMK4,CD19,CD22,CD4,CD74,CD80,CD86,CD8A,CEBPD,CLEC11A,CXCL8,DDX5,FAS,FCGR3A/FCGR3B,GATA3,GIMAP5,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF2,IL21R,IL2RB,IL7,IL7R,ITGAL,ITPKB,LAT,LAX1,LGALS3,MAP3K14,MCL1,MEF2C,MIF,MIR17HG,MYB,MYH11,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PRKCB,PTK2,PYCARD,REL,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Lupus erythematosus | 1.97E-08 | 7.705533774 | turquoise | 88 | ABCB1,ADARB1,AGFG1,ALOX5,ANXA1,BAK1,BANK1,BIRC5,CD19,CD22,CD69,CD80,CD86,CFLAR,CIITA,CR1,CR2,CTSA,DAD1,DAPK1,DIAPH1,DTNBP1,E2F2,ESR1,ESR2,FAS,FCAR,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,FOXO1,GATA3,GNAQ,GNAS,GSTM1,GZMA,GZMB,HCAR3,HLA-B,HSPE1,IL16,IL1B,IL2RB,IMPDH1,IRF8,ITGAM,ITGAX,ITGB7,LPP,LY6E-DT,LYN,MAP3K5,MCL1,MKKS,MT2A,MYO9A,NLRP3,NR3C1,PTGS2,PYCARD,RAB31,S100A10,S100A8,S100A9,SAMHD1,SH2D1A,SLAMF7,SOS2,ST6GAL1,STAMBPL1,STAT4,TBK1,TCF7,TLE3,TLR2,TLR4,TMEM39A,TNF,TRAF5,TYMS,UBE2L3,VDR,VEGFA,WDFY4,XBP1,XRCC6 |
| Organismal Injury and Abnormalities,Respiratory Disease | Severe pulmonary disease | 0.00000002 | 7.698970004 | turquoise | 41 | ACSL1,ACTN1,CD63,CEBPD,CSF2RB,FCGR3A/FCGR3B,FPR1,GAPDH,GLUL,GSTO1,GYG1,IER3,IL5RA,IRF8,IRS2,ITGAM,LILRA2,MSRB2,NFIL3,NR3C1,PDXK,PTTG1,RAB31,RAB32,RAB5IF,RRAGD,RRM2,S100A12,S100A9,SERPINA1,SLCO3A1,ST6GAL1,STAT4,TALDO1,TIMP1,TIMP2,TKT,TLR2,TNF,TUBB4B,ZYX |
| Cellular Movement,Immune Cell Trafficking | Migration of lymphatic system cells | 2.01E-08 | 7.696803943 | turquoise | 101 | ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD22,CD226,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CLEC11A,COL4A3,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DDR1,DIAPH1,DPYSL2,ELMO1,ESR2,FABP5,FAS,FLOT1,FOXO1,FRS2,FYB1,GATA3,GNAI3,GNLY,GPSM1,HYOU1,ICOSLG/LOC102723996,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MYB,MYO1G,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,PRF1,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,RASGRP1,S100A4,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,SWAP70,TERF2,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Lymphocyte migration | 2.03E-08 | 7.692503962 | turquoise | 97 | ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD22,CD226,CD4,CD48,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,COL4A3,CUX1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIAPH1,DPYSL2,ELMO1,ESR2,FABP5,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNLY,GPSM1,HYOU1,ICOSLG/LOC102723996,IL15RA,IL16,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MYB,MYO1G,NFIL3,NLRP3,NOTCH4,NR3C1,NT5E,PIK3CA,PRF1,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,RASGRP1,S100A4,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,SWAP70,TERF2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR |
| Inflammatory Response | Cell-mediated response | 2.19E-08 | 7.659555885 | turquoise | 60 | C5AR1,CADM1,CCL5,CCR1,CD226,CD4,CD59,CD80,CD86,CD8A,CEBPB,CLEC7A,CRH,CXCL8,CXCR3,FCER1G,FCGR2B,FOXO1,FURIN,GNAS,GZMB,GZMH,HAVCR2,HBEGF,HRH2,HSDL1,HSP90B1,ICOSLG/LOC102723996,IL15RA,IL18BP,IL1B,IL4R,IL7,IL7R,IRAK1,MIR17HG,NAMPT,NDFIP1,NFIL3,PIK3R6,PRF1,PYCARD,RASGRP1,REL,SH2D1A,SIRPA,SLC11A1,SMAD3,SOCS2,STAT4,STAT5B,STX11,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,VEGFA,VSIR |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic cells | 2.42E-08 | 7.616184634 | turquoise | 117 | ABCB1,AFF1,AHR,AKAP13,ARID3A,ARID4B,ARNTL,AURKA,BAK1,BCL11A,BCL11B,BIK,BIRC5,BLOC1S2,BNIP3L,CAPNS1,CCND2,CD22,CD36,CD4,CD59,CD69,CD72,CD80,CD86,CD8A,CDK4,CEBPA,CIITA,CLEC11A,CREBBP,CRIP3,CSF3R,CXCL8,CXCR4,DCLRE1C,DIAPH1,EPB42,EPHA4,ESR1,ESR2,ETS2,EZH2,FAS,FCER1G,FCGR2B,FLNA,FNIP1,FOXO1,FYB1,GADD45A,GFI1,HAX1,HSPA9,ICOSLG/LOC102723996,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IL15RA,IL21R,IL2RB,IL7,IL7R,IRF4,IRF8,ITPKB,JARID2,LAT,LCP2,LGMN,LILRB3,LYN,MAP3K14,MBTD1,MCL1,MGAT2,MIR17HG,MYB,MYH11,NOTCH4,NR3C1,PAG1,PCLAF,PICALM,PIK3CA,PLXND1,PRDX1,PRKCD,PRKCE,RAP1B,RARG,RASGRP1,RBL2,REL,RHOH,RUNX2,RUNX3,SATB1,SH2D1A,SH3BP2,SIRPA,SLC4A1,SOD1,SSBP2,ST6GAL1,STAT4,STAT5B,TFRC,TNF,TNFRSF13B,TOX,VAV3,VEGFA,XRCC6,ZBTB16,ZBTB7A |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell rolling of leukocytes | 2.54E-08 | 7.595166283 | turquoise | 29 | ANXA1,C1GALT1,CD14,CD63,CXCL2,CXCL8,FAS,FCGR2A,FCGR3A/FCGR3B,FYB1,GALNT1,IL1B,ITGAL,ITGAM,ITGB1,ITGB7,LCP2,LGALS3,LYN,MGAT5,NDST1,PRDX1,SELPLG,SPN,SWAP70,TLR4,TNF,VAV3,VEGFA |
| Inflammatory Response | Inflammatory response | 2.61E-08 | 7.583359493 | turquoise | 190 | ABCB1,ADA,ADGRE5,AHR,AIF1,ALOX5,ANXA1,ANXA2,AQP9,ARHGEF7,ARIH2,BID,BIRC3,C5AR1,CAMK1D,CAV1,CCL3,CCL5,CCR1,CD14,CD163,CD200,CD36,CD38,CD4,CD63,CD69,CD72,CD74,CEBPA,CEBPB,CEBPD,CERS6,CIITA,CKLF,CLEC12A,CLEC7A,CMC2,COL18A1,CR1,CREB3,CRH,CSF1R,CSF3R,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DIAPH1,DOCK5,DYSF,E2F2,EIF2AK1,ELMO1,ERN1,ESR1,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLOT1,FLT1,FOXP1,FPR1,GADD45A,GATA3,GGT1,GNAI3,GNAS,GNLY,GPR18,GPSM1,GPX1,HAVCR2,HDAC9,HMOX1,ICOSLG/LOC102723996,IER3,IGHE,IGHM,IL16,IL1B,IL1RN,IL4R,IL6R,IL7,IRAK1,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,JAML,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRA2,LILRB3,LIMK1,LITAF,LRIG2,LSP1,LY96,LYN,LYZ,MCL1,MGLL,MIF,MYDGF,MYO1F,NDFIP1,NDUFC2,NFATC3,NFATC4,NFE2L1,NFIL3,NINJ1,NLRP3,NR1D1,NR3C1,NT5E,PDCD4,PFKFB3,PIK3CA,PIK3R5,PLA2G6,PLAUR,PLIN2,PPIA,PPIB,PRDM1,PRDX5,PRF1,PRKCB,PRKCD,PRKCE,PTAFR,PTGS2,PYCARD,REL,RORA,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SIRPA,SLC11A1,SMAD3,SOD1,STAP1,STAT4,STAT5B,SWAP70,SYT7,TBK1,TBXAS1,TGFB2,TIAM1,TLR2,TLR4,TNF,TNFRSF1B,TRADD,TREM1,TREML2,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYROBP,UACA,UBE2N,VAV3,VEGFA,VSIR,XBP1,ZBTB16 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of phagocytes | 2.71E-08 | 7.567030709 | turquoise | 61 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CMC2,CSF1R,CSF2RB,CST3,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHA1,IL1B,IL6R,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,LGALS3,LILRB3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,TYROBP,XBP1 |
| Cellular Movement | Cell tethering or rolling | 2.88E-08 | 7.540607512 | turquoise | 33 | ANXA1,ARNTL,C1GALT1,CD14,CD36,CD63,CXCL2,CXCL8,FAS,FCGR2A,FCGR3A/FCGR3B,FYB1,GALNT1,IL1B,ITGAL,ITGAM,ITGB1,ITGB7,LCP2,LDLR,LGALS3,LYN,MGAT5,NDST1,PRDX1,SELPLG,SPN,ST3GAL6,SWAP70,TLR4,TNF,VAV3,VEGFA |
| Cell Morphology,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of B lymphocytes | 2.91E-08 | 7.536107011 | turquoise | 30 | B3GNT5,BACH2,BAK1,BCL11A,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CEBPB,CR2,CREBBP,DCLRE1C,ERN1,FNIP1,IGHM,IGKC,IGLL1/IGLL5,IL2RB,IL5RA,IRF4,IRF8,LYN,NFIL3,POU2AF1,PRDM1,SH2D1A,XRCC6 |
| Cell Death and Survival,Organismal Injury and Abnormalities | Necrosis of epithelial tissue | 2.98E-08 | 7.525783736 | turquoise | 151 | AAK1,AHR,ALDH1A1,AMOTL1,APOBEC3B,ARHGAP18,AURKA,BAK1,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BNIP3L,BRAF,CALCR,CAV1,CD300LB,CD36,CD4,CD74,CEBPA,CEBPB,CEBPD,CFLAR,CHEK1,CITED2,CNP,COL18A1,COL4A3,CR1,CSF1R,CXCL8,CXCR4,CYTOR,DDX17,DUSP6,DYNLL1,EEF2K,ERN1,ESR1,ESR2,FAIM,FAS,FGL2,FLT1,FOXO1,GADD45A,GAPDH,GATA3,GNLY,GPX1,HAX1,HIPK2,HMOX1,HMOX2,HRH2,HSPA5,ICMT,ID2,IER3,IL1B,IL1RN,IL32,IL6R,IQGAP2,IRF4,ITGAV,ITGB1,KLF10,LDHA,LDLR,LGALS1,LYN,MAP3K5,MAPK1,MAPKAPK3,MCL1,MDM2,MIAT,MIF,MLKL,MYB,MZB1,NAMPT,NDST1,NDUFAB1,NEK6,NLRP3,NOTCH4,NR3C1,PAWR,PDE4A,PKD1,PLAUR,PLCB1,PPIA,PRDX3,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSMB10,PTAFR,PTGS2,PTK2,PYCARD,RASGRP1,RASSF1,RASSF4,RBL2,RDX,REL,RGMB,RRAS2,RUNX2,RUNX3,S100A8,SEL1L,SEMA3A,SERPINA1,SGPP2,SH3BP5,SH3RF1,SLC25A4,SLC8A1,SMAD3,SOD1,SRXN1,STK26,TFRC,TGFBR2,TIAM1,TIMP1,TIMP3,TLR2,TLR4,TMBIM6,TNF,TNFRSF1B,TNFRSF25,TP63,TXN,TYMP,VDAC1,VEGFA,VOPP1,XBP1,ZMYND11 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Natural killer cell lymphoma | 3.31E-08 | 7.480172006 | turquoise | 38 | AIM2,CD163,CD4,CD86,CXCL8,EZH2,FAS,FNDC3B,FZD1,GZMB,HLA-DOA,HSP90AB1,HSP90B1,IL13RA1,IL6R,IMPDH1,IRF4,LPCAT2,MAFB,MKI67,NAPA,NR3C1,PLXNB2,PPIA,PRDM1,PRF1,PTPRK,RRM2,SPN,STAT5B,TIMP1,TIMP2,TIMP3,TLR2,TOP2A,TP63,TYMS,VEGFA |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Recruitment of granulocytes | 3.45E-08 | 7.462180905 | turquoise | 63 | ADGRE5,AHR,ALOX5,ANXA1,BTLA,C5AR1,CAV1,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD69,CD8A,COCH,CR2,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CYP1B1,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,GLRX,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,LGALS1,LGALS3,LSP1,LY96,LYN,LYZ,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PYCARD,RAP1B,RTN4,RXRA,S100A8,SELPLG,SMAD3,ST3GAL6,SWAP70,TLR2,TLR4,TNF,TREML2,VAV3 |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic progenitor cells | 3.75E-08 | 7.425968732 | turquoise | 116 | ABCB1,AFF1,AHR,AKAP13,ARID3A,ARID4B,ARNTL,AURKA,BCL11A,BCL11B,BIK,BIRC5,BLOC1S2,BNIP3L,CAPNS1,CCND2,CD22,CD36,CD4,CD59,CD69,CD72,CD80,CD86,CD8A,CDK4,CEBPA,CIITA,CLEC11A,CREBBP,CRIP3,CSF3R,CXCL8,CXCR4,DCLRE1C,DIAPH1,EPB42,EPHA4,ESR1,ESR2,ETS2,EZH2,FAS,FCER1G,FCGR2B,FLNA,FNIP1,FOXO1,FYB1,GADD45A,GFI1,HAX1,HSPA9,ICOSLG/LOC102723996,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IL15RA,IL21R,IL2RB,IL7,IL7R,IRF4,IRF8,ITPKB,JARID2,LAT,LCP2,LGMN,LILRB3,LYN,MAP3K14,MBTD1,MCL1,MGAT2,MIR17HG,MYB,MYH11,NOTCH4,NR3C1,PAG1,PCLAF,PICALM,PIK3CA,PLXND1,PRDX1,PRKCD,PRKCE,RAP1B,RARG,RASGRP1,RBL2,REL,RHOH,RUNX2,RUNX3,SATB1,SH2D1A,SH3BP2,SIRPA,SLC4A1,SOD1,SSBP2,ST6GAL1,STAT4,STAT5B,TFRC,TNF,TNFRSF13B,TOX,VAV3,VEGFA,XRCC6,ZBTB16,ZBTB7A |
| Cancer,Dermatological Diseases and Conditions,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Non-Hodgkin cutaneous lymphoma | 3.79E-08 | 7.42136079 | turquoise | 42 | ADA,ANXA1,AURKA,BAK1,CD4,CD48,CXCR3,FAS,FOXP1,IFI30,IFNAR2,IL13RA1,IL16,IL2RB,IRF4,KCNAB3,MCL1,MKI67,NR3C1,PRF1,PRKCB,PSMB2,PTPRE,RARG,RARRES3,REL,RRM2,RXRA,SECTM1,SELPLG,STAT5B,TARP,TLR2,TLR4,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cancer,Organismal Injury and Abnormalities | Visceral metastasis | 4.75E-08 | 7.32330639 | turquoise | 98 | ACTN4,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BRAF,C5AR1,CALU,CAV1,CCL5,CCND2,CD200,CD36,CD8A,CDK4,CDKN2C,CEBPD,CSF1R,CTNND1,CXCR4,CYP51A1,DLGAP5,DPYSL2,DUSP4,DUSP6,ENAH,ESR1,ESR2,FAS,FCGR2A,FCGR3A/FCGR3B,FLT1,GLRX,GLUL,HMMR,HMOX1,HSP90AB1,HSP90B1,ID2,IGFBP7,IL15RA,IL4R,ITGB1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LYN,MAFB,MAP4,MAPK1,MDM2,NCAPG,NCOA3,NLRP1,NR2F1,NR3C1,NT5E,PIK3CA,PLAUR,PPIA,PTGS2,PTK2,QPCT,RAB31,RALGAPA2,RARG,RRM2,RTN1,S100A4,SECTM1,SLC16A3,SLC5A3,SMAD3,SND1,TBX21,TGFB2,TGFBR2,TGFBR3,THRB,TMBIM6,TNF,TNIK,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,VEGFA |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Necrosis of tumor | 4.76E-08 | 7.322393047 | turquoise | 117 | ANXA1,ANXA2,B4GALT5,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BRAF,BSG,BTG1,BUB1B,CAV1,CD14,CD22,CD33,CD38,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CSF3R,CXCL8,CXCR3,CXCR4,DAPK1,E2F2,EIF3E,ENO1,EZH2,FAS,FLT1,FOXO1,GADD45A,GZMA,GZMB,HBEGF,HIPK2,HMOX1,HSP90AB1,HSPA9,IDH2,IGHM,IL1B,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MDM2,MEF2C,MIF,MMP11,MYB,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PLAUR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMA7,PSMB3,PSMC2,PTGS2,PTK2,RARG,RASSF1,REL,RPL10,RPL13,RPL3,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SNRPA1,SOD1,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TRADD,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | T cell response | 4.91E-08 | 7.308918508 | turquoise | 50 | ADA,AHR,C5AR1,CBLB,CD226,CD4,CD55,CD58,CD59,CD70,CD80,CD86,CD8A,CLEC7A,CSF2RB,CXCL8,FOXO1,FURIN,GATA3,GNAS,GZMB,HAVCR2,HMOX1,HSDL1,HSP90B1,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL7,IL7R,LAX1,LGALS1,NAMPT,NFIL3,PFKFB3,PLAUR,PSMB10,PYCARD,REL,SELPLG,SEMA4A,SH2D1A,STAT4,STAT5B,TBX21,TGFBR2,TNF,TNFRSF1B,TNFRSF25 |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant solid tumor | 5.16E-08 | 7.287350298 | turquoise | 173 | ABAT,ABCB1,ABRAXAS1,ACP5,ACTN4,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BAK1,BCOR,BIRC5,BRAF,BRIP1,C5AR1,CALU,CARD16,CAV1,CCL5,CCND2,CD200,CD36,CD48,CD8A,CDCA7L,CDK4,CDKN2C,CEBPD,CHEK1,COL18A1,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST7,CTNND1,CXCL8,CXCR3,CXCR4,CYP51A1,DDR1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,ESR2,EZH2,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLNA,FLT1,GATA3,GLRX,GLUL,GNAS,HAX1,HIST1H3B,HMGA1,HMMR,HMOX1,HSP90AB1,HSP90B1,ID2,IFI30,IFNAR2,IGFBP4,IGFBP7,IKZF2,IL15RA,IL16,IL1RN,IL2RB,IL4R,IRF4,ITGB1,KCNK6,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LRP8,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MYL12A,NCAPG,NCOA3,NDUFB4,NLRP1,NOTCH4,NR2F1,NR3C1,NT5E,PDCD2L,PIK3CA,PLAUR,PPIA,PRKCE,PRKCI,PRUNE2,PSMB2,PTAFR,PTGS2,PTK2,PTTG1,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNH1,RPL7,RPS11,RRM2,RRM2B,RTN1,RUNX2,S100A11,S100A4,SEC61G,SECTM1,SETD2,SLC16A3,SLC5A3,SMAD3,SMC4,SND1,SRD5A3,SSR2,TBX21,TGFB2,TGFBR2,TGFBR3,THRB,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXNIP,TYMP,TYMS,VAV3,VCAN,VDR,VEGFA,YWHAE |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Differentiation of T lymphocytes | 5.26E-08 | 7.279014256 | turquoise | 101 | ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARRB1,BCL11A,BCL11B,BIK,BRAF,BSG,C5AR1,CBLB,CCL3,CCL5,CD226,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CIITA,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EPHA4,EZH2,FCGR2B,FOXO1,GATA3,GFI1,HAVCR2,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,ICOSLG/LOC102723996,ID2,IKZF2,IL1B,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,ITGAL,ITPKB,KDELR1,KLF10,LAT,LCP2,LILRB2,MAFB,MAP3K14,MAPK1,MBD2,MIR17HG,MYB,MYH11,NDFIP1,NFATC3,OTUD7B,PICALM,PIK3R6,PRDM1,PRELID1,PTGS2,REL,RHOH,RORA,RUNX2,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,STAT4,STAT5B,TBX21,TCF7,TGFBR2,TNF,TOX,XBP1,XRCC6,ZBTB16,ZMIZ1 |
| Cellular Function and Maintenance | Engulfment of blood cells | 5.48E-08 | 7.261219442 | turquoise | 56 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CCL5,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,ELMO1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,IRF8,ITGAM,ITGAX,LGALS3,LYN,MIF,MYO1G,ORAI2,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,SRA1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,XBP1 |
| Organismal Survival | Organismal death | 5.84E-08 | 7.233587153 | turquoise | 519 | ABCB1,ABCB4,ABCC4,ABHD5,ACTG1,ACTN4,ACVR1,ADA,ADARB1,AFDN,AFF1,AFF4,AFMID,AGO2,AHR,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANK3,ANXA1,ANXA2,ANXA7,APBB2,APLP2,ARF1,ARF4,ARG1,ARID3A,ARID3B,ARID4B,ARIH2,ARNT,ARNTL,ARRB1,ASGR2,ASL,ATOX1,ATP1A1,ATP1B1,AURKA,B3GNT5,BACE2,BAG3,BAK1,BBS4,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BLMH,BLOC1S2,BMP6,BMPR1A,BNIP3L,BRAF,BRIP1,BSG,BUB1B,BUB3,C1GALT1,C1GALT1C1,C5AR1,CALCR,CAMK4,CANX,CAPN2,CAPNS1,CAPZB,CAV1,CBLB,CBX4,CCNA2,CCNC,CCND2,CCR1,CD14,CD19,CD200,CD22,CD226,CD36,CD4,CD55,CD59,CD70,CD74,CD8A,CDK2AP1,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CEP120,CFL1,CFLAR,CFP,CHEK1,CHMP2A,CISD2,CITED2,CLEC7A,CLMP,CLUH,CNN3,CNP,CNR1,COL19A1,COL4A3,COPS8,COX17,CPEB2,CR2,CREB5,CREBBP,CSF1R,CSNK1A1,CSRP1,CST3,CTNND1,CTSA,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYP51A1,CYTOR,DACT1,DAD1,DBI,DBNDD1,DCLRE1C,DDR1,DDX17,DDX5,DGKD,DNAJC3,DNM2,DPPA4,DSP,DTL,E2F2,E2F7,ECT2,EED,EEF2K,EHD1,EHD3,EHD4,EIF2AK1,EIF3M,ELK3,ELOA,EMC7,ENAH,ERC1,ERN1,ERO1A,ESR1,ESR2,ETHE1,ETS2,EXT1,EZH2,FAIM,FAS,FBXO4,FBXW7,FCER1G,FCGR2B,FECH,FGF9,FKBP1A,FLNA,FLNB,FLT1,FNDC3B,FNIP1,FOSL2,FOXO1,FRS2,FURIN,GAB1,GABBR1,GABPB1,GADD45A,GADD45GIP1,GALNT1,GATA3,GBA,GCLC,GFI1,GGCX,GGT1,GMNN,GNAI3,GNAQ,GNAS,GNG5,GNLY,GPHN,GPX1,GSTK1,GSTM1,GTF2I,GZMA,H2AFY,H2AFZ,HAVCR2,HAX1,HBEGF,HCST,HEXB,HIPK2,HLA-DMA,HMOX1,HMOX2,HRH2,HS3ST1,HSP90AB1,HSP90B1,HSPA5,HSPE1,HYOU1,ICMT,ID2,IDE,IDH2,IFI30,IFNAR2,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL2RB,IL4R,IL6R,IQGAP2,IRAK1,IRF8,IRS2,ISL2,ITGAM,ITGAV,ITGB1,ITPKB,ITPR1,KBTBD2,KEAP1,KIF1B,KIF20A,KISS1R,KLF9,KMT5A,KRR1,LAMC1,LAMTOR2,LCP2,LDLR,LGALS2,LGALS3,LIMK1,LIMS1,LMNB1,LRIG2,LRP8,LRPAP1,LRRK1,LY96,LYN,LYZ,MAFB,MAP3K14,MAP4,MAPK1,MAPKAPK3,MARCKSL1,MBD5,MBTD1,MCL1,MDM2,MDM4,MEF2C,MGAT1,MGAT2,MIA3,MIF,MIR17HG,MKI67,MKKS,MMP11,MNS1,MTDH,MTHFD2,MTM1,MTSS1,MXI1,MYB,MYH11,MYL6,NAB1,NCAPH,NCK2,NCOA3,NDC80,NDST1,NDUFA13,NDUFS4,NEAT1,NEK8,NFATC3,NFATC4,NFE2L1,NFIL3,NFYA,NINJ1,NIPAL4,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NRCAM,NT5E,NUAK2,NUMA1,NUSAP1,OCRL,OTUD7B,PALLD,PAM,PANK2,PAX5,PAXX,PBX3,PCDHGC3,PCSK5,PCYT1A,PDCD4,PEG10,PERP,PFKFB3,PHC1,PHGDH,PIAS2,PICALM,PIK3CA,PITPNA,PKD1,PKM,PLA2G6,PLAUR,PLCB1,PLIN2,PLXNB2,PLXND1,PMEPA1,PPARGC1B,PPIA,PPIB,PPP1R9A,PRDM1,PRDX1,PRF1,PRKCD,PRKCI,PSAP,PSMC2,PSMG1,PTAFR,PTGES3,PTGS2,PTK2,PTPN12,PTTG1,PXN,PYCARD,QKI,RAB11A,RAB31,RAB3D,RAB8A,RAD17,RARG,RASSF1,RBL2,RBMS1,RBX1,RDH10,REC8,REL,RGS10,RNASEH2B,RORA,RPS6KA4,RRM2B,RTN4,RUNX2,RXRA,S100A4,S100A8,S100A9,SATB1,SAV1,SCARB2,SEC24C,SEL1L,SEMA3A,SERP1,SERPINA1,SESTD1,SETD2,SH3PXD2A,SIGMAR1,SIK3,SKIL,SLC25A37,SLC31A1,SLC3A2,SLC4A1,SLC5A3,SLC8A1,SLC9A3R1,SLIRP,SMAD3,SMARCB1,SMTN,SNRPN,SOD1,SPRY1,SRXN1,SSBP2,ST7,STAB1,STAT4,STAT5B,STUB1,SUB1,SUN1,SYCP2,SYCP3,SYNE2,TAF10,TBK1,TBX21,TEAD2,TERF2,TFDP1,TFRC,TGFB2,TGFBI,TGFBR2,TGFBR3,TGIF1,THEM4,THRB,TIMP1,TIMP2,TIMP3,TINF2,TKT,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TREM1,TRIM38,TRPV2,TSHR,TSHZ1,TTN,TUBG1,TXN,TXNIP,TYMP,UBE2C,UBE2J1,UBE2L3,UBE2N,UBE2Q1,UBE2W,UHRF1,USP14,UTRN,UXS1,VAV3,VCAN,VCL,VCP,VDAC1,VDAC3,VDR,VEGFA,VIM,VPS41,VTI1B,WDR1,WNT7B,XBP1,XRCC6,YBX3,YME1L1,YWHAE,ZBTB7A,ZMIZ1,ZNF274,ZNF281 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of cells | 5.91E-08 | 7.228412519 | turquoise | 61 | AGAP3,BMPR1A,CALM1 (includes others),CBLB,CCL5,CD226,CD27,CD300A,CD38,CD48,CD58,CD59,CD69,CD74,CFLAR,CREBBP,CRH,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,GZMA,GZMB,HAVCR2,HCST,HSPA8,IL21R,IL7,IMPDH1,IRAK1,ITGAL,ITGAM,KLRD1,LAT,LDLR,LGALS3,LYN,MAPK1,NAMPT,NDUFS4,PFDN5,PIK3CA,PRF1,PRKCD,RASGRP1,SH2D1A,SLAMF7,SOD1,SPN,STAT4,STAT5B,STX7,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TXN,TYROBP,VAV3 |
| Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Quantity of neutrophils | 5.94E-08 | 7.226213555 | turquoise | 67 | ABCB1,ADA,AHR,ARID4B,ARNTL,BAG3,C5AR1,CD19,CD300A,CD36,CEBPA,CFLAR,CLEC7A,CR2,CSF3R,CXCL2,DIAPH1,ESR2,EZH2,FAS,FCGR2A,FCGR2B,FPR1,GFI1,GNAS,HAX1,IL18BP,IL1B,IL2RB,IL4R,ITGAL,ITGAM,ITGAV,ITPKB,KISS1R,LDLR,LGALS2,LYN,MGAT4B,NDFIP1,PIK3R5,PIK3R6,PILRA,PRF1,PRKCD,PRKCE,RORA,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAT5B,STX11,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TRIB1,UBE2W,VDR |
| Cell Death and Survival,Cellular Compromise | Toxicity of cells | 6.11E-08 | 7.21395879 | turquoise | 62 | AGAP3,BMPR1A,CALM1 (includes others),CBLB,CCL5,CD226,CD27,CD300A,CD38,CD48,CD58,CD59,CD69,CD74,CFLAR,CREBBP,CRH,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,GZMA,GZMB,HAVCR2,HCST,HSPA8,IL1RN,IL21R,IL7,IMPDH1,IRAK1,ITGAL,ITGAM,KLRD1,LAT,LDLR,LGALS3,LYN,MAPK1,NAMPT,NDUFS4,PFDN5,PIK3CA,PRF1,PRKCD,RASGRP1,SH2D1A,SLAMF7,SOD1,SPN,STAT4,STAT5B,STX7,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TXN,TYROBP,VAV3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Mammary tumor | 6.12E-08 | 7.213248578 | turquoise | 483 | ABAT,ABCB1,ABCC4,ABI2,ABLIM1,ACP5,AGAP3,AGO2,AGTPBP1,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANG,ANLN,ANXA1,AP3B1,APOBEC3B,APOBEC3G,ARF4,ARHGAP20,ARHGAP31,ARHGEF40,ARHGEF7,ARMH1,ARNT,ARNTL,ARPC5L,ARRB1,ATP1A1,ATP5F1A,ATP5F1C,ATP5IF1,ATP8B2,B3GNT5,B4GALT3,BAK1,BCAT1,BCL11B,BCL2L2,BIRC5,BLVRA,BMPR1A,BRAF,BRIP1,BSG,BUB1B,CALM1 (includes others),CAPN2,CAPZB,CAV1,CBX4,CCDC14,CCL3,CCL5,CCNA2,CCND2,CD4,CD48,CD69,CD70,CD80,CD8A,CDC42EP3,CDC5L,CDC6,CDCA7,CDK2AP2,CDK4,CDKN2C,CDS1,CDT1,CEBPA,CEBPB,CEBPD,CELA3B,CHEK1,CISD2,CKAP4,CMAHP,CNKSR2,COCH,COL9A1,COQ4,COX6B1,CPAMD8,CPEB2,CPXM2,CREB3,CREBBP,CREG1,CRTAP,CSF1R,CSF2RB,CSF3R,CSTB,CTNND1,CTSC,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,CXorf40A/CXorf40B,DACT1,DAPK1,DDR1,DDX17,DDX5,DHDDS,DMXL1,DMXL2,DNAH11,DNAJC7,DSP,DST,DTL,DTX4,DUSP4,DYSF,E2F2,E2F7,ECT2,EED,EIF1,EIF2AK1,EIF3A,EIF3E,EIF4B,ELOC,EMILIN2,ENAH,ENO1,EOGT,EPPK1,EPRS,EPS8,ERC1,ESR1,ESR2,ESYT2,ETFA,ETS2,ETV4,EXOSC9,EZH2,FABP5,FAM111B,FAM120C,FAM198B,FAS,FBXO4,FBXW7,FCGBP,FKBP1A,FKBP5,FLNA,FLNB,FLT1,FOSL2,FOXO1,FOXP1,FRYL,FURIN,FZD1,GADD45A,GATA3,GATD3A/GATD3B,GBA,GCOM1,GLUD1,GLUL,GMNN,GNAI3,GNAS,GOLIM4,GON4L,GPI,GSPT1,GSTM1,GSTM2,GSTO1,GUK1,H2AFY,H2AFZ,HAX1,HBEGF,HBP1,HERC1,HIGD1A,HIPK2,HIST1H3B,HLA-B,HLA-DMB,HMGB3,HMMR,HMOX1,HRH2,HSP90AB1,HSP90B1,HSPA5,IER3,IL1B,IL2RB,IL32,IL4R,IMPDH1,IQGAP2,IQSEC1,IRS2,ITGAL,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,JMJD1C,KCNN3,KCTD12,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KIF20A,KIF2C,KISS1R,KLF10,KLHL34,KNL1,KPNA2,LGALS1,LGALS2,LGALS3,LGALS4,LILRA1,LIMK1,LPCAT2,LRIG2,LRRK1,LSP1,LYN,LYNX1,MACROD2,MAN1A1,MAP3K5,MAP4,MAPK1,MBOAT1,MCL1,MCM4,MCM6,MDM2,MDM4,MEF2C,MGA,MGAT3,MGLL,MGST2,MICAL2,MIF,MINK1,MIR17HG,MKI67,MKKS,MMP11,MRPL15,MRPL34,MT1E,MT1G,MT1X,MT2A,MTDH,MTHFD2,MYB,MYH11,NAMPT,NANS,NAP1L4,NCOA3,NEAT1,NEK6,NFATC3,NFATC4,NFE2L1,NFIL3,NOL4L,NOP16,NOTCH4,NR3C1,NRCAM,NRIP1,NSD3,NT5E,NUCB1,NUSAP1,OBSCN,OLFML2A,OR10J1,OSBPL3,OTUD7B,P4HB,PALLD,PAQR7,PAWR,PCDH9,PCSK5,PDCD5,PDLIM5,PFKFB3,PGAM1,PGK1,PGM1,PIK3CA,PILRA,PILRB,PKHD1L1,PKM,PLAUR,PLEKHG1,PLIN2,PLPP5,PLXDC2,PLXND1,POF1B,PPA1,PPIA,PRDM1,PRDX1,PRDX5,PRF1,PRKCB,PRKCD,PRKCI,PRR11,PRR5,PRUNE2,PSMA5,PSMA7,PSTPIP2,PTGS2,PTK2,PTPRE,PTTG1,PXN,PYHIN1,QKI,RAB31,RACGAP1,RAD17,RALGAPA2,RAP1B,RARG,RASSF1,RBL2,RBM47,RBX1,RDX,REL,RERE,RHEX,RIN2,RPS6KA6,RRAS2,RRM2,RTN4,RUNX2,RUNX3,S100A4,S100A6,S100A8,S100A9,SDK1,SEC14L1,SEC24C,SEC61A1,SECISBP2L,SEMA3A,SERPINA5,SETD2,SH3PXD2A,SKIL,SLC13A3,SLC16A1,SLC24A4,SLC25A4,SLC30A1,SLC31A1,SLC39A6,SLC43A3,SLC44A1,SLC8A1,SLC9A3R1,SLC9A7,SLIRP,SMAD3,SMC1A,SMTN,SOD1,SORL1,SPON1,SSPN,STAT5B,SYT17,TAF1D,TAGLN2,TARP,TBC1D12,TBC1D9,TCP1,TCTN1,TES,TGFB2,TGFBI,TGFBR2,TGFBR3,THEM4,THRAP3,THRB,TIMP1,TIMP2,TIMP3,TLE3,TLR4,TMCO1,TMEM220,TMTC2,TNF,TNFRSF1B,TOP2A,TP63,TPI1,TREM1,TRIB1,TRIM69,TRPV2,TSHZ2,TTC38,TTN,TUBA1B,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,UBE2C,UBE2QL1,UCHL1,UHRF1,UPP1,UQCRB,UTRN,VAV3,VCAN,VCL,VDAC3,VDR,VEGFA,VTI1B,VWA3B,WDFY4,WDR1,WEE1,WNT10A,WNT7B,XBP1,ZBED5,ZBTB44,ZC3HAV1L,ZHX2,ZIK1,ZNF233,ZNF318,ZNF415,ZNF677,ZNHIT1,ZYX |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of phagocytes | 6.31E-08 | 7.199970641 | turquoise | 96 | AHR,ANXA1,ANXA2,BID,BMPR1A,C5AR1,CCL3,CCL5,CD14,CD163,CD200,CD226,CD300A,CD300LB,CD300LF,CD36,CD4,CD48,CD63,CD80,CD86,CD93,CEBPA,CEBPB,CLEC7A,CNR1,CR1,CRH,CSF1R,CST3,CX3CR1,CXCL8,CXCR5,DYSF,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FOXP1,FPR1,GFI1,GNLY,GZMA,HAVCR2,HMOX1,HRH2,HSP90B1,IGHE,IL1B,IL1RN,IL4R,IL7,IRAK1,ITGAM,ITGAV,ITGB1,LCP2,LGALS3,LILRA2,LILRB3,LY96,LYN,MIF,NFIL3,PFKFB3,PILRB,PPIA,PRF1,PRKCD,PRKCE,PRKCI,PTGS2,PTPRE,PYCARD,RHOH,RORA,S100A12,S100A8,S100A9,SIRPA,SLC11A1,SOD1,STAT4,TBX21,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TYROBP,UBE2N,VAV3,VEGFA |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Systemic lupus erythematosus | 6.38E-08 | 7.195179321 | turquoise | 83 | ABCB1,ADARB1,AGFG1,ALOX5,ANXA1,BAK1,BANK1,BIRC5,CD19,CD22,CD69,CD80,CD86,CFLAR,CIITA,CR1,CR2,CTSA,DAD1,DAPK1,DIAPH1,DTNBP1,E2F2,ESR1,ESR2,FAS,FCAR,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,FOXO1,GATA3,GNAQ,GNAS,GSTM1,GZMA,GZMB,HCAR3,IL16,IL1B,IL2RB,IMPDH1,IRF8,ITGAM,ITGAX,ITGB7,LPP,LY6E-DT,LYN,MAP3K5,MCL1,MKKS,MT2A,MYO9A,NLRP3,NR3C1,PTGS2,PYCARD,RAB31,S100A10,SH2D1A,SLAMF7,SOS2,ST6GAL1,STAMBPL1,STAT4,TBK1,TCF7,TLE3,TLR2,TLR4,TMEM39A,TNF,TRAF5,TYMS,UBE2L3,VDR,VEGFA,WDFY4,XBP1,XRCC6 |
| Cell-To-Cell Signaling and Interaction | Response of granulocytes | 6.46E-08 | 7.189767482 | turquoise | 33 | ADGRE2,ANXA1,C5AR1,CCL3,CD36,CSF2RB,CXCL8,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FPR1,GLRX,GNAQ,GPR18,IGHA1,IGHG3,IL5RA,ITGAL,ITGAM,ITGAX,ITGB1,LILRB3,LYN,PLAUR,PTAFR,SELPLG,TLR2,TLR4,TNF,TREM1,TYROBP |
| 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 | Differentiation of B lymphocytes | 6.61E-08 | 7.179798541 | turquoise | 65 | AHR,ARID3A,ARNTL,BACH2,BCL11A,BIK,CD14,CD27,CD36,CD38,CD69,CD70,CD72,CD74,CEBPA,CR2,CXCR4,CXCR5,DCLRE1C,ERN1,ESR1,FNIP1,FOXP1,GATA3,GON4L,HDAC9,HMGA1,HSPA9,ID2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IL21R,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,LAT,LGALS1,LGALS3,LYN,MGAT2,MYB,MZB1,PAX5,PHC1,PICALM,PLCL2,POLM,POU2AF1,PRDM1,PRKCD,PTGS2,SATB1,STAT5B,SWAP70,TLR4,TNF,TSHR,XBP1,XRCC6,ZBTB7A |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Lymphatic node tumor | 6.77E-08 | 7.169411331 | turquoise | 43 | ANXA7,ARL6IP5,BIRC5,BRAF,CD19,CDK4,CHEK1,COL18A1,CR2,CREBBP,CSF3R,CTNND1,ESR1,ESR2,EZH2,FBXW7,FCER2,FKBP1A,HMMR,HSP90AB1,HSP90B1,IDH2,IL4R,ITGB1,MAP4,MCL1,NR3C1,PAX5,PIK3CA,POU2AF1,PTGS2,SPN,SSBP2,TBC1D16,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM |
| Cellular Movement | Chemotaxis | 7.56E-08 | 7.121478204 | turquoise | 138 | ACTN1,ADGRE2,AIF1,ALOX5,ANXA1,ANXA2,AQP9,ARHGEF7,ARRB1,C5AR1,CAMK1D,CAPN2,CAV1,CCL3,CCL5,CCR1,CD36,CD38,CD4,CD69,CD72,CD74,CKLF,CNR1,COL4A3,CORO1B,CREB3,CSF1R,CSF3R,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DIAPH1,DOCK5,DUSP6,DYSF,ELMO1,ETV4,FAS,FCER1G,FCGR2A,FLOT1,FLT1,FPR1,FRS2,GAB1,GLRX,GNAI3,GNAS,GNLY,GPR18,GPSM1,HBEGF,HOMER3,HRH2,IL16,IL1B,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGAV,ITGB1,JAML,KCNN4,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LSP1,LYN,MAP3K14,MAP3K5,MAPK1,MIF,MYO1F,NCK2,NDST1,NINJ1,NR3C1,NRCAM,NT5E,PDGFD,PIK3CA,PIK3R5,PLA2G6,PLAUR,PLXND1,PPIA,PPIB,PRKCB,PRKCD,PTAFR,PTGS2,PTK2,REL,RGS10,RHOU,RTN4,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SGPP1,SIRPA,SMAD3,SPN,STAP1,SWAP70,TGFB2,TIAM1,TLR2,TLR4,TNF,TP63,TREM1,TREML2,TRIB1,TRPV2,TXN,TYMP,USP14,VAV3,VEGFA |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of tumor cells | 8.04E-08 | 7.094743951 | turquoise | 114 | ANXA1,ANXA2,B4GALT5,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BRAF,BSG,BUB1B,CAV1,CD14,CD22,CD33,CD38,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CXCL8,CXCR3,CXCR4,DAPK1,E2F2,EIF3E,ENO1,EZH2,FAS,FLT1,FOXO1,GADD45A,GZMA,GZMB,HBEGF,HIPK2,HMOX1,HSP90AB1,HSPA9,IDH2,IGHM,IL1B,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MDM2,MEF2C,MIF,MMP11,MYB,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PLAUR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMA7,PSMB3,PSMC2,PTGS2,PTK2,RARG,RASSF1,REL,RPL10,RPL13,RPL3,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SNRPA1,SOD1,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TRADD,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarticular juvenile rheumatoid arthritis | 8.38E-08 | 7.076755981 | turquoise | 33 | ANG,CCL3,CCL5,CCR1,CD69,CD74,CD80,CD86,CEBPB,COCH,CR1,GNLY,GZMA,IL1B,IL6R,LGALS1,MCL1,P2RY13,PLAUR,PRDM1,PRR5,PTGS2,PTPRE,S100A10,S100A12,S100A8,S100A9,SORL1,TARP,TLE3,TNF,TNFRSF10C,TXN |
| Cell-To-Cell Signaling and Interaction | Response of myeloid leukocytes | 8.56E-08 | 7.067526235 | turquoise | 37 | ADGRE2,ANXA1,C5AR1,CCL3,CD14,CD36,CSF2RB,CXCL8,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FPR1,GLRX,GNAQ,GPR18,HMOX1,IGHA1,IGHG3,IL1B,IL5RA,ITGAL,ITGAM,ITGAX,ITGB1,LILRB3,LYN,PLAUR,PTAFR,S100A9,SELPLG,TLR2,TLR4,TNF,TREM1,TYROBP |
| Cell Cycle | Interphase | 8.78E-08 | 7.056505484 | turquoise | 178 | ABCB1,ABRAXAS1,ACVR1,AHR,ANXA2,APOBEC3A,ARG1,ARNT,ARRB1,ATF5,AURKA,BAG3,BAK1,BCAT1,BID,BIRC5,BRAF,BTG1,BTLA,BUB1B,CALCR,CAMK2D,CAMK2N1,CAMKK2,CAPNS1,CAV1,CCL3,CCNA2,CCND2,CDC5L,CDC6,CDCA2,CDK4,CDKN2C,CDS1,CDT1,CEBPA,CEBPB,CEBPD,CHEK1,CREBBP,CREG1,CRH,CSF1R,CSTB,CTNND1,CUX1,CYP1B1,DCTN3,DTL,DUSP4,DYNLL1,E2F2,EEF2K,EGOT,EIF3E,ESR1,ESR2,EZH2,FAS,FCER2,FKBP1A,FLNA,FLT1,FOXO1,GAB1,GADD45A,GATA3,GFI1,GMNN,GPI,GSPT1,GTF2I,HBEGF,HMGA1,HMOX1,ID2,IER3,IGFBP7,IGHM,IL16,IL1B,IL4R,IL6R,IL7,ITGAV,ITGB1,KIF11,KLF10,LGALS1,LGALS3,LIMK1,LIMK2,LMNB1,LZTS1,MAP3K5,MAPK1,MCM4,MCM6,MDM2,MDM4,MTDH,MXI1,MYB,NCOA3,NFYA,NR3C1,NRIP1,PAX5,PCLAF,PFKFB3,PIAS2,PKD1,PKM,PLAUR,PLCB1,PMEPA1,POLD4,PPARGC1B,PRKCD,PRKCE,PSAP,PTGES3,PTGS2,PTK2,PTTG1,RAD17,RASSF1,RASSF6,RB1-DT,RBL2,RBM5,RBX1,REL,RFFL,RHOU,RNASEH2B,RPL23,RRM2B,RUNX2,RUNX3,RXRA,SEL1L,SH3PXD2A,SMARCA2,SMARCB1,SMC1A,SSH2,STK38L,SUN1,SYCP2,TAF10,TCP1,TFDP1,TFDP2,TFRC,TGFBR2,THRB,TIMP1,TIMP2,TNF,TNFRSF17,TOB2,TOP2A,TP53I3,TP63,TUBA4A,TUBB,TUBB4B,TUBG1,TXNIP,TYMS,UHRF1,VEGFA,WEE1,YWHAE,ZBTB10,ZBTB16 |
| Dermatological Diseases and Conditions,Infectious Diseases,Organismal Injury and Abnormalities | Lepromatous leprosy | 8.99E-08 | 7.046240308 | turquoise | 20 | CCL3,CCR1,CD14,CD19,CD22,CD4,CD59,CD80,FCER1G,FCGR2A,IGHG3,IGHM,IGLL1/IGLL5,IL2RB,LILRA2,LILRB3,MXI1,SIRPA,TLR2,TNFRSF17 |
| Cell Morphology,Humoral Immune Response,Lymphoid Tissue Structure and Development | Morphology of B lymphocytes | 0.0000001 | 7 | turquoise | 31 | B3GNT5,BACH2,BAK1,BCL11A,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CEBPB,CR2,CREBBP,DCLRE1C,ERN1,FNIP1,IGHM,IGKC,IGLL1/IGLL5,IL2RB,IL5RA,IRF4,IRF8,LYN,NFIL3,POU2AF1,PRDM1,SH2D1A,XBP1,XRCC6 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Adenomyosis | 0.000000103 | 6.987162775 | turquoise | 24 | ALDOA,ANXA2,CBX6,CD14,CRIP1,DST,ESR1,GPI,GPX1,ITGB1,LDHA,LGMN,MGST1,MTHFD2,NR3C1,PHACTR2,PLCB1,PMEPA1,PRDX5,RAP2B,RHOU,STX7,TBL1X,VDAC1 |
| Organismal Development | Morphology of body cavity | 0.000000105 | 6.978810701 | turquoise | 342 | ABCB1,ABCB4,ABCC4,ABCG1,ACSL1,ADA,ADGRE5,AFDN,AFF4,AGO2,AHR,AIM2,AKAP13,ALOX5,ANXA7,ARG1,ARID3A,ARID3B,ARID4B,ARNT,ARNTL,ARRB1,ARSG,ASB2,ATXN1,AURKA,B3GNT5,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BMPR1A,BNIP3L,BRAF,BSG,C1GALT1,CAMK2D,CAMK4,CAPN2,CAPNS1,CAPZB,CAV1,CCNA2,CCND2,CCR1,CD14,CD19,CD226,CD36,CD38,CD4,CD55,CD72,CD80,CD86,CD8A,CDC42EP3,CDK4,CDKN2C,CDS2,CEBPA,CEBPB,CFLAR,CIITA,CISD2,CITED2,CLEC4D,CLEC7A,CLMP,COL18A1,CREBBP,CRH,CSF1R,CSF2RB,CST3,CTSA,CTSC,CUX1,CXCR3,CXCR4,CXCR5,CYP51A1,DACT1,DAD1,DCLRE1C,DENND1B,DIAPH1,DNAH11,DNAJC3,DPPA4,DSP,DTNBP1,DUSP6,E2F2,EEF2K,EHD4,EIF2AK1,EIF3M,ELK3,ELOA,EPB42,EPHA4,EPM2A,ESR1,ESR2,ETS2,FABP5,FAS,FBXO32,FCER1G,FCGR2B,FGF9,FKBP1A,FLNA,FLT1,FNIP1,FOXO1,FZD1,GADD45A,GADD45GIP1,GBA,GFI1,GGT1,GLMP,GNAQ,GNAS,GNG5,GPAT3,GPBAR1,GPR3,GPX1,GSTK1,H2AFZ,HBEGF,HCST,HDAC9,HEXB,HMGA1,HMOX1,HRH2,HSH2D,HSP90B1,ICMT,ICOSLG/LOC102723996,ID2,IER3,IGFBP4,IGHM,IGKC,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IQGAP2,IRF4,IRF8,IRS2,ITGAL,ITGAV,ITGB7,ITPKB,JARID2,KCNN4,KISS1R,LAMC1,LASP1,LAT,LAX1,LCP2,LDLR,LGALS3,LGMN,LIMS1,LITAF,LMNB1,LRRC8C,LTK,LYN,LYPLA2,MAP3K14,MAP3K5,MAPK1,MARCKSL1,MBD5,MCL1,MDM2,MDM4,MEF2C,MGAT2,MGAT3,MGLL,MIF,MIR17HG,MMP11,MTHFD2,MXI1,MYB,MYH11,MZB1,NAAA,NAB1,NDST1,NDUFS6,NFATC3,NFATC4,NFE2L1,NFIL3,NLRP3,NR3C1,NT5E,NUAK2,NUCB2,PANK2,PAWR,PBX3,PDLIM5,PGK1,PHC1,PICALM,PIK3CA,PILRA,PITPNA,PKD1,PLA2G16,PLCB1,PLXND1,PNKD,POLM,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PTGS2,PTK2,PTTG1,PYCARD,RAB8A,RAD17,RAPGEF6,RARG,RASGRP1,RASSF1,RBL2,RBMS1,RDH10,REC8,REL,RHOH,RRM2,RRM2B,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A6,SAT1,SATB1,SAV1,SCO2,SDHA,SDHB,SEMA3A,SESTD1,SGPP2,SH3BP2,SIK3,SLC25A11,SLC25A4,SLC4A1,SLC8A1,SLC9A3R1,SMAD3,SMTN,SOD1,SPN,STAB1,STARD4,STAT4,STAT5B,STEAP4,SUCLG1,SUN1,SYNE2,TBK1,TBX21,TCL1A,TGFB2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TIMP3,TKT,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TPI1,TRADD,TRIB1,TTN,TXN,TXN2,TXNIP,UACA,UBE2W,VAV3,VCL,VDAC1,VDR,VEGFA,VTI1B,WNT10A,XBP1,XRCC6,XYLT1,YWHAE,ZBTB16,ZMIZ1 |
| Cancer,Organismal Injury and Abnormalities | Benign Tumors | 0.000000109 | 6.962573502 | turquoise | 198 | ABCB1,ABCC4,ABI2,ADARB1,ADGRE5,AFF1,AHR,ALDH1A1,ALDOA,ANXA1,ANXA2,ANXA5,ANXA7,AP2S1,ARG1,ARIH2,ARNT,ASB2,ATP1A1,BACE2,BAK1,BCOR,BID,BIRC5,BMP6,BRAF,BUB1B,C5orf30,CCNC,CCND2,CD48,CDC42EP3,CDK4,CDKN2C,CEBPD,CFD,CLMN,CLUH,CNP,CNR1,COL18A1,COL19A1,COL4A3,COL4A4,COL9A1,CSF1R,CSF2RB,CTNND1,CTSC,CUX1,CYP1B1,DAPK1,DDR1,DDX17,DDX5,DST,DUT,E2F2,EPPK1,ESR1,ESR2,ETHE1,EXT1,EZH2,FABP5,FAS,FBXO4,FBXW7,FKBP1A,FLNA,FLT1,FOXO1,GABBR1,GADD45A,GALK2,GLRX,GLUL,GNAQ,GNAS,GSTO1,HLA-B,HMGA1,HMMR,HMOX1,HRH2,HSD17B10,HSP90AB1,IDH2,IFNAR2,IGFBP7,IL6R,IQGAP2,ITGB1,ITM2C,JCHAIN,KCNG1,KCNN3,KIF11,KIF1B,KLF10,LGALS1,LGALS3,LSP1,LYN,LZTS1,MAP3K5,MAPK1,MGAT5,MGST1,MKI67,MLX,MMP11,MPHOSPH8,MTHFD2,MYL6,NBPF10 (includes others),NETO2,NOTCH4,NR2F1,NR3C1,NRCAM,NRIP1,NUAK2,NUSAP1,PAG1,PDCD4,PERP,PIK3CA,PKD1,PLA2G6,PLD3,PLXNB2,PLXNC1,PPA1,PPP1R3D,PRDX1,PRKCB,PRKCD,PRKCE,PRKCI,PRR5,PSAT1,PSMA6,PTGS2,PTK2,PTTG1,RAP2B,RASSF1,RELL1,RORA,RRM2,RUNX3,RXRA,S100A11,S100A4,S100A8,S100A9,SAV1,SETD2,SKIL,SLC2A5,SLC51B,SLC5A3,SMAD3,SMPDL3A,SSBP2,STAB1,TARP,TBL1X,TFDP1,TFDP2,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TNFRSF1B,TOP2A,TP63,TRAM2,TSHR,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UQCRH,USP44,UTRN,VCAN,VCP,VDR,VEGFA,WEE1,ZC3HAV1L,ZYX |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of phagocytes | 0.00000011 | 6.958607315 | turquoise | 47 | ABCG1,AHR,ANXA1,C5AR1,CCL3,CCL5,CCR1,CD200,CD300LB,CD99,COL18A1,CR1,CTSC,CX3CR1,CXCL2,CXCL8,DDR1,ETS2,FAS,FCGR2A,FCGR3A/FCGR3B,GFI1,HAVCR2,HMOX1,IL1B,IL1RN,IL9R,IRF4,ITGAM,ITGAX,ITGB1,LDLR,MIF,NT5E,RUNX3,S100A8,S100A9,SELPLG,SOD1,TIMP1,TIMP2,TLR4,TNF,TNFRSF1B,TYROBP,VEGFA,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult leukemia | 0.00000011 | 6.958607315 | turquoise | 49 | ABCB1,ATXN1,ATXN7L1,BCL11B,CBLB,CD14,CD1A,CD27,CD4,CD58,CD86,CEBPA,CSF3R,CSNK1A1,ERC1,FAS,FKBP1A,GATA3,HLA-B,IDH2,IFNAR2,IKZF2,IL2RB,IL6R,IMPDH1,IRF4,ITGB1,JARID2,KMO,NR3C1,PDE7B,PPIA,PRDM1,PRKCB,RARG,REL,RRM2,RRM2B,RXRA,SETD2,TARP,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VMP1 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hepatocellular carcinoma | 0.000000118 | 6.928117993 | turquoise | 193 | ABAT,ABCB4,ACTG1,ADA,AGO2,ALOX5,ANLN,ANXA1,ANXA5,ANXA7,ARF1,ARG1,ARNTL2,ASPM,ATP1A1,ATP1B1,ATP1B3,ATXN1,AURKA,AUTS2,BRAF,BSG,BUB1B,CABYR,CALU,CAMK2N1,CASD1,CCNA2,CD163,CD4,CDC42EP3,CDC6,CDK4,CFP,CLIC1,CLIP4,COCH,COPG1,CPEB2,CR1,CREBBP,CRELD2,CSF1R,CSF3R,CXCL2,CXCL8,CYTOR,DNAH12,DPEP2,DST,DYNLL1,E2F7,ECT2,EHD3,ELMO1,ENO1,ESR1,EZH2,FAIM,FAM111B,FAM69B,FAM83D,FAS,FBXO4,FKBP1A,FLT1,GABBR1,GLUD1,GLUL,GNAS,GPC2,GSTO1,H2AFY,HIST1H3B,HIST1H3C,HLA-B,HSP90AB1,HSP90B1,HSPA5,HSPA8,HSPA9,IDH2,IFNAR2,IMPDH1,INPP5A,IQGAP2,ITGAX,ITGB1,JCHAIN,KCNN3,KEAP1,KMO,LGALS3,LZTS1,MDM2,MED30,MEF2C,MGLL,MKI67,MS4A6A,MT1E,MT1G,MT1X,MT2A,NCAPG,NCOA3,NENF,NFATC3,NR3C1,NRIP1,NSD2,NUSAP1,OBSCN,OR2L1P,PANK2,PEBP1,PELI2,PIK3CA,PKM,PLAUR,PLPP5,PPM1G,PRDX1,PRR5,PTGS2,PTTG1,RACGAP1,RALGAPA2,RAPGEF6,RASSF1,RB1-DT,RORA,RRM2,RTN4,RUNX3,RXRA,S100A4,SAV1,SDK1,SERF2,SETD2,SIPA1L3,SLC1A4,SLC25A42,SLC39A6,SLC4A1,SOCS2,SOD1,SPON1,SRGAP1,STAB1,STEAP4,SULT1A1,SYNE2,TBX21,TGFBR2,THRB,TIMP2,TLR2,TMEM176A,TMEM220,TNF,TNFRSF17,TNIK,TNRC6B,TOP2A,TP53I3,TPI1,TPX2,TRIM44,TRIM8,TST,TTN,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXN,TYMP,TYMS,UACA,UBE2C,UPP1,UQCRC1,VCAN,VCP,VDAC1,VDR,VEGFA,VIM,VMP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma | 0.000000119 | 6.924453039 | turquoise | 208 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA7,ARF4,ARRB1,ASB2,ASPM,ATP1B1,ATP6V1A,ATXN1,BAG3,BCL11A,BCOR,BIRC5,BMPR1A,BOC,BRAF,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD48,CD93,CD99,CDC42EP3,CDK4,CDK5,CDKN2C,CHMP2A,CIITA,CLCN4,CLEC11A,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CXCR4,DBNDD1,DDR1,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EHD4,ELMO1,EPPK1,EVI2A,EZH2,FA2H,FBXW7,FCHSD2,FKBP1A,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GPSM1,GPX1,GREB1L,HERC1,HIPK2,HIST1H3B,HLA-B,HRH2,HSP90AB1,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL16,IL1B,IL32,IL7,INPP5A,ITGAV,ITPKB,KCNN3,KIF18B,KPNA2,LDLR,LIMK2,LTK,LYNX1,MAP4,MAP7,MARCKS,MBD2,MDM2,MGLL,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NUP88,OBSCN,PA2G4,PALLD,PANK2,PCLAF,PFKFB3,PHF10,PIEZO1,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PRKCB,PRR5,PRUNE2,PSTPIP2,PTGS2,PTTG1,RBM47,RC3H2,RRM2,RRM2B,RUNX3,S100A4,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC38A10,SLC9A3R1,SLCO3A1,SMC1A,SPON1,SRA1,STUB1,TARP,TBK1,TGFB2,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,USF3,VANGL1,VAV3,VEGFA,YWHAE,ZC3HAV1L,ZNF274,ZNF480,ZNF532,ZNF880 |
| Cellular Function and Maintenance | Engulfment of leukocytes | 0.000000123 | 6.910094889 | turquoise | 53 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CCL5,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,ELMO1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,MYO1G,ORAI2,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,SRA1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,XBP1 |
| Cell Death and Survival | Cytolysis of lymphatic system cells | 0.000000124 | 6.906578315 | turquoise | 30 | CD226,CD4,CD48,CD8A,FCER1G,FCGR2A,FCGR2B,GZMA,HCST,IFNAR2,IL15RA,IL21R,ITGAL,LCP2,NFIL3,PRDX1,PRF1,PSME2,REL,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBK1,TBX21,TNF,TOX,TYROBP,VIM |
| Cell Death and Survival | Cell death of lymphoma cell lines | 0.000000125 | 6.903089987 | turquoise | 61 | ANXA2,ARNT,BACH2,BAK1,BIK,BIRC3,BIRC5,CBX5,CD226,CD4,CD48,CD55,CD59,CD99,CEBPA,CFLAR,CHEK1,CXCR4,DUT,ERN1,EZH2,FAS,FCER1G,FCER2,FCGR2B,FOXO1,GGT1,GPX1,GZMH,HSH2D,IGFBP4,IGFBP7,IGHE,IGHM,IL6R,IRF8,ITPR1,LGALS1,LGALS3,LMNB1,LSP1,LYN,MAP3K14,MAPK1,MCL1,MIR17HG,NR3C1,PAG1,PIK3CA,PLA2G6,PRDM1,PRKCB,RPLP0,SATB1,SMAD3,ST6GAL1,TGFB2,TIAM1,TNF,TOX,XBP1 |
| Infectious Diseases | Infection of mammalia | 0.000000129 | 6.88941029 | turquoise | 83 | ADGRE5,ADPRH,AHNAK,AHR,AIM2,AQP9,ASGR2,C5AR1,CAV1,CCR1,CD14,CD36,CD4,CD70,CD74,CD8A,CEBPB,CFD,CIITA,CLEC12A,CLEC4D,CLEC7A,CR2,CSF2RB,CX3CR1,CXCR3,CXCR4,DUSP4,EIF4EBP2,FCER1G,FCGR2B,FCN1,FPR1,GPR18,GSTM1,GZMA,HLA-DMA,HMOX1,IFI30,IGHM,IL13RA1,IL1B,IL1RN,IL21R,IL4R,IL5RA,IL6R,IRF4,IRF8,ITGAM,ITGAX,ITGB7,ITPKB,JCHAIN,JDP2,LGALS3,LY96,MIF,NLRP3,PILRB,PLAUR,POU2AF1,PRF1,PRKCD,PRKCE,PTAFR,PYCARD,REL,SAMHD1,SH2D1A,SLC11A1,SMAD3,ST6GAL1,STAT4,STX11,TBX21,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TP63,TRPV2 |
| Cell Death and Survival | Cytolysis of blood cells | 0.00000014 | 6.853871964 | turquoise | 35 | AQP9,BAK1,CD226,CD4,CD48,CD55,CD59,CD8A,EIF2AK1,FCER1G,FCGR2A,GZMA,HCST,IFNAR2,IL15RA,IL21R,ITGAL,KCNN4,LCP2,NFIL3,PRDX1,PRF1,PSME2,REL,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBK1,TBX21,TNF,TOX,TYROBP,VIM |
| Cellular Function and Maintenance | Engulfment of tumor cell lines | 0.000000144 | 6.841637508 | turquoise | 48 | ANXA1,APLP2,ATP6V0E1,ATP6V1A,ATP6V1D,BRAF,BTBD19,CAV1,CCL5,CD36,CDC5L,CEBPB,CLIP1,DNM2,EPB41L2,ETS2,FCGR2A,FCGR2B,FCN1,FOXP1,FRS2,HAX1,HBEGF,HMOX1,IL7,IQSEC1,ITGAM,ITGB1,LIMK1,LMAN2,LRPAP1,LYN,PLA2G6,PRF1,PRKCB,PRKCD,PRKCE,PTK2,PTRHD1,PXN,RAB31,RRAS2,SCARB2,SH3KBP1,SMARCB1,TNF,VIM,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Recruitment of neutrophils | 0.000000153 | 6.815308569 | turquoise | 54 | AHR,ALOX5,ANXA1,C5AR1,CAV1,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD69,CD8A,COCH,CR2,CTSC,CX3CR1,CXCL2,CXCL8,CYP1B1,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,GLRX,IGHE,IL1B,IL1RN,IL6R,IL7,ITGAM,LGALS3,LSP1,LY96,LYN,LYZ,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PYCARD,RAP1B,RTN4,S100A8,SELPLG,SMAD3,ST3GAL6,TLR2,TLR4,TNF,TREML2,VAV3 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cellular infiltration by leukocytes | 0.000000157 | 6.804100348 | turquoise | 108 | ABCB4,ABCG1,ADA,AHR,AIM2,ANXA1,ARG1,ARRB1,BCL11B,BID,BMPR1A,BRAF,BSG,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD38,CD48,CD55,CD80,CD86,CD93,CEBPA,CIITA,CNP,CNR1,COL4A3,CR1,CR2,CRH,CSF1R,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR5,ESR1,ESR2,FAS,FCAR,FCER1G,FCGR2B,FLT1,FPR1,GBA,GPR18,HMOX1,HSPA5,HYOU1,IGHE,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGB1,LDLR,LGALS1,LGALS3,LILRB3,LIMK1,LMNB1,MAP3K5,MIF,NAAA,NDST1,NINJ1,NLRP3,NT5E,PPIA,PRDM1,PRF1,PRKCD,PTGS2,RUNX3,S100A10,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,STAT5B,TBX21,TGFBR2,TIMP1,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TSHR,VAV3 |
| Cellular Movement | Cellular infiltration by blood cells | 0.000000164 | 6.785156152 | turquoise | 109 | ABCB4,ABCG1,ADA,AHR,AIM2,ANXA1,ARG1,ARRB1,BCL11B,BID,BMPR1A,BRAF,BSG,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD38,CD48,CD55,CD80,CD86,CD93,CEBPA,CIITA,CNP,CNR1,COL4A3,CR1,CR2,CRH,CSF1R,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR5,ESR1,ESR2,FAS,FCAR,FCER1G,FCGR2B,FLT1,FPR1,GBA,GPR18,HMOX1,HSPA5,HYOU1,IGHE,IL15RA,IL16,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGB1,LDLR,LGALS1,LGALS3,LILRB3,LIMK1,LMNB1,MAP3K5,MIF,NAAA,NDST1,NINJ1,NLRP3,NT5E,PPIA,PRDM1,PRF1,PRKCD,PTGS2,RUNX3,S100A10,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,STAT5B,TBX21,TGFBR2,TIMP1,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TSHR,VAV3,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Nasal type extranodal NK-/T-cell lymphoma | 0.000000171 | 6.76700389 | turquoise | 31 | AIM2,CD163,CD4,CD86,CXCL8,EZH2,FAS,FZD1,GZMB,HLA-DOA,HSP90AB1,HSP90B1,IL13RA1,IL6R,IRF4,MAFB,MKI67,NR3C1,PRDM1,PRF1,PTPRK,RRM2,SPN,TIMP1,TIMP2,TIMP3,TLR2,TOP2A,TP63,TYMS,VEGFA |
| Cell-To-Cell Signaling and Interaction | Response of antigen presenting cells | 0.00000018 | 6.744727495 | turquoise | 58 | ANXA1,APOA2,BRAF,CCL3,CCL5,CD14,CD36,CD38,CD74,CD86,CD93,CEBPB,CLEC7A,CMC2,CSF1R,CST3,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCGR2B,FCN1,GNAQ,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IRAK1,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PRKCE,PXN,RARRES3,RORA,S100A9,SEMA4A,SH3BP2,SIRPA,SIRPB1,SWAP70,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast cancer | 0.00000018 | 6.744727495 | turquoise | 461 | ABAT,ABCB1,ABCC4,ABI2,ABLIM1,ACP5,AGAP3,AGO2,AGTPBP1,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANG,ANLN,ANXA1,AP3B1,APOBEC3B,APOBEC3G,ARF4,ARHGAP20,ARHGAP31,ARHGEF40,ARHGEF7,ARMH1,ARNT,ARNTL,ARPC5L,ARRB1,ATP1A1,ATP5F1A,ATP5F1C,ATP5IF1,ATP8B2,B3GNT5,B4GALT3,BAK1,BCAT1,BCL11B,BCL2L2,BIRC5,BLVRA,BRAF,BRIP1,BSG,BUB1B,CALM1 (includes others),CAPN2,CAPZB,CAV1,CBX4,CCDC14,CCL3,CCND2,CD4,CD48,CD69,CD70,CD80,CDC42EP3,CDC5L,CDC6,CDCA7,CDK2AP2,CDK4,CDKN2C,CDS1,CEBPA,CEBPB,CEBPD,CELA3B,CHEK1,CKAP4,CMAHP,CNKSR2,COCH,COL9A1,COQ4,COX6B1,CPAMD8,CPEB2,CPXM2,CREB3,CREBBP,CREG1,CRTAP,CSF1R,CSF2RB,CSF3R,CTNND1,CTSC,CUX1,CXCL2,CXCL8,CXCR3,CXCR4,CXorf40A/CXorf40B,DACT1,DAPK1,DDR1,DDX17,DDX5,DHDDS,DMXL1,DMXL2,DNAH11,DNAJC7,DSP,DST,DTL,DTX4,DUSP4,DYSF,E2F7,ECT2,EED,EIF1,EIF2AK1,EIF3A,EIF3E,EIF4B,ELOC,EMILIN2,ENAH,ENO1,EOGT,EPPK1,EPRS,EPS8,ERC1,ESR1,ESR2,ESYT2,ETFA,ETS2,ETV4,EXOSC9,EZH2,FABP5,FAM111B,FAM120C,FAM198B,FAS,FBXO4,FBXW7,FCGBP,FKBP1A,FKBP5,FLNA,FLNB,FLT1,FOSL2,FOXO1,FOXP1,FRYL,FZD1,GATA3,GATD3A/GATD3B,GBA,GCOM1,GLUD1,GLUL,GNAI3,GNAS,GOLIM4,GON4L,GPI,GSPT1,GSTM1,GSTM2,GSTO1,GUK1,H2AFY,H2AFZ,HAX1,HBEGF,HBP1,HERC1,HIGD1A,HIPK2,HIST1H3B,HLA-B,HLA-DMB,HMMR,HMOX1,HRH2,HSP90AB1,HSP90B1,HSPA5,IER3,IL1B,IL2RB,IL32,IL4R,IMPDH1,IQGAP2,IQSEC1,IRS2,ITGAL,ITGAV,ITGAX,ITGB1,ITM2C,ITPKB,ITPR1,JARID2,KCNN3,KCTD12,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KIF20A,KISS1R,KLF10,KLHL34,KNL1,KPNA2,LGALS1,LGALS2,LGALS3,LGALS4,LILRA1,LIMK1,LPCAT2,LRIG2,LRRK1,LSP1,LYNX1,MACROD2,MAN1A1,MAP3K5,MAP4,MAPK1,MBOAT1,MCL1,MCM6,MDM2,MDM4,MEF2C,MGA,MGAT3,MGLL,MGST2,MICAL2,MIF,MINK1,MKI67,MKKS,MMP11,MRPL15,MRPL34,MT1E,MT1G,MT1X,MT2A,MTDH,MTHFD2,MYB,MYH11,NAMPT,NANS,NAP1L4,NCOA3,NEAT1,NEK6,NFATC3,NFATC4,NFE2L1,NFIL3,NOL4L,NOP16,NOTCH4,NR3C1,NRCAM,NRIP1,NSD3,NT5E,NUCB1,NUSAP1,OBSCN,OLFML2A,OR10J1,OSBPL3,OTUD7B,P4HB,PALLD,PAQR7,PAWR,PCDH9,PCSK5,PDLIM5,PFKFB3,PGAM1,PGK1,PGM1,PIK3CA,PILRA,PILRB,PKHD1L1,PKM,PLAUR,PLEKHG1,PLIN2,PLPP5,PLXDC2,PLXND1,POF1B,PPA1,PPIA,PRDM1,PRDX1,PRDX5,PRKCB,PRKCD,PRKCI,PRR11,PRR5,PRUNE2,PSMA5,PSMA7,PSTPIP2,PTGS2,PTK2,PTPRE,PTTG1,PXN,PYHIN1,QKI,RAB31,RACGAP1,RAD17,RALGAPA2,RAP1B,RARG,RASSF1,RBL2,RBM47,RBX1,RDX,REL,RERE,RHEX,RIN2,RPS6KA6,RRAS2,RRM2,RTN4,RUNX3,S100A4,S100A6,S100A8,S100A9,SDK1,SEC14L1,SEC24C,SEC61A1,SECISBP2L,SEMA3A,SERPINA5,SETD2,SH3PXD2A,SKIL,SLC13A3,SLC16A1,SLC24A4,SLC25A4,SLC30A1,SLC31A1,SLC39A6,SLC43A3,SLC44A1,SLC8A1,SLC9A3R1,SLC9A7,SLIRP,SMAD3,SMC1A,SMTN,SOD1,SORL1,SPON1,SSPN,STAT5B,SYT17,TAF1D,TAGLN2,TARP,TBC1D12,TBC1D9,TCP1,TCTN1,TES,TGFB2,TGFBI,TGFBR2,TGFBR3,THEM4,THRAP3,TIMP1,TIMP2,TIMP3,TLE3,TLR4,TMCO1,TMEM220,TMTC2,TNF,TNFRSF1B,TOP2A,TP63,TPI1,TREM1,TRIB1,TRIM69,TRPV2,TSHZ2,TTC38,TTN,TUBA1B,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,UBE2C,UBE2QL1,UCHL1,UHRF1,UPP1,UQCRB,UTRN,VCAN,VCL,VDAC3,VDR,VEGFA,VTI1B,VWA3B,WDFY4,WDR1,WEE1,WNT10A,WNT7B,XBP1,ZBED5,ZBTB44,ZC3HAV1L,ZHX2,ZIK1,ZNF233,ZNF318,ZNF415,ZNF677,ZNHIT1,ZYX |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymph node | 0.000000186 | 6.730487056 | turquoise | 49 | ATP2B4,B3GNT5,BAK1,CD200,CD55,CD74,CD80,CD86,CDKN2C,CEBPB,CIITA,CXCR5,DCLRE1C,DIAPH1,ESR1,ESR2,FAS,FCGR2B,HMOX1,HSP90B1,ID2,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,LAT,LYN,MAP3K14,MGAT2,NFATC3,NT5E,PRF1,PRKCD,PTGS2,REL,RRM2B,SATB1,SMAD3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TXNIP,VDR,XRCC6 |
| Cancer,Organismal Injury and Abnormalities | Primary neoplasm | 0.000000189 | 6.723538196 | turquoise | 117 | ABCB1,BAK1,BIRC5,BMPR1A,BRAF,BRIP1,CD19,CD22,CD4,CDK4,CDK5,CEBPA,CHD3,CIITA,CLMP,COX5A,CR2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,CXCR4,DDR1,ECT2,ELMO1,ESR1,ESR2,EYA2,FBXW7,FCER2,FKBP1A,FLNA,FLT1,FOSL2,FOXO1,FOXP1,GLDC,GNAS,GOT2,GRIA1,HMGA1,HRH2,HSP90AB1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IGHE,IL5RA,IQSEC1,IRF4,JPT1,KIF21A,KPNA2,LDHA,LDLR,LGALS1,LGALS3,LGALS4,LYN,MAPK1,MGLL,MRPL20,MTHFD2,MYB,MYH11,NR3C1,NT5E,NUAK2,OBSCN,PCLAF,PDE4D,PDGFD,PDLIM5,PIK3CA,PKM,PLAUR,PNKD,PPIA,PRDM1,PRKCI,PSAT1,PSMB2,PTGS2,PTPRK,RACGAP1,RARG,RASSF1,REL,RRM2,RXRA,SDHB,SEC23B,SERPINA1,SETD2,SLC16A3,SLC5A3,SLC9A3R1,SMAD3,SMARCB1,SMC4,STAB1,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,VCAN,VEGFA,ZNF490 |
| Cancer,Organismal Injury and Abnormalities | Invasive carcinoma | 0.000000192 | 6.716698771 | turquoise | 81 | ACP5,ANXA1,ARHGEF7,ARRB1,ATP5IF1,BIRC5,BRAF,BUB1B,CALM1 (includes others),CD48,CDC42EP3,CDC6,CDK4,CEBPB,COCH,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DDR1,DST,E2F7,ESR1,ESR2,EZH2,FAM111B,FAS,FKBP1A,FLT1,HLA-B,HSP90AB1,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PMEPA1,PRKCI,PSTPIP2,PTAFR,PTGS2,PTPRE,RACGAP1,RASSF1,RRM2,RTN4,RUNX2,SLC8A1,SSPN,TGFBR2,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,WDR1,ZIK1,ZNF677 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult T cell leukemia | 0.000000196 | 6.707743929 | turquoise | 42 | ATXN1,ATXN7L1,BCL11B,CBLB,CD14,CD1A,CD27,CD4,CD58,CD86,CEBPA,CSNK1A1,ERC1,FAS,FKBP1A,GATA3,HLA-B,IDH2,IFNAR2,IKZF2,IL6R,IMPDH1,IRF4,ITGB1,JARID2,KMO,NR3C1,PDE7B,PPIA,PRDM1,PRKCB,REL,RRM2,SETD2,TARP,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,VMP1 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of lymph node | 0.000000207 | 6.684029655 | turquoise | 46 | ATP2B4,B3GNT5,BAK1,CD200,CD74,CD80,CD86,CDKN2C,CEBPB,CIITA,CXCR5,DCLRE1C,DIAPH1,ESR1,ESR2,FAS,FCGR2B,HMOX1,ID2,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,LAT,LYN,MAP3K14,MGAT2,NFATC3,PRF1,PRKCD,PTGS2,REL,RRM2B,SATB1,SMAD3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TXNIP,VDR,XRCC6 |
| Post-Translational Modification | Phosphorylation of protein | 0.00000022 | 6.657577319 | turquoise | 165 | AAK1,ACVR1,AHR,AIF1,ANG,ANXA2,ARRB1,ATXN1,AURKA,B3GNT5,BCKDK,BIRC3,BIRC5,BMPR1A,BRAF,BSG,CALM1 (includes others),CAMK2D,CAMK4,CAMKK2,CBLB,CCL3,CCL5,CCND2,CCR1,CD19,CD22,CD33,CD36,CD4,CD48,CD55,CD72,CD74,CD8A,CDK2AP1,CDK4,CDK5,CDKN2C,CFL1,CHEK1,CHP1,CLEC7A,COPS8,CRH,CSF1R,CSNK1A1,CSNK1G3,CXCL8,CXCR4,DAPK1,DAPK2,DDR1,DTNBP1,DUSP6,DYNLL1,EEF2K,EIF2AK1,EPHA4,ERN1,EZH2,FAM129A,FAS,FCER1G,FCGR2A,FCGR2B,FGF9,FIZ1,FKBP1A,FLNA,FLOT1,FLT1,FNIP1,FNIP2,FYB1,FZD1,GNAS,GRK3,HCST,HIPK2,HSPA8,HSPA9,IGHM,IL1B,IL7,IRAK1,IRAK2,IRGM,ITGAM,ITGB1,ITPKB,KIRREL1,LAX1,LGALS1,LILRB3,LIMK1,LIMK2,LTK,LYN,MAP3K14,MAP3K5,MAP3K9,MAPK1,MIF,MINK1,MPRIP,MYDGF,NDUFS4,NEK3,NEK6,NUAK2,OBSCN,PAG1,PDE4D,PEBP1,PELI2,PHACTR1,PIK3C3,PIK3CA,PLA2G6,PLAUR,PLXNB2,PPARGC1B,PPIA,PRDX1,PRKCB,PRKCD,PRKCE,PRKCI,PRR5,PSAP,PTGES3,PTK2,PTPN12,PTPN14,RAD17,RAP2A,RASGRP1,RIOK2,ROPN1,RPS6KA4,RUNX3,SAMSN1,SH2D1A,SIK3,SIRPA,SLC3A2,SPN,ST6GAL1,STAP1,STAT4,STK17A,STK26,STK38L,SYN3,TBK1,TGFB2,TGFBR2,TLK1,TNF,TNIK,TYROBP,VEGFA,WARS,WEE1 |
| Organismal Injury and Abnormalities | Fibrosis | 0.000000234 | 6.630784143 | turquoise | 130 | ABCB4,ACSL1,ADA,AGO2,AHR,ALOX5,ARG1,ARNT,ATP1B1,AURKA,BID,BLMH,BMP6,BMPR1A,BUB1B,C5AR1,CAPNS1,CAV1,CCL5,CCR1,CD19,CD36,CD4,CD55,CD74,CDK4,CEBPA,CEBPB,CFLAR,CNR1,COL18A1,COL4A3,CREBBP,CSF1R,CST3,CX3CR1,CXCR3,DDR1,DDX5,DSP,DYSF,EZH2,FAM111B,FAS,FCGR2B,FKBP1A,FLT1,FOSL2,GCLC,GLMP,GNAS,GPX1,HBEGF,HDGF,HMOX1,IDH2,IFNAR2,IGHM,IGKV1D-13,IL16,IL1B,IL1RN,IL21R,IL2RB,IL5RA,IL6R,IL7,IMPDH1,IRAK2,ITGB1,KCNN4,LDLR,LGALS3,LGMN,LIMS1,LYN,MAP3K5,MIF,MTSS1,NAMPT,NDUFS6,NFE2L1,NLRP3,NR3C1,NT5E,PIK3CA,PILRA,PKD1,PLAUR,PNKD,PPIA,PRDX3,PRF1,PRKCB,PTGS2,PTK2,RASSF1,RERE,RORA,RRM2B,RUNX2,S100A4,SELPLG,SGCB,SKIL,SLC4A1,SLC8A1,SMAD3,SOD1,STAB1,STAT4,SYT7,TGFB2,TGFBR2,TGIF1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TP63,TYMS,VAV3,VDR,VEGFA,VIM,XBP1 |
| Endocrine System Disorders,Gastrointestinal Disease,Metabolic Disease,Organismal Injury and Abnormalities | Diabetes mellitus | 0.000000247 | 6.607303047 | turquoise | 229 | ABCG1,ACAA2,ACSL1,AIF1,AIM2,ALDH1A1,ANAPC5,ANXA1,ANXA2,ANXA5,AP4B1,ASB2,ATXN1,AVEN,BACH2,BANK1,CALCR,CANX,CAPN3,CARS,CAV1,CBLB,CCL3,CCL5,CCND2,CCR1,CD19,CD200,CD22,CD226,CD27,CD300A,CD36,CD38,CD4,CD74,CD80,CD86,CDC42EP3,CDK4,CDS1,CEBPD,CHN2,CHP1,CIITA,CLEC12A,CLEC2B,CLEC2D,CMAHP,CNR1,COL18A1,COL19A1,COL4A3,COL4A4,COL9A1,CPVL,CR1,CR2,CREB5,CREBBP,CRIP1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DDR1,DIP2C,DNAJC3,E2F2,ELMO1,ENAH,ESR1,EVI2A,EYA2,FAS,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FKBP1A,FLOT1,FLT1,FOXO1,FOXP1,FXYD5,GABBR1,GBP4,GPR18,GZMA,HAVCR2,HCAR3,HCST,HIST1H3B,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HMBOX1,HMGA1,HSPA5,IDE,IER3IP1,IGFBP7,IGHM,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL7R,IMPDH1,IRF4,IRGM,IRS2,ITGAM,ITGAV,ITGAX,ITGB7,ITPR1,JAML,JAZF1,KCNAB3,KIF11,KLF10,KMO,LAT,LDLR,LGALS3,LILRB3,LRP8,LST1,LYZ,MIAT,MIF,MS4A6A,MT1G,MT2A,MYH11,MYO1B,MYO1F,MZB1,NLRP3,NOTCH4,NR3C1,NT5E,P2RY13,PBX3,PCYT1A,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PFKFB3,PGM1,PILRB,PLA2G6,PLBD1,PLEK,PPIA,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PRR5,PRUNE2,PSMA1,PSMA3,PSMB7,PSMC2,PSMD14,PSMD8,PTAFR,PTGS2,PTTG1,RBMS1,REL,RUNX3,S100A10,S100A4,S100A6,SAMD12,SH2D1A,SIGMAR1,SIRPB1,SLC22A15,SLC3A2,SOCS2,SOD1,SPN,ST3GAL6,STAP1,STAT4,STAT5B,TGFBI,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TP63,TRIM44,TUBA1C,TUBB,TXN,TXNIP,TYROBP,UBE2G1,UBE2N,UBE2Q1,UCHL1,UFC1,VDR,VEGFA,VWA3B,XBP1,YBX3,ZBTB16,ZBTB7A,ZFAND6,ZNF274 |
| Cell-To-Cell Signaling and Interaction | Binding of myeloid cells | 0.000000252 | 6.598599459 | turquoise | 60 | ADGRE2,ADGRE5,ANXA1,CADM1,CCL3,CCL5,CCR1,CD14,CD4,CD48,CD58,CD69,CD99,CFP,CNR1,CR2,CSF3R,CXCL2,CXCL8,DNAJC1,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,FOXO1,FPR1,GLRX,ICOSLG/LOC102723996,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LGALS1,LGALS3,LILRB3,LSP1,LYN,MGAT5,MIF,PIK3CA,PLA2G6,PLAUR,PTGS2,RAP1B,S100A8,S100A9,SELPLG,SERPINA1,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,VAV3,VEGFA |
| Digestive System Development and Function,Gastrointestinal Disease,Hepatic System Development and Function,Hepatic System Disease,Inflammatory Disease,Inflammatory Response,Organ Development,Organismal Injury and Abnormalities | Inflammation of liver | 0.00000026 | 6.585026652 | turquoise | 86 | ABCB4,APOA2,ARIH2,BID,BIRC3,BTLA,CCL3,CCL5,CD14,CD48,CD55,CEBPA,CHCHD2,CNR1,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DDX5,DTX1,E2F2,ESR1,FAIM,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,GABBR1,GLMP,HAVCR2,HMOX1,HSPA5,IFNAR2,IL1RN,IL2RB,IL4R,IL6R,IL7R,IMPDH1,ITGAM,LAT,LCP2,LDLR,LGALS3,LYN,MAP3K14,MAP3K5,MAPKAPK3,MRS2,NFE2L1,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PLAUR,PPIA,PRDM1,PRF1,RASSF1,RXRA,S100A4,SIGMAR1,SOD1,STAB1,STAT4,STUB1,TARP,TBX21,TFRC,TIMP1,TIMP3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TYROBP,UACA,VDR,VSIR,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Binding of phagocytes | 0.000000273 | 6.563837353 | turquoise | 57 | ADGRE2,ANXA1,CADM1,CCL3,CCL5,CCR1,CD14,CD4,CD48,CD58,CD69,CD99,CNR1,CR1,CR2,CSF3R,CXCL2,CXCL8,CXCR4,DNAJC1,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,FOXO1,FPR1,GLRX,ICOSLG/LOC102723996,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LILRB3,LSP1,LYN,MGAT5,MIF,PIK3CA,PLA2G6,PLAUR,PLXNC1,PTGS2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,VAV3,VEGFA |
| Hematological System Development and Function,Tissue Morphology | Abnormal quantity of leukocytes | 0.000000278 | 6.555955204 | turquoise | 30 | BIRC3,CD4,CD74,CD80,CD86,CD8A,CSF1R,DENND1B,ESR1,ESR2,FCGR2A,HAX1,HMOX1,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL5RA,IRF8,ITGAM,NFATC3,POLM,PRDX1,REL,RHOH,SH2D1A,SH3BP2,STAT5B,TOX,VDR |
| Dermatological Diseases and Conditions,Inflammatory Disease,Organismal Injury and Abnormalities | Acne | 0.000000289 | 6.539102157 | turquoise | 32 | AIF1,ALOX5,APOBEC3A,AVEN,CCR1,CD14,CD163,CR1,CRH,CXCL2,CXCL8,ESR1,ESR2,FABP5,GPX1,GZMB,IL13RA1,IL1B,ITGAV,LYZ,PLAUR,PTGS2,RARG,RXRA,S100A9,SELPLG,SERPINA1,TIMP1,TLR2,TLR4,TNF,VDR |
| Cell Death and Survival | Cell death of myeloid cells | 0.000000295 | 6.530177984 | turquoise | 61 | ABCB1,ABCC4,ABCG1,AHR,AIM2,ANXA1,BAK1,BCL2L2,BID,BIRC3,BIRC5,BTG1,CCL5,CD14,CD69,CEBPB,CFLAR,CXCL2,CXCL8,CXCR4,FAS,FCER1G,GPSM1,HAVCR2,HAX1,HMOX1,IGHE,IL1B,IL1RN,IL6R,IRAK1,IRF8,ITGAM,LDLR,LGALS1,LGALS3,LYN,LYZ,MCL1,MIF,MLKL,MYB,NAMPT,NLRP1,NLRP3,NR3C1,PLA2G6,PRKCD,PRKCE,PYCARD,S100A8,SH3BP2,SIRPA,SLC29A2,ST3GAL3,ST6GAL1,TLR2,TLR4,TNF,TNFRSF1B,TREM1 |
| Cell Cycle | G1 phase | 0.000000302 | 6.519993057 | turquoise | 108 | ACVR1,AHR,ANXA2,APOBEC3A,ARG1,ARNT,ARRB1,BAG3,BAK1,BCAT1,BIRC5,BRAF,CAMK2D,CAMKK2,CAPNS1,CCNA2,CCND2,CDC6,CDCA2,CDK4,CDKN2C,CDS1,CDT1,CEBPA,CEBPB,CEBPD,CREG1,CRH,CSF1R,CUX1,CYP1B1,E2F2,EGOT,ESR1,ESR2,EZH2,FCER2,FKBP1A,FLT1,FOXO1,GADD45A,GATA3,GFI1,GMNN,GPI,GSPT1,HMGA1,ID2,IGFBP7,IGHM,IL16,IL1B,IL7,ITGAV,ITGB1,KLF10,LGALS1,LGALS3,MAP3K5,MAPK1,MCM4,MCM6,MDM2,MDM4,MYB,NCOA3,NFYA,NR3C1,PIAS2,PKM,PPARGC1B,PRKCD,PRKCE,PTGES3,PTK2,RAD17,RASSF1,RASSF6,RB1-DT,RBL2,RBM5,REL,RFFL,RHOU,RPL23,RUNX2,RUNX3,SEL1L,SH3PXD2A,SMARCA2,SMARCB1,SSH2,STK38L,SYCP2,TAF10,TFDP1,TFDP2,TFRC,TGFBR2,THRB,TIMP1,TIMP2,TNF,TOB2,TP63,TXNIP,TYMS,VEGFA |
| Cell Death and Survival | Cell death of T lymphocytes | 0.000000303 | 6.518557371 | turquoise | 81 | ADA,AHR,ARRB1,BAK1,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD226,CD27,CD38,CD4,CD59,CD70,CD99,CFLAR,CHEK1,CIITA,CST3,CXCR4,DTX1,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,GAPDH,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,ID2,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCE,RHOH,SATB1,SH2D1A,SPN,STAT5B,STOML2,STUB1,TBX21,TCL1A,TGFB2,TGFBR2,TNF,TNFRSF1B,TNFRSF25,TOP2A,VDR,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive ductal breast carcinoma | 0.000000333 | 6.477555766 | turquoise | 40 | ACP5,ANXA1,ARRB1,ATP5IF1,BIRC5,CD48,CDC42EP3,COCH,CXCL8,DACT1,DST,ESR1,ESR2,HLA-B,HSP90AB1,HSP90B1,IER3,IQSEC1,LGALS1,MEF2C,MGLL,MKI67,NR3C1,OBSCN,PIK3CA,PRKCI,PTPRE,RASSF1,RRM2,RTN4,THEM4,TLE3,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Digestive System Development and Function,Hepatic System Development and Function,Organ Development | Response of liver | 0.000000347 | 6.459670525 | turquoise | 87 | ABCB4,APOA2,ARIH2,BID,BIRC3,BTLA,CCL3,CCL5,CD14,CD48,CD55,CEBPA,CHCHD2,CNR1,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DDX5,DTX1,E2F2,ESR1,FAIM,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,GABBR1,GLMP,HAVCR2,HMOX1,HSPA5,IFNAR2,IL1RN,IL2RB,IL4R,IL6R,IL7R,IMPDH1,ITGAM,LAT,LCP2,LDLR,LGALS3,LYN,MAP3K14,MAP3K5,MAPKAPK3,MRS2,NFE2L1,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PLAUR,PPIA,PRDM1,PRF1,RASSF1,RXRA,S100A4,SIGMAR1,SOD1,STAB1,STAT4,STUB1,TARP,TBX21,TFRC,TIMP1,TIMP3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TYROBP,UACA,VDR,VSIR,XBP1,ZBTB16 |
| Cell Death and Survival | Cytolysis of lymphocytes | 0.000000348 | 6.458420756 | turquoise | 29 | CD226,CD4,CD48,CD8A,FCER1G,FCGR2A,GZMA,HCST,IFNAR2,IL15RA,IL21R,ITGAL,LCP2,NFIL3,PRDX1,PRF1,PSME2,REL,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBK1,TBX21,TNF,TOX,TYROBP,VIM |
| Metabolic Disease | Glucose metabolism disorder | 0.000000353 | 6.452225295 | turquoise | 275 | ABCG1,ABHD5,ACAA2,ACSL1,ADARB1,AIF1,AIM2,ALDH1A1,ANAPC5,ANXA1,ANXA2,ANXA5,AP4B1,APOA2,ARG1,ARNTL,ASB2,ATXN1,AVEN,BACH2,BAG3,BANK1,BID,BMPR1A,BTG1,CALCR,CANX,CAPN3,CARS,CAV1,CBLB,CCL3,CCL5,CCND2,CCR1,CD19,CD200,CD22,CD226,CD27,CD300A,CD36,CD38,CD4,CD55,CD74,CD80,CD86,CDC42EP3,CDK4,CDS1,CEBPA,CEBPB,CEBPD,CFD,CHN2,CHP1,CIITA,CLEC12A,CLEC2B,CLEC2D,CMAHP,CNR1,COL18A1,COL19A1,COL4A3,COL4A4,COL9A1,CPVL,CR1,CR2,CREB5,CREBBP,CRH,CRIP1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DDR1,DIP2C,DNAJC3,E2F2,EIF4EBP2,ELMO1,ENAH,EPM2A,ERN1,ESR1,ESR2,EVI2A,EYA2,FABP5,FAS,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCRL1,FKBP1A,FLOT1,FLT1,FOXO1,FOXP1,FXYD5,GABBR1,GBP4,GLUD1,GNAS,GPR18,GPX1,GZMA,HAVCR2,HCAR3,HCST,HIST1H3B,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HMBOX1,HMGA1,HSPA5,HYOU1,IDE,IER3IP1,IFNAR2,IGFBP7,IGHM,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL7R,IMPDH1,IRF4,IRGM,IRS2,ITGAM,ITGAV,ITGAX,ITGB7,ITPR1,JAML,JAZF1,KCNAB3,KIF11,KLF10,KMO,LAT,LDLR,LGALS3,LILRB3,LRP8,LRPAP1,LST1,LYZ,MBD5,MGAT2,MGAT4A,MGAT4B,MIAT,MIF,MS4A6A,MT1G,MT2A,MYH11,MYO1B,MYO1F,MZB1,NLRP3,NOTCH4,NR3C1,NT5E,P2RY13,P2RY14,PANK2,PBX3,PCYT1A,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PFKFB3,PGM1,PILRB,PITPNA,PLA2G16,PLA2G6,PLBD1,PLCL2,PLEK,PLIN2,PPIA,PRDX3,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PRR5,PRUNE2,PSMA1,PSMA3,PSMB7,PSMC2,PSMD14,PSMD8,PTAFR,PTGS2,PTTG1,PYCARD,RBMS1,REL,RUNX3,S100A10,S100A4,S100A6,SAMD12,SEL1L,SGCB,SH2D1A,SIGMAR1,SIRPB1,SLC16A1,SLC22A15,SLC3A2,SMARCB1,SMARCD3,SOCS2,SOD1,SPN,ST3GAL6,STAP1,STAT4,STAT5B,STEAP4,TGFBI,TGFBR2,THRAP3,TIMP1,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TP63,TRIB1,TRIM44,TUBA1C,TUBB,TXN,TXNIP,TYROBP,UBE2G1,UBE2N,UBE2Q1,UCHL1,UFC1,VDR,VEGFA,VWA3B,XBP1,YBX3,ZBTB16,ZBTB7A,ZFAND6,ZNF274 |
| Cell Death and Survival | Apoptosis of hematopoietic cell lines | 0.000000357 | 6.447331784 | turquoise | 56 | ABCB1,BAK1,BID,BIRC3,BIRC5,BRAF,CCL5,CCND2,CD19,CD27,CD69,CD8A,CD99,CEBPA,CEBPB,CFLAR,DAPK1,DAPK2,EIF4B,ESR1,EYA2,FAIM,FAS,FOXO1,GGT1,GZMB,IGHM,IL32,IL7,IL9R,IRF4,IRF8,ITGB1,LGALS3,LTK,LYN,MCL1,MDM2,MYB,MYH11,MZB1,PAX5,PDCD5,PRDM1,PRKCE,PXN,RBM5,SH3BP2,SH3GLB1,SPN,STAT5B,TGFB2,TLR2,TNF,TNFRSF1B,TNFRSF25 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of leukocytes | 0.000000403 | 6.394694954 | turquoise | 55 | AHR,AURKA,BRAF,BTLA,C5AR1,CCND2,CD27,CD4,CD55,CD69,CD70,CD80,CD86,CDKN2C,CR2,CSF1R,CSF2RB,CUX1,CXCR3,DNM2,FAS,FCGR2B,GFI1,HAVCR2,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IL9R,IRF8,LAT,LCP2,LGALS4,LYN,MIR17HG,MYB,MYDGF,PIK3CA,PRF1,REL,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,ZBTB16 |
| Cell Cycle | Arrest in interphase | 0.000000406 | 6.391473966 | turquoise | 111 | AHR,ANXA2,APOBEC3A,ARG1,ARNT,ATF5,AURKA,BAG3,BAK1,BID,BIRC5,BRAF,BTG1,BTLA,CALCR,CAMK2N1,CAMKK2,CAV1,CCNA2,CCND2,CDC6,CDCA2,CDK4,CDS1,CEBPA,CEBPB,CEBPD,CHEK1,CSF1R,CYP1B1,DTL,DUSP4,E2F2,EEF2K,EGOT,ESR1,ESR2,EZH2,FKBP1A,FLNA,FOXO1,GADD45A,GFI1,GMNN,GSPT1,GTF2I,IGFBP7,IGHM,IL16,IL1B,IL7,ITGAV,ITGB1,KIF11,KLF10,LGALS1,LGALS3,LIMK1,LIMK2,MAP3K5,MAPK1,MDM2,MDM4,MTDH,MXI1,MYB,NCOA3,NFYA,NR3C1,PIAS2,PKD1,PKM,PLAUR,PPARGC1B,PRKCD,PTGES3,PTK2,RAD17,RASSF1,RASSF6,RB1-DT,RBL2,RBM5,RBX1,REL,RFFL,RPL23,RRM2B,RUNX3,RXRA,SMARCA2,SMARCB1,SMC1A,STK38L,SUN1,TAF10,TCP1,TFDP1,TFDP2,TFRC,TGFBR2,THRB,TIMP2,TNF,TNFRSF17,TOB2,TOP2A,TP63,TXNIP,TYMS,WEE1 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Endometriosis | 0.000000407 | 6.390405591 | turquoise | 91 | ABCG1,AHR,ANK3,APOBEC3B,ARF1,ATP1B1,BCAT1,BIRC5,BMP8B,BSG,BUB1B,CCNA2,CCR1,CD163,CD48,CDC42EP3,CEBPB,CITED2,COCH,COL18A1,CSF1R,CXCL8,CXCR3,CXCR4,CXCR5,DYNLL1,EIF1,ELL2,ESR1,ESR2,FLT1,FOSL2,FOXO1,GATA3,GNAS,GPI,GZMA,HLA-DOB,IL2RB,IRS2,ITGAL,ITGAM,ITGB1,KCNN3,KIF20A,MARCKS,MCM4,MGLL,MGST1,MMP11,MT1E,MT1G,MT1X,NFIL3,NR3C1,NRIP1,PDE4D,PDGFD,PFKFB3,PIK3CA,PIP5K1B,PKD1,PLAUR,PRKCB,PRR5,PSMA1,PTAFR,PTGS2,PTTG1,RAP1B,REL,S100A8,S100A9,SAT1,SLC16A1,SLC1A4,SRPRB,TGFB2,TGFBI,TIMP2,TNF,TNFRSF17,TNFRSF1B,TOP2A,TRAF5,UCHL1,VEGFA,VIM,WEE1,XRCC6,ZBTB16 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of antigen presenting cells | 0.000000411 | 6.386158178 | turquoise | 82 | AHR,ANXA2,AP3B1,AP3D1,BID,BMPR1A,CCL3,CCL5,CD14,CD200,CD36,CD4,CD48,CD74,CD80,CD86,CEBPA,CEBPB,CLEC7A,CR1,CRH,CSF1R,CX3CR1,CXCL8,CXCR5,DYSF,FAS,FCER1G,FCGR2A,FCGR2B,FOXP1,GFI1,GNLY,HAVCR2,HBP1,HLA-DMA,HLA-DMB,HLA-DOA,HMOX1,HRH2,HSP90B1,IGHM,IL1B,IL1RN,IL4R,IL7,IRAK1,IRF4,ITGAV,ITGB1,LGALS3,LILRA2,LYN,MIF,NFIL3,PFKFB3,PILRB,PRF1,PRKCD,PRKCE,PRKCI,PSME2,PTGS2,PYCARD,RAB32,RAB33A,RAB34,RORA,S100A9,SIRPA,SLC11A1,SOD1,STAT4,TBX21,TLR2,TLR4,TNF,TNFRSF1B,TSHR,TYROBP,UBE2N,VEGFA |
| Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Quantity of lymphoid organ | 0.000000433 | 6.363512104 | turquoise | 76 | ABCB1,AFF1,AHR,AKAP13,B3GNT5,BAK1,BCL11A,BCL11B,BNIP3L,CD200,CD4,CD80,CD86,CD8A,CDKN2C,CIITA,CREBBP,CRH,CRIP3,CXCR4,CXCR5,DCLRE1C,DIAPH1,EPHA4,ESR1,ESR2,ETS2,FAS,FCER1G,FCGR2B,FOXO1,FYB1,GADD45A,GBA,GFI1,GSTK1,HAX1,ICOSLG/LOC102723996,ID2,IL15RA,IL2RB,IL7,IL7R,IRF8,ITPKB,LAT,LCP2,LGALS2,LYN,MCL1,MIR17HG,MXI1,MYH11,NOTCH4,NR3C1,PAG1,PIK3CA,PLXND1,PRF1,PSMB10,RARG,RASGRP1,RHOH,RRM2B,RUNX2,RUNX3,SATB1,STAT5B,TGFBR3,TNF,TNFRSF13B,TOX,TPX2,VAV3,VDR,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Interaction of mononuclear leukocytes | 0.000000438 | 6.358525889 | turquoise | 59 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD14,CD22,CD4,CD48,CD58,CD69,CD80,CD86,CD99,CXCL8,CXCR3,CXCR4,DIAPH1,FAS,FCGR3A/FCGR3B,FLOT1,FOXO1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,LTK,MIF,MYO1G,NFATC3,NR3C1,NT5E,PIK3CA,PLAUR,PLCB1,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF |
| Infectious Diseases | Infection of cells | 0.000000441 | 6.355561411 | turquoise | 182 | ACTR3,ADGRE5,AKAP13,ALG14,ANXA2,APOBEC3B,ARF1,ARHGAP32,ARPC1B,ARRB1,ASGR2,ATOX1,ATP5F1B,ATP5IF1,ATP6V0A1,BCL11A,BCL2L2,BSG,CAMK1D,CAMKK2,CARD16,CAV1,CBLB,CCL3,CCL5,CCR1,CD300LF,CD4,CD55,CD58,CD74,CD80,CD86,CD93,CDC42EP3,CEP68,CHCHD2,CLIP1,COPG1,COPZ1,CR2,CXCL8,CXCR4,DAPK2,DDOST,DDX50,DIAPH1,DMXL1,DNM2,DTX4,DYSF,EIF3A,ELOA,ELOC,EPS8,ERC1,ETHE1,ETS2,FAS,FCGR2B,FGD6,FPR1,FRS2,FURIN,GABPB1,GPI,HAVCR2,HID1,HLA-DOA,HS3ST1,HSP90B1,HSPA5,HSPA9,IL7,ITGAM,ITGB1,ITGB7,LCP2,LDLR,LIMK2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MDM2,MGAT1,MGLL,MICAL3,MID1IP1,MRPL23,MRS2,MT1X,MT2A,MYO1F,MYOF,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NIPSNAP3B,NLRP1,NUP133,OSBPL3,PDCD2L,PDIA6,PGM1,PICALM,PMM1,POLR2L,PPIB,PPM1K,PRKCB,PSMA1,PSMA2,PSMA3,PSMA5,PSMA7,PSMB6,PSME2,PTAFR,PTGES3,PVT1,RAB1B,RAB3D,RAB8A,RANBP2,RAP1B,RARRES3,RBM5,RNH1,RPL3,RTN3,RXRA,SAMHD1,SEC14L1,SEC61G,SELPLG,SERPINA1,SERPINB6,SESTD1,SFXN3,SHCBP1,SLC31A1,SNRPA1,SPCS3,SSR1,SSR3,ST3GAL3,ST6GAL1,STAB1,STT3A,SUB1,TAGLN2,TBK1,TERF2,TFDP2,TFRC,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOX,TRIM44,TRIM8,TTC3,UAP1,UBE2C,UBE2H,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Hematological Disease,Immunological Disease | Leukopenia | 0.000000474 | 6.324221658 | turquoise | 51 | ABCB1,BACH2,BCL11A,BCL11B,C5AR1,CD14,CD4,CD8A,CREBBP,CSF3R,CXCR4,CYP51A1,DCLRE1C,DIAPH1,DNM2,FAS,FCER1G,FNIP1,GFI1,HAX1,ID2,IGHM,IGKC,IL2RB,IL7,IL7R,IMPDH1,IRF4,IRF8,ITPKB,LAT,MAGT1,PCLAF,PPIA,PRDM1,PRF1,RARG,RRM2,RXRA,SH2D1A,TBX21,TLR4,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,XRCC6 |
| Cell-To-Cell Signaling and Interaction | Binding of tumor cell lines | 0.000000486 | 6.313363731 | turquoise | 104 | ACTN4,AFDN,AGO2,ANXA1,ANXA2,ANXA5,ARHGAP21,ASGR2,BSG,CAV1,CCL3,CD14,CD226,CD36,CD4,CD55,CD59,CD80,CD99,CLEC7A,CR1,CR2,CXCL2,CXCL8,CXCR3,CXCR4,DDR1,DSP,DYSF,ESR1,FAS,FCAR,FCER2,FCGR2A,FLNA,FOXO1,FOXP1,FXYD5,FYB1,GATA3,GZMB,HAX1,HMMR,HSP90B1,HSPA5,IL1B,IL6R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,LASP1,LAT,LCP2,LGALS2,LGALS3,LGALS4,MAPK1,MARCKS,MGAT5,MINK1,NSD2,PARVG,PKM,PLAUR,PLEKHA2,PTAFR,PTGES3,PTK2,PTPN14,PXN,RASSF1,RHOH,RHOU,S100A10,SELPLG,SEMA3A,SERPINA5,SH2D1A,SIGMAR1,SKAP1,SLC4A1,SMAD3,SPN,SRGN,ST6GAL1,STOML2,TFRC,TIAM1,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF25,TP63,UCHL1,UTRN,VANGL1,VCAN,VCL,VEGFA,ZYX |
| Cardiovascular Disease,Hematological Disease,Organismal Injury and Abnormalities | Anemia | 0.000000493 | 6.307153081 | turquoise | 109 | AGO2,ALDOA,ANXA1,ATP1B1,ATXN1,BAK1,BCOR,BNIP3L,BRIP1,C1GALT1,C1GALT1C1,CCND2,CD59,CD70,CDC42EP3,CDK4,CSF1R,CSF2RB,CSF3R,CX3CR1,CYP51A1,DAD1,DIAPH1,EIF2AK1,EPB42,ESR1,ESR2,EZH2,FAS,FBXW7,FCER1G,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FLT1,GCLC,GLMP,GNAS,GPI,GPX1,GSTM1,HLA-B,HMOX1,HSPA9,IDH2,IFNAR2,IL2RB,IL7R,IMPDH1,KCNN3,KCNN4,LGALS3,LGMN,LYN,MDM2,MDM4,MGAT1,MGAT2,MGLL,MIF,MTHFD1,MYB,NDFIP1,NDUFB11,NFATC3,NFATC4,NFE2L1,NR3C1,PICALM,PIEZO1,PIK3C3,PPIA,PRDX1,PRDX3,PRF1,PTGS2,PTPRE,RPS17,RPS27,RRM2,RRM2B,RUNX2,SEC11A,SEC23B,SIGMAR1,SLC25A37,SLC4A1,SOD1,SSBP2,STAT5B,TARP,TBXAS1,TFRC,TINF2,TLE3,TNF,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VDR,VEGFA,XBP1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Relapsed hematologic cancer | 0.000000506 | 6.295849483 | turquoise | 44 | ABCB1,ACTG1,ADA,ANXA1,AURKA,BIRC3,BRAF,CD19,CD22,CD33,CD38,CSF1R,CSF3R,CXCR4,DDR1,FKBP1A,FLT1,HDAC9,HSP90AB1,HSP90B1,IDH2,IFNAR2,IL2RB,IMPDH1,LYN,MDM2,NR3C1,PPIA,PSMB10,PSMB2,PTGS2,RARG,RRM2,RRM2B,RXRA,SLAMF7,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Necrosis of malignant tumor | 0.000000511 | 6.2915791 | turquoise | 95 | ANXA1,B4GALT5,BCL2L2,BID,BIK,BIRC5,BMP6,BRAF,BUB1B,CD22,CD33,CD38,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CSF3R,CXCL8,CXCR3,CXCR4,E2F2,EIF3E,ENO1,FAS,FOXO1,GZMA,HIPK2,HMOX1,HSP90AB1,HSPA9,IDH2,IGHM,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MIF,MMP11,MYB,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMA7,PSMB3,PSMC2,PTGS2,PTK2,RARG,REL,RPL10,RPL13,RPL3,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SNRPA1,SOD1,TCL1A,THRB,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Binding of professional phagocytic cells | 0.000000553 | 6.257274869 | turquoise | 56 | ADGRE2,ANXA1,CADM1,CCL3,CCL5,CCR1,CD14,CD4,CD48,CD58,CD69,CD99,CNR1,CR2,CSF3R,CXCL2,CXCL8,CXCR4,DNAJC1,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,FOXO1,FPR1,GLRX,ICOSLG/LOC102723996,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LILRB3,LSP1,LYN,MGAT5,MIF,PIK3CA,PLA2G6,PLAUR,PLXNC1,PTGS2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,TGFBR2,TLR2,TLR4,TNF,TRPV2,TXN,VAV3,VEGFA |
| Organismal Injury and Abnormalities | Benign lesion | 0.000000565 | 6.247951552 | turquoise | 216 | ABCB1,ABCC4,ABI2,ADARB1,ADGRE5,AFF1,AHNAK,AHR,ALDH1A1,ALDOA,ANXA1,ANXA2,ANXA5,ANXA7,AP2S1,APLP2,ARG1,ARIH2,ARNT,ASB2,ATP1A1,BACE2,BAK1,BBS2,BCL11B,BCOR,BID,BIRC5,BMP6,BRAF,BUB1B,C5orf30,CAV1,CCL3,CCNC,CCND2,CD48,CDC42EP3,CDK4,CDKN2C,CEBPA,CEBPB,CEBPD,CFD,CLMN,CLUH,CNP,CNR1,COL18A1,COL19A1,COL4A3,COL4A4,COL9A1,CSF1R,CSF2RB,CTNND1,CTSC,CUX1,CYP1B1,DACT1,DAPK1,DDR1,DDX17,DDX5,DST,DUT,E2F2,EPPK1,ESR1,ESR2,ETHE1,ETV4,EXT1,EZH2,FABP5,FAS,FBXO4,FBXW7,FKBP1A,FLNA,FLT1,FOXO1,GABBR1,GADD45A,GALK2,GLRX,GLUL,GNAQ,GNAS,GSTM1,GSTO1,HLA-B,HMGA1,HMMR,HMOX1,HRH2,HSD17B10,HSP90AB1,IDH2,IFNAR2,IGFBP7,IL6R,IQGAP2,IRS2,ITGB1,ITM2C,JCHAIN,KCNG1,KCNN3,KIF11,KIF1B,KLF10,LAMC1,LGALS1,LGALS3,LGMN,LSP1,LYN,LZTS1,MAP3K5,MAPK1,MGAT5,MGST1,MKI67,MLX,MMP11,MPHOSPH8,MTHFD2,MYL6,NBPF10 (includes others),NETO2,NOTCH4,NR2F1,NR3C1,NRCAM,NRIP1,NUAK2,NUSAP1,PAG1,PARPBP,PDCD4,PERP,PIK3CA,PKD1,PLA2G6,PLAUR,PLD3,PLXNB2,PLXNC1,PPA1,PPP1R3D,PRDX1,PRKCB,PRKCD,PRKCE,PRKCI,PRR5,PSAT1,PSMA6,PTGS2,PTK2,PTPRE,PTTG1,RAP2B,RASSF1,RELL1,RORA,RRM2,RUNX3,RXRA,S100A11,S100A4,S100A8,S100A9,SAV1,SETD2,SKIL,SLC2A5,SLC51B,SLC5A3,SMAD3,SMPDL3A,SPRY1,SSBP2,STAB1,TARP,TBL1X,TFDP1,TFDP2,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TNFRSF1B,TOP2A,TP63,TRAM2,TSHR,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UQCRH,USP44,UTRN,VCAN,VCP,VDR,VEGFA,WEE1,ZC3HAV1L,ZYX |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Homing of leukocytes | 0.000000593 | 6.226945307 | turquoise | 96 | AIF1,ALOX5,ANXA1,AQP9,ARHGEF7,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD38,CD4,CD69,CD72,CD74,CKLF,CREB3,CSF1R,CSF3R,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DIAPH1,DOCK5,DYSF,ELMO1,FCER1G,FCGR2A,FLOT1,FLT1,FOXO1,FPR1,FYB1,GATA3,GNAI3,GNAS,GNLY,GPR18,GPSM1,IL16,IL1B,IL4R,IL6R,ITGAL,ITGAM,ITGB7,JAML,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LSP1,LYN,MIF,MYO1F,NINJ1,NR3C1,PIK3CA,PIK3R5,PLA2G6,PLAUR,PPIA,PPIB,PRKCB,RAP1B,REL,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TGFB2,TIAM1,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,TXN,VAV3,VEGFA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Activation of myeloid cells | 0.000000609 | 6.215382707 | turquoise | 86 | AHR,ANXA1,ANXA2,BID,C5AR1,CCL3,CCL5,CD14,CD163,CD200,CD226,CD300A,CD300LB,CD300LF,CD36,CD4,CD48,CD63,CD80,CD86,CD93,CEBPA,CEBPB,CLEC11A,CNR1,CR1,CRH,CSF1R,CST3,CX3CR1,CXCL8,CXCR5,DYSF,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,FOXP1,FPR1,GZMA,HAVCR2,HMOX1,IGHE,IL16,IL1B,IL1RN,IL4R,IL5RA,IL7,IRAK1,ITGAM,ITGAV,ITGB1,LCP2,LGALS3,LILRA2,LILRB3,LY96,LYN,MIF,NFIL3,PFKFB3,PPIA,PRF1,PRKCD,PRKCE,PTGS2,PTPRE,RHOH,RORA,S100A12,S100A8,S100A9,SIRPA,SLC11A1,SOD1,STAT4,TLR2,TLR4,TNF,TREM1,TREML2,TYROBP,UBE2N,VAV3 |
| Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Inflammation of urinary tract | 0.000000611 | 6.21395879 | turquoise | 76 | ABAT,ACTN4,ALOX5,BAK1,C5AR1,CCL5,CCR1,CD19,CD22,CD72,CD80,CD86,CD8A,CEBPB,COL4A3,COL4A4,CR1,CX3CR1,CXCL8,CXCR3,DTX1,E2F2,ESR1,ESR2,FAS,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,GADD45A,GSTK1,GSTM1,HBEGF,HMOX1,ICOSLG/LOC102723996,IGHM,IL16,IL1RN,IL21R,IL5RA,IMPDH1,ITGAL,ITGAM,ITGAX,LY6E-DT,LYN,MAPKAPK3,MDM2,MGAT2,MIF,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PKD1,PLEKHA1,PLEKHA2,PPIA,PRKCD,PSMB2,PTGS2,PTTG1,RXRA,S100A10,SEC61A1,SMAD3,STAMBPL1,TLR2,TNF,TNFRSF13B,TOP2A,TP63,TYMS,VDR,VEGFA |
| Hematological Disease,Immunological Disease | Eosinophilia | 0.000000621 | 6.2069084 | turquoise | 50 | ALDOA,ALOX5,ANXA1,APOBEC3A,ARG1,ARPC1B,BIRC5,CAPN3,CCL3,CD300LF,CD4,CD69,CD86,CLEC7A,CSF1R,CXCL2,CXCR4,DDR1,ENO1,EPPK1,FCER2,GAPDH,GATA3,HLA-B,HSPA5,IGHD,IGKC,IGLJ3,IL4R,IL5RA,IRF8,ITGB7,JCHAIN,MAP3K14,MGAT5,NFATC3,NR3C1,P4HB,PRDX1,PRF1,RORA,SOCS2,ST3GAL3,TKT,TLR4,TNF,TPI1,TUBB,VAV3,VDR |
| Cell Death and Survival | Cell death of leukocyte cell lines | 0.000000626 | 6.203425667 | turquoise | 55 | BAK1,BIRC5,CCL5,CCND2,CD19,CD27,CD69,CD8A,CD99,CEBPA,CEBPB,CFLAR,DAPK1,DAPK2,EIF4B,ESR1,EYA2,FAIM,FAS,FOXO1,GFI1,GGT1,GZMA,HCST,HSPA5,IGHM,IL32,IL7,IL9R,IRF4,ITGB1,LGALS1,LGALS3,LTK,LYN,MCL1,MYH11,MZB1,NFIL3,PDCD5,PRDM1,PRKCE,PXN,RBM5,SH3BP2,SH3GLB1,SPN,ST6GAL1,STAT5B,TFDP1,TGFB2,TLR2,TNF,TNFRSF1B,TUBB |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of phagocytes | 0.000000646 | 6.189767482 | turquoise | 78 | AIF1,ALOX5,ANXA1,AQP9,ARHGEF7,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD38,CD4,CD69,CD72,CD74,CKLF,CREB3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DAPK2,DOCK5,DYSF,FCER1G,FCGR2A,FLOT1,FLT1,FPR1,GNAI3,GNLY,GPSM1,IL16,IL1B,IL4R,ITGAL,ITGAM,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LITAF,LSP1,LYN,MIF,MYO1F,NINJ1,PIK3CA,PIK3R5,PLA2G6,PLAUR,PPIA,PRKCB,REL,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TGFB2,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VAV3,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Aggressive non-Hodgkin lymphoma | 0.00000065 | 6.187086643 | turquoise | 94 | ADA,AHR,ALOX5,ANKRD36,AP4B1,BCL11B,BCL7A,BIRC3,BRAF,BTG1,CCND2,CD19,CD22,CD27,CD36,CD58,CD63,CD70,CDKN2C,CEBPA,CFLAR,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF3R,DMXL1,DSP,EZH2,FBXW7,FCER2,FKBP1A,FOXO1,FOXP1,HIST1H3B,HSP90AB1,HSP90B1,IFNAR2,IGLL1/IGLL5,IKBIP,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ITPR1,MCL1,MDM2,MDM4,MGLL,MIR17HG,MKI67,MYO1G,NLRP7,NR3C1,P2RY8,PAG1,PAX5,PCSK5,PIK3CA,PPIA,PPWD1,PRDM1,PSMB2,PTPN14,REL,RRM2,RRM2B,SERPINA1,SETD2,SLC16A1,SLC16A7,SLC29A2,SMARCB1,SPN,SSBP2,TCL1A,TNF,TNFRSF10C,TOP2A,TP63,TPST2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1 |
| Cancer,Organismal Injury and Abnormalities | Aggressive cancer | 0.000000653 | 6.185086819 | turquoise | 96 | ADA,AHR,ALOX5,ANKRD36,AP4B1,BCL11B,BCL7A,BIRC3,BRAF,BTG1,CCND2,CD19,CD22,CD27,CD36,CD58,CD63,CD70,CDKN2C,CEBPA,CFLAR,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF3R,CYP1B1,DMXL1,DSP,EZH2,FBXW7,FCER2,FKBP1A,FLT1,FOXO1,FOXP1,HIST1H3B,HSP90AB1,HSP90B1,IFNAR2,IGLL1/IGLL5,IKBIP,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ITPR1,MCL1,MDM2,MDM4,MGLL,MIR17HG,MKI67,MYO1G,NLRP7,NR3C1,P2RY8,PAG1,PAX5,PCSK5,PIK3CA,PPIA,PPWD1,PRDM1,PSMB2,PTPN14,REL,RRM2,RRM2B,SERPINA1,SETD2,SLC16A1,SLC16A7,SLC29A2,SMARCB1,SPN,SSBP2,TCL1A,TNF,TNFRSF10C,TOP2A,TP63,TPST2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1 |
| Cancer,Organismal Injury and Abnormalities | Primary tumor | 0.000000653 | 6.185086819 | turquoise | 98 | BIRC5,BRAF,BRIP1,CD19,CD22,CDK4,CDK5,CEBPA,CHD3,CIITA,CLMP,COX5A,CR2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,ECT2,ELMO1,ESR1,ESR2,EYA2,FCER2,FKBP1A,FLNA,FLT1,FOSL2,FOXO1,FOXP1,GLDC,GOT2,HMGA1,HSP90AB1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IQSEC1,IRF4,JPT1,KIF21A,KPNA2,LDLR,LGALS1,LGALS3,LGALS4,LYN,MAPK1,MGLL,MRPL20,MTHFD2,MYB,MYH11,NR3C1,NUAK2,PCLAF,PDE4D,PDGFD,PDLIM5,PIK3CA,PKM,PLAUR,PNKD,PPIA,PRDM1,PRKCI,PSAT1,PSMB2,PTGS2,PTPRK,RACGAP1,RARG,RASSF1,REL,RRM2,RXRA,SERPINA1,SETD2,SLC16A3,SLC5A3,SLC9A3R1,SMAD3,SMC4,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,VCAN,VEGFA,ZNF490 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of blood cells | 0.000000662 | 6.179142011 | turquoise | 48 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,IRF8,ITGAM,ITGAX,LGALS3,LYN,MIF,MYO1G,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Cell-To-Cell Signaling and Interaction | Binding of lymphatic system cells | 0.00000067 | 6.173925197 | turquoise | 52 | ANXA1,ANXA2,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD48,CD58,CD69,CD80,CD86,CD99,CR2,CSF2RB,CXCR3,CXCR4,DIAPH1,FAS,FCGR3A/FCGR3B,FLOT1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGB1,ITGB7,LCP2,LYN,MYO1G,NFATC3,NR3C1,NSD2,NT5E,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TGFBI,TLR4,TNF |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | High-grade lymphoma | 0.000000684 | 6.164943898 | turquoise | 99 | ADA,AHR,ALOX5,ANKRD36,AP4B1,BCL11B,BCL7A,BIRC3,BRAF,BTG1,CCND2,CD19,CD1A,CD22,CD27,CD36,CD4,CD58,CD63,CD70,CDKN2C,CEBPA,CFLAR,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,DDR1,DMXL1,DSP,EZH2,FBXO4,FBXW7,FCER2,FKBP1A,FOXO1,FOXP1,HIST1H3B,HSP90AB1,HSP90B1,IFNAR2,IGLL1/IGLL5,IKBIP,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ITPR1,MCL1,MDM2,MDM4,MGLL,MIR17HG,MKI67,MYO1G,NLRP7,NR3C1,P2RY8,PAG1,PAX5,PCSK5,PIK3CA,PPIA,PPWD1,PRDM1,PSMB2,PTPN14,REL,RRM2,RRM2B,SERPINA1,SETD2,SLC16A1,SLC16A7,SLC29A2,SMARCB1,SPN,SSBP2,TCL1A,TNF,TNFRSF10C,TOP2A,TP63,TPST2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1 |
| Gene Expression | Transactivation | 0.000000689 | 6.161780778 | turquoise | 138 | ACTN4,ACVR1,AHR,AKAP13,ARNT,ARRB1,ATOX1,CAMK1D,CAV1,CCND2,CD300LB,CD300LF,CD80,CD86,CD8A,CEBPA,CEBPB,CEBPD,CHP1,CIITA,CITED2,CREBBP,CXCL8,DTX1,DTX4,E2F2,EDF1,ERN1,ESR1,ESR2,ETS2,ETV4,FABP5,FOSL2,FOXO1,GAB1,GABPB1,GADD45A,GAPDH,GATA3,GFI1,GTF2I,HBP1,HSPA9,IGFBP4,IL1B,IRAK1,IRF4,IRF8,JAZF1,JDP2,LCP2,LGALS1,MAFB,MAP3K14,MAPK1,MAPKAPK3,MARCKSL1,MDFIC,MDM2,MDM4,MED30,MEF2C,MTDH,MYB,N4BP1,NAB1,NAP1L1,NCOA3,NFE2L1,NKIRAS2,NOTCH4,NR2F1,NR3C1,NRIP1,NSD3,PA2G4,PEG10,PFDN5,PIAS2,PIK3CA,PKM,PLCB1,PLEKHA2,PODXL,POLR2L,POU2AF1,PRDM1,PRDX1,PRKCD,PSMC2,PTGS2,PTTG1,PXN,PYCARD,RARG,RBX1,REL,RORA,RUNX2,RXRA,S100A4,SELPLG,SF1,SH3KBP1,SIRPA,SKIL,SMAD3,SMARCA2,SMARCB1,SND1,SRA1,STAT5B,STUB1,SUB1,TBK1,TBL1X,TBX21,TCF7,TFDP1,TFDP2,TGIF1,THRB,TMEM131L,TNF,TNFRSF1B,TP63,TRIM45,TXN,UAP1,UPF3B,VDR,XRCC6,ZBED5,ZBTB10,ZBTB16,ZBTB32,ZHX2 |
| Cancer,Organismal Injury and Abnormalities | Invasive adenocarcinoma | 0.000000695 | 6.158015195 | turquoise | 46 | ACP5,ANXA1,ARRB1,ATP5IF1,BIRC5,CD48,CDC42EP3,COCH,CXCL8,DACT1,DST,ESR1,ESR2,FAS,HLA-B,HSP90AB1,HSP90B1,IER3,IQSEC1,LGALS1,MEF2C,MGLL,MKI67,NR3C1,OBSCN,PIK3CA,PMEPA1,PRKCI,PTAFR,PTPRE,RASSF1,RRM2,RTN4,RUNX2,TGFBR2,THEM4,TLE3,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM |
| Cell Death and Survival | Cell death of B lymphocytes | 0.000000794 | 6.100179498 | turquoise | 41 | BAK1,BCL11A,CD22,CD27,CD70,CD80,CFLAR,CR2,DUSP4,FAIM,FAS,FCAR,FCGR2B,FNIP1,FOXP1,GZMB,HSH2D,IGHM,IL7,IRS2,ITPR1,LGALS1,LYN,MDM2,MIR17HG,POU2AF1,PRF1,PRKCB,PRKCD,REL,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,SWAP70,TCL1A,TLR2,TNF,TNFRSF17,VAV3 |
| Cancer,Developmental Disorder,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Marginal zone cell lymphoma | 0.000000815 | 6.088842391 | turquoise | 25 | ANXA1,BIRC3,CD19,CD69,CR2,CREBBP,CXCR4,CXCR5,DTX1,FCER2,FOXP1,IGKC,IL1B,KIF11,NR3C1,RXRA,SPN,SWAP70,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Recurrent hematologic cancer | 0.000000853 | 6.069050969 | turquoise | 44 | ABCB1,ACTG1,ADA,ANXA1,AURKA,BIRC3,BRAF,CD19,CD22,CD33,CD38,CSF1R,CSF3R,CXCR4,DDR1,FKBP1A,FLT1,HDAC9,HSP90AB1,HSP90B1,IDH2,IFNAR2,IL2RB,IMPDH1,LYN,MDM2,NR3C1,PPIA,PSMB10,PSMB2,PTGS2,RARG,RRM2,RRM2B,RXRA,SLAMF7,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Enlargement of lymphoid organ | 0.00000087 | 6.060480747 | turquoise | 62 | ABCB4,AHR,AIM2,ARID4B,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CREBBP,CSF2RB,CTSA,CUX1,E2F2,ESR2,FAS,FCER1G,FCGR2B,GBA,HMGA1,HMOX1,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,LCP2,LGMN,LYN,LYPLA2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,NR3C1,PAWR,PICALM,PRDX1,PRKCD,PTGS2,RAPGEF6,RASGRP1,REL,RRM2,RRM2B,RUNX2,RUNX3,SLC4A1,SMAD3,STAT5B,TCL1A,TGFBI,TNF,TNFRSF13B,VDR |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of leukocytes | 0.000000904 | 6.04383157 | turquoise | 91 | AIF1,ALOX5,ANXA1,AQP9,ARHGEF7,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD38,CD4,CD69,CD72,CD74,CKLF,CREB3,CSF1R,CSF3R,CST3,CUX1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DIAPH1,DOCK5,DYSF,ELMO1,FCER1G,FCGR2A,FLOT1,FLT1,FPR1,GNAI3,GNAS,GNLY,GPR18,GPSM1,IL16,IL1B,IL4R,IL6R,ITGAL,ITGAM,JAML,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LSP1,LYN,MIF,MYO1F,NINJ1,NR3C1,PIK3CA,PIK3R5,PLA2G6,PLAUR,PPIA,PPIB,PRKCB,REL,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TGFB2,TIAM1,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,TXN,VAV3,VEGFA |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG3 | 0.000000924 | 6.034328029 | turquoise | 27 | ABCB1,BACH2,CD19,CD22,CD80,CD86,CR2,ESR1,FCER1G,FCGR2B,IGHM,IGLL1/IGLL5,IL13RA1,IL21R,IL5RA,LGALS2,POU2AF1,PRKCD,PTGS2,REL,SAMSN1,SH2D1A,SH3BP2,TLR2,TLR4,TNF,TYROBP |
| Neurological Disease | Progressive neurological disorder | 0.000000939 | 6.027334408 | turquoise | 148 | ABAT,ABCB1,ACTG1,ALOX5,ANG,ANK3,ANXA1,ANXA2,ANXA5,AP1S2,ARL6IP5,ARRB1,ARSG,ATXN1,BIRC5,BRAF,BSG,CALM1 (includes others),CAPN2,CAPN3,CAPZB,CBLB,CCDC50,CCL5,CD36,CD74,CDC42EP3,CEBPA,CFLAR,CHCHD2,CNP,CNR1,COCH,CRH,CSF3R,CST3,CSTB,CXCR3,DBI,DNAJB11,DNAJC1,EIF4G1,EPM2A,ESR1,ESR2,ETS2,FADS3,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FURIN,GABBR1,GADD45A,GATM,GBA,GNAS,GRIA1,HAVCR2,HIGD1A,HLA-B,HLA-DMA,HLA-DMB,HMOX2,HRH2,HSP90AB1,HSP90B1,HSPA5,IFNAR2,IL1B,IL2RB,IL7R,IMPDH1,IRGM,ITGAV,JPT1,KCNA6,KEAP1,KIAA0040,KIF1B,LDHA,LDHB,LDLR,MAGED1,MAPK1,MIF,MTHFD2,NDUFS4,NEAT1,NFIL3,NOTCH4,NR3C1,NRCAM,PAWR,PDE4A,PDE4D,PEBP1,PGK1,PLA2G6,PODXL,PPARGC1B,PRICKLE1,PSAP,PTGES3,PTGS2,RPL13,RPL3,RPS3A,RRM2,RRM2B,RTN1,RTN4,S100A4,S100A6,SCARB2,SCN4A,SIGMAR1,SLC1A4,SLC52A2,SOD1,STAP1,STUB1,TBK1,TFRC,TIMP1,TLR2,TLR4,TNF,TOP2A,TUBA1B,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,USP53,VAMP1,VCP,VDR,VEGFA,VIM,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Progression of tumor | 0.000000968 | 6.014124643 | turquoise | 82 | ABCB1,ABCC4,ANXA1,ANXA2,BIRC5,BRAF,BSG,CAV1,CCL5,CD19,CD38,CD80,CDK4,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTNND1,CXCL8,CXCR4,CYP51A1,DDR1,ESR1,ESR2,EZH2,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FKBP1A,FLNA,FLT1,FOXO1,GATA3,GZMB,HSP90AB1,HSP90B1,IGFBP4,IL2RB,LDHA,LGALS1,LIMK1,LIMK2,LYN,MAPK1,MDM2,MGAT3,MIF,NR3C1,PDCD4,PIK3CA,PLAUR,PRF1,PRKCI,PSMB2,PTGS2,PTK2,PXN,RARG,RRM2,S100A4,SAT1,SMAD3,STAB1,TGFB2,TGFBR2,TIMP1,TLR2,TLR4,TNF,TOP2A,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMS,VDR,VEGFA,WNT7B |
| Cell Death and Survival | Cell death of hematopoietic progenitor cells | 0.000000994 | 6.002613616 | turquoise | 61 | ABCC4,ADA,ARNT,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIRC5,BNIP3L,CCL3,CCL5,CD226,CD59,CFLAR,CHEK1,CREBBP,DTX1,DUSP4,EPHA4,ETS2,FAIM,FAS,FCGR2B,FNIP1,GAPDH,GFI1,GIMAP4,GNAS,GZMA,GZMB,HAX1,HIPK2,HSPA9,IGHM,IL15RA,IL1B,IL7,IRF8,LGALS1,LGALS3,MCL1,MDM2,NFYA,NR3C1,PALLD,PCLAF,PERP,PRF1,SATB1,SLC29A2,SMAD3,STAT5B,STUB1,TCL1A,TNF,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Subcutaneous tumor | 0.000001 | 6 | turquoise | 93 | ABI2,ADARB1,ADGRE5,AHR,ALDH1A1,ALDOA,AP2S1,ARIH2,ARNT,BRAF,CCNC,CCND2,CDC42EP3,CLUH,CNP,COL18A1,COL19A1,COL4A3,COL4A4,COL9A1,CSF1R,CTNND1,CTSC,CUX1,CYP1B1,DDR1,DST,E2F2,EPPK1,ESR1,ESR2,FAS,FKBP1A,FLT1,GABBR1,GALK2,GNAS,HMMR,HSD17B10,HSP90AB1,IFNAR2,KCNG1,KCNN3,LSP1,LYN,MAPK1,MGST1,MLX,MMP11,MPHOSPH8,MTHFD2,MYL6,NR2F1,NR3C1,OBSCN,PIK3CA,PKD1,PLA2G6,PLD3,PLXNC1,PPP1R3D,PRKCI,PRR5,PSMA6,PTGS2,PTTG1,RAP2B,RORA,RXRA,S100A11,SLC2A5,SLC5A3,SMAD3,TARP,TBL1X,TFDP1,TFDP2,TGFBR3,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,UBAC1,UQCRH,UTRN,VCAN,VCP,VDR,VEGFA,WEE1,ZYX |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Nephritis | 0.00000101 | 5.995678626 | turquoise | 74 | ABAT,ACTN4,ALOX5,BAK1,C5AR1,CCL5,CCR1,CD19,CD22,CD72,CD80,CD86,CD8A,CEBPB,COL4A3,COL4A4,CR1,CX3CR1,CXCL8,CXCR3,DTX1,E2F2,ESR1,FAS,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,GADD45A,GSTK1,GSTM1,HBEGF,HMOX1,ICOSLG/LOC102723996,IGHM,IL16,IL1RN,IL21R,IL5RA,IMPDH1,ITGAL,ITGAM,ITGAX,LY6E-DT,LYN,MAPKAPK3,MDM2,MGAT2,MIF,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PKD1,PLEKHA1,PLEKHA2,PPIA,PRKCD,PSMB2,PTGS2,RXRA,S100A10,SEC61A1,SMAD3,STAMBPL1,TLR2,TNF,TNFRSF13B,TOP2A,TP63,TYMS,VDR,VEGFA |
| Inflammatory Disease,Organismal Injury and Abnormalities | Granuloma | 0.00000107 | 5.970616222 | turquoise | 48 | ABCG1,ANXA1,APOBEC3A,ATXN1,BRAF,CARD16,CCL3,CCL5,CD14,CD69,CD80,CD86,CEBPB,CIITA,CLEC11A,CLEC2B,COCH,CRIP1,CX3CR1,CXCL8,CYP51A1,FKBP1A,HBEGF,HLA-B,IL16,IL1RN,IL4R,IMPDH1,INPP5A,IRF8,KCNN3,KIAA1147,MEI1,MGLL,NR3C1,PDE4A,PDE4D,PIK3CA,PTPRE,RUNX3,TNF,TREM1,TSHZ2,UQCRB,VCL,VDR,VEGFA,ZNF614 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Response of macrophages | 0.00000107 | 5.970616222 | turquoise | 48 | ANXA1,APOA2,CCL3,CD14,CD36,CD38,CD93,CEBPB,CLEC7A,CMC2,CSF1R,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCGR2B,FCN1,GNAQ,GPR18,HMOX1,HSH2D,IL1B,IL6R,IRAK1,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PRKCE,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Aggressive mature B-cell lymphoma | 0.0000011 | 5.958607315 | turquoise | 93 | ADA,AHR,ALOX5,ANKRD36,AP4B1,BCL11B,BCL7A,BIRC3,BRAF,BTG1,CCND2,CD19,CD22,CD27,CD36,CD58,CD63,CD70,CDKN2C,CEBPA,CFLAR,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF3R,DMXL1,DSP,EZH2,FBXW7,FCER2,FKBP1A,FOXO1,FOXP1,HIST1H3B,HSP90AB1,HSP90B1,IFNAR2,IGLL1/IGLL5,IKBIP,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ITPR1,MCL1,MDM2,MDM4,MGLL,MIR17HG,MKI67,MYO1G,NLRP7,NR3C1,P2RY8,PAG1,PAX5,PCSK5,PIK3CA,PPIA,PPWD1,PRDM1,PSMB2,PTPN14,REL,RRM2,RRM2B,SERPINA1,SETD2,SLC16A1,SLC16A7,SLC29A2,SMARCB1,SPN,TCL1A,TNF,TNFRSF10C,TOP2A,TP63,TPST2,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG2a | 0.00000117 | 5.931814138 | turquoise | 32 | ABCB1,B3GNT5,BACH2,BANK1,BTLA,CCR1,CD19,CD22,CD36,CD69,CD80,CD86,CR2,DUSP4,FCER1G,FCGR2B,HAX1,ICOSLG/LOC102723996,IFNAR2,IGHM,IL21R,IL4R,ITPKB,LAX1,LYN,POU2AF1,PTGS2,REL,SH2D1A,TBK1,TNF,TYROBP |
| Inflammatory Response | Function of immune system | 0.00000123 | 5.910094889 | turquoise | 42 | AHR,ALOX5,CBLB,CD200,CD22,CD226,CD300A,CD300LF,CD70,CIITA,CLEC4D,CRISPLD2,CSF2RB,E2F2,FCER1G,FCER2,FCGR2A,FCGR2B,GALNT1,GLMP,HAVCR2,ICOSLG/LOC102723996,ID2,IGHE,IGHM,IL21R,IL4R,IL5RA,IRF4,ITGB7,LAT,LGALS2,PIP5K1B,RASGRP1,REL,RUNX3,S100A4,SH2D1A,STAT5B,TNF,TNFRSF1B,VDR |
| Cancer,Dermatological Diseases and Conditions,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Cutaneous T-cell lymphoma | 0.00000125 | 5.903089987 | turquoise | 35 | ADA,ANXA1,AURKA,BAK1,CD4,CXCR3,FAS,IFI30,IFNAR2,IL13RA1,IL16,IL2RB,MCL1,MKI67,NR3C1,PRF1,PRKCB,PSMB2,RARG,RARRES3,REL,RRM2,RXRA,SECTM1,SELPLG,STAT5B,TLR2,TLR4,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Organismal Survival | Survival of organism | 0.00000125 | 5.903089987 | turquoise | 174 | ABCB1,ABCB4,ABCC4,ACSL1,ACTN4,AHR,ANXA1,AQP9,ARG1,ARNT,ATXN1,B3GNT5,BAK1,BID,BIK,BIRC3,BIRC5,BLMH,BRAF,BTLA,C5AR1,CADM1,CAMK4,CCL3,CCND2,CCR1,CD14,CD19,CD4,CD48,CD74,CD80,CD8A,CDKN2C,CEBPA,CEBPB,CHEK1,CLEC11A,CLEC4D,CLMP,CNR1,COCH,COL18A1,COL4A3,CR1,CR2,CSF2RB,CTNND1,CTSC,CXCL2,CXCR3,CXCR4,DACT1,DPPA4,DSP,DUSP4,EEF2K,EIF3M,ELK3,ESR1,ESR2,ETHE1,ETS2,EZH2,FAS,FBXW7,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FGL2,FLT1,FOXO1,FURIN,GLDC,GLUL,GNAS,GPSM1,GPX1,GZMA,HIPK2,HMOX1,HRH2,HSP90B1,HYOU1,ID2,IDE,IDH2,IFNAR2,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL4R,IL6R,IL7,IL7R,IQGAP2,IRAK1,IRF8,ITGAL,ITGAM,ITGB1,KCTD12,KEAP1,LAMC1,LDLR,LGALS1,LITAF,LTK,LY96,LYZ,MARCKSL1,MCL1,MDM2,MDM4,MGAT1,MIF,MIR17HG,MKI67,MTDH,MYB,NDC80,NFATC3,NFIL3,NLRP3,NR3C1,NT5E,PHC1,PIK3CA,PKM,PPARGC1B,PRDM1,PRDX1,PRF1,PRKCB,PTAFR,PTGS2,PTK2,RAD17,RARG,RASSF1,RBL2,RDH10,REL,RUNX2,S100A9,SAV1,SEMA3A,SLC11A1,SLC31A1,SLC4A1,SMAD3,SOD1,STAT4,STAT5B,SULT1A1,TCL1A,TGFBR2,TGIF1,THRB,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TP63,TREM1,TUBB3,TYMS,VEGFA,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of leukocytes | 0.00000127 | 5.896196279 | turquoise | 45 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,MYO1G,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of mononuclear leukocytes | 0.00000127 | 5.896196279 | turquoise | 55 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD4,CD48,CD58,CD69,CD80,CD86,CD99,CXCL8,CXCR3,CXCR4,DIAPH1,FAS,FCGR3A/FCGR3B,FLOT1,FOXO1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,MIF,MYO1G,NFATC3,NR3C1,NT5E,PIK3CA,PLAUR,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TGFBR2,TLR4,TNF |
| Cellular Development,Cellular Growth and Proliferation | Expansion of blood cells | 0.00000128 | 5.89279003 | turquoise | 62 | ABCB1,AHR,AURKA,BRAF,BTLA,C5AR1,CCND2,CD163,CD27,CD4,CD55,CD69,CD70,CD80,CD86,CDKN2C,CEBPA,CR2,CSF1R,CSF2RB,CUX1,CXCR3,DNM2,EZH2,FAS,FCGR2B,GFI1,HAVCR2,HMOX1,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IL9R,IRF8,LAT,LCP2,LGALS4,LYN,MIR17HG,MYB,MYDGF,PIK3CA,PRF1,REL,STAT4,STAT5B,TBX21,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,VEGFA,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Recurrent neoplasm | 0.0000013 | 5.886056648 | turquoise | 58 | ABCB1,ACTG1,ADA,ANXA1,AURKA,BIRC3,BLMH,BRAF,CD19,CD22,CD33,CD38,CDK4,CSF1R,CSF2RB,CSF3R,CXCR4,CYP51A1,DDR1,ESR1,ESR2,FKBP1A,FLT1,HDAC9,HSP90AB1,HSP90B1,IDH2,IFNAR2,IL2RB,IMPDH1,LIMK1,LYN,MAPK1,MDM2,NLRP7,NR3C1,PIK3CA,PPIA,PSMB10,PSMB2,PTGS2,RARG,RRAS2,RRM2,RRM2B,RXRA,SLAMF7,TGFBR2,TNF,TOP2A,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Advanced extracranial solid tumor | 0.00000131 | 5.882728704 | turquoise | 136 | ABCB1,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BAK1,BRAF,C5AR1,CALU,CARD16,CAV1,CCL5,CCND2,CD200,CD36,CD48,CD8A,CDK4,CDKN2C,CEBPD,CSF1R,CSF3R,CST7,CTNND1,CXCL8,CXCR3,CXCR4,DDR1,DLGAP5,DPYSL2,DUSP4,DUSP6,ENAH,ESR1,ESR2,EZH2,FAS,FCGR2A,FCGR3A/FCGR3B,FKBP1A,FLNA,FLT1,GLRX,GLUL,HMGA1,HMOX1,HSP90AB1,HSP90B1,ID2,IFI30,IFNAR2,IGFBP4,IGFBP7,IL15RA,IL16,IL2RB,IL4R,ITGB1,KCNK6,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LIMK2,LRP8,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MYL12A,NCAPG,NCOA3,NDUFB4,NLRP1,NOTCH4,NR2F1,NR3C1,NT5E,PDCD2L,PIK3CA,PPIA,PRKCI,PSMB2,PTAFR,PTGS2,PTK2,PTTG1,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RPL7,RPS11,RRM2,RTN1,S100A11,S100A4,SEC61G,SECTM1,SLC16A3,SLC5A3,SMAD3,SMC4,SND1,SSR2,TBX21,TGFB2,TGFBR2,TGFBR3,THRB,TMBIM6,TNF,TNIK,TOP2A,TP63,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXNIP,TYMP,TYMS,VAV3,VCAN,VDR,VEGFA,YWHAE |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of mononuclear leukocytes | 0.00000132 | 5.879426069 | turquoise | 43 | ANXA1,CBLB,CCL3,CCL5,CD48,CD58,CD80,CD99,CXCL8,CXCR3,CXCR4,DIAPH1,FAS,FLOT1,FOXO1,FYB1,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,LCP2,MIF,MYO1G,NR3C1,PIK3CA,PLAUR,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TGFBR2,TLR4,TNF |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of cancer cells | 0.00000133 | 5.876148359 | turquoise | 93 | ANXA1,B4GALT5,BCL2L2,BID,BIK,BIRC5,BMP6,BRAF,BUB1B,CD22,CD33,CD38,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CXCL8,CXCR3,CXCR4,E2F2,EIF3E,ENO1,FAS,FOXO1,GZMA,HIPK2,HMOX1,HSP90AB1,HSPA9,IDH2,IGHM,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MIF,MMP11,MYB,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMA7,PSMB3,PSMC2,PTGS2,PTK2,RARG,REL,RPL10,RPL13,RPL3,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SNRPA1,SOD1,TCL1A,THRB,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of antigen presenting cells | 0.0000014 | 5.853871964 | turquoise | 52 | ANXA1,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD74,CD86,CD93,CEBPB,CMC2,CSF1R,CST3,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCGR2B,FCN1,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PXN,RORA,S100A9,SEMA4A,SH3BP2,SIRPA,SIRPB1,SWAP70,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive breast carcinoma | 0.00000141 | 5.850780887 | turquoise | 70 | ACP5,ANXA1,ARHGEF7,ARRB1,ATP5IF1,BIRC5,BUB1B,CALM1 (includes others),CD48,CDC42EP3,CDC6,CDK4,COCH,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,ESR2,EZH2,FAM111B,FKBP1A,HLA-B,HSP90AB1,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PRKCI,PSTPIP2,PTPRE,RACGAP1,RASSF1,RRM2,RTN4,SLC8A1,SSPN,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,WDR1,ZIK1,ZNF677 |
| Organismal Development | Abnormal morphology of body cavity | 0.00000143 | 5.844663963 | turquoise | 302 | ABCB1,ABCB4,ABCC4,ACSL1,ADA,AFDN,AFF4,AGO2,AHR,AIM2,AKAP13,ALOX5,ANXA7,ARG1,ARID3A,ARID3B,ARID4B,ARNTL,ARRB1,ARSG,ASB2,ATXN1,B3GNT5,BAG3,BAK1,BANK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BNIP3L,BRAF,BSG,C1GALT1,CAMK2D,CAMK4,CAPN2,CAPNS1,CAV1,CCND2,CCR1,CD19,CD36,CD38,CD4,CD80,CD86,CD8A,CDC42EP3,CDK4,CDKN2C,CDS2,CEBPA,CEBPB,CFLAR,CIITA,CISD2,CITED2,CLEC4D,CLEC7A,CLMP,COL18A1,CREBBP,CRH,CSF1R,CSF2RB,CST3,CTSA,CTSC,CUX1,CXCR3,CXCR4,CXCR5,CYP51A1,DACT1,DAD1,DCLRE1C,DENND1B,DIAPH1,DNAH11,DNAJC3,DPPA4,DSP,DTNBP1,E2F2,EEF2K,EHD4,EIF2AK1,ELK3,ELOA,EPM2A,ESR1,ESR2,FAS,FBXO32,FCER1G,FCGR2B,FGF9,FKBP1A,FLNA,FLT1,FNIP1,FZD1,GADD45GIP1,GBA,GFI1,GGT1,GLMP,GNAQ,GNAS,GNG5,GPBAR1,GPR3,GPX1,GSTK1,H2AFZ,HBEGF,HCST,HDAC9,HEXB,HMGA1,HMOX1,HRH2,HSP90B1,ICMT,ICOSLG/LOC102723996,ID2,IER3,IGFBP4,IGHM,IGKC,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IQGAP2,IRF4,IRF8,IRS2,ITGAV,ITGB7,ITPKB,JARID2,KCNN4,KISS1R,LAMC1,LASP1,LAT,LAX1,LCP2,LDLR,LGALS3,LGMN,LIMS1,LITAF,LMNB1,LTK,LYN,LYPLA2,MAP3K14,MAP3K5,MAPK1,MCL1,MDM2,MDM4,MEF2C,MGAT2,MGLL,MIF,MIR17HG,MMP11,MTHFD2,MXI1,MYB,MYH11,NAB1,NDST1,NDUFS6,NFATC3,NFATC4,NFE2L1,NFIL3,NR3C1,NT5E,NUAK2,PANK2,PAWR,PBX3,PDLIM5,PGK1,PHC1,PICALM,PIK3CA,PILRA,PITPNA,PKD1,PLA2G16,PLCB1,PLXND1,PNKD,POLM,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCB,PRKCD,PRKCE,PRKCI,PSAP,PTGS2,PTK2,PTTG1,PYCARD,RAB8A,RAD17,RAPGEF6,RARG,RASGRP1,RASSF1,RBL2,RBMS1,RDH10,REC8,REL,RHOH,RRM2,RRM2B,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A6,SATB1,SAV1,SCO2,SDHA,SDHB,SEMA3A,SESTD1,SGPP2,SH3BP2,SIK3,SLC25A11,SLC25A4,SLC4A1,SLC8A1,SLC9A3R1,SMAD3,SMTN,SOD1,STAB1,STAT4,STAT5B,SUCLG1,SUN1,SYNE2,TBX21,TCL1A,TGFB2,TGFBI,TGFBR2,TGFBR3,TIAM1,TIMP1,TIMP2,TIMP3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TPI1,TRADD,TRIB1,TTN,TXN,TXNIP,UACA,VAV3,VCL,VDAC1,VDR,VEGFA,VTI1B,WNT10A,XBP1,XRCC6,XYLT1,YWHAE,ZMIZ1 |
| Cell Cycle | Arrest in G1 phase | 0.00000146 | 5.835647144 | turquoise | 73 | AHR,ANXA2,APOBEC3A,ARG1,ARNT,BAG3,BAK1,BIRC5,BRAF,CAMKK2,CCNA2,CCND2,CDC6,CDCA2,CDK4,CDS1,CEBPA,CEBPB,CSF1R,CYP1B1,E2F2,EGOT,ESR2,EZH2,FKBP1A,FOXO1,GADD45A,GFI1,GMNN,GSPT1,IGFBP7,IGHM,IL7,ITGAV,ITGB1,KLF10,LGALS1,LGALS3,MAP3K5,MAPK1,MDM2,MDM4,MYB,NCOA3,NFYA,NR3C1,PIAS2,PKM,PPARGC1B,PTGES3,PTK2,RAD17,RASSF1,RASSF6,RB1-DT,RBL2,REL,RFFL,RPL23,RUNX3,SMARCA2,SMARCB1,STK38L,TFDP1,TFDP2,TFRC,TGFBR2,TIMP2,TNF,TOB2,TP63,TXNIP,TYMS |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Glomerulonephritis | 0.00000148 | 5.829738285 | turquoise | 59 | ABAT,ACTN4,ALOX5,BAK1,C5AR1,CCL5,CCR1,CD19,CD72,CD80,CD86,CEBPB,COL4A3,COL4A4,CR1,DTX1,E2F2,ESR1,FAS,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FKBP1A,GADD45A,GSTK1,GSTM1,HBEGF,HMOX1,IL16,IL1RN,IL21R,IL5RA,IMPDH1,ITGAL,ITGAX,LY6E-DT,LYN,MAPKAPK3,MDM2,MGAT2,MIF,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PLEKHA1,PLEKHA2,PPIA,PRKCD,PSMB2,PTGS2,RXRA,S100A10,STAMBPL1,TNF,TNFRSF13B,VDR,VEGFA |
| Cell Death and Survival | Apoptosis of B lymphocytes | 0.00000148 | 5.829738285 | turquoise | 38 | BAK1,BCL11A,CD22,CD27,CD70,CD80,CFLAR,CR2,DUSP4,FAIM,FAS,FCGR2B,FNIP1,FOXP1,GZMB,HSH2D,IGHM,IL7,IRS2,ITPR1,LYN,MDM2,MIR17HG,POU2AF1,PRF1,PRKCB,PRKCD,REL,SH3BP2,SKIL,SMAD3,SPN,SWAP70,TCL1A,TLR2,TNF,TNFRSF17,VAV3 |
| Free Radical Scavenging | Metabolism of reactive oxygen species | 0.00000149 | 5.826813732 | turquoise | 123 | ABCB1,ADGRE2,AHR,ALOX5,ANXA1,ANXA2,ARG1,ARNT,ATP5IF1,BACE2,BAK1,BID,BNIP3L,C5AR1,CANX,CAPN3,CAV1,CCL3,CCL5,CD14,CD36,CLEC7A,CLIC1,COL18A1,COX5B,COX8A,CR2,CST3,CSTB,CXCL2,CXCL8,CYP1B1,DBI,DNM2,DOCK5,ERO1A,ESR2,FAS,FCGR2A,FCGR3A/FCGR3B,FOXO1,FPR1,GGT1,GNAS,GPX1,GZMA,GZMB,GZMH,GZMK,H2AFY,HMOX1,HSD17B10,HSP90AB1,HSPA9,HVCN1,IGHE,IL1B,IL32,IRAK1,ITGAM,ITGAX,ITGB1,LAT,LCP2,LDHA,LGALS3,LILRB2,LIMK1,LYN,MAP3K5,MAPK1,MIF,MLKL,MPRIP,MSRB2,NAMPT,PFKFB3,PLA2G6,PLAUR,PPIA,PRDX1,PRDX3,PRDX5,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PTGS2,ROMO1,RORA,RRM2,RTN4,S100A6,S100A8,SAT1,SCO2,SELPLG,SERPINA1,SH3BP5,SH3PXD2A,SIGMAR1,SLC8A1,SLC9A3R1,SMAD3,SMOX,SOD1,TFRC,TINF2,TLR2,TLR4,TMBIM6,TNF,TRADD,TREML2,TXN,TXN2,TXNIP,TYROBP,VDAC1,VDR,VEGFA,XBP1 |
| Neurological Disease | Progressive motor neuron disease | 0.00000151 | 5.821023053 | turquoise | 129 | ABAT,ABCB1,ALOX5,ANG,ANXA1,ANXA2,ANXA5,AP1S2,ARL6IP5,ARRB1,ARSG,ATXN1,BSG,CALM1 (includes others),CAPN2,CAPN3,CAPZB,CBLB,CCL5,CD36,CD74,CDC42EP3,CEBPA,CFLAR,CHCHD2,CNP,CNR1,CSF3R,CST3,CXCR3,DBI,DNAJB11,DNAJC1,EIF4G1,ESR1,ESR2,ETS2,FADS3,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FOXO1,FURIN,GABBR1,GADD45A,GATM,GBA,GNAS,GRIA1,HAVCR2,HIGD1A,HLA-B,HLA-DMA,HLA-DMB,HMOX2,HRH2,HSPA5,IFNAR2,IL1B,IL2RB,IL7R,IMPDH1,IRGM,ITGAV,JPT1,KCNA6,KEAP1,KIAA0040,KIF1B,LDHA,LDHB,LDLR,MAGED1,MAPK1,MIF,MTHFD2,NDUFS4,NEAT1,NFIL3,NOTCH4,NR3C1,NRCAM,PAWR,PDE4A,PDE4D,PEBP1,PGK1,PLA2G6,PODXL,PPARGC1B,PSAP,PTGES3,PTGS2,RPL13,RPL3,RPS3A,RRM2,RRM2B,RTN1,RTN4,S100A4,S100A6,SCARB2,SCN4A,SIGMAR1,SLC1A4,SLC52A2,SOD1,STAP1,STUB1,TBK1,TFRC,TIMP1,TLR2,TLR4,TNF,TOP2A,TUBA1B,TUBA1C,TUBA4A,UCHL1,VAMP1,VCP,VDR,VIM,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of neutrophils | 0.00000152 | 5.818156412 | turquoise | 81 | AIM2,ALOX5,ANXA1,AQP9,C1GALT1,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD55,CD69,CD74,CD99,CKLF,CRH,CSF3R,CST3,CXCL2,CXCL8,DAPK2,DOCK5,DYSF,FAS,FCAR,FCER1G,FCGR2A,FLOT1,FPR1,GNAI3,GPR18,HMOX1,HRH2,IL1B,IL1RN,IL6R,ITGAL,ITGAM,ITGB1,JAML,LGALS1,LGALS3,LILRB3,LIMK1,LSP1,LYN,MGAT5,MYO1F,NDST1,NLRP3,NT5E,PIK3R5,PRDM1,PRKCB,PTGS2,PTPRB,RAP1B,RTN4,S100A12,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,SPN,TGFB2,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TXN,VAV3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive mammary tumor | 0.00000158 | 5.801342913 | turquoise | 74 | ACP5,ANXA1,ARHGEF7,ARRB1,ATP5IF1,BIRC5,BUB1B,CALM1 (includes others),CD48,CDC42EP3,CDC6,CDK4,COCH,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,ESR2,EZH2,FAM111B,FAS,FKBP1A,HBP1,HLA-B,HSP90AB1,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NCOA3,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PRKCI,PSTPIP2,PTPRE,RACGAP1,RASSF1,RRM2,RTN4,SLC8A1,SSPN,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,WDR1,ZIK1,ZNF677 |
| Cellular Function and Maintenance | Engulfment of phagocytes | 0.00000163 | 5.787812396 | turquoise | 47 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,SRA1,SWAP70,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Cellular Function and Maintenance | Function of phagocytes | 0.00000167 | 5.777283529 | turquoise | 68 | ADA,AHR,AIM2,ARIH2,BIRC3,CAV1,CBLB,CCL5,CCR1,CD14,CD200,CD300A,CD300LF,CD36,CEBPB,CIITA,CLEC7A,CSF1R,CSF2RB,CXCL8,DUSP4,FCER1G,FCER2,FCGR2A,FCGR2B,FLT1,GFI1,HAVCR2,IGHE,IL1B,IL21R,IL4R,IRAK1,IRAK2,ITGAM,LAT,LGALS3,LGMN,LY96,LYN,MARCKSL1,MIF,NLRP1,NLRP3,PIP5K1B,PLAUR,PSAP,PTGS2,PYCARD,RASGRP1,REL,RRAS2,SAMSN1,SEMA3A,SH3BP2,SIGMAR1,SIRPA,SLA2,ST6GAL1,STAT5B,TGFB2,TLR2,TLR4,TNF,TPCN1,TRAF5,TYROBP,VEGFA |
| Cellular Movement | Chemotaxis of myeloid cells | 0.00000171 | 5.76700389 | turquoise | 75 | AIF1,ALOX5,ANXA1,AQP9,ARHGEF7,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD4,CD69,CD72,CD74,CKLF,CREB3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DAPK2,DOCK5,DYSF,FCER1G,FCGR2A,FLOT1,FLT1,FPR1,GNAI3,GNLY,IL16,IL1B,IL4R,ITGAL,ITGAM,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LITAF,LSP1,LYN,MIF,MYO1F,NINJ1,PIK3R5,PLA2G6,PLAUR,PPIA,PRKCB,REL,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TGFB2,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VAV3,VEGFA |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of leukocytes | 0.00000175 | 5.756961951 | turquoise | 45 | BMPR1A,CBLB,CCL5,CD226,CD27,CD300A,CD38,CD48,CD58,CD59,CD69,CFLAR,CRH,FAS,FCAR,FCGR2A,FCGR3A/FCGR3B,GZMA,GZMB,HAVCR2,HSPA8,IL21R,IL7,IMPDH1,IRAK1,ITGAL,ITGAM,KLRD1,LAT,LDLR,LGALS3,LYN,PIK3CA,PRF1,RASGRP1,SH2D1A,SPN,STAT4,STAT5B,STX7,TBX21,TLR2,TNF,TXN,TYROBP |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Abnormal quantity of lymphocytes | 0.00000177 | 5.752026734 | turquoise | 24 | CD4,CD74,CD80,CD86,CD8A,DENND1B,ESR1,ESR2,HAX1,IGHM,IGKC,IGLL1/IGLL5,IRF8,ITGAM,NFATC3,POLM,PRDX1,REL,RHOH,SH2D1A,SH3BP2,STAT5B,TOX,VDR |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymph node cancer | 0.00000178 | 5.749579998 | turquoise | 38 | ANXA7,BRAF,CD19,CDK4,CHEK1,COL18A1,CR2,CREBBP,CSF3R,CTNND1,ESR1,ESR2,EZH2,FBXW7,FCER2,FKBP1A,HMMR,HSP90AB1,HSP90B1,IDH2,IL4R,ITGB1,MCL1,NR3C1,PAX5,PIK3CA,POU2AF1,PTGS2,SPN,SSBP2,TBC1D16,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cell Death and Survival | Apoptosis of lymphoma cell lines | 0.00000179 | 5.747146969 | turquoise | 50 | ARNT,BACH2,BAK1,BIK,BIRC3,BIRC5,CBX5,CD226,CD4,CD48,CD55,CD59,CFLAR,CHEK1,CXCR4,DUT,ERN1,EZH2,FAS,FCER2,FCGR2B,FOXO1,GGT1,HSH2D,IGFBP4,IGFBP7,IGHE,IGHM,IL6R,IRF8,ITPR1,LGALS3,LMNB1,LSP1,LYN,MAP3K14,MCL1,PIK3CA,PLA2G6,PRDM1,PRKCB,RPLP0,SATB1,SMAD3,ST6GAL1,TGFB2,TIAM1,TNF,TOX,XBP1 |
| Hematological System Development and Function,Tissue Development | Accumulation of myeloid cells | 0.00000183 | 5.73754891 | turquoise | 51 | ABCG1,ADGRE5,AHR,ALOX5,ANXA1,BRAF,C5AR1,CCL3,CCL5,CCR1,CD200,CD300LB,CEBPA,COL18A1,CR1,CTSC,CX3CR1,CXCL2,CXCL8,DDR1,ETS2,FAS,FCGR2A,FCGR3A/FCGR3B,GFI1,GNAQ,HAVCR2,HMOX1,IL1B,IL1RN,IL9R,IRF4,ITGAM,ITGAX,ITGB1,LDLR,MIF,NT5E,PTGS2,S100A8,S100A9,SELPLG,SOD1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,VEGFA,XBP1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of mononuclear leukocytes | 0.00000183 | 5.73754891 | turquoise | 51 | AHR,AURKA,BRAF,BTLA,C5AR1,CCND2,CD27,CD4,CD55,CD69,CD70,CD80,CD86,CDKN2C,CR2,CSF1R,CXCR3,DNM2,FAS,FCGR2B,GFI1,HAVCR2,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IRF8,LAT,LCP2,LGALS4,MIR17HG,MYB,MYDGF,PIK3CA,PRF1,REL,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Benign connective or soft tissue neoplasm | 0.00000184 | 5.735182177 | turquoise | 94 | ABI2,ADARB1,ADGRE5,AHR,ALDH1A1,ALDOA,AP2S1,ARIH2,ARNT,BRAF,CCNC,CCND2,CDC42EP3,CLUH,CNP,COL18A1,COL19A1,COL4A3,COL4A4,COL9A1,CSF1R,CTNND1,CTSC,CUX1,CYP1B1,DDR1,DST,E2F2,EPPK1,ESR1,ESR2,EXT1,FAS,FKBP1A,FLNA,FLT1,GABBR1,GALK2,GNAS,HMMR,HSD17B10,HSP90AB1,IDH2,IFNAR2,KCNG1,KCNN3,LSP1,LYN,MAPK1,MGST1,MLX,MMP11,MPHOSPH8,MTHFD2,MYL6,NR2F1,NR3C1,PIK3CA,PKD1,PLA2G6,PLD3,PLXNC1,PPP1R3D,PRR5,PSMA6,PTGS2,PTTG1,RAP2B,RORA,RXRA,S100A11,SETD2,SLC2A5,SLC5A3,TARP,TBL1X,TFDP1,TFDP2,TGFBR3,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,UBAC1,UQCRH,UTRN,VCAN,VCP,VDR,VEGFA,WEE1,ZYX |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Localized neuroblastoma | 0.00000187 | 5.728158393 | turquoise | 17 | CSF2RB,CSF3R,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,HSP90AB1,HSP90B1,IL2RB,NR3C1,RARG,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1 |
| Free Radical Scavenging | Synthesis of reactive oxygen species | 0.00000189 | 5.723538196 | turquoise | 119 | ABCB1,ADGRE2,AHR,ALOX5,ANXA1,ANXA2,ARG1,ARNT,ATP5IF1,BACE2,BAK1,BID,BNIP3L,C5AR1,CANX,CAPN3,CAV1,CCL3,CCL5,CD14,CD36,CLEC7A,CLIC1,COL18A1,COX5B,COX8A,CR2,CST3,CSTB,CXCL2,CXCL8,CYP1B1,DBI,DNM2,DOCK5,ERO1A,ESR2,FAS,FCGR2A,FCGR3A/FCGR3B,FOXO1,FPR1,GGT1,GNAS,GPX1,GZMA,GZMB,GZMH,GZMK,H2AFY,HMOX1,HSD17B10,HSP90AB1,HSPA9,HVCN1,IGHE,IL1B,IL32,IRAK1,ITGAM,ITGAX,ITGB1,LAT,LCP2,LDHA,LGALS3,LILRB2,LIMK1,LYN,MAP3K5,MAPK1,MIF,MLKL,MPRIP,MSRB2,NAMPT,PFKFB3,PLA2G6,PLAUR,PPIA,PRDX1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PTGS2,ROMO1,RORA,RRM2,RTN4,S100A6,S100A8,SAT1,SCO2,SELPLG,SERPINA1,SH3BP5,SIGMAR1,SLC8A1,SLC9A3R1,SMAD3,SMOX,SOD1,TFRC,TINF2,TLR2,TLR4,TMBIM6,TNF,TRADD,TREML2,TXN2,TXNIP,TYROBP,VDAC1,VDR,VEGFA,XBP1 |
| Infectious Diseases,Organismal Injury and Abnormalities | Septic shock | 0.00000191 | 5.718966633 | turquoise | 59 | AHR,ANXA1,ASB2,ATP1B1,ATXN1,BID,BIRC3,BTLA,CAV1,CD14,CD48,CD80,CDC42EP3,CIITA,COCH,CSTB,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,GATA3,IFNAR2,IL1B,IL1RN,IL6R,IMPDH1,INPP5A,IRAK1,IRAK2,ITGAL,ITGAM,LY96,MAP3K5,MGLL,MIF,NLRP3,NR3C1,PANK2,PDE4D,PDE7A,PDE7B,PRR5,PTGS2,PTPRE,PYCARD,RAP1B,RPS6KA4,RUNX3,S100A9,TARP,TBX21,TLE3,TLR2,TLR4,TNF,TNFRSF1B,TRAM2,TREM1 |
| Cellular Movement,Hematological Disease,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Respiratory Disease | Eosinophilia of lung | 0.00000196 | 5.707743929 | turquoise | 22 | ALDOA,ANXA1,ARG1,CD300LF,CD4,CD86,ENO1,GAPDH,HSPA5,IL4R,IL5RA,MAP3K14,MGAT5,NR3C1,P4HB,PRDX1,SOCS2,ST3GAL3,TKT,TPI1,TUBB,VAV3 |
| Cell Death and Survival | Cytolysis of natural killer cells | 0.00000198 | 5.70333481 | turquoise | 20 | CD226,CD48,FCER1G,FCGR2A,HCST,IFNAR2,IL15RA,IL21R,ITGAL,LCP2,NFIL3,PRDX1,PRF1,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBX21,TYROBP |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | T cell migration | 0.00000199 | 5.701146924 | turquoise | 70 | ALOX5,AQP3,BACH2,BCL11B,BSG,CAV1,CCL3,CCL5,CCR1,CD4,CD69,CD74,CD80,CD86,COL4A3,CUX1,CXCL8,CXCR3,CXCR4,CXCR5,DIAPH1,DPYSL2,ELMO1,ESR2,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNLY,GPSM1,HYOU1,ICOSLG/LOC102723996,IL15RA,IL16,IL18BP,IL1B,IL7,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,NLRP3,NR3C1,PIK3CA,PRF1,PTGS2,PTPRB,RASGRP1,S100A4,SELPLG,SEMA3A,SOS2,SPN,STAB1,TGFBR2,TIMP2,TLR4,TNF,TSHR |
| Cell Death and Survival | Cell death of cervical cancer cell lines | 0.00000203 | 5.692503962 | turquoise | 92 | ABCB1,ANXA2,ANXA5,ATP1A1,BAK1,BBS4,BID,BIRC5,BNIP3L,BRAF,BUB1B,BUB3,CCAR2,CCND2,CD226,CDC6,CDCA2,CDKN2C,CEBPA,CFLAR,CHEK1,COX5A,CSF1R,DAPK1,DCTN3,DGKD,DNM2,ELOC,EMILIN2,ERN1,ESR1,EXOG,FAS,FLNB,GADD45A,GZMB,HSPB11,IER3,IL1B,IL32,INVS,IRGM,ITPR1,KDELR1,KIF11,KIF1C,KNL1,LIMS1,LYPLA2,MAP3K5,MAPK1,MCL1,MCOLN2,MDM2,MGAT3,MTM1,NABP1,NAPA,NDC80,NEK6,NLRP3,NR3C1,PAWR,PDLIM7,PIK3C3,PIK3CA,PKD2L2,PKM,PPIA,PRF1,PRKCD,PTAFR,RAB32,RACGAP1,RASSF1,REL,SEC61G,SOD1,TBK1,TCP1,TIMP3,TNF,TNFRSF1B,TOP2A,TP63,TPX2,TRADD,TXN,UCHL1,VCP,VDAC1,VOPP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Recurrent leukemia | 0.00000211 | 5.675717545 | turquoise | 33 | ABCB1,ACTG1,ADA,ANXA1,BIRC3,BRAF,CD19,CD22,CD33,CSF1R,CSF3R,DDR1,FKBP1A,FLT1,HSP90AB1,HSP90B1,IDH2,IMPDH1,LYN,MDM2,NR3C1,PPIA,RARG,RRM2,RRM2B,RXRA,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cellular Movement | Invasion of breast cancer cell lines | 0.00000211 | 5.675717545 | turquoise | 75 | AFDN,AHNAK,AHR,BHLHE41,BMP6,BSG,CAV1,CBX5,CCNA2,CD99,CEMIP2,CNR1,CRTAP,CTNND1,CXCR4,DDR1,DIAPH1,DUSP6,EED,EIF3A,EIF3E,ENAH,ERC1,ESR1,ESR2,EYA2,EZH2,FAS,FURIN,FXYD5,GATA3,GPI,HBP1,ID2,IL32,IQSEC1,IRS2,ITGB1,KEAP1,KISS1R,LASP1,LDHA,LIMK1,LIMK2,MAPK1,MBD2,MDM2,MYB,NAMPT,NFATC4,PALLD,PAX5,PDCD4,PLAUR,PODXL,PTGES3,PTGS2,PTK2,PTTG1,RANBP2,RASSF1,RORA,S100A11,SERPINA1,SLC9A3R1,SMAD3,SRA1,TGFB2,TGFBR2,TGFBR3,TIAM1,TIMP1,TNF,TP63,VIM |
| Free Radical Scavenging | Production of reactive oxygen species | 0.00000211 | 5.675717545 | turquoise | 93 | ABCB1,ADGRE2,AHR,ALOX5,ANXA1,ANXA2,ARG1,ARNT,ATP5IF1,BACE2,BAK1,BID,C5AR1,CAPN3,CAV1,CCL3,CCL5,CD14,CD36,CLEC7A,COL18A1,COX8A,CST3,CXCL2,CXCL8,DBI,DNM2,DOCK5,ESR2,FAS,FCGR2A,FCGR3A/FCGR3B,FOXO1,FPR1,GGT1,GNAS,GPX1,GZMA,GZMB,GZMK,HMOX1,HSD17B10,HSP90AB1,HSPA9,HVCN1,IGHE,IL1B,IL32,ITGAM,ITGAX,LAT,LCP2,LDHA,LILRB2,LIMK1,LYN,MAP3K5,MAPK1,MLKL,MPRIP,MSRB2,PFKFB3,PLA2G6,PPIA,PRDX1,PRELID1,PRF1,PRKCB,PRKCD,PRKCE,PTGS2,ROMO1,RORA,RTN4,S100A8,SELPLG,SIGMAR1,SLC8A1,SLC9A3R1,SMOX,SOD1,TINF2,TLR2,TLR4,TMBIM6,TNF,TREML2,TXN2,TXNIP,TYROBP,VDAC1,VEGFA,XBP1 |
| Neurological Disease | Progressive motor neuropathy | 0.00000216 | 5.665546249 | turquoise | 128 | ABAT,ABCB1,ALOX5,ANG,ANXA1,ANXA2,ANXA5,AP1S2,ARL6IP5,ARRB1,ARSG,ATXN1,BSG,CALM1 (includes others),CAPN2,CAPN3,CAPZB,CBLB,CCL5,CD36,CD74,CDC42EP3,CEBPA,CFLAR,CHCHD2,CNP,CNR1,CSF3R,CST3,CXCR3,DBI,DNAJB11,DNAJC1,EIF4G1,ESR1,ESR2,ETS2,FADS3,FAS,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FLOT1,FOXO1,FURIN,GABBR1,GADD45A,GATM,GBA,GNAS,GRIA1,HAVCR2,HIGD1A,HLA-B,HLA-DMA,HLA-DMB,HMOX2,HRH2,HSPA5,IFNAR2,IL1B,IL2RB,IL7R,IMPDH1,IRGM,ITGAV,JPT1,KCNA6,KEAP1,KIAA0040,KIF1B,LDHA,LDHB,LDLR,MAGED1,MAPK1,MIF,MTHFD2,NDUFS4,NEAT1,NFIL3,NOTCH4,NR3C1,NRCAM,PAWR,PDE4A,PDE4D,PEBP1,PGK1,PLA2G6,PODXL,PPARGC1B,PSAP,PTGES3,PTGS2,RPL13,RPL3,RPS3A,RRM2,RRM2B,RTN1,RTN4,S100A4,S100A6,SCARB2,SCN4A,SIGMAR1,SLC1A4,SOD1,STAP1,STUB1,TBK1,TFRC,TIMP1,TLR2,TLR4,TNF,TOP2A,TUBA1B,TUBA1C,TUBA4A,UCHL1,VAMP1,VCP,VDR,VIM,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Recurrent cancer | 0.0000022 | 5.657577319 | turquoise | 57 | ABCB1,ACTG1,ADA,ANXA1,AURKA,BIRC3,BLMH,BRAF,CD19,CD22,CD33,CD38,CDK4,CSF1R,CSF2RB,CSF3R,CXCR4,CYP51A1,DDR1,ESR1,ESR2,FKBP1A,FLT1,HDAC9,HSP90AB1,HSP90B1,IDH2,IFNAR2,IL2RB,IMPDH1,LIMK1,LYN,MAPK1,MDM2,NR3C1,PIK3CA,PPIA,PSMB10,PSMB2,PTGS2,RARG,RRAS2,RRM2,RRM2B,RXRA,SLAMF7,TGFBR2,TNF,TOP2A,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Primary solid tumor | 0.0000022 | 5.657577319 | turquoise | 94 | BIRC5,BRAF,BRIP1,CD19,CD22,CDK4,CDK5,CEBPA,CHD3,CIITA,CLMP,COX5A,CR2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,DDR1,ECT2,ELMO1,ESR1,ESR2,EYA2,FCER2,FKBP1A,FLNA,FLT1,FOSL2,FOXO1,FOXP1,GLDC,GNAS,GOT2,GRIA1,HMGA1,HSP90AB1,HSP90B1,ID2,IFI30,IFNAR2,IQSEC1,IRF4,JPT1,KIF21A,KPNA2,LDLR,LGALS1,LGALS3,LGALS4,MAPK1,MGLL,MRPL20,MTHFD2,MYH11,NR3C1,NUAK2,PCLAF,PDE4D,PDGFD,PDLIM5,PIK3CA,PKM,PLAUR,PNKD,PPIA,PRDM1,PRKCI,PSAT1,PTGS2,RACGAP1,RARG,RASSF1,REL,RRM2,SERPINA1,SETD2,SLC16A3,SLC5A3,SLC9A3R1,SMAD3,SMC4,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VCAN,VEGFA,ZNF490 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive breast cancer | 0.00000226 | 5.645891561 | turquoise | 73 | ACP5,ANXA1,ARHGEF7,ARRB1,ATP5IF1,BIRC5,BUB1B,CALM1 (includes others),CD48,CDC42EP3,CDC6,CDK4,COCH,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,ESR2,EZH2,FAM111B,FAS,FKBP1A,HBP1,HLA-B,HSP90AB1,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PRKCI,PSTPIP2,PTPRE,RACGAP1,RASSF1,RRM2,RTN4,SLC8A1,SSPN,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,WDR1,ZIK1,ZNF677 |
| Cell Morphology,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of plasma cells | 0.00000233 | 5.632644079 | turquoise | 9 | CD4,CD80,CD86,CEBPB,IGKC,IRF4,NFIL3,PRDM1,SH2D1A |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Interaction of lymphocytes | 0.00000239 | 5.621602099 | turquoise | 50 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD4,CD48,CD58,CD69,CD80,CD86,CD99,CXCR3,CXCR4,DIAPH1,FAS,FCGR3A/FCGR3B,FLOT1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGB1,ITGB7,LCP2,LTK,MYO1G,NFATC3,NR3C1,NT5E,PLCB1,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TLR2,TLR4,TNF |
| Hematological System Development and Function,Immunological Disease,Inflammatory Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Enlargement of spleen | 0.00000244 | 5.612610174 | turquoise | 60 | ABCB4,AHR,AIM2,ARID4B,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD8A,CDKN2C,CEBPA,CEBPB,CFLAR,CREBBP,CSF2RB,CTSA,CUX1,E2F2,ESR2,FAS,FCER1G,FCGR2B,GBA,HMGA1,HMOX1,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,LCP2,LGMN,LYN,LYPLA2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PAWR,PICALM,PRDX1,PRKCD,PTGS2,RAPGEF6,RASGRP1,REL,RRM2,RRM2B,RUNX2,RUNX3,SLC4A1,STAT5B,TCL1A,TGFBI,TNF,TNFRSF13B,VDR |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Systemic juvenile idiopathic arthritis | 0.00000252 | 5.598599459 | turquoise | 26 | CD80,CD86,DYNLL1,EHD4,EIF1,FGL2,GALNT1,IL1B,IL6R,JMJD1C,MBD2,MCTP2,MIF,MRPS15,MRPS36,NDUFB10,PHF20,RAB1B,RBP7,SEC62,TALDO1,TBRG1,TNF,TPGS2,TRAK2,ZNF281 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Stage III-IV neuroblastoma | 0.00000255 | 5.59345982 | turquoise | 18 | CSF2RB,CSF3R,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,HSP90AB1,HSP90B1,IL2RB,NR3C1,RARG,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,VEGFA |
| Cell Morphology,Hematological Disease,Immunological Disease,Lymphoid Tissue Structure and Development | Lack of lymphocytes | 0.00000265 | 5.576754126 | turquoise | 22 | BACH2,BCL11A,BCL11B,CD4,CD8A,CREBBP,DCLRE1C,FCER1G,FNIP1,ID2,IGHM,IGKC,IL2RB,IL7R,IRF4,IRF8,ITPKB,LAT,PRDM1,SH2D1A,TBX21,XRCC6 |
| Cancer,Organismal Injury and Abnormalities | Papillary adenocarcinoma | 0.00000267 | 5.573488739 | turquoise | 82 | ACP5,ATP1B1,BMP6,BRAF,BUB1B,CADM1,CARD16,CD48,CD70,CDC42EP3,CDC6,CHD3,CIITA,COCH,CR1,CSF1R,CST7,CXCR4,E2F7,EEF1B2,ELOC,FAM111B,FBXW7,FCGBP,FKBP1A,FLT1,FOXO1,GNAS,HLA-B,HMGA1,HSP90AB1,HSP90B1,IGFBP4,IGFBP7,INPP5A,KCNK6,LGALS3,LRP8,LYNX1,MDM4,MKI67,MT1E,NCOA3,NOTCH4,NUSAP1,PDCD2L,PIK3CA,PKM,PNKD,PRKCE,PRR5,PTPRE,RUNX2,S100A11,S100A4,SDHB,SERPINA1,SETD2,SLC5A3,SLC9A3R1,SMC4,TGFBR2,THRB,TIMP1,TIMP2,TIMP3,TLE3,TOP2A,TRAM2,TSHR,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXNIP,VAV3,VEGFA,VIM,ZC3HAV1L,ZNF677 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of macrophages | 0.00000269 | 5.57024772 | turquoise | 44 | ANXA1,APOA2,CCL3,CD14,CD36,CD38,CD93,CEBPB,CMC2,CSF1R,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCGR2B,FCN1,GPR18,HMOX1,HSH2D,IL1B,IL6R,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of natural killer cells | 0.00000274 | 5.562249437 | turquoise | 35 | BCL11B,CD70,CD80,CD86,CD8A,CX3CR1,CXCR4,FCER1G,FYB1,GATA3,HCST,ICOSLG/LOC102723996,ID2,IFNAR2,IL15RA,IL2RB,IL7,IL7R,ITGAV,ITGB7,LCP2,NFIL3,PRF1,PRKCD,PSAP,PYCARD,RASGRP1,RHOH,STAT5B,TBX21,TNFRSF25,TOX,TXNIP,TYROBP,VDR |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of leukocytes | 0.00000282 | 5.549750892 | turquoise | 58 | ABCG1,AHR,BIRC5,BTLA,CADM1,CCL5,CD19,CD36,CD4,CD69,CD80,CD86,CEBPA,CLEC7A,CXCR4,EIF2AK1,FAS,FCGR2B,HAVCR2,HMOX1,HSP90B1,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL1B,IL21R,IL7,IL7R,IRF4,IRF8,ITGAM,LAT,LYN,MAP3K14,MAPK1,NFIL3,PHC1,PRDM1,PTGS2,RARRES3,RASGRP1,RHOH,RUNX3,SERPINA1,SWAP70,TBX21,TCF7,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX2,TYROBP,VEGFA,XBP1 |
| Gene Expression | Transactivation of RNA | 0.0000029 | 5.537602002 | turquoise | 128 | ACTN4,ACVR1,AHR,AKAP13,ARNT,ARRB1,ATOX1,CAMK1D,CAV1,CCND2,CD300LB,CD300LF,CD80,CD86,CEBPA,CEBPB,CEBPD,CIITA,CITED2,CREBBP,CXCL8,DTX1,DTX4,E2F2,EDF1,ERN1,ESR1,ESR2,ETS2,ETV4,FABP5,FOSL2,FOXO1,GABPB1,GADD45A,GAPDH,GATA3,GFI1,GTF2I,HBP1,HSPA9,IGFBP4,IL1B,IRAK1,IRF4,IRF8,JAZF1,JDP2,LGALS1,MAFB,MAP3K14,MAPK1,MAPKAPK3,MDFIC,MDM2,MDM4,MED30,MEF2C,MTDH,MYB,NAB1,NAP1L1,NCOA3,NFE2L1,NKIRAS2,NOTCH4,NR2F1,NR3C1,NRIP1,NSD3,PA2G4,PEG10,PFDN5,PIAS2,PIK3CA,PKM,PLCB1,PODXL,POLR2L,POU2AF1,PRDM1,PRDX1,PRKCD,PTGS2,PTTG1,PXN,PYCARD,RARG,RBX1,REL,RORA,RUNX2,RXRA,S100A4,SELPLG,SF1,SH3KBP1,SIRPA,SKIL,SMAD3,SMARCA2,SMARCB1,SND1,SRA1,STAT5B,STUB1,SUB1,TBK1,TBL1X,TBX21,TFDP1,TFDP2,TGIF1,THRB,TMEM131L,TNF,TNFRSF1B,TP63,TXN,UAP1,UPF3B,VDR,XRCC6,ZBED5,ZBTB10,ZBTB16,ZBTB32,ZHX2 |
| Cancer,Organismal Injury and Abnormalities | Invasive cancer | 0.00000297 | 5.527243551 | turquoise | 88 | ACP5,ANXA1,ARHGEF7,ARRB1,ATP5IF1,BIRC5,BRAF,BUB1B,CALM1 (includes others),CD48,CDC42EP3,CDC6,CDK4,CEBPB,CLEC11A,COCH,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DDR1,DOCK5,DST,E2F7,ESR1,ESR2,EZH2,FAM111B,FAS,FKBP1A,FLT1,HBP1,HLA-B,HSP90AB1,HSP90B1,IER3,IL1B,IL1RN,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PMEPA1,PRKCI,PSTPIP2,PTAFR,PTGS2,PTPRE,RACGAP1,RASSF1,RRM2,RTN4,RUNX2,SLC8A1,SSPN,TGFBR2,THEM4,TLE3,TMEM220,TOP2A,TP63,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,WDR1,ZIK1,ZNF677 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic form of lymphocytic leukemia | 0.00000305 | 5.515700161 | turquoise | 101 | ADA,ALDH1A1,ANXA1,ARL6IP5,ATXN1,AURKA,BACH2,BAK1,BCL2L2,BCL9L,BIRC3,BRAF,CCL3,CD19,CD200,CD22,CD38,CD74,CD80,CD86,CDC42EP3,CDK5,CEP68,CFL1,CHD2,COL4A4,CSF3R,CXCL8,DAD1,DAPK1,DLEU2,E2F7,ERC1,ESR2,FAS,FBXW7,FCGR2A,FLT1,FRYL,HLA-B,HVCN1,IFNAR2,IGH,IL1B,IL21R,IL7,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ITGAX,JARID2,LDHA,LYN,LYPLA2,MCL1,MIF,MIR17HG,MYB,NAMPT,NEK8,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PNKD,PPIA,PRDM15,PRICKLE1,PRKCB,PRR5,PTPRE,PTPRK,RAPGEF6,RHOH,RRM2,RRM2B,SEC23B,SEC24D,SGPP2,SIPA1L3,SMAD3,STEAP4,SUCLG1,SYNE2,TARP,TBX21,TLK1,TLR2,TNF,TOP2A,TRAM2,TTN,VCAN,VWA3B,ZBTB16,ZFP2,ZNF395,ZYX |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Spleen neoplasm | 0.00000307 | 5.512861625 | turquoise | 24 | ANXA1,BIRC3,BRAF,CD19,CD22,CR2,DTX1,FCER2,IGH,NR3C1,PAWR,REL,RRM2,RRM2B,SPN,STAT5B,SWAP70,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of lymphocytes | 0.00000313 | 5.504455662 | turquoise | 49 | AHR,AURKA,BRAF,BTLA,C5AR1,CCND2,CD27,CD4,CD55,CD69,CD70,CD80,CD86,CDKN2C,CR2,CXCR3,DNM2,FAS,FCGR2B,GFI1,HAVCR2,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IRF8,LAT,LCP2,MIR17HG,MYB,MYDGF,PIK3CA,PRF1,REL,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,ZBTB16 |
| Cellular Development | Maturation of blood cells | 0.00000319 | 5.496209317 | turquoise | 65 | ABCG1,AHR,BIRC5,BTLA,CADM1,CCL5,CCND2,CD19,CD36,CD4,CD69,CD80,CD86,CEBPA,CLEC11A,CLEC7A,CXCR4,E2F2,EIF2AK1,FAS,FCGR2B,HAVCR2,HMOX1,HSP90B1,HSPA9,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL1B,IL21R,IL7,IL7R,IRF4,IRF8,ITGAM,LAT,LYN,MAP3K14,MAPK1,NFIL3,PHC1,PRDM1,PRKCE,PTGS2,RARRES3,RASGRP1,RHOH,RUNX3,SERPINA1,SWAP70,TBX21,TCF7,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX2,TYROBP,VEGFA,XBP1,ZBTB16,ZBTB7A |
| Cell Morphology,Cellular Function and Maintenance | Transmembrane potential of mitochondria | 0.0000032 | 5.494850022 | turquoise | 58 | ATP5IF1,BAK1,BCL2L2,BID,BIRC5,BNIP3L,CD27,CD4,CD69,CFLAR,CISD2,CLEC11A,CLIC1,ESR2,EYA2,FAS,FPR1,GIMAP5,GNAQ,GNLY,GZMA,GZMB,GZMK,HMOX1,IGHM,IL1B,IL7,LDHA,LGALS1,LGALS2,LYN,MCL1,MSRB2,NDUFAB1,PANK2,PAPOLA,PAWR,PLA2G6,PPA2,PRDX3,PRELID1,PRF1,PRKCD,PRKCE,PYCARD,RTN4,SOD1,SRXN1,STOML2,TCL1A,TIMP3,TNF,VCP,VDAC1,VIM,XBP1,YWHAE,ZBTB16 |
| Cell Death and Survival | Apoptosis of hematopoietic progenitor cells | 0.00000326 | 5.4867824 | turquoise | 55 | ADA,ARNT,BAK1,BCL11A,BCL11B,BCL2L2,BID,BNIP3L,CCL3,CCL5,CD226,CD59,CFLAR,CHEK1,CREBBP,DTX1,DUSP4,EPHA4,ETS2,FAIM,FAS,FCGR2B,FNIP1,GFI1,GIMAP4,GNAS,GZMA,GZMB,HAX1,HIPK2,HSPA9,IGHM,IL15RA,IL1B,IL7,IRF8,LGALS1,MDM2,NFYA,NR3C1,PALLD,PCLAF,PERP,PRF1,SATB1,SMAD3,STAT5B,STUB1,TCL1A,TNF,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VEGFA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Adhesion of phagocytes | 0.00000336 | 5.473660723 | turquoise | 42 | ADGRE2,ANXA1,CADM1,CCL5,CD99,CNR1,CR1,CR2,CSF3R,CXCL2,CXCL8,FLT1,FOXO1,GLRX,ICOSLG/LOC102723996,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LILRB3,LYN,MGAT5,MIF,PIK3CA,PLA2G6,PLAUR,PLXNC1,PTGS2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,TGFBR2,TLR2,TLR4,TNF,TXN,VAV3,VEGFA |
| Developmental Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of lymphoid organ | 0.00000336 | 5.473660723 | turquoise | 42 | ABCC4,AFF1,AHR,AKAP13,BACH2,BAG3,BCL11A,BCL11B,CBX4,DCLRE1C,ESR1,ESR2,GALNT1,GFI1,HAX1,IGHM,IGKC,IGLL1/IGLL5,IL15RA,IL2RB,IL7,IL7R,LAT,LCP2,LYN,MDM2,MDM4,NFATC3,PCLAF,POU2AF1,PRF1,PTTG1,RHOH,RPS6KA4,RRM2B,SMAD3,SSBP2,STUB1,TNF,VDR,VEGFA,XRCC6 |
| Cancer,Organismal Injury and Abnormalities | Papillary carcinoma | 0.00000342 | 5.465973894 | turquoise | 83 | ACP5,ATP1B1,BMP6,BRAF,BUB1B,CADM1,CARD16,CD48,CD70,CDC42EP3,CDC6,CHD3,CIITA,COCH,CR1,CSF1R,CST7,CXCR4,E2F7,EEF1B2,ELOC,FAM111B,FBXW7,FCGBP,FKBP1A,FLT1,FOXO1,GNAS,HLA-B,HMGA1,HSP90AB1,HSP90B1,IGFBP4,IGFBP7,INPP5A,KCNK6,LGALS3,LRP8,LYNX1,MDM4,MKI67,MT1E,NCOA3,NOTCH4,NUSAP1,PDCD2L,PIK3CA,PKM,PNKD,PRKCE,PRR5,PTGS2,PTPRE,RUNX2,S100A11,S100A4,SDHB,SERPINA1,SETD2,SLC5A3,SLC9A3R1,SMC4,TGFBR2,THRB,TIMP1,TIMP2,TIMP3,TLE3,TOP2A,TRAM2,TSHR,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXNIP,VAV3,VEGFA,VIM,ZC3HAV1L,ZNF677 |
| Cell Death and Survival | Cell death of carcinoma cell lines | 0.00000342 | 5.465973894 | turquoise | 83 | ADI1,ANXA2,AURKA,BAK1,BID,BIK,BIRC3,BIRC5,BRAF,CAV1,CCAR2,CCDC6,CCND2,CDC6,CDCA2,CDKN2C,CEBPA,CERS6,CFLAR,CHEK1,CLPTM1L,COX6B1,CXCL8,CXCR3,DSP,ETS2,EXOG,EZH2,FAS,GAB1,GAPDH,GPI,GPX1,HCST,HMGA1,HMOX1,HSPA5,IGFBP7,ITGAV,KEAP1,MAP3K5,MAPK1,MCL1,MDM2,MDM4,MEF2C,MRPL49,MTDH,NCOA3,NR3C1,NT5E,PAWR,PDCD4,PDE4D,PIK3C3,PIK3CA,PIK3IP1,PKM,PLA2G16,PMEPA1,PPARGC1B,PRKCD,PRKCE,PTGS2,PVT1,RABGGTA,RASSF1,RRM2,RUNX3,S100A11,S100A4,SH3RF1,SOD1,STK17A,TBK1,TLR4,TNF,TP63,TUBB3,UACA,UCHL1,VDAC1,ZBTB16 |
| Cellular Assembly and Organization,Tissue Development | Fibrogenesis | 0.00000371 | 5.43062609 | turquoise | 113 | ACTG1,ACTR3,AIF1,AKAP13,ARF1,ARHGAP18,ARHGAP32,ARHGAP6,ARHGEF10,ARPC2,ARRB1,AURKA,BBS4,BIRC5,BRAF,CAMK2D,CAPN3,CAPZB,CAV1,CD14,CD38,CDK4,CFL1,CHCHD2,CLIP1,CNP,CNR1,COL18A1,CORO7/CORO7-PAM16,CRH,CTNND1,CXCL8,DAAM1,DIAPH1,DLGAP5,DOCK5,DPYSL2,DSTN,DYNLL1,DYSF,EPPK1,FBXW7,FCGR2A,FILIP1L,GNAQ,GNG5,GPI,GZMB,HAX1,HBEGF,HSPA5,IL1B,INPP5A,ITGB1,KIF2C,KIRREL1,KISS1R,LIMK1,LIMK2,MAPK1,MARCKSL1,MEF2C,MIF,MINK1,MKKS,MPRIP,MSRB1,MSRB2,MTSS1,MYH11,NCK2,NEK6,NUMA1,NUSAP1,OBSCN,PALLD,PDCD4,PFDN5,PHACTR1,PIP5K1B,PLAUR,PPP1R9A,PRKCD,PRKCE,PRKCI,PTK2,PTPRB,PXN,PYCARD,RASSF1,S100A10,SH3PXD2A,SIRPA,SKIL,SMAD3,STAB1,TGFBI,TGFBR2,TIAM1,TLR2,TLR4,TNF,TNFRSF1B,TP63,TPX2,TTN,TUBA4A,TUBB,TXN,VEGFA,VIM,WDR1,ZYX |
| Cell Signaling | Tyrosine phosphorylation | 0.00000372 | 5.42945706 | turquoise | 52 | B3GNT5,BSG,CADM1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD33,CD36,CD4,CD48,CD55,CD72,CD8A,CLEC7A,CSF1R,DDR1,FAS,FCER1G,FCGR2A,FCGR2B,FGF9,FLNA,IGHM,IL1B,IL7,ITGAM,ITGB1,LAX1,LGALS1,LILRB3,LYN,MIF,PAG1,PPIA,PRDX1,PRKCD,PSAP,PTK2,PTPN14,SAMSN1,SH2D1A,SH3KBP1,SLC3A2,SPN,ST6GAL1,SYN3,TNF,TYROBP,VEGFA |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of tumor cells | 0.00000372 | 5.42945706 | turquoise | 71 | ANXA1,ANXA2,B4GALT5,BCL2L2,BID,BIK,BIRC5,BRAF,BSG,CAV1,CD14,CD22,CD33,CD59,CDC6,CFLAR,CHEK1,COL18A1,CXCR3,DAPK1,E2F2,ENO1,EZH2,FAS,FLT1,FOXO1,GADD45A,GZMA,GZMB,HBEGF,HIPK2,HMOX1,IGHM,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MDM2,MEF2C,MIF,MMP11,MYB,NCOA3,PAWR,PLAUR,PRKCD,PRKCE,PTK2,RASSF1,RTN4,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR4,TNF,TNFRSF10C,TNFRSF17,TRADD,TRIB1,TXN,VEGFA,ZBTB7A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 negative breast carcinoma | 0.0000041 | 5.387216143 | turquoise | 13 | CDK4,ESR1,ESR2,FKBP1A,PIK3CA,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Response of neutrophils | 0.00000411 | 5.386158178 | turquoise | 27 | ADGRE2,C5AR1,CCL3,CD36,CSF2RB,CXCL8,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FPR1,GLRX,GNAQ,GPR18,IGHA1,ITGAL,ITGAM,ITGAX,ITGB1,LILRB3,LYN,PLAUR,PTAFR,SELPLG,TLR4,TNF,TYROBP |
| Developmental Disorder,Organismal Injury and Abnormalities | Hypoplasia of lymphatic system | 0.00000412 | 5.385102784 | turquoise | 43 | ABCC4,AFF1,AHR,AKAP13,BACH2,BAG3,BCL11A,BCL11B,CBX4,DCLRE1C,ESR1,ESR2,GALNT1,GFI1,HAX1,IGHM,IGKC,IGLL1/IGLL5,IL15RA,IL2RB,IL7,IL7R,LAT,LCP2,LYN,MDM2,MDM4,NFATC3,PCLAF,POLM,POU2AF1,PRF1,PTTG1,RHOH,RPS6KA4,RRM2B,SMAD3,SSBP2,STUB1,TNF,VDR,VEGFA,XRCC6 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Metastatic lung carcinoma | 0.00000439 | 5.35753548 | turquoise | 36 | ABCB1,BRAF,CDK4,CSF1R,CSF3R,DDR1,FAS,FLT1,HSP90AB1,HSP90B1,IFI30,LIMK1,LYN,MAFB,MDM2,MYL12A,NDUFB4,NR3C1,PIK3CA,PPIA,PTGS2,RPL7,RPS11,RRM2,SEC61G,SSR2,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,YWHAE |
| Cellular Function and Maintenance | Function of antigen presenting cells | 0.0000044 | 5.356547324 | turquoise | 61 | ADA,AHR,AIM2,ARIH2,BIRC3,CAV1,CCL5,CCR1,CD14,CD200,CD36,CD74,CEBPB,CIITA,CLEC7A,CRH,CSF1R,CSF2RB,DUSP4,FCER1G,FCER2,FCGR2A,FCGR2B,FLT1,GFI1,HLA-DMA,IFI30,IL1B,IL21R,IL4R,IRAK1,IRAK2,ITGAM,LGALS3,LGMN,LY96,LYN,MARCKSL1,NLRP1,NLRP3,PLAUR,PSAP,PTGS2,PYCARD,REL,RRAS2,SAMSN1,SEMA3A,SH3BP2,SIGMAR1,SIRPA,SLA2,ST6GAL1,TGFB2,TLR2,TLR4,TNF,TPCN1,TRAF5,TYROBP,VEGFA |
| Cellular Function and Maintenance | Engulfment of antigen presenting cells | 0.00000441 | 5.355561411 | turquoise | 41 | ANXA1,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CTNND1,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCN1,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,SWAP70,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of CD4+ T-lymphocytes | 0.00000464 | 5.333482019 | turquoise | 47 | AHR,AIM2,CCL5,CCR1,CD4,CD48,CD69,CD70,CD74,CD8A,CIITA,CXCR3,DCLRE1C,DIAPH1,ESR1,ESR2,FOXO1,GNLY,HAX1,HLA-DMA,ID2,IGHM,IL13RA1,IL15RA,IL21R,IL2RB,IL5RA,IL7,ITGAL,ITGAM,ITGB7,LAT,LCP2,LGALS2,NT5E,PRDX1,PRF1,PRKCB,RARG,RASGRP1,RHOH,SELPLG,SH2D1A,SHCBP1,TBX21,TNF,TOX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell lymphoma | 0.00000467 | 5.330683119 | turquoise | 197 | ABCG1,ABHD5,ADA,AHNAK,AHR,ALOX5,ANKRD36,ANXA1,ANXA2,AP4B1,APOBEC3B,AURKA,BAK1,BCAT1,BCL11B,BCL7A,BCOR,BIRC3,BRAF,BTG1,BUB1B,CAV1,CCND2,CD19,CD22,CD27,CD36,CD48,CD58,CD63,CD69,CD70,CDCA2,CDKN2C,CEBPA,CFLAR,CFP,CHD2,CHD3,CIITA,CNR1,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,CXCR4,CXCR5,DCLRE1C,DGKD,DIAPH1,DMXL1,DMXL2,DSP,DST,DTX1,DUSP4,E2F2,ELOC,EZH2,FAS,FBXW7,FCER2,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FILIP1L,FKBP1A,FOXO1,FOXP1,FYB1,GTF2I,HDAC9,HIST1H3B,HMGA1,HMOX1,HSP90AB1,HSP90B1,ID2,IFNAR2,IGKC,IGLL1/IGLL5,IKBIP,IL1B,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ISL2,ITPR1,KCNAB3,KCNN3,KIF11,KPNA2,KRR1,LGALS1,LRIG2,LRRFIP1,LYNX1,MCL1,MDM2,MDM4,MGA,MGLL,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NEK3,NETO2,NLRP7,NR3C1,NUDT6,OTUD7B,P2RY8,PAG1,PAX5,PCSK5,PDCD4,PEG10,PIK3CA,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRKCB,PRKCI,PSMB10,PSMB2,PSMB6,PSME4,PTGS2,PTPN14,PTPRE,RASSF1,RBL2,REL,RPS20,RRM2,RRM2B,RXRA,SARS,SATB1,SDK2,SEC14L1,SERPINA1,SETD2,SKIL,SLC16A1,SLC16A7,SLC29A2,SMARCA2,SMARCB1,SMARCD3,SMC6,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STX11,SWAP70,SYNE2,TAPT1,TARP,TCL1A,TFDP1,TLR2,TNF,TNFRSF10C,TNIK,TOP2A,TP63,TPST2,TRERF1,TSHZ2,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Splenic cancer | 0.00000473 | 5.325138859 | turquoise | 22 | ANXA1,BIRC3,BRAF,CD19,CD22,CR2,DTX1,FCER2,IGH,NR3C1,RRM2,RRM2B,SPN,STAT5B,SWAP70,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Hematological System Development and Function,Tissue Morphology | Quantity of antigen presenting cells | 0.00000474 | 5.324221658 | turquoise | 73 | ADA,AHR,BCL11A,BID,BIRC3,C5AR1,CCL3,CD200,CD36,CD86,CEBPA,CFLAR,CIITA,CLEC4D,CSF1R,CX3CR1,DDR1,ELMO1,FAS,FCER1G,FCGR2B,GBA,GNAS,GNLY,HAVCR2,HBEGF,HMOX1,ID2,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL4R,IL7R,IRF4,IRF8,ITGAV,LDLR,LGALS1,LGALS3,LITAF,LSP1,MCL1,MIF,NFYA,NT5E,PILRA,PRDM1,PRF1,PRKCD,PTK2,RGS10,SELPLG,SHCBP1,SIRPA,SOD1,ST6GAL1,STAB1,STAT4,STEAP4,TBX21,TCL1A,TGFBR2,TLR2,TLR4,TNF,TRIB1,TYROBP,UACA,VDR,VEGFA,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic leukemia | 0.00000477 | 5.321481621 | turquoise | 120 | ADA,ALDH1A1,ANXA1,ARL6IP5,ATXN1,AURKA,BACH2,BAK1,BCL2L2,BCL9L,BCOR,BIRC3,BRAF,CCL3,CD19,CD200,CD22,CD38,CD74,CD80,CD86,CDC42EP3,CDK5,CEBPA,CEP68,CFL1,CHD2,CHEK1,COL4A4,CSF1R,CSF2RB,CSF3R,CXCL8,DAD1,DAPK1,DDR1,DLEU2,E2F7,ERC1,ESR2,EZH2,FAS,FBXW7,FCER1G,FCGR2A,FKBP1A,FLT1,FOXO1,FRYL,GNAQ,HLA-B,HVCN1,IDH2,IFNAR2,IGH,IL1B,IL21R,IL2RB,IL7,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ITGAX,JARID2,LDHA,LYN,LYPLA2,MCL1,MIF,MIR17HG,MSI2,MYB,NAMPT,NEK8,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PNKD,PPIA,PRDM15,PRICKLE1,PRKCB,PRR5,PTPRE,PTPRK,RAPGEF6,RHOH,RPL3,RRM2,RRM2B,SEC23B,SEC24D,SGPP2,SIPA1L3,SMAD3,SMARCB1,SMC1A,STEAP4,SUCLG1,SYNE2,TARP,TBX21,TLK1,TLR2,TNF,TOP2A,TP63,TRAM2,TTN,VCAN,VWA3B,WEE1,ZBTB16,ZFP2,ZNF395,ZYX |
| Infectious Diseases | Endotoxicosis | 0.0000048 | 5.318758763 | turquoise | 35 | ADA,BID,BIRC3,BTLA,CAV1,CD14,GZMA,IL1RN,IL6R,IRAK1,IRAK2,ITGAL,ITGAM,ITGAV,LY96,MAP3K5,MGLL,MIF,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PRF1,PTGS2,PYCARD,RAP1B,RPS6KA4,S100A9,STAT4,TLR4,TNF,TNFRSF1B,TREM1 |
| Cell Death and Survival | Apoptosis of T lymphocytes | 0.00000493 | 5.307153081 | turquoise | 69 | ADA,AHR,ARRB1,BAK1,BCL11B,BID,CAV1,CCL3,CCL5,CD226,CD27,CD38,CD4,CD59,CD70,CFLAR,CHEK1,CIITA,CXCR4,DTX1,E2F2,EPHA4,ETS2,FAIM,FAS,FBXW7,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,IER3,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCE,RHOH,SATB1,SPN,STAT5B,STOML2,STUB1,TCL1A,TGFB2,TNF,TNFRSF1B,TNFRSF25,TOP2A,VDR,ZBTB16 |
| Cell-To-Cell Signaling and Interaction | Adhesion of tumor cell lines | 0.000005 | 5.301029996 | turquoise | 81 | ACTN4,AFDN,AGO2,ANXA1,ANXA2,ARHGAP21,BSG,CAV1,CCL3,CD226,CD4,CD55,CD59,CD99,CR2,CXCL2,CXCL8,CXCR3,CXCR4,DDR1,DSP,DYSF,FLNA,FOXO1,FOXP1,FXYD5,FYB1,GATA3,GZMB,HAX1,HMMR,IL6R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,LASP1,LAT,LCP2,LGALS2,LGALS3,LGALS4,MAPK1,MARCKS,MGAT5,MINK1,NSD2,PARVG,PKM,PLAUR,PLEKHA2,PTAFR,PTGES3,PTK2,PTPN14,PXN,RASSF1,RHOU,SELPLG,SEMA3A,SH2D1A,SKAP1,SLC4A1,SMAD3,SPN,SRGN,ST6GAL1,STOML2,TIAM1,TIMP3,TLR2,TNF,TNFRSF25,TP63,UCHL1,UTRN,VCAN,VCL,VEGFA,ZYX |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cellular infiltration by phagocytes | 0.00000505 | 5.296708622 | turquoise | 74 | AIM2,ANXA1,ARG1,ARRB1,BID,BRAF,BSG,C5AR1,CAV1,CCL3,CCR1,CD14,CD300LF,CD36,CD55,CD86,CNP,CNR1,COL4A3,CR1,CRH,CSF1R,CX3CR1,CXCL2,CXCL8,FAS,FCAR,FCER1G,FLT1,FPR1,GBA,GPR18,HMOX1,HSPA5,IL15RA,IL16,IL1B,IL1RN,IL6R,IL7,ITGAL,ITGAM,ITGB1,LDLR,LGALS1,LGALS3,LIMK1,LMNB1,MAP3K5,MIF,NAAA,NDST1,NINJ1,NLRP3,NT5E,PPIA,PRDM1,PRKCD,PTGS2,S100A10,SERPINA1,SGPP1,SGPP2,SMAD3,TGFBR2,TIMP1,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TSHR,VAV3 |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of eicosanoid | 0.00000515 | 5.288192771 | turquoise | 59 | ADA,ALOX5,ANXA1,ATP5PF,BMP6,C5AR1,CADM1,CAV1,CCL5,CD14,CD36,CD4,CD74,CEBPB,CLEC7A,COTL1,CRH,CXCL8,CYP1B1,ESR2,FAS,FCER1G,FCGR2A,FCGR2B,FPR1,HMOX1,HMOX2,IGFBP7,IGHE,IGHM,IL16,IL1B,IL1RN,IL32,LDLR,LIMK1,LYN,MAP3K14,MAP3K5,MAPK1,MGST2,MIF,PLA2G6,PRKCI,PTAFR,PTGES3,PTGS2,SEMA3A,SGPP1,SMAD3,SOD1,SSPN,STAT5B,TGFBR2,TLR2,TLR4,TNF,VEGFA,VIM |
| Inflammatory Response | Inflammatory response of cells | 0.00000522 | 5.282329497 | turquoise | 20 | CD14,CEBPB,CMC2,EIF2AK1,ELMO1,ERN1,IGHE,IL1B,IL6R,ITGAM,LITAF,LY96,MCL1,S100A8,S100A9,TLR2,TLR4,TNF,TREM1,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of lymphocytes | 0.00000525 | 5.279840697 | turquoise | 46 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD48,CD58,CD69,CD80,CD86,CD99,CXCR3,CXCR4,DIAPH1,FAS,FCGR3A/FCGR3B,FLOT1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGB1,ITGB7,LCP2,MYO1G,NFATC3,NR3C1,NT5E,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TLR4,TNF |
| Cellular Development | Differentiation of tumor cell lines | 0.00000526 | 5.279014256 | turquoise | 91 | ACVR1,AHR,ANXA2,ARHGAP32,ASB2,BRAF,CD14,CD38,CDK4,CEBPA,CEBPB,CEBPD,COL18A1,CREBBP,CREG1,CSF2RB,CXCR5,DDR1,DNAJB11,ECT2,EID1,ENO1,ESR1,ETS2,ETV4,EZH2,FFAR1,FGF9,FOXP1,FRS2,GATA3,GFI1,HMOX1,IL1B,IL1RN,IL32,IRS2,ITGAM,JDP2,KEAP1,KMT5A,LGALS1,LIMK1,LIMK2,LYN,MAGEH1,MAPK1,MCL1,MDM2,MEF2C,MIF,MYB,NACA,NAP1L1,NFYA,NR2F1,PA2G4,PCYT1A,PDE4D,PLAUR,PPIA,PRDM1,PRDX3,PRKCB,PRKCD,PRKCE,PTGS2,QKI,RACGAP1,RARG,RASGRP1,RBL2,RPS3A,RRAS2,RUNX2,SH3BP2,SIRPA,SLC4A1,SMARCB1,SRGAP1,SSBP2,STK26,THRB,TIMP1,TNF,TNFRSF1B,TP63,VCAN,VDR,XBP1,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Tubular adenocarcinoma | 0.00000541 | 5.266802735 | turquoise | 42 | BMP6,BRAF,BUB1B,CADM1,CD70,CDC6,CHD3,CR1,E2F7,EEF1B2,ELOC,FAM111B,FBXW7,FKBP1A,FOXO1,HSP90AB1,HSP90B1,LYNX1,MKI67,MT1E,NCOA3,NUSAP1,PIK3CA,PKM,PNKD,RUNX2,SDHB,SETD2,SLC5A3,SLC9A3R1,TIMP1,TIMP2,TIMP3,TOP2A,TTN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,VEGFA,ZNF677 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Intermediate disease stage peripheral arterial disease | 0.00000541 | 5.266802735 | turquoise | 42 | ADA2,ADGRE5,ALOX5,C5AR1,CCR1,CD163,CLEC2B,CPVL,CSF2RB,CTSA,CTSC,CXCR4,EEF1B2,EIF1B,EVI2A,FCGR2A,FCGR3A/FCGR3B,FPR1,FRG1,FYB1,GLRX,IFI30,IRF8,LILRB2,LYN,MAFB,MARCKS,NGRN,PDLIM5,PIK3IP1,PLAUR,PLXNC1,PLXND1,PSMA2,RAP2B,SAMSN1,SAT1,ST6GAL1,SUB1,TGFB2,TREM1,ZCCHC10 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Metastatic non-small cell lung carcinoma | 0.00000576 | 5.239577517 | turquoise | 35 | ABCB1,BRAF,CDK4,CSF1R,CSF3R,DDR1,FAS,FLT1,HSP90AB1,HSP90B1,IFI30,LIMK1,LYN,MAFB,MDM2,MYL12A,NDUFB4,NR3C1,PIK3CA,PPIA,PTGS2,RPL7,RPS11,RRM2,SEC61G,SSR2,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of regulatory T lymphocytes | 0.00000576 | 5.239577517 | turquoise | 35 | AHR,BACH2,CAMK4,CCL5,CD19,CD27,CD38,CD70,CD80,CD86,CXCR3,FABP5,FCGR2B,HLA-DMA,ICOSLG/LOC102723996,IL2RB,IL7,IL7R,IRAK1,IRF8,KLF10,LDLR,MIF,PTAFR,REL,SELPLG,STAT5B,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TXNIP,VDR,VEGFA |
| Cell Cycle | S phase | 0.00000588 | 5.230622674 | turquoise | 67 | ARNT,BID,BIRC5,BTLA,CAMK2N1,CAV1,CCL3,CCNA2,CCND2,CDC6,CDK4,CDKN2C,CEBPB,CHEK1,CREBBP,CSF1R,CSTB,CTNND1,E2F2,ESR2,FCER2,GAB1,GADD45A,GFI1,GTF2I,HBEGF,HMGA1,HMOX1,ID2,IL1B,IL4R,IL6R,IL7,ITGB1,LGALS1,LMNB1,LZTS1,MDM2,MXI1,NCOA3,NRIP1,PAX5,PCLAF,PFKFB3,PMEPA1,PRKCD,PSAP,RAD17,RASSF1,RB1-DT,RBL2,RBM5,REL,SMARCB1,SMC1A,SSH2,SUN1,TFDP1,TFDP2,TGFBR2,TNF,TP53I3,TYMS,UHRF1,VEGFA,ZBTB10,ZBTB16 |
| Cell Cycle | Cell cycle progression of tumor cell lines | 0.00000588 | 5.230622674 | turquoise | 67 | AHR,APBB2,ARG1,AURKA,BANP,BIRC5,BRAF,CAMK2N1,CAMK4,CAV1,CCNA2,CD14,CD19,CDK4,CDKN2C,CEBPB,CHN2,CREG1,CSNK1A1,CSTB,E2F2,EIF3M,ESR1,EZH2,FOXO1,HBEGF,HMOX1,IER3,IGHM,IL7,KLF10,LGALS3,LYN,MAFB,MDM2,MDM4,MGAT4A,MGLL,MIF,MIR17HG,NR3C1,PAX5,PIK3CA,POLD4,PRKCD,RAD17,RASSF1,RBL2,S100A4,SAMHD1,SMAD3,SMARCA2,SMARCB1,SND1,SSBP2,STAT5B,TCP1,TLR4,TNF,TOX,TP63,WEE1,XBP1,XRCC6,YWHAE,ZBTB10,ZNF655 |
| Cellular Movement | Cell movement of breast cancer cell lines | 0.00000603 | 5.219682688 | turquoise | 83 | ACTN1,ACTN4,AFDN,AHNAK,AHR,ANXA1,ANXA2,ARF1,ARPC1B,ARRB1,BANP,BHLHE41,BMP6,CAPN2,CAV1,CCL5,CD99,CEMIP2,CERS6,CHN2,CXCL8,CXCR4,DIAPH1,DUSP6,EIF3A,ENAH,ERC1,ESR1,ESR2,EYA2,EZH2,FLNA,FURIN,GAB1,GATA3,GPI,GZMB,ICMT,IL1B,IL32,ITGAV,ITGB1,KCNN3,KPNA2,LASP1,LDHA,LIMK1,LRPAP1,MAPK1,MDM2,MGAT5,NFATC4,NT5E,PALLD,PAX5,PDCD4,PIK3R5,PIK3R6,PLAUR,PRKCD,PTK2,PXN,RACGAP1,RANBP2,RUNX2,S100A11,S100A4,SEMA3A,SERPINA1,SERPINA5,SMAD3,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TNF,TP63,TUBA1C,VAV3,VEGFA,VIM |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-lymphoblastic leukemia/lymphoma | 0.00000607 | 5.216811309 | turquoise | 46 | ANXA1,BCL11B,BRAF,CD1A,CD33,CDK4,CHEK1,CREBBP,CSF3R,DNM2,EED,EZH2,FAS,FBXW7,FKBP1A,FNDC3B,GATA3,HSP90AB1,HSP90B1,IDH2,IKZF2,IL7R,IMPDH1,ITGAM,MYB,NR3C1,PAX5,PIK3CA,PSMB2,RHOH,RHOU,RPL10,RRM2,SATB1,SETD2,STAT5B,TCF7,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXLNG,TYMS,ZMIZ1 |
| Cell Signaling,Cell-To-Cell Signaling and Interaction | Cytokine and chemokine mediated signaling pathway | 0.0000061 | 5.214670165 | turquoise | 56 | ALOX5,ANXA1,BIRC5,CAV1,CCL3,CCL5,CCR1,CD36,CD4,CD80,CD86,CEBPD,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,FCER2,FKBP1A,FOXO1,FPR1,GATA3,HMOX1,HSP90B1,HSPA8,IGHE,IL13RA1,IL16,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IRAK1,IRF4,ITGAM,ITGAX,ITGB1,LILRB3,MCL1,PIK3CA,PTAFR,PTGS2,RHOU,RORA,STAT4,STAT5B,TIMP1,TNF,TNFRSF1B,VEGFA,VIM |
| Cell Death and Survival | Cell death of lung cancer cell lines | 0.0000061 | 5.214670165 | turquoise | 69 | ANXA2,ATP1B3,BAK1,BID,BIK,BIRC3,BIRC5,BRAF,CAV1,CCAR2,CDC6,CDKN2C,CEBPA,CEBPB,CERS6,CFLAR,CHEK1,CLPTM1L,COX5A,COX6B1,DSP,EXOG,FAS,GAB1,GADD45A,GNAS,GPI,GPX1,HCST,HIPK2,HMGA1,HSPA5,KEAP1,LGALS3,MAP3K5,MCL1,MDM2,MRPL49,NCOA3,NR3C1,NT5E,PAWR,PDE4D,PIK3C3,PIK3CA,PKM,PMEPA1,PPARGC1B,PRKCB,PRKCD,PRKCE,PTGS2,RABGGTA,RBX1,RRM2,RRM2B,RUNX3,S100A11,S100A4,SOD1,TBK1,TLR4,TNF,TP63,TUBB3,UACA,VDAC1,VEGFA,ZBTB16 |
| Cell Death and Survival | Cell viability of phagocytes | 0.00000611 | 5.21395879 | turquoise | 32 | ADGRE2,BAK1,BIRC5,CD300A,CD38,CD48,CEBPB,CFLAR,CLEC11A,CSF1R,CSF2RB,CSNK1A1,CX3CR1,CXCR4,ERN1,FAS,FCER1G,FOXO1,IL1B,IRAK1,IRF4,KIF1C,LAT,LAX1,LYN,MCL1,PIK3CA,REL,TLR4,TNF,TYROBP,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of leukocyte cell lines | 0.00000625 | 5.204119983 | turquoise | 22 | ANXA5,APOA2,CADM1,CCNC,CD226,CD38,FYB1,IGKC,IL13RA1,ITGAL,ITGAM,ITGB1,ITGB7,PLAUR,PLEKHA2,RAP2A,SIRPA,ST6GAL1,TLR2,TNF,TNFRSF17,UTRN |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of lymphocytes | 0.00000626 | 5.203425667 | turquoise | 36 | ABCG1,AHR,BIRC5,BTLA,CADM1,CD19,CD4,CD80,CD86,CXCR4,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL21R,IL7,IL7R,IRF4,LAT,MAP3K14,MAPK1,NFIL3,PHC1,PRDM1,PTGS2,RASGRP1,RHOH,RUNX3,TBX21,TCF7,TGFBR2,TNF,TNFRSF13B,TOX2,TYROBP,XBP1 |
| Hematological System Development and Function,Hypersensitivity Response,Tissue Morphology | Quantity of eosinophils | 0.00000629 | 5.201349355 | turquoise | 34 | ADA,ALOX5,ARNTL,C5AR1,CD22,CD8A,CFP,CSF2RB,GADD45A,GALNT1,IL13RA1,IL21R,IL5RA,IRF8,ITGAL,ITGAM,ITGB7,ITPR1,KISS1R,LGALS1,LGALS3,LYN,MIF,PRKCE,REL,SELPLG,STAT4,TBK1,TLR4,TNF,TNFRSF1B,TNFRSF25,TRIB1,TXN |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of phagocytes | 0.00000631 | 5.199970641 | turquoise | 42 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TRPV2,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of granulocytes | 0.00000631 | 5.199970641 | turquoise | 94 | AIM2,ALOX5,ANXA1,AQP9,C1GALT1,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD48,CD55,CD69,CD74,CD99,CKLF,CLEC11A,CRH,CSF3R,CST3,CXCL2,CXCL8,CXCR3,CXCR5,DAPK2,DOCK5,DYSF,FAS,FCAR,FCER1G,FCGR2A,FLOT1,FPR1,GNAI3,GPR18,HMOX1,HRH2,IGHE,IL16,IL1B,IL1RN,IL2RB,IL4R,IL6R,ITGAL,ITGAM,ITGB1,JAML,LGALS1,LGALS3,LILRB3,LIMK1,LSP1,LYN,MGAT5,MYO1F,NDST1,NLRP3,NT5E,PIK3R5,PLAUR,PPIA,PRDM1,PRKCB,PTGS2,PTPRB,RAP1B,RTN4,RUNX3,S100A12,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SIRPA,SMAD3,SPN,SWAP70,TGFB2,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TXN,VAV3 |
| Cell Cycle | Interphase of tumor cell lines | 0.00000649 | 5.187755303 | turquoise | 98 | AHR,ANXA2,APOBEC3A,ARNT,ARRB1,ATF5,BIRC5,BRAF,CAMK2N1,CAMKK2,CCNA2,CCND2,CDC6,CDCA2,CDK4,CEBPA,CEBPB,CEBPD,CHEK1,CREG1,CRH,CTNND1,CYP1B1,DTL,EGOT,EIF3E,ESR1,ESR2,EZH2,FAS,FOXO1,GADD45A,GATA3,GFI1,GMNN,GSPT1,HMGA1,HMOX1,IGFBP7,IGHM,IL16,IL1B,ITGAV,ITGB1,KIF11,KLF10,LGALS1,LGALS3,LIMK1,LIMK2,LMNB1,MAP3K5,MDM2,MDM4,MTDH,MXI1,MYB,NCOA3,NFYA,NR3C1,NRIP1,PAX5,PCLAF,PFKFB3,PKD1,PKM,PLAUR,PMEPA1,POLD4,PRKCD,PRKCE,PSAP,PTGES3,RAD17,RASSF1,RASSF6,RBL2,RBX1,RFFL,RPL23,RRM2B,RUNX3,RXRA,SEL1L,SMARCB1,SSH2,STK38L,TCP1,TFDP1,TFRC,THRB,TNF,TNFRSF17,TP53I3,TP63,TYMS,WEE1,ZBTB10 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of T lymphocytes | 0.00000653 | 5.185086819 | turquoise | 43 | AHR,AURKA,BRAF,BTLA,C5AR1,CD27,CD4,CD55,CD69,CD70,CD80,CD86,CXCR3,DNM2,FAS,GFI1,HAVCR2,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IRF8,LAT,LCP2,MYDGF,PIK3CA,PRF1,REL,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,ZBTB16 |
| Cellular Movement,Hematological System Development and Function,Humoral Immune Response,Immune Cell Trafficking | Cell movement of B lymphocytes | 0.00000656 | 5.183096161 | turquoise | 31 | ABCG1,CD19,CD22,CD74,CXCR3,CXCR4,CXCR5,ESR1,FOXO1,GPSM1,ICOSLG/LOC102723996,IL15RA,IL7,ITGAL,ITGB7,MAP3K14,MIF,MYB,MYO1G,POU2AF1,PRKCD,RAP1B,RAP2A,SAMSN1,SELPLG,SWAP70,TIMP1,TLR4,TNF,TNFRSF1B,VAV3 |
| Cellular Function and Maintenance,Hematological System Development and Function | Engulfment of myeloid cells | 0.00000671 | 5.17327748 | turquoise | 44 | ANXA1,APOA2,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,IL1B,IRF8,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of mononuclear leukocytes | 0.00000674 | 5.171340103 | turquoise | 37 | ABCG1,AHR,BIRC5,BTLA,CADM1,CD19,CD4,CD80,CD86,CXCR4,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL21R,IL7,IL7R,IRF4,ITGAM,LAT,MAP3K14,MAPK1,NFIL3,PHC1,PRDM1,PTGS2,RASGRP1,RHOH,RUNX3,TBX21,TCF7,TGFBR2,TNF,TNFRSF13B,TOX2,TYROBP,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor negative breast tumor | 0.00000687 | 5.163043263 | turquoise | 45 | ABCB1,BIRC5,BMPR1A,CAV1,CCND2,CDKN2C,CEBPA,CPEB2,CSF1R,CSF3R,CXCL8,EPS8,ESR1,ESR2,ETS2,FAS,FLT1,FOSL2,GNAS,HSP90AB1,HSP90B1,IL1B,MYB,NT5E,PIK3CA,PRDM1,PTGS2,RRM2,S100A4,TGFBI,TGFBR2,TGFBR3,TIMP1,TIMP2,TIMP3,TNFRSF1B,TOP2A,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMS,WEE1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Depolarization of mitochondrial membrane | 0.00000701 | 5.154281982 | turquoise | 15 | BID,BIRC3,BIRC5,CSTB,ESR2,FAS,GZMB,HMOX2,IRGM,MCL1,PEBP1,PPIA,PRKCD,TLR4,TNF |
| Cell Death and Survival | Cell death of thyroid tumor cell lines | 0.00000701 | 5.154281982 | turquoise | 15 | BAK1,BRAF,CCDC6,CCND2,CFLAR,ETS2,FAS,GAPDH,HMGA1,HSPA5,IGFBP7,MDM2,MDM4,TNF,TP63 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Peripheral arterial disease | 0.00000735 | 5.133712661 | turquoise | 59 | ADA2,ADGRE5,ALOX5,BAG3,C5AR1,CACYBP,CCR1,CD163,CD36,CLEC2B,CPVL,CSF2RB,CTSA,CTSC,CXCR4,EEF1B2,EIF1B,EVI2A,FCGR2A,FCGR3A/FCGR3B,FPR1,FRG1,FYB1,GLRX,HCAR3,IFI30,IRF8,KCTD12,LILRB2,LYN,MAFB,MARCKS,NGRN,NR3C1,PDLIM5,PIK3IP1,PLAUR,PLXNC1,PLXND1,PSMA2,PTGS2,RAP2B,SAMSN1,SAT1,ST6GAL1,SUB1,TBC1D9B,TGFB2,TNIK,TREM1,TRIM14,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,UBE2H,VEGFA,ZCCHC10 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of lymphatic system cells | 0.00000735 | 5.133712661 | turquoise | 42 | BMPR1A,CBLB,CCL5,CD226,CD27,CD300A,CD38,CD48,CD58,CD59,CD69,CD74,CFLAR,CRH,FAS,FCGR2A,FCGR3A/FCGR3B,GZMA,GZMB,HAVCR2,HSPA8,IL21R,IL7,IMPDH1,IRAK1,ITGAL,KLRD1,LAT,LDLR,LGALS3,PIK3CA,PRF1,RASGRP1,SH2D1A,SPN,STAT4,STAT5B,STX7,TBX21,TLR2,TNF,TYROBP |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Hematological System Development and Function | Phagocytosis of myeloid cells | 0.00000735 | 5.133712661 | turquoise | 42 | ANXA1,APOA2,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,IL1B,IRF8,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| 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 B lymphocytes | 0.00000759 | 5.119758224 | turquoise | 39 | ADA,AFF1,CD19,CD69,CD80,CEBPB,CR2,CXCR4,DTX1,EZH2,FNIP1,FOXO1,GFI1,ID2,IGHM,IGLL1/IGLL5,IL21R,IL7,IL7R,IRF4,ITGAL,ITPKB,LYN,MAPK1,MEF2C,MIR17HG,MYB,PAX5,PHC1,PLEKHA1,PLEKHA2,POU2AF1,PRDM1,REL,RORA,SMAD3,UBE2N,VAV3,XBP1 |
| Cell Death and Survival | Apoptosis of leukemia cell lines | 0.00000772 | 5.1123827 | turquoise | 71 | AHR,ARG1,BAK1,BID,BIK,BIRC3,BIRC5,C5AR1,CAV1,CD4,CD55,CD59,CDC6,CDK5,CEBPA,CEBPD,CFLAR,CHEK1,CRH,CSF2RB,CXCR4,EIF4B,ERN1,ESR1,FAS,FCER2,FKBP5,GFI1,GIMAP4,GIMAP5,GNLY,GZMB,HMOX1,HSPA8,IL15RA,IL7,ITGAM,ITGB1,LGALS1,LGALS3,LYN,MCL1,MSRB2,MYB,NFIL3,NOTCH4,NR3C1,PAWR,PAX5,PBX3,PPIA,PRF1,PRKCB,PRKCD,PRKCI,PTK2,PTPRE,PYCARD,RBM5,S100A8,S100A9,SPN,STAT5B,STOML2,TCL1A,TLR2,TNF,TNFRSF25,TOX,TRADD,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Triple negative breast neoplasm | 0.00000778 | 5.109020403 | turquoise | 44 | ABCB1,BIRC5,BMPR1A,CAV1,CCND2,CDKN2C,CEBPA,CPEB2,CSF1R,CSF3R,CXCL8,EPS8,ESR1,ESR2,ETS2,FAS,FLT1,FOSL2,GNAS,HSP90AB1,HSP90B1,IL1B,MYB,NT5E,PIK3CA,PTGS2,RRM2,S100A4,TGFBI,TGFBR2,TGFBR3,TIMP1,TIMP2,TIMP3,TNFRSF1B,TOP2A,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMS,WEE1 |
| Cell-To-Cell Signaling and Interaction | Binding of lymphoma cell lines | 0.0000078 | 5.107905397 | turquoise | 28 | ANXA1,ANXA2,CD226,CD4,CD55,CD59,CR1,CR2,CXCL2,CXCR3,FOXO1,GATA3,HSP90B1,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,PARVG,PLEKHA2,SELPLG,SH2D1A,SPN,TFRC,TNF,UTRN,VCAN,VEGFA |
| Neurological Disease | Chorea | 0.0000079 | 5.102372909 | turquoise | 132 | ALAS1,ARHGAP32,ARHGEF7,ARIH2,ARL3,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11B,BCL7A,CA11,CAB39,CAMK4,CAMKK2,CAPNS1,CCL5,CD38,CD48,CDK5,CDS1,CFLAR,CIITA,CNR1,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CRYM,CYFIP2,CYP51A1,DAD1,EIF3E,ELMO1,EPHA4,ETV4,F8A1 (includes others),FAM3C,FBXW7,FOXP1,GADD45A,GAPDH,GPI,HBP1,HMOX1,HSPA5,HSPA8,IER3,IER5,ITGAM,ITPKB,ITPR1,KCNN3,LDHA,LDHB,LDLR,LIMK1,MAN1A1,MAP3K5,MAPKAPK3,MT1E,MT1G,MT1X,MT2A,MTDH,MYL12A,MYO1B,NAPA,NDUFA13,NDUFA2,NDUFA7,NDUFB2,NDUFB3,NDUFS5,NGRN,NR1D1,NREP,PDLIM7,PGK1,PKM,PLCB1,PPARGC1B,PPIA,PRKCB,PRR5,PSAT1,PSMB6,PTPRE,RAB11A,RARRES3,RERE,RUNX3,SAT1,SCAMP5,SCARB2,SCN4A,SDHA,SDHB,SEC11A,SEC24A,SERPINA1,SLC1A4,SLIRP,SMTN,SORL1,SRM,SSR3,STARD4,SUB1,TARP,TESC,TPI1,TRAK2,TRAM1,TXN,UBAC1,UCHL1,UQCRB,UQCRC1,VAMP1,VCAN,XK,XRCC6,ZBTB16,ZBTB44 |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Formation of osteoclasts | 0.00000798 | 5.097997109 | turquoise | 37 | AHR,ALOX5,ANXA2,CAV1,CCL3,CD38,CIITA,CSF1R,CST3,CXCL8,CYP1B1,FLNA,FOXO1,GGT1,IL1B,IL1RN,IL7,IL7R,IRF8,JDP2,LAT,LDLR,LGMN,MIF,PRDM1,PSTPIP2,PTGS2,S100A8,SIRPA,SOD1,TNF,TNFRSF1B,TSHR,TXN,TXNIP,VAV3,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of antigen presenting cells | 0.00000798 | 5.097997109 | turquoise | 37 | ANXA1,APOA2,BRAF,CCL3,CD14,CD36,CD38,CD93,CEBPB,CSF1R,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR2B,FCN1,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TRPV2,XBP1 |
| Developmental Disorder | Thoracic hypoplasia | 0.00000821 | 5.085656843 | turquoise | 48 | ABCC4,AFF1,ARRB1,BAG3,BCL11A,BCL11B,CBX4,CYP51A1,ELOA,ESR1,ESR2,FGF9,GFI1,GNAQ,HAX1,HBEGF,IGHM,IL2RB,IL7,IL7R,ITGAV,LAT,MDM2,MDM4,MEF2C,MIR17HG,NFATC3,NFATC4,PCLAF,PKD1,PRF1,RDH10,RHOH,RRM2B,RXRA,SLC8A1,SMAD3,SSBP2,STUB1,TGFB2,TGFBI,TGFBR3,TNF,TTN,VDR,VEGFA,WNT7B,XRCC6 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Morphology of tumor | 0.00000822 | 5.085128182 | turquoise | 51 | ANXA1,ARL6IP5,BRAF,CAV1,CCND2,CEBPA,COL18A1,CSTB,CTNND1,ESR2,ETS2,ETV4,EZH2,FAS,FBXW7,FLT1,FURIN,IL18BP,IQGAP2,LDHA,LSP1,MAP3K5,MGAT3,MGAT5,MIF,NLRP3,NR3C1,PRDX1,PRF1,PRKCB,PRKCD,PRKCI,PTGS2,PTPRE,PVT1,RASGRP1,RASSF1,RBL2,SATB1,SIRPA,SNHG7,STAB1,TGFB2,TGFBR2,TIMP1,TIMP2,TLR4,TMBIM6,TNF,VEGFA,WNT7B |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Evans stage IVS neuroblastoma | 0.00000847 | 5.07211659 | turquoise | 17 | CSF2RB,CSF3R,FCGR1B,FCGR2A,FCGR2B,FCGR3A/FCGR3B,HSP90AB1,HSP90B1,IL2RB,NR3C1,RARG,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1 |
| Gene Expression | Expression of RNA | 0.00000857 | 5.067019178 | turquoise | 454 | ABCG1,ABLIM1,ABLIM2,ACTN4,ACTR3,ACVR1,ADA,AFF1,AFF3,AFF4,AGO2,AHR,AIF1,ANG,ANK3,ANXA7,APBB2,APOBEC3G,ARF4,ARID3A,ARID3B,ARID4B,ARNT,ARNTL,ARNTL2,ARRB1,ASPM,ATF5,ATF7IP,ATP1B1,ATP2B4,ATXN1,AUTS2,BACH2,BAK1,BANK1,BANP,BBS2,BBS4,BCL11A,BCL11B,BCL9L,BCOR,BEND5,BHLHA15,BHLHE41,BID,BIRC5,BLOC1S2,BMP6,BMPR1A,BRAF,BRIP1,BTG1,CALCR,CAMK2D,CAMK2N1,CAMK4,CAMKK2,CAPN3,CAV1,CBX4,CBX5,CBX6,CCAR2,CCDC85B,CCL3,CCL5,CCNA2,CCNC,CCR1,CD19,CD36,CD38,CD4,CD74,CD86,CDC5L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CFLAR,CHCHD2,CHD2,CHD3,CHEK1,CIITA,CITED2,CNKSR1,COPZ1,CREB3,CREB5,CREBBP,CREG1,CRH,CRYM,CSF2RB,CSNK1A1,CUX1,CXCR4,CYFIP1,DACT1,DAP,DAPK1,DDX17,DDX5,DIAPH1,DNAJC1,DTNBP1,DTX1,DUSP4,DYSF,E2F2,E2F7,ECT2,EDF1,EED,EID1,EIF1,EIF2AK1,EIF3E,EIF3M,EIF4A3,EIF4B,EIF4EBP2,EIF4G1,ELK3,ELL2,ELOA,ELOB,ELOC,ENO1,EPRS,ERN1,ESR1,ESR2,ETS2,ETV4,EXOSC9,EZH2,FAS,FBXW7,FCGR2A,FECH,FGF9,FKBP1A,FLNA,FNIP1,FNIP2,FOSL2,FOXO1,FOXP1,FZD1,GABPB1,GADD45A,GAPDH,GATA3,GCLC,GFI1,GLMP,GMNN,GNAQ,GNAS,GON4L,GPX1,GTF2I,GTF3C6,H2AFY,H2AFZ,HAVCR2,HAX1,HBP1,HDAC9,HDGF,HEXB,HIPK2,HIST1H3C,HMBOX1,HMGA1,HSPA8,ID2,IER5,IFNAR2,IKZF2,IL16,IL1B,IL6R,IL7,IL7R,IRAK1,IRAK2,IRF4,IRF8,ITGAM,JARID2,JAZF1,JDP2,JMJD1C,KEAP1,KIF1B,KLF10,KLF9,KMT5A,KPNA2,LANCL2,LAT,LCOR,LCP2,LDLR,LGALS1,LGMN,LIME1,LIMS1,LITAF,LRP8,LRRFIP1,LY96,LYN,MAFB,MAGED1,MAP3K14,MAP3K5,MAPK1,MAPKAPK3,MARCKSL1,MARF1,MBD2,MDFIC,MDM2,MDM4,MED30,MEF2C,MEPCE,MGA,MIF,MKKS,MLX,MPHOSPH8,MRPL12,MRPL15,MRPL23,MRPL41,MRPL57,MTDH,MXI1,MYB,MYCBP,MYDGF,MYH11,NAA15,NAB1,NACC2,NAMPT,NCK2,NCOA3,NCOA7,NDFIP1,NDFIP2,NDUFA13,NEK6,NFATC3,NFATC4,NFE2L1,NFIL3,NFYA,NKX6-3,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NRIP1,NSD2,NSD3,OTUD7B,PA2G4,PABPC4,PABPN1,PAIP2,PAM,PAWR,PAX5,PBX3,PCBD1,PCBD2,PDCD4,PDCD5,PEBP1,PFDN5,PHF19,PHGDH,PIAS2,PICALM,PIK3CA,PKD1,PKIG,PLCB1,POLR2L,POU2AF1,PPARGC1B,PRDM1,PRDM15,PRICKLE1,PRKCB,PRKCD,PRKCE,PRKCI,PSMB10,PSMD14,PSTPIP2,PTAFR,PTGES3,PTK2,PTPRK,PTTG1,PYHIN1,QKI,RAP2A,RARG,RARRES3,RASGRP1,RBL2,RBX1,RC3H2,RDX,REL,RGMB,RNASEH2B,RNF141,RNF207,RORA,RPAIN,RPL10,RPL23,RPS17,RPS3A,RPS6KA4,RUNX2,RUNX3,RXRA,S100A9,SARS,SATB1,SDR16C5,SEC61A1,SECTM1,SELPLG,SERTAD3,SETD2,SFMBT1,SH3KBP1,SIRPA,SKAP1,SKIL,SLA2,SLC11A1,SLC2A4RG,SMAD3,SMARCA2,SMARCB1,SMARCD3,SOCS2,SPN,SRA1,SSBP3,SSPN,STAP1,STAT4,STAT5B,STUB1,SUB1,TAF10,TAF1D,TBK1,TBL1X,TBX21,TCL1A,TEAD2,TERF2,TESC,TFDP1,TFDP2,TFEC,TGFB2,TGFBR2,TGFBR3,TGIF1,THRAP3,THRB,TIMP1,TIMP3,TLE2,TLE3,TLR2,TLR4,TMED2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TNRC6B,TOB2,TOP2A,TOX2,TP63,TRADD,TRAF5,TRAK2,TRERF1,TRIM38,TRIM44,TSHZ2,TTN,TUBG1,TXN,TXNIP,TYMS,UBE2L3,UHRF1,VAV3,VDR,VEGFA,VIM,VSIR,WARS,WNT10A,WNT7B,WWC3,XBP1,XRCC6,YBX3,YLPM1,ZBTB10,ZBTB16,ZBTB32,ZBTB38,ZBTB7A,ZHX2,ZMIZ1,ZMYND11,ZNF256,ZNF274,ZNF281,ZNF296,ZNF318,ZNF395,ZNF593,ZNF608,ZNF76,ZNHIT1,ZXDC |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Large-cell lymphoma | 0.00000869 | 5.060980224 | turquoise | 73 | AHR,ANKRD36,BIRC5,BRAF,BTG1,CCND2,CD19,CD22,CD36,CD4,CD58,CD63,CEBPA,CEBPB,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF3R,CXCL8,DMXL1,DSP,EZH2,FCER2,FOXO1,FOXP1,HIST1H3B,HSP90AB1,HSP90B1,IGLL1/IGLL5,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,MCL1,MGLL,MIR17HG,MYO1G,NLRP7,NR3C1,PAX5,PCSK5,PIK3CA,PPIA,PPWD1,PRDM1,PRF1,PSMB2,PTPN14,REL,RRM2,RXRA,SERPINA1,SETD2,SLC16A7,SPN,TCL1A,TNF,TNFRSF10C,TOP2A,TP63,TSHZ2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Development of mammary tumor | 0.0000089 | 5.050609993 | turquoise | 39 | CAV1,CD8A,CDK4,CDKN2C,CHEK1,CREB3,CTNND1,CUX1,E2F2,ESR1,EZH2,FABP5,FBXO4,GADD45A,KIF11,LYN,MDM2,MGAT3,NCOA3,NOTCH4,PDCD5,PIK3CA,PRDX1,PTGS2,PTK2,PTPRE,PTTG1,RASSF1,REL,RUNX2,S100A4,TGFBR2,TGFBR3,TIMP2,TP63,VAV3,VEGFA,WEE1,WNT7B |
| Gene Expression | Transcription | 0.00000907 | 5.042392713 | turquoise | 432 | ABCG1,ABLIM1,ABLIM2,ACTN4,ACTR3,ACVR1,AFF1,AFF3,AFF4,AGO2,AHR,AIF1,AKAP13,ANG,ANK3,ANXA7,APBB2,ARF4,ARID3A,ARID3B,ARID4B,ARNT,ARNTL,ARNTL2,ARRB1,ASPM,ATF5,ATF7IP,ATP1B1,ATP2B4,ATXN1,AUTS2,BACH2,BAK1,BANP,BBS2,BBS4,BCL11A,BCL11B,BCL9L,BCOR,BEND5,BHLHA15,BHLHE41,BID,BIRC5,BLOC1S2,BMP6,BMPR1A,BRAF,BRIP1,BTG1,CALCR,CAMK2D,CAMK2N1,CAMK4,CAMKK2,CAPN3,CAV1,CBX4,CBX5,CBX6,CCAR2,CCDC85B,CCL3,CCL5,CCNA2,CCNC,CCR1,CD19,CD36,CD38,CD4,CD55,CD74,CDC5L,CDK4,CDK5,CDKN2C,CEBPA,CEBPB,CEBPD,CFLAR,CHCHD2,CHD2,CHD3,CHEK1,CIITA,CITED2,CR2,CREB3,CREB5,CREBBP,CREG1,CRH,CRYM,CSF2RB,CUX1,CXCR4,DACT1,DAP,DDX17,DDX5,DTNBP1,DTX1,DUSP4,DYSF,E2F2,E2F7,ECT2,EDF1,EED,EID1,EIF4A3,ELK3,ELL2,ELMO1,ELOA,ELOB,ELOC,ENO1,ERN1,ESR1,ESR2,ETS2,ETV4,EXOSC9,EZH2,FAS,FBXW7,FCGR2A,FCGR2B,FECH,FGF9,FKBP1A,FLNA,FNIP1,FNIP2,FOSL2,FOXO1,FOXP1,FZD1,GABPB1,GADD45A,GATA3,GCLC,GFI1,GLMP,GMNN,GNAQ,GNAS,GON4L,GPX1,GTF2I,GTF3C6,H2AFY,H2AFZ,HAVCR2,HAX1,HBP1,HDAC9,HDGF,HEXB,HIPK2,HIST1H3C,HMBOX1,HMGA1,HSPA8,ID2,IER5,IFNAR2,IKZF2,IL16,IL1B,IL1RN,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,JARID2,JAZF1,JDP2,JMJD1C,KEAP1,KIF1B,KLF10,KLF9,KMT5A,KPNA2,LANCL2,LAT,LCOR,LCP2,LDLR,LGALS1,LGMN,LIME1,LIMS1,LITAF,LRP8,LRRFIP1,LY96,LYN,MAFB,MAGED1,MAP3K14,MAP3K5,MAPK1,MAPKAPK3,MARF1,MBD2,MDFIC,MDM2,MDM4,MED30,MEF2C,MEPCE,MGA,MID1IP1,MIF,MKKS,MLX,MPHOSPH8,MRPL12,MTDH,MXI1,MYB,MYCBP,MYDGF,MYH11,NAA15,NAB1,NACC2,NAMPT,NCK2,NCOA3,NCOA7,NDFIP1,NDFIP2,NDUFA13,NEK6,NFATC3,NFATC4,NFE2L1,NFIL3,NFYA,NKX6-3,NLRP3,NOTCH4,NR1D1,NR2F1,NR3C1,NRIP1,NSD2,NSD3,OTUD7B,PA2G4,PABPN1,PAM,PAWR,PAX5,PBX3,PCBD1,PCBD2,PDCD4,PDCD5,PEBP1,PFDN5,PHF19,PHGDH,PIAS2,PICALM,PIK3CA,PKD1,PKIG,PLCB1,POLR2L,POU2AF1,PPARGC1B,PRDM1,PRDM15,PRICKLE1,PRKCB,PRKCD,PRKCE,PRKCI,PSMB10,PSMB2,PSMD14,PTAFR,PTGES3,PTK2,PTPRK,PTTG1,PVT1,PYHIN1,QKI,RAP2A,RARG,RARRES3,RASGRP1,RBL2,RBM5,RBX1,RC3H2,RDX,REL,RGMB,RNASEH2B,RNF141,RNF207,RORA,RPAIN,RPL10,RPL23,RPS6KA4,RUNX2,RUNX3,RXRA,SARS,SATB1,SDR16C5,SEC61A1,SECTM1,SELPLG,SERTAD3,SETD2,SFMBT1,SH3KBP1,SIRPA,SKAP1,SKIL,SLA2,SLC11A1,SLC2A4RG,SMAD3,SMARCA2,SMARCB1,SMARCD3,SOCS2,SPN,SRA1,SSBP3,SSPN,ST3GAL3,STAB1,STAP1,STAT4,STAT5B,STUB1,SUB1,TAF10,TAF1D,TAGLN2,TBK1,TBL1X,TBX21,TCL1A,TEAD2,TERF2,TESC,TFDP1,TFDP2,TFEC,TGFB2,TGFBR2,TGFBR3,TGIF1,THRAP3,THRB,TIMP1,TIMP3,TLE2,TLE3,TLR2,TLR4,TMED2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOB2,TOP2A,TOX2,TP63,TRADD,TRAF5,TRAK2,TRERF1,TRIM38,TRIM44,TSHZ2,TTN,TUBG1,TXN,TXNIP,UBE2L3,UHRF1,VAV3,VDR,VEGFA,VIM,VSIR,WARS,WNT10A,WNT7B,WWC3,XBP1,XRCC6,YBX3,YLPM1,ZBTB10,ZBTB16,ZBTB32,ZBTB38,ZBTB7A,ZHX2,ZMIZ1,ZMYND11,ZNF256,ZNF274,ZNF281,ZNF296,ZNF318,ZNF395,ZNF593,ZNF608,ZNF76,ZNHIT1,ZXDC |
| Cellular Growth and Proliferation | Colony formation | 0.00000909 | 5.041436117 | turquoise | 137 | AHR,ALDH1A1,ANXA1,ANXA7,ARHGAP32,BACH2,BAG3,BIRC5,BNIP3L,BRAF,CADM1,CAV1,CBLB,CCL3,CD19,CD4,CDCA7,CDCA7L,CEBPA,CEBPB,CEMIP2,CHEK1,CLEC11A,CNKSR1,CREBBP,CSF1R,CSF2RB,CSF3R,CXCL8,CYTOR,DDX5,DUSP6,ENO1,ESR1,ESR2,FAS,FGF9,FLT1,FRS2,GADD45A,GNAQ,GZMB,HDGF,HMGA1,HMOX1,HSPA9,ICMT,IGFBP4,IGFBP7,IL1B,IL1RN,IL32,IL6R,IL7,IRF8,KPNA2,LGALS3,LZTS1,MAPK1,MDM2,MDM4,MGLL,MIF,MSI2,MT1X,MYB,MYCBP,NCOA3,NEAT1,NEK6,NFATC3,NFIL3,NR3C1,NRCAM,NSD2,OBSCN,PAX5,PHC1,PIK3C3,PIK3CA,PIK3R5,PIK3R6,PKM,PLA2G16,PLAUR,PRKCB,PRKCD,PRKCI,PTAFR,PTGS2,PTK2,PTTG1,PXN,PYCARD,RAD17,RARG,RASSF1,RBL2,RFFL,RPS6KA6,RRM2,RUNX2,RUNX3,S100A10,S100A4,S100A6,SATB1,SEC62,SEL1L,SELENOH,SERPINA1,SLC3A2,SMARCA2,SMARCB1,SOCS2,SOD1,SPRY1,ST6GAL1,STAT5B,STK26,TES,TGFB2,THRB,TIAM1,TLR2,TLR4,TNF,TOX,TP63,TSHR,UBE2C,UBE2N,VAV3,VCAN,VEGFA,XBP1,ZBTB16 |
| Cellular Movement | Cellular infiltration by myeloid cells | 0.00000922 | 5.035269079 | turquoise | 80 | AIM2,ANXA1,ARG1,ARRB1,BID,BRAF,BSG,C5AR1,CAV1,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD48,CD55,CNP,CNR1,COL4A3,CR1,CRH,CSF1R,CX3CR1,CXCL2,CXCL8,CXCR5,FAS,FCAR,FCER1G,FLT1,FPR1,GBA,GPR18,HMOX1,HSPA5,IGHE,IL15RA,IL16,IL1B,IL1RN,IL2RB,IL4R,IL6R,ITGAL,ITGAM,ITGB1,LDLR,LGALS1,LGALS3,LIMK1,LMNB1,MAP3K5,MIF,NAAA,NDST1,NINJ1,NLRP3,NT5E,PPIA,PRDM1,PRKCD,PTGS2,RUNX3,S100A10,SERPINA1,SGPP1,SGPP2,SMAD3,TGFBR2,TIMP1,TIMP3,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TSHR,VAV3,ZBTB16 |
| Cellular Compromise,Cellular Function and Maintenance | Endoplasmic reticulum stress response | 0.00000926 | 5.033389013 | turquoise | 46 | BAK1,BHLHA15,BID,BIK,CEBPB,COL4A3,COL4A4,CREB3,CXCL8,DERL3,DST,ERN1,ERO1A,FAM129A,FLOT1,HMOX1,HSP90AB1,HSP90B1,HSPA5,HSPE1,HYOU1,KDELR1,MAP3K5,MBTPS2,MGAT2,MIA3,MYH11,P4HB,PIK3C3,PIK3IP1,PLA2G6,RTN1,SCAMP5,SDF2L1,SEL1L,SELENOS,SERP1,SOD1,STUB1,TMBIM6,TMCO1,TNF,UCHL1,UFC1,VCP,XBP1 |
| Protein Synthesis | Quantity of cytokine | 0.00000926 | 5.033389013 | turquoise | 63 | AIM2,ALOX5,C5AR1,CAMKK2,CAV1,CCR1,CD14,CD19,CD36,CEBPB,CERS6,CLEC4D,CLEC7A,CNR1,CRH,CTSC,ESR1,ESR2,FABP5,GABBR1,GATM,GNAS,HEXB,IFNAR2,IL13RA1,IL1B,IL1RN,IL4R,IL6R,IRAK2,IRS2,ITGAL,LDLR,LGMN,LYN,MIF,MKKS,NFIL3,NLRP3,PILRB,PLA2G16,PLIN2,PPIA,PRF1,PRKCE,PTGS2,PYCARD,RPS6KA4,S100A9,SAMSN1,SAT1,SIK3,SOD1,STAT4,STEAP4,STX11,TBK1,TLR2,TLR4,TNF,TNFRSF1B,TRADD,UBE2Q1 |
| Connective Tissue Development and Function,Tissue Development | Growth of connective tissue | 0.00000928 | 5.032452024 | turquoise | 153 | AHR,AIF1,ALOX5,ANXA2,ARHGAP32,ARID3A,AURKA,BCL11B,BCL2L2,BMP6,BMPR1A,BRAF,BTG1,CAPNS1,CAV1,CCNA2,CCND2,CD163,CD300A,CD48,CD74,CDC6,CDK4,CDKN2C,CEBPA,CEBPB,CIITA,CITED2,CNR1,COL9A1,CSF1R,CSNK1A1,CXCL8,CXCR3,DDX5,DUSP4,EPPK1,ESR1,ESR2,EZH2,FAS,FBXO4,FBXW7,FGF9,FLT1,FNDC3B,FOSL2,FOXO1,FRS2,GABBR1,GADD45A,GATA3,GGT1,GNAQ,GPI,GZMK,HBEGF,HDGF,HIPK2,HMGA1,HMMR,HMOX1,ICMT,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IGFBP4,IGFBP7,IL1B,IL2RB,IL6R,IL7,ITGAV,ITGB1,KLF10,KLF9,LGALS1,LGALS3,LGALS4,LMNB1,LST1,LZTS1,MAP3K5,MAPK1,MDM2,MDM4,MIF,MKI67,MYB,NAB1,NDUFS4,NFATC3,NFYA,NR3C1,NRCAM,PA2G4,PAWR,PDGFD,PFKFB3,PGK1,PIK3C3,PIK3CA,PITPNA,PLA2G6,PLAUR,PRDX4,PRKCD,PTGES3,PTGS2,PTK2,PTPRK,PTTG1,RAP1B,RARG,RBL2,REL,RNASEH2B,RUNX2,RXRA,S100A11,S100A6,S100A9,SDR16C5,SH3KBP1,SKIL,SLC3A2,SMAD3,SMARCB1,SOD1,STEAP4,TALDO1,TFRC,TGFB2,TGFBR2,TGIF1,THRB,TIMP1,TIMP2,TLR4,TNF,TP63,TSHR,TXN,TXNIP,TYROBP,UBE2C,VAV3,VCAN,VCL,VDR,VIM,ZMIZ1 |
| Cell Signaling,Post-Translational Modification | Tyrosine phosphorylation of protein | 0.00000939 | 5.027334408 | turquoise | 50 | B3GNT5,BSG,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD33,CD36,CD4,CD48,CD55,CD72,CD8A,CLEC7A,CSF1R,DDR1,FAS,FCER1G,FCGR2A,FCGR2B,FGF9,FLNA,IGHM,IL1B,IL7,ITGAM,ITGB1,LAX1,LGALS1,LILRB3,LYN,MIF,PAG1,PPIA,PRDX1,PRKCD,PSAP,PTK2,PTPN14,SAMSN1,SH2D1A,SLC3A2,SPN,ST6GAL1,SYN3,TNF,TYROBP,VEGFA |
| Cell-To-Cell Signaling and Interaction | Adhesion of lymphatic system cells | 0.00000942 | 5.025949097 | turquoise | 37 | ANXA1,ANXA2,CBLB,CCL3,CD48,CD58,CD80,CD99,CXCR3,CXCR4,DIAPH1,FAS,FLOT1,FYB1,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGB1,LCP2,MYO1G,NR3C1,NSD2,PPIB,RAP1B,RAP2A,RASGRP1,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TGFBI,TLR4,TNF |
| Cell Death and Survival,Organismal Injury and Abnormalities | Cell death of epithelial cells | 0.00000973 | 5.01188716 | turquoise | 119 | AAK1,AHR,ALDH1A1,AMOTL1,APOBEC3B,AURKA,BAK1,BID,BIK,BIRC3,BIRC5,BMP6,BNIP3L,BRAF,CALCR,CD4,CEBPA,CEBPB,CEBPD,CFLAR,CHEK1,CITED2,CR1,CSF1R,CXCL8,DDX17,DYNLL1,EEF2K,ERN1,ESR1,ESR2,FAIM,FAS,FGL2,FOXO1,GADD45A,GAPDH,GNLY,HAX1,HIPK2,HMOX1,HRH2,HSPA5,ID2,IER3,IL1B,IL1RN,IL6R,IQGAP2,IRF4,ITGAV,ITGB1,KLF10,LDHA,LDLR,LYN,MAP3K5,MAPK1,MAPKAPK3,MCL1,MDM2,MIAT,MIF,MLKL,MYB,MZB1,NAMPT,NDUFAB1,NEK6,NLRP3,NR3C1,PAWR,PDE4A,PKD1,PLAUR,PLCB1,PRDX3,PRF1,PRKCB,PRKCD,PRKCI,PTAFR,PTGS2,PTK2,PYCARD,RASGRP1,RASSF1,RASSF4,RBL2,REL,RGMB,RRAS2,RUNX3,SEL1L,SGPP2,SH3BP5,SH3RF1,SLC25A4,SLC8A1,SMAD3,SOD1,SRXN1,STK26,TFRC,TGFBR2,TIAM1,TIMP1,TIMP3,TLR2,TLR4,TMBIM6,TNF,TNFRSF1B,TNFRSF25,TP63,VDAC1,VOPP1,XBP1,ZMYND11 |
| Hematological Disease,Immunological Disease,Inflammatory Disease | Eosinophilic inflammation | 0.00000977 | 5.010105436 | turquoise | 35 | ALDOA,ANXA1,APOBEC3A,ARG1,CAPN3,CD300LF,CD4,CD69,CD86,CLEC7A,CXCL2,ENO1,EPPK1,FCER2,GAPDH,GATA3,HSPA5,IGHD,IGKC,IGLJ3,IL4R,IL5RA,JCHAIN,MAP3K14,MGAT5,NR3C1,P4HB,PRDX1,SOCS2,ST3GAL3,TKT,TLR4,TPI1,TUBB,VAV3 |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of breast cancer cell lines | 0.0000101 | 4.995678626 | turquoise | 115 | ACTN4,AHR,AIM2,ANXA1,ANXA2,ARF1,AURKA,BIRC5,CAV1,CCND2,CD59,CEBPA,CEBPB,CEBPD,CFLAR,CHN2,CISD2,CNKSR1,CXCR3,CXCR4,DDX17,DLGAP5,DTL,DUSP6,EEF1B2,EIF3A,EIF3E,ENAH,ESR1,ESR2,ETS2,EZH2,FABP5,FAS,FBXW7,FLOT1,FOXO1,FOXP1,GATA3,GMNN,GNAS,GPX1,H2AFZ,HAVCR2,HBEGF,HBP1,HMGA1,HSPA5,ICMT,ID2,IER3,IGFBP7,IGKC,IL1B,IRS2,ITGB1,KPNA2,LDHA,LGALS1,LGALS3,MAGED1,MAPK1,MBD2,MCL1,MDM2,MGAT5,MTDH,MYB,MYCBP,NACC2,NCOA3,NFATC4,PA2G4,PAX5,PHGDH,PIK3CA,PIP4K2B,PKM,PLAUR,PPARGC1B,PRKCB,PRKCD,PRKCE,PTK2,PTPRE,PVT1,PYHIN1,RACGAP1,RANBP2,RARRES3,RASSF1,RBX1,RORA,RUNX3,RXRA,S100A4,SAT1,SEL1L,SLC16A1,SMARCB1,SMOX,SOD1,STAT5B,TES,TGFBR2,THEM4,TIMP2,TNF,TP63,TXN,TYMS,UTRN,VDR,VEGFA,XBP1 |
| Cell Morphology,Cellular Development,Cellular Growth and Proliferation,Organismal Development,Tissue Development | Morphogenesis of epithelial cells | 0.0000102 | 4.991399828 | turquoise | 18 | AHR,BCL11B,EPB41L5,FLNB,GAB1,HRH2,JMJD1C,PALLD,PKD1,POF1B,PTTG1,RILPL2,RRAS2,SIPA1L3,TIMP1,TIMP2,TNF,VSIG1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent HER2-negative breast cancer | 0.0000102 | 4.991399828 | turquoise | 18 | CDK4,ESR1,ESR2,FKBP1A,HSP90AB1,HSP90B1,PIK3CA,PTGS2,RRM2,TOP2A,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Hematological System Development and Function,Tissue Morphology | Abnormal number of leukocytes | 0.0000102 | 4.991399828 | turquoise | 21 | CD4,CD74,CD80,CD86,CD8A,DENND1B,ESR1,ESR2,HAX1,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL5RA,IRF8,POLM,PRDX1,REL,SH3BP2,TOX,VDR |
| Developmental Disorder,Hereditary Disorder,Ophthalmic Disease,Organismal Injury and Abnormalities | Autosomal recessive congenital cataract | 0.00113 | 2.946921557 | grey | 2 | FAM126A,JAM3 |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Egression of naive T lymphocytes | 0.0025 | 2.602059991 | grey | 1 | JAM3 |
| Cell Cycle,Renal and Urological System Development and Function | Arrest in Gap 0-Gap 1 phase of kidney cell lines | 0.0025 | 2.602059991 | grey | 1 | TXNIP |
| Connective Tissue Disorders,Developmental Disorder,Gastrointestinal Disease,Hereditary Disorder,Neurological Disease,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Microcephaly, mental retardation, and distinctive facies with cardiac and genitourinary malformations | 0.0025 | 2.602059991 | grey | 1 | THOC6 |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of lysobisphosphatidic acid | 0.0025 | 2.602059991 | grey | 1 | ABHD6 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Hematopoiesis | Binding of LSK cells | 0.0025 | 2.602059991 | grey | 1 | JAM3 |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Osteoclastogenesis of bone marrow stromal cells | 0.0025 | 2.602059991 | grey | 1 | HIVEP3 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Hereditary Disorder,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Dilated cardiomyopathy type 1T | 0.0025 | 2.602059991 | grey | 1 | TMPO |
| Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Formation of inner nuclear membrane | 0.0025 | 2.602059991 | grey | 1 | TMPO |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Alazami syndrome | 0.0025 | 2.602059991 | grey | 1 | LARP7 |
| Lipid Metabolism,Small Molecule Biochemistry | Degradation of lysobisphosphatidic acid | 0.0025 | 2.602059991 | grey | 1 | ABHD6 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities | Neuronal ceroid lipofuscinosis 8 northern epilepsy variant | 0.0025 | 2.602059991 | grey | 1 | CLN8 |
| Cell Cycle,Embryonic Development | Arrest in Gap 0-Gap 1 phase of embryonic cell lines | 0.0025 | 2.602059991 | grey | 1 | TXNIP |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Psychological Disorders | Hypomyelinating leukodystrophy type 5 | 0.0025 | 2.602059991 | grey | 1 | FAM126A |
| Infectious Diseases | Replication of Moloney murine leukemia virus | 0.0025 | 2.602059991 | grey | 1 | TMPO |
| Cancer,Gastrointestinal Disease,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid hyperplasia of small intestine | 0.0025 | 2.602059991 | grey | 1 | TXNIP |
| Skeletal and Muscular System Development and Function,Tissue Morphology | Catabolism of bone | 0.0025 | 2.602059991 | grey | 1 | HIVEP3 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Psychological Disorders | Hemorrhagic destruction of the brain, subependymal calcification, and cataracts | 0.0025 | 2.602059991 | grey | 1 | JAM3 |
| Molecular Transport | Nuclear export | 0.00464 | 2.333482019 | grey | 3 | AKAP13,THOC6,U2AF1L4 |
| Inflammatory Response | Cytotoxic reaction of lung cells | 0.00499 | 2.301899454 | grey | 1 | TTC3 |
| Cell Morphology,Cellular Function and Maintenance,Nervous System Development and Function,Tissue Morphology | Length of nodes of Ranvier | 0.00499 | 2.301899454 | grey | 1 | JAM3 |
| Cell Morphology | Polarity of lung cancer cell lines | 0.00499 | 2.301899454 | grey | 1 | JAM3 |
| Cell Cycle,Hair and Skin Development and Function | Arrest in Gap 0-Gap 1 phase of epithelial cell lines | 0.00499 | 2.301899454 | grey | 1 | TXNIP |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of 1-oleoylglycerol | 0.00499 | 2.301899454 | grey | 1 | ABHD6 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Thickening of myocardium | 0.00499 | 2.301899454 | grey | 1 | AKAP13 |
| Cell Morphology,Cellular Assembly and Organization | Polarization of cell surface | 0.00499 | 2.301899454 | grey | 1 | RAB3IP |
| Connective Tissue Development and Function,Tissue Development | Maturation of growth plate | 0.00499 | 2.301899454 | grey | 1 | HIVEP3 |
| Cardiovascular Disease,Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Loeys-Dietz syndrome type 2B | 0.00499 | 2.301899454 | grey | 1 | TMPO |
| Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Inflammation of cerebellum | 0.00499 | 2.301899454 | grey | 1 | ABHD6 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Compromise | Disassembly of junctional complexes | 0.00499 | 2.301899454 | grey | 1 | JAM3 |
| Cellular Assembly and Organization | Remodeling of actin stress fibers | 0.00499 | 2.301899454 | grey | 1 | RAB3IP |
| Cell Morphology,Cellular Assembly and Organization,Tissue Morphology | Volume of nucleus | 0.00499 | 2.301899454 | grey | 1 | TMPO |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Conductance velocity of sciatic nerve | 0.00748 | 2.126098402 | grey | 1 | JAM3 |
| Cell Morphology | Polarity of carcinoma cell lines | 0.00748 | 2.126098402 | grey | 1 | JAM3 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of lysobisphosphatidic acid | 0.00748 | 2.126098402 | grey | 1 | ABHD6 |
| Cellular Development,Nervous System Development and Function,Tissue Development | Differentiation of somatic motor neurons | 0.00748 | 2.126098402 | grey | 1 | CLN8 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of acute myeloid leukemia blast cells | 0.00748 | 2.126098402 | grey | 1 | RPS3A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Intestinal gastric adenocarcinoma | 0.00865 | 2.062983893 | grey | 4 | HIVEP3,LARP7,TTC3,ZBTB4 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal recessive mental retardation | 0.00919 | 2.036684489 | grey | 3 | FAM126A,LARP7,THOC6 |
| Cancer,Cell Morphology,Organismal Injury and Abnormalities | Cell rounding of astrocytoma cells | 0.00996 | 2.001740662 | grey | 1 | AKAP13 |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of 2-palmitoylglycerol | 0.00996 | 2.001740662 | grey | 1 | ABHD6 |
| Cell Cycle,Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Humoral Immune Response | Contact growth inhibition of pre-B lymphocytes | 0.00996 | 2.001740662 | grey | 1 | IKZF3 |
| Cell Morphology,Cellular Development,Tissue Development | Tubulation of lung cell lines | 0.00996 | 2.001740662 | grey | 1 | PATJ |
| Molecular Transport | Abnormal quantity of blood urea nitrogen | 0.0124 | 1.906578315 | grey | 1 | IKZF3 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of naive B cells | 0.0124 | 1.906578315 | grey | 1 | IKZF3 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral cavity carcinoma | 0.0146 | 1.835647144 | grey | 9 | DOCK9,FAM13B,MTMR7,PAPOLA,RREB1,SNTB1,THUMPD2,TMPO,TTC3 |
| Cell Morphology | Apico-basal polarity of tumor cell lines | 0.0149 | 1.826813732 | grey | 1 | JAM3 |
| Immunological Disease | Hypersensitivity reaction type III | 0.0149 | 1.826813732 | grey | 1 | IKZF3 |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of 2-arachidonoylglycerol | 0.0149 | 1.826813732 | grey | 1 | ABHD6 |
| Cellular Function and Maintenance | Barrier function of tight junctions | 0.0149 | 1.826813732 | grey | 1 | JAM3 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Dephosphorylation of phosphatidylinositol-3-phosphate | 0.0149 | 1.826813732 | grey | 1 | MTMR7 |
| Cell-To-Cell Signaling and Interaction,Cellular Compromise | Disassembly of adherens junctions | 0.0149 | 1.826813732 | grey | 1 | JAM3 |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic progenitor cells | 0.0152 | 1.818156412 | grey | 5 | AKAP13,HIVEP3,IKZF3,JAM3,TMPO |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function | Resorption of osteoclastic bone | 0.0174 | 1.759450752 | grey | 1 | HIVEP3 |
| Cellular Development,Cellular Growth and Proliferation,Organ Development,Reproductive System Development and Function | Proliferation of primordial germ cells | 0.0174 | 1.759450752 | grey | 1 | LARP7 |
| Cellular Function and Maintenance | Homeostasis of neutrophils | 0.0174 | 1.759450752 | grey | 1 | JAM3 |
| Cell-To-Cell Signaling and Interaction | Adhesion of fibrosarcoma cell lines | 0.0174 | 1.759450752 | grey | 1 | JAM3 |
| Cellular Movement | Migration of cholangiocarcinoma cell lines | 0.0174 | 1.759450752 | grey | 1 | TMPO |
| Molecular Transport | Export of molecule | 0.018 | 1.744727495 | grey | 4 | AKAP13,SNTB1,THOC6,U2AF1L4 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Biliary tract carcinoma | 0.0193 | 1.714442691 | grey | 6 | AKAP13,LARP7,PAPOLA,RREB1,SNTB1,ZBTB4 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Binding of synovial fibroblasts | 0.0198 | 1.70333481 | grey | 1 | JAM3 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of phosphatidylinositol-3-phosphate | 0.0198 | 1.70333481 | grey | 1 | MTMR7 |
| Cardiovascular System Development and Function,Cell Death and Survival | Cell viability of heart cell lines | 0.0198 | 1.70333481 | grey | 1 | TXNIP |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of small first branchial arch | 0.0198 | 1.70333481 | grey | 1 | AKAP13 |
| Gene Expression,Molecular Transport,RNA Trafficking | Localization of mRNA | 0.0198 | 1.70333481 | grey | 1 | STAU1 |
| Immunological Disease,Inflammatory Response,Organismal Injury and Abnormalities | Inflammation of spleen | 0.0223 | 1.651695137 | grey | 1 | ABHD6 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Dephosphorylation of inositol phosphate | 0.0223 | 1.651695137 | grey | 1 | MTMR7 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Nervous System Development and Function,Tissue Development | Organization of neurofilaments | 0.0223 | 1.651695137 | grey | 1 | CLN8 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Lip and oral cavity carcinoma | 0.0223 | 1.651695137 | grey | 1 | SNTB1 |
| Infectious Diseases | Release of Hepatitis C virus | 0.0223 | 1.651695137 | grey | 1 | TXNIP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Female genital tract adenocarcinoma | 0.0233 | 1.632644079 | grey | 19 | ABHD6,ANKRD36C,DOCK9,FAM13B,HIVEP3,HMGN5,IKZF3,JAM3,KBTBD8,LARP7,MTMR7,PAPOLA,THOC6,TMPO,TRMT11,TTC3,TXNIP,ZBTB4,ZNF277 |
| Molecular Transport,RNA Trafficking | Nuclear export of mRNA | 0.024 | 1.619788758 | grey | 2 | THOC6,U2AF1L4 |
| Cellular Growth and Proliferation | Proliferation of uterine cell lines | 0.0247 | 1.607303047 | grey | 1 | TMPO |
| Infectious Diseases | Production of Influenza A virus | 0.0247 | 1.607303047 | grey | 1 | STAU1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Organization of mitochondrial membrane | 0.0247 | 1.607303047 | grey | 1 | CLN8 |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of ketone body | 0.0271 | 1.567030709 | grey | 1 | TXNIP |
| Cellular Compromise,Organismal Injury and Abnormalities,Renal and Urological Disease | Injury of podocytes | 0.0271 | 1.567030709 | grey | 1 | TXNIP |
| Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of transitional type 1 B lymphocytes | 0.0271 | 1.567030709 | grey | 1 | AKAP13 |
| Cellular Development,Cellular Growth and Proliferation,Nervous System Development and Function | Myelination of cells | 0.0293 | 1.53313238 | grey | 2 | FAM126A,JAM3 |
| Cellular Function and Maintenance,Organ Development | Function of splenocytes | 0.0296 | 1.528708289 | grey | 1 | AKAP13 |
| Cardiovascular System Development and Function,Cellular Assembly and Organization,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Organ Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Formation of sarcomere | 0.0296 | 1.528708289 | grey | 1 | AKAP13 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Emigration of neutrophils | 0.0296 | 1.528708289 | grey | 1 | JAM3 |
| Gene Expression | Initiation of reverse transcription of genomes | 0.0296 | 1.528708289 | grey | 1 | AKAP13 |
| Endocrine System Development and Function,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of 2-arachidonoylglycerol | 0.0296 | 1.528708289 | grey | 1 | ABHD6 |
| Cardiovascular System Development and Function,Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development,Visual System Development and Function | Angiogenesis of retina | 0.032 | 1.494850022 | grey | 1 | JAM3 |
| Cellular Assembly and Organization | Decondensation of chromatin | 0.032 | 1.494850022 | grey | 1 | AKAP13 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral squamous cell carcinoma | 0.0337 | 1.472370099 | grey | 8 | DOCK9,FAM13B,MTMR7,PAPOLA,RREB1,THUMPD2,TMPO,TTC3 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | K/BxN serum transfer arthritis | 0.0344 | 1.463441557 | grey | 1 | JAM3 |
| Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Formation of nuclear envelope | 0.0344 | 1.463441557 | grey | 1 | TMPO |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Efflux of cholesterol | 0.0356 | 1.448550002 | grey | 2 | AKAP13,SNTB1 |
| Organismal Injury and Abnormalities | Formation of scar tissue | 0.0368 | 1.434152181 | grey | 1 | TXNIP |
| Cellular Development | Differentiation of stromal cell lines | 0.0368 | 1.434152181 | grey | 1 | HIVEP3 |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of thalamus | 0.0368 | 1.434152181 | grey | 1 | TAL2 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Blastic plasmacytoid dendritic cell neoplasm | 0.0368 | 1.434152181 | grey | 1 | IKZF3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial adenocarcinoma | 0.0371 | 1.43062609 | grey | 14 | ABHD6,DOCK9,FAM13B,HIVEP3,HMGN5,JAM3,KBTBD8,LARP7,MTMR7,THOC6,TMPO,TRMT11,TTC3,ZNF277 |
| Connective Tissue Development and Function,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Abnormal morphology of trabecula | 0.0393 | 1.40560745 | grey | 1 | HIVEP3 |
| Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders,Skeletal and Muscular Disorders | Parkinson's disease | 0.0428 | 1.368556231 | grey | 3 | HIVEP3,RPS3A,RREB1 |
| Cardiovascular System Development and Function,Organismal Development,Tissue Morphology | Outgrowth of blood vessel | 0.0441 | 1.355561411 | grey | 1 | JAM3 |
| Lipid Metabolism,Small Molecule Biochemistry | Metabolism of ceramide | 0.0441 | 1.355561411 | grey | 1 | CLN8 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG1 | 0.0448 | 1.348721986 | grey | 2 | AKAP13,IKZF3 |
| Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of pre-B lymphocytes | 0.046 | 1.337242168 | grey | 2 | AKAP13,IKZF3 |
| Cellular Assembly and Organization | Formation of stress granule | 0.0464 | 1.333482019 | grey | 1 | STAU1 |
| Infectious Diseases | Infection of epithelial cell lines | 0.047 | 1.327902142 | grey | 3 | AKAP13,RREB1,TTC3 |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of phospholipid | 0.0478 | 1.320572103 | grey | 2 | ABHD6,MTMR7 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Bile duct carcinoma | 0.0483 | 1.316052869 | grey | 5 | LARP7,PAPOLA,RREB1,SNTB1,ZBTB4 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Morphology of lymph follicle | 0.0484 | 1.315154638 | grey | 2 | AKAP13,IKZF3 |
| Cell Death and Survival,Skeletal and Muscular System Development and Function | Cell viability of muscle cell lines | 0.0488 | 1.311580178 | grey | 1 | TXNIP |
| Cellular Movement | Invasion of stomach cancer cell lines | 0.0488 | 1.311580178 | grey | 1 | TMPO |
| Infectious Diseases | Viral entry of lung cancer cell lines | 0.0488 | 1.311580178 | grey | 1 | AKAP13 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Response of fibroblasts | 0.0488 | 1.311580178 | grey | 1 | TTC3 |
| Cell Morphology,Organ Morphology,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Abnormal morphology of sarcomere | 0.0488 | 1.311580178 | grey | 1 | AKAP13 |
| Infectious Diseases | Viral entry of carcinoma cell lines | 0.0488 | 1.311580178 | grey | 1 | AKAP13 |
| Cancer,Organismal Injury and Abnormalities | Secondary tumor | 0.0000186 | 4.730487056 | brown | 19 | ACKR3,ALOX5,ASAP1,CD44,CD9,CTSH,IKZF2,JUP,MME,MSI2,MYO1C,NT5E,PTEN,PTPRJ,RAB31,RHOB,RNF144B,TNFRSF10B,TNFRSF21 |
| Cancer,Organismal Injury and Abnormalities | Growth of malignant tumor | 0.0000393 | 4.40560745 | brown | 12 | APCDD1,CD44,HRK,MME,MSI2,NT5E,PEG10,PTEN,RHOB,SOX4,TLE1,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Growth of tumor | 0.0000397 | 4.401209493 | brown | 18 | ACKR3,ALOX5,APCDD1,CD44,HRK,IGHG1,IKZF2,MME,MSI2,NT5E,PEG10,PTEN,RHOB,SOX4,TLE1,TNFRSF10B,TRIB2,XBP1 |
| Cardiovascular System Development and Function | Morphology of vascular sprout | 0.000079 | 4.102372909 | brown | 2 | PTEN,RHOB |
| Cellular Compromise,Inflammatory Response | Degranulation of phagocytes | 0.0000902 | 4.044793462 | brown | 12 | ALOX5,CD44,CD9,CLEC4C,CTSH,JUP,MME,P2RX1,PTEN,PTPRJ,RAB31,TICAM2 |
| Cancer,Organismal Injury and Abnormalities | Metastatic solid tumor | 0.0001 | 4 | brown | 14 | ACKR3,ALOX5,CD44,CD9,IKZF2,MME,MYO1C,NT5E,PTEN,PTPRJ,RAB31,RNF144B,TNFRSF10B,TNFRSF21 |
| Cancer,Cellular Movement,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Invasion of mammary tumor cells | 0.0001 | 4 | brown | 4 | ASAP1,CD44,JUP,PTEN |
| Hematological System Development and Function,Tissue Development | Accumulation of myeloid cells | 0.000136 | 3.866461092 | brown | 7 | ACKR3,ALOX5,CD44,IGHG1,NT5E,PTEN,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Visceral metastasis | 0.000172 | 3.764471553 | brown | 10 | ACKR3,ALOX5,CD44,CD9,MME,NT5E,PTEN,PTPRJ,RAB31,TNFRSF21 |
| Cellular Compromise,Inflammatory Response | Degranulation of neutrophils | 0.000224 | 3.649751982 | brown | 10 | ALOX5,CD44,CLEC4C,CTSH,JUP,MME,P2RX1,PTPRJ,RAB31,TICAM2 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Papillary carcinoma of bladder | 0.000261 | 3.583359493 | brown | 2 | CD44,PTEN |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of leukocytes | 0.00034 | 3.468521083 | brown | 8 | ACKR3,ALOX5,CD44,IGHG1,NT5E,PTEN,TNFRSF21,XBP1 |
| Tissue Development | Accumulation of cells | 0.000366 | 3.436518915 | brown | 9 | ACKR3,ALOX5,CD44,IGHG1,NT5E,PTEN,RHOB,TNFRSF21,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Tumorigenesis of prostatic adenocarcinoma | 0.000391 | 3.407823243 | brown | 2 | PTEN,SOX4 |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of atrioventricular canal cushion | 0.00049 | 3.30980392 | brown | 3 | ACKR3,JUP,PTPRJ |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of cancer cells | 0.000518 | 3.28567024 | brown | 9 | APCDD1,CD44,MSI2,PEG10,PTEN,RHOB,SOX4,TLE1,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of cells | 0.000519 | 3.284832642 | brown | 8 | CD44,IGHG1,PLD4,PTEN,PTPRJ,RAB31,WASF1,XBP1 |
| Cardiovascular System Development and Function | Morphology of cardiovascular system | 0.000528 | 3.277366077 | brown | 16 | ABCA5,ACKR3,ATP2A3,CD2AP,CD44,CDC42EP3,GDF11,JUP,LIMS2,MYBPC2,NT5E,PTEN,PTPRJ,RHOB,SOX4,XBP1 |
| Cell Cycle | Arrest in cell cycle progression of breast cancer cell lines | 0.00054 | 3.26760624 | brown | 3 | MGAT4A,PTEN,XBP1 |
| Cancer,Cellular Movement,Organismal Injury and Abnormalities,Tumor Morphology | Invasion of tumor cells | 0.00055 | 3.259637311 | brown | 6 | ACKR3,ASAP1,CD44,JUP,PTEN,RHOB |
| Cancer,Organismal Injury and Abnormalities | Advanced extracranial solid tumor | 0.000559 | 3.252588192 | brown | 12 | ACKR3,ALOX5,CD44,CD9,MME,NT5E,PTEN,PTPRJ,RAB31,RNF144B,TNFRSF10B,TNFRSF21 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Morphology of heart | 0.000676 | 3.170053304 | brown | 14 | ABCA5,ACKR3,ATP2A3,CD2AP,CDC42EP3,GDF11,JUP,LIMS2,MYBPC2,NT5E,PTEN,PTPRJ,SOX4,XBP1 |
| Cellular Assembly and Organization | Quantity of macropinosomes | 0.000725 | 3.139661993 | brown | 2 | PTEN,RAB34 |
| Carbohydrate Metabolism,Drug Metabolism,Small Molecule Biochemistry | Adhesion of hyaluronic acid | 0.000725 | 3.139661993 | brown | 2 | CD44,MME |
| Cancer,Organismal Injury and Abnormalities | Metastasis of cells | 0.000728 | 3.137868621 | brown | 8 | ALOX5,ASAP1,CD44,JUP,NT5E,PTEN,RHOB,TNFRSF21 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarthritis | 0.000911 | 3.040481623 | brown | 6 | CD44,IGHG1,MME,MYBPC2,PTEN,TLE3 |
| Cellular Function and Maintenance | Engulfment of cells | 0.000915 | 3.038578906 | brown | 10 | CD44,FCHO2,IGHG1,PLD4,PTEN,PTPRJ,RAB31,RHOB,WASF1,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Metastasis of tumor cell lines | 0.000926 | 3.033389013 | brown | 7 | ALOX5,ASAP1,CD44,JUP,NT5E,PTEN,TNFRSF21 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Homing of leukocytes | 0.000937 | 3.028260409 | brown | 9 | ACKR3,ALOX5,CD44,CD9,IGHG1,PON2,PTEN,PTPRJ,RHOB |
| Cancer,Organismal Injury and Abnormalities | Growth of melanoma | 0.000939 | 3.027334408 | brown | 4 | CD44,HRK,NT5E,PTEN |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of tumor cells | 0.000988 | 3.005243055 | brown | 10 | ALOX5,APCDD1,CD44,MSI2,PEG10,PTEN,RHOB,SOX4,TLE1,XBP1 |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of macrophages | 0.00103 | 2.987162775 | brown | 4 | ACKR3,CD44,IGHG1,NT5E |
| Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Encephalitis | 0.0011 | 2.958607315 | brown | 8 | ALOX5,CD44,IGHG1,MME,NT5E,TNFRSF10B,TNFRSF21,XBP1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart | 0.00111 | 2.954677021 | brown | 13 | ABCA5,ACKR3,ATP2A3,CD2AP,CDC42EP3,JUP,LIMS2,MYBPC2,NT5E,PTEN,PTPRJ,SOX4,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential | 0.00112 | 2.950781977 | brown | 4 | CD44,CTSH,MSI2,PTEN |
| Cellular Movement,Hematopoiesis,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Homing of bone marrow cells | 0.00116 | 2.935542011 | brown | 2 | CD44,CD9 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Adhesion of stromal cells | 0.00116 | 2.935542011 | brown | 2 | CD44,MME |
| Cell-To-Cell Signaling and Interaction | Adhesion of ovarian cancer cell lines | 0.00116 | 2.935542011 | brown | 2 | CD44,CD9 |
| Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of thoracic cavity | 0.00129 | 2.88941029 | brown | 15 | ABCA5,ACKR3,ATP2A3,CD2AP,CD9,CDC42EP3,JUP,LIG4,LIMS2,MYBPC2,NT5E,PTEN,PTPRJ,SOX4,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of tumor cell lines | 0.00142 | 2.847711656 | brown | 3 | CD44,CTSH,MSI2 |
| Cell Morphology | Ruffling of plasma membrane | 0.00142 | 2.847711656 | brown | 3 | MYO1C,RAB34,WASF1 |
| Cell Morphology,Humoral Immune Response,Lymphoid Tissue Structure and Development | Morphology of B lymphocytes | 0.00148 | 2.829738285 | brown | 4 | IGHG1,PTPRJ,SOX4,XBP1 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Actinic keratosis | 0.00152 | 2.818156412 | brown | 3 | ALOX5,MYBPC2,PTEN |
| Cardiovascular Disease,Cardiovascular System Development and Function | Abnormal morphology of cardiovascular system | 0.00163 | 2.787812396 | brown | 14 | ABCA5,ACKR3,ATP2A3,CD2AP,CD44,CDC42EP3,JUP,LIMS2,MYBPC2,NT5E,PTEN,PTPRJ,SOX4,XBP1 |
| Cell-To-Cell Signaling and Interaction | Adhesion of pancreatic cancer cell lines | 0.00169 | 2.772113295 | brown | 2 | ASAP1,CD44 |
| Endocrine System Development and Function,Endocrine System Disorders,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of thyroid follicle | 0.00169 | 2.772113295 | brown | 2 | ABCA5,PTEN |
| Cellular Development,Endocrine System Development and Function | Differentiation of endocrine cells | 0.00173 | 2.761953897 | brown | 3 | GDF11,PTEN,TLE3 |
| Cardiovascular System Development and Function,Cellular Movement | Migration of endothelial cell lines | 0.002 | 2.698970004 | brown | 4 | CD44,CD9,IGHG1,PTPRJ |
| Cardiovascular System Development and Function,Cell Morphology,Cellular Development,Organismal Development,Tissue Development | Tubulation of endothelial cell lines | 0.00207 | 2.684029655 | brown | 3 | CD44,IGHG1,PRKACB |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of tumor cells | 0.0021 | 2.677780705 | brown | 7 | CD44,PON2,PTEN,RHOB,SOX4,TNFRSF10B,TNFRSF21 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymph follicle | 0.00225 | 2.647817482 | brown | 5 | ACKR3,IKZF2,PTEN,PTPRJ,SOX4 |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of phagocytes | 0.0023 | 2.638272164 | brown | 5 | ACKR3,CD44,IGHG1,NT5E,XBP1 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Hematological Disease,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of multiple myeloma cells | 0.00231 | 2.63638802 | brown | 2 | PTEN,XBP1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Release of extracellular vesicles | 0.00231 | 2.63638802 | brown | 2 | CD9,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of cells | 0.00232 | 2.634512015 | brown | 3 | NT5E,PTEN,TNFRSF21 |
| Cellular Movement | Homing of cells | 0.00241 | 2.617982957 | brown | 11 | ACKR3,ALOX5,CD44,CD9,IGHG1,NT5E,PON2,PTEN,PTPRJ,RGS10,RHOB |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Pulmonary metastasis | 0.00247 | 2.607303047 | brown | 5 | ALOX5,NT5E,PTEN,PTPRJ,TNFRSF21 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell leukemia | 0.00258 | 2.588380294 | brown | 7 | CD44,CDC42EP3,IKZF2,MME,MYBPC2,PTEN,VANGL2 |
| Cell Morphology,Tissue Development | Tubulation of cells | 0.00259 | 2.586700236 | brown | 5 | CD44,CD9,IGHG1,PRKACB,RHOB |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Enlargement of heart | 0.0026 | 2.585026652 | brown | 10 | ABCA5,ACKR3,ATP2A3,CD2AP,CDC42EP3,JUP,LIMS2,MYBPC2,NT5E,PTEN |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progression of prostatic tumor | 0.00265 | 2.576754126 | brown | 2 | PTEN,SOX4 |
| Cellular Movement | Cell movement of prostate cancer cells | 0.00265 | 2.576754126 | brown | 2 | PTEN,RHOB |
| Cellular Movement | Dissemination of tumor cells | 0.00265 | 2.576754126 | brown | 2 | PTEN,RHOB |
| Cellular Movement,Immune Cell Trafficking,Lymphoid Tissue Structure and Development | Homing of lymphatic system cells | 0.00272 | 2.565431096 | brown | 5 | ACKR3,CD44,CD9,IGHG1,PTEN |
| Cellular Function and Maintenance | Endocytosis | 0.00274 | 2.562249437 | brown | 10 | CD2AP,CD44,FCHO2,PTEN,PTPRJ,RAB31,RAB34,RHOB,WASF1,XBP1 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Intestinal polyp | 0.00288 | 2.540607512 | brown | 3 | ALOX5,CD44,PTEN |
| Cardiovascular System Development and Function,Tissue Development | Morphogenesis of endothelial tissue | 0.00288 | 2.540607512 | brown | 3 | PTEN,PTPRJ,RHOB |
| Cell-To-Cell Signaling and Interaction | Binding of lung cell lines | 0.00302 | 2.519993057 | brown | 2 | PTPRJ,RHOB |
| Cell Morphology,Cellular Assembly and Organization | Polarization of microtubule organizing centers | 0.00302 | 2.519993057 | brown | 2 | CD2AP,PTEN |
| Organ Development,Reproductive System Development and Function | Growth of prostate gland | 0.00302 | 2.519993057 | brown | 2 | PLAG1,PTEN |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of neural tube | 0.00304 | 2.517126416 | brown | 3 | PTEN,SOX4,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Metastasis of breast cancer cell lines | 0.00307 | 2.512861625 | brown | 4 | ALOX5,CD44,JUP,PTEN |
| Cell-To-Cell Signaling and Interaction | Adhesion of connective tissue cells | 0.00312 | 2.505845406 | brown | 5 | CD44,JUP,MME,PTPRJ,RHOB |
| Cell Morphology | Ruffling | 0.00327 | 2.485452247 | brown | 4 | MYO1C,PTEN,RAB34,WASF1 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of lung cancer cells | 0.00341 | 2.467245621 | brown | 2 | PTEN,TNFRSF10B |
| Cell Cycle | Arrest in cell cycle progression of prostate cancer cell lines | 0.00341 | 2.467245621 | brown | 2 | ACKR3,PTEN |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of carcinoma cell lines | 0.00341 | 2.467245621 | brown | 2 | CTSH,MSI2 |
| Cardiovascular System Development and Function,Cell Morphology,Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Size of cardiomyocytes | 0.00352 | 2.453457337 | brown | 3 | GDF11,LIMS2,PTEN |
| Cardiovascular System Development and Function,Cell Morphology | Shape change of vascular endothelial cells | 0.00369 | 2.432973634 | brown | 3 | CD44,PTPRJ,WASF1 |
| Organismal Development | Morphology of body cavity | 0.00371 | 2.43062609 | brown | 21 | ABCA5,ACKR3,ALOX5,ATP2A3,CD2AP,CD44,CD9,CDC42EP3,GDF11,IGHG1,JUP,LIG4,LIMS2,MYBPC2,NEIL1,NT5E,PON2,PTEN,PTPRJ,SOX4,XBP1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Metastatic colorectal cancer | 0.00372 | 2.42945706 | brown | 6 | ACKR3,CD44,CD9,MME,PTEN,RAB31 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Size of heart | 0.00379 | 2.42136079 | brown | 4 | GDF11,JUP,LIMS2,PTEN |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Growth of endocrine gland tumor | 0.00383 | 2.416801226 | brown | 2 | MME,PTEN |
| Cell Cycle | Cell cycle progression of stem cells | 0.00383 | 2.416801226 | brown | 2 | GDF11,PTEN |
| Cancer,Organismal Injury and Abnormalities | Precancerous condition | 0.0039 | 2.408935393 | brown | 4 | ALOX5,CD44,MYBPC2,PTEN |
| Gastrointestinal Disease,Inflammatory Disease | Crohn disease | 0.00419 | 2.377785977 | brown | 6 | ALOX5,CD44,MYBPC2,TLE1,TLE3,XBP1 |
| Cellular Development,Connective Tissue Development and Function,Tissue Development | Differentiation of connective tissue cells | 0.00429 | 2.367542708 | brown | 11 | ALOX5,BMP3,CD44,CD9,IGHG1,JUP,PEG10,PTEN,RGS10,TRIB2,XBP1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Dilated cardiomyopathy | 0.00447 | 2.349692477 | brown | 6 | ABCA5,ATP2A3,CDC42EP3,JUP,LIMS2,MYBPC2 |
| Inflammatory Disease,Respiratory Disease | Airway hyperresponsiveness | 0.00462 | 2.335358024 | brown | 4 | ALOX5,CD44,IGHG1,PTEN |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Salivary gland tumor | 0.00463 | 2.334419009 | brown | 3 | PLAG1,PRKACB,PTEN |
| Cellular Function and Maintenance | Endocytosis by eukaryotic cells | 0.00467 | 2.330683119 | brown | 7 | CD44,FCHO2,PTEN,PTPRJ,RAB31,RHOB,XBP1 |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Renal and Urological System Development and Function,Tissue Development | Morphogenesis of kidney | 0.00472 | 2.326058001 | brown | 2 | SOX4,VANGL2 |
| Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Proliferation of fibroblast-like synoviocytes | 0.00472 | 2.326058001 | brown | 2 | CD44,TNFRSF10B |
| Cellular Movement | Chemotaxis | 0.00491 | 2.308918508 | brown | 10 | ACKR3,ALOX5,CD44,CD9,NT5E,PON2,PTEN,PTPRJ,RGS10,RHOB |
| Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Alzheimer disease | 0.00496 | 2.304518324 | brown | 10 | CD2AP,CDC42EP3,IGHG1,MME,MYBPC2,PON2,PRKACB,PTEN,WASF1,XBP1 |
| Organismal Development | Abnormal morphology of body cavity | 0.00499 | 2.301899454 | brown | 19 | ABCA5,ACKR3,ALOX5,ATP2A3,CD2AP,CD44,CD9,CDC42EP3,GDF11,JUP,LIG4,LIMS2,MYBPC2,NEIL1,NT5E,PTEN,PTPRJ,SOX4,XBP1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Expansion of intracellular stores | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Hyperplasia of cerebral cortex | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Organismal Injury and Abnormalities | Metastasis of embryonic stem cell lines | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Compromise,Tumor Morphology | Cell-cell adhesion of melanoma cells | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Regulation of phosphatidylinositol-3,4,5-triphosphate | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Organismal Injury and Abnormalities | Invasive sinonasal mucosal melanoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Exhaustion of melanocyte stem cell | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Lysis of glioma cells | 0.00517 | 2.286509457 | brown | 1 | MME |
| Nervous System Development and Function,Organ Development | Overgrowth of brain | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell Cycle | Arrest in cell cycle progression of neuronal progenitor cells | 0.00517 | 2.286509457 | brown | 1 | GDF11 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage 2-3 primary colorectal adenocarcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Evoked potential of dentate granule cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cellular Compromise,Gastrointestinal Disease,Organismal Injury and Abnormalities | Dysfunction of Paneth cells | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Conversion of AMP | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cellular Assembly and Organization | Formation of aggresome-like structures | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cellular Movement | Lymphatic invasion by lymphoma cell lines | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage 2-3 sporadic colorectal adenocarcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Dermatological Diseases and Conditions,Hereditary Disorder,Organismal Injury and Abnormalities | Hypotrichosis type 1 | 0.00517 | 2.286509457 | brown | 1 | APCDD1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Localization of secretory granules | 0.00517 | 2.286509457 | brown | 1 | P2RX1 |
| Lipid Metabolism,Small Molecule Biochemistry | Inhibition of corticosterone | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Dermatological Diseases and Conditions,Hereditary Disorder,Organismal Injury and Abnormalities | Generalized hypertrichosis terminalis | 0.00517 | 2.286509457 | brown | 1 | ABCA5 |
| Cell Morphology,Humoral Immune Response,Lymphoid Tissue Structure and Development | Morphology of Ab-secreting B cells | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cell Morphology,Embryonic Development,Nervous System Development and Function,Neurological Disease,Ophthalmic Disease,Organ Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Development,Tissue Morphology,Visual System Development and Function | Lack of amacrine cells | 0.00517 | 2.286509457 | brown | 1 | GDF11 |
| Neurological Disease,Organismal Injury and Abnormalities | Brain cyst | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cardiovascular Disease,Connective Tissue Disorders,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Calcification of joints and arteries | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cellular Growth and Proliferation,Reproductive System Development and Function | Colony formation of embryonic germ cell | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Grade 4 non-Hodgkin disease | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Dephosphorylation of adenosine | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cell-To-Cell Signaling and Interaction | Signaling of bone marrow cells | 0.00517 | 2.286509457 | brown | 1 | CD9 |
| Carbohydrate Metabolism | Clearance of hyaluronic acid | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Malignant schwannoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of lymphokine activated killer cells | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell Cycle,Cellular Development | Senescence of thymocytes | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell Morphology,Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Lack of desmosomes | 0.00517 | 2.286509457 | brown | 1 | JUP |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of hepatoma cell lines | 0.00517 | 2.286509457 | brown | 1 | TNFRSF10B |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of prostate cancer cell lines | 0.00517 | 2.286509457 | brown | 1 | TNFRSF10B |
| Cancer,Hereditary Disorder,Organismal Injury and Abnormalities | Cowden-like syndrome | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Organ Morphology,Tissue Morphology,Visual System Development and Function | Quantity of RPE cells | 0.00517 | 2.286509457 | brown | 1 | MME |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II ductal breast carcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cellular Compromise,Cellular Function and Maintenance | Endoplasmic reticulum stress response of dopaminergic neurons | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Dissemination of tumor | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell Death and Survival | Apoptosis of cartilage tissue | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Carbohydrate Metabolism,Nucleic Acid Metabolism,Small Molecule Biochemistry | Hydrolysis of UDP-D-glucose | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cell Morphology,Nervous System Development and Function | Cell flattening of neurons | 0.00517 | 2.286509457 | brown | 1 | CD9 |
| Cardiovascular System Development and Function,Cell Morphology,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Organismal Development,Tissue Development | Branching morphogenesis of vascular endothelial cells | 0.00517 | 2.286509457 | brown | 1 | PTPRJ |
| Developmental Disorder,Hereditary Disorder,Organismal Functions,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Limb-girdle muscular dystrophy type 2W | 0.00517 | 2.286509457 | brown | 1 | LIMS2 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Highly invasive bladder carcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Colony formation of chronic myeloid leukemia in blast crisis cells | 0.00517 | 2.286509457 | brown | 1 | MSI2 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Volume of right ventricle | 0.00517 | 2.286509457 | brown | 1 | JUP |
| Cardiovascular System Development and Function,Organ Development | Function of right ventricle | 0.00517 | 2.286509457 | brown | 1 | JUP |
| Hereditary Disorder,Organismal Injury and Abnormalities,Renal and Urological Disease | Susceptibility to focal segmental glomerulosclerosis type 3 | 0.00517 | 2.286509457 | brown | 1 | CD2AP |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Reproductive System Development and Function | Fusion of oocytes | 0.00517 | 2.286509457 | brown | 1 | CD9 |
| Cell Morphology,Nervous System Development and Function | Cell flattening of neuroglia | 0.00517 | 2.286509457 | brown | 1 | CD9 |
| Cellular Development,Cellular Growth and Proliferation,Organ Development,Reproductive System Development and Function,Tissue Development,Tissue Morphology | Expansion of prostate progenitor cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Auditory Disease,Neurological Disease | Mild hearing loss | 0.00517 | 2.286509457 | brown | 1 | VANGL2 |
| Cell Morphology,Hematological System Development and Function,Inflammatory Response | Cell rounding of bone-marrow-derived monocyte/macrophage precursor cells | 0.00517 | 2.286509457 | brown | 1 | RHOB |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Collagen-induced arthritis of ankle joint | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cardiovascular System Development and Function | Perfusion of sinusoid | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Clustering of bone cancer cell lines | 0.00517 | 2.286509457 | brown | 1 | JUP |
| Cell Morphology | Polarity of neural stem cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Number of mesenteric lymph node cells | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | TNM stage I colorectal carcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cellular Growth and Proliferation | Colony formation of hepatocytes | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cardiovascular System Development and Function,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Lymphangiogenesis of lymphatic endothelial cells | 0.00517 | 2.286509457 | brown | 1 | CD9 |
| Cell Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Hypertrophy of neural stem cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Psychological Disorders | Major affective disorder type 7 | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cancer,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Glioma susceptibility 2 | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Gallbladder adenoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Connective Tissue Disorders,Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders,Skeletal and Muscular Disorders | Macrocephaly/autism syndrome | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities | Lhermitte-Duclos disease | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Mixed cardiomyopathy | 0.00517 | 2.286509457 | brown | 1 | ATP2A3 |
| Cellular Movement | Chemotaxis of bladder cancer cell lines | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Sporadic gastric carcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Hydrolysis of IMP | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cell Cycle | Arrest in G0/G1 phase transition of myeloid cells | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Intestinalomegaly | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Developmental Disorder,Organismal Injury and Abnormalities | Proteus-like syndrome | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Lipid Metabolism,Small Molecule Biochemistry | Oxygenation of leukotriene A4 | 0.00517 | 2.286509457 | brown | 1 | ALOX5 |
| Cancer,Organismal Injury and Abnormalities | Advanced stage sinonasal mucosal melanoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cardiovascular System Development and Function | Autoregulation of afferent arteriole | 0.00517 | 2.286509457 | brown | 1 | P2RX1 |
| Cancer,Developmental Disorder,Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Riley-Smith syndrome | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell Morphology,Hematological Disease,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Lack of memory B cells | 0.00517 | 2.286509457 | brown | 1 | IGHG1 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Delay in initiation of adhesion of fibroblast cell lines | 0.00517 | 2.286509457 | brown | 1 | PTPRJ |
| Cellular Movement | Haptotaxis of melanoma cell lines | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Co-localization of actin stress fibers | 0.00517 | 2.286509457 | brown | 1 | RHOB |
| Cell Morphology,Tissue Morphology | Size of melanocytes | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Hematological Disease,Immunological Disease | Invasive lymphoproliferative disorder | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Nervous System Development and Function,Tissue Development | Accumulation of lutenizing hormone-releasing hormone neurons | 0.00517 | 2.286509457 | brown | 1 | ACKR3 |
| Cancer | Hyperplasia of urothelium | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Organismal Injury and Abnormalities,Reproductive System Disease | Endometriotic tissue in endometrium | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tissue Morphology | Quantity of endometrial adenocarcinoma | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Nervous System Development and Function | Formation of neuronal layer | 0.00517 | 2.286509457 | brown | 1 | SOX4 |
| Cellular Compromise | Acidification of breast cancer cell lines | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Respiratory System Development and Function,Skeletal and Muscular System Development and Function | Induction of airway smooth muscle cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastasis to bone of carcinoma cell lines | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cell-To-Cell Signaling and Interaction | Clustering of sarcoma cell lines | 0.00517 | 2.286509457 | brown | 1 | JUP |
| Lipid Metabolism,Small Molecule Biochemistry | Dephosphorylation of inositol phospholipid | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastasis to bone of hepatoma cell lines | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Onset of nephrosis | 0.00517 | 2.286509457 | brown | 1 | CD2AP |
| Cell Morphology,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell spreading of bone-marrow-derived monocyte/macrophage precursor cells | 0.00517 | 2.286509457 | brown | 1 | RHOB |
| Connective Tissue Disorders,Dermatological Diseases and Conditions,Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Dubowitz syndrome | 0.00517 | 2.286509457 | brown | 1 | LIG4 |
| Cancer,Organismal Injury and Abnormalities | Advanced TNM stage head and neck squamous cell cancer | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Secretion of lipoxin A4 | 0.00517 | 2.286509457 | brown | 1 | ALOX5 |
| Cell Morphology,Hematological System Development and Function,Inflammatory Response,Organismal Development | Size of peritoneal macrophages | 0.00517 | 2.286509457 | brown | 1 | PON2 |
| Cancer,Cell-To-Cell Signaling and Interaction,Organismal Injury and Abnormalities | Adhesion of hairy cell leukemia cells | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Endocrine System Disorders,Gastrointestinal Disease,Metabolic Disease,Organismal Injury and Abnormalities | Overt diabetes mellitus | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Nervous System Development and Function | Stimulation of cardiac vagal neurons | 0.00517 | 2.286509457 | brown | 1 | P2RX1 |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of leukemia cell lines | 0.00517 | 2.286509457 | brown | 1 | TNFRSF10B |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral leukoplakia | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cellular Function and Maintenance,Cellular Growth and Proliferation,Nervous System Development and Function | Production of dentate granule cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Hereditary Disorder,Organismal Injury and Abnormalities | Lig4 syndrome | 0.00517 | 2.286509457 | brown | 1 | LIG4 |
| Carbohydrate Metabolism | Uptake of hyaluronic acid | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| 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 | Myelopoiesis of long-term bone marrow culture cells | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Hematological System Development and Function | Thromboregulation | 0.00517 | 2.286509457 | brown | 1 | NT5E |
| Cellular Function and Maintenance,Hepatic System Development and Function | Mitochondrial respiration of hepatocytes | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Connective Tissue Development and Function,Tissue Morphology | Density of stromal cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell Cycle,Reproductive System Development and Function | Arrest in mitosis of primordial germ cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Number of Peyer's patch T-cell | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of breast cancer cell lines | 0.00517 | 2.286509457 | brown | 1 | TNFRSF10B |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Activation of dentate granule cells | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Degradation of phosphatidylinositol 4,5-diphosphate | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Spinocerebellar ataxia type 43 | 0.00517 | 2.286509457 | brown | 1 | MME |
| Dental Disease,Gastrointestinal Disease,Organismal Injury and Abnormalities | Dysplasia of enamel epithelium | 0.00517 | 2.286509457 | brown | 1 | IGHG1 |
| Cell Morphology,Digestive System Development and Function,Organ Morphology,Organismal Development,Tissue Morphology | Size of gastric chief cells | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cancer,Organismal Injury and Abnormalities | Chromophilic cell carcinoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Pedicellate papillary transitional-cell carcinoma | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell Cycle | Arrest in cell cycle progression of endometrial cancer cell lines | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Lipid Metabolism,Small Molecule Biochemistry | Exposure of aminophospholipid | 0.00517 | 2.286509457 | brown | 1 | CD9 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities | Metastasis of osteosarcoma | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cancer | Engraftment of myeloma cell lines | 0.00517 | 2.286509457 | brown | 1 | CD44 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Arrhythmogenic right ventricular dysplasia familial 12 | 0.00517 | 2.286509457 | brown | 1 | JUP |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Formation of bone marrow-derived monocytes | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cell Morphology,Cellular Assembly and Organization | Surface area of rough endoplasmatic reticulum | 0.00517 | 2.286509457 | brown | 1 | XBP1 |
| Cellular Movement,Nervous System Development and Function | Migration of Golgi interneurons | 0.00517 | 2.286509457 | brown | 1 | PTEN |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis by macrophage cancer cell lines | 0.0052 | 2.283996656 | brown | 2 | CD44,RAB31 |
| Cancer,Organismal Injury and Abnormalities | Neoplasia of embryonic cell lines | 0.0052 | 2.283996656 | brown | 2 | CD44,PTEN |
| Cellular Development,Endocrine System Development and Function | Differentiation of islet cells | 0.0052 | 2.283996656 | brown | 2 | GDF11,PTEN |
| Cardiovascular System Development and Function,Cell-To-Cell Signaling and Interaction | Binding of endothelial cell lines | 0.00547 | 2.262012674 | brown | 3 | CD44,NT5E,PTPRJ |
| Cell Death and Survival | Anoikis of tumor cell lines | 0.00547 | 2.262012674 | brown | 3 | PTEN,RHOB,TNFRSF10B |
| Organ Morphology,Tissue Morphology,Visual System Development and Function | Quantity of retinal cells | 0.00547 | 2.262012674 | brown | 3 | GDF11,MME,PTEN |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Advanced lung cancer | 0.00566 | 2.247183569 | brown | 6 | ALOX5,CD44,NT5E,PTEN,PTPRJ,TNFRSF21 |
| Cardiovascular System Development and Function,Cellular Movement | Migration of vascular endothelial cells | 0.00567 | 2.246416941 | brown | 5 | ACKR3,CD44,CD9,PTEN,PTPRJ |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Germinal center B-cell-like diffuse large B-cell lymphoma | 0.0057 | 2.244125144 | brown | 2 | MME,PTEN |
| Immunological Disease | Immediate hypersensitivity | 0.00599 | 2.222573178 | brown | 7 | ALOX5,CD44,IGHG1,JUP,MME,PTEN,RAB34 |
| Cellular Movement | Invasion of lung cancer cell lines | 0.00615 | 2.211124884 | brown | 4 | ASAP1,CD44,MSI2,PTEN |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Hematological System Development and Function,Inflammatory Response | Phagocytosis by macrophages | 0.00615 | 2.211124884 | brown | 4 | CD44,PTEN,PTPRJ,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Lymphoreticular neoplasm | 0.00616 | 2.210419288 | brown | 30 | AHNAK2,ALOX5,ANKRD50,APCDD1,BTBD3,CD44,CDC42EP3,COBLL1,CTSH,FCHO2,GLIPR2,IKZF2,JUP,LIG4,MGAT4A,MIA2,MME,MSI2,MYO7B,NEIL1,NT5E,PEG10,PRKACB,PTEN,RHOB,SOX4,TLE3,TNFRSF10B,TNFRSF21,XBP1 |
| Tissue Development | Formation of extracellular matrix | 0.00623 | 2.205511953 | brown | 2 | CD44,CD9 |
| Cancer,Organismal Injury and Abnormalities | Head and neck melanoma | 0.00623 | 2.205511953 | brown | 2 | CD44,PTEN |
| Cell-To-Cell Signaling and Interaction,Hair and Skin Development and Function | Adhesion of keratinocytes | 0.00623 | 2.205511953 | brown | 2 | CD44,JUP |
| Cardiovascular System Development and Function,Cell Morphology,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Organismal Development,Tissue Development | Morphogenesis of vascular endothelial cells | 0.00623 | 2.205511953 | brown | 2 | PTEN,PTPRJ |
| Cell Morphology,Hematopoiesis,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of pre-B lymphocytes | 0.00623 | 2.205511953 | brown | 2 | PTPRJ,SOX4 |
| Cellular Assembly and Organization,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Formation of podosomes | 0.00623 | 2.205511953 | brown | 2 | ASAP1,CD44 |
| Cell Signaling,Molecular Transport,Vitamin and Mineral Metabolism | Mobilization of Ca2+ | 0.00637 | 2.195860568 | brown | 7 | ACKR3,ATP2A3,CD44,CLEC4C,IGHG1,PTEN,PTPRJ |
| Cancer,Organismal Injury and Abnormalities | Acinar-cell carcinoma | 0.00646 | 2.189767482 | brown | 4 | BACE2,MSI2,MYBPC2,PRKACB |
| Cell Death and Survival | Apoptosis of squamous cell carcinoma cell lines | 0.00664 | 2.177831921 | brown | 3 | CD44,JUP,TNFRSF10B |
| Cellular Movement | Cell movement of breast cancer cell lines | 0.0067 | 2.173925197 | brown | 7 | CD44,CD9,JUP,NT5E,PTEN,PTPRJ,TNFRSF21 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Hematological System Development and Function,Immune Cell Trafficking,Infectious Diseases,Inflammatory Response | Fusion of macrophages | 0.00677 | 2.169411331 | brown | 2 | CD44,CD9 |
| Cell Morphology,Tissue Morphology | Size of epithelial cells | 0.00677 | 2.169411331 | brown | 2 | PTEN,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Induction of malignant tumor | 0.00677 | 2.169411331 | brown | 2 | NT5E,PTEN |
| Cancer,Organismal Injury and Abnormalities | Metastasis of cancer cells | 0.00677 | 2.169411331 | brown | 2 | CD44,PTEN |
| Cardiovascular System Development and Function,Cellular Function and Maintenance,Tissue Development | Function of vascular endothelial cells | 0.00677 | 2.169411331 | brown | 2 | ATP2A3,CD44 |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of regulatory T lymphocytes | 0.00677 | 2.169411331 | brown | 2 | NT5E,PTEN |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance | Organization of stereocilia in hair cells | 0.00677 | 2.169411331 | brown | 2 | CECR2,VANGL2 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of follicular B lymphocytes | 0.00678 | 2.168770306 | brown | 4 | ACKR3,PTEN,PTPRJ,SOX4 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart ventricle | 0.00706 | 2.151195299 | brown | 5 | ACKR3,JUP,PTPRJ,SOX4,XBP1 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Morphology | Quantity of osteoclasts | 0.00711 | 2.148130399 | brown | 4 | CD44,CD9,IGHG1,RGS10 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of T lymphocytes | 0.00712 | 2.147520006 | brown | 7 | CD44,IGHG1,NT5E,PTEN,PTPRJ,RHOB,TNFRSF21 |
| Gastrointestinal Disease,Inflammatory Disease | Inflammatory Bowel Disease | 0.0073 | 2.13667714 | brown | 7 | ALOX5,CD44,CDC42EP3,MYBPC2,TLE1,TLE3,XBP1 |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphocytes | 0.00731 | 2.136082623 | brown | 5 | IGHG1,LIG4,PTPRJ,SOX4,XBP1 |
| Cellular Development,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Differentiation of osteoclasts | 0.00731 | 2.136082623 | brown | 5 | ALOX5,CD9,IGHG1,PTEN,RGS10 |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities | Perimembranous ventricular septal defect | 0.00733 | 2.134896025 | brown | 2 | ACKR3,SOX4 |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,DNA Replication, Recombination, and Repair,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | VDJ recombination | 0.00733 | 2.134896025 | brown | 2 | LIG4,SOX4 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function | Morphology of cardiac muscle | 0.00738 | 2.131943638 | brown | 6 | GDF11,JUP,LIMS2,PTEN,PTPRJ,SOX4 |
| Cell Death and Survival,Endocrine System Disorders,Gastrointestinal Disease,Organismal Injury and Abnormalities | Apoptosis of beta islet cells | 0.00741 | 2.130181792 | brown | 3 | MME,PTEN,XBP1 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Adhesion of fibroblast cell lines | 0.00741 | 2.130181792 | brown | 3 | CD44,JUP,PTPRJ |
| Immunological Disease,Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Experimental autoimmune encephalomyelitis | 0.00759 | 2.119758224 | brown | 6 | CD44,IGHG1,NT5E,TNFRSF10B,TNFRSF21,XBP1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Growth of ovarian tumor | 0.00792 | 2.101274818 | brown | 2 | NT5E,PTEN |
| Cardiovascular System Development and Function,Cellular Movement | Migration of endothelial cells | 0.00793 | 2.100726813 | brown | 7 | ACKR3,CD44,CD9,JUP,PTEN,PTPRJ,RHOB |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Keratosis | 0.00816 | 2.088309841 | brown | 4 | ALOX5,JUP,MYBPC2,PTEN |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer of cells | 0.00816 | 2.088309841 | brown | 21 | ALOX5,ANKRD50,CD44,CDC42EP3,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PTEN,RHOB,TNFRSF10B,TNFRSF21,VANGL2 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Rheumatoid arthritis | 0.0082 | 2.086186148 | brown | 12 | ALOX5,ASAP1,CD44,GLIPR2,IGHG1,MME,MYBPC2,MYO1C,TLE3,TNFRSF10B,TNFRSF21,XBP1 |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of cellular protrusions | 0.00838 | 2.076755981 | brown | 14 | ASAP1,BTBD3,CD2AP,CD44,CD9,HDGFL3,P2RX1,PRKACB,PTEN,RAB31,RHOB,TNFRSF21,VANGL2,WASF1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphocytic neoplasm | 0.00839 | 2.076238039 | brown | 22 | ALOX5,ANKRD50,CD44,CDC42EP3,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PTEN,RHOB,TNFRSF10B,TNFRSF21,VANGL2,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of leukocytes | 0.0085 | 2.070581074 | brown | 22 | ALOX5,ANKRD50,CD44,CDC42EP3,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PTEN,RHOB,TNFRSF10B,TNFRSF21,VANGL2,XBP1 |
| Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of placental spongiotrophoblast layer | 0.00852 | 2.069560405 | brown | 2 | JUP,PEG10 |
| Cellular Growth and Proliferation | Colony formation of bone marrow cell lines | 0.00852 | 2.069560405 | brown | 2 | JUP,PTPRJ |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Hematological System Development and Function,Inflammatory Response | Phagocytosis by peritoneal macrophages | 0.00852 | 2.069560405 | brown | 2 | PTEN,XBP1 |
| Cell Death and Survival,Embryonic Development | Cell viability of embryonic stem cells | 0.00852 | 2.069560405 | brown | 2 | CD9,PTEN |
| Cancer,Organismal Injury and Abnormalities | Delay in growth of tumor | 0.00852 | 2.069560405 | brown | 2 | IKZF2,NT5E |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Hematological System Development and Function,Inflammatory Response | Phagocytosis of red blood cells | 0.00852 | 2.069560405 | brown | 2 | CD44,PTEN |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Abnormality of atrium | 0.00853 | 2.069050969 | brown | 4 | ABCA5,ACKR3,JUP,MME |
| Immunological Disease | Systemic autoimmune syndrome | 0.00859 | 2.066006836 | brown | 17 | ALOX5,ASAP1,CD44,CDC42EP3,CTSH,GLIPR2,IGHG1,MME,MYBPC2,MYO1C,NT5E,PLD4,RAB31,TLE3,TNFRSF10B,TNFRSF21,XBP1 |
| Hematological Disease,Immunological Disease | Lymphoproliferative disorder | 0.0087 | 2.060480747 | brown | 22 | ALOX5,ANKRD50,CD44,CDC42EP3,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PTEN,RHOB,TNFRSF10B,TNFRSF21,VANGL2,XBP1 |
| Cellular Movement,Immune Cell Trafficking | Cell movement of lymphatic system cells | 0.00882 | 2.054531415 | brown | 8 | ACKR3,ALOX5,CD44,CD9,IGHG1,NT5E,PTEN,TNFRSF21 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of B lymphocytes | 0.00902 | 2.044793462 | brown | 7 | ACKR3,LIG4,PTEN,PTPRJ,SOX4,TRIB2,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of myeloid cells | 0.00907 | 2.042392713 | brown | 6 | ALOX5,CD44,IGHG1,P2RX1,PTEN,RHOB |
| Cancer,Organismal Injury and Abnormalities | Metastasis of tumor cells | 0.0091 | 2.040958608 | brown | 3 | CD44,PTEN,RHOB |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Papillary thyroid carcinoma | 0.00911 | 2.040481623 | brown | 4 | CD44,CDC42EP3,MYBPC2,TLE3 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Cell-cell adhesion | 0.00912 | 2.040005162 | brown | 5 | CD2AP,CD44,JUP,LIMS2,NT5E |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral mucosa tumor | 0.00915 | 2.038578906 | brown | 2 | CD44,TLE3 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Abnormality of oral mucosa | 0.00915 | 2.038578906 | brown | 2 | CD44,IGHG1 |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function | Proliferation of fibroblast cell lines | 0.00919 | 2.036684489 | brown | 8 | ACKR3,ALOX5,CD9,CDC14B,LIG4,PLAG1,PTEN,RHOB |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Homing of mononuclear leukocytes | 0.00942 | 2.025949097 | brown | 5 | ACKR3,CD44,IGHG1,PON2,PTEN |
| Cellular Movement,Connective Tissue Development and Function | Cell movement of fibroblast cell lines | 0.00958 | 2.018634491 | brown | 5 | ASAP1,CD44,LIMS2,PTEN,PTPRJ |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphoid cancer | 0.0096 | 2.017728767 | brown | 22 | ALOX5,ANKRD50,CD44,CDC42EP3,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PTEN,RHOB,TNFRSF10B,TNFRSF21,VANGL2,XBP1 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Non-traumatic arthropathy | 0.00962 | 2.016824928 | brown | 13 | ALOX5,ASAP1,CD44,GLIPR2,IGHG1,MME,MYBPC2,MYO1C,NT5E,TLE3,TNFRSF10B,TNFRSF21,XBP1 |
| Inflammatory Response | Inflammatory response | 0.00971 | 2.01278077 | brown | 12 | ACKR3,ALOX5,CD44,CD9,IGHG1,NT5E,PON2,PTEN,PTPRJ,RHOB,TICAM2,XBP1 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of leukemia cells | 0.00971 | 2.01278077 | brown | 3 | CD44,PTEN,TNFRSF10B |
| Cancer,Organismal Injury and Abnormalities | Growth of carcinoma | 0.00972 | 2.012333735 | brown | 4 | APCDD1,MME,PTEN,RHOB |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Juvenile rheumatoid arthritis | 0.00973 | 2.01188716 | brown | 5 | ALOX5,ASAP1,MME,MYBPC2,TLE3 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of leukocytes | 0.00976 | 2.010550182 | brown | 7 | ACKR3,ALOX5,CD9,PON2,PTEN,PTPRJ,RHOB |
| Cancer,Endocrine System Disorders,Gastrointestinal Disease,Organismal Injury and Abnormalities | Development of pancreatic tumor | 0.00979 | 2.009217308 | brown | 2 | CD44,PTEN |
| Cancer,Dermatological Diseases and Conditions,Metabolic Disease,Organismal Injury and Abnormalities | Malignant fibrous histiocytoma | 0.00979 | 2.009217308 | brown | 2 | CD44,PTEN |
| Cellular Function and Maintenance,Cellular Growth and Proliferation | Production of neurons | 0.00979 | 2.009217308 | brown | 2 | PTEN,SOX4 |
| Cell Morphology,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of B lymphocytes | 0.01 | 2 | brown | 3 | IGHG1,PTPRJ,SOX4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Malignant mixed Mullerian tumor in endometrium | 0.0101 | 1.995678626 | brown | 9 | BTBD3,CD2AP,CECR2,MYO1C,PTEN,SPATA20,TLE1,TRIM58,TTC28 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive breast adenocarcinoma | 0.0101 | 1.995678626 | brown | 4 | CD44,CDC42EP3,PTEN,TLE3 |
| Cell Death and Survival,Cellular Development,Cellular Function and Maintenance | Self-renewal of squamous cell carcinoma cell lines | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Cell-cell adhesion of melanoma cell lines | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Molecular Transport,Small Molecule Biochemistry | Release of adenosine | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Accumulation of glucose-6-phosphate | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Low grade scattered non-Hodgkin lymphoma | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cell Cycle | Delay in cell cycle progression of breast cancer cell lines | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Nucleic Acid Metabolism | Regulation of GTPase | 0.0103 | 1.987162775 | brown | 1 | ASAP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I invasive ductal breast cancer | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Carbohydrate Metabolism | Accumulation of D-glucose | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Organismal Injury and Abnormalities | Dysplasia of bile duct | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of thyroid cancer cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of thyroid cancer cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell Morphology | Morphology of mesothelioma cell lines | 0.0103 | 1.987162775 | brown | 1 | TRIB2 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of thyroid cancer cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell Death and Survival | Initiation of cell death of synovial cells | 0.0103 | 1.987162775 | brown | 1 | TNFRSF10B |
| Carbohydrate Metabolism | Accumulation of D-ribose-5-phosphate | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial endometrioid adenocarcinoma with clear cell change | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Organ Morphology,Reproductive System Development and Function,Tissue Development | Involution of uterus | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Adenoid cystic carcinoma in breast | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Energy Production,Nucleic Acid Metabolism,Small Molecule Biochemistry | Dephosphorylation of ATP | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities | Ectopia of heart ventricle | 0.0103 | 1.987162775 | brown | 1 | JUP |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Development of ovarian carcinoma | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Carbohydrate Metabolism | Accumulation of fructose-1,6-diphosphate | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Cowden disease type 1 | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Organismal Injury and Abnormalities | Development of endometrioid carcinoma | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Lipid Metabolism,Small Molecule Biochemistry | Conversion of 5-hydroxyeicosatetraenoic acid | 0.0103 | 1.987162775 | brown | 1 | ALOX5 |
| Cardiovascular System Development and Function | Vasoconstriction of umbilical artery | 0.0103 | 1.987162775 | brown | 1 | MME |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cancer of forestomach | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cellular Development,Endocrine System Development and Function | Transdifferentiation of islet cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Binding of neurites | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cancer,Cell Cycle,Organismal Injury and Abnormalities | Arrest in G1 phase of endometrial adenocarcinoma cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cellular Development,Cellular Growth and Proliferation | Expansion of breast cancer cell lines | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cellular Movement | Migration of mesothelioma cells | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Spontaneous ventricular tachycardia | 0.0103 | 1.987162775 | brown | 1 | JUP |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of microtentacles | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of cardiomyocytes | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Axonal Charcot-Marie-Tooth disease type 2T | 0.0103 | 1.987162775 | brown | 1 | MME |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Catabolism of AMP | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Lytic bone lesion | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| Infectious Diseases | Reactivation of human herpesvirus 8 | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Early stage colorectal adenoma | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autoantibody-positive systemic lupus erythematosus | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| Behavior,Organismal Functions | Hypolocomotion of mice | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| DNA Replication, Recombination, and Repair,Nucleic Acid Metabolism,Small Molecule Biochemistry | Degradation of adenosine | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Survival of non-small-cell lung cancer cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell-To-Cell Signaling and Interaction,Skeletal and Muscular System Development and Function | Adhesion of smooth muscle cell lines | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Carbohydrate Metabolism,Cellular Function and Maintenance,Drug Metabolism,Molecular Transport,Small Molecule Biochemistry | Endocytosis of hyaluronic acid | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cell Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Hypertrophy of dentate granule cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Naxos disease | 0.0103 | 1.987162775 | brown | 1 | JUP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial intraepithelial neoplasia | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Mobilization of myeloid-derived suppressor cells | 0.0103 | 1.987162775 | brown | 1 | ALOX5 |
| Cellular Movement | Invasion by boundary cap cells | 0.0103 | 1.987162775 | brown | 1 | ACKR3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial carcinoma associated with endometrial intraepithelial neoplasia | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell Death and Survival | Survival of suprabasal cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Severe osteopetrosis | 0.0103 | 1.987162775 | brown | 1 | RGS10 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Primary skin squamous cell carcinoma | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of CD56bright natural killer cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Spinal stenosis of lumbar region | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Fusion of multinucleated cells | 0.0103 | 1.987162775 | brown | 1 | CD9 |
| Cell-To-Cell Signaling and Interaction,Embryonic Development,Nervous System Development and Function | Synaptic transmission of pre-Botzinger complex | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Nervous System Development and Function | Development of phrenic nerve | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cellular Function and Maintenance,Cellular Growth and Proliferation | Production of hair cells | 0.0103 | 1.987162775 | brown | 1 | SOX4 |
| Cellular Assembly and Organization | Production of microvesicles | 0.0103 | 1.987162775 | brown | 1 | CD9 |
| Cancer,Organismal Injury and Abnormalities | Superficial papillary transitional cell carcinoma | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Spleen metastasis | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Auditory and Vestibular System Development and Function,Cellular Growth and Proliferation,Connective Tissue Development and Function,Organ Development,Tissue Development | Proliferation of utricular supporting cells | 0.0103 | 1.987162775 | brown | 1 | SOX4 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance | Positive selection of neurons | 0.0103 | 1.987162775 | brown | 1 | LIG4 |
| Nervous System Development and Function,Tissue Morphology | Induction of nervous tissue | 0.0103 | 1.987162775 | brown | 1 | GDF11 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Development of conventional dendritic cells | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| 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 of long-term bone marrow culture cells | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cellular Movement,Hematological System Development and Function,Hematopoiesis,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemotaxis of BMMC cells | 0.0103 | 1.987162775 | brown | 1 | CD9 |
| Cell Morphology,Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Conversion of effector T lymphocytes | 0.0103 | 1.987162775 | brown | 1 | IKZF2 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Osteoporosis of femur | 0.0103 | 1.987162775 | brown | 1 | ALOX5 |
| Cell Death and Survival | Antiapoptosis of colorectal cancer cell lines | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Tumorigenesis of dorsolateral prostatic lobe | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Hyperplasia of basal epidermal cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | In situ follicular neoplasia | 0.0103 | 1.987162775 | brown | 1 | MME |
| Cell Morphology,Cellular Compromise | Multinucleation of alveolar macrophages | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Aggregation of bone marrow cell lines | 0.0103 | 1.987162775 | brown | 1 | CD9 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Tumorigenesis of ventral prostatic lobe | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Neurological Disease,Organismal Functions,Organismal Injury and Abnormalities,Tumor Morphology | Suppression of glioma | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| 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 | Formation of plasmablasts | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Aggregation of monocyte-derived dendritic cells | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Organismal Development | Branching of bile duct | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Auditory and Vestibular System Development and Function,Cell Morphology,Cellular Assembly and Organization | Polarization of stereocilia bundles | 0.0103 | 1.987162775 | brown | 1 | VANGL2 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of hepatoma cell lines | 0.0103 | 1.987162775 | brown | 1 | CTSH |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of hepatoma cell lines | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Connective Tissue Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Porosity of femur | 0.0103 | 1.987162775 | brown | 1 | IGHG1 |
| Cellular Assembly and Organization | Redistribution of lysosome | 0.0103 | 1.987162775 | brown | 1 | RAB34 |
| Nervous System Development and Function | Regeneration of pyramidal tract | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Lung typical carcinoid tumor | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Organismal Injury and Abnormalities | Rebleeding | 0.0103 | 1.987162775 | brown | 1 | ATP2A3 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Influx of monocyte-derived macrophages | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Behavior | Odor habituation | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Carbohydrate Metabolism | Accumulation of fructose-6-phosphate | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Organismal Functions,Organismal Injury and Abnormalities,Tumor Morphology | Suppression of melanoma | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Cellular Development,Cellular Growth and Proliferation,Nervous System Development and Function,Tissue Development | Generation of retinal ganglion cells | 0.0103 | 1.987162775 | brown | 1 | SOX4 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Antibody-dependent cell-mediated cytotoxicity of lymph node cells | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Vacterl with hydrocephalus | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell Morphology,Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Respiratory System Development and Function,Tissue Development | Size of pneumocytes | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Transendothelial migration of Th1 cells | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Protein Trafficking | Adhesion of Gelatin | 0.0103 | 1.987162775 | brown | 1 | ASAP1 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Generation of ADP | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Embryonic Development,Organismal Development,Tissue Development | Development of chorion | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cellular Movement,Hematological System Development and Function,Humoral Immune Response,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemotaxis of peripheral B lymphocytes | 0.0103 | 1.987162775 | brown | 1 | ACKR3 |
| Cell Death and Survival | Apoptosis of CD34+ progenitor-derived connective tissue-type mast cells | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cardiovascular Disease,Hematological Disease,Organismal Injury and Abnormalities | Delay in formation of thrombus | 0.0103 | 1.987162775 | brown | 1 | ATP2A3 |
| Cell Death and Survival,Digestive System Development and Function | Survival of paneth cells | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| Connective Tissue Disorders,Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Encephalocele | 0.0103 | 1.987162775 | brown | 1 | CECR2 |
| Cell Morphology,Cellular Assembly and Organization,Tissue Morphology | Volume of rough endoplasmatic reticulum | 0.0103 | 1.987162775 | brown | 1 | XBP1 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Dephosphorylation of AMP | 0.0103 | 1.987162775 | brown | 1 | NT5E |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance,Inflammatory Response | Delay in initiation of closure of phagocytic cups | 0.0103 | 1.987162775 | brown | 1 | RAB31 |
| Cardiovascular System Development and Function | Length of vascular sprout | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cellular Function and Maintenance,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Localization of monocytes | 0.0103 | 1.987162775 | brown | 1 | CD44 |
| Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Bleeding disorder due to P2RY12 defect | 0.0103 | 1.987162775 | brown | 1 | P2RX1 |
| Lipid Metabolism,Small Molecule Biochemistry | Expression of leukotriene | 0.0103 | 1.987162775 | brown | 1 | ALOX5 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Adhesion of bone-marrow-derived monocyte/macrophage precursor cells | 0.0103 | 1.987162775 | brown | 1 | RHOB |
| Cancer | Atypical hyperplasia or endometroid intraepithelial neoplasia | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cancer of floor of mouth | 0.0103 | 1.987162775 | brown | 1 | PTEN |
| Developmental Disorder,Hereditary Disorder,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Athabascan severe combined immunodeficiency | 0.0103 | 1.987162775 | brown | 1 | LIG4 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Adhesion of nuclear matrix | 0.0105 | 1.978810701 | brown | 2 | JUP,PTPRJ |
| Cellular Movement,Respiratory System Development and Function | Migration of lung cell lines | 0.0105 | 1.978810701 | brown | 2 | CD44,RHOB |
| Cell-To-Cell Signaling and Interaction | Activation of cells | 0.0105 | 1.978810701 | brown | 14 | ACKR3,ATP2A3,CD44,CD9,CTSH,IGHG1,NT5E,P2RX1,PTEN,PTPRJ,RAB34,RHOB,TNFRSF10B,TNFRSF21 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of tumor cells | 0.0106 | 1.974694135 | brown | 8 | CD44,IGHG1,PON2,PTEN,RHOB,SOX4,TNFRSF10B,TNFRSF21 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer | 0.0109 | 1.962573502 | brown | 32 | AHNAK2,ALOX5,ANKRD50,APCDD1,BTBD3,CD44,CDC42EP3,COBLL1,CTSH,FCHO2,GLIPR2,IKZF2,JUP,LIG4,MGAT4A,MIA2,MME,MSI2,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PRKACB,PTEN,RHOB,SOX4,TLE3,TNFRSF10B,TNFRSF21,VANGL2,XBP1 |
| Cardiovascular System Development and Function,Embryonic Development,Organ Development,Organismal Development,Tissue Development | Cardiogenesis | 0.011 | 1.958607315 | brown | 9 | ACKR3,GDF11,JUP,LIMS2,PTEN,PTPRJ,SOX4,VANGL2,XBP1 |
| Small Molecule Biochemistry | Production of nitrite | 0.0111 | 1.954677021 | brown | 2 | ALOX5,PTEN |
| Cell Morphology | Surface area of cells | 0.0111 | 1.954677021 | brown | 2 | PTEN,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic cancer | 0.0112 | 1.950781977 | brown | 21 | ALOX5,ANKRD50,CD44,CDC42EP3,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYBPC2,MYO7B,NEIL1,NT5E,PEG10,PTEN,RHOB,TNFRSF10B,TNFRSF21,VANGL2 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Recruitment of granulocytes | 0.0114 | 1.943095149 | brown | 5 | ALOX5,CD44,IGHG1,P2RX1,PTEN |
| Cellular Movement | Chemotaxis of myeloid cells | 0.0115 | 1.93930216 | brown | 6 | ALOX5,CD9,PON2,PTEN,PTPRJ,RHOB |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoma | 0.0115 | 1.93930216 | brown | 17 | ALOX5,ANKRD50,CD44,CTSH,FCHO2,IKZF2,LIG4,MGAT4A,MIA2,MME,MYO7B,NEIL1,NT5E,PEG10,PTEN,TNFRSF10B,TNFRSF21 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic lymphocytic leukemia | 0.0116 | 1.935542011 | brown | 5 | CD44,CDC42EP3,MYBPC2,PTEN,VANGL2 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Leukopoiesis | 0.0117 | 1.931814138 | brown | 12 | ALOX5,CD44,CD9,CMTM7,IGHG1,IKZF2,LIG4,PTEN,PTPRJ,RGS10,SOX4,XBP1 |
| Cell Cycle | Arrest in cell cycle progression of tumor cell lines | 0.0117 | 1.931814138 | brown | 4 | ACKR3,MGAT4A,PTEN,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Invasive malignant bladder tumor | 0.0118 | 1.928117993 | brown | 2 | CD44,PTEN |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of semilunar valve | 0.0118 | 1.928117993 | brown | 2 | ACKR3,SOX4 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Morphology of lymphoid tissue | 0.012 | 1.920818754 | brown | 9 | ALOX5,GDF11,IGHG1,LIG4,NT5E,PTEN,PTPRJ,SOX4,TNFRSF21 |
| Cancer,Organismal Injury and Abnormalities | Cancer of head | 0.0124 | 1.906578315 | brown | 17 | AHNAK2,ASAP1,CD44,CTSH,HRK,IKZF2,LIG4,MPPED2,MSI2,PLAG1,PRKACB,PTEN,RAPGEF5,TLE3,TRIB2,TTC28,ZNF608 |
| Cellular Movement | Migration of hepatoma cell lines | 0.0124 | 1.906578315 | brown | 3 | CD44,CTSH,PTEN |
| Cellular Growth and Proliferation | Colony formation of cells | 0.0125 | 1.903089987 | brown | 9 | ACKR3,CD44,CD9,JUP,MSI2,PTEN,PTPRJ,RHOB,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Nonseminoma | 0.0126 | 1.899629455 | brown | 2 | CD44,PTEN |
| Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of small placenta | 0.0126 | 1.899629455 | brown | 2 | JUP,PEG10 |
| Cancer | Transformation of kidney cell lines | 0.0126 | 1.899629455 | brown | 2 | JUP,PTEN |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Colorectal polyp | 0.0126 | 1.899629455 | brown | 2 | CD44,PTEN |
| Cell-To-Cell Signaling and Interaction | Signaling of lymphatic system cells | 0.0126 | 1.899629455 | brown | 2 | CD44,CD9 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Ulceration of skin | 0.0126 | 1.899629455 | brown | 2 | JUP,NEIL1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Neoplastic intestinal polyp | 0.0126 | 1.899629455 | brown | 2 | CD44,PTEN |
| Cardiovascular System Development and Function,Tissue Development | Development of endothelial tissue | 0.0129 | 1.88941029 | brown | 7 | CD44,CD9,IGHG1,PTEN,PTPRJ,RHOB,XBP1 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hepatocellular carcinoma | 0.0129 | 1.88941029 | brown | 12 | ALOX5,ARRDC4,BMP3,CD44,CDC42EP3,JUP,MME,PTEN,RAPGEF5,SOX4,SPATA20,TLE1 |
| Gastrointestinal Disease,Hepatic System Disease,Metabolic Disease,Organismal Injury and Abnormalities | Hepatic steatosis | 0.013 | 1.886056648 | brown | 6 | ALOX5,CD44,MGAT4A,NEIL1,PTEN,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of phagocytes | 0.013 | 1.886056648 | brown | 6 | ALOX5,CD9,PON2,PTEN,PTPRJ,RHOB |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic lymphocytic leukemia / small lymphocytic lymphoma | 0.013 | 1.886056648 | brown | 9 | ANKRD50,CD44,CDC42EP3,MME,MYBPC2,PEG10,PTEN,TNFRSF21,VANGL2 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of marginal-zone B lymphocytes | 0.0131 | 1.882728704 | brown | 3 | ACKR3,PTPRJ,SOX4 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid tissue | 0.0132 | 1.879426069 | brown | 7 | ACKR3,CD44,IKZF2,LIG4,PTEN,PTPRJ,SOX4 |
| Cell-To-Cell Signaling and Interaction | Response of myeloid cells | 0.0132 | 1.879426069 | brown | 5 | CD44,CD9,PTEN,PTPRJ,XBP1 |
| Organ Morphology,Tissue Morphology | Quantity of exocrine cells | 0.0133 | 1.876148359 | brown | 2 | GDF11,PTEN |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance | Reorganization of actin filaments | 0.0133 | 1.876148359 | brown | 2 | JUP,RHOB |
| 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 | Differentiation of pro-B lymphocytes | 0.0133 | 1.876148359 | brown | 2 | LIG4,SOX4 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Lymphoid Tissue Structure and Development | Homing of lymphocytes | 0.0134 | 1.872895202 | brown | 4 | ACKR3,CD44,IGHG1,PTEN |
| Organismal Injury and Abnormalities | Visceromegaly | 0.0134 | 1.872895202 | brown | 11 | ABCA5,ACKR3,ATP2A3,CD2AP,CDC42EP3,JUP,LIMS2,MYBPC2,NEIL1,NT5E,PTEN |
| Cell Death and Survival | Cell death of immune cells | 0.0136 | 1.866461092 | brown | 10 | CD44,CD9,HRK,IKZF2,PTEN,SOX4,TICAM2,TNFRSF21,TRIB2,XBP1 |
| Inflammatory Response | Antibody response | 0.0136 | 1.866461092 | brown | 4 | IGHG1,TICAM2,TNFRSF21,XBP1 |
| Cell Morphology,Connective Tissue Development and Function | Shape change of fibroblast cell lines | 0.0139 | 1.8569852 | brown | 3 | ASAP1,PTEN,TNFRSF10B |
| Cell Death and Survival | Apoptosis of neuroglia | 0.0139 | 1.8569852 | brown | 3 | CD44,TICAM2,TNFRSF21 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of focal adhesions | 0.0139 | 1.8569852 | brown | 4 | CD44,PTEN,PTPRJ,RHOB |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Response of phagocytes | 0.014 | 1.853871964 | brown | 5 | CD44,CD9,PTEN,PTPRJ,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Invasive carcinoma | 0.0142 | 1.847711656 | brown | 6 | CD44,CDC42EP3,PTEN,PTPRJ,SOX4,TLE3 |
| 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 | Differentiation of B lymphocytes | 0.0144 | 1.841637508 | brown | 5 | CMTM7,LIG4,PTPRJ,SOX4,XBP1 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Systemic lupus erythematosus | 0.0148 | 1.829738285 | brown | 6 | ALOX5,CD44,RAB31,TLE3,TNFRSF10B,XBP1 |
| Cellular Development,Cellular Growth and Proliferation,Digestive System Development and Function | Proliferation of intestinal cell lines | 0.0148 | 1.829738285 | brown | 2 | ALOX5,RHOB |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of chronic lymphocytic leukemia cells | 0.0148 | 1.829738285 | brown | 2 | CD44,TNFRSF10B |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Abnormality of large intestine | 0.015 | 1.823908741 | brown | 7 | ALOX5,CD44,CDC42EP3,GDF11,MME,NT5E,XBP1 |
| Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Polycystic ovary syndrome | 0.015 | 1.823908741 | brown | 3 | CDC42EP3,MYBPC2,TLE3 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Activation of blood cells | 0.0153 | 1.815308569 | brown | 11 | CD44,CTSH,IGHG1,NT5E,P2RX1,PTEN,PTPRJ,RAB34,RHOB,TNFRSF10B,TNFRSF21 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Adhesion of dermal fibroblasts | 0.0154 | 1.812479279 | brown | 1 | CD44 |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of branchial arch mesenchyme | 0.0154 | 1.812479279 | brown | 1 | SOX4 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Advanced colorectal adenoma | 0.0154 | 1.812479279 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Adhesion of Streptococcus pneumoniae D39 | 0.0154 | 1.812479279 | brown | 1 | CD9 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Adhesion of monocyte-derived dendritic cells | 0.0154 | 1.812479279 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Adhesion of Neisseria meningitidis strain MC58 C13 derivative | 0.0154 | 1.812479279 | brown | 1 | CD9 |
| Gastrointestinal Disease,Hepatic System Disease,Metabolic Disease,Organismal Injury and Abnormalities | Advanced stage hepatic steatosis | 0.0154 | 1.812479279 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Adhesion of Neisseria lactamica NL1009 | 0.0154 | 1.812479279 | brown | 1 | CD9 |
| Auditory and Vestibular System Development and Function,Auditory Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of short cochlear duct | 0.0154 | 1.812479279 | brown | 1 | VANGL2 |
| Cell-To-Cell Signaling and Interaction,Cellular Compromise,Tumor Morphology | Adhesion of chronic lymphocytic leukemia cells | 0.0154 | 1.812479279 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Reproductive System Development and Function | Adhesion of ova | 0.0154 | 1.812479279 | brown | 1 | CD9 |
| Cellular Assembly and Organization | Targeting of cellular membrane | 0.000122 | 3.913640169 | blue | 2 | AKAP7,NCF1 |
| Cellular Movement,Connective Tissue Development and Function | Infiltration by myofibroblasts | 0.000122 | 3.913640169 | blue | 2 | COL4A3,SMAD3 |
| Cell Morphology,Hematopoiesis,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of pre-B lymphocytes | 0.000415 | 3.381951903 | blue | 3 | CD79B,PTPRJ,TRAF3IP2 |
| Cell Morphology,Cellular Assembly and Organization,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Nervous System Development and Function,Organismal Development,Tissue Development | Formation of dendritic spines | 0.000522 | 3.282329497 | blue | 4 | ARHGEF7,DTNBP1,EIF4G3,TNR |
| Cell Morphology,Hematopoiesis,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of transitional B lymphocytes | 0.000602 | 3.220403509 | blue | 2 | PTPRJ,TRAF3IP2 |
| Hematological System Development and Function | Bleeding time | 0.000759 | 3.119758224 | blue | 4 | GALNT1,RASGRP2,ST3GAL2,TBXA2R |
| Gastrointestinal Disease,Inflammatory Response,Organismal Injury and Abnormalities | Inflammation of submandibular gland | 0.000839 | 3.076238039 | blue | 2 | CD79B,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities | Mixed neoplasia | 0.00117 | 2.931814138 | blue | 24 | AP1B1,ATP10D,CD79B,CEP295,DDHD1,ECPAS,FGD6,GLCCI1,GUCY2C,LUC7L,MICAL3,MPRIP,PCYT1A,PIK3C2B,PIK3CA,PIK3R5,PRUNE2,PSD4,RP9,SPTBN1,TBXA2R,TLE1,TNR,ZNF19 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Connective Tissue Disorders,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of pericardial cavity | 0.00178 | 2.749579998 | blue | 2 | PTPRJ,SMAD3 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of phosphoinositide | 0.00214 | 2.669586227 | blue | 3 | PIK3C2B,PIK3CA,PIK3R5 |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function,Tissue Development | Expansion of mesangial matrix | 0.00258 | 2.588380294 | blue | 2 | COL4A3,SMAD3 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Enlargement of lymph node | 0.00258 | 2.588380294 | blue | 2 | SMAD3,TRAF3IP2 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Phosphorylation of phosphatidylinositol phosphate | 0.00258 | 2.588380294 | blue | 2 | PIK3C2B,PIK3CA |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Enlargement of heart | 0.00421 | 2.375717904 | blue | 11 | ADGRG1,AGO2,DTNBP1,GUCY2C,NCF1,NFATC3,PGK1,PIK3CA,RAB1A,SMAD3,SPTBN1 |
| Cell Death and Survival,Embryonic Development | Cell death of embryonic stem cells | 0.00452 | 2.344861565 | blue | 3 | AGO2,H3F3A/H3F3B,SP1 |
| Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities | Polymicrogyria | 0.00462 | 2.335358024 | blue | 2 | ADGRG1,PIK3CA |
| Cardiovascular Disease,Cardiovascular System Development and Function,Developmental Disorder,Embryonic Development,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of intersomitic blood vessel | 0.00462 | 2.335358024 | blue | 2 | NFATC3,PTPRJ |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of artificial clathrin cages | 0.00462 | 2.335358024 | blue | 2 | AP1B1,HIP1R |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of cervical lymph node | 0.00521 | 2.283162277 | blue | 2 | TBXA2R,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities | Incidence of tumor | 0.00535 | 2.271646218 | blue | 82 | ADD1,ADGRG1,AEBP1,AGO2,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ATP10D,BPTF,CCDC174,CD58,CD79B,CEP295,CHML,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,ECPAS,EIF4G3,ELOVL5,EVL,FGD6,GADD45B,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HMBOX1,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NFATC3,NPIPB5 (includes others),NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PTPRJ,RAB1A,RCN2,RP9,SLC2A5,SLC5A3,SMAD3,SNX30,SOCS5,SPTBN1,SSBP2,STAG3,TBC1D1,TBXA2R,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hepatobiliary system cancer | 0.00548 | 2.261219442 | blue | 55 | ADD1,ADGRG1,AEBP1,AGO2,ANAPC16,AP1B1,ARHGEF7,ATP10D,BPTF,CD58,CEP295,CHD1L,CNST,COL4A3,CRTC3,CTNNA1,DDHD1,DIS3,DTNBP1,EIF4G3,ELOVL5,GALNT1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,LHFPL2,MICAL3,MLXIP,MPRIP,MSI2,NFATC3,PFKFB2,PGK1,PIK3CA,PIK3R5,PRUNE2,PSD4,RAB1A,RASGRP2,RPAIN,SLC2A5,SLC5A3,SP1,SPTBN1,TBC1D1,TCHP,TLE1,TMEM131L,TNR,TRAF3IP2,WDR74,YWHAH,ZDHHC23,ZNF829 |
| Inflammatory Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Blepharitis | 0.00584 | 2.233587153 | blue | 2 | NFATC3,TRAF3IP2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of endocardium | 0.00584 | 2.233587153 | blue | 2 | PIK3CA,PTPRJ |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Hyperplasia of mesangial cells | 0.00584 | 2.233587153 | blue | 2 | COL4A3,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities | Development of malignant tumor | 0.00621 | 2.2069084 | blue | 79 | ADD1,ADGRG1,AEBP1,AGO2,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ATP10D,BPTF,CCDC174,CD58,CD79B,CEP295,CHML,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,ECPAS,EIF4G3,ELOVL5,EVL,FGD6,GADD45B,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HMBOX1,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NPIPB5 (includes others),NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PTPRJ,RAB1A,RCN2,RP9,SLC5A3,SMAD3,SNX30,SOCS5,SPTBN1,SSBP2,STAG3,TBC1D1,TBXA2R,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Neurological Disease,Skeletal and Muscular Disorders | Neuromuscular disease | 0.00637 | 2.195860568 | blue | 16 | AEBP1,ARHGEF7,CD79B,COL4A3,CYFIP2,GUCY2C,H3F3A/H3F3B,NREP,PGK1,RASGRP2,RPL15,SOCS5,SP1,SYPL1,TNR,ZBTB44 |
| Cancer,Organismal Injury and Abnormalities | Frequency of tumor | 0.00638 | 2.195179321 | blue | 80 | ADD1,ADGRG1,AEBP1,AGO2,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ATP10D,BPTF,CCDC174,CD58,CD79B,CEP295,CHML,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,ECPAS,EIF4G3,ELOVL5,EVL,FGD6,GADD45B,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HMBOX1,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NFATC3,NPIPB5 (includes others),NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PTPRJ,RAB1A,RCN2,RP9,SLC5A3,SMAD3,SNX30,SOCS5,SPTBN1,SSBP2,STAG3,TBC1D1,TBXA2R,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Cellular Movement,Hematological System Development and Function,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response | Influx of mast cells | 0.00642 | 2.192464972 | blue | 1 | SMAD3 |
| Cellular Assembly and Organization | Association of clathrin-coated vesicles | 0.00642 | 2.192464972 | blue | 1 | HIP1R |
| Dermatological Diseases and Conditions,Hereditary Disorder,Infectious Diseases,Organismal Injury and Abnormalities | Familial candidiasis type 8 | 0.00642 | 2.192464972 | blue | 1 | TRAF3IP2 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Abnormal morphology of synovial capsule | 0.00642 | 2.192464972 | blue | 1 | SMAD3 |
| Immunological Disease,Organismal Injury and Abnormalities | Lymphangioma | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 positive progesterone receptor positive breast carcinoma | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cellular Growth and Proliferation | Clonogenicity of mesothelioma cell lines | 0.00642 | 2.192464972 | blue | 1 | SP1 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Conduction of neuroglia | 0.00642 | 2.192464972 | blue | 1 | TNR |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Lichenoid actinic keratosis | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cell Morphology | Apico-basal polarity of breast cancer cell lines | 0.00642 | 2.192464972 | blue | 1 | PSD4 |
| Dermatological Diseases and Conditions,Hereditary Disorder,Organismal Injury and Abnormalities | Susceptibility to psoriasis 13 | 0.00642 | 2.192464972 | blue | 1 | TRAF3IP2 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Hermansky-pudlak syndrome type 7 | 0.00642 | 2.192464972 | blue | 1 | DTNBP1 |
| Cellular Assembly and Organization,Cellular Compromise | Disruption of Golgi spectrin skeletons | 0.00642 | 2.192464972 | blue | 1 | SPTBN1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary nonendometrioid endometrial carcinoma | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of retrosplenial cortex | 0.00642 | 2.192464972 | blue | 1 | ZBTB20 |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of subiculum | 0.00642 | 2.192464972 | blue | 1 | ZBTB20 |
| Developmental Disorder | PIK3CA mutation positive segmental overgrowth | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cell Cycle,Gene Expression | Binding of PAX8 binding site | 0.00642 | 2.192464972 | blue | 1 | SMAD3 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Fibrosis of skin lesion | 0.00642 | 2.192464972 | blue | 1 | SMAD3 |
| Cardiovascular Disease,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities | CLOVE syndrome | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Developmental Disorder,Organismal Injury and Abnormalities,Reproductive System Disease | Breast columnar cell lesion | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cellular Development | Transition of pulmonary fibroblasts | 0.00642 | 2.192464972 | blue | 1 | AEBP1 |
| Cancer,Organismal Injury and Abnormalities | FGFR3 positive solid tumor | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Ophthalmic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Spondylometaphyseal dysplasia with cone-rod dystrophy | 0.00642 | 2.192464972 | blue | 1 | PCYT1A |
| Cardiovascular System Development and Function,Cell Morphology,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Organismal Development,Tissue Development | Branching morphogenesis of vascular endothelial cells | 0.00642 | 2.192464972 | blue | 1 | PTPRJ |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Infantile hypotonia with psychomotor retardation | 0.00642 | 2.192464972 | blue | 1 | CCDC174 |
| Cell Morphology,Cellular Assembly and Organization | Size of Golgi stacks | 0.00642 | 2.192464972 | blue | 1 | RAB1A |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Colony formation of chronic myeloid leukemia in blast crisis cells | 0.00642 | 2.192464972 | blue | 1 | MSI2 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autosomal recessive spastic paraplegia type 28 | 0.00642 | 2.192464972 | blue | 1 | DDHD1 |
| Cancer,Cardiovascular Disease,Developmental Disorder,Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Diamond-Blackfan anemia type 12 | 0.00642 | 2.192464972 | blue | 1 | RPL15 |
| Hereditary Disorder,Ophthalmic Disease,Organismal Injury and Abnormalities | Retinitis pigmentosa type 9 | 0.00642 | 2.192464972 | blue | 1 | RP9 |
| Infectious Diseases,Skeletal and Muscular Disorders | Infection of paw | 0.00642 | 2.192464972 | blue | 1 | NCF1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Typical lung carcinoid tumor | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Drug Metabolism,Nucleic Acid Metabolism,Small Molecule Biochemistry | Metabolism of lamivudine | 0.00642 | 2.192464972 | blue | 1 | PGK1 |
| Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Platelet-type bleeding disorder type 18 | 0.00642 | 2.192464972 | blue | 1 | RASGRP2 |
| Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Ataxia-oculomotor apraxia 3 | 0.00642 | 2.192464972 | blue | 1 | PIK3R5 |
| Nervous System Development and Function,Neurological Disease | Lack of phrenic nerve | 0.00642 | 2.192464972 | blue | 1 | SLC5A3 |
| Cancer,Organismal Injury and Abnormalities | Susceptibility to 4NQO-induced head and neck carcinogenesis | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Absorption of D-fructose | 0.00642 | 2.192464972 | blue | 1 | SLC2A5 |
| Skeletal and Muscular System Development and Function | Mineralization of rib | 0.00642 | 2.192464972 | blue | 1 | GADD45B |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Targeting of plasma membrane | 0.00642 | 2.192464972 | blue | 1 | AKAP7 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Organization of intercalated disks | 0.00642 | 2.192464972 | blue | 1 | CTNNA1 |
| Cellular Function and Maintenance,Hematological System Development and Function,Hematopoiesis,Humoral Immune Response | Progression of pro-B lymphocytes | 0.00642 | 2.192464972 | blue | 1 | CD79B |
| Organismal Injury and Abnormalities,Tissue Morphology | Width of wound | 0.00642 | 2.192464972 | blue | 1 | SMAD3 |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Severe glomerulonephritis | 0.00642 | 2.192464972 | blue | 1 | COL4A3 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Short sleeper | 0.00642 | 2.192464972 | blue | 1 | BHLHE41 |
| Cell Morphology,Organ Morphology,Skeletal and Muscular System Development and Function,Tissue Morphology | Area of vascular smooth muscle cells | 0.00642 | 2.192464972 | blue | 1 | MPRIP |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal recessive bilateral perisylvian polymicrogyria | 0.00642 | 2.192464972 | blue | 1 | ADGRG1 |
| Molecular Transport | Clearance of synthetic promoter | 0.00642 | 2.192464972 | blue | 1 | SP1 |
| Auditory Disease,Infectious Diseases | Infection of ear | 0.00642 | 2.192464972 | blue | 1 | NCF1 |
| Hereditary Disorder,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities | Cytochrome b-positive autosomal recessive chronic granulomatous disease type I | 0.00642 | 2.192464972 | blue | 1 | NCF1 |
| Connective Tissue Development and Function,Embryonic Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Morphogenesis of vertebral column | 0.00642 | 2.192464972 | blue | 1 | ARHGEF7 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Delay in initiation of growth of skeletal metastasis | 0.00642 | 2.192464972 | blue | 1 | SMAD3 |
| Organismal Injury and Abnormalities | Dysplastic nodule | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Diarrhea type 6 | 0.00642 | 2.192464972 | blue | 1 | GUCY2C |
| Organ Morphology | Enlargement of lacrimal gland | 0.00642 | 2.192464972 | blue | 1 | TRAF3IP2 |
| Endocrine System Disorders,Hereditary Disorder,Organismal Injury and Abnormalities,Reproductive System Disease | Premature ovarian failure type 8 | 0.00642 | 2.192464972 | blue | 1 | STAG3 |
| Connective Tissue Disorders,Developmental Disorder,Gastrointestinal Disease,Hereditary Disorder,Neurological Disease,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Neurodevelopmental disorder with dysmorphic facies and distal limb anomalies | 0.00642 | 2.192464972 | blue | 1 | BPTF |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Delay in initiation of adhesion of fibroblast cell lines | 0.00642 | 2.192464972 | blue | 1 | PTPRJ |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Spinocerebellar ataxia 38 | 0.00642 | 2.192464972 | blue | 1 | ELOVL5 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of squamous cell carcinoma cell lines | 0.00642 | 2.192464972 | blue | 1 | MAP4 |
| Cell Cycle | Delay in initiation of G2/M phase of myeloma cell lines | 0.00642 | 2.192464972 | blue | 1 | TBXA2R |
| Cancer,Organismal Injury and Abnormalities | Trabecular adenocarcinoma | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Nervous System Development and Function | Excitation of neocortical neurons | 0.00642 | 2.192464972 | blue | 1 | DTNBP1 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Fibrosis of right ventricle | 0.00642 | 2.192464972 | blue | 1 | CTNNA1 |
| Gastrointestinal Disease,Organ Morphology,Organismal Injury and Abnormalities | Pathological dilation of colon | 0.00642 | 2.192464972 | blue | 1 | SLC2A5 |
| Cancer,Organismal Injury and Abnormalities | Adenomyoepithelioma | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Organ Morphology | Enlargement of submandibular gland | 0.00642 | 2.192464972 | blue | 1 | TRAF3IP2 |
| Cell Cycle | Senescence of calvarial cells | 0.00642 | 2.192464972 | blue | 1 | NCF1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma in posterior cranial fossa | 0.00642 | 2.192464972 | blue | 1 | H3F3A/H3F3B |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Giant cell tumor of bone in femur | 0.00642 | 2.192464972 | blue | 1 | H3F3A/H3F3B |
| Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Susceptibility to platelet-type bleeding disorder type 13 | 0.00642 | 2.192464972 | blue | 1 | TBXA2R |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Patterned macular dystrophy type 2 | 0.00642 | 2.192464972 | blue | 1 | CTNNA1 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Chondroblastoma in humerus | 0.00642 | 2.192464972 | blue | 1 | H3F3A/H3F3B |
| Hematological Disease,Hereditary Disorder,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Agammaglobulinemia type 6 | 0.00642 | 2.192464972 | blue | 1 | CD79B |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Enlargement of cervical lymph node | 0.00642 | 2.192464972 | blue | 1 | TRAF3IP2 |
| Cardiovascular Disease,Dermatological Diseases and Conditions,Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | CHIME syndrome | 0.00642 | 2.192464972 | blue | 1 | PIGL |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary endometrioid endometrial cancer | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Developmental Disorder,Hematological Disease,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Variant phosphoglycerate kinase deficiency | 0.00642 | 2.192464972 | blue | 1 | PGK1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Medulloblastoma in cerebral hemisphere | 0.00642 | 2.192464972 | blue | 1 | H3F3A/H3F3B |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal recessive bilateral frontoparietal polymicrogyria | 0.00642 | 2.192464972 | blue | 1 | ADGRG1 |
| Cancer,Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Cowden disease type 5 | 0.00642 | 2.192464972 | blue | 1 | PIK3CA |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | TH1 immune response of lymph node cells | 0.00642 | 2.192464972 | blue | 1 | NCF1 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Disorders,Inflammatory Response,Organismal Injury and Abnormalities | Inflammation of calvarial cells | 0.00642 | 2.192464972 | blue | 1 | NCF1 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Primrose syndrome | 0.00642 | 2.192464972 | blue | 1 | ZBTB20 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Adenocarcinoma of the small bowel | 0.0065 | 2.187086643 | blue | 2 | PIK3CA,SSBP2 |
| Cell Morphology | Ruffling | 0.00704 | 2.152427341 | blue | 4 | ADD1,ARHGEF7,NCF1,PIK3CA |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Neuroblastoma in autonomic ganglion | 0.00719 | 2.14327111 | blue | 2 | CD79B,PIK3CA |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Hypertrophy of heart | 0.00725 | 2.139661993 | blue | 8 | ADGRG1,DTNBP1,GUCY2C,NCF1,NFATC3,PIK3CA,RAB1A,SMAD3 |
| Inflammatory Disease,Organismal Injury and Abnormalities | Formation of abscess | 0.00791 | 2.101823517 | blue | 2 | NCF1,SMAD3 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of phosphatidylinositol-3,4,5-triphosphate | 0.00791 | 2.101823517 | blue | 2 | PIK3CA,PIK3R5 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Hyperplasia of epidermal cells | 0.00791 | 2.101823517 | blue | 2 | PIK3CA,SMAD3 |
| Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Disorder of basal ganglia | 0.00807 | 2.093126465 | blue | 14 | AEBP1,ARHGEF7,COL4A3,CYFIP2,H3F3A/H3F3B,NREP,PGK1,RASGRP2,RPL15,SOCS5,SP1,SYPL1,TNR,ZBTB44 |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of vitelline vessel | 0.00836 | 2.077793723 | blue | 4 | NFATC3,PIK3CA,PTPRJ,SPTBN1 |
| Carbohydrate Metabolism | Metabolism of carbohydrate | 0.0086 | 2.065501549 | blue | 13 | AGPAT5,PCYT1A,PFKFB2,PGK1,PIGL,PIK3C2B,PIK3CA,SLC2A5,SLC5A3,SMAD3,ST3GAL2,TBXA2R,ZBTB20 |
| Cell-To-Cell Signaling and Interaction | Binding of central nervous system cells | 0.00945 | 2.024568191 | blue | 2 | ADGRG1,TNR |
| Cardiovascular System Development and Function,Cell Morphology,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Organismal Development,Tissue Development | Morphogenesis of vascular endothelial cells | 0.00945 | 2.024568191 | blue | 2 | PIK3C2B,PTPRJ |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function,Tissue Morphology | Abnormal morphology of glomerular capillary | 0.00945 | 2.024568191 | blue | 2 | COL4A3,TRAF3IP2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Cell Morphology,Cellular Function and Maintenance,Organismal Injury and Abnormalities,Tissue Morphology | Permeability of endothelial cells | 0.00953 | 2.020907099 | blue | 3 | ARHGEF7,PIK3CA,PTPRJ |
| Cell Death and Survival,Cell Signaling | Activation of caspase | 0.00953 | 2.020907099 | blue | 3 | COL4A3,HIP1R,SMAD3 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders,Skeletal and Muscular Disorders | Huntington's Disease | 0.00963 | 2.016373713 | blue | 11 | AEBP1,ARHGEF7,COL4A3,CYFIP2,NREP,PGK1,RASGRP2,SOCS5,SP1,SYPL1,ZBTB44 |
| Cell Morphology,Organ Morphology,Skeletal and Muscular System Development and Function,Tissue Morphology | Morphology of muscle cells | 0.0101 | 1.995678626 | blue | 8 | ADGRG1,DTNBP1,MPRIP,NCF1,NFATC3,PIK3CA,RAB1A,SPTBN1 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Rett Syndrome | 0.0101 | 1.995678626 | blue | 4 | ADGRG1,CTNNA1,HMBOX1,TRAF3IP2 |
| Digestive System Development and Function,Embryonic Development,Hepatic System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of liver | 0.0101 | 1.995678626 | blue | 4 | PIK3CA,SMAD3,SP1,SPTBN1 |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of thromboxane | 0.0103 | 1.987162775 | blue | 2 | RASGRP2,TBXA2R |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Fibrosis of heart | 0.0106 | 1.974694135 | blue | 5 | CTNNA1,NCF1,PIK3CA,SMAD3,TBXA2R |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cecum adenocarcinoma | 0.0108 | 1.966576245 | blue | 10 | AKAP7,DIS3,EIF4G3,EVL,MAP4,MICAL3,NREP,PIK3CA,SMAD3,ZBTB20 |
| Organismal Injury and Abnormalities | Visceromegaly | 0.0113 | 1.946921557 | blue | 13 | ADGRG1,AGO2,DTNBP1,GUCY2C,NCF1,NFATC3,PGK1,PIK3CA,RAB1A,SMAD3,SPTBN1,TBXA2R,TRAF3IP2 |
| Cardiovascular Disease,Cardiovascular System Development and Function | Abnormal morphology of cardiovascular system | 0.0116 | 1.935542011 | blue | 14 | ADGRG1,AGO2,COL4A3,DTNBP1,GUCY2C,NCF1,NFATC3,PGK1,PIK3CA,PTPRJ,RAB1A,SMAD3,SPTBN1,TRAF3IP2 |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Renal lesion | 0.012 | 1.920818754 | blue | 19 | ARHGEF7,CD79B,COL4A3,ELOVL5,LHFPL2,MICAL3,NPIPB5 (includes others),PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,RAB1A,SLC5A3,SMAD3,SPTBN1,TBC1D1,TNR |
| Organ Morphology,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function | Abnormal morphology of mesangial matrix | 0.012 | 1.920818754 | blue | 2 | COL4A3,SMAD3 |
| Cancer,Organismal Injury and Abnormalities | Development of carcinoma | 0.0123 | 1.910094889 | blue | 77 | ADD1,AEBP1,AGO2,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ATP10D,CCDC174,CD58,CD79B,CEP295,CHML,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,ECPAS,EIF4G3,ELOVL5,EVL,FGD6,GADD45B,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HMBOX1,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NPIPB5 (includes others),NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PTPRJ,RAB1A,RCN2,RP9,SLC5A3,SMAD3,SNX30,SOCS5,SPTBN1,SSBP2,STAG3,TBC1D1,TBXA2R,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Cell Morphology,Developmental Disorder,Organ Morphology,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Hypertrophy of plantaris muscle | 0.0128 | 1.89279003 | blue | 1 | ADGRG1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic luminal B-like breast carcinoma | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Digestive System Development and Function,Embryonic Development,Hepatic System Development and Function,Organ Development,Organismal Development,Tissue Development | Formation of intrahepatic bile duct | 0.0128 | 1.89279003 | blue | 1 | SPTBN1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Non-brainstem pediatric glioblastoma | 0.0128 | 1.89279003 | blue | 1 | H3F3A/H3F3B |
| Connective Tissue Disorders,Hereditary Disorder,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Autosomal recessive Alport syndrome | 0.0128 | 1.89279003 | blue | 1 | COL4A3 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Irritable bowel syndrome characterized by constipation | 0.0128 | 1.89279003 | blue | 1 | GUCY2C |
| Embryonic Development,Organismal Development,Tissue Development | Development of axial mesendoderm | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial endometrioid adenocarcinoma with clear cell change | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cardiovascular System Development and Function,Cellular Development,Embryonic Development,Organismal Development,Tissue Development | Differentiation of mesoangioblast | 0.0128 | 1.89279003 | blue | 1 | BHLHE41 |
| Cellular Development | Initiation of differentiation of neuroblastoma cell lines | 0.0128 | 1.89279003 | blue | 1 | PCYT1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Adenoid cystic carcinoma in breast | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cellular Movement,Connective Tissue Development and Function,Hair and Skin Development and Function | Chemotaxis of dermal fibroblasts | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease,Tissue Morphology | Quantity of lung adenocarcinoma | 0.0128 | 1.89279003 | blue | 1 | SSBP2 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Meconium ileus | 0.0128 | 1.89279003 | blue | 1 | GUCY2C |
| Cardiovascular System Development and Function | Adhesion of cremasteric venule | 0.0128 | 1.89279003 | blue | 1 | GALNT1 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Injury of heart tissue | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cellular Growth and Proliferation,Nervous System Development and Function | Cytostasis of astrocytes | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of 1-oleoyl lysophosphatidylcholine | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cardiovascular Disease,Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Loeys-Dietz syndrome type 3 | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Endocrine System Development and Function,Lipid Metabolism,Small Molecule Biochemistry,Vitamin and Mineral Metabolism | Catabolism of glucocorticoid | 0.0128 | 1.89279003 | blue | 1 | YWHAH |
| Organismal Injury and Abnormalities | Calcification of joint | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast metastasis | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cell Cycle | Cell division of eye cell lines | 0.0128 | 1.89279003 | blue | 1 | MAP4 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Nervous System Development and Function | Adhesion of microglia | 0.0128 | 1.89279003 | blue | 1 | TNR |
| Cell Death and Survival | Survival of suprabasal cells | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cellular Growth and Proliferation | Clonogenicity of lymphoma cell lines | 0.0128 | 1.89279003 | blue | 1 | SSBP2 |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Interstitial fibrosis of myocardium | 0.0128 | 1.89279003 | blue | 1 | NCF1 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities | Myxoid/round cell liposarcoma | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cancer,Gastrointestinal Disease,Immunological Disease,Organismal Injury and Abnormalities,Respiratory Disease | Tonsillar squamous cell carcinoma | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cell Death and Survival | Activation-induced cell death of T lymphoblasts | 0.0128 | 1.89279003 | blue | 1 | GADD45B |
| Cellular Development,Connective Tissue Development and Function,Embryonic Development,Organismal Development,Tissue Development | Differentiation of adipose mesenchymal stem cells | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Outgrowth of microtubules | 0.0128 | 1.89279003 | blue | 1 | MAP4 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of epithelial cell lines | 0.0128 | 1.89279003 | blue | 1 | ADGRG1 |
| Cell-To-Cell Signaling and Interaction | Penetration of adenocarcinoma cells | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cell Morphology | Contraction of breast cancer cell lines | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Transport of DL-fructose | 0.0128 | 1.89279003 | blue | 1 | SLC2A5 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of kidney cell lines | 0.0128 | 1.89279003 | blue | 1 | ADGRG1 |
| Cancer,Cell Cycle | Aneuploidization of cervical cancer cell lines | 0.0128 | 1.89279003 | blue | 1 | YWHAH |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Hermansky-Pudlak syndrome 1 | 0.0128 | 1.89279003 | blue | 1 | DTNBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Compaction of colorectal cancer cell lines | 0.0128 | 1.89279003 | blue | 1 | CTNNA1 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Hyperplasia of basal epidermal cells | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Amino Acid Metabolism,Molecular Transport,Small Molecule Biochemistry | Secretion of homocysteine | 0.0128 | 1.89279003 | blue | 1 | PCYT1A |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of embryonic cell lines | 0.0128 | 1.89279003 | blue | 1 | ADGRG1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Pediatric diffuse intrinsic pontine glioma | 0.0128 | 1.89279003 | blue | 1 | H3F3A/H3F3B |
| Lipid Metabolism,Small Molecule Biochemistry | Mass of phosphatidylcholine | 0.0128 | 1.89279003 | blue | 1 | PCYT1A |
| Cardiovascular System Development and Function,Tissue Morphology | Thickness of pulmonary artery | 0.0128 | 1.89279003 | blue | 1 | NFATC3 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities,Reproductive System Disease | Intraductal papilloma | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Fibrosis of tubulointerstitium | 0.0128 | 1.89279003 | blue | 1 | COL4A3 |
| Cancer,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Sclerosing rhabdomyosarcoma | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Salivary duct carcinoma in parotid gland | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Cell Morphology,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Morphology | Morphology of demarcation membrane systems | 0.0128 | 1.89279003 | blue | 1 | SP1 |
| Drug Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of paclitaxel | 0.0128 | 1.89279003 | blue | 1 | MAP4 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Oligodendroglioma in thalamus | 0.0128 | 1.89279003 | blue | 1 | H3F3A/H3F3B |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Transendothelial migration of T lymphoblasts | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Connective Tissue Disorders,Hereditary Disorder,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Thin basement membrane disease | 0.0128 | 1.89279003 | blue | 1 | COL4A3 |
| RNA Post-Transcriptional Modification | Processing of siRNA | 0.0128 | 1.89279003 | blue | 1 | AGO2 |
| Cellular Movement | Migration of mesothelioma cell lines | 0.0128 | 1.89279003 | blue | 1 | SP1 |
| Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation | Assembly of mural cells | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Malignant skin appendage neoplasm | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Connective Tissue Disorders,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Systemic rheumatic disease | 0.0128 | 1.89279003 | blue | 1 | TRAF3IP2 |
| Developmental Disorder,Skeletal and Muscular Disorders | Congenital malformation of forelimb | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Gastrointestinal Disease,Inflammatory Disease,Organismal Injury and Abnormalities | Inflammatory disorder of stomach | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Hair and Skin Development and Function,Organismal Injury and Abnormalities | Epithelialization of wound | 0.0128 | 1.89279003 | blue | 1 | SMAD3 |
| Cell Death and Survival,Cellular Compromise,Neurological Disease,Tissue Morphology | Degeneration of myelin figure | 0.0128 | 1.89279003 | blue | 1 | RAB1A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cancer of floor of mouth | 0.0128 | 1.89279003 | blue | 1 | PIK3CA |
| Organ Development,Renal and Urological System Development and Function | Growth of renal glomerulus | 0.0129 | 1.88941029 | blue | 3 | ARHGEF7,COL4A3,SMAD3 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma in brainstem | 0.0129 | 1.88941029 | blue | 2 | H3F3A/H3F3B,PIK3CA |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of lipid | 0.013 | 1.886056648 | blue | 14 | AGPAT5,ELOVL5,NCF1,PCYT1A,PFKFB2,PIGL,PIK3C2B,PIK3CA,RASGRP2,SMAD3,SP1,ST3GAL2,TBXA2R,ZBTB20 |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Liver cancer | 0.0131 | 1.882728704 | blue | 51 | ADD1,ADGRG1,AEBP1,AGO2,ANAPC16,AP1B1,ARHGEF7,ATP10D,BPTF,CD58,CEP295,CHD1L,COL4A3,CRTC3,CTNNA1,DIS3,DTNBP1,EIF4G3,ELOVL5,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,LHFPL2,MICAL3,MLXIP,MPRIP,MSI2,NFATC3,PFKFB2,PIK3CA,PIK3R5,PRUNE2,PSD4,RAB1A,RASGRP2,RPAIN,SLC2A5,SLC5A3,SP1,SPTBN1,TBC1D1,TCHP,TLE1,TMEM131L,TNR,TRAF3IP2,WDR74,YWHAH,ZDHHC23,ZNF829 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of memory T lymphocytes | 0.0133 | 1.876148359 | blue | 3 | CD79B,GADD45B,TRAF3IP2 |
| Cell Cycle,Gene Expression | Binding of E box motif | 0.0138 | 1.860120914 | blue | 2 | SMAD3,SSBP2 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Efflux of phospholipid | 0.0138 | 1.860120914 | blue | 2 | PCYT1A,SP1 |
| Cell Morphology,Organ Morphology,Skeletal and Muscular System Development and Function,Tissue Morphology | Area of muscle cells | 0.0138 | 1.860120914 | blue | 2 | DTNBP1,MPRIP |
| Embryonic Development,Organ Development,Organismal Development,Reproductive System Development and Function,Tissue Development | Development of embryonic placenta | 0.0138 | 1.860120914 | blue | 2 | BPTF,SP1 |
| Cellular Movement | Cell movement of hepatic stellate cells | 0.0138 | 1.860120914 | blue | 2 | NCF1,SMAD3 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Large intestine adenocarcinoma | 0.0141 | 1.850780887 | blue | 88 | ADD1,AEBP1,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BHLHE41,BPTF,CCDC174,CD58,CEP295,CHD1L,CHML,CNST,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,DTNBP1,ECPAS,EIF4G3,ELOVL5,EVL,FBXL20,FGD6,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,ITPRIPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NFATC3,NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RASGRP2,RBMS1,RPL15,SLC2A5,SLC5A3,SMAD3,SNX29,SNX30,SOCS5,SP1,SPTBN1,SSBP2,ST3GAL2,STAG3,TBC1D1,TBXA2R,TCHP,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,YPEL1,YWHAH,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZNF19,ZNF362,ZNF44,ZNF789 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of follicular B lymphocytes | 0.0142 | 1.847711656 | blue | 4 | GALNT1,NFATC3,PTPRJ,TRAF3IP2 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Fibrosis of heart ventricle | 0.0148 | 1.829738285 | blue | 2 | CTNNA1,TBXA2R |
| Cell Death and Survival | Killing of leukemia cell lines | 0.0148 | 1.829738285 | blue | 2 | PIK3C2B,SP1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Colorectal adenocarcinoma | 0.0152 | 1.818156412 | blue | 51 | ADD1,AEBP1,AGPAT5,AKAP7,AP3M2,ARHGEF7,ATP10D,CCDC174,CD58,COL4A3,CYFIP2,DDHD1,DEF8,DIS3,EIF4G3,EVL,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,ITPRIPL2,MAP4,MICAL3,MPRIP,NREP,PGK1,PIK3C2B,PIK3CA,PIK3R5,PRUNE2,PTPRJ,SLC5A3,SMAD3,SNX30,SOCS5,SPTBN1,SSBP2,STAG3,TBC1D1,TNR,TRAF3IP2,VPREB3,WDR74,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZNF19,ZNF362,ZNF789 |
| Developmental Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of lymph node | 0.0158 | 1.801342913 | blue | 2 | GALNT1,NFATC3 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Cellular Movement,Nervous System Development and Function | Anterograde axonal transport | 0.0158 | 1.801342913 | blue | 2 | AP3M2,DTNBP1 |
| Carbohydrate Metabolism,Molecular Transport | Transport of carbohydrate | 0.0164 | 1.785156152 | blue | 5 | PCYT1A,PIK3CA,SLC2A5,SLC5A3,TBC1D1 |
| Organ Morphology,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function | Abnormal morphology of kidney | 0.0172 | 1.764471553 | blue | 6 | COL4A3,NFATC3,SMAD3,SPTBN1,SSBP2,TRAF3IP2 |
| Endocrine System Development and Function,Molecular Transport,Small Molecule Biochemistry | Concentration of hormone | 0.0173 | 1.761953897 | blue | 8 | CRTC3,GUCY2C,NCF1,PIK3CA,RBMS1,SMAD3,SP1,ZBTB20 |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Lymphatic node tumor | 0.0174 | 1.759450752 | blue | 4 | CD79B,MAP4,PIK3CA,SSBP2 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Synthesis of phosphatidic acid | 0.0178 | 1.749579998 | blue | 5 | AGPAT5,PCYT1A,PIGL,PIK3C2B,PIK3CA |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart | 0.0181 | 1.742321425 | blue | 12 | ADGRG1,AGO2,DTNBP1,GUCY2C,NCF1,NFATC3,PGK1,PIK3CA,PTPRJ,RAB1A,SMAD3,SPTBN1 |
| Cellular Assembly and Organization | Organization of cellular membrane | 0.0181 | 1.742321425 | blue | 6 | CTNNA1,HIP1R,SPTBN1,TBC1D1,TNR,YWHAH |
| Cell Morphology,Organ Morphology,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Muscular hypertrophy | 0.0184 | 1.735182177 | blue | 5 | ADGRG1,DTNBP1,NCF1,NFATC3,RAB1A |
| Cell Death and Survival,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Apoptosis of hepatocytes | 0.0185 | 1.732828272 | blue | 4 | GADD45B,NCF1,SMAD3,SPTBN1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Testicular seminoma | 0.0189 | 1.723538196 | blue | 2 | PIK3C2B,PIK3CA |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Adrenal cortex carcinoma | 0.0189 | 1.723538196 | blue | 2 | H3F3A/H3F3B,PIK3CA |
| Cellular Development,Cellular Growth and Proliferation,Reproductive System Development and Function | Proliferation of gonadal cell lines | 0.019 | 1.721246399 | blue | 3 | COL4A3,PCYT1A,PTPRJ |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol 3,5-diphosphate | 0.0191 | 1.718966633 | blue | 1 | HIP1R |
| Cell Death and Survival,Hematological System Development and Function | Survival of marginal-zone B lymphocytes | 0.0191 | 1.718966633 | blue | 1 | TRAF3IP2 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Release of thromboxane A2 | 0.0191 | 1.718966633 | blue | 1 | RASGRP2 |
| Cellular Assembly and Organization,Nervous System Development and Function | Assembly of axon initial segments | 0.0191 | 1.718966633 | blue | 1 | SPTBN1 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Firing of interneurons | 0.0191 | 1.718966633 | blue | 1 | DTNBP1 |
| Developmental Disorder | Developmental delay of cardiac loop | 0.0191 | 1.718966633 | blue | 1 | PTPRJ |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Malignant mixed Mullerian tumor in ovary | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Acinar-cell carcinoma in left upper lobe of lung | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Post-Translational Modification,Protein Synthesis | O-glycosylation of peptide | 0.0191 | 1.718966633 | blue | 1 | GALNT1 |
| Cell Death and Survival,Hematological System Development and Function | Survival of transitional B lymphocytes | 0.0191 | 1.718966633 | blue | 1 | TRAF3IP2 |
| Cellular Movement,Hair and Skin Development and Function | Chemotaxis of keratinocytes | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of phosphatidylinositol-3-phosphate | 0.0191 | 1.718966633 | blue | 1 | PIK3C2B |
| Cellular Development,Nervous System Development and Function,Tissue Development | Initiation of differentiation of neurons | 0.0191 | 1.718966633 | blue | 1 | PCYT1A |
| Cell Death and Survival | Mitotic catastrophe of colorectal cancer cell lines | 0.0191 | 1.718966633 | blue | 1 | YWHAH |
| Inflammatory Response | Inflammation of stroma | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Nervous System Development and Function | Excitation of interneurons | 0.0191 | 1.718966633 | blue | 1 | DTNBP1 |
| Embryonic Development,Organismal Development,Tissue Development | Morphogenesis of paraxial mesoderm | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Embryonic Development,Hair and Skin Development and Function,Organ Development,Organ Morphology,Organismal Development,Tissue Development | Thickness of dermis | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Cell Morphology | Polarization of fibroblast cell lines | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | ER positive HER2 negative PIK3CA mutation positive luminal breast cancer | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Hereditary Disorder,Immunological Disease,Organismal Injury and Abnormalities | Leukocyte adhesion deficiency type I | 0.0191 | 1.718966633 | blue | 1 | RASGRP2 |
| Cancer,Organismal Injury and Abnormalities | Tumorigenesis of adenosquamous carcinoma | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cellular Movement | Migration of urothelial cells | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung sarcomatoid carcinoma | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Acanthosis of epidermis | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of linoleic acid | 0.0191 | 1.718966633 | blue | 1 | ELOVL5 |
| Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Formation of centromeric heterochromatin | 0.0191 | 1.718966633 | blue | 1 | H3F3A/H3F3B |
| Connective Tissue Disorders,Hematological Disease,Organismal Injury and Abnormalities | Severe macrothrombocytopenia | 0.0191 | 1.718966633 | blue | 1 | SP1 |
| Cardiovascular Disease,Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities | Megalencephaly-capillary malformation-polymicrogyria syndrome | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cellular Development,Renal and Urological System Development and Function,Tissue Development | Epithelial-mesenchymal transition of renal tubular epithelial cells | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Growth of bladder tumor | 0.0191 | 1.718966633 | blue | 1 | GALNT1 |
| Cell Cycle | Arrest in G2/M phase of bone marrow cells | 0.0191 | 1.718966633 | blue | 1 | GADD45B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Usual ductal breast hyperplasia | 0.0191 | 1.718966633 | blue | 1 | PIK3CA |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Oligoastrocytoma in brainstem | 0.0191 | 1.718966633 | blue | 1 | H3F3A/H3F3B |
| Cell Morphology,Cellular Function and Maintenance,DNA Replication, Recombination, and Repair | Double-stranded DNA break repair of epithelial cells | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Cell Cycle,Hair and Skin Development and Function | Cell division of epithelial cell lines | 0.0191 | 1.718966633 | blue | 1 | MAP4 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Adhesion of cerebellar granule cell | 0.0191 | 1.718966633 | blue | 1 | ADGRG1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Ganglioglioma in cerebellum | 0.0191 | 1.718966633 | blue | 1 | H3F3A/H3F3B |
| Skeletal and Muscular System Development and Function | Mineralization of tibia | 0.0191 | 1.718966633 | blue | 1 | GADD45B |
| Ophthalmic Disease,Organismal Injury and Abnormalities | Periorbital edema | 0.0191 | 1.718966633 | blue | 1 | NFATC3 |
| Gastrointestinal Disease,Hepatic System Disease,Inflammatory Disease,Organismal Injury and Abnormalities | Abscess of liver | 0.0191 | 1.718966633 | blue | 1 | NCF1 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance | Organization of tight junctions | 0.0191 | 1.718966633 | blue | 1 | CTNNA1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Antibody-dependent cell-mediated cytotoxicity of natural killer cells | 0.0191 | 1.718966633 | blue | 1 | SMAD3 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of blood vessel | 0.0191 | 1.718966633 | blue | 6 | COL4A3,NCF1,NFATC3,PIK3CA,PTPRJ,TRAF3IP2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Testicular tumor | 0.0197 | 1.705533774 | blue | 4 | PIK3C2B,PIK3CA,PRUNE2,SPTBN1 |
| Cancer,Organismal Injury and Abnormalities | Adenocarcinoma | 0.0198 | 1.70333481 | blue | 99 | ADD1,AEBP1,AGO2,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BHLHE41,BPTF,CCDC174,CD58,CD79B,CEP295,CHD1L,CHML,CNST,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,DTNBP1,ECPAS,EIF4G3,ELOVL5,EVL,FBXL20,FGD6,GADD45B,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,HMBOX1,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NFATC3,NPIPB5 (includes others),NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RAB1A,RASGRP2,RBMS1,RCN2,RP9,RPL15,SLC2A5,SLC5A3,SMAD3,SNX29,SNX30,SOCS5,SP1,SPTBN1,SSBP2,ST3GAL2,STAG3,TBC1D1,TBXA2R,TCHP,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,YPEL1,YWHAH,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function | Morphology of cardiac muscle | 0.0199 | 1.701146924 | blue | 6 | DTNBP1,NCF1,NFATC3,PTPRJ,RAB1A,SPTBN1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Digestive system cancer | 0.02 | 1.698970004 | blue | 99 | ADD1,ADGRG1,AEBP1,AGO2,AGPAT5,AKAP7,ANAPC16,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BHLHE41,BPTF,CCDC174,CD58,CD79B,CEP295,CHD1L,CHML,CNST,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,DTNBP1,ECPAS,EIF4G3,ELOVL5,EVL,FBXL20,FGD6,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MLXIP,MPRIP,MSI2,NFATC3,NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RAB1A,RASGRP2,RBMS1,RPAIN,RPL15,SLC2A5,SLC5A3,SMAD3,SNX29,SNX30,SOCS5,SP1,SPTBN1,SSBP2,ST3GAL2,STAG3,TBC1D1,TBXA2R,TCHP,TLE1,TMEM131L,TNR,TRAF3IP2,VPREB3,WDR74,YPEL1,YWHAH,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Carbohydrate Metabolism,Cellular Function and Maintenance,Molecular Transport,Small Molecule Biochemistry | Transport of D-glucose | 0.0205 | 1.688246139 | blue | 4 | PIK3CA,SLC2A5,SLC5A3,TBC1D1 |
| Cardiovascular Disease | Abnormal function of cardiovascular system | 0.0208 | 1.681936665 | blue | 3 | NCF1,NFATC3,TBXA2R |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Renal cancer | 0.0209 | 1.679853714 | blue | 17 | ARHGEF7,CD79B,ELOVL5,LHFPL2,MICAL3,NPIPB5 (includes others),PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,RAB1A,SLC5A3,SPTBN1,TBC1D1,TNR |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Liver carcinoma | 0.021 | 1.677780705 | blue | 49 | ADD1,ADGRG1,AEBP1,AGO2,ANAPC16,AP1B1,ARHGEF7,ATP10D,BPTF,CD58,CEP295,CHD1L,COL4A3,CRTC3,CTNNA1,DIS3,DTNBP1,EIF4G3,ELOVL5,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,LHFPL2,MICAL3,MLXIP,MPRIP,MSI2,NFATC3,PFKFB2,PIK3CA,PIK3R5,PRUNE2,PSD4,RASGRP2,RPAIN,SLC2A5,SLC5A3,SP1,SPTBN1,TBC1D1,TCHP,TLE1,TMEM131L,TNR,TRAF3IP2,YWHAH,ZDHHC23,ZNF829 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response,Organismal Functions | Activation of blood platelets | 0.0218 | 1.661543506 | blue | 4 | PIK3CA,PIK3R5,PTPRJ,TBXA2R |
| Cellular Movement,Immune Cell Trafficking | Leukocyte migration | 0.0222 | 1.653647026 | blue | 15 | ARHGEF7,CD58,COL4A3,EVL,GALNT1,NCF1,PIK3CA,PIK3R5,PPIL2,PTPRJ,RASGRP2,SMAD3,TNR,TRAF3IP2,VPREB3 |
| Cellular Development,Cellular Growth and Proliferation,Organ Development | Proliferation of enterocytes | 0.0223 | 1.651695137 | blue | 2 | GUCY2C,NFATC3 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Chondrogenesis | 0.0223 | 1.651695137 | blue | 2 | NFATC3,SMAD3 |
| Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of neck | 0.0226 | 1.645891561 | blue | 3 | SMAD3,TBXA2R,TRAF3IP2 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Microangiopathy | 0.0226 | 1.645891561 | blue | 4 | COL4A3,PIK3C2B,PIK3CA,TRAF3IP2 |
| Carbohydrate Metabolism | Accumulation of carbohydrate | 0.0226 | 1.645891561 | blue | 4 | PIK3C2B,PIK3CA,PIK3R5,SP1 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Metabolism of D-glucose | 0.0232 | 1.634512015 | blue | 3 | PFKFB2,PIK3CA,ZBTB20 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of marginal-zone B lymphocytes | 0.0232 | 1.634512015 | blue | 3 | NFATC3,PTPRJ,TRAF3IP2 |
| Cell Morphology,Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Morphology of blood platelets | 0.0235 | 1.628932138 | blue | 2 | ADD1,TBXA2R |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of cells | 0.0236 | 1.627087997 | blue | 5 | ADGRG1,CD58,PIK3CA,RASGRP2,SP1 |
| Cancer,Organismal Injury and Abnormalities | Abdominal carcinoma | 0.0238 | 1.623423043 | blue | 102 | ADD1,ADGRG1,AEBP1,AGO2,AGPAT5,AKAP7,ANAPC16,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BHLHE41,BPTF,CCDC174,CD58,CD79B,CEP295,CHD1L,CHML,CNST,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,DTNBP1,ECPAS,EIF4G3,ELOVL5,EVL,FBXL20,FGD6,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,HMBOX1,ITPRIPL2,LHFPL2,LUC7L,MAP4,MICAL3,MLXIP,MPRIP,MSI2,NFATC3,NPIPB5 (includes others),NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RAB1A,RASGRP2,RBMS1,RP9,RPAIN,RPL15,SLC2A5,SLC5A3,SMAD3,SNX29,SNX30,SOCS5,SP1,SPTBN1,SSBP2,ST3GAL2,STAG3,TBC1D1,TBXA2R,TCHP,TLE1,TMEM131L,TNR,TRAF3IP2,VPREB3,WDR74,YPEL1,YWHAH,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Cancer,Organismal Injury and Abnormalities | Development of adenocarcinoma | 0.0238 | 1.623423043 | blue | 51 | AEBP1,AGO2,AP1B1,ARHGEF7,ATP10D,CCDC174,CD79B,CEP295,CHML,CRTC3,CTNNA1,DDHD1,DIS3,ELOVL5,GADD45B,GLCCI1,GUCY2C,HEATR5B,HMBOX1,LHFPL2,MAP4,MICAL3,MPRIP,MSI2,NPIPB5 (includes others),PFKFB2,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PTPRJ,RAB1A,RCN2,RP9,SLC5A3,SMAD3,SOCS5,SPTBN1,SSBP2,TBC1D1,TBXA2R,TLE1,TNR,WDR74,ZBTB44,ZC3H15,ZNF19,ZNF44,ZNF789,ZNF829 |
| Developmental Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of lymphoid organ | 0.024 | 1.619788758 | blue | 4 | GALNT1,NFATC3,SMAD3,SSBP2 |
| Cellular Movement | Migration of cells | 0.0242 | 1.616184634 | blue | 27 | ADD1,ADGRG1,AGO2,ARHGEF7,BHLHE41,CD58,COL4A3,CTNNA1,EVL,GALNT1,MAP4,NCF1,NFATC3,NREP,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PTPRJ,RASGRP2,SMAD3,SP1,SSBP1,TBXA2R,TNR,TRAF3IP2,VPREB3 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of enlarged lymph node | 0.0245 | 1.610833916 | blue | 3 | SMAD3,TBXA2R,TRAF3IP2 |
| Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of transitional B lymphocytes | 0.0247 | 1.607303047 | blue | 2 | CD79B,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities | Cancer of head | 0.0247 | 1.607303047 | blue | 19 | AKAP7,AP1B1,CEP295,COL4A3,FGD6,H3F3A/H3F3B,MICAL3,MPRIP,MSI2,NFATC3,PIK3C2B,PIK3CA,RAB1A,SSBP2,TNR,ZBTB20,ZDHHC23,ZNF362,ZNF44 |
| Carbohydrate Metabolism | Glycolysis | 0.0249 | 1.603800653 | blue | 4 | NCF1,PFKFB2,PGK1,ZBTB20 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tissue Morphology,Tumor Morphology | Induction of breast carcinoma | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Thalamic astrocytoma | 0.0254 | 1.595166283 | blue | 1 | H3F3A/H3F3B |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of ovarian cancer cell lines | 0.0254 | 1.595166283 | blue | 1 | RASGRP2 |
| Connective Tissue Disorders,Hereditary Disorder,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Autosomal dominant Alport syndrome | 0.0254 | 1.595166283 | blue | 1 | COL4A3 |
| Cell Cycle,Embryonic Development | Cell division of neuroretina cells | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Cell Death and Survival | Anoikis of fibroblasts | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Cell-To-Cell Signaling and Interaction | Adhesion of thymic epithelial cells | 0.0254 | 1.595166283 | blue | 1 | CD58 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol-3-phosphate | 0.0254 | 1.595166283 | blue | 1 | HIP1R |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial carcinoma type I | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of spleen B cell corona | 0.0254 | 1.595166283 | blue | 1 | TRAF3IP2 |
| Cell Morphology,Cellular Assembly and Organization | Size of dense-core vesicles | 0.0254 | 1.595166283 | blue | 1 | DTNBP1 |
| Cell Morphology,Cellular Movement | Cell spreading of neuroblastoma cell lines | 0.0254 | 1.595166283 | blue | 1 | MPRIP |
| Lipid Metabolism,Small Molecule Biochemistry | Incorporation of choline | 0.0254 | 1.595166283 | blue | 1 | PCYT1A |
| Connective Tissue Development and Function,Connective Tissue Disorders,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Development | Abnormal morphology of talus | 0.0254 | 1.595166283 | blue | 1 | SMAD3 |
| Cellular Movement | Chemotaxis of ovarian cancer cell lines | 0.0254 | 1.595166283 | blue | 1 | SMAD3 |
| Protein Trafficking,Tissue Development | Organization of collagen fiber | 0.0254 | 1.595166283 | blue | 1 | SMAD3 |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Transport of D-fructose | 0.0254 | 1.595166283 | blue | 1 | SLC2A5 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol 3,4-diphosphate | 0.0254 | 1.595166283 | blue | 1 | HIP1R |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Reproductive System Disease,Skeletal and Muscular Disorders | Metastasis to bone of breast cancer cell lines | 0.0254 | 1.595166283 | blue | 1 | SMAD3 |
| Cell Morphology,Embryonic Development | Polarization of embryonic cell lines | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Cardiovascular System Development and Function,Organismal Development,Tissue Morphology | Vasodilation of carotid artery | 0.0254 | 1.595166283 | blue | 1 | ARHGEF7 |
| Cell Death and Survival,Digestive System Development and Function | Survival of intestinal cell lines | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Behavior,Nervous System Development and Function | Olfactory-discrimination memory | 0.0254 | 1.595166283 | blue | 1 | NREP |
| Cell-mediated Immune Response,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organismal Development,Tissue Development | Proliferation of T lymphoblasts | 0.0254 | 1.595166283 | blue | 1 | NFATC3 |
| Gastrointestinal Disease | Chronic idiopathic constipation | 0.0254 | 1.595166283 | blue | 1 | GUCY2C |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Teratoma in reproductive tract | 0.0254 | 1.595166283 | blue | 1 | FGD6 |
| Cardiovascular System Development and Function,Cellular Movement | Migration of pulmonary artery endothelial cells | 0.0254 | 1.595166283 | blue | 1 | SMAD3 |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Bleeding of renal glomerulus | 0.0254 | 1.595166283 | blue | 1 | COL4A3 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Transitional-cell carcinoma in renal pelvis | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Cancer,Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | PTEN hamartoma tumor syndrome | 0.0254 | 1.595166283 | blue | 1 | PIK3CA |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease,Skeletal and Muscular Disorders | Lupus-like autoimmune nephritis | 0.0254 | 1.595166283 | blue | 1 | TRAF3IP2 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma in spinal cord | 0.0254 | 1.595166283 | blue | 1 | H3F3A/H3F3B |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Coronary artery disease | 0.0256 | 1.591760035 | blue | 6 | AGPAT5,BPTF,EIF4G3,SMAD3,SNX29,TBXA2R |
| Organ Morphology,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function | Abnormal morphology of renal glomerulus | 0.0259 | 1.586700236 | blue | 3 | COL4A3,SMAD3,TRAF3IP2 |
| Cell Morphology | Size of lipid droplets | 0.0259 | 1.586700236 | blue | 2 | CRTC3,PCYT1A |
| Cell Morphology,Connective Tissue Development and Function,Connective Tissue Disorders,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of adipocytes | 0.0259 | 1.586700236 | blue | 2 | AEBP1,CRTC3 |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of B lymphocytes | 0.0268 | 1.571865206 | blue | 7 | CD79B,GADD45B,GALNT1,NFATC3,PTPRJ,SSBP2,TRAF3IP2 |
| Cell Morphology,Hematopoiesis | Morphology of hematopoietic progenitor cells | 0.0268 | 1.571865206 | blue | 4 | CD79B,PTPRJ,SP1,TRAF3IP2 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of lymph node | 0.0268 | 1.571865206 | blue | 4 | NFATC3,SMAD3,TBXA2R,TRAF3IP2 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of microglia | 0.0272 | 1.565431096 | blue | 2 | SMAD3,TNR |
| Hereditary Disorder,Ophthalmic Disease,Organismal Injury and Abnormalities | Autosomal dominant retinal degeneration | 0.0272 | 1.565431096 | blue | 2 | CTNNA1,RP9 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis by tumor | 0.0272 | 1.565431096 | blue | 2 | PIK3CA,PTPRJ |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of trabeculae carne | 0.0272 | 1.565431096 | blue | 2 | NFATC3,PTPRJ |
| Neurological Disease,Skeletal and Muscular Disorders | Hypotonia | 0.0272 | 1.565431096 | blue | 2 | CCDC174,NFATC3 |
| Cell Signaling | Second-messenger-mediated signaling | 0.0272 | 1.565431096 | blue | 2 | PIK3CA,TBXA2R |
| Immunological Disease,Inflammatory Response | Abnormal function of immune system | 0.0272 | 1.565431096 | blue | 3 | GALNT1,TBXA2R,TRAF3IP2 |
| Organismal Injury and Abnormalities | Interstitial fibrosis | 0.0272 | 1.565431096 | blue | 3 | COL4A3,NCF1,SMAD3 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Connective Tissue Disorders,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of pericardium | 0.0272 | 1.565431096 | blue | 3 | NFATC3,PTPRJ,SMAD3 |
| Cellular Movement | Migration of tumor cell lines | 0.0277 | 1.557520231 | blue | 13 | AGO2,BHLHE41,COL4A3,MAP4,NREP,PIK3C2B,PIK3CA,PIK3R5,PTPRJ,SMAD3,SP1,SSBP1,TBXA2R |
| Cardiovascular Disease,Cardiovascular System Development and Function,Cell Morphology,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Hypertrophy of cardiac muscle | 0.0278 | 1.555955204 | blue | 4 | DTNBP1,NCF1,NFATC3,RAB1A |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of antigen presenting cells | 0.0283 | 1.548213564 | blue | 4 | PIK3CA,PTPRJ,SMAD3,TRAF3IP2 |
| Cellular Growth and Proliferation | Clonogenicity of tumor cell lines | 0.0284 | 1.54668166 | blue | 2 | SP1,SSBP2 |
| Hematological System Development and Function,Organismal Functions | Coagulation of blood | 0.0286 | 1.543633967 | blue | 6 | DTNBP1,H3F3A/H3F3B,PIK3CA,PIK3R5,PTPRJ,TBXA2R |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Uptake of D-hexose | 0.0289 | 1.539102157 | blue | 5 | CRTC3,MLXIP,PFKFB2,PIK3CA,SLC2A5 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Pulmonary metastasis | 0.0293 | 1.53313238 | blue | 4 | MAP4,PIK3CA,PTPRJ,SSBP1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Polymerization of actin filaments | 0.0293 | 1.53313238 | blue | 3 | ADD1,EVL,HIP1R |
| Cellular Movement | Migration of breast cancer cell lines | 0.0296 | 1.528708289 | blue | 6 | BHLHE41,PIK3R5,PTPRJ,SMAD3,SP1,SSBP1 |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Inflammation of mucosa | 0.0297 | 1.527243551 | blue | 2 | SMAD3,TRAF3IP2 |
| Connective Tissue Development and Function,Tissue Morphology | Quantity of fibroblasts | 0.0297 | 1.527243551 | blue | 2 | COL4A3,SMAD3 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Colon adenocarcinoma | 0.03 | 1.522878745 | blue | 48 | ADD1,AEBP1,AGPAT5,AKAP7,ARHGEF7,ATP10D,CCDC174,CD58,COL4A3,CYFIP2,DDHD1,DEF8,DIS3,EIF4G3,EVL,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,ITPRIPL2,MAP4,MICAL3,MPRIP,NREP,PGK1,PIK3C2B,PIK3CA,PIK3R5,PRUNE2,PTPRJ,SLC5A3,SMAD3,SNX30,SPTBN1,SSBP2,TBC1D1,TNR,TRAF3IP2,VPREB3,WDR74,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZNF19,ZNF362,ZNF789 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of phagocytes | 0.0301 | 1.521433504 | blue | 10 | ARHGEF7,CD58,COL4A3,NCF1,PIK3CA,PIK3R5,PTPRJ,SMAD3,TNR,TRAF3IP2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Gastrointestinal carcinoma | 0.0304 | 1.517126416 | blue | 90 | ADD1,AEBP1,AGO2,AGPAT5,AKAP7,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BHLHE41,BPTF,CCDC174,CD58,CEP295,CHD1L,CHML,CNST,COL4A3,CRTC3,CTNNA1,CYFIP2,DDHD1,DEF8,DIS3,DTNBP1,ECPAS,EIF4G3,ELOVL5,EVL,FBXL20,FGD6,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,ITPRIPL2,LUC7L,MAP4,MICAL3,MPRIP,MSI2,NFATC3,NREP,PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RASGRP2,RBMS1,RPL15,SLC2A5,SLC5A3,SMAD3,SNX29,SNX30,SOCS5,SP1,SPTBN1,SSBP2,ST3GAL2,STAG3,TBC1D1,TBXA2R,TCHP,TLE1,TNR,TRAF3IP2,VPREB3,WDR74,YPEL1,YWHAH,ZBTB20,ZBTB44,ZC2HC1A,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of tumor cell lines | 0.0311 | 1.507239611 | blue | 2 | BHLHE41,MSI2 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Skin papilloma | 0.0311 | 1.507239611 | blue | 2 | SMAD3,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities | Genitourinary tumor | 0.0312 | 1.505845406 | blue | 77 | ADGRG1,AEBP1,AGO2,AGPAT5,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BPTF,CCDC174,CD79B,CEP295,CHML,CRTC3,CTNNA1,CYFIP2,DDHD1,DIS3,ECPAS,EIF4G3,ELOVL5,FBXL20,FGD6,GADD45B,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,HMBOX1,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,NFATC3,NPIPB5 (includes others),PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RAB1A,RASGRP2,RBMS1,RP9,SLC2A5,SLC5A3,SMAD3,SOCS5,SPTBN1,SSBP1,SSBP2,STAG3,TBC1D1,TBXA2R,TLE1,TNR,WDR74,YWHAH,ZBTB20,ZBTB44,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Cardiovascular System Development and Function,Cell Morphology | Ruffling of vascular endothelial cells | 0.0317 | 1.498940738 | blue | 1 | NCF1 |
| Cellular Compromise | Disorganization of mitochondria | 0.0317 | 1.498940738 | blue | 1 | DDHD1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Mixed endometrioid serous endometrial carcinoma | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Mucinous low malignant potential tumor in ovary | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of descending thoracic aorta | 0.0317 | 1.498940738 | blue | 1 | NCF1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease,Tissue Morphology | Quantity of gonadal tumor | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Carbohydrate Metabolism | Metabolism of fructose-2,6-diphosphate | 0.0317 | 1.498940738 | blue | 1 | PFKFB2 |
| 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 | Formation of Ab-secreting B cells | 0.0317 | 1.498940738 | blue | 1 | SMAD3 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Pressure overload hypertrophy | 0.0317 | 1.498940738 | blue | 1 | ADGRG1 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Familial hypertrophic cardiomyopathy-4 | 0.0317 | 1.498940738 | blue | 1 | NCF1 |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Transport of myo-inositol | 0.0317 | 1.498940738 | blue | 1 | SLC5A3 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Phosphorylation of phosphatidylinositol 4-phosphate | 0.0317 | 1.498940738 | blue | 1 | PIK3C2B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Mammary fibroadenoma | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Luminal A breast carcinoma | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Cancer,Cellular Movement,Organismal Injury and Abnormalities | Invasion of melanocytes | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Embryonic Development,Organismal Development,Tissue Development | Development of trophoectoderm | 0.0317 | 1.498940738 | blue | 1 | CTNNA1 |
| Cardiovascular System Development and Function,Cell Morphology,Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Surface area of ventricular myocytes | 0.0317 | 1.498940738 | blue | 1 | DTNBP1 |
| Cancer,Organismal Injury and Abnormalities | Development of mesenchymal tumor | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Cellular Assembly and Organization | Quantity of collagen fibrils | 0.0317 | 1.498940738 | blue | 1 | SMAD3 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Hematological System Development and Function | Stimulation of T-cell hybrid cells | 0.0317 | 1.498940738 | blue | 1 | SPTBN1 |
| Neurological Disease,Organismal Injury and Abnormalities | Communicating hydrocephalus | 0.0317 | 1.498940738 | blue | 1 | ADD1 |
| 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 | Differentiation of B-1a lymphocytes | 0.0317 | 1.498940738 | blue | 1 | CD79B |
| Cell Cycle,Gene Expression | Binding of CCAAT element | 0.0317 | 1.498940738 | blue | 1 | SP1 |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Embryonic Development,Skeletal and Muscular System Development and Function,Tissue Development | Chondrogenesis of embryonic cell lines | 0.0317 | 1.498940738 | blue | 1 | NFATC3 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Respiratory Disease | Rapidly progressive idiopathic pulmonary fibrosis | 0.0317 | 1.498940738 | blue | 1 | AGO2 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Skin appendage carcinoma | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| RNA Post-Transcriptional Modification | Production of siRNA | 0.0317 | 1.498940738 | blue | 1 | AGO2 |
| Cancer,Organismal Injury and Abnormalities | Adenocarcinoma with squamous metaplasia | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of adenocarcinoma cell lines | 0.0317 | 1.498940738 | blue | 1 | MSI2 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Transitional-cell carcinoma in urinary tract | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Hematological System Development and Function | Hemoglobin concentration distribution width | 0.0317 | 1.498940738 | blue | 1 | ADD1 |
| Neurological Disease,Organismal Injury and Abnormalities | Nonconvulsive seizure | 0.0317 | 1.498940738 | blue | 1 | AP3M2 |
| Small Molecule Biochemistry | Concentration of fructose-2,6-diphosphate | 0.0317 | 1.498940738 | blue | 1 | PFKFB2 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of enlarged submandibular lymph node | 0.0317 | 1.498940738 | blue | 1 | TRAF3IP2 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Phosphorylation of phosphatidylinositol-3,4,5-triphosphate | 0.0317 | 1.498940738 | blue | 1 | PIK3CA |
| Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Respiratory Disease | Allergic inflammation of airway | 0.0317 | 1.498940738 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities | Malignant genitourinary solid tumor | 0.0317 | 1.498940738 | blue | 76 | ADGRG1,AEBP1,AGO2,AGPAT5,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BPTF,CCDC174,CD79B,CEP295,CHML,CRTC3,CTNNA1,CYFIP2,DDHD1,DIS3,ECPAS,EIF4G3,ELOVL5,FBXL20,FGD6,GADD45B,GALNT1,GLCCI1,GUCY2C,H3F3A/H3F3B,HEATR5B,HEXDC,HIP1R,HMBOX1,LHFPL2,LUC7L,MAP4,MICAL3,MPRIP,NFATC3,NPIPB5 (includes others),PCYT1A,PFKFB2,PGK1,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,PSD4,PTPRJ,RAB1A,RASGRP2,RBMS1,RP9,SLC5A3,SMAD3,SOCS5,SPTBN1,SSBP1,SSBP2,STAG3,TBC1D1,TBXA2R,TLE1,TNR,WDR74,YWHAH,ZBTB20,ZBTB44,ZC3H15,ZDHHC23,ZNF19,ZNF362,ZNF44,ZNF789,ZNF829 |
| Skeletal and Muscular System Development and Function | Morphology of muscle | 0.0329 | 1.482804102 | blue | 9 | ADGRG1,DTNBP1,MPRIP,NCF1,NFATC3,PIK3CA,PTPRJ,RAB1A,SPTBN1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of phagocytes | 0.0335 | 1.474955193 | blue | 6 | ARHGEF7,PIK3CA,PIK3R5,PTPRJ,SMAD3,TRAF3IP2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Cell Morphology,Cellular Function and Maintenance,Organismal Injury and Abnormalities,Tissue Morphology | Permeability of vascular endothelial cells | 0.0338 | 1.4710833 | blue | 2 | PIK3CA,PTPRJ |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of glycosaminoglycan | 0.0338 | 1.4710833 | blue | 2 | NCF1,SMAD3 |
| Carbohydrate Metabolism,Molecular Transport | Quantity of glycogen | 0.0338 | 1.4710833 | blue | 3 | ELOVL5,PCYT1A,ZBTB20 |
| Cellular Movement | Cell movement | 0.0339 | 1.469800302 | blue | 29 | ADD1,ADGRG1,AGO2,ARHGEF7,BHLHE41,CD58,COL4A3,CTNNA1,DDHD1,EVL,GALNT1,MAP4,MPRIP,NCF1,NFATC3,NREP,PIK3C2B,PIK3CA,PIK3R5,PPIL2,PTPRJ,RASGRP2,SMAD3,SP1,SSBP1,TBXA2R,TNR,TRAF3IP2,VPREB3 |
| Cell Morphology,Cellular Function and Maintenance | Autophagy of tumor cell lines | 0.0346 | 1.460923901 | blue | 4 | FBXL20,PIK3CA,RAB1A,TCHP |
| Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation | Assembly of cells | 0.0347 | 1.459670525 | blue | 7 | COL4A3,PIK3C2B,PIK3CA,PTPRJ,SMAD3,SP1,TBXA2R |
| Developmental Disorder,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hypoplasia of liver | 0.0352 | 1.453457337 | blue | 2 | SMAD3,SPTBN1 |
| Cell Cycle,DNA Replication, Recombination, and Repair | Homologous pairing | 0.0352 | 1.453457337 | blue | 2 | EVL,STAG3 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of tumor cell lines | 0.0352 | 1.453457337 | blue | 2 | MAP4,SSBP1 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Kidney carcinoma | 0.0353 | 1.452225295 | blue | 15 | ARHGEF7,CD79B,ELOVL5,LHFPL2,MICAL3,NPIPB5 (includes others),PIK3C2B,PIK3CA,PIK3R5,PPIL2,PRUNE2,SLC5A3,SPTBN1,TBC1D1,TNR |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of antigen presenting cells | 0.0354 | 1.450996738 | blue | 7 | CD58,COL4A3,PIK3CA,PTPRJ,SMAD3,TNR,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Malignant mixed Mullerian tumor in endometrium | 0.0361 | 1.442492798 | blue | 9 | DDHD1,ECPAS,FGD6,LUC7L,MICAL3,MPRIP,PCYT1A,PIK3CA,TLE1 |
| Cellular Development | Epithelial-mesenchymal transition | 0.0362 | 1.441291429 | blue | 5 | PIK3CA,PSD4,SMAD3,SP1,SSBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance | Organization of intercellular junctions | 0.0362 | 1.441291429 | blue | 3 | CTNNA1,SMAD3,TNR |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Protein Synthesis | Polymerization of actin | 0.0366 | 1.436518915 | blue | 2 | EVL,PIK3CA |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Nervous System Development and Function | Discharge of neurons | 0.0379 | 1.42136079 | blue | 1 | SLC5A3 |
| Cellular Movement | Chemotaxis of melanoma cell lines | 0.0379 | 1.42136079 | blue | 1 | COL4A3 |
| Hematological Disease,Immunological Disease,Infectious Diseases | Infection of monocyte-derived macrophages | 0.0379 | 1.42136079 | blue | 1 | SPTBN1 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Low grade urinary bladder neoplasm | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Cell-To-Cell Signaling and Interaction,Hepatic System Development and Function | Adhesion of hepatocytes | 0.0379 | 1.42136079 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Regression of breast adenocarcinoma | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Inflammatory Response | Mucosal immunity | 0.0379 | 1.42136079 | blue | 1 | SMAD3 |
| Cellular Function and Maintenance,Skeletal and Muscular System Development and Function | Respiration of muscle cells | 0.0379 | 1.42136079 | blue | 1 | CRTC3 |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of enlarged cervical lymph node | 0.0379 | 1.42136079 | blue | 1 | TRAF3IP2 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Epidermal nevus | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Cell Cycle,DNA Replication, Recombination, and Repair | Homologous pairing of DNA | 0.0379 | 1.42136079 | blue | 1 | EVL |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Jejunum adenocarcinoma | 0.0379 | 1.42136079 | blue | 1 | SSBP2 |
| Post-Translational Modification | Geranylgeranylation of protein | 0.0379 | 1.42136079 | blue | 1 | CHML |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol-3,4,5-triphosphate | 0.0379 | 1.42136079 | blue | 1 | HIP1R |
| Cardiovascular System Development and Function,Tissue Morphology | Diameter of arteriole | 0.0379 | 1.42136079 | blue | 1 | NCF1 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Phosphorylation of phosphatidylinositol 4,5-diphosphate | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Mucinous lung adenocarcinoma | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Cellular Assembly and Organization | Quantity of GW body | 0.0379 | 1.42136079 | blue | 1 | AGO2 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of palmitoleic acid | 0.0379 | 1.42136079 | blue | 1 | ELOVL5 |
| Cellular Compromise,Organismal Injury and Abnormalities | Degeneration of oocytes | 0.0379 | 1.42136079 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative hormone receptor positive PI3K mutation positive breast cancer | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Inflammatory Response | Th2 immune response of lung | 0.0379 | 1.42136079 | blue | 1 | TRAF3IP2 |
| Infectious Diseases | Production of hepatitis B virus | 0.0379 | 1.42136079 | blue | 1 | AGO2 |
| Connective Tissue Disorders,Developmental Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Formation of osteophyte | 0.0379 | 1.42136079 | blue | 1 | SMAD3 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cellular infiltration by tumor-associated macrophages | 0.0379 | 1.42136079 | blue | 1 | SMAD3 |
| Cell Death and Survival | Mitotic catastrophe of cervical cancer cell lines | 0.0379 | 1.42136079 | blue | 1 | YWHAH |
| Organismal Injury and Abnormalities | Fibrosis of exocrine gland | 0.0379 | 1.42136079 | blue | 1 | TRAF3IP2 |
| RNA Damage and Repair | Catabolism of rRNA | 0.0379 | 1.42136079 | blue | 1 | DIS3 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Catabolism of D-glucose | 0.0379 | 1.42136079 | blue | 1 | PFKFB2 |
| Carbohydrate Metabolism | Quantity of myo-inositol | 0.0379 | 1.42136079 | blue | 1 | SLC5A3 |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Tubular nephritis | 0.0379 | 1.42136079 | blue | 1 | COL4A3 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Cervical small cell carcinoma | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Behavior | Self-administration of cocaine | 0.0379 | 1.42136079 | blue | 1 | AGO2 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of dorsal column of spinal cord | 0.0379 | 1.42136079 | blue | 1 | NFATC3 |
| Digestive System Development and Function,Organ Morphology,Organismal Development | Size of submandibular gland | 0.0379 | 1.42136079 | blue | 1 | TRAF3IP2 |
| Nervous System Development and Function | Elaboration of dendrites | 0.0379 | 1.42136079 | blue | 1 | PIK3CA |
| Cellular Assembly and Organization | Nucleation of filaments | 0.038 | 1.420216403 | blue | 2 | ARHGEF7,CYFIP2 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of antigen presenting cells | 0.038 | 1.420216403 | blue | 2 | CD58,TNR |
| Infectious Diseases | Infection by HIV-1 | 0.039 | 1.408935393 | blue | 10 | CNST,CRTC3,FGD6,H3F3A/H3F3B,HIP1R,MAP4,MICAL3,PTPRJ,SPTBN1,TMEM131L |
| Infectious Diseases | Infection by Dengue virus 2 | 0.0395 | 1.403402904 | blue | 2 | AP1B1,HIP1R |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Germ cell tumor | 0.0395 | 1.403402904 | blue | 3 | FGD6,PIK3C2B,PIK3CA |
| Cell Cycle,DNA Replication, Recombination, and Repair | DNA recombination | 0.04 | 1.397940009 | blue | 4 | CD79B,EVL,RPAIN,STAG3 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Bone cancer | 0.04 | 1.397940009 | blue | 4 | BPTF,H3F3A/H3F3B,MAP4,SMAD3 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of leukocytes | 0.0403 | 1.394694954 | blue | 7 | CD58,GALNT1,NFATC3,PIK3CA,RASGRP2,TNR,TRAF3IP2 |
| Gene Expression,Protein Synthesis | Initiation of translation of mRNA | 0.0409 | 1.388276692 | blue | 2 | AGO2,EIF4G3 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Efflux of cholesterol | 0.0412 | 1.385102784 | blue | 3 | AEBP1,PCYT1A,SP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of macrophages | 0.0412 | 1.385102784 | blue | 3 | PTPRJ,SMAD3,TRAF3IP2 |
| Cellular Movement,Renal and Urological System Development and Function | Migration of kidney cell lines | 0.0412 | 1.385102784 | blue | 3 | ADD1,PIK3C2B,TBXA2R |
| Infectious Diseases | Infection of cells | 0.0414 | 1.382999659 | blue | 12 | AP1B1,CD58,CNST,CRTC3,FGD6,H3F3A/H3F3B,HIP1R,MAP4,MICAL3,PTPRJ,SPTBN1,TMEM131L |
| Connective Tissue Development and Function,Embryonic Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Development of vertebral column | 0.0424 | 1.372634143 | blue | 2 | ARHGEF7,HIP1R |
| 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 | 0.0425 | 1.37161107 | blue | 4 | PIK3CA,PTPRJ,SP1,TBXA2R |
| Cardiovascular System Development and Function,Organismal Development | Angiogenesis | 0.0432 | 1.364516253 | blue | 14 | ADD1,ADGRG1,AGO2,AP3M2,COL4A3,NCF1,NFATC3,PGK1,PIK3C2B,PIK3CA,PTPRJ,SMAD3,SP1,TBXA2R |
| Post-Translational Modification | Lipidation of protein | 0.0439 | 1.35753548 | blue | 2 | PIGL,ZDHHC23 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Teratoma | 0.0439 | 1.35753548 | blue | 2 | FGD6,PIK3CA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast or ovarian cancer | 0.044 | 1.356547324 | blue | 39 | AEBP1,AGO2,AP1B1,AP3M2,ARHGEF7,ARMH1,ATP10D,BPTF,CEP295,CRTC3,DDHD1,EIF4G3,GADD45B,GLCCI1,GUCY2C,H3F3A/H3F3B,MAP4,NFATC3,PGK1,PIK3C2B,PIK3CA,PIK3R5,PRUNE2,PTPRJ,RP9,SLC5A3,SMAD3,SOCS5,SPTBN1,SSBP1,STAG3,TBXA2R,TNR,WDR74,YWHAH,ZBTB20,ZBTB44,ZNF19,ZNF362 |
| Cancer,Endocrine System Disorders,Neurological Disease,Organismal Injury and Abnormalities | Benign pheochromocytoma | 0.0441 | 1.355561411 | blue | 1 | H3F3A/H3F3B |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of peripheral blood natural killer cells | 0.0441 | 1.355561411 | blue | 1 | CD58 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of phosphatidylinositol 4,5-diphosphate | 0.0441 | 1.355561411 | blue | 1 | HIP1R |
| Cellular Movement | Invasion by vascular endothelial cells | 0.0441 | 1.355561411 | blue | 1 | PTPRJ |
| Endocrine System Development and Function,Endocrine System Disorders,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of small thyroid gland | 0.0441 | 1.355561411 | blue | 1 | SMAD3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Gleason sum score 7-9 prostate cancer | 0.0441 | 1.355561411 | blue | 1 | AGO2 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of phosphatidylinositol 3,4-diphosphate | 0.0441 | 1.355561411 | blue | 1 | PIK3CA |
| Cell Cycle | Arrest in G1 phase of epithelial cells | 0.0441 | 1.355561411 | blue | 1 | SP1 |
| Cell Cycle,Hematological System Development and Function | Entry into cell cycle progression of T lymphocytes | 0.0441 | 1.355561411 | blue | 1 | SMAD3 |
| Nervous System Development and Function,Neurological Disease | Abnormal morphology of vagus nerve | 0.0441 | 1.355561411 | blue | 1 | SLC5A3 |
| Cell Morphology | Elongation of lens fiber cells | 0.0441 | 1.355561411 | blue | 1 | COL4A3 |
| Cell-To-Cell Signaling and Interaction | Adhesion of keratinocyte cancer cell lines | 0.0441 | 1.355561411 | blue | 1 | ADD1 |
| Cell Morphology,Cellular Movement,Reproductive System Development and Function | Elongation of gonadal cell lines | 0.0441 | 1.355561411 | blue | 1 | MAP4 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Metabolism of myo-inositol | 0.0441 | 1.355561411 | blue | 1 | SLC5A3 |
| Organismal Injury and Abnormalities | Injury of mucosa | 0.0441 | 1.355561411 | blue | 1 | GUCY2C |
| Auditory and Vestibular System Development and Function,Auditory Disease,Cell Morphology,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of marginal stria vascularis cells | 0.0441 | 1.355561411 | blue | 1 | COL4A3 |
| Cellular Movement,Connective Tissue Development and Function,Hepatic System Development and Function | Chemotaxis of hepatic stellate cells | 0.0441 | 1.355561411 | blue | 1 | SMAD3 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Nervous System Development and Function | Binding of microglia | 0.0441 | 1.355561411 | blue | 1 | TNR |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Abnormal quantity of thromboxane | 0.0441 | 1.355561411 | blue | 1 | TBXA2R |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Luminal B breast carcinoma | 0.0441 | 1.355561411 | blue | 1 | PIK3CA |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Lesioning of skin | 0.0441 | 1.355561411 | blue | 1 | CD79B |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Influx of monocytes | 0.0441 | 1.355561411 | blue | 1 | SMAD3 |
| Carbohydrate Metabolism,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Small Molecule Biochemistry,Tissue Development | Synthesis of chondroitin sulfate | 0.00151 | 2.821023053 | green | 2 | UST,XYLT1 |
| Cell Cycle,Hematological System Development and Function | Entry into cell cycle progression of peripheral T lymphocyte | 0.00199 | 2.701146924 | green | 1 | PAWR |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Desbuquois syndrome type 2 | 0.00199 | 2.701146924 | green | 1 | XYLT1 |
| Developmental Disorder,Endocrine System Disorders,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Endocrine-cerebroosteodysplasia | 0.00199 | 2.701146924 | green | 1 | ICK |
| Connective Tissue Disorders,Developmental Disorder,Gastrointestinal Disease,Hereditary Disorder,Neurological Disease,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Neurodevelopmental disorder with dysmorphic facies and distal limb anomalies | 0.00199 | 2.701146924 | green | 1 | BPTF |
| Cell Morphology,Hematological System Development and Function,Inflammatory Response,Organismal Development | Size of peritoneal macrophages | 0.00199 | 2.701146924 | green | 1 | PON2 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Co-localization of dense-core vesicles | 0.00199 | 2.701146924 | green | 1 | PIP5K1B |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of CD4+ T-lymphocytes | 0.00219 | 2.659555885 | green | 2 | NDFIP1,PIP5K1B |
| Cell Morphology | Polarity of leukemia cell lines | 0.00397 | 2.401209493 | green | 1 | PIP5K1B |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Desbuquois syndrome type 1 | 0.00397 | 2.401209493 | green | 1 | XYLT1 |
| Connective Tissue Disorders,Hereditary Disorder,Organismal Injury and Abnormalities | Autosomal recessive pseudoxanthoma elasticum | 0.00595 | 2.225483034 | green | 1 | XYLT1 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Development,Cellular Function and Maintenance,Cellular Growth and Proliferation,Nervous System Development and Function,Tissue Development | Formation of ribbon synapse | 0.00595 | 2.225483034 | green | 1 | LRRC4 |
| DNA Replication, Recombination, and Repair | Relaxation of plasmid DNA | 0.00595 | 2.225483034 | green | 1 | PAWR |
| Cellular Development,Nervous System Development and Function,Tissue Development | Differentiation of axons | 0.00595 | 2.225483034 | green | 1 | LRRC4 |
| Cancer | Transformation of prostate cell lines | 0.00595 | 2.225483034 | green | 1 | PAWR |
| Embryonic Development,Tissue Morphology | Contraction of hindgut | 0.00595 | 2.225483034 | green | 1 | PAWR |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Digestive organ tumor | 0.00631 | 2.199970641 | green | 34 | BPTF,BTF3L4,CEP295,CHD9,CHML,CRIM1,DHX32,DPH5,ICK,IDI1 |
| Cell Cycle,Reproductive System Development and Function | Cell cycle progression of prostate cell lines | 0.00793 | 2.100726813 | green | 1 | PAWR |
| Cellular Assembly and Organization | Recruitment of membrane rafts | 0.0099 | 2.004364805 | green | 1 | PIP5K1B |
| Cellular Assembly and Organization | Decapping of actin filaments | 0.0099 | 2.004364805 | green | 1 | PIP5K1B |
| Neurological Disease,Organismal Injury and Abnormalities | Juvenile myoclonic epilepsy | 0.0119 | 1.924453039 | green | 1 | ICK |
| Post-Translational Modification | Geranylgeranylation of protein | 0.0119 | 1.924453039 | green | 1 | CHML |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of chondroitin sulfate | 0.0119 | 1.924453039 | green | 1 | XYLT1 |
| Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of thin myometrium | 0.0119 | 1.924453039 | green | 1 | KPNA1 |
| Energy Production,Lipid Metabolism,Small Molecule Biochemistry | Oxidation of cholesterol | 0.0119 | 1.924453039 | green | 1 | PON2 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Synaptic transmission of collateral synapses | 0.0119 | 1.924453039 | green | 1 | LRRC4 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Dystocia | 0.0138 | 1.860120914 | green | 1 | KPNA1 |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Progressive renal fibrosis | 0.0138 | 1.860120914 | green | 1 | SMURF2 |
| Cardiovascular Disease,Hematological Disease,Organismal Injury and Abnormalities | Hypochromic microcytic anemia | 0.0138 | 1.860120914 | green | 1 | NDFIP1 |
| Carbohydrate Metabolism,Drug Metabolism,Small Molecule Biochemistry | Synthesis of heparan sulfate | 0.0138 | 1.860120914 | green | 1 | XYLT1 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Formation of actin comet | 0.0138 | 1.860120914 | green | 1 | PIP5K1B |
| Cell-To-Cell Signaling and Interaction,Molecular Transport,Small Molecule Biochemistry | Uptake of choline | 0.0158 | 1.801342913 | green | 1 | PAWR |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Synthesis of chondroitin sulfate proteoglycan | 0.0158 | 1.801342913 | green | 1 | XYLT1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Digestive system cancer | 0.0174 | 1.759450752 | green | 33 | BPTF,BTF3L4,CEP295,CHD9,CHML,CRIM1,DHX32,DPH5,ICK,IDI1 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of glucosylceramide | 0.0177 | 1.752026734 | green | 1 | PON2 |
| Cell Death and Survival | Apoptosis of peripheral T lymphocyte | 0.0177 | 1.752026734 | green | 1 | PAWR |
| Cellular Assembly and Organization | Quantity of clathrin-coated pits | 0.0177 | 1.752026734 | green | 1 | PIP5K1B |
| Organismal Injury and Abnormalities,Reproductive System Disease | Asthenozoospermia | 0.0178 | 1.749579998 | green | 2 | PIP5K1B,PSME4 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Small B-cell lymphocytic lymphoma | 0.018 | 1.744727495 | green | 4 | DPH5,ICK,KPNA1,PSME4 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of phosphatidylinositol 4-phosphate | 0.0197 | 1.705533774 | green | 1 | PIP5K1B |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Formation of blister | 0.0197 | 1.705533774 | green | 1 | CRIM1 |
| Cell Morphology | Detachment of flagella | 0.0217 | 1.663540266 | green | 1 | PIP5K1B |
| Cellular Development,Reproductive System Development and Function | Differentiation of spermatids | 0.0217 | 1.663540266 | green | 1 | RHBDD1 |
| Carbohydrate Metabolism,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Small Molecule Biochemistry,Tissue Development | Synthesis of chondroitin sulfate B | 0.0255 | 1.59345982 | green | 1 | UST |
| Cellular Assembly and Organization | Intraciliary transport | 0.0275 | 1.560667306 | green | 1 | ICK |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral squamous cell carcinoma | 0.0285 | 1.54515514 | green | 7 | BTF3L4,CEP295,DHX32,LCOR,LRRC4,NDFIP1,RBM48 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of prostate cancer cells | 0.0333 | 1.477555766 | green | 1 | PAWR |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Synthesis of heparan sulfate proteoglycan | 0.0352 | 1.453457337 | green | 1 | XYLT1 |
| Cellular Assembly and Organization | Formation of flagella | 0.0352 | 1.453457337 | green | 1 | PIP5K1B |
| Reproductive System Development and Function | Spermiation | 0.0352 | 1.453457337 | green | 1 | PIP5K1B |
| Post-Translational Modification | Sulfation of protein | 0.0352 | 1.453457337 | green | 1 | UST |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Proliferation of synovial fibroblasts | 0.0352 | 1.453457337 | green | 1 | TNFAIP8 |
| Auditory and Vestibular System Development and Function,Cell Morphology,Cellular Assembly and Organization | Orientation of stereocilia bundles | 0.0371 | 1.43062609 | green | 1 | SMURF2 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Synthesis of phosphatidylinositol 4,5-diphosphate | 0.0371 | 1.43062609 | green | 1 | PIP5K1B |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Humerus osteosarcoma | 0.039 | 1.408935393 | green | 1 | BPTF |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Metastasis of 4TO7 cells | 0.039 | 1.408935393 | green | 1 | SMURF2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of lymphoma | 0.039 | 1.408935393 | green | 1 | SMURF2 |
| Reproductive System Development and Function | Parturition | 0.039 | 1.408935393 | green | 1 | KPNA1 |
| Free Radical Scavenging,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of lipid peroxide | 0.039 | 1.408935393 | green | 1 | PON2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Gastrointestinal carcinoma | 0.0399 | 1.399027104 | green | 30 | BPTF,BTF3L4,CEP295,CHD9,CHML,CRIM1,DHX32,DPH5,ICK,IDI1 |
| Cancer,Organismal Injury and Abnormalities | Head and neck squamous cell carcinoma | 0.0399 | 1.399027104 | green | 11 | BPTF,BTF3L4,CEP295,DHX32,KIAA0513,LCOR,LRRC4,MRPS25,NDFIP1,RBM48 |
| Cell Death and Survival | Apoptosis of synovial fibroblasts | 0.0428 | 1.368556231 | green | 1 | TNFAIP8 |
| Cell Death and Survival | Apoptosis of prostate cell lines | 0.0428 | 1.368556231 | green | 1 | PAWR |
| Drug Metabolism,Protein Synthesis | Synthesis of aldesleukin | 0.0428 | 1.368556231 | green | 1 | PAWR |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of microvilli | 0.0448 | 1.348721986 | green | 1 | PIP5K1B |
| Cell Death and Survival | Apoptosis of motor neurons | 0.0448 | 1.348721986 | green | 1 | PAWR |
| Cancer,Organismal Injury and Abnormalities | Cancer of cells | 0.0451 | 1.345823458 | green | 17 | BPTF,BTF3L4,CEP295,DHX32,DPH5,ICK,KIAA0513,KPNA1,LCOR,LRRC4 |
| Immunological Disease | Passive cutaneous anaphylaxis | 0.0467 | 1.330683119 | green | 1 | PIP5K1B |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Brugada syndrome type 1 | 0.0467 | 1.330683119 | green | 1 | SLMAP |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of floor plate | 0.0467 | 1.330683119 | green | 1 | SMURF2 |
| Cell Morphology,Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of sperm midpiece | 0.0467 | 1.330683119 | green | 1 | PIP5K1B |