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| **Table S13. List of disease & functions associated with the identified gene co-expression modules in B cells of healthy control** | | | | | |
| Categories | Diseases or Functions Annotation | p-Value | Module | # Molecules | Molecules |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell lymphoma | 0.000522 | yellow | 8 | ALOX5,DIAPH1,MDM4,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Cellular Development,Cellular Growth and Proliferation | Arrest in proliferation of bone cancer cell lines | 0.000648 | yellow | 2 | MDM4,RBL2 |
| Cell Morphology,Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of Purkinje cells | 0.000841 | yellow | 3 | HEXB,MDM4,PITPNA |
| Cellular Development,Cellular Growth and Proliferation | Arrest in proliferation of sarcoma cell lines | 0.000852 | yellow | 2 | MDM4,RBL2 |
| Cellular Assembly and Organization | Quantity of lysosome | 0.00121 | yellow | 2 | AEN,HEXB |
| Cellular Development,Cellular Growth and Proliferation,Respiratory System Development and Function | Proliferation of lung cell lines | 0.00125 | yellow | 3 | ALOX5,DPY30,MDM4 |
| Cellular Growth and Proliferation | Colony formation of ovarian cancer cell lines | 0.00177 | yellow | 2 | RBL2,TES |
| Lipid Metabolism,Small Molecule Biochemistry | Binding of lipid | 0.00183 | yellow | 3 | CD55,FKBP5,MAP4 |
| Cancer,Cellular Development,Organismal Injury and Abnormalities | Immortalization of fibroblasts | 0.00244 | yellow | 2 | RBL2,RRM2B |
| Lipid Metabolism,Small Molecule Biochemistry | Degradation of asialo GM2 ganglioside | 0.00273 | yellow | 1 | HEXB |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Renal and Urological Disease,Skeletal and Muscular Disorders | Mitochondrial DNA depletion syndrome encephalomyopathic form with renal tubulopathy | 0.00273 | yellow | 1 | RRM2B |
| Cell Cycle,Skeletal and Muscular System Development and Function | Re-entry into cell cycle progression of myotube | 0.00273 | yellow | 1 | TFDP1 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities | Juvenile Sandhoff disease | 0.00273 | yellow | 1 | HEXB |
| Developmental Disorder,Gastrointestinal Disease,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Mitochondrial DNA depletion syndrome 8B (MNGIE type) | 0.00273 | yellow | 1 | RRM2B |
| Embryonic Development,Organismal Development,Tissue Development,Tissue Morphology | Expansion of epiblast | 0.00273 | yellow | 1 | EED |
| Embryonic Development,Organismal Development,Tissue Development,Tissue Morphology | Expansion of chorion | 0.00273 | yellow | 1 | TFDP1 |
| Infectious Diseases | Transport of echovirus 11 strain 207 | 0.00273 | yellow | 1 | CD55 |
| Embryonic Development,Organismal Development,Tissue Development,Tissue Morphology | Expansion of ectoplacental cone | 0.00273 | yellow | 1 | TFDP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Compromise | Damage of neuromuscular junctions | 0.00273 | yellow | 1 | CD55 |
| Endocrine System Disorders,Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Severe insulitis | 0.00273 | yellow | 1 | IRS2 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Hematological System Development and Function | Suppressive capacity of monocytic myeloid derived suppressor cells | 0.00273 | yellow | 1 | FKBP5 |
| Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autosomal dominant progressive external ophthalmoplegia with mitochondrial DNA deletions 5 | 0.00273 | yellow | 1 | RRM2B |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Protein losing enteropathy | 0.00273 | yellow | 1 | CD55 |
| Cellular Assembly and Organization | Induction of microtubules | 0.00273 | yellow | 1 | DIAPH1 |
| Lipid Metabolism,Small Molecule Biochemistry | Oxygenation of leukotriene A4 | 0.00273 | yellow | 1 | ALOX5 |
| Cancer,Cell Death and Survival | Opsonization of neuroblastoma cell lines | 0.00273 | yellow | 1 | CD55 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis of squamous cell carcinoma cell lines | 0.00273 | yellow | 1 | MAP4 |
| Cell Morphology,Cellular Movement,Nervous System Development and Function | Innervation of thalamocortical axons | 0.00273 | yellow | 1 | NR2F1 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Seizures, cortical blindness, and microcephaly syndrome | 0.00273 | yellow | 1 | DIAPH1 |
| Cellular Compromise | Disorganization of F-actin | 0.00273 | yellow | 1 | DIAPH1 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Cohen-Gibson syndrome | 0.00273 | yellow | 1 | EED |
| Auditory Disease,Connective Tissue Disorders,Developmental Disorder,Hematological Disease,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal dominant deafness type 1 with thrombocytopenia | 0.00273 | yellow | 1 | DIAPH1 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Desbuquois syndrome type 2 | 0.00273 | yellow | 1 | XYLT1 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Secretion of lipoxin A4 | 0.00273 | yellow | 1 | ALOX5 |
| Nervous System Development and Function,Organ Morphology | Quantity of layer IV | 0.00273 | yellow | 1 | NR2F1 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities | Adult Sandhoff disease | 0.00273 | yellow | 1 | HEXB |
| Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of enlarged corpus epididymis | 0.00273 | yellow | 1 | HEXB |
| Auditory Disease,Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Bosch-Boonstra-Schaaf optic atrophy syndrome | 0.00273 | yellow | 1 | NR2F1 |
| Hereditary Disorder,Ophthalmic Disease,Organismal Injury and Abnormalities | Retinitis pigmentosa type 78 | 0.00273 | yellow | 1 | ARHGEF18 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Intestinal steatosis | 0.00273 | yellow | 1 | PITPNA |
| Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of enlarged caput epididymis | 0.00273 | yellow | 1 | HEXB |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Transport of phosphatidylinositol | 0.00273 | yellow | 1 | PITPNA |
| Infectious Diseases | Infection by echovirus | 0.00273 | yellow | 1 | CD55 |
| Cell Cycle,Renal and Urological System Development and Function | Delay in cell cycle progression of kidney cell lines | 0.00273 | yellow | 1 | TFDP1 |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Gentamicin-induced renal injury | 0.00273 | yellow | 1 | HEXB |
| Cellular Growth and Proliferation | Colony formation of cervical cancer cell lines | 0.00282 | yellow | 2 | STK26,TES |
| Cell Morphology,Cellular Assembly and Organization | Morphology of nucleus | 0.0031 | yellow | 4 | MAP4,MDM4,PAIP2,RBL2 |
| Neurological Disease,Organismal Injury and Abnormalities | Leukoencephalopathy | 0.00317 | yellow | 3 | ALOX5,EPRS,RRM2B |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell non-Hodgkin lymphoma | 0.00362 | yellow | 9 | ALOX5,DIAPH1,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Organ Morphology,Organismal Development,Reproductive System Development and Function | Mass of epididymis | 0.00364 | yellow | 2 | HEXB,PAIP2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Waldenström macroglobulinemia | 0.00397 | yellow | 4 | DIAPH1,RBL2,RRM2B,TFDP1 |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of lymphoid organ | 0.00409 | yellow | 4 | ARL6IP5,EED,MAP4,RRM2B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Development of genital tumor | 0.00492 | yellow | 25 | ACTR3,ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,FLOT1,IRS2,MAP4,MDM4,NR2F1,PITPNA,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,XYLT1,ZNF614 |
| Embryonic Development,Organismal Development,Tissue Development | Expansion of embryonic tissue | 0.00531 | yellow | 2 | EED,TFDP1 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities | Infantile Sandhoff disease | 0.00544 | yellow | 1 | HEXB |
| Connective Tissue Disorders,Developmental Disorder,Gastrointestinal Disease,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Frontal bossing | 0.00544 | yellow | 1 | HEXB |
| Auditory and Vestibular System Development and Function,Cellular Development,Connective Tissue Development and Function,Organ Development,Tissue Development | Differentiation of labyrinth supporting cells | 0.00544 | yellow | 1 | NR2F1 |
| Embryonic Development,Organismal Development,Tissue Morphology | Length of ventricular zone | 0.00544 | yellow | 1 | NR2F1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Molecular Transport | Initiation of exocytosis of vesicles | 0.00544 | yellow | 1 | PITPNA |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Quantity of peripheral lamellae | 0.00544 | yellow | 1 | DIAPH1 |
| Cancer,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastatic embryonal rhabdomyosarcoma | 0.00544 | yellow | 1 | MDM4 |
| Lipid Metabolism,Small Molecule Biochemistry | Conversion of 5-hydroxyeicosatetraenoic acid | 0.00544 | yellow | 1 | ALOX5 |
| Behavior | Courtship behavior | 0.00544 | yellow | 1 | HEXB |
| 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 broad rib | 0.00544 | yellow | 1 | HEXB |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities | GM2 gangliosidosis AB | 0.00544 | yellow | 1 | HEXB |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Latency of thymic lymphoma | 0.00544 | yellow | 1 | EED |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Mobilization of myeloid-derived suppressor cells | 0.00544 | yellow | 1 | ALOX5 |
| Cell Cycle | Cell division of eye cell lines | 0.00544 | yellow | 1 | MAP4 |
| Cellular Compromise,Organismal Injury and Abnormalities,Tissue Morphology | Destruction of epithelial cells | 0.00544 | yellow | 1 | CD55 |
| Infectious Diseases | Infection of colorectal cancer cell lines | 0.00544 | yellow | 1 | CD55 |
| Cell Morphology,Nervous System Development and Function,Neurological Disease,Tissue Morphology | Abnormal morphology of parasympathetic neurons | 0.00544 | yellow | 1 | CPEB2 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Outgrowth of microtubules | 0.00544 | yellow | 1 | MAP4 |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of gangliotriaosylceramide II3-sulfate | 0.00544 | yellow | 1 | HEXB |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Osteoporosis of femur | 0.00544 | yellow | 1 | ALOX5 |
| Developmental Disorder,Hematological Disease,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Anderson disease | 0.00544 | yellow | 1 | PITPNA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Production of prostatic intraepithelial tumor | 0.00544 | yellow | 1 | RBL2 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Hemorrhagic diarrhea | 0.00544 | yellow | 1 | CD55 |
| Lipid Metabolism,Small Molecule Biochemistry | Hydrolysis of lactosylceramide II3-sulfate | 0.00544 | yellow | 1 | HEXB |
| Cell Morphology | Ruffling of gonadal cell lines | 0.00544 | yellow | 1 | DIAPH1 |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Organismal Development,Tissue Development | Development of trophoblast giant cells | 0.00544 | yellow | 1 | EED |
| Drug Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of paclitaxel | 0.00544 | yellow | 1 | MAP4 |
| Cell Death and Survival | Lysis of skin cancer cell lines | 0.00544 | yellow | 1 | CD55 |
| Cell Death and Survival,Cell Morphology,Hematological Disease,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Morphology | Loss of bone marrow precursor cells | 0.00544 | yellow | 1 | MDM4 |
| Cancer,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metastatic alveolar rhabdomyosarcoma | 0.00544 | yellow | 1 | MDM4 |
| Lipid Metabolism,Small Molecule Biochemistry | Expression of leukotriene | 0.00544 | yellow | 1 | ALOX5 |
| Cell Death and Survival | Cytolysis of neuroblastoma cell lines | 0.00544 | yellow | 1 | CD55 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Desbuquois syndrome type 1 | 0.00544 | yellow | 1 | XYLT1 |
| Cell Death and Survival | Apoptosis of fibroblasts | 0.00573 | yellow | 4 | MAP4,MDM4,PITPNA,TFDP1 |
| Infectious Diseases | Viral Infection | 0.00573 | yellow | 13 | ACTR3,ALOX5,CD55,DIAPH1,ERC1,IRS2,MAP4,MED30,NR2F1,PSMA7,RRM2B,SNRPA1,UBE2E2 |
| Reproductive System Development and Function,Respiratory System Development and Function | Abnormal respiratory rhythm | 0.00584 | yellow | 2 | CPEB2,RBL2 |
| Cell Death and Survival | Anoikis | 0.00592 | yellow | 3 | CPEB2,RBL2,TFDP1 |
| Cell Death and Survival | Cell viability of breast cancer cell lines | 0.00603 | yellow | 4 | FKBP5,IRS2,MDM4,STK26 |
| Cell Cycle,Embryonic Development | G1 phase of embryonic cell lines | 0.00612 | yellow | 2 | RBL2,TFDP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell neoplasm | 0.00626 | yellow | 11 | ALOX5,ARL6IP5,DIAPH1,ERC1,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Developmental Disorder | Growth Failure | 0.0066 | yellow | 7 | DIAPH1,HEXB,PEG10,PITPNA,RBL2,RRM2B,TFDP1 |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of glycosaminoglycan | 0.00668 | yellow | 2 | HEXB,XYLT1 |
| Infectious Diseases | Infection by RNA virus | 0.00675 | yellow | 9 | ACTR3,ALOX5,CD55,DIAPH1,ERC1,MAP4,PSMA7,RRM2B,SNRPA1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature lymphocytic neoplasm | 0.00687 | yellow | 12 | ALOX5,ARL6IP5,DIAPH1,ERC1,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Cell Death and Survival | Cell viability of tumor cell lines | 0.00692 | yellow | 9 | AEN,CD55,FKBP5,IRS2,MDM4,RRM2B,SNRPA1,SPATS2,STK26 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of granule cell layer | 0.00698 | yellow | 2 | DIAPH1,MDM4 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Non-Hodgkin lymphoma | 0.00751 | yellow | 10 | ALOX5,DIAPH1,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Cancer,Organismal Injury and Abnormalities | Lymphatic system tumor | 0.00775 | yellow | 14 | ALOX5,ARL6IP5,DIAPH1,EED,ERC1,IRS2,MAP4,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of spinal cord | 0.00788 | yellow | 2 | HEXB,PITPNA |
| Infectious Diseases | Infection by Dengue virus 2 | 0.00788 | yellow | 2 | DIAPH1,ERC1 |
| Cell Cycle,Connective Tissue Development and Function | Cell cycle progression of fibroblasts | 0.00788 | yellow | 2 | MAP4,RBL2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mantle cell lymphoma | 0.00806 | yellow | 3 | ALOX5,MDM4,RRM2B |
| Cell-To-Cell Signaling and Interaction,Drug Metabolism,Small Molecule Biochemistry | Sulfation of dopamine | 0.00815 | yellow | 1 | SULT1A1 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Lack of barrel cortex | 0.00815 | yellow | 1 | NR2F1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Neurofibromatosis 1 associated malignant peripheral nerve sheath tumor | 0.00815 | yellow | 1 | EED |
| Cell Cycle,Embryonic Development,Organismal Development | Endoreduplication of trophoblast giant cells | 0.00815 | yellow | 1 | TFDP1 |
| Cell Cycle,Connective Tissue Development and Function | Delay in initiation of G1/S phase transition of fibroblast cell lines | 0.00815 | yellow | 1 | TFDP1 |
| Inflammatory Disease,Neurological Disease,Organismal Injury and Abnormalities | Inflammatory disorder of cerebellum | 0.00815 | yellow | 1 | PITPNA |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Transmission of phosphatidylcholine | 0.00815 | yellow | 1 | PITPNA |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Camptocormia | 0.00815 | yellow | 1 | RRM2B |
| Connective Tissue Disorders,Hereditary Disorder,Organismal Injury and Abnormalities | Autosomal recessive pseudoxanthoma elasticum | 0.00815 | yellow | 1 | XYLT1 |
| Cell Cycle,Hair and Skin Development and Function | Delay in cell cycle progression of epithelial cell lines | 0.00815 | yellow | 1 | TFDP1 |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of leukotriene A4 | 0.00815 | yellow | 1 | ALOX5 |
| Neurological Disease,Organismal Injury and Abnormalities | Porencephaly | 0.00815 | yellow | 1 | MDM4 |
| Cardiovascular System Development and Function,Organismal Development | Angiogenesis of microvessel | 0.00815 | yellow | 1 | RBL2 |
| Neurological Disease,Organismal Injury and Abnormalities | Neurodegeneration of spinal cord | 0.00815 | yellow | 1 | PITPNA |
| Cell Morphology,Cellular Assembly and Organization | Thickness of actin stress fibers | 0.00815 | yellow | 1 | DIAPH1 |
| Lipid Metabolism,Small Molecule Biochemistry | Oxygenation of arachidonic acid | 0.00815 | yellow | 1 | ALOX5 |
| Carbohydrate Metabolism,Energy Production,Molecular Transport | Transport of pyruvic acid | 0.00815 | yellow | 1 | SLC16A7 |
| Cell Morphology,Cellular Compromise,DNA Replication, Recombination, and Repair | Mutagenesis of splenocytes | 0.00815 | yellow | 1 | RRM2B |
| Lipid Metabolism,Small Molecule Biochemistry | Conversion of eicosapentenoic acid | 0.00815 | yellow | 1 | ALOX5 |
| Organismal Injury and Abnormalities | Recurrent pain crisis | 0.00815 | yellow | 1 | RRM2B |
| Connective Tissue Development and Function,Organ Morphology,Tissue Morphology | Quantity of Deiters' cells | 0.00815 | yellow | 1 | NR2F1 |
| Auditory and Vestibular System Development and Function,Auditory Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of short cochlear duct | 0.00815 | yellow | 1 | NR2F1 |
| Cell Morphology,Cellular Compromise,DNA Replication, Recombination, and Repair | Mutagenesis of lung cells | 0.00815 | yellow | 1 | RRM2B |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Reabsorption of cholesterol | 0.00815 | yellow | 1 | FLOT1 |
| Metabolic Disease,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Chronic progressive external ophthalmoplegia | 0.00815 | yellow | 1 | RRM2B |
| Cell Cycle,Hair and Skin Development and Function | Cell division of epithelial cell lines | 0.00815 | yellow | 1 | MAP4 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Lysis of chronic lymphocytic leukemia cells | 0.00815 | yellow | 1 | CD55 |
| Cell Cycle,Connective Tissue Development and Function | Cell cycle progression of chondrocytes | 0.00815 | yellow | 1 | RBL2 |
| Cell Cycle | Arrest in cell cycle progression of bone marrow cell lines | 0.00815 | yellow | 1 | TFDP1 |
| Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Development,Organ Morphology,Tissue Development,Tissue Morphology | Expansion of thymic medullary epithelial cells | 0.00815 | yellow | 1 | RBL2 |
| Cell Morphology,Cellular Assembly and Organization,Nervous System Development and Function | Projection of thalamocortical axons | 0.00815 | yellow | 1 | NR2F1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Tumorigenesis of reproductive tract | 0.00836 | yellow | 25 | ACTR3,ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,FLOT1,IRS2,MAP4,MDM4,NR2F1,PITPNA,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,XYLT1,ZNF614 |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of bone cancer cell lines | 0.00836 | yellow | 3 | EED,MDM4,RBL2 |
| Cell Cycle,Embryonic Development | Cell cycle progression of embryonic cell lines | 0.00852 | yellow | 2 | RBL2,TFDP1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymphoid organ | 0.00853 | yellow | 6 | ALOX5,ARL6IP5,CD55,DIAPH1,RBL2,RRM2B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Female genital neoplasm | 0.00859 | yellow | 25 | ACTR3,ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,FLOT1,IRS2,MAP4,MDM4,NR2F1,PITPNA,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,XYLT1,ZNF614 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoma | 0.00872 | yellow | 11 | ALOX5,DIAPH1,EED,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Cell Cycle | Re-entry into cell cycle progression | 0.00884 | yellow | 2 | RBL2,TFDP1 |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Organ Development,Organismal Development,Reproductive System Development and Function,Tissue Development | Oogenesis | 0.00884 | yellow | 2 | HEXB,IRS2 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer of cells | 0.0089 | yellow | 13 | ALOX5,ARL6IP5,DIAPH1,EED,ERC1,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Leukodystrophy | 0.00918 | yellow | 2 | ALOX5,EPRS |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Aggressive mature B-cell lymphoma | 0.00922 | yellow | 5 | ALOX5,MDM4,RRM2B,SLC16A7,TSHZ2 |
| Cell Cycle | Arrest in interphase of lung cancer cell lines | 0.00985 | yellow | 2 | MDM4,RRM2B |
| Cell Death and Survival | Cell viability of colorectal cancer cell lines | 0.0101 | yellow | 3 | AEN,RRM2B,SPATS2 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Tissue Morphology | Morphology of spleen | 0.0105 | yellow | 5 | ALOX5,CD55,DIAPH1,RBL2,RRM2B |
| Small Molecule Biochemistry | Efficacy of methotrexate | 0.0109 | yellow | 1 | SLC16A7 |
| Cell Morphology | Elongation of cervical cancer cell lines | 0.0109 | yellow | 1 | DIAPH1 |
| Dermatological Diseases and Conditions,Hair and Skin Development and Function,Organ Morphology,Organismal Injury and Abnormalities | Abnormal morphology of guard hair | 0.0109 | yellow | 1 | RBL2 |
| 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 naive T lymphocytes | 0.0109 | yellow | 1 | RBL2 |
| Cell Morphology | Polarity of T lymphocytes | 0.0109 | yellow | 1 | DIAPH1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | PDGBR rearrangement negative Philadelphia chromosome negative t(5;12)(q33;p13) negative chronic myelomonocytic leukemia | 0.0109 | yellow | 1 | RRM2B |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Cytogenetic abnormality positive loss of Y chromosome negative Philadelphia chromosome negative t(5;12)(q33;p13) negative CMML | 0.0109 | yellow | 1 | RRM2B |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Sporadic malignant peripheral nerve sheath tumor | 0.0109 | yellow | 1 | EED |
| Developmental Disorder | Hypoplasia of interparietal bone | 0.0109 | yellow | 1 | RBL2 |
| Carbohydrate Metabolism,Digestive System Development and Function,Hepatic System Development and Function | Glycogenolysis of liver | 0.0109 | yellow | 1 | PITPNA |
| Cellular Assembly and Organization,Endocrine System Development and Function | Fusion of insulin secretory granules | 0.0109 | yellow | 1 | ERC1 |
| Carbohydrate Metabolism | Accumulation of oligosaccharide | 0.0109 | yellow | 1 | HEXB |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of cingulate gyrus | 0.0109 | yellow | 1 | NR2F1 |
| Connective Tissue Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Diameter of humerus | 0.0109 | yellow | 1 | RBL2 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Development of intestinal polyp | 0.0109 | yellow | 1 | ALOX5 |
| Cellular Assembly and Organization | Density of actin stress fibers | 0.0109 | yellow | 1 | DIAPH1 |
| Cell Morphology,Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Lack of mitochondrial sheath | 0.0109 | yellow | 1 | PAIP2 |
| Cell Death and Survival | Cytolysis of prostate cancer cell lines | 0.0109 | yellow | 1 | CD55 |
| Cell Cycle,Visual System Development and Function | Re-entry into cell cycle progression of lens fiber cells | 0.0109 | yellow | 1 | RBL2 |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of chondroitin sulfate B | 0.0109 | yellow | 1 | HEXB |
| Drug Metabolism,Endocrine System Development and Function,Lipid Metabolism,Small Molecule Biochemistry | Binding of dexamethasone | 0.0109 | yellow | 1 | FKBP5 |
| Cell Cycle,Embryonic Development | Delay in cell cycle progression of embryonic cell lines | 0.0109 | yellow | 1 | TFDP1 |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of leukotriene D4 | 0.0109 | yellow | 1 | ALOX5 |
| Gastrointestinal Disease | Abnormal absorption of vitamin | 0.0109 | yellow | 1 | PITPNA |
| Developmental Disorder,Endocrine System Disorders,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Childhood adrenoleukodystrophy | 0.0109 | yellow | 1 | ALOX5 |
| Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Camptodactyly | 0.0109 | yellow | 1 | HEXB |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Disappearance of D-glucose | 0.0109 | yellow | 1 | IRS2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloproliferative chronic myelomonocytic leukemia | 0.0109 | yellow | 1 | RRM2B |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Radiotherapy associated malignant peripheral nerve sheath tumor | 0.0109 | yellow | 1 | EED |
| Cellular Function and Maintenance,Tissue Development | Function of fibroblasts | 0.0109 | yellow | 1 | ALOX5 |
| Cell Cycle,Connective Tissue Development and Function | Mitogenesis of brown adipocytes | 0.0109 | yellow | 1 | IRS2 |
| Cell Cycle,Connective Tissue Development and Function | S phase of fibroblast cell lines | 0.0109 | yellow | 2 | RBL2,TFDP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic cancer | 0.0113 | yellow | 13 | ALOX5,ARL6IP5,DIAPH1,EED,ERC1,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Absorption of lipid | 0.0113 | yellow | 2 | FLOT1,PITPNA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast or ovarian carcinoma | 0.0115 | yellow | 18 | ALOX5,ARHGEF18,DCAF16,DIAPH1,EED,EPRS,ERC1,FKBP5,FLOT1,IRS2,MAP4,MDM4,PSMA7,RBL2,SECISBP2L,TES,TFDP1,TSHZ2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Female genital tract cancer | 0.0116 | yellow | 24 | ACTR3,ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,FLOT1,IRS2,MAP4,MDM4,PITPNA,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,XYLT1,ZNF614 |
| Auditory Disease,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal dominant deafness | 0.0116 | yellow | 2 | DIAPH1,NR2F1 |
| Neurological Disease | Dysmyelination | 0.012 | yellow | 3 | ALOX5,EPRS,PITPNA |
| Metabolic Disease | Mitochondrial disorder | 0.0122 | yellow | 3 | NR2F1,RRM2B,TIMMDC1 |
| Neurological Disease,Organismal Injury and Abnormalities | Degeneration of cerebellum | 0.0124 | yellow | 2 | HEXB,PITPNA |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Ovarian carcinoma | 0.0131 | yellow | 12 | ARHGEF18,DCAF16,DIAPH1,EED,FLOT1,IRS2,MAP4,MDM4,SECISBP2L,TES,TFDP1,TSHZ2 |
| Cell Cycle,Cell Morphology,Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Loss of chromosomes | 0.0136 | yellow | 1 | MDM4 |
| Auditory Disease,Neurological Disease | Mixed nonsyndromic hearing impairment | 0.0136 | yellow | 1 | DIAPH1 |
| Cell Death and Survival | Lysis of vascular endothelial cells | 0.0136 | yellow | 1 | CD55 |
| Cell Cycle | Arrest in G2/M phase transition of lung cancer cell lines | 0.0136 | yellow | 1 | RRM2B |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Mild to moderate stage active ulcerative colitis | 0.0136 | yellow | 1 | ALOX5 |
| Cellular Development,Cellular Growth and Proliferation,Digestive System Development and Function,Embryonic Development,Endocrine System Development and Function,Organ Development,Organismal Development,Tissue Development | Development of beta islet cells | 0.0136 | yellow | 1 | IRS2 |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Mild to moderate stage active ulcerative proctitis | 0.0136 | yellow | 1 | ALOX5 |
| Connective Tissue Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Diameter of ulna | 0.0136 | yellow | 1 | RBL2 |
| Cell Morphology,Cellular Compromise,DNA Replication, Recombination, and Repair | Mutagenesis of fibroblast cell lines | 0.0136 | yellow | 1 | RRM2B |
| Dermatological Diseases and Conditions,Hair and Skin Development and Function,Organ Morphology,Organismal Injury and Abnormalities | Abnormal morphology of zigzag hair | 0.0136 | yellow | 1 | RBL2 |
| Nervous System Development and Function,Neurological Disease | Abnormal morphology of glossopharyngeal cranial nerve ganglion | 0.0136 | yellow | 1 | NR2F1 |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Progressive cardiomyopathy | 0.0136 | yellow | 1 | MED30 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Early stage ankylosing spondylitis | 0.0136 | yellow | 1 | ALOX5 |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of leukotriene E4 | 0.0136 | yellow | 1 | ALOX5 |
| Connective Tissue Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Diameter of radius | 0.0136 | yellow | 1 | RBL2 |
| Lipid Metabolism,Small Molecule Biochemistry | Conversion of leukotriene A4 | 0.0136 | yellow | 1 | ALOX5 |
| Cellular Compromise,Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Disease | Atrophy of testicular cells | 0.0136 | yellow | 1 | TFDP1 |
| Inflammatory Response | Activation of complement factor | 0.0136 | yellow | 1 | CD55 |
| Organismal Development,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Abnormal morphology of footpad | 0.0136 | yellow | 1 | MDM4 |
| Gastrointestinal Disease | Gastrointestinal complication | 0.0136 | yellow | 1 | ALOX5 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Achilles tendinopathy | 0.0136 | yellow | 1 | ALOX5 |
| Cell Morphology | Cell flattening of bone cancer cell lines | 0.0136 | yellow | 1 | RBL2 |
| Lipid Metabolism,Small Molecule Biochemistry | Sulfation of 2-hydroxyestradiol | 0.0136 | yellow | 1 | SULT1A1 |
| Neurological Disease,Organismal Injury and Abnormalities | Pharmacologically induced seizure | 0.0136 | yellow | 1 | NR2F1 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of asialo GM2 ganglioside | 0.0136 | yellow | 1 | HEXB |
| Cell Morphology | Cell flattening of sarcoma cell lines | 0.0136 | yellow | 1 | RBL2 |
| Dermatological Diseases and Conditions,Organ Morphology,Organismal Injury and Abnormalities | Abnormal morphology of enlarged sebaceous glands | 0.0136 | yellow | 1 | RBL2 |
| Organismal Injury and Abnormalities | Postoperative dental pain | 0.0136 | yellow | 1 | ALOX5 |
| Organismal Development,Respiratory Disease,Respiratory System Development and Function | Abnormal morphology of snout | 0.0136 | yellow | 2 | HEXB,RBL2 |
| Carbohydrate Metabolism | Metabolism of polysaccharide | 0.0136 | yellow | 4 | HEXB,IRS2,PITPNA,XYLT1 |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development | Proliferation of embryonic cell lines | 0.0149 | yellow | 4 | MDM4,RBL2,STK26,TFDP1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphocytic neoplasm | 0.0151 | yellow | 13 | ALOX5,ARL6IP5,DIAPH1,EED,ERC1,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Cell Cycle | Interphase of bone cancer cell lines | 0.0152 | yellow | 2 | RBL2,TFDP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of leukocytes | 0.0153 | yellow | 13 | ALOX5,ARL6IP5,DIAPH1,EED,ERC1,IRS2,MDM4,PEG10,RBL2,RRM2B,SLC16A7,TFDP1,TSHZ2 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymph node | 0.0154 | yellow | 3 | CD55,DIAPH1,RRM2B |
| Cell Morphology,Digestive System Development and Function,Endocrine System Disorders,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of islet cells | 0.0156 | yellow | 2 | IRS2,PITPNA |
| Cell Morphology | Elongation of cells | 0.016 | yellow | 2 | DIAPH1,MAP4 |
| Infectious Diseases | Infection of hepatoma cell lines | 0.016 | yellow | 2 | DIAPH1,ERC1 |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of chondroitin sulfate | 0.0162 | yellow | 1 | XYLT1 |
| Organismal Injury and Abnormalities | Oro-facial pain | 0.0162 | yellow | 1 | ALOX5 |
| Post-Translational Modification | Geranylgeranylation of protein | 0.0162 | yellow | 1 | CHML |
| Endocrine System Disorders,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Mild Graves ophthalmopathy | 0.0162 | yellow | 1 | ALOX5 |
| Metabolic Disease,Organismal Functions | Abnormal energy balance | 0.0162 | yellow | 1 | IRS2 |
| Gastrointestinal Disease,Inflammatory Disease,Organismal Injury and Abnormalities | Proctosigmoiditis | 0.0162 | yellow | 1 | ALOX5 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of thymic lymphoma | 0.0162 | yellow | 1 | EED |
| Hematological Disease | Echinocytosis | 0.0162 | yellow | 1 | DIAPH1 |
| Dermatological Diseases and Conditions,Hair and Skin Development and Function,Organ Morphology,Organismal Injury and Abnormalities | Abnormal morphology of awl hair | 0.0162 | yellow | 1 | RBL2 |
| Drug Metabolism,Endocrine System Development and Function,Lipid Metabolism,Small Molecule Biochemistry | Sulfation of beta-estradiol | 0.0162 | yellow | 1 | SULT1A1 |
| Cell Cycle,Renal and Urological System Development and Function | G1/S phase transition of kidney cell lines | 0.0162 | yellow | 1 | TFDP1 |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Collagenous colitis | 0.0162 | yellow | 1 | ALOX5 |
| Endocrine System Development and Function,Endocrine System Disorders,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Reproductive System Disease | Abnormal morphology of intermediate lobe of the pituitary gland | 0.0162 | yellow | 1 | IRS2 |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Lymphocytic colitis | 0.0162 | yellow | 1 | ALOX5 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of lipoxin A4 | 0.0162 | yellow | 1 | ALOX5 |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Mild to moderate stage biologically active form ulcerative colitis | 0.0162 | yellow | 1 | ALOX5 |
| Molecular Transport,Nucleic Acid Metabolism,Small Molecule Biochemistry | Concentration of dTTP | 0.0162 | yellow | 1 | RRM2B |
| Neurological Disease | Hypermyelination of axons | 0.0162 | yellow | 1 | EED |
| Cellular Movement | Invasion of breast cancer cell lines | 0.0174 | yellow | 4 | DIAPH1,EED,ERC1,IRS2 |
| Organismal Development | Size of animal | 0.0176 | yellow | 3 | IRS2,MDM4,RBL2 |
| Cell Cycle,Connective Tissue Development and Function | G1 phase of fibroblast cell lines | 0.0178 | yellow | 2 | RBL2,TFDP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Genital tract cancer | 0.0184 | yellow | 31 | ACTR3,ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,ERC1,FLOT1,IRS2,LCOR,MAP4,MDM4,MED30,NKX6-3,NR2F1,PITPNA,PSMA7,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TIMMDC1,TSHZ2,XYLT1,ZNF614 |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance,Nervous System Development and Function | Extension of neurites | 0.0185 | yellow | 3 | ACTR3,DIAPH1,NR2F1 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of tumor | 0.0185 | yellow | 3 | ARL6IP5,EED,MDM4 |
| Endocrine System Development and Function,Organ Morphology,Tissue Morphology | Quantity of islet cells | 0.0187 | yellow | 2 | IRS2,PITPNA |
| Cell Death and Survival | Apoptosis | 0.0188 | yellow | 17 | ALOX5,ARHGEF18,ARL6IP5,CD55,CPEB2,ERC1,FKBP5,HEXB,IRS2,MAP4,MDM4,NR2F1,PITPNA,RBL2,RRM2B,STK26,TFDP1 |
| Cancer,Endocrine System Disorders,Gastrointestinal Disease,Organismal Injury and Abnormalities | Insulinoma | 0.0189 | yellow | 1 | RBL2 |
| Cell Morphology,Digestive System Development and Function,Endocrine System Disorders,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Lack of beta islet cells | 0.0189 | yellow | 1 | IRS2 |
| Cellular Function and Maintenance,Molecular Transport | Exocytosis by mast cells | 0.0189 | yellow | 1 | ERC1 |
| Cell Cycle,Connective Tissue Development and Function | Re-entry into cell cycle progression of fibroblasts | 0.0189 | yellow | 1 | RBL2 |
| Cell Morphology | Morphology of lung cell lines | 0.0189 | yellow | 1 | DPY30 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Recruitment of myeloid-derived suppressor cells | 0.0189 | yellow | 1 | ALOX5 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Sunburn | 0.0189 | yellow | 1 | ALOX5 |
| Cellular Assembly and Organization,Embryonic Development,Organismal Development,Reproductive System Development and Function | Penetration of zona pellucida | 0.0189 | yellow | 1 | HEXB |
| Small Molecule Biochemistry | Sulfation of raloxifene | 0.0189 | yellow | 1 | SULT1A1 |
| Gene Expression,RNA Post-Transcriptional Modification | Binding of mRNA | 0.0189 | yellow | 1 | PAIP2 |
| Cell Morphology,Cellular Movement,Reproductive System Development and Function | Elongation of gonadal cell lines | 0.0189 | yellow | 1 | MAP4 |
| Carbohydrate Metabolism,Drug Metabolism,Small Molecule Biochemistry | Synthesis of heparan sulfate | 0.0189 | yellow | 1 | XYLT1 |
| Cell Signaling,Small Molecule Biochemistry | Generation of nitrite | 0.0189 | yellow | 1 | ALOX5 |
| Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of efferent ductule of testis | 0.0189 | yellow | 1 | HEXB |
| Cell Morphology,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of spongiotrophoblasts | 0.0189 | yellow | 1 | PEG10 |
| Cellular Development,Organismal Development | Differentiation of artery | 0.0189 | yellow | 1 | MDM4 |
| Cellular Assembly and Organization | Quantity of autophagic vacuoles | 0.0189 | yellow | 1 | AEN |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Abnormal quantity of thromboxane | 0.0189 | yellow | 1 | ALOX5 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Gonadal tumor | 0.019 | yellow | 13 | ARHGEF18,DCAF16,DIAPH1,EED,FLOT1,IRS2,MAP4,MDM4,NKX6-3,SECISBP2L,TES,TFDP1,TSHZ2 |
| Lipid Metabolism,Small Molecule Biochemistry,Vitamin and Mineral Metabolism | Synthesis of steroid hormone | 0.0192 | yellow | 2 | DIAPH1,NR2F1 |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of sarcoma cell lines | 0.0195 | yellow | 3 | EED,MDM4,RBL2 |
| Gene Expression | Repression of RNA | 0.0198 | yellow | 3 | EED,LCOR,NR2F1 |
| Organismal Injury and Abnormalities | Abnormality of peritoneum | 0.0201 | yellow | 2 | ALOX5,RRM2B |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Metabolism of glycosaminoglycan | 0.0215 | yellow | 2 | HEXB,XYLT1 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of ganglioside GM2 | 0.0216 | yellow | 1 | HEXB |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of lipoxin A4 | 0.0216 | yellow | 1 | ALOX5 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Synthesis of chondroitin sulfate proteoglycan | 0.0216 | yellow | 1 | XYLT1 |
| Digestive System Development and Function,Organ Morphology,Organismal Development | Length of colon | 0.0216 | yellow | 1 | CD55 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of diacylglycerol | 0.0216 | yellow | 1 | PITPNA |
| Organismal Injury and Abnormalities,Reproductive System Disease | Primary dysmenorrhea | 0.0216 | yellow | 1 | ALOX5 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities | Abnormal morphology of inguinal fat pad | 0.0216 | yellow | 1 | PITPNA |
| Cell Signaling | Integration of HIV-1 | 0.0216 | yellow | 1 | EED |
| Cell Cycle | Formation of senescence-associated heterochromatic foci | 0.0216 | yellow | 1 | DPY30 |
| DNA Replication, Recombination, and Repair | Instability of genomic DNA | 0.0216 | yellow | 1 | RBL2 |
| Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of cauda epididymis | 0.0216 | yellow | 1 | PAIP2 |
| Cellular Assembly and Organization | Quantity of actin bundles | 0.0216 | yellow | 1 | ACTR3 |
| Humoral Immune Response,Inflammatory Response | Alternative complement pathway | 0.0216 | yellow | 1 | CD55 |
| Connective Tissue Development and Function,Hematological System Development and Function,Hematopoiesis,Organismal Development,Tissue Morphology | Quantity of erythroid cells | 0.0216 | yellow | 1 | RBL2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Ovarian adenocarcinoma | 0.0221 | yellow | 11 | ARHGEF18,DCAF16,DIAPH1,EED,FLOT1,IRS2,MAP4,MDM4,SECISBP2L,TFDP1,TSHZ2 |
| Cancer,Organismal Injury and Abnormalities | Endometrioid carcinoma | 0.0226 | yellow | 18 | ALOX5,ARHGEF18,CD55,CHML,DCAF16,EED,EPRS,FLOT1,IRS2,MDM4,RBL2,RIC8B,SECISBP2L,SPATS2,TES,TFDP1,TSHZ2,ZNF614 |
| Endocrine System Disorders,Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Abnormal morphology of epididymis | 0.023 | yellow | 2 | HEXB,PAIP2 |
| Cell Cycle,Connective Tissue Development and Function | Cell cycle progression of fibroblast cell lines | 0.0235 | yellow | 2 | PITPNA,RBL2 |
| Cancer,Organismal Injury and Abnormalities | Genitourinary adenocarcinoma | 0.0236 | yellow | 29 | ALOX5,ARHGEF18,CD55,CHML,CPEB2,DCAF16,DIAPH1,EED,EPRS,ERC1,FLOT1,IRS2,MAP4,MDM4,MED30,NKX6-3,NR2F1,PSMA7,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TIMMDC1,TSHZ2,XYLT1,ZNF614 |
| Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of head | 0.024 | yellow | 8 | DIAPH1,HEXB,IRS2,MDM4,NR2F1,PITPNA,RBL2,RRM2B |
| Post-Translational Modification,Protein Folding,Protein Trafficking | Conjugation of protein | 0.0243 | yellow | 1 | UBE2E2 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | JAK2-V617F mutation negative essential thrombocythemia | 0.0243 | yellow | 1 | RRM2B |
| Connective Tissue Disorders,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Abnormal shape of rib cage | 0.0243 | yellow | 1 | HEXB |
| Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Lack of white pulp | 0.0243 | yellow | 1 | DIAPH1 |
| Inflammatory Disease,Neurological Disease,Skeletal and Muscular Disorders | Highly active relapsing multiple sclerosis | 0.0243 | yellow | 1 | RRM2B |
| Embryonic Development,Organismal Development,Tissue Development | Development of primitive streak | 0.0243 | yellow | 1 | EED |
| Cell Cycle | Cell division of cervical cancer cell lines | 0.0243 | yellow | 1 | DIAPH1 |
| Cell Death and Survival,Embryonic Development | Anoikis of embryonic cell lines | 0.0243 | yellow | 1 | RBL2 |
| Cell Cycle | Re-entry into S phase of sarcoma cell lines | 0.0243 | yellow | 1 | TFDP1 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of breast cancer cell lines | 0.0243 | yellow | 1 | CPEB2 |
| Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Formation of heterochromatin | 0.0243 | yellow | 1 | RBL2 |
| Cellular Development,Cellular Growth and Proliferation | Arrest in growth of keratinocyte cancer cell lines | 0.0243 | yellow | 1 | RBL2 |
| Cell Cycle | Re-entry into S phase of bone cancer cell lines | 0.0243 | yellow | 1 | TFDP1 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of melanoma | 0.0243 | yellow | 1 | MDM4 |
| Cellular Growth and Proliferation | Colony formation of tumor cell lines | 0.0246 | yellow | 4 | MDM4,RBL2,STK26,TES |
| Infectious Diseases | Infection of cells | 0.0248 | yellow | 7 | ACTR3,CD55,DIAPH1,ERC1,MAP4,PSMA7,SNRPA1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Genital tumor | 0.0249 | yellow | 31 | ACTR3,ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,ERC1,FLOT1,IRS2,LCOR,MAP4,MDM4,MED30,NKX6-3,NR2F1,PITPNA,PSMA7,RBL2,RIC8B,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TIMMDC1,TSHZ2,XYLT1,ZNF614 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of brain | 0.0251 | yellow | 5 | DIAPH1,HEXB,MDM4,NR2F1,PITPNA |
| Organ Morphology | Abnormal morphology of gland | 0.0252 | yellow | 4 | IRS2,PITPNA,RBL2,RRM2B |
| Cell Morphology,Digestive System Development and Function,Gastrointestinal Disease,Hepatic System Development and Function,Hepatic System Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of hepatocytes | 0.0255 | yellow | 2 | HEXB,PITPNA |
| Cell Morphology,Nervous System Development and Function,Tissue Morphology | Morphology of neurons | 0.0256 | yellow | 6 | CPEB2,DIAPH1,HEXB,MDM4,NR2F1,PITPNA |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Size of lymphoid organ | 0.0266 | yellow | 2 | CD55,RBL2 |
| Carbohydrate Metabolism | Catabolism of polysaccharide | 0.0266 | yellow | 2 | HEXB,PITPNA |
| Developmental Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of thymus cortex | 0.0269 | yellow | 1 | RRM2B |
| Gastrointestinal Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Moderate active ulcerative colitis | 0.0269 | yellow | 1 | ALOX5 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | High-risk essential thrombocythemia | 0.0269 | yellow | 1 | RRM2B |
| Embryonic Development,Organismal Development,Tissue Development | Development of myotome | 0.0269 | yellow | 1 | RBL2 |
| Cell Morphology,Cellular Assembly and Organization | Size of lysosome | 0.0269 | yellow | 1 | HEXB |
| Cellular Development,Connective Tissue Development and Function | Adipogenesis of fibroblasts | 0.0269 | yellow | 1 | TFDP1 |
| Lipid Metabolism,Small Molecule Biochemistry | Conversion of arachidonic acid | 0.0269 | yellow | 1 | ALOX5 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of anterior horn of the spinal cord | 0.0269 | yellow | 1 | PITPNA |
| Embryonic Development,Organismal Development,Tissue Development | Development of epiblast | 0.0269 | yellow | 1 | EED |
| Cell Cycle,Connective Tissue Development and Function | Re-entry into S phase of fibroblast cell lines | 0.0269 | yellow | 1 | TFDP1 |
| Cellular Development,Connective Tissue Development and Function | Differentiation of adipose cell lines | 0.0269 | yellow | 1 | IRS2 |
| Cell Death and Survival | Apoptosis of adipose cell lines | 0.0269 | yellow | 1 | IRS2 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Niemann-Pick disease type C | 0.0269 | yellow | 1 | CD55 |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Transport of lactic acid | 0.0269 | yellow | 1 | SLC16A7 |
| Cancer,Endocrine System Disorders,Gastrointestinal Disease,Organismal Injury and Abnormalities | Hyperplasia of beta islet cells | 0.0269 | yellow | 1 | IRS2 |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Digestive System Development and Function,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Hepatic System Development and Function,Organ Development,Organismal Development,Tissue Development | Erythropoiesis of liver | 0.0269 | yellow | 1 | MDM4 |
| Carbohydrate Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Transport of phosphatidylcholine | 0.0269 | yellow | 1 | PITPNA |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Hematopoiesis,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemotaxis of thymocytes | 0.0269 | yellow | 1 | DIAPH1 |
| Gene Expression | Initiation of expression of RNA | 0.0282 | yellow | 3 | MED30,NR2F1,PAIP2 |
| Cellular Development | Differentiation of pheochromocytoma cell lines | 0.0282 | yellow | 2 | IRS2,RBL2 |
| Cell Death and Survival,Connective Tissue Development and Function | Cell viability of fibroblasts | 0.0287 | yellow | 2 | AEN,IRS2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Diffuse B-cell lymphoma | 0.0289 | yellow | 6 | ALOX5,MDM4,PEG10,RRM2B,SLC16A7,TSHZ2 |
| Cancer,Organismal Injury and Abnormalities | Development of adenocarcinoma | 0.0292 | yellow | 24 | ALOX5,ARHGEF18,CD55,CHML,CPEB2,DCAF16,DIAPH1,EED,EPRS,FKBP5,FLOT1,IRS2,MAP4,MDM4,RBL2,RIC8B,RNF44,SECISBP2L,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,ZNF614 |
| Cell Cycle | Arrest in cell cycle progression | 0.0295 | yellow | 4 | MAP4,MDM4,RBL2,TFDP1 |
| Cellular Assembly and Organization | Induction of filopodia | 0.0296 | yellow | 1 | DIAPH1 |
| Organismal Development | Strength of mice | 0.0296 | yellow | 1 | CD55 |
| Digestive System Development and Function,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of submandibular gland | 0.0296 | yellow | 1 | RRM2B |
| Cancer,Organismal Injury and Abnormalities | Stage I melanoma | 0.0296 | yellow | 1 | MDM4 |
| Nucleic Acid Metabolism,Small Molecule Biochemistry | Synthesis of deoxyribonucleotide | 0.0296 | yellow | 1 | RRM2B |
| Cell Cycle,Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Connective Tissue Development and Function | Contact growth inhibition of fibroblasts | 0.0296 | yellow | 1 | RBL2 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Ankle sprain | 0.0296 | yellow | 1 | ALOX5 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Advanced systemic mastocytosis | 0.0296 | yellow | 1 | RRM2B |
| DNA Replication, Recombination, and Repair | Mutation of gene | 0.0296 | yellow | 1 | RRM2B |
| Cellular Assembly and Organization | Nucleation of actin filaments | 0.0296 | yellow | 1 | DIAPH1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Uterine tumor | 0.0297 | yellow | 19 | ACTR3,ALOX5,CD55,CHML,DCAF16,EED,EPRS,MAP4,NR2F1,PITPNA,RBL2,RIC8B,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,XYLT1,ZNF614 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Histiocytic or dendritic cell neoplasm | 0.0298 | yellow | 2 | MDM4,RRM2B |
| Immunological Disease,Neurological Disease,Skeletal and Muscular Disorders | Myasthenia gravis | 0.0304 | yellow | 2 | CD55,RRM2B |
| Cellular Growth and Proliferation | Proliferation of bone marrow cell lines | 0.0304 | yellow | 2 | IRS2,RBL2 |
| Connective Tissue Disorders,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Abnormal morphology of rib cage | 0.0304 | yellow | 2 | HEXB,RBL2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Female genital tract adenocarcinoma | 0.0306 | yellow | 20 | ALOX5,ARHGEF18,CD55,CHML,DCAF16,DIAPH1,EED,EPRS,FLOT1,IRS2,MAP4,MDM4,RBL2,RIC8B,SECISBP2L,SPATS2,TES,TFDP1,TSHZ2,ZNF614 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Lysosomal storage disease | 0.0315 | yellow | 2 | CD55,HEXB |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Stabilization of microtubules | 0.0321 | yellow | 2 | DIAPH1,MAP4 |
| Cell Morphology | Shape change of axons | 0.0321 | yellow | 2 | ACTR3,NR2F1 |
| Connective Tissue Disorders,Developmental Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Kyphosis | 0.0321 | yellow | 2 | ARL6IP5,HEXB |
| Inflammatory Disease | Diverticulitis | 0.0322 | yellow | 1 | ALOX5 |
| Connective Tissue Disorders,Developmental Disorder,Embryonic Development,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Lack of notochord | 0.0322 | yellow | 1 | RBL2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Newly diagnosed type M3 acute myeloid leukemia | 0.0322 | yellow | 1 | RRM2B |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Low risk type M3 acute myeloid leukemia | 0.0322 | yellow | 1 | RRM2B |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Catabolism of keratan sulfate | 0.0322 | yellow | 1 | HEXB |
| Cellular Development,Embryonic Development,Organ Development,Organismal Development,Reproductive System Development and Function | Maturation of male germ cells | 0.0322 | yellow | 1 | PAIP2 |
| Cell Cycle,Cellular Development,Reproductive System Development and Function | Senescence of breast cell lines | 0.0322 | yellow | 1 | RBL2 |
| Cell Morphology,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Development,Organ Morphology,Organismal Development,Tissue Morphology | Cellularity of spleen | 0.0322 | yellow | 1 | RBL2 |
| Auditory and Vestibular System Development and Function,Auditory Disease,Nervous System Development and Function | Abnormal hearing | 0.0322 | yellow | 1 | NR2F1 |
| Cell Cycle,Gene Expression | Binding of E2F binding site | 0.0322 | yellow | 1 | TFDP1 |
| Connective Tissue Development and Function,Organ Morphology,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Diameter of long bones | 0.0322 | yellow | 1 | HEXB |
| Carbohydrate Metabolism | Catabolism of oligosaccharide | 0.0322 | yellow | 1 | HEXB |
| Nervous System Development and Function,Organ Morphology,Tissue Morphology | Quantity of inner hair cells | 0.0322 | yellow | 1 | NR2F1 |
| Cellular Assembly and Organization,Cellular Compromise,Cellular Function and Maintenance | Instability of microtubules | 0.0322 | yellow | 1 | MAP4 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Polymerization of actin filaments | 0.0327 | yellow | 2 | ACTR3,DIAPH1 |
| Gene Expression | Expression of mRNA | 0.0345 | yellow | 3 | EPRS,MED30,PAIP2 |
| Nervous System Development and Function | Coordination | 0.0348 | yellow | 3 | ARL6IP5,HEXB,RBL2 |
| Cellular Development,Cellular Growth and Proliferation,Digestive System Development and Function | Proliferation of colon cell lines | 0.0349 | yellow | 1 | ALOX5 |
| Endocrine System Development and Function,Nervous System Development and Function,Organ Morphology,Tissue Morphology | Quantity of gonadotropes | 0.0349 | yellow | 1 | IRS2 |
| Cell Morphology,Cellular Assembly and Organization | Permeability of mitochondria | 0.0349 | yellow | 1 | ALOX5 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Symptomatic stage hairy cell leukemia variant | 0.0349 | yellow | 1 | RRM2B |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Lack of floor plate | 0.0349 | yellow | 1 | RBL2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed hairy cell leukemia | 0.0349 | yellow | 1 | RRM2B |
| Cell Cycle,Hair and Skin Development and Function | G1/S phase transition of epithelial cell lines | 0.0349 | yellow | 1 | TFDP1 |
| Cellular Growth and Proliferation,Renal and Urological System Development and Function | Colony formation of kidney cell lines | 0.0349 | yellow | 1 | STK26 |
| Endocrine System Development and Function,Organ Morphology,Organismal Development,Reproductive System Development and Function | Size of pituitary gland | 0.0349 | yellow | 1 | IRS2 |
| Cell Death and Survival,Endocrine System Development and Function | Survival of beta islet cells | 0.0349 | yellow | 1 | IRS2 |
| Cell Morphology,Digestive System Development and Function,Endocrine System Development and Function,Organ Morphology,Organismal Development | Size of beta islet cells | 0.0349 | yellow | 1 | IRS2 |
| Cellular Growth and Proliferation | Cytostasis of lung cancer cell lines | 0.0349 | yellow | 1 | NR2F1 |
| Cancer | Entrance of rhabdomyosarcoma cell lines | 0.0349 | yellow | 1 | ERC1 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Metabolism of N-acetylglucosamine | 0.0349 | yellow | 1 | HEXB |
| Cell Morphology,Connective Tissue Development and Function | Ruffling of fibroblast cell lines | 0.0349 | yellow | 1 | DIAPH1 |
| Dermatological Diseases and Conditions,Hair and Skin Development and Function,Organ Morphology,Organismal Injury and Abnormalities | Abnormal orientation of hair follicle | 0.0349 | yellow | 1 | RBL2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast cancer | 0.0349 | yellow | 14 | ALOX5,CPEB2,EED,EPRS,ERC1,FKBP5,IRS2,MAP4,MDM4,PSMA7,RBL2,SECISBP2L,TES,TSHZ2 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Diarrhea | 0.035 | yellow | 2 | ALOX5,CD55 |
| Developmental Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of thymus gland | 0.035 | yellow | 2 | MDM4,RRM2B |
| Cell Signaling,Post-Translational Modification,Protein Synthesis | Assembly of protein-protein complex | 0.0351 | yellow | 3 | ACTR3,EPRS,MDM4 |
| Cell Morphology,Nervous System Development and Function,Neurological Disease,Tissue Morphology | Abnormal morphology of neurons | 0.0356 | yellow | 5 | CPEB2,HEXB,MDM4,NR2F1,PITPNA |
| Cell Morphology,Cellular Assembly and Organization | Abnormal morphology of Nucleus | 0.0362 | yellow | 2 | MDM4,PAIP2 |
| Nervous System Development and Function,Neurological Disease | Abnormal morphology of nervous system | 0.0365 | yellow | 7 | CPEB2,DIAPH1,HEXB,MDM4,NR2F1,PITPNA,RRM2B |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast or ovarian cancer | 0.0374 | yellow | 19 | ALOX5,ARHGEF18,CPEB2,DCAF16,DIAPH1,EED,EPRS,ERC1,FKBP5,FLOT1,IRS2,MAP4,MDM4,PSMA7,RBL2,SECISBP2L,TES,TFDP1,TSHZ2 |
| DNA Replication, Recombination, and Repair | Replication of mitochondrial DNA | 0.0375 | yellow | 1 | RRM2B |
| Endocrine System Disorders,Gastrointestinal Disease,Metabolic Disease,Organismal Injury and Abnormalities | Onset of diabetes mellitus | 0.0375 | yellow | 1 | IRS2 |
| Hematological Disease | Hyperemia | 0.0375 | yellow | 1 | ALOX5 |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Migration of peripheral T lymphocyte | 0.0375 | yellow | 1 | FLOT1 |
| Cell Death and Survival | Anoikis of fibroblast cell lines | 0.0375 | yellow | 1 | RBL2 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of peripheral T lymphocyte | 0.0375 | yellow | 1 | FLOT1 |
| Cell Cycle,Embryonic Development | G1/S phase transition of embryonic cell lines | 0.0375 | yellow | 1 | TFDP1 |
| Inflammatory Disease,Organismal Injury and Abnormalities | Sarcoidosis | 0.038 | yellow | 2 | TSHZ2,ZNF614 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of T lymphocytes | 0.038 | yellow | 2 | DIAPH1,FLOT1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Uterine cancer | 0.038 | yellow | 18 | ACTR3,ALOX5,CD55,CHML,DCAF16,EED,EPRS,MAP4,PITPNA,RBL2,RIC8B,SPATS2,SULT1A1,TES,TFDP1,TSHZ2,XYLT1,ZNF614 |
| Organismal Development,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function | Abnormal morphology of limb | 0.0386 | yellow | 3 | HEXB,MDM4,RBL2 |
| Organ Morphology,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function | Abnormal morphology of renal tubule | 0.0386 | yellow | 2 | HEXB,RRM2B |
| Cell Morphology,Connective Tissue Development and Function | Morphology of fibroblast cell lines | 0.0386 | yellow | 2 | DPY30,PEG10 |
| Respiratory Disease | Apnea | 0.0386 | yellow | 2 | CPEB2,RBL2 |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology | Quantity of malignant tumor | 0.0392 | yellow | 2 | EED,MDM4 |
| Organismal Development | Size of body | 0.0394 | yellow | 7 | ARL6IP5,CPEB2,IRS2,MDM4,PAIP2,PITPNA,RBL2 |
| Gene Expression | Expression of RNA | 0.0395 | yellow | 14 | ACTR3,DIAPH1,EED,EPRS,HEXB,LCOR,MDM4,MED30,NKX6-3,NR2F1,PAIP2,RBL2,TFDP1,TSHZ2 |
| Auditory Disease,Neurological Disease | Hearing loss | 0.04 | yellow | 3 | DIAPH1,HEXB,NR2F1 |
| Cancer,Organismal Injury and Abnormalities | Neoplasia of tumor cell lines | 0.04 | yellow | 4 | ALOX5,FLOT1,MAP4,STK26 |
| Cardiovascular System Development and Function,Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Tissue Development | Morphogenesis of atrioventricular valve | 0.0401 | yellow | 1 | MDM4 |
| Endocrine System Disorders,Gastrointestinal Disease,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Autosomal dominant non-insulin-dependent diabetes mellitus | 0.0401 | yellow | 1 | IRS2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of coronary artery | 0.0401 | yellow | 1 | RRM2B |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of hippocampal commissure | 0.0401 | yellow | 1 | NR2F1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Inv(3) positive acute myeloid leukemia | 0.0401 | yellow | 1 | RRM2B |
| Infectious Diseases | Infection of gonadal cell lines | 0.0401 | yellow | 1 | CD55 |
| Lipid Metabolism,Small Molecule Biochemistry | Metabolism of leukotriene | 0.0401 | yellow | 1 | ALOX5 |
| Hematological Disease | Pancytopenia | 0.0401 | yellow | 1 | MDM4 |
| Cell Cycle,Respiratory System Development and Function | Arrest in cell cycle progression of lung cell lines | 0.0401 | yellow | 1 | MDM4 |
| Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of abdomen | 0.0408 | yellow | 7 | ALOX5,DIAPH1,HEXB,IRS2,PITPNA,RBL2,RRM2B |
| Cellular Development | Differentiation of tumor cell lines | 0.0411 | yellow | 4 | IRS2,NR2F1,RBL2,STK26 |
| Cell Death and Survival | Necrosis | 0.0418 | yellow | 16 | ALOX5,CD55,CPEB2,FKBP5,IRS2,MAP4,MDM4,NR2F1,PITPNA,PSMA7,RBL2,RIC8B,RRM2B,SNRPA1,STK26,TFDP1 |
| Organismal Injury and Abnormalities | Epithelial dysplasia | 0.0427 | yellow | 1 | RBL2 |
| Organ Morphology,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease | Lack of labyrinthine zone of placenta | 0.0427 | yellow | 1 | PEG10 |
| Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Anovulation | 0.0427 | yellow | 1 | IRS2 |
| Gene Expression | Synthesis of rRNA | 0.0427 | yellow | 1 | RBL2 |
| Carbohydrate Metabolism,Drug Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of hyaluronic acid | 0.0427 | yellow | 1 | HEXB |
| Drug Metabolism,Endocrine System Development and Function,Lipid Metabolism,Small Molecule Biochemistry,Vitamin and Mineral Metabolism | Synthesis of hydrocortisone | 0.0427 | yellow | 1 | DIAPH1 |
| Cell Cycle,Connective Tissue Development and Function | Mitogenesis of fibroblasts | 0.0427 | yellow | 1 | IRS2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | De novo unfavorable cytogenetic risk acute myeloid leukemia | 0.0427 | yellow | 1 | RRM2B |
| Immunological Disease,Neurological Disease,Skeletal and Muscular Disorders | Experimental autoimmune myasthenia gravis | 0.0427 | yellow | 1 | CD55 |
| Cell Morphology,Reproductive System Development and Function | Morphology of gonadal cell lines | 0.0427 | yellow | 1 | PEG10 |
| Cellular Function and Maintenance,Organ Development,Tissue Development | Function of keratinocytes | 0.0427 | yellow | 1 | ARL6IP5 |
| Respiratory Disease | Constriction of bronchus | 0.0427 | yellow | 1 | CPEB2 |
| Neurological Disease,Psychological Disorders | Major depression | 0.0433 | yellow | 3 | FKBP5,PSMA7,TMEM243 |
| 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 | Axonogenesis | 0.044 | yellow | 3 | ACTR3,FLOT1,PITPNA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Low-grade lymphoma | 0.0445 | yellow | 5 | DIAPH1,PEG10,RBL2,RRM2B,TFDP1 |
| Cellular Compromise,Inflammatory Response | Degranulation of neutrophils | 0.0446 | yellow | 4 | ALOX5,CD55,DIAPH1,HEXB |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Peripheral nervous system neoplasm | 0.045 | yellow | 2 | EED,IRS2 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of osteosarcoma cells | 0.045 | yellow | 2 | PSMA7,SNRPA1 |
| Organismal Survival | Organismal death | 0.045 | yellow | 15 | ALOX5,CD55,CPEB2,EED,ERC1,HEXB,IRS2,MAP4,MDM4,NR2F1,PEG10,PITPNA,RBL2,RRM2B,TFDP1 |
| Infectious Diseases | Infection of leukocyte cell lines | 0.0454 | yellow | 1 | ACTR3 |
| Digestive System Development and Function,Endocrine System Disorders,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of enlarged islets of Langerhans | 0.0454 | yellow | 1 | IRS2 |
| Cell Cycle | Arrest in cell cycle progression of hematopoietic cell lines | 0.0454 | yellow | 1 | TFDP1 |
| Protein Synthesis | Quantity of PRL in blood | 0.0454 | yellow | 1 | IRS2 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Binding of lipopolysaccharide | 0.0454 | yellow | 1 | CD55 |
| Cell Cycle | Arrest in cell cycle progression of lung cancer cell lines | 0.0454 | yellow | 1 | MDM4 |
| Connective Tissue Development and Function,Connective Tissue Disorders,Organ Morphology,Organismal Injury and Abnormalities,Respiratory Disease,Respiratory System Development and Function,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Abnormal morphology of tracheal ring | 0.0454 | yellow | 1 | RBL2 |
| Cell Morphology,Cellular Assembly and Organization | Reorientation of microtubule organizing centers | 0.0454 | yellow | 1 | DIAPH1 |
| Cell Morphology,Digestive System Development and Function,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of enterocytes | 0.0454 | yellow | 1 | PITPNA |
| Cell Cycle,Skeletal and Muscular System Development and Function | Cell cycle progression of muscle cell lines | 0.0454 | yellow | 1 | RBL2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Favorable-risk acute myeloid leukemia | 0.0454 | yellow | 1 | RRM2B |
| Cell Cycle | Mitosis of epithelial cells | 0.0454 | yellow | 1 | RBL2 |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance,Nervous System Development and Function | Extension of axons | 0.0456 | yellow | 2 | ACTR3,DIAPH1 |
| Gene Expression | Transactivation of RNA | 0.0456 | yellow | 5 | MDM4,MED30,NR2F1,PEG10,TFDP1 |
| Digestive System Development and Function,Gastrointestinal Disease,Hepatic System Development and Function,Hepatic System Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of liver | 0.0467 | yellow | 3 | HEXB,PITPNA,RRM2B |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Hairy cell leukemia | 0.0479 | yellow | 3 | ARL6IP5,ERC1,RRM2B |
| Cell Death and Survival | Anoikis of breast cancer cell lines | 0.048 | yellow | 1 | CPEB2 |
| Post-Translational Modification | Sulfation of protein | 0.048 | yellow | 1 | SULT1A1 |
| Immunological Disease,Inflammatory Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Experimental autoimmune uveoretinitis | 0.048 | yellow | 1 | ALOX5 |
| Carbohydrate Metabolism,Small Molecule Biochemistry | Synthesis of heparan sulfate proteoglycan | 0.048 | yellow | 1 | XYLT1 |
| Nervous System Development and Function,Neurological Disease | Abnormal morphology of sciatic nerve | 0.048 | yellow | 1 | RRM2B |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of arachidonic acid | 0.048 | yellow | 1 | ALOX5 |
| Cellular Assembly and Organization,Inflammatory Response | Formation of neutrophil extracellular trap | 0.048 | yellow | 1 | ALOX5 |
| Organ Morphology,Organismal Development,Reproductive System Development and Function | Size of ovary | 0.048 | yellow | 1 | IRS2 |
| Carbohydrate Metabolism,Drug Metabolism,Small Molecule Biochemistry | Catabolism of hyaluronic acid | 0.048 | yellow | 1 | HEXB |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Histiocytic sarcoma | 0.048 | yellow | 1 | MDM4 |
| Cellular Development,Cellular Growth and Proliferation,Hair and Skin Development and Function | Proliferation of epithelial cell lines | 0.0483 | yellow | 3 | ALOX5,STK26,TFDP1 |
| DNA Replication, Recombination, and Repair | Metabolism of DNA | 0.0488 | yellow | 4 | ALOX5,RBL2,RRM2B,TFDP1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Myelodysplastic/myeloproliferative neoplasm | 0.0496 | yellow | 2 | EED,RRM2B |
| Digestive System Development and Function | Morphology of digestive system | 0.0498 | yellow | 6 | CD55,HEXB,IRS2,PITPNA,RBL2,RRM2B |
| Protein Synthesis | Quantity of cytokine | 0.0498 | yellow | 3 | ALOX5,HEXB,IRS2 |
| Cell Death and Survival | Cell death of blood cells | 2.46E-24 | turquoise | 211 | 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,CD4,CD59,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CR2,CREBBP,CSF1R,CSF2RB,CSNK1A1,CST3,CX3CR1,CXCL2,CXCL8,CXCR4,DAPK1,DAPK2,DTX1,DUSP4,E2F2,ERN1,ESR1,ETS2,EYA2,FAIM,FAS,FBXW7,FCAR,FCER1G,FCGR3A/FCGR3B,FGL2,FNIP1,FOXO1,FOXP1,GAPDH,GATA3,GFI1,GGT1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAVCR2,HAX1,HCST,HIPK2,HMOX1,HSH2D,HSPA5,HSPA9,ICOSLG/LOC102723996,ID2,IER3,IGHE,IGHM,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGB1,ITPKB,ITPR1,KDELR1,KIF1C,LAMTOR2,LAT,LAX1,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LTK,LYN,MAP3K14,MCL1,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MLKL,MZB1,NAMPT,NFIL3,NFYA,NLRP1,NLRP3,NR3C1,PALLD,PAWR,PAX5,PCLAF,PDCD5,PERP,PIK3C3,PIK3CA,PLA2G6,POU2AF1,PPIA,PRDM1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,PTK2,PXN,PYCARD,RBM5,RHOH,S100A8,SATB1,SELPLG,SH2D1A,SH3BP2,SH3BP5,SH3GLB1,SH3KBP1,SIRPA,SKIL,SMAD3,SP1,SPN,ST3GAL3,ST6GAL1,STAT4,STAT5B,STOML2,STUB1,SWAP70,TBX21,TBXA2R,TCF7,TCL1A,TFDP1,TGFBR2,TICAM2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,TUBB,TYROBP,VAV3,VDR,VEGFA,XBP1 |
| Cell Death and Survival | Cell death of immune cells | 3.33E-23 | turquoise | 199 | 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,CD4,CD59,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CR2,CSF1R,CSF2RB,CSNK1A1,CST3,CX3CR1,CXCL2,CXCL8,CXCR4,DAPK1,DAPK2,DTX1,DUSP4,E2F2,ERN1,ESR1,ETS2,EYA2,FAIM,FAS,FBXW7,FCAR,FCER1G,FCGR3A/FCGR3B,FGL2,FNIP1,FOXO1,FOXP1,GAPDH,GATA3,GFI1,GGT1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAVCR2,HCST,HMOX1,HSH2D,HSPA5,ICOSLG/LOC102723996,ID2,IER3,IGHE,IGHM,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITGB1,ITPKB,ITPR1,KDELR1,KIF1C,LAMTOR2,LAT,LAX1,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LTK,LYN,MAP3K14,MCL1,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MLKL,MZB1,NAMPT,NFIL3,NLRP1,NLRP3,NR3C1,PAWR,PAX5,PDCD5,PERP,PIK3C3,PIK3CA,PLA2G6,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,PTK2,PXN,PYCARD,RBM5,RHOH,S100A8,SATB1,SELPLG,SH2D1A,SH3BP2,SH3BP5,SH3GLB1,SH3KBP1,SIRPA,SKIL,SMAD3,SP1,SPN,ST3GAL3,ST6GAL1,STAT4,STAT5B,STOML2,STUB1,SWAP70,TBX21,TBXA2R,TCF7,TCL1A,TFDP1,TGFBR2,TICAM2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,TUBB,TYROBP,VAV3,VDR,VEGFA,XBP1 |
| Cellular Compromise,Inflammatory Response | Degranulation of neutrophils | 1.04E-20 | turquoise | 130 | ADA2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ARG1,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CCL3,CCT8,CD14,CD300A,CD33,CD36,CD58,CD59,CD63,CD93,CFD,CFP,CKAP4,CLEC12A,CLEC4D,CMTM6,COTL1,CPPED1,CR1,CREG1,CRISPLD2,CST3,CSTB,CTSA,CTSC,CXCL8,CYFIP1,CYSTM1,DDOST,DNAJC3,DOK3,DSP,DYNLL1,FABP5,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FPR1,FUCA2,GNS,GPI,GUSB,GYG1,HMOX2,HSPA8,HVCN1,IMPDH1,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LGALS3,LILRB2,LILRB3,MAGT1,MAPK1,MGST1,MIF,MLEC,MYO1F,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PKM,PLAUR,PPIA,PRDX4,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD14,PTAFR,PTPRB,PTPRJ,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SIRPA,SIRPB1,SLC11A1,SLC2A5,SNAP29,STX11,SURF4,TICAM2,TIMP2,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VPS35L,XRCC6 |
| Immunological Disease | Systemic autoimmune syndrome | 1.35E-20 | turquoise | 328 | ABCB1,ABCG1,ACSL1,ADA,ADA2,ADARB1,ADGRE5,AGFG1,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANAPC5,ANG,ANXA1,APLP2,APOBEC3A,AQP9,ARF1,ARG1,ARIH2,ARRB1,ATP1A1,ATP1B1,ATP5MC2,ATXN1,BACH2,BAK1,BIRC5,C5AR1,C5orf30,CAMK2D,CBLB,CCL3,CCL5,CCR1,CD14,CD163,CD19,CD1A,CD22,CD226,CD27,CD300A,CD33,CD36,CD4,CD69,CD70,CD74,CD79B,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,DIP2C,DTNBP1,DYNLL1,E2F2,EHD4,EIF1,EIF1B,EIF3E,ENAH,ENO1,ERGIC3,ESR1,EVI2A,EXOSC9,EYA2,FAS,FCAR,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FCN1,FCRL1,FGL2,FLOT1,FLT1,FOXO1,FURIN,FXYD5,GABBR1,GALNT1,GAR1,GATA3,GIMAP4,GINS2,GLIPR2,GNAQ,GNAS,GNLY,GPR18,GSTM1,GUSB,GZMA,GZMB,GZMK,H3F3A/H3F3B,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,IGFBP7,IGHM,IGKC,IKZF3,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,MAFB,MAML3,MBTD1,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MKKS,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MSRB2,MT2A,MYL12A,MYO1F,MYO9A,MZB1,NAMPT,NCF1,NDUFB10,NLRP1,NLRP3,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PDCD4,PDE4A,PDE4D,PGK1,PGM1,PHF19,PILRB,PLAUR,PLBD1,PLD4,PLEK,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRF1,PRKCD,PRR5,PRUNE2,PTAFR,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RAB31,RBP7,RERE,RFLNB,RNF149,RPL15,RRAGD,RUNX3,S100A10,S100A12,S100A4,S100A6,S100A8,S100A9,SCN4A,SEC61A1,SEC62,SEL1L,SH2D1A,SIGMAR1,SIRPB1,SLAMF7,SLC3A2,SND1,SOCS2,SORL1,SOS2,SP1,SPN,ST6GAL1,STAG3,STAMBPL1,STAP1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBK1,TBRG1,TCF7,TFRC,TGFBI,TGFBR2,TIMP1,TLE3,TLR2,TLR4,TMEM39A,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TNRC6B,TPGS2,TRAF5,TRAK2,TRAM2,TUBB,TXN,TYMS,TYROBP,UBAC1,UBE2L3,VARS,VDR,VEGFA,VIM,VPREB3,WARS,WDFY4,WNT10A,XBP1,XRCC6,YTHDC2,ZMYND11,ZNF593 |
| Cellular Compromise,Inflammatory Response | Degranulation of phagocytes | 1.12E-19 | turquoise | 151 | ADA2,ADGRE2,ADGRE5,ALDOA,ALOX5,ANXA1,ANXA2,ARG1,ARHGEF7,ATP11A,ATP6V0A1,ATP6V1D,C5AR1,C6orf120,CAB39,CCL3,CCT8,CD14,CD226,CD300A,CD33,CD36,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,DNAJC3,DOCK5,DOK3,DSP,DYNLL1,FABP5,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FPR1,FUCA2,GNS,GPI,GUSB,GYG1,HAVCR2,HMOX1,HMOX2,HSPA8,HVCN1,IGHE,IL1B,IL4R,IMPDH1,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LAT,LAX1,LCP2,LGALS3,LILRB2,LILRB3,LYN,MAGT1,MAPK1,MGST1,MIF,MLEC,MYO1F,NCK2,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PKM,PLAUR,PPIA,PRDX4,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD14,PTAFR,PTEN,PTPRB,PTPRJ,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SH3BP2,SIRPA,SIRPB1,SLC11A1,SLC2A5,SLC9A3R1,SNAP29,STAT5B,STX11,SURF4,SWAP70,TICAM2,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 immune cells | 3.91E-19 | turquoise | 217 | ABCG1,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTG1,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD2AP,CD300A,CD33,CD36,CD4,CD58,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSNK1A1,CXCL2,CXCR3,CXCR4,DCLRE1C,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGL2,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,IKZF3,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,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,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NR3C1,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PPIA,PRDM1,PRF1,PRKCD,PRKCE,PSMB10,PTEN,PTGS2,PTK2,PTPRJ,PYCARD,RC3H2,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SEMA3A,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SMURF2,SOS2,SPN,ST3GAL2,ST6GAL1,STAT4,STAT5B,SWAP70,TALDO1,TBX21,TCF7,TCL1A,TFRC,TGFBR2,TICAM2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB32,ZNHIT1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of mononuclear leukocytes | 4.15E-19 | turquoise | 210 | ABCG1,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD2AP,CD300A,CD33,CD36,CD4,CD58,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSNK1A1,CXCL2,CXCR3,CXCR4,DCLRE1C,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGL2,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,IKZF3,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLF9,KLRD1,LAT,LCP2,LGALS1,LGALS3,LGALS4,LILRB2,LILRB3,LST1,LY96,LYN,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PPIA,PRDM1,PRF1,PRKCD,PRKCE,PSMB10,PTEN,PTGS2,PTPRJ,PYCARD,RC3H2,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SMURF2,SOS2,SPN,ST3GAL2,ST6GAL1,STAT4,STAT5B,SWAP70,TALDO1,TBX21,TCF7,TCL1A,TFRC,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB32,ZNHIT1 |
| Inflammatory Response | Degranulation | 4.98E-19 | turquoise | 179 | 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,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,DNAJC3,DOCK5,DOK3,DSP,DUSP7,DYNLL1,EPM2A,FABP5,FAM3C,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLNA,FPR1,FUCA2,GLRX,GNS,GPI,GRK3,GUSB,GYG1,HAVCR2,HMOX1,HMOX2,HSPA8,HVCN1,IGHE,IL1B,IL4R,IMPDH1,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LAT,LAX1,LCP2,LGALS3,LILRB2,LILRB3,LYN,MAGT1,MANF,MAPK1,MGST1,MIF,MLEC,MYO1F,NCK2,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PHACTR2,PILRA,PKM,PLAUR,PLEK,PPIA,PRDX4,PRF1,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD14,PTAFR,PTEN,PTP4A2,PTPRB,PTPRJ,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SH3BP2,SIRPA,SIRPB1,SLC11A1,SLC2A5,SLC9A3R1,SNAP29,SOD1,SRGN,STAT5B,STX11,SURF4,SWAP70,TAGLN2,TICAM2,TIMP1,TIMP2,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TUBA4A,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VEGFA,VPS35L,VTI1B,WDR1,XRCC6 |
| Cellular Compromise,Inflammatory Response | Degranulation of cells | 5.15E-19 | turquoise | 178 | 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,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,DNAJC3,DOCK5,DOK3,DSP,DUSP7,DYNLL1,EPM2A,FABP5,FAM3C,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLNA,FPR1,FUCA2,GNS,GPI,GRK3,GUSB,GYG1,HAVCR2,HMOX1,HMOX2,HSPA8,HVCN1,IGHE,IL1B,IL4R,IMPDH1,ITGAL,ITGAM,ITGAV,ITGAX,LAMTOR2,LAT,LAX1,LCP2,LGALS3,LILRB2,LILRB3,LYN,MAGT1,MANF,MAPK1,MGST1,MIF,MLEC,MYO1F,NCK2,NDUFC2,PA2G4,PDXK,PGAM1,PGM1,PHACTR2,PILRA,PKM,PLAUR,PLEK,PPIA,PRDX4,PRF1,PRKCD,PSAP,PSMA2,PSMA5,PSMB7,PSMC2,PSMD14,PTAFR,PTEN,PTP4A2,PTPRB,PTPRJ,PYCARD,QPCT,RAB31,RAB3D,RAP1B,RAP2B,RHOF,S100A11,S100A12,S100A8,S100A9,SERPINA1,SH3BP2,SIRPA,SIRPB1,SLC11A1,SLC2A5,SLC9A3R1,SNAP29,SOD1,SRGN,STAT5B,STX11,SURF4,SWAP70,TAGLN2,TICAM2,TIMP1,TIMP2,TLR2,TNF,TNFRSF1B,TREM1,TREML2,TUBA4A,TUBB,TUBB4B,TXNDC5,TYROBP,VCL,VCP,VEGFA,VPS35L,VTI1B,WDR1,XRCC6 |
| Cellular Movement | Cell movement | 1.1E-18 | turquoise | 520 | ABCB4,ABCC4,ABCG1,ABHD2,ACAP3,ACP5,ACTN1,ACTN4,ACVR1,ADA,ADARB1,ADGRE2,ADGRE5,ADGRG1,ADI1,AFDN,AGO2,AHNAK,AHR,AIF1,AIM2,ALDOA,ALOX5,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,BANP,BBS4,BCAT1,BCL11B,BHLHE41,BID,BMP6,BMPR1A,BRAF,BSG,BTLA,C5AR1,C5orf30,CADM1,CALU,CAMK1D,CAMK2D,CAMK4,CAMKK2,CAPN2,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD4,CD58,CD59,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEMIP2,CERS6,CFL1,CHAD,CHN2,CIITA,CITED2,CKLF,CLCN4,CLEC7A,CLIP1,CNP,COCH,COL18A1,COL4A3,CORO1B,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTNND1,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYTOR,DANCR,DAPK2,DDHD1,DGKD,DNAH11,DNM2,DOCK5,DPYSL2,DSP,DST,DSTN,DTL,DTX1,DUSP4,DUSP6,DYSF,E2F2,ECT2,EGOT,EHD1,EIF3A,EIF3E,ELMO1,EMILIN2,ENAH,ENO1,EPB41L5,EPS8,ERC1,ESAM,ESR1,ETV4,EVL,EYA2,FABP5,FAM89B,FAS,FBXO4,FBXW7,FCAR,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGF9,FGL2,FLNA,FLNB,FLOT1,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FPR1,FRS2,FURIN,FYB1,GAB1,GADD45A,GALNT1,GAPDH,GATA3,GBA,GLIPR2,GLRX,GNAI3,GNAQ,GNAS,GNLY,GPI,GPR18,GTF2I,GZMB,HAVCR2,HAX1,HBEGF,HDAC9,HMGA1,HMMR,HMOX1,HOMER3,HRH2,HSP90B1,HSPA5,HSPA8,HVCN1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IGFBP7,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,INPP4A,IQSEC1,IRAK1,IRF8,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,LIMS1,LITAF,LMNB1,LPP,LRP8,LRPAP1,LSP1,LTK,LY96,LYN,MAFB,MAP3K14,MAP4,MAPK1,MAPRE2,MARCKS,MARCKSL1,MCOLN2,MDM2,MEF2C,MGAT3,MGAT5,MGLL,MIA3,MIAT,MIF,MINK1,MIR17HG,MMP11,MPRIP,MTDH,MTSS1,MYL12A,MYO1B,MYO1F,MYO1G,MYO9A,NAAA,NAMPT,NCF1,NCK2,NCOA3,NDST1,NFATC3,NFIL3,NINJ1,NLRP3,NR1D1,NR3C1,NRCAM,NREP,NSD2,NSUN7,NUAK2,NUCB2,OBSCN,P4HB,PA2G4,PALLD,PARVG,PAX5,PCSK5,PDCD4,PDGFD,PEBP1,PHACTR1,PIK3C2B,PIK3C3,PIK3CA,PIK3R5,PIK3R6,PILRA,PKD1,PKM,PLA2G16,PLA2G6,PLAUR,PLXNB2,PLXNC1,PLXND1,PODXL,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPN12,PTPRB,PTPRJ,PTPRK,PTTG1,PXN,PYCARD,QPCT,RABEP1,RACGAP1,RALGAPA2,RAP1B,RAP2A,RAP2B,RARG,RASGRP2,RASSF1,RDX,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,SLIRP,SMAD3,SMARCB1,SND1,SNHG7,SOCS2,SOD1,SOS2,SP1,SPN,SRGAP1,SSBP1,SSH2,ST3GAL3,ST3GAL6,ST6GAL1,STAB1,STAP1,STAT5B,STUB1,SWAP70,SYNE2,TAGLN2,TARS,TBX21,TBXA2R,TBXAS1,TERF2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TKT,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TNFRSF25,TNIK,TNR,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,VPREB3,VSIR,WARS,XBP1,YWHAE,ZBTB7A,ZFAND5,ZYX |
| Cellular Movement | Cell movement of blood cells | 1.31E-18 | turquoise | 259 | 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,C5AR1,CAMK1D,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD4,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CEBPA,CIITA,CKLF,CLEC7A,CNP,COCH,COL4A3,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,DAPK2,DOCK5,DPYSL2,DYSF,ELMO1,EPS8,ESAM,ESR1,EVL,FABP5,FAS,FCAR,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOXO1,FPR1,FRS2,FYB1,GALNT1,GATA3,GBA,GLRX,GNAI3,GNAS,GNLY,GPR18,GZMB,HBEGF,HMOX1,HRH2,HSPA5,HYOU1,ICOSLG/LOC102723996,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,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,MAP3K14,MCOLN2,MGAT5,MIA3,MIF,MINK1,MIR17HG,MYO1F,MYO1G,NAAA,NCF1,NDST1,NFIL3,NINJ1,NLRP3,NR3C1,PA2G4,PIK3C3,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PTAFR,PTEN,PTGS2,PTK2,PTPRB,PTPRJ,PXN,PYCARD,QPCT,RAP1B,RAP2A,RASGRP2,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,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TNR,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VDR,VEGFA,VPREB3 |
| Inflammatory Response,Organismal Injury and Abnormalities | Inflammation of organ | 1.51E-18 | turquoise | 322 | ABAT,ABCB1,ABCB4,ABCC4,ABCG1,ACTN4,ADA,ADGRE1,AGO2,AHNAK,AHR,ALDOA,ALOX5,ANXA1,ANXA2P2,ANXA5,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,CD4,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CD99,CDC42EP3,CEBPA,CEBPB,CELA3B,CFL1,CFLAR,CHCHD2,CIITA,CLEC4D,CLEC7A,COCH,COL4A3,COL4A4,COTL1,CPVL,CR1,CR2,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYP51A1,DDX5,DPYSL2,DSP,DTX1,E2F2,EIF1,EIF3E,ENO1,EPS8,ESR1,FABP5,FAIM,FAS,FBXO32,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOSL2,GABBR1,GADD45A,GAPDH,GATA3,GBA,GFI1,GLMP,GPX1,GSTK1,GSTM1,GSTO1,GZMB,H3F3A/H3F3B,HAVCR2,HBEGF,HCST,HLA-DMA,HMOX1,HMOX2,HRH2,HSP90B1,HSPA5,ICOSLG/LOC102723996,ID2,IDE,IDI1,IFI30,IFNAR2,IGHD,IGHE,IGHM,IGKC,IGLJ3,IKZF3,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP5A,IRAK1,IRF4,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,MAPKAPK3,MCL1,MDM2,MGAT2,MGAT5,MGLL,MIF,MIR17HG,MKI67,MRS2,MTDH,MXI1,NAAA,NAPA,NCF1,NDFIP1,NFATC3,NFE2L1,NFIL3,NINJ1,NLRP3,NR3C1,OTUD7B,P4HB,PANK2,PAX5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PHGDH,PIK3C3,PKD1,PKM,PLAUR,PLEKHA1,PLEKHA2,PNKD,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRR5,PSAP,PSMB2,PTAFR,PTEN,PTGS2,PTPRJ,PYCARD,RARG,RASSF1,RORA,RPS6KA4,RRM2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A8,S100A9,SAT1,SEC61A1,SEL1L,SELPLG,SEMA4A,SGPP1,SGPP2,SHCBP1,SIGMAR1,SLC8A1,SMAD3,SMTN,SMURF2,SOCS2,SOD1,SPN,ST3GAL3,STAB1,STAMBPL1,STAT4,STAT5B,STUB1,SYNE2,TARP,TBK1,TBX21,TFRC,TGFBR2,THRB,TIMP1,TKT,TLR2,TLR4,TNF,TNFAIP8,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TOP2A,TP63,TPI1,TRAM2,TREM1,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,TYROBP,UCHL1,UPP1,UTRN,VAV3,VCL,VCP,VDR,VEGFA,VIM,VSIR,XBP1,XRCC6,ZC3HAV1L,ZNF395,ZNF546,ZYX |
| Cellular Movement,Immune Cell Trafficking | Leukocyte migration | 2.26E-18 | turquoise | 256 | 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,C5AR1,CAMK1D,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD4,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CEBPA,CIITA,CKLF,CLEC7A,CNP,COCH,COL4A3,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,DAPK2,DOCK5,DPYSL2,DYSF,ELMO1,EPS8,ESAM,ESR1,EVL,FABP5,FAS,FCAR,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOXO1,FPR1,FRS2,FYB1,GALNT1,GATA3,GBA,GLRX,GNAI3,GNAS,GNLY,GPR18,HBEGF,HMOX1,HRH2,HSPA5,HYOU1,ICOSLG/LOC102723996,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,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,MAP3K14,MCOLN2,MGAT5,MIA3,MIF,MIR17HG,MYO1F,MYO1G,NAAA,NCF1,NDST1,NFIL3,NINJ1,NLRP3,NR3C1,PA2G4,PIK3C3,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PTAFR,PTEN,PTGS2,PTK2,PTPRB,PTPRJ,PXN,PYCARD,QPCT,RAP1B,RAP2A,RASGRP2,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,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TNR,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VDR,VEGFA,VPREB3 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Activation of blood cells | 2.94E-18 | turquoise | 209 | ADA,AHNAK,AHR,ANXA1,ANXA2,AP3B1,AP3D1,ARRB1,BACH2,BAK1,BCL11B,BID,BMPR1A,BTLA,C1GALT1C1,C5AR1,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD300LF,CD36,CD4,CD58,CD59,CD63,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CD93,CEBPA,CEBPB,CLEC2D,CLEC7A,CLIC1,CR1,CR2,CRH,CRTC3,CSF1R,CSF2RB,CST3,CX3CR1,CXCL8,CXCR5,DDOST,DGKD,DOK3,DTX1,DYSF,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCRL1,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,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PFKFB3,PIK3CA,PIK3R5,PIK3R6,PILRB,PIP5K1B,PLEK,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PSME2,PTEN,PTGS2,PTPRE,PTPRJ,PYCARD,RAB32,RAB33A,RAP2B,RHOH,RORA,S100A12,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SEMA4A,SH2D1A,SIRPA,SLA2,SLC11A1,SMAD3,SOCS2,SOD1,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TBXA2R,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREM1,TREML2,TSHR,TYROBP,UBE2N,VAV3,VCAN,VEGFA,VSIR,VTI1B |
| Cellular Development,Cellular Growth and Proliferation | Proliferation of blood cells | 3.09E-18 | turquoise | 233 | ABCB1,ABCG1,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,ARIH2,AURKA,B3GNT5,BACH2,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTG1,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD22,CD226,CD27,CD2AP,CD300A,CD33,CD36,CD4,CD58,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL2,CXCL8,CXCR3,CXCR4,DCLRE1C,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FBXO4,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGL2,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,IKZF3,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP4A,IRF4,IRF8,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,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,NR3C1,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PPIA,PRDM1,PRF1,PRKCD,PRKCE,PSMB10,PTEN,PTGS2,PTK2,PTPRJ,PYCARD,RC3H2,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SEMA3A,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SMURF2,SOCS2,SOD1,SOS2,SPN,ST3GAL2,ST6GAL1,STAT4,STAT5B,SWAP70,TALDO1,TBX21,TCF7,TCL1A,TFRC,TGFBR2,TICAM2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB32,ZNHIT1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of lymphocytes | 3.74E-18 | turquoise | 205 | ABCG1,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD2AP,CD300A,CD33,CD36,CD4,CD58,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF2RB,CSNK1A1,CXCR3,CXCR4,DCLRE1C,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGL2,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,IKZF3,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLF9,KLRD1,LAT,LCP2,LGALS1,LGALS3,LILRB2,LILRB3,LST1,LY96,LYN,MAP3K14,MDM2,MEF2C,MGAT5,MIF,MIR17HG,MXI1,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRF1,PRKCD,PRKCE,PSMB10,PTEN,PTGS2,PTPRJ,PYCARD,RC3H2,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SMURF2,SOS2,SPN,ST3GAL2,ST6GAL1,STAT4,STAT5B,SWAP70,TBX21,TCF7,TCL1A,TFRC,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB32,ZNHIT1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of leukocytes | 3.76E-18 | turquoise | 192 | ADA,AHNAK,AHR,ANXA1,ANXA2,AP3B1,AP3D1,BACH2,BAK1,BCL11B,BID,BMPR1A,BTLA,C5AR1,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD300LF,CD36,CD4,CD58,CD59,CD63,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CD93,CEBPA,CEBPB,CLEC2D,CLEC7A,CR1,CR2,CRH,CRTC3,CSF1R,CSF2RB,CST3,CX3CR1,CXCL8,CXCR5,DDOST,DOK3,DTX1,DYSF,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCRL1,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,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PFKFB3,PILRB,PIP5K1B,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PSME2,PTEN,PTGS2,PTPRE,PTPRJ,PYCARD,RAB32,RAB33A,RHOH,RORA,S100A12,S100A8,S100A9,SAMSN1,SATB1,SEMA4A,SH2D1A,SIRPA,SLA2,SLC11A1,SMAD3,SOCS2,SOD1,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TBXA2R,TCL1A,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TREM1,TREML2,TSHR,TYROBP,UBE2N,VAV3,VCAN,VEGFA,VSIR,VTI1B |
| Inflammatory Response | Immune response of cells | 4.65E-18 | turquoise | 169 | ABCB1,ABCC4,AHR,ANXA1,ANXA5,APOA2,BAK1,BIRC3,BIRC5,BRAF,C5AR1,CAMK1D,CAV1,CCL3,CD14,CD19,CD200,CD22,CD226,CD36,CD4,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,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,NCF1,NFIL3,NLRP3,NR3C1,PFKFB3,PLA2G6,PLAUR,PLD4,PRDM1,PRKCD,PRKCE,PSME2,PTEN,PTK2,PTPRJ,PXN,PYCARD,RAB31,RAB33A,RORA,RRAS2,S100A12,S100A8,S100A9,SELPLG,SEMA4A,SH2D1A,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLA2,SLC11A1,SMAD3,SPRY1,SWAP70,SYT11,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TOP2A,TREM1,TREML2,TRIM14,TRIM23,TRIM38,TRIM45,TRIM8,TRPV2,TYROBP,UBE2L3,VEGFA,VIM,XBP1 |
| Hematological System Development and Function,Tissue Morphology | Quantity of leukocytes | 1.36E-17 | turquoise | 245 | ABCB1,ABCG1,ADA,ADGRE5,AFF1,AHR,AIM2,AKAP13,ALOX5,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD200,CD22,CD27,CD300A,CD300LF,CD36,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CFP,CIITA,CLEC4D,CLEC7A,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DTX1,E2F2,ELMO1,ESR1,ETS2,FABP5,FAS,FCER1G,FCGR2A,FLNA,FLT1,FNIP1,FOXO1,FPR1,FYB1,GADD45A,GALNT1,GATA3,GBA,GFI1,GNAS,GNLY,GPR18,HAVCR2,HAX1,HBEGF,HCST,HLA-DMA,HMOX1,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,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,LIG4,LILRB3,LITAF,LSP1,LYN,MAP3K14,MAPK1,MBTD1,MCL1,MDM2,MDM4,MGAT2,MGAT4B,MIF,MIR17HG,MYO1G,NDFIP1,NFATC3,NFIL3,NFYA,NLRP3,NR3C1,PAWR,PAX5,PCLAF,PIK3CA,PIK3R5,PIK3R6,PILRA,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PSMB10,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,PYCARD,RAP1B,RARG,RC3H2,RGS10,RHOH,RORA,RPS6KA4,RUNX2,RUNX3,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SERPINA1,SH2D1A,SH3BP2,SHCBP1,SIRPA,SMAD3,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TBXA2R,TCL1A,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TRIB1,TXN,TYROBP,UBE2W,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 mononuclear leukocytes | 7.27E-17 | turquoise | 141 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD4,CD58,CD59,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CD93,CLEC2D,CLEC7A,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PIP5K1B,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PTEN,PTPRJ,PYCARD,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,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cell Death and Survival | Apoptosis | 1.21E-16 | turquoise | 581 | ABCB1,ABCG1,ACSL1,ACTN4,ADA,ADARB1,ADI1,AGO2,AHR,AIF1,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANG,ANXA1,ANXA2,ANXA5,APBB2,APOBEC3B,AQP3,ARF4,ARG1,ARHGEF7,ARID3B,ARIH2,ARNT,ARRB1,ASB2,ATF5,ATOX1,ATP1A1,ATP1B3,ATP2B4,ATXN1,AURKA,AVEN,B4GALT5,BACH2,BAK1,BANP,BBS4,BCL11A,BCL11B,BCL2L2,BHLHE41,BID,BIK,BIRC3,BIRC5,BLOC1S2,BLVRA,BMP6,BMPR1A,BNIP3L,BRAF,BSG,BTG1,BUB3,C5AR1,CADM1,CAMK1D,CAMK2D,CAMK4,CANX,CAPN2,CAPN3,CAPNS1,CAV1,CBLB,CBX5,CCAR2,CCDC6,CCL3,CCL5,CCNA2,CCNC,CCND2,CD14,CD19,CD200,CD22,CD226,CD27,CD2AP,CD33,CD36,CD4,CD59,CD69,CD70,CD74,CD79B,CD80,CD8A,CD99,CDC42EP3,CDC6,CDCA2,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CERS6,CFL1,CFLAR,CHEK1,CIITA,CITED2,CLN8,CLPTM1L,CNKSR1,CNP,COL18A1,COL4A3,COL4A4,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CR2,CREBBP,CRH,CRIP1,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CSTA,CSTB,CTNND1,CXCL2,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,CYTOR,DAD1,DAP,DAPK1,DAPK2,DCLRE1C,DCPS,DDX17,DDX5,DGKD,DNAJC3,DNM2,DPH5,DSP,DTX1,DUSP4,DUSP6,DUT,DYNLL1,E2F2,E2F7,ECT2,EEF2K,EGOT,EHD1,EHD3,EHD4,EIF2AK1,EIF3M,EIF4G1,ELMO1,ELOA,ELOC,EMILIN2,ENO1,EPM2A,ERC1,ERN1,ESR1,ETHE1,ETS2,EXOG,EYA2,FAIM,FAS,FBXO32,FBXW7,FCER1G,FCER2,FCGR3A/FCGR3B,FGF9,FGL2,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,HIGD1A,HIP1R,HIPK2,HLA-B,HLA-DMA,HMGA1,HMMR,HMOX1,HMOX2,HRH2,HS1BP3,HSD17B10,HSH2D,HSP90B1,HSPA5,HSPA8,HSPA9,HSPE1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IER3,IFI27L1,IFI27L2,IFNAR2,IGFBP7,IGHE,IGHM,IKZF3,IL15RA,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,INPP4A,INVS,IRAK1,IRF4,IRF8,ITGAM,ITGAV,ITGB1,ITPR1,JMJD1C,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KLF10,KLF9,KMO,KMT5A,KNL1,KPNA1,KPNA2,LAMTOR2,LANCL2,LARP1B,LDHA,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LGMN,LIG4,LIMS1,LMNB1,LRPAP1,LSP1,LTK,LY96,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGEH1,MAP3K14,MAP3K9,MAP4,MAPK1,MAPKAPK3,MCL1,MDM2,MDM4,MEF2C,MGAT3,MIAT,MIF,MIR17HG,MKI67,MLKL,MMP11,MOB3B,MPRIP,MRPL41,MRPL49,MSRB2,MT2A,MTDH,MTFP1,MTM1,MXI1,MYDGF,MZB1,NAA15,NACC2,NAMPT,NAPA,NCF1,NCOA3,NDC80,NDST1,NDUFA13,NEK6,NFE2L1,NFIL3,NFYA,NINJ1,NLRP1,NLRP3,NR1D1,NR3C1,NSD2,NUAK2,NUMA1,NUSAP1,OBSCN,P4HB,PA2G4,PAFAH1B3,PALLD,PAWR,PAX5,PBX3,PCDHGC3,PCLAF,PDCD4,PDCD5,PDE4A,PDE4D,PDGFD,PDLIM7,PDXK,PEBP1,PERP,PHGDH,PIAS2,PIK3C3,PIK3CA,PKD1,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PLP2,PMEPA1,POU2AF1,PPARGC1B,PPIA,PRDM1,PRDX1,PRDX3,PRDX4,PRDX5,PRELID1,PRF1,PRKCD,PRKCE,PRKCI,PSAP,PSMB10,PSME4,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPRE,PTTG1,PVT1,PXN,PYCARD,QKI,RAB32,RABGGTA,RACGAP1,RAP1B,RARG,RASSF1,RASSF4,RASSF6,RBM5,RBX1,RDX,RHBDD1,RHOH,RPL10,RPLP0,RPS3A,RRAS2,RRM2,RTN1,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,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,SMURF2,SNAP29,SND1,SNHG7,SOCS2,SOD1,SOS2,SP1,SPN,SPTBN1,SRA1,SRI,SRXN1,ST3GAL3,ST6GAL1,STAT4,STAT5B,STAU1,STK17A,STOML2,STUB1,SUB1,SUN1,SWAP70,SYCP3,SYDE1,TAF10,TAGLN2,TBK1,TBXA2R,TCF7,TCHP,TCL1A,TCP1,TEAD2,TERF2,TFDP1,TFRC,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TICAM2,TIMP1,TIMP2,TLR2,TLR4,TMBIM6,TNF,TNFAIP2,TNFAIP8,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP53I3,TP63,TPX2,TRADD,TRAF5,TREM1,TRIB1,TRPV2,TXN,TXN2,TXNDC5,TYMP,TYMS,TYROBP,UCHL1,USP53,VAV3,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,VOPP1,VPS41,VTI1B,WEE1,XBP1,XRCC6,YBX3,YME1L1,YWHAE,ZBTB7A,ZFAND5,ZFAND6,ZHX2,ZMYND11,ZNF274 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Leukopoiesis | 1.63E-16 | turquoise | 218 | 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,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CFP,CHEK1,CIITA,CITED2,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,EIF2AK1,ERN1,ESR1,ETS2,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GAB3,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GNLY,HAVCR2,HAX1,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IKZF3,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,LIG4,LILRA2,LILRB2,LILRB3,LSP1,LYN,MAFB,MAP3K14,MAPK1,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,PLA2G6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTEN,PTGS2,PTPN12,PTPRJ,RACGAP1,RARG,RFFL,RGS10,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA3A,SEMA4A,SH2D1A,SLA2,SLC3A2,SMAD3,SOCS2,SOCS5,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,ZBTB7A,ZMIZ1 |
| Cellular Growth and Proliferation,Lymphoid Tissue Structure and Development | Proliferation of lymphatic system cells | 2.18E-16 | turquoise | 214 | ABCG1,ADA,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,B3GNT5,BACH2,BCL11A,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL3,CCL5,CCND2,CD14,CD19,CD22,CD226,CD27,CD2AP,CD300A,CD33,CD36,CD4,CD58,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CR2,CRH,CRIP3,CSF1R,CSF2RB,CSNK1A1,CXCL8,CXCR3,CXCR4,DCLRE1C,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FBXO4,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGL2,FNIP1,FOXO1,FRS2,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,IKZF3,IL13RA1,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IMPDH1,INPP4A,IRF4,IRF8,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,MYDGF,NCK2,NDFIP1,NFATC3,NFIL3,PAWR,PCYT1A,PDE4D,PIK3C3,PIK3CA,PLA2G6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRF1,PRKCD,PRKCE,PSMB10,PTEN,PTGS2,PTPRJ,PYCARD,RC3H2,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SERPINA1,SH2D1A,SH3BP2,SH3KBP1,SKAP1,SKIL,SLAMF7,SLC3A2,SLC4A1,SMAD3,SMURF2,SOD1,SOS2,SPN,ST3GAL2,ST6GAL1,STAT4,STAT5B,SWAP70,TBX21,TCF7,TCL1A,TFRC,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB32,ZNHIT1 |
| Cellular Function and Maintenance | Function of leukocytes | 2.33E-16 | turquoise | 141 | ABCB1,ADA,ADGRE1,AHNAK,AHR,AIM2,AKAP13,ANG,ARIH2,BACH2,BCAT1,BIK,BIRC3,BIRC5,BTLA,CAV1,CBLB,CBX5,CCL5,CCR1,CD14,CD200,CD27,CD300A,CD300LF,CD36,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPB,CIITA,CLEC2D,CLEC7A,CR2,CRH,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL8,DCLRE1C,DENND1B,DTX1,DUSP4,FCER1G,FCER2,FCGR2A,FLOT1,FLT1,FYB1,GFI1,GIMAP4,GNAI3,GZMA,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFI30,IFNAR2,IGHE,IGHM,IL13RA1,IL15RA,IL1B,IL21R,IL4R,IL7,IL9R,IMPDH1,IRAK1,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,PTEN,PTGS2,PYCARD,RRAS2,S100A4,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SIGMAR1,SIRPA,SLA2,SMAD3,SPN,ST6GAL1,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TPCN1,TRAF5,TYROBP,VDR,VEGFA |
| Cellular Movement | Migration of cells | 4.18E-16 | turquoise | 461 | ABCB4,ABCC4,ABCG1,ABHD2,ACAP3,ACP5,ACTN1,ACTN4,ACVR1,ADA,ADARB1,ADGRE2,ADGRE5,ADGRG1,ADI1,AFDN,AGO2,AHNAK,AHR,AIF1,AIM2,ALDOA,ALOX5,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,BANP,BBS4,BCAT1,BCL11B,BHLHE41,BID,BMP6,BMPR1A,BRAF,BSG,BTLA,C5AR1,C5orf30,CALU,CAMK1D,CAMK2D,CAMK4,CAMKK2,CAPN2,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD200,CD22,CD226,CD300LB,CD300LF,CD36,CD4,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEMIP2,CERS6,CFL1,CHN2,CIITA,CITED2,CKLF,CLCN4,CLEC7A,CNP,COCH,COL18A1,COL4A3,CORO1B,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CTNND1,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYTOR,DANCR,DAPK2,DGKD,DNM2,DOCK5,DPYSL2,DSP,DTL,DTX1,DUSP4,DUSP6,DYSF,ECT2,EGOT,EHD1,EIF3E,ELMO1,EMILIN2,ENAH,EPB41L5,EPS8,ERC1,ESAM,ESR1,ETV4,EVL,EYA2,FABP5,FAM89B,FAS,FBXO4,FBXW7,FCAR,FCER1G,FCER2,FCGR2A,FCGR3A/FCGR3B,FGF9,FLNA,FLNB,FLOT1,FLT1,FNDC3B,FOXO1,FOXP1,FPR1,FRS2,FURIN,FYB1,GAB1,GADD45A,GALNT1,GATA3,GBA,GLIPR2,GLRX,GNAI3,GNAQ,GNAS,GNLY,GPI,GPR18,GZMB,HAVCR2,HAX1,HBEGF,HMMR,HMOX1,HRH2,HSP90B1,HSPA5,HSPA8,HVCN1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IGFBP7,IGHA1,IGHE,IGHM,IGKC,IGKV1-17,IGKV1-5,IGKV4-1,IGLC1,IGLL1/IGLL5,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL6R,IL7,IL7R,INPP4A,IQSEC1,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,LITAF,LMNB1,LPP,LRP8,LRPAP1,LSP1,LTK,LY96,LYN,MAFB,MAP3K14,MAP4,MAPK1,MAPRE2,MARCKS,MARCKSL1,MCOLN2,MDM2,MEF2C,MGAT3,MGAT5,MGLL,MIA3,MIAT,MIF,MINK1,MIR17HG,MMP11,MTDH,MYL12A,MYO1F,MYO1G,MYO9A,NAAA,NAMPT,NCF1,NCK2,NCOA3,NDST1,NFATC3,NFIL3,NINJ1,NLRP3,NR1D1,NR3C1,NREP,NSD2,NUCB2,PA2G4,PALLD,PAX5,PCSK5,PDCD4,PDGFD,PHACTR1,PIK3C2B,PIK3C3,PIK3CA,PIK3R5,PIK3R6,PILRA,PKD1,PKM,PLA2G16,PLA2G6,PLAUR,PLXNB2,PLXNC1,PLXND1,PODXL,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPN12,PTPRB,PTPRJ,PTPRK,PTTG1,PXN,PYCARD,QPCT,RABEP1,RACGAP1,RALGAPA2,RAP1B,RAP2A,RAP2B,RARG,RASGRP2,RASSF1,RDX,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,SP1,SPN,SRGAP1,SSBP1,SSH2,ST3GAL6,ST6GAL1,STAB1,STAP1,STAT5B,STUB1,SWAP70,SYNE2,TARS,TBX21,TBXA2R,TERF2,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TNFRSF25,TNR,TP63,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,VPREB3,VSIR,WARS,XBP1,YWHAE,ZBTB7A,ZFAND5,ZYX |
| Cellular Function and Maintenance | Function of blood cells | 5.29E-16 | turquoise | 152 | ABCB1,ADA,ADGRE1,AHNAK,AHR,AIM2,AKAP13,ANG,AQP9,ARIH2,BACH2,BAK1,BCAT1,BIK,BIRC3,BIRC5,BTLA,CAV1,CBLB,CBX5,CCL5,CCR1,CD14,CD200,CD27,CD300A,CD300LF,CD36,CD4,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPB,CIITA,CLEC2D,CLEC7A,CR2,CRH,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL8,DCLRE1C,DENND1B,DTX1,DUSP4,EIF2AK1,FCER1G,FCER2,FCGR2A,FLNA,FLOT1,FLT1,FYB1,GFI1,GIMAP4,GNAI3,GNAQ,GPX1,GZMA,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFI30,IFNAR2,IGHE,IGHM,IL13RA1,IL15RA,IL1B,IL21R,IL4R,IL7,IL9R,IMPDH1,IRAK1,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,PCLAF,PICALM,PIK3C3,PIP5K1B,PLAUR,POU2AF1,PPIA,PRF1,PSAP,PSMB10,PSME2,PTEN,PTGS2,PYCARD,RASGRP2,RRAS2,S100A4,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SIGMAR1,SIRPA,SLA2,SMAD3,SPN,ST6GAL1,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TBXA2R,TCF7,TLR2,TLR4,TNF,TPCN1,TRAF5,TYROBP,VDR,VEGFA |
| Hematological System Development and Function,Tissue Morphology | Quantity of mononuclear leukocytes | 6.14E-16 | turquoise | 201 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BID,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DTX1,E2F2,ESR1,ETS2,FABP5,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNAS,GNLY,GPR18,HAVCR2,HAX1,HCST,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,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,LIG4,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MBTD1,MCL1,MDM2,MGAT2,MIF,MIR17HG,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NR3C1,PAWR,PAX5,PIK3CA,PIK3R6,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PSAP,PSMB10,PTAFR,PTEN,PTPRJ,PTTG1,PYCARD,RAP1B,RARG,RC3H2,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SH2D1A,SH3BP2,SHCBP1,SIRPA,SMAD3,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| 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 | 6.48E-16 | turquoise | 185 | 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,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CR2,CREBBP,CSF3R,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ERN1,ESR1,ETS2,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,HAVCR2,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LIG4,LILRB2,LSP1,LYN,MAFB,MAP3K14,MAPK1,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTEN,PTGS2,PTPN12,PTPRJ,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SOCS5,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,ZBTB7A,ZMIZ1 |
| Cell Death and Survival | Necrosis | 6.62E-16 | turquoise | 581 | ABCB1,ABCB4,ABCC4,ABCG1,ACSL1,ADA,ADARB1,ADGRE2,ADI1,AGAP3,AGTPBP1,AHR,AIM2,ALDH1A1,ALDOA,ALOX5,ANG,ANXA1,ANXA2,ANXA5,APOBEC3B,ARG1,ARID3B,ARNT,ARRB1,ATF5,ATG13,ATG4A,ATP1A1,ATP1B3,ATP2B4,ATP5F1A,ATXN1,AURKA,B4GALT5,BACH2,BAK1,BANP,BBS4,BCKDK,BCL11A,BCL11B,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BMPR1A,BNIP3L,BRAF,BSG,BTG1,BTLA,BUB1B,BUB3,C5AR1,CADM1,CAMK2D,CAMK4,CAPN2,CAPN3,CAPNS1,CAV1,CBX5,CCAR2,CCDC6,CCL3,CCL5,CCNC,CCND2,CCT8,CD14,CD19,CD200,CD22,CD226,CD27,CD2AP,CD300A,CD300LB,CD33,CD36,CD4,CD59,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CD99,CDC42EP3,CDC6,CDCA2,CDCA5,CDK4,CDK5,CDT1,CEBPA,CEBPB,CEBPD,CERS5,CERS6,CFLAR,CHEK1,CIITA,CITED2,CLPTM1L,CNP,COL18A1,COL4A3,COPG1,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CR1,CR2,CREBBP,CRH,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CSTA,CSTB,CTNND1,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,CYTOR,DAPK1,DAPK2,DCTN3,DDX17,DGKD,DNM2,DPH5,DSP,DST,DTL,DTX1,DUSP4,DUSP6,DUT,DYNLL1,DYSF,E2F2,EEF2K,EGOT,EHD4,EIF2AK1,EIF3E,EIF3M,ELOA,ELOC,EMILIN2,ENO1,EPM2A,ERN1,ESR1,ETHE1,ETS2,EXOG,EYA2,FAIM,FAS,FBXO32,FBXW7,FCAR,FCER1G,FCER2,FCGR3A/FCGR3B,FGF9,FGL2,FLNA,FLNB,FLT1,FNIP1,FOXO1,FOXP1,FURIN,GAB1,GABBR1,GADD45A,GAPDH,GATA3,GBA,GCLC,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GLUD1,GNAQ,GNAS,GNLY,GPI,GPX1,GRIA1,GSTM1,GZMA,GZMB,GZMH,GZMK,HAVCR2,HAX1,HBEGF,HCST,HDAC9,HIPK2,HLA-B,HLA-DMA,HMGA1,HMMR,HMOX1,HMOX2,HRH2,HSD17B10,HSH2D,HSP90B1,HSPA5,HSPA8,HSPA9,HSPB11,HSPE1,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IDH2,IER3,IFNAR2,IGFBP7,IGHE,IGHM,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL32,IL5RA,IL6R,IL7,IL7R,IL9R,INPP4A,INPP5A,INVS,IRAK1,IRF4,IRF8,IRGM,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,LIG4,LILRB3,LIMS1,LMNB1,LRPAP1,LSP1,LTK,LY96,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAGEH1,MANF,MAP3K14,MAP3K9,MAP4,MAPK1,MAPKAPK3,MCL1,MCOLN2,MDM2,MDM4,MEF2C,MGAT3,MGAT5,MIAT,MIF,MIR17HG,MKI67,MLKL,MMP11,MOB3B,MRPL49,MSRB2,MT1X,MT2A,MTDH,MTFP1,MTM1,MXI1,MZB1,NABP1,NACC2,NAMPT,NAPA,NCF1,NCK2,NCOA3,NCOA7,NDC80,NDST1,NDUFA13,NDUFAB1,NEK6,NFE2L1,NFIL3,NFYA,NLRP1,NLRP3,NR1D1,NR3C1,NRCAM,NSD2,NUP88,OAZ1,P4HB,PA2G4,PALLD,PAWR,PAX5,PBX3,PCDHGC3,PCLAF,PDCD4,PDCD5,PDE4A,PDE4D,PDE7A,PDE7B,PDGFD,PDLIM7,PEBP1,PERP,PFKFB3,PHGDH,PIK3C3,PIK3CA,PKD1,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PLCB1,PLP2,PMEPA1,POU2AF1,PPARGC1B,PPIA,PRDM1,PRDX1,PRDX3,PRELID1,PRF1,PRKCD,PRKCE,PRKCI,PSAP,PSMA3,PSMA5,PSMA6,PSMB10,PSMB3,PSMC2,PSMD14,PTAFR,PTEN,PTGS2,PTK2,PTPRE,PTTG1,PVT1,PXN,PYCARD,QKI,RAB32,RABGGTA,RACGAP1,RARG,RASSF1,RASSF4,RASSF6,RBM5,RBX1,RDH10,RDX,RGS10,RHOH,RPL10,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRAS2,RRM2,RTN1,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SCO2,SDHB,SDR16C5,SEC61G,SEL1L,SELPLG,SEMA3A,SERP1,SERPINA1,SGCB,SGPP1,SGPP2,SH2D1A,SH3BP2,SH3BP5,SH3GLB1,SH3KBP1,SH3PXD2A,SH3RF1,SIGMAR1,SIRPA,SKIL,SLC16A1,SLC25A23,SLC25A4,SLC39A6,SLC3A2,SLC8A1,SMAD3,SMARCB1,SMC1A,SMCO4,SMOX,SMURF2,SND1,SNHG7,SOD1,SP1,SPN,SPTBN1,SRI,SRXN1,ST3GAL3,ST6GAL1,STAT4,STAT5B,STAU1,STK17A,STOML2,STUB1,SUN1,SVIL,SWAP70,SYCP3,TAGLN2,TBK1,TBX21,TBXA2R,TCF7,TCL1A,TCP1,TERF2,TFDP1,TFRC,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TICAM2,TIMP1,TIMP2,TLR2,TLR4,TMBIM6,TNF,TNFAIP8,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP63,TPX2,TRADD,TRAF5,TREM1,TRIB1,TRMT61A,TRPV2,TUBB,TUBB3,TXN,TXN2,TYMP,TYMS,TYROBP,UBE2C,UBE2L3,UBE2Q1,UCHL1,USP53,VAV3,VCAN,VCP,VDAC1,VDR,VEGFA,VIM,VOPP1,VSIR,VTI1B,WEE1,WWC3,XBP1,XRCC6,YME1L1,YWHAE,YWHAH,ZBTB7A,ZHX2,ZMYND11,ZNF274,ZYX |
| Cell-To-Cell Signaling and Interaction | Activation of cells | 7.7E-16 | turquoise | 254 | ADA,AHNAK,AHR,ANG,ANK3,ANXA1,ANXA2,AP3B1,AP3D1,ARRB1,ATP2A3,BACH2,BAK1,BCL11B,BID,BMPR1A,BTLA,C1GALT1C1,C5AR1,CADM1,CAMK4,CBLB,CCL3,CCL5,CD14,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD300A,CD300LB,CD300LF,CD36,CD4,CD58,CD59,CD63,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CD93,CDK4,CEBPA,CEBPB,CFL1,CLEC12A,CLEC2D,CLEC7A,CLIC1,COL4A3,CR1,CR2,CRH,CRTC3,CSF1R,CSF2RB,CST3,CTNND1,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DDOST,DGKD,DOK3,DTX1,DYSF,EIF3A,ERN1,FAS,FBXW7,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCRL1,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,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,NCF1,NDFIP1,NFATC3,NFIL3,NUCB2,OTUD7B,PALLD,PARPBP,PAX5,PBX3,PFKFB3,PIK3CA,PIK3R5,PIK3R6,PILRB,PIP5K1B,PKM,PLAUR,PLCB1,PLEK,PLXNB2,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PSMC2,PSME2,PTEN,PTGS2,PTK2,PTPRE,PTPRJ,PYCARD,RAB32,RAB33A,RAP2B,RHOH,RORA,RUNX2,S100A12,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SEMA4A,SERPINA1,SH2D1A,SIRPA,SLA2,SLC11A1,SLC24A4,SMAD3,SOCS2,SOD1,SP1,SPN,ST6GAL1,STAT4,STAT5B,STX11,SWAP70,TBX21,TBXA2R,TCL1A,TERF2,TGFBR2,TGFBR3,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOP2A,TP63,TRAF5,TREM1,TREML2,TSHR,TYROBP,UBE2C,UBE2N,VAV3,VCAN,VEGFA,VIM,VSIR,VTI1B |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid cells | 8.3E-16 | turquoise | 195 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BID,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CFLAR,CIITA,CLEC4D,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CX3CR1,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DTX1,E2F2,ESR1,ETS2,FABP5,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,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,LIG4,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MCL1,MDM2,MGAT2,MIF,MIR17HG,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NR3C1,PAWR,PAX5,PIK3CA,PIK3R6,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PSAP,PSMB10,PTAFR,PTEN,PTPRJ,PTTG1,PYCARD,RAP1B,RARG,RC3H2,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SH2D1A,SH3BP2,SHCBP1,SIRPA,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphocytes | 1.23E-15 | turquoise | 194 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BID,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CFLAR,CIITA,CLEC4D,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CX3CR1,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DTX1,E2F2,ESR1,ETS2,FABP5,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,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,LIG4,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MCL1,MDM2,MGAT2,MIF,MIR17HG,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NR3C1,PAWR,PAX5,PIK3CA,PIK3R6,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PSAP,PSMB10,PTAFR,PTEN,PTPRJ,PTTG1,PYCARD,RAP1B,RARG,RC3H2,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SH2D1A,SH3BP2,SHCBP1,SIRPA,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphatic system cells | 1.69E-15 | turquoise | 206 | ABCB1,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,AP3B1,ARID3A,ARID4B,ARNTL,AURKA,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BID,BIK,BIRC5,BNIP3L,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD22,CD27,CD300LF,CD36,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CFLAR,CIITA,CLEC4D,CR2,CREBBP,CRH,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DTX1,E2F2,ESR1,ETS2,FABP5,FAS,FCER1G,FCGR2A,FLNA,FLT1,FNIP1,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GBA,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,HLA-DMA,HSP90B1,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,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,LIG4,LILRB3,LSP1,LYN,MAP3K14,MAPK1,MCL1,MDM2,MDM4,MGAT2,MIF,MIR17HG,MYO1G,NDFIP1,NFATC3,NFIL3,NLRP3,NR3C1,PAWR,PAX5,PCLAF,PICALM,PIK3CA,PIK3R6,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PSAP,PSMB10,PTAFR,PTEN,PTPRJ,PTTG1,PYCARD,RAP1B,RARG,RC3H2,RHOH,RPS6KA4,RUNX2,RUNX3,SAMSN1,SATB1,SELPLG,SH2D1A,SH3BP2,SHCBP1,SIRPA,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,TBK1,TBX21,TGFBI,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TPX2,TYROBP,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Hematological System Development and Function,Tissue Morphology | Quantity of blood cells | 2.08E-15 | turquoise | 261 | ABCB1,ABCG1,ADA,ADGRE5,AFF1,AHR,AIM2,AKAP13,ALOX5,AP3B1,ARID3A,ARID4B,ARNTL,AURKA,B3GNT5,BACH2,BAK1,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,CD4,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CDK4,CEBPA,CEBPB,CFLAR,CFP,CIITA,CLEC4D,CLEC7A,CR2,CREBBP,CRIP3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DTX1,E2F2,EIF2AK1,ELMO1,EPB42,ESR1,ETS2,FABP5,FAS,FBXW7,FCER1G,FCGR2A,FLNA,FLT1,FNIP1,FOXO1,FPR1,FYB1,GADD45A,GALNT1,GATA3,GBA,GFI1,GNAS,GNLY,GPR18,HAVCR2,HAX1,HBEGF,HCST,HLA-DMA,HMOX1,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,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,LIG4,LILRB3,LITAF,LSP1,LYN,MAP3K14,MAPK1,MBTD1,MCL1,MDM2,MDM4,MGAT2,MGAT4B,MIF,MIR17HG,MYO1G,NDFIP1,NFATC3,NFE2L1,NFIL3,NFYA,NLRP3,NR3C1,PAWR,PAX5,PCLAF,PICALM,PIK3CA,PIK3R5,PIK3R6,PILRA,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PSMB10,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,PYCARD,RAP1B,RARG,RC3H2,RGS10,RHOH,RORA,RPS6KA4,RUNX2,RUNX3,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SERPINA1,SH2D1A,SH3BP2,SHCBP1,SIRPA,SLC4A1,SLC8A1,SMAD3,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TBXA2R,TCL1A,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TRIB1,TXN,TYROBP,UBE2W,VAV3,VDR,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Differentiation of mononuclear leukocytes | 2.17E-15 | turquoise | 192 | 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,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ERN1,ESR1,ETS2,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GNLY,HAVCR2,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LIG4,LILRA2,LILRB2,LSP1,LYN,MAFB,MAP3K14,MAPK1,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTEN,PTGS2,PTPN12,PTPRJ,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SOCS5,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,ZBTB7A,ZMIZ1 |
| Cell-To-Cell Signaling and Interaction | Activation of lymphatic system cells | 2.25E-15 | turquoise | 134 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD1A,CD200,CD22,CD226,CD27,CD300LF,CD4,CD58,CD59,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CLEC2D,CLEC7A,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PIP5K1B,POU2AF1,PRDM1,PRDX1,PRF1,PTEN,PTPRJ,PYCARD,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,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cell-To-Cell Signaling and Interaction | Activation of lymphoid cells | 2.69E-15 | turquoise | 132 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD1A,CD200,CD22,CD226,CD27,CD4,CD58,CD59,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CLEC2D,CLEC7A,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PIP5K1B,POU2AF1,PRDM1,PRDX1,PRF1,PTEN,PTPRJ,PYCARD,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,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Hematopoiesis of mononuclear leukocytes | 2.89E-15 | turquoise | 191 | 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,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CST3,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ERN1,ESR1,ETS2,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,FOXP1,FURIN,FYB1,GADD45A,GATA3,GFI1,GIMAP4,GIMAP5,GNLY,HAVCR2,HDAC9,HLA-DMA,HLA-DOA,HMGA1,HS1BP3,HSP90B1,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,ITGAL,ITGAM,ITPKB,KDELR1,KLF10,LAT,LAX1,LCP2,LGALS1,LGALS3,LIG4,LILRA2,LILRB2,LSP1,LYN,MAFB,MAP3K14,MAPK1,MCL1,MDM2,MEF2C,MGAT2,MIF,MINK1,MIR17HG,MZB1,NAB1,NCK2,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PTEN,PTGS2,PTPN12,PTPRJ,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SOCS5,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,ZBTB7A,ZMIZ1 |
| Infectious Diseases | Viral Infection | 5.47E-15 | turquoise | 371 | ABCB1,ACSL1,ACTN1,ADA,ADARB1,ADGRE5,AGFG1,AGO2,AGTRAP,AHR,AKAP13,ALG14,ALOX5,ANXA1,ANXA2,ANXA5,AP1B1,AP3D1,APOBEC3B,APOBEC3G,ARF1,ARHGAP21,ARHGAP32,ARNTL,ARPC1B,ARRB1,ASGR2,ATF5,ATOX1,ATP1B3,ATP5F1B,ATP6V0A1,ATP6V1A,BAIAP3,BAK1,BCL11A,BCL2L2,BIRC3,BSG,CAMK1D,CAMKK2,CAPN3,CARD16,CAV1,CBLB,CCL3,CCL5,CCNA2,CCR1,CD14,CD19,CD200,CD22,CD300LF,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD80,CD86,CD8A,CD93,CDC42EP3,CDK4,CEBPD,CEP68,CFLAR,CHCHD2,CHMP2A,CIITA,CLIP1,CLUH,CNP,CNST,COPG1,COPZ1,CR2,CREB3,CREBBP,CRTC3,CSF2RB,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CYP51A1,CYSTM1,DAPK2,DDOST,DDX17,DDX5,DDX50,DMXL1,DNM2,DTX4,DYSF,E2F2,EDEM1,EGOT,EIF3A,EIF4A3,EIF4EBP2,ELOA,ELOC,EPS8,ERC1,ERN1,ESR1,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGD6,FLNA,FLT1,FPR1,FRS2,FURIN,GAB1,GABBR1,GABPB1,GAPDH,GCLC,GPI,GSTO1,GTF2I,GYG1,GZMA,H3F3A/H3F3B,HAVCR2,HID1,HIP1R,HLA-B,HLA-DOA,HMGA1,HMOX1,HRH2,HS3ST1,HSP90B1,HSPA5,HSPA9,IER3,IFNAR2,IGHM,IGKC,IKZF2,IL1B,IL1RN,IL2RB,IL32,IL4R,IL6R,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,JCHAIN,KANSL1,KATNB1,KCNN4,KIF11,KPNA1,LCP2,LDLR,LGALS1,LGALS3,LILRA2,LIMK1,LMAN2,LRPAP1,LSP1,MAGT1,MAN1A1,MAP3K14,MAP3K7CL,MAP3K9,MAP4,MAPK1,MAPKAPK3,MDM2,MGAT1,MGLL,MICAL3,MIF,MINK1,MRPL23,MRS2,MSRB2,MT1X,MT2A,MYO1F,MYOF,NCF1,NCOA3,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NEK8,NFIL3,NIPSNAP3B,NLRP1,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,PRKCD,PRKCI,PSMA1,PSMA2,PSMA3,PSMA5,PSMB6,PSMD14,PSME2,PTAFR,PTGS2,PTPRJ,PTTG1,PVT1,PYCARD,RAB1B,RAB31,RAB32,RAB3D,RAB5IF,RAB8A,RABEP1,RACGAP1,RAP1B,RARG,RARRES3,RASSF1,RBM5,RFFL,RHOH,RNH1,RRAGD,RREB1,RRM2,RTN3,RXRA,S100A12,S100A4,S100A8,S100A9,SAMSN1,SCARB2,SEC14L1,SEC61G,SELPLG,SERPINA1,SERPINA5,SESTD1,SFXN3,SH2D1A,SHCBP1,SIGMAR1,SIKE1,SLC31A1,SLC9A3R1,SLCO3A1,SMAD3,SMARCA2,SMARCB1,SNX9,SOCS2,SPCS1,SPCS3,SPN,SPTBN1,SSR1,SSR3,ST3GAL3,ST6GAL1,STAB1,STAT4,STAT5B,STAU1,STT3A,STX11,SUB1,TAGLN2,TALDO1,TBK1,TBX21,TERF2,TFRC,TGFBR2,TIMP1,TIMP2,TKT,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TOX,TRADD,TREM1,TRERF1,TRIM14,TRIM38,TRIM44,TRIM8,TRMT61A,TRPV2,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXN,TXNL4A,TYMS,TYROBP,UAP1,UBE2C,UBE2L3,UPF3B,UQCRC1,VCP,VDR,VEGFA,WNT10A,XBP1,XK,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of lymphocytes | 5.58E-15 | turquoise | 131 | ADA,AHNAK,AHR,ANXA1,BACH2,BAK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD1A,CD200,CD22,CD226,CD27,CD4,CD58,CD59,CD69,CD72,CD74,CD79B,CD80,CD86,CD8A,CLEC2D,CLEC7A,CR2,CSF2RB,CXCL8,CXCR5,DDOST,DOK3,DTX1,FAS,FCER1G,FCGR2A,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PIP5K1B,POU2AF1,PRDM1,PRDX1,PRF1,PTEN,PTPRJ,PYCARD,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,TYROBP,UBE2N,VEGFA,VSIR,VTI1B |
| Cancer,Organismal Injury and Abnormalities | Lymphatic system tumor | 1.17E-14 | turquoise | 417 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BID,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,COCH,COL18A1,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTNND1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DNM2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EHD1,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,EPS8,ERC1,ESR1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,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,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA1,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MAP4,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP3,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAWR,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCD,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,QPCT,RAPGEF6,RARG,RARRES3,RASGRP2,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL10,RPL23,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBC1D16,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Hematological Disease,Immunological Disease | Lymphoproliferative disorder | 1.25E-14 | turquoise | 408 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DNM2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,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,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA1,KPNA2,KRR1,LANCL2,LAT,LCP2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCD,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASGRP2,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL10,RPL23,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SH2D1A,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SOS2,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Cell proliferation of T lymphocytes | 2.99E-14 | turquoise | 163 | ABCG1,AHNAK,AHR,AIF1,AKAP13,ANXA1,ARG1,AURKA,BACH2,BIRC3,BIRC5,BRAF,BSG,BTLA,BTN1A1,C5AR1,CAV1,CBLB,CCL5,CD14,CD19,CD226,CD27,CD2AP,CD33,CD36,CD4,CD58,CD59,CD69,CD70,CD74,CD80,CD86,CD8A,CD99,CEBPA,CEBPB,CFLAR,CIITA,CLEC4D,CLECL1,CR1,CRH,CRIP3,CSF2RB,CSNK1A1,CXCR3,CXCR4,DCLRE1C,DNM2,DTX1,E2F2,ESR1,ETS2,FAS,FCER1G,FGL2,FOXO1,FYB1,GADD45A,GATA3,GFI1,GPI,HAVCR2,HLA-DMA,HLA-DMB,HMOX1,HRH2,HSH2D,HSP90B1,HSPA5,HSPA8,ICOSLG/LOC102723996,ID2,IFNAR2,IGHM,IKZF3,IL15RA,IL1B,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,IMPDH1,IRF4,IRF8,ITGAL,ITGAM,ITGAX,ITGB1,KCNN4,KLRD1,LAT,LCP2,LGALS1,LGALS3,LILRB2,MAP3K14,MGAT5,MIF,MIR17HG,MXI1,MYDGF,NCK2,NDFIP1,NFATC3,PAWR,PDE4D,PIK3CA,POU2AF1,PRDM1,PRF1,PRKCE,PSMB10,PTEN,PTGS2,PTPRJ,PYCARD,RC3H2,RHOH,RPS6KA4,RUNX3,SAMSN1,SATB1,SH2D1A,SKAP1,SKIL,SLC3A2,SLC4A1,SMAD3,SOS2,SPN,ST3GAL2,STAT4,STAT5B,TBX21,TCF7,TCL1A,TFRC,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TRADD,TRAF5,TREM1,TXN,TYROBP,UBE2N,VAV3,VDR,VEGFA,VSIR,ZBTB32,ZNHIT1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphoid cancer | 3.12E-14 | turquoise | 409 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,COCH,COL18A1,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTNND1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DNM2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,ESR1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,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,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA1,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASGRP2,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL10,RPL23,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBC1D16,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Hematological Disease,Immunological Disease | T-cell lymphoproliferative disorder | 3.16E-14 | turquoise | 158 | ADA,AIM2,ANKIB1,ANXA1,ATP1B1,ATXN1,ATXN7L1,AURKA,BAK1,BCL11B,BIRC5,BRAF,BTG1,CADM1,CBLB,CD14,CD163,CD19,CD1A,CD200,CD27,CD33,CD4,CD58,CD69,CD86,CDK4,CEBPA,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CREBBP,CSF3R,CSNK1A1,CXCL8,CXCR3,DNM2,DTX1,DUSP4,E2F2,ERC1,FAS,FBXW7,FCER2,FNDC3B,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-B,HLA-DOA,HS3ST1,HSP90B1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGHM,IGKC,IGLC1,IKZF2,IL13RA1,IL2RB,IL6R,IL7R,IMPDH1,IRF4,ITGAM,ITGAX,ITGB1,ITPKB,JARID2,JMJD1C,KMO,LAT,MAFB,MAP3K14,MCL1,MDM2,MGAT4A,MGLL,MIA2,MKI67,MXI1,MYOF,NR3C1,NRCAM,NUAK2,PAX5,PDE4D,PDE7B,PIK3CA,PIK3R5,PPIA,PRDM1,PRDX1,PRF1,PRR5,PSMB2,PTEN,PTPRE,PTPRK,RARG,RARRES3,RASGRP2,RASSF4,RDH10,RHOH,RHOU,RPL10,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SETD2,SKIL,SLC16A7,SPN,SSBP2,STAT4,STAT5B,TARP,TBX21,TCF7,TCL1A,TIMP1,TIMP2,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VMP1,XRCC6,ZBTB10,ZMIZ1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphocytic neoplasm | 5.11E-14 | turquoise | 404 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DNM2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,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,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA1,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASGRP2,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL10,RPL23,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cellular Function and Maintenance | Endocytosis | 5.45E-14 | turquoise | 145 | ACTN4,ANXA1,ANXA5,AP2S1,APLP2,APOA2,ARF1,ARHGAP21,ARRB1,ATP5F1B,ATP6V1A,ATP6V1D,BRAF,BTBD19,CANX,CAV1,CCL3,CCL5,CD14,CD163,CD22,CD2AP,CD300A,CD36,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,FCGR3A/FCGR3B,FCN1,FLNA,FLOT1,FOXP1,FPR1,FRS2,GLRX,GPR18,HAX1,HBEGF,HIP1R,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,NCF1,NR3C1,PDLIM7,PFKFB3,PICALM,PIP5K1B,PLA2G6,PLAUR,PRF1,PRKCD,PRKCE,PTEN,PTK2,PTPRJ,PTRHD1,PXN,PYCARD,RAB1A,RAB31,RORA,RRAS2,S100A10,S100A9,SCAMP2,SCAMP5,SCARB2,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,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 | T-cell malignant neoplasm | 5.97E-14 | turquoise | 157 | ADA,AIM2,ANKIB1,ANXA1,ATP1B1,ATXN1,ATXN7L1,AURKA,BAK1,BCL11B,BIRC5,BRAF,BTG1,CADM1,CBLB,CD14,CD163,CD19,CD1A,CD200,CD27,CD33,CD4,CD58,CD69,CD86,CDK4,CEBPA,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CREBBP,CSF3R,CSNK1A1,CXCL8,CXCR3,DNM2,DTX1,DUSP4,E2F2,ERC1,FAS,FBXW7,FCER2,FNDC3B,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-B,HLA-DOA,HS3ST1,HSP90B1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGHM,IGKC,IGLC1,IKZF2,IL13RA1,IL2RB,IL6R,IL7R,IMPDH1,IRF4,ITGAM,ITGAX,ITGB1,ITPKB,JARID2,JMJD1C,KMO,MAFB,MAP3K14,MCL1,MDM2,MGAT4A,MGLL,MIA2,MKI67,MXI1,MYOF,NR3C1,NRCAM,NUAK2,PAX5,PDE4D,PDE7B,PIK3CA,PIK3R5,PPIA,PRDM1,PRDX1,PRF1,PRR5,PSMB2,PTEN,PTPRE,PTPRK,RARG,RARRES3,RASGRP2,RASSF4,RDH10,RHOH,RHOU,RPL10,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SETD2,SKIL,SLC16A7,SPN,SSBP2,STAT4,STAT5B,TARP,TBX21,TCF7,TCL1A,TIMP1,TIMP2,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VMP1,XRCC6,ZBTB10,ZMIZ1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of leukocytes | 6.16E-14 | turquoise | 404 | ABAT,ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BID,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,FAS,FBXO4,FBXW7,FCER2,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FILIP1L,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,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KIF2C,KMO,KPNA1,KPNA2,KRR1,LANCL2,LCP2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NDC80,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDIA6,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL23,RRM2,RUNX2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,VMP1,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZC3HAV1L,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cellular Function and Maintenance | Homeostasis of blood cells | 6.27E-14 | turquoise | 162 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARNT,ARRB1,BAK1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD4,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CSF2RB,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ETS2,FAS,FCER1G,FCGR2A,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,LIG4,LILRB2,LILRB3,LYN,MAFB,MAP3K14,MAPK1,MCL1,MEF2C,MIF,MINK1,MIR17HG,MTHFD1,NAB1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRDX1,PRELID1,PTEN,PTGS2,RC3H2,RHOH,RORA,RPS17,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SKIL,SLC3A2,SMAD3,SOCS2,SOCS5,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,ZMIZ1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of leukocytes | 8.39E-14 | turquoise | 210 | ABCB4,ABCC4,ABCG1,ACTN4,ADA,ADGRE2,AHR,AIF1,AIM2,ALOX5,ANXA1,ANXA2,AQP3,AQP9,ARG1,ARHGEF7,ARRB1,ASB2,BACH2,BCL11B,BID,BMPR1A,BRAF,BSG,C5AR1,CAMK1D,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD226,CD300LF,CD36,CD4,CD58,CD63,CD69,CD72,CD74,CD80,CD86,CD8A,CD93,CD99,CEBPA,CIITA,CKLF,CNP,COL4A3,CR1,CR2,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DPYSL2,DYSF,ELMO1,EPS8,ESR1,FABP5,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,FLNA,FLOT1,FLT1,FOXO1,FPR1,FYB1,GALNT1,GATA3,GBA,GNAI3,GNAS,GNLY,GPR18,HMOX1,HRH2,HSPA5,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,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,MGAT5,MIF,MYO1F,MYO1G,NAAA,NCF1,NDST1,NFIL3,NINJ1,NLRP3,NR3C1,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,POU2AF1,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PTEN,PTGS2,PTPRB,PTPRJ,PYCARD,QPCT,RAP1B,RAP2A,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,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TNR,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Plasma cell dyscrasia | 1.03E-13 | turquoise | 133 | ABCB1,ACP5,ANXA2,ANXA5,ATP1B1,AURKA,BCAT1,BCL11A,BIRC3,BIRC5,BRAF,CAV1,CCL3,CCL5,CCND2,CD163,CD19,CD27,CD36,CDK4,CEBPA,CEBPD,CIITA,CITED2,COCH,CREBBP,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,DAP,DIS3,DUSP4,E2F2,EIF4E3,ELOC,ENAH,FAS,FCER2,FCGR2A,FLNA,FLT1,FYB1,GTF2I,HCAR3,HDAC9,HLA-B,HMOX1,HSP90B1,ICK,IDH2,IFNAR2,IGH,IGHM,IGKC,IL1B,IL1RN,IL6R,IL7,IMPDH1,IRF4,ITGAV,JCHAIN,KCNN3,KIF11,KIF2C,KPNA2,LCP2,MAP3K14,MCL1,MGLL,MKI67,MXI1,NDC80,NEK3,NR3C1,NSD2,PAX5,PDIA6,PIK3CA,PPIA,PRDM1,PRF1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PTEN,PTGS2,PTPRE,RRM2,RUNX2,RUNX3,S100A10,SATB1,SETD2,SIGMAR1,SLAMF7,SMARCA2,SMARCB1,SOCS2,SOD1,STX11,TARP,TFDP1,TFRC,TGFBR2,TIMP1,TIMP2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TRADD,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,VPREB3,XBP1,XRCC6,YWHAE,ZC3HAV1L |
| Cell Death and Survival | Apoptosis of tumor cell lines | 1.25E-13 | turquoise | 302 | ABCB1,ADI1,AHR,AIM2,ALOX5,ANXA2,ANXA5,ARG1,ARID3B,ARNT,ATP1B3,AURKA,BACH2,BAK1,BANP,BBS4,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BNIP3L,BRAF,BSG,BUB3,C5AR1,CAPN2,CAPNS1,CAV1,CBX5,CCAR2,CCDC6,CD14,CD226,CD4,CD59,CD79B,CD99,CDC6,CDCA2,CDK5,CEBPA,CEBPB,CEBPD,CERS6,CFLAR,CHEK1,CLPTM1L,COL18A1,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CREBBP,CRH,CSF1R,CSF2RB,CSNK1A1,CSTA,CSTB,CTNND1,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,DAPK1,DAPK2,DGKD,DNM2,DPH5,DSP,DUSP4,DUT,DYNLL1,E2F2,EEF2K,EGOT,EIF3M,ELOC,EMILIN2,ENO1,ERN1,ESR1,ETHE1,ETS2,EXOG,FAIM,FAS,FBXO32,FCER2,FGF9,FLNB,FLT1,FOXO1,GAB1,GADD45A,GAPDH,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GNAS,GNLY,GPX1,GZMB,HAX1,HBEGF,HCST,HDAC9,HIPK2,HMGA1,HMMR,HMOX1,HSH2D,HSPA5,HSPA8,HSPA9,IDE,IER3,IFNAR2,IGFBP7,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL32,IL6R,IL7,INVS,IRAK1,IRF4,IRF8,ITGAM,ITGAV,ITGB1,ITPR1,KIF11,KIF1B,KIF1C,KLF10,KLF9,KNL1,KPNA2,LANCL2,LARP1B,LGALS1,LGALS3,LIMS1,LMNB1,LSP1,LYN,LYPLA2,MAP3K14,MAP3K9,MAPK1,MCL1,MDM2,MDM4,MEF2C,MGAT3,MIF,MIR17HG,MOB3B,MRPL49,MSRB2,MT2A,MTDH,MTFP1,MTM1,MXI1,NACC2,NAPA,NCOA3,NDC80,NDUFA13,NEK6,NFE2L1,NFIL3,NLRP1,NR3C1,NSD2,P4HB,PA2G4,PAWR,PAX5,PBX3,PDCD4,PDE4D,PDLIM7,PEBP1,PHGDH,PIK3C3,PIK3CA,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PMEPA1,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PSAP,PTAFR,PTEN,PTGS2,PTK2,PTPRE,PTTG1,PVT1,PYCARD,RAB32,RABGGTA,RACGAP1,RARG,RASSF1,RASSF6,RBM5,RBX1,RPLP0,RRM2,RTN1,RTN4,RUNX3,RXRA,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SEC61G,SEMA3A,SH3RF1,SIRPA,SLC39A6,SMAD3,SMOX,SMURF2,SND1,SNHG7,SOD1,SP1,SPN,SRI,ST6GAL1,STAT5B,STAU1,STK17A,STOML2,STUB1,SYCP3,TAGLN2,TBK1,TBXA2R,TCL1A,TCP1,TFRC,TGFBR2,TGFBR3,TIAM1,TIMP1,TLR2,TLR4,TMBIM6,TNF,TNFAIP8,TNFRSF10C,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP63,TPX2,TRADD,TREM1,TRPV2,TXN,TXN2,TYMP,TYMS,UCHL1,VCAN,VCP,VDAC1,VDR,VEGFA,VOPP1,WEE1,XBP1,YWHAE |
| Cell Morphology,Immunological Disease | Abnormal morphology of leukocytes | 1.28E-13 | turquoise | 76 | ABCB1,ABHD5,AFF1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CR2,CREBBP,CSF1R,CXCR5,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FNIP1,GATA3,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGB7,ITPKB,LAMTOR2,LAT,LCP2,LGALS3,LIG4,LILRB3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,PTPRJ,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TLR2,TLR4,TNF,TOX,XRCC6 |
| Inflammatory Response | Inflammation of absolute anatomical region | 1.56E-13 | turquoise | 243 | ABCB1,ABCB4,ABCC4,ABCG1,ADA,ADGRE1,AGO2,AHR,ALDOA,ALOX5,ANXA1,ANXA5,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,CD4,CD69,CD72,CD74,CD79B,CD80,CD86,CD99,CDC42EP3,CEBPA,CELA3B,CFLAR,CHCHD2,CIITA,CLEC4D,CLEC7A,COCH,COTL1,CR2,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CYP51A1,DAPK1,DDX5,DTX1,E2F2,ENO1,ESR1,FAIM,FAS,FBXO32,FCER1G,FCGR1B,FCGR2A,FCGR3A/FCGR3B,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,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,KCNAB3,KCNN3,KCNN4,KEAP1,KMO,LAT,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LITAF,LY96,LYN,MAP3K14,MAPKAPK3,MGAT5,MGLL,MIF,MIR17HG,MRS2,MTDH,NAAA,NCF1,NDFIP1,NFATC3,NFE2L1,NFIL3,NINJ1,NLRP3,NR3C1,OTUD7B,P4HB,PANK2,PAX5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PIK3C3,PKD1,PKM,PLAUR,PNKD,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRR5,PSTPIP2,PTAFR,PTEN,PTGS2,PTPRJ,PYCARD,RASSF1,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,TKT,TLR2,TLR4,TNF,TNFAIP8,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TOP2A,TP63,TPI1,TRAM2,TREM1,TSHR,TUBB,TYMP,TYMS,TYROBP,UCHL1,UPP1,VAV3,VDR,VEGFA,VIM,VSIR,XBP1,ZC3HAV1L |
| Cellular Function and Maintenance | Function of lymphatic system cells | 1.83E-13 | turquoise | 96 | ABCB1,ADGRE1,AHNAK,AHR,AKAP13,ANG,BACH2,BAK1,BCAT1,BIK,BIRC3,BIRC5,BTLA,CBLB,CBX5,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,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,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,PTEN,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SMAD3,SPN,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TYROBP,VDR |
| Connective Tissue Disorders,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Rheumatic Disease | 3.26E-13 | turquoise | 298 | ABCB1,ACSL1,ADA,ADARB1,ADGRE5,AGFG1,AHR,AIF1,AIM2,AKAP13,ALDOA,ALOX5,ANG,ANXA1,AP3B1,APLP2,AQP9,ARF1,ARG1,ARRB1,ATP1B1,ATP5MPL,ATXN1,BAK1,BID,BIRC5,C5AR1,C5orf30,CAMK2D,CAPN2,CCL3,CCL5,CCR1,CD163,CD19,CD1A,CD200,CD22,CD226,CD27,CD33,CD36,CD4,CD59,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CDK2AP2,CEBPB,CERS6,CFLAR,CFP,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,CR1,CR2,CSF1R,CSF2RB,CSF3R,CST3,CTSA,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAPK1,DIP2C,DTNBP1,DYNLL1,E2F2,EHD4,EIF1,EIF1B,EIF3E,ENO1,ERN1,ESR1,FAS,FCAR,FCER1G,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLT1,FOXO1,FPR1,FURIN,GAB1,GALNT1,GAR1,GATA3,GFI1,GINS2,GLIPR2,GNAQ,GNAS,GNLY,GPI,GSTM1,GUSB,GZMA,GZMB,H3F3A/H3F3B,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,IGFBP7,IGHD,IGHM,IGKC,IKZF3,IL15RA,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,MAFB,MAML3,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MKKS,MMP11,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MT2A,MYL12A,MYO9A,NAMPT,NCF1,NDUFB10,NLRP1,NLRP3,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PDGFD,PGK1,PHF19,PILRA,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTEN,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RAB31,RABGAP1,RBP7,RFLNB,RNF149,RPL15,RRM2,RUNX3,S100A10,S100A12,S100A8,S100A9,SCN4A,SEC61A1,SEC62,SEL1L,SH2D1A,SIGMAR1,SLAMF7,SLC11A1,SLC1A4,SMAD3,SND1,SNX9,SORL1,SOS2,SP1,ST6GAL1,STAMBPL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBK1,TBRG1,TBX21,TCF7,TFRC,TGFBR2,TIMP1,TIMP2,TLE3,TLR2,TLR4,TMEM39A,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TP63,TPGS2,TRADD,TRAF5,TRAK2,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMS,TYROBP,UBAC1,UBE2L3,VARS,VDR,VEGFA,VIM,WDFY4,WNT10A,XBP1,XRCC6,YTHDC2,ZMYND11 |
| Cell Morphology,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of lymphocytes | 3.79E-13 | turquoise | 64 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,CBLB,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CR2,CREBBP,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LIG4,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,PTPRJ,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,XRCC6 |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of lymphocytes | 4.3E-13 | turquoise | 91 | ABCB1,ADGRE1,AHNAK,AHR,AKAP13,ANG,BACH2,BCAT1,BIK,BIRC3,BIRC5,BTLA,CBLB,CBX5,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,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,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,PTEN,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SH3BP2,SMAD3,SPN,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TYROBP,VDR |
| Cell Death and Survival | Cell survival | 4.46E-13 | turquoise | 345 | ABCB1,ABCB4,ACTN4,ADGRE2,AGO2,AGTPBP1,AGTRAP,AHR,AK3,AKAP13,AKAP7,ANG,ANLN,ANXA5,APOBEC3A,AQP3,ARNT,ARRB1,ATF5,ATP5MD,ATP5PD,ATXN1,AURKA,AURKAIP1,B4GALT5,BAK1,BCKDK,BCL11B,BCL2L2,BID,BIK,BIRC5,BMP6,BMPR1A,BRAF,BRIP1,BTLA,BUB1B,CADM1,CAMK2D,CAMK2N1,CAMK4,CAPN2,CAPN3,CARS,CAV1,CBLB,CBX5,CCL3,CCL5,CCNA2,CCND2,CCR1,CD19,CD200,CD22,CD27,CD2AP,CD300A,CD33,CD4,CD59,CD74,CD80,CD86,CD8A,CDCA7L,CDK4,CDK5,CEBPB,CEBPD,CFLAR,CHEK1,CLCN4,COCH,COL18A1,COL4A3,CR1,CREBBP,CRH,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DCLRE1C,DDX5,DIS3,DNM2,DPH5,DST,DUSP6,DUSP7,EEF2K,EGOT,EHD4,EIF3A,EIF3E,EIF4A3,EIF4G1,EMILIN2,ENO1,EPB41L2,ERN1,ESR1,ETS2,FA2H,FAS,FBXO32,FCER1G,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXO1,GAB1,GABBR1,GADD45A,GALK2,GATA3,GCLC,GIMAP5,GLRX,GLUD1,GNLY,GPX1,GSTM1,GZMB,HBEGF,HIPK2,HMGA1,HMOX1,HMOX2,HSD17B10,HSH2D,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,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,JDP2,JMJD1C,KEAP1,KIF11,KIF1B,KIF1C,LANCL2,LAT,LAX1,LDHA,LGALS3,LIG4,LIMS1,LMNB1,LYN,MAP3K14,MAPK1,MCL1,MCOLN2,MCUR1,MDM2,MDM4,MEF2C,MGAT5,MGST1,MIAT,MICAL2,MIF,MIR17HG,MTDH,MTMR1,MTMR7,NAB1,NAMPT,NDC80,NDUFA13,NEAT1,NEK3,NEK8,NFIL3,NR1D1,NR3C1,NRCAM,NSD2,NUP210,OBSCN,OTUD7B,P4HB,PAX5,PBX3,PCDHGC3,PDCD4,PIK3C3,PIK3CA,PKM,PLA2G6,PLAUR,POLDIP2,POU2AF1,PPIA,PPIB,PPM1G,PPM1M,PRDM1,PRKCD,PRKCE,PRKCI,PSAP,PSMA1,PSMA3,PSMA6,PSME4,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPRE,PTPRK,PYCARD,RAD17,RARG,RARRES3,RASSF1,RPS6KA4,RPS6KA6,RRM2,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,SOCS2,SOD1,SPATS2,SPIDR,SPN,SPRY1,SSPN,STAT4,STAT5B,SVIL,TBC1D16,TBC1D9,TBK1,TBX21,TCF7,TCL1A,TCP1,TERF2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF13B,TNFRSF17,TNFRSF1B,TOP2A,TOX,TP53I3,TP63,TRADD,TRIM69,TRPV2,TUBB,TUBB3,TXN,TXNDC5,TXNL4A,TYMP,TYMS,TYROBP,UBE2L3,UCHL1,UHRF1,USP14,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,WDR1,WEE1,XBP1,XRCC6,ZBTB20,ZNF274,ZNF528,ZNF665 |
| Cell Morphology,Immunological Disease | Abnormal morphology of mononuclear leukocytes | 4.52E-13 | turquoise | 65 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CR2,CREBBP,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LIG4,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,PTPRJ,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,XRCC6 |
| Cell Death and Survival | Apoptosis of blood cells | 4.83E-13 | turquoise | 135 | ABCG1,ADA,AHR,ANXA1,ARNT,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIRC3,BIRC5,BNIP3L,BTG1,CAV1,CCL3,CCL5,CD14,CD22,CD226,CD27,CD4,CD59,CD69,CD70,CD79B,CD80,CEBPB,CFLAR,CHEK1,CIITA,CR2,CREBBP,CXCL2,CXCL8,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCER1G,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAVCR2,HAX1,HIPK2,HSH2D,HSPA9,ICOSLG/LOC102723996,IER3,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,ITGAM,ITGB1,ITPR1,KDELR1,LAMTOR2,LDLR,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIF,MIR17HG,NAMPT,NFYA,NLRP1,NLRP3,NR3C1,PALLD,PAWR,PAX5,PCLAF,PERP,PIK3C3,PLA2G6,POU2AF1,PPIA,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,S100A8,SATB1,SH3BP2,SKIL,SMAD3,SPN,ST3GAL3,ST6GAL1,STAT5B,STOML2,STUB1,SWAP70,TBXA2R,TCL1A,TICAM2,TIMP1,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,VAV3,VDR,VEGFA |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of leukocytes | 4.87E-13 | turquoise | 96 | ANXA1,ANXA5,APOA2,BAK1,BRAF,C5AR1,CCL3,CD14,CD226,CD36,CD59,CD69,CD74,CD80,CD86,CD8A,CD93,CEBPB,CMC2,CSF1R,CSF2RB,CST3,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,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,PTEN,PTPRJ,PXN,PYCARD,RORA,S100A9,SELPLG,SEMA4A,SH2D1A,SH3BP2,SIRPA,SIRPB1,SLA2,SMAD3,SWAP70,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TRPV2,TYROBP,XBP1 |
| Cellular Function and Maintenance | Engulfment of cells | 6.83E-13 | turquoise | 127 | ACTN4,ANXA1,ANXA5,AP2S1,APLP2,APOA2,ARF1,ARHGAP21,ARRB1,ATP6V1A,ATP6V1D,BRAF,BTBD19,CAMK1D,CAV1,CCL3,CCL5,CD14,CD163,CD22,CD36,CD4,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,FCGR3A/FCGR3B,FCN1,FLNA,FLOT1,FOXP1,FPR1,FRS2,GLRX,GPR18,HAX1,HBEGF,HIP1R,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,PLD4,PRF1,PRKCD,PRKCE,PTEN,PTK2,PTPRJ,PTRHD1,PXN,PYCARD,RAB31,RORA,RRAS2,S100A10,S100A9,SCARB2,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLC11A1,SMARCB1,SRA1,SWAP70,SYT11,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VIM,XBP1,ZBTB7A |
| Immunological Disease | Abnormal morphology of immune system | 8.58E-13 | turquoise | 92 | ABCB1,ABHD5,AFF1,AHR,ARID3A,ARSG,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CCR1,CD19,CD200,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CR2,CREBBP,CRISPLD2,CSF1R,CSF3R,CXCR5,DCLRE1C,DTX1,E2F2,ERN1,FAS,FCER1G,FNIP1,GATA3,GBA,GFI1,HAX1,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,LIG4,LILRB3,LSP1,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSAP,PSMB10,PTPRJ,RHOH,RRAS2,RUNX3,SH2D1A,SMAD3,SOD1,STAT5B,TBX21,TLR2,TLR4,TNF,TOX,XRCC6 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Morphology of lymphoid tissue | 9.28E-13 | turquoise | 147 | ABCB4,ABCC4,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,ALOX5,ARG1,ARID4B,ARNTL,ATP2B4,AURKA,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIK,BNIP3L,CAMK4,CD19,CD200,CD226,CD4,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CIITA,CITED2,CLEC4D,CR2,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CXCR4,CXCR5,CYP51A1,DAD1,DCLRE1C,DUSP6,E2F2,EPB42,ESR1,ETS2,FAS,FCER1G,FNIP1,GADD45A,GATA3,GBA,GFI1,GSTK1,HCST,HMGA1,HMOX1,HSH2D,HSP90B1,ICOSLG/LOC102723996,ID2,IGHM,IGKC,IKZF3,IL1RN,IL21R,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGAL,ITGB7,ITPKB,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LIG4,LYN,LYPLA2,MAP3K14,MCL1,MDM2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,NR3C1,PANK2,PAWR,PICALM,PIK3C3,POLM,POU2AF1,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PTEN,PTGS2,PTPRJ,PTTG1,PYCARD,RAPGEF6,RARG,RHOH,RRM2,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,ST3GAL2,STAT5B,TBK1,TBXA2R,TCL1A,TGFBI,TGFBR3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TRADD,TRIB1,TYROBP,UBE2W,VDR,VEGFA,XRCC6 |
| Cell Death and Survival | Cell death of lymphatic system cells | 9.65E-13 | turquoise | 117 | ABCC4,ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIRC5,BNIP3L,C5AR1,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,EEF2K,ETS2,FAIM,FAS,FBXW7,FCAR,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,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TBXA2R,TCL1A,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA |
| Cellular Function and Maintenance | Homeostasis of leukocytes | 1.14E-12 | turquoise | 156 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARRB1,BAK1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD4,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CSF2RB,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ETS2,FAS,FCER1G,FCGR2A,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,LIG4,LILRB2,LILRB3,LYN,MAFB,MAP3K14,MAPK1,MCL1,MEF2C,MIF,MINK1,MIR17HG,MTHFD1,NAB1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTEN,PTGS2,RC3H2,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SKIL,SLC3A2,SMAD3,SOCS2,SOCS5,SOS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZMIZ1 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature lymphocytic neoplasm | 1.22E-12 | turquoise | 331 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANKIB1,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,ATP1B1,ATXN1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,CADM1,CAV1,CCL3,CCL5,CCND2,CD163,CD19,CD1A,CD200,CD22,CD27,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAD1,DAP,DAPK1,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,FAS,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLNA,FLT1,FNDC3B,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HCAR3,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMOX1,HS3ST1,HSP90B1,HVCN1,ICK,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF2C,KPNA1,KPNA2,KRR1,LCP2,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NAMPT,NAPA,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NSD2,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDE4D,PDE7B,PDIA6,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF4,RDH10,RHOH,RRM2,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,STAMBPL1,STAT4,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TOX,TP63,TPST2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Cellular Function and Maintenance | Lymphocyte homeostasis | 1.3E-12 | turquoise | 154 | ABCG1,ADA,AFF1,AHR,ANXA1,AP3B1,AP3D1,ARG1,ARRB1,BAK1,BCL11A,BCL11B,BIK,BIRC5,BRAF,BSG,C5AR1,CADM1,CBLB,CCL3,CCL5,CD226,CD27,CD4,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ETS2,FAS,FCER1G,FCGR2A,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,LIG4,LILRB2,LILRB3,LYN,MAFB,MAP3K14,MAPK1,MCL1,MEF2C,MIF,MINK1,MIR17HG,NAB1,NDFIP1,NFATC3,NFIL3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTEN,PTGS2,RC3H2,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SKIL,SLC3A2,SMAD3,SOCS2,SOCS5,SOS2,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZMIZ1 |
| Cell Death and Survival | Cell death of lymphoid cells | 1.34E-12 | turquoise | 109 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCAR,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,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TBXA2R,TCL1A,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA |
| Cell Death and Survival | Apoptosis of leukocytes | 1.45E-12 | turquoise | 124 | ABCG1,ADA,AHR,ANXA1,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC3,BIRC5,BTG1,CAV1,CCL3,CCL5,CD14,CD22,CD226,CD27,CD4,CD59,CD69,CD70,CD79B,CD80,CEBPB,CFLAR,CHEK1,CIITA,CR2,CXCL2,CXCL8,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCER1G,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HAVCR2,HSH2D,ICOSLG/LOC102723996,IER3,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,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,PRKCD,PRKCE,PTEN,RHOH,S100A8,SATB1,SH3BP2,SKIL,SMAD3,SPN,ST3GAL3,ST6GAL1,STAT5B,STOML2,STUB1,SWAP70,TBXA2R,TCL1A,TICAM2,TIMP1,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TREM1,VAV3,VDR,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Plasma cell myeloma | 1.74E-12 | turquoise | 83 | ABCB1,ACP5,ANXA5,AURKA,BIRC3,BIRC5,BRAF,CCL3,CCL5,CD19,CD27,CD36,CDK4,CEBPA,CIITA,COCH,CREBBP,CSF2RB,CSF3R,CXCL8,CXCR4,DIS3,FAS,FLNA,FLT1,HCAR3,HLA-B,HSP90B1,ICK,IDH2,IFNAR2,IGH,IL1B,IL1RN,IL6R,IL7,IMPDH1,IRF4,ITGAV,KCNN3,KIF2C,LCP2,MAP3K14,MCL1,MGLL,MKI67,NDC80,NR3C1,NSD2,PDIA6,PIK3CA,PPIA,PRDM1,PRR5,PSMA2,PSMB10,PSMB2,PTEN,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 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic cancer | 1.95E-12 | turquoise | 384 | ABAT,ABCG1,ABHD5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11A,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CITED2,CLMP,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DLEU2,DMXL1,DMXL2,DNM2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF2AK1,EIF4E3,ELMO1,ELOC,ENAH,ERC1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KMO,KPNA1,KPNA2,KRR1,LANCL2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASGRP2,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL10,RPL23,RRM2,RUNX3,RXRA,S100A10,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TFRC,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRADD,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VMP1,VPREB3,VWA3B,WDR74,WWC3,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Cell-To-Cell Signaling and Interaction | Adhesion of blood cells | 2.29E-12 | turquoise | 110 | ABCC4,ADGRE2,ADGRE5,ANXA1,ANXA5,ATP2A3,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD226,CD36,CD4,CD58,CD59,CD69,CD74,CD80,CD86,CD99,CFP,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DNAJC1,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,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SLC4A1,SPN,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Multiple cancers | 3.04E-12 | turquoise | 84 | ABCB1,ACP5,ANXA5,AURKA,BIRC3,BIRC5,BRAF,CCL3,CCL5,CD19,CD27,CD36,CDK4,CEBPA,CIITA,COCH,CREBBP,CSF2RB,CSF3R,CXCL8,CXCR4,DIS3,ESR1,FAS,FLNA,FLT1,HCAR3,HLA-B,HSP90B1,ICK,IDH2,IFNAR2,IGH,IL1B,IL1RN,IL6R,IL7,IMPDH1,IRF4,ITGAV,KCNN3,KIF2C,LCP2,MAP3K14,MCL1,MGLL,MKI67,NDC80,NR3C1,NSD2,PDIA6,PIK3CA,PPIA,PRDM1,PRR5,PSMA2,PSMB10,PSMB2,PTEN,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 |
| Cell Morphology | Morphology of mononuclear leukocytes | 3.09E-12 | turquoise | 68 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CR2,CREBBP,CSF3R,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FNIP1,GFI1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LIG4,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,PTPRJ,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,XBP1,XRCC6 |
| Inflammatory Disease | Chronic inflammatory disorder | 3.67E-12 | turquoise | 264 | 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,DDX5,DIP2C,DNAH8,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,ESR1,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLT1,FMO5,FOSL2,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLIPR2,GNLY,GUSB,GZMA,GZMB,H3F3A/H3F3B,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,IGFBP7,IGHE,IGHM,IGKC,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,MAFB,MAML3,MAPKAPK3,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NCF1,NDUFB10,NLRP3,NR3C1,NXPE3,OLAH,P2RY13,P4HB,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PGK1,PHF19,PKM,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRKCD,PRKCE,PRR5,PRUNE2,PSMB2,PSTPIP2,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RAPGEF6,RASSF1,RBP7,RFLNB,RNF149,RPL15,RUNX3,RXRA,S100A10,S100A12,S100A4,S100A8,S100A9,SCN4A,SEC62,SEL1L,SGPP2,SIGMAR1,SLC24A4,SND1,SORL1,SPON1,STAB1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TEX9,TFRC,TGFBR2,THRB,TIAM1,TIMP1,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TOP2A,TPGS2,TRAK2,TRAM2,TREM1,TSHR,TXN,TYMP,TYMS,UBAC1,UCHL1,VARS,VAV3,VDR,VEGFA,VIM,WNT10A,XBP1,YTHDC2,ZC3HAV1L,ZMYND11 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of cells | 3.91E-12 | turquoise | 87 | ANXA1,ANXA5,APOA2,BRAF,CAMK1D,CAV1,CCL3,CD14,CD22,CD36,CD4,CD93,CEBPB,CLEC7A,CLIP1,CR1,CSF1R,CSF2RB,CSF3R,DNM2,DYSF,EHD1,EIF2AK1,ELMO1,ETS2,FAS,FCAR,FCER1G,FCGR2A,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,PLD4,PRKCD,PRKCE,PTEN,PTK2,PTPRJ,PXN,PYCARD,RAB31,RORA,RRAS2,S100A9,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SLC11A1,SWAP70,SYT11,TLR2,TLR4,TNF,TREML2,TRPV2,VIM,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Tumorigenesis of lymphocytes | 4.04E-12 | turquoise | 305 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,ALDH1A1,ALOX5,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,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,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CEBPA,CEBPD,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,FAS,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLNA,FLT1,FOXO1,FOXP1,FRYL,FYB1,GTF2I,HCAR3,HDAC9,HIST1H3B,HLA-B,HMGA1,HMOX1,HSP90B1,HVCN1,ICK,ID2,IDH2,IFNAR2,IGH,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPR1,JARID2,JCHAIN,KCNAB3,KCNN3,KIF11,KIF2C,KPNA1,KPNA2,KRR1,LCP2,LGALS1,LIG4,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAP3K14,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NAMPT,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NSD2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4D,PDE7B,PDIA6,PIK3CA,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RASSF1,RHOH,RRM2,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZC2HC1A,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Cellular Function and Maintenance,Inflammatory Response | Phagocytosis | 4.26E-12 | turquoise | 95 | ANXA1,ANXA5,APOA2,BRAF,CAMK1D,CAV1,CCL3,CD14,CD22,CD36,CD4,CD93,CEBPB,CLEC7A,CLIP1,CR1,CSF1R,CSF2RB,CSF3R,DNM2,DYSF,EHD1,EIF2AK1,ELMO1,ETS2,FAS,FCAR,FCER1G,FCER2,FCGR2A,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,NCF1,NR3C1,PFKFB3,PLA2G6,PLAUR,PLD4,PRKCD,PRKCE,PTEN,PTK2,PTPRJ,PXN,PYCARD,RAB31,RORA,RRAS2,RXRA,S100A9,SCARB2,SELPLG,SH3BP2,SH3GLB1,SH3KBP1,SIRPA,SIRPB1,SLC11A1,SWAP70,SYT11,TBK1,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VCP,VIM,XBP1 |
| Immunological Disease | Allergy | 4.28E-12 | turquoise | 119 | ADGRE2,AHNAK,ALDOA,ALOX5,ANXA1,ANXA2P2,ANXA5,AQP3,ARFGAP3,ARG1,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD300A,CD300LF,CD63,CD74,CFL1,CORO1B,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,CYP51A1,DOCK5,DPYSL2,EIF1,EIF3E,ENO1,EPS8,ESR1,FABP5,FAS,FCER1G,FCER2,FCGR2A,FLNA,FLOT1,GADD45A,GAPDH,GATA3,GRIA1,GSTO1,GZMB,H3F3A/H3F3B,HAVCR2,HRH2,HSPA5,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL18BP,IL1B,IL1RN,IL4R,IL5RA,IL6R,IL7,ITGB7,JPT1,LAT,LCP2,LGALS1,LGMN,LY96,LYN,MCL1,MKI67,MXI1,NAPA,NR3C1,P4HB,PDE4A,PDE4D,PDE7A,PDE7B,PFKFB3,PHGDH,PIP5K1B,PPIA,PRDX1,PRF1,PSAP,PTAFR,PTEN,PTGS2,S100A11,S100A8,S100A9,SMAD3,SOCS2,SYNE2,TBX21,TBXA2R,TFRC,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF25,TPI1,TUBB,TYMS,VAV3,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Cellular Function and Maintenance | Cellular homeostasis | 4.38E-12 | turquoise | 368 | ABCG1,ABHD5,ACSL1,ADA,AFDN,AFF1,AHR,ALDOA,ANXA1,ANXA2,AP3B1,AP3D1,APLP2,AQP3,ARF1,ARG1,ARHGEF7,ARNT,ARNTL,ARRB1,ATG13,ATG4A,ATOX1,ATP1A1,ATP1B1,ATP1B3,ATP2B4,ATP6V1A,AURKA,BAK1,BCL11A,BCL11B,BCL2L2,BHLHA15,BID,BIK,BIRC5,BMP6,BNIP3L,BRAF,BSG,C5AR1,CADM1,CAMK2D,CAMK4,CAMKK2,CAPN3,CAPNS1,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD27,CD300A,CD36,CD4,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CERS5,CFLAR,CHEK1,CHMP2A,CIITA,CISD2,CLEC12A,CLEC7A,CLIC1,CLMP,CNP,COPZ1,COX5A,CPTP,CR1,CRACR2B,CREBBP,CRH,CRTC3,CSF2RB,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DACT1,DAP,DAPK1,DAPK2,DCLRE1C,DTX1,DUSP4,DYNLL1,E2F2,EEF2K,EIF2AK1,EIF4G1,EPB42,EPM2A,ERC1,ERN1,ERO1A,ERO1B,ESR1,ETS2,EYA2,FABP5,FAS,FBXL20,FBXO4,FCER1G,FCGR2A,FCGR3A/FCGR3B,FECH,FFAR1,FLT1,FMO5,FNIP1,FOXO1,FOXP1,FPR1,FURIN,FYB1,GAB1,GATA3,GFI1,GGT1,GIMAP4,GIMAP5,GNAI3,GNAQ,GNAS,GNLY,GPBAR1,GPI,GPR18,GZMA,GZMB,GZMK,HAVCR2,HECTD4,HERC1,HLA-DMA,HLA-DOA,HMGA1,HMOX1,HMOX2,HS1BP3,HSP90B1,HSPA5,HSPA8,ICMT,ICOSLG/LOC102723996,ID2,IFNAR2,IGHE,IGHM,IGKC,IKZF2,IL15RA,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRAK1,IRF4,IRF8,IRGM,ITGAL,ITGAV,ITPKB,ITPR1,KCNN4,KDELR1,KLF10,LAT,LAX1,LCP2,LDHA,LDLR,LGALS1,LGALS2,LIG4,LILRB2,LILRB3,LRPAP1,LYN,LZTS1,MAFB,MAGT1,MAP3K14,MAPK1,MBD5,MCL1,MDM2,MEF2C,MGLL,MIF,MINK1,MIR17HG,MSRB2,MT2A,MTDH,MTHFD1,MTM1,NAB1,NAMPT,NCF1,NDFIP1,NDUFAB1,NFATC3,NFIL3,NR1D1,NR3C1,NUCB2,OTUD7B,PANK2,PAPOLA,PAWR,PAX5,PGM1,PICALM,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PIK3R6,PIP4K2B,PKD1,PKM,PLA2G16,PLA2G6,POLDIP2,POLM,POU2AF1,PPA2,PPIA,PPIB,PRDM1,PRDX1,PRDX3,PRELID1,PRF1,PRKCD,PRKCE,PRKCI,PSAP,PTEN,PTGS2,PTK2,PTPRB,PTPRJ,PXN,PYCARD,RAB1A,RAB8A,RAP1B,RC3H2,RHOH,RORA,RPS17,RTN1,RTN4,RUNX2,RUNX3,S100A8,S100A9,SATB1,SCN4A,SDHB,SEMA4A,SERPINA1,SGPP2,SH2D1A,SH3GLB1,SH3KBP1,SIGMAR1,SKIL,SLA2,SLC11A1,SLC16A1,SLC30A1,SLC31A1,SLC39A6,SLC3A2,SLC4A1,SLC8A1,SLC9A3R1,SLC9A7,SMAD3,SOCS2,SOCS5,SOD1,SORL1,SOS2,SPN,SRXN1,STAT4,STAT5B,STOML2,STUB1,SWAP70,TBC1D16,TBC1D9,TBC1D9B,TBK1,TBX21,TBXA2R,TBXAS1,TCF7,TCHP,TCL1A,TESC,TFRC,TGFBI,TGFBR2,THEMIS2,TICAM2,TIMP2,TLR2,TLR4,TMBIM6,TMEM165,TMEM199,TMTC2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TPCN1,TRAF5,TRIM8,TYROBP,UBE2N,VAV3,VCP,VDAC1,VDR,VEGFA,VIM,VMP1,VTI1B,WDR41,WDR45,WIPI1,XBP1,XK,XRCC6,YWHAE,ZMIZ1 |
| Inflammatory Response,Neurological Disease | Inflammation of central nervous system | 4.73E-12 | turquoise | 101 | 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,ESR1,FAS,FCER1G,FCGR1B,FCGR2A,FCGR3A/FCGR3B,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,NCF1,NFIL3,NINJ1,NLRP3,NR3C1,OTUD7B,PDCD4,PRDM1,PRF1,PTAFR,PTGS2,PYCARD,RORA,SEMA4A,SHCBP1,SOD1,SPN,STAT4,TBK1,TBX21,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TYMP,TYMS,TYROBP,UPP1,VDR,VEGFA,VIM,VSIR,XBP1 |
| Cell Death and Survival | Cell death of lymphocytes | 4.86E-12 | turquoise | 107 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCAR,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,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TBXA2R,TCL1A,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphocytes | 4.96E-12 | turquoise | 65 | ABCB1,AHR,ARID3A,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,CBLB,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CR2,CREBBP,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LIG4,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,PTPRJ,RHOH,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TNF,TOX,XBP1,XRCC6 |
| Cell Death and Survival | Cell death of mononuclear leukocytes | 5.14E-12 | turquoise | 110 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CD99,CFLAR,CHEK1,CIITA,CR2,CST3,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCAR,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,ITGAL,ITGB1,ITPR1,KDELR1,LAT,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PAX5,PERP,PIK3C3,POU2AF1,PRDM1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,S100A8,SATB1,SH2D1A,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBX21,TBXA2R,TCL1A,TGFBR2,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA |
| Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Encephalitis | 5.75E-12 | turquoise | 94 | 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,ESR1,FAS,FCER1G,FCGR1B,FCGR2A,FCGR3A/FCGR3B,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,NCF1,NFIL3,NINJ1,NLRP3,NR3C1,OTUD7B,PDCD4,PRDM1,PRF1,PYCARD,RORA,SEMA4A,SHCBP1,SOD1,SPN,STAT4,TBK1,TBX21,TIMP1,TLR4,TNF,TNFRSF1B,TYMP,TYROBP,UPP1,VDR,VEGFA,VIM,VSIR,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell neoplasm | 6.18E-12 | turquoise | 304 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,ALDH1A1,ALOX5,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,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,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CEBPA,CEBPD,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,FAS,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLNA,FLT1,FOXO1,FOXP1,FRYL,FYB1,GTF2I,HCAR3,HDAC9,HIST1H3B,HLA-B,HMGA1,HMOX1,HSP90B1,HVCN1,ICK,ID2,IDH2,IFNAR2,IGH,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPR1,JARID2,JCHAIN,KCNAB3,KCNN3,KIF11,KIF2C,KPNA1,KPNA2,KRR1,LCP2,LGALS1,LIG4,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAP3K14,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NAMPT,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NSD2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4D,PDE7B,PDIA6,PIK3CA,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RASSF1,RHOH,RRM2,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZC2HC1A,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature T-cell or NK-cell neoplasm | 6.23E-12 | turquoise | 119 | ADA,AIM2,ANKIB1,ANXA1,ATP1B1,ATXN1,AURKA,BAK1,BIRC5,BTG1,CADM1,CD163,CD19,CD1A,CD200,CD27,CD4,CD69,CD86,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CXCL8,CXCR3,DTX1,DUSP4,FAS,FCER2,FNDC3B,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-DOA,HS3ST1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IGHM,IGKC,IGLC1,IL13RA1,IL2RB,IL6R,IMPDH1,IRF4,ITGAX,ITPKB,JMJD1C,LPCAT2,MAFB,MAP3K14,MCL1,MGAT4A,MGLL,MIA2,MKI67,MXI1,MYOF,NAPA,NR3C1,NRCAM,NUAK2,PDE4D,PIK3CA,PIK3R5,PLXNB2,PPIA,PRDM1,PRF1,PRR5,PSMB2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SLC16A7,SPN,STAT4,STAT5B,TARP,TBX21,TCL1A,TIMP1,TIMP2,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,ZBTB10 |
| Cell-To-Cell Signaling and Interaction | Response of mononuclear leukocytes | 6.33E-12 | turquoise | 74 | ADA,AHR,BAK1,C5AR1,CBLB,CCL3,CCR1,CD14,CD19,CD200,CD22,CD226,CD4,CD58,CD59,CD69,CD70,CD80,CD86,CD8A,CD93,CLEC7A,CR2,CSF2RB,CXCL8,FAS,FCGR2A,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,SELPLG,SEMA4A,SH2D1A,SLA2,SMAD3,STAT4,STAT5B,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TREM1,TREML2 |
| Cell Death and Survival | Cell death of tumor cell lines | 7.35E-12 | turquoise | 360 | ABCB1,ABCB4,ABCC4,ADI1,AHR,AIM2,ALOX5,ANG,ANXA2,ANXA5,ARG1,ARID3B,ARNT,ATG13,ATG4A,ATP1A1,ATP1B3,ATP5F1A,ATXN1,AURKA,BACH2,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,CD59,CD79B,CD99,CDC6,CDCA2,CDCA5,CDK5,CDT1,CEBPA,CEBPB,CEBPD,CERS5,CERS6,CFLAR,CHEK1,CLPTM1L,COL18A1,COPZ1,COX5A,COX6B1,COX8A,CPEB2,CR1,CREBBP,CRH,CSF1R,CSF2RB,CSNK1A1,CSTA,CSTB,CTNND1,CXCL8,CXCR3,CXCR4,CYFIP2,CYP1B1,DAPK1,DAPK2,DCTN3,DGKD,DNM2,DPH5,DSP,DST,DTL,DUSP4,DUT,DYNLL1,E2F2,EEF2K,EGOT,EIF3M,ELOC,EMILIN2,ENO1,EPM2A,ERN1,ESR1,ETHE1,ETS2,EXOG,FAIM,FAS,FBXO32,FCER1G,FCER2,FGF9,FLNB,FLT1,FOXO1,GAB1,GADD45A,GAPDH,GFI1,GGT1,GIMAP4,GIMAP5,GLRX,GNAS,GNLY,GPI,GPX1,GSTM1,GZMB,GZMH,GZMK,HAX1,HBEGF,HCST,HDAC9,HIPK2,HMGA1,HMMR,HMOX1,HSH2D,HSPA5,HSPA8,HSPA9,HSPB11,ICMT,IDE,IER3,IFNAR2,IGFBP7,IGHE,IGHM,IL15RA,IL1B,IL1RN,IL32,IL6R,IL7,INVS,IRAK1,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,MAP3K14,MAP3K9,MAPK1,MCL1,MCOLN2,MDM2,MDM4,MEF2C,MGAT3,MIF,MIR17HG,MLKL,MOB3B,MRPL49,MSRB2,MT1X,MT2A,MTDH,MTFP1,MTM1,MXI1,NABP1,NACC2,NAMPT,NAPA,NCOA3,NCOA7,NDC80,NDUFA13,NEK6,NFE2L1,NFIL3,NLRP1,NLRP3,NR3C1,NSD2,OAZ1,P4HB,PA2G4,PAWR,PAX5,PBX3,PDCD4,PDE4D,PDLIM7,PEBP1,PFKFB3,PHGDH,PIK3C3,PIK3CA,PKD2L2,PKM,PLA2G16,PLA2G6,PLAUR,PMEPA1,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PSAP,PSMD14,PTAFR,PTEN,PTGS2,PTK2,PTPRE,PTTG1,PVT1,PYCARD,RAB32,RABGGTA,RACGAP1,RARG,RASSF1,RASSF6,RBM5,RBX1,RDX,RPLP0,RRM2,RTN1,RTN4,RUNX3,RXRA,S100A11,S100A4,S100A6,S100A8,S100A9,SAT1,SATB1,SEC61G,SEMA3A,SERP1,SH3GLB1,SH3RF1,SIRPA,SLC39A6,SLC3A2,SMAD3,SMC1A,SMCO4,SMOX,SMURF2,SND1,SNHG7,SOD1,SP1,SPN,SRI,ST6GAL1,STAT5B,STAU1,STK17A,STOML2,STUB1,SVIL,SYCP3,TAGLN2,TBK1,TBXA2R,TCL1A,TCP1,TFRC,TGFBR2,TGFBR3,TIAM1,TIMP1,TLR2,TLR4,TMBIM6,TNF,TNFAIP8,TNFRSF10C,TNFRSF1B,TNFRSF25,TOP2A,TOX,TP63,TPX2,TRADD,TREM1,TRMT61A,TRPV2,TUBB3,TXN,TXN2,TYMP,TYMS,UBE2C,UBE2L3,UBE2Q1,UCHL1,VAV3,VCAN,VCP,VDAC1,VDR,VEGFA,VOPP1,WEE1,WWC3,XBP1,YWHAE,YWHAH |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Inflammation of joint | 7.58E-12 | turquoise | 252 | 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,CD79B,CD80,CD86,CDK2AP2,CEBPB,CERS6,CFP,CHCHD2,CIITA,CLEC2B,CLEC4D,COCH,CR1,CR2,CSF1R,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,ERN1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLIPR2,GNLY,GPI,GUSB,GZMA,GZMB,H3F3A/H3F3B,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,IGFBP7,IGHD,IGHM,IGKC,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IMPDH1,ITGAM,ITGB7,ITPR1,JMJD1C,L3MBTL4,LDHB,LDLR,LGALS1,LST1,LYN,MAFB,MAML3,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MMP11,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NCF1,NDUFB10,NLRP1,NLRP3,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PDGFD,PGK1,PHF19,PILRA,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTEN,PTGS2,PTPRE,PXN,PYCARD,QKI,RAB1B,RABGAP1,RBP7,RFLNB,RNF149,RPL15,RUNX3,S100A10,S100A12,S100A8,S100A9,SCN4A,SEC61A1,SEC62,SEL1L,SH2D1A,SIGMAR1,SLC11A1,SLC1A4,SMAD3,SND1,SNX9,SORL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TBX21,TCF7,TFRC,TGFBR2,TIMP1,TIMP2,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TP63,TPGS2,TRADD,TRAK2,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMS,TYROBP,UBAC1,VARS,VDR,VEGFA,VIM,WNT10A,XBP1,YTHDC2,ZMYND11 |
| 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 | 8.59E-12 | turquoise | 143 | 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,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ETS2,FAS,FCER1G,FCGR2A,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,LIG4,LILRB2,MAFB,MAP3K14,MAPK1,MCL1,MIF,MINK1,MIR17HG,NAB1,NDFIP1,NFATC3,OTUD7B,PAX5,PICALM,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTEN,PTGS2,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SOCS5,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZMIZ1 |
| Cell-mediated Immune Response,Cellular Function and Maintenance,Hematological System Development and Function | T cell homeostasis | 1.16E-11 | turquoise | 145 | 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,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CHEK1,CIITA,CREBBP,CXCR3,CXCR4,CXCR5,DCLRE1C,DTX1,E2F2,ETS2,FAS,FCER1G,FCGR2A,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,LIG4,LILRB2,MAFB,MAP3K14,MAPK1,MCL1,MIF,MINK1,MIR17HG,NAB1,NDFIP1,NFATC3,OTUD7B,PAX5,PICALM,PIK3C3,PIK3R6,POLM,POU2AF1,PRDM1,PRELID1,PTEN,PTGS2,RC3H2,RHOH,RORA,RUNX2,RUNX3,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,SOCS5,SPN,STAT4,STAT5B,TBX21,TCF7,TGFBR2,THEMIS2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TOX,TP63,TRAF5,TYROBP,UBE2N,VAV3,VEGFA,XBP1,XRCC6,ZMIZ1 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG1 | 1.23E-11 | turquoise | 45 | ABCB1,AKAP13,ARID3A,ARNTL,BACH2,BTLA,CD19,CD22,CD36,CD80,CD86,CR2,CSF2RB,DUSP4,FCER1G,FCER2,GADD45A,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHM,IGLL1/IGLL5,IKZF3,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,ITPKB,LAX1,LYN,NFIL3,POU2AF1,PPIA,PRKCD,PTGS2,SH2D1A,SH3BP2,TBK1,TNF,TNFRSF13B,TNFRSF1B,TRAF5,UXS1 |
| Hematological System Development and Function,Tissue Morphology | Quantity of granulocytes | 1.4E-11 | turquoise | 94 | ABCB1,ADA,ADGRE5,AHR,ALOX5,ARID4B,ARNTL,BID,BIK,C5AR1,CD19,CD22,CD300A,CD36,CD8A,CEBPA,CFLAR,CFP,CLEC7A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CXCL2,CXCL8,FAS,FCGR2A,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,PTEN,PTGS2,PTK2,RORA,RUNX2,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAT4,STAT5B,STX11,TBK1,TBXA2R,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TRIB1,TXN,UBE2W,VDR |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell neoplasm | 1.6E-11 | turquoise | 288 | ABCB1,ABCG1,ABHD5,ACP5,ADA,AHNAK,AHR,ALDH1A1,ALOX5,ANKRD36,ANXA1,ANXA2,ANXA5,APOBEC3B,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,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDK4,CDK5,CEBPA,CEBPD,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DGKD,DIS3,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,ERC1,FAS,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLNA,FLT1,FOXO1,FOXP1,FRYL,FYB1,GTF2I,HCAR3,HDAC9,HIST1H3B,HLA-B,HMOX1,HSP90B1,HVCN1,ICK,IDH2,IFNAR2,IGH,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF3,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAV,ITGAX,ITPR1,JARID2,JCHAIN,KCNAB3,KCNN3,KIF11,KIF2C,KPNA1,KPNA2,KRR1,LCP2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MAP3K14,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NAMPT,NDC80,NEK3,NEK8,NETO2,NLRP7,NR3C1,NSD2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDE4D,PDE7B,PDIA6,PIK3CA,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRF1,PRICKLE1,PRKCI,PRR5,PSMA2,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RHOH,RRM2,RUNX2,RUNX3,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SOCS2,SOD1,SORL1,SPN,STAMBPL1,STAT5B,STEAP4,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VCAN,VDAC1,VEGFA,VIM,VPREB3,VWA3B,WDR74,WWC3,XBP1,XRCC6,YWHAE,ZC2HC1A,ZC3HAV1L,ZFP2,ZNF395,ZYX |
| Inflammatory Response | Inflammation of body cavity | 1.73E-11 | turquoise | 201 | ABCB1,ABCB4,ABCC4,ABCG1,ADA,ADGRE1,AGO2,AHR,ALDOA,ALOX5,ANXA1,ANXA5,APOA2,ARG1,ARIH2,ASB2,ATP1B1,ATXN1,BACH2,BID,BIRC3,BIRC5,BSG,BTLA,C5AR1,CAV1,CCL3,CCL5,CCR1,CD14,CD200,CD300LF,CD36,CD4,CD69,CD72,CD80,CD86,CDC42EP3,CEBPA,CELA3B,CFLAR,CHCHD2,CIITA,CLEC4D,CLEC7A,COCH,COTL1,CR2,CRH,CSF1R,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,CYP51A1,DDX5,DTX1,E2F2,ENO1,ESR1,FAIM,FAS,FBXO32,FCGR1B,FCGR2A,FCGR3A/FCGR3B,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,ITGAM,ITGB7,KCNAB3,KCNN3,KEAP1,KMO,LAT,LCP2,LDLR,LGALS1,LGALS3,LGALS4,LY96,LYN,MAP3K14,MAPKAPK3,MGAT5,MGLL,MIF,MRS2,NAAA,NCF1,NDFIP1,NFATC3,NFE2L1,NFIL3,NLRP3,NR3C1,P4HB,PANK2,PAX5,PDE4A,PDE4D,PDE7A,PDE7B,PIK3C3,PKD1,PKM,PLAUR,PNKD,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRR5,PTAFR,PTEN,PTGS2,PTPRJ,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,TKT,TLR2,TLR4,TNF,TNFAIP8,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNFRSF25,TOP2A,TP63,TPI1,TRAM2,TREM1,TSHR,TUBB,TYMP,TYMS,TYROBP,UCHL1,VAV3,VDR,VEGFA,VSIR,XBP1,ZC3HAV1L |
| Cell Death and Survival | Cell viability | 1.74E-11 | turquoise | 321 | ABCB1,ABCB4,ACTN4,ADGRE2,AGO2,AGTPBP1,AGTRAP,AHR,AK3,AKAP13,AKAP7,ANLN,ANXA5,APOBEC3A,AQP3,ARNT,ARRB1,ATF5,ATP5MD,ATP5PD,ATXN1,AURKA,AURKAIP1,B4GALT5,BAK1,BCKDK,BCL11B,BCL2L2,BID,BIK,BIRC5,BMP6,BMPR1A,BRAF,BRIP1,BTLA,BUB1B,CADM1,CAMK2D,CAMK2N1,CAMK4,CAPN2,CAPN3,CARS,CAV1,CBX5,CCL3,CCL5,CCNA2,CCND2,CCR1,CD19,CD200,CD22,CD27,CD2AP,CD300A,CD33,CD4,CD59,CD74,CD80,CD86,CD8A,CDK5,CEBPB,CEBPD,CFLAR,CHEK1,CLCN4,COCH,COL4A3,CR1,CREBBP,CRH,CSF1R,CSF2RB,CSNK1A1,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DCLRE1C,DDX5,DIS3,DNM2,DPH5,DST,DUSP6,DUSP7,EEF2K,EGOT,EHD4,EIF3A,EIF3E,EIF4A3,EIF4G1,EMILIN2,ENO1,EPB41L2,ERN1,ESR1,ETS2,FA2H,FAS,FBXO32,FCER1G,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXO1,GAB1,GADD45A,GALK2,GATA3,GCLC,GIMAP5,GLUD1,GNLY,GPX1,GSTM1,HBEGF,HIPK2,HMGA1,HMOX1,HMOX2,HSD17B10,HSH2D,HSP90B1,HSPA5,HSPA9,HYOU1,ICMT,ICOSLG/LOC102723996,ID2,IDE,IER3,IGFBP7,IGHM,IKZF2,IL1B,IL1RN,IL21R,IL2RB,IL6R,IL7,IL7R,INPP4A,INPP5A,IRAK1,IRF4,ITGAL,ITGAM,ITGAV,ITGB1,ITPKB,JMJD1C,KEAP1,KIF11,KIF1B,KIF1C,LANCL2,LAT,LAX1,LDHA,LGALS3,LIG4,LMNB1,LYN,MAP3K14,MAPK1,MCL1,MCOLN2,MCUR1,MDM2,MDM4,MEF2C,MGAT5,MGST1,MIAT,MICAL2,MIF,MIR17HG,MTDH,MTMR1,MTMR7,NAB1,NAMPT,NDC80,NDUFA13,NEAT1,NEK3,NEK8,NFIL3,NR1D1,NR3C1,NRCAM,NSD2,NUP210,OBSCN,OTUD7B,P4HB,PAX5,PBX3,PCDHGC3,PDCD4,PIK3C3,PIK3CA,PKM,PLA2G6,PLAUR,POLDIP2,POU2AF1,PPIA,PPM1G,PPM1M,PRDM1,PRKCD,PRKCE,PRKCI,PSAP,PSMA1,PSMA3,PSMA6,PSME4,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPRE,PTPRK,PYCARD,RARG,RARRES3,RASSF1,RPS6KA6,RRM2,RUNX2,RXRA,S100A4,S100A6,S100A8,S100A9,SARAF,SAT1,SEL1L,SELENOH,SELPLG,SEM1,SGPP1,SH3KBP1,SIGMAR1,SLC16A1,SLC25A23,SLC31A1,SMAD3,SMARCA2,SMARCB1,SMARCD3,SND1,SOCS2,SOD1,SPATS2,SPIDR,SPN,SPRY1,SSPN,STAT4,STAT5B,SVIL,TBC1D16,TBC1D9,TBK1,TBX21,TCF7,TCL1A,TCP1,TERF2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX,TP53I3,TP63,TRADD,TRIM69,TRPV2,TUBB3,TXN,TXNDC5,TXNL4A,TYMP,TYMS,TYROBP,UBE2L3,UCHL1,UHRF1,USP14,VCAN,VCP,VDAC1,VDR,VEGFA,WDR1,WEE1,XBP1,XRCC6,ZBTB20,ZNF528,ZNF665 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of T lymphocytes | 1.77E-11 | turquoise | 98 | ADA,AHNAK,ANXA1,BACH2,BAK1,BCL11B,BTLA,CADM1,CAMK4,CBLB,CCL3,CCL5,CD19,CD226,CD27,CD4,CD58,CD59,CD74,CD80,CD86,CD8A,CLEC7A,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,NCF1,NDFIP1,NFATC3,NFIL3,OTUD7B,PIP5K1B,PRF1,PTEN,PTPRJ,PYCARD,SATB1,SEMA4A,SLA2,SLC11A1,SMAD3,SPN,STAT4,STAT5B,STX11,SWAP70,TBX21,TCL1A,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TYROBP,UBE2N,VSIR,VTI1B |
| Cell-To-Cell Signaling and Interaction | Interaction of blood cells | 1.88E-11 | turquoise | 119 | ABCC4,ADGRE2,ADGRE5,ANXA1,ANXA5,ATP2A3,BTLA,C1GALT1C1,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD4,CD58,CD59,CD69,CD74,CD80,CD86,CD99,CFP,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DNAJC1,FAS,FCAR,FCER1G,FCGR2A,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,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP2,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SH2D1A,SIRPA,SKAP1,SLC4A1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymphoid organ | 2.21E-11 | turquoise | 133 | ABCB4,ABCC4,ABCG1,ADA,AFF1,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARNTL,ATP2B4,AURKA,B3GNT5,BAK1,BCL11A,BCL11B,BIK,BNIP3L,CAMK4,CD19,CD200,CD226,CD4,CD72,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CIITA,CITED2,CLEC4D,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CXCR5,DAD1,DCLRE1C,DUSP6,E2F2,EPB42,ESR1,ETS2,FAS,FCER1G,FNIP1,GADD45A,GATA3,GBA,GFI1,GSTK1,HCST,HMGA1,HMOX1,HSH2D,HSP90B1,ICOSLG/LOC102723996,ID2,IGHM,IKZF3,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGAL,ITPKB,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LIG4,LYN,LYPLA2,MAP3K14,MCL1,MDM2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,NR3C1,PANK2,PAWR,PICALM,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PTEN,PTGS2,PTPRJ,PTTG1,RAPGEF6,RARG,RHOH,RRM2,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TBXA2R,TCL1A,TGFBI,TGFBR3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TRADD,TRIB1,UBE2W,VDR,VEGFA,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Response of phagocytes | 2.25E-11 | turquoise | 71 | ADGRE2,ANXA1,ANXA5,APOA2,BRAF,C5AR1,CCL3,CCL5,CCR1,CD14,CD36,CD93,CEBPB,CLEC7A,CMC2,CSF1R,CSF2RB,CST3,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,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,PTEN,PTPRJ,PXN,RARRES3,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,TYROBP,XBP1 |
| Neurological Disease,Skeletal and Muscular Disorders | Neuromuscular disease | 2.49E-11 | turquoise | 220 | ABCB1,AEBP1,ALAS1,ALG14,ALOX5,ANXA1,ANXA2,AP1S2,ARHGAP32,ARHGEF7,ARIH2,ARL3,ARRB1,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11B,BCL7A,BSG,CA11,CAB39,CAMK4,CAMKK2,CANX,CAPN3,CAPNS1,CAPZB,CBLB,CCAR2,CCL5,CD74,CD79B,CD80,CD86,CDK5,CFLAR,CHCHD2,CIITA,CNP,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CR2,CSF3R,CST3,CXCR3,CYFIP2,CYP51A1,DAD1,DNAJB11,DNAJC1,EIF3E,EIF4G1,ELMO1,ESR1,ETV4,F8A1 (includes others),FAM3C,FAS,FBXW7,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLOT1,FOXP1,FURIN,GABBR1,GADD45A,GAPDH,GBA,GNAS,GPI,GRIA1,H3F3A/H3F3B,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,MAPKAPK3,MIF,MT1E,MT1G,MT1X,MT2A,MTDH,MYL12A,MYO1B,NAPA,NDUFA13,NDUFA2,NDUFA7,NDUFB2,NDUFB3,NDUFS4,NDUFS5,NGRN,NR1D1,NR3C1,NRCAM,NREP,PDE4A,PDE4D,PDLIM7,PEBP1,PGK1,PKM,PLA2G6,PLCB1,PODXL,PPARGC1B,PPIA,PRR5,PSAT1,PSMA2,PSMB6,PTGS2,PTPRE,RARRES3,RASGRP2,RERE,RPL15,RPS3A,RREB1,RRM2,RTN1,RTN4,RUNX3,SAT1,SCAMP5,SCARB2,SCN4A,SDHB,SEC11A,SEC24A,SERPINA1,SF1,SIGMAR1,SLC1A4,SLIRP,SMTN,SOCS5,SOD1,SORL1,SP1,SRM,SSR3,STAP1,STUB1,SUB1,SYPL1,TARP,TCL1A,TESC,TLR2,TLR4,TNF,TNR,TOP2A,TPI1,TRAK2,TRAM1,TUBA1B,TUBA1C,TXN,UBAC1,UCHL1,UQCRB,UQCRC1,VAMP1,VCAN,VCP,VDR,VIM,XBP1,XRCC6,ZBTB44 |
| Cell-To-Cell Signaling and Interaction | Binding of blood cells | 2.5E-11 | turquoise | 118 | ABCC4,ADGRE2,ADGRE5,ANXA1,ANXA5,ATP2A3,BTLA,C1GALT1C1,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD4,CD58,CD59,CD69,CD74,CD80,CD86,CD99,CFP,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DNAJC1,FAS,FCAR,FCER1G,FCGR2A,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,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP2,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SH2D1A,SIRPA,SKAP1,SLC4A1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG | 2.73E-11 | turquoise | 66 | ABCB1,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BTLA,CCR1,CD19,CD22,CD36,CD69,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DUSP4,ESR1,FCER1G,FCER2,GADD45A,GALNT1,HAX1,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,NFIL3,POU2AF1,PPIA,PRKCD,PTGS2,PTTG1,SAMSN1,SH2D1A,SH3BP2,TBK1,TBX21,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UXS1 |
| Cellular Function and Maintenance | Endocytosis by eukaryotic cells | 2.95E-11 | turquoise | 92 | ANXA1,ANXA5,APLP2,APOA2,ARRB1,ATP6V1A,ATP6V1D,BRAF,BTBD19,CAV1,CCL3,CCL5,CD14,CD163,CD36,CD93,CDC5L,CEBPB,CLIP1,CRH,CSF1R,CSF2RB,CTNND1,DNM2,EHD1,EIF2AK1,ELMO1,EPB41L2,ETS2,FAS,FCER1G,FCGR2A,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,PRKCD,PRKCE,PTEN,PTK2,PTPRJ,PTRHD1,PXN,RAB31,RORA,RRAS2,S100A9,SCARB2,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SMARCB1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VIM,XBP1 |
| Cell Death and Survival | Apoptosis of lymphatic system cells | 3.1E-11 | turquoise | 103 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BCL2L2,BID,BNIP3L,C5AR1,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,EEF2K,ETS2,FAIM,FAS,FBXW7,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,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MCL1,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBXA2R,TCL1A,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA |
| Inflammatory Disease | Severe inflammatory disorder | 3.54E-11 | turquoise | 59 | ACSL1,ACTN1,ANXA1,CD63,CEBPD,COL4A3,CSF2RB,CSF3R,FCGR3A/FCGR3B,FPR1,GAPDH,GATA3,GSTO1,GYG1,IER3,IGHE,IL4R,IL5RA,IRF8,ITGAM,ITGB7,LILRA2,MIR17HG,MSRB2,NCF1,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,ZYX |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Chronic arthropathy | 4E-11 | turquoise | 192 | 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,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLIPR2,GNLY,GUSB,GZMA,GZMB,H3F3A/H3F3B,HAVCR2,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP7,IGHM,IGKC,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IMPDH1,ITPR1,JMJD1C,L3MBTL4,LDHB,LGALS1,LST1,MAFB,MAML3,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NCF1,NDUFB10,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PGK1,PHF19,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTGS2,PTPRE,PXN,QKI,RAB1B,RBP7,RFLNB,RNF149,RPL15,RUNX3,S100A10,S100A12,S100A8,S100A9,SCN4A,SEC62,SEL1L,SND1,SORL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TFRC,TIMP1,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TPGS2,TRAK2,TRAM2,TXN,TYMS,UBAC1,VARS,VDR,VEGFA,VIM,WNT10A,XBP1,YTHDC2,ZMYND11 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Rheumatoid arthritis | 4.73E-11 | turquoise | 191 | 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,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLIPR2,GNLY,GUSB,GZMA,GZMB,H3F3A/H3F3B,HAVCR2,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP7,IGHM,IGKC,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IMPDH1,ITPR1,JMJD1C,L3MBTL4,LDHB,LGALS1,LST1,MAFB,MAML3,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NDUFB10,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PGK1,PHF19,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTGS2,PTPRE,PXN,QKI,RAB1B,RBP7,RFLNB,RNF149,RPL15,RUNX3,S100A10,S100A12,S100A8,S100A9,SCN4A,SEC62,SEL1L,SND1,SORL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TFRC,TIMP1,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TPGS2,TRAK2,TRAM2,TXN,TYMS,UBAC1,VARS,VDR,VEGFA,VIM,WNT10A,XBP1,YTHDC2,ZMYND11 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of immune cells | 5.04E-11 | turquoise | 100 | ADGRE2,ADGRE5,ANXA1,ANXA5,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD226,CD36,CD4,CD58,CD69,CD74,CD80,CD86,CD99,CFP,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,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,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SPN,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of T lymphocytes | 5.46E-11 | turquoise | 75 | ABCB1,ADGRE1,AHNAK,ANG,BCAT1,BIRC3,BIRC5,CBLB,CBX5,CD27,CD4,CD69,CD70,CD74,CD80,CD86,CD8A,CEBPB,CIITA,CSF2RB,CTSC,DENND1B,DTX1,FCER1G,FYB1,GIMAP4,GNAI3,HAVCR2,HCST,HLA-DMA,HSH2D,ICOSLG/LOC102723996,IFNAR2,IGHM,IL13RA1,IL21R,IL4R,IL7,IL9R,IMPDH1,IRF8,ITGAL,KCNN4,KLF10,LAT,LAX1,LGALS1,LILRB3,MCL1,MYO1G,PAWR,PIK3C3,POU2AF1,PPIA,PRF1,PSMB10,PSME2,SAMSN1,SEMA3A,SEMA4A,SH2D1A,SMAD3,SPN,STAT4,STAT5B,STX11,TAGLN2,TBK1,TBX21,TCF7,TLR2,TLR4,TNF,TYROBP,VDR |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B cell cancer | 6.33E-11 | turquoise | 246 | ABCG1,ABHD5,ADA,AHNAK,AHR,ALOX5,ANKRD36,ANXA1,ANXA2,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,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDK5,CEBPA,CEBPD,CFLAR,CFP,CHD2,CHD3,CIITA,CITED2,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,CTSC,CXCL2,CXCL8,CXCR4,CXCR5,DAD1,DAP,DAPK1,DCLRE1C,DGKD,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF4E3,ELOC,ENAH,FAS,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLT1,FOXO1,FOXP1,FYB1,GTF2I,HDAC9,HIST1H3B,HLA-B,HMGA1,HMOX1,HSP90B1,HVCN1,ICK,ID2,IDH2,IFNAR2,IGHM,IGKC,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL1B,IL2RB,IL4R,IL7,IL7R,IL9R,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITPR1,JCHAIN,KCNAB3,KCNN3,KIF11,KPNA1,KPNA2,KRR1,LGALS1,LIG4,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MCL1,MDM2,MDM4,MGA,MGLL,MIF,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NAMPT,NEK3,NETO2,NLRP7,NR3C1,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4D,PDE7B,PIK3CA,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,RASSF1,RRM2,RXRA,S100A10,SARS,SATB1,SDK2,SEC14L1,SERPINA1,SETD2,SIPA1L3,SKIL,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SOCS2,SOD1,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STX11,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TFRC,TGFBR2,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNIK,TOP2A,TP63,TPST2,TRADD,TRAM2,TRERF1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,VAV3,VDAC1,VEGFA,VPREB3,VWA3B,WDR74,WWC3,XRCC6,YWHAE,ZC2HC1A,ZYX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature T-cell neoplasm | 6.5E-11 | turquoise | 113 | ADA,AIM2,ANKIB1,ANXA1,ATP1B1,ATXN1,AURKA,BAK1,BIRC5,BTG1,CADM1,CD163,CD19,CD1A,CD200,CD27,CD4,CD69,CD86,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CIITA,CR2,CXCL8,CXCR3,DTX1,DUSP4,FAS,FCER2,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-DOA,HS3ST1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IGHM,IGKC,IGLC1,IL13RA1,IL2RB,IL6R,IRF4,ITGAX,ITPKB,JMJD1C,MAFB,MAP3K14,MCL1,MGAT4A,MGLL,MIA2,MKI67,MXI1,MYOF,NR3C1,NRCAM,NUAK2,PDE4D,PIK3CA,PIK3R5,PRDM1,PRF1,PRR5,PSMB2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,RRM2,RUNX3,RXRA,SATB1,SECTM1,SELPLG,SLC16A7,SPN,STAT4,STAT5B,TARP,TBX21,TCL1A,TIMP1,TIMP2,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,ZBTB10 |
| Immunological Disease | Hypersensitive reaction | 8.1E-11 | turquoise | 118 | ADGRE2,AHNAK,AHR,ALOX5,ANXA1,ANXA2P2,ANXA5,ARFGAP3,ARG1,ATP1B1,BCL11B,CAPZB,CCL5,CCNA2,CCR1,CD1A,CD300A,CD300LF,CD4,CD63,CD74,CEBPB,CFL1,CLEC4D,CORO1B,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,DOCK5,DPYSL2,EIF1,EIF3E,ENO1,EPS8,FABP5,FCER1G,FCER2,FCGR2A,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,H2AFZ,H3F3A/H3F3B,HAVCR2,HLA-B,HLA-DMA,HRH2,ICOSLG/LOC102723996,IDE,IDI1,IFI30,IGHE,IGHM,IGKC,IGLJ3,IKZF3,IL1B,IL1RN,IL21R,IL4R,IL5RA,IL6R,ITGB7,JPT1,LAT,LCP2,LGALS1,LGALS2,LGMN,LYN,MAPKAPK3,MCL1,MIF,MKI67,MXI1,NAPA,NCF1,NLRP3,NR3C1,PHGDH,PIP5K1B,PPIA,PRF1,PSAP,PSME2,PTAFR,PTEN,PTGS2,PYCARD,RUNX3,S100A11,S100A8,S100A9,SEMA4A,SOCS2,SOD1,SRM,SYNE2,TBXA2R,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Cell Death and Survival | Apoptosis of lymphoid cells | 8.59E-11 | turquoise | 95 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,HSPA5,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBXA2R,TCL1A,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TXN,VAV3,VDR,VEGFA |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer of cells | 9.72E-11 | turquoise | 366 | ABAT,ABCG1,ABHD5,ADA,AHNAK,AHR,AIM2,ALDH1A1,ALOX5,ANK3,ANKIB1,ANKRD36,ANXA1,ANXA2,APOBEC3B,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCAT1,BCL11B,BCL2L2,BCL7A,BCL9L,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CADM1,CAMK2N1,CAV1,CBLB,CCL3,CCNA2,CCND2,CD14,CD163,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD63,CD69,CD70,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDCA7,CDCA7L,CDK4,CDK5,CEBPA,CEBPB,CEP120,CEP68,CFL1,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CLMP,COCH,COL4A4,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAD1,DAPK1,DCLRE1C,DGKD,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,E2F7,EIF2AK1,ELMO1,ELOC,ERC1,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FLT1,FNDC3B,FOSL2,FOXO1,FOXP1,FRYL,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90B1,HSPA5,HVCN1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IL9R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAM,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KMO,KPNA1,KPNA2,KRR1,LANCL2,LDHA,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIF,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAMPT,NAP1L1,NAPA,NCOA3,NEK3,NEK6,NEK8,NETO2,NLRP7,NR3C1,NRCAM,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PBX3,PCSK5,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PDLIM5,PIK3CA,PIK3R5,PLXNB2,PNKD,POU2AF1,PPIA,PPWD1,PRDM1,PRDM15,PRDX1,PRF1,PRICKLE1,PRKCI,PRR5,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RAPGEF6,RARG,RARRES3,RASSF1,RASSF4,RDH10,RHOH,RHOU,RIOK2,RPL23,RRM2,RUNX3,RXRA,S100A4,SARS,SATB1,SDK2,SEC14L1,SEC23B,SEC24D,SECTM1,SELPLG,SERPINA1,SETD2,SGPP2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STEAP4,STK17A,STX11,SUCLG1,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCF7,TCL1A,TCL1B,TFDP1,TGFBI,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TMTC2,TNF,TNFRSF10C,TNFRSF13B,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRAM2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCAN,VCP,VDAC1,VEGFA,VMP1,VWA3B,WDR74,WWC3,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZFP2,ZMIZ1,ZNF395,ZNF490,ZYX |
| Inflammatory Disease,Neurological Disease,Organismal Injury and Abnormalities | Myelitis | 9.82E-11 | turquoise | 80 | 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,ESR1,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,NCF1,NFIL3,NINJ1,NLRP3,NR3C1,OTUD7B,PDCD4,PRDM1,PYCARD,RORA,SEMA4A,SHCBP1,SPN,STAT4,TBX21,TIMP1,TLR4,TNF,TNFRSF1B,TYROBP,VDR,VSIR,XBP1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development | Proliferation of B lymphocytes | 9.95E-11 | turquoise | 85 | ADA,B3GNT5,BCL11A,BTLA,CBLB,CCND2,CD14,CD19,CD22,CD300A,CD4,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CEBPB,CLEC4D,CR2,CRH,DCLRE1C,DTX1,FAS,FCER2,FCGR3A/FCGR3B,HSH2D,IGHM,IGKC,IGLL1/IGLL5,IKZF2,IKZF3,IL13RA1,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL5RA,IL7,IL7R,IRF4,IRF8,KLF9,LILRB3,LY96,LYN,MAP3K14,MDM2,MEF2C,MIF,MIR17HG,NFATC3,PAWR,PCYT1A,PIK3CA,PLEKHA1,PLEKHA2,POLM,POU2AF1,PRDM1,PRKCD,PTEN,SAMSN1,SERPINA1,SH3BP2,SH3KBP1,SLAMF7,SMAD3,SMURF2,ST6GAL1,STAT5B,SWAP70,TCL1A,TFRC,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TRAF5,TXN,TYROBP,VAV3 |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphatic system cells | 1.21E-10 | turquoise | 74 | ABCB1,AHR,ARID3A,ARID4B,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,CBLB,CCND2,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CDK4,CEBPA,CEBPB,CR2,CREBBP,CXCR5,CYP1B1,DCLRE1C,DTX1,ERN1,FAS,FCER1G,FNIP1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGB7,ITPKB,LAT,LCP2,LGALS3,LIG4,LYN,MCL1,MDM4,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSMB10,PTPRJ,RHOH,RUNX3,SH2D1A,SOD1,SP1,STAT5B,TBX21,TNF,TOX,TRIB1,XBP1,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Interaction of leukocytes | 1.45E-10 | turquoise | 106 | ADGRE2,ADGRE5,ANXA1,ANXA5,BTLA,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD4,CD58,CD69,CD74,CD80,CD86,CD99,CFP,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DNAJC1,FAS,FCAR,FCGR2A,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,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Protein Synthesis | Production of protein | 1.49E-10 | turquoise | 88 | ABCB1,AIM2,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BTLA,C5AR1,CCR1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DTX1,DUSP4,E2F2,ESR1,FAS,FCER1G,FCER2,GADD45A,GALNT1,HAX1,HLA-DOA,HSP90B1,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,IRF8,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,MIF,NFIL3,NR3C1,POU2AF1,PPIA,PRF1,PRKCD,PRKCE,PTGS2,PTTG1,PYCARD,RXRA,SAMSN1,SH2D1A,SH3BP2,SWAP70,TBK1,TBX21,TGFBR2,TICAM2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UBE2N,UXS1,VSIR,XRCC6 |
| Cellular Movement | Cell movement of tumor cell lines | 1.56E-10 | turquoise | 232 | 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,DGKD,DNM2,DOCK5,DPYSL2,DSP,DTX1,DUSP6,ECT2,EGOT,EIF3A,ELMO1,ENAH,EPS8,ERC1,ESR1,ETV4,EYA2,FAM89B,FBXO4,FBXW7,FLNA,FLNB,FLT1,FOXO1,FOXP1,FPR1,FURIN,FYB1,GAB1,GATA3,GNAI3,GNAS,GPI,GZMB,HAVCR2,HAX1,HBEGF,HDAC9,HMGA1,HMMR,HMOX1,HOMER3,HRH2,HSP90B1,HVCN1,ICMT,ID2,IGFBP7,IL1B,IL32,IL6R,INPP4A,ITGAV,ITGB1,ITPR1,KCNN3,KCNN4,KEAP1,KISS1R,KPNA2,LASP1,LCP2,LDHA,LGALS1,LGALS3,LIMK1,LRPAP1,LTK,LYN,MAP4,MAPK1,MARCKS,MDM2,MGAT3,MGAT5,MIF,MINK1,MPRIP,MTDH,NCOA3,NINJ1,NRCAM,NREP,NSD2,PA2G4,PALLD,PARVG,PAX5,PDCD4,PEBP1,PHACTR1,PIK3C2B,PIK3CA,PIK3R5,PIK3R6,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PPIA,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPN12,PTPRJ,PTPRK,PTTG1,PXN,RACGAP1,RALGAPA2,RAP1B,RAP2A,RAP2B,RARG,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,SP1,SSBP1,ST6GAL1,STUB1,TAGLN2,TBXA2R,TBXAS1,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF25,TNIK,TP63,TUBA1C,UCHL1,VAV3,VCAN,VCL,VCP,VDAC1,VEGFA,VIM,ZBTB7A,ZYX |
| Inflammatory Response,Respiratory Disease | Inflammation of respiratory system | 1.67E-10 | turquoise | 113 | 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,CD72,CD86,CFLAR,CIITA,CLEC4D,CLEC7A,COCH,CRH,CSF1R,CSF2RB,CXCL8,CXCR3,CYP51A1,DTX1,E2F2,ENO1,FAS,FCGR2A,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,NCF1,NDFIP1,NFATC3,NLRP3,NR3C1,P4HB,PDE4A,PDE4D,PRDX1,PRR5,PTAFR,PTEN,PTGS2,PTPRJ,PYCARD,RORA,S100A4,SIGMAR1,SMAD3,SOCS2,ST3GAL3,SWAP70,TARP,TBX21,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TOP2A,TPI1,TREM1,TUBB,TYMS,VAV3,VDR,VEGFA,VSIR |
| Endocrine System Disorders,Gastrointestinal Disease,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Insulin-dependent diabetes mellitus | 1.76E-10 | turquoise | 112 | ABCG1,ACSL1,AIF1,AIM2,ANXA1,ATXN1,BACH2,CBLB,CCL5,CCR1,CD19,CD22,CD226,CD27,CD300A,CD4,CD74,CD79B,CD80,CD86,CDC42EP3,CDK4,CIITA,CLEC12A,CLEC2B,CLEC2D,CMAHP,CR2,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,E2F2,ENAH,EVI2A,EYA2,FCER1G,FCER2,FCGR2A,FCRL1,FLOT1,FXYD5,GABBR1,GPR18,GZMA,HAVCR2,HCST,HIST1H3B,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,IGFBP7,IGHM,IKZF3,IL18BP,IL1B,IL21R,IL2RB,IL7R,IMPDH1,IRF4,IRGM,ITGAX,ITGB7,ITPR1,JAML,KCNAB3,KMO,LAT,LILRB3,LRP8,LST1,MS4A6A,MYO1F,MZB1,NCF1,P2RY13,PDCD4,PGM1,PILRB,PLBD1,PLD4,PLEK,PPIA,PRF1,PRR5,PRUNE2,PTAFR,PTGS2,RUNX3,S100A4,S100A6,SH2D1A,SIGMAR1,SIRPB1,SLC3A2,SOCS2,SPN,STAP1,STAT4,TGFBI,TGFBR2,TLR2,TNF,TNFRSF1B,TUBB,TYROBP,VDR,VPREB3 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of leukocytes | 1.93E-10 | turquoise | 105 | ADGRE2,ADGRE5,ANXA1,ANXA5,BTLA,CADM1,CBLB,CCL3,CCL5,CCNC,CCR1,CD14,CD200,CD22,CD226,CD36,CD4,CD58,CD69,CD74,CD80,CD86,CD99,CFP,CR1,CR2,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DNAJC1,FAS,FCAR,FCGR2A,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,P2RY8,PIK3CA,PILRA,PLA2G6,PLAUR,PLCB1,PLEKHA2,PLXNC1,PODXL,PPIB,PTGS2,RAP1B,RAP2A,RAPGEF6,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,SH2D1A,SIRPA,SKAP1,SPN,STAB1,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,UTRN,VAV3,VEGFA |
| Inflammatory Response,Respiratory Disease | Inflammation of respiratory system component | 1.98E-10 | turquoise | 112 | 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,CD72,CD86,CFLAR,CIITA,CLEC4D,CLEC7A,COCH,CRH,CSF1R,CSF2RB,CXCL8,CXCR3,CYP51A1,DTX1,E2F2,ENO1,FAS,FCGR2A,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,NCF1,NDFIP1,NFATC3,NLRP3,NR3C1,P4HB,PDE4A,PDE4D,PRDX1,PRR5,PTAFR,PTEN,PTGS2,PTPRJ,PYCARD,RORA,S100A4,SIGMAR1,SMAD3,SOCS2,ST3GAL3,SWAP70,TARP,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TOP2A,TPI1,TREM1,TUBB,TYMS,VAV3,VDR,VEGFA,VSIR |
| Cellular Movement | Cellular infiltration | 2.04E-10 | turquoise | 125 | ABCB4,ABCG1,ADA,AHR,AIM2,ALDOA,ANXA1,ARG1,ARRB1,BCL11B,BID,BMPR1A,BRAF,BSG,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD4,CD80,CD86,CD93,CEBPA,CIITA,CNP,COL4A3,CR1,CR2,CRH,CSF1R,CSF2RB,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR5,E2F2,ENO1,ESR1,FAS,FCAR,FCER1G,FGL2,FLT1,FPR1,GAPDH,GBA,GPR18,HMOX1,HSPA5,HYOU1,IGHE,IGHM,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IRF8,ITGAL,ITGAM,ITGB1,LCP2,LDLR,LGALS1,LGALS3,LILRB3,LIMK1,LMNB1,MAP3K14,MGAT5,MIF,MIR17HG,NAAA,NCF1,NDST1,NINJ1,NLRP3,NR3C1,P4HB,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PTEN,PTGS2,RUNX3,S100A10,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,SOCS2,ST3GAL3,STAT5B,TBX21,TGFBR2,TIMP1,TKT,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TPI1,TREM1,TSHR,TUBB,UTRN,VAV3,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Secondary tumor | 2.33E-10 | turquoise | 216 | ABAT,ABCB1,ABLIM1,ABRAXAS1,ACP5,ACTN4,ADGRE5,AFDN,ALOX5,ANK3,ANXA1,ANXA2,ANXA5,ARG1,BCOR,BHLHE41,BIRC5,BMPR1A,BRAF,BRIP1,C5AR1,CALU,CAPN2,CAV1,CCL5,CCND2,CD200,CD226,CD33,CD36,CD59,CD80,CD86,CD8A,CD99,CDCA7L,CDK4,CDK5,CEBPA,CEBPD,CFLAR,CHEK1,COL18A1,CPEB2,CREB3,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CST7,CTNND1,CXCL2,CXCL8,CXCR3,CXCR4,CYP1B1,CYP51A1,DANCR,DAPK1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,FABP5,FAS,FBXW7,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXP1,GADD45A,GATA3,GLRX,GNAS,GPI,HAX1,HCST,HIST1H3B,HMGA1,HMMR,HMOX1,HRH2,HSP90B1,HYOU1,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL7,IMPDH1,IQSEC1,IRF4,ITGAL,ITGAV,ITGB1,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MGAT3,MIF,MIR17HG,MYL12A,NCAPG,NCOA3,NDUFA13,NDUFB4,NLRP1,NR3C1,PDCD4,PDCD5,PIK3CA,PIK3R5,PLAUR,PPIA,PRF1,PRKCE,PRKCI,PRUNE2,PSAP,PSMB2,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,PXN,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNF19B,RNH1,RPL7,RPS11,RRM2,RTN1,RUNX2,RXRA,S100A11,S100A4,SEC61G,SECTM1,SERPINA1,SETD2,SKIL,SLC16A3,SLC5A3,SMAD3,SMURF2,SND1,SOD1,SRD5A3,SSBP1,SSR2,STAB1,TBC1D16,TBX21,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,UBE2N,VAV3,VCAN,VDR,VEGFA,VIM,YWHAE,ZBTB7A |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of B lymphocytes | 2.56E-10 | turquoise | 98 | ABCG1,AFF1,AHR,AKAP13,ARID3A,ARID4B,ARNTL,B3GNT5,BACH2,BIK,CD19,CD22,CD27,CD300LF,CD36,CD69,CD70,CD72,CD74,CD79B,CD80,CEBPB,CLEC4D,CR2,CREBBP,CXCR4,CXCR5,DCLRE1C,DTX1,ESR1,FAS,FCER1G,FCGR2A,FLT1,FNIP1,FOXO1,GALNT1,GFI1,HAX1,HSP90B1,ID2,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL21R,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITGAL,ITGB7,JCHAIN,LIG4,LILRB3,LYN,MAP3K14,MDM2,MYO1G,NFATC3,PAX5,POLM,POU2AF1,PRDM1,PRF1,PRKCD,PTEN,PTPRJ,RAP1B,RARG,RUNX2,SAMSN1,SH2D1A,SH3BP2,SHCBP1,SPN,SSBP2,ST6GAL1,STAT5B,TGFBI,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TYROBP,VAV3,VEGFA,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Glioma cancer | 2.81E-10 | turquoise | 116 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,ALDH1A1,ALDOA,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BRAF,C5AR1,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDK4,CDK5,CHMP2A,CIITA,CLCN4,CLEC2D,COCH,COL18A1,CREBBP,CSF1R,CSF2RB,CSRP1,DBNDD1,DMXL2,ECT2,EEF2K,ELMO1,EVI2A,FA2H,FBXW7,FLNA,FLT1,FOXO1,FURIN,GLDC,H3F3A/H3F3B,HIPK2,HIST1H3B,HLA-B,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,KCNN3,MAP7,MARCKS,MDM2,MGLL,MKI67,MXI1,NEK6,NINJ2,OBSCN,PA2G4,PALLD,PCLAF,PFKFB3,PIK3CA,PKM,PRR5,PTEN,PTTG1,RRM2,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMC1A,TARP,TGFBI,TGFBR2,TIMP1,TLE3,TLR4,TNF,TNFRSF1B,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Respiratory Disease | Inflammation of lung | 3.05E-10 | turquoise | 100 | ABCG1,ADA,AGO2,AHR,ALDOA,ANXA1,ANXA5,ARG1,ARIH2,ASB2,ATP1B1,BACH2,BID,BIRC5,BSG,C5AR1,CAV1,CCR1,CD14,CD200,CD300LF,CD36,CD4,CD72,CD86,CFLAR,CIITA,CLEC4D,CLEC7A,COCH,CSF1R,CSF2RB,CXCR3,CYP51A1,DTX1,E2F2,ENO1,FAS,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,NCF1,NDFIP1,NFATC3,NLRP3,NR3C1,P4HB,PRDX1,PRR5,PTAFR,PTEN,PTGS2,PTPRJ,PYCARD,RORA,S100A4,SOCS2,ST3GAL3,TARP,TIMP1,TKT,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TOP2A,TPI1,TREM1,TUBB,TYMS,VAV3,VDR,VEGFA,VSIR |
| Cell Death and Survival | Cell viability of leukocytes | 3.29E-10 | turquoise | 77 | ADGRE2,ARRB1,BAK1,BCL11B,BIK,BIRC5,BTLA,CAMK4,CD19,CD22,CD300A,CD74,CD80,CD86,CD8A,CEBPB,CFLAR,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,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PTK2,PYCARD,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TYROBP,XBP1 |
| Cell Death and Survival | Apoptosis of lymphocytes | 3.44E-10 | turquoise | 93 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MDM2,MIR17HG,NR3C1,PAWR,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBXA2R,TCL1A,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA |
| Cell Death and Survival | Apoptosis of mononuclear leukocytes | 3.55E-10 | turquoise | 96 | ADA,AHR,ARRB1,BAK1,BCL11A,BCL11B,BID,CAV1,CCL3,CCL5,CD22,CD226,CD27,CD4,CD59,CD70,CD79B,CD80,CFLAR,CHEK1,CIITA,CR2,CXCR4,DTX1,DUSP4,E2F2,ETS2,FAIM,FAS,FBXW7,FCGR3A/FCGR3B,FGL2,FNIP1,FOXP1,GFI1,GIMAP4,GIMAP5,GNAS,GZMA,GZMB,HSH2D,ICOSLG/LOC102723996,IER3,IGHM,IL15RA,IL1B,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,ITGB1,ITPR1,KDELR1,LGALS1,LGALS2,LGALS3,LGALS4,LYN,MDM2,MIR17HG,NR3C1,PAWR,PAX5,PERP,PIK3C3,POU2AF1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,RHOH,S100A8,SATB1,SH3BP2,SKIL,SMAD3,SPN,STAT5B,STOML2,STUB1,SWAP70,TBXA2R,TCL1A,TIMP1,TLR2,TNF,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VDR,VEGFA |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Juvenile rheumatoid arthritis | 3.8E-10 | turquoise | 64 | 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,MCL1,MCTP2,MGLL,MIF,MRPS15,MRPS36,NDUFB10,NR3C1,P2RY13,PANK2,PLAUR,PRDM1,PRR5,PTGS2,PTPRE,RAB1B,RBP7,RUNX3,S100A10,S100A12,S100A8,S100A9,SEC62,SORL1,TALDO1,TARP,TBRG1,TLE3,TNF,TNFRSF10C,TPGS2,TRAK2,TXN |
| Immunological Disease,Inflammatory Disease,Inflammatory Response,Neurological Disease,Organismal Injury and Abnormalities | Experimental autoimmune encephalomyelitis | 3.84E-10 | turquoise | 78 | 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,ESR1,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,NCF1,NFIL3,NINJ1,NLRP3,NR3C1,OTUD7B,PDCD4,PRDM1,PYCARD,RORA,SEMA4A,SHCBP1,SPN,STAT4,TBX21,TIMP1,TLR4,TNF,TNFRSF1B,TYROBP,VDR,VSIR,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of myeloid cells | 4.43E-10 | turquoise | 80 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD36,CD4,CD69,CD74,CD8A,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CYP1B1,FCER2,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LGALS1,LGALS3,LSP1,LY96,LYN,MCOLN2,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PTEN,PYCARD,RAP1B,RASGRP2,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,SWAP70,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,VAV3,VDR |
| Dermatological Diseases and Conditions,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Dermatitis | 4.64E-10 | turquoise | 115 | ADA,AHNAK,AHR,ANXA1,ANXA2P2,ANXA5,ARFGAP3,ARIH2,ATP1A1,BCL11B,BLMH,BTLA,C5AR1,CAPZB,CCL5,CCNA2,CD1A,CD300LF,CD4,CD74,CFL1,CPVL,CSF2RB,CST3,CXCL8,CXCR4,CYP51A1,DPYSL2,DSP,EIF1,EIF3E,ENO1,EPS8,FABP5,FAS,FCER1G,FCER2,FCGR2A,FLNA,FLOT1,GADD45A,GATA3,GBA,GSTO1,GZMB,H3F3A/H3F3B,HAVCR2,HRH2,ICOSLG/LOC102723996,IDE,IDI1,IFI30,IFNAR2,IGHE,IGHM,IGKC,IGLJ3,IL1B,IL1RN,IL2RB,IL4R,ITGB7,JPT1,KCNN4,LCP2,LDLR,LGALS1,LGMN,LYN,MCL1,MKI67,MXI1,NAPA,NLRP3,NR3C1,PHGDH,PPIA,PRDM1,PRF1,PSAP,PSMB2,PTAFR,PTGS2,RARG,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 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Malignant astrocytoma | 4.65E-10 | turquoise | 113 | ABAT,ACTN1,ACTN4,ADARB1,ADGRE5,ADGRG1,ALDH1A1,ALDOA,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BRAF,C5AR1,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDK4,CDK5,CHMP2A,CIITA,CLCN4,CLEC2D,COCH,CREBBP,CSF1R,CSF2RB,CSRP1,DBNDD1,DMXL2,ECT2,EEF2K,ELMO1,EVI2A,FA2H,FBXW7,FLNA,FLT1,FOXO1,FURIN,GLDC,H3F3A/H3F3B,HIPK2,HIST1H3B,HLA-B,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,KCNN3,MAP7,MARCKS,MDM2,MGLL,MKI67,MXI1,NEK6,NINJ2,OBSCN,PA2G4,PALLD,PCLAF,PFKFB3,PIK3CA,PKM,PRR5,PTEN,PTTG1,RRM2,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMC1A,TARP,TGFBI,TGFBR2,TIMP1,TLE3,TLR4,TNF,TNFRSF1B,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L |
| Cell Morphology,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of B lymphocytes | 4.7E-10 | turquoise | 32 | B3GNT5,BACH2,BAK1,BCL11A,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CEBPB,CR2,CREBBP,DCLRE1C,ERN1,FNIP1,IGHM,IGKC,IGLL1/IGLL5,IL2RB,IL5RA,IRF4,IRF8,LYN,NFIL3,POU2AF1,PRDM1,PTPRJ,SH2D1A,XRCC6 |
| Cell Morphology | Morphology of leukocytes | 4.76E-10 | turquoise | 91 | ABCB1,ABHD5,AFF1,AHR,ARID3A,ARSG,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,CBLB,CCR1,CD19,CD200,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CEBPA,CEBPB,CR2,CREBBP,CSF1R,CSF3R,CXCL8,CXCR5,DCLRE1C,DTX1,ERN1,ESR1,ETS2,FAS,FCER1G,FNIP1,GATA3,GBA,GFI1,HAX1,HLA-DMA,ID2,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL2RB,IL4R,IL5RA,IL7,IL7R,IMPDH1,IRF4,IRF8,ITGAM,ITGB7,ITPKB,LAMTOR2,LAT,LCP2,LDLR,LGALS3,LIG4,LILRB3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PSAP,PSMB10,PTPRJ,RHOH,RRAS2,RUNX3,SH2D1A,SOD1,STAT5B,TBX21,TLR2,TLR4,TNF,TOX,XBP1,XRCC6 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of phagocytes | 4.82E-10 | turquoise | 148 | ABCC4,AIF1,AIM2,ALOX5,ANXA1,ANXA2,AQP9,ARG1,ARHGEF7,ARRB1,ASB2,BID,BRAF,BSG,C5AR1,CAMK1D,CAV1,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD4,CD58,CD69,CD72,CD74,CD80,CD86,CD99,CKLF,CNP,COL4A3,CR1,CREB3,CRH,CSF1R,CSF2RB,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,DAPK2,DOCK5,DYSF,EPS8,FAS,FCAR,FCER1G,FCGR2A,FLNA,FLOT1,FLT1,FPR1,GBA,GNAI3,GNLY,GPR18,HMOX1,HRH2,HSPA5,IL15RA,IL1B,IL1RN,IL21R,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LYN,MGAT5,MIF,MYO1F,NAAA,NCF1,NDST1,NINJ1,NLRP3,PIK3CA,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,PPIA,PRDM1,PRKCD,PTEN,PTGS2,PTPRB,PTPRJ,QPCT,RAP1B,RTN4,RUNX3,S100A10,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SEMA4A,SERPINA1,SGPP1,SGPP2,SIRPA,SMAD3,SPN,STAB1,STAP1,SWAP70,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNR,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell leukemia | 5.03E-10 | turquoise | 82 | ADA,ANXA1,ATP11A,ATXN1,BACH2,BAK1,BCL2L2,BCL9L,BIRC3,BRAF,CCL3,CD19,CD22,CD74,CD79B,CD80,CD86,CDC42EP3,CDK5,CHD2,CREBBP,CSF1R,CSF3R,CXCL8,DAD1,DAPK1,DLEU2,E2F7,FAS,FBXW7,FCGR2A,FLT1,HLA-B,HVCN1,ICK,IDH2,IGKC,IKZF2,IKZF3,IL1B,IL7,IL7R,IMPDH1,IRAK1,IRF4,IRF8,LYN,LYPLA2,MCL1,MIF,MIR17HG,NAMPT,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PPIA,PRICKLE1,PRR5,PSMB2,PTEN,PTPRE,RRM2,SIPA1L3,SMAD3,SYNE2,TARP,TBX21,TGFBR2,TLR2,TNF,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,WDR74,ZYX |
| Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Quantity of phagocytes | 5.18E-10 | turquoise | 115 | ABCB1,ADA,AHR,ARID4B,ARNTL,BCL11A,BID,BIK,BIRC3,C5AR1,CCL3,CCR1,CD19,CD200,CD300A,CD36,CD86,CEBPA,CFLAR,CIITA,CLEC4D,CLEC7A,CR2,CSF1R,CSF3R,CX3CR1,CXCL2,CXCL8,ELMO1,FAS,FCER1G,FCGR2A,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,PIK3R5,PIK3R6,PILRA,PRDM1,PRF1,PRKCD,PRKCE,PTEN,PTK2,RORA,S100A8,S100A9,SELPLG,SERPINA1,SHCBP1,SIRPA,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TCL1A,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TRIB1,TYROBP,UBE2W,VDR,VEGFA,XBP1 |
| Hematological System Development and Function,Tissue Morphology | Quantity of myeloid cells | 5.65E-10 | turquoise | 127 | ABCB1,ADA,ADGRE5,AHR,ALOX5,ARID3A,ARID4B,ARNTL,AURKA,BID,BIK,BIRC3,BIRC5,C5AR1,CCL3,CCR1,CD19,CD200,CD22,CD300A,CD36,CD8A,CEBPA,CFLAR,CFP,CLEC7A,CR2,CREBBP,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR4,ELMO1,FAS,FCGR2A,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,NDFIP1,NFYA,PCLAF,PIK3R5,PIK3R6,PILRA,PRF1,PRKCD,PRKCE,PTEN,PTGS2,PTK2,RGS10,RORA,RUNX2,RUNX3,S100A8,S100A9,SELPLG,SERPINA1,SHCBP1,SIRPA,SMAD3,SOD1,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SWAP70,TBK1,TBX21,TBXA2R,TCL1A,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TRIB1,TXN,TYROBP,UBE2W,VDR,VEGFA |
| Cell-To-Cell Signaling and Interaction | Response of myeloid cells | 6.1E-10 | turquoise | 67 | ADGRE2,ANXA1,APOA2,C5AR1,CCL3,CCR1,CD14,CD36,CD93,CEBPB,CLEC7A,CMC2,CSF1R,CSF2RB,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,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,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,TYROBP,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Recruitment of leukocytes | 6.18E-10 | turquoise | 91 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LB,CD36,CD4,CD69,CD74,CD8A,CD93,CLEC7A,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,FABP5,FCER2,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,HMOX1,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS1,LGALS3,LSP1,LY96,LYN,MCOLN2,MGAT5,MIF,NDST1,NINJ1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PTEN,PYCARD,RAP1B,RASGRP2,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,SWAP70,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TXN,VAV3,VDR |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Glioblastoma | 6.51E-10 | turquoise | 111 | ACTN1,ADARB1,ADGRE5,ADGRG1,ALDH1A1,ALDOA,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BRAF,C5AR1,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDK4,CDK5,CHMP2A,CIITA,CLCN4,CLEC2D,COCH,CREBBP,CSF1R,CSF2RB,CSRP1,DBNDD1,DMXL2,ECT2,EEF2K,ELMO1,EVI2A,FA2H,FBXW7,FLNA,FLT1,FOXO1,FURIN,GLDC,H3F3A/H3F3B,HIPK2,HIST1H3B,HLA-B,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,KCNN3,MAP7,MARCKS,MDM2,MGLL,MKI67,MXI1,NEK6,NINJ2,OBSCN,PA2G4,PALLD,PCLAF,PFKFB3,PIK3CA,PKM,PRR5,PTEN,PTTG1,RRM2,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMC1A,TARP,TGFBI,TGFBR2,TIMP1,TLE3,TLR4,TNF,TNFRSF1B,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L |
| Infectious Diseases,Respiratory Disease | Infection of respiratory tract | 7.8E-10 | turquoise | 52 | ACSL1,ACTN1,ALOX5,ANXA1,CD63,CEBPD,CSF2RB,CYP51A1,FCGR3A/FCGR3B,FPR1,GAPDH,GSTO1,GYG1,IER3,IRF8,ITGAM,LILRA2,MSRB2,NCF1,NFIL3,NR3C1,PDXK,PTAFR,PTEN,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 |
| Cellular Movement | Migration of tumor cell lines | 8.01E-10 | turquoise | 195 | 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,DNM2,DOCK5,DPYSL2,DSP,DTX1,DUSP6,ECT2,EGOT,ELMO1,ENAH,ERC1,ESR1,ETV4,EYA2,FBXO4,FBXW7,FLNA,FLNB,FOXO1,FOXP1,FURIN,GAB1,GATA3,GNAI3,GNAS,GPI,GZMB,HAVCR2,HAX1,HBEGF,HMMR,HMOX1,HSP90B1,HVCN1,ICMT,ID2,IGFBP7,IL1B,IL32,IL6R,INPP4A,ITGAV,ITGB1,ITPR1,KCNN3,KEAP1,KISS1R,KPNA2,LASP1,LDHA,LGALS1,LGALS3,LIMK1,LTK,LYN,MAP4,MAPK1,MDM2,MGAT3,MGAT5,MIF,MTDH,NCOA3,NINJ1,NREP,NSD2,PALLD,PAX5,PDCD4,PHACTR1,PIK3C2B,PIK3CA,PIK3R5,PIK3R6,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PPIA,PRKCD,PRKCI,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPN12,PTPRJ,PTPRK,PTTG1,PXN,RACGAP1,RALGAPA2,RAP1B,RAP2A,RARG,RASSF1,RFFL,RHOU,RUNX2,RUNX3,S100A10,S100A11,S100A4,S100A8,S100A9,SEMA3A,SEMA4A,SERPINA1,SERPINA5,SH3KBP1,SIRPA,SLC16A1,SLC9A3R1,SMAD3,SMARCB1,SND1,SNHG7,SP1,SSBP1,ST6GAL1,STUB1,TBXA2R,TGFBI,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF25,TP63,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,ZBTB7A,ZYX |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Chronic skin disorder | 8.75E-10 | turquoise | 53 | ARG1,ATOX1,ATP1B1,CEBPB,CEBPD,CFLAR,CLEC7A,CRIP1,CSTB,EIF4A3,ELL2,FABP5,FCGR1B,FCGR2A,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,TNF,TUBG1,UBE2N,UPP1,VDR |
| Humoral Immune Response,Protein Synthesis | Quantity of immunoglobulin | 9.21E-10 | turquoise | 79 | ABCB1,AIM2,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BTLA,CCR1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DTX1,DUSP4,E2F2,ESR1,FAS,FCER1G,FCER2,GADD45A,GALNT1,HAX1,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,IRF8,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,NFIL3,POU2AF1,PPIA,PRF1,PRKCD,PTGS2,PTTG1,PYCARD,SAMSN1,SH2D1A,SH3BP2,SWAP70,TBK1,TBX21,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UXS1,VSIR,XRCC6 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoma | 9.3E-10 | turquoise | 290 | ABAT,ABCG1,ABHD5,ADA,AHNAK,AHR,AIM2,ALOX5,ANKIB1,ANKRD36,ANXA1,ANXA2,APOBEC3B,AURKA,BAK1,BCAT1,BCL11B,BCL7A,BCOR,BIRC3,BIRC5,BRAF,BTG1,BUB1B,CAV1,CCNA2,CCND2,CD163,CD19,CD1A,CD200,CD22,CD27,CD36,CD4,CD58,CD63,CD69,CD70,CD79B,CD80,CD86,CDCA2,CDCA7,CDCA7L,CDK4,CEBPA,CEBPB,CEP120,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CLMP,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,CYP51A1,DAPK1,DCLRE1C,DGKD,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,EIF2AK1,ELOC,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FNDC3B,FOSL2,FOXO1,FOXP1,FYB1,FZD1,GADD45A,GATA3,GFI1,GOT2,GSTM1,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-DOA,HMGA1,HMOX1,HS3ST1,HSP90B1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF2,IKZF3,IL13RA1,IL1B,IL2RB,IL4R,IL6R,IL7,IL9R,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITGAX,ITPKB,ITPR1,JMJD1C,KCNAB3,KCNN3,KIF11,KIF21A,KPNA1,KPNA2,KRR1,LANCL2,LDLR,LGALS1,LIG4,LIMK1,LPCAT2,LRIG2,LRRFIP1,LYNX1,LZTS1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIR17HG,MKI67,MRPL20,MXI1,MYO1G,MYOF,NAP1L1,NAPA,NEK3,NEK6,NETO2,NLRP7,NR3C1,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PCSK5,PDCD4,PDE4D,PDLIM5,PIK3CA,PIK3R5,PLXNB2,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRKCI,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RARG,RARRES3,RASSF1,RASSF4,RDH10,RIOK2,RPL23,RRM2,RXRA,S100A4,SARS,SATB1,SDK2,SEC14L1,SECTM1,SELPLG,SERPINA1,SETD2,SIGMAR1,SIPA1L3,SKIL,SLAMF7,SLC16A1,SLC16A7,SMAD3,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SORL1,SPN,SPTBN1,SSBP2,STAMBPL1,STAT4,STAT5B,STK17A,STX11,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TCL1B,TFDP1,TGFBI,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNIK,TOP2A,TOX,TP63,TPST2,TPX2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,UQCRC1,USP44,VAV3,VCP,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE,ZBTB10,ZC2HC1A,ZNF490 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of T lymphocytes | 9.78E-10 | turquoise | 136 | ABCB1,ADA,AFF1,AHR,AIM2,AP3B1,ARID4B,BACH2,BCL11A,BCL11B,BIK,BIRC5,BTLA,C5AR1,CAMK4,CAV1,CBLB,CCL5,CCR1,CD19,CD27,CD4,CD69,CD70,CD74,CD79B,CD80,CD86,CD8A,CFLAR,CIITA,CREBBP,CRIP3,CSF2RB,CXCR3,CXCR4,DCLRE1C,DENND1B,E2F2,ESR1,ETS2,FABP5,FAS,FCER1G,FOXO1,FYB1,GADD45A,GALNT1,GATA3,GFI1,GNLY,GPR18,HAVCR2,HAX1,HCST,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,LIG4,LYN,MAP3K14,MAPK1,MCL1,MGAT2,MIF,MIR17HG,NDFIP1,NFATC3,NFIL3,NLRP3,NR3C1,PIK3CA,PLXND1,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PSMB10,PTAFR,PTEN,PTTG1,PYCARD,RARG,RC3H2,RHOH,RPS6KA4,RUNX2,RUNX3,SATB1,SELPLG,SH2D1A,SHCBP1,SIRPA,ST3GAL2,STAT5B,TBK1,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TNFRSF25,TOX,VAV3,VDR,VEGFA,XRCC6 |
| Infectious Diseases | Parasitic Infection | 1.07E-09 | turquoise | 55 | ABAT,AHNAK,ANXA1,AQP9,ATP2B4,C5AR1,CCR1,CD36,CD4,CD74,CIITA,CSF3R,CXCR4,DUSP4,FCER1G,FCER2,FCGR2A,FLT1,GZMA,HLA-DMA,HMOX1,IGHM,IL13RA1,IL4R,IL5RA,IL6R,IRF8,ITGB7,ITPKB,JCHAIN,LGALS3,MIF,NLRP3,NR3C1,PLA2G6,POU2AF1,PRF1,PRKCD,PTAFR,PTGS2,RRM2,RUNX3,SH2D1A,SLC11A1,SLC4A1,SNX9,STAT4,TBX21,THRB,TLR2,TLR4,TNF,TNFRSF1B,TUBB4B,TYMS |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of blood cells | 1.13E-09 | turquoise | 92 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LB,CD36,CD4,CD69,CD74,CD8A,CD93,CLEC7A,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,FABP5,FCER2,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,HMOX1,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS1,LGALS3,LSP1,LY96,LYN,MCOLN2,MGAT5,MIF,NDST1,NINJ1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PTEN,PYCARD,RAP1B,RASGRP2,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,SWAP70,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TXN,VAV3,VDR,VEGFA |
| Humoral Immune Response,Protein Synthesis | Production of antibody | 1.17E-09 | turquoise | 82 | ABCB1,AIM2,AKAP13,ARID3A,ARNTL,B3GNT5,BACH2,BTLA,CCR1,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CEBPB,CIITA,CLEC4D,CR2,CSF2RB,DTX1,DUSP4,E2F2,ESR1,FAS,FCER1G,FCER2,GADD45A,GALNT1,HAX1,HLA-DOA,ICOSLG/LOC102723996,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL13RA1,IL21R,IL2RB,IL4R,IL5RA,IRF4,IRF8,ITPKB,JCHAIN,LAX1,LDLR,LGALS2,LGALS3,LYN,MAP3K14,MIF,NFIL3,NR3C1,POU2AF1,PPIA,PRF1,PRKCD,PTGS2,PTTG1,PYCARD,SAMSN1,SH2D1A,SH3BP2,SWAP70,TBK1,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TRAF5,TYROBP,UXS1,VSIR,XRCC6 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of secondary lymphoid organ | 1.33E-09 | turquoise | 102 | ABCB4,ABCC4,ADA,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARNTL,AURKA,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD72,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CITED2,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CXCR5,DCLRE1C,DUSP6,E2F2,EPB42,ESR1,FAS,FCER1G,FNIP1,GBA,GSTK1,HCST,HMGA1,HMOX1,HSH2D,ICOSLG/LOC102723996,ID2,IGHM,IKZF3,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PICALM,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PTEN,PTGS2,PTPRJ,PTTG1,RAPGEF6,RHOH,RRM2,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TBXA2R,TCL1A,TGFBI,TGFBR3,TNF,TNFRSF13B,TOX,TRADD,TRIB1,VDR,VEGFA,XRCC6 |
| Cell Death and Survival | Cell viability of blood cells | 1.34E-09 | turquoise | 82 | ADGRE2,ARNT,ARRB1,BAK1,BCL11B,BID,BIK,BIRC5,BTLA,CAMK4,CCL3,CD19,CD22,CD300A,CD74,CD80,CD86,CD8A,CEBPB,CFLAR,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,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PTK2,PYCARD,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TYROBP,VEGFA,XBP1 |
| Cell-To-Cell Signaling and Interaction,Cellular Movement | Recruitment of cells | 1.43E-09 | turquoise | 98 | ADGRE5,AHR,ALOX5,ANXA1,BRAF,BTLA,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD200,CD300LB,CD36,CD4,CD63,CD69,CD74,CD8A,CD93,CLEC7A,COCH,CR2,CSF1R,CSF2RB,CTSC,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,FABP5,FCER2,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,HMOX1,HRH2,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS1,LGALS3,LSP1,LY96,LYN,MCOLN2,MGAT5,MIF,NDST1,NINJ1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PTEN,PTGS2,PTK2,PYCARD,RAP1B,RASGRP2,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SLC11A1,SMAD3,ST3GAL6,SWAP70,TERF2,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,TXN,VAV3,VDR,VEGFA,VIM |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell non-Hodgkin lymphoma | 1.48E-09 | turquoise | 112 | ADA,AIM2,ANKIB1,ANXA1,AURKA,BAK1,BIRC5,BTG1,CD163,CD19,CD1A,CD200,CD27,CD4,CD69,CD86,CEBPB,CEP120,CFLAR,CHD2,CHEK1,CHPF,CR2,CXCL8,CXCR3,DTX1,DUSP4,E2F2,FAS,FCER2,FOXP1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HLA-DOA,HS3ST1,HSP90B1,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGHM,IGKC,IGLC1,IL13RA1,IL2RB,IL6R,IMPDH1,IRF4,ITGAX,ITPKB,JMJD1C,MAFB,MAP3K14,MCL1,MDM2,MGAT4A,MIA2,MKI67,MXI1,MYOF,NR3C1,NUAK2,PAX5,PDE4D,PIK3CA,PIK3R5,PPIA,PRDM1,PRDX1,PRF1,PSMB2,PTEN,PTPRK,RARG,RARRES3,RASSF4,RDH10,RRM2,RXRA,SATB1,SECTM1,SELPLG,SKIL,SPN,SSBP2,STAT4,STAT5B,TBX21,TIMP1,TIMP2,TLR2,TLR4,TOP2A,TOX,TP63,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,XRCC6,ZBTB10 |
| 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 | 1.68E-09 | turquoise | 108 | ABCB4,ABCC4,AFF1,AHR,AIM2,AKAP13,ALOX5,ARID4B,ATP2B4,B3GNT5,BAK1,BCL11A,BCL11B,BIK,BNIP3L,CD19,CD200,CD4,CD74,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CIITA,CITED2,CLEC4D,CREBBP,CSF1R,CSF2RB,CTSA,CXCR5,DCLRE1C,E2F2,ESR1,FAS,FCER1G,FNIP1,GATA3,GBA,GFI1,HMGA1,HMOX1,ICOSLG/LOC102723996,ID2,IGHM,IKZF3,IL1RN,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,ITPKB,KCNN4,LAT,LAX1,LCP2,LGMN,LIG4,LYN,LYPLA2,MAP3K14,MCL1,MDM2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PICALM,PRDX1,PRF1,PRKCD,PSAP,PTEN,PTGS2,PTPRJ,PTTG1,RAPGEF6,RHOH,RRM2,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,STAT5B,TBXA2R,TCL1A,TGFBI,TGFBR3,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,TRADD,TRIB1,VDR,VEGFA,XRCC6 |
| Infectious Diseases,Respiratory Disease | Viral respiratory infection | 1.91E-09 | turquoise | 40 | ACSL1,ACTN1,ANXA1,CD63,CEBPD,CSF2RB,FCGR3A/FCGR3B,FPR1,GAPDH,GSTO1,GYG1,IER3,IRF8,ITGAM,LILRA2,MSRB2,NCF1,NFIL3,NR3C1,PDXK,PTTG1,RAB31,RAB32,RAB5IF,RRAGD,RRM2,S100A12,S100A9,SERPINA1,SLCO3A1,ST6GAL1,STAT4,TALDO1,TIMP1,TIMP2,TKT,TLR2,TNF,TUBB4B,ZYX |
| Cell Morphology,Humoral Immune Response,Lymphoid Tissue Structure and Development | Morphology of B lymphocytes | 1.99E-09 | turquoise | 33 | B3GNT5,BACH2,BAK1,BCL11A,CD19,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CEBPB,CR2,CREBBP,DCLRE1C,ERN1,FNIP1,IGHM,IGKC,IGLL1/IGLL5,IL2RB,IL5RA,IRF4,IRF8,LYN,NFIL3,POU2AF1,PRDM1,PTPRJ,SH2D1A,XBP1,XRCC6 |
| Dermatological Diseases and Conditions,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Atopic dermatitis | 1.99E-09 | turquoise | 73 | AHNAK,ANXA1,ANXA2P2,ANXA5,ARFGAP3,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD74,CFL1,CPVL,CSF2RB,CST3,CXCL8,CXCR4,DPYSL2,EIF1,EIF3E,ENO1,FABP5,FCER1G,FCER2,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,H3F3A/H3F3B,HAVCR2,HRH2,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL1RN,IL4R,ITGB7,JPT1,LGALS1,LGMN,LYN,MKI67,MXI1,NAPA,NR3C1,PHGDH,PPIA,PRF1,PSAP,PTAFR,PTGS2,S100A11,S100A8,S100A9,SOCS2,SYNE2,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VEGFA,XRCC6,ZNF395,ZYX |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Recruitment of phagocytes | 1.99E-09 | turquoise | 73 | AHR,ALOX5,ANXA1,BRAF,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD36,CD4,CD69,CD74,CD8A,COCH,CR2,CSF1R,CTSC,CX3CR1,CXCL2,CXCL8,CYP1B1,FCER2,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,GLRX,HBEGF,IGHE,IL1B,IL1RN,IL6R,IL7,ITGAM,ITGB7,LAMTOR2,LGALS3,LSP1,LY96,LYN,MCOLN2,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PLA2G6,PTEN,PYCARD,RAP1B,RASGRP2,RTN4,RXRA,S100A4,S100A8,SELPLG,SEMA3A,SMAD3,ST3GAL6,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,TREML2,VAV3,VDR |
| Immunological Disease | Immediate hypersensitivity | 2.02E-09 | turquoise | 90 | ADGRE2,AHNAK,ALOX5,ANXA1,ANXA2P2,ANXA5,ARFGAP3,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD300A,CD300LF,CD63,CD74,CFL1,CORO1B,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,DOCK5,DPYSL2,EIF1,EIF3E,ENO1,FABP5,FCER1G,FCER2,FCGR2A,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,H3F3A/H3F3B,HAVCR2,HRH2,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL1RN,IL4R,IL5RA,IL6R,ITGB7,JPT1,LAT,LCP2,LGALS1,LGMN,LYN,MKI67,MXI1,NAPA,NR3C1,PHGDH,PIP5K1B,PPIA,PRF1,PSAP,PTAFR,PTEN,PTGS2,S100A11,S100A8,S100A9,SOCS2,SYNE2,TBXA2R,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Dermatological Diseases and Conditions,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoproliferative disorder of the skin | 2.12E-09 | turquoise | 50 | ADA,ANXA1,AURKA,BAK1,CD4,CEP120,CFLAR,CXCR3,DTX1,DUSP4,FAS,FOXP1,IFI30,IFNAR2,IL13RA1,IL2RB,IRF4,KCNAB3,MAP3K14,MCL1,MIA2,MKI67,MXI1,NR3C1,PRF1,PSMB2,PTPRE,RARG,RARRES3,RASSF4,RDH10,RRM2,RXRA,SATB1,SECTM1,SELPLG,STAT4,STAT5B,TARP,TLR2,TLR4,TNF,TOP2A,TOX,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cell Death and Survival | Cell death of hematopoietic cell lines | 2.15E-09 | turquoise | 65 | ABCB1,BAK1,BID,BIRC3,BIRC5,BRAF,CCL5,CCND2,CD19,CD27,CD69,CD8A,CD99,CEBPA,CEBPB,CFLAR,DAPK1,DAPK2,ESR1,EYA2,FAIM,FAS,FOXO1,GFI1,GGT1,GZMA,GZMB,HCST,HSPA5,IGHM,IKZF3,IL32,IL7,IL9R,IRF4,IRF8,ITGB1,LGALS1,LGALS3,LTK,LYN,MCL1,MDM2,MZB1,NFIL3,PAX5,PDCD5,PRDM1,PRKCE,PTEN,PXN,RBM5,SH3BP2,SH3GLB1,SP1,SPN,ST6GAL1,STAT5B,TFDP1,TLR2,TNF,TNFRSF1B,TNFRSF25,TUBB,WEE1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Tissue Morphology | Morphology of spleen | 2.48E-09 | turquoise | 101 | ABCB4,ABCC4,ADA,AHR,AIM2,AKAP13,ALOX5,ARID4B,ARNTL,AURKA,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD72,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CITED2,CREBBP,CRH,CSF1R,CSF2RB,CTSA,CXCR5,DCLRE1C,DUSP6,E2F2,EPB42,ESR1,FAS,FCER1G,FNIP1,GBA,GSTK1,HCST,HMGA1,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF3,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,KISS1R,LAT,LAX1,LCP2,LGMN,LYN,LYPLA2,MAP3K14,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PANK2,PAWR,PICALM,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PTEN,PTGS2,PTPRJ,PTTG1,RAPGEF6,RHOH,RRM2,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,SPN,STAT5B,TBK1,TBXA2R,TCL1A,TGFBI,TGFBR3,TNF,TNFRSF13B,TOX,TRADD,TRIB1,VDR,VEGFA,XRCC6 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Non-traumatic arthropathy | 2.52E-09 | turquoise | 206 | 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,CR1,CR2,CSF2RB,CSF3R,CST3,CTSC,CX3CR1,CXCL2,CXCL8,CXCR4,CXCR5,DIP2C,DYNLL1,EHD4,EIF1,EIF1B,EIF3E,ENO1,FAS,FCGR2A,FCGR3A/FCGR3B,FCN1,FGL2,FLT1,FOXO1,FURIN,GALNT1,GAR1,GINS2,GLIPR2,GNLY,GUSB,GZMA,GZMB,H3F3A/H3F3B,HAVCR2,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HLA-J,HMOX1,HNRNPA3,HRH2,HSD17B8,HSP90B1,HSPA8,ICOSLG/LOC102723996,IDE,IFNAR2,IGFBP7,IGHM,IGKC,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL4R,IL6R,IL7,IL7R,IMPDH1,ITPR1,JMJD1C,L3MBTL4,LDHB,LGALS1,LST1,MAFB,MAML3,MCL1,MCTP2,MDM2,MGLL,MIF,MINK1,MMP11,MOB3B,MRPS15,MRPS28,MRPS36,MS4A6A,MYL12A,NAMPT,NDUFB10,NR3C1,NXPE3,OLAH,P2RY13,PANK2,PDGFD,PGK1,PHF19,PLAUR,POLR2L,PPIA,PRDM1,PRDX1,PRDX5,PRR5,PRUNE2,PTGS2,PTPRE,PXN,QKI,RAB1B,RBP7,RFLNB,RNF149,RPL15,RUNX3,S100A10,S100A12,S100A8,S100A9,SCN4A,SEC61A1,SEC62,SEL1L,SIGMAR1,SLC1A4,SMAD3,SND1,SORL1,STAT4,STAT5B,STEAP4,TAGAP,TALDO1,TARP,TBRG1,TFRC,TGFBR2,TIMP1,TIMP2,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF1B,TNRC6B,TPGS2,TRAK2,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMS,UBAC1,VARS,VDR,VEGFA,VIM,WNT10A,XBP1,YTHDC2,ZMYND11 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarthritis | 2.93E-09 | turquoise | 56 | ADGRE5,AHR,ANG,ANXA1,ARRB1,CCL3,CCL5,CCR1,CD69,CD70,CD74,CD80,CD86,CEBPB,COCH,CR1,CR2,ERN1,FAS,FLT1,GNLY,GZMA,HMMR,IL1B,IL1RN,IL2RB,IL4R,IL6R,LGALS1,MCL1,NR3C1,P2RY13,PLAUR,PRDM1,PRR5,PTEN,PTGS2,PTPRE,PYCARD,S100A10,S100A12,S100A8,S100A9,SH2D1A,SNX9,SORL1,STAT4,TARP,TBX21,TLE3,TLR2,TLR4,TNF,TNFRSF10C,TNFRSF1B,TXN |
| Immunological Disease,Inflammatory Disease | Atopic disease | 3.3E-09 | turquoise | 78 | ADGRE2,AHNAK,ANXA1,ANXA2P2,ANXA5,ARFGAP3,BCL11B,CAPZB,CCL5,CCNA2,CD1A,CD74,CFL1,CPVL,CSF2RB,CST3,CX3CR1,CXCL8,CXCR4,DPYSL2,EIF1,EIF3E,ENO1,FABP5,FCER1G,FCER2,FLNA,FLOT1,GADD45A,GATA3,GSTO1,GZMB,H3F3A/H3F3B,HAVCR2,HRH2,IDE,IDI1,IFI30,IGHE,IGHM,IGLJ3,IL1RN,IL4R,IL5RA,IL6R,ITGB7,JPT1,LGALS1,LGMN,LYN,MKI67,MXI1,NAPA,NR3C1,PHGDH,PPIA,PRF1,PSAP,PTAFR,PTGS2,S100A11,S100A8,S100A9,SOCS2,SYNE2,TIMP1,TLR2,TLR4,TNF,TPI1,TYMS,VCL,VCP,VDR,VEGFA,XRCC6,ZNF395,ZYX |
| Infectious Diseases | Infection by RNA virus | 3.33E-09 | turquoise | 213 | ABCB1,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,AP1B1,APOBEC3B,ARF1,ARHGAP32,ARPC1B,ARRB1,ASGR2,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,BCL2L2,BSG,CAMK1D,CAMKK2,CARD16,CBLB,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD300LF,CD36,CD4,CD74,CD80,CD86,CD93,CDC42EP3,CEP68,CHCHD2,CNST,COPG1,COPZ1,CR2,CRTC3,CSF2RB,CXCL8,CXCR3,CXCR4,CYP51A1,DAPK2,DDOST,DDX5,DDX50,DMXL1,DNM2,DTX4,DYSF,EIF3A,EIF4EBP2,ELOA,ELOC,EPS8,ERC1,ESR1,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGD6,FLT1,FPR1,FRS2,FURIN,GABBR1,GABPB1,GPI,H3F3A/H3F3B,HAVCR2,HID1,HIP1R,HLA-DOA,HRH2,HSP90B1,HSPA5,HSPA9,IFNAR2,IL2RB,IL4R,IL7,IL7R,IMPDH1,ITGAM,ITGB1,ITGB7,KCNN4,LCP2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MAPKAPK3,MDM2,MGAT1,MGLL,MICAL3,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,PSMA1,PSMA2,PSMA3,PSMA5,PSMB6,PSME2,PTAFR,PTGS2,PTPRJ,PVT1,RAB1B,RAB3D,RAB8A,RAP1B,RARG,RARRES3,RBM5,RNH1,RREB1,RRM2,RTN3,RXRA,S100A4,SEC14L1,SEC61G,SERPINA1,SESTD1,SFXN3,SHCBP1,SIGMAR1,SLC31A1,SPCS3,SPTBN1,SSR1,SSR3,ST3GAL3,STAB1,STAU1,STT3A,SUB1,TAGLN2,TBK1,TBX21,TERF2,TFRC,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TOX,TRIM44,TRIM8,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2L3,UPF3B,UQCRC1,VDR,XBP1,XK,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cell-To-Cell Signaling and Interaction | Response of lymphatic system cells | 3.33E-09 | turquoise | 63 | ADA,AHR,C5AR1,CBLB,CD19,CD200,CD22,CD226,CD4,CD58,CD59,CD70,CD80,CD86,CD8A,CLEC7A,CR2,CSF2RB,CXCL8,CYP1B1,FCGR2A,FOXO1,FURIN,GATA3,GNAS,GZMB,HAVCR2,HMOX1,HSDL1,HSP90B1,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL7,IL7R,IRF8,ITPKB,LAX1,LCP2,LGALS1,LYN,NAMPT,NCF1,NFIL3,NLRP3,PFKFB3,PLAUR,PSMB10,PYCARD,SELPLG,SEMA4A,SH2D1A,SMAD3,STAT4,STAT5B,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TNFRSF25,TREML2 |
| Cellular Movement | Invasion of cells | 3.44E-09 | turquoise | 218 | ABLIM1,ACTN4,ACVR1,ADGRE5,ADI1,AFDN,AGO2,AHNAK,AHR,ALOX5,ANG,ANK3,ANXA1,ANXA2,ARG1,ATP6V0A1,AURKA,B4GALT5,BCAT1,BHLHE41,BIRC5,BMP6,BRAF,BSG,C5orf30,CAPN2,CAPNS1,CAV1,CBX5,CCNA2,CCR1,CD14,CD4,CD74,CD99,CDK5,CEBPB,CEMIP2,CLCN4,COL18A1,CREB3,CRTAP,CST3,CTNND1,CXCL8,CXCR3,CXCR4,CYFIP1,CYP1B1,CYTOR,DANCR,DNM2,DPYSL2,DSP,DTX1,DUSP6,ECT2,EIF3A,EIF3E,ELMO1,ENAH,EPS8,ERC1,ESR1,ETS2,ETV4,EYA2,FABP5,FAS,FBXW7,FLNA,FLT1,FOXO1,FOXP1,FURIN,FXYD5,GAB1,GATA3,GNAI3,GNAQ,GNAS,GPI,GZMB,HAVCR2,HAX1,HBEGF,HBP1,HIPK2,HMGA1,HMGB3,HMOX1,HSP90B1,HSPA5,ID2,IER3,IL1B,IL32,IQSEC1,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,KEAP1,KIF2C,KISS1R,LAMC1,LASP1,LDHA,LDLRAP1,LGALS1,LGALS3,LGMN,LIMK1,LRPAP1,LYN,MAP4,MAPK1,MARCKS,MDM2,MGAT5,MIF,MINK1,MIR17HG,MTDH,MYO9A,NAA15,NAMPT,NCOA3,NRCAM,NSD2,NUAK2,OBSCN,PA2G4,PALLD,PAX5,PDCD4,PDGFD,PEBP1,PICALM,PIK3CA,PIP5K1B,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PPIA,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPRJ,PTPRK,PTTG1,PXN,RARG,RASSF1,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,SP1,SRA1,SSBP1,ST6GAL1,STAT5B,STK38L,TAGLN2,TBXA2R,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TLR2,TMBIM6,TNF,TNFAIP8,TP63,TRPV2,VANGL1,VAV3,VCAN,VCL,VCP,VDAC1,VDR,VEGFA,VIM,ZBTB7A |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Central nervous system cancer | 3.79E-09 | turquoise | 155 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,ALDH1A1,ALDOA,ANXA1,ARF4,ARRB1,ASB2,ATP1B1,ATXN1,BCOR,BIRC5,BRAF,C5AR1,CABYR,CAPN3,CAV1,CCL3,CCND2,CD14,CD200,CD79B,CD93,CD99,CDCA7L,CDK4,CDK5,CHMP2A,CIITA,CLCN4,CLEC2D,CLMP,COCH,COL18A1,COL4A3,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CXCL8,DBNDD1,DMXL2,ECT2,EEF2K,ELMO1,ESR1,EVI2A,FA2H,FBXW7,FLNA,FLT1,FOSL2,FOXO1,FOXP1,FURIN,GLDC,GNAS,GOT2,H3F3A/H3F3B,HDAC9,HIPK2,HIST1H3B,HLA-B,HSP90B1,HSPA5,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,IRAK1,ITGAV,KCNN3,KIF21A,LDLR,LIG4,LIMK1,LRIG2,MAP7,MARCKS,MCL1,MDM2,MGLL,MKI67,MRPL20,MXI1,NEK6,NINJ2,NR3C1,NUAK2,OBSCN,PA2G4,PALLD,PCLAF,PDLIM5,PFKFB3,PIK3C2B,PIK3CA,PKM,PRDM1,PRR5,PTEN,PTGS2,PTTG1,PVT1,PYCARD,RAB1A,RARG,RASSF1,RRM2,RUNX3,S100A4,SEC11A,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC9A3R1,SLCO3A1,SMAD3,SMARCB1,SMC1A,TARP,TERF2,TGFBI,TGFBR2,TIMP1,TINF2,TLE3,TLR4,TNF,TNFRSF1B,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VAV3,VEGFA,ZC3HAV1L,ZNF490 |
| Cell Death and Survival | Cytotoxicity | 4.13E-09 | turquoise | 66 | ADGRG1,AGAP3,BMPR1A,CALM1 (includes others),CBLB,CCL5,CD226,CD27,CD300A,CD58,CD59,CD69,CD74,CFLAR,CHEK1,CREBBP,CRH,FAS,FCAR,FCER1G,FCGR2A,FCGR3A/FCGR3B,GZMA,GZMB,HAVCR2,HCST,HSPA8,IL1RN,IL21R,IL7,IMPDH1,IRAK1,ITGAL,ITGAM,KLRD1,LARP1B,LAT,LDLR,LGALS3,LYN,MAPK1,NAMPT,NDUFS4,PIK3CA,PPIA,PPIB,PRF1,PRKCD,RASGRP2,SH2D1A,SLAMF7,SOD1,SP1,SPN,STAT4,STAT5B,STX7,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TOP2A,TXN,TYROBP,VAV3 |
| Cellular Movement | Cell tethering or rolling of leukocytes | 4.13E-09 | turquoise | 31 | ANXA1,ARNTL,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 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of phagocytes | 4.38E-09 | turquoise | 61 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CMC2,CSF1R,CSF2RB,CST3,CXCL8,EIF2AK1,ELMO1,ERN1,FAS,FCAR,FCER1G,FCGR2A,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,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,TYROBP,XBP1 |
| Cellular Function and Maintenance | Internalization of cells | 4.85E-09 | turquoise | 67 | ANXA1,APOA2,BRAF,CCL3,CD14,CD22,CD36,CD93,CEBPB,CLEC7A,CLIP1,CSF1R,CSF2RB,CSF3R,EIF2AK1,ETS2,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FOXP1,FPR1,GLRX,GPR18,HMOX1,HSH2D,IL1B,IL7,IQSEC1,IRF8,ITGAL,ITGAM,ITGB1,LGALS3,LIMK1,LMAN2,LY96,LYN,MIF,MYO1G,PFKFB3,PLA2G6,PLAUR,PRKCD,PRKCE,PTEN,PTK2,PTPRJ,PXN,RAB31,RORA,RRAS2,S100A9,SELPLG,SH3BP2,SH3KBP1,SIRPA,SIRPB1,SNAP29,TLR2,TLR4,TNF,TREM1,TRPV2,VIM,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of mononuclear leukocytes | 4.89E-09 | turquoise | 123 | ABCG1,ACTN4,AIF1,ALOX5,ANXA1,ANXA2,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CIITA,CKLF,COL4A3,CREB3,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,ESR1,FABP5,FAS,FLOT1,FLT1,FOXO1,FPR1,FYB1,GATA3,GNAI3,GNAS,GNLY,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LGALS3,LGMN,LIMK1,LTK,MAP3K14,MIF,MYO1G,NFIL3,NINJ1,NLRP3,NR3C1,PIK3CA,PILRA,PLA2G6,PLAUR,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTEN,PTGS2,PTPRB,PYCARD,QPCT,RAP1B,RAP2A,S100A12,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SIRPA,SKAP1,SMAD3,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3,VEGFA |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Chronic psoriasis | 5.22E-09 | turquoise | 44 | 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,TUBG1,UBE2N,UPP1,VDR |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Recruitment of granulocytes | 5.41E-09 | 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,FCGR3A/FCGR3B,FLOT1,GLRX,IGHE,IL15RA,IL1B,IL1RN,IL21R,IL6R,IL7,ITGAM,LGALS1,LGALS3,LSP1,LY96,LYN,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PTEN,PYCARD,RAP1B,RASGRP2,RTN4,RXRA,S100A8,SELPLG,SMAD3,ST3GAL6,SWAP70,TLR2,TLR4,TNF,TREML2,VAV3 |
| Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Psoriasis | 5.74E-09 | turquoise | 131 | 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,EIF4A3,ELL2,ELOVL5,FABP5,FCGR3A/FCGR3B,FLT1,FMO5,GAPDH,GATA3,GBA,GOT2,GSTM1,GZMB,H2AFZ,HAX1,HMOX1,HSPA5,HSPA8,HSPE1,IFI30,IFNAR2,IGFBP7,IL13RA1,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,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,TLE3,TLR2,TLR4,TNF,TNFRSF17,TRAK2,TUBB,TUBG1,TYMP,UBE2N,UPP1,VDAC1,VDR,VEGFA,YWHAE |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic lymphocytic leukemia | 6.34E-09 | turquoise | 63 | ADA,ATXN1,BACH2,BAK1,BCL2L2,BCL9L,BIRC3,BRAF,CCL3,CD74,CD79B,CD80,CD86,CDC42EP3,CDK5,CHD2,CSF3R,CXCL8,DAD1,DAPK1,DLEU2,E2F7,FAS,FBXW7,FCGR2A,FLT1,HLA-B,HVCN1,IKZF3,IL1B,IL7,IMPDH1,IRAK1,IRF4,IRF8,LYN,LYPLA2,MCL1,MIF,MIR17HG,NAMPT,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PPIA,PRICKLE1,PRR5,PTEN,PTPRE,RRM2,SIPA1L3,SMAD3,SYNE2,TARP,TBX21,TLR2,TNF,TOP2A,TRAM2,WDR74,ZYX |
| Cell Death and Survival | Cytolysis | 8.45E-09 | turquoise | 72 | ABCB1,ALDOA,ANXA1,AQP9,BAK1,C1GALT1C1,CAV1,CD226,CD4,CD59,CD8A,CR1,CR2,CX3CR1,EIF2AK1,EPB42,FAS,FCAR,FCER1G,FCGR1B,FCGR2A,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,NFIL3,NR3C1,PIEZO1,PPIA,PRDX1,PRF1,PSME2,RNF19B,SEC23B,SH2D1A,SLAMF7,SLC4A1,ST3GAL3,STAT5B,STX11,TBK1,TBX21,TGFBR2,TLR4,TNF,TNFRSF1B,TOX,TP53I11,TYROBP,VEGFA,VIM |
| Inflammatory Response | Antibody response | 8.53E-09 | turquoise | 48 | BACH2,BTLA,C5AR1,CCL5,CD19,CD69,CD80,CD86,CEBPB,CR2,CXCR5,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,SH2D1A,SH3KBP1,ST6GAL1,TICAM2,TLR4,TNF,TNFRSF13B,TRAF5,TREM1,TYROBP,UXS1,VAV3,XBP1 |
| Infectious Diseases | Infection by Retroviridae | 8.78E-09 | turquoise | 174 | ABCB1,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,APOBEC3B,ARF1,ARHGAP32,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,CAMK1D,CAMKK2,CARD16,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CDC42EP3,CEP68,CNST,CR2,CRTC3,CSF2RB,CXCL8,CXCR4,CYP51A1,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,ELOA,ELOC,EPS8,ESR1,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGD6,FPR1,FURIN,GABPB1,GPI,H3F3A/H3F3B,HAVCR2,HID1,HIP1R,HLA-DOA,HRH2,IFNAR2,IL2RB,IL4R,IL7,IMPDH1,ITGB1,ITGB7,KCNN4,LCP2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MDM2,MGAT1,MICAL3,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,PSMB6,PSME2,PTAFR,PTGS2,PTPRJ,PVT1,RAB1B,RAB8A,RAP1B,RARG,RBM5,RNH1,RREB1,RRM2,RTN3,RXRA,SEC14L1,SEC61G,SERPINA1,SESTD1,SFXN3,SHCBP1,SIGMAR1,SLC31A1,SPCS3,SPTBN1,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TERF2,TFRC,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TRIM44,TRIM8,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Disorder of basal ganglia | 9.21E-09 | turquoise | 182 | ABCB1,AEBP1,ALAS1,ANXA2,AP1S2,ARHGAP32,ARHGEF7,ARIH2,ARL3,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BBS4,BCL11B,BCL7A,CA11,CAB39,CAMK4,CAMKK2,CAPN3,CAPNS1,CAPZB,CAV1,CCL5,CD74,CDK5,CFLAR,CHCHD2,CIITA,CNP,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CYFIP2,CYP51A1,DAD1,DNAJC1,EIF3E,EIF4G1,ELMO1,ETV4,F8A1 (includes others),FAM3C,FAS,FBXW7,FLOT1,FOXP1,GADD45A,GAPDH,GBA,GNAS,GPI,GRIA1,H3F3A/H3F3B,HBP1,HIGD1A,HLA-B,HMOX1,HMOX2,HSPA5,HSPA8,IER3,IER5,IL1B,IL6R,INPP4A,ITGAM,ITPKB,ITPR1,KCNN3,KIF1B,LDHA,LDHB,LDLR,LIMK1,LYNX1,MAN1A1,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,PRR5,PSAT1,PSMB6,PTGS2,PTPRE,RARRES3,RASGRP2,RERE,RNASEH2B,RPL15,RPS3A,RREB1,RTN1,RTN4,RUNX3,S100A10,SAT1,SCAMP5,SCARB2,SCN4A,SDHB,SEC11A,SEC24A,SERPINA1,SIGMAR1,SLC1A4,SLIRP,SMTN,SOCS5,SOD1,SORL1,SP1,SRM,SSR3,STAP1,STUB1,SUB1,SYPL1,TARP,TESC,TLR4,TNF,TNR,TPI1,TRAK2,TRAM1,TUBA1B,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYMP,UBAC1,UCHL1,UPP1,UQCRB,UQCRC1,VAMP1,VCAN,VIM,WDR45,XRCC6,ZBTB44 |
| Post-Translational Modification | N-glycosylation of protein | 9.58E-09 | turquoise | 20 | ASGR2,DAD1,DDOST,DERL3,KRTCAP2,MAGT1,MGAT2,MGAT3,MGAT4A,MGAT4B,MGAT5,OST4,RPN1,RPN2,SERPINA1,ST6GAL1,STT3A,TMEM165,TMEM258,VCP |
| Cellular Function and Maintenance | Engulfment of blood cells | 1.01E-08 | turquoise | 56 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CCL5,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,ELMO1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,IRF8,ITGAM,ITGAX,LGALS3,LYN,MIF,MYO1G,ORAI2,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,SRA1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Migration of mononuclear leukocytes | 1.11E-08 | turquoise | 100 | ALOX5,ANXA1,ANXA2,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,COL4A3,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,FABP5,FAS,FLOT1,FLT1,FOXO1,FYB1,GATA3,GNAI3,GNLY,HYOU1,ICOSLG/LOC102723996,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LGALS3,LIMK1,LTK,MAP3K14,MIF,MYO1G,NFIL3,NINJ1,NLRP3,NR3C1,PIK3CA,PILRA,PLA2G6,PLAUR,PRF1,PTEN,PTGS2,PTPRB,PYCARD,QPCT,RAP1B,RAP2A,S100A4,SELPLG,SEMA3A,SERP1,SH2D1A,SIRPA,SKAP1,SOS2,SPN,STAB1,SWAP70,TERF2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VEGFA |
| Infectious Diseases,Inflammatory Disease,Organismal Injury and Abnormalities,Respiratory Disease | Severe acute respiratory syndrome | 1.13E-08 | turquoise | 38 | ACSL1,ACTN1,CD63,CEBPD,CSF2RB,FCGR3A/FCGR3B,FPR1,GAPDH,GSTO1,GYG1,IER3,IRF8,ITGAM,LILRA2,MSRB2,NCF1,NFIL3,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 | Cell movement of lymphoid cells | 1.16E-08 | turquoise | 106 | ABCG1,ACTN4,ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CKLF,COL4A3,CSF2RB,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,ESR1,FABP5,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNAS,GNLY,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MIR17HG,MYO1G,NFIL3,NLRP3,NR3C1,PIK3CA,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTEN,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3 |
| Cellular Movement | Cell rolling of blood cells | 1.17E-08 | turquoise | 29 | ANXA1,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 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Response of lymphocytes | 0.000000015 | turquoise | 58 | ADA,AHR,C5AR1,CBLB,CD19,CD200,CD22,CD226,CD4,CD58,CD59,CD70,CD80,CD86,CD8A,CLEC7A,CR2,CSF2RB,CXCL8,FCGR2A,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,SELPLG,SEMA4A,SH2D1A,SMAD3,STAT4,STAT5B,TBX21,TGFBR2,TNF,TNFRSF1B,TNFRSF25,TREML2 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid tissue | 1.54E-08 | turquoise | 98 | ABCB1,AFF1,AHR,AKAP13,ARG1,ARID3A,ARNTL,B3GNT5,BAK1,BCL11A,BCL11B,BNIP3L,C5AR1,CD19,CD200,CD22,CD4,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CIITA,COL18A1,CR2,CREBBP,CRH,CRIP3,CXCR4,CXCR5,DCLRE1C,DTX1,ESR1,ETS2,FAS,FCER1G,FOXO1,FYB1,GADD45A,GALNT1,GBA,GFI1,GSTK1,HAX1,ICOSLG/LOC102723996,ID2,IGHM,IKZF2,IKZF3,IL15RA,IL2RB,IL7,IL7R,IRF8,ITPKB,LAT,LCP2,LGALS2,LIG4,LYN,MAP3K14,MCL1,MIR17HG,MXI1,NFATC3,NR3C1,PIK3CA,PLXND1,POU2AF1,PRF1,PRKCD,PSMB10,PTEN,PTPRJ,RAP1B,RARG,RHOH,RUNX2,RUNX3,SATB1,SH2D1A,SH3BP2,ST6GAL1,STAT5B,TGFBR3,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TOX,TPX2,TYROBP,VAV3,VDR,XRCC6 |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of leukocytes | 0.000000016 | turquoise | 74 | 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,ETS2,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,NCF1,NR3C1,PTEN,PTGS2,RUNX3,S100A8,S100A9,SELPLG,SH3BP2,SOD1,SOS2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TYROBP,VEGFA,VSIR,XBP1 |
| Cell Morphology | Morphology of blood cells | 1.63E-08 | turquoise | 110 | ABCB1,ABHD5,AFF1,AHR,ARID3A,ARID4B,ARSG,B3GNT5,BACH2,BAK1,BCL11A,BCL11B,BIRC5,BLOC1S2,BNIP3L,CBLB,CCND2,CCR1,CD19,CD200,CD22,CD36,CD4,CD74,CD79B,CD80,CD86,CD8A,CDK4,CEBPA,CEBPB,CITED2,CR2,CREBBP,CSF1R,CSF3R,CXCL8,CXCR5,DCLRE1C,DTX1,EIF2AK1,EPB42,ERN1,ESR1,ETS2,FAS,FCER1G,FNIP1,GATA3,GBA,GFI1,GNAQ,HAX1,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,LIG4,LILRB3,LYN,MCL1,MXI1,NFIL3,PCLAF,POU2AF1,PRDM1,PRDX1,PRKCE,PSAP,PSMB10,PTPRJ,RHOH,RRAS2,RUNX3,SH2D1A,SLC4A1,SOD1,SP1,ST3GAL6,STAT5B,TBX21,TBXA2R,TFRC,TLR2,TLR4,TNF,TOX,TRIB1,XBP1,XRCC6 |
| Organismal Injury and Abnormalities,Respiratory Disease | Severe pulmonary disease | 1.64E-08 | turquoise | 40 | ACSL1,ACTN1,CD63,CEBPD,CSF2RB,FCGR3A/FCGR3B,FPR1,GAPDH,GSTO1,GYG1,IER3,IL5RA,IRF8,ITGAM,LILRA2,MSRB2,NCF1,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 | Cell movement of myeloid cells | 1.93E-08 | turquoise | 141 | AIF1,AIM2,ALOX5,ANXA1,ANXA2,AQP9,ARG1,ARHGEF7,ARRB1,BID,BRAF,BSG,C5AR1,CAMK1D,CAV1,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD4,CD69,CD72,CD74,CD99,CKLF,CNP,COL4A3,CR1,CREB3,CRH,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DYSF,FAS,FCAR,FCER1G,FCGR2A,FLNA,FLOT1,FLT1,FPR1,GBA,GNAI3,GNLY,GPR18,HMOX1,HRH2,HSPA5,IGHE,IL15RA,IL1B,IL1RN,IL2RB,IL4R,IL6R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LMNB1,LSP1,LYN,MGAT5,MIF,MYO1F,NAAA,NCF1,NDST1,NINJ1,NLRP3,PIK3R5,PILRA,PLA2G6,PLAUR,PLXND1,PPIA,PRDM1,PRKCD,PTEN,PTGS2,PTPRB,PTPRJ,QPCT,RAP1B,RTN4,RUNX3,S100A10,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SEMA4A,SERPINA1,SGPP1,SGPP2,SIRPA,SMAD3,SPN,STAB1,STAP1,SWAP70,TBX21,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNR,TREM1,TREML2,TRPV2,TSHR,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Organismal Injury and Abnormalities | Growth of lesion | 1.97E-08 | turquoise | 201 | ABCC4,ACTN4,ADGRG1,AFDN,AHR,ALOX5,ANG,ANXA1,ANXA2,APCDD1,AURKA,BIK,BIRC5,BMP6,BRAF,BSG,BUB1B,CACYBP,CAPN2,CAPNS1,CAV1,CCL3,CCL5,CCR1,CD226,CD33,CD36,CD58,CD59,CD70,CD80,CD8A,CDK4,CDK5,CERS6,CFLAR,CHEK1,CISD2,CNKSR1,COL18A1,COL4A3,COX17,COX8A,CREBBP,CSF1R,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CYFIP1,DAPK1,DNM2,ERO1A,ESR1,FABP5,FAS,FCER1G,FCER2,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXO1,GADD45A,GALNT1,GAPDH,GATA3,GLDC,GZMA,HAVCR2,HBEGF,HCST,HMGA1,HMGB3,HMMR,HMOX1,HSPA5,HSPA8,HYOU1,ICMT,ID2,IDH2,IGFBP7,IGHM,IKZF2,IL1B,IL1RN,IL32,IL4R,IL6R,IL7,IRF4,IRF8,ITGAM,ITGAV,ITGB1,KISS1R,KLF10,LDHA,LGALS1,LGALS3,LITAF,LRRC4,LZTS1,MAP3K14,MAP4,MAPK1,MAPKAPK3,MCL1,MDM2,MDM4,MGAT5,MGLL,MIF,MIR17HG,MKI67,MTDH,NAMPT,NCAPG,NCOA3,NDST1,NDUFA13,NLRP3,PA2G4,PAWR,PDE4A,PDE4D,PDGFD,PFKFB3,PGD,PHC3,PIK3CA,PIK3R5,PKM,PLAUR,PRF1,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,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,SP1,SRGN,STAT5B,TCL1A,TGFBR2,THRB,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNIK,TOX,TP63,TPX2,TRIM69,TUBB3,TXN,UBE2C,UCHL1,VAV3,VCAN,VDR,VEGFA,XBP1,ZBTB7A |
| Cell-To-Cell Signaling and Interaction | Response of granulocytes | 1.99E-08 | 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 |
| Infectious Diseases | Infection by lentivirus | 2.36E-08 | turquoise | 171 | ABCB1,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,ARF1,ARHGAP32,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,CAMK1D,CAMKK2,CARD16,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CDC42EP3,CEP68,CNST,CR2,CRTC3,CSF2RB,CXCL8,CXCR4,CYP51A1,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,ELOA,ELOC,EPS8,ESR1,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGD6,FPR1,FURIN,GABPB1,GPI,H3F3A/H3F3B,HAVCR2,HID1,HIP1R,HLA-DOA,HRH2,IFNAR2,IL2RB,IL4R,IL7,IMPDH1,ITGB1,ITGB7,KCNN4,LCP2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MDM2,MGAT1,MICAL3,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,PSMB6,PSME2,PTAFR,PTGS2,PTPRJ,PVT1,RAB1B,RAB8A,RAP1B,RARG,RBM5,RNH1,RREB1,RRM2,RTN3,RXRA,SEC14L1,SEC61G,SERPINA1,SESTD1,SFXN3,SHCBP1,SIGMAR1,SPCS3,SPTBN1,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TERF2,TFRC,TLR2,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TRIM44,TRIM8,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cell-To-Cell Signaling and Interaction | Response of myeloid leukocytes | 2.41E-08 | 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 |
| Inflammatory Response | Cell-mediated response | 2.43E-08 | turquoise | 58 | C5AR1,CADM1,CCL5,CCR1,CD226,CD4,CD59,CD80,CD86,CD8A,CEBPB,CLEC7A,CRH,CXCL8,CXCR3,FCER1G,FOXO1,FURIN,GNAS,GZMB,GZMH,HAVCR2,HBEGF,HRH2,HSDL1,HSP90B1,ICOSLG/LOC102723996,IL15RA,IL18BP,IL1B,IL4R,IL7,IL7R,IRAK1,MIR17HG,NAMPT,NCF1,NDFIP1,NFIL3,PIK3R6,PRF1,PYCARD,SH2D1A,SIRPA,SLC11A1,SMAD3,SOCS2,STAT4,STAT5B,STX11,TBX21,TGFBR2,TLR2,TLR4,TNF,TNFRSF1B,VEGFA,VSIR |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of phagocytes | 2.43E-08 | turquoise | 94 | AHR,ANXA1,ANXA2,BID,BMPR1A,C5AR1,CCL3,CCL5,CD14,CD163,CD200,CD226,CD300A,CD300LB,CD300LF,CD36,CD4,CD63,CD80,CD86,CD93,CEBPA,CEBPB,CLEC7A,CR1,CRH,CRTC3,CSF1R,CST3,CX3CR1,CXCL8,CXCR5,DYSF,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,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,TBXA2R,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TYROBP,UBE2N,VAV3,VEGFA |
| Cellular Function and Maintenance | Engulfment of leukocytes | 2.48E-08 | turquoise | 53 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CCL5,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,ELMO1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,MYO1G,ORAI2,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,SRA1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,XBP1 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of cells | 2.49E-08 | turquoise | 60 | ADGRG1,AGAP3,BMPR1A,CALM1 (includes others),CBLB,CCL5,CD226,CD27,CD300A,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,PIK3CA,PRF1,PRKCD,RASGRP2,SH2D1A,SLAMF7,SOD1,SP1,SPN,STAT4,STAT5B,STX7,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TXN,TYROBP,VAV3 |
| 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 | 0.000000025 | turquoise | 64 | AHR,ARID3A,ARNTL,BACH2,BCL11A,BIK,CD14,CD27,CD36,CD69,CD70,CD72,CD74,CD79B,CEBPA,CR2,CXCR4,CXCR5,DCLRE1C,ERN1,ESR1,FNIP1,FOXP1,GATA3,HDAC9,HMGA1,HSPA9,ID2,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL21R,IL2RB,IL5RA,IL7,IL7R,IRF4,IRF8,LAT,LGALS1,LGALS3,LIG4,LYN,MGAT2,MZB1,PAX5,PICALM,POLM,POU2AF1,PRDM1,PRKCD,PTGS2,PTPRJ,SATB1,STAT5B,SWAP70,TLR4,TNF,TSHR,XBP1,XRCC6,ZBTB7A |
| Cell Death and Survival,Cellular Compromise | Toxicity of cells | 2.51E-08 | turquoise | 61 | ADGRG1,AGAP3,BMPR1A,CALM1 (includes others),CBLB,CCL5,CD226,CD27,CD300A,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,PIK3CA,PRF1,PRKCD,RASGRP2,SH2D1A,SLAMF7,SOD1,SP1,SPN,STAT4,STAT5B,STX7,TBX21,TGFBR2,TLR2,TNF,TNFRSF1B,TXN,TYROBP,VAV3 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgM | 2.56E-08 | turquoise | 40 | ABCB1,ARID3A,BACH2,CD19,CD22,CD36,CD69,CD72,CD74,CD80,CD86,CIITA,CR2,FCER2,GADD45A,ICOSLG/LOC102723996,IGHE,IGHM,IGKC,IKZF3,IL21R,IL5RA,IRF4,IRF8,JCHAIN,LDLR,LYN,POU2AF1,PRKCD,PTGS2,PTTG1,SAMSN1,SH2D1A,SH3BP2,TBX21,TNF,TNFRSF13B,TRAF5,VSIR,XRCC6 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarticular juvenile rheumatoid arthritis | 0.000000026 | 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 |
| Cancer,Organismal Injury and Abnormalities | Growth of tumor | 2.79E-08 | turquoise | 200 | ABCC4,ACTN4,ADGRG1,AFDN,AHR,ALOX5,ANG,ANXA1,ANXA2,APCDD1,AURKA,BIK,BIRC5,BMP6,BRAF,BSG,BUB1B,CACYBP,CAPN2,CAV1,CCL3,CCL5,CCR1,CD226,CD33,CD36,CD58,CD59,CD70,CD80,CD8A,CDK4,CDK5,CERS6,CFLAR,CHEK1,CISD2,CNKSR1,COL18A1,COL4A3,COX17,COX8A,CREBBP,CSF1R,CSF3R,CST3,CXCL8,CXCR3,CXCR4,CYFIP1,DAPK1,DNM2,ERO1A,ESR1,FABP5,FAS,FCER1G,FCER2,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXO1,GADD45A,GALNT1,GAPDH,GATA3,GLDC,GZMA,HAVCR2,HBEGF,HCST,HMGA1,HMGB3,HMMR,HMOX1,HSPA5,HSPA8,HYOU1,ICMT,ID2,IDH2,IGFBP7,IGHM,IKZF2,IL1B,IL1RN,IL32,IL4R,IL6R,IL7,IRF4,IRF8,ITGAM,ITGAV,ITGB1,KISS1R,KLF10,LDHA,LGALS1,LGALS3,LITAF,LRRC4,LZTS1,MAP3K14,MAP4,MAPK1,MAPKAPK3,MCL1,MDM2,MDM4,MGAT5,MGLL,MIF,MIR17HG,MKI67,MTDH,NAMPT,NCAPG,NCOA3,NDST1,NDUFA13,NLRP3,PA2G4,PAWR,PDE4A,PDE4D,PDGFD,PFKFB3,PGD,PHC3,PIK3CA,PIK3R5,PKM,PLAUR,PRF1,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,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,SP1,SRGN,STAT5B,TCL1A,TGFBR2,THRB,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF17,TNFRSF1B,TNIK,TOX,TP63,TPX2,TRIM69,TUBB3,TXN,UBE2C,UCHL1,VAV3,VCAN,VDR,VEGFA,XBP1,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Recruitment of neutrophils | 3.05E-08 | turquoise | 54 | AHR,ALOX5,ANXA1,C5AR1,CAV1,CCL3,CCL5,CCR1,CD14,CD19,CD300LB,CD69,CD8A,COCH,CR2,CTSC,CX3CR1,CXCL2,CXCL8,CYP1B1,FCGR2A,FCGR3A/FCGR3B,FLOT1,GLRX,IGHE,IL1B,IL1RN,IL6R,IL7,ITGAM,LGALS3,LSP1,LY96,LYN,MGAT5,MIF,NDST1,NLRP3,PIK3C3,PIK3R5,PTEN,PYCARD,RAP1B,RASGRP2,RTN4,S100A8,SELPLG,SMAD3,ST3GAL6,TLR2,TLR4,TNF,TREML2,VAV3 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of lymphocytes | 3.29E-08 | turquoise | 104 | ABCG1,ACTN4,ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CKLF,COL4A3,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,ESR1,FABP5,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNAS,GNLY,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MYO1G,NFIL3,NLRP3,NR3C1,PIK3CA,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTEN,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3 |
| Cell-To-Cell Signaling and Interaction | Response of antigen presenting cells | 3.32E-08 | turquoise | 58 | ANXA1,APOA2,BRAF,CCL3,CCL5,CD14,CD36,CD74,CD86,CD93,CEBPB,CLEC7A,CMC2,CSF1R,CST3,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCN1,GNAQ,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IRAK1,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PRKCE,PTEN,PTPRJ,PXN,RARRES3,RORA,S100A9,SEMA4A,SH3BP2,SIRPA,SIRPB1,SWAP70,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cellular Movement | Cell tethering or rolling | 3.35E-08 | turquoise | 32 | ANXA1,ARNTL,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 |
| Infectious Diseases | HIV infection | 3.42E-08 | turquoise | 170 | ABCB1,ADA,ADGRE5,AKAP13,ALG14,ALOX5,ANXA2,ARF1,ARHGAP32,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,CAMK1D,CAMKK2,CARD16,CCL3,CCL5,CCR1,CD14,CD19,CD22,CD36,CD4,CD74,CD80,CD86,CDC42EP3,CEP68,CNST,CR2,CRTC3,CSF2RB,CXCL8,CXCR4,CYP51A1,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,ELOA,ELOC,EPS8,ESR1,ETHE1,ETS2,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGD6,FPR1,FURIN,GABPB1,GPI,H3F3A/H3F3B,HAVCR2,HID1,HIP1R,HLA-DOA,HRH2,IFNAR2,IL2RB,IL4R,IL7,IMPDH1,ITGB1,ITGB7,KCNN4,LCP2,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MGAT1,MICAL3,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,PSMB6,PSME2,PTAFR,PTGS2,PTPRJ,PVT1,RAB1B,RAB8A,RAP1B,RARG,RBM5,RNH1,RREB1,RRM2,RTN3,RXRA,SEC14L1,SEC61G,SERPINA1,SESTD1,SFXN3,SHCBP1,SIGMAR1,SPCS3,SPTBN1,SSR1,SSR3,ST3GAL3,STAB1,STT3A,SUB1,TAGLN2,TERF2,TFRC,TLR2,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOP2A,TRIM44,TRIM8,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UAP1,UBE2C,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Cancer,Organismal Injury and Abnormalities | Advanced stage tumor | 3.53E-08 | turquoise | 226 | ABAT,ABCB1,ABLIM1,ABRAXAS1,ACP5,ACTN4,ADGRE5,AFDN,ALOX5,ANK3,ANXA1,ANXA2,ANXA5,ARG1,BAK1,BCOR,BHLHE41,BIRC5,BMP6,BMPR1A,BRAF,BRIP1,C5AR1,CALU,CAPN2,CARD16,CAV1,CCL5,CCND2,CD200,CD226,CD33,CD36,CD59,CD74,CD80,CD86,CD8A,CD99,CDCA7L,CDK4,CDK5,CEBPA,CEBPD,CFLAR,CHEK1,COL18A1,CPEB2,CREB3,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CST7,CTNND1,CXCL2,CXCL8,CXCR3,CXCR4,CYP1B1,CYP51A1,DANCR,DAPK1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,FABP5,FAS,FBXW7,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXP1,GADD45A,GATA3,GLRX,GNAS,GPI,HAX1,HCST,HIST1H3B,HMGA1,HMMR,HMOX1,HRH2,HSP90B1,HYOU1,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL7,IMPDH1,IQSEC1,IRF4,ITGAL,ITGAV,ITGB1,KCNK6,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LRP8,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MGAT3,MIF,MIR17HG,MYL12A,NCAPG,NCOA3,NDUFA13,NDUFB4,NLRP1,NR3C1,PDCD2L,PDCD4,PDCD5,PIK3CA,PIK3R5,PLAUR,PPIA,PRF1,PRKCE,PRKCI,PRUNE2,PSAP,PSMB2,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,PXN,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNF19B,RNH1,RPL7,RPS11,RRM2,RTN1,RUNX2,RXRA,S100A11,S100A4,SEC61G,SECTM1,SERPINA1,SETD2,SKIL,SLC16A3,SLC5A3,SMAD3,SMARCB1,SMC4,SMURF2,SND1,SOD1,SRD5A3,SSBP1,SSR2,STAB1,TBC1D16,TBX21,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,UBE2N,VAV3,VCAN,VDR,VEGFA,VIM,YWHAE,ZBTB7A |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell rolling of leukocytes | 3.69E-08 | turquoise | 28 | ANXA1,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 |
| Dermatological Diseases and Conditions,Infectious Diseases,Organismal Injury and Abnormalities | Lepromatous leprosy | 3.98E-08 | turquoise | 20 | CCL3,CCR1,CD14,CD19,CD22,CD4,CD59,CD80,FCER1G,FCGR2A,IGHG3,IGHM,IGLL1/IGLL5,IL2RB,LILRA2,LILRB3,MXI1,SIRPA,TLR2,TNFRSF17 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Adenomyosis | 4.05E-08 | 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 |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant tumor | 4.08E-08 | turquoise | 225 | ABAT,ABCB1,ABLIM1,ABRAXAS1,ACP5,ACTN4,ADGRE5,AFDN,ALOX5,ANK3,ANXA1,ANXA2,ANXA5,ARG1,BAK1,BCOR,BHLHE41,BIRC5,BMPR1A,BRAF,BRIP1,C5AR1,CALU,CAPN2,CARD16,CAV1,CCL5,CCND2,CD200,CD226,CD33,CD36,CD59,CD74,CD80,CD86,CD8A,CD99,CDCA7L,CDK4,CDK5,CEBPA,CEBPD,CFLAR,CHEK1,COL18A1,CPEB2,CREB3,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST3,CST7,CTNND1,CXCL2,CXCL8,CXCR3,CXCR4,CYP1B1,CYP51A1,DANCR,DAPK1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,FABP5,FAS,FBXW7,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FGF9,FLNA,FLT1,FOXP1,GADD45A,GATA3,GLRX,GNAS,GPI,HAX1,HCST,HIST1H3B,HMGA1,HMMR,HMOX1,HRH2,HSP90B1,HYOU1,ICOSLG/LOC102723996,ID2,IDH2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL7,IMPDH1,IQSEC1,IRF4,ITGAL,ITGAV,ITGB1,KCNK6,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LRP8,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MGAT3,MIF,MIR17HG,MYL12A,NCAPG,NCOA3,NDUFA13,NDUFB4,NLRP1,NR3C1,PDCD2L,PDCD4,PDCD5,PIK3CA,PIK3R5,PLAUR,PPIA,PRF1,PRKCE,PRKCI,PRUNE2,PSAP,PSMB2,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,PXN,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNF19B,RNH1,RPL7,RPS11,RRM2,RTN1,RUNX2,RXRA,S100A11,S100A4,SEC61G,SECTM1,SERPINA1,SETD2,SKIL,SLC16A3,SLC5A3,SMAD3,SMARCB1,SMC4,SMURF2,SND1,SOD1,SRD5A3,SSBP1,SSR2,STAB1,TBC1D16,TBX21,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,UBE2N,VAV3,VCAN,VDR,VEGFA,VIM,YWHAE,ZBTB7A |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Migration of phagocytes | 4.19E-08 | turquoise | 76 | ABCC4,ANXA1,ANXA2,ASB2,CCL3,CCL5,CCR1,CD58,CD74,CD80,CD86,CD99,CRH,CSF1R,CSF2RB,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,EPS8,FAS,FLNA,FLT1,FPR1,GNAI3,HRH2,IL1B,IL1RN,IL21R,ITGAL,ITGAM,ITGAV,ITGAX,ITGB1,LDLR,LGALS1,LGALS3,LSP1,MGAT5,MIF,NINJ1,NLRP3,PIK3R5,PILRA,PLA2G6,PLAUR,PLXNC1,PLXND1,PTEN,PTGS2,PTPRB,QPCT,RAP1B,RTN4,RUNX3,S100A10,S100A8,S100A9,SELPLG,SEMA3A,SEMA4A,SIRPA,STAB1,SWAP70,TIMP1,TIMP2,TLR2,TLR4,TNF,TNR,TXN,TYROBP,VAV3,VCAN,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Metastatic solid tumor | 4.24E-08 | turquoise | 148 | ABAT,ABCB1,ABRAXAS1,ACP5,ACTN4,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BCOR,BIRC5,BRAF,BRIP1,C5AR1,CALU,CAV1,CCL5,CCND2,CD200,CD36,CD8A,CDCA7L,CDK4,CEBPD,CHEK1,COL18A1,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST7,CTNND1,CXCL8,CXCR3,CXCR4,CYP51A1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLNA,FLT1,GATA3,GLRX,GNAS,HAX1,HIST1H3B,HMMR,HMOX1,HSP90B1,ID2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL1RN,IL2RB,IL4R,IRF4,ITGB1,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MYL12A,NCAPG,NCOA3,NDUFB4,NLRP1,NR3C1,PIK3CA,PLAUR,PPIA,PRKCE,PRKCI,PRUNE2,PSMB2,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNH1,RPL7,RPS11,RRM2,RTN1,RUNX2,S100A11,S100A4,SEC61G,SECTM1,SETD2,SLC16A3,SLC5A3,SMAD3,SND1,SRD5A3,SSBP1,SSR2,TBX21,TGFBR2,TGFBR3,THRB,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,VDR,VEGFA,YWHAE |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic leukemia | 4.42E-08 | turquoise | 161 | ADA,ALDH1A1,ANK3,ANXA1,ATP11A,ATP1B1,ATXN1,ATXN7L1,AURKA,BACH2,BAK1,BCL11B,BCL2L2,BCL9L,BIRC3,BRAF,CADM1,CAMK2N1,CBLB,CCL3,CD14,CD19,CD1A,CD200,CD22,CD27,CD33,CD36,CD4,CD58,CD74,CD79B,CD80,CD86,CDC42EP3,CDK5,CEBPA,CEP68,CFL1,CHD2,CIITA,COCH,COL4A4,CREBBP,CSF1R,CSF3R,CSNK1A1,CXCL8,DAD1,DAPK1,DLEU2,E2F7,ELMO1,ERC1,FAS,FBXW7,FCGR2A,FLT1,FRYL,GADD45A,GATA3,GSTM1,GZMB,HLA-B,HSP90B1,HSPA5,HVCN1,ICK,IDH2,IFNAR2,IGH,IGKC,IKZF2,IKZF3,IL1B,IL21R,IL6R,IL7,IL7R,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ITGAM,ITGAX,ITGB1,JARID2,KMO,LDHA,LGALS1,LYN,LYPLA2,MCL1,MGLL,MIF,MIR17HG,MKI67,NAMPT,NCOA3,NEK8,NR3C1,NRCAM,PAX5,PBX3,PDE4A,PDE4D,PDE7A,PDE7B,PIK3CA,PNKD,PPIA,PRDM1,PRDM15,PRICKLE1,PRR5,PSMB2,PTEN,PTPRE,PTPRK,RAPGEF6,RHOH,RHOU,RRM2,RUNX3,SEC23B,SEC24D,SETD2,SGPP2,SIPA1L3,SLC16A7,SMAD3,STAT5B,STEAP4,SUCLG1,SYNE2,TARP,TBX21,TCF7,TCL1A,TGFBR2,TLR2,TMTC2,TNF,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VCAN,VEGFA,VMP1,VWA3B,WDR74,ZFP2,ZMIZ1,ZNF395,ZYX |
| Cellular Movement,Immune Cell Trafficking | Cell movement of lymphatic system cells | 4.48E-08 | turquoise | 108 | ABCG1,ACTN4,ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD19,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,CKLF,COL4A3,CSF2RB,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,ESR1,FABP5,FAS,FLOT1,FOXO1,FRS2,FYB1,GATA3,GNAI3,GNAS,GNLY,HMOX1,HYOU1,ICOSLG/LOC102723996,IGHE,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MIR17HG,MYO1G,NFIL3,NLRP3,NR3C1,PIK3CA,POU2AF1,PPIA,PPIB,PRF1,PRKCD,PTEN,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,S100A4,SAMSN1,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,STAT5B,SWAP70,TERF2,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR,VAV3 |
| Cell-To-Cell Signaling and Interaction | Binding of myeloid cells | 4.56E-08 | turquoise | 60 | ADGRE2,ADGRE5,ANXA1,CADM1,CCL3,CCL5,CCR1,CD14,CD4,CD58,CD69,CD99,CFP,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,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,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 | 4.94E-08 | turquoise | 83 | ABCB4,ABCC4,AHR,AIM2,AKAP13,ALOX5,ARID4B,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD80,CD86,CD8A,CEBPA,CEBPB,CFLAR,CITED2,CREBBP,CSF1R,CSF2RB,CTSA,DCLRE1C,E2F2,FAS,FCER1G,FNIP1,GBA,HMGA1,HMOX1,ICOSLG/LOC102723996,IGHM,IKZF3,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,PTEN,PTGS2,PTPRJ,RAPGEF6,RHOH,RRM2,RUNX2,RUNX3,SATB1,SH3BP2,SLC4A1,SMAD3,STAT5B,TBXA2R,TCL1A,TGFBI,TGFBR3,TNF,TNFRSF13B,TOX,TRADD,TRIB1,VDR,XRCC6 |
| Cellular Movement | Invasion of tumor cell lines | 4.99E-08 | turquoise | 173 | 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,COL18A1,CREB3,CRTAP,CTNND1,CXCL8,CXCR3,CXCR4,CYFIP1,CYP1B1,CYTOR,DANCR,DPYSL2,DSP,DTX1,DUSP6,ECT2,EIF3A,EIF3E,ELMO1,ENAH,EPS8,ERC1,ESR1,ETS2,ETV4,EYA2,FABP5,FAS,FBXW7,FOXP1,FURIN,FXYD5,GATA3,GNAI3,GNAS,GPI,HAVCR2,HAX1,HBEGF,HBP1,HIPK2,HMGA1,HMOX1,ID2,IL32,IQSEC1,ITGAL,ITGAV,ITGB1,KEAP1,KISS1R,LASP1,LDHA,LDLRAP1,LGALS1,LGALS3,LIMK1,LYN,MAP4,MAPK1,MARCKS,MDM2,MGAT5,MIF,MINK1,MTDH,MYO9A,NAA15,NAMPT,NCOA3,NRCAM,NSD2,PA2G4,PALLD,PAX5,PDCD4,PEBP1,PIK3CA,PKM,PLA2G16,PLA2G6,PLAUR,PODXL,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,PTGS2,PTK2,PTP4A2,PTPRJ,PTPRK,PTTG1,PXN,RARG,RASSF1,RORA,RPS6KA6,RRAS2,RRM2,RUNX2,RUNX3,S100A10,S100A11,S100A12,S100A4,S100A6,S100A9,SATB1,SEC24D,SEL1L,SERPINA1,SIGMAR1,SLC9A3R1,SMAD3,SNHG7,SP1,SRA1,SSBP1,ST6GAL1,STAT5B,STK38L,TAGLN2,TBXA2R,TGFBI,TGFBR2,TGFBR3,TIAM1,TIMP1,TIMP2,TMBIM6,TNF,TP63,VANGL1,VAV3,VCAN,VCP,VDAC1,VEGFA,VIM,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Binding of phagocytes | 5.23E-08 | turquoise | 57 | ADGRE2,ANXA1,CADM1,CCL3,CCL5,CCR1,CD14,CD4,CD58,CD69,CD99,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,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,VAV3,VEGFA |
| Inflammatory Response | Inflammatory response | 0.000000061 | turquoise | 181 | ABCB1,ADA,ADGRE5,AHR,AIF1,ALOX5,ANXA1,ANXA2,AQP9,ARHGEF7,ARIH2,BID,BIRC3,C5AR1,CAMK1D,CAV1,CCL3,CCL5,CCR1,CD14,CD163,CD200,CD36,CD4,CD63,CD69,CD72,CD74,CEBPA,CEBPB,CEBPD,CERS6,CIITA,CKLF,CLEC12A,CLEC7A,CMC2,COL18A1,CR1,CREB3,CRH,CRTC3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DYSF,E2F2,EIF2AK1,ELMO1,ERN1,ESR1,FCER1G,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,FOXP1,FPR1,GADD45A,GATA3,GGT1,GNAI3,GNAS,GNLY,GPR18,GPX1,HAVCR2,HDAC9,HMOX1,ICOSLG/LOC102723996,IER3,IGHE,IGHM,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,MCL1,MGLL,MIF,MYDGF,MYO1F,NCF1,NDFIP1,NDUFC2,NFATC3,NFE2L1,NFIL3,NINJ1,NLRP3,NR1D1,NR3C1,PDCD4,PFKFB3,PIK3CA,PIK3R5,PLA2G6,PLAUR,PLIN2,PPIA,PPIB,PRDM1,PRDX5,PRF1,PRKCD,PRKCE,PTAFR,PTEN,PTGS2,PTPRJ,PYCARD,RORA,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SIRPA,SLC11A1,SMAD3,SOCS5,SOD1,STAP1,STAT4,STAT5B,SWAP70,TBK1,TBXA2R,TBXAS1,TIAM1,TICAM2,TLR2,TLR4,TNF,TNFRSF1B,TRADD,TREM1,TREML2,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TXN,TYROBP,UBE2N,VAV3,VEGFA,VSIR,XBP1 |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of tumor cell lines | 6.34E-08 | turquoise | 351 | ABCB1,ABLIM1,ACTN1,ACTN4,ACVR1,AFF1,AHNAK,AHR,AIM2,ALDH1A1,ALDOA,ANG,ANXA1,ANXA2,ARF1,ARG1,ARID3A,ARID4B,ARIH2,ARNT,ATF5,ATP5MD,ATP6V0A1,AURKA,BAK1,BID,BIRC5,BMP6,BMPR1A,BRAF,BSG,BUB3,CACYBP,CAMK2D,CAMK2N1,CAMK4,CAPN3,CAV1,CCDC6,CCL3,CCNA2,CCND2,CD163,CD19,CD4,CD59,CD72,CD74,CD80,CD99,CDCA2,CDCA5,CDK4,CDK5,CDT1,CEBPA,CEBPB,CEBPD,CEMIP2,CFLAR,CHEK1,CHN2,CISD2,CLIP1,CMC2,CNKSR1,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,EEF2K,EIF1,EIF2AK1,EIF3A,EIF3E,EIF3M,EIF4EBP2,EMILIN2,ENAH,EPS8,ESR1,ETS2,FABP5,FAS,FBXO32,FBXO4,FBXW7,FCER1G,FCER2,FGF9,FLNA,FLOT1,FLT1,FOSL2,FOXO1,FOXP1,GAB1,GADD45A,GADD45GIP1,GAPDH,GATA3,GFI1,GGT1,GLDC,GMNN,GNAQ,GNAS,GPX1,GRIA1,GSTM1,GTF2I,GZMB,H2AFZ,HAVCR2,HBEGF,HBP1,HIPK2,HMGA1,HMMR,HMOX1,HOTAIRM1,HSPA5,HVCN1,ICMT,ID2,IDE,IDH2,IER3,IGFBP7,IGHM,IGKC,IL15RA,IL1B,IL1RN,IL2RB,IL32,IL6R,IL7,IRF4,IRF8,ITGAV,ITGB1,ITPR1,KCNN4,KCTD12,KCTD5,KEAP1,KIF20A,KIF2C,KISS1R,KLF10,KPNA2,LDHA,LGALS1,LGALS3,LILRB2,LILRB3,LIMK1,LYN,LZTS1,MAP3K14,MAPK1,MCL1,MDM2,MDM4,MEF2C,MGAT5,MGLL,MIF,MIR17HG,MKI67,MT2A,MTDH,MXI1,MYCBP,NABP1,NACC2,NAMPT,NCAPG,NCOA3,NDFIP1,NDUFA13,NDUFB11,NR3C1,NRIP1,NSD2,NUCB2,NUDT6,NUMA1,OAZ1,PA2G4,PAX5,PBX3,PCLAF,PDCD4,PDE4D,PEBP1,PFKFB3,PGD,PHGDH,PICALM,PIK3C2B,PIK3C3,PIK3CA,PIP4K2B,PKD2L2,PKM,PLA2G6,PLAUR,PMEPA1,POLD4,PPARGC1B,PPIL1,PRDM1,PRKCD,PRKCE,PRKCI,PRPF4B,PRR5,PSMA5,PSMB2,PSMB3,PSMB7,PSMC2,PTAFR,PTEN,PTGS2,PTK2,PTPRE,PTPRJ,PTPRK,PTTG1,PVT1,PXN,PYHIN1,RAB30,RAB8A,RACGAP1,RAP1B,RARG,RARRES3,RASSF1,RASSF4,RB1-DT,RBM5,RBX1,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,SP1,SRM,SSBP1,STAT5B,STK38L,STOML2,STUB1,TAGLN2,TARP,TBC1D16,TBXA2R,TBXAS1,TCP1,TFRC,TGFBR2,TGFBR3,THEM4,THRB,TIAM1,TIMP2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF17,TNIK,TOX,TP63,TPX2,TRMT61A,TRPV2,TUBB,TUBB3,TXN,TYMS,UAP1,UBE2C,UCHL1,UHRF1,UTRN,VANGL1,VAV3,VCAN,VCP,VDAC1,VDAC3,VDR,VEGFA,VMP1,XBP1,XRCC6,ZBTB20,ZBTB7A,ZMIZ1 |
| Infectious Diseases | Infection of mammalia | 6.88E-08 | turquoise | 81 | 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,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,NCF1,NLRP3,PILRB,PLAUR,POU2AF1,PRF1,PRKCD,PRKCE,PTAFR,PYCARD,SH2D1A,SLC11A1,SMAD3,ST6GAL1,STAT4,STX11,TBX21,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TP63,TRPV2 |
| Hematological System Development and Function,Tissue Development | Accumulation of blood cells | 7.73E-08 | turquoise | 76 | 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,ETS2,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,NCF1,NFYA,NR3C1,P4HB,PTEN,PTGS2,RUNX3,S100A8,S100A9,SELPLG,SH3BP2,SOD1,SOS2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TYROBP,VEGFA,VSIR,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | T cell response | 0.000000079 | turquoise | 48 | ADA,AHR,C5AR1,CBLB,CD226,CD4,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,SELPLG,SEMA4A,SH2D1A,STAT4,STAT5B,TBX21,TGFBR2,TNF,TNFRSF1B,TNFRSF25 |
| Tissue Morphology | Quantity of cells | 8.76E-08 | turquoise | 375 | ABCB1,ABCG1,ACTN4,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,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIK,BIRC3,BIRC5,BLOC1S2,BMP6,BMPR1A,BNIP3L,BRAF,BSG,BTLA,C5AR1,CADM1,CAMK2D,CAMK4,CANX,CAPNS1,CAPZB,CAV1,CBLB,CCL3,CCL5,CCNA2,CCND2,CCR1,CD19,CD200,CD22,CD27,CD300A,CD300LF,CD36,CD4,CD59,CD63,CD69,CD70,CD72,CD74,CD79B,CD80,CD86,CD8A,CDK4,CDK5,CEBPA,CEBPB,CFLAR,CFP,CIITA,CITED2,CLEC4D,CLEC7A,COL18A1,COL19A1,COL4A3,CR2,CREBBP,CRH,CRIP3,CRTAP,CRTC3,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DCLRE1C,DENND1B,DNAJC3,DSP,DTX1,DUSP4,DUSP6,DYNLL1,E2F2,EHD4,EIF2AK1,EIF4EBP2,ELMO1,ENO1,EPB42,EPM2A,EPS8,ESR1,ETS2,EYA2,FABP5,FAS,FBXW7,FCER1G,FCER2,FCGR2A,FGF9,FLNA,FLT1,FNIP1,FOSL2,FOXO1,FPR1,FURIN,FYB1,GADD45A,GADD45GIP1,GALNT1,GATA3,GBA,GDPD5,GFI1,GGT1,GNAQ,GNAS,GNLY,GPR18,GPX1,HAVCR2,HAX1,HBEGF,HCST,HIPK2,HLA-DMA,HMGA1,HMOX1,HRH2,HSP90B1,HSPA5,HSPA9,ICOSLG/LOC102723996,ID2,IFNAR2,IGFBP7,IGHA1,IGHE,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL13RA1,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IL7R,IL9R,IRAK1,IRF4,IRF8,ISL2,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,ITPKB,ITPR1,JARID2,JCHAIN,JMJD1C,KIF1B,KISS1R,KLF10,LAMC1,LARP7,LAT,LCP2,LDLR,LGALS1,LGALS2,LGALS3,LGMN,LIG4,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,MYO1G,MYOF,NDFIP1,NFATC3,NFE2L1,NFIL3,NFYA,NLRP3,NR3C1,NRCAM,P2RY13,PAFAH1B3,PAWR,PAX5,PCDH9,PCDHGC3,PCLAF,PICALM,PIK3C3,PIK3CA,PIK3R5,PIK3R6,PILRA,PKD1,PLAUR,PLXND1,POLM,POU2AF1,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PSAP,PSMB10,PSTPIP2,PTAFR,PTEN,PTGS2,PTK2,PTPN12,PTPRJ,PTTG1,PYCARD,RACGAP1,RAD17,RAP1B,RAP2A,RARG,RARRES3,RASSF6,RC3H2,RDX,RERE,RGS10,RHOH,RORA,RPS3A,RPS6KA4,RUNX2,RUNX3,RXRA,S100A8,S100A9,SAMSN1,SATB1,SELPLG,SEMA3A,SERPINA1,SH2D1A,SH3BP2,SHCBP1,SIRPA,SLC4A1,SLC8A1,SMAD3,SMARCB1,SNHG7,SOD1,SPN,SSBP2,ST3GAL2,ST3GAL6,ST6GAL1,STAB1,STAT4,STAT5B,STEAP4,STX11,SUB1,SUN1,SWAP70,TBK1,TBX21,TBXA2R,TCL1A,TFDP1,TFRC,TGFBI,TGFBR2,TGFBR3,THRB,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TNFRSF25,TNR,TOX,TP63,TPX2,TRIB1,TSHR,TUBB3,TXN,TYMS,TYROBP,UBE2W,UHRF1,UTRN,VAV3,VCAN,VCL,VDR,VEGFA,VIM,XBP1,XRCC6,ZBTB7A,ZNF318 |
| Cellular Movement | Homing of cells | 0.000000089 | turquoise | 139 | ACTN1,ADGRE2,AIF1,ALOX5,ANXA1,ANXA2,AQP9,ARHGEF7,ARPC2,ARRB1,C5AR1,CAMK1D,CAPN2,CAV1,CCL3,CCL5,CCR1,CD36,CD4,CD69,CD72,CD74,CKLF,COL4A3,CORO1B,CREB3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DUSP6,DYSF,ELMO1,ENAH,ETV4,FAS,FCER1G,FCGR2A,FLOT1,FLT1,FOXO1,FPR1,FRS2,FYB1,GAB1,GATA3,GLRX,GNAI3,GNAS,GNLY,GPR18,HBEGF,HOMER3,HRH2,IL1B,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGAV,ITGB1,ITGB7,JAML,KCNN4,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LSP1,LYN,MAP3K14,MAPK1,MEF2C,MIF,MYO1F,NCK2,NDST1,NINJ1,NR3C1,NRCAM,PDGFD,PIK3CA,PIK3R5,PLA2G6,PLAUR,PLXND1,PPIA,PPIB,PRKCD,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,PXN,RAP1B,RGS10,RHOU,RTN4,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SGPP1,SIRPA,SMAD3,SPN,STAP1,SWAP70,TIAM1,TLR2,TLR4,TNF,TNR,TP63,TREM1,TREML2,TRIB1,TRPV2,TXN,TYMP,USP14,VAV3,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Neuroepithelial tumor | 9.09E-08 | turquoise | 241 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ARF4,ARHGAP32,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BRAF,BRIP1,BZW1,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDC42EP3,CDK4,CDK5,CHEK1,CHMP2A,CIITA,CLCN4,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCR4,CYP51A1,DBNDD1,DCAF12,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,ETV4,EVI2A,FA2H,FAS,FBXW7,FCHSD2,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GPX1,H2AFZ,H3F3A/H3F3B,HBEGF,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KLHL21,KPNA2,LDLR,LIMK1,LRRC4,LTK,LYNX1,MAML3,MAP4,MAP7,MARCKS,MDM2,MDM4,MGLL,MIR17HG,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NR3C1,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCD,PRKCE,PRR5,PRUNE2,PSD4,PSTPIP2,PTEN,PTGS2,PTTG1,QKI,RBM47,RC3H2,RRM2,RUNX2,RUNX3,S100A4,S100A9,SDHB,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMARCB1,SMC1A,SMURF2,SPON1,SPTBN1,SRA1,STUB1,TARP,TBK1,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TROAP,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,YWHAH,ZBTB20,ZBTB33,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF880 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Non-Hodgkin lymphoma | 0.000000096 | turquoise | 241 | ABCG1,ABHD5,ADA,AHNAK,AHR,AIM2,ALOX5,ANKIB1,ANKRD36,ANXA1,ANXA2,APOBEC3B,AURKA,BAK1,BCAT1,BCL11B,BCL7A,BCOR,BIRC3,BIRC5,BRAF,BTG1,CAV1,CCNA2,CCND2,CD163,CD19,CD1A,CD200,CD22,CD27,CD36,CD4,CD58,CD63,CD69,CD70,CD79B,CD86,CDCA2,CEBPA,CEBPB,CEP120,CFLAR,CFP,CHD2,CHD3,CHEK1,CHPF,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF2RB,CSF3R,CXCL8,CXCR3,CXCR4,CXCR5,DAPK1,DCLRE1C,DGKD,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,EIF2AK1,ELOC,FAS,FBXO4,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FOXO1,FOXP1,FYB1,FZD1,GADD45A,GATA3,GTF2I,GZMB,HDAC9,HIST1H3B,HLA-DOA,HMOX1,HS3ST1,HSP90B1,ICK,ID2,IDH2,IER3,IFI30,IFNAR2,IGFBP7,IGH,IGHM,IGKC,IGLC1,IGLL1/IGLL5,IKBIP,IKZF3,IL13RA1,IL1B,IL2RB,IL4R,IL6R,IL9R,IMPDH1,IRF4,IRF8,ISL2,ITGAX,ITPKB,ITPR1,JMJD1C,KCNAB3,KCNN3,KIF11,KPNA1,KPNA2,KRR1,LIMK1,LRIG2,LRRFIP1,LYNX1,MAFB,MAP3K14,MCL1,MDM2,MDM4,MGA,MGAT4A,MGLL,MIA2,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NEK3,NEK6,NETO2,NLRP7,NR3C1,NUAK2,NUDT6,OTUD7B,P2RY8,PAX5,PCSK5,PDE4D,PIK3CA,PIK3R5,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRKCI,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,PTPRK,RARG,RARRES3,RASSF4,RDH10,RRM2,RXRA,SARS,SATB1,SDK2,SEC14L1,SECTM1,SELPLG,SERPINA1,SETD2,SKIL,SLC16A1,SLC16A7,SMARCA2,SMARCB1,SMARCD3,SMC6,SORL1,SPN,SSBP2,STAMBPL1,STAT4,STAT5B,STK17A,STX11,SWAP70,SYNE2,TAPT1,TARP,TBX21,TCL1A,TFDP1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF10C,TNIK,TOP2A,TOX,TP63,TPST2,TRERF1,TRIM38,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE,ZBTB10,ZC2HC1A |
| Hematological Disease,Immunological Disease | Leukopenia | 0.000000104 | turquoise | 51 | ABCB1,BACH2,BCL11A,BCL11B,C5AR1,CD14,CD4,CD79B,CD8A,CREBBP,CSF3R,CXCR4,CYP51A1,DCLRE1C,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,Hematological System Development and Function,Inflammatory Response | Binding of professional phagocytic cells | 0.000000111 | turquoise | 56 | ADGRE2,ANXA1,CADM1,CCL3,CCL5,CCR1,CD14,CD4,CD58,CD69,CD99,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,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,TGFBR2,TLR2,TLR4,TNF,TNR,TRPV2,TXN,VAV3,VEGFA |
| Tissue Development | Accumulation of cells | 0.000000114 | turquoise | 86 | 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,ETS2,FAS,FCGR2A,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,NCF1,NFYA,NR3C1,P4HB,PPM1G,PTEN,PTGS2,RUNX3,S100A8,S100A9,SELPLG,SH3BP2,SMARCB1,SOD1,SOS2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TNFRSF25,TPX2,TYROBP,VEGFA,VSIR,XBP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Nervous system neoplasm | 0.00000012 | turquoise | 288 | ABAT,ABCC4,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA2,ARF4,ARHGAP32,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BRAF,BRIP1,BZW1,C5AR1,CABYR,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD79B,CD93,CD99,CDC42EP3,CDCA7L,CDK4,CDK5,CHEK1,CHMP2A,CIITA,CLCN4,CLEC2D,CLECL1,CLIP1,CLMP,CNKSR1,CNKSR2,COCH,COL18A1,COL4A3,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCL8,CXCR4,CYP51A1,DBNDD1,DCAF12,DMXL2,DNAH8,DNM2,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,ESR1,ETV4,EVI2A,FA2H,FAS,FBXW7,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FCHSD2,FLNA,FLT1,FOSL2,FOXO1,FOXP1,FURIN,GIMAP6,GLDC,GNAQ,GNAS,GOT2,GPX1,GRIA1,H2AFZ,H3F3A/H3F3B,HBEGF,HDAC9,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HMMR,HRH2,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL1B,IL2RB,IL32,IL7,IMPDH1,INPP5A,IRAK1,IRF4,ITGAV,ITPKB,KCNN3,KIF11,KIF18B,KIF1B,KIF21A,KLHL21,KPNA2,LDLR,LGALS3,LIG4,LIMK1,LRIG2,LRRC4,LTK,LYNX1,MAML3,MAP4,MAP7,MARCKS,MCL1,MDH2,MDM2,MDM4,MGLL,MKI67,MPRIP,MRPL20,MXI1,MYO1D,MYO1G,NAA15,NEK6,NINJ2,NIPAL4,NLRP3,NR3C1,NUAK2,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PDE4A,PDLIM5,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCD,PRKCE,PRR5,PRUNE2,PSD4,PSTPIP2,PTEN,PTGS2,PTTG1,PVT1,PYCARD,QKI,RAB1A,RARG,RASSF1,RBM47,RC3H2,RRM2,RUNX2,RUNX3,S100A4,S100A9,SDHB,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMAD3,SMARCB1,SMC1A,SMURF2,SPON1,SPTBN1,SRA1,STUB1,TARP,TBK1,TERF2,TGFBI,TGFBR2,TIGD7,TIMP1,TINF2,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TP63,TRAM2,TROAP,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,UTRN,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,YWHAH,ZBTB20,ZBTB33,ZC3HAV1L,ZMIZ1,ZMYND11,ZNF274,ZNF480,ZNF490,ZNF880 |
| Cell Death and Survival | Cell death of leukocyte cell lines | 0.000000129 | turquoise | 55 | BAK1,BIRC5,CCL5,CCND2,CD19,CD27,CD69,CD8A,CD99,CEBPA,CEBPB,CFLAR,DAPK1,DAPK2,ESR1,EYA2,FAIM,FAS,FOXO1,GFI1,GGT1,GZMA,HCST,HSPA5,IGHM,IKZF3,IL32,IL7,IL9R,IRF4,ITGB1,LGALS1,LGALS3,LTK,LYN,MCL1,MZB1,NFIL3,PDCD5,PRDM1,PRKCE,PTEN,PXN,RBM5,SH3BP2,SH3GLB1,SP1,SPN,ST6GAL1,STAT5B,TFDP1,TLR2,TNF,TNFRSF1B,TUBB |
| Cancer,Organismal Injury and Abnormalities | Development of neuroepithelial tumor | 0.00000013 | turquoise | 240 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ARF4,ARHGAP32,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BRAF,BRIP1,BZW1,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDC42EP3,CDK4,CDK5,CHEK1,CHMP2A,CIITA,CLCN4,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCR4,CYP51A1,DBNDD1,DCAF12,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,ETV4,EVI2A,FA2H,FAS,FBXW7,FCHSD2,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GPX1,H2AFZ,H3F3A/H3F3B,HBEGF,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KLHL21,KPNA2,LDLR,LIMK1,LRRC4,LTK,LYNX1,MAML3,MAP4,MAP7,MARCKS,MDM2,MDM4,MGLL,MIR17HG,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NR3C1,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCD,PRKCE,PRR5,PRUNE2,PSD4,PSTPIP2,PTEN,PTGS2,PTTG1,QKI,RBM47,RC3H2,RRM2,RUNX2,RUNX3,S100A4,S100A9,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMARCB1,SMC1A,SMURF2,SPON1,SPTBN1,SRA1,STUB1,TARP,TBK1,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TROAP,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,YWHAH,ZBTB20,ZBTB33,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF880 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell lymphoma | 0.000000134 | turquoise | 125 | ADA,AHR,ALOX5,ANKRD36,ANXA1,ANXA2,BCAT1,BCL11B,BCL7A,BIRC3,BRAF,BTG1,CAV1,CCND2,CD19,CD22,CD27,CD36,CD58,CD63,CD69,CD70,CD79B,CEBPA,CFLAR,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,CXCR4,CXCR5,DMXL1,DSP,DTX1,DUSP4,E2F2,ELOC,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FOXO1,FOXP1,FYB1,GTF2I,HDAC9,HIST1H3B,HMOX1,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,PAX5,PCSK5,PIK3CA,POU2AF1,PPIA,PPWD1,PRDM1,PRF1,PRKCI,PSMB10,PSMB2,PTEN,PTGS2,PTPRE,RRM2,RXRA,SATB1,SERPINA1,SETD2,SLC16A1,SLC16A7,SMARCA2,SMARCB1,SPN,STX11,SWAP70,TARP,TCL1A,TFDP1,TNF,TNFRSF10C,TNIK,TOP2A,TP63,TPST2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,XRCC6,YWHAE |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell leukemia | 0.000000135 | turquoise | 68 | ADA,ANXA1,ATP1B1,ATXN1,ATXN7L1,BCL11B,BRAF,CADM1,CBLB,CD14,CD1A,CD27,CD33,CD4,CD58,CD86,CEBPA,CIITA,CSF3R,CSNK1A1,ERC1,FAS,FBXW7,GATA3,GZMB,HLA-B,ICK,IDH2,IFNAR2,IKZF2,IL6R,IL7R,IMPDH1,IRF4,ITGAM,ITGB1,JARID2,KMO,MGLL,NR3C1,NRCAM,PAX5,PDE7B,PPIA,PRDM1,PRR5,PSMB2,PTEN,PTPRE,RHOH,RHOU,RRM2,RUNX3,SETD2,SLC16A7,STAT5B,TARP,TCF7,TCL1A,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VMP1,ZMIZ1 |
| Cancer,Organismal Injury and Abnormalities | Visceral metastasis | 0.000000138 | turquoise | 93 | ACTN4,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BRAF,C5AR1,CALU,CAV1,CCL5,CCND2,CD200,CD36,CD8A,CDK4,CEBPD,CSF1R,CTNND1,CXCR4,CYP51A1,DLGAP5,DPYSL2,DUSP4,DUSP6,ENAH,ESR1,FAS,FCGR2A,FCGR3A/FCGR3B,FLT1,GLRX,HMMR,HMOX1,HSP90B1,ID2,IGFBP7,IL15RA,IL4R,ITGB1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LYN,MAFB,MAP4,MAPK1,MDM2,NCAPG,NCOA3,NLRP1,NR3C1,PIK3CA,PLAUR,PPIA,PTEN,PTGS2,PTK2,PTPRJ,QPCT,RAB31,RALGAPA2,RARG,RRM2,RTN1,S100A4,SECTM1,SLC16A3,SLC5A3,SMAD3,SND1,SSBP1,TBX21,TGFBR2,TGFBR3,THRB,TMBIM6,TNF,TNIK,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,VEGFA |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Nephritis | 0.000000154 | turquoise | 74 | ABAT,ACTN4,ALOX5,BAK1,C5AR1,CCL5,CCR1,CD19,CD22,CD72,CD79B,CD80,CD86,CD8A,CEBPB,COL4A3,COL4A4,CR1,CX3CR1,CXCL8,CXCR3,DTX1,E2F2,ESR1,FAS,FCGR2A,FCGR3A/FCGR3B,GADD45A,GSTK1,GSTM1,HBEGF,HMOX1,ICOSLG/LOC102723996,IGHM,IKZF3,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,SMURF2,STAMBPL1,TLR2,TNF,TNFRSF13B,TOP2A,TP63,TYMS,VDR,VEGFA |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of blood cells | 0.000000157 | turquoise | 48 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,IRF8,ITGAM,ITGAX,LGALS3,LYN,MIF,MYO1G,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Cell Cycle | Cell cycle progression | 0.000000166 | turquoise | 232 | 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,CDT1,CEBPA,CEBPB,CENPW,CHEK1,CHMP2A,CHN2,CITED2,CLIP1,COPZ1,COPZ2,CREBBP,CREG1,CRH,CSF1R,CSNK1A1,CSTB,CXCL8,DDX17,DLGAP5,DTL,E2F2,EIF3E,EIF3M,ELOA,ELOC,EPS8,ERN1,ESR1,FAS,FBXO4,FBXW7,FCGR2A,FGF9,FLNA,FLT1,FOSL2,FOXO1,FRS2,GAB1,GADD45A,GATA3,GDPD5,GMNN,GNAI3,GPI,GPX1,H3F3A/H3F3B,HBEGF,HBP1,HIPK2,HMOX1,HSPA8,HSPA9,ICOSLG/LOC102723996,ID2,IER3,IGHM,IKZF3,IL1B,IL2RB,IL4R,IL6R,IL7,IL7R,INVS,ITGAL,ITGB1,JARID2,JDP2,KIF11,KIF18B,KIF1C,KIF2C,KLF10,KMT5A,KNL1,LAMTOR2,LGALS3,LGALS4,LGMN,LYN,LZTS1,MAFB,MAP4,MAPK1,MARCKS,MDM2,MDM4,MGAT4A,MGLL,MIF,MIR17HG,MKI67,MXI1,NCOA3,NDC80,NEK6,NFYA,NR3C1,NUDT6,NUMA1,NUP88,NUSAP1,PA2G4,PAWR,PAX5,PCLAF,PDLIM7,PEBP1,PIAS2,PIK3CA,PKD1,PLA2G16,POLD4,POLDIP2,PPM1G,PRDX1,PRKCD,PRKCI,PRR11,PTEN,PTGS2,PTK2,PTPRB,PTPRK,PTTG1,QKI,RACGAP1,RAD17,RARG,RASSF1,RASSF6,RBX1,RHOU,RRAGD,RRAS2,RUNX2,RUNX3,S100A4,SERPINA5,SH3BP2,SKA2,SKIL,SLC9A3R1,SMAD3,SMARCA2,SMARCB1,SND1,SOCS5,SSBP2,STAT4,STAT5B,SYCP3,TAF1D,TBRG1,TCP1,TFDP1,TGFBR2,TGIF1,THRB,TIMP1,TIMP2,TLR2,TLR4,TNF,TOP2A,TOX,TP53I3,TP63,TPX2,TSHR,TUBB,TUBB3,TUBG1,TXN,TYMS,UBE2C,VAV3,VCAN,VCP,VEGFA,WEE1,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB20,ZBTB33,ZNF274,ZWINT |
| Cell Death and Survival | Cell death of T lymphocytes | 0.000000169 | turquoise | 79 | ADA,AHR,ARRB1,BAK1,BCL11B,BID,BIRC5,CAV1,CCL3,CCL5,CD226,CD27,CD4,CD59,CD70,CD99,CFLAR,CHEK1,CIITA,CST3,CXCR4,DTX1,E2F2,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,PTEN,RHOH,SATB1,SH2D1A,SPN,STAT5B,STOML2,STUB1,TBX21,TBXA2R,TCL1A,TGFBR2,TNF,TNFRSF1B,TNFRSF25,TOP2A,VDR |
| Cell Death and Survival | Apoptosis of hematopoietic cell lines | 0.000000174 | turquoise | 55 | ABCB1,BAK1,BID,BIRC3,BIRC5,BRAF,CCL5,CCND2,CD19,CD27,CD69,CD8A,CD99,CEBPA,CEBPB,CFLAR,DAPK1,DAPK2,ESR1,EYA2,FAIM,FAS,FOXO1,GGT1,GZMB,IGHM,IKZF3,IL32,IL7,IL9R,IRF4,IRF8,ITGB1,LGALS3,LTK,LYN,MCL1,MDM2,MZB1,PAX5,PDCD5,PRDM1,PRKCE,PTEN,PXN,RBM5,SH3BP2,SH3GLB1,SP1,SPN,STAT5B,TLR2,TNF,TNFRSF1B,TNFRSF25 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Lupus erythematosus | 0.000000179 | turquoise | 82 | ABCB1,ADARB1,AGFG1,ALOX5,ANXA1,BAK1,BIRC5,CD19,CD22,CD69,CD80,CD86,CFLAR,CIITA,CR1,CR2,CTSA,DAD1,DAPK1,DTNBP1,E2F2,ESR1,FAS,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,FOXO1,GATA3,GNAQ,GNAS,GSTM1,GZMA,GZMB,HCAR3,HLA-B,HSPE1,IKZF3,IL1B,IL2RB,IMPDH1,IRF8,ITGAM,ITGAX,ITGB7,LPP,LY6E-DT,LYN,MCL1,MKKS,MT2A,MYO9A,NLRP3,NR3C1,PTGS2,PYCARD,RAB31,S100A10,S100A8,S100A9,SH2D1A,SLAMF7,SOS2,SP1,ST6GAL1,STAMBPL1,STAT4,TBK1,TCF7,TLE3,TLR2,TLR4,TMEM39A,TNF,TRAF5,TYMS,UBE2L3,VDR,VEGFA,WDFY4,XBP1,XRCC6 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Glioma | 0.000000182 | turquoise | 238 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ARF4,ARHGAP32,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BRAF,BRIP1,BZW1,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDC42EP3,CDK4,CDK5,CHEK1,CHMP2A,CIITA,CLCN4,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCR4,DBNDD1,DCAF12,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,ETV4,EVI2A,FA2H,FAS,FBXW7,FCHSD2,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GPX1,H2AFZ,H3F3A/H3F3B,HBEGF,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KLHL21,KPNA2,LDLR,LIMK1,LRRC4,LTK,LYNX1,MAML3,MAP4,MAP7,MARCKS,MDM2,MDM4,MGLL,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NR3C1,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCD,PRKCE,PRR5,PRUNE2,PSD4,PSTPIP2,PTEN,PTGS2,PTTG1,QKI,RBM47,RC3H2,RRM2,RUNX2,RUNX3,S100A4,S100A9,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMARCB1,SMC1A,SMURF2,SPON1,SPTBN1,SRA1,STUB1,TARP,TBK1,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TROAP,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,YWHAH,ZBTB20,ZBTB33,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF880 |
| Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Inflammation of urinary tract | 0.000000185 | turquoise | 75 | ABAT,ACTN4,ALOX5,BAK1,C5AR1,CCL5,CCR1,CD19,CD22,CD72,CD79B,CD80,CD86,CD8A,CEBPB,COL4A3,COL4A4,CR1,CX3CR1,CXCL8,CXCR3,DTX1,E2F2,ESR1,FAS,FCGR2A,FCGR3A/FCGR3B,GADD45A,GSTK1,GSTM1,HBEGF,HMOX1,ICOSLG/LOC102723996,IGHM,IKZF3,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,SMURF2,STAMBPL1,TLR2,TNF,TNFRSF13B,TOP2A,TP63,TYMS,VDR,VEGFA |
| Cell Death and Survival | Cell death of leukemia cell lines | 0.000000194 | turquoise | 86 | ABCB1,ABCB4,AHR,ARG1,BAK1,BID,BIK,BIRC3,BIRC5,BTG1,C5AR1,CAV1,CD226,CD4,CD59,CD99,CDC6,CDK5,CEBPA,CEBPD,CFLAR,CHEK1,CRH,CSF2RB,CXCR4,EMILIN2,EPM2A,ERN1,ESR1,FAS,FCER2,GAPDH,GFI1,GIMAP4,GIMAP5,GNLY,GZMB,GZMH,GZMK,HCST,HMOX1,HSPA8,IL15RA,IL1B,IL7,ITGAM,ITGB1,ITPR1,LGALS1,LGALS3,LYN,MCL1,MSRB2,MTDH,NFIL3,NLRP3,NR3C1,PAWR,PAX5,PBX3,PKM,PPIA,PRF1,PRKCD,PRKCI,PTEN,PTK2,PTPRE,PYCARD,RBM5,RDX,S100A8,S100A9,SAT1,SPN,STAT5B,STOML2,TCL1A,TLR2,TNF,TNFRSF25,TOP2A,TOX,TRADD,UCHL1,WEE1 |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of phagocytes | 0.000000195 | turquoise | 45 | ABCG1,AHR,ANXA1,C5AR1,CCL3,CCL5,CCR1,CD200,CD300LB,CD99,COL18A1,CR1,CTSC,CX3CR1,CXCL2,CXCL8,ETS2,FAS,FCGR2A,FCGR3A/FCGR3B,GFI1,HAVCR2,HMOX1,IL1B,IL1RN,IL9R,IRF4,ITGAM,ITGAX,ITGB1,LDLR,MIF,RUNX3,S100A8,S100A9,SELPLG,SOD1,TIMP1,TIMP2,TLR4,TNF,TNFRSF1B,TYROBP,VEGFA,XBP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Central nervous system solid tumor | 0.000000195 | turquoise | 274 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,AGAP3,ALDH1A1,ALDOA,ANLN,ANXA1,ANXA2,ARF4,ARHGAP32,ARRB1,ASB2,ASPM,ATF5,ATP1B1,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11A,BCL2L2,BCOR,BIRC5,BMPR1A,BRAF,BRIP1,BZW1,C5AR1,CABYR,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD79B,CD93,CD99,CDC42EP3,CDCA7L,CDK4,CDK5,CHEK1,CHMP2A,CIITA,CLCN4,CLEC2D,CLECL1,CLIP1,CLMP,CNKSR1,CNKSR2,COCH,COL18A1,COL4A3,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CX3CR1,CXCL8,CXCR4,CYP51A1,DBNDD1,DCAF12,DMXL2,DNAH8,DNM2,DOCK5,DST,ECT2,EEF2K,EGOT,EHD4,ELMO1,ESR1,ETV4,EVI2A,FA2H,FAS,FBXW7,FCHSD2,FLNA,FLT1,FOSL2,FOXO1,FOXP1,FURIN,GIMAP6,GLDC,GNAQ,GNAS,GOT2,GPX1,GRIA1,H2AFZ,H3F3A/H3F3B,HBEGF,HDAC9,HERC1,HIPK2,HIST1H3B,HLA-B,HMGB3,HRH2,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,IMPDH1,INPP5A,IRAK1,IRF4,ITGAV,ITPKB,KCNN3,KIF18B,KIF21A,KLHL21,KPNA2,LDLR,LIG4,LIMK1,LRIG2,LRRC4,LTK,LYNX1,MAML3,MAP4,MAP7,MARCKS,MCL1,MDM2,MDM4,MGLL,MKI67,MPRIP,MRPL20,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NR3C1,NUAK2,NUP88,OBSCN,PA2G4,PALLD,PANK2,PAPOLA,PCLAF,PDE4A,PDLIM5,PFKFB3,PHF10,PIAS2,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PPIB,PRDM1,PRKCD,PRKCE,PRR5,PRUNE2,PSD4,PSTPIP2,PTEN,PTGS2,PTTG1,PVT1,PYCARD,QKI,RAB1A,RARG,RASSF1,RBM47,RC3H2,RRM2,RUNX2,RUNX3,S100A4,S100A9,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SETD9,SHTN1,SIRPA,SIRPB1,SLC38A10,SLC9A3R1,SLCO3A1,SMAD3,SMARCB1,SMC1A,SMURF2,SPON1,SPTBN1,SRA1,STUB1,TARP,TBK1,TERF2,TGFBI,TGFBR2,TIGD7,TIMP1,TINF2,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TP63,TRAM2,TROAP,TRPV2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,UHRF1,USF3,VAMP5,VANGL1,VAV3,VEGFA,YWHAE,YWHAH,ZBTB20,ZBTB33,ZC3HAV1L,ZMIZ1,ZNF274,ZNF480,ZNF490,ZNF880 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Activation of antigen presenting cells | 0.000000224 | turquoise | 80 | AHR,ANXA2,AP3B1,AP3D1,BID,BMPR1A,CCL3,CCL5,CD14,CD200,CD36,CD4,CD74,CD80,CD86,CEBPA,CEBPB,CLEC7A,CR1,CRH,CRTC3,CSF1R,CX3CR1,CXCL8,CXCR5,DYSF,FAS,FCER1G,FCGR2A,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,RORA,S100A9,SIRPA,SLC11A1,SOD1,STAT4,TBX21,TLR2,TLR4,TNF,TNFRSF1B,TSHR,TYROBP,UBE2N,VEGFA |
| Cell Death and Survival | Cell viability of mononuclear leukocytes | 0.000000233 | turquoise | 56 | ARRB1,BAK1,BCL11B,BIK,BTLA,CAMK4,CD19,CD22,CD74,CD80,CD86,CD8A,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,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PTK2,PYCARD,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B |
| Organismal Injury and Abnormalities | Visceromegaly | 0.000000251 | turquoise | 166 | ABCB4,ABCC4,ACSL1,ADA,ADGRG1,AGO2,AHR,AIM2,AKAP13,ARG1,ARID4B,ASB2,ATP2A3,ATXN1,B3GNT5,BAK1,BIK,BIRC5,BNIP3L,BRAF,CAMK2D,CAMK4,CAPNS1,CAV1,CD19,CD2AP,CD36,CD8A,CDC42EP3,CDS2,CEBPA,CEBPB,CFLAR,CIITA,CREBBP,CSF2RB,CTSA,CTSC,CXCR3,DACT1,DNAJC3,DSP,DTNBP1,E2F2,EHD3,EHD4,EIF2AK1,ESR1,FAS,FBXO32,FCER1G,FLT1,FNIP1,FOXO1,GBA,GNAQ,GNAS,GPX1,H2AFZ,HBEGF,HDAC9,HMGA1,HMOX1,HRH2,IER3,IKZF3,IL1B,IL2RB,IL5RA,IL6R,IL7,IRF4,IRF8,ITGAV,JARID2,KCNN4,LASP1,LAT,LCP2,LGMN,LIMS1,LITAF,LTK,LYN,LYPLA2,MAPK1,MCL1,MDM2,MDM4,MEF2C,MGAT2,MGLL,MIF,MIR17HG,MMP11,MXI1,NAB1,NCF1,NDUFS6,NFATC3,NR3C1,PAWR,PBX3,PDLIM5,PGK1,PICALM,PIK3CA,PILRA,PKD1,PLA2G16,PLCB1,PNKD,PPARGC1B,PPIA,PRDX1,PRKCD,PRKCE,PRKCI,PTEN,PTGS2,PTK2,PTTG1,RAB1A,RAPGEF6,RASSF1,RRM2,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A6,SCO2,SDHB,SEMA3A,SLC25A11,SLC25A4,SLC4A1,SLC8A1,SMAD3,SMTN,SPTBN1,STAB1,STAT5B,SUCLG1,SYNE2,TBXA2R,TCL1A,TGFBI,TGFBR2,TIAM1,TIMP1,TIMP2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TPI1,TXN,VAV3,VCL,VDAC1,VDR,VEGFA,XYLT1 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Response of macrophages | 0.000000257 | turquoise | 48 | ANXA1,APOA2,CCL3,CD14,CD36,CD93,CEBPB,CLEC7A,CMC2,CSF1R,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCN1,GNAQ,GPR18,HMOX1,HSH2D,IL1B,IL6R,IRAK1,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PRKCE,PTEN,PTPRJ,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Mammary tumor | 0.000000261 | turquoise | 458 | ABAT,ABCB1,ABCC4,ABLIM1,ACP5,AGAP3,AGO2,AGTPBP1,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANG,ANLN,ANXA1,AP3B1,APOBEC3B,APOBEC3G,ARF4,ARHGAP20,ARHGAP31,ARHGEF40,ARHGEF7,ARNT,ARNTL,ARPC5L,ARRB1,ATP10D,ATP1A1,ATP5F1A,ATP5F1C,ATP8B2,B3GNT5,B4GALT3,BAK1,BCAT1,BCL11B,BCL2L2,BIRC5,BLVRA,BMPR1A,BPTF,BRAF,BRIP1,BSG,BUB1B,CALM1 (includes others),CAPN2,CAPZB,CAV1,CCDC14,CCL3,CCL5,CCNA2,CCND2,CD4,CD69,CD70,CD80,CD8A,CDC42EP3,CDC5L,CDC6,CDCA7,CDK2AP2,CDK4,CDT1,CEBPA,CEBPB,CEBPD,CELA3B,CHEK1,CISD2,CKAP4,CMAHP,CNKSR2,COCH,COQ4,COX6B1,CPAMD8,CPEB2,CPXM2,CREB3,CREBBP,CREG1,CRTAP,CSF1R,CSF2RB,CSF3R,CSTB,CTNND1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXorf40A/CXorf40B,DACT1,DAPK1,DDHD1,DDX17,DDX5,DHDDS,DMXL1,DMXL2,DNAH11,DNAJC7,DPH5,DSP,DST,DTL,DTX4,DUSP4,DYSF,E2F2,E2F7,ECT2,EIF1,EIF2AK1,EIF3A,EIF3E,EIF4G3,ELOC,EMILIN2,ENAH,ENO1,EOGT,EPRS,EPS8,ERC1,ESR1,ESYT2,ETFA,ETS2,ETV4,EXOSC9,FABP5,FAM111B,FAM120C,FAM198B,FAS,FBXO4,FBXW7,FLNA,FLNB,FLT1,FOSL2,FOXO1,FOXP1,FRYL,FURIN,FZD1,GADD45A,GATA3,GATD3A/GATD3B,GBA,GCOM1,GLUD1,GMNN,GNAI3,GNAS,GOLIM4,GPI,GSPT1,GSTM1,GSTM2,GSTO1,GUK1,H2AFZ,H3F3A/H3F3B,HAX1,HBEGF,HBP1,HERC1,HIGD1A,HIPK2,HIST1H3B,HLA-B,HLA-DMB,HMGB3,HMMR,HMOX1,HRH2,HSP90B1,HSPA5,IER3,IL1B,IL2RB,IL32,IL4R,IMPDH1,IQSEC1,ITGAL,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,JMJD1C,KCNN3,KCTD12,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KIF20A,KIF2C,KISS1R,KLF10,KLHL34,KNL1,KPNA1,KPNA2,LGALS1,LGALS2,LGALS3,LGALS4,LILRA1,LIMK1,LPCAT2,LRIG2,LRRK1,LSP1,LYN,LYNX1,MACROD2,MAN1A1,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,NAMPT,NANS,NAP1L4,NCOA3,NEAT1,NEK6,NFATC3,NFE2L1,NFIL3,NOL4L,NOP16,NR3C1,NRCAM,NRIP1,NSD3,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,PRKCD,PRKCI,PRPF4B,PRR11,PRR5,PRUNE2,PSMA5,PSTPIP2,PTEN,PTGS2,PTK2,PTPRE,PTPRJ,PTTG1,PXN,PYHIN1,QKI,RAB31,RACGAP1,RAD17,RALGAPA2,RAP1B,RARG,RASSF1,RBM47,RBX1,RDX,RERE,RHEX,RIN2,RPS6KA6,RRAS2,RREB1,RRM2,RTN4,RUNX2,RUNX3,S100A4,S100A6,S100A8,S100A9,SEC14L1,SEC24C,SEC61A1,SEMA3A,SERPINA5,SETD2,SH3PXD2A,SKIL,SLC13A3,SLC16A1,SLC24A4,SLC25A4,SLC30A1,SLC31A1,SLC39A6,SLC43A3,SLC44A1,SLC8A1,SLC9A3R1,SLC9A7,SLIRP,SMAD3,SMC1A,SMTN,SMURF2,SOCS5,SOD1,SORL1,SPON1,SSBP1,SSPN,STAG3,STAT5B,TAF1D,TAGLN2,TARP,TBC1D12,TBC1D9,TCP1,TCTN1,TGFBI,TGFBR2,TGFBR3,THEM4,THRAP3,THRB,TIMP1,TIMP2,TLE3,TLR4,TMCO1,TMEM220,TMTC2,TNF,TNFRSF1B,TOP2A,TP63,TPI1,TREM1,TRIB1,TRIM69,TRPV2,TTC38,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,WDR74,WEE1,WNT10A,XBP1,YWHAH,ZBED5,ZBTB20,ZBTB44,ZC3HAV1L,ZHX2,ZIK1,ZNF233,ZNF318,ZNF362,ZNF415,ZNF677,ZNHIT1,ZYX |
| Cell Death and Survival | Cell viability of lymphatic system cells | 0.000000261 | turquoise | 58 | ARRB1,BAK1,BCL11B,BIK,BTLA,CAMK4,CD19,CD22,CD4,CD74,CD80,CD86,CD8A,CEBPD,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,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PTK2,PYCARD,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B |
| Cell Morphology,Hematological Disease,Immunological Disease,Lymphoid Tissue Structure and Development | Lack of lymphocytes | 0.000000269 | turquoise | 23 | BACH2,BCL11A,BCL11B,CD4,CD79B,CD8A,CREBBP,DCLRE1C,FCER1G,FNIP1,ID2,IGHM,IGKC,IL2RB,IL7R,IRF4,IRF8,ITPKB,LAT,PRDM1,SH2D1A,TBX21,XRCC6 |
| Cancer,Dermatological Diseases and Conditions,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Non-Hodgkin cutaneous lymphoma | 0.000000271 | turquoise | 39 | ADA,ANXA1,AURKA,BAK1,CD4,CXCR3,FAS,FOXP1,IFI30,IFNAR2,IL13RA1,IL2RB,IRF4,KCNAB3,MCL1,MIA2,MKI67,NR3C1,PRF1,PSMB2,PTPRE,RARG,RARRES3,RRM2,RXRA,SECTM1,SELPLG,STAT5B,TARP,TLR2,TLR4,TNF,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cell Death and Survival,Hematological System Development and Function | Cell viability of lymphocytes | 0.000000272 | turquoise | 54 | ARRB1,BAK1,BCL11B,BIK,BTLA,CAMK4,CD19,CD22,CD74,CD80,CD86,CD8A,FAS,FCGR3A/FCGR3B,GATA3,GIMAP5,HSH2D,ICOSLG/LOC102723996,IGHM,IKZF2,IL21R,IL2RB,IL7,IL7R,ITGAL,ITPKB,LAT,LAX1,LGALS3,MAP3K14,MCL1,MEF2C,MIF,MIR17HG,NFIL3,PAX5,PIK3C3,PIK3CA,POU2AF1,PRDM1,PTK2,PYCARD,SELPLG,SH3KBP1,SMAD3,SPN,STAT4,STAT5B,TBX21,TCF7,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B |
| Cell Death and Survival | Cell death of myeloid cells | 0.000000294 | turquoise | 59 | ABCB1,ABCC4,ABCG1,AHR,AIM2,ANXA1,BAK1,BCL2L2,BID,BIRC3,BIRC5,BTG1,CCL5,CD14,CD69,CEBPB,CFLAR,CXCL2,CXCL8,CXCR4,FAS,FCER1G,HAVCR2,HAX1,HMOX1,IGHE,IL1B,IL1RN,IL6R,IRAK1,IRF8,ITGAM,LDLR,LGALS1,LGALS3,LYN,MCL1,MIF,MLKL,NAMPT,NLRP1,NLRP3,NR3C1,PLA2G6,PRKCD,PRKCE,PTEN,PYCARD,S100A8,SH3BP2,SIRPA,ST3GAL3,ST6GAL1,TICAM2,TLR2,TLR4,TNF,TNFRSF1B,TREM1 |
| Cell Death and Survival | Cell viability of tumor cell lines | 0.000000295 | turquoise | 204 | ABCB1,ACTN4,AGO2,AGTRAP,AHR,AK3,AKAP13,AKAP7,ANLN,AQP3,ARRB1,ATF5,ATP5MD,ATP5PD,AURKA,AURKAIP1,BCKDK,BID,BIRC5,BMPR1A,BRAF,BRIP1,BUB1B,CADM1,CAMK2D,CAMK2N1,CAPN2,CAPN3,CARS,CAV1,CBX5,CCNA2,CCND2,CD200,CD33,CEBPB,CEBPD,CFLAR,CHEK1,CLCN4,CRH,CXCL2,CXCL8,CXCR4,DCLRE1C,DIS3,DNM2,DPH5,DST,DUSP6,DUSP7,EEF2K,EGOT,EIF3A,EIF3E,EIF4A3,EIF4G1,ENO1,EPB41L2,ESR1,FA2H,FAS,FGF9,FLNA,FLT1,GAB1,GALK2,GCLC,GLUD1,GPX1,GSTM1,HBEGF,HMGA1,HMOX1,HSP90B1,HSPA5,HSPA9,ICMT,ID2,IER3,IGFBP7,IGHM,IL1B,IL1RN,IL6R,IL7,INPP4A,INPP5A,IRAK1,IRF4,ITGAM,ITGB1,JMJD1C,KIF11,LANCL2,LDHA,LGALS3,LIG4,LMNB1,LYN,MAP3K14,MAPK1,MCL1,MCOLN2,MDM2,MDM4,MIAT,MICAL2,MIR17HG,MTDH,MTMR1,MTMR7,NAB1,NAMPT,NDC80,NDUFA13,NEAT1,NEK3,NEK8,NR1D1,NR3C1,NSD2,NUP210,OTUD7B,P4HB,PBX3,PDCD4,PIK3CA,PKM,PLAUR,POU2AF1,PPM1G,PPM1M,PRKCD,PRKCE,PRKCI,PSAP,PSMA1,PSMA3,PSMA6,PSME4,PTEN,PTGS2,PTK2,PTP4A2,PTPRE,PTPRK,PYCARD,RASSF1,RPS6KA6,RRM2,RUNX2,RXRA,S100A4,S100A6,S100A9,SARAF,SAT1,SEL1L,SELENOH,SEM1,SGPP1,SLC25A23,SMAD3,SMARCA2,SMARCB1,SMARCD3,SOD1,SPATS2,SPIDR,STAT5B,SVIL,TBC1D16,TBC1D9,TBK1,TCP1,TERF2,TGFBR2,TIMP2,TNF,TNFAIP8,TNFRSF1B,TOX,TP53I3,TP63,TRADD,TRIM69,TRPV2,TUBB3,TXN,TXNL4A,TYMP,TYMS,UBE2L3,UHRF1,VCAN,VCP,VEGFA,WDR1,WEE1,XRCC6,ZBTB20,ZNF528,ZNF665 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Systemic lupus erythematosus | 0.000000312 | turquoise | 78 | ABCB1,ADARB1,AGFG1,ALOX5,ANXA1,BAK1,BIRC5,CD19,CD22,CD69,CD80,CD86,CFLAR,CIITA,CR1,CR2,CTSA,DAD1,DAPK1,DTNBP1,E2F2,ESR1,FAS,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,FOXO1,GATA3,GNAQ,GNAS,GSTM1,GZMA,GZMB,HCAR3,IKZF3,IL1B,IL2RB,IMPDH1,IRF8,ITGAM,ITGAX,ITGB7,LPP,LY6E-DT,LYN,MCL1,MKKS,MT2A,MYO9A,NLRP3,NR3C1,PTGS2,PYCARD,RAB31,S100A10,SH2D1A,SLAMF7,SOS2,SP1,ST6GAL1,STAMBPL1,STAT4,TBK1,TCF7,TLE3,TLR2,TLR4,TMEM39A,TNF,TRAF5,TYMS,UBE2L3,VDR,VEGFA,WDFY4,XBP1,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of antigen presenting cells | 0.000000316 | turquoise | 52 | ANXA1,APOA2,BRAF,CCL3,CD14,CD36,CD74,CD86,CD93,CEBPB,CMC2,CSF1R,CST3,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCN1,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IGHM,IL1B,IL6R,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SEMA4A,SH3BP2,SIRPA,SIRPB1,SWAP70,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Natural killer cell lymphoma | 0.000000321 | turquoise | 35 | AIM2,CD163,CD4,CD86,CXCL8,FAS,FNDC3B,FZD1,GZMB,HLA-DOA,HSP90B1,IL13RA1,IL6R,IMPDH1,IRF4,LPCAT2,MAFB,MKI67,NAPA,NR3C1,PLXNB2,PPIA,PRDM1,PRF1,PTPRK,RRM2,SPN,STAT5B,TIMP1,TIMP2,TLR2,TOP2A,TP63,TYMS,VEGFA |
| Organismal Injury and Abnormalities,Reproductive System Disease | Benign pelvic disease | 0.000000323 | turquoise | 128 | ABCG1,ADARB1,ADGRE5,AHR,ALDH1A1,ALDOA,ANK3,AP2S1,APOBEC3B,ARF1,ARIH2,ARNT,ATP1B1,BCAT1,BIRC5,BMP8B,BSG,BUB1B,CCNA2,CCR1,CD163,CDC42EP3,CEBPB,CITED2,CLUH,CNP,COCH,COL18A1,CSF1R,CTNND1,CTSC,CXCL8,CXCR3,CXCR4,CXCR5,CYP1B1,DST,DYNLL1,EIF1,ELL2,ESR1,FAS,FLT1,FOSL2,FOXO1,GABBR1,GALK2,GATA3,GNAS,GPI,GZMA,HLA-DOB,HSD17B10,IL2RB,ITGAL,ITGAM,ITGB1,KCNN3,KIF20A,LSP1,LYN,MARCKS,MCM4,MGLL,MGST1,MLX,MMP11,MPHOSPH8,MT1E,MT1G,MT1X,MTHFD2,MYL6,NFIL3,NR3C1,NRIP1,PDE4D,PDGFD,PFKFB3,PIK3CA,PIP5K1B,PKD1,PLA2G6,PLAUR,PLD3,PLXNC1,PRR5,PSMA1,PSMA6,PTAFR,PTEN,PTGS2,PTTG1,RAP1B,RAP2B,RORA,RREB1,RXRA,S100A8,S100A9,SAT1,SLC16A1,SLC1A4,SLC2A5,SLC5A3,SRPRB,TARP,TBL1X,TGFBI,TIMP2,TNF,TNFRSF17,TNFRSF1B,TOP2A,TRAF5,UBAC1,UCHL1,UQCRH,UTRN,VCAN,VCP,VDR,VEGFA,VIM,WEE1,XRCC6,YWHAH,ZYX |
| Cancer,Developmental Disorder,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Marginal zone cell lymphoma | 0.000000325 | 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 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of leukocytes | 0.000000326 | turquoise | 45 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,MYO1G,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Cellular Movement | Chemotaxis | 0.000000373 | turquoise | 130 | ACTN1,ADGRE2,AIF1,ALOX5,ANXA1,ANXA2,AQP9,ARHGEF7,ARRB1,C5AR1,CAMK1D,CAPN2,CAV1,CCL3,CCL5,CCR1,CD36,CD4,CD69,CD72,CD74,CKLF,COL4A3,CORO1B,CREB3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DUSP6,DYSF,ELMO1,ETV4,FAS,FCER1G,FCGR2A,FLOT1,FLT1,FPR1,FRS2,GAB1,GLRX,GNAI3,GNAS,GNLY,GPR18,HBEGF,HOMER3,HRH2,IL1B,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGAV,ITGB1,JAML,KCNN4,LAT,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LIMK1,LITAF,LSP1,LYN,MAP3K14,MAPK1,MIF,MYO1F,NCK2,NDST1,NINJ1,NR3C1,NRCAM,PDGFD,PIK3CA,PIK3R5,PLA2G6,PLAUR,PLXND1,PPIA,PPIB,PRKCD,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,RGS10,RHOU,RTN4,S100A12,S100A4,S100A8,S100A9,SELPLG,SEMA3A,SERPINA1,SGPP1,SIRPA,SMAD3,SPN,STAP1,SWAP70,TIAM1,TLR2,TLR4,TNF,TNR,TP63,TREM1,TREML2,TRIB1,TRPV2,TXN,TYMP,USP14,VAV3,VEGFA |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hepatocellular carcinoma | 0.000000375 | turquoise | 183 | ABAT,ABCB4,ADA,ADGRG1,AGO2,ALOX5,ANLN,ANXA1,ANXA5,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,DIS3,DNAH12,DPEP2,DST,DYNLL1,E2F7,ECT2,EHD3,ELMO1,ENO1,ESR1,FAIM,FAM111B,FAM69B,FAM83D,FAS,FBXO4,FLT1,GABBR1,GLUD1,GNAS,GPC2,GSTO1,HIST1H3B,HIST1H3C,HLA-B,HSP90B1,HSPA5,HSPA8,HSPA9,IDH2,IFNAR2,IMPDH1,INPP5A,ITGAX,ITGB1,JCHAIN,KCNN3,KEAP1,KMO,LGALS3,LZTS1,MDM2,MEF2C,MGLL,MKI67,MS4A6A,MT1E,MT1G,MT1X,MT2A,NCAPG,NCOA3,NFATC3,NR3C1,NRIP1,NSD2,NUSAP1,OBSCN,PANK2,PEBP1,PELI2,PIK3CA,PKM,PLAUR,PLPP5,PPM1G,PRDX1,PRR5,PTEN,PTGS2,PTTG1,RACGAP1,RALGAPA2,RAPGEF6,RASSF1,RB1-DT,RORA,RRM2,RTN4,RUNX3,RXRA,S100A4,SERF2,SETD2,SIPA1L3,SLC1A4,SLC25A42,SLC39A6,SLC4A1,SOCS2,SOD1,SP1,SPON1,SPTBN1,SRGAP1,STAB1,STEAP4,SYNE2,TBX21,TGFBR2,THRB,TIMP2,TLR2,TMEM176A,TMEM220,TNF,TNFRSF17,TNIK,TNR,TNRC6B,TOP2A,TP53I3,TPI1,TPX2,TRIM44,TRIM8,TST,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TXN,TYMP,TYMS,UBE2C,UPP1,UQCRC1,VCAN,VCP,VDAC1,VDR,VEGFA,VIM,VMP1 |
| Cellular Function and Maintenance | Engulfment of phagocytes | 0.000000408 | turquoise | 47 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,SRA1,SWAP70,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Hematological System Development and Function,Tissue Development | Accumulation of myeloid cells | 0.000000426 | turquoise | 51 | ABCG1,ADGRE5,AHR,ALOX5,ANXA1,BRAF,C5AR1,CCL3,CCL5,CCR1,CD200,CD300LB,CEBPA,COL18A1,CR1,CTSC,CX3CR1,CXCL2,CXCL8,ETS2,FAS,FCGR2A,FCGR3A/FCGR3B,GFI1,GNAQ,HAVCR2,HMOX1,IL1B,IL1RN,IL9R,IRF4,ITGAM,ITGAX,ITGB1,LDLR,MIF,NCF1,PTEN,PTGS2,S100A8,S100A9,SELPLG,SOD1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,VEGFA,XBP1 |
| Cell Death and Survival | Cell death of cervical cancer cell lines | 0.000000466 | turquoise | 91 | ABCB1,ANXA2,ANXA5,ATP1A1,BAK1,BBS4,BID,BIRC5,BNIP3L,BRAF,BUB1B,BUB3,CCAR2,CCND2,CD226,CDC6,CDCA2,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,MAPK1,MCL1,MCOLN2,MDM2,MGAT3,MTM1,NABP1,NAPA,NDC80,NEK6,NLRP3,NR3C1,PAWR,PDLIM7,PIK3C3,PIK3CA,PKD2L2,PKM,PPIA,PRF1,PRKCD,PTAFR,PTEN,RAB32,RACGAP1,RASSF1,SEC61G,SOD1,TBK1,TCP1,TNF,TNFAIP8,TNFRSF1B,TOP2A,TP63,TPX2,TRADD,TXN,UCHL1,VCP,VDAC1,VOPP1,YWHAH |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Necrosis of tumor | 0.000000473 | turquoise | 109 | ANXA1,ANXA2,B4GALT5,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BRAF,BSG,BTG1,BUB1B,CAV1,CD14,CD22,CD33,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CSF3R,CXCL8,CXCR3,CXCR4,DAPK1,E2F2,EIF3E,ENO1,FAS,FLT1,FOXO1,GADD45A,GZMA,GZMB,HBEGF,HIPK2,HMOX1,HSPA9,IDH2,IGHM,IL1B,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MDM2,MEF2C,MIF,MMP11,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PLAUR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMB3,PSMC2,PTEN,PTGS2,PTK2,RARG,RASSF1,RPL10,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SOD1,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TRADD,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| 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 | 0.000000501 | turquoise | 94 | 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,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,LIG4,LILRB2,MAFB,MAP3K14,MAPK1,MIR17HG,NDFIP1,NFATC3,OTUD7B,PICALM,PIK3R6,PRDM1,PRELID1,PTGS2,RHOH,RORA,RUNX2,SATB1,SEMA4A,SH2D1A,SLC3A2,SMAD3,SOCS2,STAT4,STAT5B,TBX21,TCF7,TGFBR2,TNF,TOX,XBP1,XRCC6,ZMIZ1 |
| Endocrine System Disorders,Gastrointestinal Disease,Metabolic Disease,Organismal Injury and Abnormalities | Diabetes mellitus | 0.000000543 | turquoise | 218 | ABCG1,ACAA2,ACSL1,AEBP1,AIF1,AIM2,ALDH1A1,ANAPC5,ANXA1,ANXA2,ANXA5,ASB2,ATXN1,AVEN,BACH2,CANX,CAPN3,CARS,CAV1,CBLB,CCL3,CCL5,CCND2,CCR1,CD19,CD200,CD22,CD226,CD27,CD300A,CD36,CD4,CD74,CD79B,CD80,CD86,CDC42EP3,CDK4,CEBPD,CHN2,CIITA,CLEC12A,CLEC2B,CLEC2D,CMAHP,COL18A1,COL19A1,COL4A3,COL4A4,CPVL,CR1,CR2,CREB5,CREBBP,CRIP1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIP2C,DNAJC3,E2F2,ELMO1,ENAH,ESR1,EVI2A,EYA2,FAS,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FCRL1,FLOT1,FLT1,FOXO1,FOXP1,FXYD5,GABBR1,GLIPR2,GPR18,GZMA,HAVCR2,HCAR3,HCST,HIST1H3B,HLA-B,HLA-DMA,HLA-DMB,HLA-DOA,HLA-DOB,HMBOX1,HMGA1,HSPA5,IDE,IER3IP1,IGFBP7,IGHM,IKZF3,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL7R,IMPDH1,IRF4,IRGM,ITGAM,ITGAV,ITGAX,ITGB7,ITPR1,JAML,JAZF1,KCNAB3,KIF11,KLF10,KMO,LAT,LDLR,LGALS3,LILRB3,LRP8,LST1,MIAT,MIF,MS4A6A,MT1G,MT2A,MYO1B,MYO1F,MZB1,NCF1,NLRP3,NR3C1,P2RY13,PBX3,PCYT1A,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PFKFB3,PGM1,PILRB,PLA2G6,PLBD1,PLD4,PLEK,PPIA,PRF1,PRKCD,PRKCE,PRKCI,PRR5,PRUNE2,PSMA1,PSMA3,PSMB7,PSMC2,PSMD14,PSMD8,PTAFR,PTEN,PTGS2,PTTG1,RBMS1,RUNX3,S100A10,S100A4,S100A6,SAMD12,SH2D1A,SIGMAR1,SIRPB1,SLC22A15,SLC3A2,SMURF2,SOCS2,SOD1,SP1,SPN,ST3GAL6,STAP1,STAT4,STAT5B,TGFBI,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TP63,TRIM44,TUBA1C,TUBB,TXN,TYROBP,UBE2G1,UBE2N,UBE2Q1,UCHL1,UFC1,VDR,VEGFA,VPREB3,VWA3B,XBP1,YBX3,ZBTB7A,ZFAND6,ZNF274 |
| Cell-To-Cell Signaling and Interaction | Binding of tumor cell lines | 0.000000559 | turquoise | 100 | ACTN4,AFDN,AGO2,ANXA1,ANXA2,ANXA5,ARHGAP21,ASGR2,BSG,CAV1,CCL3,CD14,CD226,CD36,CD4,CD59,CD80,CD99,CLEC7A,CR1,CR2,CXCL2,CXCL8,CXCR3,CXCR4,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,PTK2,PXN,RASGRP2,RASSF1,RHOH,RHOU,S100A10,SELPLG,SEMA3A,SERPINA5,SH2D1A,SIGMAR1,SKAP1,SLC4A1,SMAD3,SPN,SRGN,ST6GAL1,STOML2,TFRC,TIAM1,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF25,TP63,UCHL1,UTRN,VANGL1,VCAN,VCL,VEGFA,ZYX |
| Cellular Function and Maintenance | Engulfment of tumor cell lines | 0.000000633 | turquoise | 45 | ANXA1,APLP2,ATP6V1A,ATP6V1D,BRAF,BTBD19,CAV1,CCL5,CD36,CDC5L,CEBPB,CLIP1,DNM2,EPB41L2,ETS2,FCGR2A,FCN1,FOXP1,FRS2,HAX1,HBEGF,HMOX1,IL7,IQSEC1,ITGAM,ITGB1,LIMK1,LMAN2,LRPAP1,LYN,PLA2G6,PRF1,PRKCD,PRKCE,PTK2,PTRHD1,PXN,RAB31,RRAS2,SCARB2,SH3KBP1,SMARCB1,TNF,VIM,ZBTB7A |
| Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Renal and Urological Disease | Glomerulonephritis | 0.000000674 | turquoise | 58 | ABAT,ACTN4,ALOX5,BAK1,C5AR1,CCL5,CCR1,CD19,CD72,CD80,CD86,CEBPB,COL4A3,COL4A4,CR1,DTX1,E2F2,ESR1,FAS,FCGR2A,FCGR3A/FCGR3B,GADD45A,GSTK1,GSTM1,HBEGF,HMOX1,IKZF3,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,SMURF2,STAMBPL1,TNF,TNFRSF13B,VDR,VEGFA |
| Organismal Injury and Abnormalities,Reproductive System Disease | Endometriosis | 0.000000676 | turquoise | 87 | ABCG1,AHR,ANK3,APOBEC3B,ARF1,ATP1B1,BCAT1,BIRC5,BMP8B,BSG,BUB1B,CCNA2,CCR1,CD163,CDC42EP3,CEBPB,CITED2,COCH,COL18A1,CSF1R,CXCL8,CXCR3,CXCR4,CXCR5,DYNLL1,EIF1,ELL2,ESR1,FLT1,FOSL2,FOXO1,GATA3,GNAS,GPI,GZMA,HLA-DOB,IL2RB,ITGAL,ITGAM,ITGB1,KCNN3,KIF20A,MARCKS,MCM4,MGLL,MGST1,MMP11,MT1E,MT1G,MT1X,NFIL3,NR3C1,NRIP1,PDE4D,PDGFD,PFKFB3,PIK3CA,PIP5K1B,PKD1,PLAUR,PRR5,PSMA1,PTAFR,PTEN,PTGS2,PTTG1,RAP1B,RREB1,S100A8,S100A9,SAT1,SLC16A1,SLC1A4,SRPRB,TGFBI,TIMP2,TNF,TNFRSF17,TNFRSF1B,TOP2A,TRAF5,UCHL1,VEGFA,VIM,WEE1,XRCC6,YWHAH |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of macrophages | 0.000000727 | turquoise | 44 | ANXA1,APOA2,CCL3,CD14,CD36,CD93,CEBPB,CMC2,CSF1R,EIF2AK1,ELMO1,ERN1,FAS,FCER1G,FCGR2A,FCN1,GPR18,HMOX1,HSH2D,IL1B,IL6R,IRF8,ITGAM,LGALS3,LY96,LYN,MIF,NR3C1,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of lymphoid organ | 0.000000739 | turquoise | 54 | ANXA1,BIRC3,BIRC5,BRAF,CD19,CD22,CD79B,CDK4,CEBPA,CHEK1,COL18A1,CR2,CREBBP,CSF1R,CSF3R,CTNND1,DTX1,ESR1,FBXW7,FCER2,FLT1,HMMR,HSP90B1,IDH2,IGH,IL4R,ITGB1,MAP4,MCL1,MKI67,NLRP3,NR3C1,PAWR,PAX5,PIK3CA,POU2AF1,PTEN,PTGS2,RRM2,SPN,SSBP2,STAT5B,SWAP70,TBC1D16,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,XRCC6 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of tumor cells | 0.000000837 | turquoise | 106 | ANXA1,ANXA2,B4GALT5,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BRAF,BSG,BUB1B,CAV1,CD14,CD22,CD33,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CXCL8,CXCR3,CXCR4,DAPK1,E2F2,EIF3E,ENO1,FAS,FLT1,FOXO1,GADD45A,GZMA,GZMB,HBEGF,HIPK2,HMOX1,HSPA9,IDH2,IGHM,IL1B,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MDM2,MEF2C,MIF,MMP11,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PLAUR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMB3,PSMC2,PTEN,PTGS2,PTK2,RARG,RASSF1,RPL10,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SOD1,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR4,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TRADD,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic cells | 0.000000842 | turquoise | 107 | ABCB1,AFF1,AHR,AKAP13,ARID3A,ARID4B,ARNTL,AURKA,BAK1,BCL11A,BCL11B,BIK,BIRC5,BLOC1S2,BNIP3L,CAPNS1,CCND2,CD22,CD36,CD4,CD59,CD69,CD72,CD79B,CD80,CD86,CD8A,CDK4,CEBPA,CIITA,CREBBP,CRIP3,CSF3R,CXCL8,CXCR4,DCLRE1C,EPB42,ESR1,ETS2,FAS,FCER1G,FLNA,FNIP1,FOXO1,FYB1,GADD45A,GFI1,HAX1,HSPA9,ICOSLG/LOC102723996,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL15RA,IL21R,IL2RB,IL7,IL7R,IRF4,IRF8,ITPKB,JARID2,LAT,LCP2,LGMN,LIG4,LILRB3,LYN,MAP3K14,MBTD1,MCL1,MGAT2,MIR17HG,NR3C1,PCLAF,PICALM,PIK3CA,PLXND1,PRDX1,PRKCD,PRKCE,PTEN,RAP1B,RARG,RHOH,RUNX2,RUNX3,SATB1,SH2D1A,SH3BP2,SIRPA,SLC4A1,SOD1,SSBP2,ST6GAL1,STAT4,STAT5B,TFRC,TNF,TNFRSF13B,TOX,VAV3,VEGFA,XRCC6,ZBTB7A |
| Cellular Movement,Hematological Disease,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Respiratory Disease | Eosinophilia of lung | 0.00000086 | 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,Organismal Injury and Abnormalities | Necrosis of epithelial tissue | 0.000000879 | turquoise | 139 | AHR,ALDH1A1,APOBEC3B,AURKA,BAK1,BCL2L2,BID,BIK,BIRC3,BIRC5,BMP6,BNIP3L,BRAF,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,FAIM,FAS,FGL2,FLT1,FOXO1,GADD45A,GAPDH,GATA3,GNLY,GPX1,HAX1,HIPK2,HMOX1,HMOX2,HRH2,HSPA5,ICMT,ID2,IER3,IL1B,IL1RN,IL32,IL6R,IRF4,ITGAV,ITGB1,KLF10,LDHA,LDLR,LGALS1,LYN,MAPK1,MAPKAPK3,MCL1,MDM2,MIAT,MIF,MLKL,MZB1,NAMPT,NCF1,NDST1,NDUFAB1,NEK6,NLRP3,NR3C1,PAWR,PDE4A,PKD1,PLAUR,PLCB1,PPIA,PRDX3,PRF1,PRKCD,PRKCE,PRKCI,PSMB10,PTAFR,PTEN,PTGS2,PTK2,PYCARD,RASSF1,RASSF4,RDX,RRAS2,RUNX2,RUNX3,S100A8,SEL1L,SEMA3A,SERPINA1,SGPP2,SH3BP5,SH3RF1,SLC25A4,SLC8A1,SMAD3,SOD1,SPTBN1,SRXN1,TFRC,TGFBR2,TIAM1,TICAM2,TIMP1,TLR2,TLR4,TMBIM6,TNF,TNFRSF1B,TNFRSF25,TP63,TXN,TYMP,VDAC1,VEGFA,VOPP1,XBP1,ZMYND11 |
| Hematological Disease,Immunological Disease | Eosinophilia | 0.000000898 | turquoise | 48 | ALDOA,ALOX5,ANXA1,APOBEC3A,ARG1,ARPC1B,BIRC5,CAPN3,CCL3,CD300LF,CD4,CD69,CD86,CLEC7A,CSF1R,CXCL2,CXCR4,ENO1,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 |
| Inflammatory Response | Function of immune system | 0.000000918 | turquoise | 41 | AHR,ALOX5,CBLB,CD200,CD22,CD226,CD300A,CD300LF,CD70,CIITA,CLEC4D,CRISPLD2,CSF2RB,E2F2,FCER1G,FCER2,FCGR2A,GALNT1,GLMP,HAVCR2,ICOSLG/LOC102723996,ID2,IGHE,IGHM,IL21R,IL4R,IL5RA,IRF4,ITGB7,LAT,LGALS2,PIP5K1B,RUNX3,S100A4,SH2D1A,STAT5B,TBXA2R,TICAM2,TNF,TNFRSF1B,VDR |
| Cancer,Organismal Injury and Abnormalities | Invasive carcinoma | 0.000000922 | turquoise | 76 | ACP5,ANXA1,ARHGEF7,ARRB1,BIRC5,BRAF,BUB1B,CALM1 (includes others),CDC42EP3,CDC6,CDK4,CEBPB,COCH,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,FAM111B,FAS,FLT1,HLA-B,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PMEPA1,PRKCI,PSTPIP2,PTAFR,PTEN,PTGS2,PTPRE,PTPRJ,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,Organismal Injury and Abnormalities | Primary neoplasm | 0.000000923 | turquoise | 110 | ABCB1,BAK1,BIRC5,BMPR1A,BRAF,BRIP1,CD19,CD22,CD4,CD79B,CDK4,CDK5,CEBPA,CHD3,CIITA,CLMP,COX5A,CR2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,CXCR4,ECT2,ELMO1,ESR1,EYA2,FBXW7,FCER2,FLNA,FLT1,FOSL2,FOXO1,FOXP1,GLDC,GNAS,GOT2,GRIA1,HMGA1,HRH2,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IGHE,IL5RA,IQSEC1,IRF4,JPT1,KIF21A,KPNA2,LDHA,LDLR,LGALS1,LGALS3,LGALS4,LYN,MAPK1,MGLL,MRPL20,MTHFD2,NR3C1,NUAK2,OBSCN,PCLAF,PDE4D,PDGFD,PDLIM5,PIK3CA,PKM,PLAUR,PNKD,PPIA,PRDM1,PRKCI,PSAT1,PSMB2,PTEN,PTGS2,PTPRK,RACGAP1,RARG,RASSF1,RRM2,RXRA,SDHB,SEC23B,SERPINA1,SETD2,SLC16A3,SLC5A3,SLC9A3R1,SMAD3,SMARCB1,SMC4,STAB1,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VCAN,VEGFA,ZNF490 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Lymphocyte migration | 0.000000926 | turquoise | 88 | ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,COL4A3,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,FABP5,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNLY,HYOU1,ICOSLG/LOC102723996,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MYO1G,NFIL3,NLRP3,NR3C1,PIK3CA,PRF1,PTEN,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,S100A4,SELPLG,SEMA3A,SERP1,SH2D1A,SKAP1,SOS2,SPN,STAB1,SWAP70,TERF2,TGFBR2,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF1B,TSHR |
| Organismal Survival | Morbidity or mortality | 0.000000951 | turquoise | 493 | ABCB1,ABCB4,ABCC4,ABHD5,ACTN4,ACVR1,ADA,ADARB1,ADGRE5,ADGRG1,AEBP1,AFDN,AFF1,AFF4,AFMID,AGO2,AHR,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANK3,ANXA1,ANXA2,APBB2,APLP2,ARF1,ARF4,ARG1,ARID3A,ARID3B,ARID4B,ARIH2,ARNT,ARNTL,ARRB1,ASGR2,ASL,ATOX1,ATP1A1,ATP1B1,AURKA,B3GNT5,BAK1,BBS4,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BLMH,BLOC1S2,BMP6,BMPR1A,BNIP3L,BPTF,BRAF,BRIP1,BSG,BUB1B,BUB3,C1GALT1C1,C5AR1,CAMK4,CANX,CAPN2,CAPNS1,CAPZB,CAV1,CBLB,CCNA2,CCNC,CCND2,CCR1,CD14,CD19,CD200,CD22,CD226,CD2AP,CD300A,CD36,CD4,CD59,CD70,CD74,CD8A,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CFL1,CFLAR,CFP,CHEK1,CHMP2A,CISD2,CITED2,CLEC12A,CLEC4D,CLEC7A,CLMP,CLUH,CNP,COL19A1,COL4A3,COPS8,COX17,CPEB2,CR2,CREB5,CREBBP,CSF1R,CSNK1A1,CSRP1,CST3,CTNND1,CTSA,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYP51A1,CYTOR,DACT1,DAD1,DBNDD1,DCLRE1C,DDX17,DDX5,DGKD,DNAJC3,DNM2,DSP,DTL,E2F2,E2F7,ECT2,EEF2K,EHD1,EHD3,EHD4,EIF2AK1,EIF3M,ELOA,EMC7,ENAH,ERC1,ERN1,ERO1A,ESR1,ETHE1,ETS2,EXT1,FAIM,FAS,FBXL20,FBXO4,FBXW7,FCER1G,FCN1,FECH,FGF9,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,GPX1,GSTK1,GSTM1,GTF2I,GZMA,H2AFZ,H3F3A/H3F3B,HAVCR2,HAX1,HBEGF,HCST,HIP1R,HIPK2,HLA-DMA,HMOX1,HMOX2,HRH2,HS3ST1,HSP90B1,HSPA5,HSPE1,HYOU1,ICMT,ID2,IDE,IDH2,IFI30,IFNAR2,IGHM,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL2RB,IL4R,IL6R,IRAK1,IRF8,ISL2,ITGAM,ITGAV,ITGB1,ITPKB,ITPR1,JCHAIN,KBTBD2,KEAP1,KIF1B,KIF20A,KISS1R,KLF9,KMT5A,KPNA1,KRR1,LAMC1,LAMTOR2,LARP7,LCP2,LDLR,LGALS2,LGALS3,LIG4,LIMK1,LIMS1,LMNB1,LRIG2,LRP8,LRPAP1,LRRK1,LY96,LYN,MAFB,MAML3,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,MYL6,NAB1,NCAPH,NCF1,NCK2,NCOA3,NDC80,NDST1,NDUFA13,NDUFS4,NEAT1,NEK8,NFATC3,NFE2L1,NFIL3,NFYA,NINJ1,NIPAL4,NLRP3,NR1D1,NR3C1,NRCAM,NUAK2,NUMA1,NUSAP1,OTUD7B,PALLD,PAM,PANK2,PAX5,PBX3,PCDHGC3,PCSK5,PCYT1A,PDCD4,PERP,PFKFB3,PHGDH,PIAS2,PICALM,PIK3CA,PILRA,PILRB,PKD1,PKM,PLA2G6,PLAUR,PLCB1,PLIN2,PLXNB2,PLXND1,PMEPA1,PPARGC1B,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PRKCI,PSAP,PSMC2,PSMG1,PTAFR,PTEN,PTGS2,PTK2,PTPN12,PTPRJ,PTTG1,PXN,PYCARD,QKI,RAB31,RAB3D,RAB8A,RAD17,RARG,RASSF1,RBMS1,RBX1,RDH10,REC8,RGS10,RNASEH2B,RORA,RPS6KA4,RTN4,RUNX2,RXRA,S100A4,S100A8,S100A9,SATB1,SCARB2,SEC24C,SEL1L,SEMA3A,SERP1,SERPINA1,SESTD1,SETD2,SH3PXD2A,SIGMAR1,SKIL,SLC25A37,SLC31A1,SLC3A2,SLC4A1,SLC5A3,SLC8A1,SLC9A3R1,SLIRP,SMAD3,SMARCB1,SMTN,SMURF2,SNRPN,SOD1,SP1,SPRY1,SPTBN1,SRXN1,SSBP1,SSBP2,ST7,STAB1,STAT4,STAT5B,STUB1,SUB1,SUN1,SYCP3,SYNE2,TAF10,TBK1,TBX21,TBXA2R,TEAD2,TERF2,TFDP1,TFRC,TGFBI,TGFBR2,TGFBR3,TGIF1,THEM4,THRB,TIMP1,TIMP2,TINF2,TKT,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TREM1,TRIM38,TRPV2,TSHR,TSHZ1,TUBG1,TXN,TYMP,UBE2C,UBE2L3,UBE2N,UBE2Q1,UBE2W,UHRF1,USP14,UTRN,UXS1,VAV3,VCAN,VCL,VCP,VDAC1,VDAC3,VDR,VEGFA,VIM,VPS41,VTI1B,WDR1,XBP1,XRCC6,YBX3,YME1L1,YWHAE,ZBTB20,ZBTB7A,ZMIZ1,ZNF274 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Adhesion of phagocytes | 0.000000953 | turquoise | 42 | ADGRE2,ANXA1,CADM1,CCL5,CD99,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,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,TGFBR2,TLR2,TLR4,TNF,TXN,VAV3,VEGFA |
| Cell Death and Survival | Cell death of hematopoietic progenitor cells | 0.000000962 | turquoise | 59 | ABCC4,ADA,ARNT,BAK1,BCL11A,BCL11B,BCL2L2,BID,BIRC5,BNIP3L,CCL3,CCL5,CD226,CD59,CFLAR,CHEK1,CREBBP,DTX1,DUSP4,ETS2,FAIM,FAS,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,SMAD3,STAT5B,STUB1,TBXA2R,TCL1A,TNF,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VEGFA |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Astrocytoma | 0.000000999 | turquoise | 195 | ABAT,ACTN1,ACTN4,ACVR1,ADARB1,ADGRE5,ADGRG1,AGAP3,ALDH1A1,ALDOA,ANLN,ARF4,ARRB1,ASB2,ASPM,ATP1B1,ATP6V1A,ATXN1,BCL11A,BCOR,BIRC5,BMPR1A,BRAF,C5AR1,CADM1,CAND2,CAPN3,CAPN5,CAV1,CCL3,CCND2,CD14,CD200,CD93,CD99,CDC42EP3,CDK4,CDK5,CHMP2A,CIITA,CLCN4,CLEC2D,CLECL1,CLIP1,CNKSR1,CNKSR2,COCH,COL18A1,COL4A4,CREBBP,CSF1R,CSF2RB,CSF3R,CSRP1,CTSA,CXCR4,DBNDD1,DMXL2,DNAH8,DOCK5,DST,ECT2,EEF2K,EHD4,ELMO1,EVI2A,FA2H,FBXW7,FCHSD2,FLNA,FLT1,FOXO1,FURIN,GIMAP6,GLDC,GNAS,GPX1,H3F3A/H3F3B,HERC1,HIPK2,HIST1H3B,HLA-B,HRH2,HSP90B1,HSPA5,HSPA8,HYOU1,ID2,IDE,IDH2,IFI30,IL13RA1,IL1B,IL32,IL7,INPP5A,ITGAV,ITPKB,KCNN3,KIF18B,KPNA2,LDLR,LTK,LYNX1,MAML3,MAP4,MAP7,MARCKS,MDM2,MGLL,MKI67,MPRIP,MXI1,MYO1D,MYO1G,NEK6,NINJ2,NIPAL4,NLRP3,NUP88,OBSCN,PA2G4,PALLD,PANK2,PCLAF,PFKFB3,PHF10,PIEZO1,PIK3C2B,PIK3C3,PIK3CA,PILRB,PKM,PLCB1,PRR5,PRUNE2,PSD4,PSTPIP2,PTEN,PTGS2,PTTG1,RBM47,RC3H2,RRM2,RUNX3,S100A4,SEC11A,SEC24C,SEC61G,SEMA3A,SERPINA1,SETD2,SHTN1,SLC38A10,SLC9A3R1,SLCO3A1,SMC1A,SMURF2,SPON1,SRA1,STUB1,TARP,TBK1,TGFBI,TGFBR2,TIGD7,TIMP1,TLE3,TLR4,TMEM147,TMPRSS13,TNF,TNFRSF1B,TNRC6B,TOP2A,TRAM2,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBAC1,UBE2C,USF3,VANGL1,VAV3,VEGFA,YWHAE,YWHAH,ZBTB33,ZC3HAV1L,ZNF274,ZNF480,ZNF880 |
| Infectious Diseases | Infection of cells | 0.00000105 | turquoise | 173 | ADGRE5,AKAP13,ALG14,ANXA2,AP1B1,APOBEC3B,ARF1,ARHGAP32,ARPC1B,ARRB1,ASGR2,ATOX1,ATP5F1B,ATP6V0A1,BCL11A,BCL2L2,BSG,CAMK1D,CAMKK2,CARD16,CAV1,CBLB,CCL3,CCL5,CCR1,CD300LF,CD4,CD58,CD74,CD80,CD86,CD93,CDC42EP3,CEP68,CHCHD2,CLIP1,CNST,COPG1,COPZ1,CR2,CRTC3,CXCL8,CXCR4,DAPK2,DDOST,DDX50,DMXL1,DNM2,DTX4,DYSF,EIF3A,ELOA,ELOC,EPS8,ERC1,ETHE1,ETS2,FAS,FGD6,FPR1,FRS2,FURIN,GABPB1,GPI,H3F3A/H3F3B,HAVCR2,HID1,HIP1R,HLA-DOA,HS3ST1,HSP90B1,HSPA5,HSPA9,IL7,ITGAM,ITGB1,ITGB7,LCP2,LDLR,LMAN2,MAN1A1,MAP3K14,MAP3K9,MAP4,MDM2,MGAT1,MGLL,MICAL3,MRPL23,MRS2,MT1X,MT2A,MYO1F,MYOF,NDFIP1,NDUFA6,NDUFB7,NDUFS6,NECAB3,NIPSNAP3B,NLRP1,NUP133,OSBPL3,PDCD2L,PDIA6,PGM1,PICALM,PMM1,POLR2L,PPIB,PPM1K,PSMA1,PSMA2,PSMA3,PSMA5,PSMB6,PSME2,PTAFR,PTPRJ,PVT1,RAB1B,RAB3D,RAB8A,RAP1B,RARRES3,RBM5,RNH1,RREB1,RTN3,RXRA,SEC14L1,SEC61G,SELPLG,SERPINA1,SESTD1,SFXN3,SHCBP1,SLC31A1,SPCS3,SPTBN1,SSR1,SSR3,ST3GAL3,ST6GAL1,STAB1,STAU1,STT3A,SUB1,TAGLN2,TBK1,TERF2,TFRC,TLR2,TLR4,TM9SF2,TMED2,TMEM131L,TNF,TNFRSF1B,TOX,TRIM44,TRIM8,UAP1,UBE2C,UBE2L3,UPF3B,UQCRC1,VDR,YTHDC2,ZBED5,ZNF480,ZNF791,ZYX |
| Dermatological Diseases and Conditions,Inflammatory Disease,Organismal Injury and Abnormalities | Acne | 0.0000011 | turquoise | 30 | AIF1,ALOX5,APOBEC3A,AVEN,CCR1,CD14,CD163,CR1,CRH,CXCL2,CXCL8,ESR1,FABP5,GPX1,GZMB,IL13RA1,IL1B,ITGAV,PLAUR,PTGS2,RARG,RXRA,S100A9,SELPLG,SERPINA1,TIMP1,TLR2,TLR4,TNF,VDR |
| Cellular Movement | Chemotaxis of myeloid cells | 0.0000011 | turquoise | 73 | 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,IL1B,IL4R,ITGAL,ITGAM,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LITAF,LSP1,LYN,MIF,MYO1F,NINJ1,PIK3R5,PLA2G6,PLAUR,PPIA,PTEN,PTPRJ,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VAV3,VEGFA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Activation of myeloid cells | 0.00000115 | turquoise | 82 | AHR,ANXA1,ANXA2,BID,C5AR1,CCL3,CCL5,CD14,CD163,CD200,CD226,CD300A,CD300LB,CD300LF,CD36,CD4,CD63,CD80,CD86,CD93,CEBPA,CEBPB,CR1,CRH,CRTC3,CSF1R,CST3,CX3CR1,CXCL8,CXCR5,DYSF,FCER1G,FCGR2A,FCGR3A/FCGR3B,FOXP1,FPR1,GZMA,HAVCR2,HMOX1,IGHE,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,TBXA2R,TLR2,TLR4,TNF,TREM1,TREML2,TYROBP,UBE2N,VAV3 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult T cell leukemia | 0.00000119 | turquoise | 39 | ATXN1,ATXN7L1,BCL11B,CBLB,CD14,CD1A,CD27,CD4,CD58,CD86,CEBPA,CSNK1A1,ERC1,FAS,GATA3,HLA-B,IDH2,IFNAR2,IKZF2,IL6R,IMPDH1,IRF4,ITGB1,JARID2,KMO,NR3C1,PDE7B,PPIA,PRDM1,RRM2,SETD2,TARP,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,VMP1 |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Lymphatic node tumor | 0.00000119 | turquoise | 39 | BIRC5,BRAF,CD19,CD79B,CDK4,CHEK1,COL18A1,CR2,CREBBP,CSF3R,CTNND1,ESR1,FBXW7,FCER2,HMMR,HSP90B1,IDH2,IL4R,ITGB1,MAP4,MCL1,NR3C1,PAX5,PIK3CA,POU2AF1,PTEN,PTGS2,SPN,SSBP2,TBC1D16,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM |
| Cell-To-Cell Signaling and Interaction | Adhesion of myeloid cells | 0.00000119 | turquoise | 45 | ADGRE2,ADGRE5,ANXA1,CADM1,CCL5,CD99,CR2,CSF3R,CXCL2,CXCL8,FLT1,FOXO1,GLRX,ICOSLG/LOC102723996,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LGALS1,LGALS3,LILRB3,LYN,MGAT5,MIF,PIK3CA,PLA2G6,PLAUR,PTGS2,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,STAB1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TNR,TXN,VAV3,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult leukemia | 0.00000119 | turquoise | 45 | ABCB1,ATXN1,ATXN7L1,BCL11B,CBLB,CD14,CD1A,CD27,CD4,CD58,CD86,CEBPA,CSF3R,CSNK1A1,ERC1,FAS,GATA3,HLA-B,IDH2,IFNAR2,IKZF2,IL2RB,IL6R,IMPDH1,IRF4,ITGB1,JARID2,KMO,NR3C1,PDE7B,PPIA,PRDM1,RARG,RRM2,RXRA,SETD2,TARP,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VMP1 |
| Hematological System Development and Function,Tissue Morphology | Abnormal quantity of leukocytes | 0.00000122 | turquoise | 28 | BIRC3,CD4,CD74,CD80,CD86,CD8A,CSF1R,DENND1B,ESR1,FCGR2A,HAX1,HMOX1,IGHM,IGKC,IGLL1/IGLL5,IL1RN,IL5RA,IRF8,ITGAM,NFATC3,POLM,PRDX1,RHOH,SH2D1A,SH3BP2,STAT5B,TOX,VDR |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Binding of granulocytes | 0.00000124 | turquoise | 40 | ADGRE2,ADGRE5,ANXA1,CCL5,CD99,CFP,CR2,CSF3R,CXCL2,CXCL8,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,GLRX,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,LGALS1,LGALS3,LILRB3,LSP1,LYN,MGAT5,PLAUR,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TXN,VAV3,VEGFA |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic progenitor cells | 0.00000127 | turquoise | 106 | ABCB1,AFF1,AHR,AKAP13,ARID3A,ARID4B,ARNTL,AURKA,BCL11A,BCL11B,BIK,BIRC5,BLOC1S2,BNIP3L,CAPNS1,CCND2,CD22,CD36,CD4,CD59,CD69,CD72,CD79B,CD80,CD86,CD8A,CDK4,CEBPA,CIITA,CREBBP,CRIP3,CSF3R,CXCL8,CXCR4,DCLRE1C,EPB42,ESR1,ETS2,FAS,FCER1G,FLNA,FNIP1,FOXO1,FYB1,GADD45A,GFI1,HAX1,HSPA9,ICOSLG/LOC102723996,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL15RA,IL21R,IL2RB,IL7,IL7R,IRF4,IRF8,ITPKB,JARID2,LAT,LCP2,LGMN,LIG4,LILRB3,LYN,MAP3K14,MBTD1,MCL1,MGAT2,MIR17HG,NR3C1,PCLAF,PICALM,PIK3CA,PLXND1,PRDX1,PRKCD,PRKCE,PTEN,RAP1B,RARG,RHOH,RUNX2,RUNX3,SATB1,SH2D1A,SH3BP2,SIRPA,SLC4A1,SOD1,SSBP2,ST6GAL1,STAT4,STAT5B,TFRC,TNF,TNFRSF13B,TOX,VAV3,VEGFA,XRCC6,ZBTB7A |
| Cellular Function and Maintenance | Engulfment of antigen presenting cells | 0.00000129 | turquoise | 41 | ANXA1,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CTNND1,EIF2AK1,FAS,FCER1G,FCGR2A,FCN1,GPR18,HMOX1,HSH2D,HYOU1,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,SWAP70,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Quantity of neutrophils | 0.00000129 | turquoise | 61 | ABCB1,ADA,AHR,ARID4B,ARNTL,C5AR1,CD19,CD300A,CD36,CEBPA,CFLAR,CLEC7A,CR2,CSF3R,CXCL2,FAS,FCGR2A,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,TLR2,TLR4,TNF,TNFRSF1B,TRIB1,UBE2W,VDR |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG3 | 0.0000013 | turquoise | 26 | ABCB1,BACH2,CD19,CD22,CD80,CD86,CR2,ESR1,FCER1G,IGHM,IGLL1/IGLL5,IKZF3,IL13RA1,IL21R,IL5RA,LGALS2,POU2AF1,PRKCD,PTGS2,SAMSN1,SH2D1A,SH3BP2,TLR2,TLR4,TNF,TYROBP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast cancer | 0.00000131 | turquoise | 435 | ABAT,ABCB1,ABCC4,ABLIM1,ACP5,AGAP3,AGO2,AGTPBP1,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANG,ANLN,ANXA1,AP3B1,APOBEC3B,APOBEC3G,ARF4,ARHGAP20,ARHGAP31,ARHGEF40,ARHGEF7,ARNT,ARNTL,ARPC5L,ARRB1,ATP10D,ATP1A1,ATP5F1A,ATP5F1C,ATP8B2,B3GNT5,B4GALT3,BAK1,BCAT1,BCL11B,BCL2L2,BIRC5,BLVRA,BPTF,BRAF,BRIP1,BSG,BUB1B,CALM1 (includes others),CAPN2,CAPZB,CAV1,CCDC14,CCL3,CCND2,CD4,CD69,CD70,CD80,CDC42EP3,CDC5L,CDC6,CDCA7,CDK2AP2,CDK4,CEBPA,CEBPB,CEBPD,CELA3B,CHEK1,CKAP4,CMAHP,CNKSR2,COCH,COQ4,COX6B1,CPAMD8,CPEB2,CPXM2,CREB3,CREBBP,CREG1,CRTAP,CSF1R,CSF2RB,CSF3R,CTNND1,CTSC,CXCL2,CXCL8,CXCR3,CXCR4,CXorf40A/CXorf40B,DACT1,DAPK1,DDHD1,DDX17,DDX5,DHDDS,DMXL1,DMXL2,DNAH11,DNAJC7,DPH5,DSP,DST,DTL,DTX4,DUSP4,DYSF,E2F7,ECT2,EIF1,EIF2AK1,EIF3A,EIF3E,EIF4G3,ELOC,EMILIN2,ENAH,ENO1,EOGT,EPRS,EPS8,ERC1,ESR1,ESYT2,ETFA,ETS2,ETV4,EXOSC9,FABP5,FAM111B,FAM120C,FAM198B,FAS,FBXO4,FBXW7,FLNA,FLNB,FLT1,FOSL2,FOXO1,FOXP1,FRYL,FZD1,GATA3,GATD3A/GATD3B,GBA,GCOM1,GLUD1,GNAI3,GNAS,GOLIM4,GPI,GSPT1,GSTM1,GSTM2,GSTO1,GUK1,H2AFZ,H3F3A/H3F3B,HAX1,HBEGF,HBP1,HERC1,HIGD1A,HIPK2,HIST1H3B,HLA-B,HLA-DMB,HMMR,HMOX1,HRH2,HSP90B1,HSPA5,IER3,IL1B,IL2RB,IL32,IL4R,IMPDH1,IQSEC1,ITGAL,ITGAV,ITGAX,ITGB1,ITPKB,ITPR1,JARID2,KCNN3,KCTD12,KDELR1,KEAP1,KIF11,KIF1B,KIF1C,KIF20A,KISS1R,KLF10,KLHL34,KNL1,KPNA1,KPNA2,LGALS1,LGALS2,LGALS3,LGALS4,LILRA1,LIMK1,LPCAT2,LRIG2,LRRK1,LSP1,LYNX1,MACROD2,MAN1A1,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,NAMPT,NANS,NAP1L4,NCOA3,NEAT1,NEK6,NFATC3,NFE2L1,NFIL3,NOL4L,NOP16,NR3C1,NRCAM,NRIP1,NSD3,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,PRKCD,PRKCI,PRPF4B,PRR11,PRR5,PRUNE2,PSMA5,PSTPIP2,PTEN,PTGS2,PTK2,PTPRE,PTPRJ,PTTG1,PXN,PYHIN1,QKI,RAB31,RACGAP1,RAD17,RALGAPA2,RAP1B,RARG,RASSF1,RBM47,RBX1,RDX,RERE,RHEX,RIN2,RPS6KA6,RRAS2,RREB1,RRM2,RTN4,RUNX3,S100A4,S100A6,S100A8,S100A9,SEC14L1,SEC24C,SEC61A1,SEMA3A,SERPINA5,SETD2,SH3PXD2A,SKIL,SLC13A3,SLC16A1,SLC24A4,SLC25A4,SLC30A1,SLC31A1,SLC39A6,SLC43A3,SLC44A1,SLC8A1,SLC9A3R1,SLC9A7,SLIRP,SMAD3,SMC1A,SMTN,SOCS5,SOD1,SORL1,SPON1,SSBP1,SSPN,STAG3,STAT5B,TAF1D,TAGLN2,TARP,TBC1D12,TBC1D9,TCP1,TCTN1,TGFBI,TGFBR2,TGFBR3,THEM4,THRAP3,TIMP1,TIMP2,TLE3,TLR4,TMCO1,TMEM220,TMTC2,TNF,TNFRSF1B,TOP2A,TP63,TPI1,TREM1,TRIB1,TRIM69,TRPV2,TTC38,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,WDR74,WEE1,WNT10A,XBP1,YWHAH,ZBED5,ZBTB20,ZBTB44,ZC3HAV1L,ZHX2,ZIK1,ZNF233,ZNF318,ZNF362,ZNF415,ZNF677,ZNHIT1,ZYX |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of tumor cells | 0.00000131 | turquoise | 70 | ANXA1,ANXA2,B4GALT5,BCL2L2,BID,BIK,BIRC5,BRAF,BSG,CAV1,CD14,CD22,CD33,CD59,CDC6,CFLAR,CHEK1,COL18A1,CXCR3,DAPK1,E2F2,ENO1,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,NCOA3,PAWR,PLAUR,PRKCD,PRKCE,PTEN,PTK2,RASSF1,RTN4,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR4,TNF,TNFRSF10C,TNFRSF17,TRADD,TRIB1,TXN,VEGFA,ZBTB7A |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Binding of neutrophils | 0.00000132 | turquoise | 33 | ADGRE2,ANXA1,CD99,CR2,CSF3R,CXCL2,CXCL8,FCAR,FCGR2A,FCGR3A/FCGR3B,FLT1,GLRX,IL1B,ITGAL,ITGAM,ITGAX,LILRB3,LSP1,LYN,MGAT5,PLAUR,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,TGFBR2,TLR2,TLR4,TNF,TXN,VAV3,VEGFA |
| Cell Death and Survival | Cytolysis of blood cells | 0.00000145 | turquoise | 32 | AQP9,BAK1,CD226,CD4,CD59,CD8A,EIF2AK1,FCER1G,FCGR2A,GZMA,HCST,IFNAR2,IL15RA,IL21R,ITGAL,KCNN4,LCP2,NFIL3,PRDX1,PRF1,PSME2,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBK1,TBX21,TNF,TOX,TYROBP,VIM |
| Metabolic Disease | Glucose metabolism disorder | 0.00000147 | turquoise | 260 | ABCG1,ABHD5,ACAA2,ACSL1,ADARB1,AEBP1,AIF1,AIM2,ALDH1A1,ANAPC5,ANXA1,ANXA2,ANXA5,APOA2,ARG1,ARNTL,ASB2,ATXN1,AVEN,BACH2,BID,BMPR1A,BTG1,CANX,CAPN3,CARS,CAV1,CBLB,CCL3,CCL5,CCND2,CCR1,CD19,CD200,CD22,CD226,CD27,CD300A,CD36,CD4,CD74,CD79B,CD80,CD86,CDC42EP3,CDK4,CEBPA,CEBPB,CEBPD,CFD,CHN2,CIITA,CLEC12A,CLEC2B,CLEC2D,CMAHP,COL18A1,COL19A1,COL4A3,COL4A4,CPVL,CR1,CR2,CREB5,CREBBP,CRH,CRIP1,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DIP2C,DNAJC3,E2F2,EIF4EBP2,ELMO1,ENAH,EPM2A,ERN1,ESR1,EVI2A,EYA2,FABP5,FAS,FCER1G,FCER2,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FCRL1,FLOT1,FLT1,FOXO1,FOXP1,FXYD5,GABBR1,GLIPR2,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,IKZF3,IL15RA,IL18BP,IL1B,IL1RN,IL21R,IL2RB,IL7R,IMPDH1,IRF4,IRGM,ITGAM,ITGAV,ITGAX,ITGB7,ITPR1,JAML,JAZF1,KCNAB3,KIF11,KLF10,KMO,LAT,LDLR,LGALS3,LILRB3,LRP8,LRPAP1,LST1,MBD5,MGAT2,MGAT4A,MGAT4B,MIA2,MIAT,MIF,MS4A6A,MT1G,MT2A,MYO1B,MYO1F,MZB1,NCF1,NLRP3,NR3C1,P2RY13,P2RY14,PANK2,PBX3,PCYT1A,PDCD4,PDE4A,PDE4D,PDE7A,PDE7B,PFKFB3,PGM1,PILRB,PLA2G16,PLA2G6,PLBD1,PLD4,PLEK,PLIN2,PPIA,PRDX3,PRF1,PRKCD,PRKCE,PRKCI,PRR5,PRUNE2,PSMA1,PSMA3,PSMB7,PSMC2,PSMD14,PSMD8,PTAFR,PTEN,PTGS2,PTTG1,PYCARD,RBMS1,RUNX3,S100A10,S100A4,S100A6,SAMD12,SEL1L,SGCB,SH2D1A,SIGMAR1,SIRPB1,SLC16A1,SLC22A15,SLC3A2,SMARCB1,SMARCD3,SMURF2,SOCS2,SOD1,SP1,SPN,ST3GAL6,STAP1,STAT4,STAT5B,STEAP4,TGFBI,TGFBR2,THRAP3,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TP63,TRIB1,TRIM44,TUBA1C,TUBB,TXN,TYROBP,UBE2G1,UBE2N,UBE2Q1,UCHL1,UFC1,VDR,VEGFA,VPREB3,VWA3B,XBP1,YBX3,ZBTB20,ZBTB7A,ZFAND6,ZNF274 |
| Cell Morphology,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of plasma cells | 0.00000154 | turquoise | 9 | CD4,CD80,CD86,CEBPB,IGKC,IRF4,NFIL3,PRDM1,SH2D1A |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of phagocytes | 0.00000158 | turquoise | 74 | 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,IL1B,IL4R,ITGAL,ITGAM,JAML,LDLR,LGALS1,LGALS3,LGMN,LILRB3,LITAF,LSP1,LYN,MIF,MYO1F,NINJ1,PIK3CA,PIK3R5,PLA2G6,PLAUR,PPIA,PTEN,PTPRJ,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,VAV3,VEGFA |
| Cardiovascular Disease,Hematological Disease,Organismal Injury and Abnormalities | Anemia | 0.0000016 | turquoise | 103 | AGO2,ALDOA,ANXA1,ATP1B1,ATXN1,BAK1,BCOR,BNIP3L,BRIP1,C1GALT1C1,CCND2,CD59,CD70,CDC42EP3,CDK4,CSF1R,CSF2RB,CSF3R,CX3CR1,CYP51A1,DAD1,EIF2AK1,EPB42,ESR1,FAS,FBXW7,FCER1G,FCGR1B,FCGR2A,FCGR3A/FCGR3B,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,NDFIP1,NDUFB11,NFATC3,NFE2L1,NR3C1,PICALM,PIEZO1,PIK3C3,PPIA,PRDX1,PRDX3,PRF1,PTEN,PTGS2,PTPRE,PTPRJ,RPL15,RPS17,RPS27,RRM2,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,Organismal Injury and Abnormalities | Primary tumor | 0.00000161 | turquoise | 93 | BIRC5,BRAF,BRIP1,CD19,CD22,CD79B,CDK4,CDK5,CEBPA,CHD3,CIITA,CLMP,COX5A,CR2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,ECT2,ELMO1,ESR1,EYA2,FCER2,FLNA,FLT1,FOSL2,FOXO1,FOXP1,GLDC,GOT2,HMGA1,HSP90B1,ID2,IDH2,IFI30,IFNAR2,IQSEC1,IRF4,JPT1,KIF21A,KPNA2,LDLR,LGALS1,LGALS3,LGALS4,LYN,MAPK1,MGLL,MRPL20,MTHFD2,NR3C1,NUAK2,PCLAF,PDE4D,PDGFD,PDLIM5,PIK3CA,PKM,PLAUR,PNKD,PPIA,PRDM1,PRKCI,PSAT1,PSMB2,PTEN,PTGS2,PTPRK,RACGAP1,RARG,RASSF1,RRM2,RXRA,SERPINA1,SETD2,SLC16A3,SLC5A3,SLC9A3R1,SMAD3,SMC4,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VCAN,VEGFA,ZNF490 |
| Cell Death and Survival | Cytolysis of lymphocytes | 0.00000162 | turquoise | 27 | CD226,CD4,CD8A,FCER1G,FCGR2A,GZMA,HCST,IFNAR2,IL15RA,IL21R,ITGAL,LCP2,NFIL3,PRDX1,PRF1,PSME2,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBK1,TBX21,TNF,TOX,TYROBP,VIM |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Response of neutrophils | 0.00000162 | 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 |
| Cell Death and Survival | Apoptosis of hematopoietic progenitor cells | 0.00000166 | turquoise | 54 | ADA,ARNT,BAK1,BCL11A,BCL11B,BCL2L2,BID,BNIP3L,CCL3,CCL5,CD226,CD59,CFLAR,CHEK1,CREBBP,DTX1,DUSP4,ETS2,FAIM,FAS,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,TBXA2R,TCL1A,TNF,TNFRSF1B,TNFRSF25,TOP2A,VAV3,VEGFA |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of neutrophils | 0.00000166 | turquoise | 78 | AIM2,ALOX5,ANXA1,AQP9,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,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,NCF1,NDST1,NLRP3,PIK3R5,PRDM1,PTEN,PTGS2,PTPRB,RAP1B,RTN4,S100A12,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,SPN,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TXN,VAV3 |
| Cell Death and Survival | Cell death of B lymphocytes | 0.00000168 | turquoise | 39 | BAK1,BCL11A,CD22,CD27,CD70,CD79B,CD80,CFLAR,CR2,DUSP4,FAIM,FAS,FCAR,FNIP1,FOXP1,GZMB,HSH2D,IGHM,IL7,ITPR1,LGALS1,LYN,MDM2,MIR17HG,POU2AF1,PRF1,PRKCD,PTEN,SH3BP2,SH3BP5,SKIL,SMAD3,SPN,SWAP70,TCL1A,TLR2,TNF,TNFRSF17,VAV3 |
| Cellular Movement | Cell movement of breast cancer cell lines | 0.0000017 | turquoise | 82 | ACTN1,ACTN4,AFDN,AHNAK,AHR,ANXA1,ANXA2,ARF1,ARPC1B,ARRB1,BANP,BHLHE41,BMP6,CAPN2,CAV1,CCL5,CD99,CEMIP2,CERS6,CHN2,CXCL8,CXCR4,DUSP6,EIF3A,ENAH,ERC1,ESR1,EYA2,FLNA,FURIN,GAB1,GATA3,GPI,GZMB,ICMT,IL1B,IL32,ITGAV,ITGB1,KCNN3,KPNA2,LASP1,LDHA,LIMK1,LRPAP1,MAPK1,MDM2,MGAT5,PALLD,PAX5,PDCD4,PIK3R5,PIK3R6,PLAUR,PRKCD,PTEN,PTK2,PTPRJ,PXN,RACGAP1,RUNX2,S100A11,S100A4,SEMA3A,SERPINA1,SERPINA5,SMAD3,SP1,SSBP1,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TNF,TNFAIP8,TP63,TUBA1C,VAV3,VEGFA,VIM |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of phagocytes | 0.00000183 | turquoise | 42 | ANXA1,ANXA5,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,GLRX,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TRPV2,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cellular infiltration by leukocytes | 0.00000187 | turquoise | 100 | ABCB4,ABCG1,ADA,AHR,AIM2,ANXA1,ARG1,ARRB1,BCL11B,BID,BMPR1A,BRAF,BSG,C5AR1,CAV1,CBLB,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD80,CD86,CD93,CEBPA,CIITA,CNP,COL4A3,CR1,CR2,CRH,CSF1R,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR5,ESR1,FAS,FCAR,FCER1G,FLT1,FPR1,GBA,GPR18,HMOX1,HSPA5,HYOU1,IGHE,IL15RA,IL18BP,IL1B,IL1RN,IL2RB,IL4R,IL6R,IL7,ITGAL,ITGAM,ITGB1,LDLR,LGALS1,LGALS3,LILRB3,LIMK1,LMNB1,MIF,NAAA,NCF1,NDST1,NINJ1,NLRP3,PPIA,PRDM1,PRF1,PRKCD,PTEN,PTGS2,RUNX3,S100A10,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SMAD3,STAT5B,TBX21,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFAIP8,TNFRSF1B,TREM1,TSHR,VAV3 |
| Cellular Function and Maintenance,Hematological System Development and Function | Engulfment of myeloid cells | 0.00000188 | turquoise | 44 | ANXA1,APOA2,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,CTNND1,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,HYOU1,IL1B,IRF8,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| 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 | 0.00000195 | turquoise | 80 | ABCB4,APOA2,ARIH2,BID,BIRC3,BTLA,CCL3,CCL5,CD14,CEBPA,CHCHD2,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DDX5,DTX1,E2F2,ESR1,FAIM,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLT1,GABBR1,GLMP,HAVCR2,HMOX1,HSPA5,IFNAR2,IL1RN,IL2RB,IL4R,IL6R,IL7R,IMPDH1,ITGAM,LAT,LCP2,LDLR,LGALS3,LYN,MAP3K14,MAPKAPK3,MRS2,NFE2L1,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PLAUR,PPIA,PRDM1,PRF1,PTEN,PTPRJ,RASSF1,RXRA,S100A4,SIGMAR1,SOD1,STAB1,STAT4,STUB1,TARP,TBX21,TFRC,TIMP1,TLR4,TNF,TNFRSF13B,TNFRSF1B,TYROBP,VDR,VSIR,XBP1 |
| Hematological System Development and Function,Hypersensitivity Response,Tissue Morphology | Quantity of eosinophils | 0.00000214 | 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,SELPLG,STAT4,TBK1,TBXA2R,TLR4,TNF,TNFRSF1B,TNFRSF25,TRIB1,TXN |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Hematological System Development and Function | Phagocytosis of myeloid cells | 0.00000215 | turquoise | 42 | ANXA1,APOA2,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,CSF2RB,EIF2AK1,FAS,FCER1G,FCGR2A,FCGR3A/FCGR3B,FCN1,FPR1,GLRX,GPR18,HMOX1,HSH2D,IL1B,IRF8,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SELPLG,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREM1,TRPV2,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Adhesion of neutrophils | 0.00000228 | turquoise | 29 | ADGRE2,ANXA1,CD99,CR2,CSF3R,CXCL2,CXCL8,FLT1,GLRX,IL1B,ITGAL,ITGAM,ITGAX,LILRB3,LYN,MGAT5,PLAUR,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,TGFBR2,TLR2,TLR4,TNF,TXN,VAV3,VEGFA |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Interaction of mononuclear leukocytes | 0.00000237 | turquoise | 55 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD14,CD22,CD4,CD58,CD69,CD80,CD86,CD99,CXCL8,CXCR3,CXCR4,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,PIK3CA,PLAUR,PLCB1,PPIB,RAP1B,RAP2A,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TGFBR2,TLR2,TLR4,TNF |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Nasal type extranodal NK-/T-cell lymphoma | 0.00000245 | turquoise | 28 | AIM2,CD163,CD4,CD86,CXCL8,FAS,FZD1,GZMB,HLA-DOA,HSP90B1,IL13RA1,IL6R,IRF4,MAFB,MKI67,NR3C1,PRDM1,PRF1,PTPRK,RRM2,SPN,TIMP1,TIMP2,TLR2,TOP2A,TP63,TYMS,VEGFA |
| Inflammatory Response | Inflammatory response of cells | 0.00000247 | turquoise | 20 | CD14,CEBPB,CMC2,EIF2AK1,ELMO1,ERN1,IGHE,IL1B,IL6R,ITGAM,LITAF,LY96,MCL1,S100A8,S100A9,TLR2,TLR4,TNF,TREM1,XBP1 |
| Organismal Survival | Organismal death | 0.00000257 | turquoise | 484 | ABCB1,ABCB4,ABCC4,ABHD5,ACTN4,ACVR1,ADA,ADARB1,ADGRG1,AEBP1,AFDN,AFF1,AFF4,AFMID,AGO2,AHR,AIM2,AKAP13,ALDH1A1,ALDOA,ALOX5,ANK3,ANXA1,ANXA2,APBB2,APLP2,ARF1,ARF4,ARG1,ARID3A,ARID3B,ARID4B,ARIH2,ARNT,ARNTL,ARRB1,ASGR2,ASL,ATOX1,ATP1A1,ATP1B1,AURKA,B3GNT5,BAK1,BBS4,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BLMH,BLOC1S2,BMP6,BMPR1A,BNIP3L,BPTF,BRAF,BRIP1,BSG,BUB1B,BUB3,C1GALT1C1,C5AR1,CAMK4,CANX,CAPN2,CAPNS1,CAPZB,CAV1,CBLB,CCNA2,CCNC,CCND2,CCR1,CD14,CD19,CD200,CD22,CD226,CD2AP,CD36,CD4,CD59,CD70,CD74,CD8A,CDK4,CDK5,CEBPA,CEBPB,CEBPD,CEP120,CFL1,CFLAR,CFP,CHEK1,CHMP2A,CISD2,CITED2,CLEC7A,CLMP,CLUH,CNP,COL19A1,COL4A3,COPS8,COX17,CPEB2,CR2,CREB5,CREBBP,CSF1R,CSNK1A1,CSRP1,CST3,CTNND1,CTSA,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CYP51A1,CYTOR,DACT1,DAD1,DBNDD1,DCLRE1C,DDX17,DDX5,DGKD,DNAJC3,DNM2,DSP,DTL,E2F2,E2F7,ECT2,EEF2K,EHD1,EHD3,EHD4,EIF2AK1,EIF3M,ELOA,EMC7,ENAH,ERC1,ERN1,ERO1A,ESR1,ETHE1,ETS2,EXT1,FAIM,FAS,FBXL20,FBXO4,FBXW7,FCER1G,FECH,FGF9,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,GPX1,GSTK1,GSTM1,GTF2I,GZMA,H2AFZ,H3F3A/H3F3B,HAVCR2,HAX1,HBEGF,HCST,HIP1R,HIPK2,HLA-DMA,HMOX1,HMOX2,HRH2,HS3ST1,HSP90B1,HSPA5,HSPE1,HYOU1,ICMT,ID2,IDE,IDH2,IFI30,IFNAR2,IGHM,IKZF2,IKZF3,IL15RA,IL1B,IL1RN,IL2RB,IL4R,IL6R,IRAK1,IRF8,ISL2,ITGAM,ITGAV,ITGB1,ITPKB,ITPR1,KBTBD2,KEAP1,KIF1B,KIF20A,KISS1R,KLF9,KMT5A,KPNA1,KRR1,LAMC1,LAMTOR2,LARP7,LCP2,LDLR,LGALS2,LGALS3,LIG4,LIMK1,LIMS1,LMNB1,LRIG2,LRP8,LRPAP1,LRRK1,LY96,LYN,MAFB,MAML3,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,MYL6,NAB1,NCAPH,NCF1,NCK2,NCOA3,NDC80,NDST1,NDUFA13,NDUFS4,NEAT1,NEK8,NFATC3,NFE2L1,NFIL3,NFYA,NINJ1,NIPAL4,NLRP3,NR1D1,NR3C1,NRCAM,NUAK2,NUMA1,NUSAP1,OTUD7B,PALLD,PAM,PANK2,PAX5,PBX3,PCDHGC3,PCSK5,PCYT1A,PDCD4,PERP,PFKFB3,PHGDH,PIAS2,PICALM,PIK3CA,PKD1,PKM,PLA2G6,PLAUR,PLCB1,PLIN2,PLXNB2,PLXND1,PMEPA1,PPARGC1B,PPIA,PPIB,PRDM1,PRDX1,PRF1,PRKCD,PRKCI,PSAP,PSMC2,PSMG1,PTAFR,PTEN,PTGS2,PTK2,PTPN12,PTPRJ,PTTG1,PXN,PYCARD,QKI,RAB31,RAB3D,RAB8A,RAD17,RARG,RASSF1,RBMS1,RBX1,RDH10,REC8,RGS10,RNASEH2B,RORA,RPS6KA4,RTN4,RUNX2,RXRA,S100A4,S100A8,S100A9,SATB1,SCARB2,SEC24C,SEL1L,SEMA3A,SERP1,SERPINA1,SESTD1,SETD2,SH3PXD2A,SIGMAR1,SKIL,SLC25A37,SLC31A1,SLC3A2,SLC4A1,SLC5A3,SLC8A1,SLC9A3R1,SLIRP,SMAD3,SMARCB1,SMTN,SMURF2,SNRPN,SOD1,SP1,SPRY1,SPTBN1,SRXN1,SSBP1,SSBP2,ST7,STAB1,STAT4,STAT5B,STUB1,SUB1,SUN1,SYCP3,SYNE2,TAF10,TBK1,TBX21,TBXA2R,TEAD2,TERF2,TFDP1,TFRC,TGFBI,TGFBR2,TGFBR3,TGIF1,THEM4,THRB,TIMP1,TIMP2,TINF2,TKT,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TREM1,TRIM38,TRPV2,TSHR,TSHZ1,TUBG1,TXN,TYMP,UBE2C,UBE2L3,UBE2N,UBE2Q1,UBE2W,UHRF1,USP14,UTRN,UXS1,VAV3,VCAN,VCL,VCP,VDAC1,VDAC3,VDR,VEGFA,VIM,VPS41,VTI1B,WDR1,XBP1,XRCC6,YBX3,YME1L1,YWHAE,ZBTB20,ZBTB7A,ZMIZ1,ZNF274 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of antigen presenting cells | 0.00000258 | turquoise | 37 | ANXA1,APOA2,BRAF,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,EIF2AK1,FAS,FCER1G,FCGR2A,FCN1,GPR18,HMOX1,HSH2D,ICOSLG/LOC102723996,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TRPV2,XBP1 |
| Cellular Movement,Immune Cell Trafficking | Migration of lymphatic system cells | 0.00000262 | turquoise | 90 | ALOX5,ANXA1,AQP3,BACH2,BCL11B,BSG,CAV1,CBLB,CCL3,CCL5,CCR1,CD22,CD226,CD4,CD58,CD69,CD74,CD80,CD86,CD8A,CD99,COL4A3,CX3CR1,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,FABP5,FAS,FLOT1,FOXO1,FRS2,FYB1,GATA3,GNAI3,GNLY,HYOU1,ICOSLG/LOC102723996,IL15RA,IL18BP,IL1B,IL7,IL7R,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,MYO1G,NFIL3,NLRP3,NR3C1,PIK3CA,PRF1,PTEN,PTGS2,PTPRB,PYCARD,RAP1B,RAP2A,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 | Homing of leukocytes | 0.00000286 | turquoise | 90 | AIF1,ALOX5,ANXA1,AQP9,ARHGEF7,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD4,CD69,CD72,CD74,CKLF,CREB3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DYSF,ELMO1,FCER1G,FCGR2A,FLOT1,FLT1,FOXO1,FPR1,FYB1,GATA3,GNAI3,GNAS,GNLY,GPR18,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,PTEN,PTPRJ,RAP1B,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TIAM1,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,TXN,VAV3,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant solid tumor | 0.00000291 | turquoise | 158 | ABAT,ABCB1,ABRAXAS1,ACP5,ACTN4,ALOX5,ANK3,ANXA1,ANXA2,ARG1,BAK1,BCOR,BIRC5,BRAF,BRIP1,C5AR1,CALU,CARD16,CAV1,CCL5,CCND2,CD200,CD36,CD8A,CDCA7L,CDK4,CEBPD,CHEK1,COL18A1,CREBBP,CSF1R,CSF2RB,CSF3R,CSNK1A1,CST7,CTNND1,CXCL8,CXCR3,CXCR4,CYP51A1,DLGAP5,DPYSL2,DUSP4,DUSP6,DYNLRB1,ENAH,ESR1,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLNA,FLT1,GATA3,GLRX,GNAS,HAX1,HIST1H3B,HMGA1,HMMR,HMOX1,HSP90B1,ID2,IFI30,IFNAR2,IGFBP7,IKZF2,IL15RA,IL1RN,IL2RB,IL4R,IRF4,ITGB1,KCNK6,KCNN3,KEAP1,KIF20A,KISS1R,LGALS1,LGALS2,LGALS3,LGALS4,LIMK1,LRP8,LYN,MAFB,MAP4,MAPK1,MDM2,MDM4,MYL12A,NCAPG,NCOA3,NDUFB4,NLRP1,NR3C1,PDCD2L,PIK3CA,PLAUR,PPIA,PRKCE,PRKCI,PRUNE2,PSMB2,PTAFR,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,QPCT,RAB31,RALGAPA2,RARG,RASSF1,RNH1,RPL7,RPS11,RRM2,RTN1,RUNX2,S100A11,S100A4,SEC61G,SECTM1,SETD2,SLC16A3,SLC5A3,SMAD3,SMC4,SND1,SRD5A3,SSBP1,SSR2,TBX21,TGFBR2,TGFBR3,THRB,TLR2,TMBIM6,TNF,TNIK,TOP2A,TP63,TSHR,TUBA1C,TUBA4A,TUBB,TUBB3,TUBB4B,TUBG1,TYMP,TYMS,VAV3,VCAN,VDR,VEGFA,YWHAE |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of leukocytes | 0.00000292 | turquoise | 56 | ABCG1,AHR,BIRC5,BTLA,CADM1,CCL5,CD19,CD36,CD4,CD69,CD80,CD86,CEBPA,CLEC7A,CXCR4,EIF2AK1,FAS,HAVCR2,HMOX1,HSP90B1,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL1B,IL21R,IL7,IL7R,IRF4,IRF8,ITGAM,LAT,LYN,MAP3K14,MAPK1,NFIL3,PRDM1,PTEN,PTGS2,RARRES3,RHOH,RUNX3,SERPINA1,SWAP70,TBX21,TCF7,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX2,TYROBP,VEGFA,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Invasive adenocarcinoma | 0.00000296 | turquoise | 43 | ACP5,ANXA1,ARRB1,BIRC5,CDC42EP3,COCH,CXCL8,DACT1,DST,ESR1,FAS,HLA-B,HSP90B1,IER3,IQSEC1,LGALS1,MEF2C,MGLL,MKI67,NR3C1,OBSCN,PIK3CA,PMEPA1,PRKCI,PTAFR,PTEN,PTPRE,RASSF1,RRM2,RTN4,RUNX2,TGFBR2,THEM4,TLE3,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM |
| Cell Signaling,Cell-To-Cell Signaling and Interaction | Cytokine and chemokine mediated signaling pathway | 0.00000304 | turquoise | 55 | ALOX5,ANXA1,BIRC5,CAV1,CCL3,CCL5,CCR1,CD36,CD4,CD80,CD86,CEBPD,CSF1R,CSF2RB,CSF3R,CX3CR1,CXCL2,CXCL8,FCER2,FOXO1,FPR1,GATA3,HMOX1,HSP90B1,HSPA8,IGHE,IL13RA1,IL1B,IL1RN,IL2RB,IL32,IL4R,IL5RA,IL6R,IL7,IRAK1,IRF4,ITGAM,ITGAX,ITGB1,LILRB3,MCL1,PIK3CA,PTAFR,PTGS2,RHOU,RORA,SOCS5,STAT4,STAT5B,TIMP1,TNF,TNFRSF1B,VEGFA,VIM |
| Free Radical Scavenging | Metabolism of reactive oxygen species | 0.00000308 | turquoise | 117 | ABCB1,ADGRE2,AHR,ALOX5,ANXA1,ANXA2,ARG1,ARNT,BAK1,BID,BNIP3L,C5AR1,CANX,CAPN3,CAV1,CCL3,CCL5,CD14,CD36,CLEC7A,CLIC1,COL18A1,COX5B,COX8A,CR2,CST3,CSTB,CXCL2,CXCL8,CYP1B1,DNM2,DOCK5,ERO1A,FAS,FCGR2A,FCGR3A/FCGR3B,FOXO1,FPR1,GGT1,GNAS,GPX1,GZMA,GZMB,GZMH,GZMK,HMOX1,HSD17B10,HSPA9,HVCN1,IGHE,IL1B,IL32,IRAK1,ITGAM,ITGAX,ITGB1,LAT,LCP2,LDHA,LGALS3,LILRB2,LIMK1,LYN,MAPK1,MIF,MLKL,MPRIP,MSRB2,NAMPT,NCF1,PFKFB3,PLA2G6,PLAUR,PPIA,PRDX1,PRDX3,PRDX5,PRELID1,PRF1,PRKCD,PRKCE,PTEN,PTGS2,ROMO1,RORA,RRM2,RTN4,S100A6,S100A8,SAT1,SCO2,SELPLG,SERPINA1,SH3BP5,SH3PXD2A,SIGMAR1,SLC8A1,SLC9A3R1,SMAD3,SMOX,SOD1,TBXA2R,TFRC,TINF2,TLR2,TLR4,TMBIM6,TNF,TRADD,TREML2,TXN,TXN2,TYROBP,VDAC1,VDR,VEGFA,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Primary solid tumor | 0.00000312 | turquoise | 90 | BIRC5,BRAF,BRIP1,CD19,CD22,CD79B,CDK4,CDK5,CEBPA,CHD3,CIITA,CLMP,COX5A,CR2,CSF1R,CSF2RB,CSF3R,CSNK1A1,CXCL8,ECT2,ELMO1,ESR1,EYA2,FCER2,FLNA,FLT1,FOSL2,FOXO1,FOXP1,GLDC,GNAS,GOT2,GRIA1,HMGA1,HSP90B1,ID2,IFI30,IFNAR2,IQSEC1,IRF4,JPT1,KIF21A,KPNA2,LDLR,LGALS1,LGALS3,LGALS4,MAPK1,MGLL,MRPL20,MTHFD2,NR3C1,NUAK2,PCLAF,PDE4D,PDGFD,PDLIM5,PIK3CA,PKM,PLAUR,PNKD,PPIA,PRDM1,PRKCI,PSAT1,PTEN,PTGS2,RACGAP1,RARG,RASSF1,RRM2,SERPINA1,SETD2,SLC16A3,SLC5A3,SLC9A3R1,SMAD3,SMC4,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VCAN,VEGFA,ZNF490 |
| Cell Morphology | Polarization of cells | 0.00000321 | turquoise | 49 | ACTN4,AHR,AQP9,BRAF,CAV1,CCL3,CCL5,CD36,CFL1,CLIP1,CXCL8,CXCR4,DAAM1,DPYSL2,ELMO1,FAM89B,FCER1G,FLT1,GAB1,GATA3,GLRX,GNAI3,IL1B,IL1RN,IRF4,ITGB1,LSP1,LTK,NAMPT,PIK3CA,PRKCE,PRKCI,PTEN,SAMSN1,SIRPA,SPN,SSPN,STAT4,SVIL,SWAP70,SYNE2,TBX21,TIAM1,TIMP1,TLR2,TLR4,TNF,TXN,VEGFA |
| Cell Morphology | Orientation of cells | 0.00000348 | turquoise | 51 | ACTN4,AHR,AQP9,BRAF,CAV1,CCL3,CCL5,CD36,CFL1,CLIP1,CXCL8,CXCR4,DAAM1,DPYSL2,ELMO1,FAM89B,FCER1G,FLT1,GAB1,GATA3,GLRX,GNAI3,IL1B,IL1RN,IRF4,ITGB1,LSP1,LTK,NAMPT,PALLD,PIK3CA,PRKCE,PRKCI,PTEN,SAMSN1,SIRPA,SPN,SSPN,STAT4,SVIL,SWAP70,SYNE2,TBX21,TIAM1,TIMP1,TLR2,TLR4,TNF,TXN,VCL,VEGFA |
| Cell Death and Survival | Apoptosis of B lymphocytes | 0.00000349 | turquoise | 36 | BAK1,BCL11A,CD22,CD27,CD70,CD79B,CD80,CFLAR,CR2,DUSP4,FAIM,FAS,FNIP1,FOXP1,GZMB,HSH2D,IGHM,IL7,ITPR1,LYN,MDM2,MIR17HG,POU2AF1,PRF1,PRKCD,PTEN,SH3BP2,SKIL,SMAD3,SPN,SWAP70,TCL1A,TLR2,TNF,TNFRSF17,VAV3 |
| Cancer,Dermatological Diseases and Conditions,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Cutaneous T-cell lymphoma | 0.0000035 | turquoise | 33 | ADA,ANXA1,AURKA,BAK1,CD4,CXCR3,FAS,IFI30,IFNAR2,IL13RA1,IL2RB,MCL1,MIA2,MKI67,NR3C1,PRF1,PSMB2,RARG,RARRES3,RRM2,RXRA,SECTM1,SELPLG,STAT5B,TLR2,TLR4,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cell Death and Survival | Apoptosis of T lymphocytes | 0.00000369 | turquoise | 67 | ADA,AHR,ARRB1,BAK1,BCL11B,BID,CAV1,CCL3,CCL5,CD226,CD27,CD4,CD59,CD70,CFLAR,CHEK1,CIITA,CXCR4,DTX1,E2F2,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,PTEN,RHOH,SATB1,SPN,STAT5B,STOML2,STUB1,TBXA2R,TCL1A,TNF,TNFRSF1B,TNFRSF25,TOP2A,VDR |
| Cellular Compromise | Respiratory burst | 0.0000037 | turquoise | 24 | AHR,CD14,CLEC4D,CXCL2,CXCL8,FCAR,FCER1G,FPR1,IGHA1,IGHG3,IRF8,ITGAL,ITGAM,ITGB1,LILRB3,LYN,MIF,NCF1,PGAM1,SLC11A1,TLR4,TNF,TREM1,TYROBP |
| 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 | Arrest in differentiation of lymphocytes | 0.00000371 | turquoise | 22 | CD74,CD79B,DCLRE1C,FNIP1,GFI1,IGHM,IGKC,IKZF3,IL7,IL7R,IRF4,IRF8,ITPKB,LAT,LIG4,LYN,PAX5,POU2AF1,PRKCD,RHOH,SATB1,XRCC6 |
| Cell Death and Survival | Cell death of thyroid tumor cell lines | 0.00000383 | turquoise | 15 | BAK1,BRAF,CCDC6,CCND2,CFLAR,ETS2,FAS,GAPDH,HMGA1,HSPA5,IGFBP7,MDM2,MDM4,TNF,TP63 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Enlargement of lymphoid organ | 0.00000385 | turquoise | 58 | ABCB4,AHR,AIM2,ARID4B,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD8A,CEBPA,CEBPB,CFLAR,CREBBP,CSF2RB,CTSA,E2F2,FAS,FCER1G,GBA,HMGA1,HMOX1,IKZF3,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,LCP2,LGMN,LYN,LYPLA2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,NR3C1,PAWR,PICALM,PRDX1,PRKCD,PTEN,PTGS2,RAPGEF6,RRM2,RUNX2,RUNX3,SLC4A1,SMAD3,STAT5B,TBXA2R,TCL1A,TGFBI,TNF,TNFRSF13B,VDR |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG2a | 0.00000394 | turquoise | 30 | ABCB1,B3GNT5,BACH2,BTLA,CCR1,CD19,CD22,CD36,CD69,CD80,CD86,CR2,DUSP4,FCER1G,HAX1,ICOSLG/LOC102723996,IFNAR2,IGHM,IKZF3,IL21R,IL4R,ITPKB,LAX1,LYN,POU2AF1,PTGS2,SH2D1A,TBK1,TNF,TYROBP |
| Cell Death and Survival | Cytolysis of natural killer cells | 0.00000418 | turquoise | 19 | CD226,FCER1G,FCGR2A,HCST,IFNAR2,IL15RA,IL21R,ITGAL,LCP2,NFIL3,PRDX1,PRF1,RNF19B,SH2D1A,SLAMF7,STAT5B,STX11,TBX21,TYROBP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive mammary tumor | 0.00000419 | turquoise | 70 | ACP5,ANXA1,ARHGEF7,ARRB1,BIRC5,BUB1B,CALM1 (includes others),CDC42EP3,CDC6,CDK4,COCH,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,FAM111B,FAS,HBP1,HLA-B,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NCOA3,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PRKCI,PSTPIP2,PTEN,PTPRE,PTPRJ,RACGAP1,RASSF1,RRM2,RTN4,SLC8A1,SSPN,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,WDR1,ZIK1,ZNF677 |
| Infectious Diseases,Organismal Injury and Abnormalities | Septic shock | 0.00000421 | turquoise | 56 | AHR,ANXA1,ASB2,ATP1B1,ATXN1,BID,BIRC3,BTLA,CAV1,CD14,CD80,CDC42EP3,CIITA,COCH,CSTB,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,GATA3,IFNAR2,IL1B,IL1RN,IL6R,IMPDH1,INPP5A,IRAK1,ITGAL,ITGAM,LY96,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,ZBTB20 |
| Free Radical Scavenging | Synthesis of reactive oxygen species | 0.00000427 | turquoise | 113 | ABCB1,ADGRE2,AHR,ALOX5,ANXA1,ANXA2,ARG1,ARNT,BAK1,BID,BNIP3L,C5AR1,CANX,CAPN3,CAV1,CCL3,CCL5,CD14,CD36,CLEC7A,CLIC1,COL18A1,COX5B,COX8A,CR2,CST3,CSTB,CXCL2,CXCL8,CYP1B1,DNM2,DOCK5,ERO1A,FAS,FCGR2A,FCGR3A/FCGR3B,FOXO1,FPR1,GGT1,GNAS,GPX1,GZMA,GZMB,GZMH,GZMK,HMOX1,HSD17B10,HSPA9,HVCN1,IGHE,IL1B,IL32,IRAK1,ITGAM,ITGAX,ITGB1,LAT,LCP2,LDHA,LGALS3,LILRB2,LIMK1,LYN,MAPK1,MIF,MLKL,MPRIP,MSRB2,NAMPT,NCF1,PFKFB3,PLA2G6,PLAUR,PPIA,PRDX1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,PTGS2,ROMO1,RORA,RRM2,RTN4,S100A6,S100A8,SAT1,SCO2,SELPLG,SERPINA1,SH3BP5,SIGMAR1,SLC8A1,SLC9A3R1,SMAD3,SMOX,SOD1,TBXA2R,TFRC,TINF2,TLR2,TLR4,TMBIM6,TNF,TRADD,TREML2,TXN2,TYROBP,VDAC1,VDR,VEGFA,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive breast carcinoma | 0.00000436 | turquoise | 66 | ACP5,ANXA1,ARHGEF7,ARRB1,BIRC5,BUB1B,CALM1 (includes others),CDC42EP3,CDC6,CDK4,COCH,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,FAM111B,HLA-B,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PRKCI,PSTPIP2,PTEN,PTPRE,PTPRJ,RACGAP1,RASSF1,RRM2,RTN4,SLC8A1,SSPN,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,WDR1,ZIK1,ZNF677 |
| 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 | Arrest in differentiation of B lymphocytes | 0.00000438 | turquoise | 17 | CD74,CD79B,DCLRE1C,FNIP1,IGHM,IGKC,IKZF3,IL7,IL7R,IRF4,IRF8,LIG4,LYN,PAX5,POU2AF1,PRKCD,XRCC6 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of granulocytes | 0.00000448 | turquoise | 34 | ADGRE2,ADGRE5,ANXA1,CD99,CR2,CSF3R,CXCL2,CXCL8,FLT1,GLRX,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,LGALS1,LGALS3,LILRB3,LYN,MGAT5,PLAUR,RASGRP2,S100A8,S100A9,SELPLG,SERPINA1,SWAP70,TGFBR2,TLR2,TLR4,TNF,TXN,VAV3,VEGFA |
| Infectious Diseases | Endotoxicosis | 0.00000448 | turquoise | 34 | ADA,BID,BIRC3,BTLA,CAV1,CD14,GZMA,IL1RN,IL6R,IRAK1,ITGAL,ITGAM,ITGAV,LY96,MGLL,MIF,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PRF1,PTGS2,PYCARD,RAP1B,RPS6KA4,S100A9,STAT4,TLR4,TNF,TNFRSF1B,TREM1,ZBTB20 |
| Cellular Movement,Organismal Injury and Abnormalities,Respiratory Disease | Cellular infiltration of lung | 0.00000456 | turquoise | 25 | ALDOA,ANXA1,ARG1,CD300LF,CD4,CD86,CSF2RB,ENO1,GAPDH,HSPA5,IL4R,IL5RA,MAP3K14,MGAT5,NR3C1,P4HB,PRDX1,RUNX3,SOCS2,ST3GAL3,TKT,TNF,TPI1,TUBB,VAV3 |
| Gene Expression | Transactivation | 0.0000046 | turquoise | 129 | ACTN4,ACVR1,AHR,AKAP13,ARNT,ARRB1,ATOX1,CAMK1D,CAV1,CCND2,CD300LB,CD300LF,CD80,CD86,CD8A,CEBPA,CEBPB,CEBPD,CIITA,CITED2,CREBBP,CXCL8,DTX1,DTX4,E2F2,EDF1,ERN1,ESR1,ETS2,ETV4,FABP5,FOSL2,FOXO1,GAB1,GABPB1,GADD45A,GAPDH,GATA3,GFI1,GTF2I,HBP1,HSPA9,IL1B,IRAK1,IRF4,IRF8,JAZF1,JDP2,LCP2,LGALS1,MAFB,MAP3K14,MAPK1,MAPKAPK3,MARCKSL1,MDM2,MDM4,MEF2C,MTDH,N4BP1,NAB1,NAP1L1,NCOA3,NFE2L1,NKIRAS2,NR3C1,NRIP1,NSD3,PA2G4,PIAS2,PIK3CA,PKM,PLCB1,PLEKHA2,PODXL,POLR2L,POU2AF1,PRDM1,PRDX1,PRKCD,PSMC2,PTEN,PTGS2,PTTG1,PXN,PYCARD,RARG,RBX1,RORA,RUNX2,RXRA,S100A4,SELPLG,SF1,SH3KBP1,SIRPA,SKIL,SMAD3,SMARCA2,SMARCB1,SMURF2,SND1,SP1,SRA1,STAT5B,STUB1,SUB1,TBK1,TBL1X,TBX21,TCF7,TFDP1,TGIF1,THRB,TMEM131L,TNF,TNFRSF1B,TP63,TRIM45,TXN,UAP1,UPF3B,VDR,XRCC6,YWHAH,ZBED5,ZBTB10,ZBTB32,ZHX2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Plasma cell neoplasm | 0.0000047 | turquoise | 28 | BCL11A,CCND2,CD163,CEBPD,CITED2,CSF1R,CTSC,CXCL2,DAP,EIF4E3,ENAH,FCGR2A,IGHM,JCHAIN,KIF11,MCL1,MXI1,NR3C1,PTGS2,S100A10,SOCS2,SOD1,TFRC,TGFBR2,TIMP2,TLR4,TRADD,VPREB3 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Necrosis of malignant tumor | 0.00000471 | turquoise | 88 | ANXA1,B4GALT5,BCL2L2,BID,BIK,BIRC5,BMP6,BRAF,BUB1B,CD22,CD33,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CSF3R,CXCL8,CXCR3,CXCR4,E2F2,EIF3E,ENO1,FAS,FOXO1,GZMA,HIPK2,HMOX1,HSPA9,IDH2,IGHM,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MIF,MMP11,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMB3,PSMC2,PTEN,PTGS2,PTK2,RARG,RPL10,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SOD1,TCL1A,THRB,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TNFRSF1B,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Cell Death and Survival | Apoptosis of myeloid cells | 0.00000479 | turquoise | 49 | ABCG1,AHR,ANXA1,BAK1,BCL2L2,BID,BIRC3,BIRC5,BTG1,CCL5,CD14,CD69,CEBPB,CFLAR,CXCL2,CXCL8,CXCR4,FAS,FCER1G,HAVCR2,HAX1,IGHE,IL1B,IL1RN,IL6R,IRF8,ITGAM,LDLR,LGALS1,LGALS3,LYN,MCL1,MIF,NAMPT,NLRP1,PLA2G6,PRKCD,PRKCE,PTEN,S100A8,SH3BP2,ST3GAL3,ST6GAL1,TICAM2,TLR2,TLR4,TNF,TNFRSF1B,TREM1 |
| Immunological Disease,Inflammatory Disease,Inflammatory Response | Allergic inflammation | 0.00000486 | turquoise | 22 | ALDOA,ARG1,CD300LF,CXCL8,CYP51A1,ENO1,GAPDH,GATA3,HSPA5,IGHE,IL1B,IL4R,NR3C1,P4HB,PRDX1,SMAD3,SOCS2,TKT,TLR4,TPI1,TUBB,VAV3 |
| Cell-To-Cell Signaling and Interaction | Binding of lymphatic system cells | 0.00000492 | turquoise | 48 | ANXA1,ANXA2,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD58,CD69,CD80,CD86,CD99,CR2,CSF2RB,CXCR3,CXCR4,FAS,FCGR3A/FCGR3B,FLOT1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGB1,ITGB7,LCP2,LYN,MYO1G,NFATC3,NR3C1,NSD2,PPIB,RAP1B,RAP2A,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TGFBI,TLR4,TNF |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of leukocytes | 0.00000496 | turquoise | 85 | AIF1,ALOX5,ANXA1,AQP9,ARHGEF7,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD4,CD69,CD72,CD74,CKLF,CREB3,CSF1R,CSF3R,CST3,CX3CR1,CXCL2,CXCL8,CXCR3,CXCR4,CXCR5,DAPK2,DOCK5,DYSF,ELMO1,FCER1G,FCGR2A,FLOT1,FLT1,FPR1,GNAI3,GNAS,GNLY,GPR18,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,PTEN,PTPRJ,S100A12,S100A4,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,STAP1,SWAP70,TIAM1,TLR2,TLR4,TNF,TREM1,TREML2,TRPV2,TXN,VAV3,VEGFA |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of eicosanoid | 0.0000051 | turquoise | 57 | ADA,ALOX5,ANXA1,ATP5PF,BMP6,C5AR1,CADM1,CAV1,CCL5,CD14,CD36,CD4,CD74,CEBPB,CLEC7A,COTL1,CRH,CXCL8,CYP1B1,FAS,FCER1G,FCGR2A,FPR1,HMOX1,HMOX2,IGFBP7,IGHE,IGHM,IL1B,IL1RN,IL32,LDLR,LIMK1,LYN,MAP3K14,MAPK1,MGST2,MIF,NCF1,PLA2G6,PRKCI,PTAFR,PTGS2,RASGRP2,SEMA3A,SGPP1,SMAD3,SOD1,SSPN,STAT5B,TBXA2R,TGFBR2,TLR2,TLR4,TNF,VEGFA,VIM |
| Cell Morphology,Cellular Development,Cellular Growth and Proliferation,Organismal Development,Tissue Development | Morphogenesis of epithelial cells | 0.00000513 | 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,Respiratory Disease | Advanced lung cancer | 0.0000052 | turquoise | 63 | ABCB1,ALOX5,ANXA1,ANXA2,BRAF,C5AR1,CALU,CCL5,CD200,CD8A,CDK4,CSF1R,CSF3R,CTNND1,CXCR4,ENAH,FAS,FLT1,HSP90B1,IFI30,IL15RA,IL4R,ITGB1,KISS1R,LGALS1,LIMK1,LYN,MAFB,MAP4,MDM2,MYL12A,NCOA3,NDUFB4,NR3C1,PIK3CA,PPIA,PTEN,PTGS2,PTK2,PTPRJ,RALGAPA2,RPL7,RPS11,RRM2,SEC61G,SND1,SSBP1,SSR2,TBX21,TGFBR2,THRB,TMBIM6,TNF,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,YWHAE |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of lymphocytes | 0.00000561 | turquoise | 35 | ABCG1,AHR,BIRC5,BTLA,CADM1,CD19,CD4,CD80,CD86,CXCR4,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL21R,IL7,IL7R,IRF4,LAT,MAP3K14,MAPK1,NFIL3,PRDM1,PTEN,PTGS2,RHOH,RUNX3,TBX21,TCF7,TGFBR2,TNF,TNFRSF13B,TOX2,TYROBP,XBP1 |
| Cellular Development,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Maturation of mononuclear leukocytes | 0.00000581 | turquoise | 36 | 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,PRDM1,PTEN,PTGS2,RHOH,RUNX3,TBX21,TCF7,TGFBR2,TNF,TNFRSF13B,TOX2,TYROBP,XBP1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive ductal breast carcinoma | 0.00000581 | turquoise | 36 | ACP5,ANXA1,ARRB1,BIRC5,CDC42EP3,COCH,CXCL8,DACT1,DST,ESR1,HLA-B,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 |
| Organismal Development | Morphology of body cavity | 0.00000584 | turquoise | 316 | ABCB1,ABCB4,ABCC4,ABCG1,ACSL1,ADA,ADGRE5,ADGRG1,AEBP1,AFDN,AFF4,AGO2,AHR,AIM2,AKAP13,ALOX5,ARG1,ARID3A,ARID3B,ARID4B,ARNT,ARNTL,ARRB1,ARSG,ASB2,ATP2A3,ATXN1,AURKA,B3GNT5,BAK1,BCL11A,BCL11B,BID,BIK,BIRC3,BIRC5,BMPR1A,BNIP3L,BRAF,BSG,CAMK2D,CAMK4,CAPN2,CAPNS1,CAPZB,CAV1,CCNA2,CCND2,CCR1,CD14,CD19,CD226,CD2AP,CD36,CD4,CD72,CD80,CD86,CD8A,CDC42EP3,CDK4,CDS2,CEBPA,CEBPB,CFLAR,CIITA,CISD2,CITED2,CLEC4D,CLEC7A,CLMP,COL18A1,CREBBP,CRH,CSF1R,CSF2RB,CST3,CTSA,CTSC,CXCR3,CXCR4,CXCR5,CYP51A1,DACT1,DAD1,DCLRE1C,DENND1B,DNAH11,DNAJC3,DSP,DTNBP1,DUSP6,E2F2,EEF2K,EHD4,EIF2AK1,EIF3M,ELOA,EPB42,EPM2A,ESR1,ETS2,FABP5,FAS,FBXL20,FBXO32,FCER1G,FGF9,FLNA,FLT1,FNIP1,FOXO1,FZD1,GADD45A,GADD45GIP1,GBA,GFI1,GGT1,GLMP,GNAQ,GNAS,GNG5,GPAT3,GPBAR1,GPR3,GPX1,GSTK1,H2AFZ,HBEGF,HCST,HDAC9,HMGA1,HMOX1,HRH2,HSH2D,HSP90B1,ICMT,ICOSLG/LOC102723996,ID2,IER3,IGHM,IGKC,IKZF3,IL1B,IL1RN,IL2RB,IL4R,IL5RA,IL6R,IL7,IL7R,IRF4,IRF8,ITGAL,ITGAV,ITGB7,ITPKB,JARID2,KCNN4,KISS1R,KPNA1,LAMC1,LASP1,LAT,LAX1,LCP2,LDLR,LGALS3,LGMN,LIG4,LIMS1,LITAF,LMNB1,LRRC8C,LTK,LYN,LYPLA2,MAML3,MAP3K14,MAPK1,MARCKSL1,MBD5,MCL1,MDM2,MDM4,MEF2C,MGAT2,MGAT3,MGLL,MIF,MIR17HG,MMP11,MTHFD2,MXI1,MZB1,NAAA,NAB1,NCF1,NDST1,NDUFS6,NFATC3,NFE2L1,NFIL3,NLRP3,NR3C1,NUAK2,NUCB2,PANK2,PAWR,PBX3,PDLIM5,PGK1,PICALM,PIK3CA,PILRA,PKD1,PLA2G16,PLCB1,PLXND1,PNKD,POLM,PPARGC1B,PPIA,PRDM1,PRDX1,PRF1,PRKCD,PRKCE,PRKCI,PSAP,PTEN,PTGS2,PTK2,PTPRJ,PTTG1,PYCARD,RAB1A,RAB8A,RAD17,RAPGEF6,RARG,RASSF1,RBMS1,RDH10,REC8,RHOH,RRM2,RTN4,RUNX2,RUNX3,RXRA,S100A10,S100A6,SAT1,SATB1,SCO2,SDHB,SEMA3A,SESTD1,SGPP2,SH3BP2,SLC25A11,SLC25A4,SLC4A1,SLC8A1,SLC9A3R1,SMAD3,SMTN,SOD1,SPN,SPTBN1,STAB1,STAT4,STAT5B,STEAP4,SUCLG1,SUN1,SYNE2,TBK1,TBX21,TBXA2R,TCL1A,TGFBI,TGFBR2,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TKT,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOP2A,TOX,TP63,TPI1,TRADD,TRIB1,TXN,TXN2,UBE2W,VAV3,VCL,VDAC1,VDR,VEGFA,VTI1B,WNT10A,XBP1,XRCC6,XYLT1,YWHAE,ZMIZ1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive breast cancer | 0.00000605 | turquoise | 69 | ACP5,ANXA1,ARHGEF7,ARRB1,BIRC5,BUB1B,CALM1 (includes others),CDC42EP3,CDC6,CDK4,COCH,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DST,E2F7,ESR1,FAM111B,FAS,HBP1,HLA-B,HSP90B1,IER3,IQSEC1,ITGB1,KCTD12,KNL1,LGALS1,LYNX1,MEF2C,MGLL,MKI67,MT1E,MTHFD2,NR3C1,NUSAP1,OBSCN,PALLD,PIK3CA,PKM,PRKCI,PSTPIP2,PTEN,PTPRE,PTPRJ,RACGAP1,RASSF1,RRM2,RTN4,SLC8A1,SSPN,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,WDR1,ZIK1,ZNF677 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of mononuclear leukocytes | 0.00000623 | turquoise | 40 | ANXA1,CBLB,CCL3,CCL5,CD58,CD80,CD99,CXCL8,CXCR3,CXCR4,FAS,FLOT1,FOXO1,FYB1,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,LCP2,MIF,MYO1G,NR3C1,PIK3CA,PLAUR,PPIB,RAP1B,RAP2A,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TGFBR2,TLR4,TNF |
| 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 | 0.00000625 | turquoise | 41 | ATP2B4,B3GNT5,BAK1,CD200,CD74,CD80,CD86,CEBPB,CIITA,CXCR5,DCLRE1C,ESR1,FAS,HMOX1,ID2,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,LAT,LYN,MAP3K14,MGAT2,NFATC3,PRF1,PRKCD,PTEN,PTGS2,SATB1,SMAD3,TBXA2R,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,VDR,XRCC6 |
| Hematological System Development and Function,Tissue Morphology | Quantity of antigen presenting cells | 0.00000626 | turquoise | 70 | ADA,AHR,BCL11A,BID,BIRC3,C5AR1,CCL3,CD200,CD36,CD86,CEBPA,CFLAR,CIITA,CLEC4D,CSF1R,CX3CR1,ELMO1,FAS,FCER1G,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,PILRA,PRDM1,PRF1,PRKCD,PTEN,PTK2,RGS10,SELPLG,SHCBP1,SIRPA,SOD1,ST6GAL1,STAB1,STAT4,STEAP4,TBX21,TCL1A,TGFBR2,TLR2,TLR4,TNF,TRIB1,TYROBP,VDR,VEGFA,XBP1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic form of lymphocytic leukemia | 0.00000627 | turquoise | 96 | ADA,ALDH1A1,ANXA1,ATXN1,AURKA,BACH2,BAK1,BCL2L2,BCL9L,BIRC3,BRAF,CCL3,CD19,CD200,CD22,CD74,CD79B,CD80,CD86,CDC42EP3,CDK5,CEP68,CFL1,CHD2,COL4A4,CSF3R,CXCL8,DAD1,DAPK1,DLEU2,E2F7,ERC1,FAS,FBXW7,FCGR2A,FLT1,FRYL,HLA-B,HVCN1,IFNAR2,IGH,IKZF3,IL1B,IL21R,IL7,ILDR1,IMPDH1,IRAK1,IRF4,IRF8,ITGAX,JARID2,LDHA,LYN,LYPLA2,MCL1,MIF,MIR17HG,NAMPT,NEK8,NR3C1,PAX5,PBX3,PDE4D,PDE7B,PNKD,PPIA,PRDM15,PRICKLE1,PRR5,PTEN,PTPRE,PTPRK,RAPGEF6,RHOH,RRM2,SEC23B,SEC24D,SGPP2,SIPA1L3,SMAD3,STEAP4,SUCLG1,SYNE2,TARP,TBX21,TLR2,TNF,TOP2A,TRAM2,VCAN,VWA3B,WDR74,ZFP2,ZNF395,ZYX |
| Hematological Disease,Immunological Disease | Lymphopenia | 0.00000631 | turquoise | 27 | BACH2,BCL11A,BCL11B,C5AR1,CD4,CD79B,CD8A,CREBBP,DCLRE1C,DNM2,FCER1G,FNIP1,ID2,IGHM,IGKC,IL2RB,IL7,IL7R,IRF4,IRF8,ITPKB,LAT,MAGT1,PRDM1,SH2D1A,TBX21,XRCC6 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of leukocytes | 0.0000072 | turquoise | 42 | BMPR1A,CBLB,CCL5,CD226,CD27,CD300A,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,SH2D1A,SPN,STAT4,STAT5B,STX7,TBX21,TLR2,TNF,TXN,TYROBP |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of natural killer cells | 0.00000724 | turquoise | 33 | 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,RHOH,STAT5B,TBX21,TNFRSF25,TOX,TYROBP,VDR |
| Neurological Disease | Progressive motor neuron disease | 0.0000073 | turquoise | 121 | ABAT,ABCB1,ALOX5,ANG,ANXA1,ANXA2,ANXA5,AP1S2,ARRB1,ARSG,ATXN1,BSG,CALM1 (includes others),CAPN2,CAPN3,CAPZB,CBLB,CCL5,CD36,CD74,CDC42EP3,CEBPA,CFLAR,CHCHD2,CNP,CSF3R,CST3,CXCR3,DNAJB11,DNAJC1,EIF4G1,ESR1,ETS2,FADS3,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLOT1,FOXO1,FURIN,GABBR1,GADD45A,GBA,GNAS,GRIA1,H3F3A/H3F3B,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,MAPK1,MIF,MTHFD2,NDUFS4,NEAT1,NFIL3,NR3C1,NRCAM,PAWR,PDE4A,PDE4D,PEBP1,PGK1,PLA2G6,PODXL,PPARGC1B,PSAP,PTGS2,RPL15,RPS3A,RREB1,RRM2,RTN1,RTN4,S100A4,S100A6,SCARB2,SCN4A,SIGMAR1,SLC1A4,SLC52A2,SOD1,STAP1,STUB1,TBK1,TFRC,TIMP1,TLR2,TLR4,TNF,TNR,TOP2A,TUBA1B,TUBA1C,TUBA4A,UCHL1,VAMP1,VCP,VDR,VIM,XBP1 |
| Neurological Disease | Progressive neurological disorder | 0.0000074 | turquoise | 138 | ABAT,ABCB1,ALOX5,ANG,ANK3,ANXA1,ANXA2,ANXA5,AP1S2,ARRB1,ARSG,ATXN1,BIRC5,BRAF,BSG,CALM1 (includes others),CAPN2,CAPN3,CAPZB,CBLB,CCDC50,CCL5,CD36,CD74,CDC42EP3,CEBPA,CFLAR,CHCHD2,CNP,COCH,CRH,CSF3R,CST3,CSTB,CXCR3,DNAJB11,DNAJC1,EIF4G1,EPM2A,ESR1,ETS2,FADS3,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLOT1,FLT1,FOXO1,FURIN,GABBR1,GADD45A,GBA,GNAS,GRIA1,H3F3A/H3F3B,HAVCR2,HIGD1A,HLA-B,HLA-DMA,HLA-DMB,HMOX2,HRH2,HSP90B1,HSPA5,IFNAR2,IL1B,IL2RB,IL7R,IMPDH1,IRGM,ITGAV,JPT1,KCNA6,KEAP1,KIAA0040,KIF1B,LDHA,LDHB,LDLR,MAPK1,MIF,MTHFD2,NDUFS4,NEAT1,NFIL3,NR3C1,NRCAM,PAWR,PDE4A,PDE4D,PEBP1,PGK1,PLA2G6,PODXL,PPARGC1B,PRICKLE1,PSAP,PTGS2,RPL15,RPS3A,RREB1,RRM2,RTN1,RTN4,S100A4,S100A6,SCARB2,SCN4A,SIGMAR1,SLC1A4,SLC52A2,SOD1,STAP1,STUB1,TBK1,TFRC,TIMP1,TLR2,TLR4,TNF,TNR,TOP2A,TUBA1B,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UCHL1,USP53,VAMP1,VCP,VDR,VEGFA,VIM,XBP1 |
| Cell Death and Survival | Cell death of lymphoma cell lines | 0.00000742 | turquoise | 54 | ANXA2,ARNT,BACH2,BAK1,BIK,BIRC3,BIRC5,CBX5,CD226,CD4,CD59,CD79B,CD99,CEBPA,CFLAR,CHEK1,CXCR4,DUT,ERN1,FAS,FCER1G,FCER2,FOXO1,GGT1,GPX1,GZMH,HSH2D,IGFBP7,IGHE,IGHM,IL6R,IRF8,ITPR1,LGALS1,LGALS3,LMNB1,LSP1,LYN,MAP3K14,MAPK1,MCL1,MIR17HG,NR3C1,PIK3CA,PLA2G6,PRDM1,RPLP0,SATB1,SMAD3,ST6GAL1,TIAM1,TNF,TOX,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of mononuclear leukocytes | 0.00000747 | turquoise | 51 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD4,CD58,CD69,CD80,CD86,CD99,CXCL8,CXCR3,CXCR4,FAS,FCGR3A/FCGR3B,FLOT1,FOXO1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGAM,ITGAX,ITGB1,ITGB7,LCP2,MIF,MYO1G,NFATC3,NR3C1,PIK3CA,PLAUR,PPIB,RAP1B,RAP2A,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TGFBR2,TLR4,TNF |
| Cancer,Organismal Injury and Abnormalities | Grade 3-4 tumor | 0.00000791 | turquoise | 29 | ABAT,ACTN1,ACTN4,BRAF,CD19,CDK4,CLEC2D,COL18A1,CSF3R,ELMO1,ESR1,IDH2,IL2RB,IRF4,NAA15,NR3C1,PKM,PTEN,RRM2,SSBP1,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UBE2C,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Splenic cancer | 0.00000823 | turquoise | 21 | ANXA1,BIRC3,BRAF,CD19,CD22,CR2,DTX1,FCER2,IGH,NR3C1,RRM2,SPN,STAT5B,SWAP70,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Connective Tissue Disorders,Dermatological Diseases and Conditions,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Psoriatic arthritis | 0.00000846 | turquoise | 26 | ANXA1,CD27,CD36,CD72,CD79B,CD80,CD86,CDK2AP2,CXCL8,FOXO1,IGHD,IGHM,IGKC,LYN,NR3C1,PDE4A,PDE4D,RUNX3,S100A12,S100A8,S100A9,TCF7,TNF,TNFRSF1B,TRADD,TXN |
| Dermatological Diseases and Conditions,Infectious Diseases,Organismal Injury and Abnormalities | Leprosy | 0.00000846 | turquoise | 26 | CCL3,CCR1,CD14,CD19,CD22,CD4,CD59,CD80,CLEC2B,CXCR3,FCER1G,FCGR2A,IFNAR2,IGHG3,IGHM,IGLL1/IGLL5,IL2RB,IL7,LILRA2,LILRB3,MXI1,PPIA,SIRPA,TLR2,TNF,TNFRSF17 |
| Cellular Development,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Differentiation of osteoclasts | 0.00000879 | turquoise | 50 | ALOX5,BMPR1A,C5AR1,CAMK4,CCL3,CCL5,CCR1,CD300LF,CEBPB,CIITA,CSF1R,CST3,CXCL8,DYNLL1,FCER1G,FOXP1,GABBR1,GNAS,HCST,IL32,IL7,JDP2,KLF10,LAT,LILRB3,MAFB,MAP3K14,PILRB,PPARGC1B,PRDM1,PTEN,PTGS2,PTPRE,RGS10,RUNX2,S100A8,SEMA3A,SH3BP2,SIRPA,SMAD3,SOD1,TFRC,TLR2,TLR4,TNF,TOB2,TSHR,TYROBP,VEGFA,ZBTB7A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic lymphocytic leukemia / small lymphocytic lymphoma | 0.0000088 | turquoise | 122 | ABCG1,ABHD5,ADA,AHNAK,APOBEC3B,ATXN1,BACH2,BAK1,BCL2L2,BCL9L,BCOR,BIRC3,BRAF,CCL3,CCND2,CD19,CD74,CD79B,CD80,CD86,CDC42EP3,CDCA2,CDK5,CFP,CHD2,CREBBP,CSF1R,CSF3R,CXCL8,DAD1,DAPK1,DGKD,DLEU2,DMXL1,DMXL2,DPH5,DSP,DST,E2F7,FAS,FBXW7,FCER2,FCGR2A,FILIP1L,FLT1,HLA-B,HVCN1,ICK,IGLL1/IGLL5,IKZF3,IL1B,IL7,IMPDH1,IRAK1,IRF4,IRF8,ISL2,ITPR1,KPNA1,KRR1,LRIG2,LRRFIP1,LYN,LYNX1,LYPLA2,MCL1,MDM2,MGA,MIF,MIR17HG,MYOF,NAMPT,NETO2,NR3C1,NUDT6,OTUD7B,PAX5,PBX3,PDE4D,PDE7B,PPIA,PRICKLE1,PRKCI,PRR5,PSMB6,PSME4,PTEN,PTPRE,RRM2,SARS,SDK2,SEC14L1,SIPA1L3,SMAD3,SMARCD3,SMC6,SORL1,SPN,STAMBPL1,STAT5B,SYNE2,TAPT1,TARP,TBX21,TLR2,TNF,TNIK,TOP2A,TRAM2,TRERF1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,VAV3,VDAC1,VWA3B,WDR74,WWC3,ZC2HC1A,ZYX |
| Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Quantity of lymphoid organ | 0.00000899 | turquoise | 69 | ABCB1,AFF1,AHR,AKAP13,B3GNT5,BAK1,BCL11A,BCL11B,BNIP3L,CD200,CD4,CD79B,CD80,CD86,CD8A,CIITA,CREBBP,CRH,CRIP3,CXCR4,CXCR5,DCLRE1C,ESR1,ETS2,FAS,FCER1G,FOXO1,FYB1,GADD45A,GBA,GFI1,GSTK1,HAX1,ICOSLG/LOC102723996,ID2,IL15RA,IL2RB,IL7,IL7R,IRF8,ITPKB,LAT,LCP2,LGALS2,LIG4,LYN,MCL1,MIR17HG,MXI1,NR3C1,PIK3CA,PLXND1,PRF1,PSMB10,PTEN,RARG,RHOH,RUNX2,RUNX3,SATB1,STAT5B,TGFBR3,TNF,TNFRSF13B,TOX,TPX2,VAV3,VDR,XRCC6 |
| Hematological Disease,Immunological Disease,Inflammatory Disease | Eosinophilic inflammation | 0.00000899 | turquoise | 34 | ALDOA,ANXA1,APOBEC3A,ARG1,CAPN3,CD300LF,CD4,CD69,CD86,CLEC7A,CXCL2,ENO1,FCER2,GAPDH,GATA3,HSPA5,IGHD,IGKC,IGLJ3,IL4R,IL5RA,JCHAIN,MAP3K14,MGAT5,NR3C1,P4HB,PRDX1,SOCS2,ST3GAL3,TKT,TLR4,TPI1,TUBB,VAV3 |
| Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of pre-B lymphocytes | 0.00000899 | turquoise | 34 | AFF1,AKAP13,ARID3A,ARNTL,BIK,CD22,CD36,CD69,CD72,CD79B,CXCR4,FNIP1,HAX1,IGHA1,IGHM,IGKC,IGLL1/IGLL5,IKZF3,IL21R,IL7,IL7R,IRF4,IRF8,LYN,MAP3K14,PRKCD,RAP1B,SH2D1A,SH3BP2,SSBP2,ST6GAL1,STAT5B,TNFRSF13B,ZBTB7A |
| Cell Cycle | Interphase | 0.00000916 | turquoise | 161 | ABCB1,ABRAXAS1,ACVR1,AHR,ANXA2,APOBEC3A,ARG1,ARNT,ARRB1,ATF5,AURKA,BAK1,BCAT1,BID,BIRC5,BRAF,BTG1,BTLA,BUB1B,CAMK2D,CAMK2N1,CAMKK2,CAPNS1,CAV1,CCL3,CCNA2,CCND2,CDC5L,CDC6,CDCA2,CDK4,CDT1,CEBPA,CEBPB,CEBPD,CHEK1,CREBBP,CREG1,CRH,CSF1R,CSTB,CTNND1,CYP1B1,DCTN3,DTL,DUSP4,DYNLL1,E2F2,EEF2K,EGOT,EIF3E,ESR1,FAS,FCER2,FLNA,FLT1,FOXO1,GAB1,GADD45A,GATA3,GFI1,GMNN,GPI,GSPT1,GTF2I,HBEGF,HMGA1,HMOX1,ID2,IER3,IGFBP7,IGHM,IL1B,IL4R,IL6R,IL7,ITGAV,ITGB1,KIF11,KLF10,LGALS1,LGALS3,LIMK1,LMNB1,LZTS1,MAPK1,MCM4,MCM6,MDM2,MDM4,MTDH,MXI1,NCOA3,NFYA,NR3C1,NRIP1,PAX5,PCLAF,PFKFB3,PIAS2,PKD1,PKM,PLAUR,PLCB1,PMEPA1,POLD4,PPARGC1B,PRKCD,PRKCE,PSAP,PTEN,PTGS2,PTK2,PTTG1,RAD17,RASSF1,RASSF6,RB1-DT,RBM5,RBX1,RFFL,RHOU,RNASEH2B,RPL23,RUNX2,RUNX3,RXRA,SEL1L,SH3PXD2A,SMARCA2,SMARCB1,SMC1A,SP1,SSH2,STK38L,SUN1,TAF10,TBXA2R,TCP1,TFDP1,TFRC,TGFBR2,THRB,TIMP1,TIMP2,TNF,TNFRSF17,TOB2,TOP2A,TP53I3,TP63,TUBA4A,TUBB,TUBB4B,TUBG1,TYMS,UHRF1,VEGFA,WEE1,YWHAE,ZBTB10 |
| Cell Cycle | Cell cycle progression of tumor cell lines | 0.00000922 | turquoise | 64 | AHR,APBB2,ARG1,AURKA,BANP,BIRC5,BRAF,CAMK2N1,CAMK4,CAV1,CCNA2,CD14,CD19,CDK4,CEBPB,CHN2,CREG1,CSNK1A1,CSTB,E2F2,EIF3M,ESR1,FOXO1,HBEGF,HMOX1,IER3,IGHM,IL7,KLF10,LGALS3,LYN,MAFB,MDM2,MDM4,MGAT4A,MGLL,MIF,MIR17HG,NR3C1,PAX5,PIK3CA,POLD4,PRKCD,PTEN,RAD17,RASSF1,S100A4,SMAD3,SMARCA2,SMARCB1,SND1,SSBP2,STAT5B,TCP1,TLR4,TNF,TOX,TP63,WEE1,XBP1,XRCC6,YWHAE,ZBTB10,ZBTB20 |
| Cell-To-Cell Signaling and Interaction | Binding of lymphoma cell lines | 0.0000096 | turquoise | 27 | ANXA1,ANXA2,CD226,CD4,CD59,CR1,CR2,CXCL2,CXCR3,FOXO1,GATA3,HSP90B1,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,PARVG,PLEKHA2,SELPLG,SH2D1A,SPN,TFRC,TNF,UTRN,VCAN,VEGFA |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Intermediate disease stage peripheral arterial disease | 0.00000976 | turquoise | 40 | ADA2,ADGRE5,ALOX5,C5AR1,CCR1,CD163,CLEC2B,CPVL,CSF2RB,CTSA,CTSC,CXCR4,EIF1B,EVI2A,FCGR2A,FCGR3A/FCGR3B,FPR1,FRG1,FYB1,GLRX,IFI30,IRF8,LILRB2,LYN,MAFB,MARCKS,NGRN,PDLIM5,PLAUR,PLXNC1,PLXND1,PSMA2,RAP2B,RCN2,SAMSN1,SAT1,ST6GAL1,SUB1,TREM1,ZCCHC10 |
| Cell-To-Cell Signaling and Interaction | Adhesion of tumor cell lines | 0.00000982 | turquoise | 77 | ACTN4,AFDN,AGO2,ANXA1,ANXA2,ARHGAP21,BSG,CAV1,CCL3,CD226,CD4,CD59,CD99,CR2,CXCL2,CXCL8,CXCR3,CXCR4,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,PTK2,PXN,RASGRP2,RASSF1,RHOU,SELPLG,SEMA3A,SH2D1A,SKAP1,SLC4A1,SMAD3,SPN,SRGN,ST6GAL1,STOML2,TIAM1,TLR2,TNF,TNFRSF25,TP63,UCHL1,UTRN,VCAN,VCL,VEGFA,ZYX |
| Free Radical Scavenging | Production of reactive oxygen species | 0.00000997 | turquoise | 87 | ABCB1,ADGRE2,AHR,ALOX5,ANXA1,ANXA2,ARG1,ARNT,BAK1,BID,C5AR1,CAPN3,CAV1,CCL3,CCL5,CD14,CD36,CLEC7A,COL18A1,COX8A,CST3,CXCL2,CXCL8,DNM2,DOCK5,FAS,FCGR2A,FCGR3A/FCGR3B,FOXO1,FPR1,GGT1,GNAS,GPX1,GZMA,GZMB,GZMK,HMOX1,HSD17B10,HSPA9,HVCN1,IGHE,IL1B,IL32,ITGAM,ITGAX,LAT,LCP2,LDHA,LILRB2,LIMK1,LYN,MAPK1,MLKL,MPRIP,MSRB2,NCF1,PFKFB3,PLA2G6,PPIA,PRDX1,PRELID1,PRF1,PRKCD,PRKCE,PTEN,PTGS2,ROMO1,RORA,RTN4,S100A8,SELPLG,SIGMAR1,SLC8A1,SLC9A3R1,SMOX,SOD1,TINF2,TLR2,TLR4,TMBIM6,TNF,TREML2,TXN2,TYROBP,VDAC1,VEGFA,XBP1 |
| Organismal Injury and Abnormalities | Fibrosis | 0.00001 | turquoise | 118 | ABCB4,ACSL1,ADA,AGO2,AHR,ALOX5,ARG1,ARNT,ATP1B1,AURKA,BID,BLMH,BMP6,BMPR1A,BUB1B,C5AR1,CAPNS1,CAV1,CCL5,CCR1,CD19,CD36,CD4,CD74,CDK4,CEBPA,CEBPB,CFLAR,COL18A1,COL4A3,CREBBP,CSF1R,CST3,CX3CR1,CXCR3,DDX5,DSP,DYSF,FAM111B,FAS,FLT1,FOSL2,GCLC,GLMP,GNAS,GPX1,HBEGF,HMOX1,IDH2,IFNAR2,IGHM,IGKV1D-13,IL1B,IL1RN,IL21R,IL2RB,IL5RA,IL6R,IL7,IMPDH1,ITGB1,KCNN4,LDLR,LGALS3,LGMN,LIMS1,LYN,MIF,MTSS1,NAMPT,NCF1,NDUFS6,NFE2L1,NLRP3,NR3C1,PIK3CA,PILRA,PKD1,PLAUR,PNKD,PPIA,PRDX3,PRF1,PTEN,PTGS2,PTK2,RASSF1,RERE,RORA,RUNX2,S100A4,SELPLG,SGCB,SKIL,SLC4A1,SLC8A1,SMAD3,SMURF2,SOD1,STAB1,STAT4,TBXA2R,TGFBR2,TGIF1,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TP63,TYMS,VAV3,VDR,VEGFA,VIM,XBP1 |
| Hematological Disease | Toxemia | 0.0000103 | turquoise | 33 | ADA,BID,BIRC3,BTLA,CAV1,CD14,IL1RN,IL6R,IRAK1,ITGAL,ITGAM,ITGAV,LY96,MGLL,MIF,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PTGS2,PYCARD,RAP1B,RPS6KA4,S100A9,STAT4,TLR4,TNF,TNFRSF1B,TREM1,VDR,ZBTB20 |
| Neurological Disease | Progressive motor neuropathy | 0.0000104 | turquoise | 120 | ABAT,ABCB1,ALOX5,ANG,ANXA1,ANXA2,ANXA5,AP1S2,ARRB1,ARSG,ATXN1,BSG,CALM1 (includes others),CAPN2,CAPN3,CAPZB,CBLB,CCL5,CD36,CD74,CDC42EP3,CEBPA,CFLAR,CHCHD2,CNP,CSF3R,CST3,CXCR3,DNAJB11,DNAJC1,EIF4G1,ESR1,ETS2,FADS3,FAS,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FLOT1,FOXO1,FURIN,GABBR1,GADD45A,GBA,GNAS,GRIA1,H3F3A/H3F3B,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,MAPK1,MIF,MTHFD2,NDUFS4,NEAT1,NFIL3,NR3C1,NRCAM,PAWR,PDE4A,PDE4D,PEBP1,PGK1,PLA2G6,PODXL,PPARGC1B,PSAP,PTGS2,RPL15,RPS3A,RREB1,RRM2,RTN1,RTN4,S100A4,S100A6,SCARB2,SCN4A,SIGMAR1,SLC1A4,SOD1,STAP1,STUB1,TBK1,TFRC,TIMP1,TLR2,TLR4,TNF,TNR,TOP2A,TUBA1B,TUBA1C,TUBA4A,UCHL1,VAMP1,VCP,VDR,VIM,XBP1 |
| Cell Signaling,Post-Translational Modification,Protein Synthesis | Assembly of Respiratory chain complex I | 0.0000105 | turquoise | 16 | NDUFA1,NDUFA11,NDUFA13,NDUFA2,NDUFA9,NDUFAB1,NDUFB10,NDUFB11,NDUFB2,NDUFB3,NDUFB4,NDUFB7,NDUFB8,NDUFC2,NDUFS4,NDUFS5 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Abnormal quantity of lymphocytes | 0.0000105 | turquoise | 22 | CD4,CD74,CD80,CD86,CD8A,DENND1B,ESR1,HAX1,IGHM,IGKC,IGLL1/IGLL5,IRF8,ITGAM,NFATC3,POLM,PRDX1,RHOH,SH2D1A,SH3BP2,STAT5B,TOX,VDR |
| Cancer | Cell transformation | 0.0000106 | turquoise | 101 | AFDN,AFF4,AKAP13,ARHGAP32,AURKA,BAK1,BCL11A,BCL9L,BIRC5,BRAF,CAV1,CCDC6,CCNA2,CCND2,CD19,CD4,CDCA7,CDK4,CEBPA,CEBPB,COPG1,CREBBP,CSF1R,CSF2RB,DAPK1,DNAJC3,DYNLL1,ECT2,EIF4EBP2,EIF4G1,EPS8,ESR1,FCGR3A/FCGR3B,FLT1,FOXO1,FRS2,GAB1,GNAQ,GPI,GTF2I,HBP1,HMGA1,ICMT,ID2,IL1RN,IRF4,ITGB1,JDP2,LDHA,LGALS1,LGALS3,LPP,MAP3K14,MAPK1,MDM2,MDM4,MIF,MXI1,NCK2,NCOA3,NDUFA13,NR3C1,NRCAM,PAWR,PBX3,PDCD4,PDGFD,PEBP1,PIK3CA,PIK3R5,PRDX1,PRDX3,PRKCD,PRKCE,PRKCI,PTEN,PTK2,PTPN12,PTPRE,PTTG1,RAD17,RASGRP2,RHOU,RPS3A,RRAS2,SEM1,SIRPA,SKIL,SLC3A2,SMARCA2,SOS2,TFDP1,TGFBR2,TIAM1,TLR4,TNF,TP63,TSHR,VAV3,VDR,VEGFA |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Metastatic lung carcinoma | 0.0000106 | turquoise | 34 | ABCB1,BRAF,CDK4,CSF1R,CSF3R,FAS,FLT1,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 |
| 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 | 0.0000107 | turquoise | 56 | ABCB4,AHR,AIM2,ARID4B,B3GNT5,BAK1,BIK,BNIP3L,CD19,CD8A,CEBPA,CEBPB,CFLAR,CREBBP,CSF2RB,CTSA,E2F2,FAS,FCER1G,GBA,HMGA1,HMOX1,IKZF3,IL2RB,IL5RA,IL7,IRF4,IRF8,KCNN4,LCP2,LGMN,LYN,LYPLA2,MGAT2,MIF,MIR17HG,MXI1,NFATC3,PAWR,PICALM,PRDX1,PRKCD,PTEN,PTGS2,RAPGEF6,RRM2,RUNX2,RUNX3,SLC4A1,STAT5B,TBXA2R,TCL1A,TGFBI,TNF,TNFRSF13B,VDR |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Binding of leukocyte cell lines | 0.0000107 | turquoise | 21 | ANXA5,APOA2,CADM1,CCNC,CD226,FYB1,IGKC,IL13RA1,ITGAL,ITGAM,ITGB1,ITGB7,PLAUR,PLEKHA2,RAP2A,SIRPA,ST6GAL1,TLR2,TNF,TNFRSF17,UTRN |
| Cellular Function and Maintenance | Function of phagocytes | 0.0000109 | turquoise | 63 | ADA,AHR,AIM2,ARIH2,BIRC3,CAV1,CBLB,CCL5,CCR1,CD14,CD200,CD300A,CD300LF,CD36,CEBPB,CIITA,CLEC7A,CSF1R,CSF2RB,CXCL8,DUSP4,FCER1G,FCER2,FCGR2A,FLT1,GFI1,HAVCR2,IGHE,IL1B,IL21R,IL4R,IRAK1,ITGAM,LAT,LGALS3,LGMN,LY96,LYN,MARCKSL1,MIF,NLRP1,NLRP3,PIP5K1B,PLAUR,PSAP,PTGS2,PYCARD,RRAS2,SAMSN1,SEMA3A,SH3BP2,SIGMAR1,SIRPA,SLA2,ST6GAL1,STAT5B,TLR2,TLR4,TNF,TPCN1,TRAF5,TYROBP,VEGFA |
| Cellular Function and Maintenance,Hematological System Development and Function,Inflammatory Response | Engulfment by macrophages | 0.0000109 | turquoise | 35 | ANXA1,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,EIF2AK1,FAS,FCER1G,FCGR2A,FCN1,GPR18,HMOX1,HSH2D,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TREML2,TRPV2,XBP1 |
| Cellular Development | Maturation of blood cells | 0.0000111 | turquoise | 61 | ABCG1,AHR,BIRC5,BTLA,CADM1,CCL5,CCND2,CD19,CD36,CD4,CD69,CD80,CD86,CEBPA,CLEC7A,CXCR4,E2F2,EIF2AK1,FAS,HAVCR2,HMOX1,HSP90B1,HSPA9,ICOSLG/LOC102723996,IGHM,IGLL1/IGLL5,IL15RA,IL1B,IL21R,IL7,IL7R,IRF4,IRF8,ITGAM,LAT,LYN,MAP3K14,MAPK1,NFIL3,PRDM1,PRKCE,PTEN,PTGS2,RARRES3,RHOH,RUNX3,SERPINA1,SWAP70,TBX21,TCF7,TGFBR2,TLR2,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX2,TYROBP,VEGFA,XBP1,ZBTB7A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of T lymphocytes | 0.0000112 | turquoise | 41 | AHR,AURKA,BRAF,BTLA,C5AR1,CD27,CD4,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,PTEN,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Large-cell lymphoma | 0.0000112 | turquoise | 70 | AHR,ANKRD36,BIRC5,BRAF,BTG1,CCND2,CD19,CD22,CD36,CD4,CD58,CD63,CD79B,CEBPA,CEBPB,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF3R,CXCL8,DMXL1,DSP,FCER2,FOXO1,FOXP1,HIST1H3B,HSP90B1,IGLL1/IGLL5,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,MCL1,MGLL,MIR17HG,MYO1G,NLRP7,NR3C1,PAX5,PCSK5,PIK3CA,PPIA,PPWD1,PRDM1,PRF1,PSMB2,PTEN,RRM2,RXRA,SERPINA1,SETD2,SLC16A7,SPN,TCL1A,TNF,TNFRSF10C,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of cancer cells | 0.0000117 | turquoise | 86 | ANXA1,B4GALT5,BCL2L2,BID,BIK,BIRC5,BMP6,BRAF,BUB1B,CD22,CD33,CD59,CD74,CDC6,CEBPD,CFLAR,CHEK1,COL18A1,COPG1,CXCL8,CXCR3,CXCR4,E2F2,EIF3E,ENO1,FAS,FOXO1,GZMA,HIPK2,HMOX1,HSPA9,IDH2,IGHM,IL7,IRF4,ITGAV,ITPR1,KEAP1,KLF10,LGALS1,LYPLA2,MAGEH1,MAPK1,MCL1,MIF,MMP11,NAMPT,NAPA,NCOA3,NR3C1,NUP88,PAWR,PRKCD,PRKCE,PSMA3,PSMA5,PSMA6,PSMB3,PSMC2,PTEN,PTGS2,PTK2,RARG,RPL10,RPL7,RPLP0,RPS11,RPS17,RPS3A,RRM2,RTN4,SDR16C5,SLC16A1,SMC1A,SOD1,TCL1A,THRB,TNF,TNFRSF10C,TNFRSF13B,TNFRSF17,TRIB1,TXN,VCP,VEGFA,ZBTB7A |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | T cell migration | 0.0000117 | turquoise | 65 | ALOX5,AQP3,BACH2,BCL11B,BSG,CAV1,CCL3,CCL5,CCR1,CD4,CD69,CD74,CD80,CD86,COL4A3,CXCL8,CXCR3,CXCR4,CXCR5,DPYSL2,ELMO1,FAS,FLOT1,FOXO1,FYB1,GATA3,GNAI3,GNLY,HYOU1,ICOSLG/LOC102723996,IL15RA,IL18BP,IL1B,IL7,ITGAL,ITGAV,ITGB1,ITGB7,KCNN4,LAT,LCP2,LDLR,LGALS1,LIMK1,LTK,MAP3K14,MIF,NLRP3,NR3C1,PIK3CA,PRF1,PTEN,PTGS2,PTPRB,S100A4,SELPLG,SEMA3A,SOS2,SPN,STAB1,TGFBR2,TIMP2,TLR4,TNF,TSHR |
| Cell Death and Survival | Apoptosis of leukocyte cell lines | 0.0000118 | turquoise | 45 | BAK1,BIRC5,CCL5,CCND2,CD19,CD27,CD69,CD8A,CEBPA,CEBPB,CFLAR,DAPK1,DAPK2,ESR1,EYA2,FAIM,FAS,FOXO1,GGT1,IGHM,IKZF3,IL32,IL7,IL9R,IRF4,ITGB1,LGALS3,LTK,LYN,MCL1,MZB1,PDCD5,PRDM1,PRKCE,PTEN,PXN,RBM5,SH3BP2,SH3GLB1,SP1,SPN,STAT5B,TLR2,TNF,TNFRSF1B |
| Cell Death and Survival | Apoptosis of cervical cancer cell lines | 0.0000123 | turquoise | 70 | ABCB1,ANXA5,BAK1,BBS4,BID,BIRC5,BNIP3L,BRAF,CCAR2,CDC6,CDCA2,CEBPA,CFLAR,CHEK1,COX5A,CSF1R,DAPK1,DGKD,DNM2,ELOC,ESR1,EXOG,FAS,FLNB,GADD45A,GZMB,IER3,IL1B,IL32,INVS,ITPR1,KIF11,KIF1C,KNL1,LIMS1,LYPLA2,MAPK1,MCL1,MDM2,MGAT3,MTM1,NAPA,NDC80,NEK6,NR3C1,PAWR,PDLIM7,PIK3C3,PIK3CA,PKD2L2,PPIA,PRF1,PRKCD,PTAFR,PTEN,RAB32,RACGAP1,RASSF1,SEC61G,TBK1,TCP1,TNF,TNFAIP8,TNFRSF1B,TP63,TPX2,TXN,UCHL1,VDAC1,VOPP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cellular infiltration by phagocytes | 0.0000123 | turquoise | 70 | AIM2,ANXA1,ARG1,ARRB1,BID,BRAF,BSG,C5AR1,CAV1,CCL3,CCR1,CD14,CD300LF,CD36,CD86,CNP,COL4A3,CR1,CRH,CSF1R,CX3CR1,CXCL2,CXCL8,FAS,FCAR,FCER1G,FLT1,FPR1,GBA,GPR18,HMOX1,HSPA5,IL15RA,IL1B,IL1RN,IL6R,IL7,ITGAL,ITGAM,ITGB1,LDLR,LGALS1,LGALS3,LIMK1,LMNB1,MIF,NAAA,NCF1,NDST1,NINJ1,NLRP3,PPIA,PRDM1,PRKCD,PTEN,PTGS2,S100A10,SERPINA1,SGPP1,SGPP2,SMAD3,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TSHR,VAV3 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Grade 1-4 astrocytoma | 0.0000124 | turquoise | 15 | ACTN1,ACTN4,BIRC5,BRAF,ECT2,ELMO1,IDH2,PKM,PTEN,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,UBE2C |
| Cellular Movement | Cell movement of fibrosarcoma cell lines | 0.0000131 | turquoise | 18 | ADGRE5,AHNAK,ARPC2,COL4A3,EPS8,ETV4,FLNA,FLNB,GPI,ITGB1,KISS1R,MGAT5,MINK1,PLAUR,S100A11,SLC9A3R1,TIAM1,TIMP2 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of leukocytes | 0.0000132 | turquoise | 49 | AHR,AURKA,BRAF,BTLA,C5AR1,CCND2,CD27,CD4,CD69,CD70,CD80,CD86,CR2,CSF1R,CSF2RB,CXCR3,DNM2,FAS,GFI1,HAVCR2,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IL9R,IRF8,LAT,LCP2,LGALS4,LYN,MIR17HG,MYDGF,PIK3CA,PRF1,PTEN,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Metastatic non-small cell lung carcinoma | 0.0000144 | turquoise | 33 | ABCB1,BRAF,CDK4,CSF1R,CSF3R,FAS,FLT1,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 |
| Cellular Movement | Migration of breast cancer cell lines | 0.0000145 | turquoise | 69 | ACTN1,ACTN4,AFDN,AHNAK,AHR,ANXA1,ANXA2,ARF1,ARRB1,BANP,BHLHE41,BMP6,CAPN2,CAV1,CCL5,CEMIP2,CERS6,CHN2,CXCL8,CXCR4,DUSP6,ENAH,ERC1,ESR1,EYA2,FLNA,GAB1,GATA3,GZMB,ICMT,IL1B,IL32,ITGAV,ITGB1,KCNN3,KPNA2,LASP1,LDHA,MAPK1,MDM2,PALLD,PAX5,PDCD4,PIK3R5,PIK3R6,PLAUR,PRKCD,PTEN,PTK2,PTPRJ,PXN,RACGAP1,RUNX2,S100A11,S100A4,SEMA3A,SERPINA5,SMAD3,SP1,SSBP1,TGFBR3,THRB,TIAM1,TIMP1,TIMP2,TNF,TNFAIP8,VEGFA,VIM |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of neutrophils | 0.0000145 | turquoise | 42 | ALOX5,AQP9,C5AR1,CAMK1D,CCL3,CCL5,CD69,CD74,CKLF,CSF3R,CST3,CXCL2,CXCL8,DAPK2,DOCK5,DYSF,FCER1G,FCGR2A,FLOT1,FPR1,GNAI3,IL1B,ITGAM,JAML,LGALS3,LILRB3,LSP1,LYN,MYO1F,PIK3R5,PTEN,S100A12,S100A8,S100A9,SELPLG,SERPINA1,SMAD3,TLR4,TNF,TREM1,TREML2,VAV3 |
| Lipid Metabolism,Small Molecule Biochemistry | Metabolism of eicosanoid | 0.0000145 | turquoise | 60 | ADA,ALOX5,ANXA1,ATP5PF,BMP6,C5AR1,CADM1,CAV1,CCL5,CD14,CD36,CD4,CD74,CEBPB,CLEC7A,COTL1,CRH,CXCL8,CYP1B1,FAS,FCER1G,FCGR2A,FDX1,FPR1,GGT1,HMOX1,HMOX2,IGFBP7,IGHE,IGHM,IL1B,IL1RN,IL32,LDLR,LIMK1,LYN,MAP3K14,MAPK1,MGST2,MIF,NCF1,PLA2G6,PRKCI,PTAFR,PTGS2,RASGRP2,SEMA3A,SGPP1,SMAD3,SOD1,SSPN,STAT5B,TBXA2R,TBXAS1,TGFBR2,TLR2,TLR4,TNF,VEGFA,VIM |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Testicular germ cell tumor | 0.0000147 | turquoise | 16 | BLMH,BRAF,CHMP2A,CSF3R,HSP90B1,MDM2,PIK3C2B,PIK3CA,PTEN,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1 |
| 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 | 0.0000153 | turquoise | 37 | ADA,AFF1,CD19,CD69,CD79B,CD80,CEBPB,CR2,CXCR4,DTX1,FNIP1,FOXO1,GFI1,ID2,IGHM,IGLL1/IGLL5,IL21R,IL7,IL7R,IRF4,ITGAL,ITPKB,LYN,MAPK1,MEF2C,MIR17HG,PAX5,PLEKHA1,PLEKHA2,POU2AF1,PRDM1,PTEN,RORA,SMAD3,UBE2N,VAV3,XBP1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Childhood brain tumor | 0.0000156 | turquoise | 13 | BIRC5,CSF3R,H3F3A/H3F3B,HIST1H3B,HSP90B1,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Cell Death and Survival | Apoptosis of thyroid tumor cell lines | 0.0000156 | turquoise | 13 | BAK1,BRAF,CCDC6,CFLAR,ETS2,FAS,GAPDH,HMGA1,HSPA5,IGFBP7,MDM2,TNF,TP63 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell lymphoma | 0.0000157 | turquoise | 186 | ABCG1,ABHD5,ADA,AHNAK,AHR,ALOX5,ANKRD36,ANXA1,ANXA2,APOBEC3B,AURKA,BAK1,BCAT1,BCL11B,BCL7A,BCOR,BIRC3,BRAF,BTG1,BUB1B,CAV1,CCND2,CD19,CD22,CD27,CD36,CD58,CD63,CD69,CD70,CD79B,CDCA2,CEBPA,CFLAR,CFP,CHD2,CHD3,CIITA,CORO2A,CR2,CREBBP,CRELD2,CSF1R,CSF3R,CXCR4,CXCR5,DCLRE1C,DGKD,DMXL1,DMXL2,DPH5,DSP,DST,DTX1,DUSP4,E2F2,ELOC,FAS,FBXW7,FCER2,FCGR2A,FCGR3A/FCGR3B,FILIP1L,FOXO1,FOXP1,FYB1,GTF2I,HDAC9,HIST1H3B,HMGA1,HMOX1,HSP90B1,ICK,ID2,IFNAR2,IGKC,IGLL1/IGLL5,IKBIP,IKZF3,IL1B,IL2RB,IL4R,IL9R,IMPDH1,IRF4,IRF8,ISL2,ITPR1,KCNAB3,KCNN3,KIF11,KPNA1,KPNA2,KRR1,LGALS1,LIG4,LRIG2,LRRFIP1,LYNX1,MCL1,MDM2,MDM4,MGA,MGLL,MIR17HG,MKI67,MXI1,MYO1G,MYOF,NEK3,NETO2,NLRP7,NR3C1,NUDT6,OTUD7B,P2RY8,PAX5,PCSK5,PDCD4,PIK3CA,POU2AF1,PPIA,PPWD1,PRDM1,PRDX1,PRF1,PRKCI,PSMB10,PSMB2,PSMB6,PSME4,PTEN,PTGS2,PTPRE,RASSF1,RRM2,RXRA,SARS,SATB1,SDK2,SEC14L1,SERPINA1,SETD2,SKIL,SLC16A1,SLC16A7,SMARCA2,SMARCB1,SMARCD3,SMC6,SMURF2,SORL1,SPN,SSBP2,STAMBPL1,STAT5B,STX11,SWAP70,SYNE2,TAPT1,TARP,TCL1A,TFDP1,TLR2,TNF,TNFRSF10C,TNIK,TOP2A,TP63,TPST2,TRERF1,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,UQCRC1,VAV3,VDAC1,VEGFA,VWA3B,WWC3,XRCC6,YWHAE,ZC2HC1A |
| Cell-To-Cell Signaling and Interaction | Interaction of lymphoma cell lines | 0.0000157 | turquoise | 28 | ANXA1,ANXA2,CD226,CD4,CD59,CR1,CR2,CXCL2,CXCR3,FOXO1,GATA3,HSP90B1,IL1B,ITGAL,ITGAM,ITGAX,ITGB1,LCP2,PARVG,PLEKHA2,SELPLG,SH2D1A,SPN,TFRC,TNF,UTRN,VCAN,VEGFA |
| Cellular Movement | Invasion of fibrosarcoma cell lines | 0.0000163 | turquoise | 12 | ADGRE5,ADI1,COL18A1,EPS8,ETV4,GPI,MGAT5,MINK1,PLAUR,S100A10,TIAM1,TMBIM6 |
| Cardiovascular System Development and Function | Binding of blood vessel | 0.0000163 | turquoise | 12 | CD74,CXCL2,CXCL8,FCGR2A,GALNT1,IL1B,IL1RN,ITGB1,ITGB7,MIF,STAB1,TNF |
| Hematological Disease,Infectious Diseases | Endotoxemia | 0.0000165 | turquoise | 32 | ADA,BID,BIRC3,BTLA,CAV1,CD14,IL1RN,IL6R,IRAK1,ITGAL,ITGAM,ITGAV,LY96,MGLL,MIF,NLRP3,NR3C1,PDE4A,PDE4D,PDE7A,PDE7B,PTGS2,PYCARD,RAP1B,RPS6KA4,S100A9,STAT4,TLR4,TNF,TNFRSF1B,TREM1,ZBTB20 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function | Interaction of lymphocytes | 0.0000168 | turquoise | 46 | ANXA1,BTLA,CBLB,CCL3,CCL5,CCR1,CD22,CD4,CD58,CD69,CD80,CD86,CD99,CXCR3,CXCR4,FAS,FCGR3A/FCGR3B,FLOT1,FYB1,HLA-DMA,ICOSLG/LOC102723996,IL1B,IL6R,IL7,IL7R,ITGAL,ITGB1,ITGB7,LCP2,LTK,MYO1G,NFATC3,NR3C1,PLCB1,PPIB,RAP1B,RAP2A,SELPLG,SH2D1A,SKAP1,SPN,SWAP70,TFRC,TLR2,TLR4,TNF |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Spleen neoplasm | 0.0000171 | turquoise | 22 | ANXA1,BIRC3,BRAF,CD19,CD22,CR2,DTX1,FCER2,IGH,NR3C1,PAWR,RRM2,SPN,STAT5B,SWAP70,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Hematological System Development and Function,Inflammatory Response | Phagocytosis by macrophages | 0.0000174 | turquoise | 34 | ANXA1,CCL3,CD14,CD36,CD93,CEBPB,CSF1R,EIF2AK1,FAS,FCER1G,FCGR2A,FCN1,GPR18,HMOX1,HSH2D,IL1B,ITGAM,LGALS3,MIF,PFKFB3,PLAUR,PTEN,PTPRJ,PXN,RORA,S100A9,SH3BP2,SIRPA,SIRPB1,TLR2,TLR4,TNF,TRPV2,XBP1 |
| Cellular Function and Maintenance | Function of antigen presenting cells | 0.0000174 | turquoise | 57 | ADA,AHR,AIM2,ARIH2,BIRC3,CAV1,CCL5,CCR1,CD14,CD200,CD36,CD74,CEBPB,CIITA,CLEC7A,CRH,CSF1R,CSF2RB,DUSP4,FCER1G,FCER2,FCGR2A,FLT1,GFI1,HLA-DMA,IFI30,IL1B,IL21R,IL4R,IRAK1,ITGAM,LGALS3,LGMN,LY96,LYN,MARCKSL1,NLRP1,NLRP3,PLAUR,PSAP,PTGS2,PYCARD,RRAS2,SAMSN1,SEMA3A,SH3BP2,SIGMAR1,SIRPA,SLA2,ST6GAL1,TLR2,TLR4,TNF,TPCN1,TRAF5,TYROBP,VEGFA |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of tumor cells | 0.0000174 | turquoise | 102 | ABCC4,ACTN4,ALOX5,ANXA1,ANXA2,APCDD1,AURKA,BIK,BIRC5,BRAF,BSG,CACYBP,CAV1,CCL3,CD33,CD70,CDK4,CDK5,CHEK1,CNKSR1,COL4A3,COX17,CSF1R,CSF3R,CST3,CXCL8,CXCR4,ESR1,FAS,FCER2,FGF9,GLDC,HBEGF,HMGB3,HMMR,HMOX1,HSPA5,ICMT,ID2,IGFBP7,IGHM,IL1B,IL1RN,IL32,IL6R,IL7,IRF4,KISS1R,LDHA,LGALS1,LGALS3,LITAF,LRRC4,LZTS1,MAPK1,MDM2,MIF,MIR17HG,MKI67,PDE4A,PDE4D,PFKFB3,PHC3,PIK3CA,PKM,PLAUR,PRKCD,PRKCE,PRKCI,PTAFR,PTEN,PTGS2,PTPRE,PXN,RAD17,RASSF1,RBM5,RUNX2,RUNX3,RXRA,S100A6,S100A9,SLC3A2,SMAD3,SP1,TCL1A,TGFBR2,THRB,TIMP1,TIMP2,TLR2,TLR4,TNF,TNFRSF17,TP63,UBE2C,UCHL1,VCAN,VDR,VEGFA,XBP1,ZBTB7A |
| Immunological Disease,Inflammatory Response | Abnormal function of immune system | 0.0000175 | turquoise | 27 | ALOX5,CD200,CD22,CD226,CD70,CIITA,CLEC4D,CRISPLD2,E2F2,FCER2,GALNT1,GLMP,ICOSLG/LOC102723996,ID2,IGHM,IL21R,IL4R,IL5RA,IRF4,ITGB7,LGALS2,RUNX3,SH2D1A,TBXA2R,TICAM2,TNF,TNFRSF1B |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Influx of neutrophils | 0.0000176 | turquoise | 18 | CCL3,CD200,CTSC,CX3CR1,CXCL2,FCGR2A,IGHM,IL1B,IL6R,IRF4,PLAUR,PTEN,S100A8,SERPINA1,SMAD3,TLR2,TLR4,TNF |
| Cellular Function and Maintenance,Hematological System Development and Function | Regulation of leukocytes | 0.0000176 | turquoise | 18 | CBLB,CCL3,CD22,CD80,CD86,CR2,CSF1R,FAS,GATA3,HAVCR2,HLA-B,LGALS1,S100A8,S100A9,SH2D1A,SOCS2,TBX21,VDR |
| Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Formation of osteoclasts | 0.0000176 | turquoise | 35 | AHR,ALOX5,ANXA2,CAV1,CCL3,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,VAV3,XBP1 |
| Organismal Survival | Survival of organism | 0.0000177 | turquoise | 161 | ABCB1,ABCB4,ABCC4,ACSL1,ACTN4,AEBP1,AHR,ANXA1,AQP9,ARG1,ARNT,ATXN1,B3GNT5,BAK1,BID,BIK,BIRC3,BIRC5,BLMH,BRAF,BTLA,C5AR1,CADM1,CAMK4,CCL3,CCND2,CCR1,CD14,CD19,CD4,CD74,CD79B,CD80,CD8A,CEBPA,CEBPB,CHEK1,CLEC4D,CLMP,COCH,COL18A1,COL4A3,CR1,CR2,CSF2RB,CTNND1,CTSC,CXCL2,CXCR3,CXCR4,DACT1,DSP,DUSP4,EEF2K,EIF3M,ESR1,ETHE1,ETS2,FAS,FBXW7,FCGR2A,FCGR3A/FCGR3B,FGL2,FLT1,FOXO1,FURIN,GLDC,GNAS,GPX1,GZMA,HIPK2,HMOX1,HRH2,HSP90B1,HYOU1,ID2,IDE,IDH2,IFNAR2,IGHM,IKZF2,IL15RA,IL1B,IL1RN,IL4R,IL6R,IL7,IL7R,IRAK1,IRF8,ITGAL,ITGAM,ITGB1,KCTD12,KEAP1,LAMC1,LDLR,LGALS1,LITAF,LTK,LY96,MARCKSL1,MCL1,MDM2,MDM4,MGAT1,MIF,MIR17HG,MKI67,MTDH,NCF1,NDC80,NFATC3,NFIL3,NLRP3,NR3C1,PIK3CA,PKM,PPARGC1B,PRDM1,PRDX1,PRF1,PTAFR,PTEN,PTGS2,PTK2,RAD17,RARG,RASSF1,RDH10,RUNX2,S100A9,SEMA3A,SLC11A1,SLC31A1,SLC4A1,SMAD3,SOD1,SP1,STAT4,STAT5B,TCL1A,TGFBR2,TGIF1,THRB,TICAM2,TLR2,TLR4,TNF,TNFAIP8,TNFRSF17,TNFRSF1B,TNFRSF25,TOP2A,TP63,TREM1,TUBB3,TYMS,VEGFA,XBP1,ZBTB20 |
| Immunological Disease | Immunodeficiency | 0.0000185 | turquoise | 56 | ABCG1,ACP5,ADA,ATXN1,BCL11B,CD19,CD79B,CDCA7,CFD,CFP,CIITA,COCH,CR2,CXCR4,CYP51A1,DCLRE1C,ESR1,FAS,FCER2,FCGR1B,FCGR2A,FCGR3A/FCGR3B,FNIP1,HLA-B,IFNAR2,IGHE,IGHM,IGKC,IGLL1/IGLL5,IL21R,IL2RB,IL4R,IL7R,IRF4,IRF8,KCNN3,LAMTOR2,LAT,LIG4,MAGT1,MAP3K14,MGLL,MTHFD1,NCF1,PRF1,PRKCD,RASGRP2,RHOH,RNF168,SH2D1A,STAT5B,TFRC,TLR2,TLR4,TNFRSF13B,TRAC |
| Neurological Disease | Chorea | 0.0000192 | turquoise | 125 | AEBP1,ALAS1,ARHGAP32,ARHGEF7,ARIH2,ARL3,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11B,BCL7A,CA11,CAB39,CAMK4,CAMKK2,CAPNS1,CCL5,CDK5,CFLAR,CIITA,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CYFIP2,CYP51A1,DAD1,EIF3E,ELMO1,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,MAPKAPK3,MT1E,MT1G,MT1X,MT2A,MTDH,MYL12A,MYO1B,NAPA,NDUFA13,NDUFA2,NDUFA7,NDUFB2,NDUFB3,NDUFS5,NGRN,NR1D1,NREP,PDLIM7,PGK1,PKM,PLCB1,PPARGC1B,PPIA,PRR5,PSAT1,PSMB6,PTPRE,RARRES3,RASGRP2,RERE,RUNX3,SAT1,SCAMP5,SCARB2,SCN4A,SDHB,SEC11A,SEC24A,SERPINA1,SLC1A4,SLIRP,SMTN,SOCS5,SORL1,SP1,SRM,SSR3,SUB1,SYPL1,TARP,TESC,TPI1,TRAK2,TRAM1,TXN,UBAC1,UCHL1,UQCRB,UQCRC1,VAMP1,VCAN,XK,XRCC6,ZBTB44 |
| Amino Acid Metabolism,Molecular Transport,Small Molecule Biochemistry | Release of L-cysteine | 0.0000196 | turquoise | 5 | IL1B,IL1RN,TLR2,TLR4,TNF |
| Cellular Assembly and Organization | Development of cytoplasm | 0.0000198 | turquoise | 113 | AIF1,AKAP13,ANG,ANXA1,ARF1,ARHGAP32,ARHGAP6,ARHGEF10,ARPC2,ARRB1,ATG13,BBS4,BIRC5,BRAF,CAMK4,CAPZB,CAV1,CD74,CDK4,CDK5,CFL1,CHCHD2,CLIP1,CNP,COL18A1,CORO7/CORO7-PAM16,CRH,CRTC3,CTNND1,CXCL8,DLGAP5,DOCK5,DPYSL2,DSTN,DYNLL1,EHD4,EMC6,EVL,FBXW7,FCGR2A,FLNA,FOXO1,GNAQ,GNAS,GNG5,GPI,GZMB,HAX1,HIP1R,HSPA8,IL1B,INPP5A,IRGM,ITGB1,KIF2C,KISS1R,LIMK1,MAPK1,MGAT5,MIF,MINK1,MKKS,MPRIP,MSRB1,MSRB2,MTM1,MTSS1,NCK2,NDUFS6,NEK6,NR1D1,NUMA1,NUSAP1,PALLD,PAM,PANK2,PHACTR1,PIK3C3,PIP5K1B,POLDIP2,PPARGC1B,PRKCD,PRKCE,PRKCI,PTEN,PTK2,PTPRB,PXN,PYCARD,RAB1A,RASSF1,S100A10,SH3PXD2A,SIRPA,SKIL,SLIRP,SMAD3,SSBP1,STOML2,TGFBI,TGFBR2,TIAM1,TLR2,TNF,TP63,TPX2,TUBA4A,TUBB,UTRN,VCP,VEGFA,VMP1,ZYX |
| Cancer,Organismal Injury and Abnormalities | Benign Tumors | 0.0000201 | turquoise | 178 | ABCB1,ABCC4,ADARB1,ADGRE5,AEBP1,AFF1,AHR,ALDH1A1,ALDOA,ANXA1,ANXA2,ANXA5,AP2S1,ARG1,ARIH2,ARNT,ASB2,ATP1A1,BAK1,BCOR,BID,BIRC5,BMP6,BRAF,BUB1B,C5orf30,CCNC,CCND2,CDC42EP3,CDK4,CEBPD,CFD,CLMN,CLUH,CNP,COL18A1,COL19A1,COL4A3,COL4A4,CSF1R,CSF2RB,CTNND1,CTSC,CYP1B1,DAPK1,DDX17,DDX5,DST,DUT,E2F2,ESR1,ETHE1,EXT1,FABP5,FAS,FBXO4,FBXW7,FLNA,FLT1,FOXO1,GABBR1,GADD45A,GALK2,GLRX,GNAQ,GNAS,GSTO1,H3F3A/H3F3B,HLA-B,HMGA1,HMMR,HMOX1,HRH2,HSD17B10,IDH2,IFNAR2,IGFBP7,IKZF3,IL6R,ITGB1,JCHAIN,KCNN3,KIF11,KIF1B,KLF10,LGALS1,LGALS3,LSP1,LYN,LZTS1,MAPK1,MGAT5,MGST1,MKI67,MLX,MMP11,MPHOSPH8,MTHFD2,MYL6,NBPF10 (includes others),NETO2,NR3C1,NRCAM,NRIP1,NUAK2,NUSAP1,PDCD4,PERP,PIK3C2B,PIK3CA,PKD1,PLA2G6,PLD3,PLXNB2,PLXNC1,PPA1,PRDX1,PRKCD,PRKCE,PRKCI,PRR5,PSAT1,PSMA6,PTEN,PTGS2,PTK2,PTTG1,RAP2B,RASSF1,RORA,RREB1,RRM2,RUNX3,RXRA,S100A11,S100A4,S100A8,S100A9,SETD2,SKIL,SLC2A5,SLC51B,SLC5A3,SMAD3,SMPDL3A,SPTBN1,SSBP2,STAB1,TARP,TBL1X,TFDP1,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,Humoral Immune Response,Immune Cell Trafficking | Cell movement of B lymphocytes | 0.0000203 | turquoise | 29 | ABCG1,CD19,CD22,CD74,CXCR3,CXCR4,CXCR5,ESR1,FOXO1,ICOSLG/LOC102723996,IL15RA,IL7,ITGAL,ITGB7,MAP3K14,MIF,MYO1G,POU2AF1,PRKCD,RAP1B,RAP2A,SAMSN1,SELPLG,SWAP70,TIMP1,TLR4,TNF,TNFRSF1B,VAV3 |
| Cellular Movement | Invasion of prostate cancer cell lines | 0.0000204 | turquoise | 34 | ACVR1,ADGRE5,AHNAK,ATP6V0A1,CAPN2,CAV1,CD74,CXCL8,CXCR3,CXCR4,DANCR,ETS2,FABP5,GNAS,HMOX1,ID2,LGALS3,LIMK1,MIF,NCOA3,NSD2,PA2G4,PEBP1,PLAUR,PODXL,PRKCD,PRKCE,PTEN,RUNX2,S100A11,SATB1,STAT5B,TNF,VIM |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Depolarization of mitochondrial membrane | 0.0000208 | turquoise | 14 | BID,BIRC3,BIRC5,CSTB,FAS,GZMB,HMOX2,IRGM,MCL1,PEBP1,PPIA,PRKCD,TLR4,TNF |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Childhood central nervous system tumor | 0.0000208 | turquoise | 14 | BIRC5,BRAF,CSF3R,H3F3A/H3F3B,HIST1H3B,HSP90B1,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Inflammatory Disease,Organismal Injury and Abnormalities | Granuloma | 0.0000212 | turquoise | 43 | ABCG1,ANXA1,APOBEC3A,ATXN1,BRAF,CARD16,CCL3,CCL5,CD14,CD69,CD80,CD86,CEBPB,CIITA,CLEC2B,COCH,CRIP1,CX3CR1,CXCL8,CYP51A1,HBEGF,HLA-B,IL1RN,IL4R,IMPDH1,INPP5A,IRF8,KCNN3,MEI1,MGLL,NCF1,NR3C1,PDE4A,PDE4D,PIK3CA,PTPRE,RUNX3,TNF,TREM1,UQCRB,VCL,VDR,VEGFA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-lymphoblastic leukemia/lymphoma | 0.0000212 | turquoise | 43 | ANXA1,BCL11B,BRAF,CD1A,CD33,CDK4,CHEK1,CREBBP,CSF3R,DNM2,FAS,FBXW7,FNDC3B,GATA3,HSP90B1,ICK,IDH2,IKZF2,IL7R,IMPDH1,ITGAM,NR3C1,PAX5,PIK3CA,PSMB2,PTEN,RASGRP2,RHOH,RHOU,RPL10,RRM2,SATB1,SETD2,STAT5B,TCF7,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,ZMIZ1 |
| Cell Death and Survival | Cell death of carcinoma cell lines | 0.0000216 | turquoise | 77 | ADI1,ANXA2,AURKA,BAK1,BID,BIK,BIRC3,BIRC5,BRAF,CAV1,CCAR2,CCDC6,CCND2,CDC6,CDCA2,CEBPA,CERS6,CFLAR,CHEK1,CLPTM1L,COX6B1,CXCL8,CXCR3,DSP,ETS2,EXOG,FAS,GAB1,GAPDH,GPI,GPX1,HCST,HMGA1,HMOX1,HSPA5,IGFBP7,ITGAV,KEAP1,MAPK1,MCL1,MDM2,MDM4,MEF2C,MRPL49,MTDH,NCOA3,NR3C1,PAWR,PDCD4,PDE4D,PIK3C3,PIK3CA,PKM,PLA2G16,PMEPA1,PPARGC1B,PRKCD,PRKCE,PTEN,PTGS2,PVT1,RABGGTA,RASSF1,RRM2,RUNX3,S100A11,S100A4,SH3RF1,SOD1,STK17A,TBK1,TLR4,TNF,TP63,TUBB3,UCHL1,VDAC1 |
| Gene Expression | Transactivation of RNA | 0.0000217 | turquoise | 119 | 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,ETS2,ETV4,FABP5,FOSL2,FOXO1,GABPB1,GADD45A,GAPDH,GATA3,GFI1,GTF2I,HBP1,HSPA9,IL1B,IRAK1,IRF4,IRF8,JAZF1,JDP2,LGALS1,MAFB,MAP3K14,MAPK1,MAPKAPK3,MDM2,MDM4,MEF2C,MTDH,NAB1,NAP1L1,NCOA3,NFE2L1,NKIRAS2,NR3C1,NRIP1,NSD3,PA2G4,PIAS2,PIK3CA,PKM,PLCB1,PODXL,POLR2L,POU2AF1,PRDM1,PRDX1,PRKCD,PTGS2,PTTG1,PXN,PYCARD,RARG,RBX1,RORA,RUNX2,RXRA,S100A4,SELPLG,SF1,SH3KBP1,SIRPA,SKIL,SMAD3,SMARCA2,SMARCB1,SMURF2,SND1,SP1,SRA1,STAT5B,STUB1,SUB1,TBK1,TBL1X,TBX21,TFDP1,TGIF1,THRB,TMEM131L,TNF,TNFRSF1B,TP63,TXN,UAP1,UPF3B,VDR,XRCC6,YWHAH,ZBED5,ZBTB10,ZBTB32,ZHX2 |
| Molecular Transport,Small Molecule Biochemistry | Accumulation of lactic acid | 0.0000224 | turquoise | 7 | CAV1,IL1B,IL1RN,PKM,SLC16A1,SLC16A3,TMBIM6 |
| Cell-To-Cell Signaling and Interaction | Response of tumor cell lines | 0.0000229 | turquoise | 40 | ANXA1,BIRC5,BRAF,CD59,CLIP1,ETS2,FCER1G,FCGR2A,FCN1,FOXP1,GAPDH,GZMH,HBEGF,HIPK2,HMOX1,HSP90B1,IGKC,IL1B,IQSEC1,ITGAM,LIMK1,LMAN2,LY96,LYN,MCL1,NR3C1,PLA2G6,PRKCD,PRKCE,PTEN,PTK2,RAB31,RRAS2,SH3KBP1,SIRPA,TLR4,TNF,TOP2A,TP63,VIM |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Migration of neutrophils | 0.000023 | turquoise | 32 | ANXA1,CCL3,CCL5,CCR1,CD99,CRH,CXCL2,CXCL8,FAS,FPR1,GNAI3,HRH2,IL1B,ITGAL,ITGAM,ITGB1,LSP1,MGAT5,NLRP3,PIK3R5,PTEN,PTPRB,RAP1B,RTN4,S100A8,S100A9,SELPLG,TLR2,TLR4,TNF,TXN,VAV3 |
| 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 plasma cells | 0.0000234 | turquoise | 18 | CD27,CD36,CD70,CXCR4,CXCR5,ERN1,FOXP1,IGHA1,IL21R,IRF4,LGALS1,LGALS3,LYN,POU2AF1,PRDM1,PRKCD,SWAP70,XBP1 |
| Cell Cycle | Interphase of tumor cell lines | 0.0000236 | turquoise | 92 | 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,FAS,FOXO1,GADD45A,GATA3,GFI1,GMNN,GSPT1,HMGA1,HMOX1,IGFBP7,IGHM,IL1B,ITGAV,ITGB1,KIF11,KLF10,LGALS1,LGALS3,LIMK1,LMNB1,MDM2,MDM4,MTDH,MXI1,NCOA3,NFYA,NR3C1,NRIP1,PAX5,PCLAF,PFKFB3,PKD1,PKM,PLAUR,PMEPA1,POLD4,PRKCD,PRKCE,PSAP,PTEN,RAD17,RASSF1,RASSF6,RBX1,RFFL,RPL23,RUNX3,RXRA,SEL1L,SMARCB1,SP1,SSH2,STK38L,TBXA2R,TCP1,TFDP1,TFRC,THRB,TNF,TNFRSF17,TP53I3,TP63,TYMS,WEE1,ZBTB10 |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Accumulation of phospholipid | 0.0000237 | turquoise | 19 | AP3B1,CSF2RB,CXCL8,FCGR2A,IL1B,ITGAL,LYPLA2,MARCKS,MTM1,PHGDH,PIK3C2B,PIK3C3,PIK3CA,PIK3R5,PLA2G6,PTEN,SCARB2,SHTN1,TNF |
| Cellular Function and Maintenance | Regulation of blood cells | 0.0000237 | turquoise | 19 | CBLB,CCL3,CD22,CD80,CD86,CR2,CSF1R,FAS,GATA3,HAVCR2,HLA-B,LGALS1,S100A8,S100A9,SH2D1A,SOCS2,TBX21,TNF,VDR |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Influx of granulocytes | 0.0000237 | turquoise | 19 | CCL3,CD200,CTSC,CX3CR1,CXCL2,FCGR2A,IGHM,IL1B,IL6R,IRF4,LY96,PLAUR,PTEN,S100A8,SERPINA1,SMAD3,TLR2,TLR4,TNF |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymph node | 0.0000248 | turquoise | 42 | ATP2B4,B3GNT5,BAK1,CD200,CD74,CD80,CD86,CEBPB,CIITA,CXCR5,DCLRE1C,ESR1,FAS,HMOX1,HSP90B1,ID2,IGHM,IL2RB,IL5RA,IL7,IRF4,IRF8,LAT,LYN,MAP3K14,MGAT2,NFATC3,PRF1,PRKCD,PTEN,PTGS2,SATB1,SMAD3,TBXA2R,TLR4,TNF,TNFRSF13B,TNFRSF1B,TOX,TP63,VDR,XRCC6 |
| Cancer,Developmental Disorder,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Splenic marginal zone lymphoma | 0.000025 | turquoise | 15 | ANXA1,BIRC3,CD19,CR2,DTX1,FCER2,NR3C1,SPN,SWAP70,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Localized neuroblastoma | 0.000025 | turquoise | 15 | CSF2RB,CSF3R,FCGR1B,FCGR2A,FCGR3A/FCGR3B,HSP90B1,IL2RB,NR3C1,RARG,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders,Skeletal and Muscular Disorders | Huntington's Disease | 0.0000252 | turquoise | 124 | AEBP1,ALAS1,ARHGAP32,ARHGEF7,ARIH2,ARL3,ATP1B1,ATP5F1C,ATP5MG,ATP5PF,ATP6V1A,ATXN1,B4GALT5,BANP,BCL11B,BCL7A,CA11,CAB39,CAMK4,CAMKK2,CAPNS1,CCL5,CDK5,CFLAR,CIITA,COCH,COL4A3,CORO2B,COX5B,COX7A2,COX7B,CPNE5,CYFIP2,CYP51A1,DAD1,EIF3E,ELMO1,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,MAPKAPK3,MT1E,MT1G,MT1X,MT2A,MTDH,MYL12A,MYO1B,NAPA,NDUFA13,NDUFA2,NDUFA7,NDUFB2,NDUFB3,NDUFS5,NGRN,NR1D1,NREP,PDLIM7,PGK1,PKM,PLCB1,PPARGC1B,PPIA,PRR5,PSAT1,PSMB6,PTPRE,RARRES3,RASGRP2,RERE,RUNX3,SAT1,SCAMP5,SCARB2,SCN4A,SDHB,SEC11A,SEC24A,SERPINA1,SLC1A4,SLIRP,SMTN,SOCS5,SORL1,SP1,SRM,SSR3,SUB1,SYPL1,TARP,TESC,TPI1,TRAK2,TRAM1,TXN,UBAC1,UCHL1,UQCRB,UQCRC1,VAMP1,VCAN,XRCC6,ZBTB44 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of granulocytes | 0.0000259 | turquoise | 88 | AIM2,ALOX5,ANXA1,AQP9,C5AR1,CAMK1D,CCL3,CCL5,CCR1,CD14,CD300LF,CD36,CD69,CD74,CD99,CKLF,CRH,CSF3R,CST3,CXCL2,CXCL8,CXCR3,CXCR5,DAPK2,DOCK5,DYSF,FAS,FCAR,FCER1G,FCGR2A,FLOT1,FPR1,GNAI3,GPR18,HMOX1,HRH2,IGHE,IL1B,IL1RN,IL2RB,IL4R,IL6R,ITGAL,ITGAM,ITGB1,JAML,LGALS1,LGALS3,LILRB3,LIMK1,LSP1,LYN,MGAT5,MYO1F,NCF1,NDST1,NLRP3,PIK3R5,PLAUR,PPIA,PRDM1,PTEN,PTGS2,PTPRB,RAP1B,RTN4,RUNX3,S100A12,S100A8,S100A9,SELPLG,SERPINA1,SGPP1,SGPP2,SIRPA,SMAD3,SPN,SWAP70,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNFRSF1B,TREM1,TREML2,TXN,VAV3 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Stage I-IIIA non-small cell lung cancer | 0.0000262 | turquoise | 25 | AGO2,ANXA2,HSP90B1,IFI30,MAFB,MDM2,MYL12A,NDUFB4,NR3C1,PPIA,PTGS2,RPL7,RPS11,RRM2,SEC61G,SSR2,TNRC6B,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA |
| Antigen Presentation,Inflammatory Response | Antigen presentation | 0.0000262 | turquoise | 25 | AP3B1,AP3D1,CD1A,CD200,CD74,CD80,CD86,CLEC4D,CST3,FCER1G,FCGR2A,FCGR3A/FCGR3B,HLA-DMA,HLA-DOA,HRH2,HSP90B1,ICOSLG/LOC102723996,IGHM,LDLR,LILRA2,RAB33A,SEMA4A,SWAP70,TLR4,TNFRSF17 |
| Cardiovascular System Development and Function,Cell-To-Cell Signaling and Interaction | Adhesion of endothelial cells | 0.0000268 | turquoise | 39 | ADGRE5,ANXA5,CCL3,CCL5,CD36,CD63,CD99,COL18A1,COL4A3,CXCL2,CXCL8,CXCR3,CXCR4,FAS,FLT1,GATA3,IGFBP7,IL1B,ITGAL,ITGAM,ITGB1,JAML,LGALS2,LGALS3,LGALS4,NAGA,PLAUR,PLXND1,PTAFR,PTPN12,SELPLG,SLC4A1,TGFBI,TGFBR2,TNF,TNFRSF25,TXN,VEGFA,VIM |
| Cell-To-Cell Signaling and Interaction | Binding of hematopoietic cell lines | 0.0000271 | turquoise | 22 | ANXA5,APOA2,CADM1,CCNC,CD226,FYB1,GFI1,IGKC,IL13RA1,ITGAL,ITGAM,ITGB1,ITGB7,PLAUR,PLEKHA2,RAP2A,SIRPA,ST6GAL1,TLR2,TNF,TNFRSF17,UTRN |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Expansion of mononuclear leukocytes | 0.0000276 | turquoise | 46 | AHR,AURKA,BRAF,BTLA,C5AR1,CCND2,CD27,CD4,CD69,CD70,CD80,CD86,CR2,CSF1R,CXCR3,DNM2,FAS,GFI1,HAVCR2,HSPA8,ICOSLG/LOC102723996,IGHM,IL1B,IL21R,IL4R,IL6R,IL7,IL7R,IRF8,LAT,LCP2,LGALS4,MIR17HG,MYDGF,PIK3CA,PRF1,PTEN,STAT4,STAT5B,TBX21,TLR2,TNF,TNFRSF13B,TNFRSF17,TNFRSF1B,TOX |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymph node cancer | 0.0000278 | turquoise | 34 | BRAF,CD19,CD79B,CDK4,CHEK1,COL18A1,CR2,CREBBP,CSF3R,CTNND1,ESR1,FBXW7,FCER2,HMMR,HSP90B1,IDH2,IL4R,ITGB1,MCL1,NR3C1,PAX5,PIK3CA,POU2AF1,PTGS2,SPN,SSBP2,TBC1D16,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Immune response of T lymphocytes | 0.0000279 | turquoise | 35 | BAK1,C5AR1,CCL3,CD226,CD59,CD69,CD86,CD8A,CSF2RB,CXCL8,FOXO1,FURIN,GNAS,GZMB,HAVCR2,HMOX1,HSDL1,IGHM,IL1B,IL7,IL7R,LCP2,LGALS1,LILRB2,NAMPT,PFKFB3,PLAUR,PSME2,PYCARD,SH2D1A,TBX21,TGFBR2,TNF,TNFRSF1B,TREML2 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Stage III-IV neuroblastoma | 0.000028 | turquoise | 16 | CSF2RB,CSF3R,FCGR1B,FCGR2A,FCGR3A/FCGR3B,HSP90B1,IL2RB,NR3C1,RARG,TOP2A,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,VEGFA |
| Cancer,Organismal Injury and Abnormalities | Invasive cancer | 0.0000282 | turquoise | 81 | ACP5,ANXA1,ARHGEF7,ARRB1,BIRC5,BRAF,BUB1B,CALM1 (includes others),CDC42EP3,CDC6,CDK4,CEBPB,COCH,CSF2RB,CSF3R,CXCL2,CXCL8,CXCR3,DACT1,DOCK5,DST,E2F7,ESR1,FAM111B,FAS,FLT1,HBP1,HLA-B,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,PTEN,PTGS2,PTPRE,PTPRJ,RACGAP1,RASSF1,RRM2,RTN4,RUNX2,SLC8A1,SSPN,TGFBR2,THEM4,TLE3,TMEM220,TOP2A,TP63,TUBA1C,TUBA4A,TUBB3,TUBB4B,TUBG1,TYMS,VEGFA,VIM,WDR1,ZIK1,ZNF677 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of antigen presenting cells | 0.0000282 | turquoise | 85 | ABCC4,AIM2,ANXA1,ARG1,ARRB1,ASB2,BID,BRAF,BSG,C5AR1,CAV1,CCL3,CCL5,CCR1,CD58,CD74,CD80,CD86,CKLF,CNP,COL4A3,CR1,CSF1R,CSF2RB,CX3CR1,CXCL8,CXCR3,CXCR4,EPS8,FCAR,FLNA,FLT1,FPR1,GBA,GNAI3,GNLY,HMOX1,HSPA5,IL15RA,IL1B,IL1RN,IL21R,IL4R,IL7,ITGAL,ITGAV,ITGB1,LDLR,LGALS1,LGALS3,LITAF,LMNB1,LSP1,MIF,NAAA,NINJ1,NLRP3,PIK3CA,PLXNC1,PLXND1,PRDM1,PRKCD,PTEN,PTGS2,PTPRJ,RUNX3,S100A10,S100A4,SEMA4A,SIRPA,SMAD3,STAB1,STAP1,SWAP70,TGFBR2,TIMP1,TLR2,TLR4,TNF,TNR,TRPV2,TSHR,TYROBP,VCAN,VEGFA |
| Lipid Metabolism,Small Molecule Biochemistry | Synthesis of prostaglandin | 0.0000288 | turquoise | 45 | ALOX5,ANXA1,ATP5PF,BMP6,CADM1,CAV1,CD14,CD36,CD74,CEBPB,CLEC7A,CRH,CXCL8,FAS,FCER1G,FCGR2A,HMOX1,IGFBP7,IGHE,IGHM,IL1B,IL1RN,IL32,LDLR,LIMK1,LYN,MAP3K14,MAPK1,MIF,NCF1,PLA2G6,PRKCI,PTAFR,PTGS2,RASGRP2,SGPP1,SMAD3,SOD1,SSPN,TBXA2R,TGFBR2,TLR4,TNF,VEGFA,VIM |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Prostatic adenocarcinoma | 0.000859 | grey | 11 | CALCR,CBX4,CDS1,GREB1L,KRT76,MYH11,PRKCB,PTPN14,SDK1,ZNF281,ZNF821 |
| Embryonic Development,Organ Development,Organismal Development,Renal and Urological System Development and Function,Tissue Development | Development of outer medullary collecting duct | 0.0012 | grey | 1 | WNT7B |
| Developmental Disorder,Gastrointestinal Disease,Hereditary Disorder,Immunological Disease,Organismal Injury and Abnormalities,Respiratory Disease | Choanal atresia and lymphedema | 0.0012 | grey | 1 | PTPN14 |
| Cellular Compromise,Cellular Function and Maintenance,Organismal Injury and Abnormalities | Endoplasmic reticulum stress response of smooth muscle cells | 0.0012 | grey | 1 | MYH11 |
| Lipid Metabolism,Small Molecule Biochemistry | Biosynthesis of CDP-diacylglycerol | 0.0012 | grey | 1 | CDS1 |
| Connective Tissue Disorders,Developmental Disorder,Metabolic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Symptomatic stage Paget disease of bone | 0.0012 | grey | 1 | CALCR |
| Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Bleeding of smooth muscle | 0.0012 | grey | 1 | WNT7B |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Rupture of great vessels | 0.0012 | grey | 1 | WNT7B |
| Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Renal and Urological Disease | Renal hypodysplasia/aplasia type 3 | 0.0012 | grey | 1 | GREB1L |
| Cell Morphology,Cellular Function and Maintenance,DNA Replication, Recombination, and Repair | Delay in initiation of double-stranded DNA break repair of colorectal cancer cell lines | 0.0012 | grey | 1 | ZNF281 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Familial thoracic aortic aneurism type 4 | 0.0012 | grey | 1 | MYH11 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Lissencephaly type 4 | 0.0024 | grey | 1 | MYH11 |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Anuria | 0.0024 | grey | 1 | MYH11 |
| 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 differentiation of DN1 cells | 0.0024 | grey | 1 | MYH11 |
| Cellular Movement,Immune Cell Trafficking | Migration of spleen cell lines | 0.0024 | grey | 1 | MYH11 |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Organismal Development,Tissue Development | Development of endoderm progenitors | 0.0024 | grey | 1 | WNT7B |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Posttetanic potentiation of parallel fiber-Purkinje cell synapses | 0.0024 | grey | 1 | PRKCB |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Volume of tumor | 0.00267 | grey | 2 | PRKCB,WNT7B |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Nervous System Development and Function,Organismal Development,Tissue Morphology | Quantity of neurosphere cells | 0.00359 | grey | 1 | WNT7B |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of peripheral blood neutrophils | 0.00359 | grey | 1 | PRKCB |
| Cell Cycle | Mitogenesis of leukemia cell lines | 0.00359 | grey | 1 | PRKCB |
| Skeletal and Muscular System Development and Function | Contractility of detrusor muscle | 0.00359 | grey | 1 | MYH11 |
| Connective Tissue Disorders,Metabolic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Metabolic bone disease | 0.00391 | grey | 2 | CALCR,MYH11 |
| Cellular Movement,Reproductive System Development and Function | Migration of breast cell lines | 0.00411 | grey | 2 | EIF3E,PTPN14 |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Organismal Development,Tissue Development | Development of embryonic cells | 0.00452 | grey | 2 | MYH11,WNT7B |
| Embryonic Development,Organ Development,Organismal Development,Renal and Urological System Development and Function,Tissue Development | Development of metanephros | 0.00473 | grey | 2 | GREB1L,WNT7B |
| Embryonic Development,Organ Development,Organismal Development,Renal and Urological System Development and Function,Tissue Development | Morphogenesis of metanephros | 0.00478 | grey | 1 | WNT7B |
| Embryonic Development,Organismal Development,Tissue Development | Tubulogenesis of metanephric mesenchyme | 0.00478 | grey | 1 | WNT7B |
| Cellular Movement | Invasion of intestinal cell lines | 0.00478 | grey | 1 | PRKCB |
| Developmental Disorder,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function | Megacystis microcolon intestinal hypoperistalsis syndrome | 0.00478 | grey | 1 | MYH11 |
| Cellular Development,Embryonic Development,Organismal Development | Maturation of neuronal progenitor cells | 0.00478 | grey | 1 | WNT7B |
| Skeletal and Muscular System Development and Function | Force generation of smooth muscle | 0.00478 | grey | 1 | MYH11 |
| Cellular Development,Cellular Growth and Proliferation,Tissue Development | Development of stem cells | 0.0055 | grey | 2 | MYH11,WNT7B |
| Cardiovascular System Development and Function,Cellular Development,Cellular Growth and Proliferation | Proliferation of endothelial cell lines | 0.00596 | grey | 2 | EIF3E,MYH11 |
| Cell Morphology | Polarity of podocytes | 0.00598 | grey | 1 | KIRREL1 |
| Cellular Growth and Proliferation,Organismal Development | Growth of Schizosaccharomyces pombe | 0.00598 | grey | 1 | EIF3E |
| Embryonic Development,Tissue Development | Proliferation of mesenchyme | 0.00598 | grey | 1 | WNT7B |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Volume of carcinoma | 0.00598 | grey | 1 | WNT7B |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Hematological System Development and Function,Hematopoiesis,Organismal Development,Tissue Development | Hematopoiesis of embryonic stem cells | 0.00598 | grey | 1 | MYH11 |
| Immunological Disease | Systemic autoimmune syndrome | 0.00691 | grey | 6 | CALCR,EIF3E,MYH11,PRKCB,WNT7B,ZNF281 |
| Endocrine System Disorders,Gastrointestinal Disease,Metabolic Disease,Organismal Injury and Abnormalities | Experimentally-induced diabetes | 0.00694 | grey | 2 | CDS1,PRKCB |
| Cellular Development,Cellular Growth and Proliferation | Proliferation of spleen cell lines | 0.00717 | grey | 1 | MYH11 |
| Embryonic Development,Organismal Development,Tissue Development | Development of mullerian duct | 0.00717 | grey | 1 | GREB1L |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Lethal cardiomyopathy | 0.00717 | grey | 1 | PRKCB |
| Organ Development | Function of thymus gland | 0.00717 | grey | 1 | CBX4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progression of breast carcinoma | 0.00717 | grey | 1 | WNT7B |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Size of intestinal tumor | 0.00717 | grey | 1 | PRKCB |
| Embryonic Development,Organismal Development,Tissue Development | Development of Wolffian duct | 0.00717 | grey | 1 | GREB1L |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Formation of aberrant crypt foci | 0.00836 | grey | 1 | PRKCB |
| Cellular Compromise | Disorganization of actin cytoskeleton | 0.00836 | grey | 2 | KIRREL1,SDK1 |
| Connective Tissue Disorders,Dermatological Diseases and Conditions,Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Classic Ehlers-Danlos syndrome | 0.00836 | grey | 1 | MYH11 |
| Cellular Development,Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development,Visual System Development and Function | Differentiation of retinal rods | 0.00836 | grey | 1 | PRKCB |
| Cell Morphology | Morphology of stomach cancer cell lines | 0.00836 | grey | 1 | PRKCB |
| Cellular Compromise | Acidification of extracellular space | 0.00836 | grey | 1 | CALCR |
| Cellular Assembly and Organization,Cellular Compromise | Retraction of cellular tail | 0.00955 | grey | 1 | PRKCB |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Stenosis of pulmonary valve | 0.00955 | grey | 1 | MYH11 |
| Cancer,Organismal Injury and Abnormalities | Angiogenesis of carcinoma | 0.00955 | grey | 1 | WNT7B |
| Cell Death and Survival | Cell viability of lung cell lines | 0.00955 | grey | 1 | PRKCB |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities | Bicuspid aortic valve | 0.00955 | grey | 1 | MYH11 |
| Cell Cycle | Replication of Francisella novicida U112 | 0.00955 | grey | 1 | PRKCB |
| Cell Morphology,Cellular Movement | Cell spreading of tumor cell lines | 0.0101 | grey | 2 | PRKCB,PTPN14 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tissue Morphology,Tumor Morphology | Size of mammary tumor | 0.0107 | grey | 1 | WNT7B |
| Organismal Functions | Healing of tumor cell lines | 0.0107 | grey | 1 | PRKCB |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Urinary retention | 0.0107 | grey | 1 | MYH11 |
| Cell Death and Survival | Killing of Leishmania major | 0.0107 | grey | 1 | PRKCB |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Severe osteoarthritis | 0.0107 | grey | 1 | WNT7B |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal regression of vasculature | 0.0119 | grey | 1 | MYH11 |
| Cell Morphology,Cellular Development,Cellular Growth and Proliferation | Morphogenesis of breast cell lines | 0.0119 | grey | 1 | PTPN14 |
| Organismal Functions | Daytime core body temperature | 0.0119 | grey | 1 | PRKCB |
| Cell Death and Survival,Renal and Urological System Development and Function | Survival of podocytes | 0.0119 | grey | 1 | KIRREL1 |
| Cell Signaling,Molecular Transport,Vitamin and Mineral Metabolism | Concentration of Ca2+ | 0.012 | grey | 2 | MYH11,PRKCB |
| Cardiovascular System Development and Function,Organ Development,Organ Morphology | Contraction of left ventricle | 0.0131 | grey | 1 | PRKCB |
| Tissue Development | Formation of elastic fibers | 0.0131 | grey | 1 | MYH11 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Metastasis of breast carcinoma | 0.0131 | grey | 1 | WNT7B |
| Embryonic Development,Organismal Development,Tissue Development | Morphogenesis of embryonic tissue | 0.0133 | grey | 2 | GREB1L,WNT7B |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Respiratory System Development and Function,Tissue Development | Branching morphogenesis of lung | 0.0143 | grey | 1 | WNT7B |
| Cell Cycle | G2/M phase of cervical cancer cell lines | 0.0143 | grey | 1 | EIF3E |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Classic Marfan syndrome | 0.0143 | grey | 1 | MYH11 |
| Cell Morphology,Cellular Movement | Cell spreading of colorectal cancer cell lines | 0.0143 | grey | 1 | PRKCB |
| Connective Tissue Disorders,Infectious Diseases,Organismal Injury and Abnormalities | Infection of fibroblasts | 0.0143 | grey | 1 | PRKCB |
| Cancer,Organismal Injury and Abnormalities | Head and neck squamous cell carcinoma | 0.0143 | grey | 9 | CALCR,CBX4,FAM189A1,GREB1L,MYH11,SDK1,SLMAP,ZNF281,ZNF821 |
| Cellular Development,Cellular Growth and Proliferation,Reproductive System Development and Function | Cell proliferation of breast cell lines | 0.0147 | grey | 2 | EIF3E,PTPN14 |
| Cell Morphology,Organ Morphology,Renal and Urological System Development and Function | Morphology of pedicels | 0.0155 | grey | 1 | KIRREL1 |
| Behavior | Rotation behavior | 0.0155 | grey | 1 | PRKCB |
| Cell Cycle,Hair and Skin Development and Function | Arrest in G2 phase of epithelial cell lines | 0.0167 | grey | 1 | CALCR |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Familial thoracic aortic aneurysm | 0.0167 | grey | 1 | MYH11 |
| Small Molecule Biochemistry | Synthesis of histamine | 0.0167 | grey | 1 | PRKCB |
| Cell Cycle,Renal and Urological System Development and Function | Arrest in G2 phase of kidney cell lines | 0.0167 | grey | 1 | CALCR |
| Cardiovascular System Development and Function,Hematological System Development and Function | Mean arterial pressure of artery | 0.0167 | grey | 1 | MYH11 |
| Cell-To-Cell Signaling and Interaction,Drug Metabolism,Molecular Transport,Small Molecule Biochemistry | Efflux of dopamine | 0.0167 | grey | 1 | PRKCB |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Synthesis of phosphatidylethanolamine | 0.0167 | grey | 1 | PRKCB |
| Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Formation of gallstone | 0.0167 | grey | 1 | PRKCB |
| Endocrine System Disorders,Gastrointestinal Disease,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Insulin-dependent diabetes mellitus | 0.0177 | grey | 3 | CALCR,MYH11,PRKCB |
| Ophthalmic Disease,Organismal Injury and Abnormalities | Diabetic macular edema | 0.0178 | grey | 1 | PRKCB |
| Cardiovascular Disease,Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Loeys-Dietz syndrome | 0.0178 | grey | 1 | MYH11 |
| Cellular Development | Epithelial-mesenchymal transition of kidney cell lines | 0.0178 | grey | 1 | PTPN14 |
| Endocrine System Development and Function,Molecular Transport,Protein Synthesis,Small Molecule Biochemistry | Quantity of renin in blood | 0.0178 | grey | 1 | MYH11 |
| Cellular Growth and Proliferation,Reproductive System Development and Function | Cytostasis of breast cell lines | 0.019 | grey | 1 | PRKCB |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Severe rheumatoid arthritis | 0.019 | grey | 1 | WNT7B |
| Cell Morphology,Organ Morphology,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Morphology | Abnormal morphology of sarcomere | 0.019 | grey | 1 | MYH11 |
| Cellular Growth and Proliferation | Cytostasis of epithelial cells | 0.019 | grey | 1 | PRKCB |
| Embryonic Development,Organismal Development,Tissue Morphology | Fusion of chorioallantoic membrane | 0.019 | grey | 1 | WNT7B |
| Cellular Function and Maintenance,Molecular Transport | Uptake of phosphate | 0.0202 | grey | 1 | PRKCB |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Reproductive System Development and Function,Tissue Development | Morphogenesis of male genital organ | 0.0202 | grey | 1 | GREB1L |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Recessive lissencephaly | 0.0202 | grey | 1 | MYH11 |
| Cellular Growth and Proliferation | Colony formation of stomach cancer cell lines | 0.0202 | grey | 1 | PRKCB |
| Energy Production,Molecular Transport,Nucleic Acid Metabolism,Small Molecule Biochemistry | Secretion of ATP | 0.0214 | grey | 1 | PRKCB |
| Dermatological Diseases and Conditions,Neurological Disease,Organismal Injury and Abnormalities | Heat hyperalgesia | 0.0214 | grey | 1 | PRKCB |
| Cell Morphology,Cellular Movement | Cell spreading of cervical cancer cell lines | 0.0214 | grey | 1 | PTPN14 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Ventricular dysfunction | 0.0215 | grey | 2 | MYH11,PRKCB |
| Skeletal and Muscular System Development and Function | Contractility of muscle | 0.0222 | grey | 2 | MYH11,PRKCB |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Postmenopausal osteoporosis | 0.0225 | grey | 1 | CALCR |
| Cell Morphology | Morphology of bone cancer cell lines | 0.0225 | grey | 1 | CBX4 |
| Gene Expression | Repression of RNA | 0.0233 | grey | 2 | CBX4,MYH11 |
| Developmental Disorder | Thoracic hypoplasia | 0.0235 | grey | 2 | CBX4,WNT7B |
| Cardiovascular System Development and Function,Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Organ Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Generation of cardiomyocytes | 0.0237 | grey | 1 | MYH11 |
| Cellular Growth and Proliferation,Hair and Skin Development and Function | Cytostasis of epithelial cell lines | 0.0237 | grey | 1 | PRKCB |
| Cellular Assembly and Organization,Lipid Metabolism,Small Molecule Biochemistry | Formation of lipid droplets | 0.0237 | grey | 1 | CDS1 |
| Cell Signaling,Cellular Function and Maintenance,Molecular Transport,Vitamin and Mineral Metabolism | Efflux of Ca2+ | 0.0237 | grey | 1 | PRKCB |
| Cell Signaling,Nucleic Acid Metabolism,Small Molecule Biochemistry | Synthesis of cyclic AMP | 0.0241 | grey | 2 | CALCR,PRKCB |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Synthesis of phosphatidic acid | 0.0248 | grey | 2 | CDS1,PRKCB |
| Cardiovascular System Development and Function,Organ Development,Organ Morphology | Systole | 0.0249 | grey | 1 | PRKCB |
| Cardiovascular System Development and Function,Organ Development | Diastolic function | 0.0249 | grey | 1 | PRKCB |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Development of intestinal adenoma | 0.0249 | grey | 1 | PRKCB |
| Post-Translational Modification | Phosphorylation of protein fragment | 0.0261 | grey | 1 | PRKCB |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Fibrosis of myocardium | 0.0261 | grey | 1 | PRKCB |
| Cell Death and Survival,Hematological System Development and Function | Cell viability of lymphocytes | 0.0262 | grey | 2 | MYH11,PRKCB |
| Developmental Disorder | Hypoplasia of organ | 0.0264 | grey | 3 | CBX4,GREB1L,WNT7B |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development,Tissue Morphology | Mass of bone tissue | 0.0272 | grey | 1 | PRKCB |
| Cellular Assembly and Organization,Nervous System Development and Function | Recycling of synaptic vesicles | 0.0272 | grey | 1 | WNT7B |
| Cell Morphology,Reproductive System Development and Function | Morphology of breast cell lines | 0.0272 | grey | 1 | CBX4 |
| Post-Translational Modification | Sumoylation of protein | 0.0272 | grey | 1 | CBX4 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Development of colon tumor | 0.0284 | grey | 1 | PRKCB |
| Dermatological Diseases and Conditions,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Allergic contact dermatitis | 0.0284 | grey | 1 | PRKCB |
| Gene Expression | Expression of RNA | 0.0294 | grey | 7 | CALCR,CBX4,EIF3E,MYH11,PRKCB,WNT7B,ZNF281 |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of chorion | 0.0296 | grey | 1 | WNT7B |
| Cell Morphology,Organ Morphology,Organismal Injury and Abnormalities,Renal and Urological Disease,Renal and Urological System Development and Function | Effacement of pedicels | 0.0296 | grey | 1 | KIRREL1 |
| Cell Death and Survival,Connective Tissue Development and Function,Skeletal and Muscular System Development and Function | Survival of osteoclasts | 0.0296 | grey | 1 | CALCR |
| Cell Death and Survival | Apoptosis of rhabdomyosarcoma cell lines | 0.0296 | grey | 1 | PRKCB |
| Amino Acid Metabolism,Post-Translational Modification,Small Molecule Biochemistry | Phosphorylation of L-serine | 0.0296 | grey | 1 | PRKCB |
| Drug Metabolism,Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Secretion of prostaglandin E2 | 0.0296 | grey | 1 | PRKCB |
| Molecular Transport,Protein Trafficking | Nuclear export of protein | 0.0296 | grey | 1 | PTPN14 |
| Cell Cycle,Embryonic Development | Arrest in G2 phase of embryonic cell lines | 0.0307 | grey | 1 | CALCR |
| Cancer,Organismal Injury and Abnormalities,Tissue Morphology,Tumor Morphology | Mass of tumor | 0.0307 | grey | 1 | WNT7B |
| Carbohydrate Metabolism,Molecular Transport,Small Molecule Biochemistry | Quantity of inositol phosphate | 0.0307 | grey | 1 | PRKCB |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoma | 0.0313 | grey | 5 | CBX4,FAM189A1,MYH11,PRKCB,PTPN14 |
| Cardiovascular System Development and Function,Cell Morphology,Organ Development,Organ Morphology,Skeletal and Muscular System Development and Function | Contractility of cardiomyocytes | 0.0319 | grey | 1 | PRKCB |
| Cell-To-Cell Signaling and Interaction | Adhesion of cervical cancer cell lines | 0.0319 | grey | 1 | PTPN14 |
| Cellular Movement | Invasion of bone cancer cell lines | 0.033 | grey | 1 | EIF3E |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Interstitial fibrosis of heart | 0.033 | grey | 1 | PRKCB |
| Endocrine System Disorders,Gastrointestinal Disease,Metabolic Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Diabetic retinopathy | 0.0342 | grey | 1 | PRKCB |
| Lymphoid Tissue Structure and Development | Frequency of B lymphocytes | 0.0342 | grey | 1 | PRKCB |
| Cell Morphology | Morphology of sarcoma cell lines | 0.0354 | grey | 1 | CBX4 |
| Cancer,Organismal Injury and Abnormalities | Upper aerodigestive tract carcinoma | 0.0363 | grey | 8 | BOC,CALCR,FAM189A1,GREB1L,PTPN14,SDK1,ZNF281,ZNF821 |
| Embryonic Development,Organ Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Formation of smooth muscle | 0.0365 | grey | 1 | WNT7B |
| Cell Signaling | G-protein signaling, coupled to cAMP nucleotide second messenger | 0.0365 | grey | 1 | CALCR |
| Cellular Development | Epithelial-mesenchymal transition | 0.0372 | grey | 2 | EIF3E,PTPN14 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Respiratory system tumor | 0.0376 | grey | 8 | CALCR,CATSPER3,EIF3E,FAM189A1,MYH11,PRKCB,PTPN14,WNT7B |
| Endocrine System Disorders,Hematological Disease | Hypercalcemia | 0.0377 | grey | 1 | CALCR |
| Cell-To-Cell Signaling and Interaction,Drug Metabolism,Molecular Transport,Small Molecule Biochemistry | Secretion of dopamine | 0.0377 | grey | 2 | PRKCB,SYT7 |
| Cell-To-Cell Signaling and Interaction,Cellular Function and Maintenance,Inflammatory Response | Phagocytosis of leukemia cell lines | 0.0377 | grey | 1 | PRKCB |
| Cancer,Organismal Injury and Abnormalities | Genitourinary adenocarcinoma | 0.0384 | grey | 14 | CALCR,CBX4,CDS1,EIF3E,GREB1L,KRT76,MYH11,PRKCB,PTPN14,SDK1,SLMAP,TMCC3,ZNF281,ZNF821 |
| Developmental Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Hypoplasia of lung | 0.0388 | grey | 1 | WNT7B |
| Cellular Development,Cellular Growth and Proliferation,Hair and Skin Development and Function | Proliferation of epithelial cell lines | 0.0413 | grey | 2 | CALCR,EIF3E |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Tissue Morphology | Area of atherosclerotic lesion | 0.0423 | grey | 1 | PRKCB |
| Cell Death and Survival,Hematological System Development and Function | Cell viability of thymocytes | 0.0423 | grey | 1 | MYH11 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Development of breast carcinoma | 0.0423 | grey | 1 | WNT7B |
| Cancer,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Embryonal rhabdomyosarcoma in striated muscle | 0.0432 | grey | 2 | CALCR,PRKCB |
| Embryonic Development,Organ Development,Organismal Development,Reproductive System Development and Function,Tissue Development | Formation of uterus | 0.0435 | grey | 1 | GREB1L |
| Cellular Development | Differentiation of stem cells | 0.0438 | grey | 2 | MYH11,ZNF281 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Tissue Morphology | Size of spleen | 0.0446 | grey | 1 | PRKCB |
| Cell Morphology,Organ Morphology,Renal and Urological System Development and Function | Morphology of podocytes | 0.0446 | grey | 2 | KIRREL1,SDK1 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Familial vascular disease | 0.0452 | grey | 2 | MYH11,PRKCB |
| Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Fibrosis of muscle | 0.0457 | grey | 2 | PRKCB,SYT7 |
| Carbohydrate Metabolism,Post-Translational Modification | Processing of O-glycan | 0.0457 | grey | 1 | MUC3B |
| Cell Signaling,Post-Translational Modification | Activation of JUN kinase | 0.0469 | grey | 1 | WNT7B |
| Dermatological Diseases and Conditions,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities | Atopic dermatitis | 0.0469 | grey | 2 | EIF3E,PRKCB |
| Cardiovascular Disease | Vascular lesion | 0.0478 | grey | 2 | MYH11,PRKCB |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Actinic keratosis | 0.0492 | grey | 1 | PRKCB |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders,Skeletal and Muscular Disorders | Huntington's Disease | 0.0494 | grey | 4 | CDS1,EIF3E,PRKCB,SLMAP |
| Cell Morphology | Morphology of tumor cell lines | 0.0495 | grey | 2 | CBX4,PRKCB |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of semilunar valve | 0.0000108 | brown | 5 | ACKR3,BMPR2,PHC1,SOX4,TGFB2 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Localization of vesicles | 0.0000639 | brown | 3 | ARHGEF7,MYO1C,PIP5K1B |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of atrioventricular canal cushion | 0.000164 | brown | 4 | ACKR3,JUP,PTPRJ,TGFB2 |
| Cell Death and Survival | Apoptosis of lymphoma cell lines | 0.000169 | brown | 9 | CD44,CD48,IGFBP4,IGHG1,MYBL1,PIK3CA,TGFB2,TNFRSF10B,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Homing of leukocytes | 0.000194 | brown | 14 | ACKR3,ARHGEF7,CD44,CD9,CUX1,GPSM1,IGHG1,IL15,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2 |
| 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,Tissue Morphology | Morphology of dendritic spines | 0.000326 | brown | 6 | ARHGEF7,CNR1,NFATC4,PCDH9,PPP1R9A,RHOB |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart ventricle | 0.000331 | brown | 9 | ACKR3,BMPR2,JUP,NFATC4,PHC1,PTPRJ,SOX4,TGFB2,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Acinar-cell carcinoma | 0.000387 | brown | 7 | BACE2,DPY19L3,MSI2,MYBPC2,NAV1,PIK3CA,PRKACB |
| 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-1 lymphocytes | 0.000406 | brown | 3 | CMTM7,IL15,PLCL2 |
| Cellular Growth and Proliferation | Colony formation of cells | 0.000438 | brown | 17 | ACKR3,ANXA7,BAG3,CD44,CD9,CLEC11A,DUSP5,GADD45B,IGFBP4,JUP,MSI2,PHC1,PIK3CA,PTPRJ,RHOB,TGFB2,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of carcinoma cell lines | 0.00049 | brown | 3 | CTSH,MSI2,TGFB2 |
| Cellular Compromise,Inflammatory Response | Degranulation of cells | 0.000498 | brown | 18 | ARHGEF7,CD44,CD48,CD9,CLEC4C,CTSH,DUSP5,FAM3C,IL15,JUP,LHFPL2,MME,P2RX1,PTPRJ,SERPINB6,SVIP,TGFB2,UBASH3B |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Hypoplasia of pulmonary artery | 0.000511 | brown | 2 | PHC1,TGFB2 |
| Cancer,Organismal Injury and Abnormalities | Secondary tumor | 0.000609 | brown | 24 | ACKR3,ANK3,ANXA7,ASAP1,BMPR2,CD44,CD48,CD9,CTSH,CUX1,IKZF2,IL15,JAM3,JUP,MME,MSI2,MYO1C,PIK3CA,PTPRJ,RHOB,RNF144B,TGFB2,TNFRSF10B,TNFRSF21 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of tumor cell lines | 0.000674 | brown | 4 | CD44,CTSH,MSI2,TGFB2 |
| Cell Morphology | Ruffling of plasma membrane | 0.000674 | brown | 4 | ADD1,MYO1C,RAB34,WASF1 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphatic system cells | 0.000782 | brown | 21 | ACKR3,BAG3,CD44,CD48,CD9,CLEC11A,DUSP5,GADD45B,IL15,JAM3,MYBL1,PHC1,PIK3CA,PLCL2,PTPRJ,SERPINB6,SOX4,TNFRSF21,TRIB2,UBASH3B,XBP1 |
| Cell-To-Cell Signaling and Interaction,Reproductive System Development and Function | Binding of gonadal cell lines | 0.000804 | brown | 5 | CD44,CD48,CD9,JAM3,TGFB2 |
| Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Proliferation of fibroblast-like synoviocytes | 0.000805 | brown | 3 | CD44,IL15,TNFRSF10B |
| Cell Morphology | Ruffling | 0.000831 | brown | 6 | ADD1,ARHGEF7,MYO1C,PIK3CA,RAB34,WASF1 |
| Cellular Movement | Migration of cells | 0.000841 | brown | 43 | ACKR3,ADD1,AMOTL1,APBB2,ARHGEF7,ASAP1,BAG3,BMPR2,CD44,CD48,CD9,CLEC11A,CNR1,CTNNA1,CTSH,CUX1,DUSP5,ELK3,GPSM1,IGFBP4,IGHG1,IL15,JAM3,JUP,LIMS2,MME,MYO1C,NAV1,NFATC4,NREP,P2RX1,PIK3CA,PON2,PPIL2,PTPRJ,RANBP2,RHOB,TGFB2,TNFRSF10B,TNFRSF19,TNFRSF21,WASF1,XBP1 |
| Cellular Assembly and Organization | Recruitment of membrane rafts | 0.000846 | brown | 2 | CD48,PIP5K1B |
| 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 | 0.000846 | brown | 2 | CMTM7,PLCL2 |
| Cancer,Organismal Injury and Abnormalities | Growth of tumor | 0.000849 | brown | 23 | ACKR3,APCDD1,BMPR2,CD44,CNR1,CUX1,EIF4B,ERO1A,IGHG1,IKZF2,IL15,JAM3,MME,MSI2,PEG10,PIK3CA,RHOB,SOX4,TGFB2,TLE1,TNFRSF10B,TRIB2,XBP1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of blood vessel | 0.00102 | brown | 10 | ACKR3,BMPR2,ELK3,IL15,NFATC4,PIK3CA,PTPRJ,SOX4,TGFB2,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking | Adhesion of antigen presenting cells | 0.00103 | brown | 4 | CD44,CD48,CNR1,RHOB |
| Cardiovascular System Development and Function | Morphology of cardiovascular system | 0.00108 | brown | 23 | ABCA5,ACKR3,BAG3,BMPR2,CD44,DUSP5,ELK3,GDF11,GUCY2C,IGFBP4,IL15,JUP,LIMS2,MYBPC2,NFATC4,PHC1,PIK3CA,PTPRJ,RHOB,SDHA,SOX4,TGFB2,XBP1 |
| Hematological System Development and Function,Tissue Morphology | Quantity of mononuclear leukocytes | 0.00114 | brown | 20 | ACKR3,BAG3,CD44,CD48,CLEC11A,DUSP5,GADD45B,IL15,JAM3,MYBL1,PHC1,PIK3CA,PLCL2,PTPRJ,SERPINB6,SOX4,TNFRSF21,TRIB2,UBASH3B,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant tumor | 0.00123 | brown | 25 | ACKR3,ANK3,ANXA7,ASAP1,BMPR2,CD44,CD48,CD9,CTSH,CUX1,IGFBP4,IKZF2,IL15,JAM3,JUP,MME,MSI2,MYO1C,PIK3CA,PTPRJ,RHOB,RNF144B,TGFB2,TNFRSF10B,TNFRSF21 |
| Cell Cycle | G0/G1 phase transition of blood cells | 0.00126 | brown | 2 | CD44,IL15 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of leukocytes | 0.00128 | brown | 12 | ACKR3,ARHGEF7,CD9,CUX1,GPSM1,IL15,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential | 0.00139 | brown | 5 | CD44,CTSH,JAM3,MSI2,TGFB2 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Morphology of right ventricle | 0.00139 | brown | 5 | ACKR3,BMPR2,JUP,PHC1,TGFB2 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Transmigration of lymphocytes | 0.00139 | brown | 4 | ACKR3,BMPR2,CD44,PIK3CA |
| Cellular Movement,Hematopoiesis,Immune Cell Trafficking,Inflammatory Response | Cell movement of bone marrow cells | 0.00139 | brown | 3 | CD44,CD9,CLEC11A |
| Cardiovascular System Development and Function,Tissue Morphology | Morphology of blood vessel | 0.00147 | brown | 11 | ACKR3,BMPR2,ELK3,IGFBP4,IL15,NFATC4,PIK3CA,PTPRJ,SOX4,TGFB2,XBP1 |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities | Perimembranous ventricular septal defect | 0.00157 | brown | 3 | ACKR3,SOX4,TGFB2 |
| Cell Death and Survival | Cytolysis of natural killer cells | 0.0016 | brown | 4 | CD44,CD48,IGHG1,IL15 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Vulvar squamous cell carcinoma | 0.00176 | brown | 2 | CD44,PIK3CA |
| Cellular Movement,Immune Cell Trafficking,Lymphoid Tissue Structure and Development | Homing of lymphatic system cells | 0.00176 | brown | 7 | ACKR3,CD44,CD9,CUX1,GPSM1,IGHG1,IL15 |
| Endocrine System Development and Function,Molecular Transport,Protein Synthesis,Small Molecule Biochemistry | Quantity of insulin in blood | 0.00177 | brown | 8 | BAG3,CNR1,GATM,GUCY2C,IGFBP4,NEIL1,PIK3CA,SLC9B2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral mucosa tumor | 0.00219 | brown | 3 | CD44,CD48,TLE3 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Abnormality of oral mucosa | 0.00219 | brown | 3 | CD44,IGHG1,TFDP2 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Right ventricular abnormality | 0.00223 | brown | 6 | ACKR3,BMPR2,JUP,PHC1,SOX4,TGFB2 |
| Cellular Movement | Invasion of breast cancer cell lines | 0.0023 | brown | 10 | ASAP1,CD44,CNR1,CRTAP,NFATC4,PTGES3,PTPRJ,RANBP2,SOX4,TGFB2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Malignant mixed Mullerian tumor in endometrium | 0.00231 | brown | 15 | BTBD3,CD48,CECR2,GAL3ST4,MYO1C,PIK3CA,PPP1R3D,PTGES3,SLC9B2,SPATA20,SYCP2,TLE1,TNFRSF19,TRIM58,TTC28 |
| Carbohydrate Metabolism,Drug Metabolism,Small Molecule Biochemistry | Adhesion of hyaluronic acid | 0.00233 | brown | 2 | CD44,MME |
| Cellular Growth and Proliferation | Proliferation of bone marrow cell lines | 0.00244 | brown | 5 | CLEC11A,IL15,JUP,MYBL1,PTPRJ |
| Cellular Movement,Immune Cell Trafficking | Cell movement of lymphatic system cells | 0.00246 | brown | 13 | ACKR3,BMPR2,CD44,CD48,CD9,CLEC11A,CUX1,GPSM1,IGHG1,IL15,JAM3,PIK3CA,TNFRSF21 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organismal Injury and Abnormalities | Abnormal morphology of vasculature | 0.00248 | brown | 11 | ACKR3,BMPR2,ELK3,IL15,NFATC4,PIK3CA,PTPRJ,SOX4,TGFB2,TNFRSF21,XBP1 |
| Cellular Movement,Hematological System Development and Function,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response | Cell movement of mast cells | 0.00266 | brown | 4 | ARHGEF7,CD9,CLEC11A,IL15 |
| Cellular Movement,Respiratory System Development and Function | Migration of lung cell lines | 0.00268 | brown | 3 | ARHGEF7,CD44,RHOB |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of endothelial tissue | 0.00282 | brown | 4 | CD44,ELK3,PTPRJ,TGFB2 |
| Cardiovascular System Development and Function | Morphology of vasculature | 0.00286 | brown | 12 | ACKR3,BMPR2,ELK3,IGFBP4,IL15,NFATC4,PIK3CA,PTPRJ,SOX4,TGFB2,TNFRSF21,XBP1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Polymerization of actin filaments | 0.00289 | brown | 5 | ADD1,ARHGAP18,MYO1C,PPP1R9A,WASF1 |
| Cell Death and Survival | Cell death of immune cells | 0.00292 | brown | 17 | CD44,CD48,CD9,CLEC11A,CNR1,DUSP5,EIF4B,GADD45B,GPSM1,IKZF2,IL15,PIK3CA,SOX4,TGFB2,TNFRSF21,TRIB2,XBP1 |
| Developmental Disorder,Endocrine System Disorders,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Hypoplasia of thyroid gland | 0.00297 | brown | 2 | ABCA5,PHC1 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Stenosis of pulmonary valve | 0.00297 | brown | 2 | ACKR3,PHC1 |
| Cancer,Organismal Injury and Abnormalities | Invasive melanoma | 0.00297 | brown | 2 | CD44,CLEC11A |
| Cancer,Organismal Injury and Abnormalities | Invasive carcinoma | 0.00313 | brown | 10 | ARHGEF7,ATP5IF1,CD44,CD48,JAM3,PIK3CA,PMEPA1,PTPRJ,SOX4,TLE3 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Acinar lung adenocarcinoma | 0.00314 | brown | 5 | BACE2,DPY19L3,MSI2,MYBPC2,NAV1 |
| Cardiovascular System Development and Function | Development of vasculature | 0.0035 | brown | 25 | ACKR3,ADD1,AP3M2,ATP5IF1,BMPR2,CD44,CD9,CNR1,CTSH,ELK3,IGFBP4,IGHG1,IL15,JAM3,JUP,NFATC4,PIK3CA,PRKACB,PTPRJ,RHOB,SOX4,TGFB2,TNFRSF21,VANGL2,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Invasive cancer | 0.0035 | brown | 11 | ARHGEF7,ATP5IF1,CD44,CD48,CLEC11A,JAM3,PIK3CA,PMEPA1,PTPRJ,SOX4,TLE3 |
| Cardiovascular Disease,Cardiovascular System Development and Function | Abnormal morphology of cardiovascular system | 0.00352 | brown | 20 | ABCA5,ACKR3,BAG3,BMPR2,CD44,DUSP5,ELK3,GUCY2C,IL15,JUP,LIMS2,MYBPC2,NFATC4,PHC1,PIK3CA,PTPRJ,SDHA,SOX4,TGFB2,XBP1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Papillary thyroid carcinoma | 0.00365 | brown | 6 | CD44,CD48,FCGBP,MYBPC2,PIK3CA,TLE3 |
| Cell Cycle | Cell division of somatic cells | 0.00369 | brown | 2 | TGFB2,VANGL2 |
| Cellular Development,Connective Tissue Development and Function,Tissue Development | Differentiation of osteoprogenitor cells | 0.00369 | brown | 2 | BMP3,PLCL2 |
| Cellular Movement,Hematopoiesis,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Homing of bone marrow cells | 0.00369 | brown | 2 | CD44,CD9 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Adhesion of stromal cells | 0.00369 | brown | 2 | CD44,MME |
| Cell-To-Cell Signaling and Interaction | Adhesion of ovarian cancer cell lines | 0.00369 | brown | 2 | CD44,CD9 |
| Cellular Assembly and Organization | Formation of membrane ruffles | 0.00372 | brown | 4 | ARHGEF7,ASAP1,PIP5K1B,WASF1 |
| Cellular Movement | Cell movement of lung cancer cell lines | 0.00388 | brown | 6 | BMPR2,CD44,CD9,JAM3,JUP,TGFB2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of ventricular wall | 0.00397 | brown | 5 | BMPR2,JUP,PHC1,SOX4,XBP1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphocytes | 0.00405 | brown | 18 | ACKR3,BAG3,CD44,CD48,DUSP5,GADD45B,IL15,MYBL1,PHC1,PIK3CA,PLCL2,PTPRJ,SERPINB6,SOX4,TNFRSF21,TRIB2,UBASH3B,XBP1 |
| Cell Death and Survival | Cell viability of antigen presenting cells | 0.00412 | brown | 4 | CD48,IL15,PIK3CA,XBP1 |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities | Hypoplasia of trabeculae carne | 0.00417 | brown | 3 | JUP,NFATC4,TGFB2 |
| Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of thoracic cavity | 0.00426 | brown | 21 | ABCA5,ACKR3,BAG3,BMPR2,CD9,DPPA4,DUSP5,ELK3,GUCY2C,IL15,JUP,LIMS2,MYBPC2,NFATC4,PHC1,PIK3CA,PTPRJ,SDHA,SOX4,TGFB2,XBP1 |
| Connective Tissue Disorders,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarthritis | 0.00427 | brown | 7 | CD44,GADD45B,IGHG1,MME,MYBPC2,PHC1,TLE3 |
| Cellular Development,Cellular Growth and Proliferation,Hair and Skin Development and Function,Organ Development,Tissue Development | Proliferation of dermal cells | 0.00448 | brown | 7 | CD44,CNR1,CTNNA1,IGFBP4,JUP,RNF144B,TGFB2 |
| 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 | 0.00449 | brown | 8 | CMTM7,DUSP5,IL15,PHC1,PLCL2,PTPRJ,SOX4,XBP1 |
| Embryonic Development,Nervous System Development and Function,Ophthalmic Disease,Organ Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Development,Visual System Development and Function | Abnormal morphology of inner plexiform layer | 0.00449 | brown | 2 | GDF11,GPHN |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of invariant natural killer T cells | 0.00449 | brown | 2 | CD48,IL15 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Apoptosis of chronic lymphocytic leukemia cells | 0.00452 | brown | 3 | CD44,IL15,TNFRSF10B |
| Developmental Disorder | Hypoplasia of organ | 0.00458 | brown | 13 | ABCA5,BAG3,CRIM1,GDF11,JUP,MYBL1,NFATC4,PHC1,PTPRJ,SOX4,TGFB2,VANGL2,XBP1 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Morphology of heart ventricle | 0.00464 | brown | 10 | ACKR3,BMPR2,DUSP5,JUP,NFATC4,PHC1,PTPRJ,SOX4,TGFB2,XBP1 |
| Cellular Movement | Cell movement | 0.00476 | brown | 44 | ACKR3,ADD1,AMOTL1,APBB2,ARHGEF7,ASAP1,BAG3,BMPR2,CD44,CD48,CD9,CLEC11A,CNR1,CTNNA1,CTSH,CUX1,DUSP5,ELK3,GPSM1,IGFBP4,IGHG1,IL15,JAM3,JUP,LIMS2,MME,MYO1C,NAV1,NFATC4,NREP,P2RX1,PIK3CA,PON2,PPIL2,PTPRJ,RANBP2,RHOB,SLC9B2,TGFB2,TNFRSF10B,TNFRSF19,TNFRSF21,WASF1,XBP1 |
| Cell Death and Survival | Cell viability of phagocytes | 0.00495 | brown | 5 | CD48,CLEC11A,IL15,PIK3CA,XBP1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart septum | 0.00503 | brown | 4 | BMPR2,JUP,SOX4,TGFB2 |
| Cancer,Organismal Injury and Abnormalities | Visceral metastasis | 0.00507 | brown | 11 | ACKR3,ANK3,BMPR2,CD44,CD9,IL15,MME,PIK3CA,PTPRJ,TGFB2,TNFRSF21 |
| Cellular Movement | Invasion of cells | 0.00508 | brown | 22 | ACKR3,ANK3,ASAP1,BMPR2,CD44,CD9,CNR1,CRTAP,CTSH,IGHG1,JAM3,JUP,MSI2,NFATC4,PIK3CA,PIP5K1B,PTGES3,PTPRJ,RANBP2,RHOB,SOX4,TGFB2 |
| 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 | Abnormal morphology of myocardium | 0.00513 | brown | 5 | JUP,NFATC4,PTPRJ,SOX4,TGFB2 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Adhesion of phagocytes | 0.00521 | brown | 6 | CD44,CNR1,IL15,JAM3,PIK3CA,RHOB |
| Cardiovascular Disease,Cardiovascular System Development and Function,Cell Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Abnormal morphology of vascular endothelial cells | 0.00527 | brown | 3 | CD44,ELK3,PTPRJ |
| Nervous System Development and Function | Neuroprotection of brain | 0.00527 | brown | 3 | ANK3,CNR1,NFATC4 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Attachment of sternum | 0.00527 | brown | 3 | BMPR2,GDF11,PHC1 |
| Inflammatory Response | Adaptive immune response | 0.00528 | brown | 4 | IL15,JAM3,PLCL2,TNFRSF21 |
| Cancer,Organismal Injury and Abnormalities | Advanced extracranial solid tumor | 0.00528 | brown | 15 | ACKR3,ANK3,BMPR2,CD44,CD48,CD9,IGFBP4,IL15,MME,PIK3CA,PTPRJ,RNF144B,TGFB2,TNFRSF10B,TNFRSF21 |
| Cancer,Organismal Injury and Abnormalities | Metastatic solid tumor | 0.00532 | brown | 16 | ACKR3,ANK3,BMPR2,CD44,CD48,CD9,IKZF2,IL15,MME,MYO1C,PIK3CA,PTPRJ,RNF144B,TGFB2,TNFRSF10B,TNFRSF21 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Migration of monocyte-derived macrophages | 0.00535 | brown | 2 | BMPR2,RHOB |
| Cell-To-Cell Signaling and Interaction | Adhesion of pancreatic cancer cell lines | 0.00535 | brown | 2 | ASAP1,CD44 |
| Nervous System Development and Function | Protection of cortical neurons | 0.00535 | brown | 2 | CNR1,NFATC4 |
| Cell-To-Cell Signaling and Interaction,Molecular Transport,Small Molecule Biochemistry | Uptake of 5-hydroxytryptamine | 0.00535 | brown | 2 | CLEC11A,IL15 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Emigration of neutrophils | 0.00535 | brown | 2 | CD44,JAM3 |
| Hematological Disease,Organismal Injury and Abnormalities | Thrombocytosis | 0.00553 | brown | 4 | ADD1,ANXA7,CUX1,IRAK2 |
| Cardiovascular System Development and Function,Organismal Development | Angiogenesis | 0.00559 | brown | 22 | ADD1,AP3M2,ATP5IF1,BMPR2,CD44,CD9,CNR1,CTSH,ELK3,IGFBP4,IGHG1,IL15,JAM3,JUP,NFATC4,PIK3CA,PRKACB,PTPRJ,RHOB,TGFB2,VANGL2,XBP1 |
| Cardiovascular System Development and Function,Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Tissue Development | Morphogenesis of ventricular septum | 0.00567 | brown | 3 | BMPR2,SOX4,TGFB2 |
| Cardiovascular System Development and Function | Vasoconstriction of blood vessel | 0.0057 | brown | 5 | BMPR2,CNR1,DUSP5,MME,P2RX1 |
| Cellular Movement,Immune Cell Trafficking | Leukocyte migration | 0.00579 | brown | 22 | ACKR3,ARHGEF7,BMPR2,CD44,CD48,CD9,CLEC11A,CNR1,CUX1,GPSM1,IGHG1,IL15,JAM3,P2RX1,PIK3CA,PON2,PPIL2,PTPRJ,RHOB,TGFB2,TNFRSF10B,TNFRSF21 |
| Cellular Development,Connective Tissue Development and Function,Tissue Development | Differentiation of connective tissue cells | 0.00582 | brown | 16 | BMP3,BMPR2,CD44,CD9,ERO1A,GADD45B,IGHG1,JUP,NFATC4,PEG10,PLCL2,TGFB2,TMEM178A,TRIB2,UBASH3B,XBP1 |
| Cellular Movement,Immune Cell Trafficking | Migration of lymphatic system cells | 0.00599 | brown | 11 | ACKR3,BMPR2,CD44,CD48,CLEC11A,CUX1,GPSM1,IL15,JAM3,PIK3CA,TNFRSF21 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung metastasis by tumor | 0.00609 | brown | 3 | IL15,PIK3CA,PTPRJ |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of trabeculae carne | 0.00609 | brown | 3 | NFATC4,PTPRJ,XBP1 |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of T lymphocytes | 0.00624 | brown | 8 | ACKR3,BMPR2,CD44,CUX1,GPSM1,IL15,PIK3CA,TNFRSF21 |
| Cell Cycle,DNA Replication, Recombination, and Repair | Homologous pairing of chromosomes | 0.00628 | brown | 2 | MYBL1,SYCP2 |
| Cell-To-Cell Signaling and Interaction | Binding of E. coli | 0.00628 | brown | 2 | CD48,CD9 |
| Carbohydrate Metabolism,Drug Metabolism,Molecular Transport,Small Molecule Biochemistry | Secretion of hyaluronic acid | 0.00628 | brown | 2 | CD44,PIK3CA |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Lymphoid Tissue Structure and Development | Homing of lymphocytes | 0.00632 | brown | 6 | ACKR3,CD44,CUX1,GPSM1,IGHG1,IL15 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Morphology of heart | 0.00643 | brown | 18 | ABCA5,ACKR3,BAG3,BMPR2,DUSP5,GDF11,GUCY2C,JUP,LIMS2,MYBPC2,NFATC4,PHC1,PIK3CA,PTPRJ,SDHA,SOX4,TGFB2,XBP1 |
| Cellular Assembly and Organization,Tissue Development | Polymerization of filaments | 0.00649 | brown | 6 | ADD1,ARHGAP18,HDGFL3,MYO1C,PPP1R9A,WASF1 |
| Cellular Movement | Homing of cells | 0.0068 | brown | 15 | ACKR3,ARHGEF7,CD44,CD9,CNR1,CUX1,GPSM1,IGHG1,IL15,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of phagocytes | 0.00688 | brown | 15 | ARHGEF7,BMPR2,CD44,CD9,CLEC11A,CNR1,GPSM1,IL15,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2,TNFRSF21 |
| Cell Death and Survival | Cell viability of dendritic cells | 0.00698 | brown | 3 | CD48,PIK3CA,XBP1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of heart | 0.00708 | brown | 17 | ABCA5,ACKR3,BAG3,BMPR2,DUSP5,GUCY2C,JUP,LIMS2,MYBPC2,NFATC4,PHC1,PIK3CA,PTPRJ,SDHA,SOX4,TGFB2,XBP1 |
| Hematological System Development and Function,Tissue Morphology | Quantity of blood cells | 0.00709 | brown | 23 | ACKR3,ADD1,BAG3,BMPR2,CD44,CD48,CD9,CLEC11A,DUSP5,GADD45B,IL15,JAM3,MYBL1,PHC1,PIK3CA,PLCL2,PTPRJ,SERPINB6,SOX4,TNFRSF21,TRIB2,UBASH3B,XBP1 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Binding of professional phagocytic cells | 0.00715 | brown | 7 | CD44,CD48,CNR1,IL15,JAM3,PIK3CA,RHOB |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Lymphoid Tissue Structure and Development | Homing of T lymphocytes | 0.00718 | brown | 5 | ACKR3,CD44,CUX1,GPSM1,IL15 |
| Hematological System Development and Function,Tissue Morphology | Quantity of leukocytes | 0.0072 | brown | 21 | ACKR3,BAG3,BMPR2,CD44,CD48,CLEC11A,DUSP5,GADD45B,IL15,JAM3,MYBL1,PHC1,PIK3CA,PLCL2,PTPRJ,SERPINB6,SOX4,TNFRSF21,TRIB2,UBASH3B,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Metastatic potential of lung cancer cell lines | 0.00729 | brown | 2 | MSI2,TGFB2 |
| Lipid Metabolism,Small Molecule Biochemistry | Inhibition of lipid | 0.00729 | brown | 2 | CNR1,XBP1 |
| Cell Morphology | Polarity of tumor cell lines | 0.00729 | brown | 2 | JAM3,PIP5K1B |
| Behavior | Running | 0.00729 | brown | 2 | CRYM,IL15 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Release of extracellular vesicles | 0.00729 | brown | 2 | CD9,XBP1 |
| Cardiovascular System Development and Function,Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Tissue Development | Morphogenesis of atrial septum | 0.00729 | brown | 2 | BMPR2,TGFB2 |
| Cell Morphology,Tissue Development | Tubulation of cells | 0.0074 | brown | 6 | CD44,CD9,IGHG1,PRKACB,RHOB,TGFB2 |
| Cancer,Organismal Injury and Abnormalities | Invasive adenocarcinoma | 0.0074 | brown | 6 | ATP5IF1,CD44,CD48,PIK3CA,PMEPA1,TLE3 |
| Cell Death and Survival | Cell viability of blood cells | 0.00742 | brown | 9 | ACKR3,CD44,CD48,CLEC11A,GADD45B,IKZF2,IL15,PIK3CA,XBP1 |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Transmigration of T lymphocytes | 0.00745 | brown | 3 | BMPR2,CD44,PIK3CA |
| Tissue Development | Growth of epithelial tissue | 0.00752 | brown | 17 | ATP5IF1,BMPR2,CD44,CD9,CNR1,CTNNA1,CUX1,IGFBP4,IGHG1,JUP,LIMS2,PIK3CA,PTPRJ,RNF144B,SOX4,TGFB2,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Growth of malignant tumor | 0.00766 | brown | 12 | APCDD1,CD44,IL15,MME,MSI2,PEG10,PIK3CA,RHOB,SOX4,TGFB2,TLE1,XBP1 |
| Connective Tissue Disorders,Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Spina bifida | 0.00794 | brown | 3 | PRKACB,TGFB2,VANGL2 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Transendothelial migration of leukocytes | 0.00794 | brown | 3 | CD44,JAM3,PIK3CA |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of leukocytes | 0.00816 | brown | 19 | ACKR3,ARHGEF7,BMPR2,CD44,CD48,CD9,CLEC11A,CNR1,CUX1,GPSM1,IGHG1,IL15,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2,TNFRSF21 |
| Cell Death and Survival | Cytolysis of leukemia cell lines | 0.00836 | brown | 2 | CD48,IL15 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Developmental Disorder,Organismal Development,Organismal Injury and Abnormalities,Tissue Morphology | Interrupted aortic arch | 0.00836 | brown | 2 | BMPR2,TGFB2 |
| Cellular Movement | Delay in cell movement | 0.00836 | brown | 2 | CD9,IL15 |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance | Extension of filopodia | 0.00836 | brown | 2 | CD9,PPP1R9A |
| Auditory Disease,Immunological Disease | Contact hypersensitivity of ear | 0.00836 | brown | 2 | CNR1,IL15 |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of Th1 cells | 0.00845 | brown | 3 | CD44,GADD45B,TNFRSF21 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Attachment of rib | 0.00845 | brown | 3 | BMPR2,GDF11,PHC1 |
| Cell Death and Survival | Necrosis | 0.00848 | brown | 49 | ACKR3,AMOTL1,ARHGAP18,BAG3,BMPR2,CD44,CD48,CD9,CLEC11A,CNR1,CTNNA1,CUX1,DPPA4,DUSP5,EIF4B,GADD45B,GPSM1,GUCY2C,IGFBP4,IGHG1,IKZF2,IL15,IRAK2,JUP,LIMS2,MME,MSI2,MYBL1,NFATC4,PIK3CA,PMEPA1,PON2,PPP1R9A,RANBP2,RHOB,RNF144B,SDHA,SLC9B2,SOX4,SYCP2,TGFB2,THUMPD2,TNFRSF10B,TNFRSF19,TNFRSF21,TRIB2,TRMT11,WASF1,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Chemotaxis of phagocytes | 0.00848 | brown | 9 | ARHGEF7,CD9,GPSM1,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2 |
| Cardiovascular System Development and Function,Cellular Movement | Migration of endothelial cells | 0.00854 | brown | 10 | ACKR3,AMOTL1,BMPR2,CD44,CD9,JUP,PIK3CA,PTPRJ,RHOB,TGFB2 |
| Cell-To-Cell Signaling and Interaction | Adhesion of myeloid cells | 0.0086 | brown | 6 | CD44,CNR1,IL15,JAM3,PIK3CA,RHOB |
| 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 | Dendritic growth/branching | 0.00864 | brown | 8 | ARHGEF7,CNR1,NFATC4,PCDH9,PIK3CA,PPP1R9A,RHOB,TNFRSF21 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Homing of mononuclear leukocytes | 0.00886 | brown | 7 | ACKR3,CD44,CUX1,GPSM1,IGHG1,IL15,PON2 |
| Cell Morphology,Cellular Function and Maintenance | Permeability of cells | 0.00892 | brown | 5 | AMOTL1,ARHGEF7,BMPR2,PIK3CA,PTPRJ |
| Cellular Assembly and Organization,Nervous System Development and Function,Tissue Morphology | Quantity of dendritic spines | 0.00898 | brown | 3 | ARHGEF7,RHOB,WASF1 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Abnormality of heart ventricle | 0.0093 | brown | 11 | ACKR3,BAG3,BMPR2,JUP,MME,NFATC4,PHC1,PTPRJ,SOX4,TGFB2,XBP1 |
| Cellular Assembly and Organization | Biogenesis of lateral plasma membrane | 0.00931 | brown | 1 | ANK3 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Expansion of intracellular stores | 0.00931 | brown | 1 | XBP1 |
| Cancer,Organismal Injury and Abnormalities | Metastasis of embryonic stem cell lines | 0.00931 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Compromise,Tumor Morphology | Cell-cell adhesion of melanoma cells | 0.00931 | brown | 1 | CD44 |
| Cancer,Organismal Injury and Abnormalities | Invasive sinonasal mucosal melanoma | 0.00931 | brown | 1 | CD44 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Lysis of glioma cells | 0.00931 | brown | 1 | MME |
| Amino Acid Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Suppression of GABA | 0.00931 | brown | 1 | CNR1 |
| Embryonic Development,Organismal Development,Tissue Development | Formation of atrioventricular canal | 0.00931 | brown | 1 | TGFB2 |
| Cell Cycle | Arrest in cell cycle progression of neuronal progenitor cells | 0.00931 | brown | 1 | GDF11 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage 2-3 primary colorectal adenocarcinoma | 0.00931 | brown | 1 | CD44 |
| Cellular Compromise,Gastrointestinal Disease,Organismal Injury and Abnormalities | Dysfunction of Paneth cells | 0.00931 | brown | 1 | XBP1 |
| Immunological Disease,Organismal Injury and Abnormalities | Lymphangioma | 0.00931 | brown | 1 | PIK3CA |
| Cellular Assembly and Organization | Formation of aggresome-like structures | 0.00931 | brown | 1 | XBP1 |
| Cellular Movement,Hair and Skin Development and Function | Chemokinesis of epithelial cell lines | 0.00931 | brown | 1 | CNR1 |
| Cellular Movement | Lymphatic invasion by lymphoma cell lines | 0.00931 | brown | 1 | CD44 |
| Amino Acid Metabolism,Post-Translational Modification,Small Molecule Biochemistry | Conversion of glycine | 0.00931 | brown | 1 | GATM |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 positive progesterone receptor positive breast carcinoma | 0.00931 | brown | 1 | PIK3CA |
| Cell Morphology,Cellular Assembly and Organization,Cellular Function and Maintenance | Delay in initiation of maturation of filopodia | 0.00931 | brown | 1 | PPP1R9A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage 2-3 sporadic colorectal adenocarcinoma | 0.00931 | brown | 1 | CD44 |
| Dermatological Diseases and Conditions,Hereditary Disorder,Organismal Injury and Abnormalities | Hypotrichosis type 1 | 0.00931 | brown | 1 | APCDD1 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Lichenoid actinic keratosis | 0.00931 | brown | 1 | PIK3CA |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Localization of secretory granules | 0.00931 | brown | 1 | P2RX1 |
| Lipid Metabolism,Small Molecule Biochemistry | Inhibition of corticosterone | 0.00931 | brown | 1 | XBP1 |
| Dermatological Diseases and Conditions,Hereditary Disorder,Organismal Injury and Abnormalities | Generalized hypertrichosis terminalis | 0.00931 | brown | 1 | ABCA5 |
| Cell Morphology,Humoral Immune Response,Lymphoid Tissue Structure and Development | Morphology of Ab-secreting B cells | 0.00931 | 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 | 0.00931 | brown | 1 | GDF11 |
| Cell Death and Survival | Cell death of cytotoxic type 1 T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Grade 4 non-Hodgkin disease | 0.00931 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Signaling of bone marrow cells | 0.00931 | brown | 1 | CD9 |
| Inflammatory Response | CD8+ memory T lymphocyte response by T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Carbohydrate Metabolism | Clearance of hyaluronic acid | 0.00931 | brown | 1 | CD44 |
| Cellular Compromise | Injury of cervical cancer cell lines | 0.00931 | brown | 1 | ATP5IF1 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Malignant schwannoma | 0.00931 | brown | 1 | CD44 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autosomal recessive osteogenesis imperfecta type IIB | 0.00931 | brown | 1 | CRTAP |
| 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 | 0.00931 | brown | 1 | CD44 |
| Cell Morphology,Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Lack of desmosomes | 0.00931 | brown | 1 | JUP |
| Cardiovascular System Development and Function,Organismal Development,Tissue Morphology | Vasodilation of saphenous artery | 0.00931 | brown | 1 | CNR1 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal dominant spastic ataxia type 1 | 0.00931 | brown | 1 | VAMP1 |
| 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 | 0.00931 | brown | 1 | IL15 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary nonendometrioid endometrial carcinoma | 0.00931 | brown | 1 | PIK3CA |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of hepatoma cell lines | 0.00931 | brown | 1 | TNFRSF10B |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of prostate cancer cell lines | 0.00931 | brown | 1 | TNFRSF10B |
| Organ Morphology,Tissue Morphology,Visual System Development and Function | Quantity of RPE cells | 0.00931 | brown | 1 | MME |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II ductal breast carcinoma | 0.00931 | brown | 1 | CD44 |
| Developmental Disorder | PIK3CA mutation positive segmental overgrowth | 0.00931 | brown | 1 | PIK3CA |
| Developmental Disorder,Hereditary Disorder,Ophthalmic Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Familial oculopharyngeal muscular dystrophy | 0.00931 | brown | 1 | PABPN1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lamina propria T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Cellular Compromise,Cellular Function and Maintenance | Endoplasmic reticulum stress response of dopaminergic neurons | 0.00931 | brown | 1 | XBP1 |
| Cardiovascular Disease,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities | CLOVE syndrome | 0.00931 | brown | 1 | PIK3CA |
| Ophthalmic Disease,Organismal Injury and Abnormalities | Epiretinal membrane | 0.00931 | brown | 1 | TGFB2 |
| Auditory and Vestibular System Development and Function,Auditory Disease,Cell Morphology,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Lack of interdental cells | 0.00931 | brown | 1 | TGFB2 |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Dissemination of tumor | 0.00931 | brown | 1 | CD44 |
| Developmental Disorder,Organismal Injury and Abnormalities,Reproductive System Disease | Breast columnar cell lesion | 0.00931 | brown | 1 | PIK3CA |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Susceptibility to infection-induced acute encephalopathy type 3 | 0.00931 | brown | 1 | RANBP2 |
| Cancer,Organismal Injury and Abnormalities | FGFR3 positive solid tumor | 0.00931 | brown | 1 | PIK3CA |
| Cell Death and Survival | Apoptosis of cartilage tissue | 0.00931 | brown | 1 | XBP1 |
| Auditory Disease,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal recessive deafness type 91 | 0.00931 | brown | 1 | SERPINB6 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal recessive mental retardation type 37 | 0.00931 | brown | 1 | ANK3 |
| Cellular Compromise | Loss of lateral plasma membrane | 0.00931 | brown | 1 | ANK3 |
| Cell Morphology,Nervous System Development and Function | Cell flattening of neurons | 0.00931 | 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 | 0.00931 | brown | 1 | PTPRJ |
| Developmental Disorder,Hereditary Disorder,Organismal Functions,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Limb-girdle muscular dystrophy type 2W | 0.00931 | brown | 1 | LIMS2 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Highly invasive bladder carcinoma | 0.00931 | brown | 1 | CD44 |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Organismal Injury and Abnormalities | Complementation group C molybdenum cofactor deficiency | 0.00931 | brown | 1 | GPHN |
| Auditory and Vestibular System Development and Function,Auditory Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Lack of spiral limbus | 0.00931 | brown | 1 | TGFB2 |
| Neurological Disease | Excitotoxic lesion | 0.00931 | brown | 1 | CNR1 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Primary pulmonary hypertension with hereditary hemorrhagic telangiectasia 1 | 0.00931 | brown | 1 | BMPR2 |
| Cellular Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development | Arrest in maturation of pro-B lymphocytes | 0.00931 | brown | 1 | PHC1 |
| 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 | Lack of pterygoid bone | 0.00931 | brown | 1 | TGFB2 |
| Organismal Development | Accumulation of chyle | 0.00931 | brown | 1 | ELK3 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Colony formation of chronic myeloid leukemia in blast crisis cells | 0.00931 | brown | 1 | MSI2 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development | Volume of right ventricle | 0.00931 | brown | 1 | JUP |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Cytotoxic reaction of memory T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Cardiovascular System Development and Function,Organ Development | Function of right ventricle | 0.00931 | brown | 1 | JUP |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Pulmonary venoocclusive disease type 1 | 0.00931 | brown | 1 | BMPR2 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Reproductive System Development and Function | Fusion of oocytes | 0.00931 | brown | 1 | CD9 |
| Cell Morphology,Nervous System Development and Function | Cell flattening of neuroglia | 0.00931 | brown | 1 | CD9 |
| Auditory Disease,Neurological Disease | Mild hearing loss | 0.00931 | brown | 1 | VANGL2 |
| Cardiovascular System Development and Function,Embryonic Development | Myocardialization of mesenchyme | 0.00931 | brown | 1 | TGFB2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Typical lung carcinoid tumor | 0.00931 | brown | 1 | PIK3CA |
| Cellular Development,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development | Maturation of thymic precursor cells | 0.00931 | brown | 1 | IL15 |
| Cell Morphology,Hematological System Development and Function,Inflammatory Response | Cell rounding of bone-marrow-derived monocyte/macrophage precursor cells | 0.00931 | brown | 1 | RHOB |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of VLDL transport vesicle | 0.00931 | brown | 1 | SVIP |
| Developmental Disorder,Hereditary Disorder,Immunological Disease,Organismal Injury and Abnormalities | Hypoplasia of white pulp | 0.00931 | brown | 1 | MYBL1 |
| Cardiovascular System Development and Function | Perfusion of sinusoid | 0.00931 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction | Clustering of bone cancer cell lines | 0.00931 | brown | 1 | JUP |
| Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Number of mesenteric lymph node cells | 0.00931 | brown | 1 | CD44 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | TNM stage I colorectal carcinoma | 0.00931 | brown | 1 | CD44 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Inflammatory Response,Lymphoid Tissue Structure and Development | Expansion of NK dendritic cells | 0.00931 | brown | 1 | IL15 |
| 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 | 0.00931 | brown | 1 | CD9 |
| Auditory and Vestibular System Development and Function,Auditory Disease,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 | Lack of rosenthal canal | 0.00931 | brown | 1 | TGFB2 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Fenfluramine-associated primary pulmonary hypertension | 0.00931 | brown | 1 | BMPR2 |
| Psychological Disorders | Major affective disorder type 7 | 0.00931 | brown | 1 | XBP1 |
| Neurological Disease,Skeletal and Muscular Disorders | Muscle spasticity of hindlimb | 0.00931 | brown | 1 | CNR1 |
| Cancer,Organismal Injury and Abnormalities | Susceptibility to 4NQO-induced head and neck carcinogenesis | 0.00931 | brown | 1 | PIK3CA |
| Skeletal and Muscular System Development and Function | Mineralization of rib | 0.00931 | brown | 1 | GADD45B |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Gallbladder adenoma | 0.00931 | brown | 1 | CD44 |
| Infectious Diseases | Severe melioidosis | 0.00931 | brown | 1 | IL15 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Function and Maintenance,Tissue Development | Organization of intercalated disks | 0.00931 | brown | 1 | CTNNA1 |
| Connective Tissue Disorders,Developmental Disorder,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autosomal recessive primary microcephaly 11 | 0.00931 | brown | 1 | PHC1 |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities,Psychological Disorders | Hemorrhagic destruction of the brain, subependymal calcification, and cataracts | 0.00931 | brown | 1 | JAM3 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Respiratory Disease | Dexfenfluramine-associated primary pulmonary hypertension | 0.00931 | brown | 1 | BMPR2 |
| Embryonic Development,Organismal Development,Tissue Morphology | Volume of atrioventricular canal cushion | 0.00931 | brown | 1 | TGFB2 |
| Cardiovascular System Development and Function,Cellular Development,Cellular Growth and Proliferation,Connective Tissue Development and Function,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Angiogenesis of osteoblasts | 0.00931 | brown | 1 | TGFB2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Sporadic gastric carcinoma | 0.00931 | brown | 1 | CD44 |
| Cell Morphology | Length of apical membrane | 0.00931 | brown | 1 | ANK3 |
| Cell Cycle | Arrest in G0/G1 phase transition of myeloid cells | 0.00931 | brown | 1 | CD44 |
| Connective Tissue Disorders,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Dyskinesia of axial skeleton | 0.00931 | brown | 1 | CNR1 |
| Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | BAG3-related myofibrillar myopathy | 0.00931 | brown | 1 | BAG3 |
| Connective Tissue Development and Function,Embryonic Development,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Morphogenesis of vertebral column | 0.00931 | brown | 1 | ARHGEF7 |
| 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 | 0.00931 | brown | 1 | THOC6 |
| Cellular Development,Nervous System Development and Function,Tissue Development | Delay in initiation of maturation of dendritic spines | 0.00931 | brown | 1 | PPP1R9A |
| Organismal Injury and Abnormalities | Dysplastic nodule | 0.00931 | brown | 1 | PIK3CA |
| Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Diarrhea type 6 | 0.00931 | brown | 1 | GUCY2C |
| Cell Cycle | Delay in G0/G1 phase transition of T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Cancer,Organismal Injury and Abnormalities | Advanced stage sinonasal mucosal melanoma | 0.00931 | brown | 1 | CD44 |
| Cardiovascular System Development and Function | Autoregulation of afferent arteriole | 0.00931 | brown | 1 | P2RX1 |
| Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Clonal expansion of lamina propria cells | 0.00931 | brown | 1 | IL15 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Bleeding of intestinal mucosa | 0.00931 | brown | 1 | BMPR2 |
| Cell Morphology,Hematological Disease,Humoral Immune Response,Immunological Disease,Lymphoid Tissue Structure and Development | Lack of memory B cells | 0.00931 | brown | 1 | IGHG1 |
| Cell-To-Cell Signaling and Interaction,Connective Tissue Development and Function | Delay in initiation of adhesion of fibroblast cell lines | 0.00931 | brown | 1 | PTPRJ |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemoattraction of CD8+ T lymphocyte | 0.00931 | brown | 1 | CUX1 |
| Cellular Movement | Haptotaxis of melanoma cell lines | 0.00931 | brown | 1 | CD44 |
| Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Acute necrotizing encephalopathy | 0.00931 | brown | 1 | RANBP2 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Co-localization of actin stress fibers | 0.00931 | brown | 1 | RHOB |
| Cell Cycle | Stress-induced premature senescence of vascular endothelial cells | 0.00931 | brown | 1 | ARHGAP18 |
| Nervous System Development and Function,Tissue Development | Accumulation of lutenizing hormone-releasing hormone neurons | 0.00931 | brown | 1 | ACKR3 |
| Cancer,Organismal Injury and Abnormalities | Trabecular adenocarcinoma | 0.00931 | brown | 1 | PIK3CA |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autosomal recessive spastic paraplegia type 47 | 0.00931 | brown | 1 | AP4B1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Hereditary Disorder,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Dilated cardiomyopathy 1HH | 0.00931 | brown | 1 | BAG3 |
| Nervous System Development and Function | Formation of neuronal layer | 0.00931 | brown | 1 | SOX4 |
| Cellular Compromise | Acidification of breast cancer cell lines | 0.00931 | brown | 1 | CD44 |
| Cellular Function and Maintenance | Maintenance of invariant natural killer T cells | 0.00931 | brown | 1 | IL15 |
| Cell Death and Survival | Cell survival of stomach cancer cell lines | 0.00931 | brown | 1 | CUX1 |
| Hematological System Development and Function,Inflammatory Response,Tissue Morphology | Quantity of NK dendritic cells | 0.00931 | brown | 1 | IL15 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Fibrosis of right ventricle | 0.00931 | brown | 1 | CTNNA1 |
| Cell-To-Cell Signaling and Interaction | Clustering of sarcoma cell lines | 0.00931 | brown | 1 | JUP |
| Cell Morphology,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell spreading of bone-marrow-derived monocyte/macrophage precursor cells | 0.00931 | brown | 1 | RHOB |
| Developmental Disorder,Hereditary Disorder,Metabolic Disease,Neurological Disease,Organismal Injury and Abnormalities,Psychological Disorders | Arginine:glycine amidinotransferase deficiency | 0.00931 | brown | 1 | GATM |
| Cardiovascular Disease,Cardiovascular System Development and Function,Hereditary Disorder,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Dilated cardiomyopathy type 1GG | 0.00931 | brown | 1 | SDHA |
| Cancer,Organismal Injury and Abnormalities | Advanced TNM stage head and neck squamous cell cancer | 0.00931 | brown | 1 | CD44 |
| Cell Morphology,Hematological System Development and Function,Inflammatory Response,Organismal Development | Size of peritoneal macrophages | 0.00931 | brown | 1 | PON2 |
| 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 | 0.00931 | brown | 1 | IL15 |
| Cancer,Cell-To-Cell Signaling and Interaction,Organismal Injury and Abnormalities | Adhesion of hairy cell leukemia cells | 0.00931 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Nervous System Development and Function | Stimulation of cardiac vagal neurons | 0.00931 | brown | 1 | P2RX1 |
| Neurological Disease | Progressive early-onset ataxia | 0.00931 | brown | 1 | ANK3 |
| Connective Tissue Development and Function,Nervous System Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function,Tissue Development | Mass of L4 vertebra | 0.00931 | brown | 1 | CRTAP |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of leukemia cell lines | 0.00931 | brown | 1 | TNFRSF10B |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Oral leukoplakia | 0.00931 | brown | 1 | CD44 |
| Infectious Diseases | Infection by human herpesvirus 6 | 0.00931 | brown | 1 | IL15 |
| Cellular Function and Maintenance | Mitochondrial respiration of bone cancer cell lines | 0.00931 | brown | 1 | ATP5IF1 |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Egression of naive T lymphocytes | 0.00931 | brown | 1 | JAM3 |
| Carbohydrate Metabolism | Uptake of hyaluronic acid | 0.00931 | 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 | 0.00931 | brown | 1 | CD44 |
| Digestive System Development and Function,Organ Morphology,Organismal Development | Mass of stomach | 0.00931 | brown | 1 | IGFBP4 |
| Auditory Disease,Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Autosomal dominant deafness type 40 | 0.00931 | brown | 1 | CRYM |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Hematopoiesis | Binding of LSK cells | 0.00931 | brown | 1 | JAM3 |
| Embryonic Development | Retention of embryo | 0.00931 | brown | 1 | CNR1 |
| Cardiovascular Disease,Hematological Disease,Organismal Injury and Abnormalities,Respiratory Disease | Arterial thrombosis of lung | 0.00931 | brown | 1 | BMPR2 |
| Cancer,Organismal Injury and Abnormalities | Adenomyoepithelioma | 0.00931 | brown | 1 | PIK3CA |
| Developmental Disorder,Embryonic Development,Organismal Development,Tissue Morphology | Abnormal morphology of bulbus cordis | 0.00931 | brown | 1 | PHC1 |
| Cell Morphology | Length of basal membrane | 0.00931 | brown | 1 | ANK3 |
| Cell-mediated Immune Response,Cellular Function and Maintenance,Hematological System Development and Function | Homeostasis of natural killer T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Cell Cycle,Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Inflammatory Response | Effector phase of cytotoxic T cells | 0.00931 | brown | 1 | IL15 |
| Cell Morphology,Cellular Development,Tissue Development | Tubulation of induced pluripotent stem cells | 0.00931 | brown | 1 | TGFB2 |
| Cell Morphology,Cellular Compromise | Shrinkage of red blood cells | 0.00931 | brown | 1 | ANXA7 |
| Cellular Assembly and Organization,DNA Replication, Recombination, and Repair | Formation of chromosomal arms | 0.00931 | brown | 1 | SYCP2 |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Respiratory Disease,Respiratory System Development and Function,Tissue Development,Tissue Morphology | Abnormal morphology of lung pleura | 0.00931 | brown | 1 | ELK3 |
| Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation,Nervous System Development and Function | Depolarization-induced suppression of excitation of hippocampal neurons | 0.00931 | brown | 1 | CNR1 |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Co-localization of dense-core vesicles | 0.00931 | brown | 1 | PIP5K1B |
| Developmental Disorder,Hereditary Disorder,Neurological Disease,Ophthalmic Disease,Organismal Injury and Abnormalities | Patterned macular dystrophy type 2 | 0.00931 | brown | 1 | CTNNA1 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Number of Peyer's patch T-cell | 0.00931 | brown | 1 | CD44 |
| Cell Death and Survival,Cell Morphology,Cellular Function and Maintenance | Autophagic cell death of breast cancer cell lines | 0.00931 | brown | 1 | TNFRSF10B |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Delay in initiation of infiltration of T lymphocytes | 0.00931 | brown | 1 | IL15 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities | Spinocerebellar ataxia type 43 | 0.00931 | brown | 1 | MME |
| Dental Disease,Gastrointestinal Disease,Organismal Injury and Abnormalities | Dysplasia of enamel epithelium | 0.00931 | brown | 1 | IGHG1 |
| Cell Morphology,Digestive System Development and Function,Organ Morphology,Organismal Development,Tissue Morphology | Size of gastric chief cells | 0.00931 | brown | 1 | XBP1 |
| Cell Morphology | Shape change of red blood cells | 0.00931 | brown | 1 | ANXA7 |
| Cancer,Organismal Injury and Abnormalities | Chromophilic cell carcinoma | 0.00931 | brown | 1 | CD44 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary endometrioid endometrial cancer | 0.00931 | brown | 1 | PIK3CA |
| Cellular Assembly and Organization | Fusion of phospholipid vesicles | 0.00931 | brown | 1 | ANXA7 |
| Lipid Metabolism,Small Molecule Biochemistry | Exposure of aminophospholipid | 0.00931 | brown | 1 | CD9 |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities | Metastasis of osteosarcoma | 0.00931 | brown | 1 | CD44 |
| Cancer | Engraftment of myeloma cell lines | 0.00931 | brown | 1 | CD44 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Transmigration of monocyte-derived macrophages | 0.00931 | brown | 1 | BMPR2 |
| Cardiovascular Disease,Hereditary Disorder,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Arrhythmogenic right ventricular dysplasia familial 12 | 0.00931 | 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 | 0.00931 | brown | 1 | XBP1 |
| Cancer,Gastrointestinal Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Cowden disease type 5 | 0.00931 | brown | 1 | PIK3CA |
| Cell Morphology,Cellular Assembly and Organization | Surface area of rough endoplasmatic reticulum | 0.00931 | brown | 1 | XBP1 |
| Cellular Movement,Hematological System Development and Function,Hematopoiesis,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response | Migration of BMMC cells | 0.00931 | brown | 1 | CLEC11A |
| Cellular Function and Maintenance | Mitochondrial respiration of sarcoma cell lines | 0.00931 | brown | 1 | ATP5IF1 |
| Infectious Diseases,Organismal Injury and Abnormalities,Reproductive System Disease | Infection of vagina | 0.00931 | brown | 1 | IL15 |
| Cellular Movement,Embryonic Development | Chemokinesis of embryonic cell lines | 0.00931 | brown | 1 | CNR1 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of cancer cells | 0.00948 | brown | 10 | APCDD1,CD44,IL15,MSI2,PEG10,RHOB,SOX4,TGFB2,TLE1,XBP1 |
| Cardiovascular System Development and Function,Tissue Morphology | Morphology of artery | 0.00948 | brown | 6 | BMPR2,IGFBP4,IL15,PTPRJ,SOX4,TGFB2 |
| Cellular Function and Maintenance | Mitochondrial respiration of tumor cell lines | 0.00949 | brown | 2 | ATP5IF1,CD44 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Cytotoxic reaction of lymphocytes | 0.00949 | brown | 2 | CD48,IL15 |
| Cell-To-Cell Signaling and Interaction | Binding of lung cell lines | 0.00949 | brown | 2 | PTPRJ,RHOB |
| 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 | 0.00949 | brown | 2 | NFATC4,PTPRJ |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant solid tumor | 0.00952 | brown | 17 | ACKR3,ANK3,BMPR2,CD44,CD48,CD9,IGFBP4,IKZF2,IL15,MME,MYO1C,PIK3CA,PTPRJ,RNF144B,TGFB2,TNFRSF10B,TNFRSF21 |
| Cancer,Cellular Movement,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Invasion of mammary tumor cells | 0.00953 | brown | 3 | ASAP1,CD44,JUP |
| Cancer | Hyperplasia of epithelial cells | 0.00959 | brown | 4 | CNR1,IGHG1,MYBL1,PIK3CA |
| Cellular Movement | Chemotaxis | 0.0096 | brown | 14 | ACKR3,ARHGEF7,CD44,CD9,CNR1,CUX1,GPSM1,IL15,JAM3,PIK3CA,PON2,PTPRJ,RHOB,TGFB2 |
| Cellular Growth and Proliferation,Tissue Development | Proliferation of epithelial cells | 0.00965 | brown | 13 | CD44,CD9,CNR1,CTNNA1,CUX1,IGFBP4,JUP,LIMS2,PIK3CA,RNF144B,SOX4,TGFB2,XBP1 |
| Cancer,Cellular Development,Cellular Growth and Proliferation,Organismal Injury and Abnormalities,Tumor Morphology | Proliferation of tumor cells | 0.00989 | brown | 12 | APCDD1,BMPR2,CD44,IL15,MSI2,PEG10,PIK3CA,RHOB,SOX4,TGFB2,TLE1,XBP1 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Endometriosis | 0.0099 | brown | 10 | ANK3,CD44,CD48,CTNNA1,CTSH,MPPED2,PIK3CA,PIP5K1B,PRKACB,TGFB2 |
| Cellular Movement | Invasion of lung cancer cell lines | 0.0103 | brown | 5 | ASAP1,BMPR2,CD44,MSI2,TGFB2 |
| Cardiovascular Disease | Abnormal function of cardiovascular system | 0.0103 | brown | 4 | ACKR3,ANXA7,ELK3,NFATC4 |
| Cardiovascular System Development and Function,Embryonic Development,Organismal Development,Tissue Development | Development of outflow tract | 0.0103 | brown | 4 | ACKR3,BMPR2,PHC1,TGFB2 |
| Cell-To-Cell Signaling and Interaction | Binding of myeloid cells | 0.0104 | brown | 7 | CD44,CD48,CNR1,IL15,JAM3,PIK3CA,RHOB |
| Skeletal and Muscular System Development and Function | Quantity of bone | 0.0105 | brown | 8 | BMPR2,CD44,CD9,CRTAP,GDF11,IGHG1,PLCL2,TMEM178A |
| Cardiovascular System Development and Function,Cell Morphology,Cellular Development,Organismal Development,Tissue Development | Tubulation of endothelial cell lines | 0.0107 | brown | 3 | CD44,IGHG1,PRKACB |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of Th2 cells | 0.0107 | brown | 3 | CD44,GADD45B,TNFRSF21 |
| Organismal Survival | Morbidity or mortality | 0.0109 | brown | 46 | ABCA5,ACKR3,ADAM23,ADD1,ANK3,ANXA7,APBB2,BACE2,BAG3,BMPR2,CD44,CECR2,CNR1,CRIM1,CUX1,DPPA4,ELK3,ERO1A,GDF11,GPHN,GUCY2C,IGHG1,IKZF2,IL15,IRAK2,JAM3,JUP,LIMS2,MME,NFATC4,P2RX1,PAXX,PEG10,PHC1,PIK3CA,PMEPA1,PPP1R9A,PRKACB,PTGES3,PTPRJ,SOX4,SYCP2,TGFB2,VANGL2,WASF1,XBP1 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Enlargement of heart | 0.011 | brown | 13 | ABCA5,ACKR3,BAG3,BMPR2,DUSP5,GUCY2C,JUP,LIMS2,MYBPC2,NFATC4,PHC1,PIK3CA,SDHA |
| Cancer,Connective Tissue Disorders,Hematological Disease,Organismal Injury and Abnormalities | Polycythemia vera | 0.0113 | brown | 3 | CD44,CUX1,IRAK2 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Lymphocyte migration | 0.0114 | brown | 10 | ACKR3,BMPR2,CD44,CD48,CUX1,GPSM1,IL15,JAM3,PIK3CA,TNFRSF21 |
| Cellular Movement,Immune Cell Trafficking,Lymphoid Tissue Structure and Development | Chemotaxis of lymphatic system cells | 0.0116 | brown | 5 | ACKR3,CD9,CUX1,GPSM1,IL15 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of lymphocytes | 0.0116 | brown | 11 | ACKR3,BMPR2,CD44,CD48,CUX1,GPSM1,IGHG1,IL15,JAM3,PIK3CA,TNFRSF21 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Secondary neoplasm of digestive system | 0.0117 | brown | 8 | ACKR3,ANK3,CD44,CD9,IL15,MME,PIK3CA,TGFB2 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Valvulopathy | 0.0117 | brown | 6 | ACKR3,BMPR2,MME,PHC1,SOX4,TGFB2 |
| Cell Death and Survival | Apoptosis | 0.0117 | brown | 48 | AMOTL1,ANXA7,APBB2,ARHGAP18,ARHGEF7,BAG3,BMPR2,CD44,CD48,CD9,CECR2,CLEC11A,CNR1,CTNNA1,CTSH,CUX1,DUSP5,EIF4B,GADD45B,GDF11,GUCY2C,IGFBP4,IGHG1,IL15,IRAK2,JUP,LIMS2,MME,MYBL1,NFATC4,PAXX,PIK3CA,PMEPA1,PON2,RHOB,RNF144B,SOX4,SYCP2,TFDP2,TGFB2,THOC6,TMEM14A,TNFRSF10B,TNFRSF19,TNFRSF21,TRIB2,TRMT11,XBP1 |
| Cell Morphology,Nervous System Development and Function,Tissue Morphology | Morphology of neurons | 0.0118 | brown | 15 | AP3M2,ARHGEF7,CD9,CNR1,GDF11,GPHN,JAM3,MME,NFATC4,PCDH9,PPP1R9A,RHOB,SOX4,VANGL2,WASF1 |
| Respiratory Disease | Dyspnea | 0.0119 | brown | 5 | ACKR3,CD44,ELK3,PTGES3,TGFB2 |
| Connective Tissue Development and Function,Connective Tissue Disorders,Organismal Development,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders,Skeletal and Muscular System Development and Function,Tissue Development | Abnormal morphology of cranium | 0.0119 | brown | 5 | GDF11,NFATC4,PHC1,SOX4,TGFB2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive ductal breast carcinoma | 0.0119 | brown | 5 | ATP5IF1,CD44,CD48,PIK3CA,TLE3 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of right ventricle | 0.0119 | brown | 3 | ACKR3,PHC1,TGFB2 |
| Gastrointestinal Disease,Organismal Injury and Abnormalities | Irritable bowel syndrome | 0.0119 | brown | 3 | CD48,GUCY2C,TLE3 |
| Cellular Movement | Migration of eye cell lines | 0.012 | brown | 2 | CNR1,TGFB2 |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of endocardium | 0.012 | brown | 2 | PIK3CA,PTPRJ |
| Cell Morphology,Humoral Immune Response,Lymphoid Tissue Structure and Development | Morphology of B lymphocytes | 0.012 | brown | 4 | IGHG1,PTPRJ,SOX4,XBP1 |
| Organismal Development | Morphology of body cavity | 0.0122 | brown | 31 | ABCA5,ACKR3,ANXA7,BAG3,BMPR2,CD44,CD9,CUX1,DPPA4,DUSP5,ELK3,GDF11,GUCY2C,IGFBP4,IGHG1,IL15,JUP,LIMS2,MYBL1,MYBPC2,NEIL1,NFATC4,PHC1,PIK3CA,PON2,PTPRJ,SDHA,SOX4,STARD4,TGFB2,XBP1 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Morphology | Quantity of osteoclasts | 0.0122 | brown | 5 | CD44,CD9,CRTAP,IGHG1,TMEM178A |
| Tissue Morphology | Quantity of cells | 0.0122 | brown | 35 | ACKR3,ADD1,ANK3,ARHGEF7,BAG3,BMPR2,CD44,CD48,CD9,CLEC11A,CRTAP,DUSP5,GADD45B,GDF11,GPHN,IGHG1,IL15,JAM3,MME,MYBL1,PCDH9,PHC1,PIK3CA,PLCL2,PTPRJ,RHOB,SERPINB6,SOX4,TGFB2,TMEM178A,TNFRSF21,TRIB2,UBASH3B,WASF1,XBP1 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Morphology | Quantity of bone cells | 0.0122 | brown | 6 | CD44,CD9,CRTAP,IGHG1,PLCL2,TMEM178A |
| Cellular Development,Cellular Growth and Proliferation,Tissue Development | Development of stem cells | 0.0124 | brown | 4 | CLEC11A,CNR1,IL15,MSI2 |
| Cardiovascular System Development and Function,Organismal Development | Vasculogenesis | 0.0124 | brown | 18 | AP3M2,ATP5IF1,BMPR2,CD44,CD9,CNR1,ELK3,IGFBP4,IGHG1,JAM3,NFATC4,PIK3CA,PRKACB,PTPRJ,RHOB,TGFB2,VANGL2,XBP1 |
| Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Skeletal and Muscular System Development and Function | Morphology of cardiac muscle | 0.0125 | brown | 8 | DUSP5,GDF11,JUP,LIMS2,NFATC4,PTPRJ,SOX4,TGFB2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive breast carcinoma | 0.0125 | brown | 8 | ARHGEF7,ATP5IF1,CD44,CD48,JAM3,PIK3CA,PTPRJ,TLE3 |
| Cellular Growth and Proliferation | Cell proliferation of hematopoietic cell lines | 0.0125 | brown | 8 | CD44,CLEC11A,GADD45B,IL15,MSI2,MYBL1,PIK3CA,RANBP2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Salivary gland epithelial tumor | 0.0126 | brown | 3 | PIK3CA,PLAG1,PRKACB |
| Cellular Movement | Transmigration of tumor cell lines | 0.0126 | brown | 3 | CD44,PIK3CA,TNFRSF21 |
| Cell Death and Survival | Cell death of hematopoietic cell lines | 0.0127 | brown | 7 | CD44,CLEC11A,EIF4B,GADD45B,IL15,TGFB2,TRIB2 |
| Cellular Movement | Transmigration of cells | 0.0128 | brown | 6 | ACKR3,BMPR2,CD44,JAM3,PIK3CA,TNFRSF21 |
| Gene Expression | Transactivation | 0.013 | brown | 14 | BMPR2,CD44,CRIM1,IGFBP4,JUP,MDFIC,MYBL1,PEG10,PIK3CA,PLAG1,PRKACB,RHOB,TFDP2,TLE1 |
| Developmental Disorder | Aplasia or hypoplasia | 0.0132 | brown | 14 | ABCA5,APBB2,BAG3,CRIM1,GDF11,JUP,MYBL1,NFATC4,PHC1,PTPRJ,SOX4,TGFB2,VANGL2,XBP1 |
| Cell-mediated Immune Response,Cell-To-Cell Signaling and Interaction,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemoattraction of T lymphocytes | 0.0133 | brown | 2 | CUX1,IL15 |
| Hematological System Development and Function,Tissue Morphology | Quantity of myeloid-derived suppressor cells | 0.0133 | brown | 2 | BMPR2,IL15 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of cytotoxic T cells | 0.0133 | brown | 2 | IGHG1,IL15 |
| Cardiovascular Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Left ventricular noncompaction | 0.0133 | brown | 2 | BAG3,JUP |
| Organismal Development | Size of body | 0.0137 | brown | 19 | ADD1,ANXA7,APBB2,BACE2,CD9,CNR1,GATM,GPSM1,IGFBP4,IKZF2,IL15,MYBL1,PHC1,PIK3CA,PTGES3,PTPRJ,STARD4,TGFB2,WASF1 |
| Organismal Development | Abnormal morphology of body cavity | 0.0144 | brown | 28 | ABCA5,ACKR3,ANXA7,BAG3,BMPR2,CD44,CD9,CUX1,DPPA4,DUSP5,ELK3,GDF11,GUCY2C,IGFBP4,IL15,JUP,LIMS2,MYBL1,MYBPC2,NEIL1,NFATC4,PHC1,PIK3CA,PTPRJ,SDHA,SOX4,TGFB2,XBP1 |
| Cell Morphology | Sprouting | 0.0144 | brown | 11 | ARHGEF7,CD44,CNR1,IGFBP4,NFATC4,PCDH9,PIK3CA,PPP1R9A,PTPRJ,RHOB,TNFRSF21 |
| Cellular Compromise,Inflammatory Response | Degranulation of phagocytes | 0.0145 | brown | 12 | ARHGEF7,CD44,CD9,CLEC4C,CTSH,JUP,MME,P2RX1,PTPRJ,SERPINB6,SVIP,UBASH3B |
| Cell-To-Cell Signaling and Interaction | Binding of connective tissue cells | 0.0145 | brown | 6 | CD44,JAM3,JUP,MME,PTPRJ,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 plasma cells | 0.0146 | brown | 3 | DUSP5,IL15,XBP1 |
| Cellular Movement | Invasion of tumor cell lines | 0.0146 | brown | 17 | ANK3,ASAP1,BMPR2,CD44,CD9,CNR1,CRTAP,CTSH,JAM3,MSI2,NFATC4,PIK3CA,PTGES3,PTPRJ,RANBP2,SOX4,TGFB2 |
| Cellular Movement | Cell movement of myeloid cells | 0.0147 | brown | 14 | ARHGEF7,BMPR2,CD44,CD48,CD9,CLEC11A,CNR1,IL15,JAM3,PON2,PTPRJ,RHOB,TGFB2,TNFRSF21 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Cell movement of monocyte-derived macrophages | 0.0147 | brown | 2 | BMPR2,RHOB |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Renal and Urological System Development and Function,Tissue Development | Morphogenesis of kidney | 0.0147 | brown | 2 | SOX4,VANGL2 |
| 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,Tissue Morphology | Length of dendritic spines | 0.0147 | brown | 2 | PPP1R9A,RHOB |
| Cellular Assembly and Organization,Cellular Function and Maintenance | Formation of endocytotic vesicle | 0.0147 | brown | 2 | ARHGEF7,RAB34 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of antigen presenting cells | 0.0148 | brown | 10 | BMPR2,CD44,CNR1,GPSM1,IL15,JAM3,PIK3CA,PTPRJ,RHOB,TNFRSF21 |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Abnormality of atrium | 0.0151 | brown | 5 | ABCA5,ACKR3,JUP,MME,TGFB2 |
| Cardiovascular System Development and Function,Embryonic Development,Organ Development,Organismal Development,Tissue Development | Cardiogenesis | 0.0154 | brown | 13 | ACKR3,AP3M2,BMPR2,GDF11,JUP,LIMS2,NFATC4,PHC1,PTPRJ,SOX4,TGFB2,VANGL2,XBP1 |
| Cancer,Organismal Injury and Abnormalities | Papillary adenocarcinoma | 0.0154 | brown | 9 | CD44,CD48,FCGBP,IGFBP4,JAM3,MYBPC2,PIK3CA,RNF144B,TLE3 |
| Endocrine System Development and Function | Glucose tolerance | 0.0157 | brown | 8 | CD44,GATM,GUCY2C,IGFBP4,IGHG1,PIK3CA,PLCL2,SLC9B2 |
| Cell Death and Survival | Killing of tumor cell lines | 0.0157 | brown | 4 | CD48,IGHG1,IL15,TNFRSF10B |
| Cardiovascular System Development and Function,Cellular Movement | Migration of endothelial cell lines | 0.0157 | brown | 4 | CD44,CD9,IGHG1,PTPRJ |
| Cardiovascular System Development and Function,Tissue Development | Development of endothelial tissue | 0.0158 | brown | 10 | ATP5IF1,BMPR2,CD44,CD9,IGHG1,PIK3CA,PTPRJ,RHOB,TGFB2,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Transmigration of leukocytes | 0.0158 | brown | 5 | ACKR3,BMPR2,CD44,JAM3,PIK3CA |
| Cell Morphology | Shape change of neurons | 0.0159 | brown | 9 | ARHGEF7,CD9,CNR1,NFATC4,PCDH9,PIK3CA,PPP1R9A,RHOB,TNFRSF21 |
| Cellular Movement | Delay in movement of cells | 0.0161 | brown | 2 | CD9,IL15 |
| 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 sphenoid bone | 0.0161 | brown | 2 | PHC1,TGFB2 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Hyperplasia of epidermal cells | 0.0161 | brown | 2 | CNR1,PIK3CA |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Polyarticular juvenile rheumatoid arthritis | 0.0162 | brown | 4 | GADD45B,MME,MYBPC2,TLE3 |
| Cell Death and Survival | Necroptosis | 0.0162 | brown | 4 | CD44,SYCP2,TNFRSF21,TRMT11 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Activation of neurons | 0.0168 | brown | 4 | ANK3,CNR1,IL15,PIK3CA |
| Cell-mediated Immune Response,Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemotaxis of T lymphocytes | 0.0168 | brown | 4 | ACKR3,CUX1,GPSM1,IL15 |
| Cellular Movement | Migration of tumor cell lines | 0.0171 | brown | 18 | ACKR3,BMPR2,CD44,CD9,CTSH,DUSP5,IGFBP4,JAM3,JUP,MME,NFATC4,NREP,PIK3CA,PTPRJ,RANBP2,RHOB,TNFRSF21,WASF1 |
| Cell Death and Survival,Embryonic Development | Cell death of embryonic cell lines | 0.0173 | brown | 10 | AMOTL1,CD44,DPPA4,GADD45B,NFATC4,RANBP2,RHOB,TNFRSF10B,TNFRSF19,XBP1 |
| Cellular Movement,Hematological System Development and Function,Immune Cell Trafficking | Cell movement of mononuclear leukocytes | 0.0173 | brown | 12 | ACKR3,BMPR2,CD44,CD48,CUX1,GPSM1,IGHG1,IL15,JAM3,PIK3CA,PON2,TNFRSF21 |
| Gene Expression | Transactivation of RNA | 0.0174 | brown | 13 | BMPR2,CD44,CRIM1,IGFBP4,JUP,MDFIC,MYBL1,PEG10,PIK3CA,PLAG1,PRKACB,RHOB,TFDP2 |
| Cell Death and Survival | Apoptosis of bone marrow cells | 0.0176 | brown | 3 | CD44,CLEC11A,GADD45B |
| Behavior | Abnormal social behavior | 0.0176 | brown | 2 | CNR1,NFATC4 |
| Cellular Growth and Proliferation | Colony formation of hepatoma cell lines | 0.0176 | brown | 2 | GADD45B,XBP1 |
| Cardiovascular System Development and Function,Hematological System Development and Function | Pressure of artery | 0.0176 | brown | 2 | BMPR2,GPSM1 |
| Embryonic Development,Nervous System Development and Function,Organ Development,Organismal Development,Tissue Development | Neurogenesis of subventricular zone | 0.0176 | brown | 2 | ANK3,CNR1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Metastatic colorectal cancer | 0.0181 | brown | 7 | ACKR3,ANK3,CD44,CD9,MME,PIK3CA,TGFB2 |
| Organismal Injury and Abnormalities,Reproductive System Disease | Benign pelvic disease | 0.0184 | brown | 13 | ANK3,CD44,CD48,CTNNA1,CTSH,CUX1,MPPED2,PIK3CA,PIP5K1B,PPP1R3D,PRKACB,SOX4,TGFB2 |
| Cell Death and Survival,Cellular Compromise | Cytotoxicity of natural killer cells | 0.0184 | brown | 4 | CD44,CD48,IL15,PIK3CA |
| Cardiovascular System Development and Function,Cell Morphology | Shape change of vascular endothelial cells | 0.0184 | brown | 3 | CD44,PTPRJ,WASF1 |
| Cancer,Skeletal and Muscular Disorders,Tissue Morphology | Transformation of vertebrae | 0.0184 | brown | 3 | BMPR2,GDF11,PHC1 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of immune cells | 0.0184 | brown | 17 | CD44,CD48,CLEC11A,CUX1,DUSP5,GADD45B,IGHG1,IKZF2,IL15,MYBL1,PIK3CA,PLCL2,PTPRJ,TGFB2,TNFRSF10B,TNFRSF21,UBASH3B |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Cell-cell adhesion of melanoma cell lines | 0.0185 | brown | 1 | CD44 |
| Cell Morphology,Cellular Function and Maintenance | Chaperone-assisted selective autophagy | 0.0185 | brown | 1 | BAG3 |
| Hereditary Disorder,Immunological Disease,Neurological Disease,Organismal Injury and Abnormalities | Autosomal recessive hyperekplexia type 1 | 0.0185 | brown | 1 | GPHN |
| Cell Cycle | Arrest in cell cycle progression of splenocytes | 0.0185 | brown | 1 | PHC1 |
| Cell Morphology,Cellular Function and Maintenance | Autophagy of lymphoma cell lines | 0.0185 | brown | 1 | UBASH3B |
| 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 | Branching of basal dendrites | 0.0185 | brown | 1 | CNR1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Endometrial endometrioid adenocarcinoma with clear cell change | 0.0185 | brown | 1 | PIK3CA |
| Cellular Assembly and Organization | Aggregation of chromaffin vesicles | 0.0185 | brown | 1 | ANXA7 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function | Association of C6 vertebra | 0.0185 | brown | 1 | PHC1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Adenoid cystic carcinoma in breast | 0.0185 | brown | 1 | PIK3CA |
| Cardiovascular Disease,Developmental Disorder,Organismal Injury and Abnormalities | Ectopia of heart ventricle | 0.0185 | brown | 1 | JUP |
| Cell Death and Survival | Apoptosis of intraepithelial T lymphocytes | 0.0185 | brown | 1 | IL15 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Binding of neurites | 0.0185 | brown | 1 | CD44 |
| Cell Death and Survival | Apoptosis of effector memory helper T cells | 0.0185 | brown | 1 | IL15 |
| Hereditary Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Axonal Charcot-Marie-Tooth disease type 2T | 0.0185 | brown | 1 | MME |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Early stage colorectal adenoma | 0.0185 | brown | 1 | CD44 |
| Connective Tissue Disorders,Immunological Disease,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Autoantibody-positive systemic lupus erythematosus | 0.0185 | brown | 1 | XBP1 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Activation of Purkinje cells | 0.0185 | brown | 1 | ANK3 |
| Cell-To-Cell Signaling and Interaction,Skeletal and Muscular System Development and Function | Adhesion of smooth muscle cell lines | 0.0185 | brown | 1 | CD44 |
| Carbohydrate Metabolism,Cellular Function and Maintenance,Drug Metabolism,Molecular Transport,Small Molecule Biochemistry | Endocytosis of hyaluronic acid | 0.0185 | brown | 1 | CD44 |
| Embryonic Development,Nervous System Development and Function,Ophthalmic Disease,Organ Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Tissue Development,Visual System Development and Function | Abnormal morphology of posterior chamber | 0.0185 | brown | 1 | TGFB2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast metastasis | 0.0185 | brown | 1 | PIK3CA |
| Cellular Movement,Renal and Urological System Development and Function | Chemokinesis of kidney cell lines | 0.0185 | brown | 1 | CNR1 |
| Nervous System Development and Function | Development of phrenic nerve | 0.0185 | brown | 1 | CD44 |
| Cell Death and Survival | Activation-induced cell death of T lymphoblasts | 0.0185 | brown | 1 | GADD45B |
| Nervous System Development and Function | Activation of neuronal layer | 0.0185 | brown | 1 | CNR1 |
| Ophthalmic Disease,Organismal Injury and Abnormalities | Cornea-lens fusion | 0.0185 | brown | 1 | TGFB2 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Development of conventional dendritic cells | 0.0185 | brown | 1 | XBP1 |
| Cell Morphology | Contraction of breast cancer cell lines | 0.0185 | brown | 1 | PIK3CA |
| Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response,Tissue Development | Accumulation of intraepithelial T lymphocytes | 0.0185 | brown | 1 | IL15 |
| Cellular Movement,Hematological System Development and Function,Hematopoiesis,Hypersensitivity Response,Immune Cell Trafficking,Inflammatory Response,Lymphoid Tissue Structure and Development | Chemotaxis of BMMC cells | 0.0185 | 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 | 0.0185 | brown | 1 | IKZF2 |
| Cell Death and Survival | Antiapoptosis of colorectal cancer cell lines | 0.0185 | brown | 1 | CD44 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization | Compaction of colorectal cancer cell lines | 0.0185 | brown | 1 | CTNNA1 |
| Cell-To-Cell Signaling and Interaction | Aggregation of bone marrow cell lines | 0.0185 | brown | 1 | CD9 |
| Cell-To-Cell Signaling and Interaction,Hematological System Development and Function,Immune Cell Trafficking,Inflammatory Response | Aggregation of monocyte-derived dendritic cells | 0.0185 | brown | 1 | CD44 |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function | Association of rib | 0.0185 | brown | 1 | PHC1 |
| Cell-To-Cell Signaling and Interaction,Cellular Assembly and Organization,Cellular Compromise | Disassembly of junctional complexes | 0.0185 | brown | 1 | JAM3 |
| Cellular Compromise,Inflammatory Response | Degranulation of CD56bright natural killer cells | 0.0185 | brown | 1 | IL15 |
| Nervous System Development and Function,Neurological Disease | Abnormal morphology of pia mater | 0.0185 | brown | 1 | APBB2 |
| Cell-To-Cell Signaling and Interaction,Inflammatory Response | Antibody-dependent cell-mediated cytotoxicity of lymph node cells | 0.0185 | brown | 1 | CD44 |
| Protein Trafficking | Adhesion of Gelatin | 0.0185 | brown | 1 | ASAP1 |
| Cellular Compromise,Inflammatory Response | Degranulation of CD56dim natural killer cells | 0.0185 | brown | 1 | IL15 |
| 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 | 0.0185 | brown | 1 | ACKR3 |
| Connective Tissue Disorders,Developmental Disorder,Neurological Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Encephalocele | 0.0185 | brown | 1 | CECR2 |
| Hematological Disease,Hereditary Disorder,Organismal Injury and Abnormalities | Bleeding disorder due to P2RY12 defect | 0.0185 | brown | 1 | P2RX1 |
| 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 | 0.0185 | brown | 1 | RHOB |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Cancer of floor of mouth | 0.0185 | brown | 1 | PIK3CA |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphatic system cells | 0.000000111 | blue | 29 | ABCB1,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,DDR1,EPHA4,ESR2,FCGR2B,FYN,HCK,HIVEP3,MYB,NOTCH4,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,SOX4,TNFRSF10A,TNFSF8,TRAF3IP2,TXNIP,UBASH3B,ZBTB16 |
| Hematological System Development and Function,Tissue Morphology | Quantity of leukocytes | 0.000000166 | blue | 32 | ABCB1,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,DDR1,EPHA4,ESR2,EZH2,FCGR2B,FYN,HCK,HIVEP3,MYB,NOTCH4,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,SOX4,TIMP3,TNFRSF10A,TNFSF8,TRAF3IP2,TXNIP,UACA,UBASH3B,ZBTB16 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphocytes | 0.000000263 | blue | 27 | ABCB1,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,DDR1,EPHA4,ESR2,FCGR2B,FYN,HIVEP3,MYB,NOTCH4,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,SOX4,TNFRSF10A,TNFSF8,TRAF3IP2,TXNIP,UBASH3B |
| Hematological System Development and Function,Tissue Morphology | Quantity of blood cells | 0.000000267 | blue | 34 | ABCB1,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,DDR1,EPHA4,ESR2,EZH2,FCGR2B,FYN,HCK,HIVEP3,MYB,NOTCH4,NT5E,PAG1,PAWR,PLCG1,RASGRP1,REL,SMARCA4,SOX4,TIMP3,TMPO,TNFRSF10A,TNFSF8,TRAF3IP2,TXNIP,UACA,UBASH3B,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2-negative breast cancer | 0.000000519 | blue | 12 | ABCB1,CDK6,CDKN2C,ESR2,FKBP1A,FYN,HCK,HSP90AB1,MYB,NT5E,TIMP3,TOP2A |
| Hematological System Development and Function,Hematopoiesis,Tissue Morphology | Quantity of hematopoietic progenitor cells | 0.00000055 | blue | 20 | ABCB1,AKAP13,BCL11A,CDK6,EPHA4,ESR2,EZH2,FCGR2B,FYN,HIVEP3,MYB,NOTCH4,PAG1,PLCG1,RASGRP1,REL,SOX4,TMPO,TRAF3IP2,ZBTB16 |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of lymphoid tissue | 0.000000649 | blue | 18 | ABCB1,AKAP13,BANK1,BCL11A,CDK6,CDKN2C,EPHA4,ESR2,FCGR2B,FYN,HIVEP3,NOTCH4,PAG1,RASGRP1,REL,SOX4,TRAF3IP2,UBASH3B |
| Cell Death and Survival | Cell death of blood cells | 0.00000122 | blue | 25 | ABCB1,BCL11A,CD38,EPHA4,FCGR2B,FYN,HCK,HRK,HSP90AB1,LEF1,LYZ,MAP2K3,MAP3K5,MYB,MZB1,PAWR,PLCG1,REL,SLC29A2,SMARCA4,SOX4,TNFSF8,TOP2A,TRAF3IP2,ZBTB16 |
| Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Quantity of lymphoid organ | 0.00000123 | blue | 15 | ABCB1,AKAP13,BCL11A,CDK6,CDKN2C,EPHA4,ESR2,FCGR2B,FYN,HIVEP3,NOTCH4,PAG1,RASGRP1,TRAF3IP2,UBASH3B |
| Hematological Disease,Immunological Disease | Lymphoproliferative disorder | 0.00000129 | blue | 47 | ABCB1,ACTG1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAGED1,MAP2K3,MYB,NETO1,NT5E,PAG1,PLCG1,RASGRP1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative hormone receptor negative breast cancer | 0.00000129 | blue | 11 | ABCB1,CDK6,CDKN2C,ESR2,FYN,HCK,HSP90AB1,MYB,NT5E,TIMP3,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Nonmetastatic advanced cancer | 0.00000145 | blue | 6 | ABCB1,CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cell Death and Survival | Cell viability of tumor cell lines | 0.00000195 | blue | 30 | ABCB1,AKAP13,AQP3,C1GALT1,CD38,CDK6,CDKN2C,DDR1,EPHA4,ESR2,EZH2,FHIT,H2AFY,HCK,HIP1,HSP90AB1,LEF1,LIMK2,LYZ,MAP2K3,MAP3K5,MYB,PFDN5,PLCG1,RAB11A,REL,SMARCA4,TIMP3,TNFSF8,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Refractory advanced cancer | 0.00000218 | blue | 8 | CDK6,DDR1,ESR2,FKBP1A,FYN,HCK,RPL3,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Lymphatic system tumor | 0.0000027 | blue | 47 | ABCB1,ACTG1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAGED1,MAP2K3,MYB,NETO1,NT5E,PAG1,PAWR,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphocytic neoplasm | 0.00000291 | blue | 46 | ABCB1,ACTG1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAGED1,MAP2K3,MYB,NETO1,NT5E,PAG1,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of leukocytes | 0.00000301 | blue | 46 | ABCB1,ACTG1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAGED1,MAP2K3,MYB,NETO1,NT5E,PAG1,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| 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 | 0.00000306 | blue | 24 | BCL11A,CD38,CDK6,EPHA4,ESR2,EZH2,FCGR2B,FKBP1A,FYN,GON4L,HLA-DOA,LEF1,MBD2,MYB,MZB1,PAG1,PLCG1,RASGRP1,REL,SMARCA4,SOCS5,SOX4,TNFSF8,ZBTB16 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Lymphoid cancer | 0.00000403 | blue | 46 | ABCB1,ACTG1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAGED1,MAP2K3,MYB,NETO1,NT5E,PAG1,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cell Death and Survival | Cell death of immune cells | 0.00000481 | blue | 23 | BCL11A,CD38,EPHA4,FCGR2B,FYN,HCK,HRK,HSP90AB1,LEF1,LYZ,MAP2K3,MAP3K5,MYB,MZB1,PAWR,PLCG1,REL,SMARCA4,SOX4,TNFSF8,TOP2A,TRAF3IP2,ZBTB16 |
| Tissue Morphology | Quantity of cells | 0.00000488 | blue | 46 | ABCB1,AKAP13,ARPC2,BANK1,BCL11A,C1GALT1,CD38,CDK2AP1,CDK6,CDKN2C,DDR1,EPHA4,ESR2,EZH2,FCGR2B,FYN,H2AFY,HCK,HDGF,HIVEP3,IQGAP2,LEF1,MYB,NACA,NOTCH4,NT5E,PAG1,PAWR,PLCG1,RASGRP1,REL,RGMB,SAV1,SIK3,SMARCA4,SOX4,TIMP3,TMPO,TNFRSF10A,TNFSF8,TRAF3IP2,TXNIP,UACA,UBASH3B,UBE2J1,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | High-grade lymphoma | 0.00000514 | blue | 17 | CDK6,CDKN2C,DDR1,EZH2,FKBP1A,FYN,HIP1,HSP90AB1,KIAA1551,LEF1,PAG1,REL,SLC29A2,SMARCA4,TNFRSF10A,TOP2A,TTN |
| Post-Translational Modification | Phosphorylation of protein | 0.00000596 | blue | 24 | AAK1,CDK2AP1,CDK6,CDKN2C,CHP1,DDR1,EPHA4,EZH2,FCGR2B,FKBP1A,FYN,HCK,HIP1,LIMK2,MAP2K3,MAP3K5,PAG1,PLCG1,PRR5L,RASGRP1,SIK3,STK17A,SYN3,TLK1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic cancer | 0.0000063 | blue | 44 | ACTG1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAP2K3,MYB,NETO1,NT5E,PAG1,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cell Death and Survival | Cell survival | 0.00000656 | blue | 40 | ABCB1,AKAP13,AQP3,C1GALT1,CD38,CDK2AP1,CDK6,CDKN2C,DDR1,EPHA4,ESR2,EZH2,FHIT,FYN,H2AFY,HCK,HDGF,HIP1,HSP90AB1,LEF1,LIMK2,LYZ,MAGED1,MAP2K3,MAP3K5,MYB,PFDN5,PIK3IP1,PLCG1,RAB11A,REL,SMARCA4,SOX4,TIMP3,TNFRSF10A,TNFSF8,TOP2A,TRAF3IP2,TXNIP,ZBTB16 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer of cells | 0.0000072 | blue | 43 | ACTG1,ANKRD50,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAP2K3,MYB,NETO1,NT5E,PAG1,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Benign Tumors | 0.00000807 | blue | 27 | ABCB1,ABI2,CDKN2C,COL9A1,DDR1,EPPK1,ESR2,EZH2,FHIT,FKBP1A,GLUL,GNG3,HSP90AB1,IQGAP2,ITM2C,KCNG1,LARGE1,LEF1,MAP3K5,NOTCH4,PAG1,PLCG1,RELL1,SAV1,SOX4,TOP2A,TRAF3IP2 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of T lymphocytes | 0.0000102 | blue | 20 | ABCB1,BCL11A,CD38,CDK6,CDKN2C,DDR1,EPHA4,ESR2,FCGR2B,FYN,HIVEP3,NOTCH4,NT5E,PAG1,RASGRP1,REL,SMARCA4,TNFSF8,TRAF3IP2,TXNIP |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymphoid organ | 0.000011 | blue | 19 | AKAP13,BANK1,BCL11A,CDK6,CDKN2C,EPHA4,ESR2,FCGR2B,FYN,HCK,NT5E,PAWR,RASGRP1,REL,SOX4,TNFRSF10A,TRAF3IP2,TXNIP,ZBTB16 |
| Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of abdomen | 0.0000124 | blue | 27 | ABCB1,AKAP13,BANK1,C1GALT1,CD38,CDK6,CDKN2C,ESR2,FCGR2B,FHIT,FKBP1A,FYN,HCK,IQGAP2,LEF1,MYB,PAWR,RASGRP1,REL,SAV1,SIK3,SOX4,TIMP3,TMPO,TRAF3IP2,TXNIP,UACA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Recurrent leukemia | 0.000014 | blue | 8 | ABCB1,ACTG1,DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Cell-mediated Immune Response,Cellular Function and Maintenance,Hematological System Development and Function | T cell homeostasis | 0.000014 | blue | 20 | BCL11A,CD38,CDK6,EPHA4,EZH2,FCGR2B,FKBP1A,FYN,HLA-DOA,LEF1,MBD2,MYB,PAG1,RASGRP1,REL,SMARCA4,SOCS5,SOX4,TNFSF8,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Refractory malignant tumor | 0.0000143 | blue | 11 | CD38,CDK6,DDR1,ESR2,FKBP1A,FYN,HCK,HSP90AB1,LYZ,RPL3,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoma | 0.0000217 | blue | 35 | ANKRD50,CDK6,CDKN2C,DDR1,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,LPCAT2,MAP2K3,NT5E,PAG1,PLCG1,REL,RPL13,RPS20,SAV1,SLC29A2,SMARCA4,STK17A,TIMP3,TNFRSF10A,TNFSF8,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV HER2-negative breast cancer | 0.000025 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Stage IIIC cancer | 0.0000253 | blue | 8 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Recurrent cancer | 0.0000261 | blue | 11 | ABCB1,ACTG1,CD38,CDK6,DDR1,ESR2,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Early stage postmenopausal breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Early stage metastatic hormone receptor positive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV estrogen receptor positive HER2 negative invasive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative hormone receptor positive postmenopausal breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent estrogen receptor positive HER2 negative invasive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Early stage relapsed hormone receptor positive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent estrogen receptor positive HER2 negative progesterone receptor positive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progressive advanced estrogen receptor positive HER2 negative breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV HER2 negative progesterone receptor positive invasive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic progressive hormone receptor positive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV invasive estrogen receptor positive HER2 negative progesterone receptor positive breast cancer | 0.0000265 | blue | 3 | CDK6,ESR2,FKBP1A |
| Organismal Injury and Abnormalities | Benign lesion | 0.0000276 | blue | 28 | ABCB1,ABI2,BBS2,CDKN2C,COL9A1,DDR1,EPPK1,ESR2,EZH2,FHIT,FKBP1A,GLUL,GNG3,HSP90AB1,IQGAP2,ITM2C,KCNG1,LARGE1,LEF1,MAP3K5,NOTCH4,PAG1,PLCG1,RELL1,SAV1,SOX4,TOP2A,TRAF3IP2 |
| Cellular Development,Cellular Growth and Proliferation | Proliferation of blood cells | 0.0000283 | blue | 26 | ABCB1,ABI2,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,EZH2,FCGR2B,FKBP1A,FYN,HCK,LEF1,MYB,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,TIMP3,TNFRSF10A,TXNIP,UBASH3B,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic breast cancer | 0.0000283 | blue | 8 | ABCB1,CDK6,ESR2,EZH2,FKBP1A,HSP90AB1,TNFRSF10A,TOP2A |
| Immunological Disease | Systemic autoimmune syndrome | 0.0000283 | blue | 34 | ABCB1,AKAP13,BANK1,CD38,CDK6,DDR1,ESR2,FCGR2B,FKBP1A,FYN,GBP4,GLUL,HCG4,HCK,HLA-DOA,IL16,LEF1,LYZ,MAP3K5,MBD2,MS4A6A,MZB1,NACA,NOTCH4,NT5E,PHF20,REL,SCML1,TNFRSF10A,TNFSF8,TRAF3IP2,TRAK2,UBASH3B,UBE2H |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Relapsed hematologic cancer | 0.0000295 | blue | 9 | ABCB1,ACTG1,CD38,DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Tissue Development | Leukopoiesis | 0.0000316 | blue | 25 | AKAP13,BCL11A,CD38,CDK6,EPHA4,ESR2,EZH2,FCGR2B,FKBP1A,FYN,GON4L,HLA-DOA,LEF1,MBD2,MYB,MZB1,PAG1,PLCG1,RASGRP1,REL,SMARCA4,SOCS5,SOX4,TNFSF8,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Embryonal tumor | 0.0000326 | blue | 14 | CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FKBP1A,FYN,HSP90AB1,LEF1,SAV1,SMARCA4,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Metastatic recurrent cancer | 0.0000329 | blue | 6 | CDK6,DDR1,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Stage IIIB cancer | 0.0000334 | blue | 8 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Recurrent hematologic cancer | 0.0000339 | blue | 9 | ABCB1,ACTG1,CD38,DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| 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 | 0.0000348 | blue | 19 | BCL11A,CDK6,EPHA4,EZH2,FCGR2B,FKBP1A,FYN,HLA-DOA,LEF1,MBD2,MYB,PAG1,RASGRP1,REL,SMARCA4,SOCS5,SOX4,TNFSF8,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Hormone receptor positive breast carcinoma | 0.0000349 | blue | 7 | CDK6,ESR2,FKBP1A,GON4L,HSP90AB1,NOTCH4,TOP2A |
| 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 | 0.0000364 | blue | 16 | AKAP13,BANK1,BCL11A,CDK6,CDKN2C,ESR2,FCGR2B,FYN,HCK,PAWR,RASGRP1,REL,SOX4,TNFRSF10A,TRAF3IP2,TXNIP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Hormone receptor positive invasive breast carcinoma | 0.0000366 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory accelerated phase chronic myelogenous leukemia | 0.0000374 | blue | 4 | DDR1,FYN,HCK,RPL3 |
| Cancer,Organismal Injury and Abnormalities | Stage IV solid tumor | 0.0000388 | blue | 9 | CDK6,DDR1,ESR2,FCGR2B,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Endocrine System Disorders,Gastrointestinal Disease,Immunological Disease,Metabolic Disease,Organismal Injury and Abnormalities | Insulin-dependent diabetes mellitus | 0.0000416 | blue | 16 | BANK1,CD38,DDR1,FCGR2B,FKBP1A,GBP4,HCG4,HLA-DOA,LEF1,LYZ,MS4A6A,MZB1,NOTCH4,NT5E,REL,TNFSF8 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic estrogen receptor positive HER2 negative progesterone receptor positive breast cancer | 0.0000421 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Proliferation of lymphocytes | 0.0000423 | blue | 23 | ABI2,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,FCGR2B,FKBP1A,FYN,HCK,LEF1,MYB,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,TNFRSF10A,TXNIP,UBASH3B,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Unresectable recurrent cancer | 0.0000425 | blue | 6 | CDK6,DDR1,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Organismal Development | Morphology of body cavity | 0.0000427 | blue | 39 | ABCB1,AKAP13,BANK1,BCL11A,C1GALT1,CD38,CDK6,CDKN2C,EPHA4,ESR2,FCGR2B,FHIT,FKBP1A,FYN,HCK,IQGAP2,LEF1,MAP2K3,MAP3K5,MYB,MZB1,NT5E,PAWR,RASGRP1,REL,SAV1,SIK3,SMARCA4,SOX4,STARD10,TIMP3,TMPO,TNFRSF10A,TOP2A,TRAF3IP2,TTN,TXNIP,UACA,ZBTB16 |
| Cellular Development,Cellular Growth and Proliferation | Cell proliferation of tumor cell lines | 0.0000445 | blue | 41 | ABCB1,C1GALT1,CD38,CDK2AP1,CDK6,CDKN2C,EEF1B2,EPHA4,ESR2,EZH2,FHIT,FYN,H2AFY,HCK,HDGF,HRK,IL16,IQGAP2,LEF1,MAGED1,MAP2K3,MAP3K5,MBD2,MYB,NACA,NOTCH4,PAG1,PIK3IP1,PLCG1,PRKD3,RASGRP1,REL,SMARCA4,SOX4,TIMP3,TMPO,TNFRSF10A,TNFSF8,TXNIP,UBE2J1,ZBTB16 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Malignant lymphocytic neoplasm of childhood | 0.0000452 | blue | 7 | ACTG1,DDR1,FKBP1A,FYN,HSP90AB1,MYB,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase BCR-ABL mutation positive Philadelphia-positive chronic myeloid leukemia | 0.0000454 | blue | 4 | DDR1,FYN,HCK,RPL3 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory chronic phase chronic myeloid leukemia | 0.0000454 | blue | 4 | DDR1,FYN,HCK,RPL3 |
| Cancer,Organismal Injury and Abnormalities | Locally advanced HER2 negative solid tumor | 0.0000463 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Accelerated phase chronic myelogenous leukemia | 0.0000463 | blue | 5 | DDR1,FYN,HCK,RPL3,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II-IV invasive breast cancer | 0.0000463 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cellular Growth and Proliferation,Tissue Development | Proliferation of epithelial cells | 0.0000472 | blue | 18 | CDK6,CDKN2C,DOK3,EPPK1,ESR2,EZH2,FYN,GLUL,MAGED1,MAP3K5,MYB,PIK3IP1,PRKD3,REL,SAV1,SOX4,TRAF3IP2,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Recurrent advanced cancer | 0.00005 | blue | 6 | CDK6,DDR1,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphocytic leukemia | 0.0000514 | blue | 22 | ACTG1,CD38,DDR1,ESR2,EZH2,FHIT,FKBP1A,FYN,HCK,HSP90AB1,LEF1,MYB,NETO1,PLCG1,REL,SMARCA4,TLK1,TNFRSF10A,TOP2A,TTN,TXLNG,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV advanced breast cancer | 0.0000518 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Hematological System Development and Function,Hematopoiesis,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Quantity of thymocytes | 0.0000537 | blue | 11 | ABCB1,BCL11A,CDK6,EPHA4,ESR2,FCGR2B,HIVEP3,NOTCH4,PAG1,RASGRP1,TRAF3IP2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | High grade lymphocytic cancer | 0.0000553 | blue | 15 | CDK6,CDKN2C,EZH2,FKBP1A,FYN,HIP1,HSP90AB1,KIAA1551,PAG1,REL,SLC29A2,SMARCA4,TNFRSF10A,TOP2A,TTN |
| Cell Death and Survival | Cell viability | 0.0000573 | blue | 36 | ABCB1,AKAP13,AQP3,C1GALT1,CD38,CDK2AP1,CDK6,CDKN2C,DDR1,EPHA4,ESR2,EZH2,FHIT,H2AFY,HCK,HDGF,HIP1,HSP90AB1,LEF1,LIMK2,LYZ,MAP2K3,MAP3K5,MYB,PFDN5,PIK3IP1,PLCG1,RAB11A,REL,SMARCA4,TIMP3,TNFRSF10A,TNFSF8,TRAF3IP2,TXNIP,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative invasive breast carcinoma | 0.0000579 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cellular Development,Cellular Growth and Proliferation | Expansion of stem cells | 0.0000579 | blue | 5 | ABCB1,CDKN2C,DOK3,EZH2,MYB |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed acute leukemia | 0.0000614 | blue | 7 | ABCB1,ACTG1,DDR1,FKBP1A,FYN,HCK,TOP2A |
| Cellular Growth and Proliferation,Lymphoid Tissue Structure and Development | Proliferation of lymphatic system cells | 0.0000625 | blue | 24 | ABI2,AKAP13,BANK1,BCL11A,CD38,CDK6,CDKN2C,FCGR2B,FKBP1A,FYN,HCK,HSP90AB1,LEF1,MYB,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,TNFRSF10A,TXNIP,UBASH3B,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic postmenopausal breast adenocarcinoma | 0.0000628 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 negative postmenopausal breast adenocarcinoma | 0.0000628 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent estrogen receptor positive HER2 negative breast adenocarcinoma | 0.0000628 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Nonmetastatic invasive breast cancer | 0.0000644 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative breast adenocarcinoma | 0.0000644 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Childhood malignant hematological system tumor | 0.0000648 | blue | 8 | ABCB1,ACTG1,DDR1,FKBP1A,FYN,HSP90AB1,MYB,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 negative invasive breast cancer | 0.000065 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cellular Growth and Proliferation | Cytostasis | 0.0000667 | blue | 12 | CDK2AP1,CDK6,CDKN2C,FHIT,FYN,PFDN5,REL,SMARCA4,STK17A,TNFSF8,TOP2A,ZBTB16 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Metastatic skin tumor | 0.0000691 | blue | 7 | CDK6,DDR1,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Relapsed malignant lymphoid neoplasm | 0.0000713 | blue | 8 | ACTG1,CD38,DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Molecular Transport,Protein Synthesis,Protein Trafficking | Localization of protein | 0.0000748 | blue | 12 | AAK1,AKAP13,AKAP2,BBS2,FAM126A,FCGR2B,FCHO2,FKBP1A,NOTCH4,RAB11A,RASGRP1,SIK3 |
| Cell Morphology | Morphology of blood cells | 0.0000773 | blue | 16 | ABCB1,BCL11A,C1GALT1,CDK6,CDKN2C,FCGR2B,FYN,HCK,HIP1,MYB,RASGRP1,REL,SOX4,TRAF3IP2,TXNIP,UACA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Childhood acute leukemia | 0.0000775 | blue | 7 | ABCB1,ACTG1,DDR1,FKBP1A,FYN,MYB,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary invasive breast cancer | 0.0000793 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cellular Growth and Proliferation,Connective Tissue Development and Function,Tissue Development | Proliferation of connective tissue cells | 0.0000811 | blue | 20 | CDK6,CDKN2C,COL9A1,EPPK1,ESR2,EZH2,FYN,HDGF,MAP2K3,MAP3K5,PAWR,PRKD3,REL,SMARCA4,SOX4,STARD10,TMPO,TNFRSF10A,TRAF3IP2,TXNIP |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mantle cell lymphoma | 0.0000821 | blue | 8 | CDKN2C,FKBP1A,HIP1,HSP90AB1,PAG1,TNFRSF10A,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Unresectable malignant solid tumor | 0.0000821 | blue | 8 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Cell Cycle | Arrest in G0 phase of kidney cell lines | 0.0000851 | blue | 2 | IL16,TXNIP |
| 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 | 0.0000939 | blue | 13 | AKAP13,BANK1,CDK6,CDKN2C,ESR2,FCGR2B,FYN,HCK,PAWR,RASGRP1,REL,SOX4,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent HER2-negative breast cancer | 0.0000967 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Progression of tumor | 0.0000987 | blue | 13 | ABCB1,CD38,CDK6,DDR1,ESR2,EZH2,FKBP1A,FYN,HSP90AB1,LIMK2,SOX4,TNFRSF10A,TOP2A |
| Organismal Development | Abnormal morphology of body cavity | 0.0000997 | blue | 35 | ABCB1,AKAP13,BANK1,BCL11A,C1GALT1,CD38,CDK6,CDKN2C,ESR2,FCGR2B,FHIT,FKBP1A,FYN,HCK,IQGAP2,LEF1,MAP2K3,MAP3K5,MYB,NT5E,PAWR,RASGRP1,REL,SAV1,SIK3,SMARCA4,SOX4,TIMP3,TMPO,TNFRSF10A,TOP2A,TRAF3IP2,TTN,TXNIP,UACA |
| Cancer,Organismal Injury and Abnormalities | Stage IV malignant tumor | 0.0001 | blue | 9 | CDK6,DDR1,ESR2,FCGR2B,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Refractory hematologic cancer | 0.000104 | blue | 9 | CD38,DDR1,FKBP1A,FYN,HCK,HSP90AB1,LYZ,RPL3,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive HER2 negative breast carcinoma | 0.000105 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Connective Tissue Development and Function,Tissue Development | Growth of connective tissue | 0.000108 | blue | 21 | CDK6,CDKN2C,COL9A1,EPPK1,ESR2,EZH2,FYN,HDGF,MAP2K3,MAP3K5,MYB,PAWR,PRKD3,REL,SMARCA4,SOX4,STARD10,TMPO,TNFRSF10A,TRAF3IP2,TXNIP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary breast carcinoma | 0.000117 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cell Morphology,Lymphoid Tissue Structure and Development | Morphology of lymphatic system cells | 0.00012 | blue | 11 | ABCB1,BCL11A,CDK6,CDKN2C,FCGR2B,FYN,HIP1,RASGRP1,SOX4,TRAF3IP2,TXNIP |
| Cancer,Organismal Injury and Abnormalities | Unresectable metastatic solid tumor | 0.00012 | blue | 7 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1,TOP2A |
| Cell Death and Survival | Cell death of lymphatic system cells | 0.000121 | blue | 15 | BCL11A,CD38,EPHA4,FCGR2B,FYN,HRK,MAP2K3,PAWR,PLCG1,REL,SLC29A2,SOX4,TOP2A,TRAF3IP2,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Bilateral invasive breast cancer | 0.000122 | blue | 3 | CDK6,FKBP1A,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Unresectable neuroendocrine lung tumor | 0.000122 | blue | 3 | FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Post menopausal hormone receptor positive breast cancer | 0.000122 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Early stage hormone receptor positive breast cancer | 0.000122 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Advanced hematologic cancer | 0.000127 | blue | 7 | DDR1,FYN,HCK,HSP90AB1,IL16,RPL3,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Locally advanced malignant solid tumor | 0.000127 | blue | 7 | ABCB1,CDK6,DDR1,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Aggressive mature B-cell lymphoma | 0.000138 | blue | 14 | CDK6,CDKN2C,EZH2,FKBP1A,HIP1,HSP90AB1,KIAA1551,PAG1,REL,SLC29A2,SMARCA4,TNFRSF10A,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Development of benign tumor | 0.000139 | blue | 17 | ABCB1,CDKN2C,ESR2,EZH2,FHIT,GLUL,GNG3,HSP90AB1,IQGAP2,ITM2C,LEF1,MAP3K5,PAG1,PLCG1,RELL1,SAV1,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | High-risk endometrial carcinoma | 0.00014 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Lymphoid Tissue Structure and Development | Cell proliferation of T lymphocytes | 0.000142 | blue | 19 | ABI2,AKAP13,CD38,CDK6,CDKN2C,FCGR2B,FKBP1A,FYN,MYB,NT5E,PAG1,PAWR,RASGRP1,REL,SMARCA4,TNFRSF10A,TXNIP,UBASH3B,ZBTB16 |
| Cell Death and Survival | Cell death of lymphocytes | 0.00015 | blue | 14 | BCL11A,CD38,EPHA4,FCGR2B,FYN,HRK,MAP2K3,PAWR,PLCG1,REL,SOX4,TOP2A,TRAF3IP2,ZBTB16 |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development | Proliferation of B lymphocytes | 0.000158 | blue | 12 | BANK1,BCL11A,CD38,CDKN2C,FCGR2B,FYN,HCK,LEF1,MYB,PAWR,REL,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV invasive breast cancer | 0.000161 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Postmenopausal breast adenocarcinoma | 0.000161 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I-IV postmenopausal breast cancer | 0.000161 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic HER2 negative hormone receptor positive breast adenocarcinoma | 0.000161 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cell Death and Survival | Apoptosis of lymphocytes | 0.000163 | blue | 13 | BCL11A,CD38,EPHA4,FCGR2B,FYN,MAP2K3,PAWR,PLCG1,REL,SOX4,TOP2A,TRAF3IP2,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Natural killer cell lymphoma | 0.000163 | blue | 7 | EZH2,HCK,HLA-DOA,HSP90AB1,LPCAT2,TIMP3,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell leukemia | 0.000168 | blue | 11 | EZH2,FHIT,FKBP1A,FYN,LEF1,MYB,PLCG1,REL,SMARCA4,TOP2A,TXLNG |
| Cancer,Organismal Injury and Abnormalities | Stromal neoplasm | 0.00018 | blue | 7 | ABCB1,CDKN2C,DDR1,ESR2,FYN,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative hormone receptor positive invasive breast carcinoma | 0.000183 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis | Proliferation of hematopoietic progenitor cells | 0.000188 | blue | 11 | BCL11A,EZH2,FYN,HCK,LEF1,MYB,PAG1,RASGRP1,SMARCA4,TIMP3,ZBTB16 |
| Cell Morphology,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of lymphocytes | 0.000193 | blue | 9 | ABCB1,BCL11A,CDKN2C,FCGR2B,FYN,RASGRP1,SOX4,TRAF3IP2,TXNIP |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Organismal Development,Tissue Morphology | Morphology of spleen | 0.000194 | blue | 14 | AKAP13,BANK1,CDK6,CDKN2C,ESR2,FCGR2B,FYN,HCK,PAWR,RASGRP1,REL,SOX4,TRAF3IP2,ZBTB16 |
| Organismal Development,Tissue Development | Development of exocrine gland | 0.000196 | blue | 10 | CDKN2C,DDR1,ESR2,EZH2,FYN,LEF1,LIMK2,NOTCH4,SOCS5,TIMP3 |
| Cell Death and Survival | Apoptosis | 0.000199 | blue | 55 | ABCB1,AKAP13,AQP3,BBS2,BCL11A,C1GALT1,CD38,CDK2AP1,CDK6,CDKN2C,CHL1,DDR1,EPHA4,ESR2,EZH2,FCGR2B,FHIT,FKBP1A,FYN,HCK,HDGF,HIP1,HMGN5,HRK,HSP90AB1,IQGAP2,LEF1,LIMK2,MAGED1,MAP2K3,MAP3K5,MYB,MZB1,NOTCH4,NT5E,PAWR,PIK3IP1,PLCG1,PRKD3,RASGRP1,REL,RGMB,SAV1,SMARCA4,SOX4,STK17A,TIMP3,TNFRSF10A,TNFSF8,TOP2A,TRAF3IP2,TTN,TXNIP,UACA,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Philadelphia chromosome positive leukemia | 0.0002 | blue | 6 | DDR1,FKBP1A,FYN,HCK,RPL3,TOP2A |
| Immunological Disease | Abnormal morphology of immune system | 0.000208 | blue | 12 | ABCB1,BCL11A,CDKN2C,FCGR2B,FYN,HCK,RASGRP1,REL,SOX4,TRAF3IP2,TXNIP,UACA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Locally advanced hormone receptor positive malignant neoplasm of breast | 0.000208 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | High-risk breast cancer | 0.000208 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory myeloid leukemia | 0.000212 | blue | 6 | DDR1,FYN,HCK,LYZ,RPL3,TOP2A |
| 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 | 0.000215 | blue | 14 | BCL11A,CDK6,EPHA4,EZH2,FCGR2B,HLA-DOA,LEF1,MBD2,MYB,REL,SMARCA4,SOX4,TNFSF8,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Childhood acute lymphoblastic leukemia | 0.000225 | blue | 6 | ACTG1,DDR1,FKBP1A,FYN,MYB,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Locally advanced breast cancer | 0.000231 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Locally advanced HER2 negative breast cancer | 0.000235 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Grade 3 invasive breast cancer | 0.000235 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cellular Growth and Proliferation | Cytostasis of tumor cell lines | 0.000237 | blue | 8 | CDK6,FHIT,PFDN5,REL,SMARCA4,STK17A,TNFSF8,TOP2A |
| 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 thymocytes | 0.000238 | blue | 6 | FYN,MYB,PAG1,RASGRP1,SMARCA4,ZBTB16 |
| Gene Expression | Transcription | 0.000244 | blue | 46 | AKAP13,BBS2,BCL11A,CD38,CDK6,CDKN2C,ESR2,EZH2,FCGR2B,FHIT,FKBP1A,FYN,GON4L,H2AFY,HDGF,HIP1,HIVEP3,HMGN5,IL16,LEF1,MAGED1,MAP2K3,MAP3K5,MBD2,MYB,NOTCH4,PAWR,PCBD2,PFDN5,RASGRP1,REL,RGMB,SFMBT1,SMARCA4,SOX4,SSBP3,TIMP3,TMPO,TNFSF8,TOP2A,TRAF3IP2,TRAK2,TTN,TXNIP,ZBTB16,ZBTB4 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell malignant neoplasm | 0.000247 | blue | 18 | CDKN2C,EZH2,FHIT,FKBP1A,FYN,HCK,HLA-DOA,HSP90AB1,IL16,ITM2C,LEF1,MYB,PLCG1,REL,SMARCA4,TIMP3,TOP2A,TXLNG |
| DNA Replication, Recombination, and Repair | Relaxation of plasmid DNA | 0.000254 | blue | 2 | PAWR,TOP2A |
| Cancer,Organismal Injury and Abnormalities | BRAF mutation negative solid tumor | 0.000283 | blue | 6 | CDK6,DDR1,FKBP1A,FYN,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Nasal type extranodal NK-/T-cell lymphoma | 0.000283 | blue | 6 | EZH2,HCK,HLA-DOA,HSP90AB1,TIMP3,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic advanced breast cancer | 0.000291 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Bilateral malignant breast tumors | 0.000296 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed lymphocytic cancer | 0.0003 | blue | 7 | ACTG1,DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of B lymphocytes | 0.00031 | blue | 13 | AKAP13,BANK1,CD38,CDKN2C,ESR2,FCGR2B,FYN,MYB,RASGRP1,REL,SOX4,TRAF3IP2,UBASH3B |
| Cancer,Organismal Injury and Abnormalities | Invasive cancer | 0.00031 | blue | 13 | ADAM28,CDK6,DDR1,ESR2,EZH2,FHIT,FKBP1A,HSP90AB1,RNFT2,SNTB1,SOX4,TOP2A,TTN |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Hematologic cancer | 0.000314 | blue | 59 | ABCB1,ACTG1,ADAM28,AKAP13,AKAP2,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,CHL1,DDR1,DHX32,ESR2,EZH2,FAM126A,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,GBP4,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KCNG1,KIAA1551,LEF1,LPCAT2,LYZ,MAGED1,MAP2K3,MYB,NETO1,NOTCH4,NT5E,PAG1,PLCG1,REL,RPL13,RPL3,RPS20,SAV1,SLC29A2,SMARCA4,SOX4,STK17A,TIMP3,TLK1,TMEM245,TNFRSF10A,TNFSF8,TOP2A,TTN,TXLNG,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent hormone receptor positive breast cancer | 0.000331 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Progesterone receptor-positive breast cancer | 0.000337 | blue | 5 | CDK6,ESR2,FKBP1A,GON4L,NOTCH4 |
| Cancer,Organismal Injury and Abnormalities | Recurrent metastasis | 0.000362 | blue | 5 | CDK6,DDR1,ESR2,FKBP1A,HSP90AB1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic phase chronic myeloid leukemia | 0.000362 | blue | 5 | DDR1,FYN,HCK,RPL3,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Non-metastatic hormone receptor positive breast cancer | 0.000368 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Medulloblastoma | 0.000369 | blue | 8 | CDK6,CDKN2C,ESR2,EZH2,HSP90AB1,SMARCA4,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Metastatic unresectable malignant tumor | 0.000371 | blue | 6 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1 |
| Cellular Movement | Migration of cells | 0.000378 | blue | 44 | ABHD6,AQP3,ARPC2,C1GALT1,CD38,CDK6,CDKN2C,CHL1,CNN3,DDR1,EPHA4,EPPK1,ESR2,EZH2,FCGR2B,FHIT,FYN,HCK,HDGF,HSP90AB1,IL16,LEF1,LIMK2,LYZ,MAP2K3,MAP3K5,MYB,NACA,NAV1,NOTCH4,NT5E,PAG1,PATJ,PIK3IP1,PLCG1,RASGRP1,REL,SMARCA4,TIMP3,TMPO,TNFRSF10A,TNFSF8,TRAF3IP2,ZBTB16 |
| Embryonic Development,Organ Development,Organismal Development,Reproductive System Development and Function,Tissue Development | Formation of mammary gland | 0.000381 | blue | 9 | CDKN2C,DDR1,ESR2,EZH2,FYN,LEF1,NOTCH4,SOCS5,TIMP3 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult leukemia | 0.000382 | blue | 8 | ABCB1,FHIT,FKBP1A,FYN,PLCG1,REL,SMARCA4,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B cell cancer | 0.000385 | blue | 27 | ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FHIT,FKBP1A,FYN,HIP1,HSP90AB1,KIAA1551,MYB,PAG1,PLCG1,REL,RPS20,SLC29A2,SMARCA4,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Primitive neuroectodermal tumor | 0.000388 | blue | 10 | CDK6,CDKN2C,ESR2,EZH2,FCGR2B,FYN,HSP90AB1,SMARCA4,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | High-risk neoplasia | 0.000389 | blue | 7 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature lymphocytic neoplasm | 0.000392 | blue | 34 | ABCB1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,ESR2,EZH2,FCGR2B,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LPCAT2,MAGED1,MYB,NETO1,PAG1,PLCG1,REL,RPS20,SLC29A2,SMARCA4,TIMP3,TLK1,TNFRSF10A,TOP2A,TTN,ZBTB16 |
| Tissue Development | Formation of gland | 0.000399 | blue | 10 | CDKN2C,DDR1,ESR2,EZH2,FYN,LEF1,LIMK2,NOTCH4,SOCS5,TIMP3 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic recurrent breast cancer | 0.000399 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Neoplasia of lymphoid organ | 0.000405 | blue | 9 | CDK6,ESR2,EZH2,FKBP1A,HIP1,HSP90AB1,PAWR,REL,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T acute lymphoblastic leukemia | 0.000406 | blue | 7 | EZH2,FKBP1A,FYN,LEF1,MYB,TOP2A,TXLNG |
| Cell Cycle | Cell division of lymphocytes | 0.000409 | blue | 4 | CD38,FYN,PAWR,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Adenoma | 0.000445 | blue | 14 | ABCB1,CDKN2C,ESR2,EZH2,FHIT,GLUL,GNG3,HSP90AB1,ITM2C,LEF1,PAG1,PLCG1,RELL1,SAV1 |
| Cancer,Organismal Injury and Abnormalities | HER2 negative metastasis | 0.000445 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive non-metastatic breast cancer | 0.000452 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Progression of malignant tumor | 0.000456 | blue | 10 | ABCB1,CD38,CDK6,ESR2,EZH2,FKBP1A,HSP90AB1,LIMK2,TNFRSF10A,TOP2A |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Metastatic skin cancer | 0.000456 | blue | 6 | CDK6,DDR1,FKBP1A,FYN,HSP90AB1,LIMK2 |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Refractory malignant lymphoid neoplasm | 0.000459 | blue | 7 | CD38,DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Cell Death and Survival | Necrosis | 0.000464 | blue | 54 | AAK1,ABCB1,BCL11A,CD38,CDK2AP1,CDK6,CDKN2C,CHL1,COMMD4,EPHA4,ESR2,EZH2,FCGR2B,FHIT,FKBP1A,FYN,HCK,HDGF,HIP1,HRK,HSP90AB1,IQGAP2,LEF1,LYZ,MAGED1,MAP2K3,MAP3K5,MYB,MZB1,NOTCH4,NT5E,PAG1,PAWR,PIK3IP1,PLCG1,PRKD3,RASGRP1,REL,RGMB,RPL13,RPL3,SLC29A2,SMARCA4,SOX4,STK17A,TIMP3,TNFRSF10A,TNFSF8,TOP2A,TRAF3IP2,TTN,TXNIP,UACA,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities | Metastatic HER2 negative solid tumor | 0.000476 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cell Death and Survival | Initiation of apoptosis | 0.000476 | blue | 5 | CD38,ESR2,HIP1,MAP3K5,PAWR |
| Cancer,Organismal Injury and Abnormalities | Stage IV melanoma | 0.00048 | blue | 6 | CDK6,DDR1,FKBP1A,FYN,HSP90AB1,LIMK2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chemoresistant Ph positive chronic myeloid leukemia in chronic phase | 0.000481 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Accelerated phase myeloproliferative neoplasm | 0.000481 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chemoresistant Ph positive chronic myeloid leukemia in accelerated phase | 0.000481 | blue | 3 | DDR1,FYN,HCK |
| Cell Morphology | Morphology of leukocytes | 0.000484 | blue | 12 | ABCB1,BCL11A,CDKN2C,FCGR2B,FYN,HCK,RASGRP1,REL,SOX4,TRAF3IP2,TXNIP,UACA |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage III-IV breast carcinoma | 0.000499 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary HER2 negative breast cancer | 0.000499 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Unilateral invasive breast cancer | 0.000499 | blue | 4 | CDK6,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Hormone receptor positive breast adenocarcinoma | 0.000499 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Premenopausal breast cancer | 0.000499 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-lymphoblastic leukemia/lymphoma | 0.000504 | blue | 8 | EZH2,FKBP1A,FYN,HSP90AB1,LEF1,MYB,TOP2A,TXLNG |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Advanced hormone receptor positive HER2 negative metastatic breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Progressed hormone receptor positive advanced breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progressive estrogen receptor positive HER2 negative progesterone receptor positive breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic HER2 negative progesterone receptor positive invasive breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic estrogen receptor positive HER2 negative invasive breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progressive metastatic estrogen receptor positive HER2 negative breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progressive recurrent HER2 negative hormone receptor positive breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Nervous System Development and Function,Neurological Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of somatosensory cortex | 0.000505 | blue | 2 | EPHA4,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Progressive estrogen receptor positive HER2 negative invasive breast cancer | 0.000505 | blue | 2 | CDK6,ESR2 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of cancer cells | 0.000506 | blue | 13 | CD38,CDK6,FHIT,HSP90AB1,LEF1,MYB,PAWR,REL,RPL13,RPL3,SMARCA4,SOX4,TNFRSF10A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Early breast cancer | 0.000508 | blue | 5 | CDK6,ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Lymphoreticular neoplasm | 0.00051 | blue | 53 | ABCB1,ADAM28,AKAP13,AKAP2,ANKRD50,CD38,CDK6,CDKN2C,CHL1,DDR1,DHX32,ESR2,EZH2,FAM126A,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,GBP4,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KCNG1,KIAA1551,LEF1,LPCAT2,LYZ,MAP2K3,MYB,NOTCH4,NT5E,PAG1,PAWR,PLCG1,REL,RPL13,RPL3,RPS20,SAV1,SLC29A2,SMARCA4,SOX4,STK17A,TIMP3,TMEM245,TNFRSF10A,TNFSF8,TOP2A,TTN |
| Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of bone marrow cells | 0.000521 | blue | 8 | ABCB1,CDK6,CDKN2C,ESR2,HCK,MYB,REL,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I-III invasive breast cancer | 0.000549 | blue | 4 | CDK6,ESR2,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | HER2 positive metastasis | 0.000549 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Primary invasive breast carcinoma | 0.000549 | blue | 4 | CDK6,ESR2,HSP90AB1,TOP2A |
| Embryonic Development,Organ Development,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities,Reproductive System Development and Function,Reproductive System Disease,Tissue Development | Abnormal morphology of mammary gland | 0.000549 | blue | 4 | CDKN2C,DDR1,ESR2,LEF1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Recurrent epithelial endometrial cancer | 0.000549 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic myeloid leukemia | 0.000557 | blue | 8 | DDR1,ESR2,EZH2,FKBP1A,FYN,HCK,RPL3,TOP2A |
| Cell Morphology,Hematological System Development and Function | Morphology of myeloid cells | 0.000575 | blue | 8 | CDK6,FCGR2B,HCK,HIP1,RASGRP1,REL,TRAF3IP2,UACA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult T cell leukemia | 0.000582 | blue | 7 | FHIT,FKBP1A,FYN,PLCG1,REL,SMARCA4,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Metastatic melanoma | 0.000582 | blue | 7 | CDK6,DDR1,FKBP1A,FYN,HSP90AB1,LIMK2,NT5E |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Lymphatic node tumor | 0.000582 | blue | 7 | CDK6,ESR2,EZH2,FKBP1A,HIP1,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Primary neoplasm | 0.000583 | blue | 15 | ABCB1,CDK6,DDR1,ESR2,FCHO2,FHIT,FKBP1A,HSP90AB1,MYB,NT5E,PLCG1,REL,TNFRSF10A,TOP2A,TXLNG |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | BCR-ABL mutation positive Philadelphia-positive acute lymphoblastic leukemia | 0.000602 | blue | 4 | DDR1,FYN,HCK,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Non-inflammatory breast cancer | 0.000602 | blue | 4 | CDK6,ESR2,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Metastatic endometrial carcinoma | 0.000602 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cell Cycle | Interphase of kidney cell lines | 0.000602 | blue | 4 | CDK6,IL16,PLCG1,TXNIP |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities | Connective tissue cancer | 0.00062 | blue | 10 | ABCB1,DDR1,FKBP1A,HSP90AB1,LEF1,NT5E,SAV1,SMARCA4,TOP2A,TTN |
| Cellular Function and Maintenance,Hematological System Development and Function | Function of lymphocytes | 0.000632 | blue | 11 | ABCB1,AKAP13,BANK1,CDKN2C,FYN,IL16,MAP2K3,PAWR,RASGRP1,REL,TXNIP |
| Cell Cycle | Cell cycle progression of leukocytes | 0.000654 | blue | 5 | FCGR2B,MYB,PAWR,REL,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Non metastatic HER2 negative breast cancer | 0.000659 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Newly diagnosed Ph positive chronic myeloid leukemia in chronic phase | 0.000676 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Recurrent chordoma | 0.000676 | blue | 3 | DDR1,FKBP1A,HSP90AB1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed acute lymphoblastic leukemia | 0.000695 | blue | 5 | ACTG1,DDR1,FYN,HCK,TOP2A |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Unresectable cutaneous melanoma | 0.000695 | blue | 5 | CDK6,DDR1,FKBP1A,FYN,LIMK2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | T-cell non-Hodgkin lymphoma | 0.000698 | blue | 14 | CDKN2C,EZH2,FKBP1A,FYN,HCK,HLA-DOA,HSP90AB1,IL16,ITM2C,LEF1,PLCG1,REL,TIMP3,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Acute lymphoblastic leukemia | 0.000706 | blue | 11 | ACTG1,DDR1,EZH2,FKBP1A,FYN,HCK,LEF1,MYB,SMARCA4,TOP2A,TXLNG |
| Cancer,Organismal Injury and Abnormalities | Metastatic HER2 positive cancer | 0.00072 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Metastatic HER2 positive solid malignant tumor | 0.00072 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Mature B-cell lymphoma | 0.000726 | blue | 16 | CDK6,CDKN2C,EZH2,FCGR2B,FKBP1A,HIP1,HSP90AB1,KIAA1551,PAG1,PLCG1,REL,SLC29A2,SMARCA4,TNFRSF10A,TOP2A,TTN |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Testicular tumor | 0.00073 | blue | 7 | CDKN2C,ESR2,H2AFY,HRK,HSP90AB1,LEF1,TOP2A |
| Cellular Development,Embryonic Development,Hair and Skin Development and Function,Organ Development,Organismal Development,Tissue Development | Differentiation of skin | 0.000743 | blue | 8 | AQP3,FYN,H2AFY,LEF1,MAP3K5,SAV1,SMARCA4,TXNIP |
| Cancer,Organismal Injury and Abnormalities | Advanced extracranial solid tumor | 0.000746 | blue | 17 | ABCB1,CDK6,CDKN2C,DDR1,ESR2,EZH2,FKBP1A,FYN,GLUL,HSP90AB1,IL16,LIMK2,NOTCH4,NT5E,TNFRSF10A,TOP2A,TXNIP |
| Cell Morphology,Hematopoiesis | Abnormal morphology of hematopoietic progenitor cells | 0.000757 | blue | 7 | BCL11A,CDK6,HIP1,MYB,RASGRP1,SOX4,TRAF3IP2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | B-cell neoplasm | 0.000761 | blue | 31 | ABCB1,ANKRD50,BCL11A,CD38,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FHIT,FKBP1A,FYN,HIP1,HSP90AB1,KIAA1551,MAGED1,MYB,NETO1,PAG1,PLCG1,REL,RPS20,SLC29A2,SMARCA4,TLK1,TNFRSF10A,TNFSF8,TOP2A,TTN,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Blast crisis phase chronic myeloid leukemia | 0.000784 | blue | 4 | DDR1,FYN,HCK,RPL3 |
| Gene Expression | Transcription of RNA | 0.000788 | blue | 40 | BCL11A,CD38,CDK6,CDKN2C,ESR2,EZH2,FHIT,FKBP1A,GON4L,H2AFY,HDGF,HIP1,HIVEP3,IL16,LEF1,MAGED1,MAP2K3,MAP3K5,MBD2,MYB,NOTCH4,PAWR,PCBD2,PFDN5,RASGRP1,REL,RGMB,SFMBT1,SMARCA4,SOX4,SSBP3,TIMP3,TMPO,TNFSF8,TOP2A,TRAF3IP2,TRAK2,TXNIP,ZBTB16,ZBTB4 |
| Dermatological Diseases and Conditions,Organ Morphology,Organismal Injury and Abnormalities | Lack of hair follicle | 0.00079 | blue | 3 | LEF1,REL,SAV1 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid blast phase chronic myeloid leukemia | 0.00079 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Relapsed BCR-ABL mutation positive Philadelphia-positive acute lymphoblastic leukemia | 0.00079 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory BCR-ABL mutation positive Philadelphia-positive acute lymphoblastic leukemia | 0.00079 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Blast phase Philadelphia-positive chronic myeloid leukemia | 0.00079 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Myeloid blast phase chronic myeloid leukemia | 0.00079 | blue | 3 | DDR1,FYN,HCK |
| Cell Cycle | Cell cycle progression of lymphatic system cells | 0.000829 | blue | 5 | FCGR2B,MYB,PAWR,REL,SMARCA4 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIIA testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIC testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I testicular choriocarcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Developmental Disorder,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II-IV ovarian yolk sac neoplasm | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIIA ovarian germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I extragonadal germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I immature teratoma of ovary | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| 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 thymocytes | 0.000836 | blue | 2 | FYN,MYB |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIC testicular cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIIB testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IB testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIB testicular seminoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I embryonal testicular carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II-IV ovarian choriocarcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Stage 4 localized small cell lung cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | High grade metastatic sarcoma | 0.000836 | blue | 2 | FKBP1A,TOP2A |
| Cancer,Developmental Disorder,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II extragonadal yolk sac tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Limited disease stage limited stage small cell lung cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Metastatic poorly differentiated neuroendocrine carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIC ovarian germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cell Death and Survival,Organismal Injury and Abnormalities | Cell death of cerebral endothelial cells | 0.000836 | blue | 2 | MAP2K3,MAP3K5 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Locally recurrent estrogen receptor positive HER2 negative breast adenocarcinoma | 0.000836 | blue | 2 | CDK6,ESR2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIA ovarian germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cell-To-Cell Signaling and Interaction,Reproductive System Development and Function | Activation of oocytes | 0.000836 | blue | 2 | FYN,PLCG1 |
| Cancer,Organismal Injury and Abnormalities | Unresectable large-cell carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IA testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIB ovarian germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIA testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Poorly differentiated small cell lung carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Dermatological Diseases and Conditions,Endocrine System Disorders,Organismal Injury and Abnormalities | Regional Merkel-cell carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Resectable small cell lung carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Estrogen receptor positive advanced breast carcinoma | 0.000836 | blue | 2 | CDK6,ESR2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIA testicular seminoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Resectable large-cell carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIIC ovarian germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIIB ovarian germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Childhood teratoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Tissue Development,Tissue Morphology | Expansion of bronchioalveolar stem cells | 0.000836 | blue | 2 | CDKN2C,DOK3 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities,Respiratory Disease | Stage III-IVB squamous cell carcinoma of nasopharynx | 0.000836 | blue | 2 | ABCB1,HSP90AB1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIB testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage 1 relapsed testicular seminoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Axillary lymph node positive breast cancer | 0.000836 | blue | 2 | ESR2,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIB cervical cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Unresectable HER2 negative hormone receptor positive breast adenocarcinoma | 0.000836 | blue | 2 | CDK6,ESR2 |
| Cancer,Developmental Disorder,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I testicular yolk sac neoplasm | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Nervous System Development and Function | Visual placing reflex | 0.000836 | blue | 2 | BBS2,EPHA4 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIIC testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II extragonadal choriocarcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage I unilateral seminomatous testicular cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage III cervical cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IIA cervical cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage 1 relapsed testicular nonseminomatous germ cell tumor | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IB cervical cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II-IV ovarian embryonal carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Stage III testicular seminoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage II extragonadal primary embryonal carcinoma | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IVA cervical cancer | 0.000836 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Advanced HER2 positive cancer | 0.000853 | blue | 4 | ESR2,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Advanced recurrent cancer | 0.000853 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Relapsed metastasis | 0.000853 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Lymph node-positive breast cancer | 0.000853 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Progesterone receptor positive breast carcinoma | 0.000853 | blue | 4 | ESR2,FKBP1A,GON4L,NOTCH4 |
| Cell Death and Survival | Apoptosis of blood cells | 0.000862 | blue | 15 | BCL11A,CD38,EPHA4,FCGR2B,FYN,HSP90AB1,MAP2K3,MYB,PAWR,PLCG1,REL,SOX4,TOP2A,TRAF3IP2,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Lung squamous cell carcinoma | 0.000873 | blue | 14 | ABCB1,BCL11A,CDK6,CDKN2C,EPPK1,EZH2,HSP90AB1,REL,RNFT2,SOX4,TIMP3,TOP2A,TTN,UACA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Non-Hodgkin lymphoma | 0.000875 | blue | 27 | ANKRD50,CDK6,CDKN2C,DDR1,EZH2,FCGR2B,FKBP1A,FYN,HCK,HIP1,HLA-DOA,HSP90AB1,IL16,ITM2C,KIAA1551,LEF1,PAG1,PLCG1,REL,RPS20,SLC29A2,SMARCA4,STK17A,TIMP3,TNFRSF10A,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Invasive carcinoma | 0.000877 | blue | 11 | ADAM28,CDK6,DDR1,ESR2,EZH2,FHIT,FKBP1A,HSP90AB1,RNFT2,SOX4,TOP2A |
| Organismal Injury and Abnormalities | Visceromegaly | 0.000893 | blue | 20 | AKAP13,CDKN2C,ESR2,FCGR2B,FKBP1A,FYN,HCK,MAP2K3,MAP3K5,NT5E,PAWR,RASGRP1,REL,SMARCA4,TIMP3,TMPO,TOP2A,TRAF3IP2,TTN,UACA |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Philadelphia positive chronic myeloid leukemia in blast crisis | 0.000916 | blue | 3 | DDR1,FYN,HCK |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities,Tumor Morphology | Progressive multiple myeloma | 0.000916 | blue | 3 | CD38,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory acute leukemia | 0.000917 | blue | 6 | DDR1,FYN,HCK,LYZ,RPL3,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Cancer of cells | 0.000933 | blue | 74 | ABCB1,ACTG1,ADAM28,AKAP2,ANKRD36C,ANKRD50,BCL11A,CCSER1,CD38,CDK2AP1,CDK6,CDKN2C,CHL1,DDR1,DHX32,DOK3,EPPK1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,GON4L,HCK,HIP1,HIVEP3,HLA-DOA,HSP90AB1,IL16,ITM2C,KCNG1,KIAA1147,KIAA1551,LEF1,LIMK2,LPCAT2,MAP2K3,MBD2,MYB,NACA,NETO1,NOTCH4,NT5E,PAG1,PLCG1,PRKD3,RASGRP1,REL,RNFT2,RPL13,RPS20,SAV1,SCML4,SLC29A2,SMARCA4,SOX4,STK17A,TIMP3,TLK1,TMPO,TNFRSF10A,TNFSF8,TOP2A,TTC3,TTN,TXLNG,TXNIP,UACA,UST,ZBTB16,ZBTB4,ZDHHC21 |
| Cell Death and Survival | Apoptosis of leukocytes | 0.000949 | blue | 14 | BCL11A,CD38,EPHA4,FCGR2B,FYN,HSP90AB1,MAP2K3,PAWR,PLCG1,REL,SOX4,TOP2A,TRAF3IP2,ZBTB16 |
| Cell-To-Cell Signaling and Interaction | Synaptic depression | 0.00101 | blue | 7 | ABHD6,CD38,HIP1,PPP1R14A,REL,SYN3,TNFRSF10A |
| Cell Death and Survival | Cell death of hematopoietic progenitor cells | 0.00102 | blue | 9 | BCL11A,EPHA4,FCGR2B,FYN,HRK,PLCG1,SLC29A2,SOX4,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Progressive solid tumor | 0.00104 | blue | 8 | CDK6,DDR1,ESR2,FKBP1A,FYN,HSP90AB1,LIMK2,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Progressive metastatic solid tumor | 0.00104 | blue | 6 | CDK6,ESR2,FKBP1A,HSP90AB1,LIMK2,TOP2A |
| Cell Cycle | Arrest in interphase | 0.00105 | blue | 14 | ESR2,EZH2,FHIT,FKBP1A,IL16,LIMK2,MAP2K3,MAP3K5,MYB,REL,SMARCA4,TMPO,TOP2A,TXNIP |
| Protein Degradation,Protein Synthesis | Stabilization of protein | 0.00107 | blue | 8 | AAK1,CHP1,EPHA4,HIP1,HSP90AB1,NACA,SAV1,SOX4 |
| Cancer,Cell Death and Survival,Organismal Injury and Abnormalities,Tumor Morphology | Cell death of tumor cells | 0.00108 | blue | 14 | CD38,CDK6,EZH2,FHIT,HSP90AB1,LEF1,MYB,PAWR,REL,RPL13,RPL3,SMARCA4,SOX4,TNFRSF10A |
| Cardiovascular Disease,Organismal Injury and Abnormalities | Cardiotoxicity | 0.00108 | blue | 4 | ABCB1,ESR2,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant tumor | 0.00112 | blue | 25 | ABCB1,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FKBP1A,FYN,GLUL,HCK,HSP90AB1,IL16,LIMK2,MAP2K3,MBD2,MYB,NACA,NOTCH4,NT5E,RPL3,SMARCA4,TNFRSF10A,TOP2A,TXNIP |
| Cancer,Organismal Injury and Abnormalities | Tubular adenocarcinoma | 0.00115 | blue | 7 | EEF1B2,FKBP1A,HSP90AB1,RNFT2,TIMP3,TOP2A,TTN |
| Cellular Function and Maintenance | Cellular homeostasis | 0.00116 | blue | 36 | AQP3,BCL11A,CD38,CDK6,EPHA4,ESR2,EZH2,FCGR2B,FKBP1A,FYN,GNG3,H2AFY,HCK,HLA-DOA,LARGE1,LEF1,MBD2,MYB,NT5E,OCRL,PAG1,PAWR,PLCG1,RAB11A,RASGRP1,REL,SIK3,SMARCA4,SOCS5,SOX4,TIMP3,TNFRSF10A,TNFSF8,TXNIP,UBASH3B,ZBTB16 |
| Cell Signaling,Post-Translational Modification | Tyrosine phosphorylation of protein | 0.00116 | blue | 8 | DDR1,FCGR2B,FYN,HCK,HIP1,PAG1,PLCG1,SYN3 |
| Cell Cycle | Interphase | 0.00117 | blue | 20 | ABCB1,CDK6,CDKN2C,ESR2,EZH2,FHIT,FKBP1A,IL16,LEF1,LIMK2,MAP2K3,MAP3K5,MYB,PLCG1,REL,SMARCA4,TMPO,TOP2A,TXNIP,ZBTB16 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Core binding factor acute myeloid leukemia | 0.00117 | blue | 4 | ABCB1,FKBP1A,FYN,TOP2A |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Recurrent lymphoid cancer | 0.00118 | blue | 6 | ACTG1,CD38,DDR1,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Diffuse lymphoma | 0.00119 | blue | 19 | ANKRD50,CDK6,CDKN2C,DDR1,EZH2,FKBP1A,FYN,HIP1,HSP90AB1,KIAA1551,LEF1,PAG1,REL,RPS20,SLC29A2,SMARCA4,TNFRSF10A,TOP2A,TTN |
| Cellular Development,Embryonic Development,Hair and Skin Development and Function,Organ Development,Organismal Development,Tissue Development | Differentiation of keratinocytes | 0.00119 | blue | 7 | AQP3,FYN,H2AFY,MAP3K5,SAV1,SMARCA4,TXNIP |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Abnormal quantity of phospholipid | 0.0012 | blue | 3 | SIK3,STARD10,TXNIP |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Philadelphia-positive acute lymphoblastic leukemia | 0.00122 | blue | 5 | DDR1,FKBP1A,FYN,HCK,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Refractory lymphocytic cancer | 0.00123 | blue | 6 | DDR1,FKBP1A,FYN,HCK,HSP90AB1,TOP2A |
| Cell Morphology,Inflammatory Response | Morphology of phagocytes | 0.00123 | blue | 7 | CDKN2C,FCGR2B,HCK,RASGRP1,REL,TRAF3IP2,UACA |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | TNM stage M1b metastatic small cell lung cancer | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Locally advanced squamous cell carcinoma of the oral cavity | 0.00125 | blue | 2 | ABCB1,HSP90AB1 |
| Carbohydrate Metabolism,Lipid Metabolism,Small Molecule Biochemistry | Conversion of phosphatidylinositol diphosphate | 0.00125 | blue | 2 | FCGR2B,OCRL |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Unresectable thymic epithelial tumor | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities,Respiratory Disease | Locally advanced oropharyngeal squamous-cell carcinoma | 0.00125 | blue | 2 | ABCB1,HSP90AB1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Metastatic adrenal carcinoma | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Unresectable invasive breast cancer | 0.00125 | blue | 2 | CDK6,ESR2 |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Locally advanced laryngeal squamous cell carcinoma | 0.00125 | blue | 2 | ABCB1,HSP90AB1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities,Respiratory Disease | Locally advanced hypopharyngeal squamous cell carcinoma | 0.00125 | blue | 2 | ABCB1,HSP90AB1 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | TNM stage M1a extensive stage small cell lung cancer | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Locally advanced hormone receptor positive advanced breast cancer | 0.00125 | blue | 2 | CDK6,ESR2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | TNM stage M1b extensive stage small cell lung cancer | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Immunological Disease,Organismal Injury and Abnormalities | Locally advanced thymic epithelial tumor | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Tumorigenesis of prostatic adenocarcinoma | 0.00125 | blue | 2 | HIP1,SOX4 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Inoperable adrenal cortex carcinoma | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Tumor Morphology | Progressive adrenal cortex carcinoma | 0.00125 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Hepatic System Disease,Organismal Injury and Abnormalities | Hepatoblastoma | 0.00126 | blue | 4 | FKBP1A,HSP90AB1,SAV1,TOP2A |
| Cell Death and Survival,Organismal Injury and Abnormalities | Apoptosis of keratinocytes | 0.00128 | blue | 5 | CDK6,ESR2,MAP3K5,RASGRP1,TNFRSF10A |
| Tissue Development | Growth of epithelial tissue | 0.00129 | blue | 19 | CDK6,CDKN2C,DOK3,EPPK1,ESR2,EZH2,FYN,GLUL,MAGED1,MAP3K5,MYB,PIK3IP1,PLCG1,PRKD3,REL,SAV1,SOX4,TRAF3IP2,ZBTB16 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Growth of mammary tumor | 0.00133 | blue | 6 | ADAM28,ESR2,EZH2,MAP2K3,MYB,NT5E |
| Cancer,Organismal Injury and Abnormalities | Metastatic relapsed advanced cancer | 0.00137 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic postmenopausal breast cancer | 0.00137 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities | Neoplasia of cells | 0.00142 | blue | 75 | ABCB1,ACTG1,ADAM28,AKAP2,ANKRD36C,ANKRD50,BCL11A,CCSER1,CD38,CDK2AP1,CDK6,CDKN2C,CHL1,DDR1,DHX32,DOK3,EPPK1,ESR2,EZH2,FCGR2B,FCHO2,FHIT,FKBP1A,FYN,GON4L,HCK,HIP1,HIVEP3,HLA-DOA,HSP90AB1,IL16,ITM2C,KCNG1,KIAA1147,KIAA1551,LEF1,LIMK2,LPCAT2,MAGED1,MAP2K3,MBD2,MYB,NACA,NETO1,NOTCH4,NT5E,PAG1,PLCG1,PRKD3,RASGRP1,REL,RNFT2,RPL13,RPS20,SAV1,SCML4,SLC29A2,SMARCA4,SOX4,STK17A,TIMP3,TLK1,TMPO,TNFRSF10A,TNFSF8,TOP2A,TTC3,TTN,TXLNG,TXNIP,UACA,UST,ZBTB16,ZBTB4,ZDHHC21 |
| Humoral Immune Response,Protein Synthesis | Quantity of immunoglobulin | 0.00143 | blue | 10 | ABCB1,AKAP13,BANK1,ESR2,FCGR2B,FYN,HLA-DOA,RASGRP1,REL,TRAF3IP2 |
| Cell Morphology,Hematological System Development and Function,Immunological Disease,Lymphoid Tissue Structure and Development | Abnormal morphology of T lymphocytes | 0.00144 | blue | 6 | ABCB1,BCL11A,FCGR2B,FYN,RASGRP1,TRAF3IP2 |
| Cancer,Cardiovascular Disease,Organismal Injury and Abnormalities | Vascular tumor | 0.00145 | blue | 8 | ABCB1,FKBP1A,IQGAP2,LARGE1,MAP3K5,NOTCH4,PLCG1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Chronic leukemia | 0.00149 | blue | 15 | CD38,DDR1,ESR2,EZH2,FKBP1A,FYN,HCK,MYB,NETO1,RPL3,TLK1,TNFRSF10A,TOP2A,TTN,ZBTB16 |
| Connective Tissue Disorders,Inflammatory Disease,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Rheumatic Disease | 0.00153 | blue | 29 | ABCB1,AKAP13,BANK1,CDK6,COL9A1,DDR1,ESR2,FCGR2B,FKBP1A,GLUL,HCK,HLA-DOA,IL16,LYZ,MAP3K5,MBD2,MS4A6A,NOTCH4,PHF20,REL,SAMHD1,SCML1,SYN3,TIMP3,TNFRSF10A,TRAF3IP2,TRAK2,UBASH3B,UBE2H |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV hormone receptor positive advanced breast cancer | 0.00154 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Stage 4 invasive breast carcinoma | 0.00154 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Stage IV postmenopausal breast cancer | 0.00154 | blue | 3 | CDK6,ESR2,FKBP1A |
| 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 | 0.00154 | blue | 3 | BCL11A,LEF1,SOX4 |
| Gene Expression | Expression of RNA | 0.00156 | blue | 45 | BANK1,BBS2,BCL11A,CD38,CDK6,CDKN2C,ESR2,EZH2,FHIT,FKBP1A,FYN,GON4L,H2AFY,HDGF,HIP1,HIVEP3,HMGN5,IL16,LEF1,MAGED1,MAP2K3,MAP3K5,MBD2,MYB,NOTCH4,PAWR,PCBD2,PFDN5,RASGRP1,REL,RGMB,SFMBT1,SMARCA4,SOX4,SSBP3,TIMP3,TMPO,TNFSF8,TOP2A,TRAF3IP2,TRAK2,TTN,TXNIP,ZBTB16,ZBTB4 |
| Cancer,Organismal Injury and Abnormalities | Metastatic unresectable advanced malignant tumor | 0.00156 | blue | 4 | CDK6,DDR1,ESR2,HSP90AB1 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Stage IIIB metastatic cutaneous melanoma | 0.00157 | blue | 5 | CDK6,DDR1,FKBP1A,FYN,LIMK2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Recurrent acute leukemia | 0.00157 | blue | 5 | ABCB1,ACTG1,DDR1,FKBP1A,TOP2A |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG1 | 0.00161 | blue | 6 | ABCB1,AKAP13,FCGR2B,HLA-DOA,REL,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Breast adenocarcinoma | 0.00162 | blue | 13 | CDK6,CDKN2C,EPPK1,ESR2,EZH2,FKBP1A,FYN,HSP90AB1,NOTCH4,SMARCA4,SNTB1,SYT17,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Embryonic Development,Organismal Development | Proliferation of multilineage progenitor cells | 0.00172 | blue | 5 | CDK6,CDKN2C,EZH2,MYB,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities | Stage IIIC melanoma | 0.00172 | blue | 5 | CDK6,DDR1,FKBP1A,FYN,LIMK2 |
| Cancer,Organismal Injury and Abnormalities | Advanced malignant solid tumor | 0.00172 | blue | 19 | ABCB1,CDK6,CDKN2C,DDR1,ESR2,EZH2,FCGR2B,FKBP1A,FYN,GLUL,HSP90AB1,IL16,LIMK2,NOTCH4,NT5E,SMARCA4,TNFRSF10A,TOP2A,TXNIP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Locally advanced hormone receptor positive HER2 negative breast cancer | 0.00173 | blue | 3 | CDK6,ESR2,FKBP1A |
| 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 | 0.00173 | blue | 3 | FYN,PLCG1,SMARCA4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive lymph node-negative breast cancer | 0.00173 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Extensive stage metastatic small cell lung cancer | 0.00173 | blue | 2 | HSP90AB1,TOP2A |
| Infectious Diseases | Infection by Pseudomonas | 0.00173 | blue | 2 | LYZ,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Stage II adrenal cortex carcinoma | 0.00173 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Stage I adrenal cortex carcinoma | 0.00173 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Stage IV adrenal cortex carcinoma | 0.00173 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Unresectable small cell lung carcinoma | 0.00173 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities | Stage III adrenal cortex carcinoma | 0.00173 | blue | 2 | HSP90AB1,TOP2A |
| 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 | Immunoglobulin heavy chain V(D)J recombination | 0.00173 | blue | 2 | BCL11A,SOX4 |
| Cancer,Organismal Injury and Abnormalities | Stage IV secondary tumor | 0.00174 | blue | 6 | CDK6,ESR2,FKBP1A,HSP90AB1,LIMK2,TOP2A |
| Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development,Tissue Morphology | Quantity of pre-B lymphocytes | 0.00174 | blue | 6 | AKAP13,ESR2,FYN,MYB,SOX4,TRAF3IP2 |
| Cell-To-Cell Signaling and Interaction,Nervous System Development and Function | Long term synaptic depression | 0.0018 | blue | 6 | ABHD6,CD38,HIP1,PPP1R14A,REL,TNFRSF10A |
| Cell Death and Survival | Cell viability of lymphoma cell lines | 0.00181 | blue | 5 | EZH2,HCK,LEF1,REL,TNFSF8 |
| Cancer,Organismal Injury and Abnormalities | Development of head and neck tumor | 0.00187 | blue | 6 | CDK6,CDKN2C,ESR2,HSP90AB1,SMARCA4,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Hodgkin lymphoma | 0.00189 | blue | 5 | FKBP1A,HIP1,HSP90AB1,TNFSF8,TOP2A |
| Digestive System Development and Function,Gastrointestinal Disease,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Abnormal morphology of crypt of lieberkuhn | 0.00191 | blue | 4 | ABCB1,ESR2,SAV1,TMPO |
| Cell Death and Survival,Organismal Injury and Abnormalities | Apoptosis of epithelial cells | 0.00191 | blue | 10 | CDK6,ESR2,IQGAP2,MAP3K5,MYB,RASGRP1,REL,RGMB,TIMP3,TNFRSF10A |
| Cellular Development,Tissue Development | Differentiation of epithelial tissue | 0.00192 | blue | 12 | AQP3,EPPK1,ESR2,FYN,H2AFY,MAP3K5,MYB,NOTCH4,SAV1,SMARCA4,SOX4,TXNIP |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | High-risk lymph node-negative breast cancer | 0.00193 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease | Primary inflammatory breast carcinoma | 0.00193 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease | Hormone receptor positive inflammatory breast cancer | 0.00193 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Advanced premenopausal breast cancer | 0.00193 | blue | 3 | CDK6,ESR2,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Hematopoiesis,Humoral Immune Response,Lymphoid Tissue Structure and Development | Proliferation of pro-B lymphocytes | 0.00193 | blue | 3 | BCL11A,LEF1,MYB |
| Cell Death and Survival | Cell death of carcinoma cell lines | 0.00194 | blue | 11 | CDKN2C,EZH2,FHIT,MAP3K5,NT5E,PAWR,PIK3IP1,STK17A,TNFRSF10A,UACA,ZBTB16 |
| Humoral Immune Response,Protein Synthesis | Quantity of IgM | 0.00194 | blue | 6 | ABCB1,BANK1,FCGR2B,FYN,REL,TRAF3IP2 |
| Connective Tissue Disorders,Organismal Injury and Abnormalities,Skeletal and Muscular Disorders | Non-traumatic arthropathy | 0.00195 | blue | 22 | ABCB1,AKAP13,CDK6,COL9A1,DDR1,FCGR2B,FKBP1A,GLUL,HCK,HLA-DOA,IL16,LYZ,MBD2,MS4A6A,NOTCH4,NT5E,PHF20,SCML1,TIMP3,TNFRSF10A,TRAK2,UBE2H |
| Cancer,Hematological Disease,Organismal Injury and Abnormalities | Mature T-cell or NK-cell neoplasm | 0.00203 | blue | 13 | CDKN2C,EZH2,FYN,HCK,HLA-DOA,HSP90AB1,IL16,ITM2C,LPCAT2,PLCG1,REL,TIMP3,TOP2A |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Stage IIIB BRAF mutation negative cutaneous melanoma | 0.00203 | blue | 4 | CDK6,DDR1,FKBP1A,FYN |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic breast carcinoma | 0.00203 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Unresectable stage IIIC melanoma | 0.00203 | blue | 4 | CDK6,DDR1,FKBP1A,FYN |
| Cancer,Developmental Disorder,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Sex cord stromal tumor | 0.00203 | blue | 4 | CDKN2C,ESR2,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities | Unresectable BRAF mutation negative NRAS mutation negative melanoma | 0.00203 | blue | 4 | CDK6,DDR1,FKBP1A,FYN |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymphoid hyperplasia | 0.00203 | blue | 4 | CDKN2C,DOK3,TRAF3IP2,TXNIP |
| 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 | 0.00208 | blue | 5 | CDKN2C,ESR2,FCGR2B,REL,TRAF3IP2 |
| Hematological System Development and Function,Lymphoid Tissue Structure and Development,Organ Morphology,Tissue Morphology | Morphology of lymph node | 0.00209 | blue | 7 | CDKN2C,ESR2,FCGR2B,NT5E,REL,TRAF3IP2,TXNIP |
| Cancer,Organismal Injury and Abnormalities | Anaplastic carcinoma | 0.0021 | blue | 8 | BCL11A,CD38,FKBP1A,HSP90AB1,SMARCA4,SNTB1,TOP2A,TTN |
| Cell Cycle | G1 phase | 0.00213 | blue | 13 | CDK6,CDKN2C,ESR2,EZH2,FKBP1A,IL16,LEF1,MAP2K3,MAP3K5,MYB,REL,TMPO,TXNIP |
| Cancer,Developmental Disorder,Endocrine System Disorders,Organismal Injury and Abnormalities,Reproductive System Disease | Ovarian sex cord-stromal tumor | 0.00215 | blue | 3 | ESR2,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult acute myeloid leukemia with del(5q) | 0.00215 | blue | 3 | ABCB1,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | TNM stage N1 breast cancer | 0.00215 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Hormone receptor positive HER2 negative metastatic breast carcinoma | 0.00215 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Stage IV large cell lung carcinoma | 0.00215 | blue | 3 | FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Advanced non-small cell lung carcinoma | 0.00216 | blue | 6 | ABCB1,CDK6,DDR1,FKBP1A,HSP90AB1,TOP2A |
| Organismal Injury and Abnormalities,Renal and Urological Disease | Formation of renal lesion | 0.00216 | blue | 24 | ABCB1,ADAM28,AKAP2,ARPC2,BBS2,CDKN2C,COL9A1,CWF19L2,EEF1B2,EPPK1,EZH2,FKBP1A,KBTBD8,LYZ,MAP2K3,PAG1,REL,RNFT2,SAV1,SMARCA4,THAP2,TIMP3,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Stage IIIB unresectable metastatic melanoma | 0.00217 | blue | 4 | CDK6,DDR1,FKBP1A,FYN |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Stage 3B unresectable cutaneous melanoma | 0.00217 | blue | 4 | CDK6,DDR1,FKBP1A,FYN |
| Humoral Immune Response,Protein Synthesis | Quantity of IgG | 0.00221 | blue | 8 | ABCB1,AKAP13,BANK1,FCGR2B,FYN,HLA-DOA,REL,TRAF3IP2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Lymph node cancer | 0.00224 | blue | 6 | CDK6,ESR2,EZH2,FKBP1A,HSP90AB1,TOP2A |
| Cellular Growth and Proliferation | Arrest in proliferation of cells | 0.00226 | blue | 8 | CDK6,CDKN2C,EZH2,MAGED1,MAP2K3,MYB,PFDN5,SMARCA4 |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Brain cancer | 0.00228 | blue | 9 | CDK6,CDKN2C,ESR2,EZH2,HRK,HSP90AB1,SMARCA4,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic premenopausal breast adenocarcinoma | 0.0023 | blue | 2 | CDK6,ESR2 |
| Cancer,Endocrine System Disorders,Organismal Injury and Abnormalities,Respiratory Disease | Extensive stage extensive stage small cell lung cancer | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cellular Development,Hepatic System Development and Function | Differentiation of liver cell lines | 0.0023 | blue | 2 | MYB,NOTCH4 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic multifocal breast cancer | 0.0023 | blue | 2 | ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Tumor Morphology | Invasion of squamous-cell carcinoma | 0.0023 | blue | 2 | LIMK2,RASGRP1 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage IB gastroesophageal junction adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Adenocarcinoma of the thoracic esophagus | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | TNM stage T1N1 gastric adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cell Cycle,Cell-To-Cell Signaling and Interaction,Cellular Growth and Proliferation | Contact growth inhibition of leukemia cell lines | 0.0023 | blue | 2 | CDK6,REL |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Grade III HER2 negative hormone receptor positive breast cancer | 0.0023 | blue | 2 | ESR2,FKBP1A |
| Cancer,Neurological Disease,Organismal Injury and Abnormalities | Recurrent intracranial ependymoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | TNM stage T1N1 gastroesophageal junction adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cellular Development,Cellular Growth and Proliferation,Hematological System Development and Function,Humoral Immune Response,Lymphoid Tissue Structure and Development | Expansion of B-1 lymphocytes | 0.0023 | blue | 2 | CDKN2C,FCGR2B |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage IIIC gastric adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage IB gastric adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Relapsed HER2 negative breast adenocarcinoma | 0.0023 | blue | 2 | CDK6,ESR2 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | TNM stage T3-4 gastric adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease | Primary HER2 negative inflammatory breast carcinoma | 0.0023 | blue | 2 | ESR2,FKBP1A |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease | Primary HER2 negative inflammatory breast cancer | 0.0023 | blue | 2 | ESR2,FKBP1A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Stage IIIC gastroesophageal junction adenocarcinoma | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease | HER2 negative hormone receptor positive inflammatory breast cancer | 0.0023 | blue | 2 | ESR2,FKBP1A |
| Hair and Skin Development and Function | Catagen | 0.0023 | blue | 2 | ESR2,MAGED1 |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic inflammatory breast carcinoma | 0.0023 | blue | 2 | ESR2,FKBP1A |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Locoregional gastric cancer | 0.0023 | blue | 2 | HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Perimenopausal breast adenocarcinoma | 0.0023 | blue | 2 | CDK6,ESR2 |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Burkitt lymphoma | 0.00231 | blue | 6 | CDK6,FKBP1A,HSP90AB1,SLC29A2,SMARCA4,TOP2A |
| Lipid Metabolism,Molecular Transport,Small Molecule Biochemistry | Concentration of phospholipid | 0.00232 | blue | 8 | ABHD6,CD38,EZH2,FCGR2B,OCRL,SIK3,STARD10,TXNIP |
| Cancer,Organismal Injury and Abnormalities | Advanced stage carcinoma | 0.00234 | blue | 10 | ABCB1,CDK6,DDR1,ESR2,EZH2,FKBP1A,HSP90AB1,NOTCH4,TOP2A,TXNIP |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | BCR-ABL F317V-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00238 | blue | 3 | DDR1,HCK,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | BCR-ABL F317L-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00238 | blue | 3 | DDR1,HCK,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | BCR-ABL F317I-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00238 | blue | 3 | DDR1,HCK,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | BCR-ABL F317C-positive Philadelphia-positive acute lymphoblastic leukemia | 0.00238 | blue | 3 | DDR1,HCK,TOP2A |
| Connective Tissue Development and Function,Skeletal and Muscular System Development and Function,Tissue Development | Formation of trabecular bone | 0.00238 | blue | 3 | COL9A1,HCK,HIVEP3 |
| Cancer,Inflammatory Disease,Inflammatory Response,Organismal Injury and Abnormalities,Reproductive System Disease | Primary inflammatory breast cancer | 0.00238 | blue | 3 | ESR2,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult acute myeloid leukemia with 11q23 abnormalities | 0.00238 | blue | 3 | ABCB1,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult acute myeloid leukemia with inv(16)(p13.1q22) | 0.00238 | blue | 3 | ABCB1,FKBP1A,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Adult t(16;16)(p13;q22) acute myeloid leukemia | 0.00238 | blue | 3 | ABCB1,FKBP1A,TOP2A |
| Cellular Movement | Cell movement | 0.00241 | blue | 45 | ABHD6,AQP3,ARPC2,C1GALT1,CD38,CDK6,CDKN2C,CHL1,CNN3,DDR1,EPHA4,EPPK1,ESR2,EZH2,FCGR2B,FHIT,FYN,HCK,HDGF,HSP90AB1,IL16,LEF1,LIMK2,LYZ,MAP2K3,MAP3K5,MYB,NACA,NAV1,NOTCH4,NT5E,PAG1,PATJ,PIK3IP1,PLCG1,PRKD3,RASGRP1,REL,SMARCA4,TIMP3,TMPO,TNFRSF10A,TNFSF8,TRAF3IP2,ZBTB16 |
| Cancer,Gastrointestinal Disease,Organismal Injury and Abnormalities | Esophageal adenocarcinoma | 0.00255 | blue | 13 | ABCB1,ANKRD36C,EZH2,HSP90AB1,LYZ,MS4A6A,NOTCH4,SAV1,SMARCA4,TIMP3,TOP2A,TRAF3IP2,TTN |
| Organ Morphology | Abnormal morphology of exocrine gland | 0.00256 | blue | 6 | CDKN2C,DDR1,ESR2,LEF1,SAV1,TRAF3IP2 |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Kidney carcinoma | 0.00258 | blue | 24 | ABCB1,ADAM28,AKAP2,ARPC2,CDKN2C,COL9A1,CWF19L2,EEF1B2,EPPK1,EZH2,FKBP1A,HSP90AB1,KBTBD8,LYZ,MAP2K3,PAG1,REL,RNFT2,SAV1,SMARCA4,THAP2,TIMP3,TOP2A,TTN |
| Cellular Growth and Proliferation,Organismal Development | Growth of yeast | 0.00259 | blue | 5 | ABCB1,HSP90AB1,LYZ,OSBPL2,PLCG1 |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Metastatic HER2-negative breast cancer | 0.0026 | blue | 4 | CDK6,ESR2,FKBP1A,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Hormone receptor positive premenopausal breast cancer | 0.00263 | blue | 3 | CDK6,ESR2,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Refractory metastatic breast cancer | 0.00263 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease | Invasive HER2-positive breast cancer | 0.00263 | blue | 3 | ESR2,HSP90AB1,TOP2A |
| Cancer,Hematological Disease,Immunological Disease,Organismal Injury and Abnormalities | Early stage lymphomagenesis | 0.00263 | blue | 3 | HSP90AB1,IL16,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Reproductive System Disease,Tumor Morphology | Advanced progressive breast cancer | 0.00263 | blue | 3 | CDK6,ESR2,FKBP1A |
| Cell Death and Survival | Neuronal cell death | 0.00263 | blue | 18 | CDK6,CHL1,ESR2,FKBP1A,FYN,HDGF,HIP1,HRK,HSP90AB1,MAGED1,MAP2K3,MAP3K5,MYB,MZB1,PAWR,REL,SOX4,TNFRSF10A |
| Cardiovascular Disease,Cardiovascular System Development and Function,Organ Morphology,Organismal Development,Organismal Injury and Abnormalities | Hypertrophy of left ventricle | 0.0027 | blue | 5 | ESR2,FKBP1A,NT5E,SMARCA4,TTN |
| Cancer,Organismal Injury and Abnormalities,Respiratory Disease | Metastatic lung tumor | 0.00274 | blue | 6 | ABCB1,CDK6,DDR1,FKBP1A,HSP90AB1,TOP2A |
| Cancer,Organismal Injury and Abnormalities,Renal and Urological Disease | Papillary renal cell carcinoma | 0.00274 | blue | 6 | EEF1B2,FKBP1A,RNFT2,TIMP3,TOP2A,TTN |
| Cancer,Organismal Injury and Abnormalities | Recurrent metastatic solid tumor | 0.00276 | blue | 4 | DDR1,ESR2,FKBP1A,HSP90AB1 |
| Cancer,Dermatological Diseases and Conditions,Organismal Injury and Abnormalities | Unresectable stage III cutaneous melanoma | 0.00276 | blue | 4 | CDK6,DDR1,FKBP1A,FYN |